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Tables and Graphs of Photon-Interaction Cross Sections from 10 eV to 100 GeV Derived from the LLNL Evaluated Photon Data Library (EPDL)

Part A: $Z = 1$ to 50

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Dedication

This revision is dedicated to R. J. Howerton, who, as the head of the Nuclear Data Group at Lawrence Livermore National Laboratory for 30 years, had the vision to start the UCRL-50400 series and whose perseverance, continuous leadership, dedication to work, and standards of excellence expanded this series to what it is today. We have all learned a great deal from Bob, and we owe him more than we can express here in a few words. Although Bob has now retired as head of the Nuclear Data Group, he is still working with us as hard as he always has and continues to contribute to this series of publications.

Foreword

The UCRL-50400 series, *An Integrated System for Production of Neutronics and Photonics Computational Constants*, describes an integrated, computer-oriented system for the production and application of neutronics and photonics calculational constants.

The system supplies reliable, up-to-date data, selects specific types of data on request, provides output in a variety of forms (ultimately in the form of input to other computer codes), and functions rapidly and efficiently.

The UCRL-50400 series comprises the following volumes:

- Vol. 1, Part A, Rev. 3, *ECSIL: A System for Storage, Retrieval, and Display of Experimental Neutron Data*, September 1976.
- Vol. 1, Part B, *Program ECSX4 (Version 78-1): Conversion of Experimentally Measured Cross-Section Data from the Four-Center-Exchange (X-4) Format to the Livermore ECSIL Format*, December 1978.
- Vol. 2, Rev. 2, *A Bibliography of the Experimental Data of Neutron-Induced Interactions*, July 1976.
- Vol. 3, Rev. 2, *An Index of the Experimental Data of Neutron-Induced Interactions*, July 1976.
- Vol. 4, Rev. 1, *Evaluated Nuclear Data Library*, September 1981.
- Vol. 4, Rev. 1, Appendix C, *The Neutron Library (ENDL82) in the Transmittal Format*, June 1982.
- Vol. 5, Part A, Rev. 1, *CLYDE: A Code for the Production of Calculational Constants from Nuclear Data*, September 1975.
- Vol. 5, Part B, Rev. 1, *Relativistic Transformations between Center-of-Mass and Laboratory Systems for Two-Body Nuclear Reactions*, April 1978.
- Vol. 6, Part A, Rev. 4, *Tables and Graphs of Photon-Interaction Cross Sections from 10 eV to 100 GeV Derived from the LLNL Evaluated Photon Data Library (EPDL), Z = 1 to 50*, October 1989.
- Vol. 6, Part B, Rev. 4, *Tables and Graphs of Photon-Interaction Cross Sections from 10 eV to 100 GeV Derived from the LLNL Evaluated Photon Data Library (EPDL), Z = 51 to 100*, October 1989.
- Vol. 7, Part A, Rev. 1, *Major Neutron-Induced Interactions (Z ≤ 55): Graphical, Experimental Data*, July 1976.
- Vol. 7, Part B, Rev. 1, *Major Neutron-Induced Interactions (Z > 55): Graphical, Experimental Data*, July 1976.
- Vol. 8, Part A, Rev. 1, *Supplemental Neutron-Induced Interactions (Z ≤ 35): Graphical, Experimental Data*, July 1976.
- Vol. 8, Part B, Rev. 1, *Supplemental Neutron-Induced Interactions (Z > 35): Graphical, Experimental Data*, July 1976.
- Vol. 9, *Thresholds of Nuclear Reactions Induced by Neutrons, Photons, Deuterons, Tritons, and Alpha Particles*, September 1970.
- Vol. 10, Rev. 1, *Tabulated Experimental Data for Neutron-Induced Interactions*, July 1976.
- Vol. 11, *Experimental Data, Indexes, and Techniques of Obtaining a Selected Set of Neutron Resonance Parameters*, May 1972.
- Vol. 12, *An Atlas of Resolved Neutron Resonance Parameters*, July 1972.
- Vol. 13, *An Atlas of Unresolved Neutron Resonance Parameters*, September 1972.
- Vol. 14, *TARTNP: A Coupled Neutron-Photon Monte Carlo Transport Code*, February 1976.
- Vol. 15, Part A, *The LLL Evaluated-Nuclear-Data Library (ENDL): Evaluation Techniques, Reaction Index, and Descriptions of Individual Evaluations*, September 1975.
- Vol. 15, Part B, Rev. 1, *The LLL Evaluated-Nuclear-Data Library (ENDL): Graphs of Cross Sections from the Library*, October 1978.
- Vol. 15, Part C, *The LLL Evaluated-Nuclear-Data Library (ENDL): Translation of ENDL Neutron-Induced Interaction Data into the ENDF/B Format*, April 1976.
- Vol. 15, Part D, Rev. 1, *The LLL Evaluated-Nuclear-Data Library (ENDL): Descriptions of Individual Evaluations for Z = 0-98*, May 1978.
- Vol. 15, Part E, *Data Testing Results for the LLL Nuclear Data Library (ENDL-78)*, August 1979.
- Vol. 15, Part F, *Experimental and Evaluated Elastic Nuclear Plus Interference Cross Sections for Light Charged Particles*, July 1980.
- Vol. 16, Rev. 2, *Tabular and Graphical Presentation of 175 Neutron-Group Constants Derived from the LLL Evaluated-Nuclear-Data Library (ENDL)*, October 1978.

- Vol. 17, Part A, Rev. 2, Program LINEAR (Version 79-1): Linearize Data in the Evaluated-Nuclear-Data File/Version B (ENDF/F) Format, October 1979.
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- Vol. 17, Part D, Program GROUPIE: Calculation of Self-Shielded Cross Sections and Multiband Parameters from Evaluated Data in the ENDF/B Format, 1980.
- Vol. 17, Part E, Program EVALPLOT: Plot Data in the Evaluated-Nuclear-Data File/Version B (ENDF/B) Format, February 1979.
- Vol. 17, Part F, DOWNER (Version 79-1): Group Collapse Cross Section and Transfer Matrices, January 1979.
- Vol. 18, ACTL: Evaluated Neutron Activation Cross-Section Library, October 1978.
- Vol. 19, Neutron-Induced Angular and Energy Distributions: Graphical Experimental Data, April 1977.
- Vol. 20, Bonderenko Self-Shielded Cross Sections and Multiband Parameters Derived from the LLL Evaluated-Nuclear-Data Library (ENDL), July 1978.
- Vol. 21, Part A, Maxwell-Averaged Reactions Rates (sn) for Selected Reactions between Ions with Atomic Mass ≤ 11 , February 1979.
- Vol. 21, Part C, Program SIGMAL (Version 79-1): Doppler-Broadened Evaluated Cross Sections in the Livermore-Evaluated Nuclear Data Library (ENDL) Format, March 1979.
- Vol. 22, Rev. 1, GAMIDEN: A Program to Aid in the Identification of Unknown Materials by Gamma-Ray Spectroscopy, June 1982.
- Vol. 23, ENSL and CDRL: Evaluated Nuclear Structure Libraries, February 1981.
- Vol. 23, Addendum, ENSL82 and CDRL82: The 1982 Version of Evaluated Nuclear Structure Libraries, January 1983.
- Vol. 24, Thresholds and Q Values of Nuclear Reactions Induced by Neutrons, Protons, Deuterons, Tritons, ^3He Ions, Alpha Particles, and Photons, March 1981.
- Vol. 25, OMEGA: A CRAY 1 Executive Code for LLNL Nuclear Data Libraries, August 1983.
- Vol. 26, A Bibliography and Index for Nuclear Reactions Among Light Charged Particles, September 1984.
- Vol. 27, Calculated Neutron KERMA Factors Based on the LLNL ENDL Data File, January 1986.
- Vol. 28, Index to the LLNL Evaluated Charged-Particle Library (ECPL), March 1986.
- Vol. 29, Calculated Photon KERMA Factors Based on the LLNL EGDL Data File, October 1986.

Contents

Dedication.....	ii
Foreword.....	iii
Abstract.....	vii
Introduction.....	vii
Overview.....	viii
Sources of Evaluated Data	ix
Procedures Used to Derive Data	x
Accuracy of Data	xii
Availability of The EPDL	xiii
References	xiv
Graphs and Tables.....	1
Hydrogen.....	1
Helium	7
Lithium.....	13
Beryllium	19
Boron.....	25
Carbon.....	31
Nitrogen.....	37
Oxygen.....	44
Fluorine.....	51
Neon	58
Sodium.....	65
Magnesium.....	72
Aluminum	79
Silicon.....	86
Phosphorus	93
Sulfur.....	100
Chlorine	107
Argon	114
Potassium.....	121
Calcium.....	128
Scandium	135
Titanium.....	142
Vanadium.....	149
Chromium	156
Manganese.....	163
Iron	170
Cobalt	177
Nickel	184
Copper	191
Zinc.....	198
Gallium	205
Germanium	212
Arsenic	219
Selenium	226
Bromine.....	233
Krypton.....	240
Rubidium.....	247
Strontium.....	255
Yttrium.....	263
Zirconium.....	271
Niobium.....	279

Molybdenum.....	287
Technetium.....	295
Ruthenium.....	303
Rhenium.....	311
Palladium.....	319
Silver.....	327
Cadmium.....	335
Indium.....	343
Tin.....	351

Tables and Graphs of Photon-Interaction Cross Sections from 10 eV to 100 GeV Derived from the LLNL Evaluated Proton Data Library (EPDL)

Part A: $Z = 1$ to 50

Abstract

Energy-dependent evaluated photon interaction cross sections and related parameters are presented for elements H through Fm ($Z = 1 - 100$). Data are given over the energy range from 10 eV to 100 GeV. Cross sections, average energy deposits, and form factors are presented in tabulated and graphic form. In addition, photoelectric cross sections for each shell and coherent anomalous scattering factors are presented in graphic form. This information is derived from the Livermore Evaluated Photon Data Library (EPDL) as of October 1989. This publication is divided into two parts: Part A, $Z = 1$ to 50 and Part B, $Z = 51$ to 100.

Introduction

The last edition of this volume was published in 1981, but the last actual major revision of the photon data was in 1978. Since that time, the data has been extended as follows:

- The range for the elements has been extended: now $Z = 1$ to 100, previously $Z = 1$ to 98.
- The energy range has been extended: now 10 eV to 100 GeV, previously 100 eV to 100 MeV.
- Photoelectric cross sections are now given for each shell. Previously, only a total photoelectric cross section was given. Note that, in the EPDL, photoelectric cross sections are given for each subshell; these have been combined into shell cross sections for presentation in this volume.
- Coherent form factors and anomalous scattering factors are now given. Previously, only form factors were given. In calculating the coherent cross sections presented in this volume, both anomalous scattering and form factors are now used. Previously, only form factors were used.

Overview

The ENDL family of evaluated data libraries currently is being updated to include complete photon and electron interaction data plus atomic relaxation data to couple photons and electrons. All of these data bases will be completely consistent; they will conserve energy and will all use the same atomic parameters (e.g., subshell binding energies). These data bases will allow complete coupled electron-photon transport calculations to be performed in a consistent manner.

The current volume documents the new EPDL photon interaction library. This volume will soon be followed by other volumes documenting the electron interaction and atomic relaxation libraries.

As in past editions of this publication, the emphasis here is on presenting an overview of the contents of the EPDL, as well as an explanation of the data contained herein, so that it may be correctly interpreted and used. For further details of the methods used to create the current library and a description of the complete contents of this library, see Ref. 1.

Part B: $Z = 51$ to 100 contains additional data and the Appendix on systematics.

Sources of Evaluated Data

Photoelectric Cross Sections

The sources of data include Scofield's subshell cross sections from 10 eV to 1.5 MeV and Hubbell's total photoelectric cross sections from 1 keV to 100 GeV. These two sets of data have been combined in order to define total photoelectric and subshell cross sections from 10 eV to 100 GeV. From 10 eV to 1 MeV, the subshell cross sections and the total photoelectric cross section, defined as the sum of the subshell cross sections, are based on Scofield data.^{2,3} From 1 MeV to 100 GeV, the total photoelectric cross section is based on Hubbell data.⁴⁻¹⁹ At 1 MeV, the total photoelectric cross sections from both sources are identical, so that joining Scofield's total to Hubbell's total could be done in a consistent manner. Scofield's subshell cross sections have been extended from 1 MeV to 100 GeV by normalizing the sum of the subshells to Hubbell's total and maintaining the same ratio between subshell cross sections over the entire energy range from 1 MeV to 100 GeV.

Form Factors

The coherent and incoherent form factors are based on Hubbell's data.⁴⁻¹⁹ Hubbell has calculated nonrelativistic, relativistic, and modified relativistic form factors; as he recommended,²⁰ the data presented here are his nonrelativistic form factors.

Anomalous Scattering Factors

The real and imaginary scattering factors have been calculated by using dispersion relationships and the conventions of Kissel,²¹ together with the photoelectric subshell cross sections of Scofield.^{2,3} Anomalous scattering factors were calculated independently for each subshell^{2,3} and renormalized in order to obtain the appropriate low and high energy limits.^{22,23} The subshell results were then combined to define anomalous scattering factors for each element over the energy range from 10 eV to 1 MeV; by the convention used here, the scattering factors are zero above 1 MeV.

Coherent Scattering Cross Sections

The coherent scattering cross sections were calculated by direct integration of the combination of Hubbell's form factors⁴⁻¹⁹ and the anomalous scattering factors^{22,23} to obtain cross sections from 10 eV to 100 GeV.

Incoherent Scattering Cross Sections

The incoherent scattering cross sections were calculated by direct integration of Hubbell's form factors⁴⁻¹⁹ to obtain cross sections from 10 eV to 100 GeV.

Pair and Triplet Production Cross Sections

The pair and triplet production cross sections are based on Hubbell's data.⁴⁻¹⁹ Pair production cross sections are presented from their threshold at 1.022 MeV up to 100 GeV. Similarly, triplet production cross sections are presented from their threshold at 2.044 MeV up to 100 GeV.

Energy Deposition

The energy deposition due to photoelectric absorption is based on the photoelectric subshell cross sections of Scofield^{2,3} in combination with the atomic relaxation data of Scofield²⁴⁻²⁶ and Mau Chen.²⁷⁻³² Energy deposition due to incoherent scattering was calculated by direct integration of Hubbell's incoherent form factors.⁴⁻¹⁹ Energy deposition due to pair and triplet production is herein defined to be the kinetic energy of the positron-electron pair; i.e., the energy of the incident photon minus the energy equivalent of the mass of the positron-electron pair (1.022 MeV). Energy deposition is presented from 10 eV to 100 GeV.

Atomic Parameters

Subshell binding energies and relaxation data²⁴⁻³² have been used to define the energy deposition presented here. These parameters are for neutral elements; initially ionized atoms and molecular binding effects have not been included.

Atomic Weights and Densities

The atomic weights and the densities used in these calculations are presented at the tops of the tables and graphs for each element. Standard temperature and pressure (STP) values of density were used when available. If the density was unknown or poorly known, a value of 13.5 g/cm³ was assumed. It should be noted that the densities used here correspond to elemental densities. The density of any given element in a compound or molecule may differ greatly from that used here; this is particularly true for elements which are gaseous in their elemental form. Therefore, the mean free paths presented here should be used with caution. In any given application, it is better to calculate the mean free path directly from the cross sections and actual elemental density.

Procedures Used to Derive Data

Cross Sections and Form Factors

The cross sections and form factors as presented here are a subset of the contents of the EPDL. The size of the data tables has been minimized by presenting only those values that are required to allow log-log interpolation between tabulated values for all quantities on a uniform energy grid (i.e., a sufficient number of energy points are included in the tables to allow data to be interpolated to within an accuracy of about 1%).

Specifically, in order to define a cross section at an energy E between two tabulated energies E_1 and E_2 , one should use the following log-log interpolation scheme:

$$\log[\sigma(E)] = (\log[E/E_1] \cdot \log[\sigma(E_2)] + \log[E_2/E] \cdot \log[\sigma(E_1)]) / \log[E_2/E_1] . \quad (1)$$

Log-log interpolation should be used for all tabulated data, except for the following two cases, where such interpolation is not mathematically possible:

1. Pair and triplet production near the threshold. At and below the pair (1.022 MeV) and triplet (2.044 MeV) production thresholds, these cross sections are zero. In these cases, the tables include the threshold as well as an energy point close to, but above, the threshold, where the cross section is 1 μ barn or less. Linear interpolation should be used between these first two tabulated data points.

2. Coherent and incoherent form factors. Form factors start with $X = 0$; in addition, the incoherent form factor is zero at this point. The form factors in EPDL are identical to Hubbell's, except that additional points have been added close to $X = 0$. Between the first two tabulated values, the coherent form factor is constant (equal to the atomic number, Z). Between the first two tabulated values, the incoherent form factor is very small. Linear interpolation should be used between these first two tabulated data points.

Only in these two cases should linear interpolation be used. In all other cases, log-log interpolation should be used; failure to do so can lead to large errors in interpolated data.

Total Mean Free Path

The total mean free path and mass attenuation coefficient have been derived from the total cross section (in barns) by using the relationships:

$$\lambda(E) = \frac{A}{\rho \cdot N_0 \cdot \sigma_T(E)} \quad (\text{cm}) \quad (2)$$

$$\mu(E) = \frac{N_0 \cdot \sigma_T(E)}{A} \quad (\text{cm} \cdot \text{cm/g}) \quad (3)$$

where

- A = atomic weight (based on Carbon-12 = 12)
- ρ = density in g/cm^3
- N_0 = Avogadro's number (0.6022137)
- $\sigma_T(E)$ = microscopic total cross section, in barns, at energy E
- $\lambda(E)$ = the mean free path at energy E in cm
- $\mu(E)$ = the mass attenuation coefficient at energy E , in $\text{cm} \cdot \text{cm/g}$.

The atomic weights and densities used in these calculations are presented at the top of the tables and graphs for each element.

Energy Deposition

In the tables and graphs, we present the total, local, and fluorescence energy deposition. The total energy deposition is defined to be the sum of the local and fluorescence depositions. We define local deposition to be the kinetic energy of all electrons and positrons emitted due to the interaction of photons. The electrons and positrons will not travel great distances, and their energy may be considered to be deposited locally at the point the photon interacted. We define fluorescence deposition to be the energy of all x rays emitted by atoms following a photoelectric event. Compared to electrons and positrons, these x rays may travel greater distances, and one should not assume their energy to be deposited locally at the point where the photon interacted.

Contributions to the energy deposition come from incoherent scattering, pair and triplet production, and photoelectric absorption; by definition, coherent scattering does not lead to any energy loss by the photon.

All of these processes can contribute to the loss of photon energy by directly transferring energy to electrons. Incoherent scattering directly transfers energy to electrons. Pair or triplet production yields a positron-electron pair with a combined kinetic energy equal to the energy of the incident photon minus the energy equivalent of the mass of the positron-electron pair. Photoelectric absorption ionizes an atom and causes an electron to be ejected with a kinetic energy equal to the energy of the incident photon

minus the binding energy of the electron in the atom. All of these contributions have been included in the local energy deposition presented here.

In addition to these sources of energy deposition, fluorescence x rays, as well as Auger and Coster-Kronig electrons, can be emitted by an atom that has been ionized by a photoelectric event as the atom relaxes back to its neutral, ground state. The energies of these x rays and electrons are included in the energy deposition presented here; the energy of the electrons as a contribution to the local deposition and the energy of fluorescence x rays are identified separately.

In the EPDL, energy deposition is presented for each reaction on a per-collision, or per-event, basis. For presentation here, the energy deposition for each reaction has been multiplied by the cross section for that reaction and then presented in the form of energy deposition in units of MeV/cm.

$$\frac{dE(E)}{dx} = \frac{\rho \cdot N_0}{A} \sum_k dE_k(E) \cdot \sigma_k(E) \text{ (MeV/cm)} . \quad (4)$$

where

- $\sigma_k(E)$ = microscopic cross section for reaction k at energy E in barns
- $dE_k(E)$ = energy deposition per collision for reaction k at energy E in MeV
- $\frac{dE(E)}{dx}$ = energy deposition at energy E in MeV/cm.

Incoherent Scattering

The contribution of incoherent scattering to the energy deposition was derived from the EPDL by direct integration of the incoherent form factors in order to define the average photon energy loss per collision.

Pair and Triplet Production

The contribution of pair and triplet production to the energy deposition is defined here to be the kinetic energy of the positron-electron pair created and does not include the mass of this pair (i.e., the contribution is the incident photon energy minus 1.022 MeV). The positron will eventually annihilate, resulting in two 0.511-MeV photons being emitted. The energy of these two photons should not be assumed to be deposited locally; this is exactly the convention followed here by not including the energy mass equivalent of the positron-electron pair in the local deposition.

Photoelectric Energy Deposition

The photoelectric energy deposition presented here has been derived from the atomic relaxation data in the Livermore Evaluated Atomic Data Library (EADL). This library contains data for each subshell in order to describe the emission of an electron in ionizing an atom to create a vacancy. This library also contains data to describe the subsequent relaxation of an atom by the emission of fluorescence x rays and/or electrons following a vacancy. Note that this relaxation data may be used to describe how the atom relaxes following a vacancy induced by photons, electrons, or internal conversion.

A photoelectric event initially emits an electron with an energy equal to the energy of the photon minus the binding energy of the electron in the atom; all of this energy contributes to the local energy deposition.

In addition, fluorescence x rays and/or electrons are emitted with a combined energy equal to the binding energy of the initially emitted electron. Since the binding energy of inner-shell electrons can be

100 keV or more for high-Z elements, the total energy can be appreciable. Fluorescence has been identified separately. In order to conserve energy, we have defined the local deposition to include the binding energy of the initially emitted electron minus the energy emitted as fluorescence. Here, bound-bound transitions for the K, L, M, N and O subshells have been included for radiative (fluorescence) and nonradiative (Auger and Coster-Kronig) transitions. Fluorescence has been included only when the yield becomes significant and produces x rays that are sufficiently energetic that they cannot be assumed to deposit their energy locally (see the Appendix, where it can be seen that K-shell fluorescence yield is included only for $Z = 6$ and higher, where the yield exceeds about 0.001). It is important to understand that we have not included excitation and free-bound transitions in the calculation of fluorescence; these transitions can be important, particularly near closed subshells, but the convention used here has been adopted in order to obtain general agreement with published fluorescence yield data.^{33,34} Similarly we have not included P- and Q-subshell fluorescences, which have low yield and produce soft x rays.

The EADL contains relaxation data for each subshell to describe the probability of radiative and nonradiative emission filling a subshell vacancy. In the Appendix, we present a graph of the fluorescence yield vs Z for the K, L, M, N, and O shells. This data corresponds to only the direct yield (e.g., for a K-shell vacancy, the yield due to an electron filling the K vacancy from any higher subshell, which leads to fluorescence emission). For the energy deposition presented here, we have included the total yield following a single vacancy; e.g., when an electron from a higher subshell fills a vacancy in the K shell, it leaves one (fluorescence) or more (Auger, Coster-Kronig) vacancies in the higher subshell. These vacancies will be filled from yet higher subshells, emitting yet more electrons and/or x rays and leaving vacancies in these higher subshells to be filled. For a high-Z element, a single vacancy in the K shell can result in one of hundreds of possible cascades; each cascade results in the emission of many x rays and electrons. The energy deposition presented here includes the energy averaged over all these possible cascades in returning the atom to neutrality.

On the graphs of energy deposition, the total fluorescence and local depositions are each identified separately. Only photoelectric absorption contributes to fluorescence. Incoherent scattering, photoelectric absorption, and pair and triplet production all contribute to the local deposition, and the contribution of each of these to the local deposition is identified separately on the graphs. Note that what is identified as photoelectric absorption on these graphs is only the contribution of photoelectric absorption to the local deposition; the total energy deposition due to photoelectric absorption is the sum of its contribution to the local deposition plus the fluorescence.

Photoelectric Shell Cross Sections

The photoelectric shell cross sections presented here have been derived by summing the subshell cross sections contained in the EPDL.

Anomalous Scattering Factors

The real and imaginary scattering factors presented here are exactly in the form in which they appear in the EPDL and are designed to follow the definitions and sign conventions given by Kissel.²¹ Specifically, the angular distribution of coherently scattered photons is defined in terms of the coherent form factors and anomalous scattering factors to be

$$\frac{d\sigma(E,\mu)}{d\mu} = \frac{3T}{8} (1 + \mu^2) \{ [FF(E,\mu) + f'(E)]^2 + [f''(E)]^2 \}, \quad (5)$$

where

$$\frac{d\sigma(E,\mu)}{d\mu} = \text{the angular distribution of coherently scattered photons in barns per unit cosine}$$

- $F(E, \mu)$ = the coherent form factor
- $'(E)$ = the real anomalous scattering; taken to be isotropic
- $"(E)$ = the imaginary anomalous scattering factor, taken to be isotropic
- σ = 0.6652448 barns (classical Thomson scattering cross section)
- μ = cosine of the scattering angle.

The coherent cross section is defined by integrating the angular distribution. Note that the form factors and anomalous scattering factors are correction factors to classical Thomson scattering. If these corrections are not included, the angular distribution corresponds to Thomson scattering, and integrating this distribution yields a cross section equal to the classical Thomson cross section, T , defined above.

As presented here, each graph contains the real and imaginary anomalous scattering factors plus a horizontal line at $-Z$. In the forward direction, $\mu = 1$; the coherent form factor is equal to Z at all energies. From the above definition, we can see that the closer the real anomalous scattering factor is to $-Z$, the more cancellation we will have between the contributions of the form factor and the real anomalous scattering factor, resulting in a decrease in the coherent cross section. At lower energies (below about 1 keV), the coherent form is essentially isotropic, and cancellation will occur in all directions, leading to a general decrease in the coherent cross section at low energies. At higher energies, the anomalous scattering factors become quite small and approach zero. Therefore, at higher energies, anomalous scattering will not have an appreciable effect on the coherent cross section. However, at higher energies, the form factors become very anisotropic and predict an extremely small scattering to large angles. In this case, even if the anomalous scattering factors are quite small, they may still dominate the contribution of the form factors at large angles and lead to angular distributions that are quite different from those predicted by using only form factors. The horizontal line at $-Z$ has been included on the graphs merely as an indication of where we expect cancellation between the contributions of the form factor and scattering factors. The actual effect on the coherent cross sections can be seen from the graphs of the cross sections for each element (e.g., for U-92, the low-energy coherent cross section has been reduced by a factor of approximately 1000, compared to that obtained by using only form factors). The amount of data required to show the effect on angular distributions would be too voluminous to present here.²¹⁻²³

Accuracy of Data

Table 1 presents a rough estimate of the maximum uncertainty of the photoelectric cross section.²⁰ As can be seen from Table 1, there is still a large uncertainty in the photoelectric cross sections at low energy, where photoelectric is the dominant process. Therefore, although the EPDL data has been extended down to 10 eV in order to meet the computational needs of applications, there will be a large uncertainty associated with the results obtained by using the currently available low-energy data.

Table 1. Uncertainties of photoelectric cross sections (%).

Energy Range	Solid	Gas
10 - 100 eV	1000	20
100 - 500 eV	100 - 200	10 - 20
0.5 - 1.0 keV	10 - 20	5
1.0 - 5.0 keV	5	5
5 - 100 keV	2	2
0.1 - 10 MeV	1 - 2	1 - 2
10 - 100 GeV	2 - 5	2 - 5

Including anomalous scattering factors has led to improvement in the coherent cross sections. Including anomalous scattering causes very large decreases in the coherent cross section near

photoelectric edges and a coherent cross section that approaches zero at low energy, as opposed to the constant value obtained by using only form factors. Comparisons indicate that the anomalous scattering factors included here yield coherent cross sections that are in close agreement with the results obtained using the more exact S-matrix theory.²¹ However, it should be noted that, although the cross sections agree, there can be large differences between the angular distributions calculated by using S-matrix theory and those found by using the anomalous scattering factors; this is particularly true where the contribution of the form factor becomes extremely small for large-angle scattering.

By comparing subshell parameters from a number of different sources, it can be seen that there is still a disagreement of about 1% between the edge energies. For use in applications, particularly coupled electron-photon transport, knowing the exact edge energies is not as important as ensuring that the same edge energies are used throughout. Therefore, Scofield's subshell parameters^{2,3} are consistently used for both photon and electron data.

Based on the Dirac-Hartree-Slater calculations of Chen,²⁷⁻³² the Auger (nonradiative) widths for an inner shell vacancy are known to better than 15 % if the inner shells do not decay by Coster-Kronig or super Coster-Kronig transitions; for these transitions, the widths can be too large by a factor of 2. These uncertainties directly affect the competition between radiative and nonradiative yields (e.g., the fluorescence yield).

As yet the EPDL does not include several types of data, including photoexcitation, photonuclear, and Delbruck and nuclear scattering. Photoexcitation can have an important effect at low energies. Photonuclear can have an important effect at high energies. Delbruck and nuclear scattering become important at approximately 1 MeV and higher energies. The status of all these types of data is currently under review, and it is planned that these types of data will be included in EPDL in the future.

Availability of The EPDL

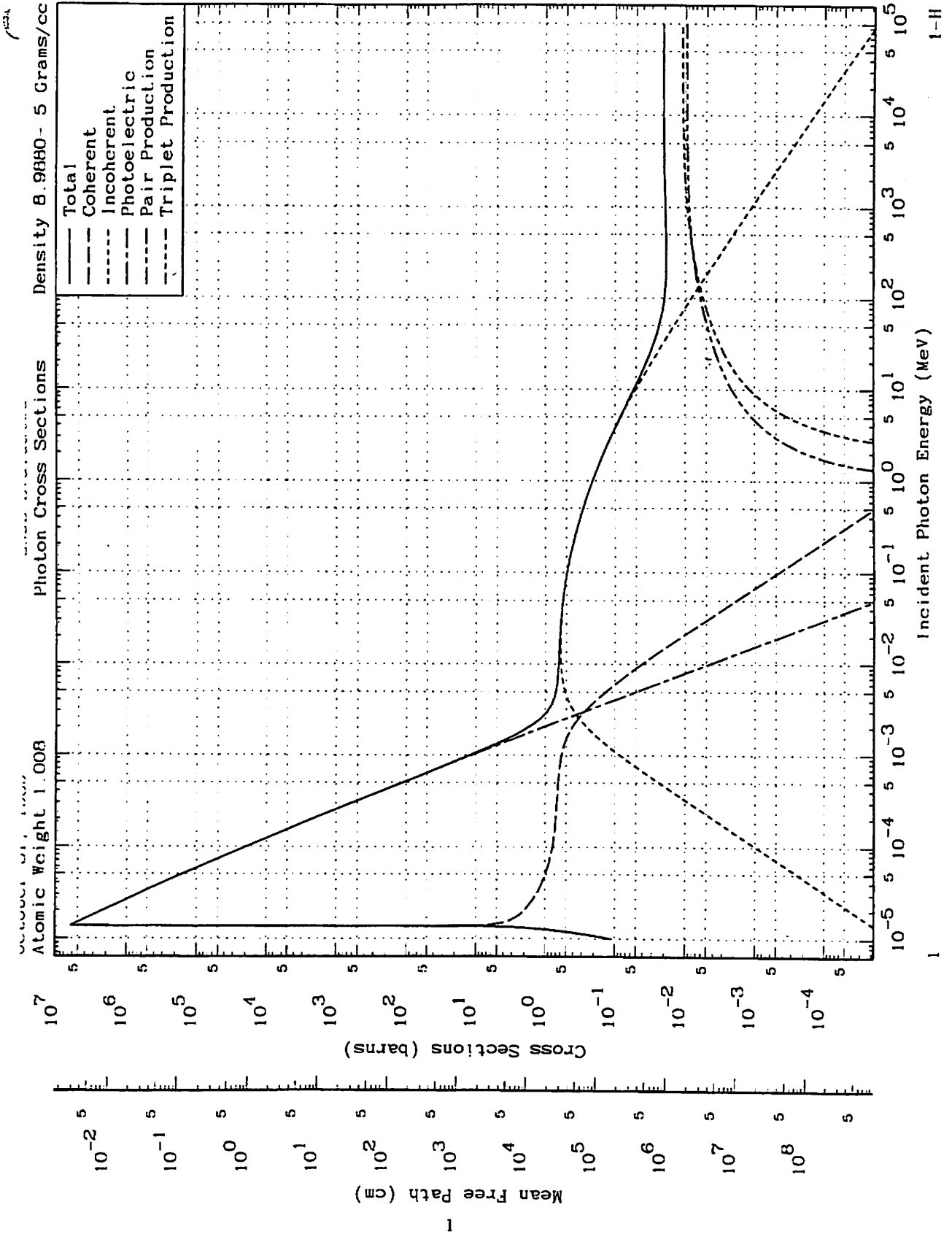
The new Livermore EPDL is now available in the ENDL format.³⁵

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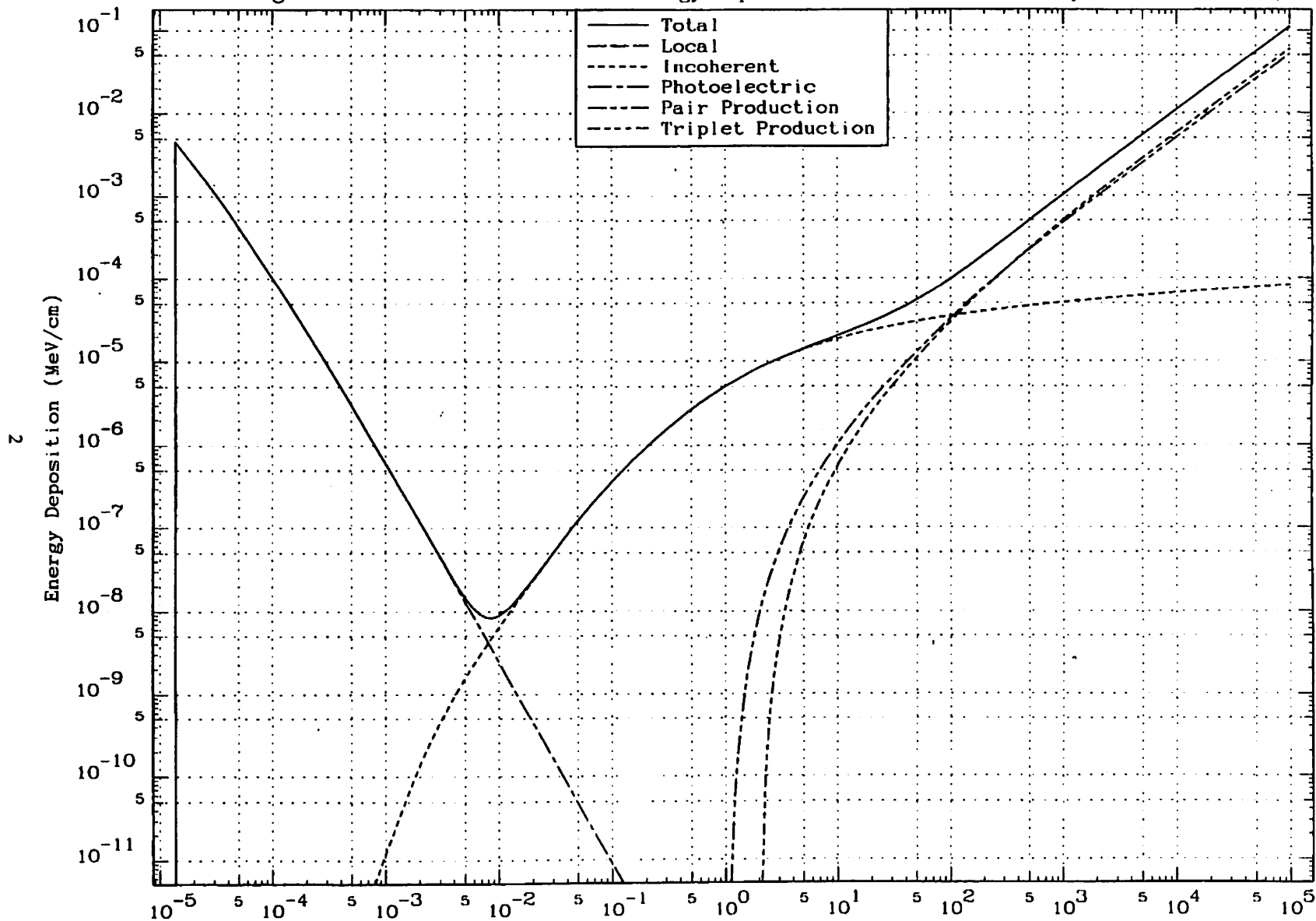
Tables and Graphs



October 31, 1989
Atomic Weight 1.008

ENDL Evaluated
Energy Deposition

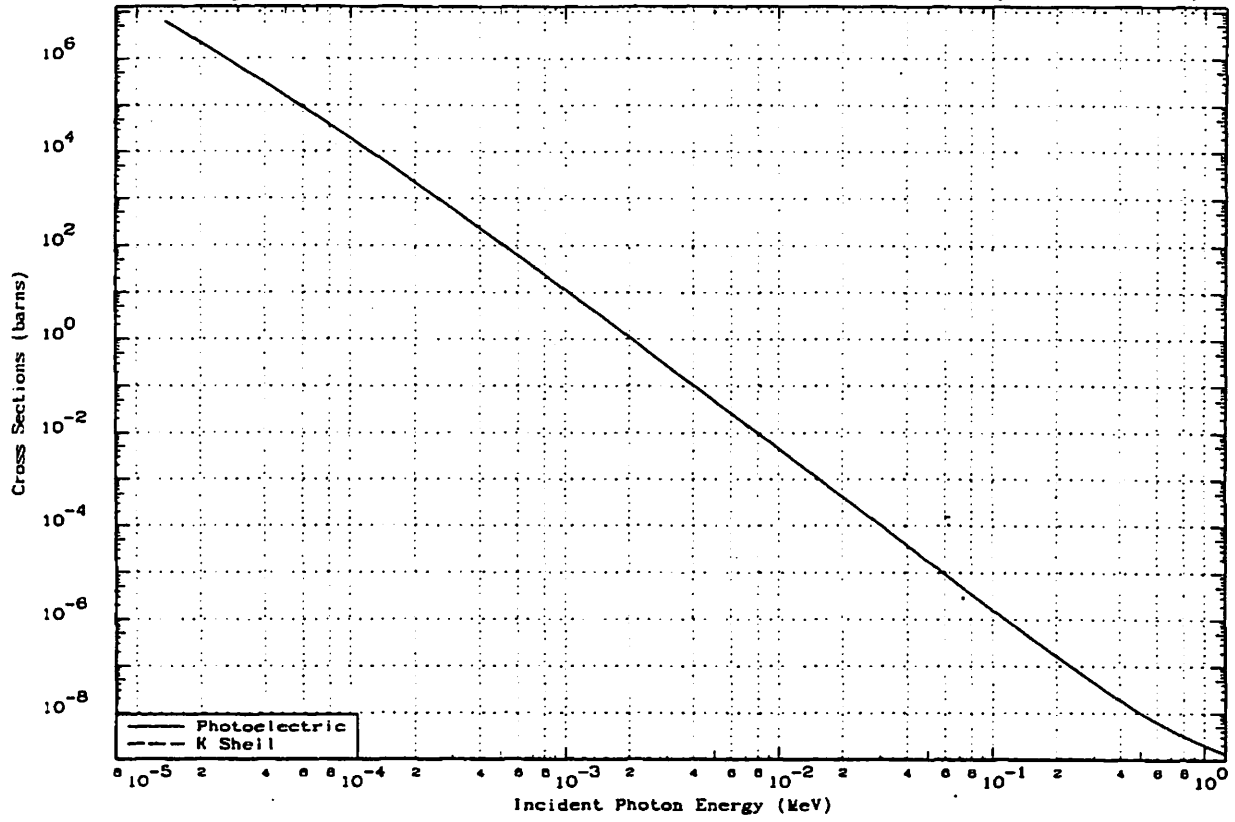
1-II
Density 8.9880- 5 Grams/cc



October 31, 1989
Atomic Weight 1.008

ENDL Evaluated
Photoelectric Shell Cross Sections

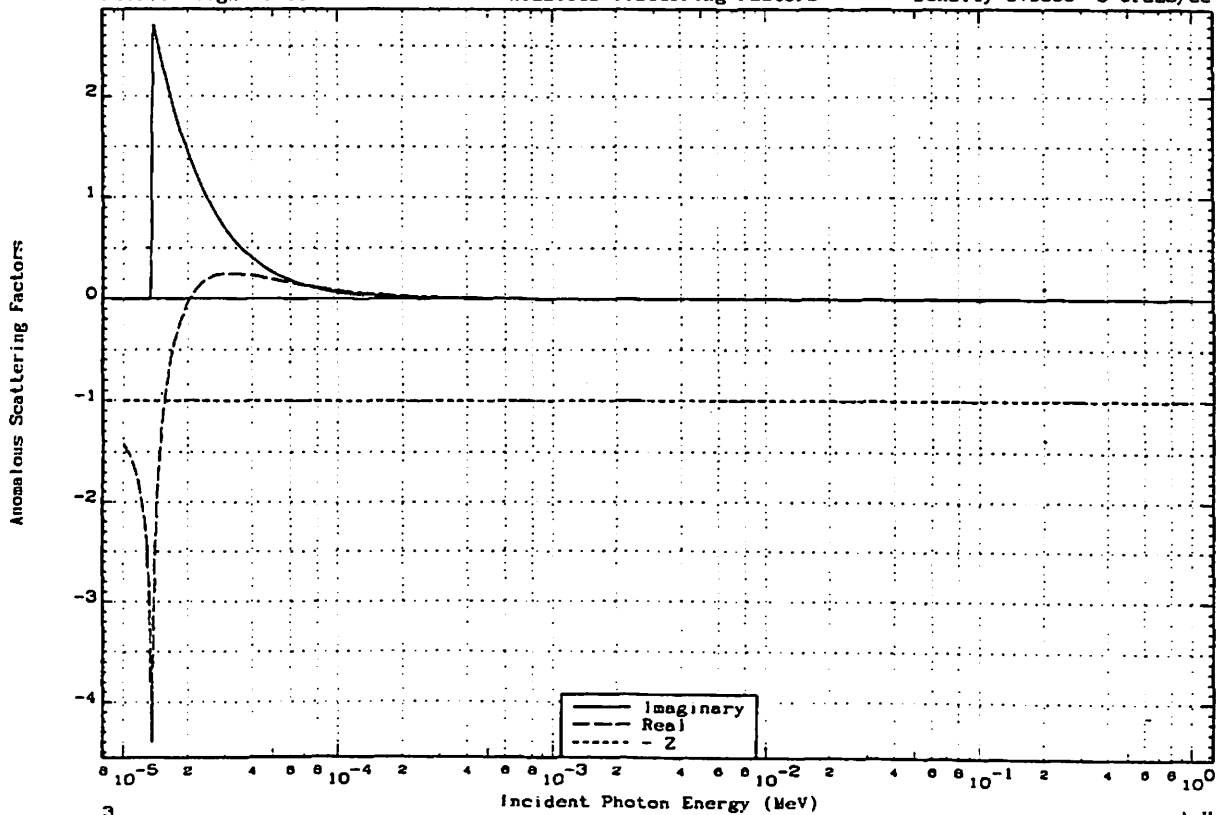
Density 8.9880- 5 Grams/cc 1-H



October 31, 1989
Atomic Weight 1.008

ENDL Evaluated
Anomalous Scattering Factors

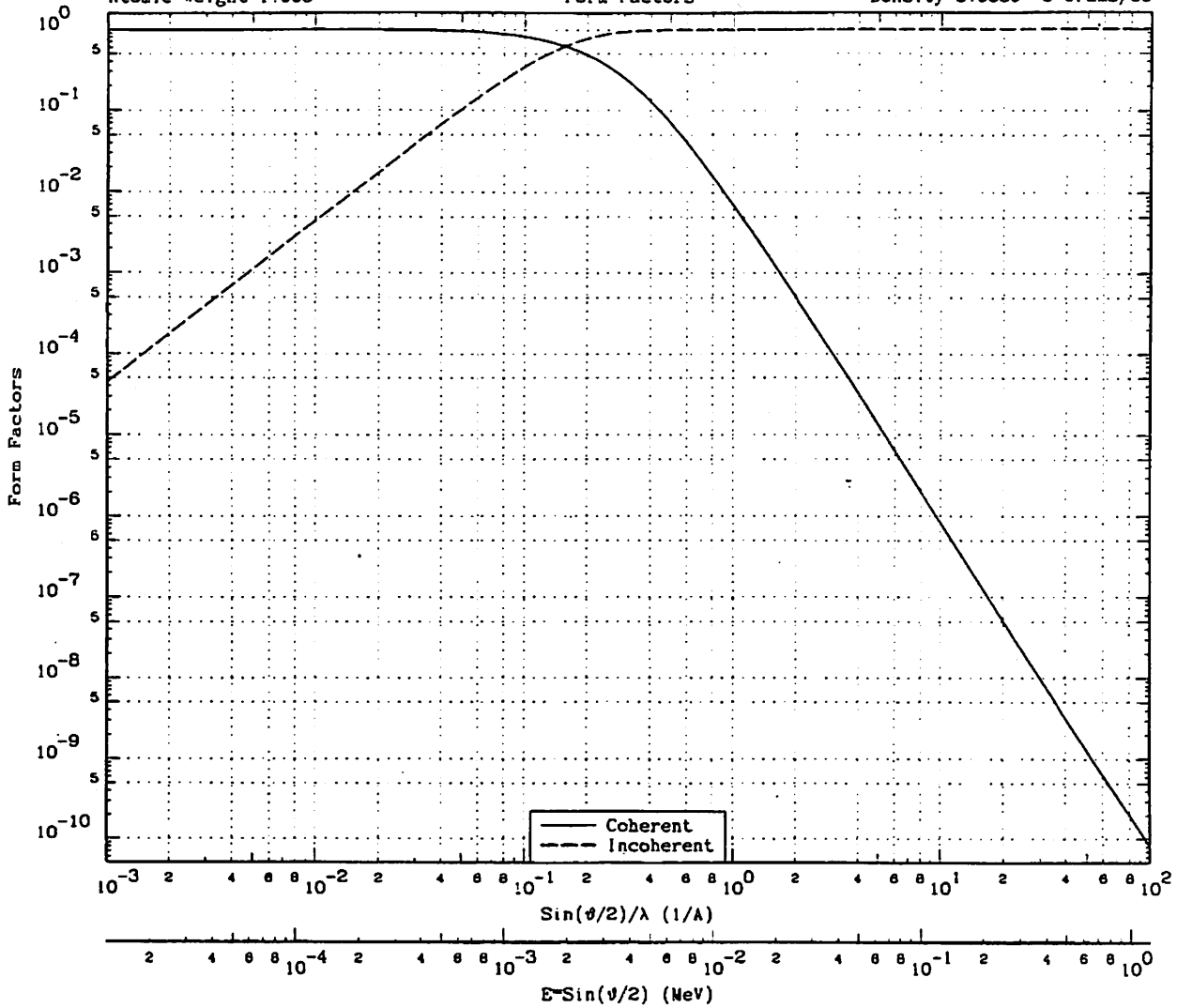
Density 8.9880- 5 Grams/cc 1-H



October 31, 1989
Atomic Weight 1.008

ENDL Evaluated
Form Factors

1-H
Density 0.9880- 5 Grams/cc



$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	1.0000+0	0.0000+0	2.4297-1	3.0125-3	3.8814-1	8.8588-1	3.5000+0	4.3385-2	5.3734-5	1.0000+0
1.0000-3	1.2399-5	1.0000+0	4.4400-5	2.5000-1	3.0998-3	3.4975-1	8.7788-1	4.0000+0	4.9594-2	3.1606-5	1.0000+0
5.0000-3	6.1993-5	8.9845-1	1.1047-3	3.0000-1	3.7198-3	2.5127-1	9.3888-1	5.0000+0	6.1993-2	1.2958-5	1.0000+0
1.0000-2	1.2399-4	8.9779-1	4.4097-3	3.8250-1	4.4845-3	1.8821-1	9.7233-1	6.0000+0	7.4391-2	6.2824-6	1.0000+0
1.5000-2	1.8598-4	8.9504-1	9.8876-3	4.0000-1	4.8594-3	1.3045-1	9.8298-1	7.0000+0	8.6790-2	3.3958-6	1.0000+0
2.0000-2	2.4797-4	8.9121-1	1.7494-2	4.7188-1	5.8508-3	8.3458-2	9.9301-1	8.0000+0	9.9188-2	1.9922-6	1.0000+0
2.5000-2	3.0998-4	8.8632-1	2.7168-2	5.0000-1	6.1893-3	7.0588-2	9.9502-1	1.0000+1	1.2399-1	8.1682-7	1.0000+0
3.0000-2	3.7198-4	8.8039-1	3.8828-2	6.0000-1	7.4391-3	4.0327-2	9.9837-1	1.5000+1	1.8598-1	1.6151-7	1.0000+0
4.0000-2	4.8598-4	8.6554-1	6.7729-2	7.0000-1	8.6790-3	2.4288-2	9.9941-1	2.0000+1	2.4797-1	5.1120-8	1.0000+0
5.0000-2	6.1993-4	8.4694-1	1.0331-1	8.0000-1	9.8188-3	1.5338-2	9.9976-1	5.0000+1	6.1993-1	1.3092-9	1.0000+0
7.0000-2	8.8790-4	8.9887-1	1.8023-1	9.0000-1	1.1159-2	1.0092-2	9.9990-1	8.0000+1	9.9188-1	1.9977-10	1.0000+0
9.0000-2	1.1159-3	8.4239-1	2.9038-1	1.0000+0	1.2399-2	6.8816-3	9.9995-1	1.0000+2	1.2399+0	8.1828-11	1.0000+0
1.0000-1	1.2399-3	8.1082-1	3.4258-1	1.2500+0	1.5498-2	2.9949-3	9.9999-1	1.0000+3	1.2399+1	8.1829-15	1.0000+0
1.2500-1	1.5498-3	7.2712-1	4.7130-1	1.5000+0	1.8598-2	1.4939-3	1.0000+0	1.0000+6	1.2399+4	8.1829-27	1.0000+0
1.5000-1	1.8598-3	6.4130-1	5.8873-1	2.0000+0	2.4797-2	4.8806-4	1.0000+0	1.0000+9	1.2399+7	8.1829-39	1.0000+0
1.7500-1	2.1697-3	5.5812-1	6.8850-1	2.5000+0	3.0998-2	2.0355-4	1.0000+0				
2.0000-1	2.4797-3	4.8079-1	7.6884-1	3.0000+0	3.7198-2	9.9023-5	1.0000+0				

October 31, 1989
Atomic Weight 1.008

ENDL Evaluated
Photon Data

1-H
Density 8.9880- 5 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000- 5	1.6066+ 5	6.9165- 2	1.1577- 1	1.1576- 1	9.6075- 6				1.4137-19	1.4137-19	
1.0766- 5	9.5124+ 4	1.1696- 1	1.9577- 1	1.9576- 1	1.1134- 5				1.8990-19	1.8990-19	
1.1341- 5	8.2223+ 4	1.7881- 1	2.9928- 1	2.9927- 1	1.2353- 5				2.3379-19	2.3379-19	
1.1772- 5	4.3932+ 4	2.5325- 1	4.2389- 1	4.2388- 1	1.3309- 5				2.7138-19	2.7138-19	
1.2418- 5	2.3898+ 4	4.8557- 1	7.7825- 1	7.7824- 1	1.4808- 5				3.3804-19	3.3804-19	
1.2742- 5	1.6360+ 4	6.7882- 1	1.1382+ 0	1.1382+ 0	1.5588- 5				3.7241-19	3.7241-19	
1.2904- 5	1.3119+ 4	8.4807- 1	1.4195+ 0	1.4195+ 0	1.5986- 5				3.9184-19	3.9184-19	
1.3119- 5	9.1812+ 3	1.2145+ 0	2.0327+ 0	2.0327+ 0	1.8522- 5				4.1837-19	4.1837-19	
1.3242- 5	8.9975+ 3	1.5800+ 0	2.8813+ 0	2.8813+ 0	1.8834- 5				4.3435-19	4.3435-19	
1.3329- 5	5.4684+ 3	2.0346+ 0	3.4055+ 0	3.4055+ 0	1.7054- 5				4.4577-19	4.4577-19	
1.3411- 5	4.0357+ 3	2.7569+ 0	4.6144+ 0	4.6144+ 0	1.7269- 5				4.5692-19	4.5692-19	
1.3525- 5	2.5792+ 3	4.3137+ 0	7.2201+ 0	7.2201+ 0	1.7558- 5				4.7254-19	4.7254-19	
1.3554- 5	2.3482+ 3	4.7381+ 0	7.9305+ 0	7.9305+ 0	1.7635- 5				4.7866-19	4.7866-19	
1.3610- 5	2.0707+ 3	5.3731+ 0	8.9934+ 0	8.9934+ 0	1.7780- 5				4.8458-19	4.8458-19	
1.3610- 5	2.9523+ 3	3.7686+ 6	6.3078+ 6	6.9934+ 0	1.7780- 5	6.3078+ 6			4.8100- 3	4.8100- 3	
1.3672- 5	2.9890+ 3	3.7223+ 6	6.2303+ 6	6.6471+ 0	1.7942- 5	6.2303+ 6			4.5740- 3	4.5740- 3	
1.3728- 5	3.0217+ 3	3.8820+ 6	6.1629+ 6	6.5660+ 0	1.8025- 5	6.1629+ 6			4.5426- 3	4.5426- 3	
1.3778- 5	3.0532+ 3	3.6440+ 6	6.0993+ 6	6.0911+ 0	1.8222- 5	6.0993+ 6			4.5128- 3	4.5128- 3	
1.4028- 5	3.2054+ 3	3.4710+ 6	5.8097+ 6	6.5051+ 0	1.8692- 5	5.8097+ 6			4.3757- 3	4.3757- 3	
1.4233- 5	3.3383+ 3	3.3348+ 6	5.5818+ 6	5.4828+ 0	1.9442- 5	5.5818+ 6			4.2880- 3	4.2880- 3	
1.4388- 5	3.4366+ 3	3.2375+ 6	5.4189+ 6	4.9878+ 0	1.9867- 5	5.4189+ 6			4.1886- 3	4.1886- 3	
1.4620- 5	3.5908+ 3	3.0988+ 6	5.1894+ 6	4.4540+ 0	2.0513- 5	5.1894+ 6			4.0718- 3	4.0718- 3	
1.4853+ 5	3.7490+ 3	2.9677+ 6	4.9672+ 6	4.0668+ 0	2.1171- 5	4.9672+ 6			3.9818- 3	3.9818- 3	
1.5768- 5	4.4152+ 3	2.5199+ 6	4.2178+ 6	3.2089+ 0	2.3857- 5	4.2177+ 6			3.5714- 3	3.5714- 3	
1.7186- 5	5.5693+ 3	1.9977+ 6	3.3437+ 6	2.5833+ 0	2.6267- 5	3.3437+ 6			3.0822- 3	3.0822- 3	
1.9050- 5	7.4035+ 3	1.5028+ 6	2.5153+ 6	2.1404+ 0	3.4800- 5	2.5153+ 6			2.5731- 3	2.5731- 3	
2.2180- 5	1.1225- 2	9.9115+ 5	1.6590+ 6	1.7833+ 0	4.7154- 5	1.6590+ 6			1.9759- 3	1.9759- 3	
2.6508- 5	1.8713- 2	5.8457+ 5	9.9517+ 5	1.5015+ 0	6.7322- 5	9.9517+ 5			1.4166- 3	1.4166- 3	
3.2776- 5	3.4382- 2	3.2360+ 5	5.4163+ 5	1.2584+ 0	1.0288- 4	5.4163+ 5			9.5327- 4	9.5327- 4	
4.5608- 5	8.9996- 2	1.2363+ 5	2.0692+ 5	1.0354+ 0	1.8696- 4	2.0692+ 5			5.0875- 4	5.0875- 4	
6.4571- 5	2.5393- 1	4.3815+ 4	7.3338+ 4	8.8714- 1	3.8643- 4	7.3335+ 4			2.5428- 4	2.5428- 4	
1.0000- 4	9.7798- 1	1.1494+ 4	1.8238+ 4	7.7906- 1	9.5441- 4	1.8238+ 4			1.0330- 4	1.0330- 4	
1.5384- 4	3.6714+ 0	3.0069+ 3	5.0311+ 3	7.2107- 1	2.2428- 3	5.0304+ 3			4.1503- 5	4.1503- 5	
2.7773- 4	2.4340+ 1	4.5711+ 2	7.6510+ 2	6.7941- 1	7.2833- 3	7.6441+ 2			1.1400- 5	1.1400- 5	
5.8541- 4	2.7427+ 2	4.0566+ 1	6.7899+ 1	6.3970- 1	3.1253- 2	6.7229+ 1			2.1134- 6	2.1134- 6	
9.6958- 4	1.3991+ 3	7.9522+ 0	1.3310+ 1	5.8670- 1	7.9798- 2	1.2844+ 1			6.5831- 7	6.5831- 7	
1.0000- 3	1.5418+ 3	7.2173+ 0	1.2080+ 1	5.8185- 1	8.4343- 2	1.1414+ 1			6.1293- 7	6.1293- 7	
1.3274- 3	3.6727+ 3	3.0293+ 0	5.0704+ 0	5.2873- 1	1.3900- 1	4.4057+ 0			3.1408- 7	3.1408- 7	
1.8195- 3	6.3755+ 3	1.7451+ 0	2.9209+ 0	4.7845- 1	1.8500- 1	2.2575+ 0			1.8639- 7	1.8639- 7	
1.9392- 3	9.8308+ 3	1.1318+ 0	1.8943+ 0	4.2435- 1	2.3784- 1	1.2322+ 0			1.2843- 7	1.2843- 7	
2.2159- 3	1.2901+ 4	6.8242- 1	1.4435+ 0	3.8017- 1	2.8074- 1	7.8259- 1			9.3353- 8	9.3353- 8	
2.5309- 3	1.6058+ 4	6.9289- 1	1.1597+ 0	3.3452- 1	3.2636- 1	4.9884- 1			6.8079- 8	6.8079- 8	
3.0052- 3	1.9984+ 4	5.8012- 1	9.3751- 1	1.7981- 1	3.8347- 1	2.7823- 1			4.5354- 8	4.5354- 8	
3.5900- 3	2.3034+ 4	4.8303- 1	8.0848- 1	2.1919- 1	4.4729- 1	1.5201- 1			3.0024- 8	3.0024- 8	
4.3845- 3	2.5488+ 4	4.3653- 1	7.3065- 1	1.6424- 1	4.3895- 1	7.6878- 2			1.9258- 8	1.9258- 8	
5.2501- 3	2.8838+ 4	4.1455- 1	6.8387- 1	1.2408- 1	5.2830- 1	4.1484- 2			1.3429- 8	1.3429- 8	
6.1911- 3	2.7795+ 4	4.0072- 1	6.7072- 1	9.4831- 2	5.5229- 1	2.3601- 2			1.0289- 8	1.0289- 8	
6.9598- 3	2.8080+ 4	3.9651- 1	6.6367- 1	7.7882- 2	5.8998- 1	1.5812- 2			9.0278- 9	9.0278- 9	
7.7452- 3	2.8441+ 4	3.9120- 1	6.5478- 1	6.4805- 2	5.7901- 1	1.0987- 2			8.4191- 9	8.4191- 9	
8.7020- 3	2.8885+ 4	3.8768- 1	6.4920- 1	5.2843- 2	5.8901- 1	7.3473- 3			8.2989- 9	8.2989- 9	
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1.1979- 2	2.9295+ 4	3.7978- 1	6.3567- 1	2.9812- 2	6.0362- 1	2.4440- 3			1.0624- 8	1.0624- 8	
1.4187- 2	2.9632+ 4	3.7547- 1	6.2845- 1	2.1585- 2	6.0550- 1	1.3646- 3			1.3527- 8	1.3527- 8	
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4.3958- 2	3.2586+ 4	3.4143- 1	5.7148- 1	2.3789- 3	5.8908- 1	2.7837- 5			9.7804- 8	9.7804- 8	
7.5997- 2	3.5650+ 4	3.1209- 1	5.2238- 1	7.9891- 4	5.2156- 1	4.2029- 6			2.4015- 7	2.4015- 7	
1.0000- 1	3.7812+ 4	2.8424- 1	4.8250- 1	4.6188- 4	4.8203- 1	1.6525- 8			3.8495- 7	3.8495- 7	
1.5406- 1	4.2388+ 4	2.8282- 1	4.3856- 1	1.9477- 4	4.3936- 1	3.8252- 7			6.7044- 7	6.7044- 7	
2.4887- 1	4.9384+ 4	2.2529- 1	3.7709- 1	7.4663- 5	3.7702- 1	7.9829- 8			1.2294- 6	1.2294- 6	
3.2419- 1	5.4404+ 4	2.0451- 1	3.4230- 1	4.4004- 5	3.4226- 1	3.4794- 8			1.6622- 6	1.6622- 6	
4.4560- 1	6.1472+ 4	1.8099- 1	3.0294- 1	2.3292- 5	3.0292- 1	1.3662- 8			2.3532- 6	2.3532- 6	
5.9726- 1	6.8563+ 4	1.5996- 1	2.6774- 1	1.2966- 5	2.6773- 1	8.2529- 9			3.1470- 6	3.1470- 6	
7.5327- 1	7.7120+ 4	1.4427- 1	2.4147- 1	8.1511- 6	2.4147- 1	3.5845- 9			3.8075- 6	3.8075- 6	
1.0000+ 0	8.8214+ 4	1.2613- 1	2.1110- 1	4.6252- 6	2.1110- 1	1.9607- 9			4.9878- 6	4.9878- 6	
1.0220+ 0	8.8181+ 4	1.2478- 1	2.0886- 1	4.4282- 6	2.0886- 1	1.8800- 9			5.0780- 6	5.0780- 6	
1.0251+ 0	8.8303+ 4	1.2459- 1	2.0853- 1	4.4013- 6	2.0852- 1	1.8696- 9	3.6252-11		5.0897- 6	5.0897- 6	
1.0287+ 0	8.8468+ 4	1.2436- 1	2.0815- 1	4.3703- 6	2.0814- 1	1.8577- 9	3.6252-10		5.1034- 6	5.1034- 6	
1.0366+ 0	8.8825+ 4	1.2386- 1	2.0732- 1	4.3040- 6	2.0731- 1	1.8321- 9	3.6252- 9		5.1330- 6	5.1330- 6	
1.0541+ 0	9.0610+ 4	1.2279- 1	2.0552- 1	4.1828- 6	2.0552- 1	1.7774- 9	3.6252- 8		5.1882- 6	5.1882- 6	
1.0937+ 0	9.2371+ 4	1.2045- 1	2.0160- 1	3.8868- 6	2.0160- 1	1.6621- 9	3.6252- 7		5.3455- 6	5.3455- 6	
1.1333+ 0	9.4100+ 4	1.1824- 1	1.9790- 1	3.6011- 6	1.9789- 1	1.5581- 9	1.2189- 6		5.4913- 6	5.4913- 6	
1.1475+ 0	9.4713+ 4	1.1747- 1	1.9662- 1	3.5126- 6	1.9661- 1	1.5233- 9	1.6848- 6		5.5433- 6	5.5433- 6	
1.1582+ 0	9.5173+ 4	1.1690- 1	1.9587- 1	3.4480- 6	1.9586- 1	1.4978- 9	2.0936- 6		5.5824- 6	5.5824- 6	
1.1741+ 0	9.5852+ 4	1.1607- 1	1.9428- 1	3.3552- 6	1.9428- 1	1.4812- 9	2.7975- 6		5.6403- 6	5.6403- 6	
1.1901+ 0	9.6531+ 4	1.1526- 1	1.9292- 1	3.2856- 6	1.9291- 1	1.4257- 9	3.6252- 6		5.6985- 6	5.6985- 6	
1.2051+ 0	9.7162+ 4	1.1451- 1	1.9166- 1	3.1848- 6	1.9165- 1	1.3938- 9	4.5091- 6		5.7528- 6	5.7528- 6	
1.2275+ 0	9.8100+ 4	1.1341- 1	1.8983- 1	3.0896- 6	1.8982- 1	1.3478- 9	6.0311- 6		5.8335- 6	5.8335- 6	
1.2500+ 0	9.9032+ 4	1.1235- 1	1.8804- 1	2.9601- 6	1.8803- 1	1.3040- 9	7.8050- 6		5.9143- 6	5.9143- 6	
1.2813+ 0	1.0032+ 5	1.1091- 1	1.8564- 1	2.8173- 6	1.8562- 1	1.2533- 9	1.0688- 5		6.0262- 6	6.0262- 6	
1.3325+ 0	1.0238+ 5	1.0867- 1	1.8189- 1	2.6049- 6	1.8187- 1	1.1769- 9	1.6452- 5		6.2077- 6	6.2077- 6	
1.3744+ 0	1.0405+ 5	1.0693- 1	1.7898- 1	2.4485- 6	1.7895- 1	1.1198- 9	2.2120- 5		6.3550- 6	6.3550- 6	
1.4058+ 0	1.0528+ 5	1.0568- 1	1.7689- 1	2.3404- 6	1.7686- 1	1.0800- 9	2.6909- 5		6.4847- 6	6.4847- 6	
1.4529+ 0	1.0710+ 5	1.0389- 1	1.7388- 1	2.1911- 6	1.7384- 1	1.0243- 9	3.4819- 5		6.6283- 6	6.6283- 6	
1.5000+ 0	1.0889+ 5	1.0218- 1	1.7102- 1	2.0557- 6	1.7098- 1	9.7320-10	4.3850-				

October 31, 1989
Atomic Weight 1.008

ENDL Evaluated
Photon Data

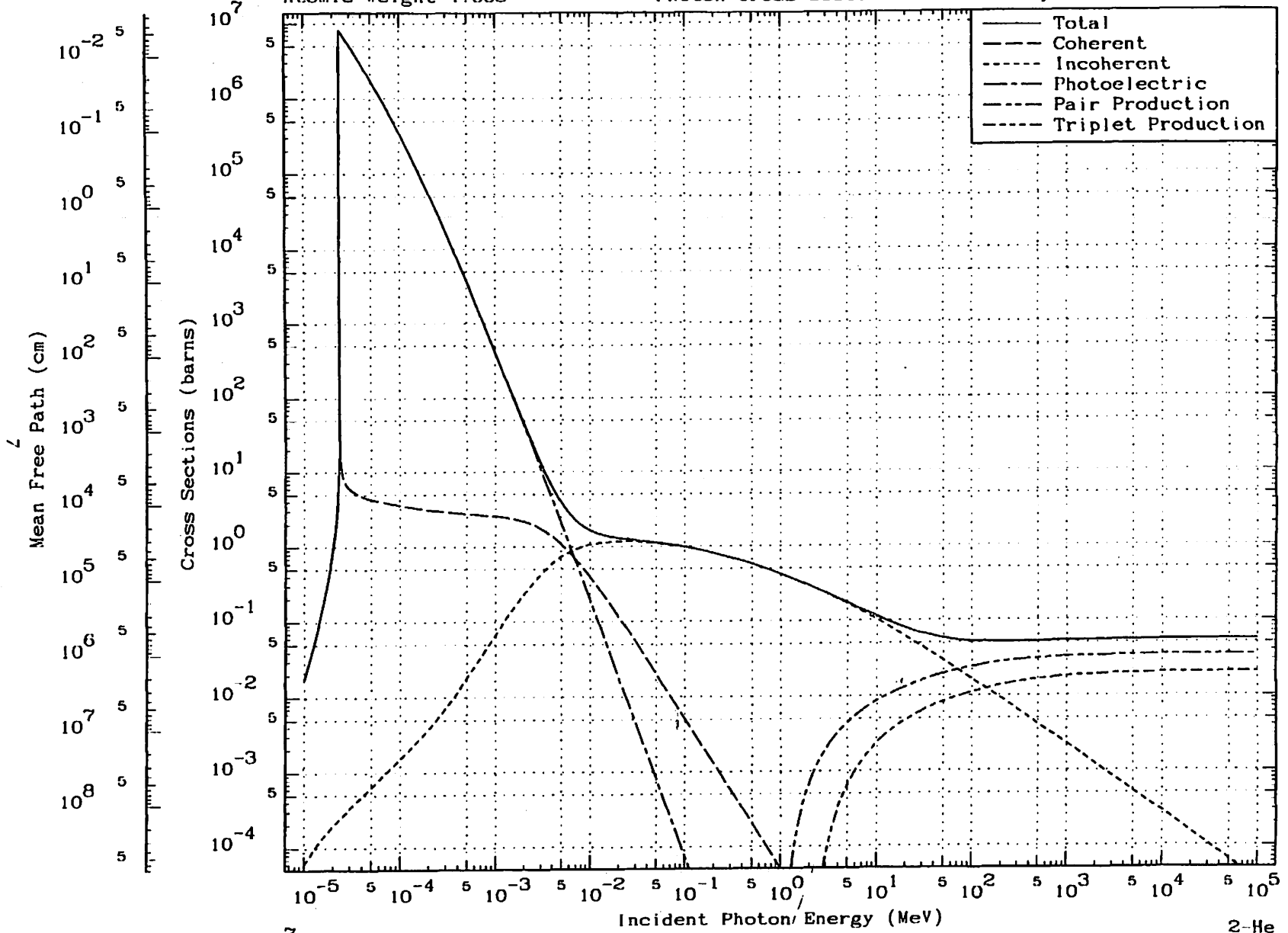
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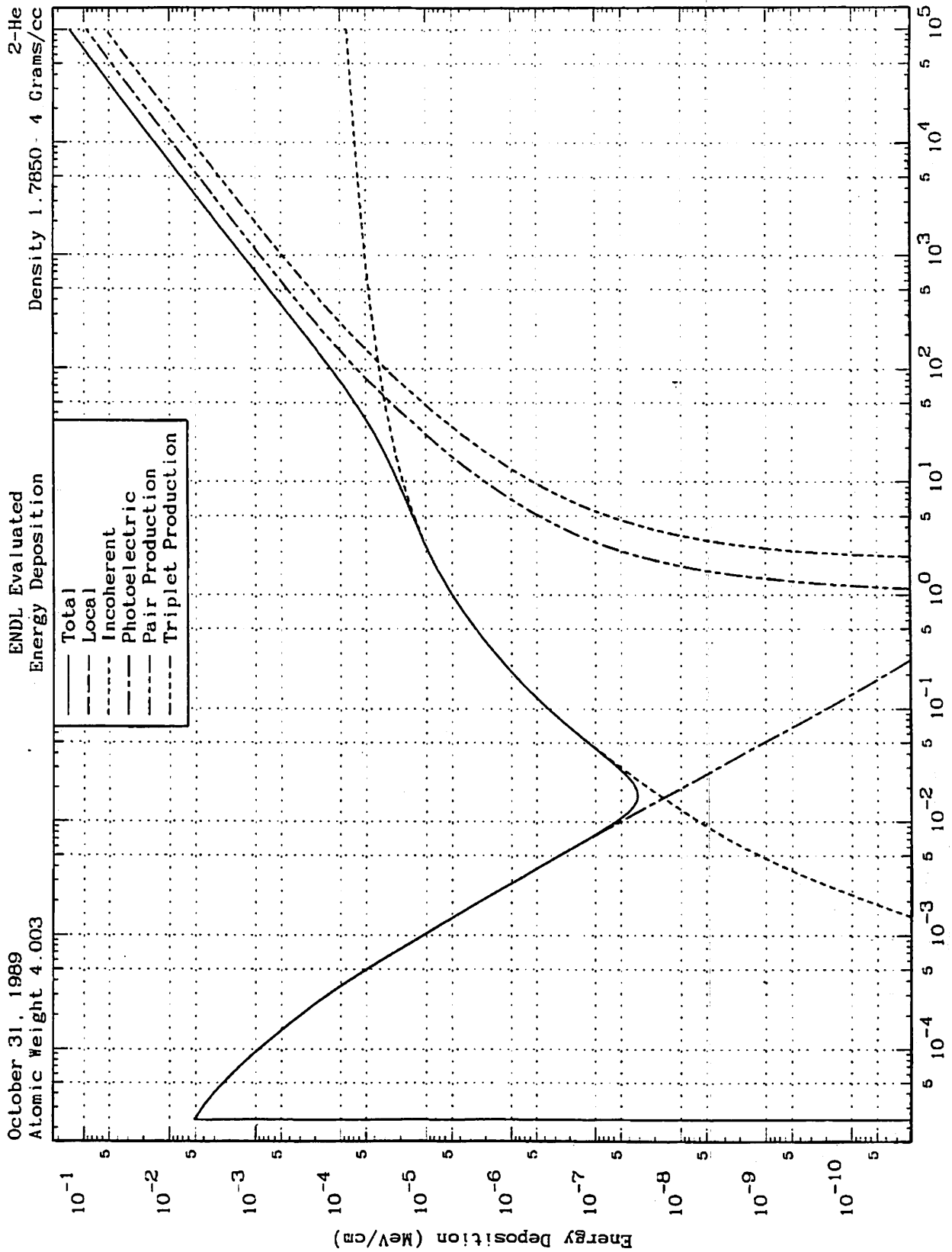
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	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.5625+ 0	1.1122+ 5	1.0003- 1	1.6743- 1	1.8945- 6	1.6737- 1	9.1291-10	5.6946- 5		7.0042- 6	7.0042- 6	
1.6411+ 0	1.1409+ 5	9.7516- 2	1.6322- 1	1.7174- 6	1.6314- 1	8.4534-10	7.5185- 5		7.2701- 6	7.2701- 6	
1.7188+ 0	1.1686+ 5	9.5204- 2	1.5935- 1	1.5856- 6	1.5925- 1	7.8825-10	9.4858- 5		7.5301- 6	7.5301- 6	
1.8118+ 0	1.2035+ 5	9.2449- 2	1.5474- 1	1.4083- 6	1.5482- 1	7.2407-10	1.2007- 4		7.8033- 6	7.8033- 6	
2.0000+ 0	1.2717+ 5	8.7487- 2	1.4843- 1	1.1563- 6	1.4828- 1	6.2010-10	1.7580- 4		8.3453- 6	8.3453- 6	
2.0440+ 0	1.2872+ 5	8.6434- 2	1.4487- 1	1.1071- 6	1.4448- 1	6.0040-10	1.8950- 4		8.4697- 6	8.4697- 6	
2.0858+ 0	1.3027+ 5	8.5408- 2	1.4295- 1	1.0831- 6	1.4275- 1	5.8375-10	2.0227- 4	1.0042- 8	8.5780- 6	8.5780- 6	
2.1383+ 0	1.3211+ 5	8.4214- 2	1.4098- 1	1.0135- 6	1.4074- 1	5.6470-10	2.1845- 4	1.0042- 7	8.7034- 6	8.7034- 6	
2.2537+ 0	1.3634+ 5	8.1803- 2	1.3658- 1	9.1084- 7	1.3633- 1	5.2428-10	2.5587- 4	1.0042- 6	8.8958- 6	8.8958- 6	
2.2815+ 0	1.3733+ 5	8.1017- 2	1.3560- 1	8.8857- 7	1.3534- 1	5.1540-10	2.6479- 4	1.4068- 8	9.0644- 6	9.0644- 6	
2.3070+ 0	1.3823+ 5	8.0489- 2	1.3472- 1	8.6904- 7	1.3445- 1	5.0751-10	2.7332- 4	1.8478- 8	9.1270- 6	9.1270- 6	
2.3382+ 0	1.3932+ 5	7.9857- 2	1.3366- 1	8.4800- 7	1.3338- 1	4.9813-10	2.8400- 4	2.4842- 8	9.2033- 6	9.2033- 6	
2.3774+ 0	1.4069+ 5	7.9082- 2	1.3237- 1	8.1833- 7	1.3206- 1	4.8878-10	2.9758- 4	3.4403- 8	9.2887- 6	9.2887- 6	
2.4102+ 0	1.4183+ 5	7.8448- 2	1.3130- 1	7.8621- 7	1.3099- 1	4.7759-10	3.0776- 4	4.3755- 8	9.3779- 6	9.3779- 6	
2.4468+ 0	1.4309+ 5	7.7757- 2	1.3015- 1	7.7257- 7	1.2982- 1	4.6770-10	3.1939- 4	5.5659- 8	9.4659- 6	9.4659- 6	
2.4859+ 0	1.4442+ 5	7.7038- 2	1.2894- 1	7.4848- 7	1.2860- 1	4.5751-10	3.3209- 4	7.0078- 8	9.5596- 6	9.5596- 6	
2.5684+ 0	1.4681+ 5	7.5786- 2	1.2685- 1	7.0773- 7	1.2648- 1	4.4008-10	3.5574- 4	1.0042- 5	9.7272- 6	9.7272- 6	
2.6604+ 0	1.5027+ 5	7.4040- 2	1.2393- 1	6.5348- 7	1.2352- 1	4.1638-10	3.8171- 4	1.5481- 5	9.9718- 6	9.9718- 6	
2.7453+ 0	1.5306+ 5	7.2893- 2	1.2187- 1	6.1370- 7	1.2123- 1	3.9861-10	4.1857- 4	2.0720- 5	1.0169- 5	1.0169- 5	
2.8090+ 0	1.5511+ 5	7.1727- 2	1.2006- 1	5.8618- 7	1.1959- 1	3.8811-10	4.3934- 4	2.5093- 5	1.0318- 5	1.0318- 5	
2.8045+ 0	1.5818+ 5	7.0344- 2	1.1774- 1	5.4827- 7	1.1723- 1	3.6888-10	4.7147- 4	3.2328- 5	1.0534- 5	1.0534- 5	
3.0399+ 0	1.8241+ 5	6.8505- 2	1.1468- 1	5.0051- 7	1.1410- 1	3.4653-10	5.1708- 4	4.3812- 5	1.0840- 5	1.0840- 5	
3.2344+ 0	1.6892+ 5	6.5868- 2	1.1024- 1	4.4213- 7	1.0980- 1	3.2024-10	5.7882- 4	6.3311- 5	1.1202- 5	1.1202- 5	
3.4375+ 0	1.7553+ 5	6.3383- 2	1.0609- 1	3.9143- 7	1.0536- 1	2.9836-10	6.4681- 4	8.6638- 5	1.1573- 5	1.1573- 5	
3.7847+ 0	1.8847+ 5	5.8665- 2	9.8865- 2	3.2290- 7	9.8990- 2	2.6222-10	7.5200- 4	1.3293- 4	1.2189- 5	1.2189- 5	
4.0000+ 0	1.9303+ 5	5.7639- 2	9.6475- 2	2.8908- 7	9.5490- 2	2.4440-10	8.2020- 4	1.8470- 4	1.2581- 5	1.2581- 5	
4.2500+ 0	2.0045+ 5	5.5504- 2	9.2801- 2	2.5807- 7	9.1807- 2	2.2712-10	8.9015- 4	2.0357- 4	1.2984- 5	1.2984- 5	
4.7500+ 0	2.1470+ 5	5.1820- 2	8.6736- 2	2.0500- 7	8.5416- 2	1.8864-10	1.0344- 3	2.8494- 4	1.3808- 5	1.3808- 5	
5.5135+ 0	2.3515+ 5	4.7313- 2	7.9182- 2	1.5215- 7	7.7543- 2	1.6846-10	1.2312- 3	4.1790- 4	1.5014- 5	1.5014- 5	
6.0000+ 0	2.4858+ 5	4.4758- 2	7.4815- 2	1.2848- 7	7.3056- 2	1.5080-10	1.3550- 3	5.0420- 4	1.5635- 5	1.5635- 5	
7.0000+ 0	2.7489+ 5	4.0500- 2	6.7783- 2	9.4393- 8	6.5533- 2	1.2840-10	1.5800- 3	6.7980- 4	1.6882- 5	1.6882- 5	
8.0000+ 0	2.9901+ 5	3.7209- 2	6.2280- 2	7.2269- 8	5.8646- 2	1.0880-10	1.7840- 3	8.5030- 4	1.8041- 5	1.8041- 5	
1.0000+ 1	3.4313+ 5	3.2425- 2	5.4272- 2	4.8252- 8	5.0984- 2	8.5030-11	2.1380- 3	1.1700- 3	2.0301- 5	2.0301- 5	
1.3000+ 1	4.0485+ 5	2.7485- 2	4.8021- 2	2.7388- 8	4.1866- 2	8.4010-11	2.5650- 3	1.5900- 3	2.3128- 5	2.3128- 5	
1.8000+ 1	4.8924+ 5	2.2741- 2	3.8084- 2	1.4275- 8	3.2788- 2	4.5310-11	3.1120- 3	2.1840- 3	2.7847- 5	2.7847- 5	
2.8000+ 1	5.9832+ 5	1.8585- 2	3.1124- 2	6.8421- 9	2.4515- 2	3.0870-11	3.7470- 3	2.8820- 3	3.4134- 5	3.4134- 5	
4.2170+ 1	7.4084+ 5	1.5022- 2	2.5144- 2	2.8010- 9	1.8725- 2	1.8769-11	4.5987- 3	3.8218- 3	4.7468- 5	4.7468- 5	
6.9282+ 1	8.7015+ 6	1.2788- 2	2.1401- 2	9.8359-10	1.1097- 2	1.1323-11	6.4722- 3	4.8320- 3	6.8977- 5	6.8977- 5	
1.0000+ 2	9.3563+ 5	1.1891- 2	1.9904- 2	4.8252-10	6.1845- 3	7.8110-12	8.1160- 3	5.5830- 3	9.7165- 5	9.7165- 5	
1.7321+ 2	9.8018+ 5	1.1238- 2	1.8807- 2	1.5418-10	5.1251- 3	4.4918-12	8.8942- 3	6.8881- 3	1.6504- 4	1.6504- 4	
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1.0000+ 3	9.5863+ 5	1.1606- 2	1.9426- 2	4.8253-12	1.1169- 3	7.7440-13	8.8240- 3	9.4850- 3	1.0330- 3	1.0330- 3	
3.0000+ 3	9.2788+ 5	1.1994- 2	2.0075- 2	5.1382-13	4.1755- 4	2.5800-13	9.2770- 3	1.0380- 2	3.2237- 3	3.2237- 3	
1.0000+ 4	9.0902+ 5	1.2238- 2	2.0488- 2	4.8257-14	1.4110- 4	7.7370-14	9.4850- 3	1.0850- 2	1.0991- 2	1.0991- 2	
8.0000+ 4	8.9929+ 5	1.2372- 2	2.0708- 2	7.2211-16	2.0917- 5	9.8700-15	9.5970- 3	1.1090- 2	8.8949- 2	8.8949- 2	
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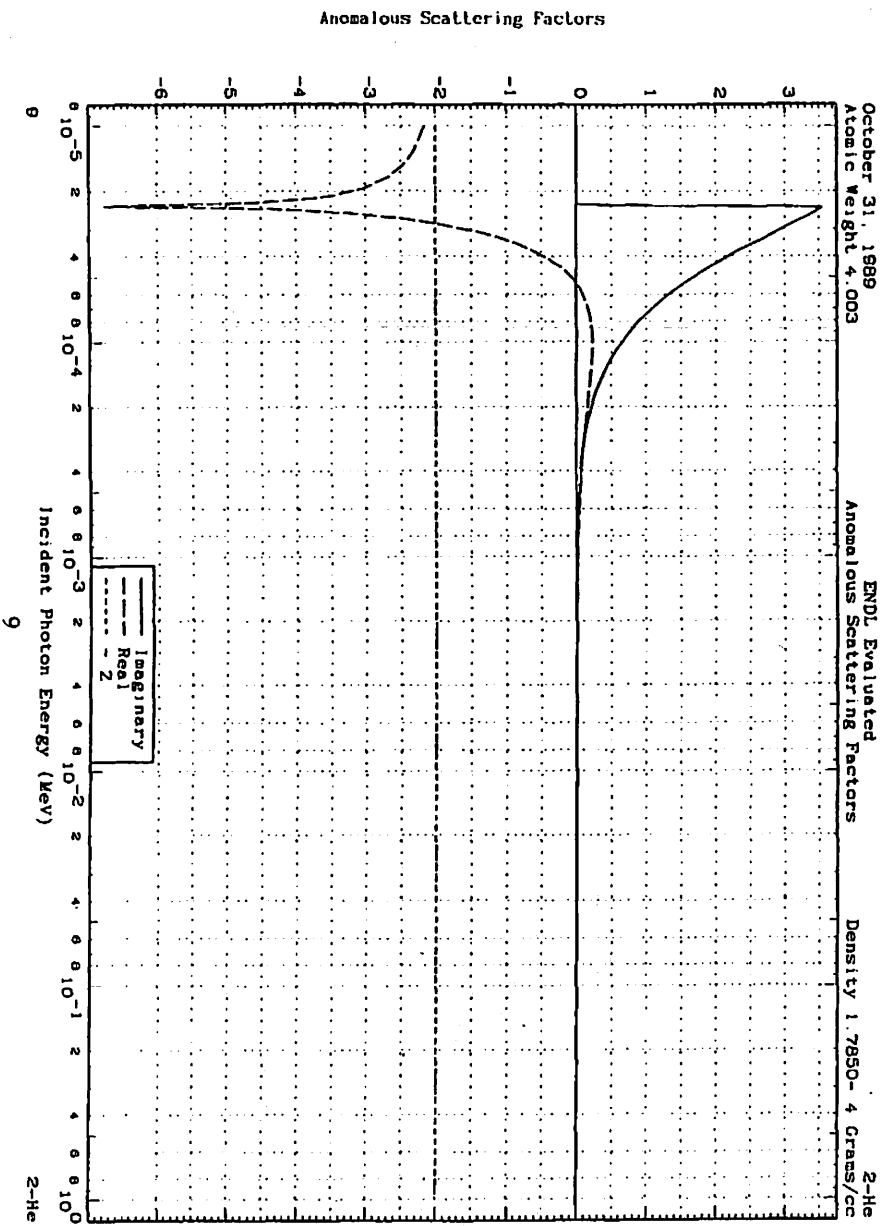
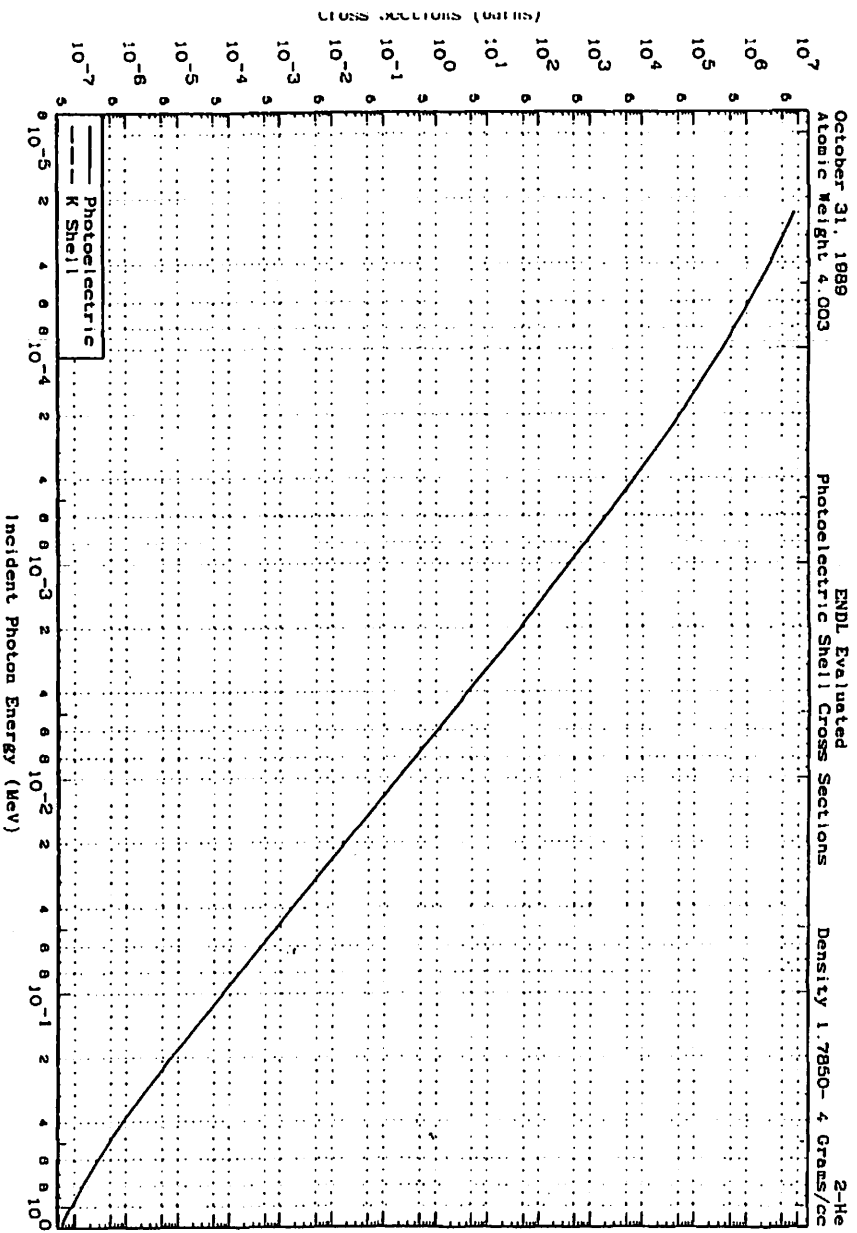
October 31, 1989
Atomic Weight 4.003

ENDL Evaluated
Photon Cross Sections

Density 1.7850- 4 Grams/cc



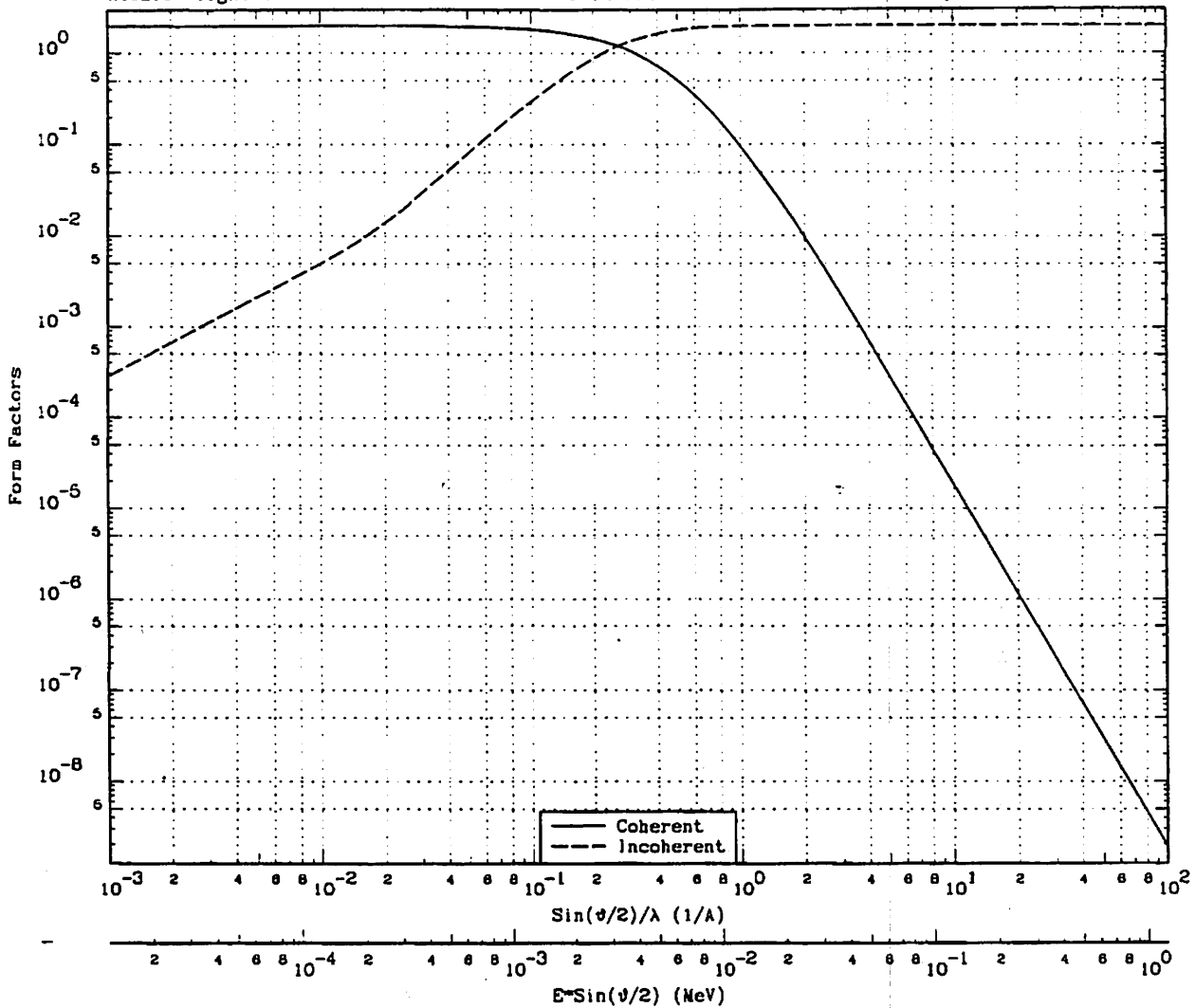




October 31, 1989
Atomic Weight 4.003

ENDL Evaluated
Form Factors

2-He
Density 1.7850- 4 Grams/cc



$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	2.0000+ 0	0.0000+ 0	4.0000- 1	4.8594- 3	7.3784- 1	1.8568+ 0	2.0000+ 1	2.4797- 1	1.1505- 6	2.0000+ 0
1.0000- 3	1.2399- 5	2.0000+ 0	2.8018- 4	4.7188- 1	5.8508- 3	5.8531- 1	1.7820+ 0	5.0000+ 1	6.1993- 1	2.9748- 8	2.0000+ 0
5.0000- 3	6.1993- 5	1.8985+ 0	2.1000- 3	5.0000- 1	6.1993- 3	5.0953- 1	1.8175+ 0	8.0000+ 1	9.9188- 1	4.5780- 9	2.0000+ 0
1.0000- 2	1.2399- 4	1.8982+ 0	5.0000- 3	8.0000- 1	7.4391- 3	3.5418- 1	1.8023+ 0	1.0000+ 2	1.2399+ 0	1.8855- 9	2.0000+ 0
1.3418- 2	1.8638- 4	1.8988+ 0	7.4437- 3	7.0000- 1	8.6790- 3	2.4852- 1	1.8487+ 0	3.0889+ 2	3.8298+ 0	2.1538-11	2.0000+ 0
1.5000- 2	1.8598- 4	1.9960+ 0	8.8000- 3	8.0000- 1	9.9188- 3	1.7880- 1	1.8702+ 0	5.9488+ 2	7.3756+ 0	1.6818-12	2.0000+ 0
2.0000- 2	2.4797- 4	1.8930+ 0	1.4100- 2	9.0000- 1	1.1158- 2	1.2895- 1	1.9829+ 0	1.0000+ 3	1.2399+ 0	2.3481-13	2.0000+ 0
2.5000- 2	3.0998- 4	1.8891+ 0	2.0590- 2	1.0000+ 0	1.2399- 2	9.6120- 2	1.9899+ 0	1.7067+ 3	2.1181+ 1	3.2852-14	2.0000+ 0
3.0000- 2	3.7198- 4	1.8844+ 0	2.9900- 2	1.2500+ 0	1.5498- 2	4.8400- 2	1.9971+ 0	2.5217+ 3	3.1285+ 1	8.1228-15	2.0000+ 0
4.0000- 2	4.8594- 4	1.8724+ 0	5.1800- 2	1.5000+ 0	1.8598- 2	2.8510- 2	1.9960+ 0	4.8819+ 3	5.8049+ 1	9.4244-16	2.0000+ 0
5.0000- 2	6.1993- 4	1.8589+ 0	8.0540- 2	2.0000+ 0	2.4797- 2	9.8400- 3	1.9999+ 0	9.3487+ 3	1.0351+ 2	1.3377-16	2.0000+ 0
7.0000- 2	8.6790- 4	1.8169+ 0	1.5347- 1	2.5000+ 0	3.0998- 2	4.1962- 3	2.0000+ 0	1.3188+ 4	1.6324+ 2	2.8832-17	2.0000+ 0
9.0000- 2	1.1158- 3	1.8660+ 0	2.4502- 1	3.0000+ 0	3.7198- 2	2.0934- 3	2.0000+ 0	1.8592+ 4	2.4291+ 2	8.2500-18	2.0000+ 0
1.0000- 1	1.2399- 3	1.8384+ 0	2.8575- 1	3.5000+ 0	4.3395- 2	1.1537- 3	2.0000+ 0	3.5979+ 4	4.4609+ 2	1.2003-18	2.0000+ 0
1.2500- 1	1.5498- 3	1.7551+ 0	4.3215- 1	4.0000+ 0	4.9594- 2	6.8559- 4	2.0000+ 0	8.2612+ 4	1.0243+ 3	9.1435-20	2.0000+ 0
1.5000- 1	1.8598- 3	1.6812+ 0	5.8352- 1	5.0000+ 0	6.1993- 2	2.8543- 4	2.0000+ 0	2.8742+ 5	3.5836+ 3	2.1105-21	2.0000+ 0
1.7500- 1	2.1697- 3	1.5803+ 0	7.3603- 1	6.0000+ 0	7.4391- 2	1.3890- 4	2.0000+ 0	1.0000+ 6	1.2399+ 4	5.1312-23	2.0000+ 0
2.0000- 1	2.4797- 3	1.4585+ 0	8.8056- 1	7.0000+ 0	8.6790- 2	7.5398- 5	2.0000+ 0	2.0535+ 7	2.5460+ 5	6.0875-27	2.0000+ 0
2.5000- 1	3.0998- 3	1.2522+ 0	1.1457+ 0	8.0000+ 0	9.9188- 2	4.4383- 5	2.0000+ 0	1.0000+ 9	1.2399+ 7	5.1205-32	2.0000+ 0
3.0000- 1	3.7198- 3	1.0586+ 0	1.3624+ 0	1.0000+ 1	1.2399- 1	1.8258- 5	2.0000+ 0				
3.7539- 1	4.6543- 3	8.0785- 1	1.5990+ 0	1.5000+ 1	1.8598- 1	3.6259- 6	2.0000+ 0				

October 31, 1989
Atomic Weight 4.003

ENDL Evaluated
Photon Data

2-He
Density 1.7850- 4 Grams/cc

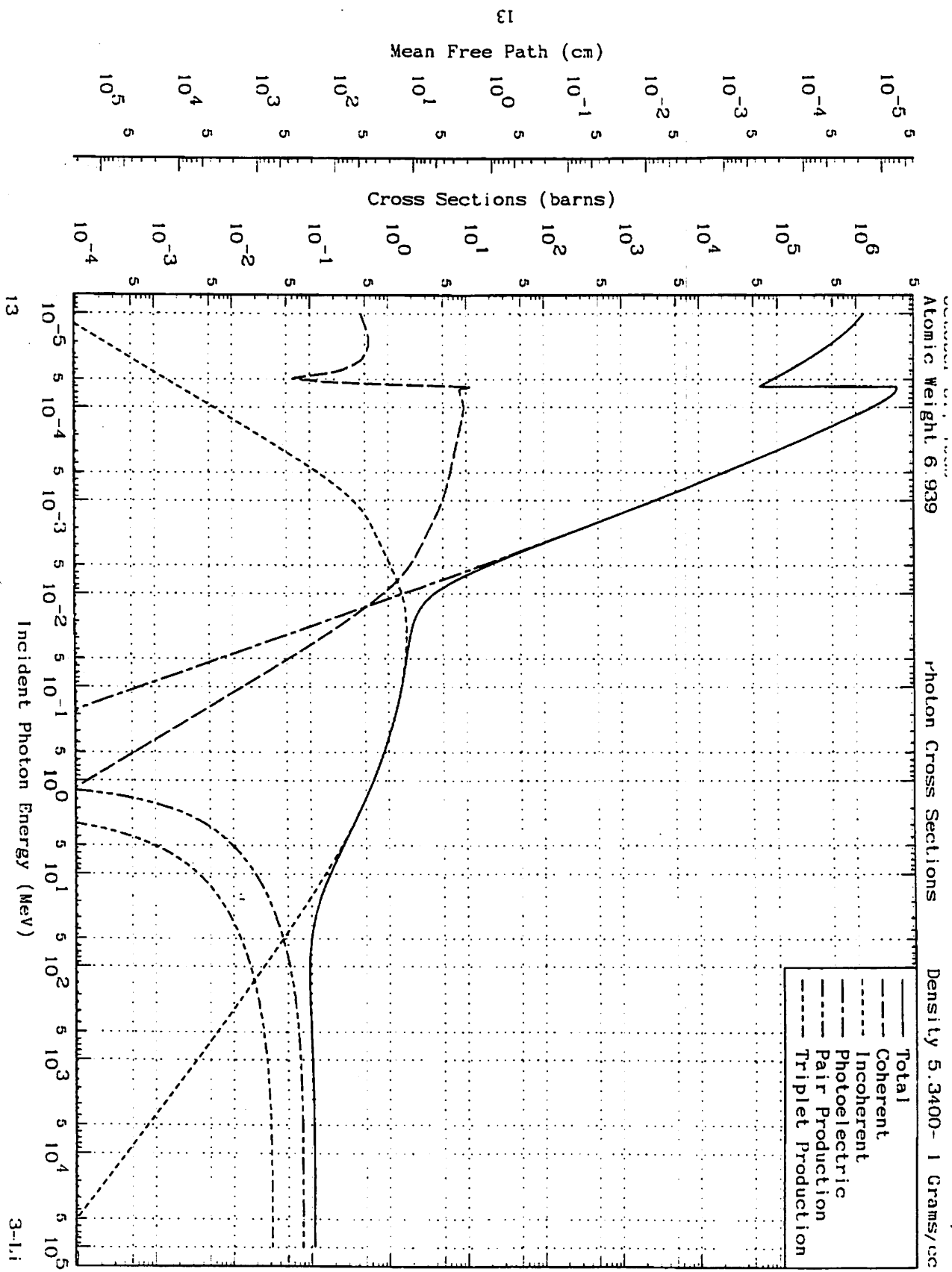
Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
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1.3335- 5	5.4746+ 5	1.0233- 2	6.8015- 2	6.7908- 2	1.0674- 4				1.3917- 18	1.3917- 18	
1.5461- 5	2.4626+ 5	2.2475- 2	1.4938- 1	1.4924- 1	1.3545- 4				2.3379- 18	2.3379- 18	
1.7217- 5	1.3031+ 5	4.2090- 2	2.8573- 1	2.8558- 1	1.5848- 4				3.3549- 18	3.3549- 18	
1.9521- 5	5.2314+ 4	1.0709- 1	7.1177- 1	7.1159- 1	1.8996- 4				5.1073- 18	5.1073- 18	
2.1002- 5	2.5855+ 4	2.1585- 1	1.4346+ 0	1.4344+ 0	2.0950- 4				6.4903- 18	6.4903- 18	
2.1743- 5	1.6796+ 4	3.3354- 1	2.2169+ 0	2.2187+ 0	2.1945- 4				7.2707- 18	7.2707- 18	
2.2113- 5	1.2933+ 4	4.3317- 1	2.8760+ 0	2.8768+ 0	2.2447- 4				7.6844- 18	7.6844- 18	
2.2555- 5	8.7843+ 3	6.3778- 1	4.2368+ 0	4.2368+ 0	2.3049- 4				8.1990- 18	8.1990- 18	
2.2788- 5	6.6947+ 3	8.3681- 1	5.5819+ 0	5.5816+ 0	2.3368- 4				8.4797- 18	8.4797- 18	
2.2951- 5	5.1824+ 3	1.0810+ 0	7.1850+ 0	7.1847+ 0	2.3593- 4				8.6905- 18	8.6905- 18	
2.3099- 5	3.8305+ 3	1.4626+ 0	9.7208+ 0	9.7206+ 0	2.3797- 4				8.8856- 18	8.8856- 18	
2.3273- 5	2.8389+ 3	2.1229+ 0	1.4110+ 1	1.4110+ 1	2.4038- 4				9.0863- 18	9.0863- 18	
2.3324- 5	2.4157+ 3	2.3191+ 0	1.5414+ 1	1.5414+ 1	2.4108- 4				9.1510- 18	9.1510- 18	
2.3420- 5	2.1479+ 3	2.6083+ 0	1.7335+ 1	1.7335+ 1	2.4241- 4				9.2756- 18	9.2756- 18	
K 2.3420- 5	4.5467+ 3	1.2322+ 6	8.1895+ 6	1.7335+ 1	2.4241- 4	8.1895+ 6			5.1510- 3	5.1510- 3	
2.3509- 5	4.5788+ 3	1.2235+ 6	8.1321+ 6	1.8318+ 1	2.4364- 4	8.1321+ 6			5.1343- 3	5.1343- 3	
2.3585- 5	4.6099+ 3	1.2153+ 6	8.0773+ 6	1.8323+ 1	2.4483- 4	8.0773+ 6			5.1183- 3	5.1183- 3	
2.3677- 5	4.6397+ 3	1.2075+ 6	8.0253+ 6	1.7638+ 1	2.4598- 4	8.0253+ 6			5.1030- 3	5.1030- 3	
2.4027- 5	4.7681+ 3	1.1749+ 6	7.8092+ 6	1.3329+ 1	2.5087- 4	7.8092+ 6			5.0392- 3	5.0392- 3	
2.4304- 5	4.8705+ 3	1.1502+ 6	7.6451+ 6	1.1553+ 1	2.5474- 4	7.6451+ 6			4.9900- 3	4.9900- 3	
2.4788- 5	5.0520+ 3	1.1089+ 6	7.3703+ 6	9.8533+ 0	2.6156- 4	7.3703+ 6			4.9084- 3	4.9084- 3	
2.5513- 5	5.3300+ 3	1.0511+ 6	6.9859+ 6	8.4895+ 0	2.7185- 4	6.9859+ 6			4.7886- 3	4.7886- 3	
2.6238- 5	5.6149+ 3	9.9774+ 5	6.6315+ 6	7.6681+ 0	2.8225- 4	6.6315+ 6			4.6730- 3	4.6730- 3	
2.7418- 5	6.0925+ 3	9.1952+ 5	6.1116+ 6	6.8441+ 0	2.9936- 4	6.1116+ 6			4.5002- 3	4.5002- 3	
2.8951- 5	6.7406+ 3	8.3112+ 5	5.5240+ 6	6.1927+ 0	3.2200- 4	5.5240+ 6			4.2951- 3	4.2951- 3	
3.2237- 5	8.2299+ 3	6.8071+ 5	4.5244+ 6	5.5403+ 0	3.6896- 4	4.5244+ 6			3.9170- 3	3.9170- 3	
3.8234- 5	1.1786- 2	4.7532+ 5	3.1592+ 6	4.7592+ 0	4.9793- 4	3.1592+ 6			3.2439- 3	3.2439- 3	
4.7602- 5	1.8898- 2	2.9644+ 5	1.9703+ 6	4.4148+ 0	6.0441- 4	1.9703+ 6			2.5189- 3	2.5189- 3	
7.0000- 5	4.5489- 2	1.2318+ 5	8.1855+ 5	3.8077+ 0	9.8496- 4	8.1855+ 5			1.5388- 3	1.5388- 3	
1.0000- 4	1.0784- 1	5.1800+ 4	3.4495+ 5	3.5677+ 0	1.5372- 3	3.4495+ 5			8.2640- 4	8.2640- 4	
1.5406- 4	3.2833- 1	1.7063+ 4	1.1341+ 5	3.2759+ 0	2.6821- 3	1.1341+ 5			4.6920- 4	4.6920- 4	
1.9574- 4	8.3196+ 1	8.0648+ 3	5.8920+ 4	3.1300+ 0	3.6899- 3	5.8917+ 4			3.0971- 4	3.0971- 4	
2.4146- 4	1.1318+ 0	4.9507+ 3	3.2905+ 4	3.0284+ 0	5.0481- 3	3.2902+ 4			2.1336- 4	2.1336- 4	
3.1837- 4	2.5517+ 0	2.1855+ 3	1.4592+ 4	2.9066+ 0	7.8918- 3	1.4589+ 4			1.2513- 4	1.2513- 4	
4.0084- 4	5.0650+ 0	1.1061+ 3	7.3515+ 3	2.8291+ 0	1.1912- 2	7.3487+ 3			7.9108- 5	7.9108- 5	
5.1871- 4	1.1208+ 1	4.9994+ 2	3.3229+ 3	2.7525+ 0	1.8348- 2	3.3201+ 3			4.6251- 5	4.6251- 5	
1.0000- 3	9.1721+ 1	6.1079+ 1	4.0596+ 2	2.5600+ 0	6.7784- 2	4.0333+ 2			1.0832- 5	1.0832- 5	
1.4713- 3	3.1328+ 2	1.7883+ 1	1.1688- 2	2.3882- 0	1.3692- 1	1.1633+ 2			4.5986- 8	4.5986- 8	
2.0279- 3	8.5730+ 2	6.5347+ 0	4.3433+ 1	2.1608+ 0	2.3711- 1	4.1035+ 1			2.2349- 8	2.2349- 8	
2.6140- 3	1.8699+ 3	2.9961+ 0	1.9913+ 1	1.9089+ 0	3.5015- 1	1.7653+ 1			1.2395- 6	1.2395- 6	
3.3254- 3	3.7171+ 3	1.5071+ 0	1.0017+ 1	1.6176+ 0	4.8394- 1	7.9156+ 0			7.0729- 7	7.0729- 7	
4.0486- 3	6.1472+ 3	9.1135- 1	6.0573+ 0	1.3544+ 0	6.0475- 1	4.0981+ 0			4.4625- 7	4.4625- 7	
4.8586- 3	9.1882+ 3	6.0972- 1	4.0525+ 0	1.1111+ 0	7.1491- 1	2.2265+ 0			2.9162- 7	2.9162- 7	
6.8175- 3	1.2725+ 4	4.4025- 1	2.8261+ 0	8.6619+ 0	8.2114- 1	1.2189+ 0			1.8218- 7	1.8218- 7	
8.8748- 3	1.6153+ 4	3.4682- 1	2.3051+ 0	7.0217- 1	9.1107- 1	8.9187- 1			1.3039- 7	1.3039- 7	
7.8870- 3	1.8837+ 4	2.9740- 1	1.9787+ 0	5.7202- 1	9.7093- 1	4.3374- 1			9.5495- 8	9.5495- 8	
9.9777- 3	2.2080+ 4	2.5398- 1	1.6879+ 0	4.1959- 1	1.0459+ 0	2.2251- 1			8.2920- 8	8.2920- 8	
1.0000- 2	2.2621+ 4	2.4786- 1	1.6460+ 0	3.8236- 1	1.0602+ 0	1.8351- 1			5.8049- 8	5.8049- 8	
1.1930- 2	2.4836+ 4	2.2557- 1	1.4992+ 0	2.9215- 1	1.1009+ 0	1.0621- 1			4.2727- 8	4.2727- 8	
1.3758- 2	2.6140+ 4	2.1432- 1	1.4245+ 0	2.2848- 1	1.1306+ 0	6.5401- 2			3.5747- 8	3.5747- 8	
1.5350- 2	2.7071+ 4	2.0695- 1	1.3755+ 0	1.8840- 1	1.1420+ 0	4.5061- 2			3.2870- 8	3.2870- 8	
1.8908- 2	2.7725+ 4	2.0206- 1	1.3430+ 0	1.5842- 1	1.1522+ 0	3.2386- 2			3.1923- 8	3.1923- 8	
1.9153- 2	2.8361+ 4	1.9754- 1	1.3129+ 0	1.2930- 1	1.1656+ 0	2.1158- 2			3.2764- 8	3.2764- 8	
2.1919- 2	2.9123+ 4	1.8237- 1	1.2786+ 0	9.8420- 2	1.1668+ 0	1.3345- 2			3.5961- 8	3.5961- 8	
2.5972- 2	2.9862+ 4	1.8787- 1	1.2473+ 0	7.1535- 2	1.1883+ 0	7.4748- 3			4.3712- 8	4.3712- 8	
3.1971- 2	3.0908+ 4	1.8127- 1	1.2048+ 0	4.6082- 2	1.1530+ 0	3.6739- 3			5.8843- 8	5.8843- 8	
5.6229- 2	3.3652+ 4	1.6647- 1	1.1065+ 0	1.5956- 2	1.0900+ 0	5.3192- 4			1.4798- 7	1.4798- 7	
7.7924- 2	3.5798+ 4	1.5649- 1	1.0401+ 0	8.3808- 3	1.0318+ 0	1.7532- 4			2.4857- 7	2.4857- 7	
1.0000- 1	3.7702+ 4	1.4859- 1	9.8761- 1	5.0907- 3	9.8244- 1	7.5159- 5			3.6548- 7	3.6548- 7	
1.6121- 1	4.2850+ 4	1.3074- 1	8.8897- 1	1.9640- 3	8.6809- 1	1.5181- 5			7.1340- 7	7.1340- 7	
2.1894- 1	4.7355+ 4	1.1830- 1	7.8829- 1	1.0560- 3	7.8523- 1	5.4923- 6			1.0558- 6	1.0558- 6	
3.0000- 1	5.2788+ 4	1.0817- 1	7.0584- 1	5.6781- 4	7.0507- 1	2.0488- 6			1.5288- 6	1.5288- 6	
4.2492- 1	6.0218+ 4	9.3032- 2	6.1834- 1	2.8310- 4	6.1806- 1	7.3127- 7			2.2440- 6	2.2440- 6	
5.0500- 1	6.4700+ 4	8.8588- 2	5.7551- 1	2.0045- 4	5.7531- 1	4.5178- 7			2.8708- 6	2.8708- 6	
6.8237- 1	7.2783+ 4	7.8993- 2	5.1173- 1	1.1852- 4	5.1162- 1	2.2558- 7			3.4688- 6	3.4688- 6	
8.2283- 1	8.0338+ 4	6.9734- 2	4.6348- 1	7.5548- 5	4.6341- 1	1.3855- 7			4.2182- 6	4.2182- 6	
1.0000- 0	8.8136+ 4	6.3564- 2	4.2248- 1	5.1125- 5	4.2242- 1	9.0275- 8			4.8920- 6	4.8920- 6	
1.0220- 0	8.8082+ 4	6.2888- 2	4.1789- 1	4.8948- 5	4.1784- 1	8.2940- 8			5.0823- 6	5.0823- 6	
1.0251- 0	8.8224+ 4	6.2788- 2	4.1732- 1	4.8651- 5	4.1727- 1	8.2186- 8	1.4524- 10		5.0940- 6	5.0940- 6	
1.0287- 0	8.8389+ 4	6.2673- 2	4.1655- 1	4.8308- 5	4.1651- 1	8.1318- 8	1.4524- 9		5.1077- 6	5.1077- 6	
1.0366- 0	8.8746+ 4	6.2423- 2	4.1490- 1	4.7575- 5	4.1485- 1	7.9478- 8	1.4524- 8		5.1373- 6	5.1373- 6	
1.0541- 0	8.9530+ 4	6.1883- 2	4.1130- 1	4.6014- 5	4.1125- 1	7.5601- 8	1.4524- 7		5.2026- 6	5.2026- 6	
1.0871- 0	9.1899+ 4	6.0895- 2	4.0474- 1	4.3281- 5	4.0489- 1	6.9882- 8	1.1059- 6		5.3255- 6	5.3255- 6	
1.0937+ 0	9.2280+ 4	6.0703- 2	4.0346- 1	4.2740- 5	4.0341- 1	6.9128- 8	1.4524- 6		5.3500- 6	5.3500- 6	
1.1026+ 0	9.2680+ 4	6.0447- 2	4.0176- 1	4.2054- 5	4.0172- 1	6.8135- 8	2.0139- 6		5.3829- 6	5.3829- 6	
1.1107+ 0	9.3035+ 4	6.0217- 2	4.0023- 1	4.1443- 5	4.0018- 1	6.7250- 8	2.6268- 6		5.412		

October 31, 1989
Atomic Weight 4.003

ENDL Evaluated
Photon Data

2-He
Density 1.7850- 4 Grams/cc

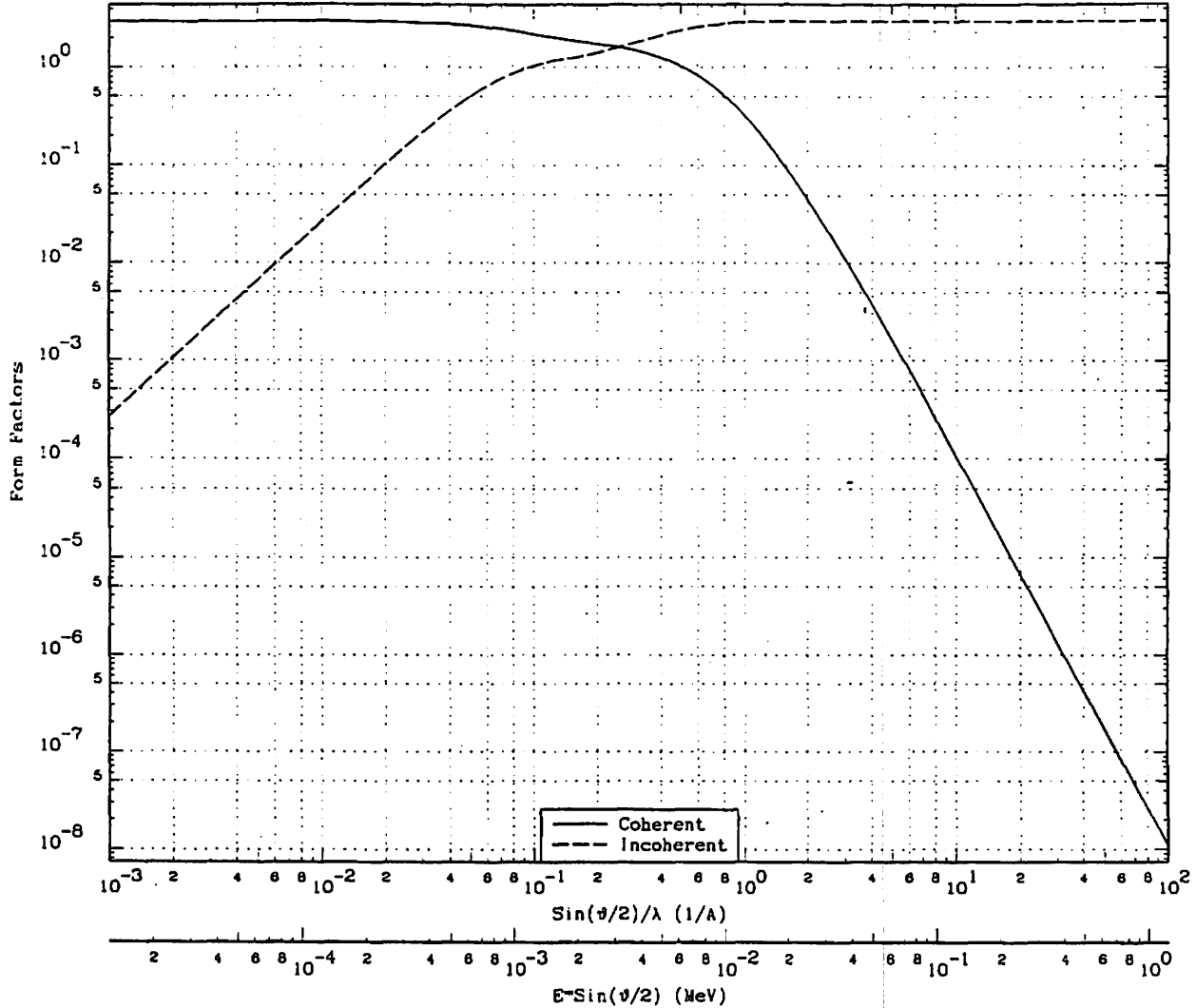
Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cm)		
	cm	cc/cm/gras	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.2275-0	9.8011+4	5.7159-2	3.7991-1	3.3931-5	3.7985-1	5.7940-8	2.4163-5		5.8385-6	5.8385-6	
1.2500+0	9.8942+4	5.6621-2	3.7633-1	3.2721-5	3.7627-1	5.6620-8	3.1270-5		5.9194-6	5.9194-6	
1.2813-0	1.0022+5	5.5897-2	3.7152-1	3.1142-5	3.7145-1	5.4266-8	4.2818-5		6.0314-6	6.0314-6	
1.3325+0	1.0229+5	5.4770-2	3.6403-1	2.8795-5	3.6393-1	5.0735-8	6.5898-5		6.2132-6	6.2132-6	
1.3744+0	1.0394+5	5.3896-2	3.5822-1	2.7066-5	3.5811-1	4.8108-8	8.8568-5		6.3608-6	6.3608-6	
1.4058+0	1.0517+5	5.3268-2	3.5404-1	2.5870-5	3.5391-1	4.6276-8	1.0775-4		6.4707-6	6.4707-6	
1.4529+0	1.0698+5	5.2365-2	3.4804-1	2.4220-5	3.4788-1	4.3731-8	1.3980-4		6.6347-6	6.6347-6	
1.5000+0	1.0877+5	5.1507-2	3.4234-1	2.2723-5	3.4214-1	4.1400-8	1.7550-4		6.7974-6	6.7974-6	
1.5625+0	1.1109+5	5.0430-2	3.3518-1	2.0941-5	3.3493-1	3.8771-8	2.2785-4		7.0118-6	7.0118-6	
1.6111+0	1.1384+5	4.9167-2	3.2679-1	1.8984-5	3.2647-1	3.5831-8	3.0073-4		7.2787-6	7.2787-6	
1.7188+0	1.1669+5	4.8008-2	3.1908-1	1.7306-5	3.1869-1	3.3264-8	3.7855-4		7.5400-6	7.5400-6	
1.8116+0	1.2015+5	4.6627-2	3.0990-1	1.5578-5	3.0941-1	3.0568-8	4.8014-4		7.8149-6	7.8149-6	
2.0000+0	1.2691+5	4.4143-2	2.9340-1	1.2782-5	2.9268-1	2.8320-8	7.0340-4		8.3816-6	8.3816-6	
2.0440+0	1.2844+5	4.3617-2	2.8990-1	1.2237-5	2.8913-1	2.5490-8	7.5840-4		8.4873-6	8.4873-6	
2.0858+0	1.2997+5	4.3104-2	2.8649-1	1.1752-5	2.8567-1	2.4780-8	8.0964-4	2.0085-8	8.5949-6	8.5949-6	
2.1363+0	1.3180+5	4.2507-2	2.8252-1	1.1203-5	2.8163-1	2.3967-8	8.7458-4	2.0065-7	8.7238-6	8.7238-6	
2.2148+0	1.3460+5	4.1622-2	2.7684-1	1.0423-5	2.7565-1	2.2789-8	9.7418-4	1.1438-8	8.9228-6	8.9228-6	
2.2342+0	1.3529+5	4.1411-2	2.7523-1	1.0243-5	2.7423-1	2.2513-8	9.9874-4	1.5386-8	8.9715-6	8.9715-6	
2.2537+0	1.3597+5	4.1202-2	2.7385-1	1.0086-5	2.7281-1	2.2242-8	1.0238-3	2.0085-8	9.0204-6	9.0204-6	
2.2815+0	1.3684+5	4.0909-2	2.7190-1	9.8222-6	2.7083-1	2.1864-8	1.0603-3	2.8132-6	9.0900-6	9.0900-6	
2.3070+0	1.3783+5	4.0646-2	2.7015-1	9.6063-6	2.6905-1	2.1528-8	1.0945-3	3.6951-6	9.1538-6	9.1538-6	
2.3382+0	1.3881+5	4.0331-2	2.6806-1	9.3517-6	2.6890-1	2.1128-8	1.1373-3	4.9884-6	9.2311-6	9.2311-6	
2.3774+0	1.4025+5	3.9944-2	2.6548-1	9.0458-6	2.6428-1	2.0843-8	1.1917-3	6.8807-6	9.3282-6	9.3282-6	
2.4102+0	1.4137+5	3.9627-2	2.6338-1	8.8013-6	2.6213-1	2.0252-8	1.2325-3	8.7511-6	9.4087-6	9.4087-6	
2.4468+0	1.4261+5	3.9283-2	2.6109-1	8.5399-6	2.5979-1	1.9830-8	1.2780-3	1.1132-5	9.4984-6	9.4984-6	
2.4859+0	1.4393+5	3.8924-2	2.5871-1	8.2734-6	2.5736-1	1.9396-8	1.3297-3	1.4018-5	9.5937-6	9.5937-6	
2.5584+0	1.4627+5	3.8300-2	2.5456-1	7.8232-6	2.5311-1	1.8654-8	1.4244-3	2.0085-5	9.7848-6	9.7848-6	
2.6604+0	1.4987+5	3.7431-2	2.4879-1	7.2237-6	2.4718-1	1.7844-8	1.5682-3	3.0961-5	1.0015-5	1.0015-5	
2.7453+0	1.5240+5	3.6761-2	2.4433-1	6.7838-6	2.4261-1	1.6887-8	1.6755-3	4.1439-5	1.0216-5	1.0216-5	
2.8090+0	1.5442+5	3.6280-2	2.4113-1	6.4796-6	2.3932-1	1.6355-8	1.7585-3	5.0184-5	1.0387-5	1.0387-5	
2.8045+0	1.5740+5	3.5592-2	2.3658-1	6.0605-6	2.3481-1	1.5609-8	1.8889-3	6.4849-5	1.0590-5	1.0590-5	
3.0399+0	1.6154+5	3.4679-2	2.3050-1	5.5326-6	2.2833-1	1.4670-8	2.0691-3	8.7624-5	1.0905-5	1.0905-5	
3.2344+0	1.6789+5	3.3388-2	2.2178-1	4.8873-6	2.1833-1	1.3552-8	2.3180-3	1.2683-4	1.1281-5	1.1281-5	
3.4375+0	1.7432+5	3.2137-2	2.1360-1	4.3268-6	2.1083-1	1.2538-8	2.5871-3	1.7331-4	1.1687-5	1.1687-5	
3.7847+0	1.8482+5	3.0295-2	2.0135-1	3.5694-6	1.9808-1	1.1087-8	3.0084-3	2.6594-4	1.2310-5	1.2310-5	
4.0000+0	1.9124+5	2.9294-2	1.9471-1	3.1865-6	1.9109-1	1.0330-8	3.2810-3	3.2950-4	1.2703-5	1.2703-5	
4.2500+0	1.9838+5	2.8239-2	1.8789-1	2.8308-6	1.8372-1	9.5972-9	3.5800-3	4.0724-4	1.3149-5	1.3149-5	
4.7500+0	2.1200+5	2.6426-2	1.7584-1	2.2660-6	1.7093-1	8.3851-9	4.1350-3	5.6987-4	1.4026-5	1.4026-5	
5.5135+0	2.3137+5	2.4214-2	1.6094-1	1.6819-6	1.5518-1	7.0247-9	4.9228-3	8.3545-4	1.5323-5	1.5323-5	
6.0000+0	2.4397+5	2.2983-2	1.5282-1	1.4202-6	1.4820-1	6.3810-9	5.4190-3	1.0080-3	1.6010-5	1.6010-5	
7.0000+0	2.6822+5	2.0887-2	1.3883-1	1.0434-6	1.3114-1	5.3300-9	6.3210-3	1.3600-3	1.7383-5	1.7383-5	
8.0000+0	2.9045+5	1.9298-2	1.2820-1	7.9887-7	1.1936-1	4.5850-9	7.1370-3	1.7010-3	1.8725-5	1.8725-5	
1.0000-1	3.2967+5	1.6983-2	1.1288-1	5.1128-7	1.0199-1	3.5810-9	8.5820-3	2.3390-3	2.1348-5	2.1348-5	
1.3000+1	3.8300+5	1.4627-2	9.7221-2	3.0253-7	8.3781-2	2.6950-9	1.0260-2	3.1800-3	2.4798-5	2.4798-5	
1.8000+1	4.5198+5	1.2395-2	8.2383-2	1.5780-7	6.5615-2	1.9080-9	1.2440-2	4.3280-3	3.0501-5	3.0501-5	
2.6000+1	5.3374+5	1.0496-2	6.9763-2	7.5632-8	4.9058-2	1.2980-9	1.4980-2	5.7230-3	3.9179-5	3.9179-5	
4.2170+1	6.2838+5	8.8439-3	5.9445-2	2.8751-8	3.3470-2	7.8894-10	1.8333-2	7.6424-3	5.7595-5	5.7595-5	
6.9282+1	6.8543+5	8.0558-3	5.3543-2	1.0652-8	2.2207-2	4.7588-10	2.1684-2	9.6510-3	8.9676-5	8.9676-5	
1.0000-2	7.2177+5	7.7618-3	5.1589-2	5.1128-9	1.6399-2	3.2820-10	2.4040-2	1.1150-2	1.2850-4	1.2850-4	
2.0000+2	7.3831+5	7.8088-3	5.0570-2	1.2782-9	9.0702-3	1.8330-10	2.7750-2	1.3750-2	2.8135-4	2.8135-4	
4.0000+2	7.2554+5	7.7215-3	5.1321-2	3.1955-10	4.9908-3	8.1440-11	3.0410-2	1.5920-2	5.4091-4	5.4091-4	
1.0000+3	7.0835+5	7.8031-3	5.2715-2	5.1128-11	2.2352-3	3.2530-11	3.2550-2	1.7830-2	1.4052-3	1.4052-3	
3.0000+3	6.9088+5	8.1089-3	5.3896-2	5.8808-12	8.3560-4	1.0830-11	3.3800-2	1.9260-2	4.3317-3	4.3317-3	
1.0000+4	8.8206+5	8.2137-3	5.4592-2	5.1125-13	2.8236-4	3.2500-12	3.4390-2	1.9920-2	1.4851-2	1.4851-2	
1.0000-5	8.7757+5	8.2682-3	5.4854-2	5.1067-15	3.4105-5	3.2490-13	3.4660-2	2.0260-2	1.4758-1	1.4758-1	



October 31, 1989
Atomic Weight 6.939

ENDL Evaluated
Form Factors

3-Li
Density 5.3400-1 Grams/cc



$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	3.0000+0	0.0000+0	4.0000-1	4.9594-3	1.2888+0	2.1428+0	2.0000+1	2.4797-1	6.6279-6	3.0000+0
1.0000-3	1.2399-5	3.0000+0	2.8169-4	5.0000-1	6.1993-3	1.0313+0	2.4166+0	5.0000+1	6.1993-1	1.7245-7	3.0000+0
5.0000-3	6.1993-5	2.9986+0	6.6000-3	6.0000-1	7.4391-3	8.2550-1	2.8129+0	8.0000+1	9.9188-1	2.6652-8	3.0000+0
1.0000-2	1.2399-4	2.9865+0	2.6500-2	7.0000-1	8.6790-3	6.5000-1	2.7482+0	1.0000+2	1.2399+0	1.1007-8	3.0000+0
1.5000-2	1.8598-4	2.9699+0	5.8475-2	8.0000-1	9.9188-3	5.1230-1	2.8339+0	2.8585+2	3.5441+0	1.7584-10	3.0000+0
2.0000-2	2.4797-4	2.8472+0	1.0220-1	9.0000-1	1.1159-2	4.0437-1	2.8909+0	5.3701+2	6.6581+0	1.5443-11	3.0000+0
2.5000-2	3.0996-4	2.8190+0	1.6448-1	1.0000+0	1.2399-2	3.2048-1	2.9278+0	1.0000+3	1.2399+1	1.4995-12	3.0000+0
3.0000-2	3.7196-4	2.8850+0	2.1840-1	1.1875+0	1.4723-2	2.1030-1	2.9659+0	1.7067+3	2.1161+1	2.1595-13	3.0000+0
4.0000-2	4.9594-4	2.8044+0	3.5410-1	1.2500+0	1.5498-2	1.8375-1	2.9732+0	2.5217+3	3.1265+1	5.4507-14	3.0000+0
5.0000-2	6.1993-4	2.7106+0	4.9980-1	1.5000+0	1.8598-2	1.1020-1	2.9892+0	4.6819+3	5.8049+1	6.5331-15	3.0000+0
6.5078-2	8.0687-4	2.5577+0	7.0509-1	1.8154+0	2.2508-2	6.1394-2	2.9982+0	8.3487+3	1.0351+2	9.5552-16	3.0000+0
7.0000-2	8.6790-4	2.5071+0	7.6520-1	2.0000+0	2.4797-2	4.4810-2	2.9978+0	1.3168+4	1.6324+2	2.1808-16	3.0000+0
8.4375-2	1.0461-3	2.3628+0	9.1576-1	2.5000+0	3.0996-2	2.0891-2	2.9994+0	1.9592+4	2.4291+2	6.1505-17	3.0000+0
9.0000-2	1.1159-3	2.3090+0	9.6290-1	3.0000+0	3.7196-2	1.0920-2	2.9998+0	3.5979+4	4.4609+2	9.2117-18	3.0000+0
1.0000-1	1.2399-3	2.2190+0	1.0328+0	3.5000+0	4.3395-2	6.1907-3	2.9999+0	8.2612+4	1.0243+3	7.2815-19	3.0000+0
1.2500-1	1.5498-3	2.0358+0	1.1721+0	4.0000+0	4.9594-2	3.7833-3	3.0000+0	2.8742+5	3.5636+3	1.7628-20	3.0000+0
1.5000-1	1.8598-3	1.9060+0	1.2458+0	5.0000+0	6.1993-2	1.5869-3	3.0000+0	1.0000+6	1.2399+4	4.4404-22	3.0000+0
1.7500-1	2.1697-3	1.8184+0	1.3297+0	6.0000+0	7.4391-2	7.8063-4	3.0000+0	5.6234+6	6.9722+4	2.6271-24	3.0000+0
2.0000-1	2.4797-3	1.7425+0	1.4178+0	7.0000+0	8.6790-2	4.2658-4	3.0000+0	7.4988+7	9.2975+5	1.1072-27	3.0000+0
2.5000-1	3.0996-3	1.6255+0	1.6052+0	8.0000+0	9.9188-2	2.5208-4	3.0000+0	1.0000+9	1.2399+7	4.4444-31	3.0000+0
3.0000-1	3.7196-3	1.5115+0	1.7953+0	1.0000+1	1.2399-1	1.0430-4	3.0000+0				
3.7500-1	4.6494-3	1.3304+0	2.0819+0	1.5000+1	1.8598-1	2.0835-5	3.0000+0				

October 31, 1989
Atomic Weight 6.939

ENDL Evaluated
Photon Data

3-Li
Density 5.3400- 1 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	ca	ca*ca/graz	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000- 5	1.7125- 5	1.0935- 5	1.2600- 6	4.4730- 1	5.6626- 5	1.2600- 6			5.8393- 1	5.8393- 1	
1.3770- 5	2.4044- 5	7.7885- 4	8.9743- 5	5.1415- 1	1.0757- 4	8.9743- 5			5.7272- 1	5.7272- 1	
1.7012- 5	3.1897- 5	5.8710- 4	8.7649- 5	5.5296- 1	1.6436- 4	8.7649- 5			5.3335- 1	5.3335- 1	
1.8209- 5	3.5569- 5	5.2648- 4	8.0664- 5	5.6466- 1	1.8841- 4	8.0663- 5			5.1194- 1	5.1194- 1	
2.2134- 5	4.8627- 5	3.8511- 4	4.4374- 5	5.6274- 1	2.7667- 4	4.4374- 5			4.5517- 1	4.5517- 1	
2.6070- 5	6.5341- 5	2.8660- 4	3.3023- 5	5.2266- 1	3.8696- 4	3.3023- 5			3.8898- 1	3.8898- 1	
3.0762- 5	8.8507- 5	2.1158- 4	2.4380- 5	4.6388- 1	5.3930- 4	2.4380- 5			3.4756- 1	3.4756- 1	
3.5106- 5	1.1518- 4	1.6259- 4	1.8734- 5	3.6797- 1	7.0288- 4	1.8734- 5			3.0479- 1	3.0479- 1	
3.9581- 5	1.4831- 4	1.2789- 4	1.4748- 5	2.6249- 1	8.8410- 4	1.4748- 5			2.7053- 1	2.7053- 1	
4.2441- 5	1.6988- 4	1.1023- 4	1.2702- 5	1.9452- 1	1.0284- 3	1.2702- 5			2.4983- 1	2.4983- 1	
4.5509- 5	1.9762- 4	9.4760- 3	1.0919- 5	1.0946- 1	1.1829- 3	1.0919- 5			2.3028- 1	2.3028- 1	
4.9068- 5	2.3265- 4	8.0493- 3	9.2748- 4	6.0417- 2	1.3758- 3	9.2748- 4			2.1091- 1	2.1091- 1	
5.3233- 5	2.7758- 4	6.7484- 3	7.7736- 4	1.4228- 1	1.6200- 3	7.7735- 4			1.9178- 1	1.9178- 1	
5.5345- 5	3.0199- 4	6.2010- 3	7.1451- 4	3.9568- 1	1.7515- 3	7.1451- 4			1.8326- 1	1.8326- 1	
5.8400- 5	3.1461- 4	5.9522- 3	6.8585- 4	6.8087- 1	1.8191- 3	6.8584- 4			1.7927- 1	1.7927- 1	
5.7690- 5	3.3041- 4	5.6677- 3	6.5306- 4	1.4223- 1	1.9035- 3	6.5305- 4			1.7460- 1	1.7460- 1	
5.8271- 5	3.3766- 4	5.5459- 3	6.3903- 4	2.1329- 1	1.9422- 3	6.3901- 4			1.7257- 1	1.7257- 1	
5.8613- 5	3.4196- 4	5.4762- 3	6.3099- 4	2.8631- 1	1.9651- 3	6.3097- 4			1.7139- 1	1.7139- 1	
5.8978- 5	3.4657- 4	5.4034- 3	6.2281- 4	4.1892- 1	1.9898- 3	6.2257- 4			1.7016- 1	1.7016- 1	
5.9475- 5	3.5293- 4	5.3061- 3	6.1139- 4	7.3281- 1	2.0234- 3	6.1132- 4			1.6850- 1	1.6850- 1	
5.9604- 5	3.5458- 4	5.2813- 3	6.0854- 4	8.2655- 1	2.0323- 3	6.0845- 4			1.6807- 1	1.6807- 1	
5.9850- 5	3.5776- 4	5.2344- 3	6.0314- 4	9.8230- 1	2.0491- 3	6.0304- 4			1.6726- 1	1.6726- 1	
K 5.9850- 5	8.5462- 6	2.8607- 5	3.2962- 6	8.8230- 0	2.0491- 3	3.2962- 6			8.71426+ 0	8.71426+ 0	
6.0116- 5	8.5413- 6	2.8528- 5	3.2987- 6	1.1010- 1	2.0674- 3	3.2987- 6			8.1801+ 0	8.1801+ 0	
6.0346- 5	6.5371- 6	2.8647- 5	3.3008- 6	1.1361+ 1	2.0634- 3	3.3008- 6			9.2313+ 0	9.2313+ 0	
6.0562- 5	6.5331- 6	2.8664- 5	3.3028- 6	1.1218+ 1	2.0594- 3	3.3028- 6			9.2700+ 0	9.2700+ 0	
6.1240- 5	6.5208- 6	2.8718- 5	3.3091+ 6	8.9428+ 0	2.1457- 3	3.3090+ 6			9.3915+ 0	9.3915+ 0	
6.1893- 5	6.5073- 6	2.8778- 5	3.3159+ 6	8.9933+ 0	2.1689- 3	3.3159+ 6			9.5267+ 0	9.5267+ 0	
6.3122- 5	6.4873- 6	2.8866- 5	3.3261+ 6	8.4983+ 0	2.2800- 3	3.3261+ 6			9.7300+ 0	9.7300+ 0	
6.5689- 5	6.6031- 6	2.8360- 5	3.2878+ 6	8.2006+ 0	2.4697- 3	3.2878+ 6			9.9481+ 0	9.9481+ 0	
7.0000- 5	6.9028- 6	2.7129- 5	3.1280+ 6	8.4782+ 0	2.8056- 3	3.1258+ 6			1.0141+ 0	1.0141+ 0	
7.7051- 5	7.8457- 6	2.3869- 5	2.7503+ 6	8.5366+ 0	3.4012- 3	2.7502+ 6			9.8208+ 0	9.8208+ 0	
8.7005- 5	9.7923- 6	1.9124- 5	2.2035+ 6	9.1507+ 0	4.3397- 3	2.2035+ 6			8.8850+ 0	8.8850+ 0	
1.0000- 4	1.3233- 5	1.4152- 5	1.6308+ 6	8.3945+ 0	5.7374- 3	1.6306+ 6			7.5589+ 0	7.5589+ 0	
1.2349- 4	2.2125- 5	8.4640+ 4	9.7527+ 5	9.1087+ 0	8.7139- 3	9.7526+ 5			5.5815+ 0	5.5815+ 0	
2.2804- 4	1.1075- 4	1.6909+ 4	1.9484+ 5	7.7229+ 0	2.9121- 2	1.9483+ 5			2.0590+ 0	2.0590+ 0	
3.5909- 4	3.9048- 4	4.7958+ 3	5.5280+ 4	6.8521+ 0	6.8994- 2	5.5253+ 4			9.1952- 1	9.1952- 1	
5.1740- 4	1.1238- 3	1.6684+ 3	1.9201+ 4	6.2279+ 0	1.3363- 1	1.8185+ 4			4.8026- 1	4.8026- 1	
7.1020- 4	2.8634- 3	6.5399+ 2	7.5356+ 3	5.6631+ 0	2.2262- 1	7.5297+ 3			2.4783- 1	2.4783- 1	
8.8133- 4	5.4773- 3	3.4189+ 2	3.8396+ 3	5.2419+ 0	3.0168- 1	3.8339+ 3			1.6068- 1	1.6068- 1	
1.0000- 3	8.0038- 3	2.3397+ 2	2.6959+ 3	4.9772+ 0	3.5514- 1	2.6906+ 3			1.2469- 1	1.2469- 1	
1.2545- 3	1.6232- 2	1.1537+ 2	1.3294+ 3	4.4736+ 0	4.5001- 1	1.3244+ 3			7.7001- 2	7.7001- 2	
1.5216- 3	2.9608- 2	8.3249+ 1	7.2878+ 2	4.0320+ 0	5.3170- 1	7.2422+ 2			5.1069- 2	5.1069- 2	
1.7530- 3	4.5967- 2	4.0740+ 1	4.6942+ 2	3.7174+ 0	5.8839- 1	4.6512+ 2			3.7787- 2	3.7787- 2	
2.6342- 3	1.6592- 1	1.1287+ 1	1.3005+ 2	2.8242+ 0	7.4364- 1	1.2638+ 2			1.5429- 2	1.5429- 2	
4.0876- 3	6.4158- 1	2.9188+ 0	3.3632+ 1	2.2162+ 0	9.5085- 1	3.0465- 1			5.7729- 3	5.7729- 3	
5.3205- 3	1.3796+ 0	1.3574+ 0	1.5841+ 1	1.8004+ 0	1.1019+ 0	1.2739- 1			3.1442- 3	3.1442- 3	
6.4291- 3	2.2631+ 0	8.2748- 1	9.5347+ 0	1.4991+ 0	1.2247+ 0	8.8109+ 0			2.0345- 3	2.0345- 3	
7.7578- 3	3.4787+ 0	5.3883- 1	8.2064+ 0	1.2117+ 0	1.3360+ 0	3.8588+ 0			1.3235- 3	1.3235- 3	
9.4002- 3	4.8972+ 0	3.7474- 1	4.3180+ 0	9.4322- 1	1.4534+ 0	1.9214+ 0			8.4860- 4	8.4860- 4	
1.0000- 2	5.5157+ 0	3.3952- 1	3.9121+ 0	8.6471- 1	1.4688+ 0	1.5608+ 0			7.3791- 4	7.3791- 4	
1.2031- 2	7.0425+ 0	2.6591- 1	3.0639+ 0	6.6751- 1	1.5685+ 0	8.3797- 1			4.8911- 4	4.8911- 4	
1.4516- 2	8.4011+ 0	2.2291- 1	2.5684+ 0	4.8873- 1	1.6340+ 0	4.4572- 1			3.3213- 4	3.3213- 4	
1.7262- 2	9.4304+ 0	1.9858- 1	2.2881+ 0	3.6899- 1	1.8722+ 0	2.4688- 1			2.4459- 4	2.4459- 4	
2.0000- 2	1.0102- 1	1.8538- 1	2.1380+ 0	2.8542- 1	1.6889+ 0	1.5170- 1			2.0120- 4	2.0120- 4	
2.2595- 2	1.0563+ 1	1.7729- 1	2.0420+ 0	2.3081- 1	1.7120+ 0	1.0029- 1			1.8144- 4	1.8144- 4	
2.5037- 2	1.0907+ 1	1.7169- 1	1.9783+ 0	1.9210- 1	1.7154+ 0	7.0813- 2			1.7480- 4	1.7480- 4	
2.8213- 2	1.1230+ 1	1.6678- 1	1.9215+ 0	1.5478- 1	1.7195+ 0	4.7229- 2			1.7709- 4	1.7709- 4	
3.2204- 2	1.1611+ 1	1.6128- 1	1.8584+ 0	1.2136- 1	1.7089+ 0	3.0155- 2			1.8075- 4	1.8075- 4	
3.7486- 2	1.1975+ 1	1.5838- 1	1.8019+ 0	9.1384- 2	1.6925+ 0	1.8017- 2			2.2195- 4	2.2195- 4	
5.1684- 2	1.2697+ 1	1.4749- 1	1.6994+ 0	4.9528- 2	1.6438+ 0	6.0634- 3			3.4528- 4	3.4528- 4	
1.0000- 1	1.4532+ 1	1.2887- 1	1.4849+ 0	1.3568- 2	1.4706+ 0	6.5107- 4			9.4833- 4	9.4833- 4	
1.5817- 1	1.8449+ 1	1.1385- 1	1.3118+ 0	5.4581- 3	1.3062+ 0	1.4041- 4			1.8005- 3	1.8005- 3	
2.5844- 1	1.9287+ 1	9.7093- 2	1.1188+ 0	2.0480- 3	1.1167+ 0	2.8609- 5			3.3374- 3	3.3374- 3	
3.5909- 1	2.1822+ 1	8.5813- 2	9.6878- 1	1.0621- 3	9.8771- 1	1.0440- 5			4.8216- 3	4.8216- 3	
4.7951- 1	2.4480+ 1	7.8582- 2	8.8218- 1	5.8584- 4	8.8158- 1	4.5730- 8			6.5622- 3	6.5622- 3	
6.0000- 1	2.8899+ 1	6.8618- 2	8.0217- 1	3.8082- 4	8.0179- 1	2.5339- 6			8.1871- 3	8.1871- 3	
7.5327- 1	2.9766+ 1	6.2912- 2	7.2480+ 1	2.4151- 4	7.2486- 1	1.4662- 8			1.0122- 2	1.0122- 2	
1.0000+ 0	3.4050+ 1	5.4997- 2	6.3370- 1	1.3705- 4	6.3356- 1	7.9389- 7			1.2921- 2	1.2921- 2	
1.0220+ 0	3.4416+ 1	5.4412- 2	6.2697- 1	1.3121- 4	6.2683- 1	7.0380- 7			1.3154- 2	1.3154- 2	
1.0251+ 0	3.4711+ 1	5.4326- 2	6.2597- 1	1.3042- 4	6.2584- 1	6.8426- 7	3.2754-10		1.3185- 2	1.3185- 2	
1.0287+ 0	3.4534+ 1	5.4286- 2	6.2482- 1	1.2950- 4	6.2489- 1	6.8335- 7	3.2754- 9		1.3220- 2	1.3220- 2	
1.0388+ 0	3.4872+ 1	5.4010- 2	6.2233- 1	1.2753- 4	6.2220- 1	6.8038- 7	3.2754- 8		1.3287- 2	1.3287- 2	
1.0541+ 0	3.4978+ 1	5.3542- 2	6.1894- 1	1.2335- 4	6.1881- 1	6.1821- 7	3.2754- 7		1.3486- 2	1.3486- 2	
1.0704+ 0	3.5257+ 1	5.3114- 2	6.1201- 1	1.1962- 4	6.1189- 1	5.8084- 7	1.0726- 6		1.3823- 2	1.3823- 2	
1.0762+ 0	3.5357+ 1	5.2965- 2	6.1029- 1	1.1833- 4	6.1017- 1	5.8150- 7	1.4823- 6		1.3879- 2	1.3879- 2	
1.0808+ 0	3.5432+ 1	5.2852- 2	6.0899- 1	1.1737- 4	6.0887- 1	5.7455- 7	1.8511- 6		1.3721- 2	1.3721- 2	
1.0871+ 0	3.5543+ 1	5.2687- 2	6.0709- 1	1.1597- 4	6.0697- 1	5.8448- 7	2.4941- 6		1.3784- 2	1.3784- 2	
1.0953+ 0	3.5682+ 1	5.2483- 2	6.0473- 1	1.1425- 4	6.0461- 1	5.5218- 7	3.4669- 6		1.3862- 2	1.3862- 2	
1.1026+ 0	3.5806+ 1	5.2300- 2	6.0262- 1	1.1273- 4	6.0251- 1	5.4597- 7	4.5417- 6		1.3932- 2	1.3932- 2	
1.1107+ 0	3.5943+ 1	5.2101- 2	6.0033- 1	1.1110- 4	6.0021- 1	5.3925- 7	5.9240- 6		1.4010- 2	1.4010- 2	
1.1208+ 0	3.6110+ 1	5.1860- 2	5.9758- 1	1.0914- 4	5.9744- 1	5.3121- 7	7.8257- 6		1.4104- 2	1.4104- 2	
1.1333+ 0	3.6323+ 1	5.1556- 2	5.9406- 1	1.0671- 4	5.9394- 1	5.2165- 7	1.1022- 6		1.4225- 2	1.4225- 2	
1.1475+ 0	3.6										

October 31, 1989
Atomic Weight 6.939

ENDL Evaluated
Photon Data

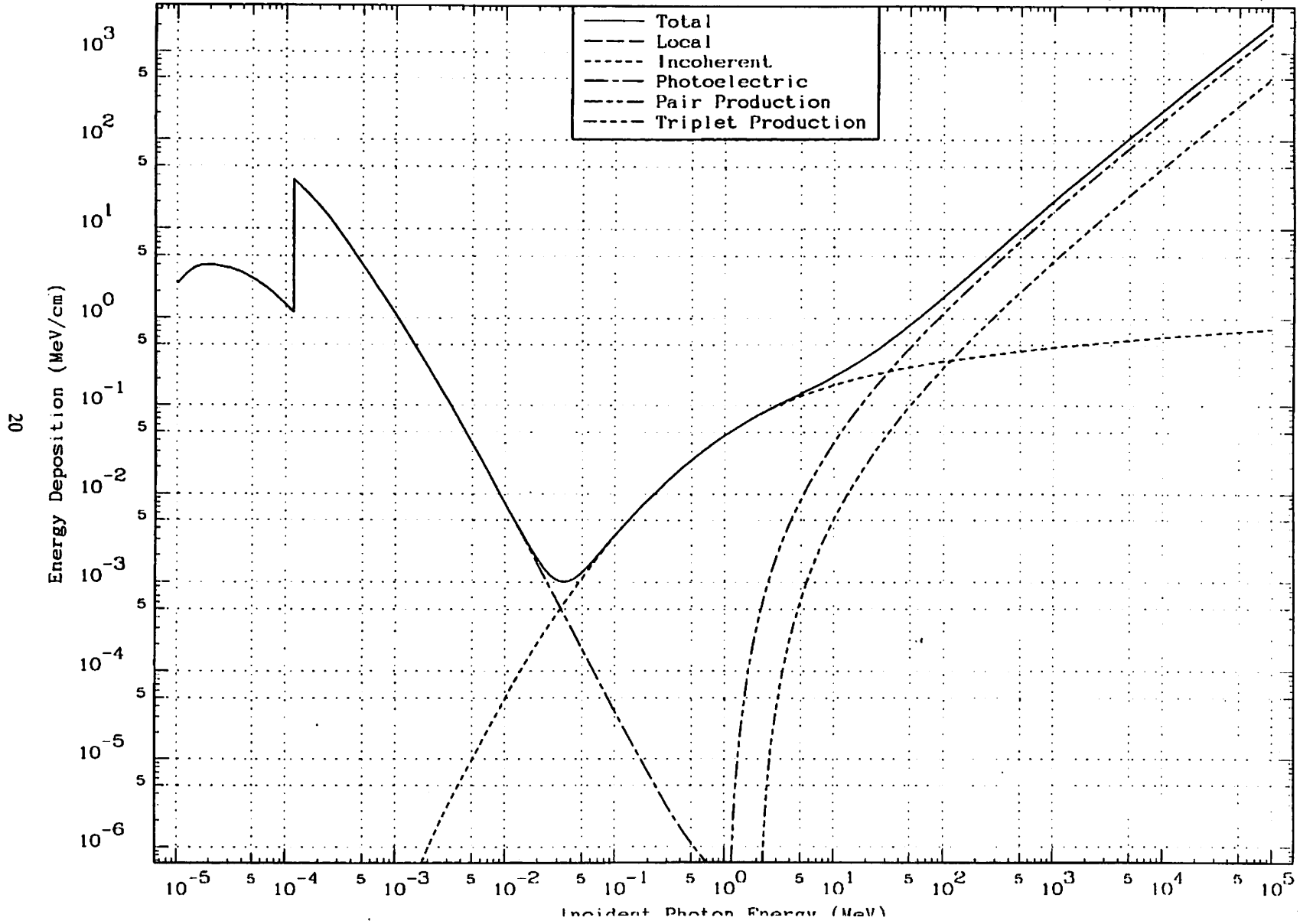
3-Li
Density 5.3400- 1 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (baras)					Energy Deposition (MeV/cc)			
	cm	cm ² /cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.1582+ 0	3.6736+ 1	5.0976- 2	5.8737- 1	1.0217- 4	5.8725- 1	5.1183- 7	1.8916- 5		1.4481- 2	1.4461- 2	
1.1741+ 0	3.6998+ 1	5.0815- 2	5.8321- 1	9.9422- 5	5.8308- 1	5.0576- 7	2.5278- 5		1.4611- 2	1.4611- 2	
1.1901+ 0	3.7260+ 1	5.0259- 2	5.7911- 1	9.8785- 5	5.7898- 1	4.9980- 7	3.2754- 5		1.4762- 2	1.4762- 2	
1.2051+ 0	3.7504+ 1	4.9933- 2	5.7535- 1	9.4373- 5	5.7521- 1	4.9436- 7	4.0742- 5		1.4903- 2	1.4903- 2	
1.2275+ 0	3.7865+ 1	4.9457- 2	5.6989- 1	9.0960- 5	5.6972- 1	4.8847- 7	5.4494- 5		1.5112- 2	1.5112- 2	
1.2500+ 0	3.8224+ 1	4.8992- 2	5.6450- 1	8.7715- 5	5.6434- 1	4.7850- 7	7.0520- 5		1.5321- 2	1.5321- 2	
1.2813+ 0	3.8719+ 1	4.8386- 2	5.5729- 1	8.3482- 5	5.5711- 1	4.8121- 7	9.6558- 5		1.5611- 2	1.5611- 2	
1.3325+ 0	3.9514+ 1	4.7392- 2	5.4607- 1	7.7190- 5	5.4585- 1	4.3488- 7	1.4858- 4		1.6082- 2	1.6082- 2	
1.3744+ 0	4.0154+ 1	4.6837- 2	5.3738- 1	7.2558- 5	5.3710- 1	4.1407- 7	1.9988- 4		1.6485- 2	1.6485- 2	
1.4058+ 0	4.0628+ 1	4.6095- 2	5.3113- 1	6.9351- 5	5.3081- 1	3.9606- 7	2.4284- 4		1.6750- 2	1.6750- 2	
1.4529+ 0	4.1325+ 1	4.5316- 2	5.2215- 1	6.4928- 5	5.2177- 1	3.7119- 7	3.1497- 4		1.7174- 2	1.7174- 2	
1.5000+ 0	4.2011+ 1	4.4575- 2	5.1362- 1	6.0915- 5	5.1316- 1	3.4860- 7	3.9530- 4		1.7597- 2	1.7597- 2	
1.5625+ 0	4.2905+ 1	4.3547- 2	5.0292- 1	5.6139- 5	5.0235- 1	3.2539- 7	5.1303- 4		1.8153- 2	1.8153- 2	
1.6411+ 0	4.4001+ 1	4.2559- 2	4.9039- 1	5.0890- 5	4.8966- 1	2.9953- 7	6.7692- 4		1.8846- 2	1.8846- 2	
1.7321+ 0	4.5250+ 1	4.1385- 2	4.7688- 1	4.5686- 5	4.7593- 1	2.7346- 7	8.8199- 4		1.9628- 2	1.9628- 2	
1.8118+ 0	4.6394+ 1	4.0373- 2	4.6520- 1	4.1762- 5	4.6408- 1	2.5594- 7	1.0803- 3		2.0240- 2	2.0240- 2	
2.0000+ 0	4.8973+ 1	3.8239- 2	4.4060- 1	3.4265- 5	4.3899- 1	2.2120- 7	1.5830- 3		2.1666- 2	2.1666- 2	
2.0440+ 0	4.9559+ 1	3.7796- 2	4.3539- 1	3.2906- 5	4.3366- 1	2.1410- 7	1.7070- 3		2.1994- 2	2.1994- 2	
2.0658+ 0	5.0144+ 1	3.7346- 2	4.3032- 1	3.1504- 5	4.2848- 1	2.0811- 7	1.8225- 3	3.0115- 8	2.2278- 2	2.2278- 2	
2.1383+ 0	5.0841+ 1	3.6834- 2	4.2442- 1	3.0034- 5	4.2242- 1	2.0125- 7	1.9688- 3	3.0115- 7	2.2614- 2	2.2614- 2	
2.2018+ 0	5.1735+ 1	3.6197- 2	4.1708- 1	2.8272- 5	4.1489- 1	1.9290- 7	2.1568- 3	3.1784- 8	2.3049- 2	2.3049- 2	
2.2148+ 0	5.1911+ 1	3.6074- 2	4.1567- 1	2.7941- 5	4.1344- 1	1.9131- 7	2.1832- 3	3.17149- 8	2.3135- 2	2.3135- 2	
2.2342+ 0	5.2173+ 1	3.5933- 2	4.1358- 1	2.7458- 5	4.1130- 1	1.8898- 7	2.2485- 3	3.2068- 8	2.3283- 2	2.3283- 2	
2.2537+ 0	5.2434+ 1	3.5715- 2	4.1152- 1	2.6986- 5	4.0919- 1	1.8670- 7	2.3050- 3	3.0115- 8	2.3391- 2	2.3391- 2	
2.2815+ 0	5.2805+ 1	3.5464- 2	4.0863- 1	2.6331- 5	4.0621- 1	1.8351- 7	2.3872- 3	4.2181- 8	2.3574- 2	2.3574- 2	
2.3070+ 0	5.3143+ 1	3.5239- 2	4.0603- 1	2.5753- 5	4.0354- 1	1.8067- 7	2.4642- 3	5.5404- 8	2.3741- 2	2.3741- 2	
2.3382+ 0	5.3554+ 1	3.4988- 2	4.0282- 1	2.5070- 5	4.0032- 1	1.7730- 7	2.5606- 3	7.4498- 8	2.3945- 2	2.3945- 2	
2.3774+ 0	5.4065+ 1	3.4637- 2	3.9910- 1	2.4250- 5	3.9639- 1	1.7322- 7	2.6633- 3	1.0317- 5	2.4200- 2	2.4200- 2	
2.4102+ 0	5.4491+ 1	3.4368- 2	3.9598- 1	2.3594- 5	3.9317- 1	1.6992- 7	2.7781- 3	1.3121- 5	2.4412- 2	2.4412- 2	
2.4468+ 0	5.4963+ 1	3.4071- 2	3.9259- 1	2.2894- 5	3.8966- 1	1.6636- 7	2.8962- 3	1.6691- 5	2.4648- 2	2.4648- 2	
2.4859+ 0	5.5482+ 1	3.3765- 2	3.8905- 1	2.2179- 5	3.8600- 1	1.6271- 7	3.0044- 3	2.1015- 5	2.4900- 2	2.4900- 2	
2.5264+ 0	5.6033+ 1	3.3231- 2	3.8290- 1	2.0972- 5	3.7984- 1	1.5845- 7	3.2164- 3	3.0115- 5	2.5351- 2	2.5351- 2	
2.5804+ 0	5.7844+ 1	3.2487- 2	3.7433- 1	1.9365- 5	3.7074- 1	1.4794- 7	3.5223- 3	4.8422- 5	2.6010- 2	2.6010- 2	
2.7847+ 0	5.8909+ 1	3.1789- 2	3.6829- 1	1.7932- 5	3.6238- 1	1.4017- 7	3.8449- 3	6.5893- 5	2.6666- 2	2.6666- 2	
2.8045+ 0	5.9089+ 1	3.0918- 2	3.5825- 1	1.6847- 5	3.5188- 1	1.3060- 7	4.2538- 3	9.6802- 5	2.7535- 2	2.7535- 2	
3.0399+ 0	6.2134+ 1	3.0138- 2	3.4728- 1	1.4832- 5	3.4248- 1	1.2290- 7	4.6556- 3	1.3138- 4	2.8370- 2	2.8370- 2	
3.2344+ 0	6.4530+ 1	2.9020- 2	3.3438- 1	1.3102- 5	3.2897- 1	1.1350- 7	5.2107- 3	1.8088- 4	2.9375- 2	2.9375- 2	
3.4375+ 0	6.6945+ 1	2.7973- 2	3.2232- 1	1.1599- 5	3.1623- 1	1.0487- 7	5.8203- 3	2.5990- 4	3.0415- 2	3.0415- 2	
3.7847+ 0	7.0917+ 1	2.6406- 2	3.0427- 1	9.5668- 6	2.9709- 1	9.2768- 8	6.7690- 3	3.9886- 4	3.2151- 2	3.2151- 2	
4.0000+ 0	7.3289+ 1	2.5559- 2	2.9450- 1	8.5884- 6	2.8862- 1	8.6430- 8	7.3830- 3	4.9420- 4	3.3219- 2	3.3219- 2	
4.2500+ 0	7.5929+ 1	2.4864- 2	2.8419- 1	7.5983- 6	2.7568- 1	8.0278- 8	8.0114- 3	6.1078- 4	3.4432- 2	3.4432- 2	
4.7500+ 0	8.0953+ 1	2.3133- 2	2.6855- 1	6.0748- 6	2.5838- 1	7.0106- 8	9.3067- 3	8.5475- 4	3.6840- 2	3.6840- 2	
5.5135+ 0	8.8043+ 1	2.1270- 2	2.4508- 1	4.5088- 6	2.3275- 1	5.8865- 8	1.1076- 2	1.2539- 3	4.0426- 2	4.0426- 2	
6.0000+ 0	9.2613+ 1	2.0220- 2	2.3299- 1	3.8073- 6	2.1928- 1	5.3130- 8	1.2190- 2	1.5130- 3	4.2376- 2	4.2376- 2	
7.0000+ 0	1.0132+ 2	1.8482- 2	2.1298- 1	2.7972- 6	1.9870- 1	4.4500- 8	1.4220- 2	2.0390- 3	4.6305- 2	4.6305- 2	
8.0000+ 0	1.0918+ 2	1.7153- 2	1.9784- 1	2.1416- 6	1.7903- 1	3.8260- 8	1.6060- 2	2.5510- 3	5.0197- 2	5.0197- 2	
1.0000+ 1	1.2280+ 2	1.5250- 2	1.7572- 1	1.3706- 6	1.5297- 1	2.8870- 8	1.8240- 2	3.5060- 3	5.7822- 2	5.7822- 2	
1.3000+ 1	1.4056+ 2	1.3323- 2	1.5351- 1	8.1103- 7	1.2566- 1	2.2460- 8	2.3080- 2	4.7690- 3	6.8448- 2	6.8448- 2	
1.8000+ 1	1.6238+ 2	1.1533- 2	1.3289- 1	4.2304- 7	9.8415- 8	1.5890- 8	2.7980- 2	6.4910- 3	8.6280- 2	8.6280- 2	
2.8000+ 1	1.8632+ 2	1.0051- 2	1.1581- 1	2.0278- 7	7.3584- 8	1.0810- 8	3.3640- 2	8.5840- 3	1.1434- 1	1.1434- 1	
4.2170+ 1	2.1019+ 2	8.9083- 3	1.0268- 1	7.7077- 8	5.0201- 8	6.5666- 9	4.1000- 2	1.1456- 2	1.7480- 1	1.7480- 1	
6.8282+ 1	2.2466+ 2	8.3281- 3	9.5960- 2	2.8556- 8	3.3308- 2	3.8568- 9	4.8207- 2	1.4444- 2	2.8181- 1	2.8181- 1	
1.0000+ 2	2.2846+ 2	8.1967- 3	9.4447- 2	1.3706- 8	2.4597- 2	2.7300- 9	5.3210- 2	1.6840- 2	4.1089- 1	4.1089- 1	
2.0000+ 2	2.2708+ 2	8.2469- 3	9.5024- 2	3.4268- 9	1.3804- 2	1.3580- 9	6.1000- 2	2.0420- 2	8.5326- 1	8.5326- 1	
4.0000+ 2	2.2030+ 2	8.5004- 3	9.7945- 2	8.5665- 10	7.4854- 3	6.7740- 10	8.6830- 2	2.3630- 2	1.7878+ 0	1.7878+ 0	
1.0000+ 3	2.1146+ 2	8.8560- 3	1.0204- 1	1.3706- 10	3.3528- 3	2.7050- 10	7.1820- 2	2.6870- 2	4.7008+ 0	4.7008+ 0	
3.0000+ 3	2.0484+ 2	9.1511- 3	1.0544- 1	1.5229- 11	1.2533- 3	9.0120- 11	7.4910- 2	2.9280- 2	1.4831+ 1	1.4831+ 1	
1.0000+ 4	2.0100+ 2	9.3189- 3	1.0735- 1	1.3708- 12	4.2352- 4	2.7030- 11	7.6350- 2	3.0580- 2	4.9724+ 1	4.9724+ 1	
1.0000+ 5	1.9898+ 2	9.4112- 3	1.0844- 1	1.3709- 14	5.1154- 5	2.7030- 12	7.7080- 2	3.1310- 2	5.0253+ 2	5.0253+ 2	

October 31, 1989
Atomic Weight 9.012

ENDL Evaluated
Energy Deposition

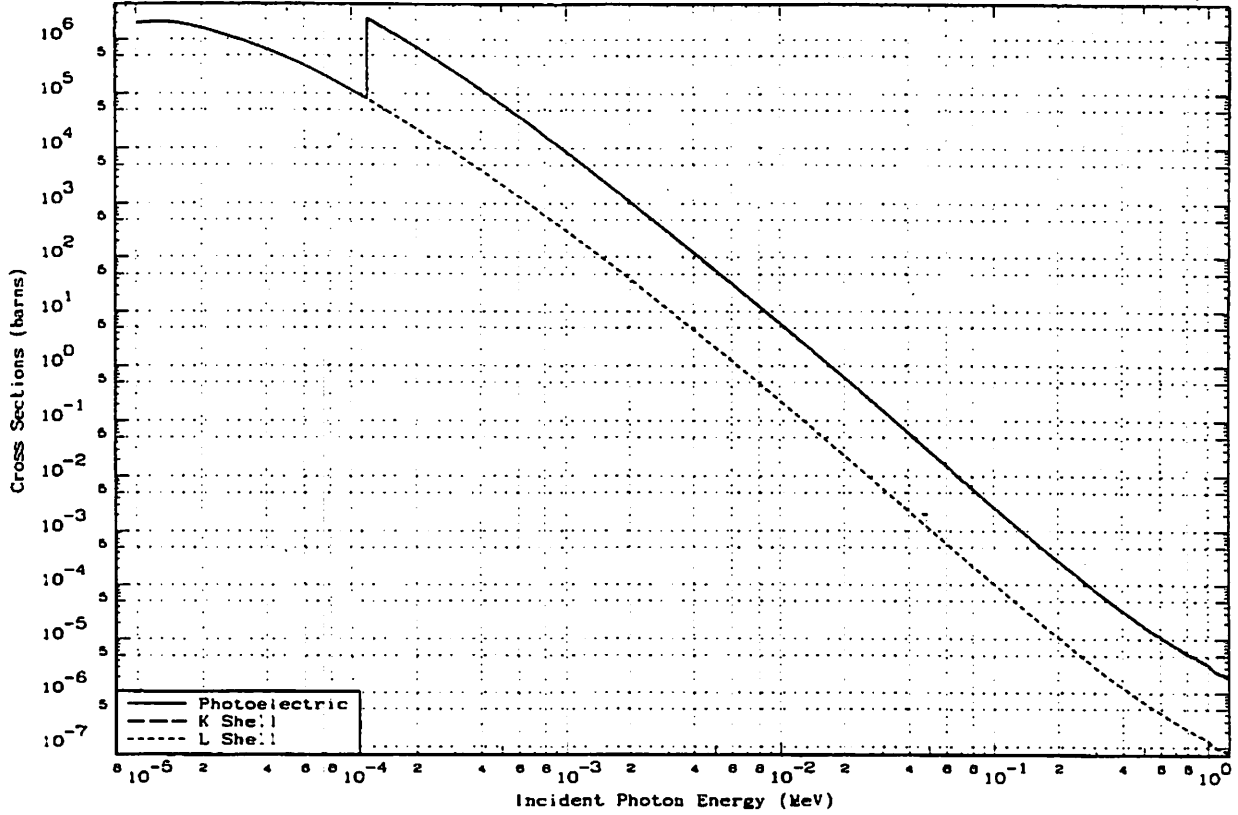
4-Be
Density 1.848 Grams/cc



October 31, 1989
Atomic Weight 9.012

ENDL Evaluated
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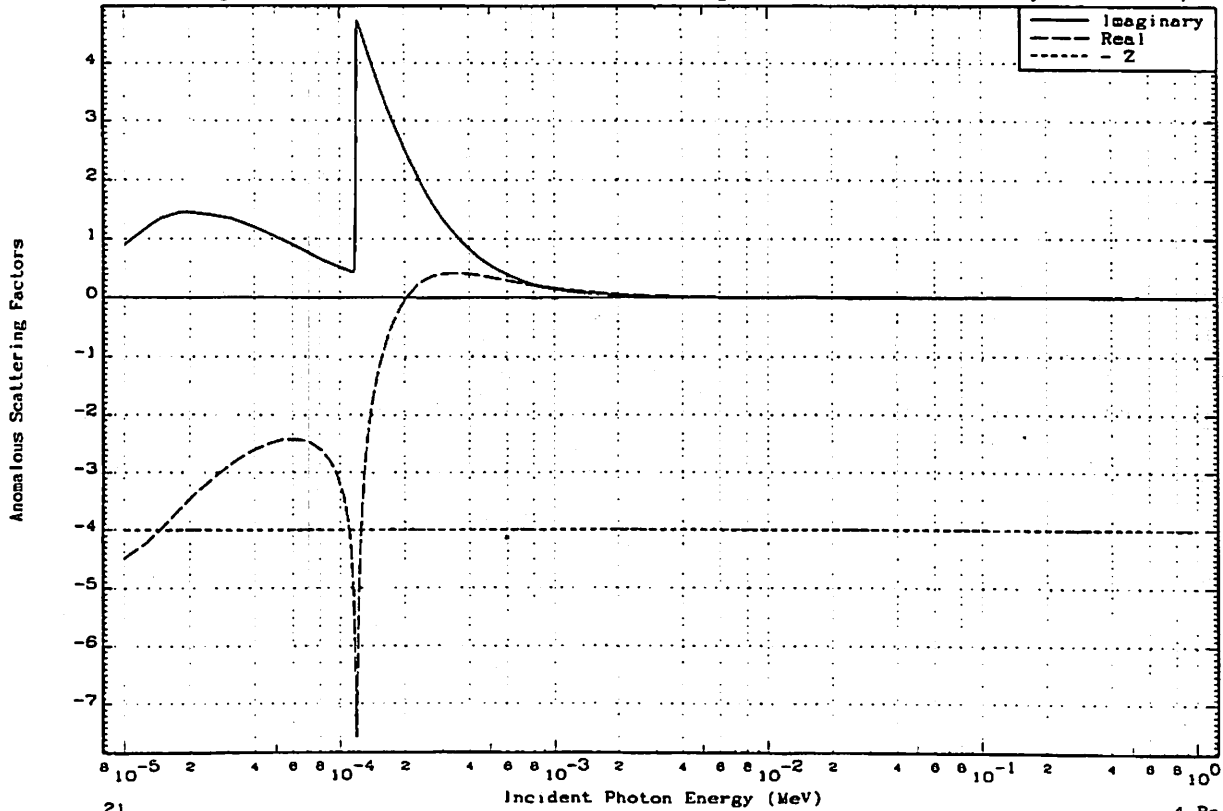
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4-Be



October 31, 1989
Atomic Weight 9.012

ENDL Evaluated
Anomalous Scattering Factors

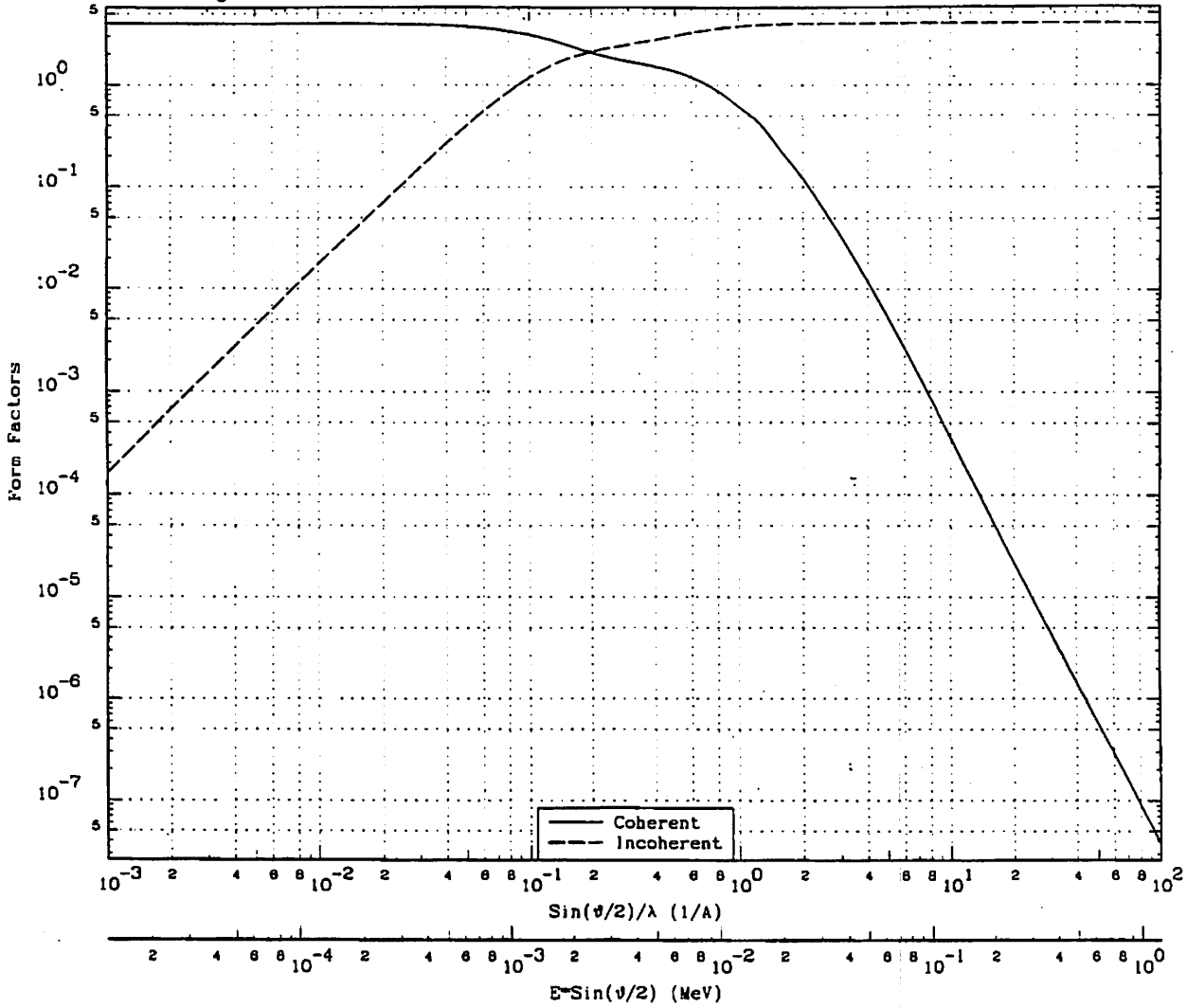
Density 1.848 Grams/cc
4-Be



October 31, 1989
Atomic Weight 9.012

ENDL Evaluated
Form Factors

4-Be
Density 1.848 Grams/cc



$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	4.0000+0	0.0000+0	6.0000-1	7.4391-3	1.1930+0	3.2374+0	5.0000+1	6.1993-1	5.9152-7	4.0000+0
1.0000-3	1.2399-5	4.0000+0	1.8083-4	7.0000-1	8.6780-3	1.0277+0	3.4291+0	6.0000+1	9.9188-1	9.1828-8	4.0000+0
5.0000-3	6.1993-5	3.8970+0	4.3000-3	8.0000-1	9.9188-3	8.7430-1	3.5794+0	1.0000+2	1.2399+0	3.8027-8	4.0000+0
1.0000-2	1.2399-4	3.8880+0	1.7700-2	9.0000-1	1.1159-2	7.3812-1	3.6831+0	2.4071+2	2.9844+0	1.2159-9	4.0000+0
1.5000-2	1.8598-4	3.8732+0	3.9679-2	1.0000+0	1.2399-2	6.2060-1	3.7771+0	4.7023+2	5.8302+0	9.3020-11	4.0000+0
2.0000-2	2.4797-4	3.8525+0	7.0200-2	1.1797+0	1.4827-2	4.7987-1	3.8748+0	6.1748+2	1.0138+1	1.1781-11	4.0000+0
2.5000-2	3.0996-4	3.8264+0	1.0834-1	1.2500+0	1.6498-2	4.2789-1	3.9000+0	1.0000+3	1.2399+1	5.6197-12	4.0000+0
3.0000-2	3.7196-4	3.8947+0	1.5440-1	1.3584+0	1.8817-2	3.4871-1	3.9283+0	1.7067+3	2.1181+1	8.2783-13	4.0000+0
4.0000-2	4.9594-4	3.8168+0	2.6580-1	1.5000+0	1.8598-2	2.6235-1	3.9538+0	2.5217+3	3.1265+1	2.1228-13	4.0000+0
5.0000-2	6.1993-4	3.7215+0	3.9810-1	2.0000+0	2.4797-2	1.1982-1	3.9890+0	4.6819+3	5.8049+1	2.6055-14	4.0000+0
7.0000-2	8.6780-4	3.4924+0	6.8980-1	2.5000+0	3.0996-2	5.9945-2	3.9970+0	8.3487+3	1.0351+2	3.8908-15	4.0000+0
9.0000-2	1.1159-3	3.2325+0	1.0165+0	3.0000+0	3.7196-2	3.2720-2	3.9990+0	1.3166+4	1.6324+2	9.0169-16	4.0000+0
1.0000-1	1.2399-3	3.0978+0	1.1706+0	3.5000+0	4.3385-2	1.9085-2	3.9996+0	1.8592+4	2.4291+2	2.5754-16	4.0000+0
1.2500-1	1.5498-3	2.7844+0	1.5028+0	4.0000+0	4.9594-2	1.1810-2	3.9999+0	3.5979+4	4.4609+2	3.9269-17	4.0000+0
1.5000-1	1.8598-3	2.4921+0	1.7742+0	5.0000+0	6.1993-2	5.1521-3	4.0000+0	6.2612+4	1.0243+3	3.1724-18	4.0000+0
1.7500-1	2.1697-3	2.2829+0	1.9657+0	6.0000+0	7.4391-2	2.5717-3	4.0000+0	2.8742+5	3.5636+3	7.8991-20	4.0000+0
2.0000-1	2.4797-3	2.0771+0	2.1207+0	7.0000+0	8.6780-2	1.4180-3	4.0000+0	1.0000+6	1.2399+4	2.0249-21	4.0000+0
2.5000-1	3.0996-3	1.8354+0	2.3215+0	8.0000+0	9.9188-2	8.4309-4	4.0000+0	5.6234+6	6.9722+4	1.2150-23	4.0000+0
3.0000-1	3.7196-3	1.6951+0	2.4705+0	1.0000+1	1.2399-1	3.5138-4	4.0000+0	5.4247+7	6.7258+5	1.3602-26	4.0000+0
4.0000-1	4.9594-3	1.5195+0	2.7437+0	1.5000+1	1.8598-1	7.0738-5	4.0000+0	1.0000+9	1.2399+7	2.0332-30	4.0000+0
5.0000-1	6.1993-3	1.3803+0	3.0053+0	2.0000+1	2.4797-1	2.2575-5	4.0000+0				

October 31, 1989
Atomic Weight 9.012

ENDL Evaluated
Photon Data

4-Be
Density 1.848 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	4.0629-6	1.3319-5	1.8932-6	6.9829-1	3.4822-5	1.8932-6			2.4813+0	2.4813+0	0
1.2642-5	3.8601-6	1.4019-5	2.0979-6	6.9998-1	5.5837-5	2.0979-6			3.2750+0	3.2750+0	0
1.4844-5	3.9309-6	1.3766-5	2.0601+6	1.2125+0	7.5081-5	2.0601+6			3.7252+0	3.7252+0	0
1.6955-5	4.2758-6	1.2655-5	1.8939+6	1.4012+0	1.0066-4	1.8939+6			3.8652+0	3.8652+0	0
1.8251-5	4.5860-6	1.1774-5	1.7620+6	1.5089+0	1.1709-4	1.7620+6			3.9712+0	3.9712+0	0
2.2134-5	5.5518-6	9.7469-4	1.4586+6	1.6945+0	1.7357-4	1.4586+6			3.8867+0	3.8867+0	0
3.1344-5	8.5422-6	8.3347-4	9.4800+5	2.0988+0	3.5308-4	9.4799+5			3.6892+0	3.6892+0	0
4.0000-5	1.2107-5	4.4695-4	6.8888+5	2.2728+0	5.8082-4	6.8888+5			3.3038+0	3.3038+0	0
5.5338-5	2.0792-5	2.8028-4	3.8948+5	2.2838+0	1.1285-3	3.8948+5			2.6815+0	2.6815+0	0
6.6772-5	2.8711-5	1.8213-4	2.7256+5	2.0765+0	1.6529-3	2.7256+5			2.2474+0	2.2474+0	0
7.2400-5	3.4923-5	1.5485-4	2.3188+5	1.8434+0	1.9486-3	2.3188+5			2.0731+0	2.0731+0	0
8.1956-5	4.5504-5	1.1892-4	1.7796+5	1.5809+0	2.5112-3	1.7796+5			1.8011+0	1.8011+0	0
9.0033-5	5.5612-5	9.7303-3	1.4582+5	1.1828+0	3.0423-3	1.4581+5			1.6189+0	1.6189+0	0
9.5183-5	6.2822-5	8.8411-3	1.2931+5	9.0896-1	3.4080-3	1.2931+5			1.5199+0	1.5199+0	0
1.0000-4	6.9582-5	7.7768-3	1.1638+5	5.6436-1	3.7694-3	1.1638+5			1.4371+0	1.4371+0	0
1.0025-4	7.4927-5	7.2220-3	1.0808+5	4.1441-1	4.0209-3	1.0808+5			1.3780+0	1.3780+0	0
1.0844-4	8.3925-5	6.4478-3	9.6492+4	1.6260-1	4.4391-3	9.6491+4			1.2921+0	1.2921+0	0
1.1103-4	8.8842-5	6.1046-3	9.1356+4	1.6768-1	4.6561-3	9.1356+4			1.2526+0	1.2526+0	0
1.1394-4	9.4096-5	5.7508-3	8.6082+4	1.7208-1	4.9051-3	8.6081+4			1.2108+0	1.2108+0	0
1.1518-4	9.8460-5	5.6099-3	8.3952+4	1.7671+0	5.0126-3	8.3951+4			1.1839+0	1.1839+0	0
1.1567-4	9.7444-5	5.5532-3	8.3104+4	1.7680+0	5.0572-3	8.3102+4			1.1870+0	1.1870+0	0
1.1620-4	9.8483-5	5.4946-3	8.2227+4	1.7663+0	5.1043-3	8.2225+4			1.1799+0	1.1799+0	0
1.1739-4	1.0082-4	5.3672-3	8.0321+4	1.7588+0	5.2101-3	8.0314+4			1.1642+0	1.1642+0	0
1.1787-4	1.0178-4	5.3187-3	7.9555+4	1.0211+1	5.2535-3	7.9555+4			1.1580+0	1.1580+0	0
1.1836-4	1.0275-4	5.2664-3	7.8813+4	1.3153+1	5.2974-3	7.8800+4			1.1517+0	1.1517+0	0
K 1.1836-4	3.2923-6	1.8438+5	2.4597+6	1.3153+1	5.2974-3	2.4597+6			3.5851+1	3.5851+1	0
1.1876-4	3.3170-6	1.8314+5	2.4413+6	1.5243+1	5.3335-3	2.4413+6			3.5802+1	3.5802+1	0
1.1918-4	3.3420-6	1.8192+5	2.4231+6	1.6591+1	5.3698-3	2.4231+6			3.5655+1	3.5655+1	0
1.1971-4	3.3788-6	1.8028+5	2.3983+6	1.7369+1	5.4202-3	2.3982+6			3.5453+1	3.5453+1	0
1.2054-4	3.4288-6	1.7873+5	2.3619+6	1.8748+1	5.4857-3	2.3618+6			3.5158+1	3.5158+1	0
1.2112-4	3.4860-6	1.7612+5	2.3364+6	1.9725+1	5.5501-3	2.3364+6			3.4948+1	3.4948+1	0
1.2227-4	3.5393-6	1.7289+5	2.2881+6	1.4725+1	5.6582-3	2.2880+6			3.4545+1	3.4545+1	0
1.2441-4	3.6788-6	1.4709+5	2.2012+6	1.3935+1	5.8580-3	2.2012+6			3.3817+1	3.3817+1	0
1.2956-4	4.0270-6	1.3438+5	2.0110+6	1.3535+1	6.3581-3	2.0109+6			3.2173+1	3.2173+1	0
1.9511-4	1.0128-5	5.3430+4	7.9959+5	1.4572+1	1.4481-2	7.9958+5			1.9285+1	1.9285+1	0
2.3803-4	1.6525-5	3.2746+4	4.9004+5	1.4505+1	2.1473-2	4.8003+5			1.4404+1	1.4404+1	0
3.7923-4	5.7020-5	9.4901+3	1.4202+5	1.3218+1	5.3827-2	1.4201+5			6.6502+0	6.6502+0	0
6.0000-4	2.0377-4	2.8566+3	3.9741+4	1.1884+1	1.2803-3	3.9728+4			2.8438+0	2.8438+0	0
7.8952-4	4.5147-4	1.1986+3	1.7837+4	1.0591+1	2.0973-3	1.7828+4			1.7477+0	1.7477+0	0
1.0000-3	8.8575-4	8.0410+2	9.0405+3	9.7752+0	3.1327-1	9.0304+3			1.1151+0	1.1151+0	0
1.2552-3	1.7736-3	3.0510+2	4.5659+3	8.7875+0	4.4422-1	4.5667+3			7.0830-1	7.0830-1	0
1.5643-3	3.4344-3	1.5756+2	2.3579+3	7.7390+0	5.9773-1	2.3498+3			4.5387-1	4.5387-1	0
1.9280-3	6.4778-3	8.3536+1	1.2501+3	6.6978+0	7.5900-1	1.2427+3			2.9555-1	2.9555-1	0
2.3445-3	1.1902-2	4.5463+1	6.8037+2	5.7156+0	9.1296-1	6.7374+2			1.9506-1	1.9506-1	0
3.0657-3	2.7231-2	1.8871+1	2.9739+2	4.6282+0	1.1150+0	2.9173+2			1.1045-1	1.1045-1	0
4.5647-3	9.4303-2	5.7381+0	8.5872+1	3.1968+0	1.3701+0	8.1305+1			4.5838-2	4.5838-2	0
6.7521-3	3.0217-1	1.7908+0	2.6799+1	2.2554+0	1.6299+0	2.2814+1			1.9125-2	1.9125-2	0
8.0873-3	4.8756-1	1.0875+0	1.6275+1	1.8811+0	1.7484+0	1.2848+1			1.2881-2	1.2881-2	0
9.7898-3	8.0104-1	6.7553-1	1.0109+1	1.5112+0	1.8798+0	8.7187+0			8.1776-3	8.1776-3	0
1.0000-2	6.3885-1	6.4508-1	9.6537+0	1.4738+0	1.8942+0	6.2857+0			7.8112-3	7.8112-3	0
1.1678-2	1.1635-0	4.8509-1	6.9602+0	1.2061+0	1.8822+0	3.7713+0			5.5077-3	5.5077-3	0
1.3554-2	1.5118-0	3.5793-1	5.3565+0	9.7898-1	2.0687+0	2.3089+0			3.9803-3	3.9803-3	0
1.5589-2	1.8529-0	2.9204-1	4.3705+0	9.0765-1	2.1278+0	1.4451+0			2.9099-3	2.9099-3	0
1.8713-2	2.2864+0	2.3876-1	3.5730+0	5.9752-1	2.1919+0	7.8358-1			1.8983-3	1.8983-3	0
2.2333-2	2.6047+0	2.0775-1	3.1089+0	4.4518-1	2.2306+0	4.3320-1			1.4567-3	1.4567-3	0
2.5944-2	2.8430+0	1.9034-1	2.8484+0	3.4475-1	2.2415+0	2.8219-1			1.1894-3	1.1894-3	0
2.9081-2	2.8867+0	1.8118-1	2.7113+0	2.8259-1	2.2499+0	1.7887-1			1.0708-3	1.0708-3	0
3.3254-2	3.1307+0	1.7284-1	2.5866+0	2.2272-1	2.2501+0	1.1388-1			1.0150-3	1.0150-3	0
3.7556-2	3.2493+0	1.6854-1	2.4823+0	1.7874-1	2.2380+0	7.5528-2			1.0297-3	1.0297-3	0
4.2929-2	3.3811+0	1.8100-1	2.4093+0	1.3980-1	2.2215+0	4.8103-2			1.1148-3	1.1148-3	0
5.0236-2	3.4982+0	1.5489-1	2.3149+0	1.0420-1	2.1824+0	2.8305-2			1.2942-3	1.2942-3	0
6.1353-2	3.6466+0	1.4831-1	2.2195+0	7.1288-2	2.1338+0	1.4424-2			1.6729-3	1.6729-3	0
1.0000-1	4.0757+0	1.3277-1	1.9689+0	2.7572-2	1.9566+0	2.7823-3			3.3922-3	3.3922-3	0
1.7154-1	4.7342+0	1.1430-1	1.7106+0	9.4800-3	1.7006+0	4.8638-4			7.1422-3	7.1422-3	0
2.1894-1	5.1437+0	1.0520-1	1.5744+0	5.7811-3	1.5884+0	2.0880-4			9.7115-3	9.7115-3	0
3.0000-1	5.7347+0	9.4380-2	1.4121+0	3.1127-3	1.4089+0	7.8331-5			1.4041-2	1.4041-2	0
4.2487-1	6.5482+0	8.2883-2	1.2371+0	1.5535-3	1.2355+0	2.8128-5			2.0831-2	2.0831-2	0
5.0499-1	7.0343+0	7.8926-2	1.1512+0	1.1900-3	1.1501+0	1.7410-5			2.4557-2	2.4557-2	0
6.8237-1	7.8120+0	6.8393-2	1.0235+0	6.3957-4	1.0229+0	8.7043-8			3.1894-2	3.1894-2	0
8.2263-1	8.7382+0	6.1941-2	9.2885-1	4.1471-4	9.2853-1	5.2878-8			3.8794-2	3.8794-2	0
1.0000+0	9.5846+0	5.8458-2	8.4480-1	2.8088-4	8.4482-1	3.4782-8			4.5900-2	4.5900-2	0
1.0220+0	9.6875+0	5.5858-2	8.3582-1	2.6871-4	8.3585-1	3.1440-8			4.6730-2	4.6730-2	0
1.0251+0	9.7030+0	5.5789-2	8.3458-1	2.6708-4	8.3432-1	3.1111-8	5.8523-10		4.6838-2	4.6838-2	0
1.0287+0	9.7208+0	5.5688-2	8.3305-1	2.6520-4	8.3279-1	3.0734-8	5.8523-9		4.6983-2	4.6983-2	0
1.0366+0	9.7597+0	5.5445-2	8.2974-1	2.6118-4	8.2947-1	2.8935-8	5.8523-8		4.7236-2	4.7236-2	0
1.0541+0	9.8451+0	5.4964-2	8.2254-1	2.5261-4	8.2229-1	2.8250-8	5.8523-7		4.7836-2	4.7836-2	0
1.0611+0	9.8792+0	5.4774-2	8.1870-1	2.4928-4	8.1845-1	2.7621-8	1.0376-8		4.8077-2	4.8077-2	0
1.0651+0	9.8966+0	5.4687-2	8.1609-1	2.4741-4	8.1784-1	2.7284-8	1.3737-8		4.8214-2	4.8214-2	0
1.0714+0	9.9291+0	5.4499-2	8.1558-1	2.4451-4	8.1534-1	2.6718-8	2.0254-8		4.8430-2	4.8430-2	0
1.0762+0	9.9523+0	5.4372-2	8.1368-1	2.4233-4	8.1343-1	2.6477-8	2.6484-8		4.8594-2	4.8594-2	0
1.0806+0	9.9735+0	5.4256-2	8.1195-1	2.4036-4	8.1170-1	2.6262-8	3.3074-8		4.8744-2	4.8744-2	0
1.0871+0	1.0005+1	5.4087-2	8.0941-1	2.3750-4	8.0917-1	2.5948-8	4.4562-8		4.8966-2	4.8966-2	0
1.0937+0	1.0036+1	5.3916-2	8.0686-1	2.3464-4	8.0662-1	2.5634-8	5.8523-6		4.9191-2	4.9191-2	0
1.1026+0	1.0079+1	5.3689-2	8.0446-1	2.3087-4	8.0322-1	2.5221-8	8.1148-8		4.9494-2	4.9494-2	0

October 31, 1989
Atomic Weight 9.012

ENDL Evaluated
Photon Data

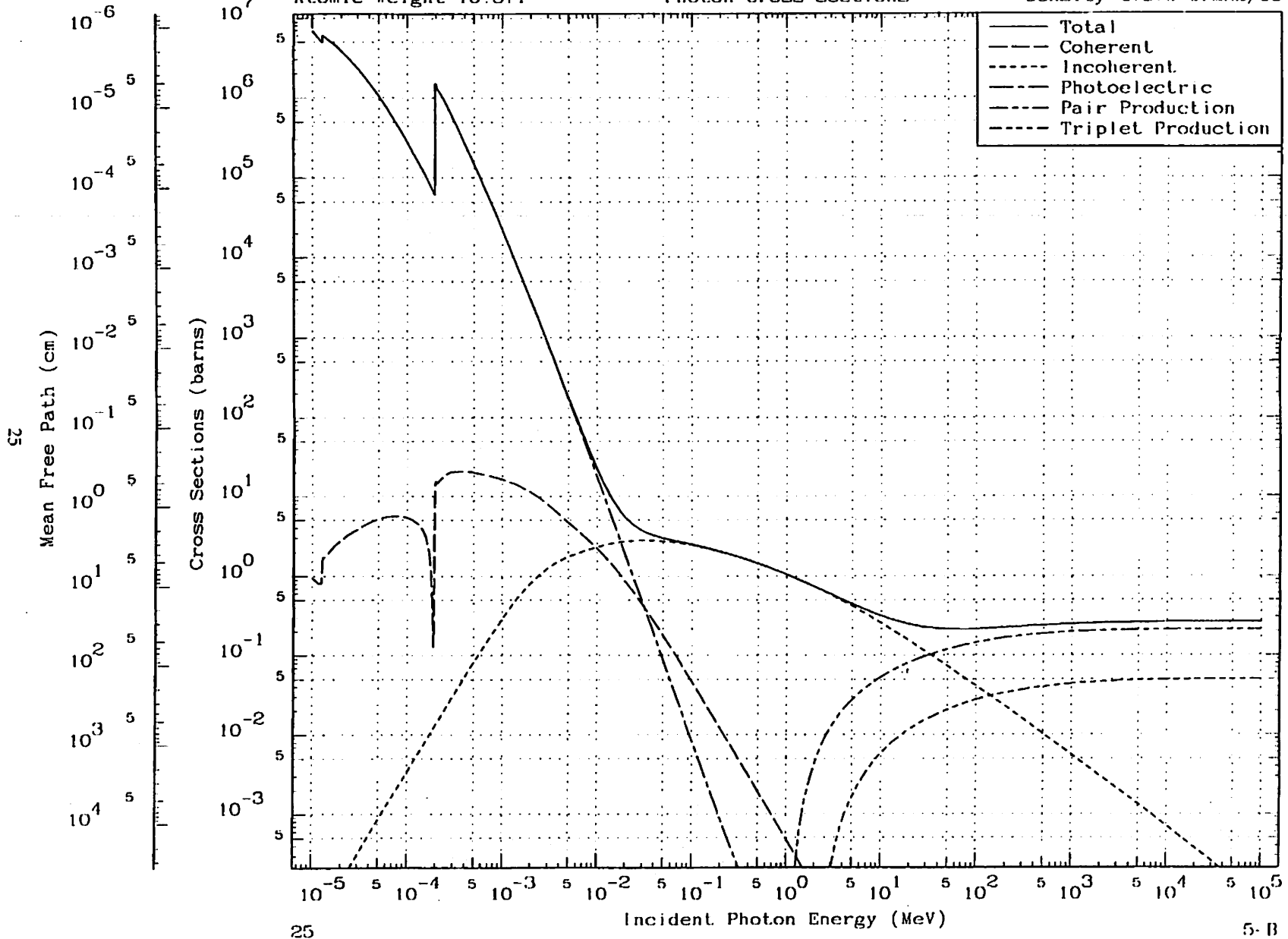
4-Be
Density 1.848 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cc*cm/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.1107+ 0	1.0117+ 1	5.3484- 2	8.0040- 1	2.2751- 4	8.0016- 1	2.4854- 6	1.0585- 5		4.9769- 2	4.9769- 2	
1.1206+ 0	1.0164+ 1	5.3237- 2	7.9671- 1	2.2351- 4	7.9646- 1	2.4415- 6	1.4161- 5		5.0104- 2	5.0104- 2	
1.1333+ 0	1.0224+ 1	5.2926- 2	7.9204- 1	2.1853- 4	7.9180- 1	2.3893- 6	1.9693- 5		5.0534- 2	5.0534- 2	
1.1475+ 0	1.0291+ 1	5.2583- 2	7.8692- 1	2.1316- 4	7.8667- 1	2.3356- 6	2.7194- 5		5.1012- 2	5.1012- 2	
1.1582+ 0	1.0341+ 1	5.2330- 2	7.8312- 1	2.0924- 4	7.8288- 1	2.3309- 6	3.3797- 5		5.1372- 2	5.1372- 2	
1.1741+ 0	1.0414+ 1	5.1960- 2	7.7758- 1	2.0361- 4	7.7733- 1	2.2950- 6	4.5161- 5		5.1905- 2	5.1905- 2	
1.1901+ 0	1.0488+ 1	5.1595- 2	7.7212- 1	1.9817- 4	7.7186- 1	2.2599- 6	5.8523- 5		5.2440- 2	5.2440- 2	
1.2051+ 0	1.0567+ 1	5.1260- 2	7.6711- 1	1.9327- 4	7.6684- 1	2.2278- 6	7.2795- 5		5.2940- 2	5.2940- 2	
1.2275+ 0	1.0658+ 1	5.0771- 2	7.5980- 1	1.8628- 4	7.5951- 1	2.1817- 6	9.7389- 5		5.3684- 2	5.3684- 2	
1.2500+ 0	1.0759+ 1	5.0294- 2	7.5266- 1	1.7964- 4	7.5235- 1	2.1370- 6	1.2600- 4		5.4428- 2	5.4428- 2	
1.2813+ 0	1.0898+ 1	4.9652- 2	7.4306- 1	1.7097- 4	7.4271- 1	2.0548- 6	1.7249- 4		5.5459- 2	5.5459- 2	
1.3325+ 0	1.1122+ 1	4.8654- 2	7.2812- 1	1.5806- 4	7.2769- 1	1.9311- 6	2.6527- 4		5.7133- 2	5.7133- 2	
1.3744+ 0	1.1301+ 1	4.7881- 2	7.1654- 1	1.4859- 4	7.1604- 1	1.8365- 6	3.5632- 4		5.8493- 2	5.8493- 2	
1.4058+ 0	1.1434+ 1	4.7325- 2	7.0823- 1	1.4203- 4	7.0785- 1	1.7593- 6	4.3314- 4		5.9506- 2	5.9506- 2	
1.4529+ 0	1.1630+ 1	4.6528- 2	6.9629- 1	1.3297- 4	6.9560- 1	1.6523- 6	5.6144- 4		6.1018- 2	6.1018- 2	
1.5000+ 0	1.1823+ 1	4.5770- 2	6.8495- 1	1.2475- 4	6.8412- 1	1.5550- 6	7.0430- 4		6.2521- 2	6.2521- 2	
1.5625+ 0	1.2073+ 1	4.4820- 2	6.7074- 1	1.1497- 4	6.6971- 1	1.4533- 6	9.1372- 4		6.4501- 2	6.4501- 2	
1.6411+ 0	1.2380+ 1	4.3708- 2	6.5410- 1	1.0422- 4	6.5279- 1	1.3438- 6	1.2054- 3		6.6971- 2	6.6971- 2	
1.7188+ 0	1.2878+ 1	4.2689- 2	6.3885- 1	9.5015- 5	6.3723- 1	1.2488- 6	1.5170- 3		6.9392- 2	6.9392- 2	
1.8118+ 0	1.3047+ 1	4.1476- 2	6.2070- 1	8.5530- 5	6.1869- 1	1.1448- 6	1.9239- 3		7.1949- 2	7.1949- 2	
2.0000+ 0	1.3769+ 1	3.9300- 2	5.8813- 1	7.0176- 5	5.8524- 1	9.8440- 7	2.8180- 3		7.7052- 2	7.7052- 2	
2.0440+ 0	1.3932+ 1	3.8940- 2	5.8124- 1	6.7187- 5	5.7813- 1	9.5280- 7	3.0380- 3		7.8229- 2	7.8229- 2	
2.0858+ 0	1.4095+ 1	3.8391- 2	5.7452- 1	6.4521- 5	5.7121- 1	9.2601- 7	3.2429- 3	4.0169- 8	7.9240- 2	7.9240- 2	
2.1363+ 0	1.4289+ 1	3.7889- 2	5.6672- 1	6.1510- 5	5.6315- 1	8.9536- 7	3.5025- 3	4.0169- 8	8.0453- 2	8.0453- 2	
2.1845+ 0	1.4473+ 1	3.7389- 2	5.5953- 1	5.8823- 5	5.5572- 1	8.6764- 7	3.7505- 3	1.3271- 8	8.1608- 2	8.1608- 2	
2.2018+ 0	1.4538+ 1	3.7221- 2	5.5702- 1	5.7902- 5	5.5312- 1	8.5805- 7	3.8358- 3	1.8360- 8	8.2019- 2	8.2019- 2	
2.2148+ 0	1.4587+ 1	3.7096- 2	5.5515- 1	5.7224- 5	5.5119- 1	8.5096- 7	3.9008- 3	2.2875- 8	8.2328- 2	8.2328- 2	
2.2342+ 0	1.4680+ 1	3.6912- 2	5.5240- 1	5.6235- 5	5.4834- 1	8.4058- 7	3.9990- 3	3.0771- 8	8.2789- 2	8.2789- 2	
2.2537+ 0	1.4732+ 1	3.6730- 2	5.4967- 1	5.5267- 5	5.4551- 1	8.3038- 7	4.0992- 3	4.0169- 8	8.3251- 2	8.3251- 2	
2.2815+ 0	1.4835+ 1	3.6475- 2	5.4585- 1	5.3927- 5	5.4155- 1	8.1814- 7	4.2452- 3	5.6264- 8	8.3909- 2	8.3909- 2	
2.3070+ 0	1.4929+ 1	3.6248- 2	5.4242- 1	5.2742- 5	5.3798- 1	8.0348- 7	4.3819- 3	7.3903- 8	8.4511- 2	8.4511- 2	
2.3382+ 0	1.5043+ 1	3.5971- 2	5.3832- 1	5.1344- 5	5.3370- 1	7.8840- 7	4.5530- 3	9.9369- 8	8.5247- 2	8.5247- 2	
2.3774+ 0	1.5185+ 1	3.5635- 2	5.3329- 1	4.9865- 5	5.2845- 1	7.7015- 7	4.7703- 3	1.3761- 5	8.6168- 2	8.6168- 2	
2.4102+ 0	1.5303+ 1	3.5360- 2	5.2916- 1	4.8322- 5	5.2416- 1	7.5543- 7	4.9334- 3	1.7502- 5	8.6933- 2	8.6933- 2	
2.4488+ 0	1.5434+ 1	3.5060- 2	5.2487- 1	4.6887- 5	5.1949- 1	7.3958- 7	5.1193- 3	2.2284- 5	8.7784- 2	8.7784- 2	
2.4859+ 0	1.5573+ 1	3.4748- 2	5.2001- 1	4.5424- 5	5.1481- 1	7.2323- 7	5.3224- 3	2.8031- 5	8.8691- 2	8.8691- 2	
2.5584+ 0	1.5819+ 1	3.4208- 2	5.1190- 1	4.2952- 5	5.0812- 1	6.9529- 7	5.7006- 3	4.0169- 5	9.0323- 2	9.0323- 2	
2.6804+ 0	1.6175+ 1	3.3454- 2	5.0064- 1	3.9681- 5	4.9426- 1	6.5732- 7	6.2754- 3	6.1922- 5	9.2717- 2	9.2717- 2	
2.7453+ 0	1.6481+ 1	3.2872- 2	4.9194- 1	3.7246- 5	4.8512- 1	6.2887- 7	6.7046- 3	8.2877- 5	9.4648- 2	9.4648- 2	
2.8090+ 0	1.6672+ 1	3.2456- 2	4.8572- 1	3.5576- 5	4.7854- 1	6.0688- 7	7.0365- 3	1.0037- 4	9.6092- 2	9.6092- 2	
2.9045+ 0	1.6963+ 1	3.1883- 2	4.7864- 1	3.3275- 5	4.6912- 1	5.8087- 7	7.5497- 3	1.2930- 4	9.8252- 2	9.8252- 2	
3.0399+ 0	1.7413+ 1	3.1077- 2	4.6507- 1	3.0376- 5	4.5658- 1	5.4563- 7	8.2785- 3	1.7525- 4	1.0130- 1	1.0130- 1	
3.2344+ 0	1.8071+ 1	2.9945- 2	4.4812- 1	2.6833- 5	4.3858- 1	5.0373- 7	9.2662- 3	2.5327- 4	1.0498- 1	1.0498- 1	
3.4375+ 0	1.8732+ 1	2.8888- 2	4.3231- 1	2.3756- 5	4.2159- 1	4.6571- 7	1.0351- 2	3.4662- 4	1.0882- 1	1.0882- 1	
3.7847+ 0	1.9818+ 1	2.7308- 2	4.0867- 1	1.9587- 5	3.9808- 1	4.1141- 7	1.2008- 2	5.3190- 4	1.1524- 1	1.1524- 1	
4.0000+ 0	2.0454+ 1	2.6458- 2	3.9592- 1	1.7545- 5	3.8211- 1	3.8310- 7	1.3130- 2	6.5900- 4	1.1921- 1	1.1921- 1	
4.2500+ 0	2.1174+ 1	2.5556- 2	3.8245- 1	1.5541- 5	3.6738- 1	3.5872- 7	1.4248- 2	8.1442- 4	1.2374- 1	1.2374- 1	
4.7500+ 0	2.2528+ 1	2.4023- 2	3.5850- 1	1.2442- 5	3.4180- 1	3.1048- 7	1.6551- 2	1.1397- 3	1.3278- 1	1.3278- 1	
5.5135+ 0	2.4418+ 1	2.2183- 2	3.3167- 1	9.2343- 8	3.1030- 1	2.5979- 7	1.8683- 2	1.6718- 3	1.4835- 1	1.4835- 1	
6.0000+ 0	2.5824+ 1	2.1118- 2	3.1804- 1	7.7978- 8	2.9234- 1	2.3510- 7	2.1870- 2	2.0170- 3	1.5387- 1	1.5387- 1	
7.0000+ 0	2.7801+ 1	1.9395- 2	2.9224- 1	5.7289- 8	2.6224- 1	1.9680- 7	2.5280- 2	2.7190- 3	1.6916- 1	1.6916- 1	
8.0000+ 0	2.9923+ 1	1.8084- 2	2.7063- 1	4.3862- 8	2.3868- 1	1.6910- 7	2.8540- 2	3.4010- 3	1.8448- 1	1.8448- 1	
1.0000- 1	3.3350+ 1	1.6228- 2	2.4282- 1	2.8071- 6	2.0394- 1	1.3190- 7	3.4200- 2	4.6790- 3	2.1524- 1	2.1524- 1	
1.3000+ 1	3.7884+ 1	1.4360- 2	2.1489- 1	1.8610- 6	1.6753- 1	9.9180- 8	4.1000- 2	6.3590- 3	2.5829- 1	2.5829- 1	
1.8000+ 1	4.2724+ 1	1.2688- 2	1.8954- 1	8.6641- 7	1.3121- 1	7.0070- 8	4.9880- 2	8.6540- 3	3.3245- 1	3.3245- 1	
2.8000+ 1	4.7863+ 1	1.1306- 2	1.6918- 1	4.1528- 7	9.8102- 2	4.7870- 8	5.9850- 2	1.1440- 2	4.5181- 1	4.5181- 1	
4.2170+ 1	5.2338+ 1	1.0338- 2	1.5473- 1	1.5788- 7	6.8928- 2	2.8952- 8	7.2548- 2	1.5258- 2	7.1178- 1	7.1178- 1	
6.8282+ 1	5.4500+ 1	9.8290- 3	1.4658- 1	5.8482- 8	4.407- 2	1.7453- 8	8.4979- 2	1.8202- 2	1.1745+ 0	1.1745+ 0	
1.0000+ 2	5.4557+ 1	9.9185- 3	1.4843- 1	2.8072- 8	3.2792- 2	1.2030- 8	9.3550- 2	2.2090- 2	1.7349+ 0	1.7349+ 0	
2.0000+ 2	5.3138+ 1	1.0183- 2	1.5240- 1	7.0178- 9	1.8137- 2	5.9850- 9	1.0720- 1	2.7060- 2	3.6629+ 0	3.6629+ 0	
4.0000+ 2	5.0837+ 1	1.0623- 2	1.5898- 1	1.7545- 9	9.9785- 3	2.8850- 9	1.1770- 1	3.1300- 2	7.7500+ 0	7.7500+ 0	
1.0000+ 3	4.8587+ 1	1.1137- 2	1.6667- 1	2.8072- 10	4.4896- 3	1.1820- 9	1.2670- 1	3.5500- 2	2.0477+ 1	2.0477+ 1	
3.0000+ 3	4.6958+ 1	1.1524- 2	1.7245- 1	3.1191- 11	1.6709- 3	3.8700- 10	1.3230- 1	3.8480- 2	6.3781+ 1	6.3781+ 1	
1.0000+ 4	4.6144+ 1	1.1727- 2	1.7550- 1	2.8072- 12	5.6463- 4	1.1910- 10	1.3490- 1	4.0030- 2	2.1661+ 2	2.1661+ 2	
1.0000+ 5	4.5718+ 1	1.1836- 2	1.7713- 1	2.8054- 14	6.8188- 5	1.1910- 11	1.3820- 1	4.0880- 2	2.1872+ 3	2.1872+ 3	

October 31, 1989
Atomic Weight 10.811

ENDL Evaluated
Photon Cross Sections

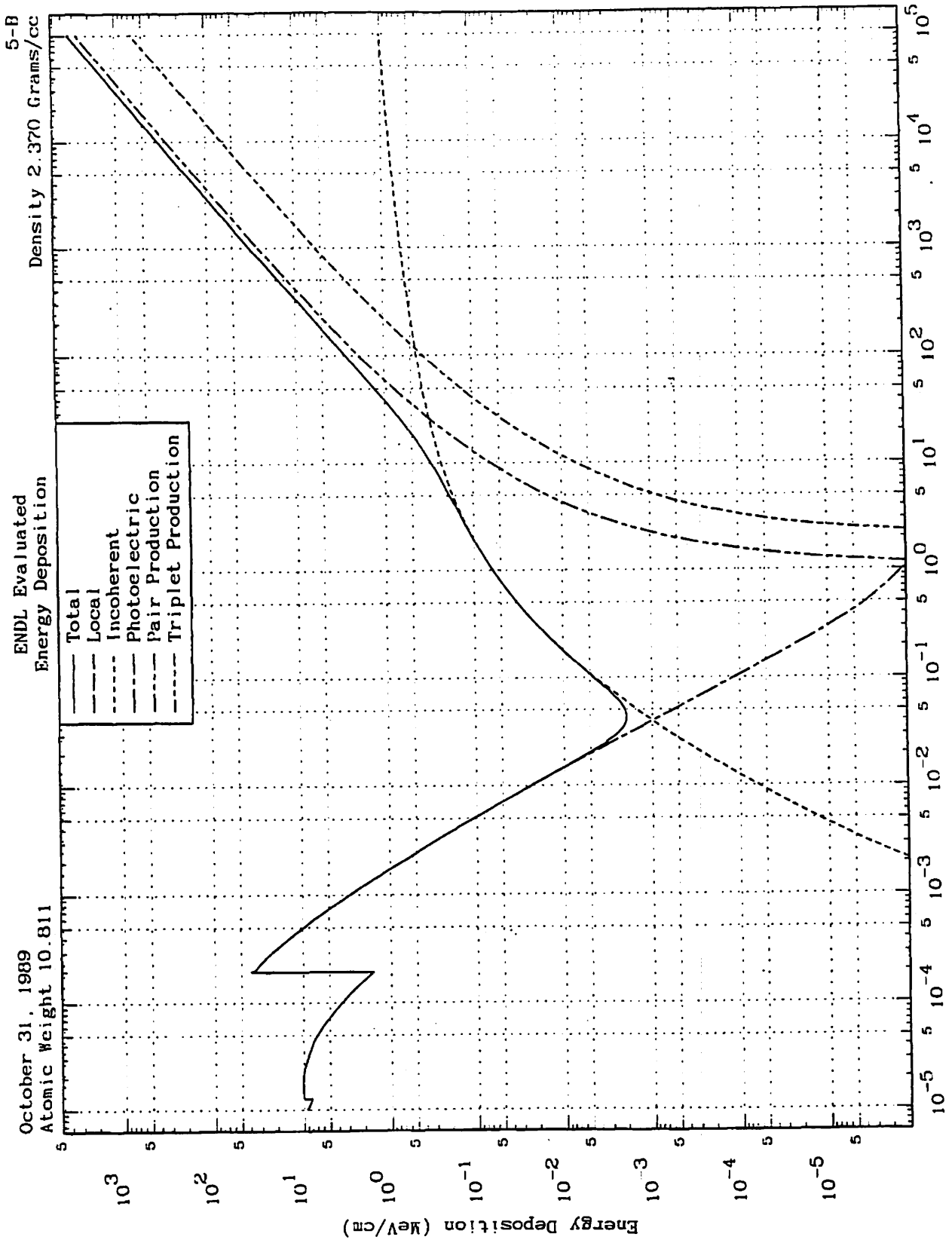
Density 2.370 Grams/cc



25

25

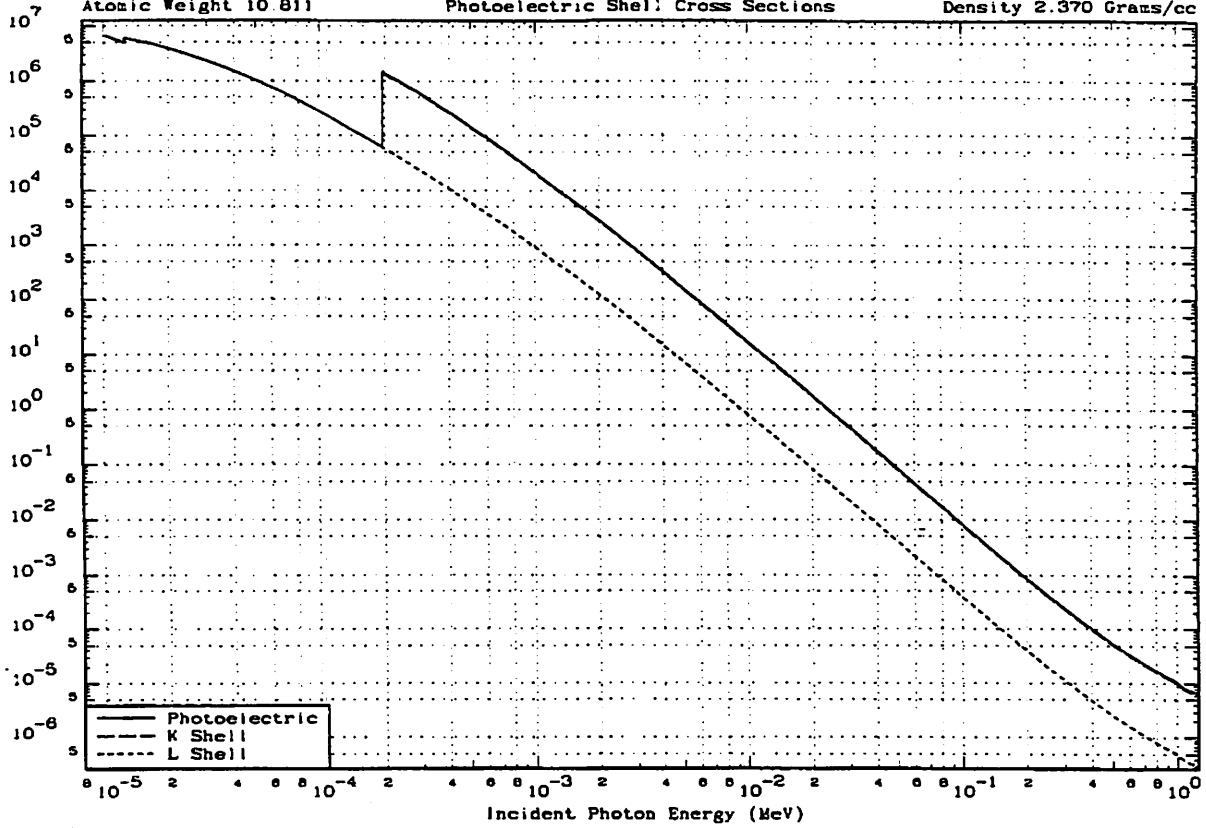
5-B



October 31, 1989
Atomic Weight 10.811

ENDL Evaluated
Photoelectric Shell Cross Sections

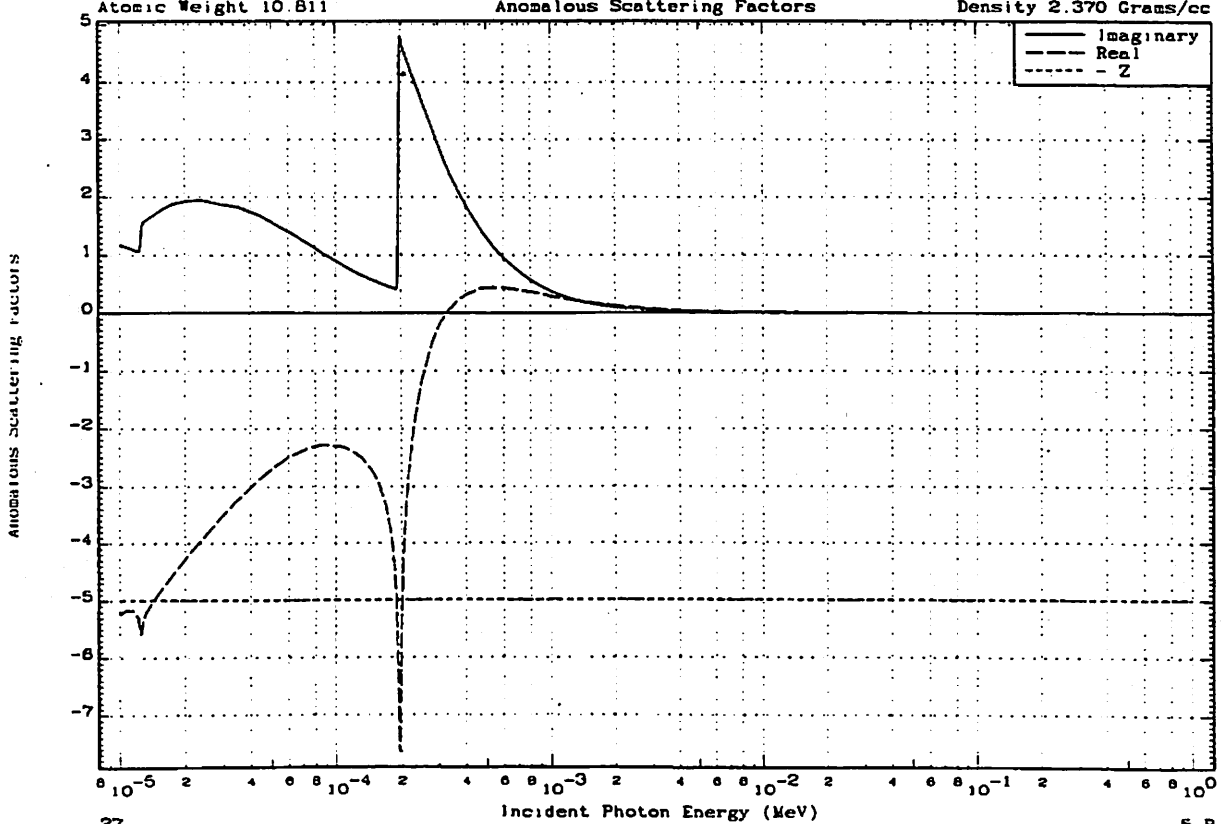
5-B
Density 2.370 Grams/cc

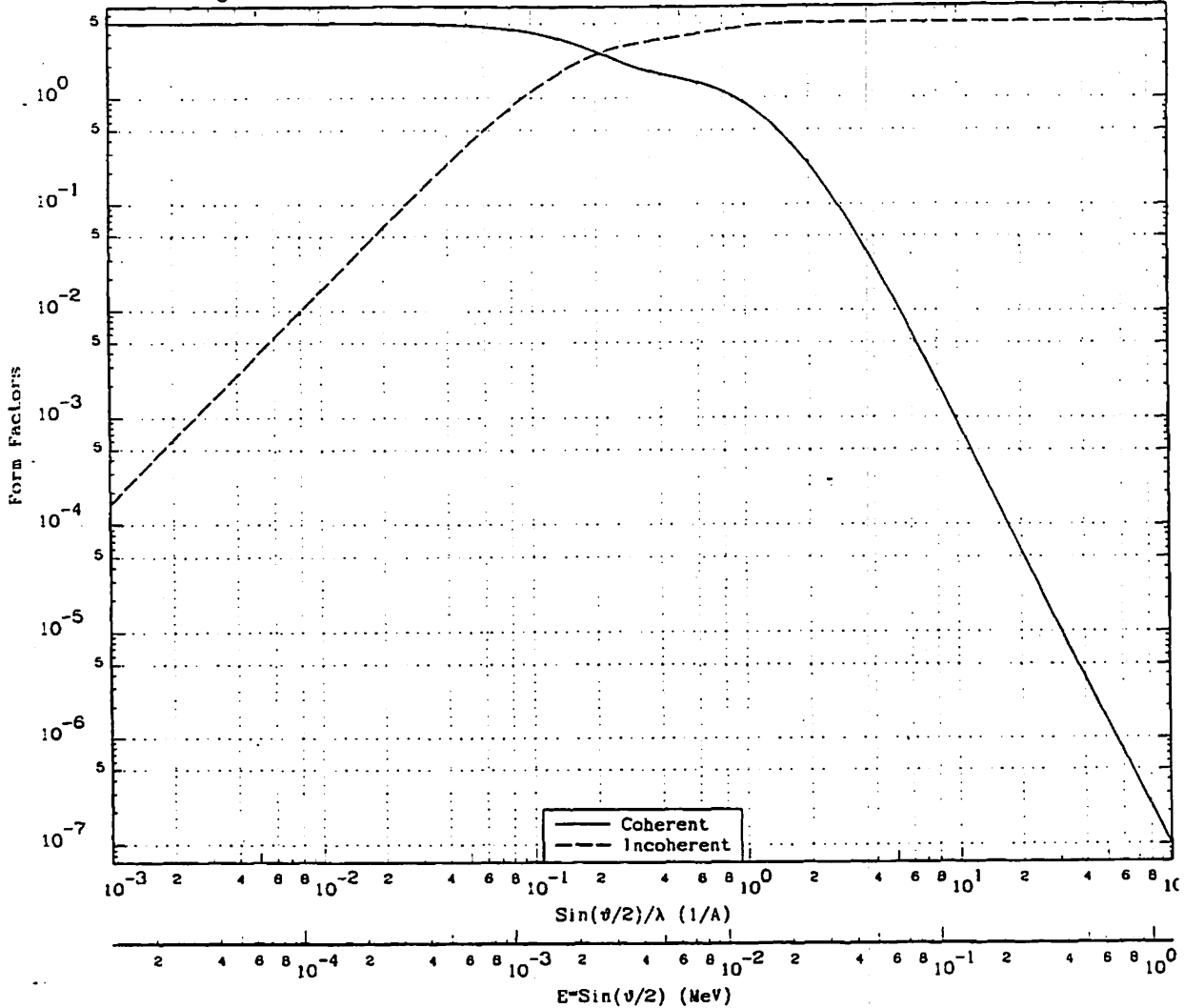


October 31, 1989
Atomic Weight 10.811

ENDL Evaluated
Anomalous Scattering Factors

5-B
Density 2.370 Grams/cc



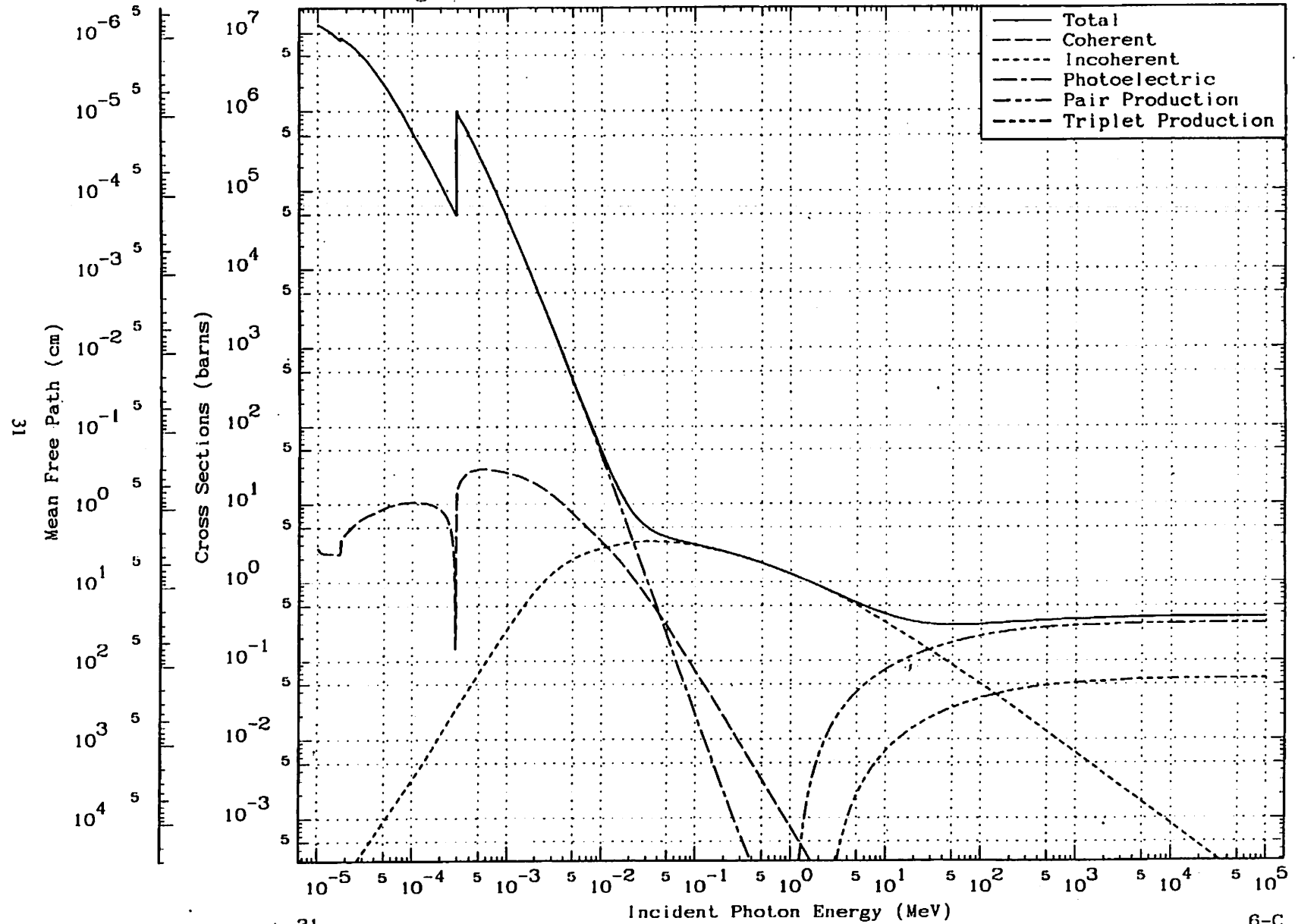


$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E \cdot \frac{\sin(\theta/2)}{\lambda}$ MeV	Coherent	Incoherent	$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E \cdot \frac{\sin(\theta/2)}{\lambda}$ MeV	Coherent	Incoherent	$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E \cdot \frac{\sin(\theta/2)}{\lambda}$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	5.0000+0	0.0000+0	6.0000-1	7.4391-3	1.4003+0	3.9478+0	5.0000+1	6.1993-1	1.5152-6	5.0000+0
1.0000-3	1.2399-5	5.0000+0	1.5485-4	7.0000-1	8.6790-3	1.2741+0	4.1462+0	8.0000+1	9.9188-1	2.3627-7	5.0000+0
5.0000-3	6.1993-5	4.9971+0	3.9000-3	8.0000-1	9.9188-3	1.1454+0	4.3202+0	1.0000+2	1.2399+0	9.8106-8	5.0000+0
1.0000-2	1.2399-4	4.9885+0	1.5650-2	9.0000-1	1.1159-2	1.0187+0	4.4689+0	2.1621+2	2.6807+0	4.8467-9	5.0000+0
1.5000-2	1.8598-4	4.9741+0	3.5033-2	1.0000+0	1.2399-2	8.9873-1	4.5898+0	3.9454+2	4.8917+0	4.8610-10	5.0000+0
2.0000-2	2.4797-4	4.9542+0	6.2000-2	1.1797+0	1.4627-2	7.0807-1	4.7489+0	6.7551+2	6.3753+0	6.5248-11	5.0000+0
2.5000-2	3.0996-4	4.9289+0	9.5926-2	1.2500+0	1.5498-2	6.4332-1	4.7918+0	1.0000+3	1.2399+1	1.5811-11	5.0000+0
3.0000-2	3.7196-4	4.8981+0	1.3702-1	1.5000+0	1.8598-2	4.5585-1	4.8955+0	1.7067+3	2.1161+1	2.3443-12	5.0000+0
4.0000-2	4.9594-4	4.8217+0	2.3761-1	1.8385+0	2.2795-2	2.8773-1	4.9580+0	2.5217+3	3.1265+1	6.0900-13	5.0000+0
5.0000-2	6.1993-4	4.7270+0	3.5989-1	2.0000+0	2.4797-2	2.3265-1	4.9729+0	4.6819+3	5.8049+1	7.6169-14	5.0000+0
7.0000-2	8.6790-4	4.4934+0	6.5072-1	2.5000+0	3.0996-2	1.2508-1	4.9922+0	6.3339+3	7.8531+1	2.8252-14	5.0000+0
9.0000-2	1.1159-3	4.2168+0	9.7789-1	3.0000+0	3.7196-2	7.1540-2	4.9974+0	1.0363+4	1.2849+2	5.7845-15	5.0000+0
1.0000-1	1.2399-3	4.0679+0	1.1474+0	3.5000+0	4.3395-2	4.3127-2	4.9991+0	1.5893+4	1.9705+2	1.4987-15	5.0000+0
1.2500-1	1.5485-3	3.7006+0	1.5485+0	4.0000+0	4.9594-2	2.7320-2	4.9996+0	3.0327+4	3.7601+2	2.0295-16	5.0000+0
1.5000-1	1.8598-3	3.3280+0	1.9314+0	5.0000+0	6.1993-2	1.2310-2	4.9999+0	7.2573+4	9.0104+2	1.4471-17	5.0000+0
1.7500-1	2.1697-3	2.9974+0	2.2558+0	6.0000+0	7.4391-2	6.2700-3	5.0000+0	2.6958+5	3.3424+3	3.0094-19	5.0000+0
2.0000-1	2.4797-3	2.7113+0	2.5308+0	7.0000+0	8.6790-2	3.4963-3	5.0000+0	1.0000+6	1.2399+4	6.4746-21	5.0000+0
2.5000-1	3.0996-3	2.2730+0	2.9328+0	8.0000+0	9.9188-2	2.0943-3	5.0000+0	5.6234+6	6.9722+4	3.9170-23	5.0000+0
3.0000-1	3.7196-3	1.8863+0	3.1898+0	1.0000+1	1.2399-1	8.6081-4	5.0000+0	5.4247+7	6.7258+5	4.3921-28	5.0000+0
4.0000-1	4.9594-3	1.6331+0	3.4991+0	1.5000+1	1.8598-1	1.7908-4	5.0000+0	1.0000+9	1.2399+7	6.5251-30	5.0000+0
5.0000-1	6.1993-3	1.5262+0	3.7318+0	2.0000+1	2.4797-1	5.7373-5	5.0000+0				

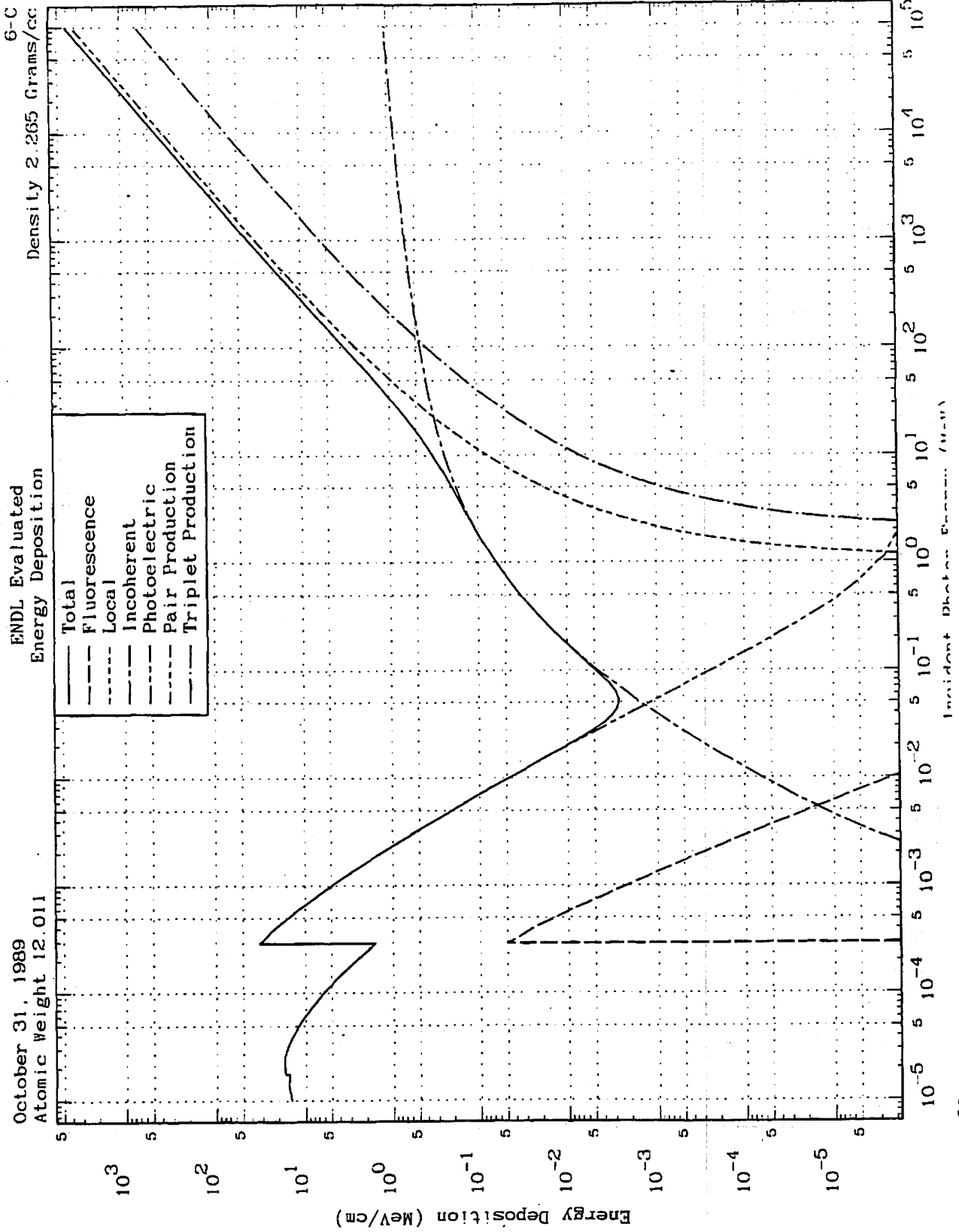
October 31, 1989
Atomic Weight 12.011

ENDL Evaluated
Photon Cross Sections

Density 2.265 Grams/cc



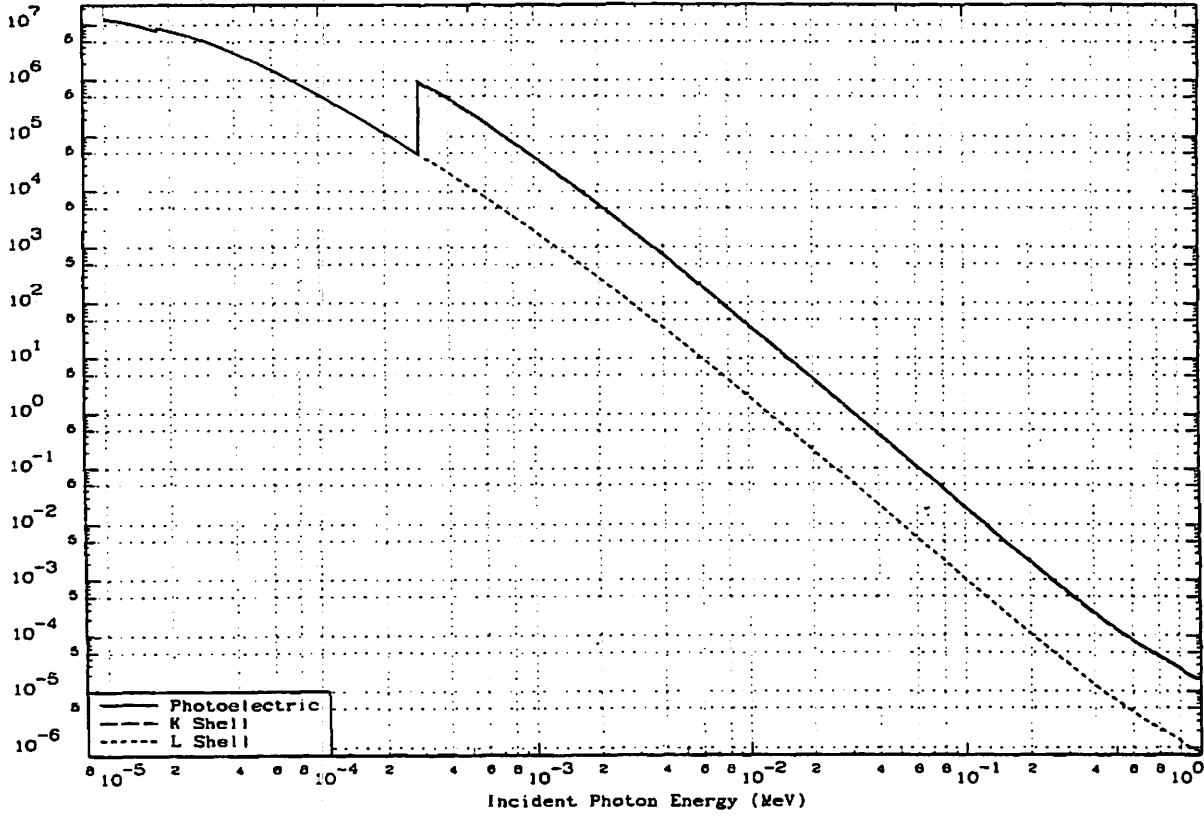
October 31, 1989
 Atomic Weight 12.011
 6-C
 Density 2.265 Grams/cc



October 31, 1989
Atomic Weight 12.011

ENDL Evaluated
Photoelectric Shell Cross Sections

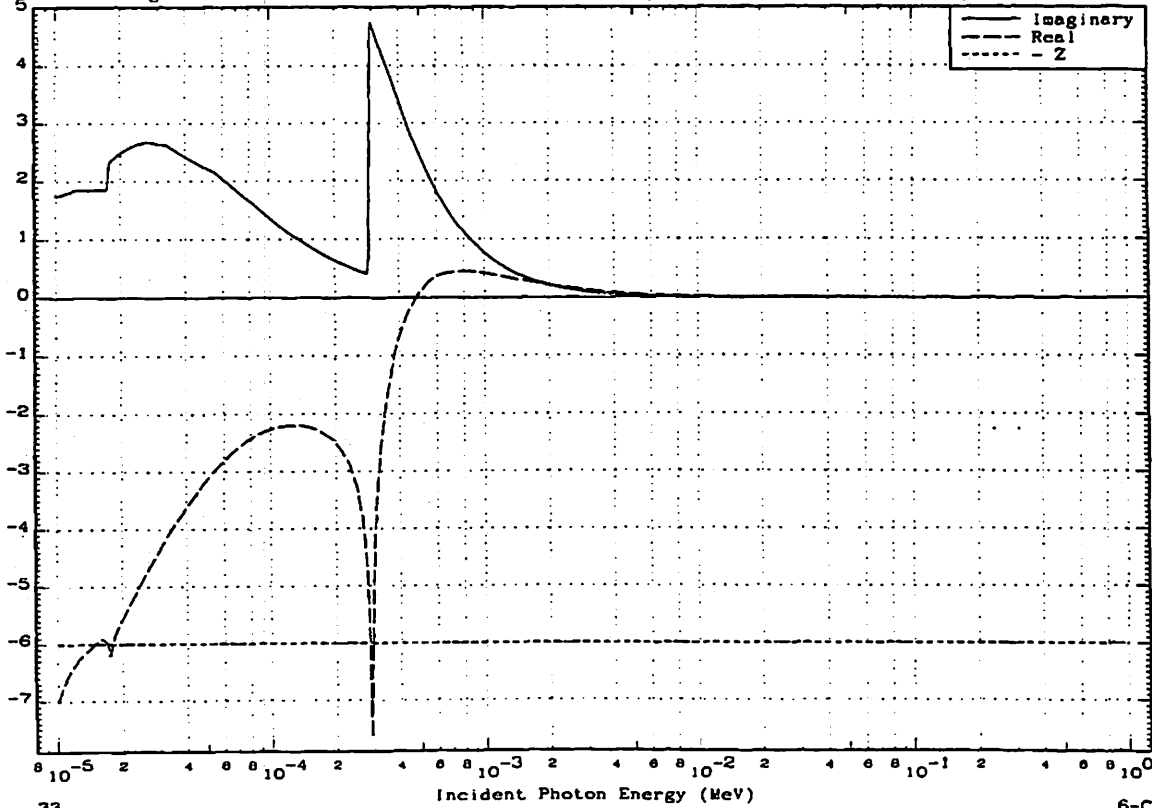
Density 2.265 Grams/cc
6-C



October 31, 1989
Atomic Weight 12.011

ENDL Evaluated
Anomalous Scattering Factors

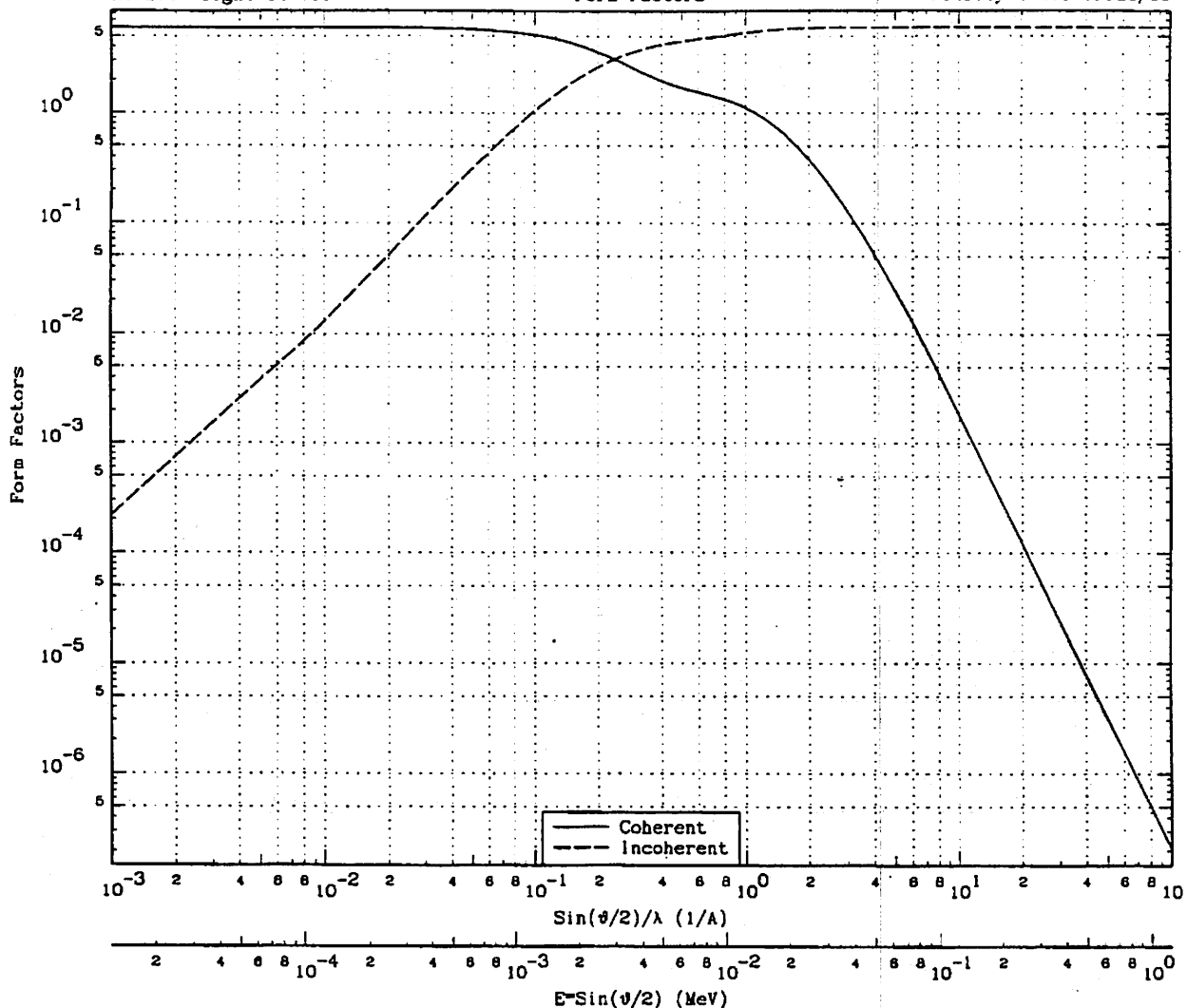
Density 2.265 Grams/cc
6-C



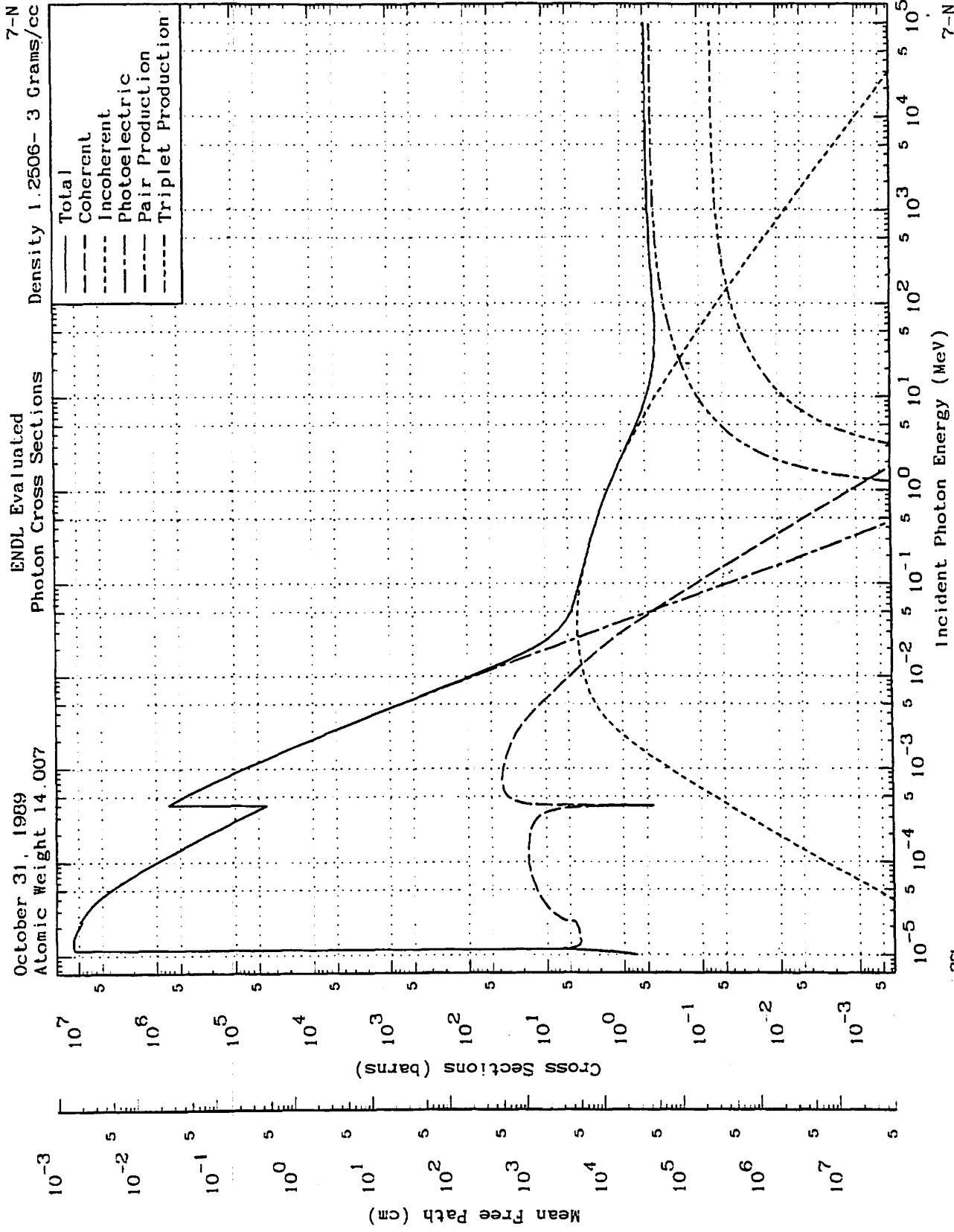
October 31, 1989
Atomic Weight 12.011

ENDL Evaluated
Form Factors

6-C
Density 2.265 Grams/cc



Sin(θ/2)/λ 1/Å	E=Sin(θ/2) MeV	Coherent	Incoherent	Sin(θ/2)/λ 1/Å	E=Sin(θ/2) MeV	Coherent	Incoherent	Sin(θ/2)/λ 1/Å	E=Sin(θ/2) MeV	Coherent	Incoherent
0.0000+0	0.0000+0	6.0000+0	0.0000+0	6.0000-1	7.4391-3	1.5363+0	4.6903+0	5.0000+1	6.1993-1	3.2386-6	6.0000+0
1.0000-3	1.2399-5	6.0000+0	2.1701-4	7.0000-1	8.6790-3	1.4245+0	4.8778+0	6.0000+1	9.9188-1	5.0734-7	6.0000+0
5.0000-3	6.1993-5	5.9974+0	3.7900-3	8.0000-1	9.9188-3	1.3206+0	5.0511+0	1.0000+2	1.2399+0	2.1123-7	6.0000+0
8.1543-3	1.0110-4	5.9928+0	8.8351-3	9.0000-1	1.1159-2	1.2185+0	5.2085+0	2.0089+2	2.4907+0	1.4070-8	6.0000+0
1.0000-2	1.2399-4	5.9898+0	1.2990-2	1.0000+0	1.2399-2	1.1121+0	5.3485+0	3.5418+2	4.3913+0	1.6264-9	6.0000+0
1.5000-2	1.8598-4	5.9771+0	2.8534-2	1.1875+0	1.4723-2	9.2357-1	5.5589+0	6.2143+2	7.7048+0	2.0127-10	6.0000+0
2.0000-2	2.4797-4	5.9594+0	5.1840-2	1.2500+0	1.5498-2	8.6482-1	5.6153+0	1.0000+3	1.2399+1	3.5964-11	6.0000+0
2.5000-2	3.0996-4	5.9368+0	8.0494-2	1.5000+0	1.8598-2	6.5662-1	5.7608+0	1.7067+3	2.1161+1	5.4918-12	6.0000+0
3.0000-2	3.7196-4	5.9093+0	1.1570-1	1.7500+0	2.1697-2	4.9421-1	5.8758+0	2.5217+3	3.1265+1	1.4425-12	6.0000+0
4.0000-2	4.9594-4	5.8408+0	2.0150-1	2.0000+0	2.4797-2	3.7202-1	5.9302+0	4.6819+3	5.8049+1	1.8327-13	6.0000+0
5.0000-2	6.1993-4	5.7544+0	3.0860-1	2.3594+0	2.8253-2	2.4963-1	5.9688+0	6.3339+3	7.8531+1	8.8440-14	6.0000+0
7.0000-2	8.6790-4	5.5368+0	5.6877-1	2.5000+0	3.0996-2	2.1465-1	5.9770+0	1.0363+4	1.2949+2	1.4154-14	6.0000+0
9.0000-2	1.1159-3	5.2702+0	8.7559-1	3.0000+0	3.7196-2	1.2882-1	5.9917+0	1.5893+4	1.9705+2	3.6962-15	6.0000+0
1.0000-1	1.2399-3	5.1225+0	1.0392+0	3.5000+0	4.3395-2	8.0452-2	5.9968+0	3.0327+4	3.7601+2	5.0556-16	6.0000+0
1.2500-1	1.5498-3	4.7407+0	1.4476+0	4.0000+0	4.9594-2	5.2230-2	5.9986+0	7.2673+4	9.0104+2	3.8441-17	6.0000+0
1.5000-1	1.8598-3	4.3310+0	1.8882+0	5.0000+0	6.1993-2	2.4330-2	5.9997+0	2.6958+5	3.3424+3	7.6654-19	6.0000+0
1.7500-1	2.1697-3	3.9371+0	2.2532+0	6.0000+0	7.4391-2	1.2650-2	5.9999+0	1.0000+6	1.2399+4	1.6809-20	6.0000+0
2.0000-1	2.4797-3	3.5775+0	2.6041+0	7.0000+0	8.6790-2	7.1471-3	6.0000+0	5.6234+6	6.9722+4	1.0099-22	6.0000+0
2.5000-1	3.0996-3	2.9814+0	3.1979+0	8.0000+0	9.9188-2	4.3194-3	6.0000+0	5.4247+7	6.7258+5	1.1342-25	6.0000+0
3.0000-1	3.7196-3	2.5015+0	3.6426+0	1.0000+1	1.2399-1	1.8364-3	6.0000+0	1.0000+9	1.2399+7	1.6810-29	6.0000+0
4.0000-1	4.9594-3	1.9512+0	4.1637+0	1.5000+1	1.8598-1	3.7797-4	6.0000+0				
5.0000-1	6.1993-3	1.6858+0	4.4777+0	2.0000+1	2.4797-1	1.2157-4	6.0000+0				

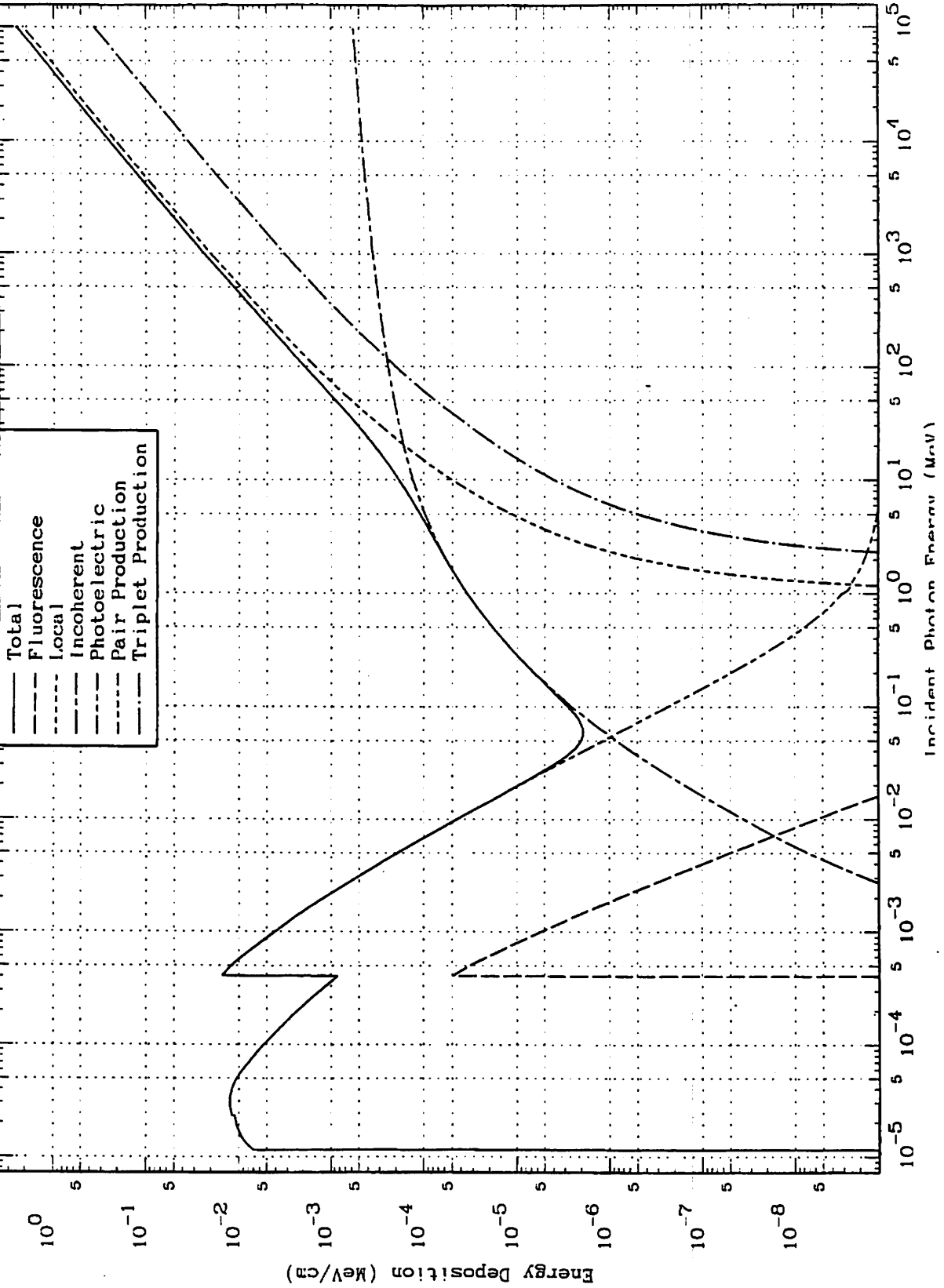
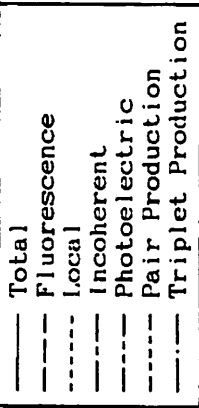


October 31, 1989

Atomic Weight 14.007

ENDL Evaluated

Energy Deposition



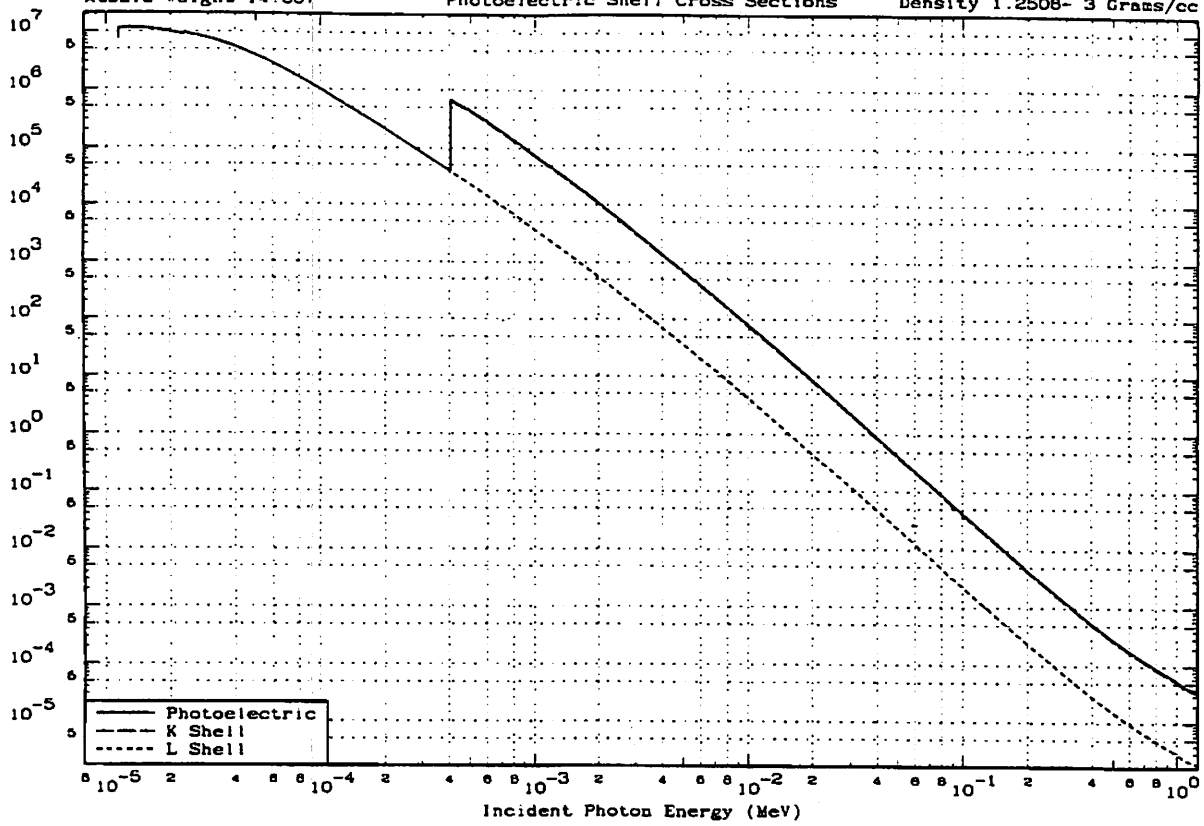
7-N

Density 1.2506 - 3 Grams/cc

October 31, 1989
Atomic Weight 14.007

ENDL Evaluated
Photoelectric Shell Cross Sections

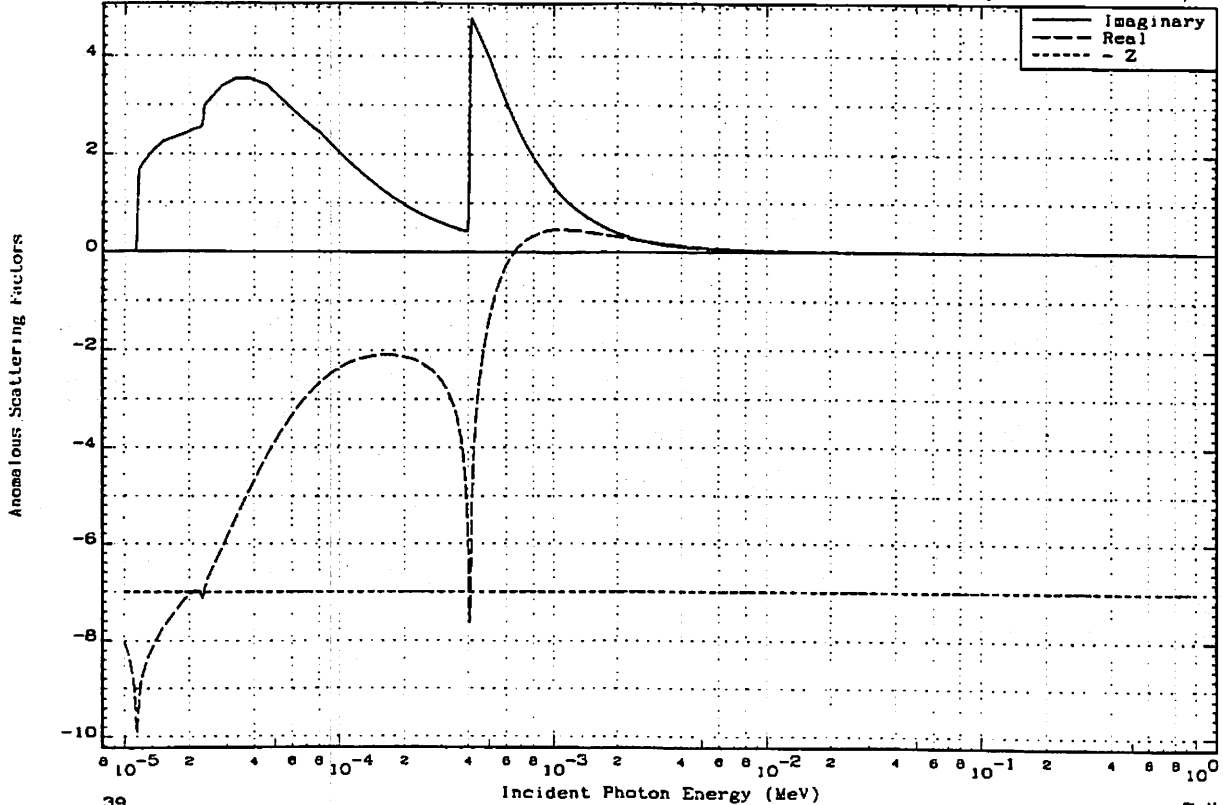
Density 1.2508- 3 Grams/cc 7-N



October 31, 1989
Atomic Weight 14.007

ENDL Evaluated
Anomalous Scattering Factors

Density 1.2508- 3 Grams/cc 7-N



39

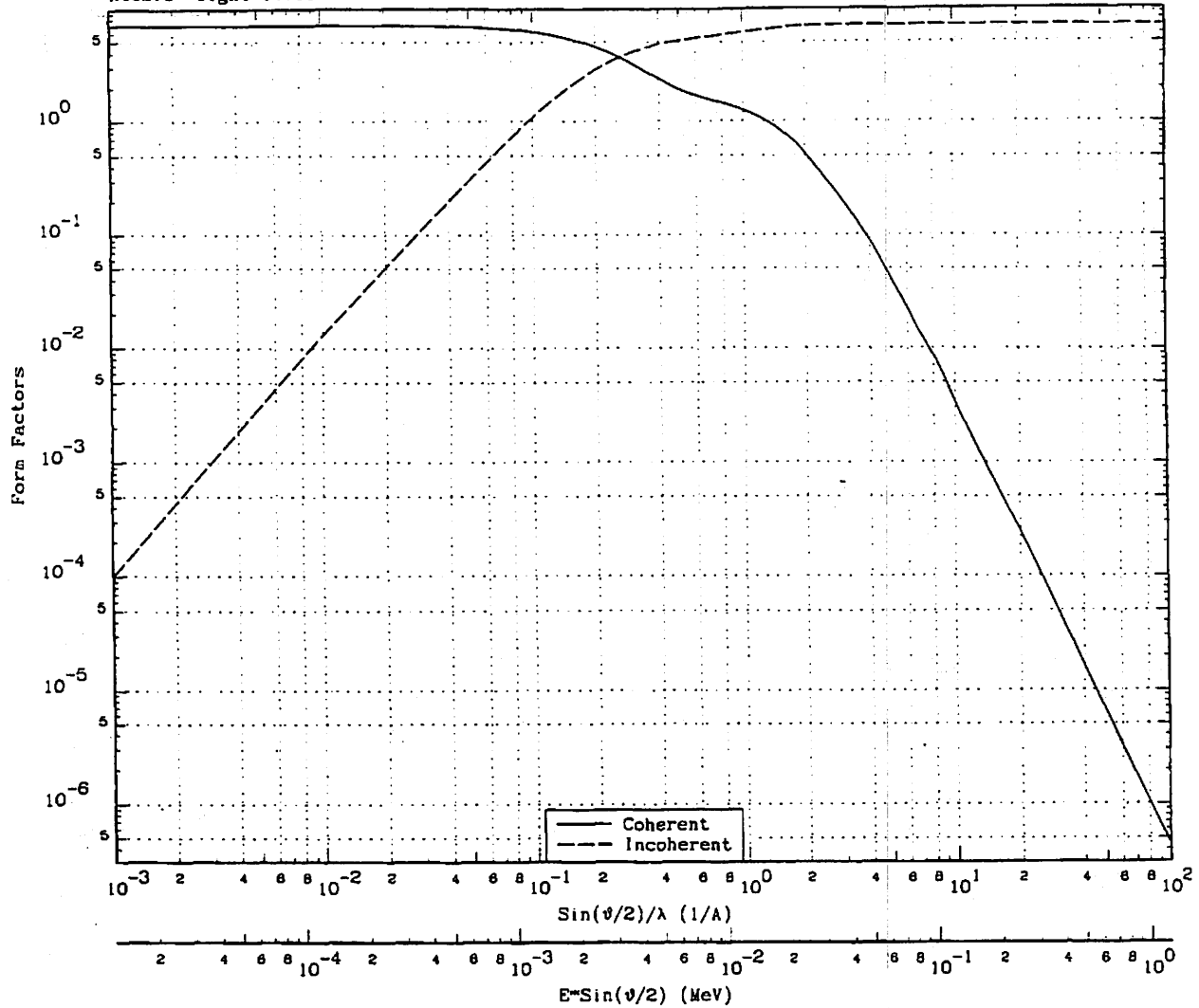
39

7-N

October 31, 1989
Atomic Weight 14.007

ENDL Evaluated
Form Factors

7-N
Density 1.2506- 3 Grams/cc



$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	7.0000+0	0.0000+0	6.0000-1	7.4391-3	1.8948+0	5.4370+0	2.9813+1	3.8984-1	5.2097-5	7.0000+0
1.0000-3	1.2399-5	7.0000+0	9.9647-5	7.0000-1	8.8790-3	1.5522+0	5.8350+0	5.0000+1	6.1993-1	6.6244-6	7.0000+0
5.0000-3	6.1993-5	8.9938+0	3.0000-3	8.0000-1	9.9188-3	1.4464+0	5.8090+0	8.0000+1	9.9188-1	1.0426-6	7.0000+0
9.2869-3	1.1527-4	8.8877+0	1.1185-2	9.0000-1	1.1159-2	1.3521+0	5.9680+0	1.0000+2	1.2399+0	4.3523-7	7.0000+0
1.0000-2	1.2399-4	8.8870+0	1.3000-2	1.0000+0	1.2399-2	1.2620+0	6.1130+0	2.1621+2	2.6907+0	2.2192-8	7.0000+0
1.5000-2	1.8598-4	8.8783+0	2.9200-2	1.2500+0	1.5498-2	1.0458+0	6.4157+0	3.9454+2	4.8917+0	2.3084-9	7.0000+0
2.0000-2	2.4797-4	8.8633+0	5.1700-2	1.5000+0	1.8598-2	8.3780-1	6.6300+0	6.7551+2	8.3753+0	3.2128-10	7.0000+0
2.5000-2	3.0996-4	8.8428+0	8.0400-2	1.7847+0	2.2128-2	6.4829-1	6.7856+0	1.0000+3	1.2399+1	7.8875-11	7.0000+0
3.0000-2	3.7198-4	8.8179+0	1.1510-1	2.0000+0	2.4797-2	5.2370-1	6.8599+0	1.7067+3	2.1161+1	1.2231-11	7.0000+0
4.0000-2	4.9594-4	8.8553+0	2.0170-1	2.5000+0	3.0996-2	3.0951-1	6.9470+0	3.3579+3	4.1633+1	1.2469-12	7.0000+0
5.0000-2	6.1993-4	8.7760+0	3.1000-1	3.0000+0	3.7198-2	2.0105-1	6.9790+0	6.3339+3	7.8531+1	1.5696-13	7.0000+0
7.0000-2	8.8790-4	8.5741+0	5.7970-1	3.5000+0	4.3395-2	1.3170-1	6.9913+0	1.0363+4	1.2849+2	3.2737-14	7.0000+0
9.0000-2	1.1159-3	6.3217+0	9.0420-1	4.0000+0	4.9594-2	8.8951-2	6.9960+0	1.5893+4	1.9705+2	8.6019-15	7.0000+0
1.0000-1	1.2399-3	6.1844+0	1.0800+0	5.0000+0	6.1993-2	4.1354-2	6.9991+0	3.0327+4	3.7601+2	1.1857-15	7.0000+0
1.2500-1	1.5498-3	5.7981+0	1.5397+0	6.0000+0	7.4391-2	2.2072-2	6.9998+0	7.2673+4	9.0104+2	8.6140-17	7.0000+0
1.5000-1	1.8598-3	5.3873+0	2.0030+0	7.0000+0	8.6790-2	1.2712-2	6.9999+0	2.6958+5	3.3424+3	1.8250-18	7.0000+0
1.7500-1	2.1697-3	4.9882+0	2.4468+0	8.0000+0	9.9188-2	8.3815-3	7.0000+0	1.0000+6	1.2399+4	3.9694-20	7.0000+0
2.0000-1	2.4797-3	4.5904+0	2.8580+0	8.8542+0	1.0730-1	6.2361-3	7.0000+0	5.6234+6	6.9722+4	2.4206-22	7.0000+0
2.5000-1	3.0996-3	3.8251+0	3.5586+0	1.0000+1	1.2399-1	3.3748-3	7.0000+0	5.4247+7	6.7258+5	2.7234-25	7.0000+0
3.0000-1	3.7198-3	3.2184+0	4.0970+0	1.1395+1	1.4128-1	1.9898-3	7.0000+0	1.0000+9	1.2399+7	4.0375-29	7.0000+0
4.0000-1	4.9594-3	2.3939+0	4.7920+0	1.5000+1	1.8598-1	7.1728-4	7.0000+0				
5.0000-1	6.1993-3	1.9378+0	5.1820+0	2.0000+1	2.4797-1	2.4632-4	7.0000+0				

October 31, 1989
Atomic Weight 14.007

ENDL Evaluated
Photon Data

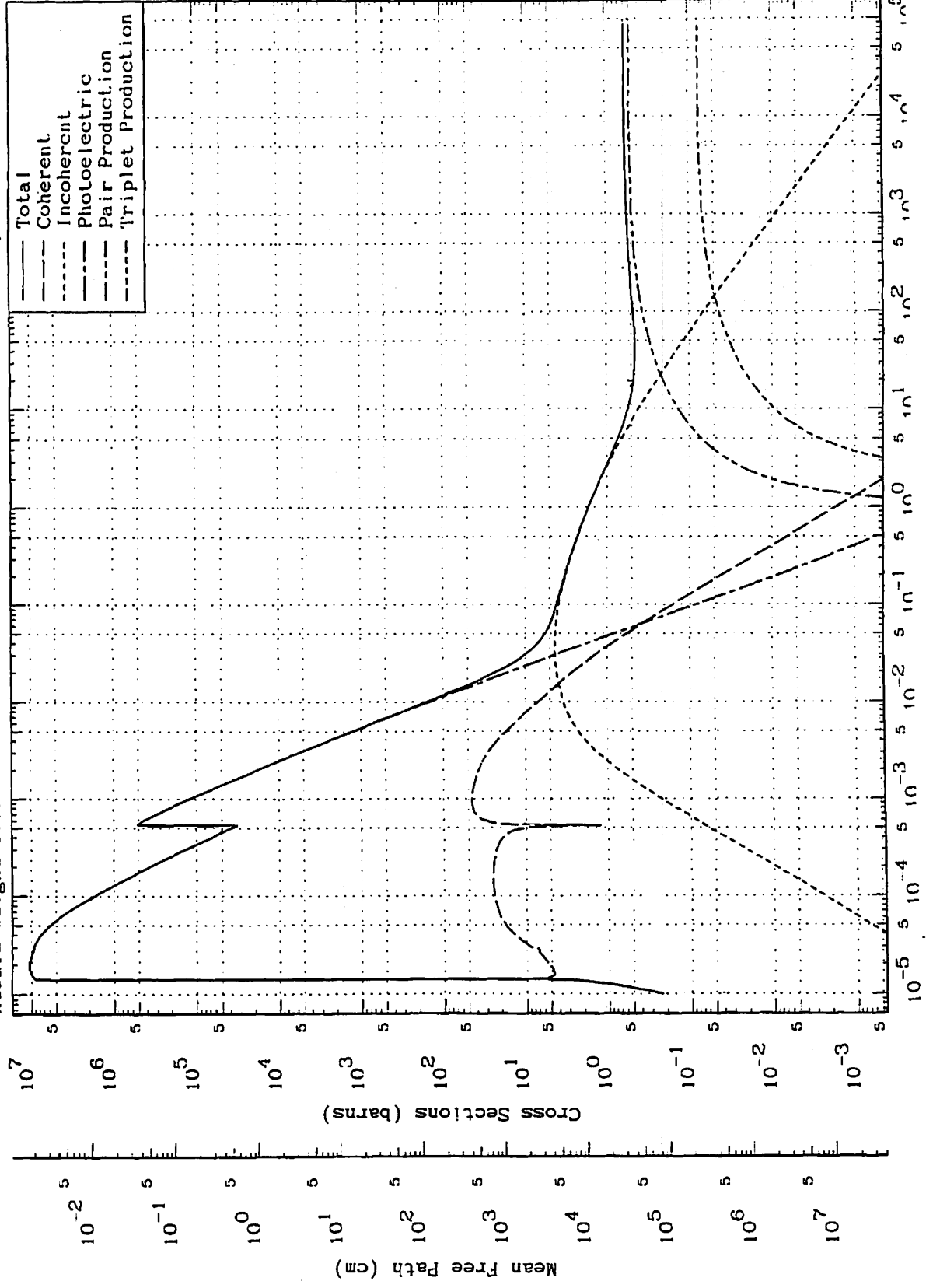
7-N
Density 1.2506- 3 Grams/cc

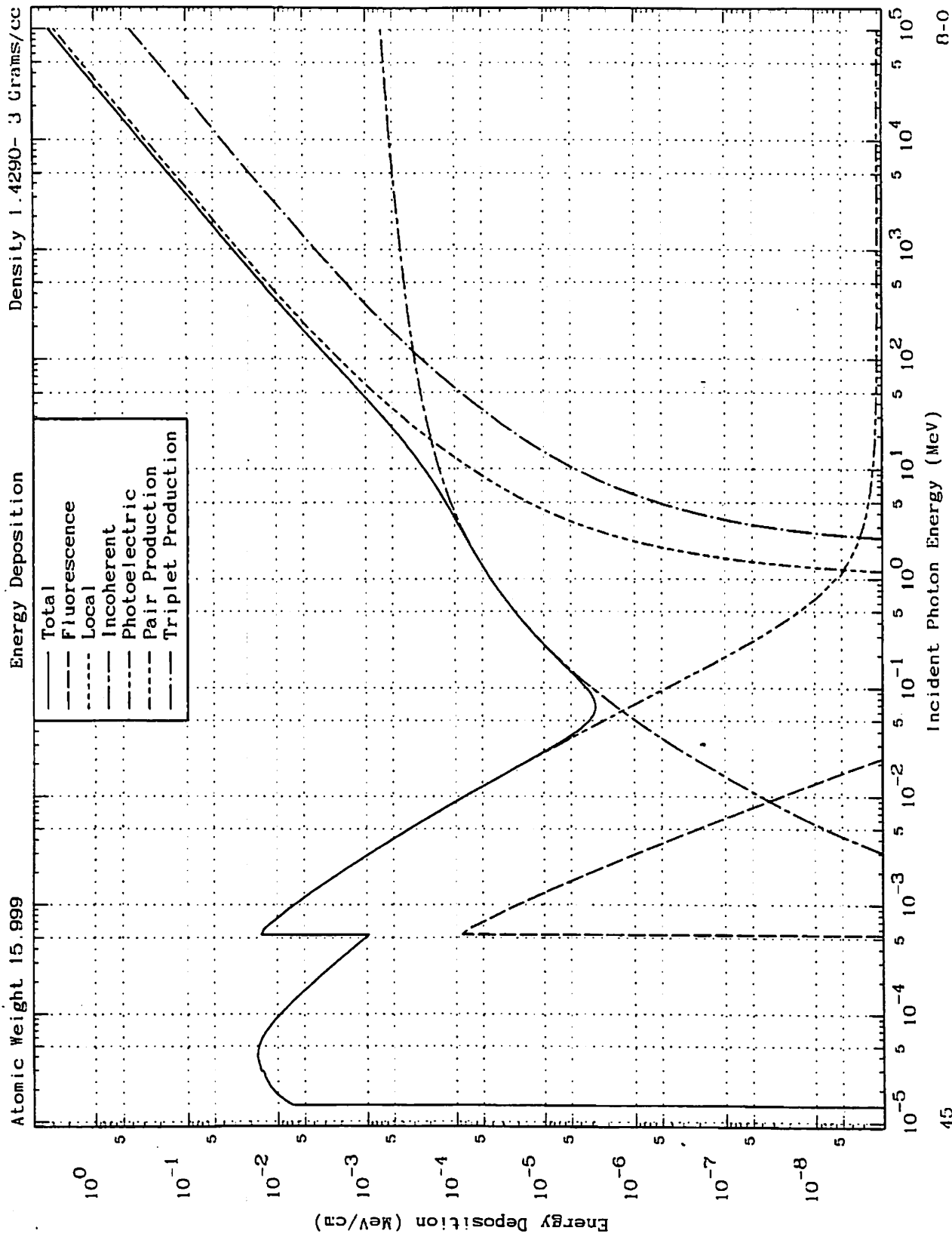
Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /cm ³ /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
7.0000- 0	3.4380+ 4	2.3258- 2	5.4096- 1	2.3520- 5	4.5880- 1	3.2270- 6	7.7370- 2	4.7590- 3	1.3952- 4	1.3952- 4	2.3044-16
8.0000- 0	3.6405+ 4	2.1965- 2	5.1087- 1	1.8007- 5	4.1758- 1	2.7700- 6	8.7310- 2	5.9520- 3	1.5455- 4	1.5455- 4	1.0780-16
1.0000- 1	3.8612+ 4	2.0186- 2	4.6851- 1	1.1525- 5	3.5680- 1	2.1570- 6	1.0450- 1	8.1880- 3	1.8554- 4	1.8554- 4	1.5403-16
1.3000- 1	4.3307+ 4	1.8464- 2	4.2845- 1	6.8183- 6	2.9311- 1	1.6190- 6	1.2520- 1	1.1130- 2	2.3121- 4	2.3121- 4	1.1561-16
1.6000- 1	4.6953+ 4	1.7030- 2	3.9610- 1	3.5570- 6	2.2955- 1	1.1420- 6	1.5140- 1	1.5140- 2	3.1213- 4	3.1213- 4	8.1549-17
2.6000- 1	4.8882+ 4	1.6030- 2	3.7284- 1	1.7048- 6	1.7184- 1	7.7590- 7	1.8120- 1	2.0000- 2	4.4737- 4	4.4737- 4	5.5406-17
4.2170- 1	5.1240+ 4	1.5605- 2	3.6296- 1	6.4808- 7	1.1709- 1	4.7061- 7	2.1825- 1	2.6610- 2	7.4629- 4	7.4629- 4	3.3606-17
6.9282- 1	5.0631+ 4	1.5783- 2	3.6733- 1	2.4010- 7	7.7694- 2	2.8352- 7	2.5625- 1	3.3386- 2	1.2887- 3	1.2887- 3	2.0246-17
1.0000- 2	4.9254+ 4	1.6234- 2	3.7759- 1	1.1525- 7	5.7372- 2	1.8540- 7	2.8190- 1	3.8320- 2	1.8491- 3	1.8491- 3	1.3953-17
2.0000- 2	4.6335+ 4	1.7257- 2	4.0138- 1	2.8812- 8	3.1733- 2	8.7150- 8	3.2290- 1	4.6750- 2	4.2321- 3	4.2321- 3	6.8373-18
4.0000- 2	4.3849+ 4	1.8236- 2	4.2414- 1	7.2029- 9	1.7460- 2	4.8440- 8	3.5300- 1	5.3880- 2	9.0359- 3	9.0359- 3	3.4590-18
1.0000- 3	4.1713+ 4	1.9170- 2	4.4588- 1	1.1525- 9	7.8200- 3	1.9340- 8	3.7780- 1	6.0140- 2	2.3886- 2	2.3886- 2	1.3810-18
4.0000- 3	4.0211+ 4	1.9885- 2	4.6251- 1	7.2030-11	2.2594- 3	4.8310- 9	3.9510- 1	6.5150- 2	8.8086- 2	8.8086- 2	3.4497-19
1.0000- 4	3.9810+ 4	2.0088- 2	4.8717- 1	1.1525-11	8.8788- 4	1.8320- 9	3.9980- 1	6.6580- 2	2.5110- 1	2.5110- 1	1.3798-19
1.0000- 5	3.9501+ 4	2.0243- 2	4.7082- 1	1.1565-13	1.1832- 4	1.8320-10	4.0300- 1	6.7700- 2	2.5315+ 0	2.5315+ 0	1.3796-20

October 31, 1989
Atomic Weight 15.999

ENDL Evaluated

Density 1.4290-3 Grams/cc

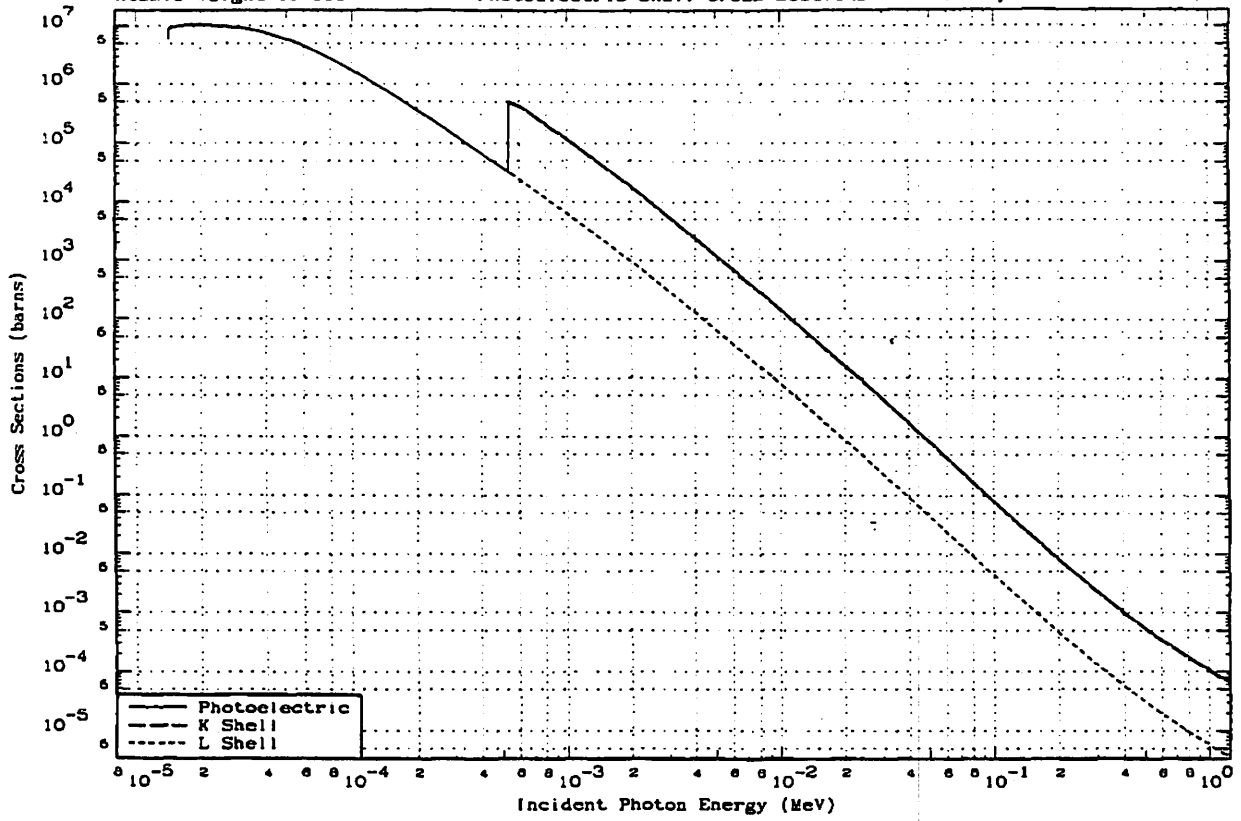




October 31, 1989
Atomic Weight 15.999

ENDL Evaluated
Photoelectric Shell Cross Sections

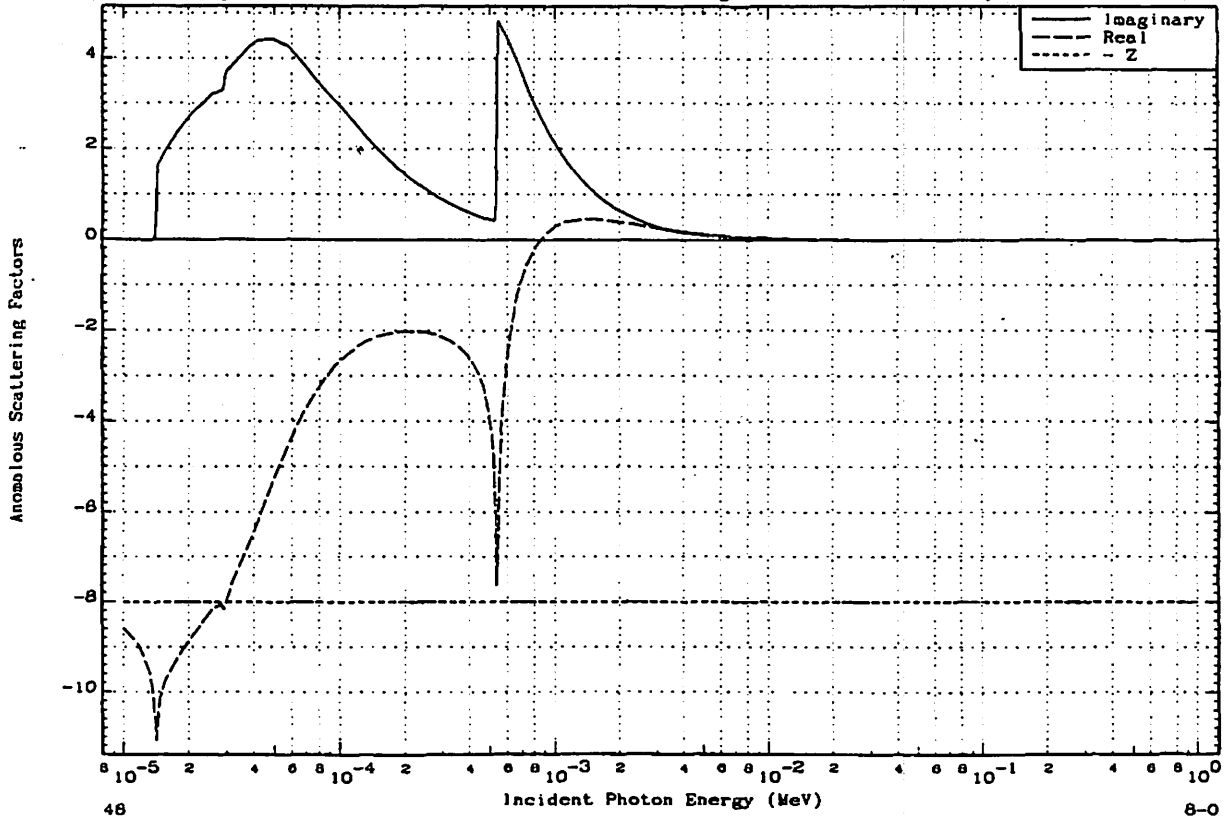
Density 1.4290- 3 Grams/cc
8-0



October 31, 1989
Atomic Weight 15.999

ENDL Evaluated
Anomalous Scattering Factors

Density 1.4290- 3 Grams/cc
8-0



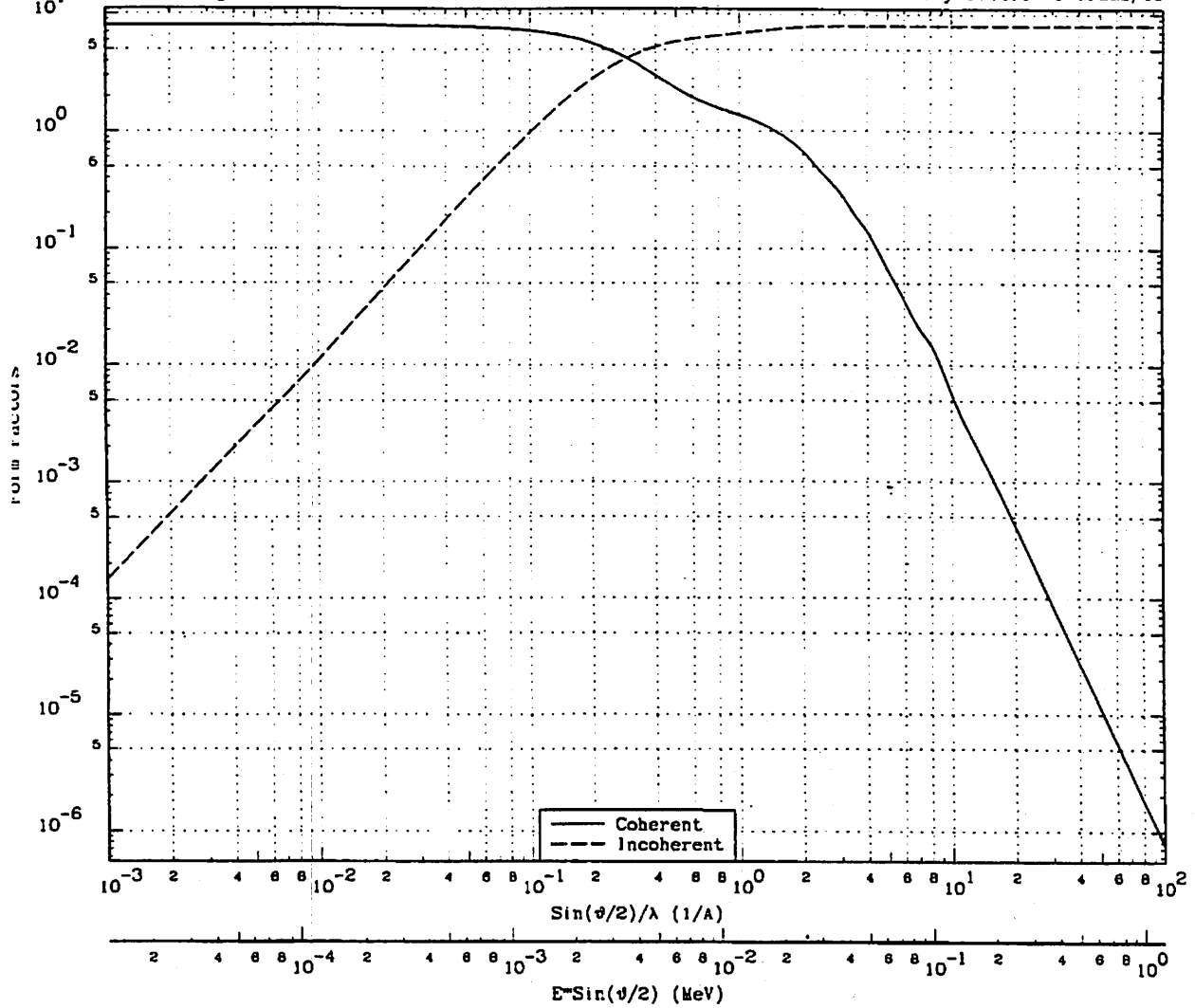
48

8-0

October 31, 1989
Atomic Weight 15.999

ENDL Evaluated
Form Factors

8-0
Density 1.4290- 3 Grams/cc



$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E \cdot \frac{\sin(\theta/2)}{\lambda}$ MeV	Coherent	Incoherent	$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E \cdot \frac{\sin(\theta/2)}{\lambda}$ MeV	Coherent	Incoherent	$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E \cdot \frac{\sin(\theta/2)}{\lambda}$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	8.0000+0	0.0000+0	7.0000-1	8.6790-3	1.7132+0	8.4110+0	1.5000+1	1.8598-1	1.2502-3	8.0000+0
1.0000-3	1.2399-5	8.0000+0	1.4687-4	8.0000-1	9.9188-3	1.5867+0	6.5860+0	1.8154+1	2.2508-1	8.1118-4	8.0000+0
5.0000-3	6.1993-5	7.9974+0	3.0000-3	9.0000-1	1.1159-2	1.4823+0	8.7550+0	2.0000+1	2.4797-1	4.1908-4	8.0000+0
7.8906-3	9.7832-5	7.9938+0	6.9341-3	1.0000+0	1.2399-2	1.3783+0	8.8010+0	5.0000+1	6.1993-1	1.1387-5	8.0000+0
1.0000-2	1.2399-4	7.9912+0	1.1000-2	1.2500+0	1.5498-2	1.1820+0	7.2159+0	8.0000+1	9.9188-1	1.8008-6	8.0000+0
1.5000-2	1.8598-4	7.9814+0	2.5300-2	1.5000+0	1.8598-2	9.9810-1	7.4820+0	1.0000+2	1.2399+0	7.5371-7	8.0000+0
2.0000-2	2.4797-4	7.9669+0	4.4800-2	1.7500+0	2.1697-2	8.3083-1	7.8405+0	1.8556+2	2.3007+0	6.9787-8	8.0000+0
2.5000-2	3.0996-4	7.9484+0	6.8800-2	2.0000+0	2.4797-2	6.7200-1	7.7642+0	3.3265+2	4.1244+0	7.7633-9	8.0000+0
3.0000-2	3.7196-4	7.9258+0	1.0010-1	2.5000+0	3.0996-2	4.2498-1	7.8999+0	5.6735+2	7.0343+0	1.0945-9	8.0000+0
4.0000-2	4.8594-4	7.8892+0	1.7810-1	2.9473+0	3.6542-2	3.0822-1	7.9527+0	1.0000+3	1.2399+1	1.4474-10	8.0000+0
5.0000-2	6.1993-4	7.7874+0	2.7100-1	3.0000+0	3.7196-2	2.9584-1	7.9570+0	1.8293+3	2.2681+1	1.7951-11	8.0000+0
7.0000-2	8.6790-4	7.6117+0	5.1370-1	3.5000+0	4.3395-2	1.9510-1	7.9807+0	3.0668+3	3.8024+1	3.1713-12	8.0000+0
9.0000-2	1.1159-3	7.3767+0	8.1180-1	4.0000+0	4.8594-2	1.4108-1	7.9910+0	5.5078+3	6.8290+1	4.6851-13	8.0000+0
1.0000-1	1.2399-3	7.2441+0	9.7700-1	4.3271+0	5.3650-2	1.1008-1	7.9937+0	8.3487+3	1.0351+2	1.2413-13	8.0000+0
1.2500-1	1.5498-3	6.8748+0	1.4199+0	5.0000+0	6.1993-2	6.5476-2	7.9977+0	1.3128+4	1.6277+2	2.9999-14	8.0000+0
1.5000-1	1.8598-3	6.4698+0	1.8850+0	6.0000+0	7.4391-2	3.5749-2	7.9993+0	2.3110+4	2.8653+2	5.2658-15	8.0000+0
1.7500-1	2.1697-3	6.0466+0	2.3497+0	6.8594+0	8.5046-2	2.2235-2	7.9997+0	5.1500+4	6.3852+2	4.6863-16	8.0000+0
2.0000-1	2.4797-3	5.6197+0	2.7990+0	7.0000+0	8.6790-2	2.0932-2	7.9998+0	1.7113+5	2.1218+3	1.3526-17	8.0000+0
2.5000-1	3.0996-3	4.8047+0	3.6135+0	8.0000+0	9.9188-2	1.4884-2	8.0000+0	1.0000+8	1.2399+4	7.8203-20	8.0000+0
3.0000-1	3.7196-3	4.0858+0	4.2830+0	8.4550+0	1.0483-1	1.2223-2	8.0000+0	5.8234+6	6.9722+4	4.7808-22	8.0000+0
3.7188-1	4.8108-3	3.2598+0	5.0333+0	8.8960+0	1.1030-1	9.8395-3	8.0000+0	5.4247+7	6.7258+5	5.3890-25	8.0000+0
4.0000-1	4.8594-3	3.0031+0	5.2570+0	1.0000+1	1.2399-1	5.7185-3	8.0000+0	1.0000+9	1.2399+7	7.9997-28	8.0000+0
5.0000-1	6.1993-3	2.3351+0	5.8280+0	1.1009+1	1.3850-1	3.6084-3	8.0000+0				
6.0000-1	7.4391-3	1.9445+0	6.1750+0	1.2413+1	1.5390-1	2.4322-3	8.0000+0				

October 31, 1989
Atomic Weight 15.999

ENDL Evaluated
Photon Data

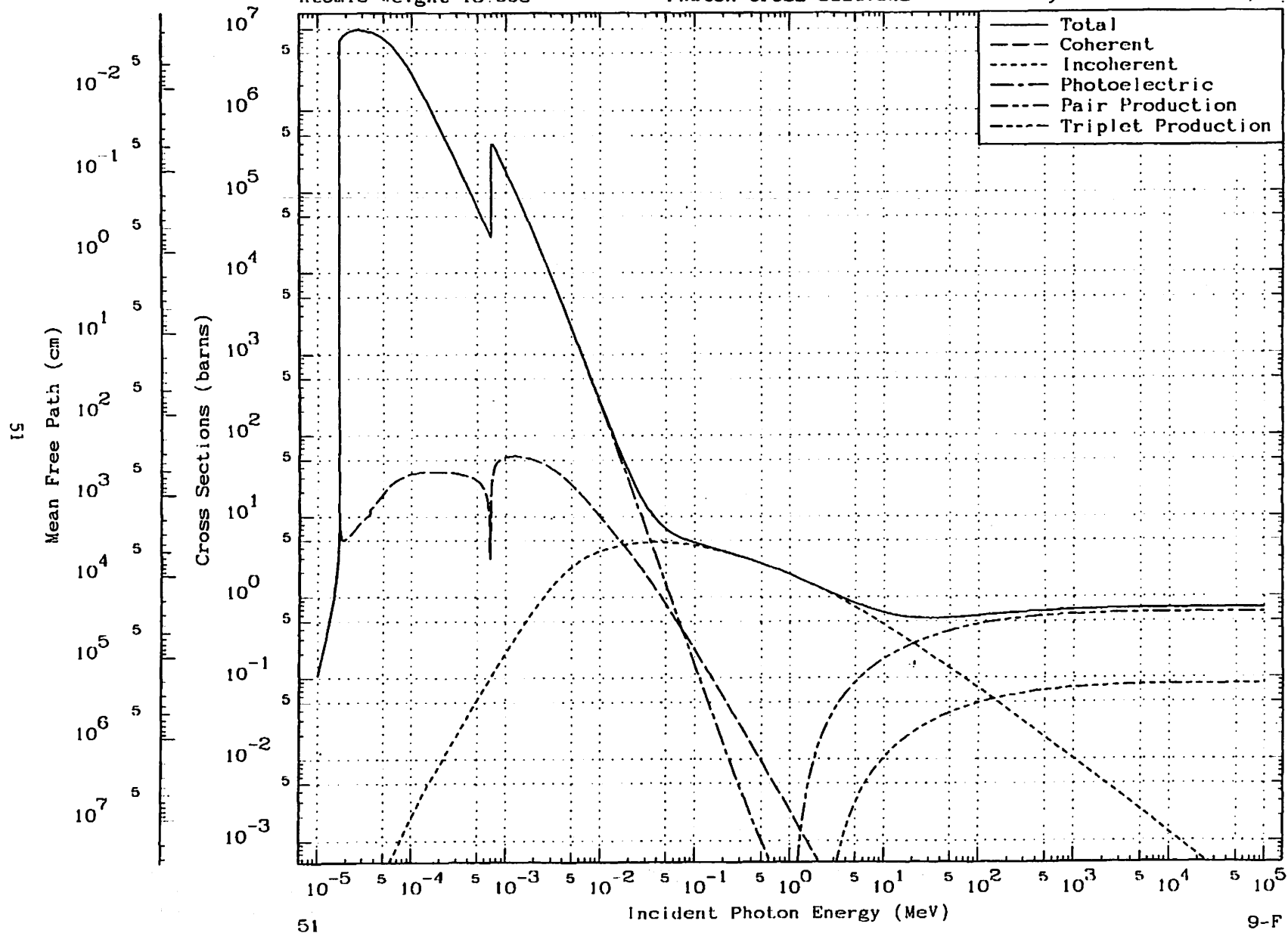
8-0
Density 1.4290- 3 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cm)		
	cm	cm ² /cm ³ /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.6000+ 1	4.0845+ 4	1.7133- 2	4.5518- 1	2.4689- 8	1.9624- 1	1.4890- 8	2.3610- 1	2.2840- 2	5.5050- 4	5.5050- 4	2.4462-16
4.2170+ 1	4.1333+ 4	1.6831- 2	4.4980- 1	9.3853- 7	1.3388- 1	9.0283- 7	2.8555- 1	3.0376- 2	8.3060- 4	9.3060- 4	1.4832-16
6.9282+ 1	4.0378+ 4	1.7331- 2	4.6045- 1	3.4770- 7	8.8829- 2	5.4378- 7	3.3353- 1	3.8086- 2	1.6225- 3	1.6225- 3	8.9334-17
1.0000+ 2	3.8052+ 4	1.7818- 2	4.7808- 1	1.6690- 7	6.5595- 2	3.7470- 7	3.6880- 1	4.3880- 2	2.4654- 3	2.4654- 3	6.1557-17
2.0000+ 2	3.6545+ 4	1.8149- 2	5.0874- 1	4.1724- 8	3.6281- 2	1.8630- 7	4.1930- 1	5.3160- 2	5.3736- 3	5.3736- 3	3.0606-17
4.0000+ 2	3.4551+ 4	2.0254- 2	5.3810- 1	1.0431- 8	1.9962- 2	8.2870- 8	4.5730- 1	8.0840- 2	1.1478- 2	1.1478- 2	1.5257-17
1.0000+ 3	3.2907+ 4	2.1266- 2	5.6498- 1	1.6690- 9	8.9408- 3	3.7060- 8	4.8820- 1	6.7840- 2	3.0285- 2	3.0285- 2	6.0917-18
4.0000+ 3	3.1778+ 4	2.2021- 2	5.8505- 1	1.0431-10	2.5832- 3	8.2820- 9	5.0930- 1	7.3170- 2	1.2577- 1	1.2577- 1	1.5216-18
1.0000+ 4	3.1479+ 4	2.2230- 2	5.9081- 1	1.6690-11	1.1285- 3	3.7040- 9	5.1480- 1	7.4680- 2	3.1757- 1	3.1757- 1	8.0851-18
1.0000+ 5	3.1247+ 4	2.2385- 2	5.9489- 1	1.6690-13	1.3642- 4	3.7040-10	5.1800- 1	7.5860- 2	3.2002+ 0	3.2002+ 0	6.0851-20

October 31, 1989
Atomic Weight 18.998

ENDL Evaluated
Photon Cross Sections

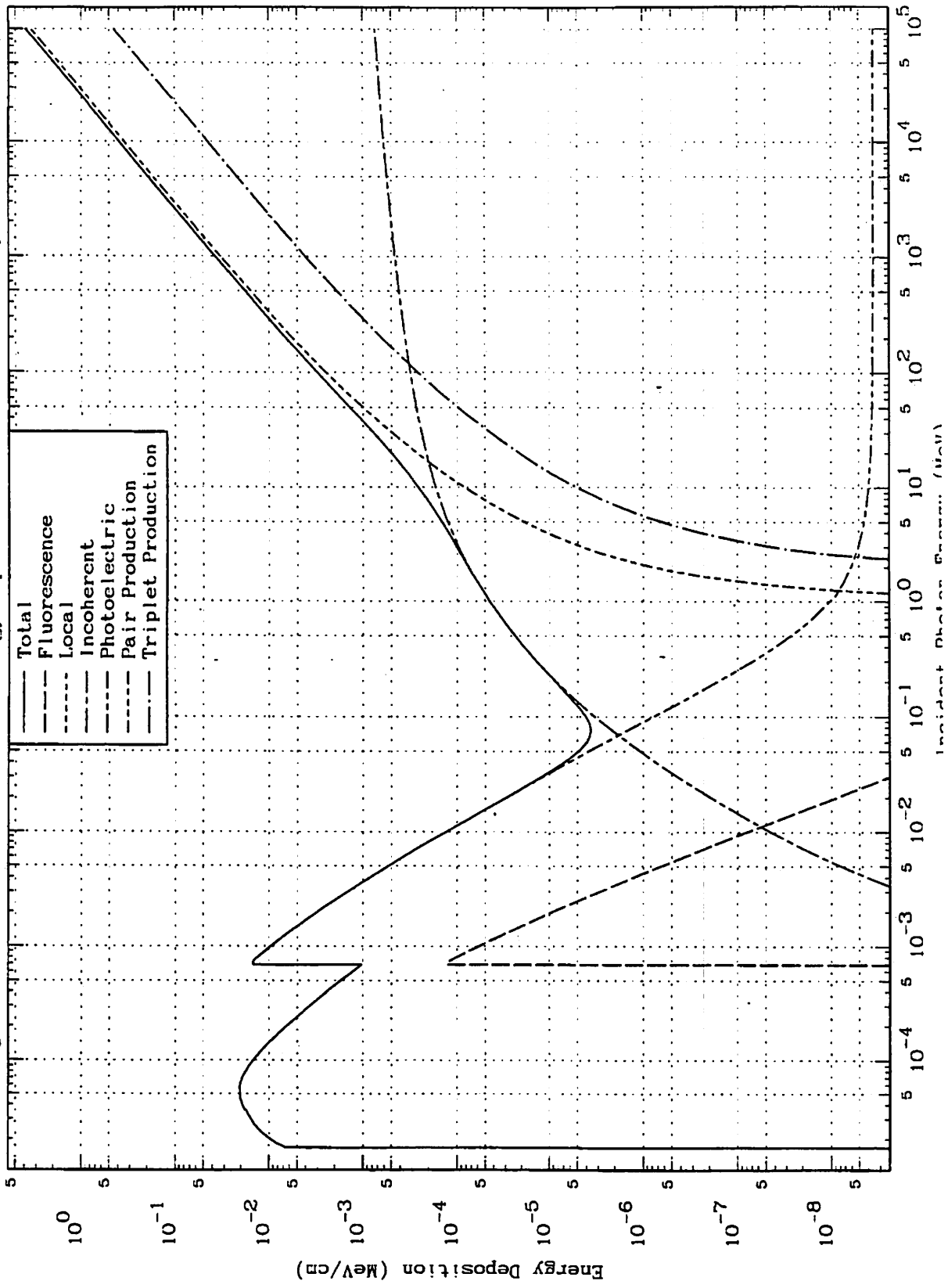
9-F
Density 1.6960- 3 Grams/cc

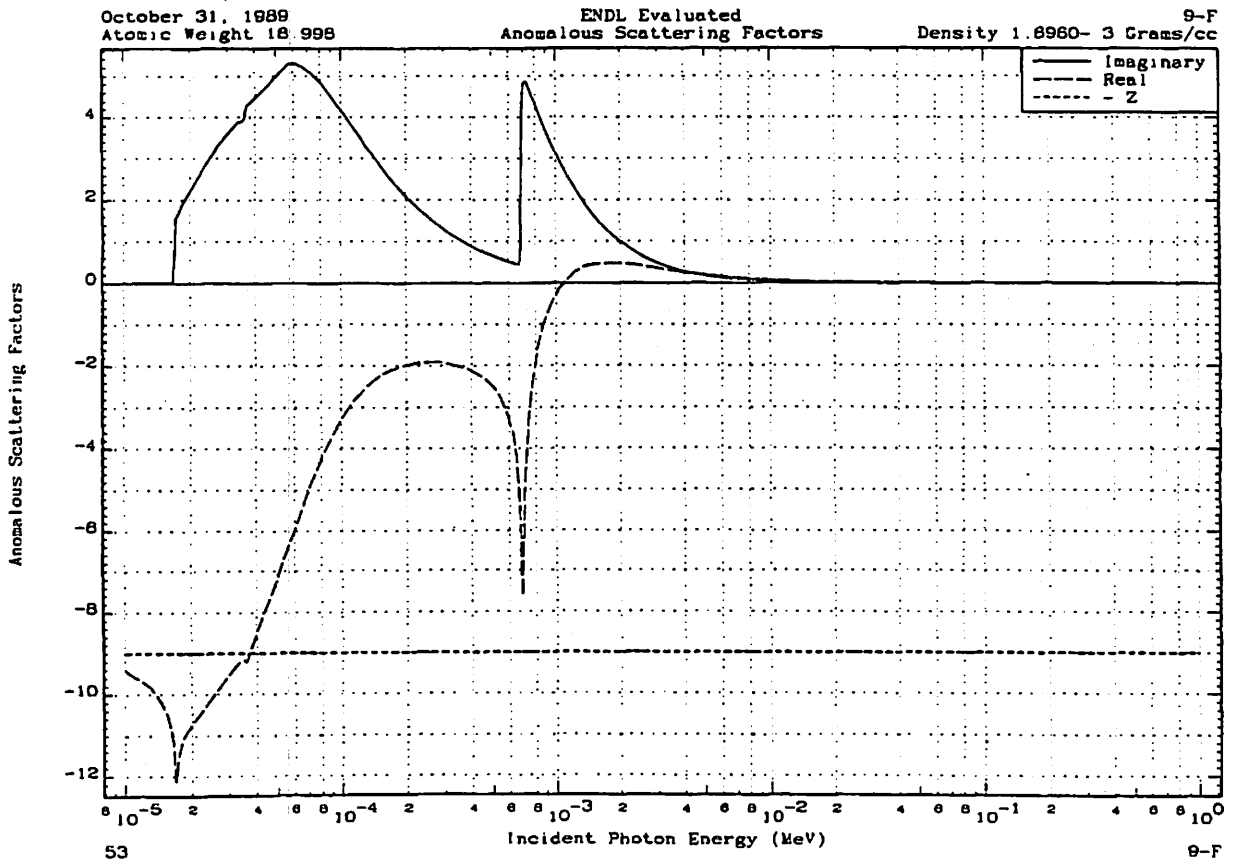
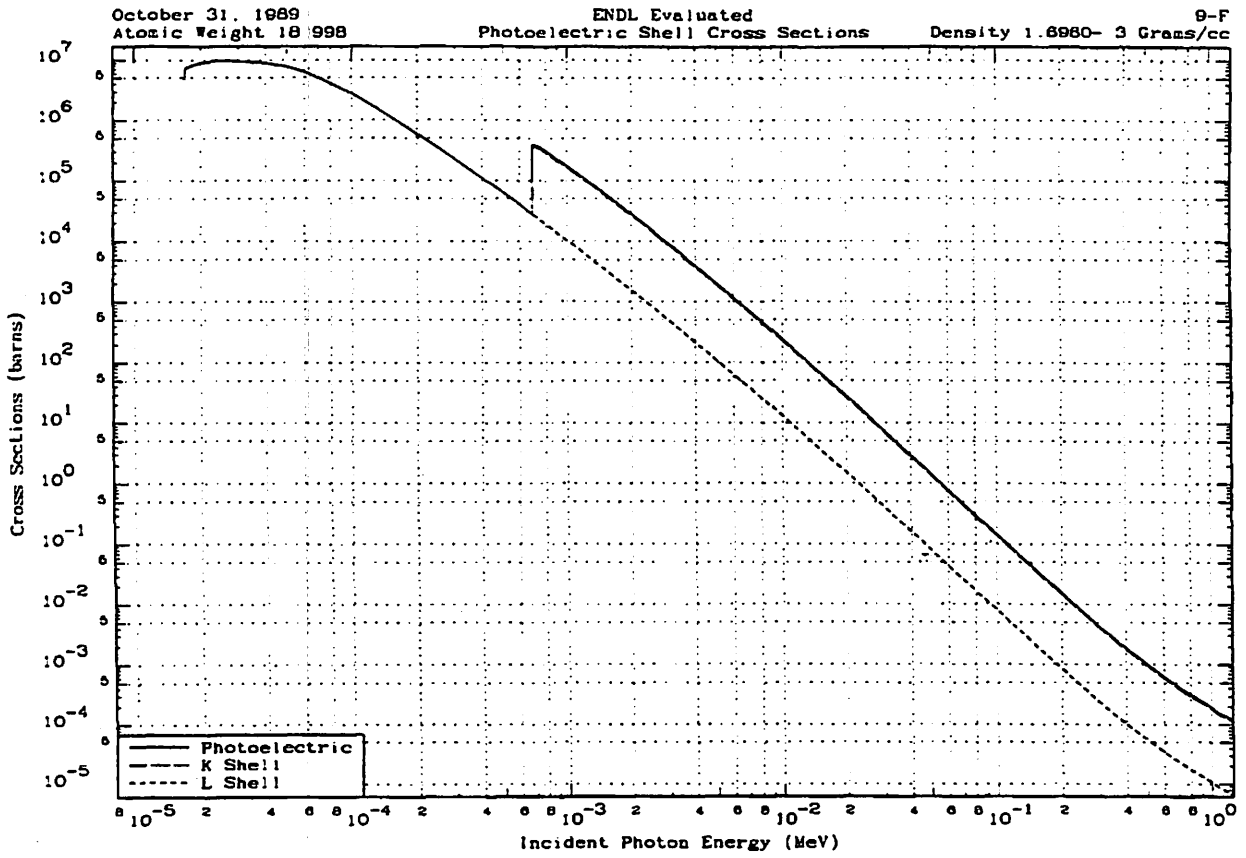


October 31, 1989
Atomic Weight 18.998

ENDL Evaluated
Energy Deposition

Density 1.6960 - 3 Grams/cc
9-F

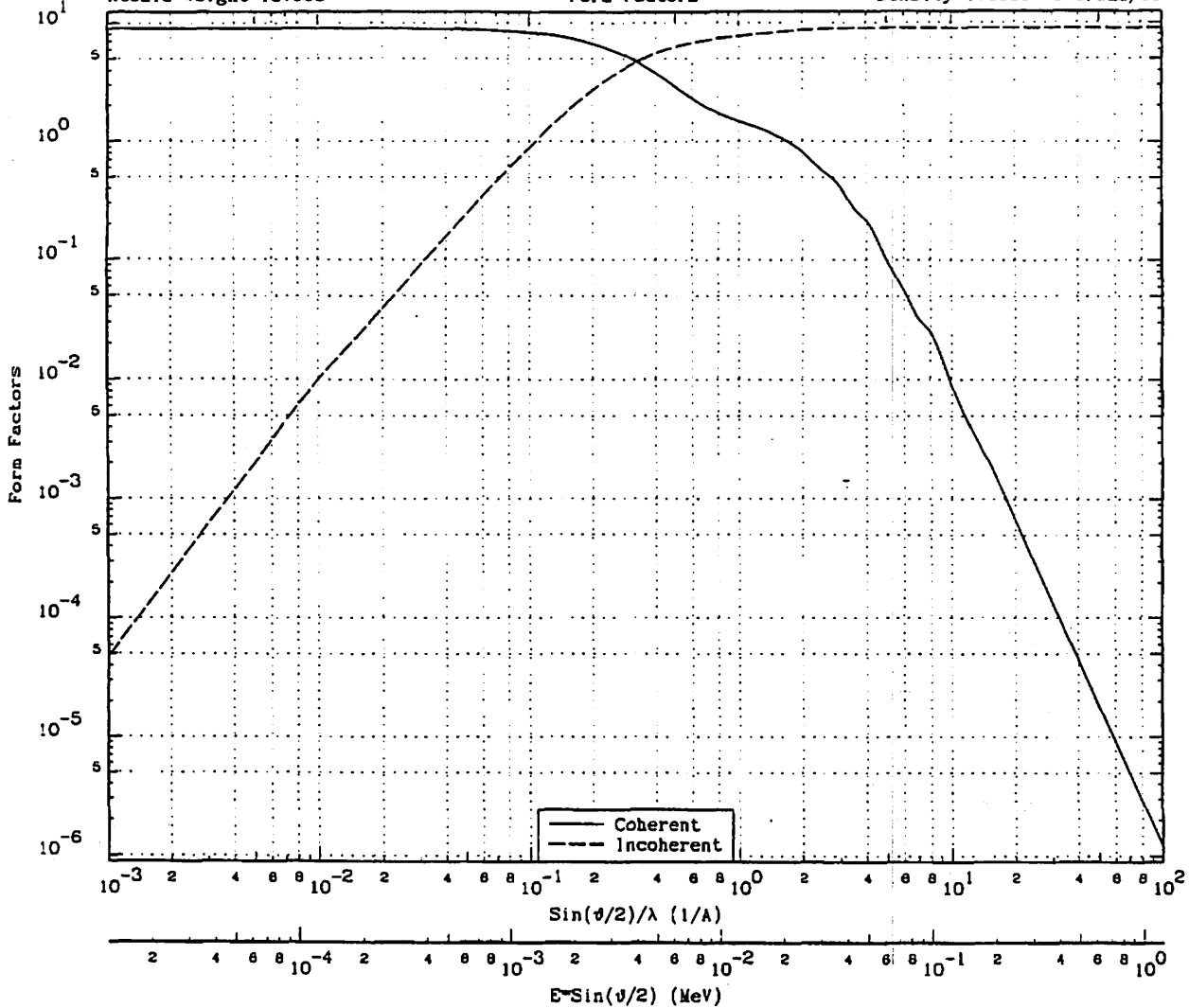




October 31, 1989
Atomic Weight 18.998

ENDL Evaluated
Form Factors

9-F
Density 1.6960- 3 Grams/cc



$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	8.0000+0	0.0000+0	8.0000-1	8.9188-3	1.7328+0	7.3760+0	1.1831+1	1.4783-1	4.4360-3	9.0000+0
1.0000-3	1.2399-5	8.0000+0	4.7651-5	8.0000-1	1.1159-2	1.5840+0	7.5520+0	1.5000+1	1.8598-1	2.0409-3	9.0000+0
5.0000-3	8.1993-5	8.9978+0	2.0000-3	1.0000-0	1.2399-2	1.4810+0	7.7030+0	1.7847+1	2.2129-1	1.0584-3	9.0000+0
7.8908-3	9.7832-5	8.9939+0	5.9371-3	1.2500+0	1.5498-2	1.2872+0	8.0243+0	2.0000+1	2.4787-1	6.6893-4	9.0000+0
1.0000-2	1.2399-4	8.9918+0	1.0000-2	1.5000+0	1.8598-2	1.1192+0	8.2880+0	2.8487+1	3.5295-1	1.6501-4	9.0000+0
1.5000-2	1.8598-4	8.9831+0	2.2400-2	1.7847+0	2.2128-2	9.4128-1	8.5179+0	5.0000+1	8.1993-1	1.8379-5	9.0000+0
2.0000-2	2.4797-4	8.9689+0	3.9700-2	2.0000+0	2.4797-2	8.0800-1	8.6479+0	8.0000+1	9.9188-1	2.8202-6	9.0000+0
2.5000-2	3.0998-4	8.9531+0	6.1900-2	2.5000+0	3.0998-2	5.8210-1	8.8345+0	1.0000+2	1.2399+0	1.2256-6	9.0000+0
3.0000-2	3.7196-4	8.9326+0	8.8800-2	2.8133+0	3.5724-2	4.5420-1	8.9068+0	2.0108+2	2.4831+0	8.4743-8	9.0000+0
4.0000-2	4.9594-4	8.8808+0	1.5650-1	3.0000+0	3.7196-2	4.1540-1	8.9230+0	3.4171+2	4.2367+0	1.1733-8	9.0000+0
5.0000-2	6.1993-4	8.8150+0	2.4200-1	3.4841+0	4.2950-2	2.7519-1	8.9608+0	6.1412+2	7.8142+0	1.3938-9	9.0000+0
7.0000-2	8.6790-4	8.8441+0	4.6100-1	3.5000+0	4.3395-2	2.6870-1	8.9831+0	1.0000+3	1.2399+1	2.4844-10	9.0000+0
9.0000-2	1.1159-3	8.4255+0	7.3490-1	4.0000+0	4.9594-2	2.1190-1	8.9820+0	1.8293+3	2.2681+1	3.1223-11	9.0000+0
1.0000-1	1.2399-3	8.3011+0	8.8800-1	4.2275+0	5.2415-2	1.8187-1	8.9862+0	3.0688+3	3.8024+1	5.5695-12	9.0000+0
1.2500-1	1.5498-3	7.9501+0	1.3084+0	4.6451+0	5.7582-2	1.2931-1	8.9922+0	5.5079+3	6.8290+1	8.3024-13	9.0000+0
1.5000-1	1.8598-3	7.5578+0	1.7610+0	5.0000+0	6.1993-2	9.8200-2	8.9951+0	8.3487+3	1.0351+2	2.2119-13	9.0000+0
1.7500-1	2.1697-3	7.1384+0	2.2271+0	6.0000+0	7.4391-2	5.4700-2	8.9985+0	1.3128+4	1.6277+2	5.3724-14	9.0000+0
2.0000-1	2.4797-3	6.7058+0	2.6910+0	6.7188+0	8.3303-2	3.8540-2	8.9992+0	2.3110+4	2.8653+2	9.4607-15	9.0000+0
2.5000-1	3.0998-3	5.8475+0	3.5893+0	7.0000+0	8.6790-2	3.2500-2	8.9995+0	5.1500+4	8.3852+2	8.4798-18	9.0000+0
3.0000-1	3.7196-3	5.0489+0	4.3470+0	7.9282+0	9.8289-2	2.5299-2	9.0000+0	1.7113+5	2.1218+3	2.4589-17	9.0000+0
3.7188-1	4.6108-3	4.0750+0	5.2596+0	8.0000+0	9.9188-2	2.4700-2	9.0000+0	1.0000+6	1.2399+4	1.4260-19	9.0000+0
4.0000-1	4.9594-3	3.7550+0	5.5520+0	8.4035+0	1.0419-1	2.0897-2	9.0000+0	5.6234+6	6.9722+4	8.7331-22	9.0000+0
5.0000-1	6.1993-3	2.8701+0	6.3380+0	8.9911+0	1.1024-1	1.6305-2	9.0000+0	5.4247+7	8.7258+5	9.8848-25	9.0000+0
6.0000-1	7.4391-3	2.3082+0	6.8320+0	1.0000+1	1.2399-1	9.1000-3	9.0000+0	1.0000+8	1.2399+7	1.4880-28	9.0000+0
7.0000-1	8.6790-3	1.8546+0	7.1510+0	1.1009+1	1.3850-1	5.8937-3	9.0000+0				

October 31, 1989
Atomic Weight 18.998

ENDL Evaluated
Photon Data

9-F
Density 1.6960- 3 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.7678-5	3.3354-3	1.0522-1	1.0521-1	1.0311-5				1.5189-19	1.5189-19	
1.3184-5	4.0369-4	1.4606-2	4.6078-1	4.6076-1	1.8000-5				4.6163-19	4.6163-19	
1.4776-5	1.8987-4	3.1053-2	9.7986-1	9.7984-1	2.3074-5				7.4684-19	7.4684-19	
1.5572-5	1.2178-4	4.8426-2	1.5277-0	1.5277-0	2.5892-5				9.3266-19	9.3266-19	
1.8389-5	8.8254-3	8.8387-2	2.7253-0	2.7253-0	2.8891-5				1.1524-18	1.1524-18	
1.8569-5	5.4570-3	1.0805-1	3.4087-0	3.4087-0	2.9674-5				1.2134-18	1.2134-18	
1.8699-5	4.4811-3	1.3217-1	4.1897-0	4.1896-0	3.0185-5				1.2541-18	1.2541-18	
1.8910-5	2.8634-3	1.8887-1	8.2770-0	8.2769-0	3.1032-5				1.3229-18	1.3229-18	
1.8980-5	2.7714-3	2.1278-1	8.7118-0	8.7118-0	3.1314-5				1.3482-18	1.3482-18	
L3 1.8980-5	3.9134-3	1.5067-5	4.7532-8	6.7118-0	3.1314-5	4.7532-8			4.3389-3	4.3389-3	
1.7050-5	3.8866-3	1.5171-5	4.7860-8	7.0780-0	3.1596-5	4.7860-8			4.3889-3	4.3889-3	
L2 1.7050-5	2.6026-3	2.2655-5	7.1471-8	7.0780-0	3.1596-5	7.1471-8			6.5511-3	6.5511-3	
1.7140-5	2.5802-3	2.2852-5	7.2092-8	7.1821-0	3.1864-5	7.2092-8			6.8427-3	6.8427-3	
1.7341-5	2.5308-3	2.3297-5	7.3498-8	6.2490-0	3.2826-5	7.3498-8			6.8518-3	6.8518-3	
1.8035-5	2.3718-3	2.4860-5	7.8428-8	5.1584-0	3.5908-5	7.8428-8			7.6041-3	7.6041-3	
1.8870-5	2.2415-3	2.6305-5	8.2987-8	5.0513-0	3.8863-5	8.2987-8			8.3293-3	8.3293-3	
2.0758-5	2.0317-3	2.8021-5	9.1554-8	5.4277-0	4.9325-5	9.1554-8			1.0217-2	1.0217-2	
2.3629-5	1.9083-3	3.0897-5	9.7473-8	6.4456-0	6.6590-5	9.7473-8			1.2382-2	1.2382-2	
2.7308-5	1.8857-3	3.1288-5	9.8842-8	7.8318-0	6.8790-5	9.8842-8			1.4482-2	1.4482-2	
3.3539-5	1.9856-3	2.9689-5	9.3680-8	1.0032-1	1.4957-4	9.3680-8			1.6891-2	1.6891-2	
3.5305-5	2.0431-3	2.8899-5	9.1044-8	1.0186-1	1.6851-4	9.1044-8			1.7280-2	1.7280-2	
3.5728-5	2.0568-3	2.8670-5	9.0448-8	1.0849-1	1.7322-4	9.0448-8			1.7371-2	1.7371-2	
3.5930-5	2.0631-3	2.8578-5	9.0160-8	1.1087-1	1.7552-4	9.0160-8			1.7415-2	1.7415-2	
L1 3.5930-5	1.9854-3	2.8698-5	9.3691-8	1.1087-1	1.7552-4	9.3691-8			1.8097-2	1.8097-2	
3.8278-5	1.8930-3	2.8585-5	9.3333-8	1.1871-1	1.7950-4	9.3333-8			1.8203-2	1.8203-2	
3.8724-5	2.0027-3	2.8441-5	9.2880-8	1.2224-1	1.8467-4	9.2880-8			1.8337-2	1.8337-2	
4.0000-5	2.0720-3	2.8457-5	8.9775-8	1.3518-1	2.2521-4	8.9775-8			1.8305-2	1.8305-2	
4.8959-5	2.2921-3	2.5724-5	8.1153-8	1.7116-1	3.2690-4	8.1153-8			2.0487-2	2.0487-2	
5.7327-5	2.7762-3	2.1238-5	6.7002-8	2.3527-1	5.1893-4	6.7002-8			2.0649-2	2.0649-2	
6.0588-5	2.8573-3	1.8938-5	6.2899-8	2.5089-1	6.9086-4	6.2899-8			2.0487-2	2.0487-2	
7.2212-5	3.7803-3	1.5589-5	4.9076-8	2.8884-1	8.8859-4	4.9076-8			1.9052-2	1.9052-2	
8.9383-5	5.4727-3	1.0774-5	3.8689-8	3.2269-1	1.4745-3	3.8689-8			1.6334-2	1.6334-2	
1.0000-4	6.7784-3	6.7012-4	2.7450-8	3.3394-1	1.9299-3	2.7450-8			1.4757-2	1.4757-2	
1.3578-4	1.2884-2	4.5835-4	1.4460-6	3.5378-1	3.8278-3	1.4458-6			1.0553-2	1.0553-2	
1.9707-4	2.8932-2	1.8699-4	6.2145-5	3.5693-1	8.2680-3	6.2142-5			6.5835-3	6.5835-3	
2.8659-4	7.3353-2	8.0382-3	2.5359-5	3.4482-1	1.7497-2	2.5355-5			3.9064-3	3.9064-3	
4.1255-4	1.8129-1	3.2524-3	1.0281-5	3.1222-1	3.6282-2	1.0258-5			2.2750-3	2.2750-3	
4.5555-4	2.3287-1	2.5341-3	7.8948-4	2.8857-1	4.4057-2	7.8916-4			1.8572-3	1.8572-3	
5.1489-4	3.1725-1	1.8586-3	5.8633-4	2.7232-1	5.6015-2	5.8606-4			1.8225-3	1.8225-3	
5.4772-4	3.7158-1	1.5889-3	5.0082-4	2.5417-1	6.3202-2	5.0037-4			1.4734-3	1.4734-3	
5.8568-4	4.6163-1	1.2773-3	4.0285-4	2.1752-1	7.4481-2	4.0273-4			1.2897-3	1.2897-3	
6.2826-4	5.2894-1	1.1132-3	3.5120-4	1.8004-1	8.2878-2	3.5102-4			1.1858-3	1.1858-3	
6.4455-4	5.6582-1	1.0421-3	3.2875-4	1.5389-1	8.6928-2	3.2859-4			1.1388-3	1.1388-3	
6.8283-4	6.0775-1	9.7017-2	3.0607-4	1.1182-1	9.1789-2	3.0595-4			1.0899-3	1.0899-3	
6.8978-4	6.2485-1	9.4382-2	2.9788-4	8.7818-0	9.3717-2	2.9760-4			1.0718-3	1.0718-3	
6.7273-4	6.3200-1	9.3295-2	2.9432-4	7.4955-0	9.4527-2	2.9425-4			1.0842-3	1.0842-3	
6.7458-4	6.3851-1	9.2833-2	2.9224-4	8.5828-0	9.5037-2	2.9217-4			1.0586-3	1.0586-3	
6.7896-4	6.4235-1	9.1782-2	2.8958-4	5.3359-0	9.5694-2	2.8953-4			1.0537-3	1.0537-3	
6.8153-4	6.5363-1	9.0208-2	2.8458-4	3.2233-0	9.6982-2	2.8455-4			1.0426-3	1.0426-3	
6.8273-4	6.5882-1	8.8797-2	2.8329-4	2.8786-0	9.7298-2	2.8328-4			1.0397-3	1.0397-3	
6.8405-4	6.5990-1	8.8350-2	2.8188-4	2.8853-0	9.7887-2	2.8185-4			1.0365-3	1.0365-3	
6.8534-4	6.6358-1	8.8853-2	2.8031-4	3.4103-0	9.8603-2	2.8028-4			1.0329-3	1.0329-3	
6.8837-4	6.7064-1	8.7820-2	2.7737-4	5.5835-0	9.8878-2	2.7731-4			1.0282-3	1.0282-3	
K 6.8837-4	4.6778-2	1.2605-4	3.8765-5	5.5835-0	9.8878-2	3.8765-5			1.4718-2	1.4588-2	1.2777-4
6.8116-4	4.8913-2	1.2588-4	3.8650-5	8.1118-0	9.8884-2	3.8649-5			1.4732-2	1.4605-2	1.2747-4
6.8411-4	4.7057-2	1.2530-4	3.8529-5	1.3391-1	1.0050-1	3.8529-5			1.4750-2	1.4823-2	1.2718-4
6.8592-4	4.7145-2	1.2507-4	3.8455-5	1.5844-1	1.0101-1	3.8454-5			1.4781-2	1.4834-2	1.2696-4
6.8928-4	4.7308-2	1.2484-4	3.8320-5	1.9703-1	1.0187-1	3.8318-5			1.4781-2	1.4854-2	1.2681-4
7.0232-4	4.7455-2	1.2425-4	3.8197-5	2.2278-1	1.0284-1	3.8185-5			1.4789-2	1.4872-2	1.2620-4
7.0815-4	4.7739-2	1.2351-4	3.8065-5	2.5288-1	1.0452-1	3.8082-5			1.4833-2	1.4707-2	1.2568-4
7.1889-4	4.8182-2	1.2242-4	3.8822-5	2.8777-1	1.0706-1	3.8619-5			1.4884-2	1.4759-2	1.2478-4
7.2563-4	4.8741-2	1.2097-4	3.8163-5	3.1828-1	1.0983-1	3.8160-5			1.4886-2	1.4783-2	1.2347-4
7.3893-4	5.0435-2	1.1891-4	3.6881-5	3.5308-1	1.1380-1	3.6878-5			1.4850-2	1.4530-2	1.1944-4
7.6396-4	5.3895-2	1.0981-4	3.4842-5	3.8982-1	1.2126-1	3.4839-5			1.4226-2	1.4114-2	1.1238-4
8.0586-4	6.1347-2	9.8112-3	3.0321-5	4.5505-1	1.3459-1	3.0317-5			1.3134-2	1.3036-2	9.8414-5
8.7827-4	7.6043-2	7.7538-3	2.4462-5	5.0517-1	1.5883-1	2.4456-5			1.1547-2	1.1468-2	7.8489-5
1.0000-3	1.0511-1	5.8083-3	1.7686-5	5.4241-1	2.0326-1	1.7691-5			9.5102-3	9.4526-3	5.7560-5
1.2584-3	1.8665-1	3.1581-3	9.8681-4	5.8248-1	3.1040-1	9.8604-4			6.7279-3	6.8954-3	3.2482-5
1.6144-3	3.6823-1	1.8100-3	5.0791-4	5.3903-1	4.8534-1	5.0736-4			4.4033-3	4.3867-3	1.6581-5
2.1383-3	7.8779-1	7.4845-2	2.3612-4	4.8722-1	7.8183-1	2.3582-4			2.7086-3	2.7009-3	7.8991-6
2.7209-3	1.5887-0	3.7827-2	1.1934-4	4.2857-1	1.1271-0	1.1890-4			1.7391-3	1.7353-3	3.8843-6
3.5851-3	3.4180-0	1.7250-2	5.4421-3	3.4638-1	1.6337-0	5.4058-3			1.0419-3	1.0401-3	1.7871-8
4.3482-3	6.0360-0	9.7685-1	3.0817-3	2.8812-1	2.0432-0	3.0509-3			7.1318-4	7.1217-4	8.9699-7
5.4426-3	1.1883-1	5.0488-1	1.5822-3	2.2412-1	2.8483-0	1.5672-3			4.5855-4	4.5804-4	5.1231-7
7.1821-3	2.6584-1	2.2180-1	8.9973-2	1.5797-1	3.1488-0	8.8078-2			2.8214-4	2.8182-4	2.2241-7
1.0000-2	7.2313-1	8.1538-0	2.5723-2	8.9489-0	3.7484-0	2.4354-2			1.3097-4	1.3089-4	7.8570-8
1.4881-2	2.3130-2	2.5491-0	8.0419-1	5.8561-0	4.2428-0	7.0520-1			5.8442-5	5.8419-5	2.3041-8
1.9329-2	4.7780-2	1.2340-0	3.8931-1	3.8546-0	4.5091-0	3.0587-1			3.1943-5	3.1833-5	9.9657-9
2.3571-2	7.8271-2	7.5331-1	2.3765-1	2.8540-0	4.6447-0	1.8267-1			2.0878-5	2.0874-5	5.3134-9
2.7108-2	1.0714-3	5.5034-1	1.7362-1	2.2857-0	4.7249-0	1.0351-1			1.5436-5	1.5433-5	3.3811-9</

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/ea)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
7.7383- 2	3.5492+ 3	1.5613- 1	5.2409+ 0	3.6044- 1	4.5440- 0	3.3649- 1			3.6059- 6	3.6057- 6	1.0988- 10
8.6573- 2	3.7320+ 3	1.5799- 1	4.9842+ 0	2.9211- 1	4.4594+ 0	2.3273- 1			3.7084- 6	3.7084- 6	7.5993- 11
1.0000- 0	3.9407+ 3	1.4982- 1	4.7203+ 0	2.2237- 1	4.3530- 0	1.4492- 1			4.0620- 6	4.0620- 6	4.7318- 11
1.1772- 1	4.1872+ 3	1.4081- 1	4.4424+ 0	1.6280- 1	4.1842+ 0	8.5349- 2			4.6919- 6	4.6918- 6	2.7887- 11
2.0513- 1	5.0759+ 3	1.1810- 1	3.8646+ 0	5.5133- 2	3.5854+ 0	1.4117- 2			8.8709- 6	8.8709- 6	4.6090- 12
3.0000- 1	5.8258+ 3	1.0121- 1	3.1929+ 0	2.5989- 2	3.1629+ 0	4.3304- 3			1.3815- 5	1.3815- 5	1.4138- 12
4.0288- 1	8.5315+ 3	9.0273- 2	2.8479+ 0	1.4458- 2	2.8316+ 0	1.8214- 3			1.9086- 5	1.9086- 5	5.9469- 13
5.8742- 1	7.5292+ 3	7.8312- 2	2.4706+ 0	7.3039- 3	2.4625+ 0	7.2180- 4			2.7053- 5	2.7053- 5	2.3561- 13
6.9924- 1	8.2675+ 3	7.1318- 2	2.2499+ 0	4.8132- 3	2.2447+ 0	4.3083- 4			3.2863- 5	3.2863- 5	1.4064- 13
8.8204+ 0	9.2144+ 3	6.3989- 2	2.0187+ 0	3.0285- 3	2.0154+ 0	2.5563- 4			4.0349- 5	4.0349- 5	8.3417- 14
1.0000+ 0	9.7814+ 3	6.0280- 2	1.9017+ 0	2.3550- 3	1.8991+ 0	1.8601- 4			4.4954- 5	4.4954- 5	6.3959- 14
1.0220+ 0	9.8867+ 3	5.9838- 2	1.8814+ 0	2.2548- 3	1.8790+ 0	1.8340- 4			4.5786- 5	4.5786- 5	5.9878- 14
1.0251+ 0	9.9025+ 3	5.9543- 2	1.8794+ 0	2.2411- 3	1.8780+ 0	1.8189- 4	3.0218- 8		4.5872- 5	4.5872- 5	5.9413- 14
1.0287+ 0	9.9208+ 3	5.9433- 2	1.8750+ 0	2.2253- 3	1.8726+ 0	1.8004- 4	3.0218- 8		4.5995- 5	4.5995- 5	5.8879- 14
1.0366+ 0	9.9608+ 3	5.9196- 2	1.8675+ 0	2.1916- 3	1.8651+ 0	1.7665- 4	3.0218- 7		4.6281- 5	4.6281- 5	5.7740- 14
1.0484+ 0	1.0010+ 4	5.8906- 2	1.8584+ 0	2.1509- 3	1.8580+ 0	1.7287- 4	1.3813- 8		4.6590- 5	4.6590- 5	5.6374- 14
1.0483+ 0	1.0019+ 4	5.8850- 2	1.8568+ 0	2.1431- 3	1.8543+ 0	1.7187- 4	1.6949- 8		4.6654- 5	4.6654- 5	5.6113- 14
1.0512+ 0	1.0033+ 4	5.8765- 2	1.8539+ 0	2.1313- 3	1.8516+ 0	1.7066- 4	2.2891- 8		4.6752- 5	4.6752- 5	5.5718- 14
1.0541+ 0	1.0048+ 4	5.8681- 2	1.8513+ 0	2.1197- 3	1.8490+ 0	1.6947- 4	3.0218- 6		4.6849- 5	4.6849- 5	5.5330- 14
1.0577+ 0	1.0068+ 4	5.8578- 2	1.8478+ 0	2.1052- 3	1.8457+ 0	1.6799- 4	4.1189- 6		4.6970- 5	4.6970- 5	5.4847- 14
1.0611+ 0	1.0083+ 4	5.8479- 2	1.8448+ 0	2.0918- 3	1.8426+ 0	1.6662- 4	5.3578- 6		4.7085- 5	4.7085- 5	5.4389- 14
1.0651+ 0	1.0103+ 4	5.8383- 2	1.8412+ 0	2.0781- 3	1.8390+ 0	1.6502- 4	7.0929- 6		4.7219- 5	4.7219- 5	5.3878- 14
1.0704+ 0	1.0129+ 4	5.8212- 2	1.8385+ 0	2.0556- 3	1.8342+ 0	1.6294- 4	8.8952- 6		4.7397- 5	4.7397- 5	5.3199- 14
1.0782+ 0	1.0158+ 4	5.8048- 2	1.8313+ 0	2.0335- 3	1.8291+ 0	1.6088- 4	1.3875- 5		4.7591- 5	4.7591- 5	5.2524- 14
1.0806+ 0	1.0179+ 4	5.7924- 2	1.8274+ 0	2.0170- 3	1.8252+ 0	1.5972- 4	1.7078- 5		4.7738- 5	4.7738- 5	5.2148- 14
1.0871+ 0	1.0211+ 4	5.7743- 2	1.8217+ 0	1.9930- 3	1.8195+ 0	1.5803- 4	2.3010- 5		4.7856- 5	4.7856- 5	5.1859- 14
1.0937+ 0	1.0244+ 4	5.7581- 2	1.8159+ 0	1.9690- 3	1.8137+ 0	1.5634- 4	3.0218- 5		4.8178- 5	4.8178- 5	5.1043- 14
1.1028+ 0	1.0287+ 4	5.7319- 2	1.8092+ 0	1.9374- 3	1.8081+ 0	1.5411- 4	4.1801- 5		4.8472- 5	4.8472- 5	5.0318- 14
1.1107+ 0	1.0328+ 4	5.7099- 2	1.8014+ 0	1.9092- 3	1.7992+ 0	1.5213- 4	5.4652- 5		4.8741- 5	4.8741- 5	4.9688- 14
1.1208+ 0	1.0374+ 4	5.6838- 2	1.7930+ 0	1.8757- 3	1.7909+ 0	1.4975- 4	7.3118- 5		4.9070- 5	4.9070- 5	4.8853- 14
1.1333+ 0	1.0435+ 4	5.6503- 2	1.7825+ 0	1.8339- 3	1.7804+ 0	1.4678- 4	1.0168- 4		4.9490- 5	4.9490- 5	4.7928- 14
1.1475+ 0	1.0503+ 4	5.6137- 2	1.7710+ 0	1.7888- 3	1.7689+ 0	1.4359- 4	1.4041- 4		4.9959- 5	4.9959- 5	4.6880- 14
1.1582+ 0	1.0584+ 4	5.5697- 2	1.7625+ 0	1.7359- 3	1.7604+ 0	1.4125- 4	1.7450- 4		5.0311- 5	5.0311- 5	4.6115- 14
1.1741+ 0	1.0694+ 4	5.5472- 2	1.7500+ 0	1.7087- 3	1.7479+ 0	1.3787- 4	2.3318- 4		5.0834- 5	5.0834- 5	4.5104- 14
1.1901+ 0	1.0704+ 4	5.5083- 2	1.7377+ 0	1.6831- 3	1.7358+ 0	1.3481- 4	3.0218- 4		5.1358- 5	5.1358- 5	4.3847- 14
1.2051+ 0	1.0774+ 4	5.4729- 2	1.7285+ 0	1.6220- 3	1.7244+ 0	1.3189- 4	3.7590- 4		5.1848- 5	5.1848- 5	4.2894- 14
1.2275+ 0	1.0877+ 4	5.4208- 2	1.7101+ 0	1.5833- 3	1.7079+ 0	1.2797- 4	5.0282- 4		5.2577- 5	5.2577- 5	4.1779- 14
1.2500+ 0	1.0980+ 4	5.3699- 2	1.6941+ 0	1.5078- 3	1.6918+ 0	1.2440- 4	6.5060- 4		5.3307- 5	5.3307- 5	4.0815- 14
1.2813+ 0	1.1121+ 4	5.3017- 2	1.6728+ 0	1.4349- 3	1.6701+ 0	1.1911- 4	8.8017- 4		5.4319- 5	5.4319- 5	3.8887- 14
1.3325+ 0	1.1348+ 4	5.1959- 2	1.6392+ 0	1.3288- 3	1.6384+ 0	1.1118- 4	1.3668- 3		5.5384- 5	5.5384- 5	3.6298- 14
1.3744+ 0	1.1529+ 4	5.1140- 2	1.6134+ 0	1.2471- 3	1.6102+ 0	1.0529- 4	1.8322- 3		5.7302- 5	5.7302- 5	3.4375- 14
1.4056+ 0	1.1683+ 4	5.0554- 2	1.5948+ 0	1.1821- 3	1.5913+ 0	1.0119- 4	2.2238- 3		5.8300- 5	5.8300- 5	3.3038- 14
1.4529+ 0	1.1881+ 4	4.9713- 2	1.5683+ 0	1.1181- 3	1.5642- 0	9.5489- 5	2.8782- 3		5.9792- 5	5.9792- 5	3.1178- 14
1.5000+ 0	1.2054+ 4	4.8918- 2	1.5432+ 0	1.0471- 3	1.5384+ 0	9.0280- 5	3.8010- 3		6.1278- 5	6.1278- 5	2.9475- 14
1.5625+ 0	1.2304+ 4	4.7920- 2	1.5118+ 0	9.6502- 4	1.5061+ 0	8.4512- 5	4.8630- 3		6.3240- 5	6.3240- 5	2.7592- 14
1.6172+ 0	1.2518+ 4	4.7102- 2	1.4860+ 0	9.0086- 4	1.4783+ 0	7.9838- 5	5.8760- 3		6.4951- 5	6.4951- 5	2.6098- 14
1.7189+ 0	1.2803+ 4	4.5699- 2	1.4417+ 0	7.9754- 4	1.4331+ 0	7.2435- 5	7.7320- 3		6.8116- 5	6.8116- 5	2.3849- 14
1.7847+ 0	1.3184+ 4	4.4792- 2	1.4131+ 0	7.3873- 4	1.4031+ 0	6.8158- 5	9.1805- 3		6.9945- 5	6.9945- 5	2.2553- 14
1.8823+ 0	1.3578+ 4	4.3430- 2	1.3701+ 0	6.5802- 4	1.3577+ 0	6.2000- 5	1.1884- 2		7.2915- 5	7.2915- 5	2.0242- 14
2.0440+ 0	1.4132+ 4	4.1722- 2	1.3182+ 0	5.8399- 4	1.3002+ 0	5.4830- 5	1.5480- 2		7.7079- 5	7.7079- 5	1.7901- 14
2.0858+ 0	1.4290+ 4	4.1261- 2	1.3017+ 0	5.4181- 4	1.2846+ 0	5.3258- 5	1.8502- 2	9.0368- 8	7.8120- 5	7.8120- 5	1.7388- 14
2.1383+ 0	1.4477+ 4	4.0728- 2	1.2849+ 0	5.1634- 4	1.2685+ 0	5.1482- 5	1.7823- 2	9.0368- 7	7.8378- 5	7.8378- 5	1.6802- 14
2.1470+ 0	1.4518+ 4	4.0618- 2	1.2814+ 0	5.1118- 4	1.2627+ 0	5.1092- 5	1.8114- 2	1.2390- 6	7.9847- 5	7.9847- 5	1.6881- 14
2.1835+ 0	1.4577+ 4	4.0450- 2	1.2781+ 0	5.0341- 4	1.2570+ 0	5.0533- 5	1.8589- 2	1.8841- 8	8.0059- 5	8.0059- 5	1.6499- 14
2.1845+ 0	1.4653+ 4	4.0238- 2	1.2694+ 0	4.9378- 4	1.2498+ 0	4.9837- 5	1.9084- 2	2.9854- 8	8.0579- 5	8.0579- 5	1.6271- 14
2.2018+ 0	1.4718+ 4	4.0068- 2	1.2640+ 0	4.8605- 4	1.2439+ 0	4.9278- 5	1.9517- 2	4.1305- 8	8.1008- 5	8.1008- 5	1.6088- 14
2.2148+ 0	1.4763+ 4	3.9939- 2	1.2600+ 0	4.8038- 4	1.2398+ 0	4.8881- 5	1.9847- 2	5.1482- 8	8.1328- 5	8.1328- 5	1.5952- 14
2.2342+ 0	1.4833+ 4	3.9751- 2	1.2540+ 0	4.7208- 4	1.2332+ 0	4.8253- 5	2.0348- 2	6.8228- 8	8.1808- 5	8.1808- 5	1.5754- 14
2.2537+ 0	1.4902+ 4	3.9568- 2	1.2482+ 0	4.6394- 4	1.2288+ 0	4.7655- 5	2.0855- 2	9.0368- 6	8.2291- 5	8.2291- 5	1.5559- 14
2.2815+ 0	1.5001+ 4	3.9308- 2	1.2400+ 0	4.5289- 4	1.2178+ 0	4.6822- 5	2.1585- 2	1.2858- 5	8.2860- 5	8.2860- 5	1.5287- 14
2.3070+ 0	1.5080+ 4	3.9074- 2	1.2327+ 0	4.4274- 4	1.2099+ 0	4.6081- 5	2.2289- 2	1.6828- 5	8.3813- 5	8.3813- 5	1.5045- 14
2.3382+ 0	1.5188+ 4	3.8798- 2	1.2239+ 0	4.3101- 4	1.2003+ 0	4.5200- 5	2.3158- 2	2.2355- 5	8.4389- 5	8.4389- 5	1.4757- 14
2.3774+ 0	1.5332+ 4	3.8458- 2	1.2132+ 0	4.1891- 4	1.1885+ 0	4.4134- 5	2.4280- 2	3.0969- 5	8.5385- 5	8.5385- 5	1.4408- 14
2.4102+ 0	1.5444+ 4	3.8177- 2	1.2044+ 0	4.0584- 4	1.1788+ 0	4.3274- 5	2.5087- 2	3.8375- 5	8.6171- 5	8.6171- 5	1.4128- 14
2.4468+ 0	1.5568+ 4	3.7873- 2	1.1948+ 0	3.9380- 4	1.1683+ 0	4.2347- 5	2.6028- 2	5.0087- 5	8.7070- 5	8.7070- 5	1.3828- 14
2.4859+ 0	1.5699+ 4	3.7558- 2	1.1849+ 0	3.8132- 4	1.1573+ 0	4.1384- 5	2.7057- 2	6.3062- 5	8.8034- 5	8.8034- 5	1.3515- 14
2.5584+ 0	1.5930+ 4	3.7014- 2	1.1677+ 0	3.6057- 4	1.1383+ 0	3.9784- 5	2.8972- 2	9.0388- 5	8.9777- 5	8.9777- 5	1.2982- 14
2.6804+ 0	1.6280+ 4	3.6282- 2	1.1440+ 0	3.3294- 4	1.1118+ 0	3.7551- 5	3.1882- 2	1.3930- 4	9.2355- 5	9.2355- 5	1.2280- 14
2.7453+ 0	1.6528+ 4	3.5879- 2	1.1258+ 0	3.1287- 4	1.0910+ 0	3.5894- 5	3.4052- 2	1.8845- 4	9.4438- 5	9.4438- 5	1.1719- 14
2.8090+ 0	1.6720+ 4	3.5285- 2	1.1125+ 0	2.9665- 4	1.0782+ 0	3.4731- 5	3.5729- 2	2.2579- 4	9.6004- 5	9.6004- 5	1.1339- 14
2.9045+ 0	1.7003+ 4	3.4877- 2	1.0940+ 0	2.7933- 4	1.0551+ 0	3.3103- 5	3.8322- 2	2.9068- 4	9.8387- 5	9.8387- 5	1.0808- 14
3.0399+ 0	1.7392+ 4	3.3902- 2	1.0695+ 0	2.5501- 4	1.0288+ 0	3.1057- 5	4.2003- 2	3.9428- 4	1.0173- 4	1.0173- 4	1.0140- 14
3.2344+ 0	1.7866+ 4	3.2782- 2	1.0342+ 0	2.2526- 4	9.8637- 1	2.6628- 5	4.6982- 2	5.6982- 4	1.0591- 4	1.0591- 4	9.3487- 15
3.4375+ 0	1.8571+ 4	3.1750- 2									

October 31, 1989
Atomic Weight 18.998

ENDL Evaluated
Photon Data

9-F
Density 1.6960- 3 Grams/cc

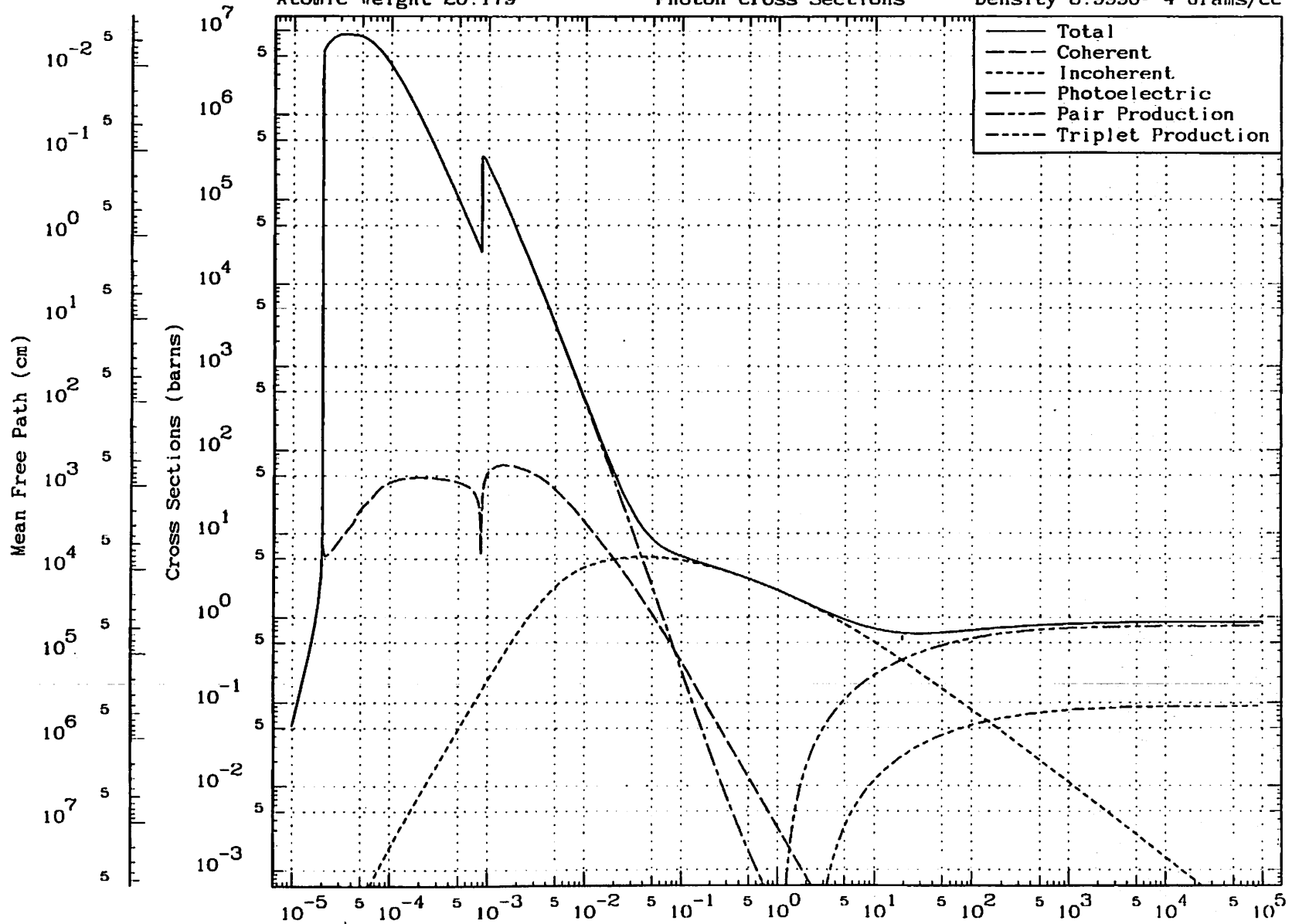
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.2170+ 1	3.4121+ 4	1.7280- 2	5.4515- 1	1.3253- 6	1.5053- 1	1.9971- 8	3.6048- 1	3.4131- 2	1.1330- 3	1.1330- 3	5.2142-16
6.8282+ 1	3.3007+ 4	1.7864- 2	5.8358- 1	4.8098- 7	9.9879- 2	9.8155- 7	4.2092- 1	4.2758- 2	1.8915- 3	1.8915- 3	3.1393-16
1.0000+ 2	3.1777+ 4	1.8555- 2	5.8537- 1	2.3587- 7	7.3754- 2	8.8260- 7	4.8260- 1	4.8010- 2	3.0371- 3	3.0371- 3	2.1633-18
2.0000+ 2	2.8625+ 4	1.8903- 2	6.2788- 1	5.8918- 8	4.0794- 2	3.2840- 7	5.2760- 1	5.9490- 2	6.6385- 3	6.6385- 3	1.0754-16
4.0000+ 2	2.8011+ 4	2.1050- 2	6.6408- 1	1.4729- 8	2.2448- 2	1.8420- 7	5.7380- 1	6.7830- 2	1.4163- 2	1.4163- 2	5.3609-17
1.0000+ 3	2.6712+ 4	2.2074- 2	8.9637- 1	2.3587- 9	1.0053- 2	8.5580- 8	8.1100- 1	7.5320- 2	3.7317- 2	3.7317- 2	2.1405-17
4.0000+ 3	2.5837+ 4	2.2821- 2	7.1885- 1	1.4728-10	2.8045- 3	1.8370- 8	8.3810- 1	8.0840- 2	1.5470- 1	1.5470- 1	5.3448-18
1.0000+ 4	2.5805+ 4	2.3028- 2	7.2848- 1	2.3587-11	1.2889- 3	8.5480- 8	8.4270- 1	8.2510- 2	3.8043- 1	3.8043- 1	2.1382-18
1.0000+ 5	2.5430+ 4	2.3188- 2	7.3147- 1	2.3818-13	1.5339- 4	8.5480-10	8.4780- 1	8.3720- 2	3.8323+ 0	3.8323+ 0	2.1378-19

October 31, 1989
Atomic Weight 20.179

ENDL Evaluated
Photon Cross Sections

10-Ne
Density 8.9990- 4 Grams/cc

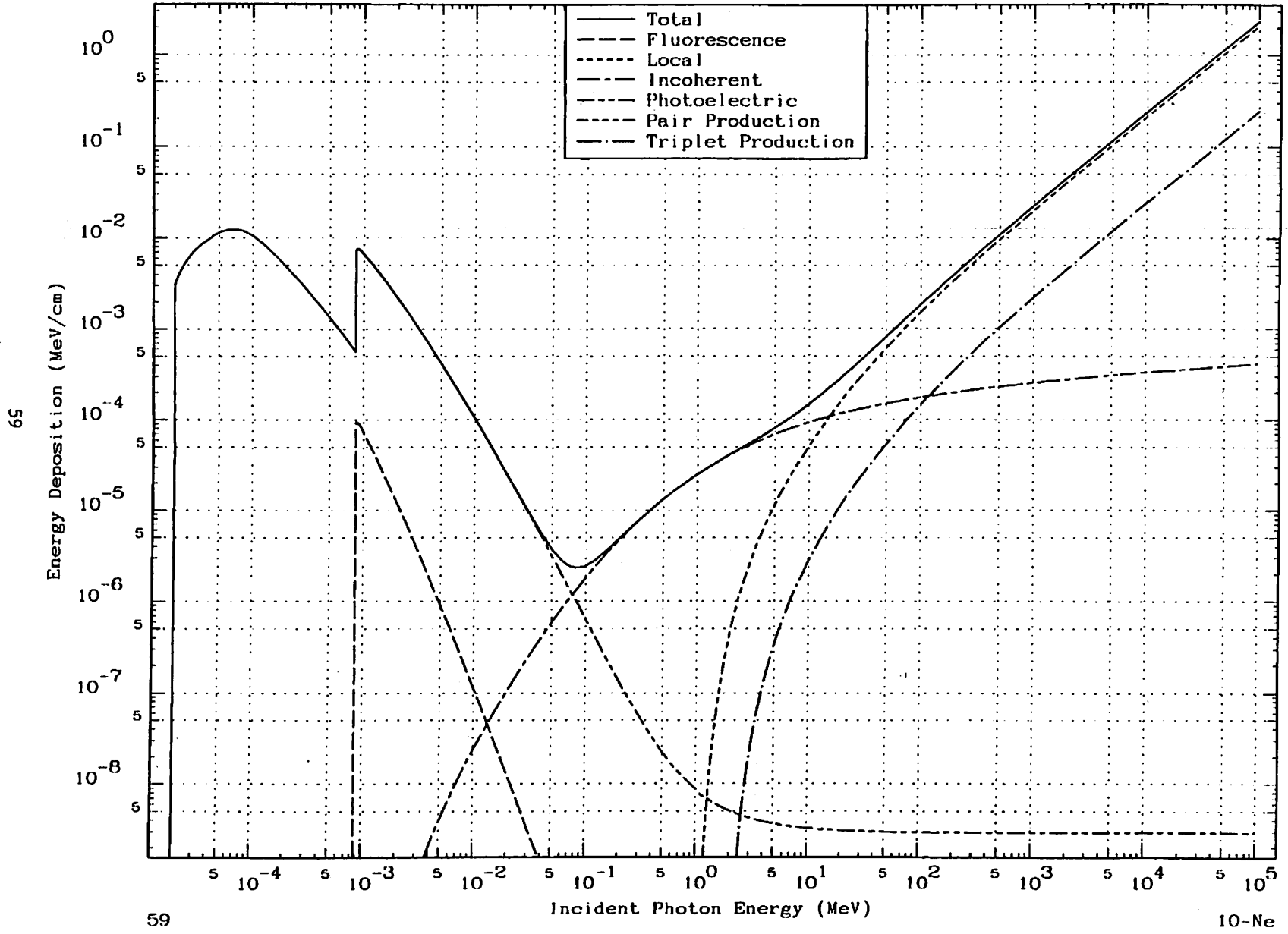
85



Atomic Weight 20.179

Energy Deposition

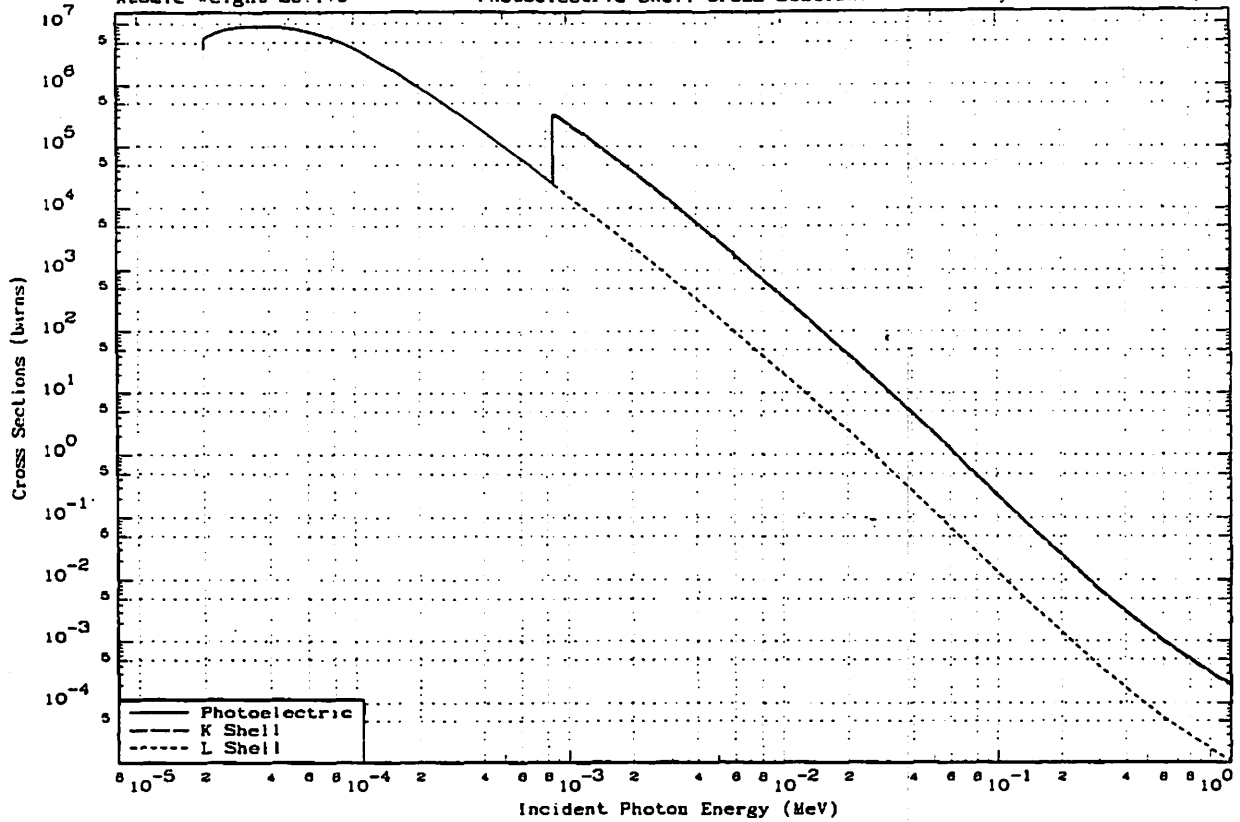
Density 8.9990- 4 Grams/cc



October 31, 1989
Atomic Weight 20.179

ENDL Evaluated
Photoelectric Shell Cross Sections

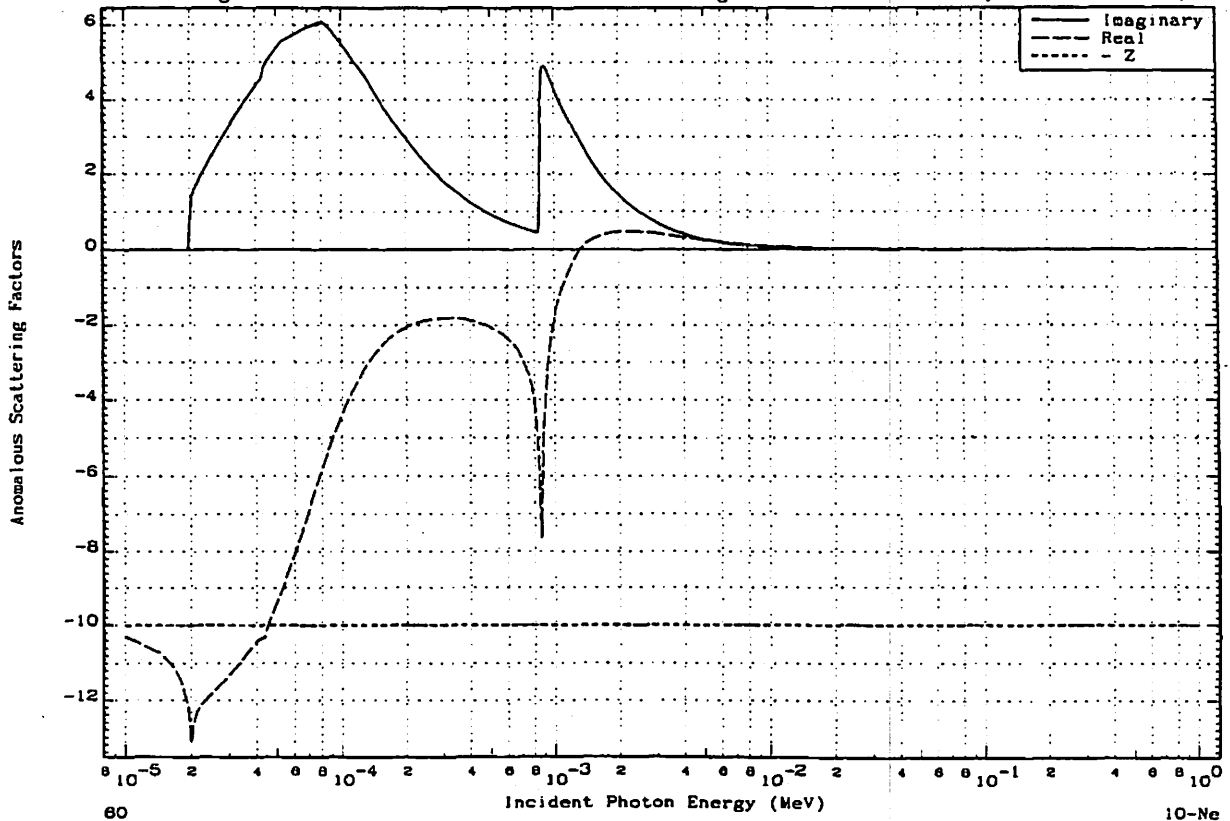
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October 31, 1989
Atomic Weight 20.179

ENDL Evaluated
Anomalous Scattering Factors

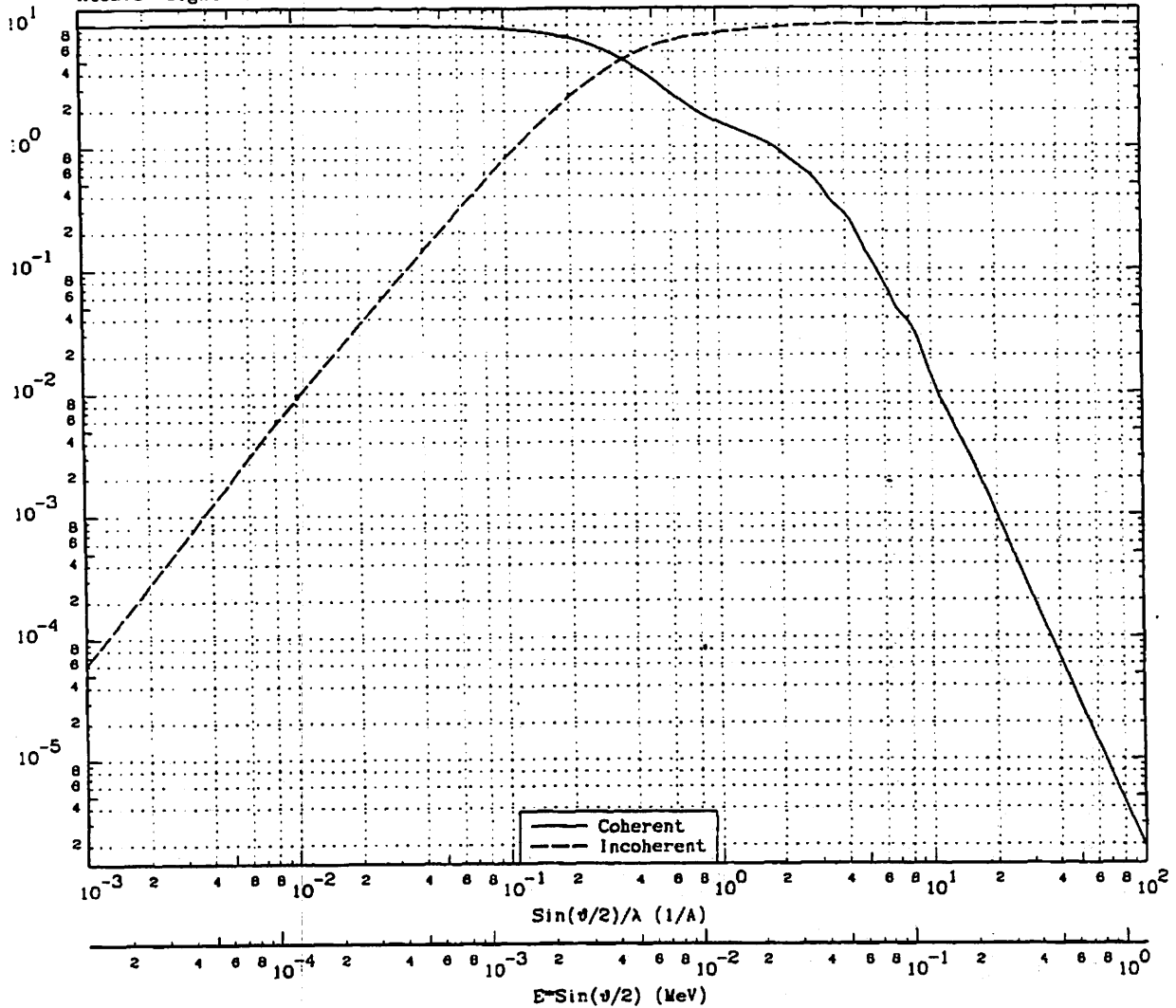
10-Ne
Density 8.9990- 4 Grams/cc



October 31, 1989
Atomic Weight 20.179

ENDL Evaluated
Form Factors

10-Ne
Density 8.9990- 4 Grams/cc



$\sin(\theta/2)/\lambda$ 1/A	$E^*S\sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E^*S\sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E^*S\sin(\theta/2)$ MeV	Coherent	Incoherent
3000+ 0	0.0000+ 0	1.0000+ 1	0.0000+ 0	7.0000- 1	8.6790- 3	2.2929+ 0	7.7740+ 0	1.2135+ 1	1.5048- 1	8.3087- 3	1.0000+ 1
3000- 3	1.2399- 5	1.0000+ 1	8.0658- 5	8.0000- 1	8.9189- 3	1.9888+ 0	8.0850+ 0	1.5000+ 1	1.8598- 1	3.0748- 3	1.0000+ 1
3000- 3	6.1953- 5	8.9978+ 0	2.0000- 3	9.0000- 1	1.1159- 2	1.7540+ 0	8.3120+ 0	1.7129+ 1	2.1237- 1	1.8753- 3	1.0000+ 1
9906- 3	9.7832- 5	8.9944+ 0	5.1473- 3	1.0000+ 0	1.2399- 2	1.8073+ 0	8.4900+ 0	2.0000+ 1	2.4797- 1	1.0151- 3	1.0000+ 1
3000- 2	1.2399- 4	8.9928+ 0	9.0000- 3	1.2500+ 0	1.6498- 2	1.3789+ 0	8.8381+ 0	3.1543+ 1	3.9109- 1	1.6912- 4	1.0000+ 1
5000- 2	1.8598- 4	8.9845+ 0	2.0100- 2	1.5000+ 0	1.8598- 2	1.2174+ 0	9.1130+ 0	5.0000+ 1	6.1993- 1	2.8225- 5	1.0000+ 1
3000- 2	2.4797- 4	8.9724+ 0	3.5700- 2	1.7891+ 0	2.2182- 2	1.0502+ 0	9.3695+ 0	6.0000+ 1	8.9188- 1	4.5067- 6	1.0000+ 1
5000- 2	3.0996- 4	8.9570+ 0	5.5600- 2	2.0000+ 0	2.4797- 2	9.2860- 1	9.5175+ 0	1.0000+ 2	1.2399+ 0	1.8965- 6	1.0000+ 1
3000- 2	3.7196- 4	8.9382+ 0	7.9900- 2	2.5000+ 0	3.0996- 2	8.7810- 1	9.7522+ 0	1.7077+ 2	2.1173+ 0	2.4552- 7	1.0000+ 1
0000- 2	4.8594- 4	8.8906+ 0	1.4100- 1	2.8813+ 0	3.5724- 2	5.5670- 1	9.8524+ 0	2.8709+ 2	3.6835+ 0	3.1102- 8	1.0000+ 1
3000- 2	6.1953- 4	8.8300+ 0	2.1800- 1	3.0000+ 0	3.7196- 2	5.1380- 1	9.8750+ 0	5.4226+ 2	6.7232+ 0	3.4981- 9	1.0000+ 1
3000- 2	8.6790- 4	8.6719+ 0	4.1770- 1	3.5000+ 0	4.3395- 2	3.4910- 1	9.9368+ 0	1.0000+ 3	1.2399+ 1	4.0445- 10	1.0000+ 1
3000- 2	1.1159- 3	8.4882+ 0	6.8940- 1	4.0000+ 0	4.8594- 2	2.7820- 1	9.9670+ 0	1.8293+ 3	2.2681+ 1	5.1472- 11	1.0000+ 1
3000- 1	1.2399- 3	8.3515+ 0	8.1200- 1	4.2790+ 0	5.3053- 2	2.3236- 1	9.9761+ 0	3.1028+ 3	3.8470+ 1	8.9160- 12	1.0000+ 1
2500- 1	1.5498- 3	8.0183+ 0	1.2051+ 0	5.0000+ 0	6.1993- 2	1.3830- 1	9.9908+ 0	5.8337+ 3	7.3569+ 1	1.0981- 12	1.0000+ 1
5000- 1	1.8598- 3	8.6427+ 0	1.6370+ 0	6.0000+ 0	7.4391- 2	7.7900- 2	9.9969+ 0	9.7951+ 3	1.2144+ 2	2.2598- 13	1.0000+ 1
7500- 1	2.1697- 3	8.2330+ 0	2.0685+ 0	6.7189+ 0	8.3303- 2	5.2601- 2	9.9984+ 0	1.5130+ 4	1.8759+ 2	5.8712- 14	1.0000+ 1
3000- 1	2.4797- 3	7.8031+ 0	2.5470+ 0	7.0000+ 0	8.6790- 2	4.8900- 2	9.9989+ 0	2.9135+ 4	3.6123+ 2	7.9789- 15	1.0000+ 1
5000- 1	3.0996- 3	8.9254+ 0	3.4417+ 0	7.9282+ 0	9.8298- 2	3.6848- 2	9.9999+ 0	7.0521+ 4	8.7438+ 2	5.7001- 16	1.0000+ 1
3000- 1	3.7196- 3	8.0764+ 0	4.2890+ 0	8.0000+ 0	9.9188- 2	3.5800- 2	1.0000+ 1	1.0000+ 6	1.2399+ 4	2.4468- 19	1.0000+ 1
7188- 1	4.6108- 3	4.8871+ 0	5.2967+ 0	8.4035+ 0	1.0419- 1	3.0439- 2	1.0000+ 1	5.8234+ 6	6.9722+ 4	1.5002- 21	1.0000+ 1
3000- 1	4.9594- 3	4.8139+ 0	5.6440+ 0	8.8911+ 0	1.1024- 1	2.3943- 2	1.0000+ 1	5.4247+ 7	6.7258+ 5	1.6985- 24	1.0000+ 1
3000- 1	6.1993- 3	3.5310+ 0	6.6400+ 0	1.0000+ 1	1.2399- 1	1.3600- 2	1.0000+ 1	1.0000+ 9	1.2399+ 7	2.5388- 28	1.0000+ 1
3000- 1	7.4391- 3	2.7884+ 0	7.3200+ 0	1.0876+ 1	1.3485- 1	9.4738- 3	1.0000+ 1				

October 31, 1989
Atomic Weight 20.179

ENDL Evaluated
Photon Data

10-Ne
Density 8.9990- 4 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoabs	Pair	Triplet	Total	Local	Fluorescence
L3	1.0000-5	5.5901+5	1.8852-3	5.6502-2	5.8489-2	1.3189-5	8.6909-20	9.6909-20	8.6909-20		
	1.4638-5	9.9923+4	1.1121-2	3.7284-1	3.7261-1	2.8562-5	4.5177-19	4.5177-19	4.5177-19		
	1.6958-5	4.1273+4	2.8924-2	9.0217-1	9.0214-1	3.8918-5	8.2882-19	8.2882-19	8.2882-19		
	1.8117-5	2.4806+4	4.4788-2	1.5011+0	1.5010+0	4.4884-5	1.0913-18	1.0913-18	1.0913-18		
	1.9240-5	1.3098+4	8.4843-2	2.8429+0	2.8428+0	5.1084-5	1.4019-18	1.4019-18	1.4019-18		
	1.8477-5	1.0638+4	1.0446-1	3.5004+0	3.5003+0	5.2455-5	1.4754-18	1.4754-18	1.4754-18		
	1.9650-5	8.5739+3	1.2981-1	4.3429+0	4.3428+0	5.3484-5	1.5308-18	1.5308-18	1.5308-18		
	1.9880-5	6.0179+3	1.8485-1	8.1874+0	8.1874+0	5.4829-5	1.6089-18	1.6089-18	1.6089-18		
	1.9960-5	5.8225+3	1.9784-1	8.8228+0	8.8228+0	5.5305-5	1.6340-18	1.6340-18	1.6340-18		
	1.9960-5	9.7811-3	1.1361+5	3.8069+8	6.8226+0	5.5305-5	3.8069+8	2.0407-3	2.0407-3		
	2.0040-5	9.6916-3	1.1466+5	3.8420+8	7.0417+0	5.5785-5	3.8420+8	2.0678-3	2.0678-3		
	2.0080-5	9.6434-3	1.1523+5	3.8812+8	7.0780+0	5.6026-5	3.8812+8	2.0823-3	2.0823-3		
L2	2.0080-5	8.4745-3	1.1783+5	5.7511+8	7.0780+0	5.6026-5	5.7511+8	3.1014-3	3.1014-3		
	2.0130-6	8.4356-3	1.1767+6	5.7860+8	7.1235+0	5.6328-5	5.7860+8	3.1290-3	3.1290-3		
	2.0300-5	8.3063-3	1.1624+5	5.9054+8	6.6458+0	5.7360-5	5.9054+8	3.2195-3	3.2195-3		
	2.0408-5	8.2283-3	1.1784+5	5.9785+8	6.2413+0	5.8012-5	5.9784+8	3.2784-3	3.2784-3		
	2.1205-5	5.7588-3	1.8298+5	8.4658+8	5.3843+0	6.3029-5	8.4658+8	3.6823-3	3.6823-3		
	2.2754-5	5.1204-3	2.1702+5	7.2718+8	5.5647+0	7.3394-5	7.2718+8	4.4438-3	4.4438-3		
	2.5512-5	4.5094-3	2.4843+5	6.2572+8	6.4882+0	9.3989-5	6.2572+8	5.6574-3	5.6574-3		
	2.9324-5	4.1804-3	2.8582+5	8.9072+8	8.0488+0	1.2898-4	8.9072+8	7.0147-3	7.0147-3		
	3.5339-5	4.0780-3	2.7283+5	9.1353+8	1.0737+1	1.8998-4	9.1353+8	8.6700-3	8.6700-3		
	4.2557-5	4.2370-3	2.8227+5	8.7881+8	1.3883+1	2.8381-4	8.7880+8	1.0044-2	1.0044-2		
	4.3230-5	4.2594-3	2.8089+5	8.7418+8	1.5009+1	2.6358-4	8.7418+8	1.0149-2	1.0149-2		
L1	4.3230-5	4.1334-3	2.8884+5	9.0084+8	1.5009+1	2.6358-4	9.0084+8	1.0459-2	1.0459-2		
	4.3778-5	4.1472-3	2.8795+5	8.9784+8	1.6034+1	3.0165-4	8.9784+8	1.0555-2	1.0555-2		
	5.3508-5	4.5131-3	2.4822+5	8.2505+8	2.1563+1	4.8589-4	8.2505+8	1.1858-2	1.1858-2		
	6.4186-5	5.1805-3	2.1450+5	7.1878+8	2.6849+1	6.8373-4	7.1878+8	1.2390-2	1.2390-2		
	7.8022-5	6.4428-3	1.7248+5	5.7794+8	3.4958+1	1.0634-3	5.7793+8	1.2110-2	1.2110-2		
	8.4853-5	7.2425-3	1.5343+5	5.1412+8	3.7915+1	1.2778-3	5.1412+8	1.1718-2	1.1718-2		
	1.0000-4	9.4457-3	1.1784+5	3.9421+8	4.1820+1	1.8305-3	3.9420+8	1.0587-2	1.0587-2		
	1.3010-4	1.5633-2	7.1083+4	2.3819+8	4.5939+1	3.2125-3	2.3819+8	8.3220-3	8.3220-3		
	1.8488-4	3.3382-2	3.3289+4	1.1154+8	4.7889+1	6.5580-3	1.1154+8	5.5375-3	5.5375-3		
	2.8787-4	7.9038-2	1.4080+4	4.7111+5	4.7089+1	3.3789-2	4.7108+5	3.3882-3	3.3882-3		
	4.1814-4	2.3852-1	4.8589+3	1.5811+5	4.4093+1	3.3386-2	1.5807+5	1.7528-3	1.7528-3		
	5.4772-4	4.7415-1	2.3436+3	7.8531+4	4.0317+1	5.7085-2	7.8491+4	1.1548-3	1.1548-3		
	6.3571-4	8.9869-1	1.5862+3	5.3454+4	3.6971+1	7.6344-2	5.3417+4	8.1197-4	8.1197-4		
	6.7900-4	8.2689-1	1.3439+3	4.5031+4	3.4802-1	6.6758-2	4.4998+4	8.2052-4	8.2052-4		
	7.4238-4	1.0459+0	1.0625+3	3.5602+4	2.8975+1	1.0318-1	3.5872+4	7.0921-4	7.0921-4		
	7.8311-4	1.2045+0	9.2260+2	3.0915+4	2.5463+1	1.1443-1	3.0599+4	6.4984-4	6.4984-4		
	8.0348-4	1.2893+0	8.8188+2	2.8879+4	2.2258+1	1.2028-1	2.8857+4	6.2289-4	6.2289-4		
	8.2809-4	1.3888+0	8.0028+2	2.6818+4	1.7080+1	1.2893-1	2.6799+4	5.8455-4	5.8455-4		
	8.3445-4	1.4265+0	7.7801+2	2.6103+4	1.4244+1	1.2944-1	2.6089+4	5.8488-4	5.8488-4		
	8.3989-4	1.4430+0	7.7008+2	2.5803+4	1.2887+1	1.3052-1	2.5790+4	5.8047-4	5.8047-4		
	8.4178-4	1.4803+0	7.6095+2	2.5488+4	1.0769+1	1.3165-1	2.5487+4	5.7818-4	5.7818-4		
	8.4565-4	1.4784+0	7.5185+2	2.5186+4	8.5010+0	1.3283-1	2.5178+4	5.7181-4	5.7181-4		
	8.4985-4	1.4972+0	7.4220+2	2.4870+4	8.3783+0	1.3405-1	2.4883+4	5.6733-4	5.6733-4		
	8.5115-4	1.5043+0	7.3868+2	2.4752+4	5.8881+0	1.3451-1	2.4748+4	5.6587-4	5.6587-4		
	8.5280-4	1.5121+0	7.3489+2	2.4625+4	5.8163+0	1.3502-1	2.4619+4	5.6384-4	5.6384-4		
	8.5485-4	1.5209+0	7.3088+2	2.4483+4	5.8200+0	1.3559-1	2.4477+4	5.6181-4	5.6181-4		
	8.5818-4	1.5378+0	7.2271+2	2.4217+4	7.8807+0	1.3689-1	2.4209+4	5.5795-4	5.5795-4		
X	8.5818-4	1.4466-1	9.8918+3	3.2475+5	7.8807+0	1.3689-1	3.2474+5	7.4845-3	7.3908-3	8.3858-5	
	8.6223-4	1.1488-1	9.6729+3	3.2412+5	1.2350+1	1.3793-1	3.2411+5	7.5051-3	7.4113-3	8.3755-5	
	8.6820-4	1.1510-1	9.6548+3	3.2351+5	1.7818-1	1.3917-1	3.2349+5	7.5253-3	7.4316-3	8.3652-5	
	8.8265-4	1.1523-1	9.6434+3	3.2313+5	2.0762+1	1.3993-1	3.2311+5	7.5377-3	7.4441-3	8.3590-5	
	8.7317-4	1.1548-1	9.6227+3	3.2244+5	2.5258+1	1.4135-1	3.2241+5	7.5606-3	7.4871-3	8.3475-5	
	8.7727-4	1.1570-1	9.6042+3	3.2182+5	2.8315+1	1.4284-1	3.2179+5	7.5814-3	7.4881-3	8.3370-5	
	8.8445-4	1.1833-1	9.5520+3	3.2007+5	3.1878+1	1.4491-1	3.2004+5	7.6018-3	7.5069-3	8.2978-5	
	9.0000-4	1.1808-1	9.4109+3	3.1534+5	3.7813+1	1.4890-1	3.1530+5	7.6211-3	7.5292-3	8.1817-5	
	9.1800-4	1.2029-1	9.2387+3	3.0957+5	4.1183+1	1.5390-1	3.0953+5	7.5813-3	7.4910-3	8.0249-5	
	9.2731-4	1.2401-1	8.9807+3	3.0028+5	4.4589+1	1.5895-1	3.0021+5	7.4788-3	7.3889-3	8.7820-5	
	9.8448-4	1.3631-1	8.1522+3	2.7317+5	5.0793+1	1.7144-1	2.7311+5	7.0743-3	6.8945-3	7.8773-5	
	1.0000-3	1.5027-1	7.3882+3	2.4780+5	5.4707+1	1.8391-1	2.4774+5	6.8534-3	6.5811-3	7.2360-5	
	1.0783-3	1.7984-1	8.1780+3	2.0705+6	5.9843+1	2.1087-1	2.0689+6	5.8828-3	5.8222-3	6.0537-6	
	1.2247-3	2.4321-1	4.5691+3	1.5310+5	6.5274+1	2.6821-1	1.5304+5	5.0336-3	4.8887-3	4.4804-6	
	1.4341-3	3.8900-1	3.0115+3	1.0091+5	6.7727+1	3.5979-1	1.0094+5	3.8538-3	3.8542-3	2.8617-6	
	1.8445-3	7.2180-1	1.5386+3	5.1587+4	6.6202+1	5.6319-1	5.1521+4	2.5622-3	2.5370-3	1.5155-6	
	2.5358-3	1.7114+0	8.4930+2	2.1757+4	5.7828+1	9.4979-1	2.1698+4	1.4778-3	1.4712-3	8.3844-8	
	3.4024-3	3.9125+0	2.8402+2	9.5189+3	4.6282+1	1.4589+0	9.4872+3	8.6508-4	8.8227-4	2.7922-8	
	4.3491-3	7.9305+0	1.4012+2	4.6852+3	3.9219+1	1.9851+0	4.6540+3	5.4359-4	5.4221-4	1.3730-8	
	5.8848-3	1.8985+1	5.8501+1	1.8985+3	2.8371+1	2.7283+0	1.8291+3	3.0388-4	3.0329-4	5.8928-7	
	7.7871-3	4.3898+1	2.5258+1	8.4828+2	1.9899+1	3.4163+0	8.2317+2	1.7217-4	1.7182-4	2.4294-7	
	1.0000-2	9.2738+1	1.1882+1	4.0151+2	1.3860+1	3.9814+0	3.8369+2	1.0307-4	1.0285-4	1.1324-7	
	1.4825-2	2.8537+2	3.8940+0	1.3048+2	7.9398+0	4.5754+0	1.1797+2	4.8387-5	4.8353-5	3.4818-8	
	2.0000-2	8.9082+2	1.8088+0	5.3900+1	4.9841+0	4.8288+0	4.4008+1	2.3742-5	2.3728-5	1.2988-8	
	2.4485-2	1.1708+3	9.4908-1	3.1802+1	3.8290+0	5.0979+0	2.3075+1	1.5338-5	1.5331-5	6.8100-9	
	3.0000-2	1.8731+3	5.9328-1	1.8878+1	2.8189+0	5.2187+0	1.2043+1	9.8378-6	9.8343-6	3.5541-9	
	3.5033-2	2.8528+3	4.3531-1	1.4588+1	2.0228+0	5.2888+0	7.2868+0	7.1793-6	7.1772-6	2.1532-9	
	4.1184-2	3.3424+3	3.3248-1	1.1140+1	1.5318+0	5.2888+0	4.3201+0	5.2028-6	5.2013-6	1.2748-9	
	5.0000-2	4.3085+3	2.5803-1	8.8462+0	1.0885+0	5.2589+0	2.3008+0	3.6850-6	3.6843-6	6.7883-10	
	6.0000-2	5.1478+3	2.1587-1	7.2325+0	7.8149-1	5.1830+0	1.2691+0	2.8542-6	2.8538-6	3.7448-10	
	8.9438-2	5.7503+3	1.8025-1	8.4754+0	5.8709-1	5.0814+0	7.8888-1	2.4827-6	2.4824-6	2.3220-10	
	8.0000-2	8.2494+3	1.7781-1	5.9582+0	4.5985-1	5.0042+0	4.8822-1	2.3532-6	2.3531-6	1.4811-10	
	9.4574-2	8.7863+3	1.6389-1	5.4950+0	3.3505-1	4.8736+0	2.8641-1	2.4011-6	2.4010-6	8.4503-11	
	1.0000-1	8.9438+3	1.8007-1	5.3838+0	3.0149-1	4.8260+0	2.3883-1	2.4822-6	2.4821-6	7.0404-11	
	1.1770-1	7.4294+3	1.4857-1	5.0118+0	2.2093-1	4.8508+0	1.4030-1	2.7488-6	2.7488-6	4.1394-11	

October 31, 1989
Atomic Weight 20.179

ENDL Evaluated
Photon Data

10-Ne
Density 8.9990- 4 Grams/cc

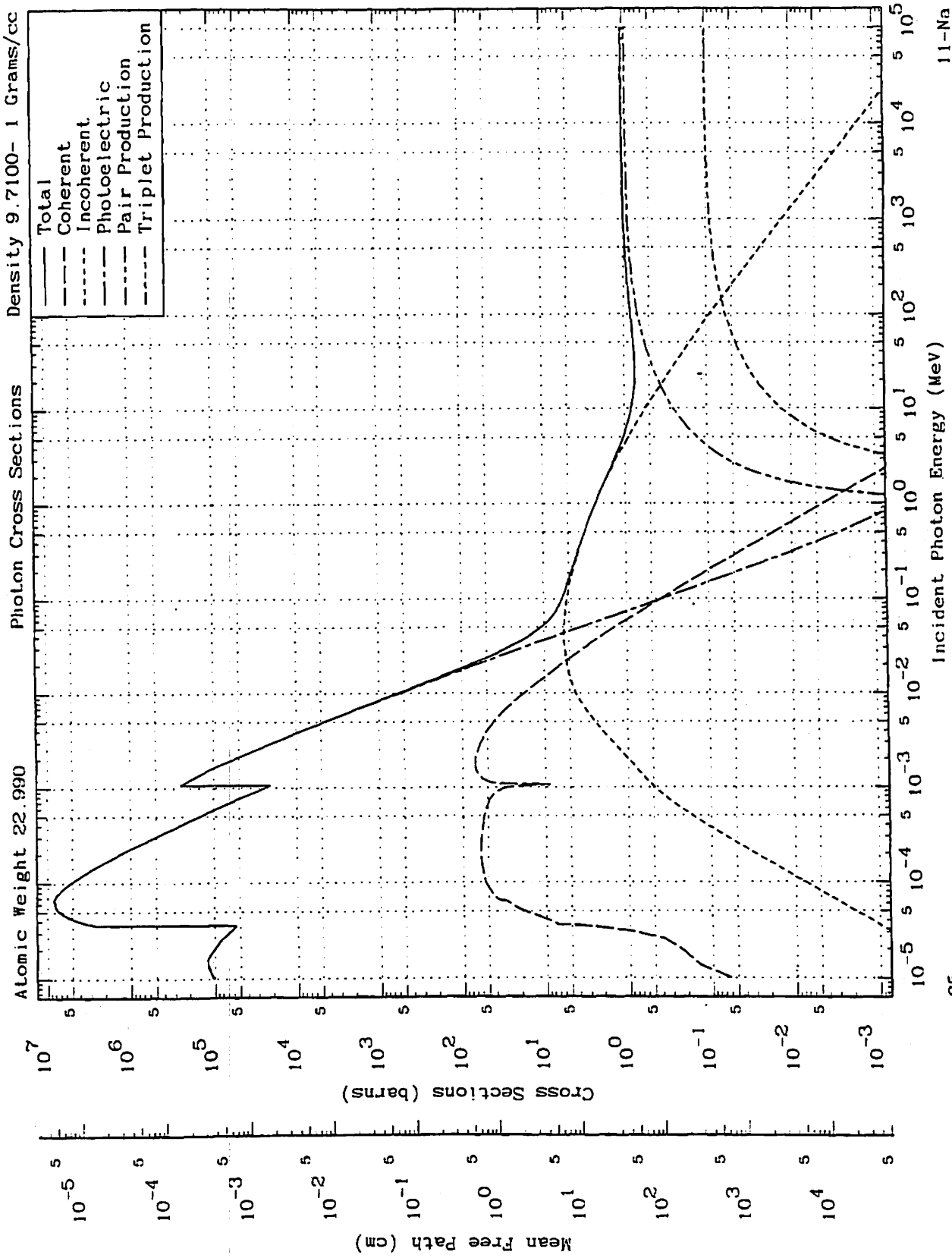
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.8101-1	8.3303-3	1.3340-1	4.4699+0	1.2048-1	4.2666+0	5.0776-2			3.7770-6	3.7769-6	1.4981-11
2.6767-1	1.0008+4	1.1103-1	3.7205+0	4.4340-2	3.6660+0	1.0197-2			8.7998-6	8.7998-6	3.0079-12
3.7900-1	1.1477+4	9.8825-2	3.2444+0	2.2232-2	3.2186+0	3.6186-3			9.9197-6	9.9197-6	1.0675-12
5.0000-1	1.2849+4	8.8485-2	2.8978+0	1.2802-2	2.8835+0	1.6736-3			1.3239-5	1.3239-5	4.8373-13
6.8237-1	1.4528+4	7.8491-2	2.5831+0	7.3048-3	2.5550+0	8.1768-4			1.7353-5	1.7353-5	2.4123-13
8.8831-1	1.6488+4	6.7478-2	2.2810+0	4.2537-3	2.2584+0	4.4057-4			2.2104-5	2.2104-5	1.2988-13
1.0000+0	1.7814+4	6.3089-2	2.1140+0	3.2079-3	2.1105+0	3.2768-4			2.4961-5	2.4961-5	8.6670-14
1.0220+0	1.7803+4	6.2417-2	2.0915+0	3.0714-3	2.0881+0	3.0740-4			2.5412-5	2.5412-5	9.0688-14
1.0251+0	1.7832+4	6.2317-2	2.0681+0	3.0527-3	2.0848+0	3.0477-4	3.7576-9		2.5471-5	2.5471-5	8.9912-14
1.0287+0	1.7865+4	6.2202-2	2.0643+0	3.0312-3	2.0809+0	3.0175-4	3.7576-8		2.5539-5	2.5539-5	8.9020-14
1.0366+0	1.7937+4	6.1953-2	2.0758+0	2.8853-3	2.0727+0	2.8545-4	3.7576-7		2.5687-5	2.5687-5	8.7161-14
1.0438+0	1.8001+4	6.1701-2	2.0685+0	2.8445-3	2.0652+0	2.8031-4	1.2187-6		2.5821-5	2.5821-5	8.5847-14
1.0484+0	1.8025+4	6.1651-2	2.0858+0	2.8269-3	2.0628+0	2.8848-4	1.6928-6		2.5889-5	2.5889-5	8.5105-14
1.0483+0	1.8042+4	6.1582-2	2.0838+0	2.8163-3	2.0606+0	2.8715-4	2.1076-6		2.5905-5	2.5905-5	8.4713-14
1.0512+0	1.8088+4	6.1503-2	2.0808+0	2.8032-3	2.0577+0	2.8513-4	2.8589-6		2.5959-5	2.5959-5	8.4118-14
1.0541+0	1.8094+4	6.1415-2	2.0579+0	2.8874-3	2.0547+0	2.8315-4	3.7576-6		2.6013-5	2.6013-5	8.3534-14
1.0588+0	1.8137+4	6.1269-2	2.0530+0	2.8813-3	2.0499+0	2.7988-4	5.8117-6		2.6102-5	2.6102-5	8.2572-14
1.0651+0	1.8193+4	6.1082-2	2.0467+0	2.8280-3	2.0436+0	2.7915-4	8.8188-6		2.6218-5	2.6218-5	8.1470-14
1.0704+0	1.8240+4	6.0923-2	2.0414+0	2.8001-3	2.0383+0	2.7307-4	1.2304-5		2.6317-5	2.6317-5	8.0561-14
1.0782+0	1.8292+4	6.0751-2	2.0357+0	2.7700-3	2.0328+0	2.6978-4	1.7004-5		2.6425-5	2.6425-5	7.9583-14
1.0818+0	1.8341+4	6.0588-2	2.0302+0	2.7418-3	2.0272+0	2.6663-4	2.2409-5		2.6528-5	2.6528-5	7.8660-14
1.0871+0	1.8388+4	6.0432-2	2.0250+0	2.7148-3	2.0220+0	2.6396-4	2.8612-5		2.6627-5	2.6627-5	7.7873-14
1.0937+0	1.8448+4	6.0241-2	2.0189+0	2.6821-3	2.0156+0	2.6071-4	3.7576-5		2.6749-5	2.6749-5	7.6912-14
1.1028+0	1.8525+4	5.9987-2	2.0101+0	2.6390-3	2.0071+0	2.5849-4	5.2102-5		2.6914-5	2.6914-5	7.5885-14
1.1107+0	1.8596+4	5.9758-2	2.0024+0	2.6007-3	1.9985+0	2.5306-4	6.7858-5		2.7063-5	2.7063-5	7.4857-14
1.1206+0	1.8682+4	5.9482-2	1.9931+0	2.5550-3	1.9902+0	2.4898-4	9.9818-5		2.7248-5	2.7248-5	7.3453-14
1.1369+0	1.8823+4	5.9307-2	1.9782+0	2.4824-3	1.9753+0	2.4248-4	1.3720-4		2.7545-5	2.7545-5	7.1538-14
1.1475+0	1.8914+4	5.8751-2	1.9688+0	2.4387-3	1.9659+0	2.3878-4	1.7458-4		2.7739-5	2.7739-5	7.0443-14
1.1642+0	1.9057+4	5.8312-2	1.9538+0	2.3875-3	1.9511+0	2.3313-4	2.4200-4		2.8044-5	2.8044-5	6.8778-14
1.1741+0	1.9141+4	5.8055-2	1.9453+0	2.3278-3	1.9425+0	2.3008-4	2.8995-4		2.8225-5	2.8225-5	6.7870-14
1.1921+0	1.9293+4	5.7598-2	1.9300+0	2.2578-3	1.9271+0	2.2485-4	3.6687-4		2.8552-5	2.8552-5	6.6275-14
1.2051+0	1.9402+4	5.7274-2	1.9192+0	2.2094-3	1.9163+0	2.2087-4	4.6743-4		2.8768-5	2.8768-5	6.5181-14
1.2275+0	1.9588+4	5.6730-2	1.9099+0	2.1296-3	1.8980+0	2.1481-4	6.2526-4		2.9193-5	2.9193-5	6.3312-14
1.2500+0	1.9773+4	5.6200-2	1.8931+0	2.0537-3	1.8801+0	2.0880-4	8.0900-4		2.9589-5	2.9589-5	6.1540-14
1.2813+0	2.0027+4	5.5487-2	1.8593+0	1.9546-3	1.8560+0	2.0015-4	1.1087-3		3.0181-5	3.0181-5	5.9048-14
1.3325+0	2.0434+4	5.4380-2	1.8222+0	1.8073-3	1.8185+0	1.8703-4	1.6980-3		3.1074-5	3.1074-5	5.5178-14
1.3744+0	2.0781+4	5.3586-2	1.7835+0	1.6899-3	1.7894+0	1.7892-4	2.2751-3		3.1818-5	3.1818-5	5.2184-14
1.4058+0	2.1001+4	5.2913-2	1.7730+0	1.6238-3	1.7898+0	1.6988-4	2.7601-3		3.2373-5	3.2373-5	5.0118-14
1.4529+0	2.1356+4	5.2035-2	1.7436+0	1.5203-3	1.7383+0	1.8012-4	3.5674-3		3.3202-5	3.3202-5	4.7237-14
1.5000+0	2.1702+4	5.1204-2	1.7157+0	1.4284-3	1.7097+0	1.5120-4	4.4840-3		3.4029-5	3.4029-5	4.4607-14
1.5625+0	2.2152+4	5.0185-2	1.6809+0	1.3148-3	1.6737+0	1.4093-4	5.7780-3		3.5121-5	3.5121-5	4.1575-14
1.6172+0	2.2535+4	4.9312-2	1.6524+0	1.2272-3	1.6440+0	1.3284-4	7.0318-3		3.6074-5	3.6074-5	3.8180-14
1.7189+0	2.3223+4	4.7850-2	1.6034+0	1.0884-3	1.5828+0	1.2023-4	9.5778-3		3.7837-5	3.7837-5	3.5470-14
1.8446+0	2.4104+4	4.6101-2	1.5448+0	9.4337-4	1.5307+0	1.0747-4	1.3026-2		3.9781-5	3.9781-5	3.1705-14
2.0440+0	2.5418+4	4.3718-2	1.4849+0	7.8829-4	1.4489+0	9.1890-5	1.9130-2		4.2849-5	4.2849-5	2.7050-14
2.0858+0	2.5699+4	4.3240-2	1.4489+0	7.3780-4	1.4278+0	8.8533-5	2.0415-2	1.0042-7	4.3433-5	4.3433-5	2.6238-14
2.1383+0	2.6033+4	4.2866-2	1.4303+0	7.0338-4	1.4075+0	8.5785-5	2.2042-2	1.0042-6	4.4139-5	4.4139-5	2.5308-14
2.1470+0	2.6103+4	4.2572-2	1.4285+0	6.9635-4	1.4033+0	8.5138-5	2.2400-2	1.3769-6	4.4290-5	4.4290-5	2.5117-14
2.1635+0	2.6210+4	4.2398-2	1.4207+0	6.8577-4	1.3989+0	8.4181-5	2.2957-2	2.0937-6	4.4521-5	4.4521-5	2.4829-14
2.1845+0	2.6347+4	4.2178-2	1.4133+0	6.7285-4	1.3889+0	8.2944-5	2.3596-2	3.3178-6	4.4813-5	4.4813-5	2.4470-14
2.2018+0	2.6488+4	4.1999-2	1.4073+0	6.6213-4	1.3824+0	8.1983-5	2.4130-2	4.5990-6	4.5053-5	4.5053-5	2.4180-14
2.2148+0	2.6542+4	4.1867-2	1.4029+0	6.5438-4	1.3778+0	8.1239-5	2.4537-2	5.7188-6	4.5234-5	4.5234-5	2.3897-14
2.2342+0	2.6666+4	4.1673-2	1.3964+0	6.4306-4	1.3705+0	8.0177-5	2.5152-2	7.6928-6	4.5504-5	4.5504-5	2.3654-14
2.2537+0	2.6789+4	4.1480-2	1.3899+0	6.3200-4	1.3634+0	7.9142-5	2.5780-2	1.0042-5	4.5775-5	4.5775-5	2.3348-14
2.2815+0	2.6994+4	4.1212-2	1.3809+0	6.1888-4	1.3535+0	7.7743-5	2.6894-2	1.4088-5	4.6183-5	4.6183-5	2.2935-14
2.3070+0	2.7123+4	4.0971-2	1.3728+0	6.0312-4	1.3448+0	7.6497-5	2.7550-2	1.8478-5	4.6519-5	4.6519-5	2.2588-14
2.3382+0	2.7314+4	4.0683-2	1.3632+0	5.8714-4	1.3339+0	7.5018-5	2.8822-2	2.4842-5	4.6956-5	4.6956-5	2.2132-14
2.3774+0	2.7552+4	4.0332-2	1.3514+0	5.6794-4	1.3208+0	7.3227-5	2.9982-2	3.4403-5	4.7505-5	4.7505-5	2.1603-14
2.4102+0	2.7752+4	4.0042-2	1.3417+0	5.5259-4	1.3101+0	7.1783-5	3.1002-2	4.3755-5	4.7959-5	4.7959-5	2.1177-14
2.4488+0	2.7971+4	3.9728-2	1.3312+0	5.3818-4	1.2984+0	7.0228-5	3.2185-2	5.5859-5	4.8488-5	4.8488-5	2.0718-14
2.4859+0	2.8202+4	3.9402-2	1.3203+0	5.1945-4	1.2982+0	6.8828-5	3.3436-2	7.0078-5	4.9010-5	4.9010-5	2.0248-14
2.5564+0	2.8811+4	3.8840-2	1.3015+0	4.9119-4	1.2850+0	6.5900-5	3.5802-2	1.0042-4	4.9994-5	4.9994-5	1.9441-14
2.6604+0	2.9194+4	3.8063-2	1.2754+0	4.5355-4	1.2534+0	6.2316-5	3.8398-2	1.5481-4	5.1451-5	5.1451-5	1.8384-14
2.7453+0	2.9663+4	3.7482-2	1.2553+0	4.2593-4	1.2125+0	5.8629-5	4.2078-2	2.0720-4	5.2828-5	5.2828-5	1.7592-14
2.8424+0	3.0182+4	3.6818-2	1.2337+0	3.9733-4	1.1877+0	5.4782-5	4.5289-2	2.7444-4	5.3933-5	5.3933-5	1.6754-14
3.0000+0	3.0886+4	3.5863-2	1.2017+0	3.5689-4	1.1502+0	5.2740-5	6.0680-2	4.0350-4	5.6207-5	5.6207-5	1.5668-14
3.2344+0	3.2231+4	3.4477-2	1.1553+0	3.0887-4	1.0982+0	4.7689-5	5.8085-2	6.3311-4	5.9148-5	5.9148-5	1.4069-14
3.4841+0	3.3388+4	3.3285-2	1.1153+0	2.8752-4	1.0485+0	4.3505-5	6.5810-2	8.8833-4	6.2014-5	6.2014-5	1.2835-14
3.7847+0	3.4900+4	3.1841-2	1.0689+0	2.2412-4	9.8599-5	3.8783-5	7.5339-2	1.3293-3	6.6005-5	6.6005-5	1.1444-14
4.0000+0	3.5834+4	3.1011-2	1.0391+0	2.0065-4	9.6509-5	3.6110-5	8.2140-2	1.8470-3	6.8757-5	6.8757-5	1.0853-14
4.2500+0	3.6881+4	3.0131-2	1.0098+0	1.7774-4	9.1828-5	3.3484-5	8.9111-2	2.0357-3	7.1901-5	7.1901-5	9.8725-15

October 31, 1989
Atomic Weight 20.179

ENDL Evaluated
Photon Data

10-Ne
Density 8.9990- 4 Grams/cc

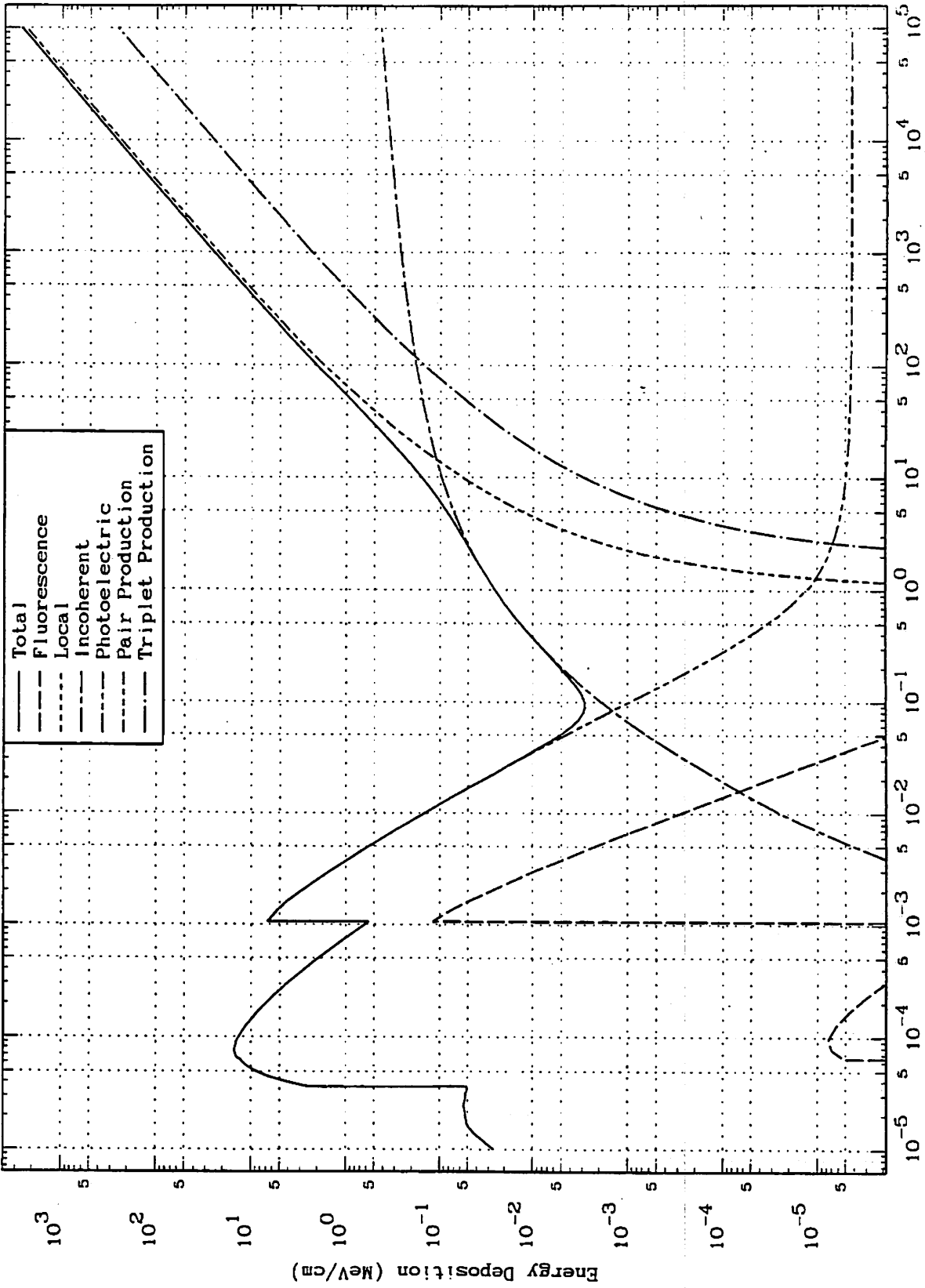
Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cm)		
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.0000- 3	4.2959+ 4	2.5867- 2	8.6677- 1	2.0066-10	3.2280- 3	2.7150- 8	7.7520- 1	8.8340- 2	8.3043- 2	8.3043- 2	8.0097-18
1.0000- 4	4.2594+ 4	2.6089- 2	8.7418- 1	3.2105-11	1.4114- 3	1.0860- 8	7.8280- 1	8.9970- 2	2.3470- 1	2.3470- 1	3.2039-18
1.0000- 5	4.2319+ 4	2.6259- 2	8.7868- 1	3.2088-13	1.7047- 4	1.0860- 8	7.8850- 1	9.1210- 2	2.3630+ 0	2.3630+ 0	3.2039-18



October 31, 1989
Atomic Weight 22.990

ENDL Evaluated
Energy Deposition

11-Na
Density 9.7100-1 Grams/cc

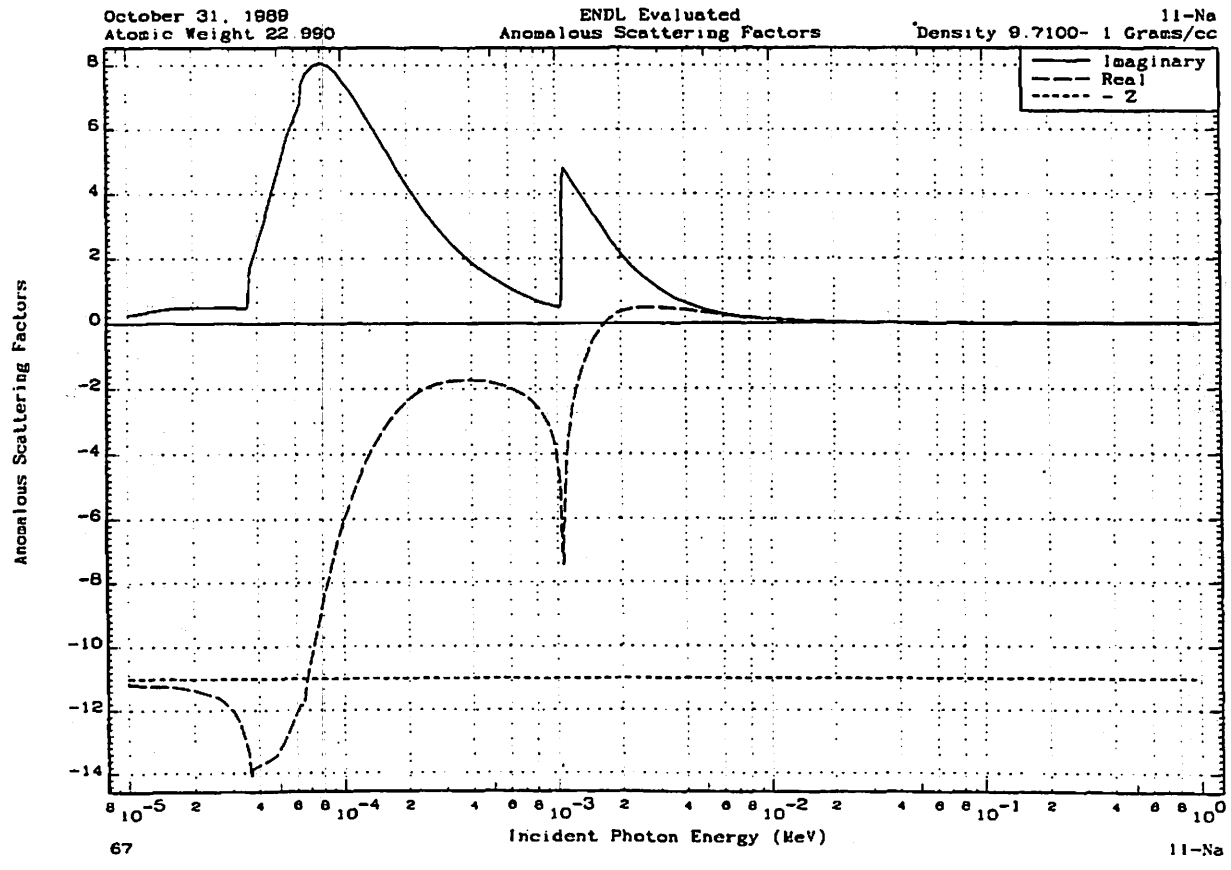
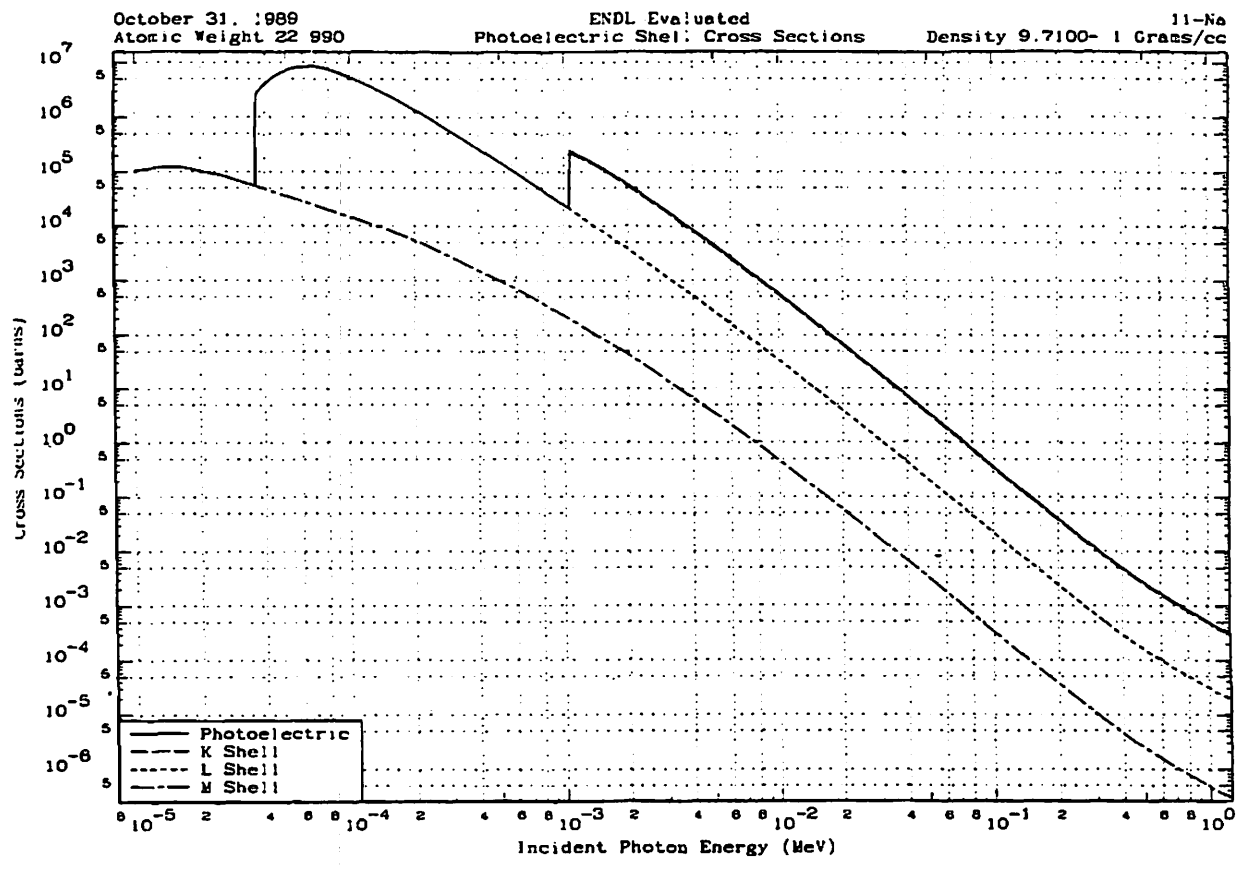


October 31, 1989
Atomic Weight 22.990

ENDL Evaluated
Photon Data

11-Na
Density 9.7100 - 1 Grams/cc

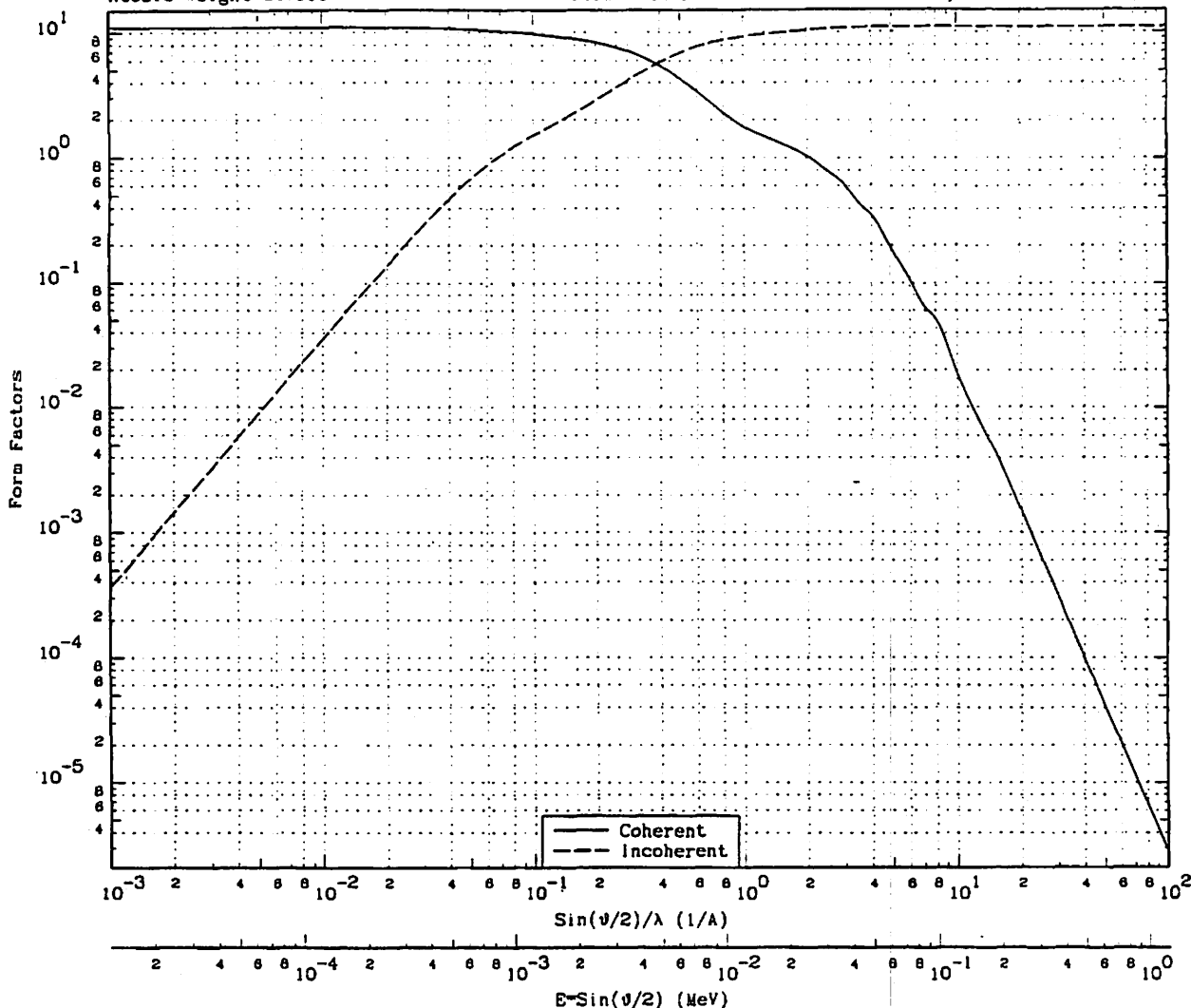
Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	ca	ca*ca/grac	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
6.9255- 2	5.1810- 0	1.9955- 1	7.6178+ 0	7.6948- 1	5.6072- 0	1.2412+ 0			3.2565- 3	3.2559- 3	6.0890- 7
8.0000- 2	5.7426+ 0	1.7934- 1	6.8463+ 0	5.8881- 1	5.4810+ 0	7.7644- 1			2.9195- 3	2.9191- 3	3.8087- 7
8.9454- 2	6.1402+ 0	1.6773- 1	6.4030+ 0	4.7780- 1	5.3853+ 0	5.3986- 1			2.8224- 3	2.8221- 3	2.8484- 7
1.0000- 1	6.4935+ 0	1.5860- 1	6.0546+ 0	3.8737- 1	5.2814+ 0	3.7660- 1			2.8516- 3	2.8514- 3	1.8430- 7
1.1878- 1	6.9856+ 0	1.4743- 1	5.6281+ 0	2.8846- 1	5.1127+ 0	2.2693- 1			3.0449- 3	3.0448- 3	1.1128- 7
1.4181- 1	7.5560+ 0	1.3630- 1	5.2032+ 0	1.8857- 1	4.8837+ 0	1.2101- 1			3.5562- 3	3.5562- 3	5.9335- 8
2.2179- 1	8.9564+ 0	1.1499- 1	4.3897+ 0	8.2936- 2	4.2777+ 0	2.9075- 2			5.7143- 3	5.7142- 3	1.4254- 8
3.2422- 1	1.0351+ 1	9.9497- 2	3.7684+ 0	3.9155- 2	3.7501+ 0	9.0852- 3			8.7330- 3	8.7330- 3	4.4545- 9
4.4111- 1	1.1690+ 1	8.8101- 2	3.3633+ 0	2.1232- 2	3.3383+ 0	3.7522- 3			1.2173- 2	1.2173- 2	1.8393- 9
6.0228- 1	1.3360+ 1	7.7083- 2	2.8427+ 0	1.1413- 2	2.8296+ 0	1.8483- 3			1.6546- 2	1.6546- 2	8.0865-10
7.5327- 1	1.4772+ 1	6.9715- 2	2.6614+ 0	7.3021- 3	2.6531+ 0	9.6665- 4			2.0373- 2	2.0373- 2	4.7370-10
1.0000+ 1	1.6911+ 1	6.0901- 2	2.3249+ 0	4.1461- 3	2.3203+ 0	5.2262- 4			2.5996- 2	2.5996- 2	2.5642-10
1.0220+ 0	1.7093+ 1	6.0251- 2	2.3001+ 0	3.9697- 3	2.2956+ 0	4.9140- 4			2.6465- 2	2.6465- 2	2.4101-10
1.0251+ 0	1.7120+ 1	6.0155- 2	2.2964+ 0	3.9456- 3	2.2920+ 0	4.8776- 4	4.5838- 6		2.6526- 2	2.6526- 2	2.3922-10
1.0287+ 0	1.7152+ 1	6.0043- 2	2.2922+ 0	3.9178- 3	2.2878+ 0	4.8356- 4	4.5838- 6		2.6597- 2	2.6597- 2	2.3716-10
1.0368+ 0	1.7221+ 1	5.9803- 2	2.2830+ 0	3.8565- 3	2.2787+ 0	4.7462- 4	4.5838- 6		2.6751- 2	2.6751- 2	2.3278-10
1.0415+ 0	1.7283+ 1	5.9557- 2	2.2774+ 0	3.8228- 3	2.2732+ 0	4.6923- 4	4.5838- 6		2.6846- 2	2.6846- 2	2.3014-10
1.0438+ 0	1.7283+ 1	5.9568- 2	2.2748+ 0	3.8058- 3	2.2705+ 0	4.6671- 4	4.5838- 6		2.6891- 2	2.6891- 2	2.2890-10
1.0464+ 0	1.7306+ 1	5.9511- 2	2.2719+ 0	3.7869- 3	2.2676+ 0	4.6388- 4	4.5838- 6		2.6942- 2	2.6942- 2	2.2751-10
1.0483+ 0	1.7322+ 1	5.9454- 2	2.2697+ 0	3.7732- 3	2.2655+ 0	4.6183- 4	4.5838- 6		2.6978- 2	2.6978- 2	2.2651-10
1.0512+ 0	1.7347+ 1	5.9368- 2	2.2684+ 0	3.7574- 3	2.2622+ 0	4.5972- 4	4.5838- 6		2.7035- 2	2.7035- 2	2.2498-10
1.0541+ 0	1.7372+ 1	5.9283- 2	2.2632+ 0	3.7319- 3	2.2590+ 0	4.5567- 4	4.5838- 6		2.7091- 2	2.7091- 2	2.2348-10
1.0577+ 0	1.7403+ 1	5.9177- 2	2.2591+ 0	3.7065- 3	2.2549+ 0	4.5187- 4	4.5838- 6		2.7181- 2	2.7181- 2	2.2182-10
1.0611+ 0	1.7432+ 1	5.9077- 2	2.2553+ 0	3.6828- 3	2.2512+ 0	4.4834- 4	4.5838- 6		2.7272- 2	2.7272- 2	2.1999-10
1.0651+ 0	1.7487+ 1	5.8961- 2	2.2509+ 0	3.6552- 3	2.2468+ 0	4.4424- 4	4.5838- 6		2.7305- 2	2.7305- 2	2.1785-10
1.0704+ 0	1.7512+ 1	5.8868- 2	2.2450+ 0	3.6191- 3	2.2410+ 0	4.3988- 4	4.5838- 6		2.7407- 2	2.7407- 2	2.1582-10
1.0782+ 0	1.7582+ 1	5.8642- 2	2.2387+ 0	3.5802- 3	2.2347+ 0	4.3353- 4	4.5838- 6		2.7520- 2	2.7520- 2	2.1262-10
1.0806+ 0	1.7599+ 1	5.8517- 2	2.2339+ 0	3.5511- 3	2.2299+ 0	4.3043- 4	4.5838- 6		2.7605- 2	2.7605- 2	2.1111-10
1.0871+ 0	1.7655+ 1	5.8334- 2	2.2269+ 0	3.5088- 3	2.2230+ 0	4.2592- 4	4.5838- 6		2.7730- 2	2.7730- 2	2.0889-10
1.0937+ 0	1.7711+ 1	5.8149- 2	2.2199+ 0	3.4666- 3	2.2160+ 0	4.2141- 4	4.5838- 6		2.7858- 2	2.7858- 2	2.0688-10
1.1026+ 0	1.7786+ 1	5.7904- 2	2.2105+ 0	3.4109- 3	2.2066+ 0	4.1546- 4	4.5838- 6		2.8029- 2	2.8029- 2	2.0376-10
1.1107+ 0	1.7854+ 1	5.7683- 2	2.2021+ 0	3.3614- 3	2.1982+ 0	4.1016- 4	4.5838- 6		2.8185- 2	2.8185- 2	2.0116-10
1.1206+ 0	1.7937+ 1	5.7416- 2	2.1919+ 0	3.3023- 3	2.1891+ 0	4.0381- 4	4.5838- 6		2.8374- 2	2.8374- 2	1.9605-10
1.1333+ 0	1.8043+ 1	5.7080- 2	2.1791+ 0	3.2268- 3	2.1753+ 0	3.9590- 4	4.5838- 6		2.8617- 2	2.8617- 2	1.8417-10
1.1475+ 0	1.8180+ 1	5.6711- 2	2.1650+ 0	3.1494- 3	2.1612+ 0	3.8734- 4	4.5838- 6		2.8888- 2	2.8888- 2	1.8997-10
1.1582+ 0	1.8248+ 1	5.6437- 2	2.1545+ 0	3.0915- 3	2.1508+ 0	3.8107- 4	4.5838- 6		2.9092- 2	2.9092- 2	1.8690-10
1.1741+ 0	1.8378+ 1	5.6038- 2	2.1393+ 0	3.0084- 3	2.1356+ 0	3.7206- 4	4.5838- 6		2.9394- 2	2.9394- 2	1.8248-10
1.1901+ 0	1.8508+ 1	5.5645- 2	2.1243+ 0	2.9281- 3	2.1205+ 0	3.6331- 4	4.5838- 6		2.9697- 2	2.9697- 2	1.7819-10
1.2051+ 0	1.8628+ 1	5.5255- 2	2.1105+ 0	2.8557- 3	2.1068+ 0	3.5541- 4	4.5838- 6		2.9981- 2	2.9981- 2	1.7431-10
1.2275+ 0	1.8807+ 1	5.4780- 2	2.0905+ 0	2.7525- 3	2.0888+ 0	3.4410- 4	4.5838- 6		3.0403- 2	3.0403- 2	1.6877-10
1.2500+ 0	1.8984+ 1	5.4248- 2	2.0710+ 0	2.6544- 3	2.0670+ 0	3.3330- 4	4.5838- 6		3.0825- 2	3.0825- 2	1.6347-10
1.2813+ 0	1.9228+ 1	5.3561- 2	2.0447+ 0	2.5264- 3	2.0405+ 0	3.1907- 4	4.5838- 6		3.1410- 2	3.1410- 2	1.5649-10
1.3225+ 0	1.9619+ 1	5.2494- 2	2.0040+ 0	2.3360- 3	1.9993+ 0	2.9775- 4	4.5838- 6		3.2362- 2	3.2362- 2	1.4603-10
1.3744+ 0	1.9931+ 1	5.1871- 2	1.9726+ 0	2.1958- 3	1.9673+ 0	2.8182- 4	4.5838- 6		3.3137- 2	3.3137- 2	1.3827-10
1.4058+ 0	2.0182+ 1	5.1080- 2	1.9500+ 0	2.0989- 3	1.9443+ 0	2.7090- 4	4.5838- 6		3.3716- 2	3.3716- 2	1.3258-10
1.4529+ 0	2.0501+ 1	5.0235- 2	1.9177+ 0	1.9851- 3	1.9112+ 0	2.5559- 4	4.5838- 6		3.4581- 2	3.4581- 2	1.2536-10
1.5000+ 0	2.0833+ 1	4.9435- 2	1.8872+ 0	1.8437- 3	1.8797+ 0	2.4160- 4	4.5838- 6		3.5443- 2	3.5443- 2	1.1849-10
1.5825+ 0	2.1282+ 1	4.8438- 2	1.8491+ 0	1.6992- 3	1.8401+ 0	2.2808- 4	4.5838- 6		3.6583- 2	3.6583- 2	1.0889-10
1.6172+ 0	2.1629+ 1	4.7616- 2	1.8178+ 0	1.5862- 3	1.8074+ 0	2.1377- 4	4.5838- 6		3.7578- 2	3.7578- 2	1.0484-10
1.7188+ 0	2.2286+ 1	4.6212- 2	1.7842+ 0	1.4043- 3	1.7510+ 0	1.6380- 4	4.5838- 6		3.9422- 2	3.9422- 2	9.4850-11
1.7847+ 0	2.2731+ 1	4.5307- 2	1.7296+ 0	1.3025- 3	1.7144+ 0	1.6210- 4	4.5838- 6		4.0491- 2	4.0491- 2	8.9312-11
1.8923+ 0	2.3433+ 1	4.3948- 2	1.6776+ 0	1.1568- 3	1.6589+ 0	1.5558- 4	4.5838- 6		4.2230- 2	4.2230- 2	8.1189-11
2.0440+ 0	2.4375+ 1	4.2251- 2	1.6130+ 0	9.9309- 4	1.5886+ 0	1.4630- 4	4.5838- 6		4.4877- 2	4.4877- 2	7.1754-11
2.0858+ 0	2.4842+ 1	4.1783- 2	1.5855+ 0	9.5388- 4	1.5698+ 0	1.4208- 4	4.5838- 6	1.1045- 7	4.5292- 2	4.5292- 2	6.9683-11
2.1363+ 0	2.4958+ 1	4.1264- 2	1.5753+ 0	9.0918- 4	1.5475+ 0	1.3725- 4	4.5838- 6	1.1045- 8	4.6035- 2	4.6035- 2	6.7318-11
2.1470+ 0	2.5025+ 1	4.1154- 2	1.5711+ 0	8.6010- 4	1.5429+ 0	1.3626- 4	4.5838- 6	1.1045- 8	4.6194- 2	4.6194- 2	6.8829-11
2.1835+ 0	2.5128+ 1	4.0988- 2	1.5647+ 0	8.0643- 4	1.5359+ 0	1.3478- 4	4.5838- 6	1.1045- 8	4.6438- 2	4.6438- 2	6.6094-11
2.1845+ 0	2.5258+ 1	4.0777- 2	1.5567+ 0	8.8947- 4	1.5271+ 0	1.3289- 4	4.5838- 6	1.1045- 8	4.6745- 2	4.6745- 2	6.5177-11
2.2018+ 0	2.5382+ 1	4.0607- 2	1.5502+ 0	8.5586- 4	1.5199+ 0	1.3138- 4	4.5838- 6	1.1045- 8	4.6999- 2	4.6999- 2	6.4439-11
2.2148+ 0	2.5441+ 1	4.0481- 2	1.5454+ 0	8.4584- 4	1.5146+ 0	1.3027- 4	4.5838- 6	1.1045- 8	4.7189- 2	4.7189- 2	6.3892-11
2.2342+ 0	2.5568+ 1	4.0295- 2	1.5383+ 0	8.3122- 4	1.5088+ 0	1.2894- 4	4.5838- 6	1.1045- 8	4.7474- 2	4.7474- 2	6.3091-11
2.2537+ 0	2.5675+ 1	4.0111- 2	1.5313+ 0	8.1692- 4	1.4990+ 0	1.2703- 4	4.5838- 6	1.1045- 8	4.7760- 2	4.7760- 2	6.2304-11
2.2815+ 0	2.5841+ 1	3.9854- 2	1.5215+ 0	7.9712- 4	1.4881+ 0	1.2480- 4	4.5838- 6	1.1045- 8	4.8188- 2	4.8188- 2	6.1208-11
2.3070+ 0	2.5991+ 1	3.9624- 2	1.5127+ 0	7.7960- 4	1.4783+ 0	1.2281- 4	4.5838- 6	1.1045- 8	4.8545- 2	4.8545- 2	6.0232-11
2.3382+ 0	2.6172+ 1	3.9350- 2	1.5022+ 0	7.5893- 4	1.4666+ 0	1.2045- 4	4.5838- 6	1.1045- 8	4.9007- 2	4.9007- 2	5.9074-11
2.3774+ 0	2.6397+ 1	3.9015- 2	1.4894+ 0	7.3412- 4	1.4521+ 0	1.1759- 4	4.5838- 6	1.1045- 8	4.9588- 2	4.9588- 2	5.7870-11
2.4102+ 0	2.6584+ 1	3.8740- 2	1.4789+ 0	7.1427- 4	1.4404+ 0	1.1528- 4	4.5838- 6	1.1045- 8	5.0069- 2	5.0069- 2	5.6539-11
2.4488+ 0	2.6791+ 1	3.8441- 2	1.4675+ 0	6.9307- 4	1.4275+ 0	1.1278- 4	4.5838- 6	1.1045- 8	5.0607- 2	5.0607- 2	5.5320-11
2.4859+ 0	2.7008+ 1	3.8132- 2	1.4557+ 0	6.7144- 4	1.4141+ 0	1.1024- 4	4.5838- 6	1.1045- 8	5.1184- 2	5.1184- 2	5.4066-11
2.5564+ 0	2.7394+ 1	3.7595- 2	1.4352+ 0	6.3491- 4	1.3908+ 0	1.0597- 4	4.5838- 6	1.1045- 8	5.2228- 2	5.2228- 2	5.1923-11
2.6804+ 0	2.7948+ 1	3.6850- 2	1.4088+ 0	5.8828- 4	1.3582+ 0	9.8937- 5	4.5838- 6	1.1045- 8	5.3758- 2	5.3758- 2	4.9014-11
2.7847+ 0	2.8481+ 1	3.6180- 2	1.3804+ 0	5.4287- 4	1.3276+ 0	9.4531- 5	4.5838- 6	1.1045- 8	5.5312- 2	5.5312- 2	4.6383-11
2.904											



October 31, 1989
Atomic Weight 22.990

ENDL Evaluated
Form Factors

11-Na
Density 9.7100- 1 Grans/cc



$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	1.1000+ 1	0.0000+ 0	7.0000- 1	8.6790- 3	2.7488+ 0	8.3130+ 0	1.1931+ 1	1.4793- 1	9.5009- 3	1.1000+ 1
1.0000- 3	1.2399- 5	1.1000+ 1	3.6000- 4	8.0000- 1	9.9188- 3	2.2994+ 0	8.7290+ 0	1.5000+ 1	1.8598- 1	4.4431- 3	1.1000+ 1
5.0000- 3	6.1993- 5	1.0989+ 1	9.0000- 3	9.0000- 1	1.1159- 2	1.9924+ 0	9.0280+ 0	1.7847+ 1	2.2128- 1	2.3228- 3	1.1000+ 1
1.0000- 2	1.2399- 4	1.0975+ 1	3.6000- 2	1.0000+ 0	1.2399- 2	1.7810+ 0	9.2520+ 0	2.0000+ 1	2.4797- 1	1.4786- 3	1.1000+ 1
1.5000- 2	1.8598- 4	1.0956+ 1	7.9300- 2	1.2500+ 0	1.5498- 2	1.4781+ 0	9.6465+ 0	3.1543+ 1	3.9109- 1	2.4799- 4	1.1000+ 1
2.0000- 2	2.4797- 4	1.0922+ 1	1.3780- 1	1.5000+ 0	1.6598- 2	1.3052+ 0	9.9390+ 0	5.0000+ 1	6.1993- 1	4.1635- 5	1.1000+ 1
2.5000- 2	3.0996- 4	1.0880+ 1	2.0920- 1	1.8418+ 0	2.2838- 2	1.1170+ 0	1.0256+ 1	8.0000+ 1	9.9188- 1	6.6813- 6	1.1000+ 1
3.0000- 2	3.7196- 4	1.0829+ 1	2.9120- 1	2.0000+ 0	2.4797- 2	1.0300+ 0	1.0376+ 1	1.0000+ 2	1.2399+ 0	2.8192- 5	1.1000+ 1
4.0000- 2	4.9594- 4	1.0709+ 1	4.7840- 1	2.5000+ 0	3.0996- 2	7.8800- 1	1.0854+ 1	1.7111+ 2	2.1215+ 0	3.6544- 7	1.1000+ 1
5.0000- 2	6.1993- 4	1.0573+ 1	6.7400- 1	2.8813+ 0	3.5724- 2	6.5743- 1	1.0783+ 1	2.8861+ 2	3.5783+ 0	5.2470- 8	1.1000+ 1
6.2617- 2	7.7636- 4	1.0370+ 1	9.1668- 1	3.0000+ 0	3.7196- 2	6.1170- 1	1.0813+ 1	5.3874+ 2	6.6548+ 0	5.5789- 9	1.1000+ 1
7.0000- 2	8.6790- 4	1.0248+ 1	1.0490+ 0	3.5000+ 0	4.3395- 2	4.3540- 1	1.0900+ 1	1.0000+ 3	1.2399+ 1	6.3068-10	1.1000+ 1
9.0000- 2	1.1159- 3	9.9188+ 0	1.3842+ 0	4.0000+ 0	4.9594- 2	3.5040- 1	1.0946+ 1	1.8293+ 3	2.2681+ 1	8.1189-11	1.1000+ 1
1.0000- 1	1.2399- 3	9.7580+ 0	1.5030+ 0	4.2790+ 0	5.3053- 2	2.9586- 1	1.0981+ 1	3.1028+ 3	3.8470+ 1	1.4181-11	1.1000+ 1
1.2500- 1	1.5498- 3	9.3796+ 0	1.8282+ 0	5.0000+ 0	6.1993- 2	1.8030- 1	1.0983+ 1	5.9337+ 3	7.3569+ 1	1.7612-12	1.1000+ 1
1.5000- 1	1.8598- 3	9.0209+ 0	2.1600+ 0	6.0000+ 0	7.4391- 2	1.0600- 1	1.0994+ 1	9.7951+ 3	1.2144+ 2	3.6425-13	1.1000+ 1
1.7500- 1	2.1697- 3	8.6804+ 0	2.5159+ 0	6.7188+ 0	8.3303- 2	7.2909- 2	1.0997+ 1	1.5130+ 4	1.8759+ 2	9.4973-14	1.1000+ 1
2.0000- 1	2.4797- 3	8.3376+ 0	2.8910+ 0	7.0000+ 0	8.6790- 2	6.5300- 2	1.0998+ 1	2.9135+ 4	3.6123+ 2	1.2959-14	1.1000+ 1
2.5000- 1	3.0996- 3	7.8159+ 0	3.6672+ 0	7.9590+ 0	9.6880- 2	5.0588- 2	1.0999+ 1	7.0521+ 4	8.7436+ 2	9.2891-16	1.1000+ 1
3.0000- 1	3.7196- 3	8.8774+ 0	4.4310+ 0	8.0000+ 0	9.9188- 2	4.9900- 2	1.0999+ 1	1.0000+ 6	1.2399+ 1	3.9578-19	1.1000+ 1
3.7188- 1	4.6108- 3	5.8428+ 0	5.4433+ 0	8.4035+ 0	1.0419- 1	4.2398- 2	1.0999+ 1	5.6234+ 6	6.8722+ 4	2.4537-21	1.1000+ 1
4.0000- 1	4.9594- 3	5.4647+ 0	5.8040+ 0	8.8171+ 0	1.0932- 1	3.4639- 2	1.0999+ 1	5.4247+ 7	6.7258+ 5	2.7851-24	1.1000+ 1
5.0000- 1	6.1993- 3	4.2890+ 0	6.9030+ 0	1.0000+ 1	1.2399- 1	1.9000- 2	1.1000+ 1	1.0000+ 9	1.2399+ 7	4.1774-28	1.1000+ 1
6.0000- 1	7.4391- 3	3.3942+ 0	7.7240+ 0	1.0743+ 1	1.3320- 1	1.3974- 2	1.1000+ 1				

October 31, 1989
Atomic Weight 22.990

ENDL Evaluated
Photon Data

11-Na
Density 9.7100- 1 Grams/cc

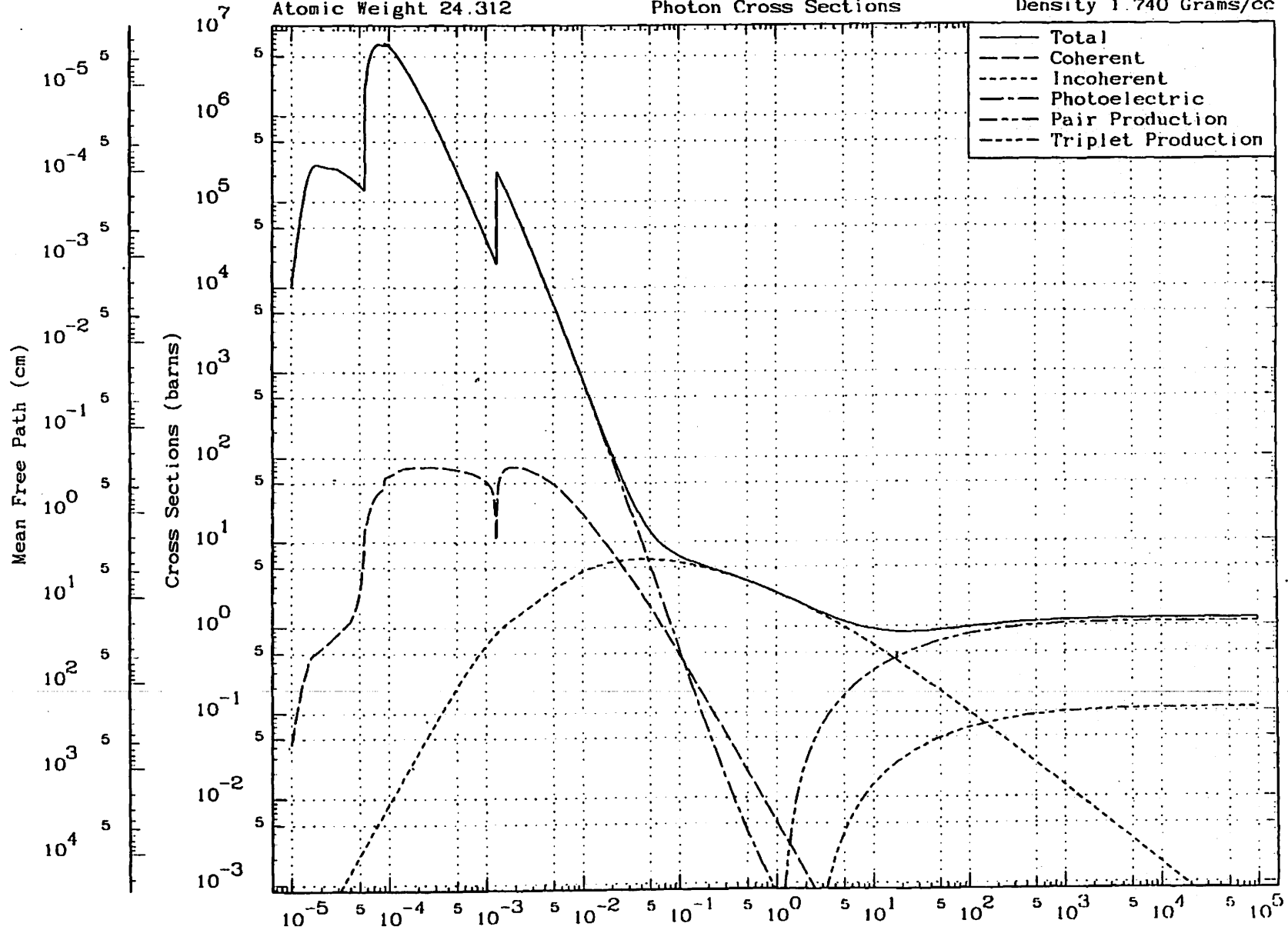
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.8000+ 1	5.2034+ 1	1.9792- 2	7.5557- 1	1.2809- 5	3.6059- 1	1.0210- 5	3.7120- 1	2.3760- 2	2.8952- 1	2.8952- 1	5.0075-12
2.6000+ 1	5.2810+ 1	1.9501- 2	7.4447- 1	6.1390- 6	2.6961- 1	6.8280- 6	4.4350- 1	3.1350- 2	4.3332- 1	4.3332- 1	3.3979-12
4.2170+ 1	5.1629+ 1	1.9947- 2	7.6150- 1	2.3337- 6	8394- 1	4.1962- 6	5.3594- 1	4.1612- 2	7.5479- 1	7.5479- 1	2.0580-12
6.8282+ 1	4.8200+ 1	2.0832- 2	7.8909- 1	8.8458- 7	1.2204- 1	2.5259- 6	6.2501- 1	5.2035- 2	1.3431+ 0	1.3431+ 0	1.2388-12
1.0000+ 2	4.7080+ 1	2.1884- 2	8.3544- 1	4.1500- 7	9.0122- 2	1.7400- 6	8.8580- 1	5.9520- 2	2.0583+ 0	2.0583+ 0	8.5339-13
2.0000+ 2	4.3679+ 1	2.3578- 2	9.0011- 1	1.0375- 7	4.9847- 2	8.6460- 7	7.7840- 1	7.1860- 2	4.5092+ 0	4.5092+ 0	4.2405-13
4.0000+ 2	4.1279+ 1	2.4949- 2	9.5243- 1	2.5937- 8	2.7427- 2	4.3090- 7	8.4340- 1	8.1600- 2	9.6185+ 0	9.6185+ 0	2.1134-13
1.0000+ 3	3.9380+ 1	2.6152- 2	9.8836- 1	4.1500- 9	1.2284- 2	1.7210- 7	8.9560- 1	9.0480- 2	2.5320+ 1	2.5320+ 1	8.4407-14
4.0000+ 3	3.8101+ 1	2.7030- 2	1.0318+ 0	2.5837-10	3.5491- 3	4.2970- 8	9.3090- 1	9.7440- 2	1.0491+ 2	1.0491+ 2	2.1075-14
1.0000+ 4	3.7786+ 1	2.7269- 2	1.0410+ 0	4.1500-11	1.5518- 3	1.7190- 8	9.4000- 1	9.8470- 2	2.6471+ 2	2.6471+ 2	8.4309-15
1.0000+ 5	3.7508+ 1	2.7457- 2	1.0482+ 0	4.1483-13	8743- 4	1.7180- 9	9.4690- 1	1.0110- 1	2.6660+ 3	2.6660+ 3	8.4260-16

October 31, 1989
Atomic Weight 24.312

ENDL Evaluated
Photon Cross Sections

12-Mg
Density 1.740 Grams/cc

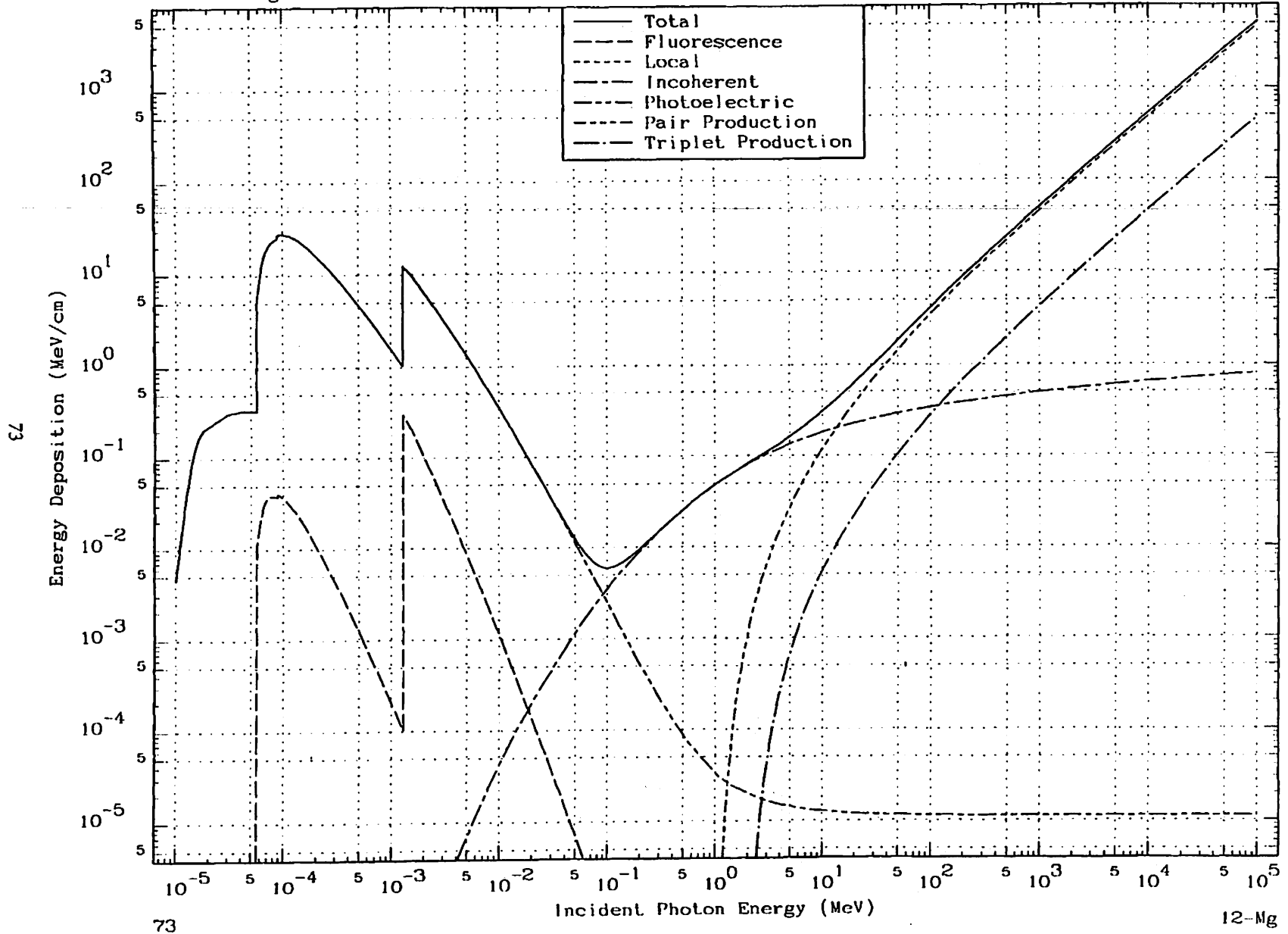
72

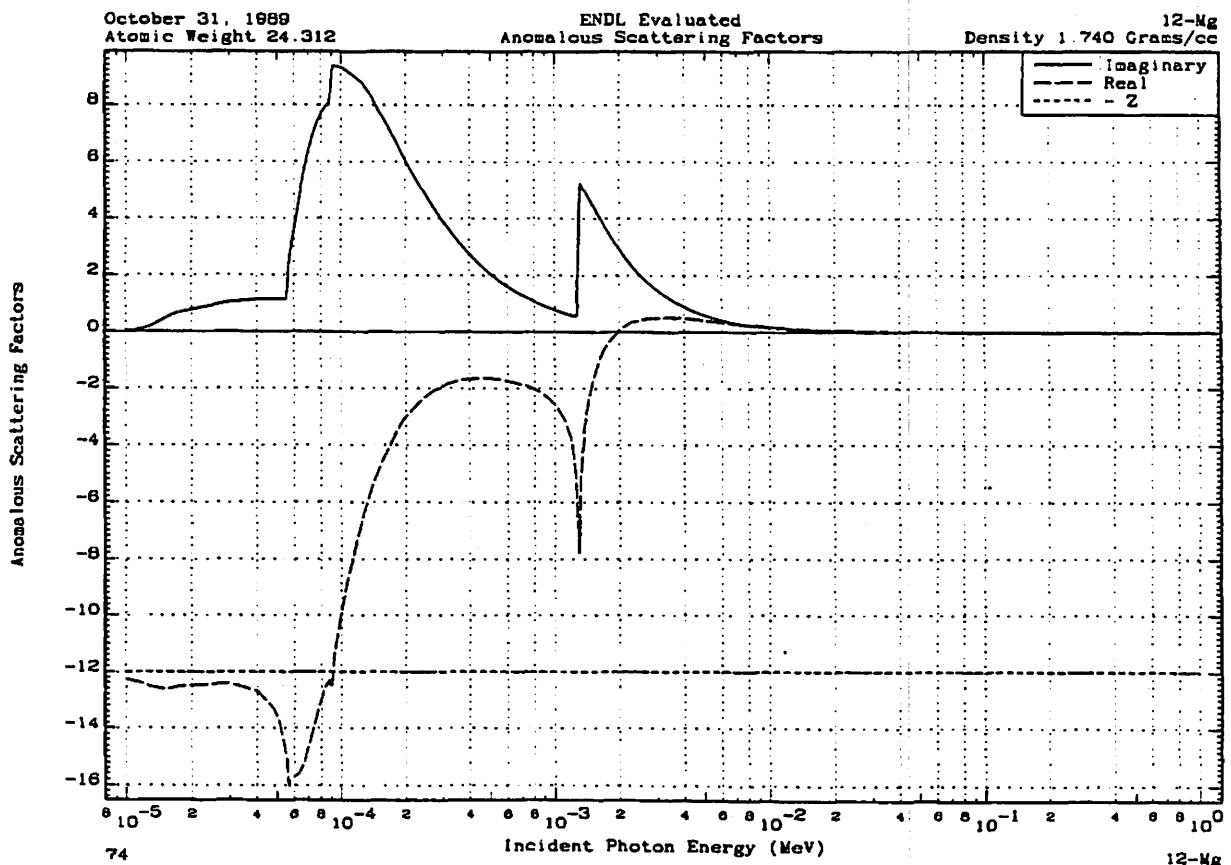
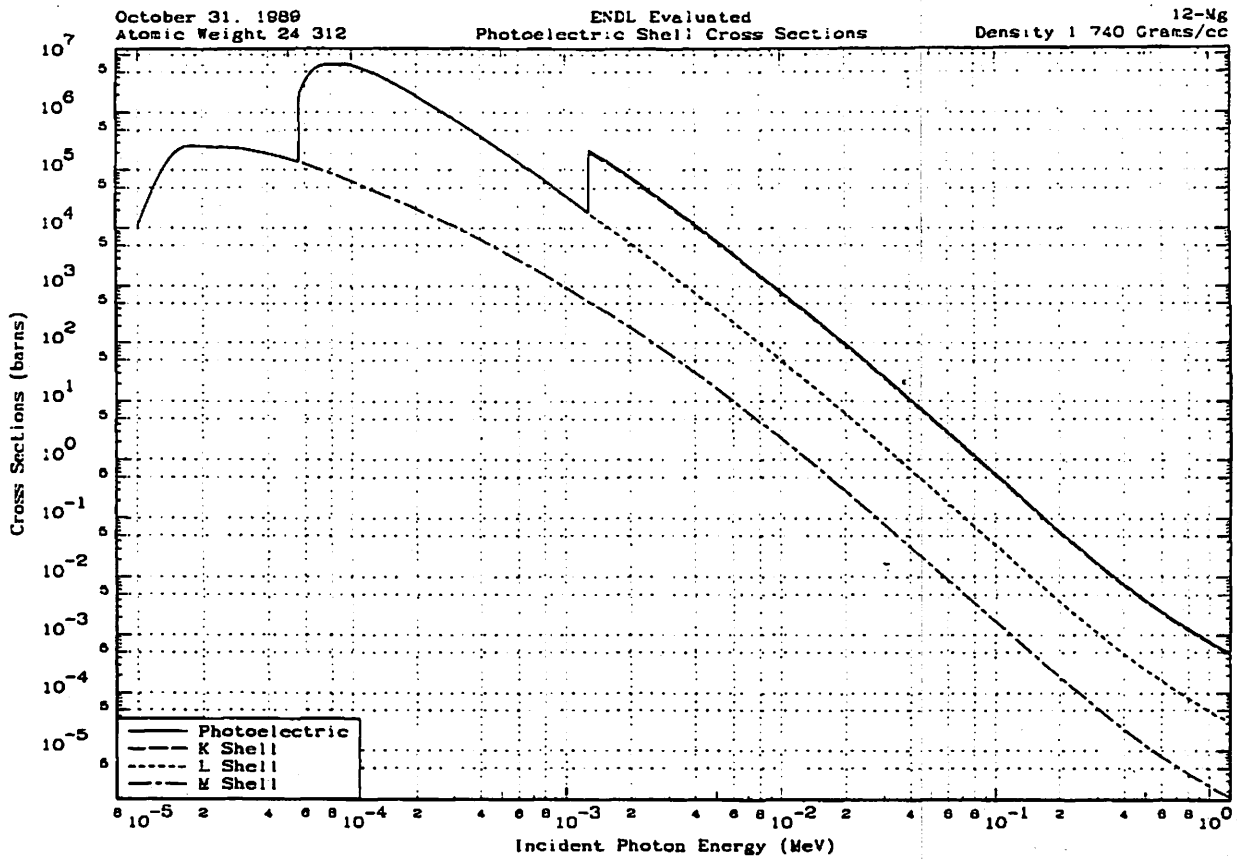


October 31, 1969
Atomic Weight 24.312

ENDL Evaluated
Energy Deposition

12-Mg
Density 1.740 Grams/cc

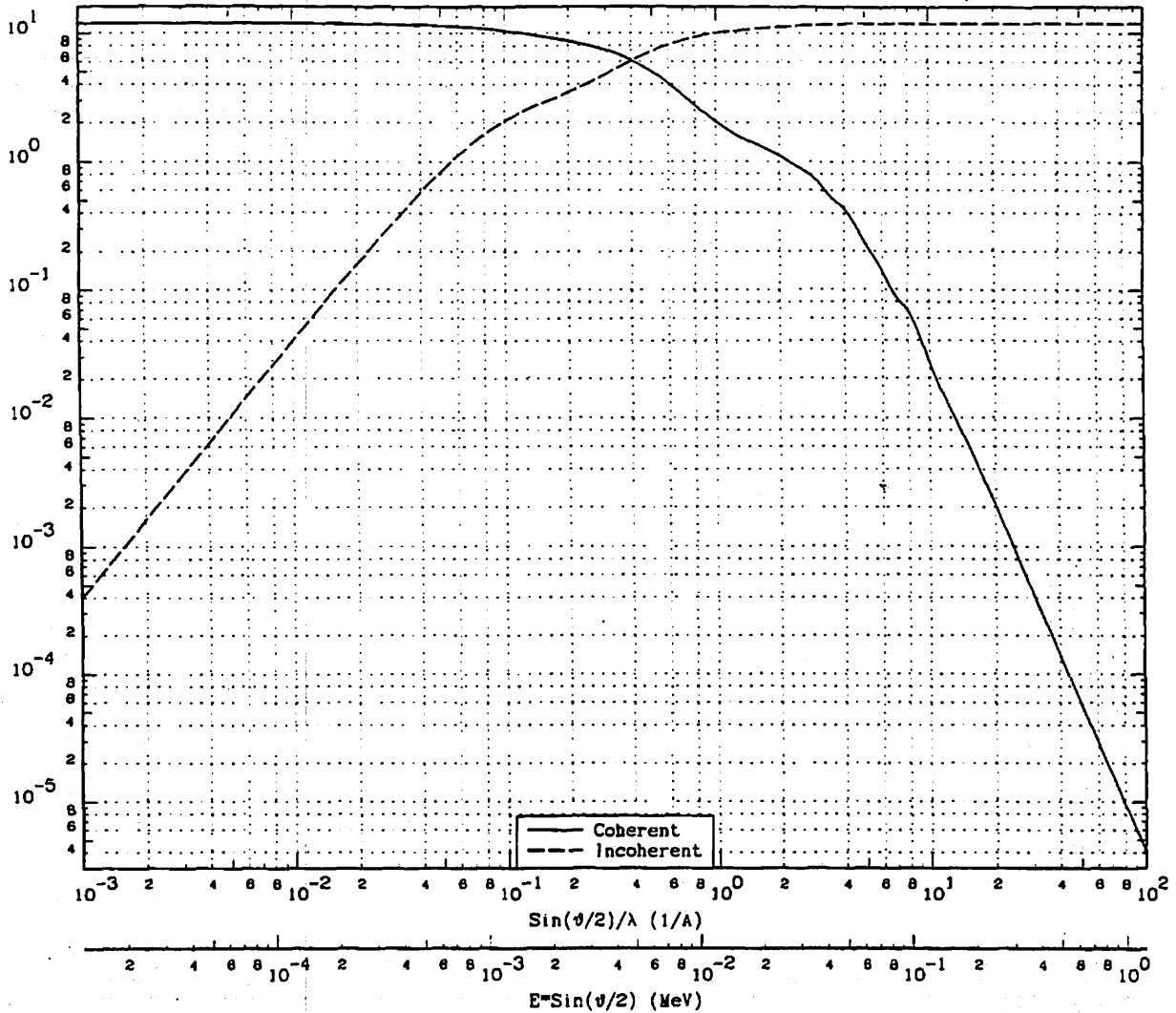




October 31, 1989
Atomic Weight 24.312

ENDL Evaluated
Form Factors

12-Ng
Density 1.740 Grams/cc



$\sin(\theta/2)/\lambda$ 1/Å	$E = \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/Å	$E = \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/Å	$E = \sin(\theta/2)$ MeV	Coherent	Incoherent
0000+0	0.0000+0	1.2000+1	0.0000+0	7.0000-1	8.6790-3	3.2884+0	8.7840+0	1.5000+1	1.8598-1	6.2021-3	1.2000+1
0000-3	1.2399-5	1.2000+1	4.0000-4	8.0000-1	9.9188-3	2.7203+0	9.3040+0	1.7129+1	2.1237-1	3.8053-3	1.2000+1
0000-3	6.1993-5	1.1991+1	1.0000-2	9.0000-1	1.1159-2	2.3132+0	9.6890+0	2.0000+1	2.4797-1	2.0816-3	1.2000+1
0000-2	1.2399-4	1.1975+1	4.0000-2	1.0000+0	1.2399-2	2.0213+0	9.9750+0	5.0000+1	6.1993-1	5.9409-5	1.2000+1
5000-2	1.8598-4	1.1951+1	8.9700-2	1.2500+0	1.5498-2	1.5959+0	1.0449+1	8.0000+1	9.9188-1	9.5822-6	1.2000+1
0000-2	2.4797-4	1.1914+1	1.5720-1	1.5000+0	1.8598-2	1.3933+0	1.0766+1	1.0000+2	1.2399+0	4.0541-8	1.2000+1
5000-2	3.0996-4	1.1867+1	2.4110-1	2.0000+0	2.4797-2	1.1178+0	1.1229+1	1.7111+2	2.1215+0	5.2992-7	1.2000+1
0000-2	3.7196-4	1.1811+1	3.3930-1	2.5000+0	3.0996-2	8.8840-1	1.1543+1	2.8861+2	3.5783+0	7.6872-8	1.2000+1
0000-2	4.8594-4	1.1873+1	5.7020-1	2.8945+0	3.5888-2	7.4792-1	1.1704+1	5.3674+2	6.6548+0	8.2819-9	1.2000+1
0000-2	6.1993-4	1.1505+1	8.3100-1	3.0000+0	3.7196-2	7.0600-1	1.1738+1	1.0000+3	1.2399+1	9.4897-10	1.2000+1
4375-2	7.9815-4	1.1227+1	1.2222+0	3.5000+0	4.3385-2	5.2360-1	1.1852+1	1.8293+3	2.2681+1	1.2349-10	1.2000+1
0000-2	8.6790-4	1.1114+1	1.3721+0	4.0000+0	4.8584-2	4.2650-1	1.1916+1	3.1028+3	3.8470+1	2.1739-11	1.2000+1
0000-2	1.1159-3	1.0885+1	1.8578+0	4.2790+0	5.3053-2	3.6521-1	1.1938+1	5.6337+3	7.3559+1	2.7205-12	1.2000+1
0000-1	1.2399-3	1.0454+1	2.0660+0	5.0000+0	6.1993-2	2.3240-1	1.1972+1	9.7951+3	1.2144+2	5.6527-13	1.2000+1
2500-1	1.5498-3	9.9571+0	2.4913+0	6.0000+0	7.4391-2	1.3950-1	1.1990+1	1.5130+4	1.8759+2	1.4785-13	1.2000+1
5000-1	1.8598-3	9.4723+0	2.8290+0	6.7188+0	8.3303-2	9.6995-2	1.1994+1	2.9135+4	3.8123+2	2.0246-14	1.2000+1
7500-1	2.1697-3	9.0948+0	3.1354+0	7.0000+0	8.6790-2	8.7100-2	1.1996+1	7.0521+4	8.7436+2	1.4556-15	1.2000+1
0000-1	2.4797-3	8.7133+0	3.4440+0	8.0000+0	9.9188-2	6.7000-2	1.1998-1	1.0000+6	1.2399+4	6.2746-18	1.2000+1
5000-1	3.0996-3	8.0746+0	4.0957+0	8.4035+0	1.0419-1	5.7405-2	1.1999-1	5.6234+8	6.9722+4	3.8545-21	1.2000+1
0000-1	3.7196-3	7.4307+0	4.7710+0	8.9650+0	1.1115-1	4.4132-2	1.1999-1	5.4247+7	6.7258+5	4.3870-24	1.2000+1
0000-1	4.8594-3	6.1879+0	6.0840+0	1.0000+1	1.2399-1	2.6800-2	1.2000+1	1.0000+9	1.2399+7	6.6127-28	1.2000+1
0000-1	6.1993-3	5.0315+0	7.1810+0	1.1009+1	1.3650-1	1.8062-2	1.2000+1				
0000-1	7.4391-3	4.0519+0	8.0880+0	1.2413+1	1.5390-1	1.1788-2	1.2000+1				

October 31, 1989
Atomic Weight 24.312

ENDL Evaluated
Photon Data

12-Mg
Density 1.740 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	2.2739-3	2.5274-2	1.0203-4	4.3213-2	8.6554-5	1.0203-4			4.3976-3	4.3976-3	
1.0756-5	1.1589-3	4.8590-2	2.0020-4	7.0418-2	1.0013-4	2.0020-4			9.2808-3	9.2808-3	
1.1457-5	6.5922-4	8.7181-2	3.5196-4	1.0488-1	1.1381-4	3.5196-4			1.7380-2	1.7380-2	
1.1841-5	4.6076-4	1.2473-3	5.0355-4	1.3503-1	1.2340-4	5.0355-4			2.5816-2	2.5816-2	
1.2642-5	2.9444-4	1.9519-3	7.8600-4	1.8692-1	1.3831-4	7.8600-4			4.2935-2	4.2935-2	
1.3019-5	2.4048-4	2.3893-3	9.6462-4	2.1952-1	1.4668-4	9.6461-4			5.4137-2	5.4137-2	
1.3407-5	1.9641-4	2.9260-3	1.1813-5	2.4794-1	1.5556-4	1.1813-5			6.8260-2	6.8260-2	
1.3958-5	1.5520-4	3.7031-3	1.4950-5	2.9273-1	1.6855-4	1.4950-5			8.9923-2	8.9923-2	
1.4644-5	1.2308-4	4.6698-3	1.8852-5	3.5728-1	1.8556-4	1.8852-5			1.1898-1	1.1898-1	
1.5000-5	1.1216-4	5.1241-3	2.0687-5	3.9470-1	1.9471-4	2.0687-5			1.3374-1	1.3374-1	
1.5796-5	9.6932-5	5.9291-3	2.3936-5	4.4198-1	2.1591-4	2.3936-5			1.6296-1	1.6296-1	
1.6037-5	9.4462-5	6.0841-3	2.4562-5	4.5690-1	2.2256-4	2.4562-5			1.6978-1	1.6978-1	
1.6494-5	9.0054-5	6.3819-3	2.5764-5	4.7110-1	2.3542-4	2.5764-5			1.8318-1	1.8318-1	
1.7670-5	8.5785-5	6.6995-3	2.7046-5	4.9632-1	2.7015-4	2.7046-5			2.0597-1	2.0597-1	
3.0000-5	9.7128-5	5.9170-3	2.3888-5	8.4764-1	7.7855-4	2.3888-5			3.0887-1	3.0887-1	
4.0371-5	1.2077-4	4.7586-3	1.9211-5	1.1897-0	1.4096-3	1.9211-5			3.3427-1	3.3427-1	
4.8680-5	1.4255-4	4.0317-3	1.6276-5	2.0250-0	1.9976-3	1.6276-5			3.3714-1	3.3714-1	
5.1174-5	1.5191-4	3.7832-3	1.5273-5	3.0141-0	2.2648-3	1.5273-5			3.3686-1	3.3686-1	
5.8225-5	1.6343-4	3.5166-3	1.4197-5	5.9297-0	2.5605-3	1.4196-5			3.3423-1	3.3423-1	
5.5224-5	1.6543-4	3.4740-3	1.4025-5	7.3028-0	2.6373-3	1.4024-5			3.3380-1	3.3380-1	
5.5670-5	1.6893-4	3.4429-3	1.3899-5	8.1171-0	2.6801-3	1.3898-5			3.3347-1	3.3347-1	
5.6039-5	1.6817-4	3.4175-3	1.3787-5	1.1178-0	2.7157-3	1.3788-5			3.3321-1	3.3321-1	
5.6240-5	1.6884-4	3.4039-3	1.3742-5	1.2129-0	2.7352-3	1.3741-5			3.3307-1	3.3307-1	
L3 5.6240-5	1.6844-5	3.4119-4	1.3774-6	1.2129-0	2.7352-3	1.3774-6			3.3388-0	3.3315-0	7.2732-3
5.6550-5	1.6032-5	3.5847-4	1.4472-6	1.3585-0	2.7655-3	1.4472-6			3.5273-0	3.5196-0	7.6875-3
L2 5.6550-5	1.1251-5	5.1082-4	2.0622-6	1.3585-0	2.7655-3	2.0622-6			5.0283-0	5.0152-0	1.1080-2
5.6832-5	1.0737-5	5.3526-4	2.1609-6	1.4383-0	2.7931-3	2.1609-6			5.2931-0	5.2914-0	1.1647-2
5.7481-5	9.6495-6	5.9559-4	2.4045-6	1.4768-0	2.8573-3	2.4044-6			5.9569-0	5.9438-0	1.3054-2
5.8894-5	8.0117-6	7.1734-4	2.8960-6	1.8213-0	2.9780-3	2.8960-6			7.3247-0	7.3088-0	1.5907-2
6.0581-5	8.3382-6	9.0875-4	3.6606-6	1.8714-0	3.1736-3	3.6606-6			9.5580-0	9.5377-0	2.0330-2
6.2142-5	5.4372-6	1.0570-5	4.2672-6	2.0987-0	3.3393-3	4.2672-6			1.1429-1	1.1405-1	2.3845-2
6.5547-5	4.3170-6	1.3313-5	5.3746-6	2.6037-0	3.7151-3	5.3745-6			1.5183-1	1.5153-1	3.0251-2
6.8212-5	3.8689-6	1.4855-5	5.8970-6	2.9885-0	4.0233-3	5.8969-6			1.7831-1	1.7597-1	3.3861-2
7.2888-5	3.5132-6	1.8359-5	6.6041-6	3.4510-0	4.5685-3	6.6041-6			2.0690-1	2.0652-1	3.7398-2
7.7037-5	3.3984-6	1.6911-5	8.8272-6	3.7843-0	5.1314-3	8.8271-6			2.2688-1	2.2629-1	3.8720-2
8.6586-5	3.4718-6	1.8554-5	6.8830-6	4.2798-0	6.4790-3	6.8829-6			2.4834-1	2.4898-1	3.7869-2
8.8448-5	3.5150-6	1.8350-5	6.8008-6	4.4884-0	6.7838-3	6.8008-6			2.5163-1	2.5125-1	3.7513-2
8.9460-5	3.5381-6	1.8244-5	6.5577-6	5.0546-0	6.9193-3	6.5577-6			2.5285-1	2.5247-1	3.7274-2
L1 8.9460-5	3.2479-6	1.7695-5	7.1437-6	5.0546-0	6.9193-3	7.1436-6			2.7544-1	2.7503-1	4.0610-2
9.0370-5	3.2659-6	1.7597-5	7.1042-6	5.6246-0	7.0607-3	7.1042-6			2.7670-1	2.7630-1	4.0391-2
9.1250-5	3.2833-6	1.7504-5	7.0667-6	5.8196-0	7.1989-3	7.0666-6			2.7792-1	2.7752-1	4.0182-2
1.0000-4	3.5545-6	1.8168-5	6.5274-6	6.0806-0	8.8452-3	6.5273-6			2.8133-1	2.8098-1	3.7127-2
1.1815-4	4.2814-6	1.3424-5	5.4193-6	8.8731-0	1.1850-2	5.4193-6			2.7128-1	2.7097-1	3.0837-2
1.2616-4	4.9033-6	1.1721-5	4.7319-6	1.1724-0	1.3738-2	4.7318-6			2.5730-1	2.5703-1	2.6920-2
1.3956-4	5.8571-6	9.8123-4	3.9813-6	7.4032-0	1.8799-2	3.9813-6			2.3827-1	2.3804-1	2.2527-2
1.7714-4	9.2955-6	8.1801-4	2.4950-6	7.8744-0	2.7021-2	2.4949-6			1.9048-1	1.9034-1	1.4170-2
2.4692-4	1.9099-5	3.0091-4	1.2148-6	7.7624-0	5.2039-2	1.2147-6			1.2927-1	1.2920-1	6.8811-3
3.5994-4	4.6046-5	1.2481-4	5.0388-5	7.5805-0	1.0743-1	5.0381-5			7.7974-0	7.7946-0	2.8428-3
5.3832-4	1.2591-4	4.5645-3	1.8427-5	7.0807-0	2.2766-1	1.8420-5			4.2738-0	4.2727-0	1.0343-3
7.2553-4	2.6866-4	2.1320-3	8.6071-4	6.4859-0	3.7883-1	8.6006-4			2.6895-0	2.6890-0	4.8112-4
9.0870-4	4.8692-4	1.1803-3	4.7850-4	5.7206-0	5.4032-1	4.7850-4			1.8640-0	1.8637-0	2.6536-4
1.0000-3	6.2381-4	9.2130-2	3.7194-4	5.2283-0	6.2325-1	3.7140-4			1.6008-0	1.6005-0	2.0686-4
1.0233-3	6.6364-4	8.8600-2	3.4961-4	5.1489-0	6.4243-1	3.4909-4			1.5397-0	1.5395-0	1.9437-4
1.1238-3	6.5297-4	8.7378-2	2.7201-4	4.4314-0	7.2842-1	2.7156-4			1.3151-0	1.3148-0	1.5100-4
1.1810-3	9.7530-4	5.8927-2	2.3789-4	3.8458-0	7.7855-1	2.3750-4			1.2088-0	1.2086-0	1.3198-4
1.2119-3	1.0454-3	5.4976-2	2.2194-4	3.4101-0	8.0241-1	2.2159-4			1.1574-0	1.1573-0	1.2308-4
1.2455-3	1.1255-3	5.1083-2	2.0615-4	2.7254-0	8.3055-1	2.0588-4			1.1051-0	1.1050-0	1.1430-4
1.2587-3	1.1580-3	4.9630-2	2.0038-4	2.3246-0	8.4046-1	2.0012-4			1.0857-0	1.0856-0	1.1109-4
1.2651-3	1.1740-3	4.8955-2	1.9764-4	2.0693-0	8.4526-1	1.9742-4			1.0765-0	1.0763-0	1.0958-4
1.2709-3	1.1887-3	4.8349-2	1.9519-4	1.7832-0	8.4984-1	1.9500-4			1.0681-0	1.0680-0	1.0823-4
1.2784-3	1.2078-3	4.7584-2	1.9210-4	1.5885-0	8.5525-1	1.9186-4			1.0578-0	1.0575-0	1.0653-4
1.2839-3	1.2220-3	4.7031-2	1.8987-4	1.1225-0	8.5941-1	1.8975-4			1.0500-0	1.0499-0	1.0530-4
1.2884-3	1.2284-3	4.6788-2	1.8889-4	1.0709-0	8.6129-1	1.8878-4			1.0488-0	1.0485-0	1.0475-4
1.2892-3	1.2358-3	4.6514-2	1.8778-4	1.0787-0	8.6338-1	1.8787-4			1.0427-0	1.0426-0	1.0414-4
1.2945-3	1.2492-3	4.6008-2	1.8574-4	1.3166-0	8.6741-1	1.8580-4			1.0355-0	1.0354-0	1.0299-4
K 1.2945-3	1.0372-4	5.5408-3	2.2389-5	1.3186-0	8.6741-1	2.2387-5			1.2479-1	1.2178-1	3.0181-1
1.3045-3	1.0563-4	5.4481-3	2.1987-5	2.3400-0	8.7499-1	2.1984-5			1.2381-1	1.2084-1	2.9653-1
1.3081-3	1.0617-4	5.4133-3	2.1854-5	2.7631-0	8.7787-1	2.1851-5			1.2320-1	1.2025-1	2.9478-1
1.3148-3	1.0740-4	5.3510-3	2.1603-5	3.4256-0	8.8281-1	2.1599-5			1.2241-1	1.1949-1	2.9142-1
1.3214-3	1.0859-4	5.2926-3	2.1387-5	3.9029-0	8.8772-1	2.1383-5			1.2166-1	1.1878-1	2.8828-1
1.3335-3	1.1083-4	5.1854-3	2.0934-5	4.4358-0	8.9693-1	2.0929-5			1.2029-1	1.1747-1	2.8253-1
1.3548-3	1.1483-4	5.0051-3	2.0206-5	5.0458-0	9.1308-1	2.0201-5			1.1796-1	1.1523-1	2.7285-1
1.3948-3	1.2252-4	4.5906-3	1.8936-5	5.7935-0	9.4345-1	1.8931-5			1.1380-1	1.1124-1	2.5596-1
1.4652-3	1.3682-4	4.2008-3	1.6958-5	6.5687-0	9.9726-1	1.6952-5			1.0705-1	1.0475-1	2.2968-1
1.5785-3	1.6246-4	3.5378-3	1.4282-5	7.3223-0	1.0747-0	1.4274-5			9.7108-0	9.5189-0	1.9398-1
1.7359-3	2.0721-4	2.7735-3	1.1197-5	7.7107-0	1.1781-0	1.1189-5			8.3705-0	8.2183-0	1.5228-1
2.1071-3	3.4214-4	1.8788-3	6.7813-4	7.7853-0	1.3804-0	6.7734-4			6.1512-0	6.0587-0	9.2409-2
2.5810-3	5.8954-4	9.7851-2	3.9423-4	7.3322-0	1.6355-0	3.9348-4			4.3764-0	4.3228-0	5.3787-2
3.5867-3	1.4300-3	4.0189-2	1.6225-4	6.2133-0	2.1271-0	1.6180-4			2.4881-0	2.4759-0	2.2156-2
4.7228-3	3.1158-3	1.8446-2	7.4470-3	5.1040-0	2.6482-0	7.3933-3			1.5049-0	1.4947-0	1.0147-2
6.0000-3	8.1241-3	9.3845-1	3.7888-3	4.0939-0	3.1904-0	3.7445-3			9.8834-1	9.8320-1	5.1445-3
8.0000-3	1.4232-2	4.0380-1	1.6302-3	2.8447-0	3.9185-0	1.5968-3			5.5062-1	5.4842-1	2.1948-3
1.0000-2	2.7264-2	2.1080-1	8.5101-2	2.1856-0	4.4900-0	8.2456-2			3.5547-1	3.5434-1	1.1335-3
1.4656-2	8.5041-2	8.7581-0	2.7283-2	1.2518-0	5.2878-0	2.5503-2			1.8119-1	1.8084-1	3.5080-4
2.1438-2	2.5315-1	1.2702-0	9.1851-1	7.0152-0	5.8394-0	7.8777-1			7.3034-2	7.2928-2	1.0638-4
2.6213-2	5.3111-1	1.0821-0	4.3685-1	4.5556-0							

October 31, 1989
Atomic Weight 24.312

ENDL Evaluated
Photon Data

12-Mg
Density 1.740 Grams/cc

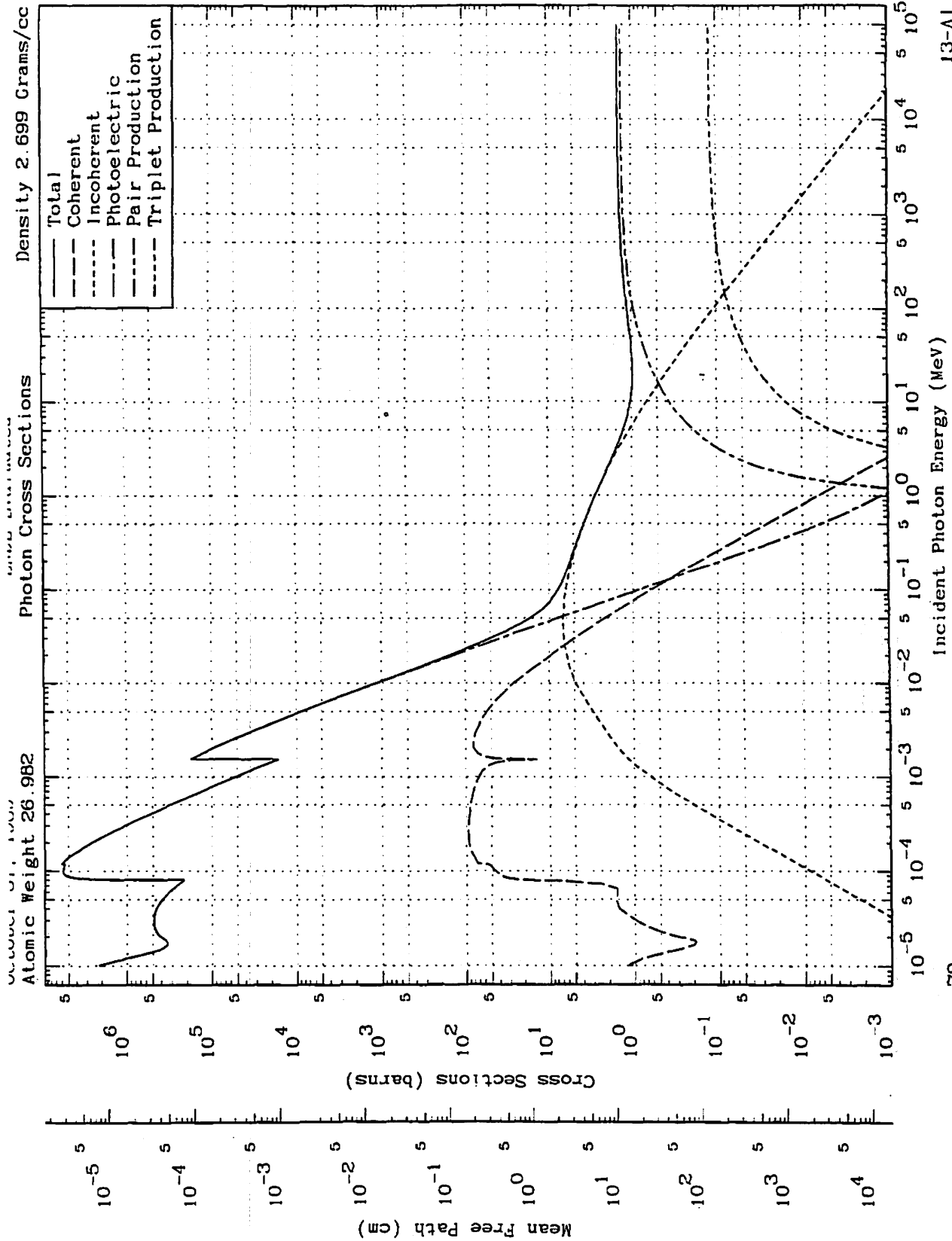
Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
3.4298-2	8.4965-1	6.7641-1	2.7308+1	3.3168+0	6.1859+0	1.7805-1			2.6893-2	2.6888-2	2.4478-5
4.2929-2	1.3475+0	4.2651-1	1.7219+1	2.2682+0	6.2426+0	8.7080+0			1.6980-2	1.6968-2	1.1974-5
5.1981-2	1.8511+0	3.1047-1	1.2534+1	1.6225+0	6.2157+0	4.6955+0			1.1735-2	1.1729-2	6.4561-6
6.1874-2	2.3205+0	2.4787-1	8.9987+0	1.1848+0	6.1382+0	2.6758+0			8.7672-3	8.7638-3	3.8788-6
7.3370-2	2.7458+0	2.0630-1	8.4498+0	8.6599-1	6.4000+0	1.5437+0			7.0441-3	7.0420-3	2.1221-6
8.3500-2	3.0457+0	1.8870-1	7.6178+0	6.8100+1	5.9189+0	1.0170+0			6.3043-3	6.3029-3	1.3980-6
9.5831-2	3.3273+0	1.7273-1	6.8732+0	5.2624-1	5.7847+0	8.5229-1			5.9699-3	5.9690-3	8.9668-7
1.0000-1	3.4088+0	1.6871-1	6.8108+0	4.8576-1	5.7565+0	5.8862-1			5.9506-3	5.9498-3	7.8185-7
1.1863-1	3.6971+0	1.5545-1	6.2756+0	3.6294-1	5.5864+0	3.4630-1			6.1114-3	6.1110-3	4.7603-7
1.3943-1	4.0038+0	1.4354-1	5.7948+0	2.5775-1	5.3423+0	1.9468-1			6.8042-3	6.8040-3	2.8763-7
1.8612-1	4.5035+0	1.2782-1	5.1520+0	1.4720-1	4.9280+0	7.6737-2			8.8665-3	8.8664-3	1.0547-7
3.0136-1	5.4258+0	1.0592-1	4.2762+0	5.7040-2	4.2019+0	1.7247-2			1.4985-2	1.4985-2	2.3704-8
4.0078-1	6.0787+0	9.4578-2	3.8182+0	3.2400-2	3.7783+0	7.4952-3			2.0365-2	2.0365-2	1.0301-8
5.8742-1	7.0291+0	8.1762-2	3.3008+0	1.8212-2	3.2817+0	2.8434-3			2.8973-2	2.8973-2	4.0458-9
8.9924-1	7.7229+0	7.4418-2	3.0044+0	1.0687-2	2.9918+0	1.7594-3			3.5175-2	3.5175-2	2.4181-9
8.8204-1	8.8102+0	6.8748-2	2.6947+0	6.7212-3	2.8889+0	1.0441-3			4.3174-2	4.3174-2	1.4351-9
1.0000-1	9.1412+0	6.2871-2	2.5382+0	5.2305-3	2.5321+0	6.0098-4			4.8097-2	4.8097-2	1.1009-9
1.0220+0	9.2398+0	6.2200-2	2.5111+0	5.0080-3	2.5053+0	7.5380-4			4.8965-2	4.8965-2	1.0360-9
1.0251+0	9.2546+0	6.2100-2	2.5071+0	4.9776-3	2.5013+0	7.4828-4	5.5040-9		4.9078-2	4.9078-2	1.0285-9
1.0287+0	9.2718+0	6.1985-2	2.5024+0	4.9425-3	2.4967+0	7.4193-4	5.5040-9		4.9209-2	4.9209-2	1.0197-9
1.0366+0	9.3090+0	6.1738-2	2.4924+0	4.8676-3	2.4898+0	7.2638-4	5.5039-9		4.9494-2	4.9494-2	1.0011-9
1.0415+0	9.3318+0	6.1588-2	2.4863+0	4.8224-3	2.4808+0	7.2021-4	1.2839-8		4.9689-2	4.9689-2	9.8887-10
1.0438+0	9.3428+0	6.1515-2	2.4834+0	4.8011-3	2.4779+0	7.1638-4	1.7822-8		4.9752-2	4.9752-2	9.8482-10
1.0464+0	9.3548+0	6.1435-2	2.4802+0	4.7773-3	2.4747+0	7.1210-4	2.4795-8		4.9845-2	4.9845-2	9.7873-10
1.0483+0	9.3637+0	6.1377-2	2.4779+0	4.7600-3	2.4724+0	7.0899-4	3.0871-8		4.9914-2	4.9914-2	9.7445-10
1.0512+0	9.3772+0	6.1288-2	2.4743+0	4.7338-3	2.4688+0	7.0428-4	4.1878-8		5.0018-2	5.0018-2	9.6798-10
1.0541+0	9.3907+0	6.1200-2	2.4707+0	4.7080-3	2.4653+0	6.9965-4	5.5040-8		5.0122-2	5.0122-2	9.6181-10
1.0577+0	9.4078+0	6.1091-2	2.4663+0	4.6758-3	2.4609+0	6.9389-4	7.5022-8		5.0252-2	5.0252-2	9.5370-10
1.0611+0	9.4234+0	6.0988-2	2.4622+0	4.6460-3	2.4568+0	6.8854-4	9.7584-8		5.0374-2	5.0374-2	9.4634-10
1.0651+0	9.4420+0	6.0888-2	2.4573+0	4.6112-3	2.4520+0	6.8232-4	1.2919-5		5.0517-2	5.0517-2	9.3779-10
1.0704+0	9.4665+0	6.0710-2	2.4509+0	4.5657-3	2.4457+0	6.7418-4	1.8023-5		5.0707-2	5.0707-2	9.2883-10
1.0782+0	9.4834+0	6.0538-2	2.4440+0	4.5166-3	2.4388+0	6.6603-4	2.4908-5		5.0915-2	5.0915-2	9.1541-10
1.0806+0	9.5138+0	6.0409-2	2.4388+0	4.4799-3	2.4336+0	6.5124-4	3.1106-5		5.1072-2	5.1072-2	9.0883-10
1.0871+0	9.5435+0	6.0220-2	2.4312+0	4.4286-3	2.4280+0	6.5427-4	4.1910-5		5.1304-2	5.1304-2	8.9924-10
1.0937+0	9.5738+0	6.0030-2	2.4235+0	4.3733-3	2.4184+0	6.4728-4	5.5040-5		5.1540-2	5.1540-2	8.8965-10
1.1028+0	9.6144+0	5.9778-2	2.4132+0	4.3031-3	2.4082+0	6.3808-4	7.8317-5		5.1857-2	5.1857-2	8.7700-10
1.1107+0	9.6512+0	5.9546-2	2.4040+0	4.2406-3	2.3991+0	6.2968-4	9.9541-5		5.2145-2	5.2145-2	8.6573-10
1.1206+0	9.6960+0	5.9273-2	2.3929+0	4.1681-3	2.3880+0	6.2007-4	1.3317-4		5.2498-2	5.2498-2	8.5225-10
1.1333+0	9.7532+0	5.8928-2	2.3788+0	4.0733-3	2.3740+0	6.0784-4	1.8518-4		5.2948-2	5.2948-2	8.3543-10
1.1475+0	9.8187+0	5.8545-2	2.3635+0	3.9732-3	2.3587+0	5.8460-4	2.5572-4		5.3447-2	5.3447-2	8.1723-10
1.1582+0	9.8642+0	5.8263-2	2.3521+0	3.8902-3	2.3473+0	5.6492-4	3.1781-4		5.3824-2	5.3824-2	8.0392-10
1.1741+0	9.9544+0	5.7851-2	2.3355+0	3.7954-3	2.3307+0	5.7098-4	4.2469-4		5.4383-2	5.4383-2	7.8477-10
1.1901+0	1.0004+1	5.7448-2	2.3191+0	3.6940-3	2.3143+0	5.5747-4	5.5040-4		5.4944-2	5.4944-2	7.6620-10
1.2051+0	1.0070+1	5.7074-2	2.3041+0	3.6028-3	2.2993+0	5.4528-4	6.8471-4		5.5488-2	5.5488-2	7.4942-10
1.2275+0	1.0166+1	5.6533-2	2.2823+0	3.4726-3	2.2774+0	5.2779-4	9.1595-4		5.6249-2	5.6249-2	7.2540-10
1.2500+0	1.0262+1	5.6005-2	2.2610+0	3.3488-3	2.2558+0	5.1110-4	1.1850-3		5.7030-2	5.7030-2	7.0247-10
1.2813+0	1.0393+1	5.5298-2	2.2324+0	3.1873-3	2.2271+0	4.8928-4	1.6203-3		5.8113-2	5.8113-2	6.7245-10
1.3325+0	1.0604+1	5.4197-2	2.1880+0	2.9472-3	2.1821+0	4.5655-4	2.4825-3		5.8878-2	5.8878-2	6.4749-10
1.3744+0	1.0773+1	5.3348-2	2.1537+0	2.7703-3	2.1472+0	4.3228-4	3.3213-3		6.1311-2	6.1311-2	5.9410-10
1.4058+0	1.0897+1	5.2740-2	2.1292+0	2.6480-3	2.1221+0	4.1535-4	4.0245-3		6.2384-2	6.2384-2	5.7087-10
1.4529+0	1.1080+1	5.1870-2	2.0941+0	2.4792-3	2.0860+0	3.9187-4	5.1824-3		6.3987-2	6.3987-2	5.3859-10
1.5000+0	1.1259+1	5.1047-2	2.0508+0	2.3280-3	2.0518+0	3.7040-4	6.4870-3		6.5585-2	6.5585-2	5.0909-10
1.5825+0	1.1490+1	5.0020-2	2.0194+0	2.1437-3	2.0085+0	3.4852-4	8.3828-3		6.7700-2	6.7700-2	4.7827-10
1.6172+0	1.1688+1	4.9178-2	1.9854+0	2.0012-3	1.9728+0	3.2780-4	1.0192-2		6.9547-2	6.9547-2	4.5028-10
1.7188+0	1.2039+1	4.7736-2	1.8272+0	1.7717-3	1.8112+0	2.8659-4	1.3866-2		7.2970-2	7.2970-2	4.0764-10
1.7847+0	1.2278+1	4.6808-2	1.6977+0	1.6433-3	1.6713+0	2.7892-4	1.6458-2		7.4958-2	7.4958-2	3.8335-10
1.8923+0	1.2655+1	4.5415-2	1.6335+0	1.4818-3	1.6108+0	2.5350-4	2.0939-2		7.8197-2	7.8197-2	3.4842-10
2.0440+0	1.3158+1	4.3678-2	1.7633+0	1.2529-3	1.7341+0	2.2390-4	2.7690-2		8.2781-2	8.2781-2	3.0773-10
2.0858+0	1.3301+1	4.3207-2	1.7443+0	1.2032-3	1.7134+0	2.1743-4	2.9500-2	1.2051-7	8.3908-2	8.3908-2	2.9884-10
2.1363+0	1.3470+1	4.2665-2	1.7225+0	1.1471-3	1.6892+0	2.1003-4	3.1908-2	1.2051-6	8.5299-2	8.5299-2	2.8866-10
2.1470+0	1.3506+1	4.2554-2	1.7178+0	1.1356-3	1.6842+0	2.0850-4	3.2425-2	1.6523-6	8.5598-2	8.5598-2	2.8857-10
2.1835+0	1.3560+1	4.2384-2	1.7111+0	1.1184-3	1.6785+0	2.0620-4	3.3232-2	2.5125-6	8.6053-2	8.6053-2	2.8341-10
2.1845+0	1.3629+1	4.2188-2	1.7024+0	1.0970-3	1.6689+0	2.0334-4	3.4154-2	3.8812-6	8.6827-2	8.6827-2	2.7947-10
2.2018+0	1.3688+1	4.1994-2	1.6953+0	1.0768-3	1.6591+0	2.0103-4	3.4928-2	5.5088-6	8.7101-2	8.7101-2	2.7829-10
2.2148+0	1.3728+1	4.1844-2	1.6901+0	1.0572-3	1.6533+0	1.9932-4	3.5513-2	6.8628-6	8.7457-2	8.7457-2	2.7395-10
2.2342+0	1.3781+1	4.1674-2	1.6824+0	1.0487-3	1.6448+0	1.9811-4	3.6402-2	9.2314-6	8.7990-2	8.7990-2	2.7051-10
2.2537+0	1.3853+1	4.1487-2	1.6749+0	1.0307-3	1.6363+0	1.9435-4	3.7309-2	1.2051-5	8.8528-2	8.8528-2	2.6713-10
2.2815+0	1.3941+1	4.1224-2	1.6643+0	1.0057-3	1.6244+0	1.9050-4	3.8628-2	1.6879-5	8.9294-2	8.9294-2	2.6242-10
2.3070+0	1.4021+1	4.0990-2	1.6548+0	9.8359-4	1.6137+0	1.8768-4	3.9884-2	2.2171-5	8.9998-2	8.9998-2	2.5822-10
2.3382+0	1.4117+1	4.0709-2	1.6435+0	9.5752-4	1.6009+0	1.8428-4	4.1411-2	2.8811-5	9.0883-2	9.0883-2	2.5325-10
2.3774+0	1.4237+1	4.0368-2	1.6297+0	9.2621-4	1.5882+0	1.7987-4	4.3374-2	4.1284-5	9.1953-2	9.1953-2	2.4722-10
2.4102+0	1.4337+1	4.0085-2	1.6183+0	9.0118-4	1.5723+0	1.7633-4	4.4844-2	5.2507-5	9.2853-2	9.2853-2	2.4236-10
2.4468+0	1.4448+1	3.9779-2	1.6059+0	8.7443-4	1.5583+0	1.7252-4	4.6519-2	6.6792-5	9.3858-2	9.3858-2	2.3712-10
2.4858+0	1.4584+1	3.9462-2	1.5931+0	8.4714-4	1.5437+0	1.6881-4	4.8349-2	8.4094-5	9.4937-2	9.4937-2	2.3174-10
2.5584+0	1.4768+1	3.8915-2	1.5711+0	8.0105-4	1.5182+0	1.6191-4	5.1754-2	1.2051-4	9.6895-2	9.6895-2	2.2253-10
2.6804+0	1.5060+1	3.8163-2	1.5407+0	7.3987-4	1.4827+0	1.5282-4	5.6928-2	1.8577-4	9.8803-2	9.8803-2	2.1004-10
2.7453+0	1.5293+1	3.7578-2	1.5171+0	6.9484-4	1.4552+0	1.4602-4	6.0782-2	2.4863-4	1.0215-1	1.0215-1	2.0089-10
2.8090+0	1.5484+1	3.7165-2	1.5004+0	6.6350-4	1.4355+0	1.4124-4	6.3761-2	3.0111-4	1.0393-1	1.0393-1	1.9413-10
2.8045+0	1.5711+1	3.6581-2	1.4788+0	6.2059-4	1.4073+0	1.3458-4	6.83				

October 31, 1989
Atomic Weight 24.312

ENDL Evaluated
Photon Data

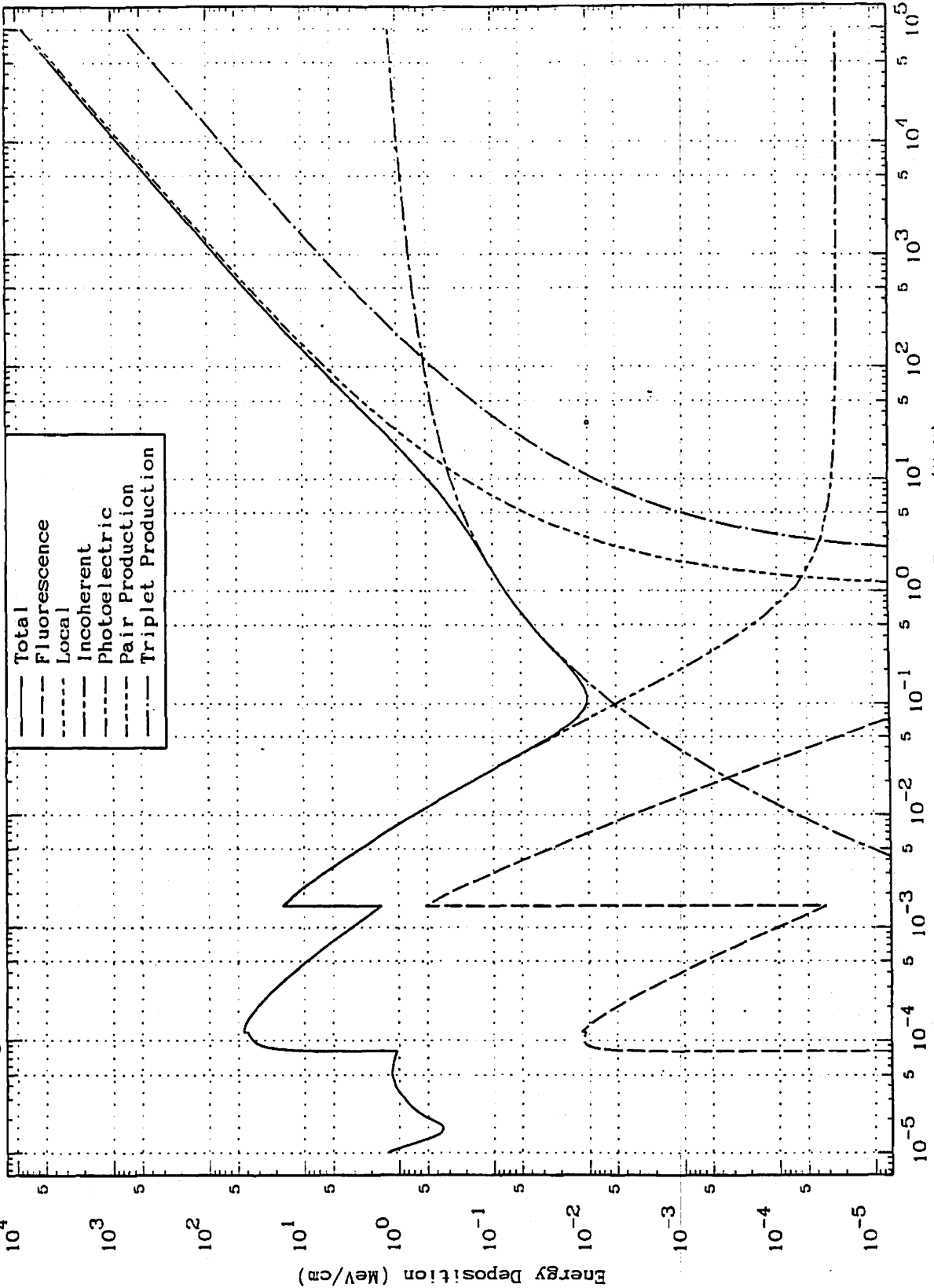
12-Mg
Density 1.740 Grams/cc

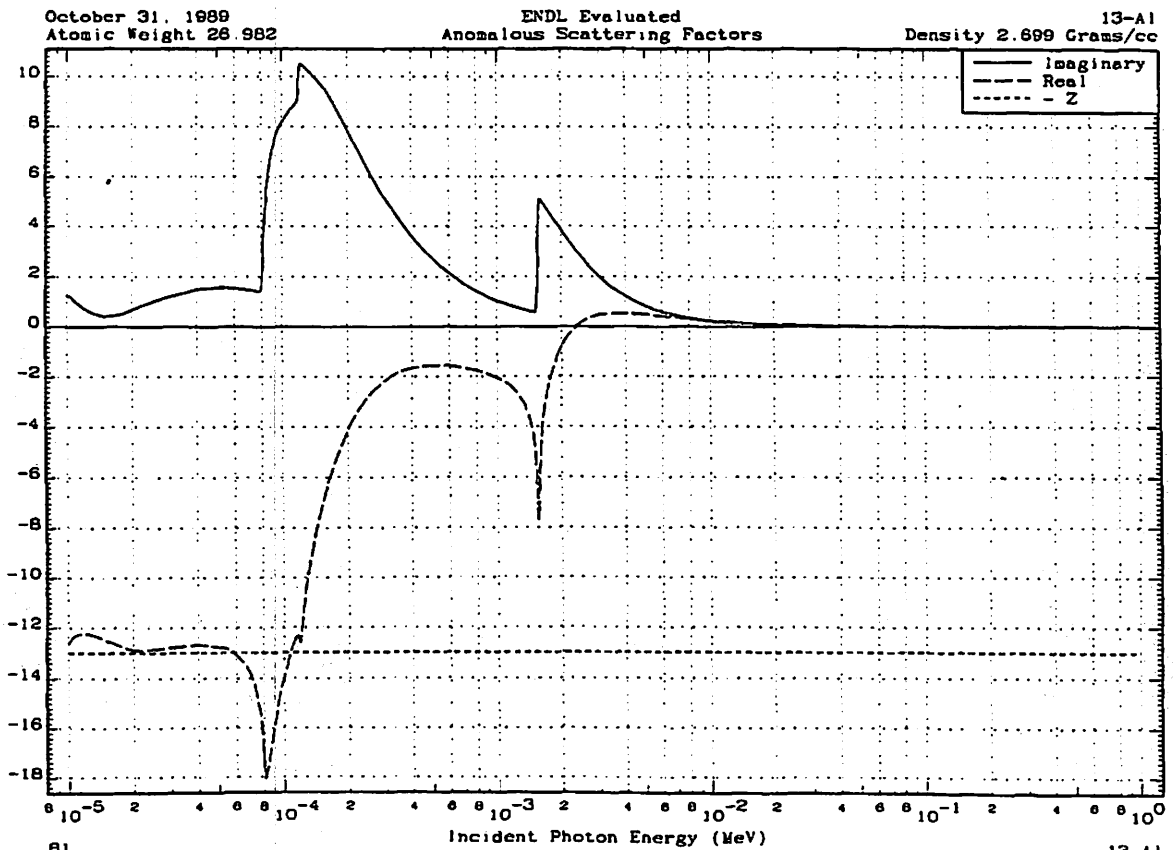
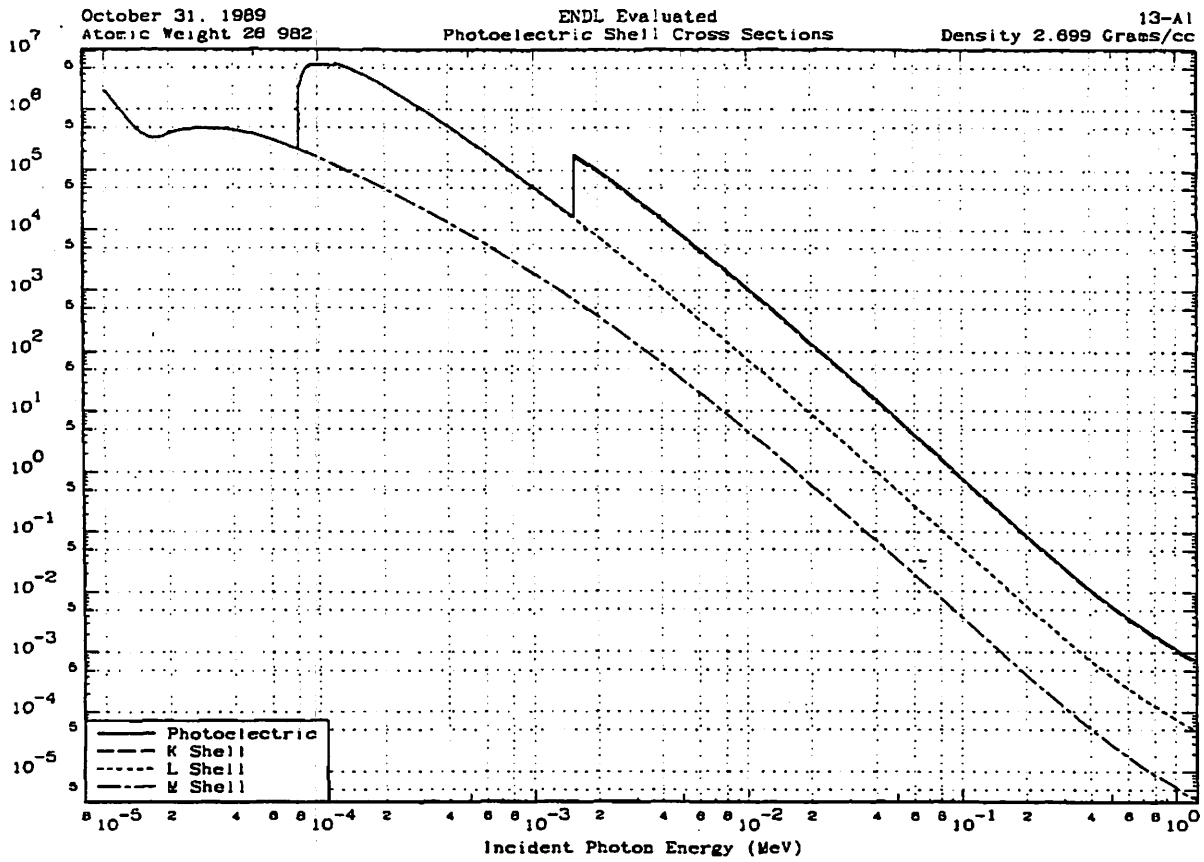
Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cc)		
	ca	cc*ca/graz	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
5.5135+ 0	2.0842+ 1	2.7575- 2	1.1132+ 0	1.7224- 4	9.3096- 1	5.8856- 5	1.7704- 1	5.0140- 3	1.7608- 1	1.7608- 1	8.0892-11
6.3840+ 0	2.1996+ 1	2.6128- 2	1.0548+ 0	1.2928- 4	8.4144- 1	4.9566- 5	2.0639- 1	6.7965- 3	1.9856- 1	1.9856- 1	6.8124-11
7.4833+ 0	2.3188+ 1	2.4788- 2	1.0007+ 0	9.3499- 5	7.5082- 1	4.1008- 5	2.4082- 1	9.1215- 3	2.2946- 1	2.2946- 1	5.6362-11
9.0000+ 0	2.4340+ 1	2.3612- 2	9.5322- 1	6.4642- 5	6.5906- 1	3.3200- 5	2.8190- 1	1.2160- 2	2.7370- 1	2.7370- 1	4.5631-11
1.0000+ 1	2.4902+ 1	2.3079- 2	9.3170- 1	5.2380- 5	6.1189- 1	2.9490- 5	3.0570- 1	1.4030- 2	3.0401- 1	3.0401- 1	4.0532-11
1.3000+ 1	2.6149+ 1	2.1978- 2	8.8728- 1	3.0982- 5	5.0287- 1	2.2070- 5	3.6550- 1	1.9060- 2	3.9568- 1	3.9568- 1	3.0334-11
1.6000+ 1	2.6966+ 1	2.1320- 2	8.6072- 1	1.6161- 5	3.9388- 1	1.5530- 5	4.4110- 1	2.5910- 2	5.6183- 1	5.6183- 1	2.1345-11
2.0000+ 1	2.7126+ 1	2.1187- 2	8.5534- 1	7.7456- 6	2.9435- 1	1.0530- 5	5.2680- 1	3.4170- 2	6.4746- 1	6.4746- 1	1.4473-11
4.2170+ 1	2.6291+ 1	2.1860- 2	8.8251- 1	2.8444- 6	2.0082- 1	6.3772- 6	6.3635- 1	4.5335- 2	1.4870+ 0	1.4870+ 0	8.7849-12
6.8282+ 1	2.4913+ 1	2.3069- 2	9.3132- 1	1.0908- 6	1.3324- 1	3.8388- 8	7.4143- 1	5.8844- 2	2.6580+ 0	2.6580+ 0	5.2733-12
1.0000+ 2	2.3789+ 1	2.4179- 2	9.7812- 1	5.2360- 7	9.8392- 2	2.8430- 8	8.1300- 1	6.4730- 2	4.0810+ 0	4.0810+ 0	3.6326-12
2.0000+ 2	2.2022+ 1	2.6097- 2	1.0538+ 0	1.3090- 7	5.4421- 2	1.3130- 8	9.2110- 1	7.8060- 2	8.9499+ 0	8.9499+ 0	1.8046-12
4.0000+ 2	2.0788+ 1	2.7846- 2	1.1181+ 0	3.2725- 8	2.9944- 2	6.5450- 7	9.9750- 1	6.8660- 2	1.9106+ 1	1.9106+ 1	8.9956-13
1.0000+ 3	1.9815+ 1	2.9004- 2	1.1709+ 0	5.2360- 9	1.3411- 2	2.8130- 7	1.0590+ 0	9.8510- 2	5.0328+ 1	5.0328+ 1	3.5914-13
4.0000+ 3	1.9139+ 1	3.0028- 2	1.2123+ 0	3.2725-10	3.8748- 3	6.5280- 8	1.1020+ 0	1.0840- 1	2.0888+ 2	2.0888+ 2	8.9895-14
1.0000+ 4	1.8985+ 1	3.0304- 2	1.2234+ 0	5.2360-11	1.6942- 3	2.8100- 8	1.1130+ 0	1.0870- 1	5.2714+ 2	5.2714+ 2	3.5872-14
1.0000+ 5	1.8837+ 1	3.0509- 2	1.2317+ 0	5.2363-13	2.0483- 4	2.8100- 9	1.1210+ 0	1.1060- 1	5.3085+ 3	5.3085+ 3	3.5872-15

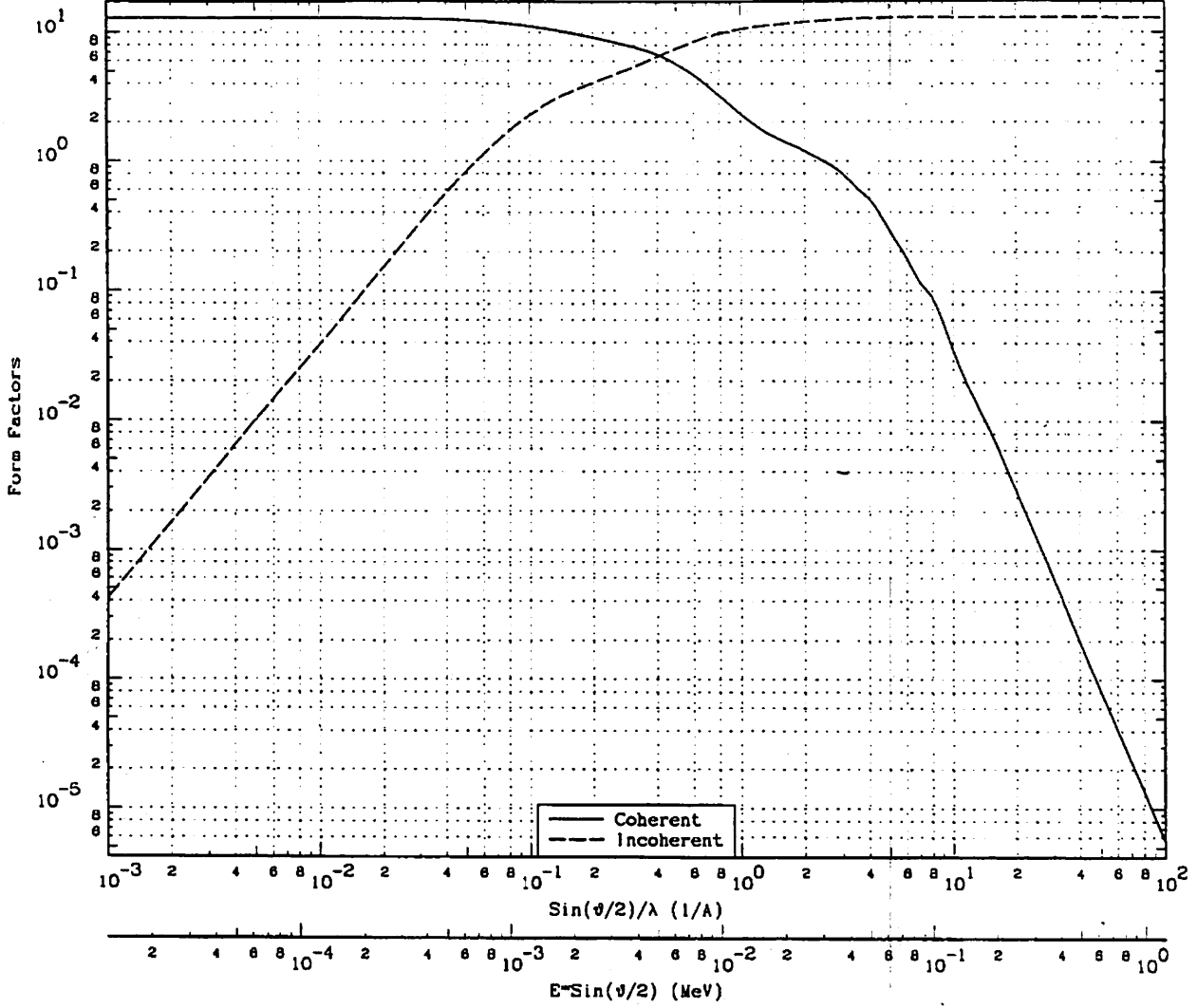


October 31, 1989
Atomic Weight 26.982
Density 2.699 Grams/cc
13-A1

ENDL Evaluated
Energy Deposition







$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	1.3000+ 1	0.0000+ 0	8.0000- 1	8.9188- 3	3.2115+ 0	9.8300+ 0	1.5000+ 1	1.8598- 1	8.4081- 3	1.3000+ 1
1.0000- 3	1.2399- 5	1.3000+ 1	4.2422- 4	9.0000- 1	1.1159- 2	2.7041+ 0	1.0296+ 1	1.7847+ 1	2.2128- 1	4.4382- 3	1.3000+ 1
5.0000- 3	6.1993- 5	1.2962+ 1	1.0000- 2	1.0000+ 0	1.2399- 2	2.3248+ 0	1.0652+ 1	2.0000+ 1	2.4797- 1	2.8477- 3	1.3000+ 1
1.0000- 2	1.2399- 4	1.2974+ 1	3.8000- 2	1.2500+ 0	1.5498- 2	1.7537+ 0	1.1233+ 1	5.0000+ 1	6.1993- 1	8.2435- 5	1.3000+ 1
1.5000- 2	1.8598- 4	1.2945+ 1	8.7100- 2	1.5000+ 0	1.8598- 2	1.4812+ 0	1.1592+ 1	8.0000+ 1	9.9188- 1	1.3365- 5	1.3000+ 1
2.0000- 2	2.4797- 4	1.2903+ 1	1.5300- 1	2.0000+ 0	2.4797- 2	1.1924+ 0	1.2083+ 1	1.0000+ 2	1.2399+ 0	5.8698- 6	1.3000+ 1
2.5000- 2	3.0996- 4	1.2849+ 1	2.3530- 1	2.5000+ 0	3.0996- 2	9.7550- 1	1.2425+ 1	1.7111+ 2	2.1215+ 0	7.4728- 7	1.3000+ 1
3.0000- 2	3.7196- 4	1.2785+ 1	3.3250- 1	3.0000+ 0	3.7196- 2	8.3452- 1	1.2611+ 1	2.8861+ 2	3.5783+ 0	1.0949- 7	1.3000+ 1
4.0000- 2	4.9594- 4	1.2628+ 1	5.8420- 1	4.0000+ 0	4.9594- 2	7.8310- 1	1.2652+ 1	5.3674+ 2	6.8548+ 0	1.1946- 8	1.3000+ 1
5.0000- 2	6.1993- 4	1.2439+ 1	8.3200- 1	5.0000+ 0	6.1993- 2	6.1070- 1	1.2794+ 1	1.0000+ 3	1.2399+ 1	1.3856- 9	1.3000+ 1
7.0000- 2	8.6780- 4	1.1984+ 1	1.4192+ 0	7.0000+ 0	8.6780- 2	5.0250- 1	1.2879+ 1	2.0746+ 3	2.5722+ 1	1.2018- 10	1.3000+ 1
9.0000- 2	1.1159- 3	1.1481+ 1	1.8967+ 0	9.0000+ 0	1.1159- 2	4.3380- 1	1.2910+ 1	3.6530+ 3	4.5292+ 1	1.9071- 11	1.3000+ 1
1.0000- 1	1.2399- 3	1.1225+ 1	2.2840+ 0	1.0000+ 0	1.2399- 2	2.8600- 1	1.2957+ 1	6.7913+ 3	8.4202+ 1	2.6609- 12	1.3000+ 1
1.2500- 1	1.5498- 3	1.0610+ 1	2.8508+ 0	1.2500+ 0	1.5498- 2	1.7660- 1	1.2984+ 1	1.1008+ 4	1.3848+ 2	5.9175- 13	1.3000+ 1
1.5000- 1	1.8598- 3	1.0054+ 1	3.3240+ 0	1.5000+ 0	1.8598- 2	1.1855- 1	1.2992+ 1	2.2496+ 4	2.7892+ 2	6.6710- 14	1.3000+ 1
1.7500- 1	2.1697- 3	9.5711+ 0	3.7123+ 0	1.7500+ 0	2.1697- 2	1.1300- 1	1.2993+ 1	5.8087+ 4	7.2019+ 2	3.9130- 15	1.3000+ 1
2.0000- 1	2.4797- 3	9.1552+ 0	4.0470+ 0	2.0000+ 0	2.4797- 2	8.8297- 2	1.2997+ 1	2.4101+ 5	2.9882+ 3	6.0301- 17	1.3000+ 1
2.5000- 1	3.0996- 3	8.4808+ 0	4.6534+ 0	2.5000+ 0	3.0996- 2	8.7000- 2	1.2997+ 1	1.0000+ 6	1.2399+ 4	9.5230- 19	1.3000+ 1
3.0000- 1	3.7196- 3	7.8874+ 0	5.2500+ 0	3.0000+ 0	3.7196- 2	7.2624- 2	1.2999+ 1	5.8234+ 6	6.9722+ 4	5.8559- 21	1.3000+ 1
4.0000- 1	4.9594- 3	8.7817+ 0	6.4350+ 0	4.0000+ 0	4.9594- 2	1.1115- 1	1.2998+ 1	5.4247+ 7	6.7258+ 5	6.6848- 24	1.3000+ 1
5.0000- 1	6.1993- 3	5.6884+ 0	7.5230+ 0	5.0000+ 0	6.1993- 2	1.2399- 1	1.2999+ 1	1.0000+ 9	1.2399+ 7	1.0130- 27	1.3000+ 1
6.0000- 1	7.4391- 3	4.7049+ 0	8.4590+ 0	6.0000+ 0	7.4391- 2	1.3650- 1	1.2999+ 1				
7.0000- 1	8.6780- 3	3.8742+ 0	9.2250+ 0	7.0000+ 0	8.6780- 2	1.4407- 1	1.2999+ 1				

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
M1 1.0000-5	7.8297-6	4.7322-4	2.1202+6	1.0930+0	0.1794-5	2.1202+6			1.2772+0	1.2772+0	
1.0160-5	8.4290-6	4.3958+4	1.9695+6	1.1272+0	9.4736-5	1.9695+6			1.2054+0	1.2054+0	
1.0160-5	7.9348-6	4.6696+4	2.0922+6	1.1272+0	9.4736-5	2.0922+6			1.2804+0	1.2804+0	
1.0275-5	8.3358-6	4.4449+4	1.9915+6	1.1809+0	9.6877-5	1.9915+6			1.2326+0	1.2326+0	
1.1364-5	1.2967-5	2.8574+4	1.2802+6	9.1584-1	1.1836-4	1.2802+6			8.7840-1	8.7840-1	
1.1628-5	1.4489-5	2.5608+4	1.1474+6	8.6076-1	1.2387-4	1.1474+6			8.0384-1	8.0384-1	
1.3047-5	2.4405-5	1.5182+4	6.8023+5	5.5085-1	1.5574-4	6.8023+5			5.3463-1	5.3463-1	
1.3758-5	3.0471-5	1.2160+4	5.4481+5	4.3883-1	1.7304-4	5.4481+5			4.5150-1	4.5150-1	
1.4771-5	3.9283-5	9.4321+3	4.2258+5	3.1320-1	1.8927-4	4.2258+5			3.7601-1	3.7601-1	
1.5000-5	4.1218-5	8.9894+3	4.0276+5	2.6842-1	2.0547-4	4.0276+5			3.6392-1	3.6392-1	
1.5760-5	4.4744-5	8.2808+3	3.7101+5	2.3685-1	2.2668-4	3.7101+5			3.5223-1	3.5223-1	
1.8559-5	4.8573-5	7.6281+3	3.4177+5	1.9893-1	2.5009-4	3.4177+5			3.4091-1	3.4091-1	
1.7877-5	4.8462-5	7.6456+3	3.4255+5	1.9103-1	2.9116-4	3.4255+5			3.6889-1	3.6889-1	
1.8446-5	4.7034-5	7.8777+3	3.5295+5	2.0022-1	3.0962-4	3.5295+5			3.8217-1	3.8217-1	
1.8822-5	4.6134-5	8.0315+3	3.5984+5	2.1996-1	3.2217-4	3.5984+5			4.0800-1	4.0800-1	
2.0802-5	3.9458-5	9.3902+3	4.2072+5	3.4621-1	3.9209-4	4.2072+5			5.2719-1	5.2719-1	
2.1865-5	3.7825-5	9.7888+3	4.3773+5	4.1156-1	4.2542-4	4.3773+5			5.7178-1	5.7178-1	
2.3137-5	3.6251-5	1.0221+4	4.5795+5	5.2114-1	4.8319-4	4.5795+5			6.3826-1	6.3826-1	
2.5381-5	3.4560-5	1.0721+4	4.8034+5	6.8018-1	5.7853-4	4.8034+5			7.3440-1	7.3440-1	
2.7321-5	3.3990-5	1.0901+4	4.8840+5	8.2822-1	6.8973-4	4.8840+5			8.0380-1	8.0380-1	
3.6072-5	3.4750-5	1.0682+4	4.7771+5	1.3062+0	1.1558-3	4.7771+5			1.0380+0	1.0380+0	
4.0000-5	3.5980-5	1.0286+4	4.8139+5	1.5321+0	1.4159-3	4.8139+5			1.1117+0	1.1117+0	
5.0000-5	4.2193-5	8.7816+3	3.8345+5	1.6803+0	2.1847-3	3.8345+5			1.1850+0	1.1850+0	
5.2401-5	4.4336-5	8.3571+3	3.7443+5	1.6685+0	2.4065-3	3.7443+5			1.1819+0	1.1819+0	
5.8452-5	4.7963-5	7.7251+3	3.4612+5	1.6164+0	2.7854-3	3.4611+5			1.1770+0	1.1770+0	
6.5000-5	5.6871-5	6.5151+3	2.9190+5	1.6063+0	3.6741-3	2.9190+5			1.1429+0	1.1429+0	
7.2577-5	6.8019-5	5.8123+3	2.5145+5	2.4214+0	4.5624-3	2.5145+5			1.0993+0	1.0993+0	
7.5264-5	6.9497-5	5.3315+3	2.3887+5	3.5379+0	4.9001-3	2.3887+5			1.0830+0	1.0830+0	
7.8337-5	7.3535-5	5.0387+3	2.2575+5	6.7334+0	5.3008-3	2.2575+5			1.0653+0	1.0653+0	
7.9204-5	7.4686-5	4.8610+3	2.2227+5	8.9975+0	5.4166-3	2.2227+5			1.0604+0	1.0604+0	
7.9574-5	7.5178-5	4.8288+3	2.2082+5	1.0586+1	5.4683-3	2.2081+5			1.0584+0	1.0584+0	
8.0455-5	7.6354-5	4.8527+3	2.1742+5	1.6858+1	5.8859-3	2.1740+5			1.0536+0	1.0536+0	
8.0730-5	7.6722-5	4.8294+3	2.1838+5	1.9187+1	5.8234-3	2.1834+5			1.0521+0	1.0521+0	
L3 8.0730-5	1.1130-5	3.3290+4	1.4915+6	1.9187+1	5.8234-3	1.4915+6			7.2533+0	7.2507+0	2.5688-3
8.1200-5	1.0118-5	3.8618+4	1.6407+6	2.2620+1	5.8878-3	1.6408+6			8.0249+0	8.0220+0	2.8727-3
L2 8.1200-5	7.2340-6	5.1220+4	2.2948+6	2.2820+1	5.8878-3	2.2948+6			1.1225+1	1.1221+1	4.1801-3
8.1537-5	6.7408-6	5.4867+4	2.4828+6	2.4334+1	5.7344-3	2.4827+6			1.2096+1	1.2091+1	4.5277-3
8.2039-5	6.0711-6	6.1030+4	2.7344+6	2.8062+1	5.8039-3	2.7344+6			1.3513+1	1.3508+1	5.0785-3
8.3028-5	5.0894-6	7.2802+4	3.2618+6	2.8193+1	5.9421-3	3.2618+6			1.6314+1	1.6308+1	6.1504-3
8.4041-5	4.3953-6	8.4300+4	3.7770+6	3.0376+1	6.0853-3	3.7769+6			1.9121+1	1.9113+1	7.1965-3
8.5361-5	3.8139-6	9.7151+4	4.3528+6	3.3212+1	6.2745-3	4.3527+6			2.2382+1	2.2373+1	8.3659-3
8.7159-5	3.3771-6	1.0972+5	4.9157+6	3.6311+1	6.5387-3	4.9157+6			2.5809+1	2.5789+1	9.5123-3
8.8830-5	3.1582-6	1.1728+5	5.2547+6	3.7876+1	6.7850-3	5.2546+6			2.8117+1	2.8107+1	1.0206-2
8.9290-5	2.9574-6	1.2529+5	5.6133+6	4.0419+1	7.1338-3	5.6132+6			3.1206+1	3.1195+1	1.0950-2
9.6586-5	2.8748-6	1.2889+5	5.7748+6	4.3452+1	7.9974-3	5.7748+6			3.3597+1	3.3588+1	1.1301-2
1.0000-4	2.8827-6	1.2853+5	5.7589+6	4.5340+1	8.5621-3	5.7588+6			3.4690+1	3.4679+1	1.1285-2
L1 1.1250-4	2.9278-6	1.2855+5	5.8698+6	5.2065+1	1.0783-2	5.6698+6			3.8424+1	3.8413+1	1.1181-2
1.1731-4	3.0008-6	1.2347+5	5.5321+6	5.4522+1	1.1718-2	5.5321+6			3.9083+1	3.9082+1	1.0900-2
1.1830-4	3.0157-6	1.2287+5	5.5048+6	5.8041+1	1.1913-2	5.5048+6			3.9229+1	3.9218+1	1.0849-2
1.1905-4	3.0288-6	1.2241+5	5.4845+6	8.3338+1	1.2082-2	5.4845+6			3.9331+1	3.9320+1	1.0810-2
L1 1.1905-4	2.7481-6	1.3482+5	6.0451+6	6.3338+1	1.2082-2	6.0451+6			4.3351+1	4.3339+1	1.1833-2
1.1998-4	2.7585-6	1.3432+5	6.0180+6	7.0181+1	1.2247-2	6.0179+6			4.3483+1	4.3482+1	1.1881-2
1.2108-4	2.7731-6	1.3361+5	5.9864+6	7.4530+1	1.2468-2	5.9863+6			4.3680+1	4.3648+1	1.1821-2
1.3816-4	3.2657-6	1.1346+5	5.0834+6	8.0579+1	1.6180-2	5.0833+6			4.2305+1	4.2285+1	1.0048-2
1.5845-4	4.0020-6	9.2583+4	4.1481+6	8.7892+1	2.0832-2	4.1480+6			3.8091+1	3.8083+1	8.1989-3
2.0000-4	8.3750-6	5.8121+4	2.6040+6	9.3498+1	3.3431-2	2.6039+6			3.1371+1	3.1368+1	5.1418-3
2.8528-4	1.1718-5	3.1824+4	1.4169+6	8.5404+1	5.8230-2	1.4168+6			2.2638+1	2.2635+1	2.7914-3
3.5259-4	2.2637-5	1.8368+4	7.3334+5	9.4123+1	1.0118-1	7.3325+5			1.5574+1	1.5572+1	1.4404-3
5.0000-4	5.3090-5	6.9792+3	3.1269+5	8.8215+1	1.8589-1	3.1261+5			8.4154+0	8.4148+0	6.1112-4
7.1815-4	1.3315-4	2.7828+3	1.2468+5	8.1716+1	3.7391-1	1.2460+5			5.3978+0	5.3973+0	2.4233-4
8.7888-4	2.2403-4	1.8539+3	7.4101+4	7.5859+1	5.2054-1	7.4025+4			3.8180+0	3.8179+0	1.4353-4
1.0000-3	3.1419-4	1.1793+3	5.2837+4	7.0839+1	8.3883-1	5.2766+4			3.1785+0	3.1784+0	1.0209-4
1.1372-3	4.4054-4	8.4105+2	3.7883+4	6.4716+1	7.8992-1	3.7817+4			2.5788+0	2.5788+0	7.2650-5
1.2354-3	5.4771-4	6.7850+2	3.0310+4	5.8281+1	8.6741-1	3.0250+4			2.2511+0	2.2510+0	5.8354-5
1.3400-3	6.8046-4	5.4452+2	2.4398+4	5.2276+1	9.8225-1	2.4343+4			1.9849+0	1.9848+0	4.6898-5
1.4139-3	7.8707-4	4.7078+2	2.1082+4	4.5232+1	1.0306+0	2.1048+4			1.7825+0	1.7825+0	4.0508-5
1.4535-3	8.4888-4	4.3648+2	1.9556+4	3.9906+1	1.0876+0	1.9515+4			1.7087+0	1.7087+0	3.7540-5
1.4913-3	9.1087-4	4.0887+2	1.8229+4	3.2874+1	1.1031+0	1.8185+4			1.6345+0	1.6345+0	3.4983-5
1.5070-3	9.3738-4	3.9527+2	1.7710+4	2.8482+1	1.1173+0	1.7680+4			1.6050+0	1.6050+0	3.3987-5
1.5147-3	9.5051-4	3.8981+2	1.7485+4	2.5676+1	1.1238+0	1.7438+4			1.5911+0	1.5911+0	3.3520-5
1.5217-3	9.6281-4	3.8491+2	1.7248+4	2.2511+1	1.1297+0	1.7222+4			1.5786+0	1.5786+0	3.3101-5
1.5306-3	9.7834-4	3.7873+2	1.6968+4	1.7821+1	1.1373+0	1.6950+4			1.5627+0	1.5627+0	3.2575-5
1.5372-3	9.9004-4	3.7425+2	1.6768+4	1.4838+1	1.1430+0	1.6752+4			1.5512+0	1.5512+0	3.2183-5
1.5402-3	9.9531-4	3.7227+2	1.6679+4	1.4233+1	1.1455+0	1.6684+4			1.5480+0	1.5480+0	3.2023-5
1.5435-3	1.0012-3	3.7008+2	1.6581+4	1.4115+1	1.1483+0	1.6566+4			1.5403+0	1.5402+0	3.1834-5
1.5489-3	1.0124-3	3.6800+2	1.6398+4	1.6279+1	1.1538+0	1.6381+4			1.5283+0	1.5283+0	3.1478-5
K 1.5489-3	9.2335-5	4.0128+3	1.7878+4	1.6278+1	1.1538+0	1.7877+4			1.6784+1	1.6289+1	5.2517-1
1.5824-3	9.4013-5	3.9412+3	1.7658+4	2.7224+1	1.1644+0	1.7655+4			1.6616+1	1.6100+1	5.1594-1
1.5878-3	9.4757-5	3.9102+3	1.7519+4	3.2762+1	1.1691+0	1.7518+4			1.6543+1	1.6032+1	5.1185-1
1.5758-3	9.5804-5	3.8675+3	1.7328+4	3.9078+1	1.1757+0	1.7324+4			1.6442+1	1.5938+1	5.0845-1
1.5878-3	9.7473-5	3.8013+3	1.7031+4	4.5680+1	1.1881+0	1.7027+4			1.6285+1	1.5787+1	4.9782-1
1.6022-3	9.8463-5	3.7252+3	1.6691+4	5.0335+1	1.1884+0	1.6685+4			1.6103+1	1.5615+1	4.8814-1
1.6291-3	1.0226-4	3.5883+3	1.6077+4	5.6484+1	1.2215+0	1.6071+4			1.5771+1	1.5300+1	4.7852-1
1.8527-3	1.0884-4	3.4745+3	1.5857+4	6.0442+1	1.2417+0	1.5861+4			1.5490+1	1.5035+1	4.5586-1
1.8838-3	1.1271-4	3.2874+3	1.4729+4	6.5735+1	1.2787+0	1.4722+4			1.5021+1	1.4589+1	4.3175-1
1.7714-3	1.2482-4	2.8731+3	1.3321+4	7.2372+1	1.3384+0	1.3313+4			1.4206+1	1.3814+1	3.9120-1

October 31, 1989
Atomic Weight 26.982

ENDL Evaluated
Photon Data

I3-A1
Density 2.699 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.0201-3	1.6796-4	2.2061+3	9.8840+4	8.1378+1	1.5239+0	9.8757+4			1.2017+1	1.1725+1	2.9195-1
2.3912-3	2.5703-4	1.4418+3	6.4587+4	8.2783+1	1.7723+0	6.4503+4			9.2908+0	9.0993+0	1.9145-1
3.0000-3	4.7349-4	7.8253+2	3.5081-4	7.7254+1	2.1149+0	3.4981+4			6.3218+0	6.2178+0	1.0396-1
4.0000-3	1.0348-3	3.5807+2	1.6043+4	6.5836+1	2.8058+0	1.5975+4			3.8492+0	3.8015+0	4.7621-2
5.00387-3	1.9688-3	1.8822+2	8.4329+3	5.5685+1	3.0596+0	8.3741+3			2.5417+0	2.5187+0	2.4883-2
6.8181-3	4.6668-3	7.9399+1	3.5574+3	4.2077+1	3.7742+0	3.5115+3			1.4421+0	1.4318+0	1.0489-2
8.9738-3	1.0332-2	3.5663+1	1.6068+3	3.0541+1	4.4825+0	1.5718+3			8.4967+1	8.4497+1	4.6882-3
1.0000-2	2.1723-2	2.6051+1	1.1672+3	2.6461+1	4.7845+0	1.3160+3			6.8435-1	6.8095-1	3.3959-3
1.4657-2	4.3483-2	8.5191+0	3.8169+2	1.5253+1	5.6255+0	3.6081-2			3.1872-1	3.1764-1	1.0792-3
2.0000-2	1.0823-1	3.4233+0	1.5338+2	8.4923+0	6.1361+0	1.3775+2			1.6625-1	1.6584-1	4.1197-4
2.7236-2	2.5501-1	1.4530+0	6.5099+1	5.8557+0	6.4800+0	5.2763+1			8.7118-2	8.6961-2	1.5784-4
3.5418-2	4.9548-1	7.4781-1	3.3505+1	3.8295+0	6.6643+0	2.3011+1			5.0010-2	4.8941-2	6.8848-5
4.3103-2	7.6311-1	4.6554-1	2.1754+1	2.7492+0	8.8996+0	1.2305+1			3.3283-2	3.3228-2	3.6908-5
5.1754-2	1.0685+0	3.4741-1	1.5565+1	2.0004+0	8.6968+0	6.8881+0			2.3233-2	2.3212-2	2.0540-5
6.2287-2	1.4023+0	2.8422-1	1.1838+1	1.4340+0	8.8359+0	3.7980+0			1.6737-2	1.6728-2	1.1362-5
7.4687-2	1.7197+0	2.1548-1	8.8353+0	1.0277+0	8.5110+0	2.1148+0			1.2684-2	1.2678-2	6.3282-6
8.7117-2	1.8728+0	1.8782-1	8.4150+0	7.7190-1	6.3558+0	1.2873+0			1.1032-2	1.1028-2	3.8504-6
1.0000-1	2.1723-2	1.7055-1	7.6413+0	5.9631-1	8.2199+0	8.2515-1			1.0265-2	1.0263-2	2.4679-6
1.1678-1	2.3848+0	1.5538-1	8.8617+0	4.4474-1	6.0185+0	5.0047-2			1.0148-2	1.0147-2	1.4984-6
1.4082-1	2.8143+0	1.4173-1	6.3499+0	3.1088-1	5.7848+0	2.7429-1			1.0973-2	1.0973-2	8.1998-7
1.7154-1	2.8481+0	1.3018-1	5.8328+0	2.1229-1	5.4738+0	1.4871-1			1.2811-2	1.2810-2	4.3878-7
2.2891-1	3.2113+0	1.1538-1	5.1896+0	1.1982-1	4.9917+0	5.8042-2			1.7052-2	1.7051-2	1.7348-7
3.2721-1	3.6939+0	1.0031-1	4.4942+0	5.9728-2	4.4145+0	1.9908-2			2.4888-2	2.4888-2	5.6511-8
4.4102-1	4.1639+0	8.8984-2	3.8868+0	3.3026-2	3.9453+0	6.8442-3			3.4194-2	3.4194-2	2.5294-8
6.0000-1	4.7561+0	7.7904-2	3.4904+0	1.7889-2	3.4888+0	3.7657-3			4.6243-2	4.6243-2	1.1257-8
8.0000-1	5.4241+0	6.8310-2	3.0605+0	1.0078-2	3.0485+0	1.9118-3			6.0133-2	6.0133-2	5.7168-9
1.0000+0	8.0348+0	8.1400-2	2.7510+0	6.4525-3	2.7433+0	1.1840-3			7.2841-2	7.2841-2	3.5404-9
1.0220+0	8.0998+0	8.0743-2	2.7215+0	6.1780-3	2.7142+0	1.1150-3			7.4153-2	7.4153-2	3.3342-9
1.0251+0	8.1098+0	8.0648-2	2.7172+0	6.1405-3	2.7099+0	1.1068-3	6.5211-9		7.4324-2	7.4324-2	3.3099-9
1.0287+0	8.1209+0	8.0534-2	2.7121+0	6.0973-3	2.7049+0	1.0978-3	6.5211-8		7.4523-2	7.4523-2	3.2821-9
1.0386+0	8.1455+0	8.0291-2	2.7013+0	6.0049-3	2.6942+0	1.0777-3	6.5211-7		7.4954-2	7.4954-2	3.2228-9
1.0397+0	8.1550+0	8.0198-2	2.6971+0	5.9898-3	2.6901+0	1.0701-3	6.5211-6		7.5121-2	7.5121-2	3.1999-9
1.0415+0	8.1608+0	8.0143-2	2.6947+0	5.9490-3	2.6878+0	1.0657-3	6.5212-6		7.5219-2	7.5219-2	3.1887-9
1.0438+0	8.1678+0	8.0074-2	2.6915+0	5.9229-3	2.6846+0	1.0601-3	6.5211-5		7.5345-2	7.5345-2	3.1599-9
1.0464+0	8.1758+0	8.0009-2	2.6880+0	5.8935-3	2.6811+0	1.0538-3	6.5212-5		7.5488-2	7.5488-2	3.1511-9
1.0483+0	8.1817+0	8.0000-2	2.6855+0	5.8722-3	2.6786+0	1.0482-3	6.5212-4		7.5590-2	7.5590-2	3.1374-9
1.0512+0	8.1907+0	8.0000-2	2.6818+0	5.8399-3	2.6747+0	1.0423-3	6.5211-4		7.5748-2	7.5748-2	3.1168-9
1.0541+0	8.1996+0	8.0000-2	2.6777+0	5.8090-3	2.6709+0	1.0365-3	6.5211-3		7.5904-2	7.5904-2	3.0964-9
1.0577+0	8.2107+0	8.0000-2	2.6729+0	5.7694-3	2.6691+0	1.0270-3	6.5211-2		7.6101-2	7.6101-2	3.0711-9
1.0611+0	8.2212+0	8.0000-2	2.6684+0	5.7315-3	2.6617+0	1.0182-3	6.5211-1		7.6288-2	7.6288-2	3.0478-9
1.0651+0	8.2334+0	8.0000-2	2.6632+0	5.6898-3	2.6565+0	1.0100-3	6.5211-1		7.6503-2	7.6503-2	3.0203-9
1.0704+0	8.2487+0	8.0000-2	2.6583+0	5.6324-3	2.6498+0	9.9810-4	2.1354-5		7.6790-2	7.6790-2	2.9846-9
1.0782+0	8.2674+0	8.0000-2	2.6487+0	5.5719-3	2.6422+0	8.9809-4	2.9511-5		7.7104-2	7.7104-2	2.9487-9
1.0808+0	8.2808+0	8.0000-2	2.6431+0	5.5267-3	2.6366+0	7.9889-4	3.6854-5		7.7342-2	7.7342-2	2.9274-9
1.0871+0	8.3008+0	8.0000-2	2.6348+0	5.4809-3	2.6303+0	6.9843-4	4.9655-5		7.7694-2	7.7694-2	2.8965-9
1.0937+0	8.3208+0	8.0000-2	2.6285+0	5.3951-3	2.6200+0	5.9827-4	6.5211-5		7.8051-2	7.8051-2	2.8655-9
1.1028+0	8.3474+0	8.0000-2	2.6154+0	5.3085-3	2.6090+0	4.9811-4	9.0421-5		7.8530-2	7.8530-2	2.8247-9
1.1107+0	8.3718+0	8.0000-2	2.6054+0	5.2315-3	2.5991+0	8.3243-4	1.1794-4		7.8965-2	7.8965-2	2.7882-9
1.1206+0	8.4014+0	8.0000-2	2.5933+0	5.1395-3	2.5871+0	9.1789-4	1.5778-4		7.9497-2	7.9497-2	2.7447-9
1.1333+0	8.4391+0	8.0000-2	2.5791+0	5.0251-3	2.5720+0	8.9972-4	2.1941-4		8.0178-2	8.0178-2	2.6904-9
1.1475+0	8.4811+0	8.0000-2	2.5614+0	4.9018-3	2.5553+0	8.8007-4	3.0298-4		8.0937-2	8.0937-2	2.6317-9
1.1582+0	8.5125+0	8.0000-2	2.5491+0	4.8115-3	2.5430+0	8.6571-4	3.7654-4		8.1507-2	8.1507-2	2.5887-9
1.1741+0	8.5588+0	8.0000-2	2.5311+0	4.6822-3	2.5250+0	8.4503-4	5.0317-4		8.2353-2	8.2353-2	2.5269-9
1.1901+0	8.6051+0	8.0000-2	2.5133+0	4.5572-3	2.5073+0	8.2498-4	6.5211-4		8.3203-2	8.3203-2	2.4669-9
1.2051+0	8.6482+0	8.0000-2	2.4971+0	4.4447-3	2.4910+0	8.0687-4	8.1127-4		8.3998-2	8.3998-2	2.4128-9
1.2275+0	8.7118+0	8.0000-2	2.4734+0	4.2841-3	2.4872+0	7.8096-4	1.0853-3		8.5178-2	8.5178-2	2.3353-9
1.2500+0	8.7751+0	8.0000-2	2.4503+0	4.1314-3	2.4440+0	7.5820-4	1.4040-3		8.6381-2	8.6381-2	2.2813-9
1.2813+0	8.8619+0	8.0000-2	2.4183+0	3.9321-3	2.4127+0	7.2381-4	1.9182-3		8.8001-2	8.8001-2	2.1844-9
1.3325+0	7.0010+0	5.2824-2	2.3712+0	3.8359-3	2.3840+0	6.7530-4	2.8382-3		9.0871-2	9.0871-2	2.0193-9
1.3744+0	7.1122+0	5.2097-2	2.3341+0	3.4177-3	2.3262+0	6.3929-4	3.9277-3		9.2848-2	9.2848-2	1.9117-9
1.4058+0	7.1940+0	5.1504-2	2.3078+0	3.2889-3	2.2990+0	6.1423-4	4.7591-3		9.4470-2	9.4470-2	1.8367-9
1.4529+0	7.3144+0	5.0658-2	2.2696+0	3.0588-3	2.2598+0	5.7942-4	6.1301-3		9.6900-2	9.6900-2	1.7328-9
1.5000+0	7.4321+0	4.9854-2	2.2337+0	2.8897-3	2.2288+0	5.4760-4	7.6520-3		9.9324-2	9.9324-2	1.6375-9
1.5825+0	7.5842+0	4.8854-2	2.1889+0	2.6448-3	2.1758+0	5.1222-4	9.8799-3		1.0253-1	1.0253-1	1.5317-9
1.8172+0	7.7138+0	4.8035-2	2.1522+0	2.4890-3	2.1372+0	4.8417-4	1.2008-2		1.0534-1	1.0534-1	1.4478-9
1.7188+0	7.9453+0	4.6634-2	2.0894+0	2.1858-3	2.0704+0	4.3823-4	1.6328-2		1.1054-1	1.1054-1	1.3105-9
1.8923+0	8.3488+0	4.4381-2	1.9885+0	1.8035-3	1.9818+0	3.7442-4	2.4844-2		1.1850-1	1.1850-1	1.1186-9
2.0440+0	8.8779+0	4.2897-2	1.9130+0	1.5458-3	1.8785+0	3.3070-4	3.2580-2		1.2548-1	1.2548-1	9.8889-10
2.0858+0	8.7712+0	4.2243-2	1.8828+0	1.4845-3	1.8581+0	3.2110-4	3.4785-2	1.3054-7	1.2722-1	1.2722-1	9.6017-10
2.1363+0	8.8815+0	4.1718-2	1.8692+0	1.4152-3	1.8299+0	3.1012-4	3.7534-2	1.3054-8	1.2834-1	1.2834-1	9.2738-10
2.1470+0	8.9048+0	4.1810-2	1.8643+0	1.4011-3	1.8244+0	3.0787-4	3.8143-2	1.7898-8	1.2980-1	1.2980-1	9.2081-10
2.1835+0	8.9399+0	4.1448-2	1.8569+0	1.3798-3	1.8162+0	3.0448-4	3.9090-2	2.7216-8	1.3050-1	1.3050-1	9.1041-10
2.1845+0	8.9851+0	4.1237-2	1.8478+0	1.3534-3	1.8058+0	3.0021-4	4.0174-2	4.3125-8	1.3138-1	1.3138-1	8.9770-10
2.2018+0	9.0221+0	4.1088-2	1.8400+0	1.3322-3	1.7973+0	2.9878-4					

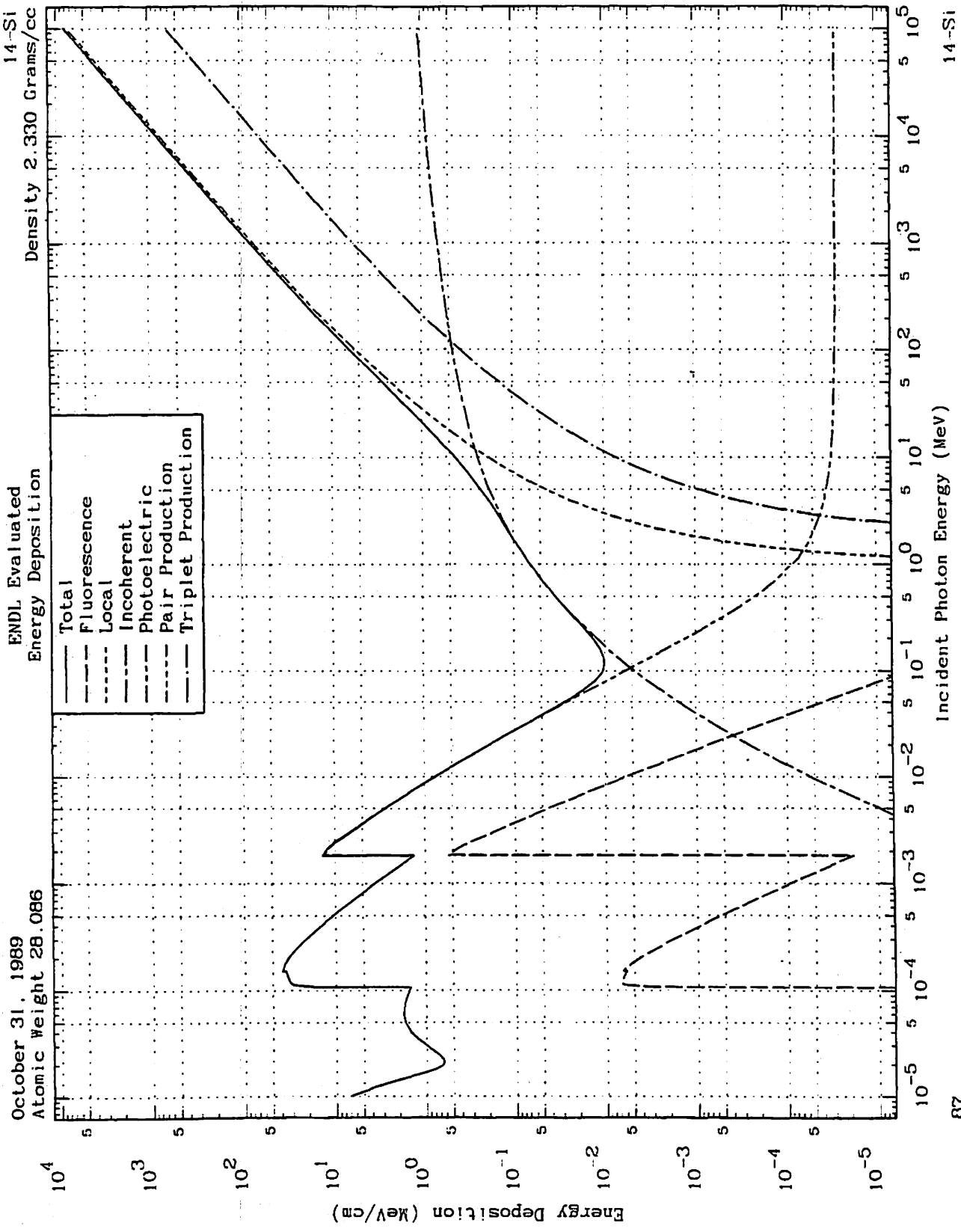
October 31, 1989
Atomic Weight 26.982

ENDL Evaluated
Photon Data

13-A1
Density 2.699 Grams/cc

Energy keV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.7453+ 0	1.0066- 1	3.6809- 2	1.6492+ 0	8.5702- 4	1.5784+ 0	2.1528- 4	7.1445- 2	2.6932- 4	1.5524- 1	1.5524- 1	6.4374-10
2.8090+ 0	1.0176+ 1	3.6411- 2	1.6314+ 0	8.1860- 4	1.5551+ 0	2.0821- 4	7.4942- 2	3.2616- 4	1.5798- 1	1.5798- 1	6.2260-10
2.9045+ 0	1.0336+ 1	3.5849- 2	1.6082+ 0	7.6566- 4	1.5245+ 0	1.9832- 4	8.0348- 2	4.2017- 4	1.6212- 1	1.6212- 1	5.9304-10
3.0399+ 0	1.0552+ 1	3.5113- 2	1.5732+ 0	6.9688- 4	1.4837+ 0	1.8591- 4	8.8019- 2	5.6951- 4	1.6805- 1	1.6805- 1	5.5591-10
3.2344+ 0	1.0884+ 1	3.4043- 2	1.5253+ 0	6.1746- 4	1.4252+ 0	1.7120- 4	9.8412- 2	8.2309- 4	1.7556- 1	1.7556- 1	5.1185-10
3.4375+ 0	1.1204+ 1	3.3070- 2	1.4817+ 0	5.4666- 4	1.3700+ 0	1.5790- 4	1.0981- 1	1.1265- 3	1.8384- 1	1.8384- 1	4.7216-10
3.7847+ 0	1.1716+ 1	3.1827- 2	1.4170+ 0	4.5097- 4	1.2871+ 0	1.3895- 4	1.2754- 1	1.1288- 3	1.9743- 1	1.9743- 1	4.1549-10
4.0000+ 0	1.2000+ 1	3.0878- 2	1.3834+ 0	4.0373- 4	1.2418+ 0	1.2910- 4	1.3900- 1	2.1420- 3	2.0631- 1	2.0631- 1	3.8605-10
4.2500+ 0	1.2318+ 1	3.0080- 2	1.3477+ 0	3.5783- 4	1.1839+ 0	1.1861- 4	1.5071- 1	2.6472- 3	2.1847- 1	2.1847- 1	3.5768-10
4.7500+ 0	1.2872+ 1	2.8785- 2	1.2897+ 0	2.8631- 4	1.1108+ 0	1.0397- 4	1.7481- 1	3.7039- 3	2.3771- 1	2.3771- 1	3.1089-10
5.5135+ 0	1.3587+ 1	2.7271- 2	1.2219+ 0	2.1250- 4	1.0084+ 0	8.6559- 5	2.0770- 1	5.4316- 3	2.7089- 1	2.7089- 1	2.5884-10
6.3640+ 0	1.4297+ 1	2.5918- 2	1.1611+ 0	1.5951- 4	9.1144- 1	7.2868- 5	2.4209- 1	7.3626- 3	3.0656- 1	3.0656- 1	2.1790-10
7.4833+ 0	1.5016+ 1	2.4676- 2	1.1058+ 0	1.1536- 4	8.1307- 1	6.0259- 5	2.8244- 1	9.8812- 3	3.5578- 1	3.5578- 1	1.8019-10
9.0000+ 0	1.5695+ 1	2.3507- 2	1.0577+ 0	7.9754- 5	7.1389- 1	4.8760- 5	3.3050- 1	1.3180- 2	4.2645- 1	4.2645- 1	1.4581-10
1.0000+ 1	1.6016+ 1	2.3134- 2	1.0365+ 0	6.4601- 5	6.6279- 1	4.3300- 5	3.5840- 1	1.5200- 2	4.7499- 1	4.7499- 1	1.2948-10
1.3000+ 1	1.6708+ 1	2.2177- 2	9.8360- 1	3.8228- 5	5.4448- 1	3.2390- 5	4.2840- 1	2.0650- 2	6.2247- 1	6.2247- 1	9.8856-11
1.6000+ 1	1.7089+ 1	2.1682- 2	9.7143- 1	1.9939- 5	4.2842- 1	2.2790- 5	5.1890- 1	2.8060- 2	6.8054- 1	6.8054- 1	8.8149-11
2.8000+ 1	1.7062+ 1	2.1716- 2	9.7295- 1	9.5565- 6	3.1883- 1	1.5440- 5	6.1710- 1	3.6990- 2	1.3529+ 0	1.3529+ 0	4.8170-11
4.2170+ 1	1.6407+ 1	2.2583- 2	1.0118+ 0	3.6328- 6	2.1752- 1	9.3481- 8	7.4521- 1	4.9048- 2	2.3897+ 0	2.3897+ 0	2.7954-11
6.8282+ 1	1.5472+ 1	2.3948- 2	1.0730+ 0	1.3459- 6	1.4433- 1	5.6235- 6	8.6739- 1	6.1238- 2	4.2878+ 0	4.2878+ 0	1.6816-11
1.0000+ 2	1.4733+ 1	2.5150- 2	1.1268+ 0	6.4602- 7	1.0659- 1	3.8730- 6	9.5030- 1	6.9930- 2	6.5925+ 0	6.5925+ 0	1.1581-11
2.0000+ 2	1.3616+ 1	2.7212- 2	1.2192+ 0	1.8150- 7	5.8947- 2	1.8240- 8	1.0780+ 0	8.4260- 2	1.4484+ 1	1.4484+ 1	5.7533-12
4.0000+ 2	1.2837+ 1	2.8882- 2	1.2831+ 0	4.0378- 8	3.2434- 2	9.5900- 7	1.1650+ 0	9.5720- 2	3.0948+ 1	3.0948+ 1	2.8677-12
1.0000+ 3	1.2225+ 1	3.0308- 2	1.3579+ 0	6.4602- 9	1.4527- 2	3.8260- 7	1.2370+ 0	1.0840- 1	8.1583+ 1	8.1583+ 1	1.1447-12
4.0000+ 3	1.1806+ 1	3.1383- 2	1.4061+ 0	4.0376-10	4.1871- 3	9.5620- 8	1.2870+ 0	1.1480- 1	3.3858+ 2	3.3858+ 2	2.8593-13
1.0000+ 4	1.1697+ 1	3.1677- 2	1.4182+ 0	6.4602-11	1.8351- 3	3.8240- 8	1.3000+ 0	1.1740- 1	8.5470+ 2	8.5470+ 2	1.1435-13
1.0000+ 5	1.1620+ 1	3.1886- 2	1.4286+ 0	6.4665-13	2.2165- 4	3.8230- 9	1.3080+ 0	1.1840- 1	8.6055+ 3	8.6055+ 3	1.1432-14

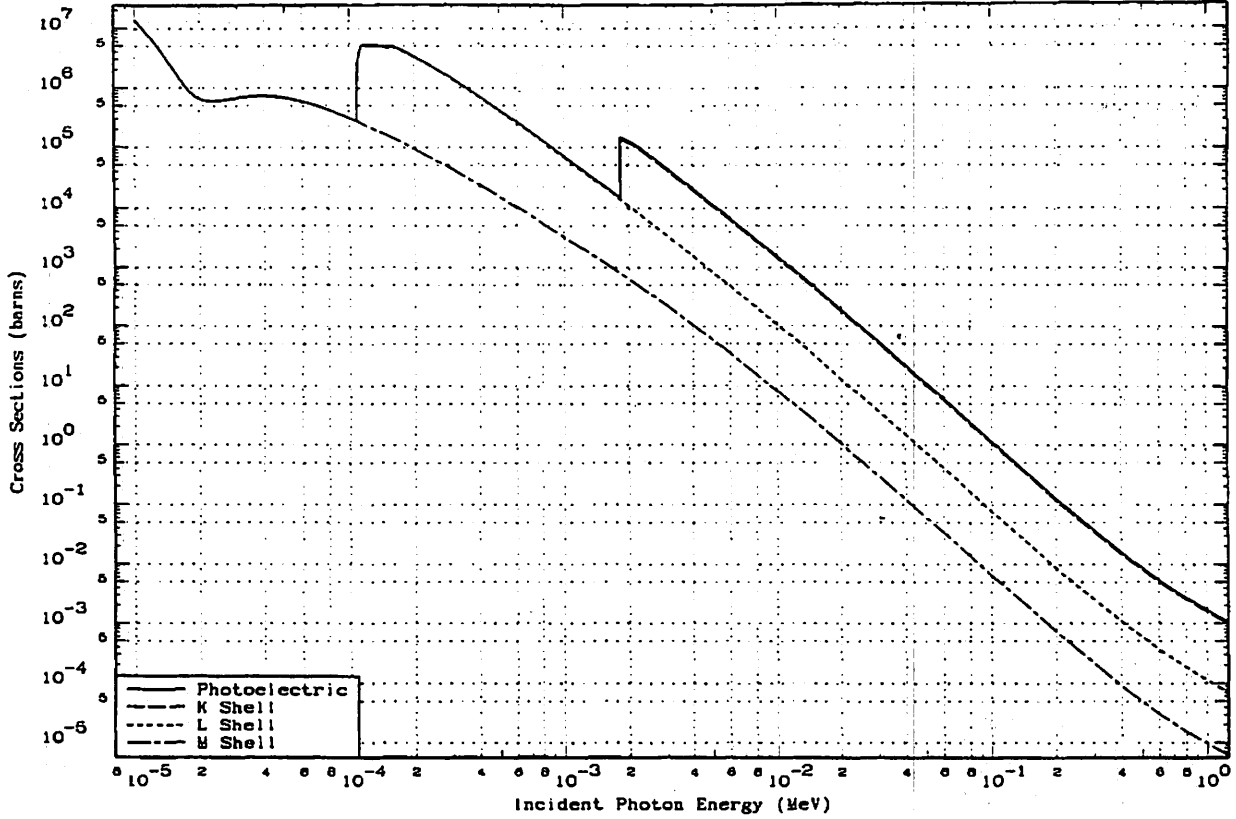
14-Si



October 31, 1989
Atomic Weight 28.086

ENDL Evaluated
Photoelectric Shell Cross Sections

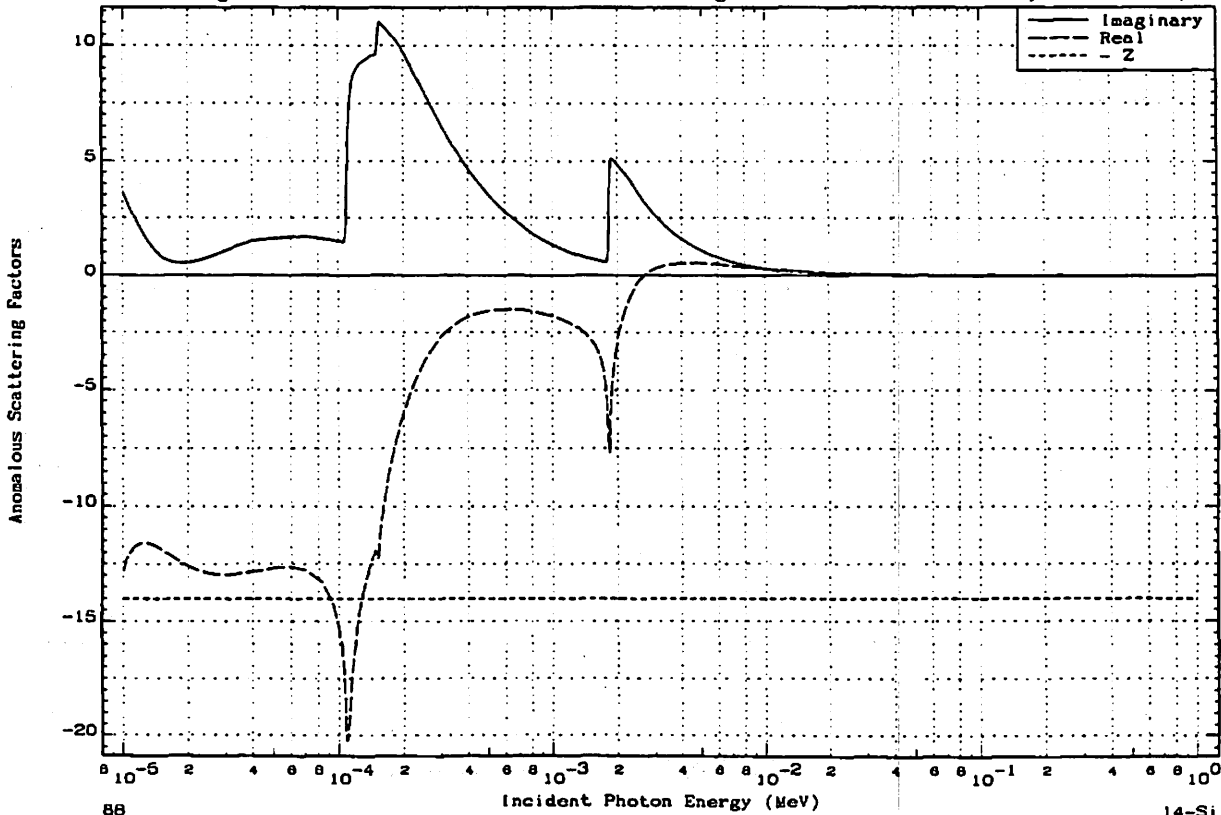
14-Si
Density 2.330 Grams/cc



October 31, 1989
Atomic Weight 28.086

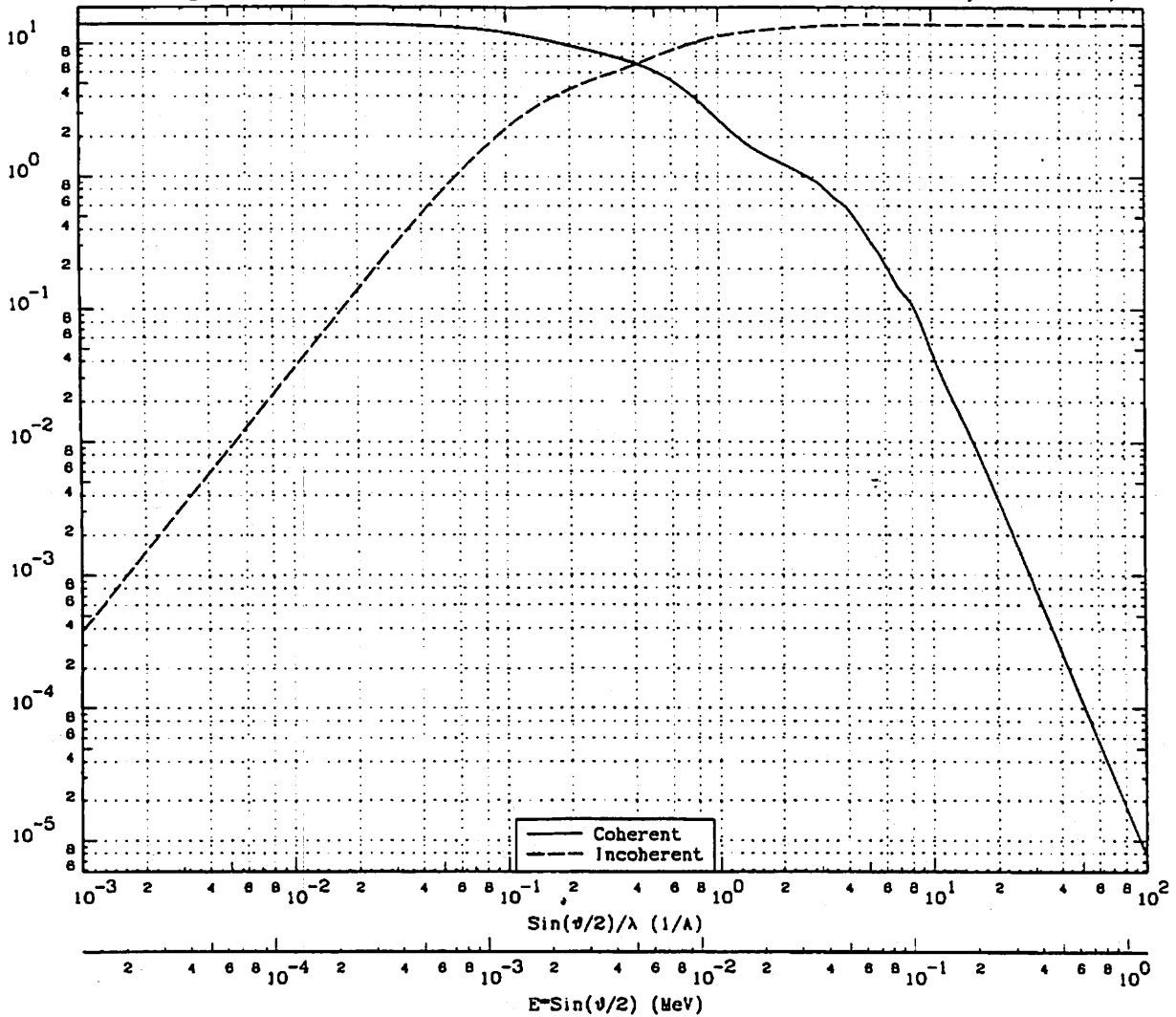
ENDL Evaluated
Anomalous Scattering Factors

14-Si
Density 2.330 Grams/cc



88

14-Si



$\sin(\theta/2)/\lambda$ 1/A	$E \cdot \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E \cdot \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E \cdot \sin(\theta/2)$ MeV	Coherent	Incoherent
1.0000+ 0	0.0000+ 0	1.4000+ 1	0.0000- 0	7.0000- 1	8.6790- 3	4.4810+ 0	9.6870+ 0	1.1820+ 1	1.4407- 1	2.5817- 2	1.3999+ 1
0.0000- 3	1.2399- 5	1.4000+ 1	3.8434- 4	8.0000- 1	9.8188- 3	3.7411+ 0	1.0330+ 1	1.5000+ 1	1.8598- 1	1.1116- 2	1.4000+ 1
0.0000- 3	8.1993- 5	1.3993+ 1	9.0000- 3	9.0000- 1	1.1159- 2	3.1541+ 0	1.0884+ 1	1.7129+ 1	2.1237- 1	6.8859- 3	1.4000+ 1
0.0000- 2	1.2399- 4	1.3975+ 1	3.5000- 2	1.0000+ 0	1.2399- 2	2.8922+ 0	1.1289+ 1	2.0000+ 1	2.4797- 1	3.8011- 3	1.4000+ 1
0.5000- 2	1.8598- 4	1.3948+ 1	7.9000- 2	1.2500+ 0	1.5498- 2	1.9595+ 0	1.1990+ 1	5.0000+ 1	6.1993- 1	1.1169- 4	1.4000+ 1
0.0000- 2	2.4797- 4	1.3905+ 1	1.3910- 1	1.5000+ 0	1.8598- 2	1.5925+ 0	1.2408+ 1	8.0000+ 1	9.9188- 1	1.8205- 5	1.4000+ 1
0.5000- 2	3.0996- 4	1.3852+ 1	2.1480- 1	2.0000+ 0	2.4797- 2	1.2804+ 0	1.2937+ 1	1.0000+ 2	1.2399+ 0	7.7437- 6	1.4000+ 1
0.0000- 2	3.7196- 4	1.3788+ 1	3.0480- 1	2.5000+ 0	3.0996- 2	1.0513+ 0	1.3302+ 1	1.7117+ 2	2.1223+ 0	1.0274- 6	1.4000+ 1
0.0000- 2	4.9594- 4	1.3631+ 1	5.2290- 1	2.8945+ 0	3.6998- 2	9.1268- 1	1.3512+ 1	2.7479+ 2	3.4070+ 0	1.8167- 7	1.4000+ 1
0.0000- 2	6.1993- 4	1.3438+ 1	7.8200- 1	3.0000+ 0	3.7196- 2	8.7250- 1	1.3558+ 1	4.7714+ 2	5.9158+ 0	2.5391- 8	1.4000+ 1
0.0000- 2	8.6790- 4	1.2968+ 1	1.3724+ 0	3.5000+ 0	4.3395- 2	6.9360- 1	1.3728+ 1	9.3137+ 2	1.1548+ 1	2.5107- 9	1.4000+ 1
0.0000- 2	1.1159- 3	1.2423+ 1	1.8915+ 0	4.0000+ 0	4.8594- 2	5.7740+ 1	1.3832+ 1	1.0000+ 3	1.2399+ 1	1.8718- 9	1.4000+ 1
0.0000- 1	1.2399- 3	1.2139+ 1	2.2830+ 0	4.4617+ 0	5.5318- 2	4.5831- 1	1.3892+ 1	2.0746+ 3	2.5722+ 1	1.7296-10	1.4000+ 1
2500- 1	1.5498- 3	1.1432+ 1	2.8884+ 0	5.0000+ 0	6.1993- 2	3.4500- 1	1.3937+ 1	3.6530+ 3	4.5292+ 1	2.7836-11	1.4000+ 1
5000- 1	1.8598- 3	1.0769+ 1	3.5870+ 0	6.0000+ 0	7.4391- 2	2.1890- 1	1.3975- 1	8.5289+ 3	1.0575+ 2	1.9063-12	1.4000+ 1
7500- 1	2.1697- 3	1.0179+ 1	4.0921+ 0	6.8594+ 0	8.5046- 2	1.4845- 1	1.3989+ 1	1.3413+ 4	1.8630+ 2	4.7185-13	1.4000+ 1
0.0000- 1	2.4797- 3	9.6893+ 0	4.5200+ 0	7.0000+ 0	8.6790- 2	1.4160- 1	1.3990+ 1	2.6413+ 4	3.2748+ 2	6.0403-14	1.4000+ 1
5000- 1	3.0996- 3	8.8521+ 0	5.2175+ 0	8.0000+ 0	9.8188- 2	1.0960- 1	1.3995+ 1	6.5519+ 4	8.1234+ 2	4.0382-15	1.4000+ 1
0.0000- 1	3.7196- 3	8.2232+ 0	5.8080+ 0	8.4550+ 0	1.0483- 1	9.2389- 2	1.3998+ 1	1.0000+ 6	1.2399+ 4	1.4048-18	1.4000+ 1
0.0000- 1	4.9594- 3	7.1977+ 0	6.9030+ 0	9.1129+ 0	1.1299- 1	6.8348- 2	1.3997+ 1	5.6234+ 6	6.9722+ 4	8.8471-21	1.4000+ 1
0.0000- 1	6.1993- 3	8.2324+ 0	7.9370+ 0	1.0000+ 1	1.2399- 1	4.5600- 2	1.3998+ 1	5.4247+ 7	6.7258+ 5	9.9028-24	1.4000+ 1
0.0000- 1	7.4391- 3	5.3031+ 0	8.8870+ 0	1.1009+ 1	1.3650- 1	3.1289- 2	1.3999+ 1	1.0000+ 9	1.2399+ 7	1.5094-27	1.4000+ 1

October 31, 1989
Atomic Weight 28.086

ENDL Evaluated
Photon Data

14-Si
Density 2.330 Grams/cc

Energy MeV	Total Mean Free Path cm	cc/cm/grac	Cross Sections (bars)					Energy Deposition (MeV/cc)		
			Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local
1.0000-5	1.4215-6	3.0192+5	1.4081+7	9.7359+0	8.3164-5	1.4081+7	7.0347-0	7.0347-0	0	
1.0346-5	1.6374-6	2.6211+5	1.2224+7	9.2609+0	8.8977-5	1.2224+7	6.3185+0	6.3185+0	0	
1.2126-5	3.1687-6	1.3544+5	6.3189+6	6.5124+0	1.2195-4	6.3189+6	3.8269+0	3.8269+0	0	
1.3630-5	5.5927-6	7.6740+4	3.5790+6	4.8229+0	1.5382-4	3.5790+6	2.4371+0	2.4371+0	0	
1.5099-5	5.5910-6	7.8783+4	3.5801+6	4.8229+0	1.5382-4	3.5801+6	2.4378+0	2.4378+0	0	
1.8466-5	1.5318-5	2.9021+4	1.3069+6	2.6884+0	2.2388-4	1.3069+6	1.5746+0	1.5746+0	0	
1.7955-5	2.2513-5	1.9084+4	8.8911+5	2.0342+0	2.8581-4	8.8911+5	1.0750+0	1.0750+0	0	
1.8355-5	2.8437-5	1.5093+4	7.0389+5	1.8506+0	3.0794-4	7.0389+5	7.8754-1	7.8754-1	0	
2.0348-5	3.1121-5	1.3791+4	8.4319+5	1.4757+0	3.3962-4	8.4319+5	6.8084-1	6.8084-1	0	
2.1040-5	3.2585-5	1.3171+4	8.1427+5	1.3887+0	3.6262-4	8.1427+5	6.5382-1	6.5382-1	0	
2.2425-5	3.3491-5	1.2815+4	5.9768+5	1.2621+0	4.1085-4	5.9768+5	6.4588-1	6.4588-1	0	
2.5102-5	3.2688-5	1.3130+4	8.1234+5	1.2049+0	5.1240-4	8.1234+5	6.6958-1	6.6958-1	0	
3.0000-5	2.9412-5	1.4592+4	6.8056+5	1.4871+0	7.2652-4	6.8056+5	7.8792-1	7.8792-1	0	
3.4641-5	2.7673-5	1.5509+4	7.2332+5	1.9188+0	9.6295-4	7.2332+5	1.0200+0	1.0200+0	0	
4.0000-5	2.6984-5	1.5917+4	7.4233+5	2.3868+0	1.2763-3	7.4233+5	1.2518+0	1.2518+0	0	
5.0000-5	2.8942-5	1.4829+4	6.9180+5	2.8811+0	1.9780-3	6.9180+5	1.4834+0	1.4834+0	0	
6.0000-5	3.3320-5	1.2881+4	6.0072+5	3.1067+0	2.8241-3	6.0072+5	1.8007+0	1.8007+0	0	
7.0000-5	3.9553-5	1.0851+4	5.0806+5	2.8725+0	3.8195-3	5.0806+5	1.7276+0	1.7276+0	0	
8.3052-5	4.9309-5	8.7040+3	4.0584+5	2.0587+0	5.3388-3	4.0584+5	1.8007+0	1.8007+0	0	
9.3132-5	5.8259-5	7.3668+3	3.4357+5	1.5826+0	6.6818-3	3.4357+5	1.7688+0	1.7688+0	0	
9.8727-5	6.3426-5	6.7687+3	3.1559+5	2.2084+0	7.4908-3	3.1559+5	1.6943+0	1.6943+0	0	
1.0000-4	6.4820-5	6.8417+3	3.0978+5	2.6946+0	7.6809-3	3.0978+5	1.5988+0	1.5988+0	0	
							1.5589+0	1.5589+0	0	
							1.5475+0	1.5475+0	0	
1.0183-4	6.6257-5	6.4776+3	3.0210+5	3.4687+0	7.8310-3	3.0210+5	1.5339+0	1.5339+0	0	
1.0470-4	6.9377-5	6.1863+3	2.8852+5	6.9685+0	8.4124-3	2.8851+5	1.5091+0	1.5091+0	0	
1.0583-4	7.0540-5	6.0843+3	2.8376+5	1.0191+1	8.5936-3	2.8375+5	1.5003+0	1.5003+0	0	
1.0628-4	7.0998-5	6.0450+3	2.8193+5	1.2311+1	8.8652-3	2.8192+5	1.4989+0	1.4989+0	0	
1.0755-4	7.2317-5	5.8348+3	2.7878+5	2.3541+1	8.8722-3	2.7878+5	1.4871+0	1.4871+0	0	
1.0789-4	7.2759-5	5.8887+3	2.7510+5	2.8497+1	8.9421-3	2.7507+5	1.4839+0	1.4839+0	0	
1.0798-4	1.2088-5	3.5505+4	1.6559+6	2.8497+1	8.9421-3	1.6558+6	8.9328+0	8.9307+0	1.8322-3	
1.0867-4	1.0429-5	4.1153+4	1.8183+6	3.5688+1	9.0558-3	1.8183+6	1.0420+1	1.0418+1	2.1853-3	
1.0867-4	7.5238-6	5.7043+4	2.6804+6	3.5688+1	9.0556-3	2.6804+6	1.4443+1	1.4440+1	3.1707-3	
1.0882-4	7.2823-6	6.8935+4	2.7488+6	3.7451+1	9.0804-3	2.7488+6	1.4943+1	1.4940+1	3.2876-3	
1.0945-4	6.3502-6	6.7586+4	3.1521+6	4.2086+1	9.1851-3	3.1520+6	1.7238+1	1.7232+1	3.8274-3	
1.1053-4	5.2598-6	8.1596+4	3.8055+6	4.7059+1	9.3846-3	3.8054+6	2.1013+1	2.1008+1	4.7003-3	
1.1212-4	4.3112-6	9.8551+4	4.8428+6	5.2353+1	9.6329-3	4.8428+6	2.6005+1	2.5999+1	5.8205-3	
1.1349-4	3.9096-6	1.0978+5	5.1197+6	5.4854+1	9.8879-3	5.1197+6	2.9028+1	2.9021+1	6.4609-3	
1.1507-4	3.7698-6	1.1397+5	5.3151+6	5.5117+1	1.0143-2	5.3151+6	3.0559+1	3.0550+1	6.7283-3	
1.1712-4	3.7335-6	1.1495+5	5.3812+6	5.4228+1	1.0504-2	5.3812+6	3.1370+1	3.1364+1	6.7993-3	
1.2405-4	3.7486-6	1.1455+5	5.3426+6	5.6093+1	1.1770-2	5.3426+6	3.3111+1	3.3104+1	6.8046-3	
1.4884-4	4.1443-6	1.0356+5	4.8299+6	6.4254+1	1.8435-2	4.8298+6	3.5431+1	3.5424+1	6.1968-3	
1.4934-4	4.2198-6	1.0171+5	4.7435+6	6.4051+1	1.8994-2	4.7434+6	3.5389+1	3.5383+1	6.0881-3	
1.5060-4	4.2578-6	1.0080+5	4.7010+6	6.7107+1	1.7880-2	4.7009+6	3.5389+1	3.5383+1	6.0347-3	
1.5155-4	4.2897-6	1.0012+5	4.6894+6	7.2827+1	1.7486-2	4.6894+6	3.5353+1	3.5347+1	5.8951-3	
1.5155-4	3.8944-6	1.1049+5	5.1531+6	7.2827+1	1.7488-2	5.1530+6	3.9015+1	3.9008+1	6.8470-3	
1.5322-4	3.8278-6	1.0927+5	5.0983+6	8.2743+1	1.7881-2	5.0982+6	3.9011+1	3.9004+1	6.5754-3	
1.5458-4	3.9628-6	1.0830+5	5.0511+6	8.8078+1	1.8198-2	5.0510+6	3.9007+1	3.9001+1	6.5184-3	
1.7859-4	4.8675-6	8.8173+4	4.1122+6	9.8070+1	2.4215-2	4.1121+6	3.6688+1	3.6683+1	5.3159-3	
1.8288-4	5.5823-6	7.8748+4	3.5793+6	1.0414+2	2.8181-2	3.5792+6	3.4491+1	3.4487+1	4.6275-3	
2.2455-4	7.4873-6	5.7322+4	2.8734+6	1.0919+2	3.8006-2	2.8733+6	2.9990+1	2.9986+1	3.4566-3	
2.8458-4	1.2449-5	3.4478+4	1.8079+6	1.1309+2	6.0588-2	1.8078+6	2.2860+1	2.2857+1	2.0764-3	
3.9008-4	2.5742-5	1.6673+4	7.7757+6	1.1176+2	1.1224-1	7.7748+6	1.5151+1	1.5150+1	1.0019-3	
5.4588-4	5.8239-5	7.3685+3	3.4370+5	1.0683+2	2.1237-1	3.4359+5	9.3720+0	9.3716+0	4.4137-4	
8.1480-4	1.8120-4	2.8624+3	1.2417+5	9.7081+1	4.3549-1	1.2407+5	5.0505+0	5.0503+0	1.5871-4	
1.0000-3	2.7379-4	1.5676+3	7.3107+4	8.9778+1	6.1480-1	7.3017+4	3.6478+0	3.6478+0	8.3185-5	
1.2354-3	4.8242-4	6.8985+2	4.1491+4	7.9677+1	8.5190-1	4.1411+4	2.5558+0	2.5557+0	5.2725-5	
1.3412-3	6.0042-4	7.1481+2	3.3337+4	7.4851+1	9.5571-1	3.3282+4	2.2287+0	2.2286+0	4.2308-5	
1.4517-3	7.4030-4	5.7874+2	2.7038+4	6.8561+1	1.0877+0	2.6988+4	1.8559+0	1.8558+0	3.4271-5	
1.5806-3	9.2608-4	4.8344+2	2.1814+4	5.9983+1	1.1835+0	2.1563+4	1.7020+0	1.7019+0	2.7371-5	
1.6860-3	1.0672-3	4.0217+2	1.8758+4	5.2056+1	1.2788+0	1.8703+4	1.5568+0	1.5565+0	2.3744-5	
1.7117-3	1.1447-3	3.7493+2	1.7488+4	4.6897+1	1.3189+0	1.7438+4	1.4912+0	1.4912+0	2.2131-5	
1.7593-3	1.2343-3	3.4771+2	1.8217+4	3.8402+1	1.3851+0	1.8177+4	1.4219+0	1.4218+0	2.0524-5	
1.7779-3	1.2711-3	3.3785+2	1.5747+4	3.3588+1	1.3832+0	1.5712+4	1.3956+0	1.3956+0	1.8931-5	
1.7870-3	1.2880-3	3.3289+2	1.5526+4	3.0517+1	1.3919+0	1.5494+4	1.3832+0	1.3832+0	1.8653-5	
1.7982-3	1.3122-3	3.2707+2	1.5254+4	2.5815+1	1.4017+0	1.5227+4	1.3679+0	1.3679+0	1.9313-5	
1.8135-3	1.3440-3	3.1934+2	1.4893+4	1.8581+1	1.4151+0	1.4873+4	1.3478+0	1.3475+0	1.6882-5	
1.8170-3	1.3513-3	3.1782+2	1.4813+4	1.7877+1	1.4181+0	1.4794+4	1.3430+0	1.3429+0	1.8781-5	
1.8210-3	1.3584-3	3.1572+2	1.4724+4	1.7369+1	1.4216+0	1.4705+4	1.3378+0	1.3378+0	1.8648-5	
1.8277-3	1.3732-3	3.1254+2	1.4576+4	1.6892+1	1.4275+0	1.4556+4	1.3291+0	1.3291+0	1.8457-5	
1.8285-3	1.3748-3	3.1218+2	1.4559+4	1.9420+1	1.4282+0	1.4539+4	1.3281+0	1.3281+0	1.8435-5	
1.8285-3	1.3329-3	3.2207+2	1.5021+5	1.9420+1	1.4282+0	1.5019+5	1.3720+0	1.3167+0	5.5284-1	
1.8345-3	1.3402-3	3.2025+2	1.4836+5	2.2860+1	1.4334+0	1.4833+6	1.3888+0	1.3138+0	5.4989-1	
1.8410-3	1.3485-3	3.1827+2	1.4843+5	2.8371+1	1.4391+0	1.4840+5	1.3849+0	1.3103+0	5.4666-1	
1.8475-3	1.3568-3	3.1633+2	1.4753+5	3.4088+1	1.4448+0	1.4750+5	1.3814+0	1.3070+0	5.4351-1	
1.8539-3	1.3649-3	3.1444+2	1.4665+5	3.9253+1	1.4504+0	1.4681+5	1.3578+0	1.3038+0	5.4044-1	
1.8602-3	1.3730-3	3.1260+2	1.4579+5	4.3560+1	1.4558+0	1.4574+5	1.3544+0	1.3007+0	5.3743-1	
1.8725-3	1.3889-3	3.0900+2	1.4411+5	4.8519+1	1.4687+0	1.4408+5	1.3477+0	1.2945+0	5.3159-1	
1.8845-3	1.4045-3	3.0558+2	1.4252+5	5.3435+1	1.4773+0	1.4248+5	1.3412+0	1.2888+0	5.2602-1	
1.9078-3	1.4349-3	2.9911+2	1.3950+5	5.8859+1	1.4977+0	1.3944+5	1.3290+0	1.2774+0	5.1551-1	
1.9514-3	1.4928-3	2.8754+2	1.3410+5	6.5894+1	1.5381+0	1.3403+5	1.3087+0	1.2570+0	4.8668-1	
2.0000-3	1.5582-3	2.7544+2	1.2848+5	7.1301+1	1.5790+0	1.2839+5	1.2828+0	1.2351+0	4.7895-1	
2.1084-3	1.7198-3	2.4858+2	1.1840+5	7.9711+1	1.6721+0	1.1832+5	1.2240+0	1.1808+0	4.3389-1	
2.2566-3	2.0174-3	2.1275+2	9.9220+4	8.6409+1	1.7890+0	9.9132+4	1.1175+0	1.0805+0	3.7072-1	
2.5134-3	2.6840-3	1.5990+2	7.4578+4	9.0422+1	1.9888+0	7.4484+4	9.3524+0	9.0735+0	2.7886-1	
2.8184-3	4.0502-3	1.0587+2	4.9420+4	8.7512+1	2.2545+0	4.8430+4	7.1869+0	7.0021+0	1.8484-1	
3.8840-3	8.6743-4	4.9478+2	2.3076+4	7.5710+1	2.7910+0	2.2977+4	4.4382+0	4.3528+0	8.6351-2	

October 31, 1989
Atomic Weight 28.086

ENDL Evaluated
Photon Data

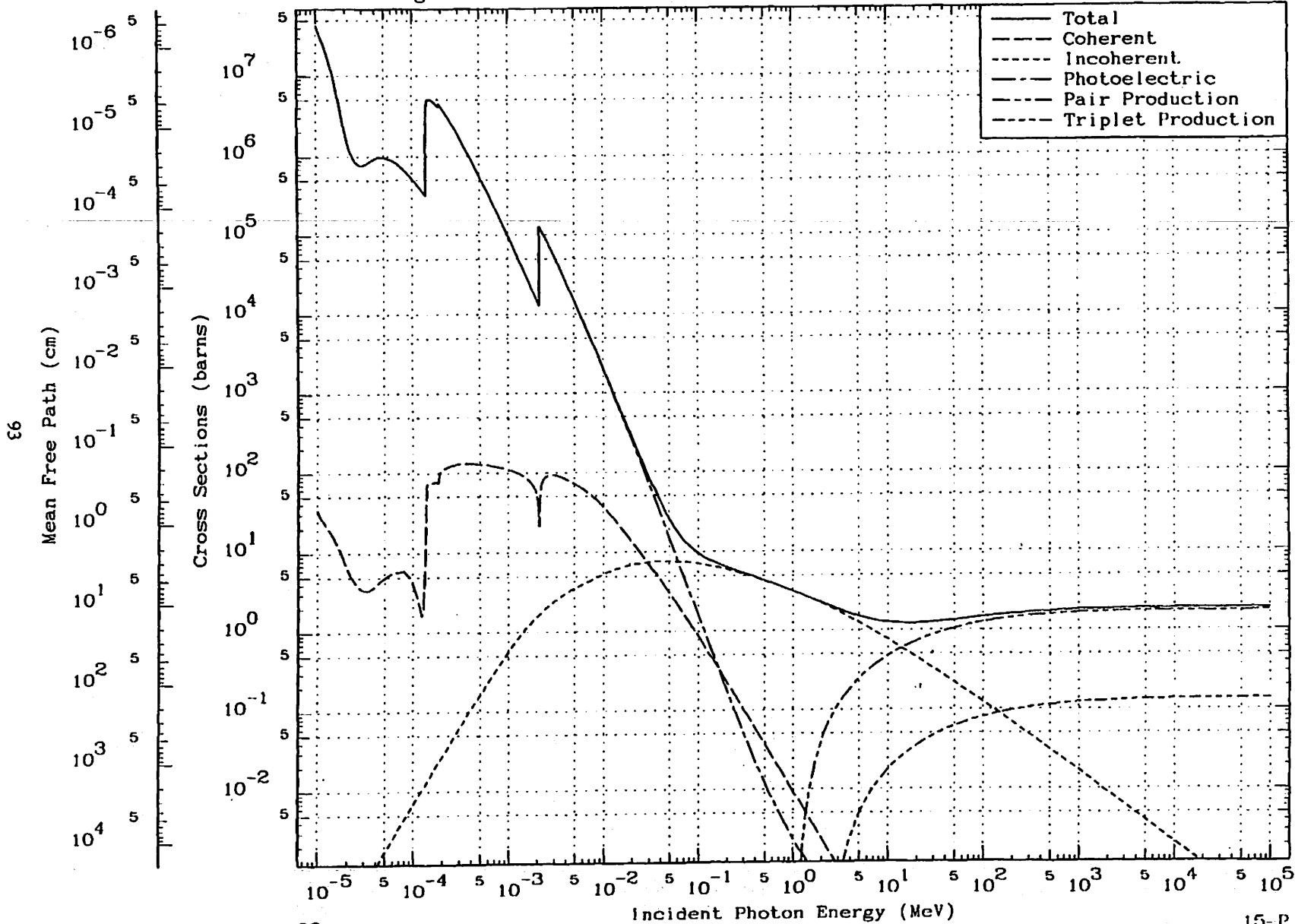
14-Si
Density 2.330 Grams/cc

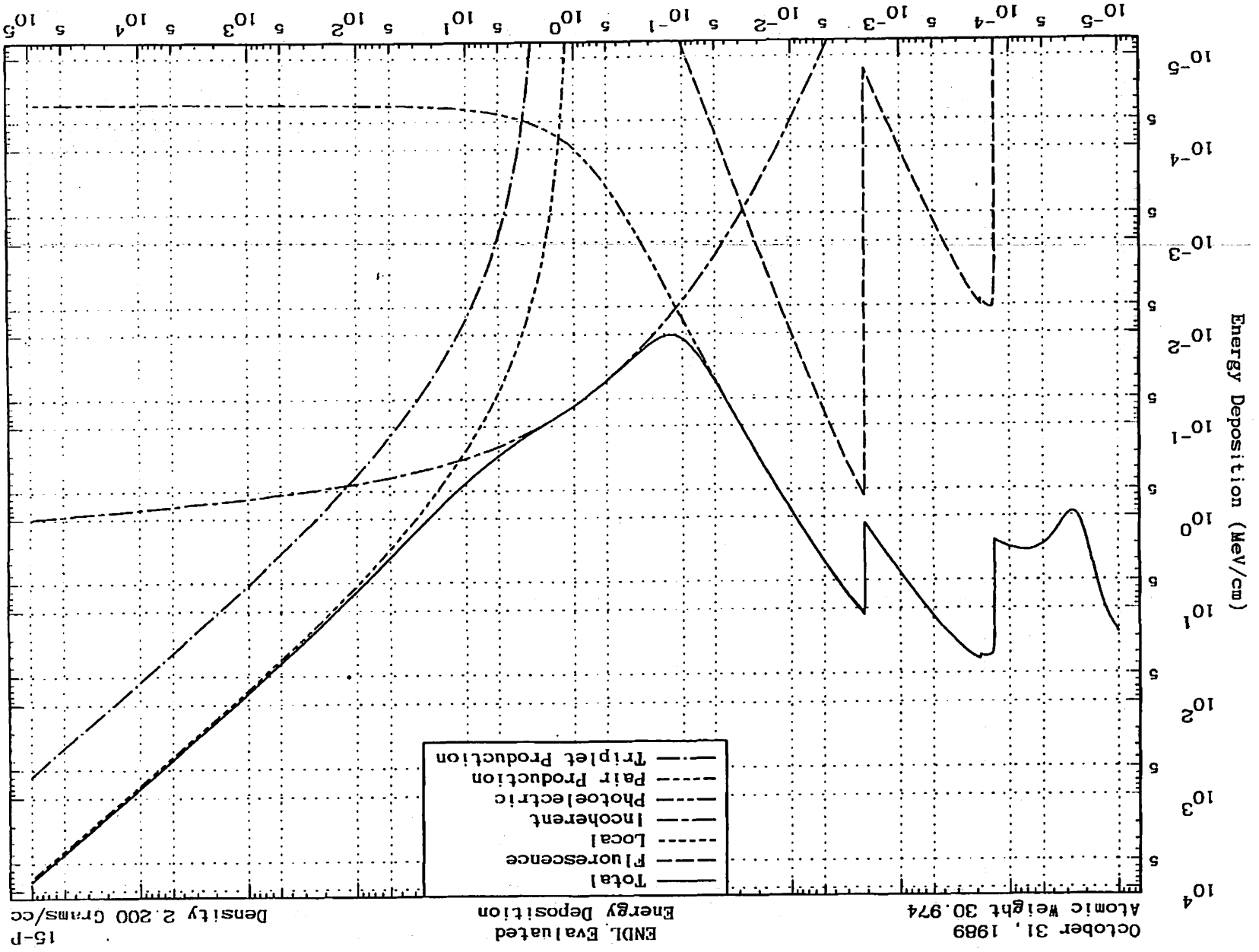
Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.9045+ 0	1.1530+ 1	3.7224- 2	1.7350+ 0	9.3002- 4	1.6411+ 0	2.8358- 4	9.3288- 2	4.5255- 4	1.4540- 1	1.4540- 1	1.0710- 9
3.0399+ 0	1.1767+ 1	3.6475- 2	1.7011+ 0	8.4903- 4	1.5972+ 0	2.6577- 4	1.0218- 1	6.1337- 4	1.5080- 1	1.5080- 1	1.0037- 9
3.2344+ 0	1.2129+ 1	3.5386- 2	1.6503+ 0	7.5000- 4	1.5343+ 0	2.4468- 4	1.1421- 1	8.8639- 4	1.5787- 1	1.5787- 1	9.2405- 10
3.4375+ 0	1.2478+ 1	3.4400- 2	1.6043+ 0	6.6400- 4	1.4748+ 0	2.2569- 4	1.2740- 1	1.2130- 3	1.6507- 1	1.6507- 1	8.5186- 10
3.7847+ 0	1.3030+ 1	3.2838- 2	1.5381+ 0	5.4777- 4	1.3858+ 0	1.9842- 4	1.4783- 1	1.8813- 3	1.7774- 1	1.7774- 1	7.4834- 10
4.0000+ 0	1.3338+ 1	3.2183- 2	1.5009+ 0	4.9040- 4	1.3368+ 0	1.8430- 4	1.6120- 1	2.3060- 3	1.8593- 1	1.8593- 1	6.9604- 10
4.2500+ 0	1.3877+ 1	3.1380- 2	1.4635+ 0	4.3440- 4	1.2852+ 0	1.7074- 4	1.7480- 1	2.8499- 3	1.9531- 1	1.9531- 1	6.4481- 10
4.7500+ 0	1.4268+ 1	3.0084- 2	1.4031+ 0	3.4777- 4	1.1958+ 0	1.4838- 4	2.0280- 1	3.8883- 3	2.1497- 1	2.1497- 1	5.6043- 10
5.5135+ 0	1.5019+ 1	2.8575- 2	1.3327+ 0	2.5812- 4	1.0856+ 0	1.2348- 4	2.4088- 1	5.8493- 3	2.4573- 1	2.4573- 1	4.8838- 10
6.3840+ 0	1.5760+ 1	2.7232- 2	1.2701+ 0	1.9375- 4	9.8118- 1	1.0390- 4	2.8064- 1	7.9289- 3	2.7905- 1	2.7905- 1	3.9241- 10
7.4833+ 0	1.6495+ 1	2.6018- 2	1.2135+ 0	1.4012- 4	8.7528- 1	8.5907- 5	3.2731- 1	1.0641- 2	3.2518- 1	3.2518- 1	3.2444- 10
9.0000+ 0	1.7189+ 1	2.4998- 2	1.1658+ 0	9.6875- 5	7.6852- 1	6.9480- 5	3.8300- 1	1.4190- 2	3.8158- 1	3.8158- 1	2.6240- 10
1.0000+ 1	1.7477+ 1	2.4558- 2	1.1453+ 0	7.8469- 5	7.1351- 1	8.1890- 5	4.1530- 1	1.6370- 2	4.3731- 1	4.3731- 1	2.3298- 10
1.3000+ 1	1.8118+ 1	2.3888- 2	1.1048+ 0	4.8432- 5	5.8614- 1	4.8120- 5	4.8630- 1	2.2230- 2	5.7877- 1	5.7877- 1	1.7418- 10
1.6000+ 1	1.8399+ 1	2.3327- 2	1.0878+ 0	2.4218- 5	4.5805- 1	3.2430- 5	5.8880- 1	3.0200- 2	8.3085- 1	8.3085- 1	1.2248- 10
2.6000+ 1	1.8239+ 1	2.3532- 2	1.0875+ 0	1.1608- 5	3.4323- 1	2.1970- 5	7.1440- 1	3.8810- 2	1.2703+ 0	1.2703+ 0	8.2973- 11
4.2170+ 1	1.7415+ 1	2.4844- 2	1.1493+ 0	4.4127- 8	2.3416- 1	1.3297- 5	8.6240- 1	5.2759- 2	2.2572+ 0	2.2572+ 0	5.0220- 11
6.8282+ 1	1.6348+ 1	2.8256- 2	1.2245+ 0	1.8348- 8	1.5537- 1	7.9960- 6	1.0034+ 0	6.5811- 2	4.0651+ 0	4.0651+ 0	3.0188- 11
1.0000+ 2	1.5542+ 1	2.7814- 2	1.2879+ 0	7.8470- 7	1.1473- 1	5.5070- 6	1.0980+ 0	7.5110- 2	6.2559+ 0	6.2559+ 0	2.0798- 11
2.0000+ 2	1.4339+ 1	2.9931- 2	1.3859+ 0	1.9818- 7	8.3458- 2	2.7350- 8	1.2420+ 0	9.0450- 2	1.3781+ 1	1.3781+ 1	1.0329- 11
4.0000+ 2	1.3501+ 1	3.1790- 2	1.4828+ 0	4.9044- 8	3.4918- 2	1.3630- 8	1.3450+ 0	1.0270- 1	2.8435+ 1	2.8435+ 1	5.1478- 12
1.0000+ 3	1.2840+ 1	3.3424- 2	1.5588+ 0	7.8470- 9	1.5838- 2	5.4420- 7	1.4290+ 0	1.1420- 1	7.7881+ 1	7.7881+ 1	2.0553- 12
4.0000+ 3	1.2404+ 1	3.4801- 2	1.8137+ 0	4.9044- 10	4.5183- 3	1.3590- 7	1.4660+ 0	1.2320- 1	3.2228+ 2	3.2228+ 2	5.1325- 13
1.0000+ 4	1.2289+ 1	3.4924- 2	1.6288+ 0	7.8469- 11	1.9755- 3	5.4380- 8	1.5010+ 0	1.2580- 1	8.1353+ 2	8.1353+ 2	2.0530- 13
1.0000+ 5	1.2204+ 1	3.5188- 2	1.6401+ 0	7.8394- 13	2.3881- 4	5.4350- 9	1.5120+ 0	1.2780- 1	8.1838+ 3	8.1838+ 3	2.0528- 14

Atomic Weight 30.974

Photon Cross Sections

Density 2.200 Grams/cc

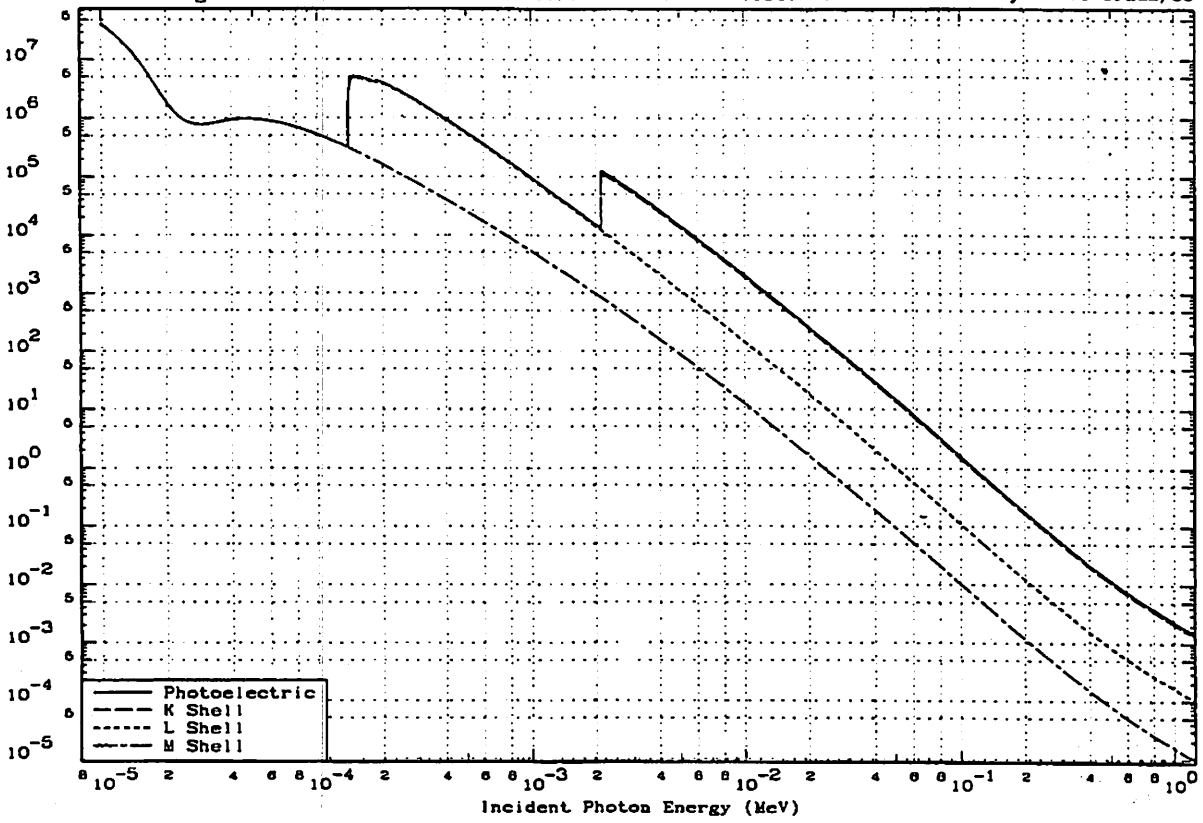




October 31, 1989
Atomic Weight 30.974

ENDL Evaluated
Photoelectric Shell Cross Sections

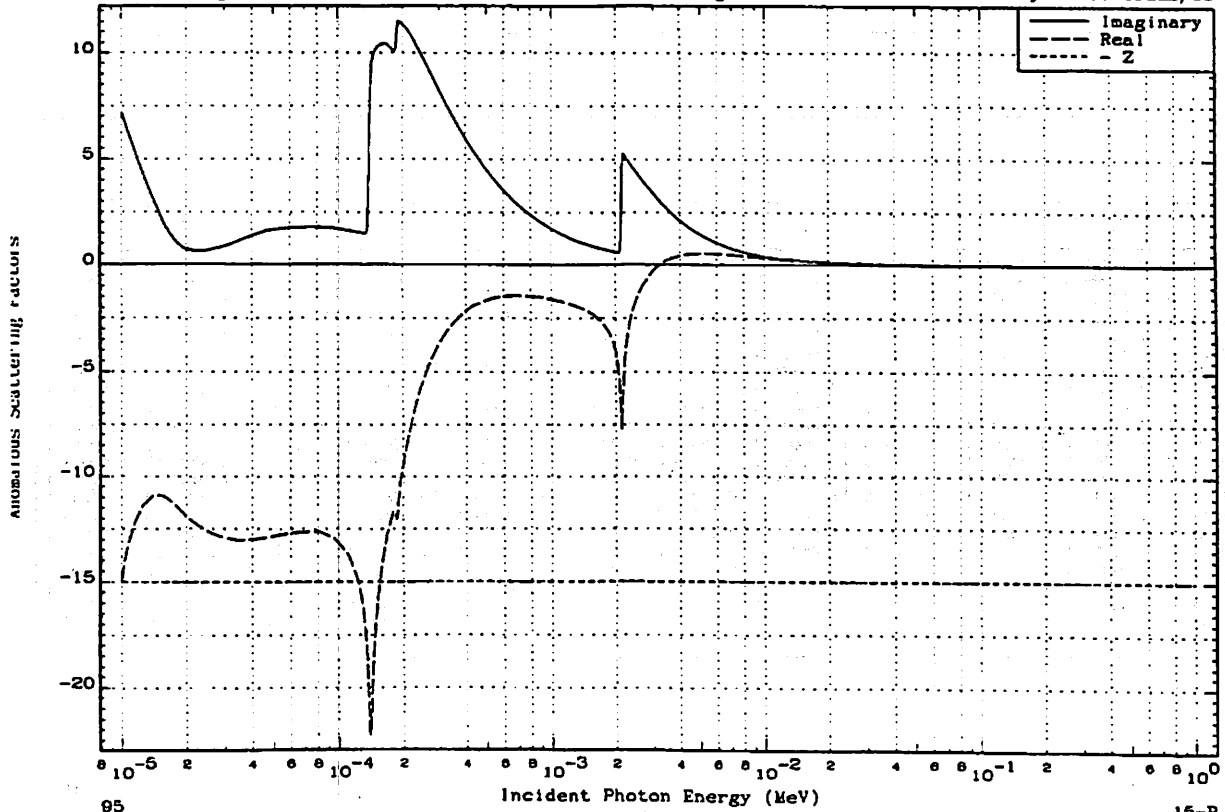
15-P
Density 2.200 Grams/cc

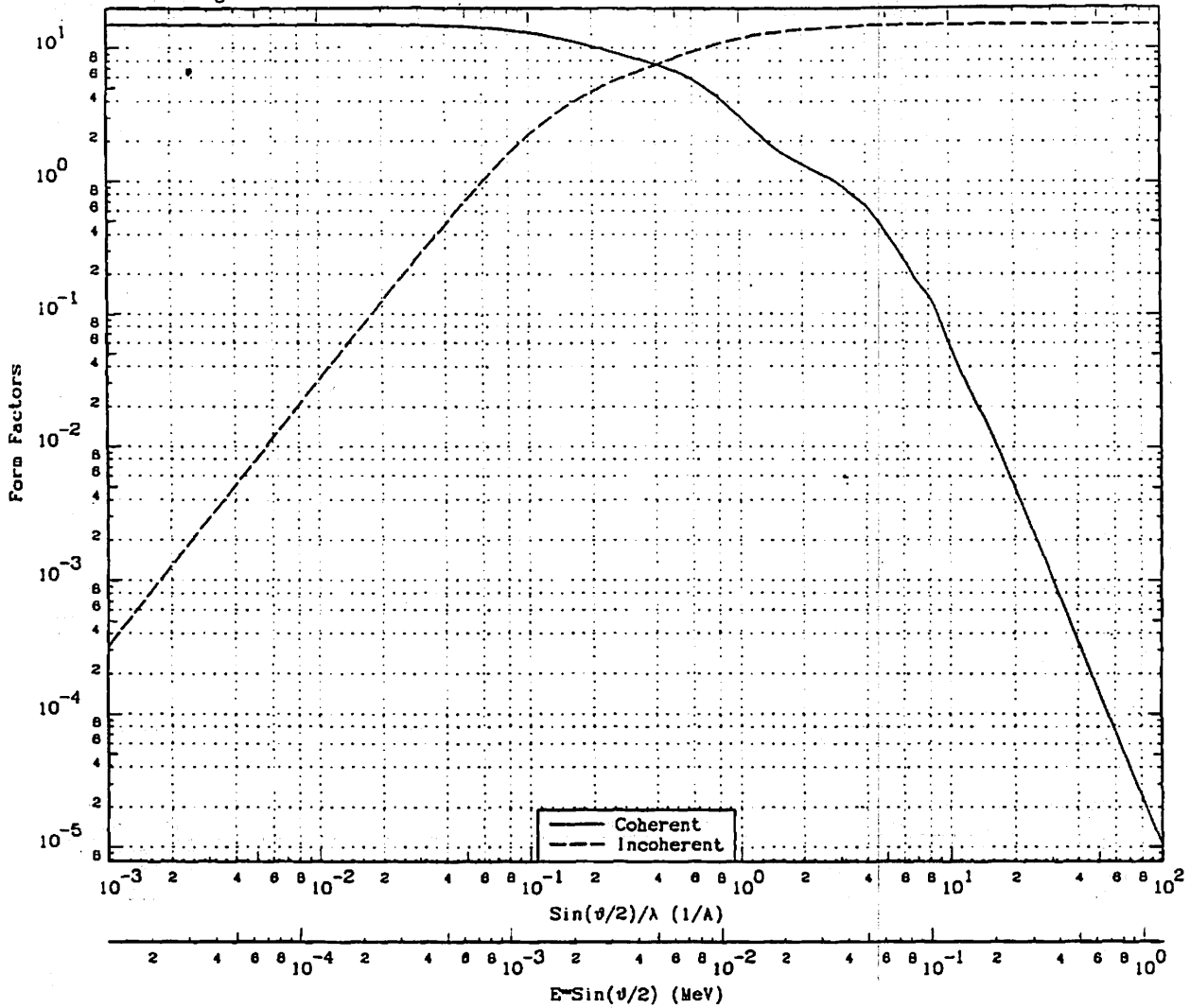


October 31, 1989
Atomic Weight 30.974

ENDL Evaluated
Anomalous Scattering Factors

15-P
Density 2.200 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	1.5000+1	0.0000+0	7.0000-1	8.6790-3	5.0079+0	1.0131+1	1.1009+1	1.3850-1	4.0083-2	1.4999+1
1.0000-3	1.2399-5	1.5000+1	3.2000-4	8.0000-1	9.9188-3	4.2732+0	1.0827+1	1.5000+1	1.8598-1	1.4380-2	1.5000+1
5.0000-3	6.1993-5	1.4893+1	8.0000-3	9.0000-1	1.1159-2	3.8377+0	1.1411+1	1.7129+1	2.1237-1	8.9450-3	1.5000+1
1.0000-2	1.2399-4	1.4876+1	3.2000-2	1.0000+0	1.2399-2	3.1100+0	1.1888+1	2.0000+1	2.4787-1	4.9871-3	1.5000+1
1.5000-2	1.8598-4	1.4949+1	7.1200-2	1.2500+0	1.5498-2	2.2180+0	1.2718+1	5.0000+1	6.1993-1	1.4828-4	1.5000+1
2.0000-2	2.4787-4	1.4909+1	1.2580-1	1.5000+0	1.8598-2	1.7379+0	1.3209+1	8.0000+1	9.9188-1	2.4298-5	1.5000+1
2.5000-2	3.0998-4	1.4858+1	1.9440-1	1.7847+0	2.2128-2	1.4599+0	1.3578+1	1.0000+2	1.2399+0	1.0382-5	1.5000+1
3.0000-2	3.7198-4	1.4798+1	2.7880-1	2.0000+0	2.4787-2	1.3287+0	1.3790+1	1.7117+2	2.1223+0	1.3858-6	1.5000+1
4.0000-2	4.9594-4	1.4648+1	4.7730-1	2.5000+0	3.0998-2	1.1174+0	1.4177+1	3.2012+2	3.9890+0	1.4291-7	1.5000+1
5.0000-2	6.1993-4	1.4458+1	7.1900-1	3.0000+0	3.7198-2	9.4450-1	1.4457+1	5.1200+2	6.3480+0	2.7286-8	1.5000+1
7.0000-2	8.6790-4	1.3988+1	1.2840+0	3.5000+0	4.3395-2	7.7170-1	1.4650+1	1.0000+3	1.2399+1	2.7444-9	1.5000+1
9.0000-2	1.1159-3	1.3433+1	1.8988+0	4.0000+0	4.9594-2	6.5000-1	1.4778+1	2.0748+3	2.5722+1	2.4330-10	1.5000+1
1.0000-1	1.2399-3	1.3135+1	2.2060+0	4.4878+0	5.5784-2	5.1760-1	1.4858+1	3.6530+3	4.5282+1	3.9126-11	1.5000+1
1.2500-1	1.5498-3	1.2371+1	2.9435+0	5.0000+0	6.1993-2	4.0650-1	1.4911+1	8.5289+3	1.0575+2	2.7185-12	1.5000+1
1.5000-1	1.8598-3	1.1623+1	3.6110+0	5.9375+0	7.3818-2	2.7136-1	1.4981+1	1.3413+4	1.6630+2	6.7485-13	1.5000+1
1.7500-1	2.1697-3	1.0933+1	4.2057+0	8.0000+0	7.4391-2	2.6380-1	1.4963+1	2.6413+4	3.2748+2	8.6658-14	1.5000+1
2.0000-1	2.4787-3	1.0320+1	4.7320+0	8.8594+0	8.5048-2	1.8218-1	1.4982+1	6.5519+4	8.1234+2	5.8075-15	1.5000+1
2.5000-1	3.0998-3	9.3288+0	5.6106+0	7.0000+0	8.6790-2	1.7410-1	1.4984+1	1.0000+6	1.2399+4	2.0226-18	1.5000+1
3.0000-1	3.7198-3	8.5909+0	6.3120+0	8.0000+0	9.9188-2	1.3540-1	1.4993+1	5.8234+6	6.9722+4	1.2484-20	1.5000+1
4.0000-1	4.9594-3	7.5408+0	7.4350+0	8.4550+0	1.0483-1	1.1488-1	1.4994+1	5.4247+7	6.7258+5	1.4323-23	1.5000+1
5.0000-1	6.1993-3	6.8872+0	8.4190+0	8.1129+0	1.1289-1	8.5778-2	1.4986+1	1.0000+9	1.2399+7	2.1986-27	1.5000+1
6.0000-1	7.4391-3	5.8182+0	9.3230+0	1.0000+1	1.2399-1	5.7900-2	1.4998+1				

October 31, 1989
Atomic Weight 30.974

ENDL Evaluated
Photon Data

15-P
Density 2.200 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (baros)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	5.5014-7	8.2621+5	4.2496-7	3.4312-7	6.9243-5	4.2496-7			1.8177-1	1.8177-1	
1.0708-5	8.8107-7	6.6740+5	3.4326-7	2.8570-7	7.9393-5	3.4326-7			1.5722-1	1.5722-1	
1.1941-5	9.5724-7	4.7485+5	2.4423-7	2.3145-7	9.8740-5	2.4423-7			1.2474-1	1.2474-1	
1.3383-5	1.4589-6	3.1157+5	1.8025-7	1.6097-7	1.2404-4	1.8025-7			9.1738+0	9.1738+0	
1.4578-5	2.1261-6	2.1380+5	1.0998+7	1.8185+7	1.4719-4	1.0998+7			6.8570+0	6.8570+0	
1.5257-5	2.6875-6	1.6913+5	8.6991+6	1.4704+7	1.6121-4	8.6991+6			5.5769+0	5.5769+0	
1.7210-5	5.2510-6	6.8564+4	4.4523+6	1.0649+7	2.0514-4	4.4523+6			3.2775+0	3.2775+0	
1.7210-5	5.2350-6	8.8828+4	4.4659+6	1.0649+7	2.0514-4	4.4659+6			3.2875+0	3.2875+0	
1.9173-5	6.8592-6	4.8103+4	2.3713+6	7.7108+6	2.5481-4	2.3712+6			1.9446+0	1.9446+0	
2.0255-5	1.3111-5	3.4669+4	1.7832+6	6.5690+6	2.8418-4	1.7831+6			1.5449+0	1.5449+0	
2.2134-5	1.6317-5	2.3531+4	1.2103+6	5.3065+6	3.3935-4	1.2102+6			1.1458+0	1.1458+0	
2.3882-5	2.4415-5	1.8617+4	9.5758+5	4.5521+6	3.9510-4	9.5755+5			9.7818-1	9.7818-1	
2.5193-5	2.7100-5	1.6773+4	6.8270+5	4.1413+6	4.3969+4	6.8269+5			9.2665-1	9.2665-1	
2.7248-5	2.9515-5	1.5401+4	7.8210-5	3.7340+6	5.1435-4	7.8210-5			9.2319-1	9.2319-1	
2.8482-5	3.0234-5	1.5034+4	7.7327-5	3.5505+6	5.6200-4	7.7326-5			9.4205-1	9.4205-1	
3.0000-5	3.0278-5	1.5012+4	7.7213-5	3.4864+6	6.2352-4	7.7212-5			9.9080-1	9.9080-1	
3.3118-5	2.8997-5	1.5676+4	6.0624+5	3.4052+6	7.5992-4	6.0624+5			1.1421+0	1.1421+0	
3.4641-5	2.7749-5	1.6381+4	8.4251+5	3.4604+6	8.3142-4	8.4251+5			1.2484+0	1.2484+0	
4.0000-5	2.4899-5	1.8255+4	9.3894+5	3.9528+6	1.1086-3	9.3893+5			1.6085+0	1.6085+0	
4.4721-5	2.4025-5	1.8920+4	9.7312+5	4.4610+6	1.3859-3	9.7312+5			1.6815+0	1.6815+0	
5.0000-5	2.4181-5	1.8813+4	9.8781+5	4.9401+6	1.7324-3	9.8781+5			2.0694+0	2.0694+0	
6.0000-5	2.5680-5	1.7577+4	9.0406+5	5.6579+6	2.4949-3	9.0405+5			2.3202+0	2.3202+0	
7.0000-5	2.9209-5	1.5582+4	8.0040+5	5.8214+6	3.3961-3	8.0039+5			2.3965+0	2.3965+0	
8.0909-5	3.4185-5	1.3293+4	8.8368+5	5.8793+6	4.5375-3	8.8368+5			2.3661+0	2.3661+0	
9.5596-5	4.2347-5	1.0734+4	5.5208+5	4.8302+6	6.3348-3	5.5208+5			2.2574+0	2.2574+0	
1.0000-4	4.4967-5	1.0108+4	5.1991+5	4.1055+6	6.9321-3	5.1991+5			2.2238+0	2.2238+0	
1.1159-4	5.3094-5	6.5612+3	4.4033+5	2.7845+6	6.8108-3	4.4033+5			2.1018+0	2.1018+0	
1.2258-4	6.1225-5	7.4242+3	3.8185+5	1.6027+6	1.0371-2	3.8185+5			2.0021+0	2.0021+0	
1.2808-4	6.5492-5	8.0405+3	3.5897+5	2.0415+6	1.1312-2	3.5897+5			1.8566+0	1.8566+0	
1.3083-4	6.7828-5	8.7018+3	3.4469+5	3.2390+6	1.1797-2	3.4468+5			1.8288+0	1.8288+0	
1.3402-4	7.0574-5	8.4407+3	3.3127+5	6.9518+6	1.2374-2	3.3126+5			1.6989+0	1.6989+0	
1.3535-4	7.1733-5	8.3366+3	3.2591+5	1.0782-2	1.2818-2	3.2590+5			1.6989+0	1.6989+0	
1.3591-4	7.2223-5	8.2938+3	3.2370+5	1.3555-2	1.2722-2	3.2369+5			1.6917+0	1.6917+0	
1.3885-4	7.3051-5	8.2223+3	3.2004+5	2.1191+2	1.2897-2	3.2001+5			1.8732+0	1.8732+0	
1.3772-4	7.3815-5	8.1579+3	3.1672+5	3.2294+2	1.3060-2	3.1669+5			1.8659+0	1.8659+0	
1.3818-4	7.4220-5	8.1243+3	3.1499+5	3.8964+2	1.3146-2	3.1485+5			1.8615+0	1.8615+0	
1.3818-4	1.3412-5	3.3890+4	1.7431+6	3.8964+1	1.3146-2	1.7430+6			1.0302+1	1.0301+1	1.5825-3
1.3859-4	1.2280-5	3.6965+4	1.9023+6	4.5275+1	1.3223-2	1.9022+6			1.1278+1	1.1275+1	1.7694-3
1.3914-4	1.0929-5	4.1588+4	2.1391+6	5.2352+1	1.3327-2	2.1390+6			1.2731+1	1.2729+1	2.0381-3
1.3914-4	7.9509-6	5.7170+4	2.9404+6	5.2352+1	1.3327-2	2.9404+6			1.7500+1	1.7497+1	2.9330-3
1.3944-4	7.4409-6	6.1088+4	3.1419+6	5.8706+1	1.3385-2	3.1419+6			1.8740+1	1.8737+1	3.1581-3
1.4035-4	8.2144-6	7.3144+4	3.7820+6	6.5781+1	1.3559-2	3.7820+6			2.2585+1	2.2581+1	3.8530-3
1.4079-4	5.7500-6	7.8051+4	4.0858+6	6.7842-1	1.3639-2	4.0858+6			2.4482+1	2.4478+1	4.1852-3
1.4122-4	5.4351-6	8.3832+4	4.3014+6	7.0318+1	1.3725-2	4.3014+6			2.5983+1	2.5979+1	4.4590-3
1.4193-4	5.0232-6	9.0490+4	4.6542+6	7.2044+1	1.3862-2	4.6541+6			2.8250+1	2.8250+1	4.8582-3
1.4290-4	4.7682-6	9.5329+4	4.9031+6	7.3039+1	1.4049-2	4.9030+6			2.9969+1	2.9964+1	5.1378-3
1.4565-4	4.8127-6	9.8542+4	5.0833+6	7.1960+1	1.4589-2	5.0832+6			3.1574+1	3.1569+1	5.3329-3
1.5000-4	4.8251-6	9.8277+4	5.0547+6	7.0838+1	1.5465-2	5.0546+6			3.2431+1	3.2426+1	5.3337-3
1.6534-4	4.9375-6	9.2080+4	4.7349+6	7.5390+1	1.8750-2	4.7349+6			3.3485+1	3.3480+1	5.0282-3
1.6826-4	5.0288-6	9.0389+4	4.6490+6	7.6370+1	1.9411-2	4.6489+6			3.3458+1	3.3453+1	4.9383-3
1.7842-4	5.4780-6	8.2981+4	4.2669+6	7.8145+1	2.2042-2	4.2669+6			3.2748+1	3.2741+1	4.5391-3
1.8328-4	5.6370-6	8.0536+4	4.1474+6	7.4861+1	2.2991-2	4.1473+6			3.2513+1	3.2509+1	4.4140-3
1.8529-4	5.7198-6	7.9472+4	4.0875+6	7.5704+1	2.3482-2	4.0874+6			3.2395+1	3.2391+1	4.3514-3
1.8838-4	5.7848-6	7.8851+4	4.0558+6	7.8308+1	2.3787-2	4.0555+6			3.2331+1	3.2327+1	4.3180-3
1.8715-4	5.7884-6	7.8419+4	4.0333+6	8.3746+1	2.3981-2	4.0332+6			3.2287+1	3.2282+1	4.2947-3
1.8715-4	5.2543-6	8.6509+4	4.4494+6	8.3746+1	2.3981-2	4.4483+6			3.5817+1	3.5813+1	4.7901-3
1.8935-4	5.3302-6	8.5277+4	4.3981+6	8.5828+1	2.4522-2	4.3980+6			3.5523+1	3.5519+1	4.7238-3
1.8991-4	5.3842-6	8.4422+4	4.3421+6	9.9855+1	2.4924-2	4.3420+6			3.5457+1	3.5452+1	4.6774-3
2.1080-4	6.3074-6	7.2098+4	3.7066+6	1.1300+2	3.0325-2	3.7065+6			3.3421+1	3.3417+1	4.0012-3
2.4322-4	6.1568-6	5.5733+4	2.8665+6	1.2331+2	4.0246-2	2.8664+6			2.9820+1	2.9817+1	3.1007-3
3.0000-4	1.2597-5	3.6084+4	1.8559+6	1.3016+2	6.0981-2	1.8558+6			2.3814+1	2.3812+1	2.0095-3
4.2202-4	2.7494-5	1.8533+4	8.5033+5	1.3138+2	1.1809-1	8.5020+5			1.5347+1	1.5346+1	9.2120-4
6.0737-4	6.8718-5	8.8129+3	3.5041+5	1.2560+2	2.3575-1	3.5029+5			9.1002+0	9.0999+0	3.7958-4
9.0817-4	1.8469-4	2.4611+3	1.2858+5	1.1403+2	4.8494-1	1.2847+5			4.8018+0	4.8018+0	1.3710-4
1.0000-3	2.3844-4	1.9063+3	9.8049+4	1.1010+2	5.7304-1	9.7838+4			4.1892+0	4.1891+0	1.0818-4
1.3233-3	5.0041-4	9.0835+2	4.8720+4	9.6420+1	8.9090-1	4.8822+4			2.6390+0	2.6390+0	5.0570-5
1.5688-3	7.8657-4	5.7788+2	2.9722+4	8.4905+1	1.1374+0	2.9838+4			1.9884+0	1.9884+0	3.2158-5
1.7012-3	9.7849-4	4.8549+2	2.3942+4	7.7488+1	1.2865+0	2.3883+4			1.7384+0	1.7384+0	2.5908-5
1.8448-3	1.2178-3	3.7328+2	1.9198+4	6.8240+1	1.4097+0	1.9128+4			1.5082+0	1.5082+0	2.0784-5
1.8433-3	1.4042-3	3.2369+2	1.8649+4	5.9825+1	1.5033+0	1.8588+4			1.3788+0	1.3788+0	1.8005-5
1.8888-3	1.5187-3	2.9970+2	1.5415+4	5.2923+1	1.5533+0	1.5360+4			1.3132+0	1.3132+0	1.6672-5
2.0498-3	1.8256-3	2.7984+2	1.4383+4	4.4531+1	1.5998+0	1.4337+4			1.2570+0	1.2570+0	1.5561-5
2.0715-3	1.8734-3	2.7164+2	1.3971+4	3.9223+1	1.6193+0	1.3930+4			1.2343+0	1.2343+0	1.5118-5
2.0877-3	1.7100-3	2.6581+2	1.3671+4	3.3612+1	1.6341+0	1.3636+4			1.2177+0	1.2177+0	1.4800-5
2.1012-3	1.7411-3	2.6107+2	1.3428+4	2.7432+1	1.6463+0	1.3398+4			1.2042+0	1.2042+0	1.4542-5
2.1129-3	1.7684-3	2.5704+2	1.3220+4	2.2429+1	1.6570+0	1.3198+4			1.1927+0	1.1928+0	1.4322-5
2.1170-3	1.7779-3	2.5568+2	1.3150+4	2.1407+1	1.6808+0	1.3127+4			1.1887+0	1.1888+0	1.4247-5
2.1218-3	1.7885-3	2.5415+2	1.3072+4	2.1030+1	1.6850+0	1.3048+4			1.1842+0	1.1842+0	1.4183-5
2.1304-3	1.8088-3	2.5135+2	1.2928+4	2.3112+1	1.6730+0	1.2903+4			1.1758+0	1.1758+0	1.4004-5
2.1304-3	1.8105-4	2.5107+3	1.2913+5	2.3112+1	1.6730+0	1.2911+5			1.1785+1	1.1181+1	8.0389-1
2.1450-3	1.8398-4	2.4708+3	1.2707+5	3.2884+1	1.6863+0	1.2704+5			1.1658+1	1.1061+1	5.9444-1
2.1560-3	1.8622-4	2.4409+3	1.2555+5	4.2228+1	1.6964+0	1.2550+5			1.1574+1	1.0968+1	5.8738-1
2.1682-3	1.8829-4	2.4111+3	1.2417+5	4.9169+1	1.7057+0	1.2412+5			1.1500+1	1.0919+1	5.8101-1
2.1758-3	1.9027-4	2.3889+3	1.2287+5	5.4271+1	1.7145+0	1.2282+5			1.1430+1	1.0855+1	5.7502-1
2.1892-3	1.9305-4	2.3545+3	1.2110+5	5.8978+1	1.7288+0	1.2104+5			1.1334+1	1.0787+1	5.6884-1
2.2144-3	1.9834-4	2.2918+3	1.1768+5	6.5034+1	1.7499+0	1.1781+5			1.1158+1	1.0608+1	5.5195-1

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.2585-3	2.0778-4	2.1876+3	1.1252+5	7.2203+1	1.7905+0	1.1244+5			1.0881+1	1.0334+1	5.2723-1
2.3410-3	2.2619-4	2.0096+3	1.0336+5	6.0497+1	1.8650+0	1.0328+5			1.0340+1	9.8555+0	4.8495-1
2.4841-3	2.8225-4	1.7466+3	8.9833+4	8.7538+1	1.9821+0	8.9744+4			9.5357+0	9.1133+0	4.2238-1
2.6854-3	3.1300-4	1.4522+3	7.4892+4	9.1887+1	2.1472+0	7.4598+4			8.5674+0	8.2151+0	3.5229-1
3.0247-3	4.1578-4	1.0933+3	5.8231+4	9.3303+1	2.3992+0	5.8138+4			7.2027+0	8.9963+0	2.6841-1
3.6617-3	6.8726-4	6.6139+2	3.4017+4	8.7528+1	2.8282+0	3.3927+4			5.3135+0	5.1520+0	1.6144-1
4.7312-3	1.3738-3	3.3091+2	1.7020+4	7.5032+1	3.4133+0	1.6941+4			3.4280+0	3.3472+0	8.0853-2
6.4413-3	3.2220-3	1.4108+2	7.2561+3	5.8690+1	4.1578+0	7.1832+3			1.9816+0	1.9472+0	3.4415-2
8.2758-3	6.5789-3	6.9112+1	3.5547+3	4.5874+1	4.7889+0	3.5040+3			1.2404+0	1.2238+0	1.6787-2
1.0000-2	1.1248-2	4.0412+1	2.0785+3	3.6796+1	5.3243+0	2.0364+3			8.7111-1	8.6134-1	9.7620-3
1.3335-2	2.6188-2	1.7357+1	8.8273+2	2.4945+1	6.0893+0	8.8169+2			4.9153-1	4.8740-1	4.1326-3
2.1027-2	9.8401-2	4.6183+0	2.3758+2	1.2500+1	7.0294+0	2.1806+2			1.9638-1	1.9534-1	1.0466-3
3.0000-2	2.6814-1	1.8952+0	8.7190+1	7.1158+0	7.4576+0	7.2817+1			9.3724-2	9.3375-2	3.4843-4
3.9047-2	5.2883-1	8.5953-1	4.4209+1	4.8297+0	7.8158+0	3.1963+1			5.4275-2	5.4122-2	1.5351-4
4.7859-2	8.4519-1	5.3780-1	2.7881+1	3.2789+0	7.6290+0	1.8753+1			3.5578-2	3.5498-2	8.0431-5
5.5553-2	1.1381+0	4.0009-1	2.0578+1	2.5295+0	7.8121+0	1.0438+1			2.8470-2	2.8420-2	5.0822-5
6.8912-2	1.6147+0	2.8151-1	1.4478+1	1.7153+0	7.5006+0	5.2830+0			1.7915-2	1.7890-2	2.5263-5
8.2139-2	2.0129+0	2.2582-1	1.1614+1	1.2415+0	7.3615+0	3.0114+0			1.3775-2	1.3760-2	1.4459-5
9.5515-2	2.3393+0	1.9431-1	9.9338+0	9.3772-1	7.1949+0	1.8812+0			1.1840-2	1.1632-2	8.9368-6
1.0000-1	2.4328+0	1.8684-1	9.6097+0	6.6084-1	7.1412+0	1.6078+0			1.1207-2	1.1200-2	7.7203-6
1.1441-1	2.7038+0	1.6811-1	8.8487+0	6.8793-1	6.8320+0	1.0467+0			1.0370-2	1.0385-2	5.0283-6
1.3344-1	2.8822+0	1.5242-1	7.8394+0	4.9634-1	6.7003+0	8.4078-1			1.0195-2	1.0192-2	3.0788-6
1.6068-1	3.2886+0	1.3822-1	7.1091+0	3.4892-1	6.4058+0	3.5459-1			1.0893-2	1.0891-2	1.7022-6
2.0000-1	3.8405+0	1.2488-1	6.4218+0	2.2824-1	6.0158+0	1.7789-1			1.2757-2	1.2758-2	8.5380-7
2.8207-1	4.2118+0	1.0783-1	5.5510+0	1.1636-1	5.3729+0	8.1807-2			1.7749-2	1.7749-2	2.9661-7
4.0000-1	4.8714+0	9.3308-2	4.7992+0	5.8318-2	4.7187+0	2.2171-2			2.5385-2	2.5385-2	1.0637-7
5.5720-1	5.6212+0	8.0682-2	4.1590+0	3.0171-2	4.1198+0	9.0893-3			3.5193-2	3.5192-2	4.3601-8
8.9924-1	8.2225+0	7.3048-2	3.7571+0	1.9188-2	3.7327+0	5.2023-3			4.3563-2	4.3563-2	2.4962-8
9.1973-1	7.0717+0	6.4277-2	3.3060+0	1.1104-2	3.2920+0	2.8285-3			5.5588-2	5.5588-2	1.3576-8
1.0000+0	7.3818+0	6.1744-2	3.1757+0	9.3948-3	3.1639+0	2.3702-3			5.9703-2	5.9703-2	1.1376-8
1.0220+0	7.4418+0	6.1082-2	3.1416+0	8.9953-3	3.1304+0	2.2370-3			6.0777-2	6.0777-2	1.0737-8
1.0251+0	7.4535+0	6.0984-2	3.1388+0	8.9407-3	3.1254+0	2.2224-3	8.8388-9		6.0917-2	6.0917-2	1.0687-8
1.0287+0	7.4674+0	6.0871-2	3.1308+0	8.8777-3	3.1197+0	2.2065-3	8.8388-9		6.1079-2	6.1079-2	1.0588-8
1.0366+0	7.4975+0	6.0627-2	3.1182+0	8.7433-3	3.1073+0	2.1895-3	8.8388-9		6.1432-2	6.1432-2	1.0413-8
1.0382+0	7.5034+0	6.0579-2	3.1158+0	8.7171-3	3.1049+0	2.1825-3	1.1928-8		6.1502-2	6.1502-2	1.0379-8
1.0397+0	7.5091+0	6.0533-2	3.1134+0	8.6919-3	3.1025+0	2.1758-3	1.5497-8		6.1569-2	6.1569-2	1.0347-8
1.0415+0	7.5159+0	6.0478-2	3.1106+0	8.6620-3	3.0998+0	2.1789-3	2.0819-8		6.1649-2	6.1649-2	1.0309-8
1.0438+0	7.5247+0	6.0407-2	3.1070+0	8.6239-3	3.0962+0	2.1789-3	2.8620-8		6.1752-2	6.1752-2	1.0260-8
1.0464+0	7.5345+0	6.0328-2	3.1029+0	8.5811-3	3.0922+0	2.1829-3	3.6919-8		6.1868-2	6.1868-2	1.0205-8
1.0483+0	7.5417+0	6.0271-2	3.0999+0	8.5501-3	3.0893+0	2.1779-3	4.9578-8		6.1953-2	6.1953-2	1.0185-8
1.0512+0	7.5527+0	6.0183-2	3.0954+0	8.5030-3	3.0848+0	2.1804-3	6.7249-8		6.2082-2	6.2082-2	1.0105-8
1.0541+0	7.5635+0	6.0097-2	3.0910+0	8.4587-3	3.0804+0	2.0930-3	8.8388-9		6.2210-2	6.2210-2	1.0048-8
1.0577+0	7.5772+0	5.9989-2	3.0854+0	8.3990-3	3.0749+0	2.0778-3	1.2048-5		6.2371-2	6.2371-2	9.9719-9
1.0611+0	7.5900+0	5.9888-2	3.0802+0	8.3453-3	3.0698+0	2.0633-3	1.5671-5		6.2522-2	6.2522-2	9.9032-9
1.0651+0	7.6050+0	5.9770-2	3.0741+0	8.2928-3	3.0638+0	2.0467-3	2.0747-5		6.2700-2	6.2700-2	9.8234-9
1.0704+0	7.6248+0	5.9674-2	3.0681+0	8.2011-3	3.0559+0	2.0249-3	2.8944-5		6.2935-2	6.2935-2	9.7190-9
1.0782+0	7.6465+0	5.9445-2	3.0575+0	8.1130-3	3.0473+0	2.0015-3	4.0000-5		6.3182-2	6.3182-2	9.6085-9
1.0806+0	7.6629+0	5.9318-2	3.0509+0	8.0472-3	3.0409+0	1.9840-3	4.9953-5		6.3387-2	6.3387-2	9.5225-9
1.0871+0	7.6870+0	5.9132-2	3.0413+0	7.9513-3	3.0313+0	1.9665-3	6.7304-5		6.3674-2	6.3674-2	9.4004-9
1.0937+0	7.7115+0	5.8944-2	3.0317+0	7.8556-3	3.0218+0	1.9531-3	8.8388-5		6.3966-2	6.3966-2	9.2785-9
1.1028+0	7.7443+0	5.8694-2	3.0188+0	7.7298-3	3.0091+0	1.8997-3	1.2258-4		6.4358-2	6.4358-2	9.1182-9
1.1107+0	7.7740+0	5.8470-2	3.0073+0	7.6174-3	2.9978+0	1.8700-3	1.5885-4		6.4715-2	6.4715-2	8.9756-9
1.1206+0	7.8102+0	5.8189-2	2.9934+0	7.4835-3	2.9839+0	1.8348-3	2.1385-4		6.5150-2	6.5150-2	8.8058-9
1.1333+0	7.8584+0	5.7857-2	2.9758+0	7.3170-3	2.9684+0	1.7928-3	2.9738-4		6.5707-2	6.5707-2	8.6049-9
1.1475+0	7.9076+0	5.7482-2	2.9585+0	7.1372-3	2.9472+0	1.7550-3	4.1064-4		6.6328-2	6.6328-2	8.4235-9
1.1582+0	7.9499+0	5.7205-2	2.9422+0	7.0081-3	2.9300+0	1.7274-3	5.1034-4		6.6795-2	6.6795-2	8.2908-9
1.1741+0	8.0025+0	5.6800-2	2.9214+0	6.8178-3	2.9122+0	1.6875-3	6.8198-4		6.7488-2	6.7488-2	8.0998-9
1.1901+0	8.0690+0	5.6402-2	2.9008+0	6.6358-3	2.8918+0	1.6499-3	8.8388-4		6.8184-2	6.8184-2	7.9140-9
1.2051+0	8.1115+0	5.6037-2	2.8822+0	6.4720-3	2.8730+0	1.6139-3	1.0997-3		6.8834-2	6.8834-2	7.7484-9
1.2275+0	8.1891+0	5.5608-2	2.8649+0	6.2382-3	2.8456+0	1.5639-3	1.4711-3		6.9802-2	6.9802-2	7.5081-9
1.2500+0	8.2682+0	5.4988-2	2.8282+0	6.0159-3	2.8189+0	1.5180-3	1.9030-3		7.0772-2	7.0772-2	7.2793-9
1.2813+0	8.3720+0	5.4294-2	2.7925+0	5.7258-3	2.7827+0	1.4509-3	2.6002-3		7.2118-2	7.2118-2	6.9639-9
1.3325+0	8.5413+0	5.3218-2	2.7372+0	5.2948-3	2.7285+0	1.3535-3	3.9752-3		7.4308-2	7.4308-2	6.4963-9
1.3744+0	8.6785+0	5.2388-2	2.6945+0	4.9789-3	2.6829+0	1.2811-3	5.3060-3		7.6090-2	7.6090-2	6.1490-9
1.4058+0	8.7789+0	5.1795-2	2.6640+0	4.7572-3	2.6518+0	1.2308-3	6.4174-3		7.7424-2	7.7424-2	5.9074-9
1.4529+0	8.9221+0	5.0948-2	2.6203+0	4.4540-3	2.6085+0	1.1809-3	8.2587-3		7.9420-2	7.9420-2	5.5719-9
1.5000+0	9.0548+0	5.0144-2	2.5791+0	4.1789-3	2.5635+0	1.0970-3	1.0290-2		8.1413-2	8.1413-2	5.2653-9
1.5625+0	9.2489+0	4.9148-2	2.5277+0	3.8514-3	2.5098+0	1.0258-3	1.3284-2		8.4053-2	8.4053-2	4.9238-9
1.6172+0	9.4053+0	4.8329-2	2.4857+0	3.5854-3	2.4650+0	9.6941-4	1.8100-2		8.6363-2	8.6363-2	4.6529-9
1.7188+0	9.6847+0	4.6935-2	2.4140+0	3.1832-3	2.3881+0	8.7705-4	2.1888-2		9.0857-2	9.0857-2	4.2098-9
1.8923+0	1.0169+1	4.4688-2	2.2989+0	2.8284-3	2.2829+0	7.4882-4	3.2974-2		9.7253-2	9.7253-2	3.5941-9
2.0440+0	1.0563+1	4.3031-2	2.2132+0	2.2512-3	2.1668+0	6.6090-4	4.3580-2		1.0305-1	1.0305-1	3.1721-9
2.0858+0	1.0975+1	4.2582-2	2.1901+0	2.1819-3	2.1408+0	6.4180-4	4.8499-2	1.5082-7	1.0452-1	1.0452-1	3.0795-9
2.1278+0	1.0784+1	4.2148-2	2.1678+0	2.0772-3	2.1156+0	6.2311-4	4.9571-2	1.1485-6	1.0800-1	1.0800-1	2.9907-9</

October 31, 1989
Atomic Weight 30.974

ENDL Evaluated
Photon Data

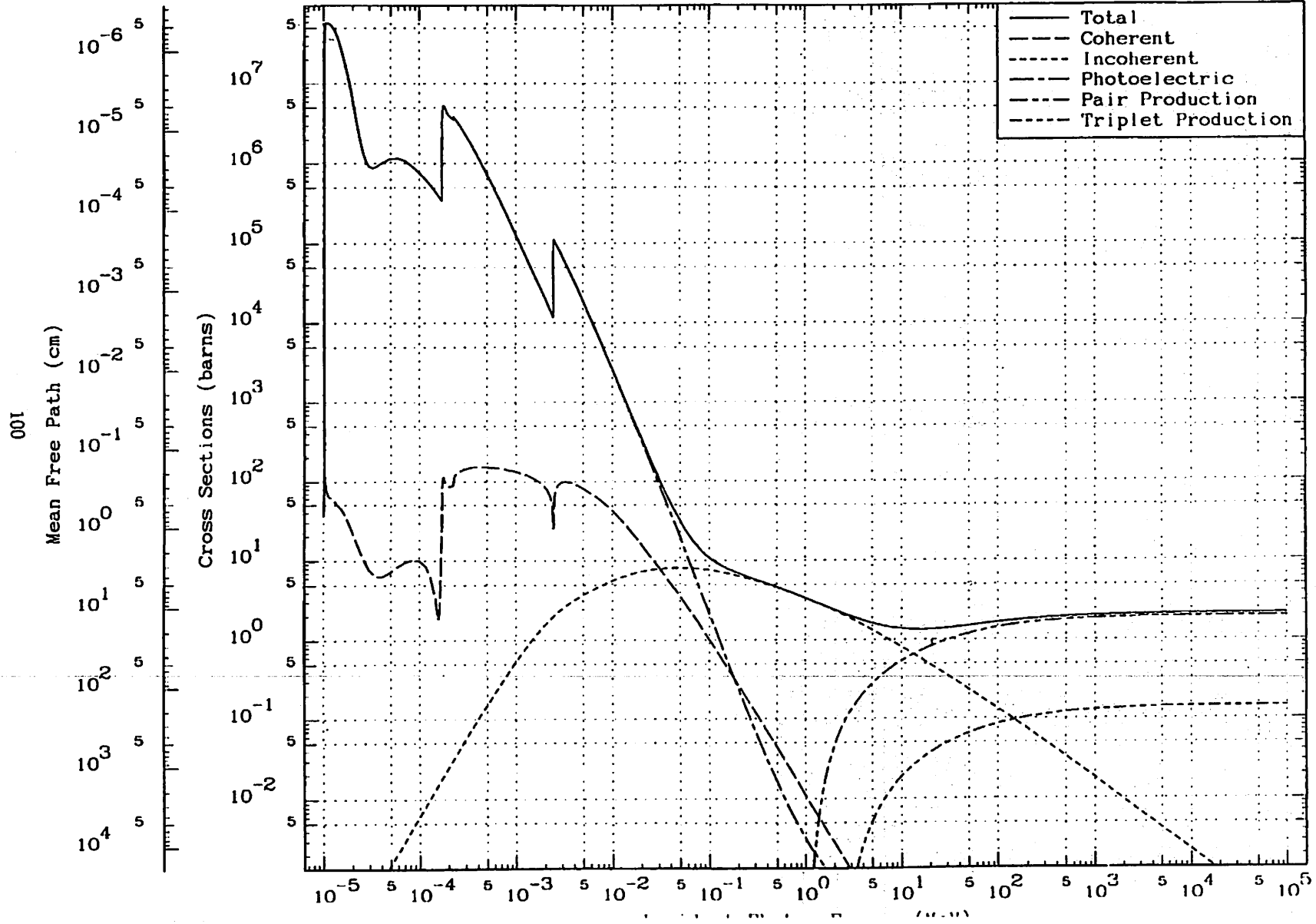
15-F
Density 2.200 Gracs/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cm)		
	cm	cm ² /grac	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.4102+ 0	1.1476+ 1	3.9609- 2	2.0372+ 0	1.8192- 3	1.9646+ 0	5.1925- 4	7.0472- 2	6.5626- 5	1.1602- 1	1.1602- 1	2.4922- 9
2.4468+ 0	1.1560+ 1	3.9319- 2	2.0223+ 0	1.5711- 3	1.9470+ 0	5.0792- 4	7.3094- 2	6.3482- 5	1.1732- 1	1.1732- 1	2.4379- 9
2.4859+ 0	1.1649+ 1	3.9019- 2	2.0089+ 0	1.5221- 3	1.9288+ 0	4.9627- 4	7.5958- 2	1.0511- 4	1.1872- 1	1.1872- 1	2.3819- 9
2.5564+ 0	1.1805+ 1	3.8503- 2	1.9803+ 0	1.4393- 3	1.8970+ 0	4.7636- 4	8.1287- 2	1.5062- 4	1.2127- 1	1.2127- 1	2.2894- 9
2.6604+ 0	1.2026+ 1	3.7795- 2	1.9439+ 0	1.3290- 3	1.8526+ 0	4.4938- 4	8.9377- 2	2.3218- 4	1.2506- 1	1.2506- 1	2.1568- 9
2.7453+ 0	1.2204+ 1	3.7246- 2	1.9157+ 0	1.2481- 3	1.8183+ 0	4.2917- 4	9.5401- 2	3.1077- 4	1.2813- 1	1.2813- 1	2.0599- 9
2.8090+ 0	1.2333+ 1	3.6857- 2	1.8957+ 0	1.1822- 3	1.7937+ 0	4.1500- 4	1.0006- 1	3.7635- 4	1.3045- 1	1.3045- 1	1.9919- 9
2.8045+ 0	1.2518+ 1	3.6311- 2	1.8678+ 0	1.1151- 3	1.7584+ 0	3.9518- 4	1.0725- 1	4.8483- 4	1.3388- 1	1.3388- 1	1.8887- 9
3.0399+ 0	1.2769+ 1	3.5597- 2	1.8309+ 0	1.0180- 3	1.7114+ 0	3.7030- 4	1.1745- 1	6.5713- 4	1.3804- 1	1.3804- 1	1.7773- 9
3.2344+ 0	1.3154+ 1	3.4557- 2	1.7774+ 0	8.9925- 4	1.6439+ 0	3.4085- 4	1.3127- 1	9.4866- 4	1.4549- 1	1.4549- 1	1.6360- 9
3.4375+ 0	1.3521+ 1	3.3618- 2	1.7291+ 0	7.9614- 4	1.5803+ 0	3.1421- 4	1.4642- 1	1.2997- 3	1.5247- 1	1.5247- 1	1.5081- 9
3.7847+ 0	1.4104+ 1	3.2227- 2	1.6576+ 0	6.5678- 4	1.4847+ 0	2.7629- 4	1.6997- 1	1.9944- 3	1.6442- 1	1.6442- 1	1.3261- 9
4.0000+ 0	1.4424+ 1	3.1513- 2	1.6208+ 0	5.8799- 4	1.4323+ 0	2.5660- 4	1.8520- 1	2.4710- 3	1.7217- 1	1.7217- 1	1.2318- 9
4.2500+ 0	1.4781+ 1	3.0752- 2	1.5817+ 0	5.2066- 4	1.3771+ 0	2.3763- 4	2.0076- 1	3.0539- 3	1.8104- 1	1.8104- 1	1.1405- 9
4.7500+ 0	1.5391+ 1	2.9532- 2	1.5190+ 0	4.1699- 4	1.2813+ 0	2.0639- 4	2.3280- 1	4.2739- 3	1.9999- 1	1.9999- 1	9.9060-10
5.5135+ 0	1.6163+ 1	2.8122- 2	1.4484+ 0	3.0949- 4	1.1632+ 0	1.7170- 4	2.7646- 1	6.2681- 3	2.2896- 1	2.2896- 1	8.2410-10
6.3640+ 0	1.6914+ 1	2.6874- 2	1.3822+ 0	2.3231- 4	1.0513+ 0	1.4444- 4	3.2204- 1	8.4828- 3	2.6088- 1	2.6088- 1	6.8329-10
7.4833+ 0	1.7643+ 1	2.5763- 2	1.3251+ 0	1.6801- 4	9.3786- 1	1.1934- 4	3.7553- 1	1.1398- 2	3.0516- 1	3.0516- 1	5.7279-10
9.0000+ 0	1.8289+ 1	2.4853- 2	1.2783+ 0	1.1818- 4	8.2346- 1	9.6490- 5	4.3940- 1	1.5200- 2	3.6915- 1	3.6915- 1	4.6312-10
1.0000+ 1	1.8578+ 1	2.4469- 2	1.2585+ 0	9.4086- 5	7.6452- 1	8.5650- 5	4.7630- 1	1.7530- 2	4.1321- 1	4.1321- 1	4.1110-10
1.3000+ 1	1.9148+ 1	2.3739- 2	1.2210+ 0	5.5673- 5	6.2805- 1	6.4010- 5	5.6900- 1	2.3810- 2	5.4820- 1	5.4820- 1	3.0723-10
1.8000+ 1	1.9315+ 1	2.3533- 2	1.2104+ 0	2.9039- 5	4.9187- 1	4.4990- 5	6.8610- 1	3.2340- 2	7.8466- 1	7.8466- 1	2.1594-10
2.6000+ 1	1.9022+ 1	2.3896- 2	1.2290+ 0	1.3918- 5	3.6777- 1	3.0470- 5	8.1860- 1	4.2620- 2	1.2221+ 0	1.2221+ 0	1.4625-10
4.2170+ 1	1.8050+ 1	2.5183- 2	1.2852+ 0	5.2909- 6	2.5090- 1	1.8431- 5	9.8787- 1	5.6452- 2	2.1828+ 0	2.1828+ 0	8.8464-11
6.8282+ 1	1.6890+ 1	2.8929- 2	1.3850+ 0	1.9602- 6	1.6648- 1	1.1081- 5	1.1482+ 0	7.0375- 2	3.8422+ 0	3.8422+ 0	5.3184-11
1.0000+ 2	1.6021+ 1	2.8371- 2	1.4582+ 0	9.4087- 7	1.2293- 1	7.6310- 8	1.2560+ 0	8.0280- 2	6.0748+ 0	6.0748+ 0	3.6826-11
2.0000+ 2	1.4754+ 1	3.0809- 2	1.5948+ 0	2.3522- 7	6.7996- 2	3.7900- 6	1.4200+ 0	9.6620- 2	1.3391+ 1	1.3391+ 1	1.8191-11
4.0000+ 2	1.3874+ 1	3.2763- 2	1.8851+ 0	5.8805- 8	3.7412- 2	1.8890- 6	1.5380+ 0	1.0970- 1	2.8650+ 1	2.8650+ 1	8.0666-12
1.0000+ 3	1.3197+ 1	3.4442- 2	1.7715+ 0	9.4087- 9	1.6756- 2	7.5380- 7	1.8330+ 0	1.2170- 1	7.5587+ 1	7.5587+ 1	3.6185-12
4.0000+ 3	1.2748+ 1	3.5657- 2	1.8339+ 0	5.8804-10	4.8413- 3	1.8830- 7	1.6880+ 0	1.3110- 1	3.1359+ 2	3.1359+ 2	9.0379-13
1.0000+ 4	1.2631+ 1	3.5987- 2	1.8509+ 0	9.4087-11	2.1167- 3	7.5300- 8	1.7150+ 0	1.3380- 1	7.8152+ 2	7.8152+ 2	3.6142-13
1.0000+ 5	1.2541+ 1	3.6244- 2	1.8642+ 0	9.4090-13	2.5567- 4	7.5290- 9	1.7280+ 0	1.3590- 1	7.9735+ 3	7.9735+ 3	3.6137-14

October 31, 1989
Atomic Weight 32.064

ENDL Evaluated
Photon Cross Sections

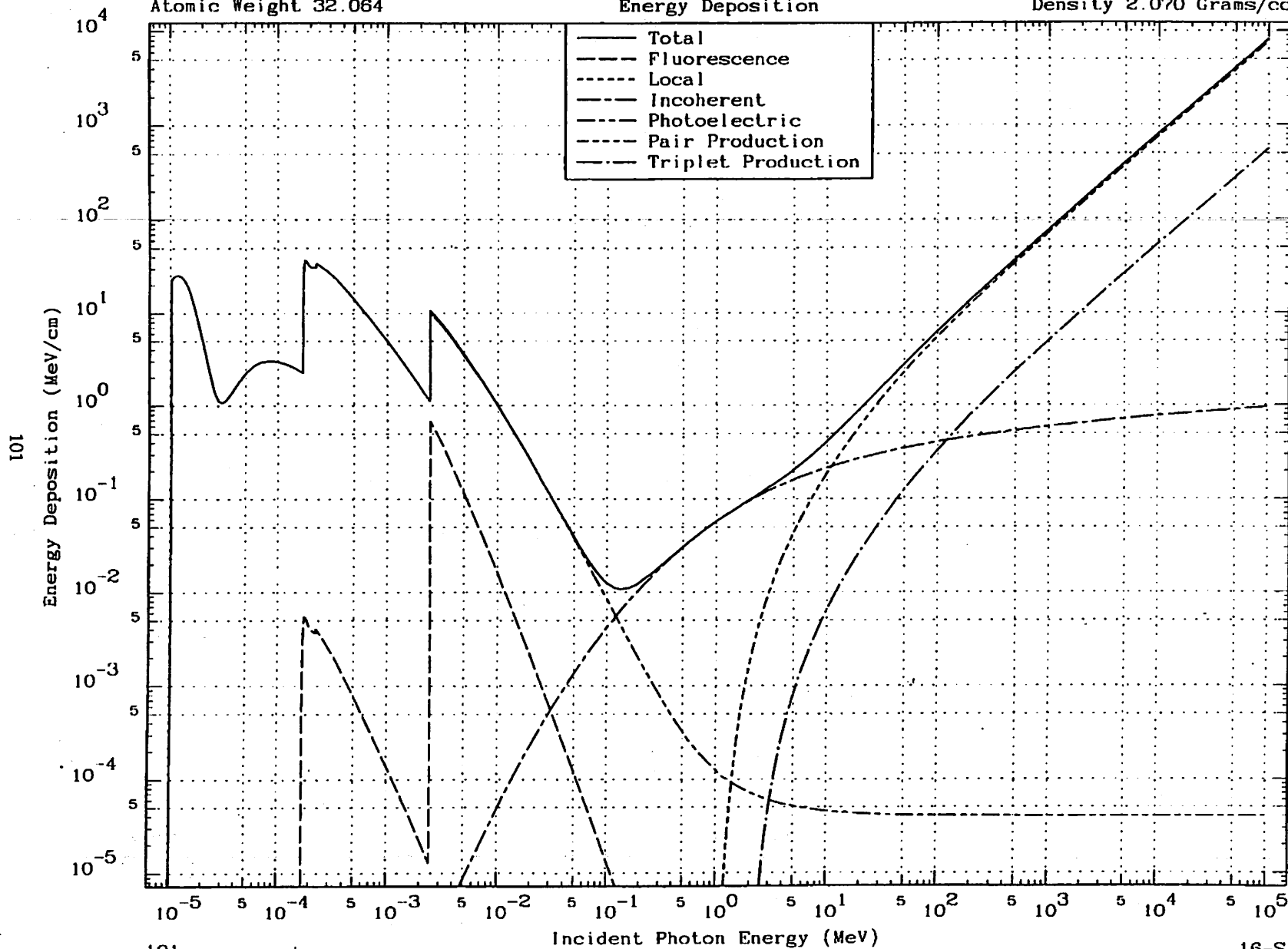
16-S
Density 2.070 Grams/cc

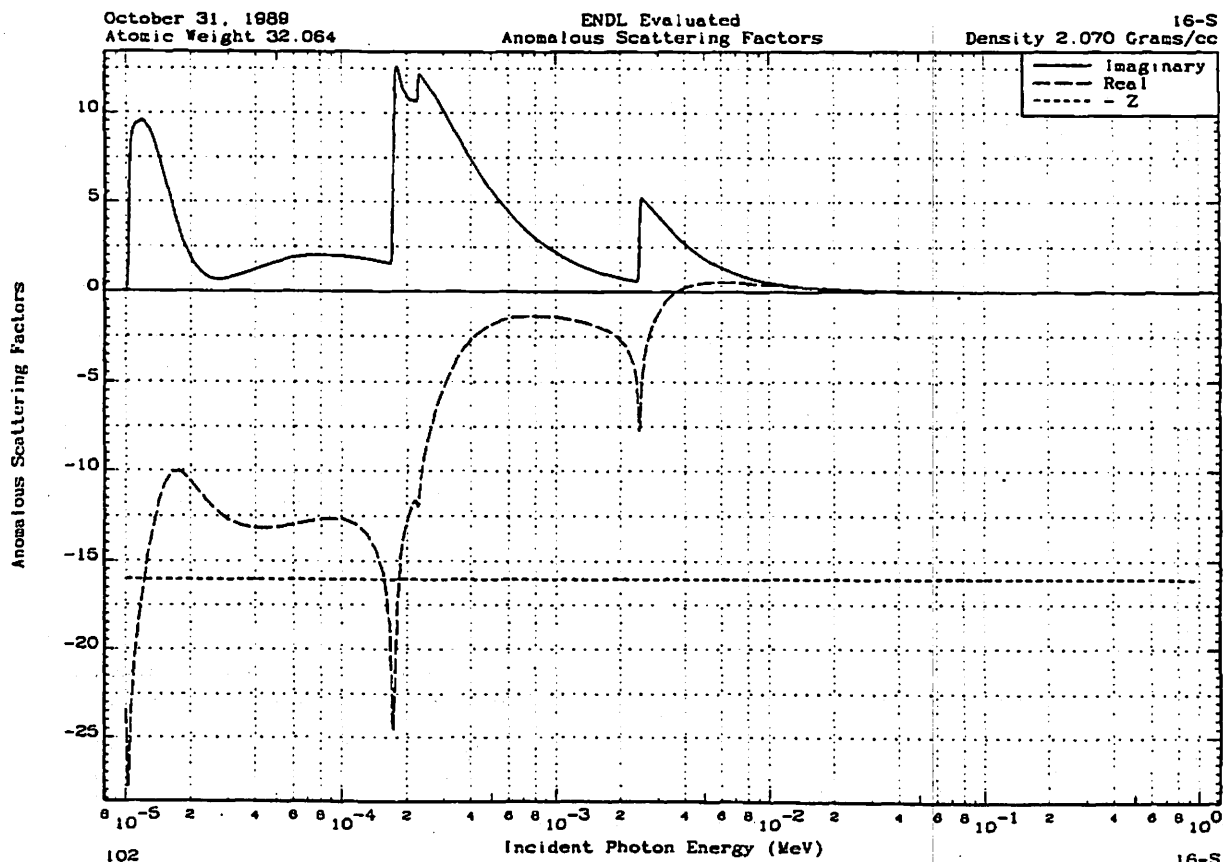
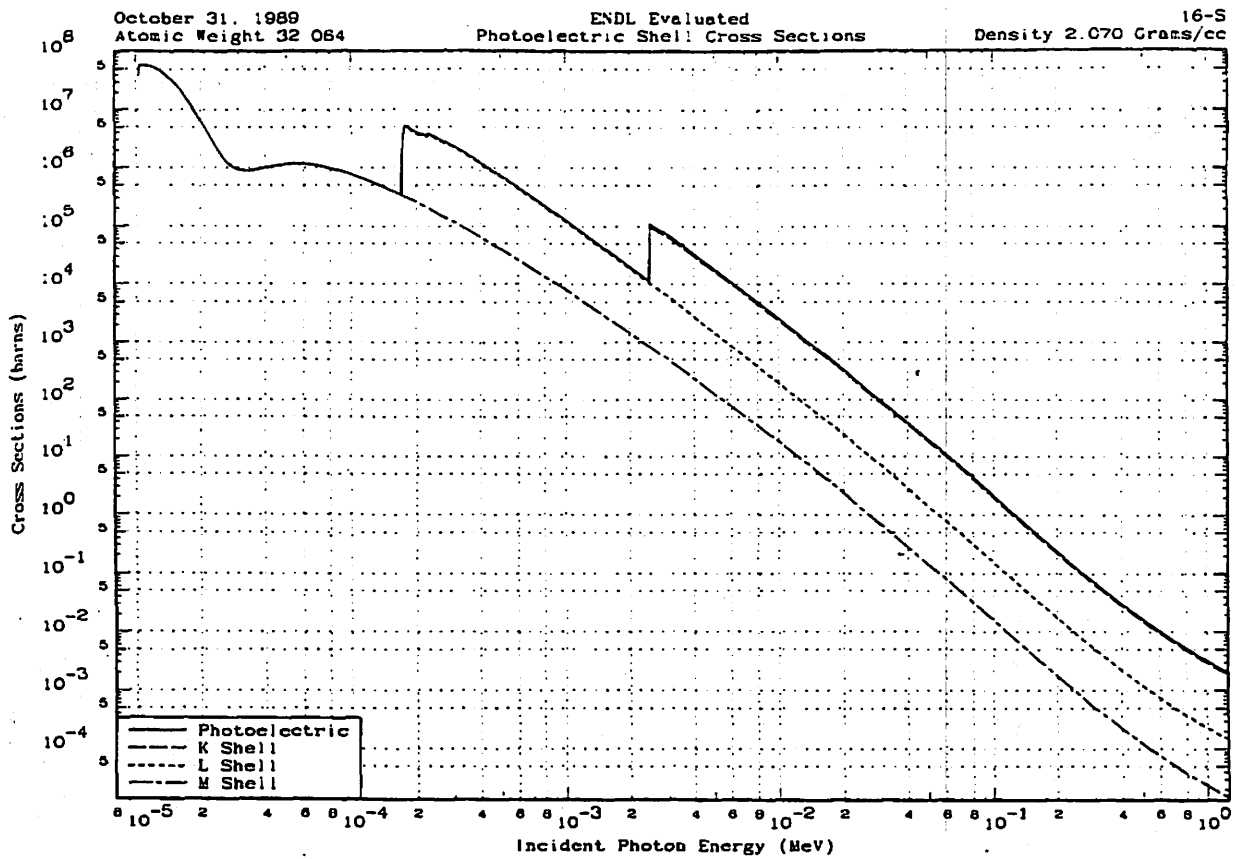


October 31, 1989
Atomic Weight 32.064

ENDL Evaluated
Energy Deposition

16-S
Density 2.070 Grams/cc

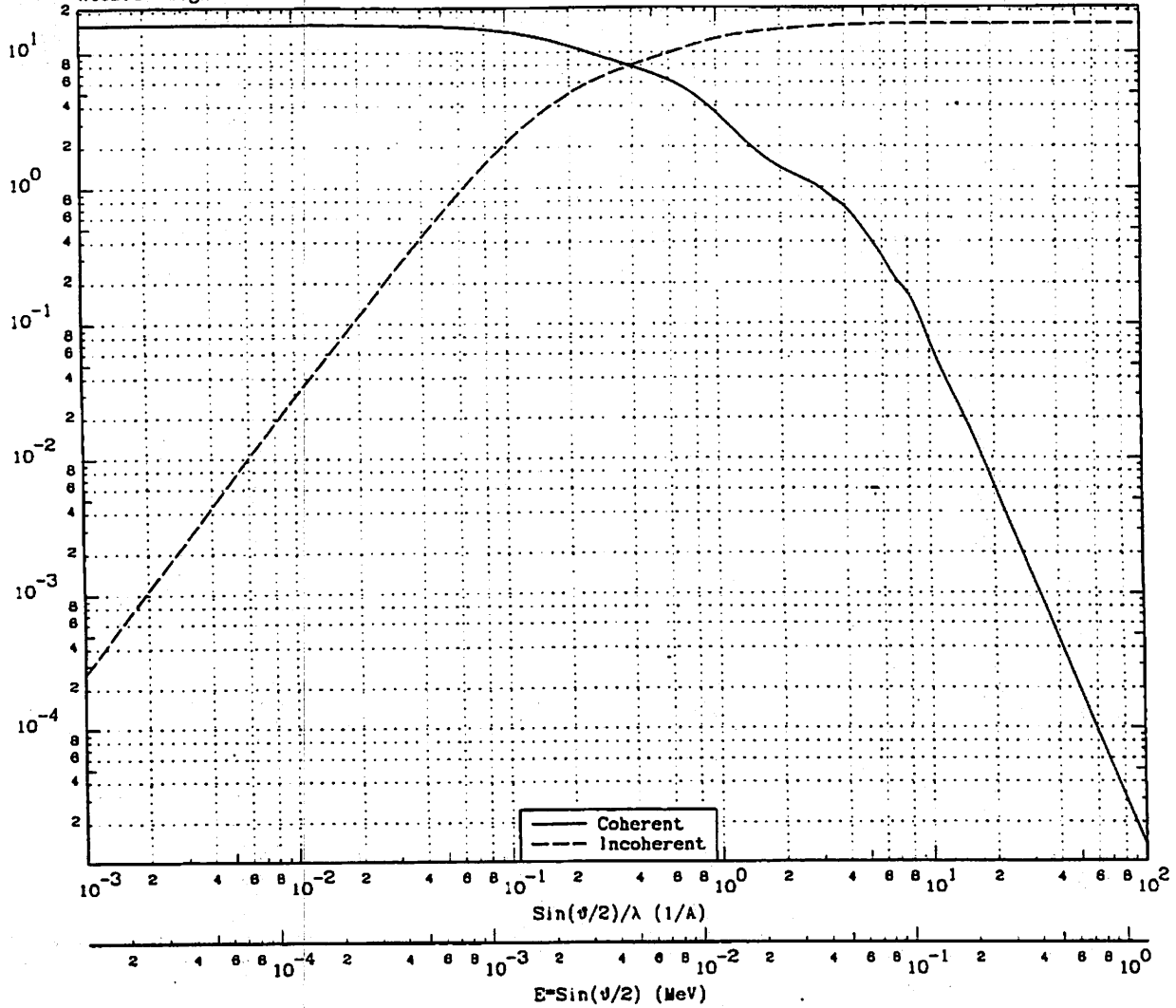




October 31, 1989
Atomic Weight 32.064

ENDL Evaluated
Form Factors

16-S
Density 2.070 Grams/cc



$\text{Sin}(\theta/2)/\lambda$	$E \cdot \text{Sin}(\theta/2)$	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$	$E \cdot \text{Sin}(\theta/2)$	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$	$E \cdot \text{Sin}(\theta/2)$	Coherent	Incoherent
0.000+0	0.000+0	1.600+1	0.000+0	7.000-1	6.679-3	5.488+0	1.062+1	1.500+1	1.859-1	1.825-2	1.600+1
1.000-3	1.239-5	1.600+1	2.580-4	8.000-1	8.818-3	4.775+0	1.133+1	1.784+1	2.212-1	9.787-3	1.600+1
5.000-3	6.199-5	1.599+1	7.000-3	9.000-1	1.115-2	4.126+0	1.195+1	2.000+1	2.479-1	6.371-3	1.600+1
1.000-2	1.239-4	1.597+1	2.900-2	1.000+0	1.239-2	3.558+0	1.247+1	5.000+1	6.199-1	1.933-4	1.600+1
1.500-2	1.859-4	1.595+1	6.460-2	1.200+0	1.549-2	2.520+0	1.341+1	8.000+1	9.918-1	3.185-5	1.600+1
2.000-2	2.479-4	1.591+1	1.142-1	1.500+0	1.859-2	1.928+0	1.399+1	1.000+2	1.239+0	1.362-5	1.600+1
2.500-2	3.099-4	1.586+1	1.770-1	1.753+0	2.174-2	1.597+0	1.437+1	1.711+2	2.122+0	1.835-6	1.600+1
3.000-2	3.719-4	1.580+1	2.526-1	2.000+0	2.479-2	1.404+0	1.464+1	3.201+2	3.969+0	1.913-7	1.600+1
4.000-2	4.959-4	1.565+1	4.358-1	2.500+0	3.099-2	1.178+0	1.505+1	5.120+2	6.348+0	3.681-8	1.600+1
5.000-2	6.199-4	1.548+1	6.660-1	3.000+0	3.719-2	1.010+0	1.535+1	1.000+3	1.239+1	3.946-9	1.600+1
7.000-2	8.679-4	1.502+1	1.212+0	3.500+0	4.339-2	8.433-1	1.558+1	2.019+3	2.504+1	3.661-10	1.600+1
9.000-2	1.115-3	1.447+1	1.831+0	4.000+0	4.959-2	7.181-1	1.571+1	3.894+3	4.828+1	4.428-11	1.600+1
1.000-1	1.239-3	1.417+1	2.151+0	4.569+0	5.665-2	5.855-1	1.582+1	8.967+3	1.111+2	3.253-12	1.600+1
1.250-1	1.548-3	1.337+1	2.837+0	5.000+0	6.199-2	4.678-1	1.588+1	1.401+4	1.737+2	8.276-13	1.600+1
1.500-1	1.859-3	1.257+1	3.680+0	6.000+0	7.439-2	3.098-1	1.594+1	2.736+4	3.393+2	1.094-13	1.600+1
1.750-1	2.169-3	1.180+1	4.354+0	6.906+0	8.582-2	2.157-1	1.597+1	6.728+4	8.342+2	7.563-15	1.600+1
2.000-1	2.479-3	1.109+1	4.960+0	7.000+0	8.679-2	2.098-1	1.597+1	1.000+6	1.239+4	2.851-18	1.600+1
2.500-1	3.099-3	9.816+0	5.983+0	8.000+0	9.918-2	1.641-1	1.598+1	5.623+6	6.972+4	1.759-20	1.600+1
3.000-1	3.719-3	9.028+0	6.795+0	8.455+0	1.048-1	1.393-1	1.599+1	5.424+7	6.725+5	2.029-23	1.600+1
4.000-1	4.959-3	7.847+0	8.102+0	9.172+0	1.137-1	1.031-1	1.599+1	1.000+9	1.239+7	3.132-27	1.600+1
5.000-1	6.199-3	7.011+0	8.960+0	1.000+1	1.239-1	7.260-2	1.599+1				
6.000-1	7.439-3	6.241+0	9.829+0	1.139+1	1.412-1	4.491-2	1.599+1				

October 31, 1989
Atomic Weight 32.064

ENDL Evaluated
Photon Data

16-S
Density 2.070 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	7.0630-1	6.8397-1	3.6417+1	3.8417+1	5.5847-5				5.9495-16	5.9495-16	
1.0072-5	5.4593-1	8.8490-1	4.7115+1	4.7115+1	5.6659-5				6.1231-16	6.1231-16	
1.0208-5	2.9825-1	1.8198+0	8.6242-1	8.6242-1	5.8213-5				6.4625-16	6.4625-16	
1.0250-5	2.8177-1	1.8455+0	9.8259-1	9.8259-1	5.8700-5				6.5708-16	6.5708-16	
M3 1.0250-5	8.8623-7	7.2511+5	3.8608-7	9.8259+1	5.8700-5	3.8607-7			1.5385-1	1.5385-1	
1.0275-5	6.6598-7	7.2539+5	3.8622-7	1.0473+2	5.8990-5	3.8622-7			1.5429-1	1.5429-1	
1.0328-5	6.6545-7	7.2597+5	3.8653-7	1.1216+2	5.9601-5	3.8653-7			1.5520-1	1.5520-1	
1.0340-5	6.6532-7	7.2610+5	3.8680-7	1.1218+2	5.9744-5	3.8680-7			1.5541+1	1.5541+1	
M2 1.0340-5	4.4508-7	1.0854+8	5.7791+7	1.1218+2	5.9744-5	5.7791+7			2.3232+1	2.3232+1	
1.0371-5	4.4483-7	1.0860+8	5.7823+7	1.1215+2	6.0101-5	5.7823+7			2.3314+1	2.3314+1	
1.0449-5	4.4421-7	1.0875+8	5.7904+7	1.0347+2	6.1023-5	5.7904+7			2.3523+1	2.3523+1	
1.0521-5	4.4384-7	1.0889+8	5.7978+7	9.3436+1	6.1874-5	5.7978+7			2.3715+1	2.3715+1	
1.0689-5	4.4234-7	1.0921+8	5.8149+7	8.0063+1	6.3879-5	5.8149+7			2.4184+1	2.4184+1	
1.1025-5	4.3980-7	1.0984+8	5.8485+7	7.0228+1	6.7993-5	5.8485+7			2.5067+1	2.5067+1	
1.1245-5	4.4581-7	1.0836+8	5.7897+7	6.5885+1	7.0765-5	5.7897+7			2.5224+1	2.5224+1	
1.1907-5	4.6381-7	1.0420+8	5.5480+7	6.1700+1	7.9418-5	5.5480+7			2.5682+1	2.5682+1	
1.2891-5	5.2833-7	9.1437+8	4.8684+7	5.7273+1	9.3215-5	4.8684+7			2.4398+1	2.4398+1	
1.3677-5	6.1401-7	7.6678+8	4.1891+7	5.1806+1	1.0504-4	4.1891+7			2.2274+1	2.2274+1	
1.4521-5	7.4488-7	6.4874+8	3.4541+7	4.8188+1	1.1853-4	3.4541+7			1.9500+1	1.9500+1	
1.5121-5	8.7435-7	5.5252+8	2.9418+7	4.5895+1	1.2983-4	2.9418+7			1.7294+1	1.7294+1	
1.8275-5	1.2247-6	3.9447+8	2.1003+7	3.9718+1	1.4921-4	2.1003+7			1.3290+1	1.3290+1	
1.7783-5	1.9847-6	2.4589+8	1.3092+7	3.1405+1	1.7841-4	1.3092+7			9.0511+0	9.0511+0	
2.0000-5	3.9942-6	1.2095+8	6.4397+8	2.2228+1	2.2703-4	6.4397+8			5.0072+0	5.0072+0	
2.0950-5	5.3974-6	8.9504+8	4.7855+8	1.9312+1	2.4970-4	4.7855+8			3.8815+0	3.8815+0	
M1 2.0950-5	5.3460-6	9.0365+8	4.8114+8	1.9312+1	2.4970-4	4.8114+8			3.9188+0	3.9188+0	
2.3735-5	1.1660-5	4.1432+8	2.2060+8	1.3418+1	3.2255-4	2.2060+8			2.0356+0	2.0356+0	
2.5314-5	1.6862-5	2.8650+8	1.5254+8	1.1178+1	3.6811-4	1.5254+8			1.5012+0	1.5012+0	
2.6887-5	2.6883-5	2.3133+8	1.2317+8	9.8743+0	4.0709-4	1.2317+8			1.2731+0	1.2731+0	
2.8149-5	2.5090-5	1.9254+8	1.0252+8	6.6308+0	4.5766-4	1.0252+8			1.1219+0	1.1219+0	
3.0000-5	2.7878-5	1.7330+8	9.2271+8	5.7533+0	5.2152-4	9.2271+8			1.0762+0	1.0762+0	
3.1757-5	2.8739-5	1.6810+8	8.9500+8	7.1451+0	5.8910-4	8.9499+8			1.1050+0	1.1050+0	
3.2988-5	2.8924-5	1.8702+8	8.8928+8	6.8723+0	6.3367-4	8.8928+8			1.1405+0	1.1405+0	
3.5339-5	2.6158-5	1.7157+8	9.1349+8	6.4052+0	7.2975-4	9.1348+8			1.2550+0	1.2550+0	
4.0488-5	2.5228-5	1.8149+8	1.0198+8	6.3420+0	9.8447-4	1.0198+8			1.6048+0	1.6048+0	
4.8955-5	2.2341-5	2.1823+8	1.1513+8	7.1478+0	1.4240-3	1.1513+8			2.1912+0	2.1912+0	
8.0000-5	2.1897-5	2.1862+8	1.1893+8	8.5105+0	2.1814-3	1.1893+8			2.7277+0	2.7277+0	
7.0000-5	2.3543-5	2.0519+8	1.0825+8	9.4858+0	2.9852-3	1.0825+8			2.9732+0	2.9732+0	
6.4518-5	2.7870-5	1.7459+8	9.2958+8	1.0181+1	4.3847-3	9.2957+8			3.0545+0	3.0545+0	
1.0000-4	3.3411-5	1.4459+8	7.6888+8	9.9675+0	6.1828-3	7.6985+8			2.9930+0	2.9930+0	
1.1852-4	4.1049-5	1.1769+8	6.2881+8	8.4597+0	6.4149-3	6.2880+8			2.8385+0	2.8385+0	
1.3003-4	4.8074-5	1.0049+8	5.3504+8	6.3370+0	1.0522-2	5.3504+8			2.7047+0	2.7047+0	
1.4502-4	5.8998-5	8.4759+8	4.5129+8	3.4875+0	1.3082-2	4.5129+8			2.5444+0	2.5444+0	
1.5542-4	8.3998-5	7.5488+8	4.0181+8	1.8405+0	1.5007-2	4.0181+8			2.4285+0	2.4285+0	
1.6062-4	8.7805-5	7.1247+8	3.7835+8	2.2308+0	1.6018-2	3.7834+8			2.3689+0	2.3689+0	
1.6583-4	7.1564-5	8.7505+8	3.5942+8	5.9350+0	1.7024-2	3.5941+8			2.3144+0	2.3144+0	
1.8789-4	7.3127-5	6.6082+8	3.5174+8	1.1023+1	1.7445-2	3.5173+8			2.2930+0	2.2930+0	
1.8838-4	7.3891-5	6.5583+8	3.4919+8	1.4327+1	1.7589-2	3.4917+8			2.2858+0	2.2858+0	
1.8930-4	7.4383-5	6.4964+8	3.4589+8	5.2128+1	1.7779-2	3.4587+8			2.2765+0	2.2765+0	
1.7073-4	7.5489-5	6.4012+8	3.4082+8	4.0726+1	1.8079-2	3.4078+8			2.2820+0	2.2820+0	
1.7140-4	7.5988-5	6.3577+8	3.3851+8	5.2657+1	1.8218-2	3.3845+8			2.2553+0	2.2553+0	
L3 1.7140-4	1.4824-5	3.2589+8	1.7351+8	5.2857+1	1.8218-2	1.7351+8			1.1562+1	1.1561+1	1.5147-3
1.7247-4	1.1721-5	4.1216+8	2.1945+8	6.7348+1	1.8446-2	2.1944+8			1.4714+1	1.4712+1	2.0135-3
1.7273-4	1.1085-5	4.3579+8	2.3203+8	6.7899+1	1.8500-2	2.3202+8			1.5581+1	1.5579+1	2.1543-3
L2 1.7273-4	8.1825-6	5.8968+8	3.1397+8	6.7899+1	1.8500-2	3.1398+8			2.1084+1	2.1080+1	3.0429-3
1.7327-4	7.3035-6	6.8145+8	3.5218+8	6.7990+1	1.8614-2	3.5217+8			2.3723+1	2.3719+1	3.4578-3
1.7428-4	6.0282-6	8.0185+8	4.2883+8	1.0101+2	1.8830-2	4.2882+8			2.8919+1	2.8915+1	4.2725-3
1.7524-4	5.3111-6	9.0960+8	4.8430+8	1.0890+2	1.9037-2	4.8429+8			3.2994+1	3.2989+1	4.8992-3
1.7874-4	4.8291-6	1.0004+8	5.3284+8	1.1400+2	1.8381-2	5.3283+8			3.6597+1	3.6582+1	5.4287-3
1.7785-4	4.7842-6	1.0098+8	5.3763+8	1.1315+2	1.9602-2	5.3762+8			3.7172+1	3.7187+1	5.4886-3
1.8338-4	5.0156-6	9.8319+8	5.1283+8	1.0188+2	2.0828-2	5.1282+8			3.6558+1	3.6553+1	5.2357-3
1.8238-4	5.8432-6	8.2678+8	4.4020+8	8.9209+1	2.2904-2	4.4019+8			3.2923+1	3.2918+1	4.4742-3
2.0302-4	8.4820-6	7.4528+8	3.9682+8	6.5879+1	2.5485-2	3.9681+8			3.1321+1	3.1317+1	4.0312-3
2.2165-4	7.1312-6	6.7744+8	3.6069+8	8.7791+1	3.0329-2	3.6069+8			3.1082+1	3.1078+1	3.6806-3
2.2372-4	7.2036-6	6.7082+8	3.5706+8	8.8974+1	3.0892-2	3.5705+8			3.1056+1	3.1053+1	3.6452-3
2.2597-4	7.2934-6	6.6237+8	3.5287+8	8.8244+1	3.1510-2	3.5286+8			3.0982+1	3.0978+1	3.6018-3
L1 2.2597-4	6.6046-6	7.3145+8	3.8945+8	9.8244+1	3.1510-2	3.8944+8			3.4213+1	3.4209+1	4.0685-3
2.2842-4	8.7273-6	7.1811+8	3.8235+8	1.1117+2	3.2180-2	3.8234+8			3.3953+1	3.3949+1	3.8936-3
2.3048-4	8.8321-6	7.0709+8	3.7848+8	1.1848+2	3.2772-2	3.7847+8			3.3735+1	3.3731+1	3.8333-3
2.4284-4	7.4587-6	6.4787+8	3.4485+8	1.2552+2	3.8286-2	3.4484+8			3.2539+1	3.2535+1	3.6102-3
2.8337-4	9.8528-6	4.9031+8	2.6108+8	1.4083+2	4.9352-2	2.6105+8			2.8759+1	2.8757+1	2.7458-3
3.4508-4	1.4805-5	3.2930+8	1.7373+8	1.5023+2	7.2927-2	1.7372+8			2.3306+1	2.3304+1	1.8358-3
4.7971-4	3.1807-5	1.5188+8	8.0888+8	1.5207+2	1.3805-1	8.0881+8			1.5079+1	1.5078+1	8.5898-4
8.8592-4	7.6392-5	6.3239+8	3.3871+8	1.4539+2	2.7208-1	3.3859+8			8.9751+0	8.9748+0	3.5988-4
1.0000-3	2.0007-4	2.4147+3	1.2857+5	1.3251+2	5.3898-1	1.2843+5			4.9932+0	4.9930+0	1.3837-4
1.3980-3	4.8189-4	1.0029+3	5.3399+4	1.1538+2	9.3065-1	5.3292+4			2.8919+0	2.8918+0	5.7890-5
1.7520-3	8.8188-4	5.4781+2	2.9167+4	9.8520+1	1.2897+0	2.8087+4			1.9799+0	1.9798+0	3.1773-5
1.8448-3	1.1714-3	4.1242+2	2.1859+4	6.8249+1	1.4892+0	2.1894+4			1.8536+0	1.8536+0	2.3858-5
2.1228-3	1.4886-3	3.2497+2	1.7303+4	7.6898+1	1.6728+0	1.7224+4			1.4214+0	1.4214+0	1.8905-5
2.2402-3	1.7223-3	2.6048+2	1.4934+4	6.7000+1	1.7897+0	1.4885+4			1.2948+0	1.2948+0	1.8337-5
2.2988-3	1.8489-3	2.8129+2	1.3912+4	6.0486+1	1.8489+0	1.3850+4			1.2378+0	1.2378+0	1.5230-5
2.3830-3	1.9940-3	2.4227+2	1.2900+4	5.0548+1	1.9109+0	1.2847+4			1.1802+0	1.1802+0	1.4137-5
2.3880-3	2.0529-3	2.3532+2	1.2529+4	4.4807+1	1.8333+0	1.2483+4			1.1589+0	1.1589+0	1.3739-5
2.4067-3	2.0960-3	2.3026+2	1.2260+4	3.8748+1	1.9501+0	1.2219+4			1.1433+0	1.1433+0	1.3451-5
2.4223-3	2.1363-3	2.2613+2	1.2040+4	3.2048+1	1.9641+0	1.2008+4			1.1306+0	1.1306+0	1.3219-5
2.4358-3	2.1700-3	2.2262+2	1.1853+4	2.6535+1	1.9783+0	1.1825+4			1.1198+0	1.1198+0	1.3021-5
2.4405-3	2.1817-3	2.2143+2	1.1790+4	2.5366+1	1.9806+0	1.1782+4			1.1160+0	1.1160+0	1.2953-5

October 31, 1989
Atomic Weight 32.064

ENDL Evaluated
Photon Data

16-S
Density 2.070 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cm)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.4458-3	2.1947-3	2.2011+2	1.1720+4	2.4862+4	1.9853+0	1.1693+4			1.1118+0	1.1118+0	1.2877-5
2.4559-3	2.2191-3	2.1770+2	1.1591+4	2.6895+4	1.9944+0	1.1562+4			1.1039+0	1.1039+0	1.2734-5
K 2.4559-3	2.3025-4	2.0982+3	1.1171+5	2.8895+4	1.9944+0	1.1168+5			1.0664+1	9.8828+0	6.8089-1
2.4688-3	2.3258-4	2.0771+3	1.1059+5	3.2801+4	2.0043+0	1.1056+5			1.0603+1	9.9289+0	6.7417-1
2.4748-3	2.3428-4	2.0621+3	1.0979+5	3.6838+4	2.0115+0	1.0975+5			1.0559+1	9.9014+0	6.6935-1
2.4863-3	2.3674-4	2.0406+3	1.0865+5	4.7441+4	2.0218+0	1.0860+5			1.0497+1	9.8347+0	6.6249-1
2.5008-3	2.3989-4	2.0138+3	1.0722+5	5.8328+4	2.0349+0	1.0716+5			1.0419+1	9.7851+0	6.5391-1
2.5147-3	2.4292-4	1.9887+3	1.0588+5	6.1708+4	2.0475+0	1.0582+5			1.0345+1	9.6994+0	6.4588-1
2.5408-3	2.4867-4	1.9427+3	1.0344+5	6.8204+4	2.0710+0	1.0338+5			1.0210+1	9.5768+0	6.3121-1
2.584-3	2.5893-4	1.8657+3	9.9337+4	7.5763+4	2.1123+0	9.9259+4			9.8902+0	9.3735+0	6.0686-1
2.6752-3	2.7859-4	1.7278+3	9.1896+4	8.4742+4	2.1830+0	9.1809+4			9.5589+0	8.9983+0	5.8285-1
2.8054-3	3.1159-4	1.5504+3	8.2548+4	9.1769+4	2.3118+0	8.2454+4			8.8928+0	8.4668+0	5.0604-1
3.0000-3	3.8312-4	1.3304+3	7.0638+4	9.7033+4	2.4860+0	7.0738+4			8.2502+0	7.8145+0	4.3575-1
3.2697-3	4.4953-4	1.0747+3	5.7218+4	9.9532+4	2.6791+0	5.7116+4			7.2589+0	6.9061+0	3.5286-1
3.8463-3	6.8806-4	7.0211+2	3.7383+4	8.9254+4	3.0941+0	3.7284+4			5.5746+0	5.3438+0	2.3099-1
4.8423-3	1.3508-3	3.5764+2	1.9042+4	8.2154+4	3.7366+0	1.8956+4			3.8412+0	3.5235+0	1.1778-1
6.8282-3	3.4240-3	1.4109+2	7.5122+3	6.2353+4	4.8034+0	7.4452+3			2.0054+0	1.8580+0	4.8388-2
8.8738-3	7.1014-3	6.8028+1	3.6221+3	4.8112+4	5.3087+0	3.5686+3			1.2447+0	1.2225+0	2.2290-2
1.0000-2	9.8287-3	5.0172-1	2.6713+3	4.2510+4	5.8195+0	2.8232+3			1.0189+0	1.0035+0	1.8400-2
1.3335-2	2.2284-2	2.1679-1	1.1543+3	2.9209+4	6.3932+0	1.1187+3			5.6001-1	5.7302-1	6.8932-3
1.8812-2	5.8305-2	8.2856+0	4.4115+2	1.7768+4	7.1732+0	4.1821+2			3.0137-1	2.8978-1	2.6053-3
2.8429-2	1.8123-1	2.9982+0	1.5953+2	1.0235+4	7.7258+0	1.4157+2			1.4585-1	1.4497-1	8.8814-4
3.3970-2	3.2067-1	1.5065+0	8.0212-1	6.8297+0	7.8070+0	6.5402+1			8.7033-2	8.6824-2	4.0950-4
4.4832-2	6.4555-1	7.4834-1	3.8844+1	4.3091+0	8.1155+0	2.7420+1			4.8887-2	4.8725-2	1.7171-4
5.5797-2	1.0391+0	4.8492-1	2.4754+1	2.9544+0	8.0665+0	1.3730+1			3.1407-2	3.1321-2	8.5982-6
6.8413-2	1.4804+0	3.2413-1	1.7258+1	2.0502+0	7.9990+0	7.2088+0			2.1480-2	2.1435-2	4.5182-6
8.2139-2	1.9244+0	2.5000-1	1.3311+1	1.4858+0	7.8030+0	4.0424+0			1.5985-2	1.6980-2	2.5314-5
9.5598-2	2.2872+0	2.1122-1	1.1246+1	1.1058+0	7.8438+0	2.4981+0			1.3183-2	1.3187-2	1.5831-5
1.0000-1	2.3888+0	2.0242-1	1.0777+1	1.0188+0	7.5874+0	2.1833+0			1.2803-2	1.2580-2	1.3547-6
1.1654-1	2.7246+0	1.7731-1	9.4408+0	7.8241-1	7.3481+0	1.3301+0			1.1246-2	1.1237-2	8.3298-6
1.3344-1	2.8949+0	1.8131-1	8.5885+0	5.8916-1	7.1343+0	8.8501-1			1.0822-2	1.0817-2	5.1693-6
1.6046-1	3.3313+0	1.4502-1	7.7211+0	4.1366-1	6.8280+0	4.8147-1			1.1186-2	1.1183-2	3.0148-6
1.8729-1	3.6059+0	1.3387-1	7.1333+0	3.0684-1	6.5316+0	2.8484-1			1.2148-2	1.2146-2	1.8480-6
2.8471-1	4.2088+0	1.1475-1	6.1089+0	1.5615-1	5.8517+0	1.0208-1			1.6341-2	1.6340-2	6.3899-7
3.2786-1	4.6027+0	1.0486-1	5.5883+0	1.0239-1	5.4322+0	5.3711-2			2.0282-2	2.0281-2	3.3825-7
4.0323-1	5.0301+0	9.8039-2	5.1135+0	8.8015-2	5.0158+0	2.8550-2			2.4918-2	2.4916-2	1.8489-7
5.5415-1	5.7766+0	8.3829-2	4.4527+0	3.8160-2	4.4040+0	1.2587-2			3.4004-2	3.4004-2	7.8888-8
7.0857-1	6.4513+0	7.4883-2	3.8870+0	2.2158-2	3.9580+0	6.8878-3			4.2808-2	4.2808-2	4.3131-8
9.1973-1	7.2805+0	6.8284-2	3.5281+0	1.3188-2	3.5111+0	3.8815-3			5.3922-2	5.3922-2	2.4178-8
1.0000+0	7.5889+0	6.3849-2	3.3888+0	1.1140-2	3.3745+0	3.2358-3			5.7911-2	5.7911-2	2.0259-8
1.0220+0	7.6723+0	6.2966-2	3.3525+0	1.0668-2	3.3388+0	3.0570-3			5.8951-2	5.8951-2	1.8139-8
1.0351+0	7.8846+0	6.2885-2	3.3472+0	1.0602-2	3.3335+0	3.0371-3	1.0183-8		5.8087-2	5.8087-2	1.9015-8
1.0287+0	7.6989+0	6.2748-2	3.3409+0	1.0527-2	3.3274+0	3.0142-3	1.0183-7		5.8244-2	5.8244-2	1.8871-8
1.0366+0	7.7289+0	6.2486-2	3.3275+0	1.0368-2	3.3142+0	2.8653-3	1.0183-6		5.8588-2	5.8588-2	1.8585-8
1.0382+0	7.7361+0	6.2447-2	3.3249+0	1.0336-2	3.3118+0	2.8557-3	1.3715-8		5.8654-2	5.8654-2	1.8505-8
1.0397+0	7.7419+0	6.2399-2	3.3224+0	1.0307-2	3.3091+0	2.8468-3	1.7818-8		5.8719-2	5.8719-2	1.8448-8
1.0415+0	7.7490+0	6.2343-2	3.3183+0	1.0271-2	3.3081+0	2.8357-3	2.3707-8		5.8797-2	5.8797-2	1.8380-8
1.0438+0	7.7580+0	6.2270-2	3.3158+0	1.0226-2	3.3023+0	2.8218-3	3.2906-8		5.8896-2	5.8896-2	1.8293-8
1.0464+0	7.7682+0	6.2189-2	3.3112+0	1.0175-2	3.2981+0	2.8063-3	4.5783-8		6.0008-2	6.0008-2	1.8186-8
1.0483+0	7.7756+0	6.2129-2	3.3080+0	1.0139-2	3.2950+0	2.8951-3	5.7001-8		6.0090-2	6.0090-2	1.8126-8
1.0512+0	7.7859+0	6.2039-2	3.3032+0	1.0083-2	3.2902+0	2.8780-3	7.7320-8		6.0218-2	6.0218-2	1.8019-8
1.0541+0	7.7981+0	6.1950-2	3.2984+0	1.0028-2	3.2855+0	2.8612-3	1.0163-5		6.0340-2	6.0340-2	1.7913-8
1.0577+0	7.8122+0	6.1838-2	3.2925+0	9.9593-3	3.2797+0	2.8402-3	1.3852-5		6.0496-2	6.0496-2	1.7822-8
1.0611+0	7.8254+0	6.1734-2	3.2869+0	9.8958-3	3.2742+0	2.8208-3	1.8018-5		6.0642-2	6.0642-2	1.7880-8
1.0651+0	7.8409+0	6.1612-2	3.2804+0	9.8216-3	3.2678+0	2.8011-3	2.3854-5		6.0815-2	6.0815-2	1.7519-8
1.0704+0	7.8614+0	6.1451-2	3.2719+0	9.7247-3	3.2594+0	2.7888-3	3.3278-5		6.1042-2	6.1042-2	1.7333-8
1.0782+0	7.8838+0	6.1277-2	3.2628+0	9.6203-3	3.2502+0	2.7787-3	4.5990-5		6.1292-2	6.1292-2	1.7134-8
1.0808+0	7.9007+0	6.1146-2	3.2558+0	9.5422-3	3.2433+0	2.7129-3	5.7434-5		6.1480-2	6.1480-2	1.6895-8
1.0871+0	7.9256+0	6.0953-2	3.2454+0	9.4285-3	3.2332+0	2.6782-3	7.7384-5		6.1759-2	6.1759-2	1.6788-8
1.0937+0	7.9508+0	6.0780-2	3.2351+0	9.3151-3	3.2230+0	2.6437-3	1.0183-4		6.2042-2	6.2042-2	1.6552-8
1.1028+0	7.9847+0	6.0502-2	3.2214+0	9.1857-3	3.2095+0	2.5983-3	1.4091-4		6.2422-2	6.2422-2	1.6287-8
1.1107+0	8.0154+0	6.0271-2	3.2090+0	9.0388-3	3.1972+0	2.5578-3	1.8379-4		6.2787-2	6.2787-2	1.6014-8
1.1206+0	8.0527+0	5.9991-2	3.1941+0	8.8739-3	3.1825+0	2.5097-3	2.4588-4		6.3188-2	6.3188-2	1.5713-8
1.1333+0	8.1003+0	5.9639-2	3.1754+0	8.6784-3	3.1639+0	2.4528-3	3.4190-4		6.3728-2	6.3728-2	1.5356-8
1.1475+0	8.1532+0	5.9252-2	3.1548+0	8.4833-3	3.1435+0	2.4004-3	4.7213-4		6.4331-2	6.4331-2	1.5029-8
1.1582+0	8.1927+0	5.8966-2	3.1396+0	8.3078-3	3.1283+0	2.3623-3	5.8675-4		6.4784-2	6.4784-2	1.4790-8
1.1741+0	8.2511+0	5.8549-2	3.1174+0	8.0846-3	3.1062+0	2.3074-3	7.8410-4		6.5455-2	6.5455-2	1.4446-8
1.1901+0	8.3094+0	5.8138-2	3.0955+0	7.8888-3	3.0844+0	2.2541-3	1.0163-3		6.6129-2	6.6129-2	1.4112-8
1.2051+0	8.3634+0	5.7782-2	3.0755+0	7.7815-3	3.0643+0	2.2059-3	1.2844-3		6.6758-2	6.6758-2	1.3811-8
1.2275+0	8.4435+0	5.7215-2	3.0483+0	7.3973-3	3.0351+0	2.1388-3	1.6915-3		6.7898-2	6.7898-2	1.3379-8
1.2500+0	8.5230+0	5.6681-2	3.0178+0	7.1338-3	3.0065+0	2.0710-3	2.1680-3		6.8639-2	6.8639-2	1.2968-8
1.2813+0	8.6319+0	5.5968-2	2.9788+0	6.7898-3	2.9681+0	1.9822-3	2.9887-3		6.9942-2	6.9942-2	1.2410-8
1.3325+0	8.8063+0	5.4858-2	2.9208+0	6.2785-3	2.9081+0	1.8491-3	4.5651-3		7.2088-2	7.2088-2	1.1577-8
1.3744+0	8.9454+0	5.4004-2	2.8754+0	5.8018-3	2.8818+0	1.7504-3	6.0874-3		7.3798-2	7.3798-2	1.0959-8
1.4058+0	9.0478+0	5.3394-2	2.8429+0	5.8413-3	2.8282+0	1.6817-3	7.3567-3		7.5092-2	7.5092-2	1.0529-8
1.4529+0	9.1981+0	5.2521-2	2.7984+0	5.2818-3	2.7801+0	1.5862-3	9.4542-3		7.7030-2	7.7030-2	9.9311-9
1.5000+0	9.3448+0	5.1897-2	2.7525+0	4.8556-3	2.7243+0	1.4990-3	1.1770-2		7.8965-2	7.8965-2	9.3850-9
1.5625+0	9.5338+0	5.0671-2	2.6979+0	4.5873-3	2.6768+0	1.4014-3	1.5154-2		8.1532-2	8.1532-2	8.7738-9
1.6172+0	9.6944+0	4.9832-2	2.6532+0	4.2837-3	2.6303+0	1.3240-3	1.8385-2		8.3778-2	8.3778-2	8.2896-9
1.7188+0	9.9808+0	4.8402-2	2.5771+0	3.7748-3	2.5472+0	1.1874-3	2.4948-2		8.7955-2	8.7955-2	7.4970-9
1.8523+0	1.0477+1	4.8111-2	2.4551+0	3.1146-3	2.4134+0	1.0218-3	3.7615-2		9.4389-2	9.4389-2	6.3971-9
2.0440+0	1.0878+1	4.4409-2	2.3845+0	2.6887-3	2.3112+0						

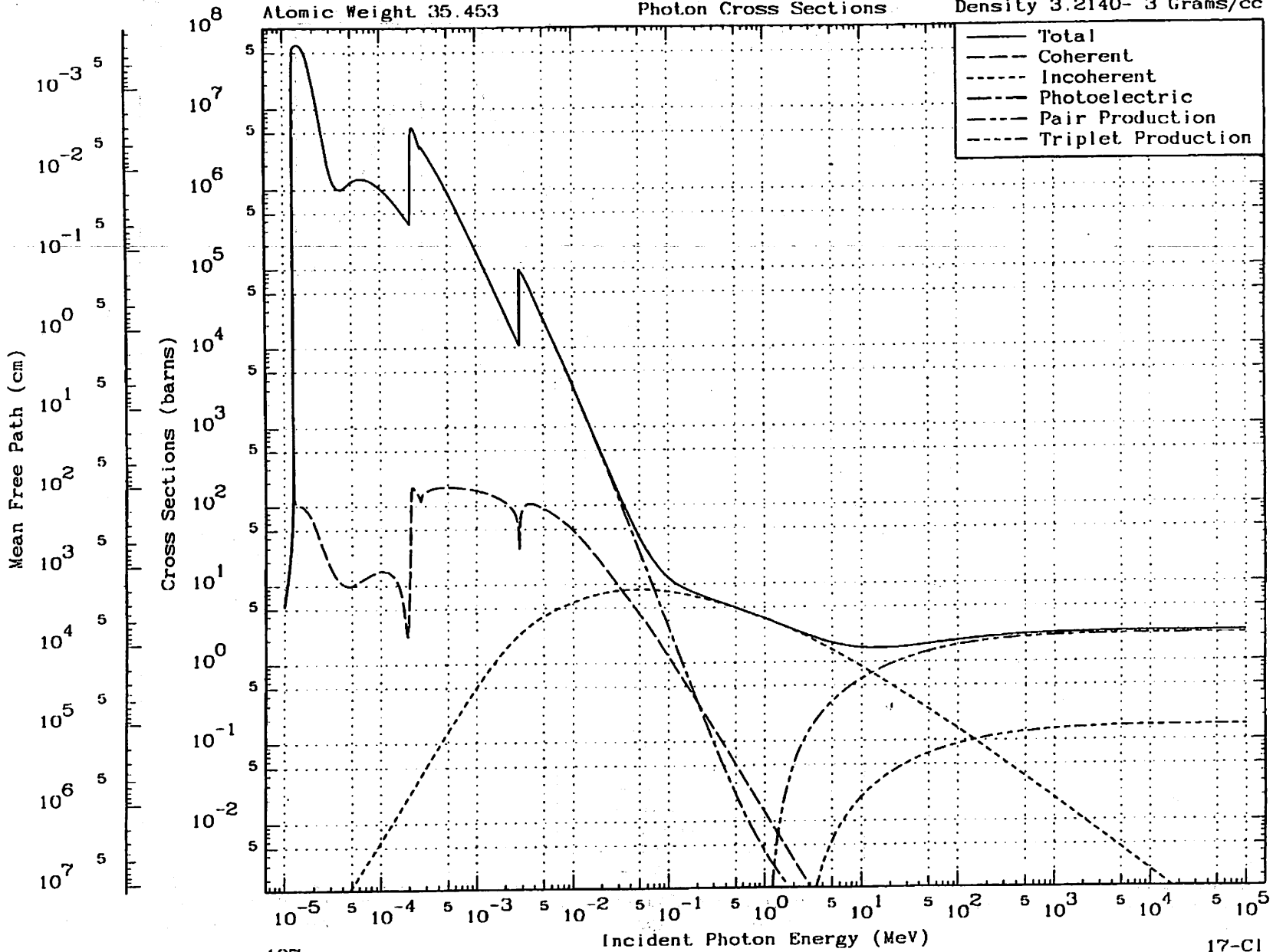
October 31, 1989
Atomic Weight 32.064

ENDL Evaluated
Photon Data

16-S
Density 2.070 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplic	Total	Local	Fluorescence
2.1635+ 0	1.1196+ 1	4.3147- 2	2.2973+ 0	2.3830- 3	2.2344+ 0	8.2937- 4	5.9666- 2	3.3499- 6	1.0418- 1	1.0418- 1	5.1925- 9
2.1845+ 0	1.1251+ 1	4.2937- 2	2.2861+ 0	2.3374- 3	2.2216+ 0	8.1769- 4	6.1315- 2	5.3082- 6	1.0490- 1	1.0490- 1	5.1184- 9
2.2018+ 0	1.1296+ 1	4.2766- 2	2.2770+ 0	2.3008- 3	2.2112+ 0	8.0828- 4	6.2697- 2	7.3440- 6	1.0550- 1	1.0550- 1	5.0605- 9
2.2148+ 0	1.1329+ 1	4.2641- 2	2.2703+ 0	2.2739- 3	2.2035+ 0	8.0132- 4	6.3747- 2	9.1501- 6	1.0585- 1	1.0585- 1	5.0189- 9
2.2342+ 0	1.1379+ 1	4.2456- 2	2.2605+ 0	2.2348- 3	2.1921+ 0	7.9113- 4	6.5337- 2	1.2309- 5	1.0662- 1	1.0662- 1	4.9631- 9
2.2537+ 0	1.1428+ 1	4.2273- 2	2.2508+ 0	2.1961- 3	2.1808+ 0	7.8111- 4	6.6958- 2	1.6068- 5	1.0730- 1	1.0730- 1	4.8904- 9
2.2815+ 0	1.1497+ 1	4.2019- 2	2.2372+ 0	2.1429- 3	2.1650+ 0	7.6717- 4	6.9319- 2	2.2506- 5	1.0827- 1	1.0827- 1	4.8031- 9
2.3070+ 0	1.1560+ 1	4.1782- 2	2.2251+ 0	2.0958- 3	2.1507+ 0	7.5478- 4	7.1529- 2	2.9561- 5	1.0918- 1	1.0918- 1	4.7254- 9
2.3382+ 0	1.1635+ 1	4.1521- 2	2.2107+ 0	2.0403- 3	2.1336+ 0	7.4002- 4	7.4294- 2	3.9748- 5	1.1028- 1	1.1028- 1	4.6332- 9
2.3774+ 0	1.1728+ 1	4.1182- 2	2.1932+ 0	1.9736- 3	2.1126+ 0	7.2218- 4	7.7814- 2	5.5046- 5	1.1165- 1	1.1165- 1	4.5215- 9
2.4102+ 0	1.1806+ 1	4.0920- 2	2.1787+ 0	1.9202- 3	2.0955+ 0	7.0780- 4	8.0521- 2	7.0009- 5	1.1279- 1	1.1279- 1	4.4314- 9
2.4468+ 0	1.1891+ 1	4.0628- 2	2.1631+ 0	1.8632- 3	2.0788+ 0	6.9232- 4	8.3609- 2	8.9055- 5	1.1408- 1	1.1408- 1	4.3345- 9
2.4859+ 0	1.1981+ 1	4.0322- 2	2.1469+ 0	1.8051- 3	2.0673+ 0	6.7639- 4	8.6884- 2	1.1213- 4	1.1546- 1	1.1546- 1	4.2348- 9
2.5264+ 0	1.2139+ 1	3.9797- 2	2.1189+ 0	1.7069- 3	2.0234+ 0	6.4919- 4	9.3024- 2	1.6068- 4	1.1797- 1	1.1797- 1	4.0544- 9
2.5604+ 0	1.2265+ 1	3.9069- 2	2.0802+ 0	1.5781- 3	1.9760+ 0	6.1228- 4	1.0172- 1	2.4769- 4	1.2167- 1	1.2167- 1	3.8334- 9
2.7847+ 0	1.2580+ 1	3.8401- 2	2.0446+ 0	1.4595- 3	1.9314+ 0	5.7866- 4	1.1087- 1	3.5158- 4	1.2545- 1	1.2545- 1	3.6230- 9
2.9045+ 0	1.2858+ 1	3.7571- 2	2.0004+ 0	1.3224- 3	1.8756+ 0	5.3828- 4	1.2245- 1	5.1719- 4	1.3051- 1	1.3051- 1	3.3700- 9
3.0399+ 0	1.3112+ 1	3.6844- 2	1.9617+ 0	1.2072- 3	1.8254+ 0	5.0428- 4	1.3383- 1	7.0100- 4	1.3548- 1	1.3548- 1	3.1572- 9
3.2344+ 0	1.3468+ 1	3.5789- 2	1.9058+ 0	1.0684- 3	1.7535+ 0	4.6404- 4	1.4952- 1	1.0131- 3	1.4189- 1	1.4189- 1	2.9053- 9
3.4375+ 0	1.3888+ 1	3.4841- 2	1.8551+ 0	9.4416- 4	1.6856+ 0	4.2765- 4	1.6873- 1	1.3865- 3	1.4683- 1	1.4683- 1	2.6774- 9
3.7847+ 0	1.4447+ 1	3.3439- 2	1.7804+ 0	7.7890- 4	1.5838+ 0	3.7688- 4	1.8350- 1	2.1278- 3	1.6073- 1	1.6073- 1	2.3533- 9
4.0000+ 0	1.4783+ 1	3.2723- 2	1.7423+ 0	6.9731- 4	1.5278+ 0	3.4800- 4	2.1080- 1	2.6360- 3	1.6847- 1	1.6847- 1	2.1850- 9
4.2500+ 0	1.5118+ 1	3.1958- 2	1.7018+ 0	6.1770- 4	1.4689+ 0	3.2318- 4	2.2848- 1	3.2572- 3	1.7733- 1	1.7733- 1	2.0234- 9
4.7500+ 0	1.5714+ 1	3.0743- 2	1.6369+ 0	4.9451- 4	1.3687+ 0	2.6067- 4	2.6487- 1	4.5589- 3	1.8601- 1	1.8601- 1	1.7572- 9
5.5135+ 0	1.6482+ 1	2.9348- 2	1.5623+ 0	3.6704- 4	1.2407+ 0	2.3334- 4	3.1444- 1	6.6857- 3	2.2541- 1	2.2541- 1	1.4809- 9
6.3840+ 0	1.7180+ 1	2.8120- 2	1.4972+ 0	2.7550- 4	1.1214+ 0	1.9819- 4	3.6625- 1	9.0592- 3	2.5768- 1	2.5768- 1	1.2283- 9
7.4833+ 0	1.7883+ 1	2.7045- 2	1.4400+ 0	1.8925- 4	1.0004+ 0	1.8208- 4	4.2704- 1	1.2159- 2	3.0252- 1	3.0252- 1	1.0148- 9
9.0000+ 0	1.8447+ 1	2.6188- 2	1.3843+ 0	1.3775- 4	8.7836- 1	1.3100- 4	4.9950- 1	1.6210- 2	3.6747- 1	3.6747- 1	8.2017- 10
1.0000+ 1	1.8695+ 1	2.5840- 2	1.3758+ 0	1.1158- 4	8.1650- 1	1.1820- 4	5.4140- 1	1.8700- 2	4.1227- 1	4.1227- 1	7.2750- 10
1.3000+ 1	1.9184+ 1	2.5208- 2	1.3422+ 0	8.6024- 5	6.6992- 1	8.6820- 5	6.4870- 1	2.5390- 2	5.5001- 1	5.5001- 1	5.4357- 10
1.8000+ 1	1.9213+ 1	2.5144- 2	1.3397+ 0	3.4439- 5	5.2487- 1	6.1000- 5	7.7950- 1	3.4480- 2	6.0190- 1	6.0190- 1	3.8191- 10
2.6000+ 1	1.8809+ 1	2.5683- 2	1.3675+ 0	1.6508- 5	3.9229- 1	4.1290- 5	9.2970- 1	4.5430- 2	1.2397+ 0	1.2397+ 0	2.5851- 10
4.2170+ 1	1.7747+ 1	2.7221- 2	1.4494+ 0	6.2747- 8	2.6763- 1	2.4972- 5	1.1216+ 0	6.0143- 2	2.2247+ 0	2.2247+ 0	1.5635- 10
6.0000+ 1	1.6688+ 1	2.8640- 2	1.5249+ 0	3.0985- 8	1.9999- 1	1.7380- 5	1.2540+ 0	7.0860- 2	3.3994+ 0	3.3994+ 0	1.0881- 10
1.0000+ 2	1.5678+ 1	3.0813- 2	1.8408+ 0	1.1158- 8	1.3113- 1	1.0340- 5	1.4240+ 0	8.5440- 2	6.2132+ 0	6.2132+ 0	6.4737- 11
2.0000+ 2	1.4407+ 1	3.3531- 2	1.7853+ 0	2.7895- 7	7.2529- 2	5.1330- 8	1.6100+ 0	1.0280- 1	1.3708+ 1	1.3708+ 1	3.2137- 11
5.0000+ 2	1.3340+ 1	3.6213- 2	1.6281+ 0	4.4833- 8	3.2817- 2	2.0450- 8	1.7750+ 0	1.2030- 1	3.7299+ 1	3.7299+ 1	1.2803- 11
1.0000+ 3	1.2879+ 1	3.7510- 2	1.6972+ 0	1.1158- 8	1.7874- 2	1.0210- 8	1.8500+ 0	1.2930- 1	7.7462+ 1	7.7462+ 1	6.3923- 12
4.0000+ 3	1.2438+ 1	3.8845- 2	2.0683+ 0	6.9739- 10	5.1841- 3	2.5500- 7	1.6240+ 0	1.3910- 1	3.2145+ 2	3.2145+ 2	1.5965- 12
1.0000+ 4	1.2324+ 1	3.9200- 2	2.0872+ 0	1.1158- 10	2.2578- 3	1.0200- 7	1.9430+ 0	1.4190- 1	8.1128+ 2	8.1128+ 2	6.3860- 13
1.0000+ 5	1.2240+ 1	3.9487- 2	2.1014+ 0	1.1150- 12	2.7272- 4	1.0200- 8	1.9570+ 0	1.4410- 1	8.1695+ 3	8.1695+ 3	6.3860- 14

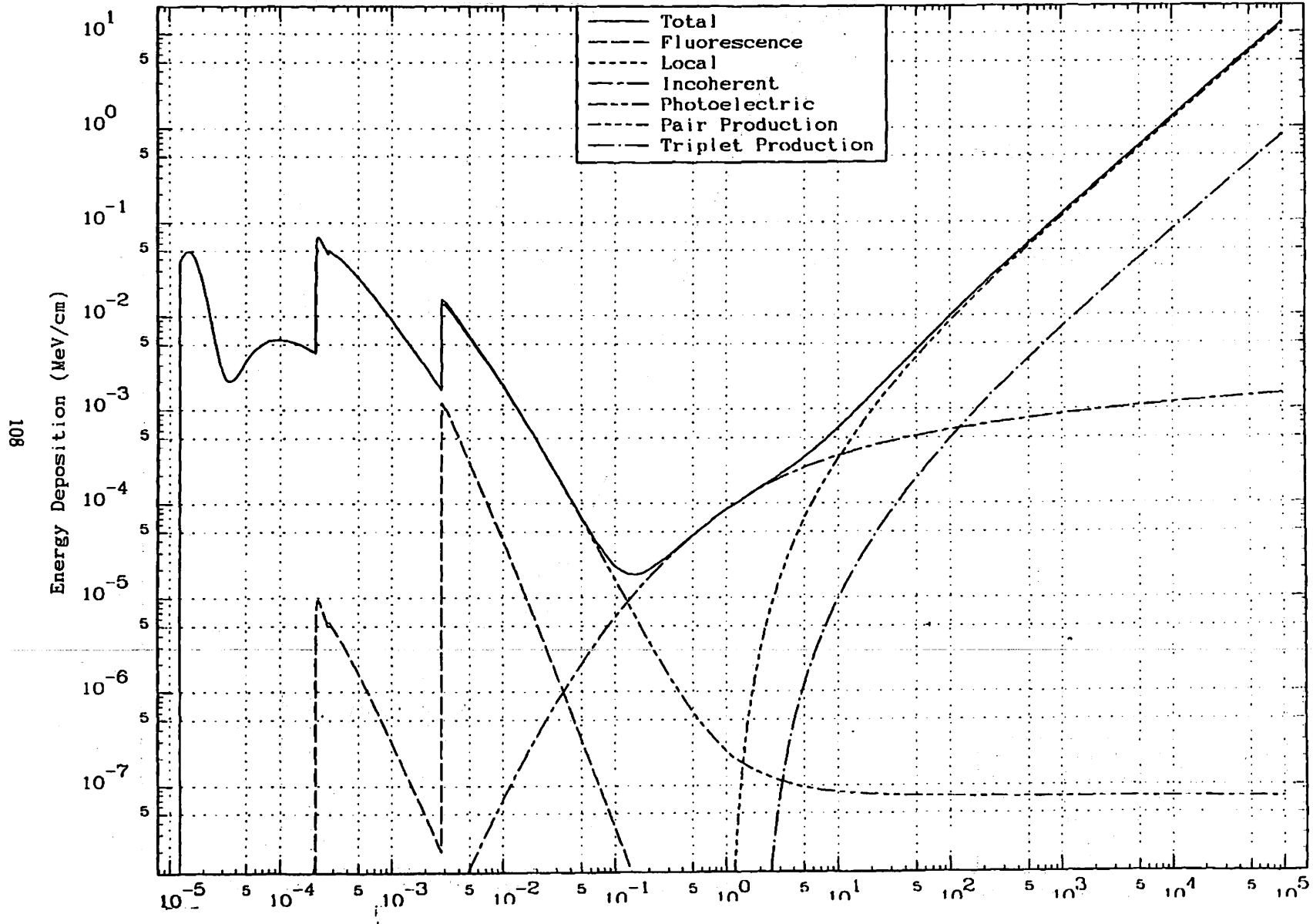
107

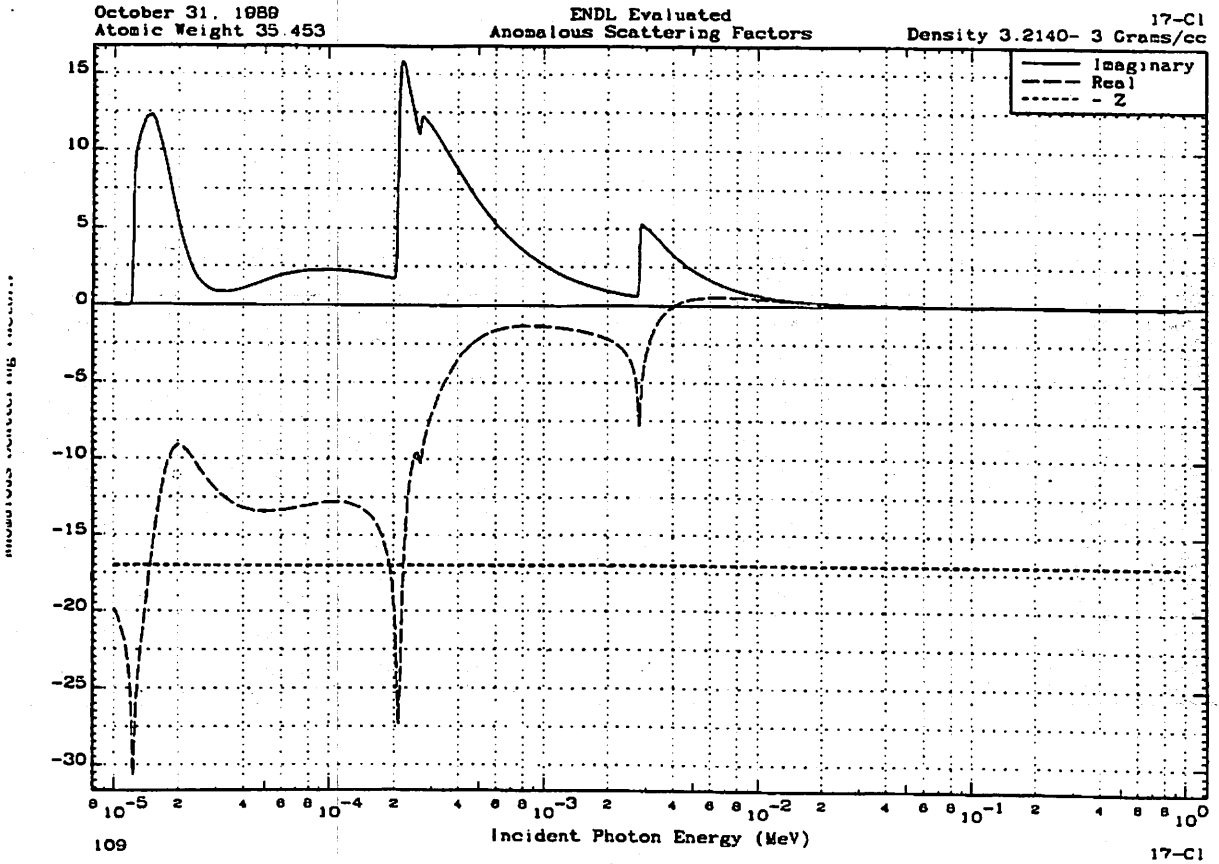
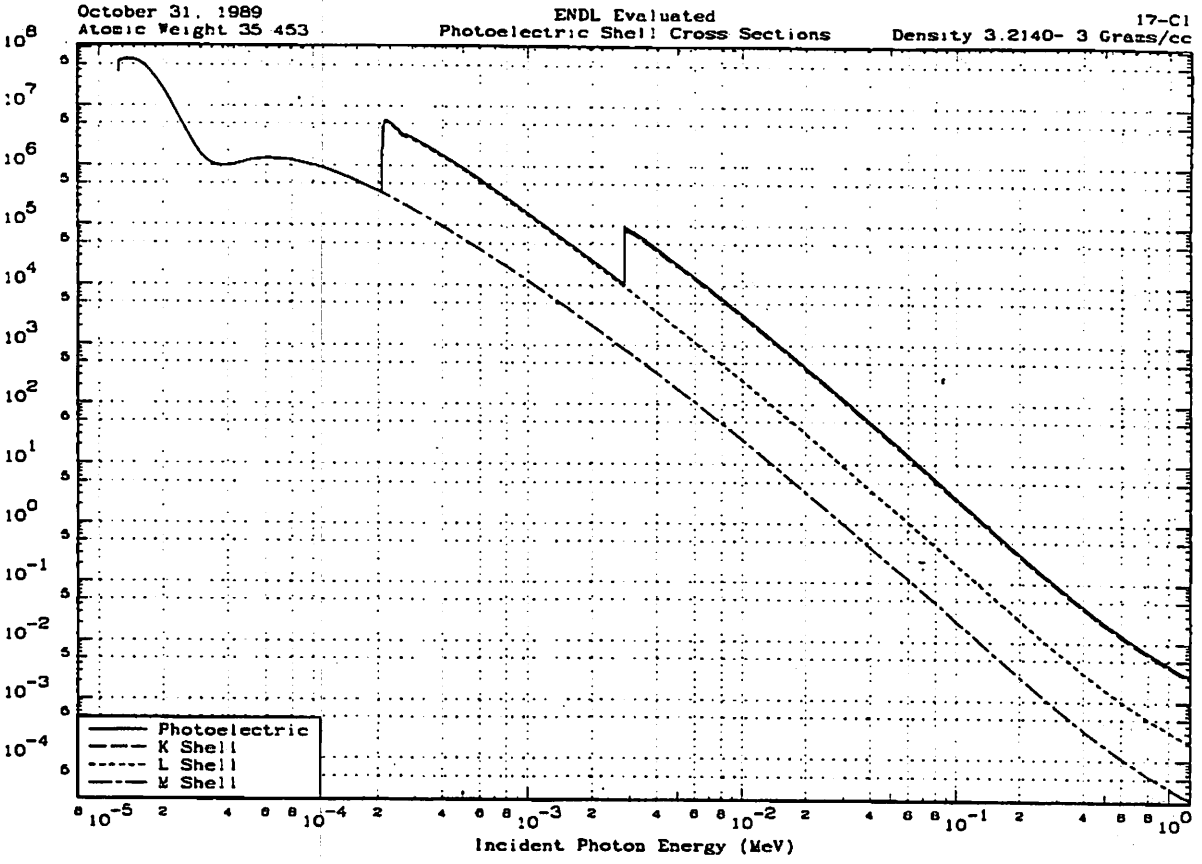


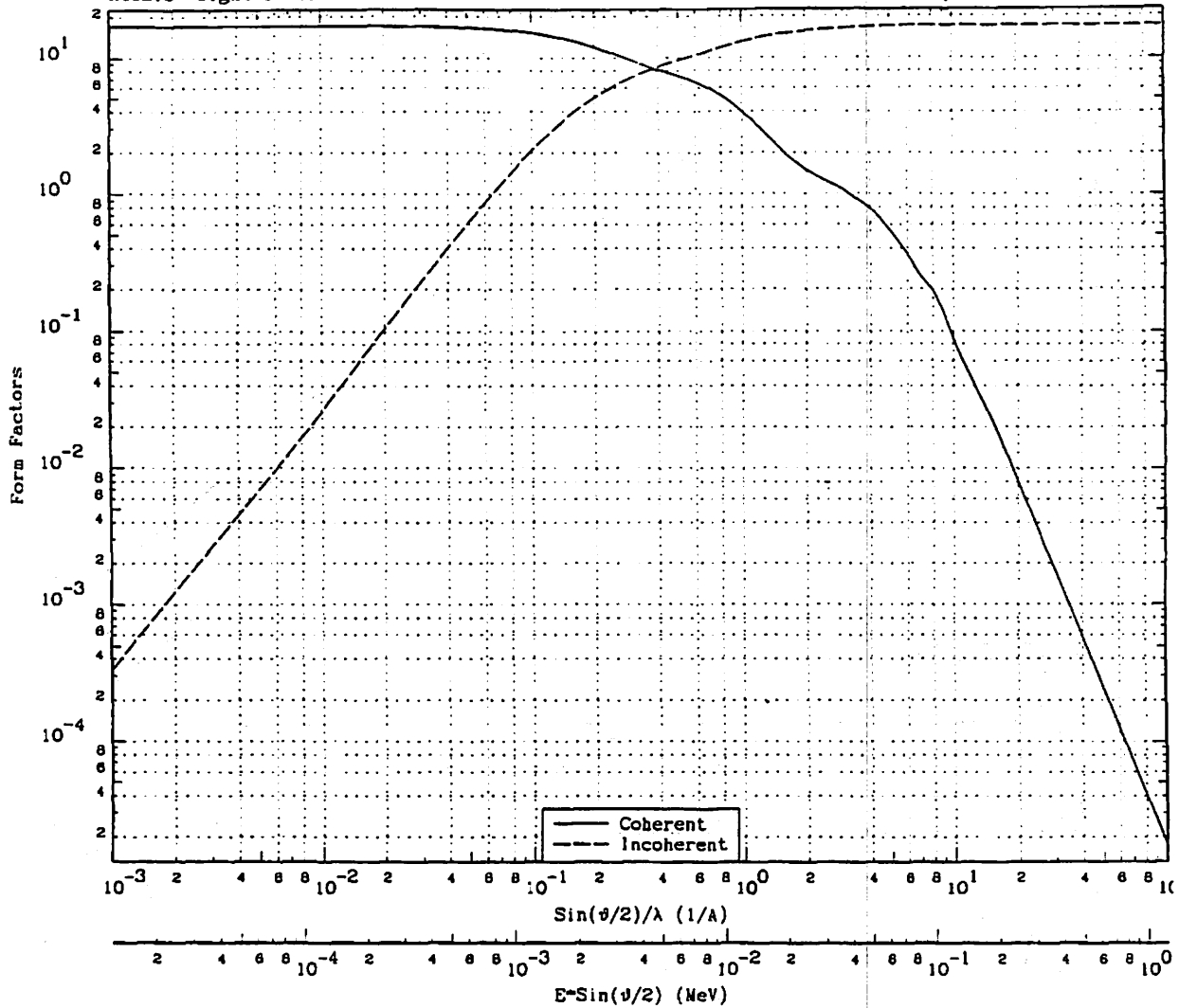
October 31, 1989
Atomic Weight 35.453

ENDL Evaluated
Energy Deposition

17-Cl
Density 3.2140- 3 Grams/cc







$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000-0	0.0000+0	1.7000+1	0.0000+0	6.0000-1	7.4391-3	6.5848+0	1.0382+1	1.0000+1	1.2399-1	8.7300-2	1.6996+1
1.0000-3	1.2399-5	1.7000+1	3.3257-4	7.0000-1	8.6790-3	5.8982+0	1.1158+1	1.1138+1	1.3809-1	5.9201-2	1.6997+1
5.0000-3	6.1993-5	1.6994+1	7.0000-3	8.0000-1	9.9188-3	5.2273+0	1.1857+1	1.5000+1	1.6598-1	2.2774-2	1.7000+1
8.9453-3	1.1091-4	1.6983+1	2.0887-2	9.0000-1	1.1159-2	4.5915+0	1.2499+1	1.7129+1	2.1237-1	1.4308-2	1.7000+1
1.0000-2	1.2399-4	1.6979+1	2.6000-2	1.0000+0	1.2399-2	4.0097+0	1.3050+1	2.0000+1	2.4797-1	8.0384-3	1.7000+1
1.5000-2	1.8598-4	1.6954+1	5.9000-2	1.2500+0	1.5498-2	2.8828+0	1.4088+1	5.0000+1	6.1993-1	2.4812-4	1.7000+1
2.0000-2	2.4797-4	1.6919+1	1.0430-1	1.5000+0	1.8598-2	2.1551+0	1.4750+1	8.0000+1	9.9188-1	4.1111-5	1.7000+1
2.5000-2	3.0996-4	1.6874+1	1.6200-1	1.8154+0	2.2508-2	1.6651+0	1.5270+1	1.0000+2	1.2399+0	1.7629-5	1.7000+1
3.0000-2	3.7196-4	1.6818+1	2.3160-1	2.0000+0	2.4797-2	1.4941+0	1.5487+1	1.7117+2	2.1223+0	2.3937-6	1.7000+1
4.0000-2	4.9594-4	1.6682+1	4.0410-1	2.5000+0	3.0996-2	1.2340+0	1.5924+1	3.2012+2	3.9690+0	2.5207-7	1.7000+1
5.0000-2	6.1993-4	1.6509+1	6.1700-1	3.0000+0	3.7196-2	1.0711+0	1.6243+1	5.1200+2	6.3480+0	4.8682-8	1.7000+1
7.0000-2	8.6790-4	1.6070+1	1.1378+0	3.5000+0	4.3395-2	9.0820-1	1.6479+1	1.0000+3	1.2399+1	5.0284-9	1.7000+1
9.0000-2	1.1169-3	1.5529+1	1.7444+0	4.0000+0	4.9594-2	7.8160-1	1.6648+1	2.0197+3	2.5041+1	4.9588-10	1.7000+1
1.0000-1	1.2399-3	1.5229+1	2.0650+0	4.4258+0	5.4873-2	6.6532-1	1.6748+1	3.8942+3	4.8282+1	6.0395-11	1.7000+1
1.2500-1	1.5498-3	1.4425+1	2.8770+0	5.0000+0	6.1993-2	5.2830-1	1.6843+1	8.9667+3	1.1117+2	4.4641-12	1.7000+1
1.5000-1	1.8598-3	1.3587+1	3.6650+0	5.8945+0	7.3083-2	3.7718-1	1.6923+1	1.4010+4	1.7370+2	1.1385-12	1.7000+1
1.7500-1	2.1697-3	1.2762+1	4.4002+0	6.0000+0	7.4391-2	3.6140-1	1.6930+1	2.7386+4	3.3930+2	1.5097-13	1.7000+1
2.0000-1	2.4797-3	1.1980+1	5.0740+0	6.9531+0	8.6208-2	2.5019-1	1.6967+1	6.7283+4	6.3421+2	1.0450-14	1.7000+1
2.5000-1	3.0996-3	1.0621+1	6.2395+0	7.0000+0	8.6790-2	2.4880-1	1.6968+1	1.0000+6	1.2399+4	3.9472-18	1.7000+1
3.0000-1	3.7196-3	9.5648+0	7.1820+0	8.0000+0	9.9188-2	1.9380-1	1.6985+1	5.8234+6	6.9722+4	2.4394-20	1.7000+1
4.0000-1	4.9594-3	8.1688+0	8.5530+0	8.4550+0	1.0483-1	1.6549-1	1.6988+1	5.4247+7	6.7258+5	2.8245-23	1.7000+1
5.0000-1	6.1993-3	7.2978+0	9.5390+0	9.1720+0	1.1372-1	1.2298-1	1.6993+1	1.0000+9	1.2399+7	4.3899-27	1.7000+1

October 31, 1989
Atomic Weight 35.453

ENDL Evaluated
Photon Data

17-C1
Density 3.2140- 3 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	3.4001+3	9.1509-2	5.3872+0	5.3872+0	7.1964-5				1.0766-18	1.0766-18	
1.0481-5	2.2710+3	1.3701-1	8.0657+0	8.0656+0	7.9029-5				1.2985-18	1.2985-18	
1.1202-5	1.1354+3	2.7404-1	1.6133+1	1.6133+1	9.0246-5				1.6937-18	1.6937-18	
1.1630-5	6.7772+2	4.5910-1	2.7028+1	2.7028+1	9.7249-5				1.9670-18	1.9670-18	
1.1852-5	4.7591+2	6.5377-1	3.8468+1	3.8468+1	1.0090-4				2.1211-18	2.1211-18	
1.1973-5	3.7223+2	8.3587-1	4.8208+1	4.8208+1	1.0306-4				2.2095-18	2.2095-18	
1.2066-5	2.8980+2	1.0736+0	6.3205+1	6.3205+1	1.0468-4				2.2785-18	2.2785-18	
1.2239-5	1.5824+2	1.0539+0	1.1503+2	1.1503+2	1.0768-4				2.4121-18	2.4121-18	
1.2290-5	1.4037+2	2.2188+0	1.3049+2	1.3049+2	1.0857-4				2.4521-18	2.4521-18	
M3 1.2290-5	4.8875-4	6.3680+5	3.7476+7	1.3049+2	1.0857-4	3.7477+7			2.5146-2	2.5146-2	
1.2318-5	4.8720-4	6.3863+5	3.7597+7	1.3790+2	1.0907-4	3.7597+7			2.5284-2	2.5284-2	
1.2383-5	4.8369-4	6.4326+5	3.7870+7	1.4887+2	1.1021-4	3.7870+7			2.5601-2	2.5601-2	
1.2420-5	4.8168-4	6.4594+5	3.8027+7	1.4882+2	1.1087-4	3.8027+7			2.5785-2	2.5785-2	
M2 1.2420-5	3.2405-4	9.6018+5	5.6526+7	1.4982+2	1.1087-4	5.6526+7			3.8328-2	3.8328-2	
1.2482-5	3.2186-4	9.6670+5	5.6911+7	1.4712+2	1.1198-4	5.6911+7			3.8782-2	3.8782-2	
1.2621-5	3.1704-4	9.6138+5	5.7775+7	1.2981+2	1.1449-4	5.7775+7			3.9810-2	3.9810-2	
1.2805-5	3.1090-4	1.0008+6	5.8917+7	1.1504+2	1.1783-4	5.8917+7			4.1186-2	4.1186-2	
1.3215-5	2.9781-4	1.0447+6	6.1505+7	1.0527+2	1.2550-4	6.1505+7			4.4377-2	4.4377-2	
1.3841-5	2.9137-4	1.0678+6	6.2886+7	1.0208+2	1.3346-4	6.2886+7			4.6818-2	4.6818-2	
1.4080-5	2.8884-4	1.0772+6	6.3416+7	1.0158+2	1.4184-4	6.3416+7			4.8748-2	4.8748-2	
1.5111-5	3.0478-4	1.0209+6	6.0099+7	1.0071+2	1.6248-4	6.0099+7			4.9580-2	4.9580-2	
1.5549-5	3.2004-4	9.7218+5	5.7234+7	9.8662+1	1.7166-4	5.7234+7			4.8585-2	4.8585-2	
1.8559-5	3.7859-4	8.2183+5	4.8382+7	8.9309+1	1.9374-4	4.8382+7			4.3739-2	4.3739-2	
1.7360-5	4.4945-4	6.9227+5	4.0755+7	8.3829+1	2.1215-4	4.0755+7			3.8624-2	3.8624-2	
1.8133-5	5.4763-4	5.6816+5	3.3448+7	7.8005+1	2.3071-4	3.3448+7			3.3112-2	3.3112-2	
1.8833-5	6.1840-4	5.0232+5	2.9572+7	7.3222+1	2.4309-4	2.9572+7			3.0082-2	3.0082-2	
2.0183-5	9.8264-4	3.2321+5	1.9028+7	5.9491+1	2.8344-4	1.9028+7			2.0968-2	2.0968-2	
2.2287-5	1.1979-3	1.7307+5	1.0189+7	4.3439+1	3.4280-4	1.0189+7			1.2397-2	1.2397-2	
2.4840-5	3.7602-3	8.2744+4	4.8713+6	2.9651+1	4.2114-4	4.8713+6			6.6059-3	6.6059-3	
M1 2.4840-5	3.7079-3	8.3912+4	4.8400+6	2.9851+1	4.2114-4	4.8400+6			6.6991-3	6.6991-3	
2.7884-5	7.9138-3	3.8315+4	2.3145+6	2.1038+1	5.2711-4	2.3145+6			3.5334-3	3.5334-3	
2.8899-5	9.6018-3	3.2404+4	1.8077+6	1.9135+1	6.1011-4	1.8077+6			3.0097-3	3.0097-3	
3.0000-5	1.1548-2	2.8947+4	1.5884+6	1.7284+1	6.0221-4	1.5884+6			2.5882-3	2.5882-3	
3.1838-5	1.4348-2	2.1688+4	1.2788+6	1.4927+1	6.7409-4	1.2788+6			2.2194-3	2.2194-3	
3.2988-5	1.5803-2	1.8688+4	1.1581+6	1.3941+1	7.2094-4	1.1581+6			2.0875-3	2.0875-3	
3.5075-5	1.7489-2	1.7811+4	1.0486+6	1.2348+1	8.0980-4	1.0486+6			2.0079-3	2.0079-3	
3.8833-5	1.8151-2	1.7141+4	1.0091+6	1.1580+1	8.8843-4	1.0091+6			2.0292-3	2.0292-3	
3.9063-5	1.8420-2	1.6892+4	9.8444+5	1.0681+1	9.9308-4	9.8444+5			2.1207-3	2.1207-3	
4.2368-5	1.7542-2	1.7737+4	1.0442+6	1.0200+1	1.1583-3	1.0442+6			2.4152-3	2.4152-3	
4.5966-5	1.6228-2	1.9175+4	1.1289+6	9.8284+0	1.3529-3	1.1289+6			2.8340-3	2.8340-3	
5.0093-5	1.4860-2	2.0909+4	1.2310+6	8.8604+0	1.5910-3	1.2310+6			3.3684-3	3.3684-3	
5.4772-5	1.4061-2	2.2128+4	1.3027+6	1.0618+1	1.8843-3	1.3027+6			3.8954-3	3.8954-3	
6.0000-5	1.3810-2	2.2861+4	1.3458+6	1.1310+1	2.2396-3	1.3458+6			4.4084-3	4.4084-3	
7.1832-5	1.3891-2	2.2447+4	1.3215+6	1.2750+1	3.1487-3	1.3215+6			5.1822-3	5.1822-3	
8.0000-5	1.4561-2	2.1388+4	1.2580+6	1.3833+1	3.8502-3	1.2580+6			5.4941-3	5.4941-3	
1.0000-4	1.7825-2	1.7653+4	1.0393+6	1.5334+1	5.8463-3	1.0393+6			5.6736-3	5.6736-3	
1.2048-4	2.2000-2	1.4143+4	8.3280+5	1.4878+1	8.3538-3	8.3280+5			5.4763-3	5.4763-3	
1.4064-4	2.7228-2	1.1427+4	6.1272+5	1.2776+1	1.1272-2	6.1272+5			5.1649-3	5.1649-3	
1.5854-4	3.2004-2	9.7220+3	5.7234+5	9.8887+0	1.9397-2	5.7233+5			4.8911-3	4.8911-3	
1.6709-4	3.5890-2	8.7177+3	5.1322+5	7.4181+0	1.5861-2	5.1321+5			4.6816-3	4.6816-3	
1.7688-4	3.9174-2	7.8425+3	4.6758+5	4.7653+0	1.7712-2	4.6758+5			4.5097-3	4.5097-3	
1.8712-4	4.3126-2	7.2146+3	4.2473+5	2.4725+0	1.9850-2	4.2473+5			4.3389-3	4.3389-3	
1.9307-4	4.5442-2	6.8469+3	4.0309+5	2.1503+0	2.1120-2	4.0309+5			4.2487-3	4.2487-3	
1.9731-4	4.7122-2	6.8028+3	3.6872+5	3.5544+0	2.2049-2	3.6871+5			4.1872-3	4.1872-3	
2.0134-4	4.8795-2	6.3764+3	3.7539+5	8.4058+0	2.2950-2	3.7539+5			4.1281-3	4.1281-3	
2.0330-4	4.9673-2	6.2837+3	3.6875+5	1.4850+1	2.3385-2	3.6874+5			4.0927-3	4.0927-3	
2.0484-4	5.0275-2	6.1887+3	3.8434+5	2.3188+1	2.3701-2	3.8431+5			4.0702-3	4.0702-3	
2.0717-4	5.1417-2	6.0513+3	3.5825+5	6.1067+1	2.4284-2	3.5619+5			4.0285-3	4.0285-3	
2.0770-4	5.1658-2	6.0231+3	3.5459+5	7.2973+1	2.4408-2	3.5451+5			4.0189-3	4.0189-3	
L3 2.0770-4	1.0881-2	2.8333+4	1.8680+6	7.2973+1	2.4408-2	1.8679+6			1.8913-2	1.8913-2	2.2432-6
2.0888-4	6.8752-3	3.5057+4	2.0838+6	9.5323+1	2.4833-2	2.0838+6			2.3510-2	2.3510-2	2.9091-6
2.0948-4	7.4170-3	4.1949+4	2.4696+6	1.1297+2	2.4824-2	2.4696+6			2.6242-2	2.6242-2	3.6216-6
L2 2.0948-4	5.6212-3	5.5351+4	3.2586+6	1.1297+2	2.4824-2	3.2584+6			3.7265-2	3.7265-2	4.9671-6
2.1008-4	4.8887-3	6.2368+4	3.6717+6	1.2783+2	2.4984-2	3.6718+6			4.2109-2	4.2103-2	5.6719-6
2.1059-4	4.5070-3	6.9034+4	4.0641+6	1.3636+2	2.5086-2	4.0640+6			4.6724-2	4.6718-2	6.3482-6
2.1155-4	3.8895-3	8.0409+4	4.7338+6	1.5350+2	2.5311-2	4.7336+6			5.4669-2	5.4662-2	7.4962-6
2.1268-4	3.4878-3	8.9207+4	5.2517+6	1.6296+2	2.5558-2	5.2515+6			6.0948-2	6.0939-2	8.3854-6
2.1367-4	3.2919-3	9.4516+4	5.5843+6	1.6839+2	2.5817-2	5.5841+6			6.4906-2	6.4897-2	8.9243-6
2.1531-4	3.1465-3	9.8883+4	5.8214+6	1.7284+2	2.6211-2	5.8212+6			6.8425-2	6.8418-2	9.3712-6
2.1830-4	3.1303-3	9.9395+4	5.8515+6	1.7069+2	2.6838-2	5.8513+6			6.9735-2	6.9725-2	9.4368-6
2.2830-4	3.3339-3	9.3325+4	5.4941+6	1.8147+2	2.8829-2	5.4940+6			6.7878-2	6.7887-2	8.8628-6
2.4926-4	4.6018-3	6.7613+4	3.9804+6	1.3870+2	3.8034-2	3.8803+6			5.4184-2	5.4158-2	6.3828-6
2.5418-4	4.9349-3	6.3049+4	3.7117+6	1.3078+2	3.8410-2	3.7116+6			5.1500-2	5.1484-2	5.9184-6
2.8331-4	5.8042-3	5.5519+4	3.2685+6	1.1507+2	3.9053-2	3.2684+6			4.8983-2	4.8978-2	5.1905-6
2.8637-4	5.7699-3	5.3924+4	3.1748+6	1.1315+2	3.9958-2	3.1745+6			4.8163-2	4.8158-2	5.0385-6
2.8805-4	5.8573-3	5.3120+4	3.1272+6	1.1855+2	4.0459-2	3.1271+6			4.5782-2	4.5757-2	4.9620-6
L1 2.8805-4	5.3185-3	5.8523+4	3.4453+6	1.1855+2	4.0459-2	3.4452+6			5.0417-2	5.0411-2	5.6758-6
2.7087-4	5.4219-3	5.7388+4	3.3784+6	1.3074+2	4.1306-2	3.3782+6			4.9956-2	4.9951-2	5.5693-6
2.7438-4	5.5513-3	5.6048+4	3.2996+6	1.3821+2	4.2368-2	3.2994+6			4.8421-2	4.8415-2	5.4445-6
3.0000-4	6.4850-3	4.7979+4	2.8246+6	1.5279+2	5.0572-2	2.8244+6			4.6259-2	4.6254-2	4.6981-6
3.4822-4	8.6680-3	3.5895+4	2.1132+6	1.6346+2	6.7175-2	2.1130+6			3.9939-2	3.9935-2	3.5400-6
4.2109-4	1.3195-2	2.3579+4	1.3881+6	1.7250+2	9.8452-2	1.3880+6			3.1908-2	3.1906-2	2.3398-6
5.6281-4	2.8122-2	1.8111+4	7.0122+5	1.7278+2	1.7280-1	7.0106+5			2.1533-2	2.1531-2	1.1955-6
8.5781-4	7.4482-2	4.1768+3	2.4590+5	1.6185+2	3.8201-1	2.4573+5			1.1505-2	1.1505-2	4.2878-7
1.0000-3	1.1020-1	2.8234+3	1.6622+5	1.5549+2	5.0445-1	1.8606+5			9.0660-3	9.0657-3	2.9040-7
1.3286-3	2.3212-1	1.3404+3	7.8911+4	1.4104+2	8.2050-1	7.8770+4			5.7135-3	5.7134-3	1.3997-7

October 31, 1989
Atomic Weight 35.453

ENDL Evaluated
Photon Data

17-C1
Density 3.2140 - 3 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm²/cm³	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.7359-3	4.7180-1	6.5847+2	3.8824+4	1.2222+2	1.2412-0	3.8700+4			3.6677-3	3.6676-3	6.9908-8
2.0567-3	7.4530-1	4.1747+2	2.4577+4	1.0652+2	1.5789+0	2.4469+4			2.7475-3	2.7474-3	4.4536-8
2.3346-3	1.0536+0	2.9530+2	1.7385+4	9.0761+1	1.8701-0	1.7292+4			2.2039-3	2.2039-3	3.1706-8
2.4241-3	1.1679+0	2.6640+2	1.5684+4	8.4776+1	1.9560-0	1.5597+4			2.0641-3	2.0641-3	2.8555-8
2.5584-3	1.3539+0	2.2981+2	1.3529+4	7.3833+1	2.0877+0	1.3453+4			1.8791-3	1.8791-3	2.4788-8
2.6256-3	1.4538+0	2.1402+2	1.2600+4	6.6723+1	2.2500+0	1.2531+4			1.7952-3	1.7951-3	2.3120-8
2.6988-3	1.5694+0	1.9838+2	1.1879+4	5.5978+1	2.2245+0	1.1820+4			1.7121-3	1.7121-3	2.1472-8
2.7273-3	1.6150+0	1.9286+2	1.1342+4	4.9829+1	2.2526+0	1.1290+4			1.6910-3	1.6910-3	2.0873-8
2.7487-3	1.6507+0	1.8849+2	1.1098+4	4.3382+1	2.2736+0	1.1051+4			1.6583-3	1.6583-3	2.0439-8
2.7865-3	1.6811+0	1.8508+2	1.0896+4	3.6203+1	2.2910+0	1.0857+4			1.6398-3	1.6398-3	2.0089-8
2.7819-3	1.7078+0	1.8218+2	1.0725+4	3.0231+1	2.3063+0	1.0693+4			1.6240-3	1.6240-3	1.9790-8
2.7873-3	1.7171+0	1.8120+2	1.0668+4	2.8908+1	2.3116+0	1.0636+4			1.6185-3	1.6185-3	1.9687-8
2.7934-3	1.7274+0	1.8012+2	1.0604+4	2.8241+1	2.3175+0	1.0573+4			1.6124-3	1.6124-3	1.9573-8
2.8049-3	1.7467+0	1.7813+2	1.0487+4	3.0188+1	2.3289+0	1.0454+4			1.6009-3	1.6009-3	1.9357-8
K 2.8049-3	1.8828+1	1.6527+3	9.7299+4	3.0188+1	2.3289+0	9.7266+4			1.4894-2	1.3733-2	1.1621-3
2.8144-3	1.8940+1	1.6428+3	9.6711+4	3.4318+1	2.3383+0	9.6674+4			1.4854-2	1.3699-2	1.1546-3
2.8347-3	1.9186+1	1.6217+3	9.5473+4	4.7873+1	2.3567+0	9.5423+4			1.4767-2	1.3827-2	1.1405-3
2.8447-3	1.9306+1	1.6116+3	9.4877+4	5.3938+1	2.3653+0	9.4821+4			1.4725-2	1.3592-2	1.1337-3
2.8545-3	1.9428+1	1.6017+3	9.4283+4	5.9159+1	2.3738+0	9.4232+4			1.4684-2	1.3557-2	1.1270-3
2.8738-3	1.9603+1	1.5824+3	9.3157+4	6.6363+1	2.3905+0	9.3088+4			1.4604-2	1.3490-2	1.1142-3
2.8928-3	1.9894+1	1.5640+3	9.2074+4	7.1099+1	2.4067+0	9.2001+4			1.4528-2	1.3426-2	1.1019-3
2.9248-3	2.0348+1	1.5283+3	8.9029+4	7.7544+1	2.4380+0	8.9948+4			1.4382-2	1.3303-2	1.0787-3
3.0000-3	2.1248+1	1.4845+3	8.6215+4	8.5840+1	2.4988+0	8.6127+4			1.4106-2	1.3071-2	1.0355-3
3.0825-3	2.2324+1	1.3937+3	8.2050+4	9.2388+1	2.5710+0	8.1965+4			1.3791-2	1.2803-2	9.8829-4
3.2534-3	2.6377+1	1.2260+3	7.2179+4	1.0064+2	2.7192+0	7.2075+4			1.2801-2	1.1929-2	8.7136-4
3.4731-3	2.9560+1	1.0389+3	6.1160+4	1.0541+2	2.9101+0	6.1051+4			1.1578-2	1.0835-2	7.3948-4
3.8240-3	4.1867+1	7.4316+2	4.3750+4	1.0459+2	3.2529+0	4.3843+4			9.3485-3	8.8196-3	5.2890-4
4.9847-3	7.8792+1	3.9488+2	2.3247+4	9.1829+1	3.9297+0	2.3151+4			6.2723-3	5.9909-3	2.8137-4
6.7631-3	1.8228+0	1.7071+2	1.0050+4	7.1945+1	4.8091+0	9.9731+3			3.6821-3	3.5604-3	1.2189-4
9.0074-3	4.0577+0	7.8679+1	4.5142+3	5.4460+1	5.8109+0	4.4541+3			2.1896-3	2.1351-3	5.4498-5
1.0000-2	5.4299+0	5.7305+1	3.3736+3	4.8554+1	5.9022+0	3.3182+3			1.8121-3	1.7715-3	4.0654-5
1.3335-2	1.2477+1	2.4937+1	1.4681+3	3.3816+1	8.7311+0	1.4275+3			1.0393-3	1.0218-3	1.7496-5
1.8360-2	3.6634+1	8.4933+0	5.0001+2	1.9505+1	7.8168+0	4.7289+2			5.0010-4	4.9430-4	5.8229-6
2.7226-2	9.7759+1	3.1827+0	1.8737+2	1.1359+1	8.2045+0	1.6781+2			2.5012-4	2.4808-4	2.0601-6
3.8928-2	2.8030+2	1.1953+0	7.0368+1	6.3557+0	8.5214+0	5.5491+1			1.1920-4	1.1852-4	8.8152-7
4.7897-2	4.3505+2	7.1518-1	4.2103+1	4.4858+0	8.5638+0	2.9054+1			7.7815-5	7.7459-5	3.5884-7
5.8055-2	8.6117+2	4.7059-1	2.7704+1	3.2139+0	8.5484+0	1.5942+1			5.3124-5	5.2929-5	1.9590-7
6.7722-2	8.8611+2	3.5113-1	2.0671+1	2.4400+0	8.4359+0	9.7853+0			3.9567-5	3.8448-5	1.2031-7
8.0000-2	1.1528+3	2.6989-1	1.5889+1	1.8000+0	8.3160+0	5.7728+0			2.9628-5	2.9557-5	7.0910-8
9.3821-2	1.4140+3	2.2004-1	1.2854+1	1.3398+0	8.1328+0	3.4817+0			2.3498-5	2.3455-5	4.2768-8
1.0000-1	1.5155+3	2.0531-1	1.2087+1	1.1899+0	8.0531+0	2.8438+0			2.1775-5	2.1740-5	3.4930-8
1.1302-1	1.7091+3	1.8205-1	1.0717+1	9.4567-1	7.8433+0	1.9285+0			1.8346-5	1.9322-5	2.3886-8
1.2884-1	1.9011+3	1.8367-1	9.6352+0	7.3760-1	7.8168+0	4.7289+2			1.7938-5	1.7920-5	1.5831-8
1.5004-1	2.1011+3	1.4808-1	8.7177+0	5.5126-1	7.3785+0	7.8794-1			1.7627-5	1.7617-5	9.6780-9
1.7438-1	2.2957+3	1.3553-1	7.9790+0	4.1276-1	7.0743+0	4.9200-1			1.8280-5	1.8274-5	6.0420-9
2.1394-1	2.5390+3	1.2254-1	7.2144+0	2.7783-1	6.8787+0	2.5977-1			2.0750-5	2.0747-5	3.1888-9
2.7894-1	2.8882+3	1.0848-1	6.3884+0	1.8522-1	6.1049+0	1.1629-1			2.6039-5	2.6037-5	1.4285-9
3.5428-1	3.1799+3	9.7848-2	5.7603+0	1.0311-1	5.6000+0	5.7208-2			3.2875-5	3.2875-5	7.0237-10
5.0000-1	3.6888+3	8.4353-2	4.8658+0	5.2074-2	4.8919+0	2.003-2			4.8243-5	4.8243-5	2.7025-10
6.1883-1	4.0847+3	7.6548-2	4.5084+0	3.4087-2	4.4595+0	1.2783-2			5.8338-5	5.8338-5	1.5689-10
8.0000-1	4.5847+3	6.8181-2	4.0127+0	2.0417-2	3.8853+0	8.888-3			7.1514-5	7.1514-5	8.5821-11
1.0000+0	5.0845+3	6.1184-2	3.8028+0	1.3078-2	3.5852-0	4.3309-3			8.6453-5	8.6453-5	5.3187-11
1.0220+0	5.1397+3	6.0538-2	3.5638+0	1.2523-2	3.5472+0	4.0950-3			8.8004-5	8.8004-5	5.0289-11
1.0251+0	5.1480+3	6.0439-2	3.5581+0	1.2447-2	3.5418+0	4.0885-3	1.1598-8		8.8208-5	8.8208-5	4.9984-11
1.0287+0	5.1578+3	6.0388-2	3.5515+0	1.2358-2	3.5351+0	4.0380-3	1.1588-7		8.8441-5	8.8441-5	4.9589-11
1.0368+0	5.1784+3	6.0084-2	3.5372+0	1.2172-2	3.5211+0	3.9728-3	1.1588-8		8.8951-5	8.8951-5	4.8788-11
1.0382+0	5.1825+3	6.0038-2	3.5344+0	1.2135-2	3.5183+0	3.9601-3	1.5852-8		8.9051-5	8.9051-5	4.8832-11
1.0397+0	5.1865+3	5.9990-2	3.5317+0	1.2100-2	3.5157+0	3.9479-3	2.0335-8		8.9148-5	8.9148-5	4.8483-11
1.0415+0	5.1912+3	5.9938-2	3.5285+0	1.2059-2	3.5129+0	3.9334-3	2.7065-8		8.9284-5	8.9284-5	4.8305-11
1.0438+0	5.1973+3	5.9888-2	3.5244+0	1.2008-2	3.5085+0	3.9149-3	3.7553-8		8.9413-5	8.9412-5	4.8078-11
1.0484+0	5.2041+3	5.9788-2	3.5198+0	1.1948-2	3.5039+0	3.8942-3	5.2248-8		8.9580-5	8.9580-5	4.7824-11
1.0483+0	5.2090+3	5.9730-2	3.5164+0	1.1903-2	3.5006+0	3.8782-3	6.9050-8		8.9702-5	8.9702-5	4.7639-11
1.0512+0	5.2168+3	5.9643-2	3.5113+0	1.1837-2	3.4958+0	3.8565-3	8.8240-8		8.9889-5	8.9889-5	4.7360-11
1.0541+0	5.2242+3	5.9558-2	3.5082+0	1.1773-2	3.4906+0	3.8340-3	1.1588-5		9.0074-5	9.0074-5	4.7085-11
1.0577+0	5.2338+3	5.9450-2	3.4999+0	1.1893-2	3.4844+0	3.8081-3	1.5809-5		9.0307-5	9.0307-5	4.6742-11
1.0611+0	5.2425+3	5.9350-2	3.4940+0	1.1818-2	3.4788+0	3.7802-3	2.0583-5		9.0525-5	9.0525-5	4.6424-11
1.0651+0	5.2529+3	5.9232-2	3.4871+0	1.1531-2	3.4718+0	3.7500-3	2.7223-5		9.0782-5	9.0782-5	4.6053-11
1.0704+0	5.2668+3	5.9078-2	3.4780+0	1.1417-2	3.4628+0	3.7109-3	3.7978-5		9.1122-5	9.1122-5	4.5568-11
1.0782+0	5.2818+3	5.8910-2	3.4691+0	1.1295-2	3.4531+0	3.6681-3	5.2485-5		9.1493-5	9.1493-5	4.5047-11
1.0809+0	5.2829+3	5.8784-2	3.4607+0	1.1203-2	3.4458+0	3.6384-3	6.5545-5		9.1774-5	9.1774-5	4.4657-11
1.0871+0	5.3067+3	5.8589-2	3.4498+0	1.1070-2	3.4350+0	3.5902-3	8.8312-5		9.2180-5	9.2180-5	4.4090-11
1.0937+0	5.3268+3	5.8412-2	3.4388+0	1.0938-2	3.4242+0	3.5441-3	1.1598-4		9.2611-5	9.2611-5	4.3524-11
1.1028+0	5.3493+3	5.8185-2	3.4242+0	1.0781-2	3.4098+0	3.4835-3	1.6081-4		9.3178-5	9.3178-5	4.2780-11
1.1107+0	5.3699+3	5.7941-2	3.4111+0	1.0605-2	3.3968+0	3.4286-3	2.0974-4		9.3693-5	9.3693-5	4.2118-11
1.1206+0	5.3949+3	5.7673-2	3.3953+0	1.0418-2	3.3812+0	3.3654-3	2.8060-4		9.4322-5	9.4322-5	4.1329-11
1.1333+0	5.4268+3	5.7333-2	3.3753+0	1.0187-2	3.3614+0	3.2890-3	3.9018-4		9.5127-5	9.5127-5	4.0391-11
1.1475+0	5.4623+3	5.6962-2	3.3534+0	9.9384-3	3.3397+0	3.2186-3	5.3878-4		9.6025-5	9.6025-5	3.9527-11
1.1582+0	5.4988+3	5.6588-2	3.3272+0	9.7539-3	3.3236+0	3.1871-3	8.6980-4		9.7000-5	9.7000-5	3.8895-11
1.1741+0	5.5279+3	5.6285-2	3.3136+0	9.4918-3	3.3001+0	3.1630-3	8.9482-4		9.7702-5	9.7702-5	3.7984-11
1.1801+0	5.5569+3	5.5991-2	3.2903+0	8.2385-3	3.2789+0	3.1210-3	1.1598-3		9.8708-5	9.8708-5	3.7101-11
1.2051+0	5.6032+3	5.5528-2	3.2690+0	9.0104-3	3.2556+0	2.9560-3	1.4430-3		9.9848-5	9.9848-5	3.6302-11
1.2275+0	5.6588+3	5.5003-2	3.2381+0	8.6850-3	3.2246+0	2.9629-3	1.9305-3		1.0105-4	1.0105-4	3.5158-11

October 31, 1989
Atomic Weight 35.453

ENDL Evaluated
Photon Data

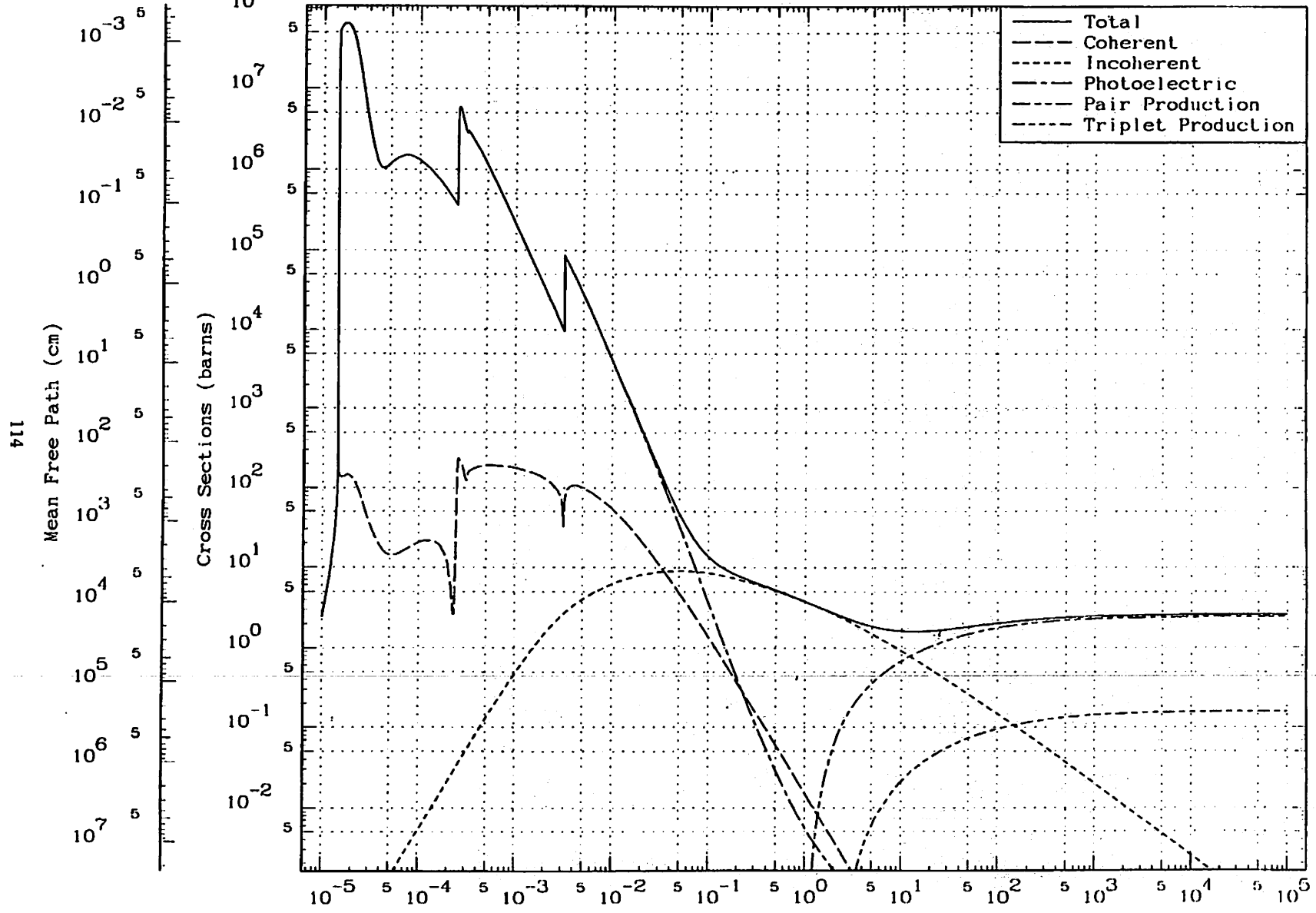
17-C1
Density 3.2140- 3 Grams/cc.

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.3822+ 0	6.0098+ 3	5.1772- 2	3.0479+ 0	6.8514- 3	3.0314+ 0	2.3200- 3	7.2795- 3		1.1063- 4	1.1063- 4	2.8491-11
1.4338+ 0	6.1211+ 3	5.0830- 2	2.9924+ 0	6.3678- 3	2.9741+ 0	2.1736- 3	8.7549- 3		1.1381- 4	1.1381- 4	2.6694-11
1.5000+ 0	6.2595+ 3	4.9706- 2	2.8263+ 0	5.8184- 3	2.9051+ 0	2.0060- 3	1.3370- 2		1.1787- 4	1.1787- 4	2.4835-11
1.5625+ 0	6.3857+ 3	4.8724- 2	2.6685+ 0	5.3825- 3	2.8440+ 0	1.8751- 3	1.7200- 2		1.2171- 4	1.2171- 4	2.3028-11
1.6172+ 0	6.4928+ 3	4.7821- 2	2.5212+ 0	5.0081- 3	2.7835+ 0	1.7715- 3	2.0858- 2		1.2507- 4	1.2507- 4	2.1755-11
1.7188+ 0	6.6835+ 3	4.6554- 2	2.3407+ 0	4.4321- 3	2.7063+ 0	1.6018- 3	2.8291- 2		1.3133- 4	1.3133- 4	1.9671-11
1.8923+ 0	7.0132+ 3	4.4365- 2	2.0118+ 0	3.6570- 3	2.5642+ 0	1.3665- 3	4.2635- 2		1.4099- 4	1.4099- 4	1.6781-11
2.0440+ 0	7.2796+ 3	4.2741- 2	2.5162+ 0	3.1348- 3	2.4556+ 0	1.2050- 3	5.8320- 2		1.4850- 4	1.4850- 4	1.4788-11
2.0858+ 0	7.3549+ 3	4.2304- 2	2.4905+ 0	3.0102- 3	2.4282+ 0	1.1887- 3	6.0083- 2	1.7071- 7	1.5166- 4	1.5168- 4	1.4384-11
2.1278+ 0	7.4290+ 3	4.1882- 2	2.4656+ 0	2.8924- 3	2.3976+ 0	1.1358- 3	6.4041- 2	1.2993- 6	1.5366- 4	1.5368- 4	1.3948-11
2.1363+ 0	7.4435+ 3	4.1800- 2	2.4608+ 0	2.8698- 3	2.3920+ 0	1.1293- 3	6.4847- 2	1.7071- 6	1.5430- 4	1.5430- 4	1.3868-11
2.1470+ 0	7.4620+ 3	4.1697- 2	2.4547+ 0	2.8412- 3	2.3849+ 0	1.1210- 3	6.5895- 2	2.3405- 6	1.5486- 4	1.5488- 4	1.3766-11
2.1635+ 0	7.4902+ 3	4.1539- 2	2.4455+ 0	2.7980- 3	2.3740+ 0	1.1094- 3	6.7526- 2	3.5590- 6	1.5573- 4	1.5573- 4	1.3612-11
2.1845+ 0	7.5265+ 3	4.1339- 2	2.4337+ 0	2.7445- 3	2.3604+ 0	1.0928- 3	6.8389- 2	5.6395- 6	1.5681- 4	1.5681- 4	1.3420-11
2.2018+ 0	7.5561+ 3	4.1177- 2	2.4241+ 0	2.7015- 3	2.3494+ 0	1.0802- 3	7.0947- 2	7.8025- 6	1.5771- 4	1.5771- 4	1.3265-11
2.2148+ 0	7.5782+ 3	4.1057- 2	2.4171+ 0	2.6699- 3	2.3412+ 0	1.0709- 3	7.2133- 2	9.7213- 6	1.5839- 4	1.5839- 4	1.3151-11
2.2342+ 0	7.6108+ 3	4.0881- 2	2.4067+ 0	2.6238- 3	2.3310+ 0	1.0572- 3	7.3827- 2	1.3077- 5	1.5940- 4	1.5940- 4	1.2983-11
2.2537+ 0	7.6433+ 3	4.0708- 2	2.3965+ 0	2.5786- 3	2.3171+ 0	1.0438- 3	7.5756- 2	1.7071- 5	1.6042- 4	1.6042- 4	1.2819-11
2.2815+ 0	7.6890+ 3	4.0468- 2	2.3823+ 0	2.5181- 3	2.3003+ 0	1.0251- 3	7.8419- 2	2.3911- 5	1.6189- 4	1.6189- 4	1.2680-11
2.3070+ 0	7.7302+ 3	4.0250- 2	2.3696+ 0	2.4608- 3	2.2851+ 0	1.0085- 3	8.0913- 2	3.1407- 5	1.6324- 4	1.6324- 4	1.2385-11
2.3382+ 0	7.7799+ 3	3.9993- 2	2.3544+ 0	2.3956- 3	2.2670+ 0	9.8890- 4	8.4032- 2	4.2229- 5	1.6480- 4	1.6480- 4	1.2143-11
2.3774+ 0	7.8412+ 3	3.9680- 2	2.3360+ 0	2.3173- 3	2.2447+ 0	9.6492- 4	8.7888- 2	5.8482- 5	1.6700- 4	1.6700- 4	1.1850-11
2.4102+ 0	7.8930+ 3	3.9420- 2	2.3207+ 0	2.2547- 3	2.2265+ 0	9.4587- 4	9.0947- 2	7.4379- 5	1.6872- 4	1.6872- 4	1.1813-11
2.4468+ 0	7.9497+ 3	3.9139- 2	2.3041+ 0	2.1877- 3	2.2066+ 0	9.2465- 4	9.4316- 2	9.4615- 5	1.7085- 4	1.7085- 4	1.1359-11
2.4859+ 0	8.0090+ 3	3.8848- 2	2.2871+ 0	2.1195- 3	2.1859+ 0	9.0363- 4	9.7994- 2	1.1913- 4	1.7273- 4	1.7273- 4	1.1097-11
2.5564+ 0	8.1130+ 3	3.8351- 2	2.2578+ 0	2.0042- 3	2.1499+ 0	8.6721- 4	1.0484- 1	1.7071- 4	1.7853- 4	1.7853- 4	1.0650-11
2.6604+ 0	8.2595+ 3	3.7670- 2	2.2177+ 0	1.8508- 3	2.0995+ 0	8.1784- 4	1.1523- 1	2.8315- 4	1.8220- 4	1.8220- 4	1.0044-11
2.7453+ 0	8.3773+ 3	3.7141- 2	2.1865+ 0	1.7380- 3	2.0607+ 0	7.8092- 4	1.2298- 1	3.5220- 4	1.8678- 4	1.8678- 4	9.5901-12
2.8090+ 0	8.4623+ 3	3.6768- 2	2.1646+ 0	1.6601- 3	2.0328+ 0	7.5501- 4	1.2892- 1	4.2653- 4	1.9026- 4	1.9026- 4	9.2721-12
2.9045+ 0	8.5844+ 3	3.6245- 2	2.1338+ 0	1.5527- 3	1.9928+ 0	7.1879- 4	1.3815- 1	5.4947- 4	1.9556- 4	1.9556- 4	8.8273-12
3.0399+ 0	8.7480+ 3	3.5583- 2	2.0936+ 0	1.4175- 3	1.9386+ 0	6.7333- 4	1.5122- 1	7.4476- 4	2.0316- 4	2.0316- 4	8.2889-12
3.2344+ 0	9.0012+ 3	3.4567- 2	2.0350+ 0	1.2522- 3	1.8631+ 0	6.1845- 4	1.6892- 1	1.0764- 3	2.1294- 4	2.1294- 4	7.6072-12
3.4375+ 0	9.2398+ 3	3.3674- 2	1.9824+ 0	1.1086- 3	1.7910+ 0	5.7074- 4	1.8832- 1	1.4732- 3	2.2355- 4	2.2355- 4	7.0090-12
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4.0000+ 0	9.8184+ 3	3.1688- 2	1.8654+ 0	8.1877- 4	1.6233+ 0	4.6550- 4	2.3800- 1	2.8010- 3	2.5368- 4	2.5368- 4	5.7187-12
4.2500+ 0	1.0046+ 4	3.0971- 2	1.8233+ 0	7.2529- 4	1.5807+ 0	4.3098- 4	2.5798- 1	3.4618- 3	2.6727- 4	2.6727- 4	5.2925-12
4.7500+ 0	1.0425+ 4	2.9845- 2	1.7570+ 0	5.8065- 4	1.4521+ 0	3.7412- 4	2.8908- 1	4.8438- 3	2.9807- 4	2.9807- 4	4.5945-12
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6.3840+ 0	1.1342+ 4	2.7433- 2	1.6150+ 0	3.2349- 4	1.1915+ 0	2.6132- 4	4.1328- 1	8.6248- 3	3.9149- 4	3.9149- 4	3.2062-12
7.4833+ 0	1.1758+ 4	2.6465- 2	1.5580+ 0	2.3385- 4	1.0829+ 0	2.1579- 4	4.8175- 1	1.2918- 2	4.6128- 4	4.6128- 4	2.6501-12
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1.0000+ 4	7.8442+ 3	3.9665- 2	2.3351+ 0	1.3102-10	2.3980- 3	1.3540- 7	2.1830+ 0	1.4970- 1	1.2745+ 0	1.2745+ 0	1.6628-15
1.0000+ 5	7.7802+ 3	3.9940- 2	2.3513+ 0	1.3108-12	2.8977- 4	1.3540- 8	2.1980+ 0	1.5200- 1	1.2838+ 1	1.2838+ 1	1.6828-18

October 31, 1989
Atomic Weight 39.948

ENDL Evaluated
Photon Cross Sections

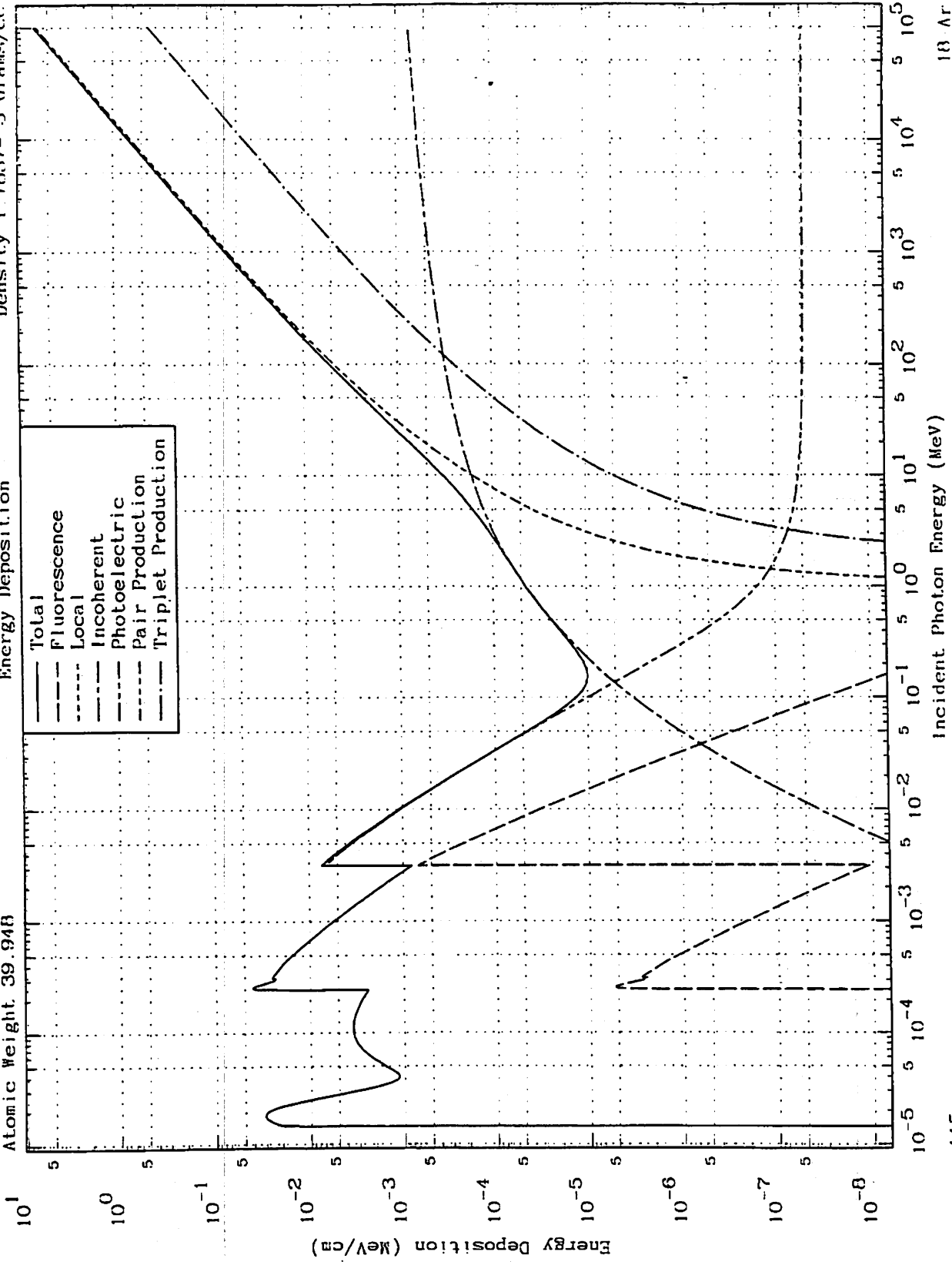
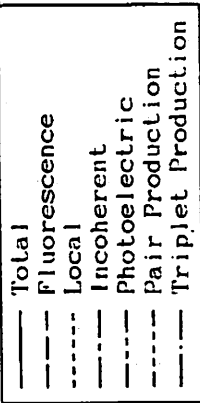
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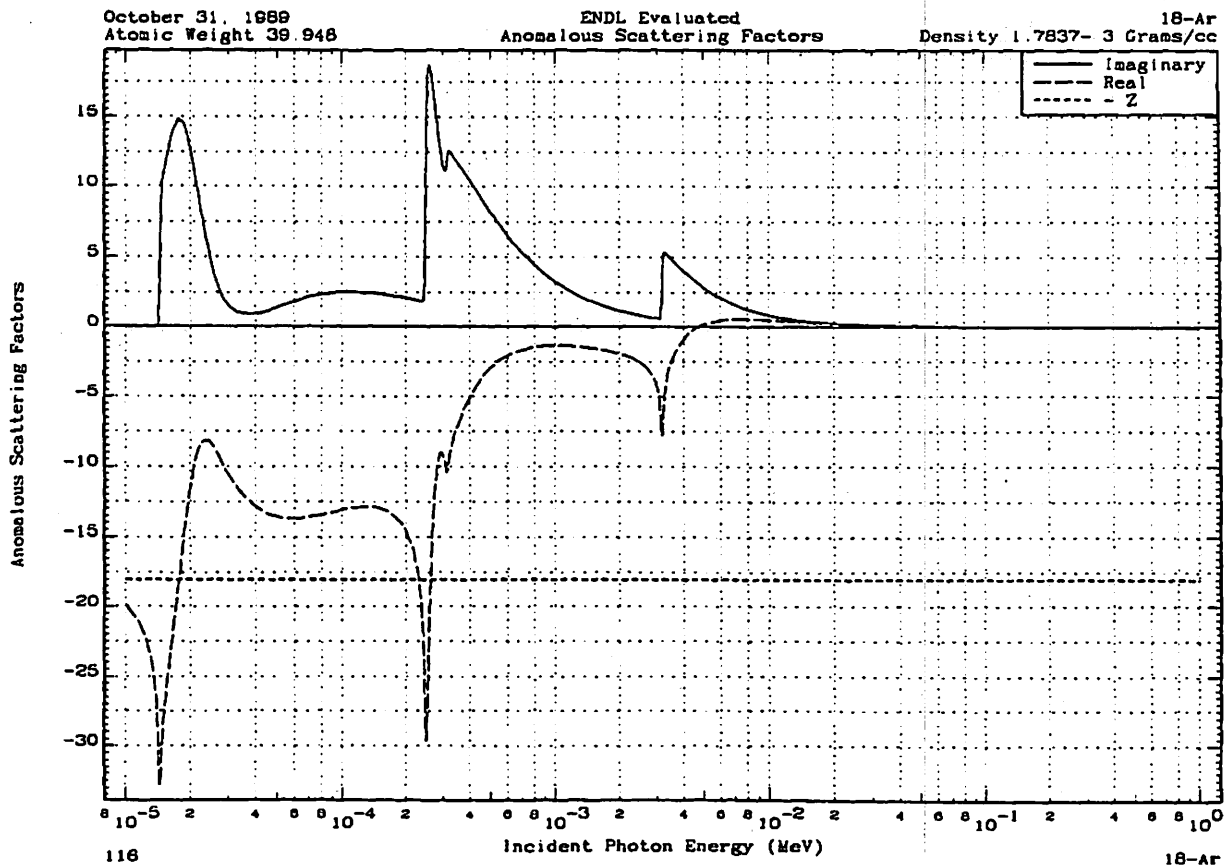
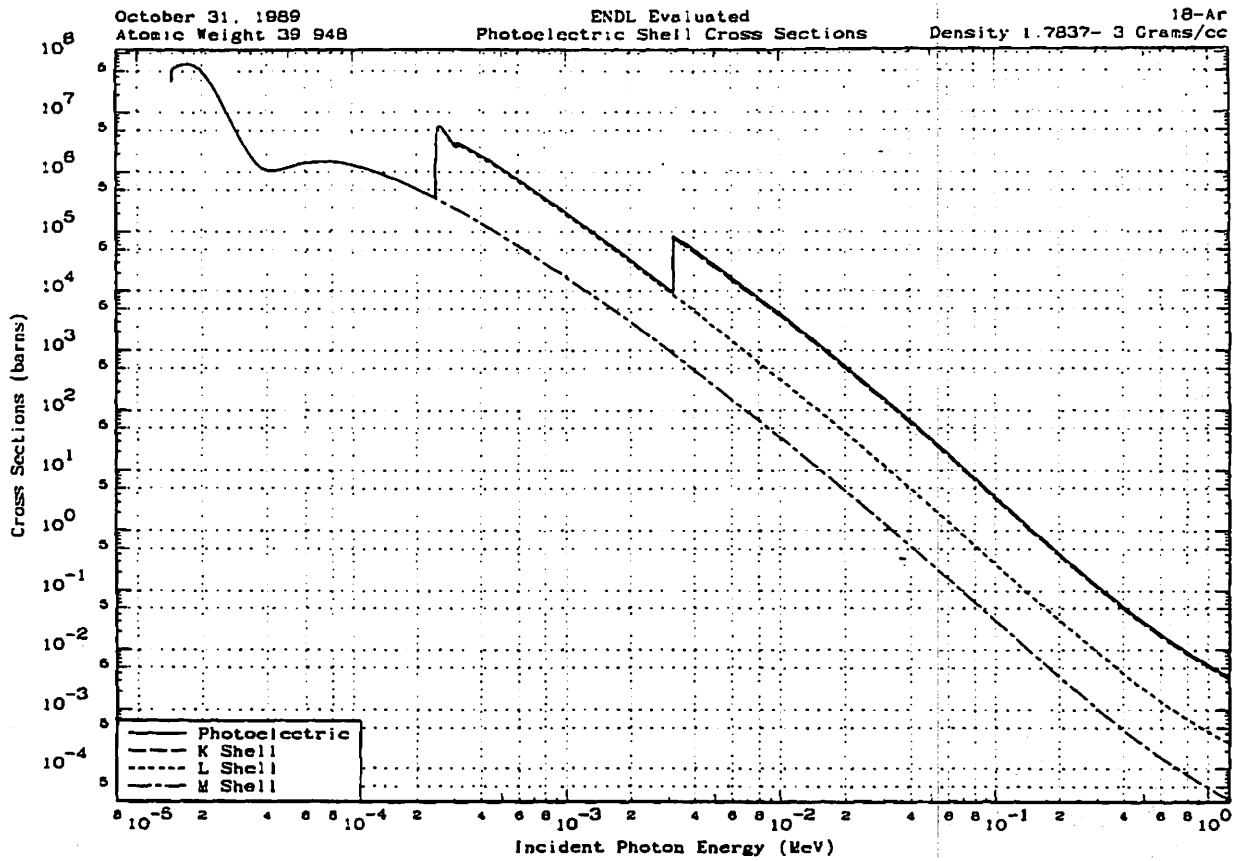


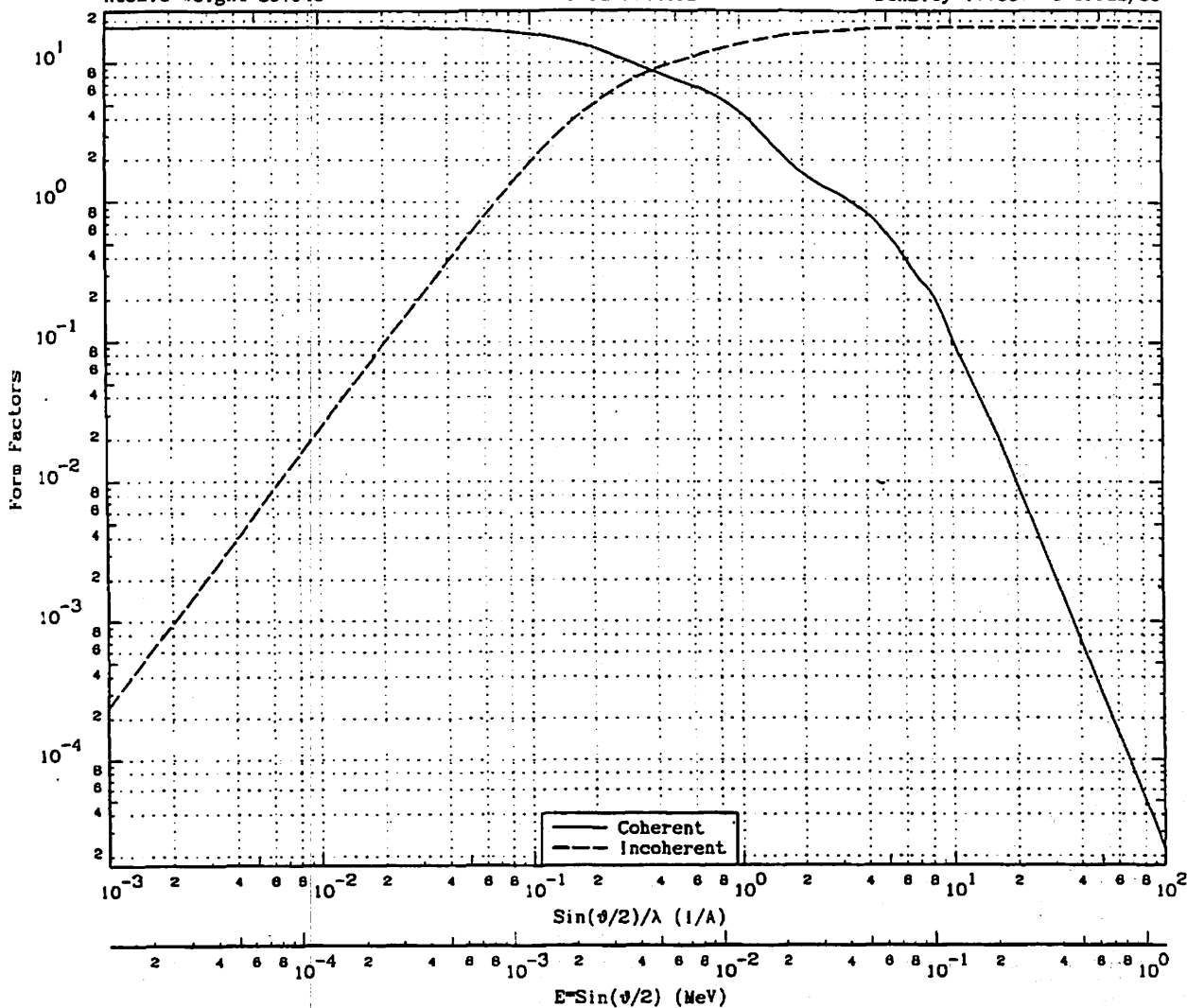
October 31, 1989
Atomic Weight 39.948

ENDL Evaluated
Energy Deposition

Density 1.7837 - 3 Grams/cc
18 Ar







$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	1.8000+1	0.0000+0	7.0000-1	8.6790-3	6.2388+0	1.1728+1	1.1395+1	1.4128-1	6.7148-2	1.7998+1
1.0000-3	1.2399-5	1.8000+1	2.4000-4	8.0000-1	9.9188-3	5.8198+0	1.2424+1	1.5000+1	1.8598-1	2.7695-2	1.8000+1
5.0000-3	6.1993-5	1.7994+1	6.0000-3	9.0000-1	1.1159-2	5.0185+0	1.3081+1	1.7847+1	2.2128-1	1.5223-2	1.8000+1
1.0000-2	1.2399-4	1.7830+1	2.4000-2	1.0000+0	1.2399-2	4.4433+0	1.3829+1	2.0000+1	2.4797-1	9.9947-3	1.8000+1
1.5000-2	1.8598-4	1.7957+1	5.4200-2	1.2500+0	1.5498-2	3.2318+0	1.4745+1	4.0156+1	4.9787-1	7.2370-4	1.8000+1
2.0000-2	2.4797-4	1.7824+1	9.5900-2	1.5000+0	1.8598-2	2.4170+0	1.5489+1	5.0000+1	6.1993-1	3.1404-4	1.8000+1
2.5000-2	3.0996-4	1.7881+1	1.4910-1	1.8418+0	2.2838-2	1.7811+0	1.6118+1	6.0000+1	9.9188-1	5.2330-5	1.8000+1
3.0000-2	3.7196-4	1.7829+1	2.1330-1	2.0000+0	2.4797-2	1.8034+0	1.6324+1	1.0000+2	1.2399+0	2.2502-5	1.8000+1
4.0000-2	4.9594-4	1.7699+1	3.7310-1	2.3594+0	2.9253-2	1.3545+0	1.6680+1	1.7117+2	2.1223+0	3.0783-6	1.8000+1
5.0000-2	6.1993-4	1.7635+1	5.7100-1	2.5000+0	3.0996-2	1.2929+0	1.6795+1	3.2012+2	3.9890+0	3.2738-7	1.8000+1
7.0000-2	8.6790-4	1.7114+1	1.0626+0	3.0000+0	3.7196-2	1.1298+0	1.7132+1	5.1200+2	6.3480+0	6.3971-8	1.8000+1
9.0000-2	1.1159-3	1.6588+1	1.6445+0	3.5000+0	4.3395-2	9.6680-1	1.7386+1	1.0000+3	1.2399+1	6.8477-8	1.8000+1
1.0000-1	1.2399-3	1.6295+1	1.8560+0	4.0000+0	4.9594-2	8.4050-1	1.7573+1	2.0197+3	2.5041+1	1.66136-10	1.8000+1
1.2500-1	1.5498-3	1.5494+1	2.7902+0	4.5893+0	5.6653-2	6.8832-1	1.7722+1	3.8942+3	4.8282+1	8.1068-11	1.8000+1
1.5000-1	1.8598-3	1.4839+1	3.5580+0	5.0000+0	6.1993-2	5.8900-1	1.7800+1	6.9687+3	1.1117+2	6.0277-12	1.8000+1
1.7500-1	2.1697-3	1.3776+1	4.3202+0	5.7891+0	7.1776-2	4.4685-1	1.7890+1	1.9053+4	2.3823+2	6.0781-13	1.8000+1
2.0000-1	2.4797-3	1.2937+1	5.0330+0	6.0000+0	7.4391-2	4.1250-1	1.7907+1	5.1283+4	6.3583+2	3.1863-14	1.8000+1
2.5000-1	3.0996-3	1.1428+1	6.3030+0	7.0000+0	8.6790-2	2.8730-1	1.7956+1	2.2846+5	2.8078+3	4.0787-16	1.8000+1
3.0000-1	3.7196-3	1.0204+1	7.3770+0	8.0000+0	9.9188-2	2.2680-1	1.7978+1	1.0000+6	1.2399+4	5.3767-18	1.8000+1
4.0000-1	4.9594-3	8.5424+0	8.9980+0	8.5580+0	1.0811-1	1.8789-1	1.7983+1	5.6234+8	6.9722+4	3.3285-20	1.8000+1
5.0000-1	6.1993-3	7.5635+0	1.0106+1	9.5880+0	1.1885-1	1.2411-1	1.7992+1	5.4247+7	6.7258+5	3.8703-23	1.8000+1
6.0000-1	7.4391-3	6.8649+0	1.0967+1	1.0000+1	1.2399-1	1.0570-1	1.7994+1	1.0000+9	1.2399+7	6.0560-27	1.8000+1

Energy MeV	Total Meas. Free Path		Cross Sect.ons (barns)					Energy Deposition (MeV/cc)			
	cm	cc*cm/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.5370+4	3.6475-2	2.4195-0	2.4195-0	5.1932-5				3.8265-19	3.8264-19	
1.1686-5	5.3468+3	1.0485-1	6.9556-0	6.9555-0	7.0911-5				7.1345-19	7.1345-19	
1.2333-5	3.3893+3	1.8546-1	1.0975-1	1.0976-1	7.8992-5				8.8510-19	8.8510-19	
1.3184-5	1.7210+3	3.2576-1	2.1609-1	2.1609+1	9.0258-5				1.1559-18	1.1559-18	
1.3510-5	1.1135+3	5.0348-1	3.3390+1	3.3398+1	9.6178-5				1.3125-18	1.3125-18	
1.3891-5	7.9912+2	7.0156-1	4.6536+1	4.6538+1	1.0019-4				1.4243-18	1.4243-18	
1.4056-5	6.1082+2	9.1783-1	6.0865+1	6.0865+1	1.0262-4				1.4943-18	1.4943-18	
1.4167-5	4.8293+2	1.1609+0	7.7009+1	7.7009+1	1.0422-4				1.5411-18	1.5411-18	
1.4371-5	2.7690+2	2.0247+0	1.3431+2	1.3431+2	1.0723-4				1.6316-18	1.6316-18	
1.4430-5	2.4628+2	2.2764+0	1.5101+2	1.5101+2	1.0812-4				1.6587-18	1.6587-18	
M3 1.4430-5	1.0979+3	5.1064+5	3.3974+7	1.5101+2	1.0812+4	3.3074+7			1.3143+2	1.3143+2	
1.4544-5	1.0749+3	5.2171+5	3.4608+7	1.7209+2	1.0983-4	3.4608+7			1.3534+2	1.3534+2	
1.4620-5	1.0593+3	5.2924+5	3.5109+7	1.7408+2	1.1099-4	3.5107+7			1.3801+2	1.3801+2	
M2 1.4620-5	7.1792+4	7.8092+5	5.1802+7	1.7408+2	1.1099-4	5.1802+7			2.0365+2	2.0365+2	
1.4732-5	7.0325+4	7.9720+5	5.2883+7	1.6857+2	1.1270-4	5.2882+7			2.0949+2	2.0949+2	
1.4896-5	6.8265+4	8.2138+5	5.4486+7	1.5260+2	1.1522-4	5.4486+7			2.1825+2	2.1825+2	
1.5060-5	6.6395+4	8.4439+5	5.6013+7	1.4310+2	1.1776-4	5.6013+7			2.2682+2	2.2682+2	
1.5549-5	6.1775+4	9.0753+5	6.0202+7	1.3658+2	1.2554-4	6.0201+7			2.5171+2	2.5171+2	
1.6559-5	5.7040+4	9.8288+5	6.5200+7	1.4014+2	1.4237-4	6.5200+7			2.9031+2	2.9031+2	
1.7870-5	5.7102+4	9.8180+5	6.5128+7	1.4631+2	1.6210-4	6.5128+7			3.0944+2	3.0944+2	
1.8868-5	6.1548+4	9.1069+5	6.0424+7	1.4588+2	1.8094-4	6.0424+7			3.0331+2	3.0331+2	
1.9508-5	6.8238+4	8.2181+5	5.4502+7	1.4034+2	1.9754-4	5.4502+7			2.8586+2	2.8586+2	
2.0329-5	7.6800+4	7.1146+5	4.7195+7	1.3358+2	2.1457-4	4.7195+7			2.5798+2	2.5798+2	
2.0938-5	8.8858+4	6.3093+5	4.1853+7	1.2831+2	2.2761-4	4.1853+7			2.3563+2	2.3563+2	
2.1795-5	1.0852+5	5.1660+5	3.4269+7	1.1807+2	2.4602-4	3.4269+7			2.0083+2	2.0083+2	
2.3690-5	1.7993+3	3.1159+5	2.0669+7	9.1884+1	2.9135-4	2.0669+7			1.3186+2	1.3186+2	
2.4688-5	2.3800+3	2.3556+5	1.5628+7	7.9785+1	3.1643-4	1.5628+7			1.0373+2	1.0373+2	
2.8920-5	7.6229+3	7.3546+4	4.8787+6	4.3616+1	4.3417-4	4.8787+6			3.7938+3	3.7938+3	
M1 2.8920-5	7.4961+3	7.4789+4	4.9612+6	4.3616+1	4.3417-4	4.9611+6			3.8579+3	3.8579+3	
3.0848-5	1.1820+3	4.8246+4	3.2004+6	3.5420+1	4.9399-4	3.2004+6			2.6547+3	2.6547+3	
3.3118-5	1.8118+2	3.0843+4	2.0526+6	2.8892+1	5.8835-4	2.0526+6			1.8279+3	1.8279+3	
3.5700-5	2.5962+2	2.1603+4	1.4330+6	2.3375+1	6.6156-4	1.4330+6			1.3756+3	1.3756+3	
3.7380-5	3.0477+2	1.8395+4	1.2202+6	2.1007+1	7.2450-4	1.2202+6			1.2258+3	1.2258+3	
3.9354-5	3.4122+2	1.8430+4	1.0899+6	1.8791+1	8.0387-4	1.0899+6			1.1533+3	1.1533+3	
4.1131-5	3.5734+2	1.5889+4	1.0407+6	1.7329+1	8.7811-4	1.0407+6			1.1510+3	1.1510+3	
4.3241-5	3.5810+2	1.5656+4	1.0385+6	1.6027+1	9.7047-4	1.0385+6			1.2075+3	1.2075+3	
4.6047-5	3.4288+2	1.6352+4	1.0847+6	1.4888+1	1.1005-3	1.0847+6			1.3430+3	1.3430+3	
5.1929-5	2.8946+2	1.8721+4	1.2419+6	1.4023+1	1.3996-3	1.2419+6			1.7341+3	1.7341+3	
6.0000-5	2.6521+2	2.1139+4	1.4023+6	1.4499+1	1.8683-3	1.4023+6			2.2623+3	2.2623+3	
7.0000-5	2.4978+2	2.2445+4	1.4899+6	1.6048+1	2.5429-3	1.4899+6			2.8024+3	2.8024+3	
8.0000-5	2.5157+2	2.2286+4	1.4783+6	1.7555+1	3.3210-3	1.4783+6			3.1800+3	3.1800+3	
9.0000-5	2.6595+2	2.1080+4	1.3984+6	1.8990+1	4.2030-3	1.3984+6			3.3840+3	3.3840+3	
1.0000-4	2.8841+2	1.9575+4	1.2985+6	2.0309+1	5.1888-3	1.2985+6			3.4915+3	3.4915+3	
1.1039-4	3.1806+2	1.7738+4	1.1767+6	2.1338+1	6.3205-3	1.1767+6			3.4925+3	3.4925+3	
1.2247-4	3.5055+2	1.5993+4	1.0809+6	2.1408+1	7.7780-3	1.0809+6			3.4937+3	3.4937+3	
1.4135-4	4.1894+2	1.3350+4	8.8560+5	2.1499+1	1.0356-2	8.8560+5			3.3880+3	3.3880+3	
1.6690-4	5.3399+2	1.0499+4	6.9645+5	1.8677+1	1.4430-2	6.9644+5			3.1255+3	3.1255+3	
1.8950-4	6.4864+2	8.6432+3	5.7335+5	1.3758+1	1.8595-2	5.7333+5			2.9214+3	2.9214+3	
1.9662-4	6.9705+2	8.0429+3	5.3353+5	1.1289+1	2.0425-2	5.3352+5			2.8493+3	2.8493+3	
2.1848-4	8.1190+2	6.9052+3	4.5806+5	5.5851+0	2.4258-2	4.5805+5			2.6863+3	2.6863+3	
2.2797-4	8.9069+2	6.2943+3	4.1754+5	2.5979+0	2.6896-2	4.1753+5			2.5594+3	2.5594+3	
2.3277-4	9.2458+2	6.0637+3	4.0223+5	2.6290+0	2.8039-2	4.0223+5			2.5175+3	2.5175+3	
2.3855-4	9.6609+2	5.8031+3	3.8495+5	6.6255+0	2.9447-2	3.8494+5			2.4691+3	2.4691+3	
2.4145-4	9.8727+2	5.8788+3	3.7889+5	1.3719+1	3.0187-2	3.7888+5			2.4458+3	2.4458+3	
2.4253-4	9.8517+2	5.8335+3	3.7370+5	1.8977+1	3.0437-2	3.7388+5			2.4370+3	2.4370+3	
2.4381-4	1.0045+1	5.5810+3	3.7022+5	2.9108+1	3.0757-2	3.7019+5			2.4289+3	2.4289+3	
2.4588-4	1.0206+1	5.4934+3	3.6441+5	6.3155+1	3.1308-2	3.6434+5			2.4099+3	2.4099+3	
2.4709-4	1.0287+1	5.4498+3	3.6152+5	8.8832+1	3.1590-2	3.6143+5			2.4013+3	2.4013+3	
L3 2.4709-4	2.3754+2	2.3801+4	1.5658+6	8.8832+1	3.1590-2	1.5655+6			1.0401+2	1.0400+2	1.1580+6
2.4892-4	1.5836+2	3.5180+4	2.3337+6	1.3970+2	3.2058-2	2.3335+6			1.5819+2	1.5817+2	1.9011+6
2.4943-4	1.4384+2	3.8950+4	2.5839+6	1.5313+2	3.2190-2	2.5836+6			1.7328+2	1.7326+2	2.1429+6
L2 2.4943-4	1.1301+2	4.9611+4	3.2909+6	1.5313+2	3.2190-2	3.2908+6			2.2071+2	2.2068+2	2.8210+6
2.5023-4	9.6217+3	5.8268+4	3.6652+6	1.7685+2	3.2397-2	3.6650+6			2.6008+2	2.6003+2	3.3741+6
2.5130-4	8.0587+3	8.9589+4	4.8149+6	2.0023+2	3.2872-2	4.8147+6			3.1182+2	3.1178+2	4.0974+6
2.5232-4	7.1331+3	7.8596+4	5.2137+6	2.1801+2	3.2940-2	5.2134+6			3.5372+2	3.5367+2	4.6751+6
2.5301-4	6.7366+3	8.3185+4	5.5181+6	2.2494+2	3.3120-2	5.5179+6			3.7540+2	3.7535+2	4.9693+6
2.5441-4	8.4026+3	8.7563+4	5.8085+6	2.3421+2	3.3486-2	5.8083+6			3.9734+2	3.9728+2	5.2511+6
2.5857-4	6.3272+3	8.8607+4	5.8777+6	2.3516+2	3.4589-2	5.8775+6			4.0865+2	4.0860+2	5.3273+6
2.8153-4	6.4026+3	8.7563+4	5.8085+6	2.2689+2	3.5383-2	5.8083+6			4.0845+2	4.0840+2	5.2675+6
2.8917-4	6.9890+3	8.0447+4	5.3384+6	2.1833+2	3.7202-2	5.3382+6			3.8479+2	3.8474+2	4.8285+6
2.8831-4	1.0135+2	5.5318+4	3.6885+6	1.8900+2	4.2889-2	3.6884+6			2.8447+2	2.8443+2	3.2852+6
2.9914-4	1.2289+2	4.5821+4	3.0283+6	1.4007+2	4.6272-2	3.0282+6			2.4341+2	2.4338+2	2.6854+6
3.0823-4	1.3109+2	4.2768+4	2.8369+6	1.2519+2	4.9125-2	2.8368+6			2.3512+2	2.3509+2	2.4969+6
3.1086-4	1.3289+2	4.2189+4	2.7988+6	1.2415+2	4.9985-2	2.7985+6			2.3392+2	2.3389+2	2.4837+6
3.1343-4	1.3465+2	4.1836+4	2.7820+6	1.3182+2	5.0783-2	2.7818+6			2.3278+2	2.3274+2	2.4320+6
L1 3.1343-4	1.2200+2	4.5955+4	3.0484+6	1.3162+2	5.0783-2	3.0483+6			2.5891+2	2.5888+2	2.8489+6
3.1823-4	1.2367+2	4.5332+4	3.0071+6	1.4438+2	5.1702-2	3.0070+6			2.5568+2	2.5568+2	2.8123+6
3.1970-4	1.2812+2	4.4453+4	2.9488+6	1.5448+2	5.2819-2	2.9488+6			2.5348+2	2.5345+2	2.7800+6
3.2885-4	1.3410+2	4.1808+4	2.7732+6	1.6230+2	5.6151-2	2.7731+6			2.4596+2	2.4592+2	2.6034+6
3.7751-4	1.7482+2	3.2089+4	2.1273+6	1.7790+2	7.3130-2	2.1271+6			2.1592+2	2.1590+2	2.0228+6
4.3057-4	2.2845+2	2.4541+4	1.6279+6	1.8742+2	9.4607-2	1.6277+6			1.8845+2	1.8844+2	1.5841+6
5.4957-4	4.0075+2	1.3990+4	9.2801+5	1.9838+2	1.5254+1	9.2781+5			1.3711+1	1.3710+1	9.0505+7
8.6598-4	1.2287+1	4.5704+3	3.0318+5	1.8520+2	3.8152-1	3.0299+5			7.0552+3	7.0549+3	3.0585+7
1.0000-3	1.7723+1	3.1834+3	2.0984+5	1.7938+2	4.7030-1	2.0984+5			5.6377+3	5.6375+3	2.1398+7
1.4584-3	1.4732+1	1.1845+3	7.8573+4	1.5895+2	8.8819-1	7.8413+4			3.0750+3	3.0749+3	8.2635+8
1.6628-3	9.0984-1	6.1819+2	4.0875+4	1.4003+2	1.3167+0	4.0734+4			2.0403+3	2.0402+3	4.3930+8

October 31, 1989
Atomic Weight 39.948

ENDL Evaluated
Photon Data

18-Ar
Density 1 7837- 3 Grams/cc

Energy keV	Total Mean Free Path		Cross Sections (baras)					Energy Deposition (keV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.1383-3	1.3193+0	4.2494+2	2.8188+4	1.2643+2	1.6114+0	2.8060-4			1.6134-3	1.6134-3	3.0644-8
2.3290-3	1.6594+0	3.3785-2	2.2411-4	1.1700+2	1.8035-0	2.2293-4			1.3861-3	1.3860-3	2.4550-8
2.5931-3	2.2222+0	2.5229-2	1.6736-4	1.0211+2	2.0779-0	1.6631-4			1.1596-3	1.1596-3	1.8510-8
2.7806-3	2.8425+0	2.1216-2	1.4073+4	9.1618+0	2.2349+0	1.3980-4			1.0377-3	1.0377-3	1.5638-8
2.8983-3	3.0242+0	1.8538-2	1.2297+4	8.0967+0	2.3851+0	1.2214-4			9.5188-4	9.5186-4	1.3718-8
2.9744-3	3.2502+0	1.7249-2	1.1442+4	7.3340+0	2.4376+0	1.1367-4			9.0910-4	9.0908-4	1.2703-8
3.0574-3	3.5084+0	1.5980-2	1.0600+4	6.1883+0	2.5169+0	1.0536-4			8.6617-4	8.6615-4	1.1685-8
3.0878-3	3.6862+0	1.5546-2	1.0313+4	5.5829+0	2.5459+0	1.0264-4			8.5136-4	8.5135-4	1.1577-8
3.1119-3	3.8686+0	1.5207-2	1.0088+4	4.9120+0	2.5892+0	1.0038-4			8.3978-4	8.3977-4	1.1338-8
3.1341-3	4.0521+0	1.4902-2	9.8855+3	4.0782+0	2.5904+0	9.8421-3			8.2942-4	8.2941-4	1.1125-8
3.1516-3	4.2364+0	1.4667-2	9.7295+3	3.4361+0	2.6073+0	9.6925-3			8.2137-4	8.2136-4	1.0961-8
3.1577-3	4.4333+0	1.4567-2	9.6786+3	3.2928+0	2.6131+0	9.6410-3			8.1859-4	8.1858-4	1.0904-8
3.1845-3	4.6433+0	1.4500-2	9.6185+3	3.2201+0	2.6188+0	9.5837-3			8.1549-4	8.1548-4	1.0841-8
3.1776-3	4.8576+0	1.4340-2	9.5123+3	3.0995+0	2.6324+0	9.4766-3			8.0963-4	8.0962-4	1.0723-8
K 3.1776-3	4.3232-1	1.2968+3	6.6024+4	3.4095+0	2.6324+0	8.5987-4			7.3470-3	6.6563-3	0.9068-4
3.1911-3	4.5541+0	1.2841+3	6.5180+4	3.9977+0	2.6454+0	8.5137-4			7.3053-3	6.6213-3	0.8399-4
3.2011-3	4.7979+0	1.2748+3	6.4563+4	4.6246+0	2.6550+0	8.4514-4			7.2745-3	6.5954-3	0.7909-4
3.2156-3	5.0541+0	1.2615+3	6.3684+4	5.5389+0	2.6690+0	8.3626-4			7.2304-3	6.5583-3	0.7210-4
3.2339-3	5.3033+0	1.2449+3	6.2584+4	6.4689+0	2.6867+0	8.2518-4			7.1750-3	6.5118-3	0.6336-4
3.2514-3	5.5603+0	1.2294+3	6.1552+4	7.1457+0	2.7037+0	8.1478-4			7.1229-3	6.4677-3	0.5518-4
3.2843-3	6.0869+0	1.2009+3	7.9662+4	7.9089+0	2.7355+0	7.8580-4			7.0270-3	6.3888-3	0.4022-4
3.3418-3	6.6615+0	1.1532+3	7.6486+4	8.7428+0	2.7885+0	7.6408-4			6.8846-3	6.2494-3	0.1521-4
3.4498-3	7.2959+0	1.0707+3	7.1029+4	9.6828+0	2.8772+0	7.0929-4			6.5777-3	6.0057-3	5.7195-4
3.6789-3	8.0864+0	9.2113+2	6.1103+4	1.0529+2	3.0704+0	6.0995-4			6.0338-3	5.5404-3	4.9335-4
4.1137-3	9.7780+0	7.0272+2	4.6615+4	1.0924+2	3.4288+0	4.8503-4			5.1429-3	4.7847-3	3.7815-4
4.7307-3	1.1542+0	4.8573+2	3.2221+4	1.0411+2	3.8677+0	3.2113+4			4.0836-3	3.8218-3	2.6185-4
6.2870-3	2.4377+0	2.2998+2	1.5256+4	8.6318+0	1.7671+0	1.5115+4			2.5549-3	2.4307-3	1.2423-4
9.3917-3	7.4572+0	7.5180+1	4.9871+3	5.8902+1	5.9904+0	4.6222-3			1.2428-3	1.2024-3	4.0497-5
1.0000-1	8.8643+0	6.3246+1	4.1954+3	5.4885+1	6.1883+0	4.1343-3			1.1117-3	1.0777-3	3.4033-5
1.3335-2	2.0272+1	2.7856+1	1.8348+3	3.8835+1	7.0385+0	1.7887-3			6.4118-4	6.2843-4	1.4747-5
1.9117-2	5.7077+1	9.8224+0	6.5157+2	2.3049+1	7.9540+0	6.2057-2			3.1915-4	3.1402-4	5.1238-6
2.5812-2	1.3582+2	4.1278+0	2.7382+2	1.4342+1	8.5278+0	2.5095+2			1.7443-4	1.7235-4	2.0731-6
3.8928-2	4.2600+2	2.3160+0	8.7299+1	7.3477+0	9.9592+0	7.0993-1			7.4968-5	7.4381-5	5.8684-7
4.7855-2	7.2078+2	7.7782+1	5.1597+1	5.1959+0	9.0068+0	3.7394-1			4.9069-5	4.8760-5	3.0913-7
5.8393-2	1.1323+3	4.9511+1	3.2843+1	3.6840+0	9.0017+0	2.0158+1			3.3012-5	3.2848-5	1.8665-7
7.0774-2	1.6543+3	3.3889+1	2.2480+1	2.6130+0	8.8731+0	1.0994+1			2.2800-5	2.2709-5	9.0899-8
8.4698-2	2.2087+3	2.5383+1	1.6838+1	1.8803+0	8.7252+0	6.2325+0			1.6716-5	1.6664-5	5.1534-8
1.0000-1	2.7393+3	2.0466+1	1.3576+1	1.3822+0	8.5063+0	3.6876+0			1.3171-5	1.3141-5	3.0482-8
1.1481-1	3.1492+3	1.7803+1	1.1809+1	1.0846+0	8.2744+0	2.4504+0			1.1418-5	1.1397-5	2.0261-8
1.3074-1	3.5597+3	1.5749+1	1.0447+1	8.3381+0	8.0327+0	1.5811+0			1.0338-5	1.0325-5	1.3072-8
1.5125-1	3.8497+3	1.4194+1	9.4157+0	6.3097+1	7.8644+0	9.8933-1			9.8499-6	9.8417-6	8.2534-9
1.7321-1	4.3058+3	1.3020+1	8.6371+0	4.8616+1	7.4950+0	6.5587-1			1.0080-5	1.0074-5	5.4225-9
2.0926-1	4.7625+3	1.1772+1	7.8088+0	3.3713+1	7.1067+0	3.6503-1			1.1037-5	1.1034-5	3.0179-9
2.7108-1	5.3967+3	1.0386+1	6.8912+0	2.0333+1	6.5228+0	1.6503-1			1.3439-5	1.3438-5	1.3642-9
4.0000-1	6.4064+3	8.7512+2	5.8051+0	8.4406+2	5.6576+0	5.3151-2			1.9440-5	1.9440-5	4.3937-10
5.0539-1	7.0632+3	7.9038+2	5.2430+0	5.6359+2	5.1556+0	2.8055-2			2.4436-5	2.4436-5	2.3190-10
6.8293-1	8.1373+3	6.8896+2	4.5703+0	3.2601+2	4.5244+0	1.3216-2			3.2273-5	3.2272-5	1.0924-10
8.7840-1	9.1396+3	6.1341+2	4.0891+0	1.9824+2	4.0417+0	7.5238-3			4.0344-5	4.0344-5	6.2198-10
1.0000-0	9.7412+3	5.7553+2	3.8178+0	1.5234+2	3.7988+0	5.6980-3			4.5131-5	4.5131-5	4.7080-11
1.0220-0	9.8473+3	5.6933+2	3.7767+0	1.4586+2	3.7567+0	5.3890-3			4.5939-5	4.5939-5	4.4552-11
1.0251+0	9.8532+3	5.6841+2	3.7706+0	1.4498+2	3.7507+0	5.3542-3	1.3126-6		4.6044-5	4.6044-5	4.4285-11
1.0287+0	9.8816+3	5.6735+2	3.7635+0	1.4396+2	3.7438+0	5.3142-3	1.3126-6		4.6167+5	4.6167+5	4.3934-11
1.0366+0	9.9215+3	5.6507+2	3.7484+0	1.4178+2	3.7290+0	5.2288-3	1.3126-6		4.6433+5	4.6433+5	4.3227-11
1.0382+0	9.9294+3	5.6462+2	3.7454+0	1.4135+2	3.7281+0	5.2121-3	1.7714-6		4.6485+5	4.6485+5	4.3089-11
1.0397+0	9.9370+3	5.6418+2	3.7426+0	1.4095+2	3.7233+0	5.1962-3	2.3014-6		4.6535+5	4.6535+5	4.2958-11
1.0415+0	9.9461+3	5.6387+2	3.7391+0	1.4046+2	3.7199+0	5.1771-3	3.0820-6		4.6596+5	4.6596+5	4.2800-11
1.0438+0	9.9577+3	5.6302+2	3.7348+0	1.3984+2	3.7158+0	5.1530-3	4.1501-6		4.6673+5	4.6673+5	4.2600-11
1.0464+0	9.9707+3	5.6228+2	3.7299+0	1.3915+2	3.7108+0	5.1258-3	5.9132-6		4.6761+5	4.6760+5	4.2376-11
1.0483+0	9.9830+3	5.6174+2	3.7263+0	1.3865+2	3.7073+0	5.1081-3	7.3621-6		4.6824+5	4.6824+5	4.2213-11
1.0512+0	9.9949+3	5.6092+2	3.7209+0	1.3788+2	3.7020+0	5.0783-3	9.9866-6		4.6922+5	4.6921+5	4.1967-11
1.0541+0	1.0009+4	5.6011+2	3.7155+0	1.3713+2	3.6967+0	5.0489-3	1.3126-5		4.7018+5	4.7018+5	4.1724-11
1.0577+0	1.0027+4	5.5910+2	3.7088+0	1.3620+2	3.6902+0	5.0103-3	1.7891-5		4.7139+5	4.7139+5	4.1421-11
1.0611+0	1.0044+4	5.5815+2	3.7025+0	1.3533+2	3.6840+0	4.9763-3	2.3272-5		4.7253+5	4.7253+5	4.1140-11
1.0651+0	1.0064+4	5.5705+2	3.6952+0	1.3431+2	3.6768+0	4.9367-3	3.0809-5		4.7387+5	4.7387+5	4.0813-11
1.0704+0	1.0091+4	5.5559+2	3.6855+0	1.3299+2	3.6673+0	4.8850-3	4.2982-5		4.7564+5	4.7564+5	4.0385-11
1.0762+0	1.0120+4	5.5401+2	3.6751+0	1.3156+2	3.6570+0	4.8253-3	5.8401-5		4.7758+5	4.7758+5	3.9925-11
1.0806+0	1.0141+4	5.5282+2	3.6672+0	1.3049+2	3.6493+0	4.7877-3	7.4182-5		4.7904+5	4.7904+5	3.9581-11
1.0871+0	1.0173+4	5.5108+2	3.6556+0	1.2894+2	3.6379+0	4.7271-3	9.9948-5		4.8121+5	4.8121+5	3.9080-11
1.0937+0	1.0208+4	5.4933+2	3.6440+0	1.2739+2	3.6284+0	4.6687-3	1.3126-4		4.8341+5	4.8341+5	3.8581-11
1.1028+0	1.0248+4	5.4699+2	3.6285+0	1.2535+2	3.6112+0	4.5872-3	1.8200-4		4.8636+5	4.8636+5	3.7924-11
1.1107+0	1.0289+4	5.4489+2	3.6146+0	1.2353+2	3.5975+0	4.5185-3	2.3738-4		4.8905+5	4.8904+5	3.7339-11
1.1206+0	1.0337+4	5.4236+2	3.5978+0	1.2136+2	3.5809+0	4.4323-3	3.1757-4		4.9232+5	4.9232+5	3.6642-11
1.1333+0	1.0388+4	5.3917+2	3.5788+0	1.1868+2	3.5600+0	4.3319-3	4.4158-4		4.9652+5	4.9652+5	3.5813-11
1.1475+0	1.0466+4	5.3567+2	3.5534+0	1.1574+2	3.5370+0	4.2388-3	6.0976-4		5.0120+5	5.0120+5	3.5043-11
1.1582+0	1.0517+4	5.3308+2	3.5362+0	1.1362+2	3.5199+0	4.1707-3	7.5781-4		5.0472+5	5.0472+5	3.4480-11
1.1741+0	1.0592+4	5.2931+2	3.5112+0	1.1056+2	3.4950+0	4.0727-3	1.0127-3		5.0955+5	5.0955+5	3.3670-11
1.1901+0	1.0687+4	5.2560+2	3.4866+0	1.0761+2	3.4705+0	3.9776-3	1.3126-3		5.1520+5	5.1520+5	3.2883-11
1.2051+0	1.0736+4	5.2219+2	3.4640+0	1.0486+2	3.4480+0	3.8916-3	1.6332-3		5.2010+5	5.2010+5	3.2173-11
1.2275+0	1.0839+4	5.1724+2	3.4312+0	1.0117+2	3.4151+0	3.7886-3	2.1850-3		5.2740+5	5.2740+5	3.1155-11
1.2500+0	1.0941+4	5.1243+2	3.3992+0	9.7564-3	3.3830+0	3.6510-3	2.8260-3		5.3472+5	5.3472+5	3.0183-11
1.2803+0	1.1076+4	5.0517+2	3.3577+0	9.3005-3	3.3411+0	3.4986-3	3.8229-3		5.4455+5	5.4455+5	2.8923-11
1.3077+0	1.1196+4	5.0073+2	3.3216+0	8.8153-3	3.3045+0	3.3692-3	4.8522-3		5.53		

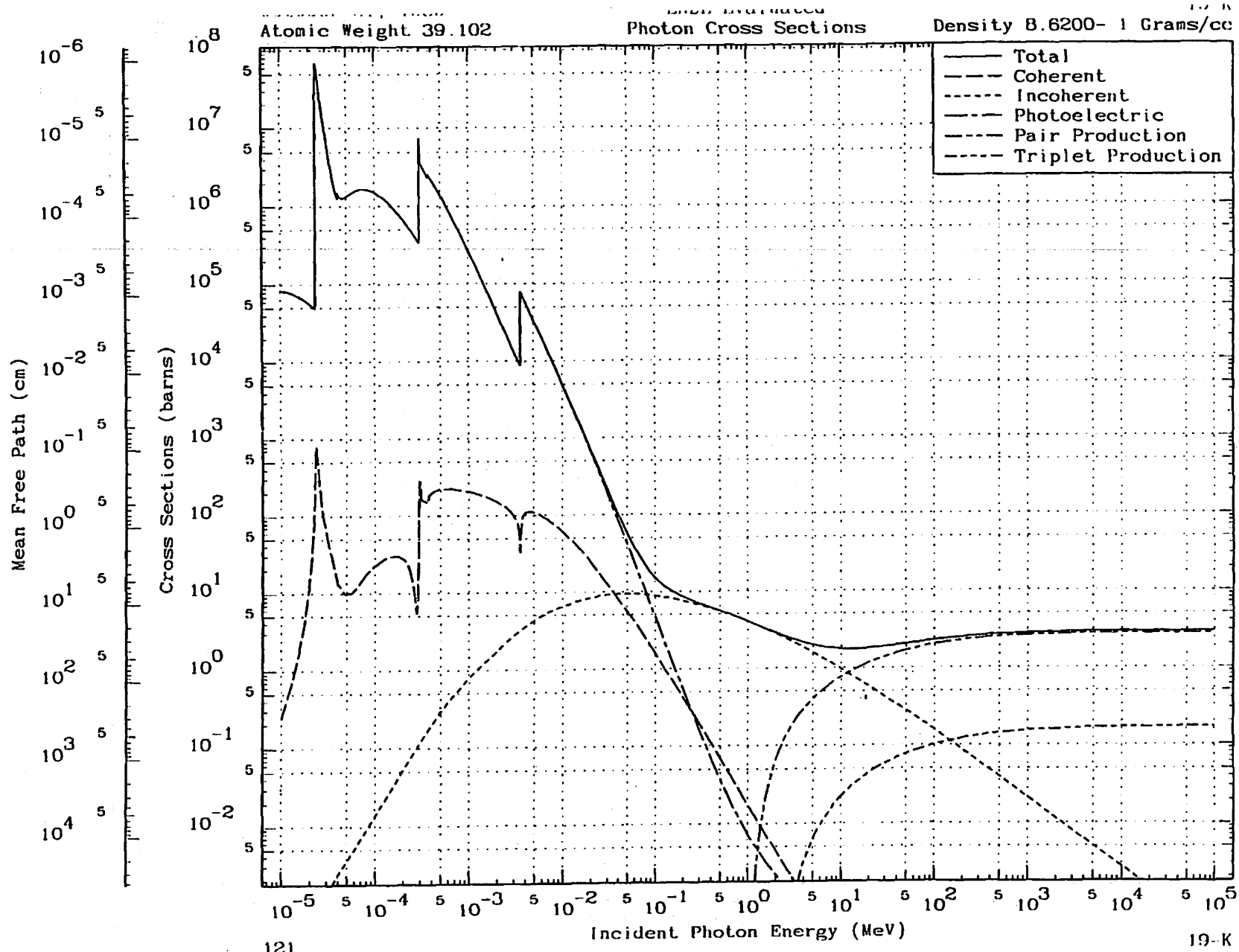
October 31, 1989
Atomic Weight 39.948

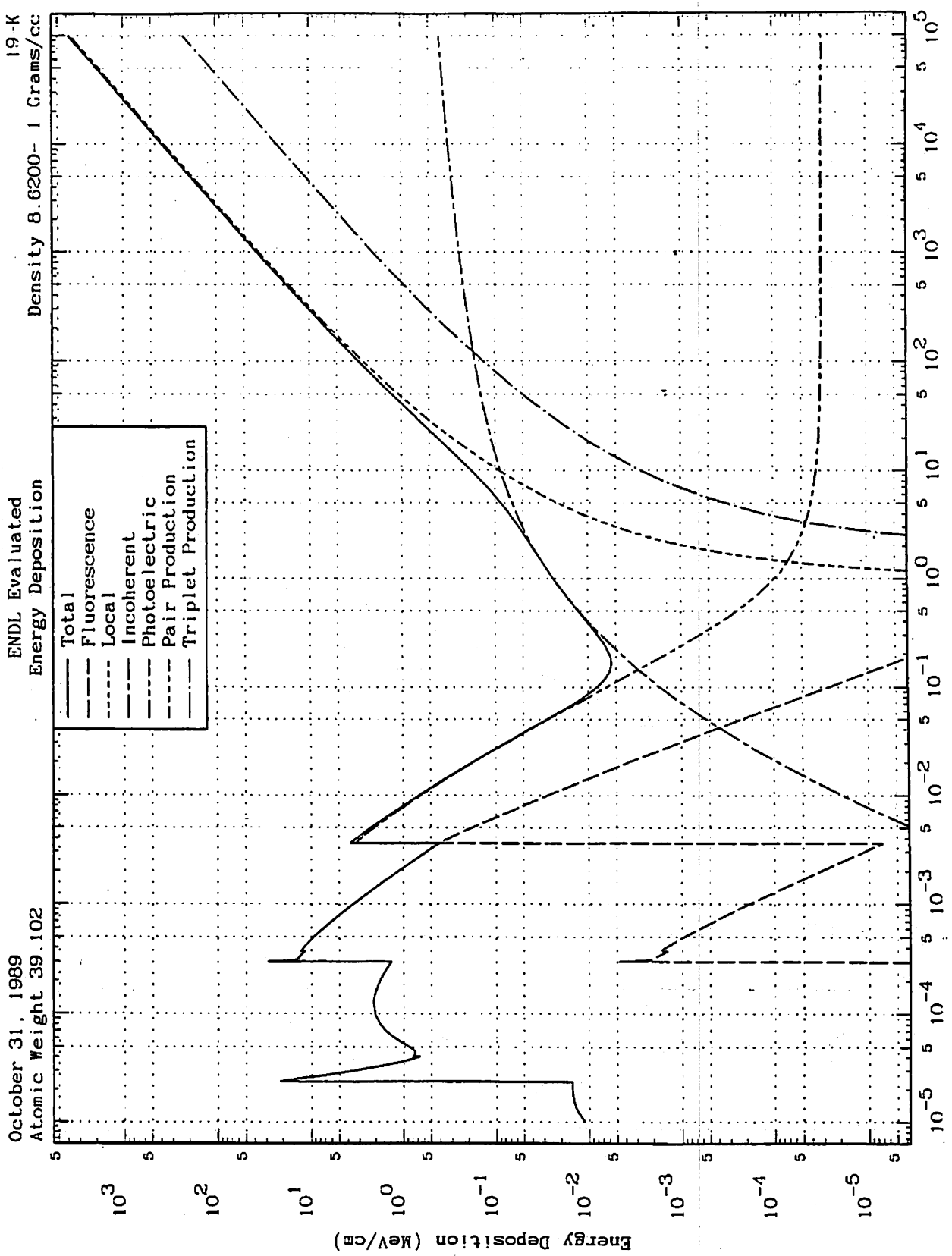
ENDL Evaluated
Photon Data

18-Ar
Density 1.7837- 3 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (keV/cc)		
	cm	cc/cm/g-sec	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.5625+ 0	1.2233+ 4	4.5831- 2	3.0402+ 0	6.2468- 3	3.0121+ 0	2.4665- 3	1.9371- 2		6.3532- 5	6.3532- 5	2.0391-11
1.6172+ 0	1.2437+ 4	4.5079- 2	2.9903+ 0	5.8316- 3	2.9587+ 0	2.3299- 3	2.3478- 2		6.5291- 5	6.5291- 5	1.9262-11
1.7188+ 0	1.2500+ 4	4.3800- 2	2.9055+ 0	5.1631- 3	2.8664+ 0	2.1064- 3	3.1827- 2		6.8567- 5	6.8567- 5	1.7414-11
1.8923+ 0	1.3427+ 4	4.1755- 2	2.7698+ 0	4.2802- 3	2.7158+ 0	1.7963- 3	4.7954- 2		7.3633- 5	7.3633- 5	1.4850-11
2.0440+ 0	1.3832+ 4	4.0241- 2	2.6694+ 0	3.8518- 3	2.6008+ 0	1.5840- 3	6.3360- 2		7.8113- 5	7.8113- 5	1.3095-11
2.0658+ 0	1.4075+ 4	3.8833- 2	2.6423+ 0	3.5068- 3	2.5697+ 0	1.5374- 3	6.7563- 2	1.8076- 7	7.9252- 5	7.9252- 5	1.2710-11
2.1195+ 0	1.4187+ 4	3.9517- 2	2.6214+ 0	3.3962- 3	2.5453+ 0	1.5014- 3	7.1142- 2	1.0145- 6	8.0178- 5	8.0178- 5	1.2413-11
2.1279+ 0	1.4215+ 4	3.8440- 2	2.6163+ 0	3.3894- 3	2.5394+ 0	1.4827- 3	7.2047- 2	1.3759- 6	8.0408- 5	8.0408- 5	1.2340-11
2.1363+ 0	1.4242+ 4	3.9384- 2	2.6112+ 0	3.3432- 3	2.5334+ 0	1.4841- 3	7.2954- 2	1.8078- 6	8.0638- 5	8.0638- 5	1.2289-11
2.1470+ 0	1.4277+ 4	3.9268- 2	2.6048+ 0	3.3098- 3	2.5259+ 0	1.4731- 3	7.4133- 2	2.4784- 6	8.0938- 5	8.0938- 5	1.2179-11
2.1635+ 0	1.4331+ 4	3.9121- 2	2.5951+ 0	3.2595- 3	2.5144+ 0	1.4566- 3	7.5668- 2	3.7687- 6	8.1394- 5	8.1394- 5	1.2042-11
2.1845+ 0	1.4399+ 4	3.8935- 2	2.5828+ 0	3.1972- 3	2.5001+ 0	1.4360- 3	7.8059- 2	5.9717- 6	8.1967- 5	8.1967- 5	1.1871-11
2.2018+ 0	1.4455+ 4	3.8784- 2	2.5727+ 0	3.1471- 3	2.4884+ 0	1.4193- 3	7.9810- 2	6.2621- 6	8.2441- 5	8.2441- 5	1.1734-11
2.2148+ 0	1.4497+ 4	3.8672- 2	2.5653+ 0	3.1103- 3	2.4797+ 0	1.4071- 3	8.1142- 2	1.0294- 5	8.2799- 5	8.2799- 5	1.1632-11
2.2342+ 0	1.4559+ 4	3.8508- 2	2.5545+ 0	3.0655- 3	2.4669+ 0	1.3891- 3	8.3156- 2	1.3847- 5	8.3333- 5	8.3333- 5	1.1484-11
2.2537+ 0	1.4620+ 4	3.8347- 2	2.5438+ 0	3.0039- 3	2.4542+ 0	1.3714- 3	8.5210- 2	1.8076- 5	8.3872- 5	8.3872- 5	1.1338-11
2.2815+ 0	1.4708+ 4	3.8122- 2	2.5288+ 0	2.9311- 3	2.4363+ 0	1.3488- 3	8.8201- 2	2.5319- 5	8.4645- 5	8.4645- 5	1.1134-11
2.3070+ 0	1.4784+ 4	3.7921- 2	2.5155+ 0	2.8667- 3	2.4203+ 0	1.3249- 3	9.1001- 2	3.3256- 5	8.5358- 5	8.5358- 5	1.0953-11
2.3382+ 0	1.4878+ 4	3.7683- 2	2.4997+ 0	2.7908- 3	2.4011+ 0	1.2988- 3	9.4503- 2	4.4718- 5	8.6238- 5	8.6238- 5	1.0738-11
2.3774+ 0	1.4983+ 4	3.7392- 2	2.4804+ 0	2.6995- 3	2.3774+ 0	1.2874- 3	9.8960- 2	6.1927- 5	8.7345- 5	8.7345- 5	1.0478-11
2.4102+ 0	1.5090+ 4	3.7152- 2	2.4645+ 0	2.6266- 3	2.3582+ 0	1.2420- 3	1.0239- 1	7.8760- 5	8.8262- 5	8.8262- 5	1.0268-11
2.4468+ 0	1.5198+ 4	3.6893- 2	2.4473+ 0	2.5499- 3	2.3371+ 0	1.2147- 3	1.0629- 1	1.0019- 4	8.9282- 5	8.9282- 5	1.0042-11
2.4859+ 0	1.5307+ 4	3.6625- 2	2.4298+ 0	2.4691- 3	2.3152+ 0	1.1868- 3	1.1058- 1	1.2814- 4	9.0400- 5	9.0400- 5	9.8097-12
2.5564+ 0	1.5503+ 4	3.6163- 2	2.3989+ 0	2.3348- 3	2.2771+ 0	1.1386- 3	1.1820- 1	1.8078- 4	9.2408- 5	9.2408- 5	9.4129-12
2.6604+ 0	1.5782+ 4	3.5523- 2	2.3564+ 0	2.1559- 3	2.2237+ 0	1.0735- 3	1.2919- 1	2.7865- 4	9.5378- 5	9.5378- 5	8.8751-12
2.7847+ 0	1.6046+ 4	3.4939- 2	2.3177+ 0	1.9964- 3	2.1735+ 0	1.0143- 3	1.4076- 1	3.9553- 4	9.8419- 5	9.8419- 5	8.3853-12
2.9045+ 0	1.6397+ 4	3.4212- 2	2.2894+ 0	1.8089- 3	2.1107+ 0	9.4307- 4	1.5539- 1	5.8184- 4	1.0250- 4	1.0250- 4	7.7968-12
3.0399+ 0	1.6897+ 4	3.3578- 2	2.2274+ 0	1.6513- 3	2.0543+ 0	8.8323- 4	1.6975- 1	7.8862- 4	1.0852- 4	1.0852- 4	7.3018-12
3.2344+ 0	1.7167+ 4	3.2857- 2	2.1663+ 0	1.4587- 3	1.9733+ 0	8.1240- 4	1.8958- 1	1.1397- 3	1.1173- 4	1.1173- 4	6.7163-12
3.4375+ 0	1.7810+ 4	3.1836- 2	2.1118+ 0	1.2915- 3	1.8989+ 0	7.4837- 4	2.1131- 1	1.5596- 3	1.1740- 4	1.1740- 4	6.1859-12
3.7847+ 0	1.8307+ 4	3.0924- 2	2.0314+ 0	1.0654- 3	1.7822+ 0	6.5734- 4	2.4514- 1	2.3931- 3	1.2716- 4	1.2716- 4	5.4344-12
4.0000+ 0	1.8680+ 4	3.0012- 2	1.9909+ 0	9.5385- 4	1.7194+ 0	6.1010- 4	2.6700- 1	2.9630- 3	1.3354- 4	1.3354- 4	5.0438-12
4.2500+ 0	1.9098+ 4	2.9358- 2	1.9475+ 0	8.4484- 4	1.6531+ 0	5.8471- 4	2.8934- 1	3.6844- 3	1.4084- 4	1.4084- 4	4.6888-12
4.7500+ 0	1.9788+ 4	2.8335- 2	1.8798+ 0	6.7843- 4	1.5380+ 0	4.9003- 4	3.3531- 1	5.1280- 3	1.5832- 4	1.5832- 4	4.0511-12
5.5135+ 0	2.0631+ 4	2.7174- 2	1.8028+ 0	5.0207- 4	1.3983+ 0	4.0706- 4	3.9783- 1	7.5204- 3	1.8077- 4	1.8077- 4	3.3852-12
6.3840+ 0	2.1422+ 4	2.6171- 2	1.7381+ 0	3.7868- 4	1.2820+ 0	3.4188- 4	4.8314- 1	1.0191- 2	2.0789- 4	2.0789- 4	2.8272-12
7.4833+ 0	2.2139+ 4	2.5324- 2	1.6799+ 0	2.7255- 4	1.1258+ 0	2.8224- 4	5.3979- 1	1.3879- 2	2.4577- 4	2.4577- 4	2.3333-12
9.0000+ 0	2.2701+ 4	2.4697- 2	1.6383+ 0	1.8843- 4	9.6851- 1	2.2760- 4	6.3110- 1	1.8230- 2	3.0083- 4	3.0083- 4	1.8841-12
1.0000+ 1	2.2914+ 4	2.4467- 2	1.6230+ 0	1.5263- 4	9.1776- 1	2.0220- 4	6.8390- 1	2.1030- 2	3.3892- 4	3.3892- 4	1.6716-12
1.3000+ 1	2.3256+ 4	2.4107- 2	1.5991+ 0	9.0315- 5	7.5393- 1	1.5090- 4	8.1640- 1	2.8550- 2	4.5668- 4	4.5668- 4	1.2475-12
1.6000+ 1	2.3057+ 4	2.4316- 2	1.6130+ 0	4.7109- 5	5.9047- 1	1.0590- 4	9.8360- 1	3.8760- 2	6.7272- 4	6.7272- 4	8.7550-13
2.6000+ 1	2.2341+ 4	2.5094- 2	1.6648+ 0	2.2578- 5	4.4148- 1	7.1660- 5	1.1720+ 0	5.1030- 2	1.0494- 3	1.0494- 3	5.8243-13
4.2170+ 1	2.0877+ 4	2.8854- 2	1.7814+ 0	8.5832- 6	3.0120- 1	4.3306- 5	1.4128+ 0	8.7485- 2	1.8978- 3	1.8978- 3	3.5802-13
6.0000+ 1	1.9755+ 4	2.8380- 2	1.8826+ 0	4.2388- 6	2.2507- 1	3.0140- 5	1.5780+ 0	7.8470- 2	2.9100- 3	2.9100- 3	2.4917-13
1.0000+ 2	1.8281+ 4	3.0867- 2	2.0343+ 0	1.5263- 8	1.4758- 1	1.7910- 5	1.7910+ 0	9.5730- 2	5.3365- 3	5.3365- 3	1.4807-13
2.0000+ 2	1.6747+ 4	3.3476- 2	2.2206+ 0	3.8158- 7	8.1625- 2	8.8940- 6	2.0240+ 0	1.1500- 1	1.1801- 2	1.1801- 2	7.3528-14
4.0000+ 2	1.5724+ 4	3.5854- 2	2.3651+ 0	9.5398- 8	4.4812- 2	4.4310- 6	2.1900+ 0	1.3020- 1	2.5292- 2	2.5292- 2	3.6832-14
1.0000+ 3	1.4863+ 4	3.7493- 2	2.4871+ 0	1.5263- 8	2.0115- 2	1.7690- 6	2.3230+ 0	1.4400- 1	6.8727- 2	6.8727- 2	1.4625-14
4.0000+ 3	1.4447+ 4	3.8806- 2	2.5742+ 0	9.5396-10	5.8118- 3	4.4170- 7	2.4140+ 0	1.5440- 1	2.7672- 1	2.7672- 1	3.6516-15
1.0000+ 4	1.4321+ 4	3.9147- 2	2.5968+ 0	1.5263-10	2.5411- 3	1.7660- 7	2.4370+ 0	1.5730- 1	6.9812- 1	6.9812- 1	1.4600-15
1.0000+ 5	1.4222+ 4	3.9420- 2	2.6149+ 0	1.5251-12	3.0692- 4	1.7660- 8	2.4550+ 0	1.5960- 1	7.0311+ 0	7.0311+ 0	1.4600-16

121



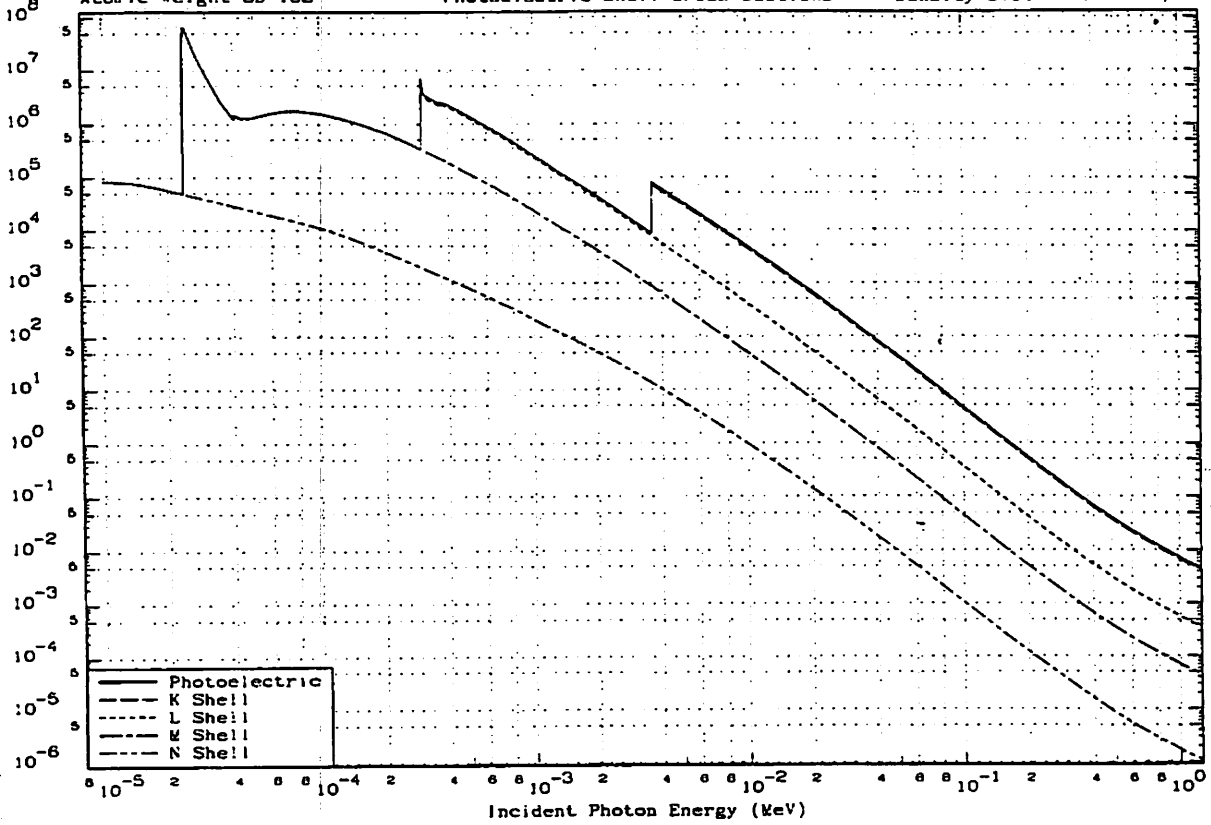


ENDL Evaluated Energy Deposition

October 31, 1989
Atomic Weight 39 102

ENDL Evaluated
Photoelectric Shell Cross Sections

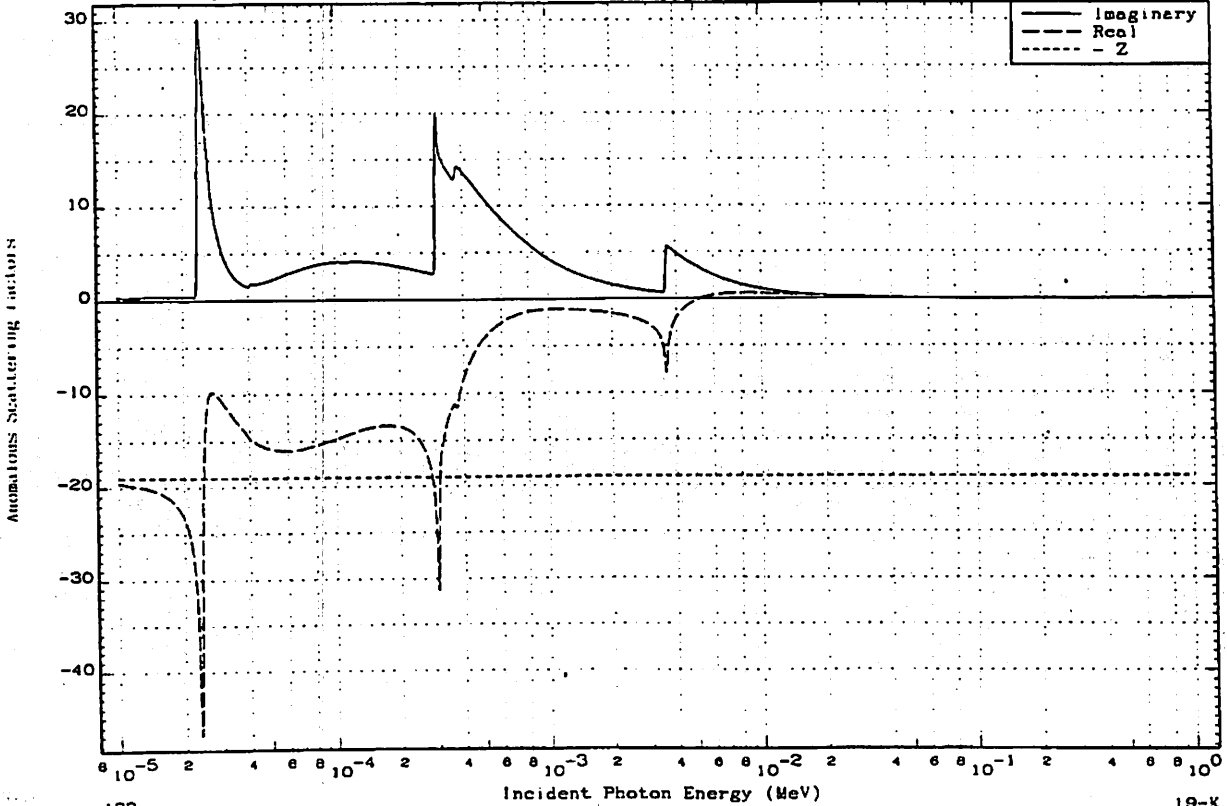
Density 8.6200- 1 Grams/cc
19-K



October 31, 1989
Atomic Weight 39 102

ENDL Evaluated
Anomalous Scattering Factors

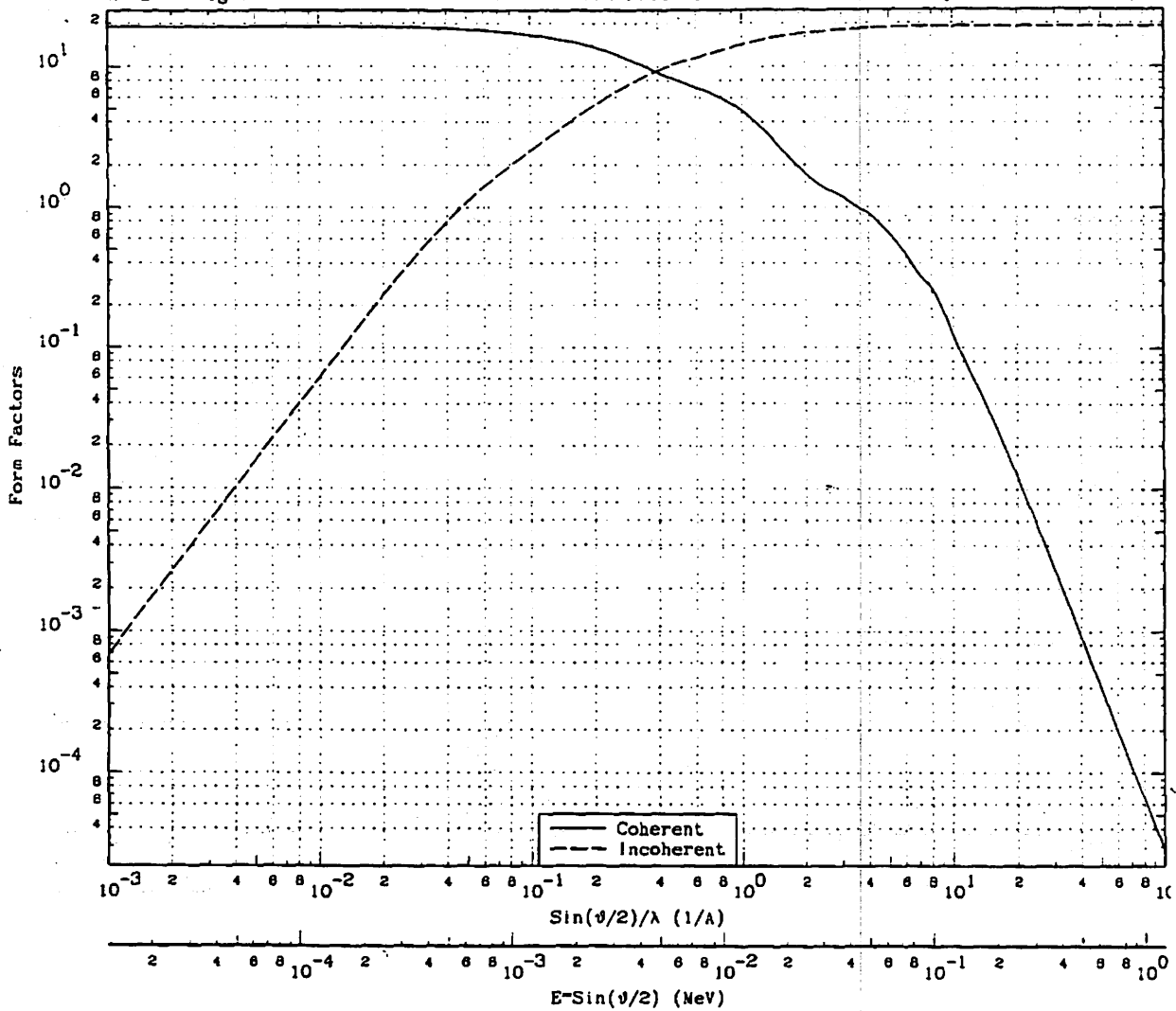
Density 8.6200- 1 Grams/cc
19-K



October 31, 1989
Atomic Weight 39.102

ENDL Evaluated
Form Factors

19-K
Density 8.6200-1 Grams/cc



$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	1.9000+1	0.0000+0	8.0000-1	9.9188-3	5.9399+0	1.3014+1	1.5000+1	1.8598-1	3.3951-2	1.8999+1
1.0000-3	1.2399-5	1.9000+1	6.8896-4	8.0000-1	1.1159-2	5.3789+0	1.3645+1	1.7847+1	2.2128-1	1.8593-2	1.9000+1
5.0000-3	6.1993-5	1.8999+1	1.8000-2	1.0000+0	1.2399-2	4.8343+0	1.4220+1	2.0000+1	2.4797-1	1.2265-2	1.9000+1
1.0000-2	1.2399-4	1.8981+1	6.2000-2	1.1875+0	1.4723-2	3.8917+0	1.5134+1	4.1387+1	5.1314-1	8.0473-4	1.9000+1
1.5000-2	1.8598-4	1.8916+1	1.3770-1	1.2500+0	1.5488-2	3.8100+0	1.5393+1	5.0000+1	6.1993-1	3.9256-4	1.9000+1
2.0000-2	2.4797-4	1.8853+1	2.3780-1	1.5000+0	1.8598-2	2.6907+0	1.6212+1	6.0000+1	9.9188-1	6.5794-5	1.9000+1
2.5000-2	3.0996-4	1.8774+1	3.5840-1	1.9297+0	2.3925-2	1.8227+0	1.7055+1	1.0000+2	1.2399+0	2.8369-6	1.9000+1
3.0000-2	3.7196-4	1.8681+1	4.9460-1	2.0000+0	2.4797-2	1.7353+0	1.7152+1	1.7117+2	2.1223+0	3.9096-6	1.9000+1
4.0000-2	4.9594-4	1.8459+1	7.9450-1	2.3418+0	2.9035-2	1.4402+0	1.7524+1	3.2012+2	3.9890+0	4.1980-7	1.9000+1
5.0000-2	6.1993-4	1.8202+1	1.1050+0	2.5000+0	3.0996-2	1.3577+0	1.7664+1	5.1200+2	6.3480+0	8.2831-8	1.9000+1
7.0000-2	8.6790-4	1.7625+1	1.6922+0	3.0000+0	3.7196-2	1.1889+0	1.8020+1	1.0000+3	1.2399+1	8.6710-9	1.9000+1
9.0000-2	1.1159-3	1.7028+1	2.2326+0	3.5000+0	4.3395-2	1.0201+0	1.8290+1	2.0197+3	2.5041+1	8.8993-10	1.9000+1
1.0000-1	1.2399-3	1.6725+1	2.5000+0	4.0000+0	4.9594-2	8.9610-1	1.8494+1	3.8895+3	4.8224+1	1.0771-10	1.9000+1
1.2500-1	1.5498-3	1.5983+1	3.1887+0	4.5693+0	5.6653-2	7.4945-1	1.8659+1	6.1540+3	7.6300+1	2.5849-11	1.9000+1
1.5000-1	1.8598-3	1.5237+1	3.9050+0	5.0000+0	6.1993-2	6.4820-1	1.8752+1	1.0007+4	1.2488+2	5.6191-12	1.9000+1
1.7500-1	2.1697-3	1.4477+1	4.6163+0	5.7891+0	7.1776-2	4.9731-1	1.8859+1	1.8554+4	2.3004+2	8.7835-13	1.9000+1
2.0000-1	2.4797-3	1.3715+1	5.3010+0	6.0000+0	7.4391-2	4.6130-1	1.8880+1	4.3553+4	5.3999+2	6.8788-14	1.9000+1
2.5000-1	3.0996-3	1.2254+1	6.5550+0	7.0000+0	8.6790-2	3.2960-1	1.8941+1	2.4974+5	3.0964+3	4.1147-16	1.9000+1
3.0000-1	3.7196-3	1.0983+1	7.6520+0	8.0000+0	9.9188-2	2.6140-1	1.8970+1	1.0000+6	1.2399+4	7.2206-18	1.9000+1
4.0000-1	4.9594-3	9.0418+0	9.4050+0	8.5580+0	1.0611-1	2.1753-1	1.8977+1	5.6234+6	6.9722+4	4.4785-20	1.9000+1
5.0000-1	6.1993-3	7.8720+0	1.0650+1	9.5880+0	1.1885-1	1.4605-1	1.8989+1	5.4247+7	6.7258+5	5.2306-23	1.9000+1
6.0000-1	7.4391-3	7.1186+0	1.1568+1	1.0000+1	1.2399-1	1.2510-1	1.8992+1	1.0000+9	1.2399+7	8.2482-27	1.9000+1
7.0000-1	8.6790-3	6.5109+0	1.2329+1	1.1395+1	1.4128-1	8.0478-2	1.8996+1				

October 31, 1989
Atomic Weight 39.102

ENDL Evaluated
Photon Data

19-K
Density 8.6200- 1 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000- 5	8.9443- 4	1.2970- 3	8.4216- 4	2.3790- 1	1.4908- 4	8.4216- 4			1.1180- 2	1.1180- 2	
1.1893- 5	9.2647- 4	1.2522- 3	8.1304- 4	4.8971- 1	2.1027- 4	8.1304- 4			1.2837- 2	1.2837- 2	
1.3484- 5	8.6975- 4	1.1963- 3	7.7675- 4	6.2618- 1	2.6977- 4	7.7674- 4			1.3905- 2	1.3905- 2	
1.5600- 5	1.0638- 3	1.0606- 3	7.0811- 4	1.7668- 0	3.6023- 4	7.0809- 4			1.4665- 2	1.4665- 2	
1.7400- 5	1.1671- 3	9.9402- 2	6.4542- 4	3.8424- 0	4.4737- 4	6.4538- 4			1.4908- 2	1.4908- 2	
1.8750- 5	1.2435- 3	9.3296- 2	6.0577- 4	6.8433- 0	5.1805- 4	6.0571- 4			1.5077- 2	1.5077- 2	
1.9763- 5	1.3001- 3	8.9228- 2	5.7936- 4	1.1042- 1	5.7413- 4	5.7925- 4			1.5197- 2	1.5197- 2	
2.0859- 5	1.3708- 3	8.4840- 2	5.4857- 4	2.0647- 1	6.3801- 4	5.4838- 4			1.5213- 2	1.5213- 2	
2.1519- 5	1.4145- 3	8.2018- 2	5.3253- 4	3.3707- 1	6.7807- 4	5.3219- 4			1.5203- 2	1.5203- 2	
2.1904- 5	1.4399- 3	8.0565- 2	5.2311- 4	4.5876- 1	7.0200- 4	5.2285- 4			1.5198- 2	1.5198- 2	
2.2218- 5	1.4605- 3	7.9431- 2	5.1575- 4	6.1428- 1	7.2178- 4	5.1513- 4			1.5194- 2	1.5194- 2	
2.2623- 5	1.4865- 3	7.8041- 2	5.0672- 4	9.9218- 1	7.4774- 4	5.0573- 4			1.5189- 2	1.5189- 2	
2.2787- 5	1.4967- 3	7.7510- 2	5.0328- 4	1.2602- 2	7.5839- 4	5.0202- 4			1.5187- 2	1.5187- 2	
2.2932- 5	1.5062- 3	7.7070- 2	5.0042- 4	1.6400- 2	7.6785- 4	4.9878- 4			1.5185- 2	1.5185- 2	
2.3064- 5	1.5123- 3	7.6713- 2	4.9810- 4	2.2170- 2	7.7647- 4	4.9588- 4			1.5183- 2	1.5183- 2	
2.3323- 5	1.5225- 3	7.6197- 2	4.9475- 4	4.4981- 2	7.9365- 4	4.9026- 4			1.5180- 2	1.5180- 2	
2.3374- 5	1.5240- 3	7.6121- 2	4.9426- 4	5.0791- 2	7.9702- 4	4.8918- 4			1.5179- 2	1.5179- 2	
2.3470- 5	1.5273- 3	7.5859- 2	4.9321- 4	6.0761- 2	8.0344- 4	4.8713- 4			1.5178- 2	1.5178- 2	
2.3470- 5	1.5321- 3	7.1081- 2	4.8153- 7	8.0781- 2	8.0344- 4	4.8152- 7			1.4380- 1	1.4380- 1	
2.3589- 5	1.6761- 6	6.8214- 5	4.4941- 7	7.0997- 2	8.1005- 4	4.4940- 7			1.4081- 1	1.4081- 1	
2.3852- 5	1.7140- 6	6.7682- 5	4.3948- 7	7.5985- 2	8.1585- 4	4.3948- 7			1.3799- 1	1.3799- 1	
2.3750- 5	1.7597- 6	6.5925- 5	4.2805- 7	7.6885- 2	8.2228- 4	4.2804- 7			1.3496- 1	1.3496- 1	
2.3750- 5	1.7607- 6	1.0511- 6	8.8248- 7	7.6885- 2	8.2228- 4	8.8245- 7			2.1518- 1	2.1518- 1	
2.3863- 5	1.1400- 6	1.0177- 6	6.6077- 7	7.7968- 2	8.2996- 4	6.6076- 7			2.0933- 1	2.0933- 1	
2.4003- 5	1.1859- 6	9.7823- 5	6.3517- 7	7.2766- 2	8.3946- 4	6.3516- 7			2.0240- 1	2.0240- 1	
2.4190- 5	1.2501- 6	9.2800- 5	6.0256- 7	6.3016- 2	8.5230- 4	6.0255- 7			1.9350- 1	1.9350- 1	
2.4477- 5	1.3997- 6	8.2883- 5	5.3816- 7	5.0533- 2	8.7221- 4	5.3816- 7			1.7488- 1	1.7488- 1	
2.5178- 5	1.8571- 6	6.2467- 5	4.0560- 7	3.3021- 2	9.2169- 4	4.0560- 7			1.3558- 1	1.3558- 1	
2.6048- 5	2.7149- 6	4.2731- 5	2.7745- 7	2.0986- 2	9.8496- 4	2.7745- 7			9.5945- 0	9.5945- 0	
2.7363- 5	4.3695- 6	2.6549- 5	1.7239- 7	1.2572- 2	1.0845- 3	1.7239- 7			6.2622- 0	6.2622- 0	
2.8885- 5	6.8366- 6	1.6971- 5	1.1020- 7	8.3019- 1	1.2055- 3	1.1019- 7			4.2257- 0	4.2257- 0	
3.0400- 5	1.0198- 5	1.1375- 5	7.3861- 6	5.9486- 1	1.3321- 3	7.3860- 6			2.9909- 0	2.9909- 0	
3.3278- 5	1.9785- 5	5.8635- 4	3.8072- 6	3.5884- 1	1.5898- 3	3.8072- 6			1.6820- 0	1.6820- 0	
3.5549- 5	3.0847- 5	3.7853- 4	2.4578- 6	2.5754- 1	1.8087- 3	2.4578- 6			1.1599- 0	1.1599- 0	
3.7805- 5	4.4345- 5	2.8161- 4	1.8886- 6	1.8880- 1	2.0504- 3	1.8888- 6			8.5477- 1	8.5477- 1	
3.9728- 5	5.5589- 5	2.0869- 4	1.3551- 6	1.4545- 1	2.2473- 3	1.3550- 6			7.1464- 1	7.1464- 1	
4.0248- 5	5.9175- 5	1.9605- 4	1.2729- 6	1.3107- 1	2.3051- 3	1.2729- 6			6.8011- 1	6.8011- 1	
4.0500- 5	6.0880- 5	1.9055- 4	1.2373- 6	1.2954- 1	2.3373- 3	1.2373- 6			6.6524- 1	6.6524- 1	
4.0500- 5	5.0362- 5	2.3035- 4	1.4957- 6	1.2954- 1	2.3373- 3	1.4957- 6			8.0417- 1	8.0417- 1	
4.0783- 5	5.1330- 5	2.2601- 4	1.4675- 6	1.2788- 1	2.3656- 3	1.4675- 6			7.9451- 1	7.9451- 1	
4.1310- 5	5.3168- 5	2.1820- 4	1.4168- 6	1.2991- 1	2.4258- 3	1.4167- 6			7.7697- 1	7.7697- 1	
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4.7386- 5	5.9109- 5	1.9626- 4	1.2743- 6	1.0031- 1	3.1719- 3	1.2743- 6			8.0166- 1	8.0166- 1	
4.8446- 5	5.8261- 5	1.9912- 4	1.2929- 6	9.7646- 0	3.3121- 3	1.2929- 6			8.3153- 1	8.3153- 1	
5.6876- 5	5.0666- 5	2.2888- 4	1.4861- 6	1.0216- 1	4.5317- 3	1.4861- 6			1.1221- 0	1.1221- 0	
6.3943- 5	4.6915- 5	2.4887- 4	1.6159- 6	1.1963- 1	5.6973- 3	1.6159- 6			1.3717- 0	1.3717- 0	
7.0000- 5	4.4692- 5	2.5958- 4	1.6855- 6	1.3798- 1	6.7998- 3	1.6854- 6			1.5683- 0	1.5683- 0	
8.0000- 5	4.4602- 5	2.6010- 4	1.6889- 6	1.7207- 1	8.8275- 3	1.6888- 6			1.7936- 0	1.7936- 0	
9.6578- 5	4.8178- 5	2.4081- 4	1.5636- 6	2.1832- 1	1.2755- 2	1.5635- 6			2.0047- 0	2.0047- 0	
1.0000- 4	4.8083- 5	2.3635- 4	1.5347- 6	2.2825- 1	1.3653- 2	1.5346- 6			2.0373- 0	2.0373- 0	
1.2564- 4	6.0077- 5	1.8310- 4	1.2538- 6	2.7879- 1	2.1686- 2	1.2538- 6			2.1080- 0	2.1080- 0	
1.4259- 4	8.8796- 5	1.6863- 4	1.0949- 6	2.9878- 1	2.7355- 2	1.0949- 6			2.0726- 0	2.0726- 0	
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2.3982- 4	1.5088- 4	7.8897- 3	4.9930- 5	1.9008- 1	7.5327- 2	4.9928- 5			1.5898- 0	1.5898- 0	
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3.0013- 4	1.4388- 5	8.0638- 4	5.2359- 6	2.6258- 2	1.1516- 1	5.2358- 6			2.0881- 1	2.0881- 1	3.3001- 3
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3.0185- 4	1.9188- 5	6.0460- 4	3.9257- 6	2.8313- 2	1.1627- 1	3.9254- 6			1.5720- 1	1.5720- 1	2.4224- 3
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3.0336- 4	1.4420- 5	8.0448- 4	5.2236- 6	2.7615- 2	1.1751- 1	5.2233- 6			2.1038- 1	2.1038- 1	3.2926- 3
3.0520- 4	1.7031- 5	6.8116- 4	4.4228- 6	2.4869- 2	1.1887- 1	4.4228- 6			1.7919- 1	1.7919- 1	2.7573- 3
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3.0872- 4	2.0437- 5	5.6764- 4	3.6857- 6	1.8971- 2	1.2147- 1	3.6855- 6			1.5105- 1	1.5103- 1	2.2688- 3
3.1080- 4	2.1239- 5	5.4622- 4	3.5466- 6	1.7423- 2	1.2303- 1	3.5464- 6			1.4633- 1	1.4631- 1	2.1761- 3
3.1349- 4	2.2294- 5	5.2035- 4	3.3787- 6	1.6248- 2	1.2657- 1	3.3785- 6			1.4151- 1	1.4149- 1	2.0691- 3
3.6032- 4	2.9945- 5	3.8741- 4	2.5155- 6	1.5096- 2	1.8112- 1	2.5153- 6			1.2032- 1	1.2031- 1	1.5350- 3
3.6501- 4											

October 31, 1989
Atomic Weight 39.102

ENDI, Evaluated
Photon Data

19-K
Density 8.6200- 1 Grams/cc

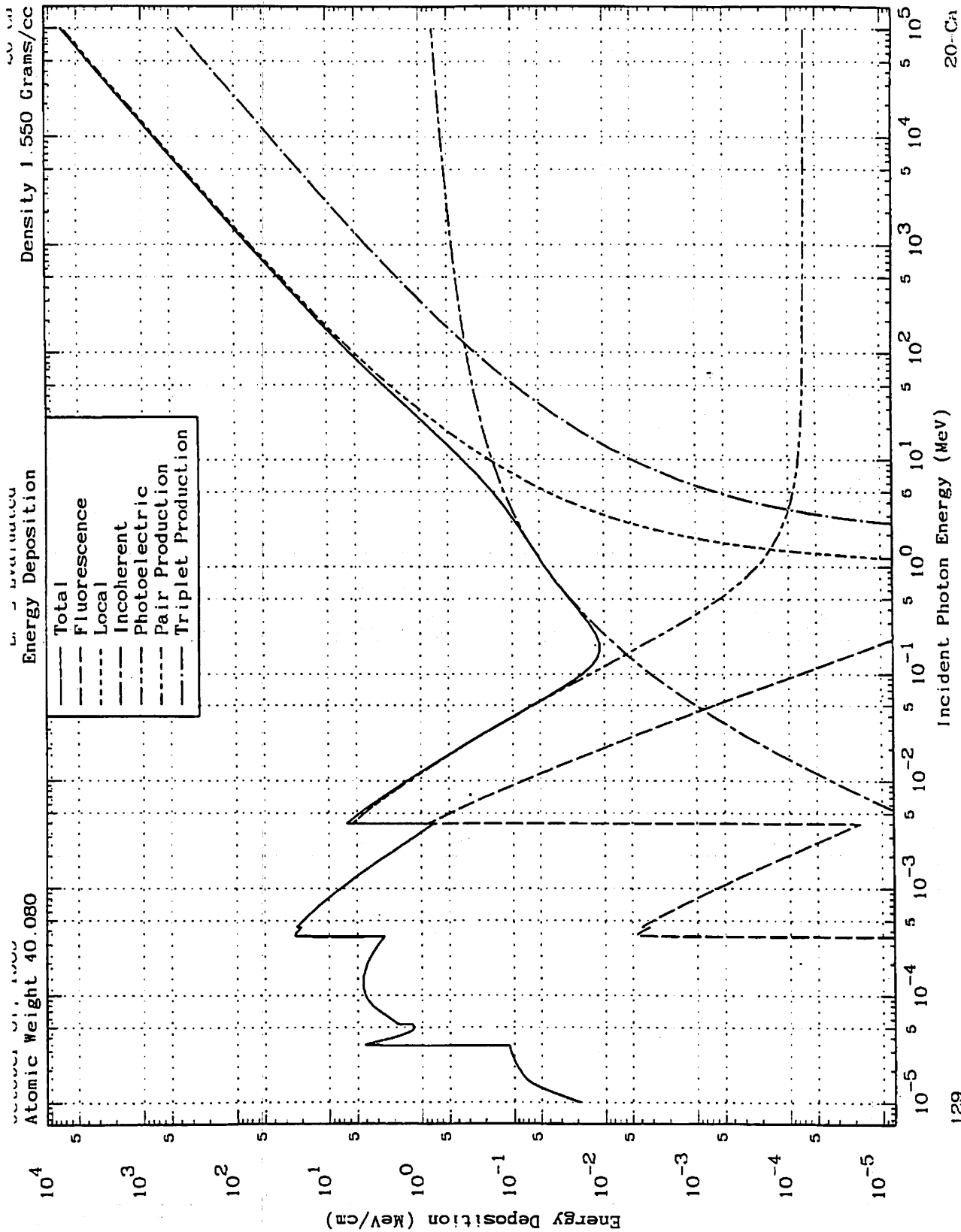
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cc/cm ³ /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
3.744E-4	2.940E-5	3.9453E-4	2.5617E-6	1.7209E-2	1.7272E-1	2.5615E-6			1.2735E-1	1.2733E-1	1.6977E-3
3.7681E-4	2.9750E-5	3.8995E-4	2.5320E-6	1.6682E-2	1.7466E-1	2.5318E-6			1.2665E-1	1.2663E-1	1.6695E-3
3.8113E-4	3.0396E-5	3.8166E-4	2.4781E-6	1.6720E-2	1.7829E-1	2.4780E-6			1.2538E-1	1.2536E-1	1.6358E-3
4.1820E-4	3.6332E-5	3.1930E-4	2.0732E-6	2.0714E-2	2.1077E-1	2.0730E-6			1.1509E-1	1.1508E-1	1.3655E-3
4.8357E-4	5.1979E-5	2.2319E-4	1.4492E-6	2.2049E-2	2.7994E-1	1.4489E-6			9.4941E-2	9.4931E-2	9.7860E-4
6.6378E-4	1.0393E-4	1.1162E-4	7.2479E-5	2.2230E-2	4.5051E-1	7.2456E-5			6.3849E-2	6.3844E-2	5.0037E-4
9.0000E-4	2.2002E-4	5.2727E-3	3.4236E-5	2.1081E-2	6.8868E-1	3.4215E-5			4.0881E-2	4.0878E-2	2.4264E-4
1.0000E-3	2.8729E-4	4.0380E-3	2.6219E-5	2.0507E-2	7.9022E-1	2.6199E-5			3.4721E-2	3.4779E-2	1.8738E-4
1.5329E-3	8.7161E-4	1.3310E-3	8.6421E-4	1.7532E-2	1.3004E-1	8.6244E-4			1.7551E-2	1.7550E-2	6.4339E-5
2.0000E-3	1.7720E-3	6.5467E-2	4.2508E-4	1.5206E-2	1.7503E-1	4.2354E-4			1.1246E-2	1.1245E-2	3.2495E-5
2.4253E-3	2.9802E-3	3.8927E-2	2.5275E-4	1.3129E-2	2.1710E-1	2.5142E-4			8.0951E-3	8.0949E-3	1.9702E-5
2.8295E-3	4.5427E-3	2.5538E-2	1.6582E-4	1.1124E-2	2.5458E-1	1.6468E-4			6.1860E-3	6.1859E-3	1.3099E-5
3.1098E-3	5.8837E-3	1.9717E-2	1.2802E-4	9.4808E-3	3.2068E-1	1.2705E-4			5.2452E-3	5.2451E-3	1.0205E-5
3.2680E-3	6.7384E-3	1.7216E-2	1.1178E-4	8.3349E-3	2.9427E-1	1.1002E-4			4.8128E-3	4.8127E-3	8.9596E-6
3.3541E-3	7.2343E-3	1.6038E-2	1.0412E-4	7.5345E-3	3.0143E-1	1.0334E-4			4.6016E-3	4.6015E-3	8.3713E-6
3.4477E-3	7.8043E-3	1.4885E-2	9.8518E-5	6.3350E-3	3.0924E-1	9.5854E-5			4.3874E-3	4.3873E-3	7.7888E-6
3.4810E-3	8.0210E-3	1.4463E-2	9.3910E-5	5.7018E-3	3.1208E-1	9.3308E-5			4.3132E-3	4.3131E-3	7.5904E-6
3.5092E-3	8.1994E-3	1.4148E-2	9.1857E-5	5.0001E-3	3.1435E-1	9.1335E-5			4.2551E-3	4.2550E-3	7.4363E-6
3.5342E-3	8.3689E-3	1.3865E-2	9.0028E-5	4.1310E-3	3.1643E-1	8.9583E-5			4.2032E-3	4.2031E-3	7.2995E-6
3.5539E-3	8.5008E-3	1.3647E-2	8.8609E-5	3.4582E-3	3.1807E-1	8.8231E-5			4.1628E-3	4.1628E-3	7.1837E-6
3.5698E-3	8.6471E-3	1.3573E-2	8.8130E-5	3.3253E-3	3.1864E-1	8.7765E-5			4.1489E-3	4.1489E-3	7.1574E-6
3.5886E-3	8.8093E-3	1.3492E-2	8.7605E-5	3.2578E-3	3.1928E-1	8.7247E-5			4.1334E-3	4.1333E-3	7.1168E-6
3.5833E-3	8.6931E-3	1.3345E-2	8.6650E-5	3.4744E-3	3.2050E-1	8.6270E-5			4.1040E-3	4.1039E-3	7.0403E-6
K 3.5833E-3	9.5184E-4	1.2190E-3	7.9153E-4	3.4744E-3	3.2050E-1	7.9115E-4			3.7636E-3	3.7620E-3	4.2162E-6
3.5981E-3	9.6187E-4	1.2063E-3	7.8328E-4	4.0983E-3	3.2173E-1	7.8294E-4			3.7394E-3	3.7322E-3	4.1722E-6
3.6118E-3	9.7098E-4	1.1948E-3	7.7577E-4	4.8002E-3	3.2287E-1	7.7525E-4			3.7172E-3	3.7040E-3	4.1321E-6
3.6249E-3	9.7998E-4	1.1838E-3	7.6865E-4	5.6993E-3	3.2396E-1	7.6804E-4			3.6960E-3	3.6866E-3	4.0941E-6
3.6432E-3	9.8283E-4	1.1687E-3	7.5885E-4	6.6223E-3	3.2547E-1	7.5815E-4			3.6687E-3	3.6625E-3	4.0420E-6
3.6573E-3	1.0025E-3	1.1572E-3	7.5139E-4	7.1962E-3	3.2684E-1	7.5064E-4			3.6444E-3	3.6441E-3	4.0024E-6
3.6792E-3	1.0179E-3	1.1397E-3	7.3998E-4	7.7811E-3	3.2848E-1	7.3917E-4			3.6101E-3	3.6159E-3	3.9420E-6
3.7204E-3	1.0474E-3	1.1076E-3	7.1920E-4	8.5141E-3	3.3187E-1	7.1831E-4			3.5473E-3	3.5451E-3	3.8319E-6
3.8193E-3	1.1203E-3	1.0359E-3	6.7235E-4	9.5931E-3	3.4005E-1	6.7135E-4			3.4035E-3	3.4051E-3	3.5842E-6
3.9138E-3	1.1929E-3	9.7253E-3	6.3147E-4	1.0212E-2	3.4785E-1	6.3041E-4			3.2752E-3	3.2834E-3	3.3680E-6
4.0687E-3	1.3345E-3	8.8929E-2	5.6443E-4	1.0798E-2	3.6226E-1	5.6332E-4			3.0571E-3	3.0559E-3	3.0131E-6
4.5384E-3	1.7439E-3	6.6523E-2	4.3194E-4	1.1188E-2	3.9541E-1	4.3078E-4			2.5940E-3	2.5929E-3	2.3101E-6
5.3305E-3	2.6554E-3	4.3688E-2	2.8367E-4	1.0602E-2	4.4918E-1	2.8256E-4			1.9990E-3	1.9469E-3	1.5209E-6
6.7518E-3	5.0088E-3	2.3181E-2	1.5039E-4	8.9158E-3	5.2696E-1	1.4944E-4			1.3387E-3	1.2579E-3	8.0768E-7
8.6984E-3	9.6894E-3	1.1613E-2	7.5405E-5	7.0732E-3	6.0811E-1	7.4637E-5			8.8187E-4	8.2118E-4	4.0476E-7
1.0000E-2	1.4789E-2	7.8443E-2	5.0933E-5	6.1313E-3	1.6507E-1	5.0255E-5			6.6719E-4	6.3290E-4	2.7290E-7
1.3765E-2	3.6201E-2	3.2046E-1	2.0807E-5	4.2028E-3	7.4412E-1	2.0313E-5			3.7122E-4	3.6018E-4	1.1060E-7
1.9335E-2	8.6683E-2	1.1999E-1	7.7909E-5	2.5823E-3	8.3529E-1	7.4492E-5			1.9127E-4	1.8721E-4	4.0591E-8
2.8054E-2	2.2737E-1	5.1023E-1	3.3130E-5	1.6128E-3	8.9899E-1	3.0618E-5			1.0605E-4	1.0438E-4	1.6708E-8
3.7855E-2	6.5142E-1	1.7809E-1	1.1563E-5	8.7714E-4	9.4028E-1	9.7458E-6			4.9298E-5	4.8766E-5	2.53204E-8
5.0070E-2	1.3778E-1	8.6718E-1	5.6306E-5	5.4870E-4	9.4810E-1	4.1338E-6			2.8018E-5	2.7793E-5	2.25874E-8
6.0714E-2	2.0955E-1	5.5360E-1	3.5946E-5	3.9287E-4	9.4253E-1	2.2592E-6			1.8964E-5	1.8840E-5	1.2334E-8
7.3741E-2	3.0538E-1	3.7498E-1	2.4347E-5	2.7746E-4	9.3037E-1	1.2289E-6			1.3056E-5	1.2989E-5	6.7005E-8
8.6378E-2	4.0357E-1	2.8746E-1	1.8665E-5	2.0765E-4	9.1222E-1	7.4662E-6			9.9051E-6	9.8843E-6	4.0784E-8
1.0000E-1	4.8377E-1	2.3489E-1	1.5255E-5	1.5835E-4	8.9574E-1	4.7142E-6			7.6530E-6	7.6273E-6	2.5753E-8
1.1827E-1	5.9849E-1	1.9384E-1	1.2586E-5	1.1561E-4	8.6451E-1	2.7846E-6			6.5275E-6	6.5123E-6	1.5214E-8
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1.6292E-1	7.7778E-1	1.4916E-1	9.6847E-6	6.2735E-5	8.0377E-1	1.0197E-6			5.5845E-6	5.5789E-6	5.5700E-8
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2.4471E-1	9.7882E-1	1.1852E-1	7.8956E-6	2.8519E-5	7.1186E-1	2.8072E-6			6.5918E-6	6.5901E-6	1.5878E-8
3.2804E-1	1.1204E-1	1.0354E-1	6.7229E-6	1.6044E-5	6.4413E-1	1.2121E-6			8.4811E-6	8.4805E-6	8.6179E-8
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5.5075E-1	1.4137E-1	8.2059E-2	5.3281E-6	5.7485E-6	5.2418E-1	2.9057E-6			1.3818E-6	1.3818E-6	1.5859E-8
7.1463E-1	1.5921E-1	7.2884E-2	4.7311E-6	3.4203E-6	4.6818E-1	1.5342E-6			1.7581E-6	1.7581E-6	8.3750E-8
9.1973E-1	1.7939E-1	6.4689E-2	4.1890E-6	2.0689E-6	2.4916E-1	8.8063E-6			2.1927E-6	2.1928E-6	4.8069E-8
1.0000E-0	1.8680E-1	6.2102E-2	4.0323E-6	1.7507E-6	4.0074E-1	7.3804E-6			2.3540E-6	2.3539E-6	4.0309E-8
1.0220E-0	1.8884E-1	6.1431E-2	3.9888E-6	1.6763E-6	3.9650E-1	6.9870E-6			2.3960E-6	2.3960E-6	3.8161E-8
1.0251E-0	1.8915E-1	6.1332E-2	3.9823E-6	1.6881E-6	3.9587E-1	6.9421E-6	1.4793E-8		2.4015E-6	2.4014E-6	3.7915E-8
1.0287E-0	1.8950E-1	6.1218E-2	3.9749E-6	1.6544E-6	3.9515E-1	6.8903E-6	1.4793E-7		2.4078E-6	2.4078E-6	3.7633E-8
1.0353E-0	1.9014E-1	6.1013E-2	3.9618E-6	1.6336E-6	3.9384E-1	6.7884E-6	1.1127E-8		2.4184E-6	2.4183E-6	3.7131E-8
1.0366E-0	1.9027E-1	6.0971E-2	3.9569E-6	1.6293E-6	3.9358E-1	6.7798E-6	1.4793E-6		2.4217E-6	2.4217E-6	3.7029E-8
1.0382E-0	1.9042E-1	6.0922E-2	3.9527E-6	1.6245E-6	3.9327E-1	6.7653E-6	1.9984E-8		2.4244E-6	2.4244E-6	3.6911E-8
1.0397E-0	1.9057E-1	6.0878E-2	3.9485E-6	1.6198E-6	3.9296E-1	6.7508E-6	2.5927E-8		2.4270E-6	2.4270E-6	3.6799E-8
1.0415E-0	1.9074E-1	6.0820E-2	3.9449E-6	1.6142E-6	3.9262E-1	6.7353E-6	3.4509E-8		2.4302E-6	2.4302E-6	3.6684E-8
1.0438E-0	1.9098E-1	6.0749E-2	3.9445E-6	1.6071E-6	3.9217E-1	6.6818E-6	4.7900E-8		2.4342E-6	2.4342E-6	3.6493E-8
1.0464E-0	1.9122E-1	6.0670E-2	3.9393E-6	1.5991E-6	3.9167E-1	6.6467E-6	6.6844E-8		2.4387E-6	2.4387E-6	3.6302E-8
1.0483E-0	1.9140E-1	6.0611E-2	3.9355E-6	1.5934E-6	3.9130E-1	6.6212E-6	8.2974E-8		2.4421E-6	2.4420E-6	3.6183E-8
1.0512E-0	1.9168E-1	6.0523E-2	3.9298E-6	1.5848E-6	3.9073E-1	6.5828E-6	1.1255E-8		2.4471E-6	2.4471E-6	3.5952E-8
1.0541E-0	1.9196E-1	6.0435E-2									

October 31, 1989
Atomic Weight 39.102

ENDL Evaluated
Photon Data

19-K
Density 8.6200- 1 Grams/cc

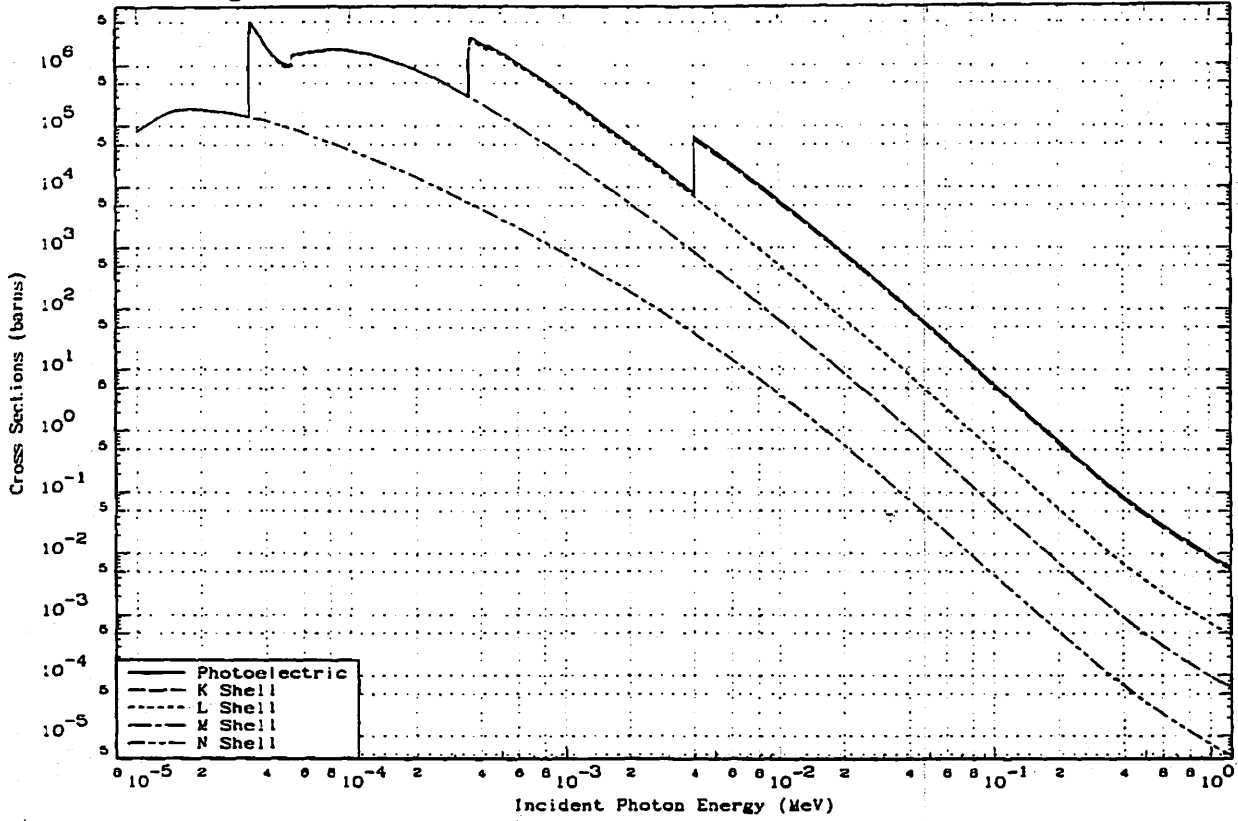
Energy keV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cc*cm/graz	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.1582- 0	2 0170- 1	5 7516- 2	3 7345- 0	1 3057- 2	3 7152- 0	5 4091- 3	8 5404- 4		2 6320- 2	2 6320- 2	2 9542- 8
1.1741- 0	2 0314- 1	5 7108- 2	3 7081- 0	1 2707- 2	3 6890- 0	5 2811- 3	1 1413- 3		2 6593- 2	2 6593- 2	2 8844- 8
1.1901- 0	2 0457- 1	5 6708- 2	3 6821- 0	1 2368- 2	3 6631- 0	5 1570- 3	1 4793- 3		2 6866- 2	2 6866- 2	2 8166- 8
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October 31, 1989
Atomic Weight 40.080

ENDL Evaluated
Photoelectric Shell Cross Sections

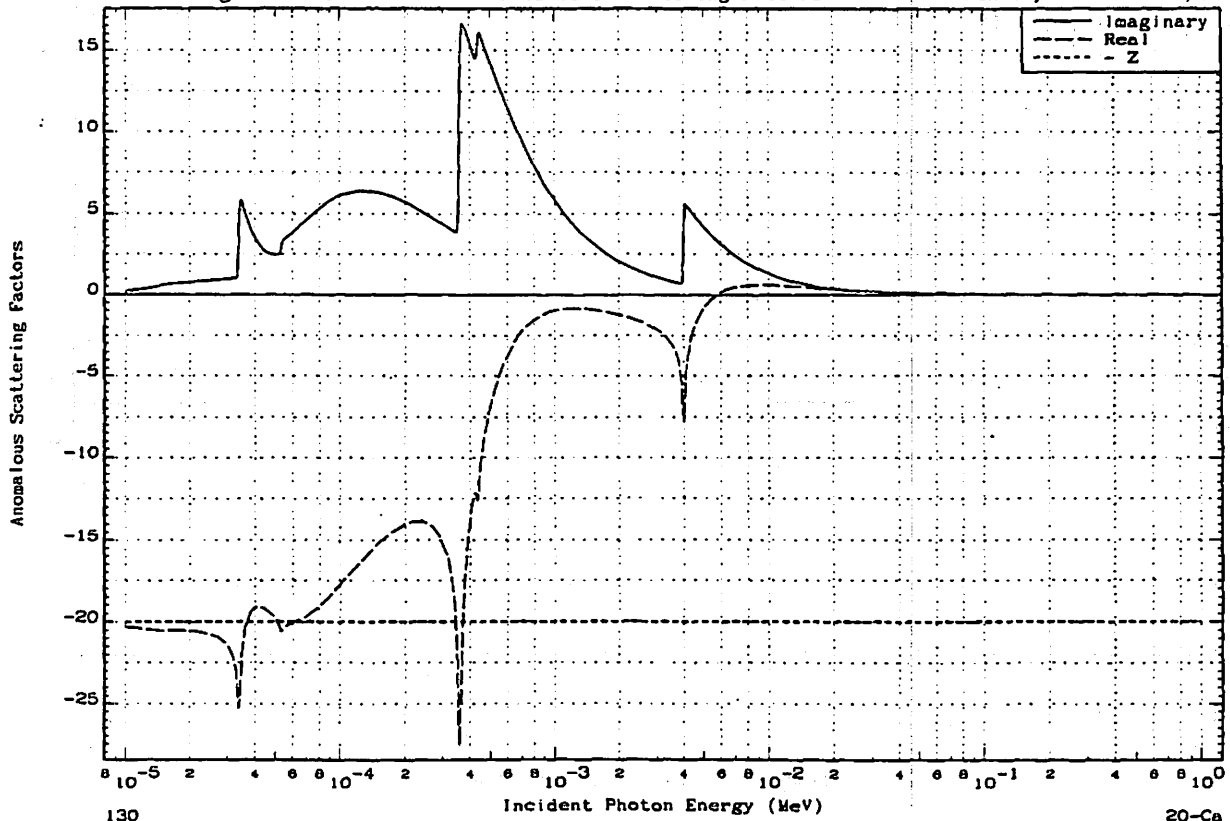
20-Ca
Density 1.550 Grams/cc



October 31, 1989
Atomic Weight 40.080

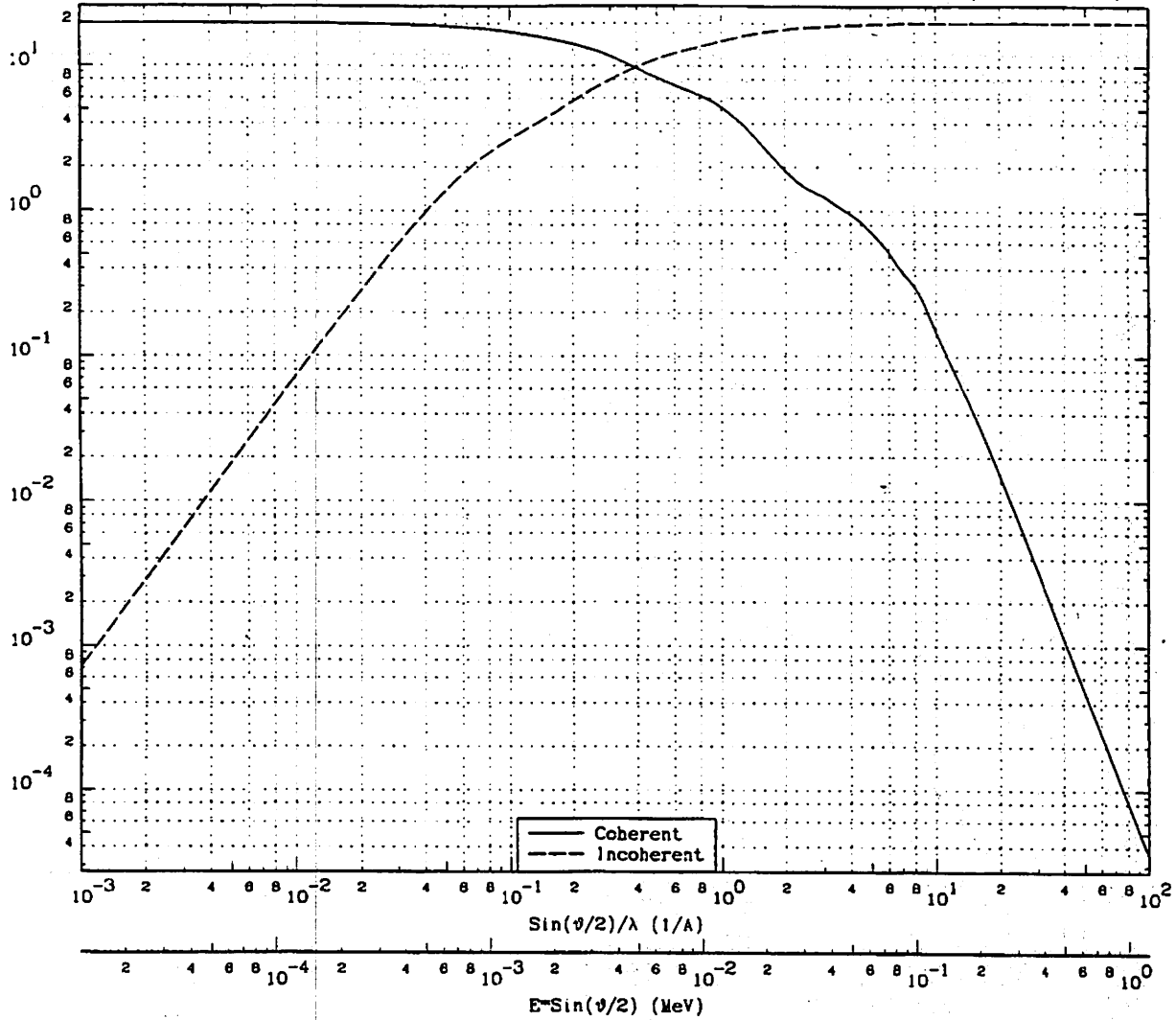
ENDL Evaluated
Anomalous Scattering Factors

20-Ca
Density 1.550 Grams/cc



130

20-Ca



$\sin(\theta/2)/\lambda$ 1/A	$E \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E \sin(\theta/2)$ MeV	Coherent	Incoherent
0000+ 0	0.0000+ 0	2.0000+ 1	0.0000+ 0	7.0000- 1	8.6790- 3	6.7488+ 0	1.2953+ 1	1.5000+ 1	1.8598- 1	4.0674- 2	1.9999+ 1
0000- 3	1.2399- 5	2.0000+ 1	7.2000- 4	8.0000- 1	9.9188- 3	6.2085+ 0	1.3635- 1	1.7847+ 1	2.2128- 1	2.2423- 2	2.0000+ 1
0000- 3	6.1993- 5	1.9988+ 1	1.8000- 2	9.0000- 1	1.1159- 2	5.6909+ 0	1.4256+ 1	2.0000+ 1	2.4797- 1	1.4874- 2	2.0000+ 1
0000- 2	1.2399- 4	1.9957+ 1	7.2000- 2	1.0000+ 0	1.2399- 2	5.1814+ 0	1.4830+ 1	3.3850+ 1	4.1969- 1	2.1183- 3	2.0000+ 1
.5000- 2	1.8598- 4	1.9907+ 1	1.5860- 1	1.1875+ 0	1.4723- 2	4.2676+ 0	1.5767+ 1	5.0000+ 1	6.1993- 1	4.8526- 4	2.0000+ 1
.0000- 2	2.4797- 4	1.9837+ 1	2.7810- 1	1.2500+ 0	1.5498- 2	3.9821+ 0	1.6038+ 1	8.0000+ 1	9.9188- 1	8.1809- 5	2.0000+ 1
.5000- 2	3.0996- 4	1.9748+ 1	4.2300- 1	1.5000+ 0	1.8598- 2	3.0020+ 0	1.6921+ 1	1.0000+ 2	1.2399+ 0	3.5372- 5	2.0000+ 1
.0000- 2	3.7196- 4	1.9643+ 1	5.8970- 1	2.0000+ 0	2.4797- 2	1.8918+ 0	1.7970+ 1	1.7117+ 2	2.1223+ 0	4.9103- 6	2.0000+ 1
.0000- 2	4.9584- 4	1.9388+ 1	9.6850- 1	2.3750+ 0	2.9446- 2	1.5061+ 0	1.8414+ 1	3.2012+ 2	3.8690+ 0	5.3217- 7	2.0000+ 1
.0000- 2	6.1993- 4	1.9088+ 1	1.3750+ 0	2.5000+ 0	3.0996- 2	1.4319+ 0	1.8531+ 1	6.3400+ 2	7.8607+ 0	5.1137- 8	2.0000+ 1
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.0000- 2	1.1159- 3	1.7675+ 1	2.8172+ 0	4.0000+ 0	4.9594- 2	8.4730- 1	1.9411+ 1	3.8895+ 3	4.8224+ 1	1.4075-10	2.0000+ 1
.0000- 1	1.2399- 3	1.7319+ 1	3.1050+ 0	4.5693+ 0	5.6653- 2	8.0501- 1	1.9594+ 1	6.1540+ 3	7.6300+ 1	3.3630-11	2.0000+ 1
.2500- 1	1.5498- 3	1.6483+ 1	3.7618+ 0	5.0000+ 0	6.1993- 2	7.0510- 1	1.9698+ 1	1.0072+ 4	1.2488+ 2	7.3889-12	2.0000+ 1
.5000- 1	1.8598- 3	1.5715+ 1	4.4010+ 0	5.7891+ 0	7.1776- 2	5.5225- 1	1.9823+ 1	1.8554+ 4	2.3004+ 2	1.1595-12	2.0000+ 1
.7500- 1	2.1697- 3	1.4990+ 1	5.0477+ 0	6.0000+ 0	7.4391- 2	2.1450- 1	1.9848+ 1	4.3553+ 4	5.3999+ 2	9.0940-14	2.0000+ 1
.0000- 1	2.4797- 3	1.4293+ 1	5.6900+ 0	7.0000+ 0	8.6790- 2	3.7220- 1	1.9924+ 1	2.4874+ 5	3.0964+ 3	5.4589-16	2.0000+ 1
.5000- 1	3.0996- 3	1.2947+ 1	6.8993+ 0	8.0000+ 0	9.9188- 2	2.9720- 1	1.9961+ 1	1.0000+ 6	1.2399+ 4	9.5751-18	2.0000+ 1
.0000- 1	3.7196- 3	1.1689+ 1	7.9810+ 0	8.5580+ 0	1.0611- 1	2.4946- 1	1.9972+ 1	5.6234+ 6	6.9722+ 4	5.9512-20	2.0000+ 1
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.0000- 1	6.1993- 3	8.2524+ 0	1.1157+ 1	1.0000+ 1	1.2399- 1	1.4720- 1	1.9989+ 1	1.0000+ 9	1.2399+ 7	1.1098-26	2.0000+ 1
.0000- 1	7.4391- 3	7.3767+ 0	1.2163+ 1	1.1411+ 1	1.4148- 1	9.5414- 2	1.9994+ 1				

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	ca	ca*ca/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	5.1618-4	1.2499+3	8.3185+4	7.3233-2	1.5580-4	8.3185+4			1.9373-2	1.9373-2	
1.2366-5	3.2456-4	1.9878+3	1.3230+5	2.1445-1	2.3827-4	1.3230+5			3.8101-2	3.8101-2	
1.3836-5	2.6293-4	2.4538+3	1.6331+5	3.0738-1	2.9827-4	1.6331+5			5.2622-2	5.2622-2	
1.5000-5	2.3602-4	2.7335+3	1.8193+5	3.8823-1	3.5060-4	1.8193+5			6.3554-2	6.3554-2	
1.8157-5	2.2518-4	2.8653+3	1.9070+5	4.5308-1	4.0879-4	1.9070+5			7.1758-2	7.1758-2	
1.7915-5	2.2282-4	2.8955+3	1.9271+5	5.1670-1	5.0012-4	1.9271+5			8.0401-2	8.0401-2	
2.1325-5	2.3306-4	2.7682+3	1.8424+5	6.1342-1	7.0889-4	1.8424+5			9.1498-2	9.1498-2	
2.4495-5	2.4487-4	2.6389+3	1.7550+5	6.6589-1	9.3510-4	1.7550+5			1.0011-1	1.0011-1	
2.6987-5	2.5825-4	2.4982+3	1.6827+5	1.1014+0	1.1351-3	1.6827+5			1.0450-1	1.0450-1	
2.9818-5	2.7302-4	2.3630+3	1.5727+5	1.8851+0	1.3858-3	1.5727+5			1.0921-1	1.0921-1	
3.1561-5	2.8530-4	2.2614+3	1.5050+5	3.3318+0	1.5525-3	1.5050+5			1.1062-1	1.1062-1	
3.2677-5	2.9335-4	2.1993+3	1.4637+5	6.6710+0	1.6844-3	1.4637+5			1.1139-1	1.1139-1	
3.2888-5	2.9486-4	2.1880+3	1.4562+5	8.1802+0	1.8859-3	1.4562+5			1.1153-1	1.1153-1	
3.3078-5	2.9622-4	2.1779+3	1.4495+5	1.0648+1	1.7056-3	1.4494+5			1.1166-1	1.1166-1	
3.3462-5	2.9895-4	2.1581+3	1.4363+5	2.0135+1	1.7453-3	1.4361+5			1.1192-1	1.1192-1	
3.3600-5	2.9992-4	2.1511+3	1.4316+5	2.3990+1	1.7597-3	1.4314+5			1.1201-1	1.1201-1	
M3 3.3600-5	1.1625-5	5.5496+4	3.8935-6	2.3990+1	1.7597-3	3.8935-6			2.6902+0	2.6902+0	
3.3827-5	1.2003-5	5.3748+4	3.5772-6	2.8193+1	1.7836-3	3.5772-6			2.8181+0	2.8181+0	
3.3958-5	1.2225-5	5.2773+4	3.5123+6	3.0620+1	1.7974-3	3.5123+6			2.7777+0	2.7777+0	
3.4010-5	1.2315-5	5.2387+4	3.4886+6	3.0738+1	1.8029-3	3.4886+6			2.7816+0	2.7816+0	
M2 3.4010-5	8.1882-6	7.8984+4	5.2567+6	3.0738+1	1.8029-3	5.2567+6			4.1837+0	4.1837+0	
3.4120-5	8.2944-6	7.7782+4	5.1768+6	3.0985+1	1.8148-3	5.1768+6			4.1136+0	4.1136+0	
3.4233-5	8.4250-6	7.6577+4	5.0968+6	3.0493+1	1.8288-3	5.0968+6			4.0632+0	4.0632+0	
3.4890-5	8.9724-6	7.1905+4	4.7856+6	2.5818+1	1.8758-3	4.7856+6			3.8663+0	3.8663+0	
3.4916-5	8.9919-6	6.9432+4	4.6210+6	2.3414+1	1.9003-3	4.6210+6			3.7577+0	3.7577+0	
3.5541-5	1.0221-5	6.3119+4	4.2009+6	1.9422+1	1.9689-3	4.2008+6			3.4771+0	3.4771+0	
3.6218-5	1.1310-5	5.7042+4	3.7984+6	1.6515+1	2.0444-3	3.7984+6			3.2020+0	3.2020+0	
3.7931-5	1.4523-5	4.4422+4	2.9565+6	1.2061+1	2.2427-3	2.9565+6			2.6117+0	2.6117+0	
4.0000-5	1.9388-5	3.3278+4	2.2147+6	6.7303+0	2.4941-3	2.2147+6			2.0631+0	2.0631+0	
4.2295-5	2.5373-5	2.5427+4	1.6923+6	6.5943+0	2.7885-3	1.6923+6			1.6689+0	1.6689+0	
4.4927-5	3.2185-5	2.0045+4	1.3341+6	5.0849+0	3.1465-3	1.3341+6			1.3959+0	1.3959+0	
4.6638-5	3.5967-5	1.7837+4	1.1938+6	4.5037+0	3.3907-3	1.1938+6			1.2967+0	1.2967+0	
4.9054-5	3.9708-5	1.6248+4	1.0814+6	4.0445+0	3.7513-3	1.0814+6			1.2354+0	1.2354+0	
5.0248-5	4.0883-5	1.5858+4	1.0554+6	3.9803+0	3.9357-3	1.0554+6			1.2350+0	1.2350+0	
5.2238-5	4.0829-5	1.5801+4	1.0517+6	4.2574+0	4.2537-3	1.0517+6			1.2794+0	1.2794+0	
5.2558-5	4.0852-5	1.5792+4	1.0511+6	4.5533+0	4.3085-3	1.0511+6			1.2885+0	1.2885+0	
5.3180-5	4.0869-5	1.5786+4	1.0508+6	5.8889+0	4.4056-3	1.0508+6			1.3007+0	1.3007+0	
M1 5.3180-5	2.9035-5	2.2220+4	1.4788+6	5.8889+0	4.4056-3	1.4788+6			1.8309+0	1.8309+0	
5.3578-5	2.6981-5	2.2262+4	1.4816+6	7.0536+0	4.4748-3	1.4816+6			1.8487+0	1.8487+0	
5.3837-5	2.6947-5	2.2268+4	1.4833+6	7.4337+0	4.5186-3	1.4833+6			1.8598+0	1.8598+0	
5.4220-5	2.6898-5	2.2286+4	1.4859+6	7.6873+0	4.5831-3	1.4859+6			1.8763+0	1.8763+0	
7.0000-5	2.4503-5	2.6330+4	1.7524+6	1.4167+1	7.6397-3	1.7523+6			2.8567+0	2.8567+0	
8.0000-5	2.3385-5	2.7589+4	1.8362+6	1.9307+1	9.9789-3	1.8361+6			3.4210+0	3.4210+0	
9.0557-5	2.3566-5	2.7377+4	1.8221+6	2.4403+1	1.2787-2	1.8221+6			3.8427+0	3.8427+0	
1.0000-4	2.4448-5	2.8389+4	1.7563+6	2.8185+1	1.5593-2	1.7563+6			4.0902+0	4.0902+0	
1.2440-4	2.8823-5	2.2540+4	1.5001+6	3.6178+1	2.4018-2	1.5001+6			4.3459+0	4.3459+0	
1.5074-4	3.4820-5	1.8528+4	1.2331+6	4.1889+1	3.5124-2	1.2331+6			4.3290+0	4.3290+0	
1.7513-4	4.2812-5	1.5141+4	1.0077+6	4.4291+1	4.7256-2	1.0078+6			4.1096+0	4.1096+0	
2.0349-4	5.2393-5	1.2314+4	8.1954+5	4.5335+1	6.3596-2	8.1950+5			3.8836+0	3.8836+0	
2.3878-4	6.7756-5	9.5218+3	8.3372+5	4.2335+1	8.6878-2	8.3368+5			3.5239+0	3.5239+0	
2.6630-4	8.1719-5	7.8948+3	5.2544+5	3.7214+1	1.0713-1	5.2540+5			3.2585+0	3.2585+0	
2.8511-4	8.2099-5	7.0051+3	4.6622+5	3.1860+1	1.2214-1	4.6618+5			3.0955+0	3.0955+0	
3.1177-4	1.0808-4	5.9692+3	3.9729+5	2.2562+1	1.4449-1	3.9725+5			2.8789+0	2.8789+0	
3.2744-4	1.1630-4	5.4079+3	3.5982+5	1.5188+1	1.5915-1	3.5991+5			2.7448+0	2.7448+0	
3.3384-4	1.2368-4	5.2088+3	3.4667+5	1.2289+1	1.6496-1	3.4668+5			2.6852+0	2.6852+0	
3.4288-4	1.3029-4	4.9518+3	3.2955+5	1.0004+1	1.7312-1	3.2954+5			2.6299+0	2.6299+0	
3.4688-4	1.3328-4	4.8415+3	3.2223+5	1.1660+1	1.7887-1	3.2221+5			2.6015+0	2.6015+0	
3.4855-4	1.3468-4	4.7912+3	3.1887+5	1.4849+1	1.7884-1	3.1886+5			2.5883+0	2.5883+0	
3.4978-4	1.3558-4	4.7853+3	3.1670+5	1.8383+1	1.7982-1	3.1688+5			2.5788+0	2.5788+0	
3.5078-4	1.3632-4	4.7327+3	3.1498+5	2.5048+1	1.8075-1	3.1498+5			2.5730+0	2.5730+0	
3.5380-4	1.3859-4	4.6552+3	3.0882+5	5.9501+1	1.8384-1	3.0978+5			2.5523+0	2.5523+0	
3.5520-4	1.3985-4	4.6200+3	3.0748+5	8.2730+1	1.8499-1	3.0740+5			2.5429+0	2.5429+0	
L3 3.5520-4	2.2897-5	2.8176+4	1.8753+6	8.2730+1	1.8499-1	1.8752+6			1.5512+1	1.5508+1	2.8318-3
3.5700-4	2.2557-5	2.8901+4	1.9035+6	1.1523+2	1.8673-1	1.9034+6			1.5828+1	1.5823+1	2.8880-3
3.5809-4	2.2356-5	2.8859+4	1.8207+6	1.3380+2	1.8778-1	1.8208+6			1.6017+1	1.6014+1	2.9222-3
3.5904-4	2.2181-5	2.9088+4	1.9358+6	1.4745+2	1.8871-1	1.9358+6			1.6186+1	1.6182+1	2.9524-3
L2 3.5904-4	1.5859-5	4.0682+4	2.7078+6	1.4745+2	1.8871-1	2.7074+6			2.2639+1	2.2634+1	4.3387-3
3.6043-4	1.5669-5	4.1174+4	2.7403+6	1.6258+2	1.9008-1	2.7401+6			2.3001+1	2.2996+1	4.4015-3
3.8252-4	1.5414-5	4.1854+4	2.7858+6	1.7687+2	1.9210-1	2.7854+6			2.3517+1	2.3512+1	4.4894-3
3.6858-4	1.5342-5	4.2053+4	2.7888+6	1.8482+2	1.9808-1	2.7886+6			2.4022+1	2.4018+1	4.5286-3
3.9685-4	1.7913-5	3.6018+4	2.3970+6	1.8509+2	2.2898-1	2.3968+6			2.2253+1	2.2248+1	3.8778-3
4.2082-4	2.0154-5	3.2012+4	2.1308+6	1.8112+2	2.5308-1	2.1304+6			2.0879+1	2.0875+1	3.4443-3
4.2742-4	2.0849-5	3.0944+4	2.0585+6	1.7705+2	2.6047-1	2.0583+6			2.0499+1	2.0485+1	3.3287-3
4.3055-4	2.1184-5	3.0459+4	2.0270+6	1.7752+2	2.6381-1	2.0268+6			2.0329+1	2.0320+1	3.2758-3
4.3411-4	2.1597-5	2.9915+4	1.9910+6	1.6987+2	2.6782-1	1.9909+6			2.0127+1	2.0124+1	3.2173-3
4.3734-4	1.9169-5	3.3661+4	2.2403+6	1.6887+2	2.6782-1	2.2401+6			2.2948+1	2.2944+1	3.9543-3
4.4122-4	1.9481-5	3.3152+4	2.2064+6	2.0690+2	2.7111-1	2.2062+6			2.2471+1	2.2467+1	3.8968-3
4.4687-4	1.9817-5	3.2557+4	2.1668+6	2.2066+2	2.7531-1	2.1668+6			2.2263+1	2.2259+1	3.8290-3
4.6888-4	2.0341-5	3.1718+4	2.1110+6	2.2765+2	2.8149-1	2.1107+6			2.1987+1	2.1983+1	3.7340-3
4.8888-4	2.2446-5	2.8743+4	1.9130+6	2.3798+2	3.0111-1	1.9127+6			2.0887+1	2.0883+1	3.3969-3
5.4152-4	3.0516-5	2.1142+4	1.4071+6	2.5199+2	3.8352-1	1.4089+6			1.7742+1	1.7740+1	2.5282-3
7.0000-4	5.5180-5	1.1892+4	7.7818+5	2.5603+2	5.9877-1	7.7790+5			1.2682+1	1.2680+1	1.4256-3
9.3905-4	1.1353-4	5.6827+3	3.7821+5	2.4154+2	9.1839-1	3.7797+5			8.2680+0	8.2653+0	7.1058-4
1.0000-3	1.3305-4	4.8490+3	3.2272+5	2.3894+2	9.8543-1	3.2284+5			7.5104+0	7.5097+0	6.8932-4
1.3338-3	2.7858-4	2.3181+3	1.5415+5	2.1324+2	1.3973+0	1.5383+5			4.7817+0	4.7814+0	2.9923-4
2.0000-3	8.1135-4	7.9517+2	5.2822+4	1.7251+2	2.0841+0	5.2748+4			2.4568+0	2.4568+0	1.0684-4

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.5783-3	1.6063-3	4.0116+2	2.6699+4	1.4359+2	2.6045+0	2.6563+4			1.5944+0	1.5943+0	5.5407-5
3.0000-3	2.4297-3	2.6553+2	1.7673+4	1.2326+2	2.9867+0	1.7546+4			1.2259+0	1.2259+0	3.7123-5
3.3412-3	3.2680-3	1.9742+2	1.3139+4	1.0627+2	3.2778+0	1.3030+4			1.0139+0	1.0139+0	2.7900-5
3.4895-3	3.6253-3	1.7798+2	1.1844+4	9.8984+1	3.3829+0	1.1742+4			9.4876-1	9.4873-1	2.5248-5
3.6820-3	4.2049-3	1.5343+2	1.0212+4	8.8132+1	3.5394+0	1.0122+4			8.8323-1	8.8321-1	2.1898-5
3.7598-3	4.5223-3	1.4266+2	9.4949+3	7.7741-1	3.8184+0	9.4135-3			8.2429-1	8.2427-1	2.0426-5
3.8631-3	4.8755-3	1.3233+2	8.6071+3	6.5740+1	3.7015+0	8.7376-3			7.8612-1	7.8610-1	1.8018-5
3.9013-3	5.0120-3	1.2872+2	8.5672+3	5.8325+1	3.7322+0	8.5041-3			7.7268-1	7.7268-1	1.8530-5
3.9346-3	5.1341-3	1.2586+2	8.3633+3	5.1519+1	3.7588+0	8.3060-3			7.8130-1	7.8129-1	1.8120-5
3.9600-3	5.2303-3	1.2335+2	8.2065+3	4.3468+1	3.7791+0	8.1623-3			7.5277-1	7.5275-1	1.7815-5
3.8821-3	5.3149-3	1.2139+2	8.0789+3	3.6777+1	3.7967+0	8.0382-3			7.4545-1	7.4545-1	1.7556-5
3.9898-3	5.3441-3	1.2072+2	8.0347+3	3.5314+1	3.8029+0	7.9959+3			7.4295-1	7.4293-1	1.7486-5
3.9985-3	5.3784-3	1.2000+2	7.9885+3	3.4806+1	3.8098+0	7.9481+3			7.4014-1	7.4012-1	1.7397-5
4.0150-3	5.4359-3	1.1869+2	7.8991+3	3.6857+1	3.8230+0	7.8594+3			7.3481-1	7.3479-1	1.7179-5
K 4.0150-3	6.2266-4	1.0361+3	6.8960+4	3.6857+1	3.8230+0	6.8919+4			6.4443+0	6.6027+0	8.4187-1
4.0293-3	6.2821-4	1.0270+3	6.8350+4	4.1989+1	3.8344+0	6.8304+4			6.4096+0	5.5754+0	8.3424-1
4.0573-3	6.3912-4	1.0095+3	6.7184+4	5.6780+1	3.8567+0	6.7123+4			6.3424+0	5.5224+0	8.2000-1
4.0747-3	6.4594-4	9.8860+2	6.6474+4	6.5261+1	3.8705+0	6.6405+4			6.3011+0	6.4898+0	8.1135-1
4.0912-3	6.5249-4	9.8877+2	6.5807+4	7.1919+1	3.8837+0	6.5731+4			6.2622+0	5.4580+0	8.0324-1
4.1245-3	6.6568-4	9.8892+2	6.4486+4	7.8825+1	3.9101+0	6.4402+4			6.1851+0	5.3978+0	7.8722-1
4.1830-3	6.8980-4	9.3529+2	6.2248+4	8.8404+1	3.9565+0	6.2155+4			6.0534+0	5.2933+0	7.8014-1
4.2348-3	7.1137-4	9.0693+2	6.0360+4	9.3822+1	3.9929+0	6.0263+4			5.8411+0	5.2039+0	7.3731-1
4.3842-3	7.8084-4	8.2645+2	5.5004+4	1.0398+2	4.1043+0	5.4898+4			5.8157+0	4.8431+0	6.7254-1
4.6057-3	8.7856-4	7.3434+2	4.8874+4	1.0954+2	4.2055+0	5.0670+4			5.2289+0	4.8305+0	5.9838-1
5.0191-3	1.0905-3	5.9163+2	3.8375+4	1.1245+2	4.5314+0	3.8258+4			4.5889+0	4.1057+0	4.8324-1
5.7366-3	1.5374-3	4.1965+2	2.7929+4	1.0859+2	5.0025+0	2.7818+4			3.7182+0	3.3728+0	3.4357-1
6.7082-3	2.6639-3	2.4218+2	1.8119+4	9.4003+1	5.8831+0	1.6019+4			2.8256+0	2.4270+0	1.9659-1
9.4574-3	5.9277-3	1.0884+2	7.2437+3	7.1726+1	6.6518+0	1.7653+3			1.5782+0	1.4890+0	8.9220-2
1.0000-2	6.9355-3	9.3023+1	6.1911+3	6.7792+1	6.8415+0	6.1165+3			1.4245+0	1.3483+0	7.6202-2
1.3414-2	1.5815-2	4.0795+1	2.7151+3	4.8554+1	7.7100+0	2.6589+3			8.3049-1	7.9727-1	3.3214-2
1.7714-2	3.4851-2	1.8459+1	1.2285+3	3.3334+1	8.4999+0	1.1867+3			4.8968-1	4.7483-1	1.4849-2
2.8046-2	1.0581-1	8.1090+0	4.0658+2	1.8320+1	9.4031+0	3.7896+2			2.3009-1	2.2534-1	4.7474-3
3.7734-2	3.0172-1	2.1383+0	1.4231+2	9.9972+0	9.8482+0	1.2247+2			1.0821-1	1.0687-1	1.5347-3
5.0000-2	8.3095-1	1.0225+0	6.8054+1	6.2357+0	9.8368+0	5.1882+1			6.1405-2	6.0754-2	6.5109-4
6.1304-2	1.0297+0	6.2655-1	4.1700+1	4.3846+0	9.8766+0	2.7438-1			4.0585-2	4.0241-2	3.4428-4
7.3741-2	1.5183+0	4.2548-1	2.8318+1	3.1547+0	9.7563+0	1.5407+1			2.8381-2	2.8187-2	1.9328-4
8.6378-2	2.0127+0	3.2054-1	2.1333+1	2.3631+0	9.5731+0	9.3971+0			2.1378-2	2.1280-2	1.1787-4
1.0000-1	2.5031+0	2.5775-1	1.7164+1	1.8032+0	9.4065+0	5.9445+0			1.6869-2	1.6895-2	7.4578-5
1.1941-1	3.1182+0	2.0690-1	1.3770+1	1.2833+0	9.0840+0	3.4129+0			1.3523-2	1.3480-2	4.2824-5
1.3902-1	3.6173+0	1.7835-1	1.1870+1	9.8856-1	8.7805+0	2.1213+0			1.1884-2	1.1858-2	2.6819-5
1.6292-1	4.1082+0	1.5712-1	1.0457+1	7.1500-1	8.4503+0	1.2916+0			1.1138-2	1.1122-2	1.6208-5
1.8998-1	4.5548+0	1.4184-1	9.4271+0	5.3184-1	8.0963+0	7.8992-1			1.1154-2	1.1144-2	1.0024-5
2.3247-1	5.1057+0	1.2638-1	8.4099+0	3.5948-1	7.8188+0	4.3175-1			1.2150-2	1.2144-2	5.4155-6
3.0000-1	5.7908+0	1.1141-1	7.4149+0	2.1824-1	6.9971+0	1.9981-1			1.4689-2	1.4687-2	2.5040-6
4.0326-1	6.6376+0	9.7198-2	6.4690+0	1.2178-1	6.2618+0	8.5407-2			1.9117-2	1.9118-2	3.4418-6
5.5041-1	7.6398+0	8.4450-2	5.6205+0	6.5701-2	5.5177+0	3.7149-2			2.5583-2	2.5582-2	4.6800-7
7.3782-1	8.7381+0	7.3850-2	4.9150+0	3.6681-2	4.8801+0	1.8270-2			3.3492-2	3.3492-2	2.2919-7
1.0000+0	1.0109+1	6.3818-2	4.2474+0	1.9889-2	4.2179+0	8.4308-3			4.3504-2	4.3504-2	1.1832-7
1.0220+0	1.0220+1	6.3127-2	4.2014+0	1.9139-2	4.1733+0	8.8310-3			4.4280-2	4.4280-2	1.1205-7
1.0251+0	1.0237+1	6.3025-2	4.1946+0	1.9023-2	4.1687+0	8.8737-3	1.6577-8		4.4381-2	4.4381-2	1.1133-7
1.0287+0	1.0256+1	6.2907-2	4.1867+0	1.8890-2	4.1590+0	8.8077-3	1.6577-7		4.4489-2	4.4489-2	1.1050-7
1.0353+0	1.0290+1	6.2896-2	4.1727+0	1.8852-2	4.1453+0	8.6904-3	1.2468-6		4.4711-2	4.4710-2	1.0903-7
1.0366+0	1.0297+1	6.2853-2	4.1698+0	1.8804-2	4.1425+0	8.6687-3	1.6577-6		4.4754-2	4.4754-2	1.0873-7
1.0382+0	1.0306+1	6.2803-2	4.1665+0	1.8548-2	4.1393+0	8.6392-3	2.2371-8		4.4804-2	4.4804-2	1.0839-7
1.0397+0	1.0314+1	6.2555-2	4.1633+0	1.8494-2	4.1362+0	8.6129-3	2.8065-6		4.4853-2	4.4853-2	1.0808-7
1.0415+0	1.0323+1	6.2488-2	4.1596+0	1.8431-2	4.1325+0	8.5815-3	3.8870-6		4.4911-2	4.4911-2	1.0768-7
1.0438+0	1.0335+1	6.2425-2	4.1548+0	1.8350-2	4.1277+0	8.5418-3	5.3875-6		4.4885-2	4.4885-2	1.0718-7
1.0464+0	1.0349+1	6.2342-2	4.1492+0	1.8259-2	4.1224+0	8.4988-3	7.4679-6		4.5089-2	4.5089-2	1.0680-7
1.0483+0	1.0359+1	6.2283-2	4.1452+0	1.8183-2	4.1185+0	8.4643-3	9.2977-6		4.5130-2	4.5130-2	1.0619-7
1.0512+0	1.0374+1	6.2191-2	4.1391+0	1.8093-2	4.1126+0	8.4151-3	1.2812-5		4.5223-2	4.5223-2	1.0558-7
1.0541+0	1.0389+1	6.2101-2	4.1331+0	1.7994-2	4.1088+0	8.3688-3	1.6577-5		4.5318-2	4.5318-2	1.0487-7
1.0577+0	1.0408+1	6.1989-2	4.1256+0	1.7917-2	4.0994+0	8.3062-3	2.2595-5		4.5433-2	4.5432-2	1.0421-7
1.0611+0	1.0425+1	6.1884-2	4.1186+0	1.7757-2	4.0926+0	8.2501-3	2.8391-5		4.5542-2	4.5542-2	1.0351-7
1.0651+0	1.0448+1	6.1781-2	4.1104+0	1.7624-2	4.0848+0	8.1848-3	3.8910-5		4.5670-2	4.5670-2	1.0269-7
1.0704+0	1.0474+1	6.1599-2	4.0997+0	1.7451-2	4.0741+0	8.0994-3	5.4283-5		4.5840-2	4.5840-2	1.0182-7
1.0762+0	1.0504+1	6.1423-2	4.0880+0	1.7283-2	4.0626+0	8.0075-3	7.5019-5		4.6028-2	4.6028-2	1.0046-7
1.0806+0	1.0526+1	6.1291-2	4.0792+0	1.7123-2	4.0540+0	7.9388-3	9.3686-5		4.6187-2	4.6187-2	9.9802-8
1.0871+0	1.0560+1	6.1097-2	4.0683+0	1.6920-2	4.0414+0	7.8388-3	1.2823-4		4.6375-2	4.6375-2	9.8347-8
1.0937+0	1.0593+1	6.0902-2	4.0533+0	1.6718-2	4.0287+0	7.7391-3	1.6577-4		4.6588-2	4.6588-2	9.7097-8
1.1028+0	1.0639+1	6.0643-2	4.0380+0	1.6448-2	4.0117+0	7.6078-3	2.2885-4		4.6870-2	4.6870-2	9.5450-8
1.1107+0	1.0680+1	6.0409-2	4.0205+0	1.6209-2	3.9965+0	7.4812-3	2.9978-4		4.7128-2	4.7128-2	9.3985-8
1.1206+0	1.0730+1	6.0128-2	4.0018+0	1.5925-2	3.9781+0	7.3520-3	4.0104-4		4.7443-2	4.7442-2	9.2240-8
1.1333+0	1.0794+1	5.9773-2	3.9782+0	1.5571-2	3.9549+0	7.1859-3	5.5787-4		4.7846-2	4.7848-2	9.0155-8
1.1475+0	1.0864+1	5.9385-2	3.9523+0	1.5188-2	3.9293+0	7.0300-3	7.7002-4		4.8286-2	4.8286-2	8.8201-8
1.1582+0	1.0917+1	5.9097-2	3.9332+0	1.4809-2	3.9104+0	6.9181-3	9.5695-4		4.8835-2	4.8835-2	8.6771-8
1.1741+0	1.0995+1	5.8678-2	3.9053+0	1.4509-2	3.8829+0	6.7521-3	1.2789-3		4.9137-2	4.9137-2	8.4713-8
1.1901+0	1.1073+1	5.8266-2	3.8778+0	1.4122-2	3.8555+0	6.5930-3	1.6577-3		4.9841-2	4.9841-2	8.2717-8
1.2051+0	1.1145+1	5.7889-2	3.8528+0	1.3773-2	3.8305+0	6.4493-3	2.0627-3		5.0113-2	5.0113-2	8.0914-8
1.2275+0	1.1251+1	5.7340-2	3.8163+0	1.3276-2	3.7940+0	6.2435-3	2.7599-3		5.0816-2	5.0816-2	7.8332-8
1.2500+0	1.1357+1	5.6806-2	3.7807+0	1.2803-2	3.7583+0	6.0470-3	3.5690-3		5.1520-2	5.1520-2	7.5867-8
1.2803+0	1.1497+1	5.6113-2	3.7346+0	1.2205-2	3.7118+0	5.7642-3	4.8241-3		5.2466-2	5.2466-2	7.2898-8
1.3077+0	1.1622+1	5.5511-2	3.6945+0	1.1700-2	3.6711+0	5.5798-3	6.1153-3		5.3318-2	5.3318-2	7.0003

October 31, 1989
Atomic Weight 40.080

ENDL Evaluated
Photon Data

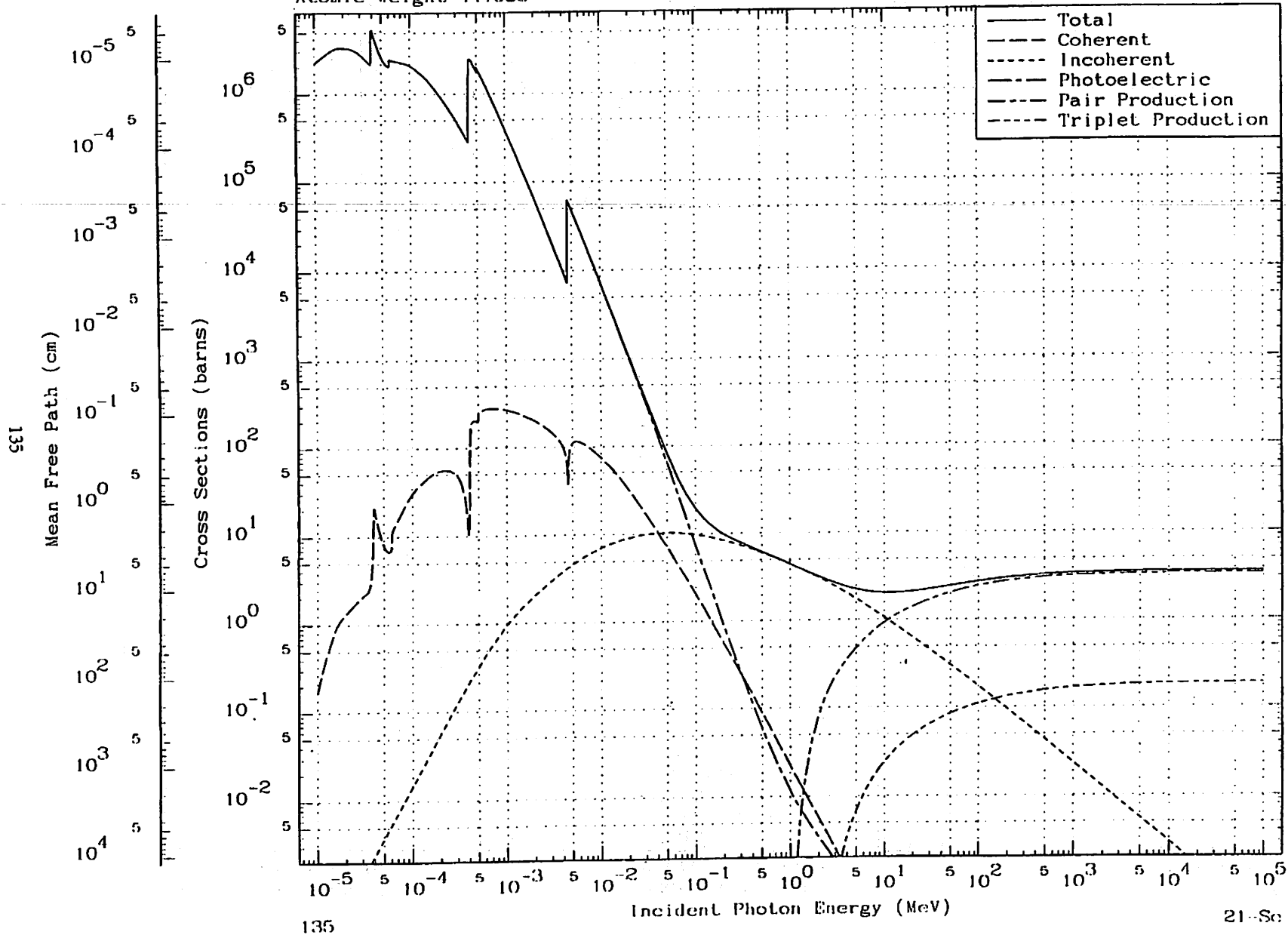
20-Ca
Density 1.550 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.5625+ 0	1.2693+ 1	5.0828- 2	3.3829+ 0	8.1984- 3	3.3465+ 0	4.0823- 3	2.4093- 2		6.1222- 2	6.1222- 2	5.1217- 8
1.6172+ 0	1.2903+ 1	5.0001- 2	3.3278+ 0	7.6535- 3	3.2871+ 0	3.8553- 3	2.9176- 2		6.2924- 2	6.2924- 2	4.8369- 8
1.7188+ 0	1.3276+ 1	4.8598- 2	3.2344+ 0	6.7762- 3	3.1846+ 0	3.4839- 3	3.9555- 2		6.6100- 2	6.6100- 2	4.3710- 8
1.8923+ 0	1.3916+ 1	4.6362- 2	3.0856+ 0	5.5913- 3	3.0173+ 0	2.9691- 3	5.9686- 2		7.1035- 2	7.1035- 2	3.7250- 8
2.0440+ 0	1.4429+ 1	4.4714- 2	2.8759+ 0	4.7927- 3	2.8896+ 0	2.8170- 3	7.8910- 2		7.5416- 2	7.5416- 2	3.2833- 8
2.0858+ 0	1.4574+ 1	4.4268- 2	2.8482+ 0	4.6026- 3	2.8550+ 0	2.5396- 3	8.4059- 2	2.0085- 7	7.6530- 2	7.6530- 2	3.1863- 8
2.1195+ 0	1.4688+ 1	4.3923- 2	2.8233+ 0	4.4575- 3	2.8280+ 0	2.4800- 3	8.8370- 2	1.1272- 6	7.7435- 2	7.7435- 2	3.1115- 8
2.1279+ 0	1.4717+ 1	4.3839- 2	2.8177+ 0	4.4224- 3	2.8213+ 0	2.4658- 3	8.9488- 2	1.5287- 6	7.7882- 2	7.7882- 2	3.0933- 8
2.1383+ 0	1.4744+ 1	4.3757- 2	2.8122+ 0	4.3879- 3	2.8148+ 0	2.4513- 3	9.0568- 2	2.0085- 6	7.7887- 2	7.7887- 2	3.0754- 8
2.1470+ 0	1.4780+ 1	4.3651- 2	2.8052+ 0	4.3441- 3	2.8064+ 0	2.4331- 3	9.1899- 2	2.7537- 6	7.8179- 2	7.8179- 2	3.0526- 8
2.1589+ 0	1.4813+ 1	4.3555- 2	2.8988+ 0	4.3043- 3	2.7987+ 0	2.4166- 3	9.3329- 2	3.5768- 6	7.8448- 2	7.8448- 2	3.0319- 8
2.1690+ 0	1.4852+ 1	4.3439- 2	2.8911+ 0	4.2564- 3	2.7894+ 0	2.3966- 3	9.4974- 2	4.7734- 6	7.8778- 2	7.8778- 2	3.0069- 8
2.1845+ 0	1.4902+ 1	4.3293- 2	2.8814+ 0	4.1963- 3	2.7777+ 0	2.3715- 3	9.7108- 2	6.6352- 6	7.9202- 2	7.9202- 2	2.9753- 8
2.2018+ 0	1.4958+ 1	4.3133- 2	2.8707+ 0	4.1306- 3	2.7647+ 0	2.3439- 3	9.9529- 2	9.1800- 6	7.9677- 2	7.9677- 2	2.9407- 8
2.2158+ 0	1.5002+ 1	4.3008- 2	2.8622+ 0	4.0708- 3	2.7543+ 0	2.3220- 3	1.0152- 1	1.1615- 5	8.0064- 2	8.0064- 2	2.9132- 8
2.2242+ 0	1.5081+ 1	4.2837- 2	2.8510+ 0	4.0117- 3	2.7408+ 0	2.2937- 3	1.0386- 1	1.5388- 5	8.0562- 2	8.0562- 2	2.8777- 8
2.2374+ 0	1.5123+ 1	4.2681- 2	2.8393+ 0	3.9427- 3	2.7287+ 0	2.2644- 3	1.0637- 1	2.0085- 5	8.1082- 2	8.1082- 2	2.8410- 8
2.2815+ 0	1.5210+ 1	4.2416- 2	2.8230+ 0	3.8471- 3	2.7089+ 0	2.2236- 3	1.1002- 1	2.8132- 5	8.1853- 2	8.1853- 2	2.7898- 8
2.3070+ 0	1.5289+ 1	4.2188- 2	2.8085+ 0	3.7828- 3	2.6891+ 0	2.1873- 3	1.1344- 1	3.6951- 5	8.2554- 2	8.2554- 2	2.7442- 8
2.3382+ 0	1.5383+ 1	4.1938- 2	2.7912+ 0	3.6829- 3	2.6677+ 0	2.1441- 3	1.1771- 1	4.8684- 5	8.3419- 2	8.3419- 2	2.6901- 8
2.3774+ 0	1.5501+ 1	4.1621- 2	2.7701+ 0	3.5431- 3	2.6414+ 0	2.0920- 3	1.2293- 1	6.8807- 5	8.4504- 2	8.4504- 2	2.6246- 8
2.4102+ 0	1.5599+ 1	4.1360- 2	2.7527+ 0	3.4474- 3	2.6200+ 0	2.0499- 3	1.2710- 1	8.7511- 5	8.5407- 2	8.5407- 2	2.5719- 8
2.4488+ 0	1.5705+ 1	4.1078- 2	2.7340+ 0	3.3451- 3	2.5987+ 0	2.0048- 3	1.3185- 1	1.1132- 4	8.6421- 2	8.6421- 2	2.5151- 8
2.4859+ 0	1.5817+ 1	4.0789- 2	2.7147+ 0	3.2407- 3	2.5723+ 0	1.9581- 3	1.3704- 1	1.4016- 4	8.7515- 2	8.7515- 2	2.4567- 8
2.5564+ 0	1.6011+ 1	4.0294- 2	2.6818+ 0	3.0644- 3	2.5299+ 0	1.8788- 3	1.4671- 1	2.0085- 4	8.9514- 2	8.9514- 2	2.3569- 8
2.6604+ 0	1.6290+ 1	3.9605- 2	2.6359+ 0	2.8297- 3	2.4707+ 0	1.7708- 3	1.6031- 1	3.0961- 4	9.2481- 2	9.2481- 2	2.2217- 8
2.7453+ 0	1.6507+ 1	3.9083- 2	2.6012+ 0	2.6574- 3	2.4250+ 0	1.6803- 3	1.7140- 1	4.1439- 4	9.4894- 2	9.4894- 2	2.1208- 8
2.8628+ 0	1.6790+ 1	3.8425- 2	2.5574+ 0	2.4439- 3	2.3653+ 0	1.5885- 3	1.8740- 1	5.7941- 4	9.8341- 2	9.8341- 2	1.9929- 8
3.0399+ 0	1.7195+ 1	3.7520- 2	2.4971+ 0	2.1675- 3	2.2825+ 0	1.4567- 3	2.1017- 1	8.7625- 4	1.0356- 1	1.0356- 1	1.8263- 8
3.2344+ 0	1.7659+ 1	3.6535- 2	2.4318+ 0	1.9147- 3	2.1825+ 0	1.3382- 3	2.3459- 1	1.2663- 3	1.0879- 1	1.0879- 1	1.6789- 8
3.4375+ 0	1.8090+ 1	3.5664- 2	2.3738+ 0	1.6852- 3	2.1076+ 0	1.2320- 3	2.6133- 1	1.7331- 3	1.1451- 1	1.1451- 1	1.5457- 8
3.7847+ 0	1.8784+ 1	3.4383- 2	2.2883+ 0	1.3985- 3	1.9801+ 0	1.0812- 3	3.0305- 1	2.6595- 3	1.2438- 1	1.2438- 1	1.3565- 8
4.0000+ 0	1.9119+ 1	3.3745- 2	2.2458+ 0	1.2520- 3	1.9103+ 0	1.0030- 3	3.3000- 1	3.2850- 3	1.3085- 1	1.3085- 1	1.2584- 8
4.2500+ 0	1.9515+ 1	3.3060- 2	2.2003+ 0	1.1090- 3	1.8387+ 0	9.2814- 4	3.5751- 1	4.0721- 3	1.3827- 1	1.3827- 1	1.1845- 8
4.7500+ 0	2.0156+ 1	3.2009- 2	2.1304+ 0	8.8787- 4	1.7089+ 0	8.0503- 4	4.1407- 1	5.6978- 3	1.5407- 1	1.5407- 1	1.0100- 8
5.5135+ 0	2.0924+ 1	3.0834- 2	2.0521+ 0	6.5901- 4	1.5515+ 0	6.8827- 4	4.9099- 1	8.3545- 3	1.7911- 1	1.7911- 1	8.3842- 9
6.3840+ 0	2.1821+ 1	2.9839- 2	1.9859+ 0	4.9488- 4	1.4023+ 0	5.8101- 4	5.7129- 1	1.1324- 2	2.0714- 1	2.0714- 1	7.0386- 9
7.4833+ 0	2.2220+ 1	2.9035- 2	1.9324+ 0	3.5775- 4	1.2509+ 0	4.8288- 4	6.6548- 1	1.5185- 2	2.4643- 1	2.4643- 1	5.8048- 9
9.0000+ 0	2.2636+ 1	2.8502- 2	1.8969+ 0	2.4734- 4	1.0983+ 0	3.7330- 4	7.7770- 1	2.0250- 2	3.0374- 1	3.0374- 1	4.6835- 9
1.0000+ 1	2.2784+ 1	2.8341- 2	1.8662+ 0	2.0034- 4	1.0197+ 0	3.3100- 4	8.4260- 1	2.3350- 2	3.4348- 1	3.4348- 1	4.1528- 9
1.3000+ 1	2.2903+ 1	2.8169- 2	1.8748+ 0	1.1855- 4	8.3770- 1	2.4690- 4	1.0050+ 0	3.1700- 2	4.6679- 1	4.6679- 1	3.0977- 9
1.6000+ 1	2.2477+ 1	2.8703- 2	1.9103+ 0	8.1835- 5	8.5807- 1	1.7310- 4	1.2110+ 0	4.3020- 2	6.9410- 1	6.9410- 1	2.1717- 9
2.6000+ 1	2.1585+ 1	2.9890- 2	1.9893+ 0	2.9837- 5	4.9055- 1	1.1700- 4	1.4420+ 0	5.6820- 2	1.0911+ 0	1.0911+ 0	1.4879- 9
4.2170+ 1	2.0013+ 1	3.2237- 2	2.1455+ 0	1.1266- 5	3.3467- 1	7.0681- 5	1.7359+ 0	7.4824- 2	1.9856+ 0	1.9856+ 0	8.8677- 10
6.0000+ 1	1.8884+ 1	3.4200- 2	2.2762+ 0	5.5652- 6	2.5008- 1	4.8170- 5	1.9380+ 0	8.8040- 2	3.0538+ 0	3.0538+ 0	6.1690- 10
1.0000+ 2	1.7391+ 1	3.7098- 2	2.4690+ 0	2.0035- 6	1.8398- 1	2.9220- 5	2.1990+ 0	1.0600- 1	5.6165+ 0	5.6165+ 0	3.6660- 10
2.0000+ 2	1.5892+ 1	4.0597- 2	2.7019+ 0	5.0087- 7	9.0695- 2	1.4500- 5	2.4840+ 0	1.2720- 1	1.2444+ 1	1.2444+ 1	1.8192- 10
4.0000+ 2	1.4809+ 1	4.3273- 2	2.8800+ 0	1.2522- 7	4.8902- 2	7.2280- 6	2.6860+ 0	1.4410- 1	2.6883+ 1	2.6883+ 1	9.0659- 11
1.0000+ 3	1.4158+ 1	4.5574- 2	3.0332+ 0	2.0035- 8	2.2350- 2	2.8840- 8	2.8510+ 0	1.5860- 1	7.0489+ 1	7.0489+ 1	3.6183- 11
4.0000+ 3	1.3683+ 1	4.7221- 2	3.1428+ 0	1.2522- 9	6.4576- 3	7.2020- 7	2.9640+ 0	1.7230- 1	2.9282+ 2	2.9282+ 2	9.0357- 12
1.0000+ 4	1.3537+ 1	4.7658- 2	3.1718+ 0	2.0035- 10	2.8234- 3	2.8800- 7	2.9930+ 0	1.7800- 1	7.3854+ 2	7.3854+ 2	3.6133- 12
1.0000+ 5	1.3442+ 1	4.7994- 2	3.1942+ 0	2.0028- 12	3.4102- 4	2.8800- 8	3.0150+ 0	1.7890- 1	7.4390+ 3	7.4390+ 3	3.6133- 13

October 31, 1989
Atomic Weight 44.958

ENDL Evaluated
Photon Cross Sections

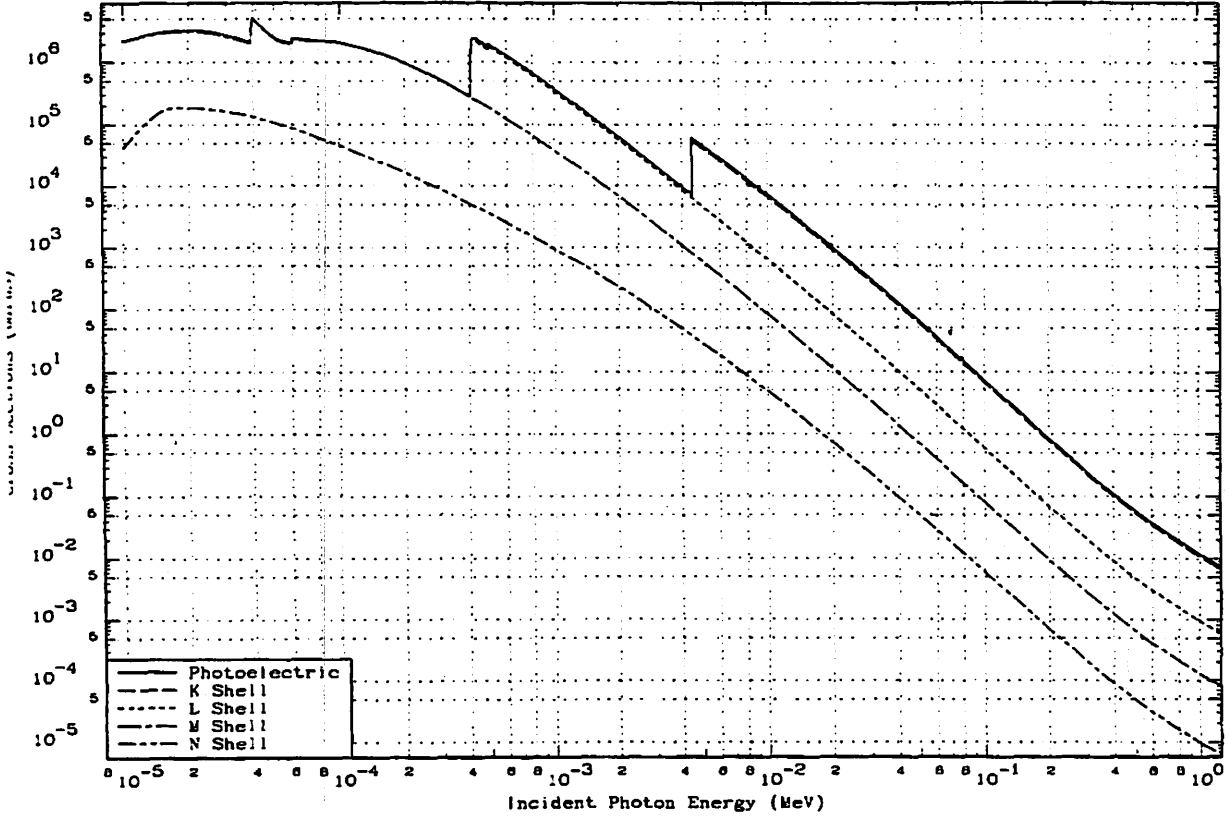
21-Sc
Density 2.989 Grams/cc



October 31, 1989
Atomic Weight 44.958

ENDL Evaluated
Photoelectric Shell Cross Sections

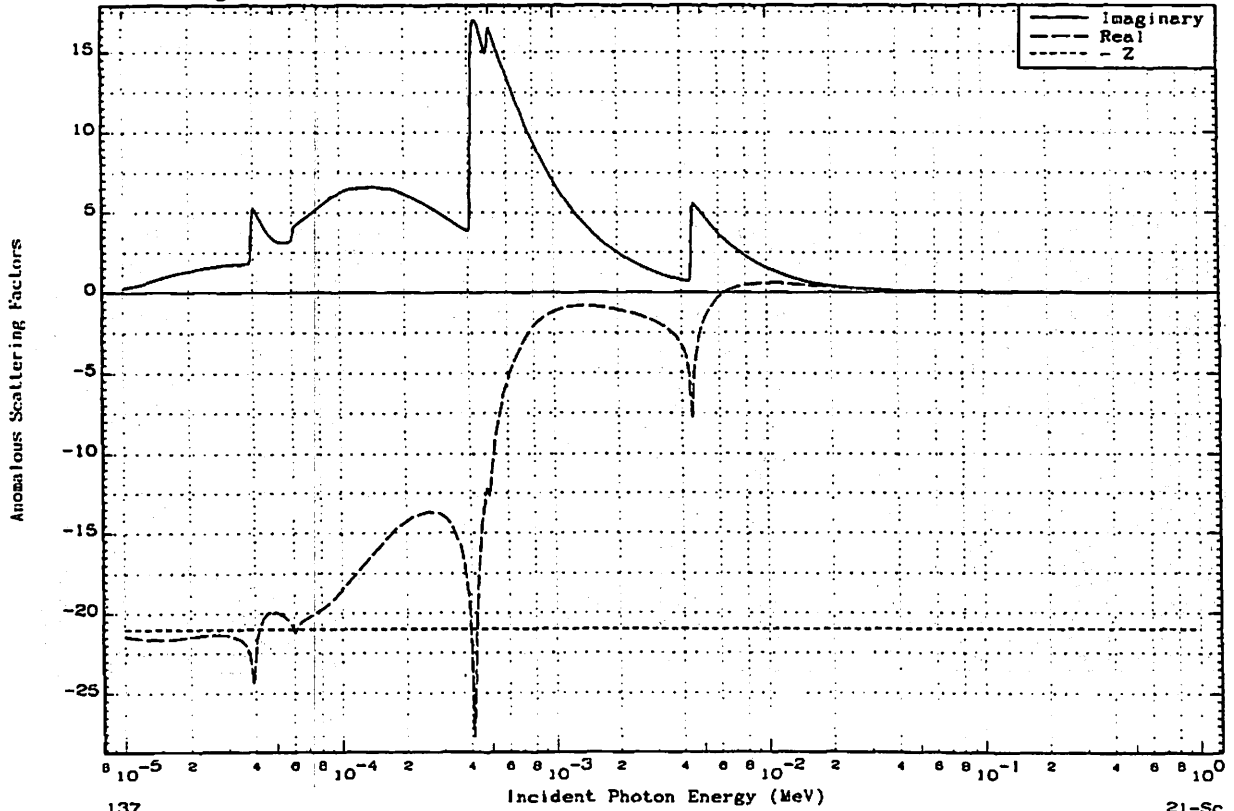
21-Sc
Density 2.989 Grams/cc

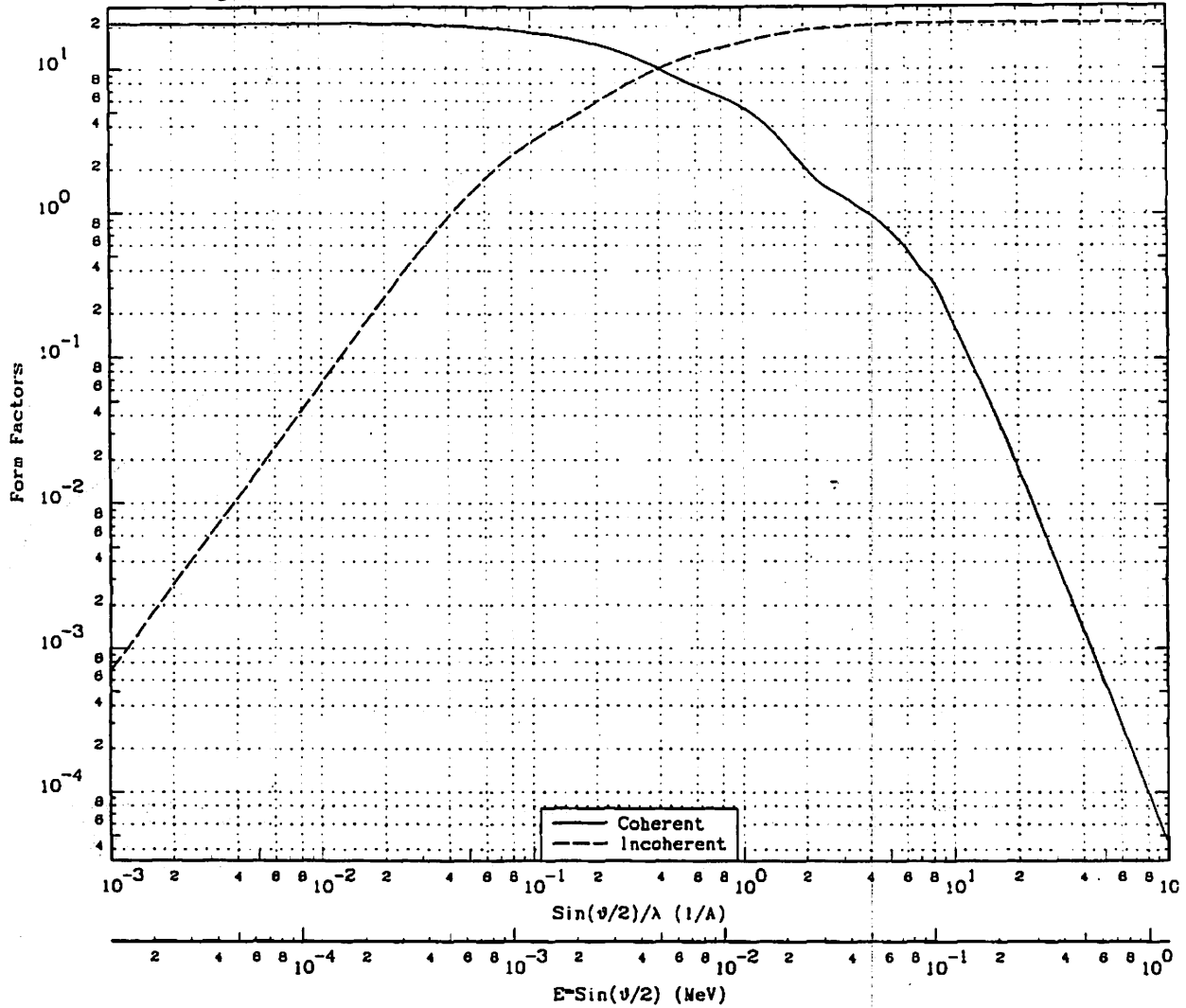


October 31, 1989
Atomic Weight 44.958

ENDL Evaluated
Anomalous Scattering Factors

21-Sc
Density 2.989 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	2.1000+1	0.0000+0	8.0000-1	7.4391-3	7.8598+0	1.2884+1	1.0000+1	1.2399-1	1.7030-1	2.0985+1
1.0000-3	1.2399-5	2.1000+1	7.0380-4	7.0000-1	8.8790-3	6.9801+0	1.3545+1	1.5000+1	1.8598-1	4.8192-2	2.0999+1
5.0000-3	8.1993-5	2.0987+1	1.7000-2	8.0000-1	9.9188-3	6.4429+0	1.4258+1	1.8770+1	2.3272-1	2.2394-2	2.1000+1
1.0000-2	1.2399-4	2.0958+1	6.7000-2	9.0000-1	1.1159-2	5.9519+0	1.4885+1	2.0000+1	2.4797-1	1.7845-2	2.1000+1
1.5000-2	1.8598-4	2.0913+1	1.4880-1	1.0000+0	1.2399-2	5.4734+0	1.5480+1	3.3850+1	4.1969-1	2.5783-3	2.1000+1
2.0000-2	2.4797-4	2.0848+1	2.5970-1	1.1797+0	1.4827-2	4.8358+0	1.6378+1	5.0000+1	6.1993-1	5.9379-4	2.1000+1
2.5000-2	3.0996-4	2.0782+1	3.8630-1	1.2500+0	1.5498-2	4.3185+0	1.6894+1	8.0000+1	9.9188-1	1.0071-4	2.1000+1
3.0000-2	3.7196-4	2.0662+1	5.5470-1	1.5000+0	1.8598-2	3.3155+0	1.7830+1	1.0000+2	1.2399+0	4.3865-5	2.1000+1
4.0000-2	4.9594-4	2.0418+1	9.2000-1	2.0000+0	2.4797-2	2.0692+0	1.8782+1	1.7117+2	2.1223+0	6.1054-6	2.1000+1
5.0000-2	6.1993-4	2.0130+1	1.3210+0	2.3813+0	2.9525-2	1.6007+0	1.9279+1	3.2012+2	3.9690+0	6.6774-7	2.1000+1
6.4375-2	7.9815-4	1.9846+1	1.9034+0	2.5000+0	3.0996-2	1.5185+0	1.9397+1	6.3400+2	7.8607+0	8.4799-8	2.1000+1
7.0000-2	8.6790-4	1.9448+1	2.1220+0	3.0000+0	3.7196-2	1.3165+0	1.9794+1	1.0000+3	1.2399+1	1.4245-8	2.1000+1
9.0000-2	1.1159-3	1.8712+1	2.8255+0	3.5000+0	4.3395-2	1.1145+0	2.0093+1	2.0197+3	2.5041+1	1.4521-9	2.1000+1
1.0000-1	1.2399-3	1.8341+1	3.1360+0	4.0000+0	4.9594-2	9.9580-1	2.0328+1	3.8895+3	4.8224+1	1.8188-10	2.1000+1
1.2500-1	1.5498-3	1.7458+1	3.8342+0	4.5693+0	5.6653-2	8.5720-1	2.0528+1	6.1540+3	7.6300+1	4.3598-11	2.1000+1
1.5000-1	1.8598-3	1.6632+1	4.4920+0	5.0000+0	6.1993-2	7.5850-1	2.0641+1	1.0072+4	1.2488+2	9.6068-12	2.1000+1
1.7500-1	2.1697-3	1.5859+1	5.1478+0	5.7891+0	7.1778-2	6.0558-1	2.0784+1	2.4735+4	3.0688+2	6.3863-13	2.1000+1
2.0000-1	2.4797-3	1.5125+1	5.8010+0	6.0000+0	7.4391-2	5.6670-1	2.0813+1	6.2372+4	7.7332+2	4.1201-14	2.1000+1
2.5000-1	3.0996-3	1.3718+1	7.0458+0	7.0000+0	8.6790-2	4.1580-1	2.0903+1	1.0000+8	1.2399+4	1.2555-17	2.1000+1
3.0000-1	3.7196-3	1.2402+1	8.1690+0	8.0000+0	9.9188-2	3.3380-1	2.0949+1	5.6234+6	6.9722+4	7.8214-20	2.1000+1
4.0000-1	4.9594-3	1.0206+1	1.0071+1	8.5580+0	1.0611-1	2.8219-1	2.0963+1	5.4247+7	6.7258+5	9.2238-23	2.1000+1
5.0000-1	6.1993-3	8.6821+0	1.1581+1	9.1168+0	1.1303-1	2.3220-1	2.0974+1	1.0000+8	1.2399+7	1.4775-26	2.1000+1

Energy MeV	Total Mean-Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.1283-5	2.9652+4	2.2136+6	1.8568-1	1.5229-4	2.2136+6			8.8629-1	8.8629-1	
1.0729-5	1.0623-5	3.1494+4	2.3512+6	2.3451-1	1.7509-4	2.3512+6			1.0100+0	1.0100+0	
1.2152-5	9.5412-6	3.5065+4	2.6177+6	4.0168-1	2.2410-4	2.6177+6			1.2738+0	1.2738+0	
1.5000-5	8.0881-6	4.1384+4	3.0880+6	6.0392-1	3.2021-4	3.0880+6			1.8546+0	1.8546+0	
1.5468-5	7.8585-6	4.2038+4	3.1383+6	6.8982-1	3.8159-4	3.1383+6			1.9438+0	1.9438+0	
1.7085-5	7.6356-6	4.3816+4	3.2710+6	1.0782-0	4.4088-4	3.2710+6			2.2389+0	2.2389+0	
1.8741-5	7.4916-6	4.4658+4	3.3339+6	1.2274+0	5.2897-4	3.3339+6			2.5015+0	2.5015+0	
2.3381-5	7.8458-6	4.3758+4	3.2667+6	1.5802+0	8.2017-4	3.2667+6			3.0581+0	3.0581+0	
2.8893-5	8.1217-6	4.1193+4	3.0753+6	1.8351+0	1.0884-3	3.0753+6			3.2886+0	3.2886+0	
3.0000-5	8.8704-6	3.7717+4	2.8157+6	2.0834+0	1.3443-3	2.8157+6			3.3821+0	3.3821+0	
3.4514-5	1.0260-5	3.2609+4	2.4344+6	2.3563+0	1.7749-3	2.4344+6			3.3640+0	3.3640+0	
3.6265-5	1.0801-5	3.0978+4	2.3125+6	2.7601+0	1.9579-3	2.3125+6			3.3577+0	3.3577+0	
3.8018-5	1.1343-5	2.8495+4	2.2019+6	4.2602+0	2.1433-3	2.2019+6			3.3518+0	3.3518+0	
3.8317-5	1.1436-5	2.9256+4	2.1841+6	5.2576+0	2.1835-3	2.1841+6			3.3506+0	3.3506+0	
3.8483-5	1.1487-5	2.9124+4	2.1743+6	6.2893+0	2.2024-3	2.1743+6			3.3501+0	3.3501+0	
3.8741-5	1.1567-5	2.8923+4	2.1593+6	9.0519+0	2.2317-3	2.1592+6			3.3492+0	3.3492+0	
3.8946-5	1.1631-5	2.8765+4	2.1475+6	1.2142+1	2.2552-3	2.1475+6			3.3485+0	3.3485+0	
3.9060-5	1.1672-5	2.8662+4	2.1396+6	1.3571+1	2.2683-3	2.1398+6			3.3463+0	3.3463+0	
M3 3.9080-5	5.6841-8	5.8087+4	4.4098+6	1.3571+1	2.2683-3	4.4098+6			6.8961+0	6.8959+0	1.9175-4
3.9317-5	5.7895-8	5.7987+4	4.3290+6	1.7839+1	2.2890-3	4.3290+6			6.8145+0	6.8143+0	1.8650-4
3.9484-5	5.8390-8	5.7298+4	4.2775+6	1.9541+1	2.3174-3	4.2775+6			6.7821+0	6.7819+0	1.8318-4
3.9600-5	5.8873-8	5.6827+4	4.2424+6	2.0240+1	2.3309-3	4.2424+6			6.7263+0	6.7261+0	1.8093-4
M2 3.9600-5	4.6558-8	7.1859+4	5.3648+6	2.0240+1	2.3309-3	5.3648+6			6.5056+0	6.5053+0	2.6415-4
3.9791-5	4.7237-8	7.0825+4	5.2874+6	2.0958+1	2.3533-3	5.2874+6			6.4236+0	6.4234+0	2.5897-4
4.0072-5	4.8247-8	6.9343+4	5.1768+6	2.0486+1	2.3863-3	5.1768+6			6.3056+0	6.3054+0	2.5160-4
4.1302-5	5.3299-8	6.2770+4	4.6861+6	1.6740+1	2.5336-3	4.6861+6			7.7489+0	7.7487+0	2.1816-4
4.3320-5	6.2533-8	5.3501+4	3.9841+6	1.3444+1	2.7850-3	3.9841+6			6.8275+0	6.8273+0	1.7188-4
4.7402-5	8.3601-8	4.0019+4	2.9876+6	9.4823+0	3.3292-3	2.9876+6			5.6700+0	5.6699+0	1.0662-4
5.0124-5	9.6023-8	3.4842+4	2.6011+6	8.0047+0	3.7189-3	2.6011+6			5.2199+0	5.2198+0	8.7243-5
5.2332-5	1.0489-5	3.1898+4	2.3813+6	7.2963+0	4.0507-3	2.3813+6			4.9894+0	4.9893+0	7.8182-5
5.4152-5	1.1079-5	3.0187+4	2.2543+6	6.9689+0	4.3347-3	2.2543+6			4.8876+0	4.8878+0	7.4381-5
5.7332-5	1.1834-5	2.8270+4	2.1105+6	6.7829+0	4.8539-3	2.1105+6			4.8446+0	4.8445+0	7.2708-5
5.9900-5	1.2211-5	2.7388+4	2.0454+6	7.0010+0	5.2944-3	2.0454+6			4.8054+0	4.8053+0	7.4450-5
6.0304-5	1.2270-5	2.7267+4	2.0356+6	7.4139+0	5.3654-3	2.0356+6			4.9148+0	4.9147+0	7.4721-5
6.0910-5	1.2354-5	2.7081+4	2.0217+6	9.0465+0	5.4728-3	2.0217+6			4.8303+0	4.8302+0	7.5180-5
M1 6.0910-5	1.0178-5	3.2887+4	2.4537+6	9.0465+0	5.4728-3	2.4537+6			5.9838+0	5.9837+0	1.1123-4
6.1341-5	1.0213-5	3.2780+4	2.4457+6	1.0542+1	5.5498-3	2.4457+6			6.0064+0	6.0063+0	1.1181-4
6.1786-5	1.0247-5	3.2650+4	2.4374+6	1.1397+1	5.6299-3	2.4374+6			6.0298+0	6.0295+0	1.1200-4
6.4532-5	1.0399-5	3.2173+4	2.4019+6	1.2673+1	6.1368-3	2.4019+6			6.2057+0	6.2056+0	1.1552-4
9.0000-5	1.1357-5	2.9459+4	2.1993+6	2.5328+1	1.1887-2	2.1992+6			7.9247+0	7.9245+0	1.3956-4
1.0000-4	1.1951-5	2.7894+4	2.0899+6	2.9788+1	1.4623-2	2.0899+6			8.3674+0	8.3672+0	1.3904-4
1.1067-4	1.2822-5	2.6093+4	1.9480+6	3.4422+1	1.7856-2	1.9480+6			8.8312+0	8.8310+0	1.3424-4
1.3554-4	1.5433-5	2.1878+4	1.8184+6	4.2392+1	2.6826-2	1.8183+6			8.7821+0	8.7819+0	1.1877-4
1.5000-4	1.7222-5	1.9425+4	1.4503+6	4.6535+1	3.2514-2	1.4502+6			8.7094+0	8.7093+0	1.0654-4
1.7837-4	2.1896-5	1.5420+4	1.1512+6	5.3355+1	4.6251-2	1.1511+6			8.2670+0	8.2669+0	8.8362-5
2.2067-4	2.9505-5	1.1339+4	8.4653+5	5.5797+1	6.9580-2	8.4647+5			7.4787+0	7.4787+0	6.4618-5
2.5318-4	3.8675-5	9.1224+3	6.8103+5	5.5159+1	9.0703-2	6.8097+5			6.9027+0	6.9027+0	5.2472-5
2.8337-4	4.4486-5	7.5206+3	5.6145+5	5.1215+1	1.1273-1	5.6139+5			6.3694+0	6.3693+0	4.3492-5
3.0828-4	5.1877-5	6.4741+3	4.8332+5	4.6219+1	1.3263-1	4.8327+5			5.9650+0	5.9649+0	3.7575-5
3.2823-4	5.8288-5	5.7418+3	4.2865+5	4.0268+1	1.4951-1	4.2861+5			5.8326+0	5.8326+0	3.3393-5
3.5838-4	6.8942-5	4.8528+3	3.8228+5	2.8322+1	1.7816-1	3.8226+5			5.1978+0	5.1978+0	2.8303-5
3.7684-4	7.5456-5	4.4338+3	3.3101+5	1.9622+1	1.8237-1	3.3099+5			4.8785+0	4.8785+0	2.5900-5
3.8516-4	7.9143-5	4.2273+3	3.1559+5	1.4297+1	2.0153-1	3.1557+5			4.8664+0	4.8664+0	2.4713-5
3.9445-4	8.2837-5	4.0388+3	3.0151+5	1.0264+1	2.1070-1	3.0150+5			4.7815+0	4.7815+0	2.3630-5
3.9910-4	8.4717-5	3.9482+3	2.9482+5	1.0267+1	2.1538-1	2.9481+5			4.7108+0	4.7107+0	2.3114-5
4.0121-4	8.5578-5	3.9094+3	2.9188+5	1.2319+1	2.1750-1	2.9184+5			4.6881+0	4.6880+0	2.2885-5
4.0251-4	8.6108-5	3.8854+3	2.9008+5	1.5289+1	2.1881-1	2.9005+5			4.6742+0	4.6742+0	2.2747-5
4.0387-4	8.6582-5	3.8641+3	2.8847+5	1.8664+1	2.1999-1	2.8845+5			4.6819+0	4.6819+0	2.2624-5
4.0724-4	8.8046-5	3.7998+3	2.8367+5	5.0964+1	2.2384-1	2.8362+5			4.6245+0	4.6245+0	2.2252-5
4.0886-4	8.8710-5	3.7714+3	2.8155+5	7.1989+1	2.2530-1	2.8148+5			4.6078+0	4.6078+0	2.2086-5
L3 4.0886-4	1.5948-5	2.0978+4	1.5861+6	7.1989+1	2.2530-1	1.5861+6			2.5838+1	2.5824+1	1.1591-2
4.0943-4	1.5811-5	2.1160+4	1.5797+6	8.1273+1	2.2589-1	1.5796+6			2.5893+1	2.5882+1	1.1718-2
4.1125-4	1.5384-5	2.1747+4	1.6235+6	1.0884+2	2.2776-1	1.6234+6			2.6730+1	2.6718+1	1.2131-2
4.1331-4	1.4916-5	2.2429+4	1.6745+6	1.3858+2	2.2890-1	1.6743+6			2.7706+1	2.7894+1	1.2816-2
4.1368-4	1.4833-5	2.2555+4	1.6839+6	1.4232+2	2.3029-1	1.6837+6			2.7887+1	2.7874+1	1.2706-2
L2 4.1368-4	1.0843-5	3.0856+4	2.3035+6	1.4232+2	2.3029-1	2.3034+6			3.8150+1	3.8132+1	1.8358-2
4.1530-4	1.0556-5	3.1893+4	2.3660+6	1.5960+2	2.3197-1	2.3659+6			3.8339+1	3.8320+1	1.8939-2
4.1803-4	1.0318-5	3.2425+4	2.4207+6	1.7895+2	2.3482-1	2.4205+6			4.0511+1	4.0492+1	1.9464-2
4.2195-4	1.0113-5	3.3081+4	2.4697+6	1.8929+2	2.3896-1	2.4695+6			4.1719+1	4.1899+1	1.9955-2
4.3550-4	1.0413-5	3.2128+4	2.3885+6	1.9882+2	2.5304-1	2.3883+6			4.1817+1	4.1789+1	1.9465-2
4.5482-4	1.1423-5	2.9289+4	2.1865+6	2.0445+2	2.7330-1	2.1863+6			3.9813+1	3.9795+1	1.7739-2
4.7892-4	1.2942-5	2.5851+4	1.9299+6	2.0025+2	2.9852-1	1.9297+6			3.7001+1	3.6988+1	1.5625-2
4.8810-4	1.3421-5	2.4929+4	1.8611+6	1.9443+2	3.0753-1	1.8609+6			3.6218+1	3.6201+1	1.5058-2
4.9024-4	1.3701-5	2.4418+4	1.8229+6	1.9489+2	3.1220-1	1.8227+6			3.5776+1	3.5781+1	1.4744-2
4.9428-4	1.3979-5	2.3933+4	1.7867+6	2.0798+2	3.1679-1	1.7865+6			3.5355+1	3.5340+1	1.4445-2
L1 4.9428-4	1.2359-5	2.7070+4	2.0209+6	2.0798+2	3.1679-1	2.0207+6			3.9990+1	3.9973+1	1.7165-2
4.9798-4	1.2587-5	2.6580+4	1.9843+6	2.2655+2	3.2100-1	1.9841+6			3.8559+1	3.8542+1	1.6849-2
5.0417-4	1.2959-5	2.5817+4	1.9274+6	2.4356+2	3.2812-1	1.9271+6			3.8900+1	3.8884+1	1.6357-2
5.2202-4	1.3951-5	2.3980+4	1.7903+6	2.5506+2	3.4901-1	1.7900+6			3.7412+1	3.7398+1	1.5207-2
5.8336-4	1.7662-5	1.8942+4	1.4141+6	2.7339+2	4.2464-1	1.4138+6			3.3022+1	3.3010+1	1.2073-2
7.0000-4	2.6987-5	1.2397+4	9.2551+5	2.8087+2	5.7283-1	9.2523+5			2.9531+1	2.9523+1	7.9339-3
9.0282-4	4.8785-5	6.7201+3	5.0169+5	2.7476+2	6.4409-1	5.0141+5			1.8120+1	1.8118+1	4.3380-3
1.0000-3	8.4284-6	5.2044+3	3.8853+5	2.8781+2	8.7228-1	3.8826+5			1.5545+1	1.5542+1	3.3680-3
1.3554-3	1.3938-6	2.4004+3	1.7920+5	2.4191+2	1.4047+0	1.7896+5			8.7115+0	8.7099+0	1.5719-3
2.0000-3	3.8608-6	8.8680+2	6.4896+4	1.9972+2	2.0858+0	6.4494+4			5.1644+0	5.1638+0	5.7608-4
2.6767											

October 31, 1989
Atomic Weight 44.958

ENDL Evaluated
Photon Data

21-Sc
Density 2.989 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cm)		
	cm	cm ² /cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
3.2263-3	1.4034-3	2.3840+2	1.7797+4	1.3684+2	3.2395+0	1.7658+4			2.2809+0	2.2809+0	1.6147-4
3.5717-3	1.8566-3	1.8020+2	1.3453+4	1.1882+2	3.5319+0	1.3329+4			1.8061+0	1.8060+0	1.2252-4
3.8590-3	2.2974-3	1.4562+2	1.0871+4	1.0484+2	3.7718+0	1.0763+4			1.6629+0	1.6628+0	9.9315-5
4.0731-3	2.6665-3	1.2547+2	9.3667+3	9.0923+1	3.9489+0	9.2718+3			1.5120+0	1.5119+0	8.5788-5
4.1849-3	2.8737-3	1.1842+2	8.6914+3	8.1780+1	4.0408+0	8.6055+3			1.4419+0	1.4418+0	7.8733-5
4.2969-3	3.0932-3	1.0816+2	8.0747+3	8.8563+1	4.1226+0	8.0010+3			1.3765+0	1.3764+0	7.4232-5
4.3394-3	3.1801-3	1.0520+2	7.8539+3	8.2913+1	4.1536+0	7.7868+3			1.3529+0	1.3528+0	7.2280-5
4.3776-3	3.2607-3	1.0280+2	7.6597+3	8.4518+1	4.1814+0	7.6010+3			1.3322+0	1.3322+0	7.0587-5
4.4102-3	3.3319-3	1.0041+2	7.4982+3	8.4812+1	4.2050+0	7.4472+3			1.3150+0	1.3149+0	6.9185-5
4.4292-3	3.3738-3	9.9165+1	7.4031+3	8.9602+1	4.2188+0	7.3593+3			1.3051+0	1.3050+0	6.8583-5
4.4378-3	3.3924-3	9.8820+1	7.3825+3	8.8068+1	4.2250+0	7.3202+3			1.3006+0	1.3006+0	6.8028-5
4.4474-3	3.4130-3	9.8028+1	7.3181+3	8.7294+1	4.2320+0	7.2786+3			1.2957+0	1.2956+0	6.7628-5
4.4658-3	3.4507-3	9.6953+1	7.2380+3	8.9456+1	4.2453+0	7.1943+3			1.2884+0	1.2883+0	6.6878-5
K 4.4658-3	4.0544-4	8.2519+2	8.1604+4	8.9456+1	4.2453+0	6.1560+4			1.1007+1	9.3347+0	1.6724+0
4.4825-3	4.0908-4	8.1783+2	6.1055+4	4.4903+1	4.2573+0	8.1006+4			1.0949+1	9.2910+0	1.6575+0
4.5143-3	4.1808-4	8.0408+2	6.0029+4	4.6029+1	4.2683+0	8.0596+4			1.0838+1	9.2079+0	1.6299+0
4.5340-3	4.2045-4	7.8572+2	5.9404+4	4.6864+1	4.2945+0	8.0331+4			1.0770+1	9.1568+0	1.6129+0
4.5527-3	4.2465-4	7.8784+2	5.8816+4	4.7553+1	4.3080+0	8.0736+4			1.0706+1	9.1085+0	1.5971+0
4.5883-3	4.3228-4	7.7397+2	5.7781+4	4.8284+1	4.3321+0	8.0789+4			1.0683+1	9.0232+0	1.5893+0
4.6514-3	4.4730-4	7.4798+2	5.5839+4	4.9158+1	4.3788+0	8.0574+4			1.0379+1	8.8818+0	1.5174+0
4.7042-3	4.5972-4	7.2775+2	5.4330+4	4.9537+1	4.4188+0	8.0229+4			1.0212+1	8.7348+0	1.4770+0
4.8005-3	4.8291-4	6.9280+2	5.1721+4	4.1030+2	4.4851+0	8.1813+4			9.9181+0	8.5109+0	1.4072+0
5.0000-3	5.3313-4	6.2753+2	4.6848+4	1.1072+2	4.8282+0	8.4733+4			9.3554+0	8.0788+0	1.2768+0
5.3536-3	6.3262-4	5.2885+2	3.9481+4	1.1598+2	4.8729+0	8.6360+4			8.4352+0	7.3571+0	1.0781+0
6.0198-3	8.6391-4	3.8726+2	2.8911+4	1.1396+2	5.2953+0	8.0792+4			6.9391+0	6.1490+0	7.9018-1
7.4726-3	1.5350-3	2.1795+2	1.6271+4	9.8883+1	6.0885+0	1.6186+4			4.8355+0	4.3899+0	4.4563-1
1.0000-2	3.3779-3	9.8043+1	7.3894+3	7.5225+1	7.1089+0	7.1317+3			2.9275+0	2.7250+0	2.0252-1
1.3765-2	8.2195-3	4.0703+1	3.0387+3	5.2488+1	8.1288+0	2.8781+3			1.6408+0	1.5581+0	8.2785-2
1.7929-2	1.7437-2	1.9187+1	1.4324+3	3.8909+1	8.8941+0	1.3889+3			9.9531+0	9.5872-1	3.8589-2
2.7408-2	5.8490-2	5.7200+0	4.2702+2	1.9090+1	9.8842+0	3.9805+2			4.3731-1	4.2820-1	1.1107-2
4.0000-2	1.7014-1	1.9664+0	1.4680+2	1.0263+1	1.0322+1	1.2622+2			2.0033-1	1.8980-1	3.5236-3
5.2859-2	3.5382-1	9.4609+0	7.0630+1	6.4094+0	1.0379+1	5.3841+1			1.1591-1	1.1440-1	1.5037-3
8.5215-2	5.8418-1	5.7270-1	4.2754+1	4.4471+0	1.0318+1	2.7899+1			7.5907-2	7.5125-2	7.8185-4
8.0000-2	8.9153-1	3.7527-1	2.8015+1	3.0818+0	1.0121+1	1.4813+1			5.1398-2	5.0984-2	4.1383-4
9.7749-2	1.2518-1	2.8728-1	1.9952+1	2.1328+0	9.8811+0	7.9384+0			3.6501-2	3.6280-2	2.2178-4
1.0000-1	1.2945+0	2.5845-1	1.9294+1	2.0446+0	9.8543+0	7.3952+0			3.5243-2	3.5038-2	2.0659-4
1.1941-1	1.6410+0	2.0388-1	1.5220+1	1.4870+0	9.5002+0	4.2533+0			2.7607-2	2.7488-2	1.1883-4
1.3902-1	1.9282+0	1.7351-1	1.2953+1	1.0989+0	9.2088+0	2.8476+0			2.3788-2	2.3714-2	7.3973-5
1.8548-1	2.2400+0	1.4935-1	1.1150+1	7.8733-1	8.8248+0	1.5380+0			2.1678-2	2.1635-2	4.2968-5
1.9421-1	2.5094+0	1.3332-1	9.8531+0	5.7843-1	8.4409+0	9.3778-1			2.1410-2	2.1384-2	2.8087-5
2.3780-1	2.8292+0	1.1825-1	8.8282+0	3.9043-1	7.9323+0	5.0543-1			2.3000-2	2.2988-2	1.4119-5
3.0000-1	3.1857+0	1.0502-1	7.8402+0	2.4782-1	7.3416+0	2.5078-1			2.6963-2	2.6956-2	7.0052-6
4.1539-1	3.7133+0	9.0097-2	6.7262+0	1.3048-1	6.4964+0	9.9293-2			3.5780-2	3.5757-2	2.7738-6
5.5041-1	4.2851+0	7.9185-2	5.9115+0	7.4855-2	5.7900+0	4.6817-2			4.8328-2	4.8328-2	1.3077-6
7.4448-1	4.8566+0	6.8902-2	5.1439+0	4.0923-2	5.0804+0	2.2584-2			6.1045-2	6.1044-2	6.3086-7
1.0000+0	5.8900+0	5.8754-2	4.4808+0	2.2710-2	4.4263+0	1.1885-2			7.8587-2	7.8587-2	3.3231-7
1.0220+0	5.8804+0	5.9105-2	4.4125+0	2.1753-2	4.3795+0	1.1270-2			7.9984-2	7.9983-2	3.1486-7
1.0251+0	5.8896+0	5.9010-2	4.4054+0	2.1821-2	4.3725+0	1.1188-2	1.8500-8		8.0148-2	8.0148-2	3.1284-7
1.0287+0	5.8902+0	5.8899-2	4.3971+0	2.1489-2	4.3645+0	1.1115-2	1.8500-7		8.0357-2	8.0357-2	3.1052-7
1.0340+0	5.8958+0	5.8740-2	4.3852+0	2.1252-2	4.3530+0	1.0998-2	1.0251-8		8.0664-2	8.0663-2	3.0721-7
1.0353+0	5.8994+0	5.8701-2	4.3823+0	2.1199-2	4.3501+0	1.0987-2	1.3914-8		8.0739-2	8.0739-2	3.0640-7
1.0366+0	5.9033+0	5.8660-2	4.3783+0	2.1144-2	4.3472+0	1.0937-2	1.8500-6		8.0817-2	8.0817-2	3.0556-7
1.0382+0	5.9078+0	5.8614-2	4.3758+0	2.1081-2	4.3438+0	1.0903-2	2.4966-6		8.0908-2	8.0908-2	3.0460-7
1.0397+0	5.9123+0	5.8569-2	4.3724+0	2.1020-2	4.3405+0	1.0870-2	3.2436-6		8.0995-2	8.0995-2	3.0367-7
1.0415+0	5.9175+0	5.8515-2	4.3684+0	2.0948-2	4.3368+0	1.0830-2	4.3158-6		8.1100-2	8.1100-2	3.0257-7
1.0438+0	5.9242+0	5.8447-2	4.3633+0	2.0889-2	4.3317+0	1.0780-2	5.6902-6		8.1234-2	8.1233-2	3.0118-7
1.0464+0	5.9318+0	5.8389-2	4.3575+0	2.0752-2	4.3261+0	1.0724-2	6.8342-6		8.1385-2	8.1384-2	2.9959-7
1.0483+0	5.9373+0	5.8313-2	4.3534+0	2.0677-2	4.3220+0	1.0683-2	1.0378-5		8.1498-2	8.1498-2	2.9845-7
1.0512+0	5.9457+0	5.8228-2	4.3470+0	2.0563-2	4.3158+0	1.0621-2	1.4075-5		8.1683-2	8.1683-2	2.9672-7
1.0541+0	5.9541+0	5.8143-2	4.3407+0	2.0451-2	4.3098+0	1.0560-2	1.8500-5		8.1830-2	8.1830-2	2.9501-7
1.0577+0	5.9645+0	5.8038-2	4.3328+0	2.0312-2	4.3020+0	1.0484-2	2.5218-5		8.2040-2	8.2040-2	2.9289-7
1.0611+0	5.9744+0	5.7939-2	4.3254+0	2.0182-2	4.2948+0	1.0413-2	3.2800-5		8.2237-2	8.2237-2	2.9091-7
1.0651+0	5.9859+0	5.7824-2	4.3168+0	2.0031-2	4.2864+0	1.0331-2	4.3423-5		8.2469-2	8.2469-2	2.8862-7
1.0704+0	5.9911+0	5.7872-2	4.3055+0	1.9834-2	4.2753+0	1.0223-2	6.0580-5		8.2775-2	8.2775-2	2.8562-7
1.0782+0	5.8178+0	5.7507-2	4.2831+0	1.9821-2	4.2833+0	1.0108-2	8.3721-5		8.3110-2	8.3110-2	2.8238-7
1.0806+0	5.8303+0	5.7383-2	4.2839+0	1.9462-2	4.2543+0	1.0021-2	1.0455-4		8.3384-2	8.3384-2	2.7987-7
1.0871+0	5.8489+0	5.7201-2	4.2703+0	1.9230-2	4.2410+0	9.8853-3	1.4087-4		8.3738-2	8.3738-2	2.7645-7
1.0937+0	5.8678+0	5.7018-2	4.2587+0	1.8999-2	4.2277+0	9.7888-3	1.8500-4		8.4119-2	8.4119-2	2.7294-7
1.1028+0	5.8892+0	5.6775-2	4.2385+0	1.8894-2	4.2099+0	9.6048-3	2.5851-4		8.4830-2	8.4830-2	2.6833-7
1.1107+0	5.9156+0	5.6556-2	4.2222+0	1.8423-2	4.1939+0	9.4578-3	3.3453-4		8.5095-2	8.5095-2	2.6422-7
1.1208+0	5.9433+0	5.6292-2	4.2024+0	1.8100-2	4.1748+0	9.2825-3	4.4755-4		8.5682-2	8.5682-2	2.5933-7
1.1333+0	5.9768+0	5.5988-2	4.1776+0	1.7897-2	4.1502+0	9.0729-3	6.2234-4		8.6389-2	8.6388-2	2.5347-7
1.1475+0	6.0178+0	5.5595-2	4.1504+0	1.7263-2	4.1234+0	8.8753-3	8.5831-4		8.7200-2	8.7200-2	2.4795-7
1.1582+0	6.0471+0	5.5328-2	4.1303+0	1.6948-2	4.1036+0	8.7308-3	1.0879-3		8.7811-2	8.7811-2	2.4392-7
1.1741+0	6.0903+0	5.4933-2	4.1010+0	1.6481-2	4.0748+0	8.5228-3	1.4272-3		8.8718-2	8.8718-2	2.3810-7
1.1901+0	6.1334+0	5.4547-2	4.0722+0	1.6051-2	4.0460+0	8.3211-3	1.8500-3		8.9628-2	8.9628-2	2.3247-7
1.2051+0	6.1734+0	5.4194-2	4.0458+0	1.5655-2	4.0197+0	8.1389-3	2.3021-3		9.0478-2	9.0478-2	2.2738-7
1.2275+0	6.2325+0	5.3880-2	4.0075+0	1.5090-2	3.9814+0	7.8781-3	3.0803-3		9.1744-2	9.1743-2	2.2009-7
1.2500+0	6.2911+0	5.3180-2	3.9701+0	1.4553-2	3.9440+0	7.8290-3	3.9830-3		9.3014-2	9.3014-2	2.1313-7
1.2803+0	6.3688+0	5.2531-2	3.9217+0	1.3873-2	3.8951+0	7.3099-3	5.3818-3		9.4720-2	9.4720-2	2.0422-7
1.3077+0	6.4378+0	5.1968-2	3.8796+0	1.3298-2	3.8525+0	7.0390-3	6.8187-3		9.6280-2	9.6280-2	1.9665-7
1.3430+0	6.5252+0	5.1272-2	3.8277+0	1.2809-2	3.7995+0	6.7124-3	8.8964-3		9.8240-2</		

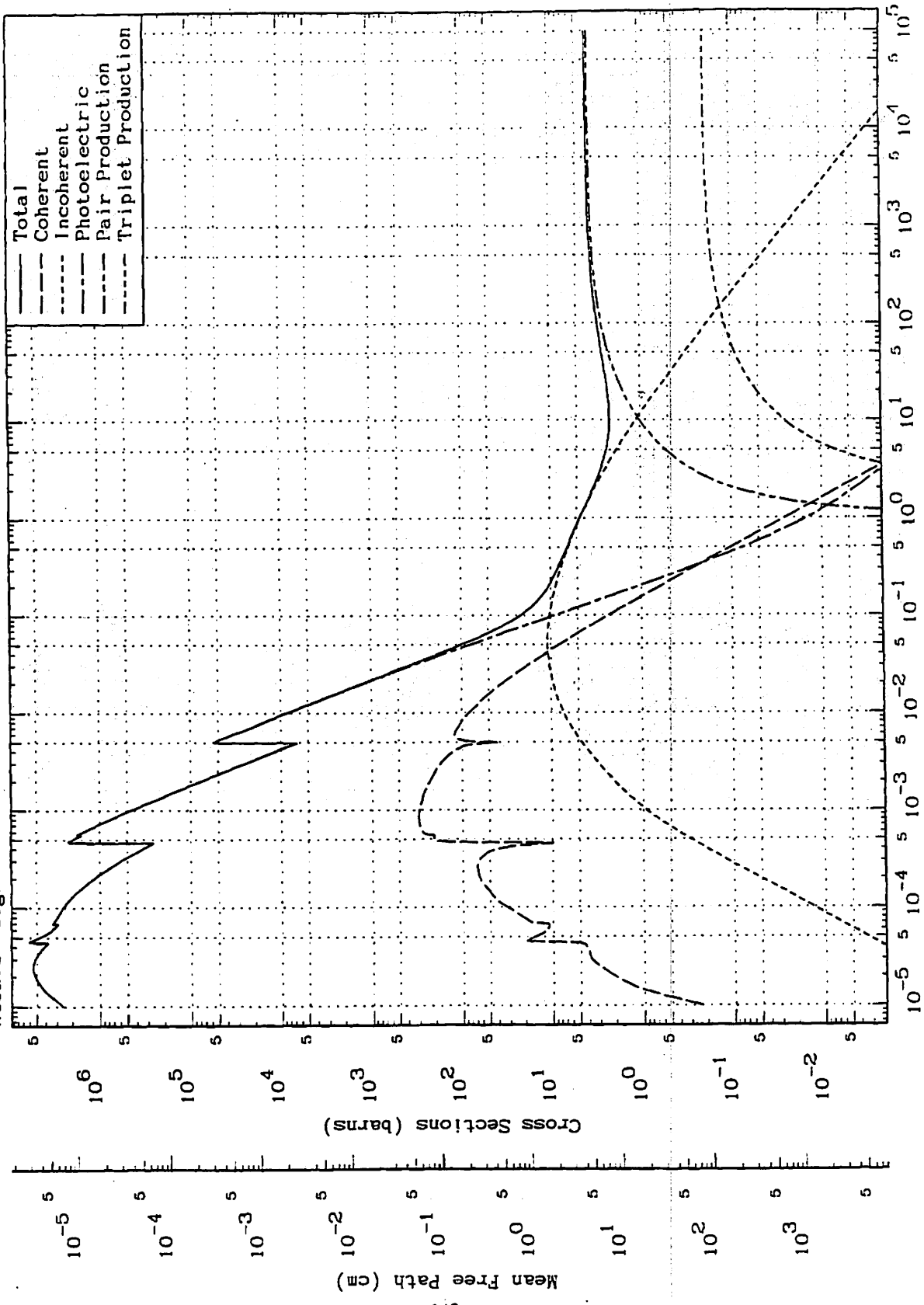
October 31, 1989
Atomic Weight 44.958

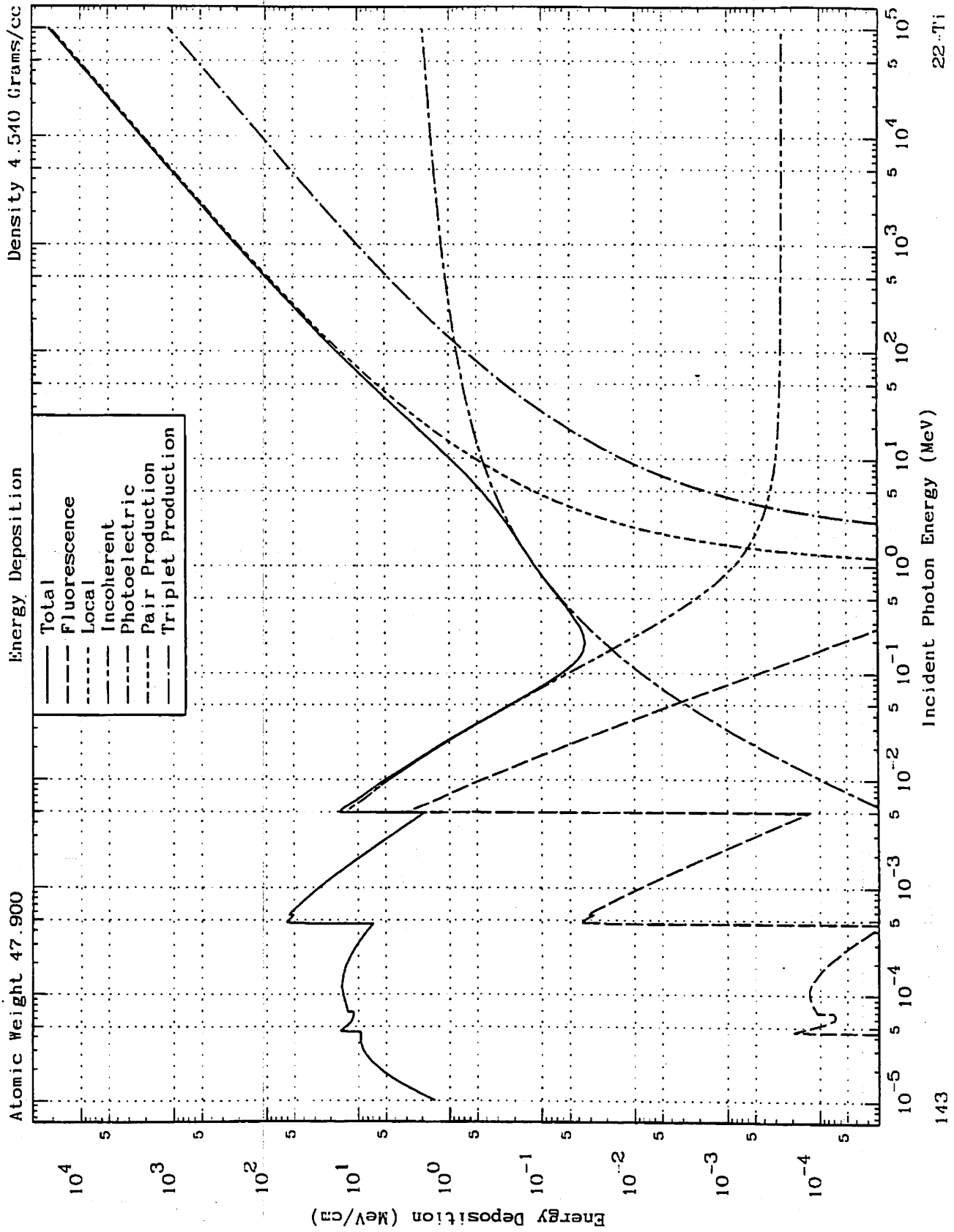
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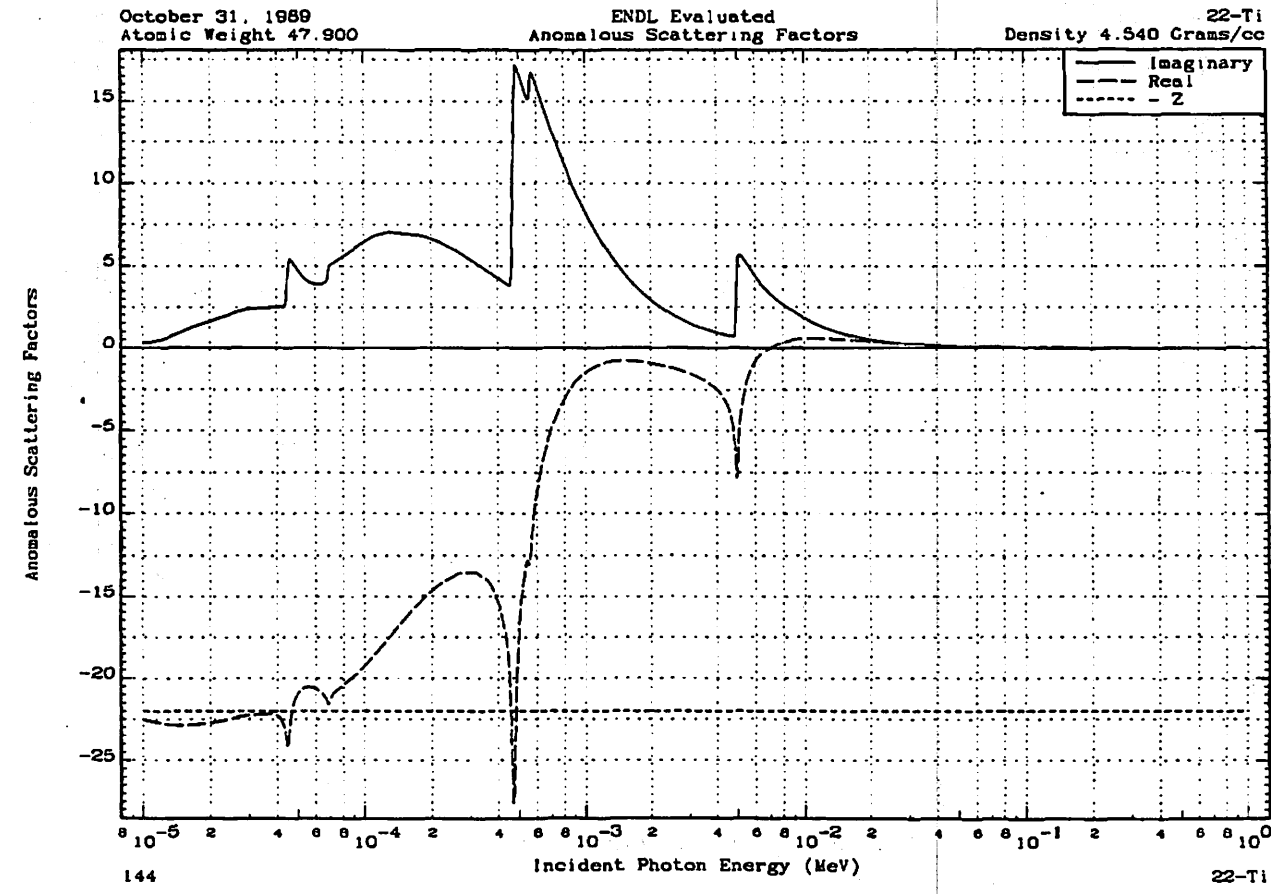
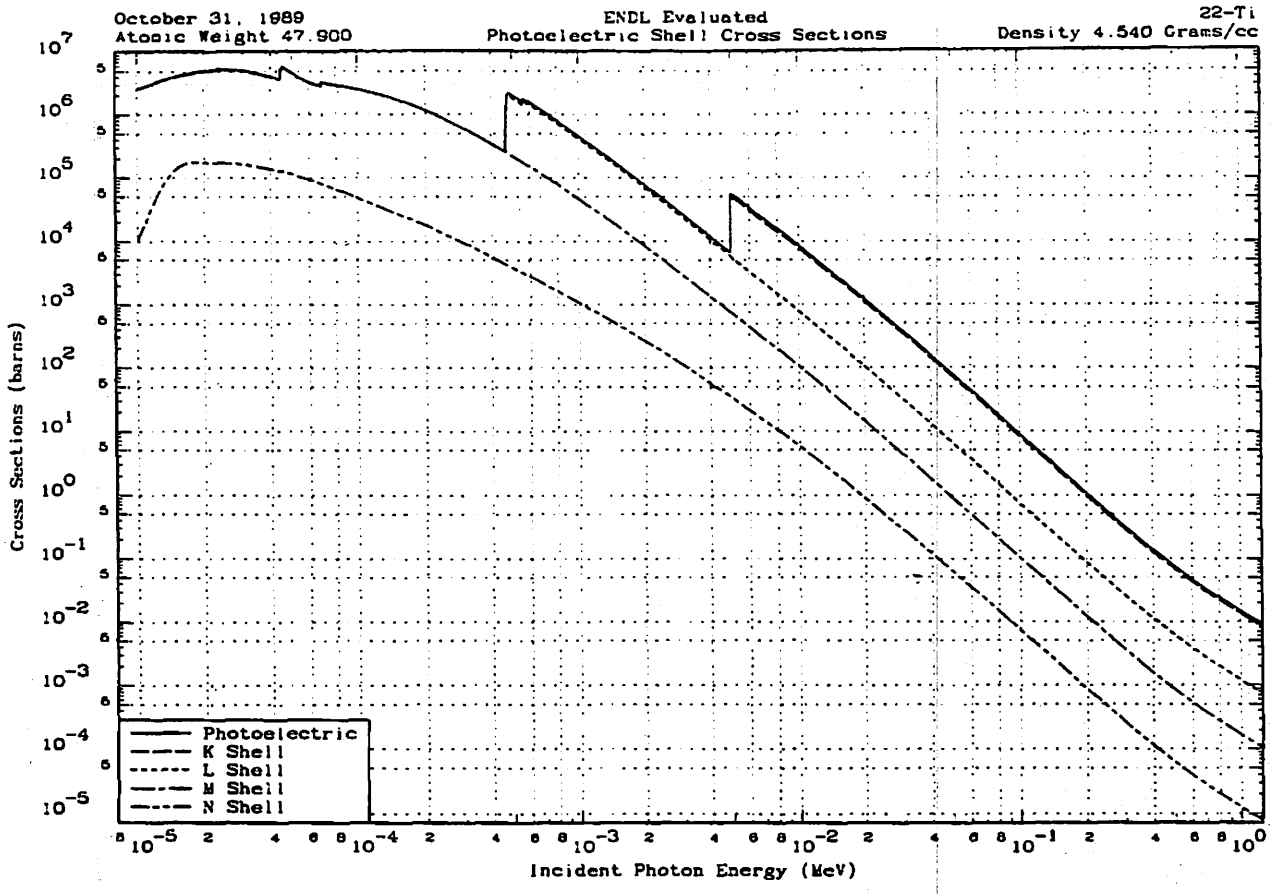
21-Sc
Density 2.989 Grams/cc

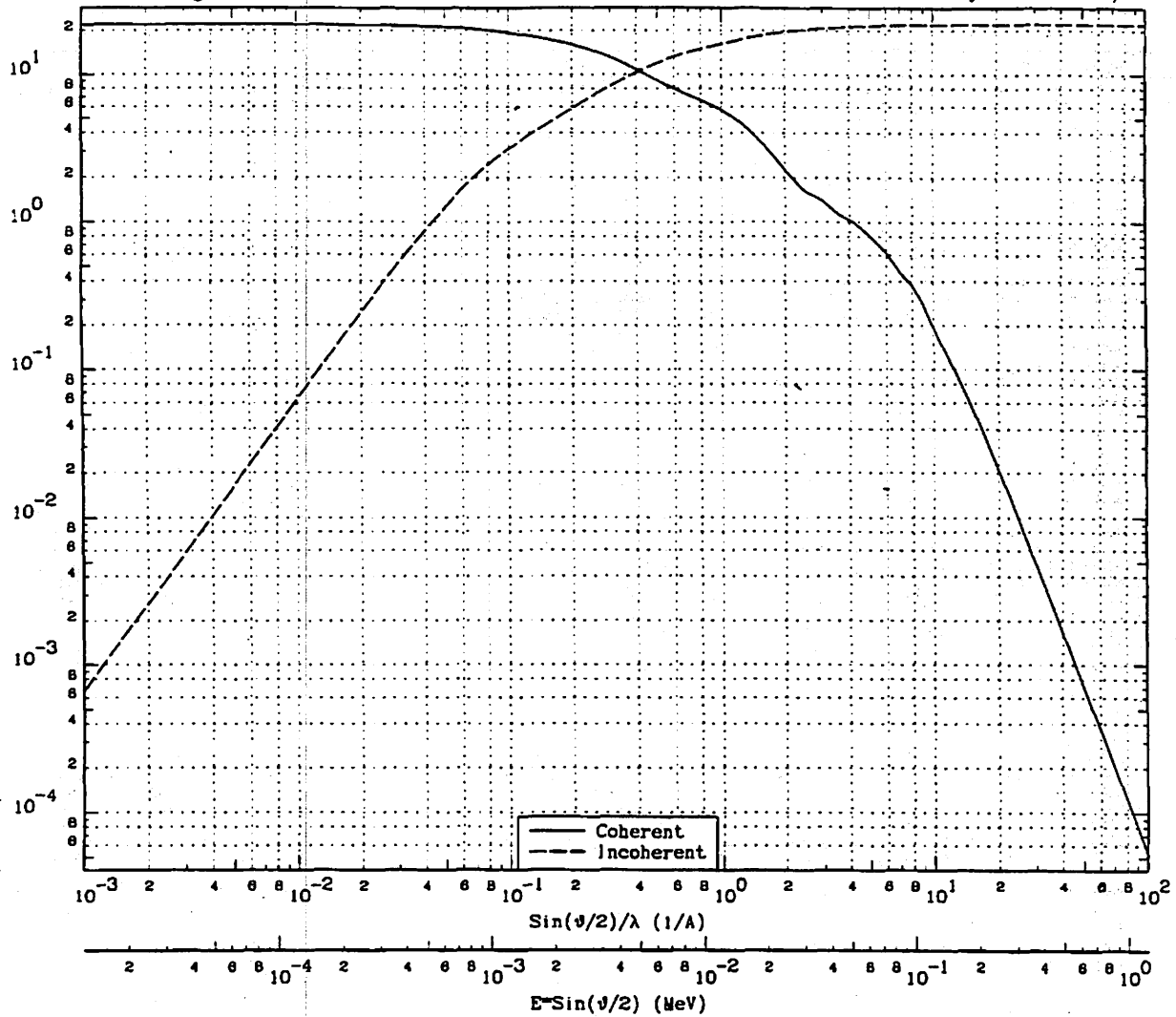
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.7188+ 0	7.3508+ 0	4.5613- 2	3.3978+ 0	7.7023- 3	3.3419+ 0	4.3928- 3	4.3778- 2		1.1936- 1	1.1936- 1	1.2272- 7
1.8923+ 0	7.7027+ 0	4.3434- 2	3.2428+ 0	6.3556- 3	3.1664+ 0	3.7426- 3	6.6066- 2		1.2832- 1	1.2832- 1	1.0456- 7
2.0440+ 0	7.9836+ 0	4.1906- 2	3.1285+ 0	5.4479- 3	3.0324+ 0	3.2970- 3	8.7380- 2		1.3829- 1	1.3829- 1	9.2110- 8
2.0858+ 0	8.0632+ 0	4.1462- 2	3.0976+ 0	5.2317- 3	2.9981+ 0	3.1993- 3	9.3058- 2	2.1088- 7	1.3832- 1	1.3832- 1	8.9379- 8
2.1195+ 0	8.1258+ 0	4.1173- 2	3.0737+ 0	5.0688- 3	2.9677+ 0	3.1240- 3	9.7825- 2	1.1635- 6	1.3997- 1	1.3997- 1	8.7276- 8
2.1278+ 0	8.1412+ 0	4.1095- 2	3.0679+ 0	5.0269- 3	2.9607+ 0	3.1057- 3	9.9039- 2	1.6051- 6	1.4038- 1	1.4038- 1	8.6764- 8
2.1383+ 0	8.1564+ 0	4.1018- 2	3.0622+ 0	4.9977- 3	2.9539+ 0	3.0876- 3	1.0028- 1	2.1088- 6	1.4079- 1	1.4079- 1	8.6261- 8
2.1470+ 0	8.1758+ 0	4.0920- 2	3.0549+ 0	4.9379- 3	2.9451+ 0	3.0647- 3	1.0184- 1	2.8913- 6	1.4132- 1	1.4132- 1	8.5820- 8
2.1569+ 0	8.1938+ 0	4.0832- 2	3.0483+ 0	4.8927- 3	2.9370+ 0	3.0439- 3	1.0331- 1	3.7554- 6	1.4181- 1	1.4181- 1	8.5038- 8
2.1690+ 0	8.2152+ 0	4.0724- 2	3.0403+ 0	4.8383- 3	2.9273+ 0	3.0186- 3	1.0513- 1	5.0118- 6	1.4242- 1	1.4242- 1	8.4332- 8
2.1845+ 0	8.2426+ 0	4.0589- 2	3.0302+ 0	4.7699- 3	2.9149+ 0	2.9958- 3	1.0749- 1	6.9666- 6	1.4319- 1	1.4319- 1	8.3444- 8
2.2018+ 0	8.2728+ 0	4.0441- 2	3.0191+ 0	4.6953- 3	2.9013+ 0	2.9520- 3	1.1017- 1	9.6385- 6	1.4406- 1	1.4406- 1	8.2472- 8
2.2158+ 0	8.2989+ 0	4.0323- 2	3.0103+ 0	4.6381- 3	2.8904+ 0	2.9243- 3	1.1237- 1	1.2195- 5	1.4476- 1	1.4476- 1	8.1699- 8
2.2342+ 0	8.3293+ 0	4.0167- 2	2.9986+ 0	4.5601- 3	2.8762+ 0	2.8986- 3	1.1495- 1	1.6154- 5	1.4567- 1	1.4567- 1	8.0700- 8
2.2537+ 0	8.3631+ 0	4.0004- 2	2.9865+ 0	4.4817- 3	2.8614+ 0	2.8518- 3	1.1772- 1	2.1088- 5	1.4664- 1	1.4664- 1	7.9668- 8
2.2815+ 0	8.4108+ 0	3.9778- 2	2.9698+ 0	4.3731- 3	2.8406+ 0	2.8000- 3	1.2178- 1	2.9537- 5	1.4803- 1	1.4803- 1	7.8226- 8
2.3070+ 0	8.4536+ 0	3.9578- 2	2.9545+ 0	4.2770- 3	2.8219+ 0	2.7542- 3	1.2553- 1	3.8797- 5	1.4931- 1	1.4931- 1	7.6945- 8
2.3382+ 0	8.5051+ 0	3.9337- 2	2.9367+ 0	4.1636- 3	2.7995+ 0	2.6997- 3	1.3025- 1	5.2168- 5	1.5089- 1	1.5089- 1	7.5424- 8
2.3747+ 0	8.5691+ 0	3.9043- 2	2.9147+ 0	4.0275- 3	2.7720+ 0	2.6338- 3	1.3601- 1	7.2243- 5	1.5287- 1	1.5287- 1	7.3523- 8
2.4102+ 0	8.6224+ 0	3.8801- 2	2.8967+ 0	3.9187- 3	2.7485+ 0	2.5807- 3	1.4061- 1	9.1881- 5	1.5453- 1	1.5453- 1	7.2099- 8
2.4488+ 0	8.6808+ 0	3.8541- 2	2.8773+ 0	3.8024- 3	2.7250+ 0	2.5238- 3	1.4584- 1	1.1688- 4	1.5638- 1	1.5638- 1	7.0502- 8
2.4859+ 0	8.7413+ 0	3.8273- 2	2.8573+ 0	3.6838- 3	2.6994+ 0	2.4848- 3	1.5157- 1	1.4718- 4	1.5838- 1	1.5838- 1	6.8880- 8
2.5584+ 0	8.8489+ 0	3.7817- 2	2.8232+ 0	3.4834- 3	2.6548+ 0	2.3844- 3	1.6222- 1	2.1088- 4	1.6204- 1	1.6204- 1	6.6058- 8
2.6604+ 0	8.9981+ 0	3.7181- 2	2.7759+ 0	3.2165- 3	2.5928+ 0	2.2584- 3	1.7720- 1	3.2507- 4	1.6744- 1	1.6744- 1	6.2256- 8
2.7453+ 0	9.1181+ 0	3.6700- 2	2.7398+ 0	3.0207- 3	2.5448+ 0	2.1267- 3	1.8941- 1	4.3509- 4	1.7190- 1	1.7190- 1	5.9418- 8
2.8828+ 0	9.2690+ 0	3.6095- 2	2.6948+ 0	2.7780- 3	2.4822+ 0	1.9983- 3	2.0701- 1	6.0835- 4	1.7822- 1	1.7822- 1	5.5828- 8
3.0399+ 0	9.4878+ 0	3.5283- 2	2.6325+ 0	2.4638- 3	2.3953+ 0	1.8308- 3	2.3208- 1	9.2000- 4	1.8779- 1	1.8779- 1	5.1148- 8
3.2344+ 0	9.7375+ 0	3.4358- 2	2.5650+ 0	2.1765- 3	2.3009+ 0	1.6829- 3	2.5894- 1	1.3295- 3	1.9744- 1	1.9744- 1	4.7018- 8
3.4375+ 0	9.9690+ 0	3.3560- 2	2.5054+ 0	1.9269- 3	2.2118+ 0	1.5493- 3	2.8837- 1	1.8194- 3	2.0799- 1	2.0799- 1	4.3283- 8
3.7847+ 0	1.0329+ 1	3.2390- 2	2.4180+ 0	1.5897- 3	2.0780+ 0	1.3594- 3	3.3433- 1	2.7918- 3	2.2823- 1	2.2823- 1	3.7979- 8
4.0000+ 0	1.0517+ 1	3.1812- 2	2.3749+ 0	1.4232- 3	2.0047+ 0	1.2810- 3	3.6400- 1	3.4590- 3	2.3822- 1	2.3822- 1	3.5229- 8
4.2500+ 0	1.0727+ 1	3.1180- 2	2.3285+ 0	1.2607- 3	1.8275+ 0	1.1667- 3	3.9430- 1	4.2751- 3	2.5196- 1	2.5196- 1	3.2594- 8
4.7500+ 0	1.1082+ 1	3.0245- 2	2.2579+ 0	1.0093- 3	1.7933+ 0	1.0118- 3	4.5860- 1	5.9825- 3	2.8129- 1	2.8129- 1	2.8282- 8
5.5135+ 0	1.1459+ 1	2.9197- 2	2.1797+ 0	7.4812- 4	1.6281+ 0	8.3938- 4	5.4128- 1	8.7700- 3	3.2784- 1	3.2784- 1	2.3450- 8
6.3840+ 0	1.1813+ 1	2.8321- 2	2.1143+ 0	5.6230- 4	1.4715+ 0	7.0442- 4	6.2960- 1	1.1887- 2	3.6018- 1	3.6018- 1	1.8680- 8
7.4833+ 0	1.2108+ 1	2.7832- 2	2.0829+ 0	4.0687- 4	1.3127+ 0	5.8071- 4	7.3321- 1	1.6968- 2	4.5363- 1	4.5363- 1	1.6224- 8
9.0000+ 0	1.2298+ 1	2.7209- 2	2.0313+ 0	2.8118- 4	1.1528+ 0	4.6840- 4	8.5870- 1	2.1280- 2	5.8097- 1	5.8097- 1	1.3088- 8
1.0000+ 1	1.2345+ 1	2.7102- 2	2.0233+ 0	2.2774- 4	1.0701+ 0	4.1530- 4	9.2800- 1	2.4520- 2	6.3543- 1	6.3543- 1	1.1602- 8
1.3000+ 1	1.2366+ 1	2.7055- 2	2.0198+ 0	1.3478- 4	8.7809- 1	3.0950- 4	1.1070+ 0	3.3270- 2	6.6727- 1	6.6727- 1	8.6467- 9
1.8000+ 1	1.2084+ 1	2.7687- 2	2.0689+ 0	7.0291- 5	6.8849- 1	2.1700- 4	1.3330+ 0	4.5150- 2	1.2945+ 0	1.2945+ 0	6.0624- 9
2.8000+ 1	1.1556+ 1	2.8952- 2	2.1814+ 0	3.3690- 5	5.1479- 1	1.4870- 4	1.5870+ 0	5.9410- 2	2.0423+ 0	2.0423+ 0	4.0984- 9
4.2170+ 1	1.0875+ 1	3.1340- 2	2.3397+ 0	1.2807- 5	3.6120- 1	8.8537- 5	1.9099+ 0	7.8483- 2	3.7278+ 0	3.7278+ 0	2.4735- 9
6.0000+ 1	1.0044+ 1	3.3311- 2	2.4868+ 0	8.3262- 6	2.6243- 1	6.1590- 5	2.1320+ 0	9.2320- 2	5.7411+ 0	5.7411+ 0	1.7207- 9
1.0000+ 2	9.2484+ 0	3.6183- 2	2.7012+ 0	2.2774- 6	1.7208- 1	3.6560- 5	2.4160+ 0	1.1110- 1	1.0570+ 1	1.0570+ 1	1.0222- 9
2.0000+ 2	8.4394+ 0	3.9643- 2	2.9595+ 0	5.6936- 7	9.5176- 2	1.8160- 5	2.7310+ 0	1.3330- 1	2.3438+ 1	2.3438+ 1	5.0735-10
5.0000+ 2	7.7916+ 0	4.2939- 2	3.2056+ 0	9.1098- 8	4.3084- 2	7.2320- 6	3.0070+ 0	1.5550- 1	6.3899+ 1	6.3899+ 1	2.0204-10
1.0000+ 3	7.5152+ 0	4.4518- 2	3.3235+ 0	2.2774- 8	2.3455- 2	3.6110- 8	3.1330+ 0	1.6700- 1	1.3279+ 2	1.3279+ 2	1.0088-10
4.0000+ 3	7.2570+ 0	4.8101- 2	3.4417+ 0	1.4234- 8	6.7786- 3	9.0170- 7	3.2550+ 0	1.7990- 1	5.5090+ 2	5.5090+ 2	2.5191-11
1.0000+ 4	7.1682+ 0	4.6543- 2	3.4747+ 0	2.2775-10	2.9829- 3	3.6060- 7	3.2880+ 0	1.6370- 1	1.3909+ 3	1.3909+ 3	1.0074-11
1.0000+ 5	7.1380+ 0	4.6870- 2	3.4891+ 0	2.2782-12	3.5787- 4	3.6050- 8	3.3120+ 0	1.8870- 1	1.4009+ 4	1.4009+ 4	1.0071-12

October 31, 1989
Atomic Weight 47.900
ENDL. Evaluated
Density 4.540 Grams/cc
22-Ti









$\sin(\theta/2)/\lambda$ 1/A	$E \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E \sin(\theta/2)$ MeV	Coherent	Incoherent
1.0000+0	0.0000+0	2.2000+1	0.0000+0	8.0000-1	7.4391-3	7.9788+0	1.3140+1	1.5000+1	1.8598-1	5.6528-2	2.1998+1
1.0000-3	1.2399-5	2.2000+1	6.8384-4	7.0000-1	8.6790-3	7.2173+0	1.4093+1	1.7847+1	2.2128-1	3.1681-2	2.1699+1
3.0000-3	8.1993-5	2.1988+1	1.8000-2	8.0000-1	9.9188-3	8.6571+0	1.4858+1	2.0000+1	2.4797-1	2.1201-2	2.2000+1
1.0000-2	1.2399-4	2.1959+1	6.3000-2	9.0000-1	1.1159-2	8.1785+0	1.5509+1	2.8487+1	3.5295-1	5.8978-3	2.2000+1
1.5000-2	1.8598-4	2.1918+1	1.3910-1	1.0000+0	1.2399-2	5.7254+0	1.6095+1	5.0000+1	6.1893-1	7.1898-4	2.2000+1
2.0000-2	2.4797-4	2.1855+1	2.4320-1	1.1797+0	1.4627-2	4.9315+0	1.7028+1	8.0000+1	9.9188-1	1.2285-4	2.2000+1
2.5000-2	3.0996-4	2.1775+1	3.7200-1	1.2500+0	1.5498-2	4.6287+0	1.7353+1	1.0000+2	1.2399+0	5.3415-5	2.2000+1
3.0000-2	3.7196-4	2.1680+1	5.2230-1	1.5000+0	1.8598-2	3.6237+0	1.8334+1	1.7117+2	2.1223+0	7.5231-6	2.2000+1
4.0000-2	4.9594-4	2.1448+1	8.7210-1	2.0000+0	2.4797-2	2.2851+0	1.8585+1	3.2012+2	3.9890+0	8.3018-7	2.2000+1
5.0000-2	6.1993-4	2.1171+1	1.2830+0	2.3813+0	2.9625-2	1.7149+0	2.0130+1	6.3400+2	7.8607+0	8.7322-8	2.2000+1
6.4375-2	7.8815-4	2.0699+1	1.8416+0	2.5000+0	3.0996-2	1.8190+0	2.0259+1	1.0000+3	1.2399+1	1.7680-8	2.2000+1
7.0000-2	8.6790-4	2.0502+1	2.0626+0	3.0000+0	3.7196-2	1.3893+0	2.0882+1	2.0441+3	2.5344+1	1.7770-9	2.2000+1
8.0000-2	1.1159-3	1.9769+1	2.7890+0	3.5000+0	4.3395-2	1.1598+0	2.0994+1	4.8963+3	6.1947+1	1.0658-10	2.2000+1
1.0000-1	1.2399-3	1.8395+1	3.1140+0	4.0000+0	4.9594-2	1.0424+0	2.1239+1	8.4454+3	1.0471+2	2.1150-11	2.2000+1
1.2500-1	1.5498-3	1.8485+1	3.8456+0	4.5693+0	5.6653-2	9.0663-1	2.1454+1	1.8152+4	2.2506+2	2.0820-12	2.2000+1
1.5000-1	1.8598-3	1.7818+1	4.5230+0	5.0000+0	6.1993-2	8.0600-1	2.1580+1	4.8453+4	6.1314+2	1.0581-13	2.2000+1
1.7500-1	2.1697-3	1.6806+1	5.1927+0	5.7891+0	7.1776-2	6.5439-1	2.1742+1	2.2238+5	2.7572+3	1.2978-15	2.2000+1
2.0000-1	2.4797-3	1.6035+1	5.8500+0	6.0000+0	7.4391-2	6.1520-1	2.1774+1	1.0000+6	1.2399+4	1.6297-17	2.2000+1
2.5000-1	3.0996-3	1.4555+1	7.1436+0	7.0000+0	8.6790-2	4.8030-1	2.1879+1	5.8234+6	6.9722+4	1.0179-19	2.2000+1
3.0000-1	3.7196-3	1.3174+1	8.3120+0	8.0000+0	9.9188-2	3.7120-1	2.1835+1	7.4988+7	9.2975+5	4.5854-23	2.2000+1
4.0000-1	4.9594-3	1.0829+1	1.0304+1	8.5580+0	1.0611-1	3.1503-1	2.1952+1	1.0000+8	1.2399+7	1.9489-28	2.2000+1
5.0000-1	6.1993-3	8.1224+0	1.1801+1	1.0000+1	1.2399-1	1.8310-1	2.1880+1				

October 31, 1989
Atomic Weight 47.900

ENDL Evaluated
Photon Data

22-Ti
Density 4.540 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cc)		
	cm	cc-cs/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	6.8485-6	3.2162+4	2.5581+6	2.3131-1	1.4384-4	2.5581+6			1.4601+0	1.4601+0	
1.2732-5	5.0256-6	4.3829+4	3.4861+6	6.4418-1	2.3182-4	3.4861+6			2.5335+0	2.5335+0	
1.4259-5	4.3738-6	5.0360+4	4.0056+6	9.8920-1	2.9014-4	4.0056+6			3.2600+0	3.2600+0	
1.5549-5	4.0142-6	5.4871+4	4.3644+6	1.2966+0	3.4449-4	4.3644+6			3.8735+0	3.8735+0	
1.6559-5	3.8185-6	5.7684+4	4.5882+6	1.5022+0	3.9025-4	4.5882+6			4.3366+0	4.3366+0	
1.8612-5	3.4987-6	6.2956+4	5.0075+6	1.8811+0	4.8195-4	5.0075+6			5.3197+0	5.3197+0	
2.3084-5	3.2355-6	6.8078+4	5.4149+6	2.6874+0	7.5377-4	5.4149+6			7.1347+0	7.1347+0	
2.7108-5	3.2493-6	6.7789+4	5.3919+6	3.4318+0	1.0384-3	5.3918+6			8.3428+0	8.3428+0	
2.8517-5	3.3011-6	6.8725+4	5.3073+6	3.6804+0	1.1459-3	5.3073+6			8.6389+0	8.6389+0	
3.0000-5	3.3537-6	6.5678+4	5.2240+6	3.8655+0	1.2669-3	5.2240+6			8.9453+0	8.9453+0	
3.4841-5	3.6687-6	6.0038+4	4.7754+6	4.0579+0	1.6848-3	4.7754+6			9.4422+0	9.4422+0	
3.8644-5	4.0391-6	5.4534+4	4.3378+6	4.2105+0	2.0524-3	4.3376+6			9.5674+0	9.5674+0	
4.1215-5	4.3079-6	5.1130+4	4.0689+6	4.4273+0	2.3773-3	4.0669+6			9.5673+0	9.5673+0	
4.3312-5	4.5584-6	4.8320+4	3.8434+6	5.1857+0	2.6230-3	3.8434+6			9.5014+0	9.5014+0	
4.3681-5	4.6027-6	4.7855+4	3.8064+6	5.9356+0	2.6874-3	3.8064+6			9.4902+0	9.4902+0	
4.3887-5	4.6275-6	4.7599+4	3.7881+6	6.9041+0	2.8524-3	3.7860+6			9.4840+0	9.4840+0	
4.4057-5	4.6480-6	4.7389+4	3.7693+6	8.2021+0	2.7132-3	3.7693+6			9.4788+0	9.4788+0	
4.4242-5	4.6701-6	4.7165+4	3.7515+6	1.0120+1	2.7357-3	3.7515+6			9.4733+0	9.4733+0	
4.4420-5	4.6916-6	4.6949+4	3.7343+6	1.1938+1	2.7578-3	3.7343+6			9.4680+0	9.4680+0	
M3 4.4420-5	3.2455-6	6.7867+4	5.3981+6	1.1938+1	2.7578-3	5.3981+6			1.3688+1	1.3688+1	1.3974-4
4.4732-5	3.2898-6	6.6958+4	5.3258+6	1.5914+1	2.7981-3	5.3258+6			1.3598+1	1.3598+1	1.3614-4
4.5100-5	3.3419-6	6.5909+4	5.2424+6	1.8750+1	2.8419-3	5.2424+6			1.3495+1	1.3495+1	1.3204-4
M2 4.5100-5	2.8892-6	7.6237+4	6.0639+6	1.8750+1	2.8419-3	6.0639+6			1.5610+1	1.5610+1	1.9406-4
4.5412-5	2.9313-6	7.5142+4	5.9788+6	2.0109+1	2.8809-3	5.9788+6			1.5492+1	1.5492+1	1.6928-4
4.5756-5	2.9782-6	7.3959+4	5.8827+6	2.0192+1	2.9244-3	5.8827+6			1.5364+1	1.5364+1	1.6417-4
5.0000-5	3.6897-6	6.0023+4	4.7742+6	1.5635+1	3.4884-3	4.7742+6			1.3625+1	1.3625+1	1.2242-4
5.4152-5	4.3848-6	5.0234+4	3.9958+6	1.3110+1	4.0834-3	3.9958+6			1.2350+1	1.2350+1	8.7418-5
5.9079-5	5.0922-6	4.3255+4	3.4405+6	1.1490+1	4.8525-3	3.4405+6			1.1602+1	1.1602+1	6.9690-5
6.3573-5	5.6151-6	3.9227+4	3.1201+6	1.0953+1	5.6112-3	3.1201+6			1.1322+1	1.1322+1	6.7088-5
6.7417-5	5.9372-6	3.7099+4	2.8509+6	1.1178+1	6.3036-3	2.8509+6			1.1355+1	1.1355+1	7.0849-5
6.7928-5	5.8772-6	3.6851+4	2.8311+6	1.1844+1	6.3986-3	2.8311+6			1.1384+1	1.1384+1	7.1187-5
6.8480-5	6.0206-6	3.6586+4	2.8100+6	1.3257+1	6.5020-3	2.8100+6			1.1374+1	1.1374+1	7.1769-5
6.8610-5	6.0304-6	3.6528+4	2.8053+6	1.3747+1	6.5285-3	2.8052+6			1.1377+1	1.1377+1	7.1906-5
M1 6.8810-5	5.2401-6	4.1887+4	3.3398+6	1.3747+1	6.5285-3	3.3398+6			1.3078+1	1.3078+1	1.0840-4
6.9115-5	5.2813-6	4.1707+4	3.3173+6	1.5818+1	6.6220-3	3.3173+6			1.3087+1	1.3087+1	1.0858-4
6.9691-5	5.3215-6	4.1391+4	3.2923+6	1.7135+1	6.7139-3	3.2923+6			1.3096+1	1.3096+1	1.0878-4
6.0000-5	5.8907-6	3.7392+4	2.9742+6	2.2052+1	8.8483-3	2.9742+6			1.3581+1	1.3581+1	1.1873-4
1.0000-4	6.8388-6	3.2208+4	2.5818+6	3.2451+1	1.3789-2	2.5818+6			1.4622+1	1.4622+1	1.3260-4
1.1235-4	7.5369-6	2.9225+4	2.3246+6	3.9294+1	1.7297-2	2.3245+6			1.4907+1	1.4907+1	1.3137-4
1.2884-4	8.5902-6	2.5641+4	2.0395+6	4.6813+1	2.2819-2	2.0395+6			1.4999+1	1.4999+1	1.2419-4
1.8119-4	1.1225-5	1.9822+4	1.5808+6	5.8121+1	3.5078-2	1.5807+6			1.4359+1	1.4359+1	1.0294-4
1.8612-4	1.1565-5	1.9238+4	1.2815+6	8.2437+1	4.8482-2	1.2815+6			1.3720+1	1.3720+1	8.8814-5
2.1512-4	1.6902-5	1.3032+4	1.0365+6	8.7081+1	6.1738-2	1.0365+6			1.2728+1	1.2728+1	7.3292-5
2.8243-4	2.3197-5	9.4953+3	7.5528+5	6.9097+1	9.1130-2	7.5519+5			1.1312+1	1.1312+1	5.5149-5
3.1360-4	3.1831-5	6.9835+3	5.5387+5	6.4962+1	1.2807-1	5.5381+5			9.9129+0	9.9129+0	4.1258-5
3.5450-4	3.9935-5	5.5295+3	4.3981+5	5.6050+1	1.6157-1	4.3978+5			8.8983+0	8.8983+0	3.3110-5
3.7384-4	4.3975-5	5.0089+3	3.9841+5	5.0159+1	1.7849-1	3.9838+5			8.4956+0	8.4956+0	3.0129-5
4.0600-4	5.1537-5	4.2739+3	3.3995+5	3.7009+1	2.0893-1	3.3991+5			7.8771+0	7.8771+0	2.5884-5
4.2742-4	5.7248-5	3.8476+3	3.0804+5	2.5453+1	2.3031-1	3.0801+5			7.4656+0	7.4656+0	2.3378-5
4.3821-4	5.9680-5	3.6908+3	2.8356+5	2.0028+1	2.3888-1	2.8354+5			7.3087+0	7.3087+0	2.2454-5
4.5398-4	6.4759-5	3.4015+3	2.7055+5	9.7450+0	2.5663-1	2.7054+5			7.0105+0	7.0104+0	2.0747-5
4.5657-4	6.5510-5	3.3623+3	2.6744+5	1.0399+1	2.5925-1	2.6742+5			6.9691+0	6.9691+0	2.0515-5
4.5819-4	6.5897-5	3.3380+3	2.6550+5	1.2625+1	2.6092-1	2.6549+5			6.9433+0	6.9433+0	2.0371-5
4.5944-4	6.6356-5	3.3194+3	2.6403+5	1.6088+1	2.6220-1	2.6401+5			6.9235+0	6.9235+0	2.0281-5
4.6061-4	6.6871-5	3.3038+3	2.6278+5	2.0708+1	2.6330-1	2.6278+5			6.9087+0	6.9087+0	2.0169-5
4.6341-4	6.7524-5	3.2820+3	2.5846+5	4.2829+1	2.6827-1	2.5842+5			6.8817+0	6.8817+0	1.9919-5
4.8524-4	8.8065-5	3.2381+3	2.5740+5	8.2904+1	2.6817-1	2.5733+5			6.8335+0	6.8335+0	1.9784-5
L3 4.8524-4	1.2960-5	1.8995+4	1.3518+6	8.2904+1	2.6817-1	1.3517+6			3.5896+1	3.5895+1	2.0454-2
4.8571-4	1.2869-5	1.7129+4	1.3824+6	8.9379+1	2.6865-1	1.3824+6			3.8214+1	3.8194+1	2.0859-2
4.8838-4	1.2308-5	1.7898+4	1.4235+6	1.0375+2	2.7140-1	1.4234+6			3.8050+1	3.8028+1	2.1844-2
4.7011-4	1.1957-5	1.8422+4	1.4653+6	1.2714+2	2.7323-1	1.4652+6			3.9315+1	3.9292+1	2.2665-2
4.7122-4	1.1741-5	1.8760+4	1.4822+6	1.3857+2	2.7439-1	1.4921+6			4.0131+1	4.0108+1	2.3186-2
L2 4.7122-4	8.7834-6	2.5135+4	1.9992+6	1.3857+2	2.7439-1	1.9991+6			5.3788+1	5.3733+1	3.4081-2
4.7232-4	8.5751-6	2.5886+4	2.0431+6	1.5095+2	2.7554-1	2.0429+6			5.5076+1	5.5042+1	3.4946-2
4.7607-4	8.1722-6	2.6953+4	2.1438+6	1.7828+2	2.7948-1	2.1437+6			5.8250+1	5.8213+1	3.7681-2
4.8157-4	7.8970-6	2.7543+4	2.1808+6	1.9649+2	2.8530-1	2.1806+6			6.0213+1	6.0174+1	3.8225-2
5.1783-4	8.4210-6	2.3390+4	1.8597+6	2.0702+2	3.2513-1	1.8595+6			5.4971+1	5.4838+1	3.2419-2
5.3303-4	1.0022-5	2.1978+4	1.7482+6	2.0834+2	3.4235-1	1.7480+6			5.3181+1	5.3150+1	3.0483-2
5.5113-4	1.0789-5	2.0455+4	1.6270+6	2.0302+2	3.6350-1	1.6269+6			5.1174+1	5.1148+1	2.8339-2
5.5833-4	1.0889-5	2.0048+4	1.5945+6	2.1453+2	3.8987-1	1.5942+6			5.0624+1	5.0598+1	2.7789-2
5.5744-4	1.1038-5	1.9990+4	1.5878+6	2.1822+2	3.7100-1	1.5874+6			5.0508+1	5.0478+1	2.7850-2
5.5744-4	9.7915-6	2.2519+4	1.7911+6	2.1822+2	3.7100-1	1.7909+6			5.8982+1	5.8950+1	3.2597-2
5.6339-4	8.9934-6	2.2041+4	1.7531+6	2.4547+2	3.7814-1	1.7529+6			5.6389+1	5.6337+1	3.1924-2
5.6920-4	1.0202-5	2.1590+4	1.7173+6	2.5970+2	3.8518-1	1.7170+6			5.5784+1	5.5753+1	3.1288-2
6.0000-4	1.1343-5	1.9418+4	1.5445+6	2.7827+2	4.2144-1	1.5443+6			5.2886+1	5.2858+1	2.8223-2
6.3644-4	1.2988-5	1.6985+4	1.3510+6	2.9194+2	4.6495-1	1.3507+6			4.9068+1	4.9043+1	2.4727-2
7.6094-4	1.9503-5	1.1294+4	8.9829+5	3.0481+2	6.2815-1	8.9799+5			3.9002+1	3.8968+1	1.6508-2
9.5183-4	3.3473-5	6.5804+3	5.2341+5	3.0199+2	8.7714-1	5.2310+5			2.8420+1	2.8410+1	9.6894-3
1.0000-3	3.7780-5	5.8303+3	4.8374+5	2.9888+2	9.4058-1	4.8344+5			2.8452+1	2.8444+1	8.5780-3
1.3554-3	8.1454-5	2.7042+3	2.1509+5	2.7482+2	1.3799+0	2.1481+5			1.8819+1	1.8815+1	4.0130-3
1.7714-3	1.8308-4	1.3508+3	1.0743+5	2.4450+2	1.8441+0	1.0719+5			1.0837+1	1.0835+1	2.0209-3
2.5283-3	4.1821-4	5.2543+2	4.1783+4	1.9752+2	2.6062+0	4.1593+4			6.0023+0	6.0015+0	7.9548-4
3.1788-3	7.8134-4	2.8191+2	2.2423+4	1.8417+2	3.2119+0	2.2255+4			4.0352+0	4.0348+0	4.2887-4
3.6933-3	1.1785-3	1.8723+2	1.4892+4	1.3920+2	3.6789+0	1.4749+4			3.1092+0	3.1089+0	2.8630-4
4.1112-3	1.5771-3	1.3968+2	1.1109+4	1.1881+2	4.0147+0	1.0988+4			2.5780+0	2.5777+0	2.1431-4
4.2891-3	1.7515-3	1.2578+2	1.0003+4	1.1034+2	4.1399+0	9.8881+3			2.4086+0	2.4093+0	1.9315-4

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.5061-3	2.0363-3	1.0817+2	8.6037+3	9.5692+1	4.3262+0	8.5037+3			2.1871+0	2.1870+0	1.8643-4
4.6327-3	2.2009-3	1.0008+2	7.9604+3	8.5714+1	4.4250+0	7.8702+3			2.0811+0	2.0810+0	1.5418-4
4.7537-3	2.3571-3	9.3051+1	7.4013+3	7.3236+1	4.5190+0	7.3235+3			1.8871+0	1.8870+0	1.4361-4
4.8007-3	2.4347-3	9.0467+1	7.1857+3	6.6335+1	4.5554+0	7.1249+3			1.8524+0	1.8522+0	1.3978-4
4.8416-3	2.4855-3	8.8266+1	7.0207+3	5.8018+1	4.5870+0	6.9581+3			1.8229+0	1.8228+0	1.3653-4
4.8790-3	2.5530-3	8.6276+1	6.8624+3	4.7668+1	4.6159+0	6.8101+3			1.8665+0	1.8664+0	1.3366-4
4.9001-3	2.5857-3	8.5184+1	6.7755+3	4.2298+1	4.6321+0	6.7296+3			1.8819+0	1.8818+0	1.3208-4
4.9096-3	2.6003-3	8.4708+1	6.7377+3	4.0873+1	4.6394+0	6.6824+3			1.8754+0	1.8753+0	1.3138-4
4.9203-3	2.6183-3	8.4189+1	6.6984+3	3.9808+1	4.6478+0	6.6520+3			1.8682+0	1.8680+0	1.3080-4
4.9406-3	2.6456-3	8.3257+1	6.6223+3	4.1778+1	4.6633+0	6.5756+3			1.8544+0	1.8543+0	1.2912-4
K 4.9406-3	3.1973+4	6.8891+2	5.14796+4	4.1778+1	4.6633+0	5.4750+4			1.5439+1	1.2744+1	2.8954+0
4.9628-3	3.2148+4	6.8515+2	5.1497+4	4.8433+1	4.6803+0	5.4443+4			1.5422+1	1.2739+1	2.8828+0
4.9810-3	3.2291+4	6.8212+2	5.1256+4	5.6317+1	4.6943+0	5.4185+4			1.5408+1	1.2735+1	2.8725+0
5.0030-3	3.2464+4	6.7848+2	5.1396+4	6.5894+1	4.7112+0	5.3896+4			1.5391+1	1.2731+1	2.8602+0
5.0318-3	3.2691+4	6.7378+2	5.1359+4	7.5995+1	4.7333+0	5.3512+4			1.5369+1	1.2724+1	2.8443+0
5.0646-3	3.2952+4	6.6843+2	5.1318+4	8.3297+1	4.7584+0	5.3079+4			1.5344+1	1.2717+1	2.8424+0
5.1831-3	3.3744+4	6.5276+2	5.1820+4	9.8827+1	4.8337+0	5.1819+4			1.5271+1	1.2697+1	2.5741+0
5.2577-3	3.5175+4	6.2619+2	4.9807+4	1.0464+2	4.9007+0	5.0897+4			1.4913+1	1.2442+1	2.4718+0
5.4853-3	3.8894+4	5.8847+2	4.5057+4	1.1481+2	5.0528+0	4.4937+4			1.4069+1	1.1829+1	2.2397+0
5.8383-3	4.6778+4	4.7087+2	3.7453+4	1.2110+2	5.2848+0	3.7327+4			1.2437+1	1.0579+1	1.8577+0
6.185-3	6.1860+4	3.5539+2	2.8257+4	1.1853+2	5.6511+0	2.8142+4			1.0310+1	8.9120+0	1.3982+0
6.0070-3	1.1007-3	2.0012+2	1.5918+4	1.0188+2	6.4934+0	1.5809+4			7.2251+0	6.4349+0	7.9025-1
9.3213-3	1.6408-3	1.3428+2	1.0879+4	8.8202+1	7.0789+0	1.0592+4			5.8299+0	5.0689+0	5.3104-1
1.0000-2	1.9968-3	1.1031+2	8.7741+3	8.3305+1	7.3410+0	6.8835+3			4.8565+0	4.5204+0	4.3507-1
1.3595-2	4.7000-3	4.6864+1	3.7276+3	5.9270+1	8.3839+0	3.6589-3			2.8397+0	2.6553+0	1.8434-1
1.8397-2	1.0868-2	2.0100+1	1.5988+3	3.8992+1	9.3150+0	1.5496-3			1.6273+0	1.5490+0	1.7305-2
2.5931-2	2.8282-2	7.5221+0	5.8830+2	2.3561+1	1.0190+1	5.8455-2			8.3818-1	8.0782-1	2.8565-2
4.2496-2	1.1789-1	1.6884+0	1.4961+2	1.0446+1	1.0795+1	1.2737+2			3.1090-1	3.0444-1	6.4507-3
5.5308-2	2.3504+1	9.3712-1	7.4538+1	8.6740+0	1.0814+1	5.7050+1			1.8325-1	1.8038-1	2.8931-3
6.8413-2	3.8974+1	5.6515-1	4.4952+1	4.6012+0	1.0783+1	2.8588+1			1.2011-1	1.1881-1	1.5005-3
8.0000-2	5.4359+1	4.0520-1	3.2230+1	3.4747+0	1.0570+1	1.8185+1			8.8627-2	8.8005-2	9.2184-4
9.3991-2	7.3088+1	3.0137-1	2.3971+1	2.5871+0	1.0375+1	1.1009+1			6.6672-2	6.6114-2	5.5611-4
1.0000-1	6.0790-1	2.7264-1	2.1686+1	2.3079+0	1.0301+1	9.0783+0			6.0213-2	5.9753-2	4.6016-4
1.1941-1	1.0420+0	2.1139-1	1.6814+1	1.6556+0	9.9344+0	5.2239+0			4.6458-2	4.6193-2	2.6487-4
1.4139-1	1.2617+0	1.7457-1	1.3886+1	1.2013+0	9.5971+0	3.0872+0			3.8756-2	3.8599-2	1.6553-4
1.8202-1	1.4313+0	1.5389-1	1.2240+1	9.2576-1	9.2875+0	2.0271+0			3.5429-2	3.5327-2	1.0281-4
1.9001-1	1.6204+0	1.3593-1	1.0812+1	6.8141-1	8.8874+0	1.2433+0			3.4018-2	3.3952-2	6.3085-5
2.2909-1	1.8282+0	1.2048-1	9.5830+0	4.7424-1	8.4073+0	7.0142-1			3.5155-2	3.5119-2	3.5653-5
2.7108-1	2.0106+0	1.0955-1	8.7138+0	3.4150-1	7.9502+0	4.2198-1			3.8250-2	3.8228-2	2.1394-5
4.0000-1	2.4339+0	9.0500-2	7.1884+0	1.5885-1	6.9024+0	1.3717-1			5.2058-2	5.2050-2	6.8581-6
5.0715-1	2.7144+0	8.1147-2	6.4544+0	9.9257-2	6.2830+0	7.2140-2			6.4673-2	6.4669-2	3.8565-6
6.6476-1	3.0826+0	7.1455-2	5.6835+0	5.7863-2	5.5990+0	3.6580-2			8.2349-2	8.2347-2	1.8540-6
8.0000-1	3.3579+0	6.5596-2	5.2175+0	4.0080-2	5.1536+0	2.3862-2			6.7422-2	6.7420-2	1.2995-6
1.0000+0	3.7456+0	5.8806-2	4.8775+0	2.5681-2	4.8369+0	1.4833-2			1.1748-1	1.1748-1	7.5225-7
1.0220+0	3.7888+0	5.8187-2	4.8266+0	2.4590-2	4.5880+0	1.4080-2			1.1957-1	1.1957-1	7.1307-7
1.0251+0	3.7929+0	5.8073-2	4.8191+0	2.4441-2	4.5807+0	1.3970-2	2.0562-8		1.1984-1	1.1984-1	7.0852-7
1.0287+0	3.8001+0	5.7964-2	4.8104+0	2.4289-2	4.5723+0	1.3897-2	2.0562-7		1.2018-1	1.2015-1	7.0328-7
1.0340+0	3.8104+0	5.7807-2	4.8079+0	2.4024-2	4.5602+0	1.3719-2	1.1394-6		1.2061-1	1.2061-1	6.9580-7
1.0353+0	3.8129+0	5.7789-2	4.8049+0	2.3964-2	4.5572+0	1.3683-2	1.5468-6		1.2072-1	1.2072-1	6.8936-7
1.0366+0	3.8155+0	5.7789-2	4.8017+0	2.3902-2	4.5511+0	1.3648-2	2.0562-6		1.2084-1	1.2084-1	6.8208-7
1.0382+0	3.8188+0	5.7822-2	4.8000+0	2.3830-2	4.5506+0	1.3603-2	2.7749-6		1.2098-1	1.2098-1	6.8990-7
1.0397+0	3.8215+0	5.7838-2	4.8045+0	2.3762-2	4.5472+0	1.3562-2	3.6052-6		1.2111-1	1.2111-1	6.8781-7
1.0415+0	3.8251+0	5.7885-2	4.8003+0	2.3680-2	4.5431+0	1.3513-2	4.7866-6		1.2126-1	1.2126-1	6.8531-7
1.0438+0	3.8285+0	5.7917-2	4.8049+0	2.3576-2	4.5379+0	1.3450-2	6.6579-6		1.2148-1	1.2148-1	6.8214-7
1.0484+0	3.8348+0	5.7441-2	4.8069+0	2.3459-2	4.5320+0	1.3380-2	9.2632-6		1.2169-1	1.2169-1	6.7859-7
1.0483+0	3.8383+0	5.7386-2	4.8044+0	2.3374-2	4.5277+0	1.3329-2	1.1533-5		1.2185-1	1.2185-1	6.7800-7
1.0512+0	3.8440+0	5.7301-2	4.8077+0	2.3248-2	4.5212+0	1.3252-2	1.5844-5		1.2210-1	1.2210-1	6.7209-7
1.0541+0	3.8486+0	5.7218-2	4.8111+0	2.3118-2	4.5148+0	1.3178-2	2.0562-5		1.2235-1	1.2235-1	6.6824-7
1.0577+0	3.8568+0	5.7114-2	4.8029+0	2.2981-2	4.5088+0	1.3081-2	2.8027-5		1.2286-1	1.2286-1	6.6345-7
1.0611+0	3.8632+0	5.7017-2	4.8051+0	2.2815-2	4.4992+0	1.2994-2	3.6456-5		1.2298-1	1.2298-1	6.6899-7
1.0651+0	3.8709+0	5.6903-2	4.8260+0	2.2644-2	4.4905+0	1.2891-2	4.8284-5		1.2330-1	1.2330-1	6.5390-7
1.0704+0	3.8811+0	5.6753-2	4.8141+0	2.2421-2	4.4789+0	1.2758-2	6.7333-5		1.2376-1	1.2376-1	6.4701-7
1.0762+0	3.8923+0	5.6590-2	4.8012+0	2.2180-2	4.4663+0	1.2613-2	9.3053-5		1.2426-1	1.2426-1	6.3971-7
1.0806+0	3.9007+0	5.6488-2	4.8015+0	2.2000-2	4.4589+0	1.2508-2	1.1621-4		1.2484-1	1.2484-1	6.3425-7
1.0871+0	3.9131+0	5.6289-2	4.8072+0	2.1739-2	4.4430+0	1.2349-2	1.5857-4		1.2520-1	1.2520-1	6.2831-7
1.0937+0	3.9257+0	5.6108-2	4.8229+0	2.1477-2	4.4290+0	1.2193-2	2.0562-4		1.2576-1	1.2576-1	6.1838-7
1.1026+0	3.9425+0	5.5889-2	4.8438+0	2.1133-2	4.4104+0	1.1987-2	2.8510-4		1.2653-1	1.2653-1	6.0795-7
1.1107+0	3.9578+0	5.5633-2	4.8266+0	2.0827-2	4.3936+0	1.1804-2	3.7184-4		1.2722-1	1.2722-1	5.9667-7
1.1206+0	3.9764+0	5.5393-2	4.8059+0	2.0481-2	4.3734+0	1.1688-2	4.8743-4		1.2807-1	1.2807-1	5.8781-7
1.1333+0	4.0001+0	5.5085-2	4.3789+0	2.0008-2	4.3478+0	1.1325-2	6.8169-4		1.2915-1	1.2915-1	5.7437-7
1.1475+0	4.0263+0	5.4706-2	4.3513+0	1.9515-2	4.3198+0	1.1077-2	9.5507-4		1.3036-1	1.3036-1	5.6180-7
1.1582+0	4.0459+0	5.4441-2	4.3302+0	1.9157-2	4.2990+0	1.0896-2	1.1869-3		1.3127-1	1.3127-1	5.5262-7
1.1741+0	4.0749+0	5.4054-2	4.2985+0	1.8842-2	4.2886+0	1.0638-2	1.5862-3		1.3262-1	1.3262-1	5.3940-7
1.1901+0	4.1037+0	5.3674-2	4.2692+0	1.8145-2	4.2396+0	1.0393-2	2.0562-3		1.3398-1	1.3398-1	5.2658-7
1.2051+0	4.1306+0	5.3328-2	4.2416+0	1.7697-2	4.2111+0	1.0155-2	2.5588-3		1.3525-1	1.3525-1	5.1501-7
1.2275+0	4.1701+0	5.2820-2	4.2013+0	1.7059-2	4.1710+0	9.8279-3	3.4239-3		1.3714-1	1.3714-1	4.9844-7
1.2500+0	4.2093+0	5.2328-2	4.1622+0	1.6451-2	4.1318+0	9.5160-3	4.4270-3		1.3904-1	1.3904-1	4.8282-7
1.2803+0	4.2812+0	5.1890-2	4.1114+0	1.5683-2	4.0807+0	9.1175-3	5.8787-3		1.4159-1	1.4159-1	4.6241-7
1.3077+0	4.3074+0	5.1136-2	4.0674+0	1.5034-2	4.0380+0	8.7791-3	7.5726-3		1.4389-1	1.4389-1	4.4524-7
1.3430+0	4.3858+0	5.0452-2	4.0129+0	1.4255-2	3.9804+0	8.3712-3	9.8721-3		1.4685-1	1.4685-1	4.2455-7
1.3822+0	4.4293+0	4.9729-2	3.9555+0	1.3459-2	3.9213+0	7.9518-3	1.2727-2		1.5013-1	1.5013-1	4.0329-7
1.4338+0	4.5105+0	4.8833-2	3.8842+0	1.2509-2	3.8473+0	7.4479-3	1.6830-2				

October 31, 1989
Atomic Weight 47.900

ENDL Evaluated
Photon Data

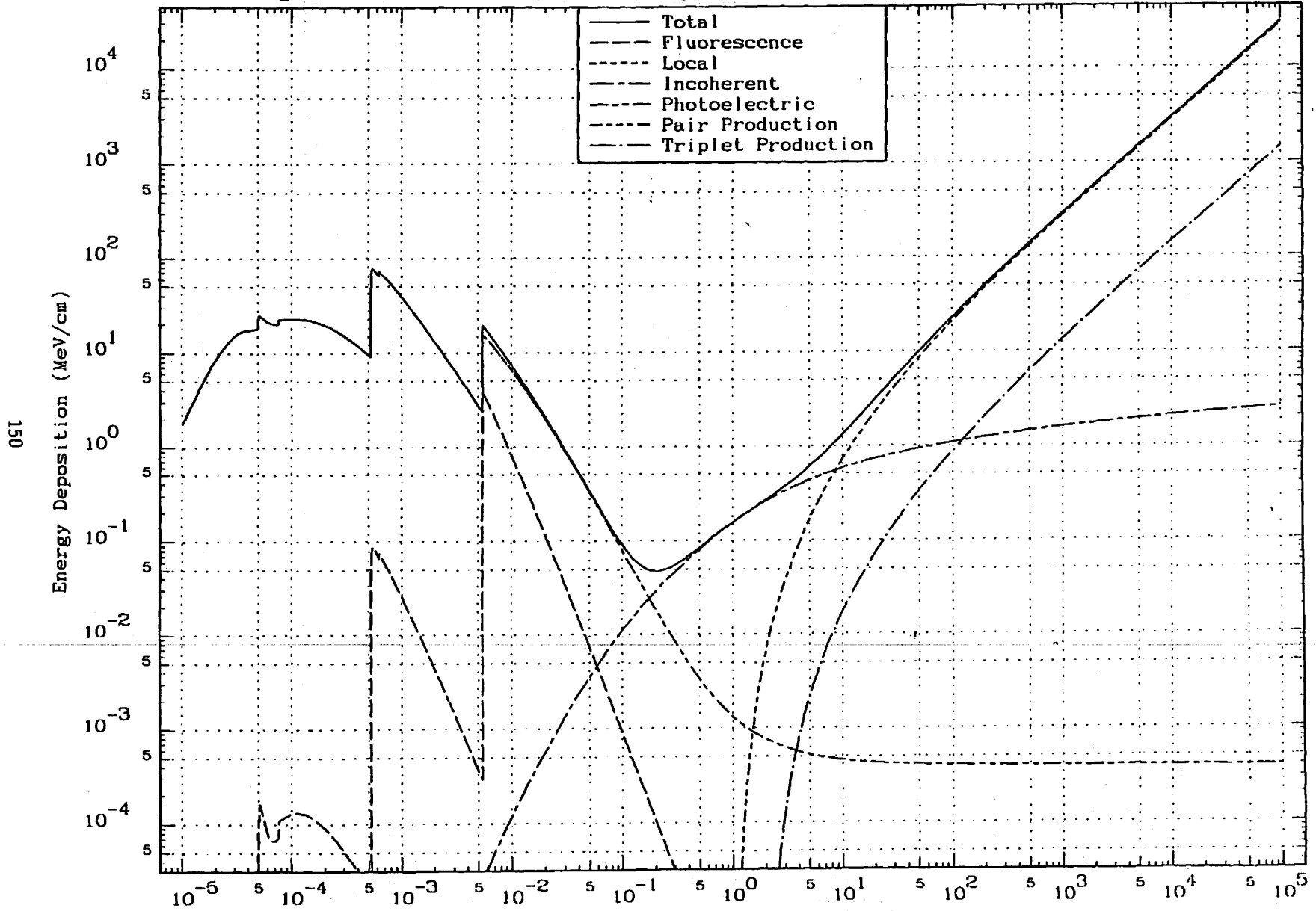
22-Ti
Density 4.540 Grans/cc

Energy keV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (McV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.0440+0	5.3358+0	4.1280-2	3.2834+0	6.1591-3	3.1769+0	4.1070-3	9.6260-2		2.0392-1	2.0392-1	2.0829-7
2.0658+0	5.3865+0	4.0877-2	3.2513+0	5.9148-3	3.1388+0	3.9851-3	1.0252-1	2.2091-7	2.0698-1	2.0698-1	2.0211-7
2.1195+0	5.4289+0	4.0585-2	3.2286+0	5.7283-3	3.1092+0	3.8911-3	1.0777-1	1.2388-6	2.0948-1	2.0948-1	1.9734-7
2.1279+0	5.4401+0	4.0489-2	3.2205+0	5.6832-3	3.1018+0	3.8883-3	1.0910-1	1.6814-6	2.1009-1	2.1009-1	1.9619-7
2.1383+0	5.4501+0	4.0415-2	3.2148+0	5.6389-3	3.0947+0	3.8458-3	1.1044-1	2.2081-8	2.1071-1	2.1071-1	1.9505-7
2.1470+0	5.4629+0	4.0320-2	3.2070+0	5.5826-3	3.0854+0	3.8172-3	1.1218-1	3.0288-8	2.1151-1	2.1151-1	1.9360-7
2.1569+0	5.4747+0	4.0233-2	3.2002+0	5.5315-3	3.0770+0	3.7912-3	1.1380-1	3.9340-8	2.1225-1	2.1225-1	1.9227-7
2.1890+0	5.4889+0	4.0129-2	3.1918+0	5.4700-3	3.0688+0	3.7587-3	1.1580-1	5.2502-8	2.1318-1	2.1318-1	1.9088-7
2.1845+0	5.5070+0	3.9997-2	3.1814+0	5.3927-3	3.0539+0	3.7201-3	1.1839-1	7.2978-8	2.1433-1	2.1433-1	1.8887-7
2.2018+0	5.5289+0	3.9853-2	3.1699+0	5.3083-3	3.0396+0	3.6767-3	1.2133-1	1.0097-5	2.1564-1	2.1564-1	1.8647-7
2.2158+0	5.5428+0	3.9739-2	3.1608+0	5.2415-3	3.0282+0	3.6421-3	1.2375-1	1.2775-5	2.1671-1	2.1671-1	1.8472-7
2.2342+0	5.5642+0	3.9588-2	3.1487+0	5.1555-3	3.0133+0	3.5978-3	1.2658-1	1.6922-5	2.1808-1	2.1808-1	1.8246-7
2.2537+0	5.5855+0	3.9429-2	3.1381+0	5.0688-3	2.9978+0	3.5514-3	1.2963-1	2.2091-5	2.1954-1	2.1954-1	1.8011-7
2.2815+0	5.6179+0	3.9208-2	3.1186+0	4.9441-3	2.9760+0	3.4971-3	1.3406-1	3.0942-5	2.2164-1	2.2164-1	1.7685-7
2.3070+0	5.6481+0	3.9012-2	3.1030+0	4.8354-3	2.9585+0	3.4299-3	1.3821-1	4.0642-5	2.2358-1	2.2358-1	1.7395-7
2.3382+0	5.6800+0	3.8778-2	3.0845+0	4.7073-3	2.9330+0	3.3620-3	1.4339-1	5.4847-5	2.2597-1	2.2597-1	1.7051-7
2.3774+0	5.7222+0	3.8493-2	3.0617+0	4.5534-3	2.9041+0	3.2788-3	1.4971-1	7.5879-5	2.2887-1	2.2887-1	1.6634-7
2.4102+0	5.7573+0	3.8258-2	3.0431+0	4.4304-3	2.8806+0	3.2136-3	1.5476-1	9.6252-5	2.3146-1	2.3146-1	1.6288-7
2.4489+0	5.7956+0	3.8008-2	3.0230+0	4.2889-3	2.8549+0	3.1423-3	1.6051-1	1.2244-4	2.3427-1	2.3427-1	1.5937-7
2.4859+0	5.8354+0	3.7748-2	3.0023+0	4.1648-3	2.8281+0	3.0680-3	1.6679-1	1.5418-4	2.3730-1	2.3730-1	1.5585-7
2.5584+0	5.9047+0	3.7303-2	2.9871+0	3.9382-3	2.7815+0	2.9438-3	1.7848-1	2.2091-4	2.4284-1	2.4284-1	1.4930-7
2.6604+0	6.0038+0	3.6887-2	2.9181+0	3.6365-3	2.7164+0	2.7743-3	1.9482-1	3.4053-4	2.5102-1	2.5102-1	1.4070-7
2.7453+0	6.0812+0	3.6221-2	2.8810+0	3.4152-3	2.6682+0	2.6475-3	2.0830-1	4.5577-4	2.5778-1	2.5778-1	1.3427-7
2.8628+0	6.1810+0	3.5638-2	2.8345+0	3.1407-3	2.6006+0	2.4874-3	2.2781-1	6.3728-4	2.6738-1	2.6738-1	1.2615-7
3.0399+0	6.3235+0	3.4833-2	2.7708+0	2.7855-3	2.5098+0	2.2788-3	2.5508-1	9.6378-4	2.8193-1	2.8193-1	1.1558-7
3.2344+0	6.4882+0	3.3959-2	2.7011+0	2.4807-3	2.4108+0	2.0941-3	2.8457-1	1.3929-3	2.9683-1	2.9683-1	1.0821-7
3.4375+0	6.6381+0	3.3182-2	2.6401+0	2.1788-3	2.3172+0	1.9274-3	3.1685-1	1.9062-3	3.1275-1	3.1275-1	9.7752-8
3.7847+0	6.8685+0	3.2068-2	2.5507+0	1.7973-3	2.1771+0	1.6907-3	3.6728-1	2.9251-3	3.4063-1	3.4063-1	8.5747-8
4.0000+0	6.9885+0	3.1518-2	2.5089+0	1.6090-3	2.1003+0	1.5690-3	3.9980-1	3.6240-3	3.5900-1	3.5900-1	7.9523-8
4.2500+0	7.1227+0	3.0924-2	2.4597+0	1.4253-3	2.0194+0	1.4504-3	4.3300-1	4.4788-3	3.8005-1	3.8005-1	7.3562-8
4.7500+0	7.3343+0	3.0032-2	2.3888+0	1.1411-3	1.8789+0	1.2572-3	5.0123-1	6.2688-3	4.2505-1	4.2505-1	6.3782-8
5.5135+0	7.5817+0	2.9052-2	2.3108+0	8.4695-4	1.7058+0	1.0428-3	5.8388-1	9.1917-3	4.8661-1	4.8661-1	5.2877-8
6.3840+0	7.7889+0	2.8243-2	2.2484+0	6.3573-4	1.5417+0	8.7451-4	6.9075-1	1.2454-2	5.7735-1	5.7735-1	4.4352-8
7.4833+0	7.9729+0	2.7627-2	2.1874+0	4.5878-4	1.3763+0	7.2087-4	8.0419-1	1.6708-2	6.9087-1	6.9087-1	3.6550-8
9.0000+0	8.0730+0	2.7284-2	2.1702+0	3.1788-4	1.2078+0	5.8100-4	9.3940-1	2.2270-2	8.5888-1	8.5888-1	2.9466-8
1.0000+1	8.0837+0	2.7214-2	2.1648+0	2.5748-4	1.1212+0	5.1510-4	1.0170+0	2.5880-2	9.7208-1	9.7208-1	2.6124-8
1.3000+1	8.0721+0	2.7287-2	2.1704+0	1.5236-4	9.2103-1	3.8380-4	1.2140+0	3.4840-2	1.3325+0	1.3325+0	1.9485-8
1.8000+1	7.8601+0	2.8023-2	2.2280+0	7.9471-5	7.2134-1	2.6890-4	1.4600+0	4.7280-2	1.9950+0	1.9950+0	1.3638-8
2.6000+1	7.4847+0	2.9428-2	2.3408+0	3.8090-5	5.3934-1	1.8170-4	1.7390+0	6.2190-2	3.1592+0	3.1592+0	9.2152-9
4.2170+1	6.8918+0	3.1980-2	2.5421+0	1.4480-5	3.6798-1	1.0865-4	2.0919+0	8.2134-2	5.7808+0	5.7808+0	5.5611-9
6.0000+1	6.4753+0	3.4018-2	2.7056+0	7.1525-6	2.7498-1	7.6260-5	2.3340+0	9.6590-2	8.9123+0	8.9123+0	3.8678-9
1.0000+2	5.9499+0	3.7020-2	2.9445+0	2.5749-8	1.8029-1	4.5300-5	2.6480+0	1.1620-1	1.6433+1	1.6433+1	2.2974-9
2.0000+2	5.4275+0	4.0583-2	3.2279+0	6.4372-7	9.9717-2	2.2480-5	2.9890+0	1.3920-1	3.6453+1	3.6453+1	1.1401-9
4.0000+2	5.0899+0	4.3277-2	3.4423+0	1.6093-7	5.4866-2	1.1200-5	3.2300+0	1.5740-1	7.8181+1	7.8181+1	5.6802-10
1.0000+3	4.8333+0	4.5672-2	3.6248+0	2.5749-8	2.4574-2	4.4700-8	3.4260+0	1.7420-1	2.0647+2	2.0647+2	2.2670-10
4.0000+3	4.6890+0	4.7178-2	3.7524+0	1.6093-9	7.0999-3	1.1160-8	3.5580+0	1.8730-1	8.5829+2	8.5829+2	5.6800-11
1.0000+4	4.6281+0	4.7814-2	3.7872+0	2.5749-10	3.1043-3	4.4840-7	3.5930+0	1.9110-1	2.1812+3	2.1812+3	2.2840-11
1.0000+5	4.5941+0	4.7945-2	3.8138+0	2.5743-12	3.7486-4	4.4830-8	3.6190+0	1.9420-1	2.1767+4	2.1767+4	2.2835-12

October 31, 1989
Atomic Weight 50.942

ENDL Evaluated
Energy Deposition

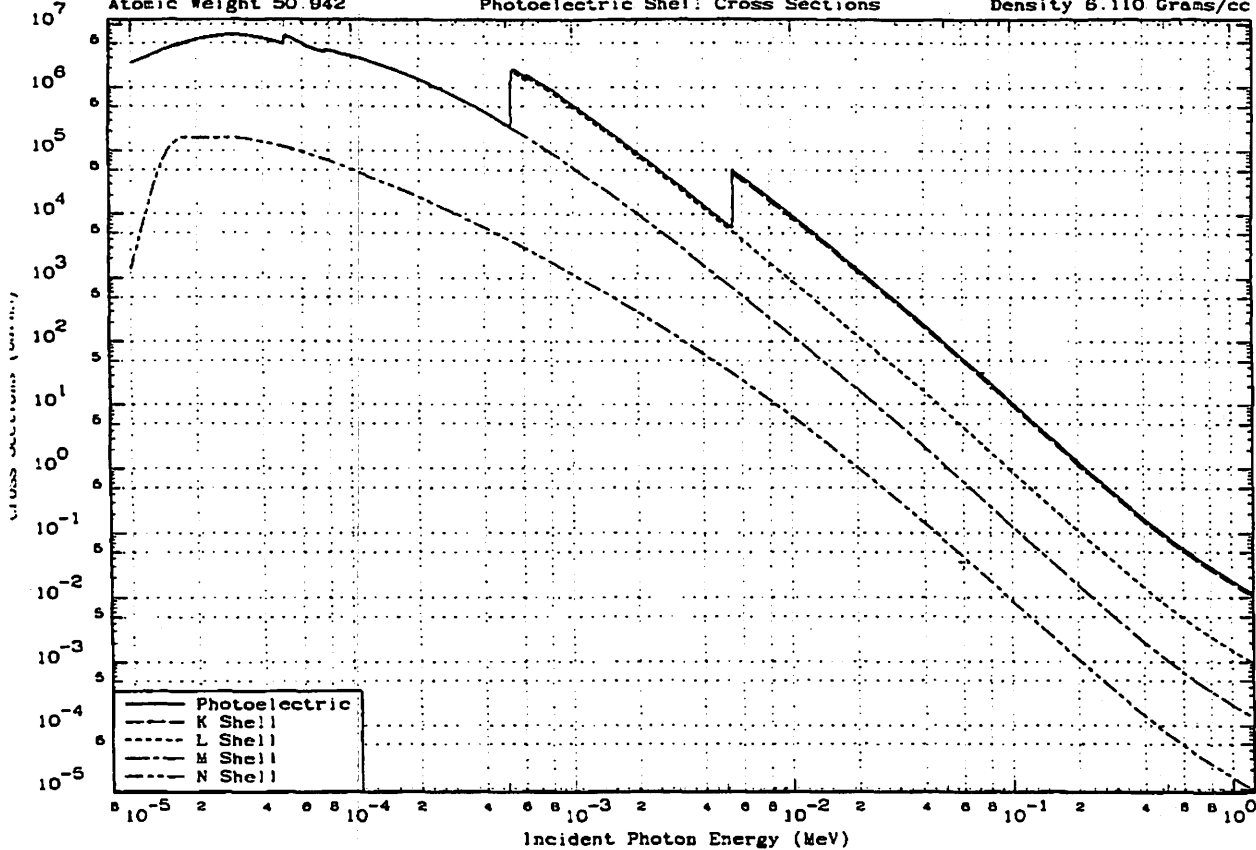
23-V
Density 6.110 Grams/cc



October 31, 1989
Atomic Weight 50.942

ENDL Evaluated
Photoelectric Shell Cross Sections

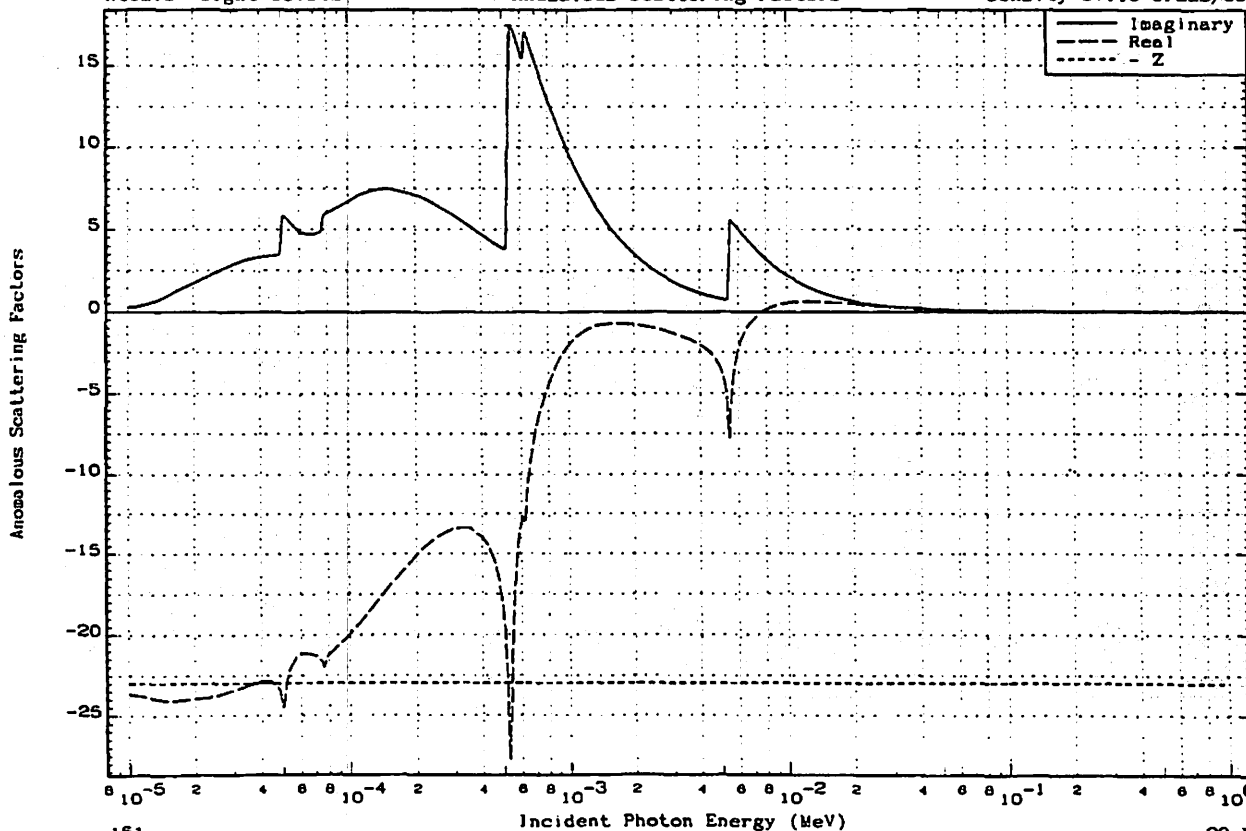
23-V
Density 6.110 Grams/cc



October 31, 1989
Atomic Weight 50.942

ENDL Evaluated
Anomalous Scattering Factors

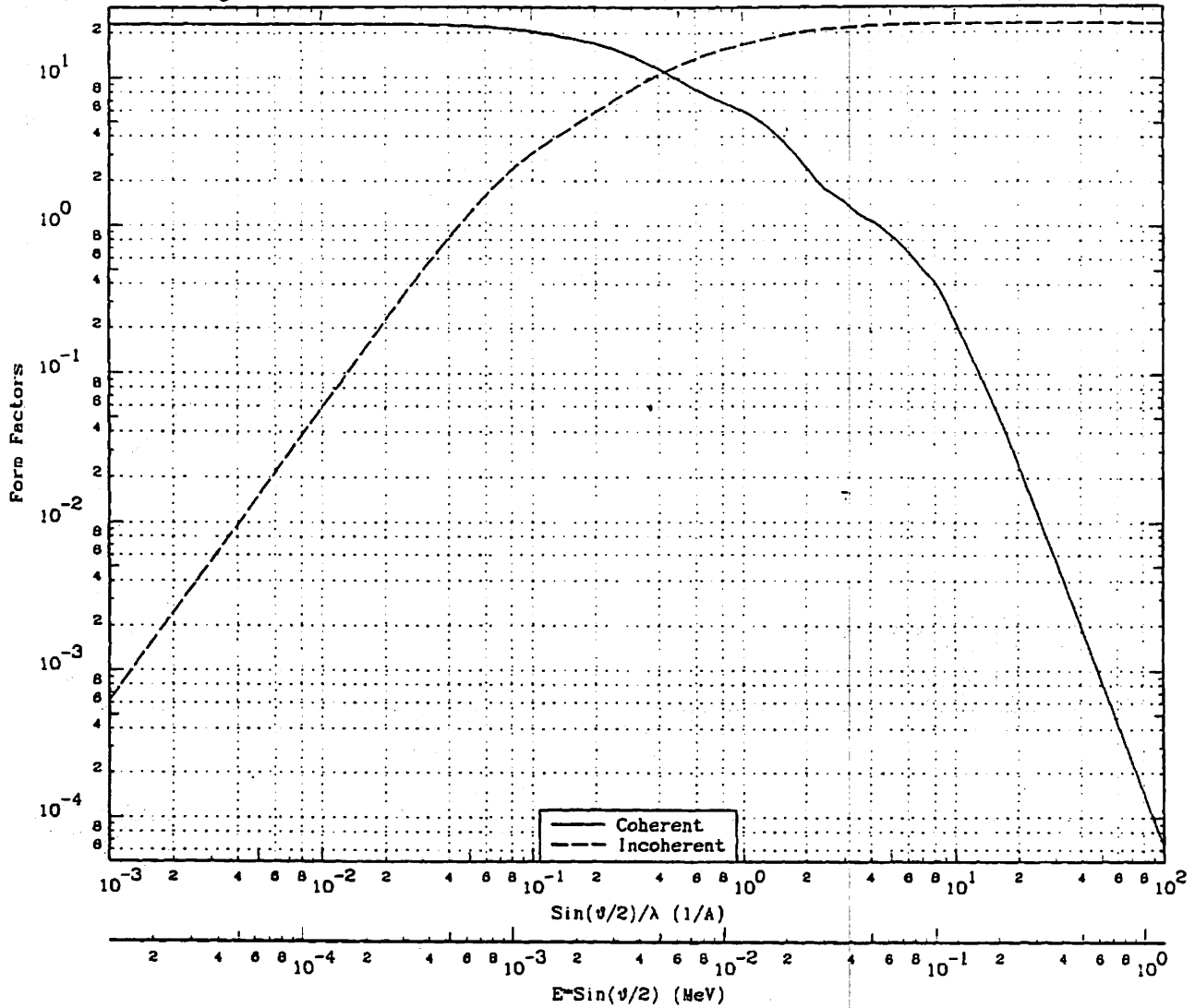
23-V
Density 6.110 Grams/cc



151

Incident Photon Energy (MeV)

23-V



$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	2.3000+1	0.0000+0	6.0000-1	7.4391-3	8.3415+0	1.3514+1	1.8770+1	2.3272-1	3.1162-2	2.3000+1
1.0000-3	1.2399-5	2.3000+1	6.2388-4	7.0000-1	8.8780-3	7.4787+0	1.4574+1	2.0000+1	2.4787-1	2.4962-2	2.3000+1
5.0000-3	6.1953-5	2.2985+1	1.5000-2	8.0000-1	9.9188-3	6.8883+0	1.5413+1	2.8371+1	3.5176-1	7.1139-3	2.3000+1
1.0000-2	1.2399-4	2.2959+1	5.9000-2	9.0000-1	1.1159-2	6.3834+0	1.6111+1	5.0000+1	6.1993-1	6.6585-4	2.3000+1
1.5000-2	1.8598-4	2.2922+1	1.3070-1	1.0000+0	1.2399-2	5.9480+0	1.6721+1	8.0000+1	9.9188-1	1.4863-4	2.3000+1
2.0000-2	2.4797-4	2.2882+1	2.2870-1	1.2500+0	1.5498-2	4.9020+0	1.8010+1	1.0000+2	1.2399+0	6.4808-5	2.3000+1
2.5000-2	3.0996-4	2.2788+1	3.5060-1	1.5000+0	1.8598-2	3.9181+0	1.9032+1	1.7117+2	2.1223+0	9.1924-6	2.3000+1
3.0000-2	3.7196-4	2.2695+1	4.8320-1	1.8770+0	2.3272-2	2.7849+0	2.0118+1	3.2012+2	3.9690+0	1.0232-6	2.3000+1
4.0000-2	4.9584-4	2.2473+1	8.2780-1	2.0000+0	2.4797-2	2.4755+0	2.0379+1	6.3400+2	7.8607+0	1.0116-7	2.3000+1
5.0000-2	6.1993-4	2.2208+1	1.2060+0	2.3813+0	2.9525-2	1.8447+0	2.0975+1	1.0000+3	1.2399-1	2.2492-8	2.3000+1
6.4375-2	7.9815-4	2.1750+1	1.7758+0	2.5000+0	3.0996-2	1.7340+0	2.1116+1	2.0441+3	2.5344+1	2.2395-9	2.3000+1
7.0000-2	8.6790-4	2.1557+1	1.8964+0	3.0000+0	3.7196-2	1.4891+0	2.1569+1	4.2150+3	5.2260+1	2.2937-10	2.3000+1
9.0000-2	1.1159-3	2.0833+1	2.7329+0	3.5000+0	4.3395-2	1.2042+0	2.1896+1	7.2968+3	9.0470+1	4.2113-11	2.3000+1
1.0000-1	1.2399-3	2.0480+1	3.0670+0	4.0000+0	4.9594-2	1.0879+0	2.2152+1	1.1714+4	1.4524+2	9.6573-12	2.3000+1
1.2500-1	1.5498-3	1.9535+1	3.8196+0	4.5683+0	5.6853-2	9.5449-1	2.2379+1	2.3660+4	2.9335+2	1.2038-12	2.3000+1
1.5000-1	1.8598-3	1.8639+1	4.5100+0	5.0000+0	6.1993-2	8.5540-1	2.2515+1	6.0328+4	7.4798+2	7.5377-14	2.3000+1
1.7500-1	2.1697-3	1.7798+1	5.1849+0	6.0000+0	7.4391-2	6.6180-1	2.2732+1	1.0000+6	1.2399+4	2.0962-17	2.3000+1
2.0000-1	2.4797-3	1.6993+1	5.8580+0	7.0000+0	8.6790-2	5.0510-1	2.2853+1	5.6234+6	6.9722+4	1.3130-19	2.3000+1
2.5000-1	3.0996-3	1.5447+1	7.1873+0	8.0000+0	9.9188-2	4.0990-1	2.2919+1	7.4989+7	9.2975+5	5.9519-23	2.3000+1
3.0000-1	3.7196-3	1.4001+1	8.3750+0	8.5580+0	1.0811-1	3.5023-1	2.2939+1	1.0000+9	1.2399-7	2.5492-28	2.3000+1
4.0000-1	4.9584-3	1.1503+1	1.0454+1	1.0000+1	1.2399-1	2.1950-1	2.2974+1				
5.0000-1	6.1993-3	9.6340+0	1.2156+1	1.5000+1	1.8598-1	6.5692-2	2.2998+1				

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /cm ³ /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	5.6133-6	2.9157+4	2.4664+6	3.1073-1	1.3500-4	2.4664-6			1.7815+0	1.7815+0	
1.1067-5	4.9036-6	3.3377+4	2.8234+6	4.2520-1	1.6508-4	2.8234+6			2.2569+0	2.2569+0	
1.2518-5	4.1453-6	3.9483+4	3.3399+6	6.6514-1	2.1080-4	3.3399+6			3.0198+0	3.0198+0	
1.4383-5	3.4041-6	4.8078+4	4.0671+6	1.1459+0	2.7770-4	4.0670+6			4.2252+0	4.2252+0	
1.6487-5	2.6829-6	5.8772+4	4.8024+6	1.7148+0	3.8411-4	4.8024+6			5.7190+0	5.7190+0	
1.8612-5	2.5389-6	6.4464+4	5.4531+6	2.2033+0	4.6315-4	5.4531+6			7.3308+0	7.3308+0	
2.3084-5	2.1823-6	7.5689+4	6.4028+6	3.4093+0	7.1008-4	6.4026+6			1.0678+1	1.0678+1	
2.6829-5	2.0440-6	8.0072+4	6.7734+6	4.5320+0	9.5887-4	6.7734+6			1.3125+1	1.3125+1	
3.0000-5	2.0087-6	8.1559+4	6.8992+6	5.5024+0	1.1944-3	6.8992+6			1.4950+1	1.4950+1	
3.3646-5	2.0378-6	8.0316+4	6.7941+6	6.4381+0	1.4988-3	6.7941+6			1.6511+1	1.6511+1	
3.8349-5	2.1858-6	7.4878+4	6.3341+6	7.1263+0	1.9409-3	6.3340+6			1.7545+1	1.7545+1	
4.8148-5	2.6758-6	6.1166+4	5.1741+6	7.8935+0	3.0426-3	5.1741+6			1.7994+1	1.7994+1	
4.8928-5	2.7152-6	6.0279+4	5.0991+6	8.3806+0	3.1407-3	5.0991+6			1.8020+1	1.8020+1	
4.8222-6	2.7300-6	5.9951+4	5.0714+6	8.3008+0	3.1781-3	5.0714+6			1.8030+1	1.8030+1	
4.9467-5	2.7423-6	5.9681+4	5.0485+6	1.0874+1	3.2095-3	5.0485+6			1.8038+1	1.8038+1	
4.8790-5	2.7588-6	5.9329+4	5.0187+6	1.3798-1	3.2510-3	5.0187+6			1.8049+1	1.8049+1	
M3 4.8790-5	2.1848-6	7.4910+4	8.3367+6	1.3798-1	3.2510-3	8.3367+6			2.2789+1	2.2789+1	1.1427-4
5.0148-5	2.2071-6	7.4153+4	8.2727+6	1.7464+1	3.2974-3	8.2727+6			2.2721+1	2.2721+1	1.1152-4
5.0543-5	2.2318-6	7.3335+4	8.2035+6	2.0417+1	3.3488-3	8.2035+6			2.2847+1	2.2847+1	1.0860-4
5.0650-5	2.2385-6	7.3115+4	8.1849+6	2.0934+1	3.3829-3	8.1849+6			2.2827+1	2.2827+1	1.0783-4
M2 5.0650-5	2.0378-6	8.0757+4	8.8313+6	2.0934+1	3.3829-3	8.8313+6			2.4992+1	2.4992+1	1.8321-4
5.0870-5	2.0403-6	8.0218+4	8.7858+6	2.2038+1	3.3918-3	8.7858+6			2.4833+1	2.4833+1	1.6094-4
5.1275-5	2.0654-6	7.9243+4	8.7033+6	2.2889+1	3.4453-3	8.7032+6			2.4828+1	2.4828+1	1.5885-4
5.1727-5	2.0945-6	7.8142+4	8.6101+6	2.2830+1	3.5056-3	8.6101+6			2.4697+1	2.4697+1	1.5230-4
6.0722-5	2.8262-6	5.7911+4	4.8988+6	1.7981+1	4.8119-3	4.8988+6			2.1466+1	2.1466+1	7.8057-5
6.4807-5	3.1238-6	5.2393+4	4.4320+6	1.7026+1	5.4725-3	4.4320+6			2.0746+1	2.0746+1	6.8175-5
7.0870-5	3.4656-6	4.7226+4	3.9949+6	1.6668+1	6.4936-3	3.9949+6			2.0392+1	2.0392+1	6.7288-5
7.5027-6	3.7004-6	4.4229+4	3.7414+6	1.6718+1	7.3083-3	3.7414+6			2.0275+1	2.0275+1	7.1647-5
7.5660-5	3.7346-6	4.3824+4	3.7071+6	1.7147+1	7.4306-3	3.7071+6			2.0259+1	2.0259+1	7.2170-5
7.8420-5	3.7751-6	4.3354+4	3.6874+6	1.8834+1	7.5788-3	3.6873+6			2.0243+1	2.0243+1	7.2836-5
M1 7.8420-5	3.3856-6	4.8199+4	4.0772+6	1.8834+1	7.5788-3	4.0772+6			2.2505+1	2.2505+1	1.0675-4
7.7054-5	3.4217-6	4.7832+4	4.0461+6	2.2409+1	7.7035-3	4.0461+6			2.2519+1	2.2519+1	1.1032-4
7.7851-5	3.4483-6	4.7491+4	4.0173+6	2.3981+1	7.8218-3	4.0173+6			2.2532+1	2.2532+1	1.1085-4
8.0000-5	3.5428-6	4.6196+4	3.8078+6	2.5893+1	8.2982-3	3.8078+6			2.2581+1	2.2580+1	1.1293-4
1.0000-4	4.3503-6	3.7822+4	3.1825+6	3.8290+1	3.1822-2	3.1824+6			2.2988+1	2.2988+1	1.2950-4
1.1143-4	4.8385-6	3.3840+4	2.8625+6	4.2908+1	1.5944-2	2.8625+6			2.3039+1	2.3039+1	1.3291-4
1.3554-4	5.9720-6	2.7405+4	2.3183+6	5.4451+1	2.3417-2	2.3182+6			2.2695+1	2.2695+1	1.2830-4
1.5000-4	6.7369-6	2.4294+4	2.0551+6	6.0812+1	2.8572-2	2.0550+6			2.2285+1	2.2285+1	1.1981-4
2.0000-4	1.0033-5	1.8313+4	1.3799+6	7.4774+1	5.0252-2	1.3799+6			1.8933+1	1.8933+1	9.1667-5
2.1167-4	1.0981-5	1.4905+4	1.2608+6	7.7777+1	5.6170-2	1.2608+6			1.8278+1	1.8278+1	8.5270-5
2.4586-4	1.3940-5	1.1741+4	9.8319+5	8.2048+1	7.5358-2	9.8311+5			1.7638+1	1.7638+1	7.0395-5
3.0000-4	1.9514-6	8.3872+3	7.0949+5	8.3433+1	1.1077-1	7.0940+5			1.5372+1	1.5372+1	5.2483-5
3.5221-4	2.8324-5	6.2173+3	5.2593+5	7.8211+1	1.5034-1	5.2595+5			1.3378+1	1.3378+1	3.9903-5
4.0058-4	3.3477-5	4.8890+3	4.1356+5	6.7836+1	1.9207-1	4.1350+5			1.1964+1	1.1964+1	3.2019-5
4.2742-4	3.8209-5	4.2835+3	3.6235+5	5.8596+1	2.1731-1	3.6229+5			1.1185+1	1.1185+1	2.8246-5
4.5478-4	4.3359-5	3.7747+3	3.1930+5	4.7425+1	2.4317-1	3.1926+5			1.0487+1	1.0487+1	2.5054-5
4.7885-4	4.8187-5	3.3979+3	2.8743+5	3.3933+1	2.6899-1	2.8740+5			9.8404+0	9.8404+0	2.2877-5
4.9265-4	5.1039-5	3.2067+3	2.7126+5	2.4506+1	2.8110-1	2.7123+5			9.6516+0	9.6515+0	2.1465-5
5.0561-4	5.3814-5	3.0413+3	2.5727+5	1.4665+1	2.9464-1	2.5725+5			9.3949+0	9.3949+0	2.0415-5
5.1199-4	5.5210-5	2.9645+3	2.5077+5	1.0478+1	3.0142-1	2.5078+5			9.2733+0	9.2732+0	1.9925-5
5.1481-4	5.5830-5	2.8315+3	2.4788+5	9.9882+0	3.0443-1	2.4787+5			9.2206+0	9.2206+0	1.9715-5
5.1659-4	5.6223-5	2.8110+3	2.4625+5	1.1108+1	3.0633-1	2.4623+5			9.1877+0	9.1877+0	1.9584-5
5.1801-4	5.6538-5	2.8948+3	2.4487+5	1.3843+1	3.0786-1	2.4485+5			9.1815+0	9.1815+0	1.9481-5
5.1941-4	5.6849-5	2.8789+3	2.4353+5	1.8230+1	3.0937-1	2.4351+5			9.1359+0	9.1358+0	1.9379-5
5.2263-4	5.7566-5	2.8431+3	2.4050+5	3.8490+1	3.1288-1	2.4048+5			9.0773+0	9.0773+0	1.9149-5
5.2454-4	5.7991-5	2.8223+3	2.3874+5	5.5158+1	3.1493-1	2.3888+5			9.0431+0	9.0431+0	1.8914-5
L3 5.2454-4	1.1588-5	1.4123+4	1.1947+6	5.5158+1	3.1493-1	1.1948+6			4.5281+1	4.5215+1	4.6338-2
5.2558-4	1.1400-5	1.4357+4	1.2145+6	6.8855+1	3.1804-1	1.2144+6			4.6100+1	4.6053+1	4.7325-2
5.2758-4	1.1035-5	1.4831+4	1.2546+6	9.0436+1	3.1828-1	1.2545+6			4.7807+1	4.7757+1	4.9339-2
5.2972-4	1.0865-5	1.5348+4	1.2881+6	1.1453+2	3.2060-1	1.2890+6			4.9685+1	4.9613+1	5.1544-2
5.3188-4	1.0308-5	1.5881+4	1.3434+6	1.3589+2	3.2296-1	1.3433+6			5.1605+1	5.1551+1	5.3860-2
L2 5.3188-4	7.8869-6	2.0805+4	1.7599+6	1.3589+2	3.2296-1	1.7597+6			6.7605+1	6.7528+1	7.7154-2
5.3258-4	7.7598-6	2.1091+4	1.7842+6	1.4339+2	3.2374-1	1.7840+6			6.8628+1	6.8549+1	7.6430-2
5.3885-4	7.3291-6	2.2331+4	1.8990+6	1.7888+2	3.2846-1	1.8988+6			7.3242+1	7.3158+1	8.4158-2
5.4252-4	7.0965-6	2.3063+4	1.9509+6	1.9830+2	3.3477-1	1.9507+6			7.8442+1	7.8354+1	8.7953-2
5.4457-4	7.0486-6	2.3220+4	1.9642+6	2.0504+2	3.3706-1	1.9640+6			7.7250+1	7.7182+1	8.6818-2
5.5796-4	7.3030-6	2.2411+4	1.8958+6	2.1778+2	3.5223-1	1.8956+6			7.8393+1	7.8307+1	8.5955-2
5.8728-4	8.2318-6	1.8882+4	1.6818+6	2.2873+2	3.8581-1	1.6818+6			7.1330+1	7.1254+1	7.8152-2
6.0348-4	8.8049-6	1.8588+4	1.5724+6	2.2895+2	4.0397-1	1.5722+6			6.8528+1	6.8455+1	7.1117-2
6.1888-4	9.3847-6	1.7477+4	1.4784+6	2.2420+2	4.2135-1	1.4782+6			6.6055+1	6.5988+1	6.8788-2
6.2378-4	9.5572-6	1.7125+4	1.4488+6	2.3803+2	4.2728-1	1.4484+6			6.5259+1	6.5183+1	6.5430-2
L1 6.2378-4	8.4871-6	1.9330+4	1.6351+6	2.3803+2	4.2728-1	1.6348+6			7.3882+1	7.3585+1	7.6227-2
6.2875-4	8.8238-6	1.8978+4	1.6054+6	2.5955+2	4.3301-1	1.6052+6			7.2897+1	7.2822+1	7.4841-2
6.3358-4	8.7778-6	1.8648+4	1.5773+6	2.7512+2	4.3963-1	1.5770+6			7.2166+1	7.2093+1	7.3529-2
6.4057-4	8.9998-6	1.8186+4	1.5383+6	2.8497+2	4.4688-1	1.5381+6			7.1183+1	7.1092+1	7.1721-2
7.0000-4	1.0960-5	1.4908+4	1.2609+6	3.0978+2	5.1921-1	1.2606+6			6.3738+1	6.3679+1	5.8860-2
8.0000-4	1.4872-5	1.1005+4	9.3094+5	3.2588+2	6.4815-1	9.3081+5			5.3774+1	5.3731+1	4.3572-2
1.0000-3	2.5329-5	6.4816+3	5.4859+5	3.2843+2	9.6977-1	5.4862+5			3.9458+1	3.9431+1	2.5627-2
1.3383-3	5.2439-5	3.1211+3	2.8402+5	3.0903+2	1.3272+0	2.8371+5			2.5482+1	2.5480+1	1.2425-2
1.9012-3	1.3022-4	1.2589+3	1.0632+5	2.8783+2	1.9599+0	1.0605+5			1.4563+1	1.4558+1	5.0186-3
2.7105-3	3.3451-4	4.8927+2	4.1388+4	2.1809+2	2.7887+0	4.1189+4			8.0801+0	8.0582+0	1.9599-3
3.4641-3	6.5122-4	2.5132+2	2.1260+4	1.7597+2	3.4748+0	2.1080+4			5.2745+0	5.2735+0	1.0080-3
4.0330-3	9.8190-4	1.8668+2	1.4100+4	1.4900+2	3.9618+0	1.3974+4			4.0628+0	4.0622+0	6.6916-4
4.5728-3	1.3930-3	1.1749+2	9.9389+3	1.2294+2	4.4017+0	9.8118+3			3.2407+0	3.2402+0	4.7209-4
4.7002-3	1.5039-3	1.0883+2	9.2058+3	1.1839+2	4.5043+0	9.0850+3			3.0843+0	3.0839+0	

October 31, 1989
Atomic Weight 50.942

ENDL Evaluated
Photon Data

23-V
Density 6.110 Grams/cc

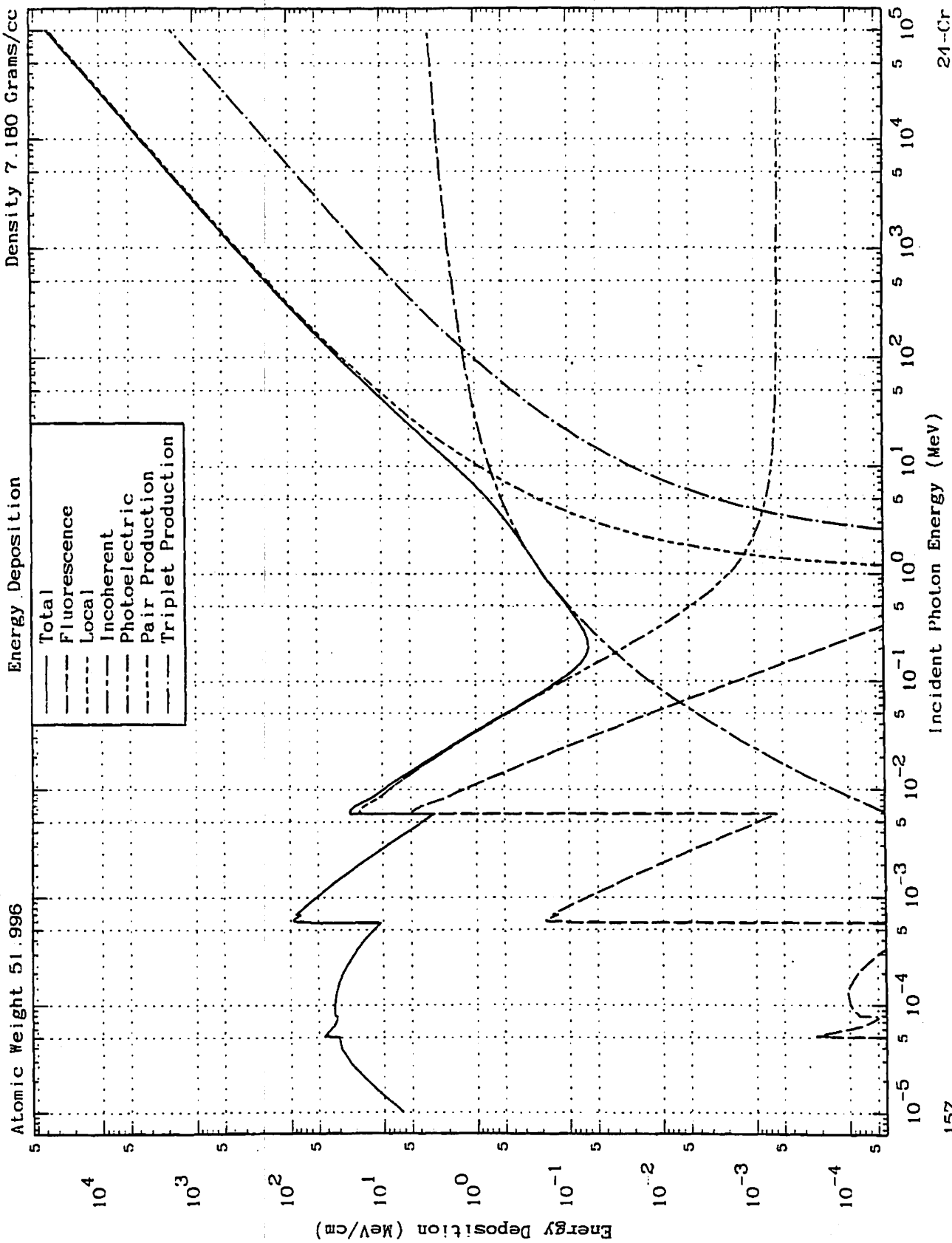
Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cc/cm/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
5.0916-3	1.8803-3	8.7044+1	7.3632-3	9.1538+1	4.8165+0	7.2668-3			2.6725+0	2.6721+0	3.5050-4
5.2338-3	2.0312-3	8.0578+1	6.8162-3	7.7802+1	4.9256+0	6.7335-3			2.5455+0	2.5452+0	3.2498-4
5.2858-3	2.0688-3	7.8355+1	6.6281+3	7.0709+1	4.9609+0	6.5525-3			2.5016+0	2.5013+0	3.1631-4
5.3306-3	2.1408-3	7.8458+1	6.4677+3	6.2148+1	4.9915+0	6.4005-3			2.4644+0	2.4641+0	3.0904-4
5.3718-3	2.1899-3	7.4738+1	6.3222+3	5.1500+1	5.0195+0	6.2658-3			2.4311+0	2.4308+0	3.0258-4
5.4055-3	2.2303-3	7.3384+1	6.2076+3	4.4251+1	5.0422+0	6.1584-3			2.4045+0	2.4042+0	2.9744-4
5.4172-3	2.2439-3	7.2938+1	6.1700+3	4.3357+1	5.0502+0	6.1215-3			2.3953+0	2.3950+0	2.9568-4
5.4398-3	2.2688-3	7.2144+1	6.1027+3	4.5552+1	5.0653+0	6.0521-3			2.3779+0	2.3776+0	2.9235-4
K 5.4398-3	2.7834-4	5.9227+2	5.0101+4	4.5552+1	5.0653+0	5.0050+4			1.9885+1	1.5757+1	3.9078-0
5.4575-3	2.7850-4	5.8750+2	4.9698+4	5.0248+1	5.0774+0	4.9842+4			1.9569+1	1.5693+1	3.8762+0
5.5009-3	2.8400-4	5.7829+2	4.8749+4	4.7688+1	5.1066+0	4.8676+4			1.9340+1	1.5538+1	3.8019+0
5.5383-3	2.8974-4	5.6883+2	4.7949+4	4.8097+1	5.1318+0	4.7952+4			1.9145+1	1.5405+1	3.7393+0
5.5812-3	2.9188-4	5.8112+2	4.7488+4	4.6030+1	5.1471+0	4.7375+4			1.9027+1	1.5325+1	3.7018+0
5.6055-3	2.9744-4	5.5025+2	4.6547+4	4.9258+1	5.1768+0	4.6448+4			1.8903+1	1.5173+1	3.6305+0
5.8888-3	3.0844-4	5.3082+2	4.4888+4	1.0072+1	5.2324+0	4.4780+4			1.8396+1	1.4894+1	3.5020+0
5.8888-3	3.3594-4	4.8718+2	4.1211+4	1.1168+1	5.3852+0	4.1094+4			1.7476+1	1.4258+1	3.2180+0
6.1273-3	3.7071-4	4.4149+2	3.7347+4	1.1810+1	5.5219+0	3.7223+4			1.6470+1	1.3551+1	2.9188+0
6.5712-3	4.5783-4	3.5740+2	3.0233+4	1.2127+1	5.8732+0	3.0106+4			1.4504+1	1.2133+1	2.3711+0
7.3485-3	5.9108-4	2.7890+2	2.3424+4	1.1794+1	6.2853+0	2.3299+4			1.2360+1	1.0521+1	1.8392+0
9.2884-3	1.1080-3	1.4798+2	1.2518+4	9.8401+1	7.2344+0	1.2313+4			8.3244+0	7.3406+0	9.8382-1
1.0000-2	1.3489-3	1.2133+2	1.0284+4	9.1850+1	7.5314+0	1.0165+4			7.3419+0	6.5348+0	6.0717-1
1.3443-2	3.0407-3	5.3825+1	4.5531+3	6.6859+1	8.8168+0	4.4778+3			4.3439+0	3.9869+0	3.5700-1
1.6321-2	7.2223-3	2.2681+1	1.9169+3	4.4873+1	9.6222+0	1.8625+3			2.4647+0	2.3157+0	1.4901-1
2.5872-2	1.8907-2	8.8565+0	7.3228+2	2.6941+1	1.0481+1	6.9484+2			1.2893+0	1.2336+0	5.5872-2
3.6933-2	5.3129-2	3.0805+0	6.0589-2	1.4833+1	1.1105+1	2.3465+2			6.2780-1	6.0898-1	1.8822-2
5.1447-2	1.3107-1	1.2487+0	1.0563-2	8.4758+0	1.1284+1	8.5897+1			3.2282-1	3.1592-1	6.8975-3
6.7727-2	2.5903-1	6.3184+0	5.3448-1	5.2589+0	1.1101+1	3.6999+1			1.8689-1	1.8392-1	2.9727-3
8.4985-2	4.2225-1	3.8781+0	3.2788-1	3.4958+0	1.0991+1	1.8302+1			1.2098-1	1.1949-1	1.4599-3
1.0000-1	5.8778-1	2.8827-1	2.4385+1	2.5943+0	1.0745+1	1.1046+1			9.0888-2	9.0001-2	8.8729-4
1.2737-1	7.8051-1	2.0989-1	1.7738-1	1.7410+0	1.0292+1	5.7033+0			6.6080-2	6.5622-2	4.5834-4
1.4484-1	9.3807-1	1.7447-1	1.4759-1	1.2802+0	9.9891+0	3.4995+0			5.5555-2	5.5274-2	2.8113-4
1.6748-1	1.0764+0	1.5163-1	1.2827-1	9.7694-1	9.6086+0	2.2414+0			5.0145-2	4.9985-2	1.8014-4
1.8950-1	1.1941+0	1.3707-1	1.1595-1	7.7033-1	9.2873+0	1.5370+0			4.8089-2	4.7865-2	1.2358-4
2.2134-1	1.3301+0	1.2305-1	1.0409-1	5.7038-1	8.8814+0	9.5734-1			4.8289-2	4.8212-2	7.8935-5
2.8787-1	1.4938+0	1.0958-1	9.2694+0	3.9388-1	8.3391+0	5.3845-1			5.1890-2	5.1647-2	4.3078-5
3.7053-1	1.7851+0	9.2722-2	7.8435+0	2.0793-1	7.4257+0	2.0990-1			6.8235-2	6.8218-2	1.6880-5
4.4210-1	1.9183+0	8.5317-2	7.2171+0	1.4668-1	6.8417+0	1.2877-1			7.6137-2	7.6117-2	1.0353-5
5.5041-1	2.1284+0	7.8897-2	6.5048+0	9.4969-2	6.3379+0	7.1954-2			9.2355-2	9.2350-2	5.7777-6
7.4448-1	2.4508+0	8.8788-2	5.6485+0	5.2070-2	5.8427+0	3.4749-2			1.2117-1	1.2117-1	2.7913-6
1.0000+0	2.8285+0	5.7884-2	4.8848+0	2.8910-2	4.8478+0	1.8304-2			1.5585-1	1.5585-1	1.4709-8
1.0220+0	2.8595+0	5.7236-2	4.8418+0	2.7882-2	4.7968+0	1.7360-2			1.5843-1	1.5843-1	1.3951-6
1.0251+0	2.8842+0	5.7143-2	4.8338+0	2.7514-2	4.7890+0	1.7250-2	2.2788-8		1.5878-1	1.5878-1	1.3882-6
1.0287+0	2.8898+0	5.7035-2	4.8247+0	2.7321-2	4.7802+0	1.7122-2	2.2788-7		1.5920-1	1.5920-1	1.3780-6
1.0332+0	2.8762+0	5.6904-2	4.8138+0	2.7086-2	4.7895+0	1.6968-2	1.0277-6		1.5972-1	1.5971-1	1.3636-6
1.0340+0	2.8774+0	5.6890-2	4.8118+0	2.7044-2	4.7878+0	1.6941-2	1.2618-8		1.5981-1	1.5981-1	1.3614-6
1.0353+0	2.8763+0	5.6842-2	4.8084+0	2.6977-2	4.7845+0	1.6896-2	1.7125-8		1.5996-1	1.5996-1	1.3578-6
1.0388+0	2.8813+0	5.6803-2	4.8050+0	2.6907-2	4.7813+0	1.6851-2	2.2788-8		1.6011-1	1.6011-1	1.3541-6
1.0382+0	2.8836+0	5.6757-2	4.8012+0	2.6827-2	4.7757+0	1.6798-2	3.0728-6		1.6029-1	1.6029-1	1.3499-6
1.0397+0	2.8858+0	5.6714-2	4.7975+0	2.6749-2	4.7740+0	1.6747-2	3.9920-6		1.6046-1	1.6046-1	1.3458-6
1.0415+0	2.8885+0	5.6681-2	4.7931+0	2.6687-2	4.7477+0	1.6687-2	5.3113-8		1.6067-1	1.6067-1	1.3410-6
1.0438+0	2.8919+0	5.6655-2	4.7874+0	2.6640-2	4.7443+0	1.6610-2	7.3722-8		1.6093-1	1.6093-1	1.3348-6
1.0464+0	2.8957+0	5.6620-2	4.7811+0	2.6409-2	4.7382+0	1.6523-2	1.0257-5		1.6123-1	1.6123-1	1.3278-6
1.0483+0	2.8985+0	5.6485-2	4.7765+0	2.6313-2	4.7337+0	1.6461-2	1.2770-5		1.6145-1	1.6144-1	1.3228-6
1.0512+0	2.9028+0	5.6382-2	4.7694+0	2.6188-2	4.7289+0	1.6398-2	1.7323-5		1.6178-1	1.6178-1	1.3152-6
1.0541+0	2.9070+0	5.6300-2	4.7625+0	2.6028-2	4.7202+0	1.6272-2	2.2768-5		1.6211-1	1.6211-1	1.3077-6
1.0577+0	2.9123+0	5.6197-2	4.7538+0	2.5849-2	4.7118+0	1.6158-2	3.1034-5		1.6252-1	1.6252-1	1.2993-6
1.0611+0	2.9173+0	5.6102-2	4.7457+0	2.5684-2	4.7039+0	1.6048-2	4.0368-5		1.6291-1	1.6291-1	1.2909-6
1.0651+0	2.9232+0	5.5989-2	4.7382+0	2.5491-2	4.6947+0	1.5922-2	5.3443-5		1.6337-1	1.6337-1	1.2795-6
1.0704+0	2.9309+0	5.5842-2	4.7307+0	2.5240-2	4.6828+0	1.5757-2	7.4558-5		1.6397-1	1.6397-1	1.2683-6
1.0782+0	2.9393+0	5.5682-2	4.7102+0	2.4970-2	4.6695+0	1.5580-2	1.0304-4		1.6463-1	1.6463-1	1.2520-6
1.0808+0	2.9457+0	5.5581-2	4.7000+0	2.4787-2	4.6598+0	1.5448-2	1.2888-4		1.6513-1	1.6513-1	1.2414-6
1.0871+0	2.9531+0	5.5384-2	4.6950+0	2.4472-2	4.6451+0	1.5255-2	1.7337-4		1.6597-1	1.6597-1	1.2259-6
1.0937+0	2.9648+0	5.5207-2	4.6700+0	2.4178-2	4.6305+0	1.5063-2	2.2768-4		1.6682-1	1.6682-1	1.2104-6
1.1026+0	2.9774+0	5.4970-2	4.6500+0	2.3791-2	4.6111+0	1.4809-2	3.1589-4		1.6763-1	1.6763-1	1.1901-6
1.1107+0	2.9889+0	5.4758-2	4.6320+0	2.3448-2	4.5936+0	1.4584-2	4.1173-4		1.6854-1	1.6854-1	1.1720-6
1.1208+0	3.0030+0	5.4502-2	4.6104+0	2.3034-2	4.5725+0	1.4318-2	5.5080-4		1.6966-1	1.6966-1	1.1504-6
1.1333+0	3.0209+0	5.4179-2	4.5830+0	2.2522-2	4.5458+0	1.3994-2	7.6589-4		1.7109-1	1.7109-1	1.1245-6
1.1475+0	3.0407+0	5.3825-2	4.5532+0	2.1869-2	4.5184+0	1.3688-2	1.0575-3		1.7270-1	1.7270-1	1.0999-6
1.1582+0	3.0555+0	5.3584-2	4.5311+0	2.1588-2	4.4947+0	1.3482-2	1.3142-3		1.7390-1	1.7390-1	1.0818-6
1.1741+0	3.0774+0	5.3184-2	4.4988+0	2.0987-2	4.4630+0	1.3138-2	1.7584-3		1.7589-1	1.7589-1	1.0558-6
1.1901+0	3.0992+0	5.2808-2	4.4572+0	2.0427-2	4.4317+0	1.2825-2	2.2768-3		1.7749-1	1.7749-1	1.0306-6
1.2051+0	3.1194+0	5.2487-2	4.4383+0	1.9924-2	4.4030+0	1.2542-2	2.8334-3		1.7917-1	1.7918-1	1.0078-6
1.2275+0	3.1493+0	5.1989-2	4.3982+0	1.9205-2	4.3810+0	1.2137-2	3.7915-3		1.8167-1	1.8167-1	9.7533-7
1.2500+0	3.1789+0	5.1488-2	4.3552+0	1.8521-2	4.3200+0	1.1750-2	4.9020-3		1.8418-1	1.8418-1	9.4425-7
1.2803+0	3.2181+0	5.0858-2	4.3022+0	1.7658-2	4.2668+0	1.1257-2	6.6183-3		1.8755-1	1.8755-1	9.0463-7
1.3077+0	3.2529+0	5.0313-2	4.2561+0	1.6925-2	4.2199+0	1.0839-2	8.3788-3		1.9060-1	1.9060-1	8.7099-7
1.3430+0	3.2970+0	4.9641-2	4.1992+0	1.6048-2	4.1819+0	1.0334-2	1.0914-2		1.9452-1	1.9451-1	8.3045-7
1.3822+0	3.3448+0	4.8932-2	4.1392+0	1.5152-2	4.1002+0	9.8154-3	1.4058-2		1.9888-1	1.9888-1	7.8878-7
1.4338+0	3.4080+0	4.8052-2	4.0848+0	1.4083-2	4.0228+0	9.1823-3	1.8673-2		2.0458-1	2.0458-1	7.3870-7
1.5000+0	3.4818+0	4.7006-2	3.9783+0	1.2889-2	3.9296+0	8.4790-3	2.5350-2		2.1193-1	2.1193-1	6.8138-7
1.6172+0	3.6085+0	4.5358-2	3.8387+0	1.1073-2	3.7789+0	7.4767-3	3.9187-2		2.2502-1	2.2502-1	6.0083-7
1.7188+0	3.7109+0	4.4104-2	3.7308+0	9.8037-3	3.6812+0	8					

October 31, 1989
Atomic Weight 50.942

ENDL Evaluated
Photon Data

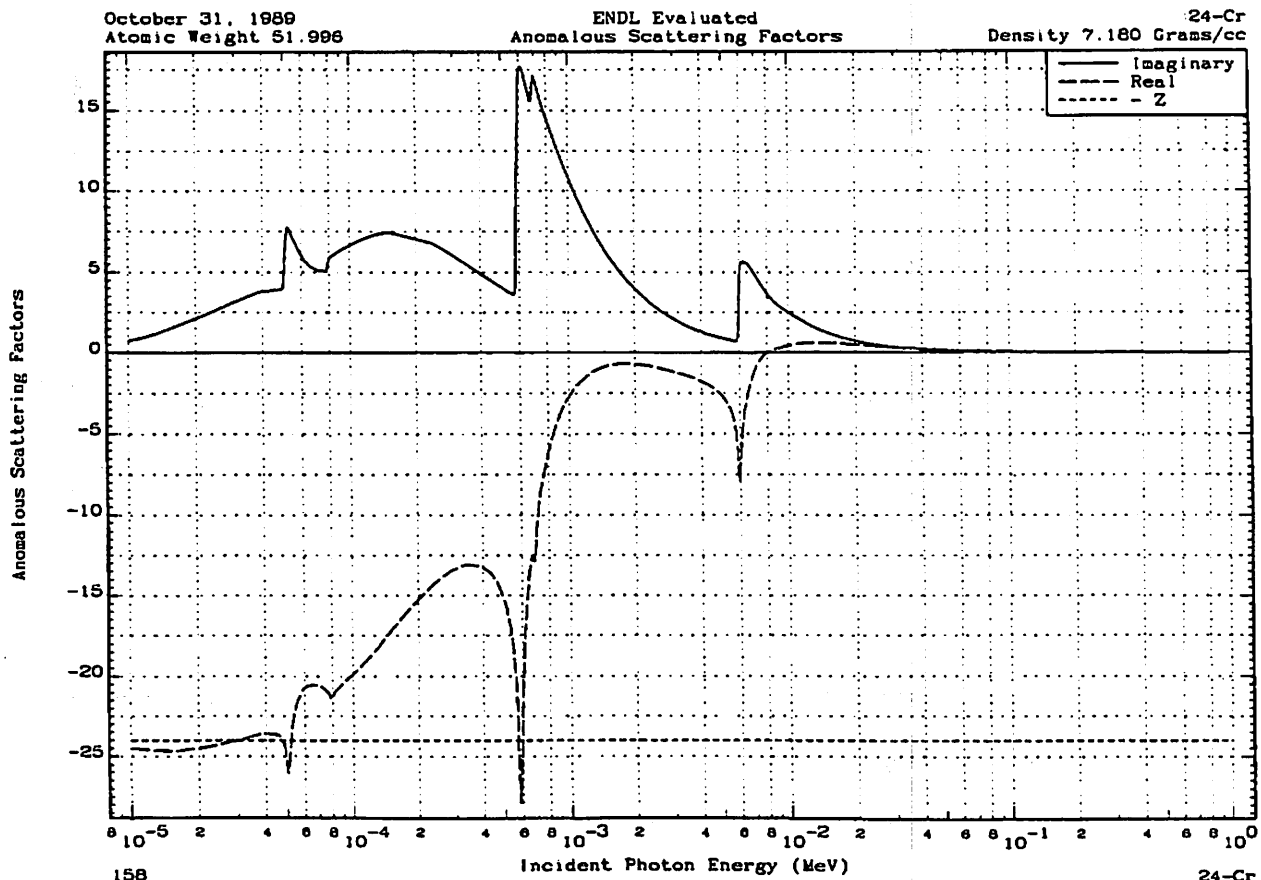
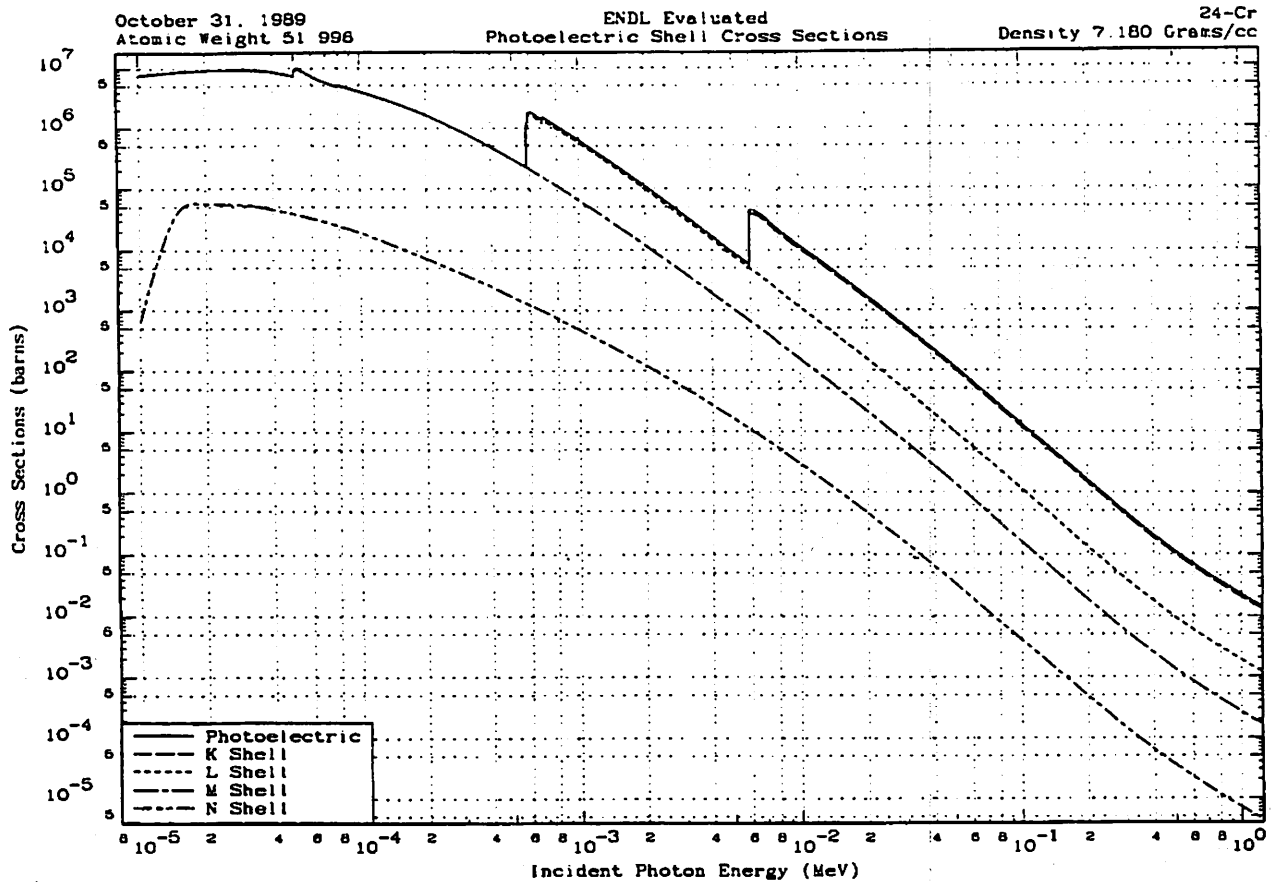
23-V
Density 6.110 Grams/cc

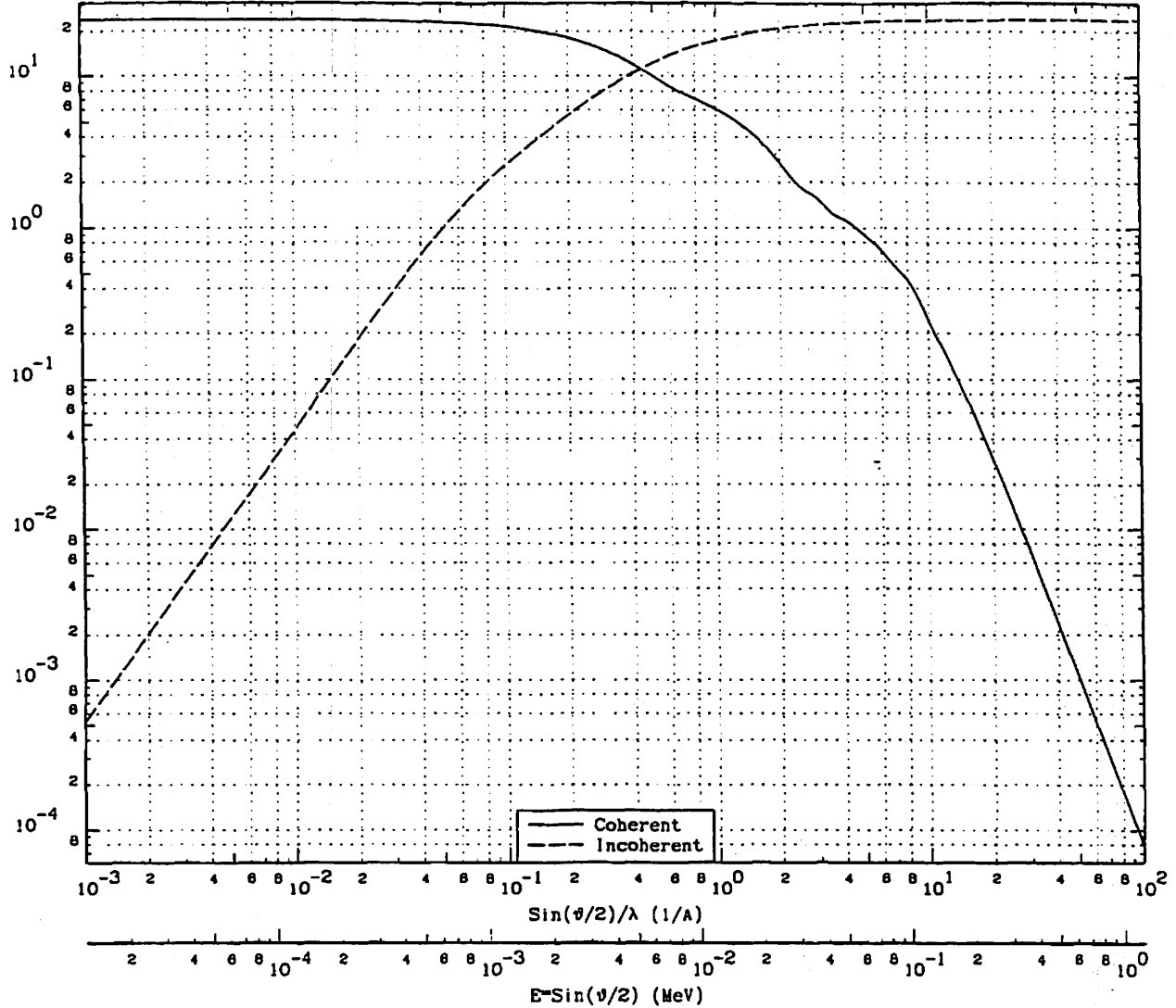
Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cm)		
	cm	cm ² /g/cm	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.1195+ 0	4.0947- 0	3.9971- 2	3.3812+ 0	6.4494- 3	3.2515+ 0	4.7971- 3	1.1846- 1	1.2963- 6	2.7782- 1	2.7782- 1	3.8550- 7
2.1279+ 0	4.1022- 0	3.9897- 2	3.3750+ 0	6.3986- 3	3.2438+ 0	4.7689- 3	1.1895- 1	1.7580- 6	2.7866- 1	2.7866- 1	3.8323- 7
2.1363+ 0	4.1097- 0	3.9825- 2	3.3688+ 0	6.3487- 3	3.2383+ 0	4.7411- 3	1.2145- 1	2.3098- 6	2.7949- 1	2.7949- 1	3.8100- 7
2.1470+ 0	4.1192- 0	3.9733- 2	3.3611+ 0	6.2854- 3	3.2267+ 0	4.7057- 3	1.2340- 1	3.1666- 6	2.8057- 1	2.8057- 1	3.7816- 7
2.1635+ 0	4.1336+ 0	3.9594- 2	3.3493+ 0	6.1899- 3	3.2120+ 0	4.6522- 3	1.2642- 1	4.8153- 6	2.8223- 1	2.8223- 1	3.7398- 7
2.1845+ 0	4.1524+ 0	3.9415- 2	3.3342+ 0	6.0715- 3	3.1936+ 0	4.5856- 3	1.2986- 1	7.6301- 6	2.8431- 1	2.8431- 1	3.6851- 7
2.2018+ 0	4.1676+ 0	3.9271- 2	3.3220+ 0	5.9765- 3	3.1787+ 0	4.5320- 3	1.3274- 1	1.0557- 5	2.8603- 1	2.8602- 1	3.6419- 7
2.2148+ 0	4.1790+ 0	3.9184- 2	3.3130+ 0	5.8968- 3	3.1676+ 0	4.4923- 3	1.3493- 1	1.3153- 5	2.8732- 1	2.8732- 1	3.6101- 7
2.2342+ 0	4.1957+ 0	3.9098- 2	3.2998+ 0	5.8045- 3	3.1513+ 0	4.4342- 3	1.3824- 1	1.7893- 5	2.8928- 1	2.8928- 1	3.5634- 7
2.2537+ 0	4.2123+ 0	3.8955- 2	3.2868+ 0	5.7047- 3	3.1351+ 0	4.3771- 3	1.4161- 1	2.3096- 5	2.9122- 1	2.9122- 1	3.5175- 7
2.2815+ 0	4.2355+ 0	3.8841- 2	3.2687+ 0	5.5664- 3	3.1123+ 0	4.2977- 3	1.4652- 1	3.2350- 5	2.9404- 1	2.9404- 1	3.4537- 7
2.3070+ 0	4.2565+ 0	3.8451- 2	3.2526+ 0	5.4441- 3	3.0918+ 0	4.2270- 3	1.5112- 1	4.2492- 5	2.9684- 1	2.9684- 1	3.3969- 7
2.3382+ 0	4.2815+ 0	3.8226- 2	3.2336+ 0	5.2899- 3	3.0673+ 0	4.1431- 3	1.5686- 1	5.7134- 5	2.9955- 1	2.9955- 1	3.3294- 7
2.3774+ 0	4.3123+ 0	3.7953- 2	3.2105+ 0	5.1266- 3	3.0371+ 0	4.0415- 3	1.6417- 1	7.9124- 5	3.0392- 1	3.0392- 1	3.2478- 7
2.4102+ 0	4.3383+ 0	3.7726- 2	3.1913+ 0	4.9681- 3	3.0125+ 0	3.9597- 3	1.6976- 1	1.0063- 4	3.0727- 1	3.0727- 1	3.1821- 7
2.4466+ 0	4.3666+ 0	3.7482- 2	3.1706+ 0	4.8401- 3	2.9857+ 0	3.8716- 3	1.7614- 1	1.2801- 4	3.1105- 1	3.1105- 1	3.1113- 7
2.4859+ 0	4.3960+ 0	3.7231- 2	3.1494+ 0	4.6891- 3	2.9577+ 0	3.7811- 3	1.8311- 1	1.6117- 4	3.1512- 1	3.1512- 1	3.0385- 7
2.5564+ 0	4.4477+ 0	3.6798- 2	3.1128+ 0	4.4340- 3	2.9089+ 0	3.6264- 3	1.9555- 1	2.3096- 4	3.2252- 1	3.2252- 1	2.9142- 7
2.604+ 0	4.5212+ 0	3.6199- 2	3.0822+ 0	4.0944- 3	2.8409+ 0	3.4189- 3	2.1341- 1	3.5603- 4	3.3349- 1	3.3349- 1	2.7459- 7
2.7647+ 0	4.5898+ 0	3.5659- 2	3.0184+ 0	3.7914- 3	2.7767+ 0	3.2283- 3	2.3219- 1	5.0538- 4	3.4480- 1	3.4480- 1	2.5827- 7
2.9045+ 0	4.6778+ 0	3.4988- 2	2.9597+ 0	3.4354- 3	2.6965+ 0	2.9973- 3	2.5593- 1	7.4343- 4	3.6000- 1	3.6000- 1	2.4087- 7
3.0399+ 0	4.7565+ 0	3.4408- 2	2.9107+ 0	3.1383- 3	2.6246+ 0	2.8050- 3	2.7923- 1	1.0078- 3	3.7508- 1	3.7508- 1	2.2541- 7
3.2344+ 0	4.8759+ 0	3.3586- 2	2.8394+ 0	2.7705- 3	2.5211+ 0	2.5774- 3	3.1146- 1	1.4581- 3	3.9493- 1	3.9493- 1	2.0713- 7
3.4375+ 0	4.9854+ 0	3.2829- 2	2.7771+ 0	2.4529- 3	2.4235+ 0	2.3720- 3	3.4673- 1	1.9927- 3	4.1673- 1	4.1673- 1	1.9082- 7
3.7847+ 0	5.1546+ 0	3.1752- 2	2.6859+ 0	2.0236- 3	2.2770+ 0	2.0802- 3	4.0177- 1	3.0575- 3	4.5447- 1	4.5447- 1	1.8717- 7
4.0000+ 0	5.2411+ 0	3.1227- 2	2.6416+ 0	1.8116- 3	2.1987+ 0	1.9290- 3	4.3730- 1	3.7880- 3	4.7939- 1	4.7939- 1	1.5502- 7
4.2500+ 0	5.3378+ 0	3.0661- 2	2.5937+ 0	1.6048- 3	2.1121+ 0	1.7837- 3	4.7355- 1	4.6813- 3	5.0794- 1	5.0794- 1	1.4334- 7
4.7500+ 0	5.4884+ 0	2.9821- 2	2.5226+ 0	1.2948- 3	1.9852+ 0	1.5450- 3	5.4803- 1	6.5508- 3	5.6910- 1	5.6910- 1	1.2416- 7
5.5135+ 0	5.6822+ 0	2.8905- 2	2.4451+ 0	9.5360- 4	1.7841+ 0	1.2813- 3	6.4915- 1	9.6065- 3	6.6845- 1	6.6845- 1	1.0296- 7
6.3840+ 0	5.8121+ 0	2.8159- 2	2.3820+ 0	7.1579- 4	1.6126+ 0	1.0747- 3	7.5466- 1	1.3018- 2	7.7688- 1	7.7688- 1	8.6361- 8
7.4833+ 0	5.9272+ 0	2.7613- 2	2.3358+ 0	5.1768- 4	1.4386+ 0	8.8510- 4	8.7837- 1	1.7468- 2	9.3190- 1	9.3190- 1	7.1128- 8
9.0000+ 0	5.9844+ 0	2.7349- 2	2.3135+ 0	3.5791- 4	1.2631+ 0	7.1340- 4	1.0260+ 0	2.3280- 2	1.1594+ 0	1.1594+ 0	5.7330- 8
1.0000+ 1	5.9895+ 0	2.7325- 2	2.3115+ 0	2.8991- 4	1.1727+ 0	6.3230- 4	1.1110+ 0	2.6840- 2	1.3174+ 0	1.3174+ 0	5.0812- 8
1.3000+ 1	5.8535+ 0	2.7491- 2	2.3255+ 0	1.7154- 4	9.8340- 4	4.7090- 4	1.3250+ 0	3.8420- 2	1.8115+ 0	1.8115+ 0	3.7842- 8
1.6000+ 1	5.7726+ 0	2.8352- 2	2.3994+ 0	8.9479- 5	7.5453- 4	3.2990- 4	1.5940+ 0	4.8400- 2	2.7227+ 0	2.7227+ 0	2.6511- 8
2.6000+ 1	5.4779+ 0	2.9878- 2	2.5274+ 0	4.2897- 5	5.6418- 4	2.2280- 4	1.8980+ 0	6.4970- 2	4.3241+ 0	4.3241+ 0	1.7905- 8
4.2170+ 1	5.0305+ 0	3.2535- 2	2.7522+ 0	1.6303- 5	3.8489- 4	1.3444- 4	2.2813+ 0	8.5783- 2	7.9286+ 0	7.9286+ 0	1.0604- 8
6.0000+ 1	4.7177+ 0	3.4692- 2	2.8346+ 0	8.0532- 6	2.8781- 4	9.3460- 5	2.5460+ 0	1.0090- 1	1.2242+ 1	1.2242+ 1	7.5108- 9
1.0000+ 2	4.3308+ 0	3.7792- 2	3.1988+ 0	2.8991- 6	1.8858- 4	5.5520- 5	2.8870+ 0	1.2120- 1	2.2588+ 1	2.2588+ 1	4.4617- 9
2.0000+ 2	3.8483+ 0	4.1453- 2	3.5085+ 0	7.2479- 7	1.0431- 4	2.7650- 5	3.2570+ 0	1.4520- 1	5.0122+ 1	5.0122+ 1	2.2140- 9
5.0000+ 2	3.6452+ 0	4.4900- 2	3.7681+ 0	1.1597- 7	4.7195- 5	1.0570- 5	3.5820+ 0	1.6890- 1	1.3681+ 2	1.3681+ 2	8.8158-10
1.0000+ 3	3.5176+ 0	4.8527- 2	3.8358+ 0	2.8991- 8	2.5705- 5	5.4760- 6	3.7290+ 0	1.8110- 1	2.8371+ 2	2.8371+ 2	4.4006-10
4.0000+ 3	3.3992+ 0	4.8148- 2	4.0729+ 0	1.8120- 9	7.4288- 6	1.3670- 6	3.8710+ 0	1.9450- 1	1.1782+ 3	1.1782+ 3	1.0985-10
1.0000+ 4	3.3689+ 0	4.8581- 2	4.1096+ 0	2.8992-10	3.2472- 6	5.4690- 7	3.8080+ 0	1.9830- 1	2.9677+ 3	2.9677+ 3	4.3850-11
1.0000+ 5	3.3459+ 0	4.8915- 2	4.1378+ 0	2.8970-12	3.9221- 6	5.4680- 8	3.9360+ 0	2.0140- 1	2.8887+ 4	2.8887+ 4	4.3942-12



24-Cr

157





$n(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0000+ 0	0.0000+ 0	2.4000+ 1	0.0000+ 0	6.0000- 1	7.4391- 3	8.7237+ 0	1.3770+ 1	1.5000+ 1	1.8598- 1	7.5698- 2	2.3997+ 1
0000- 3	1.2399- 5	2.4000+ 1	5.2966- 4	7.0000- 1	8.6780- 3	7.7566+ 0	1.4960+ 1	1.8770+ 1	2.3272- 1	3.6283- 2	2.3999+ 1
0000- 3	6.1993- 5	2.3985+ 1	1.2000- 2	8.0000- 1	9.9188- 3	7.0888+ 0	1.5902+ 1	2.0000+ 1	2.4797- 1	2.9150- 2	2.4000+ 1
0000- 2	1.2399- 4	2.3964+ 1	4.8000- 2	9.0000- 1	1.1159- 2	6.5814+ 0	1.6670+ 1	2.9813+ 1	3.6964- 1	7.0189- 3	2.4000+ 1
5000- 2	1.8598- 4	2.3934+ 1	1.0350- 1	1.0000+ 0	1.2399- 2	6.1459+ 0	1.7323+ 1	5.0000+ 1	6.1993- 1	1.0329- 3	2.4000+ 1
0000- 2	2.4797- 4	2.3884+ 1	1.8140- 1	1.2500+ 0	1.5498- 2	5.1422+ 0	1.6688+ 1	8.0000+ 1	9.9188- 1	1.7847- 4	2.4000+ 1
5000- 2	3.0996- 4	2.3820+ 1	2.7840- 1	1.5000+ 0	1.8598- 2	4.1894+ 0	1.9730+ 1	1.0000+ 2	1.2399+ 0	7.8034- 5	2.4000+ 1
0000- 2	3.7186- 4	2.3744+ 1	3.9220- 1	1.8385+ 0	2.2765- 2	3.1100+ 0	2.0790+ 1	1.7117+ 2	2.1223+ 0	1.1146- 5	2.4000+ 1
0000- 2	4.9594- 4	2.3555+ 1	6.6090- 1	2.0000+ 0	2.4797- 2	2.6915+ 0	2.1188+ 1	3.2012+ 2	3.9890- 0	1.2513- 6	2.4000+ 1
0000- 2	6.1993- 4	2.3331+ 1	9.6800- 1	2.3813+ 0	2.9525- 2	1.9870+ 0	2.1817+ 1	6.3400+ 2	7.8607+ 0	1.2483- 7	2.4000+ 1
0000- 2	8.6780- 4	2.2785+ 1	1.6312+ 0	2.5000+ 0	3.0996- 2	1.8618+ 0	2.1970+ 1	1.0000+ 3	1.2399+ 1	2.7908- 8	2.4000+ 1
0000- 2	1.1159- 3	2.2121+ 1	2.2908+ 0	3.0000+ 0	3.7186- 2	1.5562+ 0	2.2458+ 1	2.0441+ 3	2.5344+ 1	2.7987- 9	2.4000+ 1
0000- 1	1.2399- 3	2.1780+ 1	2.6090+ 0	3.5000+ 0	4.3395- 2	1.2507+ 0	2.2798+ 1	4.2150+ 3	5.2260+ 1	2.8830- 10	2.4000+ 1
2500- 1	1.5498- 3	2.0902+ 1	3.3772+ 0	4.0000+ 0	4.9594- 2	1.1336+ 0	2.3065+ 1	7.2968+ 3	9.0470+ 1	5.3115- 11	2.4000+ 1
5000- 1	1.8598- 3	2.0005+ 1	4.1230+ 0	4.5693+ 0	5.6653- 2	9.9926- 1	2.3303+ 1	1.1714+ 4	1.4524+ 2	1.2589- 11	2.4000+ 1
7500- 1	2.1697- 3	1.9126+ 1	4.8573+ 0	5.0000+ 0	6.1993- 2	8.9940- 1	2.3449+ 1	2.3660+ 4	2.9335+ 2	1.5263- 12	2.4000+ 1
0000- 1	2.4797- 3	1.8254+ 1	5.5770+ 0	6.0000+ 0	7.4391- 2	7.0860- 1	2.3686+ 1	6.0328+ 4	7.4796+ 2	9.5810- 14	2.4000+ 1
5000- 1	3.0996- 3	1.6546+ 1	6.9475+ 0	7.0000+ 0	8.6780- 2	5.4760- 1	2.3823+ 1	1.0000+ 6	1.2399+ 4	2.6742- 17	2.4000+ 1
0000- 1	3.7186- 3	1.4943+ 1	8.2060+ 0	8.0000+ 0	9.9188- 2	4.4730- 1	2.3900+ 1	5.6234+ 6	6.9722+ 4	1.6801- 19	2.4000+ 1
3000- 1	4.9594- 3	1.2196+ 1	1.0415+ 1	8.7439+ 0	1.0841- 1	3.6410- 1	2.3933+ 1	7.4989+ 7	9.2975+ 5	7.6863- 23	2.4000+ 1
3000- 1	6.1993- 3	1.0153+ 1	1.2264+ 1	1.0000+ 1	1.2399- 1	2.4680- 1	2.3967+ 1	1.0000+ 9	1.2399+ 7	3.3097- 26	2.4000+ 1

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.5888-6	8.7659+4	7.5686+6	5.3669-1	1.1465-4	7.5686+6			6.2939+0	6.2939+0	
1.1884-5	1.4915-6	9.3380+4	8.0626+6	6.4248-1	1.6184-4	8.0626+6			7.9681-0	7.9681+0	
1.6046-5	1.3456-6	1.0350+5	8.9365+6	1.9995+0	2.9212-4	8.9365+6			1.1925+1	1.1925+1	
2.1580-5	1.2805-6	1.0877+5	9.3912+6	3.5857+0	5.2027-4	9.3912+6			1.6853+1	1.6853+1	
2.8098-5	1.2634-6	1.1024+5	9.5183+6	6.2968+0	9.3126-4	9.5183+6			2.3030+1	2.3030+1	
3.8644-5	1.3680-6	1.0196+5	8.8036+6	9.5107+0	1.6175-3	8.8036+6			2.8291+1	2.8291+1	
4.8491-5	1.6108-6	8.8462+4	7.4852+6	1.0254+1	2.5092-3	7.4852+6			3.0103+1	3.0103+1	
4.8285-5	1.8353-6	8.5170+4	7.3537+6	1.0978+1	2.5872-3	7.3537+6			3.0126+1	3.0126+1	
4.9533-5	1.8437-6	8.4732+4	7.3159+6	1.2201+1	2.8145-3	7.3159+6			3.0134+1	3.0134+1	
4.9735-5	1.6501-6	8.4404+4	7.2876+6	1.4097+1	2.6352-3	7.2876+6			3.0141+1	3.0141+1	
5.0200-5	1.6648-6	8.3661+4	7.2234+6	1.1427+1	2.6831-3	7.2234+6			3.0154+1	3.0154+1	
M3 5.0200-5	1.2811-6	1.0872+5	9.3669+6	2.1427+1	2.6831-3	9.3669+6			3.9186+1	3.9186+1	1.6161-4
5.0426-5	1.2913-6	1.0786+5	9.3126+6	2.6117+1	2.7064-3	9.3126+6			3.9051+1	3.9050+1	1.5829-4
5.0672-5	1.3025-6	1.0693+5	9.2324+6	2.9697+1	2.7321-3	9.2324+6			3.8904+1	3.8904+1	1.5477-4
5.1015-5	1.3181-6	1.0566+5	9.1229+6	3.3940+1	2.7680-3	9.1229+6			3.8702+1	3.8702+1	1.5003-4
5.1250-5	1.3289-6	1.0480+5	9.0490+6	3.6163+1	2.7927-3	9.0489+6			3.8565+1	3.8565+1	1.4668-4
M2 5.1250-5	1.1866-6	1.1737+5	1.0134+7	3.6163+1	2.7927-3	1.0134+7			4.3189+1	4.3189+1	2.3052-4
5.1438-5	1.1956-6	1.1649+5	1.0058+7	3.8033+1	2.8125-3	1.0058+7			4.3023+1	4.3023+1	2.2657-4
5.1788-5	1.2113-6	1.1488+5	9.9278+6	4.0003+1	2.8473-3	9.9278+6			4.2735+1	4.2735+1	2.1987-4
5.2280-5	1.2282-6	1.1267+5	9.7278+6	4.0261+1	2.9023-3	9.7277+6			4.2291+1	4.2291+1	2.0983-4
6.3780-5	1.8582-6	7.4852+4	8.4714+6	2.8342+1	4.2848-3	8.4714+6			3.4329+1	3.4329+1	7.1141-5
7.5515-5	2.3949-6	5.8155+4	5.0212+6	2.3383+1	5.9109-3	5.0212+6			3.1531+1	3.1531+1	4.9881-5
7.8294-5	2.5018-6	5.5670+4	4.8068+6	2.2509+1	6.3390-3	4.8068+6			3.1295+1	3.1295+1	5.1393-5
7.8864-5	2.5238-6	5.5184+4	4.7847+6	2.3261+1	6.4285-3	4.7846+6			3.1247+1	3.1247+1	5.1702-5
7.9190-5	2.5365-6	5.4910+4	4.7410+6	2.4347+1	6.4800-3	4.7410+6			3.1221+1	3.1221+1	5.1878-5
M1 7.9190-5	2.3756-6	5.8626+4	5.0619+6	2.4347+1	6.4800-3	5.0619+6			3.3334+1	3.3334+1	7.8151-5
8.0131-5	2.4048-6	5.7815+4	5.0005+6	2.7472+1	6.8298-3	5.0005+6			3.3321+1	3.3321+1	7.9020-5
8.2024-5	2.4594-6	5.6629+4	4.8894+6	2.9649+1	6.9362-3	4.8894+6			3.3351+1	3.3351+1	8.1204-5
9.0611-5	2.6957-6	5.1667+4	4.4610+6	3.5334+1	8.4093-3	4.4610+6			3.3614+1	3.3613+1	9.0382-5
1.0000-4	2.9822-6	4.6703+4	4.0324+6	4.0602+1	1.0176-2	4.0323+6			3.3532+1	3.3532+1	9.7921-5
1.3050-4	4.0554-6	3.4343+4	2.9652+6	5.8127+1	1.7158-2	2.9652+6			3.2179+1	3.2179+1	1.0457-4
1.5000-4	4.8291-6	2.8841+4	2.4902+6	6.8237+1	2.2549-2	2.4901+6			3.1061+1	3.1061+1	1.0075-4
2.0000-4	7.3372-6	1.8982+4	1.6389+6	8.3806+1	3.9854-2	1.6389+6			2.7257+1	2.7257+1	6.0897-5
2.4495-4	1.0234-5	1.3809+4	1.1750+6	9.4156+1	5.8027-2	1.1749+6			2.3932+1	2.3932+1	6.4211-5
3.0000-4	1.4580-5	9.5528+3	8.2481+5	9.8398+1	8.7885-2	8.2471+5			2.0574+1	2.0574+1	4.8653-5
3.3152-4	1.7580-5	7.8223+3	6.8402+5	9.8752+1	1.0653-1	6.8392+5			1.8855+1	1.8855+1	4.1446-5
3.9018-4	2.3854-5	5.8388+3	5.0413+5	9.2542+1	1.4491-1	5.0403+5			1.6354+1	1.6354+1	3.1912-5
4.3633-4	2.8819-5	4.8707+3	4.0328+5	8.2761+1	1.7898-1	4.0318+5			1.4630+1	1.4630+1	2.6152-5
4.8976-4	3.4844-5	4.0202+3	3.4711+5	7.1778-1	2.0576-1	3.4704+5			1.3557+1	1.3557+1	2.2847-5
5.0641-4	4.0411-5	3.4465+3	2.9757+5	5.5722-1	2.3568-1	2.9752+5			1.2529+1	1.2529+1	1.9871-5
5.3273-4	4.5229-5	3.0930+3	2.6705+5	3.9877-1	2.5807-1	2.6701+5			1.1829+1	1.1829+1	1.7867-5
5.4656-4	4.7583-5	2.9282+3	2.5283+5	2.9048-1	2.7028-1	2.5289+5			1.1490+1	1.1490+1	1.7075-5
5.6009-4	5.0114-5	2.7792+3	2.3998+5	1.7191-1	2.8243-1	2.3994+5			1.1176+1	1.1176+1	1.6265-5
5.6719-4	5.1481-5	2.7054+3	2.3358+5	1.1031+1	2.8891-1	2.3358+5			1.1017+1	1.1017+1	1.5863-5
5.6990-4	5.2008-5	2.8780+3	2.3122+5	9.4910+0	2.9140-1	2.3121+5			1.0957+1	1.0957+1	1.5713-5
5.7177-4	5.2374-5	2.6593+3	2.2961+5	9.8115+0	2.9313-1	2.2960+5			1.0917+1	1.0917+1	1.5611-5
5.7305-4	5.2822-5	2.8467+3	2.2852+5	1.0788+1	2.9430-1	2.2851+5			1.0889+1	1.0889+1	1.5542-5
5.7418-4	5.2845-5	2.6355+3	2.2756+5	1.2844+1	2.9535-1	2.2754+5			1.0865+1	1.0865+1	1.5481-5
5.7547-4	5.3097-5	2.6230+3	2.2648+5	1.6682+1	2.9655-1	2.2645+5			1.0837+1	1.0837+1	1.5413-5
5.7849-4	5.3890-5	2.5940+3	2.2397+5	3.3321+1	2.9936-1	2.2394+5			1.0773+1	1.0773+1	1.5253-5
5.8081-4	5.4147-5	2.5722+3	2.2209+5	5.1565+1	3.0182-1	2.2204+5			1.0724+1	1.0724+1	1.5132-5
L3 5.8081-4	9.9926-6	1.3938+4	1.2034+6	5.1565+1	3.0182-1	1.2034+6			5.8122+1	5.8019+1	1.0317-1
5.8166-4	9.9389-6	1.4018+4	1.2102+6	6.0490+1	3.0232-1	1.2101+6			5.8532+1	5.8428+1	1.0394-1
5.8441-4	9.7582-6	1.4271+4	1.2322+6	8.8389+1	3.0490-1	1.2321+6			5.9879+1	5.9773+1	1.0648-1
5.8896-4	9.5968-6	1.4510+4	1.2528+6	1.1507+2	3.0729-1	1.2527+6			6.1144+1	6.1038+1	1.0884-1
5.8974-4	9.4268-6	1.4774+4	1.2757+6	1.4081+2	3.0992-1	1.2755+6			6.2553+1	6.2442+1	1.1150-1
L2 5.8974-4	8.9744-6	1.9989+4	1.7242+6	1.4081+2	3.0992-1	1.7241+6			6.4550+1	6.4384+1	1.6842-1
5.9368-4	8.7574-6	2.0811+4	1.7786+6	1.7220+2	3.1366-1	1.7784+6			6.7848+1	6.7575+1	1.7308-1
5.9782-4	8.6054-6	2.1085+4	1.8205+6	1.9341+2	3.1781-1	1.8203+6			9.0498+1	9.0317+1	1.7830-1
6.0498-4	8.5229-6	2.1352+4	1.8438+6	2.1477+2	3.2448-1	1.8433+6			9.2734+1	9.2552+1	1.8174-1
6.1527-4	8.6818-6	2.0907+4	1.8052+6	2.2989+2	3.3450-1	1.8049+6			9.2348+1	9.2170+1	1.7840-1
6.2398-4	8.8375-6	2.0369+4	1.7587+6	2.3924+2	3.4257-1	1.7585+6			9.1246+1	9.1073+1	1.7380-1
6.5056-4	7.8565-6	1.8191+4	1.5706+6	2.4877+2	3.6789-1	1.5704+6			8.4957+1	8.4803+1	1.5482-1
6.8563-4	8.1460-6	1.7097+4	1.4762+6	2.4799+2	3.8222-1	1.4760+6			8.1898+1	8.1553+1	1.4532-1
6.8051-4	8.8491-6	1.8103+4	1.3904+6	2.4014+2	3.9682-1	1.3901+6			7.8686+1	7.8529+1	1.3669-1
6.8566-4	8.8383-6	1.5758+4	1.3806+6	2.5022+2	4.0223-1	1.3803+6			7.7698+1	7.7464+1	1.3370-1
6.8734-4	8.8867-6	1.5672+4	1.3532+6	2.5470+2	4.0360-1	1.3529+6			7.7330+1	7.7197+1	1.3296-1
L1 6.8734-4	7.8527-6	1.7738+4	1.5314+6	2.5470+2	4.0360-1	1.5311+6			6.7514+1	6.7380+1	1.5424-1
6.9635-4	8.1219-6	1.7148+4	1.4808+6	2.8939+2	4.1282-1	1.4803+6			6.5721+1	6.5572+1	1.4909-1
7.0225-4	8.2978-6	1.6785+4	1.4493+6	3.0133+2	4.1856-1	1.4490+6			6.4616+1	6.4470+1	1.4592-1
7.3821-4	9.3218-6	1.4941+4	1.2900+6	3.2130+2	4.5553-1	1.2897+6			7.8171+1	7.8041+1	1.2988-1
8.8111-4	1.3254-5	1.0508+4	9.0729+5	3.4892+2	5.8433-1	9.0694+5			6.4944+1	6.4853+1	1.9442-2
1.0000-3	1.8908-5	7.3686+3	6.3604+5	3.5751+2	7.3847-1	6.3588+5			5.2882+1	5.2788+1	6.4204-2
1.3554-3	4.0109-5	3.4724+3	2.9881+5	3.4489+2	1.1256+0	2.9947+5			3.3754+1	3.3723+1	3.0272-2
1.8883-3	9.4284-5	1.4775+3	1.2757+5	3.0876+2	1.6982+0	1.2782+5			1.9984+1	1.9971+1	1.2682-2
2.5596-3	2.1082-4	6.8084+2	5.7041+4	2.8110+2	2.3933+0	5.6777+4			1.2085+1	1.2079+1	5.7681-3
3.4024-3	4.5314-4	3.0738+2	2.8538+4	2.1094+2	3.2144+0	2.8324+4			7.4479+0	7.4453+0	2.6781-3
4.0000-3	7.0365-4	1.9793+2	1.7090+4	1.7836+2	3.7690+0	1.6907+4			5.6237+0	5.6220+0	1.7200-3
4.7066-3	1.1021-3	1.2638+2	1.0912+4	1.4532+2	4.3813+0	1.0782+4			4.2139+0	4.2128+0	1.0967-3
5.1890-3	1.4202-3	9.8085+1	8.8870+3	1.2195+2	4.7410+0	8.3404+3			3.5850+0	3.5842+0	8.5084-4
5.4385-3	1.6299-3	8.5448+1	7.3777+3	1.9833+2	5.0811+0	7.2884+3			3.2853+0	3.2856+0	7.4177-4
5.5784-3	1.7450-3	7.9813+1	6.8912+3	9.8842+1	5.8583+0	6.7893+3			3.1485+0	3.1478+0	6.9331-4
5.7322-3	1.8868-3	7.3817+1	6.3734+3	6.2248+1	5.1675+0	6.2860+3			2.9985+0	2.9988+0	6.4205-4
5.7890-3	1.9444-3	7.1830+1	6.1847+3	7.4928+1	5.2071+0	6.1045+3			2.9389+0	2.9381+0	6.2360-4
5.8383-3	1.9983-3	6.9768+1	6.0239+3	8.6188+1	5.2415+0	5.9525+3					

October 31, 1989
Atomic Weight 51.996

ENDL Evaluated
Photon Data

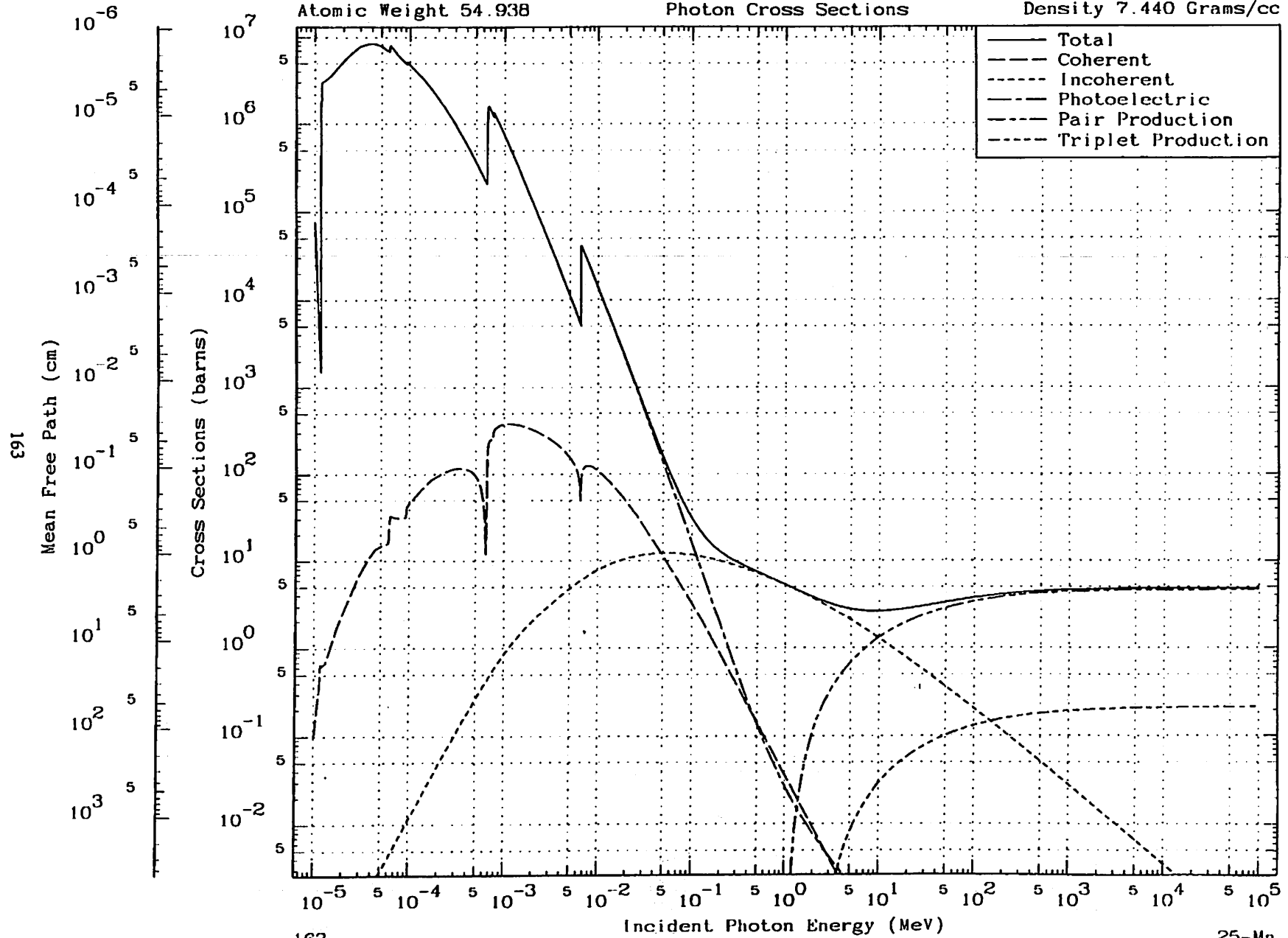
24-Cr
Density 7.180 Gracs/cc

Energy MeV	Total Mean Free Path			Cross Sections (barns)							Energy Deposition (MeV/cc)		
	cm	cm ² /g	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence	
2.1845+ 0	3.4485+ 0	4.0387- 2	3.4871+ 0	6.8156- 3	3.3329+ 0	5.9950- 3	1.4173- 1	7.9615- 6	3.4232- 1	3.4232- 1	6.4167- 7		
2.2018+ 0	3.4611+ 0	4.0241- 2	3.4744+ 0	6.7090- 3	3.3173+ 0	5.9203- 3	1.4486- 1	1.1015- 5	3.4441- 1	3.4441- 1	6.3414- 7		
2.2148+ 0	3.4704+ 0	4.0133- 2	3.4651+ 0	6.6305- 3	3.3058+ 0	5.8809- 3	1.4724- 1	1.3724- 5	3.4598- 1	3.4598- 1	6.2858- 7		
2.2342+ 0	3.4841+ 0	3.9974- 2	3.4515+ 0	6.5159- 3	3.2897+ 0	5.8098- 3	1.5084- 1	1.8461- 5	3.4833- 1	3.4833- 1	6.2043- 7		
2.2537+ 0	3.4977+ 0	3.9819- 2	3.4380+ 0	6.4038- 3	3.2718+ 0	5.7400- 3	1.5451- 1	2.4099- 5	3.5071- 1	3.5071- 1	6.1243- 7		
2.2815+ 0	3.5188+ 0	3.9603- 2	3.4194+ 0	6.2487- 3	3.2480+ 0	5.6729- 3	1.5985- 1	3.3755- 5	3.5413- 1	3.5413- 1	6.0129- 7		
2.3070+ 0	3.5340+ 0	3.9411- 2	3.4028+ 0	6.1114- 3	3.2266+ 0	5.6155- 3	1.6484- 1	4.4337- 5	3.5729- 1	3.5729- 1	5.9137- 7		
2.3382+ 0	3.5545+ 0	3.9183- 2	3.3831+ 0	5.9485- 3	3.2010+ 0	5.5539- 3	1.7109- 1	5.9815- 5	3.6120- 1	3.6120- 1	5.7981- 7		
2.3774+ 0	3.5797+ 0	3.8907- 2	3.3593+ 0	5.7550- 3	3.1895+ 0	5.4927- 3	1.7900- 1	8.2560- 5	3.6814- 1	3.6814- 1	5.6537- 7		
2.4102+ 0	3.6012+ 0	3.8675- 2	3.3393+ 0	5.5995- 3	3.1438+ 0	5.4297- 3	1.8490- 1	1.0500- 4	3.7019- 1	3.7019- 1	5.5390- 7		
2.4468+ 0	3.6246+ 0	3.8425- 2	3.3177+ 0	5.4333- 3	3.1158+ 0	5.3720- 3	1.9162- 1	1.3357- 4	3.7474- 1	3.7474- 1	5.4155- 7		
2.4859+ 0	3.6489+ 0	3.8169- 2	3.2956+ 0	5.2538- 3	3.0866+ 0	5.3114- 3	1.9896- 1	1.6817- 4	3.7966- 1	3.7966- 1	5.2886- 7		
2.5264+ 0	3.6811+ 0	3.7733- 2	3.2580+ 0	4.9775- 3	3.0357+ 0	5.2423- 3	2.1259- 1	2.4099- 4	3.8867- 1	3.8867- 1	5.0718- 7		
2.5604+ 0	3.7496+ 0	3.7144- 2	3.2071+ 0	4.5963- 3	2.9647+ 0	5.1663- 3	2.3324- 1	3.7149- 4	4.0224- 1	4.0224- 1	4.7782- 7		
2.7453+ 0	3.7968+ 0	3.6683- 2	3.1672+ 0	4.3165- 3	2.9099+ 0	5.0951- 3	2.4859- 1	4.9722- 4	4.1320- 1	4.1320- 1	4.5589- 7		
2.8090+ 0	3.8303+ 0	3.6361- 2	3.1395+ 0	4.1230- 3	2.8705+ 0	5.0310- 3	2.6043- 1	6.0215- 4	4.2159- 1	4.2159- 1	4.4051- 7		
2.9045+ 0	3.8778+ 0	3.5918- 2	3.1010+ 0	3.8565- 3	2.8140+ 0	4.9636- 3	2.7870- 1	7.7571- 4	4.3442- 1	4.3442- 1	4.1902- 7		
3.0399+ 0	3.9408+ 0	3.5342- 2	3.0515+ 0	3.5207- 3	2.7389+ 0	4.8973- 3	3.0460- 1	1.0514- 3	4.5286- 1	4.5286- 1	3.8207- 7		
3.2344+ 0	4.0375+ 0	3.4498- 2	2.9784+ 0	3.1101- 3	2.6310+ 0	4.8106- 3	3.3970- 1	1.5194- 3	4.7728- 1	4.7728- 1	3.6020- 7		
3.4375+ 0	4.1254+ 0	3.3760- 2	2.9149+ 0	2.7536- 3	2.5291+ 0	4.7288- 3	3.7811- 1	2.0794- 3	5.0405- 1	5.0405- 1	3.3142- 7		
3.7847+ 0	4.2812+ 0	3.2885- 2	2.8220+ 0	2.2718- 3	2.3781+ 0	4.6338- 3	4.3782- 1	3.1906- 3	5.5039- 1	5.5039- 1	2.9057- 7		
4.0000+ 0	4.3299+ 0	3.2188- 2	2.7772+ 0	2.0337- 3	2.2924+ 0	4.5490- 3	4.7650- 1	3.8530- 3	5.8103- 1	5.8103- 1	2.6940- 7		
4.2500+ 0	4.4088+ 0	3.1605- 2	2.7288+ 0	1.8018- 3	2.2041+ 0	4.4643- 3	5.1589- 1	4.8654- 3	6.1817- 1	6.1817- 1	2.4912- 7		
4.7500+ 0	4.5247+ 0	3.0781- 2	2.6577+ 0	1.4423- 3	2.0507+ 0	4.3816- 3	5.9682- 1	6.8359- 3	6.9154- 1	6.9154- 1	2.1579- 7		
5.5135+ 0	4.6589+ 0	2.9894- 2	2.5811+ 0	1.0705- 3	1.8618+ 0	4.2989- 3	7.0669- 1	1.0022- 2	8.1168- 1	8.1168- 1	1.7879- 7		
6.3840+ 0	4.7724+ 0	2.9184- 2	2.5198+ 0	8.0354- 4	1.6828+ 0	4.2168- 3	8.2130- 1	1.3581- 2	9.4820- 1	9.4820- 1	1.4987- 7		
7.4833+ 0	4.8560+ 0	2.8687- 2	2.4788+ 0	5.8115- 4	1.5012+ 0	4.1364- 3	9.5583- 1	1.8228- 2	1.1407+ 0	1.1407+ 0	1.2345- 7		
9.0000+ 0	4.8891+ 0	2.8487- 2	2.4596+ 0	4.0179- 4	1.3181+ 0	4.0572- 3	1.1160+ 0	2.4280- 2	1.4231+ 0	1.4231+ 0	9.9456- 8		
1.0000+ 1	4.8867+ 0	2.8501- 2	2.4608+ 0	3.2545- 4	1.2237+ 0	3.9764- 3	1.2080+ 0	2.8000- 2	1.6191+ 0	1.6191+ 0	8.8125- 8		
1.3000+ 1	4.8410+ 0	2.8770- 2	2.4841+ 0	1.9258- 4	1.0053+ 0	3.8910- 3	1.4400+ 0	3.7890- 2	2.2335+ 0	2.2335+ 0	8.5812- 8		
1.8000+ 1	4.6748+ 0	2.8793- 2	2.5724+ 0	1.0045- 4	7.8734- 1	4.0060- 4	1.7330+ 0	5.1530- 2	3.3694+ 0	3.3694+ 0	4.5943- 8		
2.6000+ 1	4.4231+ 0	3.1489- 2	2.7188+ 0	4.8145- 5	5.8870- 1	2.7050- 4	2.0620+ 0	6.7780- 2	5.3641+ 0	5.3641+ 0	3.1022- 8		
4.2170+ 1	4.0492+ 0	3.4398- 2	2.9698+ 0	1.8302- 5	4.0183- 1	1.6314- 4	2.4786+ 0	8.9429- 2	9.8803+ 0	9.8803+ 0	1.8710- 8		
6.0000+ 1	3.7819+ 0	3.8730- 2	3.1713+ 0	9.0405- 6	3.0012- 1	1.1340- 4	2.7660+ 0	1.0510- 1	1.5242+ 1	1.5242+ 1	1.3005- 8		
1.0000+ 2	3.4765+ 0	4.0062- 2	3.4591+ 0	3.2546- 6	1.9678- 1	6.7360- 5	3.1360+ 0	1.2620- 1	2.8150+ 1	2.8150+ 1	7.7252- 9		
2.0000+ 2	3.1872+ 0	4.3974- 2	3.7968+ 0	8.1385- 7	1.0884- 1	3.3420- 5	3.5370+ 0	1.5090- 1	6.2494+ 1	6.2494+ 1	3.8328- 9		
4.0000+ 2	2.9707+ 0	4.6884- 2	4.0480+ 0	2.0341- 7	5.8897- 2	1.6650- 5	3.8180+ 0	1.7010- 1	1.3397+ 2	1.3397+ 2	1.9095- 9		
1.0000+ 3	2.8247+ 0	4.9306- 2	4.2571+ 0	3.2546- 8	2.6822- 2	6.8430- 6	4.0430+ 0	1.8730- 1	3.5332+ 2	3.5332+ 2	7.6188- 10		
4.0000+ 3	2.7310+ 0	5.0998- 2	4.4033+ 0	2.0341- 9	7.7497- 3	1.6590- 6	4.1950+ 0	2.0050- 1	1.4640+ 3	1.4640+ 3	1.9026- 10		
1.0000+ 4	2.7074+ 0	5.1442- 2	4.4416+ 0	3.2546- 10	3.3884- 3	6.8340- 7	4.2340+ 0	2.0420- 1	3.6928+ 3	3.6928+ 3	7.6083- 11		
1.0000+ 5	2.6892+ 0	5.1790- 2	4.4716+ 0	3.2548- 12	4.0926- 4	6.6330- 8	4.2640+ 0	2.0720- 1	3.7184+ 4	3.7184+ 4	7.6071- 12		

OCTOBER 31, 1969
Atomic Weight 54.938

ENDL Evaluated
Photon Cross Sections

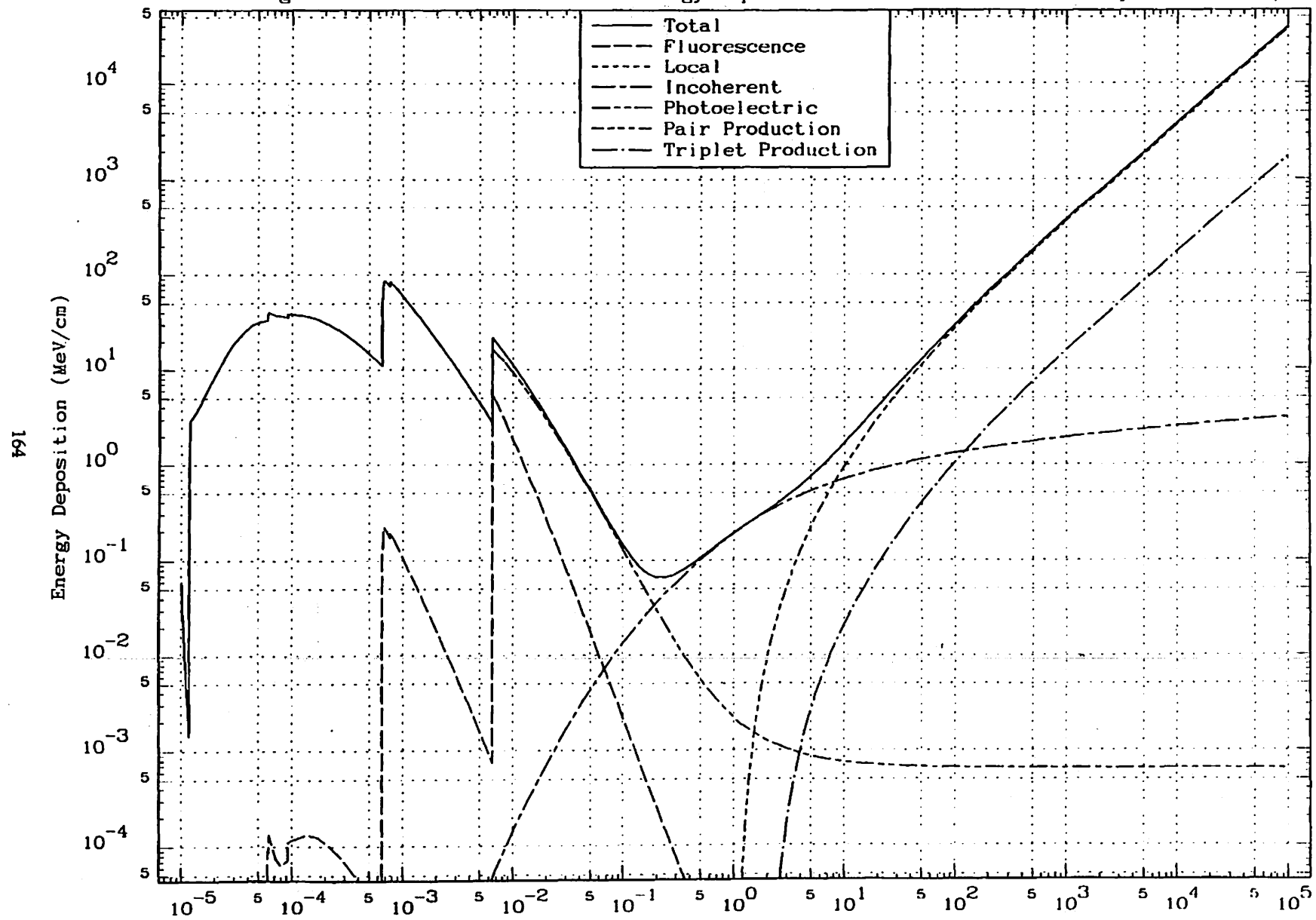
25-Mn
Density 7.440 Grams/cc



October 31, 1989
Atomic Weight 54.938

ENDL Evaluated
Energy Deposition

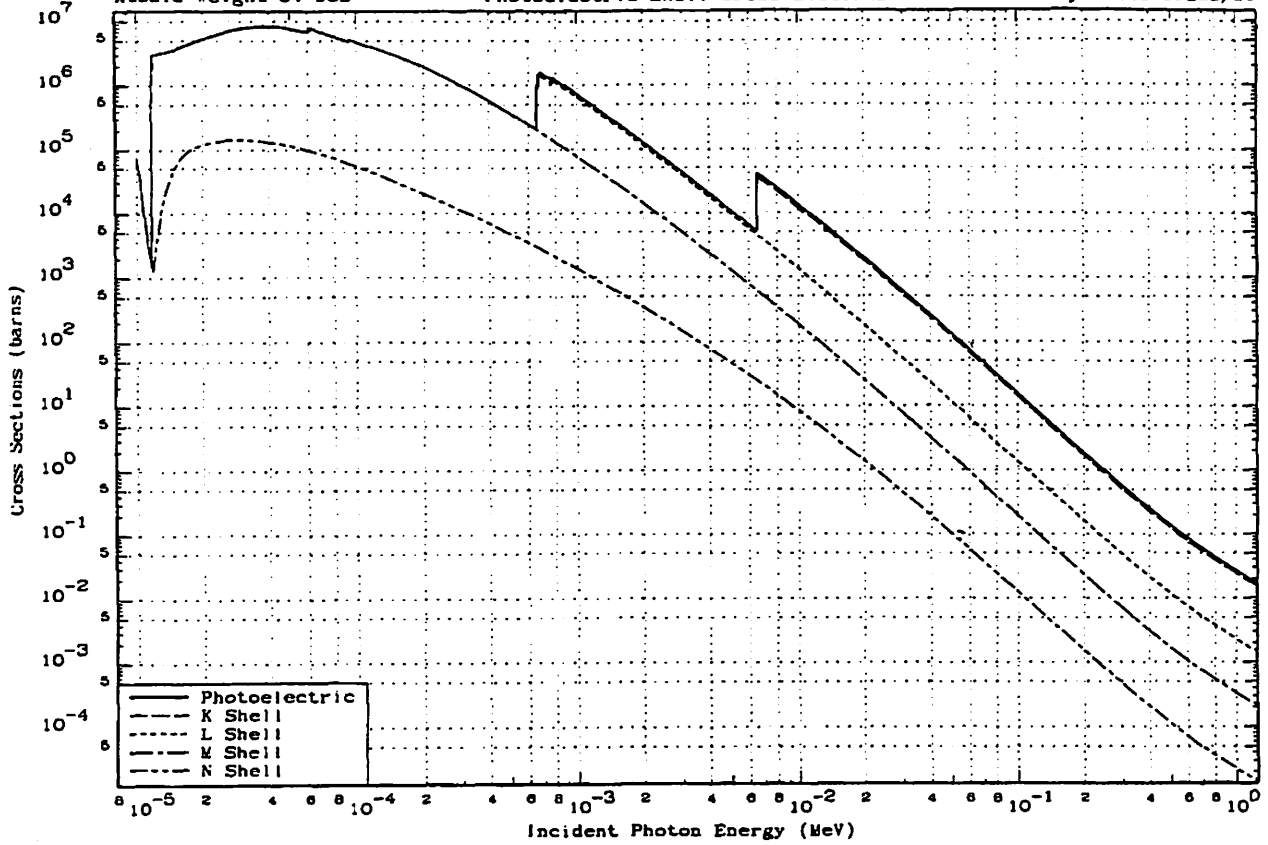
25-Mn
Density 7.440 Grams/cc



October 31, 1989
Atomic Weight 54.938

ENDL Evaluated
Photoelectric Shell Cross Sections

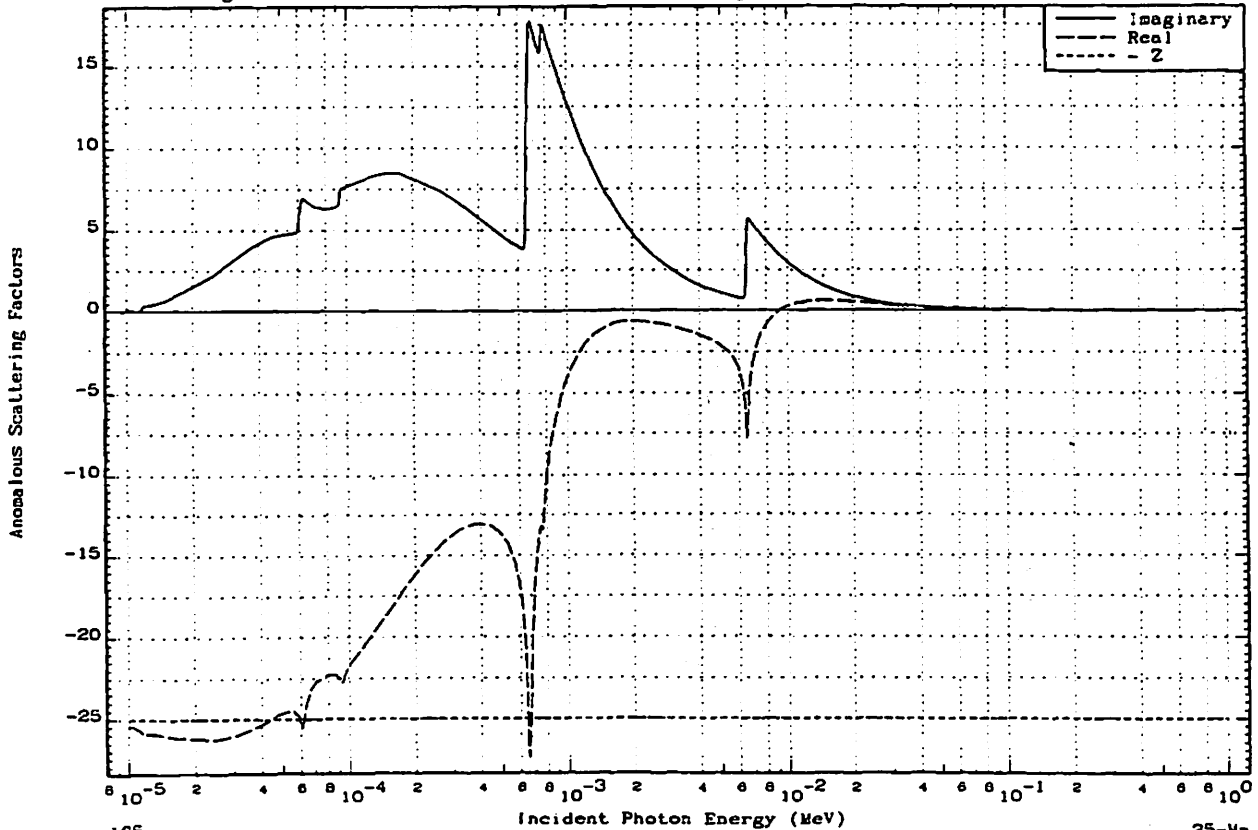
25-Mn
Density 7.440 Grams/cc



October 31, 1989
Atomic Weight 54.938

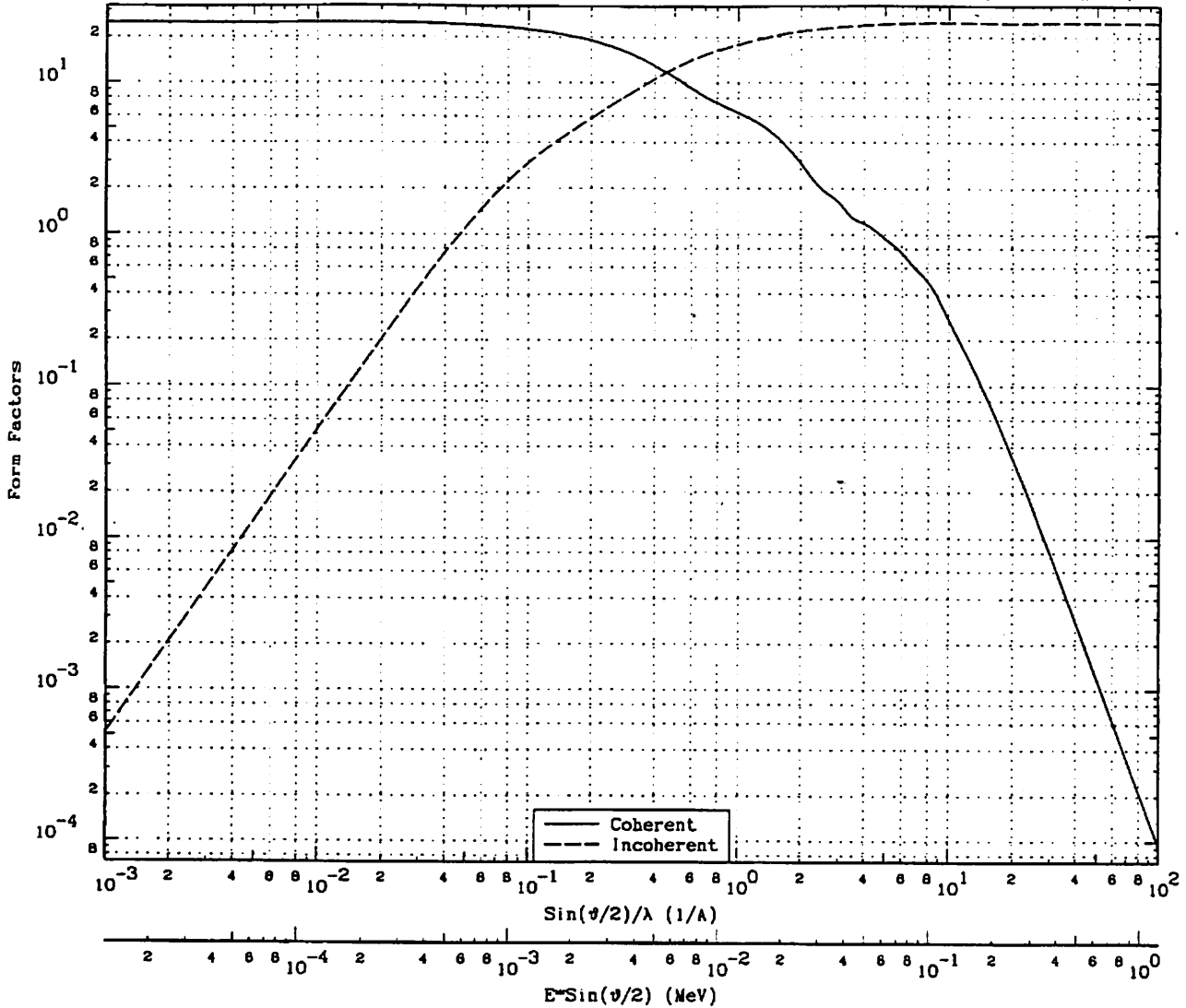
ENDL Evaluated
Anomalous Scattering Factors

25-Mn
Density 7.440 Grams/cc



165

25-Mn



$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	2.5000+1	0.0000+0	7.0000-1	8.6780-3	8.0983+0	1.5348+1	1.8770+1	2.3272-1	4.1934-2	2.4999+1
1.0000-3	1.2399-5	2.5000+1	5.2000-4	8.0000-1	9.9188-3	7.3331+0	1.6378+1	2.0000+1	2.4797-1	3.3781-2	2.5000+1
5.0000-3	8.1993-5	2.4984+1	1.3000-2	9.0000-1	1.1158-2	6.7782+0	1.7211+1	2.9813+1	3.6984-1	8.2373-3	2.5000+1
1.0000-2	1.2399-4	2.4981+1	5.2000-2	1.0000+0	1.2399-2	6.3312+0	1.7910+1	5.0000+1	6.1993-1	1.2237-3	2.5000+1
1.5000-2	1.8598-4	2.4929+1	1.1870-1	1.2500+0	1.5498-2	5.3840+0	1.9312+1	8.0000+1	9.9188-1	2.1280-4	2.5000+1
2.0000-2	2.4797-4	2.4875+1	2.0470-1	1.5000+0	1.8598-2	4.4528+0	2.0411+1	1.0000+2	1.2399+0	9.3312-5	2.5000+1
2.5000-2	3.0998-4	2.4808+1	3.1460-1	1.7500+0	2.1697-2	3.6308+0	2.1275+1	1.7117+2	2.1223+0	1.3423-5	2.5000+1
3.0000-2	3.7198-4	2.4723+1	4.4410-1	2.0000+0	2.4797-2	2.9220+0	2.1938+1	3.2012+2	3.9690+0	1.5195-6	2.5000+1
4.0000-2	4.9594-4	2.4518+1	7.5130-1	2.4083+0	2.9835-2	2.1125+0	2.2681+1	6.3400+2	7.8607+0	1.5291-7	2.5000+1
5.0000-2	6.1993-4	2.4274+1	1.1040+0	2.5000+0	3.0998-2	2.0055+0	2.2812+1	1.0000+3	1.2399+1	3.4365-8	2.5000+1
7.0000-2	8.6780-4	2.3680+1	1.8663+0	3.0000+0	3.7198-2	1.6531+0	2.3337+1	2.0441+3	2.5344+1	3.4706-9	2.5000+1
9.0000-2	1.1159-3	2.2982+1	2.8055+0	3.5000+0	4.3398-2	1.3007+0	2.3988+1	4.2150+3	5.2280+1	3.5951-10	2.5000+1
1.0000-1	1.2399-3	2.2598+1	2.8480+0	4.0000+0	4.9594-2	1.1806+0	2.3976+1	7.2968+3	9.0470+1	6.6460-11	2.5000+1
1.2500-1	1.5498-3	2.1865+1	3.7283+0	4.7129+0	5.8433-2	1.0064+0	2.4280+1	1.6131+4	2.0000+2	6.0289-12	2.5000+1
1.5000-1	1.8598-3	2.0739+1	4.4350+0	5.0000+0	6.1993-2	9.4040-1	2.4380+1	4.5264+4	5.6121+2	2.8118-13	2.5000+1
1.7500-1	2.1697-3	1.9858+1	5.1155+0	6.0000+0	7.4391-2	7.5350-1	2.4636+1	2.1275+5	2.6378+3	3.0510-15	2.5000+1
2.0000-1	2.4797-3	1.9000+1	5.7910+0	7.0000+0	8.6780-2	5.9030-1	2.4790+1	1.0000+6	1.2399+4	3.3882-17	2.5000+1
2.5000-1	3.0998-3	1.7348+1	7.1216+0	8.0000+0	9.9188-2	4.8470-1	2.4879+1	5.6234+6	6.9722+4	2.1344-19	2.5000+1
3.0000-1	3.7198-3	1.5788+1	8.3800+0	8.7439+0	1.0841-1	3.9759-1	2.4918+1	7.4889+7	9.2975+5	9.8088-23	2.5000+1
4.0000-1	4.9594-3	1.2997+1	1.0604+1	1.0000+1	1.2399-1	2.7360-1	2.4959+1	1.0000+9	1.2399+7	4.2685-26	2.5000+1
5.0000-1	6.1993-3	1.0809+1	1.2488+1	1.4727+1	1.8259-1	9.1481-2	2.4995+1				
6.0000-1	7.4391-3	9.2101+0	1.4062+1	1.5000+1	1.8598-1	8.6549-2	2.4998+1				

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.6505-4	8.1434-2	7.4290+4	1.0036-1	1.1252-4	7.4290-4			8.0587-2	6.0587-2	
1.0042-5	1.8323-4	7.3356-2	6.6920+4	1.0014-1	1.1346-4	6.6920+4			5.4804-2	5.4804-2	
1.0227-5	2.9004-4	4.6341-2	4.2275+4	1.0746-1	1.1789-4	4.2275+4			3.5260-2	3.5260-2	
1.0487-5	5.4487-4	2.4668-2	2.2504+4	1.4089-1	1.2375-4	2.2504+4			1.8247-2	1.8247-2	
1.0872-5	1.3449-3	9.9940-1	9.1172+3	2.1028-1	1.3298-4	9.1170+3			8.0833-3	8.0833-3	
1.1186-5	2.7073-3	4.8646-1	4.5291+3	2.7873-1	1.4079-4	4.5288+3			4.1316-3	4.1316-3	
1.1316-5	3.5687-3	3.7663-1	3.4359+3	3.1218-1	1.4408-4	3.4356+3			3.1707-3	3.1707-3	
1.1447-5	4.6911-3	2.8652-1	2.6138+3	3.6866-1	1.4742-4	2.6134+3			2.4397-3	2.4397-3	
1.1574-5	6.1094-3	2.2000-1	2.0070+3	4.6394-1	1.5072-4	2.0068+3			1.6940-3	1.6940-3	
1.1672-5	7.4689-3	1.7896-1	1.6417+3	5.6813-1	1.5327-4	1.6411+3			1.5622-3	1.5622-3	
1.1720-5	8.2063-3	1.6375-1	1.4938+3	6.0117-1	1.5454-4	1.4932+3			1.4273-3	1.4273-3	
M5 1.1720-5	6.9384-6	1.9372+4	1.7672-6	6.0117-1	1.5454-4	1.7672+6			1.6892+0	1.6892+0	
1.1830-5	6.8861-6	1.9519+4	1.7806-6	6.5535-1	1.5746-4	1.7806+6			1.7179+0	1.7179+0	
1.1850-5	6.8766-6	1.9546+4	1.7831-6	6.5375-1	1.5799-4	1.7831+6			1.7232+0	1.7232+0	
M4 1.1850-5	4.1566-6	3.2321+4	2.9485-6	6.5375-1	1.5799-4	2.9485+6			2.8495+0	2.8495+0	
1.2090-5	4.0965-6	3.2795+4	2.8918-6	6.1627-1	1.6445-4	2.8918+6			2.8499+0	2.8499+0	
1.3474-5	3.7729-6	3.5825+4	3.2499+6	6.9140-1	2.0423-4	3.2499+6			3.5711+0	3.5711+0	
1.5000-5	3.3899-6	3.9650+4	3.6171+6	1.0020-0	2.5311-4	3.6171+6			4.4249+0	4.4249+0	
1.7308-5	2.8002-6	4.8000+4	4.3789+6	1.8292-0	3.3698-4	4.3789+6			6.1811+0	6.1811+0	
2.2134-5	2.0675-6	6.5010+4	5.9306+6	3.1996-0	5.5099-4	5.9306+6			1.0705+1	1.0705+1	
2.5788-5	1.7744-6	7.5748+4	6.9103+6	4.7692-0	7.4675-4	6.9103+6			1.4522+1	1.4522+1	
3.0000-5	1.5657-6	8.8395+4	7.8816+6	6.9553-0	1.0121-3	7.8815+6			1.9283+1	1.9283+1	
3.7224-5	1.4483-6	9.2802+4	8.4660+6	1.0544-1	1.5590-3	8.4660+6			2.5701+1	2.5701+1	
4.3547-5	1.4591-6	9.2120+4	8.4038+6	1.3374-1	2.1320-3	8.4038+6			2.8846+1	2.8846+1	
5.0000-5	1.5822-6	8.6041+4	7.8492+6	1.4712-1	2.8105-3	7.8492+6			3.2007+1	3.2007+1	
5.5327-5	1.6863-6	7.9706+4	7.2713+6	1.5544-1	3.4411-3	7.2713+6			3.2809+1	3.2809+1	
5.9360-5	1.7784-6	7.5579+4	6.8949+6	1.5726-1	3.9609-3	6.8948+6			3.3379+1	3.3379+1	
5.9977-5	1.7923-6	7.4992+4	6.8413+6	1.6286-1	4.0436-3	6.8413+6			3.3463+1	3.3463+1	
6.0339-5	1.8005-6	7.4651+4	6.8102+6	1.7757-1	4.0926-3	6.8102+6			3.3513+1	3.3513+1	
6.0780-5	1.8104-6	7.4242+4	6.7729+6	2.1078-1	4.1526-3	6.7729+6			3.3572+1	3.3572+1	
M3 6.0780-5	1.5889-6	8.4592+4	7.7171+6	2.1078-1	4.1526-3	7.7171+6			3.8253+1	3.8253+1	9.2145-5
6.1380-5	1.6054-6	8.3721+4	7.6376+6	2.5697+1	4.2364-3	7.6376+6			3.8239+1	3.8239+1	8.6332-5
6.2090-5	1.6248-6	8.2732+4	7.5474+6	2.8502+1	4.3335-3	7.5473+6			3.8218+1	3.8218+1	8.6243-5
M2 6.2090-5	1.5296-6	8.7873+4	8.0163+6	2.9502+1	4.3335-3	8.0163+6			4.0593+1	4.0593+1	1.3345-4
6.2756-5	1.5507-6	8.6678+4	7.9074+6	3.1958+1	4.4269-3	7.9073+6			4.0470+1	4.0470+1	1.2688-4
6.3495-5	1.5749-6	8.5347+4	7.7859+6	3.2558+1	4.5317-3	7.7859+6			4.0318+1	4.0318+1	1.2347-4
7.2376-5	1.9038-6	7.0596+4	8.4403+6	3.1127-1	5.8877-3	8.4402+6			3.8014+1	3.8014+1	7.5833-5
8.0000-5	2.1447-6	6.2670+4	5.7172+6	3.0853+1	7.1830-3	5.7171+6			3.7301+1	3.7301+1	6.4410-5
9.1045-5	2.4854-6	5.4079+4	4.9335+6	3.1589+1	9.3157-3	4.9335+6			3.6632+1	3.6632+1	7.1821-5
9.1822-5	2.5081-6	5.3589+4	4.8888+6	3.2348+1	9.4752-3	4.8887+6			3.6609+1	3.6609+1	7.2563-5
9.2580-5	2.5304-6	5.3118+4	4.8458+6	3.5644+1	9.6323-3	4.8458+6			3.6587+1	3.6587+1	7.3289-5
M1 9.2580-5	2.3493-6	5.7211+4	5.2192+6	3.5644+1	9.6323-3	5.2191+6			3.8406+1	3.8406+1	1.1148-4
9.3299-5	2.3678-6	5.6766+4	5.1786+6	3.9049+1	9.7824-3	5.1785+6			3.8404+1	3.8404+1	1.1184-4
9.4120-5	2.3888-6	5.6266+4	5.1330+6	4.1729+1	9.9553-3	5.1330+6			3.8400+1	3.8400+1	1.1246-4
1.0000-4	2.5705-6	5.2290+4	4.7702+6	4.6454-1	1.1238-2	4.7702+6			3.8903+1	3.8903+1	1.1669-4
1.3461-4	3.8143-6	3.7188-4	3.3925+6	6.7236-1	2.0325-2	3.3925+6			3.7242+1	3.7242+1	1.3245-4
1.6587-4	4.7843-6	2.8212+4	2.5737+6	8.4309+1	3.0821-2	2.5736+6			3.4814+1	3.4814+1	1.2641-4
1.7368-4	5.0846-6	2.8434+4	2.4115+6	8.8211+1	3.3783-2	2.4114+6			3.4156+1	3.4156+1	1.2343-4
2.2214-4	7.4584-6	1.8021+4	1.6440+6	1.0236-2	5.5186-2	1.6439+6			2.9782+1	2.9782+1	6.9181-5
2.7108-4	1.0439-5	1.2876+4	1.1746+6	1.1342+2	8.1206-2	1.1745+6			2.5966+1	2.5966+1	7.8731-5
3.2237-4	1.4261-5	9.4248+3	8.5980+5	1.1795+2	1.1389-1	8.5986+5			2.2802+1	2.2802+1	6.1810-5
3.8414-4	1.9835-5	6.7765+3	6.1820+5	1.1607+2	1.5963-1	6.1808+5			1.9364+1	1.9364+1	4.7170-5
4.4102-4	2.6050-5	5.1596+3	4.7069+5	1.0951+2	2.0655-1	4.7058+5			1.6826+1	1.6826+1	3.7305-5
4.8778-4	3.1809-5	4.2122+3	3.8427+5	9.8403+1	2.4831-1	3.8417+5			1.5283+1	1.5283+1	3.1220-5
5.2862-4	3.7757-5	3.5599+3	3.2475+5	8.6178+1	2.8887-1	3.2467+5			1.3897+1	1.3897+1	2.6838-5
5.6975-4	4.3792-5	3.0893+3	2.8000+5	6.9729+1	3.2784-1	2.7993+5			1.2839+1	1.2839+1	2.3458-5
6.0000-4	4.9447-5	2.7182+3	2.4798+5	4.9483+1	3.6282-1	2.4780+5			1.2132+1	1.2132+1	2.1008-5
6.1407-4	5.1949-5	2.5873+3	2.3803+5	3.6034+1	3.7808-1	2.3600+5			1.1819+1	1.1819+1	2.0072-5
6.2895-4	5.4688-5	2.4566+3	2.2429+5	2.4159+1	3.9452-1	2.2427+5			1.1504+1	1.1504+1	1.9149-5
6.3899-4	5.6188-5	2.3930+3	2.1830+5	1.5768+1	4.0353-1	2.1829+5			1.1340+1	1.1340+1	1.8678-5
6.4041-4	5.6811-5	2.3659+3	2.1583+5	1.2822+1	4.0738-1	2.1582+5			1.1272+1	1.1272+1	1.8482-5
6.4235-4	5.7180-5	2.3506+3	2.1444+5	1.1781+1	4.0959-1	2.1443+5			1.1233+1	1.1233+1	1.8372-5
6.4410-4	5.7510-5	2.3371+3	2.1321+5	1.2284+1	4.1157-1	2.1320+5			1.1199+1	1.1199+1	1.8275-5
6.4589-4	5.7851-5	2.3234+3	2.1195+5	1.4798+1	4.1381-1	2.1194+5			1.1184+1	1.1184+1	1.8175-5
6.4705-4	5.8072-5	2.3145+3	2.1115+5	1.7755+1	4.1493-1	2.1113+5			1.1141+1	1.1141+1	1.8111-5
6.4879-4	5.8294-5	2.2939+3	2.0927+5	2.9766+1	4.1806-1	2.0924+5			1.1088+1	1.1088+1	1.7961-5
6.5222-4	5.9056-5	2.2780+3	2.0763+5	4.4732+1	4.2084-1	2.0759+5			1.1042+1	1.1042+1	1.7830-5
L3 6.5222-4	1.2819-5	1.0651+4	9.7169+5	4.4732+1	4.2084-1	9.7165+5			5.1684+1	5.1684+1	1.1584-1
6.5337-4	1.2430-5	1.0813+4	9.6647+5	5.4194+1	4.2216-1	9.6641+5			5.2581+1	5.2581+1	1.1794-1
6.5621-4	1.1874-5	1.1225+4	1.0240+6	7.8188+1	4.2543-1	1.0239+6			5.4798+1	5.4798+1	1.2383-1
6.5697-4	1.1550-5	1.1837+4	1.0817+6	1.0157+2	4.2882-1	1.0816+6			5.7050+1	5.7050+1	1.2981-1
6.6214-4	1.1083-5	1.2127+4	1.1083+6	1.2827+2	4.3229-1	1.1082+6			5.9737+1	5.9737+1	1.3699-1
6.6297-4	1.1034-5	1.2182+4	1.1113+6	1.3362+2	4.3325-1	1.1112+6			6.0078+1	6.0078+1	1.3782-1
L2 6.6297-4	8.8424-8	1.5200+4	1.3867+6	1.3382+2	4.3325-1	1.3868+6			7.4969+1	7.4969+1	1.8847-1
6.8789-4	8.2307-8	1.8330+4	1.4898+6	1.7017+2	4.3872-1	1.4896+6			8.1137+1	8.0932+1	2.0434-1
6.7122-4	7.9550-8	1.6896+4	1.5414+6	1.6917+2	4.4241-1	1.5412+6			8.4367+1	8.4153+1	2.1378-1
6.7623-4	7.7372-8	1.7372+4	1.5848+6	2.0855+2	4.4797-1	1.5846+6			8.7389+1	8.7186+1	2.2219-1
6.8374-4	7.8189-8	1.7190+4	1.5682+6	2.2548+2	4.5636-1	1.5680+6			8.7434+1	8.7214+1	2.2050-1
7.0025-4	8.2711-8	1.8250+4	1.4825+6	2.4053+2	4.7504-1	1.4822+6			8.4849+1	8.4440+1	2.0851-1
7.1759-4	8.3970-8	1.5313+4	1.3970+6	2.4973+2	4.8497-1	1.3967+6			8.1741+1	8.1544+1	1.9646-1
7.4411-4	9.5386-8	1.4090+4	1.2854+6	2.5205+2	5.2611-1	1.2851+6			7.7887+1	7.7807+1	1.8079-1
7.5855-4	1.0000-5	1.3441+4	1.2262+6	2.4944+2	5.4374-1	1.2259+6			7.5899+1	7.5897+1	1.7238-1
7.6647-4	1.0243-5	1.3122+4	1.1871+6	2.6835+2	5.5295-1	1.1868+6			7.4812+1	7.4844+1	1.6825-1
L1 7.6647-4	9.0627-8	1.4831+4	1.3530+6	2.6835+2	5.5295-1	1.3527+6			8.4557+1	8.4383+1	1.9488-1
7.7565-4	9.3097-8	1.4438+4	1.3171+6	3.0044+2	5.6413-1	1.3168+6			8.3298+1	8.3108+1	1.8950-1
7.8317-4	9.5148-8	1.4128+4	1.2887+6	3.1830+2	5.7335-1	1.2884+6			8.2290+1		

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/ca)			
	ca	ca ² /cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
9.0000-4 1.0000-3	1.3005-5 1.6718-5	1.0335-4 8.0397-3	8.4281+5 7.3343+5	3.6499+2 3.7852-2	1.5559-1 8.4335-1	9.4245+5 7.3305+5			6.9175+1 5.9784+1	6.9039+1 5.9679+1	1.3571-1 1.0568-1
1.2422-3 1.8118-3 2.2212-3 3.0000-3 3.7058-3 4.4172-3 5.1698-3 5.8529-3 6.0000-3 6.0943-3 6.2846-3 6.3268-3 6.3805-3 6.4372-3 6.4701-3 6.4841-3 6.5109-3 K 6.5109-3 6.5327-3 6.5775-3 6.6271-3 6.6882-3 6.7435-3 6.8386-3 6.8855-3 7.3040-3 7.6322-3 8.5798-3 1.0000-2	2.8200-5 5.4312-5 1.2508-4 2.7928-4 4.9287-4 7.9582-4 1.2266-3 1.5739-3 1.8602-3 1.9431-3 2.1008-3 2.1809-3 2.2154-3 2.2754-3 2.3101-3 2.3243-3 2.3500-3 2.8516-4 2.9762-4 3.0266-4 3.0832-4 3.1555-4 3.2198-4 3.3344-4 3.5168-4 3.6321-4 4.3801-4 5.8057-4 8.8374-4	4.7662+3 2.4748+3 1.0748+3 4.8127+2 2.7282+2 1.6889+2 1.0958+2 8.5397+1 7.2257+1 6.9172+1 6.3988+1 6.2200+1 6.0870+1 5.9070+1 5.8184+1 5.7827+1 5.7195+1 4.5538+2 4.5161+2 4.4409+2 4.3593+2 4.2595+2 4.1744+2 4.0309+2 3.8221+2 3.4182+2 3.0818+2 2.2759+2 1.5039+2	4.3481+5 2.2576+5 9.8030+4 4.3905+4 2.4888+4 1.5408+4 9.9982+3 7.7905+3 6.5917+3 6.3103+3 5.8372+3 5.6743+3 5.5348+3 5.3888+3 5.3080+3 5.2754+3 5.2177+3 4.1543+4 4.1199+4 4.0513+4 3.9769+4 3.8858+4 3.8082+4 3.6773+4 3.4988+4 3.1183+4 2.7930+4 2.0783+4 1.3720+4	3.8061+2 3.5920+2 3.1239+2 2.6022+2 2.1994+2 1.8372+2 1.4886+2 1.2566+2 1.0603+2 9.9985+1 8.5302+1 7.7799+1 6.8794+1 5.5874+1 4.8941+1 4.8948+1 5.1077+1 5.1077+1 5.5930+1 5.9302+1 5.9324+1 9.7287+1 6.0059+1 1.1036+2 1.1036+2 1.709+2 1.2351+2 2.7930+2 1.2292+2 1.1014+2	1.1452+0 1.5759+0 2.2200+0 2.8998+0 3.6363+0 4.2787+0 4.8669+0 5.2364+0 5.4983+0 5.5689+0 5.8417+0 5.7155+0 5.8118+0 5.8327+0 5.8417+0 5.8587+0 5.8587+0 5.8268+0 5.8268+0 5.9014+0 5.9324+0 5.9717+0 6.0059+0 6.0656+0 6.1574+0 6.3545+0 6.5550+0 7.1201+0 7.8165+0	4.3443+5 4.3642+4 2.4665+4 1.5220+4 9.8425+3 6.6586+3 4.8602+3 6.2048+3 5.7462+3 5.5807+3 5.4802+3 5.3271+3 5.2522+3 5.2206+3 5.1608+3 4.1488+4 4.1138+4 4.0435+4 3.9876+4 3.8755+4 3.7973+4 3.6856+4 3.4745+4 3.1054+4 2.7797+4 2.0832+4 1.3620+4			4.4011+1 2.9630+1 1.7701+1 1.0678+1 7.4544+0 5.4827+0 4.1497+0 3.5313+0 3.1710+0 3.0839+0 2.8358+0 2.8847+0 2.8413+0 2.7967+0 2.7714+0 2.7607+0 2.7404+0 2.2029+0 2.1917+0 2.1689+0 2.1438+0 2.1132+0 2.0870+0 2.0426+0 1.9771+0 1.8473+0 1.7286+0 1.4433+0 1.1039+0	4.3949+1 2.9588+1 1.7687+1 1.0671+1 7.4509+0 5.4805+0 4.1483+0 3.5302+0 3.1701+0 3.0830+0 2.9350+0 2.8839+0 2.8305+0 2.7860+0 2.7707+0 2.7600+0 2.7397+0 1.6539+0 1.6472+0 1.6335+0 1.6184+0 1.5998+0 1.5898+0 1.5565+0 1.5181+0 1.4348+0 1.3585+0 1.1873+0 9.2688+0	6.2690-2 3.2538-2 1.4110-2 6.2962-3 3.5636-3 2.2011-3 1.2553-3 1.1091-3 9.3812-4 8.9829-4 8.3198-4 8.0950-4 7.9802-4 7.7137-4 7.6054-4 7.5598-4 7.4732-4 5.4902+0 5.4449+0 5.3534+0 5.2544+0 5.1342+0 5.0322+0 4.8603+0 4.6108+0 4.1278+0 3.7013+0 2.7599+0 1.8243+0
1.3541-2 1.8448-2 2.5931-2 4.1895-2 5.7008-2 7.3701-2 9.0890-2 1.0000-1	2.0257-3 4.7710-3 1.2444-2 4.8183-2 1.1128-1 2.0978-1 3.3098-1 3.9784-1	6.6352+1 2.8172+1 1.0801+1 2.7807+0 1.2078+0 6.4076+1 4.0810+1 3.3802-1	6.0531+3 2.5700+3 9.8537+2 2.5458+2 1.1018+2 5.8454+1 3.7047+1 3.0838-1	8.0352-1 5.4800+1 3.3153+1 1.5013+1 2.8552+0 6.8386+0 3.8597+0 3.0295+0	9.0968+0 1.0238+1 1.1291+1 1.2089+1 1.2135+1 1.2011+1 1.1745+1 1.1826+1	5.9637+3 2.5050+3 8.4092+2 2.2751+2 8.9194+1 4.0805+1 2.1442+1 1.5971+1		6.5838+0 3.7657+0 1.9903+0 7.6030+0 4.2003+0 2.5355+0 1.7059+0 1.4384+0	5.7796+0 3.4266+0 1.8825+0 7.4933+0 4.0789+0 2.4799+0 1.6788+0 1.4168+0	8.0419-1 3.3911-1 1.2783-1 3.0972-2 1.2141-2 5.5605-3 2.9234-3 2.1775-3	
1.2198-1 1.4711-1 1.7149-1 2.0000-1 2.3793-1 2.7804-1 3.5909-1 4.4249-1 5.5041-1 7.4448-1 1.0000+0	5.5583-1 7.1320-1 8.4292-1 9.8812-1 1.0689+0 1.2134+0 1.3969+0 1.5494+0 1.7238+0 1.8998+0 2.2894+0	2.4190-1 1.8848-1 1.5948-1 1.3912-1 1.2231-1 1.1077-1 9.8222-2 8.8747-2 7.7974-2 6.7556-2 5.8453-2	2.2088+1 1.7192+1 1.4547+1 1.2682+1 1.1158+1 1.0105+1 8.7780+0 7.9137+0 7.1134+0 6.1630+0 5.3325+0	2.2357+0 1.5853+0 1.0739+1 8.6737-1 6.1942-1 4.5704-1 2.7853-1 1.8308-1 1.1878-1 6.6136-2 3.6168-2	1.1177+1 1.0789+1 1.0351+1 9.9217+0 9.4719+0 8.8417+0 8.1842+0 7.5409+0 6.8882+0 6.0484+0 5.2692+0	8.8557+0 4.8590+0 3.0292+0 1.8971+0 1.1289+0 7.0830+0 3.3735-1 1.8973-1 1.0633-1 5.1441-2 2.7112-2		1.0420-1 8.2030-2 7.1488-2 6.8545-2 6.5968-2 6.9073-2 8.0683-2 9.5388-2 1.1466-1 1.4958-1 1.9164-1	1.0302-1 8.1388-2 7.1075-2 6.8288-2 6.5812-2 6.8977-2 8.0617-2 9.5342-2 1.1464-1 1.4957-1 1.9164-1	1.1801-3 6.8225-4 4.1270-4 2.5848-4 1.5380-4 9.8300-5 4.9598-5 2.5858-5 1.4491-5 7.0113-6 3.6959-6	
1.0220+0 1.0251+0 1.0287+0 1.0332+0 1.0340+0 1.0353+0 1.0368+0 1.0382+0 1.0397+0 1.0415+0 1.0438+0 1.0484+0 1.0483+0 1.0512+0 1.0541+0 1.0577+0 1.0811+0 1.0851+0 1.0704+0 1.0782+0 1.0806+0 1.0871+0 1.0937+0 1.1029+0 1.1107+0 1.1206+0 1.1333+0 1.1475+0 1.1582+0 1.1741+0 1.1901+0 1.2051+0 1.2275+0 1.2500+0 1.2803+0	2.3249+0 2.3287+0 2.3332+0 2.3388+0 2.3396+0 2.3411+0 2.3428+0 2.3448+0 2.3485+0 2.3488+0 2.3514+0 2.3548+0 2.3588+0 2.3603+0 2.3638+0 2.3681+0 2.3722+0 2.3770+0 2.3833+0 2.3902+0 2.3954+0 2.4031+0 2.4109+0 2.4213+0 2.4307+0 2.4422+0 2.4568+0 2.4730+0 2.4851+0 2.5029+0 2.5207+0 2.5372+0 2.5615+0 2.5868+0 2.6175+0	5.7812-2 5.7717-2 5.7608-2 5.7474-2 5.7451-2 5.7412-2 5.7372-2 5.7326-2 5.7281-2 5.7228-2 5.7161-2 5.7084-2 5.7029-2 5.6945-2 5.6881-2 5.6757-2 5.6660-2 5.6548-2 5.6396-2 5.6233-2 5.6111-2 5.5931-2 5.5751-2 5.5511-2 5.5298-2 5.5036-2 5.4708-2 5.4350-2 5.4088-2 5.3700-2 5.3322-2 5.2975-2 5.2472-2 5.1983-2 5.1349-2	5.2740+0 5.2653+0 5.2554+0 5.2432+0 5.2410+0 5.2375+0 5.2339+0 5.2298+0 5.2256+0 5.2208+0 5.2148+0 5.2078+0 5.2028+0 5.1949+0 5.1873+0 5.1778+0 5.1689+0 5.1585+0 5.1448+0 5.1300+0 5.1188+0 5.1024+0 5.0860+0 5.0641+0 5.0444+0 5.0207+0 4.9909+0 4.9582+0 4.9341+0 4.8989+0 4.8644+0 4.8328+0 4.7868+0 4.7422+0 4.6844+0	3.4832-2 3.4422-2 3.4180-2 3.3887-2 3.3835-2 3.3750-2 3.3683-2 3.3633-2 3.3563-2 3.3512-2 3.3204-2 3.3040-2 3.2920-2 3.2740-2 3.2581-2 3.2339-2 3.2133-2 3.1893-2 3.1578-2 3.1240-2 3.0987-2 3.0618-2 3.0250-2 2.9785-2 2.9334-2 2.8819-2 2.8178-2 2.7487-2 2.6893-2 2.6259-2 2.5559-2 2.4928-2 2.4029-2 2.3174-2 2.2092-2	5.2138+0 5.2054+0 5.1958+0 5.1842+0 5.1821+0 5.1787+0 5.1752+0 5.1712+0 5.1673+0 5.1627+0 5.1568+0 5.1501+0 5.1452+0 5.1379+0 5.1306+0 5.1214+0 5.1129+0 5.1029+0 5.0898+0 5.0755+0 5.0648+0 5.0490+0 5.0331+0 5.0120+0 4.9930+0 4.9700+0 4.9410+0 4.9091+0 4.8856+0 4.8510+0 4.8170+0 4.7858+0 4.7402+0 4.6957+0 4.6377+0	2.6730-2 2.6587-2 2.6379-2 2.6151-2 2.5910-2 2.5644-2 2.4977-2 2.4899-2 2.4824-2 2.4734-2 2.4620-2 2.4493-2 2.4400-2 2.4280-2 2.4122-2 2.3949-2 2.3789-2 2.3603-2 2.3360-2 2.3098-2 2.2902-2 2.2617-2 2.2332-2 2.1988-2 2.1624-2 2.1227-2 2.0750-2 2.0281-2 1.9955-2 1.9472-2 1.9004-2 1.8522-2 1.7977-2 1.7400-2 1.6689-2		1.9500-1 1.9544-1 1.9585-1 1.9657-1 1.9669-1 1.9687-1 1.9706-1 1.9727-1 1.9748-1 1.9774-1 1.9808-1 1.9842-1 1.9888-1 1.9908-1 1.9950-1 2.0000-1 2.0048-1 2.0103-1 2.0177-1 2.0258-1 2.0319-1 2.0410-1 2.0501-1 2.0624-1 2.0737-1 2.0873-1 2.1049-1 2.1245-1 2.1393-1 2.1811-1 2.1831-1 2.2037-1 2.2344-1 2.2852-1 2.3085-1	1.9500-1 1.9544-1 1.9585-1 1.9657-1 1.9669-1 1.9687-1 1.9706-1 1.9727-1 1.9748-1 1.9774-1 1.9808-1 1.9842-1 1.9888-1 1.9908-1 1.9950-1 2.0000-1 2.0048-1 2.0103-1 2.0177-1 2.0258-1 2.0319-1 2.0410-1 2.0501-1 2.0624-1 2.0737-1 2.0873-1 2.1049-1 2.1245-1 2.1393-1 2.1811-1 2.1831-1 2.2037-1 2.2344-1 2.2852-1 2.3085-1	3.5078-6 3.4853-6 3.4597-6 3.4288-6 3.4231-6 3.4141-6 3.4049-6 3.3942-6 3.3840-6 3.3718-6 3.3563-6 3.3389-6 3.3263-6 3.3071-6 3.2883-6 3.2688-6 3.2430-6 3.2178-6 3.1844-6 3.1487-6 3.1220-6 3.0831-6 3.0443-6 2.9933-6 2.9478-6 2.8937-6 2.8288-6 2.7681-6 2.7203-6 2.6545-6 2.5907-6 2.5331-6 2.4507-6 2.3720-6 2.2723-6	

October 31, 1989
Atomic Weight 54.939

ENDL Evaluated
Photon Data

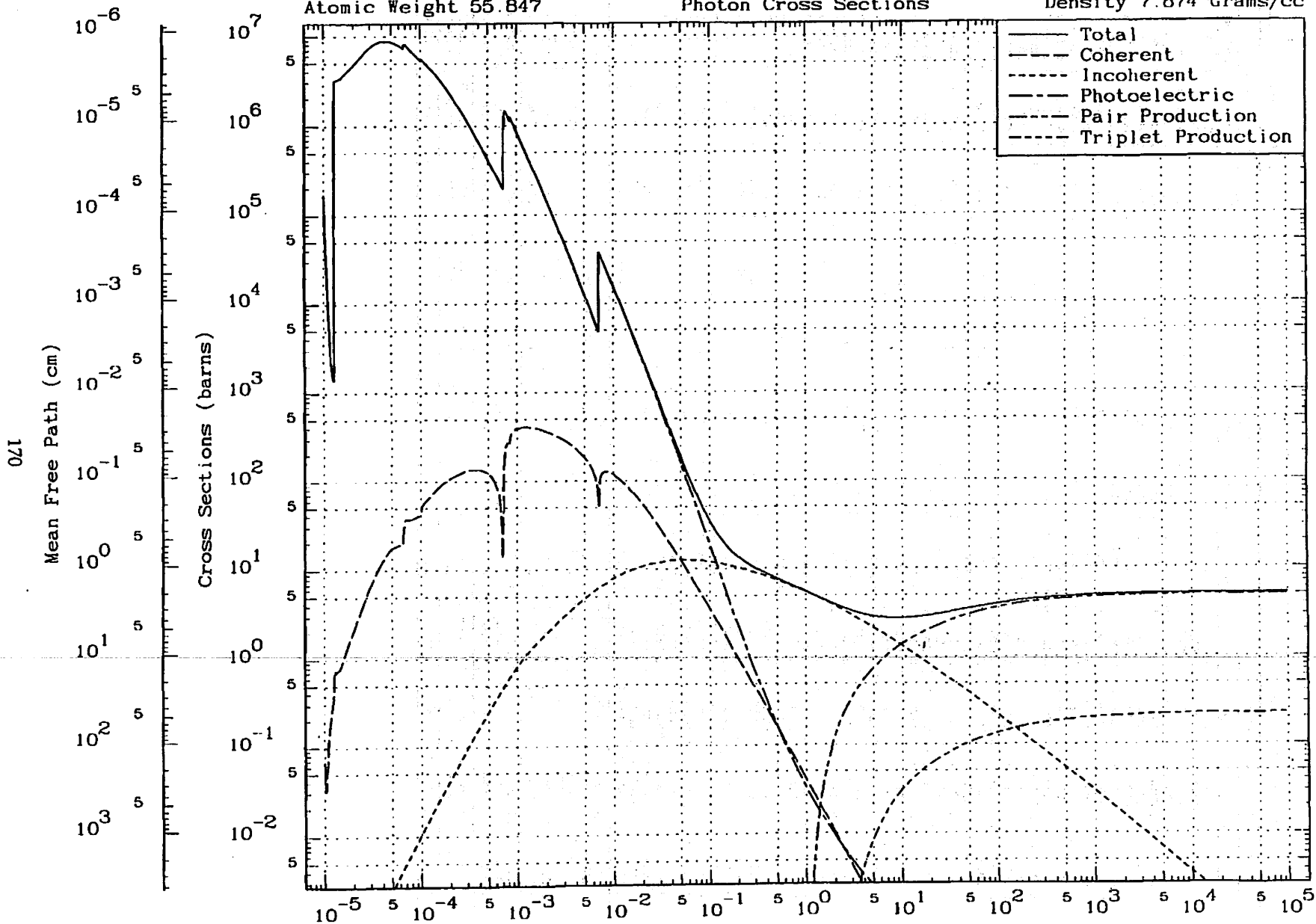
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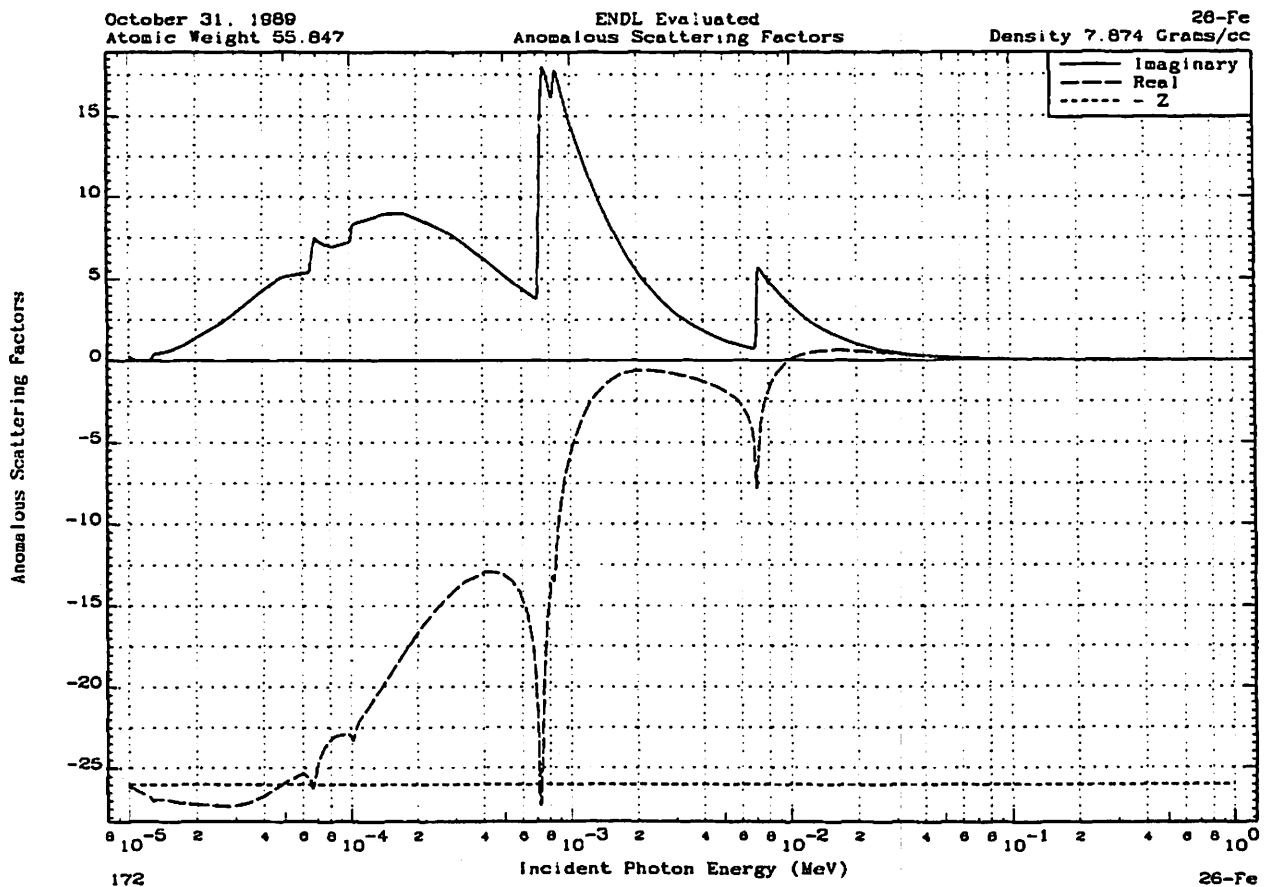
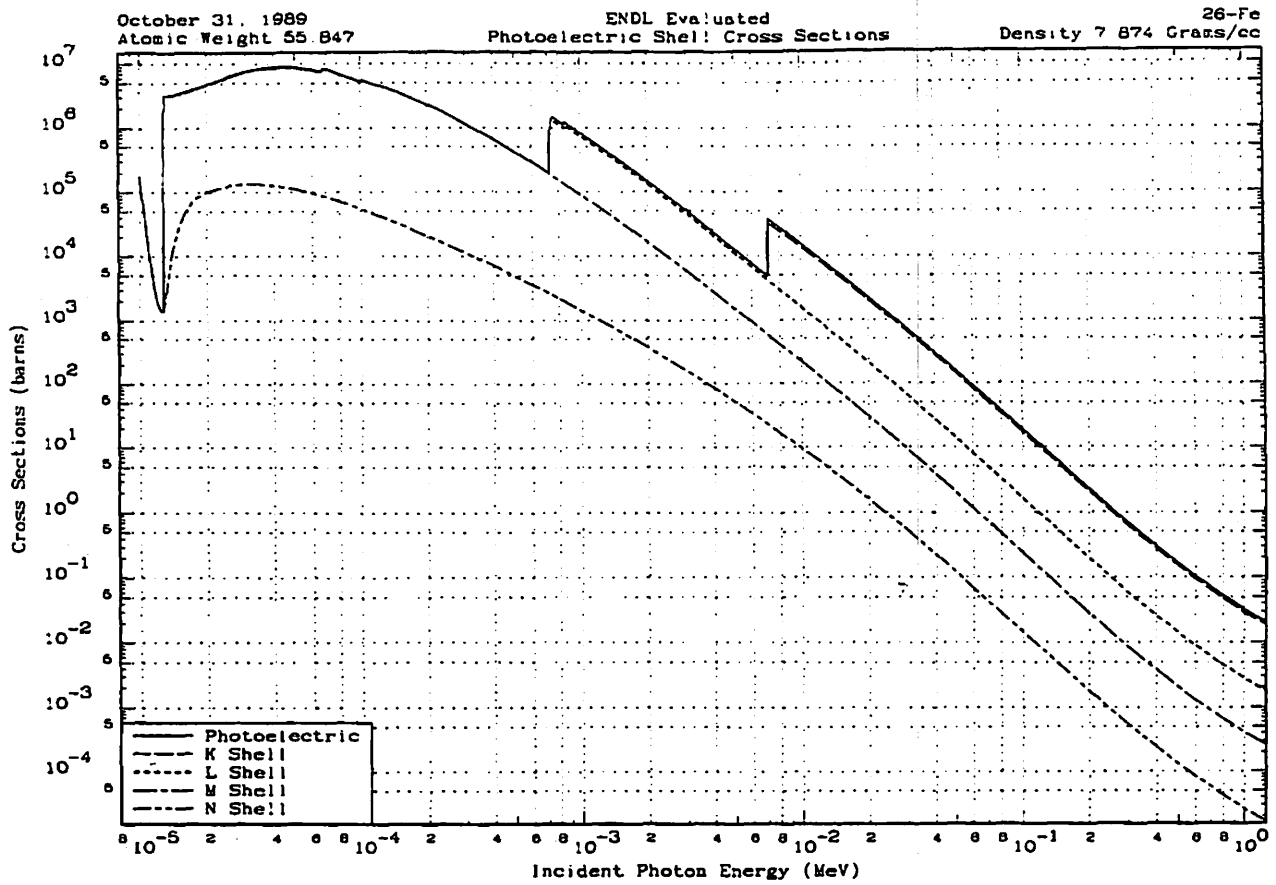
Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cm)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.3077- 0	2.6459+ 0	5.0800- 2	4.6343+ 0	2.1177- 2	4.5869- 0	1.6048- 2	1.0150- 2		2.3439- 1	2.3439- 1	2.1877- 6
1.3430- 0	2.6816+ 0	5.0122- 2	4.5725+ 0	2.0080- 2	4.5239+ 0	1.5300- 2	1.3202- 2		2.3920- 1	2.3920- 1	2.0857- 6
1.3822+ 0	2.7204+ 0	4.9407- 2	4.5072+ 0	1.8959- 2	4.4588+ 0	1.4531- 2	1.6970- 2		2.4454- 1	2.4454- 1	1.9809- 6
1.4338- 0	2.7701+ 0	4.8521- 2	4.4284+ 0	1.7821- 2	4.3727+ 0	1.3607- 2	2.2484- 2		2.5157- 1	2.5157- 1	1.8550- 6
1.5000+ 0	2.8315+ 0	4.7489- 2	4.3305+ 0	1.6103- 2	4.2714+ 0	1.2550- 2	3.0430- 2		2.6062- 1	2.6062- 1	1.7108- 6
1.6172- 0	2.9338+ 0	4.5814- 2	4.1794+ 0	1.3856- 2	4.1076+ 0	1.1063- 2	4.6873- 2		2.7675- 1	2.7675- 1	1.6081- 6
1.7188+ 0	3.0182+ 0	4.4562- 2	4.0652+ 0	1.2268- 2	3.9797+ 0	9.9888- 3	6.3312- 2		2.9091- 1	2.9091- 1	1.3817- 6
1.8923+ 0	3.1584+ 0	4.2582- 2	3.8848+ 0	1.0123- 2	3.7708+ 0	8.5014- 3	9.5242- 2		3.1313- 1	3.1313- 1	1.1589- 6
2.0440+ 0	3.2673+ 0	4.1138- 2	3.7529+ 0	8.8777- 3	3.6112+ 0	7.4840- 3	1.2550- 1		3.3305- 1	3.3305- 1	1.0202- 6
2.0858+ 0	3.2965+ 0	4.0749- 2	3.7174+ 0	8.3335- 3	3.5680+ 0	7.2803- 3	1.3375- 1	2.5112- 7	3.3817- 1	3.3817- 1	9.8974- 7
2.1140+ 0	3.3190+ 0	4.0497- 2	3.6944+ 0	8.1129- 3	3.5397+ 0	7.1157- 3	1.3951- 1	1.1321- 8	3.4186- 1	3.4186- 1	9.7002- 7
2.1195+ 0	3.3229+ 0	4.0449- 2	3.6901+ 0	8.0708- 3	3.5342+ 0	7.0680- 3	1.4065- 1	1.4094- 6	3.4234- 1	3.4234- 1	9.6625- 7
2.1279+ 0	3.3289+ 0	4.0376- 2	3.6834+ 0	8.0073- 3	3.5259+ 0	7.0481- 3	1.4241- 1	1.9114- 6	3.4339- 1	3.4339- 1	9.6054- 7
2.1363+ 0	3.3348+ 0	4.0305- 2	3.6769+ 0	7.9448- 3	3.5178+ 0	7.0049- 3	1.4417- 1	2.5112- 6	3.4443- 1	3.4443- 1	9.5492- 7
2.1470+ 0	3.3424+ 0	4.0214- 2	3.6686+ 0	7.8655- 3	3.5073+ 0	6.9524- 3	1.4647- 1	3.4430- 6	3.4578- 1	3.4578- 1	9.4776- 7
2.1635+ 0	3.3538+ 0	4.0078- 2	3.6580+ 0	7.7461- 3	3.4914+ 0	6.8731- 3	1.5003- 1	5.2356- 6	3.4787- 1	3.4787- 1	9.3695- 7
2.1845+ 0	3.3687+ 0	3.9899- 2	3.6399+ 0	7.5879- 3	3.4714+ 0	6.7743- 3	1.5409- 1	8.2961- 6	3.5046- 1	3.5046- 1	9.2348- 7
2.2018+ 0	3.3808+ 0	3.9756- 2	3.6268+ 0	7.4791- 3	3.4552+ 0	6.6847- 3	1.5750- 1	1.1478- 5	3.5281- 1	3.5281- 1	9.1263- 7
2.2148+ 0	3.3898+ 0	3.9651- 2	3.6172+ 0	7.3918- 3	3.4431+ 0	6.6359- 3	1.6008- 1	1.4301- 5	3.5423- 1	3.5423- 1	9.0481- 7
2.2342+ 0	3.4031+ 0	3.9496- 2	3.6031+ 0	7.2638- 3	3.4253+ 0	6.5497- 3	1.6399- 1	1.9237- 5	3.5688- 1	3.5688- 1	8.9287- 7
2.2537+ 0	3.4182+ 0	3.9345- 2	3.5893+ 0	7.1389- 3	3.4077+ 0	6.4650- 3	1.6798- 1	2.5112- 5	3.5912- 1	3.5912- 1	8.8132- 7
2.2815+ 0	3.4348+ 0	3.9134- 2	3.5701+ 0	6.9659- 3	3.3829+ 0	6.3472- 3	1.7377- 1	3.5174- 5	3.6265- 1	3.6265- 1	8.6528- 7
2.3070+ 0	3.4511+ 0	3.8947- 2	3.5530+ 0	6.8129- 3	3.3607+ 0	6.2424- 3	1.7820- 1	4.6201- 5	3.6592- 1	3.6592- 1	8.5097- 7
2.3382+ 0	3.4708+ 0	3.8725- 2	3.5328+ 0	6.6323- 3	3.3340+ 0	6.1180+ 0	1.8599- 1	6.2121- 5	3.6996- 1	3.6996- 1	8.3401- 7
2.3774+ 0	3.4951+ 0	3.8456- 2	3.5083+ 0	6.4155- 3	3.3012+ 0	5.9874- 3	1.9458- 1	8.6030- 5	3.7507- 1	3.7507- 1	8.1349- 7
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2.5564+ 0	3.6020+ 0	3.7315- 2	3.4041+ 0	5.5489- 3	3.1819+ 0	5.3521- 3	2.3110- 1	2.5112- 4	3.9639- 1	3.9639- 1	7.2961- 7
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2.7453+ 0	3.7031+ 0	3.6268- 2	3.3112+ 0	4.8120- 3	3.0308+ 0	4.8069- 3	2.7023- 1	5.1812- 4	4.2382- 1	4.2382- 1	6.5569- 7
2.8090+ 0	3.7352+ 0	3.5984- 2	3.2827+ 0	4.5963- 3	2.9898+ 0	4.6473- 3	2.8310- 1	6.2747- 4	4.3252- 1	4.3252- 1	6.3353- 7
2.9045+ 0	3.7804+ 0	3.5554- 2	3.2435+ 0	4.2992- 3	2.9310+ 0	4.4202- 3	3.0298- 1	8.0632- 4	4.4584- 1	4.4584- 1	6.0257- 7
3.0398+ 0	3.8402+ 0	3.5000- 2	3.1929+ 0	3.9249- 3	2.8527+ 0	4.1354- 3	3.3109- 1	1.0956- 3	4.6511- 1	4.6511- 1	5.8375- 7
3.2344+ 0	3.9222+ 0	3.4182- 2	3.1183+ 0	3.4872- 3	2.7403+ 0	3.7985- 3	3.6915- 1	1.5832- 3	4.9044- 1	4.9044- 1	5.1781- 7
3.4375+ 0	4.0153+ 0	3.3474- 2	3.0537+ 0	3.0697- 3	2.6342+ 0	3.4943- 3	4.1078- 1	2.1865- 3	5.1835- 1	5.1835- 1	4.7835- 7
3.7847+ 0	4.1434+ 0	3.2439- 2	2.9593+ 0	2.5324- 3	2.4749+ 0	3.0828- 3	4.7554- 1	3.3239- 3	5.6872- 1	5.6872- 1	4.1750- 7
4.0000+ 0	4.2076+ 0	3.1945- 2	2.9142+ 0	2.2672- 3	2.3877+ 0	2.8390- 3	5.1730- 1	4.1180- 3	5.9874- 1	5.9874- 1	3.8702- 7
4.2500+ 0	4.2793+ 0	3.1409- 2	2.8654+ 0	2.0084- 3	2.2957+ 0	2.6248- 3	5.6001- 1	5.0891- 3	6.3549- 1	6.3549- 1	3.5782- 7
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9.0000+ 0	4.6986+ 0	2.8606- 2	2.6096+ 0	4.4782- 4	1.3728+ 0	1.0460- 3	1.2100+ 0	2.5290- 2	1.4847+ 0	1.4847+ 0	1.4259- 7
1.0000+ 1	4.6889+ 0	2.8685- 2	2.6151+ 0	3.8282- 4	1.2748+ 0	8.2890- 4	1.3100+ 0	2.9160- 2	1.6919+ 0	1.6919+ 0	1.2838- 7
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2.0000+ 2	2.8827+ 0	4.4912- 2	4.0972+ 0	9.0707- 7	1.1337- 1	4.0240- 5	3.8270+ 0	1.5680- 1	6.8151+ 1	6.8151+ 1	5.4858- 9
4.0000+ 2	2.6072+ 0	4.7881- 2	4.3680+ 0	2.2677- 7	6.2376- 2	2.0040- 5	4.1290+ 0	1.7860- 1	1.4179+ 2	1.4179+ 2	2.7319- 9
1.0000+ 3	2.6700+ 0	5.0341- 2	4.5825+ 0	3.6283- 8	2.7837- 2	7.9980- 6	4.3700+ 0	1.9450- 1	3.7381+ 2	3.7381+ 2	1.0903- 9
4.0000+ 3	2.5823+ 0	5.2050- 2	4.7484+ 0	2.2677- 8	8.0718- 3	1.8970- 6	4.5320+ 0	2.0830- 1	1.5483+ 3	1.5483+ 3	2.7223-10
1.0000+ 4	2.5599+ 0	5.2505- 2	4.7898+ 0	3.6283-10	3.5292- 3	7.8860- 7	4.5740+ 0	2.1230- 1	3.9056+ 3	3.9056+ 3	1.0887-10
1.0000+ 5	2.5435+ 0	5.2844- 2	4.8208+ 0	3.6289-12	4.2827- 4	7.9850- 8	4.6050+ 0	2.1540- 1	3.9318+ 4	3.9318+ 4	1.0885-11

October 31, 1989
Atomic Weight 55.847

ENDL Evaluated
Photon Cross Sections

26-Fe
Density 7.874 Grams/cc

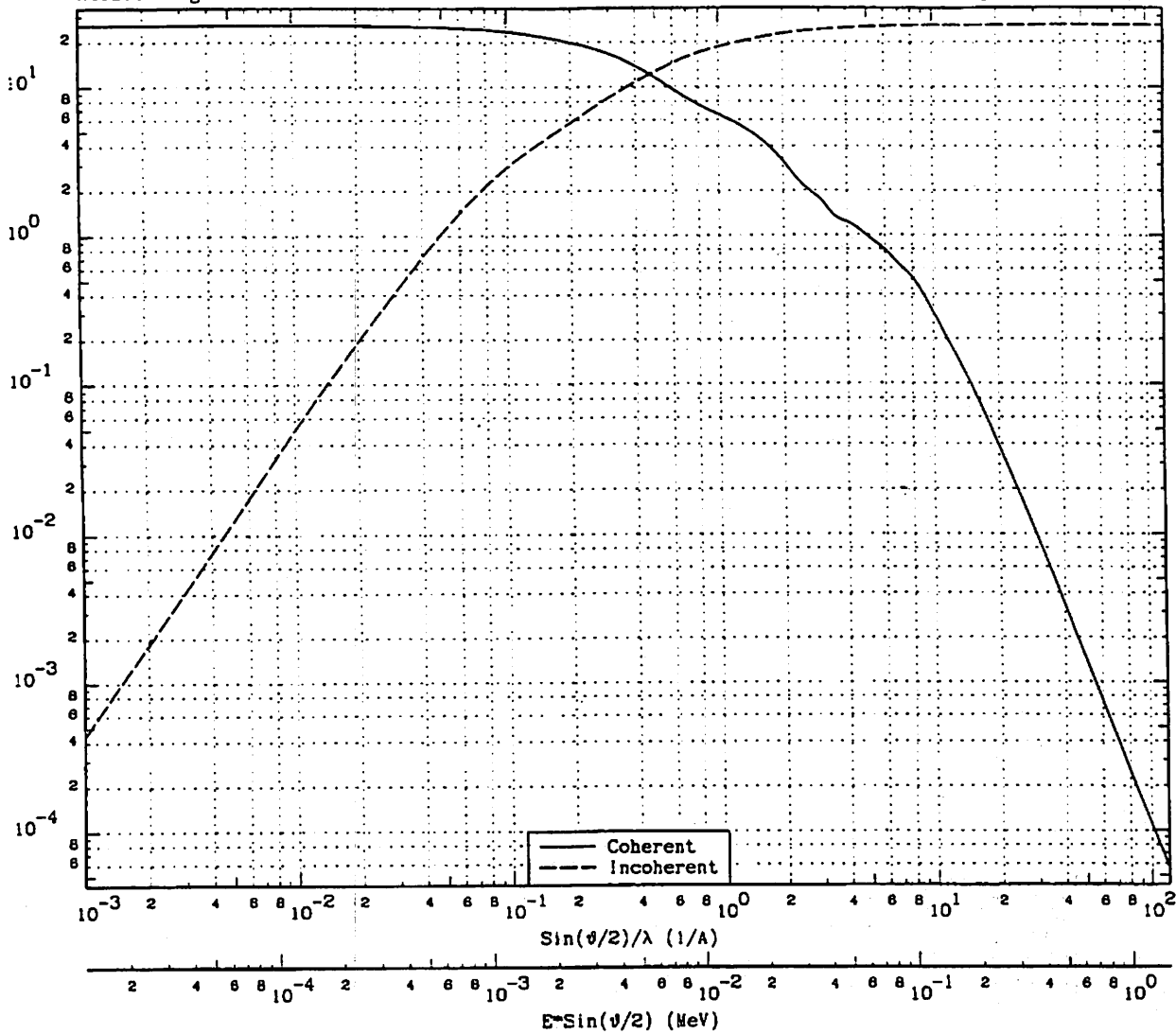




October 31, 1989
Atomic Weight 55.847

ENDL Evaluated
Form Factors

26-Fe
Density 7.874 Grans/cc



$n(\phi/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\phi/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\phi/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\phi/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\phi/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\phi/2)$ MeV	Coherent	Incoherent
0000+	0	0.0000+	0	7.0000-	1	8.6790-	3	8.4897+	0	1.5718+	1
0000-	3	1.2399-	5	2.6000+	1	4.3659-	4	8.0000-	1	9.9188-	3
0000-	3	8.1993-	5	2.5983+	1	1.2000-	2	7.6042+	0	1.6831+	1
0000-	2	1.2399-	4	2.5981+	1	1.2000-	2	6.9688+	0	1.7737+	1
0000-	2	1.8598-	4	2.5832+	1	1.1090-	1	6.5150+	0	1.8488+	1
5000-	2	2.4797-	4	2.5680+	1	1.9470-	1	5.5588+	0	1.9959+	1
0000-	2	3.0996-	4	2.5735+	1	4.2330-	1	4.8688+	0	2.1097+	1
0000-	2	3.7196-	4	2.5302+	1	1.0600+	0	3.8787+	0	2.2000+	1
0000-	2	4.9594-	4	2.4707+	1	1.8065+	0	3.1488+	0	2.2704+	1
0000-	2	6.1993-	4	2.4023+	1	2.5442+	0	2.4216+	1	2.2704+	1
0000-	2	8.6790-	4	2.3866+	1	2.8910+	0	2.4598+	1	1.5650+	2
0000-	2	1.1159-	3	2.2736+	1	3.6841+	0	2.4727+	1	1.8404+	0
0000-	1	1.2399-	3	2.1803+	1	4.4050+	0	2.4216+	1	2.2059-	5
2500-	1	1.5498-	3	2.0911+	1	5.0963+	0	2.4216+	1	2.6017-	6
5000-	1	1.8598-	3	2.0033+	1	5.7810+	0	2.3650+	1	2.6000+	1
7500-	1	2.1697-	3	1.8340+	1	7.1381+	0	2.1594+	0	2.6000+	1
0000-	1	2.4797-	3	1.6729+	1	8.4320+	0	2.1234+	0	2.5068+	1
5000-	1	3.0996-	3	1.5809+	1	1.0733+	1	2.1234+	0	2.5068+	1
0000-	1	3.7196-	3	1.4681+	1	1.2687+	1	2.1234+	0	2.5068+	1
0000-	1	4.9594-	3	1.3945+	1	1.3945+	1	2.1234+	0	2.5068+	1
0000-	1	6.1993-	3	1.2999+	1	1.2999+	1	2.1234+	0	2.5068+	1
0000-	1	7.4391-	3	1.2399+	1	1.2399+	1	2.1234+	0	2.5068+	1
0000-	1	8.6790-	3	1.1811-	1	1.0841-	1	2.1234+	0	2.5068+	1
0000-	1	1.2399-	3	1.1468+	1	1.2687+	1	2.1234+	0	2.5068+	1
0000-	1	1.8598-	3	1.1468+	1	1.2687+	1	2.1234+	0	2.5068+	1
0000-	1	2.4797-	3	1.1468+	1	1.2687+	1	2.1234+	0	2.5068+	1
0000-	1	3.0996-	3	1.1468+	1	1.2687+	1	2.1234+	0	2.5068+	1
0000-	1	3.7196-	3	1.1468+	1	1.2687+	1	2.1234+	0	2.5068+	1
0000-	1	4.9594-	3	1.1468+	1	1.2687+	1	2.1234+	0	2.5068+	1
0000-	1	6.1993-	3	1.1468+	1	1.2687+	1	2.1234+	0	2.5068+	1
0000-	1	7.4391-	3	1.1468+	1	1.2687+	1	2.1234+	0	2.5068+	1
0000-	1	8.6790-	3	1.1468+	1	1.2687+	1	2.1234+	0	2.5068+	1

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm*ca/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	6.8808-5	1.8457+3	1.7117+5	6.8516-2	9.4472-5	1.7117+5			1.4533-1	1.4533-1	
1.0035-5	7.6594-5	1.6581+3	1.5377+5	6.2077-2	9.5141-5	1.5377+5			1.3102-1	1.3102-1	
1.0217-5	1.3210-4	9.8139+2	8.8156+4	3.4363-2	9.8617-5	8.8156+4			7.7340-2	7.7340-2	
1.0296-5	1.6713-4	7.5987+2	7.0467+4	3.1837-2	1.0016-4	7.0467+4			6.1603-2	6.1603-2	
1.0395-5	2.2381-4	5.8744+2	5.2622+4	3.4512-2	1.0210-4	5.2622+4			4.8448-2	4.8448-2	
1.0524-5	3.2210-4	3.9429+2	3.6565+4	4.4393-2	1.0465-4	3.6565+4			3.2674-2	3.2674-2	
1.0700-5	5.2115-4	2.4389+2	2.2599+4	6.4124-2	1.0819-4	2.2599+4			2.0532-2	2.0532-2	
1.0893-5	8.4951-4	1.4950+2	1.3884+4	8.0558-2	1.1213-4	1.3884+4			1.2823-2	1.2823-2	
1.1141-5	1.5112-3	8.4037+1	7.7933+3	1.2856-1	1.1729-4	7.7933+3			7.3717-3	7.3717-3	
1.1450-5	2.7846-3	4.5608+1	4.2265+3	1.8042-1	1.2390-4	4.2265+3			4.1117-3	4.1117-3	
1.1681-5	4.0668-3	3.1229+1	2.8960+3	2.2189-1	1.2898-4	2.8958+3			2.8721-3	2.8721-3	
1.1826-5	4.9879-3	2.5461+1	2.3612+3	2.4918-1	1.3218-4	2.3610+3			2.3707-3	2.3707-3	
1.2041-5	6.3441-3	2.0019+1	1.8564+3	2.9147-1	1.3705-4	1.8562+3			1.8977-3	1.8977-3	
1.2291-5	7.6663-3	1.8566+1	1.5363+3	3.5103-1	1.4280-4	1.5359+3			1.6029-3	1.6029-3	
1.2439-5	8.1660-3	1.5552+1	1.4423+3	4.1814-1	1.4626-4	1.4418+3			1.5228-3	1.5228-3	
1.2554-5	8.3909-3	1.5136+1	1.4038+3	5.0487-1	1.4899-4	1.4031+3			1.4956-3	1.4956-3	
1.2688-5	8.4774-3	1.4881+1	1.3893+3	6.5282-1	1.5219-4	1.3888+3			1.4698-3	1.4698-3	
1.2740-5	8.4266-3	1.5071+1	1.3977+3	8.9362-1	1.5345-4	1.3970+3			1.5111-3	1.5111-3	
M5 1.2740-5	8.1584-6	2.0622+4	1.9124+6	8.9362-1	1.5345-4	1.9124+6			2.0887+0	2.0887+0	
1.2844-5	8.1595-6	2.0619+4	1.9121+6	7.6830-1	1.5597-4	1.9121+6			2.0852+0	2.0852+0	
1.2910-5	8.1599-6	2.0617+4	1.9120+6	7.6479-1	1.5758-4	1.9120+6			2.0658+0	2.0658+0	
M4 1.2910-5	3.7101-6	3.4231+4	3.1744+6	7.6479-1	1.5758-4	3.1744+6			3.4797+0	3.4797+0	
1.3019-5	3.7074-6	3.4256+4	3.1768+6	7.4380-1	1.6028-4	3.1768+6			3.5118+0	3.5118+0	
1.3144-5	3.7042-6	3.4266+4	3.1795+6	7.0072-1	1.6335-4	3.1795+6			3.5484+0	3.5484+0	
1.4520-5	3.5516-6	3.5759+4	3.3161+6	7.8163-1	2.0020-4	3.3161+6			4.0883+0	4.0883+0	
1.5024-5	3.4619-6	3.6685+4	3.4021+6	6.5398-1	2.1470-4	3.4021+6			4.3398+0	4.3398+0	
1.8190-5	2.7664-6	4.5432+4	4.2132+6	1.6231+0	3.1774-4	4.2132+6			6.5072+0	6.5072+0	
2.5769-5	1.8182-6	6.9928+4	6.4848+6	4.3958+0	6.4878-4	6.4848+6			1.4188+1	1.4188+1	
2.6517-5	1.6328-6	7.7790+4	7.2140+6	5.8745+0	7.9861-4	7.2140+6			1.7468+1	1.7468+1	
3.3069-5	1.4449-6	8.7895+4	8.1510+6	8.4377+0	1.0818-3	8.1510+6			2.2887+1	2.2887+1	
3.4641-5	1.4084-6	9.0303+4	8.3743+6	9.4523+0	1.1899-3	8.3743+6			2.4631+1	2.4631+1	
4.0000-5	1.3191-6	9.8275+4	8.8282+6	1.2610+1	1.5999-3	8.8282+6			3.0323+1	3.0323+1	
4.8625-5	1.3338-6	9.5234+4	8.8318+6	1.6989+1	2.3938-3	8.8318+6			3.8482+1	3.8482+1	
5.0344-5	1.3487-6	9.4165+4	8.7325+6	1.7590+1	2.5718-3	8.7325+6			3.7328+1	3.7328+1	
6.0430-5	1.4875-6	8.5378+4	7.9174+6	1.9300+1	3.7489-3	7.9174+6			4.0624+1	4.0624+1	
6.4848-5	1.5735-6	8.0711+4	7.4849+6	1.9549+1	4.3501-3	7.4848+6			4.1274+1	4.1274+1	
6.5828-5	1.5883-6	8.0059+4	7.4244+6	2.2023+1	4.4446-3	7.4244+6			4.1389+1	4.1389+1	
6.6060-5	1.5945-6	7.9648+4	7.3863+6	2.2091+1	4.5056-3	7.3862+6			4.1430+1	4.1430+1	
6.6450-5	1.6019-6	7.9283+4	7.3524+6	2.4752+1	4.5606-3	7.3524+6			4.1483+1	4.1483+1	
M3 6.6450-5	1.4387-6	8.8272+4	8.1881+6	2.4752+1	4.5606-3	8.1880+6			4.6186+1	4.6186+1	9.1663-5
8.8986-5	1.4508-6	8.7549+4	8.1180+6	2.8909+1	4.8368-3	8.1190+6			4.8177+1	4.8177+1	8.9325-5
8.8040-5	1.4740-6	8.8160+4	7.9901+6	3.3607+1	4.7887-3	7.9901+6			4.8160+1	4.8160+1	8.4946-5
M2 6.8040-5	1.4035-6	9.0486+4	8.3913+6	3.3607+1	4.7887-3	8.3913+6			4.8477+1	4.8477+1	1.3092-4
6.8818-5	1.4188-6	8.9650+4	8.3138+6	3.5933+1	4.8727-3	8.3138+6			4.8436+1	4.8436+1	1.2752-4
6.9441-5	1.4364-6	8.8478+4	8.2062+6	3.7058+1	4.9944-3	8.2062+6			4.8378+1	4.8378+1	1.2287-4
8.2391-5	1.7797-6	7.1359+4	6.8175+6	3.7671+1	7.1079-3	6.8175+6			4.6293+1	4.6293+1	7.0360-5
9.5934-5	2.1071-6	6.0273+4	5.5895+6	4.0825+1	9.7307-3	5.5895+6			4.5529+1	4.5529+1	7.2951-5
9.9535-5	2.1828-6	5.7922+4	5.3715+6	4.0691+1	1.0500-2	5.3714+6			4.5398+1	4.5398+1	7.8368-5
1.0000-4	2.2037-6	5.7832+4	5.3445+6	4.1408+1	1.0801-2	5.3445+6			4.5379+1	4.5379+1	7.6811-5
1.0038-4	2.2126-6	5.7398+4	5.3228+6	4.1895+1	1.0883-2	5.3229+6			4.5365+1	4.5365+1	7.7170-5
1.0101-4	2.2277-6	5.7010+4	5.2869+6	4.5025+1	1.0821-2	5.2868+6			4.5342+1	4.5342+1	7.7776-5
M1 1.0101-4	2.0590-6	6.0784+4	5.6378+6	4.5025+1	1.0821-2	5.6377+6			4.8352+1	4.8352+1	1.1814-4
1.0176-4	2.1048-6	6.0344+4	5.5960+6	4.8850+1	1.0985-2	5.5960+6			4.8349+1	4.8349+1	1.1873-4
1.0274-4	2.1252-6	5.9780+4	5.5420+6	5.2320+1	1.1203-2	5.5419+6			4.8345+1	4.8345+1	1.1951-4
1.0815-4	2.2582-6	5.8289+4	5.2200+6	5.7390+1	1.2441-2	5.2189+6			4.7934+1	4.7933+1	2.3092-4
1.5000-4	3.3375-6	3.8053+4	3.5289+6	8.3925+1	2.4083-2	3.5288+6			4.4943+1	4.4943+1	1.4158-4
1.7598-4	4.2065-6	3.0182+4	2.7999+6	9.6828+1	3.3022-2	2.7998+6			4.1830+1	4.1830+1	1.3485-4
2.1177-4	5.5819-6	2.2752+4	2.1089+6	1.1142+2	4.7631-2	2.1088+6			3.7937+1	3.7937+1	1.1854-4
2.8681-4	9.5028-6	1.3385+4	1.2394+6	1.3168+2	8.7597-2	1.2393+6			3.0389+1	3.0389+1	8.5638-5
3.3110-4	1.2243-5	1.0373+4	9.8198+5	1.3827+2	1.1395-1	9.8183+5			2.7040+1	2.7040+1	7.0947-5
4.1134-4	1.8533-5	8.8525+3	8.3548+5	1.3974+2	1.7301-1	8.3534+5			2.2190+1	2.2190+1	5.1464-5
4.8458-4	2.5880-5	4.9187+3	4.5814+5	1.2918+2	2.3523-1	4.5601+5			1.8781+1	1.8781+1	3.8973-5
5.4134-4	3.2529-5	3.9042+3	3.6208+5	1.1599+2	2.8848-1	3.6194+5			1.6638+1	1.6638+1	3.1934-5
5.8085-4	3.7712-5	3.3878+3	3.1230+5	1.0301+2	3.2689-1	3.1220+5			1.5392+1	1.5392+1	2.8075-5
6.2740-4	4.4588-5	2.8483+3	2.8414+5	8.2547+1	3.7478-1	2.8408+5			1.4087+1	1.4087+1	2.4187-5
6.8055-4	4.9945-5	2.5428+3	2.3581+5	8.2266+1	4.1083-1	2.3575+5			1.3222+1	1.3222+1	2.1782-5
6.7533-4	5.2441-5	2.4218+3	2.2458+5	5.0642+1	4.2707-1	2.2453+5			1.2875+1	1.2875+1	2.0845-5
6.9437-4	5.5758-5	2.2777+3	2.1123+5	3.1512+1	4.4888-1	2.1119+5			1.2451+1	1.2451+1	1.9713-5
7.0370-4	5.7441-5	2.2110+3	2.0504+5	2.0369+1	4.5952-1	2.0502+5			1.2251+1	1.2251+1	1.9188-5
7.0760-4	5.8121-5	2.1851+3	2.0284+5	1.5889+1	4.8389-1	2.0262+5			1.2173+1	1.2173+1	1.8982-5
7.0984-4	5.8499-5	2.1710+3	2.0133+5	1.4107+1	4.8893-1	2.0132+5			1.2130+1	1.2130+1	1.8870-5
7.1144-4	5.8827-5	2.1589+3	2.0021+5	1.3584+1	4.6841-1	2.0019+5			1.2093+1	1.2093+1	1.8774-5
7.1279-4	5.9072-5	2.1499+3	1.9938+5	1.4111+1	4.6990-1	1.9903+5			1.2068+1	1.2068+1	1.8703-5
7.1420-4	5.9330-5	2.1408+3	1.9851+5	1.5798+1	4.7164-1	1.9849+5			1.2037+1	1.2037+1	1.8629-5
7.1552-4	5.9571-5	2.1319+3	1.9771+5	1.8784+1	4.7319-1	1.9789+5			1.2010+1	1.2010+1	1.8560-5
7.2069-4	6.0517-5	2.0986+3	1.9482+5	4.2467+1	4.7927-1	1.9457+5			1.1908+1	1.1908+1	1.8293-5
L3 7.2069-4	1.3245-5	9.5885+3	8.8920+5	4.2467+1	4.7927-1	8.8916+5			5.4409+1	5.4248+1	6.1178-1
7.2149-4	1.3128-5	9.6751+3	8.9723+5	4.8058+1	4.8021-1	8.9719+5			5.4981+1	5.4788+1	1.6372-1
7.2504-4	1.2610-5	1.0071+4	9.3397+5	7.3855+1	4.8442-1	9.3389+5			5.7482+1	5.7319+1	1.7284-1
7.2832-4	1.2155-5	1.0449+4	9.6898+5	9.7421+1	4.8819-1	9.6897+5			5.9914+1	5.9733+1	1.8124-1
7.3206-4	1.1897-5	1.0897+4	1.0077+6	1.2399+2	4.9232-1	1.0078+6			6.2831+1	6.2440+1	1.9091-1
7.3355-4	1.1807-5	1.0942+4	1.0147+6	1.3329+2	4.9398-1	1.0148+6			6.3191+1	6.2968+1	1.9272-1
L2 7.3355-4	9.5597-6	1.3285+4	1.2320+6	1.3329+2	4.9398-1	1.2319+6			7.8728+1	7.8473+1	2.5219-1
7.3890-4	9.1188-6	1.3928+4	1.2918+6	1.5878+2	4.9787-1	1.2915+6			8.0804+1	8.0535+1	2.6819-1
7.4348-4	8.4813-6	1.4974+4	1.3886+6	1.9548+2	5.0498-1	1.3884+6			8.7849+1	8.7533+1	2.9549-1
7.4932-4	8.1689-6	1.5551+4	1.4421+6	2.1759+2	5.1150-1	1.4419+6			9.1737+1	9.1428+1	3.1137-1
7.5488-4	8.1718-6	1.5541+4	1.4412+6	2.3							

October 31, 1989
Atomic Weight 55.847

ENDL Evaluated
Photon Data

26-Fe
Density 7.874 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cm)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
7.6084-4	8.2893-6	1.5321+4	1.4208+6	2.4502+2	5.2446-1	1.4206+6			9.1770-1	9.1462-1	3.0788-1
7.8151-4	9.1404-6	1.3894+4	1.2885+6	2.6863+2	5.5958-1	1.2682+6			8.6576-1	8.6297+1	2.7875-1
8.1069-4	9.7001-6	1.3093+4	1.2142+6	2.7392+2	5.8201-1	1.2139+6			8.3557+1	8.3294+1	2.6246-1
8.3458-4	1.0426-5	1.2181+4	1.1296+6	2.6870+2	6.1040-1	1.1293+6			8.0025+1	7.9781+1	2.4399-1
8.3849-4	1.0580-5	1.2004+4	1.1132+6	2.7492+2	6.1830-1	1.1130+6			7.9330+1	7.9090+1	2.4041-1
8.4296-4	1.0689-5	1.1882+4	1.1019+6	2.8556+2	6.2049-1	1.1016+6			7.8845+1	7.8607+1	2.3753-1
8.4296-4	9.4583-6	1.3427+4	1.2452+6	2.8555+2	6.2049-1	1.2449+6			8.9103+1	8.8828+1	2.7477-1
8.4852-4	9.8280-6	1.3181+4	1.2233+6	3.0860+2	6.2842-1	1.2230+6			8.6212+1	8.7942+1	2.6993-1
8.6050-4	9.8182-6	1.2807+4	1.1877+6	3.3718+2	6.4181-1	1.1874+6			8.6752+1	8.6490+1	2.6210-1
9.0000-4	1.0993-5	1.1553+4	1.0714+6	3.8431+2	6.9084-1	1.0710+6			8.1843+1	8.1607+1	2.3648-1
9.8196-4	1.2840-5	9.8908+3	9.1723+5	3.8564+2	7.6740-1	9.1685+5			7.4886+1	7.4683+1	2.0240-1
1.0000-3	1.4072-5	9.0248+3	8.3693+5	3.9391+2	8.1481-1	8.3653+5			7.1028+1	7.0843+1	1.8472-1
1.2354-3	2.3261-5	5.4597+3	5.0832+5	4.0984+2	1.1054+0	5.0591+5			5.3065+1	5.2953+1	1.1194-1
1.8509-3	4.7727-5	2.8810+3	2.4677+5	3.9214+2	1.5877+0	2.4638+5			3.4536+1	3.4481+1	5.4517-2
2.2991-3	1.1280-4	1.1258+3	1.0441+5	3.4258+3	2.2738+0	1.0408+5			2.0015+1	2.0292+1	2.3020-2
3.1088-3	2.5187-4	5.0422+2	4.6780+4	2.8824+2	3.0823+0	4.6471+4			1.2270+1	1.2280+1	1.0288-2
4.0084-3	5.0085-4	2.5357+2	2.3515+4	2.3324+2	3.9223+0	2.3248+4			7.9225+0	7.9173+0	5.1408-3
5.0000-3	9.1493-4	1.3881+2	1.2873+4	1.8336+2	4.7665+0	1.2885+4			5.3851+0	5.3823+0	2.8049-3
5.5653-3	1.2319-3	1.0309+2	9.5605+3	1.5783+2	5.2244+0	9.3975+3			4.4407+0	4.4388+0	2.0788-3
6.1203-3	1.6039-3	7.8180+1	7.3428+3	1.3228+2	5.8283+0	7.2050+3			3.7442+0	3.7428+0	1.5918-3
6.4727-3	1.8732-3	6.7799+1	6.2874+3	1.1377+2	5.8774+0	6.1678+3			3.3998+0	3.3984+0	1.3638-3
6.8301-3	2.0030-3	6.3404+1	5.8788+3	1.0397+2	5.9885+0	5.7699+3			3.2482+0	3.2469+0	1.2760-3
6.8154-3	2.1651-3	5.8659+1	5.4398+3	8.8998+1	6.1186+0	5.3448+3			3.0930+0	3.0918+0	1.1824-3
6.8829-3	2.2272-3	5.7022+1	5.2880+3	8.1232+1	6.1658+0	5.2006+3			3.0394+0	3.0382+0	1.1506-3
6.8438-3	2.2866-3	5.5564+1	5.1528+3	7.1610+1	6.2093+0	5.0750+3			2.9922+0	2.9911+0	1.1229-3
7.0390-3	2.3813-3	5.3333+1	4.9459+3	5.2817+1	6.2745+0	4.8868+3			2.9207+0	2.9196+0	1.0815-3
7.0542-3	2.3960-3	5.3006+1	4.9155+3	5.1781+1	6.2851+0	4.8575+3			2.9095+0	2.9084+0	1.0750-3
7.0834-3	2.4223-3	5.2429+1	4.8621+3	5.3892+1	6.3054+0	4.8018+3			2.8881+0	2.8870+0	1.0628-3
7.0834-3	3.0945-4	4.1041+2	3.8080+4	5.3892+1	6.3054+0	3.8000+4			2.2854+1	1.8584+1	6.2909+0
7.1070-3	3.1202-4	4.0703+2	3.7747+4	5.6730+1	6.3217+0	3.7682+4			2.2737+1	1.8498+1	6.2390+0
7.1556-3	3.1730-4	4.0025+2	3.7118+4	7.4306+1	6.3564+0	3.7038+4			2.2498+1	1.8384+1	6.1341+0
7.2095-3	3.2323-4	3.9291+2	3.6437+4	8.9523+1	6.3927+0	3.6341+4			2.2239+1	1.8218+1	6.0208+0
7.2789-3	3.3081-4	3.8391+2	3.5802+4	1.0043+2	6.4393+0	3.5485+4			2.1922+1	1.8039+1	5.8828+0
7.3809-3	3.4045-4	3.7304+2	3.4594+4	1.0814+2	6.4971+0	3.4480+4			2.1538+1	1.8218+1	5.7172+0
7.4425-3	3.5000-4	3.6286+2	3.3651+4	1.1367+2	6.5463+0	3.3530+4			2.1177+1	1.8144+1	5.5623+0
7.5839-3	3.6814-4	3.4498+2	3.1992+4	1.2011+2	6.6388+0	3.1865+4			2.0534+1	1.8244+1	5.2905+0
8.0000-3	4.1967-4	3.0262+2	2.8084+4	1.2714+2	6.8770+0	2.7930+4			1.8972+1	1.4325+1	4.8472+0
8.7305-3	5.2294-4	2.4286+2	2.2522+4	1.2789+2	7.2898+0	2.2386+4			1.8585+1	1.2948+1	3.7390+0
1.0000-2	7.4678-4	1.7006+2	1.5771+4	1.1898+2	7.9663+0	1.5644+4			1.3283+1	1.0661+1	2.6223+0
1.2852-2	1.4870-3	8.8574+1	8.0285+3	9.3825+1	9.0827+0	7.9258+3			8.6488+0	7.3139+0	1.3350+0
1.7321-2	3.3212-3	3.8240+1	3.5462+3	6.5748+1	1.0319+1	3.4701+3			5.1039+0	4.5168+0	5.8701-1
2.3882-2	8.1278-3	1.5626+1	1.4491+3	4.1860+1	1.1408+1	1.5968+3			2.8314+0	2.5942+0	2.3720-1
3.4852-2	2.3382-2	5.4314+0	5.0369+2	2.2979+1	1.2238+1	4.6847+2			1.3803+0	1.3005+0	7.9725-2
5.2214-2	7.3035-2	1.7389+0	1.6128+2	1.1452+1	1.2602+1	1.3720+2			6.1320+1	5.8983+1	2.3370-2
6.9305-2	1.5175-1	8.3691-1	7.7812+1	6.9898+0	1.2487+1	5.8138+1			3.5011-1	3.4020-1	8.9152-3
8.5051-2	2.4368-1	5.2118-1	4.8333+1	4.8431+0	1.2316+1	3.1174+1			2.3650-1	2.3119-1	5.3182-3
1.0000-1	3.4015-1	3.7336-1	3.4824+1	3.6027+0	1.2084+1	1.8957+1			1.7568-1	1.7243-1	3.2335-3
1.2183-1	4.8215-1	2.6340-1	2.4427+1	2.4929+0	1.1605+1	1.0329+1			1.2637-1	1.2461-1	1.7620-3
1.4711-1	6.2944-1	2.0177-1	1.8711+1	1.7418+0	1.1184+1	5.7855+0			9.7956-2	9.6969-2	9.8708-4
1.7149-1	7.5200-1	1.6888-1	1.5661+1	1.2982+0	1.0752+1	3.8111+0			8.4098-2	8.3482-2	6.1805-4
2.0000-1	8.8963-1	1.4604-1	1.3543+1	9.8502-1	1.0315+1	2.2634+0			7.6974-2	7.6587-2	3.8831-4
2.3769-1	9.8590-1	1.2752-1	1.1826+1	6.8048-1	9.7845+0	1.3510+0			7.4948-2	7.4718-2	2.3066-4
2.8263-1	1.1173+0	1.1367-1	1.0542+1	4.8248-1	9.2438+0	8.0518-1			7.7891-2	7.7753-2	1.3739-4
3.5428-1	1.2707+0	9.9942-2	9.2683+0	3.1800+1	8.5304+0	4.2187-1			8.8223-2	8.8151-2	7.2009-5
4.4157-1	1.4228+0	8.9283-2	8.2778+0	2.0458+1	7.8459+0	2.2741-1			1.0415-1	1.0411-1	3.8774-5
6.0000-1	1.6554+0	7.8717-2	7.1144+0	1.1137+1	6.9001+0	1.0282-1			1.3438-1	1.3437-1	1.7652-5
8.2396-1	1.8267+0	6.5915-2	8.1127+0	5.6230-2	6.8043+0	4.9221-2			1.7717-1	1.7717-1	8.3974-6
1.0000+0	2.1214+0	5.8867-2	5.5518+0	4.0256-2	5.4790+0	3.2594-2			2.0785-1	2.0785-1	5.5828-6
1.0220+0	2.1450+0	5.9207-2	5.4907+0	3.8547-2	5.4212+0	3.0530-2			2.1148-1	2.1147-1	5.2787-6
1.0251+0	2.1485+0	5.9110-2	5.4817+0	3.8313-2	5.4126+0	3.0734-2	3.0283-8		2.1195-1	2.1195-1	5.2452-6
1.0287+0	2.1528+0	5.8998-2	5.4712+0	3.8044-2	5.4027+0	3.0508-2	3.0283-7		2.1250-1	2.1250-1	5.2068-6
1.0332+0	2.1578+0	5.8861-2	5.4585+0	3.7718-2	5.3906+0	3.0234-2	1.3669-8		2.1318-1	2.1317-1	5.1599-6
1.0340+0	2.1585+0	5.8838-2	5.4563+0	3.7859-2	5.3894+0	3.0185-2	1.6781-8		2.1330-1	2.1329-1	5.1515-6
1.0353+0	2.1600+0	5.8797-2	5.4526+0	3.7565-2	5.3849+0	3.0106-2	2.2777-6		2.1350-1	2.1349-1	5.1380-6
1.0366+0	2.1615+0	5.8756-2	5.4488+0	3.7488-2	5.3813+0	3.0025-2	3.0283-6		2.1370-1	2.1369-1	5.1242-6
1.0382+0	2.1632+0	5.8708-2	5.4444+0	3.7358-2	5.3771+0	2.9930-2	4.0868-8		2.1384-1	2.1383-1	5.1081-6
1.0397+0	2.1649+0	5.8663-2	5.4401+0	3.7249-2	5.3731+0	2.9840-2	5.3096-6		2.1416-1	2.1416-1	5.0927-6
1.0415+0	2.1669+0	5.8608-2	5.4351+0	3.7120-2	5.3682+0	2.9733-2	7.0644-6		2.1443-1	2.1443-1	5.0743-6
1.0438+0	2.1695+0	5.8539-2	5.4287+0	3.6957-2	5.3621+0	2.9696-2	8.8056-6		2.1478-1	2.1478-1	5.0510-6
1.0464+0	2.1724+0	5.8460-2	5.4214+0	3.6774-2	5.3552+0	2.9442-2	1.3643-5		2.1518-1	2.1517-1	5.0248-6
1.0483+0	2.1745+0	5.8403-2	5.4181+0	3.6642-2	5.3501+0	2.9331-2	1.6886-5		2.1546-1	2.1546-1	5.0058-6
1.0512+0	2.1778+0	5.8317-2	5.4081+0	3.6440-2	5.3424+0	2.9182-2	2.3040-5		2.1590-1	2.1590-1	4.9770-6
1.0541+0	2.1810+0	5.8231-2	5.4001+0	3.6242-2	5.3349+0	2.8996-2	3.0283-5		2.1634-1	2.1633-1	4.9496-6
1.0577+0	2.1850+0	5.8124-2	5.3902+0	3.5995-2	5.3254+0	2.8789-2	4.1278-5		2.1688-1	2.1688-1	4.9133-6
1.0611+0	2.1888+0	5.8024-2	5.3809+0	3.5785-2	5.3185+0	2.8597-2	5.3682-5		2.1739-1	2.1739-1	4.8805-6
1.0651+0	2.1932+0	5.7907-2	5.3701+0	3.5498-2	5.3061+0	2.8373-2	7.1082-5		2.1800-1	2.1799-1	4.8423-6
1.0704+0	2.1990+0	5.7753-2	5.3558+0	3.5148-2	5.2925+0	2.8080-2	9.9187-5		2.1879-1	2.1879-1	4.7923-6
1.0782+0	2.2064+0	5.7586-2	5.3403+0	3.4771-2	5.2776+0	2.7765-2	1.3705-4		2.1967-1	2.1966-1	4.7385-6
1.0806+0	2.2102+0	5.7460-2	5.3288+0	3.4488-2	5.2685+0	2.7529-2	1.7115-4		2.2033-1	2.2032-1	4.6983-6
1.0871+0	2.2173+0	5.7278-2	5.3118+0	3.4078-2	5.2501+0	2.7187-2	2.3060-4		2.2130-1	2.2130-1	4.6398-6
1.0937+0	2.2245+0	5.7091-2	5.2944+0	3.3870-2	5.2336+0	2.6844-2	3.0283-4		2.2229-1	2.2229-1	4.5814-6
1.1026+0	2.2342+0	5.6845-2	5.2718+0	3.3130-2	5.2116+0	2.6394-2	4.1888-4		2.2362-1	2.2362-1	4.5046-6
1.1107+0	2.2429+0	5.6623-2	5.2510+0	3.2650-2	5.1918+0	2.5994-2	5.4782-4		2.2484-1	2.2483-1	4.4382-6
1.1208+0	2.2535+0	5.6356-2	5.2263+0	3.20							

October 31, 1989
Atomic Weight 55.847

ENDL Evaluated
Photon Data

26-Fe
Density 7.874 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.1475+0	2.2820+0	5.5653-2	5.1611+0	3.0595-2	5.1047+0	2.4391-2	1.7494-3		2.3033-1	2.3033-1	4.1627-6
1.1582+0	2.2932+0	5.5382-2	5.1359+0	3.0033-2	5.0801+0	2.3988-2	1.7479-3		2.3193-1	2.3192-1	4.0940-6
1.1741+0	2.3097+0	5.4987-2	5.0992+0	2.9228-2	5.0443+0	2.3409-2	2.3360-3		2.3429-1	2.3429-1	3.9950-6
1.1901+0	2.3281+0	5.4598-2	5.0632+0	2.8448-2	5.0089+0	2.2847-2	3.0283-3		2.3667-1	2.3667-1	3.8991-6
1.2051+0	2.3413+0	5.4243-2	5.0303+0	2.7747-2	4.9765+0	2.2339-2	3.7890-3		2.3890-1	2.3889-1	3.8125-6
1.2275+0	2.3638+0	5.3727-2	4.9825+0	2.6746-2	4.9291+0	2.1813-2	5.0438-3		2.4222-1	2.4221-1	3.6886-6
1.2556+0	2.4013+0	5.2889-2	4.9047+0	2.5164-2	4.8514+0	2.0480-2	7.6522-3		2.4785-1	2.4785-1	3.4919-6
1.2949+0	2.4295+0	5.2275-2	4.8478+0	2.4040-2	4.7941+0	1.9638-2	1.0005-2		2.5218-1	2.5217-1	3.3518-6
1.3318+0	2.4642+0	5.1538-2	4.7794+0	2.2728-2	4.7248+0	1.8874-2	1.3357-2		2.5782-1	2.5782-1	3.1870-6
1.3826+0	2.4926+0	5.0951-2	4.7250+0	2.1714-2	4.6689+0	1.7925-2	1.6458-2		2.6217-1	2.6216-1	3.0591-6
1.4117+0	2.5367+0	5.0064-2	4.6428+0	2.0233-2	4.5838+0	1.6823-2	2.1917-2		2.6941-1	2.6941-1	2.8711-6
1.5000+0	2.6127+0	4.8609-2	4.5078+0	1.7925-2	4.4416+0	1.5090-2	3.3200-2		2.8248-1	2.8248-1	2.5754-6
1.6172+0	2.7088+0	4.6920-2	4.3512+0	1.5423-2	4.2714+0	1.3288-2	5.1041-2		2.8999-1	2.8998-1	2.2695-6
1.7188+0	2.7824+0	4.5644-2	4.2329+0	1.3856-2	4.1384+0	1.2004-2	6.8862-2		3.1536-1	3.1536-1	2.0487-6
1.8923+0	2.9109+0	4.3830-2	4.0460+0	1.1269-2	3.9211+0	1.0213-2	1.0343-1		3.3956-1	3.3956-1	1.7430-6
2.0440+0	3.0122+0	4.2162-2	3.9100+0	9.6598-3	3.7552+0	8.9880-3	1.3810-1		3.6127-1	3.6127-1	1.5339-6
2.0859+0	3.0407+0	4.1767-2	3.8733+0	9.2788-3	3.7103+0	8.7189-3	1.4500-1	2.6108-7	3.6888-1	3.6888-1	1.4860-6
2.1140+0	3.0594+0	4.1512-2	3.8497+0	9.0310-3	3.6809+0	8.5449-3	1.5122-1	1.1769-6	3.7067-1	3.7067-1	1.4583-6
2.1195+0	3.0630+0	4.1483-2	3.8451+0	8.9842-3	3.6752+0	8.5118-3	1.5245-1	1.4653-8	3.7142-1	3.7142-1	1.4528-6
2.1279+0	3.0684+0	4.1389-2	3.8383+0	8.9135-3	3.6686+0	8.4812-3	1.5435-1	1.9872-6	3.7257-1	3.7257-1	1.4440-6
2.1363+0	3.0738+0	4.1317-2	3.8318+0	8.8440-3	3.6580+0	8.4116-3	1.5625-1	2.6108-6	3.7371-1	3.7371-1	1.4358-6
2.1470+0	3.0807+0	4.1224-2	3.8230+0	8.7557-3	3.6472+0	8.3485-3	1.5873-1	3.5795-8	3.7518-1	3.7518-1	1.4248-6
2.1635+0	3.0912+0	4.1085-2	3.8101+0	8.6227-3	3.6308+0	8.2530-3	1.6257-1	5.4434-8	3.7745-1	3.7745-1	1.4085-6
2.1845+0	3.1047+0	4.0905-2	3.7934+0	8.4578-3	3.6098+0	8.1342-3	1.6697-1	8.6250-8	3.8029-1	3.8029-1	1.3882-6
2.2018+0	3.1158+0	4.0781-2	3.7800+0	8.3255-3	3.5930+0	8.0384-3	1.7085-1	1.1933-5	3.8264-1	3.8264-1	1.3719-6
2.2148+0	3.1239+0	4.0654-2	3.7701+0	8.2281-3	3.5804+0	7.9877-3	1.7344-1	1.4888-5	3.8442-1	3.8441-1	1.3598-6
2.2342+0	3.1380+0	4.0487-2	3.7558+0	8.0859-3	3.5619+0	7.8840-3	1.7787-1	1.9999-5	3.8708-1	3.8707-1	1.3421-6
2.2537+0	3.1480+0	4.0344-2	3.7413+0	7.9468-3	3.5436+0	7.7822-3	1.8188-1	2.6108-5	3.8977-1	3.8976-1	1.3247-6
2.2815+0	3.1647+0	4.0131-2	3.7218+0	7.7543-3	3.5179+0	7.6205-3	1.8825-1	3.6568-5	3.9363-1	3.9363-1	1.3006-6
2.3070+0	3.1797+0	3.9941-2	3.7040+0	7.5839-3	3.4947+0	7.4944-3	1.9412-1	4.8032-5	3.9721-1	3.9721-1	1.2790-6
2.3382+0	3.1978+0	3.9717-2	3.6832+0	7.3830-3	3.4670+0	7.3448-3	2.0148-1	6.4584-5	4.0183-1	4.0183-1	1.2535-6
2.3774+0	3.2196+0	3.9446-2	3.6581+0	7.1417-3	3.4329+0	7.1637-3	2.1078-1	8.9441-5	4.0723-1	4.0723-1	1.2228-6
2.4102+0	3.2384+0	3.9217-2	3.6388+0	6.9487-3	3.4051+0	7.0178-3	2.1771-1	1.1375-4	4.1182-1	4.1182-1	1.1977-6
2.4488+0	3.2588+0	3.8972-2	3.6141+0	6.7425-3	3.3747+0	6.8608-3	2.2583-1	1.4470-4	4.1698-1	4.1698-1	1.1709-6
2.4859+0	3.2799+0	3.8720-2	3.5908+0	6.5322-3	3.3431+0	6.6994-3	2.3427-1	1.8219-4	4.2257-1	4.2258-1	1.1434-6
2.5564+0	3.3165+0	3.8294-2	3.5512+0	6.1789-3	3.2880+0	6.4238-3	2.5034-1	2.8108-4	4.3281-1	4.3281-1	1.0983-6
2.6804+0	3.3870+0	3.7719-2	3.4979+0	5.7038-3	3.2111+0	6.0508-3	2.7488-1	4.0245-4	4.4828-1	4.4828-1	1.0328-6
2.7453+0	3.4077+0	3.7269-2	3.4562+0	5.3567-3	3.1517+0	5.7719-3	2.9278-1	5.3866-4	4.6075-1	4.6075-1	9.8508-7
2.8090+0	3.4385+0	3.6956-2	3.4272+0	5.1166-3	3.1091+0	5.5785-3	3.0675-1	6.5234-4	4.7031-1	4.7031-1	9.5171-7
2.9045+0	3.4771+0	3.6525-2	3.3872+0	4.7859-3	3.0479+0	5.3034-3	3.2830-1	8.4038-4	4.8498-1	4.8498-1	9.0512-7
3.0399+0	3.5308+0	3.5971-2	3.3358+0	4.3882-3	2.9668+0	4.9811-3	3.5881-1	1.1390-3	5.0821-1	5.0821-1	8.4669-7
3.2344+0	3.6131+0	3.5150-2	3.2597+0	3.8587-3	2.8496+0	4.5561-3	4.0001-1	1.6460-3	5.3417-1	5.3417-1	7.7756-7
3.4375+0	3.6871+0	3.4444-2	3.1942+0	3.4172-3	2.7393+0	4.1904-3	4.4508-1	2.2526-3	5.6503-1	5.6503-1	7.1517-7
3.7847+0	3.8010+0	3.3412-2	3.0985+0	2.8191-3	2.5738+0	3.8717-3	5.1495-1	3.4563-3	6.1850-1	6.1850-1	6.2683-7
4.0000+0	3.8575+0	3.2823-2	3.0532+0	2.5239-3	2.4830+0	3.4030-3	5.8000-1	4.2820-3	6.5396-1	6.5396-1	5.8077-7
4.2500+0	3.9206+0	3.2393-2	3.0040+0	2.2358-3	2.3873+0	3.1454-3	6.0608-1	5.2916-3	6.8467-1	6.8466-1	5.3681-7
4.7500+0	4.0145+0	3.1836-2	2.9338+0	1.7899-3	2.2212+0	2.7224-3	7.0069-1	7.4041-3	7.8224-1	7.8224-1	4.6462-7
5.5135+0	4.1178+0	3.0842-2	2.8601+0	1.3285-3	2.0165+0	2.2546-3	8.2917-1	1.0858-2	9.2219-1	9.2219-1	3.8479-7
6.3840+0	4.2014+0	3.0228-2	2.8033+0	9.8722-4	1.8228+0	1.8891-3	9.8303-1	1.4712-2	1.0822+0	1.0822+0	3.2241-7
7.4833+0	4.2549+0	2.9848-2	2.7880+0	7.2122-4	1.6259+0	1.5548-3	1.1201+0	1.9737-2	1.3083+0	1.3083+0	2.6532-7
9.0000+0	4.2631+0	2.9781-2	2.7627+0	4.9883-4	1.4276+0	1.2520-3	1.3070+0	2.6300-2	1.6406+0	1.6406+0	2.1367-7
1.0000+1	4.2483+0	2.9894-2	2.7723+0	4.0390-4	1.3255+0	1.1090-3	1.4150+0	3.0320-2	1.8720+0	1.8720+0	1.8927-7
1.3000+1	4.1823+0	3.0366-2	2.8161+0	2.3900-4	1.0889+0	8.2180-4	1.6850+0	4.1130-2	2.5977+0	2.5977+0	1.4077-7
1.8000+1	4.0111+0	3.1683-2	2.9383+0	1.2468-4	8.5278-4	5.7710-4	2.0270+0	5.5770-2	3.9425+0	3.9425+0	9.8491-8
2.8000+1	3.7883+0	3.3702-2	3.1254+0	5.9750-5	6.3783-4	3.8940-4	2.4140+0	7.3300-2	6.3152+0	6.3152+0	6.8457-8
4.2170+1	3.4342+0	3.6981-2	3.4295+0	2.2713-5	4.3502-4	2.3472-4	2.8975+0	9.8691-2	1.1848+0	1.1848+0	4.0058-8
6.0000+1	3.2093+0	3.9573-2	3.6898+0	1.1220-5	3.2508-4	1.8310-4	3.2310+0	1.1380-1	1.8033+0	1.8033+0	2.7838-8
1.0000+2	2.9353+0	4.3287-2	4.0124+0	4.0391-6	2.1314-4	9.8870-5	3.6630+0	1.3820-1	3.3368+0	3.3368+0	1.8532-8
2.0000+2	2.8715+0	4.7539-2	4.4085+0	1.0098-6	1.1789-4	4.8050-5	4.1280+0	1.6260-1	7.4116+0	7.4116+0	8.2005-9
4.0000+2	2.5084+0	5.0689-2	4.8989+0	2.5244-7	6.4865-5	2.3930-5	4.4510+0	1.8300-1	1.5881+0	1.5881+0	4.0840-9
1.0000+3	2.3849+0	5.3252-2	4.8384+0	4.0391-6	2.8052-5	9.5490-6	4.7080+0	2.0130-1	4.1850+0	4.1850+0	1.6297-9
4.0000+3	2.3072+0	5.5045-2	5.1047+0	2.5244-9	8.3938-6	3.3840-6	4.8810+0	2.1530-1	1.7329+0	1.7329+0	4.0687-10
1.0000+4	2.2874+0	5.5523-2	5.1490+0	4.0391-10	6.3700-6	3.5360-7	4.9280+0	2.1930-1	4.3710+0	4.3710+0	1.6275-10
1.0000+5	2.2724+0	5.5888-2	5.1828+0	4.0409-12	4.4328-6	9.5340-8	4.9600+0	2.2240-1	4.4005+0	4.4005+0	1.6271-11

177

Mean Free Path (cm)

10^{-6}
 10^{-5}
 10^{-4}
 10^{-3}
 10^{-2}
 10^{-1}
 10^0
 10^1
 10^2
 10^3

Cross Sections (barns)

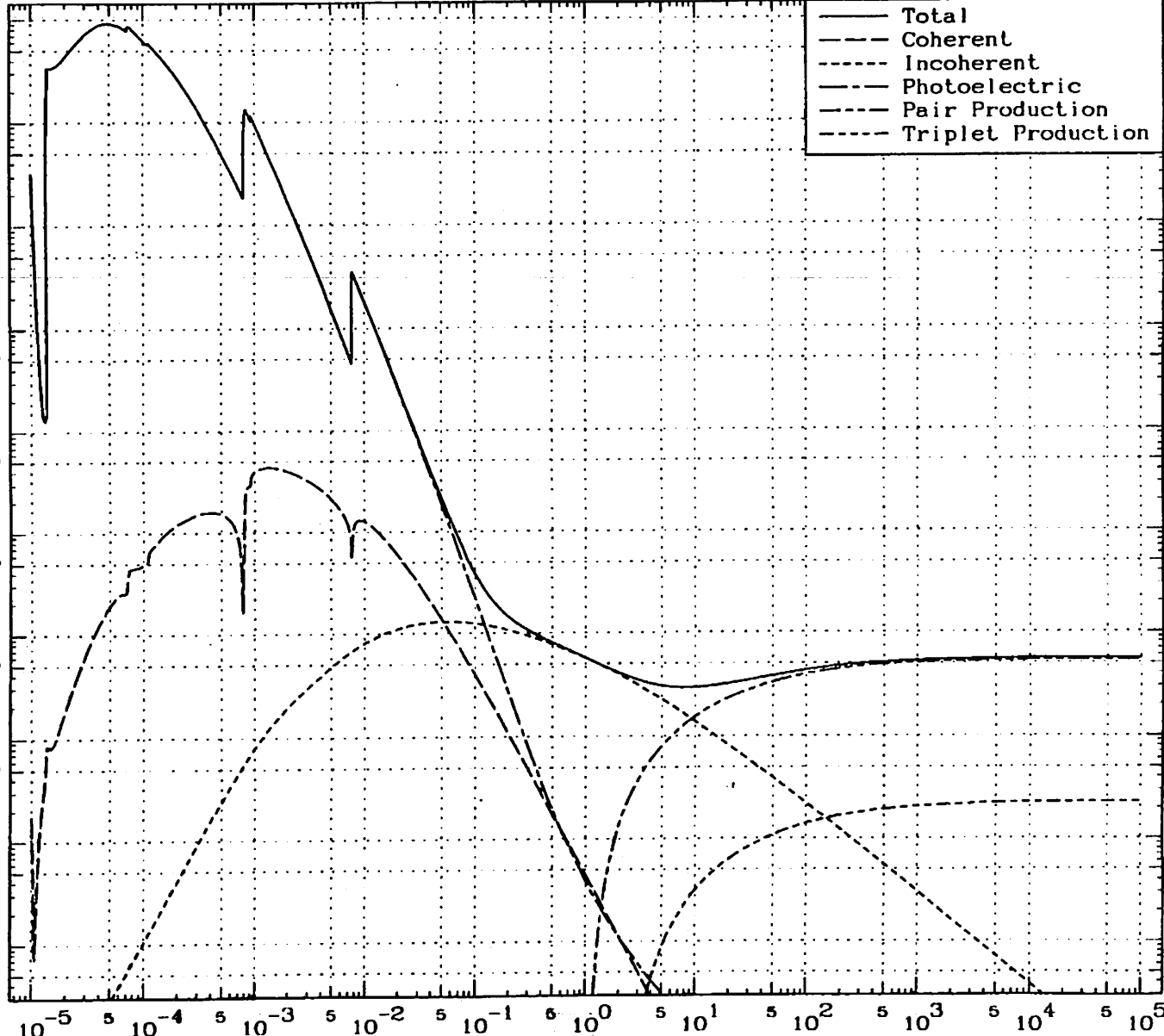
10^7
 10^6
 10^5
 10^4
 10^3
 10^2
 10^1
 10^0
 10^{-1}
 10^{-2}

Atomic Weight 58.933

Photon Cross Sections

Density 8.900 Grams/cc

- Total
- - - Coherent
- · - · Incoherent
- - - Photoelectric
- · - · Pair Production
- - - Triplet Production



Incident Photon Energy (MeV)

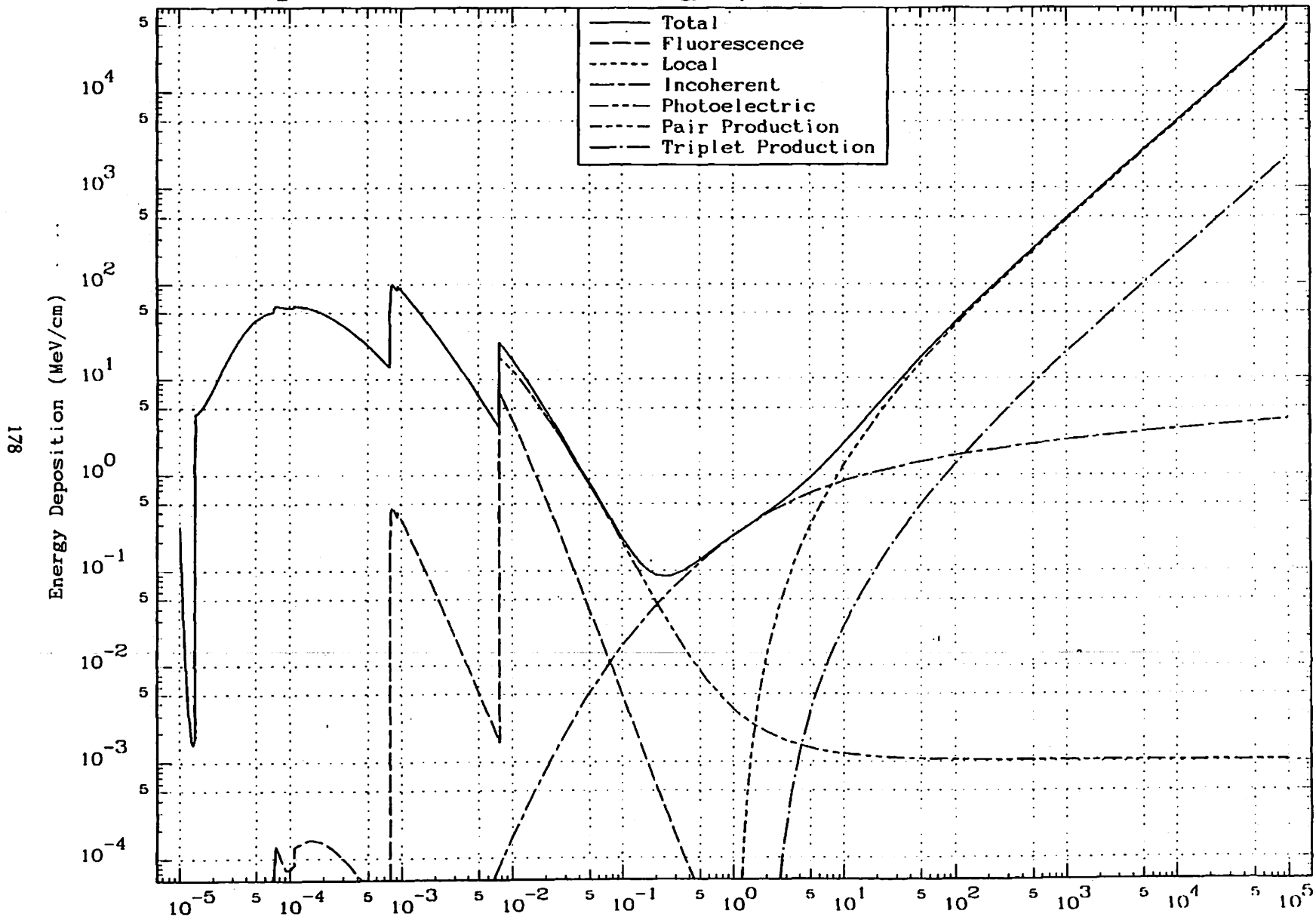
177

27-Co

October 31, 1989
Atomic Weight 58.933

ENDI. Evaluated
Energy Deposition

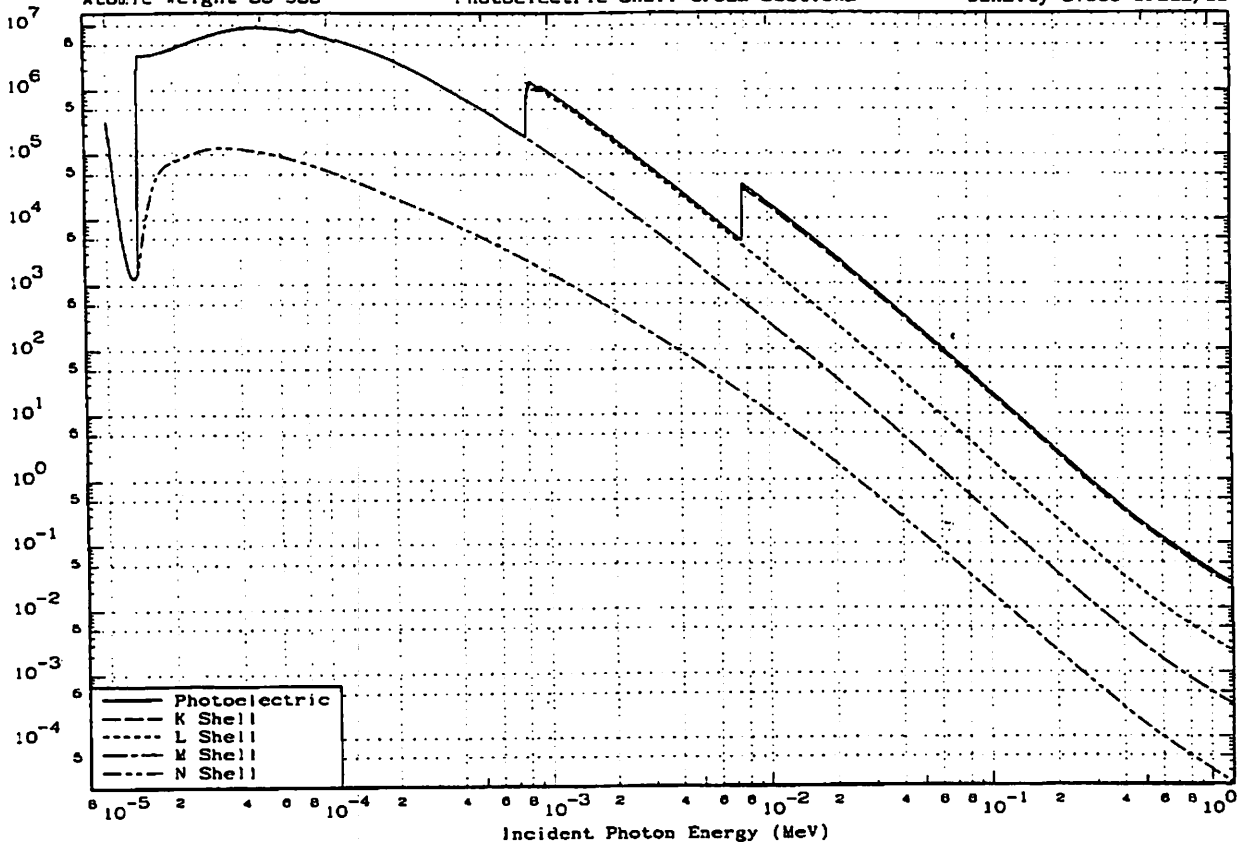
27-Co
Density 8.900 Grams/cc



October 31, 1989
Atomic Weight 58.933

ENDL Evaluated
Photoelectric Shell Cross Sections

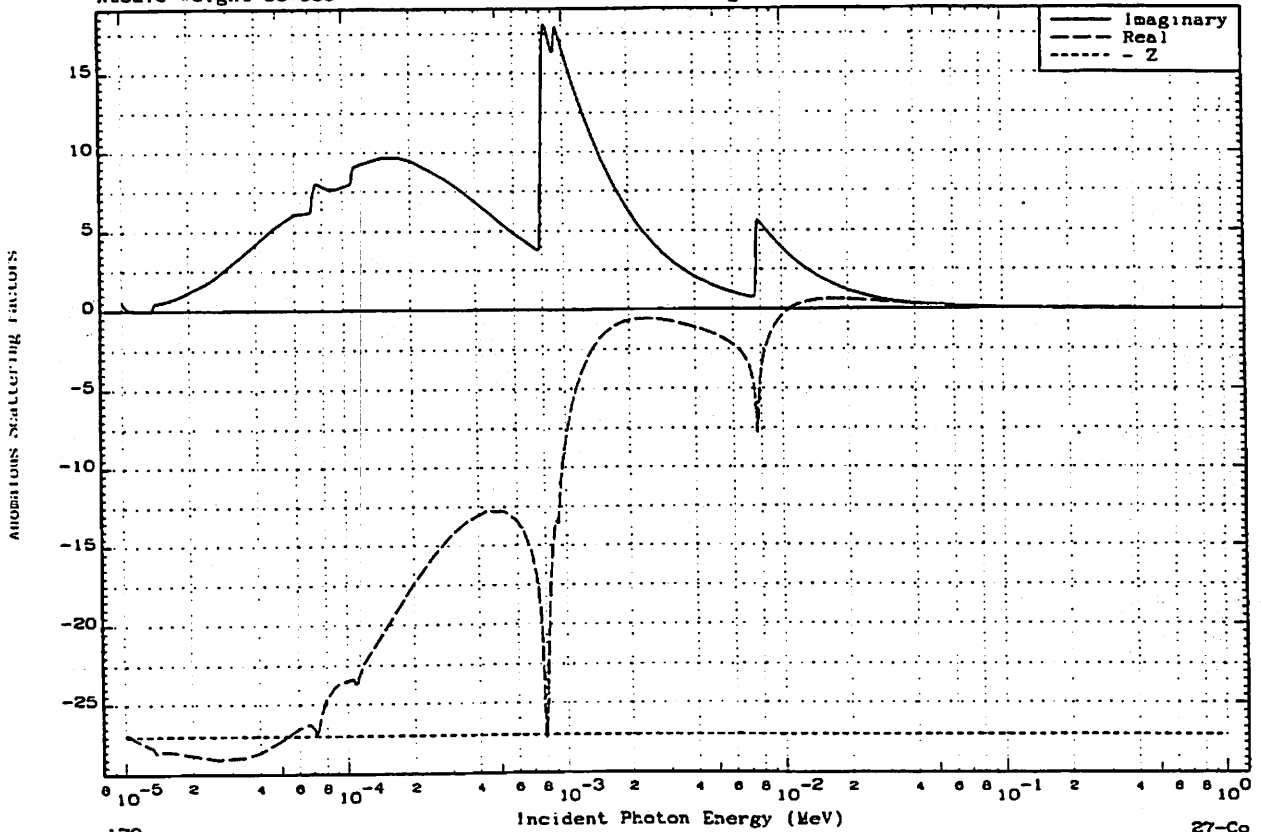
27-Co
Density 8.900 Grams/cc

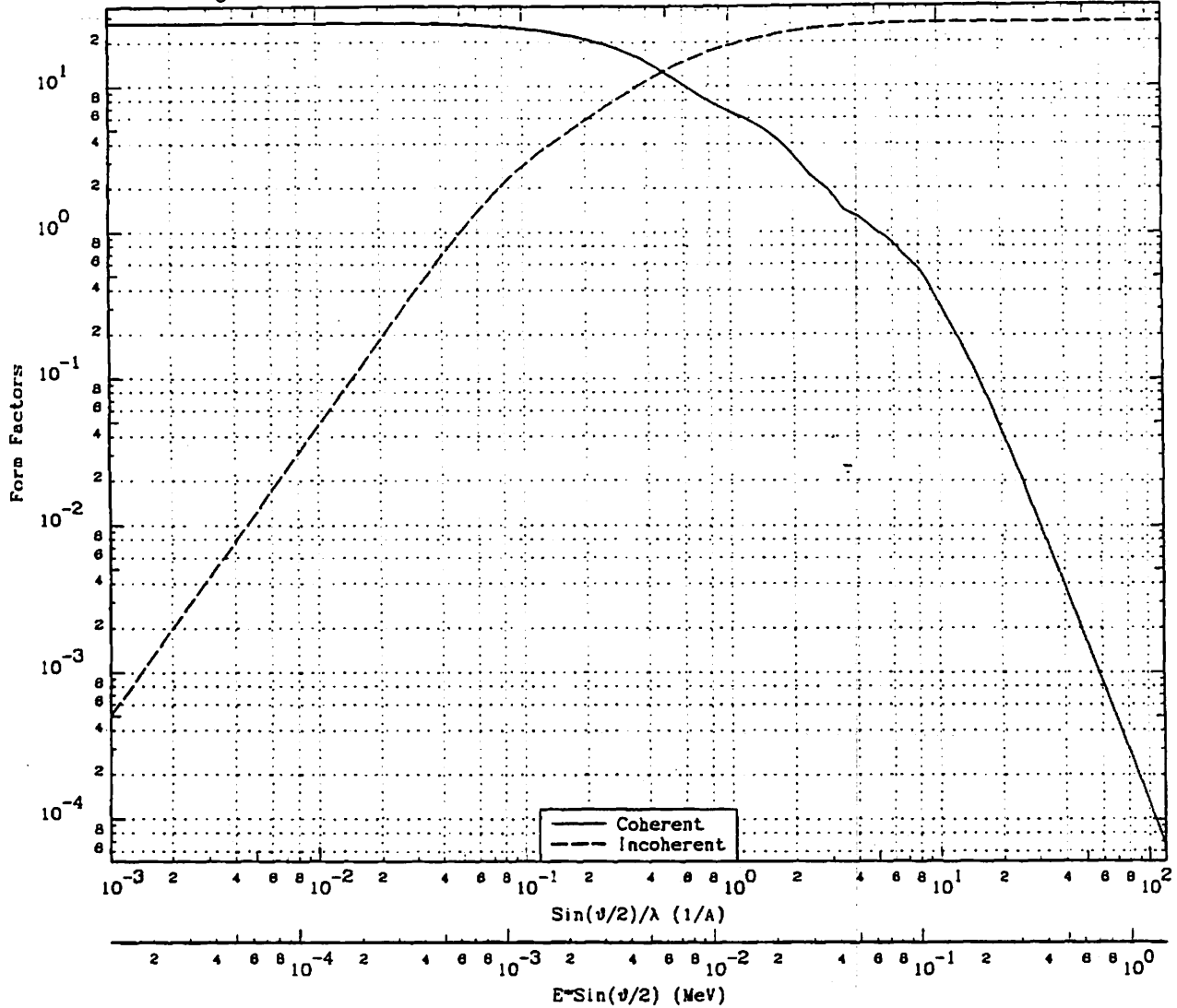


October 31, 1989
Atomic Weight 58.933

ENDL Evaluated
Anomalous Scattering Factors

27-Co
Density 8.900 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	2.7000+1	0.0000+0	7.0000-1	8.8790-3	8.8843+0	1.6050+1	1.5000+1	1.8598-1	1.1077-1	2.6994+1
1.0000-3	1.2399-5	2.7000+1	5.0405-4	8.0000-1	9.9188-3	7.8088+0	1.7249+1	1.8770+1	2.3272-1	5.4849-2	2.6998+1
5.0000-3	6.1993-5	2.6993+1	1.2000-2	9.0000-1	1.1159-2	7.2189+0	1.8229+1	2.0000+1	2.4797-1	4.4441-2	2.6999+1
1.0000-2	1.2399-4	2.6982+1	4.7000-2	1.0000+0	1.2399-2	6.7043+0	1.9039+1	2.6628+1	3.3260-1	1.6190-2	2.6999+1
1.5000-2	1.8586-4	2.6935+1	1.0580-1	1.2500+0	1.5498-2	5.7358+0	2.0596+1	3.9354+1	4.8793-1	4.0698-3	2.7000+1
2.0000-2	2.4797-4	2.6885+1	1.8580-1	1.5000+0	1.8598-2	4.8980+0	2.1777+1	5.0000+1	6.1993-1	1.6651-3	2.7000+1
2.5000-2	3.0998-4	2.6822+1	2.8580-1	1.7500+0	2.1697-2	4.1128+0	2.2719+1	6.0000+1	9.9188-1	2.9693-4	2.7000+1
3.0000-2	3.7198-4	2.6745+1	4.0440-1	2.0000+0	2.4797-2	3.3728+0	2.3462+1	1.0000+2	1.2399+0	1.3098-4	2.7000+1
4.0000-2	4.9594-4	2.6558+1	6.8810-1	2.4531+0	3.0415-2	2.3825+0	2.4404+1	1.7117+2	2.1223+0	1.9106-5	2.7000+1
5.0000-2	6.1993-4	2.6328+1	1.0180+0	2.5000+0	3.0998-2	2.3228+0	2.4480+1	3.2012+2	3.9690+0	2.1983-6	2.7000+1
7.0000-2	8.8790-4	2.5751+1	1.7497+0	3.0000+0	3.7198-2	1.8898+0	2.5092+1	6.3400+2	7.8807+0	2.2498-7	2.7000+1
9.0000-2	1.1159-3	2.5082+1	2.4834+0	3.5000+0	4.3395-2	1.4170+0	2.5497+1	1.0000+3	1.2399+1	5.1071-8	2.7000+1
1.0000-1	1.2399-3	2.4732+1	2.8320+0	3.7129+0	4.6034-2	1.3415+0	2.5634+1	2.0441+3	2.5344+1	5.2276-9	2.7000+1
1.2500-1	1.5498-3	2.3808+1	3.6358+0	4.0000+0	4.9594-2	1.2831+0	2.5798+1	4.2150+3	5.2260+1	5.4743-10	2.7000+1
1.5000-1	1.8598-3	2.2873+1	4.3690+0	4.4259+0	5.4873-2	1.1676+0	2.6006+1	7.2988+3	9.0470+1	1.0187-10	2.7000+1
1.7500-1	2.1697-3	2.1972+1	5.0697+0	5.0000+0	6.1993-2	1.0154+0	2.6238+1	1.6131+4	2.0000+2	9.3112-12	2.7000+1
2.0000-1	2.4797-3	2.1079+1	5.7840+0	6.0000+0	7.4391-2	8.3530-1	2.6531+1	4.5284+4	5.6121+2	4.3724-13	2.7000+1
2.5000-1	3.0998-3	1.9352+1	7.1428+0	7.0000+0	8.6790-2	6.7310-1	2.6717+1	2.1275+5	2.6378+3	4.7735-15	2.7000+1
3.0000-1	3.7198-3	1.7898+1	8.4890+0	8.0000+0	9.9188-2	5.5930-1	2.6830+1	1.0000+6	1.2399+4	5.3238-17	2.7000+1
4.0000-1	4.9594-3	1.4659+1	1.0844+1	8.8602+0	1.0737-1	4.7689-1	2.6877+1	5.8234+6	8.9722+4	3.3798-19	2.7000+1
5.0000-1	6.1993-3	1.2172+1	1.2887+1	1.0000+1	1.2399-1	3.3170-1	2.6938+1	7.4889+7	9.2975+5	1.5759-22	2.7000+1
6.0000-1	7.4391-3	1.0270+1	1.4596+1	1.3813+1	1.7128-1	1.4033-1	2.6990+1	1.0000+9	1.2399+7	6.9775-28	2.7000+1

October 31, 1989
Atomic Weight 58.933

ENDL Evaluated
Photon Data

27-Co
Density 8.900 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	3.4492-5	3.2576-3	3.1879+5	1.7716-1	1.0907-4	3.1879+5			2.8993-1	2.8993-1	
1.0027-5	3.7299-5	3.0124-3	2.9480+5	1.6884-1	1.0965-4	2.9480+5			2.6882-1	2.6882-1	
1.0236-5	8.8444-5	1.8416-3	1.8085+5	7.0688-2	1.1423-4	1.8085+5			1.4958-1	1.4958-1	
1.0335-5	9.0729-5	1.2384-3	1.2119+5	4.1118-2	1.1643-4	1.2119+5			1.1391-1	1.1391-1	
1.0413-5	1.1318-4	9.9295-2	9.7171+4	2.5688-2	1.1818-4	9.7171+4			9.2024-2	9.2024-2	
1.0507-5	1.4714-4	7.8365-2	7.4731+4	1.4226-2	1.2029-4	7.4731+4			7.1409-2	7.1409-2	
1.0581-5	1.8068-4	6.2187-2	6.0850+4	9.3130-3	1.2197-4	6.0850+4			5.8559-2	5.8559-2	
1.0688-5	2.2581-4	4.8759-2	4.8685+4	7.0747-3	1.2393-4	4.8685+4			4.7236-2	4.7236-2	
1.0731-5	2.6892-4	4.2095-2	4.1195+4	7.2861-3	1.2542-4	4.1195+4			4.0202-2	4.0202-2	
1.0828-5	3.4309-4	3.2749-2	3.2049+4	9.9173-3	1.2769-4	3.2049+4			3.1561-2	3.1561-2	
1.0927-5	4.4091-4	2.5484-2	2.4939+4	1.4753-2	1.3000-4	2.4939+4			2.4783-2	2.4783-2	
1.1033-5	5.8535-4	1.9874-2	1.9449+4	2.1785-2	1.3252-4	1.9449+4			1.9516-2	1.9516-2	
1.1123-5	6.9666-4	1.6128-2	1.5783+4	2.8882-2	1.3467-4	1.5783+4			1.5887-2	1.5887-2	
1.1239-5	9.0912-4	1.2359-2	1.2095+4	3.9081-2	1.3746-4	1.2095+4			1.2363-2	1.2363-2	
1.1303-5	1.0366-3	1.0839-2	1.0607+4	4.5183-2	1.3900-4	1.0607+4			1.0903-2	1.0903-2	
1.1404-5	1.2771-3	8.7981+1	8.6099+3	5.5358-2	1.4149-4	8.6099+3			8.9297-3	8.9297-3	
1.1520-5	1.6183-3	6.8518+1	6.8031+3	6.7748-2	1.4434-4	6.8031+3			7.1274-3	7.1274-3	
1.1784-5	2.5876-3	4.3422+1	4.2493+3	9.9945-2	1.5098-4	4.2493+3			4.5541-3	4.5541-3	
1.2033-5	3.7680-3	2.9835+1	2.9197+3	1.3854-1	1.5738-4	2.9197+3			3.1851-3	3.1851-3	
1.2195-5	4.6558-3	2.4133+1	2.3617+3	1.6223-1	1.6158-4	2.3617+3			2.8191-3	2.8191-3	
1.2458-5	6.1304-3	1.8328+1	1.7836+3	2.0661-1	1.6851-4	1.7836+3			2.0317-3	2.0317-3	
1.2804-5	8.9179-3	1.8242+1	1.5894+3	2.3383-1	1.7250-4	1.5894+3			1.8217-3	1.8217-3	
1.2887-5	8.0475-3	1.3962+1	1.3683+3	2.8424-1	1.7970-4	1.3683+3			1.5988-3	1.5988-3	
1.3111-5	8.5726-3	1.3107+1	1.2827+3	3.3545-1	1.8651-4	1.2827+3			1.5290-3	1.5290-3	
1.3221-5	8.6504-3	1.2889+1	1.2711+3	3.7015-1	1.8982-4	1.2707+3			1.5278-3	1.5278-3	
1.3358-5	8.4688-3	1.3286+1	1.2983+3	4.2439-1	1.9353-4	1.2978+3			1.5787-3	1.5787-3	
1.3493-5	8.2024-3	1.3698+1	1.3405+3	5.2053-1	1.9741-4	1.3400+3			1.6443-3	1.6443-3	
1.3664-5	7.6029-3	1.4779+1	1.4462+3	7.1705-1	2.0240-4	1.4455+3			1.7963-3	1.7963-3	
1.3720-5	7.3563-3	1.5274+1	1.4947+3	7.6169-1	2.0405-4	1.4940+3			1.8841-3	1.8841-3	
M5 1.3720-5	5.3821-6	2.0878+4	2.0430+6	7.6188-1	2.0405-4	2.0430+6			2.5492+0	2.5492+0	
1.3785-5	5.3851-6	2.0885+4	2.0419+6	8.2976-1	2.0826-4	2.0419+6			2.5618+0	2.5618+0	
1.3900-5	5.3890-6	2.0850+4	2.0404+6	8.5335-1	2.0939-4	2.0404+6			2.5783+0	2.5783+0	
1.3930-5	5.3900-6	2.0846+4	2.0400+6	8.4966-1	2.1029-4	2.0400+6			2.5844+0	2.5844+0	
M4 1.3930-5	3.2427-8	3.4850+4	3.3909+6	8.4966-1	2.1029-4	3.3909+6			4.2958+0	4.2958+0	
1.4040-5	3.2481-8	3.4814+4	3.3873+6	8.5275-1	2.1357-4	3.3873+6			4.3250+0	4.3250+0	
1.4210-5	3.2512-8	3.4559+4	3.3820+6	8.1217-1	2.1874-4	3.3820+6			4.3707+0	4.3707+0	
1.5000-5	3.2708-8	3.4352+4	3.3817+6	8.1202-1	2.4348-4	3.3817+6			4.5860+0	4.5860+0	
1.5778-5	3.2100-8	3.5003+4	3.4255+6	8.6925-1	2.6917-4	3.4255+6			4.9157+0	4.9157+0	
1.6681-5	3.1131-8	3.8092+4	3.5320+6	1.0002+0	3.0048-4	3.5320+6			5.3581+0	5.3581+0	
1.8815-5	2.7978-8	4.0180+4	3.8301+6	1.4519+0	3.7341-4	3.8301+6			6.6534+0	6.6534+0	
2.5768-5	1.8518-8	6.0678+4	5.8378+6	4.0581+0	7.1107-4	5.8378+6			1.3915+1	1.3915+1	
3.0000-5	1.5532-8	7.2339+4	7.0782+6	6.1688+0	9.6095-4	7.0782+6			1.8315+1	1.8315+1	
3.4841-5	1.3679-8	8.2142+4	8.0385+6	9.0822+0	1.2782-3	8.0385+6			2.5325+1	2.5325+1	
4.0000-5	1.2369-8	9.0842+4	8.8899+6	1.2498+1	1.6938-3	8.8899+6			3.2340+1	3.2340+1	
4.8825-5	1.1884-8	9.4705+4	9.2878+6	1.8382+1	2.4874-3	9.2878+6			4.0984+1	4.0984+1	
8.0000-5	1.2542-8	8.9580+4	8.7874+6	2.4723+1	3.7620-3	8.7874+6			4.7841+1	4.7841+1	
7.9948-5	1.4004-8	8.0232+4	7.8518+6	2.5698+1	5.2321-3	7.8518+6			5.0682+1	5.0682+1	
7.1555-5	1.4083-8	7.9784+4	7.8077+6	2.6834+1	5.3205-3	7.8077+6			5.0809+1	5.0809+1	
7.2280-5	1.4174-8	7.9270+4	7.7575+6	3.1280+1	5.6811-3	7.7575+6			5.0880+1	5.0880+1	
M3 7.2280-5	1.2933-8	8.8880+4	8.5022+6	3.1280+1	5.4241-3	8.5021+6			5.5874+1	5.5874+1	9.7243-5
7.2824-5	1.3020-8	8.8300+4	8.4454+6	3.5280+1	5.5077-3	8.4453+6			5.5833+1	5.5833+1	9.4956-5
7.4170-5	1.3227-8	8.4948+4	8.3129+6	4.0501+1	5.7099-3	8.3129+6			5.6074+1	5.6074+1	8.9775-5
M2 7.4170-5	1.2878-8	8.8628+4	8.6730+6	4.0501+1	5.7099-3	8.6730+6			5.8503+1	5.8503+1	1.3928-4
7.4718-5	1.2788-8	8.8000+4	8.6117+6	4.2812+1	5.7833-3	8.6117+6			5.8519+1	5.8519+1	1.3599-4
7.5850-5	1.2921-8	8.8956+4	8.5086+6	4.4257+1	5.8383-3	8.5086+6			5.8548+1	5.8548+1	1.3064-4
9.1901-5	1.6182-8	8.9522+4	8.8035+6	4.8237+1	6.7083-3	8.8034+6			5.8883+1	5.8883+1	7.5349-5
1.0000-4	1.7758-8	8.3273+4	8.1819+6	4.8828+1	1.0281-2	6.1819+6			5.6312+1	5.6312+1	7.6881-5
1.0828-4	1.8851-8	5.9603+4	5.8328+6	5.0782+1	1.1584-2	5.8327+6			5.6377+1	5.6377+1	8.3286-5
1.0832-4	1.9207-8	5.8498+4	5.7247+6	5.0828+1	1.2039-2	5.7248+6			5.6397+1	5.6397+1	8.5405-5
1.0947-4	1.9407-8	5.7897+4	5.6859+6	5.3987+1	1.2291-2	5.6859+6			5.6408+1	5.6408+1	8.6598-5
1.0989-4	1.9457-8	5.7748+4	5.8513+6	5.5118+1	1.2340-2	5.8512+6			5.6378+1	5.6378+1	8.6828-5
M1 1.0989-4	1.8378-8	6.1139+4	5.8831+6	5.5118+1	1.2340-2	5.8830+6			5.9688+1	5.9688+1	1.3188-4
1.1045-4	1.8534-8	6.0624+4	5.8327+6	5.8239+1	1.2508-2	5.8327+6			5.9590+1	5.9590+1	1.3261-4
1.1189-4	1.8833-8	5.8680+4	5.8384+6	6.3805+1	1.2833-2	5.8384+6			5.9411+1	5.9411+1	1.3383-4
1.1871-4	2.0184-8	5.5668+4	5.4477+6	7.0564+1	1.4423-2	5.4477+6			5.8813+1	5.8813+1	1.3827-4
1.5000-4	2.6792-8	4.1938+4	4.1041+6	9.3181+1	2.2890-2	4.1040+6			5.5986+1	5.5986+1	1.5683-4
1.8812-4	3.8069-8	3.1160+4	3.0493+6	1.1391+2	3.5045-2	3.0492+6			5.1813+1	5.1813+1	1.5133-4
2.0170-4	4.0918-8	2.7481+4	2.6874+6	1.2183+2	4.1072-2	2.6873+6			4.8294+1	4.8294+1	1.4598-4
2.4495-4	5.8029-8	2.0054+4	1.9625+6	1.3595+2	6.0270-2	1.9624+6			4.3715+1	4.3715+1	1.2580-4
3.0000-4	8.0379-8	1.3979+4	1.3880+6	1.5068+2	8.9931-2	1.3878+6			3.7319+1	3.7319+1	1.0140-4
3.4731-4	1.0839-7	1.0581+4	1.0338+6	1.5898+2	1.1835-1	1.0334+6			3.2841+1	3.2841+1	8.2988-5
4.3403-4	1.6487-7	8.8234+3	8.6775+5	1.5902+2	1.8288-1	8.6759+5			2.6352+1	2.6352+1	5.8891-5
5.2332-4	2.4186-7	4.8437+3	4.5443+5	1.5021+2	2.5903-1	4.5428+5			2.1821+1	2.1821+1	4.3885-5
6.0000-4	3.2323-7	3.4781+3	3.4018+5	1.3247+2	3.3292-1	3.4004+5			1.6555+1	1.6555+1	3.4448-5
6.3904-4	3.7188-7	3.0230+3	2.9583+5	1.2017+2	3.7242-1	2.9571+5			1.7186+1	1.7186+1	3.0433-5
8.9144-4	4.4281-7	2.5386+3	2.4843+5	9.8509+1	4.2719-1	2.4833+5			1.5818+1	1.5818+1	2.8086-5
7.2744-4	4.9584-7	2.2681+3	2.2176+5	7.3500+1	4.8700-1	2.2169+5			1.4872+1	1.4872+1	2.3757-5
7.4181-4	5.1737-7	2.1717+3	2.1253+5	6.2441+1	4.8283-1	2.1247+5			1.4334+1	1.4334+1	2.2705-5
7.6316-4	5.5104-7	2.0380+3	1.9954+5	4.0532+1	5.0728-1	1.9950+5			1.3847+1	1.3847+1	2.1475-5
7.7371-4	5.6812-7	1.9778+3	1.9355+5	2.7011+1	5.1855-1	1.9352+5			1.3817+1	1.3817+1	2.0904-5
7.8080-4	5.7875-7	1.9381+3	1.8966+5	1.7717+1	5.2786-1	1.8964+5			1.3467+1	1.3467+1	2.0533-5
7.8288-4	5.8318-7	1.9287+3	1.8854+5	1.8324+1	5.3031-1	1.8853+5			1.3423+1	1.3423+1	2.0428-5
7.8471-4	5.8822-7	1.9187+3	1.8757+5	1.8481+1	5.3245-1	1.8756+5			1.3385+1	1.3385+1	2.0333-5
7.8824-4	5.8875-7	1.9085+3	1.8678+5	1.7859+1	5.3412-1	1.8674+5			1.3353+1	1.3353+1	2.0256-5
7.8789-4	5.9115-7	1.9007+3	1.8600+5	2.0460+1	5.3572-1	1.8588+5			1.3323+1	1.3323+1	2.0182-5
7.8934-4	5.9388-7	1.8919+3	1.8515+5	2.5081+1	5.3753-1	1.8512+5			1.3289+1	1.3289+1	2.0100-5
7.9228-4	5.9878-7	1.8785+3	1.8383+5	3.7387+1	5.4078-1	1.8380+5			1.3229+1	1.3229+1	1.9953-5

October 31, 1989
Atomic Weight 58.933

ENDL Evaluated
Photon Data

27-Co
Density 8.900 Grams/cc

Energy *MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	ca	ca*ca/gran	Total	Coharent	Incoharent	Photoelec	Pair	Triplet	Total	Local	Fluorescence
L3 7.9229- 4	1.5427- 5	7.2834- 3	7.1277+ 5	3.7367- 1	5.4078- 1	7.1273- 5			5.1356+ 1	5.1149+ 1	2.0640- 1
7.9638- 4	1.4106- 5	7.9655+ 3	7.7851+ 5	6.0975+ 1	5.4530- 1	7.7845+ 5			5.6454+ 1	5.6221+ 1	2.3280- 1
8.0042- 4	1.2942- 5	8.8919+ 3	8.4962+ 5	6.8915+ 1	5.4976- 1	8.4953+ 5			6.1841+ 1	6.1580+ 1	2.8133- 1
8.0440- 4	1.2154- 5	9.2447+ 3	8.0470+ 5	1.1211+ 2	5.5418- 1	8.0458+ 5			6.8178+ 1	6.5892+ 1	2.8348- 1
8.0754- 4	1.1737- 5	9.5729+ 3	8.3881+ 5	1.3225+ 2	5.5768- 1	8.3888+ 5			6.8782+ 1	6.8495+ 1	2.9889- 1
L2 8.0754- 4	9.9832- 6	1.1255+ 4	1.1014+ 6	1.3225+ 2	5.5768- 1	1.1013+ 6			8.0680+ 1	8.0515+ 1	3.6499- 1
8.1437- 4	9.1494- 6	1.2280+ 4	1.2018+ 6	1.7445+ 2	5.6532- 1	1.2016+ 6			8.8994+ 1	8.8587+ 1	4.0749- 1
8.1950- 4	8.6450- 6	1.2997+ 4	1.2719+ 6	2.0181+ 2	5.7108- 1	1.2717+ 6			8.4780+ 1	8.4342+ 1	4.3783- 1
8.2455- 4	8.3082- 6	1.3524+ 4	1.3235+ 6	2.2572+ 2	5.7677- 1	1.3232+ 6			9.8228+ 1	9.8787+ 1	4.6003- 1
8.3357- 4	8.3323- 6	1.3485+ 4	1.3186+ 6	2.5052+ 2	5.8700- 1	1.3184+ 6			1.0002+ 2	9.8561+ 1	4.6067- 1
8.4247- 4	8.5593- 6	1.3127+ 4	1.2848+ 6	2.6297+ 2	5.9715- 1	1.2844+ 6			9.8407+ 1	9.7859+ 1	4.4825- 1
8.6654- 4	9.1821- 6	1.2223+ 4	1.1862+ 6	2.8203+ 2	6.2494- 1	1.1859+ 6			8.4248+ 1	9.3831+ 1	4.1692- 1
8.8721- 4	8.7572- 6	1.1518+ 4	1.1289+ 6	2.8970+ 2	6.4918- 1	1.1286+ 6			9.0904+ 1	9.0512+ 1	3.9239- 1
9.1251- 4	1.0485- 5	1.0718+ 4	1.0487+ 6	2.8555+ 2	6.7933- 1	1.0484+ 6			8.7003+ 1	8.6638+ 1	3.6488- 1
9.2011- 4	1.0713- 5	1.0488+ 4	1.0264+ 6	2.8521+ 2	6.8848- 1	1.0281+ 6			8.5864+ 1	8.5808+ 1	3.5680- 1
9.2295- 4	1.0799- 5	1.0405+ 4	1.0183+ 6	3.0393+ 2	6.9183- 1	1.0180+ 6			8.5444+ 1	8.5090+ 1	3.5390- 1
L1 9.2295- 4	9.5537- 6	1.1781+ 4	1.1509+ 6	3.0393+ 2	6.9183- 1	1.1508+ 6			9.6581+ 1	9.6173+ 1	4.0835- 1
9.3341- 4	8.8180- 6	1.1447+ 4	1.1202+ 6	3.3839+ 2	7.0463- 1	1.1198+ 6			9.5051+ 1	9.4664+ 1	3.8735- 1
9.4141- 4	1.0020- 5	1.1214+ 4	1.0974+ 6	3.5513+ 2	7.1441- 1	1.0970+ 6			9.3928+ 1	9.3536+ 1	3.8922- 1
9.7518- 4	1.0971- 5	1.0336+ 4	1.0115+ 6	3.8280+ 2	7.5822- 1	1.0111+ 6			8.9871+ 1	8.9313+ 1	3.5877- 1
1.0000- 3	1.1522- 5	9.7515+ 3	9.5429+ 5	3.9320+ 2	7.8757- 1	9.5390+ 5			8.8753+ 1	8.8414+ 1	3.3851- 1
1.1130- 3	1.4780- 5	7.6021+ 3	7.4395+ 5	4.2248+ 2	9.2175- 1	7.4353+ 5			7.5259+ 1	7.4994+ 1	2.6436- 1
1.3383- 3	2.2956- 5	4.8948+ 3	4.7899+ 5	4.3993+ 2	1.1847+ 0	4.7855+ 5			5.8247+ 1	5.8077+ 1	1.7029- 1
1.7228- 3	4.3227- 5	2.5993+ 3	2.5437+ 5	4.2326+ 2	1.6387+ 0	2.5394+ 5			3.9788+ 1	3.9671+ 1	9.0282- 2
2.3403- 3	9.5438- 5	1.1773+ 3	1.1521+ 5	3.7650+ 2	2.3002+ 0	1.1483+ 5			2.4441+ 1	2.4400+ 1	4.8802- 2
3.2540- 3	2.2945+ 4	4.8969+ 2	4.7922+ 4	3.1116+ 2	3.2089+ 0	4.7808+ 4			1.4089+ 1	1.4072+ 1	1.6882- 2
4.3058- 3	4.8719+ 4	2.3063+ 2	2.2569+ 4	2.4767+ 2	4.1788+ 0	2.2319+ 4			8.7394+ 0	8.7315+ 0	7.9146- 3
5.0000- 3	7.3521+ 4	1.5283+ 2	1.4958+ 4	2.1123+ 2	4.7950+ 0	1.4740+ 4			8.7028+ 0	8.6974+ 0	5.2227- 3
5.8281- 3	1.0128- 3	1.1096+ 2	1.0858+ 4	1.8221+ 2	5.2942+ 0	1.0871+ 4			5.4599+ 0	5.4581+ 0	3.7827- 3
6.3908- 3	1.4388+ 3	7.8095+ 1	7.8425+ 3	1.4833+ 2	5.8853+ 0	7.8682+ 3			4.3521+ 0	4.3495+ 0	2.8543- 3
6.8363- 3	1.5894+ 3	7.0253+ 1	8.8750+ 3	1.3716+ 2	6.0532+ 0	8.7318+ 3			4.0630+ 0	4.0608+ 0	2.3858- 3
7.0049- 3	1.8823+ 3	8.0335+ 1	5.9044+ 3	1.1882+ 2	6.3022+ 0	5.7793+ 3			3.6818+ 0	3.6798+ 0	2.0478- 3
7.1892- 3	2.0048+ 3	5.8050+ 1	5.4851+ 3	1.0787+ 2	6.4254+ 0	5.3709+ 3			3.5116+ 0	3.5097+ 0	1.9028- 3
7.3901- 3	2.1897+ 3	5.1785+ 1	5.0678+ 3	9.2413+ 1	6.5589+ 0	4.9888+ 3			3.3396+ 0	3.3378+ 0	1.7601- 3
7.4633- 3	2.2332+ 3	5.0314+ 1	4.8238+ 3	8.4604+ 1	6.6072+ 0	4.8238+ 3			3.2802+ 0	3.2785+ 0	1.7118- 3
7.5290- 3	2.2926+ 3	4.9009+ 1	4.7960+ 3	7.4892+ 1	6.6505+ 0	4.7145+ 3			3.2282+ 0	3.2265+ 0	1.6699- 3
7.6325- 3	2.3910+ 3	4.6992+ 1	4.5887+ 3	5.5740+ 1	6.7186+ 0	4.5262+ 3			3.1489+ 0	3.1472+ 0	1.6067- 3
7.8491- 3	2.4081- 3	4.8688+ 1	4.5700+ 3	5.4877+ 1	6.7296+ 0	4.5085+ 3			3.1384+ 0	3.1348+ 0	1.5989- 3
7.8607- 3	2.4327+ 3	4.8187+ 1	4.5199+ 3	5.6765+ 1	6.7502+ 0	4.4564+ 3			3.1130+ 0	3.1114+ 0	1.5783- 3
X 7.8607- 3	3.1447- 4	3.5729+ 2	3.4985+ 4	5.6765+ 1	6.7502+ 0	3.4902+ 4			2.4380+ 1	1.7031+ 1	7.3480+ 0
7.7089- 3	3.1714+ 4	3.5429+ 2	3.4871+ 4	6.1803+ 1	6.7874+ 0	3.4802+ 4			2.4252+ 1	1.6965+ 1	7.2889+ 0
7.7601- 3	3.2258+ 4	3.4834+ 2	3.4089+ 4	7.7785+ 1	6.8022+ 0	3.4004+ 4			2.3997+ 1	1.6834+ 1	7.1828+ 0
7.8191- 3	3.2894+ 4	3.4189+ 2	3.3458+ 4	9.3479+ 1	6.8408+ 0	3.3258+ 4			2.3719+ 1	1.6891+ 1	7.0288+ 0
7.8561- 3	3.3251+ 4	3.3791+ 2	3.3088+ 4	9.9417+ 1	6.8648+ 0	3.2962+ 4			2.3549+ 1	1.6802+ 1	6.9464+ 0
7.9253- 3	3.3988+ 4	3.3058+ 2	3.2351+ 4	1.0660+ 2	6.9099+ 0	3.2238+ 4			2.3235+ 1	1.6439+ 1	6.7960+ 0
8.0485- 3	3.5308+ 4	3.1825+ 2	3.1144+ 4	1.1465+ 2	6.9885+ 0	3.1022+ 4			2.2700+ 1	1.6156+ 1	6.5438+ 0
8.2282- 3	3.7341+ 4	3.0090+ 2	2.9448+ 4	1.2195+ 2	7.1059+ 0	2.9317+ 4			2.1830+ 1	1.5741+ 1	6.1688+ 0
8.6782- 3	4.2690+ 4	2.8320+ 2	2.5757+ 4	1.2944+ 2	7.3857+ 0	2.5620+ 4			2.0212+ 1	1.4793+ 1	5.4199+ 0
9.8383- 3	5.5827+ 4	2.0189+ 2	1.9767+ 4	1.2878+ 2	7.9079+ 0	1.9630+ 4			1.7200+ 1	1.3029+ 1	4.1707+ 0
1.0000- 2	8.1052- 4	1.8404+ 2	1.8010+ 4	1.2658+ 2	8.0989+ 0	1.7878+ 4			1.6257+ 1	1.2453+ 1	3.8044+ 0
1.1708- 2	9.3189- 4	1.2057+ 2	1.1799+ 4	1.1203+ 2	8.8333+ 0	1.1878+ 4			1.2378+ 1	9.8851+ 0	2.4933+ 0
1.5587- 2	2.0133+ 3	5.5808+ 1	5.4814+ 3	8.2520+ 1	1.0138+ 1	5.3687+ 3			7.6088+ 0	6.4581+ 0	1.1528+ 0
2.2134- 2	5.3242- 3	2.1104+ 1	2.0852+ 3	5.1857+ 1	1.1489+ 1	2.0019+ 3			4.0307+ 0	3.5991+ 0	4.3183- 1
3.0000- 2	1.2589+ 2	8.9398+ 0	8.7484+ 2	3.2358+ 1	1.2328+ 1	8.3015+ 2			2.2889+ 0	2.0874+ 0	1.7844- 1
4.7530- 2	4.5858+ 2	2.4809+ 0	2.4082+ 2	1.4933+ 1	1.3003+ 1	2.1289+ 2			9.2470+ 1	8.7858+ 1	4.8124- 2
6.8806- 2	1.1284+ 1	9.9574+ 1	9.7444+ 1	8.2835+ 0	1.2981+ 1	7.6220+ 1			4.7141+ 1	4.5488+ 1	1.6825- 2
8.3899- 2	1.9380+ 1	5.8037+ 1	5.8795+ 1	5.5258+ 0	1.2778+ 1	3.8482+ 1			3.0530+ 1	2.8694+ 1	8.3558- 3
1.0000- 1	2.8334- 1	3.9655- 1	3.8807+ 1	3.9945+ 0	1.2502+ 1	2.2311+ 1			2.1824+ 1	2.1439+ 1	4.8435- 3
1.1941- 1	3.8406- 1	2.8513- 1	2.7603+ 1	2.8708+ 0	1.2078+ 1	1.2655+ 1			1.6180+ 1	1.5899+ 1	2.8123- 3
1.4711- 1	5.3989- 1	2.0811- 1	2.0388+ 1	1.9313+ 0	1.1598+ 1	6.8371+ 0			1.2003+ 1	1.1855+ 1	1.4840- 3
1.7321- 1	8.5913- 1	1.7047- 1	1.6882+ 1	1.4120+ 0	1.1123+ 1	1.4170+ 0			1.0083+ 1	9.9928- 2	8.9968- 4
2.0000- 1	7.6063- 1	1.4772- 1	1.4456+ 1	1.0698+ 0	1.0702+ 1	2.6848+ 0			9.1681- 2	9.1098- 2	5.8240- 4
2.3888- 1	8.8147+ 1	1.2747- 1	1.2474+ 1	7.5788- 1	1.0137+ 1	1.1577+ 0			8.7881- 2	8.7318- 2	3.4286+ 4
2.7804- 1	9.8082- 1	1.1458- 1	1.1213+ 1	5.8388- 1	9.8450+ 0	1.0042+ 0			8.8272- 2	8.8054- 2	2.1803- 4
3.5838- 1	1.1385+ 0	9.8881- 2	9.8747+ 0	3.4828- 1	8.8348+ 0	4.8383- 1			1.0053+ 1	1.0043+ 1	1.0721- 4
4.4226- 1	1.2733+ 0	8.8242- 2	8.8355+ 0	2.2608- 1	8.1396+ 0	2.6980- 1			1.1738+ 1	1.1732+ 1	5.8517- 5
6.0000- 1	1.4840+ 0	7.5718- 2	7.4096+ 0	1.2346- 1	7.1834+ 0	1.2274- 1			1.5032+ 1	1.5030+ 1	2.6626- 5
8.4580- 1	1.7523+ 0	6.4120- 2	6.2749+ 0	6.2310- 2	6.1570+ 0	5.5529- 2			2.0189+ 1	2.0188+ 1	1.2054- 5
1.0000+ 0	1.8049+ 0	5.8884+ 2	5.7723+ 0	4.4827- 2	5.8887+ 0	5.8886- 2			2.3183+ 1	2.3182+ 1	8.4444- 6
1.0220+ 0	1.9263+ 0	5.8328- 2	5.7081+ 0	4.2733- 2	5.8284+ 0	3.8930- 2			2.3584+ 1	2.3584+ 1	8.0175- 6
1.0251+ 0	1.9295+ 0	5.8232- 2	5.8887+ 0	4.2474- 2	5.8186+ 0	3.8688- 2	3.3117- 8		2.3817+ 1	2.3818+ 1	7.9867- 8
1.0287+ 0	1.9333+ 0	5.8121- 2	5.6878+ 0	4.2178- 2	5.6082+ 0	3.8427- 2	3.3117- 7		2.3678+ 1	2.3677+	

October 31, 1989
Atomic Weight 58.933

ENDL Evaluated
Photon Data

27-Co
Density 8.900 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0577+0	1.9624+0	5.7257-2	5.8033+0	3.8905-2	5.5289+0	3.4380-2	4.5140-5		2.4184-1	2.4183-1	7.4638-6
1.0611+0	1.9657+0	5.7159-2	5.5936+0	3.8650-2	5.5197+0	3.4151-2	5.8716-5		2.4221-1	2.4220-1	7.4141-6
1.0651+0	1.9697+0	5.7043-2	5.5823+0	3.8354-2	5.5090+0	3.3884-2	7.7733-5		2.4287-1	2.4287-1	7.3562-6
1.0704+0	1.9750+0	5.6881-2	5.5674+0	3.8066-2	5.4948+0	3.3535-2	1.0845-4		2.4378-1	2.4375-1	7.2804-6
1.0782+0	1.9807+0	5.6728-2	5.5512+0	3.8548-2	5.4794+0	3.3180-2	1.4887-4		2.4473-1	2.4472-1	7.1889-6
1.0806+0	1.9851+0	5.6602-2	5.5391+0	3.8236-2	5.4678+0	3.2879-2	1.8716-4		2.4546-1	2.4545-1	7.1380-6
1.0871+0	1.9915+0	5.6420-2	5.5213+0	3.7781-2	5.4508+0	3.2470-2	2.5217-4		2.4654-1	2.4654-1	7.0493-6
1.0937+0	1.9980+0	5.6237-2	5.5034+0	3.7327-2	5.4337+0	3.2083-2	3.3117-4		2.4784-1	2.4783-1	6.9608-6
1.1028+0	2.0067+0	5.5983-2	5.4798+0	3.6729-2	5.4109+0	3.1528-2	4.5916-4		2.4912-1	2.4911-1	6.8444-6
1.1107+0	2.0145+0	5.5775-2	5.4582+0	3.6197-2	5.3903+0	3.1049-2	5.9885-4		2.5046-1	2.5046-1	6.7408-6
1.1206+0	2.0241+0	5.5511-2	5.4324+0	3.5662-2	5.3656+0	3.0480-2	8.0110-4		2.5210-1	2.5210-1	6.6172-6
1.1333+0	2.0363+0	5.5180-2	5.3999+0	3.4772-2	5.3342+0	2.9795-2	1.1139-3		2.5421-1	2.5420-1	6.4885-6
1.1475+0	2.0497+0	5.4817-2	5.3845+0	3.3919-2	5.2999+0	2.9134-2	1.5380-3		2.5656-1	2.5655-1	6.3249-6
1.1582+0	2.0598+0	5.4549-2	5.3382+0	3.3296-2	5.2744+0	2.8650-2	1.9113-3		2.5833-1	2.5833-1	6.2200-6
1.1741+0	2.0746+0	5.4159-2	5.3001+0	3.2403-2	5.2372+0	2.7855-2	2.5545-3		2.6096-1	2.6096-1	6.0690-6
1.1901+0	2.0894+0	5.3778-2	5.2626+0	3.1540-2	5.2005+0	2.7281-2	3.3117-3		2.6360-1	2.6360-1	5.9226-6
1.2051+0	2.1031+0	5.3428-2	5.2283+0	3.0782-2	5.1688+0	2.6672-2	4.1218-3		2.6607-1	2.6607-1	5.7905-6
1.2275+0	2.1233+0	5.2918-2	5.1786+0	2.9652-2	5.1176+0	2.5801-2	5.5160-3		2.6976-1	2.6976-1	5.6014-6
1.2656+0	2.1570+0	5.2091-2	5.0977+0	2.7898-2	5.0370+0	2.4420-2	8.3873-3		2.7802-1	2.7802-1	5.3018-6
1.2949+0	2.1823+0	5.1486-2	5.0385+0	2.6652-2	4.9775+0	2.3437-2	1.0936-2		2.8083-1	2.8083-1	5.0882-6
1.3318+0	2.2135+0	5.0760-2	4.9675+0	2.5188-2	4.9054+0	2.2284-2	1.4582-2		2.8689-1	2.8688-1	4.8379-6
1.3828+0	2.2390+0	5.0183-2	4.9109+0	2.4074-2	4.8475+0	2.1388-2	1.7869-2		2.9184-1	2.9183-1	4.6434-6
1.4117+0	2.2786+0	4.9311-2	4.8258+0	2.2432-2	4.7592+0	2.0071-2	2.3902-2		3.0000-1	3.0000-1	4.3575-6
1.5000+0	2.3467+0	4.7880-2	4.6856+0	1.9873-2	4.6118+0	1.8000-2	3.6130-2		3.1455-1	3.1455-1	3.9078-6
1.6172+0	2.4309+0	4.6221-2	4.5233+0	1.7100-2	4.4349+0	1.5859-2	5.5413-2		3.3408-1	3.3406-1	3.4429-6
1.7188+0	2.4885+0	4.4971-2	4.4009+0	1.5141-2	4.2968+0	1.4313-2	7.4645-2		3.5122-1	3.5122-1	3.1073-6
1.8923+0	2.6131+0	4.2999-2	4.2079+0	1.2484-2	4.0713+0	1.2173-2	1.1185-1		3.7827-1	3.7827-1	2.6428-6
2.0440+0	2.7031+0	4.1567-2	4.0678+0	1.0710-2	3.8990+0	1.0720-2	1.4730-1		4.0260-1	4.0260-1	2.3273-6
2.0858+0	2.7284+0	4.1181-2	4.0300+0	1.0285-2	3.8524+0	1.0398-2	1.5694-1	2.7103-7	4.0887-1	4.0887-1	2.2574-6
2.1140+0	2.7450+0	4.0933-2	4.0057+0	1.0013-2	3.8218+0	1.0190-2	1.6367-1	1.2218-6	4.1316-1	4.1315-1	2.2123-6
2.1195+0	2.7482+0	4.0885-2	4.0011+0	9.9612-3	3.8158+0	1.0150-2	1.6501-1	1.5211-6	4.1400-1	4.1399-1	2.2038-6
2.1278+0	2.7530+0	4.0813-2	3.9940+0	9.8827-3	3.8070+0	1.0090-2	1.6706-1	2.0629-6	4.1528-1	4.1528-1	2.1805-6
2.1383+0	2.7578+0	4.0743-2	3.9871+0	9.8057-3	3.7981+0	1.0031-2	1.6912-1	2.7103-8	4.1657-1	4.1657-1	2.1777-6
2.1470+0	2.7639+0	4.0653-2	3.9783+0	9.7078-3	3.7888+0	9.9552-3	1.7180-1	3.7180-8	4.1822-1	4.1822-1	2.1613-6
2.1835+0	2.7731+0	4.0517-2	3.9650+0	9.5804-3	3.7697+0	9.8411-3	1.7597-1	5.6507-6	4.2078-1	4.2078-1	2.1385-6
2.1845+0	2.7852+0	4.0342-2	3.9479+0	9.3778-3	3.7481+0	9.6990-3	1.8072-1	8.9539-6	4.2397-1	4.2397-1	2.1057-6
2.2018+0	2.7949+0	4.0201-2	3.9341+0	9.2309-3	3.7308+0	9.5845-3	1.8470-1	1.2388-5	4.2881-1	4.2881-1	2.0808-6
2.2148+0	2.8022+0	4.0097-2	3.9239+0	9.1226-3	3.7178+0	9.4999-3	1.8772-1	1.5434-5	4.2860-1	4.2860-1	2.0624-6
2.2342+0	2.8129+0	3.9944-2	3.9090+0	8.9652-3	3.6984+0	9.3760-3	1.9229-1	2.0762-5	4.3159-1	4.3159-1	2.0355-6
2.2537+0	2.8235+0	3.9789-2	3.8944+0	8.8110-3	3.6793+0	9.2543-3	1.9695-1	2.7103-5	4.3461-1	4.3461-1	2.0091-6
2.2815+0	2.8383+0	3.9587-2	3.8741+0	8.5976-3	3.6526+0	9.0849-3	2.0373-1	3.7963-5	4.3896-1	4.3896-1	1.9723-6
2.3070+0	2.8515+0	3.9403-2	3.8561+0	8.4087-3	3.6286+0	8.9341-3	2.1008-1	4.9864-5	4.4299-1	4.4299-1	1.9396-6
2.3382+0	2.8673+0	3.9186-2	3.8348+0	8.1859-3	3.5998+0	8.7853-3	2.1801-1	6.7046-5	4.4797-1	4.4796-1	1.9008-6
2.3774+0	2.8868+0	3.8922-2	3.8090+0	7.9183-3	3.5644+0	8.5388-3	2.2806-1	9.2851-5	4.5427-1	4.5427-1	1.8538-6
2.4102+0	2.9033+0	3.8700-2	3.7873+0	7.7044-3	3.5355+0	8.3645-3	2.3557-1	1.1809-4	4.5944-1	4.5944-1	1.8159-6
2.4468+0	2.9213+0	3.8462-2	3.7638+0	7.4758-3	3.5040+0	8.1768-3	2.4412-1	1.5022-4	4.6525-1	4.6525-1	1.7526-6
2.4859+0	2.9400+0	3.8217-2	3.7400+0	7.2426-3	3.4711+0	7.9840-3	2.5344-1	1.8913-4	4.7154-1	4.7154-1	1.7333-6
2.5584+0	2.9722+0	3.7804-2	3.6995+0	6.8487-3	3.4139+0	7.6547-3	2.7077-1	2.7103-4	4.8309-1	4.8308-1	1.6818-6
2.6504+0	3.0168+0	3.7247-2	3.6451+0	6.3242-3	3.3341+0	7.2087-3	2.9703-1	4.1780-4	5.0052-1	5.0052-1	1.6850-6
2.7453+0	3.0524+0	3.6811-2	3.6023+0	5.8393-3	3.2724+0	6.8757-3	3.1853-1	5.5918-4	5.1480-1	5.1480-1	1.6272-6
2.8090+0	3.0777+0	3.6508-2	3.5727+0	5.8731-3	3.2281+0	6.6423-3	3.3158-1	6.7720-4	5.2540-1	5.2540-1	1.4421-6
2.9045+0	3.1132+0	3.6092-2	3.5320+0	5.3084-3	3.1847+0	6.3183-3	3.5479-1	8.7239-4	5.4187-1	5.4187-1	1.3713-6
3.0399+0	3.1599+0	3.5558-2	3.4798+0	4.8444-3	3.0802+0	5.9076-3	3.8785-1	1.1824-3	5.6596-1	5.6596-1	1.2825-6
3.2344+0	3.2319+0	3.4766-2	3.4022+0	4.2795-3	2.9588+0	5.4242-3	4.3201-1	1.7089-3	5.9763-1	5.9763-1	1.1776-6
3.4375+0	3.2962+0	3.4088-2	3.3359+0	3.7889-3	2.8442+0	4.9881-3	4.8051-1	2.3389-3	6.3264-1	6.3264-1	1.0829-6
3.7847+0	3.3947+0	3.3099-2	3.2391+0	3.1258-3	2.6722+0	4.3694-3	5.5579-1	3.5892-3	6.9336-1	6.9336-1	9.4859-7
4.0000+0	3.4430+0	3.2635-2	3.1837+0	2.7984-3	2.5781+0	4.0480-3	6.0430-1	4.4470-3	7.3368-1	7.3368-1	8.7804-7
4.2500+0	3.4970+0	3.2131-2	3.1443+0	2.4789-3	2.4787+0	3.7420-3	6.5392-1	5.4957-3	7.7998-1	7.7998-1	8.1238-7
4.7500+0	3.5759+0	3.1422-2	3.0750+0	1.9846-3	2.3062+0	3.2380-3	7.5581-1	7.8894-3	8.7973-1	8.7973-1	7.0297-7
5.5135+0	3.6612+0	3.0689-2	3.0033+0	1.4730-3	2.0938+0	2.6807-3	8.8407-1	1.1273-2	1.0393+0	1.0393+0	5.8199-7
6.3840+0	3.7284+0	3.0138-2	2.9491+0	1.1057-3	1.8925+0	2.2454-3	1.0381+0	1.5276-2	1.2222+0	1.2222+0	4.8748-7
7.4833+0	3.7878+0	2.9821-2	2.9183+0	7.9988-4	1.8882+0	1.8472-3	1.2069+0	2.0492-2	1.4810+0	1.4810+0	4.0102-7
9.0000+0	3.7880+0	2.9835-2	2.9197+0	5.5288-4	1.8823+0	1.4870-3	1.4080+0	2.7300-2	1.8817+0	1.8817+0	3.2283-7
1.0000+1	3.7483+0	2.9976-2	2.9335+0	4.4783-4	1.3783+0	1.3170-3	1.5240+0	3.1480-2	2.1289+0	2.1289+0	2.8592-7
1.3000+1	3.6780+0	3.0549-2	2.8865+0	2.8499-4	1.1306+0	9.7910-4	1.8150+0	4.2700-2	2.8605+0	2.8605+0	2.1256-7
1.8000+1	3.5162+0	3.1955-2	3.1272+0	1.3822-4	8.8546-4	6.8480-4	2.1830+0	5.7890-2	4.5057+0	4.5057+0	1.4857-7
2.8000+1	3.2954+0	3.4098-2	3.3367+0	6.6250-5	6.6206-4	4.6180-4	2.5980+0	7.6080-2	7.2314+0	7.2314+0	1.0028-7
4.2170+1	2.9857+0	3.7507-2	3.6705+0	2.5184-5	4.5169-4	2.7837-4	3.1182+0	1.0031-1	1.3084+1	1.3084+1	6.0433-8
6.0000+1	2.7854+0	4.0185-2	3.9335+0	1.2440-5	3.3752-4	1.9350-4	3.4780+0	1.1780-1	2.0715+1	2.0715+1	4.2009-8
1.0000+2	2.5550+0	4.3977-2	4.3038+0	4.4785-8	2.2131-1	1.1480-4	3.9410+0	1.4120-1	3.8345+1	3.8345+1	2.4823-8
2.0000+2	2.3257+0	4.8312-2	4.7279+0	1.1196-6	1.2241-1	5.6970-5	4.4370+0	1.6840-1	8.5150+1	8.5150+1	1.2368-8
4.0000+2	2.1827+0	5.1478-2	5.0377+0	2.7991-7	6.7351-2	5.8370-5	4.7810+0	1.8930-1	1.8238+2	1.8238+2	6.1591-9
1.0000+3	2.0777+0	5.4079-2	5.2822+0	4.4785-8	3.0185-2	1.1320-5	5.0540+0	2.0800-1	4.8039+2	4.8039+2	2.4576-9
4.0000+3	2.0109+0	5.5874-2	5.4879+0	2.7991-7	8.7155-3	2.8280-6	5.2370+0	2.2220-1	1.9882+3	1.9882+3	8.1353-10
1.0000+4	1.9938+0	5.8356-2	5.5158+0	4.4785-10	3.8106-3	1.1300-6	5.2850+0	2.2620-1	5.0147+3	5.0147+3	2.4532-10
1.0000+5	1.9812+0	5.6712-2	5.5499+0	4.4758-12	4.6027-4	1.1300-7	5.3200+0	2.2940-1	5.0473+4	5.0473+4	2.4532-11

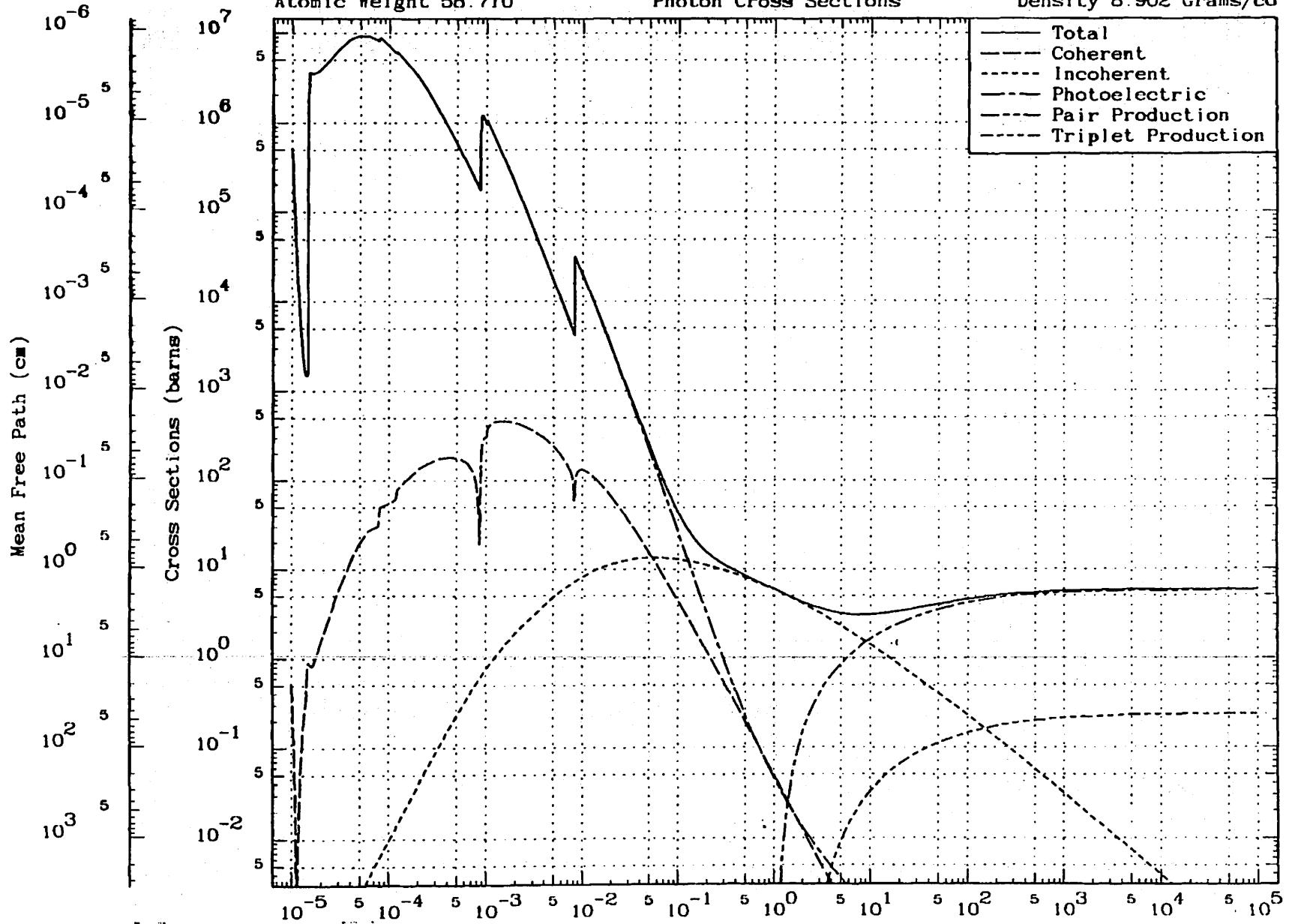
October 31, 1989
Atomic Weight 58.710

ENDL Evaluated
Photon Cross Sections

28-Ni
Density 8.902 Grams/co

- Total
- - - Coherent
- · · Incoherent
- · - Photoelectric
- - - Pair Production
- · - Triplet Production

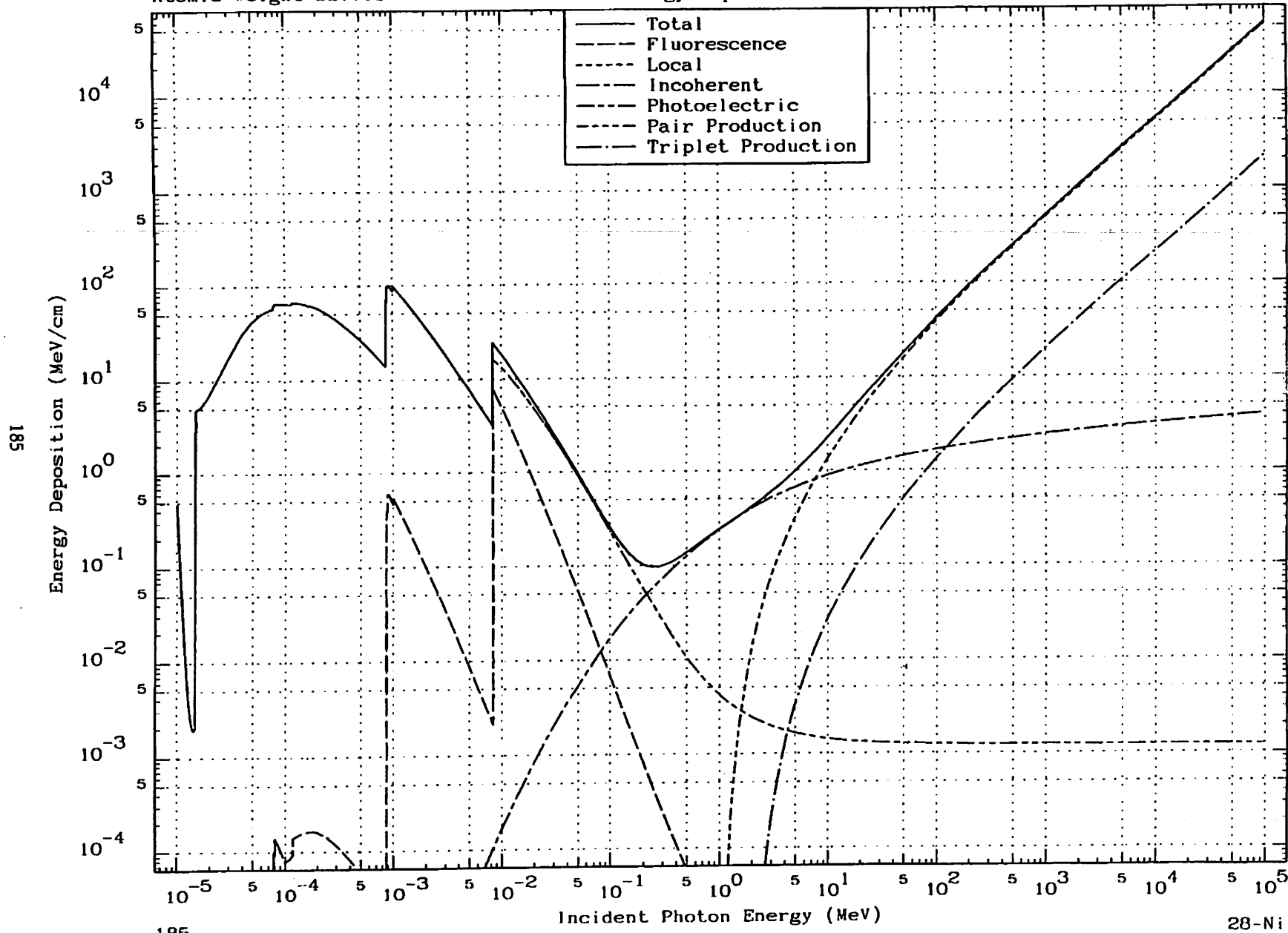
184

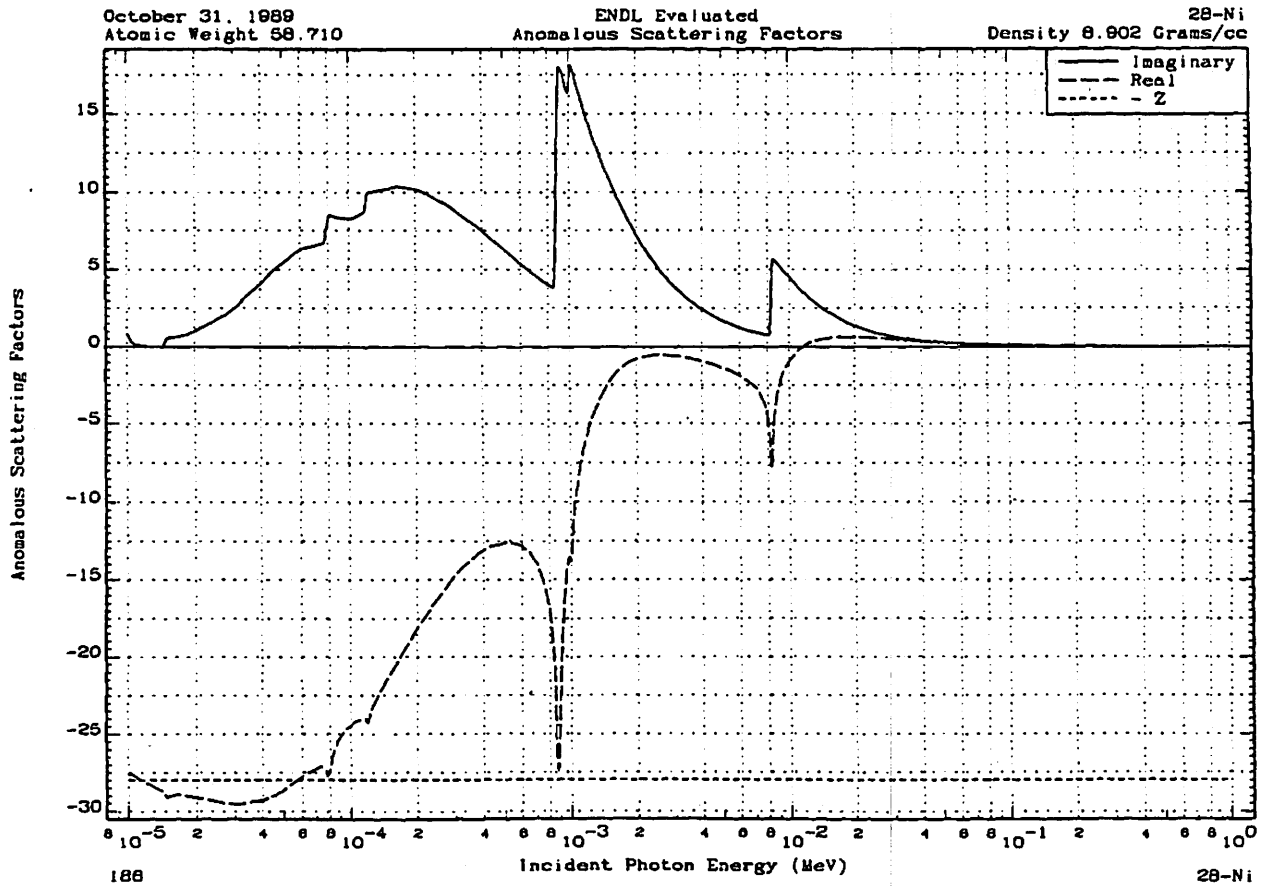
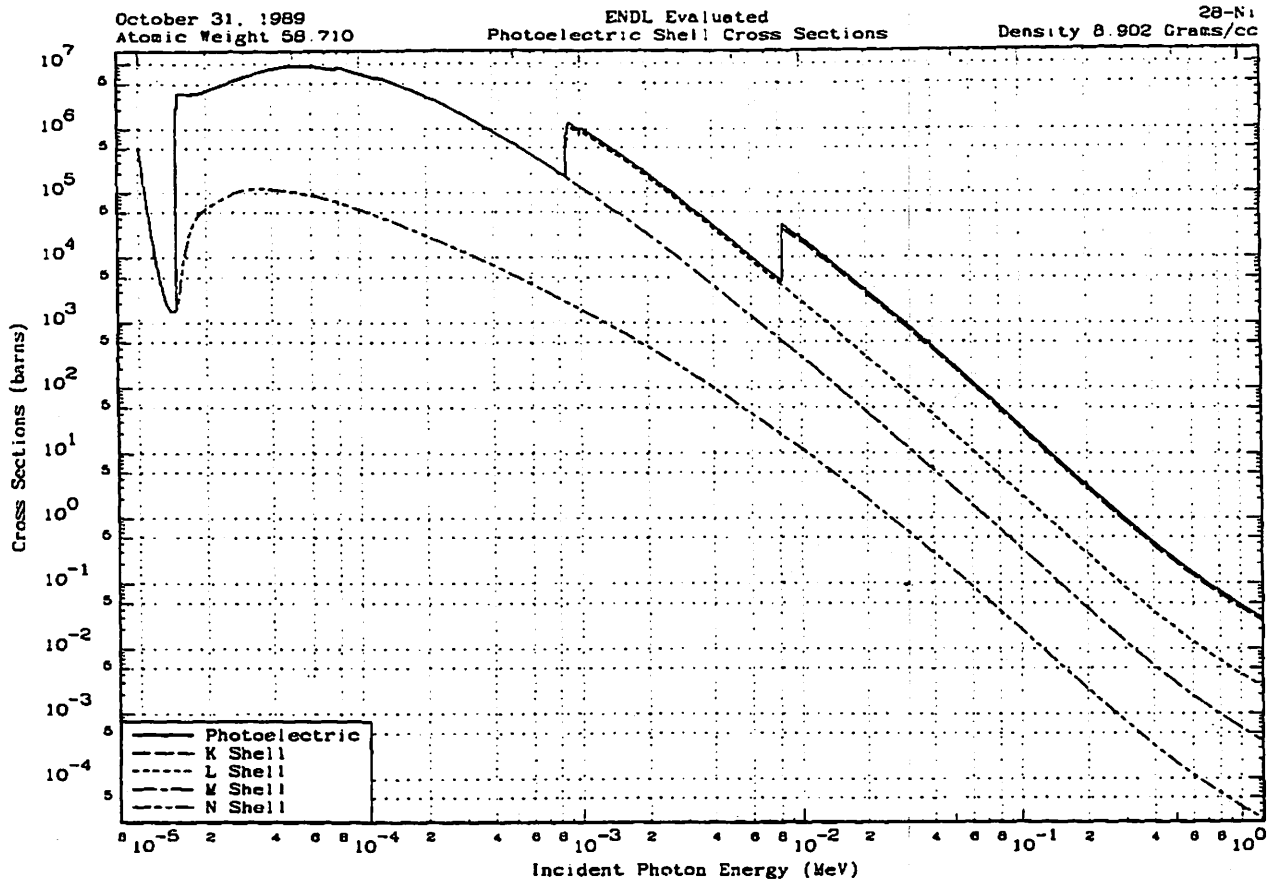


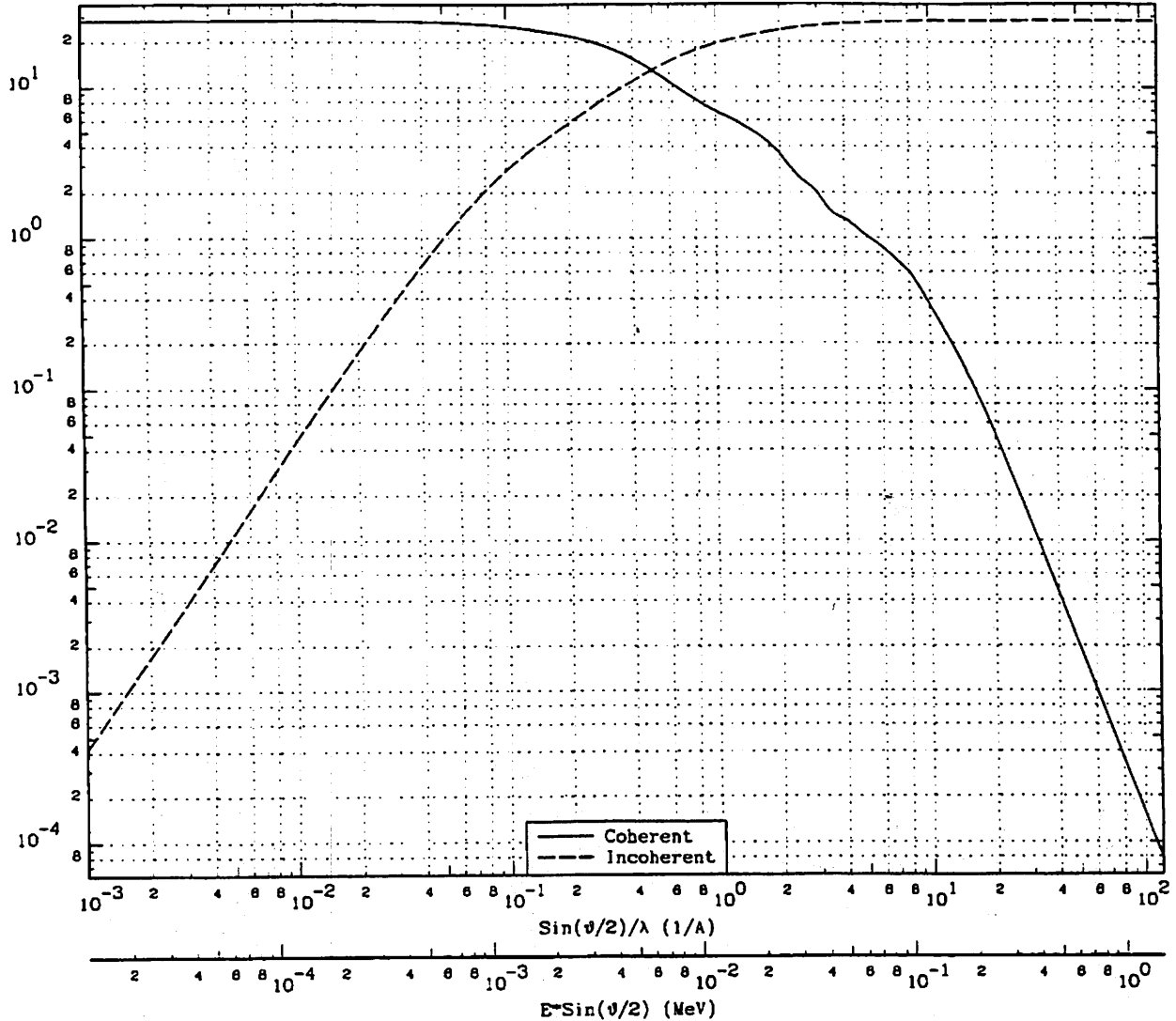
October 31, 1989
Atomic Weight 58.710

ENDL Evaluated
Energy Deposition

28-Ni
Density 8.902 Grams/cc







$\sin(\theta/2)/\lambda$ 1/A	$E \cdot \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E \cdot \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/A	$E \cdot \sin(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	2.8000+1	0.0000+0	8.0000-1	8.9188-3	8.2485-0	1.7602+1	1.5000+1	1.8598-1	1.2411-1	2.7992+1
0.0000-3	1.2398-5	2.8000+1	4.1783-4	9.0000-1	1.1158-2	7.4741-0	1.8684+1	1.8770+1	2.3272-1	6.2120-2	2.7997+1
0.0000-3	6.1993-5	2.7984+1	1.1000-2	1.0000+0	1.2399-2	6.9080-0	1.9543+1	2.0000+1	2.4797-1	5.0496-2	2.7999+1
0.0000-2	1.2399-4	2.7963+1	4.5000-2	1.2500+0	1.5498-2	5.9013+0	2.1209+1	2.6826+1	3.3260-1	1.8610-2	2.7999+1
0.5000-2	1.8598-4	2.7938+1	1.0090-1	1.5000+0	1.8598-2	5.0914+0	2.2445+1	3.5806+1	4.4394-1	6.6509-3	2.8000+1
2.0000-2	2.4797-4	2.7890+1	1.7740-1	1.7500+0	2.1697-2	4.3305+0	2.3429+1	5.0000+1	6.1993-1	1.8605-3	2.8000+1
2.5000-2	3.0996-4	2.7829+1	2.7340-1	2.0000+0	2.4797-2	3.5901+0	2.4211+1	8.0000+1	9.9188-1	3.4778-4	2.8000+1
3.0000-2	3.7196-4	2.7755+1	3.8720-1	2.4766+0	3.0706-2	2.5241+0	2.5260+1	1.0000+2	1.2399+0	1.5384-4	2.8000+1
4.0000-2	4.9594-4	2.7573+1	6.6050-1	2.5000+0	3.0996-2	2.4929+0	2.5301+1	1.7117+2	2.1223+0	2.2602-5	2.8000+1
5.0000-2	6.1993-4	2.7353+1	9.8100-1	2.9590+0	3.6687-2	2.0341+0	2.5917+1	3.2012+2	3.9690+0	2.6213-6	2.8000+1
7.0000-2	8.6790-4	2.6793+1	1.8955+0	3.0000+0	3.7196-2	1.8682+0	2.5962+1	6.3400+2	7.8607+0	2.7047-7	2.8000+1
9.0000-2	1.1159-3	2.6139+1	2.4230+0	3.4795+0	4.3141-2	1.4958+0	2.6379+1	1.0000+3	1.2399+1	6.1866-8	2.8000+1
1.0000-1	1.2399-3	2.5795+1	2.7720+0	3.5000+0	4.3395-2	1.4835+0	2.6394+1	2.0441+3	2.5344+1	6.3565-9	2.8000+1
1.2500-1	1.5488-3	2.4880+1	3.5820+0	3.7129+0	4.6034-2	1.4016+0	2.6538+1	4.2150+3	5.2260+1	6.8919-10	2.8000+1
1.5000-1	1.8598-3	2.3948+1	4.3220+0	4.0000+0	4.9594-2	1.3391+0	2.6710+1	7.2968+3	9.0470+1	1.2495-10	2.8000+1
1.7500-1	2.1697-3	2.3039+1	5.0287+0	4.4258+0	5.4873-2	1.2136+0	2.6927+1	1.6131+4	2.0000+2	1.1462-11	2.8000+1
2.0000-1	2.4797-3	2.2135+1	5.7260+0	5.0000+0	6.1993-2	1.0502+0	2.7166+1	4.5264+4	5.6121+2	5.4015-13	2.8000+1
2.5000-1	3.0996-3	2.0380+1	7.1149+0	6.0000+0	7.4391-2	8.7240-1	2.7475+1	2.1275+5	5.6378+3	5.9170-15	2.8000+1
3.0000-1	3.7196-3	1.8689+1	8.4610+0	7.0000+0	8.6790-2	7.1380-1	2.7678+1	1.0000+6	1.2399+4	8.6171-17	2.8000+1
4.0000-1	4.9594-3	1.5542+1	1.0894+1	8.0000+0	9.9188-2	5.9720-1	2.7802+1	5.6234+6	6.8722+4	4.2175-19	2.8000+1
5.0000-1	6.1993-3	1.2918+1	1.2980+1	8.8276+0	1.0945-1	4.9240-1	2.7867+1	7.4989+7	9.2975+5	1.9820-22	2.8000+1
6.0000-1	7.4391-3	1.0868+1	1.4780+1	1.0000+1	1.2399-1	3.6410-1	2.7926+1	1.0000+8	1.2399+7	8.8540-28	2.8000+1
7.0000-1	8.6790-3	9.3425+0	1.6317+1	1.3154+1	1.6309-1	1.7929-1	2.7983+1				

Energy MeV	Total Mean Free Path		Cross Sections (barus)						Energy Deposition (MeV/cc)		
	cm	cc*ca/grac	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	2.0831-5	5.3927+3	5.2574+5	5.3391-1	9.0368-5	5.2574+5			4.8006-1	4.8006-1	
1.0125-5	2.8282-5	3.9719+3	3.8722-5	4.2827-1	9.2657-5	3.8722-5			3.5800-1	3.5800-1	
1.0238-5	3.7180-5	3.0230+3	2.9471-5	3.1526-1	9.4748-5	2.9471-5			2.7551-1	2.7551-1	
1.0405-5	5.5339-5	2.0289+3	1.8790-5	1.8779-1	9.7884-5	1.8790-5			1.8803-1	1.8803-1	
1.0528-5	7.3835-5	1.5214+3	1.4832-5	1.2588-1	1.0022-4	1.4832-5			1.4259-1	1.4259-1	
1.0618-5	9.0949-5	1.2351+3	1.2041-5	9.1713-2	1.0194-4	1.2041+5			1.1674-1	1.1674-1	
1.0708-5	1.1196-4	1.0033+3	9.7816-4	6.5269-2	1.0369-4	9.7816+4			9.5637-2	9.5637-2	
1.0813-5	1.4058-4	7.9909+2	7.7804-4	4.2852-2	1.0574-4	7.7804+4			7.8915-2	7.8915-2	
1.0915-5	1.7528-4	6.4097+2	6.2489-4	2.8918-2	1.0777-4	6.2489+4			6.2281-2	6.2281-2	
1.1012-5	2.1547-4	5.2135+2	5.0827-4	1.6414-2	1.0971-4	5.0827+4			5.1108-2	5.1108-2	
1.1134-5	2.7838-4	4.0353+2	3.9340-4	7.9027-3	1.1215-4	3.9340+4			3.9994-2	3.9994-2	
1.1265-5	3.5953-4	3.1245+2	3.0460-4	3.0876-3	1.1483-4	3.0460+4			3.1332-2	3.1332-2	
1.1357-5	4.2921-4	2.8172+2	2.5515-4	1.7728-3	1.1872-4	2.5515+4			2.6460-2	2.6460-2	
1.1459-5	5.2209-4	2.1516+2	2.0976-4	1.8698-3	1.1885-4	2.0976+4			2.1949-2	2.1949-2	
1.1672-5	7.6129-4	1.4756+2	1.4386-4	6.0640-3	1.2332-4	1.4386+4			1.5332-2	1.5332-2	
1.1812-5	9.6674-4	1.1620+2	1.1328-4	1.0988-2	1.2632-4	1.1328+4			1.2218-2	1.2218-2	
1.1949-5	1.2035-3	8.3342+1	9.1000+3	1.7065-2	1.2929-4	9.0999+3			9.9281-3	9.9291-3	
1.2226-5	1.8111-3	6.2025+1	6.0468+3	3.6013-2	1.3539-4	6.0468+3			6.7507-3	6.7507-3	
1.2395-5	2.2604-3	4.9697+1	4.8450+3	5.2791-2	1.3917-4	4.8450+3			5.4835-3	5.4835-3	
1.2573-5	2.7838-3	4.0201+1	3.9192+3	7.3378-2	1.4323-4	3.9191+3			4.4995-3	4.4995-3	
1.2741-5	3.3605-3	3.3428+1	3.2589+3	9.5038-2	1.4711-4	3.2588+3			3.7914-3	3.7914-3	
1.2928-5	4.0395-3	2.7809+1	2.7111+3	1.2177-1	1.5148-4	2.7110+3			3.2003-3	3.2003-3	
1.3142-5	4.8618-3	2.3107+1	2.2527+3	1.5547-1	1.5658-4	2.2525+3			2.7031-3	2.7031-3	
1.3403-5	5.7878-3	1.8376+1	1.8890+3	2.0037-1	1.6288-4	1.8888+3			2.3116-3	2.3116-3	
1.3727-5	6.3729-3	1.6672+1	1.6254+3	2.6439-1	1.7090-4	1.6251+3			2.0370-3	2.0370-3	
1.4025-5	7.2915-3	1.5406+1	1.5019+3	3.2916-1	1.7844-4	1.5018+3			1.9231-3	1.9231-3	
1.4255-5	7.3733-3	1.5235+1	1.4853+3	4.1218-1	1.8436-4	1.4849+3			1.8228-3	1.8228-3	
1.4369-5	7.3446-3	1.5295+1	1.4911+3	4.8136-1	1.8734-4	1.4906+3			1.8557-3	1.8557-3	
1.4602-5	7.0735-3	1.5891+1	1.5482+3	7.3860-1	1.9350-4	1.5475+3			2.0633-3	2.0633-3	
1.4880-5	8.9485-3	1.8167+1	1.5761+3	7.8393-1	1.9505-4	1.5753+3			2.1088-3	2.1088-3	
M5 1.4880-5	5.0818-6	2.2192+4	2.1835+6	7.8393-1	1.9505-4	2.1835+6			2.8962+0	2.8962+0	
1.4734-5	5.0884-6	2.2164+4	2.1608+6	8.5557-1	1.9704-4	2.1608+6			2.9071+0	2.9071+0	
1.4859-5	5.0760-6	2.2117+4	2.1562+6	8.9828-1	2.0041-4	2.1562+6			2.9255+0	2.9255+0	
1.4920-5	5.0841-6	2.2095+4	2.1541+6	8.9197-1	2.0207-4	2.1541+6			2.9347+0	2.9347+0	
M4 1.4920-5	3.0540-6	3.8783+4	3.5860+6	8.9197-1	2.0207-4	3.5860+6			4.8854+0	4.8854+0	
1.5000-5	3.0591-6	3.8722+4	3.5800+6	8.9011-1	2.0428-4	3.5800+6			4.9034+0	4.9034+0	
1.5160-5	3.0700-6	3.8591+4	3.5673+6	8.6811-1	2.0922-4	3.5673+6			4.9446+0	4.9446+0	
1.8296-5	3.1317-6	3.5870+4	3.4970+6	8.1657-1	2.4129-4	3.4970+6			5.2034+0	5.2034+0	
1.8822-5	3.1236-6	3.5964+4	3.5061+6	8.5517-1	2.5721-4	3.5061+6			5.3854+0	5.3854+0	
1.8737-5	2.9380-6	3.8235+4	3.7278+6	1.1976-0	3.1987-4	3.7278+6			6.3776+0	6.3776+0	
2.0000-5	2.7838-6	4.0655+4	3.9634+6	1.4938+0	3.8520-4	3.9634+6			7.2381+0	7.2381+0	
2.7870-5	1.8744-6	5.9931+4	5.8427+6	4.3446+0	7.0629-4	5.8427+6			1.4762+1	1.4762+1	
3.0702-5	1.6549-6	6.7681+4	6.6177+6	6.0080+0	8.7250-4	6.6177+6			1.8553+1	1.8553+1	
3.7224-5	1.3595-6	8.2628+4	8.0554+6	1.0028-1	1.2905-3	8.0554+6			2.7380+1	2.7380+1	
4.0000-5	1.2788-6	8.7778+4	8.5575+6	1.2141+1	1.4835-3	8.5575+6			3.1256+1	3.1256+1	
4.8280-5	1.1733-6	9.5740+4	9.3337+6	1.8499+1	2.1890-3	9.3337+6			4.1148+1	4.1148+1	
6.0446-5	1.1845-6	9.4834+4	9.2454+6	2.6597+1	3.4560-3	9.2454+6			5.1029+1	5.1029+1	
7.3083-5	1.2981-6	8.6870+4	8.4494+6	2.9460+1	5.0829-3	8.4494+6			5.6386+1	5.6386+1	
7.8790-5	1.3387-6	8.3915+4	8.1809+6	2.9885+1	5.8205-3	8.1808+6			5.7383+1	5.7383+1	
7.7471-5	1.3484-6	8.3432+4	8.1339+6	3.1160+1	5.7223-3	8.1338+6			5.7539+1	5.7539+1	
7.8210-5	1.3548-6	8.2917+4	8.0836+6	3.5661+1	5.8337-3	8.0836+6			5.7728+1	5.7728+1	
M3 7.8210-5	1.2502-6	8.9850+4	8.7595+6	3.5681+1	5.8337-3	8.7595+6			6.2556+1	6.2556+1	9.9612-5
7.8948-5	1.2601-6	8.9146+4	8.6909+6	4.0487+1	5.9462-3	8.6908+6			6.2851+1	6.2851+1	9.6759-5
8.0480-5	1.2809-6	8.7723+4	8.5522+6	4.5853+1	6.1829-3	8.5521+6			6.2848+1	6.2848+1	9.1178-5
M2 8.0480-5	1.2338-6	9.1048+4	8.8763+6	4.5853+1	6.1829-3	8.8763+6			6.5230+1	6.5229+1	1.4192-4
8.1266-5	1.2449-6	9.0232+4	8.7968+6	4.8831+1	6.3062-3	8.7967+6			6.5278+1	6.5276+1	1.3747-4
8.2090-5	1.2566-6	8.9393+4	8.7149+6	4.9959+1	6.4389-3	8.7149+6			6.5325+1	6.5325+1	1.3300-4
1.0000-4	1.5478-6	7.2572+4	7.0751+6	5.4304+1	9.6128-3	7.0751+6			6.4603+1	6.4603+1	7.8113-5
1.1114-4	1.7347-6	6.4758+4	8.3133+6	5.8888+1	1.1894-2	6.3132-6			6.4088+1	6.4088+1	8.4013-5
1.1748-4	1.8318-6	6.1324+4	5.9785+6	6.1708-1	1.3297-2	5.9784+6			6.4122+1	6.4122+1	9.0658-5
1.1884-4	1.8499-6	6.0723+4	5.9189+6	6.7154+1	1.3588-2	5.9189+6			6.4132+1	6.4131+1	9.1913-5
1.1964-4	1.7588-6	6.3944+4	6.2339+6	6.7154+1	1.3588-2	6.2339+6			6.7533+1	6.7533+1	1.3987-4
1.2009-4	1.7770-6	6.3217+4	6.1631+6	7.4630+1	1.3905-2	6.1630+6			6.7581+1	6.7581+1	1.4107-4
1.2178-4	1.8035-6	6.2288+4	6.0725+6	7.8507+1	1.4305-2	6.0724+6			6.7531+1	6.7531+1	1.4242-4
1.4216-4	2.1687-6	5.1845+4	5.0544+6	9.4638+1	1.8540-2	5.0543+6			6.5610+1	6.5610+1	1.5728-4
1.7783-4	2.9074-6	3.8637+4	3.7867+6	1.1834-2	3.0686-2	3.7666+6			6.1181+1	6.1181+1	1.6647-4
2.0877-4	3.4411-6	3.2845+4	3.1828+6	1.3313-2	3.8920-2	3.1825+6			5.8313+1	5.8313+1	1.8163-4
2.4496-4	4.7556-6	2.3821+4	2.3029+6	1.5151+2	5.7849-2	2.3027+6			5.1504+1	5.1504+1	1.4292-4
3.2383-4	7.9041-6	1.4212+4	1.3858+6	1.7383-2	9.8957-2	1.3854+6			4.0986+1	4.0986+1	1.0689-4
4.2838-4	1.3688-5	8.2248+3	8.0182+6	1.8287-2	1.7044-1	8.0183+6			3.1356+1	3.1356+1	7.3113-5
5.0782-4	1.9354-5	5.8042+3	5.6588+6	1.7802-2	2.3480-1	5.6588+6			2.8220+1	2.8220+1	5.8113-5
6.0000-4	2.7842-5	4.0639+3	3.9818+6	1.6527-2	3.1877-1	3.9802+6			2.1897+1	2.1897+1	4.2198-5
8.5034-4	3.3033-5	3.4008+3	3.3153+6	1.5443-2	3.8938-1	3.3137+6			1.9878+1	1.9878+1	3.8211-5
7.0212-4	3.9133-5	2.8708+3	2.7985+6	1.3683-2	4.2217-1	2.7972+6			1.7933+1	1.7933+1	3.1309-5
7.5001-4	4.5304-5	2.4798+3	2.4174+6	1.1571-2	4.7270-1	2.4162+6			1.6547+1	1.6547+1	2.7828-5
7.8383-4	5.1389-5	2.1859+3	2.1311+6	8.8634+1	5.2099-1	2.1302+6			1.5441+1	1.5441+1	2.4805-5
8.1178-4	5.4088-5	2.0777+3	2.0255+6	7.4034+1	5.4130-1	2.0248+6			1.5008+1	1.5008+1	2.3725-5
8.3498-4	5.7899-5	1.9489+3	1.8980+6	4.9060+1	5.8810-1	1.8975+6			1.4468+1	1.4468+1	2.2996-5
8.4804-4	5.9477-5	1.8887+3	1.8413+6	3.3898+1	5.8105-1	1.8410+6			1.4222+1	1.4222+1	2.1801-5
8.5071-4	6.0238-5	1.8849+3	1.8181+6	2.8445+1	5.8655-1	1.8178+6			1.4121+1	1.4121+1	2.1557-5
8.5353-4	6.0899-5	1.8507+3	1.8042+6	2.2281+1	5.8889-1	1.8040+6			1.4060+1	1.4060+1	2.1412-5
8.5587-4	6.1051-5	1.8400+3	1.7938+6	1.9948+1	5.9243-1	1.7938+6			1.4014+1	1.4014+1	2.1302-5
8.5748-4	6.1344-5	1.8312+3	1.7853+6	1.8003+1	5.9455-1	1.7851+6			1.3978+1	1.3978+1	2.1212-5
8.5919-4	6.1830-5	1.8227+3	1.7770+6	1.8285+1	5.9861-1	1.7788+6			1.3940+1	1.3940+1	2.1124-5
8.6108-4	6.1942-5	1.8136+3	1.7680+6	2.1563+1	5.9886-1	1.7878+6			1.3900+1	1.3900+1	2.1030-5
8.8271-4	6.2210-5	1.8057+3	1.7604+6	2.5207+1	6.0080-1	1.7602+6			1.3888+1	1.3888+1	2.0948-5
8.8702-4	6.2921-5	1.7853+3	1.7405+6	4.2135+1	6.0586-1	1.7401+6			1.3778+1	1.3778+1	2.0738-5

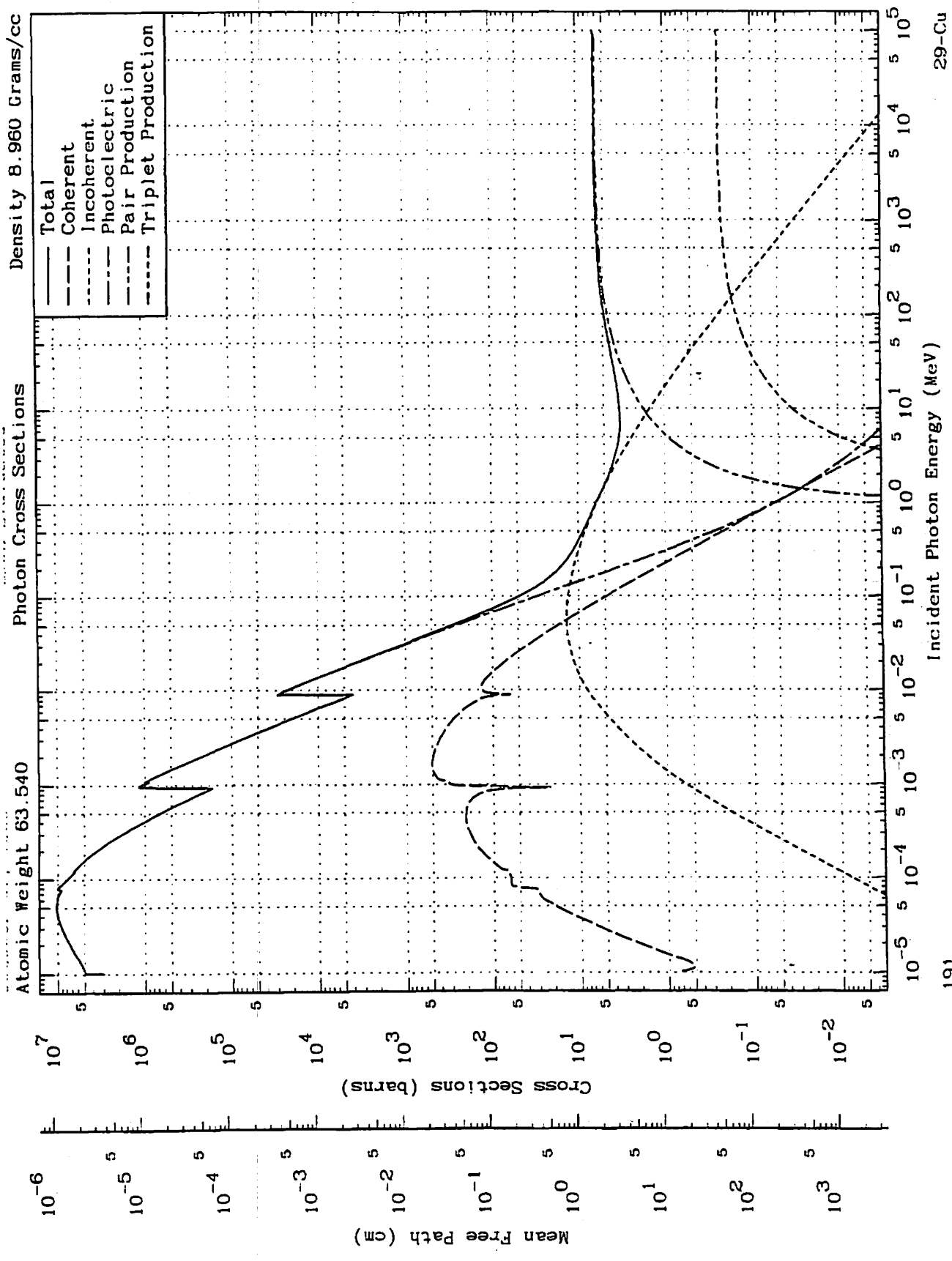
October 31, 1989
Atomic Weight 58.710

ENDL Evaluated
Photon Data

28-Ni
Density 8.902 Grams/cc

Energy KeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm²/gm	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
3 8.8702-4	1.4253-5	7.8815+3	7.8837+5	4.2135+1	6.0595-1	7.8833+5			6.0829+1	6.0493+1	3.3527-1
8.6885-4	1.4044-5	7.0988+3	7.7691+5	5.2363+1	6.0815-1	7.7676+5			6.1863+1	6.1521+1	3.4204-1
8.7232-4	1.3658-5	8.2248+3	8.0185+5	7.3791+1	6.1231-1	8.0177+5			6.3863+1	6.3508+1	3.5519-1
8.7899-4	1.3156-5	8.5383+3	8.3241+5	1.0310+2	6.1757-1	8.3230+5			6.6550+1	6.6278+1	3.7363-1
8.8248-4	1.2894-5	8.8493+3	8.6272+5	1.3772+2	6.2375-1	8.6258+5			6.9508+1	6.9114+1	3.9231-1
8.8498-4	1.2580-5	8.0298+3	8.7055+5	1.5342+2	6.2681-1	8.7039+5			7.0336+1	6.9938+1	3.9734-1
2 8.8498-4	9.5042-6	1.1819+4	1.1523-6	1.5342+2	6.2681-1	1.1521+8			9.3102+1	9.2545+1	5.5740-1
8.8014-4	9.2438-6	1.2153+4	1.1848-6	1.8719+2	6.3247-1	1.1848+8			8.6282+1	8.5705+1	5.7701-1
8.8592-4	9.1282-6	1.2306+4	1.1997-6	2.1997+2	6.3908-1	1.1995+8			9.8131+1	9.7545+1	5.8887-1
9.0268-4	9.0432-6	1.2422+4	1.2110-6	2.4154+2	6.4679-1	1.2108+8			9.9799+1	9.9204+1	5.9489-1
9.0625-4	9.0566-6	1.2405+4	1.2094-6	2.5462+2	6.5319-1	1.2091+8			1.0028+2	9.9680+1	5.9522-1
9.2815-4	8.4890-6	1.1863+4	1.1566-6	2.8057+2	6.7393-1	1.1563+8			9.7785+1	9.7218+1	5.6927-1
9.3718-4	8.7560-6	1.1516+4	1.1227-6	2.8128+2	6.8680-1	1.1224+8			9.6044+1	9.5482+1	5.5234-1
9.5533-4	1.0239-5	1.0872+4	1.0896-6	3.0110+2	7.0826-1	1.0893+8			9.3280+1	9.2754+1	5.2890-1
9.7588-4	1.0797-5	1.0404+4	1.0143-6	3.0615+2	7.3257-1	1.0140+8			9.0339+1	8.9840+1	4.9833-1
1.0000-3	1.1488-5	9.7786+3	9.5332+5	3.0467+2	7.6203-1	9.5301+5			8.7021+1	8.6553+1	4.6797-1
1.0085-3	1.1677-5	9.8204+3	9.3790+5	3.1852+2	7.8943-1	9.3758+5			8.8168+1	8.7708+1	4.6029-1
1.0085-3	1.0248-5	1.0862+4	1.0657-6	3.1852+2	7.8943-1	1.0653+8			9.8185+1	9.7849+1	5.3583-1
1.0196-3	1.0570-5	1.0627+4	1.0361-6	3.6523+2	7.8441-1	1.0357+8			8.6423+1	8.6081+1	5.1942-1
1.0295-3	1.0820-5	1.0383+4	1.0122-6	3.8389+2	7.9587-1	1.0118+8			8.5119+1	8.4812+1	5.0745-1
1.0475-3	1.1276-5	9.9618+3	9.7118+5	4.0012+2	8.1684-1	9.7079+5			9.2948+1	9.2611+1	4.8890-1
1.1422-3	1.3879-5	8.0536+3	7.6904+5	4.3681+2	9.2938-1	7.6881+5			8.2245+1	8.1850+1	3.9562-1
1.2723-3	1.7975-5	8.2494+3	6.0925+5	4.5667+2	1.0872+0	6.0880+5			7.0723+1	7.0418+1	3.0551-1
1.6359-3	3.2994-5	3.4047+3	3.3192+5	4.6309+2	1.5074+0	3.3168+5			4.9512+1	4.8345+1	1.8857-1
2.1532-3	6.6664-5	1.6851+3	1.6429+5	4.2949+2	2.0715+0	1.6385+5			3.2215+1	3.2133+1	8.2271-2
2.9688-3	1.5481-4	7.2561+2	7.0740+4	3.6675+2	2.8968+0	7.0371+4			1.9078+1	1.9041+1	3.5275-2
3.8772-3	3.1879-4	3.5480+2	3.4570+4	3.0501+2	3.7887+0	3.4282+4			1.2130+1	1.2113+1	7.183-2
5.0000-3	6.2916-4	1.7855+2	1.7407+4	2.4047+2	4.7898+0	1.7611+4			7.8351+0	7.8023+0	8.5942-3
6.0000-3	1.0444-3	1.0758+2	1.0488+4	1.9258+2	5.6009+0	1.0289+4			5.6365+0	5.6314+0	5.1444-3
6.9282-3	1.5522-3	7.2373+1	7.0556+3	1.5238+2	6.2813+0	6.9970+3			4.3633+0	4.3588+0	3.4489-3
7.1737-3	1.7081-3	6.5765+1	6.4115+3	1.4159+2	6.4505+0	6.2834+3			4.1029+0	4.0998+0	3.1329-3
7.5722-3	1.9831-3	5.6848+1	5.5225+3	1.2251+2	5.5222+0	5.3932+3			3.7291+0	3.7264+0	2.6975-3
7.7714-3	2.1317-3	5.2898+1	5.1374+3	1.1129+2	6.8588+0	5.0193+3			3.5819+0	3.5594+0	2.5104-3
8.0000-3	2.3135-3	4.8556+1	4.7338+3	9.4324+1	7.0102+0	4.8324+3			3.3840+0	3.3817+0	2.3189-3
8.0878-3	2.3715-3	4.7368+1	4.6179+3	8.7359+1	7.0554+0	4.5233+3			3.3323+0	3.3300+0	2.2620-3
8.1365-3	2.4329-3	4.6172+1	4.5014+3	7.8109+1	7.1012+0	4.4181+3			3.2811+0	3.2789+0	2.2082-3
8.2507-3	2.5404-3	4.4220+1	4.3110+3	5.8327+1	7.1772+0	4.2455+3			3.1988+0	3.1965+0	2.1225-3
8.2688-3	2.5684-3	4.3943+1	4.2840+3	5.7235+1	7.1891+0	4.2196+3			3.1860+0	3.1839+0	2.1095-3
8.3028-3	2.5847-3	4.3462+1	4.2371+3	5.8181+1	7.2118+0	4.1707+3			3.1621+0	3.1600+0	2.0849-3
K 8.3028-3	3.3633-4	3.3105+2	3.2274+4	5.8191+1	7.2118+0	3.2208+4			2.4418+1	1.6429+1	7.9689+0
8.3335-3	3.4244-4	3.2804+2	3.1881+4	6.4751+1	7.2321+0	3.1809+4			2.4281+1	1.6385+1	7.8181+0
8.3902-3	3.4818-4	3.2286+2	3.1458+4	6.0400+1	7.2898+0	3.1388+4			2.4029+1	1.6245+1	7.7643+0
8.4406-3	3.5329-4	3.1797+2	3.0999+4	6.3087+1	7.3029+0	3.0899+4			2.3807+1	1.6137+1	7.6700+0
8.4886-3	3.5806-4	3.1373+2	3.0586+4	1.0102+2	7.3333+0	3.0477+4			2.3607+1	1.6039+1	7.5674+0
8.5798-3	3.6789-4	3.0535+2	2.9789+4	1.1005+2	7.3945+0	2.9851+4			2.3211+1	1.5845+1	7.3660+0
8.6825-3	3.7899-4	2.9840+2	2.8997+4	1.1884+2	7.4541+0	2.8772+4			2.2797+1	1.5638+1	7.1517+0
8.8895-3	3.9972-4	2.8103+2	2.7398+4	1.2419+2	7.5818+0	2.7268+4			2.2052+1	1.5288+1	6.7841+0
9.3583-3	4.5730-4	2.4565+2	2.3948+4	1.3190+2	7.8403+0	2.3809+4			2.0318+1	1.4379+1	5.9388+0
1.0000-2	5.3984-4	2.0809+2	2.0287+4	1.3229+2	8.1975+0	2.0146+4			1.8398+1	1.3355+1	5.0410+0
1.1374-2	7.5531-4	1.4873+2	1.4499+4	1.2429+2	8.8219+0	1.4386+4			1.4913+1	1.1305+1	3.6077+0
1.4213-2	1.3721-3	8.1870-1	7.9815+3	1.0017+2	9.6974+0	7.8714+3			1.0209+1	8.2234+0	1.9859+0
1.6942-2	3.0099-3	3.7321+1	3.6384+3	7.0771+1	1.1170+2	3.5565+3			8.1485+0	5.2482+0	8.0129-1
2.5104-2	6.5980-3	1.7025+1	1.6598+3	4.7560-1	1.2202-1	1.8001+3			3.6843+0	3.2573+0	4.0699-1
3.8712-2	2.2227-2	5.0540+0	4.8271+2	2.3538+1	1.3248+1	4.5593+2			1.8149+0	1.4985+0	1.1835-1
5.8531-2	6.9897-2	1.8118+0	1.5713+2	1.1530+1	1.3436+1	1.3216+2			7.1331-1	6.7956-1	3.3748-2
7.5629-2	1.3397-1	8.3848-1	8.1744+1	7.3285+0	1.3295+1	6.1122+1			4.3282-1	4.1718-1	1.5633-2
9.5977-2	2.3135-1	4.8556-1	4.7338+1	4.7823+0	1.2987+1	2.8568+1			2.7517-1	2.6760-1	7.5714-3
1.0000-1	5.3204-1	4.4570-1	4.3451+1	4.4187+0	1.2835+1	2.6098+1			2.5529-1	2.4882-1	6.8787-3
1.1941-1	3.5492-1	3.1850-1	3.0856+1	3.1753+0	1.2502+1	1.5179+1			1.8747+1	1.8358+1	3.8844-3
1.4711-1	4.9390-1	2.2744-1	2.2174+1	2.1365+0	1.2010+1	8.0297+0			1.3754+1	1.3548+1	2.0537-3
1.7321-1	6.0980-1	1.8422-1	1.7859+1	1.5819+0	1.1521+1	4.8781+0			1.1407+1	1.1282+1	1.2470-3
2.0000-1	7.0574-1	1.5827-1	1.5430+1	1.1833+0	1.1087+1	3.1602+0			1.0231+1	1.0151+1	8.0818-4
2.3793-1	8.2577-1	1.3587-1	1.3246+1	8.4484+1	1.0517+1	1.8843+0			8.6196-2	8.5718-2	4.6210+0
2.7804-1	9.2782-1	1.2107-1	1.1804+1	6.2339-1	9.8952+0	1.1850+0			9.8578-2	9.8274-2	3.0328-4
3.5428-1	1.0784+0	1.0417-1	1.0155+1	3.8742-1	9.1771+0	5.9078-1			1.0856+1	1.0841+1	1.5112-4
4.4102-1	1.2139+0	9.2536-2	9.0214+0	2.5144-1	8.4463+0	3.2365-1			1.2359+1	1.2351+1	8.2608-5
5.4772-1	1.3573+0	8.2764-2	8.0687+0	1.6368-1	7.7226+0	1.8247-1			1.4619+1	1.4614+1	4.6683-5
7.4448-1	1.5779+0	7.1193-2	8.9407+0	8.6895-2	6.7843+0	8.7419-2			1.8940+1	1.8938+1	2.2388-5
1.0000+0	1.8273+0	6.1478-2	5.9933+0	4.9365-2	5.8978+0	4.6103-2			2.4185-1	2.4184-1	1.1789-5
1.0220+0	1.8479+0	6.0789-2	5.9263+0	4.7271-2	5.8353+0	4.3780-2			2.4582-1	2.4581-1	1.1205-5
1.0251+0	1.8510+0	6.0688-2	5.9165+0	4.6984-2	5.8260+0	4.3514-2	3.6122-8		2.4837-1	2.4835-1	1.1137-5
1.0287+0	1.8545+0	6.0572-2	5.9052+0	4.6654-2	5.8154+0	4.3208-2	3.6122-7		2.4700+1	2.4699+1	1.1058-5
1.0320+0	1.8577+0	6.0469-2	5.8951+0	4.6362-2	5.8058+0	4.2936-2	1.1639-6		2.4757-1	2.4756-1	1.0989-5
1.0332+0	1.8589+0	6.0431-2	5.8914+0	4.6254-2	5.8023+0	4.2837-2	1.6305-6		2.4778-1	2.4777-1	1.0964-5
1.0340+0	1.8597+0	6.0408-2	5.8890+0	4.6183-2	5.8000+0	4.2771-2	2.0016-8		2.4792-1	2.4791-1	1.0947-5
1.0353+0	1.8609+0	6.0365-2	5.8850+0	4.6068-2	5.7962+0	4.2663-2	2.7189-6		2.4815+1	2.4813+1	1.0919-5
1.0368+0	1.8622+0	6.0322-2	5.8808+0	4.5949-2	5.7923+0	4.2553-2	3.6122-6		2.4838-1	2.4837-1	1.0891-5
1.0382+0	1.8638+0	6.0273-2	5.8761+0	4.5811-2	5.7878+0	4.2428-2	4.8747-8		2.4865-1	2.4864-1	1.0858-5
1.0397+0	1.8652+0	6.0226-2	5.8715+0	4.5679-2	5.7835+0	4.2303-2	6.3033-8		2.4891-1	2.4890-1	1.0827-5
1.0415+0	1.8670+0	6.0170-2	5.8660+0	4.5522-2	5.7793+0	4.2157-2	8.4283-8		2.4923-1	2.4922-1	1.0790-5
1.0438+0	1.8682+0	6.0098-2	5.8590+0	4.5322-2	5.7747+0	4.1972-2	1.1898-5		2.4983+1	2.4982+1	1.0742-5
1.0464+0	1.8717+0	6.0017-2	5.8511+0	4.5098-2	5.7612+0	4.1764-2	1.6273-5		2.5008+1	2.5007+1	1.0698-5
1.0483+0	1.8735+0	5.9958-2	5.8454+0	4.4935-2	5.7568+0	4.1613-2	2.0260-5		2.5041+1	2.5040+1	1.0650-5
1.0512+0	1.8766+0	5.9889									

Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0577-0	1.8826+0	5.9670-2	5.8172-0	4.4142-2	5.7322+0	4.0877-2	4.9236-5		2.5205-1	2.5204-1	1.0462-5
1.0611+0	1.8859+0	5.9567-2	5.8072-0	4.3861-2	5.7226+0	4.0616-2	6.4044-5		2.5264-1	2.5263-1	1.0395-5
1.0651-0	1.8897+0	5.9446-2	5.7954+0	4.3533-2	5.7115+0	4.0311-2	8.4787-5		2.5334-1	2.5333-1	1.0317-5
1.0704+0	1.8948+0	5.9287-2	5.7799+0	4.3104-2	5.6968+0	3.9914-2	1.1829-4		2.5426-1	2.5425-1	1.0215-5
1.0782+0	1.9003+0	5.9114-2	5.7631+0	4.2842-2	5.6808+0	3.9485-2	1.6347-4		2.5528-1	2.5525-1	1.0108-5
1.0806+0	1.9045+0	5.8985-2	5.7504+0	4.2297-2	5.6688+0	3.9184-2	2.0415-4		2.5603-1	2.5602-1	1.0024-5
1.0871+0	1.9106+0	5.8795-2	5.7319+0	4.1794-2	5.6511+0	3.8898-2	2.7506-4		2.5715-1	2.5714-1	9.9042-6
1.0937+0	1.9169+0	5.8603-2	5.7133+0	4.1292-2	5.6334+0	3.8232-2	3.6122-4		2.5829-1	2.5828-1	9.7849-6
1.1028+0	1.9252+0	5.8349-2	5.6885+0	4.0830-2	5.6098+0	3.7818-2	5.0083-4		2.5983-1	2.5982-1	9.6279-6
1.1107+0	1.9328+0	5.8121-2	5.6662+0	4.042-2	5.5855+0	3.7072-2	6.5318-4		2.6123-1	2.6122-1	9.4881-6
1.1206+0	1.9420+0	5.7846-2	5.6394+0	3.9339-2	5.5628+0	3.6420-2	8.7377-4		2.6293-1	2.6292-1	9.3213-6
1.1333+0	1.9537+0	5.7499-2	5.6056+0	3.8485-2	5.5303+0	3.5609-2	1.2150-3		2.6512-1	2.6511-1	9.1137-6
1.1475+0	1.9669+0	5.7120-2	5.5688+0	3.7522-2	5.4947+0	3.4734-2	1.6775-3		2.6758-1	2.6753-1	8.8898-6
1.1582+0	1.9783+0	5.6839-2	5.5413+0	3.6833-2	5.4683+0	3.4096-2	2.0847-3		2.6939-1	2.6938-1	8.7264-6
1.1741+0	1.9908+0	5.6431-2	5.5015+0	3.5845-2	5.4297+0	3.3180-2	2.7862-3		2.7211-1	2.7210-1	8.4919-6
1.1901+0	2.0049+0	5.6031-2	5.4625+0	3.4890-2	5.3917+0	3.2302-2	3.8122-3		2.7485-1	2.7484-1	8.2674-6
1.2051+0	2.0180+0	5.5666-2	5.4289+0	3.4030-2	5.3567+0	3.1591-2	4.4958-3		2.7742-1	2.7741-1	8.0853-6
1.2275+0	2.0374+0	5.5135-2	5.3751+0	3.2803-2	5.3058+0	3.0572-2	6.0169-3		2.8126-1	2.8125-1	7.8246-6
1.2566+0	2.0699+0	5.4274-2	5.2911+0	3.0862-2	5.2222+0	2.8948-2	8.1254-3		2.8777-1	2.8778-1	7.4089-6
1.2949+0	2.0941+0	5.3643-2	5.2297+0	2.9484-2	5.1605+0	2.7881-2	1.1823-2		2.9277-1	2.9277-1	7.1102-6
1.3318+0	2.1240+0	5.2887-2	5.1560+0	2.7878-2	5.0858+0	2.6413-2	1.5897-2		2.9907-1	2.9907-1	6.7601-6
1.3626+0	2.1485+0	5.2285-2	5.0773+0	2.6833-2	5.0258+0	2.5350-2	1.9581-2		3.0433-1	3.0433-1	6.4880-6
1.4117+0	2.1894+0	5.1378-2	5.0089+0	2.4818-2	4.9342+0	2.3787-2	2.5988-2		3.1273-1	3.1272-1	6.0981-6
1.5000+0	2.2517+0	4.8890-2	4.8638+0	2.1965-2	4.7812+0	2.1330-2	3.9210-2		3.2789-1	3.2789-1	5.4591-6
1.6172+0	2.3222+0	4.6167-2	4.6958+0	1.8918-2	4.5981+0	1.8792-2	8.0062-2		3.4825-1	3.4824-1	4.8095-6
1.7168+0	2.3997+0	4.3871-2	4.5695+0	1.6750-2	4.4549+0	1.6960-2	8.0887-2		3.6818-1	3.6817-1	4.3408-6
1.8923+0	2.5068+0	4.4830-2	4.3705+0	1.3823-2	4.2211+0	1.4424-2	1.2114-1		3.9450-1	3.9449-1	3.6916-6
2.0440+0	2.5914+0	4.3349-2	4.2261+0	1.1849-2	4.0425+0	1.2690-2	1.5900-1		4.1999-1	4.1999-1	3.2478-6
2.0858+0	2.6155+0	4.2050-2	4.1872+0	1.1378-2	3.9942+0	1.2308-2	1.6930-1	2.8123-7	4.2657-1	4.2657-1	3.1502-6
2.1140+0	2.6312+0	4.2893-2	4.1621+0	1.1078-2	3.9825+0	1.2082-2	1.7849-1	1.2678-8	4.3108-1	4.3108-1	3.0870-6
2.1195+0	2.6343+0	4.2844-2	4.1573+0	1.1021-2	3.9864+0	1.2015-2	1.7792-1	1.5784-8	4.3185-1	4.3184-1	3.0750-6
2.1279+0	2.6389+0	4.2589-2	4.1501+0	1.0934-2	3.9471+0	1.1943-2	1.8012-1	2.1406-8	4.3330-1	4.3329-1	3.0587-6
2.1363+0	2.6434+0	4.2498-2	4.1430+0	1.0848-2	3.9379+0	1.1873-2	1.8232-1	2.8123-8	4.3484-1	4.3484-1	3.0387-6
2.1470+0	2.6492+0	4.2403-2	4.1339+0	1.0740-2	3.9282+0	1.1783-2	1.8518-1	3.8559-8	4.3638-1	4.3638-1	3.0158-6
2.1835+0	2.6890+0	4.2283-2	4.1202+0	1.0577-2	3.9084+0	1.1648-2	1.8982-1	5.8834-8	4.3907-1	4.3908-1	2.9812-6
2.1845+0	2.6894+0	4.2082-2	4.1028+0	1.0375-2	3.8890+0	1.1480-2	1.9472-1	9.2910-8	4.4241-1	4.4241-1	2.9380-6
2.2018+0	2.6787+0	4.1937-2	4.0884+0	1.0213-2	3.8679+0	1.1344-2	1.9899-1	1.2854-5	4.4519-1	4.4518-1	2.9033-6
2.2148+0	2.6855+0	4.1829-2	4.0780+0	1.0093-2	3.8544+0	1.1244-2	2.0223-1	1.6019-5	4.4728-1	4.4728-1	2.8778-6
2.2342+0	2.6957+0	4.1872-2	4.0628+0	9.9186-3	3.8345+0	1.1097-2	2.0714-1	2.1544-5	4.5043-1	4.5043-1	2.8401-6
2.2537+0	2.7057+0	4.1518-2	4.0478+0	9.7480-3	3.8147+0	1.0952-2	2.1214-1	2.8123-5	4.5360-1	4.5360-1	2.8031-6
2.2815+0	2.7187+0	4.1304-2	4.0288+0	9.5119-3	3.7870+0	1.0782-2	2.1941-1	3.8392-5	4.5818-1	4.5818-1	2.7517-6
2.3070+0	2.7322+0	4.1114-2	4.0083+0	9.3029-3	3.7621+0	1.0673-2	2.2621-1	5.1741-5	4.6242-1	4.6241-1	2.7060-6
2.3382+0	2.7472+0	4.0891-2	3.9884+0	9.0584-3	3.7322+0	1.0381-2	2.3471-1	6.9570-5	4.6785-1	4.6785-1	2.6517-6
2.3744+0	2.7655+0	4.0620-2	3.9600+0	8.7804-3	3.6956+0	1.0104-2	2.4550-1	9.6347-5	4.7429-1	4.7429-1	2.5861-6
2.4102+0	2.7812+0	4.0391-2	3.9377+0	8.5238-3	3.6656+0	9.8977-3	2.5359-1	1.2254-4	4.7973-1	4.7972-1	2.5332-6
2.4469+0	2.7981+0	4.0146-2	3.9139+0	8.2708-3	3.6330+0	9.6753-3	2.6280-1	1.5587-4	4.8586-1	4.8585-1	2.4763-6
2.4859+0	2.8157+0	3.9895-2	3.8894+0	8.0129-3	3.5899+0	9.4487-3	2.7285-1	1.9625-4	4.9249-1	4.9248-1	2.4178-6
2.5584+0	2.8460+0	3.9471-2	3.8481+0	7.5771-3	3.5398+0	9.0565-3	2.9153-1	2.8123-4	5.0487-1	5.0488-1	2.3179-6
2.6804+0	2.8878+0	3.8902-2	3.7928+0	6.9968-3	3.4568+0	8.5261-3	3.1984-1	4.3353-4	5.2307-1	5.2307-1	2.1827-6
2.7453+0	2.8211+0	3.8459-2	3.7491+0	6.5710-3	3.3929+0	8.1333-3	3.4091-1	5.8028-4	5.3798-1	5.3795-1	2.0817-6
2.8090+0	2.8448+0	3.8147-2	3.7180+0	6.2765-3	3.3470+0	7.8570-3	3.5716-1	7.0272-4	5.4837-1	5.4837-1	2.0109-6
2.9045+0	2.8778+0	3.7724-2	3.6777+0	5.8708-3	3.2812+0	7.4707-3	3.8225-1	9.0529-4	5.6890-1	5.6890-1	1.9120-6
3.0399+0	3.0212+0	3.7182-2	3.6249+0	5.3597-3	3.1838+0	6.8865-3	4.1773-1	1.2269-3	5.9232-1	5.9232-1	1.7681-6
3.2344+0	3.0883+0	3.6374-2	3.5481+0	4.7347-3	3.0677+0	6.4139-3	4.6550-1	1.7730-3	6.2582-1	6.2582-1	1.6415-6
3.4375+0	3.1477+0	3.5688-2	3.4782+0	4.1919-3	2.9490+0	5.8972-3	5.1773-1	2.4261-3	6.6312-1	6.6312-1	1.5083-6
3.7847+0	3.2387+0	3.4885-2	3.3814+0	3.4583-3	2.7706+0	5.1844-3	5.9848-1	3.7220-3	6.2781-1	6.2781-1	1.3218-6
4.0000+0	3.2829+0	3.4218-2	3.3380+0	3.0961-3	2.6730+0	4.7850-3	6.5050-1	4.8110-3	7.7049-1	7.7049-1	1.2247-6
4.2500+0	3.3222+0	3.3712-2	3.2886+0	2.7426-3	2.5700+0	4.4217-3	7.0379-1	5.8982-3	8.1978-1	8.1978-1	1.1317-6
4.7500+0	3.4029+0	3.3011-2	3.2183+0	2.1957-3	2.3912+0	3.8252-3	8.1316-1	7.8730-3	9.2605-1	9.2605-1	9.7802-7
5.1535+0	3.4782+0	3.2297-2	3.1486+0	1.6298-3	2.1709+0	3.1653-3	9.8129-1	1.1689-2	1.0982+0	1.0982+0	8.1012-7
6.3840+0	3.5358+0	3.1772-2	3.0975+0	1.2233-3	1.9821+0	2.6501-3	1.1156+0	1.5836-2	1.2917+0	1.2917+0	6.7828-7
7.4833+0	3.5655+0	3.1506-2	3.0715+0	8.8478-4	1.7504+0	2.1796-3	1.2988+0	2.1247-2	1.5687+0	1.5687+0	5.5784-7
8.0000+0	3.5560+0	3.1599-2	3.0808+0	6.1170-4	1.5389+0	1.7540-3	1.5130+0	2.8310-2	1.9789+0	1.9789+0	4.4891-7
1.0000+1	3.5343+0	3.1784-2	3.0888+0	4.9548-4	1.4289+0	1.5530-3	1.6370+0	3.2840-2	2.2609+0	2.2609+0	3.9747-7
1.3000+1	3.4570+0	3.2495-2	3.1879+0	2.9319-4	1.1722+0	1.1540-3	1.8500+0	4.4260-2	3.1585+0	3.1585+0	2.9535-7
1.6000+1	3.2956+0	3.4088-2	3.3230+0	1.5293-4	9.1807-1	8.0720-4	2.3440+0	6.0010-2	4.8156+0	4.8156+0	2.0659-7
2.6000+1	3.0815+0	3.8454-2	3.5539+0	7.3288-5	6.8844-1	5.4420-4	2.7880+0	7.8840-2	7.7432+0	7.7432+0	1.3828-7
4.2170+1	2.7847+0	4.0185-2	3.9187+0	2.7884-5	4.8832-1	3.2788-4	3.3481+0	1.0391-1	1.4337+1	1.4337+1	6.3917-8
6.0000+1	2.6049+0	4.3124-2	4.2042+0	1.3784-5	3.4995-1	2.2780-4	3.7320+0	1.2200-1	2.2242+1	2.2242+1	5.8302-8
1.0000+2	2.3768+0	4.7222-2	4.6037+0	4.9560-6	2.2948-1	1.3520-4	4.2280+0	1.4810-1	4.1197+1	4.1197+1	3.4803-8
2.0000+2	2.1852+0	5.1882-2	5.0580+0	1.2387-8	1.2691-1	6.7080-5	4.7570+0	1.7400-1	9.1475+1	9.1475+1	1.7168-8
4.0000+2	2.0328+0	5.5290-2	5.3973+0	3.0989-9	6.9831-2	3.3400-5	5.1220+0	1.9540-1	1.9584+2	1.9584+2	8.6483-9
1.0000+3	1.9390+0	5.8024-2	5.6568+0	4.9550-8	3.1278-2	1.3330-5	5.4110+0	2.1450-1	5.1557+2	5.1557+2	3.4116-9
5.0000+3	1.8700+0	6.0073-2	5.8565+0	1.9820-9	7.3995-3	2.6820-6	5.8190+0	2.3010-1	2.8729+3	2.8729+3	8.8130-10
1.0000+4	1.8594+0	6.0418-2	5.8889+0	4.6550-10	3.9510-3	1.3310-6	5.6530+0	2.3300-1	5.3772+3	5.3772+3	3.4085-10
1.0000+5	1.8478+0	6.0783-2	5.8267+0	4.9511-12	4.7222-4	1.3310-7	5.6900+0	2.3620-1	5.4117+4	5.4117+4	3.4065-11



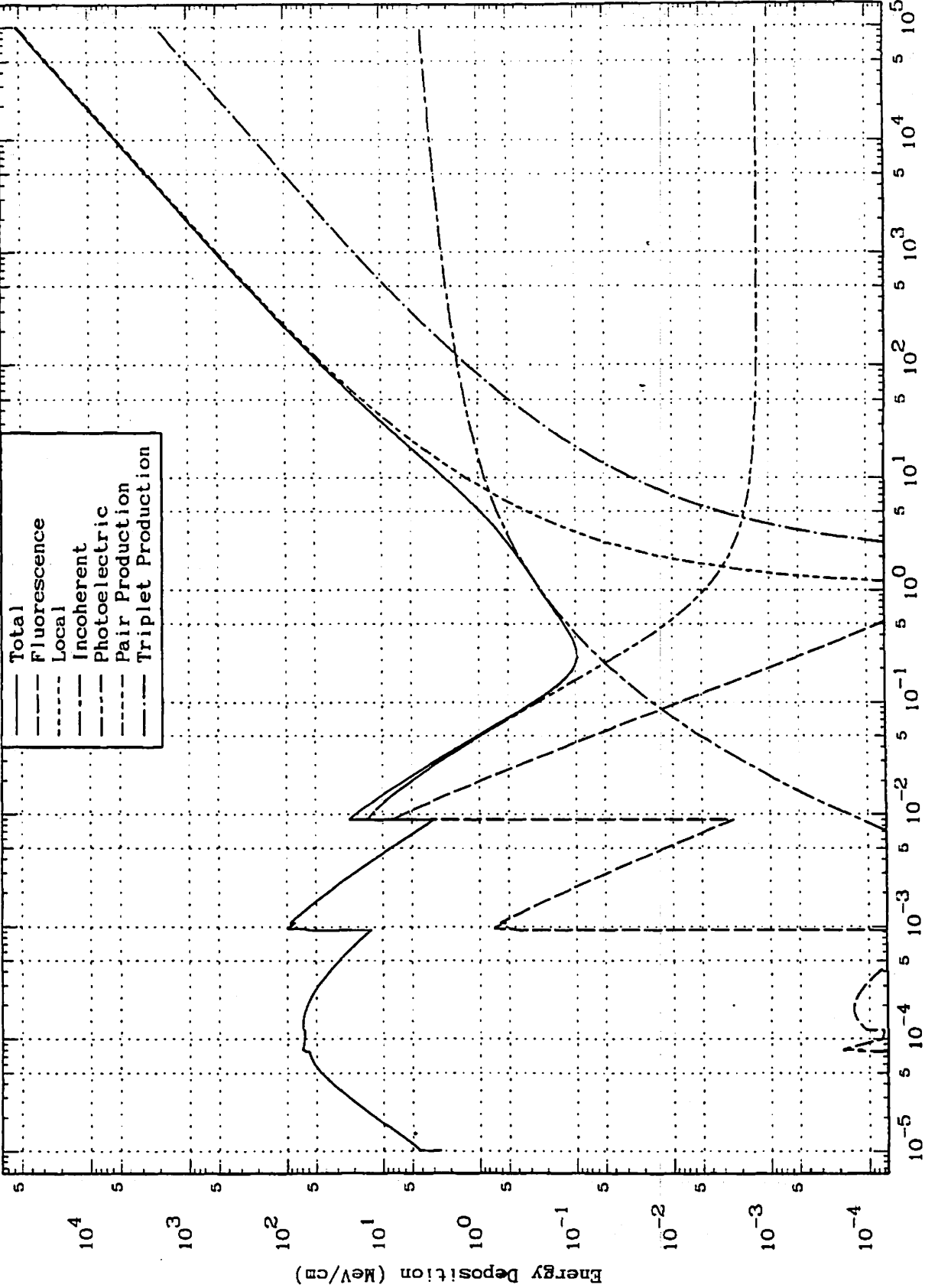
29-Cu

191

October 31, 1989
Atomic Weight 63.540

ENDL, Evaluated
Energy Deposition

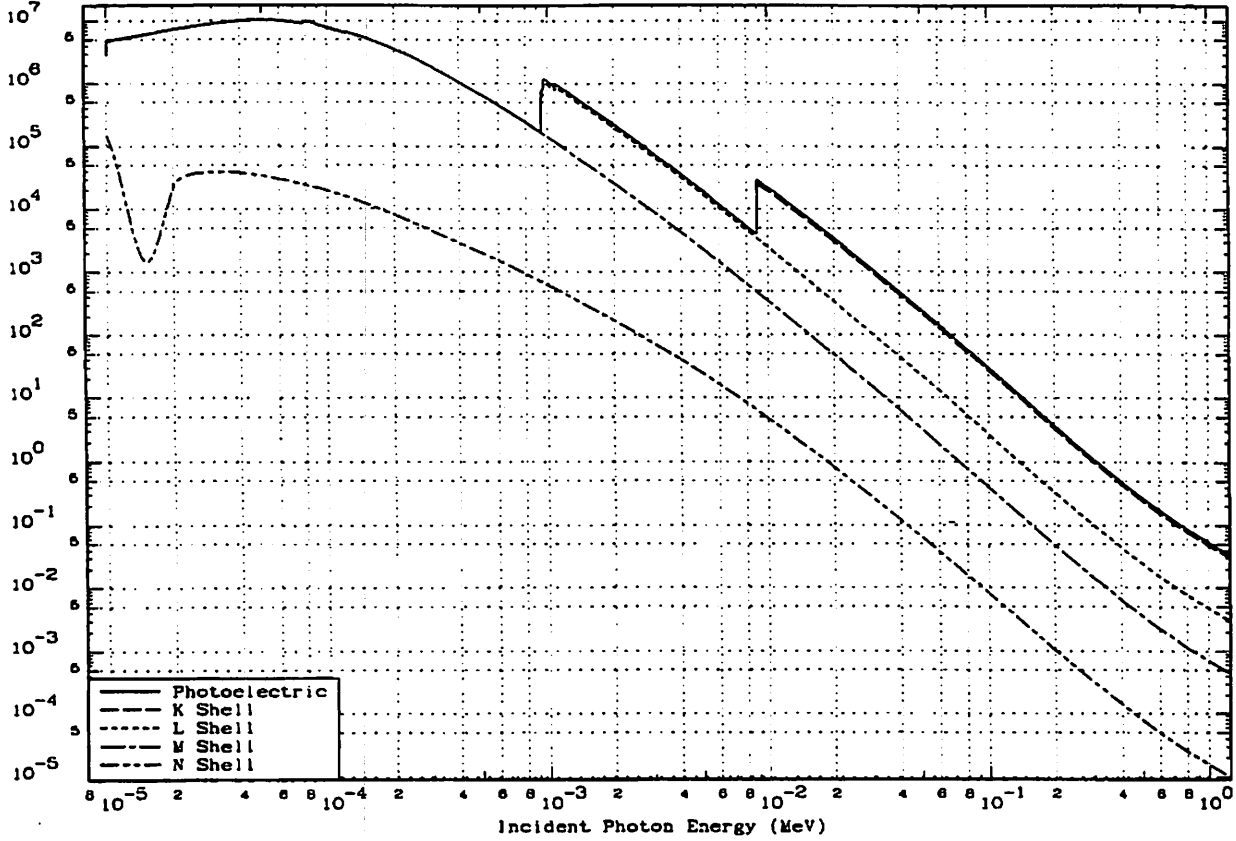
29-Cu
Density 8.960 Grams/cc



October 31, 1989
Atomic Weight 63.540

ENDL Evaluated
Photoelectric Shell Cross Sections

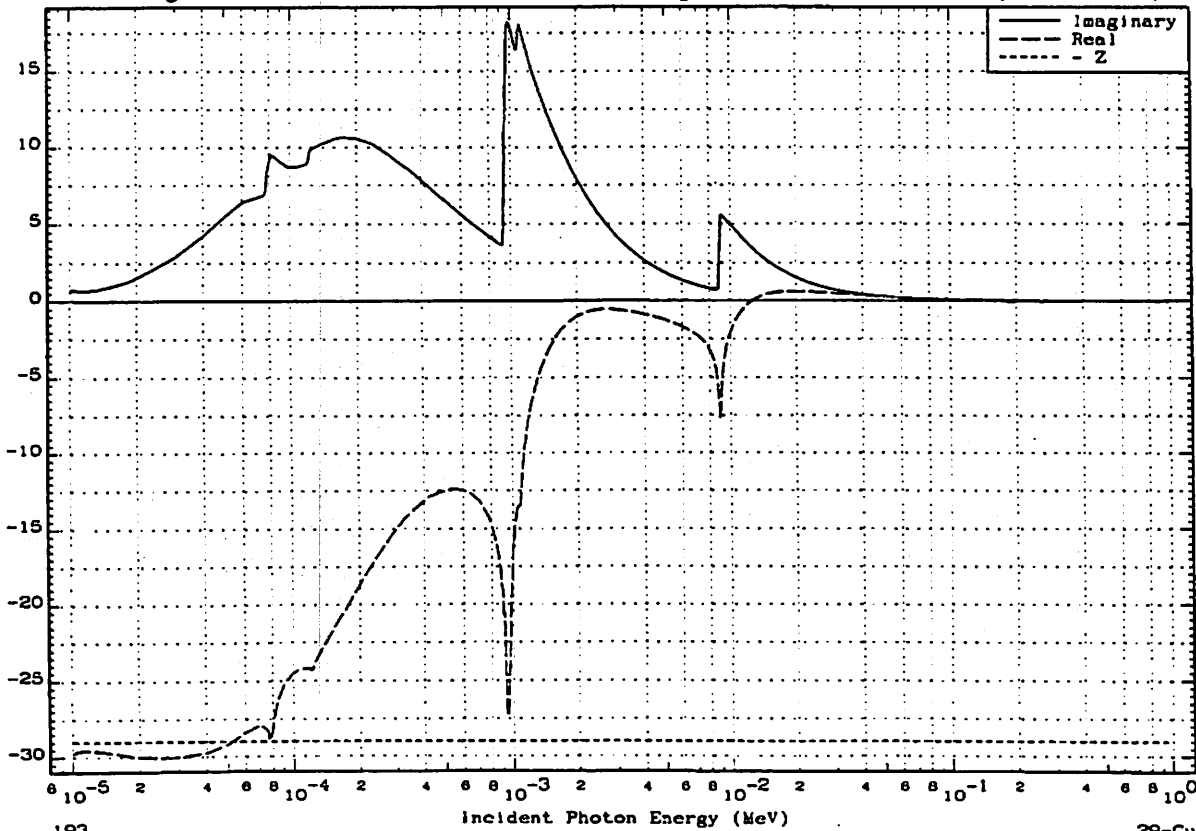
29-Cu
Density 8.960 Grams/cc

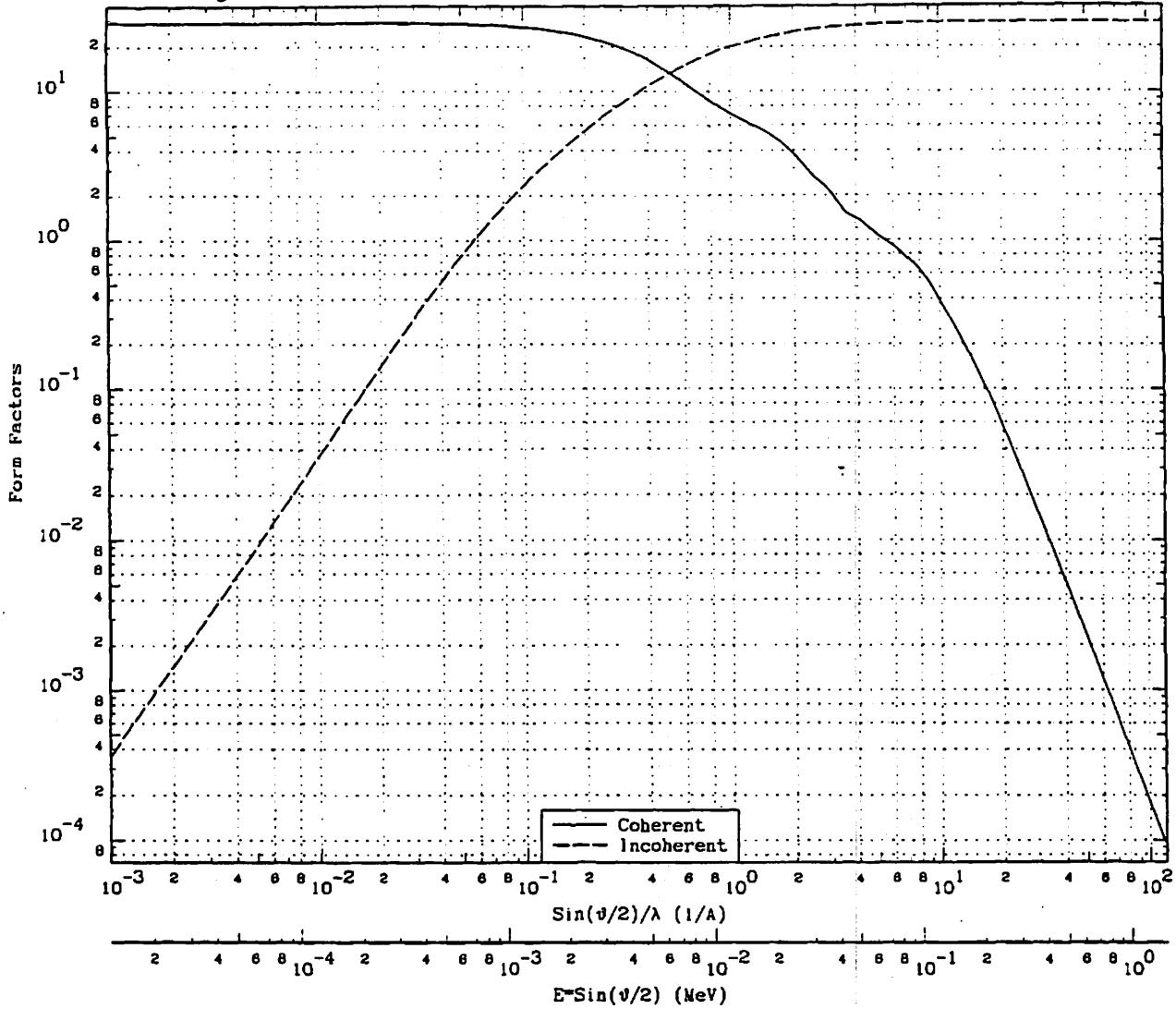


October 31, 1989
Atomic Weight 63.540

ENDL Evaluated
Anomalous Scattering Factors

29-Cu
Density 8.960 Grams/cc





$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E \cdot \frac{\sin(\theta/2)}{\lambda}$ MeV	Coherent	Incoherent	$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E \cdot \frac{\sin(\theta/2)}{\lambda}$ MeV	Coherent	Incoherent	$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E \cdot \frac{\sin(\theta/2)}{\lambda}$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	2.9000+1	0.0000+0	7.0000-1	8.6790-3	9.8091+0	1.6494+1	1.3154+1	1.6309-1	1.9909-1	2.8980+1
1.0000-3	1.2399-5	2.9000+1	3.6000-4	8.0000-1	9.9188-3	8.6078+0	1.7885+1	1.5000+1	1.8598-1	1.3827-1	2.8990+1
5.0000-3	6.1993-5	2.8984+1	9.0000-3	9.0000-1	1.1159-2	7.7492+0	1.9043+1	1.8770+1	2.3272-1	6.8995-2	2.8998+1
1.0000-2	1.2399-4	2.8967+1	3.6000-2	1.0000+0	1.2399-2	7.1235+0	2.0002+1	2.0000+1	2.4797-1	5.7051-2	2.8998+1
1.5000-2	1.8598-4	2.8947+1	6.1300-2	1.2500+0	1.5498-2	6.0619+0	2.1802+1	2.5281+1	3.1345-1	2.6082-2	2.8999+1
2.0000-2	2.4797-4	2.8906+1	1.4300-1	1.5000+0	1.8598-2	5.2848+0	2.3107+1	3.7580+1	4.8594-1	6.4247-3	2.8999+1
2.5000-2	3.0996-4	2.8854+1	2.2050-1	1.7500+0	2.1897-2	4.5272+0	2.4138+1	5.0000+1	6.1993-1	2.2889-3	2.9000+1
3.0000-2	3.7196-4	2.8791+1	3.1250-1	2.0000+0	2.4797-2	3.7633+0	2.4957+1	8.0000+1	9.9188-1	4.0527-4	2.9000+1
4.0000-2	4.9594-4	2.8635+1	5.3440-1	2.5000+0	3.0996-2	2.6841+0	2.6119+1	1.0000+2	1.2399+0	1.7979-4	2.9000+1
5.0000-2	6.1993-4	2.8448+1	7.9600-1	2.9500+0	3.6687-2	2.1612+0	2.6782+1	1.7117+2	2.1223+0	2.6598-5	2.9000+1
7.0000-2	8.6790-4	2.7962+1	1.3930+0	3.0000+0	3.7196-2	2.1103+0	2.6830+1	2.7479+2	3.4070+0	5.2114-6	2.9000+1
9.0000-2	1.1159-3	2.7387+1	2.0288+0	3.4500+0	4.2888-2	1.5843+0	2.7258+1	4.7714+2	5.9158+0	8.2172-7	2.9000+1
1.0000-1	1.2399-3	2.7081+1	2.3480+0	3.5000+0	4.3395-2	1.5566+0	2.7291+1	1.0000+3	1.2399+1	7.4126-8	2.9000+1
1.2500-1	1.5498-3	2.6243+1	3.1382+0	3.7129+0	4.6034-2	1.4676+0	2.7442+1	2.2039+3	2.7325+1	6.0725-9	2.9000+1
1.5000-1	1.8598-3	2.5358+1	3.9190+0	4.0000+0	4.9594-2	1.3989+0	2.7622+1	4.4816+3	5.5565+1	6.7386-10	2.9000+1
1.7500-1	2.1697-3	2.4481+1	4.6918+0	4.2344+0	5.2500-2	1.3265+0	2.7748+1	7.6915+3	9.5363+1	1.2991-10	2.9000+1
2.0000-1	2.4797-3	2.3538+1	5.4550+0	5.0000+0	6.1993-2	1.0834+0	2.8095+1	1.6832+4	2.0869+2	1.2381-11	2.9000+1
2.5000-1	3.0996-3	2.1688+1	6.9310+0	6.0000+0	7.4391-2	9.0700-1	2.8418+1	4.6730+4	5.7938+2	6.0439-13	2.9000+1
3.0000-1	3.7196-3	1.9869+1	8.3100+0	7.0000+0	8.6790-2	7.4980-1	2.8634+1	1.0000+6	1.2399+4	8.1828-17	2.9000+1
4.0000-1	4.9594-3	1.6481+1	1.0778+1	8.0000+0	9.9188-2	6.3080-1	2.8772+1	5.6234+6	6.9722+4	5.2372-19	2.9000+1
5.0000-1	6.1993-3	1.3667+1	1.2942+1	8.8278+0	1.0945-1	5.2429-1	2.8844+1	7.4989+7	9.2975+5	2.4810-22	2.9000+1
6.0000-1	7.4391-3	1.1484+1	1.4847+1	1.0000+1	1.2399-1	3.9290-1	2.8912+1	1.0000+9	1.2399+7	1.1188-25	2.9000+1

October 31, 1989
Atomic Weight 63.540

ENDL Evaluated
Photon Data

29-Cu
Density 8.960 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	3.8913-6	2.8681-4	3.0262+6	6.5930-1	7.7898-5	3.0262+6			2.5698+0	2.5698+0	
1.0090-5	3.8869-6	2.8713-4	3.0296-6	7.0834-1	7.9307-5	3.0296+6			2.5959+0	2.5959+0	
1.0090-5	2.4032-6	4.6441+4	4.8000-6	7.0834-1	7.9307-5	4.8000+6			4.1986+0	4.1986+0	
1.0134-5	2.3998-6	4.6508-4	4.9071+6	7.2738-1	8.0001-5	4.9071+6			4.2230+0	4.2230+0	
1.0219-5	2.3932-6	4.6635+4	4.9205+6	7.0995-1	8.1348-5	4.9205+6			4.2701+0	4.2701+0	
1.0300-5	2.3870-6	4.6756+4	4.9333+6	6.7428-1	8.2641-5	4.9333+6			4.3150+0	4.3150+0	
1.0796-5	2.3474-6	4.7546+4	5.0166-6	5.6443-1	9.0787-5	5.0166+6			4.5991+0	4.5991+0	
1.1084-5	2.3229-6	4.8046+4	5.0693+6	5.3505-1	9.5701-5	5.0693+6			4.7716+0	4.7716+0	
1.1489-5	2.2858-6	4.8827+4	5.1518+6	5.2177-1	1.0282-4	5.1518+6			5.0285+0	5.0285+0	
1.2048-5	2.2336-6	4.9968+4	5.2722+6	5.3582-1	1.1306-4	5.2722+6			5.3940+0	5.3940+0	
1.2898-5	2.1494-6	5.1926+4	5.4787+6	6.0264-1	1.2957-4	5.4787+6			6.0009+0	6.0009+0	
1.8343-5	1.7182-6	6.4958+4	6.8537+6	1.6917+0	2.8322-4	6.8537+6			1.0676+1	1.0676+1	
2.2930-5	1.5087-6	7.3974+4	7.8051+6	3.2217+0	4.0941-4	7.8051+6			1.5198+1	1.5198+1	
3.0000-5	1.3126-6	8.5027+4	8.9713+6	6.1764+0	7.0069-4	8.9712+6			2.2855+1	2.2855+1	
4.0000-5	1.1730-6	9.5151+4	1.0039-7	1.2397+1	1.2455-3	1.0039+7			3.4102+1	3.4102+1	
5.0000-5	1.1265-6	9.8078+4	1.0454-7	2.0015+1	1.9459-3	1.0454+7			4.4387+1	4.4387+1	
6.0460-5	1.1512-6	9.8950+4	1.0229-7	2.7765+1	2.8449-3	1.0229+7			5.2520+1	5.2520+1	
7.0699-5	1.2261-6	9.1024+4	9.6040+6	3.1014+1	3.6897-3	9.6040+6			5.7660+1	5.7660+1	
7.5983-5	1.2840-6	8.8823+4	9.1713+6	3.2034+1	4.4828-3	9.1713+6			5.9178+1	5.9178+1	
7.6797-5	1.2928-6	8.8332+4	9.1090+6	3.2826+1	4.5895-3	9.1090+6			5.9405+1	5.9405+1	
7.7308-5	1.2963-6	8.5967+4	9.0704+6	3.5429+1	4.6508-3	9.0704+6			5.9548+1	5.9548+1	
7.7880-5	1.3042-6	8.5577+4	9.0293+6	4.0700+1	4.7174-3	9.0292+6			5.9700+1	5.9700+1	
M3 7.7880-5	1.1789-6	9.4870+4	9.9887+6	4.0700+1	4.7174-3	9.9887+6			6.8044+1	6.8044+1	1.3282-4
7.8434-5	1.1867-6	9.4048+4	9.9231+6	4.8969+1	4.7742-3	9.9231+6			6.6094+1	6.6094+1	1.2931-4
7.8968-5	1.1939-6	9.3478+4	9.8629+6	4.8977+1	4.8526-3	9.8629+6			6.6140+1	6.6140+1	1.2634-4
8.0500-5	1.2147-6	9.1881+4	9.6944+6	5.8172+1	5.0426-3	9.6943+6			6.6271+1	6.6271+1	1.1827-4
M2 8.0500-5	1.1592-6	9.6277+4	1.0158+7	5.8172+1	5.0426-3	1.0158+7			6.8443+1	6.8442+1	1.8793-4
8.1284-5	1.1709-6	9.5320+4	1.0057+7	8.0864+1	5.1413-3	1.0057+7			6.8421+1	6.8421+1	1.8123-4
8.2110-5	1.1831-6	9.4332+4	9.9530+6	6.2540+1	5.2463-3	9.9530+6			6.8400+1	6.8400+1	1.7449-4
9.0682-5	1.3407-6	8.3247+4	8.7835+6	6.3707+1	6.3986-3	8.7834+6			6.7639+1	6.7639+1	1.1058-4
1.0000-4	1.4868-6	7.4611+4	7.8723+6	6.4014+1	7.7807-3	7.8722+6			6.6851+1	6.6851+1	7.3774-5
1.2027-4	1.8129-6	6.1562+4	6.4955+6	6.8771+1	1.1256-2	6.4954+6			6.6338+1	6.6338+1	7.0631-5
1.2126-4	1.8268-6	6.1093+4	6.4480+6	7.2705+1	1.1443-2	6.4459+6			6.6376+1	6.6376+1	7.1578-5
M1 1.2128-4	1.7588-6	8.3458+4	8.8955+6	7.2705+1	1.1443-2	8.8954+6			6.8948+1	6.8948+1	1.0689-4
1.2254-4	1.7750-6	8.2877+4	8.6342+6	7.8056+1	1.1686-2	8.6341+6			6.8036+1	6.8036+1	1.0990-4
1.2422-4	1.7978-6	8.2080+4	8.5501+6	8.2118+1	1.2009-2	8.5500+6			6.8095+1	6.8095+1	1.1129-4
1.5000-4	2.1922-6	5.0912+4	5.3718+6	1.0620+2	1.7513-2	5.3717+6			6.8425+1	6.8425+1	1.3390-4
1.7327-4	2.8384-6	4.2300+4	4.4831+6	1.2578+2	2.3371-2	4.4830+6			6.5671+1	6.5670+1	1.4301-4
2.0324-4	3.3075-6	3.3743+4	3.5603+6	1.4839+2	3.2157-2	3.5601+6			6.1444+1	6.1443+1	1.4283-4
2.4495-4	4.4140-6	2.5285+4	2.6878+6	1.6777+2	4.6897-2	2.6876+6			5.5490+1	5.5490+1	1.3098-4
3.0000-4	6.2869-6	1.7752+4	1.8731+6	1.8666+2	6.9113-2	1.8729+6			4.7714+1	4.7714+1	1.1116-4
3.7224-4	9.5248-6	1.1718+4	1.2384+6	2.0229+2	1.0538-1	1.2382+6			3.8078+1	3.8078+1	8.7068-5
4.2080-4	1.2189-5	9.1584+3	9.8810-5	2.0780+2	1.3282-1	9.8800+5			3.4515+1	3.4515+1	7.3265-5
5.4751-4	1.1128-5	5.2825+3	5.5737-5	2.0485+2	2.1827-1	5.5716+5			2.5905+1	2.5905+1	4.9329-5
6.3581-4	2.9299-5	3.8092+3	4.0191+5	1.9241+2	2.8889-1	4.0172+5			2.1690+1	2.1690+1	3.8190-5
7.1578-4	3.8169-5	2.9240+3	3.0852+5	1.7270+2	3.5430-1	3.0834+5			1.8742+1	1.8742+1	3.0719-5
7.8119-4	4.6454-5	2.4025+3	2.5349+5	1.4883+2	4.1304-1	2.5334+5			1.6807+1	1.6807+1	2.6163-5
8.1866-4	5.1705-5	2.1585+3	2.2775+5	1.2963+2	4.4680-1	2.2762+5			1.5824+1	1.5824+1	2.3909-5
8.5892-4	5.7820-5	1.9303+3	2.0366+5	1.0386+2	4.8428-1	2.0356+5			1.4848+1	1.4848+1	2.1707-5
8.8088-4	6.1320-5	1.8201+3	1.9204+5	8.4522+1	5.0519-1	1.9195+5			1.4359+1	1.4359+1	2.0632-5
9.0285-4	6.4945-5	1.7185+3	1.8132+5	5.9849+1	5.2650-1	1.8125+5			1.3897+1	1.3897+1	1.9834-5
9.1481-4	6.6970-5	1.6665+3	1.7584+5	4.1814+1	5.3824-1	1.7579+5			1.3657+1	1.3657+1	1.9121-5
9.1958-4	6.7789-5	1.6464+3	1.7371+5	3.3382+1	5.4286-1	1.7368+5			1.3563+1	1.3563+1	1.8922-5
9.2513-4	6.8748-5	1.6234+3	1.7128+5	2.4415+1	5.4847-1	1.7128+5			1.3455+1	1.3455+1	1.8694-5
9.2679-4	6.8036-5	1.6187+3	1.7058+5	2.2748+1	5.5012-1	1.7055+5			1.3423+1	1.3423+1	1.8627-5
9.2872-4	6.8371-5	1.6088+3	1.6975+5	2.2005+1	5.5204-1	1.6973+5			1.3386+1	1.3386+1	1.8549-5
9.3053-4	6.8688-5	1.6018+3	1.6898+5	2.2850+1	5.5385-1	1.6896+5			1.3351+1	1.3351+1	1.8478-5
9.3203-4	6.8946-5	1.5956+3	1.6835+5	2.4797+1	5.5535-1	1.6833+5			1.3323+1	1.3323+1	1.8417-5
9.3441-4	7.0360-5	1.5882+3	1.6736+5	3.0780+1	5.5773-1	1.6733+5			1.3278+1	1.3278+1	1.8322-5
9.3749-4	7.0897-5	1.5742+3	1.6810+5	4.2892+1	5.6081-1	1.6805+5			1.3220+1	1.3220+1	1.8200-5
L3 9.3749-4	1.5900-5	7.0194+3	7.4063+5	4.2892+1	5.6081-1	7.4059+5			5.8958+1	5.8958+1	3.9446-1
9.4362-4	1.5326-5	7.2822+3	7.6835+5	7.5854+1	5.6697-1	7.6827+5			6.1584+1	6.1149+1	4.1480-1
9.4769-4	1.4959-5	7.4610+3	7.8722+5	8.9642+1	5.7108-1	7.8712+5			6.3345+1	6.2916+1	4.2680-1
9.5853-4	1.4150-5	7.8872+3	8.3219+5	1.6543+2	5.8208-1	8.3202+5			6.7725+1	6.7262+1	4.6298-1
L2 9.5853-4	1.0257-5	1.0881+4	1.1480+6	1.8543+2	5.8208-1	1.1478+6			9.3436+1	8.9750+1	6.8597-1
9.6477-4	1.0164-5	1.0880+4	1.1585+6	2.0518+2	5.8844-1	1.1583+6			9.4900+1	9.4205+1	6.9478-1
9.7084-4	1.0075-5	1.1077+4	1.1668+6	2.4007+2	5.9467-1	1.1685+6			9.6338+1	9.5535+1	7.0343-1
9.7618-4	1.0145-5	1.1002+4	1.1808+6	2.5673+2	6.0018-1	1.1805+6			9.8206+1	9.5506+1	6.9932-1
9.8111-4	1.0339-5	1.0786+4	1.1390+6	2.8589+2	6.1583-1	1.1387+6			9.5837+1	9.5149+1	6.8805-1
1.0000-3	1.0582-5	1.0687+4	1.1148+6	2.9709+2	6.2493-1	1.1147+6			9.4657+1	9.3983+1	6.7668-1
1.0145-3	1.0933-5	1.0208+4	1.0771+6	3.1447+2	6.3919-1	1.0788+6			9.2763+1	9.2112+1	6.5075-1
1.0466-3	1.1978-5	9.3185+3	9.8331+5	3.2701+2	6.7131-1	9.8298+5			8.7386+1	8.6773+1	5.8250-1
1.0782-3	1.2992-5	8.5904+3	9.0638+5	3.2670+2	7.0344-1	9.0605+5			8.2980+1	8.2414+1	5.4507-1
1.0861-3	1.3254-5	8.4207+3	8.8847+5	3.4185+2	7.1155-1	8.8813+5			8.1914+1	8.1380+1	5.3404-1
L1 1.0861-3	1.1699-5	9.5402+3	1.0066+6	3.4185+2	7.1155-1	1.0063+6			8.2808+1	8.2191+1	6.1700-1
1.0998-3	1.2067-5	8.2493+3	9.7590+5	3.8524+2	7.2653-1	9.7651+5			9.1093+1	9.0495+1	5.8602-1
1.1113-3	1.2375-5	9.0190+3	9.5160+5	4.0589+2	7.3787-1	9.5119+5			8.9784+1	8.9181+1	5.8314-1
1.1699-3	1.3990-5	7.8776+3	8.4173+5	4.4431+2	7.9851-1	8.4128+5			8.		

October 31, 1989
Atomic Weight 63.540

ENDL Evaluated
Photon Data

29-Cu
Density 8.960 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
8.0000-3	2.1546-3	5.1801+1	5.4655+3	1.3480-2	6.9625+0	5.3238-3			3.6168+0	3.6136+0	3.2595-3
8.1562-3	2.2744-3	4.8071+1	5.1776+3	1.2801-2	7.0625+0	5.0425-3			3.4927+0	3.4896+0	3.0871-3
8.3708-3	2.4474-3	4.5602-1	4.8115+3	1.1642+2	7.1991+0	4.6879-3			3.3325+0	3.3297+0	2.8699-3
8.6049-3	2.6484-3	4.2142+1	4.4464+3	1.0029+2	7.3470+0	4.3368-3			3.1706+0	3.1679+0	2.6559-3
8.8900-3	2.7258-3	4.0945+1	4.3201+3	9.2220+1	7.4005+0	4.2205-3			3.1146+0	3.1121+0	2.5835-3
8.7841-3	2.7982-3	3.9913+1	4.2113+3	8.2544+1	7.4470+0	4.1212-3			3.0673+0	3.0648+0	2.5226-3
8.8871-3	2.9198-3	3.8225+1	4.0331+3	8.2578+1	7.5240+0	3.9630-3			2.9910+0	2.9886+0	2.4257-3
8.9084-3	2.9381-3	3.7986+1	4.0079+3	8.1415+1	7.5380+0	3.9390-3			2.9793+0	2.9769+0	2.4110-3
8.9432-3	2.9703-3	3.7579+1	3.9645+3	8.3340+1	7.5590+0	3.9036-3			2.9572+0	2.9548+0	2.3832-3
K 8.9432-3	3.9688-4	2.7994+2	2.9537+4	6.3340+1	7.5590+0	2.9466+4			2.2378+1	1.4475+1	7.9031+0
8.9735-3	4.0189-4	2.7770+2	2.9301+4	6.8200+1	7.5778+0	2.9225+4			2.2270+1	1.4430+1	7.8399+0
9.0353-3	4.0542-4	2.7327+2	2.8633+4	6.3931+1	7.6163+0	2.8741+4			2.2051+1	1.4338+1	7.7133+0
9.1039-3	4.1575-4	2.6845+2	2.8324+4	6.9474+1	7.6589+0	2.8217+4			2.1810+1	1.4233+1	7.5782+0
9.1701-3	4.2301-4	2.6384+2	2.7838+4	6.1073+1	7.6999+0	2.7723+4			2.1581+1	1.4134+1	7.4469+0
9.2978-3	4.3729-4	2.5522+2	2.6929+4	1.1677-2	7.7789+0	2.6804+4			2.1153+1	1.3946+1	7.2066+0
9.5990-3	4.7223-4	2.3634+2	2.4836+4	1.2789-2	7.9640+0	2.4801+4			2.0205+1	1.3524+1	6.8614+0
1.0000-2	5.2131-4	2.1408-2	2.2588+4	1.3354+2	8.2080+0	2.2447+4			1.9682+1	1.2996+1	6.0631+0
1.0959-2	6.5025-4	1.7164+2	1.8110+4	1.3450+2	8.7051+0	1.7956+4			1.6718+1	1.1840+1	4.8792+0
1.2512-2	9.2684-4	1.2044+2	1.2708+4	1.2405+2	9.3911+0	1.2575+4			1.3344+1	9.9197+0	3.4242+0
1.5770-2	1.7283-3	8.4578+1	8.8136+3	9.7811+1	1.0590+1	6.7054+3			8.9881+0	7.1343+0	1.8338+0
2.1040-2	3.8186-3	2.9227+1	3.0838+3	6.7647+1	1.1853+1	3.0043+3			5.3675+0	4.5425+0	8.2498-1
2.7800-2	8.2589-3	1.3514+1	1.4258+3	4.4897+1	1.2784+1	1.3681+3			3.2303+0	2.8530+0	3.7728-1
3.7833-2	1.9668-2	5.6887+0	5.9811+2	2.7147+1	1.3552+1	5.5741+2			1.7938+0	1.6399+0	1.5396-1
5.7068-2	6.1284-2	1.8217+0	1.8221+2	1.3340+1	1.3879+1	1.6500+2			8.0590-1	7.6024-1	4.5659-2
7.3908-2	1.2042-1	9.2683-1	9.7791+1	8.4383+0	1.3781+1	7.5581+1			4.8429-1	4.6335-1	2.0939-2
9.2125-2	2.0291-1	5.5004-1	5.8035+1	5.6710+0	1.3486+1	3.8868+1			3.1836-1	3.0758-1	1.0777-2
1.0000-1	2.4243-1	4.6038-1	4.8575+1	4.8808-0	1.3350+1	3.0344+1			2.7396-1	2.6555-1	8.4157-3
1.2290-1	3.6383-1	3.0678-1	3.2366+1	3.3238-0	1.2844+1	1.6198+1			1.8096-1	1.8647-1	4.4924-3
1.5125-1	5.0745-1	2.1994-1	2.3208+1	2.2388-0	1.2354+1	8.6129+0			1.4038-1	1.3800-1	2.3886-3
1.8225-1	6.4678-1	1.7256-1	1.8207+1	1.5648+0	1.1757+1	4.8854+0			1.1361-1	1.1226-1	1.3540-3
2.1384-1	7.6278-1	1.4832-1	1.5438+1	1.1483+0	1.2859+1	3.0208+0			1.0173-1	1.0089-1	8.3720-4
2.4887-1	8.7176-1	1.2802-1	1.3508+1	8.5487-1	1.0726+1	1.9272+0			9.6886-2	8.6332-2	5.3438-4
3.0000-1	9.9636-1	1.1179-1	1.1785+1	5.9322-1	1.1093+1	1.1091+0			8.8350-2	8.8043-2	3.0740-4
3.5970-1	1.1187+0	8.9763-2	1.0528+1	4.1525-1	9.4468+0	8.6428-1			1.0590-1	1.0571-1	1.8417-4
4.4155-1	1.2531+0	8.8088-2	9.3977+0	2.7700-1	8.7418+0	3.7906-1			1.2085-1	1.2075-1	1.0512-4
5.4772-1	1.4031+0	7.8541-2	8.3924+0	1.6072-1	8.9710+0	2.1458-1			1.4202-1	1.4188-1	5.8901-5
7.4448-1	1.8340+0	6.8305-2	7.2089+0	9.8161-2	7.0058+0	1.0288-1			1.8325-1	1.8322-1	2.8532-5
1.0000+0	1.8939+0	5.8929-2	6.2178+0	5.4511-2	8.1068+0	5.4268-2			2.3338-1	2.3335-1	1.5055-5
1.0220+0	1.9154+0	5.8289-2	6.1481+0	5.2188-2	8.0443+0	5.1550-2			2.3736-1	2.3735-1	1.4300-5
1.0251+0	1.9185+0	5.8173-2	6.1379+0	5.1882-2	8.0347+0	5.1237-2	3.9308-8		2.3788-1	2.3787-1	1.4214-5
1.0287+0	1.9222+0	5.8061-2	6.1281+0	5.1517-2	8.0237+0	5.0877-2	3.9308-7		2.3849-1	2.3848-1	1.4114-5
1.0320+0	1.9255+0	5.7962-2	6.1158+0	5.1194-2	8.0138+0	5.0557-2	1.2868-8		2.3904-1	2.3903-1	1.4025-5
1.0332+0	1.9288+0	5.7825-2	6.1117+0	5.1078-2	8.0102+0	5.0440-2	1.7743-8		2.3924-1	2.3923-1	1.3993-5
1.0340+0	1.9278+0	5.7801-2	6.1091+0	5.0997-2	8.0078+0	5.0382-2	2.1781-8		2.3938-1	2.3938-1	1.3971-5
1.0353+0	1.9289+0	5.7881-2	6.1050+0	5.0869-2	8.0039+0	5.0238-2	2.9565-8		2.3959-1	2.3958-1	1.3938-5
1.0386+0	1.9302+0	5.7820-2	6.1007+0	5.0738-2	8.0000+0	5.0108-2	3.9308-8		2.3982-1	2.3981-1	1.3900-5
1.0382+0	1.9318+0	5.7773-2	6.0957+0	5.0588-2	8.0000+0	4.9958-2	5.3047-8		2.4008-1	2.4007-1	1.3858-5
1.0397+0	1.9333+0	5.7728-2	6.0909+0	5.0441-2	8.0000+0	4.9812-2	6.8919-8		2.4033-1	2.4032-1	1.3818-5
1.0415+0	1.9351+0	5.7874-2	6.0852+0	5.0287-2	8.0000+0	4.9640-2	9.1666-8		2.4063-1	2.4062-1	1.3771-5
1.0438+0	1.9375+0	5.7605-2	6.0779+0	5.0047-2	8.0000+0	4.9422-2	1.2728-5		2.4102-1	2.4101-1	1.3710-5
1.0464+0	1.9401+0	5.7527-2	6.0697+0	4.9799-2	8.0000+0	4.9177-2	1.7708-5		2.4145-1	2.4144-1	1.3642-5
1.0483+0	1.9420+0	5.7470-2	6.0637+0	4.9619-2	8.0000+0	4.8999-2	2.2047-5		2.4177-1	2.4176-1	1.3593-5
1.0512+0	1.9449+0	5.7384-2	6.0547+0	4.9347-2	8.0000+0	4.8730-2	2.9907-5		2.4228-1	2.4225-1	1.3518-5
1.0541+0	1.9478+0	5.7298-2	6.0457+0	4.9078-2	8.0000+0	4.8484-2	3.9308-5		2.4274-1	2.4273-1	1.3444-5
1.0577+0	1.9514+0	5.7183-2	6.0344+0	4.8744-2	8.0000+0	4.8133-2	5.3578-5		2.4335-1	2.4333-1	1.3353-5
1.0611+0	1.9549+0	5.7083-2	6.0240+0	4.8433-2	8.0000+0	4.7828-2	6.9693-5		2.4391-1	2.4390-1	1.3287-5
1.0651+0	1.9588+0	5.6977-2	6.0117+0	4.8071-2	8.0000+0	4.7468-2	9.2286-5		2.4458-1	2.4457-1	1.3168-5
1.0704+0	1.9641+0	5.6824-2	5.9958+0	4.7597-2	8.0000+0	4.6999-2	1.2872-4		2.4548-1	2.4545-1	1.3038-5
1.0782+0	1.9698+0	5.6658-2	5.9781+0	4.7087-2	8.0000+0	4.6495-2	1.7789-4		2.4643-1	2.4642-1	1.2898-5
1.0806+0	1.9742+0	5.6533-2	5.9649+0	4.6708-2	8.0000+0	4.6117-2	2.2218-4		2.4716-1	2.4715-1	1.2793-5
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1.0937+0	1.9871+0	5.6187-2	5.9282+0	4.5588-2	8.0000+0	4.5020-2	3.9308-4		2.4934-1	2.4933-1	1.2489-5
1.1026+0	1.9957+0	5.5923-2	5.9004+0	4.4868-2	8.0000+0	4.4298-2	5.4500-4		2.5082-1	2.5081-1	1.2289-5
1.1107+0	2.0036+0	5.5703-2	5.8773+0	4.4218-2	8.0000+0	4.3655-2	7.1079-4		2.5216-1	2.5215-1	1.2110-5
1.1208+0	2.0132+0	5.5438-2	5.8494+0	4.3440-2	8.0000+0	4.2888-2	9.5083-4		2.5380-1	2.5378-1	1.1897-5
1.1333+0	2.0253+0	5.5105-2	5.8142+0	4.2475-2	8.0000+0	4.1933-2	1.3221-3		2.5580-1	2.5589-1	1.1633-5
1.1475+0	2.0389+0	5.4741-2	5.7757+0	4.1434-2	8.0000+0	4.0903-2	1.8254-3		2.5824-1	2.5823-1	1.1347-5
1.1582+0	2.0489+0	5.4471-2	5.7473+0	4.0674-2	8.0000+0	4.0152-2	2.2685-3		2.6001-1	2.6000-1	1.1139-5
1.1741+0	2.0638+0	5.4078-2	5.7059+0	3.9583-2	8.0000+0	3.9073-2	3.0319-3		2.6282-1	2.6281-1	1.0839-5
1.1901+0	2.0786+0	5.3684-2	5.6653+0	3.8528-2	8.0000+0	3.8040-2	3.9308-3		2.6528-1	2.6525-1	1.0533-5
1.2051+0	2.0922+0	5.3343-2	5.6283+0	3.7579-2	8.0000+0	3.7200-2	4.8926-3		2.6773-1	2.6772-1	1.0320-5
1.2275+0	2.1124+0	5.2835-2	5.5746+0	3.6224-2	8.0000+0	3.6988-2	6.5478-3		2.7142-1	2.7141-1	9.9881-6
1.2588+0	2.1460+0	5.2008-2	5.4874+0	3.4081-2	8.0000+0	3.4082-2	9.9293-3		2.7789-1	2.7788-1	9.4548-6
1.2949+0	2.1712+0	5.1404-2	5.4238+0	3.2559-2	8.0000+0	3.2708-2	1.2989-2		2.8250-1	2.8249-1	9.0734-6
1.3318+0	2.2022+0	5.0678-2	5.3472+0	3.0783-2	8.0000+0	3.1098-2	1.7281-2		2.8857-1	2.8856-1	8.6284-6
1.3628+0	2.2276+0	5.0102-2	5.2863+0	2.9410-2	8.0000+0	2.9844-2	2.1249-2		2.9384-1	2.9383-1	8.2790-6
1.4117+0	2.2869+0	4.8233-2	5.1948+0	2.7404-2	8.0000+0	2.8004-2	2.8188-2		3.0173-1	3.0172-1	7.7886-6
1.5000+0	2.3344+0	4.7809-2	5.0444+0	2.4278-2	8.0000+0	2.5110-2	4.2460-2		3.1835-1	3.1834-1	6.9658-6
1.6172+0	2.4176+0	4.6184-2	4.8708+0	2.0891-2	8.0000+0	2.2115-2	6.4828-2		3.3600-1	3.3600-1	6.1350-6
1.7188+0	2.4842+0	4.4927-2	4.7403+0	1.8489-2	8.0000+0	1.9954-2	8.7332-2		3.5333-1	3.5333-1	5.5353-6
1.8923+0	2.5985+0	4.2984-2	4.5353+0	1.5285-2	8.0000+0	1.6963-2	1.3068-1		3.8076-1	3.8076-1	4.7058-6
2.0440+0	2.6844+0	4.1577-2	4.3888+0	1							

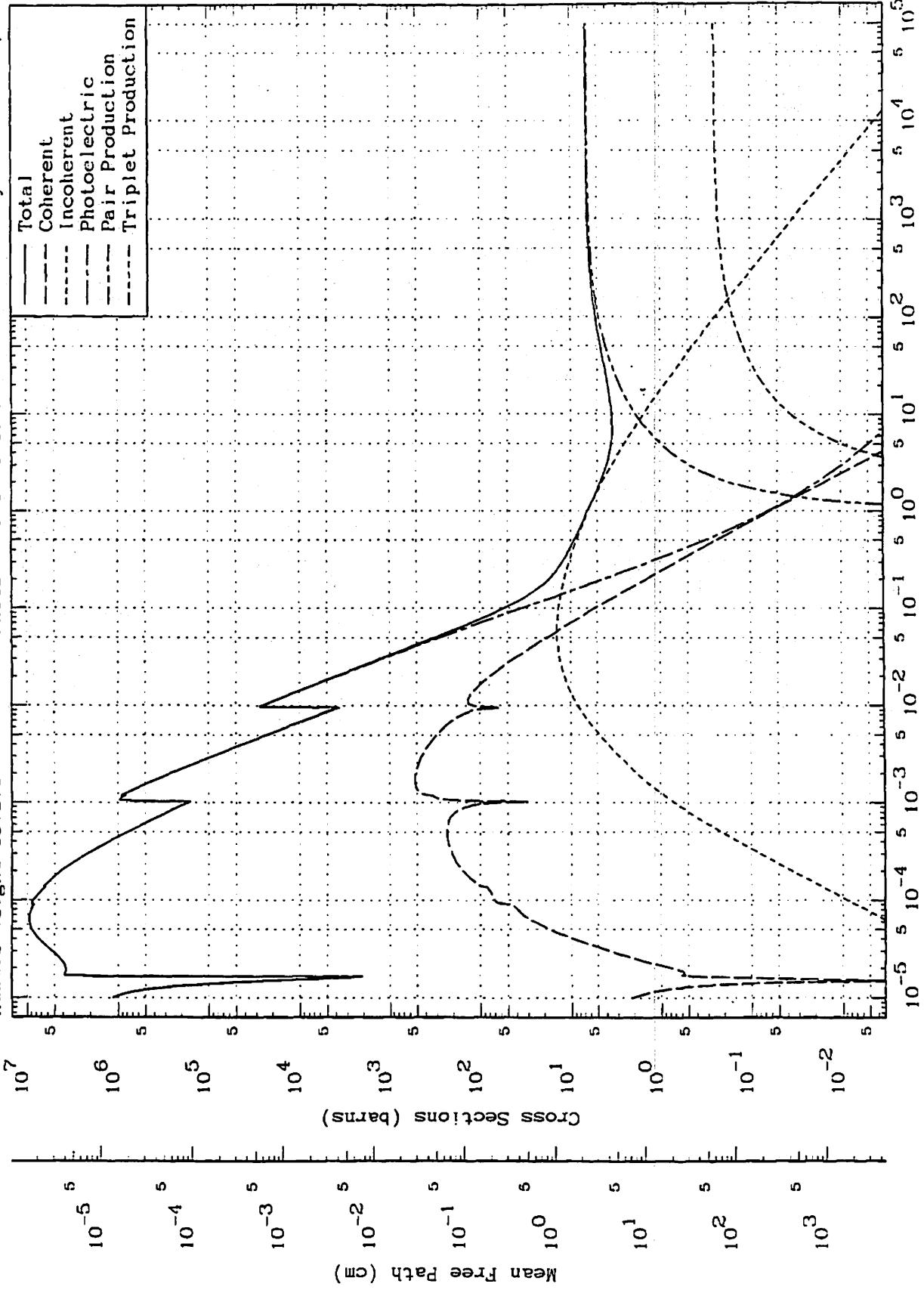
October 31, 1989
Atomic Weight 63.540

ENDL Evaluated
Photon Data

29-Cu
Density 8.960 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cm)		
	cm	cc*cm/grac	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.1363+ 0	2.7377+ 0	4.0767- 2	4.3014+ 0	1.1881- 2	4.0791+ 0	1.3958- 2	1.9630- 1	2.9119- 6	4.1974- 1	4.1973- 1	3.8721- 6
2.1470+ 0	2.7436+ 0	4.0679- 2	4.2921+ 0	1.1861- 2	4.0670+ 0	1.3853- 2	1.9537- 1	3.9924- 6	4.2143- 1	4.2143- 1	3.8429- 6
2.1835+ 0	2.7528+ 0	4.0548- 2	4.2780+ 0	1.1881- 2	4.0485+ 0	1.3893- 2	2.0413- 1	6.0710- 6	4.2404- 1	4.2403- 1	3.7987- 6
2.1845+ 0	2.7643+ 0	4.0374- 2	4.2599+ 0	1.1458- 2	4.0254+ 0	1.3485- 2	2.0960- 1	9.6199- 6	4.2729- 1	4.2729- 1	3.7437- 6
2.2018+ 0	2.7738+ 0	4.0238- 2	4.2454+ 0	1.1278- 2	4.0088+ 0	1.3335- 2	2.1418- 1	1.3309- 5	4.2899- 1	4.2899- 1	3.6993- 6
2.2148+ 0	2.7808+ 0	4.0134- 2	4.2346+ 0	1.1146- 2	3.9926+ 0	1.3217- 2	2.1766- 1	1.6582- 5	4.3203- 1	4.3203- 1	3.6666- 6
2.2342+ 0	2.7912+ 0	3.9986- 2	4.2189+ 0	1.0954- 2	3.9720+ 0	1.3044- 2	2.2292- 1	2.2306- 5	4.3509- 1	4.3509- 1	3.6188- 6
2.2537+ 0	2.8014+ 0	3.9839- 2	4.2035+ 0	1.0785- 2	3.9515+ 0	1.2875- 2	2.2829- 1	2.9119- 5	4.3818- 1	4.3818- 1	3.5715- 6
2.2815+ 0	2.8157+ 0	3.9637- 2	4.1821+ 0	1.0505- 2	3.9228+ 0	1.2638- 2	2.3609- 1	4.0788- 5	4.4284- 1	4.4284- 1	3.5060- 6
2.3070+ 0	2.8285+ 0	3.9457- 2	4.1632+ 0	1.0274- 2	3.8970+ 0	1.2428- 2	2.4339- 1	5.3573- 5	4.4677- 1	4.4678- 1	3.4476- 6
2.3382+ 0	2.8438+ 0	3.9246- 2	4.1408+ 0	1.0002- 2	3.8681+ 0	1.2179- 2	2.5251- 1	7.2033- 5	4.5187- 1	4.5188- 1	3.3784- 6
2.3774+ 0	2.8625+ 0	3.8989- 2	4.1138+ 0	9.6747- 3	3.8281+ 0	1.1876- 2	2.6407- 1	9.9758- 5	4.5834- 1	4.5833- 1	3.2948- 6
2.4102+ 0	2.8785+ 0	3.8773- 2	4.0910+ 0	9.4133- 3	3.7971+ 0	1.1633- 2	2.7278- 1	1.2989- 4	4.6384- 1	4.6383- 1	3.2272- 6
2.4468+ 0	2.8958+ 0	3.8541- 2	4.0685+ 0	9.1340- 3	3.7632+ 0	1.1372- 2	2.8265- 1	1.6139- 4	4.6961- 1	4.6961- 1	3.1546- 6
2.4859+ 0	2.9137+ 0	3.8305- 2	4.0416+ 0	8.8491- 3	3.7280+ 0	1.1103- 2	2.9344- 1	2.0320- 4	4.7608- 1	4.7607- 1	3.0799- 6
2.5564+ 0	2.9444+ 0	3.7904- 2	3.9993+ 0	8.3679- 3	3.6665+ 0	1.0643- 2	3.1350- 1	2.9119- 4	4.8796- 1	4.8796- 1	2.9525- 6
2.6604+ 0	2.9866+ 0	3.7389- 2	3.9428+ 0	7.7270- 3	3.5808+ 0	1.0022- 2	3.4389- 1	4.4888- 4	5.0594- 1	5.0594- 1	2.7801- 6
2.7453+ 0	3.0206+ 0	3.6948- 2	3.8985+ 0	7.2568- 3	3.5146+ 0	9.5573- 3	3.6652- 1	6.0078- 4	5.2048- 1	5.2048- 1	2.6513- 6
2.8090+ 0	3.0445+ 0	3.6659- 2	3.8879+ 0	6.9318- 3	3.4870+ 0	9.2319- 3	3.8398- 1	7.2759- 4	5.3165- 1	5.3164- 1	2.5810- 6
2.9045+ 0	3.0778+ 0	3.6262- 2	3.8260+ 0	6.4838- 3	3.3989+ 0	8.7774- 3	4.1093- 1	9.3729- 4	5.4680- 1	5.4680- 1	2.4349- 6
3.0399+ 0	3.1214+ 0	3.5755- 2	3.7725+ 0	5.9191- 3	3.3081+ 0	8.2078- 3	4.4902- 1	1.2704- 3	5.7368- 1	5.7368- 1	2.2769- 6
3.2344+ 0	3.1890+ 0	3.4997- 2	3.6928+ 0	5.2289- 3	3.1778+ 0	7.5340- 3	5.0023- 1	1.8359- 3	6.0993- 1	6.0993- 1	2.0900- 6
3.4375+ 0	3.2485+ 0	3.4357- 2	3.6250+ 0	4.6295- 3	3.0547+ 0	6.8282- 3	5.5821- 1	2.5125- 3	6.4317- 1	6.4317- 1	1.9214- 6
3.7847+ 0	3.3393+ 0	3.3422- 2	3.5284+ 0	3.8193- 3	2.8700+ 0	6.0642- 3	6.4284- 1	3.8550- 3	7.0652- 1	7.0652- 1	1.6823- 6
4.0000+ 0	3.3829+ 0	3.2992- 2	3.4810+ 0	3.4193- 3	2.7689+ 0	5.6180- 3	6.9830- 1	4.7760- 3	7.4870- 1	7.4869- 1	1.5565- 6
4.2500+ 0	3.4315+ 0	3.2524- 2	3.4317+ 0	3.0289- 3	2.6622+ 0	5.1904- 3	7.5537- 1	5.9021- 3	7.9718- 1	7.9718- 1	1.4399- 6
4.7500+ 0	3.4989+ 0	3.1889- 2	3.3846+ 0	2.4249- 3	2.4770+ 0	4.4888- 3	8.7247- 1	8.2575- 3	9.0190- 1	9.0190- 1	1.2452- 6
5.5135+ 0	3.5707+ 0	3.1256- 2	3.2979+ 0	1.7999- 3	2.2488+ 0	3.7136- 3	1.0314+ 0	1.2104- 2	1.0898+ 0	1.0898+ 0	1.0302- 6
6.3640+ 0	3.6228+ 0	3.0807- 2	3.2504+ 0	1.3510- 3	2.0328+ 0	3.1083- 3	1.1970+ 0	1.6400- 2	1.2633+ 0	1.2633+ 0	8.8227- 7
7.4833+ 0	3.6464+ 0	3.0608- 2	3.2294+ 0	9.7712- 4	1.8132+ 0	2.5554- 3	1.3906+ 0	2.2003- 2	1.5374+ 0	1.5374+ 0	7.0890- 7
9.0000+ 0	3.6287+ 0	3.0758- 2	3.2451+ 0	8.7555- 4	1.5821+ 0	2.0550- 3	1.6210+ 0	2.9310- 2	1.9411+ 0	1.9411+ 0	5.7008- 7
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2.8000+ 1	3.1186+ 0	3.5811- 2	3.7784+ 0	8.0950- 5	7.1109- 1	6.3710- 4	2.9850+ 0	8.1810- 2	7.6653+ 0	7.6653+ 0	1.7674- 7
4.2170+ 1	2.8203+ 0	3.9572- 2	4.1753+ 0	3.0773- 5	4.8514- 1	3.8370- 4	3.5822+ 0	1.0750- 1	1.4217+ 1	1.4217+ 1	1.0644- 7
6.0000+ 1	2.6282+ 0	4.2497- 2	4.4839+ 0	1.5201- 5	3.8251- 1	2.8860- 4	3.9950+ 0	1.2810- 1	2.2073+ 1	2.2073+ 1	7.3957- 8
1.0000+ 2	2.3964+ 0	4.8572- 2	4.9139+ 0	5.4723- 6	2.3770- 1	1.5820- 4	4.5250+ 0	1.5100- 1	4.0907+ 1	4.0907+ 1	4.3886- 8
2.0000+ 2	2.1814+ 0	5.1162- 2	5.3982+ 0	1.3681- 6	1.3147- 1	7.8470- 5	5.0870+ 0	1.7860- 1	8.0806+ 1	9.0808+ 1	2.1768- 8
4.0000+ 2	2.0491+ 0	5.4485- 2	5.7487+ 0	3.4202- 7	7.2339- 2	3.9070- 5	5.4730+ 0	2.0130- 1	1.9429+ 2	1.9429+ 2	1.0838- 8
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5.0000+ 3	1.8873+ 0	5.9138- 2	6.2395+ 0	2.1888- 9	7.8852- 3	3.1140- 6	5.9980- 0	2.3580- 1	2.6483+ 3	2.6483+ 3	8.6385-10
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1.0000+ 5	1.8653+ 0	5.9835- 2	6.3132+ 0	5.4878-12	4.8435- 4	1.5560- 7	6.0710+ 0	2.4170- 1	5.3811+ 4	5.3811+ 4	4.3185-11

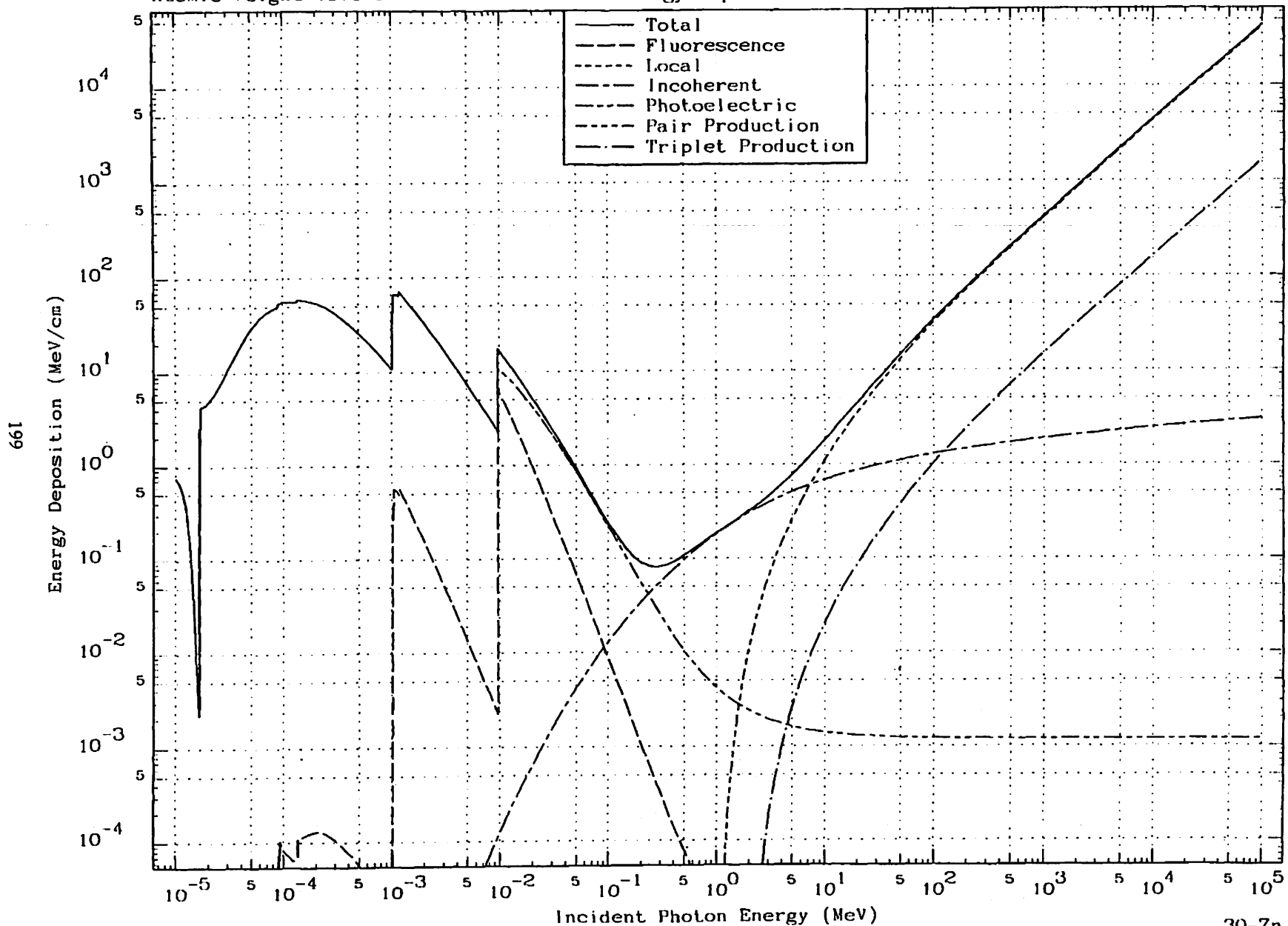
October 31, 1989
Atomic Weight 65.370
ENDL Evaluated
Density 7.133 Grams/cc
30-Zn

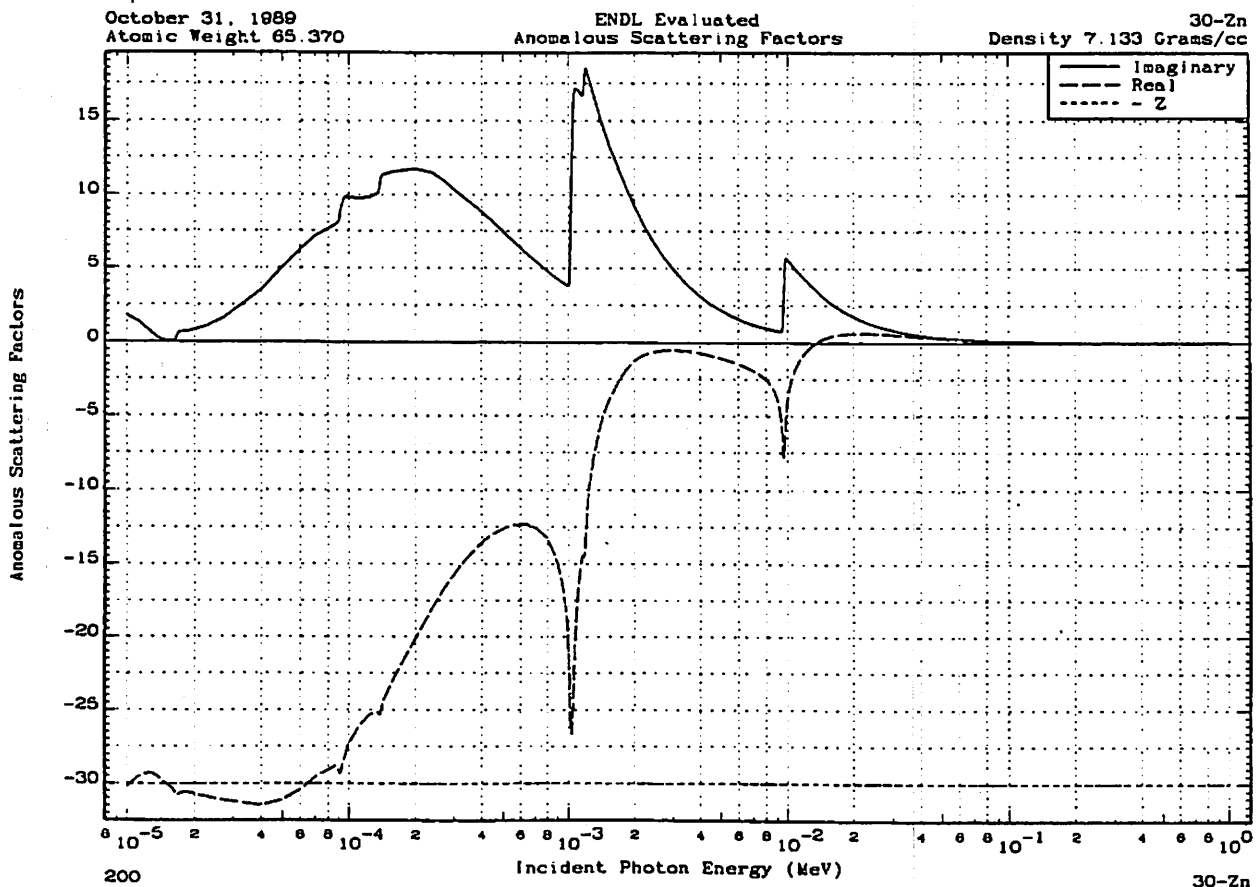
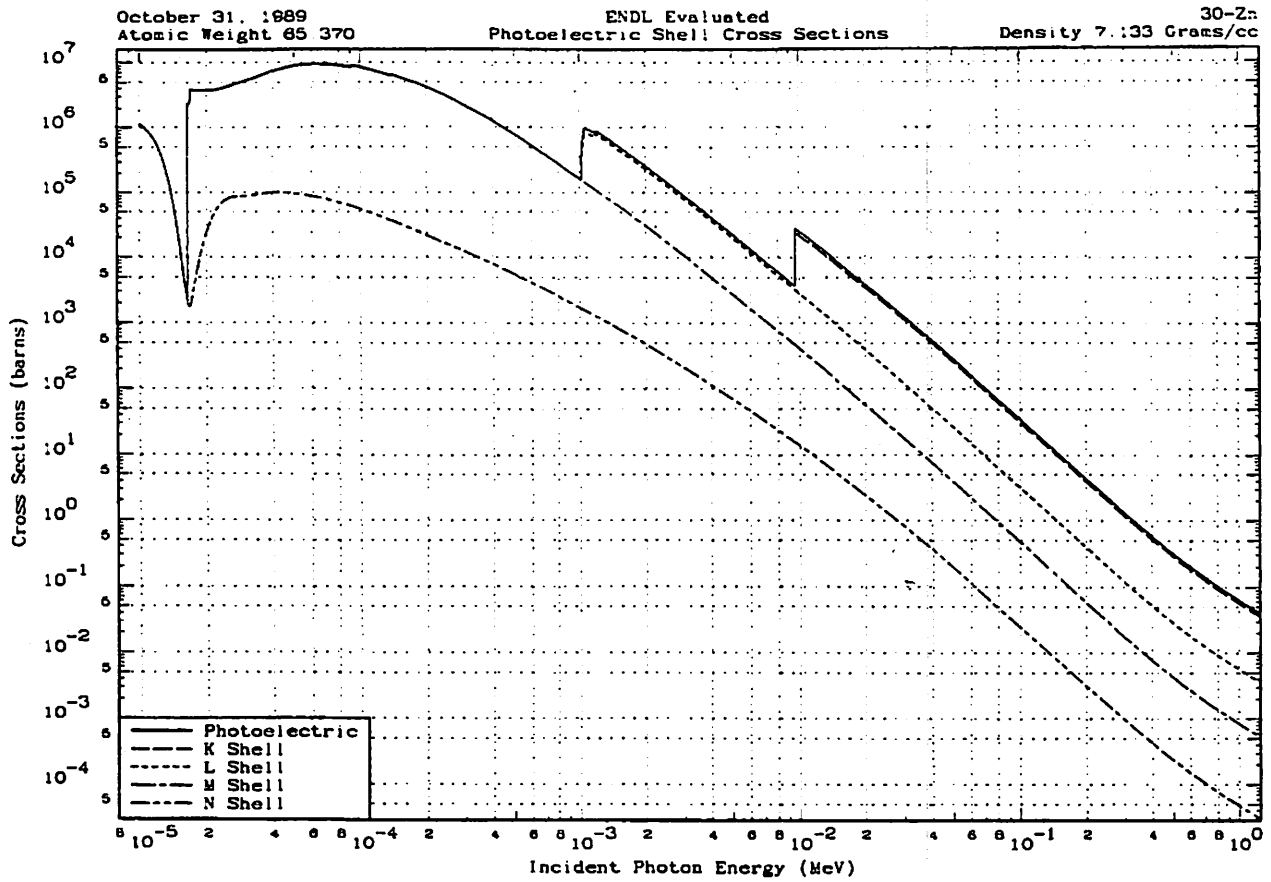


October 31, 1989
Atomic Weight 65.370

ENDL Evaluated
Energy Deposition

30-Zn
Density 7.133 Grams/cc

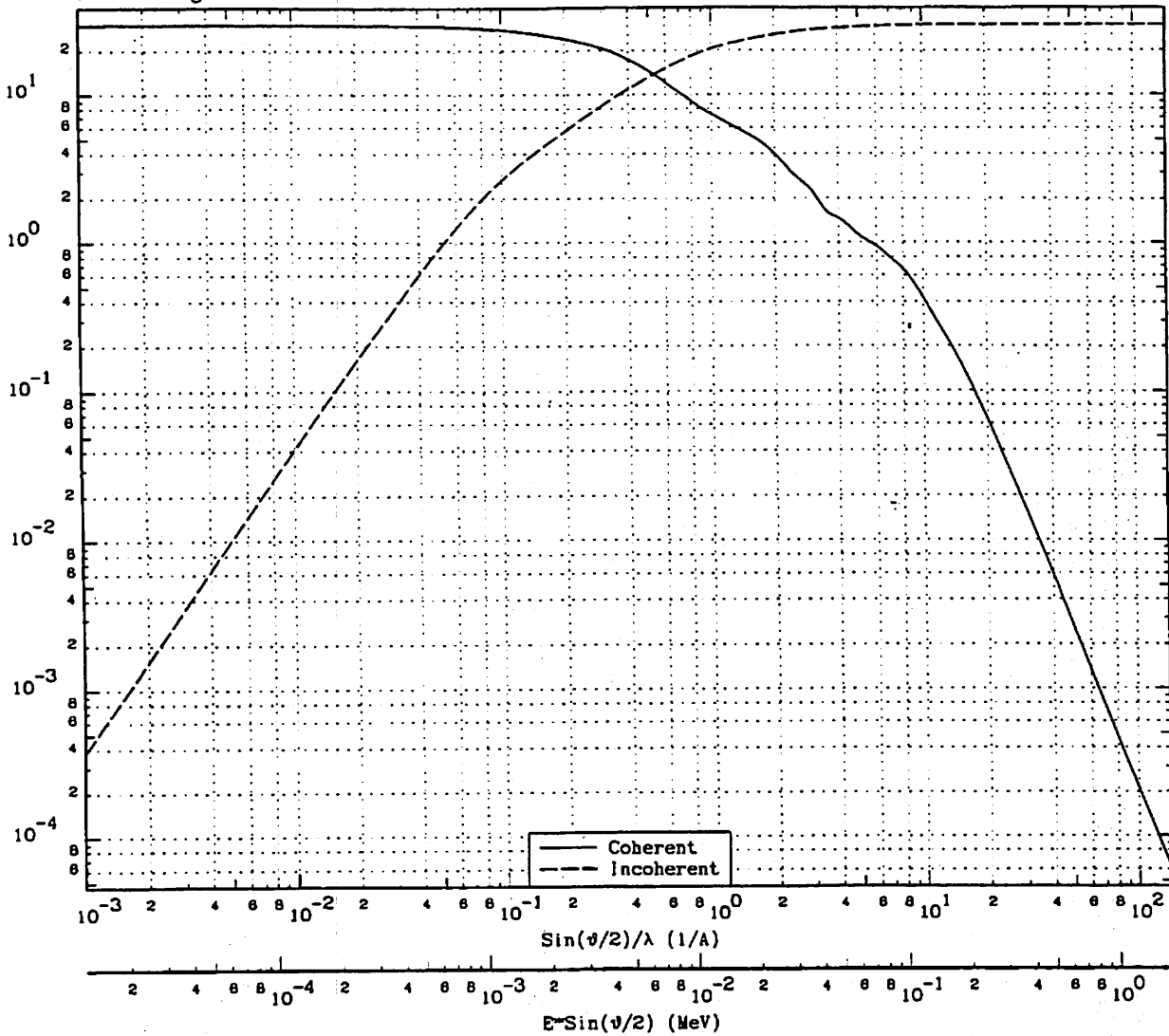




200

Incident Photon Energy (MeV)

30-Zn



$\sin(\theta/2)/\lambda$ 1/Å	$E \cdot \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/Å	$E \cdot \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/Å	$E \cdot \sin(\theta/2)$ MeV	Coherent	Incoherent
1.0000+0	0.0000+0	3.0000+1	0.0000+0	8.0000-1	9.9188-3	9.0488+0	1.8163+1	1.8770+1	2.3272-1	7.8421-2	2.8996+1
0.0000-3	1.2399-5	3.0000+1	3.7771-4	9.0000-1	1.1159-2	8.0754+0	1.9395+1	2.0000+1	2.4797-1	6.4113-2	2.8998+1
0.0000-3	6.1993-5	2.8984+1	1.0000-2	1.0000+0	1.2399-2	7.3684+0	2.0427+1	2.8053+1	3.2302-1	2.8884-2	2.8999+1
0.0000-2	1.2399-4	2.8985+1	4.1000-2	1.2500+0	1.5498-2	8.2194+0	2.2385+1	3.4475+1	4.2744-1	1.0025-2	2.9999+1
0.5000-2	1.8598-4	2.8942+1	9.2600-2	1.5000+0	1.8598-2	5.4277+0	2.3745+1	5.0000+1	6.1993-1	2.8131-3	3.0000+1
0.0000-2	2.4797-4	2.8898+1	1.8310-1	1.8154+0	2.2508-2	4.5303+0	2.5085+1	8.0000+1	9.9188-1	4.7001-4	3.0000+1
0.5000-2	3.0986-4	2.8841+1	2.5170-1	2.0000+0	2.4797-2	3.9972+0	2.5883+1	1.0000+2	1.2399+0	2.0913-4	3.0000+1
0.0000-2	3.7196-4	2.8773+1	3.5710-1	2.5000+0	3.0986-2	2.8448+0	2.6919+1	1.7117+2	2.1223+0	3.1154-5	3.0000+1
0.0000-2	4.8594-4	2.8603+1	6.1150-1	2.9297+0	3.6324-2	2.3356+0	2.7597+1	2.7479+2	3.4070+0	6.1408-6	3.0000+1
0.0000-2	6.1993-4	2.8397+1	9.1200-1	3.0000+0	3.7196-2	2.2412+0	2.7887+1	4.7714+2	5.9158+0	9.7483-7	3.0000+1
0.0000-2	8.6790-4	2.8868+1	1.5956+0	3.4590+0	4.2886-2	1.6677+0	2.8146+1	1.0000+3	1.2399+1	8.8610-8	3.0000+1
0.0000-2	1.1159-3	2.8244+1	2.3073+0	3.5000+0	4.3395-2	1.6376+0	2.8181+1	1.7744+3	2.2000+1	1.1408-8	3.0000+1
0.0000-1	1.2399-3	2.7914+1	2.6540+0	3.7129+0	4.6034-2	1.5407+0	2.8341+1	3.7572+3	4.6584+1	1.4003-9	3.0000+1
0.2500-1	1.5498-3	2.7019+1	3.4700+0	4.0000+0	4.9594-2	1.4639+0	2.8530+1	6.6119+3	8.1978+1	2.4822-10	3.0000+1
0.5000-1	1.8598-3	2.6095+1	4.2200+0	4.4258+0	5.4873-2	1.3079+0	2.8782+1	1.4899+4	1.8473+2	2.1856-11	3.0000+1
0.7500-1	2.1697-3	2.5184+1	4.9322+0	5.0000+0	6.1993-2	1.1165+0	2.9021+1	4.2646+4	5.2875+2	9.6804-13	3.0000+1
0.0000-1	2.4797-3	2.4286+1	5.6310+0	6.0000+0	7.4391-2	9.4080-1	2.9358+1	2.0651+5	2.5604+3	9.7585-15	3.0000+1
0.5000-1	3.0986-3	2.2471+1	7.0236+0	7.0000+0	8.6790-2	7.8370-1	2.9588+1	1.0000+6	1.2399+4	1.0071-16	3.0000+1
0.0000-1	3.7196-3	2.0720+1	8.3880+0	8.0000+0	9.9188-2	6.6390-1	2.9739+1	5.8234+6	6.9722+4	6.4743-19	3.0000+1
0.0000-1	4.8594-3	1.7392+1	1.0901+1	8.8278+0	1.0945-1	5.5750-1	2.9820+1	7.4889+7	9.2975+5	3.0930-22	3.0000+1
0.0000-1	6.1993-3	1.4519+1	1.3094+1	1.0000+1	1.2399-1	4.2420-1	2.9896+1	1.0000+8	1.2399+7	1.4078-25	3.0000+1
0.0000-1	7.4391-3	1.2189+1	1.5020+1	1.2488+1	1.5483-1	2.4910-1	2.9955+1				
0.0000-1	8.6790-3	1.0387+1	1.6709+1	1.5000-1	1.8598-1	1.5320-1	2.9988+1				

October 31, 1989
Atomic Weight 65.370

ENDL Evaluated
Photon Data

30-Zn
Density 7.133 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cc/cm ² /gcm	Total	Coherent	Incoherent	Photoelec	Pair	Tripist	Total	Local	Fluorescence
1.0000-5	1.3208-5	1.0614+4	1.1522+6	2.0952+0	8.1731-5	1.1522-6			7.5712-1	7.5712-1	
1.0756-5	1.6273-5	8.6151+3	9.3517+5	1.6314+0	9.4637-5	9.3516+5			6.6096-1	6.6096-1	
1.1212-5	1.9091-5	7.3436+3	7.9715+5	1.4143+0	1.0290-4	7.8714-5			5.8733-1	5.8733-1	
1.1628-5	2.2934-5	6.1130+3	6.6356+5	1.1322+0	1.1071-4	6.6356+5			5.0702-1	5.0702-1	
1.2004-5	2.8148-5	4.9810+3	5.4069+5	9.3200-1	1.1804-4	5.4068+5			4.2849-1	4.2849-1	
1.2343-5	3.5065-5	3.9958+3	4.3374+5	7.8608-1	1.2484-4	4.3374+5			3.5180-1	3.5180-1	
1.2454-5	3.8285-5	3.6819+3	3.9749+5	7.4428-1	1.2711-4	3.9749+5			3.2529-1	3.2529-1	
1.2792-5	4.9742-5	2.8184+3	3.0594+5	5.6844-1	1.3415-4	3.0594+5			2.5717-1	2.5717-1	
1.2909-5	5.5440-5	2.5287+3	2.7449+5	5.1872-1	1.3863-4	2.7449+5			2.3285-1	2.3285-1	
1.3163-5	6.9939-5	2.0046+3	2.1759+5	3.8741-1	1.4210-4	2.1759+5			1.8821-1	1.8821-1	
1.3321-5	8.2518-5	1.8990+3	1.8443+5	3.2409-1	1.4555-4	1.8443+5			1.6144-1	1.6144-1	
1.3522-5	1.0214-4	1.3725+3	1.4899+5	2.4143-1	1.5000-4	1.4899+5			1.3238-1	1.3238-1	
1.3707-5	1.2894-4	1.1044+3	1.1889+5	1.7853-1	1.5417-4	1.1889+5			1.0799-1	1.0799-1	
1.3847-5	1.4917-4	9.3983+2	1.0202+5	1.3378-1	1.5734-4	1.0202+5			9.2826-2	9.2826-2	
1.3961-5	1.7360-4	8.0754+2	8.7659+4	1.0668-1	1.5997-4	8.7659+4			8.0420-2	8.0420-2	
1.4147-5	2.2132-4	6.3345+2	6.8761+4	6.7404-2	1.6427-4	6.8761+4			6.3921-2	6.3921-2	
1.4357-5	2.9422-4	4.7296+2	5.1340-4	3.5062-2	1.6923-4	5.1340+4			4.8437-2	4.8437-2	
1.4526-5	3.7884-4	3.7026+2	4.0191+4	1.7510-2	1.7324-4	4.0191+4			3.8363-2	3.8363-2	
1.4714-5	5.0481-4	2.7772+2	3.0148+4	5.9028-3	1.7779-4	3.0148+4			2.9147-2	2.9147-2	
1.4909-5	6.9032-4	2.0309+2	2.2045+4	1.8422-3	1.8257-4	2.2045+4			2.1598-2	2.1598-2	
1.5053-5	8.7433-4	1.8034+2	1.7405+4	3.5468-3	1.8815-4	1.7405+4			1.7217-2	1.7217-2	
1.5222-5	1.1691-3	1.2002+2	1.3028+4	1.0054-2	1.9037-4	1.3028+4			1.3032-2	1.3032-2	
1.5357-5	1.4692-3	9.5420+1	1.0358+4	1.8455-2	1.9379-4	1.0358+4			1.0453-2	1.0453-2	
1.5486-5	1.8246-3	7.8834+1	8.3403+3	2.8821-2	1.9707-4	8.3403+3			8.4872-3	8.4872-3	
1.5625-5	2.3010-3	6.0927+1	6.8136+3	4.2388-2	2.0065-4	6.8136+3			6.7905-3	6.7905-3	
1.5756-5	2.8593-3	4.8031+1	5.3223+3	5.7242-2	2.0405-4	5.3223+3			5.5106-3	5.5106-3	
1.5893-5	3.5890-3	3.9281+1	4.2840+3	8.0751-2	2.0793-4	4.2839+3			4.4530-3	4.4530-3	
1.6130-5	5.0335-3	2.7852+1	3.0233+3	1.5344-2	2.1392-4	3.0232+3			3.2044-3	3.2044-3	
1.6220-5	5.6423-3	2.4847+1	2.6971+3	2.0416-2	2.1632-4	2.6969+3			2.8745-3	2.8745-3	
1.6328-5	6.4182-3	2.1850+1	2.3718+3	2.8168-2	2.1917-4	2.3715+3			2.5442-3	2.5442-3	
1.6395-5	6.9735-3	2.0104+1	2.1822+3	3.5421-2	2.2104-4	2.1819+3			2.3506-3	2.3506-3	
1.6460-5	7.4717-3	1.8763+1	2.0368+3	3.9760-2	2.2281-4	2.0364+3			2.2026-3	2.2026-3	
M5 1.6480-5	8.3925-3	2.1931+1	2.3806+3	3.8790-2	2.2281-4	2.3806+3			2.5749+0	2.5749+0	
1.6530-5	6.4188-3	2.1842+1	2.3709-3	4.5014-2	2.2472-4	2.3709+3			2.5754+0	2.5754+0	
1.6850-5	8.5383-3	2.1449+1	2.3282+3	5.6574-2	2.3356-4	2.3282+3			2.5779+0	2.5779+0	
M4 1.6850-5	3.9233-3	3.5733+1	3.8788+3	5.8574-2	2.3356-4	3.8788+3			4.2948+0	4.2948+0	
1.6930-5	3.9377-3	3.5803+1	3.8847+3	5.8793-2	2.3590-4	3.8847+3			4.2996+0	4.2996+0	
1.6992-5	3.9488-3	3.5505+1	3.8540+3	5.9597-2	2.3753-4	3.8540+3			4.3033+0	4.3033+0	
1.7188-5	3.9826-3	3.5202+1	3.8211+3	5.4765-2	2.4308-4	3.8211+3			4.3158+0	4.3158+0	
1.8472-5	4.0935-3	3.4248+1	3.7176+3	5.8836-2	2.6124-4	3.7176+3			4.5125+0	4.5125+0	
1.9254-5	4.1525-3	3.3781+1	3.6847+3	6.2991-2	3.0801-4	3.6847+3			4.6388+0	4.6388+0	
2.2396-5	3.9035-3	3.5914+1	3.8985+3	1.2360+0	4.1617-4	3.8985+3			5.7372+0	5.7372+0	
2.3894-5	3.6566-3	3.8350+1	4.1629+3	1.6792+0	4.7842-4	4.1629+3			6.5609+0	6.5609+0	
2.7224-5	3.1975-3	4.3845+1	4.7594+3	2.6242+0	6.1914-4	4.7594+3			8.5144+0	8.5144+0	
4.0000-5	2.0324-3	6.8978+1	7.4878+3	9.5814+0	1.3545-3	7.4875+3			1.9681+1	1.9681+1	
5.0000-5	1.7004-3	8.2445+1	8.8494+3	1.7538+1	2.1327-3	8.8493+3			2.9404+1	2.9404+1	
6.0000-5	1.5993-3	8.7660+1	9.5154+3	2.6092+1	3.0905-3	9.5154+3			3.7517+1	3.7517+1	
7.0000-5	1.6139-3	8.8865+1	9.4292+3	3.4181+1	4.2291-3	9.4292+3			4.3372+1	4.3372+1	
8.0000-5	1.6888-3	8.3113+1	9.0219+3	3.9405+1	5.5482-3	9.0219+3			4.7427+1	4.7427+1	
9.9354-5	1.7868-3	7.7948+1	8.4812+3	4.4143+1	6.9492-3	8.4812+3			4.9881+1	4.9881+1	
9.0152-5	1.8079-3	7.7547+1	8.4177+3	4.7207+1	7.0761-3	8.4176+3			4.9896+1	4.9896+1	
9.0590-5	1.8130-3	7.7329+1	8.3940+3	5.0044+1	7.1483-3	8.3940+3			4.9969+1	4.9969+1	
M3 9.0590-5	1.8988-3	8.2534+1	8.9591+3	5.0044+1	7.1483-3	8.9590+3			5.3332+1	5.3332+1	7.3241-5
9.1334-5	1.7089-3	8.2044+1	8.8059+3	5.5223+1	7.2882-3	8.8059+3			5.3451+1	5.3450+1	7.1481-5
9.3740-5	1.7413-3	8.0511+1	8.7394+3	6.2588+1	7.6609-3	8.7394+3			5.3833+1	5.3833+1	6.6188-5
M2 9.3740-5	1.8900-3	8.2957+1	9.0049+3	6.2588+1	7.6609-3	9.0049+3			5.5468+1	5.5468+1	1.0349-4
9.4851-5	1.7057-3	8.2189+1	8.8218+3	6.8242+1	7.8488-3	8.8218+3			5.5807+1	5.5807+1	8.8681-5
1.0000-4	1.7797-3	7.8773+1	8.5507+3	6.9339+1	8.7378-3	8.5507+3			5.8188+1	5.8188+1	8.3484-5
1.2410-4	2.1850-3	6.4183+1	8.9649+3	7.8781+1	1.3510-2	8.9649+3			5.8799+1	5.8799+1	6.4221-5
1.3830-4	2.3945-3	5.8549+1	8.3554+3	8.5005+1	1.6325-2	8.3553+3			5.8923+1	5.8923+1	7.0738-5
1.3743-4	2.4132-3	5.8085+1	8.3062+3	8.0753+1	1.6598-2	8.3081+3			5.8950+1	5.8949+1	7.1490-5
M1 1.3743-4	2.3099-3	6.0694+1	8.5993+3	8.0753+1	1.6598-2	8.5982+3			5.8498+1	5.8498+1	1.0823-4
1.3913-4	2.3368-3	5.9994+1	8.5123+3	8.9953+1	1.7016-2	8.5122+3			5.9539+1	5.9539+1	1.0985-4
1.4233-4	2.3938-3	5.8571+1	8.3578+3	1.0842+2	1.7813-2	8.3577+3			5.9481+1	5.9480+1	1.1109-4
1.6881-4	2.8325-3	4.7806+1	5.1893+3	1.3047+2	2.5078-2	5.1882+3			5.7495+1	5.7495+1	1.2212-4
2.0000-4	3.6457-3	3.9455+1	4.1742+3	1.5605+2	3.5391-2	4.1741+3			5.4859+1	5.4857+1	1.3024-4
2.4563-4	4.8505-3	2.8319+1	3.0740+3	1.8577+2	5.3247-2	3.0738+3			4.9813+1	4.9813+1	1.2392-4
3.0000-4	7.0012-3	2.0024+1	2.1738+3	2.0682+2	7.8789-2	2.1734+3			4.2845+1	4.2845+1	1.0638-4
4.0000-4	1.2135-3	1.1553+1	1.2540+3	2.2829+2	1.3785-1	1.2538+3			3.2958+1	3.2958+1	7.7487-5
4.3655-4	1.4518-3	9.6582+1	1.0482+3	2.3299+2	1.8272-1	1.0480+3			3.0082+1	3.0082+1	6.8893-5
5.3516-4	2.2197-3	6.3158+1	6.8558+3	2.3481+2	2.3907-1	6.8534+3			2.4101+1	2.4101+1	5.1121-5
6.3343-4	3.2074-3	4.3710+1	4.7447+3	2.2840+2	3.2590-1	4.7424+3			1.8740+1	1.8740+1	3.8704-5
7.1302-4	4.1839-3	3.3508+1	3.6373+3	2.1250+2	4.0298-1	3.6352+3			1.7032+1	1.7032+1	3.1388-5
8.0000-4	5.4007-3	2.5959+1	2.8178+3	1.8981+2	4.9237-1	2.8159+3			1.4803+1	1.4803+1	2.5518-5
8.3865-4	6.0272-3	2.3280+1	2.5249+3	1.7528+2	5.3282-1	2.5231+3			1.3905+1	1.3905+1	2.3250-5
8.9580-4	7.0254-3	1.9952+1	2.1856+3	1.4955+2	5.9497-1	2.1843+3			1.2740+1	1.2740+1	2.0415-5
9.4196-4	7.8985-3	1.7749+1	1.9287+3	1.2038+2	6.4718-1	1.9255+3			1.1818+1	1.1818+1	1.8488-5
9.6490-4	8.3539-3	1.6782+1	1.8217+3	1.0088+2	6.7377-1	1.8208+3			1.1544+1	1.1544+1	1.7831-5
9.8853-4	8.8388-3	1.5881+1	1.7217+3	7.5413+1	7.0181-1	1.7210+3			1.1178+1	1.1178+1	1.6809-5
1.0000-3	9.0801-3	1.5440+1	1.6760+3	5.7790+1	7.1529-1	1.6754+3			1.1009+1	1.1009+1	1.6431-5
1.0021-3	9.1253-3	1.5383+1	1.6877+3	5.5022+1	7.1782-1	1.6871+3			1.0978+1	1.0978+1	1.6382-5
1.0075-3	9.2389-3	1.5174+1	1.8472+3	4.5502+1	7.2347-1	1.8467+3			1.0901+1	1.0901+1	1.6182-5
1.0141-3	9.3821-3	1.4943+1	1.6220+3	3.3875+1	7.3080-1	1.6217+3			1.0807+1	1.0807+1	1.5984-5
1.0188-3	9.4407-3	1.4850+1	1.6120+3	3.0940+1	7.3378-1	1.6118+3			1.0788+1	1.0788+1	1.5900-5
1.0193-3	9.4963-3	1.4785+1	1.6027+3	3.0220+1	7.3658-1	1.6024+3			1.0733+1	1.0733+1	1.5822-5
1.0221-3	9.5559-3	1.4671+1	1.5925+3	3.2258+1	7.3968-1	1.5922+3			1.0694+1	1.0694+1	1.5737-5

October 31, 1989
Atomic Weight 65.370

ENDL Evaluated
Photon Data

30-Zn
Density 7.133 Grams/cc

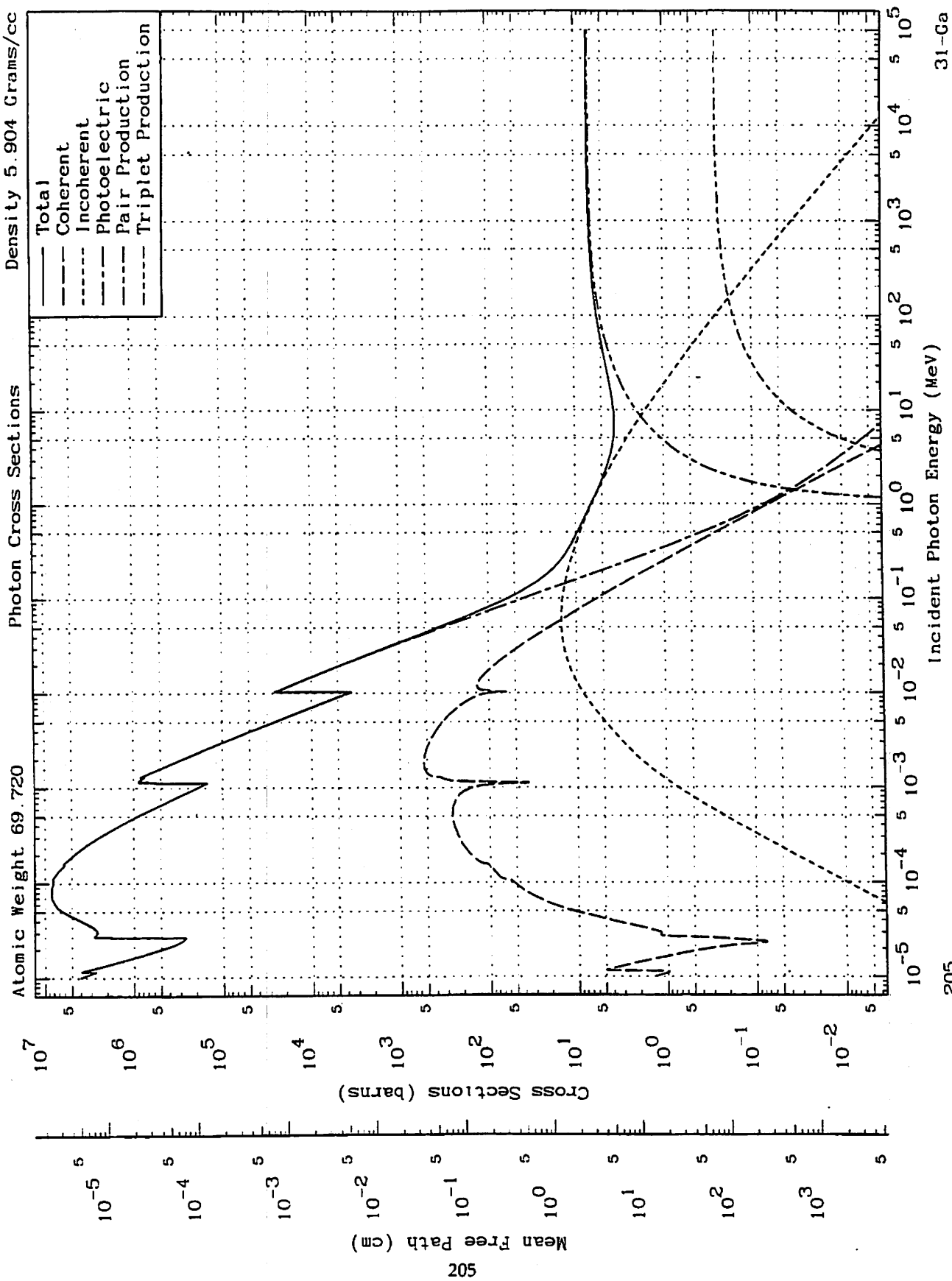
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/ca)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0260-3	9.6398-5	1.4543-3	1.5787+5	4.1522+1	7.4398-1	1.5782+5			1.0641+1	1.0641+1	1.5620-5
1.0260-3	2.9294-5	4.7857+3	5.1948-5	4.1522+1	7.4398-1	5.1944+5			3.5021+1	3.4777+1	2.4361-1
1.0281-3	2.8074-5	4.9937+3	5.4207+5	4.7568+1	7.4630-1	5.4202+5			3.6617+1	3.6359+1	2.5865-1
1.0343-3	2.4732-5	5.6685+3	6.1532+5	7.4853+1	7.5326-1	6.1524+5			4.1817+1	4.1507+1	3.0920-1
1.0430-3	2.1284-5	6.5829+3	7.1585+5	1.1870+2	7.6297-1	7.1553+5			4.8042+1	4.8883+1	3.7981-1
1.0490-3	2.0090-5	6.8782+3	7.5748+5	1.4973+2	7.6969-1	7.5733+5			5.2204+1	5.1795+1	4.0909-1
1.0505-3	2.0073-5	6.8842+3	7.5813+5	1.5868+2	7.7136-1	7.5797+5			5.2323+1	5.1913+1	4.0985-1
1.0505-3	1.5844-5	8.8488+3	9.6051+5	1.5868+2	7.7136-1	9.6035+5			6.8293+1	6.5738+1	5.5785-1
1.0582-3	1.5724-5	8.9159+3	9.6782+5	2.0145+2	7.8006-1	9.6782+5			6.7286+1	6.8721+1	5.6448-1
1.0615-3	1.5777-5	8.8860+3	9.6458+5	2.1494+2	7.8382-1	9.6436+5			6.7269+1	6.8708+1	5.6314-1
1.0723-3	1.5948-5	8.7902+3	9.5417+5	2.4712+2	7.8606-1	9.5392+5			6.7218+1	6.6659+1	5.5887-1
1.0869-3	1.8181-5	8.6638+3	9.4045+5	2.6999+2	8.1286-1	9.4018+5			6.7149+1	6.6595+1	5.5323-1
1.1119-3	1.6604-5	8.4435+3	9.1654+5	2.9969+2	8.4155-1	9.1624+5			6.6948+1	6.6405+1	5.4298-1
1.1415-3	1.7273-5	8.1163+3	8.8102+5	3.2083+2	8.7606-1	8.8070+5			6.6062+1	6.5537+1	5.2501-1
1.1729-3	1.8217-5	7.6959+3	8.3538+5	3.2938+2	9.1320-1	8.3505+5			6.4358+1	6.3859+1	4.9937-1
1.1795-3	1.8476-5	7.5878+3	8.2385+5	3.3626+2	9.2115-1	8.2331+5			6.3814+1	6.3321+1	4.9234-1
1.1844-3	1.8668-5	7.5100+3	8.1520+5	3.4846+2	9.2700-1	8.1486+5			6.3420+1	6.2932+1	4.8727-1
1.1844-3	1.6401-5	8.5479+3	9.2787+5	3.4846+2	9.2700-1	9.2752+5			7.2189+1	7.1823+1	5.6586-1
1.1998-3	1.6912-5	8.2897+3	8.9685+5	3.6837+2	9.4548-1	8.9645+5			7.0911+1	7.0382+1	5.4891-1
1.2157-3	1.7452-5	8.0332+3	8.7200+5	4.2469+2	9.6479-1	8.7157+5			6.9626+1	6.9094+1	5.3187-1
1.2691-3	1.8336-5	7.2505+3	7.8703+5	4.8416+2	1.0287+0	7.8575+5			6.5598+1	6.5117+1	4.8022-1
1.3945-3	2.4301-5	5.7881+3	6.2824+5	5.0309+2	1.1707+0	6.2573+5			5.7337+1	5.6955+1	3.8199-1
1.6780-3	3.7883-5	3.7007+3	4.0171+5	5.2452+2	1.4891+0	4.0119+5			4.4182+1	4.3937+1	2.4530-1
2.0000-3	5.8070-5	2.3733+3	2.5783+5	5.1974+2	1.8468+0	2.5710+5			3.3789+1	3.3632+1	1.5707-1
2.7343-3	1.3300-4	1.0541+3	1.1442+5	4.6398+2	2.5866+0	1.1396+5			2.0475+1	2.0405+1	6.9564-2
3.6488-3	2.8478-4	4.9228+2	5.3437+4	3.9346+2	3.4870+0	5.3004+4			1.2717+1	1.2685+1	3.2248-2
4.8922-3	6.2702-4	2.2359+2	2.4270+4	3.1068+2	4.8537+0	2.3965+4			7.7008+0	7.6882+0	1.4589-2
6.3179-3	1.2815-3	1.1113+2	1.2084+4	2.3493+2	6.8433+0	1.1823+4			4.8083+0	4.8012+0	7.1881-3
7.3040-3	1.8804-3	7.4555+1	8.0929+3	1.9097+2	6.5615+0	7.8954+3			3.7894+0	3.7846+0	4.7958-3
8.3137-3	2.6896-3	5.2124+1	5.6581+3	1.4989+2	7.2769+0	5.5009+3			3.0053+0	3.0019+0	3.3390-3
8.7756-3	3.1290-3	4.4804+1	4.8835+3	1.2957+2	7.5840+0	4.7283+3			2.7256+0	2.7227+0	2.6885-3
9.0066-3	3.3672-3	4.1635+1	4.5194+3	1.1776+2	7.7263+0	4.3940+3			2.6008+0	2.5979+0	2.6666-3
9.2584-3	3.8442-3	3.8470+1	4.1758+3	1.0139+2	7.8602+0	4.0697+3			2.4742+0	2.4717+0	2.4878-3
9.3500-3	3.7511-3	3.7374+1	4.0570+3	9.3216+1	7.9360+0	3.9568+3			2.4308+0	2.4282+0	2.4004-3
9.4297-3	3.8485-3	3.8428+1	3.8543+3	8.3533+1	7.9843+0	3.8627+3			2.3936+0	2.3913+0	2.3439-3
9.5820-3	4.0196-3	3.4877+1	3.7859+3	6.3337+1	8.0844+0	3.7145+3			2.3341+0	2.3318+0	2.2539-3
9.5828-3	4.0449-3	3.4659+1	3.7822+3	6.2203+1	8.0789+0	3.6920+3			2.3250+0	2.3227+0	2.2402-3
9.6224-3	4.0889-3	3.4286+1	3.7217+3	6.4179+1	8.1007+0	3.6495+3			2.3077+0	2.3055+0	2.2144-3
X 9.6224-3	5.5009-4	2.5486+2	2.7665+4	6.4179+1	8.1007+0	2.7592+4			1.7447+1	1.0861+1	6.5855+0
9.6567-3	5.5496-4	2.5262+2	2.7422+4	6.8521+1	8.1214+0	2.7344+4			1.7352+1	1.0824+1	6.5272+0
9.7248-3	5.8458-4	2.4831+2	2.6854+4	8.5914+1	8.1823+0	2.6860+4			1.7184+1	1.0751+1	6.4135+0
9.7759-3	5.7191-4	2.4513+2	2.6809+4	8.6854+1	8.1930+0	2.6504+4			1.7025+1	1.0695+1	6.3300+0
9.8247-3	5.7900-4	2.4213+2	2.6283+4	1.0485+2	8.2222+0	2.6170+4			1.6894+1	1.0643+1	6.2517+0
9.8842-3	5.8842-4	2.3826+2	2.5883+4	1.1146+2	8.2604+0	2.5743+4			1.6726+1	1.0575+1	6.1515+0
1.0000-2	6.0522-4	2.3184+2	2.5144+4	1.1869+2	8.3270+0	2.5017+4			1.6440+1	1.0458+1	5.8813+0
1.0296-2	6.5120-4	2.1529+2	2.3369+4	1.2835+2	8.4783+0	2.3231+4			1.5896+1	1.0135+1	5.5613+0
1.0570-2	6.9585-4	2.0147+2	2.1870+4	1.3408+2	8.6174+0	2.1727+4			1.5058+1	8.8512+0	5.2071+0
1.1458-2	8.5310-4	1.8433+2	1.7838+4	1.3628+2	9.0565+0	1.7683+4			1.3285+1	9.0297+0	4.2552+0
1.3176-2	1.2235-3	1.1459+2	1.2439+4	1.2617+2	9.8752+0	1.2302+4			1.0647+1	7.8738+0	2.9728+0
1.6432-2	2.2236-3	6.3047+1	6.8437+3	1.0066+2	1.1005+1	6.7321+3			7.2523+0	5.6191+0	1.6332+0
2.2595-2	5.2854-3	2.6628+1	2.8902+3	6.6870+1	1.2402+1	2.8109+3			4.1723+0	3.4860+0	6.8331-1
3.0000-2	1.1676-2	1.2007+1	1.3034+3	4.3562+1	1.3374+1	1.2465+3			2.4588+0	2.1536+0	3.0514-1
4.4332-2	3.4892-2	4.0411+0	4.3866+2	2.2732+1	1.4211+1	4.0171+2			1.1729+0	1.0742+0	9.8678-2
6.3282-2	9.1978-2	1.5259+0	1.6563+2	1.2205+1	1.4337+1	1.3909+2			5.8439-1	5.5018-1	3.4194-2
6.5854-2	1.8800-1	7.0805-1	7.6858+1	7.0722+0	1.4053+1	5.5733-1			3.2483-1	3.1090-1	1.3728-2
1.0000-1	2.8068-1	4.8951-1	5.4221+1	5.3580+0	1.3786+1	5.5070+1			2.4351-1	2.3487-1	8.8383-3
1.1808-1	3.9547-1	3.5450-1	3.8480+1	3.9341+0	1.3371+1	2.1178-1			1.8082-1	1.7580-1	5.2182-3
1.4283-1	5.5290-1	2.5356-1	2.7524+1	2.7421+0	1.2901+1	1.1881-1			1.3339-1	1.3047-1	2.9266-3
1.7579-1	7.4470-1	1.8826-1	2.0435+1	1.8410+0	1.2286+1	6.3288-0			1.0210-1	1.0054-1	1.5580-3
2.0000-1	6.6522-1	1.6203-1	1.7588+1	1.4345+0	1.1855+1	4.2995-0			9.0688-2	8.8810-2	1.0586-3
2.3793-1	1.0252+0	1.3674-1	1.4843+1	1.0238+0	1.1250+1	2.5689+0			8.2768-2	8.2133-2	6.3308-4
2.7804-1	1.1844+0	1.2040-1	1.3069+1	7.5529+1	1.0694+1	1.8189+0			8.0639-2	8.0440-2	3.8913-4
3.4515-1	1.3485+0	1.0397-1	1.1285+1	4.9407-1	9.9185+0	8.7179-1			6.5308-2	6.5093-2	2.1470-4
4.1290-1	1.4989+0	9.3488-2	1.0148+1	3.4893+1	9.2898+0	5.2905-1			9.3784-2	9.3634-2	2.1302-4
5.4772-1	1.7456+0	8.0311-2	8.7177+0	1.8823-1	8.2883+0	2.5115-1			1.1489-1	1.1483-1	1.6885-5
7.4448-1	2.0367+0	6.8833-2	7.4718+0	1.0767-1	7.2438+0	1.2050-1			1.4731-1	1.4728-1	2.6689-5
1.0000+0	2.3631+0	5.9325-2	6.4397+0	5.9794-2	6.3184+0	6.3578-2			1.8721-1	1.8719-1	1.5889-5
1.0220+0	2.3900+0	5.8658-2	6.3873+0	5.7257-2	6.2496+0	6.0400-2			1.8040-1	1.8038-1	1.4885-5
1.0251+0	2.3940+0	5.8580-2	6.3567+0	5.6910-2	6.2397+0	6.0033-2	4.2634-8		1.8081-1	1.8080-1	1.4795-5
1.0287+0	2.3986+0	5.8447-2	6.3444+0	5.6510-2	6.2283+0	5.9811-2	4.2834-7		1.8130-1	1.8129-1	1.4691-5
1.0320+0	2.4028+0	5.8347-2	6.3335+0	5.6156-2	6.2181+0	5.9237-2	1.3738-6		1.8174-1	1.8172-1	1.4599-5
1.0332+0	2.4043+0	5.8310-2	6.3295+0	5.6026-2	6.2144+0	5.9100-2	1.9244-6		1.8190-1	1.8188-1	1.4565-5
1.0340+0	2.4053+0	5.8285-2	6.3268+0	5.5940-2	6.2119+0	5.9008-2	2.3824-6		1.8200-1	1.8199-1	1.4542-5
1.0353+0	2.4070+0	5.8245-2	6.3225+0	5.5800-2	6.2078+0	5.8880-2	3.2066-6		1.8218-1	1.8218-1	1.4508-5
1.0366+0	2.4087+0	5.8204-2	6.3180+0	5.5656-2	6.2036+0	5.8709-2	4.2834-6		1.8236-1	1.8234-1	1.4469-5
1.0382+0	2.4106+0	5.8156-2	6.3128+0	5.5489-2	6.1988+0	5.8533-2	5.7535-6		1.8256-1	1.8255-1	1.4425-5
1.0397+0</											

October 31, 1989
Atomic Weight 65.370

ENDL Evaluated
Photon Data

30-Zn
Density 7.133 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0704+ 0	2.4511- 0	5.7197- 2	6.2087+ 0	5.2211- 2	6.1013- 0	5.5069- 2	1.3961- 4		1.9686- 1	1.9685- 1	1.3572- 5
1.0762+ 0	2.4583+ 0	5.7029- 2	6.1905+ 0	5.1652- 2	6.0842+ 0	5.4478- 2	1.9294- 4		1.9763- 1	1.9762- 1	1.3426- 5
1.0806+ 0	2.4637+ 0	5.6903- 2	6.1768+ 0	5.1233- 2	6.0713+ 0	5.4036- 2	2.4055- 4		1.9821- 1	1.9820- 1	1.3317- 5
1.0871+ 0	2.4717+ 0	5.6719- 2	6.1568+ 0	5.0824- 2	6.0524+ 0	5.3392- 2	3.2464- 4		1.9908- 1	1.9906- 1	1.3158- 5
1.0937+ 0	2.4799+ 0	5.6533- 2	6.1368+ 0	5.0018- 2	6.0334+ 0	5.2750- 2	4.2834- 4		1.9995- 1	1.9994- 1	1.3000- 5
1.1026+ 0	2.4907+ 0	5.6286- 2	6.1098+ 0	4.9215- 2	6.0081+ 0	5.1904- 2	5.9111- 4		2.0113- 1	2.0112- 1	1.2792- 5
1.1107+ 0	2.5008+ 0	5.6084- 2	6.0858+ 0	4.8502- 2	5.9853+ 0	5.1151- 2	7.7092- 4		2.0220- 1	2.0219- 1	1.2606- 5
1.1206+ 0	2.5128+ 0	5.5797- 2	6.0568+ 0	4.7852- 2	5.9678+ 0	5.0252- 2	1.0313- 3		2.0351- 1	2.0350- 1	1.2385- 5
1.1333+ 0	2.5278+ 0	5.5481- 2	6.0202+ 0	4.6893- 2	5.9231+ 0	4.9134- 2	1.4339- 3		2.0518- 1	2.0517- 1	1.2109- 5
1.1475+ 0	2.5447+ 0	5.5093- 2	5.9803+ 0	4.5451- 2	5.8949+ 0	4.7827- 2	1.9798- 3		2.0705- 1	2.0704- 1	1.1812- 5
1.1582+ 0	2.5573+ 0	5.4821- 2	5.9506+ 0	4.4817- 2	5.8566+ 0	4.7047- 2	2.4604- 3		2.0848- 1	2.0845- 1	1.1595- 5
1.1741+ 0	2.5759+ 0	5.4425- 2	5.9078+ 0	4.3421- 2	5.8153+ 0	4.5783- 2	3.2884- 3		2.1055- 1	2.1054- 1	1.1283- 5
1.1801+ 0	2.5844+ 0	5.4037- 2	5.8657+ 0	4.2284- 2	5.7746+ 0	4.4573- 2	4.2633- 3		2.1265- 1	2.1264- 1	1.0985- 5
1.2051+ 0	2.6115+ 0	5.3683- 2	5.8273+ 0	4.1222- 2	5.7372+ 0	4.3588- 2	5.3067- 3		2.1463- 1	2.1462- 1	1.0742- 5
1.2275+ 0	2.6371+ 0	5.3170- 2	5.7718+ 0	3.9736- 2	5.6828+ 0	4.2177- 2	7.1022- 3		2.1757- 1	2.1756- 1	1.0394- 5
1.2856+ 0	2.8786+ 0	5.2337- 2	5.6812+ 0	3.7388- 2	5.5831+ 0	3.9828- 2	1.0788- 2		2.2258- 1	2.2257- 1	9.8401- 6
1.2948+ 0	2.7102+ 0	5.1729- 2	5.6152+ 0	3.5717- 2	5.5271+ 0	3.8315- 2	1.4061- 2		2.2643- 1	2.2642- 1	9.4427- 6
1.3318+ 0	2.7489+ 0	5.0989- 2	5.5359+ 0	3.3769- 2	5.4470+ 0	3.6424- 2	1.8726- 2		2.3128- 1	2.3128- 1	8.9766- 6
1.3828+ 0	2.7808+ 0	5.0419- 2	5.4730+ 0	3.2283- 2	5.3828+ 0	3.4855- 2	2.3014- 2		2.3534- 1	2.3533- 1	8.6145- 6
1.4117+ 0	2.8296+ 0	4.9545- 2	5.3781+ 0	3.0063- 2	5.2847+ 0	3.2785- 2	3.0510- 2		2.4181- 1	2.4180- 1	8.0823- 6
1.5000+ 0	2.9138+ 0	4.8114- 2	5.2228+ 0	2.6834- 2	5.1209+ 0	2.9400- 2	4.5860- 2		2.5352- 1	2.5351- 1	7.2458- 6
1.6172+ 0	3.0173+ 0	4.6463- 2	5.0435+ 0	2.2919- 2	4.9247+ 0	2.5890- 2	6.9989- 2		2.6928- 1	2.6927- 1	6.3805- 6
1.7188+ 0	3.0999+ 0	4.5225- 2	4.9091+ 0	2.0293- 2	4.7714+ 0	2.3357- 2	9.4030- 2		2.8319- 1	2.8318- 1	5.7822- 6
1.8923+ 0	3.2391+ 0	4.3282- 2	4.6982+ 0	1.6748- 2	4.5211+ 0	1.9853- 2	1.4052- 1		3.0528- 1	3.0525- 1	5.0987- 6
2.0440+ 0	3.3478+ 0	4.1878- 2	4.5459+ 0	1.4356- 2	4.3298+ 0	1.7460- 2	1.8420- 1		3.2520- 1	3.2519- 1	4.3030- 6
2.0858+ 0	3.3781+ 0	4.1501- 2	4.5049+ 0	1.3786- 2	4.2781+ 0	1.6934- 2	1.9607- 1	3.0115- 7	3.3036- 1	3.3036- 1	4.1732- 6
2.1140+ 0	3.3980+ 0	4.1258- 2	4.4785+ 0	1.3421- 2	4.2441+ 0	1.6593- 2	2.0436- 1	1.3578- 6	3.3389- 1	3.3388- 1	4.0893- 6
2.1195+ 0	3.4018+ 0	4.1211- 2	4.4735+ 0	1.3352- 2	4.2378+ 0	1.6528- 2	2.0601- 1	1.6902- 6	3.3458- 1	3.3458- 1	4.0733- 6
2.1279+ 0	3.4078+ 0	4.1141- 2	4.4659+ 0	1.3247- 2	4.2278+ 0	1.6430- 2	2.0854- 1	2.2922- 6	3.3565- 1	3.3564- 1	4.0460- 6
2.1363+ 0	3.4133+ 0	4.1072- 2	4.4584+ 0	1.3143- 2	4.2178+ 0	1.6333- 2	2.1107- 1	3.0115- 6	3.3670- 1	3.3670- 1	4.0251- 6
2.1470+ 0	3.4208+ 0	4.0985- 2	4.4489+ 0	1.3012- 2	4.2053+ 0	1.6209- 2	2.1437- 1	4.1289- 6	3.3807- 1	3.3807- 1	3.9947- 6
2.1835+ 0	3.4317+ 0	4.0853- 2	4.4345+ 0	1.2815- 2	4.1882+ 0	1.6022- 2	2.1949- 1	6.2785- 6	3.4018- 1	3.4018- 1	3.9487- 6
2.1845+ 0	3.4461+ 0	4.0882- 2	4.4180+ 0	1.2570- 2	4.1622+ 0	1.5780- 2	2.2538- 1	9.9487- 6	3.4281- 1	3.4281- 1	3.8914- 6
2.2018+ 0	3.4578+ 0	4.0544- 2	4.4011+ 0	1.2373- 2	4.1428+ 0	1.5603- 2	2.3027- 1	1.3784- 5	3.4500- 1	3.4499- 1	3.8453- 6
2.2148+ 0	3.4685+ 0	4.0443- 2	4.3801+ 0	1.2228- 2	4.1283+ 0	1.5465- 2	2.3401- 1	1.7149- 5	3.4685- 1	3.4684- 1	3.8112- 6
2.2342+ 0	3.4792+ 0	4.0295- 2	4.3740+ 0	1.2017- 2	4.1070+ 0	1.5282- 2	2.3865- 1	2.3069- 5	3.4912- 1	3.4911- 1	3.7813- 6
2.2537+ 0	3.4918+ 0	4.0149- 2	4.3582+ 0	1.1810- 2	4.0859+ 0	1.5083- 2	2.4541- 1	3.0115- 5	3.5182- 1	3.5182- 1	3.7122- 6
2.2815+ 0	3.5094+ 0	3.9948- 2	4.3384+ 0	1.1524- 2	4.0562+ 0	1.4786- 2	2.5378- 1	4.2181- 5	3.5523- 1	3.5522- 1	3.6439- 6
2.3070+ 0	3.5251+ 0	3.9770- 2	4.3170+ 0	1.1271- 2	4.0295+ 0	1.4539- 2	2.6181- 1	5.5404- 5	3.5858- 1	3.5858- 1	3.5832- 6
2.3382+ 0	3.5438+ 0	3.9560- 2	4.2942+ 0	1.0972- 2	3.9975+ 0	1.4247- 2	2.7139- 1	7.4498- 5	3.6270- 1	3.6269- 1	3.5111- 6
2.3774+ 0	3.5687+ 0	3.9308- 2	4.2687+ 0	1.0814- 2	3.9833+ 0	1.3893- 2	2.8379- 1	1.0317- 4	3.6784- 1	3.6784- 1	3.4240- 6
2.4102+ 0	3.5983+ 0	3.9091- 2	4.2433+ 0	1.0327- 2	3.9292+ 0	1.3608- 2	2.9310- 1	1.3121- 4	3.7223- 1	3.7222- 1	3.3537- 6
2.4468+ 0	3.6075+ 0	3.8881- 2	4.2184+ 0	1.0021- 2	3.8912+ 0	1.3302- 2	3.0389- 1	1.6691- 4	3.7707- 1	3.7706- 1	3.2782- 6
2.4859+ 0	3.6295+ 0	3.8628- 2	4.1829+ 0	9.7082- 3	3.8547+ 0	1.2987- 2	3.1524- 1	2.1015- 4	3.8230- 1	3.8230- 1	3.2005- 6
2.5584+ 0	3.6871+ 0	3.8230- 2	4.1499+ 0	9.1802- 3	3.7912+ 0	1.2448- 2	3.3871- 1	3.0115- 4	3.9194- 1	3.9194- 1	3.0879- 6
2.6804+ 0	3.7186+ 0	3.7701- 2	4.0924+ 0	8.4772- 3	3.7025+ 0	1.1720- 2	3.6922- 1	4.8422- 4	4.0652- 1	4.0652- 1	2.8894- 6
2.7453+ 0	3.7801+ 0	3.7285- 2	4.0472+ 0	7.9813- 3	3.6341+ 0	1.1178- 2	3.9040- 1	6.2132- 4	4.1832- 1	4.1831- 1	2.7544- 6
2.8090+ 0	3.7892+ 0	3.6998- 2	4.0181+ 0	7.6046- 3	3.5849+ 0	1.0785- 2	4.1208- 1	7.5245- 4	4.2737- 1	4.2737- 1	2.6605- 6
2.9045+ 0	3.8297+ 0	3.6607- 2	3.9738+ 0	7.1130- 3	3.5145+ 0	1.0283- 2	4.4084- 1	9.8933- 4	4.4130- 1	4.4130- 1	2.5283- 6
3.0399+ 0	3.8829+ 0	3.6108- 2	3.9188+ 0	6.4838- 3	3.4206+ 0	9.5959- 3	4.8152- 1	1.3138- 3	4.6152- 1	4.6152- 1	2.3849- 6
3.2344+ 0	3.9645+ 0	3.5382- 2	3.8385+ 0	5.7388- 3	3.2858+ 0	8.8088- 3	5.3825- 1	1.8987- 3	4.8838- 1	4.8838- 1	2.1704- 6
3.4375+ 0	4.0381+ 0	3.4735- 2	3.7705+ 0	5.0789- 3	3.1588+ 0	8.0947- 3	5.9808- 1	2.5986- 3	5.1815- 1	5.1814- 1	1.9949- 6
3.7847+ 0	4.1450+ 0	3.3822- 2	3.6714+ 0	4.1801- 3	2.9678+ 0	7.0853- 3	6.8849- 1	3.9874- 3	5.8988- 1	5.8985- 1	1.7482- 6
4.0000+ 0	4.1985+ 0	3.3407- 2	3.6283+ 0	3.7513- 3	2.8631+ 0	6.5630- 3	7.4800- 1	4.8400- 3	6.0433- 1	6.0433- 1	1.6174- 6
4.2500+ 0	4.2541+ 0	3.2956- 2	3.5772+ 0	3.3230- 3	2.7527+ 0	6.0628- 3	8.0900- 1	6.1045- 3	6.4398- 1	6.4398- 1	1.4942- 6
4.7500+ 0	4.3334+ 0	3.2352- 2	3.5118+ 0	2.6604- 3	2.5612+ 0	5.2421- 3	9.3416- 1	8.5406- 3	7.2987- 1	7.2987- 1	1.2919- 6
5.5135+ 0	4.4143+ 0	3.1759- 2	3.4474+ 0	1.9747- 3	2.3253+ 0	4.3351- 3	1.1033+ 0	1.2525- 2	8.8701- 1	8.8700- 1	1.0884- 6
6.3840+ 0	4.4717+ 0	3.1351- 2	3.4032+ 0	1.4822- 3	2.1017+ 0	3.8274- 3	1.2784+ 0	1.6967- 2	1.0256+ 0	1.0256+ 0	8.9377- 7
7.4833+ 0	4.4915+ 0	3.1213- 2	3.3882+ 0	1.0720- 3	1.8749+ 0	2.9815- 3	1.4865+ 0	2.2753- 2	1.2509+ 0	1.2509+ 0	7.3479- 7
9.0000+ 0	4.4582+ 0	3.1439- 2	3.4127+ 0	7.4118- 4	1.8482+ 0	2.3970- 3	1.7330+ 0	3.0320- 2	1.5831+ 0	1.5831+ 0	5.9074- 7
1.0000+ 1	4.4224+ 0	3.1701- 2	3.4411+ 0	6.0034- 4	1.5284+ 0	2.1220- 3	1.8750+ 0	3.4950- 2	1.8148+ 0	1.8148+ 0	5.2298- 7
1.3000+ 1	4.3026+ 0	3.2584- 2	3.5369+ 0	3.5524- 4	1.2556+ 0	1.5760- 3	2.2320+ 0	4.7390- 2	2.5482+ 0	2.5482+ 0	3.8840- 7
1.8000+ 1	4.0789+ 0	3.4370- 2	3.7309+ 0	1.8530- 4	9.8338- 1	1.1010- 3	2.6820+ 0	8.4240- 2	3.8033+ 0	3.8033+ 0	2.7134- 7
2.8000+ 1	3.7855+ 0	3.8937- 2	4.0095+ 0	8.8811- 5	7.3527- 1	7.4210- 4	3.1890+ 0	8.4360- 2	6.3015+ 0	6.3015+ 0	1.8289- 7
4.2170+ 1	3.4278+ 0	4.0899- 2	4.4398+ 0	3.3781- 5	5.0184- 1	4.4884- 4	3.8284+ 0	1.1109- 1	1.1708+ 1	1.1708+ 1	1.1012- 7
6.0000+ 1	3.1884+ 0	4.3957- 2	4.7715+ 0	1.6677- 5	3.7484- 1	3.1040- 4	4.2560+ 0	1.3030- 1	1.8185+ 1	1.8185+ 1	7.6497- 8
1.0000+ 2	2.9083+ 0	4.8189- 2	5.2308+ 0	6.0037- 6	2.4578- 1	1.8420- 4	4.8290+ 0	1.5590- 1	3.3705+ 1	3.3705+ 1	4.5385- 8
2.0000+ 2	2.8479+ 0	5.2948- 2	5.7472+ 0	1.5009- 6	1.3594- 1	9.1340- 5	5.4280+ 0	1.8520- 1	7.4821+ 1	7.4821+ 1	2.2511- 8
4.0000+ 2	2.4877+ 0	5.8355- 2	6.1174+ 0	3.7523- 7	7.4789- 2	4.5480- 5	5.8350+ 0	2.0750- 1	1.6005+ 2	1.6005+ 2	1.1208- 8
1.0000+ 3	2.3709+ 0	5.9132- 2	6.4187+ 0	6.0037- 8	3.3501- 2	1.8150- 5	6.1580+ 0	2.2720- 1	4.2102+ 2	4.2102+ 2	4.4730- 9
5.0000+ 3	2.2918+ 0	6.1171- 2	6.8401+ 0	2.4015- 9	7.9259- 3	3.6240- 6	6.3890+ 0	2.4320- 1	2.1809+ 3	2.1809+ 3	8.93



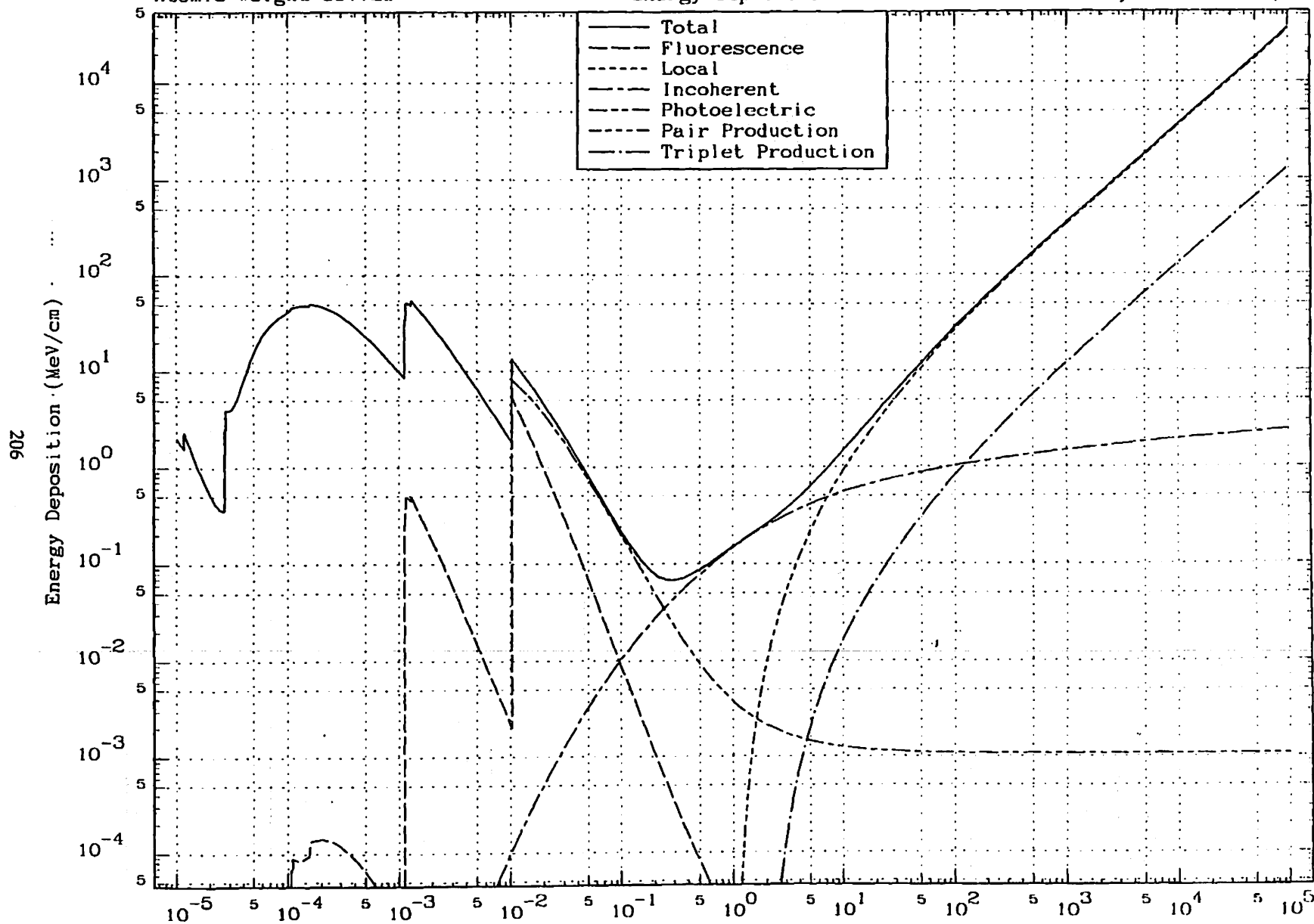
31-Ga

205

October 31, 1989
Atomic Weight 69.720

ENDL Evaluated
Energy Deposition

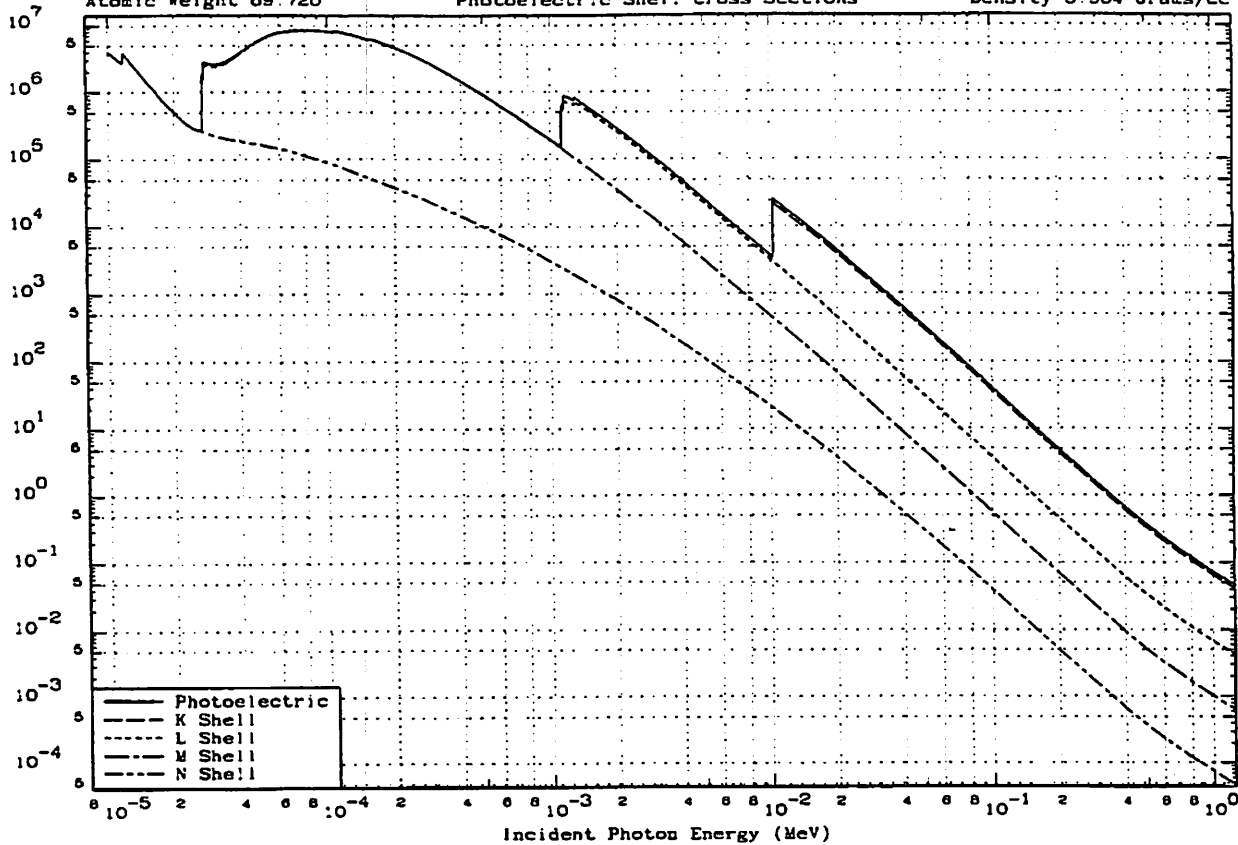
31-Ga
Density 5.904 Grams/cc



October 31, 1989
Atomic Weight 69.720

ENDL Evaluated
Photoelectric Shell Cross Sections

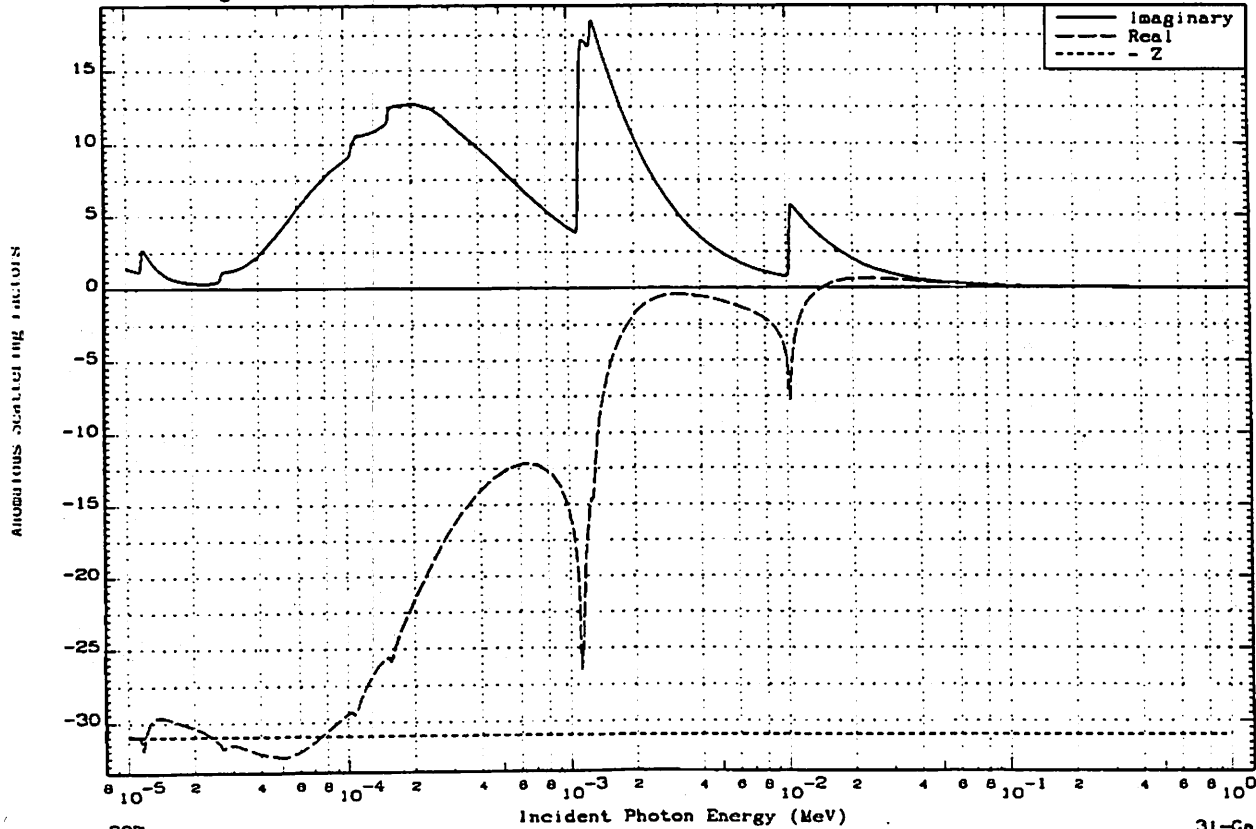
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Density 5.904 Grams/cc

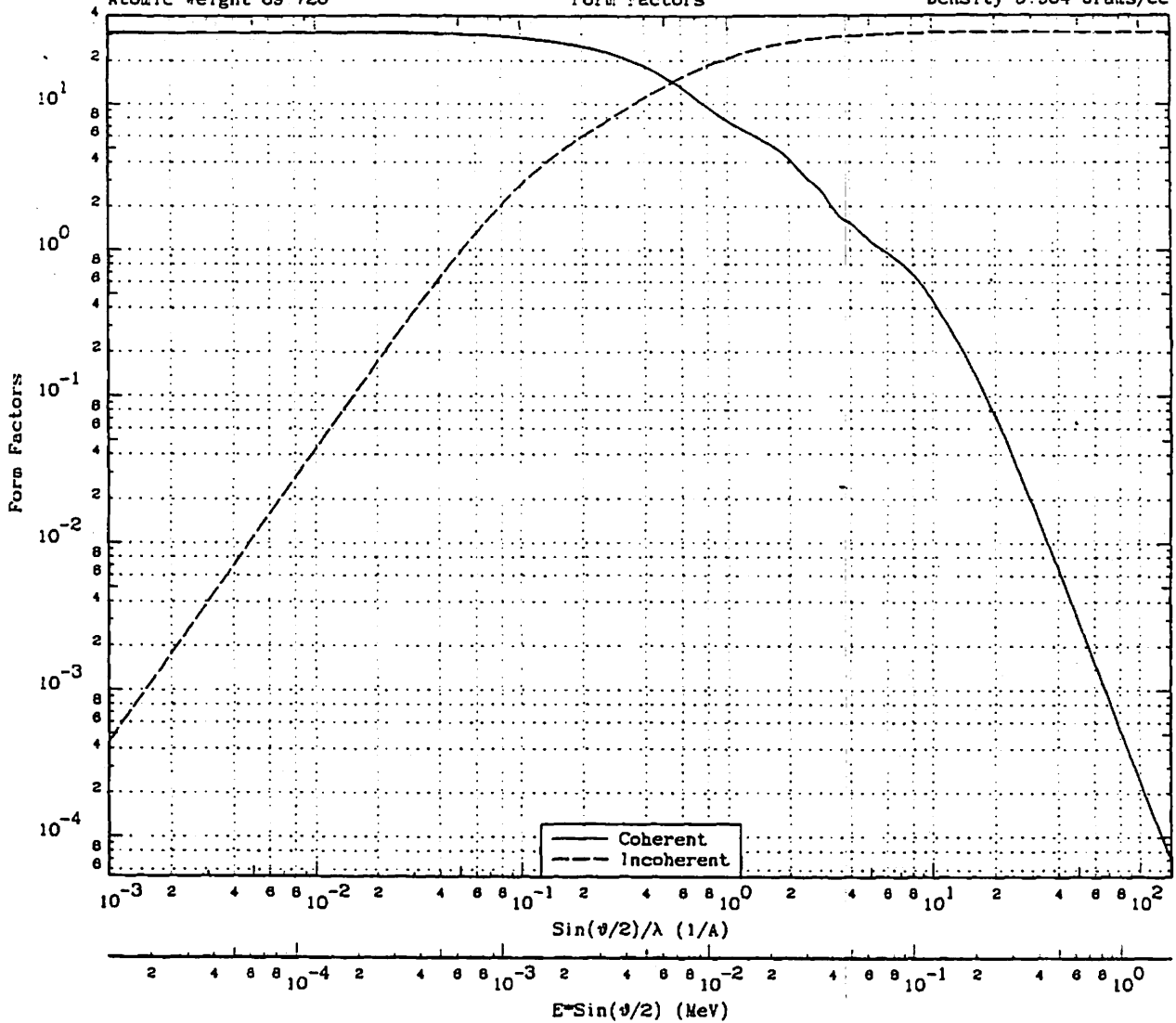


October 31, 1989
Atomic Weight 69.720

ENDL Evaluated
Anomalous Scattering Factors

31-Ga
Density 5.904 Grams/cc





$\frac{\sin(\phi/2)}{\lambda}$	$E = \sin(\phi/2)$	Coherent	Incoherent	$\frac{\sin(\phi/2)}{\lambda}$	$E = \sin(\phi/2)$	Coherent	Incoherent	$\frac{\sin(\phi/2)}{\lambda}$	$E = \sin(\phi/2)$	Coherent	Incoherent
1/Å	MeV			1/Å	MeV			1/Å	MeV		
0.0000+ 0	0.0000+ 0	3.1000+ 1	0.0000+ 0	7.0000- 1	8.8790- 3	1.1011+ 1	1.8947+ 1	1.5000+ 1	1.8598- 1	1.6889- 1	3.0985+ 1
1.0000- 3	1.2399- 5	3.1000+ 1	4.4000- 4	8.0000- 1	9.9188- 3	9.5351+ 0	1.8445+ 1	1.8770+ 1	2.3272- 1	8.7439- 2	3.0985+ 1
5.0000- 3	6.1993- 5	3.0979+ 1	1.1000- 2	9.0000- 1	1.1159- 2	8.4473+ 0	1.9734+ 1	2.0000+ 1	2.4797- 1	7.1690- 2	3.0998+ 1
1.0000- 2	1.2399- 4	3.0957+ 1	4.4000- 2	1.0000+ 0	1.2399- 2	7.8489+ 0	2.0831+ 1	2.8053+ 1	3.2302- 1	3.0135- 2	3.0999+ 1
1.5000- 2	1.8598- 4	3.0932+ 1	9.8200- 2	1.2500+ 0	1.5498- 2	6.3821+ 0	2.2907+ 1	3.4475+ 1	4.2744- 1	1.1409- 2	3.0999+ 1
2.0000- 2	2.4797- 4	3.0881+ 1	1.7270- 1	1.5000+ 0	1.8598- 2	5.5837+ 0	2.4370+ 1	5.0000+ 1	6.1993- 1	2.9958- 3	3.1000+ 1
2.5000- 2	3.0998- 4	3.0815+ 1	2.8830- 1	1.8154+ 0	2.2508- 2	4.7130+ 0	2.5752+ 1	6.0000+ 1	9.9188- 1	5.4266- 4	3.1000+ 1
3.0000- 2	3.7198- 4	3.0735+ 1	3.7730- 1	2.0000+ 0	2.4797- 2	4.1907+ 0	2.6400+ 1	1.0000+ 2	1.2399+ 0	2.4219- 4	3.1000+ 1
4.0000- 2	4.9594- 4	3.0539+ 1	6.4440- 1	2.5000+ 0	3.0998- 2	3.0276+ 0	2.7710+ 1	1.7117+ 2	2.1223+ 0	3.6335- 5	3.1000+ 1
5.0000- 2	6.1993- 4	3.0308+ 1	9.5900- 1	2.9297+ 0	3.6324- 2	2.4797+ 0	2.8439+ 1	2.7479+ 2	3.4070+ 0	7.2040- 6	3.1000+ 1
7.0000- 2	8.8790- 4	2.9706+ 1	1.8724+ 0	3.0000+ 0	3.7198- 2	2.3774+ 0	2.8536+ 1	4.7714+ 2	5.9158+ 0	1.1507- 6	3.1000+ 1
9.0000- 2	1.1159- 3	2.9016+ 1	2.4218+ 0	3.4590+ 0	4.2888- 2	1.7598+ 0	2.9030+ 1	1.0000+ 3	1.2399+ 1	1.0542- 7	3.1000+ 1
1.0000- 1	1.2399- 3	2.8657+ 1	2.7910+ 0	3.5000+ 0	4.3398- 2	1.7272+ 0	2.9067+ 1	1.7744+ 3	2.2000+ 1	1.7226- 8	3.1000+ 1
1.2500- 1	1.5498- 3	2.7703+ 1	3.6726+ 0	3.7129+ 0	4.6034- 2	1.6216+ 0	2.8237+ 1	3.7572+ 3	4.6584+ 1	1.6838- 9	3.1000+ 1
1.5000- 1	1.8598- 3	2.6740+ 1	4.4830+ 0	4.0000+ 0	4.9594- 2	1.5348+ 0	2.9436+ 1	6.6119+ 3	8.1978+ 1	3.0068- 10	3.1000+ 1
1.7500- 1	2.1697- 3	2.5819+ 1	5.2326+ 0	5.0000+ 0	6.1993- 2	1.1500+ 0	2.9947+ 1	1.4899+ 4	1.8473+ 2	2.6231- 11	3.1000+ 1
2.0000- 1	2.4797- 3	2.4807+ 1	5.9390+ 0	6.0000+ 0	7.4391- 2	9.7330- 1	3.0298+ 1	4.2548+ 4	5.2875+ 2	1.1748- 12	3.1000+ 1
2.5000- 1	3.0998- 3	2.3157+ 1	7.2874+ 0	7.0000+ 0	8.6790- 2	8.1820- 1	3.0541+ 1	2.0651+ 5	2.5804+ 3	1.1916- 14	3.1000+ 1
3.0000- 1	3.7198- 3	2.1473+ 1	8.5990+ 0	8.0000+ 0	9.9188- 2	6.9690- 1	3.0705+ 1	1.0000+ 6	1.2399+ 4	1.2343- 16	3.1000+ 1
4.0000- 1	4.9594- 3	1.8248+ 1	1.1082+ 1	8.8276+ 0	1.0945- 1	5.8982- 1	3.0794+ 1	5.8234+ 8	8.9722+ 4	7.9730- 19	3.1000+ 1
5.0000- 1	6.1993- 3	1.5374+ 1	1.3290+ 1	1.0000+ 1	1.2399- 1	4.5420- 1	3.0879+ 1	7.4889+ 7	9.2975+ 5	3.8418- 22	3.1000+ 1
6.0000- 1	7.4391- 3	1.2961+ 1	1.5233+ 1	1.2488+ 1	1.5483- 1	2.7158- 1	3.0958+ 1	1.0000+ 9	1.2399+ 7	1.7854- 25	3.1000+ 1

October 31, 1989
Atomic Weight 69.720

ENDL Evaluated
Photon Data

31-Ga
Density 5.904 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cc)		
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	4.8966-6	3.4577-4	4.0030+6	1.3794+0	9.5209-5	4.0030+6			2.0414+0	2.0414+0	
1.1248-5	6.6912-6	2.5313+4	2.9306+6	9.5489-1	1.2045-4	2.8306+6			1.6810+0	1.6810+0	
1.1444-5	7.0044-6	2.4181+4	2.7996+6	9.7573-1	1.2488-4	2.7896+6			1.6338+0	1.6338+0	
1.1489-5	7.0788-6	2.3827+4	2.7701+6	1.0623+0	1.2567-4	2.7701+6			1.6230+0	1.6230+0	
1.1524-5	7.1352-6	2.3738+4	2.7480+6	1.1898+0	1.2844-4	2.7480+6			1.6150+0	1.6150+0	
1.1552-5	7.1822-6	2.3583+4	2.7302+6	1.3806+0	1.2706-4	2.7302+6			1.6084+0	1.6084+0	
1.1581-5	7.2292-6	2.3430+4	2.7125+6	1.6368+0	1.2769-4	2.7125+6			1.6019+0	1.6019+0	
1.1647-5	7.3389-6	2.3079+4	2.6720+6	2.5428+0	1.2914-4	2.6720+6			1.5870+0	1.5870+0	
1.1690-5	7.4117-6	2.2853+4	2.6457+6	3.2080+0	1.3011-4	2.6457+6			1.5772+0	1.5772+0	
1.1690-5	4.9984-6	3.3900+4	3.9247+6	3.2080+0	1.3011-4	3.8247+6			2.3397+0	2.3397+0	
1.1726-5	5.0606-6	3.3470+4	3.8749+6	3.8790+0	1.3090-4	3.8749+6			2.3171+0	2.3171+0	
1.1752-5	5.1081-6	3.3158+4	3.8388+6	4.2481+0	1.3149-4	3.8388+6			2.3007+0	2.3007+0	
1.1797-5	5.1899-6	3.2638+4	3.7783+6	4.7109+0	1.3250-4	3.7783+6			2.2730+0	2.2730+0	
1.1831-5	5.2532-6	3.2243+4	3.7328+6	4.8998+0	1.3327-4	3.7328+6			2.2522+0	2.2522+0	
1.1859-5	5.3053-6	3.1826+4	3.6962+6	4.9671+0	1.3390-4	3.6962+6			2.2354+0	2.2354+0	
1.1945-5	5.4678-6	3.0977+4	3.5863+6	4.8991+0	1.3585-4	3.5863+6			2.1847+0	2.1847+0	
1.2426-5	6.4425-6	2.8290+4	3.0437+6	4.0255+0	1.4701-4	3.0437+6			1.8288+0	1.8288+0	
1.3938-5	1.0291-5	1.8458+4	1.9054+6	2.4429+0	1.8494-4	1.9054+6			1.3543+0	1.3543+0	
1.5548-5	1.6986-5	1.0791+4	1.2493+6	1.4353+0	2.3017-4	1.2493+6			9.8064-1	9.8064-1	
1.7978-5	2.6585-5	6.3688+3	7.3733+6	6.7818-1	3.0762-4	7.3733+5			6.7582-1	6.7582-1	
1.9329-5	3.3853-5	5.0033+3	5.7824+5	4.5236-1	3.5565-4	5.7824+5			5.7098-1	5.7098-1	
2.0548-5	4.1555-5	4.0760+3	4.7189+5	3.0609-1	4.0185-4	4.7189+5			4.9443-1	4.9443-1	
2.1627-5	4.9200-5	3.4426+3	3.9858+5	2.0818-1	4.4523-4	3.9858+5			4.3958-1	4.3958-1	
2.2288-5	5.3983-5	3.1376+3	3.6325+5	1.4583-1	4.7287-4	3.6325+5			4.1287-1	4.1287-1	
2.3053-5	5.8215-5	2.9095+3	3.3684+5	9.1086-2	5.0587-4	3.3684+5			3.9599-1	3.9599-1	
2.3514-5	6.0856-5	2.7832+3	3.2222+5	7.8248-2	5.2834-4	3.2222+5			3.8639-1	3.8639-1	
2.4198-5	6.4877-5	2.8108+3	3.0225+5	6.0870-2	5.5731-4	3.0225+5			3.7296-1	3.7296-1	
2.4734-5	6.8144-5	2.4856+3	2.8776+5	5.1295-1	5.8234-4	2.8776+5			3.6298-1	3.6298-1	
2.6278-5	7.2852-5	2.3314+3	2.6991+5	2.8575-1	6.5734-4	2.6991+5			3.6170-1	3.6170-1	
2.6438-5	7.3141-5	2.3157+3	2.6810+5	3.5097-1	6.8536-4	2.6810+5			3.6147-1	3.6147-1	
2.6831-5	7.3731-5	2.2872+3	2.6596+5	4.8881-1	6.7508-4	2.6596+5			3.6119-1	3.6119-1	
2.6728-5	7.4029-5	2.2880+3	2.6489+5	5.8112-1	6.8003-4	2.6489+5			3.6105-1	3.6105-1	
2.6870-5	7.4529-5	2.2728+3	2.6311+5	6.9603-1	6.8728-4	2.6311+5			3.6053-1	3.6053-1	
5 2.6870-5	1.0614-5	1.5958+4	1.8475+6	6.9603-1	6.8728-4	1.8475+6			2.5318+0	2.5318+0	
2.7098-5	1.0758-5	1.5748+4	1.8232+6	8.2822-1	6.8886-4	1.8232+6			2.5194+0	2.5194+0	
2.7370-5	1.0928-5	1.5502+4	1.7848+6	1.0880+0	7.1307-4	1.7848+6			2.5051+0	2.5051+0	
4 2.7370-5	6.8213-6	2.4472+4	2.8332+6	1.0680+0	7.1307-4	2.8332+6			3.8545+0	3.8545+0	6.9902-6
2.7585-5	7.0021-6	2.4180+4	2.8005+6	1.1821+0	7.2434-4	2.8005+6			3.8396+0	3.8396+0	6.8158-6
2.7685-5	7.0395-6	2.4061+4	2.7856+6	1.1866+0	7.2858-4	2.7856+6			3.8328+0	3.8328+0	6.8119-6
3.0141-5	7.6131-6	2.2248+4	2.5757+6	1.1959+0	8.8472-4	2.5757+6			3.8591+0	3.8591+0	6.8233-6
3.2237-5	7.4571-6	2.2714+4	2.6296+6	1.5278+0	9.8920-4	2.6296+6			4.3230+0	4.3230+0	6.3780-6
3.4737-5	6.8176-6	2.4844+4	2.8763+6	2.1249+0	1.1485-3	2.8763+6			5.0951+0	5.0951+0	7.0060-6
4.0000-5	5.1071-6	3.3165+4	3.8396+6	4.2293+0	1.5229-3	3.8396+6			7.8323+0	7.8323+0	9.5197-6
4.7287-5	3.5288-6	4.8030+4	5.5606+6	6.7680+0	2.1282-3	5.5606+6			1.3409+1	1.3409+1	1.4137-5
5.1528-5	3.0377-6	5.5758+4	6.4552+6	1.2740+1	2.5288-3	6.4552+6			1.6982+1	1.6982+1	1.6587-5
5.4772-5	2.7745-6	6.1048+4	7.0677+6	1.5485+1	2.8552-3	7.0677+6			1.8741+1	1.8741+1	1.8281-5
6.0000-5	2.5288-6	6.7031+4	7.7604+6	2.0719+1	3.4282-3	7.7604+6			2.3745+1	2.3745+1	2.0218-5
7.0515-5	2.3302-6	7.2888+4	8.4153+6	3.0244+1	4.7322-3	8.4152+6			3.0281+1	3.0281+1	2.2122-5
8.5341-5	2.3054-6	7.3488+4	8.5058+6	4.3258+1	6.8309-3	8.5058+6			3.7017+1	3.7017+1	2.2517-5
1.0000-4	2.4074-6	7.0357+4	8.1454+6	5.3738-1	9.5182-3	8.1454+6			4.1538+1	4.1538+1	2.1657-5
1.0584-4	2.4587-6	6.8890+4	7.9756+6	5.8243-1	1.0874-2	7.9756+6			4.3090+1	4.3090+1	2.1237-5
1.0728-4	2.4720-6	6.8518+4	7.8325+6	6.3786+1	1.0943-2	7.8324+6			4.3397+1	4.3397+1	2.1129-5
3 1.0728-4	2.3651-6	7.1615+4	8.2911+6	6.3786+1	1.0943-2	8.2910+6			4.5359+1	4.5359+1	6.9832-5
1.0872-4	2.3915-6	7.0823+4	8.1994+6	6.9338+1	1.1236-2	8.1993+6			4.5458+1	4.5458+1	6.8472-5
1.1101-4	2.4337-6	6.9586+4	8.0573+6	7.3824+1	1.1712-2	8.0573+6			4.5813+1	4.5813+1	6.8388-5
2 1.1101-4	2.3889-6	7.0682+4	8.2155+6	7.3824+1	1.1712-2	8.2154+6			4.8509+1	4.8509+1	6.8932-5
1.1323-4	2.4283-6	6.9810+4	8.0821+6	7.7892+1	1.2182-2	8.0820+6			4.8888+1	4.8888+1	6.7836-5
1.3066-4	2.7082-6	6.2543+4	7.2408+6	8.8958+1	1.6193-2	7.2407+6			4.8248+1	4.8248+1	6.3352-5
1.5314-4	3.1798-6	5.3286+4	6.1667+6	1.0468+2	2.2201-2	6.1666+6			4.8159+1	4.8159+1	6.3280-5
1.5597-4	3.2359-6	5.2343+4	6.0800+6	1.0481+2	2.3022-2	6.0598+6			4.8198+1	4.8198+1	6.4940-5
1.5775-4	3.2713-6	5.1777+4	5.9944+6	1.1152+2	2.3549-2	5.9943+6			4.8222+1	4.8222+1	6.8002-5
1.5775-4	3.1335-6	5.4053+4	6.2579+6	1.1152+2	2.3549-2	6.2578+6			5.0342+1	5.0342+1	1.3221-4
1.5944-4	3.1843-6	5.3527+4	6.1970+6	1.2120+2	2.4052-2	6.1989+6			5.0385+1	5.0385+1	1.3304-4
1.6090-4	3.1910-6	5.3078+4	6.1451+6	1.2571+2	2.4493-2	6.1450+6			5.0422+1	5.0422+1	1.3375-4
1.6981-4	3.3998-6	4.8820+4	5.7878+6	1.3738+2	2.7199-2	5.7878+6			4.9888+1	4.9888+1	1.3689-4
2.0867-4	4.3429-6	3.9001+4	4.5152+6	1.7262+2	4.0286-2	4.5151+6			4.7586+1	4.7586+1	1.4201-4
2.5768-4	6.0820-6	2.7941+4	3.2348+6	2.0672+2	6.2106-2	3.2348+6			4.2506+1	4.2506+1	1.3245-4
3.0000-4	7.8279-6	2.1838+4	2.5050+6	2.2485+2	6.3558-2	2.5048+6			3.8321+1	3.8321+1	1.1805-4
4.0000-4	1.3485-5	1.2578+4	1.4583+6	2.5182+2	1.4591-1	1.4581+6			2.9702+1	2.9702+1	8.7901-5
5.0000-4	2.1253-5	7.9894+3	9.2284+5	2.6233+2	2.2188-1	9.2238+5			2.3519+1	2.3519+1	6.4877-5
6.3262-4	3.5398-5	4.7849+3	5.5397+5	2.5820+2	3.4252-1	5.5370+5			1.7883+1	1.7883+1	4.4524-5
7.6094-4	5.3457-5	3.1885+3	3.6882+5	2.3791+2	4.7608-1	3.6859+5			1.4225+1	1.4225+1	3.2253-5
8.3794-4	6.6547-5	2.5452+3	2.9467+5	2.2189+2	5.5908-1	2.9444+5			1.2582+1	1.2582+1	2.6988-5
9.0588-4	7.9855-5	2.1210+3	2.4558+5	1.9924+2	6.3685-1	2.4538+5			1.1335+1	1.1335+1	2.3189-5
9.7972-4	9.5921-5	1.7858+3	2.0443+5	1.6842+2	7.2549-1	2.0427+5			1.0206+1	1.0206+1	1.9911-5
1.0000-3	1.0063-4	1.8831+3	1.9488+5	1.5300+2	7.9089-1	1.9471+5			9.8294+0	9.8294+0	1.9133-5
1.0282-3	1.0739-4	1.5772+3	1.8259+5	1.3848+2	7.8341-1	1.8246+5			9.5671+0	9.5671+0	1.8087-5
1.0504-3	1.1290-4	1.5003+3	1.7369+5	1.1903+2	8.0651-1	1.7357+5			9.2878+0	9.2878+0	1.7322-5
1.0810-3	1.2075-4	1.4027+3	1.6239+5	8.5787+1	8.4577-1	1.6231+5			8.9477+0	8.9477+0	1.6345-5
1.0957-3	1.2483-4	1.3590+3	1.5734+5	8.3443+1	8.6384-1	1.5728+5			8.7880+0	8.7880+0	1.5808-5
1.1015-3	1.2820-4	1.3421+3	1.5538+5	5.2874+1	8.7073-1	1.5533+5			8.7258+0	8.7258+0	1.5735-5
1.1087-3	1.2812-4	1.3220+3	1.5305+5	3.8771+1	8.7838-1	1.5301+5			8.6509+0	8.6509+0	1.5532-5
1.1112-3	1.2882-4	1.3148+3	1.5222+5	3.6664+1	8.8251-1	1.5218+5			8.6241+0	8.6241+0	1.5459-5
1.1135-3	1.2943-4	1.3088+3	1.5151+5	3.5369+1	8.8524-1	1.5147+5			8.6009+0	8.6009+0	1.5396-5
1.1157-3	1.3004-4	1.3025+3	1.5078+5	3.5839+1	8.8788-1	1.5078+5			8.5778+0	8.5778+0	1.5334-5
1.1178-3	1.3081-4	1.2968+3	1.5013+5	3.8109+1	8.9056-1	1.5009+5			8.5561+0	8.5561+0	1.5275-5

October 31, 1989
Atomic Weight 69.720

ENDL Evaluated
Photon Data

31-Ga
Density 5.904 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /cm ³ /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
L3 1.1220-3	1.3174-4	1.2857+3	1.4884-5	4.8561+1	8.9565-1	1.4880-5			8.5138-0	8.5137-0	1.5161-5
1.1220-3	3.6573-5	4.6312+3	5.3617-5	4.8561+1	8.9565-1	5.3612-5			3.0676-1	3.0424-1	2.5202-1
1.1300-3	3.3612-5	5.0391+3	5.8339-5	7.9657-1	9.0546-1	5.8331-5			3.3614-1	3.3330-1	2.8430-1
1.1336-3	3.2320-5	5.2406+3	6.0672-5	9.5803+1	9.0989-1	6.0663-5			3.5069-1	3.4789-1	3.0006-1
1.1374-3	3.1032-5	5.4582+3	6.3191-5	1.1271+2	9.1454-1	6.3180-5			3.6846-1	3.6328-1	3.1733-1
1.1453-3	2.8416-5	5.7560+3	6.6662-5	1.4499+2	9.2430-1	6.6645-5			3.8925-1	3.8584-1	3.4146-1
1.1504-3	2.8255-5	5.7896+3	6.7028-5	1.7054+2	9.3085-1	6.7011-5			3.9313-1	3.8988-1	3.4482-1
L2 1.1504-3	2.2381-5	7.5678+3	8.7615-5	1.7054+2	9.3085-1	8.7598-5			5.1390-1	5.0900-1	4.9049-1
1.1568-3	2.2293-5	7.5977+3	8.7961-5	2.0527+2	9.3854-1	8.7940-5			5.1876-1	5.1382-1	4.9403-1
1.1645-3	2.2480-5	7.5345+3	8.7229-5	2.3519+2	9.4820-1	8.7205-5			5.1787-1	5.1296-1	4.9082-1
1.1756-3	2.2743-5	7.4473+3	8.6219-5	2.6184+2	9.6205-1	8.6193-5			5.1672-1	5.1186-1	4.8643-1
1.1859-3	2.2987-5	7.3683+3	8.5305-5	2.7746+2	9.7489-1	8.5277-5			5.1567-1	5.1084-1	4.8245-1
1.2184-3	2.3722-5	7.1401+3	8.2663-5	3.1109+2	1.0138+0	8.2632-5			5.1258-1	5.0787-1	4.7088-1
1.2413-3	2.4491-5	6.9159+3	8.0068-5	3.2990+2	1.0452+0	8.0035-5			5.0664-1	5.0208+0	4.5781-1
1.2770-3	2.5818-5	6.5609+3	7.5858-5	3.4009+2	1.0888+0	7.5824-5			4.9477-1	4.9041+0	4.3590-1
L1 1.2907-3	2.6374-5	6.4220+3	7.4349-5	3.6259+2	1.1042+0	7.4313-5			4.8914-1	4.8487+0	4.2686-1
1.2907-3	2.3277-5	7.2765+3	8.4243-5	3.6259+2	1.1042+0	8.4206-5			5.5426-1	5.4932+0	4.9367-1
1.3047-3	2.3829-5	7.1083+3	8.2295-5	4.0439+2	1.1211+0	8.2254-5			5.4728-1	5.4246+0	4.8241-1
1.3184-3	2.4438-5	6.9310+3	8.0242-5	4.3221+2	1.1377+0	8.0199-5			5.3921-1	5.3450+0	4.7038-1
1.3518-3	2.5984-5	6.5236+3	7.5526-5	4.6307+2	1.1785+0	7.5479-5			5.2034-1	5.1591+0	4.4268-1
1.4212-3	2.9305-5	5.7798+3	6.6914-5	4.9783+2	1.2645+0	6.6864-5			4.8460-1	4.8095+0	3.9215-1
1.5058-3	3.8784-5	4.3881+3	5.0547-5	5.3502+2	1.4756+0	5.0493-5			4.1085-1	4.0788+0	2.9638-1
2.0000-3	6.7348-5	2.5150+3	2.9117-5	5.4328+2	1.9509+0	2.8083-5			2.9842-1	2.9471+0	1.7089-1
2.5888-3	1.3085-4	1.2064+3	1.5009-5	5.0528+2	2.5991+0	1.4859-5			1.9748-1	1.9560+0	8.6020-2
3.3410-3	2.5539-4	6.6321+2	7.6781-4	4.4645-2	3.3431+0	7.6331+4			1.3005-1	1.2960+0	4.4850-2
4.4721-3	5.5586-4	3.0471+2	3.5277-4	3.8482-2	4.4001+0	3.4908+4			7.9813-0	7.9408+0	2.0503-2
5.8515-3	1.1518-3	1.4706+2	1.7025-4	2.8307-2	5.6030+0	1.6737+4			4.9942+0	4.9844+0	8.8128-3
7.3353-3	2.356-3	7.8311+1	9.1821-3	2.1354-2	6.7363+0	8.9818+3			3.3524+0	3.3471+0	5.2501-3
8.1789-3	2.8855-3	5.8698+1	6.7957-3	1.7980+2	7.3183+0	6.8086+3			2.7655+0	2.7526+0	3.6874-3
8.9455-3	3.7058-3	4.5705+1	5.2914-3	1.5007+2	7.8112+0	5.1335-3			2.3419+0	2.3389+0	3.0030-3
9.4400-3	4.3110-3	3.8289+1	4.5488-3	1.2948+2	8.1231+0	4.4111-3			2.1236+0	2.1210+0	2.5798-3
9.6888-3	4.6154-3	3.8698+1	4.2486-3	1.1845+2	8.2664+0	4.4219-3			2.0327+0	2.0303+0	2.4104-3
9.8402-3	4.9973-3	3.3894+1	3.8240-3	1.0189+2	8.4340+0	3.8138-3			1.9332+0	1.9310+0	2.2289-3
1.0000-2	5.0867-3	3.3288+1	3.8550-3	9.6918+1	8.4709+0	3.7498+3			1.9123+0	1.9101+0	2.1924-3
K 1.0096-2	5.2335-3	3.2364+1	3.7489-3	8.7846+1	8.5214+0	3.6507+3			1.8788-0	1.8776+0	2.1345-3
1.0180-2	5.3698-3	3.1542+1	3.6517-3	7.5731+1	8.5653+0	3.5674+3			1.8521-0	1.8501+0	2.0858-3
1.0289-2	5.5124-3	3.0727+1	3.5573-3	6.3977+1	8.6101+0	3.4847+3			1.8245-0	1.8224+0	2.0374-3
1.0289-2	5.5489-3	3.0538+1	3.5352-3	6.2875+1	8.6217+0	3.4637+3			1.8174-0	1.8154+0	2.0251-3
1.0331-2	5.6065-3	3.0211+1	3.4978-3	6.4856+1	8.6438+0	3.4241+3			1.8041-0	1.8021+0	2.0019-3
1.0331-2	7.6231-4	2.2219+2	2.5723-4	6.4856+1	8.6438+0	2.5650+4			1.3514-1	8.0985+0	5.4151+0
1.0370-2	7.8985-4	2.2007+2	2.5478-4	7.0709+1	8.6841+0	2.5399+4			1.3432-1	8.0694+0	5.3626+0
1.0444-2	7.8351-4	2.1818+2	2.5028-4	6.7482+1	8.7028+0	2.4931+4			1.3278-1	8.0128+0	5.2852+0
1.0480-2	7.9219-4	2.1381+2	2.4753-4	6.9805+1	8.7283+0	2.4648+4			1.3183-1	7.9770+0	5.2082+0
1.0534-2	8.0057-4	2.1157+2	2.4494-4	1.0412+2	8.7489+0	2.4381+4			1.3094-1	7.9433+0	5.1507+0
1.0598-2	8.1307-4	2.0832+2	2.4117-4	1.1081+2	8.7819+0	2.3998+4			1.2985-1	7.8944+0	5.0709+0
1.0719-2	8.3702-4	2.0239+2	2.3427-4	1.1859+2	8.8439+0	2.3300+4			1.2730-1	7.8042+0	4.9255+0
1.1009-2	8.9890-4	1.8891+2	2.1871-4	1.2879+2	8.9151+0	2.1733+4			1.2184-1	7.5954+0	4.5989+0
1.1397-2	8.8086-4	1.7273+2	1.9997-4	1.3453+2	9.1870+0	1.9853+4			1.1539-1	7.3325+0	4.2067+0
1.2193-2	1.1675-3	1.4508-2	1.6787-4	1.3857+2	9.5801+0	1.6650+4			1.0321-1	6.7851+0	3.5364+0
1.3981-2	1.6587-3	1.0224+2	1.1637-4	1.2604+2	1.0360+1	1.1700+4			8.3042-0	5.8074+0	2.4968+0
1.7154-2	2.8489-3	5.9496+1	6.8880-3	1.0288+2	1.1470+1	6.7736-3			5.9257+0	4.4726+0	1.4531+0
2.2585-2	8.0587-3	2.7852+1	3.2360-3	7.2525+1	1.2707+1	3.1508-3			3.6214+0	2.9422+0	6.7918-1
3.0697-2	1.4118-2	1.1997+1	1.3890-3	4.5917+1	1.3834+1	1.3282-3			2.0812+0	1.7935+0	2.8771-1
4.3502-2	3.7440-2	4.5240+0	5.2370-2	2.5720+1	1.4568+1	4.8347-2			1.0744+0	6.6948-1	1.0496-1
6.9305-2	1.3308-1	1.2728+0	1.4735-2	1.1363+1	1.4898+1	1.2129-2			4.3418-1	4.0779-1	2.8385-2
8.9689-2	2.5239-1	6.7108-1	7.7883-1	7.1574+0	1.4375+1	5.6160-1			2.8530-1	2.5307-1	1.2224-2
1.0000-1	3.2418-1	5.2247-1	6.0488-1	5.8570+0	1.4223+1	4.0408-1			2.1853-1	2.0770-1	8.7883-3
1.2247-1	4.8542-1	3.4189-1	3.9581+1	4.0183+0	1.3897+1	2.1867+1			1.5082-1	1.4586-1	4.7825-3
1.5125-1	7.1564-1	2.3671-1	2.7406+1	2.6887+0	1.3171+1	1.1545+1			1.0814-1	1.0582-1	2.5148-3
1.8382-1	9.4340-1	1.7954-1	2.0786+1	1.8513+0	1.2518+1	4.6187+0			8.4719-2	8.3321-2	1.3981-3
2.1384-1	1.1224+0	1.5091-1	1.7471+1	1.3780+0	1.2024+1	4.0688+0			7.4448-2	7.3581-2	8.6848-4
2.4885-1	1.2989+0	1.3031-1	1.5087+1	1.0273+0	1.1450+1	2.6088+0			6.9063-2	6.8495-2	5.6847-4
2.9034-1	1.4743+0	1.1488-1	1.3300+1	7.5884-1	1.0889+1	1.8532+0			6.7728-2	6.7388-2	3.6011-4
3.8891-1	1.7349+0	9.7827-2	1.1303+1	4.7373-1	9.8895+0	8.3939-1			7.2218-2	7.2033-2	1.8285-4
4.7534-1	2.0032+0	8.4555-2	9.7892+0	2.8703-1	9.0777+0	4.2445-1			8.4317-2	8.4224-2	9.2474-5
5.8414-1	2.2414+0	7.5589-2	8.7487+0	1.9089-1	8.3080+0	2.5004-1			9.7519-2	9.7485-2	5.4478-5
7.1825-1	2.4851+0	6.8158-2	7.8908+0	1.2712-1	7.8108+0	1.5291-1			1.1494-1	1.1491-1	3.3313-5
1.0000+0	2.8424+0	5.7585-2	6.8845+0	6.5381-2	6.5250+0	7.4089-2			1.5053-1	1.5051-1	1.8144-5
1.0220+0	2.8758+0	5.8917-2	6.5895+0	6.2589-2	6.4566+0	7.0370-2			1.5310-1	1.5308-1	1.5337-5
1.0251+0	2.8908+0	5.8822-2	6.5785+0	6.2210-2	6.4483+0	6.8943-2	4.6145-8		1.5343-1	1.5341-1	1.5244-5
1.0287+0	2.9089+0	5.8712-2	6.5657+0	6.1773-2	6.4345+0	6.8451-2	4.6145-7		1.5382-1	1.5380-1	1.5137-5
1.0310+0	2.9902+0	5.8644-2	6.5579+0	6.1504-2	6.4272+0	6.8148-2	1.0867-8		1.5406-1	1.5404-1	1.5071-5
1.0320+0	2.9918+0	5.8614-2	6.5544+0	6.1388-2	6.4240+0	6.8015-2	1.4989-8		1.5417-1	1.5415-1	1.5042-5
1.0332+0	2.9937+0	5.8578-2	6.5502+0	6.1244-2	6.4201+0	6.8855-2	2.0829-8		1.5429-1	1.5428-1	1.5007-5
1.0340+0	2.9950+0	5.8554-2	6.5474+0	6.1149-2	6.4175+0	6.8748-2	2.5570-8		1.5438-1	1.5437-1	1.4984-5
1.0353+0	2.9970+0	5.8515-2	6.5429+0	6.0996-2	6.4133+0	6.8576-2	3.4707-8		1.5452-1	1.5450-1	1.4948-5
1.036											

October 31, 1989
Atomic Weight 69.720

ENDL Evaluated
Photon Data

31-Ga
Density 5.904 Grams/cc

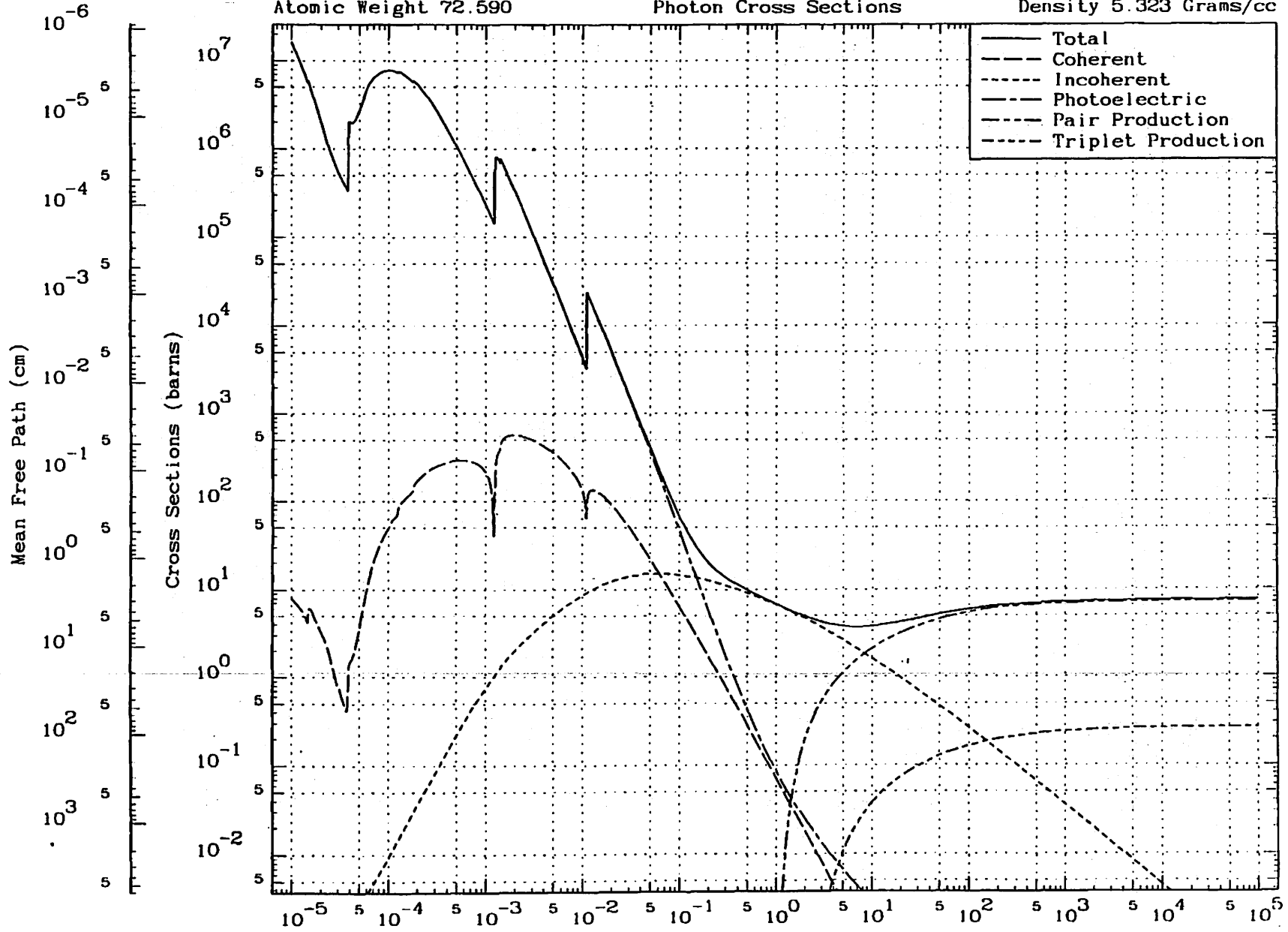
Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0611-0	3.0377+0	5.5759-2	6.4554+0	5.8075-2	6.3319+0	6.5286-2	8.1815-5		1.5727-1	1.5726-1	1.4229-5
1.0651+0	3.0439+0	5.5644-2	6.4421+0	5.7642-2	6.3196-0	6.4797-2	1.0831-4		1.5770-1	1.5768-1	1.4123-5
1.0704+0	3.0522+0	5.5494-2	6.4247+0	5.7074-2	6.3033+0	6.4158-2	1.5111-4		1.5826-1	1.5825-1	1.3983-5
1.0762+0	3.0612+0	5.5331-2	6.4058+0	5.6462-2	6.2856+0	6.3469-2	2.0883-4		1.5887-1	1.5886-1	1.3833-5
1.0806+0	3.0680+0	5.5208-2	6.3918+0	5.6005-2	6.2723+0	6.2954-2	2.6080-4		1.5934-1	1.5933-1	1.3721-5
1.0871+0	3.0760+0	5.5028-2	6.3707+0	5.5340-2	6.2529+0	6.2204-2	3.5138-4		1.6003-1	1.6002-1	1.3558-5
1.0937+0	3.0882+0	5.4847-2	6.3498+0	5.4875-2	6.2332+0	6.1456-2	4.6145-4		1.6073-1	1.6072-1	1.3394-5
1.1028+0	3.1018+0	5.4607-2	6.3220+0	5.3800-2	6.2071+0	6.0470-2	6.3979-4		1.6187-1	1.6186-1	1.3180-5
1.1107+0	3.1141+0	5.4391-2	6.2970+0	5.3020-2	6.1835+0	5.9592-2	8.3441-4		1.6253-1	1.6251-1	1.2988-5
1.1206+0	3.1290+0	5.4131-2	6.2669+0	5.2091-2	6.1551+0	5.8545-2	1.1162-3		1.6357-1	1.6356-1	1.2760-5
1.1333+0	3.1481+0	5.3803-2	6.2290+0	5.0934-2	6.1192+0	5.7242-2	1.5520-3		1.6491-1	1.6490-1	1.2476-5
1.1475+0	3.1892+0	5.3445-2	6.1875+0	4.9685-2	6.0799+0	5.5836-2	2.1428-3		1.6641-1	1.6639-1	1.2170-5
1.1582+0	3.1950+0	5.3180-2	6.1568+0	4.8774-2	6.0506+0	5.4810-2	2.6630-3		1.6753-1	1.6752-1	1.1946-5
1.1741+0	3.2082+0	5.2795-2	6.1123+0	4.7466-2	6.0079+0	5.3338-2	3.5592-3		1.6920-1	1.6919-1	1.1625-5
1.1901+0	3.2313+0	5.2418-2	6.0686+0	4.6202-2	5.9658+0	5.1929-2	4.6145-3		1.7088-1	1.7087-1	1.1319-5
1.2051+0	3.2526+0	5.2074-2	6.0288+0	4.5063-2	5.9272+0	5.0778-2	5.7439-3		1.7246-1	1.7245-1	1.1087-5
1.2275+0	3.2840+0	5.1576-2	5.9711+0	4.3439-2	5.8708+0	4.9131-2	7.6875-3		1.7482-1	1.7481-1	1.0708-5
1.2656+0	3.3364+0	5.0767-2	5.8774+0	4.0870-2	5.7784+0	4.6509-2	1.1654-2		1.7883-1	1.7882-1	1.0137-5
1.2949+0	3.3758+0	5.0178-2	5.8090+0	3.9048-2	5.7101+0	4.4829-2	1.5213-2		1.8192-1	1.8191-1	9.7271-6
1.3318+0	3.4240+0	4.9468-2	5.7271+0	3.6917-2	5.6275+0	4.2425-2	2.0248-2		1.8580-1	1.8579-1	9.2468-6
1.3626+0	3.4633+0	4.8906-2	5.6820+0	3.5270-2	5.5611+0	4.0713-2	2.4872-2		1.8905-1	1.8904-1	8.8735-6
1.4117+0	3.5244+0	4.8058-2	5.5639+0	3.2865-2	5.4599+0	3.8196-2	3.2942-2		1.9424-1	1.9423-1	8.3250-6
1.5000+0	3.6291+0	4.6872-2	5.4034+0	2.9117-2	5.2908+0	3.4240-2	4.9440-2		2.0383-1	2.0383-1	7.4827-6
1.6172+0	3.7576+0	4.5076-2	5.2186+0	2.5055-2	5.0880+0	3.0150-2	7.5369-2		2.1630-1	2.1629-1	6.5712-6
1.7188+0	3.8599+0	4.3681-2	5.0802+0	2.2185-2	4.9296+0	2.7198-2	1.0120-1		2.2749-1	2.2748-1	5.9279-6
1.8923+0	4.0319+0	4.2009-2	4.8635+0	1.8308-2	4.6711+0	2.3118-2	1.5105-1		2.4529-1	2.4528-1	5.0381-6
2.0440+0	4.1658+0	4.0659-2	4.7072+0	1.5695-2	4.4736+0	2.0320-2	1.9780-1		2.6139-1	2.6138-1	4.4288-6
2.0858+0	4.2034+0	4.0296-2	4.6651+0	1.5072-2	4.4201+0	1.9706-2	2.1023-1	3.1135-7	2.6556-1	2.6556-1	4.2950-6
2.1066+0	4.2215+0	4.0122-2	4.6451+0	1.4776-2	4.3942+0	1.9412-2	2.1870-1	1.0144-6	2.6766-1	2.6766-1	4.2309-6
2.1140+0	4.2279+0	4.0062-2	4.6381+0	1.4673-2	4.3851+0	1.9309-2	2.1904-1	1.4036-6	2.6842-1	2.6841-1	4.2085-6
2.1195+0	4.2329+0	4.0017-2	4.6329+0	1.4597-2	4.3783+0	1.9233-2	2.2079-1	1.7474-6	2.6898-1	2.6897-1	4.1919-6
2.1278+0	4.2397+0	3.9950-2	4.6251+0	1.4482-2	4.3680+0	1.9118-2	2.2348-1	2.3698-6	2.6984-1	2.6983-1	4.1669-6
2.1383+0	4.2468+0	3.9884-2	4.6174+0	1.4389-2	4.3579+0	1.9005-2	2.2617-1	3.1135-6	2.7089-1	2.7089-1	4.1422-6
2.1470+0	4.2568+0	3.9799-2	4.6077+0	1.4286-2	4.3449+0	1.8861-2	2.2987-1	4.2668-6	2.7180-1	2.7180-1	4.1108-6
2.1835+0	4.2894+0	3.9673-2	4.5830+0	1.4010-2	4.3252+0	1.8644-2	2.3511-1	6.4913-6	2.7351-1	2.7351-1	4.0634-6
2.1845+0	4.2871+0	3.9508-2	4.5740+0	1.3742-2	4.3005+0	1.8373-2	2.4137-1	1.0288-5	2.7564-1	2.7564-1	4.0044-6
2.2018+0	4.3015+0	3.9376-2	4.5587+0	1.3527-2	4.2804+0	1.8154-2	2.4881-1	1.4231-5	2.7741-1	2.7740-1	3.9588-6
2.2148+0	4.3121+0	3.9279-2	4.5475+0	1.3369-2	4.2655+0	1.7993-2	2.5059-1	1.7730-5	2.7874-1	2.7874-1	3.9216-6
2.2242+0	4.3278+0	3.9137-2	4.5310+0	1.3138-2	4.2435+0	1.7757-2	2.5681-1	2.3851-5	2.8075-1	2.8074-1	3.8701-6
2.2537+0	4.3432+0	3.8998-2	4.5149+0	1.2912-2	4.2217+0	1.7525-2	2.6274-1	3.1135-5	2.8277-1	2.8277-1	3.8196-6
2.2815+0	4.3648+0	3.8805-2	4.4928+0	1.2599-2	4.1910+0	1.7202-2	2.7166-1	4.3810-5	2.8569-1	2.8569-1	3.7482-6
2.3070+0	4.3841+0	3.8634-2	4.4728+0	1.2322-2	4.1635+0	1.6915-2	2.8001-1	5.7282-5	2.8840-1	2.8840-1	3.6866-6
2.3382+0	4.4071+0	3.8433-2	4.4495+0	1.1996-2	4.1304+0	1.6574-2	2.8043-1	7.7020-5	2.9175-1	2.9175-1	3.6123-6
2.3774+0	4.4351+0	3.8190-2	4.4214+0	1.1604-2	4.0999+0	1.6161-2	3.0384-1	1.0666-4	2.9600-1	2.9600-1	3.5224-6
2.4102+0	4.4591+0	3.7985-2	4.3978+0	1.1291-2	4.0688+0	1.5829-2	3.1360-1	1.3566-4	2.9948-1	2.9948-1	3.4500-6
2.4468+0	4.4850+0	3.7765-2	4.3722+0	1.0956-2	4.0206+0	1.5472-2	3.2482-1	1.7256-4	3.0341-1	3.0341-1	3.3721-6
2.4859+0	4.5118+0	3.7541-2	4.3482+0	1.0614-2	3.9830+0	1.5104-2	3.3727-1	2.1727-4	3.0767-1	3.0766-1	3.2920-6
2.5564+0	4.5577+0	3.7183-2	4.3025+0	1.0007-2	3.9174+0	1.4477-2	3.6023-1	3.1135-4	3.1549-1	3.1549-1	3.1554-6
2.6604+0	4.6203+0	3.6680-2	4.2442+0	9.2880-3	3.8258+0	1.3828-2	3.8501-1	4.7998-4	3.2736-1	3.2736-1	2.9704-6
2.7453+0	4.6707+0	3.6284-2	4.1884+0	8.7040-3	3.7551+0	1.2995-2	4.2091-1	6.4240-4	3.3895-1	3.3895-1	2.8323-6
2.8090+0	4.7050+0	3.5992-2	4.1669+0	8.3140-3	3.7044+0	1.2551-2	4.4089-1	7.7798-4	3.4433-1	3.4433-1	2.7355-6
2.8045+0	4.7549+0	3.5622-2	4.1240+0	7.7766-3	3.6316+0	1.1931-2	4.7172-1	1.0022-3	3.5568-1	3.5568-1	2.6004-6
3.0399+0	4.8185+0	3.5152-2	4.0696+0	7.0997-3	3.5347+0	1.1154-2	5.1526-1	1.3583-3	3.7217-1	3.7216-1	2.4310-6
3.2344+0	4.9174+0	3.4444-2	3.9877+0	6.2718-3	3.3955+0	1.0235-2	5.7371-1	1.9827-3	3.8408-1	3.8408-1	2.2308-6
3.4375+0	5.0032+0	3.3854-2	3.9193+0	5.5528-3	3.2641+0	9.4064-3	6.3755-1	2.6856-3	4.1843-1	4.1843-1	2.0501-6
3.7847+0	5.1335+0	3.2994-2	3.8198+0	4.5811-3	3.0669+0	8.2317-3	7.3903-1	4.1189-3	4.6071-1	4.6071-1	1.7841-6
4.0000+0	5.1943+0	3.2608-2	3.7751+0	4.1013-3	2.9589+0	7.6240-3	7.9940-1	5.1040-3	4.8892-1	4.8892-1	1.6817-6
4.2500+0	5.2623+0	3.2187-2	3.7284+0	3.6331-3	2.8449+0	7.0421-3	8.6446-1	6.3079-3	5.2138-1	5.2138-1	1.5348-6
4.7500+0	5.3536+0	3.1638-2	3.6628+0	2.9087-3	2.6471+0	6.0875-3	9.9789-1	8.8275-3	5.8165-1	5.8165-1	1.3268-6
5.5135+0	5.4451+0	3.1106-2	3.6013+0	2.1589-3	2.4034+0	5.0324-3	1.1777+0	1.2942-2	7.0424-1	7.0424-1	1.0968-6
6.3840+0	5.5088+0	3.0758-2	3.5609+0	1.8206-3	2.1724+0	4.2093-3	1.3651+0	1.7530-2	8.3459-1	8.3458-1	9.1744-7
7.4833+0	5.5213+0	3.0677-2	3.5516+0	1.1720-3	1.9381+0	3.4585-3	1.5853+0	2.3513-2	1.0198+0	1.0198+0	7.5379-7
9.0000+0	5.4702+0	3.0984-2	3.5847+0	8.1032-4	1.7018+0	2.7800-3	1.8480+0	3.1320-2	1.2833+0	1.2833+0	6.0591-7
1.0000+1	5.4194+0	3.1254-2	3.6183+0	6.5837-4	1.5801+0	2.4800-3	1.9890+0	3.8110-2	1.4840+0	1.4840+0	5.3817-7
1.3000+1	5.2596+0	3.2203-2	3.7283+0	3.8839-4	1.2981+0	1.8270-3	2.3790+0	4.8960-2	2.0868+0	2.0868+0	3.9820-7
1.8000+1	4.9737+0	3.4054-2	3.9426+0	2.0259-4	1.0167+0	1.2760-3	2.8500+0	6.6350-2	3.2057+0	3.2057+0	2.7811-7
2.8000+1	4.6179+0	3.8678-2	4.2463+0	9.7099-5	7.6028-1	8.5960-4	3.3980+0	8.7120-2	5.1848+0	5.1848+0	1.8735-7
4.2170+1	4.1822+0	4.0694-2	4.7112+0	3.8912-5	5.1872-1	5.1747-4	4.0773+0	1.1468-1	9.6489+0	9.6489+0	1.1278-7
6.0000+1	3.8696+0	4.3771-2	5.0675+0	1.8233-5	3.8762-1	3.5940-4	4.5450+0	1.3450-1	1.4995+1	1.4995+1	7.8332-8
1.0000+2	3.5582+0	4.8009-2	5.5582+0	6.5839-6	2.5417-1	2.1330-4	6.1430+0	1.8080-1	2.7801+1	2.7801+1	4.6489-8
2.0000+2	3.2112+0	5.2746-2	6.1066+0	1.6410-6	1.4058-1	1.0570-4	5.7750+0	1.9090-1	6.1703+1	6.1703+1	2.3038-8
4.0000+2	3.0167+0	5.8146-2	6.5002+0	4.1025-7	7.7354-2	5.2650-5	6.2090+0	2.1380-1	1.3199+2	1.3199+2	1.1475-8
1.0000+3	2.8176+0	6.5898-2	6.8188+0	6.5839-8	3.4845-2	2.1010-5	6.5500+0	2.3410-1	3.4711+2	3.4711+2	4.5782-9
5.0000+3	2.7798+0	6.0937-2	7.0548+0	2.8258-8	8.1897-3	4.1850-6	6.7860+0	2.5080-1	1.7882+3	1.7882+3	9.1432-10
1.0000+4	2.7642+0	6.1275-2	7.0940+0	6.5640-10	4.3766-3	2.0970-6	6.8380+0	2.5360-1	3.8170+3	3.8170+3	4.5705-10
1.0000+5	2.7478+0	6.1642-2	7.1364+0	6.5647-12	5.2863-4	2.0970-7	6.8780+0	2.5690-1	3.6393+4	3.6393+4	4.5705-11

October 31, 1989
Atomic Weight 72.590

ENDL Evaluated
Photon Cross Sections

32-Ge
Density 5.323 Grams/cc

212

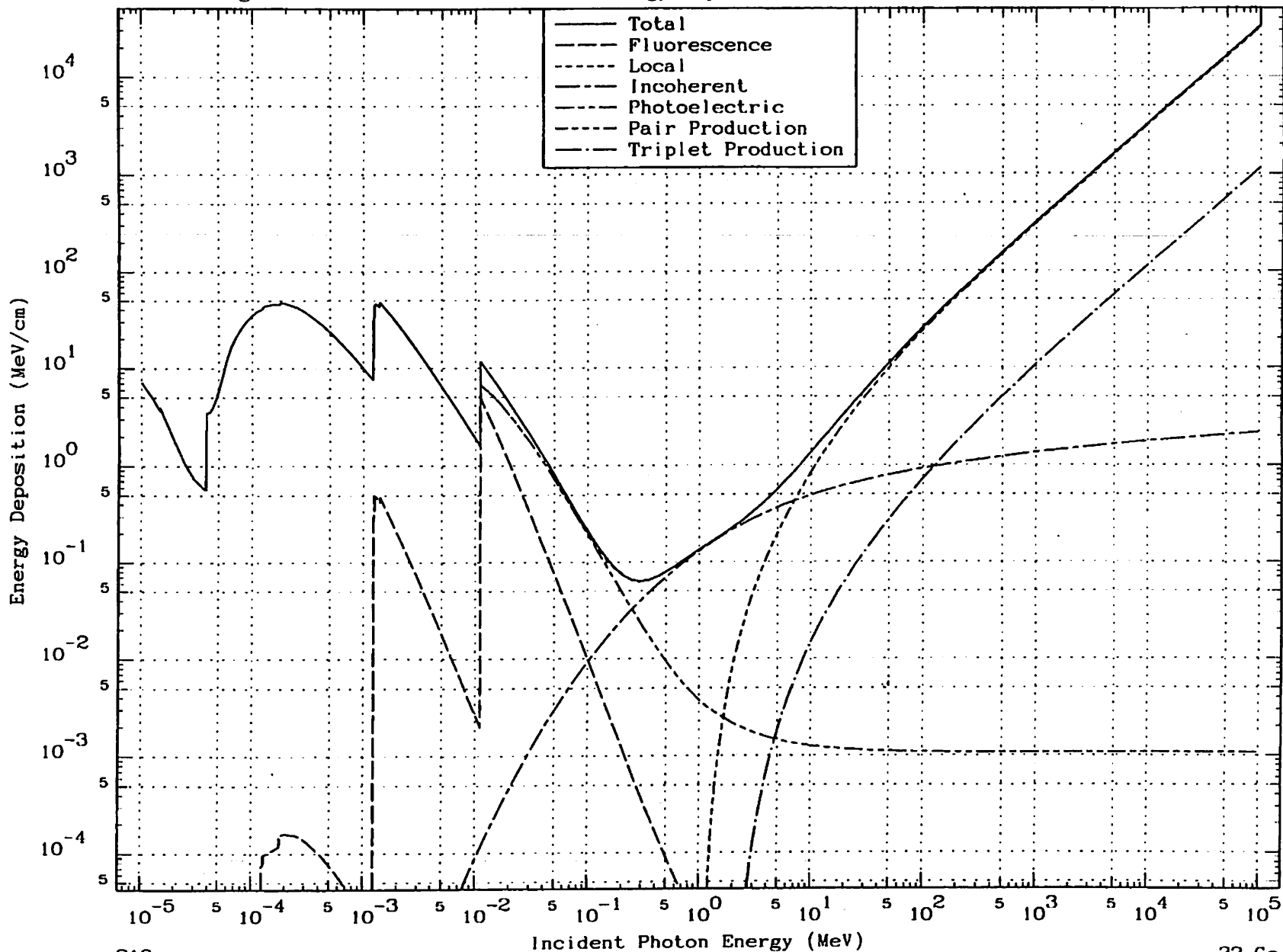


October 31, 1989
Atomic Weight 72.590

ENDL Evaluated
Energy Deposition

³²-Ge
Density 5.323 Grams/cc

213



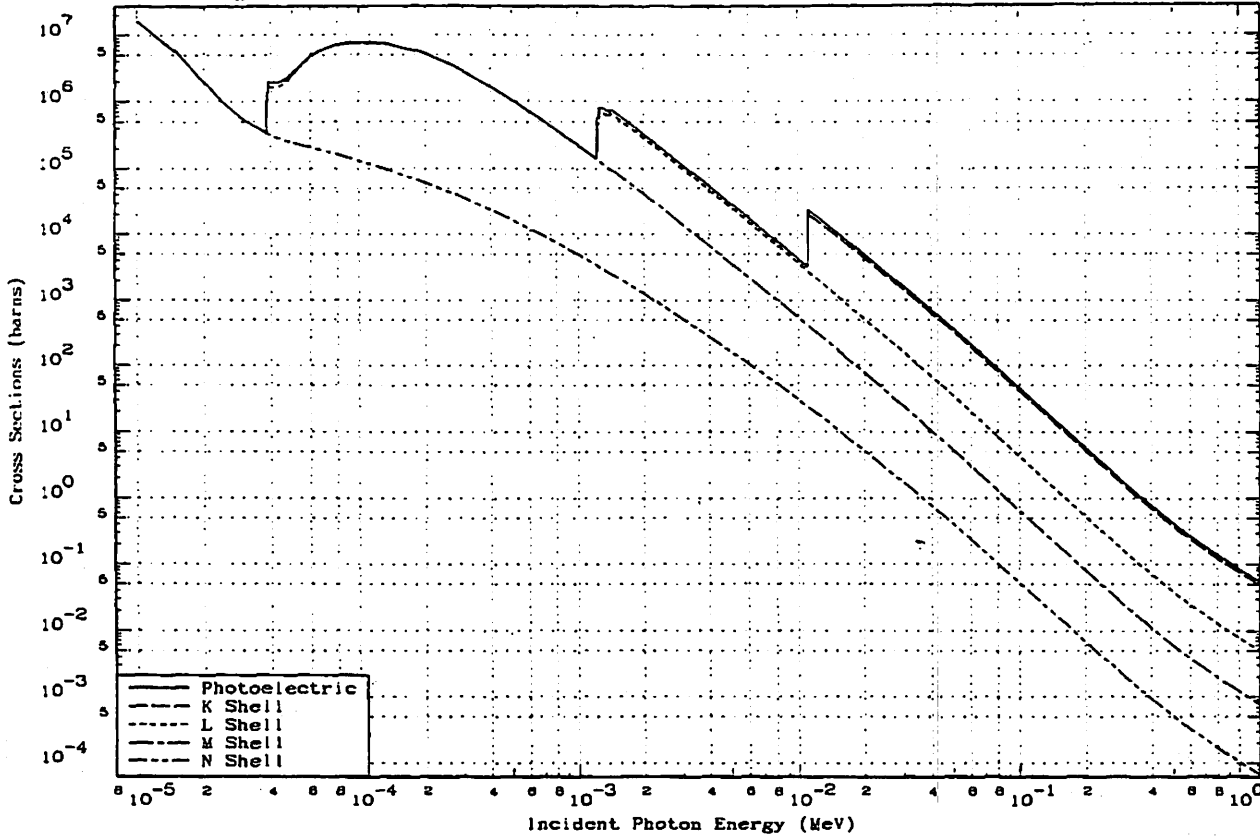
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³²-Ge

October 31, 1989
Atomic Weight 72.590

ENDL Evaluated
Photoelectric Shell Cross Sections

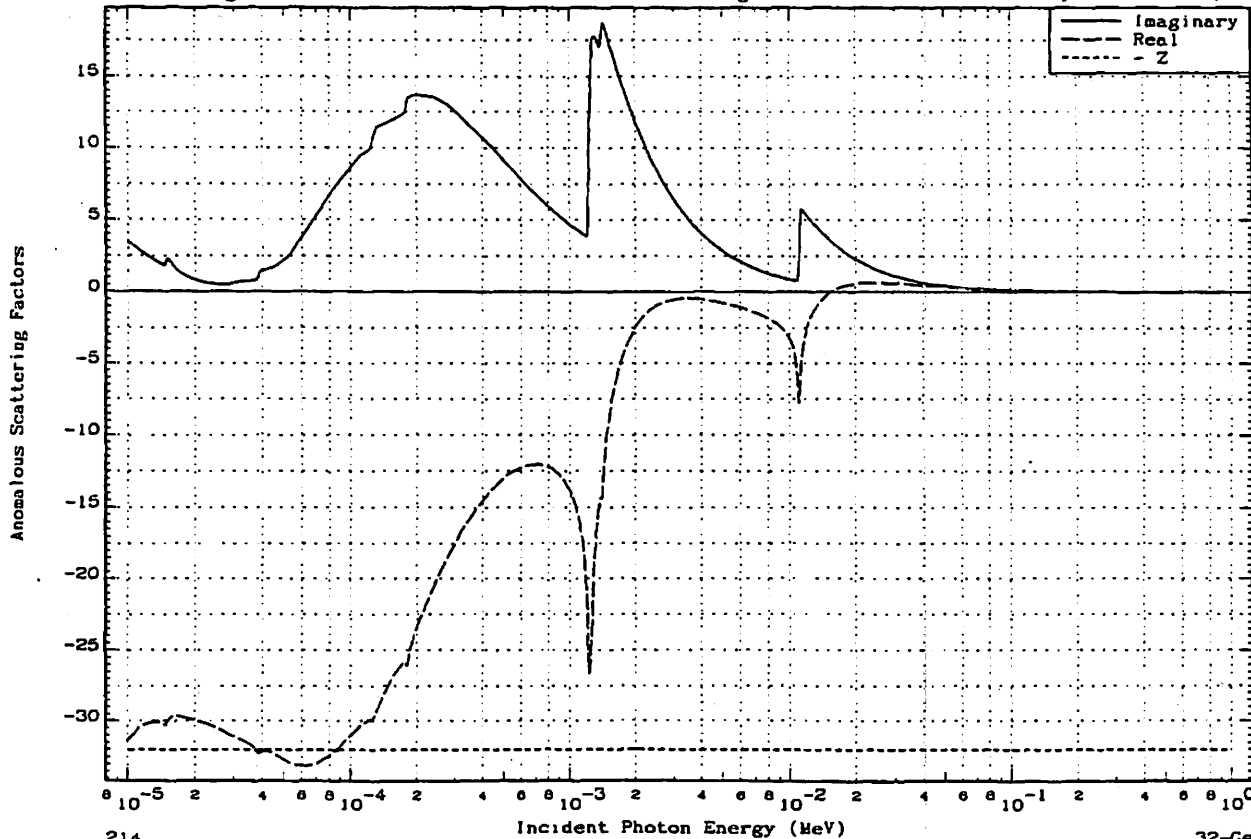
32-Ge
Density 5.323 Grams/cc

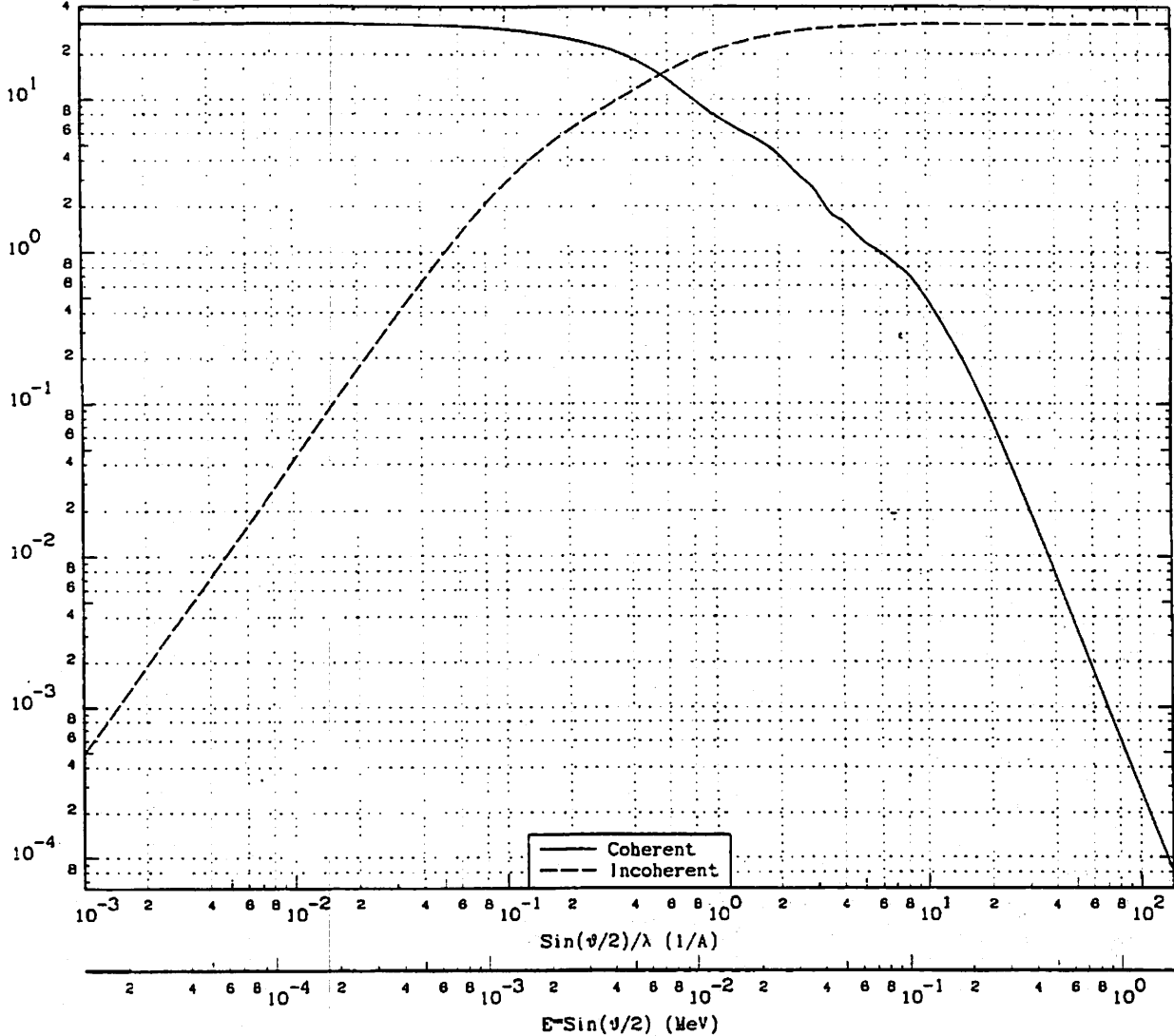


October 31, 1989
Atomic Weight 72.590

ENDL Evaluated
Anomalous Scattering Factors

32-Ge
Density 5.323 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000-0	0.0000-0	3.2000+1	0.0000+0	7.0000-1	8.6780-3	1.1880+1	1.7215+1	1.5000+1	1.8598-1	1.8531-1	3.1982+1
1.0000-3	1.2399-5	3.2000+1	4.9019-4	8.0000-1	9.9188-3	1.0077+1	1.8741+1	1.8770+1	2.3272-1	9.7013-2	3.1994+1
5.0000-3	6.1993-5	3.1983+1	1.1000-2	9.0000-1	1.1159-2	8.8673+0	2.0074+1	2.0000+1	2.4797-1	7.9786-2	3.1997+1
1.0000-2	1.2399-4	3.1960+1	4.2000-2	1.0000-0	1.2399-2	7.9681+0	2.1224+1	2.6053+1	3.2302-1	3.3892-2	3.1998+1
1.5000-2	1.8598-4	3.1930+1	9.4900-2	1.2500+0	1.5498-2	6.5559+0	2.3430+1	3.4475+1	4.2744-1	1.2932-2	3.1999+1
2.0000-2	2.4797-4	3.1877+1	1.8710-1	1.5000+0	1.8598-2	5.7274+0	2.4983+1	5.0000+1	6.1993-1	3.4198-3	3.2000+1
2.5000-2	3.0996-4	3.1809+1	2.5820-1	1.8154+0	2.2508-2	4.8801+0	2.6432+1	8.0000+1	8.9188-1	6.2392-4	3.2000+1
3.0000-2	3.7196-4	3.1727+1	3.6670-1	2.0000+0	2.4797-2	4.3732+0	2.7109+1	1.0000+2	1.2399+0	2.7830-4	3.2000+1
4.0000-2	4.9594-4	3.1522+1	6.3000-1	2.5000+0	3.0996-2	3.2108+0	2.8492+1	1.7117+2	2.1223+0	4.2197-5	3.2000+1
5.0000-2	6.1993-4	3.1275+1	9.4400-1	2.8750+0	3.5646-2	2.7070+0	2.9191+1	2.7479+2	3.4070+0	8.4153-6	3.2000+1
7.0000-2	8.6780-4	3.0645+1	1.6691+0	3.0000+0	3.7196-2	2.5178+0	2.9377+1	4.7714+2	5.9158+0	1.3528-6	3.2000-1
9.0000-2	1.1159-3	2.9907+1	2.4486+0	3.4590+0	4.2886-2	1.8595+0	2.9907+1	1.0000+3	1.2399+1	1.2488-7	3.2000+1
1.0000-1	1.2399-3	2.9519+1	2.8390+0	3.5000+0	4.3395-2	1.8247+0	2.9947+1	1.7744+3	2.2000+1	2.0508-8	3.2000+1
1.2500-1	1.5488-3	2.8491+1	3.7810+0	3.6172+0	4.4848-2	1.7511+0	3.0048+1	3.7572+3	4.6584+1	2.0155-9	3.2000+1
1.5000-1	1.8598-3	2.7480+1	4.6590+0	4.0000+0	4.9594-2	1.6112+0	3.0340+1	6.6119+3	8.1978-1	3.6120-10	3.2000+1
1.7500-1	2.1697-3	2.6478+1	5.4723+0	5.0000+0	6.1993-2	1.1843+0	3.0872+1	1.4899+4	1.8473+2	3.1638-11	3.2000+1
2.0000-1	2.4797-3	2.5527+1	6.2290+0	6.0000+0	7.4391-2	1.0039+0	3.1236+1	4.2646+4	5.2875+2	1.4227-12	3.2000+1
2.5000-1	3.0996-3	2.3761+1	7.6185+0	7.0000+0	8.6780-2	8.5260-1	3.1492+1	2.0651+5	2.5604+3	1.4491-14	3.2000+1
3.0000-1	3.7196-3	2.2118+1	8.9120+0	8.0000+0	9.9188-2	7.3070-1	3.1688+1	1.0000+6	1.2399+4	1.5066-16	3.2000+1
4.0000-1	4.9594-3	1.9014+1	1.1338+1	9.1387+0	1.1331-1	5.8444-1	3.1796+1	5.8234+6	6.9722+4	8.7796-19	3.2000+1
5.0000-1	6.1993-3	1.6192+1	1.3536+1	1.0000+1	1.2399-1	4.8680-1	3.1860+1	7.4989+7	9.2975+5	4.7543-22	3.2000+1
6.0000-1	7.4391-3	1.3723+1	1.5486+1	1.2069+1	1.4984-1	3.2049-1	3.1940+1	1.0000+9	1.2399+7	2.2069-25	3.2000+1

Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cc)		
	cm	cm ² /cm ³ /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.3851-6	1.3563+5	1.6349+7	5.0188+0	1.0607-4	1.6349+7			7.2195+0	7.2195+0	
1.2282-5	2.3766-6	7.9047+4	9.5282+6	6.2227+0	1.5987-4	9.5282+6			5.1677+0	5.1677+0	
1.3442-5	3.0607-6	8.0981+4	7.3505+6	5.4222+0	1.9135-4	7.3505+6			4.3631+0	4.3631+0	
1.4277-5	3.6749-6	5.1121+4	6.1621+6	4.6935+0	2.1514-4	6.1621+6			3.8850+0	3.8850+0	
1.4823-5	3.9412-6	4.7888+4	5.7458+6	4.1587+0	2.2538-4	5.7458+6			3.7102+0	3.7102+0	
1.4887-5	3.9911-6	4.7056+4	5.6724+6	4.2061+0	2.2731-4	5.6724+6			3.6790+0	3.6790+0	
1.4780-5	4.0668-6	4.6197+4	5.5685+6	4.6780+0	2.3012-4	5.5685+6			3.6345+0	3.6345+0	
1.4780-5	3.7627-6	4.9929+4	6.0183+6	4.6780+0	2.3012-4	6.0183+6			3.9281+0	3.9281+0	
1.4940-5	3.9023-6	4.8142+4	5.8029+6	5.6903+0	2.3498-4	5.8029+6			3.8284+0	3.8284+0	
1.5038-5	3.9903-6	4.7080+4	5.6749+6	6.1044+0	2.3800-4	5.6749+6			3.7687+0	3.7687+0	
1.5929-5	4.9910-6	3.7640+4	4.5371+6	5.9529+0	2.6617-4	4.5371+6			3.1916+0	3.1916+0	
1.8287-5	8.2504-6	2.2770+4	2.7447+6	4.0677+0	3.4805-4	2.7447+6			2.2165+0	2.2165+0	
2.1234-5	1.3974-5	1.3444+4	1.8205+6	2.6895+0	4.6533-4	1.8205+6			1.5196+0	1.5196+0	
2.2533-5	1.7347-5	1.0830+4	1.3054+6	2.4756+0	5.2233-4	1.3054+6			1.2950+0	1.2950+0	
2.3806-5	2.1112-5	8.8986+3	1.0726+6	2.0931+0	5.8112-4	1.0726+6			1.1276+0	1.1276+0	
2.4495-5	2.3375-5	8.0370+3	9.6877+5	1.8684+0	8.1423-4	9.6877+5			1.0479+0	1.0479+0	
2.5257-5	2.5483-5	7.3721+3	8.8863+5	1.8537+0	8.5193-4	8.8863+5			9.9114-1	9.9114-1	
2.8578-5	3.6094-5	5.2049+3	6.2739+5	9.1340-1	8.2886-4	6.2739+5			7.9180-1	7.9180-1	
2.9448-5	3.9272-5	4.7837+3	5.7882+5	8.2552-1	8.7854-4	5.7882+5			7.4985-1	7.4985-1	
3.0113-5	4.1683-5	4.5069+3	5.4326+5	7.9978-1	9.1750-4	5.4326+5			7.2243-1	7.2243-1	
3.0905-5	4.3832-5	4.2860+3	5.1683+5	7.4875-1	9.6500-4	5.1683+5			7.0509-1	7.0509-1	
3.3573-5	5.2384-5	3.5877+3	4.3245+5	5.6098-1	1.1335-3	4.3245+5			6.4115-1	6.4115-1	
3.7351-5	8.4808-5	2.8989+3	3.4943+5	4.1171-1	1.3940-3	3.4943+5			5.7638-1	5.7638-1	
3.7650-5	8.5845-5	2.8531+3	3.4391+5	4.2970-1	1.4156-3	3.4391+5			5.7179-1	5.7179-1	
3.7843-5	8.6523-5	2.8241+3	3.4041+5	4.8196-1	1.4296-3	3.4041+5			5.6888-1	5.6888-1	
3.8190-5	8.7747-5	2.7730+3	3.3426+5	6.8123-1	1.4550-3	3.3426+5			5.6371-1	5.6371-1	
M5 3.8190-5	1.8486-5	1.1395+4	1.3738+6	6.8123-1	1.4550-3	1.3738+6			2.3165+0	2.3165+0	
3.8816-5	1.6721-5	1.1235+4	1.3543+6	1.0406+0	1.4864-3	1.3543+6			2.3094+0	2.3094+0	
3.8820-5	1.6832-5	1.1181+4	1.3453+6	1.1711+0	1.5016-3	1.3453+6			2.3063+0	2.3063+0	
M4 3.8820-5	1.1187-5	1.6793+4	2.0242+6	1.1711+0	1.5016-3	2.0242+6			3.4701+0	3.4701+0	7.7916-6
3.8935-5	1.1229-5	1.8731+4	2.0187+6	1.2515+0	1.5102-3	2.0187+6			3.4675+0	3.4675+0	7.7812-6
3.8935-5	1.1325-5	1.8588+4	1.8996+6	1.3891+0	1.5304-3	1.8996+6			3.4618+0	3.4618+0	7.6913-6
3.9543-5	1.1448-5	1.8411+4	1.8781+6	1.4270+0	1.5560-3	1.8781+6			3.4542+0	3.4542+0	7.6046-6
4.1823-5	1.1734-5	1.8011+4	1.8299+6	1.5820+0	1.7177-3	1.8299+6			3.5474+0	3.5474+0	7.4217-6
4.3189-5	1.1544-5	1.8273+4	1.9615+6	1.7579+0	1.8444-3	1.9615+6			3.7411+0	3.7411+0	7.5879-6
4.3987-5	1.1278-5	1.8658+4	2.0080+6	1.8840+0	1.9107-3	2.0080+6			3.9004+0	3.9004+0	7.7318-6
4.8459-5	1.0219-5	1.8383+4	2.2159+6	2.3790+0	2.1231-3	2.2159+6			4.5462+0	4.5462+0	8.6891-6
5.0000-5	8.4186-6	2.2313+4	2.6895+6	3.5823+0	2.4482-3	2.6895+6			5.9385+0	5.9385+0	1.0790-5
5.4772-5	6.2962-6	2.9838+4	3.5968+6	6.0812+0	2.9183-3	3.5968+6			8.6993+0	8.6993+0	1.4934-5
6.0000-5	4.7470-6	3.9575+4	4.7703+6	1.0002-1	3.4766-3	4.7703+6			1.2639+1	1.2639+1	2.0321-5
6.2755-5	4.2843-6	4.3850+4	5.2856+6	1.2778+0	3.7910-3	5.2856+6			1.4848+1	1.4848+1	2.2733-5
6.4607-5	3.8905-6	4.7186+4	5.6889+6	1.4519+0	4.0337-3	5.6889+6			1.6281+1	1.6281+1	2.4636-5
7.1019-5	3.4744-6	5.4071+4	6.5178+6	2.0876+0	4.8122-3	6.5178+6			2.0441+1	2.0440+1	2.8565-5
8.0910-5	3.0934-6	6.0731+4	7.3204+6	3.0959+0	6.1879-3	7.3204+6			2.6156+1	2.6156+1	3.2487-5
9.0000-5	2.8415-6	8.3887+4	7.8984+6	4.0473+0	7.9979-3	7.8984+6			3.0596+1	3.0596+1	3.4378-5
1.0000-4	2.8787-6	6.5238+4	7.8637+6	4.9964+0	9.3093-3	7.8638+6			3.4726+1	3.4726+1	3.5292-5
1.1051-4	2.8987-6	6.4810+4	7.8122+6	6.1018+0	1.1331-2	7.8121+6			3.8125+1	3.8125+1	3.5211-5
1.2259-4	3.0482-6	6.1672+4	7.4339+6	6.8048+0	1.3895-2	7.4338+6			4.0244+1	4.0244+1	3.3605-5
1.2425-4	3.0658-6	6.1277+4	7.3862+6	7.0901+0	1.4286-2	7.3862+6			4.0527+1	4.0527+1	3.3403-5
1.2498-4	3.0744-6	6.1105+4	7.3658+6	7.3912+0	1.4432-2	7.3658+6			4.0651+1	4.0651+1	3.3315-5
M3 1.2498-4	2.9618-6	6.3433+4	7.6481+6	7.3912+0	1.4432-2	7.6480+6			4.2200+1	4.2199+1	7.5134-5
1.2844-4	2.9762-6	6.3121+4	7.6086+6	8.0265+0	1.4765-2	7.6085+6			4.2483+1	4.2483+1	7.5436-5
1.2938-4	3.0077-6	6.2480+4	7.5288+6	8.7144+0	1.5448-2	7.5288+6			4.3016+1	4.3015+1	7.6012-5
M2 1.2938-4	2.8589-6	6.3494+4	7.6535+6	8.7144+0	1.5448-2	7.6534+6			4.3728+1	4.3728+1	9.8477-5
1.3105-4	2.8988-6	6.2859+4	7.5770+6	8.1243+0	1.5843-2	7.5769+6			4.3850+1	4.3850+1	9.8831-5
1.5533-4	3.4273-6	5.4814+4	8.6072+6	1.1233+2	2.2129-2	8.6071+6			4.5321+1	4.5321+1	1.0708-4
1.7322-4	3.8203-6	4.9175+4	9.8275+6	1.2948+2	2.7417-2	9.8273+6			4.5341+1	4.5340+1	1.1574-4
1.7722-4	3.9082-6	4.8069+4	9.7941+6	1.2708+2	2.8877-2	9.7940+6			4.5345+1	4.5345+1	1.1785-4
1.7925-4	3.9529-6	4.7527+4	9.7288+6	1.3447+2	2.9328-2	9.7287+6			4.5347+1	4.5347+1	1.1881-4
M1 1.7925-4	3.7980-6	4.8490+4	9.9854+6	1.3447+2	2.9328-2	9.9853+6			4.7219+1	4.7219+1	1.5487-4
1.8125-4	3.8349-6	4.8688+4	9.9050+6	1.4598+2	2.9975-2	9.9048+6			4.7283+1	4.7283+1	1.5583-4
1.8508-4	3.9216-6	4.7805+4	9.7744+6	1.5480+2	3.1232-2	9.7742+6			4.7193+1	4.7193+1	1.5684-4
2.0130-4	4.3560-6	4.3326+4	9.2225+6	1.7484+2	3.6847-2	9.2223+6			4.8423+1	4.8423+1	1.5989-4
2.5044-4	5.8938-6	3.1875+4	8.8421+6	2.1812+2	5.8635-2	8.8419+6			4.2489+1	4.2489+1	1.5493-4
2.8010-4	7.0714-6	2.8587+4	8.2023+6	2.3585+2	7.0592-2	8.2021+6			3.9607+1	3.9607+1	1.4548-4
3.2237-4	9.0432-6	2.0774+4	7.5041+6	2.5423+2	8.3087-2	7.5038+6			3.5844+1	3.5844+1	1.2921-4
4.2847-4	1.5513-5	1.2110+4	1.4597+6	2.8297+2	1.8147-1	1.4594+6			2.7814+1	2.7814+1	9.4718-5
5.2789-4	2.3837-5	7.8810+3	9.4997+5	2.9378+2	2.4050-1	9.4988+5			2.2143+1	2.2143+1	7.1077-5
6.2887-4	3.4558-5	5.4362+3	8.5527+5	2.8143+2	3.2951-1	8.5488+5			1.8132+1	1.8132+1	5.4277-5
7.2339-4	4.7595-5	3.9471+3	7.4578+5	2.8132+2	4.2850-1	7.4560+5			1.5190+1	1.5190+1	4.2521-5
8.2819-4	6.4390-5	2.9178+3	6.5168+5	2.6489+2	5.4183-1	6.5142+5			1.2852+1	1.2852+1	3.3471-5
9.2577-4	8.3371-5	2.2533+3	5.7182+5	2.4082+2	6.5111-1	5.7137+5			1.1094+1	1.1094+1	2.7090-5
1.0000-3	9.9707-5	1.8842+3	2.2711+5	2.1474+2	7.4868-1	2.2690+5			1.0020+1	1.0020+1	2.3398-5
1.0712-3	1.1711-4	1.6042+3	1.9337+5	1.8195+2	8.3240-1	1.8319+5			9.1387+0	9.1387+0	2.0380-5
1.1156-3	1.2879-4	1.4587+3	1.7583+5	1.5530+2	8.8768-1	1.7586+5			8.6550+0	8.6550+0	1.8783-5
1.1454-3	1.3697-4	1.3718+3	1.6533+5	1.3187+2	9.2523-1	1.6520+5			8.3557+0	8.3557+0	1.7817-5
1.1781-3	1.4651-4	1.2822+3	1.5458+5	9.6379+1	9.8741-1	1.5448+5			8.0381+0	8.0381+0	1.6818-5
1.1940-3	1.5137-4	1.2411+3	1.4960+5	7.1727+1	9.8904-1	1.4953+5			7.8840+0	7.8840+0	1.6356-5
1.1989-3											

Energy KeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
L2 1.2325-3	3.9520-5	4.7536+3	5.7300+5	9.4403+1	1.0389+0	5.7290+5			3.1182+1	3.0882+1	3.0006-1
1.2371-3	3.8983-5	4.8191+3	5.8089+5	1.1238+2	1.0448+0	5.8078+5			3.1727+1	3.1421+1	3.0634-1
1.2475-3	3.7799-5	4.9701+3	5.8909+5	1.4931+2	1.0577+0	5.8894+5			3.2998+1	3.2675+1	3.2103-1
1.2554-3	3.7591-6	4.8975+3	6.0240+6	1.8251+2	1.0674+0	6.0221+5			3.3386+1	3.3061+1	3.2469-1
1.2554-3	2.7828-5	6.7271+3	8.1088+5	1.8251+2	1.0674+0	8.1069+5			4.4944+1	4.4481+1	4.8217-1
1.2667-3	2.7828-5	6.7513+3	8.1379+5	2.3730+2	1.0814+0	8.1355+5			4.5508+1	4.5022+1	4.8613-1
1.2757-3	2.7864-5	6.7180+3	8.0978+5	2.6804+2	1.0927+0	8.0951+5			4.5808+1	4.5121+1	4.8490-1
1.2888-3	2.8132-5	6.8780+3	8.0496+5	2.9244+2	1.1064+0	8.0467+5			4.5724+1	4.5240+1	4.8342-1
1.3008-3	2.8345-5	6.8277+3	7.9889+5	3.1524+2	1.1241+0	7.9858+5			4.5874+1	4.5392+1	4.8155-1
1.3205-3	2.9009-5	6.4781+3	7.8082+5	3.3831+2	1.1489+0	7.8029+5			4.5500+1	4.5028+1	4.7188-1
1.3551-3	3.0459-5	6.1878+3	7.4345+5	3.6155+2	1.1831+0	7.4309+5			4.4469+1	4.4018+1	4.5107-1
1.3908-3	3.2317-5	5.8131+3	7.0070+5	3.8774+2	1.2319+0	7.0033+5			4.3013+1	4.2588+1	4.2571-1
1.4023-3	3.3025-5	5.6886+3	6.8570+5	3.8688+2	1.2540+0	6.8531+5			4.2438+1	4.2022+1	4.1846-1
L1 1.4023-3	2.9235-5	6.4261+3	7.7459+5	3.8688+2	1.2540+0	7.7420+5			4.7843+1	4.7484+1	4.7849-1
1.4183-3	3.0093-5	6.2428+3	7.5250+5	4.3491+2	1.2762+0	7.5207+5			4.7136+1	4.6671+1	4.6480-1
1.4322-3	3.0754-5	6.1086+3	7.3633+5	4.5845+2	1.2931+0	7.3587+5			4.6541+1	4.6088+1	4.5478-1
1.5000-3	3.4380-5	5.4878+3	6.9908+5	5.0399+2	1.3832+0	6.9855+5			4.3823+1	4.3218+1	4.1699-1
1.5838-3	3.9736-5	4.7278+3	6.9888+5	5.3696+2	1.4684+0	6.9835+5			4.0071+1	3.9719+1	3.6217-1
1.8332-3	5.6034-5	3.3527+3	4.0413+6	5.6752+2	1.8022+0	4.0359+6			3.2689+1	3.2418+1	2.4870-1
2.2547-3	9.4081-5	1.9973+3	2.4075+6	5.6009+2	2.3133+0	2.4018+6			2.3915+1	2.3768+1	1.4889-1
3.0562-3	2.0575-4	9.1310+2	1.1006+6	4.9901+2	3.9300+0	1.0956+6			1.4787+1	1.4719+1	6.7878-2
4.0000-3	4.1985-4	4.4734+2	5.3922+4	4.2524+2	4.1324+0	5.3493+4			9.4490+0	9.4180+0	3.2975-2
5.2835-3	8.7795-4	2.1398+2	2.5793+4	3.4179+2	2.2548+0	2.5448+4			5.9145+0	5.8968+0	1.5844-2
6.7257-3	1.7079-3	1.1000+2	1.3259+4	2.6399+2	6.4274+0	1.2989+4			3.8578+0	3.8486+0	7.9659-3
8.2022-3	2.9434-3	6.3826+1	7.6934+3	2.0169+2	7.5052+0	7.4843+3			2.7109+0	2.7083+0	4.5789-3
9.2470-3	4.1028-3	4.5791+1	5.5186+3	1.6286+2	8.1768+0	5.3488+3			2.1841+0	2.1806+0	3.2871-3
9.5817-3	4.5024-3	4.1725+1	5.0295+3	1.5138+2	8.3710+0	4.8688+3			2.0583+0	2.0533+0	2.9737-3
1.0000-2	5.1030-3	3.6814+1	4.4375+3	1.3393+2	8.6385+0	4.2960+3			1.8967+0	1.8941+0	2.8216-3
1.0359-2	5.6351-3	3.3338+1	4.0185+3	1.1861+2	8.8289+0	3.8911+3			1.7800+0	1.7778+0	2.3743-3
1.0648-2	6.0990-3	3.0802+1	3.7129+3	1.0215+2	8.8809+0	3.6017+3			1.8937+0	1.8915+0	2.1972-3
1.0754-2	6.2785-3	2.8922+1	3.6087+3	9.3983+1	9.0358+0	3.5037+3			1.6639+0	1.6618+0	2.1372-3
1.0845-2	6.4427-3	2.9159+1	3.5148+3	8.4330+1	9.0833+0	3.4214+3			1.6397+0	1.6388+0	2.0668-3
1.0998-2	6.7319-3	2.7908+1	3.3638+3	6.4389+1	9.1821+0	3.2903+3			1.5980+0	1.5980+0	2.0066-3
1.1021-2	6.7741-3	2.7733+1	3.3429+3	6.3315+1	9.1743+0	3.2704+3			1.5918+0	1.5898+0	1.9944-3
1.1067-2	6.8470-3	2.7437+1	3.3073+3	6.5331+1	9.1978+0	3.2327+3			1.5800+0	1.5780+0	1.9713-3
K 1.1067-2	9.4486-4	1.8883+2	2.3986+4	6.5331+1	9.1978+0	2.3892+4			1.1877+1	6.7405+0	4.9360+0
1.1140-2	9.6058-4	1.9557+2	2.3574+4	7.7240+1	9.2353+0	2.3468+4			1.1555+1	6.7011+0	4.8537+0
1.1206-2	9.7478-4	1.8273+2	2.3231+4	9.1261+1	9.2869+0	2.3131+4			1.1444+1	6.6627+0	4.7814+0
1.1260-2	9.8667-4	1.8040+2	2.2951+4	1.0061+2	9.2966+0	2.2841+4			1.1354+1	6.6313+0	4.7227+0
1.1311-2	9.9819-4	1.8820+2	2.2686+4	1.0732+2	9.3230+0	2.2569+4			1.1269+1	6.6018+0	4.6977+0
1.1408-2	1.0202-3	1.8414+2	2.2198+4	1.1502+2	9.3723+0	2.2072+4			1.1114+1	6.5487+0	4.5899+0
1.1578-2	1.0597-3	1.7729+2	2.1370+4	1.2305+2	9.4583+0	2.1237+4			1.0850+1	6.4527+0	4.3978+0
1.1898-2	1.1384-3	1.6532+2	1.8927+4	1.3102+2	9.6182+0	1.9786+4			1.0397+1	6.2838+0	4.1031+0
1.2763-2	1.3827-3	1.3788+2	1.6817+4	1.3827+2	1.0046+1	1.8471+4			9.2831+0	5.8582+0	3.4289+0
1.4061-2	1.7478-3	1.0750+2	1.2958+4	1.3105+2	1.0600+1	1.2818+4			7.8478+0	5.2734+0	2.8744+0
1.6714-2	2.7396-3	6.8574+1	8.2658+3	1.1321+2	1.1559+1	8.1410+3			6.0087+0	4.4300+0	1.7084+0
2.2351-2	6.0891-3	3.0954+1	3.7312+3	7.6555+1	1.2945+1	3.6387+3			3.5778+0	2.8113+0	7.6858-1
3.1475-2	1.5475-2	1.2140+1	1.4833+3	4.8033+1	1.4238+1	1.4011+3			1.8468+0	1.6500+0	2.9678-1
4.4706-2	4.1244-2	4.5549+0	5.4904+2	2.6773+1	1.4991+1	5.0728+2			1.0031+0	8.8530-1	1.0779-1
7.0502-2	1.4285-1	1.3151+0	1.5853+2	1.2017+1	1.5119+1	1.3139+2			4.1407+1	3.8609+1	2.7979-2
8.7814-2	2.4720-1	7.5998-1	9.1605+1	8.1285+0	1.4833+1	8.8645+1			2.7305+1	2.5843-1	1.4828-2
1.0000-1	3.3656-1	5.5818-1	6.7283+1	6.3857+0	1.4848+1	4.6249+1			2.1357+1	2.0371-1	8.8560-3
1.2247-1	5.1881-1	3.8141-1	4.3564+1	4.3808+0	1.4113+1	2.5071+1			1.4814-1	1.4279-1	5.3455-3
1.5125-1	7.6069-1	2.4896-1	2.9789+1	2.9331+0	1.3576+1	1.3259+1			1.0581-1	1.0279-1	2.8278-3
1.8117-1	9.9707-1	1.8842-1	2.2712+1	2.0725+0	1.2949+1	7.6889+0			8.3124-2	8.1484-2	1.6398-3
2.1384-1	1.2181+0	1.5422-1	1.6580+1	1.5029+0	1.2399+1	4.8877+0			7.1130-2	7.0131-2	6.9968-4
2.4865-1	1.4207+0	1.3223-1	1.5939+1	1.1203+0	1.1809+1	3.0091+0			6.5184-2	6.4542-2	6.4174-4
2.8153-1	1.6284+0	1.1551-1	1.3824+1	8.2062-1	1.1218+1	1.8854+0			6.3114-2	6.2712-2	4.0210+4
3.5428-1	1.8696+0	1.0048-1	1.2112+1	5.5839-1	1.0486+1	1.0873+0			6.5304-2	6.5073-2	2.3179+4
4.4102-1	2.1388+0	8.7918-2	1.0588+1	3.6301-1	9.6368+0	5.9783-1			7.2718-2	7.2590-2	1.2758+4
5.8414-1	2.4868+0	7.5271-2	9.0731+0	2.0790-1	8.5757+0	2.8951-1			8.8008-2	8.7948-2	6.1771-5
7.4448-1	2.8239+0	6.6527-2	8.0191+0	1.2833-1	7.7281+0	1.6287-1			1.0682-1	1.0678-1	3.4894-5
1.0000+0	3.2842+0	5.7202-2	6.8861+0	7.1282-2	6.7390+0	8.5845-2			1.3508-1	1.3504-1	1.6320-5
1.0220+0	3.3220+0	5.8552-2	6.8167+0	6.8240-2	6.6669+0	8.1580-2			1.3733-1	1.3731-1	1.7410-5
1.0251+0	3.3275+0	5.8457-2	6.8053+0	6.7828-2	6.6584+0	8.1085-2	4.9837-8		1.3782-1	1.3781-1	1.7304-5
1.0287+0	3.3340+0	5.8347-2	6.7920+0	6.7350-2	6.6442+0	8.0514-2	4.9837-7		1.3787-1	1.3785-1	1.7182-5
1.0310+0	3.3390+0	5.8280-2	6.7839+0	6.7058-2	6.6367+0	8.0183-2	1.1737-6		1.3818-1	1.3817-1	1.7108-5
1.0320+0	3.3398+0	5.8250-2	6.7803+0	6.6928-2	6.6333+0	8.0008-2	1.6058-6		1.3826-1	1.3826-1	1.7074-5
1.0332+0	3.3420+0	5.8214-2	6.7759+0	6.6773-2	6.6293+0	7.9823-2	2.2496-6		1.3839-1	1.3838-1	1.7035-5
1.0340+0	3.3434+0	5.8190-2	6.7730+0	6.6670-2	6.6267+0	7.9700-2	2.7816-6		1.3847-1	1.3845-1	1.7009-5
1.0353+0	3.3457+0	5.8151-2	6.7684+0	6.6504-2	6.6223+0	7.9500-2	3.7485-6		1.3859-1	1.3858-1	1.6966-5
1.0366+0	3.3481+0	5.8111-2	6.7635+0	6.6332-2	6.6179+0	7.9295-2	4.6837-6		1.3872-1	1.3870-1	1.6922-5
1.0382+0	3.3509+0	5.8065-2	6.7578+0	6.6134-2	6.6127+0	7.9057-2	6.7257-6		1.3887-1	1.3885-1	1.6871-5
1.0397+0	3.3535+0	5.8020-2	6.7528+0	6.5944-2	6.6078+0	7.8829-2	8.7381-6		1.3901-1	1.3900-1	1.6823-5
1.0415+0	3.3567+0	5.7967-2	6.7462+0	6.5717-2	6.6019+0	7.8557-2	1.1626-5		1.3918-1	1.3917-1	1.6765-5
1.0438+0	3.3608+0	5.7899-2	6.7380+0	6.5429-2	6.5943+0	7.8212-2	1.6137-5		1.3940-1	1.3939-1	1.6691-5
1.0484+0	3.3654+0	5.7823-2	6.7289+0	6.5105-2	6.5858+0	7.7824-2	2.2452-5		1.3965-1	1.3963-1	1.6608-5
1.0483+0	3.3687+0	5.7787-2	6.7221+0	6.4870-2	6.5796+0	7.7542-2	2.7963-5		1.3983-1	1.3981-1	1.6548-5
1.0512+0	3.3738+0	5.7682-2	6.7119+0	6.4514-2	6.5702+0	7.7115-2	3.7918-5		1.4011-1	1.4009-1	1.6457-5
1.0541+0	3.3789+0	5.7599-2	6.7018+0	6.4163-2	6.5609+0	7.6685-2	4.8837-5		1.4038-1	1.4036-1	1.6367-5
1.0577+0	3.3853+0	5.7494-2	6.6892+0	6.3728-2	6.5492+0	7.6172-2	6.7832-5		1.4072-1	1.4071-1	1.6256-5
1.0611+0	3.3912+0	5.7397-2	6.6775+0	6.3320-2	6.5384+0	7.5685-2	8.8362-5		1.4105-1	1.4103-1	1.6152-5
1.0651+0	3.3982+0	5.7283-2	6.6637+0	6.2847-2	6.5256+0	7.5118-2	1.1688-4		1.4143-1	1	

October 31, 1999
Atomic Weight 72.590

ENDL Evaluated
Photon Data

32-Ge
Density 5.323 Grans/cc

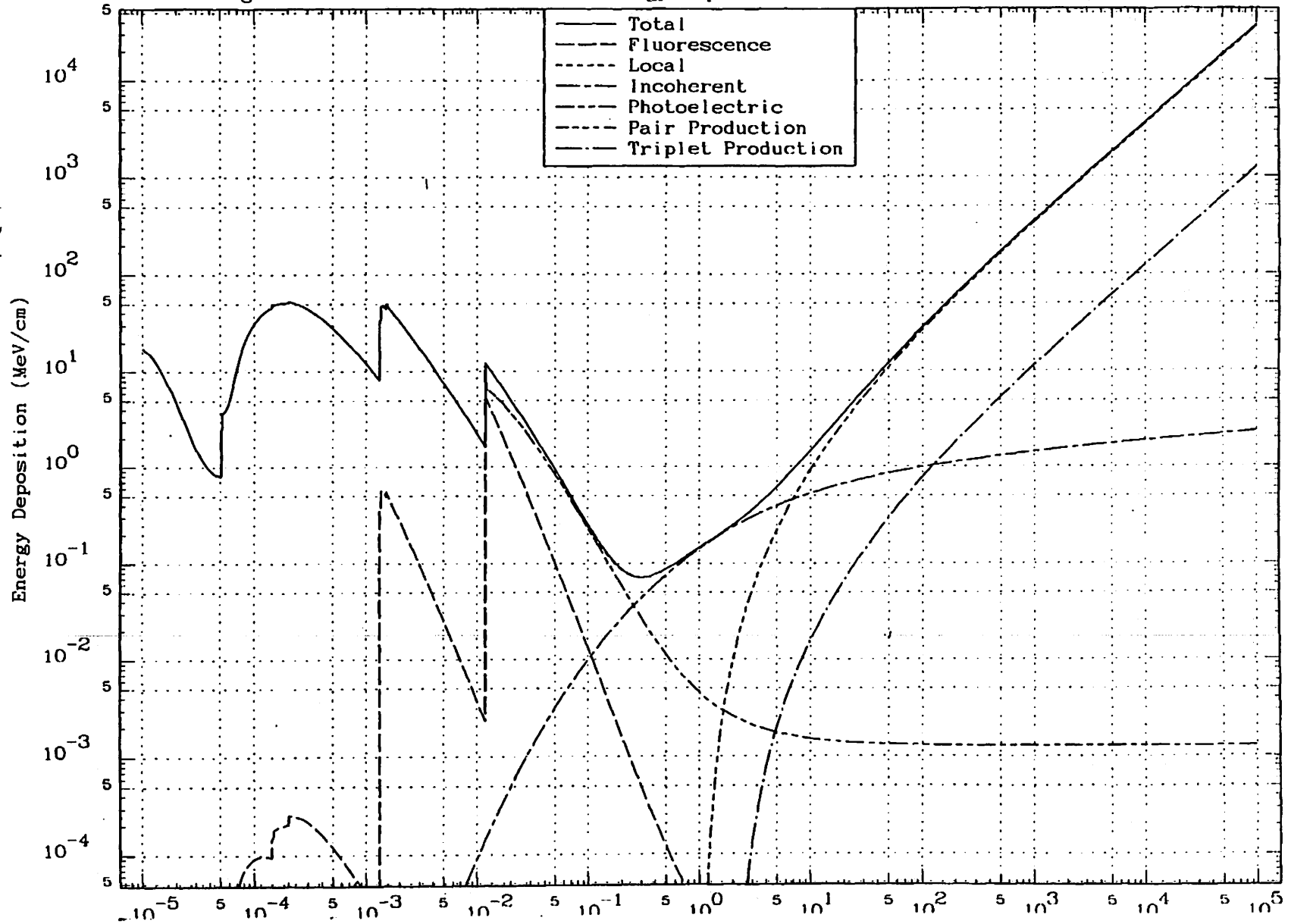
Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0871+0	3.4364+0	5.4668-2	6.5896+0	6.0337-2	6.4568-0	7.2112-2	3.7950-4		4.351+1	1.4349-1	1.5359-5
1.0937+0	3.4478+0	5.4488-2	6.5679+0	5.9613-2	6.4365-0	7.1243-2	4.9837-4		4.413+1	1.4412-1	1.5204-5
1.1028+0	3.4630+0	5.4248-2	6.5390+0	5.8658-2	6.4096-0	7.0100-2	6.9099-4		4.497+1	1.4496-1	1.4960-5
1.1107+0	3.4768+0	5.4033-2	6.5131+0	5.7809-2	6.3853-0	6.9083-2	9.0118-4		4.573+1	1.4572-1	1.4743-5
1.1208+0	3.4936+0	5.3774-2	6.4818+0	5.6996-2	6.3560-0	6.7889-2	1.2055-3		4.687+1	1.4685-1	1.4484-5
1.1333+0	3.5149+0	5.3448-2	6.4425+0	5.5534-2	6.3189-0	6.6358-2	1.6762-3		4.786+1	1.4785-1	1.4161-5
1.1475+0	3.5385+0	5.3091-2	6.3995+0	5.4173-2	6.2783-0	6.4727-2	2.3143-3		4.919+1	1.4918-1	1.3813-5
1.1582+0	3.5582+0	5.2827-2	6.3677+0	5.3180-2	6.2481+0	6.3538-2	2.8760-3		5.020+1	1.5018-1	1.3580-5
1.1741+0	3.5822+0	5.2444-2	6.3215+0	5.1754-2	6.2041+0	6.1831-2	3.8439-3		5.189+1	1.5168-1	1.3195-5
1.1901+0	3.6080+0	5.2068-2	6.2762+0	5.0376-2	6.1607+0	6.0196-2	4.9837-3		5.319+1	1.5318-1	1.2846-5
1.2051+0	3.6319+0	5.1726-2	6.2350+0	4.9135-2	6.1208+0	5.8659-2	6.2037-3		5.460+1	1.5459-1	1.2561-5
1.2275+0	3.6670+0	5.1231-2	6.1753+0	4.7384-2	6.0627+0	5.6946-2	8.3030-3		5.671+1	1.5670-1	1.2153-5
1.2856+0	3.7255+0	5.0427-2	6.0784+0	4.4563-2	5.9673+0	5.3901-2	1.2586-2		6.029+1	1.6028-1	1.1503-5
1.2949+0	3.7693+0	4.9840-2	6.0076+0	4.2574-2	5.8969+0	5.1723-2	1.6425-2		6.305+1	1.6304-1	1.1038-5
1.3318+0	3.8233+0	4.9137-2	5.9229+0	4.0253-2	5.8116+0	4.9168-2	2.1852-2		6.652+1	1.6611-1	1.0493-5
1.3826+0	3.8672+0	4.8579-2	5.8556+0	3.8456-2	5.7431+0	4.7183-2	2.6827-2		7.043+1	1.6942-1	1.0069-5
1.4117+0	3.9353+0	4.7738-2	5.7543+0	3.5835-2	5.6387+0	4.4268-2	3.5501-2		7.408+1	1.7407-1	9.4676-6
1.5000+0	4.0519+0	4.6364-2	5.5887+0	3.1750-2	5.4641+0	3.9680-2	5.3200-2		8.249+1	1.8248-1	8.4680-6
1.8172+0	4.1949+0	4.4784-2	5.3882+0	2.7321-2	5.2550+0	3.4831-2	8.0973-2		1.0384+1	1.8383-1	7.4545-6
1.7188+0	4.3085+0	4.3604-2	5.2559+0	2.4191-2	5.0916+0	3.1504-2	1.0863-1		2.0389+1	2.0388-1	6.7233-6
1.8923+0	4.4990+0	4.1756-2	5.0333+0	1.9964-2	4.8248+0	2.6767-2	1.6193-1		2.1690+1	2.1689-1	5.7122-6
2.0440+0	4.6471+0	4.0428-2	4.8729+0	1.7114-2	4.6207+0	2.3530-2	2.1180-1		2.3439+1	2.3439-1	5.0215-6
2.0858+0	4.6888+0	4.0088-2	4.8298+0	1.6438-2	4.5655+0	2.2818-2	2.2508-1	3.2130-7	2.3818+1	2.3818-1	4.8895-6
2.1066+0	4.7086+0	3.9898-2	4.8092+0	1.6113-2	4.5387+0	2.2477-2	2.3187-1	1.0468-6	2.4006+1	2.4005-1	4.7967-6
2.1140+0	4.7157+0	3.9838-2	4.8021+0	1.6000-2	4.5292+0	2.2357-2	2.3446-1	1.4484-6	2.4073+1	2.4073-1	4.7712-6
2.1195+0	4.7209+0	3.9794-2	4.7968+0	1.5918-2	4.5223+0	2.2269-2	2.3632-1	1.8033-6	2.4124+1	2.4124-1	4.7524-6
2.1279+0	4.7287+0	3.9728-2	4.7888+0	1.5792-2	4.5117+0	2.2136-2	2.3919-1	2.4458-6	2.4201+1	2.4201-1	4.7240-6
2.1363+0	4.7365+0	3.9663-2	4.7809+0	1.5669-2	4.5012+0	2.2005-2	2.4206-1	3.2130-6	2.4279+1	2.4278-1	4.6959-6
2.1470+0	4.7464+0	3.9580-2	4.7709+0	1.5513-2	4.4878+0	2.1838-2	2.4578-1	4.4053-6	2.4378+1	2.4378-1	4.6603-6
2.1635+0	4.7614+0	3.9455-2	4.7559+0	1.5277-2	4.4674+0	2.1585-2	2.5159-1	6.8988-6	2.4533+1	2.4533-1	4.6084-6
2.1845+0	4.7810+0	3.9294-2	4.7384+0	1.4885-2	4.4419+0	2.1271-2	2.5826-1	1.0615-5	2.4725+1	2.4725-1	4.5394-6
2.2018+0	4.7988+0	3.9164-2	4.7208+0	1.4751-2	4.4212+0	2.1018-2	2.6385-1	1.4686-5	2.4884+1	2.4884-1	4.4853-6
2.2148+0	4.8088+0	3.9088-2	4.7093+0	1.4578-2	4.4057+0	2.0831-2	2.6809-1	1.8297-5	2.5005+1	2.5005-1	4.4454-6
2.2342+0	4.8259+0	3.8929-2	4.6924+0	1.4326-2	4.3830+0	2.0567-2	2.7451-1	2.4813-5	2.5188+1	2.5188-1	4.3869-6
2.2537+0	4.8429+0	3.8792-2	4.6759+0	1.4080-2	4.3605+0	2.0287-2	2.8105-1	3.2130-5	2.5389+1	2.5389-1	4.3295-6
2.2815+0	4.8666+0	3.8602-2	4.6531+0	1.3739-2	4.3288+0	1.9913-2	2.9056-1	4.5004-5	2.5633+1	2.5632-1	4.2498-6
2.3070+0	4.8878+0	3.8435-2	4.6329+0	1.3437-2	4.3004+0	1.9590-2	2.9945-1	5.9113-5	2.5878+1	2.5877-1	4.1785-6
2.3382+0	4.9131+0	3.8238-2	4.6091+0	1.3081-2	4.2662+0	1.9184-2	3.1056-1	7.8483-5	2.6180+1	2.6180-1	4.0941-6
2.3774+0	4.9438+0	3.8000-2	4.5804+0	1.2654-2	4.2243+0	1.8706-2	3.2464-1	1.1007-4	2.6585+1	2.6584-1	3.9921-6
2.4102+0	4.9702+0	3.7798-2	4.5581+0	1.2312-2	4.1901+0	1.8221-2	3.3526-1	1.4000-4	2.6879+1	2.6879-1	3.9098-6
2.4468+0	4.9987+0	3.7583-2	4.5302+0	1.1947-2	4.1528+0	1.7908-2	3.4733-1	1.7808-4	2.7235+1	2.7234-1	3.8214-6
2.4859+0	5.0281+0	3.7363-2	4.5037+0	1.1574-2	4.1139+0	1.7481-2	3.6050-1	2.2422-4	2.7620+1	2.7619-1	3.7305-6
2.5564+0	5.0783+0	3.6993-2	4.4591+0	1.0945-2	4.0461+0	1.6754-2	3.8488-1	3.2130-4	2.8328+1	2.8328-1	3.5753-6
2.8804+0	5.1488+0	3.6502-2	4.4000+0	1.0106-2	3.9515+0	1.5770-2	4.2205-1	4.9530-4	2.9403+1	2.9403-1	3.3853-6
2.7453+0	5.2017+0	3.6118-2	4.3534+0	9.4915-3	3.8785+0	1.5035-2	4.4966-1	6.6292-4	3.0272+1	3.0272-1	3.2086-6
2.8090+0	5.2401+0	3.5851-2	4.3214+0	9.0662-3	3.8281+0	1.4520-2	4.7098-1	8.0283-4	3.0941+1	3.0941-1	3.0987-6
2.9045+0	5.2933+0	3.5491-2	4.2781+0	8.4802-3	3.7509+0	1.3802-2	5.0382-1	1.0342-3	3.1971+1	3.1970-1	2.9454-6
3.0389+0	5.3621+0	3.5035-2	4.2231+0	7.7420-3	3.6508+0	1.2901-2	5.5022-1	1.4018-3	3.3467+1	3.3466-1	2.7532-6
3.2344+0	5.4688+0	3.4347-2	4.1402+0	6.8393-3	3.5070+0	1.1837-2	6.1245-1	2.0258-3	3.5459+1	3.5459-1	2.5280-6
3.4375+0	5.5820+0	3.3777-2	4.0714+0	6.0552-3	3.3713+0	1.0877-2	6.8041-1	2.7723-3	3.7878+1	3.7875-1	2.3212-6
3.7847+0	5.7020+0	3.2947-2	3.9714+0	4.9956-3	3.1874+0	9.5167-3	7.8519-1	4.2534-3	4.1525+1	4.1525-1	2.0309-6
4.0000+0	5.7884+0	3.2579-2	3.9270+0	4.4725-3	3.0559+0	8.8130-3	8.5260-1	5.2690-3	4.4097+1	4.4097-1	1.8808-6
4.2500+0	5.8384+0	3.2177-2	3.8788+0	3.9619-3	2.9381+0	8.1391-3	9.2187-1	6.5102-3	4.7057+1	4.7057-1	1.7369-6
4.7500+0	5.9328+0	3.1686-2	3.8170+0	3.1718-3	2.7338+0	7.0338-3	1.0639+0	9.1064-3	5.3474+1	5.3474-1	1.5011-6
5.5135+0	6.0251+0	3.1180-2	3.7594+0	2.3543-3	2.4820+0	5.8130-3	1.2549+0	1.3353-2	6.3755+1	6.3755-1	1.2406-6
6.3640+0	6.0847+0	3.0875-2	3.7218+0	1.7872-3	2.2434+0	4.8610-3	1.4535+0	1.8091-2	7.5674+1	7.5674-1	1.0374-6
7.4833+0	6.0906+0	3.0845-2	3.7180+0	1.2781-3	2.0133+0	3.8922-3	1.8872+0	2.4264-2	9.2824+1	9.2824-1	8.5197-7
9.0000+0	6.0231+0	3.1181-2	3.7597+0	8.8385-4	1.7573+0	3.2080-3	1.9660+0	3.2320-2	1.1768+0	1.1768+0	6.8461-7
1.0000+1	5.9802+0	3.1520-2	3.7894+0	7.1577-4	1.6316+0	2.8390-3	2.1270+0	3.7260-2	1.3519+0	1.3519+0	6.0586-7
1.3000+1	5.7873+0	3.2574-2	3.8284+0	4.2354-4	1.3403+0	2.1070-3	2.5330+0	5.0520-2	1.9084+0	1.9084+0	4.4985-7
1.8000+1	5.4438+0	3.4511-2	4.1599+0	2.2092-4	1.0498+0	1.4710-3	3.0400+0	6.8460-2	2.9330+0	2.9330+0	3.1392-7
2.6000+1	5.0435+0	3.7248-2	4.4899+0	1.0589-4	7.8491-1	9.9090-4	3.6140+0	8.9870-2	4.7520+0	4.7520+0	2.1147-7
4.2170+1	4.5382+0	4.1396-2	4.8888+0	4.0252-5	5.3550-1	5.9840-4	4.3353+0	1.1825-1	8.8531+0	8.8531+0	1.2728-7
8.0000+1	4.2188+0	4.4552-2	5.3702+0	1.9883-5	4.0015-1	4.1420-4	4.8310+0	1.3860-1	1.3768+1	1.3768+1	8.8393-8
1.0000+2	3.8432+0	4.8883-2	5.8922+0	7.1580-8	2.8238-1	2.4570-4	5.4840+0	1.8560-1	2.5527+1	2.5527+1	5.2434-8
2.0000+2	3.4988+0	5.3724-2	6.4759+0	1.7895-8	1.4512-1	1.2180-4	6.1340+0	1.9660-1	5.6889+1	5.6889+1	2.5893-8
5.0000+2	3.2373+0	5.8030-2	6.9949+0	2.8632-7	7.5663-2	4.8480-5	6.7030+0	2.2620-1	1.5389+2	1.5389+2	1.0348-8
1.0000+3	3.1318+0	5.9987-2	7.2307+0	7.1580-8	3.5783-2	2.4200-5	6.9540+0	2.4090-1	3.1874+2	3.1874+2	5.1845-9
5.0000+3	3.0268+0	6.2086-2	7.4814+0	2.8832-9	8.4811-3	4.8330-6	7.2150+0	2.5790-1	1.6513+3	1.6513+3	1.0314-9
1.0000+4	3.0103+0	6.2407-2	7.5224+0	7.1580-10	4.5178-3	2.4160-6	7.2570+0	2.6090-1	3.3213+3	3.3213+3	5.1559-10
1.0000+5	2.9922+0	6.2784-2	7.5679+0	7.1554-12	5.4568-4	2.4160-7	7.3030+0	2.6430-1	3.3419+4	3.3419+4	5.1560-11

October 31, 1989
Atomic Weight 74.922

ENDL Evaluated
Energy Deposition

33-As
Density 5.730 Grams/cc

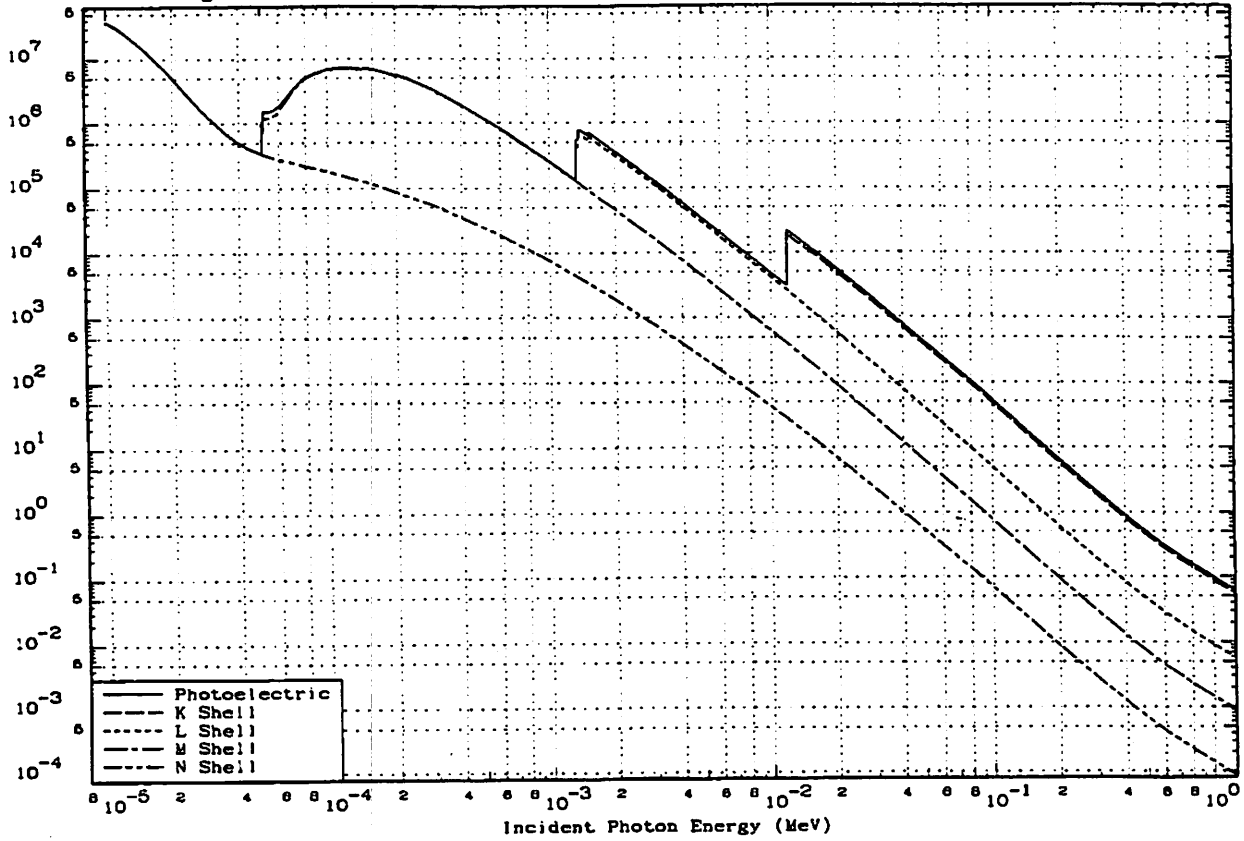
220



October 31, 1989
Atomic Weight 74.922

ENDL Evaluated
Photoelectric Shell Cross Sections

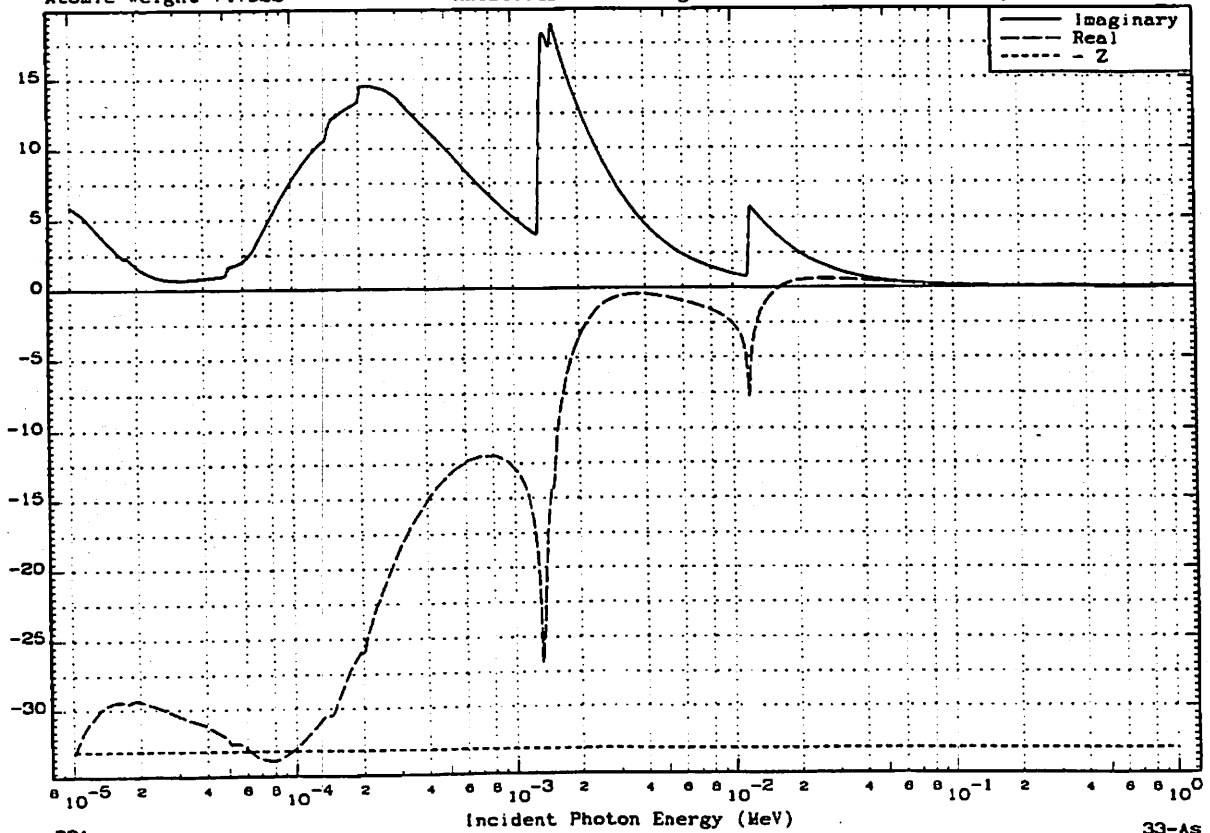
33-As
Density 5.730 Grams/cc

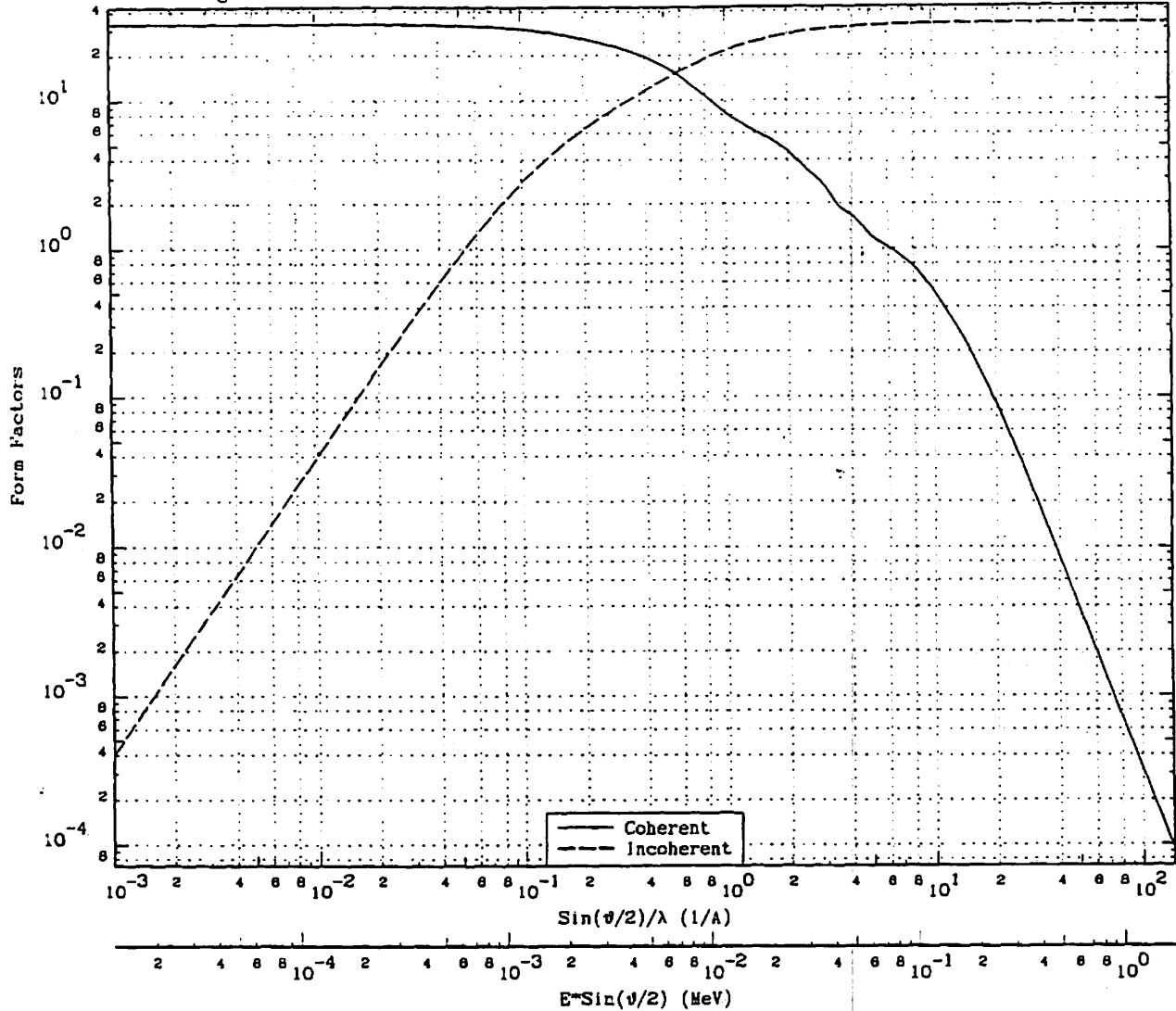


October 31, 1989
Atomic Weight 74.922

ENDL Evaluated
Anomalous Scattering Factors

33-As
Density 5.730 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	3.3000+1	0.0000+0	7.0000-1	8.6790-3	1.2374+1	1.7511+1	1.5000+1	1.8598-1	2.0242-1	3.2979+1
1.0000-3	1.2399-5	3.3000+1	4.0000-4	8.0000-1	9.9188-3	1.0683+1	1.9058+1	1.8770+1	2.3272-1	1.0718-1	3.2992+1
5.0000-3	6.1993-5	3.2986+1	1.0000-2	9.0000-1	1.1159-2	9.3346+0	2.0420+1	2.0000+1	2.4797-1	8.8404-2	3.2998+1
1.0000-2	1.2399-4	3.2963+1	4.0000-2	1.0000+0	1.2399-2	8.3277+0	2.1612+1	2.8053+1	3.2302-1	3.7925-2	3.2997+1
1.5000-2	1.8598-4	3.2931+1	9.0300-2	1.2500+0	1.5498-2	8.7470+0	2.3938+1	3.7109+1	4.8010-1	1.1266-2	3.2999+1
2.0000-2	2.4797-4	3.2877+1	1.5930-1	1.5000+0	1.8598-2	5.8849+0	2.5583+1	5.0000+1	6.1993-1	3.8880-3	3.3000+1
2.5000-2	3.0996-4	3.2809+1	2.4830-1	1.8945+0	2.3489-2	4.8258+0	2.7418+1	8.0000+1	9.9188-1	7.1454-4	3.3000+1
3.0000-2	3.7196-4	3.2726+1	3.5040-1	2.0000+0	2.4797-2	4.5438+0	2.7810+1	1.0000+2	1.2399+0	3.2084-4	3.3000+1
4.0000-2	4.9594-4	3.2521+1	6.0410-1	2.5000+0	3.0996-2	3.3924+0	2.9264+1	1.7117+2	2.1223+0	4.8813-5	3.3000+1
5.0000-2	6.1993-4	3.2288+1	9.0900-1	2.8945+0	3.5888-2	2.8318+0	3.0041+1	2.7479+2	3.4070+0	9.7917-6	3.3000+1
7.0000-2	8.6790-4	3.1625+1	1.6212+0	3.0000+0	3.7196-2	2.6608+0	3.0209+1	4.7714+2	5.9158+0	1.5840-6	3.3000+1
9.0000-2	1.1159-3	3.0859+1	2.3995+0	3.4590+0	4.2888-2	1.8683+0	3.0779+1	1.0000+3	1.2399+1	1.4732-7	3.3000+1
1.0000-1	1.2399-3	3.0450+1	2.7930+0	3.5000+0	4.3395-2	1.8292+0	3.0822+1	2.6333+3	3.2649+1	7.1528-9	3.3000+1
1.2500-1	1.5498-3	2.9361+1	3.7577+0	4.0000+0	4.9594-2	1.6926+0	3.1241+1	8.6119+3	8.1978+1	4.3205-10	3.3000+1
1.5000-1	1.8598-3	2.8259+1	4.6750+0	5.0000+0	6.1993-2	1.2195+0	3.1796+1	1.4899+4	1.8473+2	3.7997-11	3.3000+1
1.7500-1	2.1697-3	2.7201+1	5.5432+0	5.7129+0	7.0832-2	1.0750+0	3.2076+1	4.2646+4	5.2875+2	1.7156-12	3.3000+1
2.0000-1	2.4797-3	2.6187+1	6.3650+0	6.0000+0	7.4391-2	1.0330+0	3.2173+1	1.0000+6	1.2399+4	1.8324-16	3.3000+1
2.5000-1	3.0996-3	2.4348+1	7.8777+0	7.0000+0	8.6790-2	8.8600-1	3.2442+1	5.6234+6	6.9722+4	1.1956-18	3.3000+1
3.0000-1	3.7196-3	2.2895+1	9.2360+0	8.0000+0	9.9188-2	7.6290-1	3.2829+1	7.4989+7	9.2975+5	5.8662-22	3.3000+1
4.0000-1	4.9594-3	1.9891+1	1.1658+1	9.1387+0	1.1331-1	8.1554-1	3.2768+1	1.0000+8	1.2399+7	2.7511-25	3.3000+1
5.0000-1	6.1993-3	1.6951+1	1.3828+1	1.0000+1	1.2399-1	5.1660-1	3.2840+1				
6.0000-1	7.4391-3	1.4485+1	1.5775+1	1.2069+1	1.4984-1	3.4515-1	3.2931+1				

Energy keV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cc*cm/graz	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	5.6822-7	3.0713+5	3.8210-7	2.3312-1	8.6554-5	3.8210-7			1.7599-1	1.7599-1	
1.1404-5	7.3359-7	2.3790+5	2.9597-7	2.0736-1	1.1256-4	2.9597-7			1.5546-1	1.5546-1	
1.2262-5	8.7498-7	1.9946+5	2.4814-7	1.9189-1	1.3014-4	2.4814-7			1.4014-1	1.4014-1	
1.4259-5	1.3391-6	1.3033+5	1.6214-7	1.6189-1	1.7595-4	1.6214-7			1.0648-1	1.0648-1	
1.5359-5	1.6944-6	1.0300+5	1.2814-7	1.4761-1	2.0415-4	1.2814-7			9.0845-0	9.0845-0	
1.7553-5	2.6630-6	6.5536+4	8.1534-6	1.1629-1	2.6663-4	8.1534-6			6.5916-0	6.5916-0	
1.7713-5	2.7460-6	6.3555+4	7.9068-6	1.1346-1	2.7151-4	7.9068-6			6.4505-0	6.4505-0	
1.7880-5	2.8244-6	6.1791+4	7.6874-6	1.1554-1	2.7603-4	7.6874-6			6.3235+0	6.3235+0	
1.7860-5	2.7595-6	6.3243+4	7.8681-6	1.1554+1	2.7603-4	7.8681-6			6.4721+0	6.4721+0	
1.8114-5	2.8092-6	5.9988+4	7.4632-6	1.2032+1	2.8394-4	7.4632-6			6.2265+0	6.2265+0	
1.8923-5	3.4369-6	5.0776+4	6.3174+6	1.1651+1	3.0684-4	6.3174+6			5.5058+0	5.5058+0	
2.5155-5	1.0253-5	1.7021+4	2.1176-6	6.8484+0	5.4749-4	2.1176+6			2.4534+0	2.4534+0	
2.8264-5	1.7631-5	9.8987+3	1.2315+6	5.0858+0	7.4092-4	1.2315+6			1.6598+0	1.6598+0	
3.4010-5	2.8228-5	6.1825+3	7.6916+5	3.7413+0	1.0006-3	7.6916+5			1.2048+0	1.2048+0	
3.7224-5	3.6209-5	4.8198+3	5.9964+5	3.1473+0	1.1987-3	5.9964+5			1.0280+0	1.0280+0	
3.8065-5	4.0460-5	4.3134+3	5.3663+5	2.8696+0	1.3201-3	5.3663+5			9.6550-1	9.6550-1	
4.4721-5	5.3287-5	3.2751+3	4.0746+5	1.6733+0	1.7301-3	4.0746+5			8.3926-1	8.3926-1	
4.8647-5	6.2201-5	2.8057+3	3.4906+5	1.1030+0	2.1321-3	3.4906+5			7.9816-1	7.9816-1	
4.9978-5	6.2785-5	2.7797+3	3.4582+5	1.0389+0	2.1806-3	3.4582+5			7.9802-1	7.9802-1	
5.0259-5	6.3281-5	2.7579+3	3.4311+5	1.0415+0	2.1849-3	3.4311+5			7.9422-1	7.9422-1	
5.0550-5	6.3786-5	2.7356+3	3.4034+5	1.1575+0	2.2103-3	3.4034+5			7.8237-1	7.8237-1	
M5 5.0550-5	2.0226-5	8.8285+3	1.0735+6	1.1575+0	2.2103-3	1.0735+6			2.4992+0	2.4992+0	
5.0681-5	2.0270-5	8.8097+3	1.0711+6	1.2135+0	2.2218-3	1.0711+6			2.5002+0	2.5002+0	
5.1152-5	2.0430-5	8.5425+3	1.0628+6	1.5316+0	2.2632-3	1.0628+6			2.5038+0	2.5038+0	
5.1320-5	2.0487-5	8.5187+3	1.0598+6	1.6306+0	2.2781-3	1.0598+6			2.5050+0	2.5050+0	
M4 5.1320-5	1.4102-5	1.2375+4	1.5396+6	1.6306+0	2.2781-3	1.5396+6			3.6391+0	3.6391+0	1.6811-5
5.1560-5	1.4156-5	1.2328+4	1.5338+6	1.7823+0	2.2995-3	1.5338+6			3.6422+0	3.6422+0	1.6750-5
5.1926-5	1.4233-5	1.2262+4	1.5255+6	1.9318+0	2.3322-3	1.5255+6			3.6483+0	3.6483+0	1.6658-5
5.2612-5	1.4314-5	1.2192+4	1.5168+6	2.0455+0	2.3943-3	1.5168+6			3.6755+0	3.6755+0	1.6571-5
5.5080-5	1.4167-5	1.2319+4	1.5326+6	2.2113+0	2.6241-3	1.5326+6			3.8878+0	3.8878+0	1.6834-5
5.7989-5	1.3093-5	1.3329+4	1.6583+6	2.4307+0	2.9085-3	1.6583+6			4.4290+0	4.4290+0	1.8531-5
6.0494-5	1.1612-5	1.5030+4	1.8699+6	2.8636+0	3.1653-3	1.8699+6			5.2098+0	5.2098+0	2.1302-5
6.2780-5	1.0085-5	1.7305+4	2.1530+6	3.5213+0	3.4103-3	2.1530+6			6.2268+0	6.2268+0	2.4971-5
6.6068-5	8.1719-6	2.1356+4	2.6569+6	4.9512+0	3.7753-3	2.6569+6			8.0848+0	8.0848+0	3.1970-5
8.8125-5	7.1847-6	2.4291+4	3.0220+6	6.2148+0	4.0139-3	3.0220+6			8.4819+0	8.4819+0	3.7104-5
7.0000-5	8.3913-6	2.7306+4	3.3972+6	7.3866+0	4.2379-3	3.3971+6			1.0952+1	1.0952+1	4.2338-5
7.4833-5	5.0374-6	3.4845+4	3.4102+6	1.1295+1	4.8432-3	3.4102+6			1.4855+1	1.4855+1	5.5257-5
8.0049-5	4.2180-6	4.1375+4	5.1474+6	1.7338+1	5.5417-3	5.1474+6			1.8978+1	1.8978+1	6.7345-5
8.7389-5	3.6256-6	4.6136+4	5.9886+6	2.5325+1	6.6043-3	5.9885+6			2.4103+1	2.4103+1	7.9633-5
1.0000-4	3.1841-6	5.4810+4	6.1819+6	3.9459+1	8.6476-3	6.1819+6			3.1406+1	3.1406+1	9.1915-5
1.1601-4	3.0106-6	5.7968+4	7.2120+6	5.7138+1	1.1632-2	7.2118+6			3.8536+1	3.8535+1	9.9007-5
1.3488-4	3.0562-6	5.7103+4	7.1042+6	7.5420+1	1.5887-2	7.1041+6			4.4087+1	4.4087+1	9.7718-5
1.4221-4	3.1407-6	5.5588+4	6.9132+6	7.9394+1	1.7483-2	6.9131+6			4.5278+1	4.5278+1	9.5337-5
1.4378-4	3.1605-6	5.5219+4	6.8696+6	8.4837-1	1.7851-2	6.8697+6			4.5492+1	4.5492+1	9.4674-5
M3 1.4378-4	3.0475-6	5.7266+4	7.1245+6	8.4837-1	1.7851-2	7.1244+6			4.7179+1	4.7179+1	1.4727-4
1.4567-4	3.0628-6	5.6981+4	7.0890+6	9.1784-1	1.8323-2	7.0889+6			4.7581+1	4.7581+1	1.4984-4
1.4895-4	3.0890-6	5.6497+4	7.0288+6	9.9762+1	1.8155-2	7.0287+6			4.8219+1	4.8219+1	1.5377-4
M2 1.4895-4	3.0411-6	5.7388+4	7.1396+6	9.9762+1	1.8155-2	7.1395+6			4.8978+1	4.8978+1	1.7868-4
1.5193-4	3.0712-6	5.8824+4	7.0695+6	1.0588+1	2.0928-2	7.0694+6			4.9468+1	4.9468+1	1.8464-4
1.7517-4	3.4189-6	5.1075+4	6.3543+6	1.3196+1	2.6476-2	6.3542+6			5.1265+1	5.1265+1	2.0182-4
1.9533-4	3.8340-6	4.5519+4	5.6630+6	1.5002+1	3.2905-2	5.6628+6			5.0945+1	5.0945+1	2.0531-4
2.0001-4	3.9313-6	4.4393+4	5.5229+6	1.5184+1	3.4498-2	5.5228+6			5.0875+1	5.0875+1	2.0612-4
2.0202-4	3.9728-6	4.3922+4	5.4651+6	1.6079+1	3.5193-2	5.4650+6			5.0849+1	5.0849+1	2.0646-4
M1 2.0202-4	3.8201-6	4.5685+4	5.6837+6	1.6079+1	3.5193-2	5.6835+6			5.2892+1	5.2892+1	2.5678-4
2.0498-4	3.8764-6	4.5021+4	5.6011+6	1.7580+1	3.8231-2	5.6009+6			5.2878+1	5.2878+1	2.5700-4
2.0867-4	3.9828-6	4.4040+4	5.4760+6	1.8327+1	3.7544-2	5.4768+6			5.2656+1	5.2656+1	2.5854-4
2.2795-4	4.4541-6	3.9182+4	4.8747+6	2.0638+1	4.4785-2	4.8745+6			5.1175+1	5.1175+1	2.5215-4
2.6691-4	5.5785-6	3.1296+4	3.8935+6	2.4135+1	6.1384-2	3.8933+6			4.7860+1	4.7860+1	2.3842-4
3.0211-4	6.7893-6	2.5705+4	3.1980+6	2.6540+1	7.8170-2	3.1977+6			4.4495+1	4.4495+1	2.1938-4
4.0684-4	1.1702-5	1.4913+4	1.6554+6	3.0197+1	1.3937-1	1.6551+6			3.4780+1	3.4780+1	1.6098-4
5.3026-4	2.0047-5	8.7055+3	1.0831+6	3.2308+1	2.3149-1	1.0827+6			2.8442+1	2.8442+1	1.1180-4
6.1224-4	2.7256-5	6.4031+3	7.8661+5	3.2486+1	3.0270-1	7.8628+5			2.2454+1	2.2453+1	8.9578-5
7.0857-4	3.7773-5	4.6203+3	5.7481+5	3.1848+1	3.9678-1	5.7449+5			1.8748+1	1.8748+1	6.9929-5
8.3392-4	5.4254-5	3.2167+3	4.0019+5	3.0354+1	5.2895-1	3.9989+5			1.5359+1	1.5359+1	5.2554-5
9.3531-4	7.0653-5	2.4701+3	3.0730+5	2.8323+1	6.4651-1	3.0702+5			1.3226+1	1.3226+1	4.2396-5
1.0000-3	8.2413-5	2.1176+3	2.6346+5	2.6461+1	7.2385-1	2.6318+5			1.2122+1	1.2122+1	3.7407-5
1.0422-3	9.0978-5	1.9183+3	2.3865+5	2.5373+1	7.7360-1	2.3840+5			1.1443+1	1.1443+1	3.4374-5
1.1157-3	1.0709-4	1.8298+3	2.0274+5	2.2502+1	8.6322-1	2.0251+5			1.0408+1	1.0408+1	2.9900-5
1.1548-3	1.1631-4	1.5005+3	1.8667+5	2.0648+1	9.1245-1	1.8647+5			9.9178+0	9.9177+0	2.7863-5
1.2118-3	1.3055-4	1.3368+3	1.6632+5	1.7177+1	9.8601-1	1.6614+5			9.2732+0	9.2732+0	2.5246-5
1.2459-3	1.3953-4	1.2508+3	1.5561+5	1.4412+1	1.0300+0	1.5565+5			8.9213+0	8.9212+0	2.3552-5
1.2804-3	1.4897-4	1.1718+3	1.4575+5	1.0651+1	1.0728+0	1.4585+5			8.5887+0	8.5887+0	2.2858-5
1.2962-3	1.5343-4	1.1375+3	1.4151+5	6.1510+1	1.0826+0	1.4143+5			8.4431+0	8.4430+0	2.1999-5
1.3029-3	1.5536-4	1.1233+3	1.3875+5	6.8463+1	1.1011+0	1.3868+5			8.3820+0	8.3820+0	2.1766-5
1.3134-3	1.5840-4	1.1017+3	1.3707+5	4.8854+1	1.1144+0	1.3702+5			8.2857+0	8.2887+0	2.1411-5
1.3158-3	1.5910-4	1.0989+3	1.3647+5	4.5894+1	1.1174+0	1.3642+5			8.2878+0	8.2877+0	2.1332-5
1.3181-3	1.5976-4	1.0924+3	1.3590+5	4.4813+1	1.1203+0	1.3588+5			8.2477+0	8.2477+0	2.1258-5
1.3205-3	1.6045-4	1.0877+3	1.3532+5	4.5341+1	1.1233+0	1.3529+5			8.2272+0	8.2272+0	2.1178-5
1.3232-3	1.6125-4	1.0823+3	1.3465+5	4.6657+1	1.1288+0	1.3460+5			8.2033+0	8.2032+0	2.1088-5
1.3283-3	1.6271-4	1.0728+3	1.3344+5	6.2870+1	1.1333+0	1.3338+5			8.1596+0	8.1596+0	2.0924-5
J 1.3293-3	3.9005-5	4.4744+3	5.5866+5	6.2870+1	1.1333+0	5.5859+5			3.4052+1	3.3682+1	3.8975-1
1.3347-3	3.9034-5	4.4710+3	5.5624+5	6.7848+1	1.1414+0	5.5615+5			3.4188+1	3.3817+1	3.7062-1
1.3396-3	3.9066-5	4.4685+3	5.5593+5	1.0932+1	1.1477+0	5.5582+5			3.4294+1	3.3922+1	3.7130-1
1.3446-3	3.9078-5	4.4659+3	5.5561+5	1.2835+1	1.1540+0	5.5548+5			3.4399+1	3.4027+1	3.7198-1
1.3657-3	3.9174-5	4.4550+3	5.5425+5	1.9818+1	1.1812+0	5.5405+5			3.4850+1	3.4475+1	3.7486-1
J 1.3657-3	2.8555-5	6.1118+3	7.6037+5	1.9818+1	1.1812+						

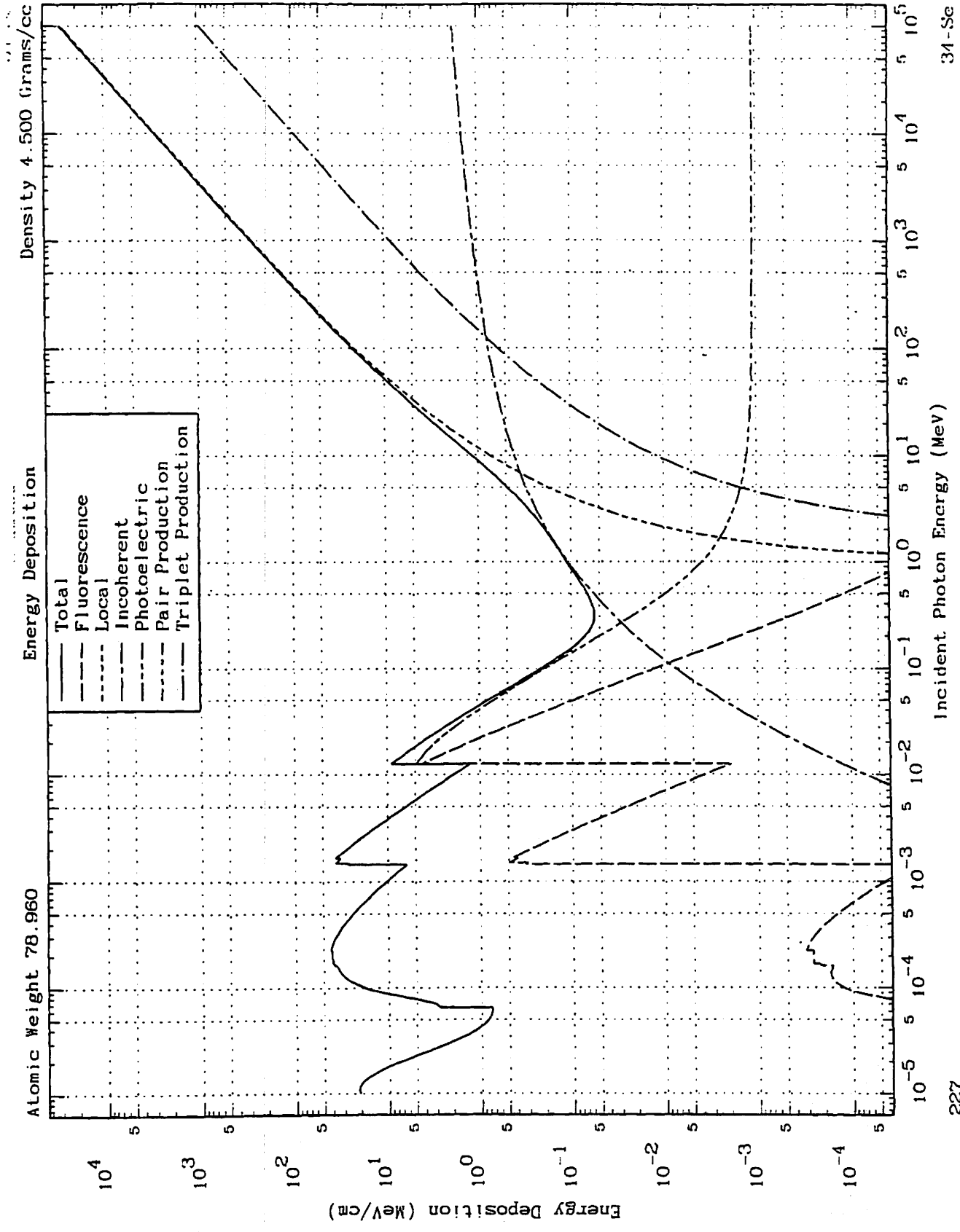
Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.3768-3	2.8618-5	6.0983-3	7.5889+5	2.4938+2	1.1856+0	7.5844+5			4.8095+1	4.7522+1	5.7322-1
1.3817-3	2.8647-5	6.0921-3	7.5793+5	2.6964+2	1.2019+0	7.5766+5			4.8215+1	4.7642+1	5.7342-1
1.3962-3	2.8733-5	6.0738-3	7.5584+5	3.1107+2	1.2208+0	7.5533+5			4.8572+1	4.7998+1	5.7404-1
1.4051-3	2.9008-5	6.0187+3	7.4854+5	3.2777+2	1.2325+0	7.4821+5			4.8421+1	4.7852+1	5.6937-1
1.4287-3	2.9783-5	5.8637+3	7.2950+5	3.5859+2	1.2847+0	7.2914+5			4.8011+1	4.7454+1	5.5883-1
1.4590-3	3.1102-5	5.6113+3	6.9810+5	3.8285+2	1.3038+0	6.8772+5			4.6884+1	4.6350+1	5.3392-1
1.5041-3	3.3580-5	5.1971+3	6.4857+5	3.8818+2	1.3637+0	6.4818+5			4.4784+1	4.4269+1	4.9462-1
1.5129-3	3.4080-5	5.1209+3	6.3710+5	3.9545+2	1.3747+0	6.3670+5			4.4387+1	4.3880+1	4.8739-1
1.5182-3	3.4434-5	5.0683+3	6.3054+5	4.0943+2	1.3824+0	6.3013+5			4.4090+1	4.3608+1	4.8238-1
1.5182-3	3.0484-5	5.7287+3	7.1270+5	4.0943+2	1.3824+0	7.1229+5			4.9839+1	4.9285+1	5.5385-1
1.5353-3	3.253-5	5.5840+3	6.9471+5	4.5207+2	1.4024+0	6.9426+5			4.9033+1	4.8553+1	5.3990-1
1.5481-3	3.1911-5	5.4690+3	6.8040+5	4.7675+2	1.4183+0	6.7992+5			4.8478+1	4.7949+1	5.2870-1
1.5884-3	3.4100-5	5.1179+3	6.3872+5	5.1147+2	1.4700+0	6.3821+5			4.6571+1	4.6078+1	4.9459-1
1.6745-3	3.6824-5	4.4851+3	5.5924+5	5.4602+2	1.5781+0	5.5869+5			4.3087+1	4.2653+1	4.3415-1
1.8480-3	4.9388-5	3.5338+3	4.3962+5	5.7647+2	1.8047+0	4.3904+5			3.7367+1	3.7026+1	3.4099-1
2.1424-3	7.0993-5	2.4583+3	3.0583+5	5.8752+2	2.1730+0	3.0525+5			3.0119+1	2.9882+1	2.3716-1
2.6787-3	1.2458-4	1.4010+3	1.7430+5	5.6208+2	2.8122+0	1.7374+5			2.1418+1	2.1283+1	1.3500-1
3.5909-3	2.8748-4	6.5247+2	8.1174+4	4.8648+2	3.8189+0	8.0883+4			1.3344+1	1.3282+1	6.2550-2
4.8275-3	5.8958-4	2.9802+2	3.6829+4	3.9589+2	5.0244+0	3.8427+4			8.0891+0	8.0709+0	2.8125-2
6.0000-3	1.0603-3	1.8460+2	2.0478+4	3.2530+2	6.0162+0	2.0147+4			5.5875+0	5.5520+0	1.5507-2
7.1781-3	1.7249-3	1.0118+2	1.2588+4	2.6883+2	6.8509+0	1.2314+4			4.0710+0	4.0815+0	9.4545-3
8.5930-3	2.8211-3	6.1863+1	7.8984+3	2.0892+2	7.8085+0	7.1975+3			2.9802+0	2.8544+0	5.7282-3
9.8413-3	4.1098-3	4.2465+1	5.2830+3	1.8458+2	8.7130+0	5.1098+3			2.3181+0	2.3122+0	3.8057-3
1.0000-2	4.2970-3	4.0815+1	5.0529+3	1.5877+2	8.8134+0	4.8853+3			2.2501+0	2.2463+0	3.7333-3
1.0818-2	5.3500-3	3.2820+1	4.0583+3	1.2929+2	9.2494+0	3.8198+3			1.8928+0	1.8496+0	2.9920-3
1.1072-2	5.7187-3	3.0528+1	3.7980+3	1.1850+2	9.3838+0	3.6701+3			1.8718+0	1.8688+0	2.8005-3
1.1382-2	6.1891-3	2.8188+1	3.5881+3	1.0204+2	9.5448+0	3.3965+3			1.7808+0	1.7780+0	2.5907-3
1.1494-2	6.3722-3	2.7388+1	3.4073+3	9.3902+1	9.8027+0	3.3038+3			1.7491+0	1.7468+0	2.5197-3
1.1582-2	6.5398-3	2.6888+1	3.3200+3	8.4311+1	9.8530+0	3.2260+3			1.7225+0	1.7200+0	2.4600-3
1.1755-2	6.8353-3	2.5532+1	3.1765+3	6.4554+1	9.7382+0	3.1022+3			1.6798+0	1.6773+0	2.3851-3
1.1780-2	6.8763-3	2.5372+1	3.1589+3	6.3505+1	9.7492+0	3.0833+3			1.6731+0	1.6707+0	2.3507-3
1.1829-2	6.9519-3	2.5104+1	3.1232+3	6.5805+1	9.7740+0	3.0478+3			1.6608+0	1.6583+0	2.3235-3
1.1829-2	6.7073-4	1.7978+2	2.2387+4	6.5805+1	9.7740+0	2.2291+4			1.2145+1	6.7682+0	5.3785+0
1.1871-2	9.7935-4	1.7820+2	2.2170+4	7.0919+1	9.7854+0	2.2089+4			1.2077+1	6.7489+0	5.3304+0
1.1953-2	9.9815-4	1.7519+2	2.1798+4	8.8920+1	9.8371+0	2.1699+4			1.1943+1	6.7056+0	5.2375+0
1.2004-2	1.0067-3	1.7336+2	2.1568+4	9.8140+1	9.8829+0	2.1462+4			1.1860+1	6.6784+0	5.1812+0
1.2053-2	1.0188-3	1.7183+2	2.1353+4	1.0335+2	9.8874+0	2.1239+4			1.1781+1	6.6528+0	5.1283+0
1.2148-2	1.0388-3	1.6833+2	2.0842+4	1.1147+2	9.8344+0	2.0820+4			1.1832+1	6.6037+0	5.0288+0
1.2397-2	1.0922-3	1.5979+2	1.9879+4	1.2279+2	1.0081+1	1.9747+4			1.1249+1	6.4753+0	4.7733+0
1.2791-2	1.1831-3	1.4751+2	1.8352+4	1.3118+2	1.0258+1	1.8211+4			1.0692+1	6.2838+0	4.4079+0
1.3356-2	1.3214-3	1.3208+2	1.6432+4	1.3546+2	1.0531+1	1.6268+4			9.9779+0	6.0289+0	3.9491+0
1.4775-2	1.7118-3	1.0185+2	1.2884+4	1.3178+2	1.1078+1	1.2541+4			8.5282+0	5.4723+0	3.0530+0
1.7154-2	2.5335-3	6.8884+1	8.5899+3	1.1701+2	1.1940+1	8.4410+3			6.6852+0	4.6016+0	2.0377+0
2.1485-2	4.6787-3	3.7317+1	4.8428+3	8.8937+1	1.3097+1	4.5398+3			4.4776+0	3.3829+0	1.1147+0
2.8808-2	1.0160-2	1.7177+1	2.1370+3	6.0243+1	1.4288+1	2.0825+3			2.7128+0	2.2033+0	5.0924-1
4.0000-2	2.5857-2	8.7495+0	8.3971+2	3.5307+1	1.5179+1	7.8922+2			1.4580+0	1.2604+0	1.9582-1
6.0000-2	7.8218-2	2.2030+0	2.7408+2	1.7440+1	1.5807+1	2.4103+2			6.7041+1	6.1051+1	5.9901-2
8.0000-2	1.6842-1	1.0301+0	1.2815+2	1.0408+1	1.5403+1	1.0235+2			3.8413-1	3.5888-1	2.5461-2
1.0000-1	2.9070-1	6.0034-1	7.4688+1	6.9403+0	1.5059+1	5.2688+1			2.5267-1	2.3956-1	1.3112-2
1.2290-1	4.5857-1	3.8224-1	4.7555+1	4.7319+0	1.4512+1	2.8311+1			1.7378-1	1.6873-1	7.0495-3
1.5125-1	6.7184-1	2.5984-1	3.2327+1	3.1889+0	1.3981+1	1.5157+1			1.2391-1	1.2014-1	3.7751-3
1.8148-1	8.9198-1	1.9565-1	2.4341+1	2.2480+0	1.3333+1	8.7621+0			9.8494-2	9.4311-2	2.1823-3
2.1384-1	1.0978+0	1.5900-1	1.9782+1	1.8338+0	1.2775+1	5.3735+0			8.1808-2	8.0469-2	1.3384-3
2.5608-1	1.3283+0	1.3158-1	1.6370+1	1.1493+0	1.2054+1	3.1872+0			7.3150-2	7.2381-2	7.8889-4
3.0039-1	1.5210+0	1.1474-1	1.4275+1	8.4077-1	1.1450+1	1.6841+0			7.0733-2	6.0239-2	4.9421-4
3.6891-1	1.7848+0	9.8891-2	1.2303+1	5.6118-1	1.0625+1	1.1168+0			7.3217-2	7.2939-2	2.7769-4
4.8130-1	2.0212+0	8.8343-2	1.0742+1	3.8081-1	9.7885+0	8.1165-1			8.1948-2	8.1793-2	1.5246-4
5.8414-1	2.3082+0	7.5578-2	9.4025+0	2.2588-1	8.8430+0	3.3388-1			9.5621-2	9.5537-2	8.3152-5
7.4448-1	2.8170+0	6.6688-2	8.2984+0	1.3940-1	7.9894+0	1.8758-1			1.1559-1	1.1554-1	4.6731-5
1.0000+0	3.0473+0	5.7270-2	7.1250+0	7.7412-2	6.9485+0	9.9018-2			1.4578-1	1.4574-1	2.4682-5
1.0220+0	3.0824+0	5.8818-2	7.0440+0	7.4128-2	6.8758+0	9.4110-2			1.4821-1	1.4818-1	2.3459-5
1.0251+0	3.0878+0	5.8524-2	7.0321+0	7.3890-2	6.8649+0	9.3538-2	5.3785-8		1.4853-1	1.4850-1	2.3318-5
1.0287+0	3.0938+0	5.8413-2	7.0184+0	7.3183-2	6.8523+0	9.2881-2	5.3785-7		1.4890-1	1.4887-1	2.3152-5
1.0310+0	3.0974+0	5.8345-2	7.0099+0	7.2845-2	6.8446+0	9.2476-2	1.2687-8		1.4913-1	1.4910-1	2.3051-5
1.0320+0	3.0990+0	5.8315-2	7.0061+0	7.2705-2	6.8411+0	9.2297-2	1.7331-8		1.4923-1	1.4921-1	2.3007-5
1.0332+0	3.1010+0	5.8278-2	7.0016+0	7.2537-2	6.8370+0	9.2083-2	2.4278-8		1.4935-1	1.4933-1	2.2953-5
1.0340+0	3.1023+0	5.8254-2	6.9988+0	7.2425-2	6.8343+0	9.1941-2	2.9804-6		1.4943-1	1.4941-1	2.2918-5
1.0353+0	3.1045+0	5.8215-2	6.9958+0	7.2244-2	6.8298+0	9.1710-2	4.0454-8		1.4958-1	1.4954-1	2.2860-5
1.0388+0	3.1087+0	5.8175-2	6.9888+0	7.2058-2	6.8252+0	9.1474-2	5.3785-8		1.4970-1	1.4968-1	2.2802-5
1.0382+0	3.1093+0	5.8128-2	6.9830+0	7.1842-2	6.8199+0	9.1189-2	7.2585-8		1.4986-1	1.4984-1	2.2733-5
1.0397+0	3.1118+0	5.8084-2	6.9774+0	7.1638-2	6.8148+0	9.0937-2	9.4303-8		1.5001-1	1.4999-1	2.2688-5
1.0415+0	3.1148+0	5.8030-2	6.9707+0	7.1389-2	6.8087+0	9.0623-2	1.2547-5		1.5020-1	1.5017-1	2.2589-5
1.0438+0	3.1188+0	5.5882-2	6.9622+0	7.1078-2	6.8008+0	9.0224-2	1.7415-5		1.5043-1	1.5041-1	2.2490-5
1.0484+0	3.1228+0	5.5885-2	6.9527+0	7.0724-2	6.7921+0	8.9777-2	2.4230-5		1.5070-1	1.5067-1	2.2379-5
1.0483+0	3.1260+0	5.5829-2	6.9457+0	7.0469-2	6.7857+0	8.9452-2	3.0167-5		1.5089-1	1.5087-1	2.2298-5
1.0512+0	3.1308+0	5.5744-2	6.9351+0	7.0082-2	6.7780+0	8.8960-2	4.0822-5		1.5118-1	1.5116-1	2.2175-5
1.0541+0	3.1355+0	5.5660-2	6.9247+0	6.9701-2	6.7684+0	8.8475-2	5.3785-5		1.5148-1	1.5145-1	2.2054-5
1.0577+0	3.1414+0	5.5555-2	6.9116+0	6.9227-2	6.7544+0	8.7917-2	7.3313-5		1.5184-1	1.5182-1	2.1804-5
1.0611+0	3.1470+0	5.5458-2	6.8994+0	6.8785-2	6.7432+0	8.7310-2	9.5362-5		1.5219-1	1.5217-1	2.1784-5
1.0651+0	3.1535+0	5.5342-2	6.8851+0	6.8272-2	6.7300+0	8.6656-2	1.2825-4		1.5280-1	1.5258-1	2.1601-5
1.0704+0	3.1621+0	5.5181-2	6.8683+0	6.7800-2	6.7127+0	8.5801-2	1.7813-4		1.5313-1	1.5311-1	2.1387-5
1.0782+0	3.1713+0	5.5027-2	6.8458+0	6.8875-2	6.6939+0	8.4879-2	2.4341-4		1.5372-1	1.5370-1	2.1158-5
1.0806+0	3.1787+0	5.4904-2	6.8306+0	6.8334-2	6.6798+0	8.4190-2	3.0398-				

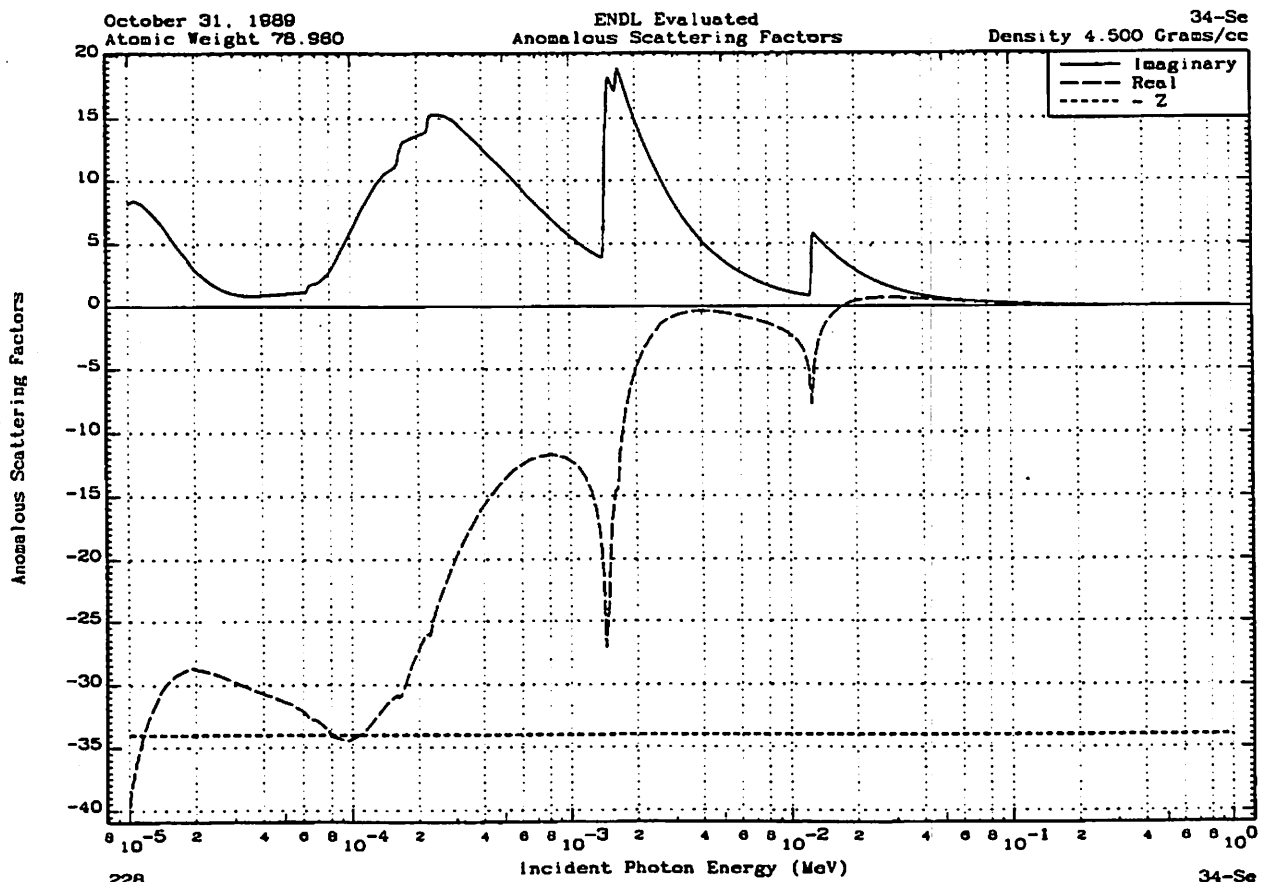
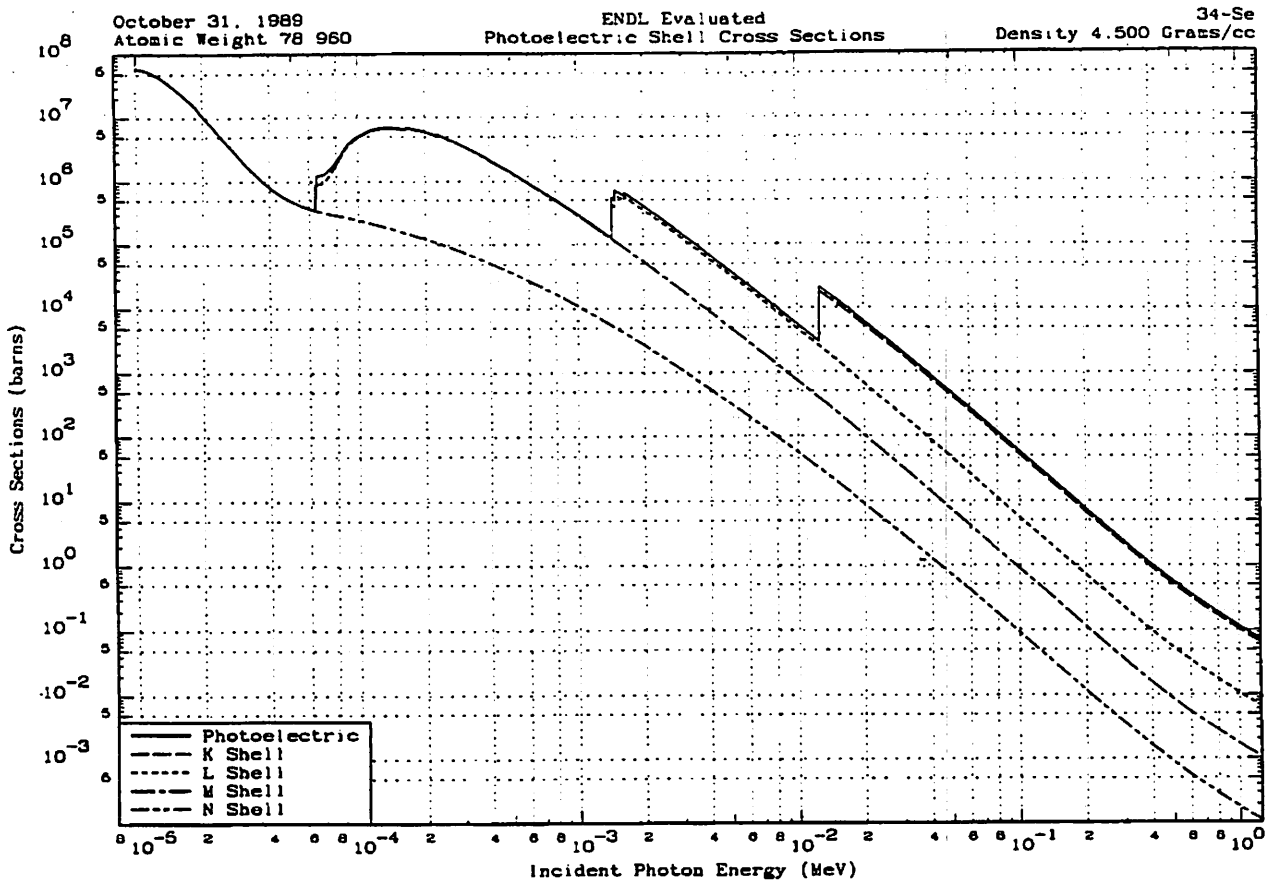
October 31, 1989
Atomic Weight 74.922

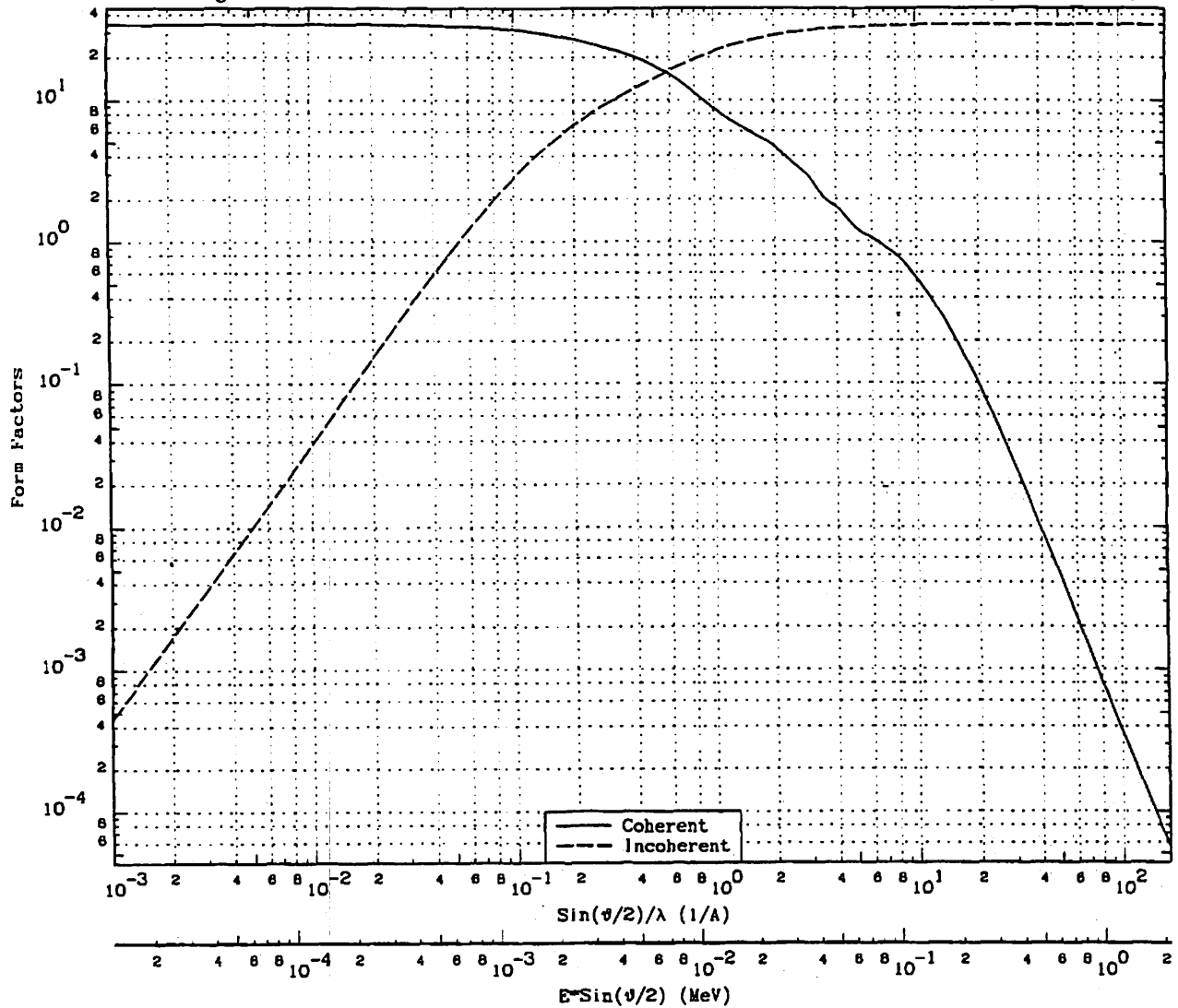
ENDL Evaluated
Photon Data

33-As
Density 5.730 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.1107+ 0	3.2288+ 0	5.4085- 2	6.7287+ 0	6.2800- 2	6.5853+ 0	7.9694- 2	9.7256- 4		1.5721- 1	1.5718- 1	1.8885- 5
1.1206+ 0	3.2424+ 0	5.3824- 2	6.6963+ 0	6.1899- 2	6.5550+ 0	7.8294- 2	1.3010- 3		1.5821- 1	1.5819- 1	1.8516- 5
1.1333+ 0	3.2623+ 0	5.3496- 2	6.6555+ 0	6.0329- 2	6.5188+ 0	7.6551- 2	1.8089- 3		1.5949- 1	1.5947- 1	1.8082- 5
1.1475+ 0	3.2843+ 0	5.3138- 2	6.6109+ 0	5.8850- 2	6.4749+ 0	7.4670- 2	2.4875- 3		1.6092- 1	1.6090- 1	1.8813- 5
1.1582+ 0	3.3007+ 0	5.2873- 2	6.5780+ 0	5.7772- 2	6.4438+ 0	7.3288- 2	3.1038- 3		1.6199- 1	1.6197- 1	1.8271- 5
1.1741+ 0	3.3249+ 0	5.2486- 2	6.5301+ 0	5.6223- 2	6.3984+ 0	7.1329- 2	4.1483- 3		1.6359- 1	1.6357- 1	1.7780- 5
1.1801+ 0	3.3490+ 0	5.2111- 2	6.4831+ 0	5.4728- 2	6.3536+ 0	6.9442- 2	5.3785- 3		1.6520- 1	1.6518- 1	1.7310- 5
1.2051+ 0	3.3712+ 0	5.1768- 2	6.4404+ 0	5.3378- 2	6.3125+ 0	6.7898- 2	6.8853- 3		1.6671- 1	1.6669- 1	1.6825- 5
1.2275+ 0	3.4039+ 0	5.1270- 2	6.3788+ 0	5.1454- 2	6.2525+ 0	6.5889- 2	8.9813- 3		1.6897- 1	1.6896- 1	1.6374- 5
1.2656+ 0	3.4593+ 0	5.0484- 2	6.2783+ 0	4.8412- 2	6.1541+ 0	6.2172- 2	1.3581- 2		1.7282- 1	1.7280- 1	1.5488- 5
1.2949+ 0	3.4991+ 0	4.9876- 2	6.2051+ 0	4.6251- 2	6.0815+ 0	5.9658- 2	1.7717- 2		1.7578- 1	1.7576- 1	1.4870- 5
1.3318+ 0	3.5492+ 0	4.9172- 2	6.1175+ 0	4.3730- 2	5.9635+ 0	5.6708- 2	2.3555- 2		1.7951- 1	1.7950- 1	1.4135- 5
1.3826+ 0	3.5900+ 0	4.8613- 2	6.0479+ 0	4.1780- 2	5.8229+ 0	5.4413- 2	2.8899- 2		1.8263- 1	1.8262- 1	1.3584- 5
1.4117+ 0	3.6532+ 0	4.7772- 2	5.9433+ 0	3.8931- 2	5.8151+ 0	5.1045- 2	3.8197- 2		1.8762- 1	1.8761- 1	1.2724- 5
1.5000+ 0	3.7614+ 0	4.6398- 2	5.7723+ 0	3.4493- 2	5.6350+ 0	4.5750- 2	5.7130- 2		1.9667- 1	1.9666- 1	1.1404- 5
1.6172+ 0	3.8938+ 0	4.4820- 2	5.5781+ 0	2.8682- 2	5.4193+ 0	4.0267- 2	8.6825- 2		2.0890- 1	2.0889- 1	1.0037- 5
1.7189+ 0	3.9987+ 0	4.3844- 2	5.4298+ 0	2.6282- 2	5.2508+ 0	3.6313- 2	1.1840- 1		2.1974- 1	2.1973- 1	9.0516- 6
1.8923+ 0	4.1744+ 0	4.1808- 2	5.2013+ 0	2.1690- 2	4.9754+ 0	3.0845- 2	1.7334- 1		2.3705- 1	2.3704- 1	7.6887- 6
2.0440+ 0	4.3105+ 0	4.0487- 2	5.0370+ 0	1.8594- 2	4.7851+ 0	2.7120- 2	2.2820- 1		2.5275- 1	2.5274- 1	6.7802- 6
2.0858+ 0	4.3487+ 0	4.0132- 2	4.9928+ 0	1.7857- 2	4.7082+ 0	2.6298- 2	2.4050- 1	3.3126- 7	2.5883- 1	2.5882- 1	6.5552- 6
2.1068+ 0	4.3871+ 0	3.9983- 2	4.9718+ 0	1.7508- 2	4.6806+ 0	2.5904- 2	2.4784- 1		2.5889- 1	2.5888- 1	6.4570- 6
2.1140+ 0	4.3735+ 0	3.9904- 2	4.9844+ 0	1.7384- 2	4.6708+ 0	2.5788- 2	2.5048- 1		2.5982- 1	2.5981- 1	6.4227- 6
2.1195+ 0	4.3783+ 0	3.9880- 2	4.9890+ 0	1.7294- 2	4.6638+ 0	2.5684- 2	2.5248- 1		2.6017- 1	2.6016- 1	6.3973- 6
2.1278+ 0	4.3855+ 0	3.9794- 2	4.9808+ 0	1.7158- 2	4.6527+ 0	2.5511- 2	2.5550- 1		2.6101- 1	2.6100- 1	6.3590- 6
2.1363+ 0	4.3927+ 0	3.9730- 2	4.9428+ 0	1.7024- 2	4.6419+ 0	2.5359- 2	2.5855- 1		2.6185- 1	2.6184- 1	6.3212- 6
2.1470+ 0	4.4018+ 0	3.9648- 2	4.9328+ 0	1.6854- 2	4.6281+ 0	2.5188- 2	2.6251- 1		2.6293- 1	2.6293- 1	6.2731- 6
2.1835+ 0	4.4155+ 0	3.9524- 2	4.9172+ 0	1.6598- 2	4.6071+ 0	2.4875- 2	2.6886- 1	6.8064- 8	2.6481- 1	2.6480- 1	6.2005- 6
2.1845+ 0	4.4335+ 0	3.9364- 2	4.8973+ 0	1.6281- 2	4.5807+ 0	2.4512- 2	2.7578- 1	1.0944- 5	2.6669- 1	2.6669- 1	6.1101- 6
2.2018+ 0	4.4480+ 0	3.9235- 2	4.8813+ 0	1.6028- 2	4.5593+ 0	2.4220- 2	2.8170- 1	1.5141- 5	2.6842- 1	2.6842- 1	6.0372- 6
2.2148+ 0	4.4568+ 0	3.9141- 2	4.8695+ 0	1.5839- 2	4.5434+ 0	2.4004- 2	2.8822- 1	1.8864- 5	2.6973- 1	2.6973- 1	5.9834- 6
2.2342+ 0	4.4748+ 0	3.9002- 2	4.8523+ 0	1.5585- 2	4.5200+ 0	2.3688- 2	2.9304- 1	2.5378- 5	2.7170- 1	2.7169- 1	5.8048- 6
2.2537+ 0	4.4802+ 0	3.8967- 2	4.8354+ 0	1.5387- 2	4.4987+ 0	2.3377- 2	2.9899- 1	3.3126- 5	2.7368- 1	2.7368- 1	5.8271- 6
2.2815+ 0	4.5120+ 0	3.8879- 2	4.8121+ 0	1.4827- 2	4.4841+ 0	2.2945- 2	3.1009- 1	4.8399- 5	2.7855- 1	2.7854- 1	5.7184- 6
2.3070+ 0	4.5314+ 0	3.8514- 2	4.7915+ 0	1.4589- 2	4.4348+ 0	2.2560- 2	3.1954- 1	6.0945- 5	2.7921- 1	2.7920- 1	5.6225- 6
2.3382+ 0	4.5544+ 0	3.8318- 2	4.7873+ 0	1.4212- 2	4.3996+ 0	2.2104- 2	3.3135- 1	8.1945- 5	2.8250- 1	2.8249- 1	5.5098- 6
2.3774+ 0	4.5825+ 0	3.8084- 2	4.7381+ 0	1.3748- 2	4.3583+ 0	2.1562- 2	3.4831- 1	1.1349- 4	2.8668- 1	2.8668- 1	5.3722- 6
2.4102+ 0	4.6088+ 0	3.7885- 2	4.7133+ 0	1.3378- 2	4.3211+ 0	2.1107- 2	3.5781- 1	1.4433- 4	2.9010- 1	2.9010- 1	5.2814- 6
2.4468+ 0	4.6328+ 0	3.7872- 2	4.6868+ 0	1.2960- 2	4.2826+ 0	2.0629- 2	3.7047- 1	1.8360- 4	2.9397- 1	2.9396- 1	5.1422- 6
2.4859+ 0	4.6594+ 0	3.7458- 2	4.6599+ 0	1.2575- 2	4.2425+ 0	2.0138- 2	3.8449- 1	2.3116- 4	2.9815- 1	2.9815- 1	5.0197- 6
2.5584+ 0	4.7050+ 0	3.7092- 2	4.6148+ 0	1.1891- 2	4.1726+ 0	1.8299- 2	4.1054- 1	3.3126- 4	3.0687- 1	3.0687- 1	4.8105- 6
2.6804+ 0	4.7870+ 0	3.6810- 2	4.5547+ 0	1.0981- 2	4.0750+ 0	1.8183- 2	4.4999- 1	5.1084- 4	3.1758- 1	3.1758- 1	4.5275- 6
2.7453+ 0	4.8170+ 0	3.6230- 2	4.5074+ 0	1.0312- 2	3.9897+ 0	1.7318- 2	4.7839- 1	6.8346- 4	3.2708- 1	3.2705- 1	4.3183- 6
2.8090+ 0	4.8518+ 0	3.5970- 2	4.4751+ 0	9.8503- 3	3.9456+ 0	1.6722- 2	5.0206- 1	8.2770- 4	3.3435- 1	3.3434- 1	4.1883- 6
2.9045+ 0	4.8997+ 0	3.5619- 2	4.4313+ 0	9.2137- 3	3.8691+ 0	1.5893- 2	5.3704- 1	1.0663- 3	3.4558- 1	3.4558- 1	3.9817- 6
3.0399+ 0	4.9618+ 0	3.5174- 2	4.3780+ 0	8.4116- 3	3.7849+ 0	1.4854- 2	5.8840- 1	1.4462- 3	3.6182- 1	3.6182- 1	3.7027- 6
3.2344+ 0	5.0585+ 0	3.4501- 2	4.2922+ 0	7.4308- 3	3.6166+ 0	1.3627- 2	6.3254- 1	2.0885- 3	3.8371- 1	3.8371- 1	3.3987- 6
3.4375+ 0	5.1411+ 0	3.3948- 2	4.2233+ 0	6.5790- 3	3.4788+ 0	1.2520- 2	7.2474- 1	2.8582- 3	4.0798- 1	4.0798- 1	3.1208- 6
3.7847+ 0	5.2680+ 0	3.3141- 2	4.1231+ 0	5.4277- 3	3.2684+ 0	1.0951- 2	8.3597- 1	4.3854- 3	4.5014- 1	4.5014- 1	2.7298- 6
4.0000+ 0	5.3228+ 0	3.2789- 2	4.0792+ 0	4.8580- 3	3.1513+ 0	1.0140- 2	9.0750- 1	5.4330- 3	4.7834- 1	4.7834- 1	2.5278- 6
4.2500+ 0	5.3858+ 0	3.2404- 2	4.0313+ 0	4.3048- 3	3.0299+ 0	9.3829- 3	9.8108- 1	6.7138- 3	5.1081- 1	5.1081- 1	2.3339- 6
4.7500+ 0	5.4683+ 0	3.1927- 2	3.9720+ 0	3.4482- 3	2.8191+ 0	8.0887- 3	1.1319+ 0	9.3928- 3	5.8127- 1	5.8127- 1	2.0183- 6
5.135+ 0	5.5436+ 0	3.1481- 2	3.9166+ 0	2.5580- 3	2.5556+ 0	6.8822- 3	1.3341+ 0	1.3770- 2	6.8414- 1	6.8413- 1	1.6857- 6
6.3640+ 0	5.5904+ 0	3.1218- 2	3.8839+ 0	1.9201- 3	2.3134+ 0	5.5833- 3	1.5443+ 0	1.8655- 2	8.2521- 1	8.2521- 1	1.3925- 6
7.4833+ 0	5.5981+ 0	3.1242- 2	3.8868+ 0	1.3887- 3	2.0838+ 0	4.5873- 3	1.7820+ 0	2.5019- 2	1.0119+ 0	1.0119+ 0	1.1435- 6
9.0000+ 0	5.5133+ 0	3.1654- 2	3.8381+ 0	8.6010- 4	1.8121+ 0	3.6860- 3	2.0880+ 0	3.3330- 2	1.2881+ 0	1.2881+ 0	9.1856- 7
1.0000+ 1	5.4499+ 0	3.2022- 2	3.9839+ 0	7.7769- 4	1.8825+ 0	3.2600- 3	2.2590+ 0	3.8420- 2	1.4812+ 0	1.4812+ 0	8.1282- 7
1.3000+ 1	5.2821+ 0	3.3185- 2	4.1281+ 0	4.6018- 4	1.3822+ 0	2.4180- 3	2.6890+ 0	5.2080- 2	2.0928+ 0	2.0929+ 0	8.0298- 7
1.8000+ 1	4.9548+ 0	3.5222- 2	4.3820+ 0	2.4004- 4	1.0825+ 0	1.6890- 3	3.2270+ 0	7.0580- 2	3.2287+ 0	3.2287+ 0	4.2102- 7
2.6000+ 1	4.5823+ 0	3.8086- 2	4.7382+ 0	1.1505- 4	8.0939- 1	1.1370- 3	3.8350+ 0	9.2810- 2	5.2354+ 0	5.2354+ 0	2.8342- 7
4.2170+ 1	4.1182+ 0	4.2398- 2	5.2748+ 0	4.3735- 5	5.5220- 1	6.8405- 4	4.8001+ 0	1.2182- 1	9.7885+ 0	9.7885+ 0	1.7051- 7
6.0000+ 1	3.8220+ 0	4.5682- 2	5.8808+ 0	2.1804- 5	4.1263- 1	4.7500- 4	5.1250+ 0	1.4270- 1	1.5184+ 1	1.5184+ 1	1.1840- 7
1.0000+ 2	3.4815+ 0	5.0127- 2	6.2364+ 0	7.7773- 6	2.7056- 1	2.8180- 4	5.7850+ 0	1.7050- 1	2.8185+ 1	2.8185+ 1	7.0244- 8
2.0000+ 2	3.1678+ 0	5.8092- 2	6.8540+ 0	1.9443- 6	1.4965- 1	1.3970- 4	8.5020+ 0	2.0220- 1	6.2581+ 1	6.2581+ 1	3.4823- 8
5.0000+ 2	2.8027+ 0	5.9508- 2	7.4034+ 0	3.1109- 7	6.7711- 2	5.5580- 5	7.1030+ 0	2.3280- 1	1.8989+ 2	1.8989+ 2	1.3854- 8
1.0000+ 3	2.8368+ 0	6.1519- 2	7.6538+ 0	7.7773- 6	3.6878- 2	2.7740- 5	7.3690+ 0	2.4770- 1	3.5189+ 2	3.5189+ 2	6.9147- 8
5.0000+ 3	2.7422+ 0	6.3842- 2	7.9177+ 0	3.1109- 9	8.7250- 3	5.5410- 6	7.6440+ 0	2.6500- 1	1.8227+ 3	1.8227+ 3	1.3812- 8
1.0000+ 4	2.7270+ 0	6.3996- 2	7.9618+ 0	7.7772- 10	4.6587- 3	2.7700- 8	7.8890+ 0	2.6810- 1	3.6663+ 3	3.6663+ 3	6.9048- 10
1.0000+ 5	2.7106+ 0	6.4384- 2	8.0101+ 0	7.7720- 12	5.6270- 4	2.7690- 7	7.7380+ 0	2.7150- 1	3.6892+ 4	3.6892+ 4	6.9023- 11







$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	3.4000+1	0.0000+0	7.0000-1	8.6780-3	1.3075+1	1.7835+1	1.2069+1	1.4964-1	3.7060-1	3.3920+1
1.0000-3	1.2399-5	3.4000+1	4.5059-4	8.0000-1	9.8188-3	1.1281+1	1.8391+1	1.4293+1	1.7721-1	2.4900-1	3.3987+1
5.0000-3	6.1993-5	3.3988+1	1.0000-2	9.0000-1	1.1159-2	9.8452+0	2.0778+1	1.5000+1	1.8598-1	2.2019-1	3.3975+1
1.0000-2	1.2399-4	3.3966+1	3.8000-2	1.0000+0	1.2399-2	8.7308+0	2.2003+1	1.7539+1	2.1748-1	1.4384-1	3.3988+1
1.5000-2	1.8598-4	3.3932+1	8.5900-2	1.2500+0	1.5488-2	8.9608+0	2.4434+1	2.0000+1	2.4797-1	9.7545-2	3.3985+1
2.0000-2	2.4797-4	3.3878+1	1.5170-1	1.5000+0	1.8598-2	8.0025+0	2.6171+1	2.8802+1	3.3231-1	3.8508-2	3.3997+1
2.5000-2	3.0996-4	3.3811+1	2.3500-1	1.9473+0	2.4144-2	4.8391+0	2.8305+1	3.8720+1	4.6007-1	1.0925-2	3.3999+1
3.0000-2	3.7196-4	3.3730+1	3.3500-1	2.0000+0	2.4797-2	4.7024+0	2.8504+1	5.0000+1	6.1893-1	4.4035-3	3.4000+1
4.0000-2	4.9594-4	3.3526+1	5.8060-1	2.5000+0	3.0996-2	3.5702+0	3.0028+1	8.0000+1	9.8188-1	8.1530-4	3.4000+1
5.0000-2	6.1993-4	3.3272+1	8.7900-1	2.8813+0	3.5724-2	3.0057+0	3.0831+1	1.0000+2	1.2399+0	3.6722-4	3.4000+1
7.0000-2	8.6780-4	3.2828+1	1.5904+0	3.0000+0	3.7196-2	2.8054+0	3.1034+1	1.7117+2	2.1223+0	5.8266-5	3.4000+1
9.0000-2	1.1159-3	3.1847+1	2.3883+0	3.4180+0	4.2378-2	2.1244+0	3.1599+1	2.7479+2	3.4070+0	1.1352-5	3.4000+1
1.0000-1	1.2399-3	3.1424+1	2.7990+0	3.5000+0	4.3395-2	2.0407+0	3.1691+1	4.7714+2	5.9158+0	1.8479-6	3.4000+1
1.2500-1	1.5498-3	3.0290+1	3.8175+0	4.0000+0	4.8594-2	1.7783+0	3.2137+1	1.0000+3	1.2399+1	1.7312-7	3.4000+1
1.5000-1	1.8598-3	2.9127+1	4.7940+0	4.4617+0	5.5318-2	1.5102+0	3.2438+1	2.6333+3	3.2649+1	8.4716-9	3.4000+1
1.7500-1	2.1697-3	2.7993+1	5.7172+0	5.0000+0	6.1993-2	1.2564+0	3.2719+1	6.8119+3	6.1978+1	5.1470-10	3.4000+1
2.0000-1	2.4797-3	2.6908+1	6.5890+0	5.4258+0	6.7272-2	1.1513+0	3.2900+1	1.4899+4	1.8473+2	4.5457-11	3.4000+1
2.5000-1	3.0996-3	2.4953+1	8.1861+0	6.0000+0	7.4391-2	1.0618+0	3.3109+1	4.2646+4	5.2675+2	2.0809-12	3.4000+1
3.0000-1	3.7196-3	2.3249+1	9.8010+0	7.0000+0	8.6790-2	9.1810-1	3.3390+1	1.0000+6	1.2399+4	2.2212-18	3.4000+1
4.0000-1	4.9594-3	2.0289+1	1.2033+1	8.0000+0	9.8188-2	7.9300-1	3.3589+1	5.8234+6	6.9722+4	1.4571-18	3.4000+1
5.0000-1	6.1993-3	1.7842+1	1.4188+1	8.9951+0	1.1153-1	6.6428-1	3.3723+1	7.4989+7	9.2675+5	7.2184-22	3.4000+1
6.0000-1	7.4391-3	1.5216+1	1.8098+1	1.0000+1	1.2399-1	5.4680-1	3.3818+1	1.0000+8	1.2399+7	3.4207-25	3.4000+1

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cc-cm/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	4.8385-7	4.5922-5	6.0219+7	6.6360-1	9.7501-5	6.0219-7			2.0668+1	2.0668+1	
1.0176-5	4.8844-7	4.5496-5	5.9653+7	5.9100+1	1.0096-4	5.9653+7			2.0834+1	2.0834+1	
1.0700-5	5.0211-7	4.4258-5	5.8029+7	5.1646+1	1.1159-4	5.8029+7			2.1309+1	2.1309+1	
1.1456-5	5.4319-7	4.0910-5	5.3640+7	4.4864+1	1.2789-4	5.3640+7			2.1090+1	2.1090+1	
1.2370-5	6.1738-7	3.5998+5	4.7198+7	4.1042+1	1.4906-4	4.7198+7			2.0038+1	2.0038+1	
1.3335-5	7.2544-7	3.0633+5	4.0165+7	3.8390+1	1.7319-4	4.0165+7			1.8382+1	1.8382+1	
1.4274-5	8.6458-7	2.5703+5	3.3701+7	3.7604+1	1.9758-4	3.3701+7			1.6509+1	1.6509+1	
1.8020-5	1.7711-8	1.2547+5	1.8451+7	2.8583+1	3.1038-4	1.8451+7			1.0174+1	1.0174+1	
1.8472-5	1.9191-8	1.1579+5	1.5182+7	2.7860+1	3.2583-4	1.5182+7			9.8249+0	9.8249+0	
2.0000-5	2.7039-8	8.2186+4	1.0776+7	2.4232+1	3.7898-4	1.0776+7			7.3967+0	7.3967+0	
2.0990-5	3.2639-8	6.8085+4	8.8271+6	2.2101+1	4.1715-4	8.8270+8			6.4309+0	6.4309+0	
2.0990-5	3.2457-8	6.8467+4	8.9771+6	2.2101+1	4.1715-4	8.9771+8			6.4870+0	6.4870+0	
2.8499-5	8.2450-8	2.8952+4	3.5339+6	1.5324+1	6.5528-4	3.5339+6			3.2139+0	3.2139+0	
3.1435-5	1.6074-5	1.3825+4	1.8126+6	1.1386+1	9.1237-4	1.8126+6			1.9556+0	1.9556+0	
3.6689-5	2.7678-5	8.0289+3	1.0527+6	8.8171+0	1.2309-3	1.0527+6			1.3256+0	1.3256+0	
4.0000-5	3.5932-5	6.1844+3	8.1088+5	7.6089+0	1.4531-3	8.1087+5			1.1132+0	1.1132+0	
4.4908-5	4.8222-5	4.6083+3	6.0423+5	6.3083+0	1.8140-3	6.0422+5			9.3128+0	9.3128+0	
5.0209-5	6.0840-5	3.8526+3	4.7891+5	5.2656+0	2.2485-3	4.7890+5			8.2524+0	8.2524+0	
5.2212-5	8.4804-5	3.4397+3	4.5101+5	4.9380+0	2.4240-3	4.5100+5			8.0818+0	8.0818+0	
5.4772-5	6.9926-5	3.1780+3	4.1888+5	4.1863+0	2.6575-3	4.1868+5			7.8328+0	7.8328+0	
6.2910-5	8.2355-5	2.6883+3	3.5380+5	2.4080+0	3.4674-3	3.5379+5			7.6387+0	7.6387+0	
6.3338-5	8.2662-5	2.6789+3	3.5125+5	2.2318+0	3.5131-3	3.5125+5			7.6356+0	7.6356+0	
6.3727-5	8.3491-5	2.6818+3	3.4898+5	2.1840+0	3.5545-3	3.4898+5			7.6328+0	7.6328+0	
6.3970-5	8.3829-5	2.6509+3	3.4758+5	2.2481+0	3.5806-3	3.4758+5			7.6310+0	7.6310+0	
6.3970-5	3.2590-5	6.8188+3	8.8405+5	2.2481+0	3.5806-3	8.8405+5			1.9629+0	1.9629+0	
6.4910-5	3.2781-5	6.7790+3	8.8883+5	2.6217+0	3.8823-3	8.8883+5			1.9801+0	1.9801+0	
M4 6.4910-5	2.3388-5	9.5098+3	1.2469+6	2.8217+0	3.8823-3	1.2469+6			2.7777+0	2.7777+0	2.3427-5
6.5162-5	2.3395-5	9.4986+3	1.2454+6	2.7522+0	3.7098-3	1.2454+6			2.7853+0	2.7853+0	2.3421-5
6.5590-5	2.3441-5	9.4801+3	1.2430+6	2.6999+0	3.7568-3	1.2430+6			2.7981+0	2.7981+0	2.3412-5
6.6210-5	2.3507-5	9.4535+3	1.2395+6	3.0028+0	3.8253-3	1.2395+6			2.8186+0	2.8186+0	2.3399-5
7.0000-5	2.2509-5	9.8725+3	1.2845+6	3.0668+0	4.2569-3	1.2845+6			3.1098+0	3.1098+0	2.4800-5
7.2500-5	2.0807-5	1.0784+4	1.4139+6	3.0972+0	4.5537-3	1.4139+6			3.5182+0	3.5182+0	2.7748-5
7.6289-5	1.8883-5	1.3155+4	1.7248+6	3.8298+0	5.0218-3	1.7248+6			4.5180+0	4.5180+0	3.5439-5
8.0000-5	1.3435-5	1.8541+4	2.1688+6	4.9583+0	5.5015-3	2.1688+6			5.8547+0	5.8548+0	4.8653-5
8.7389-5	8.8778-6	2.5808+4	3.3578+6	9.8818+0	6.5188-3	3.3578+6			1.0070+1	1.0070+1	7.7877-5
9.0000-5	7.8301-6	2.9124+4	3.8187+6	1.2343+1	6.8881-3	3.8187+6			1.1795+1	1.1795+1	8.9548-5
9.4889-5	6.4299-6	3.4581+4	4.5315+6	1.8319+1	7.8326-3	4.5314+6			1.4754+1	1.4754+1	1.0872-4
9.7818-5	5.9836-6	3.7139+4	4.8895+6	2.1682+1	8.0950-3	4.8895+6			1.6348+1	1.6348+1	1.1790-4
1.0000-4	5.6814-6	3.8114+4	5.1285+6	2.3924+1	8.4453-3	5.1285+6			1.7601+1	1.7601+1	1.2488-4
1.0997-4	4.8484-6	4.5853+4	8.0121+6	3.6558+1	1.0185-2	6.0121+6			2.2891+1	2.2891+1	1.4933-4
1.1323-4	4.7010-6	4.7271+4	8.1880+6	4.1646+1	1.0789-2	8.1880+6			2.4086+1	2.4086+1	1.5450-4
1.1884-4	4.4898-6	4.9719+4	8.5189+6	4.8433+1	1.1889-2	8.5189+6			2.8589+1	2.8589+1	1.6347-4
1.2970-4	4.2740-6	5.1994+4	8.8172+6	6.3918+1	1.4102-2	8.8172+6			3.0347+1	3.0347+1	1.7211-4
1.4270-4	4.2510-6	5.2275+4	8.8541+6	7.8207+1	1.7022-2	8.8540+6			3.3588+1	3.3587+1	1.7390-4
1.6203-4	4.5044-6	4.9334+4	8.4856+6	9.1209+1	2.1885-2	8.4856+6			3.5971+1	3.5970+1	1.8498-4
1.6371-4	4.5257-6	4.9102+4	8.4361+6	9.8209+1	2.2315-2	8.4380+6			3.8173+1	3.8173+1	1.6428-4
1.8371-4	4.3481-6	5.1109+4	8.7011+6	9.8209+1	2.2315-2	8.7010+6			3.7851+1	3.7851+1	2.1936-4
1.8568-4	4.3545-6	5.1033+4	8.6913+6	1.0891+2	2.2843-2	8.6912+6			3.8043+1	3.8043+1	2.2371-4
1.8977-4	4.4047-6	5.0451+4	8.6150+6	1.1786+2	2.3973-2	8.6148+6			3.8542+1	3.8542+1	2.3077-4
M2 1.8977-4	4.3238-6	5.1397+4	8.7390+6	1.1788+2	2.3973-2	8.7389+6			3.9265+1	3.9265+1	2.6219-4
1.7188-4	4.3586-6	5.0973+4	8.6833+6	1.2374+2	2.4556-2	8.6832+6			3.9419+1	3.9419+1	2.6428-4
1.9197-4	4.7383-6	4.6899+4	8.1483+6	1.4578+2	3.0544-2	6.1491+6			4.0514+1	4.0514+1	2.7048-4
2.1405-4	5.2700-6	4.2168+4	5.5289+6	1.6748+2	3.7855-2	5.5287+6			4.0618+1	4.0618+1	2.6798-4
2.2280-4	5.5107-6	4.0328+4	5.2873+6	1.7177+2	4.0965-2	5.2872+6			4.0429+1	4.0429+1	2.6554-4
2.2585-4	5.5894-6	3.9758+4	5.2129+6	1.7990+2	4.2006-2	5.2127+6			4.0370+1	4.0370+1	2.6474-4
2.2810-4	5.6818-6	3.8671+4	5.2015+6	1.8255+2	4.2170-2	5.2013+6			4.0282+1	4.0282+1	2.6465-4
M1 2.2810-4	5.3918-6	4.1218+4	5.4041+6	1.8255+2	4.2170-2	5.4039+6			4.1834+1	4.1834+1	3.1581-4
2.2817-4	5.4440-6	4.0820+4	5.3521+6	1.9518+2	4.2834-2	5.3519+6			4.1910+1	4.1910+1	3.1518-4
2.3083-4	5.5084-6	4.0357+4	5.2915+6	2.0521+2	4.3852-2	5.2913+6			4.1883+1	4.1882+1	3.1445-4
2.4228-4	5.8980-6	3.7890+4	4.9418+6	2.2450+2	4.8317-2	4.9418+6			4.1087+1	4.1088+1	3.0772-4
2.8091-4	7.2401-6	3.0683+4	4.0244+6	2.6337+2	6.4689-2	4.0241+6			3.8797+1	3.8797+1	2.8394-4
3.1823-4	8.8503-6	2.5109+4	3.2822+6	2.8732+2	8.1698-2	3.2819+6			3.5728+1	3.5727+1	2.5576-4
3.8184-4	1.2300-5	1.8067+4	2.3688+6	3.1773+2	1.1771-1	2.3686+6			3.1049+1	3.1048+1	2.0935-4
5.0000-4	2.0788-5	1.0891+4	1.4018+6	3.4758+2	1.9820-1	1.4014+6			2.4048+1	2.4048+1	1.4849-4
6.4474-4	3.5802-5	8.2089+3	8.1383+5	3.5800+2	3.2082-1	8.1347+5			1.8000+1	1.8000+1	9.7801-5
8.2993-4	6.2816-5	3.5489+3	4.6532+5	3.4364+2	5.0884-1	4.6489+5			1.3244+1	1.3244+1	6.2857-5
9.5902-4	8.7246-5	2.5471+3	3.3396+5	3.2203+2	6.5728-1	3.3384+5			1.0882+1	1.0881+1	4.7924-5
1.0000-3	6.6037-5	2.3139+3	3.0339+5	3.1143+2	7.0782-1	3.0339+5			1.0402+1	1.0402+1	4.4308-5
1.0810-3	1.1574-4	1.9200+3	2.5175+5	2.9281+2	8.0542-1	2.5148+5			9.3289+0	9.3288+0	3.7732-5
1.1707-3	1.4011-4	1.5861+3	2.0796+5	2.8188+2	8.1832-1	2.0770+5			8.3447+0	8.3447+0	3.2010-5
1.2438-3	1.6203-4	1.3715+3	1.7982+5	2.3010+2	1.0158-0	1.7969+5			7.6885+0	7.6885+0	2.8248-5
1.3124-3	1.8432-4	1.2058+3	1.5807+5	1.8875+2	1.1038-0	1.5788+5			7.1117+0	7.1118+0	2.5285-5
1.3513-3	1.8770-4	1.1240+3	1.4738+5	1.5723+2	1.1548-0	1.4722+5			6.8275+0	6.8275+0	2.3808-5
1.3873-3	2.1062-4	1.0551+3	1.3834+5	1.1774+2	1.2028-0	1.3822+5			6.5809+0	6.5809+0	2.2551-5
1.4009-3	2.1878-4	1.0251+3	1.3441+5	8.0882+1	1.2252-0	1.3432+5			6.4720+0	6.4720+0	2.2003-5
1.4112-3	2.1851-4	1.0124+3	1.3274+5	7.8414+1	1.2350-0	1.3288+5			6.4252+0	6.4252+0	2.1789-5
1.4225-3	2.2378-4	9.8311+2	1.3021+5	5.4827+1	1.2503-0	1.3018+5			6.3543+0	6.3543+0	2.1415-5
1.4252-3	2.2478-4	9.8858+2	1.2962+5	5.1560+1	1.2540-0	1.2957+5			6.3375+0	6.3375+0	2.1331-5
1.4277-3	2.2576-4	9.8431+2	1.2908+5	5.0358+1	1.2575-0	1.2901+5			6.3215+0	6.3215+0	2.1252-5
1.4302-3	2.2689-4	9.8028+2	1.2853+5	5.1102+1	1.2608-0	1.2848+5			6.3064+0	6.3064+0	2.1177-5
1.4338-3	2.2808-4	9.7433+2	1.2775+5	5.6688+1	1.2658-0	1.2789+5			6.2839+0	6.2839+0	2.1086-5
1.4388-3	2.2967-4	9.6875+2	1.2676+5	7.0281+1	1.2723-0	1.2685+5			6.2549+0	6.2549+0	2.0923-5
1.4388-3	5.2842-5	4.2054+3	5.5140+5	7.0281+1	1.2723-0	5.5133+5			2.7221+1	2.6889+1	3.3248-1
1.4458-3	5.3710-5	4.1375+3	5.4248+5	1.0054+2	1.2821+0	5.4239+5			2.6913+1	2.6587+1	3.2893-1
1.4500-3	5.4220-5	4.0885+3	5.3738+5	1.1884+2	1.2878+0	5.3728+5			2.6738+1	2.6413+1	3.2328-1
1.4545-3	5.4778-5	4.0567+3	5.3191+5	1.3798+2	1.2841+0	5.3177+5					

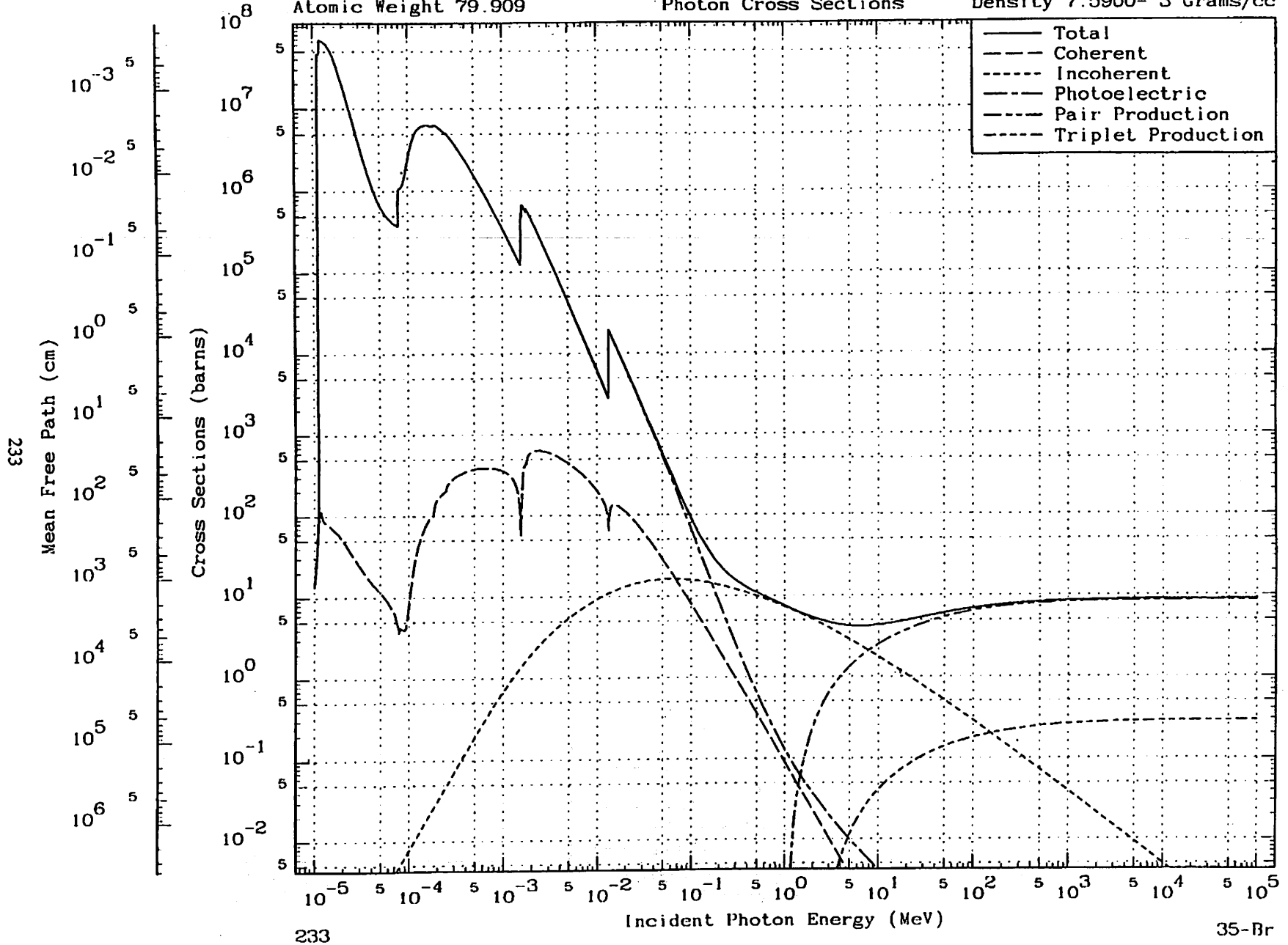
Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.4621-3	5.5715-5	3.9885-3	5.2296-5	1.5972-2	1.3046+0	5.2280-5			2.8234+1	2.5920-1	3.1383-1
1.4719-3	5.6779-5	3.9138-3	5.1317+5	1.8397-2	1.3181+0	5.1298+5			2.5914+1	2.5606+1	3.0782-1
1.4812-3	5.7093-5	3.8923-3	5.1034+5	2.1885-2	1.3311+0	5.1012+5			2.5633+1	2.5628+1	3.0675-1
1.4812-3	4.0273-5	5.5178+3	7.2349-5	2.1885-2	1.3311+0	7.2326+5			3.6767+1	3.6278+1	4.9090-1
1.4908-3	4.1088-5	5.4114+3	7.0952+5	2.8238-2	1.3444+0	7.0925+5			3.6288+1	3.5808+1	4.8041-1
1.5000-3	4.1840-5	5.3112+3	6.9638+5	2.8763+2	1.3573+0	6.9606+5			3.5835+1	3.5364+1	4.7056-1
1.5097-3	4.2311-5	5.2521+3	6.8863+5	3.2393+2	1.3697+0	6.8831+5			3.5684+1	3.5199+1	4.6552-1
1.5184-3	4.2605-5	5.2159+3	6.8388+5	3.897+2	1.3809+0	6.8354+5			3.5622+1	3.5159+1	4.6284-1
1.5410-3	4.3872-5	5.0852+3	6.8414+5	3.8427+2	1.4100+0	6.8377+5			3.5105+1	3.4855+1	4.5032-1
1.5655-3	4.5268-5	4.9091+3	6.4366+5	3.8324+2	1.4418+0	6.4327+5			3.4582+1	3.4125+1	4.3720-1
1.6018-3	4.7511-5	4.8772+3	6.1326+5	3.9849+2	1.4893+0	6.1286+5			3.3692+1	3.3274+1	4.1744-1
1.6210-3	4.8818-5	4.8521+3	5.9685+5	3.9849+2	1.5147+0	5.9845+5			3.3184+1	3.2777+1	4.0660-1
1.6350-3	4.9778-5	4.8464+3	5.8537+5	4.0834+2	1.5332+0	5.8495+5			3.2824+1	3.2425+1	3.9900-1
1.6415-3	5.0241-5	4.8232+3	5.7995+5	4.2184+2	1.5418+0	5.7953+5			3.2649+1	3.2254+1	3.9538-1
1.6415-3	4.4427-5	5.0020+3	6.5584+5	4.2184+2	1.5418+0	6.5542+5			3.8925+1	3.6701+1	4.5445-1
1.6828-3	4.5850-5	4.8467+3	6.3548+5	4.7574+2	1.5701+0	6.3500+5			3.8238+1	3.5797+1	4.4028-1
1.8925-3	4.7879-5	4.8414+3	6.0858+5	5.1486+2	1.6100+0	6.0804+5			3.5318+1	3.4898+1	4.2154-1
1.7916-3	5.5015-5	4.0393+3	5.12962+5	5.6418+2	1.7448+0	5.2906+5			3.2529+1	3.2182+1	3.6671-1
2.0135-3	7.3191-5	3.0382+3	3.9810+5	6.0295+2	2.0418+0	3.8749+5			2.7489+1	2.7193+1	2.7543-1
2.3654-3	1.0600-4	2.0388+3	2.6732+5	6.0664+2	2.5038+0	2.6871+5			2.1652+1	2.1467+1	1.8516-1
2.6136-3	1.4028-4	1.5842+3	2.0771+5	6.0087+2	2.8063+0	2.0711+5			1.8577+1	1.8433+1	1.4373-1
3.4827-3	2.9006-4	7.8611+2	1.0045+5	5.2977+2	3.8028+0	9.9917+5			1.1874+1	1.1805+1	6.9189-2
4.5320-3	5.9327-4	3.7457+2	4.8113+4	4.4478+2	4.9032+0	4.8683+4			7.5688+0	7.5352+0	3.3584-2
6.0000-3	1.2620-3	1.7608+2	2.3088+4	3.5041+2	6.2137+0	2.2731+4			4.6609+0	4.6653+0	1.5622-2
7.7577-3	2.5298-3	8.7841+1	1.1517+4	2.6424+2	7.5556+0	1.1246+4			2.8942+0	2.8885+0	7.7029-3
9.3208-3	4.1949-3	5.2974+1	6.9458-3	2.0386+2	8.5841+0	6.7333+3			2.1539+0	2.1493+0	4.5995-3
1.0000-2	5.0943-3	4.3822+1	5.7195+3	1.8061+2	9.0144+0	5.5299+3			1.8979+0	1.8941+0	3.7738-3
1.0945-2	6.5415-3	3.3971+1	4.4541+3	1.4862+2	9.5233+0	4.2860+3			1.8134+0	1.8104+0	2.9275-3
1.1522-2	7.5507-3	2.9431+1	3.8589+3	1.2886+2	8.8258+0	3.7184+3			1.4709+0	1.4683+0	2.5333-3
1.1811-2	8.0978-3	2.7442+1	3.5981+3	1.1823+2	8.9752+0	3.4899+3			1.4087+0	1.4043+0	2.3682-3
1.2142-2	8.7856-3	2.5352+1	3.3240+3	1.0181+2	1.0144+1	3.2121+3			1.3388+0	1.3384+0	2.1882-3
1.2262-2	9.0249-3	2.4623+1	3.2285+3	9.3723+1	1.0205+1	3.1246+3			1.3151+0	1.3129+0	2.1284-3
1.2368-2	9.2646-3	2.3986+1	3.1450+3	8.4202+1	1.0258+1	3.0505+3			1.2948+0	1.2927+0	2.0755-3
1.2540-2	9.8881-3	2.2838+1	3.0075+3	8.4890+1	1.0345+1	2.9325+3			1.2822+0	1.2802+0	1.9945-3
1.2567-2	9.7496-3	2.2793+1	2.8885+3	6.3899+1	1.0359+1	2.8145+3			1.2572+0	1.2552+0	1.9822-3
1.2819-2	9.8541-3	2.2551+1	2.8568+3	6.5776+1	1.0385+1	2.6807+3			1.2477+0	1.2458+0	1.9590-3
1.2819-2	1.3941-3	1.5941+2	2.0901+4	6.5778+1	1.0385+1	2.0825+4			9.0191+0	8.8410+0	4.1781+0
1.2677-2	1.4103-3	1.5757+2	2.0860+4	7.3165+1	1.0414+1	2.0577+4			8.8528+0	8.8237+0	4.1291+0
1.2777-2	1.4390-3	1.5454+2	2.0263+4	8.1416+1	1.0464+1	2.0161+4			8.8361+0	8.7893+0	4.0469+0
1.2839-2	1.4564-3	1.5269+2	2.0020+4	1.0057+2	1.0495+1	1.9909+4			8.7836+0	8.7686+0	3.9970+0
1.2898-2	1.4723-3	1.5094+2	1.9790+4	1.0712+2	1.0524+1	1.9673+4			8.6958+0	8.7453+0	3.9504+0
1.3018-2	1.5074-3	1.4742+2	1.9329+4	1.1509+2	1.0583+1	1.9203+4			8.5599+0	8.7024+0	3.8575+0
1.3335-2	1.6034-3	1.3880+2	1.8172+4	1.2575+2	1.0740+1	1.8038+4			8.2191+0	8.5928+0	3.6265+0
1.3859-2	1.7703-3	1.2553+2	1.6459+4	1.3277+2	1.0852+1	1.6315+4			7.7081+0	8.4228+0	3.2855+0
1.4862-2	2.1199-3	1.0483+2	1.3745+4	1.3448+2	1.1348+1	1.3599+4			6.8758+0	8.4286+0	2.7460+0
1.7154-2	3.0689-3	7.2412+1	9.4844+3	1.2242+2	1.2205+1	9.3597+3			5.4887+0	3.5880+0	1.9007+0
2.0523-2	4.9614-3	4.4780+1	5.8727+3	1.0711+2	1.3087+1	5.7579+3			4.0495+0	2.8762+0	1.1733+0
2.5572-2	9.0135-3	2.4654+1	3.2326+3	7.6407+1	1.4127+1	3.1421+3			2.7416+0	2.0994+0	6.4315-1
3.2431-2	1.7272-2	1.2866+1	1.6868+3	5.3711+1	1.5009+1	1.8182+3			1.8001+0	1.4875+0	3.3261-1
4.6022-2	4.5833-2	4.8698+0	8.3851+2	3.0067+1	1.5790+1	5.8285+2			8.3733-1	8.1508-1	1.2225-1
7.0785-2	1.4826-1	1.4989+0	1.9853+2	1.4067+1	1.5945+1	1.6651+2			4.0853-1	3.7410-1	3.4431-2
9.2864-2	1.8614-1	7.5040-1	8.8390+1	8.5857+0	1.5605+1	7.4189+1			2.4345-1	2.2810-1	1.5353-2
1.0000-1	3.5199-1	6.3133-1	8.2778+1	7.5238+0	1.5497+1	5.9757+1			2.1278-1	2.0041-1	1.2368-2
1.2247-1	5.5384-1	4.0124-1	5.2809+1	5.1842+0	1.4843+1	3.2502+1			1.4898-1	1.4023-1	6.7310-3
1.5157-1	6.3341-1	2.6664-1	6.3461+1	3.4443+0	1.4379+1	1.7138+1			1.0328-1	9.9707-2	3.5502-3
1.8128-1	1.1128+0	1.9970-1	2.6184+1	2.4403+0	1.3727+1	1.0017+1			8.0148-2	7.8073-2	2.0750-3
2.1512-1	1.3938+0	1.5943-1	2.0904+1	1.7507+0	1.3127+1	8.0270+0			6.6826-2	6.5578-2	1.2484-3
2.5813-1	1.8995+0	1.3075-1	1.7144+1	1.2287+0	1.2380+1	3.5370+0			5.9078-2	5.8346-2	7.3249-4
3.0287-1	1.9585+0	1.1346-1	1.4877+1	8.8663-1	1.1781+1	2.2193+0			5.6631-2	5.8172-2	4.5849-4
3.7460-1	2.2951+0	9.5826-2	1.2696+1	5.8005-1	1.0881+1	1.2247+0			5.8086-2	5.7832-2	2.5388-4
4.5986-1	2.6074+0	8.5227-2	1.1175+1	3.9338-1	1.0074+1	7.0700-1			6.3912-2	6.3785-2	1.4656-4
5.8414-1	2.9830+0	7.4246-2	9.7348+0	2.4472-1	9.1072+0	3.8301-1			7.4187-2	7.4087-2	7.9356-5
7.4448-1	3.3867+0	6.5385-2	8.5730+0	1.5104-1	8.2088+0	2.1539-1			8.8232-2	8.9187-2	4.4824-5
1.0000+0	3.8617+0	5.8083-2	7.3547+0	8.3873-2	7.5171+0	1.1370-1			1.1227-1	1.1225-1	2.3575-5
1.0220+0	4.0078+0	5.5448-2	7.2701+0	6.0317-2	7.0817+0	1.0810-1			1.1412-1	1.1410-1	2.2414-5
1.0251+0	4.0146+0	5.5354-2	7.2578+0	7.9831-2	7.0705+0	1.0744-1	5.7873-8		1.1436-1	1.1434-1	2.2278-5
1.0287+0	4.0225+0	5.5245-2	7.2435+0	7.8270-2	7.0575+0	1.0689-1	5.7873-7		1.1464-1	1.1462-1	2.2121-5
1.0301+0	4.0254+0	5.5205-2	7.2382+0	7.8063-2	7.0527+0	1.0641-1	9.9604-7		1.1475-1	1.1473-1	2.2063-5
1.0310+0	4.0274+0	5.5178-2	7.2347+0	7.8826-2	7.0495+0	1.0622-1	1.3828-8		1.1482-1	1.1480-1	2.2025-5
1.0320+0	4.0298+0	5.5148-2	7.2308+0	7.8774-2	7.0480+0	1.0602-1	1.8848-8		1.1490-1	1.1488-1	2.1982-5
1.0332+0	4.0322+0	5.5112-2	7.2261+0	7.8591-2	7.0418+0	1.0577-1	2.6123-6		1.1498-1	1.1497-1	2.1931-5
1.0340+0	4.0339+0	5.5089-2	7.2230+0	7.8470-2	7.0389+0	1.0561-1	3.2068-6		1.1505-1	1.1503-1	2.1898-5
1.0353+0	4.0367+0	5.5050-2	7.2180+0	7.8274-2	7.0343+0	1.0534-1	4.3528-6		1.1515-1	1.1513-1	2.1843-5
1.0388+0	4.0398+0	5.5011-2	7.2128+0	7.8073-2	7.0296+0	1.0507-1	5.7873-6		1.1526-1	1.1524-1	2.1789-5
1.0382+0	4.0430+0	5.4965-2	7.2067+0	7.7839-2	7.0241+0	1.0478-1	7.8101-6		1.1538-1	1.1538-1	2.1721-5
1.0397+0	4.0463+0	5.4920-2	7.2010+0	7.7615-2	7.0189+0	1.0445-1	1.0147-5		1.1550-1	1.1548-1	2.1658-5
1.0415+0	4.0502+0	5.4868-2	7.1940+0	7.7348-2	7.0126+0	1.0409-1	1.3500-5		1.1564-1	1.1562-1	2.1584-5
1.0438+0	4.0551+0	5.4800-2	7.1852+0	7.7009-2	7.0046+0	1.0384-1	1.8739-5		1.1582-1	1.1580-1	2.1489-5
1.0464+0	4.0607+0	5.4725-2	7.1753+0	7.6628-2	6.9956+0	1.0312-1	2.6072-5		1.1602-1	1.1600-1	2.1382-5
1.0483+0	4.0648+0	5.4670-2	7.1681+0	7.6352-2	6.9890+0	1.0275-1	3.2460-5		1.1617-1	1.1615-1	2.1305-5
1.0512+0	4.0711+0	5.4586-2	7.1571+0	7.5933-2	6.9789+0	1.0218-1	4.4031-5		1.1639-1	1.1637-1	2.1187-5
1.0541+0	4.0772+0	5.4503-2	7.1462+0	7.5520-2	6.9690+0	1.0183-1	5.7873-5		1.1662-1	1.1659-1	2.1072-5
1.0577+0	4.0850+0	5.4400-2	7.1327+0	7.5006-2	6.9567+0	1.0093-1	7.8884-5		1.1690-1	1.1688-1	2.0

Energy keV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0762+ 0	4.1244+ 0	5.3880- 2	7.0646+ 0	7.2459- 2	6.8944+ 0	9.7496- 2	2.6191- 4		1.1833- 1	1.1831- 1	2.0215- 5
1.0806+ 0	4.1337+ 0	5.3759- 2	7.0487+ 0	7.1872- 2	6.8798+ 0	9.6704- 2	3.2708- 4		1.1867- 1	1.1865- 1	2.0051- 5
1.0871+ 0	4.1474+ 0	5.3582- 2	7.0254+ 0	7.1018- 2	6.8584+ 0	9.5552- 2	4.4069- 4		1.1917- 1	1.1915- 1	1.9812- 5
1.0937+ 0	4.1612+ 0	5.3403- 2	7.0020+ 0	7.0166- 2	6.8369+ 0	9.4402- 2	5.7873- 4		1.1989- 1	1.1987- 1	1.9574- 5
1.1028+ 0	4.1798+ 0	5.3168- 2	6.9710+ 0	6.9043- 2	6.8082+ 0	9.2887- 2	8.0239- 4		1.2037- 1	1.2035- 1	1.9260- 5
1.1107+ 0	4.1966+ 0	5.2953- 2	6.9430+ 0	6.8044- 2	6.7824+ 0	9.1538- 2	1.0465- 3		1.2100- 1	1.2098- 1	1.8980- 5
1.1206+ 0	4.2170+ 0	5.2697- 2	6.9094+ 0	6.6851- 2	6.7513+ 0	8.9930- 2	1.3998- 3		1.2178- 1	1.2174- 1	1.8647- 5
1.1333+ 0	4.2428+ 0	5.2375- 2	6.8672+ 0	6.5387- 2	6.7119+ 0	8.7927- 2	1.9483- 3		1.2274- 1	1.2272- 1	1.8232- 5
1.1475+ 0	4.2717+ 0	5.2022- 2	6.8209+ 0	6.3785- 2	6.6687+ 0	8.5767- 2	2.6873- 3		1.2383- 1	1.2381- 1	1.7784- 5
1.1582+ 0	4.2932+ 0	5.1782- 2	6.7868+ 0	6.2596- 2	6.6367+ 0	8.4191- 2	3.3396- 3		1.2465- 1	1.2464- 1	1.7457- 5
1.1741+ 0	4.3248+ 0	5.1383- 2	6.7372+ 0	6.0919- 2	6.5899+ 0	8.1928- 2	4.4635- 3		1.2587- 1	1.2586- 1	1.6988- 5
1.1901+ 0	4.3582+ 0	5.1013- 2	6.6886+ 0	5.9297- 2	6.5437+ 0	7.9760- 2	5.7873- 3		1.2710- 1	1.2709- 1	1.6538- 5
1.2051+ 0	4.3852+ 0	5.0678- 2	6.6444+ 0	5.7838- 2	6.5014+ 0	7.7979- 2	7.2043- 3		1.2828- 1	1.2825- 1	1.6189- 5
1.2275+ 0	4.4279+ 0	5.0187- 2	6.5804+ 0	5.5752- 2	6.4396+ 0	7.5431- 2	9.6426- 3		1.2999- 1	1.2998- 1	1.5640- 5
1.2556+ 0	4.4897+ 0	4.9397- 2	6.4767+ 0	5.2457- 2	6.3383+ 0	7.1383- 2	1.4612- 2		1.3294- 1	1.3292- 1	1.4801- 5
1.2949+ 0	4.5519+ 0	4.8820- 2	6.4011+ 0	5.0118- 2	6.2634+ 0	6.8480- 2	1.9058- 2		1.3521- 1	1.3519- 1	1.4202- 5
1.3318+ 0	4.6171+ 0	4.8130- 2	6.3108+ 0	4.7384- 2	6.1728+ 0	6.5104- 2	2.5327- 2		1.3807- 1	1.3805- 1	1.3489- 5
1.3628+ 0	4.6703+ 0	4.7582- 2	6.2388+ 0	4.5271- 2	6.1000+ 0	6.2470- 2	3.1058- 2		1.4046- 1	1.4045- 1	1.2953- 5
1.4117+ 0	4.7429+ 0	4.6759- 2	6.1308+ 0	4.2185- 2	5.9890+ 0	5.8902- 2	4.1020- 2		1.4429- 1	1.4428- 1	1.2151- 5
1.5000+ 0	4.8832+ 0	4.5415- 2	5.9548+ 0	3.7378- 2	5.8034+ 0	5.2520- 2	6.1260- 2		1.5124- 1	1.5123- 1	1.0890- 5
1.6172+ 0	5.0650+ 0	4.3874- 2	5.7528+ 0	3.2183- 2	5.5813+ 0	4.8220- 2	9.2947- 2		1.6064- 1	1.6064- 1	9.5837- 6
1.7188+ 0	5.2009+ 0	4.2728- 2	5.6023+ 0	2.8479- 2	5.4077+ 0	4.1877- 2	1.2447- 1		1.6889- 1	1.6888- 1	8.6418- 6
1.8923+ 0	5.4278+ 0	4.0941- 2	5.3681+ 0	2.3503- 2	5.1241+ 0	3.5398- 2	1.8512- 1		1.8234- 1	1.8233- 1	7.3393- 6
2.0440+ 0	5.6031+ 0	3.9650- 2	5.2001+ 0	2.0149- 2	4.9075+ 0	3.1110- 2	2.4140- 1		1.9448- 1	1.9447- 1	6.4506- 6
2.0858+ 0	5.6522+ 0	3.9316- 2	5.1550+ 0	1.9350- 2	4.8488+ 0	3.0165- 2	2.5663- 1	3.4122- 7	1.9763- 1	1.9763- 1	6.2548- 6
2.1086+ 0	5.6793+ 0	3.9152- 2	5.1335+ 0	1.8970- 2	4.8204+ 0	2.9713- 2	2.6443- 1	1.1117- 6	1.9923- 1	1.9922- 1	6.1809- 6
2.1140+ 0	5.6842+ 0	3.9095- 2	5.1280+ 0	1.8838- 2	4.8103+ 0	2.9654- 2	2.6725- 1	1.5382- 6	1.9980- 1	1.9979- 1	6.1280- 6
2.1195+ 0	5.6903+ 0	3.9053- 2	5.1205+ 0	1.8740- 2	4.8029+ 0	2.9438- 2	2.6835- 1	1.9151- 6	2.0022- 1	2.0022- 1	6.1038- 6
2.1279+ 0	5.6996+ 0	3.8989- 2	5.1121+ 0	1.8593- 2	4.7917+ 0	2.9261- 2	2.7259- 1	2.5972- 6	2.0087- 1	2.0087- 1	6.0672- 6
2.1363+ 0	5.7078+ 0	3.8927- 2	5.1039+ 0	1.8448- 2	4.7805+ 0	2.9087- 2	2.7584- 1	3.4122- 6	2.0152- 1	2.0152- 1	6.0311- 6
2.1470+ 0	5.7204+ 0	3.8847- 2	5.0935+ 0	1.8284- 2	4.7683+ 0	2.8885- 2	2.8005- 1	4.6783- 6	2.0236- 1	2.0236- 1	5.9851- 6
2.1635+ 0	5.7381+ 0	3.8728- 2	5.0778+ 0	1.7986- 2	4.7447+ 0	2.8531- 2	2.8660- 1	7.1139- 6	2.0366- 1	2.0366- 1	5.9157- 6
2.1845+ 0	5.7812+ 0	3.8572- 2	5.0575+ 0	1.7842- 2	4.7178+ 0	2.8114- 2	2.9415- 1	1.1273- 5	2.0528- 1	2.0527- 1	5.8293- 6
2.2018+ 0	5.7788+ 0	3.8448- 2	5.0412+ 0	1.7387- 2	4.6955+ 0	2.7778- 2	3.0047- 1	1.5598- 5	2.0682- 1	2.0681- 1	5.7597- 6
2.2148+ 0	5.7938+ 0	3.8358- 2	5.0291+ 0	1.7183- 2	4.6791+ 0	2.7530- 2	3.0527- 1	1.9431- 5	2.0783- 1	2.0783- 1	5.7083- 6
2.2242+ 0	5.8139+ 0	3.8222- 2	5.0118+ 0	1.6887- 2	4.6550+ 0	2.7187- 2	3.1253- 1	2.8138- 5	2.0916- 1	2.0915- 1	5.6328- 6
2.2537+ 0	5.8339+ 0	3.8091- 2	4.9944+ 0	1.6577- 2	4.6311+ 0	2.6810- 2	3.1992- 1	3.4122- 5	2.1070- 1	2.1069- 1	5.5589- 6
2.2815+ 0	5.8618+ 0	3.7910- 2	4.9706+ 0	1.6175- 2	4.5974+ 0	2.6313- 2	3.3087- 1	4.7793- 5	2.1292- 1	2.1292- 1	5.4560- 6
2.3070+ 0	5.8886+ 0	3.7750- 2	4.9497+ 0	1.5820- 2	4.5672+ 0	2.5872- 2	3.4071- 1	6.2776- 5	2.1498- 1	2.1498- 1	5.3644- 6
2.3382+ 0	5.9181+ 0	3.7562- 2	4.9250+ 0	1.5401- 2	4.5309+ 0	2.5348- 2	3.5326- 1	8.4408- 5	2.1754- 1	2.1753- 1	5.2557- 6
2.3774+ 0	5.9520+ 0	3.7336- 2	4.8953+ 0	1.4898- 2	4.4864+ 0	2.4714- 2	3.6917- 1	1.1690- 4	2.2079- 1	2.2078- 1	5.1243- 6
2.4102+ 0	5.9828+ 0	3.7143- 2	4.8701+ 0	1.4485- 2	4.4501+ 0	2.4203- 2	3.8118- 1	1.4867- 4	2.2344- 1	2.2343- 1	5.0185- 6
2.4488+ 0	6.0161+ 0	3.6938- 2	4.8432+ 0	1.4065- 2	4.4105+ 0	2.3554- 2	3.9483- 1	1.8912- 4	2.2644- 1	2.2644- 1	4.9046- 6
2.4859+ 0	6.0503+ 0	3.6729- 2	4.8158+ 0	1.3627- 2	4.3691+ 0	2.3069- 2	4.0973- 1	2.3811- 4	2.2969- 1	2.2969- 1	4.7875- 6
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2.6804+ 0	6.1873+ 0	3.5918- 2	4.7092+ 0	1.1899- 2	4.1987+ 0	2.0822- 2	4.7928- 1	5.2599- 4	2.4479- 1	2.4479- 1	4.3174- 6
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2.8090+ 0	6.2994+ 0	3.5302- 2	4.6287+ 0	1.0874- 2	4.0834+ 0	1.8189- 2	5.3454- 1	8.5258- 4	2.5783- 1	2.5783- 1	3.9744- 6
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3.0398+ 0	6.4338+ 0	3.4541- 2	4.5289+ 0	9.1154- 3	3.8773+ 0	1.7023- 2	6.2400- 1	1.4888- 3	2.7930- 1	2.7930- 1	3.5298- 6
3.2344+ 0	6.5558+ 0	3.3897- 2	4.4444+ 0	8.0525- 3	3.7245+ 0	1.5613- 2	6.9413- 1	2.1513- 3	2.8631- 1	2.8630- 1	3.2373- 6
3.375+ 0	6.6593+ 0	3.3370- 2	4.3754+ 0	7.1294- 3	3.5803+ 0	1.4342- 2	7.7088- 1	2.8441- 3	3.1528- 1	3.1528- 1	2.9738- 6
3.7847+ 0	6.8152+ 0	3.2607- 2	4.2753+ 0	5.8818- 3	3.3638+ 0	1.2541- 2	8.8853- 1	4.5175- 3	3.4821- 1	3.4821- 1	2.6004- 6
4.0000+ 0	6.8847+ 0	3.2277- 2	4.2321+ 0	5.2859- 3	3.2453+ 0	1.1610- 2	9.8430- 1	5.5970- 3	3.7027- 1	3.7027- 1	2.4073- 6
4.2500+ 0	6.9828+ 0	3.1917- 2	4.1848+ 0	4.6648- 3	3.1203+ 0	1.0720- 2	1.0422+ 0	6.9172- 3	3.9567- 1	3.9567- 1	2.2227- 6
4.7500+ 0	7.0587+ 0	3.1482- 2	4.1278+ 0	3.7346- 3	2.9032+ 0	9.2604- 3	1.2018+ 0	9.6790- 3	4.5084- 1	4.5084- 1	1.9201- 6
5.5135+ 0	7.1480+ 0	3.1089- 2	4.0782+ 0	2.7720- 3	2.6358+ 0	7.6483- 3	1.4158+ 0	1.4187- 2	5.3927- 1	5.3927- 1	1.5859- 6
6.3640+ 0	7.1970+ 0	3.0877- 2	4.0485+ 0	2.0688- 3	2.3824+ 0	6.3922- 3	1.8384+ 0	1.9215- 2	6.4220- 1	6.4220- 1	1.3254- 6
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9.0000+ 0	7.0743+ 0	3.1413- 2	4.1187+ 0	1.0404- 3	1.8661+ 0	4.2140- 3	2.2130+ 0	3.4330- 2	1.0058+ 0	1.0058+ 0	8.7378- 7
1.0000+ 2	6.8980+ 0	3.1809- 2	4.1707+ 0	8.4277- 4	1.7328+ 0	3.7280- 3	2.3940+ 0	3.8570- 2	1.1578+ 0	1.1578+ 0	7.7269- 7
1.3000+ 1	6.7287+ 0	3.3028- 2	4.3302+ 0	4.9668- 4	1.4233+ 0	2.7650- 3	2.8500+ 0	5.3640- 2	1.6394+ 0	1.6394+ 0	5.7332- 7
1.8000+ 1	6.3223+ 0	3.5148- 2	4.6086+ 0	2.6012- 4	1.1148+ 0	1.9290- 3	3.4190+ 0	7.2670- 2	2.5320+ 0	2.5320+ 0	3.9897- 7
2.8000+ 1	5.8341+ 0	3.8090- 2	4.9943+ 0	1.2468- 4	8.3351- 1	1.2990- 3	4.0840+ 0	9.6350- 2	4.1159+ 0	4.1159+ 0	2.8934- 7
4.2170+ 1	5.2328+ 0	4.2489- 2	5.5883+ 0	4.7395- 5	5.8868- 1	7.8115- 4	4.8734+ 0	1.2541- 1	7.8872+ 0	7.8872+ 0	1.8187- 7
6.0000+ 1	4.8568+ 0	4.5764- 2	6.0004+ 0	2.3412- 5	4.2492- 1	5.4230+ 4	5.4280+ 0	1.4690- 1	1.1984+ 1	1.1984+ 1	1.1244- 7
1.0000+ 2	4.4218+ 0	5.0256- 2	6.5894+ 0	8.4282- 6	2.7882- 1	3.2170- 4	6.1350+ 0	1.7540- 1	2.2197+ 1	2.2197+ 1	6.6704- 8
2.0000+ 2	4.0227+ 0	5.5242- 2	7.2432+ 0	2.1070- 8	1.5411- 1	1.5940- 4	8.8810+ 0	2.0790- 1	4.8271+ 1	4.8271+ 1	3.3051- 8
5.0000+ 2	3.7241+ 0	5.8871- 2	7.8239+ 0	3.3713- 7	6.9729- 2	6.3440- 5	7.5150+ 0	2.3910- 1	1.3379+ 2	1.3379+ 2	1.3154- 8
1.0000+ 3	3.6027+ 0	6.1883- 2	8.0878+ 0	8.4282- 6	3.9779- 2	3.1870- 5	7.7950+ 0	2.5460- 1	2.7709+ 2	2.7709+ 2	6.5687- 8
5.0000+ 3	3.4823+ 0	6.3815- 2	8.3872+ 0	3.3713- 9	8.9849- 3	6.3240- 8	8.0880- 0	2.7220- 1	1.4353+ 3	1	

October 31, 1989
Atomic Weight 79.909

ENDL Evaluated
Photon Cross Sections

35-Br
Density 7.5900- 3 Grams/cc

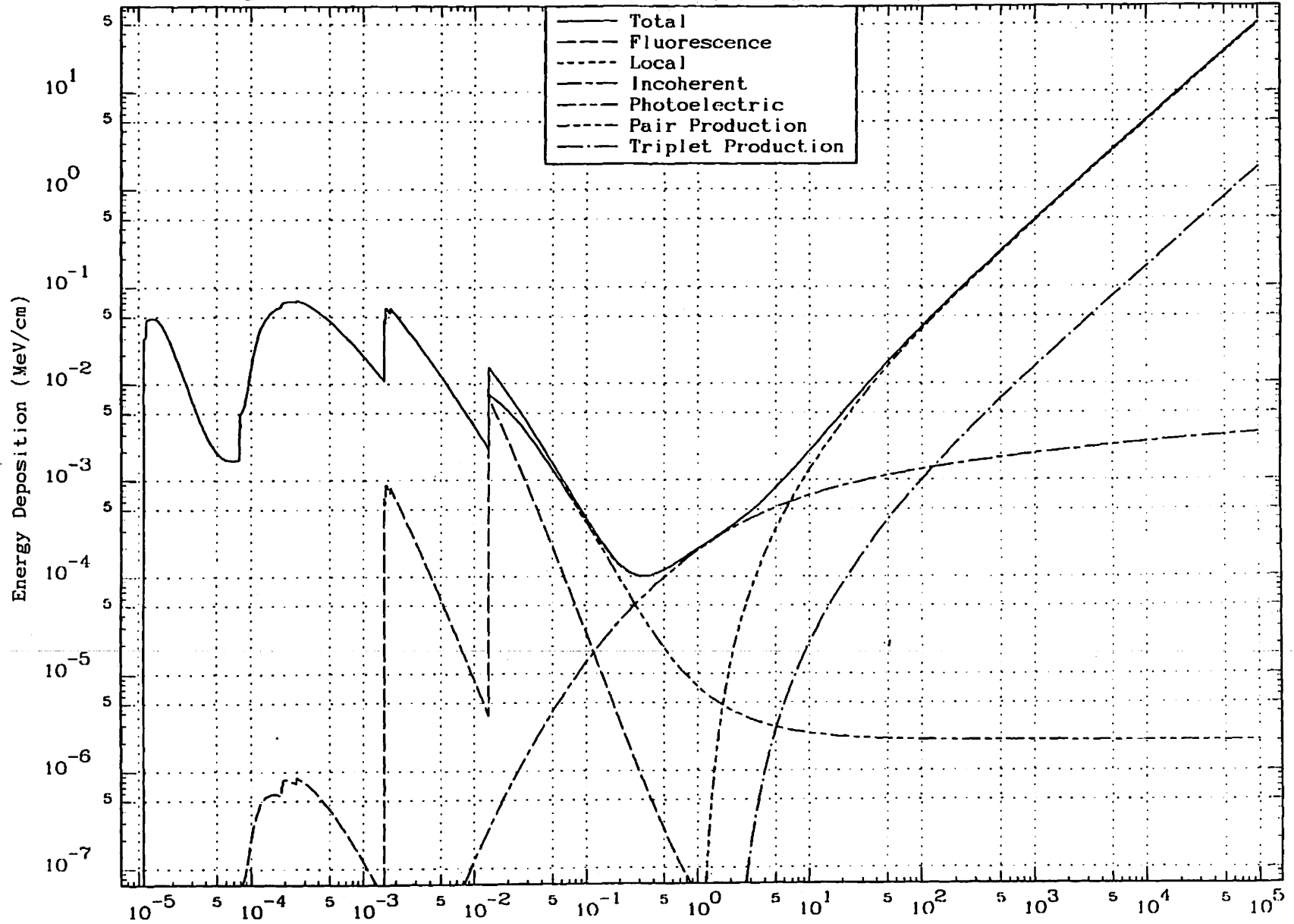


October 31, 1989
Atomic Weight 79.909

ENDL Evaluated
Energy Deposition

35-Br
Density 7.5900- 3 Grams/cc

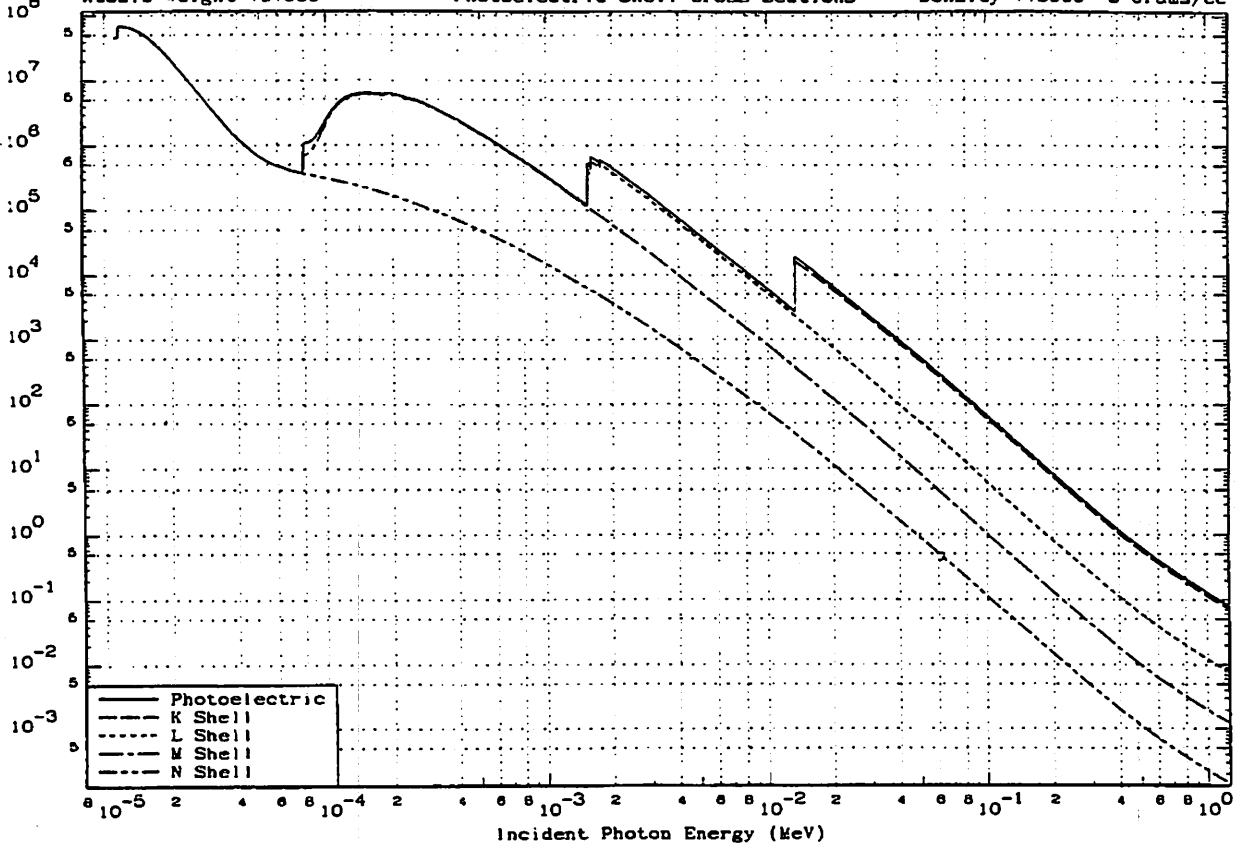
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October 31, 1989
Atomic Weight 79.909

ENDL Evaluated
Photoelectric Shell Cross Sections

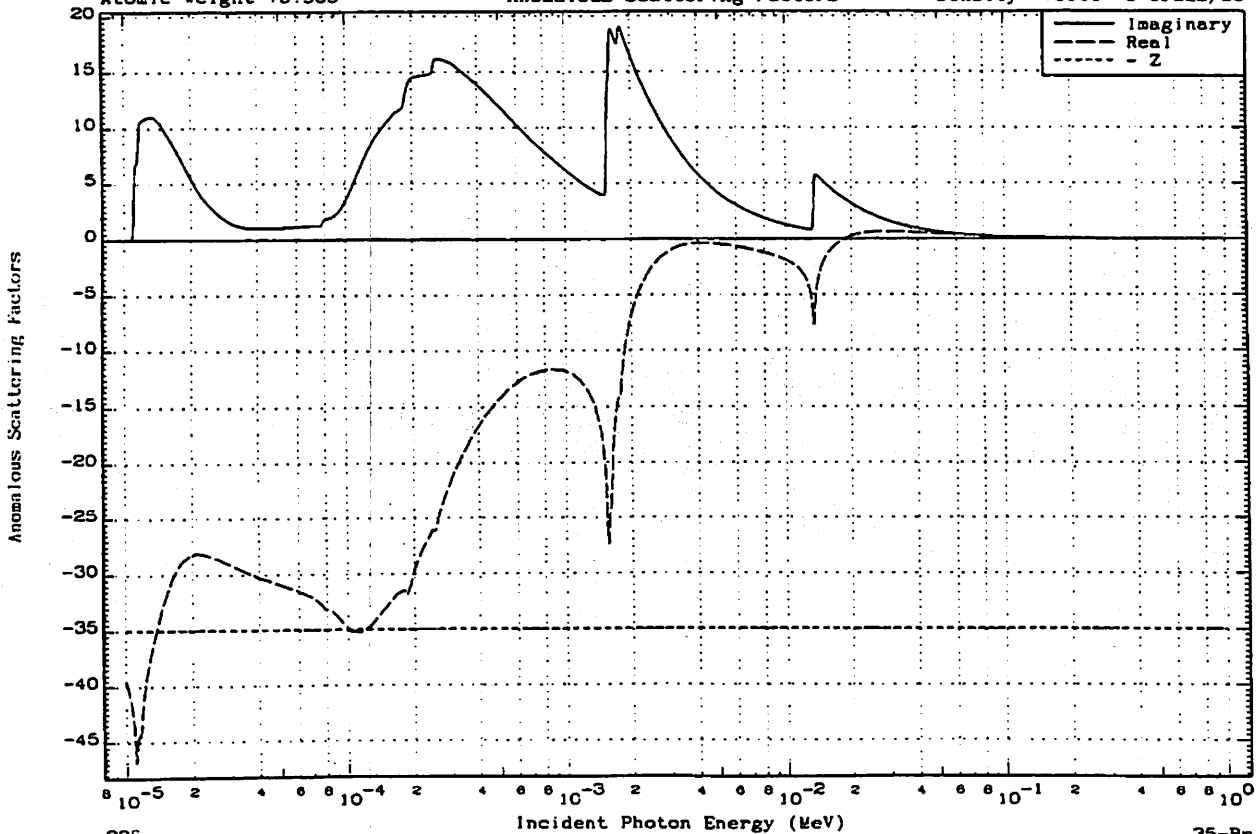
35-Br
Density 7.5900- 3 Grams/cc



October 31, 1989
Atomic Weight 79.909

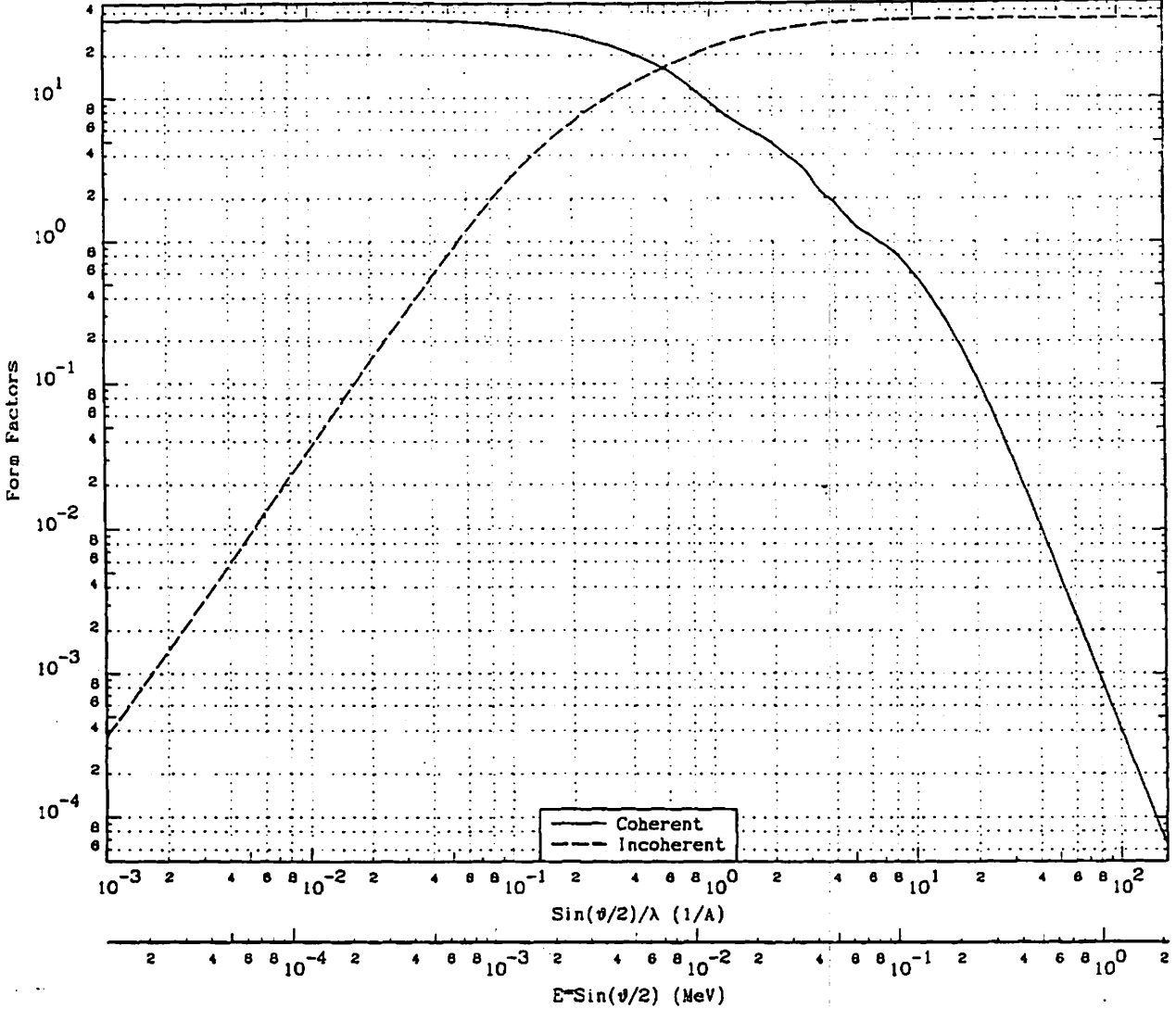
ENDL Evaluated
Anomalous Scattering Factors

35-Br
Density 7.5900- 3 Grams/cc



235

35-Br

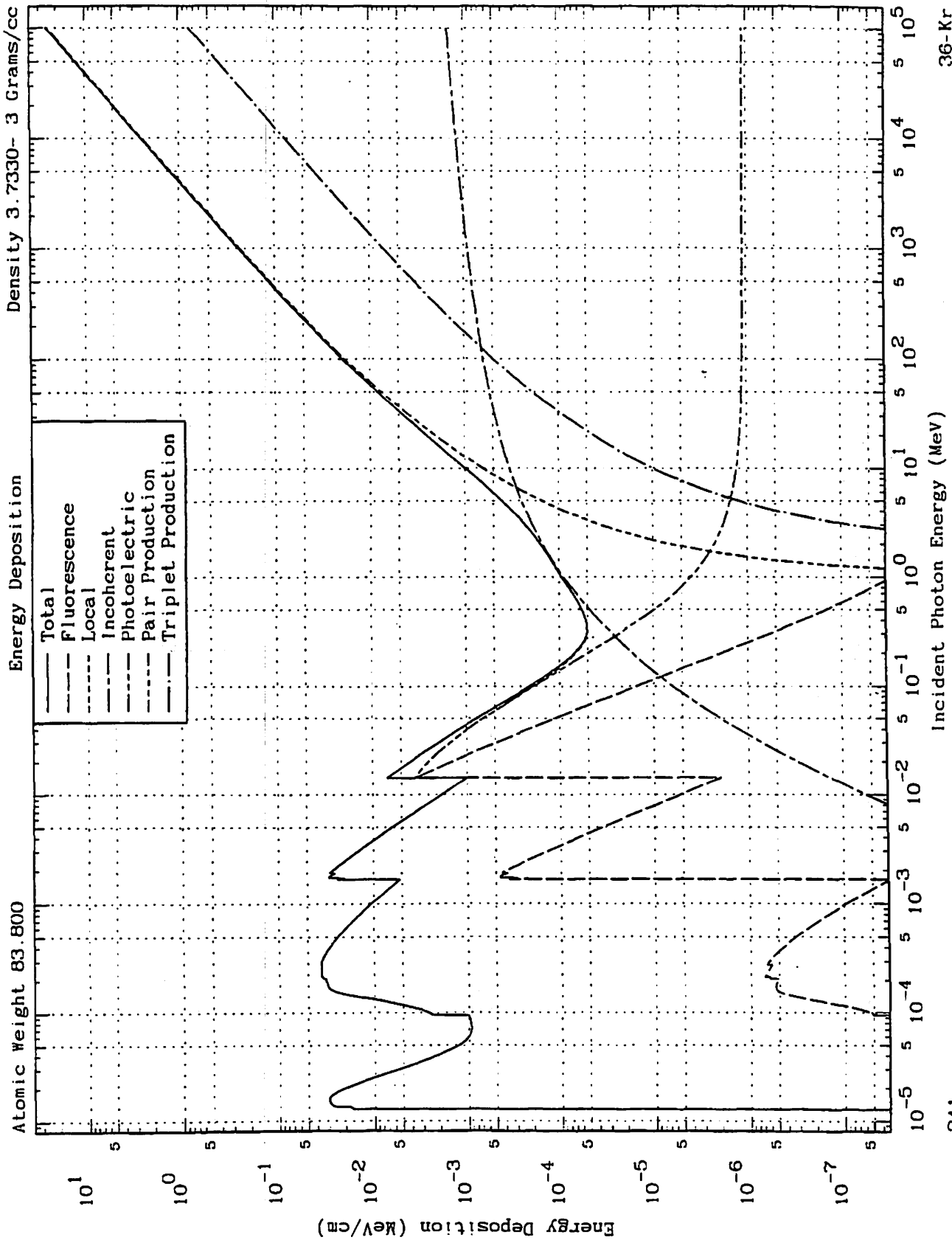


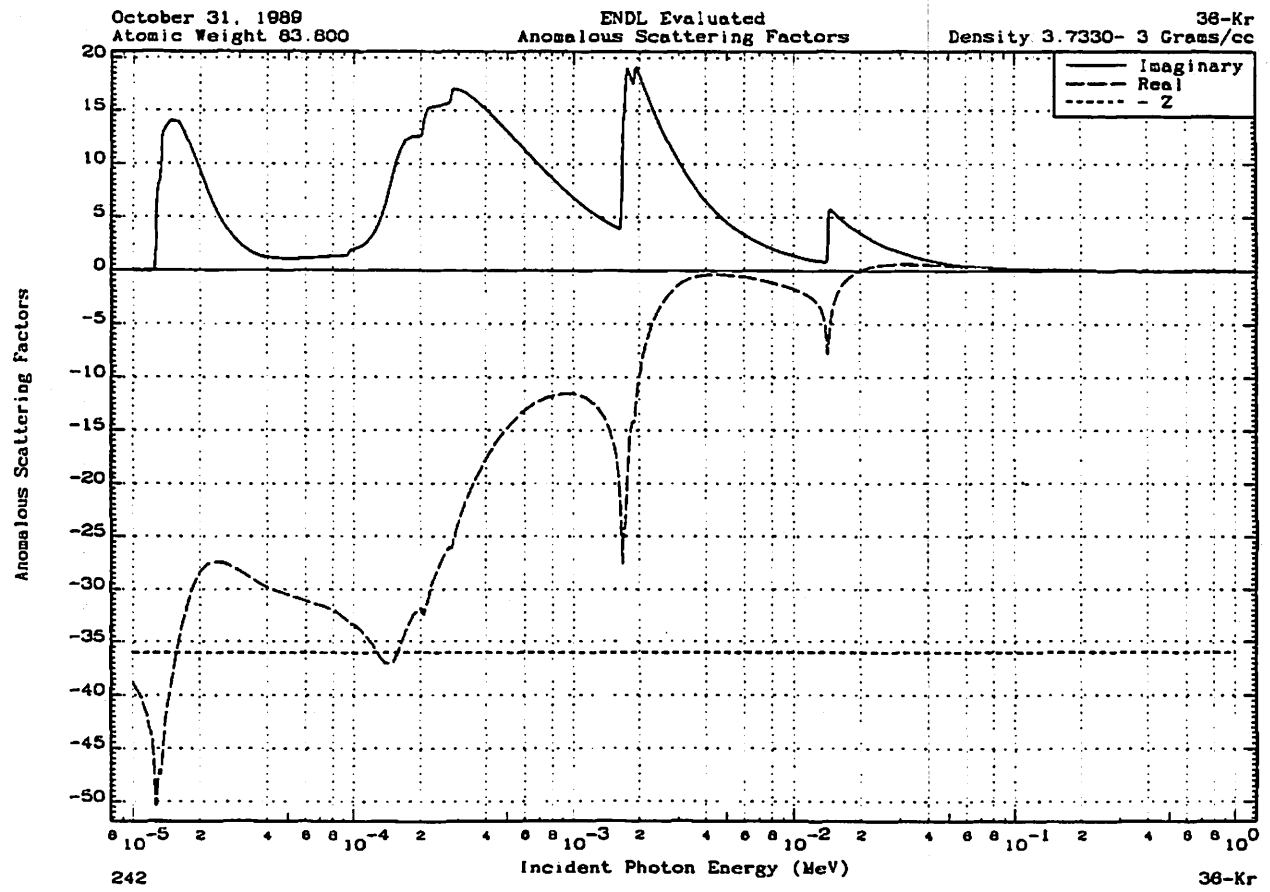
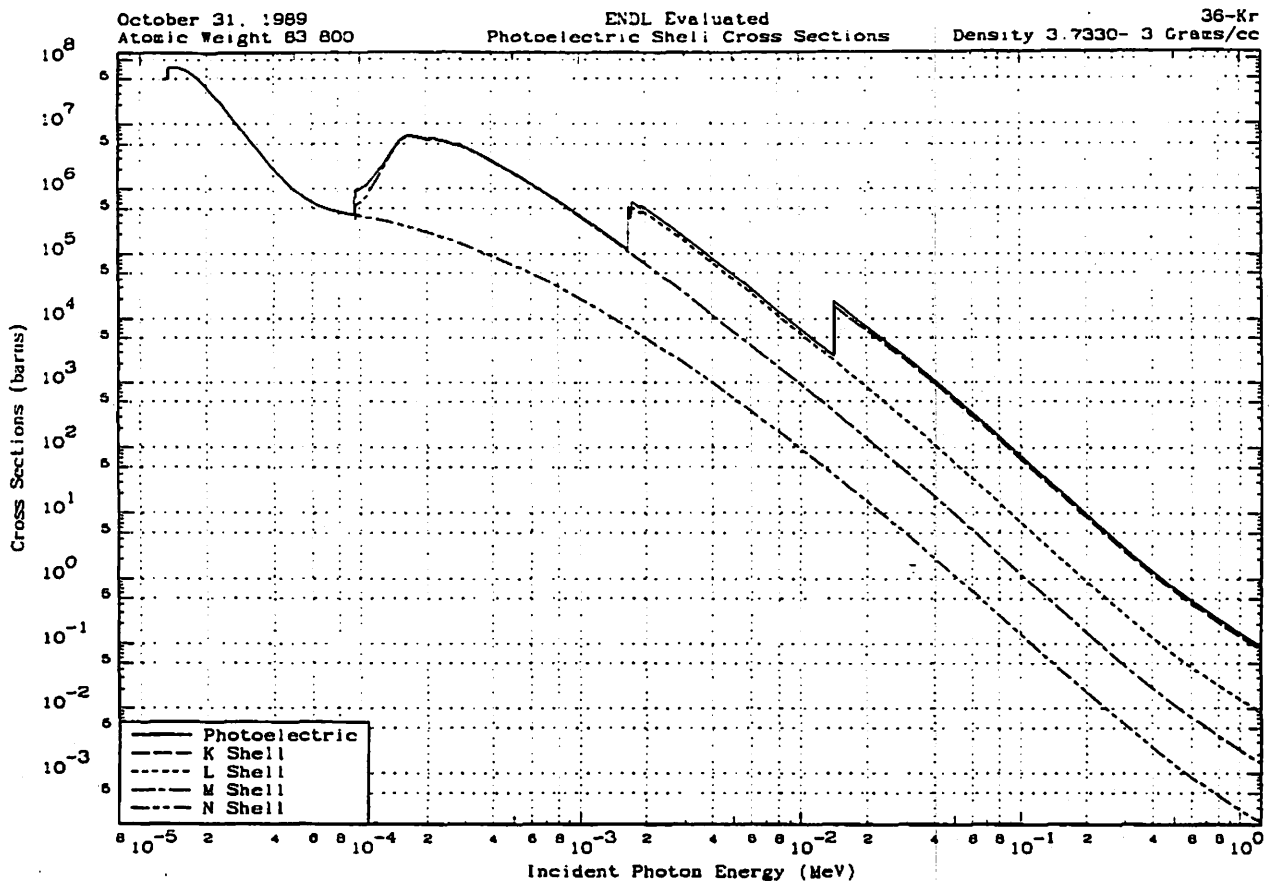
$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	3.5000+ 1	0.0000+ 0	7.0000- 1	8.8790- 3	1.3785+ 1	1.8185+ 1	1.5000+ 1	1.8598- 1	2.3858- 1	3.4970+ 1
1.0000- 3	1.2399- 5	3.5000+ 1	3.6000- 4	8.0000- 1	9.9188- 3	1.1918+ 1	1.9747+ 1	1.7539+ 1	2.1746- 1	1.5689- 1	3.4988+ 1
5.0000- 3	6.1993- 5	3.4990+ 1	9.0000- 3	9.0000- 1	1.1159- 2	1.0391+ 1	2.1149+ 1	2.0000+ 1	2.4797- 1	1.0721- 1	3.4995+ 1
1.0000- 2	1.2399- 4	3.4967+ 1	3.6000- 2	1.0000+ 0	1.2399- 2	9.1754+ 0	2.2399+ 1	2.4457+ 1	3.0323- 1	5.7548- 2	3.4998+ 1
1.5000- 2	1.8598- 4	3.4933+ 1	8.1700- 2	1.2500+ 0	1.5498- 2	7.2023+ 0	2.4920+ 1	3.1584+ 1	3.9159- 1	2.4759- 2	3.5001+ 1
2.0000- 2	2.4797- 4	3.4881+ 1	1.4450- 1	1.5000+ 0	1.8598- 2	6.1467+ 0	2.6747+ 1	5.0000+ 1	6.1993- 1	4.9695- 3	3.5000+ 1
2.5000- 2	3.0996- 4	3.4815+ 1	2.2410- 1	2.0000+ 0	2.4797- 2	4.8482+ 0	2.9180+ 1	8.0000+ 1	9.9188- 1	9.2702- 4	3.5000+ 1
3.0000- 2	3.7196- 4	3.4735+ 1	3.2000- 1	2.5000+ 0	3.0996- 2	3.7426+ 0	3.0785+ 1	1.0000+ 2	1.2399+ 0	4.1884- 4	3.5000+ 1
4.0000- 2	4.9594- 4	3.4534+ 1	5.5860- 1	2.8813+ 0	3.5724- 2	3.1584+ 0	3.1634+ 1	1.7117+ 2	2.1223+ 0	6.4630- 5	3.5000+ 1
5.0000- 2	6.1993- 4	3.4283+ 1	8.4600- 1	3.0000+ 0	3.7196- 2	2.9508+ 0	3.1850+ 1	2.7479+ 2	3.4079+ 0	1.3114- 5	3.5000+ 1
7.0000- 2	8.8790- 4	3.3842+ 1	1.5477+ 0	3.4180+ 0	4.2378- 2	2.2470+ 0	3.2456+ 1	4.7714+ 2	5.9158+ 0	2.1480- 6	3.5000+ 1
9.0000- 2	1.1159- 3	3.2858+ 1	2.3509+ 0	3.5000+ 0	4.3395- 2	2.1591+ 0	3.2554+ 1	1.0000+ 3	1.2399+ 1	2.0271- 7	3.5000+ 1
1.0000- 1	1.2399- 3	3.2425+ 1	2.7710+ 0	4.0000+ 0	4.8594- 2	1.8714+ 0	3.3030+ 1	2.6333+ 3	3.2649+ 1	9.9978- 9	3.5000+ 1
1.2500- 1	1.5498- 3	3.1280+ 1	3.8262+ 0	5.0000+ 0	6.1993- 2	1.2861+ 0	3.3642+ 1	6.6119+ 3	8.1978+ 1	6.1100- 10	3.5000+ 1
1.5000- 1	1.8598- 3	3.0047+ 1	4.8510+ 0	5.4258+ 0	6.7272- 2	1.1837+ 0	3.3830+ 1	1.4899+ 4	1.8473+ 2	5.4187- 11	3.5000+ 1
1.7500- 1	2.1697- 3	2.8847+ 1	5.8261+ 0	6.0000+ 0	7.4391- 2	1.0902+ 0	3.4045+ 1	4.2648+ 4	5.2875+ 2	2.4672- 12	3.5000+ 1
2.0000- 1	2.4797- 3	2.7690+ 1	6.7480+ 0	7.0000+ 0	8.6790- 2	9.4180- 1	3.4337+ 1	1.0000+ 6	1.2399+ 4	2.6843- 16	3.5000+ 1
2.5000- 1	3.0996- 3	2.5601+ 1	8.4425+ 0	8.0000+ 0	9.9188- 2	8.2020- 1	3.4547+ 1	5.6234+ 6	6.9722+ 4	1.7706- 18	3.5000+ 1
3.0000- 1	3.7196- 3	2.3808+ 1	9.9400+ 0	9.3540+ 0	1.1598- 1	6.4996- 1	3.4733+ 1	7.4889+ 7	9.2975+ 5	8.8593- 22	3.5000+ 1
4.0000- 1	4.9594- 3	2.0829+ 1	1.2440+ 1	1.0000+ 1	1.2399- 1	5.7690- 1	3.4794+ 1	1.0000+ 9	1.2399+ 7	4.2437- 25	3.5000+ 1
5.0000- 1	6.1993- 3	1.8262+ 1	1.4552+ 1	1.2089+ 1	1.4984- 1	3.9684- 1	3.4907+ 1				
6.0000- 1	7.4391- 3	1.5902+ 1	1.6458+ 1	1.4176+ 1	1.7578- 1	2.7454- 1	3.4959+ 1				

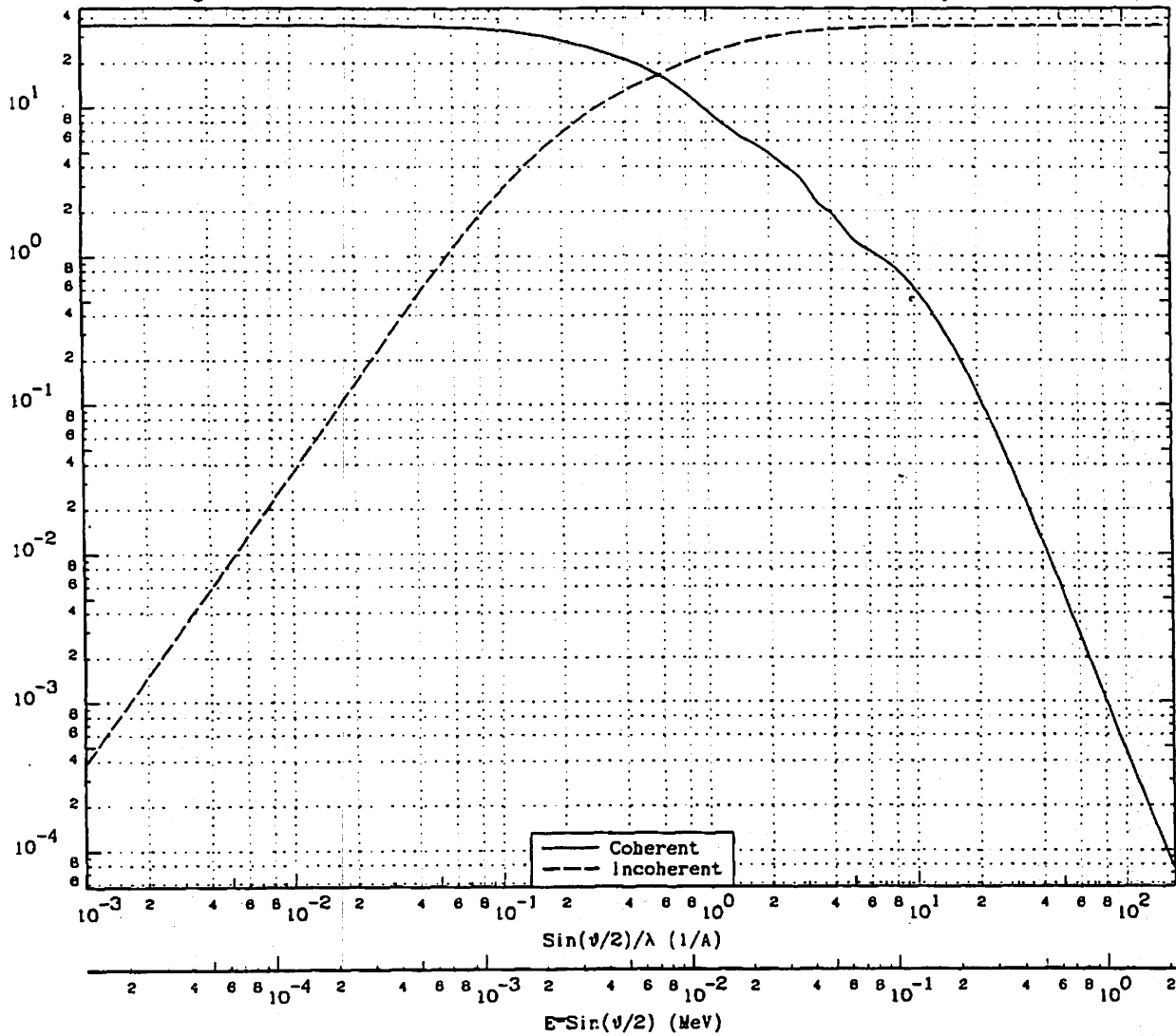
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.2960+3	1.0166-1	1.3489+1	1.3489+1	7.7898-5				1.2210-18	1.2210-18	
1.0608-5	5.8108+2	2.3482-1	3.1159+1	3.1159+1	8.7650-5				1.5459-18	1.5459-18	
1.0738-5	4.2608+2	3.0923-1	4.1033+1	4.1033+1	8.8631-5				1.6237-18	1.6237-18	
1.0818-5	3.4072+2	3.8669-1	5.1311+1	5.1311+1	9.1178-5				1.6728-18	1.6728-18	
1.0905-5	2.4845+2	5.3030-1	7.0387+1	7.0387+1	9.2831-5				1.7266-18	1.7266-18	
1.0981-5	2.0271+2	6.4995-1	8.6243+1	8.6243+1	9.3578-5				1.7621-18	1.7621-18	
1.0885-5	1.8883+2	6.8848-1	9.2883+1	9.2883+1	9.3984-5				1.7774-18	1.7774-18	
1.1030-5	1.7192+2	7.8634-1	1.0169+2	1.0169+2	9.4783-5				1.8070-18	1.8070-18	
1.1030-5	3.7829+4	3.4737+5	4.8093+7	1.0169+2	9.4783-5	4.8093+7			2.9081-2	2.9081-2	
1.1085-5	3.7904+4	3.4759+5	4.6123+7	1.0693+2	9.5709-5	4.8123+7			2.9245-2	2.9245-2	
1.1131-5	3.7884+4	3.4778+5	4.6148+7	1.0493+2	9.6496-5	4.8148+7			2.9381-2	2.9381-2	
1.1235-5	3.7837+4	3.4821+5	4.6204+7	9.3437+1	9.8318-5	4.8204+7			2.9693-2	2.9693-2	
1.1378-5	3.7774+4	3.4879+5	4.6281+7	8.7129+1	1.0085-4	4.8281+7			3.0123-2	3.0123-2	
1.1446-5	3.7745+4	3.4905+5	4.6317+7	8.0229+1	1.0203-4	4.8317+7			3.0323-2	3.0323-2	
1.1542-5	3.7704+4	3.4944+5	4.6368+7	1.0266+2	1.0377-4	4.8368+7			3.0613-2	3.0613-2	
1.1590-5	3.7683+4	3.4963+5	4.6393+7	1.0744+2	1.0462-4	4.8393+7			3.0756-2	3.0756-2	
2.1.1590-5	2.5375+4	5.1921+5	6.8895+7	1.0744+2	1.0462-4	6.8895+7			4.5874-2	4.5874-2	
1.1646-5	2.5379+4	5.1914+5	6.8866+7	1.1329+2	1.0564-4	6.8866+7			4.5888-2	4.5888-2	
1.1685-5	2.5382+4	5.1908+5	6.8878+7	1.1404+2	1.0653-4	6.8878+7			4.6077-2	4.6077-2	
1.2183-5	2.5715+4	5.1236+5	6.7866+7	9.2526+1	1.1559-4	6.7866+7			4.7378-2	4.7378-2	
1.2839-5	2.6592+4	4.9548+5	6.5744+7	8.3870+1	1.2837-4	6.5744+7			4.8280-2	4.8280-2	
1.3718-5	2.8455+4	4.8301+5	6.1438+7	8.0090+1	1.4854-4	6.1438+7			4.8208-2	4.8208-2	
1.5000-5	3.3377+4	3.8474+5	5.2379+7	7.2834+1	1.7520-4	5.2379+7			4.4941-2	4.4941-2	
1.8119-5	3.8850+4	3.3062+5	4.3871+7	6.7487+1	2.0229-4	4.3870+7			4.0448-2	4.0448-2	
1.7971-5	5.8175+4	2.3454+5	3.1122+7	6.0211+1	2.5143-4	3.1122+7			3.1991-2	3.1991-2	
2.0681-5	6.8082+4	1.3712+5	1.8195+7	4.8083+1	3.3294-4	1.8195+7			2.1524-2	2.1524-2	
2.4180-5	1.8189+3	7.2515+4	8.8222+6	3.5775+1	4.5504-4	8.8221+6			1.3308-2	1.3308-2	
1.2.4180-5	1.8136+3	7.2646+4	9.6395+6	3.5775+1	4.5504-4	9.6395+6			1.3332-2	1.3332-2	
3.2537-5	6.1984+3	2.1263+4	2.8214+6	2.1339+1	8.2371-4	2.8214+6			5.2510-3	5.2510-3	
3.7266-5	1.0585+2	1.2438+4	1.6501+6	1.7100+1	1.0804-3	1.6501+6			3.5174-3	3.5174-3	
4.1289-5	1.5030+2	8.7882+3	1.1632+6	1.4877+1	1.3266-3	1.1632+6			2.7479-3	2.7479-3	
4.7287-5	2.2579+2	6.8353+3	7.7429+5	1.2490+1	1.7391-3	7.7428+5			2.0943-3	2.0943-3	
5.0000-5	2.5888+2	5.0894+3	6.7532+5	1.1532+1	1.8443-3	6.7531+5			1.8314-3	1.8314-3	
5.5428-5	3.2063+2	4.1091+3	5.4525+5	9.8511+0	2.3889-3	5.4524+5			1.7288-3	1.7288-3	
6.0000-5	3.6343+2	3.8252+3	4.8104+5	8.7811+0	2.7992-3	4.8103+5			1.6509-3	1.6509-3	
7.0000-5	4.3358+2	3.0389+3	4.0324+5	6.5531+0	3.8095-3	4.0323+5			1.8145-3	1.8145-3	
7.0348-5	4.3532+2	3.0268+3	4.0180+5	6.4917+0	3.8474-3	4.0180+5			1.8180-3	1.8180-3	
7.7115-5	4.6927+2	2.8078+3	3.7255+5	4.1501+0	4.6228-3	3.7254+5			1.8433-3	1.8433-3	
7.7870-5	4.7203+2	2.7812+3	3.7037+5	3.8457+0	4.6898-3	3.7036+5			1.8454-3	1.8454-3	
7.8140-5	4.7438+2	2.7775+3	3.6855+5	3.8789+0	4.7464-3	3.6854+5			1.8472-3	1.8472-3	
7.8450-5	4.7581+2	2.7690+3	3.6743+5	3.7349+0	4.7842-3	3.6742+5			1.8488-3	1.8488-3	
5.7.8450-5	2.2118+2	5.8568+3	7.8044+5	3.7349+0	4.7842-3	7.8043+5			3.5489-3	3.5489-3	
7.9590-5	2.2114+2	5.8560+3	7.8058+5	3.8928+0	4.9242-3	7.8057+5			3.5991-3	3.5991-3	
4.7.9590-5	1.6394+2	8.0365+3	1.0684+6	3.8928+0	4.9242-3	1.0684+6			4.8547-3	4.8547-3	6.8384-8
8.0639-5	1.8334+2	8.0681+3	1.0703+6	4.2960+0	5.0548-3	1.0703+6			4.9388-3	4.9388-3	6.7255-8
8.3301-5	1.5983+2	8.2432+3	1.0938+6	4.1865+0	5.3937-3	1.0938+6			5.2118-3	5.2117-3	6.8514-8
8.6586-5	1.4805+2	8.8991+3	1.1808+6	4.0808+0	5.8273-3	1.1808+6			5.8483-3	5.8482-3	7.7323-8
9.0000-5	1.2914+2	1.0202+4	1.3538+6	3.8974+0	6.2957-3	1.3538+6			6.8693-3	6.8692-3	3.9008-8
9.2521-5	1.1184+2	1.1780+4	1.5632+6	4.3132+0	6.8532-3	1.5632+6			8.2728-3	8.2725-3	1.1113-7
9.6248-5	8.8433+3	1.4898+4	1.9768+6	5.5428+0	7.1998-3	1.9768+6			1.0884-2	1.0884-2	1.1058-7
1.0000-4	7.0450+3	1.8701+4	2.4815+6	7.9472+0	7.7717-3	2.4815+6			1.4184-2	1.4184-2	1.9684-7
1.0346-4	5.8416+3	2.2554+4	2.8928+6	1.0900+1	8.3206-3	2.8928+6			1.7712-2	1.7711-2	2.4328-7
1.0997-4	4.4284+3	2.9785+4	3.9486+6	1.7888+1	9.4022-3	3.9486+6			2.4844-2	2.4843-2	3.3584-7
1.1482-4	3.8308+3	3.4393+4	4.5837+6	2.5278+1	1.0216-2	4.5837+6			2.8920-2	2.8920-2	3.9180-7
1.2108-4	3.2895+3	4.0297+4	5.3472+6	3.5715+1	1.1573-2	5.3471+6			3.7307-2	3.7307-2	4.6988-7
1.2482-4	3.1483+3	4.1835+4	5.5512+6	4.0591+1	1.2120-2	5.5512+6			3.9834-2	3.9833-2	4.8888-7
1.3554-4	2.8922+3	4.5712+4	6.0658+6	5.5489+1	1.4298-2	6.0658+6			4.7028-2	4.7025-2	5.8177-7
1.5150-4	2.7829+3	4.7685+4	6.3275+6	7.4761+1	1.7888-2	6.3274+6			5.4830-2	5.4830-2	5.8184-7
1.8594-4	2.7835+3	4.7878+4	6.3282+6	8.1155+1	2.1446-2	6.3281+6			6.0048-2	6.0048-2	5.8808-7
1.8288-4	2.8805+3	4.5739+4	6.0893+6	1.0143+2	2.8059-2	6.0892+6			6.3488-2	6.3488-2	5.8803-7
1.8478-4	2.8967+3	4.5483+4	6.0352+6	1.1022+2	2.8804-2	6.0351+6			6.3788-2	6.3787-2	5.8197-7
3.1.8478-4	2.7801+3	4.7735+4	6.3341+6	1.1022+2	2.8804-2	6.3340+6			6.6947-2	6.6946-2	7.0662-7
1.8847-4	2.7842+3	4.7864+4	6.3247+6	1.2853+2	2.7879-2	6.3245+6			6.8181-2	6.8181-2	7.2558-7
1.9182-4	2.7860+3	4.7292+4	6.2752+6	1.3770+2	2.8874-2	6.2751+6			6.8851-2	6.8850-2	7.3594-7
1.9182-4	2.7860+3	4.7292+4	6.4082+6	1.3770+2	2.8874-2	6.4080+6			7.0288-2	7.0287-2	8.1795-7
1.9480-4	2.7509+3	4.7894+4	6.3551+6	1.4827+2	2.8574-2	6.3560+6			7.0810-2	7.0809-2	8.2470-7
2.0248-4	2.8202+3	4.6718+4	6.1891+6	1.8138+2	3.1856-2	6.1888+6			7.1794-2	7.1793-2	8.3477-7
2.4329-4	3.3888+3	3.8867+4	5.1573+6	1.8873+2	4.6174-2	5.1571+6			7.1788-2	7.1788-2	7.8947-7
2.4885-4	3.4809+3	3.7850+4	5.0224+6	2.0078+2	4.8232-2	5.0222+6			7.1428-2	7.1427-2	7.6034-7
2.5149-4	3.5297+3	3.7327+4	4.9530+6	2.1313+2	4.9345-2	4.9527+6			7.1248-2	7.1245-2	7.5543-7
2.5149-4	3.4008+3	3.8741+4	5.1407+6	2.1313+2	4.9345-2	5.1405+6			7.3947-2	7.3946-2	8.7355-7
2.5470-4	3.4528+3	3.8158+4	5.0833+6	2.2977+2	5.0613-2	5.0831+6			7.3782-2	7.3781-2	8.6742-7
2.5945-4	3.5387+3	3.7232+4	4.8040+6	2.4215+2	5.2525-2	4.8402+6			7.3315-2	7.3314-2	8.5757-7
2.8781-4	4.0932+3	3.2188+4	4.2711+6	2.7758+2	6.4508-2	4.2708+6			7.0310-2	7.0309-2	7.9954-7
3.1340-4	4.6778+3	2.8185+4	3.7373+6	3.0158+2	7.8198-2	3.7370+6			6.8991-2	6.8990-2	7.4047-7
4.0000-4	7.1261+3	1.8489+4	2.4533+6	3.4917+2	1.2279-1	2.4530+6			5.8124-2	5.8123-2	5.8938-7
5.4388-4	1.3050+2	1.0065+4	1.3355+6	3.8505+2	2.2338-1	1.3351+6			4.1536-2	4.1536-2	3.5747-7
7.0857-4	2.3188+2	5.8888+3	7.5460+5	3.9045+2	3.6824-1	7.5421+5			3.0568-2	3.0568-2	2.2888-7
8.3952-4	3.3755+2	3.8032+3	5.1793+5	3.8138+2	5.0108-1	5.1754+5			2.4853-2	2.4853-2	1.6834-7
1.0000-3	5.0276+2	2.8206+3	3.4773+5	3.5717+2	6.8725-1	3.4737+5			1.8870-2	1.8869-2	1.2082-7
1.0784-3	5.8948+2	2.1978+3	2.9164+5	3.4158+2	7.7784-1	2.9130+5			1.7935-2	1.7935-2	1.0385-7
1.1754-3	7.3981+2	1.7809+3	2.3831+5	3.1506+2	9.0197-1	2.3600+5			1.5867-2	1.5867-2	8.6568-8
1.2721-3	8.9365+2	1.4743+3	1.8563+5	2.8109+2	1.0302+0	1.8535+5			1.4214-2	1.4214-2	7.3515-8
1.3431-3	1.0177+1	1.2948+3	1.7178+5	2.5002+2	1.1282+0	1.7153+5			1.3178-2	1.3178-2	6.5898-8
1.4173-3	1.1574+1	1.1383+3	1.6104+5	2.0580+2	1.2231+0	1.5084+5			1.2228-2	1.2228-2	5.8787-8
1.4615-3	1.2459+1	1.0575+3	1.4032+5	1.8926+2	1.2823+0	1.4015+5			1.1716-2	1.1716-2	5.5168-8

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.4982-3	1.3223-1	9.9642+2	1.3222-5	1.2932-2	1.3320-0	1.3209+5			1.1319-2	1.1319-2	5.2413-8
1.5161-3	1.3614-1	9.6774-2	1.2841+5	1.0012-2	1.3566-0	1.2831+5			1.1128-2	1.1128-2	5.1064-8
1.5226-3	1.3757-1	9.5770-2	1.2708+5	8.7184-1	1.3655-0	1.2699+5			1.1060-2	1.1060-2	5.0590-8
1.5381-3	1.4059-1	9.3715-2	1.2435+5	6.0133-1	1.3841+0	1.2429+5			1.0921-2	1.0921-2	4.9618-8
1.5388-3	1.4115-1	9.3344+2	1.2388+5	5.7184-1	1.3878+0	1.2390+5			1.0895-2	1.0895-2	4.9442-8
1.5415-3	1.4180-1	9.2914+2	1.2329+5	5.5449-1	1.3916+0	1.2323+5			1.0866-2	1.0866-2	4.9237-8
1.5449-3	1.4258-1	9.2409+2	1.2262+5	5.8787+1	1.3984+0	1.2256+5			1.0831-2	1.0831-2	4.8994-8
1.5482-3	1.4330-1	9.1840+2	1.2200+5	6.1882+1	1.4009+0	1.2193+5			1.0788-2	1.0788-2	4.8788-8
1.5538-3	1.4450-1	9.1177+2	1.2099+5	7.8029+1	1.4084+0	1.2091+5			1.0744-2	1.0744-2	4.8397-8
L3 1.5536-3	3.2294-2	4.0797+3	5.4135+5	7.8029+1	1.4084+0	5.4127+5			4.8102-2	4.7446-2	6.5517-4
1.5599-3	3.2998-2	3.8927+3	5.2980+5	1.0507-2	1.4172+0	5.2969+5			4.7822-2	4.6623-2	6.3889-4
1.5688-3	3.3797-2	3.8984+3	5.1729+5	1.3721+2	1.4269+0	5.1715+5			4.6349-2	4.5727-2	6.2132-4
1.5715-3	3.4339-2	3.8368+3	5.0911+5	1.5531+2	1.4334+0	5.0895+5			4.5750-2	4.5140-2	6.0988-4
1.5787-3	3.5194-2	3.7436+3	4.9674+5	1.7444-2	1.4435+0	4.9656+5			4.4841-2	4.4248-2	5.9263-4
1.5862-3	3.6078-2	3.6520+3	4.8460+5	1.8700-2	1.4540+0	4.8441+5			4.3950-2	4.3374-2	5.7582-4
1.5955-3	3.6928-2	3.5973+3	4.7733+5	2.1004-2	1.4672+0	4.7712+5			4.3543-2	4.2978-2	5.6599-4
1.6021-3	3.6977-2	3.5631+3	4.7280+5	2.3544+2	1.4785+0	4.7256+5			4.3306-2	4.2744-2	5.6185-4
L2 1.6021-3	2.8065-2	5.0549+3	8.7074+5	2.3544+2	1.4785+0	6.7050+5			6.1445-2	6.0542-2	9.0327-4
1.6130-3	2.8325-2	5.0049+3	8.6411+5	2.8587+2	1.4820+0	6.6383+5			6.1247-2	6.0352-2	8.9513-4
1.6189-3	2.8490-2	4.9737+3	8.5997+5	3.1467+2	1.5019+0	6.5965+5			6.1124-2	6.0233-2	8.9009-4
1.6311-3	2.8759-2	4.9237+3	8.5334+5	3.5014+2	1.5179+0	6.5298+5			6.0925-2	6.0043-2	8.8203-4
1.6575-3	2.7451-2	4.7998+3	8.3888+5	3.8955+2	1.5556+0	6.3847+5			6.0342-2	5.9481-2	8.6157-4
1.7020-3	2.9441-2	4.4751+3	5.6381+5	4.2165+2	1.6203+0	5.8339+5			5.7788-2	5.6988-2	8.0282-4
1.7580-3	3.2089-2	4.1084+3	5.4516+5	4.3257+2	1.6947+0	5.4472+5			5.4775-2	5.4039-2	7.3610-4
1.7692-3	3.2812-2	4.0400+3	5.3608+5	4.5044+2	1.7097+0	5.3563+5			5.4204-2	5.3481-2	7.2367-4
L1 1.7892-3	2.8834-2	4.5694+3	8.0632+5	4.5044+2	1.7097+0	8.0587+5			6.1313-2	6.0477-2	8.3576-4
1.8042-3	3.0241-2	4.3568+3	5.7811+5	5.2256+2	1.7588+0	5.7759+5			5.9607-2	5.8810-2	7.9679-4
1.8837-3	3.3578-2	3.9237+3	5.2065+5	5.7198+2	1.8632+0	5.2009+6			5.6037-2	5.5320-2	7.1755-4
2.0896-3	4.3248-2	3.0464+3	4.0424+5	6.2211+2	2.1537+0	4.0391+5			4.8241-2	4.7683-2	5.5747-4
2.4243-3	6.2764-2	2.0992+3	2.7855+5	6.3803+2	2.8018+0	2.7711+5			3.8536-2	3.8151-2	3.8428-4
3.0000-3	1.0758-1	1.2247+3	1.6251+5	6.0331+2	3.3371+0	1.6180+5			2.7783-2	2.7559-2	2.2373-4
3.7814-3	1.8922-1	6.8469+2	8.8200+4	5.3589+2	4.2680+0	8.7669+5			1.8010-2	1.6889-2	1.2112-4
5.0758-3	4.2853-1	3.0745+2	4.0788+4	4.3545+2	5.5714+0	4.0355+4			1.1718-2	1.1681-2	5.5730-5
6.8818-3	9.7822-1	1.3498+2	1.7808+4	3.2832+2	7.1028+0	1.7573+4			6.9174-3	6.8932-3	2.4208-5
8.1884-3	1.5839+0	8.4244+1	1.1178+4	2.6840+2	8.0529+0	1.0902+4			5.1083-3	5.0913-3	1.4993-5
9.7158-3	2.4859+0	5.2787+1	7.0044+3	2.1102+2	9.0449+0	6.7843+3			3.7704-3	3.7810-3	9.3211-6
1.0000-2	2.7009+0	4.8780+1	6.4728+3	2.0101+2	8.2239+0	6.2628+3			3.5823-3	3.5737-3	6.8029-6
1.1177-2	3.6858+0	3.5745+1	4.7431+3	1.8422+2	9.8588+0	4.5691+3			2.8213-3	2.9150-3	6.2711-6
1.1807-2	4.0976+0	3.2154+1	4.2866+3	1.5089+2	1.0081+1	4.1056+3			2.7290-3	2.7203-3	5.6334-6
1.2253-2	4.7732+0	2.7802+1	3.6828+3	1.2982+2	1.0412+1	3.8224+3			2.4668-3	2.4840-3	4.1831-6
1.2597-2	5.1684+0	2.5502+1	3.3839+3	1.1679+2	1.0585+1	3.2585+3			2.3498-3	2.3421-3	4.4855-6
1.2927-2	5.5701+0	2.3854+1	3.1386+3	1.0147+2	1.0750+1	3.0284+3			2.2380-3	2.2338-3	4.1491-6
1.3055-2	5.7388+0	2.2968+1	3.0474+3	9.3414+1	1.0813+1	2.8432+3			2.1990-3	2.1939-3	4.0347-6
1.3190-2	5.8248+0	2.2237+1	2.9507+3	8.1438+1	1.0880+1	2.8584+3			2.1568-3	2.1529-3	3.9182-6
1.3335-2	6.1387+0	2.1483+1	2.8478+3	6.5795+1	1.0951+1	2.7712+3			2.1140-3	2.1102-3	3.7983-6
1.3390-2	6.1998+0	2.1251+1	2.8199+3	6.3756+1	1.0989+1	2.7451+3			2.1012-3	2.0974-3	3.7825-6
1.3435-2	6.2680+0	2.1028+1	2.7900+3	6.5786+1	1.0992+1	2.7133+3			2.0853-3	2.0818-3	3.7187-6
K 1.3435-2	8.9467-1	1.4726+2	1.9541+4	6.5786+1	1.0992+1	1.9464+4			1.4958-2	1.4900-2	7.2178-3
1.3489-2	9.0376-1	1.4578+2	1.9344+4	7.2123+1	1.1015+1	1.9281+4			1.4881-2	1.4819-2	7.1435-3
1.3582-2	9.1924-1	1.4333+2	1.9018+4	8.7911+1	1.1053+1	1.8920+4			1.4896-2	1.4838-2	7.0183-3
1.3847-2	9.3027-1	1.4183+2	1.8783+4	9.7585+1	1.1080+1	1.8684+4			1.4581-2	1.4548-2	6.9320-3
1.3706-2	9.4041-1	1.4010+2	1.8590+4	1.0447+2	1.1104+1	1.8476+4			1.4477-2	1.4424-2	6.8551-3
1.3820-2	9.6035-1	1.3718+2	1.8204+4	1.1223+2	1.1151+1	1.8081+4			1.4283-2	1.4225-2	6.7105-3
1.4126-2	1.0159+0	1.2969+2	1.7209+4	1.2308+2	1.1275+1	1.7075+4			1.3783-2	1.3741-2	6.3411-3
1.4829-2	1.1116+0	1.1852+2	1.5727+4	1.3097+2	1.1477+1	1.5685+4			1.3031-2	1.2735-2	5.7835-3
1.5180-2	1.2230+0	1.0773+2	1.4294+4	1.3406+2	1.1693+1	1.4149+4			1.2274-2	1.2081-2	5.2657-3
1.8851-2	1.8034+0	8.2171+1	1.0904+4	1.2919+2	1.2329+1	1.0782+4			1.0315-2	1.0293-2	4.0211-3
2.0806-2	2.7108+0	4.8808+1	6.4488+3	1.0718+2	1.3430+1	6.3290+3			7.4571-3	7.0781-3	2.3810-3
2.5971-2	5.0717+0	2.5978+1	3.4471+3	8.0083+1	1.4448+1	3.3625+3			4.9810-3	3.7148-3	1.2683-3
3.6397-2	1.2988+1	1.0241+1	1.3589+3	4.8353+1	1.5887+1	1.2948+3			2.6979-3	2.2049-3	4.9297-4
5.2752-2	3.5728+1	3.8878+0	4.8932+2	2.5738+1	1.6390+1	4.4719+2			1.3538-3	1.1831-3	1.7058-4
7.5527-2	9.4890+1	1.3914+0	1.8463+2	1.3545+1	1.8321+1	1.5476+2			6.7829-4	6.1718-4	5.9110-5
1.0000-1	1.9097+2	6.8992-1	9.1547+1	8.1378+0	1.5919+1	8.7491+1			3.9822-4	3.7342-4	2.5808-5
1.2235-1	3.0227+2	4.3588-1	5.7838+1	5.5971+0	1.6358+1	3.6883+1			2.7562-4	2.6151-4	1.4111-5
1.5187-1	4.8143+2	2.8553-1	3.7887+1	3.7228+0	1.4776+1	1.8388+1			1.8237-4	1.8495-4	7.4198-6
1.8128-1	8.2153+2	2.1188-1	2.8128+1	2.8412+0	1.4115+1	1.1372+1			1.4849-4	1.4414-4	4.3527-6
2.1512-1	7.8597+2	1.8783-1	2.2243+1	1.8941+0	1.3500+1	6.8494+0			1.2258-4	1.1995-4	2.8214-6
2.5283-1	9.4819+2	1.3924-1	1.8477+1	1.3817+0	1.2820+1	4.2754+0			1.0828-4	1.0682-4	1.6380-6
3.0184-1	1.1177+3	1.1788-1	1.5841+1	9.7617+1	1.2113+1	2.5521+0			1.0140-4	1.0042-4	9.7633-7
3.6891-1	1.3071+3	1.0080-1	1.3375+1	6.5755-1	1.1260+1	1.4574+0			1.0221-4	1.0165-4	5.5788-7
4.3059-1	1.4485+3	9.0980-2	1.2070+1	4.8441-1	1.0628+1	9.5805-1			1.0798-4	1.0759-4	3.8712-7
5.8414-1	1.7352+3	7.5830-2	1.0075+1	2.8456-1	9.3731+0	4.3780-1			1.2870-4	1.2853-4	1.8753-7
7.1598-1	1.9351+3	6.8088-2	9.0345+0	1.7848-1	8.5895+0	2.8848-1			1.4942-4	1.4931-4	1.0278-7
1.0000+0	2.3040+3	5.7184-2	7.5878+0	9.0865-2	7.3872+0	1.3001-1			1.8337-4	1.8332-4	4.9815-8
1.0220+0	2.3310+3	5.6522-2	7.5000+0	8.6822-2	7.2898+0	1.2380-1			1.9652-4	1.9647-4	4.7358-8
1.0251+0	2.3350+3	5.6425-2	7.4872+0	8.6297-2	7.2781+0	1.2285-1	6.2192-8		1.9693-4	1.9689-4	4.7070-8
1.0287+0	2.3398+3	5.6314-2	7.4724+0	8.							

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0415+ 0	2.3558+ 3	5.5927- 2	7.4211+ 0	8.3614- 2	7.2185- 0	1.1602- 1	1.4508- 5		1.9911- 4	1.9907- 4	4.5603- 8
1.0438+ 0	2.3587+ 3	5.5858- 2	7.4120+ 0	8.3247- 2	7.2102- 0	1.1850- 1	2.0138- 5		1.9942- 4	1.9937- 4	4.5403- 8
1.0464+ 0	2.3620+ 3	5.5781- 2	7.4017+ 0	8.2836- 2	7.2009- 0	1.1791- 1	2.8018- 5		1.9976- 4	1.9972- 4	4.5178- 8
1.0483+ 0	2.3644+ 3	5.5724- 2	7.3942+ 0	8.2537- 2	7.1942- 0	1.1748- 1	3.4883- 5		2.0002- 4	1.9997- 4	4.5014- 8
1.0512+ 0	2.3680+ 3	5.5639- 2	7.3828+ 0	8.2084- 2	7.1839- 0	1.1684- 1	4.7318- 5		2.0040- 4	2.0038- 4	4.4787- 8
1.0541+ 0	2.3716+ 3	5.5554- 2	7.3716+ 0	8.1638- 2	7.1737+ 0	1.1620- 1	6.2192- 5		2.0078- 4	2.0074- 4	4.4523- 8
1.0577+ 0	2.3761+ 3	5.5448- 2	7.3575+ 0	8.1082- 2	7.1609+ 0	1.1541- 1	8.4772- 5		2.0128- 4	2.0122- 4	4.4219- 8
1.0611+ 0	2.3804+ 3	5.5349- 2	7.3444+ 0	8.0565- 2	7.1490+ 0	1.1467- 1	1.1027- 4		2.0171- 4	2.0167- 4	4.3938- 8
1.0651+ 0	2.3854+ 3	5.5233- 2	7.3290+ 0	7.9994- 2	7.1351+ 0	1.1381- 1	1.4588- 4		2.0224- 4	2.0220- 4	4.3607- 8
1.0704+ 0	2.3920+ 3	5.5081- 2	7.3088+ 0	7.9177- 2	7.1167+ 0	1.1269- 1	2.0366- 4		2.0284- 4	2.0290- 4	4.3177- 8
1.0762+ 0	2.3992+ 3	5.4916- 2	7.2869+ 0	7.8329- 2	7.0968+ 0	1.1148- 1	2.8146- 4		2.0371- 4	2.0387- 4	4.2714- 8
1.0826+ 0	2.4046+ 3	5.4792- 2	7.2704+ 0	7.7895- 2	7.0818+ 0	1.1057- 1	3.5150- 4		2.0429- 4	2.0425- 4	4.2367- 8
1.0871+ 0	2.4126+ 3	5.4610- 2	7.2463+ 0	7.6772- 2	7.0598+ 0	1.0926- 1	4.7358- 4		2.0515- 4	2.0511- 4	4.1862- 8
1.0937+ 0	2.4207+ 3	5.4427- 2	7.2221+ 0	7.5851- 2	7.0377+ 0	1.0794- 1	6.2192- 4		2.0602- 4	2.0598- 4	4.1359- 8
1.1028+ 0	2.4315+ 3	5.4185- 2	7.1899+ 0	7.4637- 2	7.0082+ 0	1.0621- 1	8.8228- 4		2.0720- 4	2.0716- 4	4.0695- 8
1.1107+ 0	2.4414+ 3	5.3967- 2	7.1610+ 0	7.3557- 2	6.9816+ 0	1.0467- 1	1.1246- 3		2.0826- 4	2.0822- 4	4.0104- 8
1.1206+ 0	2.4533+ 3	5.3704- 2	7.1282+ 0	7.2268- 2	6.9496+ 0	1.0283- 1	1.5043- 3		2.0957- 4	2.0953- 4	3.9400- 8
1.1333+ 0	2.4685+ 3	5.3374- 2	7.0823+ 0	7.0663- 2	6.9091+ 0	1.0064- 1	2.0916- 3		2.1124- 4	2.1120- 4	3.8523- 8
1.1475+ 0	2.4853+ 3	5.3013- 2	7.0345+ 0	6.8832- 2	6.8646+ 0	9.8072- 2	2.6878- 3		2.1311- 4	2.1307- 4	3.7577- 8
1.1582+ 0	2.4978+ 3	5.2747- 2	6.9991+ 0	6.7669- 2	6.8318+ 0	9.6270- 2	3.5888- 3		2.1451- 4	2.1448- 4	3.6888- 8
1.1741+ 0	2.5163+ 3	5.2360- 2	6.9478+ 0	6.5856- 2	6.7835+ 0	9.3894- 2	4.7966- 3		2.1860- 4	2.1858- 4	3.5895- 8
1.1901+ 0	2.5348+ 3	5.1981- 2	6.8975+ 0	6.4103- 2	6.7300+ 0	9.1205- 2	6.2192- 3		2.1870- 4	2.1867- 4	3.4846- 8
1.2051+ 0	2.5515+ 3	5.1637- 2	6.8518+ 0	6.2524- 2	6.6824+ 0	8.9171- 2	7.7422- 3		2.2089- 4	2.2085- 4	3.4188- 8
1.2275+ 0	2.5764+ 3	5.1138- 2	6.7857+ 0	6.0272- 2	6.6288+ 0	8.6259- 2	1.0363- 2		2.2365- 4	2.2362- 4	3.3050- 8
1.2656+ 0	2.6177+ 3	5.0331- 2	6.6786+ 0	5.6709- 2	6.5245+ 0	8.1628- 2	1.5702- 2		2.2869- 4	2.2866- 4	3.1278- 8
1.2949+ 0	2.6487+ 3	4.9743- 2	6.6005+ 0	5.4179- 2	6.4475+ 0	7.8318- 2	2.0474- 2		2.3258- 4	2.3255- 4	3.0008- 8
1.3318+ 0	2.6867+ 3	4.9039- 2	6.5071+ 0	5.1226- 2	6.3542+ 0	7.4437- 2	2.7195- 2		2.3748- 4	2.3745- 4	2.8521- 8
1.3826+ 0	2.7176+ 3	4.8481- 2	6.4330+ 0	4.8942- 2	6.2793+ 0	7.1422- 2	3.3332- 2		2.4158- 4	2.4155- 4	2.7366- 8
1.4117+ 0	2.7655+ 3	4.7842- 2	6.3217+ 0	4.5606- 2	6.1851+ 0	6.6992- 2	4.3981- 2		2.4815- 4	2.4813- 4	2.5668- 8
1.5000+ 0	2.8473+ 3	4.6274- 2	6.1401+ 0	4.0408- 2	5.9741+ 0	6.0030- 2	6.5570- 2		2.6007- 4	2.6005- 4	2.3001- 8
1.8172+ 0	2.9470+ 3	4.4708- 2	5.8324+ 0	3.4772- 2	5.7455+ 0	5.2823- 2	9.9296- 2		2.7624- 4	2.7622- 4	2.0239- 8
1.7188+ 0	3.0257+ 3	4.3544- 2	5.7780+ 0	3.0790- 2	5.5668+ 0	4.7826- 2	1.3276- 1		2.8060- 4	2.8058- 4	1.8248- 8
1.8385+ 0	3.1181+ 3	4.2254- 2	5.6969+ 0	2.6917- 2	5.3968+ 0	4.2475- 2	1.7661- 1		3.0637- 4	3.0636- 4	1.6274- 8
2.0000+ 0	3.2296+ 3	4.0795- 2	5.4132+ 0	2.2752- 2	5.1139+ 0	3.6910- 2	2.3980- 1		3.2844- 4	3.2842- 4	1.4104- 8
2.0440+ 0	3.2577+ 3	4.0444- 2	5.3666+ 0	2.1784- 2	5.0510+ 0	3.5540- 2	2.5730- 1		3.3480- 4	3.3459- 4	1.3817- 8
2.0858+ 0	3.2859+ 3	4.0098- 2	5.3205+ 0	2.0920- 2	4.9916+ 0	3.4458- 2	2.7353- 1	3.5142- 7	3.4007- 4	3.4006- 4	1.3203- 8
2.1068+ 0	3.2995+ 3	3.9931- 2	5.2888+ 0	2.0510- 2	4.9823+ 0	3.3941- 2	2.8185- 1	1.1450- 8	3.4283- 4	3.4282- 4	1.3005- 8
2.1140+ 0	3.3042+ 3	3.9874- 2	5.2909+ 0	2.0367- 2	4.9520+ 0	3.3760- 2	2.8485- 1	1.5842- 8	3.4382- 4	3.4381- 4	1.2935- 8
2.1185+ 0	3.3078+ 3	3.9831- 2	5.2853+ 0	2.0291- 2	4.9443+ 0	3.3627- 2	2.8709- 1	1.9723- 6	3.4456- 4	3.4454- 4	1.2884- 8
2.1279+ 0	3.3131+ 3	3.9787- 2	5.2788+ 0	2.0102- 2	4.9327+ 0	3.3424- 2	2.9054- 1	2.6748- 6	3.4588- 4	3.4587- 4	1.2807- 8
2.1383+ 0	3.3183+ 3	3.9704- 2	5.2684+ 0	1.9945- 2	4.9213+ 0	3.3225- 2	2.9400- 1	3.5142- 6	3.4681- 4	3.4680- 4	1.2730- 8
2.1470+ 0	3.3250+ 3	3.9624- 2	5.2578+ 0	1.9746- 2	4.9066+ 0	3.2972- 2	2.9849- 1	4.8182- 6	3.4827- 4	3.4826- 4	1.2633- 8
2.1635+ 0	3.3351+ 3	3.9504- 2	5.2418+ 0	1.9446- 2	4.8844+ 0	3.2589- 2	3.0548- 1	7.3267- 6	3.5052- 4	3.5051- 4	1.2486- 8
2.1845+ 0	3.3484+ 3	3.9348- 2	5.2212+ 0	1.9074- 2	4.8565+ 0	3.2112- 2	3.1350- 1	1.1610- 5	3.5332- 4	3.5331- 4	1.2304- 8
2.2018+ 0	3.3591+ 3	3.9222- 2	5.2045+ 0	1.8776- 2	4.8338+ 0	3.1728- 2	3.2022- 1	1.6062- 5	3.5684- 4	3.5683- 4	1.2157- 8
2.2148+ 0	3.3670+ 3	3.9130- 2	5.1922+ 0	1.8556- 2	4.8169+ 0	3.1444- 2	3.2532- 1	2.0012- 5	3.5740- 4	3.5738- 4	1.2048- 8
2.2342+ 0	3.3787+ 3	3.8995- 2	5.1743+ 0	1.8236- 2	4.7920+ 0	3.1028- 2	3.3303- 1	2.6920- 5	3.6004- 4	3.6002- 4	1.1889- 8
2.2537+ 0	3.3901+ 3	3.8863- 2	5.1569+ 0	1.7922- 2	4.7674+ 0	3.0620- 2	3.4089- 1	3.5142- 5	3.6271- 4	3.6270- 4	1.1732- 8
2.2815+ 0	3.4081+ 3	3.8681- 2	5.1327+ 0	1.7488- 2	4.7328+ 0	3.0052- 2	3.5231- 1	4.8223- 5	3.6857- 4	3.6856- 4	1.1515- 8
2.3070+ 0	3.4203+ 3	3.8521- 2	5.1114+ 0	1.7104- 2	4.7017+ 0	2.9547- 2	3.6298- 1	6.4853- 5	3.7014- 4	3.7013- 4	1.1321- 8
2.3382+ 0	3.4371+ 3	3.8332- 2	5.0863+ 0	1.6651- 2	4.6643+ 0	2.8947- 2	3.7632- 1	8.8832- 5	3.7458- 4	3.7457- 4	1.1091- 8
2.3774+ 0	3.4576+ 3	3.8105- 2	5.0562+ 0	1.6107- 2	4.6185+ 0	2.8222- 2	3.9321- 1	1.2039- 4	3.8022- 4	3.8020- 4	1.0813- 8
2.4102+ 0	3.4753+ 3	3.7911- 2	5.0305+ 0	1.5672- 2	4.5811+ 0	2.7638- 2	4.0593- 1	1.5312- 4	3.8482- 4	3.8481- 4	1.0590- 8
2.4468+ 0	3.4943+ 3	3.7705- 2	5.0031+ 0	1.5207- 2	4.5403+ 0	2.7010- 2	4.2039- 1	1.9477- 4	3.9003- 4	3.9002- 4	1.0349- 8
2.4858+ 0	3.5139+ 3	3.7495- 2	4.9753+ 0	1.4733- 2	4.4978+ 0	2.6364- 2	4.3616- 1	2.4523- 4	3.9567- 4	3.9566- 4	1.0102- 8
2.5564+ 0	3.5471+ 3	3.7144- 2	4.9287+ 0	1.3932- 2	4.4237+ 0	2.5282- 2	4.6545- 1	3.5142- 4	4.0608- 4	4.0607- 4	9.8794- 9
2.6604+ 0	3.5919+ 3	3.6680- 2	4.8672+ 0	1.2865- 2	4.3202+ 0	2.3772- 2	5.0977- 1	5.4173- 4	4.2180- 4	4.2189- 4	9.1082- 9
2.7453+ 0	3.6281+ 3	3.6315- 2	4.8186+ 0	1.2082- 2	4.2404+ 0	2.2850- 2	5.4275- 1	7.2506- 4	4.3470- 4	4.3469- 4	8.6819- 9
2.8090+ 0	3.6532+ 3	3.6065- 2	4.7856+ 0	1.1541- 2	4.1831+ 0	2.1880- 2	5.6818- 1	8.7809- 4	4.4455- 4	4.4454- 4	8.3833- 9
2.9045+ 0	3.6875+ 3	3.5729- 2	4.7410+ 0	1.0795- 2	4.1009+ 0	2.0791- 2	6.0739- 1	1.1312- 3	4.5978- 4	4.5975- 4	7.9663- 9
3.0399+ 0	3.7316+ 3	3.5307- 2	4.6850+ 0	9.8565- 3	3.9914+ 0	1.8429- 2	6.6273- 1	1.5331- 3	4.8190- 4	4.8189- 4	7.4442- 9
3.2344+ 0	3.8006+ 3	3.4666- 2	4.5999+ 0	8.7063- 3	3.8342+ 0	1.7819- 2	7.3897- 1	2.2155- 3	5.1155- 4	5.1154- 4	6.8274- 9
3.4375+ 0	3.8585+ 3	3.4148- 2	4.5309+ 0	7.7083- 3	3.6858+ 0	1.6388- 2	8.1798- 1	3.0316- 3	5.4483- 4	5.4482- 4	6.2715- 9
3.7847+ 0	3.9455+ 3	3.3393- 2	4.4310+ 0	6.3594- 3	3.4829+ 0	1.4313- 2	9.4278- 1	4.8507- 3	6.0219- 4	6.0218- 4	5.4840- 9
4.0000+ 0	3.8836+ 3	3.3074- 2	4.3897+ 0	5.8935- 3	3.3409+ 0	1.3250- 2	1.0230+ 0	5.7810- 3	6.4075- 4	6.4075- 4	5.0782- 9
4.2500+ 0	4.0265+ 3	3.2721- 2	4.3418+ 0	5.0438- 3	3.2122+ 0	1.2311- 2	1.1053+ 0	7.1183- 3	6.8513- 4	6.8513- 4	4.8882- 9
4.7500+ 0	4.0780+ 3	3.2308- 2	4.2871+ 0	4.0379- 3	2.9888+ 0	1.0560- 2	1.2737+ 0	9.9573- 3	7.8159- 4	7.8158- 4	4.0480- 9
5.5135+ 0	4.1234+ 3	3.1953- 2	4.2399+ 0	2.9971- 3	2.7135+ 0	8.7179- 3	1.5000+ 0	1.4598- 2	9.3843- 4	9.3842- 4	3.3403- 9
6.3640+ 0	4.1456+ 3	3.1781- 2	4.2171+ 0	2.2497- 3	2.4526+ 0	7.2942- 3	1.7352+ 0	1.9778- 2	1.1169- 3	1.1169- 3	2.7910- 9
7.4833+ 0	4.1293+ 3	3.1907- 2	4.2338+ 0	1.6271- 3	2.1880+ 0	5.8777- 3	2.0117+ 0	2.6530- 2	1.3741- 3	1.3741- 3	2.2904- 9
9.0000+ 0	4.0625+ 3	3.2432- 2	4.3034+ 0	1.1249- 3	1.9212+ 0	4.7990- 3	2.3410+ 0	3.5330- 2	1.7546- 3	1.7548- 3	1.8388- 9
1.0000+ 1	4.0074+ 3	3.2877- 2	4.3626+ 0	9.1122- 4	1.783						







$\sin(\theta/2)/\lambda$ 1/Å	$E \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/Å	$E \sin(\theta/2)$ MeV	Coherent	Incoherent	$\sin(\theta/2)/\lambda$ 1/Å	$E \sin(\theta/2)$ MeV	Coherent	Incoherent
0000+0	0.0000+0	3.8000+1	0.0000+0	7.0000-1	8.6790-3	1.4430+1	1.8562+1	1.7847+1	2.2128-1	1.8272-1	3.5984+1
0000-3	1.2399-5	3.6000+1	3.8434-4	8.0000-1	9.9188-3	1.2558+1	2.0123+1	2.0000+1	2.4797-1	1.1739-1	3.5993+1
0000-3	6.1993-5	3.5990+1	9.0000-3	9.0000-1	1.1159-2	1.0963+1	2.1535+1	2.4457+1	3.0323-1	8.3514-2	3.5996+1
0000-2	1.2399-4	3.5869+1	3.5000-2	1.0000+0	1.2399-2	9.8573+0	2.2804+1	3.1584+1	3.9159-1	2.7551-2	3.6000+1
5000-2	1.8598-4	3.5935+1	7.7800-2	1.2500+0	1.5498-2	7.4750+0	2.5401+1	4.4380+1	5.5000-1	8.5282-3	3.6001+1
0000-2	2.4797-4	3.5884+1	1.3770-1	1.5000+0	1.8598-2	6.3025+0	2.7313+1	5.0000+1	6.1893-1	5.5892-3	3.8000+1
5000-2	3.0996-4	3.5820+1	2.1390-1	2.0000+0	2.4797-2	4.9853+0	2.9870+1	8.0000+1	9.9188-1	1.0506-3	3.8000+1
0000-2	3.7196-4	3.5741+1	3.0580-1	2.5000+0	3.0996-2	3.9082+0	3.1534+1	1.0000+2	1.2399+0	4.7917-4	3.6000+1
0000-2	4.8594-4	3.5544+1	5.3270-1	2.8813+0	3.5724-2	3.3089+0	3.2430+1	1.7117+2	2.1223+0	7.4000-5	3.8000+1
0000-2	6.1893-4	3.5296+1	8.1200-1	3.0000+0	3.7196-2	3.0959+0	3.2659+1	2.7479+2	3.4070+0	1.5102-5	3.6000+1
0000-2	8.6790-4	3.4663+1	1.4845+0	3.5000+0	4.3395-2	2.2838+0	3.3410+1	5.1200+2	6.3480+0	1.9830-6	3.6000+1
0000-2	1.1159-3	3.3878+1	2.2858+0	4.0000+0	4.8594-2	1.9688+0	3.3919+1	1.0000+3	1.2399+1	2.3655-7	3.6000+1
0000-1	1.2399-3	3.3443+1	2.7030+0	5.0000+0	6.1993-2	1.3391+0	3.4562+1	2.6333+3	3.2649+1	1.1757-8	3.6000+1
2500-1	1.5498-3	3.2260+1	3.7635+0	5.4258+0	6.7272-2	1.2176+0	3.4757+1	6.6119+3	8.1978+1	7.2282-10	3.6000+1
5000-1	1.8598-3	3.1009+1	4.8050+0	6.0000+0	7.4391-2	1.1182+0	3.4980+1	1.4899+4	1.8473+2	6.4369-11	3.6000+1
7500-1	2.1897-3	2.9752+1	5.8050+0	7.0000+0	8.6790-2	9.6620-1	3.5283+1	4.2646+4	5.2875+2	2.9441-12	3.6000+1
0000-1	2.4797-3	2.8530+1	6.7800+0	8.0000+0	9.9188-2	8.4600-1	3.5504+1	1.0000+6	1.2399+4	3.2348-16	3.6000+1
5000-1	3.0996-3	2.6301+1	8.5457+0	9.1387+0	1.1331-1	7.0436-1	3.5877+1	5.6234+6	6.9722+4	2.1463-18	3.6000+1
0000-1	3.7196-3	2.4394+1	1.0157+1	1.0000+1	1.2399-1	6.0570-1	3.5789+1	7.4889+7	8.2975+5	1.0848-21	3.6000+1
0000-1	4.8594-3	2.1334+1	1.2528+1	1.2069+1	1.4964-1	4.2247-1	3.5893+1	1.0000+9	1.2399+7	5.2541-25	3.6000+1
0000-1	6.1993-3	1.8820+1	1.4989+1	1.4178+1	1.7576-1	2.9543-1	3.5951+1				
0000-1	7.4391-3	1.6535+1	1.6849+1	1.5000+1	1.8598-1	2.5757-1	3.5965+1				

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	6.3644+3	4.2091-2	5.8571+0	5.8570+0	8.3164-5				6.1133-19	6.1133-19	
1.0967-5	3.0163+3	8.8811-2	1.2358+1	1.2358+1	9.9902-5				6.8307-19	6.8307-19	
1.1672-5	1.5957+3	1.6787-1	2.3360+1	2.3360+1	1.1306-4				1.1317-18	1.1317-18	
1.2239-5	7.8986+2	3.3491-1	4.6604+1	4.6604+1	2.421-4				1.3668-18	1.3668-18	
1.2377-5	8.2577+2	4.2808-1	5.8569+1	5.8569+1	1.2700-4				1.4291-18	1.4291-18	
1.2477-5	4.8270+2	5.4370-1	7.5857+1	7.5857+1	1.2906-4				1.4759-18	1.4759-18	
1.2840-5	2.9670+2	9.0286-1	1.2564+2	1.2564+2	1.3243-4				1.5542-18	1.5542-18	
1.2888-5	2.7600+2	9.7058-1	1.3506+2	1.3506+2	1.3300-4				1.5677-18	1.5677-18	
1.2720-5	2.5093+2	1.0876+0	1.4858+2	1.4858+2	1.3410-4				1.5937-18	1.5937-18	
1.2720-5	7.6372-4	3.5076+5	4.8909+7	1.4856+2	1.3410-4	4.8809+7			1.6655-2	1.6655-2	
1.2776-5	7.6120-4	3.5192+5	4.8971+7	1.5576+2	1.3528-4	4.8970+7			1.6784-2	1.6784-2	
1.2819-5	7.5929-4	3.5260+5	4.9094+7	1.5462+2	1.3618-4	4.9094+7			1.6883-2	1.6883-2	
1.2957-5	7.5233-4	3.5564+5	4.9489+7	1.3731+2	1.3910-4	4.9489+7			1.7201-2	1.7201-2	
1.3144-5	7.4517-4	3.5849+5	5.0024+7	1.2644+2	1.4311-4	5.0024+7			1.7638-2	1.7638-2	
1.3248-5	7.4083-4	3.6160+5	5.0317+7	1.3235+2	1.4534-4	5.0317+7			1.7880-2	1.7880-2	
1.3430-5	7.3319-4	3.6536+5	5.0841+7	1.5868+2	1.4937-4	5.0841+7			1.8317-2	1.8317-2	
1.3430-5	5.0202-4	5.3361+5	7.4254+7	1.5866+2	1.4937-4	7.4253+7			2.6752-2	2.6752-2	
1.3496-5	4.8995-4	5.3582+5	7.4560+7	1.6864+2	1.5083-4	7.4560+7			2.6994-2	2.6994-2	
1.3579-5	4.8738-4	5.3881+5	7.4949+7	1.6942+2	1.5208-4	7.4949+7			2.7302-2	2.7302-2	
1.3721-5	4.8346-4	5.4286+5	7.5540+7	1.6069+2	1.5587-4	7.5540+7			2.7805-2	2.7805-2	
1.4184-5	4.8958-4	5.4716+5	7.6140+7	1.4352+2	1.6671-4	7.6140+7			2.8992-2	2.8992-2	
1.5000-5	4.8507-4	5.4110+5	7.5296+7	1.3880+2	1.8604-4	7.5296+7			3.0299-2	3.0299-2	
1.8119-5	5.4044-4	4.8567+5	6.8974+7	1.2904+2	2.1460-4	6.8974+7			2.8825-2	2.8825-2	
1.7012-5	6.0272-4	4.4445+5	6.1847+7	1.2005+2	2.3887-4	6.1847+7			2.8225-2	2.8225-2	
1.8448-5	7.5172-4	3.5836+5	4.9589+7	1.0860+2	2.8024-4	4.9589+7			2.4538-2	2.4538-2	
2.0000-5	9.8900-4	2.7086+5	3.7691+7	9.8127+1	3.2840-4	3.7691+7			2.0222-2	2.0222-2	
2.2950-5	1.7121-3	1.5847+5	2.1773+7	7.5888+1	4.3005-4	2.1773+7			1.3405-2	1.3405-2	
2.7440-5	3.7484-3	7.1465+4	9.9446+8	5.2978+1	6.1044-4	9.9446+8			7.3204-3	7.3204-3	
2.7440-5	3.7457-3	7.1518+4	9.8519+8	5.2978+1	6.1044-4	9.8519+8			7.3258-3	7.3258-3	
3.6889-5	1.3172-2	2.0338+4	2.8301+6	3.0545+1	1.0787-3	2.8300+6			2.7854-3	2.7854-3	
4.0000-5	1.8548-2	1.4444+4	2.0100+6	2.6513+1	1.2778-3	2.0069+8			2.1568-3	2.1568-3	
4.7701-5	3.1189-2	7.8353+3	1.0903+6	2.1624+1	1.8045-3	1.0903+6			1.3952-3	1.3952-3	
5.0788-5	4.1140-2	6.5115+3	9.0810+5	2.0270+1	2.0389-3	9.0608+5			1.2340-3	1.2340-3	
5.4772-5	5.0088-2	5.3482+3	7.4422+5	1.8395+1	2.3681-3	7.4420+5			1.0935-3	1.0935-3	
6.0000-5	6.0360-2	4.4381+3	6.1757+5	1.8485+1	2.8290-3	6.1758+5			9.8402-4	9.8402-4	
6.4807-5	6.8482-2	3.9112+3	5.4425+5	1.5142+1	3.2904-3	5.4424+5			9.4818-4	9.4818-4	
7.1325-5	7.6400-2	3.5083+3	4.8791+5	1.3703+1	3.9703-3	4.8790+5			9.3354-4	9.3354-4	
8.1344-5	8.5501-2	3.1331+3	4.3588+5	1.1489+1	5.1371-3	4.3597+5			9.5136-4	9.5136-4	
9.2385-5	8.3247-2	2.8728+3	3.9976+5	7.4450+0	6.5928-3	3.9976+5			9.9074-4	9.9074-4	
9.3892-5	9.4052-2	2.8482+3	3.9834+5	6.7097+0	8.7768-3	3.9833+5			9.9816-4	9.9816-4	
9.3980-5	9.4229-2	2.8429+3	3.9560+5	6.7339+0	8.8177-3	3.9569+5			9.9734-4	9.9734-4	
9.3980-5	5.0944-2	5.2583+3	7.3172+5	6.7339+0	8.8177-3	7.3171+5			1.8448-3	1.8448-3	
9.5350-5	5.0747-2	5.2788+3	7.3456+5	6.9117+0	7.0138-3	7.3455+5			1.8789-3	1.8789-3	
9.5350-5	3.9014-2	6.8884+3	9.5548+5	6.9117+0	7.0138-3	9.5547+5			2.4440-3	2.4440-3	5.0335-8
9.8673-5	3.8688-2	6.9241+3	9.6351+5	7.2412+0	7.2059-3	9.6350+5			2.4987-3	2.4987-3	5.1506-8
1.0000-4	3.7418-2	7.1592+3	9.8823+5	7.1325+0	7.7000-3	9.8823+5			2.6725-3	2.6725-3	5.4500-8
1.0889-4	3.3048-2	8.1082+3	1.1280+6	6.2821+0	8.7465-3	1.1280+6			3.2285-3	3.2285-3	6.8492-8
1.1078-4	2.9508-2	9.0783+3	1.2633+6	5.9872+0	9.4171-3	1.2633+6			3.7541-3	3.7540-3	8.1996-8
1.1483-4	2.6038-2	1.0289+4	1.4317+6	6.0218+0	1.0072-2	1.4317+6			4.4027-3	4.4026-3	9.9265-8
1.1938-4	2.1858-2	1.2258+4	1.7055+6	6.7383+0	1.0979-2	1.7055+6			5.4818-3	5.4817-3	1.2872-7
1.2392-4	1.8444-2	1.4524+4	2.0210+6	6.3824+0	1.1742-2	2.0210+6			6.7186-3	6.7185-3	1.6006-7
1.2608-4	1.7054-2	1.5708+4	2.1858+6	9.4957+0	1.2147-2	2.1858+6			7.3928-3	7.3927-3	1.7828-7
1.2910-4	1.5301-2	1.7507+4	2.4362+6	1.1875+1	1.2726-2	2.4362+6			8.4370-3	8.4368-3	2.0671-7
1.3889-4	1.0274-2	2.6074+4	3.8284+6	2.5244+1	1.4895-2	3.8283+6			1.3519-2	1.3518-2	3.1817-7
1.4544-4	8.0291-3	3.3384+4	4.8427+6	3.9788+1	1.8092-2	4.8428+6			1.8116-2	1.8115-2	3.9762-7
1.5000-4	6.9774-3	3.6392+4	5.3424+6	5.3910+1	1.7097-2	5.3424+6			2.1498-2	2.1497-2	4.5304-7
1.5048-4	6.1445-3	4.3597+4	6.0687+6	7.2298+1	1.8580-2	6.0688+6			2.5487-2	2.5486-2	5.0941-7
1.8284-4	5.7517-3	4.8574+4	6.4809+6	8.7385+1	2.0095-2	6.4808+6			2.8311-2	2.8311-2	5.3951-7
1.7101-4	5.8458-3	4.7450+4	6.6028+6	1.0111+2	2.2127-2	6.6027+6			3.0291-2	3.0290-2	5.5157-7
1.8542-4	5.9148-3	4.5290+4	6.3023+6	1.1317+2	2.5942-2	6.3022+6			3.1347-2	3.1347-2	5.4531-7
2.0454-4	8.4480-3	4.1558+4	5.7829+6	1.1897+2	3.1469-2	5.7828+6			3.1731-2	3.1730-2	5.0575-7
2.0898-4	6.5122-3	4.1135+4	5.7241+6	1.2750+2	3.2205-2	5.7238+6			3.1779-2	3.1778-2	5.0121-7
2.0898-4	6.1293-3	4.3705+4	6.0817+6	1.2750+2	3.2205-2	6.0815+6			3.3765-2	3.3764-2	6.1518-7
2.0931-4	6.1497-3	4.3560+4	6.0818+6	1.4259+2	3.2929-2	6.0814+6			3.4035-2	3.4035-2	6.2138-7
2.1512-4	6.2238-3	4.3043+4	5.9898+6	1.6283+2	3.4751-2	5.9894+6			3.4584-2	3.4584-2	6.2894-7
2.1512-4	6.0527-3	4.4258+4	6.1587+6	1.8283+2	3.4751-2	6.1586+6			3.5540-2	3.5540-2	7.0407-7
2.1512-4	6.1039-3	4.3897+4	6.1071+6	1.7200+2	3.5532-2	6.1089+6			3.5843-2	3.5842-2	7.0026-7
2.2579-4	6.3290-3	4.2332+4	5.8907+6	1.8418+2	3.8222-2	5.8905+6			3.5879-2	3.5879-2	6.8305-7
2.8178-4	7.3340-3	3.6528+4	5.0827+6	2.2138+2	5.1124-2	5.0825+6			3.5890-2	3.5889-2	6.2334-7
2.7593-4	7.8848-3	3.4061+4	4.7398+6	2.3282+2	5.8709-2	4.7394+6			3.5082-2	3.5081-2	5.9720-7
2.7817-4	7.9497-3	3.3897+4	4.6891+6	2.4401+2	5.7820-2	4.6888+6			3.4889-2	3.4888-2	5.9328-7
2.7817-4	7.6891-3	3.4930+4	4.8808+6	2.4401+2	5.7820-2	4.8804+6			3.8270-2	3.8269-2	6.6884-7
2.8184-4	7.7889-3	3.4388+4	4.7853+6	2.8370+2	5.9124-2	4.7850+6			3.8178-2	3.8177-2	6.8468-7
2.9327-4	8.1897-3	3.2710+4	4.5517+6	2.8807+2	6.3934-2	4.5514+6			3.5908-2	3.5907-2	6.4737-7
3.3019-4	9.8070-3	2.7315+4	3.8010+6	3.2718+2	8.0729-2	3.8007+6			3.3885-2	3.3885-2	5.7775-7
3.3739-4	1.1958-2	2.2402+4	3.1173+6	3.5803+2	1.0285-1	3.1169+6			3.1194-2	3.1193-2	4.9994-7
4.4894-4	1.8938-2	1.5817+4	2.2010+6	3.9328+2	1.4737-1	2.2008+6			2.6503-2	2.6502-2	3.8474-7
5.1971-4	2.2488-2	1.1912+4	1.6578+6	4.1314+2	1.9535-1	1.6572+6			2.3105-2	2.3104-2	3.0850-7
7.0000-4	4.2241-2	8.3417+3	8.8247+5	4.2757+2	3.4487-1	8.8204+5			1.6584-2	1.6583-2	1.8584-7
9.0000-4	7.3961-2	3.8218+3	5.0400+5	4.1467+2	5.4874-1	5.0358+5			1.2158-2	1.2158-2	1.1615-7
15.0000-3	9.3978-2	2.8505+3	3.9888+5	4.0204+2	8.8288-1	3.9828+5			1.0830-2	1.0830-2	9.4634-8
1.1404-3	1.2841-1	2.8861+3	2.9029-5	3.7499+2	8.2841-1	2.8991+5			8.8693-3	8.8692-3	7.1855-8
1.2734-3	1.6688-1	1.6052+3	2.2337-5	3.3875+2	1.0011+0	2.2303+5			7.6186-3	7.6186-3	5.7173-8
1.3918-3	2.0812-1	1.2997+3	1.8085-5	2.9825+2	1.1505+0	1.8065+5			6.7407-3	6.7407-3	4.7506-8
1.4588-3	2.2985-1	1.1855+3	1.8218-5	2.8580+2	1.2428+0	1.8191+5			6.3281-3	6.3281-3	4.3177-8
1.5285-3	2.5731-1	1.0411+3	1.4487-5	2.2471+2	1.3370+0	1.4464+5			5.8235-3	5.8234-3	3.9080-8

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.5768-3	2.7877-1	9.8095+2	1.3372+5	1.8440-2	1.4063-0	1.3353+5			5.6478-3	5.6478-3	3.6381-8
1.6123-3	2.9472-1	9.0894+2	1.2648+5	1.4442+2	1.4565+0	1.2634+5			5.4643-3	5.4643-3	3.4620-8
1.6314-3	3.0353-1	8.8255+2	1.2281+5	1.1447+2	1.4837-0	1.2269-5			5.3698-3	5.3698-3	3.3725-8
1.6403-3	3.0765-1	8.7072+2	1.2116+5	9.6706+1	1.4963+0	1.2107+5			5.3272-3	5.3272-3	3.3324-8
1.6556-3	3.1468-1	8.5071+2	1.1838+5	8.5173+1	1.5183+0	1.1831+5			5.2547-3	5.2548-3	3.2844-8
1.6592-3	3.1682-1	8.4605+2	1.1773-5	6.1709+1	1.5235+0	1.1767+5			5.2376-3	5.2378-3	3.2485-8
1.6837-3	3.1873-1	8.4048+2	1.1695+5	6.2488+1	1.5299+0	1.1689+5			5.2169-3	5.2169-3	3.2293-8
1.6881-3	3.2079-1	8.3506+2	1.1620+5	6.8695+1	1.5363+0	1.1613+5			5.1988-3	5.1988-3	3.2104-8
1.6734-3	3.2329-1	8.2862+2	1.1530+5	8.8533+1	1.5439+0	1.1522+5			5.1723-3	5.1722-3	3.1878-8
L3 1.6734-3	7.0232-2	3.8142+3	5.3077+5	8.6533+1	1.5439+0	5.3068+5			2.3823-2	2.3484-2	3.5963-4
1.6796-3	7.2147-2	3.7130+3	5.1868+5	1.1391+2	1.5529+0	5.1856+5			2.3275-2	2.2927-2	3.4822-4
1.6850-3	7.3862-2	3.6268+3	5.0168+5	1.4068+2	1.5607+0	5.0454+5			2.2806-2	2.2468-2	3.3858-4
1.6904-3	7.5818-2	3.5427+3	4.8297+5	1.6428+2	1.5688+0	4.8281+5			2.2348-2	2.2019-2	3.2917-4
1.6969-3	7.7777-2	3.4442+3	4.6727+5	1.8529+2	1.5781+0	4.7909+5			2.1809-2	2.1491-2	3.1824-4
1.7047-3	8.0345-2	3.3342+3	4.6395+5	2.0060+2	1.5891+0	4.6376+5			2.1208-2	2.0902-2	3.0814-4
1.7142-3	8.2218-2	3.2582+3	4.5339+5	2.1348+2	1.6017+0	4.5317+5			2.0839-2	2.0541-2	2.9825-4
1.7212-3	8.3826-2	3.2033+3	4.4575+5	2.2833+2	1.6110+0	4.4552+5			2.0572-2	2.0279-2	2.9257-4
L2 1.7283-3	8.4686-2	3.1558+3	4.3913+5	2.5574+2	1.6204+0	4.3888+5			2.0348-2	2.0060-2	2.8776-4
1.7283-3	5.6942-2	4.5448+3	6.3242+5	2.5574+2	1.6204+0	6.3217+5			2.6310-2	2.6838-2	4.7393-4
1.7410-3	5.9809-2	4.4789+3	6.2265+5	3.1026+2	1.6374+0	6.2295+5			2.6095-2	2.6828-2	4.6714-4
1.7505-3	6.0454-2	4.4312+3	6.1681+5	3.4897+2	1.6501+0	6.1628+5			2.6039-2	2.6477-2	4.6222-4
1.7589-3	6.1102-2	4.3842+3	6.1007+5	3.7488+2	1.6627+0	6.0970+5			2.6788-2	2.8328-2	4.5739-4
1.7697-3	6.4338-2	4.1638+3	5.7838+5	4.2391+2	1.7184+0	5.7898+5			2.7851-2	2.7517-2	4.3420-4
1.8383-3	6.8380-2	3.9175+3	5.4514+5	4.4781+2	1.7690+0	5.4469+5			2.6861-2	2.6454-2	4.0763-4
1.8634-3	7.3122-2	3.6635+3	5.0979+5	4.4783+2	1.8310+0	5.0934+5			2.5734-2	2.5353-2	3.8050-4
1.8945-3	7.4284-2	3.6071+3	5.0184+5	4.5497+2	1.8463+0	5.0149+5			2.5487-2	2.5112-2	3.7456-4
L1 1.9023-3	7.5076-2	3.5681+3	4.9652+5	4.6879+2	1.8572+0	4.9605+5			2.5314-2	2.4944-2	3.7043-4
1.9023-3	6.8399-2	4.0344+3	5.6140+5	4.6879+2	1.8572+0	5.6093+5			2.8626-2	2.8197-2	4.2814-4
1.9315-3	6.8818-2	3.8926+3	5.4167+5	5.2966+2	1.8979+0	5.4114+5			2.8040-2	2.7827-2	4.1312-4
1.9776-3	7.2740-2	3.6827+3	5.1246+5	5.7088+2	1.9288+0	5.1189+5			2.7157-2	2.6788-2	3.8091-4
2.0838-3	8.2321-2	3.2541+3	4.5282+5	6.1827+2	2.1137+0	4.5220+5			2.5275-2	2.4929-2	3.4588-4
2.2991-3	1.0474-1	2.5576+3	3.5590+5	6.5601+2	2.4066+0	3.5524+5			2.1910-2	2.1838-2	2.7221-4
2.6530-3	1.5008-1	1.7849+3	2.4838+5	8.8169+2	2.8858+0	2.4771+5			1.7829-2	1.7439-2	1.8984-4
3.3118-3	2.6684-1	1.0048+3	1.3880+5	6.1598+2	3.7408+0	1.3918+5			1.2366-2	1.2259-2	1.0653-4
4.6754-3	6.5683-1	4.0784+2	5.6752+4	4.9683+2	5.2688+0	5.6250+4			7.0651-3	7.0120-3	4.3059-5
6.4185-3	1.5382+0	1.7437+2	2.4285+4	3.7811+2	6.9078+0	2.3880+4			4.1117-3	4.0935-3	1.8244-5
8.2487-3	1.5237+0	8.7941+1	1.2237+4	2.6829+2	8.2791+0	1.1941+4			2.8423-3	2.8332-3	9.0989-6
1.0000-2	5.1454+0	5.2062+1	7.2446+3	2.2149+2	9.4260+0	7.0137+3			1.8815-3	1.8782-3	5.3423-6
1.1336-2	7.2392+0	3.7004+1	5.1493+3	1.7951+2	1.0155+1	4.9586+3			1.5083-3	1.5045-3	3.7771-6
1.2337-2	9.1412+0	2.8305+1	4.0779+3	1.5028+2	1.0879+1	3.8189+3			1.2965-3	1.2935-3	2.9786-6
1.3056-2	1.0715+1	2.5002+1	3.4791+3	1.2805+2	1.1045+1	3.3400+3			1.1899-3	1.1874-3	2.5378-6
1.3386-2	1.1485+1	2.3388+1	3.2515+3	1.1728+2	1.1198+1	3.1230+3			1.1199-3	1.1175-3	2.3729-6
1.3740-2	1.2434+1	2.1544+1	2.9979+3	1.0100+2	1.1355+1	2.8856+3			1.0637-3	1.0615-3	2.1825-6
1.3876-2	1.2811+1	2.0910+1	2.9097+3	9.3022+1	1.1412+1	2.8053+3			1.0444-3	1.0422-3	2.1315-6
1.4020-2	1.3236+1	2.0238+1	2.8182+3	8.1189+1	1.1472+1	2.7236+3			1.0245-3	1.0224-3	2.0694-6
1.4183-2	1.3689+1	1.9571+1	2.7233+3	6.8449+1	1.1531+1	2.6454+3			1.0052-3	1.0032-3	2.0099-6
1.4221-2	1.3899+1	1.9329+1	2.6898+3	6.3750+1	1.1555+1	2.6145+3			9.9756-4	9.9557-4	1.9685-6
1.4280-2	1.4007+1	1.9124+1	2.6612+3	6.5902+1	1.1580+1	2.5837+3			9.8992-4	9.8796-4	1.9631-6
K 1.4280-2	2.0350+0	1.3164+2	1.8318+4	6.5902+1	1.1580+1	1.8240+4			6.9876-3	3.4952-3	3.4924-3
1.4333-2	2.0540+0	1.3042+2	1.8148+4	7.1462+1	1.1801+1	1.8065+4			6.9449-3	3.4855-3	3.4594-3
1.4440-2	2.0924+0	1.2803+2	1.7818+4	8.8309+1	1.1845+1	1.7716+4			6.8502-3	3.4850-3	3.3933-3
1.4496-2	2.1126+0	1.2680+2	1.7645+4	9.6381+1	1.1868+1	1.7537+4			6.8153-3	3.4568-3	3.3595-3
1.4556-2	2.1345+0	1.2550+2	1.7464+4	1.0327+2	1.1892+1	1.7349+4			6.7892-3	3.4451-3	3.3241-3
1.4643-2	2.1872+0	1.2361+2	1.7200+4	1.0954+2	1.1728+1	1.7079+4			6.7026-3	3.4295-3	3.2731-3
1.4807-2	2.2298+0	1.2013+2	1.6717+4	1.1674+2	1.1794+1	1.6589+4			6.5811-3	3.4008-3	3.1803-3
1.5202-2	2.3681+0	1.1227+2	1.5623+4	1.2808+2	1.1952+1	1.5485+4			6.3053-3	3.3338-3	2.9715-3
1.5955-2	2.7037+0	9.8078+1	1.3787+4	1.3208+2	1.2249+1	1.3843+4			5.8368-3	3.2142-3	2.6228-3
1.7429-2	3.3992+0	7.8807+1	1.0866+4	1.2894+2	1.2790+1	1.0824+4			5.0438-3	2.9562-3	2.0678-3
2.0445-2	5.1412+0	5.2105+1	7.2505+3	1.1360+2	1.3652+1	7.1233+3			3.9058-3	2.5233-3	1.3823-3
2.4778-2	6.6096+0	3.1114+1	4.3296+3	9.0889+1	1.4551+1	4.2242+3			2.8048-3	1.8813-3	8.2357-4
3.4088-2	2.0571+1	1.3022+1	1.8121+3	5.7891+1	1.5850+1	1.7368+3			1.5694-3	1.2486-3	3.4082-4
4.5306-2	4.5139+1	5.9346+0	8.2581+2	3.6159+1	1.6576+1	7.7308+2			9.4012-4	7.8804-4	1.5208-4
7.1737-2	1.5829+2	1.6924+0	2.3550+2	1.6045+1	1.6812+1	2.0264+2			3.9354-4	3.5355-4	3.9988-5
1.0000-1	3.6868+2	7.2483-1	1.0086+2	8.7822+0	1.6339+1	7.5740+1			2.0953-4	1.8458-4	1.4970-5
1.2235-1	5.8898+2	4.5483-1	6.3290+1	6.0402+0	1.5770+1	4.1481+1			1.4450-4	1.3830-4	8.2013-6
1.5125-1	9.0334+2	2.9654-1	4.1265+1	4.0398+0	1.5192+1	2.2033+1			1.0102-4	9.6685-5	4.3578-6
1.8812-1	1.2861+3	2.0829-1	2.8884+1	2.7084+0	1.4403+1	1.1872+1			7.4554-5	7.2207-5	2.3488-6
2.2134-1	1.6325+3	1.6410-1	2.2835+1	1.9338+0	1.3747+1	7.1541+0			6.1585-5	6.0170-5	1.4150-6
2.5809-1	1.8528+3	1.3718-1	1.9089+1	1.4322+0	1.3089+1	4.5675+0			5.4587-5	5.3683-5	9.0358-7
3.0000-1	2.2812+3	1.1847-1	1.6485+1	1.0659+0	1.2476+1	2.8432+0			5.1141-5	5.0559-5	6.8232-7
3.7238-1	2.6922+3	9.9502-2	1.3846+1	6.9827-1	1.1536+1	1.6133+0			5.0929-5	5.0609-5	3.1907-7
4.5986-1	3.0970+3	8.8496-2	1.2036+1	4.5870-1	1.0660+1	9.1734-1			5.4974-5	5.4783-5	1.8185-7
5.8414-1	3.5769+3	7.4893-2	1.0422+1	2.8533-1	9.6386+0	4.9772-1			6.2827-5	6.2729-5	9.6538-8
7.4448-1	4.0770+3	6.5708-2	9.1432+0	1.7809-1	8.8989+0	2.8032-1			7.4899-5	7.4843-5	5.5479-8
1.0000+0	4.7651+3	5.8217-2	9.7228+0	9.7789-2	7.5770+0	1.4807-1			9.3869-5	9.3840-5	2.9327-8
1.0220+0	4.8213+3	5.5562-2	7.7316+0	9.3826-2	7.4972+0	1.4080-1			9.5178-5	9.5150-5	2.7888-8
1.0251+0	4.8296+3	5.5468-2	7.7183+0	9.3059-2	7.4853+0	1.3994-1	6.6744-8		9.5377-5	9.5349-5	2.7717-8
1.0287+0	4.8392+3	5.5358-2	7.7030+0	9.2406-2	7.4716+0	1.3886-1	6.6744-7		9.5609-5	9.5681-5	2.7522-8
1.0301+0	4.8428+3	5.5315-2	7.6973+0	9.2165-2	7.4665+0	1.3860-1	1.1487-6		9.5695-5	9.5688-5	2.7450-8
1.0310+0	4.8452+3	5.5288-2	7.6935+0	9.2005-2	7.4632+0	1.3836-1	1.5719-6		9.5752-5	9.5725-5	2.7402-8
1.0320+0	4.8478+3	5.5258-2	7.6893+0	9.1827-2	7.4594+0	1.3809-1	2.1507-6		9.5816-5	9.5789-5	2.7349-8
1.0332+0	4.8510+3	5.5222-2	7.6843+0	9.1815-2	7.4548+0	1.3777-1	3.0127-6		9.5883-5	9.5888-5	2.7288-8
1.0340+0	4.8531+3	5.5188-2	7.6809+0	9.1474-2	7.4519+0	1.3756-1	3.6984-6		9.5944-5	9.5916-5	2.7244-8
1.0353+0	4.8585+3	5.5159-2	7.6755+0	9.1245-2	7.44						

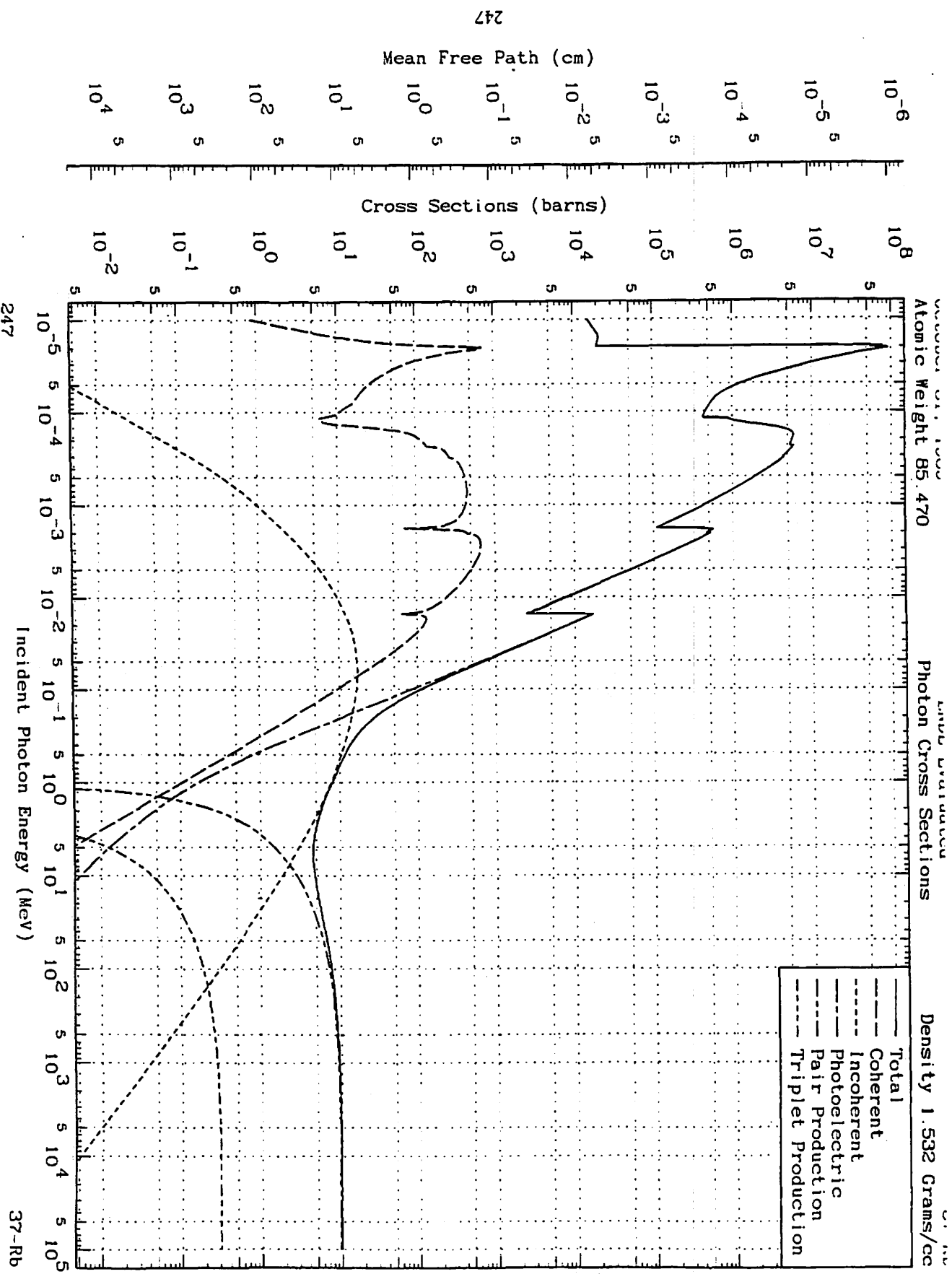
October 31, 1989
Atomic Weight 83.800

ENDL Evaluated
Photon Data

36-Kr
Density 3.7330- 3 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cc/cm/grac	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0397+ 0	4.8681+ 3	5.5027- 2	7.6572+ 0	9.0478- 2	7.4307+ 0	1.3605- 1	1.1702- 5		9.6307- 5	9.6280- 5	2.6946- 8
1.0415+ 0	4.8729+ 3	5.4974- 2	7.6490+ 0	9.0166- 2	7.4240+ 0	1.3558- 1	1.5570- 5		9.6422- 5	9.6395- 5	2.6853- 8
1.0438+ 0	4.8789+ 3	5.4906- 2	7.6403+ 0	8.9771- 2	7.4158+ 0	1.3499- 1	2.1611- 5		9.6569- 5	9.6542- 5	2.6735- 8
1.0464+ 0	4.8857+ 3	5.4829- 2	7.6297+ 0	8.9327- 2	7.4060+ 0	1.3432- 1	3.0068- 5		9.6734- 5	9.6708- 5	2.6603- 8
1.0483+ 0	4.8907+ 3	5.4773- 2	7.6219+ 0	8.9005- 2	7.3990+ 0	1.3383- 1	3.7438- 5		9.6855- 5	9.6829- 5	2.6506- 8
1.0512+ 0	4.8963+ 3	5.4689- 2	7.6101+ 0	8.8517- 2	7.3884+ 0	1.3310- 1	5.0781- 5		9.7040- 5	9.7014- 5	2.6360- 8
1.0541+ 0	4.9058+ 3	5.4605- 2	7.5984+ 0	8.8038- 2	7.3780+ 0	1.3237- 1	6.8744- 5		9.7223- 5	9.7197- 5	2.6217- 8
1.0577+ 0	4.9152+ 3	5.4500- 2	7.5839+ 0	8.7436- 2	7.3649+ 0	1.3147- 1	9.0977- 5		9.7454- 5	9.7428- 5	2.6038- 8
1.0611+ 0	4.9241+ 3	5.4402- 2	7.5702+ 0	8.6879- 2	7.3528+ 0	1.3063- 1	1.1834- 4		9.7870- 5	9.7844- 5	2.5871- 8
1.0651+ 0	4.9345+ 3	5.4288- 2	7.5543+ 0	8.6231- 2	7.3383+ 0	1.2965- 1	1.5667- 4		9.7924- 5	9.7898- 5	2.5678- 8
1.0704+ 0	4.9482+ 3	5.4137- 2	7.5334+ 0	8.5382- 2	7.3194+ 0	1.2837- 1	2.1857- 4		9.8261- 5	9.8235- 5	2.5425- 8
1.0762+ 0	4.9631+ 3	5.3974- 2	7.5107+ 0	8.4469- 2	7.2990+ 0	1.2699- 1	3.0206- 4		9.8829- 5	9.8804- 5	2.5152- 8
1.0806+ 0	4.9744+ 3	5.3852- 2	7.4835+ 0	8.3785- 2	7.2835+ 0	1.2598- 1	3.7722- 4		9.8980- 5	9.8953- 5	2.4947- 8
1.0871+ 0	4.9911+ 3	5.3672- 2	7.4687+ 0	8.2780- 2	7.2659+ 0	1.2446- 1	5.0824- 4		9.9320- 5	9.9296- 5	2.4650- 8
1.0937+ 0	5.0079+ 3	5.3492- 2	7.4434+ 0	8.1798- 2	7.2381+ 0	1.2286- 1	6.6744- 4		9.9739- 5	9.9715- 5	2.4354- 8
1.1029+ 0	5.0304+ 3	5.3252- 2	7.4102+ 0	8.0488- 2	7.2078+ 0	1.2089- 1	9.2538- 4		1.0030- 4	1.0028- 4	2.3963- 8
1.1107+ 0	5.0508+ 3	5.3037- 2	7.3803+ 0	7.9323- 2	7.1805+ 0	1.1924- 1	1.2069- 3		1.0081- 4	1.0079- 4	2.3615- 8
1.1206+ 0	5.0756+ 3	5.2778- 2	7.3442+ 0	7.7933- 2	7.1475+ 0	1.1714- 1	1.6144- 3		1.0144- 4	1.0142- 4	2.3201- 8
1.1333+ 0	5.1072+ 3	5.2452- 2	7.2989+ 0	7.6203- 2	7.1059+ 0	1.1453- 1	2.2446- 3		1.0224- 4	1.0222- 4	2.2684- 8
1.1475+ 0	5.1421+ 3	5.2096- 2	7.2493+ 0	7.4338- 2	7.0502+ 0	1.1172- 1	3.0991- 3		1.0314- 4	1.0312- 4	2.2127- 8
1.1582+ 0	5.1811+ 3	5.1833- 2	7.2128+ 0	7.2975- 2	7.0263+ 0	1.0967- 1	3.8513- 3		1.0381- 4	1.0379- 4	2.1720- 8
1.1741+ 0	5.2065+ 3	5.1452- 2	7.1597+ 0	7.1020- 2	6.9789+ 0	1.0772- 1	5.1476- 3		1.0482- 4	1.0480- 4	2.1137- 8
1.1901+ 0	5.2448+ 3	5.1078- 2	7.1077+ 0	6.9129- 2	6.9280+ 0	1.0390- 1	6.6744- 3		1.0563- 4	1.0561- 4	2.0578- 8
1.2051+ 0	5.2786+ 3	5.0739- 2	7.0605+ 0	6.7427- 2	6.8831+ 0	1.0158- 1	8.3090- 3		1.0678- 4	1.0678- 4	2.0118- 8
1.2275+ 0	5.3312+ 3	5.0247- 2	6.9921+ 0	6.4998- 2	6.8177+ 0	9.8252- 2	1.1122- 2		1.0821- 4	1.0819- 4	1.9459- 8
1.2656+ 0	5.4169+ 3	4.9453- 2	6.8915+ 0	6.1157- 2	6.7105+ 0	9.2970- 2	1.6849- 2		1.1053- 4	1.1052- 4	1.8413- 8
1.2949+ 0	5.4811+ 3	4.8874- 2	6.8010+ 0	5.8429- 2	6.6314+ 0	8.9198- 2	2.1963- 2		1.1250- 4	1.1249- 4	1.7668- 8
1.3319+ 0	5.5598+ 3	4.8182- 2	6.7046+ 0	5.5244- 2	6.5358+ 0	8.4776- 2	2.9157- 2		1.1487- 4	1.1485- 4	1.6790- 8
1.3626+ 0	5.6293+ 3	4.7633- 2	6.6283+ 0	5.2782- 2	6.4584+ 0	8.1340- 2	3.5717- 2		1.1684- 4	1.1683- 4	1.6110- 8
1.4117+ 0	5.7229+ 3	4.6808- 2	6.5135+ 0	4.9184- 2	6.3410+ 0	7.6293- 2	4.7083- 2		1.2001- 4	1.2000- 4	1.5110- 8
1.5000+ 0	5.8920+ 3	4.5485- 2	6.3266+ 0	4.3578- 2	6.1448+ 0	6.8360- 2	7.0080- 2		1.2576- 4	1.2575- 4	1.3539- 8
1.5899+ 0	6.0515+ 3	4.4267- 2	6.1598+ 0	3.8903- 2	5.9621+ 0	6.1918- 2	9.7041- 2		1.3173- 4	1.3172- 4	1.2263- 8
1.7189+ 0	6.2801+ 3	4.2782- 2	5.9548+ 0	3.3207- 2	5.7258+ 0	5.4217- 2	1.4138- 1		1.4052- 4	1.4051- 4	1.0738- 8
1.8385+ 0	6.4498+ 3	4.1533- 2	5.7795+ 0	2.9030- 2	5.5139+ 0	4.8346- 2	1.8820- 1		1.4817- 4	1.4818- 4	9.5751- 9
2.0000+ 0	6.8785+ 3	4.0111- 2	5.5818+ 0	2.4539- 2	5.2600+ 0	4.1890- 2	2.5520- 1		1.5886- 4	1.5887- 4	8.2965- 9
2.0440+ 0	6.9730+ 3	3.9769- 2	5.5339+ 0	2.3495- 2	5.1993+ 0	4.0440- 2	2.7370- 1		1.6188- 4	1.6187- 4	8.0093- 9
2.0850+ 0	6.9730+ 3	3.9430- 2	5.4868+ 0	2.2583- 2	5.1342+ 0	3.9209- 2	2.9088- 1	3.8137- 7	1.6454- 4	1.6453- 4	7.7655- 9
2.1066+ 0	6.8217+ 3	3.9269- 2	5.4644+ 0	2.2120- 2	5.1040+ 0	3.8620- 2	2.8966- 1		1.6588- 4	1.6587- 4	7.6489- 9
2.1140+ 0	6.8314+ 3	3.9213- 2	5.4566+ 0	2.1966- 2	5.0934+ 0	3.8413- 2	3.0283- 1		1.6636- 4	1.6635- 4	7.6079- 9
2.1195+ 0	6.8388+ 3	3.9172- 2	5.4509+ 0	2.1852- 2	5.0856+ 0	3.8281- 2	3.0520- 1		1.6672- 4	1.6671- 4	7.5778- 9
2.1279+ 0	6.8495+ 3	3.9110- 2	5.4422+ 0	2.1680- 2	5.0737+ 0	3.8031- 2	3.0885- 1		1.6727- 4	1.6728- 4	7.5322- 9
2.1363+ 0	6.8602+ 3	3.9048- 2	5.4337+ 0	2.1511- 2	5.0619+ 0	3.7804- 2	3.1250- 1		1.6782- 4	1.6781- 4	7.4873- 9
2.1470+ 0	6.8739+ 3	3.8971- 2	5.4229+ 0	2.1268- 2	5.0468+ 0	3.7518- 2	3.1725- 1		1.6853- 4	1.6852- 4	7.4301- 9
2.1635+ 0	6.8948+ 3	3.8854- 2	5.4086+ 0	2.0973- 2	5.0239+ 0	3.7080- 2	3.2463- 1		1.6962- 4	1.6961- 4	7.3438- 9
2.1845+ 0	6.9217+ 3	3.8702- 2	5.3855+ 0	2.0572- 2	4.9952+ 0	3.6537- 2	3.3313- 1		1.7099- 4	1.7098- 4	7.2383- 9
2.2018+ 0	6.9436+ 3	3.8580- 2	5.3685+ 0	2.0250- 2	4.9719+ 0	3.6099- 2	3.4024- 1		1.7211- 4	1.7211- 4	7.1498- 9
2.2148+ 0	6.9598+ 3	3.8490- 2	5.3580+ 0	2.0014- 2	4.9545+ 0	3.5776- 2	3.4584- 1		1.7297- 4	1.7296- 4	7.0657- 9
2.2342+ 0	6.9836+ 3	3.8359- 2	5.3378+ 0	1.9688- 2	4.9290+ 0	3.5303- 2	3.5379- 1		1.7428- 4	1.7425- 4	6.9919- 9
2.2537+ 0	7.0089+ 3	3.8231- 2	5.3199+ 0	1.9330- 2	4.9038+ 0	3.4839- 2	3.6211- 1		1.7558- 4	1.7555- 4	6.8999- 9
2.2815+ 0	7.0395+ 3	3.8054- 2	5.2953+ 0	1.8882- 2	4.8680+ 0	3.4192- 2	3.7419- 1		1.7744- 4	1.7743- 4	6.7718- 9
2.3070+ 0	7.0684+ 3	3.7898- 2	5.2737+ 0	1.8417- 2	4.8360+ 0	3.3818- 2	3.8549- 1		1.7918- 4	1.7917- 4	6.6579- 9
2.3382+ 0	7.1027+ 3	3.7715- 2	5.2482+ 0	1.7959- 2	4.7978+ 0	3.2934- 2	3.9959- 1		1.8134- 4	1.8134- 4	6.5227- 9
2.3774+ 0	7.1444+ 3	3.7495- 2	5.2179+ 0	1.7372- 2	4.7505+ 0	3.2108- 2	4.1747- 1		1.8409- 4	1.8408- 4	6.3592- 9
2.4102+ 0	7.1803+ 3	3.7309- 2	5.1915+ 0	1.6903- 2	4.7120+ 0	3.1444- 2	4.3094- 1		1.8634- 4	1.8633- 4	6.2275- 9
2.4468+ 0	7.2190+ 3	3.7108- 2	5.1637+ 0	1.6401- 2	4.6701+ 0	3.0728- 2	4.4627- 1		1.8868- 4	1.8867- 4	6.0850- 9
2.4859+ 0	7.2597+ 3	3.6905- 2	5.1354+ 0	1.5890- 2	4.6283+ 0	2.9993- 2	4.6297- 1		1.9163- 4	1.9162- 4	5.9403- 9
2.5264+ 0	7.3280+ 3	3.6588- 2	5.0883+ 0	1.5028- 2	4.5501+ 0	2.8739- 2	4.9400- 1		1.9671- 4	1.9671- 4	5.6919- 9
2.6044+ 0	7.4165+ 3	3.6120- 2	5.0282+ 0	1.3875- 2	4.4437+ 0	2.7042- 2	5.4094- 1		2.0445- 4	2.0444- 4	5.3558- 9
2.7453+ 0	7.4897+ 3	3.5767- 2	4.9771+ 0	1.3031- 2	4.3618+ 0	2.5778- 2	5.7587- 1		2.1070- 4	2.1069- 4	5.1050- 9
2.8090+ 0	7.5402+ 3	3.5527- 2	4.9437+ 0	1.2447- 2	4.3027+ 0	2.4888- 2	6.0280- 1		2.1552- 4	2.1551- 4	4.8293- 9
2.9045+ 0	7.6092+ 3	3.5205- 2	4.8989+ 0	1.1643- 2	4.2181+ 0	2.3650- 2	6.4431- 1		2.2298- 4	2.2295- 4	4.6040- 9
3.0399+ 0	7.6974+ 3	3.4801- 2	4.8427+ 0	1.0830- 2	4.1058+ 0	2.2098- 2	7.0298- 1		2.3379- 4	2.3378- 4	4.3785- 9
3.2344+ 0	7.8362+ 3	3.4185- 2	4.7570+ 0	9.3902- 3	3.9438+ 0	2.0281- 2	7.8125- 1		2.4832- 4	2.4831- 4	4.0127- 9
3.4375+ 0	7.9518+ 3	3.3889- 2	4.6879+ 0	8.3139- 3	3.7912+ 0	1.8808- 2	8.6673- 1		2.6454- 4	2.6454- 4	3.6649- 9
3.7847+ 0	8.1243+ 3	3.2973- 2	4.5883+ 0	6.8591- 3	3.5620+ 0	1.6282- 2	9.9841- 1		2.8278- 4	2.8278- 4	3.2207- 9
4.0000+ 0	8.1988+ 3	3.2873- 2	4.5488+ 0	6.1409- 3	3.3485+ 0	1.5050- 2	1.0830+ 0	5.9260- 3	3.1172- 4	3.1171- 4	2.9807- 9
4.2500+ 0	8.2823+ 3	3.2344- 2	4.5008+ 0	5.4398- 3	3.3041+ 0	1.3893- 2	1.1700+ 0	7.3228- 3	3.3354- 4	3.3353- 4	2.7515- 9
4.7500+ 0	8.3783+ 3	3.1973- 2	4.4492+ 0	4.3551- 3	3.0743+ 0	1.1995- 2	1.3483+ 0	1.0244- 2	3.8101- 4	3.8101- 4	2.3757- 9
5.5135+ 0	8.4803+ 3	3.1653- 2	4.4050+ 0	3.2328- 3	2.8124+ 0	9.8999- 3	1.5867+ 0	1.5015- 2	4.5718- 4	4.5718- 4	1.9607- 9
6.3640+ 0	8.4949+ 3	3.1534- 2	4.3881+ 0	2.4265- 3	2.5229+ 0	8.2683- 3	1.8343+ 0	2.0339- 2	5.4604- 4	5.4604- 4	1.6378- 9
7.4633+ 0	8.4490+ 3	3.1705- 2	4.4119+ 0	1.7550- 3	2.2508+ 0	6.7835- 3	2.1255+ 0	2.7280- 2	6.7275- 4	6.7275- 4	1.3435- 9
9.0000+ 0	8.2983+ 3	3.2289- 2	4.4831+ 0	1.2133- 3	1.9781+ 0	5.4440- 3	2.4740+ 0	3.8330- 2	8.8068- 4	8.8068- 4	1.0782- 9
1.0000+ 1	8.1775+ 3	3.2758- 2	4.5584+ 0	8.8282- 4	1.8347+ 0	4.8150- 3	2.6760+ 0	4.1880- 2	9.8236- 4	9.8238- 4	6.5363-10
1.3000+ 1	7.8425+ 3	3.									

37-Rb, 247, 1.532 Grams/cc, 247

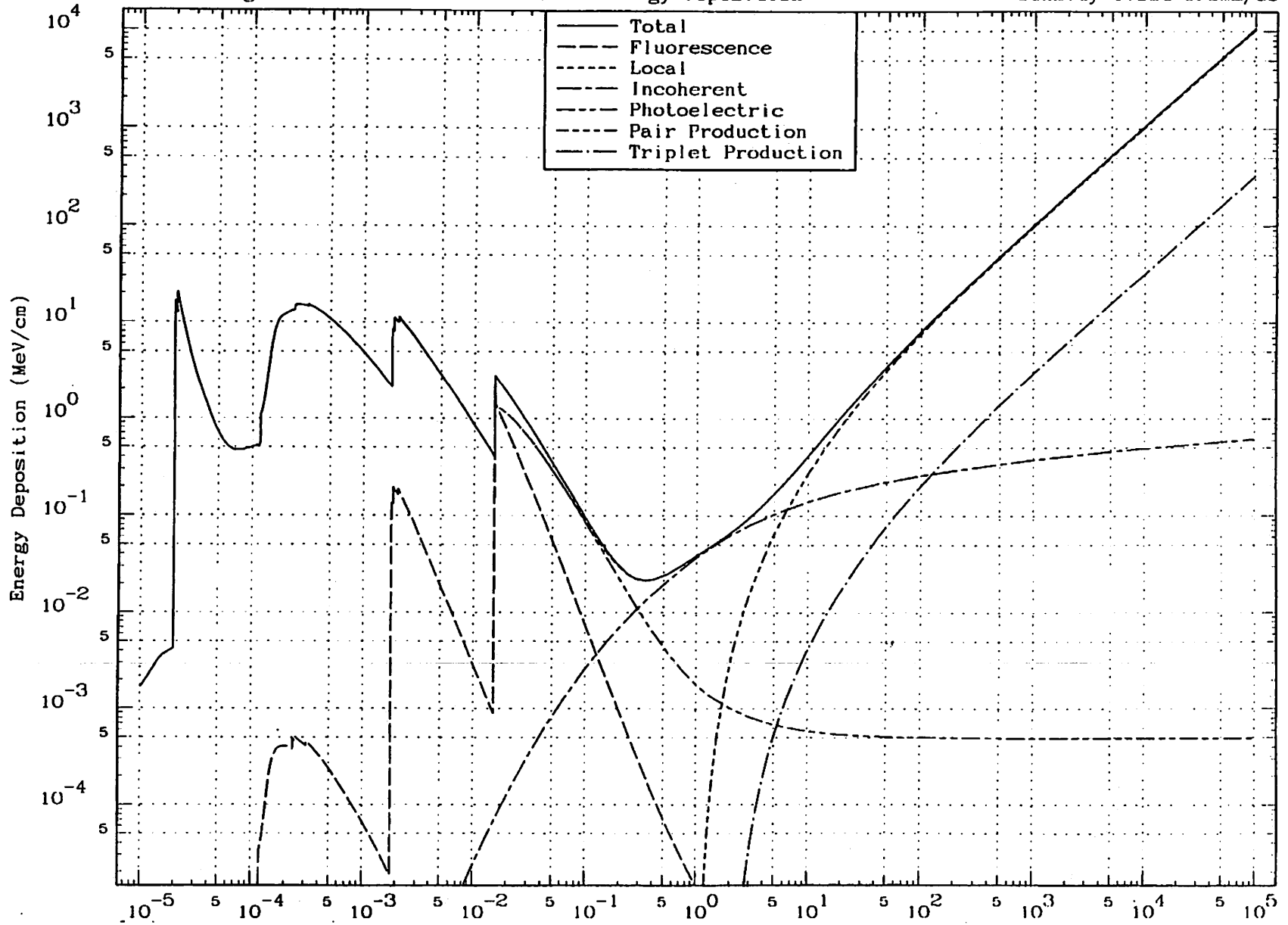


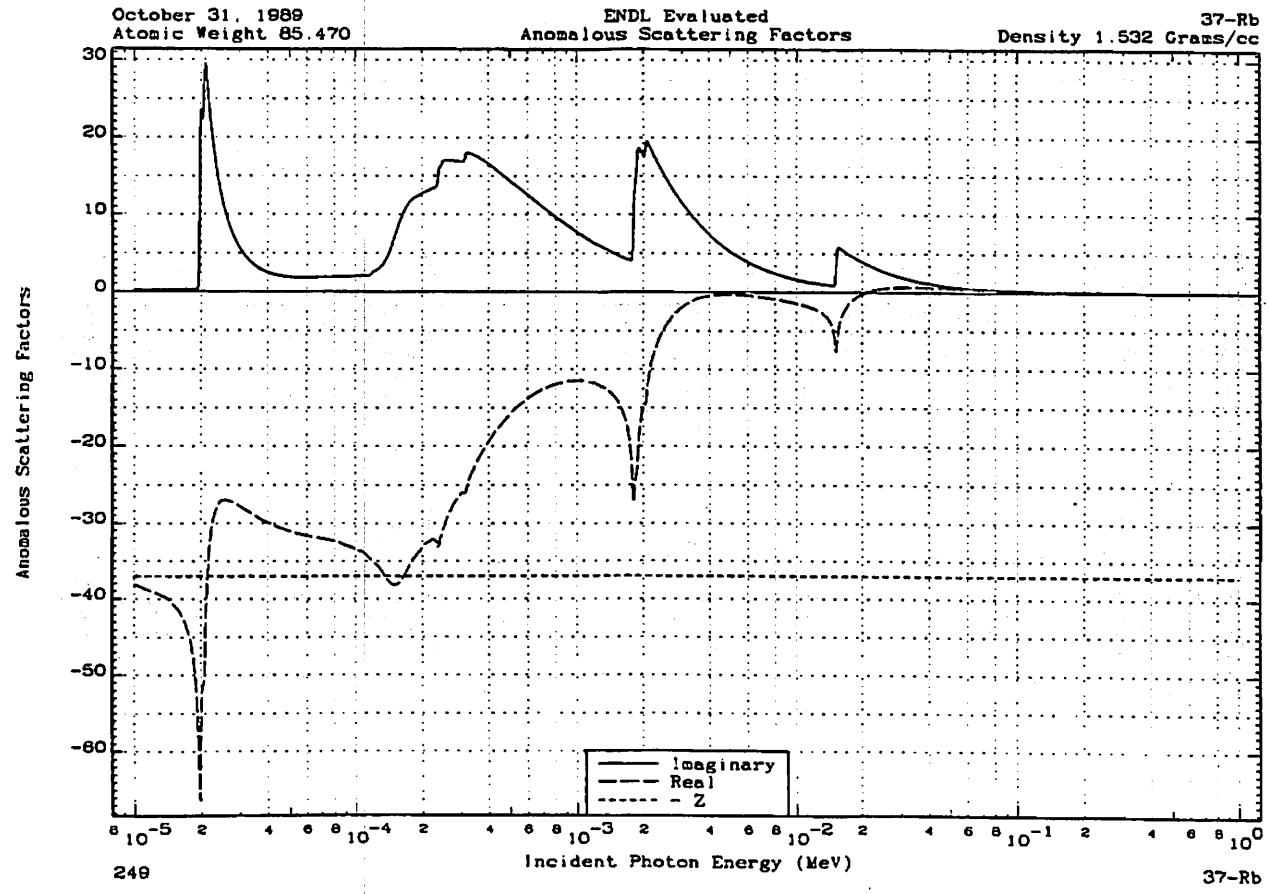
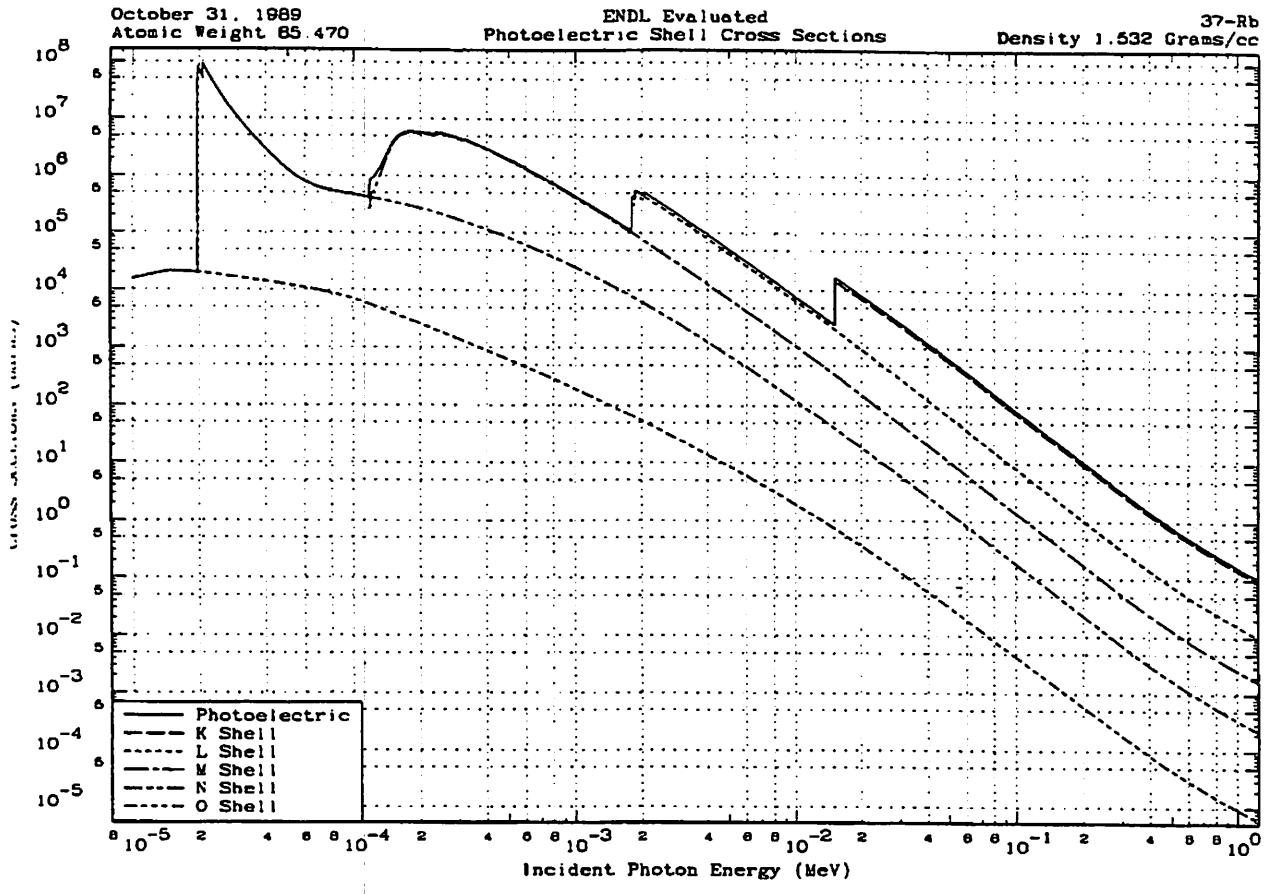
October 31, 1989
Atomic Weight 85.470

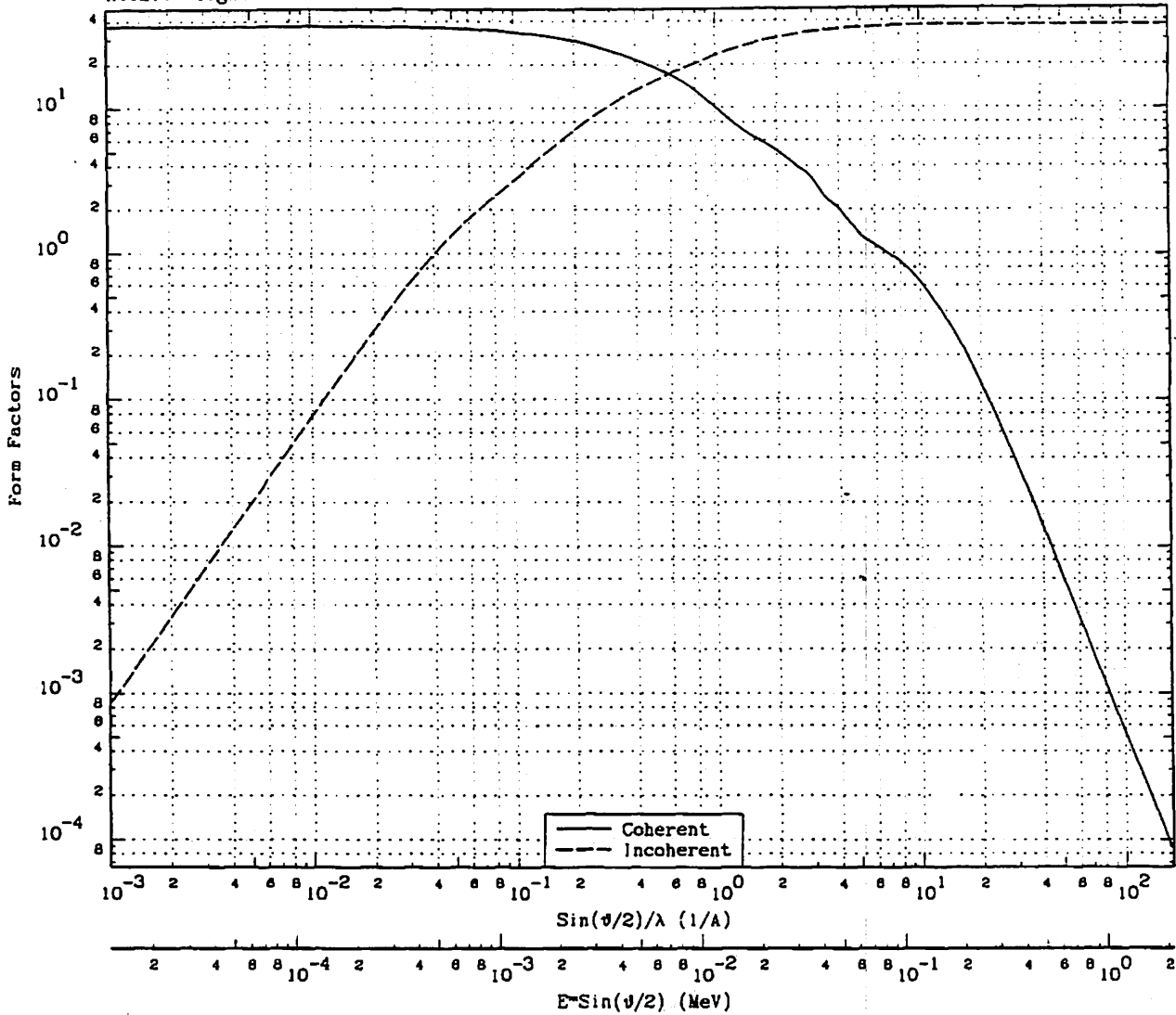
ENDL Evaluated
Energy Deposition

37-Rb
Density 1.532 Grams/cc

248







$\text{Sin}(\phi/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\phi/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\phi/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\phi/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\phi/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\phi/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	3.7000+ 1	0.0000- 0	7.0000- 1	8.6780- 3	1.5044+ 1	1.8974+ 1	1.7847+ 1	2.2128- 1	1.7661- 1	3.6984+ 1
1.0000- 3	1.2399- 5	3.7000+ 1	8.4844- 4	8.0000- 1	9.9188- 3	1.3174+ 1	2.0528+ 1	2.0000+ 1	2.4797- 1	1.2809- 1	3.6992+ 1
5.0000- 3	6.1993- 5	3.6973+ 1	2.0000- 2	9.0000- 1	1.1159- 2	1.1548+ 1	2.1940+ 1	2.4457+ 1	3.0323- 1	6.9870- 2	3.6999+ 1
1.0000- 2	1.2399- 4	3.6938+ 1	7.8000- 2	1.0000+ 0	1.2399- 2	1.0174+ 1	2.3221+ 1	3.1584+ 1	3.9159- 1	3.0560- 2	3.7001+ 1
1.5000- 2	1.8598- 4	3.6889+ 1	1.7180- 1	1.2500+ 0	1.5498- 2	7.7817+ 0	2.5880+ 1	4.4360+ 1	5.5000- 1	9.5388- 3	3.7000+ 1
2.0000- 2	2.4797- 4	3.6805+ 1	2.9840- 1	1.5000+ 0	1.8598- 2	6.4883+ 0	2.7871+ 1	5.0000+ 1	6.1993- 1	6.2659- 3	3.7000+ 1
2.5000- 2	3.0996- 4	3.6899+ 1	4.4820- 1	2.0000+ 0	2.4797- 2	5.1121+ 0	3.0543+ 1	6.0000+ 1	6.9188- 1	1.1869- 3	3.7000+ 1
3.0000- 2	3.7196- 4	3.6575+ 1	8.1490- 1	2.5000+ 0	3.0996- 2	4.0852+ 0	3.2277+ 1	1.0000+ 2	1.2399+ 0	5.3987- 4	3.7000+ 1
4.0000- 2	4.9594- 4	3.6278+ 1	9.8600- 1	2.8813+ 0	3.5724- 2	3.4557+ 0	3.3219+ 1	1.7117+ 2	2.1223+ 0	8.4471- 5	3.7000+ 1
5.0000- 2	6.1993- 4	3.5846+ 1	1.3720+ 0	3.0000+ 0	3.7196- 2	3.2392+ 0	3.3481+ 1	2.7479+ 2	3.4070+ 0	1.7338- 5	3.7000+ 1
7.0000- 2	8.6780- 4	3.5146+ 1	2.1219+ 0	3.5000+ 0	4.3395- 2	2.4132+ 0	3.4258+ 1	5.1200+ 2	6.3480+ 0	2.2921- 8	3.7000+ 1
9.0000- 2	1.1159- 3	3.4308+ 1	2.8525+ 0	4.0000+ 0	4.8594- 2	2.0708+ 0	3.4803+ 1	1.0000+ 3	1.2399+ 1	2.7517- 7	3.7000+ 1
1.0000- 1	1.2399- 3	3.3881+ 1	3.2250+ 0	5.0000+ 0	6.1893- 2	1.3853+ 0	3.5482+ 1	2.8333+ 3	3.2849+ 1	1.3783- 8	3.7000+ 1
1.2500- 1	1.5498- 3	3.2775+ 1	4.1893+ 0	5.4258+ 0	6.7272- 2	1.2530+ 0	3.5684+ 1	6.6119+ 3	8.1678+ 1	8.5233-10	3.7000+ 1
1.5000- 1	1.8598- 3	3.1632+ 1	5.1720+ 0	6.0000+ 0	7.4391- 2	1.1464+ 0	3.5914+ 1	1.4899+ 4	1.8473+ 2	7.8228-11	3.7000+ 1
1.7500- 1	2.1697- 3	3.0474+ 1	6.1346+ 0	7.0000+ 0	8.6790- 2	9.9220- 1	3.6228+ 1	4.2648+ 4	5.2875+ 2	3.5021-12	3.7000+ 1
2.0000- 1	2.4797- 3	2.9327+ 1	7.0620+ 0	8.0000+ 0	9.9188- 2	8.7330- 1	3.6459+ 1	1.0000+ 6	1.2399+ 4	3.8880-16	3.7000+ 1
2.5000- 1	3.0996- 3	2.7079+ 1	8.8125+ 0	9.1387+ 0	1.1331- 1	7.3385- 1	3.6642+ 1	5.6234+ 6	6.9722+ 4	2.5954-18	3.7000+ 1
3.0000- 1	3.7196- 3	2.5079+ 1	1.0431+ 1	1.0000+ 1	1.2399- 1	6.3560- 1	3.6742+ 1	7.4889+ 7	9.2975+ 5	1.3256-21	3.7000+ 1
4.0000- 1	4.9594- 3	2.1862+ 1	1.3206+ 1	1.1880+ 1	1.4705- 1	4.6489- 1	3.6870+ 1	1.0000+ 9	1.2399+ 7	6.4938-25	3.7000+ 1
5.0000- 1	6.1993- 3	1.9348+ 1	1.5410+ 1	1.3784+ 1	1.7065- 1	3.3904- 1	3.6934+ 1				
6.0000- 1	7.4391- 3	1.7112+ 1	1.7282+ 1	1.5000+ 1	1.8598- 1	2.7710- 1	3.6959+ 1				

October 31, 1989
Atomic Weight 85.470

ENDL Evaluated
Photon Data

37-Rb
Density 1.532 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	5.9888-3	1.0899+2	1.5469+4	8.4563-1	1.8359-4	1.5468+4			1.6697-3	1.6697-3	
1.4413-5	4.4517-3	1.4663+2	2.0810+4	6.6962+0	3.7962-4	2.0804+4			3.2367-3	3.2367-3	
1.5830-5	4.3500-3	1.5006+2	2.1297+4	1.3264+1	4.5735-4	2.1284+4			3.6368-3	3.6368-3	
1.6834-5	4.4307-3	1.4732+2	2.0909+4	2.2773+1	5.1679-4	2.0886+4			3.7652-3	3.7652-3	
1.7783-5	4.5015-3	1.4501+2	2.0580+4	4.2482+1	5.7630-4	2.0538+4			3.8423-3	3.8423-3	
1.8362-5	4.4502-3	1.4377+2	2.0405+4	6.7877+1	6.1375-4	2.0337+4			4.0309-3	4.0309-3	
1.8661-5	4.5575-3	1.4322+2	2.0327+4	9.0866+1	6.3354-4	2.0236+4			4.0763-3	4.0763-3	
1.9078-5	4.5747-3	1.4289+2	2.0251+4	1.5106+1	6.8184-4	2.0100+4			4.1392-3	4.1392-3	
1.9243-5	4.5757-3	1.4285+2	2.0246+4	1.9983+2	6.7295-4	2.0047+4			4.1640-3	4.1640-3	
1.9358-5	4.5711-3	1.4280+2	2.0267+4	2.5699+2	6.6093-4	2.0010+4			4.1814-3	4.1814-3	
1.9470-5	4.5684-3	1.4318+2	2.0323+4	3.4825+2	6.6858-4	1.9975+4			4.1979-3	4.1979-3	
1.9626-5	4.5256-3	1.4423+2	2.0470+4	5.4430+2	6.9947-4	1.9928+4			4.2212-3	4.2212-3	
1.9668-5	4.5161-3	1.4454+2	2.0514+4	6.0085+2	7.0247-4	1.9913+4			4.2276-3	4.2276-3	
1.9750-5	4.5032-3	1.4485+2	2.0572+4	6.8471+2	7.0821-4	1.9887+4			4.2397-3	4.2397-3	
N3 1.9750-5	1.1673-6	5.5917+5	7.9360+7	6.8471+2	7.0821-4	7.9360+7			1.6919+1	1.6919+1	
1.9803-5	1.1912-6	5.4798+5	7.7772+7	7.2087+2	7.1195-4	7.7772+7			1.6624+1	1.6624+1	
1.9879-5	1.2262-6	5.3231+5	7.5549+7	7.3219+2	7.1725-4	7.5548+7			1.6211+1	1.6211+1	
1.9955-5	1.2619-6	5.1728+5	7.3416+7	7.0177+2	7.2272-4	7.3415+7			1.5814+1	1.5814+1	
2.0210-5	1.3890-6	4.6994+5	6.6897+7	5.2451+2	7.4101-4	6.6897+7			1.4550+1	1.4550+1	
2.0354-5	1.4650-6	4.4555+5	6.3235+7	4.7183+2	7.5138-4	6.3235+7			1.3893+1	1.3893+1	
2.0473-5	1.5309-6	4.2638+5	6.0512+7	4.6631+2	7.6002-4	6.0512+7			1.3373+1	1.3373+1	
2.0561-5	1.5813-6	4.1279+5	5.8588+7	4.6038+2	7.6845-4	5.8588+7			1.3002+1	1.3002+1	
2.0730-5	1.6821-6	3.8804+5	5.5074+7	5.7578+2	7.7889-4	5.5073+7			1.2323+1	1.2323+1	
N2 2.0730-5	1.0030-6	6.5077+5	9.2361+7	5.7578+2	7.7889-4	9.2360+7			2.0667+1	2.0667+1	
2.0783-5	1.0215-6	6.3899+5	9.0689+7	6.0056+2	7.8282-4	9.0689+7			2.0345+1	2.0345+1	
2.0874-5	1.0536-6	6.1955+5	8.7931+7	6.2309+2	7.8952-4	8.7930+7			1.9812+1	1.9812+1	
2.0930-5	1.0742-6	6.0767+5	8.6244+7	6.0767+2	7.9375-4	8.6244+7			1.9485+1	1.9485+1	
2.1140-5	1.1533-6	5.6600+5	8.0330+7	5.8982+2	8.0944-4	8.0330+7			1.8331+1	1.8331+1	
2.1430-5	1.2633-6	5.1866+5	7.3331+7	4.8629+2	8.3139-4	7.3330+7			1.6863+1	1.6863+1	
2.1775-5	1.4060-6	4.8426+5	6.5891+7	4.1262+2	8.5791-4	6.5891+7			1.5488+1	1.5488+1	
2.2190-5	1.5654-6	4.0915+5	5.8089+7	3.4795+2	8.9032-4	5.8089+7			1.3909+1	1.3909+1	
2.3019-5	2.0360-6	3.2060+5	4.5501+7	2.8065+2	9.5683-4	4.5501+7			1.1306+1	1.1306+1	
2.5252-5	3.8003-6	1.8130+5	2.5732+7	1.5384+2	1.1477-3	2.5732+7			7.0139+0	7.0139+0	
2.6364-5	4.5778-6	1.4260+5	2.0238+7	1.2538+2	1.2490-3	2.0238+7			5.7593+0	5.7593+0	
2.7524-5	5.8115-6	1.1232+5	1.5841+7	1.0449+2	1.3593-3	1.5841+7			4.7381+0	4.7381+0	
3.0132-5	9.1809-6	7.1097+4	1.0091+7	7.5884+1	1.8239-3	1.0091+7			3.2820+0	3.2820+0	
3.3581-5	1.5050-5	4.3372+4	6.1557+6	5.8082+2	2.0092-3	6.1556+6			2.2313+0	2.2313+0	
3.6720-5	2.2371-5	2.8178+4	4.1411+6	4.4522+1	2.3947-3	4.1411+6			1.6414+0	1.6414+0	
N1 3.6720-5	2.2127-5	2.8500+4	4.1869+6	4.4522+1	2.3947-3	4.1868+6			1.6595+0	1.6595+0	2.3522-7
4.2297-5	3.9101-5	1.8694+4	2.3693+6	3.3869+1	3.1614-3	2.3693+6			1.0817+0	1.0817+0	5.4712-7
4.7479-5	5.9945-5	1.0889+4	1.5454+6	2.7893+1	3.9671-3	1.5454+6			7.8203-1	7.8203-1	7.9271-7
5.0299-5	7.2591-5	8.9921+3	1.2762+6	2.5593+1	4.4432-3	1.2762+6			6.8289-1	6.8289-1	8.7612-7
5.5012-5	9.4050-5	6.8404+3	9.8503+5	2.2902+1	5.2979-3	9.8500+5			5.8491-1	5.8491-1	9.7774-7
6.1202-5	1.1983-4	5.4471+3	7.7309+5	2.0509-1	6.5325-3	7.7307-5			5.1072-1	5.1072-1	1.0575-6
6.6677-5	1.3877-4	4.7037+3	6.6758+5	1.8043+1	7.7300-3	6.6756+5			4.8047-1	4.8047-1	1.0792-6
7.0000-5	1.4928-4	4.3725+3	6.2057+5	1.8257+1	8.5049-3	6.2055+5			4.6889-1	4.6889-1	1.0678-6
8.1120-5	1.7247-4	3.7847+3	5.3715+5	1.6070+1	1.1362-2	5.3714+5			4.7033-1	4.7033-1	1.0289-6
1.0000-4	1.8838-4	3.2904+3	4.8700+5	1.0818+1	1.7138-2	4.8699+5			5.0408-1	5.0408-1	6.1316-7
1.0752-4	2.0600-4	3.1382+3	4.4539+5	9.4315+0	1.9745-2	4.4538+5			5.1892-1	5.1892-1	8.5825-7
1.1585-4	2.1839-4	2.9689+3	4.2420+5	8.4162+0	2.2843-2	4.2419+5			5.3047-1	5.3047-1	8.0519-7
1.1686-4	2.1962-4	2.9721+3	4.2182+5	6.0048+0	2.3231-2	4.2181+5			5.3206-1	5.3206-1	7.9928-7
1.1757-4	2.2050-4	2.9603+3	4.2014+5	6.1035+0	2.3509-2	4.2014+5			5.3319-1	5.3319-1	7.9512-7
M5 1.1757-4	1.3791-4	4.7330+3	6.7174+5	6.1035+0	2.3509-2	6.7173+5			8.5249-1	8.5249-1	2.0579-6
1.1920-4	1.3504-4	4.8338+3	6.8601+5	6.3327+0	2.4150-2	6.8600+5			8.8267-1	8.8267-1	2.1390-6
M4 1.1920-4	1.0817-4	6.0344+3	8.5644+5	6.3327+0	2.4150-2	8.5643+5			1.1020+0	1.1019+0	3.3069-5
1.2158-4	1.0348-4	6.3077+3	8.8524+5	6.5981+0	2.5100-2	8.8523+5			1.1749+0	1.1748+0	3.6094-5
1.2524-4	9.2741-5	7.0384+3	9.9893+5	6.5490+0	2.6597-2	9.9892+5			1.3504+0	1.3504+0	4.3802-5
1.2796-4	8.2528-5	7.8093+3	1.1225+6	6.7497+0	2.7737-2	1.1225+6			1.5505+0	1.5505+0	5.2474-5
1.3163-4	8.8757-5	9.4934+3	1.3474+6	6.7457+0	2.9309-2	1.3474+6			1.8143+0	1.8143+0	6.8303-5
1.3504-4	5.7020-5	1.1448+4	1.6247+6	9.3914+0	3.0814-2	1.6247+6			2.3883+0	2.3882+0	9.0104-5
1.3836-4	4.7182-5	1.3841+4	1.9643+6	1.2081+1	3.2307-2	1.9643+6			2.8337+0	2.8335+0	1.1815-4
1.4776-4	2.8011-5	2.3303+4	3.3073+6	2.8112+1	3.7031-2	3.3073+6			5.2749+0	5.2748+0	2.2004-4
1.5000-4	2.4936-5	2.6176+4	3.7151+6	3.3344+1	3.7829-2	3.7151+6			6.0153+0	6.0150+0	2.4574-4
1.5239-4	2.2899-5	2.8506+4	4.0457+6	3.9878+1	3.9015-2	4.0457+6			6.6549+0	6.6548+0	2.6792-4
1.5549-4	2.0614-5	3.1665+4	4.4940+6	4.7273+1	4.0580-2	4.4940+6			7.5428+0	7.5425+0	2.9587-4
1.5775-4	1.8537-5	3.3411+4	4.7418+6	5.3389+1	4.1739-2	4.7418+6			8.0743+0	8.0740+0	3.1124-4
1.6191-4	1.7918-5	3.6429+4	5.1703+6	6.3500+1	4.3918-2	5.1702+6			9.0363+0	9.0359+0	3.3773-4
1.7004-4	1.6290-5	4.0069+4	5.6889+6	8.0308+1	4.8327-2	5.6888+6			1.0438+1	1.0438+1	3.7588-4
1.7848-4	1.5780-5	4.1416+4	5.8781+6	9.2404+1	5.1951-2	5.8780+6			1.1196+1	1.1196+1	3.9214-4
1.8186-4	1.5670-5	4.1855+4	5.9120+6	9.9959+1	5.5099-2	5.9119+6			1.1805+1	1.1805+1	4.0188-4
2.0483-4	1.8325-5	3.9983+4	5.8747+6	1.2190+2	6.9570-2	5.8746+6			1.2552+1	1.2552+1	4.0789-4
2.2362-4	1.8995-5	3.8407+4	5.4510+6	1.3473+2	8.2428-2	5.4509+6			1.3157+1	1.3157+1	3.9678-4
2.3442-4	1.7477-5	3.7348+4	5.3007+6	1.3735+2	9.0096-2	5.3006+6			1.3412+1	1.3412+1	3.8475-4
2.3560-4	1.7545-5	3.7205+4	5.2803+6	1.4413+2	9.1100-2	5.2802+6			1.3439+1	1.3439+1	3.8293-4
2.3729-4	1.7617-5	3.7051+4	5.2585+6	1.5939+2	9.2191-2	5.2594+6			1.3489+1	1.3488+1	3.8097-4
M3 2.3729-4	1.5774-5	4.1381+4	5.8731+6	1.5939+2	9.2191-2	5.8730+6			1.5043+1	1.5042+1	4.9556-4
2.3987-4	1.6016-5	4.0755+4	5.7842+6	1.6482+2	9.4091-2	5.7840+6			1.4876+1	1.4875+1	4.8251-4
2.4689-4	1.6704-5	3.9076+4	5.5459+6	2.0256+2	9.9201-2	5.5457+6			1.4767+1	1.4767+1	4.5494-4
M2 2.4689-4	1.8083-5	4.0637+4	5.7675+6	2.0256+2	9.9201-2	5.7673+6			1.5357+1	1.5357+1	5.1848-4
2.4997-4	1.8311-5	4.0019+4	5.6798+6	2.1783+2	1.0170-1	5.6798+6			1.5325+1	1.5324+1	5.1133-4
2.6727-4	1.7859-5	3.8963+4	5.2461+6	2.4023+2	1.1539-1	5.2458+6			1.5134+1	1.5134+1	4.7536-4
3.0105-4	2.0272-5	3.2199+4	4.5699+6	2.6908+2	1.4443-1	4.5697+6			1.4850+1	1.4849+1	4.2630-4
3.0684-4	2.1072-5	3.0978+4	4.3963+6	2.6911+2	1.5230-1	4.3961+6			1.4693+1	1.4693+1	4.1547-4
3.1318-4	2.1405-5	3.0485+4	4.3281+6	2.8111+2	1.5561-1	4.3278+6			1.4630+1	1.4630+1	4.1040-4
M1 3.1318-4	2.0560-5	3.1764+4	4.5082+6	2.8111+2	1.5561-1	4.5079+6			1.5239+1	1.5239+1	4.5931-4
3.1725-4	2.0908-5	3.1220+4	4.4309+6	3.0500+2	1.5945-1	4.4306+6			1.5173+1	1.5172+1	4.5333-4
3.2660-4	2.1888-5	2.9852+4	4.2368								

October 31, 1989
Atomic Weight 85.470

ENDL Evaluated
Photon Data

37-Rb
Density 1.532 Grans/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cc/cm/gram	Total	Coherent	Incoherent	Photoelect.	Pair	Triplet	Total	Local	Fluorescence
3.6025-4	2.5595-5	2.5502-4	3.6194+6	3.5940-2	2.0062-1	3.6191-6			1.4073-1	1.4073-1	3.8880-4
4.2295-4	3.3628-5	1.9410+4	2.7549+6	3.9880-2	2.6764-1	2.7545-6			1.2575-1	1.2575-1	3.1316-4
5.3579-4	5.2979-5	1.2321+4	1.7485+6	4.3880-2	3.9921-1	1.7482-6			1.0111-1	1.0111-1	2.1570-4
7.0000-4	9.3032-5	7.0163+3	9.9580+5	4.5601+2	6.0432-1	9.9534-5			7.5209-0	7.5207-0	1.3424-4
9.0000-4	1.6219+4	4.0248+3	5.7119+5	4.4408+2	8.5983-1	5.7075+5			5.5447-0	5.5448+0	8.3022-5
1.0000-3	2.0587-4	3.1706+3	4.5000+5	4.3210+2	9.8982-1	4.4956+5			4.8527-0	4.8527-0	6.7320-5
1.0510-3	2.3136-4	2.8214+3	4.0043+5	4.2655+2	1.0531+0	4.0000-5			4.5380+0	4.5379+0	6.0675-5
1.2093-3	3.2152-4	2.0302+3	2.8813+5	3.9525+2	1.2543+0	2.8774+5			3.7560+0	3.7560+0	4.5260-5
1.3694-3	4.3101-4	1.5144+3	2.1494+5	3.5445+2	1.4621+0	2.1458+5			3.1720+0	3.1720+0	3.4852-5
1.5000-3	5.4034-4	1.2080+3	1.7145+5	3.0903+2	1.6283+0	1.7114+5			2.7710+0	2.7710+0	2.8424-5
1.5604-3	5.8529-4	1.0965+3	1.5562+5	2.8402+2	1.7061+0	1.5534+5			2.6165+0	2.6164+0	2.6023-5
1.6467-3	6.7835-4	9.6084+2	1.3637+5	2.3571+2	1.8181+0	1.3613+5			2.4196+0	2.4196+0	2.3074-5
1.6898-3	7.2393-4	9.0166+2	1.2797+5	2.0404+2	1.8745+0	1.2776+5			2.3304+0	2.3304+0	2.1779-5
1.7400-3	7.7806-4	8.3894+2	1.1907+5	1.5327+2	1.9405+0	1.1891+5			2.2333+0	2.2333+0	2.0400-5
1.7597-3	8.0005-4	8.1588+2	1.1580+5	1.2409+2	1.9688+0	1.1587+5			2.1871+0	2.1870+0	1.9582-5
1.7689-3	8.1054-4	8.0532+2	1.1430+5	1.0867+2	1.9789+0	1.1418+5			2.1803+0	2.1803+0	1.9680-5
1.7872-3	8.3141-4	7.8510+2	1.1143+5	7.2032+1	2.0029+0	1.1135+5			2.1481+0	2.1481+0	1.9215-5
1.7903-3	8.3503-4	7.8169+2	1.1094+5	6.9172+1	2.0071+0	1.1087+5			2.1428+0	2.1426+0	1.9139-5
1.7948-3	8.4017-4	7.7692+2	1.1027+5	6.8960+1	2.0130+0	1.1019+5			2.1348+0	2.1348+0	1.9032-5
1.7989-3	8.4487-4	7.7259+2	1.0965+5	7.3450+1	2.0185+0	1.0958+5			2.1277+0	2.1277+0	1.8935-5
1.8051-3	8.5190-4	7.6622+2	1.0875+5	8.8739+1	2.0267+0	1.0866+5			2.1171+0	2.1171+0	1.8790-5
1.8051-3	2.1227-4	3.0750+3	4.3643+5	8.8739+1	2.0267+0	4.3643+5			8.5020+0	8.3670+0	1.3494-1
1.8128-3	2.1428-4	3.0484+3	4.3237+5	1.1573+2	2.0386+0	4.3226+5			8.4572+0	8.3235+0	1.3370-1
1.8201-3	2.1629-4	3.0178+3	4.2832+5	1.4731+2	2.0467+0	4.2817+5			8.4123+0	8.2789+0	1.3247-1
1.8247-3	2.1752-4	3.0008+3	4.2589+5	1.6534+2	2.0528+0	4.2572+5			8.3852+0	8.2565+0	1.3172-1
1.8381-3	2.2063+4	2.9585+3	4.1989+5	1.9437+2	2.0680+0	4.1969+5			8.3183+0	8.1884+0	1.2989-1
1.8554-3	2.2592-4	2.8892+3	4.1006+5	2.2440+2	2.0936+0	4.0983+5			8.2080+0	8.0811+0	1.2890-1
1.8871-3	2.2917-4	2.8483+3	4.0425+5	2.5724+2	2.1093+0	4.0399+5			8.1421+0	8.0170+0	1.2513-1
1.8871-3	1.8565-4	3.9430+3	5.9981+5	2.5724+2	2.1093+0	5.9983+5			1.1273+1	1.1078+1	1.9875-1
1.8880-3	1.8924-4	3.8588+3	5.4738+5	3.2935+2	2.1345+0	5.4705+5			1.1137+1	1.0944+1	1.9251-1
1.9008-3	1.7218-4	3.7910+3	5.3804+5	3.6810+2	2.1544+0	5.3768+5			1.1032+1	1.0843+1	1.8928-1
1.9101-3	1.7405-4	3.7504+3	5.3228+5	3.8484+2	2.1669+0	5.3190+5			1.0967+1	1.0779+1	1.8729-1
1.9334-3	1.7876-4	3.6514+3	5.1823+5	4.0861+2	2.1982+0	5.1782+5			1.0807+1	1.0624+1	1.8243-1
1.9581-3	1.8549-4	3.5191+3	4.9945+5	4.3138+2	2.2421+0	4.9902+5			1.0590+1	1.0414+1	1.7985-1
2.0000-3	1.9282-4	3.3887+3	4.8095+5	4.4144+2	2.2879+0	4.8051+5			1.0374+1	1.0204+1	1.6956-1
2.0315-3	1.9944-4	3.2729+3	4.6451+5	4.4421+2	2.3306+0	4.6406+5			1.0176+1	1.0012+1	1.6392-1
2.0480-3	2.0310-4	3.2138+3	4.5613+5	4.6580+2	2.3530+0	4.5568+5			1.0073+1	9.9121+0	1.6103-1
2.0480-3	1.7772-4	3.6728+3	5.2127+5	4.6580+2	2.3530+0	5.2080+5			1.1513+1	1.1325+1	1.8868-1
2.0790-3	1.8437-4	3.5403+3	5.0247+5	5.3657+2	2.3951+0	5.0183+5			1.1264+1	1.1082+1	1.8191-1
2.1282-3	1.9551-4	3.3387+3	4.7635+5	5.8245+2	2.4623+0	4.7327+5			1.0872+1	1.0700+1	1.7155-1
2.2067-3	2.1409-4	3.0490+3	4.3273+5	6.1769+2	2.5701+0	4.3211+5			1.0292+1	1.0135+1	1.5667-1
2.3380-3	2.4745-4	2.8378+3	3.7438+5	8.4918+2	2.7381+0	3.7373+5			9.4305+0	9.2850+0	1.3555-1
2.6824-3	3.5247-4	1.8519+3	2.8284+5	8.7038+2	3.1881+0	2.8218+5			7.8190+0	7.5239+0	9.9179-2
3.4024-3	6.3805+4	1.0230+3	1.4520+5	6.3376+2	4.0755+0	1.4456+5			5.3090+0	5.2565+0	5.2517-2
4.4850-3	1.3138+3	4.9683+2	7.0513+4	5.3992+2	5.3128+0	6.9988+4			3.3873+0	3.3818+0	2.5418-2
6.1818-3	3.0941+3	2.1097+2	2.9842+4	4.1747+2	6.9416+0	2.9517+4			1.9696+0	1.9589+0	1.0703-2
8.0000-3	6.2007+3	1.0527+2	1.4941+4	3.2060+2	8.3538+0	1.4812+4			1.2618+0	1.2585+0	5.2890-3
1.0000-2	1.1429-2	5.7113+1	8.1059+3	2.4111+2	9.6774+0	7.8551+3			8.4793-1	8.4509-1	2.8421-3
1.1496-2	1.6842-2	3.9222+1	5.5868+3	1.9325+2	1.0494+1	5.3828+3			6.8549-1	6.8355-1	1.9399-3
1.2719-2	2.1975-2	2.9704-1	4.2158+3	1.5829+2	1.1128+1	4.0454+3			5.5543-1	5.5387-1	1.4812-3
1.3825-2	2.7773-2	2.3503+1	3.3337+3	1.2605+2	1.1647+1	3.1960+3			4.7698-1	4.7583-1	1.1528-3
1.4189-2	2.8928-2	2.1811+1	3.0955+3	1.1614+2	1.1800+1	2.9878+3			4.5458-1	4.5348-1	1.0703-3
1.4588-2	3.2449-2	2.0118+1	2.8550+3	1.0002+2	1.1984+1	2.7430+3			4.3182-1	4.3093-1	9.8923-4
1.4730-2	3.3431-2	1.9525+1	2.7711+3	9.2140+1	1.2023+1	2.6870+3			4.2411-1	4.2315-1	9.8179-4
1.4855-2	3.4334-2	1.9012+1	2.6983+3	8.2925+1	1.2075+1	2.6033+3			4.1750-1	4.1658-1	9.3878-4
1.5064-2	3.5932-2	1.8188+1	2.5782+3	6.4355+1	1.2159+1	2.5017+3			4.0686-1	4.0595-1	9.0212-4
1.5097-2	3.6160-2	1.8051+1	2.5620+3	6.3490+1	1.2172+1	2.4883+3			4.0523-1	4.0433-1	8.9658-4
1.5159-2	3.6544-2	1.7882+1	2.5351+3	6.5675+1	1.2189+1	2.4572+3			4.0214-1	4.0128-1	8.8805-4
K 1.5159-2	5.3917+3	1.2106+2	1.7182+4	8.5675+1	1.2198+1	1.7104+4			2.7889+0	1.3555+0	1.4433+0
1.5230-2	5.4548+3	1.1966+2	1.6983+4	7.3081+1	1.2225+1	1.6898+4			2.7780+0	1.3518+0	1.4282+0
1.5350-2	5.5814+3	1.1737+2	1.6658+4	9.0840+1	1.2275+1	1.6555+4			2.7424+0	1.3448+0	1.3978+0
1.5425-2	5.6285+3	1.1597+2	1.6458+4	9.9822+1	1.2304+1	1.6348+4			2.7205+0	1.3402+0	1.3803+0
1.5498-2	5.6938+3	1.1484+2	1.6271+4	1.0584+2	1.2333+1	1.6153+4			2.6999+0	1.3359+0	1.3641+0
1.5630-2	5.8184+3	1.1219+2	1.5922+4	1.1290+2	1.2388+1	1.5797+4			2.6822+0	1.3279+0	1.3343+0
1.6039-2	6.2143+3	1.0504+2	1.4908+4	1.2372+2	1.2548+1	1.4772+4			2.5528+0	1.3041+0	1.2487+0
1.6585-2	6.7493+3	9.8712+1	1.3728+4	1.2910+2	1.2752+1	1.3584+4			2.4245+0	1.2749+0	1.1485+0
1.7810-2	8.1298+3	8.0292+1	1.1398+4	1.3028+2	1.3172+1	1.1252+4			2.1832+0	1.2074+0	9.5455-1
2.0187-2	1.1240+2	5.8073+1	8.2420+3	1.2015+2	1.3845+1	8.1060+3			1.7885+0	1.0743+0	8.0218-1
2.3896-2	1.7561+2	3.7170+1	5.2754+3	1.0090+2	1.4781+1	5.1597+3			1.3260+0	8.8298-1	4.4301-1
3.1428-2	3.6927-2	1.7878+1	2.5087+3	6.9619+1	1.5958+1	2.4232+3			6.2183+1	6.1275-1	2.0908-1
4.2783-2	6.6374-2	7.5572+0	1.0728+3	4.2931+1	1.6858+1	1.0128+3			4.8757-1	3.7981-1	8.7759-2
6.3956-2	2.6004-1	2.5102+0	3.5828+2	2.1285+1	1.7230+1	3.1775+2			2.2041-1	1.9278-1	2.7632-2
9.1016-2	6.6255-1	9.8519-1	1.3983+2	1.1230+1	1.6903+1	1.1189+2			1.1182-1	1.0220-1	9.7217-3
1.0000-1	8.3866-1	7.8017-1	1.1073+2	9.4511+0	1.6780+1	8.4518+1			9.3852-2	8.6495-2	7.3569-3
1.2941-1	1.5133+0	4.3134-1	6.1218+1	5.8500+0	1.6023+1	3.9346-1			5.8715-2	5.5288-2	3.4282-3
1.5590-1	2.1830+0	2.9785-1	4.2244+1	4.1039+0	1.5472+1	2.2668-1			4.3138-2	4.1180-2	1.9773-3
1.8789-1	3.0129+0	2.1665-1	3.0749+1	2.6687+0	1.4756+1	1.312					

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0251+ 0	1.1851+ 1	5.6024- 2	7.9513+ 0	1.0009- 1	7.6924+ 0	1.5883- 1	7.1528- 6		3.8609- 2	3.8595- 2	1.3874- 5
1.0287+ 0	1.1674+ 1	5.5912- 2	7.9354+ 0	9.9384- 2	7.6783+ 0	1.5771- 1	7.1528- 7		3.8704- 2	3.8690- 2	1.3776- 5
1.0301+ 0	1.1683+ 1	5.5871- 2	7.9295+ 0	9.9124- 2	7.6731+ 0	1.5730- 1	1.2311- 6		3.8740- 2	3.8728- 2	1.3740- 5
1.0310+ 0	1.1689+ 1	5.5843- 2	7.9256+ 0	9.8952- 2	7.6686+ 0	1.5703- 1	1.6845- 6		3.8763- 2	3.8749- 2	1.3718- 5
1.0320+ 0	1.1695+ 1	5.5812- 2	7.9213+ 0	9.8781- 2	7.6658+ 0	1.5672- 1	2.3048- 6		3.8789- 2	3.8776- 2	1.3690- 5
1.0332+ 0	1.1703+ 1	5.5776- 2	7.9161+ 0	9.8533- 2	7.6612+ 0	1.5636- 1	3.2287- 6		3.8821- 2	3.8807- 2	1.3658- 5
1.0340+ 0	1.1708+ 1	5.5751- 2	7.9126+ 0	9.8381- 2	7.6581+ 0	1.5612- 1	3.9635- 6		3.8842- 2	3.8828- 2	1.3637- 5
1.0353+ 0	1.1718+ 1	5.5712- 2	7.9070+ 0	9.8135- 2	7.6531+ 0	1.5573- 1	5.3789- 6		3.8876- 2	3.8862- 2	1.3603- 5
1.0368+ 0	1.1725+ 1	5.5671- 2	7.9012+ 0	9.7883- 2	7.6480+ 0	1.5533- 1	7.1528- 6		3.8911- 2	3.8898- 2	1.3568- 5
1.0382+ 0	1.1735+ 1	5.5624- 2	7.8945+ 0	9.7590- 2	7.6420+ 0	1.5486- 1	9.6530- 6		3.8952- 2	3.8939- 2	1.3527- 5
1.0397+ 0	1.1745+ 1	5.5578- 2	7.8860+ 0	9.7310- 2	7.6363+ 0	1.5441- 1	1.2541- 5		3.8991- 2	3.8978- 2	1.3488- 5
1.0415+ 0	1.1756+ 1	5.5524- 2	7.8803+ 0	9.6975- 2	7.6294+ 0	1.5389- 1	1.6688- 5		4.0038- 2	4.0025- 2	1.3442- 5
1.0438+ 0	1.1771+ 1	5.5455- 2	7.8705+ 0	9.6550- 2	7.6207+ 0	1.5320- 1	2.3160- 5		4.0099- 2	4.0085- 2	1.3382- 5
1.0464+ 0	1.1787+ 1	5.5377- 2	7.8595+ 0	9.6073- 2	7.6109+ 0	1.5245- 1	3.2223- 5		4.0167- 2	4.0154- 2	1.3316- 5
1.0483+ 0	1.1799+ 1	5.5320- 2	7.8514+ 0	9.5727- 2	7.6038+ 0	1.5189- 1	4.0118- 5		4.0217- 2	4.0203- 2	1.3268- 5
1.0512+ 0	1.1818+ 1	5.5234- 2	7.8392+ 0	9.5201- 2	7.5929+ 0	1.5108- 1	5.4421- 5		4.0293- 2	4.0279- 2	1.3195- 5
1.0541+ 0	1.1838+ 1	5.5149- 2	7.8271+ 0	9.4684- 2	7.5821+ 0	1.5023- 1	7.1528- 5		4.0368- 2	4.0355- 2	1.3123- 5
1.0577+ 0	1.1859+ 1	5.5043- 2	7.8120+ 0	9.4040- 2	7.5686+ 0	1.4921- 1	9.7498- 5		4.0463- 2	4.0450- 2	1.3034- 5
1.0611+ 0	1.1880+ 1	5.4943- 2	7.7979+ 0	9.3441- 2	7.5581+ 0	1.4826- 1	1.2682- 4		4.0551- 2	4.0539- 2	1.2950- 5
1.0651+ 0	1.1905+ 1	5.4827- 2	7.7814+ 0	9.2743- 2	7.5413+ 0	1.4715- 1	1.6790- 4		4.0656- 2	4.0643- 2	1.2853- 5
1.0704+ 0	1.1939+ 1	5.4674- 2	7.7597+ 0	9.1831- 2	7.5220+ 0	1.4569- 1	2.3423- 4		4.0765- 2	4.0752- 2	1.2727- 5
1.0782+ 0	1.1975+ 1	5.4508- 2	7.7382+ 0	9.0848- 2	7.5009+ 0	1.4413- 1	3.2371- 4		4.0948- 2	4.0933- 2	1.2590- 5
1.0868+ 0	1.2002+ 1	5.4384- 2	7.7185+ 0	9.0113- 2	7.4851+ 0	1.4286- 1	4.0428- 4		4.1081- 2	4.1048- 2	1.2488- 5
1.0871+ 0	1.2043+ 1	5.4202- 2	7.6927+ 0	8.9043- 2	7.4618+ 0	1.4126- 1	5.4467- 4		4.1230- 2	4.1218- 2	1.2339- 5
1.0937+ 0	1.2084+ 1	5.4019- 2	7.6687+ 0	8.7974- 2	7.4384+ 0	1.3956- 1	7.1528- 4		4.1403- 2	4.1390- 2	1.2191- 5
1.1028+ 0	1.2138+ 1	5.3775- 2	7.6322+ 0	8.6567- 2	7.4073+ 0	1.3732- 1	9.9171- 4		4.1634- 2	4.1622- 2	1.1995- 5
1.1107+ 0	1.2188+ 1	5.3557- 2	7.6012+ 0	8.5315- 2	7.3792+ 0	1.3533- 1	1.2934- 3		4.1845- 2	4.1833- 2	1.1821- 5
1.1206+ 0	1.2248+ 1	5.3294- 2	7.5639+ 0	8.3820- 2	7.3454+ 0	1.3295- 1	1.7301- 3		4.2103- 2	4.2091- 2	1.1613- 5
1.1333+ 0	1.2324+ 1	5.2964- 2	7.5169+ 0	8.1980- 2	7.3028+ 0	1.2999- 1	2.4054- 3		4.2433- 2	4.2421- 2	1.1355- 5
1.1475+ 0	1.2409+ 1	5.2602- 2	7.4657+ 0	7.9952- 2	7.2556+ 0	1.2680- 1	3.3211- 3		4.2802- 2	4.2791- 2	1.1076- 5
1.1582+ 0	1.2472+ 1	5.2336- 2	7.4278+ 0	7.8488- 2	7.2208+ 0	1.2447- 1	4.1273- 3		4.3080- 2	4.3069- 2	1.0873- 5
1.1741+ 0	1.2565+ 1	5.1849- 2	7.3729+ 0	7.6386- 2	7.1699+ 0	1.2113- 1	5.5185- 3		4.3483- 2	4.3482- 2	1.0580- 5
1.1901+ 0	1.2657+ 1	5.1570- 2	7.3192+ 0	7.4353- 2	7.1197+ 0	1.1792- 1	7.1528- 3		4.3909- 2	4.3899- 2	1.0301- 5
1.2051+ 0	1.2742+ 1	5.1227- 2	7.2704+ 0	7.2522- 2	7.0737+ 0	1.1528- 1	8.9048- 3		4.4302- 2	4.4292- 2	1.0070- 5
1.2275+ 0	1.2897+ 1	5.0729- 2	7.1998+ 0	6.9910- 2	7.0085+ 0	1.1150- 1	1.1919- 2		4.4890- 2	4.4880- 2	9.7400- 6
1.2558+ 0	1.3074+ 1	4.9925- 2	7.0857+ 0	6.5780- 2	6.8963+ 0	1.0550- 1	1.5588- 2		4.5891- 2	4.5881- 2	9.2158- 6
1.2949+ 0	1.3230+ 1	4.8340- 2	7.0028+ 0	6.2845- 2	6.8150+ 0	1.0122- 1	2.3529- 2		4.6882- 2	4.6853- 2	8.8415- 6
1.3318+ 0	1.3420+ 1	4.6640- 2	6.9033+ 0	5.9421- 2	6.7165+ 0	9.8195- 2	3.1218- 2		4.7837- 2	4.7829- 2	8.4027- 6
1.3628+ 0	1.3575+ 1	4.6086- 2	6.8246+ 0	5.6772- 2	6.6373+ 0	9.6292- 2	3.8221- 2		4.8454- 2	4.8446- 2	8.0618- 6
1.4117+ 0	1.3814+ 1	4.7253- 2	6.7084+ 0	5.2903- 2	6.5166+ 0	9.6569- 2	5.0334- 2		4.9763- 2	4.9755- 2	7.5611- 6
1.5000+ 0	1.4222+ 1	4.5898- 2	6.5141+ 0	4.6874- 2	6.3149+ 0	7.7550- 2	7.4790- 2		5.2142- 2	5.2135- 2	6.7741- 6
1.5898+ 0	1.4606+ 1	4.4691- 2	6.3428+ 0	4.1738- 2	6.1274+ 0	7.0235- 2	1.0343- 1		5.4613- 2	5.4607- 2	6.1351- 6
1.7188+ 0	1.5108+ 1	4.3204- 2	6.1318+ 0	3.5719- 2	5.8945+ 0	6.1493- 2	1.5007- 1		5.8253- 2	5.8248- 2	5.3715- 6
1.7847+ 0	1.5383+ 1	4.2488- 2	6.0301+ 0	3.3134- 2	5.7818+ 0	5.7874- 2	1.7748- 1		5.9997- 2	5.9992- 2	5.0379- 6
1.8923+ 0	1.5752+ 1	4.1438- 2	5.8812+ 0	2.9479- 2	5.5780+ 0	5.2198- 2	2.2347- 1		6.2902- 2	6.2888- 2	4.5598- 6
2.0440+ 0	1.6246+ 1	4.0178- 2	5.7023+ 0	2.5273- 2	5.3404+ 0	4.5860- 2	2.9080- 1		6.7145- 2	6.7141- 2	4.0059- 6
2.0858+ 0	1.6384+ 1	3.9840- 2	5.6543+ 0	2.4271- 2	5.2768+ 0	4.4461- 2	3.0888- 1	3.7133- 7	6.8254- 2	6.8250- 2	3.8837- 6
2.1068+ 0	1.6451+ 1	3.9679- 2	5.6315+ 0	2.3795- 2	5.2456+ 0	4.3792- 2	3.1829- 1	1.2098- 6	6.8814- 2	6.8810- 2	3.8253- 6
2.1140+ 0	1.6474+ 1	3.9623- 2	5.6238+ 0	2.3628- 2	5.2347+ 0	4.3558- 2	3.2165- 1	1.8740- 6	6.9015- 2	6.9011- 2	3.8048- 6
2.1195+ 0	1.6491+ 1	3.9582- 2	5.6177+ 0	2.3508- 2	5.2287+ 0	4.3385- 2	3.2418- 1	2.0841- 6	6.9184- 2	6.9180- 2	3.7897- 6
2.1279+ 0	1.6517+ 1	3.9520- 2	5.6089+ 0	2.3321- 2	5.2144+ 0	4.3123- 2	3.2802- 1	2.8264- 6	6.9394- 2	6.9390- 2	3.7699- 6
2.1363+ 0	1.6543+ 1	3.9458- 2	5.6002+ 0	2.3139- 2	5.2023+ 0	4.2868- 2	3.3189- 1	3.7133- 6	6.9622- 2	6.9619- 2	3.7444- 6
2.1470+ 0	1.6575+ 1	3.9381- 2	5.5892+ 0	2.2908- 2	5.1888+ 0	4.2538- 2	3.3692- 1	5.0912- 6	6.9918- 2	6.9914- 2	3.7157- 6
2.1835+ 0	1.6824+ 1	3.8284- 2	5.5726+ 0	2.2581- 2	5.1633+ 0	4.2043- 2	3.4473- 1	7.7418- 6	7.0376- 2	7.0372- 2	3.6725- 6
2.1845+ 0	1.6839+ 1	3.9112- 2	5.5511+ 0	2.2129- 2	5.1338+ 0	4.1426- 2	3.5372- 1	1.2267- 5	7.0944- 2	7.0941- 2	3.6186- 6
2.2018+ 0	1.6741+ 1	3.8990- 2	5.5338+ 0	2.1783- 2	5.1098+ 0	4.0929- 2	3.6124- 1	1.6972- 5	7.1417- 2	7.1413- 2	3.5752- 6
2.2148+ 0	1.6780+ 1	3.8901- 2	5.5211+ 0	2.1528- 2	5.0920+ 0	4.0562- 2	3.6686- 1	2.1146- 5	7.1774- 2	7.1770- 2	3.5432- 6
2.2342+ 0	1.6836+ 1	3.8770- 2	5.5025+ 0	2.1157- 2	5.0657+ 0	4.0025- 2	3.7559- 1	2.8445- 5	7.2311- 2	7.2307- 2	3.4862- 6
2.2537+ 0	1.6892+ 1	3.8642- 2	5.4844+ 0	2.0783- 2	5.0397+ 0	3.9497- 2	3.8439- 1	3.7133- 5	7.2856- 2	7.2851- 2	3.4501- 6
2.2815+ 0	1.6989+ 1	3.8468- 2	5.4584+ 0	2.0289- 2	5.0013+ 0	3.8783- 2	3.9717- 1	5.2011- 5	7.3840- 2	7.3836- 2	3.3859- 6
2.3070+ 0	1.7038+ 1	3.8311- 2	5.4373+ 0	1.9844- 2	4.9702+ 0	3.8109- 2	4.0911- 1	6.8317- 5	7.4388- 2	7.4385- 2	3.3269- 6
2.3382+ 0	1.7119+ 1	3.8129- 2	5.4115+ 0	1.9318- 2	4.9307+ 0	3.7334- 2	4.2403- 1	9.1858- 5	7.5272- 2	7.5269- 2	3.2612- 6
2.3774+ 0	1.7218+ 1	3.7910- 2	5.3805+ 0	1.8687- 2	4.8823+ 0	3.6397- 2	4.4294- 1	1.2721- 4	7.6421- 2	7.6418- 2	3.1793- 6
2.4102+ 0	1.7303+ 1	3.7723- 2	5.3538+ 0	1.8182- 2	4.8428+ 0	3.5842- 2	4.5718- 1	1.8179- 4	7.7380- 2	7.7377- 2	3.1133- 6
2.4468+ 0	1.7395+ 1	3.7524- 2	5.3257+ 0	1.7843- 2	4.7997+ 0	3.5289- 2	4.7338- 1	2.0581- 4	7.8422- 2	7.8419- 2	3.0424- 6
2.4859+ 0	1.7489+ 1	3.7323- 2	5.2971+ 0	1.7093- 2	4.7547+ 0	3.3995- 2	4.9103- 1	2.5913- 4	7.9574- 2	7.9571- 2	2.9695- 6
2.5584+ 0	1.7648+ 1	3.6986- 2	5.2493+ 0	1.6183- 2	4.6784+ 0	3.2571- 2	5.2381- 1	3.7133- 4	8.1702- 2	8.1699- 2	2.8451- 6
2.6604+ 0	1.7862+ 1	3.6544- 2	5.1868+ 0	1.4928- 2	4.5871+ 0	3.0844- 2	5.7340- 1	5.7242- 4	8.4939- 2	8.4938- 2	2.6768- 6
2.7453+ 0	1.8034+ 1	3.6195- 2	5.1370+ 0	1.4018- 2	4.4827+ 0	2.8206- 2	6.1029- 1	7.6814- 4	8.7558- 2	8.7555- 2	2.5512- 6
2.8090+ 0	1.8153+ 1	3.5958- 2	5.1033+ 0	1.3390- 2	4.4221+ 0	2.8189- 2	6.3872- 1	9.2783- 4	8.9576- 2	8.9574- 2	2.4632- 6
2.9045+ 0	1.8315+ 1	3.5640- 2	5.0583+ 0	1.2526- 2	4.3352+ 0	2.6794- 2	6.8254- 1	1.1952- 3	9.2696- 2	9.2693- 2	2.3404- 6
3.0399+ 0	1.8521+ 1	3.5243- 2	5.0020+ 0	1.1435- 2	4.2195- 2	2.5032- 2	7.4433- 1	1.6200- 3	9.7240- 2	9.7238- 2	2.1866- 6
3.2344+ 0											

October 31, 1989
Atomic Weight 85.470

ENDL Evaluated
Photon Data

37-Rb
Density 1.532 Grams/cc

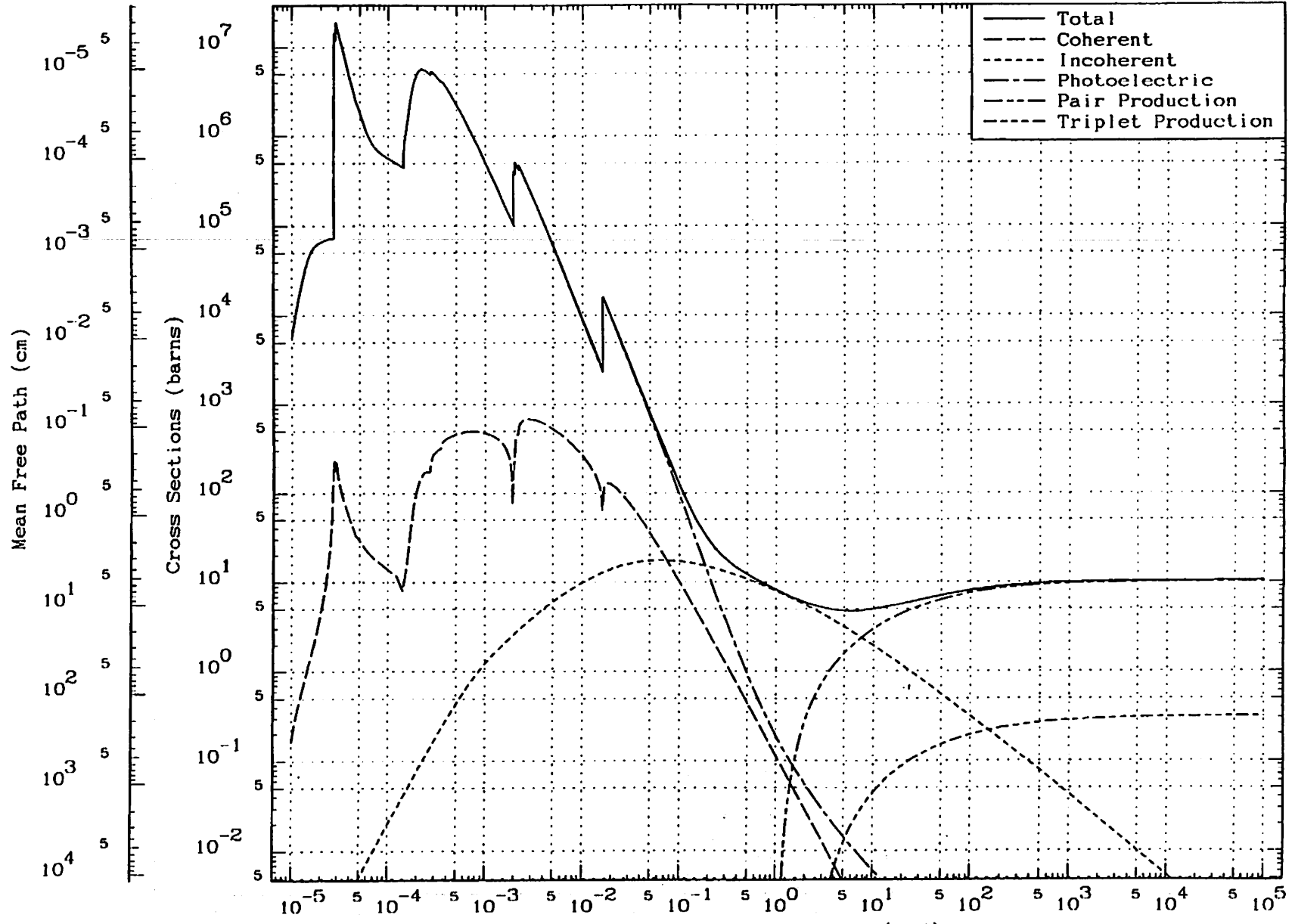
Energy keV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cc)		
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
6.0000+ 1	1.3230+ 1	4.9339- 2	7.0025+ 0	2.9370- 5	4.6247- 1	7.8860- 4	8.3800+ 0	1.5920- 1	4.3957+ 0	4.3957+ 0	6.8885- 8
1.0000+ 2	1.2035+ 1	5.4237- 2	7.6976+ 0	1.0573- 5	3.0324- 1	4.6760- 4	7.2040+ 0	1.8990- 1	8.1600+ 0	8.1600+ 0	4.0845- 8
2.0000+ 2	1.0943+ 1	5.9650- 2	8.4660+ 0	2.8433- 6	1.6773- 1	2.3170- 4	8.0730+ 0	2.2500- 1	1.8117+ 1	1.8117+ 1	2.0239- 8
5.0000+ 2	1.0127+ 1	6.4453- 2	9.1476+ 0	4.2293- 7	7.5890- 2	9.2180- 5	8.8130+ 0	2.5860- 1	4.9203+ 1	4.9203+ 1	8.0520- 9
1.0000+ 3	9.7952+ 0	6.6639- 2	9.4578+ 0	1.0573- 7	4.1333- 2	4.6010- 5	9.1410+ 0	2.7540- 1	1.0192+ 2	1.0192+ 2	4.0190- 9
5.0000+ 3	8.4679+ 0	8.8943- 2	9.7848+ 0	4.2293- 9	9.7789- 3	9.1880- 8	9.4800+ 0	2.8500- 1	5.2793+ 2	5.2793+ 2	8.0258-10
1.0000+ 4	8.4150+ 0	8.8330- 2	9.8397+ 0	1.0573- 9	5.2214- 3	4.5930- 8	9.5360+ 0	2.9850- 1	1.0620+ 3	1.0620+ 3	4.0120-10
1.0000+ 5	9.3576+ 0	6.9755- 2	9.9001+ 0	1.0564-11	6.3067- 4	4.5920- 7	9.5970+ 0	3.0250- 1	1.0688+ 4	1.0688+ 4	4.0112-11

Atomic Weight 87.620

Photon Cross Sections

Density 2.540 Grams/cc

255



255

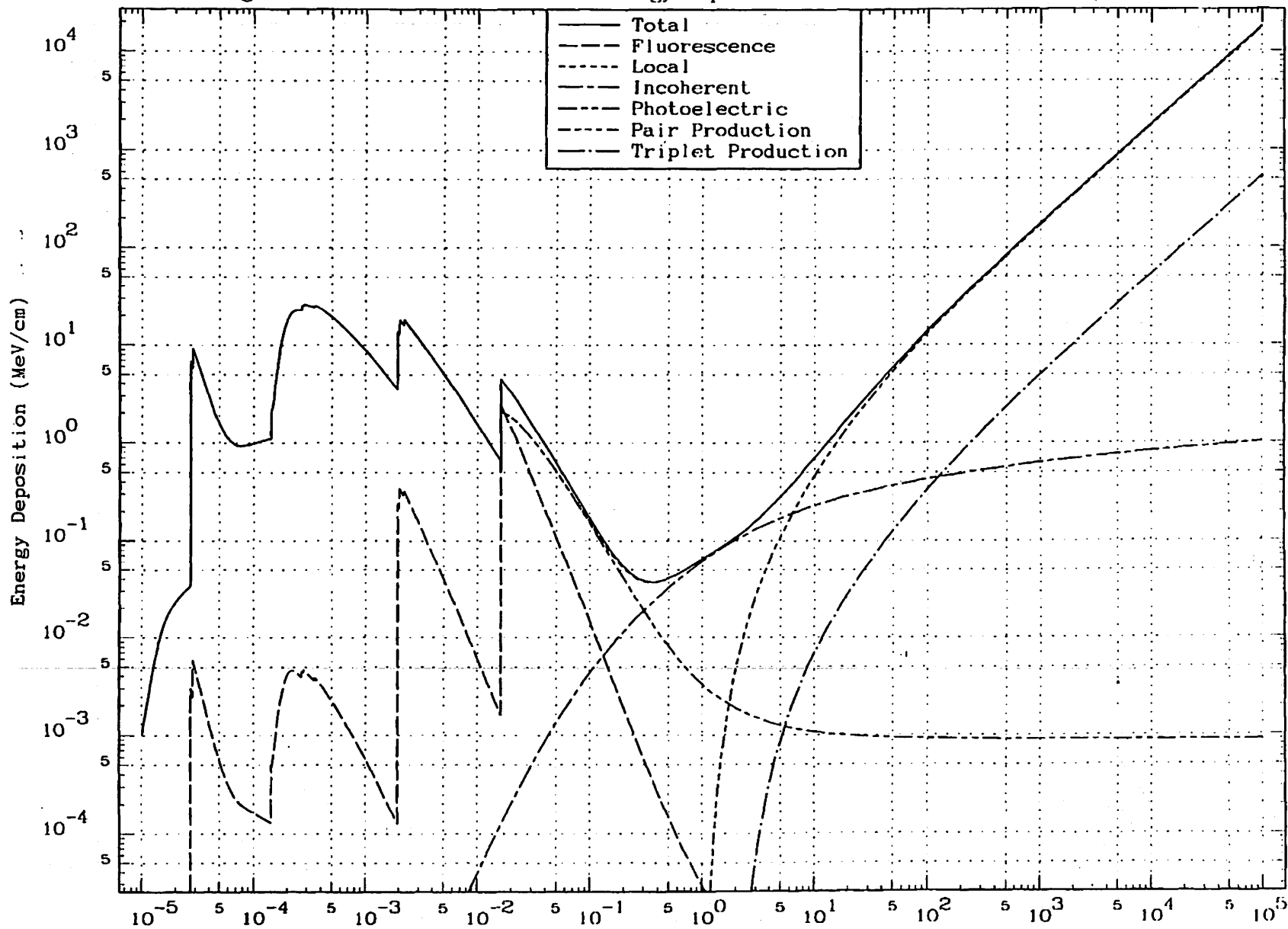
38-Sr

October 31, 1989
Atomic Weight 87.620

ENDL Evaluated
Energy Deposition

⁹⁰Sr
Density 2.540 Grams/cc

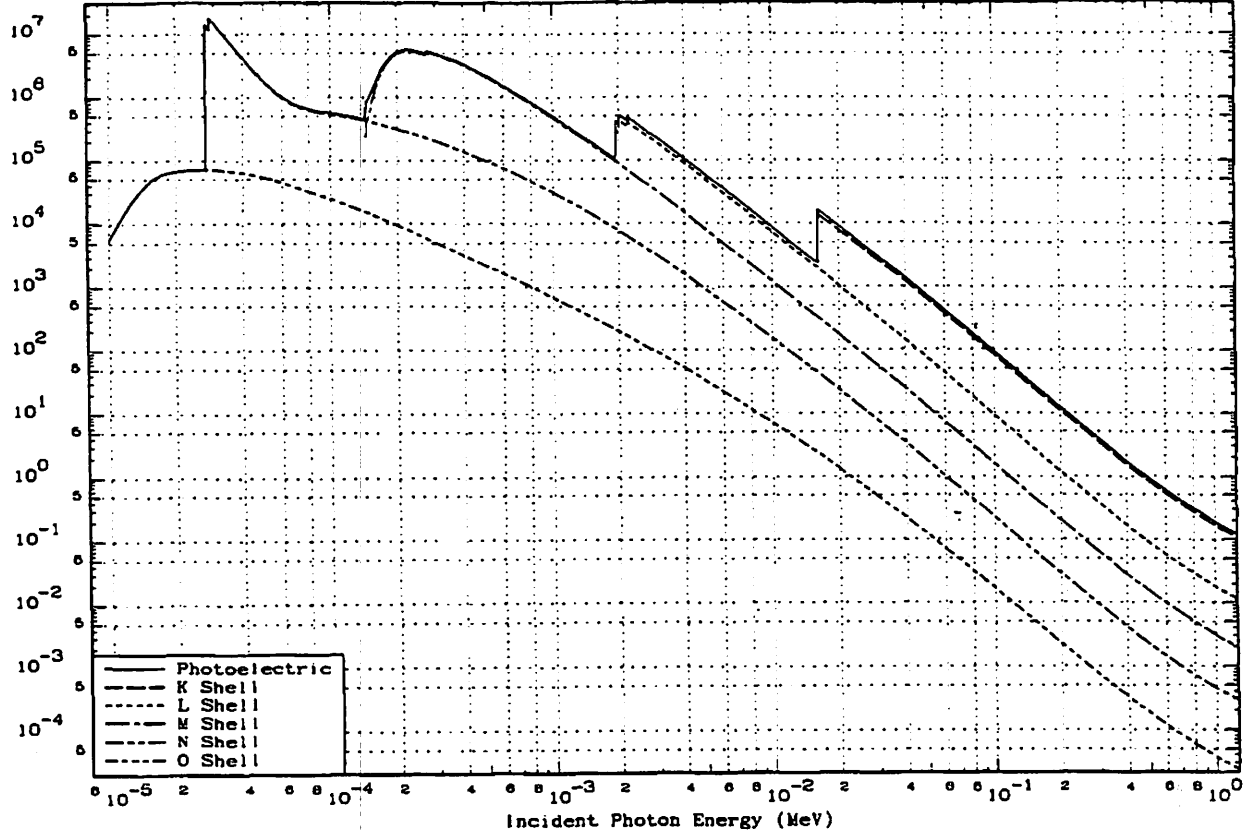
256



October 31, 1989
Atomic Weight 87.620

ENDL Evaluated
Photoelectric Shell Cross Sections

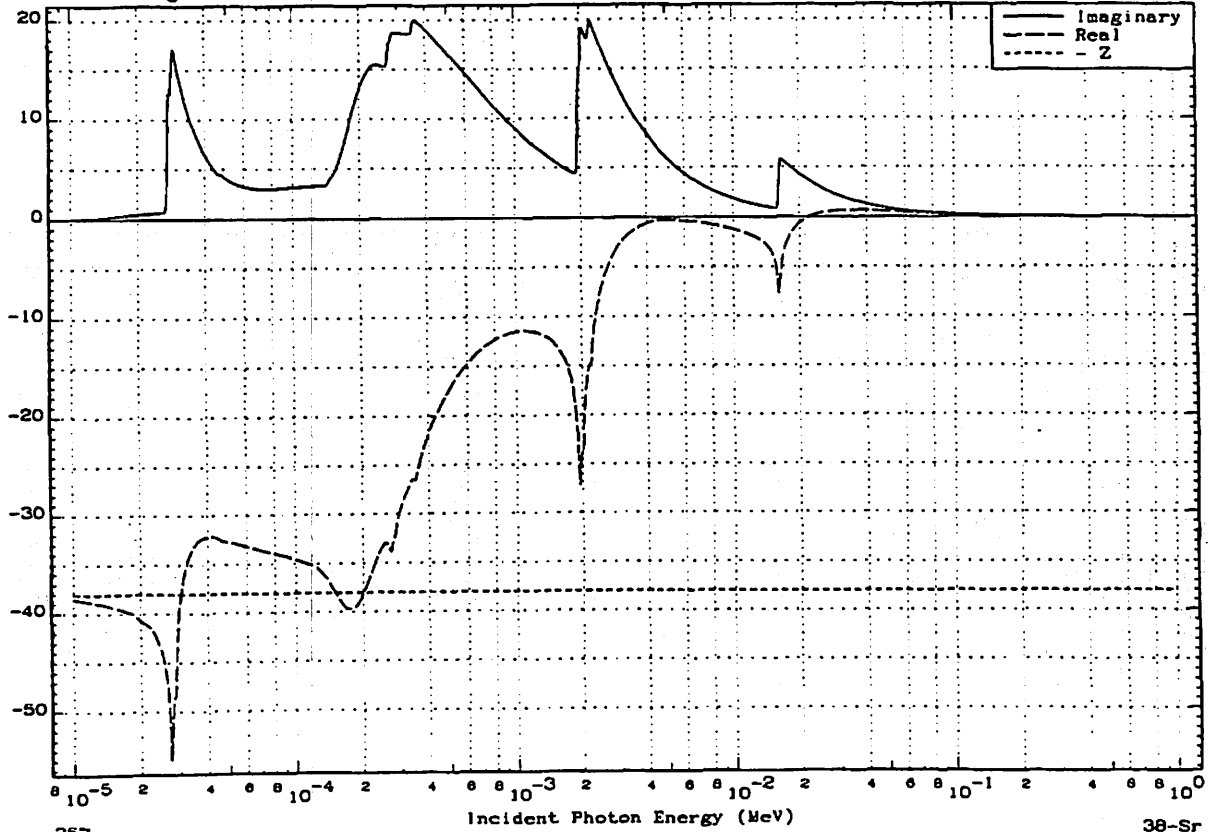
38-Sr
Density 2.540 Grams/cc



October 31, 1989
Atomic Weight 87.620

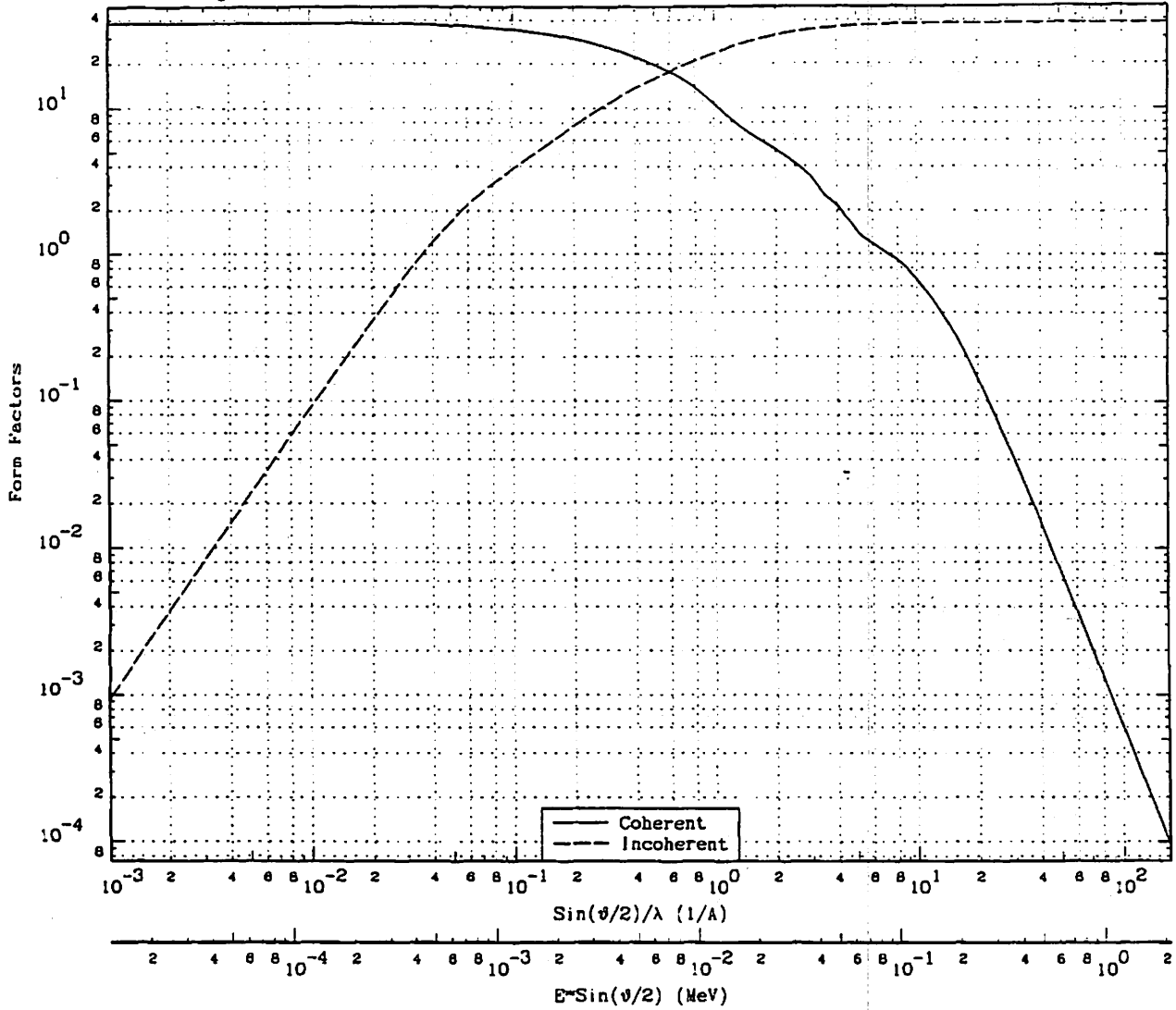
ENDL Evaluated
Anomalous Scattering Factors

38-Sr
Density 2.540 Grams/cc



257

38-Sr



$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E^* \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	3.8000+ 1	0.0000+ 0	8.0000- 1	7.4391- 3	1.7638+ 1	1.7745+ 1	1.5000+ 1	1.8598- 1	2.9713- 1	3.7853+ 1
1.0000- 3	1.2399- 5	3.8000+ 1	9.4385- 4	7.0000- 1	8.6790- 3	1.5624+ 1	1.9420+ 1	1.7847+ 1	2.2128- 1	1.9105- 1	3.7882+ 1
5.0000- 3	6.1993- 5	3.7972+ 1	2.3000- 2	8.0000- 1	9.9188- 3	1.3776+ 1	2.0956+ 1	2.0000+ 1	2.4797- 1	1.3929- 1	3.7991+ 1
1.0000- 2	1.2399- 4	3.7932+ 1	9.1000- 2	9.0000- 1	1.1159- 2	1.2125+ 1	2.2367+ 1	2.4430+ 1	3.0290- 1	7.6855- 2	3.7998+ 1
1.5000- 2	1.8598- 4	3.7875+ 1	2.0230- 1	1.0000+ 0	1.2399- 2	1.0699+ 1	2.3654+ 1	3.0970+ 1	3.8398- 1	3.6041- 2	3.8002+ 1
2.0000- 2	2.4797- 4	3.7781+ 1	3.5120- 1	1.2500+ 0	1.5498- 2	8.1220+ 0	2.6360+ 1	4.2975+ 1	5.3283- 1	1.1872- 2	3.8001+ 1
2.5000- 2	3.0998- 4	3.7662+ 1	5.3280- 1	1.5000+ 0	1.8598- 2	6.6768+ 0	2.8423+ 1	5.0000+ 1	6.1993- 1	7.0031- 3	3.8000+ 1
3.0000- 2	3.7196- 4	3.7521+ 1	7.4000- 1	2.0000+ 0	2.4797- 2	5.2316+ 0	3.1210+ 1	8.0000+ 1	9.9188- 1	1.3370- 3	3.8000+ 1
4.0000- 2	4.8594- 4	3.7180+ 1	1.2064+ 0	2.5000+ 0	3.0998- 2	4.2129+ 0	3.3014+ 1	1.0000+ 2	1.2399+ 0	6.0987- 4	3.8000+ 1
5.0000- 2	6.1993- 4	3.6783+ 1	1.7010+ 0	2.8945+ 0	3.5888- 2	3.5740+ 0	3.4028+ 1	1.7117+ 2	2.1223+ 0	9.6145- 5	3.8000+ 1
6.5000- 2	8.0590- 4	3.6102+ 1	2.4180+ 0	3.0000+ 0	3.7196- 2	3.3794+ 0	3.4255+ 1	2.7479+ 2	3.4070+ 0	1.9848- 5	3.8000+ 1
7.0000- 2	8.6790- 4	3.5862+ 1	2.6420+ 0	3.5000+ 0	4.3395- 2	2.5459+ 0	3.5103+ 1	5.1200+ 2	6.3480+ 0	2.6415- 6	3.8000+ 1
9.0000- 2	1.1159- 3	3.4894+ 1	3.4571+ 0	4.0000+ 0	4.8594- 2	2.1758+ 0	3.5682+ 1	1.0000+ 3	1.2399+ 1	3.1914- 7	3.8000+ 1
1.0000- 1	1.2399- 3	3.4406+ 1	3.8310+ 0	5.0000+ 0	6.1993- 2	1.4355+ 0	3.6399+ 1	2.6333+ 3	3.2648+ 1	1.6108- 8	3.8000+ 1
1.2500+ 1	1.5498- 3	3.3247+ 1	4.7378+ 0	5.4258+ 0	6.7272- 2	1.2906+ 0	3.6609+ 1	6.6119+ 3	8.1978+ 1	1.0021- 9	3.8000+ 1
1.5000+ 1	1.8598- 3	3.2113+ 1	5.6530+ 0	6.0000+ 0	7.4391- 2	1.1750+ 0	3.6848+ 1	1.4899+ 4	1.8473+ 2	9.0010- 11	3.8000+ 1
1.7500+ 1	2.1697- 3	3.1022+ 1	6.5695+ 0	7.0000+ 0	8.6790- 2	1.0188+ 0	3.7172+ 1	4.2646+ 4	5.2875+ 2	4.1545- 12	3.8000+ 1
2.0000+ 1	2.4797- 3	2.9942+ 1	7.4840+ 0	8.0000+ 0	9.9188- 2	9.0080- 1	3.7413+ 1	1.0000+ 6	1.2399+ 4	4.6621- 16	3.8000+ 1
2.5000+ 1	3.0998- 3	2.7794+ 1	9.1593+ 0	9.0158+ 0	1.1178- 1	7.7750- 1	3.7589+ 1	5.8234+ 6	6.9722+ 4	3.1319- 18	3.8000+ 1
3.0000+ 1	3.7196- 3	2.5797+ 1	1.0748+ 1	1.0000+ 1	1.2399- 1	6.6470- 1	3.7713+ 1	7.4989+ 7	9.2975+ 5	1.6169- 21	3.8000+ 1
4.0000+ 1	4.8594- 3	2.2438+ 1	1.3578+ 1	1.1660+ 1	1.4705- 1	4.9177- 1	3.7853+ 1	1.0000+ 9	1.2399+ 7	8.0130- 25	3.8000+ 1
5.0000+ 1	6.1993- 3	1.9839+ 1	1.5860+ 1	1.3784+ 1	1.7065- 1	3.6180- 1	3.7924+ 1				

October 31, 1989
Atomic Weight 87.620

ENDL Evaluated
Photon Data

38-Sr
Density 2.540 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cc/cm ³ /g/cm ²	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.0010-2	3.9330+1	5.722+3	1.6069-1	2.0419-4	5.7222+3			9.8995-4	9.8995-4	
1.0533-5	7.3446-3	5.3604+1	7.7992-3	2.2164-1	2.2638-4	7.7990+3			1.4341-3	1.4341-3	
1.1054-5	5.5083-3	7.1475+1	1.0399+4	2.9013-1	2.4916-4	1.0399+4			2.0067-3	2.0067-3	
1.1772-5	3.8346-3	1.0267+2	1.4938-4	3.9974-1	1.8236-4	1.4938+4			3.0699-3	3.0699-3	
1.2842-5	2.8085-3	1.5083+2	2.1980-4	5.5087-1	3.2531-4	2.1980+4			4.8463-3	4.8463-3	
1.3770-5	1.7585-3	2.2389+2	3.2575-4	7.7732-1	3.8566-4	3.2574+4			7.8306-3	7.8306-3	
1.5000-5	1.2961-3	3.0376+2	4.4196+4	1.1460+0	4.5697-4	4.4194+4			1.1573-2	1.1573-2	
1.6119-5	1.0875-3	3.8201+2	5.2672+4	1.5360+0	5.2716-4	5.2670+4			1.4821-2	1.4821-2	
1.7012-5	9.9370-4	3.9620+2	5.7645+4	1.9345+0	5.8880-4	5.7643+4			1.7119-2	1.7119-2	
1.8446-5	9.1043-4	4.3244+2	6.2918+4	2.7549+0	6.8913-4	6.2915+4			2.0259-2	2.0259-2	
2.2288-5	8.2202-4	4.7894+2	6.9685+4	8.1471+0	1.0037-3	6.9676+4			2.7111-2	2.7111-2	
2.3302-5	8.0574-4	4.8862+2	7.1093+4	1.1979+0	1.0964-3	7.1081+4			2.8916-2	2.8916-2	
2.5037-5	8.0003-4	4.9211+2	7.1800+4	2.4788+0	1.2645-3	7.1576+4			3.1284-2	3.1284-2	
2.6113-5	7.8650-4	4.9429+2	7.1917+4	4.9929+0	1.3748-3	7.1857+4			3.2762-2	3.2762-2	
2.8451-5	7.9530-4	4.9503+2	7.2026+4	6.9372+0	1.4104-3	7.1866+4			3.3227-2	3.3227-2	
2.8604-5	7.9469-4	4.9541+2	7.2081+4	6.4323+0	1.4266-3	7.1996+4			3.3437-2	3.3437-2	
2.8778-5	7.9388-4	4.9592+2	7.2155+4	1.1248+0	1.4453-3	7.2042+4			3.3679-2	3.3679-2	
2.7030-5	7.8241-4	4.9684+2	7.2288+4	1.8130+0	1.4724-3	7.2107+4			3.4026-2	3.4026-2	
2.7088-5	7.8208-4	4.9706+2	7.2321+4	1.9833+0	1.4787-3	7.2122+4			3.4106-2	3.4106-2	
2.7200-5	7.8147-4	4.9743+2	7.2375+4	2.2387+0	1.4908-3	7.2151+4			3.4260-2	3.4260-2	
N3 2.7200-5	3.8560-6	9.8521+4	1.4480+7	2.2387+2	1.4908-3	1.4480+7			6.8758+0	6.8726+0	3.0170-3
2.7307-5	4.0290-6	9.7718+4	1.4217+7	2.3728+2	1.5024-3	1.4217+7			6.7774+0	6.7744+0	2.9920-3
2.7430-5	4.1151-6	9.5672+4	1.3920+7	2.3638+2	1.5180-3	1.3920+7			6.6657+0	6.6628+0	2.8996-3
2.7629-5	4.2561-6	9.2502+4	1.3459+7	2.1285+2	1.5379-3	1.3459+7			6.4914+0	6.4888+0	2.8030-3
2.7756-5	4.3489-6	9.0528+4	1.3172+7	1.9567+2	1.5520-3	1.3171+7			6.3822+0	6.3795+0	2.7429-3
2.8000-5	4.5304-6	8.8902+4	1.2644+7	1.7787+2	1.5792-3	1.2644+7			6.1803+0	6.1777+0	2.6324-3
2.8149-5	4.6445-6	8.4767+4	1.2333+7	1.8183+2	1.5960-3	1.2333+7			6.0607+0	6.0581+0	2.5874-3
2.8420-5	4.8573-6	8.1054+4	1.1793+7	2.1115+2	1.6286-3	1.1793+7			5.8509+0	5.8485+0	2.4543-3
2.8470-5	4.8973-6	8.0391+4	1.1697+7	2.1780+2	1.6323-3	1.1696+7			5.8133+0	5.8108+0	2.4341-3
N2 2.8470-5	3.0580-6	1.2875+5	1.8732+7	2.1780+2	1.6323-3	1.8732+7			8.3101+0	8.3041+0	5.9337-3
2.8598-5	3.1219-6	1.2811+5	1.8348+7	2.3000+2	1.6467-3	1.8348+7			9.1599+0	9.1541+0	5.8119-3
2.8883-5	3.1662-6	1.2434+5	1.8092+7	2.3228+2	1.6566-3	1.8092+7			9.0590+0	9.0532+0	5.7303-3
2.8803-5	3.2284-6	1.2195+5	1.7743+7	2.2968+2	1.6704-3	1.7743+7			8.9215+0	8.9159+0	5.6197-3
2.8947-5	3.3050-6	1.1912+5	1.7332+7	2.2025+2	1.6871-3	1.7332+7			8.7585+0	8.7531+0	5.4891-3
2.9208-5	3.4464-6	1.1424+5	1.6621+7	1.9826+2	1.7175-3	1.6621+7			8.4750+0	8.4697+0	5.2635-3
2.9788-5	3.7779-6	1.0421+5	1.5183+7	1.8505+2	1.7859-3	1.5182+7			7.8849+0	7.8801+0	4.8008-3
3.1191-5	4.8234-6	8.5154+4	1.2390+7	1.2438+2	1.9589-3	1.2390+7			6.7463+0	6.7424+0	3.8175-3
3.2621-5	5.6153-6	7.0112+4	1.0201+7	1.0044+2	2.1391-3	1.0201+7			5.6092+0	5.6060+0	3.2210-3
3.4374-5	7.0462-6	5.5874+4	8.1295+6	8.1906+1	2.3736-3	8.1294+6			4.8783+0	4.8757+0	2.5627-3
3.8973-5	1.2128-5	3.2463+4	4.7233+6	5.4241+1	3.0461-3	4.7232+6			3.2135+0	3.2120+0	1.4808-3
4.5107-5	2.2748-5	1.7307+4	2.5181+6	3.4988+1	4.0727-3	2.5181+6			1.9829+0	1.9821+0	7.8196-4
4.5929-5	2.4585-5	1.6014+4	2.3300+6	3.2625+1	4.2213-3	2.3299+6			1.8681+0	1.8674+0	7.2270-4
4.6390-5	2.5665-5	1.5340+4	2.2319+6	3.2534+1	4.3060-3	2.2319+6			1.8075+0	1.8068+0	6.9182-4
N1 4.6390-5	2.4251-5	1.6235+4	2.3621+6	3.2534+1	4.3060-3	2.3621+6			1.9129+0	1.9122+0	7.3262-4
4.7320-5	2.6185-5	1.5030+4	2.1868+6	3.2026+1	4.4792-3	2.1867+6			1.8064+0	1.8057+0	6.7706-4
5.0385-5	3.2811-5	1.1999+4	1.7458+6	2.8974+1	5.0741-3	1.7458+6			1.5356+0	1.5350+0	5.3605-4
5.7327-5	4.8116-5	8.0158-3	1.1863+6	2.3681+1	6.5572-3	1.1863+6			1.1872+0	1.1868+0	3.5149-4
6.1584-5	5.8273-5	6.7562-3	9.8300+5	2.1545+1	7.5602-3	9.8298+5			1.0588+0	1.0585+0	2.9335-4
6.7542-5	6.8899-5	5.6332+3	8.1961+5	1.8524+1	9.0826-3	8.1959+5			9.6839+0	9.6814+0	2.4150-4
8.0000-5	7.4251-5	5.3023+3	7.7148+5	1.8727+1	9.7512-3	7.7144+5			9.4272-1	9.4249-1	2.2860-4
7.7734-5	8.4193-5	4.8762-3	6.8036+5	1.7111+1	1.2008-2	6.8035+5			9.2225-1	9.2305-1	1.9831-4
9.0000-5	9.5108-5	4.1395-3	6.0229+5	1.5142+1	1.6066-2	6.0227+5			9.4627-1	9.4810-1	1.7489-4
1.0000-4	1.0176-4	3.8691-3	5.6294+5	1.3867+1	1.9807-2	5.6293+5			9.8273-1	9.8256-1	1.8331-4
1.2216-4	1.1594-4	3.3957+3	4.9407+5	1.1735+1	2.9406-2	4.9406+5			1.0538+0	1.0534+0	1.4414-4
1.4174-4	1.2843-4	3.0856+3	4.4803+5	7.9899+0	3.9441-2	4.4802+5			1.1038+0	1.1035+0	1.3059-4
1.4301-4	1.2925-4	3.0480+3	4.4318+5	8.4155+0	4.0142-2	4.4317+5			1.1084+0	1.1083+0	1.2878-4
M5 1.4301-4	8.3984-5	4.6889+3	6.8222+5	8.4155+0	4.0142-2	6.8221+5			1.7032+0	1.7029+0	2.7242-4
1.4493-4	8.2401-5	4.7779+3	6.8517+5	9.5174+0	4.1213-2	6.8516+5			1.7568+0	1.7565+0	2.8145-4
M4 1.4493-4	6.6584-5	5.9128+3	8.6029+5	9.5174+0	4.1213-2	8.6028+5			2.1768+0	2.1781+0	4.7488-4
1.4587-4	6.5818-5	5.9817+3	8.7031+5	1.0068+1	4.1743-2	8.7030+5			2.2162+0	2.2158+0	4.8338-4
1.4783-4	6.2659-5	6.2832+3	9.1418+5	1.0659+1	4.2858-2	9.1417+5			2.3582+0	2.3587+0	5.1651-4
1.5072-4	5.3952-5	7.2973+3	1.0617+6	1.2116+1	4.4525-2	1.0617+6			2.7835+0	2.7929+0	6.2864-4
1.5472-4	4.3068-5	9.1418+3	1.3301+6	1.5058+1	4.6891-2	1.3301+6			3.5926+0	3.5917+0	8.3443-4
1.6494-4	2.5459-5	1.5484+4	2.2500+6	2.8618+1	5.3206-2	2.2499+6			6.4786+0	6.4771+0	1.5450-3
1.6896-4	2.1531-5	1.8286+4	2.8605+6	3.8416+1	5.5797-2	2.6605+6			7.8475+0	7.8456+0	1.8865-3
1.7308-4	1.8461-5	2.1326+4	3.1028+6	4.4272+1	5.8516-2	3.1028+6			9.3754+0	9.3732+0	2.2258-3
1.7710-4	1.6326-5	2.4115+4	3.5086+6	5.3334+1	6.1230-2	3.5086+6			1.0848+1	1.0845+1	2.5585-3
1.8230-4	1.4347-5	2.7441+4	3.8926+6	6.7423+1	6.4828-2	3.8925+6			1.2706+1	1.2703+1	2.9837-3
1.8790-4	1.2846-5	3.0649+4	4.4593+6	8.2202+1	6.8819-2	4.4592+6			1.4627+1	1.4624+1	3.3975-3
1.9535-4	1.1538-5	3.4123+4	4.9848+6	1.0147+2	7.4311-2	4.9847+6			1.6831+1	1.6827+1	3.8712-3
2.0000-4	1.0943-5	3.5979+4	5.2348+6	1.1181+2	7.7845-2	5.2347+6			1.8277+1	1.8273+1	4.1346-3
2.0755-4	1.0432-5	3.7738+4	5.4907+6	1.2936+2	8.3753-2	5.4906+6			1.9894+1	1.9889+1	4.3991-3
2.1538-4	1.0118-5	3.8912+4	5.6615+6	1.4404+2	9.0109-2	5.6614+6			2.1287+1	2.1282+1	4.5620-3
2.2690-4	1.0138-5	3.8843+4	5.6515+6	1.6215+2	9.9895-2	5.6513+6			2.2385+1	2.2381+1	4.5774-3
2.3914-4	1.0431-5	3.7742+4	5.4913+6	1.7188+2	1.1023-1	5.4912+6			2.2824+1	2.2820+1	4.4263-3
2.5218-4	1.0981-5	3.5854+4	5.2166+6	1.7344+2	1.2201-1	5.2165+6			2.2966+1	2.2962+1	4.2011-3
2.6648-4	1.1629-5	3.3854+4	4.9256+6	1.7075+2	1.3557-1	4.9254+6			2.2913+1	2.2910+1	3.9554-3
2.6842-4	1.1718-5	3.3599+4	4.8886+6	1.7990+2	1.3746-1	4.8884+6			2.2907+1	2.2903+1	3.9241-3
2.8953-4	1.1768-5	3.3455+4	4.8676+6	1.8926+2	1.3855-1	4.8674+6			2.2903+1	2.2899+1	3.9065-3
M3 2.8953-4	1.0763-5	3.6578+4	5.3220+6	1.8926+2	1.3855-1	5.3218+6			2.5041+1	2.5036+1	4.4929-3
2.7174-4	1.0847-5	3.8295+4	5.2808+6	2.0920+2	1.4073-1	5.2806+6			2.5050+1	2.5046+1	4.4581-3
2.7471-4	1.0960-5	3.5922+4	5.2265+6	2.2317+2	1.4388-1	5.2263+6			2.5063+1	2.5059+1	4.4122-3
2.7856-4	1.1107-5	3.5448+4	5.1575+6	2.3140+2	1.4756-1	5.1573+6			2.5080+1	2.5075+1	4.3541-3
2.8032-4	1.1178-5	3.5220+4	5.1245+6	2.4007+2	1.4934-1	5.1242+6			2.5078+1	2.5072+1	4.3287-3
2.8032-4	1.0776-5	3.8534+4	5.3155+6	2.4007+2	1.4934-1	5.3153+6			2.8011+1	2.8007+1	4.6559-3
2.8345-4	1.0911-5										

October 31, 1989
Atomic Weight 87.620

ENDL Evaluated
Photon Data

38-Sr
Density 2.540 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cc*cm/grac	Total	Cohorent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
3.2197- 4	1.2814- 5	3.0724+ 4	4.4702- 6	3.0165+ 2	1.9461- 1	4.4699+ 5			2.5124+ 1	2.5120+ 1	3.9863- 3
3.3753- 4	1.3674- 5	2.8792+ 4	4.1891+ 6	3.1456+ 2	2.1221- 1	4.1888+ 6			2.4682+ 1	2.4678+ 1	3.7609- 3
3.4838- 4	1.4169- 5	2.7786+ 4	4.0428+ 6	3.1843+ 2	2.2251- 1	4.0425+ 6			2.4443+ 1	2.4439+ 1	3.6430- 3
3.5032- 4	1.4394- 5	2.7352+ 4	3.8797+ 6	3.3178+ 2	2.2720- 1	3.8793+ 6			2.4336+ 1	2.4333+ 1	3.5918- 3
M 3.5032- 4	1.3788- 5	2.8553+ 4	4.1544+ 6	3.3178+ 2	2.2720- 1	4.1541+ 6			2.5405+ 1	2.5401+ 1	3.9060- 3
3.5411- 4	1.3995- 5	2.8131+ 4	4.0830+ 6	3.5629+ 2	2.3173- 1	4.0827+ 6			2.5300+ 1	2.5296+ 1	3.8539- 3
3.8138- 4	1.4430- 5	2.7283+ 4	3.9895+ 6	3.7546+ 2	2.4054- 1	3.9892+ 6			2.5040+ 1	2.5037+ 1	3.7493- 3
4.0000- 4	1.6965- 5	2.3179+ 4	3.3725+ 6	4.1270+ 2	2.8979- 1	3.3720+ 6			2.3547+ 1	2.3544+ 1	3.2414- 3
5.2862- 4	2.8568- 5	1.3788+ 4	2.0058+ 6	4.7058+ 2	4.7392- 1	2.0054+ 6			1.8508+ 1	1.8504+ 1	2.0214- 3
6.6378- 4	4.5728- 5	8.8100+ 3	1.2527+ 6	4.8185+ 2	6.6678- 1	1.2522+ 6			1.4511+ 1	1.4509+ 1	1.3127- 3
8.2143- 4	7.2571- 5	5.4250+ 3	7.8932+ 5	4.9222+ 2	9.4161- 1	7.8883+ 5			1.1312+ 1	1.1311+ 1	8.5603- 4
1.0000- 3	1.1278- 4	3.4908+ 3	5.0787+ 5	4.7321+ 2	1.2245+ 0	5.0740+ 5			8.6579+ 0	8.6573+ 0	5.6661- 4
1.1548- 3	1.5791- 4	2.4831+ 3	3.8274+ 5	4.4813+ 2	1.4575+ 0	3.8229+ 5			7.3038+ 0	7.3032+ 0	4.1492- 4
1.3554- 3	2.2868- 4	1.7143+ 3	2.4842+ 5	4.0345+ 2	1.7378+ 0	2.4801+ 5			5.8921+ 0	5.8918+ 0	2.8217- 4
1.4218- 3	2.5841- 4	1.5238+ 3	2.2187+ 5	3.8919+ 2	1.8313+ 0	2.2128+ 5			5.4914+ 0	5.4912+ 0	2.6148- 4
1.5452- 3	3.1728- 4	1.2409+ 3	1.8655+ 5	3.5004+ 2	2.0033+ 0	1.8620+ 5			4.8608+ 0	4.8608+ 0	2.1550- 4
1.6503- 3	3.7241- 4	1.0572+ 3	1.5382+ 5	3.0994+ 2	2.1412+ 0	1.5350+ 5			4.4224+ 0	4.4222+ 0	1.8518- 4
1.8978- 3	5.3909- 4	9.8649+ 2	1.4353+ 5	2.8734+ 2	2.2036+ 0	1.4324+ 5			4.2458+ 0	4.2454+ 0	1.7345- 4
1.7719- 3	4.4287+ 4	8.8898+ 2	1.2934+ 5	2.4687+ 2	2.3008+ 0	1.2909+ 5			3.9932+ 0	3.9930+ 0	1.5720- 4
1.8183- 3	4.7174+ 4	8.3458+ 2	1.2143+ 5	2.1404+ 2	2.2818+ 0	1.2121+ 5			3.8476+ 0	3.8474+ 0	1.4811- 4
1.8723- 3	5.0677+ 4	7.7668+ 2	1.1303+ 5	1.6148+ 2	2.4328+ 0	1.1287+ 5			3.6892+ 0	3.6890+ 0	1.3845- 4
1.8926- 3	5.2035+ 4	7.5661+ 2	1.1008+ 5	1.3308+ 2	2.4594+ 0	1.0955+ 5			3.6328+ 0	3.6325+ 0	1.3508- 4
1.9038- 3	5.2790+ 4	7.4578+ 2	1.0851+ 5	1.1308+ 2	2.4740+ 0	1.0839+ 5			3.6022+ 0	3.6021+ 0	1.3326- 4
1.9232- 3	5.4135+ 4	7.2726+ 2	1.0581+ 5	7.7655+ 1	2.4997+ 0	1.0573+ 5			3.5488+ 0	3.5487+ 0	1.3018- 4
1.9265- 3	5.4368+ 4	7.2413+ 2	1.0536+ 5	7.4910+ 1	2.5041+ 0	1.0528+ 5			3.5409+ 0	3.5407+ 0	1.2863- 4
1.9303- 3	5.4625+ 4	7.2074+ 2	1.0487+ 5	7.4464+ 1	2.5090+ 0	1.0479+ 5			3.5311+ 0	3.5310+ 0	1.2806- 4
1.9351- 3	5.4965+ 4	7.1641+ 2	1.0424+ 5	7.8838+ 1	2.5153+ 0	1.0415+ 5			3.5185+ 0	3.5183+ 0	1.2832- 4
1.9424- 3	5.5453+ 4	7.0998+ 2	1.0330+ 5	8.8474+ 1	2.5250+ 0	1.0320+ 5			3.4995+ 0	3.4993+ 0	1.2721- 4
L3 1.9424- 3	1.3972+ 4	2.8179+ 3	4.0999+ 5	8.8474+ 1	2.5250+ 0	4.0988+ 5			1.3899+ 1	1.3858+ 1	2.4091- 1
1.9565- 3	1.4259+ 4	2.7811+ 3	4.0173+ 5	1.5048+ 2	2.5435+ 0	4.0158+ 5			1.3718+ 1	1.3480+ 1	2.3577- 1
1.9826- 3	1.4388+ 4	2.7387+ 3	3.8818+ 5	1.7431+ 2	2.5518+ 0	3.8800+ 5			1.3637+ 1	1.3403+ 1	2.3355- 1
1.9892- 3	1.4522+ 4	2.7111+ 3	3.8445+ 5	1.9430+ 2	2.5602+ 0	3.8428+ 5			1.3553+ 1	1.3322+ 1	2.3124- 1
1.9823- 3	1.4798+ 4	2.6808+ 3	3.8713+ 5	2.1788+ 2	2.5774+ 0	3.8691+ 5			1.3389+ 1	1.3183+ 1	2.2870- 1
1.9929- 3	1.5020+ 4	2.6211+ 3	3.8137+ 5	2.2853+ 2	2.5812+ 0	3.8114+ 5			1.3259+ 1	1.3038+ 1	2.2314- 1
2.0038- 3	1.5257+ 4	2.5805+ 3	3.7548+ 5	2.4719+ 2	2.6058+ 0	3.7521+ 5			1.3125+ 1	1.2908+ 1	2.1948- 1
2.0121- 3	1.5428+ 4	2.5521+ 3	3.7133+ 5	2.7328+ 2	2.6188+ 0	3.7105+ 5			1.3034+ 1	1.2817+ 1	2.1696- 1
L2 2.0121- 3	1.1085+ 4	3.5517+ 3	5.1675+ 5	2.7328+ 2	2.6188+ 0	5.1648+ 5			1.8142+ 1	1.7797+ 1	3.4547- 1
2.0282- 3	1.1290+ 4	3.4871+ 3	5.0738+ 5	3.3067+ 2	2.6378+ 0	5.0703+ 5			1.7953+ 1	1.7613+ 1	3.3920- 1
2.0358- 3	1.1386+ 4	3.4576+ 3	5.0307+ 5	3.5508+ 2	2.6476+ 0	5.0271+ 5			1.7865+ 1	1.7529+ 1	3.3637- 1
2.0539- 3	1.1627+ 4	3.3882+ 3	4.9289+ 5	3.8672+ 2	2.6717+ 0	4.9229+ 5			1.7651+ 1	1.7322+ 1	3.2952- 1
2.1000- 3	1.2245+ 4	3.2153+ 3	4.6782+ 5	4.3807+ 2	2.7323+ 0	4.6737+ 5			1.7134+ 1	1.6821+ 1	3.1318- 1
2.1447- 3	1.2883+ 4	3.0607+ 3	4.4531+ 5	4.5881+ 2	2.7912+ 0	4.4488+ 5			1.6858+ 1	1.6557+ 1	2.9838- 1
2.1727- 3	1.3258+ 4	2.9883+ 3	4.3202+ 5	4.5551+ 2	2.8280+ 0	4.3158+ 5			1.6388+ 1	1.6079+ 1	2.8981- 1
2.1910- 3	1.3522+ 4	2.9115+ 3	4.2361+ 5	4.6589+ 2	2.8522+ 0	4.2315+ 5			1.6185+ 1	1.5901+ 1	2.8407- 1
2.2001- 3	1.3663+ 4	2.8838+ 3	4.1958+ 5	4.8148+ 2	2.8841+ 0	4.1908+ 5			1.6098+ 1	1.5815+ 1	2.8139- 1
L1 2.2001- 3	1.1977+ 4	3.2873+ 3	4.7829+ 5	4.8148+ 2	2.8841+ 0	4.7790+ 5			1.6351+ 1	1.6023+ 1	3.2881- 1
2.2254- 3	1.2258+ 4	3.2020+ 3	4.6588+ 5	5.3484+ 2	2.8974+ 0	4.6534+ 5			1.6079+ 1	1.5758+ 1	3.2039- 1
2.2435- 3	1.2537+ 4	3.1403+ 3	4.5690+ 5	5.6408+ 2	2.9212+ 0	4.5633+ 5			1.5872+ 1	1.5558+ 1	3.1426- 1
2.2531- 3	1.2518+ 4	2.9786+ 3	4.3338+ 5	6.0078+ 2	2.9886+ 0	4.3278+ 5			1.5725+ 1	1.5406+ 1	3.0823- 1
2.4841- 3	1.5787+ 4	2.4970+ 3	3.8330+ 5	6.5585+ 2	3.2088+ 0	3.8284+ 5			1.5599+ 1	1.5349+ 1	2.5017- 1
2.8127- 3	2.1970+ 4	1.7820+ 3	2.6073+ 5	6.8439+ 2	3.6378+ 0	2.6004+ 5			1.2769+ 1	1.2589+ 1	1.7930- 1
3.3118- 3	3.3316+ 4	1.1817+ 3	1.7183+ 5	6.8484+ 2	4.2474+ 0	1.7127+ 5			9.9010+ 0	9.7829+ 0	1.1809- 1
4.2338- 3	6.2828+ 4	8.2863+ 2	9.1173+ 4	5.9298+ 2	5.2825+ 0	9.0575+ 4			6.6943+ 0	6.6318+ 0	6.2486- 2
8.0000- 3	1.5792- 3	2.4831+ 2	3.8274+ 4	4.5501+ 2	7.0411+ 0	3.8111+ 4			3.7511+ 0	3.7294+ 0	2.4879- 2
8.0000- 3	3.4460- 3	1.1425+ 2	1.8623+ 4	3.4248+ 2	8.8233+ 0	1.8272+ 4			2.2725+ 0	2.2813+ 0	1.1180- 2
1.0000- 2	8.3317- 3	6.2179+ 1	9.0488+ 3	2.6054+ 2	8.7784+ 3			1.5322+ 0	1.5221+ 0	6.0201- 3	
1.1822- 2	9.5812- 3	4.1177+ 1	5.9911+ 3	2.0853+ 2	1.0824+ 1	5.7717+ 3			1.1710+ 0	1.1671+ 0	3.9587- 3
1.3448- 2	1.4287- 2	2.7595+ 1	4.0148+ 3	1.5873+ 2	1.1740+ 1	3.8445+ 3			9.0247- 1	8.9984- 1	2.8368- 3
1.4441- 2	1.7402- 2	2.2624+ 1	3.2917+ 3	1.3194+ 2	1.2186+ 1	3.1476+ 3			7.8358- 1	7.8142- 1	2.1579- 3
1.5039- 2	1.8543- 2	2.0145+ 1	2.8310+ 3	1.1481+ 2	1.2414+ 1	2.8038+ 3			7.3819- 1	7.3427- 1	1.9204- 3
1.5459- 2	2.1191- 2	1.8579+ 1	2.7031+ 3	9.8845+ 1	1.2587+ 1	2.5917+ 3			6.9958- 1	6.9778- 1	1.7741- 3
1.5812- 2	2.1833- 2	1.8033+ 1	2.8237+ 3	9.1058+ 1	1.2849+ 1	2.5200+ 3			6.8680- 1	6.8521- 1	1.7248- 3
1.5745- 2	2.2425- 2	1.7557+ 1	2.5544+ 3	8.1973+ 1	1.2702+ 1	2.4588+ 3			6.7823- 1	6.7455- 1	1.6830- 3
1.5935- 2	2.3331- 2	1.8875+ 1	2.4552+ 3	8.5431+ 1	1.2779+ 1	2.3770+ 3			6.6138- 1	6.5975- 1	1.6280- 3
1.8001- 2	2.3820- 2	1.8688+ 1	2.4251+ 3	8.2988+ 1	1.2805+ 1	2.3494+ 3			6.5838- 1	6.5477- 1	1.6089- 3
1.8067- 2	2.3888- 2	1.8495+ 1	2.3889+ 3	8.5183+ 1	1.2831+ 1	2.3219+ 3			6.5140- 1	6.4981- 1	1.5880- 3
K 1.8067- 2	3.5540+ 3	1.1078+ 2	1.8118+ 4	6.5183+ 1	1.2831+ 1	1.6040+ 4			4.4991+ 0	2.1089+ 0	2.3902+ 0
1.8128- 2	3.5878+ 3	1.0974+ 2	1.5987+ 4	7.0955+ 1	1.2858+ 1	1.5883+ 4			4.4720+ 0	2.1048+ 0	2.3872+ 0
1.8244- 2	3.6505+ 3	1.0785+ 2	1.5692+ 4	8.6831+ 1	1.2901+ 1	1.5592+ 4			4.4201+ 0	2.0958+ 0	2.3245+ 0
1.8315- 2	3.6898+ 3	1.0670+ 2	1.5524+ 4	9.5528+ 1	1.2930+ 1	1.5418+ 4			4.3877+ 0	2.0891+ 0	2.2987+ 0
1.8384- 2	3.7280+ 3	1.0581+ 2	1.5365+ 4	1.0210+ 2	1.2957+ 1	1.5250+ 4			4.3573+ 0	2.0830+ 0	2.2744+ 0
1.8478- 2	3.7820+ 3	1.0410+ 2	1.5148+ 4	1.0779+ 2	1.2994+ 1	1.5025+ 4			4.3159+ 0	2.0748+ 0	2.2413+ 0
1.8555- 2	3.8853+ 3	1.0133+ 2	1.4743+ 4	1.1443+ 2	1.3063+ 1	1.4818+ 4			4.2402+ 0	2.0590+ 0	2.1812+ 0
1.7197- 2	4.2144+ 3	9.3417+ 1	1.3582+ 4	1.2458+ 2	1.3270+ 1	1.3454+ 4			4.0235+ 0	2.0131+ 0	2.0104+ 0
1.7893- 2	4.6838+ 3	8.4420+ 1	1.2283+ 4	1.2971+ 2	1.3481+ 1	1.2141+ 4			3.7748+ 0	1.9578+ 0	1.8170+ 0
1.9184- 2	5.5718+ 3	7.0682+ 1	1.0281+ 4	1.2793+ 2	1.3859+ 1	1.0139+ 4			3.3857+ 0	1.8839+ 0	1.5218+ 0
2.2134- 2	8.0381+ 3	4.8982+ 1	7.1281+ 3	1.1511+ 2	1.4885+ 1	8.9983+ 3			2.7044+ 0	1.8472+ 0	1.0572+ 0
2.6398- 2	1.2979+ 2	3.0335+ 1	4.4138+ 3	9.4055+ 1	1.5536+ 1	4.3040+ 3			1.9785+ 0	1.3273+ 0	6.5218- 1
3.4841- 2	2.7114+ 2	1.4520+ 1	2.1127+ 3	6.4233+ 1	1.6815+ 1	2.0318+					

October 31, 1989
Atomic Weight 87.620

ENDL Evaluated
Photon Data

38-Sr
Density 2.540 Grams/cc

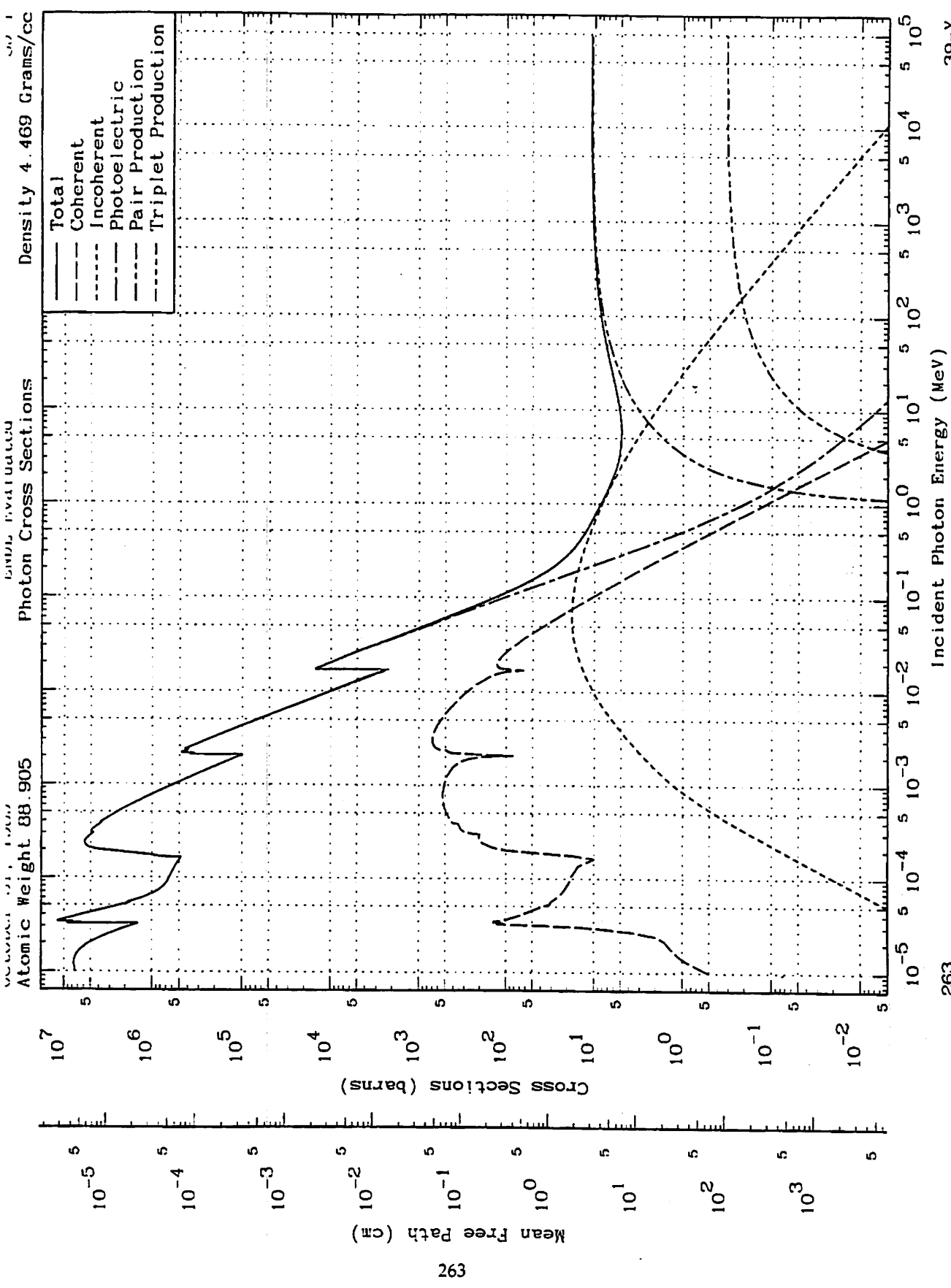
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/ca)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.7108- 1	2.8493+ 0	1.3817- 1	2.0104+ 1	1.5030+ 0	1.3583+ 1	5.0175+ 0			4.0449- 2	3.8977- 2	7.7214- 4
3.2461- 1	3.3934+ 0	1.1602- 1	1.6881+ 1	1.0542+ 0	1.2806+ 1	3.0206+ 0			3.7748- 2	3.7283- 2	4.6543- 4
3.7832- 1	3.8684+ 0	1.0183- 1	1.4815+ 1	7.7526- 1	1.2082+ 1	1.9577+ 0			3.7348- 2	3.7048- 2	3.0145- 4
4.5866- 1	4.4243+ 0	8.8986- 2	1.2947+ 1	5.2953- 1	1.1244+ 1	1.1736+ 0			3.9402- 2	3.8221- 2	1.8083- 4
5.8827- 1	5.1856+ 0	7.6218- 2	1.1089+ 1	3.2478- 1	1.0137+ 1	6.2716- 1			4.4485- 2	4.4389- 2	9.8828- 5
7.0881- 1	5.7371+ 0	6.8623- 2	9.8845+ 0	2.2410- 1	9.3595+ 0	4.0069- 1			5.0383- 2	5.0321- 2	6.1737- 5
1.0000+ 0	6.9035+ 0	5.7029- 2	8.2976+ 0	1.1282- 1	7.9947+ 0	1.9003- 1			6.4918- 2	6.4889- 2	2.9302- 5
1.0220+ 0	6.8960+ 0	5.8355- 2	8.1995+ 0	1.0604- 1	7.9108+ 0	1.8070- 1			6.5938- 2	6.5910- 2	2.7664- 5
1.0251+ 0	6.9982+ 0	5.8257- 2	8.1853+ 0	1.0738- 1	7.8983+ 0	1.7960- 1	7.8544- 8		6.6073- 2	6.6048- 2	2.7695- 5
1.0287+ 0	7.0123+ 0	5.8144- 2	8.1898+ 0	1.0683- 1	7.8838+ 0	1.7834- 1	7.8544- 7		6.6231- 2	6.6203- 2	2.7500- 5
1.0295+ 0	7.0152+ 0	5.8121- 2	8.1654+ 0	1.0648- 1	7.8608+ 0	1.7808- 1	1.0475- 6		6.6283- 2	6.6236- 2	2.7460- 5
1.0301+ 0	7.0176+ 0	5.8102- 2	8.1627+ 0	1.0635- 1	7.8785+ 0	1.7787- 1	1.3174- 6		6.6289- 2	6.6281- 2	2.7428- 5
1.0310+ 0	7.0211+ 0	5.8074- 2	8.1586+ 0	1.0617- 1	7.8749+ 0	1.7758- 1	1.6027- 6		6.6328- 2	6.6301- 2	2.7390- 5
1.0320+ 0	7.0249+ 0	5.8043- 2	8.1541+ 0	1.0596- 1	7.8709+ 0	1.7722- 1	2.4865- 6		6.6371- 2	6.6344- 2	2.7327- 5
1.0332+ 0	7.0296+ 0	5.8008- 2	8.1487+ 0	1.0572- 1	7.8682+ 0	1.7681- 1	3.4551- 6		6.6423- 2	6.6396- 2	2.7284- 5
1.0340+ 0	7.0327+ 0	5.7982- 2	8.1451+ 0	1.0558- 1	7.8630+ 0	1.7653- 1	4.2415- 6		6.6458- 2	6.6431- 2	2.7241- 5
1.0353+ 0	7.0377+ 0	5.7942- 2	8.1393+ 0	1.0529- 1	7.8579+ 0	1.7609- 1	5.7572- 6		6.6514- 2	6.6487- 2	2.7153- 5
1.0366+ 0	7.0429+ 0	5.7900- 2	8.1333+ 0	1.0502- 1	7.8527+ 0	1.7564- 1	7.6544- 6		6.6572- 2	6.6545- 2	2.7083- 5
1.0382+ 0	7.0489+ 0	5.7853- 2	8.1284+ 0	1.0471- 1	7.8465+ 0	1.7511- 1	1.0330- 5		6.6640- 2	6.6613- 2	2.7002- 5
1.0397+ 0	7.0547+ 0	5.7807- 2	8.1187+ 0	1.0441- 1	7.8407+ 0	1.7461- 1	1.3421- 5		6.6704- 2	6.6677- 2	2.6924- 5
1.0415+ 0	7.0617+ 0	5.7752- 2	8.1117+ 0	1.0405- 1	7.8336+ 0	1.7400- 1	1.7856- 5		6.6782- 2	6.6756- 2	2.6831- 5
1.0438+ 0	7.0705+ 0	5.7682- 2	8.1016+ 0	1.0359- 1	7.8247+ 0	1.7324- 1	2.4785- 5		6.6882- 2	6.6855- 2	2.6713- 5
1.0464+ 0	7.0805+ 0	5.7603- 2	8.0901+ 0	1.0308- 1	7.8146+ 0	1.7238- 1	3.4483- 5		6.6994- 2	6.6967- 2	2.6581- 5
1.0483+ 0	7.0978+ 0	5.7546- 2	8.0818+ 0	1.0271- 1	7.8073+ 0	1.7176- 1	4.2833- 5		6.7076- 2	6.7050- 2	2.6484- 5
1.0512+ 0	7.0989+ 0	5.7549- 2	8.0691+ 0	1.0215- 1	7.7981+ 0	1.7081- 1	5.8237- 5		6.7201- 2	6.7175- 2	2.6339- 5
1.0541+ 0	7.1100+ 0	5.7373- 2	8.0566+ 0	1.0159- 1	7.7851+ 0	1.6988- 1	7.6544- 5		6.7326- 2	6.7299- 2	2.6195- 5
1.0577+ 0	7.1238+ 0	5.7266- 2	8.0410+ 0	1.0090- 1	7.7712+ 0	1.6872- 1	1.0434- 4		6.7482- 2	6.7458- 2	2.6016- 5
1.0611+ 0	7.1388+ 0	5.7185- 2	8.0283+ 0	1.0028- 1	7.7583+ 0	1.6764- 1	1.3571- 4		6.7629- 2	6.7603- 2	2.5850- 5
1.0651+ 0	7.1520+ 0	5.7048- 2	8.0093+ 0	9.9608- 2	7.7432+ 0	1.6639- 1	1.7687- 4		6.7801- 2	6.7778- 2	2.5658- 5
1.0704+ 0	7.1721+ 0	5.6894- 2	7.9868+ 0	9.8529- 2	7.7233+ 0	1.6474- 1	2.5068- 4		6.8030- 2	6.8004- 2	2.5403- 5
1.0762+ 0	7.1940+ 0	5.6726- 2	7.9625+ 0	9.7475- 2	7.7017+ 0	1.6298- 1	3.4841- 4		6.8280- 2	6.8254- 2	2.5131- 5
1.0806+ 0	7.2106+ 0	5.6601- 2	7.9442+ 0	9.6686- 2	7.6854+ 0	1.6165- 1	4.3281- 4		6.8489- 2	6.8444- 2	2.4927- 5
1.0871+ 0	7.2349+ 0	5.6417- 2	7.9174+ 0	9.5538- 2	7.6616+ 0	1.5973- 1	5.8287- 4		6.8749- 2	6.8724- 2	2.4630- 5
1.0937+ 0	7.2598+ 0	5.6232- 2	7.8905+ 0	9.4382- 2	7.6375+ 0	1.5780- 1	7.6544- 4		6.9034- 2	6.9009- 2	2.4333- 5
1.1026+ 0	7.2926+ 0	5.5986- 2	7.8548+ 0	9.2983- 2	7.6056+ 0	1.5527- 1	1.0613- 3		6.9418- 2	6.9392- 2	2.3943- 5
1.1107+ 0	7.3227+ 0	5.5768- 2	7.8227+ 0	9.1539- 2	7.5768+ 0	1.5302- 1	1.3840- 3		6.9794- 2	6.9740- 2	2.3595- 5
1.1206+ 0	7.3589+ 0	5.5500- 2	7.7841+ 0	8.9938- 2	7.5420+ 0	1.5033- 1	1.8514- 3		7.0189- 2	7.0186- 2	2.3181- 5
1.1333+ 0	7.4050+ 0	5.5187- 2	7.7356+ 0	8.7940- 2	7.4981+ 0	1.4698- 1	2.5741- 3		7.0735- 2	7.0712- 2	2.2884- 5
1.1475+ 0	7.4581+ 0	5.4802- 2	7.6826+ 0	8.5786- 2	7.4488+ 0	1.4337- 1	3.5540- 3		7.1344- 2	7.1322- 2	2.2108- 5
1.1582+ 0	7.4943+ 0	5.4534- 2	7.6435+ 0	8.4218- 2	7.4141+ 0	1.4074- 1	4.4187- 3		7.1803- 2	7.1782- 2	2.1701- 5
1.1741+ 0	7.5503+ 0	5.4143- 2	7.5887+ 0	8.1980- 2	7.3819+ 0	1.3695- 1	5.9032- 3		7.2488- 2	7.2485- 2	2.1118- 5
1.1901+ 0	7.6080+ 0	5.3782- 2	7.5311+ 0	7.9778- 2	7.3104+ 0	1.3333- 1	7.6544- 3		7.3174- 2	7.3153- 2	2.0559- 5
1.2051+ 0	7.6572+ 0	5.3418- 2	7.4808+ 0	7.7816- 2	7.2831+ 0	1.3035- 1	9.5295- 3		7.3722- 2	7.3704- 2	2.0099- 5
1.2275+ 0	7.7325+ 0	5.2915- 2	7.4080+ 0	7.5014- 2	7.1841+ 0	1.2607- 1	1.2756- 2		7.4797- 2	7.4778- 2	1.9441- 5
1.2656+ 0	7.8574+ 0	5.2106- 2	7.2602+ 0	7.0582- 2	7.0810+ 0	1.1929- 1	1.8320- 2		7.6455- 2	7.6437- 2	1.8394- 5
1.2949+ 0	7.9508+ 0	5.1517- 2	7.2048+ 0	6.7433- 2	6.9975+ 0	1.1444- 1	2.5189- 2		7.7734- 2	7.7718- 2	1.7847- 5
1.3318+ 0	8.0853+ 0	5.0814- 2	7.1023+ 0	6.3758- 2	6.8984+ 0	1.0876- 1	3.3377- 2		7.9350- 2	7.9333- 2	1.6771- 5
1.3626+ 0	8.1584+ 0	5.0257- 2	7.0212+ 0	6.0918- 2	6.8151+ 0	1.0435- 1	4.0842- 2		8.0704- 2	8.0688- 2	1.6091- 5
1.4117+ 0	8.3023+ 0	4.7421- 2	6.8996+ 0	5.6787- 2	6.6912+ 0	9.7868- 2	5.3734- 2		8.2878- 2	8.2861- 2	1.5091- 5
1.5000+ 0	8.5473+ 0	4.6061- 2	6.7018+ 0	5.0299- 2	6.4841+ 0	8.7880- 2	7.9710- 2		8.6826- 2	8.6813- 2	1.3520- 5
1.5898+ 0	8.7777+ 0	4.4852- 2	6.5258+ 0	4.4787- 2	6.2918+ 0	7.9402- 2	1.1009- 1		9.0938- 2	9.0923- 2	1.2244- 5
1.7189+ 0	9.0785+ 0	4.3366- 2	6.3097+ 0	3.8329- 2	6.0423+ 0	6.9510- 2	1.5896- 1		9.6998- 2	9.6987- 2	1.0718- 5
1.7847+ 0	9.2306+ 0	4.2652- 2	6.2057+ 0	3.5556- 2	5.9163+ 0	6.5189- 2	1.8861- 1		9.8907- 2	9.8897- 2	1.0052- 5
1.8923+ 0	9.4827+ 0	4.1608- 2	6.0535+ 0	3.1834- 2	5.7255+ 0	5.8995- 2	2.3732- 1		1.0478- 1	1.0475- 1	9.0989- 6
2.0440+ 0	9.7588+ 0	4.0352- 2	5.8710+ 0	2.7121- 2	5.4838+ 0	5.1810- 2	3.0850- 1		1.1185- 1	1.1184- 1	7.9880- 6
2.0858+ 0	9.8388+ 0	4.0015- 2	5.8221+ 0	2.6045- 2	5.4181+ 0	5.0228- 2	3.2789- 1	3.8153- 7	1.1371- 1	1.1370- 1	7.7451- 6
2.1068+ 0	9.8782+ 0	3.9855- 2	5.7888+ 0	2.5534- 2	5.3863+ 0	4.8471- 2	3.3753- 1	1.2431- 6	1.1485- 1	1.1484- 1	7.6284- 6
2.1140+ 0	9.8920+ 0	3.9800- 2	5.7607+ 0	2.5358- 2	5.3751+ 0	4.8206- 2	3.4107- 1	1.7200- 6	1.1498- 1	1.1497- 1	7.5875- 6
2.1195+ 0	9.9022+ 0	3.9759- 2	5.7484+ 0	2.5225- 2	5.3688+ 0	4.8011- 2	3.4372- 1	2.1413- 6	1.1523- 1	1.1523- 1	7.5574- 6
2.1279+ 0	9.9177+ 0	3.9697- 2	5.7358+ 0	2.5026- 2	5.3542+ 0	4.8715- 2	3.4780- 1	2.9041- 6	1.1562- 1	1.1561- 1	7.5118- 6
2.1363+ 0	9.9328+ 0	3.9638- 2	5.7269+ 0	2.4831- 2	5.3418+ 0	4.8424- 2	3.5188- 1	3.8153- 6	1.1600- 1	1.1599- 1	7.4688- 6
2.1470+ 0	9.9522+ 0	3.9559- 2	5.7557+ 0	2.4583- 2	5.3259+ 0	4.8053- 2	3.5719- 1	5.2311- 6	1.1650- 1	1.1649- 1	7.4097- 6
2.1835+ 0	9.9814+ 0	3.9444- 2	5.7389+ 0	2.4210- 2	5.3018+ 0	4.7483- 2	3.6543- 1	7.9545- 6	1.1728- 1	1.1726- 1	7.3233- 6
2.1845+ 0	1.0002+ 0	3.9293- 2	5.7170+ 0	2.3747- 2	5.2715+ 0	4.6798- 2	3.7493- 1	1.2605- 5	1.1822- 1	1.1821- 1	7.2158- 6
2.2018+ 0	1.0051+ 0	3.9172- 2	5.6993+ 0	2.3376- 2	5.2488+ 0	4.6234- 2	3.8287- 1	1.7439- 5	1.1901- 1	1.1900- 1	7.1292- 6
2.2148+ 0	1.0074+ 0	3.9083- 2	5.6864+ 0	2.3103- 2	5.2285+ 0	4.5819- 2	3.8890- 1	2.1727- 5	1.1961- 1	1.1960- 1	7.0662- 6
2.2342+ 0	1.0107+ 0	3.8953- 2	5.6675+ 0	2.2703- 2	5.2016+ 0	4.5211- 2	3.9802- 1	2.8227- 5	1.2051- 1	1.2050- 1	6.9715- 6
2.2537+ 0	1.0140+ 0	3.8828- 2	5.6491+ 0	2.2313- 2	5.1748+ 0	4.4614- 2	4.0730- 1	3.8153- 5	1.2142- 1	1.2141- 1	6.8794- 6
2.2815+ 0	1.0186+ 0	3.8652- 2	5.6237+ 0	2.1773- 2	5.1373+ 0	4.3784- 2	4.2079- 1	5.3440- 5	1.2274- 1	1.2273- 1	6.7514- 6
2.3070+ 0	1.0227+ 0	3.8488- 2	5.6013+ 0	2.1286- 2	5.1035+ 0	4.3046- 2	4.3340- 1	7.0194- 5	1.2396- 1	1.2395- 1	6.6374- 6
2.3382+ 0	1.0275+ 0	3.8318- 2	5.5751+ 0	2.0731- 2	5.0630+ 0	4.2188- 2	4.4914- 1	9.4382- 5	1.2547- 1	1.2547- 1	6.5023- 6
2.3774+ 0	1.0333+ 0	3.8102- 2	5.5438+ 0	2.0053- 2	5.0133+ 0	4.1108- 2	4.6908- 1	1.3071- 4	1.2740- 1	1.2740- 1	6.3388- 6
2.4102+ 0	1.0383+ 0	3.7917- 2	5.5187+ 0	1.9512- 2	4.9727+ 0	4.0256- 2	4.8412- 1	1.6824- 4	1.2898- 1	1.2897- 1	6.2072- 6
2.4488+ 0	1.0438										

October 31, 1989
Atomic Weight 87.620

ENDL Evaluated
Photon Data

38-Sr
Density 2.540 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cc*cm/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
5.5135+ 0	1.2073+ 1	3.2509- 2	4.7445- 0	3.7319- 3	2.9456+ 0	1.2628- 2	1.7667- 0	1.5843- 2	3.2139- 1	3.2139- 1	1.9472- 6
6.3840+ 0	1.2090+ 1	3.2565- 2	4.7381+ 0	2.8013- 3	2.6624+ 0	1.0543- 2	2.0409+ 0	2.1463- 2	3.8500- 1	3.8500- 1	1.6257- 6
7.4833+ 0	1.1969+ 1	3.2838- 2	4.7778+ 0	2.0260- 3	2.3752+ 0	8.8439- 3	2.3631+ 0	2.8786- 2	4.7575- 1	4.7575- 1	1.3329- 6
9.0000+ 0	1.1738+ 1	3.3542- 2	4.8902+ 0	1.4007- 3	2.0855+ 0	6.9340- 3	2.7480+ 0	3.8330- 2	6.1037- 1	6.1037- 1	1.0692- 6
1.0000+ 1	1.1549+ 1	3.4088- 2	4.8597+ 0	1.348- 3	1.8363+ 0	6.1300- 3	2.9720+ 0	4.4180- 2	7.0489- 1	7.0489- 1	9.4524- 7
1.3000+ 1	1.1027+ 1	3.5704- 2	5.1948+ 0	6.7139- 4	1.5907+ 0	4.5410- 3	3.5390+ 0	5.9870- 2	1.0063+ 0	1.0063+ 0	7.0021- 7
1.8000+ 1	1.0283+ 1	3.8285- 2	5.5704+ 0	3.5021- 4	1.2458+ 0	3.1640- 3	4.2400+ 0	8.1060- 2	1.5638+ 0	1.5638+ 0	4.8788- 7
2.6000+ 1	9.4274+ 0	4.1761- 2	6.0761+ 0	1.6785- 4	9.3151- 1	2.1270- 3	5.0360+ 0	1.0630- 1	2.5554+ 0	2.5554+ 0	3.2798- 7
4.2170+ 1	8.4133+ 0	4.8795- 2	6.8085+ 0	6.3808- 5	6.3552- 1	1.2787- 3	6.0321+ 0	1.3955- 1	4.7904+ 0	4.7904+ 0	1.9718- 7
6.0000+ 1	7.7823+ 0	5.0524- 2	7.3511+ 0	3.1519- 5	4.7489- 1	8.8720- 4	6.7120+ 0	1.6330- 1	7.4653+ 0	7.4653+ 0	1.3681- 7
1.0000+ 2	7.0862+ 0	5.5559- 2	8.0836+ 0	1.1347- 5	3.1138- 1	5.2590- 4	7.5770+ 0	1.8470- 1	1.3861+ 1	1.3861+ 1	8.1093- 8
2.0000+ 2	6.4411+ 0	6.1123- 2	8.8932+ 0	2.8367- 6	1.7223- 1	2.6060- 4	8.4900+ 0	2.3070- 1	3.0782+ 1	3.0782+ 1	4.0184- 8
5.0000+ 2	5.9604+ 0	6.6053- 2	9.8104+ 0	4.5388- 7	7.7927- 2	1.0370- 4	9.2670+ 0	2.6540- 1	8.3604+ 1	8.3604+ 1	1.5990- 8
1.0000+ 3	5.7644+ 0	6.8299- 2	9.9373+ 0	1.1347- 7	4.2443- 2	5.1740- 5	9.6120+ 0	2.8280- 1	1.7319+ 2	1.7319+ 2	7.9782- 9
5.0000+ 3	5.5708+ 0	7.0672- 2	1.0283+ 1	4.5388- 9	1.0041- 2	1.0330- 5	9.9890+ 0	3.0340- 1	8.9724+ 2	8.9724+ 2	1.5829- 9
1.0000+ 4	5.5385+ 0	7.1085- 2	1.0343+ 1	1.1347- 9	5.3818- 3	5.1850- 6	1.0030+ 1	3.0720- 1	1.8053+ 3	1.8053+ 3	7.9844-10
1.0000+ 5	5.5068+ 0	7.1494- 2	1.0402+ 1	1.1340-11	6.4759- 4	5.1650- 7	1.0090+ 1	3.1150- 1	1.8159+ 4	1.8159+ 4	7.9643-11

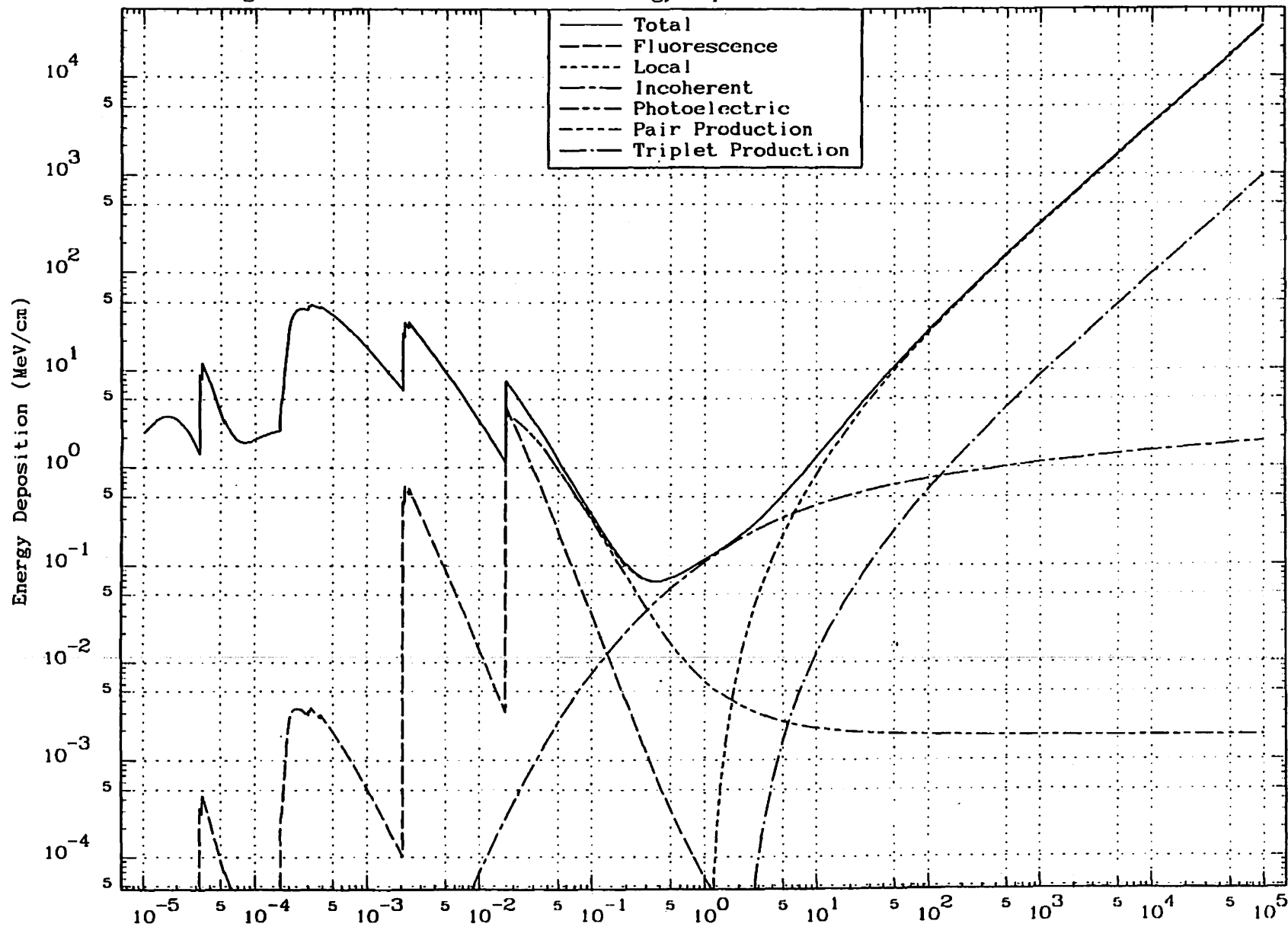


October 31, 1989
Atomic Weight 88.905

ENDL Evaluated
Energy Deposition

39-Y
Density 4.469 Grams/cc

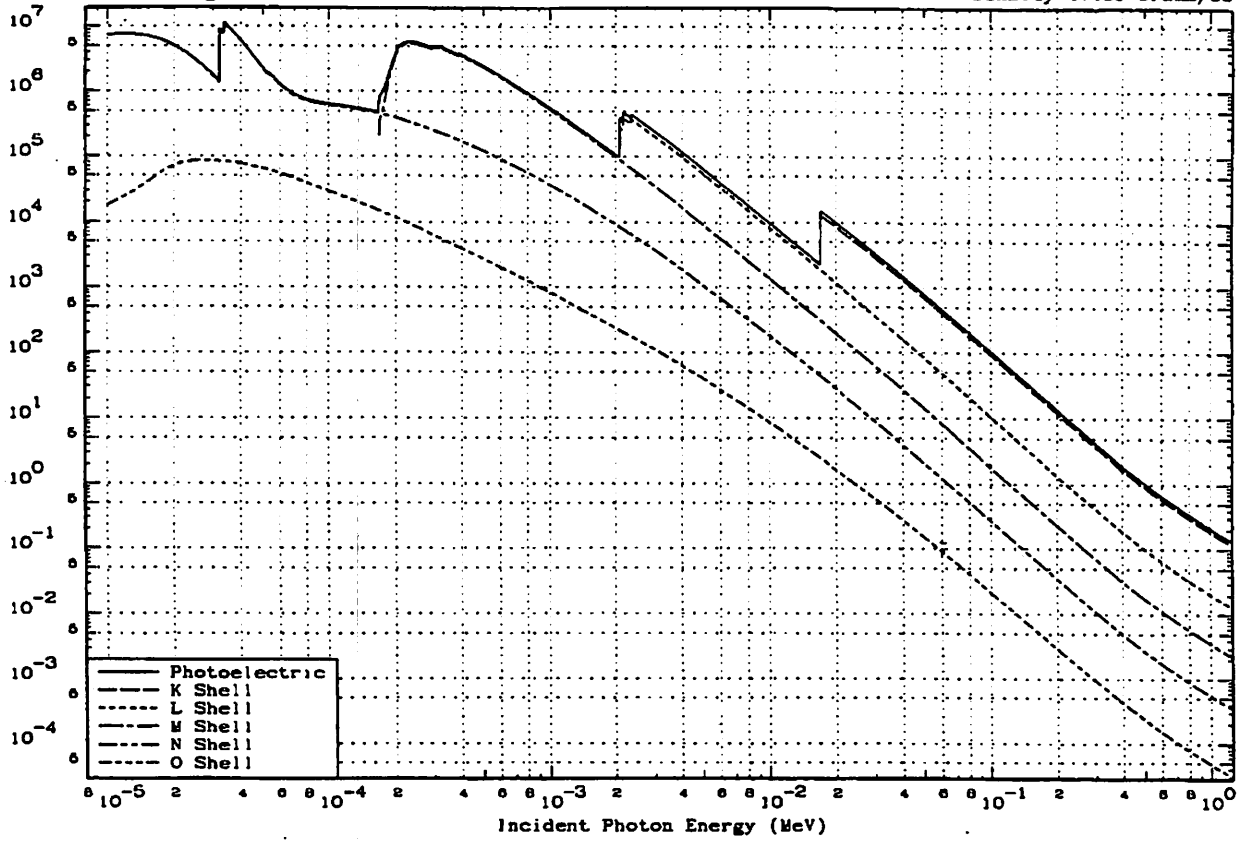
264



October 31, 1989
Atomic Weight 88.905

ENDL Evaluated
Photoelectric Shell Cross Sections

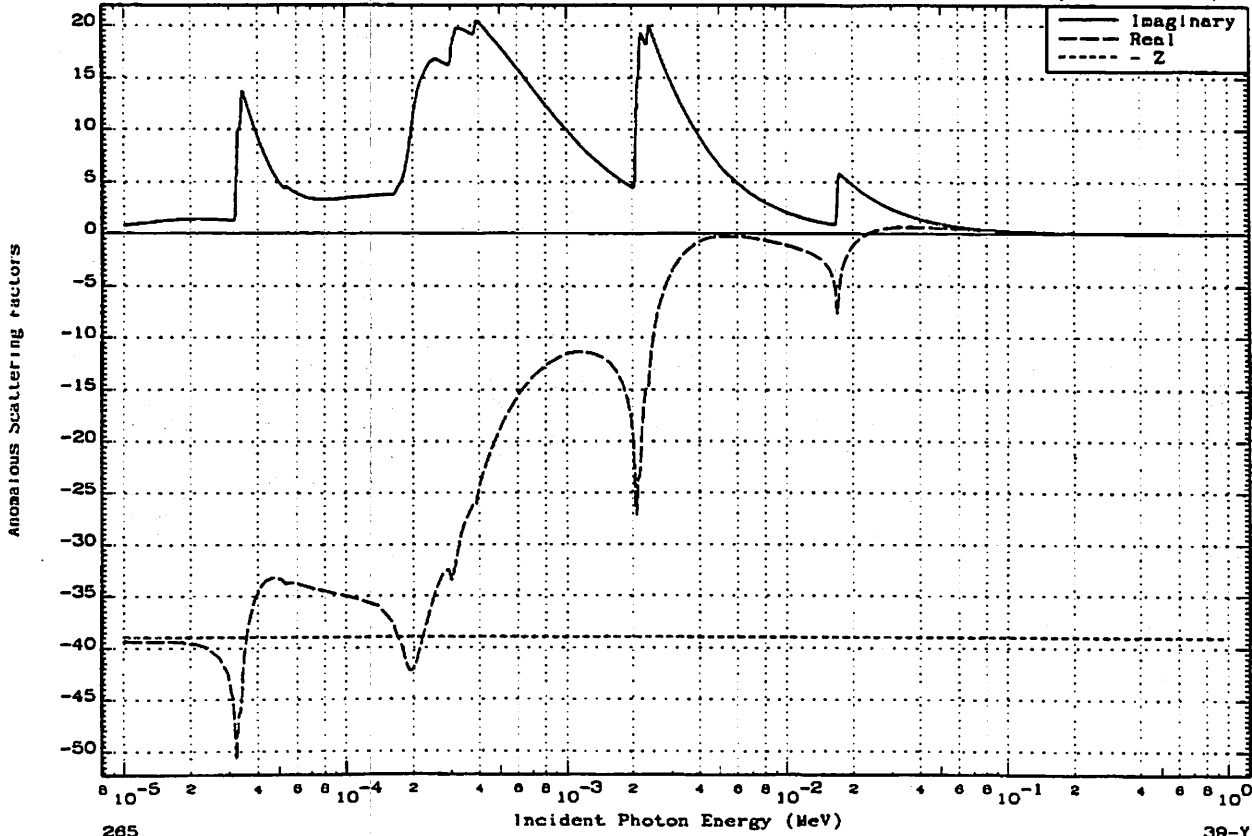
39-Y
Density 4.489 Grams/cc



October 31, 1989
Atomic Weight 88.905

ENDL Evaluated
Anomalous Scattering Factors

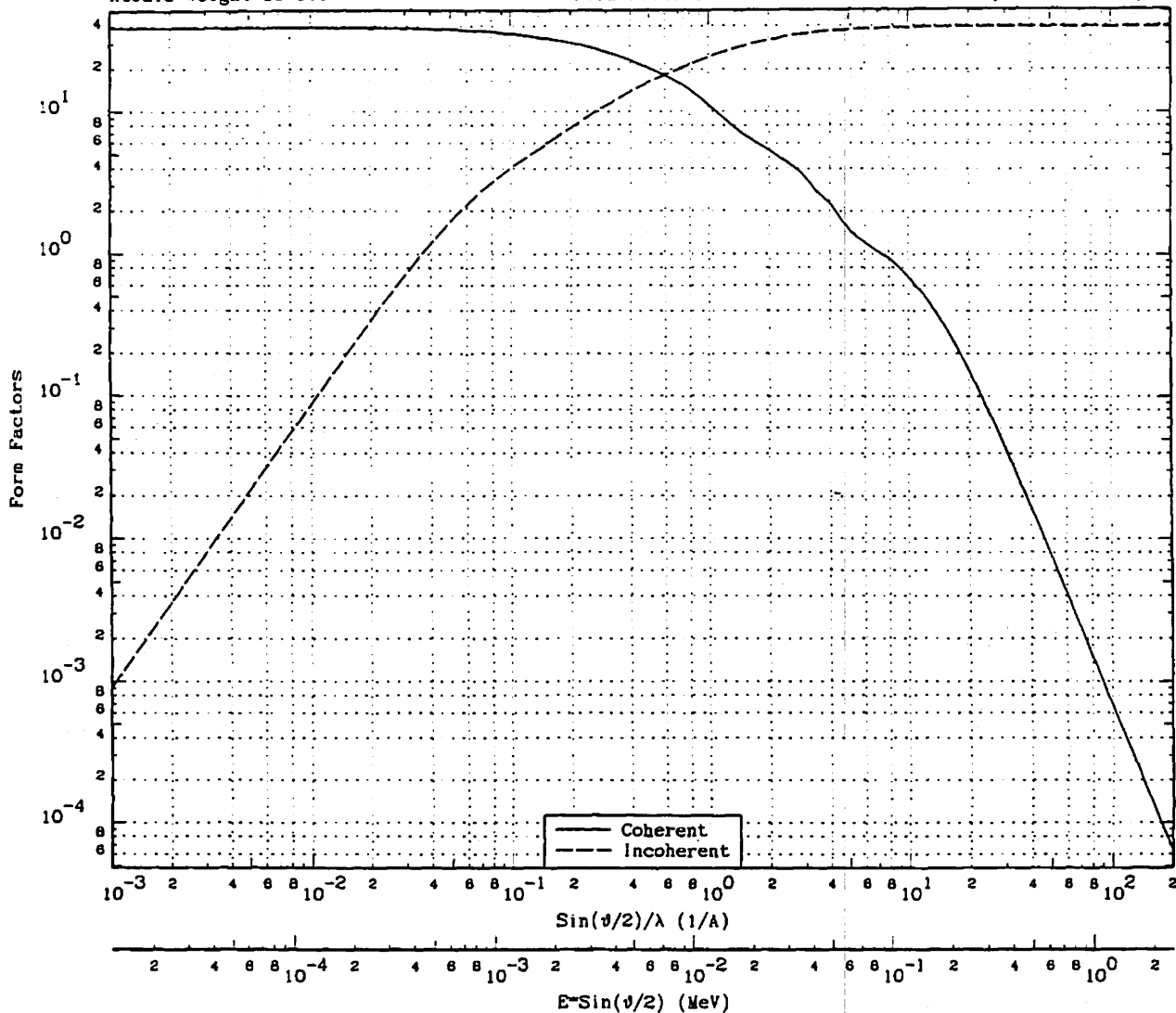
39-Y
Density 4.489 Grams/cc



265

Incident Photon Energy (MeV)

39-Y



$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	3.8000+ 1	0.0000+ 0	6.0000- 1	7.4391- 3	1.8134+ 1	1.8215+ 1	1.5000+ 1	1.8598- 1	3.1763- 1	3.8948+ 1
1.0000- 3	1.2399- 5	3.8000+ 1	9.0387- 4	7.0000- 1	8.6790- 3	1.6166+ 1	1.8891+ 1	1.8385+ 1	2.2795- 1	1.9038- 1	3.8881+ 1
5.0000- 3	6.1993- 5	3.8978+ 1	2.2000- 2	8.0000- 1	9.9188- 3	1.4358+ 1	2.1416+ 1	2.0000+ 1	2.4797- 1	1.5099- 1	3.8989+ 1
1.0000- 2	1.2399- 4	3.8937+ 1	8.7000- 2	9.0000- 1	1.1159- 2	1.2709+ 1	2.2820+ 1	2.4430+ 1	3.0290- 1	8.3952- 2	3.8997+ 1
1.5000- 2	1.8598- 4	3.8860+ 1	1.9380- 1	1.0000+ 0	1.2399- 2	1.1242+ 1	2.4110+ 1	3.0970+ 1	3.8398- 1	3.9681- 2	3.9002+ 1
2.0000- 2	2.4797- 4	3.8788+ 1	3.3770- 1	1.2500+ 0	1.5498- 2	8.4922+ 0	2.6849+ 1	4.1804+ 1	5.1831- 1	1.4501- 2	3.9001+ 1
2.5000- 2	3.0996- 4	3.8672+ 1	5.1440- 1	1.5000+ 0	1.8598- 2	6.9158+ 0	2.8970+ 1	5.0000+ 1	6.1993- 1	7.6042- 3	3.9000+ 1
3.0000- 2	3.7196- 4	3.8534+ 1	7.1850- 1	2.0000+ 0	2.4797- 2	5.3463+ 0	3.1870+ 1	8.0000- 1	9.9188- 1	1.5019- 3	3.9000+ 1
4.0000- 2	4.9594- 4	3.8198+ 1	1.1857+ 0	2.5000+ 0	3.0996- 2	4.3495+ 0	3.3745+ 1	1.0000+ 2	1.2399+ 0	6.8728- 4	3.9000+ 1
5.0000- 2	6.1993- 4	3.7807+ 1	1.6940+ 0	2.8945+ 0	3.5888- 2	3.7087+ 0	3.4805+ 1	1.7117+ 2	2.1223+ 0	1.0912- 4	3.9000+ 1
6.5000- 2	8.0590- 4	3.7106+ 1	2.4571+ 0	3.0000+ 0	3.7196- 2	3.5145+ 0	3.5043+ 1	2.7479+ 2	3.4070+ 0	2.2656- 5	3.9000+ 1
7.0000- 2	8.6790- 4	3.6858+ 1	2.7007+ 0	3.5000+ 0	4.3395- 2	2.6798+ 0	3.5940+ 1	5.1200+ 2	6.3480+ 0	3.0356- 6	3.9000+ 1
9.0000- 2	1.1159- 3	3.5840+ 1	3.5839+ 0	4.0000+ 0	4.8584- 2	2.2827+ 0	3.6557+ 1	1.0000+ 3	1.2399+ 1	3.6808- 7	3.9000+ 1
1.0000- 1	1.2399- 3	3.5322+ 1	3.8990+ 0	5.0000+ 0	6.1993- 2	1.4880+ 0	3.7316+ 1	2.6333+ 3	3.2648+ 1	1.8774- 8	3.9000+ 1
1.2500- 1	1.5498- 3	3.4089+ 1	4.8485+ 0	5.5693+ 0	6.9051- 2	1.2949+ 0	3.7601+ 1	6.6119+ 3	8.1978+ 1	1.1748- 9	3.9000+ 1
1.5000- 1	1.8598- 3	3.2859+ 1	5.8740+ 0	6.0000+ 0	7.4391- 2	1.2060+ 0	3.7782+ 1	1.4899+ 4	1.8473+ 2	1.0600- 10	3.9000+ 1
1.7500- 1	2.1697- 3	3.1708+ 1	6.7965+ 0	7.0000+ 0	8.6790- 2	1.0450+ 0	3.8116+ 1	4.2648+ 4	5.2875+ 2	4.9156- 12	3.9000+ 1
2.0000- 1	2.4797- 3	3.0694+ 1	7.7000+ 0	8.0000+ 0	9.9188- 2	9.2710- 1	3.8366+ 1	1.0000+ 6	1.2399+ 4	5.5781- 16	3.9000+ 1
2.5000- 1	3.0996- 3	2.8421+ 1	9.4127+ 0	9.5078+ 0	1.1788- 1	7.4819- 1	3.8823+ 1	5.8234+ 6	6.9722+ 4	3.7718- 18	3.9000+ 1
3.0000- 1	3.7196- 3	2.8399+ 1	1.1010+ 1	1.0000+ 1	1.2399- 1	6.8140- 1	3.8684+ 1	7.4889+ 7	9.2975+ 5	1.9690- 21	3.9000+ 1
4.0000- 1	4.9594- 3	2.2990+ 1	1.3899+ 1	1.1860+ 1	1.4705- 1	5.1738- 1	3.8835+ 1	1.0000+ 9	1.2399+ 7	9.8745- 25	3.9000+ 1
5.0000- 1	6.1993- 3	2.0338+ 1	1.6279+ 1	1.3784+ 1	1.7065- 1	3.8463- 1	3.8914+ 1				

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	4.3768-6	5.1125+4	7.5477-6	5.0123-1	1.9554-4	7.5477-6			2.2848-0	2.2848+0	
1.2995-5	4.2950-6	5.2098+4	7.6913+6	8.8920-1	3.2903-4	7.6913+6			3.0256+0	3.0256+0	
1.5000-5	4.5300-6	4.9396+4	7.2923-8	1.1099-0	4.3753-4	7.2923-8			3.3112-0	3.3112-0	
1.7012-5	5.0783-6	4.4063+4	6.5050-6	1.2616+0	5.6180-4	6.5050-6			3.3499+0	3.3499+0	
1.8950-5	5.8958-6	3.7853+4	5.8030+6	1.4202+0	6.9806-4	5.8030+6			3.2141+0	3.2141+0	
2.0000-5	6.4642-6	3.4616+4	5.1104+6	1.4920+0	7.7478-4	5.1104+6			3.0940+0	3.0940+0	
2.1588-5	7.5852-6	2.9500+4	4.3551+6	1.6300+0	9.0174-4	4.3551+6			2.8460+0	2.8460+0	
2.2891-5	8.8533-6	2.5859+4	3.8176+6	1.8003+0	1.0219-3	3.8176+6			2.6589+0	2.6589+0	
2.3891-5	9.5398-6	2.3458+4	3.4828+6	1.9344+0	1.1029-3	3.4828+6			2.5043+0	2.5043+0	
2.5283-5	1.1017-5	2.0311+4	2.9985+6	2.6093+0	1.2342-3	2.9985+6			2.2949+0	2.2949+0	
2.7055-5	1.3428-5	1.8664+4	2.4601+8	3.7319+0	1.4120-3	2.4601+8			2.0148+0	2.0148+0	
2.8463-5	1.7521-5	1.2771+4	1.8855+6	9.1767+0	1.6725-3	1.8855+6			1.6816+0	1.6816+0	
3.0910-5	2.0568-5	1.0879+4	1.6061+6	2.2559+1	1.8396-3	1.6061+6			1.5028+0	1.5028+0	
3.1315-5	2.1482-5	1.0417+4	1.5378+6	3.3353+1	1.8879-3	1.5378+6			1.4577+0	1.4577+0	
3.1499-5	2.1904-5	1.0216+4	1.5081+6	4.2222+1	1.9099-3	1.5081+6			1.4380+0	1.4380+0	
3.1673-5	2.2310-5	1.0030+4	1.4807+6	5.5989+1	1.9309-3	1.4807+6			1.4196+0	1.4196+0	
3.1939-5	2.2942-5	9.7535+3	1.4399+6	9.0045+1	1.9633-3	1.4399+6			1.3921+0	1.3921+0	
3.2008-5	2.3108-5	9.8836+3	1.4296+6	9.9738+1	1.9717-3	1.4296+6			1.3851+0	1.3851+0	
3.2140-5	2.3426-5	9.5519+3	1.4102+6	1.1512+2	1.9879-3	1.4102+6			1.3719+0	1.3719+0	
3.2140-5	3.5716-6	8.2651+4	9.2492+6	1.1512+2	1.9879-3	9.2492+6			8.9887+0	8.9884+0	3.2695-4
3.2283-5	3.6260-6	6.1711+4	9.1104+6	1.2569+2	2.0055-3	9.1104+6			8.6030+0	8.6027+0	3.2202-4
3.2420-5	3.6768-6	6.0826+4	8.9797+6	1.2687+2	2.0224-3	8.9797+6			8.8125+0	8.8122+0	3.1737-4
3.2535-5	3.7238-6	6.0091+4	8.8712+6	1.2314+2	2.0388-3	8.8712+6			8.7371+0	8.7367+0	3.1352-4
3.2889-5	3.8679-6	5.7851+4	8.5406+6	1.0577+2	2.0821-3	8.5406+6			8.5051+0	8.5048+0	3.0183-4
3.3188-5	3.9875-6	5.6116+4	8.2844+6	1.0087+2	2.1187-3	8.2844+6			8.3227+0	8.3224+0	3.0287-4
3.3337-5	4.0500-6	5.5250+4	8.1566+6	1.0373+2	2.1376-3	8.1566+6			8.2312+0	8.2309+0	2.8841-4
3.3710-5	4.2095-6	5.3156+4	7.8475+6	1.2622+2	2.1854-3	7.8475+6			8.0079+0	8.0076+0	2.7759-4
3.3710-5	2.8150-6	7.9489+4	1.1735+7	1.2622+2	2.1854-3	1.1735+7			1.1975+1	1.1974+1	4.4969-4
3.3854-5	2.8577-6	7.8303+4	1.1560+7	1.3639+2	2.2040-3	1.1560+7			1.1847+1	1.1846+1	4.4319-4
3.3975-5	2.8938-6	7.7325+4	1.1415+7	1.3977+2	2.2197-3	1.1415+7			1.1740+1	1.1740+1	4.3787-4
3.4312-5	2.9864-6	7.4678+4	1.1025+7	1.3522+2	2.2636-3	1.1025+7			1.1451+1	1.1451+1	4.2274-4
3.4882-5	3.1816-6	7.0110+4	1.0350+7	1.1841+2	2.3390-3	1.0350+7			1.0929+1	1.0929+1	3.9698-4
3.8188-5	3.8785-6	6.0831+4	8.8805+6	9.7990+1	2.5158-3	8.8805+6			8.6370+0	8.6367+0	3.4468-4
3.8514-5	4.6826-6	4.7786+4	7.0547+6	7.8576-1	2.8478-3	7.0547+6			8.2249+0	8.2247+0	2.7105-4
4.0912-5	5.8906-6	3.7415+4	5.5236+6	8.8324+1	3.2105-3	5.5236+6			6.8407+0	6.8405+0	2.1288-4
4.8141-5	1.2088-5	1.8514+4	2.7332+6	4.2568+1	4.4355-3	2.7332+6			3.8930+0	3.8929+0	1.0578-4
5.1182-5	1.5788-5	1.4181+4	2.0950+8	3.5398+1	5.0112-3	2.0950+8			3.2485+0	3.2484+0	8.1259-5
5.2885-5	1.7858-5	1.2530+4	1.8498+6	3.5533+1	5.3058-3	1.8498+6			2.9902+0	2.9901+0	7.1822-5
5.3350-5	1.8843-5	1.1875+4	1.7532+6	3.0997+1	5.4398-3	1.7532+6			2.8313+0	2.8312+0	6.8105-5
5.3350-5	1.7238-5	1.2981+4	1.9164+6	3.0997+1	5.4398-3	1.9164+6			3.0949+0	3.0949+0	7.5448-5
5.4000-5	1.8000-5	1.2431+4	1.8352+6	3.1814+1	5.5720-3	1.8352+6			2.9999+0	2.9998+0	7.2525-5
5.8910-5	2.1352-5	1.0480+4	1.5471+6	3.0289+1	6.1826-3	1.5471+6			2.6806+0	2.6805+0	6.1300-5
6.0424-5	2.6082-5	8.5792+3	1.2665+6	2.7653+1	6.9660-3	1.2665+6			2.3168+0	2.3168+0	5.0478-5
6.7354-5	3.4297-5	6.5242+3	9.6317+5	2.3901+1	8.6424-3	9.6317+5			1.8838+0	1.8837+0	3.8872-5
7.2376-5	3.8891-5	5.7536+3	8.4841+5	2.2312+1	9.8996-3	8.4841+5			1.8610+0	1.8609+0	3.4155-5
8.0000-5	4.4427-5	5.0367+3	7.4356+5	2.0764+1	1.2164-2	7.4356+5			1.8007+0	1.8006+0	2.9811-5
9.0000-5	4.8684-5	4.5962+3	6.7854+5	1.9180+1	1.5370-2	6.7854+5			1.8486+0	1.8486+0	2.6977-5
1.0000-4	5.1390-5	4.3542+3	6.4282+5	1.8482+1	1.9488-2	6.4282+5			1.8459+0	1.8458+0	2.5322-5
1.1067-4	5.3958-5	4.1470+3	6.1222+5	1.7508+1	2.3150-2	6.1222+5			2.0510+0	2.0509+0	2.3905-5
1.3878-4	6.0987-5	3.8691+3	5.4167+5	1.4991+1	3.6206-2	5.4167+5			2.2755+0	2.2755+0	2.0840-5
1.8466-4	8.8785-5	3.2540+3	4.8039+5	9.9519+0	5.0759-2	4.8039+5			2.3944+0	2.3944+0	1.8400-5
1.8851-4	8.9377-5	3.2253+3	4.7616+5	1.0475+1	5.1884-2	4.7616+5			2.4000+0	2.4000+0	1.8233-5
1.8851-4	4.8558-5	4.6082+3	6.8031+5	1.0475+1	5.1884-2	6.8031+5			3.4291+0	3.4290+0	3.4391-5
1.8874-4	4.7885-5	4.8925+3	6.8275+5	1.1839+1	5.3277-2	6.8275+5			3.5385+0	3.5385+0	3.5574-5
1.8874-4	3.8533-5	5.8602+3	8.13561+5	1.1839+1	5.3277-2	8.13561+5			4.2883+0	4.2880+0	2.4431-4
1.7004-4	3.6540-5	5.8081+3	8.5715+5	1.2708+1	5.4091-2	8.5715+5			4.4120+0	4.4118+0	2.5423-4
1.7212-4	3.8243-5	6.1740+3	9.1147+5	1.3777+1	5.5408-2	9.1147+5			4.7490+0	4.7487+0	2.7221-4
1.7595-4	3.0874-5	7.2477+3	1.0700+6	1.5951+1	5.7987-2	1.0700+6			5.6989+0	5.6985+0	3.3778-4
1.7841-4	2.7284-5	8.2014+3	1.2108+6	1.8295+1	5.9480-2	1.2108+6			6.5391+0	6.5387+0	4.0302-4
1.8200-4	2.2204-5	1.0078+4	1.4878+6	2.3531+1	6.1989-2	1.4878+6			8.1989+0	8.1984+0	5.4323-4
1.9305-4	1.1258-5	1.9875+4	2.9342+6	5.6318+1	6.8509-2	2.9342+6			1.7147+1	1.7146+1	1.4341-3
1.9764-4	8.8759-6	2.5210+4	3.7218+6	7.4463+1	7.2811-2	3.7218+6			2.2266+1	2.2264+1	1.9607-3
2.0000-4	8.0031-6	2.7860+4	4.1277+6	8.5760+1	7.4538-2	4.1277+6			2.4990+1	2.4988+1	2.2791-3
2.0199-4	7.5273-6	2.9727+4	4.3886+6	9.6460+1	7.6010-2	4.3886+6			2.6833+1	2.6831+1	2.4811-3
2.0529-4	6.8390-6	3.2724+4	4.8310+6	1.0929+2	7.8488-2	4.8310+6			3.0022+1	3.0019+1	2.7575-3
2.1028-4	6.2983-6	3.5539+4	5.2467+6	1.2667+2	8.2303-2	5.2467+6			3.3397+1	3.3394+1	3.0168-3
2.1829-4	5.8854-6	3.8020+4	5.6130+6	1.4669+2	8.8910-2	5.6130+6			3.7089+1	3.7086+1	3.2068-3
2.2930-4	5.6924-6	3.9309+4	5.8032+6	1.6759+2	9.7470-2	5.8032+6			4.0280+1	4.0277+1	3.3624-3
2.3924-4	5.6717-6	3.8452+4	5.8244+6	1.8527+2	1.0577-1	5.8244+6			4.2180+1	4.2177+1	3.3647-3
2.5405-4	5.8395-6	3.8319+4	5.6570+6	2.0321+2	1.1874-1	5.6570+6			4.3503+1	4.3500+1	3.3080-3
2.7684-4	6.4472-6	3.4707+4	5.1239+6	2.0820+2	1.3992-1	5.1239+6			4.2907+1	4.2904+1	3.0647-3
2.8999-4	8.8845-6	3.2597+4	4.8123+6	2.0312+2	1.5321-1	4.8123+6			4.2243+1	4.2240+1	2.8820-3
2.8981-4	7.0486-6	3.1746+4	4.8867+6	1.9839+2	1.5919-1	4.8867+6			4.1965+1	4.1963+1	2.8082-3
2.9810-4	7.1212-6	3.1422+4	4.6389+6	2.0408+2	1.6157-1	4.6389+6			4.1859+1	4.1856+1	2.7801-3
2.9992-4	7.1792-6	3.1189+4	4.8014+6	2.1862+2	1.6348-1	4.8014+6			4.1774+1	4.1771+1	2.7581-3
3.0992-4	6.5987-6	3.3910+4	5.0062+6	2.1862+2	1.6348-1	5.0062+6			4.5449+1	4.5446+1	3.1689-3
3.0224-4	6.8380-6	3.3709+4	4.9765+6	2.3852+2	1.6592-1	4.9765+6			4.5529+1	4.5526+1	3.1567-3
3.0592-4	6.7004-6	3.3396+4	4.9302+6	2.5713+2	1.6894-1	4.9302+6			4.5655+1	4.5652+1	3.1407-3
3.1183-4	6.8372-6	3.2727+4	4.8315+6	2.7598+2	1.7599-1	4.8315+6			4.5576+1	4.5573+1	3.0871-3
3.1226-4	6.8523-6	3.2855+4	4.8209+6	2.7924+2	1.7668-1	4.8209+6			4.5568+1	4.5564+1	3.0813-3
3.1226-4	8.5934-6	3.3937+4	5.0102+6	2.7924+2	1.7668-1	5.0102+6			4.7357+1	4.7353+1	3.4032-3
3.1801-4	6.6836-6	3.3480+4	4.9426+6	2.9931+2	1.8079-1	4.9426+6			4.7279+1	4.7275+1	3.3644-3
3.2713-4	7.0042-6	3.1947+4	4.7184+6	3.1830+2	1.8303-1	4.7184+6			4.6702+1	4.6699+1	3.2293-3
3.4488-4	7.5445-6	2.9859+4	4.3788+6	3.3822+2	2.1294-1	4.3788+6			4.5709+1	4.5706+1	3.0289-3
3.8185-4	8.7064-6	2.5704+4	3.7947+6	3.5086+2	2.5740-1	3.7947+6			4.3872+1	4.3869+1	2.6706-3
3.8579-4	8.8340-6	2									

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
3.9163-4	8.6804-6	2.5778+4	3.8056+6	4.0011+2	2.6965-1	3.8062+6			4.5112+1	4.5109+1	2.8333-3
4.0000-4	9.0048-6	2.4850+4	3.6685+6	4.1776+2	2.8044-1	3.6681+6			4.4416+1	4.4413+1	2.7436-3
4.5747-4	1.1393-5	1.9841+4	2.8998+6	4.5758+2	3.5747-1	2.8992+6			4.0148+1	4.0148+1	2.2302-3
5.1443-4	1.4060-5	1.5915+4	2.3495+6	4.9023+2	4.3944-1	2.3491+6			3.6580+1	3.6578+1	1.8518-3
6.1498-4	2.0081-5	1.1143+4	1.6451+6	5.2158+2	5.9867-1	1.6445+6			3.0815+1	3.0814+1	1.3478-3
8.1163-4	3.6373-5	6.1520+3	9.0822+5	5.3092+2	9.2255-1	9.0769+5			2.2301+1	2.2301+1	7.8632-4
1.0000-3	5.7868-6	3.8810+3	5.6999+5	5.1736+2	1.2411+0	5.6948+5			1.7239-1	1.7238+1	5.1423-4
1.2354-3	9.5259-5	2.3490+3	3.4678-5	4.7782+2	1.8162+0	3.4630+5			1.2951+1	1.2950+1	3.2540-4
1.5000-3	1.5015-4	1.4903+3	2.2002+5	4.1893+2	2.0095+0	2.1960+5			9.9712+0	9.9710+0	2.1340-4
1.5735-3	1.6941-4	1.3209+3	1.8500+5	3.8996+2	2.1134+0	1.8460+5			9.2807+0	9.2805+0	1.9058-4
1.6963-3	2.0316-4	1.1014+3	1.6260+5	3.5885+2	2.2788+0	1.6224+5			8.3306+0	8.3305+0	1.6074-4
1.8046-3	2.3660-4	9.4573+2	1.3982+5	3.1553+2	2.4294+0	1.3830+5			7.6097+0	7.6096+0	1.3937-4
1.8997-3	2.6818-4	8.3437+2	1.2318+5	2.6528+2	2.5595+0	1.2291+5			7.0648+0	7.0645+0	1.2398-4
1.9803-3	2.9818-4	7.7118+2	1.1385+5	2.2104+2	2.8447+0	1.1363+5			6.7427+0	6.7427+0	1.1517-4
1.9983-3	3.0429-4	7.3538+2	1.0858+5	1.8459+2	2.8974+0	1.0837+5			6.5558+0	6.5557+0	1.1018-4
2.0255-3	3.1487-4	7.1110+2	1.0498+5	1.4979+2	2.7351+0	1.0463+5			6.4278+0	6.4278+0	1.0680-4
2.0386-3	3.1978-4	6.9974+2	1.0330+5	1.2693+2	2.7533+0	1.0317+5			6.3671+0	6.3670+0	1.0522-4
2.0609-3	3.2656-4	6.8105+2	1.0054+5	8.6179+1	2.7841+0	1.0045+5			6.2670+0	6.2669+0	1.0262-4
2.0845-3	3.3000-4	6.7808+2	1.0011+5	8.3050+1	2.7891+0	1.0002+5			6.2508+0	6.2507+0	1.0221-4
2.0885-3	3.3157-4	6.7487+2	9.9831+4	8.2322+1	2.7948+0	9.9548+4			6.2332+0	6.2331+0	1.0178-4
2.0741-3	3.3375-4	6.7045+2	9.8979+4	8.7814+1	2.8024+0	9.8868+4			6.2087+0	6.2086+0	1.0113-4
2.0815-3	3.3684-4	6.6470+2	9.8130+4	1.0542+2	2.8127+0	9.8021+4			6.1763+0	6.1762+0	1.0030-4
2.0815-3	8.6205-5	2.5957+3	3.6321+5	1.0542+2	2.8127+0	3.6310+5			2.4139+1	2.3888+1	4.5316-1
2.0988-3	8.8077-5	2.5405+3	3.7506+5	1.6249+2	2.8337+0	3.7480+5			2.3794+1	2.3351+1	4.4281-1
2.1041-3	8.9007-5	2.5140+3	3.7114+5	1.9080+2	2.8440+0	3.7085+5			2.3627+1	2.3189+1	4.3784-1
2.1151-3	9.0395-5	2.4754+3	3.6544+5	2.1982+2	2.8592+0	3.6522+5			2.3384+1	2.2953+1	4.3062-1
2.1281-3	9.1809-5	2.4373+3	3.5982+5	2.3350+2	2.8743+0	3.5968+5			2.3143+1	2.2719+1	4.2351-1
2.1382-3	9.3377-5	2.3983+3	3.5377+5	2.4245+2	2.8900+0	3.5353+5			2.2883+1	2.2487+1	4.1590-1
2.1508-3	9.5022-5	2.3549+3	3.4785+5	2.6323+2	2.9083+0	3.4739+5			2.2617+1	2.2209+1	4.0818-1
2.1597-3	9.6143-5	2.3274+3	3.4390+5	2.8749+2	2.9179+0	3.4331+5			2.2444+1	2.2041+1	4.0131-1
2.1597-3	8.8997-5	3.2431+3	4.7878+5	2.8749+2	2.9179+0	4.7849+5			3.1282+1	3.0838+1	4.4641-1
2.1789-3	7.0301-5	3.1830+3	4.6990+5	3.4838+2	2.9401+0	4.6965+5			3.0942+1	3.0307+1	6.3433-1
2.1844-3	7.1884-5	3.1224+3	4.6098+5	3.9833+2	2.9628+0	4.6066+5			3.0594+1	2.9972+1	6.2233-1
2.2157-3	7.3345-5	3.0508+3	4.5040+5	4.3112+2	2.9904+0	4.4958+5			3.0180+1	2.9572+1	6.0818-1
2.2789-3	7.8308-5	2.8575+3	4.2188+5	4.7137+2	3.0896+0	4.2139+5			2.9044+1	2.8474+1	5.6995-1
2.3356-3	8.3248-5	2.6879+3	3.9682+5	4.7738+2	3.1454+0	3.9634+5			2.8022+1	2.7485+1	5.3643-1
2.3549-3	8.4907-5	2.6354+3	3.8907+5	4.9939+2	3.1703+0	3.8868+5			2.7699+1	2.7173+1	5.2802-1
2.3549-3	7.4478-5	3.0044+3	4.4355+5	4.9939+2	3.1703+0	4.4304+5			3.1583+1	3.0968+1	6.1454-1
2.3908-3	7.7217-5	2.8979+3	4.2781+5	5.7147+2	3.2167+0	4.2724+5			3.0921+1	3.0328+1	5.8284-1
2.4154-3	7.9182-5	2.8258+3	4.1714+5	5.9777+2	3.2463+0	4.1654+5			3.0450+1	2.9878+1	5.7808-1
2.5036-3	8.6565-5	2.5852+3	3.8168+5	6.4098+2	3.3620+0	3.8101+5			2.8875+1	2.8348+1	5.2989-1
2.8719-3	1.0171-4	2.2001+3	3.2480+6	6.8118+2	3.5784+0	3.2411+5			2.8215+1	2.7785+1	4.5033-1
3.0118-3	1.3728-4	1.6300+3	2.4084+5	7.0382+2	4.0135+0	2.3983+5			2.1873+1	2.1540+1	3.3318-1
3.5532-3	2.0908-4	1.0702+3	1.5800+5	6.7938+2	4.6578+0	1.5732+5			1.6929+1	1.6710+1	2.1872-1
4.031-3	3.8428-4	6.1428+2	9.0683+4	6.1260+2	5.6204+0	9.0085+4			1.2004+1	1.1879+1	1.2521-1
6.4027-3	9.7854-4	2.2844+2	3.3724+4	4.5828+2	7.5904+0	3.3258+4			6.4459+0	6.3997+0	4.6181-2
6.6930-3	2.2357-3	1.0009+2	1.4778+4	3.3399+2	9.3602+0	1.4432+4			3.7879+0	3.7779+0	1.9982-2
1.0000-2	3.2781-3	6.8260+1	1.0077+4	2.8157+2	1.0195+0	9.7856+3			2.9623+0	2.9488+0	1.3524-2
1.1942-2	6.3271-3	4.2005+1	6.2012+3	2.1788+2	1.1223+1	6.9720+3			2.1589+0	2.1507+0	8.2527-3
1.4143-2	8.4908-3	2.8354+1	3.8907+3	1.8000+2	1.2299+1	3.7184+3			1.5821+0	1.5870+0	5.1313-3
1.5125-2	1.0259-2	2.1810+1	3.2199+3	1.3485+2	1.2754+1	3.0723+3			1.4088+0	1.4028+0	4.2337-3
1.5504-2	1.1001-2	2.0340+1	3.0027+3	1.2587+2	1.2891+1	2.8642+3			1.3444+0	1.3405+0	3.9455-3
1.5912-2	1.1850-2	1.8883+1	2.7877+3	1.1389+2	1.3038+1	2.6908+3			1.2918+0	1.2782+0	3.6840-3
1.6357-2	1.2845-2	1.7421+1	2.5718+3	9.8025+1	1.3195+1	2.4808+3			1.2186+0	1.2152+0	3.3870-3
1.6519-2	1.3233-2	1.6910+1	2.4864+3	9.0310+1	1.3251+1	2.3929+3			1.1968+0	1.1935+0	3.2833-3
1.6660-2	1.3591-2	1.6464+1	2.4306+3	8.1333+1	1.3300+1	2.3380+3			1.1783+0	1.1751+0	3.2147-3
1.6881-2	1.4140-2	1.5825+1	2.3363+3	6.5089+1	1.3389+1	2.2579+3			1.1527+0	1.1495+0	3.1066-3
1.6930-2	1.4314-2	1.5633+1	2.3078+3	6.2899+1	1.3393+1	2.2318+3			1.1440+0	1.1409+0	3.0705-3
1.7000-2	1.4483-2	1.5472+1	2.2841+3	6.4902+1	1.3417+1	2.2058+3			1.1354+0	1.1324+0	3.0348-3
1.7000-2	2.1788-3	1.0278+2	1.5175+4	6.4802+1	1.3417+1	1.5097+4			7.7696+0	3.5301+0	4.2395+0
1.7120-2	2.2149-3	1.0103+2	1.4815+4	7.7521+1	1.3468+1	1.4824+4			7.8829+0	3.5188+0	4.1838+0
1.7203-2	2.2410-3	9.9851+1	1.4741+4	8.8317+1	1.3488+1	1.4839+4			7.8211+0	3.5084+0	4.1127+0
1.7283-2	2.2687-3	9.8718+1	1.4574+4	8.6889+1	1.3514+1	1.4483+4			7.5823+0	3.4963+0	4.0840+0
1.7360-2	2.2917-3	9.7843+1	1.4415+4	1.0310+2	1.3540+1	1.4298+4			7.5071+0	3.4888+0	4.0183+0
1.7515-2	2.3437-3	9.5475+1	1.4095+4	1.1045+2	1.3592+1	1.3971+4			7.3972+0	3.4698+0	3.9278+0
1.7787-2	2.4372-3	9.1810+1	1.3554+4	1.1776+2	1.3683+1	1.3423+4			7.2123+0	3.4388+0	3.7589+0
1.8297-2	2.8198-3	8.5417+1	1.2610+4	1.2480+2	1.3852+1	1.2472+4			6.8890+0	3.3773+0	3.5118+0
1.9489-2	3.0825-3	7.2582+1	1.0717+4	1.2799+2	1.4240+1	1.0575+4			6.2320+0	3.2474+0	2.9845+0
2.0380-2	3.4448-3	6.4960+1	9.5901+3	1.2678+2	1.4508+1	9.4489+3			5.8181+0	3.1468+0	2.6718+0
2.3483-2	4.9748-3	4.4982+1	6.8407+3	1.1291+2	1.5299+1	6.5124+3			4.8257+0	2.7719+0	1.8539+0
2.7745-2	7.8013-3	2.8683+1	4.2344+3	9.3229+2	1.6086+1	4.1251+3			3.4548+0	2.2765+0	1.1783+0
3.7658-2	1.7689-2	1.2884+1	1.8898+3	6.0604+1	1.7284+1	1.7918+3			2.0387+0	1.5219+0	5.1482-1
5.4780-2	5.0040-2	4.4717+0	6.6018+2	3.2333+1	1.6011+1	6.0981+2			1.0132+0	8.3725-1	1.7593-1
8.8731-2	1.7149-1	1.3048+0	1.8263+2	1.4129+1	1.7859+1	1.6084+2			4.2768-1	3.8114-1	4.8518-2
1.0000-1	2.8685-1	8.0758-1	1.3398+2	1.0686+1	1.7596+1	1.0550+2			3.2711-1	2.9858-1	3.0550-2
1.2183-1	3.9816-1	5.6483-1	8.3366+1	7.5475+0	1.7010+1	5.8829+1			2.2692-1	2.0887-1	1.7049-2
1.5272-1	6.4218-1	3.4844-1	5.1440+1	4.9190+0	1.6351+1	3.0170+2			1.5382-1	1.4507-1	8.7520-3
1.8913-1	9.4734-1	2.3820-1	3.4871+1	3.2578+0	1.5491+1	1.8122+1			1.1131-1	1.0683-1	4.8807-3
2.2891-1	1.2700+0	1.7618-1	2.6010+1	2.2264+0	1.4677+1	9.1074+0			8.7803-2	8.5180-2	2.8433-3
2.7804-1	1.6051+0	1.3941-1	2.0581+1	1.5332+0	1.3820+1	5.2275+0			7.4832-2	7.3116-2	1.9158-3
3.3533-1	1.8278+0	1.1807-1	1.7138+1	1.0599+0	1.2977+1	3.0983+0			6.8465-2	6.8585-2	8.9971-4
4.0500-1	2.2527+0	9.9329-2	1.4884+1	7.2988+0	1.2086+1	1.8384+0			6.9090-2	6.8557-2	5.3328-4
5.5075-1	2.7705+0	8.0765-2	1.1823+1	3.9671-1	1.0699+1	8.2771-1			7.7390-2	7.7150-2	2.4018-4
7.4448-1	3.2944+0	6.7822-2	1.0027+1	2.1772-1	9.4045+0	4.0517-1			6.3828-2	6.3711-2	1.1782-4
1.00											

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0251+0	3.8220+0	5.7053-2	8.4228+0	1.1504-1	8.1053+0	2.0248-1	8.1839-8		1.1815-1	1.1809-1	5.6835-5
1.0287+0	3.8300+0	5.6937-2	8.4057+0	1.1424-1	8.0904+0	2.0104-1	8.1839-7		1.1843-1	1.1837-1	5.6421-5
1.0295+0	3.8318+0	5.6914-2	8.4022+0	1.1407-1	8.0874+0	2.0075-1	1.1200-8		1.1849-1	1.1843-1	5.8338-5
1.0301+0	3.8330+0	5.6895-2	8.3994+0	1.1394-1	8.0849+0	2.0051-1	1.4085-6		1.1853-1	1.1847-1	5.8289-5
1.0310+0	3.8349+0	5.6886-2	8.3952+0	1.1374-1	8.0813+0	2.0018-1	1.9273-8		1.1860-1	1.1854-1	5.8188-5
1.0320+0	3.8371+0	5.6835-2	8.3905+0	1.1352-1	8.0772+0	1.9979-1	2.6371-6		1.1868-1	1.1862-1	5.8054-5
1.0332+0	3.8397+0	5.6797-2	8.3849+0	1.1329-1	8.0723+0	1.9931-1	3.6941-6		1.1877-1	1.1871-1	5.7919-5
1.0340+0	3.8415+0	5.6772-2	8.3812+0	1.1309-1	8.0691+0	1.9901-1	4.5349-6		1.1883-1	1.1877-1	5.7830-5
1.0353+0	3.8443+0	5.6731-2	8.3752+0	1.1280-1	8.0639+0	1.9851-1	6.1554-6		1.1893-1	1.1887-1	5.7695-5
1.0366+0	3.8472+0	5.6689-2	8.3690+0	1.1251-1	8.0585+0	1.9799-1	8.1839-6		1.1903-1	1.1897-1	5.7538-5
1.0382+0	3.8508+0	5.6640-2	8.3618+0	1.1218-1	8.0522+0	1.9740-1	1.1045-5		1.1915-1	1.1909-1	5.7383-5
1.0397+0	3.8539+0	5.6593-2	8.3549+0	1.1185-1	8.0462+0	1.9683-1	1.4349-5		1.1927-1	1.1921-1	5.7199-5
1.0415+0	3.8578+0	5.6537-2	8.3468+0	1.1147-1	8.0399+0	1.9615-1	1.9091-5		1.1940-1	1.1935-1	5.7001-5
1.0438+0	3.8628+0	5.6466-2	8.3361+0	1.1098-1	8.0329+0	1.9529-1	2.6499-5		1.1958-1	1.1952-1	5.6750-5
1.0464+0	3.8685+0	5.6385-2	8.3242+0	1.1043-1	8.0194+0	1.9432-1	3.6889-5		1.1978-1	1.1972-1	5.6469-5
1.0483+0	3.8726+0	5.6327-2	8.3158+0	1.1004-1	8.0119+0	1.9362-1	4.5902-5		1.1992-1	1.1987-1	5.6265-5
1.0512+0	3.8789+0	5.6238-2	8.3025+0	1.0943-1	8.0004+0	1.9255-1	6.2289-5		1.2014-1	1.2009-1	5.6055-5
1.0541+0	3.8851+0	5.6150-2	8.2895+0	1.0884-1	7.9891+0	1.9151-1	8.1839-5		1.2038-1	1.2031-1	5.5850-5
1.0577+0	3.8929+0	5.6041-2	8.2733+0	1.0810-1	7.9749+0	1.9020-1	1.1155-4		1.2064-1	1.2058-1	5.5270-5
1.0611+0	4.0002+0	5.5938-2	8.2582+0	1.0741-1	7.9617+0	1.8899-1	1.4510-4		1.2090-1	1.2084-1	5.4917-5
1.0651+0	4.0088+0	5.5819-2	8.2405+0	1.0681-1	7.9461+0	1.8757-1	1.9210-4		1.2120-1	1.2115-1	5.4508-5
1.0704+0	4.0201+0	5.5681-2	8.2173+0	1.0558-1	7.9257+0	1.8572-1	2.6800-4		1.2181-1	1.2155-1	5.3989-5
1.0782+0	4.0325+0	5.5491-2	8.1921+0	1.0443-1	7.9036+0	1.8372-1	3.7038-4		1.2205-1	1.2200-1	5.3699-5
1.0806+0	4.0418+0	5.5362-2	8.1732+0	1.0358-1	7.8869+0	1.8223-1	4.6254-4		1.2239-1	1.2233-1	5.2955-5
1.0871+0	4.0558+0	5.5175-2	8.1454+0	1.0236-1	7.8624+0	1.8006-1	6.2319-4		1.2289-1	1.2283-1	5.2325-5
1.0937+0	4.0695+0	5.4988-2	8.1178+0	1.0113-1	7.8378+0	1.7789-1	8.1839-4		1.2338-1	1.2333-1	5.1895-5
1.1029+0	4.0881+0	5.4738-2	8.0808+0	9.9510-2	7.8049+0	1.7504-1	1.1347-3		1.2408-1	1.2401-1	5.0888-5
1.1107+0	4.1049+0	5.4511-2	8.0474+0	9.8071-2	7.7754+0	1.7250-1	1.4788-3		1.2468-1	1.2463-1	5.0129-5
1.1206+0	4.1254+0	5.4240-2	8.0075+0	9.6353-2	7.7397+0	1.6947-1	1.9794-3		1.2543-1	1.2538-1	4.9247-5
1.1333+0	4.1514+0	5.3900-2	7.9573+0	9.4218-2	7.6947+0	1.6570-1	2.7521-3		1.2639-1	1.2634-1	4.8151-5
1.1475+0	4.1802+0	5.3529-2	7.9025+0	9.1809-2	7.6452+0	1.6183-1	3.7997-3		1.2747-1	1.2742-1	4.6969-5
1.1582+0	4.2017+0	5.3258-2	7.8821+0	9.0228-2	7.6085+0	1.6866-1	4.7221-3		1.2829-1	1.2824-1	4.6105-5
1.1741+0	4.2333+0	5.2858-2	7.8034+0	8.7810-2	7.5548+0	1.5440-1	6.3115-3		1.2949-1	1.2945-1	4.4968-5
1.1801+0	4.2847+0	5.2469-2	7.7461+0	8.5474-2	7.5021+0	1.5031-1	8.1839-3		1.3071-1	1.3067-1	4.3879-5
1.2051+0	4.2835+0	5.2117-2	7.6941+0	8.3371-2	7.4538+0	1.4693-1	1.0189-2		1.3188-1	1.3182-1	4.2898-5
1.2275+0	4.3358+0	5.1808-2	7.6189+0	8.0389-2	7.3829+0	1.4211-1	1.3839-2		1.3359-1	1.3355-1	4.1295-5
1.2658+0	4.4090+0	5.0789-2	7.4975+0	7.5822-2	7.2688+0	1.3444-1	2.0854-2		1.3653-1	1.3649-1	3.8088-5
1.2949+0	4.4585+0	5.0188-2	7.4092+0	7.2249-2	7.1811+0	1.2897-1	2.6899-2		1.3890-1	1.3878-1	3.7479-5
1.3318+0	4.5229+0	4.9474-2	7.3038+0	6.8313-2	7.0773+0	1.2257-1	3.5849-2		1.4167-1	1.4163-1	3.5817-5
1.3829+0	4.5751+0	4.8909-2	7.2204+0	6.5289-2	6.9940+0	1.1759-1	4.3597-2		1.4408-1	1.4404-1	3.4170-5
1.3970+0	4.6320+0	4.8308-2	7.1317+0	6.2104-2	6.9042+0	1.1239-1	5.3077-2		1.4678-1	1.4674-1	3.2859-5
1.4558+0	4.7257+0	4.7350-2	6.9903+0	5.7204-2	6.7582+0	1.0429-1	7.0579-2		1.5143-1	1.5140-1	3.0305-5
1.5000+0	4.7833+0	4.6683-2	6.8918+0	5.3993-2	6.6543+0	9.8780-2	8.4840-2		1.5498-1	1.5494-1	2.8705-5
1.5898+0	4.9222+0	4.5480-2	6.7112+0	4.7989-2	6.4568+0	8.9444-2	1.1700-1		1.6229-1	1.6228-1	2.5925-5
1.7189+0	5.0903+0	4.3958-2	6.4897+0	4.1089-2	6.2010+0	7.8288-2	1.6931-1		1.7310-1	1.7308-1	2.2750-5
1.7847+0	5.1751+0	4.3238-2	6.3833+0	3.8097-2	6.0717+0	7.3418-2	2.0002-1		1.7830-1	1.7828-1	2.1334-5
1.8923+0	5.3043+0	4.2185-2	6.2278+0	3.3898-2	5.8780+0	6.8432-2	2.5152-1		1.8699-1	1.8698-1	1.9305-5
2.0440+0	5.4875+0	4.0928-2	6.0419+0	2.9080-2	5.6277+0	5.8340-2	3.2680-1		1.9989-1	1.9988-1	1.6953-5
2.0858+0	5.5130+0	4.0588-2	5.9821+0	2.7908-2	5.5605+0	5.6588-2	3.4710-1	3.9149-7	2.0303-1	2.0301-1	1.6435-5
2.1068+0	5.5348+0	4.0428-2	5.9884+0	2.7380-2	5.5279+0	5.5703-2	3.5749-1	1.2755-6	2.0471-1	2.0469-1	1.6187-5
2.1140+0	5.5425+0	4.0372-2	5.9802+0	2.7189-2	5.5184+0	5.5404-2	3.6124-1	1.7848-6	2.0531-1	2.0530-1	1.6100-5
2.1195+0	5.5481+0	4.0331-2	5.9541+0	2.7028-2	5.5079+0	5.5183-2	3.6404-1	2.1972-6	2.0578-1	2.0575-1	1.6038-5
2.1279+0	5.5587+0	4.0289-2	5.9450+0	2.6818-2	5.4950+0	5.4850-2	3.6835-1	2.8788-6	2.0845-1	2.0844-1	1.5839-5
2.1383+0	5.5651+0	4.0209-2	5.9360+0	2.6607-2	5.4822+0	5.4521-2	3.7267-1	3.8149-6	2.0714-1	2.0713-1	1.5844-5
2.1470+0	5.5757+0	4.0132-2	5.9248+0	2.6341-2	5.4659+0	5.4103-2	3.7828-1	5.3876-6	2.0803-1	2.0802-1	1.5722-5
2.1635+0	5.5919+0	4.0018-2	5.9076+0	2.5941-2	5.4411+0	5.3472-2	3.8700-1	8.1821-6	2.0941-1	2.0940-1	1.5539-5
2.1845+0	5.6131+0	3.9884-2	5.8852+0	2.5445-2	5.4100+0	5.2985-2	3.9702-1	1.2833-5	2.1112-1	2.1111-1	1.5310-5
2.2018+0	5.6303+0	3.9743-2	5.8673+0	2.5048-2	5.3848+0	5.2052-2	4.0541-1	1.7894-5	2.1254-1	2.1253-1	1.5129-5
2.2148+0	5.6429+0	3.9654-2	5.8541+0	2.4755-2	5.3660+0	5.1584-2	4.1178-1	2.2294-5	2.1392-1	2.1391-1	1.4990-5
2.2342+0	5.6615+0	3.9524-2	5.8349+0	2.4327-2	5.3383+0	5.0899-2	4.2140-1	2.8990-5	2.1524-1	2.1522-1	1.4791-5
2.2537+0	5.6797+0	3.9397-2	5.8182+0	2.3909-2	5.3109+0	5.0228-2	4.3120-1	3.8149-5	2.1688-1	2.1688-1	1.4595-5
2.2815+0	5.7050+0	3.9223-2	5.7905+0	2.3330-2	5.2723+0	4.9290-2	4.4545-1	5.4835-5	2.1824-1	2.1823-1	1.4323-5
2.3070+0	5.7274+0	3.9089-2	5.7678+0	2.2818-2	5.2377+0	4.8458-2	4.5875-1	7.2025-5	2.2144-1	2.2143-1	1.4081-5
2.3382+0	5.7539+0	3.8989-2	5.7412+0	2.2213-2	5.1981+0	4.7468-2	4.7537-1	9.6844-5	2.2417-1	2.2418-1	1.3794-5
2.3774+0	5.7880+0	3.8873-2	5.7094+0	2.1488-2	5.1451+0	4.6273-2	4.9842-1	1.3412-4	2.2765-1	2.2763-1	1.3447-5
2.4102+0	5.8138+0	3.8488-2	5.6821+0	2.0907-2	5.1034+0	4.5311-2	5.1227-1	1.7058-4	2.3048-1	2.3047-1	1.3187-5
2.4488+0	5.8438+0	3.8292-2	5.6530+0	2.0297-2	5.0580+0	4.4279-2	5.3028-1	2.1698-4	2.3369-1	2.3367-1	1.2868-5
2.4859+0	5.8742+0	3.8093-2	5.6237+0	1.9655-2	5.0106+0	4.3212-2	5.4992-1	2.7319-4	2.3717-1	2.3718-1	1.2557-5
2.5564+0	5.9256+0	3.7782-2	5.5748+0	1.8588-2	4.9281+0	4.1398-2	5.8637-1	3.9149-4	2.4361-1	2.4359-1	1.2030-5
2.6604+0	5.9942+0	3.7330-2	5.5111+0	1.7183-2	4.8129+0	3.8943-2	6.4147-1	6.0349-4	2.5341-1	2.5340-1	1.1318-5
2.7453+0	6.0497+0	3.6987-2	5.4605+0	1.6119-2	4.7240+0	3.7111-2	6.8243-1	8.0774-4	2.6135-1	2.6133-1	1.0784-5
2.8090+0	6.0878+0	3.6758-2	5.4283+0	1.5397-2	4.6801+0	3.6828-2	7.1398-1	9.7822-4	2.6747-1	2.6748-1	1.0411-5
2.8045+0	6.1392+0	3.6448-2	5.3809+0	1.4402-2	4.5886+0	3.4038-2	7.6260-1	1.2802-3	2.7693-1	2.7692-1	9.8911-6
3.0399+0	6.2042+0	3.6068-2	5.3245+0	1.3149-2	4.4467+0	3.1784-2	8.3113-1	1.7079-3	2.8074-1	2.8073-1	9.2392-6
3.2444+0	6.3072+0	3.5478-2	5.2378+0	1.1816-2	4.2715+0	2.9141-2	9.2281-1	2.4880-3	3.0933-1	3.0933-1	8.4682-6
3.4375+0	6.3905+0	3.5015-2	5.1693+0	1.0284-2	4.1082+0	2.6751-2	1.0227+0	3.3772-3	3.3018-1	3.3015-1	7.7738-6
3.7847+0	6.5071+0	3.4352-2	5.0714+0	8.4848-3	3.8580+0	2.3388-2	1.1784+0	5.1808-3	3.6844-1	3.6843-1	6.7908-6
4.0000+0	6.5639+0	3.4090-2	5.0327+0								

October 31, 1989
Atomic Weight 88.905

ENDL Evaluated
Photon Data

39-Y
Density 4.469 Grams/cc

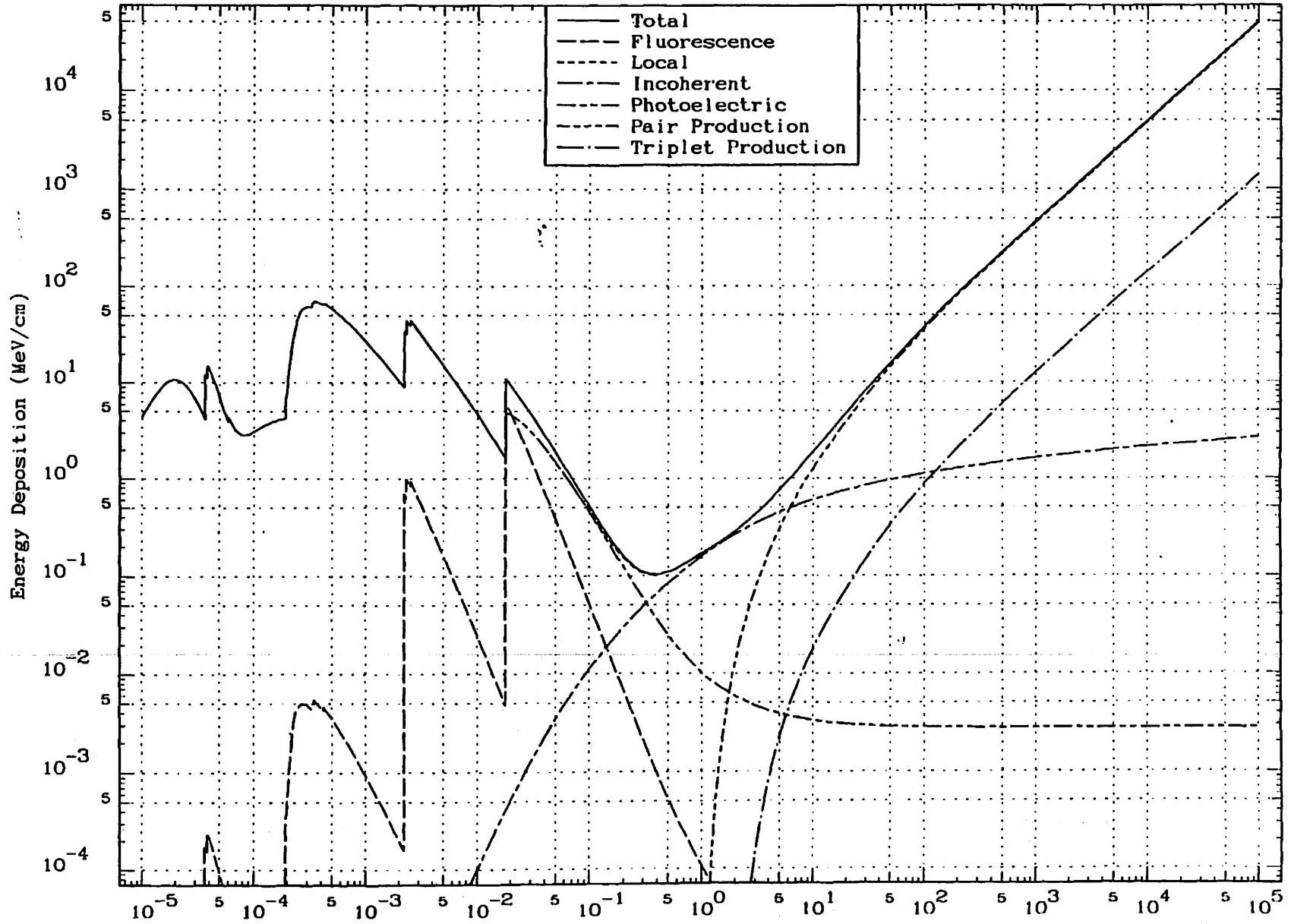
Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cc ⁻¹ /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.8000+ 1	5.1820+ 0	4.3098- 2	6.3628+ 0	1.7987- 4	9.5603- 1	2.3860- 3	5.2950+ 0	1.0900- 1	4.6435+ 0	4.6435+ 0	6.9336- 7
4.2170+ 1	4.6287+ 0	4.8343- 2	7.1368+ 0	6.8375- 5	6.5225- 1	1.4332- 3	6.3400+ 0	1.4312- 1	8.7110+ 0	8.7110+ 0	4.1649- 7
6.0000+ 1	4.2853+ 0	5.2217- 2	7.7088+ 0	3.3775- 5	4.8739- 1	9.8470- 4	7.0530+ 0	1.6740- 1	1.3579+ 1	1.3579+ 1	2.8905- 7
1.0000+ 2	3.8961+ 0	5.7433- 2	8.4788+ 0	1.2159- 5	3.1958- 1	5.8960- 4	7.9590+ 0	1.9960- 1	2.5215+ 1	2.5215+ 1	1.7133- 7
2.0000+ 2	3.5409+ 0	6.3195- 2	9.3295+ 0	5.0398- 6	1.7676- 1	2.8210- 4	8.9160+ 0	2.3640- 1	5.6000+ 1	5.6000+ 1	8.4883- 8
5.0000+ 2	3.2759+ 0	6.8306- 2	1.0084+ 1	4.8636- 7	7.9978- 2	1.1820- 4	9.7320+ 0	2.7190- 1	1.5212+ 2	1.5212+ 2	3.3767- 8
1.0000+ 3	3.1692+ 0	7.0605- 2	1.0423+ 1	1.2159- 7	4.3560- 2	5.7990- 5	1.0090+ 1	2.8983- 1	3.1501+ 2	3.1501+ 2	1.6852- 8
5.0000+ 3	3.0612+ 0	7.3098- 2	1.0791+ 1	4.8838- 9	1.0306- 2	1.1560- 5	1.0470+ 1	3.1090- 1	1.8328+ 3	1.8328+ 3	3.3851- 9
1.0000+ 4	3.0446+ 0	7.3496- 2	1.0850+ 1	1.2159- 9	5.5028- 3	5.7900- 6	1.0530+ 1	3.1480- 1	3.2840+ 3	3.2840+ 3	1.6825- 9
1.0000+ 5	3.0251+ 0	7.3968- 2	1.0920+ 1	1.2156- 11	6.6465- 4	5.7890- 7	1.0600+ 1	3.1920- 1	3.3056+ 4	3.3056+ 4	1.6823- 10

October 31, 1989
Atomic Weight 91.220

ENDL Evaluated
Energy Deposition

40-Zr
Density 6.506 Grams/cc

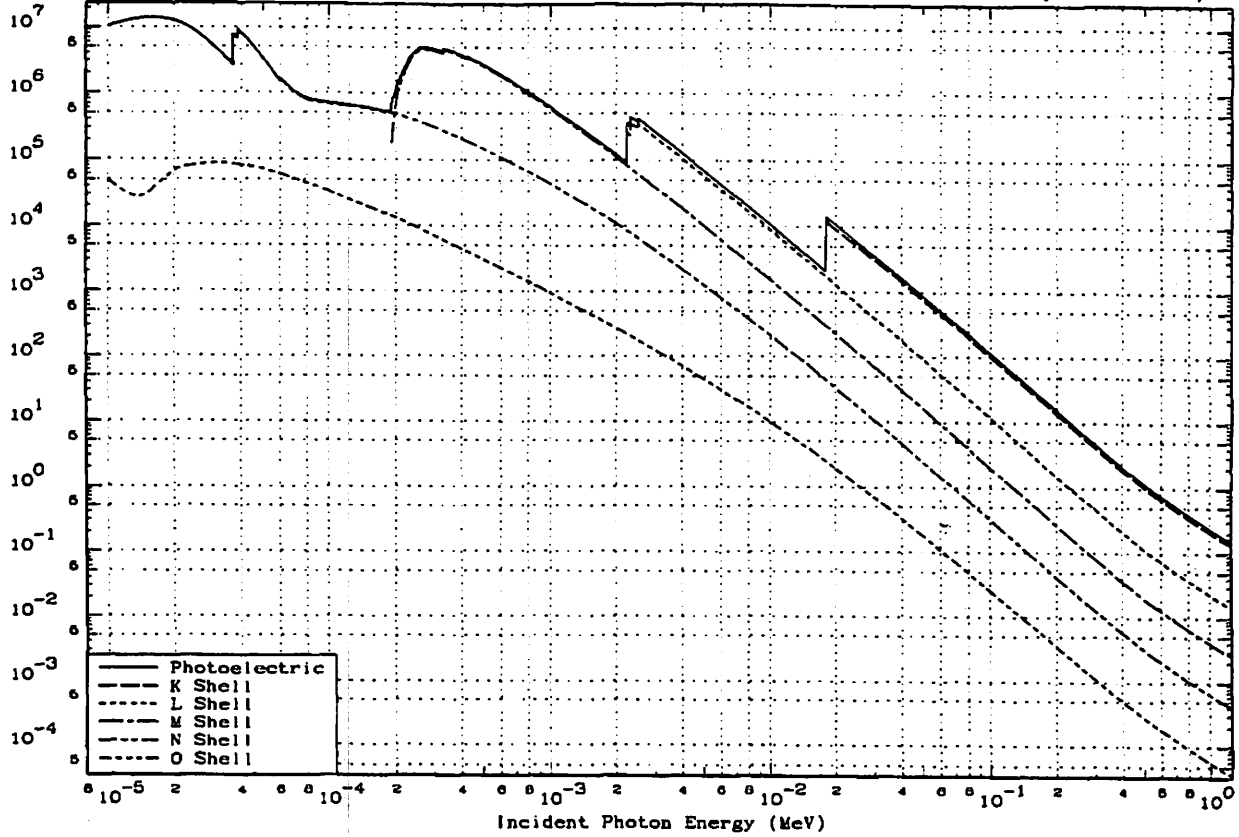
272



October 31, 1989
Atomic Weight 91.220

ENDL Evaluated
Photoelectric Shell Cross Sections

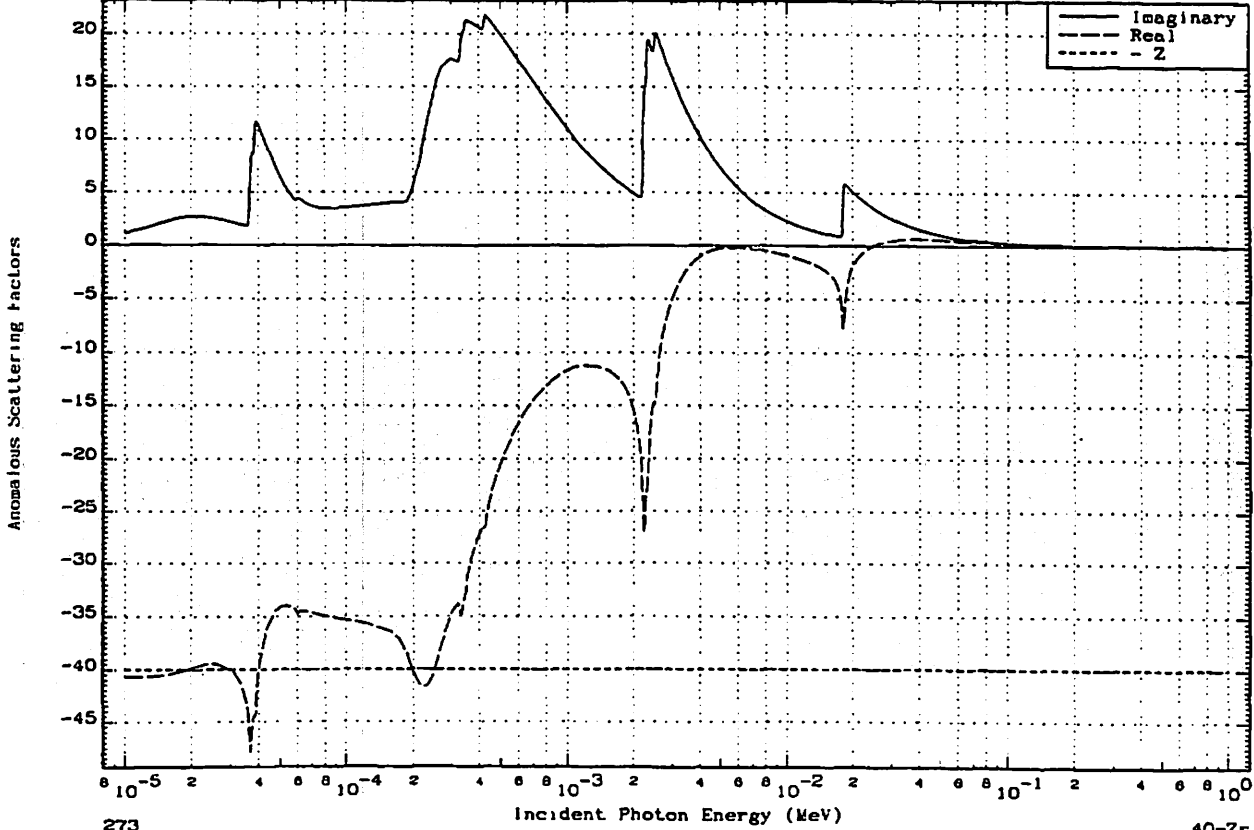
40-Zr
Density 6.506 Grams/cc



October 31, 1989
Atomic Weight 91.220

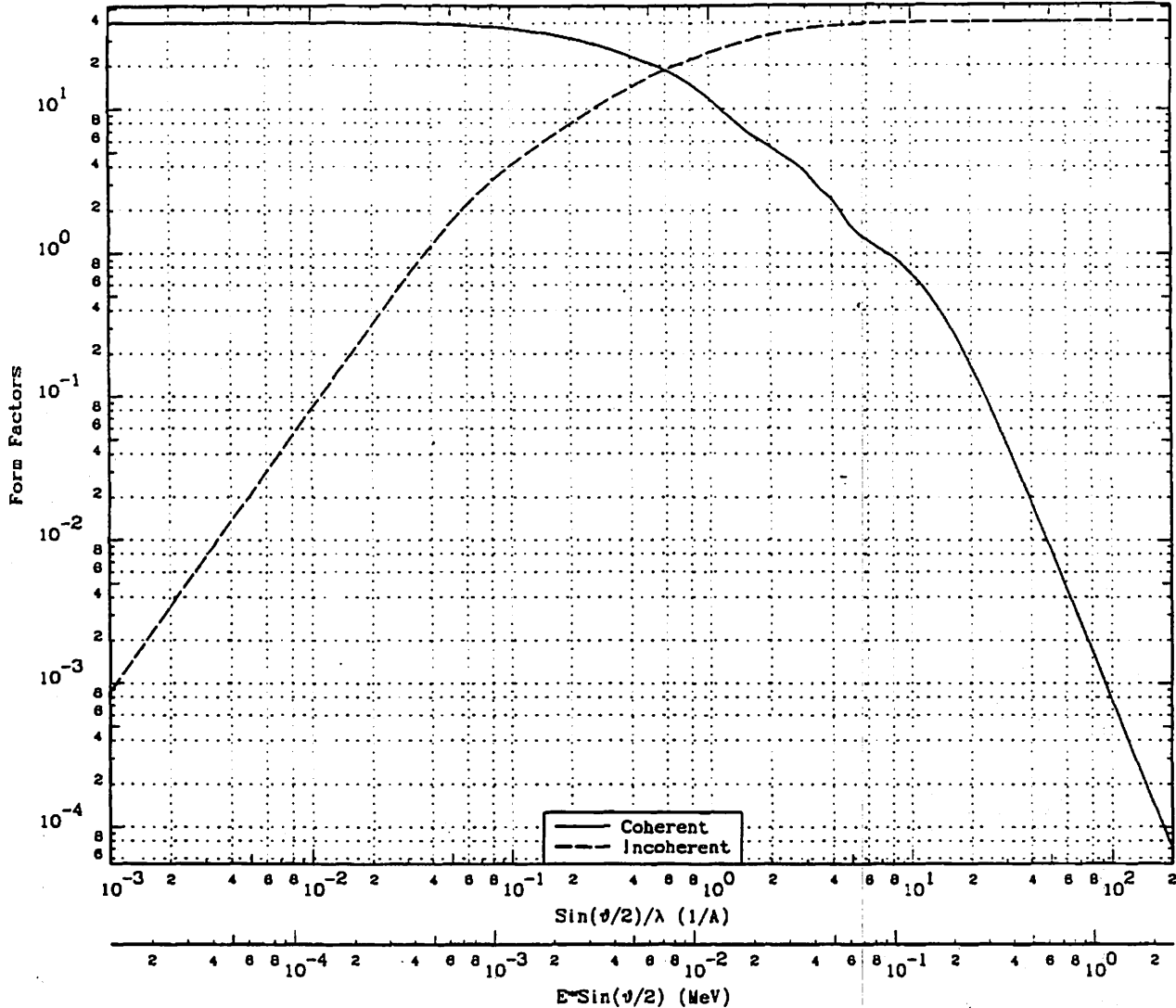
ENDL Evaluated
Anomalous Scattering Factors

40-Zr
Density 6.506 Grams/cc



273

40-Zr



$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E^* \sin(\theta/2)$ MeV	Coherent	Incoherent	$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E^* \sin(\theta/2)$ MeV	Coherent	Incoherent	$\frac{\sin(\theta/2)}{\lambda}$ 1/A	$E^* \sin(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	4.0000+1	0.0000+0	6.0000-1	7.4391-3	1.8814+1	1.8672+1	1.4178+1	1.7576-1	3.8323-1	3.9914+1
1.0000-3	1.2399-5	4.0000+1	8.8389-4	7.0000-1	8.6790-3	1.8688+1	2.0373+1	1.5000+1	1.8598-1	3.3855-1	3.9938+1
5.0000-3	6.1993-5	3.9982+1	2.1000-2	8.0000-1	9.9189-3	1.4911+1	2.1895+1	1.8385+1	2.2795-1	2.0504-1	3.9978+1
1.0000-2	1.2399-4	3.9944+1	8.3000-2	9.0000-1	1.1159-2	1.3285+1	2.3294+1	2.0000+1	2.4797-1	1.6319-1	3.9987+1
1.5000-2	1.8598-4	3.9884+1	1.8430-1	1.0000+0	1.2399-2	1.1777+1	2.4583+1	2.6028+1	3.2271-1	7.5400-2	3.9999+1
2.0000-2	2.4797-4	3.9798+1	3.2180-1	1.2500+0	1.5498-2	8.8899+0	2.7347+1	3.4389+1	4.2837-1	3.0938-2	4.0001+1
2.5000-2	3.0998-4	3.9683+1	4.9160-1	1.5000+0	1.8598-2	7.1491+0	2.9517+1	5.0000+1	6.1993-1	8.8730-3	4.0000+1
3.0000-2	3.7196-4	3.9549+1	6.8910-1	2.0000+0	2.4797-2	5.4599+0	3.2522+1	8.0000+1	9.9189-1	1.6828-3	4.0000+1
4.0000-2	4.8594-4	3.9221+1	1.1487+0	2.5000+0	3.0998-2	4.4788+0	3.4470+1	1.0000-2	1.2399+0	7.7249-4	4.0000+1
5.0000-2	6.1993-4	3.8831+1	1.8540+0	2.8945+0	3.5888-2	3.8377+0	3.5578+1	1.7117+2	2.1223+0	1.2356-4	4.0000+1
6.5000-2	8.0590-4	3.8138+1	2.4345+0	3.0000+0	3.7196-2	3.8453+0	3.5825+1	2.7479+2	3.4070+0	2.5797-5	4.0000+1
7.0000-2	8.6790-4	3.7889+1	2.8881+0	3.5000+0	4.3395-2	2.8139+0	3.6771+1	5.1200+2	6.3480+0	3.4794-6	4.0000+1
9.0000-2	1.1159-3	3.6849+1	3.8332+0	4.0000+0	4.8594-2	2.3913+0	3.7429+1	1.0000+3	1.2399+1	4.2571-7	4.0000+1
1.0000-1	1.2399-3	3.6313+1	4.0640+0	4.4617+0	5.5318-2	1.9451+0	3.7857+1	2.6333+3	3.2649+1	2.1821-8	4.0000+1
1.2500-1	1.5498-3	3.4995+1	5.0647+0	5.0000+0	6.1993-2	1.5461+0	3.8230+1	6.8119+3	8.1978+1	1.3737-9	4.0000+1
1.5000-1	1.8598-3	3.3719+1	6.0190+0	5.4258+0	6.7272-2	1.3757+0	3.8461+1	1.4899+4	1.8473+2	1.2449-10	4.0000+1
1.7500-1	2.1897-3	3.2496+1	6.9586+0	6.0000+0	7.4391-2	1.2385+0	3.8715+1	4.2848+4	5.2875+2	5.8011-12	4.0000+1
2.0000-1	2.4797-3	3.1323+1	7.8790+0	7.0000+0	8.6790-2	1.0701+0	3.9059+1	1.0000+6	1.2399+4	6.6806-16	4.0000+1
2.5000-1	3.0998-3	2.9078+1	9.8206+0	8.0000+0	9.9189-2	9.5260-1	3.8319+1	5.8234+6	6.9722+4	4.5345-18	4.0000+1
3.0000-1	3.7196-3	2.7009+1	1.1238+1	9.5078+0	1.1789-1	7.7229-1	3.9589+1	7.4989+7	9.2975+5	2.3942-21	4.0000+1
4.0000-1	4.8594-3	2.3518+1	1.4178+1	1.0000+1	1.2399-1	7.1750-1	3.9653+1	1.0000+9	1.2399+7	1.2154-24	4.0000+1
5.0000-1	6.1993-3	2.0808+1	1.6658+1	1.2089+1	1.4984-1	5.2605-1	3.9827+1				

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cm)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	2.2492-6	6.8338-4	1.0352+7	1.1210-0	1.8689-4	1.0352+7			4.4461+0	4.4461+0	
1.2286-5	1.8724-6	6.2091+4	1.2435+7	1.9663+0	2.8128-4	1.2435+7			6.5619+0	6.5619+0	
1.3194-5	1.7731-6	6.6685-4	1.3131+7	2.3424-0	3.2405-4	1.3131+7			7.4410+0	7.4410+0	
1.5066-5	1.6627-6	6.2441+4	1.4002+7	3.2552+0	4.2283-4	1.4002+7			9.0729+0	9.0729+0	
1.7012-5	1.6599-6	6.2589+4	1.4028+7	4.1434+0	5.3677-4	1.4028+7			1.0249+1	1.0249+1	
1.9468-5	1.6000-6	6.5391+4	1.2935+7	4.9765+0	7.0158-4	1.2934+7			1.0815+1	1.0815+1	
2.2134-5	2.1252-6	7.2325+4	1.0955+7	4.8233-0	9.0521-4	1.0955+7			1.0415+1	1.0415+1	
2.3882-5	2.4489-6	6.2768+4	9.5074+6	4.8565+0	1.0527-3	9.5074+6			8.7523+0	8.7523+0	
2.8014-5	2.9877-6	5.1448+4	7.7927+6	4.4067+0	1.2478-3	7.7927+6			8.7072+0	8.7072+0	
2.7820-5	3.5593-6	4.3184+4	6.5413+6	3.8529+0	1.4254-3	6.5413+6			7.8162+0	7.8162+0	
3.0951-5	4.8677-6	3.1576+4	4.7830+6	3.1123+0	1.7616-3	4.7830+6			6.3585+0	6.3585+0	
3.3781-5	6.5129-6	2.3600+4	3.5748+6	4.0562+0	2.0958-3	3.5748+6			5.1688+0	5.1688+0	
3.5317-5	7.6789-6	2.0022+4	3.0328+6	8.8909+0	2.2893-3	3.0328+6			4.6005+0	4.6005+0	
3.5851-5	8.1147-6	1.8941+4	2.8691+6	1.4783+1	2.3586-3	2.8691+6			4.4180+0	4.4180+0	
3.6004-5	8.2436-6	1.8645+4	2.8243+6	1.8226+1	2.3786-3	2.8243+6			4.3675+0	4.3675+0	
3.6188-5	8.3835-6	1.8334+4	2.7772+6	2.3932+1	2.4002-3	2.7771+6			4.3142+0	4.3142+0	
3.6510-5	8.6795-6	1.7709+4	2.6825+6	4.5280+1	2.4454-3	2.6824+6			4.2063+0	4.2063+0	
3.6589-5	8.7483-6	1.7588+4	2.6610+6	5.1629+1	2.4559-3	2.6610+6			4.1818+0	4.1818+0	
3.6740-5	8.8838-6	1.7302+4	2.6208+6	6.1145+1	2.4781-3	2.6207+6			4.1355+0	4.1355+0	
N3 3.6740-5	2.9789-6	5.1582+4	7.8133+6	6.1145+1	2.4781-3	7.8133+6			1.2330+1	1.2329+1	1.7397-4
3.6839-5	3.0045-6	5.1158+4	7.7492+6	8.8258+1	2.4893-3	7.7491+6			1.2281+1	1.2281+1	1.7288-4
3.6988-5	3.0448-6	5.0485+4	7.6471+6	7.3871+1	2.5108-3	7.6471+6			1.2152+1	1.2152+1	1.7083-4
3.7189-5	3.0870-6	4.9778+4	7.5398+6	7.4029+1	2.5338-3	7.5397+6			1.2037+1	1.2037+1	1.6847-4
3.7926-5	3.2911-6	4.8703+4	7.0743+6	6.2315+1	2.6374-3	7.0743+6			1.1524+1	1.1524+1	1.5931-4
3.8149-5	3.3537-6	4.5831+4	6.9423+6	6.3822+1	2.6682-3	6.9422+6			1.1375+1	1.1375+1	1.5675-4
3.8314-5	3.4005-6	4.5201+4	6.8467+6	6.7945+1	2.6911-3	6.8467+6			1.1287+1	1.1287+1	1.5489-4
3.8630-5	3.4917-6	4.4020+4	6.6879+6	8.1447+1	2.7355-3	6.6879+6			1.1063+1	1.1063+1	1.5140-4
M2 3.8630-5	2.5281-6	6.0788+4	9.2093+6	8.1447+1	2.7355-3	9.2092+6			1.5280+1	1.5280+1	2.4329-4
3.8774-5	2.5557-6	6.0141+4	9.1099+6	8.8215+1	2.7557-3	9.1099+6			1.5171+1	1.5171+1	2.4100-4
3.9014-5	2.6024-6	5.8082+4	8.9484+6	8.4142+1	2.7897-3	8.9483+6			1.4991+1	1.4991+1	2.3721-4
3.9201-5	2.6390-6	5.8243+4	8.8223+6	8.4687+1	2.8163-3	8.8222+6			1.4854+1	1.4854+1	2.3433-4
4.0471-5	2.9413-6	6.2257+4	7.9157+6	8.2814+1	3.0004-3	7.9156+6			1.3759+1	1.3759+1	2.1210-4
4.2295-5	3.4523-6	4.4522+4	6.7439+6	7.3994+1	3.2749-3	6.7439+6			1.2251+1	1.2251+1	1.8290-4
4.5986-5	4.8240-6	3.1863+4	4.8264+6	6.2111+1	3.8688-3	4.8263+6			8.5327+0	8.5328+0	1.3319-4
5.4899-5	1.0447-5	1.4713+4	2.2288+6	4.1143+1	5.4573-3	2.2288+6			5.2357+0	5.2357+0	6.3788-5
5.8407-5	1.3949-5	1.1019+4	1.8892+6	3.3917+1	8.2185-3	1.8891+6			4.1872+0	4.1872+0	4.8593-5
5.9713-5	1.5301-5	1.0048+4	1.5218+6	3.1180+1	8.4955-3	1.5218+6			3.9025+0	3.9025+0	4.4538-5
5.9960-5	1.5667-5	9.8736+3	1.4856+6	3.1545+1	8.5490-3	1.4856+6			3.8518+0	3.8518+0	4.3820-5
N1 5.9960-5	1.5674-5	1.1079+4	1.6782+6	3.1545+1	8.5490-3	1.6781+6			4.3218+0	4.3217+0	5.0489-5
6.1390-5	1.5079-5	1.0163+4	1.5440+6	3.3143+1	8.8828-3	1.5440+6			4.0711+0	4.0711+0	4.8788-5
6.7877-5	2.0385-5	7.5402+3	1.1422+6	2.9756+1	8.3227+3	1.1421+6			3.3199+0	3.3199+0	3.6589-5
7.0000-5	2.2246-5	6.8083+3	1.0488+6	2.8467+1	8.9060-3	1.0488+6			3.1488+0	3.1485+0	3.2917-5
7.8512-5	2.7498-5	5.5896+3	8.4668+5	2.6811+1	1.1185+2	8.4665+5			2.8551+0	2.8550+0	2.8778-5
9.0283-5	3.1345-5	4.8036+3	7.4277+5	2.3701+1	1.4781+2	7.4275+5			2.8802+0	2.8802+0	2.3124-5
1.0000-4	3.2709-6	4.6991+3	7.1180+5	2.3132+1	1.8083-2	7.1178+5			3.0572+0	3.0571+0	2.1888-5
1.2324-4	3.4922-5	4.4014+3	6.8669+5	2.2011+1	2.7307-2	6.8667+5			3.5288+0	3.5288+0	1.8472-5
1.5000-4	3.8054-5	4.0391+3	6.1183+5	1.9933+1	4.0240-2	6.1181+5			3.9417+0	3.9418+0	1.7354-5
1.5856-4	3.8654-5	3.8859+3	5.8862+5	1.8382+1	4.4896-2	5.8860+5			4.0066+0	4.0066+0	1.6609-5
1.7321-4	4.2140-5	3.8475+3	5.5250+5	1.6525+1	5.3444-2	5.5249+5			4.1101+0	4.1101+0	1.5490-5
1.8812-4	4.4894-5	3.4237+3	5.1861+5	1.2689+1	6.2900-2	5.1860+5			4.1902+0	4.1902+0	1.4518-5
1.9009-4	4.5253-5	3.3965+3	5.1449+5	1.2890+1	6.4206-2	5.1448+5			4.2004+0	4.2003+0	1.4399-5
1.9048-4	4.5327-5	3.3910+3	5.1365+5	1.3114+1	6.4475-2	5.1364+5			4.2025+0	4.2024+0	1.4375-5
M5 1.9048-4	3.3819-5	4.5449+3	6.8843+5	1.3114+1	6.4475-2	6.8842+5			5.8325+0	5.8325+0	2.4308-5
1.9309-4	3.3095-5	4.8443+3	7.0350+5	1.4638+1	6.8223-2	7.0348+5			5.8343+0	5.8342+0	2.5313-5
M4 1.9309-4	2.8121-5	5.4859+3	8.2784+5	1.4839+1	6.8223-2	8.2783+5			6.8864+0	6.8861+0	3.5280-4
1.9662-4	2.8737-5	5.7487+3	8.7078+5	1.6284+1	6.7948-2	8.7077+5			7.3183+0	7.3189+0	3.3747-4
1.9895-4	2.5347-5	6.0840+3	9.1855+5	1.7182+1	6.8860-2	9.1853+5			7.7700+0	7.7698+0	4.0198-4
1.9893-4	2.2833-5	6.7317+3	1.0197+6	1.8404+1	7.0022-2	1.0197+6			8.6990+0	8.6985+0	4.7278-4
2.0192-4	1.8284-5	6.4063+3	1.2733+6	2.2246+1	7.2327-2	1.2733+6			1.1043+1	1.1042+1	6.8788-4
2.0615-4	1.4685-5	1.0487+4	1.5855+6	2.8278+1	7.5353-2	1.5855+6			1.4039+1	1.4038+1	9.6814-4
2.1298-4	1.1196-5	1.3729+4	2.0788+6	4.0869+1	8.0340-2	2.0785+6			1.8021+1	1.8020+1	1.5057-3
2.2182-4	8.3860-6	1.8329+4	2.7763+6	6.1519+1	8.7050-2	2.7763+6			2.5451+1	2.5449+1	2.5502-3
2.2843-4	7.3872-6	2.0807+4	3.1517+6	7.3899+1	9.0580-2	3.1517+6			3.0652+1	3.0649+1	3.1744-3
2.3284-4	6.4302-6	2.3903+4	3.6208+6	9.4189+1	9.5598-2	3.6207+6			3.8210+1	3.8208+1	3.8455-3
2.4428-4	5.4325-6	2.8294+4	4.2858+6	1.2894+2	1.0486-1	4.2858+6			4.4982+1	4.4957+1	4.4342-3
2.5776-4	4.8408-6	3.1752+4	4.8096+6	1.6456+2	1.1635-1	4.8095+6			5.3247+1	5.3242+1	4.7791-3
2.6939-4	4.6422-6	3.3110+4	5.0153+6	1.9170+2	1.2870-1	5.0152+6			5.8028+1	5.8023+1	5.0226-3
3.0000-4	4.8571-6	3.1845+4	4.7834+6	2.2865+2	1.5598-1	4.7932+6			6.1782+1	6.1757+1	4.8702-3
3.2197-4	5.2829-6	2.9205+4	4.4238+6	2.2484+2	1.7880-1	4.4238+6			6.1174+1	6.1189+1	4.5087-3
3.2635-4	5.3442-6	2.8781+4	4.3565+6	2.2215+2	1.8338-1	4.3563+6			6.1082+1	6.1057+1	4.4428-3
3.2880-4	5.3900-6	2.8517+4	4.3198+6	2.2988+2	1.8597-1	4.3193+6			6.1000+1	6.0995+1	4.4068-3
3.3088-4	5.4286-6	2.8314+4	4.2888+6	2.4787+2	1.8818-1	4.2886+6			6.0548+1	6.0543+1	4.3764-3
M3 3.3088-4	4.9434-6	3.1093+4	4.7098+6	2.4787+2	1.8818-1	4.7095+6			6.6330+1	6.6325+1	5.0532-3
3.3283-4	4.9844-6	3.0961+4	4.6998+6	2.8417+2	1.9004-1	4.6998+6			6.8998+1	6.8993+1	5.0371-3
3.3642-4	5.0003-6	3.0739+4	4.6562+6	2.8563+2	1.9325-1	4.6559+6			6.7115+1	6.7110+1	5.0099-3
3.4424-4	5.1098-6	3.0081+4	4.5564+6	3.1579+2	2.0286-1	4.5561+6			6.7384+1	6.7359+1	4.8245-3
3.4493-4	5.1255-6	2.9968+4	4.5424+6	3.1963+2	2.0342-1	4.5421+6			6.7292+1	6.7287+1	4.8099-3
M2 3.4493-4	4.9250-6	3.1209+4	4.7273+6	3.1963+2	2.0342-1	4.7270+6			7.0031+1	7.0028+1	5.4385-3
3.4811-4	4.8918-6	3.0792+4	4.6841+6	3.3786+2	2.0896-1	4.6838+6			6.9732+1	6.9727+1	5.3735-3
3.5183-4	5.0701-6	3.0316+4	4.5921+6	3.4883+2	2.1111-1	4.5918+6			6.8388+1	6.8383+1	5.2983-3
3.5584-4	5.3819-6	2.8668+4	4.3422+6	3.8817+2	2.2890-1	4.3418+6			6.8188+1	6.8181+1	5.0454-3
4.0000-4	6.1099-6	2.5157+4	3.8108+6	3.8074+2	2.6847-1	3.8102+6			6.5481+1	6.5457+1	4.4993-3
4.1880-4	6.5273-6	2.3548+4	3.5669+6	3.9582+2	2.8233-1	3.5665+6			6.4124+1	6.4120+1	4.2418-3
4.2208-4	6.8099-6	2.3254+4	3.5224+6	4.1309+2	2.9887-1	3.5219+6			6.3845+1	6.3841+1	4.1845-3
M1 4.2208-4	6.3305-6	2.4280+4	3.6778+6	4.1309+2	2.9887-1	3.6774+6			6.6663+1	6.6659+1	4.8038-3
4.2900-4											

October 31, 1989
Atomic Weight 91.220

ENDL Evaluated
Photon Data

40-Zr
Density 6.506 Grams/cc

Energy keV	Total Mean Prec Path cm	Total cm ² /cm ² gram	Cross Sections (barns)					Energy Deposition (MeV/cm)		
			Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local
5.1287- 4	8.9294- 6	1.7213- 4	2.6074+ 6	5.2342+ 2	4.2082- 1	2.6068- 6	5.7424+ 1	5.7421+ 1	3.3899- 3	
6.3652- 4	1.3716- 5	1.1206+ 4	1.6974+ 6	5.6406+ 2	6.1095- 1	1.6969+ 6	4.6391+ 1	4.6388+ 1	2.3029- 3	
8.0000- 4	2.2287- 5	6.9029+ 3	1.0456- 8	5.7493+ 2	8.8442- 1	1.0450- 8	3.5908+ 1	3.5907+ 1	1.4797- 3	
1.0000- 3	3.6536- 5	4.2089+ 3	6.3725- 5	5.6468+ 2	1.2282- 0	6.3668+ 5	2.7346+ 1	2.7345+ 1	9.4024- 4	
1.2354- 3	5.9960- 6	2.5634+ 3	3.8630- 5	5.2896+ 2	1.6174- 0	3.8777- 5	2.0575+ 1	2.0574- 1	5.9473- 4	
1.5000- 3	9.4399- 5	1.6282+ 3	2.4664- 5	4.7390+ 2	2.0290- 0	2.4618+ 5	1.5859+ 1	1.5859+ 1	3.8988- 4	
1.7090- 3	1.2996- 4	1.1827+ 3	1.7915- 5	4.1937+ 2	2.3274- 0	1.7872+ 5	1.3119+ 1	1.3119+ 1	2.8904- 4	
1.8264- 3	1.5297- 4	1.0048+ 3	1.5221- 5	3.7898+ 2	2.4959- 0	1.5183+ 5	1.1910+ 1	1.1910+ 1	2.4816- 4	
1.9248- 3	1.7396- 4	8.8354+ 2	1.3383+ 5	3.3937+ 2	2.6374- 0	1.3349+ 5	1.1036+ 1	1.1038+ 1	2.2003- 4	
2.0294- 3	1.9817- 4	7.7562- 2	1.1749+ 5	2.8435+ 2	2.7884- 0	1.1720+ 5	1.0216+ 1	1.0216+ 1	1.9474- 4	
2.0931- 3	2.1393- 4	7.1847+ 2	1.0883+ 5	2.3982+ 2	2.8805- 0	1.0859+ 5	9.7622+ 0	9.7620+ 0	1.8115- 4	
2.1237- 3	2.2177- 4	6.9309+ 2	1.0499+ 5	2.1122- 2	2.9248- 0	1.0477+ 5	9.5567+ 0	9.5565+ 0	1.7512- 4	
2.1528- 3	2.2529- 4	6.7017+ 2	1.0151+ 5	1.8064+ 2	2.9631- 0	1.0133+ 5	9.3686+ 0	9.3684+ 0	1.6966- 4	
2.1745- 3	2.3521- 4	6.5348+ 2	9.8985+ 4	1.4836- 2	2.9921+ 0	9.8834+ 4	9.2308+ 0	9.2304+ 0	1.6570- 4	
2.1903- 3	2.3954- 4	6.4187+ 2	9.7198+ 4	1.1803+ 2	3.0132+ 0	9.7075+ 4	9.1325+ 0	9.1323+ 0	1.6291- 4	
2.2037- 3	2.4321- 4	6.3198+ 2	9.5728+ 4	9.5445+ 1	3.0308+ 0	9.5630+ 4	9.0513+ 0	9.0512+ 0	1.6081- 4	
2.2068- 3	2.4403- 4	6.2986+ 2	9.5408+ 4	9.2888+ 1	3.0348+ 0	9.5321+ 4	9.0335+ 0	9.0333+ 0	1.6011- 4	
2.2109- 3	2.4520- 4	6.2686+ 2	9.4954+ 4	9.1448+ 1	3.0404+ 0	9.4859+ 4	9.0079+ 0	9.0077+ 0	1.5839- 4	
2.2174- 3	2.4696- 4	6.2238+ 2	9.4275+ 4	9.7342+ 1	3.0490+ 0	9.4174+ 4	8.9691+ 0	8.9690+ 0	1.5829- 4	
2.2248- 3	2.4895- 4	6.1741+ 2	9.3522+ 4	1.1413+ 2	3.0588+ 0	9.3405+ 4	8.9255+ 0	8.9254+ 0	1.5707- 4	
L3 2.2248- 3	6.5108- 5	2.3608+ 3	3.5760+ 5	1.1413+ 2	3.0588+ 0	3.5748+ 5	3.4160+ 1	3.4167+ 1	6.9273- 1	
2.2425- 3	6.6977- 5	2.3052+ 3	3.4918+ 5	1.7900+ 2	3.0823+ 0	3.4900+ 5	3.3615+ 1	3.2940+ 1	6.7522- 1	
2.2512- 3	6.7460- 5	2.2785+ 3	3.4513+ 5	2.0939+ 2	3.0938+ 0	3.4492+ 5	3.3350+ 1	3.2684+ 1	6.6882- 1	
2.2829- 3	6.8521- 5	2.2432+ 3	3.3978+ 5	2.3717+ 2	3.1092+ 0	3.3954+ 5	3.3001+ 1	3.2345+ 1	6.5579- 1	
2.2782- 3	6.9755- 5	2.2035+ 3	3.3377+ 5	2.5097+ 2	3.1269+ 0	3.3352+ 5	3.2607+ 1	3.1964+ 1	6.4344- 1	
2.2892- 3	7.0968- 5	2.1658+ 3	3.2807+ 5	2.5853+ 2	3.1441+ 0	3.2781+ 5	3.2231+ 1	3.1599+ 1	6.3173- 1	
2.3027- 3	7.2239- 5	2.1277+ 3	3.2229+ 5	2.7845+ 2	3.1819+ 0	3.2201+ 5	3.1848+ 1	3.1229+ 1	6.1987- 1	
2.3122- 3	7.3099- 5	2.1027+ 3	3.1851+ 5	3.0293+ 2	3.1745+ 0	3.1820+ 5	3.1601+ 1	3.0989+ 1	6.1220- 1	
L2 2.3122- 3	5.2468- 5	2.9295+ 3	4.4374+ 5	3.0263+ 2	3.1745+ 0	4.4343+ 5	4.4038+ 1	4.3062+ 1	8.8575- 1	
2.3394- 3	5.3791- 5	2.8574+ 3	4.3283+ 5	3.8430+ 2	3.2065+ 0	4.3244+ 5	4.3398+ 1	4.2435+ 1	9.8149- 1	
2.3527- 3	5.4891- 5	2.8104+ 3	4.2571+ 5	4.2302+ 2	3.2280+ 0	4.2528+ 5	4.2974+ 1	4.2028+ 1	9.8587- 1	
2.3700- 3	5.5665- 5	2.7812+ 3	4.1828+ 5	4.4764+ 2	3.2510+ 0	4.1781+ 5	4.2530+ 1	4.1601+ 1	9.2917- 1	
2.4313- 3	5.9188- 5	2.5969+ 3	3.9336+ 5	4.8895+ 2	3.3319+ 0	3.9287+ 5	4.1026+ 1	4.0152+ 1	8.7410- 1	
2.4896- 3	6.2659- 5	2.4530+ 3	3.7157+ 5	4.9430+ 2	3.4088+ 0	3.7108+ 5	3.9679+ 1	3.8853+ 1	8.2594- 1	
2.5146- 3	6.4180- 5	2.3949+ 3	3.6277+ 5	5.1771+ 2	3.4418+ 0	3.6225+ 5	3.9124+ 1	3.8318+ 1	8.0643- 1	
L1 2.5146- 3	5.6286- 5	2.7307+ 3	4.1363+ 5	5.1771+ 2	3.4418+ 0	4.1310+ 5	4.4817+ 1	4.3878+ 1	9.4148- 1	
2.5537- 3	5.8392- 5	2.6323+ 3	3.9872+ 5	5.9150+ 2	3.4934+ 0	3.9813+ 5	4.3668+ 1	4.2761+ 1	9.0784- 1	
2.6085- 3	6.1638- 5	2.4977+ 3	3.7834+ 5	6.3524+ 2	3.5658+ 0	3.7770+ 5	4.2316+ 1	4.1455+ 1	8.6130- 1	
2.7597- 3	7.0740- 5	2.1728+ 3	3.2912+ 5	6.8742+ 2	3.7645+ 0	3.2843+ 5	3.8930+ 1	3.8181+ 1	7.4946- 1	
3.0544- 3	9.1244- 5	1.6845+ 3	2.5517+ 5	7.2090+ 2	4.1510+ 0	2.5444+ 5	3.3830+ 1	3.2800+ 1	5.8047- 1	
3.5759- 3	1.3814- 4	1.1290+ 3	1.7101+ 5	7.0728+ 2	4.7787+ 0	1.7030+ 5	2.8153+ 1	2.5784+ 1	3.8871- 1	
4.5137- 3	2.4847- 4	6.1881+ 2	9.3704+ 4	8.3819+ 2	5.8670+ 0	9.3082+ 4	1.8041+ 1	1.7829+ 1	2.1248- 1	
6.1952- 3	5.7201- 4	2.8871+ 2	4.0703+ 4	5.0042+ 2	7.5784+ 0	4.0195+ 4	1.0895+ 1	1.0804+ 1	9.1590- 2	
8.1398- 3	1.1865- 3	1.2857+ 2	1.9478+ 4	3.8374+ 2	9.1438+ 0	1.8083+ 4	6.6715+ 0	6.6282+ 0	4.3328- 2	
1.0000- 2	2.0843- 3	7.3745+ 1	1.1171+ 4	3.0214+ 2	1.0429+ 1	1.0658+ 4	4.6637+ 0	4.6391+ 0	2.4608- 2	
1.1884- 2	3.3371- 3	4.6060+ 1	6.9768+ 3	2.3829+ 2	1.1441+ 1	6.7271+ 3	3.4340+ 0	3.4187+ 0	1.5241- 2	
1.4178- 2	5.4208- 3	2.8354+ 1	4.2850+ 3	1.7891+ 2	1.2575+ 1	4.1055+ 3	2.5000+ 0	2.4908+ 0	2.4753- 3	
1.5549- 2	7.0188- 3	2.1905+ 1	3.3181+ 3	1.4448+ 2	1.3178+ 1	3.1604+ 3	2.1110+ 0	2.1039+ 0	7.1282- 3	
1.8381- 2	8.1248- 3	1.8918+ 1	2.8658- 3	1.2442- 2	1.3475+ 1	2.7277+ 3	1.8194+ 0	1.8133+ 0	6.1489- 3	
1.8820- 2	8.7810- 3	1.7544+ 1	2.6575- 3	1.1248- 2	1.3830+ 1	2.5314+ 3	1.8291+ 0	1.8233+ 0	5.7063- 3	
1.7283- 2	9.4828- 3	1.8209+ 1	2.4552- 3	9.8999+ 1	1.3790+ 1	2.3444+ 3	1.7408+ 0	1.7353+ 0	5.2838- 3	
1.7454- 2	9.7689- 3	1.5734+ 1	2.3833- 3	8.9378+ 1	1.3849+ 1	2.2801+ 3	1.7098+ 0	1.7045+ 0	5.1384- 3	
1.7802- 2	1.0033- 2	1.5319+ 1	2.3205- 3	8.0528+ 1	1.3900+ 1	2.2281+ 3	1.6834+ 0	1.6783+ 0	5.0184- 3	
1.7815- 2	1.0438- 2	1.4724+ 1	2.2304- 3	8.4572+ 1	1.3972+ 1	2.1518+ 3	1.6489+ 0	1.6420+ 0	4.8488- 3	
1.7893- 2	1.0574- 2	1.4538+ 1	2.2018- 3	8.2410+ 1	1.3986+ 1	2.1254+ 3	1.6338+ 0	1.6290+ 0	4.7891- 3	
1.7882- 2	1.0675- 2	1.4388+ 1	2.1809- 3	8.4578+ 1	1.4021+ 1	2.1023+ 3	1.6223+ 0	1.6178+ 0	4.7389- 3	
K 1.7982- 2	1.6262- 3	9.4520+ 1	1.4317+ 4	6.4578+ 1	1.4021+ 1	1.4239+ 4	1.0985+ 1	1.0851+ 1	8.1339+ 0	
1.8040- 2	1.6437- 3	9.3509+ 1	1.4184+ 4	7.1388+ 1	1.4048+ 1	1.4079+ 4	1.0908+ 1	1.0842+ 1	8.0658+ 0	
1.8178- 2	1.6745- 3	9.1793+ 1	1.3904+ 4	8.8023+ 1	1.4094+ 1	1.3802+ 4	1.0774+ 1	1.0725+ 1	7.9482+ 0	
1.8283- 2	1.6939- 3	9.0742+ 1	1.3745+ 4	9.6481+ 1	1.4122+ 1	1.3635+ 4	1.0692+ 1	1.0645+ 1	7.8788+ 0	
1.8345- 2	1.7127- 3	8.9748+ 1	1.3594+ 4	1.0257+ 2	1.4149+ 1	1.3477+ 4	1.0618+ 1	1.0568+ 1	7.8100+ 0	
1.8510- 2	1.7519- 3	8.7738+ 1	1.3290+ 4	1.0978+ 2	1.4204+ 1	1.3189+ 4	1.0484+ 1	1.0435+ 1	7.6773+ 0	
1.8902- 2	1.8481- 3	8.3188+ 1	1.2588+ 4	1.1851+ 2	1.4333+ 1	1.2485+ 4	1.0120+ 1	1.0074+ 1	7.5378+ 0	
1.9342- 2	1.9802- 3	7.8414+ 1	1.1878+ 4	1.2385+ 2	1.4478+ 1	1.1740+ 4	9.7483+ 0	9.6796+ 0	5.0898+ 0	
2.0730- 2	2.3434- 3	6.5592+ 1	9.8355+ 3	1.2887+ 2	1.4815+ 1	9.7939+ 3	8.6973+ 0	8.4582+ 0	4.2411+ 0	
2.2360- 2	2.8500- 3	5.3931+ 1	8.1892+ 3	1.2198+ 2	1.5347+ 1	8.0319+ 3	7.8748+ 0	7.7848+ 0	3.4800+ 0	
2.6948- 2	4.6505- 3	3.3051+ 1	5.0084+ 3	1.0180+ 2	1.8295+ 1	4.8888+ 3	5.6481+ 0	5.5097+ 0	2.1384+ 0	
3.4841- 2	9.1404- 3	1.8818+ 1	2.5472+ 3	7.2677+ 1	1.7342+ 1	2.4572+ 3	3.8577+ 0	3.7804+ 0	1.0797+ 0	
4.7865- 2	2.1890- 2	7.0215+ 0	1.0836+ 3	4.3857+ 1	1.8189+ 1	1.0015+ 3	2.0511+ 0	2.0085+ 0	4.4281- 1	
7.4448- 2	7.3318- 2	2.0964+ 0	3.1755+ 2	1.9958+ 1	1.8405+ 1	2.7919+ 2	6.8971+ 1	7.7571+ 1	1.2399- 1	
1.0000- 1	1.5885- 1	9.6880- 1	1.4875+ 2	1.1852+ 1	1.8014+ 1	1.1708+ 2	5.1413- 1	4.8212- 1	5.2010- 2	
1.2708- 1	2.8221- 1	5.4485- 1	8.2501+ 1	7.4604+ 0	1.7294+ 1	5.7747+ 1	3.3081- 1	3.0493- 1	2.5881- 2	
1.6203- 1	4.7088- 1	3.2858- 1	4.9465+ 1	4.7004+ 0	1.6501+ 1	2.8284+ 1	2.1817- 1	2.0859- 1	1.2583- 2	
2.0000- 1	6.8374- 1	2.2480- 1	3.4051+ 1	3.1280+ 0	1.5851+ 1	1.5273+ 1	1.8101- 1	1.5421- 1	6.8049- 3	
2.4949- 1	9.4238- 1	1.8310- 1	2.4708+ 1	2.0302+ 0	1.4658+ 1	8.0189+ 0	1.2505- 1	1.2148- 1	3.5685- 3	
2.8517- 1	1.1054+ 0	1.3904+ 0	2.1061+ 1	1.5608+ 0	1.4053+ 1	5.4475+ 0	1.1266+ 1	1.1024+ 1	2.4240+ 3	
3.5445- 1	1.3977+ 0	1.1238- 1	1.7023+ 1	1.0163						

October 31, 1989
Atomic Weight 91.220

ENDL Evaluated
Photon Data

40-Zr
Density 6.506 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0301+0	2.6946+0	5.7042-2	8.6404+0	1.2160-1	8.2834+0	2.2522-1	1.5028-6		1.7343-1	1.7333-1	1.0043-4
1.0310+0	2.6959+0	5.7013-2	8.6381+0	1.2159-1	8.2897+0	2.2482-1	2.0564-6		1.7353-1	1.7342-1	1.0026-4
1.0320+0	2.6974+0	5.6981-2	8.6312+0	1.2135-1	8.2855+0	2.2439-1	2.8137-6		1.7364-1	1.7354-1	1.0006-4
1.0332+0	2.6993+0	5.6943-2	8.6255+0	1.2107-1	8.2805+0	2.2387-1	3.9415-6		1.7377-1	1.7367-1	9.9829-5
1.0340+0	2.7005+0	5.6918-2	8.6216+0	1.2089-1	8.2772+0	2.2352-1	4.8398-6		1.7386-1	1.7376-1	9.9675-5
1.0353+0	2.7024+0	5.6877-2	8.6154+0	1.2059-1	8.2718+0	2.2296-1	6.5677-6		1.7400-1	1.7390-1	9.9425-5
1.0366+0	2.7044+0	5.6834-2	8.6089+0	1.2028-1	8.2663+0	2.2239-1	8.7320-6		1.7415-1	1.7405-1	9.9188-5
1.0382+0	2.7068+0	5.6785-2	8.6015+0	1.1992-1	8.2598+0	2.2172-1	1.1784-5		1.7432-1	1.7422-1	9.8870-5
1.0397+0	2.7090+0	5.6738-2	8.5943+0	1.1957-1	8.2536+0	2.2108-1	1.5310-5		1.7449-1	1.7439-1	9.8585-5
1.0415+0	2.7117+0	5.6681-2	8.5858+0	1.1916-1	8.2463+0	2.2032-1	2.0370-5		1.7468-1	1.7459-1	9.8245-5
1.0438+0	2.7152+0	5.6609-2	8.5749+0	1.1864-1	8.2368+0	2.1935-1	2.8274-5		1.7494-1	1.7484-1	9.7813-5
1.0484+0	2.7191+0	5.6528-2	8.5526+0	1.1805-1	8.2262+0	2.1826-1	3.9338-5		1.7523-1	1.7513-1	9.7237-5
1.0483+0	2.7219+0	5.6489-2	8.5538+0	1.1763-1	8.2185+0	2.1747-1	4.8978-5		1.7543-1	1.7534-1	9.6875-5
1.0512+0	2.7262+0	5.6390-2	8.5401+0	1.1698-1	8.2067+0	2.1627-1	6.6436-5		1.7575-1	1.7566-1	9.6441-5
1.0541+0	2.7305+0	5.6291-2	8.5267+0	1.1635-1	8.1951+0	2.1509-1	8.7320-5		1.7607-1	1.7598-1	9.5915-5
1.0577+0	2.7359+0	5.6180-2	8.5099+0	1.1556-1	8.1806+0	2.1382-1	1.1902-4		1.7647-1	1.7638-1	9.5280-5
1.0611+0	2.7410+0	5.6077-2	8.4942+0	1.1482-1	8.1670+0	2.1226-1	1.5482-4		1.7685-1	1.7675-1	9.4651-5
1.0651+0	2.7469+0	5.5956-2	8.4758+0	1.1396-1	8.1511+0	2.1065-1	2.0496-4		1.7729-1	1.7719-1	9.3941-5
1.0704+0	2.7547+0	5.5797-2	8.4519+0	1.1284-1	8.1302+0	2.0859-1	2.8595-4		1.7787-1	1.7778-1	9.3013-5
1.0762+0	2.7632+0	5.5625-2	8.4258+0	1.1163-1	8.1074+0	2.0634-1	3.9518-4		1.7851-1	1.7842-1	9.2014-5
1.0806+0	2.7697+0	5.5466-2	8.4062+0	1.1073-1	8.0903+0	2.0467-1	4.8351-4		1.7899-1	1.7890-1	9.1287-5
1.0871+0	2.7791+0	5.5306-2	8.3775+0	1.0942-1	8.0652+0	2.0223-1	6.8492-4		1.7971-1	1.7962-1	9.0179-5
1.0937+0	2.7897+0	5.5118-2	8.3487+0	1.0811-1	8.0399+0	1.9979-1	8.7320-4		1.8044-1	1.8035-1	8.9092-5
1.1026+0	2.8016+0	5.4864-2	8.3104+0	1.0638-1	8.0063+0	1.9658-1	1.2106-3		1.8141-1	1.8133-1	8.7662-5
1.1107+0	2.8132+0	5.4637-2	8.2761+0	1.0484-1	7.9760+0	1.9373-1	1.5789-3		1.8230-1	1.8222-1	8.6389-5
1.1206+0	2.8273+0	5.4384-2	8.2348+0	1.0300-1	7.9394+0	1.9032-1	2.1120-3		1.8339-1	1.8331-1	8.4870-5
1.1333+0	2.8452+0	5.4022-2	8.1829+0	1.0072-1	7.8932+0	1.8609-1	2.9364-3		1.8479-1	1.8471-1	8.2979-5
1.1475+0	2.8651+0	5.3648-2	8.1262+0	9.8254-2	7.8424+0	1.8151-1	4.0541-3		1.8635-1	1.8627-1	8.0939-5
1.1582+0	2.8799+0	5.3372-2	8.0845+0	9.6455-2	7.8048+0	1.7617-1	5.0382-3		1.8752-1	1.8745-1	7.8451-5
1.1741+0	2.9016+0	5.2972-2	8.0239+0	9.3873-2	7.7499+0	1.7338-1	6.7341-3		1.8927-1	1.8920-1	7.7314-5
1.1901+0	2.9232+0	5.2580-2	7.9848+0	9.1376-2	7.6957+0	1.6879-1	8.7320-3		1.9104-1	1.9096-1	7.5268-5
1.2051+0	2.9430+0	5.2226-2	7.9109+0	8.9127-2	7.6460+0	1.6500-1	1.0872-2		1.9271-1	1.9264-1	7.3576-5
1.2275+0	2.9722+0	5.1714-2	7.8334+0	8.5919-2	7.5734+0	1.5957-1	1.4553-2		1.9521-1	1.9514-1	7.1158-5
1.2856+0	3.0205+0	5.0888-2	7.7082+0	8.0845-2	7.4544+0	1.5098-1	2.2036-2		1.9948-1	1.9941-1	6.7319-5
1.2949+0	3.0565+0	5.0287-2	7.6173+0	7.7239-2	7.3885+0	1.4482-1	2.8591-2		2.0277-1	2.0270-1	6.4580-5
1.3318+0	3.1007+0	4.9571-2	7.5087+0	7.3032-2	7.2801+0	1.3782-1	3.8005-2		2.0694-1	2.0688-1	6.1369-5
1.3828+0	3.1388+0	4.8004-2	7.4228+0	6.9778-2	7.1748+0	1.3203-1	4.8459-2		2.1043-1	2.1037-1	5.8874-5
1.3970+0	3.1756+0	4.7402-2	7.3316+0	6.6396-2	7.0825+0	1.2619-1	5.6519-2		2.1436-1	2.1430-1	5.6270-5
1.4558+0	3.2399+0	4.6421-2	7.1862+0	6.1157-2	6.9328+0	1.1709-1	7.5079-2		2.2113-1	2.2107-1	5.2213-5
1.5000+0	3.2962+0	4.5773-2	7.0849+0	5.7618-2	6.8263+0	1.1090-1	9.0180-2		2.2627-1	2.2622-1	4.9454-5
1.5898+0	3.3744+0	4.5550-2	6.8998+0	5.1305-2	6.6237+0	1.0042-1	1.2420-1		2.3694-1	2.3689-1	4.4779-5
1.7188+0	3.4892+0	4.4051-2	6.6727+0	4.3908-2	6.3614+0	8.7890-2	1.7952-1		2.5272-1	2.5268-1	3.9193-5
1.7847+0	3.5470+0	4.3333-2	6.5639+0	4.0731-2	6.2288+0	8.2420-2	2.1196-1		2.6032-1	2.6028-1	3.6753-5
1.8923+0	3.6349+0	4.2286-2	6.4052+0	3.6240-2	6.0280+0	7.4578-2	2.6835-1		2.7302-1	2.7299-1	3.3256-5
2.0440+0	3.7457+0	4.1035-2	6.2157+0	3.1070-2	5.7734+0	6.5480-2	3.4580-1		2.9185-1	2.9182-1	2.9204-5
2.0858+0	3.7766+0	4.0700-2	6.1650+0	2.9838-2	5.7044+0	6.3484-2	3.6720-1	4.0144-7	2.9654-1	2.9651-1	2.8309-5
2.1066+0	3.7913+0	4.0541-2	6.1409+0	2.9253-2	5.6710+0	6.2524-2	3.7816-1	1.3080-6	2.9901-1	2.9898-1	2.7881-5
2.1140+0	3.7985+0	4.0486-2	6.1325+0	2.9049-2	5.6592+0	6.2189-2	3.8211-1	1.8097-6	2.9990-1	2.9987-1	2.7732-5
2.1195+0	3.8003+0	4.0445-2	6.1264+0	2.8898-2	5.6505+0	6.1940-2	3.8507-1	2.2531-6	3.0056-1	3.0053-1	2.7621-5
2.1279+0	3.8061+0	4.0383-2	6.1171+0	2.8871-2	5.6372+0	6.1565-2	3.8981-1	3.0556-6	3.0157-1	3.0154-1	2.7454-5
2.1363+0	3.8118+0	4.0323-2	6.1079+0	2.8447-2	5.6241+0	6.1196-2	3.9416-1	4.0144-6	3.0258-1	3.0255-1	2.7289-5
2.1470+0	3.8190+0	4.0247-2	6.0964+0	2.8163-2	5.6074+0	6.0725-2	4.0007-1	5.5041-6	3.0389-1	3.0388-1	2.7079-5
2.1635+0	3.8300+0	4.0132-2	6.0790+0	2.7738-2	5.5820+0	6.0015-2	4.0526-1	6.8997-6	3.0592-1	3.0589-1	2.6783-5
2.1845+0	3.8443+0	3.9982-2	6.0563+0	2.7206-2	5.5501+0	5.9131-2	4.1953-1	1.3262-5	3.0843-1	3.0840-1	2.6368-5
2.2018+0	3.8559+0	3.9862-2	6.0380+0	2.6780-2	5.5242+0	5.8419-2	4.2866-1	1.8349-5	3.1052-1	3.1049-1	2.6051-5
2.2148+0	3.8645+0	3.9773-2	6.0247+0	2.6467-2	5.5049+0	5.7893-2	4.3538-1	2.2861-5	3.1210-1	3.1207-1	2.5816-5
2.2342+0	3.8770+0	3.9645-2	6.0052+0	2.6010-2	5.4765+0	5.7122-2	4.4551-1	3.0752-5	3.1448-1	3.1445-1	2.5473-5
2.2537+0	3.8894+0	3.9519-2	5.9882+0	2.5583-2	5.4484+0	5.6366-2	4.5584-1	4.0144-5	3.1889-1	3.1886-1	2.5135-5
2.2815+0	3.9064+0	3.9347-2	5.9600+0	2.4944-2	5.4088+0	5.5313-2	4.7084-1	5.6229-5	3.2037-1	3.2034-1	2.4666-5
2.3070+0	3.9216+0	3.9195-2	5.9370+0	2.4396-2	5.3733+0	5.4376-2	4.8486-1	7.3857-5	3.2360-1	3.2358-1	2.4248-5
2.3382+0	3.9394+0	3.9017-2	5.9101+0	2.3750-2	5.3306+0	5.3268-2	5.0238-1	9.9307-5	3.2781-1	3.2759-1	2.3753-5
2.3774+0	3.9610+0	3.8804-2	5.8779+0	2.2974-2	5.2783+0	5.1922-2	5.2452-1	1.3753-4	3.3272-1	3.3270-1	2.3154-5
2.4102+0	3.9798+0	3.8821-2	5.8501+0	2.2354-2	5.2358+0	5.0841-2	5.4121-1	1.7491-4	3.3689-1	3.3687-1	2.2871-5
2.4468+0	3.9999+0	3.8427-2	5.8207+0	2.1691-2	5.1889+0	4.9677-2	5.6018-1	2.2250-4	3.4181-1	3.4159-1	2.2152-5
2.4859+0	4.0204+0	3.8231-2	5.7810+0	2.1014-2	5.1404+0	4.8481-2	5.8085-1	2.8014-4	3.4674-1	3.4671-1	2.1619-5
2.5564+0	4.0550+0	3.7905-2	5.7417+0	1.9872-2	5.0557+0	4.6442-2	6.1921-1	4.0144-4	3.5621-1	3.5619-1	2.0710-5
2.6804+0	4.1009+0	3.7481-2	5.6774+0	1.8351-2	4.9376+0	4.3683-2	6.7719-1	6.1884-4	3.7086-1	3.7084-1	1.9479-5
2.7453+0	4.1381+0	3.7144-2	5.6263+0	1.7234-2	4.8464+0	4.1624-2	7.2029-1	8.2828-4	3.8235-1	3.8233-1	1.8562-5
2.8090+0	4.1635+0	3.6917-2	5.5920+0	1.6463-2	4.7809+0	4.0183-2	7.5348-1	1.0031-3	3.9137-1	3.9135-1	1.7919-5
2.9045+0	4.1977+0	3.6616-2	5.5464+0	1.5399-2	4.6869+0	3.8171-2	8.0462-1	1.2922-3	4.0533-1	4.0531-1	1.7022-5
3.0399+0	4.2408+0	3.6244-2	5.4901+0	1.4059-2	4.5819+0	3.5651-2	8.7888-1	1.7514-3	4.2570-1	4.2569-1	1.5898-5
3.2344+0	4.3052+0	3.5689-2	5.4029+0	1.2420-2	4.4382+0	3.2672-2	9.7308-1	2.5308-3	4.5318-1	4.5317-1	1.4569-5
3.3745+0	4.3639+0	3.5221-2	5.3351+0	1.0996-2	4.2126+0	2.9989-2	1.0781+0	3.4631-3	4.8398-1	4.8397-1	1.3373-5
3.7847+0	4.4449+0	3.4580-2	5.2390+0	9.0721-3	3.9590+0	2.6182-2	1.2395+0	5.3129-3	5.3764-1	5.3763-1	1.1680-5
4.0000+0	4.4769+0	3.4333-2	5.2005+0	8.1223-3	3.8188+0	2.4230-2	1.3430+0	6.5820-3	5.7375-1	5.7374-1	1.0605-5
4.2500+0	4.5135+0	3.4054-2	5.1584+0	7.1951-3	3.6715+0	2.2354-2	1.4492+0	8.1342-3	6.1533-1	6.1532-1	9.9882-6
4.7500+0	4.5483+0	3.3794-2	5.1190+0	5.7805-3	3.4181+0	1.9281-2	1.6884+0	1.1381-2	7.0602-1	7.0602-1	8.5800-6
5.5135+0	4.5898+0										

October 31, 1989
Atomic Weight 91.220

ENDL Evaluated
Photon Data

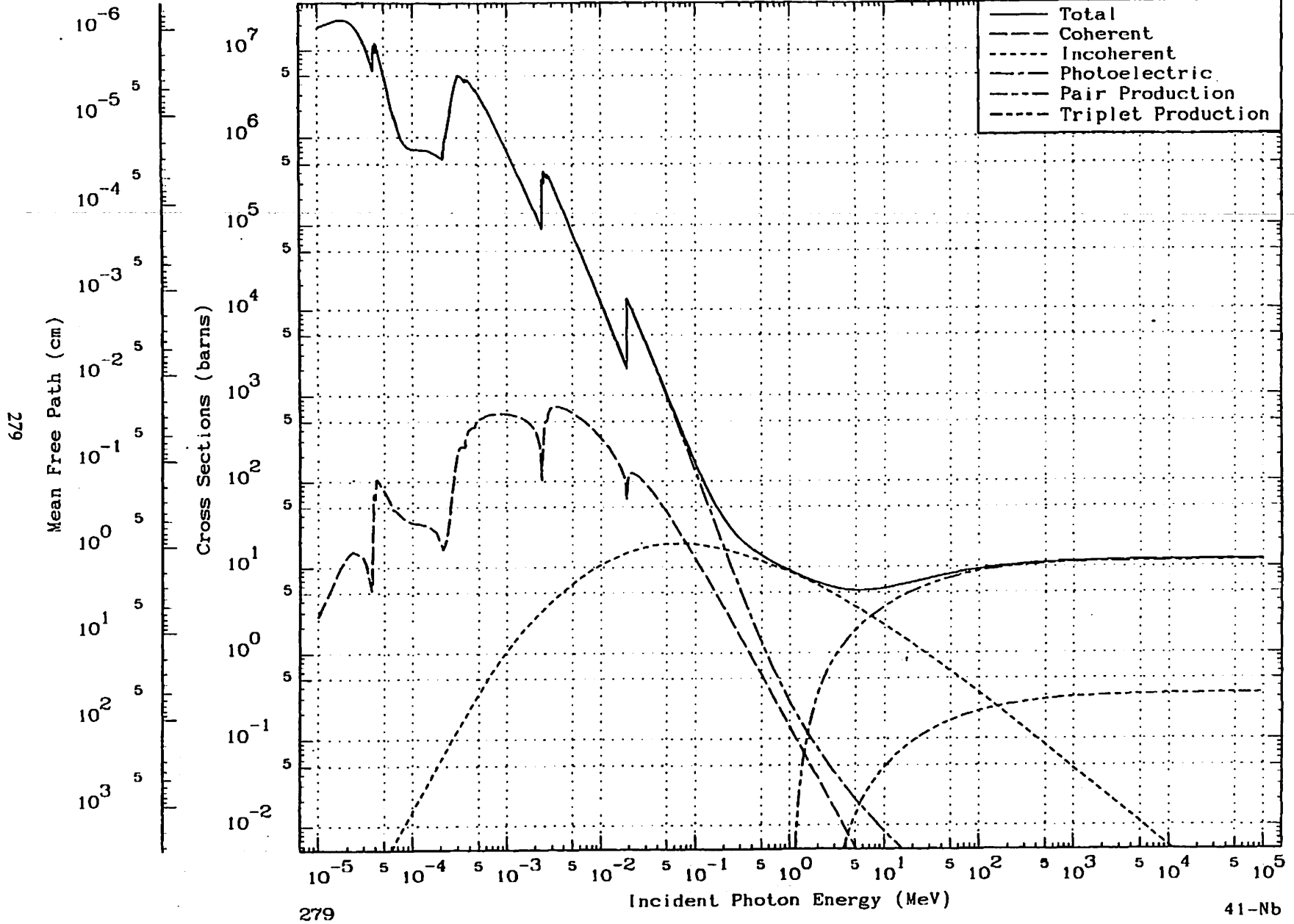
40-Zr
Density 6.506 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000+ 2	2.8213+ 0	5.8637- 2	8.8820+ 0	1.3001- 5	3.2788- 1	6.5890- 4	8.3490+ 0	2.0440- 1	3.7483+ 1	3.7483+ 1	2.9382- 7
2.0000+ 2	2.3816+ 0	6.4537- 2	9.7758+ 0	3.2502- 6	1.8135- 1	3.2640- 4	9.3520+ 0	2.4210- 1	8.3263+ 1	8.3263+ 1	1.4555- 7
5.0000+ 2	2.2028+ 0	6.9785- 2	1.0571+ 1	5.2004- 7	8.2055- 2	1.2860- 4	1.0210+ 1	2.7840- 1	2.2628+ 2	2.2628+ 2	5.7882- 8
1.0000+ 3	2.1299+ 0	7.2167- 2	1.0831+ 1	1.3001- 7	4.4691- 2	6.4800- 5	1.0590+ 1	2.9660- 1	4.6875+ 2	4.6875+ 2	2.8896- 8
5.0000+ 3	2.0588+ 0	7.4658- 2	1.1309+ 1	5.2004- 9	1.0573- 2	1.2940- 5	1.0980+ 1	3.1820- 1	2.4278+ 3	2.4278+ 3	5.7704- 9
1.0000+ 4	2.0481+ 0	7.5048- 2	1.1388+ 1	1.3001- 9	5.6457- 3	6.4690- 6	1.1040+ 1	3.2210- 1	4.8818+ 3	4.8818+ 3	2.8847- 9
1.0000+ 5	2.0357+ 0	7.5506- 2	1.1437+ 1	1.2998-11	6.8191- 4	6.4680- 7	1.1110+ 1	3.2650- 1	4.9123+ 4	4.9123+ 4	2.8843-10

OCTOBER 31, 1969
Atomic Weight 92.906

ENDL EVALUATED
Photon Cross Sections

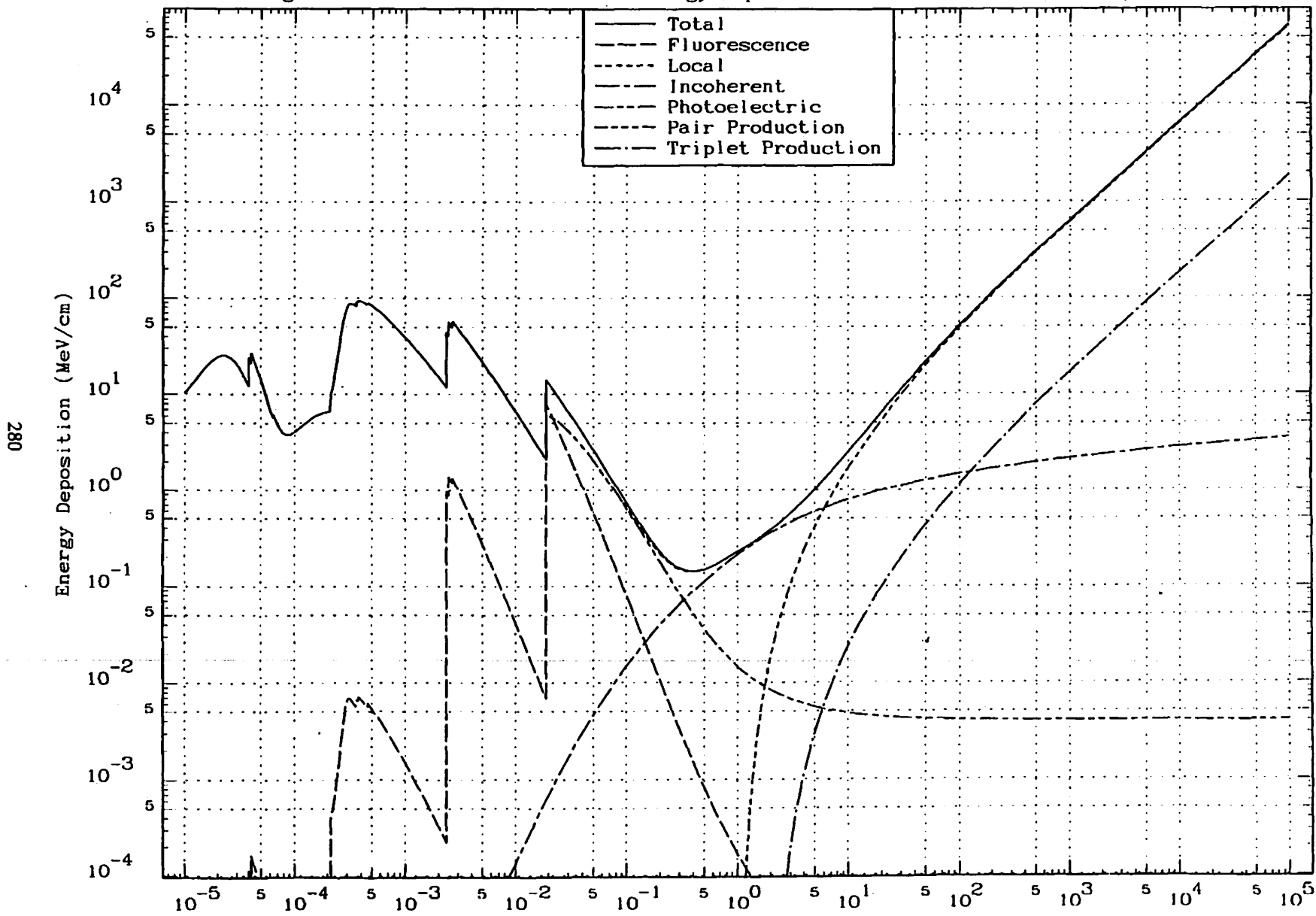
41 Nb
Density 8.570 Grams/cc



October 31, 1989
Atomic Weight 92.906

ENDL Evaluated
Energy Deposition

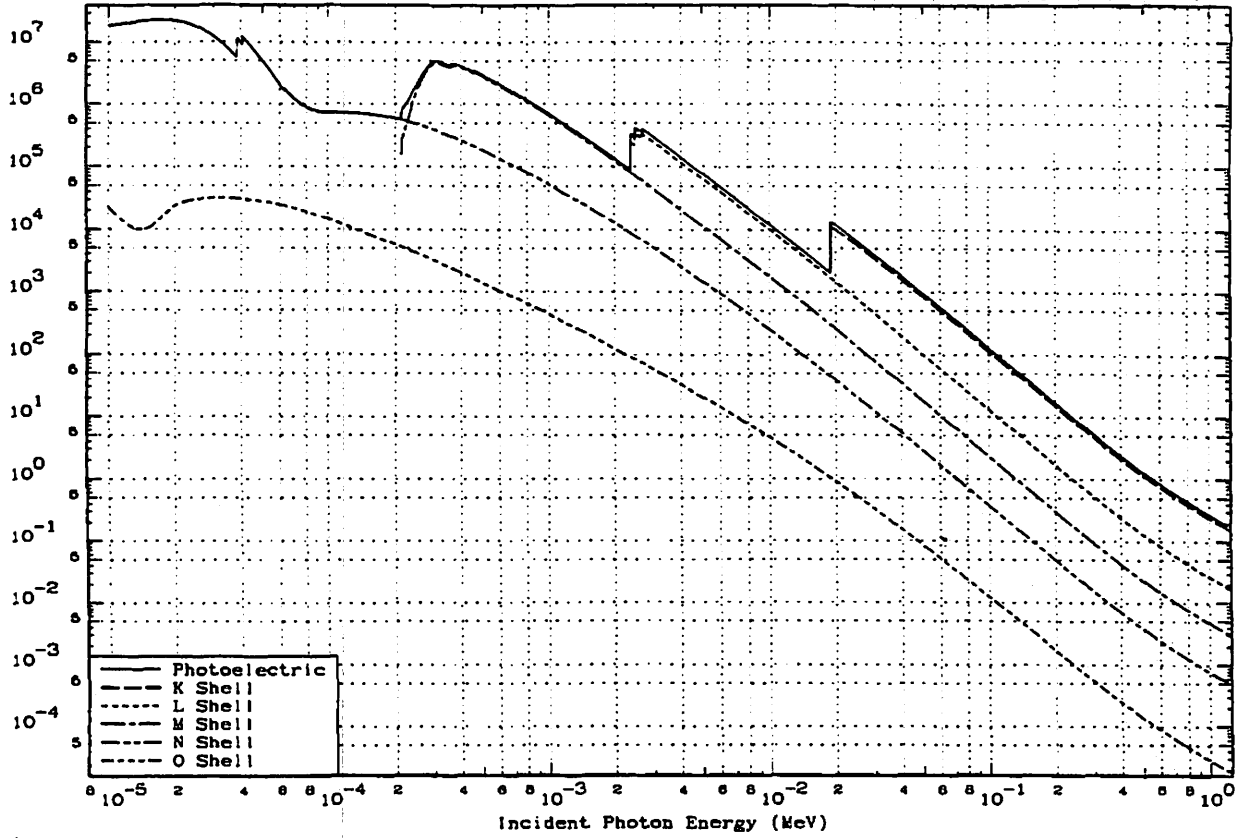
41-Nb
Density 8.570 Grams/cc



October 31, 1989
Atomic Weight 92.908

ENDL Evaluated
Photoelectric Shell Cross Sections

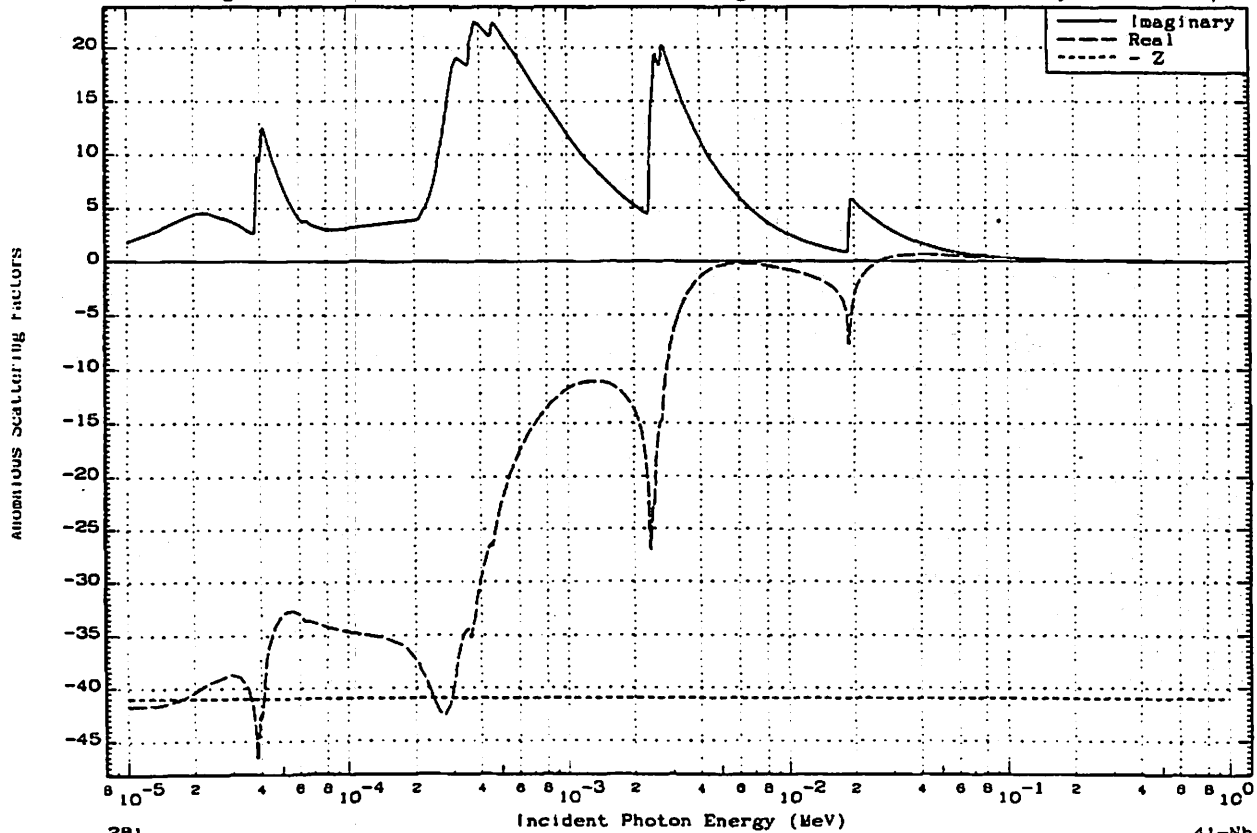
41-Nb
Density 8.570 Grams/cc



October 31, 1989
Atomic Weight 92.908

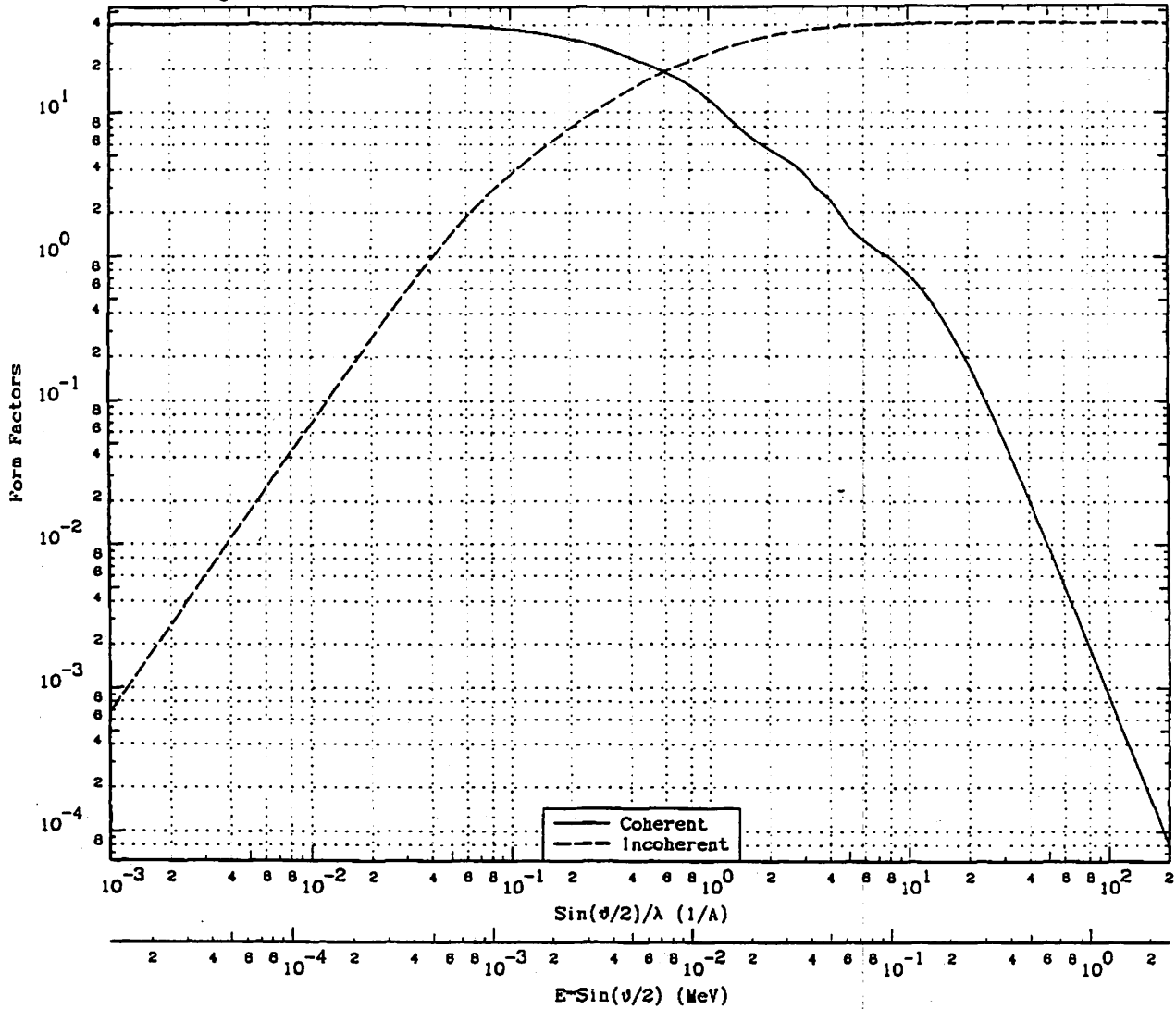
ENDL Evaluated
Anomalous Scattering Factors

41-Nb
Density 8.570 Grams/cc



281

41-Nb



$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	4.1000+1	0.0000+0	7.0000-1	8.6790-3	1.7188+1	2.0844+1	1.5000+1	1.8598-1	3.5988-1	4.0930+1
1.0000-3	1.2399-5	4.1000+1	6.8000-4	8.0000-1	9.9188-3	1.5442+1	2.2388+1	1.7488+1	2.1883-1	2.5030-1	4.0969+1
5.0000-3	6.1993-5	4.0985+1	1.7000-2	9.0000-1	1.1159-2	1.3811+1	2.3787+1	2.0000+1	2.4797-1	1.7588-1	4.0985+1
1.0000-2	1.2399-4	4.0951+1	6.8000-2	1.0000+0	1.2399-2	1.2313+1	2.5077+1	2.4430+1	3.0290-1	9.9294-2	4.0996+1
1.5000-2	1.8598-4	4.0899+1	1.5180-1	1.2500+0	1.5498-2	9.3088+0	2.7880+1	3.0970+1	3.8398-1	4.7883-2	4.1002+1
2.0000-2	2.4797-4	4.0821+1	2.8520-1	1.5000+0	1.8598-2	7.4077+0	3.0087+1	4.1804+1	5.1831-1	1.7717-2	4.1001+1
2.5000-2	3.0996-4	4.0722+1	4.0810-1	2.0000+0	2.4797-2	5.5753+0	3.3187+1	5.0000+1	6.1993-1	9.8131-3	4.1000+1
3.0000-2	3.7196-4	4.0604+1	5.7100-1	2.5000+0	3.0996-2	4.5837+0	3.5188+1	6.0000+1	9.9188-1	1.8802-3	4.1000+1
4.0000-2	4.8594-4	4.0312+1	9.5780-1	2.8945+0	3.5888-2	3.8594+0	3.8340+1	1.0000+2	1.2399+0	8.6810-4	4.1000+1
5.0000-2	6.1993-4	3.9980+1	1.3950+0	3.0000+0	3.7196-2	3.7700+0	3.6601+1	1.7117+2	2.1223+0	1.3955-4	4.1000+1
7.0000-2	8.6790-4	3.9065+1	2.3251+0	3.5000+0	4.3395-2	2.9483+0	3.7598+1	2.7479+2	3.4070+0	2.9305-5	4.1000+1
9.0000-2	1.1159-3	3.8104+1	3.2356+0	4.0000+0	4.8594-2	2.5001+0	3.8281+1	5.1200+2	6.3480+0	3.9789-6	4.1000+1
1.0000-1	1.2399-3	3.7578+1	3.8720+0	4.4617+0	5.5318-2	2.0295+0	3.8747+1	1.0000+3	1.2399+1	4.8881-7	4.1000+1
1.2500-1	1.5498-3	3.6238+1	4.7217+0	5.0000+0	6.1983-2	1.6078+0	3.9142+1	2.6333+3	3.2849+1	2.5288-8	4.1000+1
1.5000-1	1.8598-3	3.4887+1	5.7350+0	5.4258+0	6.8722-2	1.4234+0	3.9383+1	6.6119+3	6.1978+1	1.6022-9	4.1000+1
1.7500-1	2.1697-3	3.3557+1	6.7235+0	6.0000+0	7.4391-2	1.2728+0	3.9647+1	1.4899+4	1.8473+2	1.4585-10	4.1000+1
2.0000-1	2.4797-3	3.2285+1	7.6840+0	7.0000+0	8.6790-2	1.0953+0	4.0002+1	4.2646+4	5.2875+2	6.8300-12	4.1000+1
2.5000-1	3.0996-3	2.9815+1	9.5075+0	8.0000+0	9.9188-2	9.7790-1	4.0270+1	1.0000+6	1.2399+4	7.8388-16	4.1000+1
3.0000-1	3.7196-3	2.7804+1	1.1213+1	9.5078+0	1.1788-1	7.9793-1	4.0552+1	5.6234+6	6.9722+4	5.4428-18	4.1000+1
4.0000-1	4.8594-3	2.3979+1	1.4317+1	1.0000+1	1.2399-1	7.4310-1	4.0821+1	7.4989+7	9.2975+5	2.9077-21	4.1000+1
5.0000-1	6.1993-3	2.1242+1	1.6949+1	1.2089+1	1.4984-1	5.5119-1	4.0808+1	1.0000+9	1.2399+7	1.4945-24	4.1000+1
6.0000-1	7.4391-3	1.9072+1	1.9081+1	1.4176+1	1.7578-1	4.0592-1	4.0904+1				

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /cm ³ /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	9.7409-7	1.1879+5	1.8480+7	2.8173+0	1.4714-4	1.8480+7			1.0266-1	1.0266+1	
1.5549-5	8.0383-7	1.4516+5	2.2395+7	7.7518+0	3.5572-4	2.2395+7			1.8344-1	1.8344+1	
1.7360-5	7.8647-7	1.4837+5	2.2889+7	1.0076+1	4.4336-4	2.2889+7			2.2073-1	2.2073+1	
2.0000-5	6.0857-7	1.4467+5	2.2319+7	1.3244+1	5.8848-4	2.2319+7			2.4787-1	2.4787+1	
2.2134-5	8.8386-7	1.3508+5	2.0839+7	1.4801+1	7.2072-4	2.0839+7			2.5822-1	2.5822+1	
2.3137-5	9.0683-7	1.2867+5	1.9851+7	1.5372+1	7.8753-4	1.9851+7			2.5514-1	2.5514+1	
2.3882-5	9.3888-7	1.2428+5	1.9174+7	1.5079+1	8.3906-4	1.9174+7			2.5437-1	2.5437+1	
2.8787-5	1.1245-6	1.0377+5	1.8009+7	1.4070+1	1.0540-3	1.8009+7			2.3803-1	2.3803+1	
2.9284-5	1.3700-6	8.5173+4	1.3140+7	1.3329+1	1.2588-3	1.3140+7			2.1381-1	2.1381+1	
3.1150-5	1.6111-6	7.2427+4	1.1174+7	1.1828+1	1.4274-3	1.1174+7			1.9335-1	1.9335+1	
3.2106-5	1.7560-6	6.8449+4	1.0251+7	1.0685+1	1.5163-3	1.0251+7			1.8283-1	1.8283+1	
3.3378-5	1.9813-6	5.8495+4	9.1786+6	8.8744+0	1.6386-3	9.1786+6			1.7017-1	1.7017+1	
3.5092-5	2.3368-6	4.9935+4	7.7037+6	6.4891+0	1.8114-3	7.7037+6			1.5017-1	1.5017+1	
3.6874-5	2.7786-6	4.1995+4	6.4788+6	5.2417+0	2.0002-3	6.4788+6			1.3271-1	1.3271+1	
3.7484-5	2.9369-6	3.9731+4	6.1295+6	7.7184+0	2.0646-3	6.1295+6			1.2758-1	1.2758+1	
3.7630-5	2.9825-6	3.9123+4	6.0357+6	9.9451+0	2.0829-3	6.0357+6			1.2817-1	1.2817+1	
3.7727-5	3.0094-6	3.8774+4	5.9819+6	1.2048+1	2.0937-3	5.9819+6			1.2536-1	1.2536+1	
3.7884-5	3.0534-6	3.8215+4	5.8855+6	1.7459+1	2.1112-3	5.8855+6			1.2407-1	1.2407+1	
3.8120-5	3.1205-6	3.7394+4	5.7889+6	3.1839+1	2.1378-3	5.7889+6			1.2218-1	1.2218+1	
3.8203-5	3.1441-6	3.7113+4	5.7256+6	3.8068+1	2.1488-3	5.7256+6			1.2151-1	1.2151+1	
3.8360-5	3.1895-6	3.6584+4	5.6440+6	4.8789+1	2.1645-3	5.6440+6			1.2027-1	1.2027+1	
3.8380-5	1.5829-6	7.3718+4	1.1372+7	4.8789+1	2.1645-3	1.1372+7			2.4234-1	2.4234+1	1.1301-4
3.8492-5	1.6020-6	7.2838+4	1.1237+7	6.0044+1	2.1795-3	1.1237+7			2.4028-1	2.4028+1	1.1187-4
3.8622-5	1.6210-6	7.1985+4	1.1108+7	6.6689+1	2.1943-3	1.1108+7			2.3827-1	2.3827+1	1.1038-4
3.8745-5	1.6389-6	7.1198+4	1.0984+7	7.0103+1	2.2082-3	1.0984+7			2.3640-1	2.3640+1	1.0915-4
3.8880-5	1.6569-6	7.0485+4	1.0871+7	7.1079+1	2.2213-3	1.0871+7			2.3467-1	2.3467+1	1.0803-4
3.9130-5	1.6984-6	6.8783+4	1.0812+7	6.8821+1	2.2523-3	1.0812+7			2.3087-1	2.3087+1	1.0548-4
3.9563-5	1.7878-6	6.8005+4	1.0183+7	6.2985+1	2.3024-3	1.0183+7			2.2379-1	2.2379+1	1.0150-4
3.9951-5	1.8337-6	6.3633+4	9.8169+6	6.1497+1	2.3478-3	9.8169+6			2.1787-1	2.1787+1	9.8108-5
4.0178-5	1.8731-6	6.2296+4	8.6107+6	6.4917+1	2.3748-3	8.6107+6			2.1450-1	2.1450+1	9.6183-5
4.0328-5	1.8991-6	6.1442+4	8.4789+6	7.0092+1	2.3921-3	8.4789+6			2.1234-1	2.1234+1	9.4968-5
4.0580-5	1.9443-6	6.0015+4	8.2589+6	8.3205+1	2.4223-3	8.2589+6			2.0871-1	2.0871+1	9.2919-6
4.0580-5	1.9434-6	7.8138+4	1.2054+7	8.3205+1	2.4223-3	1.2054+7			2.7173-1	2.7173+1	1.6151-4
4.0727-5	1.9727-6	7.7093+4	1.1894+7	9.1827+1	2.4398-3	1.1894+7			2.6907-1	2.6907+1	1.5945-4
4.0938-5	1.5431-6	7.5817+4	1.1666+7	1.0040+1	2.4633-3	1.1666+7			2.6529-1	2.6529+1	1.5653-4
4.1132-5	1.5705-6	7.4300+4	1.1483+7	1.0490+1	2.4888-3	1.1483+7			2.6191-1	2.6191+1	1.5382-4
4.1499-5	1.6250-6	7.1808+4	1.1078+7	1.0557+1	2.5332-3	1.1078+7			2.5538-1	2.5538+1	1.4900-4
4.8889-5	3.1781-6	3.6716+4	5.8843+6	8.0955+1	3.4889-3	5.8843+6			1.5320-1	1.5320+1	7.9657-5
5.4772-5	5.4763-6	2.1308+4	3.2872+6	6.5781+1	4.4128-3	3.2872+6			1.0002-1	1.0002+1	4.8608-5
6.0000-5	8.5210-6	1.3894+4	2.1126+6	5.3751+1	5.2951-3	2.1126+6			7.0413+0	7.0413+0	3.3003-5
6.2930-5	1.0889-5	1.0918+4	1.6841+6	4.5885+1	5.8248-3	1.6841+6			5.8971+0	5.8971+0	2.7230-5
6.3450-5	1.1115-5	1.0498+4	1.6195+6	4.5833+1	5.8214-3	1.6195+6			5.7081+0	5.7081+0	2.6342-5
6.3450-5	1.0087-5	1.1568+4	1.7846+6	4.5833+1	5.8214-3	1.7846+6			6.2899+0	6.2899+0	3.0187-5
6.4720-5	1.0937-5	1.0689+4	1.8460+6	4.6814+1	6.1808-3	1.8460+6			5.9175+0	5.9175+0	2.8284-5
7.0596-5	1.4820-5	7.8209+3	1.2068+6	4.2305+1	7.3302-3	1.2068+6			4.7318+0	4.7318+0	2.2187-5
7.7374-5	1.9153-5	6.0824+3	9.3990+5	3.8283+1	8.8050-3	9.3990+5			4.0397+0	4.0397+0	1.8158-5
8.2391-5	2.1346-5	5.4664+3	8.4332+5	3.6215+1	9.8838-3	8.4332+5			3.8598+0	3.8598+0	1.8488-5
9.0000-5	2.3520-5	4.8812+3	7.6539+5	3.4348+1	1.1913-2	7.6539+5			3.8284+0	3.8284+0	1.4825-5
1.0000-4	2.4518-5	4.7590+3	7.3418+5	3.2941+1	1.4707-2	7.3418+5			4.0783+0	4.0783+0	1.3871-5
1.4254-4	2.5407-5	4.5827+3	7.0854+5	3.0449+1	2.9732-2	7.0854+5			5.8101+0	5.8101+0	1.1422-5
1.5000-4	2.5846-5	4.5489+3	7.0184+5	2.8324+1	3.2902-2	7.0184+5			5.8487+0	5.8487+0	1.1147-5
1.8002-4	2.8250-5	4.1304+3	6.3722+5	2.5628+1	4.7268-2	6.3719+5			6.3721+0	6.3721+0	9.7773-6
2.0716-4	3.1105-5	3.7514+3	5.7875+5	1.7211+1	6.2468-2	5.7873+5			6.8598+0	6.8598+0	8.7900-6
2.1013-4	3.1489-5	3.7056+3	5.7187+5	1.5838+1	6.4280-2	5.7188+5			6.6728+0	6.6728+0	8.6789-6
2.1181-4	3.1707-5	3.6602+3	5.6775+5	1.6290+1	6.5285-2	5.6774+5			6.6801+0	6.6801+0	8.6174-6
2.1181-4	2.4943-5	4.8781+3	7.2171+5	1.6290+1	6.5285-2	7.2169+5			8.4916+0	8.4916+0	1.3198-5
2.1482-4	2.4714-5	4.7214+3	7.2839+5	1.6832+1	6.7140-2	7.2838+5			8.6920+0	8.6920+0	1.3491-5
2.1482-4	2.1474-5	5.4338+3	8.3830+5	1.6832+1	6.7140-2	8.3828+5			1.0003+1	1.0003+1	4.0817-4
2.2067-4	1.9517-5	5.9788+3	9.2238+5	1.8108+1	7.0822-2	9.2238+5			1.1307+1	1.1307+1	4.8715-4
2.2870-4	1.7124-5	6.8141+3	1.0512+6	1.9517+1	7.4800-2	1.0512+6			1.3238+1	1.3238+1	5.5179-4
2.2853-4	1.6315-5	7.1520+3	1.1034+6	2.0181+1	7.5782-2	1.1034+6			1.4007+1	1.4008+1	5.8773-4
2.3552-4	1.3509-5	8.6379+3	1.3325+6	2.4439+1	8.0293-2	1.3325+6			1.7434+1	1.7433+1	7.5613-4
2.4806-4	1.0011-5	1.1855+4	1.7981+6	3.8527+1	8.7388-2	1.7981+6			2.4577+1	2.4578+1	1.1429-3
2.5838-4	7.6073-6	1.5338+4	2.3684+6	5.7053+1	9.4574-2	2.3683+6			3.3701+1	3.3700+1	1.7440-3
2.6570-4	6.0902-6	1.9180+4	2.8558+6	8.1525+1	1.0131-1	2.8558+6			4.3828+1	4.3824+1	2.5108-3
2.7124-4	5.4520-6	2.1403+4	3.3018+6	9.9549+1	1.0542-1	3.3018+6			4.8749+1	4.8745+1	3.0629-3
2.7891-4	4.7220-6	2.4711+4	3.8123+6	1.2714+2	1.1125-1	3.8122+6			5.8064+1	5.8060+1	4.0071-3
2.8638-4	4.2242-6	2.7823+4	4.2815+6	1.6018+2	1.1707-1	4.2814+6			6.7792+1	6.7787+1	4.9864-3
2.9193-4	3.8301-6	2.9890+4	4.5804+6	1.8474+2	1.2147-1	4.5802+6			7.4275+1	7.4270+1	5.7095-3
3.0018-4	3.8868-6	3.1824+4	4.8097+6	2.1814+2	1.2817-1	4.8085+6			8.1880+1	8.1853+1	6.5423-3
3.0898-4	3.5937-6	3.2489+4	5.0092+6	2.4174+2	1.3552-1	5.0090+6			8.5972+1	8.5985+1	6.8010-3
3.1890-4	3.8352-6	3.2099+4	4.8520+6	2.5313+2	1.4231-1	4.8517+6			8.7170+1	8.7184+1	6.8193-3
3.3537-4	3.9104-6	2.9840+4	4.6038+6	2.5828+2	1.5973-1	4.6033+6			8.5759+1	8.5753+1	6.2315-3
3.5480-4	4.2565-6	2.7414+4	4.2292+6	2.5011+2	1.7894-1	4.2290+6			8.3351+1	8.3345+1	5.7253-3
3.5780-4	4.3107-6	2.7089+4	4.1780+6	2.8302+2	1.7884-1	4.1757+6			8.2897+1	8.2892+1	5.8534-3
3.5928-4	4.3376-6	2.6901+4	4.1502+6	2.7638+2	1.8127-1	4.1499+6			8.2825+1	8.2819+1	5.6184-3
3.5928-4	3.9474-6	2.9560+4	4.5604+6	2.7638+2	1.8127-1	4.5601+6			9.1012-1	9.1005+1	6.8397-3
3.6215-4	3.9841-6	2.9288+4	4.5184+6	3.0405+2	1.8407-1	4.5181+6			9.0892+1	9.0885+1	6.5909-3
3.6578-4	4.0308-6	2.8949+4	4.4861+6	3.2391+2	1.8765-1	4.4858+6			9.0740+1	9.0733+1	6.5301-3
3.7287-4	4.1221-6	2.8308+4	4.3672+6	3.4127+2	1.9472-1	4.3658+6			9.0450+1	9.0443+1	6.4147-3
3.7522-4	4.1524-6	2.8101+4	4.3352+6	3.5488+2	1.9710-1	4.3349+6			9.0354+1	9.0348+1	6.3774-3
3.7522-4	3.9912-6	2.9238+4	4.5104+6	3.5488+2	1.9710-1	4.5100+6			9.4006+1	9.3998+1	7.1292-3
3.7855-4	4.0328-6	2.8934+4	4.4838+6	3.7409+2	2.0048-1	4.4835+6			9.3880+1	9.3853+1	6.0758-3
3.8379-4	4.1048-6	2.8428+4	4.3855+6	3.9117-2	2.0583-1	4.3851+6			9.3488+1	9.3481+1	6.9781-3
4.1999-4	4.6822-6	2.4921+4	3.8447+6	4.2827+2	2.4275-1	3.8442+6			8.8688+1	8.8682+1	6.2498-3
4.4495-4	5.1396-6	2.2704+4									

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.5598-4	5.3468-6	2.1823+4	3.3668-6	4.4770-2	2.8244-1	3.3663-6			8.5269-1	8.5263-1	5.5575-3
4.5598-4	5.1152-6	2.2812+4	3.5193-6	4.4770-2	2.8244-1	3.5188-6			8.9131-1	8.9125-1	6.1700-3
4.6080-4	5.2011-6	2.2435+4	3.4611-6	4.7768-2	2.8796-1	3.4607-6			8.8584-1	8.8578-1	6.0805-3
4.6982-4	5.3725-6	2.1719+4	3.3507-6	5.0275-2	2.9843-1	3.3502-6			8.7436-1	8.7430-1	5.9099-3
5.0000-4	5.9921-6	1.9473+4	3.0042-6	5.3449-2	3.3469-1	3.0037-6			8.3428-1	8.3423-1	5.3705-3
6.0745-4	8.6954-6	1.3419+4	2.0703-6	5.9047-2	4.7262-1	2.0697-6			6.6839-1	6.6835-1	3.8795-3
8.3218-4	1.6905-5	6.9023+3	1.0848-6	6.2133+2	7.9791-1	1.0842-6			4.9197+1	4.9195+1	2.1462-3
1.0000-3	2.5387-5	4.5982+3	7.0908-5	6.1579+2	1.0560-0	7.0847+5			3.9356+1	3.9354+1	1.4801-3
1.1941-3	3.8379-5	3.0404+3	4.6905-5	5.9115+2	1.3527-0	4.6846+5			3.1074+1	3.1073+1	1.0228-3
1.3732-3	5.3189-5	2.1838+3	3.3844-5	5.6153+2	1.6214+0	3.3788+5			2.5774+1	2.5773+1	7.5892-4
1.5578-3	7.2053-5	1.6194+3	2.4984-5	5.2344+2	1.9022-0	2.4931+5			2.1576+1	2.1575+1	5.7625-4
1.7177-3	9.1251-5	1.2787+3	1.9728-5	4.8189+2	2.3308+0	1.9679+5			1.8777+1	1.8777+1	4.6303-4
1.8622-3	1.1387-4	1.0247+3	1.5809-5	4.3113+2	2.3700+0	1.5766+5			1.6485+1	1.6484+1	3.7718-4
2.0000-3	1.3189-4	8.8472+2	1.3648-5	3.8795+2	2.5433+0	1.3810+5			1.5121+1	1.5120+1	3.2923-4
2.0780-3	1.4484-4	8.0580+2	1.2428-5	3.5391+2	2.6559+0	1.2393+5			1.4291+1	1.4291+1	3.0179-4
2.1887-3	1.6187-4	7.2175+2	1.1135-5	3.0479+2	2.7888+0	1.1104+5			1.3377+1	1.3377+1	2.7252-4
2.2278-3	1.7298-4	6.7458+2	1.0407-5	2.6346+2	2.8894+0	1.0380+5			1.2845+1	1.2845+1	2.5599-4
2.2510-3	1.7759-4	6.5704+2	1.0136-5	2.4374+2	2.9015+0	1.0112+5			1.2844+1	1.2844+1	2.4983-4
2.2909-3	1.8568-4	6.2841+2	9.6947-6	2.0098+2	2.9564+0	9.6744+4			1.2312+1	1.2312+1	2.3977-4
2.3138-3	1.9042-4	6.1277+2	9.4535-6	1.6803+2	2.9878+0	9.4364+4			1.2129+1	1.2128+1	2.3429-4
2.3300-3	1.9385-4	6.0183+2	9.2863-6	1.3720+2	3.0101+0	9.2722+4			1.2001+1	1.2001+1	2.3050-4
2.3456-3	1.9720-4	5.9172+2	9.1287-6	1.0859+2	3.0316+0	9.1176+4			1.1880+1	1.1880+1	2.2693-4
2.3498-3	1.9808-4	5.8908+2	9.0880-6	1.0419+2	3.0373+0	9.0772+4			1.1849+1	1.1848+1	2.2600-4
2.3543-3	1.9905-4	5.8623+2	9.0439-6	1.0225+2	3.0435+0	9.0334+4			1.1814+1	1.1814+1	2.2498-4
2.3594-3	2.0012-4	5.8307+2	8.9953-6	1.0445+2	3.0505+0	8.9845+4			1.1776+1	1.1775+1	2.2385-4
2.3691-3	2.0215-4	5.7722+2	8.9050-6	1.2382+2	3.0639+0	8.8923+4			1.1703+1	1.1702+1	2.2171-4
2.3891-3	5.3789-5	2.1693+3	3.3467-5	1.2382+2	3.0639+0	3.3455+5			4.4028+1	4.4046+1	8.8258-1
2.3887-3	5.5085-5	2.1191+3	3.2682-5	1.9327+2	3.0909+0	3.2872+5			4.3353+1	4.3394+1	9.5847-1
2.3945-3	5.5453-5	2.1042+3	3.2483-5	2.1448+2	3.0990+0	3.2441+5			4.3153+1	4.3201+1	8.5138-1
2.4090-3	5.6212-5	2.0758+3	3.2025-5	2.4552+2	3.1147+0	3.2000+5			4.2768+1	4.1831+1	8.3781-1
2.4172-3	5.6987-5	2.0483+3	3.1800-5	2.8287+2	3.1302+0	3.1574+5			4.2398+1	4.1471+1	8.2473-1
2.4484-3	5.8966-5	1.9789+3	3.0529-5	2.8035+2	3.1705+0	3.0500+5			4.1449+1	4.0558+1	8.9180-1
2.4688-3	6.0371-5	1.9328+3	2.9818-5	3.2081+2	3.1984+0	2.9788+5			4.0813+1	3.9943+1	8.6992-1
2.4688-3	4.3407-5	2.8882+3	4.1472-5	3.2081+2	3.1984+0	4.1439+5			5.8781+1	5.5778+1	1.4045+0
2.4870-3	4.4389-5	2.8287+3	4.0554-5	3.8825+2	3.2266+0	4.0515+5			5.5975+1	5.4802+1	1.3728+0
2.4963-3	4.4789-5	2.6052+3	4.0182-5	4.1248+2	3.2395+0	4.0150+5			5.5677+1	5.4317+1	1.3603+0
2.5193-3	4.5790-5	2.5483+3	3.9314-5	4.5865+2	3.2712+0	3.9288+5			5.4953+1	5.3623+1	1.3305+0
2.5403-3	4.6718-5	2.4877+3	3.8532-5	4.7765+2	3.3002+0	3.8484+5			5.4305+1	5.3001+1	1.3040+0
2.5608-3	4.8547-5	2.4038+3	3.7081-5	5.0208+2	3.3564+0	3.7031+5			5.3088+1	5.1833+1	1.2549+0
2.6853-3	5.2489-5	2.2231+3	3.4288-5	5.2008+2	3.4735+0	3.4244+5			5.0701+1	4.9540+1	1.1607+0
2.7863-3	5.3014-5	2.2010+3	3.3957-5	5.3714+2	3.4888+0	3.3902+5			5.0403+1	4.9254+1	1.1491+0
2.8763-3	4.8421-5	2.5137+3	3.8778-5	5.3714+2	3.4888+0	3.8725+5			5.7573+1	5.6229+1	1.3437+0
2.7238-3	4.8415-5	2.4101+3	3.7182-5	6.1778+2	3.5545+0	3.7120+5			5.8181+1	5.6872+1	1.2885+0
2.7811-3	5.0993-5	2.2883+3	3.5303-5	6.6047+2	3.6344+0	3.5236+5			5.4435+1	5.3211+1	1.2236+0
2.9353-3	5.8317-5	2.0009+3	3.0889-5	7.0941+2	3.8367+0	3.0797+5			5.0217+1	4.9146+1	1.0708+0
3.1592-3	7.0092-5	1.6848+3	2.5683-5	7.3893+2	4.1236+0	2.5689+5			4.4941+1	4.4050+1	8.9108-1
3.5717-3	9.5738-5	1.2188+3	1.8804-5	7.3841+2	4.6514+0	1.8729+5			3.7155+1	3.6504+1	6.5117-1
4.2460-3	1.4910-4	7.8260+2	1.2074-5	6.9361+2	5.4671+0	1.2004+5			2.8312+1	2.7895+1	4.1716-1
5.4330-3	2.8428-4	4.1050+2	6.3329-4	5.9007+2	6.8142+0	6.2732+4			1.8932+1	1.8714+1	2.1772-1
7.5883-3	8.9256-4	1.6849+2	2.5893-4	4.3972+2	8.8248+0	2.5544+4			1.0785+1	1.0678+1	8.8450-2
1.0000-2	1.4589-3	7.9984+1	1.2338-4	3.2362-2	1.0591+1	1.2005+4			6.6691+0	6.6277+0	4.1422-2
1.2286-2	2.5841-3	4.5508+1	7.0207-3	2.4508-2	1.1886+1	6.7838-3			4.8183+0	4.5830+0	2.3293-2
1.5000-2	4.4203-3	2.8398+1	4.0725-3	1.7449-2	1.3146+1	3.8849-3			3.2375+0	3.2241+0	1.3341-2
1.8370-2	5.8488-3	2.0885+1	3.1880-3	1.4401-2	1.3898+1	3.0303+3			2.7580+0	2.7456+0	1.0395-2
1.7308-2	6.8112-3	1.7650+1	2.7229-3	1.2250-2	1.4058+1	2.5854+3			2.4872+0	2.4783+0	8.6659-3
1.7735-2	7.0895-3	1.6459+1	2.5392-3	1.1163-2	1.4219+1	2.4133+3			2.3781+0	2.3688+0	8.2703-3
1.8231-2	7.6870-3	1.5180+1	2.3418-3	9.8100-1	1.4404+1	2.2313+3			2.2803+0	2.2527+0	7.6439-3
1.8412-2	7.8205-3	1.4732+1	2.2728-3	8.8582-1	1.4470+1	2.1697+3			2.2197+0	2.2123+0	7.4320-3
1.8568-2	8.1386-3	1.4341+1	2.2124-3	7.9887-1	1.4528+1	2.1180+3			2.1853+0	2.1780+0	7.2542-3
1.8783-2	8.4881-3	1.3779+1	2.1258-3	6.4232-1	1.4610+1	2.0470+3			2.1375+0	2.1305+0	7.0097-3
1.8870-2	8.5725-3	1.3612+1	2.0999-3	6.2025-1	1.4638+1	2.0233+3			2.1215+0	2.1145+0	6.9281-3
1.8948-2	8.6568-3	1.3475+1	2.0788-3	6.4450+1	1.4688+1	1.8997+3			2.1054+0	2.0988+0	6.8471-3
1.8948-2	1.3324-3	8.7573+1	1.3510-4	6.4450+1	1.4688+1	1.3431+4			1.4138+1	6.0849+0	8.0728+0
1.9010-2	1.3432-3	8.6889+1	1.3402-4	6.9148+1	1.4688+1	1.3318+4			1.4083+1	6.0574+0	8.0059+0
1.9153-2	1.3675-3	8.5328+1	1.3184-4	8.4788+1	1.4740+1	1.3084+4			1.3897+1	6.0404+0	7.8582+0
1.9283-2	1.3902-3	8.3834+1	1.2949-4	8.7202+1	1.4778+1	1.2837+4			1.3748+1	6.0248+0	7.7217+0
1.9483-2	1.4225-3	8.2031+1	1.2855-4	1.0855-2	1.4824+1	1.2534+4			1.3548+1	6.0038+0	7.5424+0
1.9820-2	1.4514-3	8.0398+1	1.2403-4	1.1154-2	1.4888+1	1.2277+4			1.3378+1	5.9856+0	7.3902+0
2.0000-2	1.5234-3	7.6598+1	1.1817-4	1.1827+2	1.4987+1	1.1684+4			1.2981+1	5.9423+0	7.0390+0
2.0719-2	1.6659-3	7.0043+1	1.0808-4	1.2394+2	1.5154+1	1.0867+4			1.2256+1	5.8204+0	6.4358+0
2.2103-2	1.9633-3	5.9432+1	9.1689-4	1.2436+2	1.5503+1	9.0290+3			1.1066+1	5.6037+0	5.4825+0
2.4842-2	2.8785-3	4.3588+1	6.7258-4	1.1521+2	1.6178+1	6.5944+3			9.1362+0	5.1281+0	4.0101+0
3.0000-2	4.3885-3	2.8529+1	4.0827-3	3.3590+1	1.7087+1	3.8820+3			6.6377+0	4.2081+0	2.4316+0
3.7784-2	6.1842-3	1.4292+1	2.2049-3	6.7827+1	1.7860+1	2.1192+3			4.4462+0	3.1446+0	1.3018+0
5.1095-2	1.8700-2	6.2399+0	9.6268-2	4.1706+1	1.8688+1	9.0227+2			2.5648+0	2.0083+0	5.5825-1
7.8113-2	5.8857-2	1.8825+0	3.0585-2	1.9583+1	1.8781+1	2.8751+2			1.1707+0	1.0049+0	1.6574-1
1.0000-1	1.1223-1	1.0387+0	1.8040-2	1.2454+1	1.8429+1						

October 31, 1989
Atomic Weight 92.906

ENDL Evaluated
Photon Data

41-Nb
Density 8.570 Grams/cc

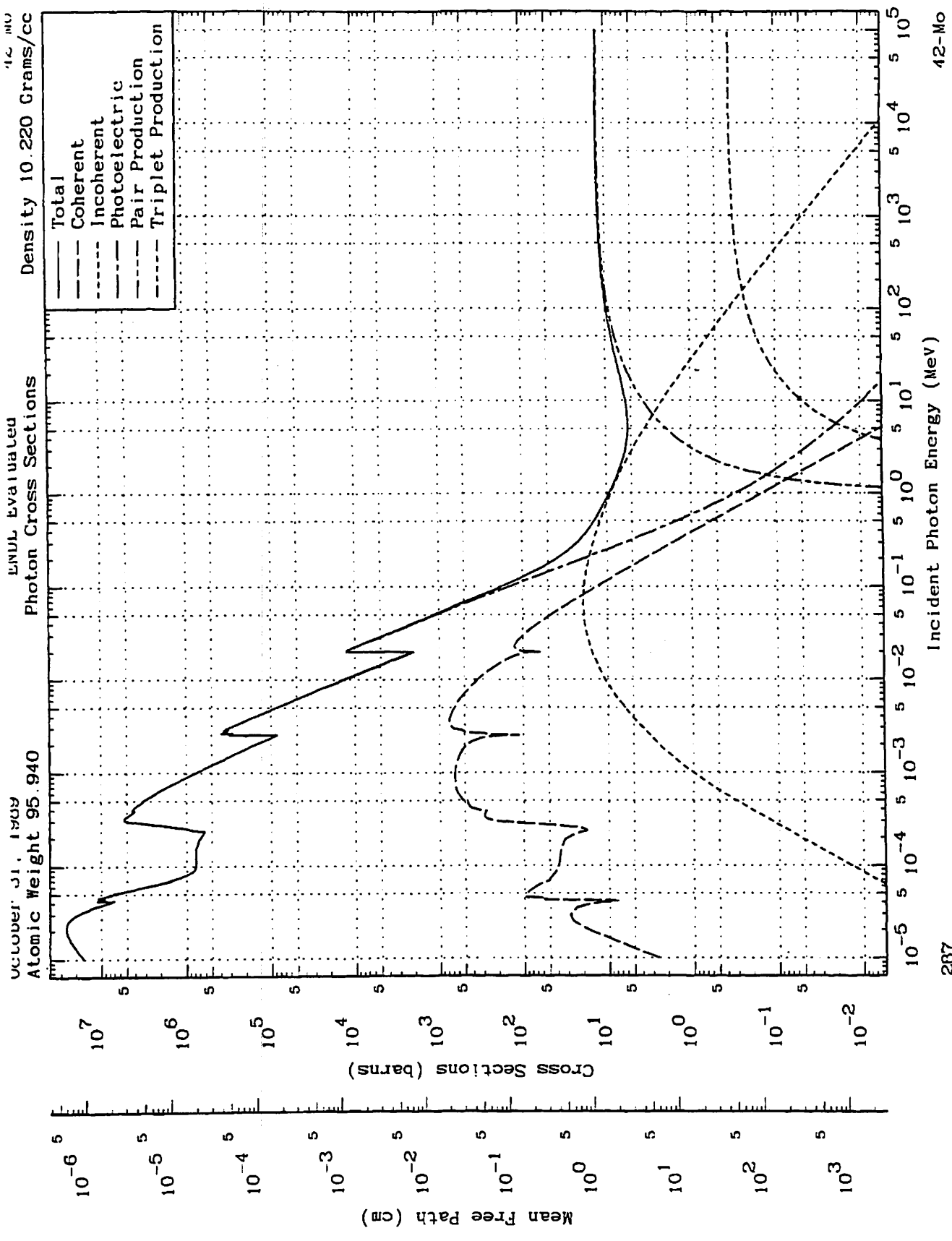
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
7.4448-1	1.6912+0	6.8997-2	1.0645+1	2.4856-1	9.8857+0	5.1022-1			1.8456-1	1.8424-1	3.1726-4
1.0000+0	1.9928+0	5.8555-2	9.0335+0	1.3796-1	8.6262+0	2.6939-1			2.2656-1	2.2639-1	1.6764-4
1.0220+0	2.0172+0	5.7845-2	8.9240+0	1.3212-1	8.5355+0	2.5630-1			2.2997-1	2.2981-1	1.5949-4
1.0251+0	2.0208+0	5.7742-2	8.9081+0	1.3132-1	8.5221+0	2.5475-1	9.3126-8		2.3043-1	2.3027-1	1.5852-4
1.0287+0	2.0250+0	5.7624-2	8.8899+0	1.3040-1	8.5065+0	2.5295-1	9.3128-7		2.3095-1	2.3080-1	1.5741-4
1.0295+0	2.0258+0	5.7599-2	8.8861+0	1.3021-1	8.5033+0	2.5259-1	1.2745-6		2.3108-1	2.3091-1	1.5718-4
1.0301+0	2.0265+0	5.7580-2	8.8831+0	1.3006-1	8.5007+0	2.5229-1	1.6028-6		2.3115-1	2.3099-1	1.5700-4
1.0310+0	2.0275+0	5.7551-2	8.8786+0	1.2983-1	8.4969+0	2.5185-1	2.1932-6		2.3128-1	2.3112-1	1.5673-4
1.0320+0	2.0287+0	5.7518-2	8.8736+0	1.2958-1	8.4926+0	2.5137-1	3.0008-6		2.3143-1	2.3127-1	1.5642-4
1.0332+0	2.0301+0	5.7479-2	8.8678+0	1.2928-1	8.4875+0	2.5078-1	4.2036-6		2.3160-1	2.3144-1	1.5608-4
1.0340+0	2.0310+0	5.7454-2	8.8636+0	1.2908-1	8.4841+0	2.5040-1	5.1603-6		2.3172-1	2.3156-1	1.5582-4
1.0353+0	2.0324+0	5.7412-2	8.8571+0	1.2876-1	8.4786+0	2.4977-1	7.0044-6		2.3181-1	2.3175-1	1.5543-4
1.0366+0	2.0340+0	5.7369-2	8.8505+0	1.2843-1	8.4729+0	2.4913-1	9.3126-6		2.3210-1	2.3195-1	1.5503-4
1.0382+0	2.0358+0	5.7318-2	8.8427+0	1.2805-1	8.4683+0	2.4838-1	1.2568-5		2.3233+0	2.3217+0	1.5458-4
1.0397+0	2.0375+0	5.7270-2	8.8354+0	1.2768-1	8.4600+0	2.4768-1	1.6328-5		2.3256-1	2.3239-1	1.5412-4
1.0415+0	2.0395+0	5.7213-2	8.8285+0	1.2724-1	8.4524+0	2.4681-1	2.1724-5		2.3281-1	2.3265-1	1.5359-4
1.0438+0	2.0421+0	5.7140-2	8.8152+0	1.2668-1	8.4428-1	2.4573-1	3.0154-5		2.3314-1	2.3298-1	1.5291-4
1.0464+0	2.0451+0	5.7058-2	8.8025+0	1.2606-1	8.4319-1	2.4451-1	4.1953-5		2.3352-1	2.3337-1	1.5216-4
1.0483+0	2.0472+0	5.6998-2	8.7833+0	1.2560-1	8.4240-1	2.4363-1	5.2233-5		2.3379-1	2.3364-1	1.5180-4
1.0512+0	2.0505+0	5.6907-2	8.7782+0	1.2491-1	8.4118+0	2.4229-1	7.0853-5		2.3422-1	2.3407-1	1.5107-4
1.0541+0	2.0537+0	5.6817-2	8.7653+0	1.2424-1	8.4000+0	2.4097-1	9.3126-5		2.3463-1	2.3448-1	1.4965-4
1.0577+0	2.0578+0	5.6704-2	8.7480+0	1.2339-1	8.3851+0	2.3932-1	1.2694-4		2.3516-1	2.3501-1	1.4893-4
1.0811+0	2.0616+0	5.6599-2	8.7318+0	1.2281-1	8.3712+0	2.3779-1	1.6511-4		2.3585-1	2.3551-1	1.4798-4
1.0851+0	2.0661+0	5.6476-2	8.7128+0	1.2169-1	8.3549+0	2.3602-1	2.1859-4		2.3623-1	2.3609-1	1.4687-4
1.0704+0	2.0720+0	5.6315-2	8.6880+0	1.2050-1	8.3335+0	2.3369-1	3.0496-4		2.3700-1	2.3686-1	1.4542-4
1.0762+0	2.0785+0	5.6140-2	8.6610+0	1.1921-1	8.3102+0	2.3118-1	4.2146-4		2.3784-1	2.3770-1	1.4388-4
1.0806+0	2.0833+0	5.6009-2	8.6407+0	1.1824-1	8.2927+0	2.2931-1	5.2633-4		2.3848-1	2.3834-1	1.4289-4
1.0871+0	2.0905+0	5.5817-2	8.6111+0	1.1684-1	8.2689+0	2.2658-1	7.0914-4		2.3942-1	2.3928-1	1.4100-4
1.0937+0	2.0978+0	5.5623-2	8.5813+0	1.1544-1	8.2410+0	2.2385-1	9.3126-4		2.4038-1	2.4024-1	1.3930-4
1.1026+0	2.1075+0	5.5387-2	8.5417+0	1.1359-1	8.2088+0	2.2028-1	1.2911-3		2.4187-1	2.4153-1	1.3707-4
1.1107+0	2.1163+0	5.5137-2	8.5062+0	1.1195-1	8.1755-1	2.1707-1	1.6838-3		2.4284-1	2.4271-1	1.3508-4
1.1206+0	2.1270+0	5.4860-2	8.4635+0	1.0999-1	8.1390+0	2.1326-1	2.2523-3		2.4428-1	2.4414-1	1.3271-4
1.1333+0	2.1405+0	5.4513-2	8.4099+0	1.0755-1	8.0907+0	2.0851-1	3.1315-3		2.4612-1	2.4599-1	1.2978-4
1.1475+0	2.1555+0	5.4133-2	8.3513+0	1.0482-1	8.0387+0	2.0340-1	4.3235-3		2.4817-1	2.4805-1	1.2657-4
1.1582+0	2.1677+0	5.3853-2	8.3082+0	1.0300-1	8.0002+0	1.9966-1	5.3730-3		2.4972-1	2.4960-1	1.2425-4
1.1741+0	2.1832+0	5.3448-2	8.2459+0	1.0024-1	7.9439+0	1.9430-1	7.1817-3		2.5203-1	2.5191-1	1.2091-4
1.1901+0	2.1995+0	5.3051-2	8.1844+0	9.7576-2	7.8884+0	1.8918-1	9.3126-3		2.5436-1	2.5424-1	1.1771-4
1.2051+0	2.2145+0	5.2682-2	8.1291+0	9.5178-2	7.8374+0	1.8490-1	1.1595-2		2.5656-1	2.5645-1	1.1508-4
1.2275+0	2.2365+0	5.2174-2	8.0491+0	9.1750-2	7.7630+0	1.7881-1	1.5521-2		2.5977-1	2.5978-1	1.1127-4
1.2656+0	2.2729+0	5.1338-2	7.9201+0	8.6332-2	7.6411+0	1.6914-1	2.3497-2		2.6551-1	2.6540-1	1.0528-4
1.2949+0	2.3001+0	5.0731-2	7.8284+0	8.2483-2	7.5511+0	1.6225-1	3.0584-2		2.6988-1	2.6978-1	1.0097-4
1.3318+0	2.3334+0	5.0006-2	7.7147+0	7.7991-2	7.4421+0	1.5417-1	4.0482-2		2.7537-1	2.7528-1	9.5940-5
1.3628+0	2.3605+0	4.9434-2	7.6284+0	7.4516-2	7.3545+0	1.4790-1	4.9487-2		2.8000-1	2.7991-1	9.2034-5
1.3970+0	2.3899+0	4.8826-2	7.5325+0	7.0904-2	7.2601+0	1.4134-1	6.0138-2		2.8520-1	2.8511-1	8.7957-5
1.4558+0	2.4382+0	4.7857-2	7.4380+0	6.5311-2	7.1068+0	1.3114-1	7.9783-2		2.9417-1	2.9409-1	8.1808-5
1.5000+0	2.4731+0	4.7183-2	7.2781+0	6.1531-2	6.9978+0	1.2420-1	9.5750-2		3.0099-1	3.0091-1	7.7288-5
1.5888+0	2.5394+0	4.5951-2	7.0890+0	5.4791-2	6.7901+0	1.1244-1	1.3171-1		3.1515-1	3.1508-1	6.9970-5
1.7188+0	2.6254+0	4.4445-2	6.8567+0	4.8892-2	6.5212+0	9.6390-2	1.9015-1		3.3614-1	3.3608-1	6.1227-5
1.7847+0	2.6887+0	4.3725-2	6.7456+0	4.3500-2	6.3854+0	9.2255-2	2.2442-1		3.4626-1	3.4620-1	5.7409-5
1.8923+0	2.7343+0	4.2875-2	6.5837+0	3.8703-2	6.1797+0	8.3462-2	2.8183-1		3.6320-1	3.6315-1	5.1937-5
2.0440+0	2.8169+0	4.1424-2	6.3907+0	3.3182-2	5.9187+0	7.3270-2	3.6550-1		3.8906-1	3.8901-1	4.5595-5
2.0858+0	2.8398+0	4.1089-2	6.3390+0	3.1867-2	5.8481+0	7.1023-2	3.8801-1	4.1140-7	3.9460-1	3.9456-1	4.4197-5
2.1066+0	2.8508+0	4.0930-2	6.3145+0	3.1241-2	5.8138+0	6.8948-2	3.9954-1	1.3404-6	3.9790-1	3.9788-1	4.3529-5
2.1140+0	2.8547+0	4.0875-2	6.3060+0	3.1023-2	5.8017+0	6.8572-2	4.0369-1	1.6548-6	3.9909-1	3.9905-1	4.3294-5
2.1196+0	2.8575+0	4.0835-2	6.2997+0	3.0863-2	5.7928+0	6.8295-2	4.0680-1	2.3090-6	3.9998-1	3.9993-1	4.3121-5
2.1279+0	2.8618+0	4.0773-2	6.2903+0	3.0820-2	5.7792+0	6.8074-2	4.1158-1	3.1314-6	4.0133-1	4.0128-1	4.2860-5
2.1383+0	2.8681+0	4.0713-2	6.2810+0	3.0381-2	5.7658+0	6.8461-2	4.1638-1	4.1140-6	4.0268-1	4.0264-1	4.2602-5
2.1470+0	2.8714+0	4.0637-2	6.2692+0	3.0078-2	5.7486+0	6.7934-2	4.2258-1	5.6406-6	4.0443-1	4.0439-1	4.2275-5
2.1635+0	2.8795+0	4.0523-2	6.2518+0	2.9622-2	5.7228+0	6.7139-2	4.3224-1	8.5772-6	4.0714-1	4.0710-1	4.1780-5
2.1845+0	2.8902+0	4.0373-2	6.2285+0	2.9055-2	5.6899+0	6.6149-2	4.4335-1	1.3591-5	4.1050-1	4.1048-1	4.1184-5
2.2018+0	2.8968+0	4.0253-2	6.2099+0	2.8601-2	5.6633+0	6.5351-2	4.5264-1	1.8804-5	4.1330-1	4.1326-1	4.0687-5
2.2148+0	2.9062+0	4.0164-2	6.1963+0	2.8267-2	5.6436+0	6.4762-2	4.5970-1	2.3428-5	4.1541-1	4.1537-1	4.0301-5
2.2342+0	2.9145+0	4.0036-2	6.1765+0	2.7779-2	5.6145+0	6.3989-2	4.7037-1	3.1515-5	4.1860-1	4.1858-1	3.9764-5
2.2537+0	2.9237+0	3.9911-2	6.1572+0	2.7301-2	5.5856+0	6.3052-2	4.8123-1	4.1140-5	4.2182-1	4.2178-1	3.9235-5
2.2815+0	2.9363+0	3.9738-2	6.1307+0	2.6840-2	5.5451+0	6.1873-2	4.9700-1	5.7624-5	4.2648-1	4.2644-1	3.8503-5
2.3070+0	2.9475+0	3.9588-2	6.1074+0	2.6355-2	5.5087+0	6.0825-2	5.1174-1	7.5689-5	4.3081-1	4.3077-1	3.7850-5
2.3382+0	2.9607+0	3.9411-2	6.0801+0	2.5365-2	5.4650+0	5.9581-2	5.3014-1	1.0177-4	4.3819-1	4.3815-1	3.7076-5
2.3774+0	2.9767+0	3.9200-2	6.0475+0	2.4538-2	5.4113+0	5.8077-2	5.5343-1	1.4084-4	4.4303-1	4.4300-1	3.6140-5
2.4102+0	2.9960+0	3.9018-2	6.0194+0	2.3874-2	5.3675+0	5.6665-2	5.7098-1	1.7825-4	4.4881-1	4.4858-1	3.5397-5
2.4488+0	3.0055+0	3.8825-2	5.9898+0	2.3188-2	5.3197+0	5.5562-2	5.9083-1	2.2802-4	4.5494-1	4.5490-1	3.4576-5
2.4859+0	3.0208+0	3.8630-2	5.9598+0	2.2443-2	5.2699+0	5.4224-2	6.1288-1	2.8709-4	4.6181-1	4.6178-1	3.3743-5
2.5584+0	3.0461+0	3.8307-2	5.9098+0	2.1223-2	5.1832						

October 31, 1989
Atomic Weight 92.906

ENDL Evaluated
Photon Data

41-Nb
Density 8.570 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cc*cm/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.000+ 1	3.2197+ 0	3.6241- 2	5.5910+ 0	1.3885- 3	2.0904+ 0	8.5910- 3	3.4430+ 0	4.7630- 2	2.5395+ 0	2.5395+ 0	5.3461- 6
1.3000+ 1	3.0584+ 0	3.8153- 2	5.8960+ 0	8.2161- 4	1.7173+ 0	6.3580- 3	4.0970+ 0	6.4530- 2	3.6418+ 0	3.6418+ 0	3.9565- 6
1.8000+ 1	2.8370+ 0	4.1129- 2	6.3452+ 0	4.2858- 4	1.3450+ 0	4.4260- 3	4.9080+ 0	8.7330- 2	5.6849+ 0	5.6849+ 0	2.7542- 8
2.8000+ 1	2.5801+ 0	4.5051- 2	6.8503+ 0	2.0541- 4	1.0057+ 0	2.9730- 3	5.8270+ 0	1.1440- 1	9.3207+ 0	9.3207+ 0	1.8501- 6
4.2170+ 1	2.3048+ 0	5.0632- 2	7.8113+ 0	7.8085- 5	6.6813- 1	1.7851- 3	8.8731+ 0	1.5018- 1	1.7510+ 1	1.7510+ 1	1.1108- 6
6.0000+ 1	2.1320+ 0	5.4731- 2	8.4436+ 0	3.8571- 5	5.1271- 1	1.2390- 3	7.7540+ 0	1.7560- 1	2.7308+ 1	2.7308+ 1	7.7101- 7
1.0000+ 2	1.8371+ 0	6.0238- 2	9.2931+ 0	1.3886- 5	3.3618- 1	7.3400- 4	8.7470+ 0	2.0920- 1	5.0730+ 1	5.0730+ 1	4.5678- 7
2.0000+ 2	1.7585+ 0	6.6317- 2	1.0231+ 1	3.4714- 6	1.8584- 1	3.6360- 4	8.7870+ 0	2.4770- 1	1.1271+ 2	1.1271+ 2	2.2626- 7
5.0000+ 2	1.6278+ 0	7.1683- 2	1.1059+ 1	5.5543- 7	8.4134- 2	1.4460- 4	1.0890+ 1	2.8450- 1	3.0815+ 2	3.0815+ 2	8.9983- 8
1.0000+ 3	1.5737+ 0	7.4145- 2	1.1439+ 1	1.3886- 7	4.5823- 2	7.2180- 5	1.1090+ 1	3.0280- 1	6.3439+ 2	6.3439+ 2	4.4817- 8
5.0000+ 3	1.5211+ 0	7.8714- 2	1.1835+ 1	5.5543- 9	1.0841- 2	1.4410- 5	1.1500+ 1	3.2410- 1	3.2881+ 3	3.2881+ 3	8.9872- 9
1.0000+ 4	1.5123+ 0	7.7180- 2	1.1904+ 1	1.3886- 9	5.7886- 3	7.2050- 6	1.1570+ 1	3.2800- 1	6.8116+ 3	6.8116+ 3	4.4836- 9
1.0000+ 5	1.5035+ 0	7.7809- 2	1.1873+ 1	1.3881-11	6.9918- 4	7.2040- 7	1.1640+ 1	3.3230- 1	6.6510+ 4	6.6510+ 4	4.4830-10



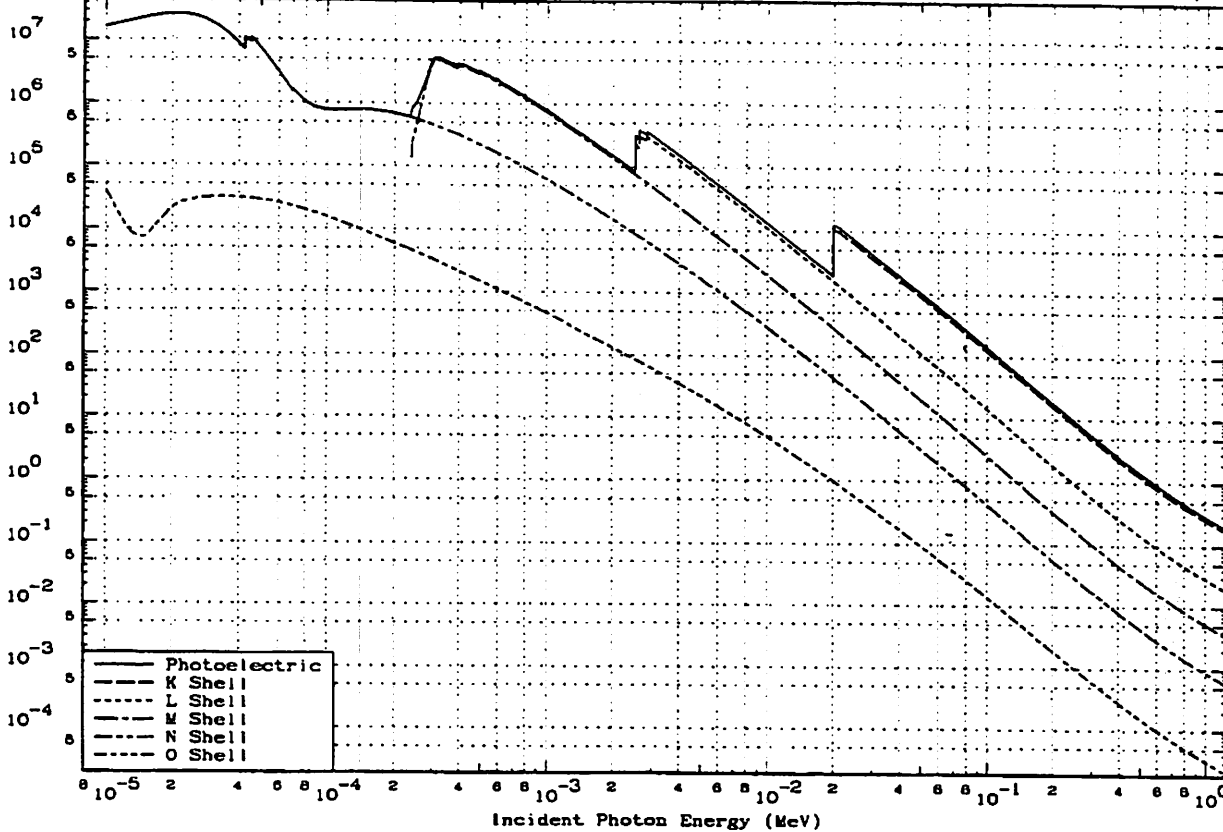
October 31, 1989
Atomic Weight 95.940
42-Mo
Density 10.220 Grams/cc



October 31, 1989
Atomic Weight 95.940

ENDL Evaluated
Photoelectric Shell Cross Sections

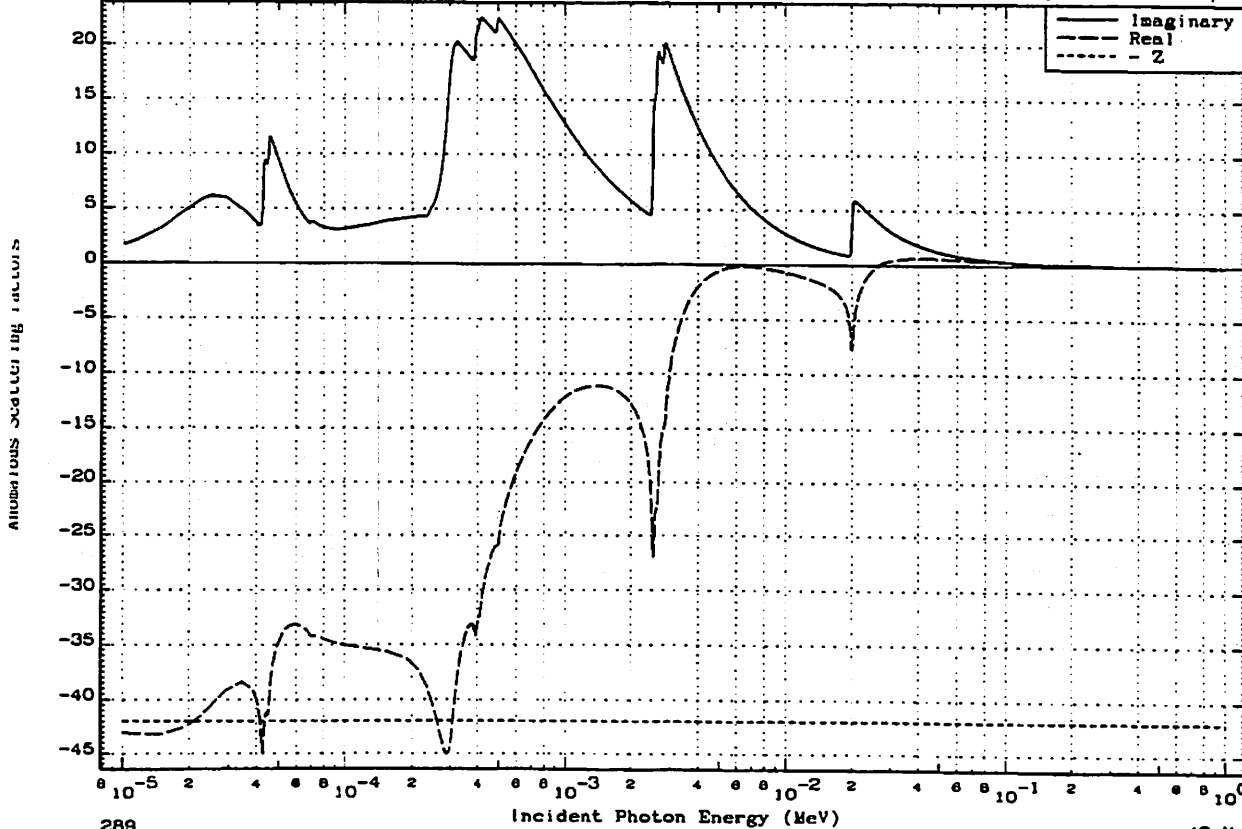
42-Mo
Density 10.220 Grams/cc

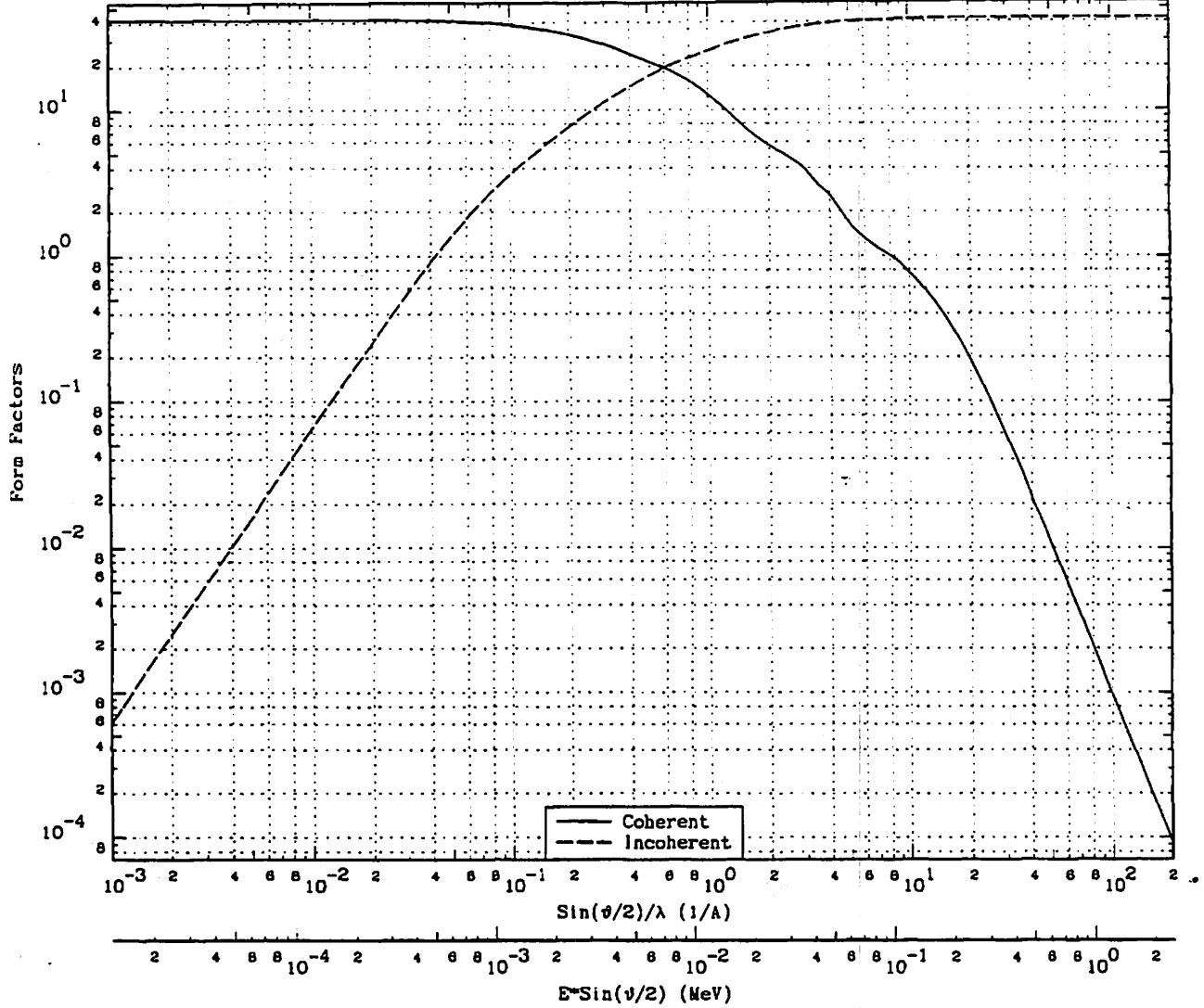


October 31, 1989
Atomic Weight 95.940

ENDL Evaluated
Anomalous Scattering Factors

42-Mo
Density 10.220 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	4.2000+1	0.0000+0	7.0000-1	8.8790-3	1.7837+1	2.1300+1	1.5000+1	1.8598-1	3.8152-1	4.1820+1
1.0000-3	1.2399-5	4.2000+1	6.1737-4	8.0000-1	9.9188-3	1.5832+1	2.2877+1	1.7488+1	2.1683-1	2.8750-1	4.1864+1
5.0000-3	6.1983-5	4.1986+1	1.8000-2	9.0000-1	1.1159-2	1.4329+1	2.4288+1	2.0000+1	2.4797-1	1.8900-1	4.1983+1
1.0000-2	1.2399-4	4.1954+1	6.5000-2	1.0000+0	1.2399-2	1.2637+1	2.5581+1	2.4430+1	3.0290-1	1.0752-1	4.1998+1
1.5000-2	1.8598-4	4.1902+1	1.4380-1	1.2500+0	1.5498-2	9.7497+0	2.8378+1	3.0970+1	3.8398-1	5.2048-2	4.2002+1
2.0000-2	2.4797-4	4.1827+1	2.5210-1	1.5000+0	1.8598-2	7.8940+0	3.0820+1	4.1804+1	5.1831-1	1.9505-2	4.2001+1
2.5000-2	3.0996-4	4.1732+1	3.8880-1	1.8770+0	2.3272-2	6.0441+0	3.3148+1	5.0000+1	6.1893-1	1.0628-2	4.2000+1
3.0000-2	3.7196-4	4.1618+1	5.4480-1	2.0000+0	2.4797-2	5.8882+0	3.3808+1	6.0000+1	9.9188-1	2.0981-3	4.2000+1
4.0000-2	4.9594-4	4.1335+1	9.1770-1	2.5000+0	3.0996-2	4.7043+0	3.5901+1	1.0000+2	1.2399+0	9.6875-4	4.2000+1
5.0000-2	6.1983-4	4.0991+1	1.3440+0	2.8945+0	3.5888-2	4.0768+0	3.7098+1	1.7117+2	2.1223+0	1.5723-4	4.2000+1
7.0000-2	8.6790-4	4.0141+1	2.2841+0	3.0000+0	3.7196-2	3.8911+0	3.7370+1	3.2012+2	3.9690+0	2.0271-5	4.2000+1
9.0000-2	1.1159-3	3.8155+1	3.1813+0	3.5000+0	4.3395-2	3.0780+0	3.8415+1	6.0960+2	7.5581+0	2.8217-6	4.2000+1
1.0000-1	1.2399-3	3.8827+1	3.6250+0	4.0000+0	4.9594-2	2.6100+0	3.9150+1	1.0000+3	1.2399+1	5.8221-7	4.2000+1
1.2500-1	1.5498-3	3.7287+1	4.6925+0	5.0000+0	6.1993-2	1.6740+0	4.0052+1	2.6333+3	3.2649+1	2.9260-8	4.2000+1
1.5000-1	1.8598-3	3.5879+1	5.7200+0	5.5693+0	6.9051-2	1.4283+0	4.0378+1	6.6119+3	6.1978+1	1.8845-9	4.2000+1
1.7500-1	2.1697-3	3.4502+1	6.7187+0	6.0000+0	7.4391-2	1.3093+0	4.0578+1	1.4899+4	1.8473+2	1.7051-10	4.2000+1
2.0000-1	2.4797-3	3.3156+1	7.6900+0	7.0000+0	8.6790-2	1.1206+0	4.0845+1	4.2646+4	5.2875+2	8.0256-12	4.2000+1
2.5000-1	3.0996-3	3.0598+1	9.5324+0	8.0000+0	9.9188-2	1.0029+0	4.1221+1	1.0000+6	1.2399+4	9.4459-16	4.2000+1
3.0000-1	3.7196-3	2.8288+1	1.1280+1	9.5078+0	1.1788-1	8.2244-1	4.1515+1	5.8234+6	6.9722+4	6.5238-18	4.2000+1
4.0000-1	4.9594-3	2.4508+1	1.4440+1	1.0000+1	1.2399-1	7.8750-1	4.1587+1	7.4888+7	9.2975+5	3.5272-21	4.2000+1
5.0000-1	6.1983-3	2.1682+1	1.7198+1	1.2069+1	1.4984-1	5.7573-1	4.1788+1	1.0000+9	1.2399-7	1.8382-24	4.2000+1
6.0000-1	7.4391-3	1.8494+1	1.9455+1	1.4178+1	1.7576-1	4.2680-1	4.1691+1				

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /cm ² gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	9.5898-7	1.0203+5	1.6255+7	2.6148-0	1.3359-4	1.6255+7			1.0428-1	1.0428+1	
1.5549-5	6.7658-7	1.4462-5	2.3040+7	8.8619+0	3.2537-4	2.3040+7			2.2982+1	2.2982+1	
1.8294-5	6.0285-7	1.8231+5	2.5858+7	1.5925-1	5.0275-4	2.5858+7			3.2004+1	3.2004+1	
2.2891-5	6.0155-7	1.8266-5	2.5914+7	2.3240+1	7.1601-4	2.5914+7			3.8220+1	3.8220+1	
2.5283-5	6.3482-7	1.5413+5	2.4555+7	2.6712+1	8.6726-4	2.4555+7			3.8827+1	3.8827+1	
2.8337-5	7.2331-7	1.3528+5	2.1551+7	2.8484+1	1.0915-3	2.1551+7			3.8177+1	3.8177+1	
2.9272-5	7.6428-7	1.2803+5	2.0397+7	2.9009+1	1.1654-3	2.0397+7			3.8302+1	3.8302+1	
3.2237-5	8.2995-7	1.0522+5	1.8763+7	2.8478+1	1.4158-3	1.8763+7			3.4685+1	3.4685+1	
3.4574-5	1.1281-6	8.6893+4	1.3843+7	2.4781+1	1.6302-3	1.3843+7			3.0703+1	3.0703+1	
3.5909-5	1.2480-6	7.8341+4	1.2481+7	2.1441+1	1.7597-3	1.2481+7			2.8750+1	2.8750+1	
3.8422-5	1.5661-6	6.2478+4	9.8535+6	1.6559+1	2.0189-3	9.8535+6			2.4534+1	2.4534+1	
4.0388-5	1.6576-6	5.2875+4	8.13917+6	1.0818+1	2.2281-3	8.3917+6			2.1731+1	2.1731+1	
4.1488-5	2.0653-6	4.7376+4	7.5477+6	7.7643+0	2.3523-3	7.5476+6			2.0078+1	2.0078+1	
4.1689-5	2.1090-6	4.6395+4	7.3912+6	8.0711+0	2.3777-3	7.3912+6			1.9767+1	1.9767+1	
4.1802-5	2.1316-6	4.5903+4	7.3129+6	8.8707+0	2.3807-3	7.3129+6			1.9610+1	1.9610+1	
4.1881-5	2.1474-6	4.5655+4	7.2590+6	9.8761+0	2.3997-3	7.2590+6			1.9503+1	1.9503+1	
4.1982-5	2.1679-6	4.5134+4	7.1904+6	1.1884+1	2.4114-3	7.1904+6			1.9385+1	1.9385+1	
4.2286-5	2.2305-6	4.3867+4	6.9886+6	2.3945+1	2.4468-3	6.9886+6			1.8958+1	1.8958+1	
4.2460-5	2.2670-6	4.3182+4	6.8783+6	3.2814+1	2.4672-3	6.8782+6			1.8730+1	1.8730+1	
N3 4.2460-5	1.3923-6	7.0278+4	1.1196+7	3.2614+1	2.4672-3	1.1196+7			3.0497+1	3.0497+1	8.3734-5
4.2821-5	1.4113-6	8.8328+4	1.1045+7	4.3331+1	2.4860-3	1.1045+7			3.0189+1	3.0189+1	8.2787-5
4.2778-5	1.4289-6	8.8428+4	1.0902+7	5.0662+1	2.5043-3	1.0902+7			2.8915+1	2.8915+1	8.1849-5
4.2924-5	1.4479-6	8.7580+4	1.0788+7	5.5313+1	2.5219-3	1.0788+7			2.8648+1	2.8648+1	8.0980-5
4.3112-5	1.4708-6	8.6525+4	1.0588+7	5.8172+1	2.5442-3	1.0588+7			2.8311+1	2.8311+1	7.9898-5
4.3345-5	1.4996-6	8.5248+4	1.0395+7	5.8428+1	2.5719-3	1.0395+7			2.8004+1	2.8004+1	7.8588-5
4.3940-5	1.5751-6	8.2121+4	9.8966-6	5.5446+1	2.6437-3	9.8966-6			2.7896+1	2.7896+1	7.5358-5
4.4415-5	1.6372-6	5.8785+4	9.5213-6	5.4809+1	2.7015-3	9.5213-6			2.7128+1	2.7128+1	7.2809-5
4.4824-5	1.6661-6	5.8763+4	9.3617-6	5.6582+1	2.7272-3	9.3616-6			2.6799+1	2.6799+1	7.1884-5
4.4892-5	1.7015-6	5.7507+4	9.1615+6	6.3833+1	2.7604-3	9.1615+6			2.6384+1	2.6384+1	7.0549-5
4.5070-5	1.7272-6	5.6851+4	9.0252+6	7.1093+1	2.7825-3	9.0251+6			2.6094+1	2.6094+1	6.8697-5
N2 4.5070-5	1.4030-6	8.8744+4	1.1111+7	7.1093+1	2.7825-3	1.1111+7			3.2125+1	3.2125+1	1.1878-4
4.5394-5	1.4416-6	8.7873+4	1.0813+7	8.4825+1	2.8230-3	1.0813+7			3.1488+1	3.1488+1	1.1618-4
4.5548-5	1.4603-6	8.7004+4	1.0675+7	8.9517+1	2.8424-3	1.0675+7			3.1190+1	3.1190+1	1.1488-4
4.5743-5	1.4843-6	8.5923+4	1.0502+7	9.3237+1	2.8670-3	1.0502+7			3.0818+1	3.0818+1	1.1348-4
4.6188-5	1.5410-6	8.3495+4	1.0115+7	9.5300+1	2.9232-3	1.0115+7			2.9970+1	2.9970+1	1.0999-4
4.8405-5	2.0189-6	4.8486+4	7.7212+6	9.3830+1	3.3488-3	7.7211+6			2.4471+1	2.4471+1	8.7054-5
5.2834-5	2.8758-6	3.8588+4	5.8257+6	8.8138+1	3.8047-3	5.8256+6			1.9870+1	1.9870+1	8.8082-5
8.0000-5	5.0102-6	1.9530+4	3.1113+6	7.1444+1	4.9584-3	3.1112+6			1.1975+1	1.1975+1	3.9666-5
8.4571-5	7.2130-6	1.3565+4	2.1611+6	8.1713+1	5.7542-3	2.1811+6			8.9518+0	8.9518+0	2.9499-5
8.8048-5	9.3986-6	1.0413+4	1.6589+6	5.3567+1	8.3998-3	1.6589+6			7.2415+0	7.2415+0	2.3877-5
8.9343-5	1.0334-5	9.4688+3	1.5085+6	4.9471+1	8.6492-3	1.5084+6			6.7101+0	6.7100+0	2.2129-5
8.9630-5	1.0541-5	9.2825+3	1.4789+6	4.9639+1	8.7050-3	1.4788+6			6.6054+0	6.6053+0	2.1785-5
N1 8.9630-5	9.4648-6	1.0349+4	1.8487+6	4.9639+1	8.7050-3	1.8487+6			7.3843+0	7.3842+0	2.5687-5
7.1020-5	1.0221-5	9.5728+3	1.5251+6	5.0849+1	8.9791-3	1.5250+6			6.8479+0	6.8478+0	2.4263-5
7.7885-5	1.4114-5	8.8326+3	1.1044+6	4.6659+1	8.8104-3	1.1044+6			5.5168+0	5.5165+0	1.8312-5
8.0000-5	1.5256-5	6.4139+3	1.0218+6	4.5149+1	8.8845-3	1.0218+6			5.2438+0	5.2437+0	1.8206-5
8.7389-5	1.8130-5	5.3969+3	8.5880+5	4.1505+1	1.0627-2	8.8975+5			4.8188+0	4.8188+0	1.5835-5
9.2402-5	1.8330-5	5.0818+3	8.0842+5	4.0105+1	1.1900-2	8.0638+5			4.7789+0	4.7789+0	1.4845-5
1.0000-4	2.0212-5	4.8410+3	7.7123+5	3.8954+1	1.3987-2	7.7118+5			4.8472+0	4.8472+0	1.3788-5
1.1498-4	2.0422-5	4.7913+3	7.8331+5	3.8203+1	1.8447-2	7.8328+5			5.6288+0	5.6288+0	1.2732-5
1.5316-4	2.0001-5	4.8921+3	7.7837+5	3.6701+1	3.2711-2	7.7833+5			7.6574+0	7.6574+0	1.1188-5
1.8036-4	2.1861-5	4.4760+3	7.1307+5	3.2812+1	5.0326-2	7.1304+5			8.7074+0	8.7074+0	9.9121-6
2.1314-4	2.3899-5	4.1288+3	6.5778+5	2.6606+1	6.2739-2	6.5774+5			8.9934+0	8.9934+0	8.8246-6
2.3846-4	2.5859-5	3.7839+3	6.0282+5	1.7888+1	7.6820-2	6.0281+5			8.1442+0	8.1442+0	8.1173-6
2.3700-4	2.5908-5	3.7787+3	6.0188+5	1.7980+1	7.7180-2	6.0188+5			8.1475+0	8.1475+0	8.1012-6
N5 2.3700-4	2.1170-5	4.6220+3	7.3635-5	1.7980+1	7.7180-2	7.3633-5			1.1186+1	1.1186+1	1.1512-5
2.4045-4	2.0988-5	4.6820+3	7.4271+5	1.8559+1	7.9365-2	7.4289+5			1.1458+1	1.1458+1	1.1755-5
M4 2.4045-4	1.8551-5	5.2744+3	8.4027+5	1.8559+1	7.9365-2	8.4025+5			1.2981+1	1.2980+1	4.6897-4
2.4526-4	1.7415-5	5.8184+3	8.9509+5	1.9410+1	8.2490-2	8.9507+5			1.4083+1	1.4082+1	5.1891-4
2.5060-4	1.5811-5	6.2878+3	9.8854+5	2.0377+1	8.6028-2	9.8852+5			1.6052+1	1.6051+1	6.0557-4
2.5471-4	1.3975-5	7.0017+3	1.1155+6	2.2293+1	8.8801-2	1.1154+6			1.8228+1	1.8225+1	7.1531-4
2.5899-4	1.2309-5	7.9492+3	1.2664+6	2.5640+1	9.1732-2	1.2664+6			2.1040+1	2.1039+1	8.6285-4
2.8434-4	1.0313-5	9.4878+3	1.5115+6	3.2367+1	9.5489-2	1.5115+6			2.5632+1	2.5631+1	1.1316-3
2.7112-4	8.1280-6	1.2038+4	1.9178+6	4.8520+1	1.0030-1	1.9178+6			3.3356+1	3.3354+1	1.6484-3
2.8641-4	4.7830-6	2.0457+4	3.2591+6	1.0968+1	1.1163-1	3.2590+6			5.8879+1	5.8875+1	4.0597-3
2.8627-4	3.5470-6	2.7598+4	4.3948+6	1.7440+1	1.1824-1	4.3948+6			8.3524+1	8.3517+1	6.8980-3
3.0000-4	3.2347-6	3.0249+4	4.8180+6	2.0012+1	1.2218-1	4.8180+6			9.2740+1	9.2732+1	8.1228-3
3.0183-4	3.1534-6	3.1030+4	4.8434+6	2.1388+1	1.2384-1	4.8432+6			9.5714+1	9.5705+1	8.4520-3
3.0825-4	2.9287-6	3.3432+4	5.3262+6	2.4833+1	1.2882-1	5.3259+6			1.0532+2	1.0531+2	9.3428-3
3.1177-4	2.8743-6	3.4043+4	5.4234+6	2.6218+1	1.3171-1	5.4231+6			1.0848+2	1.0845+2	9.5808-3
3.2487-4	2.9165-6	3.3550+4	5.3448+6	2.8740+1	1.4283-1	5.3448+6			1.1138+2	1.1138+2	9.1885-3
3.8095-4	3.4505-6	2.8358+4	4.5177+6	2.9031+1	1.7389-1	4.5175+6			1.0480+2	1.0480+2	7.8788-3
3.8200-4	3.7820-6	2.5804+4	4.1108+6	2.7983+1	1.9347-1	4.1108+6			1.0073+2	1.0073+2	7.0778-3
3.8705-4	3.8757-6	2.5248+4	4.0220+6	2.7488+1	1.9831-1	4.0217+6			9.9858+1	9.9851+1	6.9453-3
3.9007-4	3.8262-6	2.4922+4	3.9704+6	2.8530+1	2.0123-1	3.9701+6			9.8344+1	9.8337+1	6.8681-3
3.9163-4	3.8924-6	2.4756+4	3.9440+6	2.9858+1	2.0275-1	3.9437+6			9.9079+1	9.9072+1	6.8287-3
N3 3.9163-4	3.6062-6	2.7133+4	4.3226+6	2.9858+1	2.0275-1	4.3223+6			1.0859+2	1.0858+2	8.1333-3
3.9485-4	3.6394-6	2.6886+4	4.2832+6	3.2777+1	2.0690-1	4.2829+6			1.0849+2	1.0848+2	8.1019-3
4.0000-4	3.6924-6	2.8499+4	4.2217+6	3.5181+1	2.1098-1	4.2213+6			1.0832+2	1.0831+2	8.0528-3
4.0628-4	3.7626-6	2.8048+4	4.1500+6	3.6537+1	2.1726-1	4.1496+6			1.0815+2	1.0815+2	7.8635-3
4.0984-4	3.7903-6	2.5815+4	4.1126+6	3.8411+1	2.2065-1	4.1123+6			1.0806+2	1.0806+2	7.9189-3
M2 4.0984-4	3.6378-6	2.8898+4	4.2851+6	3.8411+1	2.2065-1	4.2847+6			1.1280+2	1.1259+2	8.8293-3
4.1225-4	3.6679-6	2.8878+4	4.2489+6	3.9921+1	2.2330-1	4.2485+6			1.1238+2	1.1237+2	8.8710-3
4.1823-4	3.7549-6	2.8069+4	4.1515+6	4.2289+1	2.3048-1	4.1511+6			1.1184+2	1.1183+2	8.7015-3
4.3788-4	4.0285-6	2.4301+4	3.8714+6	4.4503+1	2.5014-1	3.8710+6			1.0874+2	1.0873+2	8.2055-3
4.7072-4	4.5222-6	2.1637+4	3.4471+6	4.8225+1	2.8882-1	3.4466+6			1.0408+2	1.0407+2	

Energy MeV	Total Mean Free Path		Cross Sections (baras)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.9409-4	4.8899-6	2.0010-4	3.1879-6	4.8115+2	3.1323-1	3.1874-8			1.0103+2	1.0102+2	6.9559-3
4.9409-4	4.6692-6	2.0958+4	3.3385+6	4.8115+2	3.1323-1	3.3380-6			1.0580+2	1.0580+2	7.7982-3
5.0154-4	4.7883-6	2.0435-4	3.2555-8	5.2157+2	3.2170-1	3.2550-8			1.0473+2	1.0472+2	7.8153-3
5.1480-4	5.0311-6	1.8449+4	3.0984+6	5.4437+2	3.3675-1	3.0978-6			1.0227+2	1.0228+2	7.2688-3
6.0000-4	8.6818-6	1.4844+4	2.3330+6	6.0428+2	4.4282-1	2.3324+8			8.9773+1	8.9788+1	5.7002-3
7.0000-4	9.1138-6	1.0736+4	1.7104+6	6.4077+2	5.7837-1	1.7098-6			7.6778+1	7.6774+1	4.3468-3
9.5108-4	1.7713-5	5.5240+3	8.8005+5	6.5856+2	9.4935-1	8.7839-5			5.3854+1	5.3851+1	2.4141-3
1.0000-3	1.9809-5	4.8385+3	7.8693+5	6.5831+2	1.0252+0	7.8627-5			5.0440+1	5.0438+1	2.1852-3
1.2121-3	3.1021-5	3.1542+3	5.0251+5	6.3340+2	1.3476+0	5.0187-5			3.9025+1	3.9024+1	1.4603-3
1.5549-3	5.5550-5	1.7814+3	2.8082-5	5.7477+2	1.8703+0	2.8004-5			2.7834+1	2.7833+1	8.8111-4
1.7390-3	7.2889-5	1.3424+3	2.1387+5	5.3190+2	2.1409+0	2.1333-5			2.3789+1	2.3788+1	6.7151-4
1.9277-3	9.3599-5	1.0454+3	1.6654-5	4.7998+2	2.4231+0	1.6606-5			2.0535-1	2.0535-1	5.3409-4
2.0984-3	1.1554-4	8.4684+2	1.3491-5	4.2319+2	2.6862-0	1.3449-5			1.8104+1	1.8104+1	4.3981-4
2.2007-3	1.3029-4	7.5108+2	1.1985-5	3.6020+2	2.8129+0	1.1927-5			1.6938+1	1.6937+1	3.8353-4
2.2998-3	1.4558-4	6.7213+2	1.0708-6	3.2904+2	2.9586+0	1.0875-5			1.5747+1	1.5748+1	3.5511-4
2.3882-3	1.5701-4	6.2318+2	9.9280+4	2.8127+2	3.0550+0	9.8998-4			1.5046+1	1.5048+1	3.3117-4
2.3985-3	1.6198-4	6.0407+2	9.6236+4	2.5898+2	3.0941+0	9.9579+4			1.4787+1	1.4787+1	3.2180-4
2.4391-3	1.6908-4	5.7876+2	9.2203+4	2.1412+2	3.1486+0	9.1966+4			1.4393+1	1.4390+1	3.0939-4
2.4840-3	1.7350-4	5.8397+2	8.9847+4	1.7849+2	3.1819+0	8.9668+4			1.4173+1	1.4173+1	3.0216-4
2.4819-3	1.7877-4	5.5352+2	8.8182+4	1.4419+2	3.2060+0	8.8035+4			1.4017+1	1.4018+1	2.9707-4
2.4860-3	1.7937-4	5.4551+2	8.6907+4	1.1907+2	3.2249+0	8.7855+4			1.3898+1	1.3898+1	2.9318-4
2.5004-3	1.8018-4	5.4307+2	8.6517+4	1.1419+2	3.2308+0	8.6400+4			1.3859+1	1.3859+1	2.9195-4
2.5053-3	1.8108-4	5.4042+2	8.6098+4	1.1179+2	3.2373+0	8.5981+4			1.3818+1	1.3818+1	2.9084-4
2.5107-3	1.8204-4	5.3750+2	8.5631+4	1.1380+2	3.2445+0	8.5514+4			1.3773+1	1.3773+1	2.8918-4
2.5210-3	1.8390-4	5.3208+2	8.4768+4	1.3182+2	3.2584+0	8.4831+4			1.3687+1	1.3687+1	2.8611-4
2.5210-3	4.9890-5	1.9612+3	3.1245+5	1.3182+2	3.2584+0	3.1232+5			5.0509+1	4.9289+1	1.2207+0
2.5424-3	5.1088-5	1.9154+3	3.0514+5	2.0592+2	3.2872+0	3.0493+5			4.9733+1	4.8543+1	1.1808+0
2.5480-3	5.1488-5	1.8018+3	3.0294+5	2.2885+2	3.2960+0	3.0271+5			4.8488+1	4.8318+1	1.1815+0
2.5817-3	5.2182-5	1.8751+3	2.8873+5	2.6135+2	3.3131+0	2.8846+5			4.8048+1	4.7885+1	1.1842+0
2.5751-3	5.2953-5	1.8478+3	2.8438+5	2.7947+2	3.3311+0	2.8410+5			4.8584+1	4.7437+1	1.1463+0
2.6080-3	5.4880-5	1.7829+3	2.8405+5	2.9542+2	3.3752+0	2.8375+5			4.7471+1	4.6387+1	1.1042+0
2.6295-3	5.8162-5	1.7422+3	2.7758+5	3.3559+2	3.4041+0	2.7722+5			4.6763+1	4.5685+1	1.0778+0
2.6295-3	4.0431-5	2.4201+3	3.8555+5	3.3569+2	3.4041+0	3.8521+5			8.4979+1	8.3233+1	1.7458+0
2.6533-3	4.1498-5	2.3580+3	3.7588+5	4.1324+2	3.4389+0	3.7524+5			8.3920+1	8.2220+1	1.6999+0
2.6731-3	4.2186-5	2.3194+3	3.6952+5	4.5314+2	3.4628+0	3.6906+5			8.3287+1	8.1615+1	1.6717+0
2.6872-3	4.2737-5	2.2895+3	3.6475+5	4.7442+2	3.4817+0	3.6427+5			8.2794+1	8.1145+1	1.6500+0
2.7185-3	4.3980-5	2.2248+3	3.5444+5	5.0231+2	3.5238+0	3.5393+5			8.1722+1	8.0119+1	1.6029+0
2.7878-3	4.5897-5	2.1277+3	3.3887+5	5.2474+2	3.5902+0	3.3844+5			8.0092+1	7.8559+1	1.5325+0
2.8232-3	4.8307-5	2.0255+3	3.2268+5	5.2738+2	3.6648+0	3.2218+5			8.0348+1	7.8888+1	1.4585+0
2.8485-3	4.9300-5	1.9847+3	3.1819+5	5.5113+2	3.6962+0	3.1563+5			8.0698+1	7.9220+1	1.4288+0
2.8485-3	4.3129-5	2.2687+3	3.8143+5	5.5113+2	3.6962+0	3.8088+5			8.5898+1	8.4220+1	1.6777+0
2.8819-3	4.4389-5	2.2038+3	3.5110+5	6.1418+2	3.7440+0	3.5048+5			8.4798+1	8.3168+1	1.6299+0
2.8273-3	4.6088-5	2.1240+3	3.3838+5	6.5731+2	3.8052+0	3.3772+5			8.3419+1	8.1848+1	1.5715+0
3.0439-3	5.0624-5	1.8328+3	3.0792+5	7.0890+2	3.8827+0	3.0721+5			8.9897+1	8.8556+1	1.4314+0
3.3804-3	6.5849-5	1.4859+3	2.3873+5	7.5858+2	4.4184+0	2.3597+5			5.1169+1	5.0088+1	1.1015+0
3.7574-3	8.6329-5	1.1334+3	1.8057+5	7.5887+2	4.8789+0	1.7981+5			4.3338+1	4.2499+1	8.3889-1
4.8338-3	1.4810-4	6.8088+2	1.0525+5	6.9353+2	5.9387+0	1.0455+5			3.1079+1	3.0591+1	4.8788-1
6.1220-3	3.0788-4	3.1802+2	5.0665+4	5.8627+2	7.5683+0	5.0091+4			1.9872+1	1.9438+1	2.3381-1
8.5854-3	7.9824-4	1.2804+2	2.0558+4	4.1043+2	9.7630+0	2.0138+4			1.1091+1	1.0997+1	9.3785-2
1.0000-2	1.1445-3	8.5491+1	1.3820+4	3.4488+2	1.0769+1	1.3284+4			8.5093+0	8.4478+0	6.1702-2
1.1991-2	1.8798-3	5.2051+1	8.2824+3	2.7236+2	1.1831+1	8.0081+3			6.1598+0	6.1225+0	3.7227-2
1.4839-2	3.2313-3	3.0281+1	4.8241+3	1.9929+2	1.3234+1	4.8118+3			4.3308+0	4.3092+0	2.1403-2
1.8809-2	4.5589-3	2.1477+1	3.4218+3	1.5543+2	1.4041+1	3.2521+3			3.4856+0	3.4504+0	1.5078-2
1.7889-2	5.4148-3	1.8071+1	2.8789+3	1.3207+2	1.4481+1	2.7324+3			3.1012+0	3.0885+0	1.2882-2
1.8208-2	5.6885-3	1.6679+1	2.6572+3	1.2146+2	1.4858+1	2.5210+3			2.9453+0	2.9338+0	1.1675-2
1.8687-2	6.3142-3	1.5496+1	2.4688+3	1.0996+2	1.4838+1	2.3440+3			2.8108+0	2.7997+0	1.0850-2
1.9210-2	6.8628-3	1.4258+1	2.2715+3	9.4810+1	1.5025+1	2.1819+3			2.6848+0	2.6548+0	1.0005-2
1.9400-2	7.0771-3	1.3828+1	2.2028+3	8.7238+1	1.5078+1	2.1003+3			2.6148+0	2.6048+0	9.7190-3
1.9565-2	7.2754-3	1.3449+1	2.1426+3	7.8782+1	1.5123+1	2.0487+3			2.5722+0	2.5627+0	9.4784-3
1.9801-2	7.5782-3	1.2810+1	2.0587+3	6.3845+1	1.5187+1	1.8779+3			2.5132+0	2.5041+0	8.1508-3
1.9883-2	7.8757-3	1.2748+1	2.0009+3	6.1424+1	1.5209+1	1.8542+3			2.4834+0	2.4844+0	9.0408-3
1.9985-2	7.7970-3	1.2814+1	2.0098+3	6.3598+1	1.5231+1	1.8307+3			2.4738+0	2.4947+0	8.8318-3
1.9985-2	1.2377-3	7.9053+1	1.2584+4	6.3598+1	1.5231+1	1.2515+4			1.6030+1	1.6404+0	9.2898+0
2.0030-2	1.2408-3	7.8858+1	1.2583+4	6.7841+1	1.5249+1	1.2480+4			1.6038+1	1.6821+0	9.2742+0
2.0187-2	1.2478-3	7.8429+1	1.2495+4	6.3180+1	1.5291+1	1.2398+4			1.6053+1	1.6157+0	9.2375+0
2.0337-2	1.2541-3	7.8020+1	1.2430+4	6.5482+1	1.5331+1	1.2319+4			1.6071+1	1.6883+0	9.2027+0
2.0449-2	1.2594-3	7.7693+1	1.2377+4	1.0071+2	1.5361+1	1.2281+4			1.6084+1	1.6978+0	9.1788+0
2.0718-2	1.2724-3	7.6801+1	1.2251+4	1.0869+2	1.5432+1	1.2128+4			1.6118+1	1.70020	9.1158+0
2.1227-2	1.3431-3	7.2854+1	1.1607+4	1.1808+2	1.5585+1	1.1473+4			1.5823+1	1.6808+0	8.8425+0
2.2408-2	1.5357-3	6.3715+1	1.0151+4	1.2472+2	1.5884+1	1.0010+4			1.4386+1	1.6289+0	7.5590+0
2.3730-2	1.7851-3	5.4814+1	8.7328+3	1.2401+2	1.6189+1	8.5924+3			1.3081+1	1.5848+0	6.868+0
2.6508-2	2.4233-3	4.0377+1	6.4328+3	1.1503+2	1.6813+1	6.3007+3			1.0882+1	1.5918+0	4.7724+0
3.1448-2	3.9501-3	2.4771+1	3.9463+3	9.3272+1	1.7879+1	3.8354+3			7.7188+0	4.8100+0	2.9088+0
4.0000-2	7.5899-3	1.2892+1	2.0538+3	6.6087+1	1.8658+1	1.8692+3			5.0588+0	3.5589+0	1.4997+0
5.6890-2	1.9804-2	4.9408+0	7.8713+2	3.6867+1	1.9210+1	7.3098+2			2.8720+0	2.1122+0	5.5985-1
8.5351-2	5.8157-2	1.6540+0	2.6351+2	1.7753+1	1.9088+1	2.2889+2			1.2638+0	1.0797+0	1.7415-1
1.0000-1	8.8814-2	1.1017+0	1.7552+2	1.3275+1	1.8843+1						

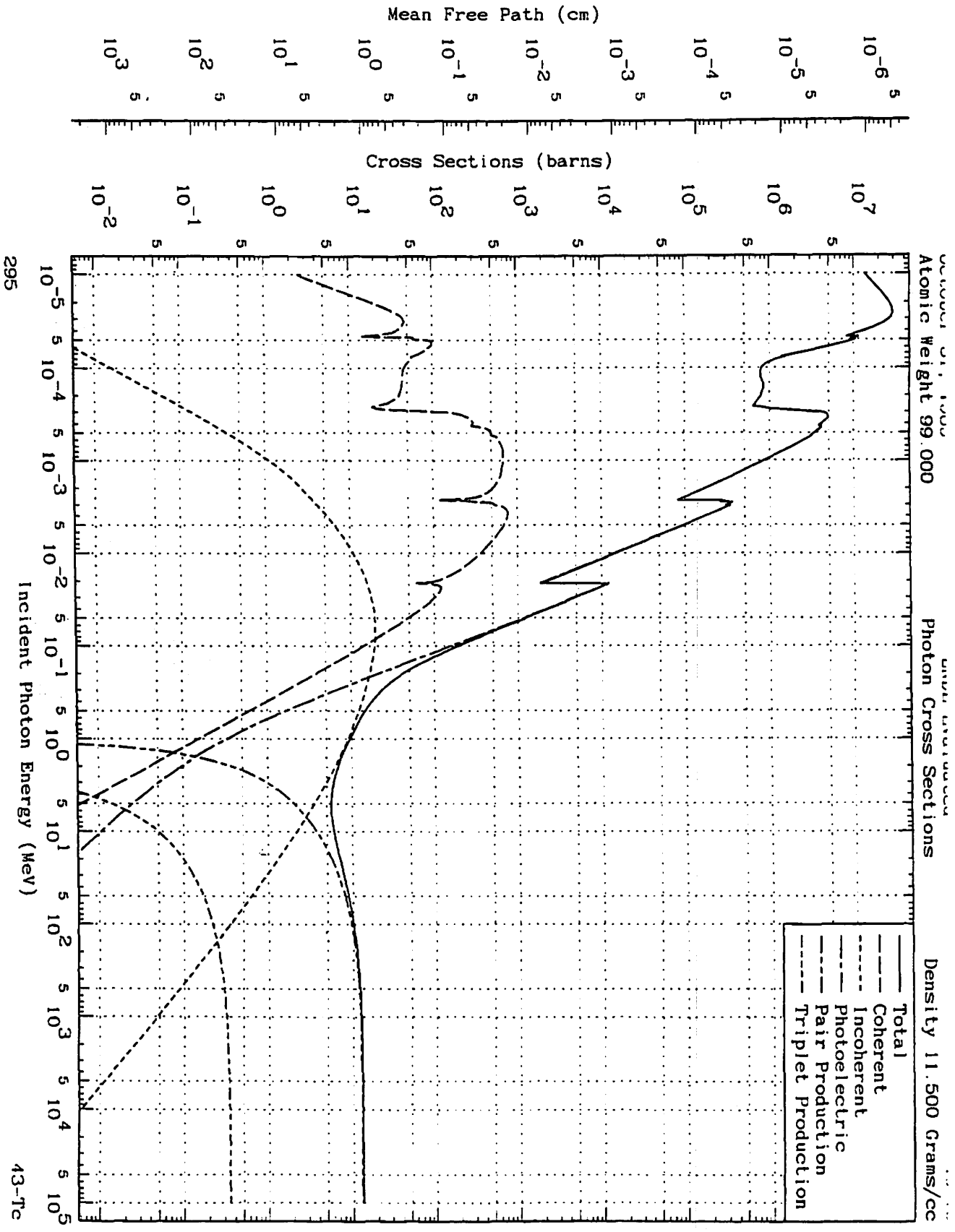
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
8.2263-1	1.5064+0	6.4997-2	1.0355+1	2.1711-1	8.6825+0	4.5518-1			2.3571-1	2.3538-1	3.5122-4
1.0000+0	1.8793+0	5.8266-2	9.2825+0	1.4703-1	8.8346+0	3.0084-1			2.6959-1	2.6938-1	2.3232-4
1.0220+0	1.7001+0	5.7553-2	9.1690+0	1.4081-1	8.7420+0	2.8620-1			2.7358-1	2.7338-1	2.2101-4
1.0251+0	1.7032+0	5.7451-2	9.1528+0	1.3995-1	8.7282+0	2.8446-1		9.9164-8	2.7412-1	2.7380-1	2.1967-4
1.0287+0	1.7067+0	5.7332-2	9.1337+0	1.3897-1	8.7122+0	2.8247-1		9.9164-7	2.7474-1	2.7452-1	2.1813-4
1.0295+0	1.7074+0	5.7307-2	9.1298+0	1.3877-1	8.7089+0	2.8205-1		1.3571-8	2.7486-1	2.7465-1	2.1781-4
1.0301+0	1.7080+0	5.7288-2	9.1266+0	1.3861-1	8.7063+0	2.8173-1		1.7067-6	2.7497-1	2.7475-1	2.1758-4
1.0310+0	1.7089+0	5.7256-2	9.1220+0	1.3837-1	8.7024+0	2.8124-1		2.3354-6	2.7512-1	2.7490-1	2.1718-4
1.0320+0	1.7098+0	5.7226-2	9.1188+0	1.3810-1	8.6980+0	2.8069-1		3.1953-6	2.7528-1	2.7507-1	2.1676-4
1.0332+0	1.7110+0	5.7187-2	9.1106+0	1.3778-1	8.6892+0	2.8004-1		4.4761-6	2.7549-1	2.7528-1	2.1628-4
1.0340+0	1.7118+0	5.7161-2	9.1085+0	1.3757-1	8.6893+0	2.7961-1		5.4849-6	2.7563-1	2.7542-1	2.1592-4
1.0353+0	1.7130+0	5.7119-2	9.0998+0	1.3723-1	8.6836+0	2.7891-1		7.4585-8	2.7585-1	2.7564-1	2.1538-4
1.0368+0	1.7143+0	5.7076-2	9.0928+0	1.3688-1	8.6778+0	2.7818-1		9.9184-8	2.7608-1	2.7587-1	2.1483-4
1.0382+0	1.7158+0	5.7028-2	9.0849+0	1.3647-1	8.6711+0	2.7738-1		1.3383-5	2.7635-1	2.7613-1	2.1419-4
1.0397+0	1.7173+0	5.6978-2	9.0772+0	1.3608-1	8.6648+0	2.7658-1		1.7387-5	2.7660-1	2.7638-1	2.1357-4
1.0415+0	1.7190+0	5.6920-2	9.0681+0	1.3561-1	8.6588+0	2.7581-1		2.3133-5	2.7691-1	2.7670-1	2.1283-4
1.0438+0	1.7212+0	5.6847-2	9.0584+0	1.3501-1	8.6470+0	2.7440-1		3.2109-5	2.7730-1	2.7709-1	2.1190-4
1.0484+0	1.7237+0	5.6764-2	9.0433+0	1.3435-1	8.6358+0	2.7304-1		4.4673-5	2.7775-1	2.7753-1	2.1085-4
1.0483+0	1.7258+0	5.6704-2	9.0337+0	1.3388-1	8.6277+0	2.7205-1		5.5620-5	2.7807-1	2.7788-1	2.1009-4
1.0512+0	1.7284+0	5.6613-2	9.0182+0	1.3313-1	8.6154+0	2.7058-1		7.5447-5	2.7858-1	2.7835-1	2.0893-4
1.0641+0	1.7311+0	5.6523-2	9.0048+0	1.3241-1	8.6032+0	2.6908-1		9.9164-6	2.7905-1	2.7885-1	2.0779-4
1.0677+0	1.7346+0	5.6410-2	8.9869+0	1.3151-1	8.5880+0	2.6725-1		1.3517-4	2.7967-1	2.7946-1	2.0638-4
1.0611+0	1.7378+0	5.6305-2	8.9701+0	1.3057-1	8.5737+0	2.6554-1		1.7582-4	2.8025-1	2.8004-1	2.0506-4
1.0651+0	1.7416+0	5.6182-2	8.9505+0	1.2970-1	8.5570+0	2.6355-1		2.3277-4	2.8093-1	2.8073-1	2.0353-4
1.0704+0	1.7465+0	5.6021-2	8.9248+0	1.2842-1	8.5351+0	2.6096-1		3.2473-4	2.8183-1	2.8163-1	2.0152-4
1.0782+0	1.7521+0	5.5846-2	8.8989+0	1.2705-1	8.5112+0	2.5818-1		4.4878-4	2.8282-1	2.8262-1	1.9938-4
1.0805+0	1.7562+0	5.5714-2	8.8759+0	1.2602-1	8.4903+0	2.5607-1		5.6048-4	2.8357-1	2.8337-1	1.9774-4
1.0871+0	1.7623+0	5.5521-2	8.8452+0	1.2453-1	8.4689+0	2.5302-1		7.5512-4	2.8487-1	2.8468-1	1.9530-4
1.0937+0	1.7685+0	5.5328-2	8.8144+0	1.2303-1	8.4404+0	2.4998-1		9.9184-4	2.8580-1	2.8561-1	1.9304-4
1.1028+0	1.7767+0	5.5071-2	8.7735+0	1.2107-1	8.4051+0	2.4597-1		1.3748-3	2.8731-1	2.8712-1	1.8995-4
1.1107+0	1.7842+0	5.4841-2	8.7389+0	1.1932-1	8.3733+0	2.4240-1		1.7930-3	2.8889-1	2.8850-1	1.8719-4
1.1206+0	1.7933+0	5.4564-2	8.6927+0	1.1723-1	8.3350+0	2.3815-1		2.3984-3	2.9037-1	2.9019-1	1.8391-4
1.1333+0	1.8048+0	5.4218-2	8.6373+0	1.1483-1	8.2885+0	2.3285-1		3.3345-3	2.9233-1	2.9215-1	1.7982-4
1.1475+0	1.8175+0	5.3837-2	8.5788+0	1.1182-1	8.2333+0	2.2714-1		4.6037-3	2.9495-1	2.9478-1	1.7540-4
1.1582+0	1.8270+0	5.3557-2	8.5233+0	1.0978-1	8.1838+0	2.2297-1		5.7213-3	2.9677-1	2.9660-1	1.7219-4
1.1741+0	1.8409+0	5.3151-2	8.4678+0	1.0684-1	8.1382+0	2.1899-1		7.6472-3	2.9948-1	2.9932-1	1.6756-4
1.1901+0	1.8548+0	5.2755-2	8.4045+0	1.0400-1	8.0993+0	2.1525-1		9.9184-3	3.0222-1	3.0208-1	1.6313-4
1.2051+0	1.8674+0	5.2397-2	8.3474+0	1.0144-1	8.0722+0	2.0949-1		1.2347-2	3.0482-1	3.0468-1	1.5948-4
1.2275+0	1.8881+0	5.1879-2	8.2850+0	9.7790-2	7.9510+0	1.9969-1		1.6528-2	3.0871-1	3.0856-1	1.5421-4
1.2568+0	1.9169+0	5.1045-2	8.1321+0	9.2017-2	7.8282+0	1.8888-1		2.5018-2	3.1535-1	3.1521-1	1.4598-4
1.2949+0	1.9399+0	5.0440-2	8.0357+0	8.7914-2	7.7340+0	1.8117-1		3.2553-2	3.2049-1	3.2035-1	1.3991-4
1.3318+0	1.9680+0	4.9718-2	7.9207+0	8.3127-2	7.6224+0	1.7213-1		4.3074-2	3.2699-1	3.2688-1	1.3293-4
1.3828+0	1.9909+0	4.9148-2	7.8298+0	7.8424-2	7.5327+0	1.6511-1		5.2580-2	3.3245-1	3.3232-1	1.2750-4
1.3970+0	2.0157+0	4.8542-2	7.7333+0	7.5574-2	7.4361+0	1.5778-1		6.3888-2	3.3859-1	3.3847-1	1.2184-4
1.4558+0	2.0588+0	4.7578-2	7.5797+0	6.9613-2	7.2791+0	1.4838-1		8.4650-2	3.4918-1	3.4907-1	1.1303-4
1.5000+0	2.0980+0	4.6908-2	7.4729+0	6.5585-2	7.1873+0	1.3880-1		1.0150-1	3.5724-1	3.5714-1	1.0703-4
1.5898+0	2.1418+0	4.5884-2	7.2781+0	5.8401-2	6.8548+0	1.2548-1		1.3942-1	3.7402-1	3.7392-1	8.8986-5
1.7188+0	2.2141+0	4.4182-2	7.0403+0	4.9933-2	6.4705+0	1.0980-1		2.0104-1	3.8890-1	3.8882-1	8.4788-5
1.7847+0	2.2504+0	4.3480-2	6.8268+0	4.6367-2	6.5404+0	1.0295-1		2.3714-1	4.1093-1	4.1085-1	7.9501-5
1.8923+0	2.3054+0	4.2443-2	6.7817+0	4.1255-2	6.3297+0	9.3137-2		2.8784-1	4.3107-1	4.3100-1	7.1923-5
2.0440+0	2.3743+0	4.1211-2	6.5654+0	3.5370-2	6.0624+0	8.1780-2		3.6580-1	4.6068-1	4.6062-1	6.3138-5
2.0858+0	2.3935+0	4.0881-2	6.5128+0	3.3968-2	5.9901+0	7.8250-2		4.0950-1	4.8068-1	4.8042-1	5.6199-5
2.1066+0	2.4027+0	4.0724-2	6.4878+0	3.3302-2	5.9549+0	7.8048-2		4.2164-1	4.7242-1	4.7236-1	5.0272-5
2.1140+0	2.4059+0	4.0670-2	6.4793+0	3.3089-2	5.9428+0	7.7828-2		4.2601-1	4.7384-1	4.7378-1	5.0947-5
2.1195+0	2.4082+0	4.0630-2	6.4729+0	3.2898-2	5.9334+0	7.7618-2		4.2829-1	4.7489-1	4.7483-1	5.9708-5
2.1278+0	2.4118+0	4.0570-2	6.4633+0	3.2839-2	5.9196+0	7.6949-2		4.3431-1	4.7851-1	4.7845-1	5.9345-5
2.1363+0	2.4153+0	4.0511-2	6.4538+0	3.2885-2	5.9058+0	7.6388-2		4.3935-1	4.7813-1	4.7807-1	5.8988-5
2.1470+0	2.4198+0	4.0436-2	6.4420+0	3.2062-2	5.8882+0	7.5798-2		4.4589-1	4.8022-1	4.8016-1	5.8534-5
2.1835+0	2.4285+0	4.0324-2	6.4241+0	3.1575-2	5.8615+0	7.4910-2		4.5608-1	4.8345-1	4.8339-1	5.7848-5
2.1845+0	2.4354+0	4.0178-2	6.4008+0	3.0972-2	5.8281+0	7.3804-2		4.6775-1	4.8748-1	4.8741-1	5.6994-5
2.2018+0	2.4428+0	4.0058-2	6.3818+0	3.0487-2	5.8008+0	7.2913-2		4.7752-1	4.8080-1	4.8074-1	5.6306-5
2.2148+0	2.4479+0	3.9972-2	6.3680+0	3.0131-2	5.7806+0	7.2254-2		4.8495-1	4.8332-1	4.8327-1	5.5797-5
2.2342+0	2.4557+0	3.9846-2	6.3479+0	2.9911-2	5.7508+0	7.1291-2		4.9818-1	4.8712-1	4.8707-1	5.5053-5
2.2537+0	2.4632+0	3.9723-2	6.3283+0	2.9102-2	5.7213+0	7.0344-2		5.0758-1	5.0097-1	5.0092-1	5.4322-5
2.2815+0	2.4738+0	3.9554-2	6.3014+0	2.8397-2	5.6798+0	6.9027-2		5.2417-1	5.0854-1	5.0849-1	5.3305-5
2.3070+0	2.4831+0	3.9406-2	6.2778+0	2.7773-2	5.6425+0	6.7856-2		5.3968-1	5.1172-1	5.1167-1	5.2401-5
2.3382+0	2.4940+0	3.9233-2	6.2503+0	2.7038-2	5.5977+0	6.6486-2		5.5900-1	5.1815-1	5.1809-1	5.1327-5
2.3774+0	2.5072+0	3.9028-2	6.2173+0	2.6155-2	5.5428+0	6.4788-2		5.8348-1	5.2833-1	5.2828-1	5.0030-5
2.4102+0	2.5188+0	3.8847-2	6.1889+0	2.5448-2	5.4978+0	6.3433-2		6.0182-1	5.3300-1	5.3295-1	4.6985-5
2.4488+0	2.5311+0	3.8658-2	6.1587+0	2.4894-2	5.4490+0	6.1978-2		6.2288-1	5.4058-1	5.4052-1	4.7881-5
2.4859+0	2.5438+0	3.8468-2	6.1284+0	2.3924-2	5.3980+0	6.0483-2		6.4588-1	5.4878-1	5.4874-1	4.6707-5
2.5584+0	2.5648+0	3.8152-2	6.0781+0	2.2824-2	5.3092+0	5.7932-2		6.8802-1	5.5399-1	5.5396-1	4.4737-5
2.6804+0	2.5824+0	3.7744-2	6.0131+0	2.0892-2	5.1851+0	5.4					

October 31, 1989
Atomic Weight 95.940

ENDL Evaluated
Photon Data

42-Mo
Density 10.220 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)							Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence	
1.0000+ 1	2.6838+ 0	3.8458- 2	5.8082+ 0	1.4801- 3	2.1414+ 0	9.5590- 3	3.6070+ 0	4.8780- 2	3.0508+ 0	3.0508+ 0	7.3818- 6	
1.3000+ 1	2.5448+ 0	3.8448- 2	6.1252+ 0	8.7585- 4	1.7592+ 0	7.0720- 3	4.2920+ 0	6.6080- 2	4.3816+ 0	4.3816+ 0	5.4612- 6	
1.8000+ 1	2.3577+ 0	4.1501- 2	6.6118+ 0	4.5685- 4	1.3778+ 0	4.9220- 3	5.1390+ 0	8.9420- 2	6.8467+ 0	6.8467+ 0	3.8009- 6	
2.6000+ 1	2.1498+ 0	4.5520- 2	7.2518+ 0	2.1897- 4	1.0302+ 0	3.3060- 3	6.1010+ 0	1.1710- 1	1.1238+ 1	1.1238+ 1	2.5330- 6	
4.2170+ 1	1.9108+ 0	5.1208- 2	8.1580+ 0	8.3240- 5	7.0286- 1	1.8847- 3	7.2894+ 0	1.5387- 1	2.1128+ 1	2.1128+ 1	1.5327- 6	
6.0000+ 1	1.7889+ 0	5.5377- 2	8.8222+ 0	4.1118- 5	5.2521- 1	1.3760- 3	6.1160+ 0	1.7960- 1	3.2958+ 1	3.2958+ 1	1.0626- 6	
1.0000+ 2	1.6049+ 0	6.0970- 2	9.7132+ 0	1.4802- 5	3.4438- 1	8.1570- 4	9.1540+ 0	2.1400- 1	6.1241+ 1	6.1241+ 1	6.2991- 7	
2.0000+ 2	1.4576+ 0	6.7127- 2	1.0894+ 1	3.7006- 8	1.9048- 1	4.0400- 4	1.0250+ 1	2.5330- 1	1.3606+ 2	1.3606+ 2	3.1188- 7	
5.0000+ 2	1.3477+ 0	7.2806- 2	1.1567+ 1	5.8210- 7	8.8185- 2	1.8070- 4	1.1180+ 1	2.9070- 1	3.8980+ 2	3.8980+ 2	1.2410- 7	
1.0000+ 3	1.3038+ 0	7.5048- 2	1.1858+ 1	1.4802- 7	4.8940- 2	8.0180- 5	1.1800+ 1	3.0930- 1	7.6577+ 2	7.6577+ 2	6.1925- 8	
5.0000+ 3	1.2800+ 0	7.7858- 2	1.2372+ 1	5.8210- 9	1.1105- 2	1.6010- 5	1.2030+ 1	3.3080- 1	3.9671+ 3	3.9671+ 3	1.2383- 8	
1.0000+ 4	1.2530+ 0	7.8089- 2	1.2441+ 1	1.4802- 9	5.8297- 3	8.0050- 6	1.2100+ 1	3.3470- 1	7.9795+ 3	7.9795+ 3	6.1817- 9	
1.0000+ 5	1.2451+ 0	7.8587- 2	1.2520+ 1	1.4804- 11	7.1822- 4	8.0040- 7	1.2180+ 1	3.3910- 1	8.0314+ 4	8.0314+ 4	8.1809- 10	

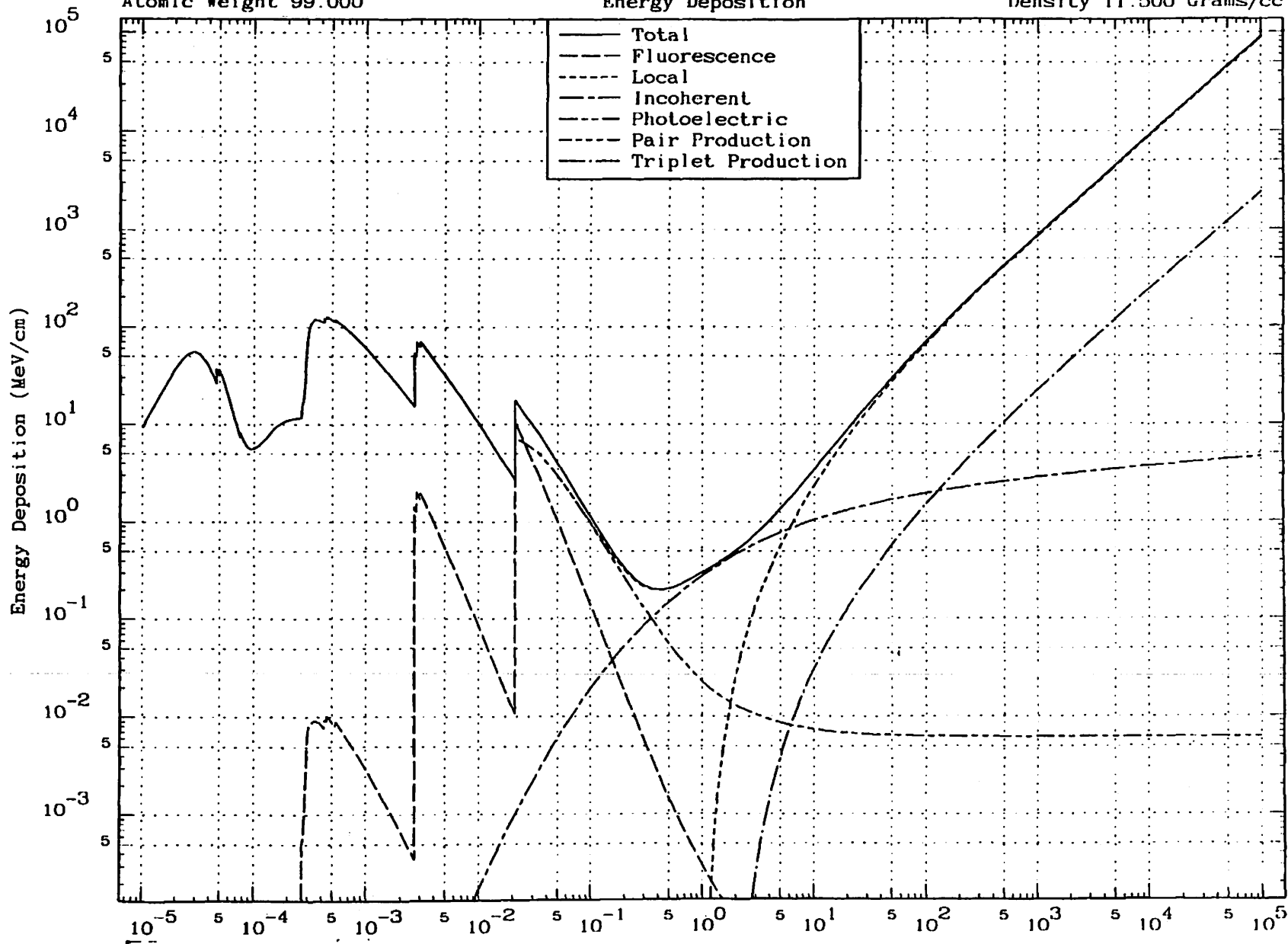


October 31, 1989
Atomic Weight 99.000

ENDL Evaluated
Energy Deposition

43-Tc
Density 11.500 Grams/cc

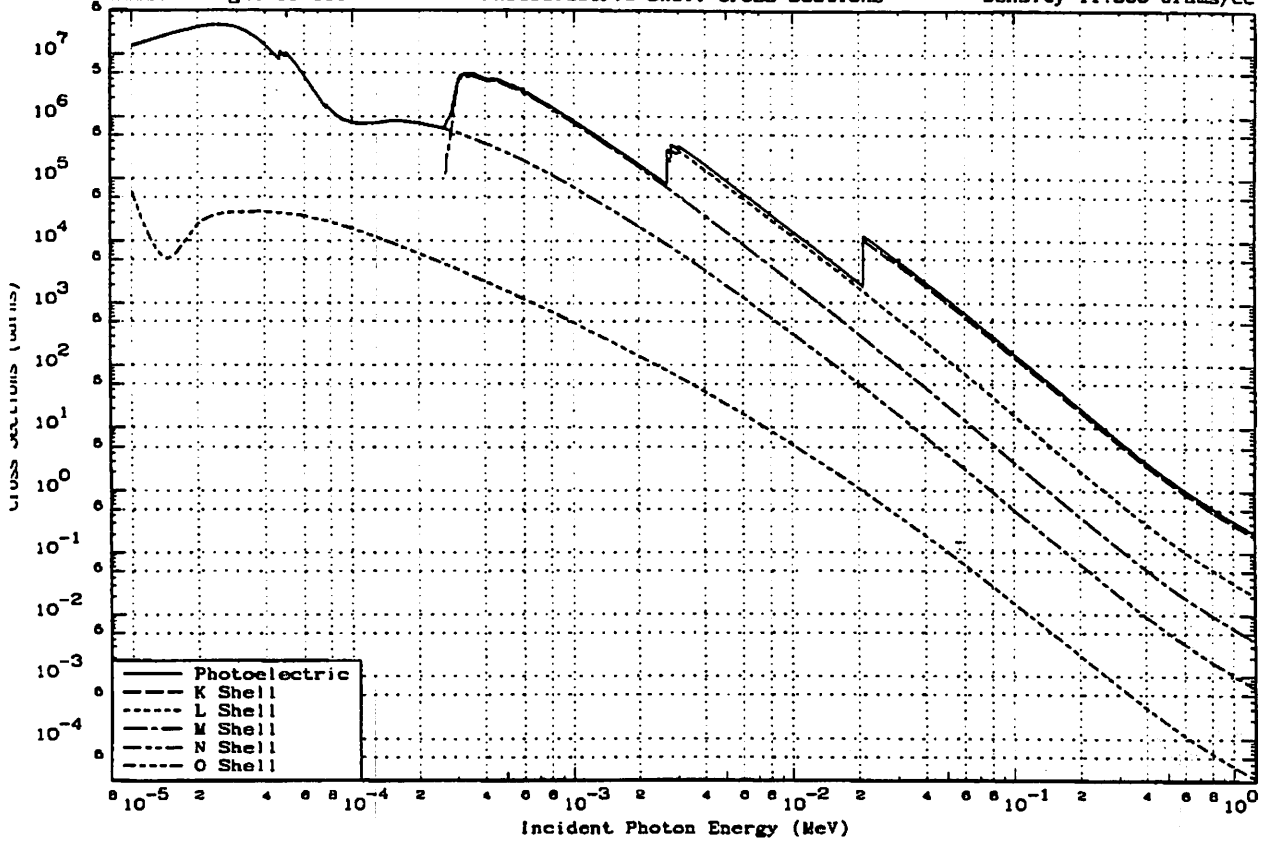
296



October 31, 1989
Atomic Weight 99.000

ENDL Evaluated
Photoelectric Shell Cross Sections

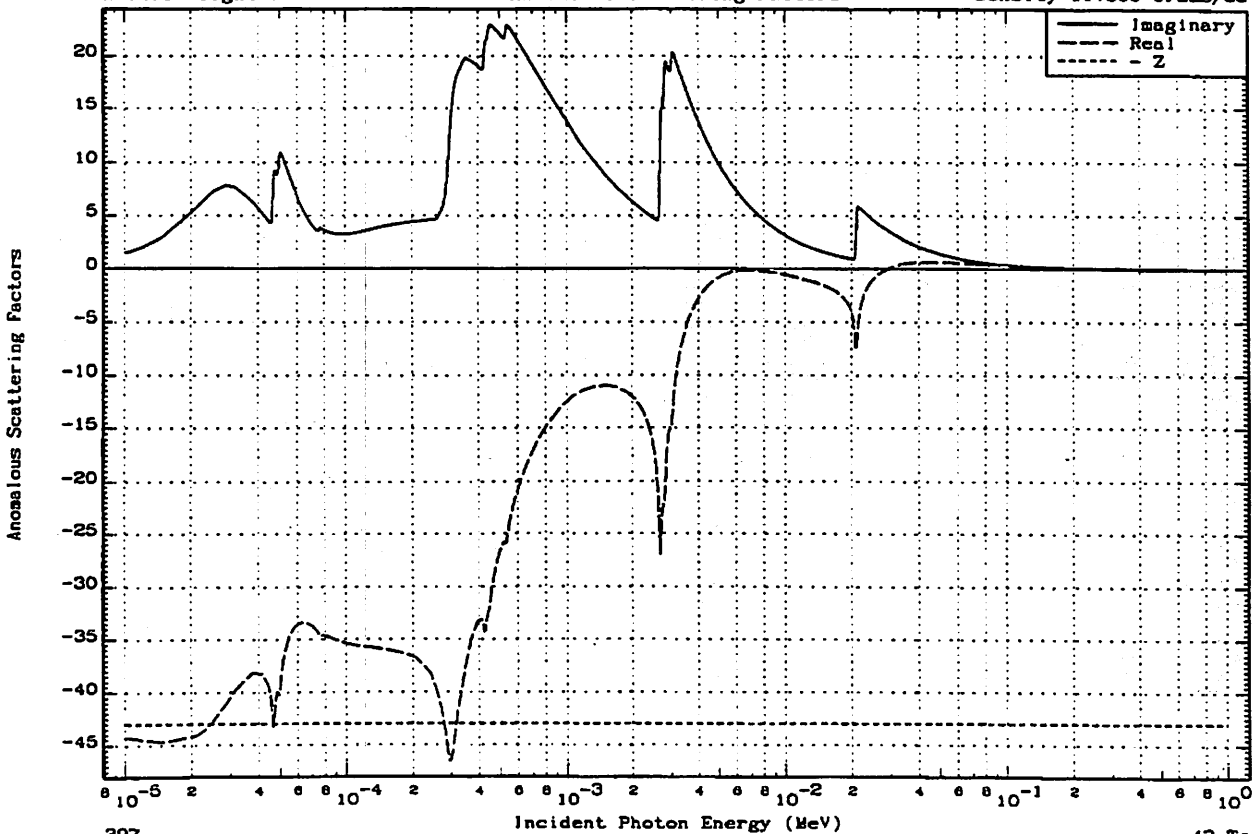
43-Tc
Density 11.500 Grams/cc

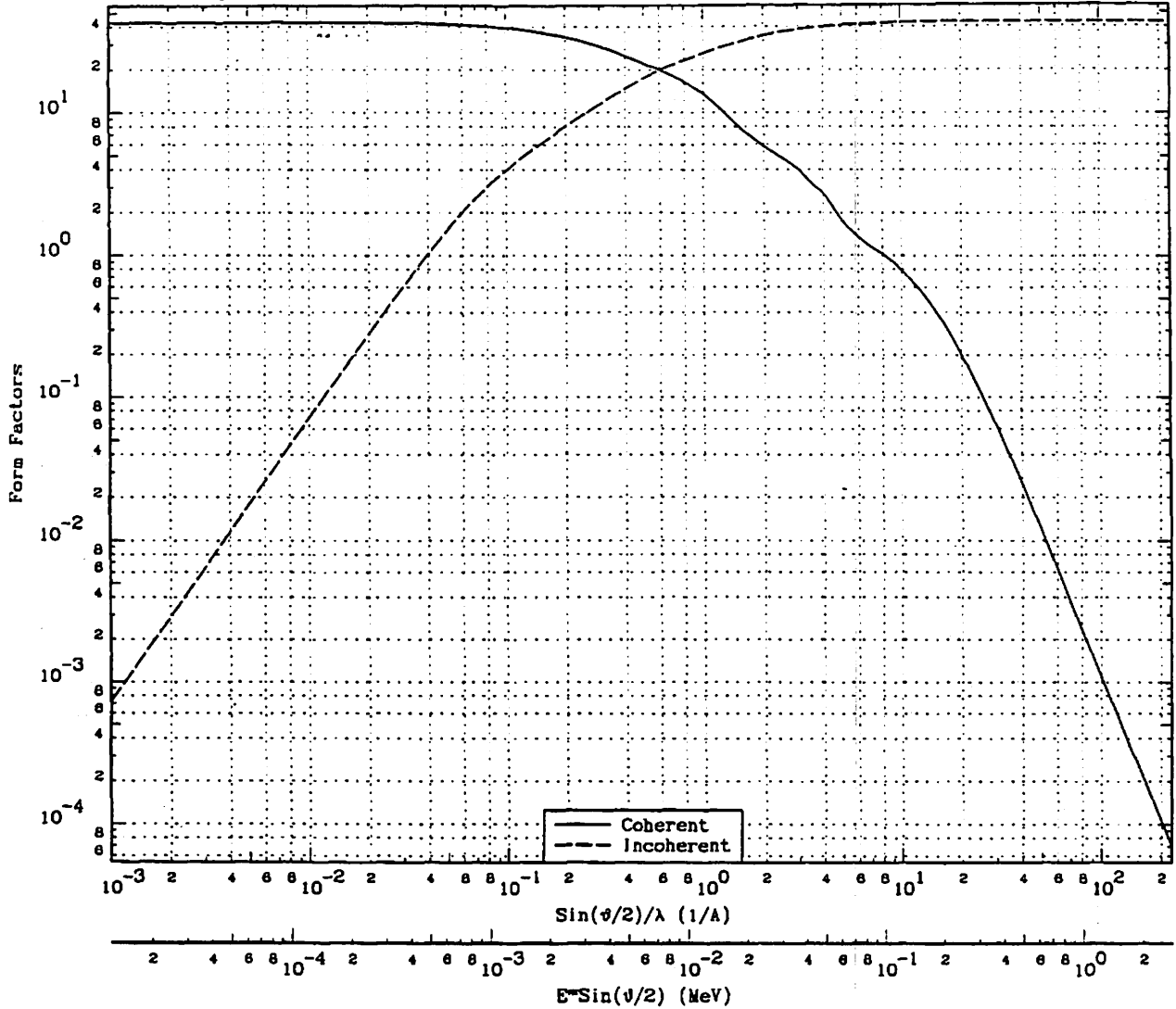


October 31, 1989
Atomic Weight 99.000

ENDL Evaluated
Anomalous Scattering Factors

43-Tc
Density 11.500 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	4.3000+1	0.0000+0	7.0000-1	8.6790-3	1.8047+1	2.1748+1	1.7488+1	2.1883-1	2.8513-1	4.2959+1
1.0000-3	1.2399-5	4.3000+1	7.2000-4	8.0000-1	9.9188-3	1.8377+1	2.3370+1	2.0000+1	2.4797-1	2.0260-1	4.2680+1
5.0000-3	6.1993-5	4.2985+1	1.8000-2	9.0000-1	1.1159-2	1.4810+1	2.4797+1	2.4430+1	3.0290-1	1.1814-1	4.2984+1
1.0000-2	1.2399-4	4.2951+1	7.2000-2	1.0000+0	1.2399-2	1.3339+1	2.8093+1	3.0970+1	3.8398-1	5.8877-2	4.3002+1
1.5000-2	1.8598-4	4.2886+1	1.8000-1	1.2500+0	1.5498-2	1.0204+1	2.8901+1	4.1804+1	5.1831-1	2.1422-2	4.3001+1
2.0000-2	2.4797-4	4.2818+1	2.8050-1	1.5000+0	1.8598-2	8.0082+0	3.1173+1	5.0000+1	6.1993-1	1.1722-2	4.3000+1
2.5000-2	3.0996-4	4.2714+1	4.3070-1	1.8594+0	2.3054-2	8.2597+0	3.3685+1	8.0000+1	9.9188-1	2.3313-3	4.3000+1
3.0000-2	3.7189-4	4.2592+1	8.0720-1	2.0000+0	2.4797-2	5.8283+0	3.4447+1	1.0000+2	1.2399+0	1.0811-3	4.3000+1
4.0000-2	4.9594-4	4.2291+1	1.0245+0	2.5000+0	3.0996-2	4.8098+0	3.6810+1	1.7117+2	2.1223+0	1.7677-4	4.3000+1
5.0000-2	6.1993-4	4.1824+1	1.5020+0	2.8945+0	3.5688-2	4.1901+0	3.7851+1	3.2012+2	3.8690+0	2.2981-5	4.3000+1
7.0000-2	8.6790-4	4.1022+1	2.5267+0	3.0000+0	3.7189-2	4.0091+0	3.8134+1	6.0960+2	7.5581+0	2.8893-6	4.3000+1
9.0000-2	1.1159-3	3.9682+1	3.5218+0	3.5000+0	4.3385-2	3.2087+0	3.8228+1	1.0000+3	1.2399+1	6.4388-7	4.3000+1
1.0000-1	1.2399-3	3.9430+1	3.9870+0	4.0000+0	4.9594-2	2.7208+0	4.0003+1	2.8333+3	3.2649+1	3.3787-8	4.3000+1
1.2500-1	1.5498-3	3.8023+1	5.0858+0	5.0000+0	6.1993-2	1.7445+0	4.0958+1	6.8119+3	8.1978+1	2.1849-9	4.3000+1
1.5000-1	1.8598-3	3.6813+1	6.0870+0	5.5693+0	8.9051-2	1.4784+0	4.1300+1	1.4899+4	1.8473+2	1.8891-10	4.3000+1
1.7500-1	2.1897-3	3.5234+1	7.0353+0	6.0000+0	7.4391-2	1.3475+0	4.1508+1	4.2648+4	5.2875+2	9.4108-12	4.3000+1
2.0000-1	2.4797-3	3.3897+1	7.9840+0	7.0000+0	8.6790-2	1.1480+0	4.1886+1	1.0000+6	1.2399+4	1.1222-15	4.3000+1
2.5000-1	3.0996-3	3.1353+1	9.8065+0	8.0000+0	9.9188-2	1.0279+0	4.2171+1	5.6234+6	6.9722+4	7.8089-18	4.3000+1
3.0000-1	3.7189-3	2.9024+1	1.1512+1	9.5078+0	1.1788-1	8.4878-1	4.2477+1	7.4989+7	9.2975+5	4.2745-21	4.3000+1
4.0000-1	4.9594-3	2.5120+1	1.4853+1	1.0000+1	1.2399-1	7.9170-1	4.2553+1	1.0000+9	1.2399+7	2.2544-24	4.3000+1
5.0000-1	6.1993-3	2.2181+1	1.7458+1	1.2435+1	1.5418-1	5.7181-1	4.2790+1				
6.0000-1	7.4391-3	1.9904+1	1.9816+1	1.5000+1	1.8598-1	4.0348-1	4.2911+1				

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cm)			
	cm	cm ² /cm ³ /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.0692-6	8.1327+4	1.3370+7	2.4906+0	1.5580-4	1.3370+7			9.3526+0	0.3526+0	
1.0750-5	9.8934-7	8.7893+4	1.4449+7	2.8364+0	1.8024-4	1.4449+7			1.0872+1	1.0872+1	
1.5549-5	8.8737-7	1.3030+5	2.1420+7	8.8292+0	3.7878-4	2.1420+7			2.3289+1	2.3289+1	
2.0000-5	5.3584-7	1.8228+5	2.6678+7	1.8861+1	6.2338-4	2.6678+7			3.7325+1	3.7325+1	
2.1113-5	5.1892-7	1.8725+5	2.7495+7	2.2208+1	6.9471-4	2.7495+7			4.0608+1	4.0608+1	
2.3267-5	4.9489-7	1.7571+5	2.8686+7	2.8892+1	8.4375-4	2.8686+7			4.7016+1	4.7016+1	
2.5283-5	4.8823-7	1.7811+5	2.9279+7	3.5080+1	9.8633-4	2.9279+7			5.1785+1	5.1785+1	
2.8653-5	5.1518-7	1.8879+5	2.7748+7	4.3298+1	1.2797-3	2.7748+7			5.5817+1	5.5817+1	
3.0000-5	5.3798-7	1.8183+5	2.6572+7	4.4550+1	1.4029-3	2.6572+7			5.5784+1	5.5784+1	
3.1819-5	5.8973-7	1.4770+5	2.4281+7	4.8210+1	1.5782-3	2.4281+7			5.4047+1	5.4047+1	
3.3118-5	8.2595-7	1.3892+5	2.2638+7	4.5322+1	1.7097-3	2.2638+7			5.2909+1	5.2909+1	
3.7408-5	8.3332-7	1.0435+5	1.7154+7	4.2725+1	2.1812-3	1.7154+7			4.4888+1	4.4888+1	
4.0000-5	1.0130-6	8.5843+4	1.4112+7	3.8735+1	2.4843-3	1.4112+7			3.8488+1	3.8488+1	
4.1466-5	1.1497-6	7.5632+4	1.2433+7	3.3874+1	2.6805-3	1.2433+7			3.8066+1	3.8066+1	
4.4269-5	1.4472-6	8.0087+4	9.8779+6	2.2702-1	3.0552-3	9.8779+6			3.0589+1	3.0589+1	
4.5458-5	1.8058-6	8.4151+4	8.9021+6	1.5742-1	3.2217-3	8.9021+6			2.8309+1	2.8309+1	
4.5741-5	1.8481-6	8.5278+4	8.8735+6	1.4117+1	3.2818-3	8.8735+6			2.7753+1	2.7753+1	
4.5912-5	1.8742-6	8.1838+4	8.5383+6	1.3961+1	3.2633-3	8.5383+6			2.7423+1	2.7423+1	
4.8023-5	1.8913-6	8.5141+4	8.4520+6	1.4818+1	3.3023-3	8.4520+6			2.7211+1	2.7211+1	
4.8189-5	1.7139-6	8.0737+4	8.3408+6	1.6848+1	3.3232-3	8.3408+6			2.6838+1	2.6838+1	
4.8258-5	1.7278-6	8.0328+4	8.2733+6	1.9139+1	3.3380-3	8.2733+6			2.6772+1	2.6772+1	
4.8550-5	1.7742-6	8.4901+4	8.0574+6	3.0334+1	3.3783-3	8.0574+6			2.6238+1	2.6238+1	
4.8550-5	1.2475-6	8.8705+4	1.1459+7	3.0334+1	3.3783-3	1.1459+7			3.7315+1	3.7315+1	6.1782-5
4.8753-5	1.2681-6	8.8574+4	1.1273+7	4.1413+1	3.4078-3	1.1273+7			3.6869+1	3.6869+1	6.1040-5
4.8940-5	1.2873-6	8.7549+4	1.1105+7	4.8822+1	3.4352-3	1.1105+7			3.6484+1	3.6484+1	6.0364-5
4.7122-5	1.3082-6	8.6574+4	1.0944+7	5.5235+1	3.4818-3	1.0944+7			3.6076+1	3.6076+1	6.9719-5
4.7385-5	1.3338-6	8.5182+4	1.0717+7	5.8390+1	3.5008-3	1.0717+7			3.5525+1	3.5525+1	5.8901-5
4.7858-5	1.3956-6	8.2308+4	1.0243+7	8.0662+1	3.5857-3	1.0243+7			3.4384+1	3.4384+1	5.6887-5
4.8778-5	1.4878-6	8.8453+4	9.6093+6	5.8409+1	3.7095-3	9.6093+6			3.2789+1	3.2789+1	5.4245-5
4.9107-5	1.5258-6	8.6992+4	9.3691+6	5.9181+1	3.7597-3	9.3691+6			3.2185+1	3.2185+1	5.3239-5
4.9398-5	1.5589-6	8.5748+4	9.1843+6	8.4238+1	3.8041-3	9.1843+6			3.1887+1	3.1887+1	5.2377-5
4.9600-5	1.5843-6	8.4887+4	9.0231+6	7.0797+1	3.8356-3	9.0231+6			3.1307+1	3.1307+1	5.1779-5
2.4.9600-5	1.3474-6	8.4538+4	1.0609+7	7.0797+1	3.8358-3	1.0609+7			3.6811+1	3.6811+1	8.9518-5
5.0000-5	1.3848-6	8.2805+4	1.0325+7	8.4428+1	3.8977-3	1.0325+7			3.6112+1	3.6112+1	8.7970-5
5.0181-5	1.4014-6	8.2051+4	1.0201+7	8.8750+1	3.9228-3	1.0201+7			3.5794+1	3.5794+1	8.7381-5
5.0580-5	1.4471-6	8.0082+4	9.8788+6	9.4822+1	3.9803-3	9.8788+6			3.4980+1	3.4980+1	8.5784-5
5.2059-5	1.6287-6	8.3455+4	8.7877+6	9.9157+1	4.2254-3	8.7877+6			3.2002+1	3.2002+1	7.8748-5
5.5095-5	2.0849-6	4.2111+4	6.9227+6	9.8289+1	4.7327-3	6.9227+6			2.6880+1	2.6880+1	6.5122-5
5.7818-5	2.5543-6	3.4044+4	5.5985+6	9.5898+1	5.1783-3	5.5985+6			2.2557+1	2.2557+1	5.4752-5
6.8698-5	5.3474-6	1.8281+4	2.6733+6	7.8650+1	6.8383-3	2.6733+6			1.2472+1	1.2472+1	3.0238-5
7.0000-5	8.9019-6	1.2589+4	2.0712+6	8.9291+1	7.6407-3	2.0712+6			1.0142+1	1.0142+1	2.4850-5
7.4127-5	8.2434-6	9.4074+3	1.5485+6	5.8674+1	8.5684-3	1.5485+6			6.0191+0	6.0190+0	2.0089-5
7.5538-5	1.0177-5	8.5447+3	1.4047+6	5.5284+1	8.8978-3	1.4047+6			7.4224+0	7.4224+0	1.8731-5
7.5850-5	1.0393-5	8.3689+3	1.3755+6	5.5508+1	8.9715-3	1.3755+6			7.2979+0	7.2979+0	1.8448-5
7.5850-5	9.2280-6	9.4221+3	1.5489+6	5.6506+1	8.9715-3	1.5489+6			8.2184+0	8.2183+0	2.2284-5
7.7350-5	1.0033-5	8.8668+3	1.4248+6	5.8778+1	9.3323-3	1.4247+6			7.7100+0	7.7100+0	2.1047-5
8.0488-5	1.1608-5	7.4925+3	1.2317+6	5.5483+1	1.0102-2	1.2317+6			6.8348+0	6.8348+0	1.9141-5
8.7389-5	1.4799-5	5.8759+3	9.8595+5	5.0872+1	1.1909-2	9.8590+5			5.9047+0	5.9047+0	1.6281-5
9.2402-5	1.6342-5	5.3211+3	8.7478+5	4.8202+1	1.3318-2	8.7471+5			5.8540+0	5.8540+0	1.5044-5
1.0000-4	1.7729-5	4.9047+3	8.0831+5	4.5777+1	1.5588-2	8.0828+5			5.8401+0	5.8401+0	1.3758-5
1.1087-4	1.8408-5	4.7245+3	7.7687+5	4.4091+1	1.9084-2	7.7683+5			6.0124+0	6.0124+0	1.2740-5
1.2884-4	1.7943-5	4.8464+3	7.9871+5	4.3837+1	2.5765-2	7.9857+5			7.1804+0	7.1804+0	1.1819-5
1.5000-4	1.6788-5	5.1859+3	8.5253+5	4.3584+1	3.4820-2	8.5249+5			8.9452+0	8.9452+0	1.1281-5
1.8119-4	1.8735-5	5.1980+3	8.5419+5	4.2918+1	4.0152-2	8.5414+5			9.8310+0	9.8310+0	1.0790-5
1.7714-4	1.7118-5	5.0798+3	8.3508+5	4.2055+1	4.8408-2	8.3504+5			1.0348+1	1.0348+1	1.0204-5
2.0437-4	1.8428-5	4.7188+3	7.7574+5	3.8252+1	6.4257-2	7.7570+5			1.1090+1	1.1090+1	9.3271-6
2.3978-4	2.0829-5	4.1748+3	8.8831+5	2.9059+1	8.7838-2	8.8828+5			1.1510+1	1.1510+1	8.1212-6
2.5980-4	2.2345-5	3.8915+3	6.3973+5	1.8688+1	1.0281-1	6.3971+5			1.1828+1	1.1828+1	7.5774-6
2.8307-4	2.2805-5	3.8488+3	6.3239+5	1.8818+1	1.0512-1	6.3237+5			1.1837+1	1.1837+1	7.4853-6
2.8307-4	1.9040-5	4.5870+3	7.5078+5	1.8818+1	1.0512-1	7.5077+5			1.3818+1	1.3818+1	1.0050-5
2.8701-4	1.8918-5	4.5989+3	7.5570+5	1.8583+1	1.0819-1	7.5588+5			1.4115+1	1.4115+1	1.0245-5
2.8701-4	1.8959-5	5.1276+3	8.4295+5	1.8583+1	1.0819-1	8.4283+5			1.5745+1	1.5744+1	5.0051-4
2.7235-4	1.5913-5	5.4645+3	8.8832+5	2.0708+1	1.1242-1	8.8830+5			1.7114+1	1.7114+1	5.5222-4
2.7588-4	1.4689-5	5.9180+3	9.7255+5	2.1871+1	1.1608-1	9.7253+5			1.8754+1	1.8753+1	6.5309-4
2.7754-4	1.3774-5	6.3130+3	1.0378+6	2.3048+1	1.1680-1	1.0378+6			2.0149+1	2.0148+1	7.4524-4
2.8085-4	1.2053-5	7.2146+3	1.1860+6	2.7459+1	1.1831-1	1.1860+6			2.3301+1	2.3300+1	9.7663-4
2.8410-4	1.0240-5	8.4918+3	1.3960+6	3.4829+1	1.2189-1	1.3959+6			2.7743+1	2.7741+1	1.3349-3
2.8910-4	7.5834-6	1.1497+4	1.8900+6	5.3979+1	1.2818-1	1.8900+6			3.8222+1	3.8220+1	2.2829-3
2.9557-4	5.0188-6	1.7334+4	2.8488+6	9.5875+1	1.3171-1	2.8495+6			5.6917+1	5.6912+1	4.4252-3
3.0000-4	3.9570-6	2.1976+4	3.8128+6	1.2881+2	1.3558-1	3.8125+6			7.5813+1	7.5807+1	6.3722-3
3.0048-4	3.8993-6	2.2301+4	3.8881+6	1.3375+2	1.3589-1	3.8880+6			7.7053+1	7.7047+1	6.4888-3
3.0371-4	3.5297-6	2.4835+4	4.0489+6	1.5347+2	1.3882-1	4.0487+6			8.8040+1	8.8032+1	7.3809-3
3.0508-4	3.4397-6	2.5281+4	4.1580+6	1.6240+2	1.4001-1	4.1558+6			8.8884+1	8.8877+1	7.5475-3
3.1131-4	3.1401-6	2.7893+4	4.5525+6	1.9178+2	1.4582-1	4.5523+6			9.9137+1	9.9129+1	8.3003-3
3.1867-4	3.0037-6	2.8950+4	4.7591+6	2.1588+2	1.5238-1	4.7588+6			1.0609+2	1.0608+2	8.6889-3
3.4950-4	2.6284-6	2.9894+4	4.8816+6	2.8225+2	1.8219-1	4.8813+6			1.1834+2	1.1833+2	9.1248-3
3.7855-4	3.2246-6	2.8966+4	4.4331+6	3.0044+2	2.1284-1	4.4329+6			1.1739+2	1.1738+2	8.8582-3
3.9122-4	3.3883-6	2.5879+4	4.2214+6	3.0507+2	2.2804-1	4.2211+6			1.1552+2	1.1551+2	8.8502-3
4.1110-4	3.8492-6	2.3829+4	3.9174+6	2.8588+2	2.4786-1	3.9171+6			1.1285+2	1.1284+2	8.9742-3
4.1913-4	3.7585-6	2.3138+4	3.8035+6	2.8800+2	2.5893-1	3.8032+6			1.1151+2	1.1150+2	7.8424-3
4.2237-4	3.8029-6	2.2668+4	3.7580+6	2.8211+2	2.6084-1	3.7587+6			1.1108+2	1.1105+2	7.7519-3
4.2485-4	3.8384-6	2.2854+4	3.7242+6	3.1257+2	2.8380-1	3.7239+6			1.1070+2	1.1069+2	7.6810-3
4.2495-4	3.4908-6	2.4912+4	4.0954+6	3.1287+2	2.8380-1	4.0951+6			1.2173+2	1.2172+2	9.3280-3
4.3139-4	3.5483-6	2.4520+4	4.0310+6	3.8152+2	2.7108-1	4.0308+6			1.2183+2	1.2183+2	9.2466-3
4.4150-4	3.8315-6	2.3945+4	3.8364+6	3.8090+2	2.8300-1	3.8360+6			1.2156+2	1.2155+2	9.1333-3
4.4524-4	3.8728-6	2.3877+4	3.8923+								

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.5003-4	3.5721-6	2.4343+4	4.0018+6	4.3377+2	2.9325-1	4.0014+6			1.2597+2	1.2596+2	1.0183-2
4.5635-4	3.6421-6	2.3875+4	3.9250+6	4.5371+2	3.0094-1	3.9245-6			1.2528+2	1.2527+2	1.0034-2
4.7016-4	3.8285-6	2.2725+4	3.7358+6	4.7384+2	3.1809-1	3.7353-6			1.2285+2	1.2284+2	0.8408-3
4.9719-4	4.1997-6	2.0705+4	3.4038+6	4.9624+2	3.5291-1	3.4033+6			1.1837+2	1.1836+2	0.8298-3
5.2882-4	4.6587-6	1.8677+4	3.0704+6	4.8983+2	3.5549-1	3.0699+6			1.1352+2	1.1352+2	0.7159-3
5.3342-4	4.7270-6	1.8396+4	3.0241+6	5.1573+2	4.0187-1	3.0236+6			1.1283+2	1.1282+2	0.6704-3
M1 5.3342-4	4.5230-6	1.9226+4	3.1808+6	5.1573+2	4.0187-1	3.1600+6			1.1792+2	1.1791+2	0.6622-3
5.4049-4	4.8222-6	1.6813+4	3.0927+6	5.5404+2	4.1134-1	3.0922+6			1.1891+2	1.1891+2	0.8975-3
5.5172-4	4.7948-6	1.8136+4	2.9814+6	5.7953+2	4.2857-1	2.9809+6			1.1504+2	1.1504+2	0.8229-3
6.2081-4	5.9919-6	1.4512+4	2.3857+6	6.3652+2	5.2554-1	2.3851+6			1.0358+2	1.0357+2	7.1181-3
7.3917-4	6.5473-6	1.0174+4	1.6725+6	6.7851+2	7.0797-1	1.6718+6			8.8445+1	8.6440+1	5.2424-3
1.0000-3	1.9424-5	5.2943+3	6.7035+5	6.8523+2	1.1436+0	6.8561+5			6.0836+1	6.0833+1	2.9846-3
1.3554-3	3.3145-5	2.8235+3	4.3129+5	6.5492+2	1.7315+0	4.3064+5			4.0831+1	4.0830+1	1.5889-3
1.5358-3	4.4829-5	1.9398+3	3.1888+5	6.2457+2	2.0228+0	3.1828+5			3.4183+1	3.4182+1	1.2109-3
1.8844-3	7.3241-5	1.1873+3	1.9518+5	5.4340+2	2.5552-0	1.9483+5			2.5857+1	2.5856+1	7.7597-4
2.0543-3	9.0387-5	9.8220+2	1.5819+5	4.8755+2	2.7079+0	1.5789+5			2.2890+1	2.2880+1	6.4085-4
2.2313-3	1.1122-4	7.8183+2	1.2853+5	4.3871+2	3.0495+0	1.2809+5			1.9993+1	1.9992+1	5.2896-4
2.3384-3	1.2513-4	6.9495+2	1.1425+5	3.9355+2	3.2019+0	1.1385+5			1.8623+1	1.8623+1	4.7536-4
2.4524-3	1.4108-4	6.1844+2	1.0134+5	3.3521+2	3.3848+0	1.0100+5			1.7327+1	1.7327+1	4.2592-4
2.5217-3	1.5134-4	5.7459+2	9.4458+4	2.8884+2	3.4837+0	9.4188+4			1.6811+1	1.6811+1	3.9941-4
2.5714-3	1.6900-4	5.4689+2	8.9906+4	2.4541+2	3.5348+0	8.9856+4			1.6127+1	1.6127+1	3.8183-4
2.6072-3	1.8470-4	5.2789+2	8.6789+4	2.0250+2	3.5828+0	8.6590+4			1.5793+1	1.5793+1	3.6984-4
2.6242-3	1.6745-4	5.1931+2	8.5371+4	1.7518+2	3.6052+0	8.5192+4			1.5639+1	1.5639+1	3.6437-4
2.6525-3	1.7212-4	5.0520+2	8.3052+4	1.2482+2	3.6428+0	8.2924+4			1.5387+1	1.5386+1	3.5548-4
2.8609-3	1.7350-4	5.0119+2	8.2392+4	1.1882+2	3.6537+0	8.2269+4			1.5314+1	1.5313+1	3.5288-4
2.8668-3	1.7444-4	4.9949+2	8.1948+4	1.2020+2	3.6612+0	8.1824+4			1.5284+1	1.5283+1	3.5113-4
2.8778-3	1.7821-4	4.9348+2	8.1125+4	1.3821+2	3.6757+0	8.0983+4			1.5189+1	1.5189+1	3.4782-4
L3 2.8778-3	4.8827-5	1.7773+3	2.8217+5	1.3821+2	3.6757+0	2.8203+5			5.4700+1	5.3272+1	1.6278+0
2.7015-3	5.0121-5	1.7349+3	2.8521+5	2.1758+2	3.7074+0	2.8488+5			5.3859+1	5.2487+1	1.3921+0
2.7095-3	5.0522-5	1.7212+3	2.8295+5	2.4319+2	3.7178+0	2.8270+5			5.3584+1	5.2203+1	1.3805+0
2.7223-3	5.1174-5	1.8982+3	2.7935+5	2.7350+2	3.7349+0	2.7807+5			5.3145+1	5.1793+1	1.3620+0
2.7383-3	5.1691-5	1.8757+3	2.7548+5	2.9149+2	3.7532+0	2.7519+5			5.2875+1	5.1332+1	1.3424+0
2.7750-3	5.3920-5	1.8127+3	2.6512+5	3.0892+2	3.8043+0	2.6481+5			5.1404+1	5.0115+1	1.2898+0
2.7864-3	5.4525-5	1.5948+3	2.6217+5	3.2187+2	3.8183+0	2.6185+5			5.1038+1	4.9784+1	1.2748+0
2.7979-3	5.5138-5	1.5771+3	2.5826+5	3.4928+2	3.8345+0	2.5891+5			5.0874+1	4.9414+1	1.2599+0
2.7979-3	3.9784-5	2.1868+3	3.5949+5	3.4928+2	3.8345+0	3.5914+5			7.0293+1	6.8245+1	2.0474+0
2.8309-3	4.0598-5	2.1211+3	3.4870+5	4.4073+2	3.8780+0	3.4825+5			6.8965+1	6.8980+1	1.9846+0
2.8585-3	4.1831-5	2.0738+3	3.4092+5	4.8843+2	3.9117+0	3.4043+5			6.8025+1	6.8085+1	1.9401+0
2.8904-3	4.2816-5	2.0309+3	3.3387+5	5.0601+2	3.9432+0	3.3338+5			6.7189+1	6.7269+1	1.8999+0
2.9269-3	4.4577-5	1.8507+3	3.2088+5	5.3102+2	4.0045+0	3.2015+5			6.5549+1	6.5724+1	1.8248+0
3.0000-3	4.7434-5	1.8332+3	3.0137+5	5.5322+2	4.1008+0	3.0083+5			6.3132+1	6.3148+1	1.7148+0
3.0224-3	4.8227-5	1.7993+3	2.9580+5	5.5855+2	4.1301+0	2.9524+5			6.2422+1	6.0739+1	1.6828+0
L1 3.0224-3	4.2243-5	2.0585+3	3.3840+5	5.5855+2	4.1301+0	3.3784+5			7.1429+1	6.9450+1	1.9787+0
3.0720-3	4.3917-5	1.9800+3	3.2550+5	6.3873+2	4.1853+0	3.2486+5			6.9812+1	6.7908+1	1.9038+0
3.1432-3	4.6395-5	1.8743+3	3.0812+5	6.8735+2	4.2888+0	3.0742+5			6.7596+1	6.5793+1	1.8030+0
3.2084-3	5.2088-5	1.8701+3	2.7458+5	7.3747+2	4.4884+0	2.7381+5			6.3121+1	6.1513+1	1.6081+0
3.6174-3	8.5842-5	1.3187+3	2.1879+5	7.7248+2	4.9088+0	2.1801+5			5.4860+1	5.3391+1	1.2895+0
4.2295-3	9.8427-5	8.8347+2	1.4524+5	7.5281+2	5.6364+0	1.4448+5			4.2747+1	4.1898+1	0.8484-1
5.2013-3	1.8784-4	5.1809+2	8.5171+4	6.7498+2	6.7680+0	8.4490+4			3.0742+1	3.0245+1	4.9661-1
8.8878-3	3.4800-4	2.4918+2	4.0860+4	5.4068+2	8.4528+0	4.0411+4			1.8413+1	1.9175+1	2.3748-1
9.8581-3	8.7210-4	9.9710+1	1.8382+4	3.8173+2	1.0750+1	1.5899+4			1.0809+1	1.0716+1	9.3797-2
1.0000-2	9.5885-4	9.0679+1	1.4807+4	3.6644+2	1.0886+1	1.4530+4			1.0164+1	1.0079+1	8.5128-2
1.2884-2	1.9031-3	4.5892+1	7.5115+3	2.6315-2	1.2870+1	7.2357+3			6.5218+0	6.4794+0	4.2397-2
1.5177-2	2.9907-3	2.9075+1	4.7786+3	2.9038-2	1.3751+1	4.5827+3			4.8445+0	4.8178+0	2.6840-2
1.7480-2	4.4122-3	1.9708+1	3.2399+3	1.5432-2	1.4700+1	3.0709+3			3.7555+0	3.7378+0	1.7917-2
1.8190-2	4.8257-3	1.7854+1	2.9022+3	1.4022-2	1.4833+1	2.7470+3			3.4958+0	3.4799+0	1.6024-2
1.9208-2	5.7347-3	1.5183+1	2.4827+3	1.1943-2	1.5280+1	2.3580+3			3.1892+0	3.1654+0	1.3752-2
1.9687-2	6.1307-3	1.4184+1	2.3317+3	1.0914-2	1.5403+1	2.2072+3			3.0373+0	3.0245+0	1.2871-2
2.0208-2	6.6319-3	1.3112+1	2.1556+3	9.4283+1	1.5589+1	2.0457+3			2.8928+0	2.8807+0	1.1827-2
2.0408-2	6.8311-3	1.2730+1	2.0827+3	8.7077+1	1.5830+1	1.9899+3			2.8417+0	2.8301+0	1.1602-2
2.0591-2	7.0258-3	1.2377+1	2.0347+3	7.8278+1	1.5888+1	1.9407+3			2.7884+0	2.7851+0	1.1314-2
2.0840-2	7.3088-3	1.1898+1	1.9557+3	6.3378+1	1.5781+1	1.8785+3			2.7380+0	2.7257+0	1.0839-2
2.0928-2	7.3980-3	1.1754+1	1.8323+3	6.1438+1	1.5788+1	1.8561+3			2.7185+0	2.7057+0	1.0614-2
2.1012-2	7.4709-3	1.1839+1	1.9134+3	6.3875+1	1.5812+1	1.8337+3			2.6984+0	2.6857+0	1.0689-2
K 2.1012-2	1.1791-3	7.3749+1	1.2124+4	6.3875+1	1.5812+1	1.2044+4			1.7705+1	7.2208+0	1.0484+1
2.1180-2	1.1995-3	7.2483+1	1.1817+4	7.6044+1	1.5858+1	1.1825+4			1.7505+1	7.2099+0	1.0285+1
2.1278-2	1.2158-3	7.1534+1	1.1780+4	8.7807+1	1.5891+1	1.1858+4			1.7335+1	7.1843+0	1.0150+1
2.1408-2	1.2340-3	7.0470+1	1.1585+4	9.7295+1	1.5829+1	1.1472+4			1.7148+1	7.1581+0	9.9820+0
2.1494-2	1.2488-3	6.9753+1	1.1487+4	1.0147-2	1.5855+1	1.1350+4			1.7025+1	7.1373+0	9.8873+0
2.1683-2	1.2717-3	6.8379+1	1.1241+4	1.0667-2	1.8004+1	1.1118+4			1.6790+1	7.1012+0	9.6889+0
2.2258-2	1.3630-3	6.3798+1	1.0480+4	1.1820+2	1.8177+1	1.0355+4			1.6011+1	6.9779+0	9.0336+0
2.3108-2	1.5011-3	5.7828+1	9.5229+3	1.2139+2	1.8419+1	9.3851+3			1.5010+1	6.8108+0	8.1893+0
2.4201-2	1.6914-3	5.1410+1	8.4515+3	1.2183+2	1.6878+1	8.3130+3			1.3886+1	6.8104+0	7.2780+0
2.7037-2	2.2528-3	3.8589+1	6.3454+3	1.1353+2	1.7242+1	6.2148+3			1.1817+1	6.1534+0	5.4832+0
3.3232-2	3.8587-3	2.2547+1	3.7085+3	9.0807+1	1.8208+1	3.5877+3			8.3594+0	5.1699+0	3.1885+0
4.1717-2	7.1488-3	1.2187+1	2.0002+3	6.5533+1	1.9058+1	1.8158+3			5.8882+0	3.8808+0	1.7053+0
5.7218-2	1.6901-2	5.1448+0	8.4578+2	3.8878+1	1						

October 31, 1989
Atomic Weight 99.000

ENDL Evaluated
Photon Data

43-Tc
Density 11.500 Grams/cc

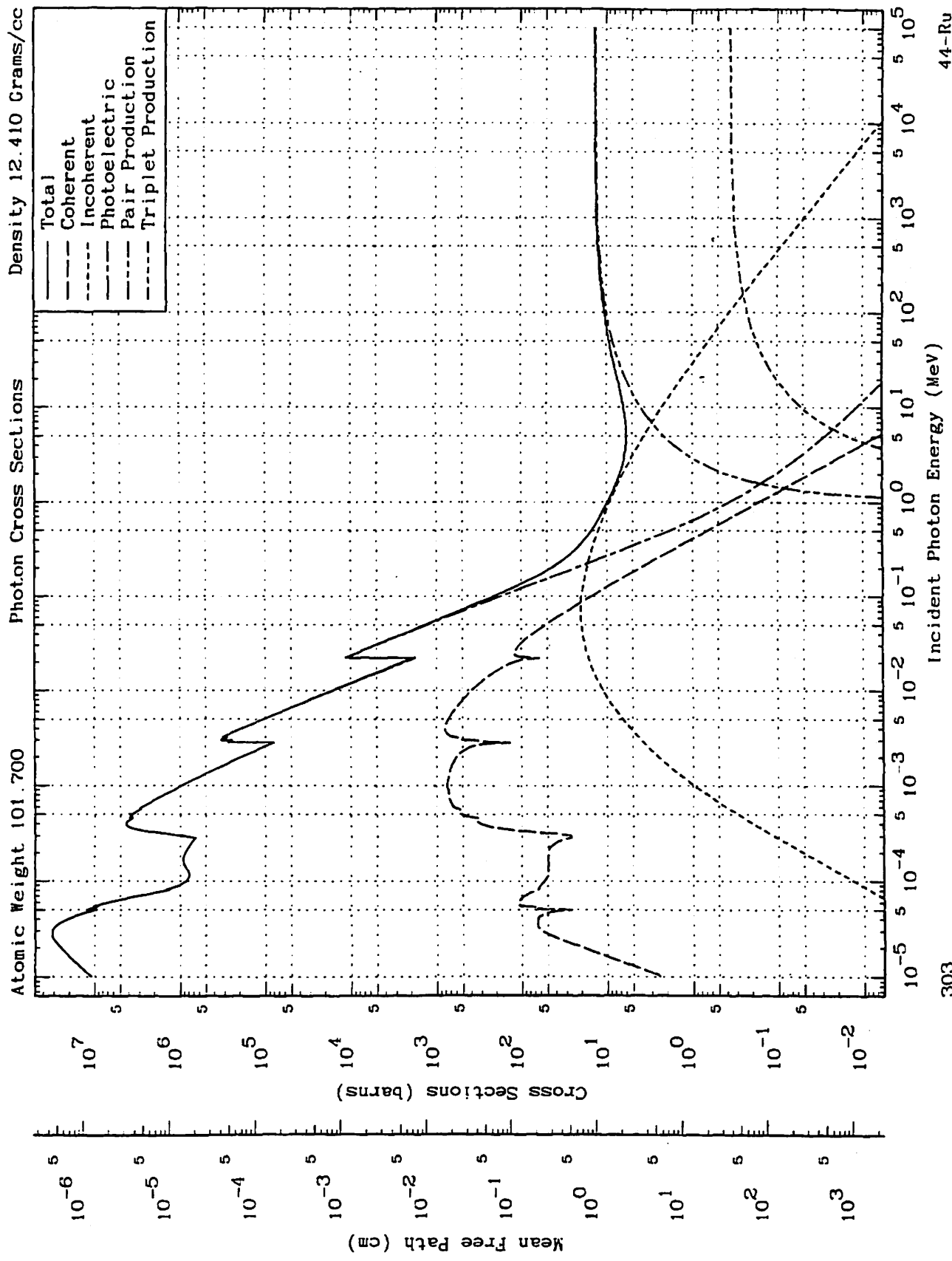
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
5.5306-1	1.0545+0	8.2468-2	1.3557+1	5.0961-1	1.1785+1	1.2821+0			2.1230-1	2.1115-1	1.1555-3
6.8237-1	1.1832+0	7.3492-2	1.2082+1	3.5583-1	1.0895+1	8.3059-1			2.3170-1	2.3095-1	7.4927-4
8.4590-1	1.3841+0	6.3745-2	1.0479+1	2.1850-1	9.7831+0	4.7781-1			2.7032-1	2.6989-1	4.3089-4
1.0000+0	1.4991+0	5.8005-2	9.6357+0	1.5841-1	9.0442+0	3.3504-1			3.0288-1	3.0257-1	3.0228-4
1.0220+0	1.5179+0	5.7289-2	9.4179+0	1.4879-1	8.9493+0	3.1880-1			3.0726-1	3.0697-1	2.8781-4
1.0251+0	1.5208+0	5.7185-2	9.4009+0	1.4889-1	8.8352+0	3.1687-1	1.0543-7		3.0785-1	3.0756-1	2.8597-4
1.0287+0	1.5238+0	5.7086-2	9.3813+0	1.4784-1	8.9188+0	3.1464-1	1.0543-6		3.0853-1	3.0825-1	2.8386-4
1.0295+0	1.5244+0	5.7042-2	9.3773+0	1.4783-1	8.9155+0	3.1418-1	1.4429-8		3.0867-1	3.0839-1	2.8344-4
1.0301+0	1.5250+0	5.7022-2	9.3740+0	1.4748-1	8.9128+0	3.1391-1	1.8148-8		3.0879-1	3.0850-1	2.8311-4
1.0310+0	1.5258+0	5.6983-2	9.3692+0	1.4720-1	8.9087+0	3.1328-1	2.4830-6		3.0898-1	3.0867-1	2.8282-4
1.0320+0	1.5266+0	5.6960-2	9.3639+0	1.4692-1	8.9043+0	3.1266-1	3.3974-6		3.0914-1	3.0888-1	2.8207-4
1.0332+0	1.5277+0	5.6921-2	9.3574+0	1.4658-1	8.8988+0	3.1193-1	4.7592-6		3.0937-1	3.0909-1	2.8142-4
1.0340+0	1.5294+0	5.6885-2	9.3532+0	1.4635-1	8.8954+0	3.1145-1	5.8423-6		3.0952-1	3.0924-1	2.8099-4
1.0353+0	1.5295+0	5.6853-2	9.3482+0	1.4599-1	8.8898+0	3.1087-1	7.8301-6		3.0977-1	3.0949-1	2.8028-4
1.0388+0	1.5307+0	5.6809-2	9.3391+0	1.4581-1	8.8838+0	3.0997-1	1.0543-5		3.1002-1	3.0974-1	2.7958-4
1.0382+0	1.5320+0	5.6758-2	9.3308+0	1.4518-1	8.8787+0	3.0894-1	1.4229-5		3.1031-1	3.1003-1	2.7872-4
1.0397+0	1.5333+0	5.6711-2	9.3229+0	1.4476-1	8.8701+0	3.0805-1	1.8488-5		3.1060-1	3.1032-1	2.7782-4
1.0415+0	1.5349+0	5.6653-2	9.3134+0	1.4428-1	8.8621+0	3.0699-1	2.4595-5		3.1093-1	3.1068-1	2.7698-4
1.0438+0	1.5369+0	5.6580-2	9.3013+0	1.4383-1	8.8520+0	3.0584-1	3.4139-5		3.1137-1	3.1109-1	2.7574-4
1.0484+0	1.5391+0	5.6497-2	9.2877+0	1.4292-1	8.8408+0	3.0412-1	4.7498-5		3.1188-1	3.1158-1	2.7437-4
1.0483+0	1.5408+0	5.6437-2	9.2778+0	1.4241-1	8.8323+0	3.0302-1	5.9138-5		3.1222-1	3.1194-1	2.7388-4
1.0512+0	1.5433+0	5.6345-2	9.2628+0	1.4163-1	8.8197+0	3.0138-1	8.0217-5		3.1278-1	3.1249-1	2.7188-4
1.0541+0	1.5458+0	5.6255-2	9.2479+0	1.4086-1	8.8072+0	2.9971-1	1.0543-4		3.1330-1	3.1303-1	2.7040-4
1.0577+0	1.5489+0	5.6142-2	9.2293+0	1.3990-1	8.7918+0	2.9787-1	1.4371-4		3.1399-1	3.1372-1	2.6854-4
1.0611+0	1.5518+0	5.6038-2	9.2120+0	1.3901-1	8.7770+0	2.9577-1	1.8684-4		3.1463-1	3.1438-1	2.6683-4
1.0651+0	1.5552+0	5.5913-2	9.1917+0	1.3797-1	8.7599+0	2.9355-1	2.4748-4		3.1538-1	3.1512-1	2.6484-4
1.0704+0	1.5597+0	5.5751-2	9.1651+0	1.3682-1	8.7375+0	2.9088-1	3.4527-4		3.1638-1	3.1612-1	2.6222-4
1.0782+0	1.5647+0	5.5575-2	9.1382+0	1.3518-1	8.7131+0	2.8754-1	4.7718-4		3.1747-1	3.1721-1	2.5941-4
1.0809+0	1.5684+0	5.5443-2	9.1145+0	1.3407-1	8.6947+0	2.8520-1	5.9589-4		3.1830-1	3.1804-1	2.5730-4
1.0871+0	1.5739+0	5.5250-2	9.0829+0	1.3248-1	8.6777+0	2.8181-1	8.0288-4		3.1952-1	3.1927-1	2.5424-4
1.0937+0	1.5794+0	5.5056-2	9.0509+0	1.3088-1	8.6408+0	2.7841-1	1.0543-3		3.2077-1	3.2051-1	2.5118-4
1.1028+0	1.5868+0	5.4799-2	9.0088+0	1.2880-1	8.6044+0	2.7395-1	1.4618-3		3.2244-1	3.2219-1	2.4715-4
1.1107+0	1.5935+0	5.4589-2	8.9707+0	1.2693-1	8.5719+0	2.6997-1	1.9084-3		3.2396-1	3.2372-1	2.4356-4
1.1208+0	1.6017+0	5.4291-2	8.9251+0	1.2471-1	8.5328+0	2.6523-1	2.5500-3		3.2583-1	3.2559-1	2.3928-4
1.1333+0	1.6120+0	5.3943-2	8.8678+0	1.2195-1	8.4830+0	2.5933-1	3.5453-3		3.2822-1	3.2799-1	2.3398-4
1.1475+0	1.6235+0	5.3562-2	8.8053+0	1.1896-1	8.4285+0	2.5295-1	4.8948-3		3.3090-1	3.3067-1	2.2921-4
1.1582+0	1.6320+0	5.3282-2	8.7593+0	1.1579-1	8.3811+0	2.4831-1	6.0829-3		3.3292-1	3.3269-1	2.2402-4
1.1741+0	1.6445+0	5.2878-2	8.6925+0	1.1308-1	8.3291+0	2.4194-1	8.1308-3		3.3592-1	3.3570-1	2.1800-4
1.1901+0	1.6570+0	5.2480-2	8.6273+0	1.1084-1	8.2709+0	2.3524-1	1.0543-2		3.3895-1	3.3874-1	2.1223-4
1.2051+0	1.6693+0	5.2122-2	8.5685+0	1.0792-1	8.2175+0	2.2993-1	1.3128-2		3.4184-1	3.4183-1	2.0744-4
1.2275+0	1.6851+0	5.1605-2	8.4835+0	1.0404-1	8.1395+0	2.2234-1	1.7574-2		3.4618-1	3.4598-1	2.0059-4
1.2858+0	1.7127+0	5.0772-2	8.3485+0	9.7897-2	8.0117+0	2.1030-1	2.6589-2		3.5354-1	3.5335-1	1.8873-4
1.2948+0	1.7333+0	5.0188-2	8.2472+0	9.3533-2	7.8174+0	2.0173-1	3.4804-2		3.5825-1	3.5807-1	1.8200-4
1.3318+0	1.7585+0	4.9448-2	8.1289+0	8.8440-2	7.6031+0	1.9168-1	4.5772-2		3.6848-1	3.6831-1	1.7293-4
1.3826+0	1.7790+0	4.8880-2	8.0355+0	8.4501-2	7.7113+0	1.8397-1	5.5885-2		3.7258-1	3.7240-1	1.6589-4
1.3970+0	1.8012+0	4.8278-2	7.9383+0	8.0408-2	7.8124+0	1.7572-1	6.7835-2		3.7940-1	3.7924-1	1.5853-4
1.4558+0	1.8378+0	4.7318-2	7.7785+0	7.4065-2	7.4518+0	1.6303-1	8.9800-2		3.9121-1	3.9108-1	1.4708-4
1.5000+0	1.8840+0	4.6650-2	7.6689+0	6.9780-2	7.3371+0	1.5440-1	1.0760-1		4.0020-1	4.0006-1	1.3930-4
1.5898+0	1.9139+0	4.5434-2	7.4891+0	6.2137-2	7.1198+0	1.3975-1	1.4759-1		4.1893-1	4.1881-1	1.2608-4
1.7188+0	1.9784+0	4.3954-2	7.2257+0	5.3181-2	6.8378+0	1.2225-1	2.1244-1		4.4878-1	4.4865-1	1.1029-4
1.7847+0	2.0108+0	4.3248-2	7.1097+0	4.8334-2	6.6954+0	1.1481-1	2.5039-1		4.8024-1	4.8013-1	1.0340-4
1.8923+0	2.0595+0	4.2223-2	6.9412+0	4.3896-2	6.4796+0	1.0367-1	3.1402-1		4.8284-1	4.8274-1	9.3258-5
2.0440+0	2.1205+0	4.1009-2	6.7415+0	3.7835-2	6.2080+0	9.0960-2	4.0690-1		5.1812-1	5.1804-1	8.2089-5
2.0858+0	2.1374+0	4.0684-2	6.6881+0	3.6143-2	6.1319+0	8.8180-2	4.3188-1	4.3156-7	5.2491-1	5.2483-1	7.9585-5
2.0999+0	2.1428+0	4.0579-2	6.6709+0	3.5860-2	6.1075+0	8.7282-2	4.4052-1		5.2781-1	5.2783-1	7.8744-5
2.1088+0	2.1455+0	4.0530-2	6.6629+0	3.5434-2	6.0959+0	8.6854-2	4.4487-1		5.2935-1	5.2927-1	7.8375-5
2.1140+0	2.1483+0	4.0477-2	6.6541+0	3.5187-2	6.0833+0	8.6385-2	4.4928-1		5.3094-1	5.3087-1	7.7835-5
2.1185+0	2.1504+0	4.0438-2	6.6477+0	3.5004-2	6.0739+0	8.6040-2	4.5273-1		5.3213-1	5.3205-1	7.7623-5
2.1279+0	2.1535+0	4.0378-2	6.6379+0	3.4729-2	6.0697+0	8.5517-2	4.5802-1		5.3395-1	5.3387-1	7.7151-5
2.1383+0	2.1568+0	4.0320-2	6.6284+0	3.4458-2	6.0458+0	8.5002-2	4.6333-1		5.3578-1	5.3570-1	7.6888-5
2.1470+0	2.1608+0	4.0247-2	6.6163+0	3.4114-2	6.0276-2	8.4348-2	4.7023-1		5.3813-1	5.3806-1	7.6095-5
2.1635+0	2.1885+0	4.0137-2	6.5982+0	3.3597-2	6.0003+0	8.3356-2	4.8084-1		5.4178-1	5.4170-1	7.5202-5
2.1845+0	2.1744+0	3.9982-2	6.5744+0	3.2955-2	5.9680+0	8.2124-2	4.8323-1		5.4630-1	5.4622-1	7.4090-5
2.2018+0	2.1807+0	3.9878-2	6.5553+0	3.2439-2	5.9382+0	8.1131-2	5.0351-1		5.5005-1	5.4998-1	7.3194-5
2.2148+0	2.1854+0	3.9790-2	6.5413+0	3.2060-2	5.9175+0	8.0387-2	5.1132-1		5.5290-1	5.5283-1	7.2533-5
2.2342+0	2.1922+0	3.9667-2	6.5209+0	3.1507-2	5.8970+0	7.9323-2	5.2311-1		5.5718-1	5.5711-1	7.1564-5
2.2537+0	2.1989+0	3.9548-2	6.5011+0	3.0965-2	5.8767+0	7.8288-2	5.3511-1		5.6152-1	5.6145-1	7.0812-5
2.2815+0	2.2081+0	3.9380-2	6.4739+0	3.0215-2	5.8142+0	7.6801-2	5.5255-1		5.6780-1	5.6773-1	6.9288-5
2.3070+0	2.2183+0	3.9235-2	6.4500+0	2.9552-2	5.7760+0	7.5498-2	5.6884-1		5.7384-1	5.7357-1	6.8111-5
2.3382+0	2.2258+0	3.9088-2	6.4222+0	2.8788-2	5.7302+0	7.3948-2	5.8917-1		5.8089-1	5.8083-1	6.6714-5
2.3774+0	2.2375+0	3.8883-2	6.3888+0	2.7830-2	5.6740+0	7.2078-2	6.1489-1		5.9013-1	5.9007-1	6.5028-5
2.4102+0	2.2478+0	3.8688-2	6.3601+0	2.7078-2	5.6280+0	7.0569-2	6.3422-1		5.9785-1	5.9759-1	6.3888-5
2.4488+0	2.2585+0	3.8503-2	6.3298+0	2.6275-2	5.5798+0	6.8948-2	6.5618-1		6.0818-1	6.0812-1	6.2203-5
2.4859+0	2.2695+0	3.8318-2	6.2989+0	2.5458-2	5.5257+0	6.7282-2	6.8011-1		6.1548-1	6.1539-1	6.0701-5
2.5584+0	2.2879+0	3.8007-2	6.2482+0	2.4072-2	5.4348+0	6.4441-2	7.2447-1		6.3282-1	6.3256-1	5.8137-5
2.6044+0	2.3121+0	3.7609-2	6.1827+0	2.2230-2	5.3078+0	6.0599-2	7.9148-1		6.5883-1	6.5877-1	5.4871-5
2.7493+0	2.3318+0	3.7291-2	6.1304+0	2.0878-2	5.2098+0	5.7733-2	8.4115-1		6.8002-1	6.7997-1	5.2085-5
2.8050+0	2.3452+0	3.7079-2	6.0955+0	1.9943-2	5.1394+0	5.5728-2	8.7940-1		6.9840-1	6.9835-1	5.0275-5
2.9045+0	2.3630+0	3.6800-2	6.0497+0	1.8854-2	5.0384+0	5.2928-2	9.3828-1		7.2178-1	7.2173-1	4.7748-5
3.0399+0	2.3951+0	3.6459-2	5.9								

October 31, 1989
Atomic Weight 99.000

ENDL Evaluated
Photon Data

43-Tc
Density 11.500 Grams/cc

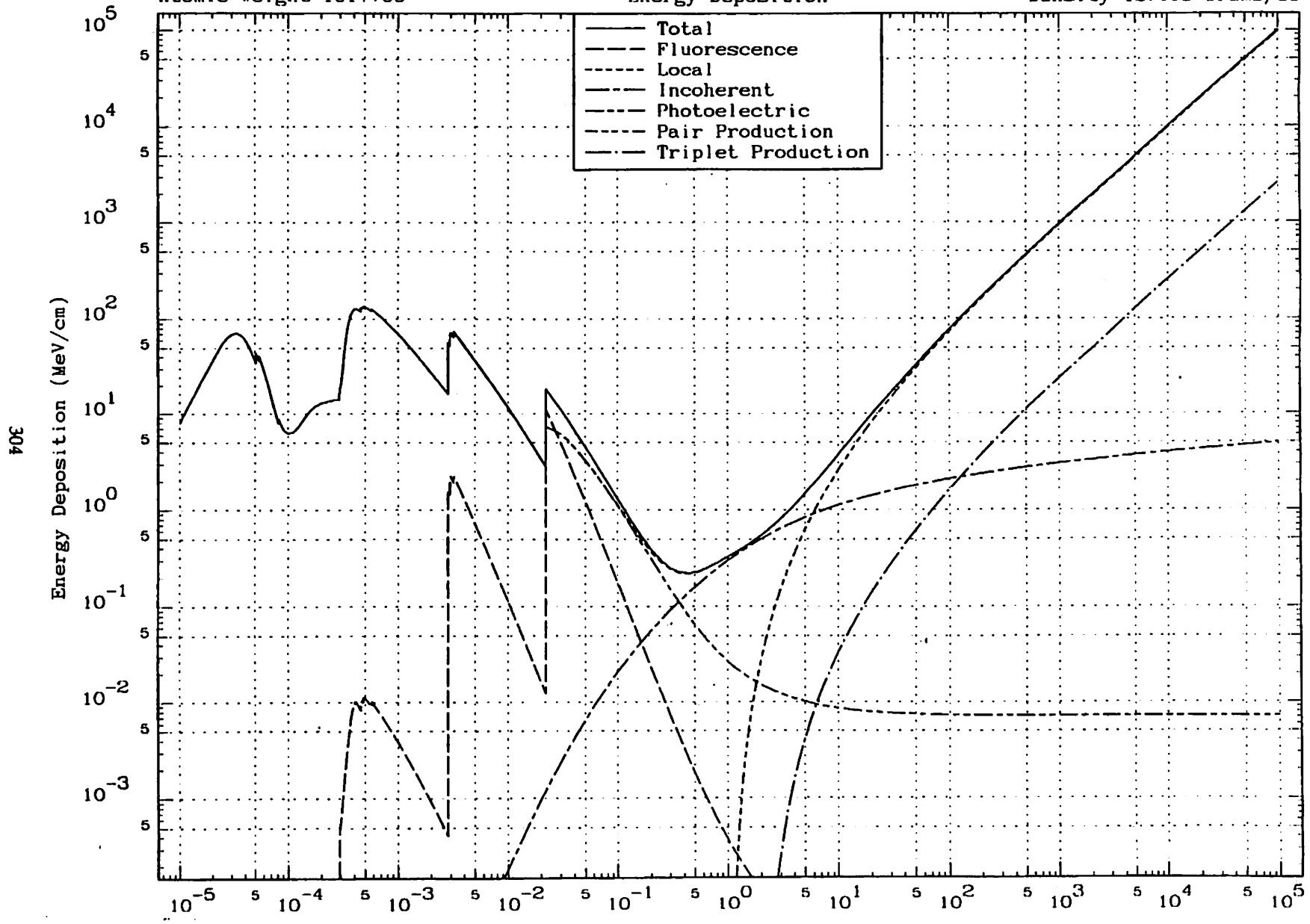
Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
6.3840+ 0	2.5237+ 0	3.4456- 2	5.6843+ 0	3.8885- 3	3.0138+ 0	1.8307- 2	2.6041+ 0	2.4268- 2	1.8590+ 0	1.8590+ 0	1.6518- 5
7.4833+ 0	2.4871+ 0	3.4963- 2	5.7477+ 0	2.8123- 3	2.6886+ 0	1.4890- 2	3.0087+ 0	3.2543- 2	2.3115+ 0	2.3115+ 0	1.3524- 5
9.0000+ 0	2.4188+ 0	3.5951- 2	5.9101+ 0	1.9444- 3	2.3608+ 0	1.2010- 2	3.4920+ 0	4.3330- 2	2.8841+ 0	2.8841+ 0	1.0835- 5
1.0000+ 1	2.3714+ 0	3.6868- 2	6.0280+ 0	1.5750- 3	2.1918+ 0	1.0610- 2	3.7740+ 0	4.8930- 2	3.4573+ 0	3.4573+ 0	9.5721- 8
1.3000+ 1	2.2448+ 0	3.8737- 2	6.3681+ 0	9.3198- 4	1.8007+ 0	7.8460- 3	4.4910+ 0	8.7630- 2	4.9731+ 0	4.9731+ 0	7.0785- 8
1.6000+ 1	2.0783+ 0	4.1880- 2	6.8848+ 0	4.8814- 4	1.4103+ 0	5.4580- 3	5.3770+ 0	9.1500- 2	7.7814+ 0	7.7814+ 0	4.8250- 8
2.6000+ 1	1.8911+ 0	4.5983- 2	7.5593+ 0	2.3300- 4	1.0545+ 0	3.6650- 3	6.3810+ 0	1.1990- 1	1.2782+ 1	1.2782+ 1	3.3065- 8
4.2170+ 1	1.6794+ 0	5.1777- 2	8.5118+ 0	8.8575- 5	7.1943- 1	2.1896- 3	7.6329+ 0	1.5716- 1	2.4045+ 1	2.4045+ 1	1.9844- 6
6.0000+ 1	1.5525+ 0	5.8011- 2	8.2079+ 0	4.3753- 5	5.3759- 1	1.5250- 3	8.4850+ 0	1.8370- 1	3.7520+ 1	3.7520+ 1	1.3787- 6
1.0000+ 2	1.4086+ 0	6.1889- 2	1.0141- 1	1.5751- 5	3.5250- 1	9.0390- 4	9.5680+ 0	2.1680- 1	6.9734+ 1	6.9734+ 1	8.1548- 7
2.0000+ 2	1.2804+ 0	6.7912- 2	1.1164+ 1	3.9378- 6	1.9497- 1	4.4770- 4	1.0710+ 1	2.5890- 1	1.5490+ 2	1.5490+ 2	4.0390- 7
5.0000+ 2	1.1838+ 0	7.3455- 2	1.2076+ 1	6.3005- 7	8.8217- 2	1.7800- 4	1.1890+ 1	2.9720- 1	4.2100+ 2	4.2100+ 2	1.6059- 7
1.0000+ 3	1.1450+ 0	7.5942- 2	1.2484+ 1	1.5751- 7	4.8047- 2	8.8850- 5	1.2120+ 1	3.1830- 1	8.7194+ 2	8.7194+ 2	8.0158- 8
5.0000+ 3	1.1084+ 0	7.8592- 2	1.2820+ 1	6.3005- 9	1.1387- 2	1.7740- 5	1.2570+ 1	3.3860- 1	4.5178+ 3	4.5178+ 3	1.6005- 8
1.0000+ 4	1.0997+ 0	7.9071- 2	1.2989+ 1	1.5751- 9	6.0688- 3	8.8700- 6	1.2850+ 1	3.4270- 1	9.0918+ 3	9.0918+ 3	8.0023- 9
1.0000+ 5	1.0931+ 0	7.9562- 2	1.3079+ 1	1.5745- 11	7.3311- 4	8.8880- 7	1.2730+ 1	3.4720- 1	9.1484+ 4	9.1484+ 4	8.0005- 10



October 31, 1989
Atomic Weight 101.700

ENDL Evaluated
Energy Deposition

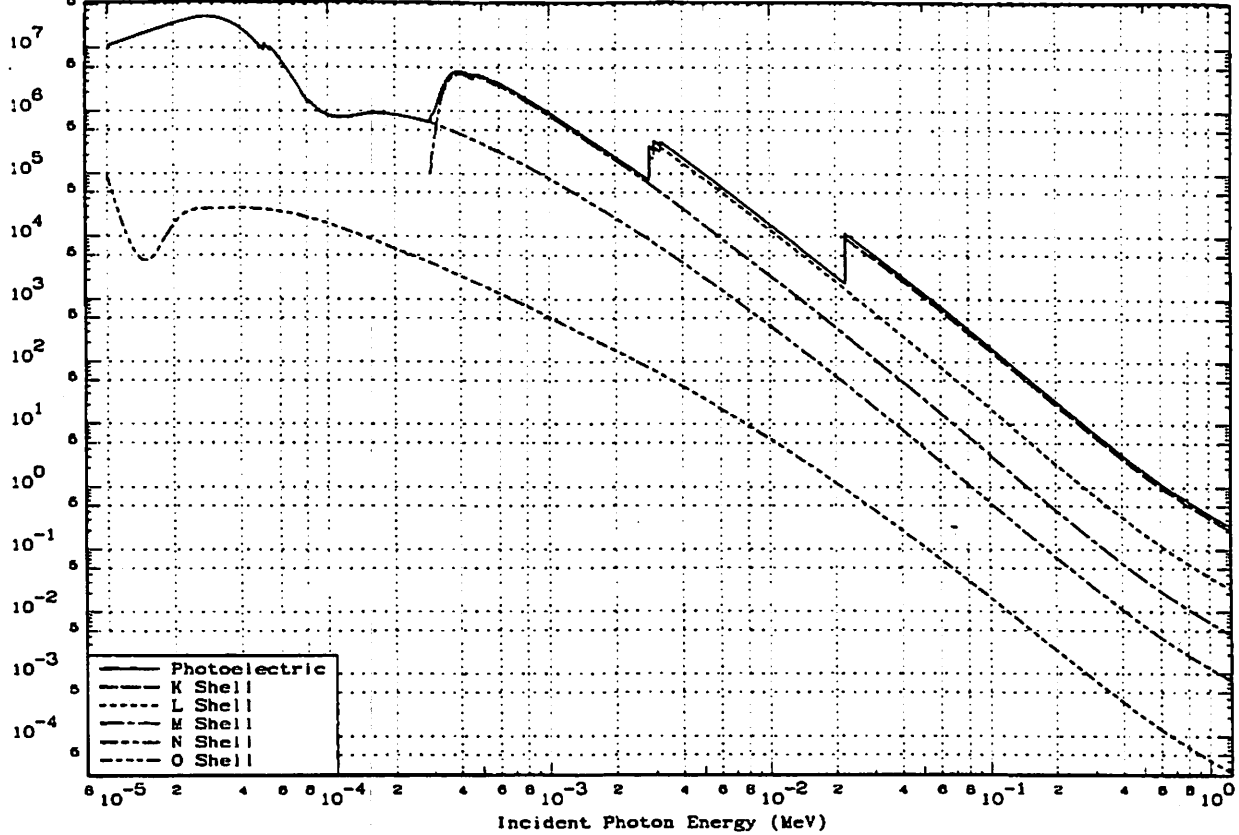
44-Ru
Density 12.410 Grams/cc



October 31, 1989
Atomic Weight 101.700

ENDL Evaluated
Photoelectric Shell Cross Sections

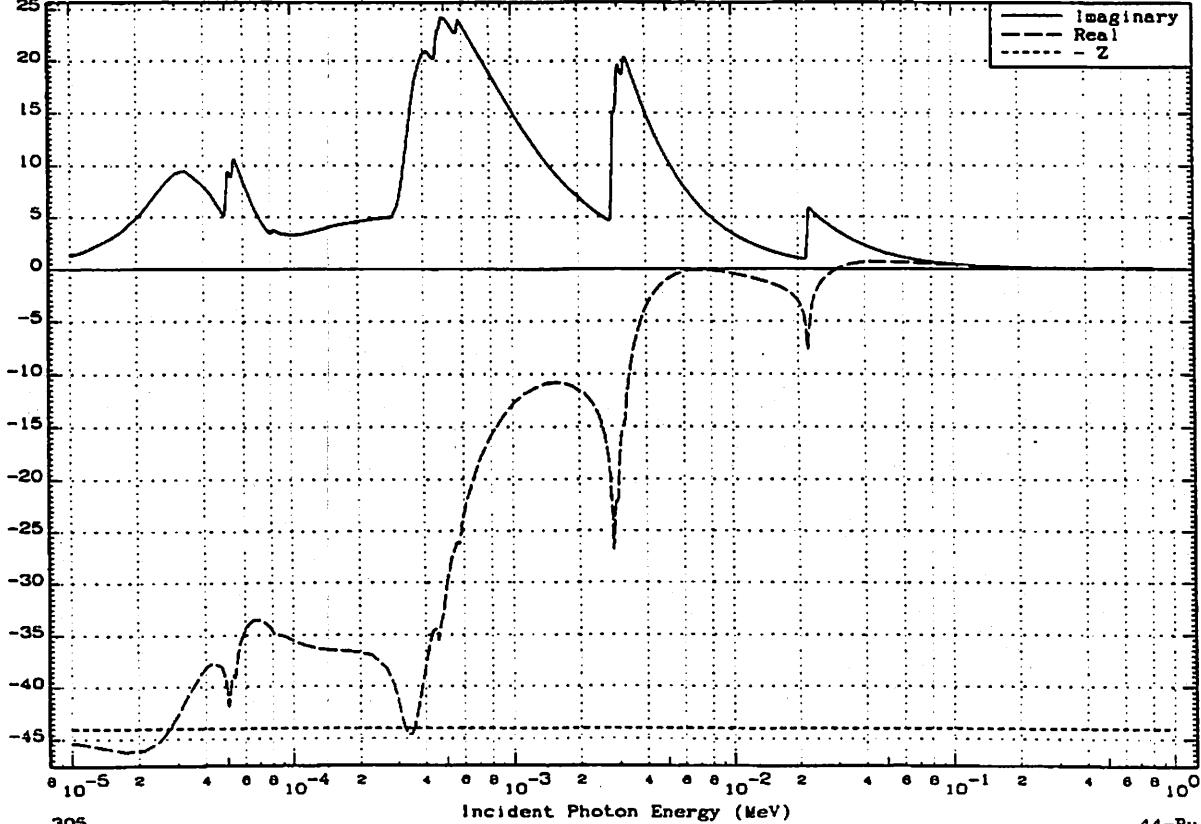
44-Ru
Density 12.410 Grams/cc



October 31, 1989
Atomic Weight 101.700

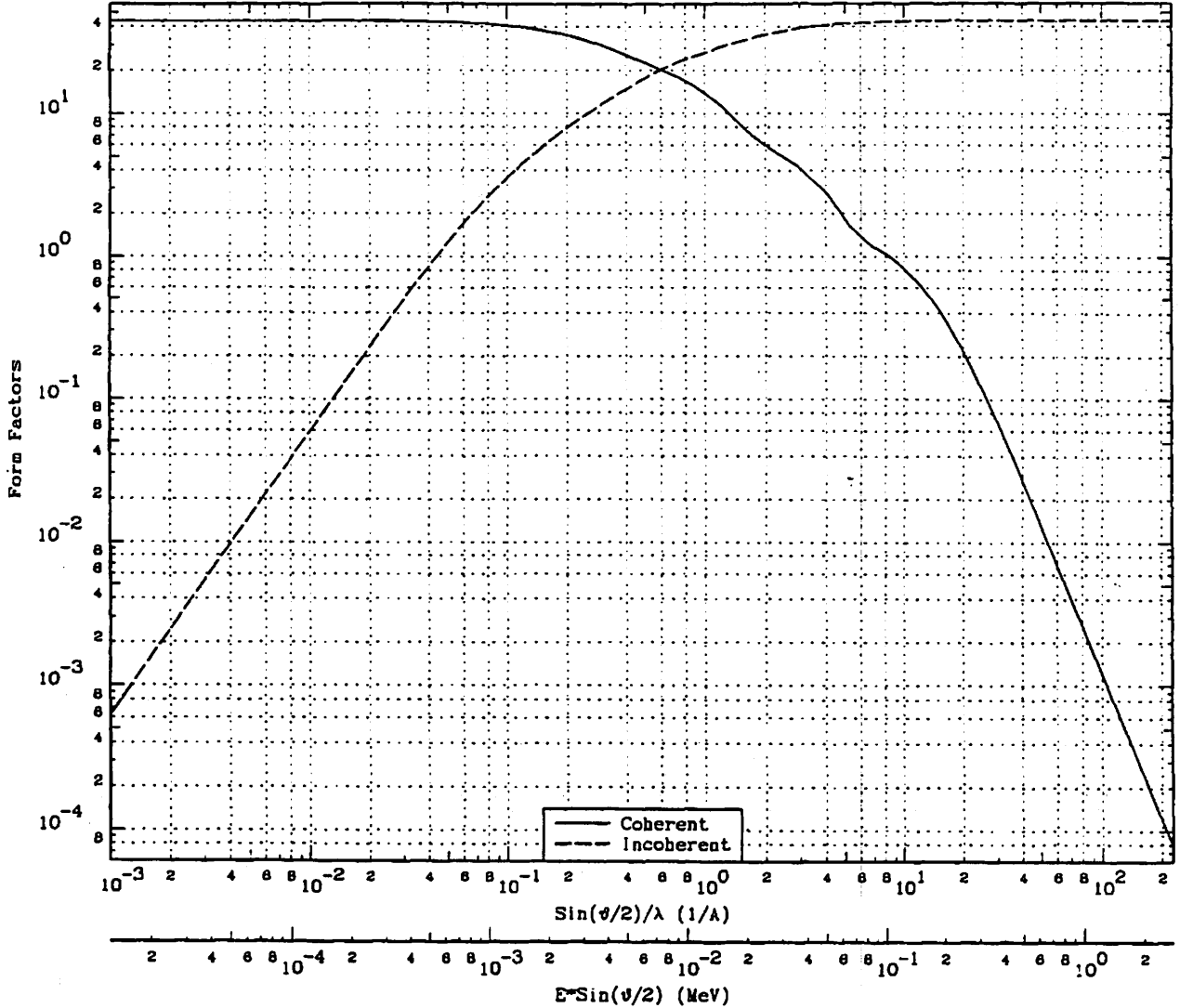
ENDL Evaluated
Anomalous Scattering Factors

44-Ru
Density 12.410 Grams/cc



305

44-Ru



$\frac{\sin(\phi/2)}{\lambda}$	$E \sin(\phi/2)$	Coherent	Incoherent	$\frac{\sin(\phi/2)}{\lambda}$	$E \sin(\phi/2)$	Coherent	Incoherent	$\frac{\sin(\phi/2)}{\lambda}$	$E \sin(\phi/2)$	Coherent	Incoherent												
1/Å	MeV			1/Å	MeV			1/Å	MeV														
0.0000	0	0.0000	0	4.0000	1	0.0000	0	7.0000	1	6.6790	3	1.8447	1	2.2173	1	1.7488	1	2.1883	1	3.0316	1	4.3953	1
1.0000	3	1.2399	5	4.4000	1	6.2388	4	8.0000	1	9.9188	3	1.6818	1	2.3855	1	2.0000	1	2.4797	1	2.1864	1	4.3978	1
5.0000	3	6.1993	5	4.3987	1	1.5000	2	9.0000	1	1.1159	2	1.5285	1	2.5312	1	2.4430	1	3.0290	1	1.2515	1	4.3994	1
1.0000	2	1.2399	4	4.3967	1	5.9000	2	1.0000	0	1.2399	2	1.3834	1	2.6621	1	3.0970	1	3.8398	1	6.1575	2	4.4003	1
1.5000	2	1.8598	4	4.3909	1	1.3130	1	1.2500	0	1.5498	2	1.0885	1	2.9444	1	4.3853	1	5.4371	1	2.0030	2	4.4001	1
2.0000	2	2.4797	4	4.3838	1	2.3050	1	1.5000	0	1.8598	2	8.3483	0	3.1740	1	5.0000	1	6.1993	1	1.2900	2	4.4000	1
2.5000	2	3.0998	4	4.3749	1	3.5450	1	1.8594	0	2.3054	2	6.4389	0	3.4280	1	6.0000	1	6.9188	1	2.5872	3	4.4000	1
3.0000	2	3.7198	4	4.3642	1	5.0090	1	2.0000	0	2.4797	2	5.9707	0	3.5081	1	1.0000	2	1.2399	0	1.2039	3	4.4000	1
4.0000	2	4.8694	4	4.3375	1	8.5020	1	2.5000	0	3.0998	2	4.9087	0	3.7311	1	1.7117	2	2.1223	0	1.6832	4	4.4000	1
5.0000	2	6.1893	4	4.3048	1	1.2580	0	3.0000	0	3.7198	2	4.1209	0	3.8891	1	3.2012	2	3.9690	0	2.5958	5	4.4000	1
7.0000	2	8.6790	4	4.2232	1	2.1600	0	3.5000	0	4.3398	2	3.3332	0	4.0033	1	6.0960	2	7.5581	0	3.4011	6	4.4000	1
9.0000	2	1.1159	3	4.1267	1	3.0861	0	4.0000	0	4.9584	2	2.8281	0	4.0851	1	1.0000	3	1.2399	1	7.3585	7	4.4000	1
1.0000	1	1.2399	3	4.0744	1	3.5590	0	4.7847	0	5.9323	2	1.9893	0	4.1890	1	2.8333	3	3.2849	1	3.6884	8	4.4000	1
1.2500	1	1.5498	3	3.9371	1	4.6897	0	5.0000	0	6.1993	2	1.8180	0	4.1861	1	6.8119	3	8.1978	1	2.5084	9	4.4000	1
1.5000	1	1.8598	3	3.7941	1	5.7830	0	5.5893	0	6.9051	2	1.5297	0	4.2221	1	1.4899	4	1.8473	2	2.3155	10	4.4000	1
1.7500	1	2.1697	3	3.6497	1	6.8398	0	6.0000	0	7.4391	2	1.3882	0	4.2439	1	4.2548	4	5.2875	2	1.1014	11	4.4000	1
2.0000	1	2.4797	3	3.5088	1	7.8570	0	7.0000	0	8.6790	2	1.1715	0	4.2829	1	1.0000	6	1.2399	4	1.3314	15	4.4000	1
2.5000	1	3.0998	3	3.2308	1	9.7848	0	8.0000	0	9.9188	2	1.0531	0	4.3121	1	5.8234	6	6.9722	4	9.3369	18	4.4000	1
3.0000	1	3.7198	3	2.9788	1	1.1531	1	9.2817	0	1.1483	1	9.0084	1	4.3393	1	7.4889	7	9.2975	5	5.1780	21	4.4000	1
4.0000	1	4.8694	3	2.5933	1	1.4782	1	1.0000	1	1.2399	1	8.1840	1	4.3518	1	1.0000	9	1.2399	7	2.7884	24	4.4000	1
5.0000	1	6.1893	3	2.2567	1	1.7885	1	1.2488	1	1.5483	1	5.9220	1	4.3773	1								
6.0000	1	7.4391	3	2.0284	1	2.0150	1	1.5000	1	1.8598	1	4.2570	1	4.3600	1								

Energy KeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cm)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.2411-6	8.4828+4	1.0965+7	2.4561+0	1.3500-4	1.0965+7			8.0575+0	8.0575+0	
1.0636-5	1.1662-6	8.9098+4	1.1669+7	2.6206+0	1.4974-4	1.1669+7			8.0348+0	8.0348+0	
1.1094-5	1.0966-6	7.3485+4	1.2410+7	3.0210+0	1.8597-4	1.2410+7			1.0117+1	1.0117+1	
1.5649-5	7.2335-7	1.1140+5	1.8813+7	8.8348+0	3.2418-4	1.8813+7			2.1498+1	2.1498+1	
2.1040-5	5.1958-7	1.5509+5	2.8191+7	2.2084+1	5.9072-4	2.8191+7			4.0494+1	4.0494+1	
2.4465-5	4.5015-7	1.7801+5	3.0230+7	3.5729+1	7.8878-4	3.0230+7			5.4415+1	5.4415+1	
2.7109-5	4.2884-7	1.8790+5	3.1733+7	4.8574+1	9.7676-4	3.1733+7			6.3213+1	6.3213+1	
3.0000-5	4.3152-7	1.8673+5	3.1535+7	5.7385+1	1.1944-3	3.1535+7			6.9521+1	6.9521+1	
3.3118-5	4.6438-7	1.7352+5	2.9304+7	6.5689+1	1.4528-3	2.9304+7			7.1317+1	7.1317+1	
3.5428-5	5.0863-7	1.5843+5	2.8755+7	6.5891+1	1.6596-3	2.8755+7			6.9655+1	6.9655+1	
3.8587-5	6.0002-7	1.3430+5	2.2880+7	6.5893+1	1.8648-3	2.2880+7			6.4309+1	6.4309+1	
4.0984-5	7.0181-7	1.1482+5	1.9390+7	6.4575+1	2.2133-3	1.9390+7			5.8398+1	5.8398+1	
4.3039-5	8.0684-7	9.8526+4	1.6808+7	6.1288+1	2.4378-3	1.6808+7			5.3157+1	5.3157+1	
4.4102-5	8.6849-7	9.2675+4	1.5651+7	5.7078+1	2.5682-3	1.5651+7			5.0721+1	5.0721+1	
4.7036-5	1.0973-6	7.3438+4	1.2402+7	4.7303+1	2.9054-3	1.2402+7			4.2867+1	4.2867+1	
4.8259-5	1.3155-6	6.1253+4	1.0344+7	3.2855+1	3.1829-3	1.0344+7			3.7444+1	3.7444+1	
4.8968-5	1.3967-6	5.7734+4	9.7499+6	2.8063+1	3.2737-3	9.7499+6			3.5789+1	3.5789+1	
5.0156-5	1.4180-6	5.8829+4	9.5970+6	2.5917+1	3.2894-3	9.5970+6			3.5372+1	3.5372+1	
5.0342-5	1.4399-6	5.5981+4	9.4508+6	2.8138+1	3.3228-3	9.4508+6			3.4982+1	3.4982+1	
5.0451-5	1.4530-6	5.5460+4	9.3659+6	3.0780+1	3.3780-3	9.3659+6			3.4723+1	3.4723+1	
5.0680-5	1.4781-6	5.4517+4	9.2087+6	3.8350+1	3.3642-3	9.2087+6			3.4274+1	3.4274+1	
5.0680-5	1.1255-6	7.0984+4	1.1884+7	3.8350+1	3.3642-3	1.1884+7			4.4614+1	4.4614+1	5.0101-5
5.0888-5	1.1547-6	6.9783+4	1.1785+7	4.8892+1	3.3941-3	1.1785+7			4.4089+1	4.4089+1	4.6559-5
5.1084-5	1.1715-6	6.8783+4	1.1818+7	5.7088+1	3.4200-3	1.1818+7			4.3805+1	4.3805+1	4.8098-5
5.1288-5	1.1875-6	6.7859+4	1.1460+7	6.3275+1	3.4444-3	1.1460+7			4.3175+1	4.3175+1	4.8670-5
5.1526-5	1.2100-6	6.6596+4	1.1246+7	6.8630+1	3.4788-3	1.1246+7			4.2583+1	4.2583+1	4.8081-5
5.2041-5	1.2588-6	6.4012+4	1.0810+7	7.1883+1	3.5478-3	1.0810+7			4.1341+1	4.1341+1	4.6934-5
5.3515-6	1.4101-6	5.7144+4	9.6503+6	8.9334+1	3.7480-3	9.6503+6			3.7850+1	3.7850+1	4.3857-5
5.3850-5	1.4484-6	5.5712+4	9.4084+6	7.1428+1	3.7855-3	9.4084+6			3.7231+1	3.7231+1	4.3188-5
5.4190-5	1.4848-6	5.4277+4	9.1861+6	7.9891+1	3.8430-3	9.1861+6			3.6501+1	3.6501+1	4.2451-5
5.4190-5	1.2980-6	6.2079+4	1.0484+7	7.9891+1	3.8430-3	1.0484+7			4.1748+1	4.1748+1	7.4331-5
5.4628-5	1.3414-6	6.0073+4	1.0145+7	9.2496+1	3.9046-3	1.0145+7			4.0725+1	4.0725+1	7.2523-5
5.4888-5	1.3653-6	5.9018+4	9.9888+6	9.8394+1	3.9383-3	9.9888+6			4.0184+1	4.0184+1	7.1587-5
5.5284-5	1.4084-6	5.7214+4	9.6821+6	1.0430+2	3.9978-3	9.6821+6			3.9253+1	3.9253+1	6.9928-5
5.7213-5	1.6368-6	4.9232+4	6.3141+6	1.0852+2	4.2781-3	6.3141+6			3.4855+1	3.4855+1	6.2891-5
6.1187-5	2.1181-6	3.8329+4	6.1351+6	1.0912+2	4.6819-3	6.1351+6			2.7578+1	2.7578+1	5.0881-5
6.8241-5	3.3218-6	2.4258+4	4.0988+6	1.0006+2	5.7142-3	4.0988+6			1.8941+1	1.8941+1	3.7311-5
7.4833-5	6.4421-6	1.2508+4	2.1124+6	8.1001+1	7.2710-3	2.1124+6			1.1818+1	1.1818+1	2.3052-5
7.7722-5	7.9139-6	1.0182+4	1.7195+6	7.4327+1	7.8380-3	1.7195+6			0.8205+0	0.8205+0	1.9937-5
8.1487-5	1.0088-5	7.8877+3	1.3489+6	6.3476+1	6.5994-3	1.3489+6			0.7752+0	0.7752+0	1.6890-5
8.2140-5	1.0519-5	7.8803+3	1.2937+6	6.3273+1	6.7403-3	1.2937+6			7.8082+0	7.8082+0	1.8419-5
8.2140-5	9.2721-6	8.8906+3	1.4876+6	6.3273+1	6.7403-3	1.4876+6			6.8584+0	6.8584+0	2.0287-5
8.3780-5	1.0088-5	8.0051+3	1.3519+6	6.4131+1	9.0884-3	1.3519+6			8.3229+0	8.3229+0	1.9302-5
9.0000-5	1.2824-5	6.2350+3	1.0529+6	6.0728+1	1.0470-2	1.0529+6			6.9634+0	6.9634+0	1.6591-5
9.6126-5	1.4902-5	5.4074+3	9.1318+5	5.6828+1	1.1924-2	9.1318+5			6.4502+0	6.4502+0	1.5101-5
1.0000-4	1.5837-5	5.0561+3	8.5385+5	5.4810+1	1.2892-2	8.5385+5			6.2742+0	6.2742+0	1.4253-5
1.1087-4	1.7252-5	4.8707+3	7.8878+5	5.0599+1	1.5735-2	7.8878+5			6.4143+0	6.4143+0	1.3014-5
1.2286-4	1.7104-5	4.7112+3	7.9562+5	4.9689+1	1.8024-2	7.9562+5			7.1829+0	7.1829+0	1.2364-5
1.5303-4	1.4947-5	5.3911+3	9.1043+5	4.8582+1	2.8754-2	9.1043+5			1.0238+1	1.0238+1	1.1332-5
1.6046-4	1.4682-5	5.4884+3	9.2686+5	4.8945+1	3.2681-2	9.2681+5			1.0529+1	1.0529+1	1.0774-5
1.7380-4	1.4861-5	5.4984+3	9.2822+5	4.8586+1	3.8122-2	9.2822+5			1.1840+1	1.1840+1	1.0852-5
2.0000-4	1.5493-5	5.2010+3	8.7833+5	4.8446+1	5.0356-2	8.7833+5			1.2908+1	1.2908+1	9.8408-6
2.2522-4	1.6780-5	4.8020+3	8.1095+5	4.7509+1	6.3594-2	8.1095+5			1.3421+1	1.3421+1	8.9824-6
2.8429-4	1.8869-5	4.2705+3	7.2119+5	3.7603+1	8.7098-2	7.2119+5			1.4008+1	1.4008+1	7.9005-6
2.9005-4	2.0696-5	3.8938+3	6.5754+5	2.8128+1	1.0457-1	6.5754+5			1.4014+1	1.4014+1	7.1912-6
2.9005-4	1.7859-5	4.5121+3	7.6200+5	2.8128+1	1.0457-1	7.6197+5			1.8241+1	1.8241+1	9.2052-6
2.9453-4	1.7742-5	4.5418+3	7.6700+5	2.8284+1	1.0778-1	7.6897+5			1.8600+1	1.8600+1	9.3828-6
2.9453-4	1.8092-5	5.0075+3	8.4565+5	2.8284+1	1.0778-1	8.4582+5			1.8302+1	1.8302+1	9.5105-6
2.9882-4	1.5801-5	5.1850+3	8.7228+5	2.8594+1	1.1073-1	8.7223+5			1.9141+1	1.9141+1	5.3190-4
3.0312-4	1.4161-5	5.8903+3	8.6097+5	2.8934+1	1.1403-1	8.6094+5			2.1405+1	2.1404+1	8.2790-4
3.0805-4	1.2407-5	6.4948+3	1.0988+6	2.8489+1	1.1770-1	1.0988+6			2.4828+1	2.4828+1	7.6874-4
3.1385-4	1.0382-5	7.7813+3	1.3107+6	3.5694+1	1.2210-1	1.3107+6			3.0228+1	3.0227+1	9.8634-4
3.1962-4	8.6572-6	9.3078+3	1.5719+6	4.5025+1	1.2639-1	1.5719+6			3.8908+1	3.8905+1	1.2086-3
3.3115-4	6.1220-6	1.3182+4	2.2228+6	7.5799+1	1.3529-1	2.2227+6			5.4090+1	5.4089+1	1.8790-3
3.4106-4	4.8468-6	1.8825+4	2.8077+6	1.0884+2	1.4308-1	2.8075+6			7.0383+1	7.0380+1	2.7018-3
3.4791-4	4.2802-6	1.8825+4	3.1783+6	1.3748+2	1.4881-1	3.1782+6			8.1280+1	8.1277+1	3.4349-3
3.5403-4	3.8290-6	2.0508+4	3.4835+6	1.6366+2	1.5382-1	3.4833+6			9.0103+1	9.0099+1	4.1533-3
3.6501-4	3.5247-6	2.2861+4	3.8607+6	2.0771+2	1.6280-1	3.8605+6			1.0355+2	1.0354+2	5.8298-3
3.7347-4	3.3337-6	2.4172+4	4.0820+6	2.3801+2	1.7008-1	4.0818+6			1.1202+2	1.1202+2	6.9131-3
3.8401-4	3.1829-6	2.5478+4	4.3024+6	2.8285+2	1.8829-1	4.3021+6			1.2456+2	1.2455+2	9.4938-3
4.0687-4	3.1708-6	2.5414+4	4.2918+6	3.1984+2	2.0018-1	4.2914+6			1.2631+2	1.2630+2	1.0183-2
4.1918-4	3.2713-6	2.4832+4	4.1599+6	3.3749+2	2.1183-1	4.1595+6			1.2813+2	1.2812+2	1.0084-2
4.3185-4	3.4487-6	2.3379+4	3.9482+6	3.3826+2	2.2418-1	3.9479+6			1.2529+2	1.2527+2	9.4420-3
4.5357-4	3.7588-6	2.1450+4	3.6225+6	3.2452+2	2.4811-1	3.6222+6			1.2073+2	1.2072+2	8.4714-3
4.5748-4	3.8133-6	2.1132+4	3.5888+6	3.3758+2	2.5014-1	3.5883+6			1.1995+2	1.1995+2	8.3130-3
4.5929-4	3.8386-6	2.0982+4	3.5451+6	3.5340+2	2.5205-1	3.5448+6			1.1984+2	1.1983+2	8.2488-3
4.5929-4	3.4908-6	2.3083+4	3.8982+6	3.5340+2	2.5205-1	3.8979+6			1.3158+2	1.3155+2	1.0259-2
4.6184-4	3.5091-6	2.2983+4	3.8780+6	3.7483+2	2.5451-1	3.8778+6			1.3154+2	1.3153+2	1.0232-2
4.6810-4	3.5437-6	2.2739+4	3.8401+6	4.0699+2	2.5821-1	3.8397+6			1.3151+2	1.3150+2	1.0182-2
4.8110-4	3.6881-6	2.1868+4	3.7098+6	4.4655+2	2.7481-1	3.7094+6			1.3114+2	1.3113+2	9.9728-3
4.8206-4	3.6787-6	2.1905+4	3.6992+6	4.5184+2	2.7582-1	3.6987+6			1.3102+2	1.3101+2	9.9551-3
4.8206-4	3.5415-6	2.2753+4	3.8425+6	4.5184+2	2.7582-1	3.8420+6			1.3810+2	1.3809+2	1.1305-2
4.8887-4	3.5888-6	2.2455+4	3.7821+6	4.7919+2	2.8088-1	3.7918+6			1.3598+2	1.3584+2	1.1256-2
5.0305-4	3.7877-6	2.1387+4	3.6118+6	5.1748+2	2.8814-1	3.6113+6			1.3350+2	1.3349+2	1.0981-2
5.2754-4	4.0530-6	1.9687+4	3.3248+6	5.4215+2	3.2520-1	3.3242+6			1.2887+2	1.2888+2	1.0244-2
5.6832-4	4.8834-6	1.7272+4	2.8188+6	5.4450+2	3.7259-1	2.8182+6			1.2179+2	1.2178+2	9.1500-3
5.7403-4	4.7481-6	1.									

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
M1 5.7403-4	4.5385-6	1.7755+4	2.9984+6	5.6328-2	3.7945-1	2.9978-6			1.2646+2	1.2645+2	1.0228-2
5.8133-4	4.6412-6	1.7362+4	2.9321+6	6.0559+2	3.8831-1	2.9314+6			1.2523+2	1.2522+2	1.0023-2
5.9097-4	4.7784-6	1.6883+4	2.8478+6	6.2988+2	4.0016-1	2.8472+6			1.2365+2	1.2364+2	9.7823-3
6.3499-4	5.4683-6	1.4682+4	2.4795-6	6.8904+2	4.5498-1	2.4788+6			1.1567+2	1.1568+2	8.6609-3
7.2185-4	7.0608-6	1.1413+4	1.9273+6	7.1818+2	5.6835-1	2.9288+6			1.0220+2	1.0219+2	7.0295-3
1.0000-3	1.4188-5	5.6796+3	9.5915+5	7.5327+2	9.7329-1	9.5840+5			7.0428+1	7.0424+1	3.8727-3
1.2712-3	2.4623-5	3.2726+3	6.5266+5	7.3015+2	1.3854+0	5.5193+5			5.1558+1	5.1565+1	2.3921-3
1.6173-3	4.3871-5	1.8451+3	3.1160+5	6.7454+2	1.9252+0	3.1093+5			3.6953+1	3.6951+1	1.4419-3
1.9152-3	6.5467-5	1.2309+3	2.0786+5	6.0347+2	2.3888+0	2.0728+5			2.9170+1	2.9169+1	1.0037-3
2.1080-3	8.2503-5	9.7870+2	1.6494+5	5.5779+2	2.6877+0	1.6439+5			2.5440+1	2.5439+1	8.1448-4
2.3075-3	1.0341-4	7.7921+2	1.3159+5	4.8376+2	2.9668+0	1.3109+5			2.2230+1	2.2229+1	6.6325-4
2.4734-3	1.2280-4	6.5621+2	1.1082+5	4.2798+2	3.2163+0	1.1039+5			2.0084+1	2.0084+1	5.6741-4
2.5989-3	1.3882-4	5.8047+2	9.8027+4	3.8478+2	3.4038+0	9.7859+4			1.8651+1	1.8651+1	5.0789-4
2.8702-3	1.4890-4	5.4117+2	9.1392+4	3.1779+2	3.5027+0	9.1071+4			1.7870+1	1.7869+1	4.7839-4
2.7108-3	1.5843-4	5.2045+2	8.7892+4	2.8453+2	3.5589+0	8.7604+4			1.7450+1	1.7449+1	4.5984-4
2.7518-3	1.6103-4	5.0039+2	8.4505+4	2.4109+2	3.8181+0	8.4280+4			1.7039+1	1.7038+1	4.4382-4
2.7781-3	1.6511-4	4.6804+2	8.2419+4	2.0288+2	3.6528+0	8.2213+4			1.6784+1	1.6784+1	4.3398-4
2.7972-3	1.6812-4	4.7929+2	8.0941+4	1.6671+2	3.6794+0	8.0771+4			1.6603+1	1.6603+1	4.2704-4
2.8105-3	1.7023-4	4.7337+2	7.9941+4	1.4384+2	3.6978+0	7.9793+4			1.6480+1	1.6479+1	4.2233-4
2.8209-3	1.7189-4	4.6882+2	7.9173+4	1.3453+2	3.7123+0	7.9035+4			1.6384+1	1.6383+1	4.1887-4
2.8270-3	1.7284-4	4.6822+2	7.8733+4	1.3536+2	3.7208+0	7.8594+4			1.6327+1	1.6327+1	4.1854-4
2.8387-3	1.7465-4	4.8139+2	7.7918+4	1.5356+2	3.7371+0	7.7781+4			1.6221+1	1.6221+1	4.1252-4
L3 2.8387-3	4.9673-5	1.8222+3	2.7395+5	1.5356+2	3.7371+0	2.7380+5			5.7115+1	5.5511+1	1.6038+0
2.8580-3	5.0574-5	1.5933+3	2.6908+5	2.1411+2	3.7641+0	2.6868+5			5.8467+1	5.4883+1	1.5743+0
2.8711-3	5.1187-5	1.5742+3	2.6585+5	2.5706+2	3.7823+0	2.6569+5			5.6036+1	5.4481+1	1.5548+0
2.8850-3	5.1844-5	1.5543+3	2.6248+5	2.9182+2	3.8017+0	2.6219+5			5.5585+1	5.4050+1	1.5364+0
2.8952-3	5.2335-5	1.5397+3	2.6002+5	3.0884+2	3.8159+0	2.5971+5			5.5255+1	5.3735+1	1.5198+0
2.9084-3	5.2972-5	1.5212+3	2.5689+5	3.1542+2	3.8343+0	2.5687+5			5.4835+1	5.3334+1	1.5011+0
2.9474-3	5.4895-5	1.4879+3	2.4790+5	3.2448+2	3.8888+0	2.4757+5			5.3622+1	5.2174+1	1.4475+0
2.9598-3	5.5487-5	1.4520+3	2.4520+5	3.3754+2	3.9059+0	2.4486+5			5.3254+1	5.1822+1	1.4314+0
2.9718-3	5.6107-5	1.4362+3	2.4254+5	3.6501+2	3.9228+0	2.4217+5			5.2887+1	5.1471+1	1.4154+0
L2 2.9718-3	4.1059-5	1.9626+3	3.3143+5	3.6501+2	3.9228+0	3.3108+5			7.2299+1	7.0034+1	2.2655+0
3.0042-3	4.1582-5	1.9388+3	3.2742+5	4.5084+2	3.9631+0	3.2698+5			7.2182+1	6.9931+1	2.2512+0
3.0248-3	4.1957-5	1.9205+3	3.2433+5	4.9170+2	3.9988+0	3.2384+5			7.1977+1	6.9741+1	2.2381+0
3.0371-3	4.2419-5	1.8996+3	3.2080+5	5.1021+2	4.0142+0	3.2029+5			7.1483+1	6.9272+1	2.2110+0
3.0882-3	4.3582-5	1.8490+3	3.1225+5	5.3815+2	4.0577+0	3.1171+5			7.0279+1	6.8129+1	2.1505+0
3.1088-3	4.5131-5	1.7856+3	3.0153+5	5.5823+2	4.1148+0	3.0097+5			6.8758+1	6.6681+1	2.0748+0
3.1720-3	4.7813-5	1.6824+3	2.8581+5	5.6001+2	4.2031+0	2.8524+5			6.8489+1	6.4525+1	1.9641+0
3.2039-3	4.8891-5	1.6482+3	2.7834+5	5.8588+2	4.2478+0	2.7776+5			6.8189+1	6.3882+1	1.9113+0
L1 3.2039-3	4.2737-5	1.5855+3	3.1842+5	5.8588+2	4.2478+0	3.1783+5			7.4828+1	7.2581+1	2.2483+0
3.2579-3	4.4482-5	1.8115+3	3.0593+5	6.8818+2	4.3238+0	3.0525+5			7.3078+1	7.0919+1	2.1801+0
3.3158-3	4.6341-5	1.7389+3	2.9365+5	7.0658+2	4.4037+0	2.9294+5			7.1377+1	6.8302+1	2.1570+0
3.5289-3	5.3809-5	1.4975+3	2.5260+5	7.7217+2	4.8752+0	2.5212+5			6.5344+1	6.3553+1	1.7903+0
3.8463-3	6.7265-5	1.1974+3	2.0222+5	7.9888+2	5.0689+0	2.0141+5			5.6970+1	5.5521+1	1.4298+0
4.4125-3	9.5895-5	6.4205+2	1.4220+5	7.7834+2	5.8032+0	1.4142+5			4.5850+1	4.4840+1	1.0035+0
5.8185-3	1.7860-4	4.5119+2	7.8195+4	8.7728+2	7.1907+0	7.6511+4			3.1178+1	3.0804+1	5.3842-1
7.3782-3	3.8752-4	2.1828+2	3.7027+4	5.3988+2	8.9911+0	3.8482+4			1.9778+1	1.9519+1	2.5888-1
1.0000-2	3.8189-4	9.6853+1	1.6356+4	5.3091+2	1.1141+1	1.5964+4			1.1724+1	1.1611+1	1.1287-1
1.2842-2	1.5848-3	5.1497+1	8.8988+3	2.9077+2	1.2748+1	8.3931+3			7.7973+0	7.7378+0	5.9457-2
1.5000-2	2.5103-3	3.2100+1	5.4210+3	2.2445+2	1.3886+1	5.1827+3			5.7133+0	5.6787+0	3.6589-2
1.7432-2	3.7910-3	2.1256+1	3.5898+3	1.7144+2	1.4895+1	3.4033+3			4.3800+0	4.3800+0	2.4003-2
1.9153-2	4.9151-3	1.6394+1	2.7688+3	1.3838+2	1.5685+1	2.8147+3			3.6808+0	3.6824+0	1.8438-2
2.0152-2	5.8648-3	1.4225+1	2.4023+3	1.1928+2	1.5856+1	2.2872+3			3.3584+0	3.3424+0	1.5982-2
2.0873-2	6.0930-3	1.3225+1	2.2334+3	1.0821+2	1.6005+1	2.1092+3			3.2053+0	3.1904+0	1.4982-2
2.1242-2	6.5959-3	1.2217+1	2.0631+3	9.3523+1	1.6184+1	1.8534+3			3.0503+0	3.0365+0	1.3758-2
2.1452-2	6.7960-3	1.1857+1	2.0024+3	8.8401+1	1.6222+1	1.8998+3			2.9959+0	2.9825+0	1.3378-2
2.1845-2	6.9918-3	1.1525+1	1.9463+3	7.7732+1	1.6275+1	1.8623+3			2.9473+0	2.9343+0	1.3042-2
2.1908-2	7.2773-3	1.1073+1	1.8899+3	6.3125+1	1.6348+1	1.7905+3			2.8834+0	2.8708+0	1.2804-2
2.1998-2	7.3659-3	1.0940+1	1.8474+3	6.1267+1	1.6371+1	1.7688+3			2.8618+0	2.8494+0	1.2457-2
2.2087-2	7.4388-3	1.0833+1	1.8284+3	6.3718+1	1.6395+1	1.7493+3			2.8404+0	2.8281+0	1.2312-2
K 2.2087-2	1.1847-3	6.6018+1	1.1488+4	6.3718+1	1.6395+1	1.1408+4			1.8514+1	1.8319+1	1.1142+1
2.2240-2	1.2049-3	6.8878+1	1.1294+4	7.5439+1	1.6437+1	1.1203+4			1.8310+1	1.8135+1	1.0948+1
2.2388-2	1.2213-3	6.5960+1	1.1142+4	8.7118+1	1.6471+1	1.1039+4			1.8129+1	1.7940+1	1.0789+1
2.2474-2	1.2358-3	6.5203+1	1.1011+4	9.4809+1	1.6500+1	1.0900+4			1.7978+1	1.7804+1	1.0655+1
2.2578-2	1.2500-3	6.4484+1	1.0888+4	1.0039+2	1.6527+1	1.0769+4			1.7831+1	1.7650+1	1.0530+1
2.2773-2	1.2773-3	6.3088+1	1.0654+4	1.0845+2	1.6579+1	1.0531+4			1.7688+1	1.7588+1	1.0300+1
2.3388-2	1.3841-3	5.9072+1	9.9758+3	1.1568+2	1.6738+1	9.8435+3			1.6801+1	1.6624+1	9.6381+0
2.4134-2	1.4818-3	5.4387+1	9.1847+3	1.1974+2	1.6834+1	9.0480+3			1.5905+1	1.5734+1	8.8711+0
2.5945-2	1.7848-3	4.5154+1	7.6254+3	1.1851+2	1.7388+1	7.4885+3			1.4119+1	1.3953+1	7.3842+0
2.8404-2	2.4628-3	3.2722+1	5.5259+3	1.0872+2	1.7953+1	5.3982+3			1.1836+1	1.1687+1	5.3373+0
3.5578-2	4.0801-3	1.9750+1	3.3353+3	8.8988+1	1.8853+1	3.2294+3			8.4445+0	8.2342+0	3.2103+0
4.4172-2	7.3373-3	1.0982+1	1.8547+3	8.3421+1	1.9525+1	1.7717+3			5.7410+0	5.6722+0	1.7889+0
6.0780-2	1.7343-2	4.8483+0	7.8466+2	3.7288+1	2.0114+1	7.2728+2			3.2497+0	3.2198+0	7.2988-1
9.1877-2	5.2329-2	1.5399+0	2.6005+2	1.7890+1	1.9834+1	2.2253+2			1.5159+0	1.4918+0	2.2412-1
1.0000-1	6.5414-2	1.2318+0	2.0803+2	1.5080+1	1.9858+1	1.7329+2			1.2945+0	1.1188+0	1.7465-1
1.3184-1	1.2957-1	6.2191-1	1.0503+2	9.0111+0	1.8792+1	7.7233+1			7.7809-1	7.0018-1	7.7930-2
1.8198-1	2.0472-1	3.9362-1	6.8473+1	8.0998+							

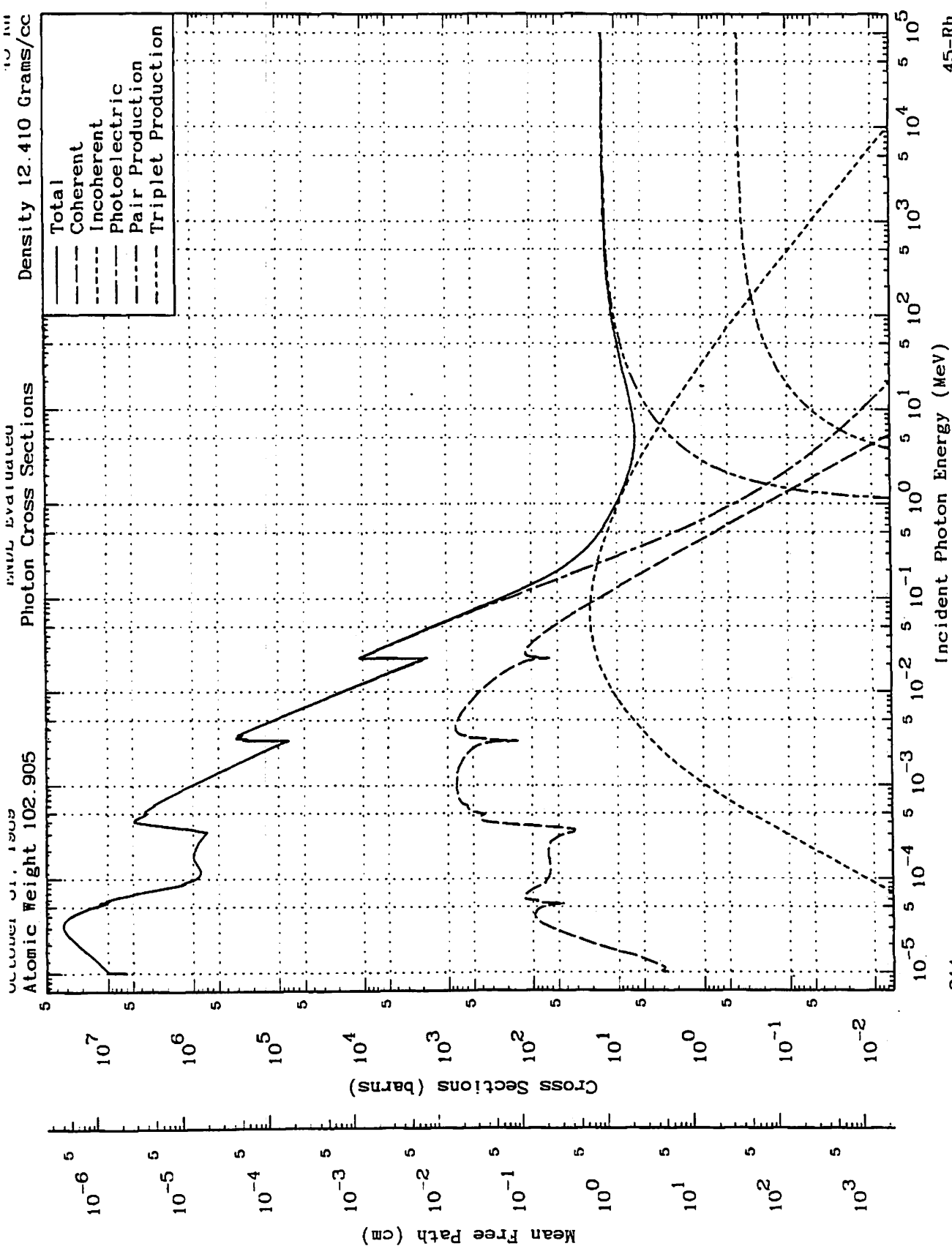
Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0220+0	1.4073+0	5.7257-2	9.8694+0	1.5834-1	9.1560+0	3.5410-1			3.3235-1	3.3189-1	3.5848-4
1.0251+0	1.4099+0	5.7153-2	9.8519+0	1.5837-1	9.1416+0	3.5195-1	1.1203-7		3.3297-1	3.3262-1	3.5830-4
1.0287+0	1.4129+0	5.7033-2	9.8316+0	1.5726-1	9.1249+0	3.4947-1	1.1203-6		3.3370-1	3.3335-1	3.5379-4
1.0295+0	1.4135+0	5.7008-2	9.8274+0	1.5704-1	9.1214+0	3.4896-1	1.5332-6		3.3385-1	3.3350-1	3.5328-4
1.0301+0	1.4140+0	5.6989-2	9.8241+0	1.5685-1	9.1187+0	3.4856-1	1.9281-6		3.3397-1	3.3362-1	3.5287-4
1.0310+0	1.4147+0	5.6959-2	9.8191+0	1.5658-1	9.1145+0	3.4795-1	2.6384-6		3.3415-1	3.3380-1	3.5225-4
1.0320+0	1.4155+0	5.6926-2	9.8135+0	1.5628-1	9.1100+0	3.4728-1	3.6099-6		3.3435-1	3.3400-1	3.5157-4
1.0332+0	1.4165+0	5.6887-2	9.8069+0	1.5592-1	9.1045+0	3.4647-1	5.0569-6		3.3460-1	3.3424-1	3.5075-4
1.0340+0	1.4172+0	5.6861-2	9.8025+0	1.5568-1	9.1008+0	3.4584-1	6.2078-6		3.3478-1	3.3441-1	3.5021-4
1.0353+0	1.4182+0	5.6818-2	9.7953+0	1.5529-1	9.0949+0	3.4507-1	8.4262-6		3.3502-1	3.3467-1	3.4933-4
1.0366+0	1.4193+0	5.6775-2	9.7879+0	1.5489-1	9.0888+0	3.4418-1	1.1203-5		3.3528-1	3.3494-1	3.4843-4
1.0382+0	1.4206+0	5.6724-2	9.7794+0	1.5443-1	9.0818+0	3.4315-1	1.5119-5		3.3560-1	3.3525-1	3.4739-4
1.0397+0	1.4219+0	5.6675-2	9.7712+0	1.5399-1	9.0750+0	3.4216-1	1.9842-5		3.3590-1	3.3555-1	3.4639-4
1.0415+0	1.4232+0	5.6617-2	9.7613+0	1.5346-1	9.0669+0	3.4098-1	2.6134-5		3.3626-1	3.3591-1	3.4519-4
1.0438+0	1.4251+0	5.6543-2	9.7488+0	1.5279-1	9.0565+0	3.3948-1	3.6275-5		3.3672-1	3.3638-1	3.4387-4
1.0484+0	1.4272+0	5.6460-2	9.7347+0	1.5203-1	9.0449+0	3.3779-1	5.0470-5		3.3724-1	3.3690-1	3.4197-4
1.0483+0	1.4288+0	5.6399-2	9.7245+0	1.5148-1	9.0384+0	3.3657-1	6.2838-5		3.3762-1	3.3729-1	3.4073-4
1.0512+0	1.4311+0	5.6307-2	9.7089+0	1.5065-1	9.0235+0	3.3472-1	8.5236-5		3.3820-1	3.3787-1	3.3885-4
1.0541+0	1.4334+0	5.6218-2	9.6935+0	1.4984-1	9.0107+0	3.3289-1	1.1203-4		3.3878-1	3.3845-1	3.3701-4
1.0577+0	1.4363+0	5.6102-2	9.6743+0	1.4882-1	8.9947+0	3.3062-1	1.5270-4		3.3951-1	3.3917-1	3.3471-4
1.0611+0	1.4390+0	5.5996-2	9.6584+0	1.4787-1	8.9798+0	3.2851-1	1.9863-4		3.4019-1	3.3988-1	3.3257-4
1.0651+0	1.4422+0	5.5871-2	9.6354+0	1.4677-1	8.9623+0	3.2605-1	2.6297-4		3.4099-1	3.4068-1	3.3008-4
1.0704+0	1.4465+0	5.5708-2	9.6079+0	1.4533-1	8.9393+0	3.2283-1	3.6687-4		3.4205-1	3.4173-1	3.2682-4
1.0762+0	1.4511+0	5.5532-2	9.5780+0	1.4377-1	8.9144+0	3.1936-1	5.0701-4		3.4322-1	3.4289-1	3.2331-4
1.0806+0	1.4554+0	5.5399-2	9.5356+0	1.4281-1	8.8958+0	3.1677-1	6.3317-4		3.4410-1	3.4378-1	3.2068-4
1.0871+0	1.4597+0	5.5204-2	9.4829+0	1.4092-1	8.8690+0	3.1299-1	8.5309-4		3.4540-1	3.4509-1	3.1886-4
1.0937+0	1.4648+0	5.5009-2	9.4299+0	1.3923-1	8.8402+0	3.0923-1	1.1203-3		3.4873-1	3.4841-1	3.1305-4
1.1026+0	1.4718+0	5.4750-2	9.2461+0	1.3701-1	8.8033+0	3.0426-1	1.5632-3		3.4851-1	3.4820-1	3.0802-4
1.1107+0	1.4780+0	5.4518-2	9.2089+0	1.3503-1	8.7700+0	2.9985-1	2.0258-3		3.5014-1	3.4983-1	3.0355-4
1.1206+0	1.4868+0	5.4239-2	9.1597+0	1.3268-1	8.7298+0	2.9458-1	2.7095-3		3.5212-1	3.5182-1	2.9822-4
1.1333+0	1.4953+0	5.3888-2	9.1005+0	1.2972-1	8.6790+0	2.8802-1	3.7870-3		3.5487-1	3.5438-1	2.9158-4
1.1475+0	1.5060+0	5.3506-2	9.0360+0	1.2655-1	8.6233+0	2.8094-1	5.2008-3		3.5753-1	3.5724-1	2.8441-4
1.1582+0	1.5140+0	5.3225-2	8.9884+0	1.2424-1	8.5819+0	2.7578-1	6.4833-3		3.5988-1	3.5940-1	2.7919-4
1.1741+0	1.5257+0	5.2817-2	8.9185+0	1.2091-1	8.5218+0	2.6837-1	8.6391-3		3.6288-1	3.6261-1	2.7188-4
1.1901+0	1.5373+0	5.2418-2	8.8522+0	1.1770-1	8.4621+0	2.6128-1	1.1203-2		3.6612-1	3.6588-1	2.6449-4
1.2051+0	1.5479+0	5.2059-2	8.7915+0	1.1480-1	8.4074+0	2.5537-1	1.3949-2		3.6921-1	3.6895-1	2.5852-4
1.2275+0	1.5634+0	5.1540-2	8.7040+0	1.1068-1	8.3277+0	2.4894-1	1.6674-2		3.7383-1	3.7358-1	2.4999-4
1.2856+0	1.5862+0	5.0705-2	8.5829+0	1.0414-1	8.1970+0	2.3366-1	2.8260-2		3.8172-1	3.8149-1	2.3845-4
1.2949+0	1.6084+0	5.0100-2	8.4607+0	9.9502-2	8.1004+0	2.2403-1	3.6752-2		3.8784-1	3.8781-1	2.2880-4
1.3318+0	1.6319+0	4.9379-2	8.3380+0	9.4085-2	7.9835+0	2.1285-1	4.8583-2		3.9599-1	3.9537-1	2.1548-4
1.3826+0	1.6509+0	4.8810-2	8.2429+0	8.9896-2	7.8896+0	2.0417-1	5.9258-2		4.0210-1	4.0180-1	2.0670-4
1.3970+0	1.6718+0	4.8207-2	8.1410+0	8.5540-2	7.7884+0	1.9511-1	7.1900-2		4.0944-1	4.0924-1	1.9762-4
1.4558+0	1.7055+0	4.7246-2	7.9788+0	7.8785-2	7.6240+0	1.8100-1	9.5057-2		4.2211-1	4.2182-1	1.8323-4
1.5000+0	1.7299+0	4.6580-2	7.8683+0	7.4237-2	7.5089+0	1.7140-1	1.1380-1		4.3176-1	4.3159-1	1.7352-4
1.5898+0	1.7762+0	4.5387-2	7.6815+0	6.8108-2	7.2843+0	1.5512-1	1.5590-1		4.5191-1	4.5175-1	1.5703-4
1.7198+0	1.8358+0	4.3893-2	7.4125+0	5.6578-2	6.9981+0	1.3568-1	2.2416-1		4.8188-1	4.8174-1	1.3735-4
1.7847+0	1.8856+0	4.3182-2	7.2941+0	5.2487-2	6.8504+0	1.2719-1	2.8411-1		4.9842-1	4.9829-1	1.2878-4
1.8923+0	1.9108+0	4.2175-2	7.1224+0	4.6701-2	6.6298+0	1.1503-1	3.3103-1		5.2083-1	5.2072-1	1.1845-4
2.0440+0	1.9887+0	4.0972-2	6.9182+0	4.0041-2	6.3497+0	1.0100-1	4.2850-1		5.5885-1	5.5875-1	1.0225-4
2.0858+0	1.9823+0	4.0850-2	6.8848+0	3.8453-2	6.2739+0	9.7890-2	4.5468-1	4.4151-7	5.6638-1	5.6628-1	9.9100-5
2.0999+0	1.9873+0	4.0547-2	6.8474+0	3.7940-2	6.2489+0	9.6878-2	4.6373-1	1.0341-8	5.6982-1	5.6962-1	9.8075-5
2.1088+0	1.9897+0	4.0499-2	6.8393+0	3.7899-2	6.2371+0	9.6402-2	4.6808-1	1.4385-8	5.7117-1	5.7107-1	9.7593-5
2.1140+0	1.9923+0	4.0448-2	6.8304+0	3.7438-2	6.2241+0	9.5881-2	4.7291-1	1.9803-6	5.7290-1	5.7280-1	9.7086-5
2.1195+0	1.9942+0	4.0407-2	6.8238+0	3.7242-2	6.2145+0	9.5497-2	4.7852-1	2.4760-6	5.7419-1	5.7409-1	9.6678-5
2.1279+0	1.9971+0	4.0348-2	6.8139+0	3.6949-2	6.2000+0	9.4916-2	4.8207-1	3.3606-6	5.7616-1	5.7608-1	9.6098-5
2.1363+0	1.9999+0	4.0291-2	6.8042+0	3.6661-2	6.1856+0	9.4343-2	4.8764-1	4.4151-6	5.7814-1	5.7804-1	9.5509-5
2.1470+0	2.0036+0	4.0219-2	6.7920+0	3.6295-2	6.1672+0	9.3615-2	4.9488-1	6.0534-6	5.8088-1	5.8060-1	9.4772-5
2.1835+0	2.0090+0	4.0110-2	6.7738+0	3.5745-2	6.1393+0	9.2514-2	5.0608-1	9.2051-6	5.8465-1	5.8455-1	9.3858-5
2.1845+0	2.0162+0	3.9966-2	6.7494+0	3.5062-2	6.1042+0	9.1144-2	5.1897-1	1.4586-6	5.8994-1	5.8945-1	9.2271-5
2.2018+0	2.0220+0	3.9852-2	6.7300+0	3.4513-2	6.0757+0	9.0041-2	5.2974-1	2.0180-5	5.9381-1	5.9352-1	9.1153-5
2.2148+0	2.0283+0	3.9767-2	6.7158+0	3.4110-2	6.0545+0	8.9228-2	5.3782-1	2.5143-5	5.9670-1	5.9661-1	9.0328-5
2.2342+0	2.0325+0	3.9645-2	6.6951+0	3.3521-2	6.0233+0	8.8032-2	5.5027-1	3.3822-5	6.0134-1	6.0125-1	8.9120-5
2.2537+0	2.0387+0	3.9528-2	6.6750+0	3.2945-2	5.9923+0	8.6959-2	5.6285-1	4.4151-5	6.0806-1	6.0597-1	8.7803-5
2.2815+0	2.0471+0	3.9383-2	6.6475+0	3.2147-2	5.9489+0	8.5229-2	5.8112-1	6.1842-5	6.1298-1	6.1278-1	8.6282-5
2.3070+0	2.0548+0	3.9220-2	6.6233+0	3.1441-2	5.9098+0	8.3778-2	5.9819-1	8.1229-5	6.1920-1	6.1911-1	8.4813-5
2.3382+0	2.0634+0	3.9053-2	6.5952+0	3.0809-2	5.8620+0	8.2059-2	6.1948-1	1.0922-4	6.2707-1	6.2689-1	8.3072-5
2.3744+0	2.0739+0	3.8854-2	6.5615+0	2.9909-2	5.8054+0	7.9978-2	6.4843-1	1.5128-4	6.3710-1	6.3702-1	8.0968-5
2.4102+0	2.0832+0	3.8681-2	6.5324+0	2.8810-2	5.7584+0	7.8303-2	6.6689-1	1.8237-4	6.4527-1	6.4519-1	7.9271-5
2.4468+0	2.0931+0	3.8499-2	6.5015+0	2.7955-2	5.7071+0	7.6501-2	6.8971-1	2.4471-4	6.5453-1	6.5448-1	7.7447-5
2.4859+0	2.1031+0	3.8315-2	6.4705+0	2.7084-2	5.6537+0	7.4851-2	7.1478-1	3.0810-4	6.6480-1	6.6453-1	7.5573-5
2.5584+0	2.1188+0	3.8013-2	6.4195+0	2.5812-2	5.5806+0	7.1494-2	7.8127-1	4.4151-4	6.8326-1	6.8318-1	7.2377-5
2.6604+0	2.1418+0	3.7623-2	6.3537+0	2.3951-2	5.4307+0	6.7225-2	8.3148-1	6.6061-4	7.1178-1	7.1189-1	6.8055-5
2.7453+0	2.1596+0	3.7312-2	6.3012+0	2.2213-2	5.3304+0	6.4041-2	8.8358-1	9.1095-4	7.3481-1	7.3474-1	6.4832-5
2.8090+0	2.1717+0	3.7105-2	6.2662+0	2.1218-2	5.2584+0	6.1812-2	9.2385-1	1.1032-3	7.5283-1	7.5257-1	6.2576-5
2.8045+0	2.1878+0	3.6834-2	6.2205+0	1.9848-2	5.1552+0	5.8701-2	9.8538-1	1.4212-3	7.8027-1	7.8021-1	5.8428-5
3.0399+0	2.2074+0	3.6504-2	6.1848+0	1.8121-2	5.0177+0	5.4805-2	1.0722-2	1.8282-3	8.2088-1	8.2060-1	5.5482-5
3.2444+0	2.2392+0	3.5887-2	6.0774+0	1.6008-2	4.8200+0	5.0189-2	1.1883-2	2.7834-3	8.7543-1	8.7538-1	5.0819-5
3.4375+0	2.2835+0	3.5801-2	6.0121+0	1.4173-2							

October 31, 1989
Atomic Weight 101.700

ENDL Evaluated
Photon Data

44-Ru
Density 12.410 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/ca)		
	cm	cm ² /ca/gram	Total	Coherent	Incoherent	Photoelect.	Pair	Triplet	Total	Local	Fluorescence
1.3000+ 1	2.0574+ 0	3.9166- 2	6.6143+ 0	9.9163- 4	1.8424+ 0	8.6810- 3	4.6930+ 0	6.9180- 2	5.4321+ 0	5.4321+ 0	8.7883- 6
1.6000+ 1	1.9000+ 0	4.2410- 2	7.1621+ 0	5.1725- 4	1.4430+ 0	6.0380- 3	5.6190+ 0	9.3580- 2	8.5107+ 0	8.5107+ 0	6.1126- 6
2.6000+ 1	1.7285+ 0	4.8819- 2	7.8729+ 0	2.4792- 4	1.0790+ 0	4.0530- 3	6.6870+ 0	1.2260- 1	1.3992+ 1	1.3992+ 1	4.1031- 6
4.2170+ 1	1.5339+ 0	5.2533- 2	8.8716+ 0	9.4244- 5	7.3612- 1	2.4324- 3	7.9722+ 0	1.6073- 1	2.6336+ 1	2.6336+ 1	2.4625- 6
6.0000+ 1	1.4173+ 0	5.6856- 2	9.6018+ 0	4.6553- 5	5.5006- 1	1.6860- 3	8.8620+ 0	1.8760- 1	4.1109+ 1	4.1109+ 1	1.7088- 6
1.0000+ 2	1.2865+ 0	6.2633- 2	1.0577+ 1	1.6758- 5	3.6067- 1	9.9910- 4	8.9920+ 0	2.2360- 1	7.6414+ 1	7.6414+ 1	1.0114- 6
2.0000+ 2	1.1675+ 0	6.9011- 2	1.1854+ 1	4.1898- 6	1.9949- 1	4.9480- 4	1.1190+ 1	2.6440- 1	1.6988+ 2	1.6988+ 2	5.0092- 7
5.0000+ 2	1.0805+ 0	7.4574- 2	1.2594+ 1	6.7037- 7	9.0263- 2	1.9680- 4	1.2200+ 1	3.0330- 1	4.6124+ 2	4.6124+ 2	1.9923- 7
1.0000+ 3	1.0442+ 0	7.7187- 2	1.3032+ 1	1.6758- 7	4.9181- 2	9.8190- 5	1.2660+ 1	3.2250- 1	9.5612+ 2	9.5612+ 2	9.8404- 8
5.0000+ 3	1.0098+ 0	7.9800- 2	1.3478+ 1	6.7037- 9	1.1831- 2	1.8810- 5	1.3120+ 1	3.4460- 1	4.9500+ 3	4.9500+ 3	1.9852- 8
1.0000+ 4	1.0039+ 0	8.0284- 2	1.3555+ 1	1.6759- 9	6.2103- 3	9.8020- 6	1.3200+ 1	3.4660- 1	9.9592+ 3	9.9592+ 3	9.9231- 9
1.0000+ 5	9.6812- 1	8.0732- 2	1.3634+ 1	1.6748-11	7.5011- 4	8.8010- 7	1.3280+ 1	3.5300- 1	1.0019+ 5	1.0019+ 5	9.9222-10



45-Rh

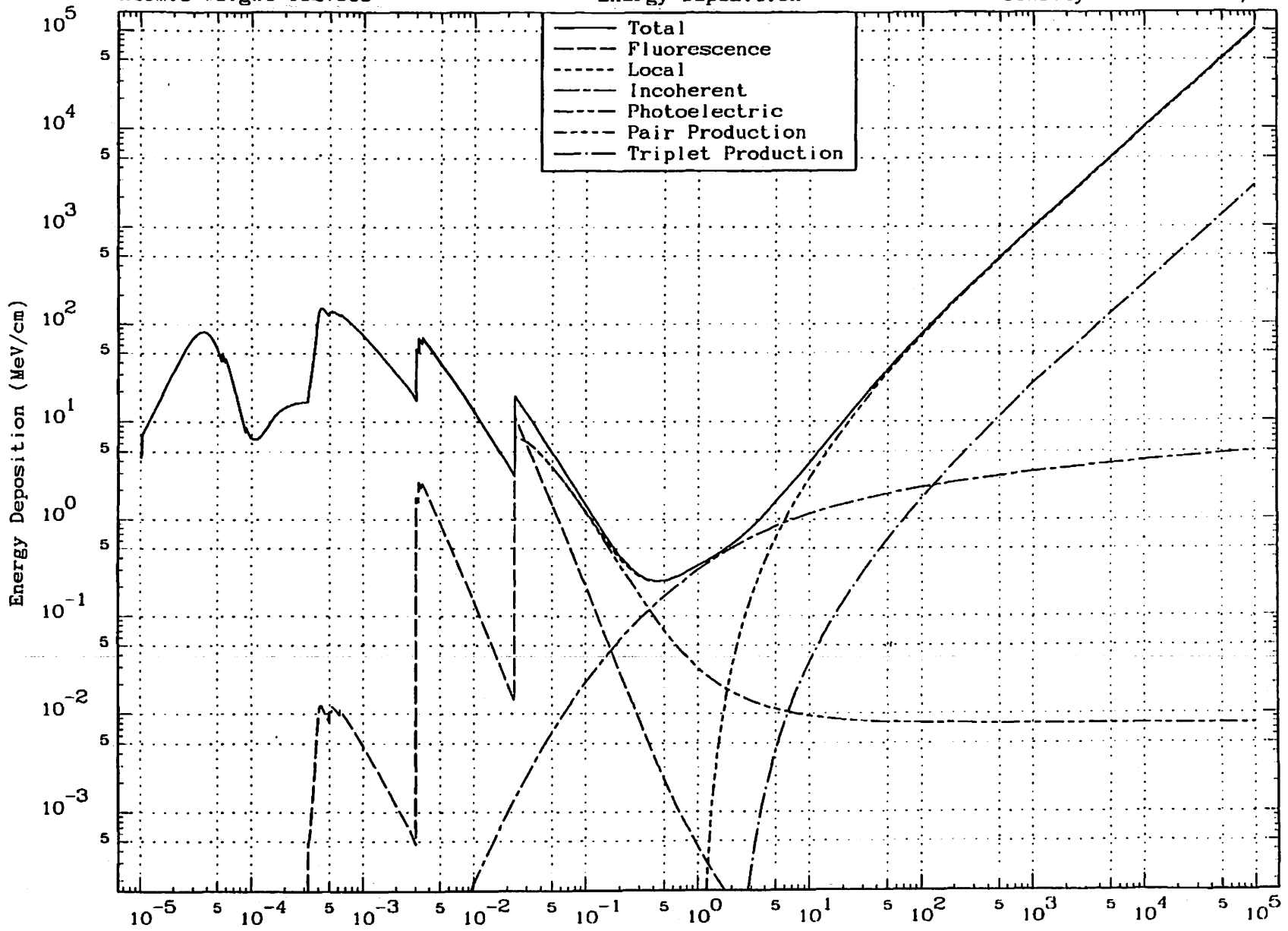
311

October 31, 1989
Atomic Weight 102.905

ENDL Evaluated
Energy Deposition

45-Rh
Density 12.410 Grams/cc

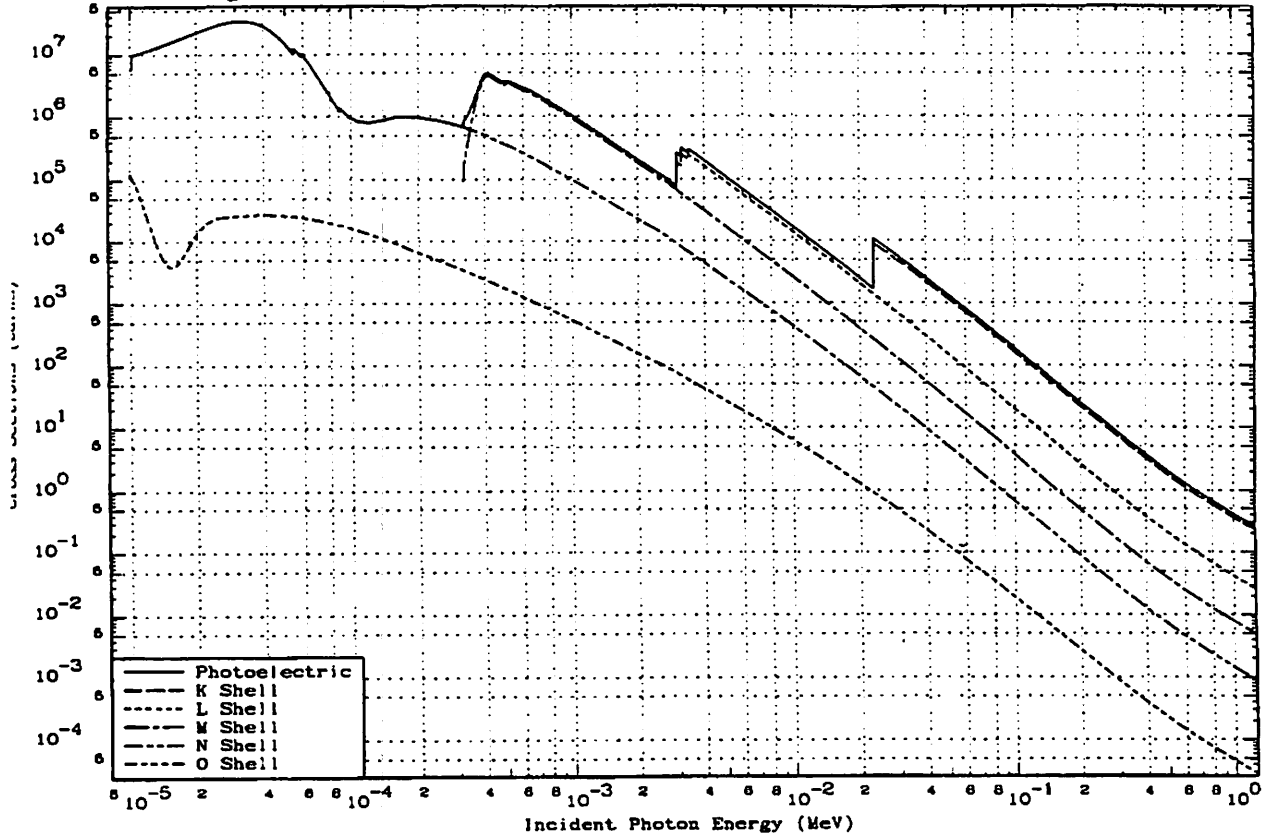
312



October 31, 1989
Atomic Weight 102.905

ENDL Evaluated
Photoelectric Shell Cross Sections

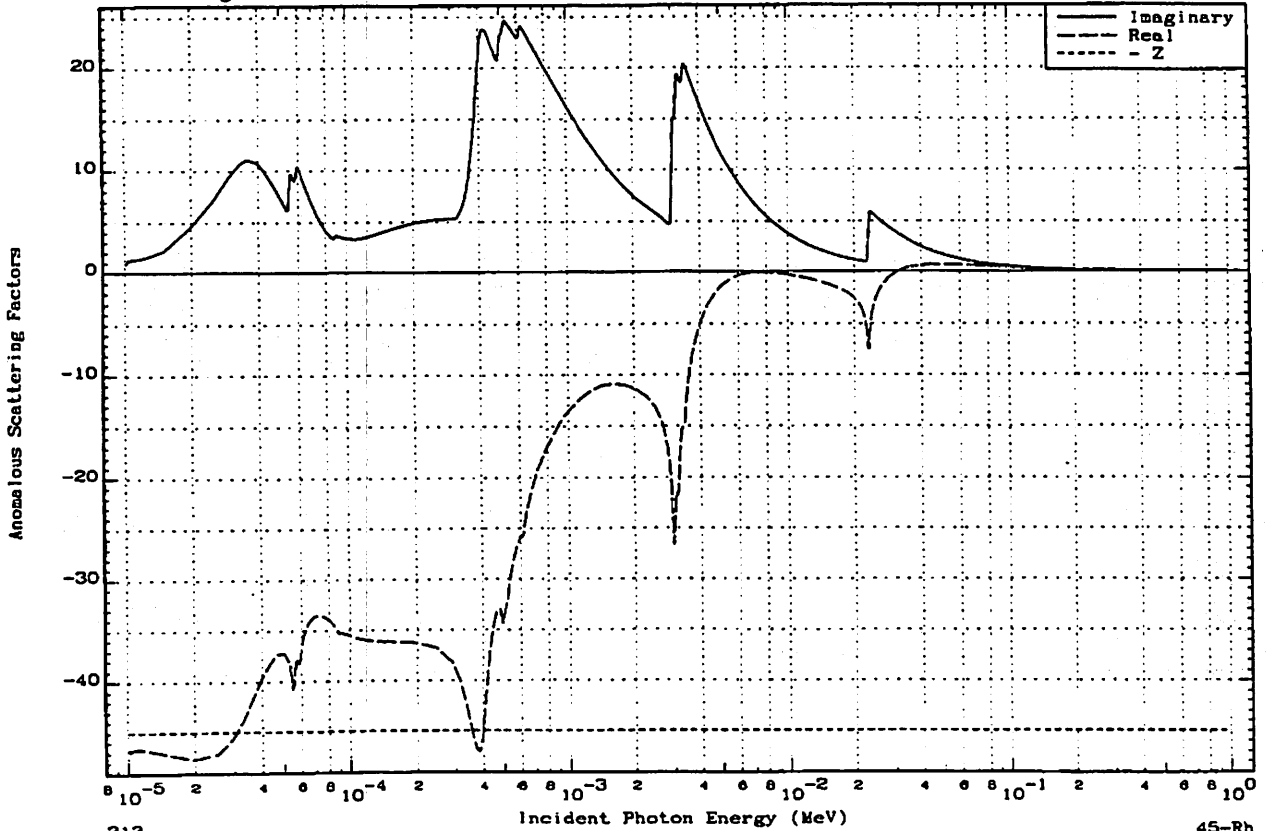
45-Rh
Density 12.410 Grams/cc

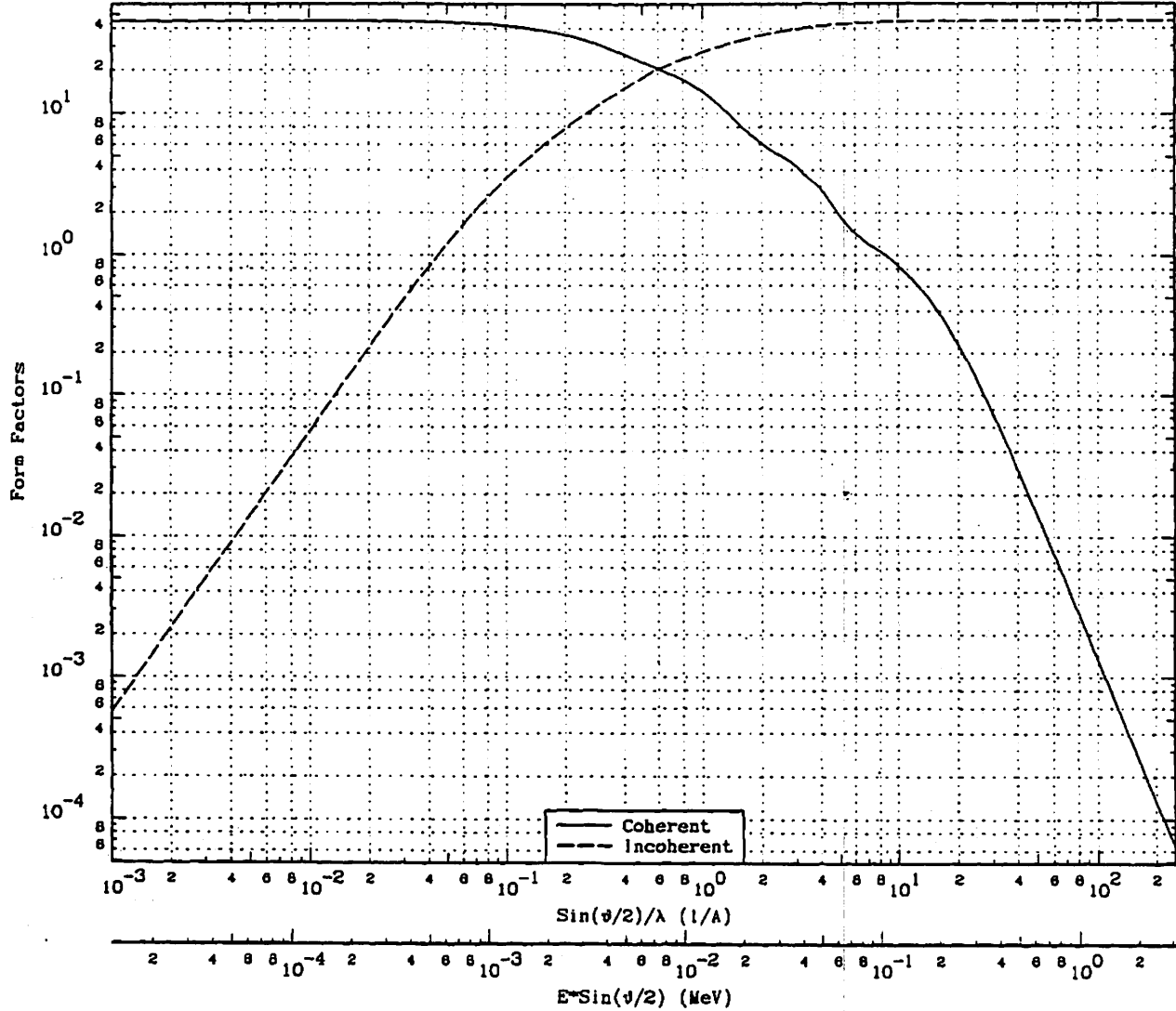


October 31, 1989
Atomic Weight 102.905

ENDL Evaluated
Anomalous Scattering Factors

45-Rh
Density 12.410 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	4.5000+ 1	0.0000+ 0	7.0000- 1	8.8790- 3	1.8815+ 1	2.2557+ 1	1.7847+ 1	2.2128- 1	3.0857- 1	4.4850+ 1
1.0000- 3	1.2399- 5	4.5000+ 1	5.8000- 4	8.0000- 1	9.8188- 3	1.7212+ 1	2.4318+ 1	2.0000+ 1	2.4797- 1	2.3110- 1	4.4974+ 1
5.0000- 3	6.1993- 5	4.4987+ 1	1.4000- 2	9.0000- 1	1.1159- 2	1.5720+ 1	2.5819+ 1	2.4430+ 1	3.0290- 1	1.3452- 1	4.4892+ 1
1.0000- 2	1.2399- 4	4.4988+ 1	5.8000- 2	1.0000+ 0	1.2399- 2	1.4300+ 1	2.7148+ 1	3.0970+ 1	3.8398- 1	6.8723- 2	4.5002+ 1
1.5000- 2	1.8598- 4	4.4912+ 1	1.2580- 1	1.2500+ 0	1.5498- 2	1.1129+ 1	2.8991+ 1	4.3853+ 1	5.4371- 1	2.1921- 2	4.5001+ 1
2.0000- 2	2.4797- 4	4.4844+ 1	2.2120- 1	1.5000+ 0	1.8598- 2	8.7089+ 0	3.2309+ 1	5.0000+ 1	6.1993- 1	1.4183- 2	4.5000+ 1
2.5000- 2	3.0996- 4	4.4757+ 1	3.4050- 1	1.8594+ 0	2.3054- 2	6.6382+ 0	3.4894+ 1	8.0000+ 1	9.9188- 1	2.8652- 3	4.5000+ 1
3.0000- 2	3.7198- 4	4.4652+ 1	4.8170- 1	2.0000+ 0	2.4797- 2	6.1282+ 0	3.5715+ 1	1.0000+ 2	1.2399+ 0	1.3378- 3	4.5000+ 1
4.0000- 2	4.8594- 4	4.4393+ 1	8.1980- 1	2.5000+ 0	3.0996- 2	5.0081+ 0	3.8009+ 1	1.7117+ 2	2.1223+ 0	2.2202- 4	4.5000+ 1
5.0000- 2	6.1993- 4	4.4075+ 1	1.2150+ 0	3.0000+ 0	3.7198- 2	4.2308+ 0	3.9843+ 1	2.8745+ 2	3.6876+ 0	3.7010- 5	4.5000+ 1
7.0000- 2	8.8790- 4	4.3275+ 1	2.1027+ 0	3.5000+ 0	4.3395- 2	3.4552+ 0	4.0833+ 1	5.4453+ 2	6.7514+ 0	5.4877- 6	4.5000+ 1
9.0000- 2	1.1159- 3	4.2324+ 1	3.0345+ 0	4.0000+ 0	4.8594- 2	2.8352+ 0	4.1853+ 1	1.0000+ 3	1.2399+ 1	8.3927- 7	4.5000+ 1
1.0000- 1	1.2399- 3	4.1808+ 1	3.4990+ 0	4.2344+ 0	5.2500- 2	2.6802+ 0	4.2007+ 1	2.8333+ 3	3.2849+ 1	4.4685- 8	4.5000+ 1
1.2500- 1	1.5498- 3	4.0438+ 1	4.6419+ 0	5.0000+ 0	6.1993- 2	1.8953+ 0	4.2761+ 1	6.6119+ 3	6.1978+ 1	2.9014- 9	4.5000+ 1
1.5000- 1	1.8598- 3	3.8995+ 1	5.7530+ 0	5.7539+ 0	7.1340- 2	1.5157+ 0	4.3240+ 1	1.4899+ 4	1.8473+ 2	2.8911-10	4.5000+ 1
1.7500- 1	2.1697- 3	3.7530+ 1	6.8283+ 0	6.0000+ 0	7.4391- 2	1.4324+ 0	4.3366+ 1	4.2648+ 4	5.2875+ 2	1.2870-11	4.5000+ 1
2.0000- 1	2.4797- 3	3.6088+ 1	7.8830+ 0	7.0000+ 0	8.8790- 2	1.1975+ 0	4.3769+ 1	1.0000+ 6	1.2399+ 4	1.5775-15	4.5000+ 1
2.5000- 1	3.0996- 3	3.3224+ 1	9.8021+ 0	8.0000+ 0	9.8188- 2	1.0784+ 0	4.4070+ 1	5.6234+ 6	6.9722+ 4	1.1151-17	4.5000+ 1
3.0000- 1	3.7198- 3	3.0599+ 1	1.1591+ 1	9.2817+ 0	1.1483- 1	9.2490- 1	4.4351+ 1	7.4889+ 7	9.2975+ 5	6.2628-21	4.5000+ 1
4.0000- 1	4.8594- 3	2.8244+ 1	1.4883+ 1	1.0000+ 1	1.2399- 1	8.4010- 1	4.4481+ 1	1.0000+ 9	1.2399+ 7	3.3933-24	4.5000+ 1
5.0000- 1	6.1993- 3	2.3029+ 1	1.7858+ 1	1.2489+ 1	1.5483- 1	8.1837- 1	4.4755+ 1				
6.0000- 1	7.4391- 3	2.0868+ 1	2.0428+ 1	1.5000+ 1	1.8598- 1	4.4815- 1	4.4889+ 1				

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cm)			
	cm	cc/cm ³ /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	2.3001-6	3.5033+4	5.8664+8	2.6356+0	1.2118-4	5.8664-8			4.3476+0	4.3476+0	0
1.0091-5	2.2794-6	3.5351+4	6.0407+8	2.7453+0	1.2338-4	6.0407-8			4.4268+0	4.4268+0	0
1.0198-5	2.2564-6	3.5728+4	6.1051+8	2.8304+0	1.2602-4	6.1051-8			4.5216+0	4.5216+0	0
1.0240-5	2.2461-6	3.5876+4	6.1305+8	2.8997+0	1.2706-4	6.1305-8			4.5591+0	4.5591+0	0
1.0240-5	1.4028-8	5.7451+4	9.8171+8	3.0997+0	1.2708-4	9.8171-8			7.3008+0	7.3008+0	0
1.0291-5	1.3950-8	5.7763+4	9.8704+8	3.1852+0	1.2833-4	9.8704-8			7.3770+0	7.3770+0	0
1.0384-5	1.3843-8	5.8211+4	9.9469+8	3.1107+0	1.3016-4	9.9469-8			7.4689+0	7.4689+0	0
1.0418-5	1.3784-8	5.8542+4	1.0004+7	3.0081+0	1.3152-4	1.0004-7			7.5690+0	7.5690+0	0
1.1209-5	1.2691-8	6.3496+4	1.0850+7	2.8854+0	1.5224-4	1.0850+7			8.8324+0	8.8324+0	0
1.1857-5	1.1897-8	6.7733+4	1.1574+7	2.8218+0	1.7034-4	1.1574+7			9.9683+0	9.9683+0	0
1.5062-5	8.8533-7	9.0001+4	1.5378+7	6.2925+0	2.7489-4	1.5378+7			1.8823+1	1.8823+1	0
1.9747-5	6.3154-7	1.2759+5	2.1803+7	1.8004+1	4.7245-4	2.1803+7			3.1268+1	3.1268+1	0
2.5768-5	4.5889-7	1.7560+5	3.0008+7	3.9926+1	8.0441-4	3.0008+7			5.8153+1	5.8153+1	0
2.9447-5	4.1651-7	1.9347+5	3.3059+7	5.8506+1	1.0505-3	3.3059+7			7.0701+1	7.0701+1	0
3.3118-5	4.1051-7	1.9629+5	3.3542+7	7.7113+1	1.3287-3	3.3542+7			8.0675+1	8.0675+1	0
3.5443-5	4.2434-7	1.8990+5	3.2449+7	8.8758+1	1.5217-3	3.2449+7			8.3525+1	8.3525+1	0
3.9199-5	4.7799-7	1.8858+5	2.8807+7	9.4650+1	1.8812-3	2.8807+7			8.2008+1	8.2008+1	0
4.0654-5	5.1873-7	1.5534+5	2.6544+7	9.5484+1	2.0316-3	2.6544+7			7.8950+1	7.8950+1	0
4.2295-5	5.5473-7	1.4528+5	2.4822+7	9.3812+1	2.1869-3	2.4822+7			7.8244+1	7.8244+1	0
4.8312-5	7.1318-7	1.1299+5	1.9307+7	8.9257+1	2.8978-3	1.9307+7			6.4936+1	6.4936+1	0
5.0297-5	9.4828-7	8.4975+4	1.4520+7	7.5286+1	3.0841-3	1.4520+7			5.3040+1	5.3040+1	0
5.3103-5	1.1852-8	8.7989+4	1.1818+7	5.5682+1	3.4155-3	1.1818+7			4.4805+1	4.4805+1	0
5.4029-5	1.2725-8	8.3325+4	1.0821+7	4.4157+1	3.1557-3	1.0821+7			4.2480+1	4.2480+1	0
5.4235-5	1.2925-8	8.2344+4	1.0653+7	4.2904+1	3.5827-3	1.0653+7			4.1981+1	4.1981+1	0
5.4438-5	1.3123-8	8.1404+4	1.0493+7	4.4025+1	3.5892-3	1.0493+7			4.1481+1	4.1481+1	0
5.4780-5	1.3487-8	8.8837+4	1.0225+7	5.4145+1	3.8348-3	1.0225+7			4.0878+1	4.0878+1	0
N3 5.4780-5	1.0984-8	7.3498+4	1.2559+7	5.4145+1	3.6348-3	1.2559+7			4.9964+1	4.9964+1	4.0239-5
5.6203-6	1.1286-8	7.1398+4	1.2200+7	7.0340+1	3.6909-3	1.2200+7			4.8912+1	4.8912+1	3.9530-5
5.5352-5	1.1402-8	7.0675+4	1.2077+7	7.5901+1	3.7109-3	1.2077+7			4.8548+1	4.8548+1	3.9284-5
5.5778-5	1.1734-8	6.8672+4	1.1735+7	8.5734+1	3.7680-3	1.1734+7			4.7533+1	4.7533+1	3.8598-5
5.6952-5	1.2820-8	6.2855+4	1.0740+7	9.0337+1	3.8284-3	1.0740+7			4.4424+1	4.4424+1	3.6778-5
5.9255-6	1.4127-8	5.7041+4	9.7470+6	8.5785+1	4.1103-3	9.7470+6			4.1237+1	4.1237+1	3.4904-5
5.8588-5	1.4487-8	5.5823+4	9.5047+6	8.8275+1	4.1598-3	9.5046+6			4.0448+1	4.0448+1	3.4433-5
5.8840-5	1.4749-8	5.4833+4	9.3358+6	9.3830+1	4.1932-3	9.3358+6			3.9893+1	3.9893+1	3.4057-5
N2 5.8840-5	1.3233-8	6.0888+4	1.0404+7	9.3830+1	4.1932-3	1.0404+7			4.4459+1	4.4459+1	5.8341-5
5.9483-5	1.3820-8	5.8307+4	9.9834+6	1.0825+2	4.2824-3	9.9833+6			4.3028+1	4.3028+1	5.7853-5
5.9882-5	1.4225-8	5.6848+4	9.8785+6	1.1813+2	4.3413-3	9.8784+6			4.2095+1	4.2095+1	5.6878-5
6.1439-5	1.5883-8	5.0735+4	8.6895+6	1.2382+2	4.5718-3	8.6894+6			3.8683+1	3.8683+1	5.3014-5
6.4818-5	2.0415-8	3.9472+4	6.7449+6	1.2517+2	5.0684-3	8.7447+6			3.1750+1	3.1750+1	4.4770-5
7.0000-5	3.0541-8	2.8385+4	4.5085+6	1.1854+2	5.9344-3	4.5084+6			2.2920+1	2.2920+1	3.4018-5
7.3734-5	5.3572-8	1.5041+4	2.5703+6	9.8583+1	7.2503-3	2.5701+6			1.4442+1	1.4442+1	2.3070-5
8.3810-5	8.3719-8	9.8251+3	1.8447+6	8.4127+1	8.5068-3	1.8448+6			1.0010+1	1.0010+1	1.7235-5
8.6981-5	1.0256-8	7.8567+3	1.3425+6	7.5215+1	9.1824-3	1.3425+6			8.4803+0	8.4803+0	1.5143-5
8.8340-5	1.1163-8	7.2183+3	1.2335+6	7.1180+1	9.4508-3	1.2334+6			7.9130+0	7.9130+0	1.4347-5
8.8520-5	1.1270-8	7.1497+3	1.2217+6	7.1268+1	9.4894-3	1.2217+6			7.8537+0	7.8537+0	1.4289-5
N1 8.8520-5	9.8899-8	8.1485+3	1.3924+6	7.1268+1	9.4894-3	1.3923+6			8.8510+0	8.8509+0	1.7839-5
9.0290-5	1.0893-8	7.5357+3	1.2877+6	7.2581+1	9.8726-3	1.2878+6			8.4433+0	8.4433+0	1.7248-5
9.7478-5	1.3772-8	5.8510+3	9.9981+5	6.8858+1	1.1507-2	9.8974+5			7.0776+0	7.0776+0	1.4818-5
1.0000-4	1.4582-8	5.5280+3	9.4427+5	6.7247+1	1.2110-2	9.4425+5			6.8572+0	6.8572+0	1.4433-5
1.0740-4	1.8257-5	4.8587+3	8.4700+5	6.3981+1	1.3984-2	8.4893+5			6.8059+0	6.8059+0	1.3283-5
1.1496-4	1.8995-5	4.7413+3	8.1018+5	6.2411+1	1.5993-2	8.1012+5			6.7835+0	6.7834+0	1.2502-5
1.2332-4	1.6911-5	4.7649+3	8.1421+5	6.1838+1	1.8400-2	8.1415+5			7.2917+0	7.2917+0	1.2076-5
1.4209-4	1.5391-5	5.2355+3	8.9463+5	6.2974+1	2.4409-2	8.9457+5			9.2310+0	9.2310+0	1.1428-5
1.6046-4	1.4091-5	5.7184+3	9.7714+5	6.3878+1	3.1115-2	9.7708+5			1.1387+1	1.1387+1	1.0804-5
1.7360-4	1.3867-5	5.8110+3	9.8298+5	6.5009+1	3.8403-2	9.8291+5			1.2518+1	1.2518+1	1.0440-5
1.8812-4	1.4065-5	5.7290+3	9.7895+5	6.5969+1	4.1833-2	9.7889+5			1.3232+1	1.3232+1	1.0128-5
2.0298-4	1.4428-5	5.5851+3	9.5437+5	6.5815+1	4.8725-2	9.5431+5			1.4068+1	1.4068+1	9.8479-6
2.4681-4	1.6029-5	5.0275+3	8.5909-5	6.2078+1	7.3077-2	8.5902+5			1.5397+1	1.5397+1	8.4221-6
2.8967-4	1.8388-5	4.3827+3	7.4890-5	4.8299+1	9.8833-2	7.4885+5			1.5754+1	1.5754+1	7.2308-6
3.1798-4	2.0257-5	3.8779+3	6.7873-5	3.2903+1	1.1970+1	6.7870+5			1.5895+1	1.5895+1	6.8180-6
M5 3.1798-4	1.7831-5	4.5182+3	7.7223-5	3.2903+1	1.1970+1	7.7220+5			1.7831+1	1.7831+1	6.7113-6
3.2191-4	1.7805-5	4.5258+3	7.7335-5	3.2277+1	1.2282-1	7.7332+5			1.8079+1	1.8079+1	6.2588-6
3.2303-4	1.7739-5	4.5424+3	7.7620-5	3.2217+1	1.2345-1	7.7617+5			1.8209+1	1.8209+1	6.3255-6
M4 3.2303-4	1.6254-5	4.8577+3	8.4718+5	3.2217+1	1.2345-1	8.4713+5			1.8974+1	1.8973+1	4.8598-6
3.2949-4	1.5303-5	5.2655+3	8.9978+5	3.1882+1	1.2831-1	8.9972+5			2.1530+1	2.1529+1	5.3715-6
3.3351-4	1.4355-5	5.8134+3	9.5921+5	3.1678+1	1.3137-1	9.5918+5			2.3232+1	2.3232+1	5.9480-6
3.3893-4	1.2903-5	6.2449+3	1.0871+6	3.3308+1	1.3556-1	1.0671+6			2.6288+1	2.6288+1	7.0041-6
3.4451-4	1.1330-5	7.1124+3	1.2154+6	3.7336+1	1.3995-1	1.2153+6			3.0407+1	3.0407+1	8.6494-6
3.5079-4	9.8978-6	8.3348+3	1.4242+6	4.5228+1	1.4486-1	1.4242+6			3.6283+1	3.6282+1	1.1302-3
3.5638-4	7.8495-6	1.0534+4	1.8000+6	8.3960+1	1.5194-1	1.8000+6			4.6977+1	4.6975+1	1.7083-3
3.7956-4	4.5331-6	1.7778+4	3.0375+6	1.5103+2	1.8899-1	3.0373+6			6.3728+1	6.3721+1	4.6843-3
3.8965-4	3.8191-6	2.2265+4	3.8047+6	2.2043+2	1.7754-1	3.8045+6			1.0788+2	1.0785+2	7.5555-3
3.8821-4	3.2090-6	2.5111+4	4.2809+6	2.7872+2	1.6320-1	4.2808+6			1.2348+2	1.2345+2	9.7877-3
4.0000-4	3.0242-6	2.8845+4	4.5530+6	3.0778+2	1.8652-1	4.5527+6			1.3228+2	1.3225+2	1.0893-2
4.0648-4	2.8925-6	2.7858+4	4.7804+6	3.4606+2	1.9138-1	4.7800+6			1.4018+2	1.4018+2	1.1843-2
4.1420-4	2.8187-6	2.8578+4	4.8833+6	3.8583+2	1.9917-1	4.8829+6			1.4688+2	1.4687+2	1.2199-2
4.2022-4	2.8307-6	2.8487+4	4.8644+6	3.9878+2	2.0465-1	4.8640+6			1.4844+2	1.4843+2	1.2005-2
4.2787-4	2.9171-6	2.7824+4	4.7203+6	4.1066+2	2.1172-1	4.7198+6			1.4686+2	1.4685+2	1.1477-2
4.3749-4	3.0272-6	2.6618+4	4.5485+6	4.1782+2	2.2078-1	4.5481+6			1.4450+2	1.4448+2	1.0859-2
4.6342-4	3.4895-6	2.3092+4	3.9460+6	4.0503+2	2.4603-1	3.9456+6			1.3278+2	1.3278+2	8.4075-3
4.8066-4	3.7902-6	2.1260+4	3.6329+6	3.8141+2	2.6352-1	3.6328+6			1.2680+2	1.2680+2	8.7650-3
4.8888-4	3.9384-6	2.0460+4	3.4991+6	3.6433+2	2.7207-1	3.4958+6			1.2412+2	1.2411+2	8.4817-3
4.9288-4	4.0083-6	2.0104+4	3.4353+6	3.7085+2	2.7607-1	3.4349+6			1.2290+2	1.2290+2	8.3551-3
4.9468-4	4.0418-6	1.9938+4	3.4089+6	3.8489+2	2.7816-1	3.4085+6			1.2238+2	1.2237+2	8.2807-3
N3 4.9468-4	3.7247-6	2.1834+4	3.6988+6	3.8488+2	2.7816-1	3.6964+6			1.3279+2	1.3278+2	1.0286-2
5.0224-4	3.7867-6										

Energy keV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
M2 5.2015-4	3.9362-6	2.0471+4	3.4981+6	4.9611+2	3.0574-1	3.4976+6			1.3213-2	1.3212-2	1.0285-2
5.2015-4	3.7755-6	2.1343+4	3.8470+6	4.9611+2	3.0574-1	3.6465+6			1.3775-2	1.3774-2	1.1942-2
5.3055-4	3.8974-6	2.0675+4	3.5330+6	5.3919+2	3.1725-1	3.5324+6			1.3811+2	1.3610+2	1.1863-2
5.4536-4	4.0803-6	1.9748+4	3.3746+6	5.5935+2	3.3343-1	3.3740+6			1.3363-2	1.3362-2	1.1261-2
5.8372-4	4.5899-6	1.7633+4	3.0131+6	5.8319+2	3.7700-1	3.0125+6			1.2771+2	1.2770+2	1.0328-2
6.1090-4	4.8499-6	1.6279+4	2.7818+6	6.8348+2	4.0931-1	2.7812+6			1.2339-2	1.2338-2	9.6832-3
6.1595-4	5.0280-6	1.6033+4	2.7398+6	6.0459+2	4.1544-1	2.7390+6			1.2253+2	1.2252+2	9.5887-3
M1 6.1595-4	4.8115-6	1.8747+4	2.8618+6	6.0459+2	4.1544-1	2.8612+6			1.2789+2	1.2788+2	1.0925-2
6.2827-4	4.8944-6	1.8134+4	2.7589+6	6.5829+2	4.3057-1	2.7563+6			1.2578+2	1.2575+2	1.0800-2
6.8378-4	5.5480-6	1.4529+4	2.4827+6	6.9637+2	4.7553-1	2.4821+6			1.1965+2	1.1864+2	9.7170-3
7.2130-4	6.5356-6	1.2329+4	2.1068+6	7.3666+2	5.4820-1	2.1061+6			1.1033+2	1.1032+2	8.4805-3
9.1929-4	1.0878-5	7.4092+3	1.2681+6	7.8480+2	6.2591-1	1.2653+6			8.4474+1	8.4468+1	5.5481-3
1.0000-3	1.3127-5	6.1388+3	1.0490+6	7.6888+2	9.4595-1	1.0482+6			7.6123+1	7.6118+1	4.7256-3
1.3554-3	2.8116-5	3.0855+3	5.2724+5	7.8501+2	1.4840+0	5.2848+5			5.1824+1	5.1821+1	2.8395-3
1.8118-3	3.8664-5	2.0321+3	3.4724+5	7.2398+2	1.8853+0	3.4861+5			4.0563+1	4.0561+1	1.8312-3
2.0199-3	8.7638-5	1.1881+3	2.0288+5	6.3273+2	2.5132+0	2.0204+5			2.9834+1	2.9833+1	1.1398-3
2.2702-3	8.8515-5	9.1038+2	1.5558+5	5.8600+2	2.8972+0	1.5499+5			2.5553+1	2.5552+1	9.0879-4
2.5032-3	1.1091-4	7.2654+2	1.2415+5	4.9731+2	3.2420+0	1.2365+5			2.2479+1	2.2478+1	7.4739-4
2.6229-3	1.2468-4	8.4632+2	1.1044+5	4.5137+2	3.4201+0	1.0999+5			2.0951+1	2.0951+1	6.7228-4
2.7404-3	1.3993-4	5.7586+2	9.8401+4	3.9625+2	3.5850+0	9.8901+4			1.9505+1	1.9504+1	6.0434-4
2.8223-3	1.5248-4	5.2852+2	9.0313+4	3.4451+2	3.7003+0	8.9966+4			1.8440+1	1.8440+1	5.5690-4
2.8745-3	1.6090-4	5.0080+2	8.5578+4	3.0221+2	3.7739+0	8.5270+4			1.7801+1	1.7800+1	5.2903-4
2.9154-3	1.6781-4	4.8019+2	8.2053+4	2.5817+2	3.8315+0	8.1791+4			1.7317+1	1.7317+1	5.0827-4
2.9404-3	1.7218-4	4.6801+2	7.8668+4	2.2139+2	3.8668+0	7.8747+4			1.7030+1	1.7029+1	4.9809-4
2.9606-3	1.7579-4	4.5839+2	7.8329+4	1.8330+2	3.8955+0	7.8142+4			1.6802+1	1.6801+1	4.8656-4
2.9799-3	1.7826-4	4.4951+2	7.6811+4	1.5208+2	3.9228+0	7.6855+4			1.6589+1	1.6589+1	4.7772-4
2.9877-3	1.8087-4	4.4601+2	7.6213+4	1.4818+2	3.9338+0	7.6081+4			1.6504+1	1.6503+1	4.7418-4
2.9921-3	1.8148-4	4.4408+2	7.5880+4	1.4845+2	3.9401+0	7.5729+4			1.6458+1	1.6455+1	4.7220-4
3.0045-3	1.8385-4	4.3877+2	7.4877+4	1.6584+2	3.9578+0	7.4807+4			1.6323+1	1.6323+1	4.6872-4
3.0045-3	5.3495-5	1.5063+3	2.5739+5	1.6584+2	3.9578+0	2.5722+5			5.8127+1	5.4434+1	1.8929-3
3.0285-3	5.4538-5	1.4775+3	2.5247+5	2.3199+2	3.9888+0	2.5224+5			5.5442+1	5.3781+1	1.8812+0
3.0384-3	5.4990-5	1.4854+3	2.5040+5	2.8438+2	4.0028+0	2.5013+5			5.5158+1	5.3511+1	1.8474+0
3.0456-3	5.5410-5	1.4543+3	2.4850+5	2.8957+2	4.0197+0	2.4821+5			5.4898+1	5.3253+1	1.8348+0
3.0823-3	5.8194-5	1.4340+3	2.4503+5	3.2177+2	4.0395+0	2.4471+5			5.4422+1	5.2810+1	1.8118+0
3.0778-3	5.6919-5	1.4157+3	2.4191+5	3.3403+2	4.0812+0	2.4157+5			5.3994+1	5.2403+1	1.8913+0
3.1215-3	5.9035-5	1.3849+3	2.3324+5	3.4141+2	4.1235+0	2.3289+5			5.2797+1	5.1262+1	1.5344+0
3.1391-3	5.9893-5	1.3454+3	2.2890+5	3.5833+2	4.1485+0	2.2864+5			5.2329+1	5.0817+1	1.5124+0
3.1815-3	6.0498-5	1.3320+3	2.2780+5	3.8187+2	4.1861+0	2.2722+5			5.2004+1	5.0507+1	1.4971+0
3.1815-3	4.3839-5	1.8381+3	3.1409+5	3.8187+2	4.1861+0	3.1371+5			7.1801+1	6.9399+1	2.4415+0
3.1850-3	4.0300-5	1.7895+3	3.0578+5	4.6883+2	4.2137+0	3.0531+5			7.0620+1	6.8244+1	2.3783+0
3.2088-3	4.5890-5	1.7560+3	3.0005+5	5.1289+2	4.2478+0	2.9964+5			6.9802+1	6.7471+1	2.3316+0
3.2599-3	4.7777-5	1.6886+3	2.8820+5	5.5371+2	4.3003+0	2.8764+5			6.8097+1	6.5858+1	2.2993+0
3.3117-3	4.9743-5	1.6199+3	2.7881+5	5.7072+2	4.3833+0	2.7824+5			6.6437+1	6.4286+1	2.1508+0
3.3529-3	5.1341-5	1.5895+3	2.6820+5	5.7008+2	4.4489+0	2.6762+5			6.5185+1	6.3081+1	2.0839+0
3.3772-3	5.2301-5	1.5407+3	2.6327+5	5.7870+2	4.4787+0	2.6289+5			6.4430+1	6.2384+1	2.0458+0
3.3912-3	5.2852-5	1.5248+3	2.6052+5	5.9804+2	4.4989+0	2.5982+5			6.4015+1	6.1981+1	2.0242+0
L1 3.3912-3	4.8185-5	1.7455+3	2.8828+5	5.9804+2	4.4989+0	2.8788+5			7.3310+1	7.0928+1	2.3841+0
3.4319-3	4.7499-5	1.6965+3	2.8989+5	6.0100+2	4.5499+0	2.8922+5			7.2085+1	6.9789+1	2.3174+0
3.4750-3	4.8937-5	1.6468+3	2.8137+5	7.0388+2	4.6090+0	2.8068+5			7.0828+1	6.8578+1	2.2498+0
3.5099-3	5.2943-5	1.5220+3	2.8008+5	7.5398+2	4.7589+0	2.5932+5			6.7825+1	6.5544+1	2.0807+0
3.8984-3	6.4585-5	1.2475+3	2.1318+5	8.0567+2	5.1542+0	2.1235+5			6.0089+1	5.8382+1	1.7070+0
4.3587-3	8.6185-5	9.3487+2	1.5977+5	8.1077+2	5.7545+0	1.5885+5			5.0308+1	4.8031+1	1.2778+0
5.3504-3	1.4847-4	5.5019+2	9.4010+4	7.3457+2	6.9188+0	9.3289+4			3.6239+1	3.5489+1	7.5003-1
6.8881-3	2.8151-4	2.8825+2	4.8913+4	6.0720+2	8.5485+0	4.8297+4			2.4082+1	2.3893+1	3.8860-1
1.0000-2	7.6784-4	1.0484+2	1.7833+4	4.1483+2	1.1280+1	1.7056+4			1.2714+1	1.2574+1	1.4055-1
1.3383-2	1.6929-3	4.7589+1	8.1337+3	2.8841+2	1.3381+1	7.8339+3			7.8148+0	7.5518+0	6.2825-2
1.5421-2	2.4898-3	3.2387+1	5.5308+3	2.3148+2	1.4302+1	5.2851+3			5.8182+0	5.8789+0	4.2301-2
1.8303-2	3.9905-3	2.0183+1	3.4505+3	1.7004+2	1.5502+1	3.2650+3			4.3401+0	4.3140+0	2.6097-2
2.0118-2	5.1847-3	1.5542+1	2.8558+3	1.3684+2	1.6123+1	2.5027+3			3.6572+0	3.6372+0	1.9889-2
2.1191-2	5.9959-3	1.3439+1	2.2985+3	1.1738+2	1.8433+1	2.1828+3			3.3291+0	3.3119+0	1.7286-2
2.1708-2	6.4190-3	1.2553+1	2.1451+3	1.0708+2	1.8577+1	2.0214+3			3.1878+0	3.1715+0	1.6138-2
2.2303-2	6.8461-3	1.1601+1	1.9823+3	9.2539+1	1.8743+1	1.8730+3			3.0350+0	3.0200+0	1.4848-2
2.2824-2	7.1569-3	1.1281+1	1.8242+3	8.5523+1	1.8803+1	1.8219+3			2.8814+0	2.8689+0	1.4538-2
2.2727-2	7.3814-3	1.0946+1	1.8705+3	7.7004+1	1.8858+1	1.7768+3			2.8336+0	2.8194+0	1.4178-2
2.3001-2	7.6810-3	1.0518+1	1.7973+3	6.2742+1	1.8932+1	1.7177+3			2.8706+0	2.8589+0	1.3705-2
2.3088-2	7.7534-3	1.0383+1	1.7759+3	6.0988+1	1.8958+1	1.6960+3			2.8494+0	2.8358+0	1.3547-2
2.3191-2	7.8290-3	1.0293+1	1.7589+3	6.3383+1	1.8983+1	1.6784+3			2.8282+0	2.8148+0	1.3390-2
K 2.3191-2	1.2828-3	6.3808+1	1.0903+4	6.3383+1	1.8983+1	1.0823+4			1.8229+1	7.1038+0	1.1128+1
2.3372-2	1.2888-3	6.2822+1	1.0701+4	7.6983+1	1.7032+1	1.0807+4			1.8003+1	7.0982+0	1.0907+1
2.3458-2	1.2978-3	6.2089+1	1.0610+4	8.4387+1	1.7054+1	1.0508+4			1.7891+1	7.0842+0	1.0807+1
2.3582-2	1.3121-3	6.1415+1	1.0494+4	9.2145+1	1.7082+1	1.0385+4			1.7752+1	7.0690+0	1.0883+1
2.3883-2	1.3258-3	6.0774+1	1.0385+4	9.7797+1	1.7109+1	1.0270+4			1.7621+1	7.0548+0	1.0588+1
2.3804-2	1.3458-3	5.8884+1	1.0233+4	1.0262+2	1.7148+1	1.0113+4			1.7443+1	7.0350+0	1.0408+1
2.4287-2	1.4172-3	5.8860+1	9.7181+3	1.1155+2	1.7275+1	9.5873+3			1.7484+1	6.8871+0	9.8761+0
2.5303-2	1.5718-3	5.1273+1	8.7815+3	1.1844+2	1.7533+1	8.8255+3			1.5738+1	6.8348+0	8.9019+0
2.6980-2	1.8538-3	4.3485+1	7.4271+3	1.1823+2	1.7875+1	7.2910+3			1.4178+1	6.8281+0	7.5471+0
3.0000-2	2.4307-3	3.3152+1	5.8949+3	1.1028+2	1.						

October 31, 1989
Atomic Weight 102.905

ENDL Evaluated
Photon Data

45-Rh
Density 12.410 Grams/cc

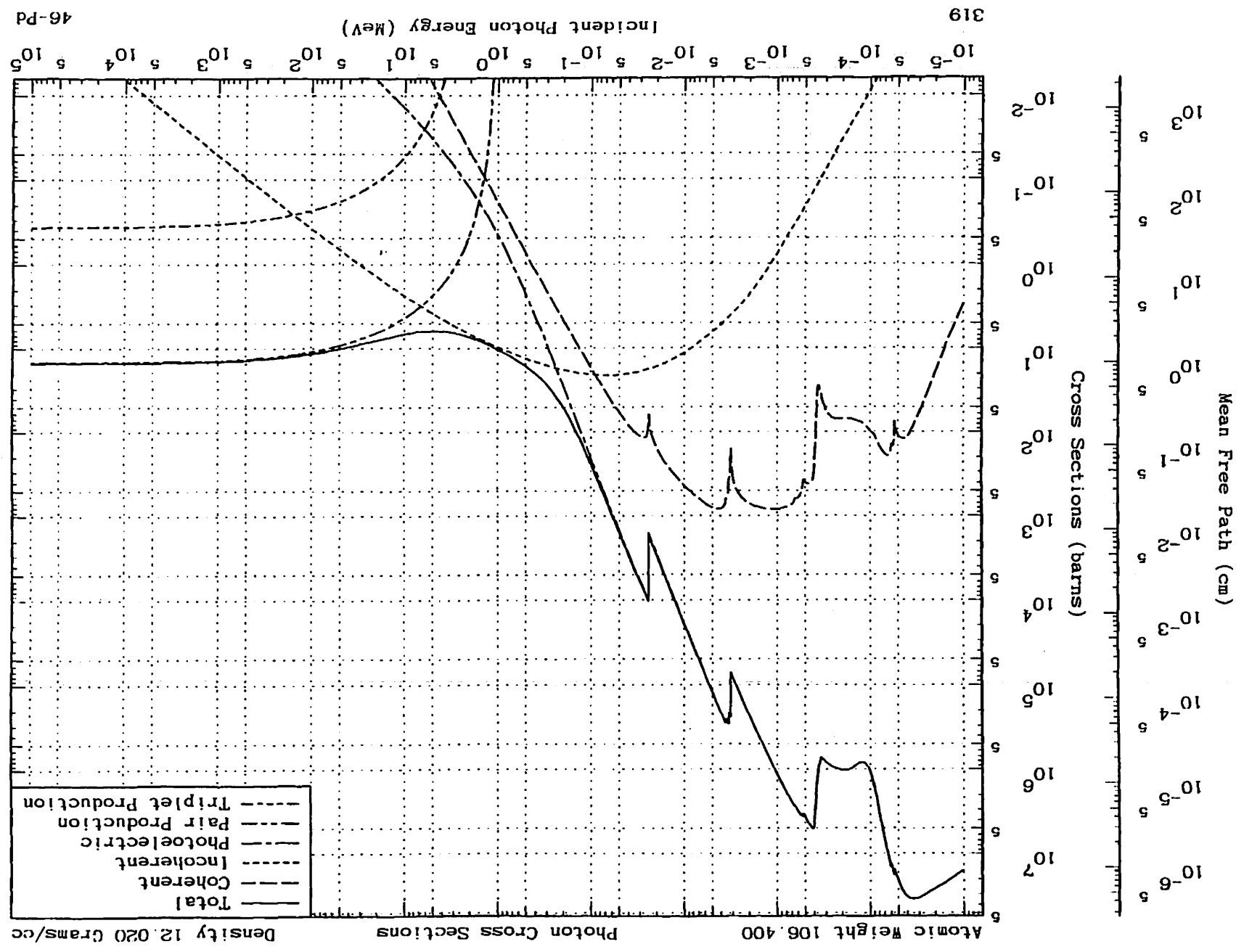
Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
3.0000-1	5.4158-1	1.4878-1	2.5425+1	1.0408+0	1.5514+1	7.9698+0			2.6638-1	2.5780-1	8.4809-3
3.5428-1	6.5452-1	1.2311-1	2.1037+1	1.3859+0	1.4629+1	5.0126+0			2.4051-1	2.3517-1	5.3348-3
4.2219-1	7.7161-1	1.0445-1	1.7847+1	9.8567-1	1.3711+1	3.1510+0			2.3128-1	2.2792-1	3.3548-3
5.2775-1	9.2103-1	8.7489-2	1.4850+1	6.3239-1	1.2552+1	1.7859+0			2.3688-1	2.3480-1	1.8800-3
6.8851-1	1.0865+0	7.3352-2	1.2534+1	3.7445-1	1.1223+1	9.3865+0			2.6385-1	2.6285-1	9.9778-4
9.8068-1	1.3551+0	5.8464-2	1.0161+1	1.8378-1	9.5476+0	4.2962-1			3.2904-1	3.2858-1	4.5780-4
1.0000+0	1.3701+0	5.8812-2	1.0050+1	1.7870-1	9.4806+0	4.1238-1			3.3343-1	3.3289-1	4.3980-4
1.0220+0	1.3878+0	5.8071-2	9.9231+0	1.6922-1	9.3815+0	3.9240-1			3.3813-1	3.3771-1	4.1830-4
1.0251+0	1.3902+0	5.7985-2	9.9049+0	1.6920-1	9.3467+0	3.9002-1	1.1888-7		3.3875-1	3.3834-1	4.1578-4
1.0287+0	1.3931+0	5.7842-2	9.8839+0	1.6702-1	9.3296+0	3.8727-1	1.1888-6		3.3948-1	3.3907-1	4.1284-4
1.0295+0	1.3937+0	5.7817-2	9.8786+0	1.6678-1	9.3261+0	3.8671-1	1.6266-6		3.3963-1	3.3922-1	4.1224-4
1.0301+0	1.3942+0	5.7796-2	9.8761+0	1.6659-1	9.3233+0	3.8626-1	2.0456-8		3.3975-1	3.3934-1	4.1178-4
1.0310+0	1.3949+0	5.7768-2	9.8710+0	1.6630-1	9.3183+0	3.8559-1	2.7991-8		3.3993-1	3.3952-1	4.1104-4
1.0320+0	1.3957+0	5.7733-2	9.8652+0	1.6588-1	9.3144+0	3.8484-1	3.8299-8		3.4013-1	3.3972-1	4.1024-4
1.0332+0	1.3967+0	5.7692-2	9.8583+0	1.6580-1	9.3088+0	3.8395-1	5.3651-8		3.4037-1	3.3996-1	4.0929-4
1.0340+0	1.3974+0	5.7668-2	9.8538+0	1.6534-1	9.3051+0	3.8305-1	6.5881-8		3.4053-1	3.4013-1	4.0868-4
1.0353+0	1.3984+0	5.7622-2	9.8484+0	1.6483-1	9.2990+0	3.8208-1	8.9397-8		3.4079-1	3.4038-1	4.0783-4
1.0368+0	1.3995+0	5.7577-2	9.8387+0	1.6450-1	9.2928+0	3.8141-1	1.1888-5		3.4108-1	3.4068-1	4.0658-4
1.0382+0	1.4009+0	5.7528-2	9.8299+0	1.6401-1	9.2858+0	3.8028-1	1.6040-5		3.4138-1	3.4097-1	4.0536-4
1.0397+0	1.4020+0	5.7478-2	9.8214+0	1.6354-1	9.2788+0	3.7917-1	2.0839-5		3.4168-1	3.4127-1	4.0420-4
1.0415+0	1.4034+0	5.7416-2	9.8112+0	1.6298-1	9.2703+0	3.7796-1	2.7277-5		3.4204-1	3.4163-1	4.0280-4
1.0438+0	1.4053+0	5.7341-2	9.7983+0	1.6227-1	9.2598+0	3.7620-1	3.8485-5		3.4250-1	3.4210-1	4.0103-4
1.0464+0	1.4074+0	5.7255-2	9.7837+0	1.6147-1	9.2478+0	3.7433-1	5.3545-5		3.4302-1	3.4262-1	3.9904-4
1.0483+0	1.4089+0	5.7183-2	9.7731+0	1.6089-1	9.2392+0	3.7298-1	6.8685-5		3.4340-1	3.4300-1	3.9760-4
1.0512+0	1.4112+0	5.7099-2	9.7570+0	1.6000-1	9.2280+0	3.7092-1	9.0430-5		3.4398-1	3.4358-1	3.9541-4
1.0541+0	1.4135+0	5.7008-2	9.7411+0	1.5914-1	9.2129+0	3.6890-1	1.1888-4		3.4456-1	3.4417-1	3.9325-4
1.0577+0	1.4164+0	5.6890-2	9.7212+0	1.5808-1	9.1966+0	3.6638-1	1.8201-4		3.4529-1	3.4489-1	3.9057-4
1.0611+0	1.4191+0	5.6781-2	9.7028+0	1.5705-1	9.1813+0	3.6404-1	2.1074-4		3.4597-1	3.4558-1	3.8807-4
1.0651+0	1.4223+0	5.6654-2	9.6809+0	1.5588-1	9.1635+0	3.6132-1	2.7899-4		3.4677-1	3.4638-1	3.8517-4
1.0704+0	1.4265+0	5.6487-2	9.6524+0	1.5435-1	9.1399+0	3.5775-1	3.8822-4		3.4783-1	3.4745-1	3.8138-4
1.0762+0	1.4311+0	5.6307-2	9.6218+0	1.5270-1	9.1144+0	3.5391-1	5.3791-4		3.4900-1	3.4862-1	3.7727-4
1.0806+0	1.4348+0	5.6171-2	9.5884+0	1.5148-1	9.0852+0	3.5103-1	6.7176-4		3.4988-1	3.4950-1	3.7421-4
1.0871+0	1.4398+0	5.5972-2	9.5544+0	1.4987-1	9.0670+0	3.4885-1	8.9058-4		3.5118-1	3.5081-1	3.6975-4
1.0937+0	1.4448+0	5.5773-2	9.5304+0	1.4789-1	9.0386+0	3.4688-1	1.1888-3		3.5261-1	3.5214-1	3.6530-4
1.1028+0	1.4517+0	5.5608-2	9.4852+0	1.4551-1	9.0008+0	3.4418-1	1.9479-3		3.5429-1	3.5383-1	3.5944-4
1.1107+0	1.4579+0	5.5271-2	9.4448+0	1.4341-1	8.9668+0	3.3228-1	2.1490-3		3.5592-1	3.5557-1	3.5422-4
1.1208+0	1.4665+0	5.4988-2	9.3959+0	1.4090-1	8.9257+0	3.2845-1	2.8746-3		3.5791-1	3.5756-1	3.4799-4
1.1333+0	1.4771+0	5.4628-2	9.3348+0	1.3779-1	8.8738+0	3.1918-1	3.8966-3		3.6048-1	3.6012-1	3.4025-4
1.1475+0	1.4857+0	5.4238-2	9.2681+0	1.3441-1	8.8168+0	3.1133-1	5.5177-3		3.6332-1	3.6299-1	3.3189-4
1.1562+0	1.4938+0	5.3851-2	9.2180+0	1.3185-1	8.7748+0	3.0581-1	6.8571-3		3.6548-1	3.6515-1	3.2578-4
1.1741+0	1.5052+0	5.3534-2	9.1478+0	1.2842-1	8.7128+0	2.9740-1	9.1655-3		3.6889-1	3.6837-1	3.1703-4
1.1801+0	1.5167+0	5.3128-2	9.0784+0	1.2501-1	8.6520+0	2.8962-1	1.1888-2		3.7194-1	3.7163-1	3.0883-4
1.2051+0	1.5272+0	5.2782-2	9.0159+0	1.2194-1	8.5981+0	2.8298-1	1.4800-2		3.7503-1	3.7473-1	3.0168-4
1.2275+0	1.5427+0	5.2234-2	8.9258+0	1.1755-1	8.5148+0	2.7363-1	1.9813-2		3.7968-1	3.7938-1	2.9189-4
1.2858+0	1.5882+0	5.1384-2	8.7804+0	1.1082-1	8.3810+0	2.5879-1	2.9981-2		3.8762-1	3.8734-1	2.7587-4
1.2949+0	1.5872+0	5.0768-2	8.7852+0	1.0569-1	8.2823+0	2.4822-1	3.8984-2		3.9376-1	3.9350-1	2.6481-4
1.3318+0	1.6105+0	5.0038-2	8.5500+0	9.9833-2	8.1827+0	2.3584-1	5.1518-2		4.0157-1	4.0132-1	2.5140-4
1.3826+0	1.6293+0	4.9458-2	8.4512+0	9.5484-2	8.0667+0	2.2622-1	6.2817-2		4.0813-1	4.0788-1	2.4115-4
1.3970+0	1.6497+0	4.8845-2	8.3465+0	9.0557-2	7.9633+0	2.1817-1	7.8185-2		4.1552-1	4.1529-1	2.3044-4
1.4558+0	1.6833+0	4.7871-2	8.1800+0	8.3894-2	7.7952+0	2.0053-1	1.0084-1		4.2830-1	4.2809-1	2.1377-4
1.5000+0	1.7074+0	4.7185-2	8.0648+0	7.8853-2	7.6755+0	1.8990-1	1.2040-1		4.3805-1	4.3785-1	2.0244-4
1.5898+0	1.7530+0	4.5867-2	7.8547+0	7.0218-2	7.4478+0	1.7186-1	1.6471-1		4.5841-1	4.5823-1	1.8321-4
1.7188+0	1.8117+0	4.4477-2	7.6001+0	6.0089-2	7.1532+0	1.5033-1	2.3842-1		4.8875-1	4.8859-1	1.6025-4
1.7847+0	1.8410+0	4.3770-2	7.4792+0	5.5753-2	7.0042+0	1.4092-1	2.7834-1		5.0351-1	5.0336-1	1.5023-4
1.8923+0	1.8851+0	4.2745-2	7.3042+0	4.9808-2	6.7788+0	1.2745-1	3.4858-1		5.2830-1	5.2818-1	1.3588-4
2.0440+0	1.9400+0	4.1537-2	7.0978+0	4.2533-2	6.4923+0	1.1180-1	4.5110-1		5.8483-1	5.8481-1	1.1818-4
2.0858+0	1.9551+0	4.1215-2	7.0427+0	4.0847-2	6.4148+0	1.0838-1	4.7884-1	4.5147-7	5.7482-1	5.7450-1	1.1551-4
2.0999+0	1.9601+0	4.1111-2	7.0250+0	4.0302-2	6.3893+0	1.0723-1	4.8818-1	1.0574-8	5.7794-1	5.7782-1	1.1431-4
2.1088+0	1.9624+0	4.1083-2	7.0187+0	4.0048-2	6.3772+0	1.0871-1	4.9273-1	1.4709-8	5.7952-1	5.7941-1	1.1375-4
2.1140+0	1.9649+0	4.1010-2	7.0077+0	3.9787-2	6.3639+0	1.0813-1	4.9781-1	2.0352-8	5.8129-1	5.8117-1	1.1314-4
2.1195+0	1.9688+0	4.0971-2	7.0010+0	3.9561-2	6.3542+0	1.0571-1	5.0181-1	2.5338-8	5.8280-1	5.8249-1	1.1289-4
2.1279+0	1.9698+0	4.0912-2	6.9910+0	3.9249-2	6.3393+0	1.0506-1	5.0745-1	3.4384-8	5.8482-1	5.8451-1	1.1200-4
2.1363+0	1.9723+0	4.0855-2	6.9812+0	3.8944-2	6.3248+0	1.0443-1	5.1330-1	4.5147-8	5.8683-1	5.8652-1	1.1132-4
2.1470+0	1.9759+0	4.0783-2	6.9688+0	3.8555-2	6.3058+0	1.0382-1	5.2090-1	6.1899-8	5.8924-1	5.8913-1	1.1046-4
2.1835+0	1.9811+0	4.0674-2	6.9503+0	3.7970-2	6.2772+0	1.0240-1	5.3270-1	8.4128-8	5.9327-1	5.9318-1	1.0918-4
2.1845+0	1.9882+0	4.0530-2	6.9257+0	3.7244-2	6.2413+0	1.0089-1	5.4622-1	1.4915-5	5.9827-1	5.9818-1	1.0754-4
2.2018+0	1.9938+0	4.0415-2	6.9061+0	3.6882-2	6.2122+0	9.9882-2	5.5752-1	2.0635-5	6.0242-1	6.0232-1	1.0624-4
2.2148+0	1.9980+0	4.0331-2	6.8917+0	3.6234-2	6.1905+0	9.8780-2	5.6810-1	2.5710-5	6.0557-1	6.0548-1	1.0528-4
2.2342+0	2.0041+0	4.0208-2	6.8707+0	3.5588-2	6.1586+0	9.7438-2	5.7908-1	3.4584-5	6.1030-1	6.1020-1	1.0387-4
2.2537+0	2.0100+0	4.0089-2	6.8504+0	3.4998-2	6.1270+0	9.6139-2	5.8225-1	4.5147-5	6.1511-1	6.1501-1	1.0249-4
2.2815+0	2.0182+0	3.9928-2	6.8225+0	3.4149-2	6.0825+0	9.4334-2	6.1142-1	6.3238-5	6.2207-1	6.2197-1	1.0058-4
2.3070+0	2.0255+0	3.9783-2	6.7981+0	3.3389-2	6.0428+0	9.2727-2	6.2931-1	8.3060-5	6.2853-1	6.2843-1	9.8848-5
2.3382+0	2.0340+0	3.9617-2	6.7697+0	3.2515-2	5.9948+0	9.0822-2	6.5183-1	1.1188-4	6.3858-1	6.3848-1	9.6817-5
2.3774+0	2.0442+0	3.9419-2	6.7358+0	3.1453-2	5.9358+0	8.8518-2	6.7988-1	1.5487-4	6.4882-1	6.4872-1	9.4381-5
2.4102+0	2.0532+0	3.9248-2	6.7063+0	3.0804-2	5.8877+0	8.6863-2	7.0108-1	1.9871-4	6.5515-1	6.5508-1	9.2384-5
2.4468+0	2.0628+0	3.9063-2	6.6751+0	2.9898-2	5.8353+0	8.4888-2	7.2513-1	2.5023-4	6.6481-1	6.6452-1	9.0257-5
2.4859+0	2.0725+0	3.8850-2	6.6438+0	2.8770-2	5.7807+0	8.2819-2	7.5133-1	3.1505-4	6.7489-1	6.7480-1	8.8073-5
2.5864+0	2.0887+0	3.8579-2	6.5823+0	2.7207-2	5.6856+0	7.9123-2	7.9991-1	4.5147-4	6.9395-1	6.9388-1	8.4348-5
2.6804+0	2.1099+0	3.8192									

October 31, 1989
Atomic Weight 102.905

ENDL Evaluated
Photon Data

45-Rh
Density 12.410 Grams/cc

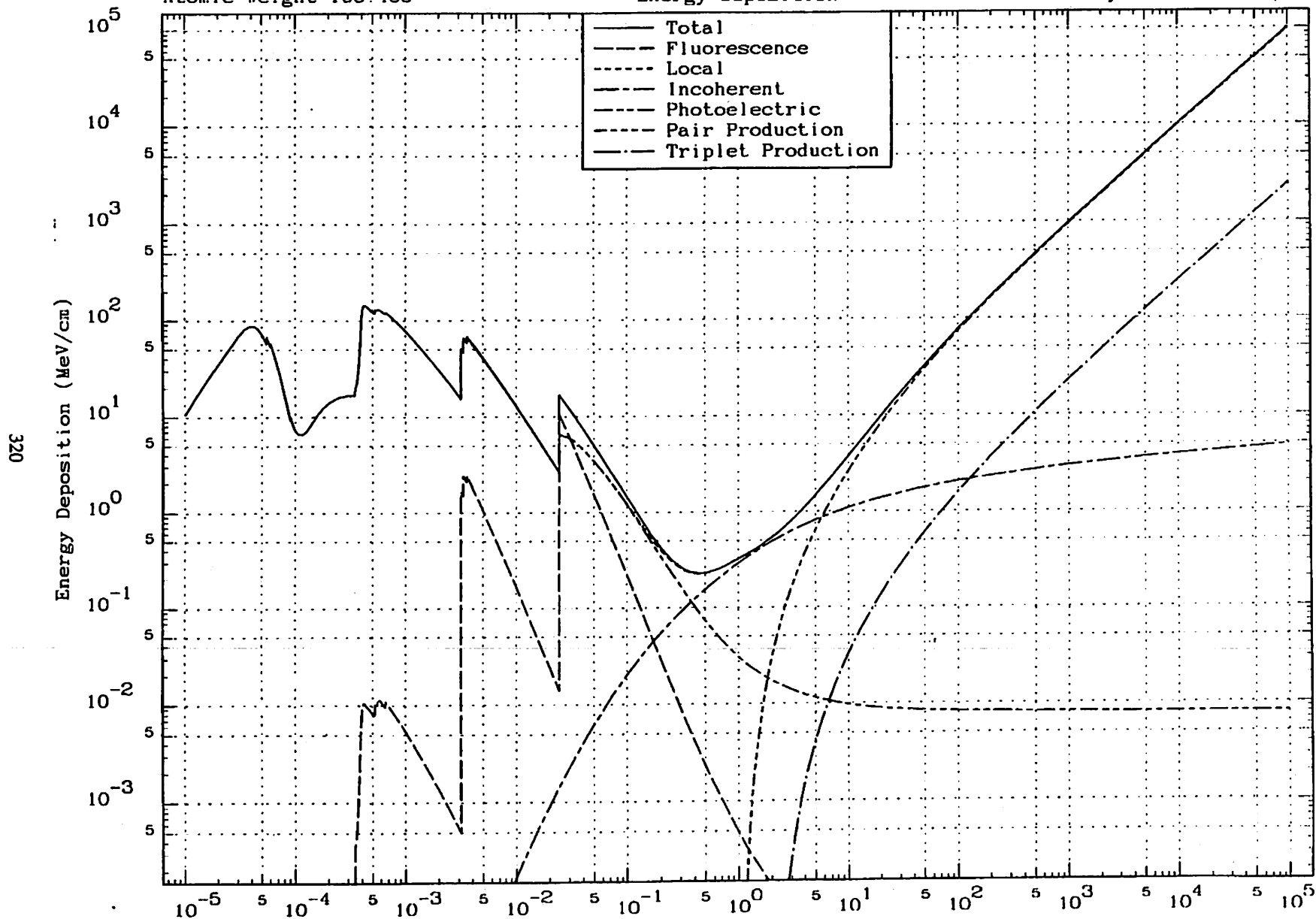
Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.2500+ 0	2.2838+ 0	3.5283- 2	6.0290+ 0	9.8523- 3	4.1290+ 0	3.7894- 2	1.8431+ 0	9.1470- 3	1.2240+ 0	1.2240+ 0	4.0395- 5
4.7500+ 0	2.2911+ 0	3.5171- 2	6.0100+ 0	7.8880- 3	3.8419+ 0	3.2648- 2	2.1147+ 0	1.2797- 2	1.4118+ 0	1.4115+ 0	3.4803- 5
5.5135+ 0	2.2893+ 0	3.5188- 2	6.0148+ 0	5.8551- 3	3.4882+ 0	2.6879- 2	2.4750+ 0	1.8751- 2	1.7129+ 0	1.7128+ 0	2.8853- 5
6.3840+ 0	2.2748+ 0	3.5422- 2	6.0529+ 0	4.3951- 3	3.1529+ 0	2.2401- 2	2.8478+ 0	2.5388- 2	2.0684+ 0	2.0684+ 0	2.3880- 5
7.4833+ 0	2.2389+ 0	3.6024- 2	6.1556+ 0	3.1788- 3	2.8129+ 0	1.8334- 2	3.2873+ 0	3.4039- 2	2.5775+ 0	2.5775+ 0	1.9544- 5
9.0000+ 0	2.1705+ 0	3.7126- 2	6.3440+ 0	2.1978- 3	2.4698+ 0	1.4880- 2	3.8120+ 0	4.5320- 2	3.3344+ 0	3.3344+ 0	1.5649- 5
1.0000+ 1	2.1252+ 0	3.7917- 2	6.4791+ 0	1.7802- 3	2.2931+ 0	1.2080- 2	4.1190+ 0	5.2230- 2	3.8677+ 0	3.8677+ 0	1.3815- 5
1.3000+ 1	2.0057+ 0	4.0178- 2	6.8652+ 0	1.0534- 3	1.8838+ 0	9.5830- 3	4.9000+ 0	7.0730- 2	5.5781+ 0	5.5781+ 0	1.0218- 5
1.8000+ 1	1.8497+ 0	4.3565- 2	7.4443+ 0	5.4849- 4	1.4754+ 0	6.6830- 3	5.8660+ 0	9.5660- 2	8.7495+ 0	8.7495+ 0	7.1028- 6
2.8000+ 1	1.6810+ 0	4.7938- 2	8.1912+ 0	2.6337- 4	1.1032+ 0	4.4720- 3	6.9580+ 0	1.2530- 1	1.4398+ 1	1.4398+ 1	4.7872- 6
4.2170+ 1	1.4806+ 0	5.4059- 2	9.2374+ 0	1.0012- 4	7.5266- 1	2.6829- 3	8.3178+ 0	1.8420- 1	2.7110+ 1	2.7110+ 1	2.8600- 6
6.0000+ 1	1.3788+ 0	5.8528- 2	1.0001+ 1	4.8455- 5	5.8242- 1	1.8600- 3	9.2450+ 0	1.9190- 1	4.2328+ 1	4.2328+ 1	1.9828- 6
1.0000+ 2	1.2497+ 0	6.4481- 2	1.1018+ 1	1.7604- 5	3.8878- 1	1.1020- 3	1.0420+ 1	2.2840- 1	7.6878+ 1	7.6878+ 1	1.1747- 6
2.0000+ 2	1.1338+ 0	7.1071- 2	1.2145+ 1	4.4510- 6	2.0397- 1	5.4560- 4	1.1670+ 1	2.7000- 1	1.7498+ 2	1.7498+ 2	5.8161- 7
5.0000+ 2	1.0489+ 0	7.8850- 2	1.3132+ 1	7.1215- 7	9.2292- 2	2.1700- 4	1.2730+ 1	3.0940- 1	4.7533+ 2	4.7533+ 2	2.3132- 7
1.0000+ 3	1.0147+ 0	7.9409- 2	1.3589+ 1	1.7604- 7	5.0286- 2	1.0830- 4	1.3190+ 1	3.2890- 1	9.8391+ 2	9.8391+ 2	1.1545- 7
5.0000+ 3	9.8051- 1	8.2182- 2	1.4043+ 1	7.1218- 9	1.1892- 2	2.1820- 5	1.3880+ 1	3.5120- 1	5.0978+ 3	5.0978+ 3	2.3047- 8
1.0000+ 4	9.7508- 1	8.2841- 2	1.4122+ 1	1.7604- 9	8.3499- 3	1.0810- 5	1.3780+ 1	3.5520- 1	1.0254+ 4	1.0254+ 4	1.1524- 8
1.0000+ 5	9.6896- 1	8.3162- 2	1.4211+ 1	1.7802- 11	7.8697- 4	1.0810- 6	1.3850+ 1	3.5970- 1	1.0320+ 5	1.0320+ 5	1.1524- 9



October 31, 1989
Atomic Weight 106.400

ENDL Evaluated
Energy Deposition

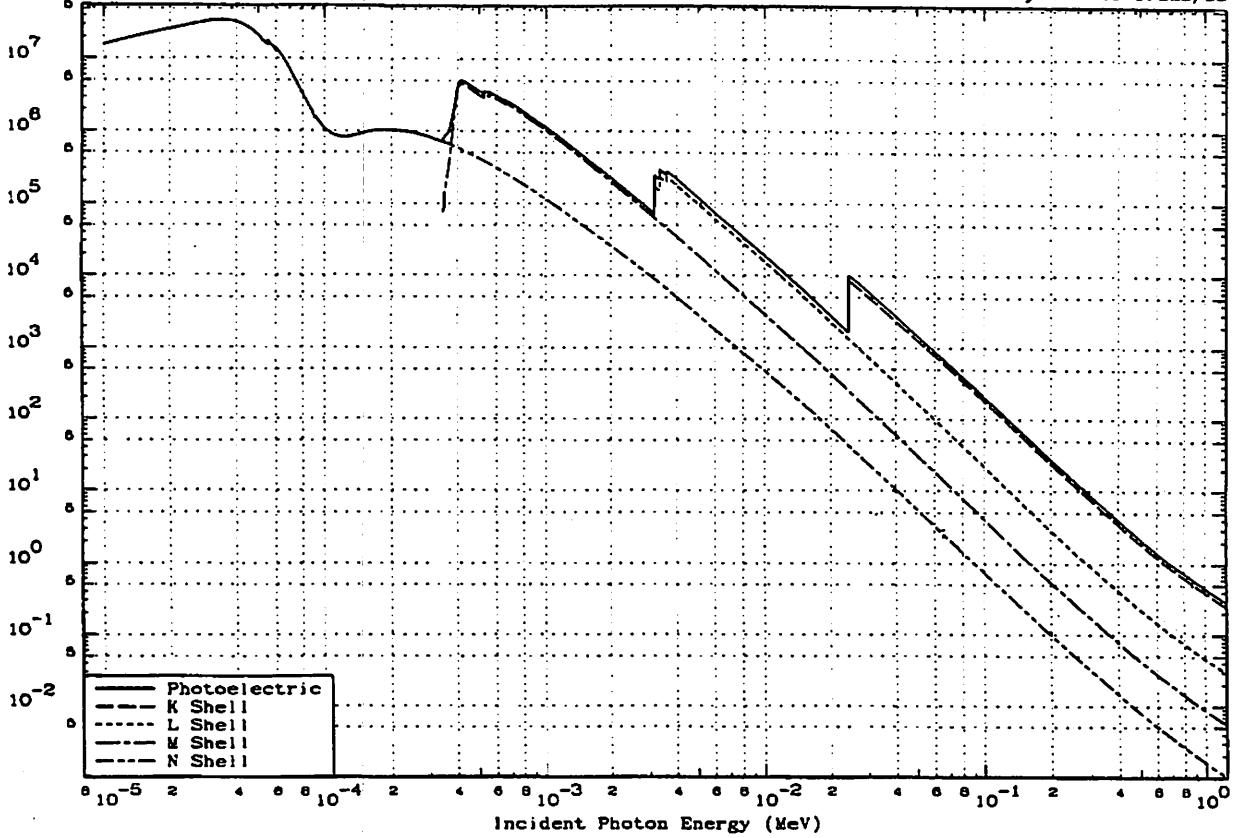
46-Pd
Density 12.020 Grams/cc



October 31, 1989
Atomic Weight 106.400

ENDL Evaluated
Photoelectric Shell Cross Sections

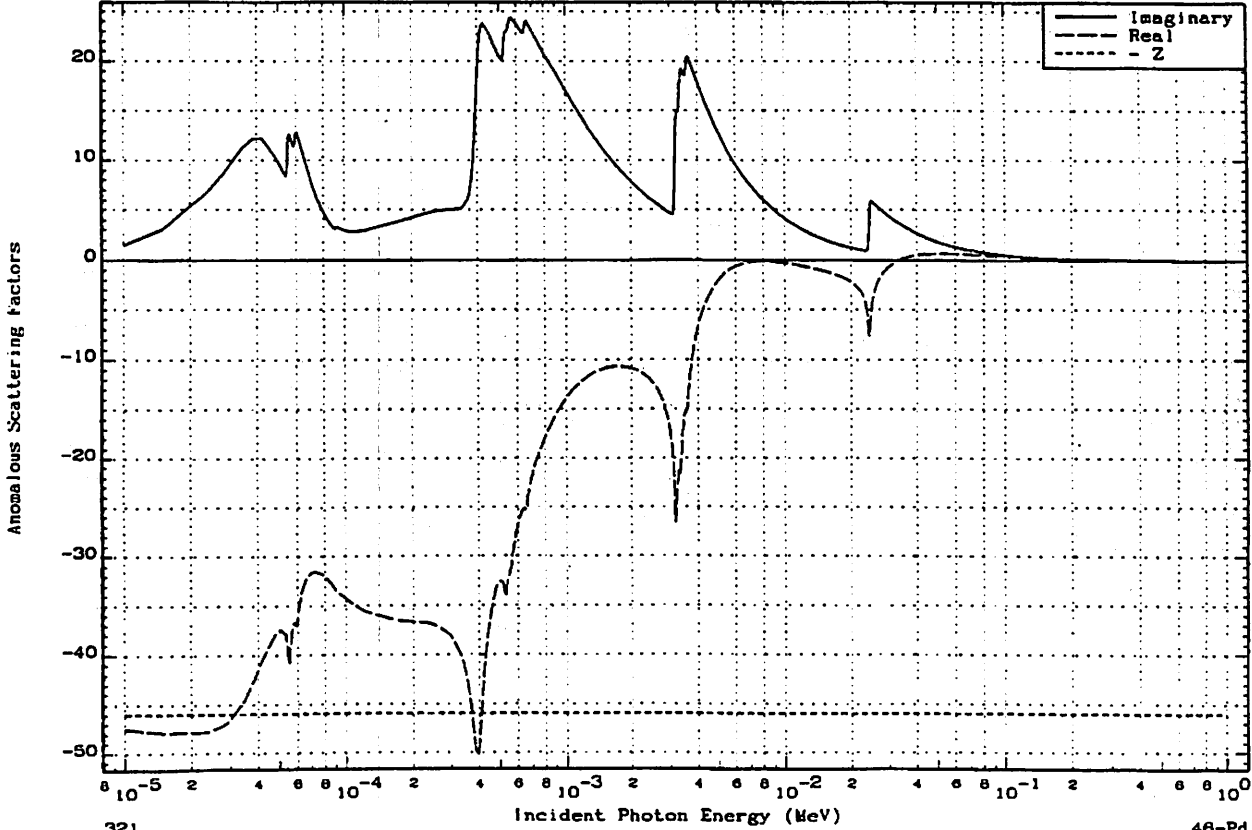
46-Pd
Density 12.020 Grams/cc

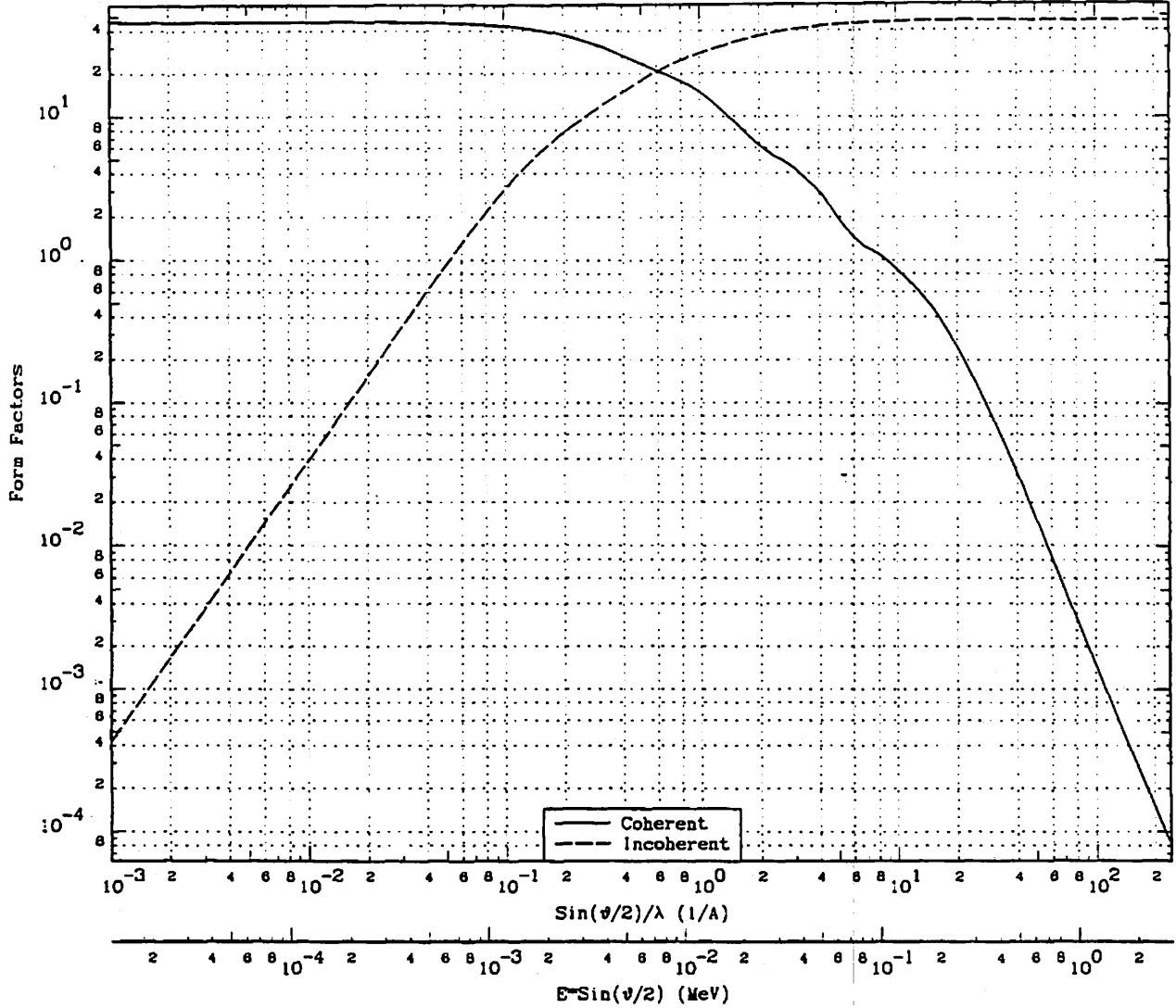


October 31, 1989
Atomic Weight 106.400

ENDL Evaluated
Anomalous Scattering Factors

46-Pd
Density 12.020 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E^*\text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	4.8000+ 1	0.0000+ 0	8.0000- 1	7.4391- 3	2.1038+ 1	2.0653+ 1	1.5000+ 1	1.8598- 1	4.7080- 1	4.5878+ 1
1.0000- 3	1.2399- 5	4.8000+ 1	4.2422- 4	7.0000- 1	8.6790- 3	1.9189+ 1	2.2804+ 1	1.7847+ 1	2.2128- 1	3.2483- 1	4.5944+ 1
5.0000- 3	6.1993- 5	4.5992+ 1	1.0000- 2	8.0000- 1	9.9188- 3	1.7569+ 1	2.4756+ 1	2.0000+ 1	2.4797- 1	2.4597- 1	4.5971+ 1
1.0000- 2	1.2399- 4	4.5999+ 1	3.9000- 2	9.0000- 1	1.1159- 2	1.8134+ 1	2.6316+ 1	2.4430+ 1	3.0290- 1	1.4423- 1	4.5995+ 1
1.5000- 2	1.8598- 4	4.5929+ 1	8.8100- 2	1.0000+ 0	1.2399- 2	1.4747+ 1	2.7877+ 1	3.0970+ 1	3.8398- 1	7.2127- 2	4.6008+ 1
2.0000- 2	2.4797- 4	4.5875+ 1	1.5590- 1	1.2500+ 0	1.5498- 2	1.1591+ 1	3.0550+ 1	3.9073+ 1	4.8445- 1	3.4830- 2	4.6003+ 1
2.5000- 2	3.0996- 4	4.5805+ 1	2.4210- 1	1.5000+ 0	1.8598- 2	9.0843+ 0	3.2888+ 1	5.0000+ 1	6.1993- 1	1.5518- 2	4.6000+ 1
3.0000- 2	3.7196- 4	4.5720+ 1	3.4820- 1	2.0000+ 0	2.4797- 2	8.2974+ 0	3.6349+ 1	8.0000+ 1	9.9188- 1	3.1668- 3	4.6000+ 1
4.0000- 2	4.9594- 4	4.5507+ 1	6.0430- 1	2.5000+ 0	3.0996- 2	5.1029+ 0	3.8703+ 1	1.0000+ 2	1.2399+ 0	1.4838- 3	4.6000+ 1
5.0000- 2	6.1993- 4	4.5238+ 1	9.2300- 1	3.0000+ 0	3.7196- 2	4.3373+ 0	4.0389+ 1	1.7111+ 2	2.1215+ 0	2.4840- 4	4.6000+ 1
7.0000- 2	8.6790- 4	4.4545+ 1	1.7050+ 0	3.5000+ 0	4.3395- 2	3.5718+ 0	4.1827+ 1	2.8861+ 2	3.5783+ 0	4.5842- 5	4.6000+ 1
9.0000- 2	1.1159- 3	4.3675+ 1	2.8188+ 0	4.0000+ 0	4.9594- 2	3.0394+ 0	4.2529+ 1	5.6782+ 2	7.0378+ 0	5.4805- 6	4.6000+ 1
1.0000- 1	1.2399- 3	4.3185+ 1	3.1030+ 0	4.2344+ 0	6.2500- 2	2.7595+ 0	4.2881+ 1	1.0000+ 3	1.2399+ 1	9.5540- 7	4.6000+ 1
1.2500- 1	1.5498- 3	4.1838+ 1	4.3342+ 0	5.0000+ 0	6.1993- 2	1.9751+ 0	4.3658+ 1	2.6333+ 3	3.2649+ 1	5.1270- 8	4.6000+ 1
1.5000- 1	1.8598- 3	4.0368+ 1	5.5360+ 0	5.6309+ 0	6.9815- 2	1.8202+ 0	4.4094+ 1	6.8119+ 3	8.1978+ 1	3.3491- 9	4.6000+ 1
1.7500- 1	2.1697- 3	3.8829+ 1	6.6885+ 0	6.0000+ 0	7.4391- 2	1.4788+ 0	4.4293+ 1	1.4899+ 4	1.8473+ 2	3.1216-10	4.6000+ 1
2.0000- 1	2.4797- 3	3.7274+ 1	7.7250+ 0	7.0000+ 0	8.6790- 2	1.2248+ 0	4.4710+ 1	4.2846+ 4	5.2875+ 2	1.5013-11	4.6000+ 1
2.5000- 1	3.0996- 3	3.4239+ 1	9.6545+ 0	8.0000+ 0	9.9188- 2	1.1038+ 0	4.5019+ 1	1.0000+ 6	1.2399+ 4	1.8670-15	4.6000+ 1
3.0000- 1	3.7196- 3	3.1444+ 1	1.1441+ 1	9.2817+ 0	1.1483- 1	9.4787- 1	4.5310+ 1	5.8234+ 6	6.9722+ 4	1.3307-17	4.6000+ 1
4.0000- 1	4.9594- 3	2.8838+ 1	1.4824+ 1	1.0000+ 1	1.2399- 1	8.8180- 1	4.5445+ 1	7.4989+ 7	9.2975+ 5	7.5735-21	4.6000+ 1
5.0000- 1	6.1993- 3	2.3472+ 1	1.7943+ 1	1.2802+ 1	1.5873- 1	6.1823- 1	4.5756+ 1	1.0000+ 9	1.2399+ 7	4.1811-24	4.6000+ 1

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	9.3846-7	8.8650+4	1.5663+7	2.9191+0	9.1794-5	1.5663+7			1.0656+1	1.0656+1	
1.5000-5	6.8661-7	1.2117+5	2.1408+7	8.4624+0	2.0547-4	2.1408+7			2.1846+1	2.1846+1	
2.3849-5	5.0688-7	1.6323+5	2.8839+7	3.2114+1	5.1285-4	2.8839+7			4.8791+1	4.6791+1	
3.0000-5	4.4327-7	1.8768+5	3.3160+7	5.8945+1	8.0436-4	3.3160+7			8.7879+1	8.7679+1	
3.4684-5	4.2579-7	1.8539+5	3.4521+7	6.6278+1	1.0682-3	3.4521+7			8.1411+1	8.1411+1	
3.8587-5	4.3826-7	1.8940+5	3.3463+7	1.0780+2	1.3184-3	3.3463+7			8.7845+1	8.7845+1	
4.2295-5	4.8195-7	1.7262+5	3.0499+7	1.2146+2	1.5786-3	3.0499+7			8.7758+1	8.7758+1	
4.5988-5	5.5877-7	1.4889+5	2.8308+7	1.1914+2	1.8604-3	2.8308+7			8.2299+1	8.2299+1	
4.7798-5	8.1848-7	1.3488+5	2.3844+7	1.1809+2	2.0069-3	2.3844+7			7.7538+1	7.7538+1	
5.0477-5	7.1391-7	1.1853+5	2.0589+7	1.1110+2	2.2337-3	2.0589+7			7.0704+1	7.0704+1	
5.2981-5	8.4148-7	9.8867+4	1.7460+7	9.4662+1	2.4564-3	1.7468+7			6.2962+1	6.2962+1	
5.4338-5	9.1691-7	9.0734+4	1.6031+7	7.4956+1	2.5814-3	1.6031+7			5.9262+1	5.9262+1	
5.4544-5	9.2878-7	8.9574+4	1.5826+7	7.3943+1	2.6007-3	1.5826+7			5.8727+1	5.8727+1	
5.4746-5	8.4017-7	8.8460+4	1.5629+7	7.6540+1	2.6196-3	1.5629+7			5.8211+1	5.8211+1	
5.5090-5	9.6232-7	8.6452+4	1.5275+7	9.1533+1	2.6520-3	1.5274+7			5.7247+1	5.7247+1	
N3 5.5090-5	8.0548-7	1.0329+5	1.8249+7	9.1533+1	2.6520-3	1.8249+7			6.8396+1	6.8396+1	4.5184-5
5.5539-5	8.3234-7	9.9952+4	1.7660+7	1.2079+2	2.8946-3	1.7660+7			6.8725+1	6.8725+1	4.4035-5
5.5735-5	8.4434-7	9.8533+4	1.7409+7	1.3140+2	2.7133-3	1.7409+7			6.6010+1	6.6010+1	4.3551-5
5.8010-5	8.6135-7	9.8587+4	1.7065+7	1.4113+2	2.7397-3	1.7065+7			6.5028+1	6.5028+1	4.2888-5
5.8556-5	8.8587-7	9.2864+4	1.6407+7	1.4822+2	2.7924-3	1.6407+7			6.3129+1	6.3129+1	4.1605-5
5.7785-5	9.7789-7	8.5067+4	1.5030+7	1.4804+2	2.9136-3	1.5030+7			5.8094+1	5.8094+1	3.8883-5
5.9181-5	1.0773-6	7.7227+4	1.3845+7	1.4078+2	3.0534-3	1.3844+7			5.4844+1	5.4844+1	3.6089-5
5.9680-5	1.1138-6	7.4888+4	1.3197+7	1.5055+2	3.1032-3	1.3197+7			5.3583+1	5.3583+1	3.5173-5
N2 5.9680-5	1.0130-6	8.2129+4	1.4511+7	1.5055+2	3.1032-3	1.4511+7			5.8915+1	5.8915+1	6.2886-5
8.0419-5	1.0822-6	7.8321+4	1.3538+7	1.7643+2	3.1789-3	1.3538+7			5.6878+1	5.6878+1	6.1040-5
6.0880-5	1.0944-6	7.8021+4	1.3432+7	1.8482+2	3.2268-3	1.3431+7			5.5830+1	5.5830+1	5.9775-5
8.2485-5	1.2328-6	8.7486+4	1.1924+7	1.9384+2	3.3970-3	1.1923+7			5.0893+1	5.0893+1	5.5076-5
6.6430-6	1.6439-6	6.0607+4	8.8413+6	1.9074+2	3.8296-3	8.8411+6			4.0408+1	4.0408+1	4.4217-5
7.1685-5	2.4451-6	3.4025+4	8.0115+6	1.7527+2	4.4469-3	8.0113+6			2.9318+1	2.9318+1	3.2535-5
8.0039-5	4.5873-6	1.8138+4	3.2042+6	1.4533+2	5.5211-3	3.2041+6			1.7447+1	1.7447+1	2.0669-5
8.7389-5	7.7785-6	1.0865+4	1.8897+6	1.2010+2	6.8503-3	1.8896+6			1.1234+1	1.1234+1	1.5039-5
9.0000-5	9.3175-6	8.9288+3	1.5776+6	1.1027+2	6.9507-3	1.5776+6			9.6585+0	9.6585+0	1.3478-5
9.1010-5	9.8445-6	8.3659+3	1.4781+6	1.0731+2	7.1048-3	1.4780+6			8.1511+0	8.1511+0	1.2878-5
N1 9.1010-5	9.1318-6	9.1106+3	1.8097+6	1.0731+2	7.1048-3	1.8095+6			9.9858+0	9.9858+0	1.5503-5
9.2983-5	1.0156-5	8.1919+3	1.4474+6	1.0854+2	7.4070-3	1.4473+6			8.1531+0	8.1531+0	1.4724-5
9.8157-5	1.2880-5	6.4885+3	1.1430+6	9.9139+1	8.2412-3	1.1429+6			7.8324+0	7.8324+0	1.3311-5
1.0000-4	1.3745-5	6.0528+3	1.0894+6	9.8429+1	8.5478-3	1.0893+6			7.2748+0	7.2748+0	1.2890-5
1.0805-4	1.5810-5	5.2620+3	9.2970+5	8.9111+1	9.8040-3	9.2981+5			6.7087+0	6.7087+0	1.1982-5
1.1198-4	1.7137-5	4.8547+3	8.5774+5	8.3589+1	1.0700-2	8.5766+5			6.5337+0	6.5337+0	1.1282-5
1.1992-4	1.7828-5	4.6665+3	8.2448+5	7.8294+1	1.2259-2	8.2441+5			6.7259+0	6.7259+0	1.0719-5
1.2882-4	1.7765-5	4.8829+3	8.2739+5	7.5823+1	1.3899-2	8.2731+5			7.1380+0	7.1378+0	1.0392-5
1.3782-4	1.6887-5	4.8288+3	8.7044+5	7.3489+1	1.6182-2	8.7037+5			8.1889+0	8.1889+0	1.0039-5
1.8119-4	1.4862-5	5.5840+3	9.8305+5	6.9830+1	2.2049-2	9.8298+5			1.0779+1	1.0779+1	9.4488-6
1.7714-4	1.4415-5	5.7714+3	1.0197+6	8.8849+1	2.6563-2	1.0196+6			1.2288+1	1.2288+1	9.1140-6
2.0000-4	1.4259-5	5.8343+3	1.0308+6	8.9114+1	3.3837-2	1.0308+6			1.4025+1	1.4025+1	8.7049-6
2.3883-4	1.5185-5	5.4752+3	9.8737+5	8.9803+1	4.8123-2	9.8730+5			1.5717+1	1.5717+1	7.7748-6
2.5788-4	1.5833-5	5.2545+3	9.2837+5	8.7387+1	5.8956-2	9.2830+5			1.8274+1	1.8274+1	7.3227-6
2.8658-4	1.7725-5	4.6936+3	8.2927+5	5.7887+1	7.3974-2	8.2921+5			1.8732+1	1.8732+1	6.4876-6
3.3304-4	2.0020-5	4.1556+3	7.3421+5	3.6836+1	9.2955-2	7.3417+5			1.8634+1	1.8634+1	5.7903-6
3.4008-4	2.0476-5	4.0830+3	7.1785+5	3.3517+1	9.8828-2	7.1782+5			1.8807+1	1.8807+1	5.6712-6
3.4251-4	2.0834-5	4.0319+3	7.1238+5	3.2807+1	9.8187-2	7.1232+5			1.8598+1	1.8598+1	5.6311-6
N5 3.4251-4	1.8852-5	4.4604+3	7.8807+5	3.2607+1	9.8187-2	7.8804+5			1.8363+1	1.8363+1	6.8441-6
3.8824-4	1.8820-5	4.4680+3	7.8942+5	3.0586+1	1.0142-1	7.8939+5			1.8702+1	1.8702+1	6.7388-6
N4 3.4824-4	1.7385-5	4.7855+3	8.4550+5	3.0586+1	1.0142-1	8.4547+5			2.0030+1	2.0030+1	3.6818-4
3.5520-4	1.8715-5	4.8772+3	8.7838+5	2.8337+1	1.0542-1	8.7835+5			2.1250+1	2.1249+1	4.2615-4
3.8057-4	1.6883-5	5.3013+3	9.3684+5	2.7381+1	1.0855-1	9.3681+5			2.2976+1	2.2975+1	5.3532-4
3.8628-4	1.3805-5	5.9831+3	1.0571+6	2.9331+1	1.1193-1	1.0571+6			2.8341+1	2.8340+1	7.5219-4
3.8900-4	1.3010-5	6.3948+3	1.1269+6	3.2265+1	1.1356-1	1.1269+6			2.8383+1	2.8382+1	8.9939-4
3.7115-4	1.2104-5	6.8730+3	1.2143+6	3.4778+1	1.1489-1	1.2143+6			3.0682+1	3.0681+1	1.0588-3
3.7499-4	1.0669-5	7.8054+3	1.3791+6	4.2921+1	1.1719-1	1.3790+6			3.5180+1	3.5179+1	1.4121-3
3.7607-4	8.9238-6	9.3230+3	1.8472+6	5.8952+1	1.1970-1	1.8471+6			4.2478+1	4.2478+1	1.9838-3
3.8377-4	7.2300-6	1.1507+4	2.0330+6	8.1881+1	1.2281-1	2.0330+6			5.3078+1	5.3078+1	2.8562-3
3.8924-4	5.5882-6	1.4941+4	2.6388+6	1.2522-1	1.2805-1	2.6397+6			6.8600+1	6.8696+1	4.3840-3
3.9502-4	4.2613-6	1.9523+4	3.4494+6	1.8932-2	1.2973-1	3.4493+6			9.2698+1	9.2689+1	6.8343-3
4.0000-4	3.5062-6	2.3728+4	4.1823+6	2.4863+2	1.3284-1	4.1821+6			1.1408+2	1.1407+2	8.7812-3
4.0081-4	3.4408-6	2.4179+4	4.2720+6	2.5976+2	1.3346-1	4.2718+6			1.1648+2	1.1647+2	8.9833-3
4.0402-4	3.1828-6	2.8057+4	4.6038+6	2.9303+2	1.3556-1	4.6035+6			1.2653+2	1.2652+2	9.8327-3
4.0892-4	2.8760-6	2.7955+4	4.8392+6	3.3553+2	1.3879-1	4.8389+6			1.3740+2	1.3739+2	1.0331-2
4.1388-4	2.8041-6	2.8647+4	5.0814+6	3.6259+2	1.4209-1	5.0810+6			1.4250+2	1.4249+2	1.0443-2
4.2284-4	2.9072-6	2.8817+4	5.0560+6	3.8208+2	1.4823-1	5.0558+6			1.4547+2	1.4548+2	1.0394-2
4.5375-4	3.2868-6	2.5221+4	4.4581+6	4.1577+2	1.7008-1	4.4557+6			1.3755+2	1.3754+2	9.4381-3
4.7719-4	3.8771-6	2.2625+4	3.8975+6	4.1481+2	1.8783-1	3.8970+6			1.2878+2	1.2875+2	8.8035-3
5.0000-4	4.0888-6	2.0458+4	3.8146+6	3.8847+2	2.0565-1	3.8142+6			1.2294+2	1.2293+2	8.2551-3
5.2084-4	4.3758-6	1.9012+4	3.3591+6	3.7142+2	2.2261-1	3.3589+6			1.1801+2	1.1801+2	7.6794-3
5.2463-4	4.4331-6	1.8767+4	3.3157+6	3.8088+2	2.2578-1	3.3153+6			1.1833+2	1.1832+2	7.5815-3
5.2680-4	4.4882-6	1.8627+4	3.2911+6	3.9768+2	2.2781-1	3.2907+6			1.1784+2	1.1783+2	7.5263-3
N3 5.2880-4	4.0507-6	2.0538+4	3.6287+6	3.9768+2	2.2781-1	3.6283+6			1.3004+2	1.3003+2	1.0234-2
5.3375-4	4.1232-6	2.0177+4	3.5848+6	4.5285+2	2.3351-1	3.5845+6			1.2943+2	1.2942+2	1.0166-2
5.5070-4	4.3017-6	1.9340+4	3.4170+6	4.9076+2	2.4821-1	3.4165+6			1.2800+2	1.2799+2	1.0006-2
5.5525-4	4.3518-6	1.9117+4	3.3778+6	5.1284+2	2.5223-1	3.3771+6			1.2757+2	1.2756+2	9.8513-3
N2 5.5525-4	4.1781-6	1.9912+4	3.5181+6	5.1284+2	2.5223-1	3.5178+6			1.3288+2	1.3288+2	1.1707-2
5.8875-4	4.3027-6	1.8336+4	3.4182+6	5.8308+2	2.6239-1	3.4157+6			1.3170+2	1.3169+2	1.1552-2
6.0000-4	4.7304-6	1.7587+4	3.1073+6	8.1134+2	2.9212-1	3.1087+6			1.2681+2	1.2680+2	1.0811-2
6.2303-4	5.0737-6	1.8397+4	2.8971+6	8.2584+2	3.1358-1	2.8985+6			1.2277+2	1.2278+2	1.0239-2
6.5083-4	5.5092-6	1.5101+4	2.6881+6	8.2267+2	3.4044-1	2.6875+6			1.1811+2	1.18	

Energy MeV	Total Mean Free Path cm	cm ² /g	Cross Sections (barns)					Energy Deposition (MeV/cm)		
			Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local
6.6803-4	5.5413-6	1.5014+4	2.6526+6	6.9670+2	3.5758-1	2.6519-6	1.2052+2	1.2051+2	0.0597-2	
7.0000-4	6.0430-6	1.3767+4	2.4324+6	7.3584+2	3.9047-1	2.4317-6	1.1580+2	1.1579+2	9.8763-3	
8.0782-4	8.1019-6	1.0269+4	1.8143+6	7.9820+2	5.1135-1	1.8135-6	9.9664+1	9.9656+1	7.8497-3	
1.0000-3	1.2729-5	6.5361+3	1.1548+6	8.4012+2	7.5563-1	1.1540-6	7.6506+1	7.6501+1	5.4395-3	
1.3554-3	2.5497-5	3.2629+3	5.7649+5	8.2970+2	1.2715-0	5.7566+5	5.3082+1	5.3079+1	3.0456-3	
1.7154-3	4.4705-5	1.8610+3	3.2880+5	7.7475+2	1.8430-0	3.2802+5	3.8282+1	3.8280+1	1.8889-3	
2.1608-3	7.8150-5	1.0645+3	1.8809+5	6.7779+2	2.5543-0	1.8741+5	2.7549+1	2.7548+1	1.1610-3	
2.4087-3	1.0229-4	8.1331+2	1.4370+5	6.0851+2	2.9337-0	1.4309+5	2.3447+1	2.3446+1	9.1519-4	
2.6317-3	1.2741-4	6.5297+2	1.1537+5	5.3550-2	3.2787-0	1.1483+5	2.0559+1	2.0558+1	7.5383-4	
2.7738-3	1.4549-4	5.7184+2	1.0103+5	4.7700-2	3.4844-0	1.0055+5	1.8974+1	1.8973+1	6.7016-4	
2.9054-3	1.6405-4	5.0714+2	8.9603+4	4.1160+2	3.6770-0	8.9187+4	1.7629+1	1.7628+1	6.0217-4	
2.9803-3	1.7524-4	4.7475+2	8.3879+4	3.6398+2	3.7871+0	8.3511+4	1.6932+1	1.6932+1	5.6787-4	
3.0449-3	1.8530-4	4.4897+2	7.9325+4	3.1112+2	3.8823+0	7.9010+4	1.6367+1	1.6366+1	5.4049-4	
3.0870-3	1.9208-4	4.3312+2	7.6524+4	2.8236+2	3.9421+0	7.6257+4	1.6015+1	1.6015+1	5.2368-4	
3.1071-3	1.9540-4	4.2578+2	7.5223+4	2.3117+2	3.9889+0	7.4989+4	1.5851+1	1.5851+1	5.1588-4	
3.1272-3	1.9877-4	4.1854+2	7.3948+4	1.9335+2	3.9957+0	7.3751+4	1.5690+1	1.5690+1	5.0828-4	
3.1446-3	2.0172-4	4.1242+2	7.2867+4	1.6530+2	4.0190+0	7.2698+4	1.5533+1	1.5532+1	5.0181-4	
3.1507-3	2.0274-4	4.1034+2	7.2500+4	1.6062+2	4.0271+0	7.2335+4	1.5505+1	1.5505+1	4.9957-4	
3.1575-3	2.0368-4	4.0805+2	7.2095+4	1.6021+2	4.0383+0	7.1931+4	1.5452+1	1.5451+1	4.9708-4	
3.1706-3	2.0601-4	4.0383+2	7.1349+4	1.7820+2	4.0537+0	7.1169+4	1.5351+1	1.5351+1	4.9438-4	
L3 3.1706-3	6.1529-5	1.3521+3	2.3889+5	1.7620+2	4.0537+0	2.3871+5	5.1491+1	4.9824+1	1.6674+0	
3.1971-3	6.2744-5	1.3259+3	2.3427+5	2.5227+2	4.0891+0	2.3401+5	5.0999+1	4.9284+1	1.6355+0	
3.2081-3	6.3250-5	1.3153+3	2.3240+5	2.8519+2	4.1038+0	2.3211+5	5.0657+1	4.9035+1	1.6225+0	
3.2256-3	6.4068-5	1.2985+3	2.2943+5	3.2338+2	4.1273+0	2.2910+5	5.0275+1	4.8673+1	1.6021+0	
3.2447-3	6.4967-5	1.2806+3	2.2625+5	3.4632+2	4.1527+0	2.2590+5	4.9866+1	4.8286+1	1.5804+0	
3.2747-3	6.6040-5	1.2529+3	2.2136+5	3.5741+2	4.1829+0	2.2100+5	4.9234+1	4.7687+1	1.5470+0	
3.3117-3	6.8205-5	1.2189+3	2.1551+5	3.8457+2	4.2424+0	2.1514+5	4.8472+1	4.6965+1	1.5072+0	
L2 3.3326-3	6.9226-5	1.2018+3	2.1233+5	3.9549+2	4.2704+0	2.1193+5	4.8050+1	4.6585+1	1.4853+0	
3.3326-3	5.0409-5	1.6504+3	2.9159+5	3.9549+2	4.2704+0	2.9119+5	6.6021+1	6.3601+1	2.4185+0	
3.3812-3	5.1420-5	1.6179+3	2.8588+5	4.8421+2	4.3086+0	2.8539+5	6.5280+1	6.2887+1	2.3723+0	
3.3796-3	5.2060-5	1.5974+3	2.8224+5	5.0197+2	4.3333+0	2.8173+5	6.4778+1	6.2433+1	2.3428+0	
3.4096-3	5.3165-5	1.5648+3	2.7648+5	5.4350+2	4.3734+0	2.7593+5	6.4004+1	6.1708+1	2.2954+0	
3.4508-3	5.4685-5	1.5213+3	2.6879+5	5.7013+2	4.4287+0	2.6822+5	6.2967+1	6.0734+1	2.2326+0	
3.4934-3	5.6294-5	1.4781+3	2.6116+5	5.8301+2	4.4858+0	2.6057+5	6.1926+1	5.9755+1	2.1704+0	
3.5575-3	5.8747-5	1.4162+3	2.5021+5	5.8658+2	4.5720+0	2.4962+5	6.0414+1	5.8332+1	2.0812+0	
L1 3.5800-3	5.9618-5	1.3955+3	2.4655+5	6.1016+2	4.6021+0	2.4594+5	5.9900+1	5.7849+1	2.0512+0	
3.5800-3	5.1992-5	1.6001+3	2.8271+5	6.1016+2	4.6021+0	2.8210+5	6.8707+1	6.6280+1	2.4265+0	
3.6437-3	5.4188-5	1.5353+3	2.7127+5	7.0123+2	4.6878+0	2.7065+5	6.7088+1	6.4738+1	2.3292+0	
3.7299-3	5.7357-5	1.4505+3	2.5627+5	7.5278+2	4.8037+0	2.5551+5	6.4837+1	6.2635+1	2.2017+0	
3.8918-3	6.3732-5	1.3054+3	2.3084+5	8.0140+2	5.0218+0	2.2983+5	6.0853+1	5.8871+1	1.9820+0	
4.2295-3	7.8583-5	1.0587+3	1.8705+5	8.3141+2	5.4632+0	1.8621+5	5.3581+1	5.1973+1	1.6081+0	
4.8228-3	1.0968-4	7.5727+2	1.3380+5	8.1473+2	6.1804+0	1.3297+5	4.3830+1	4.2481+1	1.1493+0	
5.8238-3	1.8396-4	5.0742+2	8.8651+4	7.5121+2	7.1399+0	8.8893+4	3.4007+1	3.3239+1	7.6835-1	
7.5863-3	3.5865-4	2.3138+2	4.0861+4	5.8553+2	9.2569+0	4.0287+4	2.0792+1	2.0443+1	3.4871-1	
1.0000-2	7.5238-4	1.1058+2	1.9537+4	4.3989+2	1.1378+1	1.9088+4	1.2985+1	1.2819+1	1.6506-1	
1.3572-2	1.7188-3	4.8378+1	8.5471+3	3.0048+2	1.3852+1	8.2330+3	7.6020+0	7.5308+0	7.1175-2	
1.8312-2	2.8433-3	2.9259+1	5.1898+3	2.2719+2	1.4954+1	4.9275+3	5.4886+0	5.4260+0	4.2555-2	
1.9185-2	4.4518-3	1.6689+1	3.3018+3	1.6873+2	1.8041+1	3.1170+3	4.0711+0	4.0442+0	2.8908-2	
2.1088-2	5.7731-3	1.4411+1	2.5481+3	1.3581+2	1.8882+1	2.3939+3	3.4384+0	3.4157+0	2.0853-2	
2.2220-2	6.6863-3	1.2480+1	2.2049+3	1.1841+2	1.7013+1	2.0715+3	3.1328+0	3.1148+0	1.7889-2	
2.2784-2	7.1384-3	1.1658+1	2.0597+3	1.0812+2	1.7179+1	1.8384+3	3.0001+0	2.9834+0	1.6701-2	
2.3390-2	7.7207-3	1.0775+1	1.9038+3	8.1747+1	1.7387+1	1.7874+3	2.8572+0	2.8417+0	1.5475-2	
2.3822-2	7.9533-3	1.0480+1	1.8482+3	6.4831+1	1.7431+1	1.7459+3	2.8070+0	2.7920+0	1.5052-2	
2.3834-2	8.1814-3	1.0189+1	1.7888+3	7.8454+1	1.7479+1	1.7027+3	2.7822+0	2.7475+0	1.4878-2	
2.4122-2	8.5140-3	9.7715+0	1.7284+3	6.2507+1	1.7543+1	1.8464+3	2.7032+0	2.6890+0	1.4191-2	
2.4221-2	8.8182-3	9.6558+0	1.7060+3	6.0824+1	1.7565+1	1.8278+3	2.6833+0	2.6693+0	1.4028-2	
2.4321-2	8.9983-3	9.5634+0	1.6897+3	6.3298+1	1.7587+1	1.8098+3	2.6833+0	2.6495+0	1.3866-2	
X 2.4321-2	1.4179-3	5.8676+1	1.0367+4	6.3298+1	1.7587+1	1.0286+4	1.7021+1	1.6932+1	1.0528+1	
2.4528-2	1.4488-3	5.7503+1	1.0160+4	7.7936+1	1.7632+1	1.0064+4	1.6791+1	1.6483+1	1.0305+1	
2.4586-2	1.4568-3	5.7115+1	1.0091+4	8.3903+1	1.7647+1	9.9895+3	1.6709+1	1.64792+1	1.0230+1	
2.4732-2	1.4780-3	5.8365+1	9.8588+3	8.2781+1	1.7877+1	9.8481+3	1.6554+1	1.6485+1	1.0088+1	
2.4881-2	1.4948-3	5.5851+1	9.8325+3	8.8828+1	1.7705+1	9.9180+3	1.6408+1	1.64527+1	9.9552+0	
2.5102-2	1.5315-3	5.4322+1	9.5978+3	1.0518+2	1.7758+1	9.4747+3	1.6141+1	1.64287+1	9.7128+0	
2.5684-2	1.6228-3	5.1287+1	9.0579+3	1.1292+2	1.7882+1	8.9271+3	1.5814+1	1.6287+1	9.9121+0	
2.6795-2	1.8073-3	4.6033+1	8.1331+3	1.1771+2	1.8115+1	7.8973+3	1.5535+1	1.6724+1	9.1821+0	
2.8705-2	2.1548-3	3.8808+1	6.8215+3	1.1839+2	1.8500+1	6.8868+3	1.4495+1	1.62897+1	8.2254+0	
3.2239-2	2.8977-3	2.8710+1	5.0728+3	1.0841+2	1.9080+1	4.9471+3	1.3007+1	1.61082+1	6.9013+0	
3.9843-2	5.0517-3	1.8489+1	2.9097+3	8.2847+1	1.9937+1	2.8089+3	1.0853+1	1.57190+1	5.1341+0	
5.1820-2	1.0416-2	7.9870+0	1.1112+3	5.4807+1	2.0635+1	1.3357+3	7.5893+0	4.6470+0	2.9223+0	
7.5223-2	2.8400-2	2.9294+0	5.1757+2	2.8697+1	2.0914+1	4.6796+2	4.7213+0	3.3207+0	1.4006+0	
1.0000-1	6.0084-2	1.3851+0	2.4472+2	1.7042+1	2.0473+1	2.0721+2	2.4061+0	1.9133+0	4.9283-1	
							1.4299+0	1.2111+0	2.1890-1	
1.3475-1	1.2825-1	6.5897-1	1.1843+2	9.7712+0	1.9598+1	8.7058+1	8.2533-1	7.3728-1	9.2063-2	
1.7321-1	2.2073-1	3.7891-1	6.8592+1	6.0497+0	1.8588+1	4.1857+1	5.3938-1	4.8488-1	4.4407-2	
2.1001-1	3.2089-1	2.5842-1	4.5835+1	4.1807+0	1.7818+1	2.4055+1	4.0102-1	3.7554-1	2.5472-2	
2.8248-1	4.5889-1	1.8137-1	3.2045+1	2.8858+0	1.8562+1	1.2797+1	3.0453-1	2.9088-1	1.3585-2	
3.2269-1	6.0292-1	1.3789-1	2.4380+1	1.7846+0	1.5452+1	7.1435+0	2.5316-1	2.4559-1	7.5645-3	
3.7845-1	7.1119-1	1.1698-1	2.0688+1	1.3144+0	1.4850+1	4.7040+0	2.3502-1	2.3003-1	4.9868-3	
4.4721-1	8.3503-1	9.8831-2	1.7803+1	9.3352-1	1.3885+1	2.8843+0	2.2730-1	2.2414-1	3.1843-3	
5.2624-1	9.5014-1	8.7560-2	1.5470+1	6.7524-1	1.2832+1	1.9627+0	2.3138-1	2.2927-1	2.0810-3	
6.8651-1	1.1391+0	7.3034-2	1.2904+1	3.9748-1	1.1471+1	1.0355+0	2.5630-1	2.5520-1	1.0973+3	
9.8089-1	1.4100+0	5.9004-2	1.0425+1	1.9505-1	9.7652+0	4.7482-1	3.1725-1	3.1874-1	5.4042-4	
1.00										

October 31, 1989
Atomic Weight 106.400

ENDL Evaluated
Photon Data

46-Pd
Density 12.020 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)						Energy Deposition (MeV/cm)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0295+ 0	1.4502+ 0	5.7368- 2	1.0136+ 1	1.7700- 1	9.5314+ 0	4.2752- 1	1.7245- 6		3.2741- 1	3.2696- 1	4.5388- 4
1.0301+ 0	1.4507+ 0	5.7348- 2	1.0132+ 1	1.7678- 1	9.5285+ 0	4.2702- 1	1.7167- 6		3.2753- 1	3.2707- 1	4.5334- 4
1.0310+ 0	1.4515+ 0	5.7318- 2	1.0127+ 1	1.7649- 1	9.5242+ 0	4.2628- 1	1.7076- 6		3.2770- 1	3.2724- 1	4.5254- 4
1.0320+ 0	1.4523+ 0	5.7284- 2	1.0121+ 1	1.7615- 1	9.5185+ 0	4.2545- 1	1.6984- 6		3.2789- 1	3.2744- 1	4.5167- 4
1.0332+ 0	1.4533+ 0	5.7244- 2	1.0114+ 1	1.7574- 1	9.5137+ 0	4.2447- 1	1.6879- 6		3.2811- 1	3.2768- 1	4.5062- 4
1.0340+ 0	1.4540+ 0	5.7217- 2	1.0109+ 1	1.7547- 1	9.5089+ 0	4.2381- 1	1.6825- 6		3.2827- 1	3.2782- 1	4.4993- 4
1.0353+ 0	1.4551+ 0	5.7174- 2	1.0102+ 1	1.7503- 1	9.5038+ 0	4.2275- 1	1.6777- 6		3.2851- 1	3.2806- 1	4.4880- 4
1.0368+ 0	1.4563+ 0	5.7129- 2	1.0094+ 1	1.7458- 1	9.4974+ 0	4.2168- 1	1.6801- 5		3.2877- 1	3.2832- 1	4.4764- 4
1.0382+ 0	1.4576+ 0	5.7077- 2	1.0085+ 1	1.7408- 1	9.4900+ 0	4.2040- 1	1.7008- 5		3.2908- 1	3.2862- 1	4.4630- 4
1.0397+ 0	1.4589+ 0	5.7027- 2	1.0076+ 1	1.7356- 1	9.4829+ 0	4.1919- 1	1.7204- 5		3.2935- 1	3.2890- 1	4.4502- 4
1.0415+ 0	1.4604+ 0	5.6968- 2	1.0065+ 1	1.7297- 1	9.4744+ 0	4.1774- 1	1.7395- 5		3.2969- 1	3.2925- 1	4.4349- 4
1.0438+ 0	1.4623+ 0	5.6892- 2	1.0052+ 1	1.7221- 1	9.4636+ 0	4.1591- 1	1.7681- 5		3.3013- 1	3.2969- 1	4.4154- 4
1.0464+ 0	1.4645+ 0	5.6807- 2	1.0037+ 1	1.7136- 1	9.4515+ 0	4.1385- 1	1.8067- 5		3.3062- 1	3.3018- 1	4.3935- 4
1.0483+ 0	1.4681+ 0	5.6744- 2	1.0026+ 1	1.7074- 1	9.4426+ 0	4.1235- 1	1.8457- 5		3.3098- 1	3.3054- 1	4.3776- 4
1.0512+ 0	1.4666+ 0	5.6651- 2	1.0009+ 1	1.6981- 1	9.4291+ 0	4.1008- 1	1.8852- 5		3.3153- 1	3.3110- 1	4.3538- 4
1.0541+ 0	1.4710+ 0	5.6557- 2	9.9926+ 0	1.6889- 1	9.4157+ 0	4.0785- 1	1.9261- 4		3.3208- 1	3.3165- 1	4.3298- 4
1.0577+ 0	1.4740+ 0	5.6441- 2	9.9721+ 0	1.6774- 1	9.3991+ 0	4.0507- 1	1.9716- 4		3.3277- 1	3.3234- 1	4.3003- 4
1.0611+ 0	1.4769+ 0	5.6332- 2	9.9529+ 0	1.6667- 1	9.3835+ 0	4.0248- 1	2.0242- 4		3.3341- 1	3.3299- 1	4.2729- 4
1.0651+ 0	1.4802+ 0	5.6205- 2	9.9304+ 0	1.6543- 1	9.3652+ 0	3.9947- 1	2.0878- 4		3.3417- 1	3.3375- 1	4.2409- 4
1.0704+ 0	1.4848+ 0	5.6038- 2	9.9010+ 0	1.6381- 1	9.3412+ 0	3.9553- 1	2.1655- 4		3.3518- 1	3.3478- 1	4.1991- 4
1.0762+ 0	1.4894+ 0	5.5858- 2	9.8660+ 0	1.6208- 1	9.3151+ 0	3.9129- 1	2.2588- 4		3.3628- 1	3.3587- 1	4.1540- 4
1.0806+ 0	1.4930+ 0	5.5722- 2	9.8451+ 0	1.6075- 1	9.2955+ 0	3.8812- 1	2.3619- 4		3.3712- 1	3.3671- 1	4.1204- 4
1.0871+ 0	1.4984+ 0	5.5523- 2	9.8100+ 0	1.5884- 1	9.2687+ 0	3.8350- 1	2.4855- 4		3.3838- 1	3.3795- 1	4.0713- 4
1.0937+ 0	1.5038+ 0	5.5324- 2	9.7747+ 0	1.5694- 1	9.2377+ 0	3.7889- 1	2.6301- 3		3.3962- 1	3.3921- 1	4.0224- 4
1.1026+ 0	1.5110+ 0	5.5060- 2	9.7280+ 0	1.5443- 1	9.1990+ 0	3.7282- 1	2.7970- 3		3.4131- 1	3.4091- 1	3.9579- 4
1.1107+ 0	1.5175+ 0	5.4823- 2	9.6861+ 0	1.5220- 1	9.1643+ 0	3.6741- 1	2.9783- 3		3.4285- 1	3.4248- 1	3.9005- 4
1.1208+ 0	1.5254+ 0	5.4538- 2	9.6358+ 0	1.4954- 1	9.1223+ 0	3.6096- 1	3.1745- 3		3.4474- 1	3.4435- 1	3.8320- 4
1.1333+ 0	1.5355+ 0	5.4180- 2	9.5726+ 0	1.4623- 1	9.0692+ 0	3.5293- 1	3.4270- 3		3.4716- 1	3.4679- 1	3.7468- 4
1.1475+ 0	1.5466+ 0	5.3790- 2	9.5038+ 0	1.4265- 1	9.0110+ 0	3.4427- 1	3.7497- 3		3.4987- 1	3.4951- 1	3.6548- 4
1.1582+ 0	1.5549+ 0	5.3504- 2	9.4531+ 0	1.4004- 1	8.9678+ 0	3.3795- 1	4.1286- 3		3.5192- 1	3.5158- 1	3.5874- 4
1.1741+ 0	1.5671+ 0	5.3088- 2	9.3797+ 0	1.3630- 1	8.9048+ 0	3.2888- 1	4.5719- 3		3.5467- 1	3.5482- 1	3.4914- 4
1.1901+ 0	1.5792+ 0	5.2683- 2	9.3081+ 0	1.3268- 1	8.8426+ 0	3.2017- 1	5.0801- 3		3.5806- 1	3.5772- 1	3.3990- 4
1.2051+ 0	1.5902+ 0	5.2318- 2	9.2438+ 0	1.2942- 1	8.7855+ 0	3.1293- 1	5.6591- 3		3.6101- 1	3.6067- 1	3.3222- 4
1.2275+ 0	1.6083+ 0	5.1791- 2	9.1505+ 0	1.2478- 1	8.7022+ 0	3.0258- 1	6.3258- 3		3.6542- 1	3.6510- 1	3.2122- 4
1.2658+ 0	1.6330+ 0	5.0945- 2	8.9010+ 0	1.1740- 1	8.5856+ 0	2.8815- 1	7.3183- 3		3.7299- 1	3.7288- 1	3.0379- 4
1.2948+ 0	1.6529+ 0	5.0332- 2	8.8927+ 0	1.1217- 1	8.4848+ 0	2.7448- 1	8.4136- 3		3.7885- 1	3.7856- 1	2.9137- 4
1.3318+ 0	1.6772+ 0	4.9603- 2	8.7640+ 0	1.0607- 1	8.3428+ 0	2.6074- 1	9.5475- 3		3.8629- 1	3.8601- 1	2.7681- 4
1.3696+ 0	1.6989+ 0	4.9029- 2	8.6625+ 0	1.0135- 1	8.2445+ 0	2.5010- 1	1.06514- 2		3.9256- 1	3.9229- 1	2.6551- 4
1.3970+ 0	1.7182+ 0	4.8420- 2	8.5549+ 0	9.6435- 2	8.1389+ 0	2.3899- 1	1.18623- 2		3.9961- 1	3.9938- 1	2.5371- 4
1.4558+ 0	1.7532+ 0	4.7452- 2	8.3840+ 0	8.8833- 2	7.9671+ 0	2.2167- 1	1.36839- 1		4.1183- 1	4.1159- 1	2.3533- 4
1.5000+ 0	1.7784+ 0	4.6782- 2	8.2655+ 0	8.3696- 2	7.8447+ 0	2.0990- 1	1.5720- 1		4.2115- 1	4.2093- 1	2.2284- 4
1.5898+ 0	1.8258+ 0	4.5565- 2	8.0505+ 0	7.4531- 2	7.6122+ 0	1.8993- 1	1.7382- 1		4.4088- 1	4.4046- 1	2.0164- 4
1.7188+ 0	1.8869+ 0	4.4092- 2	7.7902+ 0	6.3791- 2	7.3111+ 0	1.6809- 1	2.4924- 1		4.6978- 1	4.6960- 1	1.7833- 4
1.7847+ 0	1.9172+ 0	4.3394- 2	7.6670+ 0	5.9178- 2	7.1588+ 0	1.5569- 1	3.2330- 1		4.8396- 1	4.8380- 1	1.6528- 4
1.8923+ 0	1.9628+ 0	4.2385- 2	7.4888+ 0	5.2658- 2	6.9282+ 0	1.4078- 1	4.3706- 1		5.0782- 1	5.0767- 1	1.4946- 4
2.0440+ 0	2.0184+ 0	4.1187- 2	7.2788+ 0	4.5148- 2	6.6357+ 0	1.2350- 1	5.7450- 1		5.4311- 1	5.4298- 1	1.3111- 4
2.0858+ 0	2.0351+ 0	4.0800- 2	7.2228+ 0	4.3358- 2	6.5584+ 0	1.1969- 1	7.0333- 1	4.8142- 7	5.5247- 1	5.5234- 1	1.2707- 4
2.0999+ 0	2.0402+ 0	4.0779- 2	7.2048+ 0	4.2779- 2	6.5303+ 0	1.1845- 1	8.1329- 1	1.0807- 8	5.5667- 1	5.5654- 1	1.2575- 4
2.1068+ 0	2.0425+ 0	4.0731- 2	7.1984+ 0	4.2508- 2	6.5180+ 0	1.1767- 1	9.1809- 1	1.5034- 8	5.5720- 1	5.5708- 1	1.2513- 4
2.1140+ 0	2.0451+ 0	4.0679- 2	7.1873+ 0	4.2211- 2	6.5044+ 0	1.1723- 1	1.0240- 8	2.0801- 8	5.5890- 1	5.5878- 1	1.2448- 4
2.1195+ 0	2.0471+ 0	4.0641- 2	7.1806+ 0	4.1993- 2	6.4944+ 0	1.1676- 1	1.1176- 8	2.5897- 8	5.6017- 1	5.6005- 1	1.2396- 4
2.1279+ 0	2.0499+ 0	4.0584- 2	7.1704+ 0	4.1862- 2	6.4792+ 0	1.1605- 1	1.2185- 8	3.5121- 8	5.6212- 1	5.6199- 1	1.2320- 4
2.1383+ 0	2.0528+ 0	4.0528- 2	7.1605+ 0	4.1338- 2	6.4642+ 0	1.1535- 1	1.3390- 8	4.6142- 8	5.6406- 1	5.6394- 1	1.2246- 4
2.1470+ 0	2.0564+ 0	4.0458- 2	7.1479+ 0	4.0925- 2	6.4450+ 0	1.1446- 1	1.4755- 8	5.8285- 8	5.6589- 1	5.6548- 1	1.2151- 4
2.1635+ 0	2.0618+ 0	4.0350- 2	7.1291+ 0	4.0304- 2	6.4158+ 0	1.1311- 1	1.6289- 8	6.6202- 8	5.7048- 1	5.7038- 1	1.2008- 4
2.1845+ 0	2.0691+ 0	4.0209- 2	7.1041+ 0	3.9534- 2	6.3791+ 0	1.1143- 1	1.7945- 8	7.5118- 8	5.7530- 1	5.7518- 1	1.1830- 4
2.2018+ 0	2.0749+ 0	4.0096- 2	7.0842+ 0	3.8918- 2	6.3483+ 0	1.1008- 1	1.9857- 8	8.1090- 8	5.7931- 1	5.7920- 1	1.1686- 4
2.2148+ 0	2.0792+ 0	4.0013- 2	7.0696+ 0	3.8461- 2	6.3272+ 0	1.0908- 1	2.2085- 8	8.8485- 8	5.8235- 1	5.8224- 1	1.1581- 4
2.2342+ 0	2.0854+ 0	3.9893- 2	7.0484+ 0	3.7797- 2	6.2946+ 0	1.0762- 1	2.4641- 8	9.5347- 8	5.8693- 1	5.8682- 1	1.1425- 4
2.2537+ 0	2.0915+ 0	3.9777- 2	7.0278+ 0	3.7148- 2	6.2622+ 0	1.0619- 1	2.7522- 8	1.0412- 5	5.9157- 1	5.9146- 1	1.1273- 4
2.2815+ 0	2.1000+ 0	3.9617- 2	6.9996+ 0	3.6248- 2	6.2188+ 0	1.0419- 1	3.0828- 8	1.1631- 5	5.9829- 1	5.9818- 1	1.1081- 4
2.3070+ 0	2.1074+ 0	3.9477- 2	6.9749+ 0	3.5453- 2	6.1780+ 0	1.0241- 1	3.4698- 8	1.3092- 5	6.0454- 1	6.0443- 1	1.0873- 4
2.3322+ 0	2.1161+ 0	3.9315- 2	6.9482+ 0	3.4514- 2	6.1270+ 0	1.0031- 1	3.9133- 8	1.4715- 5	6.1232- 1	6.1221- 1	1.0649- 4
2.3774+ 0	2.1289+ 0	3.9121- 2	6.9120+ 0	3.3397- 2	6.0688+ 0	9.7781- 2	4.5138- 5	1.5808- 5	6.2223- 1	6.2213- 1	1.0379- 4
2.4102+ 0	2.1358+ 0	3.8952- 2	6.8822+ 0	3.2485- 2	6.0177+ 0	9.5711- 2	5.2105- 5	1.7005- 5	6.3029- 1	6.3019- 1	1.0181- 4
2.4468+ 0	2.1458+ 0	3.8774- 2	6.8507+ 0	3.1522- 2	5.9842+ 0	9.3505- 2	5.9748- 5	1.8244- 5	6.3944- 1	6.3934- 1	9.9268- 5
2.4859+ 0	2.1566+ 0	3.8595- 2	6.8191+ 0	3.0540- 2	5.9084+ 0	9.1240- 2	7.8860- 5	2.0000- 4	6.4939- 1	6.4929- 1	9.6883- 5
2.5564+ 0	2.1721+ 0	3.8302- 2	6.7672+ 0	2.9880- 2	5.8111+ 0	8.7378- 2	9.3940- 5	2.1842- 4	6.6783- 1	6.6774- 1	9.2781- 5
2.6004+ 0	2.1838+ 0	3.7926- 2	6.7009+ 0	2.8670- 2	5.6753+ 0	8.2151- 2	1.1603- 4	2.3730- 4	6.9604- 1	6.9595- 1	8.7214- 5
2.7453+ 0	2.2112+ 0	3.7625- 2	6.6477+ 0	2.5048- 2	5.5706+ 0	7.8255- 2	1.9283- 4	2.5203- 4	7.1884- 1	7.1876- 1	8.3078- 5
2.8090+ 0	2.2229+ 0	3.7426- 2	6.6124+ 0	2.3926- 2	5.4953+ 0	7.5227- 2	2.7165- 4	2.6729- 4	7.3850- 1	7.3841- 1	8.0182- 5
2.9045+ 0	2.2384+ 0	3.7187- 2	6.5667+ 0	2.2381- 2	5.3874+ 0	7.1721- 2	3.6370- 4	2.8353- 4	7.6387- 1	7.6379- 1	7.6140- 5
3.0399+ 0	2.25										

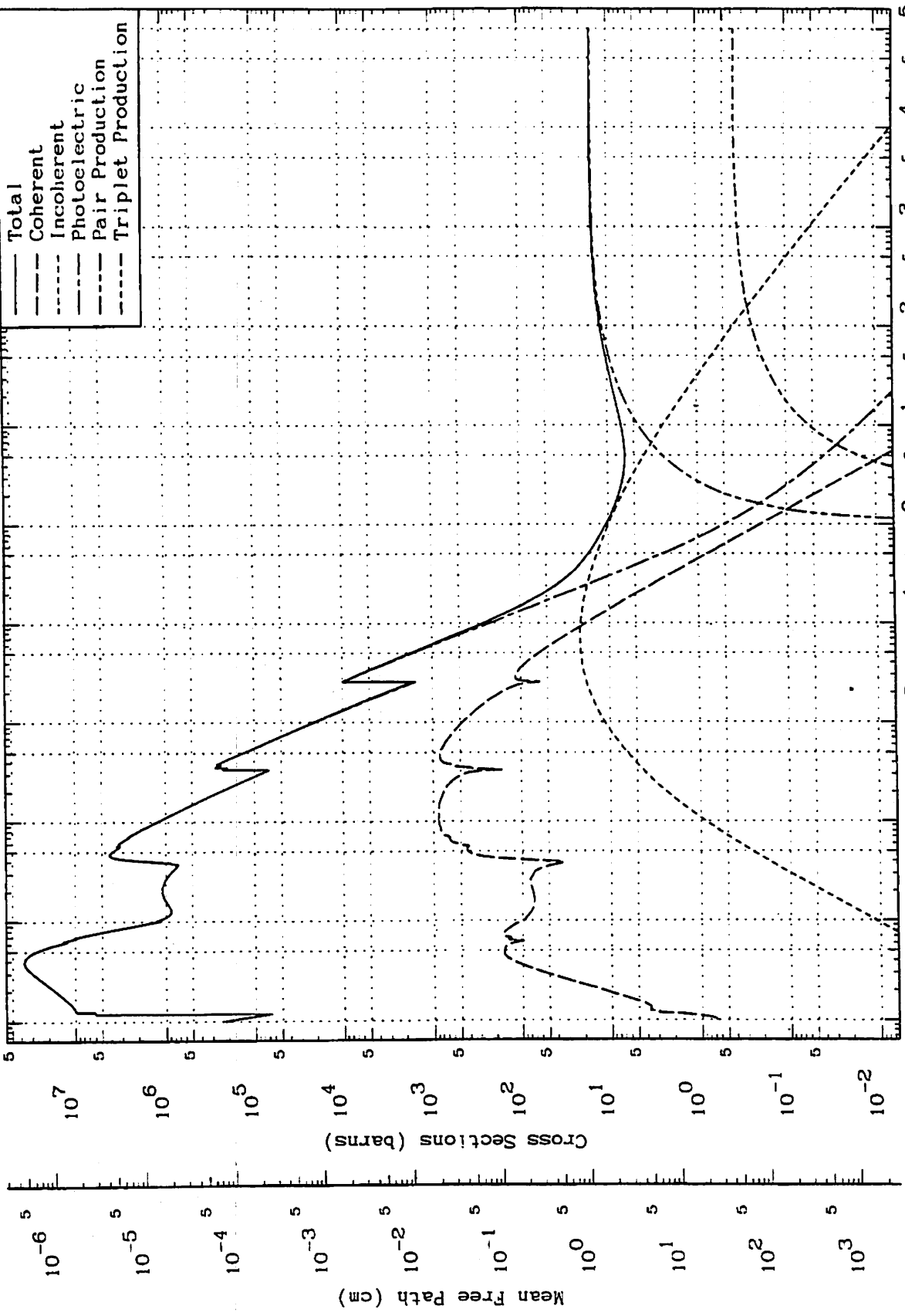
October 31, 1989
Atomic Weight 106.400

ENDL Evaluated
Photon Data

46-Pd
Density 12.020 Gracs/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cc)		
	cm	cm ² /grac	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.2170+ 1	1.5298+ 0	5.4384- 2	9.6086- 0	1.0628- 4	7.6929- 1	2.9527- 3	8.6685- 0	1.6769- 1	2.6424+ 1	2.6424+ 1	3.1347- 6
6.0000+ 1	1.4124+ 0	5.8902- 2	1.0407+ 1	5.2499- 5	5.7485- 1	2.0470- 3	9.6340+ 0	1.9590- 1	4.1269+ 1	4.1269+ 1	2.1732- 6
1.0000+ 2	1.2814+ 0	6.4927- 2	1.1471+ 1	1.8900- 5	3.7693- 1	1.2120- 3	1.0860+ 1	2.3320- 1	7.6742+ 1	7.6742+ 1	1.2857- 6
2.0000+ 2	1.1634+ 0	7.1510- 2	1.2634+ 1	4.7249- 6	2.0848- 1	6.0030- 4	1.2150+ 1	2.7540- 1	1.7051+ 2	1.7051+ 2	6.3729- 7
5.0000+ 2	1.0781+ 0	7.7314- 2	1.3660+ 1	7.5599- 7	9.4331- 2	2.3870- 4	1.3250+ 1	3.1530- 1	4.6318+ 2	4.6318+ 2	2.5341- 7
1.0000+ 3	1.0405+ 0	7.9953- 2	1.4126+ 1	1.8900- 7	5.1377- 2	1.1810- 4	1.3740+ 1	3.3480- 1	9.5953+ 2	9.5953+ 2	1.2844- 7
5.0000- 3	1.0055+ 0	8.2743- 2	1.4619+ 1	7.5599- 9	1.2155- 2	2.3790- 5	1.4250+ 1	3.5890- 1	4.9713+ 3	4.9713+ 3	2.5258- 8
1.0000+ 4	1.0001+ 0	8.3185- 2	1.4897+ 1	1.8900- 9	6.4902- 3	1.1880- 5	1.4330+ 1	3.8080- 1	9.8973+ 3	9.8973+ 3	1.2823- 8
1.0000+ 5	9.9412- 1	8.3687- 2	1.4786+ 1	1.8902- 11	7.8392- 4	1.1890- 6	1.4420+ 1	3.6510- 1	1.0059+ 5	1.0059+ 5	1.2623- 9

October 31, 1969
 Atomic Weight 107.870
 Density 10.500 Grams/cc



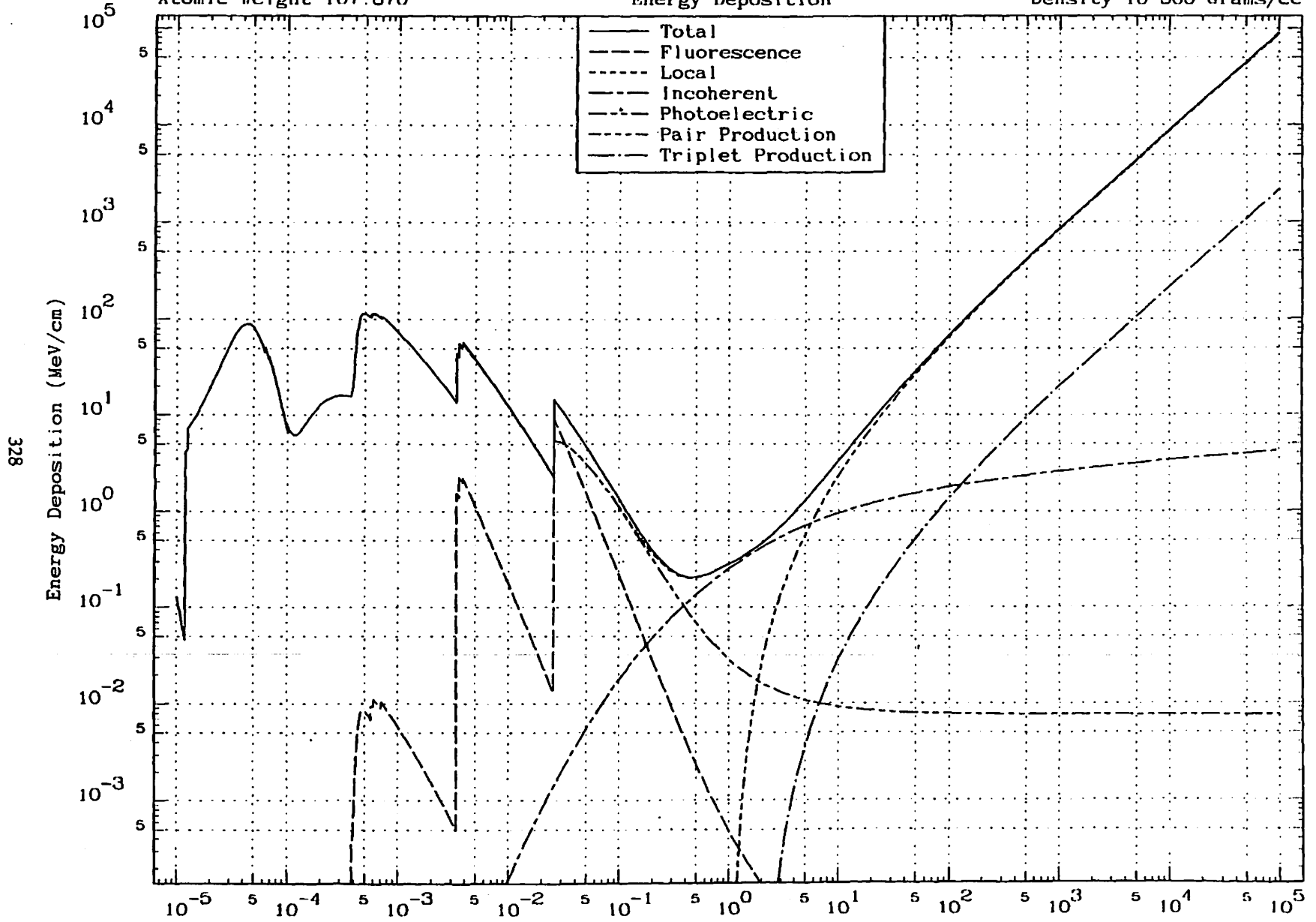
47-AB

327

October 31, 1989
Atomic Weight 107.870

ENDL Evaluated
Energy Deposition

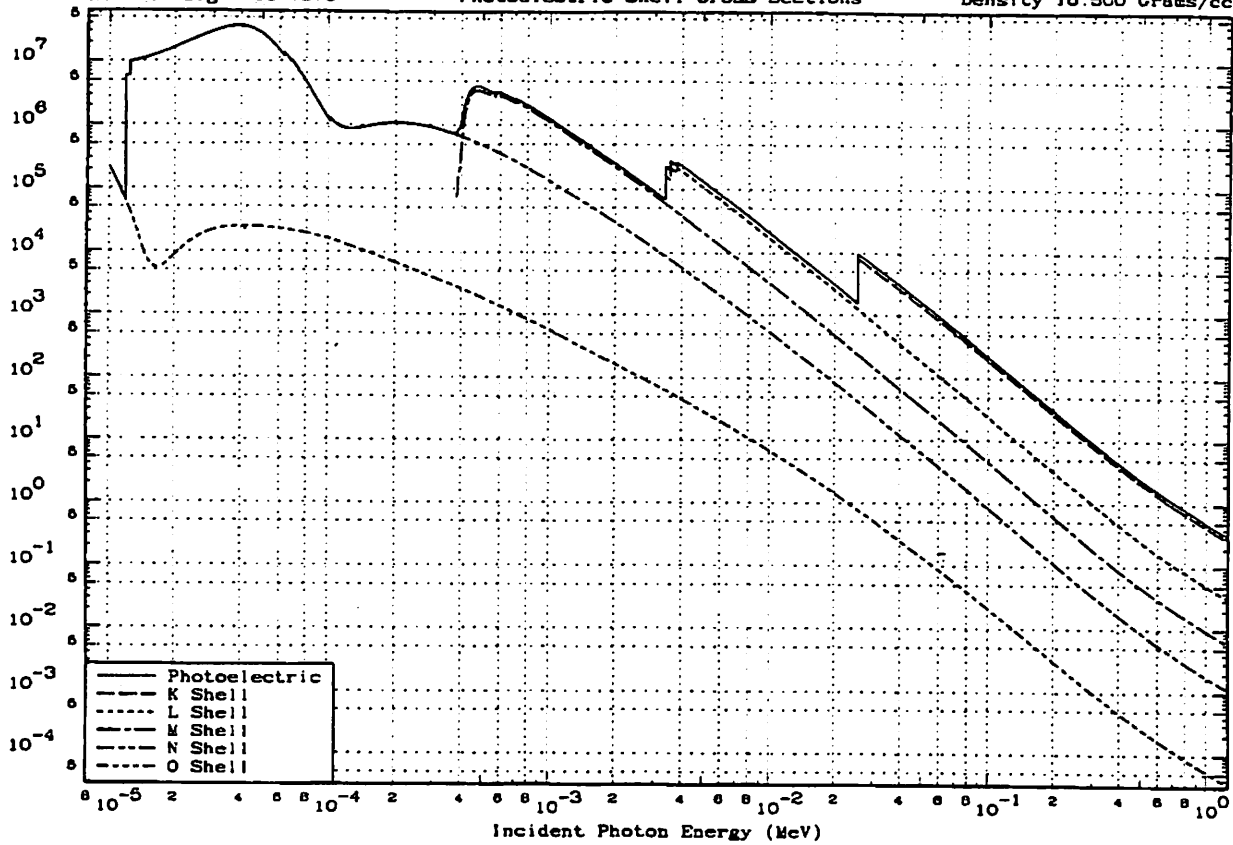
47-Ag
Density 10 500 Grams/cc



October 31, 1989
Atomic Weight 107.870

ENDL Evaluated
Photoelectric Shell Cross Sections

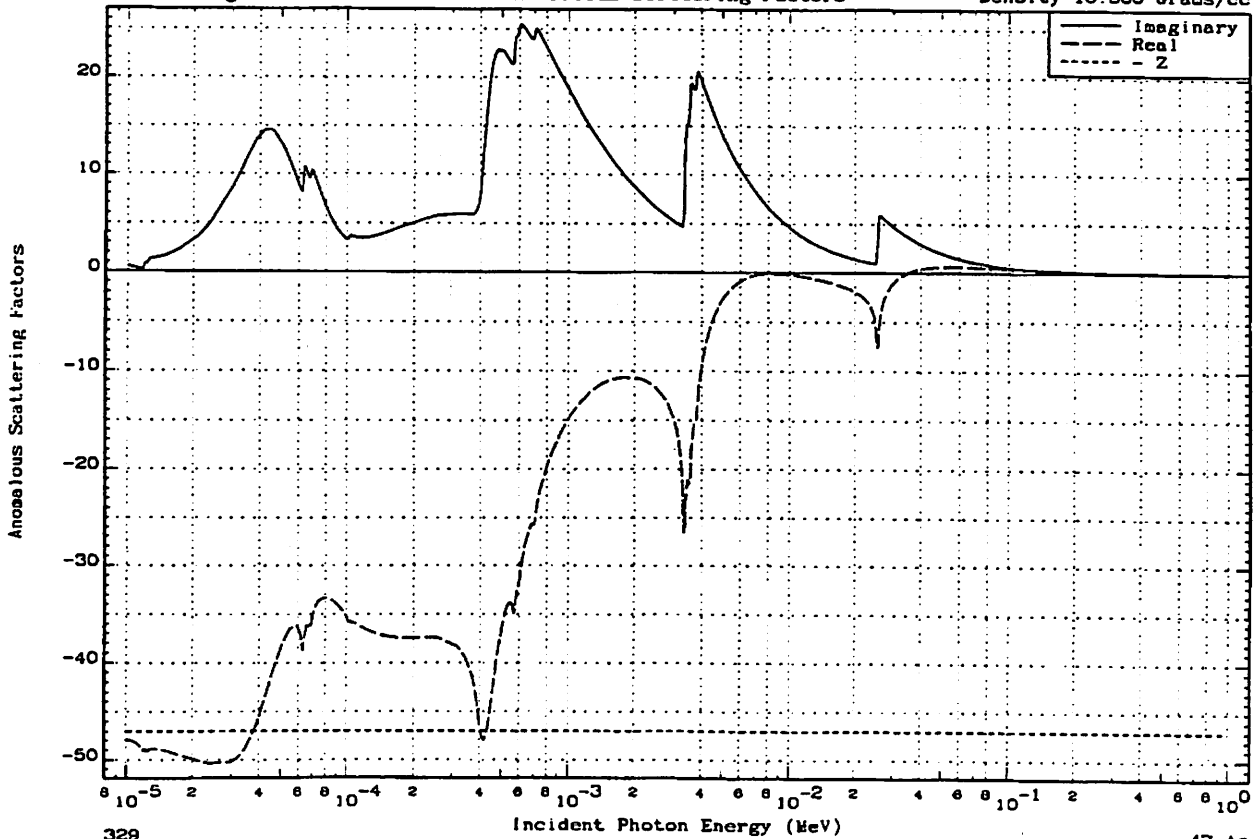
Density 10.500 Grams/cc
47-Ag

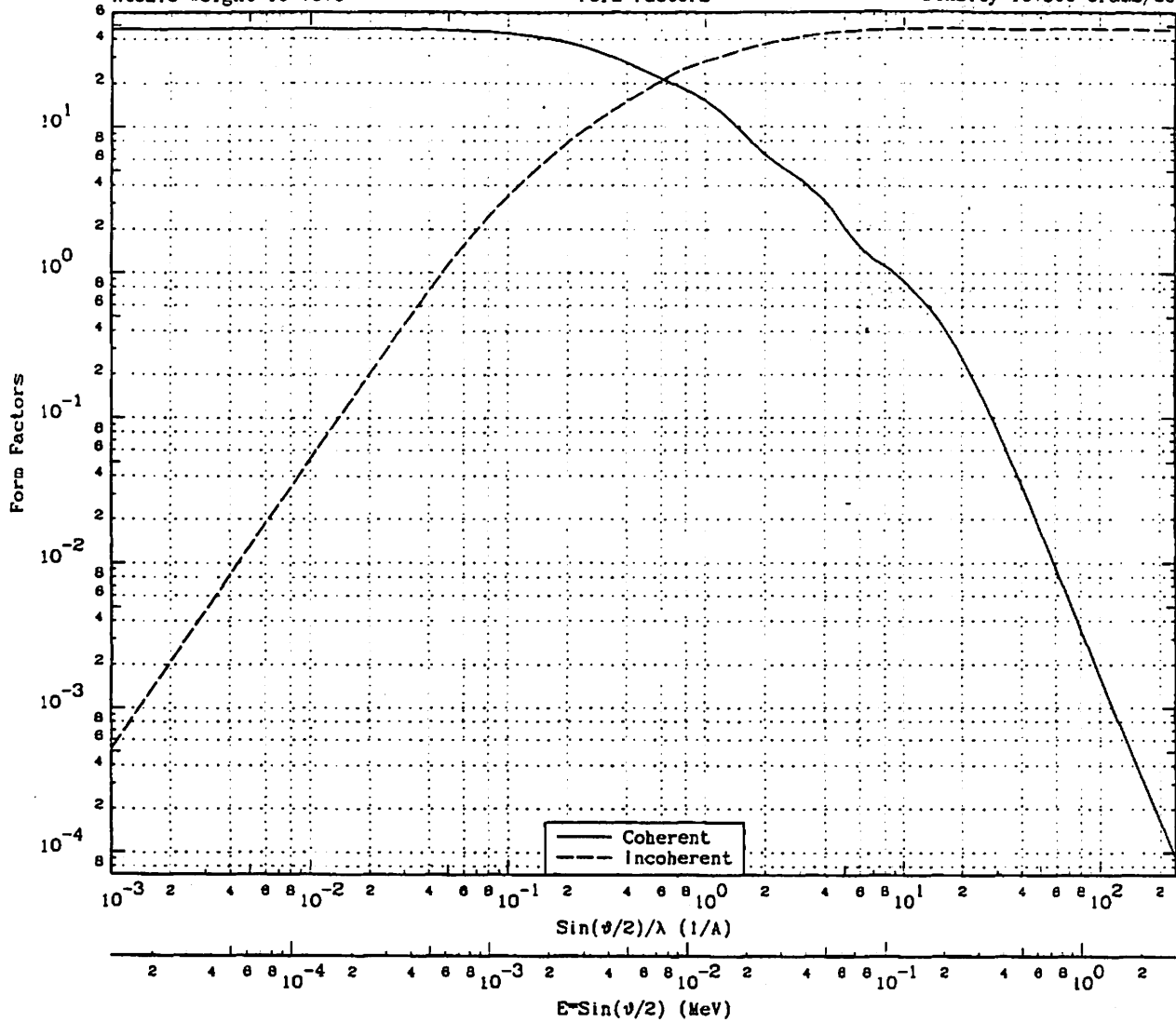


October 31, 1989
Atomic Weight 107.870

ENDL Evaluated
Anomalous Scattering Factors

Density 10.500 Grams/cc
47-Ag





$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	4.7000+1	0.0000+0	6.0000-1	7.4391-3	2.1440+1	2.0858+1	1.5000+1	1.8598-1	4.8380-1	4.6864+1
1.0000-3	1.2399-5	4.7000+1	5.2000-4	7.0000-1	8.6790-3	1.9509+1	2.3212+1	1.7089+1	2.1163-1	3.7973-1	4.6925-1
5.0000-3	6.1993-5	4.6957+1	1.3000-2	8.0000-1	9.9188-3	1.7927+1	2.5182+1	2.0000+1	2.4797-1	2.8123-1	4.6987+1
1.0000-2	1.2399-4	4.6959+1	5.2000-2	9.0000-1	1.1159-2	1.6504+1	2.6792+1	2.4430+1	3.0290-1	1.5429-1	4.6994+1
1.5000-2	1.8598-4	4.6917+1	1.1660-1	1.0000+0	1.2399-2	1.5158+1	2.8195+1	3.0885+1	3.8293-1	7.8431-2	4.7008+1
2.0000-2	2.4797-4	4.6852+1	2.0510-1	1.2500+0	1.5498-2	1.2045+1	3.1108+1	3.9758+1	4.9292-1	3.5801-2	4.7003+1
2.5000-2	3.0996-4	4.6770+1	3.1810-1	1.5000+0	1.8598-2	9.4780+0	3.3465+1	5.0000+1	6.1993-1	1.6968-2	4.7000+1
3.0000-2	3.7198-4	4.6671+1	4.4780-1	2.0000+0	2.4797-2	6.4852+0	3.6983+1	6.0000+1	9.9188-1	3.4933-3	4.7000-1
4.0000-2	4.9594-4	4.6425+1	7.8490-1	2.5000+0	3.0996-2	5.2013+0	3.9395+1	1.0000+2	1.2399+0	1.6425-3	4.7000-1
5.0000-2	6.1993-4	4.6123+1	1.1390+0	3.0000+0	3.7198-2	4.4433+0	4.1131+1	1.7111+2	2.1215+0	2.7708-4	4.7000-1
7.0000-2	8.6790-4	4.5356+1	1.9902+0	3.5000+0	4.3396-2	3.6852+0	4.2415+1	2.8861+2	3.5783+0	5.1461-5	4.7000-1
9.0000-2	1.1159-3	4.4433+1	2.9013+0	4.0000+0	4.9594-2	3.1430+0	4.3356+1	5.3880+2	6.6803+0	7.2548-6	4.7000-1
1.0000-1	1.2399-3	4.3929+1	3.3820+0	4.4258+0	6.4873-2	2.6280+0	4.3955+1	1.0000+3	1.2399+1	1.0857-6	4.7000-1
1.2500-1	1.5498-3	4.2578+1	4.5059+0	5.0000+0	8.1993-2	2.0585+0	4.4550+1	2.6333+3	3.2849+1	5.8722-8	4.7000+1
1.5000-1	1.8598-3	4.1131+1	5.6310+0	6.0000+0	7.4391-2	1.5278+0	4.5217+1	6.6119+3	8.1978+1	3.8603-9	4.7000+1
1.7500-1	2.1697-3	3.9643+1	6.7268+0	6.8594+0	8.5048-2	1.2804+0	4.5596+1	1.4899+4	1.8473+2	3.6160-10	4.7000+1
2.0000-1	2.4797-3	3.8137+1	7.7850+0	7.0000+0	8.6790-2	1.2543+0	4.5650+1	4.2648+4	5.2975+2	1.7489-11	4.7000+1
2.5000-1	3.0996-3	3.5153+1	9.7703+0	8.0000+0	9.9188-2	1.1303+0	4.5968+1	1.0000+6	1.2399+4	2.2074-15	4.7000+1
3.0000-1	3.7198-3	3.2341+1	1.1598+1	9.2817+0	1.1483-1	9.6982-1	4.6287+1	5.6234+8	6.9722+4	1.5868-17	4.7000+1
4.0000-1	4.9594-3	2.7575+1	1.4989+1	1.0000+1	1.2399-1	8.8220-1	4.8405+1	7.4989+7	9.2975+5	9.1543-21	4.7000+1
5.0000-1	6.1993-3	2.4019+1	1.6082+1	1.2891+1	1.5983-1	6.3257-1	4.6741+1	1.0000+9	1.2399+7	5.1018-24	4.7000+1

Energy MeV	Total: Mean Free Path		Cross Sections (bars)						Energy Deposition (MeV/cc)		
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	7.7147-5	1.2345+3	2.2113+5	6.7188-1	1.1252-4	2.2113+5			1.2962-1	1.2962-1	
1.0533-5	1.0987-4	8.6685+2	1.5527+5	7.3290-1	1.2483-4	1.5527+5			9.5870-2	9.5870-2	
1.0986-5	1.4716-4	6.4719+2	1.1593+5	9.4631-1	1.3579-4	1.1593+5			7.4652-2	7.4652-2	
1.1140-5	1.6320-4	5.8358+2	1.0453+5	1.0706+0	1.3963-4	1.0453+5			6.8282-2	6.8282-2	
1.1524-5	2.0974-4	4.5407+2	8.1335+4	1.5560+0	1.4942-4	8.1334+4			5.4944-2	5.4944-2	
1.1854-5	2.2783-4	4.1803+2	7.4878+4	1.8382+0	1.5280-4	7.4876+4			5.1151-2	5.1151-2	
1.1811-5	2.5161-4	3.7851+2	6.7800+4	2.7382+0	1.5695-4	6.7797+4			4.6940-2	4.6940-2	
1.1880-5	2.5981-4	3.6657+2	6.5662+4	2.8921+0	1.5825-4	6.5658+4			4.5847-2	4.5847-2	
1.1890-5	2.8905-8	3.2949+4	5.9019+8	2.8921+0	1.5825-4	5.9019+8			4.1031+0	4.1031+0	
1.1895-5	2.8973-6	3.2985+4	5.9084+8	3.0061+0	1.5916-4	5.9084+8			4.1186+0	4.1186+0	
1.1945-5	2.8827-6	3.3038+4	5.9179+8	3.0281+0	1.6054-4	5.9179+8			4.1439+0	4.1439+0	
1.2100-5	2.8687-6	3.3199+4	5.9467+8	2.8752+0	1.6472-4	5.9467+8			4.2180+0	4.2180+0	
1.2253-5	2.8551-6	3.3357+4	5.9751+8	3.0798+0	1.6892-4	5.9751+8			4.2917+0	4.2917+0	
1.2419-5	2.8406-6	3.3527+4	6.0054+8	3.6149+0	1.7351-4	6.0054+8			4.3718+0	4.3718+0	
1.2470-5	2.8362-6	3.3579+4	6.0149+8	3.7230+0	1.7495-4	6.0148+8			4.3967+0	4.3967+0	
1.2470-5	1.7392-6	5.4760+4	9.8088+6	3.7230+0	1.7495-4	9.8088+6			7.1700+0	7.1700+0	
1.2518-5	1.7359-6	5.4863+4	9.8273+6	3.8270+0	1.7630-4	9.8273+6			7.2113+0	7.2113+0	
1.2614-5	1.7295-6	5.5067+4	9.8638+6	3.7579+0	1.7900-4	9.8638+6			7.2832+0	7.2832+0	
1.2688-5	1.7248-6	5.5225+4	9.8920+6	3.8211+0	1.8110-4	9.8920+6			7.3570+0	7.3570+0	
1.3711-5	1.6244-6	5.8630+4	1.0502+7	3.8718+0	2.1149-4	1.0502+7			8.4408+0	8.4408+0	
1.5000-5	1.5124-6	6.2872+4	1.1280+7	4.4288+0	2.5311-4	1.1280+7			9.9181+0	9.9181+0	
1.8288-5	1.1722-6	8.1247+4	1.4553+7	9.0580+0	3.7881-4	1.4553+7			1.5810+1	1.5810+1	
2.1040-5	9.8309-7	9.8888+4	1.7713+7	1.4874+1	4.9787-4	1.7713+7			2.1848+1	2.1848+1	
2.3882-5	8.0170-7	1.1880+5	2.1279+7	2.4299+1	6.4142-4	2.1279+7			2.9789+1	2.9789+1	
3.0000-5	5.7831-7	1.6525+5	2.9601+7	5.6441+1	1.0120-3	2.9601+7			5.2055+1	5.2055+1	
3.4841-5	4.8837-7	1.9501+5	3.4931+7	9.0411+1	1.3492-3	3.4931+7			7.0931+1	7.0931+1	
3.8587-5	4.8051-7	2.0681+5	3.7045+7	1.2285+2	1.6740-3	3.7045+7			8.3783+1	8.3783+1	
4.2295-5	4.7114-7	2.0215+5	3.6209+7	1.4815+2	2.0111-3	3.6209+7			8.9772+1	8.9772+1	
4.5986-5	5.1600-7	1.8457+5	3.3061+7	1.6438+2	2.3773-3	3.3061+7			8.9121+1	8.9121+1	
5.0000-5	6.0716-7	1.5686+5	2.8097+7	1.8323+2	2.8103-3	2.8097+7			8.2350+1	8.2350+1	
5.4921-5	7.9898-7	1.1920+5	2.1351+7	1.9899+2	3.3904-3	2.1351+7			6.8738+1	6.8738+1	
5.7894-5	9.8900-7	9.8285+4	1.7805+7	1.4112+2	3.7790-3	1.7805+7			5.9538+1	5.9538+1	
5.9228-5	1.0814-8	8.9728+4	1.8072+7	1.3535+2	3.9428-3	1.8072+7			5.5801+1	5.5801+1	
6.1551-5	1.2519-8	7.6075+4	1.3827+7	1.1205+2	4.2581-3	1.3827+7			4.9188+1	4.9188+1	
6.2512-5	1.3378-8	7.1183+4	1.2750+7	9.7284+1	4.3921-3	1.2750+7			4.6722+1	4.6722+1	
6.2744-5	1.3593-8	7.0082+4	1.2550+7	9.6931+1	4.4248-3	1.2550+7			4.6157+1	4.6157+1	
6.3140-5	1.3975-8	6.8148+4	1.2207+7	1.0432+2	4.4808-3	1.2207+7			4.5180+1	4.5180+1	
6.3140-5	1.2220-8	7.7938+4	1.3960+7	1.0432+2	4.4808-3	1.3960+7			5.1670+1	5.1670+1	2.3977-5
6.3625-5	1.2630-8	7.5404+4	1.3507+7	1.2231+2	4.5496-3	1.3506+7			5.0374+1	5.0374+1	2.3572-5
6.3919-5	1.2885-8	7.3916+4	1.3240+7	1.3207+2	4.5920-3	1.3240+7			4.9608+1	4.9608+1	2.3332-5
6.4293-5	1.3214-8	7.2075+4	1.2910+7	1.4006+2	4.6459-3	1.2910+7			4.8658+1	4.8658+1	2.3031-5
6.5912-5	1.4843-8	6.4162+4	1.1493+7	1.4552+2	4.8827-3	1.1493+7			4.4404+1	4.4404+1	2.1792-5
6.7850-5	1.7011-8	5.5987+4	1.0029+7	1.3511+2	5.1739-3	1.0029+7			3.8886+1	3.8886+1	2.0433-5
6.8410-5	1.7685-8	5.3852+4	9.8481+6	1.4280+2	5.2597-3	9.8480+6			3.8682+1	3.8682+1	2.0028-5
2.6.8410-5	1.6369-8	5.8182+4	1.0422+7	1.4260+2	5.2597-3	1.0422+7			4.1792+1	4.1792+1	3.5128-5
8.8661-5	1.7750-8	5.3657+4	9.6111+6	1.8127+2	5.4538-3	9.6110+6			3.9248+1	3.9248+1	3.3873-5
7.2376-5	2.1819-8	4.4054+4	7.8910-6	1.8888+2	5.8871-3	7.8909+6			3.3478+1	3.3478+1	3.0725-5
7.7374-5	3.0777-8	3.0945+4	5.5429+6	1.8070+2	6.7278-3	5.5427+6			2.5139+1	2.5139+1	2.4797-5
8.3152-5	4.4078-8	2.0230+4	3.8236+6	1.4582+2	7.7700-3	3.8235+6			1.7682+1	1.7682+1	1.8121-5
9.2484-5	8.8718-8	1.0815+4	1.9014+6	1.1945+2	9.8113-3	1.9013+6			1.0308+1	1.0308+1	1.3094-5
9.7400-5	1.2114-5	7.8621+3	1.4083+6	1.0596+2	1.0680-2	1.4082+6			8.0400+0	8.0399+0	1.1045-5
1.0000-4	1.4112-5	6.7487+3	1.2088+6	9.6884+1	1.1236-2	1.2087+6			7.0855+0	7.0855+0	1.0141-5
1.0078-4	1.4687-5	6.4847+3	1.1616+6	9.3570+1	1.1411-2	1.1615+6			6.8813+0	6.8813+0	8.8188-6
1.0161-4	1.5315-5	6.2185+3	1.1139+6	9.3065+1	1.1600-2	1.1139+6			6.6341+0	6.6341+0	8.6971-6
1.0181-4	1.3334-5	7.1424+3	1.2794+6	9.3065+1	1.1600-2	1.2793+6			7.8197+0	7.8197+0	1.2578-5
1.0384-4	1.4473-5	6.5803+3	1.1787+6	9.3891+1	1.2088-2	1.1788+6			7.1603+0	7.1603+0	1.2129-5
1.0722-4	1.8092-5	5.9185+3	1.0601+6	9.0900+1	1.2911-2	1.0600+6			6.6824+0	6.6824+0	1.1505-5
1.1388-4	1.8216-5	5.2282+3	9.3849+5	8.5870+1	1.4508-2	9.3840+5			6.2398+0	6.2398+0	1.0553-5
1.2231-4	1.9469-5	4.8918+3	8.7823+5	8.0355+1	1.6788-2	8.7815+5			6.2817+0	6.2817+0	9.8845-6
1.2871-4	1.9676-5	4.8402+3	8.6899+5	7.7334+1	1.8585-2	8.6891+5			6.5409+0	6.5409+0	9.5145-6
1.4080-4	1.8777-5	5.0720+3	9.0851+5	7.3982+1	2.2183-2	9.0844+5			7.4870+0	7.4870+0	8.1814-6
1.7037-4	1.6361-5	5.8210+3	1.0427+6	7.3830+1	3.2502-2	1.0428+6			1.0412+1	1.0412+1	8.8215-6
2.0000-4	1.5538-5	6.1293+3	1.0979+6	7.8772+1	4.4747-2	1.0978+6			1.2871+1	1.2871+1	8.1014-6
2.2258-4	1.5739-5	6.0512+3	1.0839+6	7.9798+1	5.5381-2	1.0839+6			1.4141+1	1.4141+1	7.8129-6
2.5788-4	1.8717-5	5.8971+3	1.0205+6	8.1818+1	7.3886-2	1.0204+6			1.5413+1	1.5413+1	6.9156-6
3.0000-4	1.8880-5	5.0983+3	9.1322+5	7.4447+1	9.9151-2	9.1315+5			1.6058+1	1.6058+1	6.1238-6
3.1686-4	1.9820-5	4.8052+3	8.6073+5	7.1962+1	1.1032-2	8.6068+5			1.5888+1	1.5888+1	5.7874-6
3.4841-4	2.1829-5	4.3630+3	7.8151+5	5.8027+1	1.3129-2	7.8145+5			1.5888+1	1.5888+1	5.2760-6
3.7108-4	2.3517-5	4.0498+3	7.2541+5	4.1829+1	1.5017-2	7.2537+5			1.5778+1	1.5778+1	4.9158-6
3.7855-4	2.3900-5	3.8849+3	7.1378+5	3.7848+1	1.5452-2	7.1375+5			1.5756+1	1.5756+1	4.8420-6
3.7855-4	2.1887-5	4.3855+3	7.8733+5	3.7849+1	1.5452-2	7.8729+5			1.7378+1	1.7378+1	5.8798-6
3.8298-4	2.1836-5	4.4019+3	7.8848+5	3.5384+1	1.5659-2	7.8844+5			1.7701+1	1.7701+1	5.7698-6
4.3.8298-4	2.0134-5	4.7301+3	8.4727+5	3.5364+1	1.5959-2	8.4723+5			1.9021+1	1.9021+1	3.8743-4
3.8730-4	1.9777-5	4.8158+3	8.8259+5	3.3951+1	1.6296-2	8.8258+5			1.9583+1	1.9582+1	3.7145-4
3.9065-4	1.8982-5	5.0147+3	8.9824+5	3.4048+1	1.6584-2	8.9821+5			2.0588+1	2.0588+1	4.0597-4
3.9167-4	1.8505-5	5.1466+3	9.2186+5	3.4075+1	1.6846-2	9.2183+5			2.1165+1	2.1164+1	4.3182-4
3.9559-4	1.6336-5	5.8299+3	1.0443+6	3.7260+1	1.8991-2	1.0442+6			2.4215+1	2.4214+1	5.8219-4
3.9900-4	1.4065-5	6.7712+3	1.2129+6	4.3544+1	1.7237-2	1.2128+6			2.8367+1	2.8368+1	7.9394-4
4.0666-4	1.0105-5	9.4248+3	1.6882+6	6.8830+1	1.7885-2	1.6881+6			4.0242+1	4.0241+1	1.4749-3
4.1515-4	7.5477-6	1.2618+4	2.2602+6	1.0597+2	1.8572-2	2.2601+6			5.5001+1	5.4988+1	2.5072-3
4.1864-4	6.8584-6	1.3890+4	2.4881+6	1.2601+2	1.8867-2	2.4880+6			6.1056+1	6.1053+1	2.9784-3
4.2538-4	5.8490-6	1.8283+4	2.9166+6	1.6520+2	1.9442-2	2.9165+6			7.2723+1	7.2719+1	3.9978-3
4.3253-4	5.1587-6	1.8489+4	3.3082+6	2.0717+2	2.0082-2	3.3080+6			8.3872+1	8.3887+1	5.1090-3
4.4183-4	4.8291-6	2.0574+4	3.6853+6	2.5801+2	2.0880-2	3.6850+6			9.5439+1	9.5433+1	6.3554-3
4.5024-4	4.3539-6	2.1874+4	3.9182+6	2.9760+2	2.1834-2	3.9179+6			1.0340+2	1.0340+2	7.2894-3
4.5331-4	4.3058-6	2.2118+4	3.9819+6	3.1289+2	2.1913-2	3.9816+6			1.0527+2	1.0526+2	7.4828-3
4.8503-4	4.1728-6	2.2823+4	4.08								

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/ca)			
	ca	ca ² /ca/gras	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.7831-4	4.1806-6	2.2726+4	4.0708+6	3.8639+2	2.4242-1	4.0704+6			1.1413+2	1.1412+2	8.4580-3
5.0627-4	4.4823-6	2.1247+4	3.8059+6	4.2423+2	2.6975+2	3.8055+6			1.1294+2	1.1293+2	8.3226-3
5.3263-4	4.8631-6	1.9584+4	3.5079+6	4.2787+2	2.9677-1	3.5074+6			1.0951+2	1.0950+2	7.7350-3
5.5186-4	5.1828-6	1.8376+4	3.2916+6	4.1771-2	3.1703-1	3.2912+6			1.0643+2	1.0642+2	7.2052-3
5.8145-4	5.3505-6	1.7800+4	3.1884+6	4.0378+2	3.2770-1	3.1880+6			1.0492+2	1.0491+2	6.9538-3
5.6826-4	5.4339-6	1.7527+4	3.1394+6	4.1453+2	3.3300-1	3.1390+6			1.0420+2	1.0419+2	6.8347-3
5.6853-4	5.4754-6	1.7394+4	3.1156+6	4.3219+2	3.3551-1	3.1152+6			1.0382+2	1.0381+2	6.7798-3
M3 5.6853-4	4.9877-6	1.9094+4	3.4202+6	4.3219+2	3.3551-1	3.4198+6			1.1397+2	1.1396+2	9.3835-3
5.7895-4	5.0880-6	1.8718+4	3.3529+6	4.9591+2	3.4492-1	3.3524+6			1.1338+2	1.1337+2	9.3772-3
6.0019-4	5.3827-6	1.7693+4	3.1893+6	5.6120+2	3.7024-1	3.1887+6			1.1148+2	1.1147+2	9.2650-3
M2 6.0019-4	5.1843-6	1.8442+4	3.3033+6	5.6120+2	3.7024-1	3.3027+6			1.1620+2	1.1619+2	1.0222-2
6.0888-4	5.2653-6	1.8088+4	3.2400+6	5.9600+2	3.7763-1	3.2394+6			1.1524+2	1.1523+2	1.0875-2
6.1834-4	5.4403-6	1.7506+4	3.1357+6	6.2388+2	3.9046-1	3.1351+6			1.1354+2	1.1353+2	1.0837-2
6.4189-4	5.8095-6	1.6393+4	2.9384+6	6.5067+2	4.1751-1	2.9358+6			1.1048+2	1.1047+2	1.0178-2
6.8259-4	6.4743-6	1.4710+4	2.6349+6	6.6957+2	4.6579-1	2.6334+6			1.0540+2	1.0539+2	9.4100-3
6.9680-4	6.7178-6	1.4177+4	2.5394+6	6.6344+2	4.8324-1	2.5388+6			1.0370+2	1.0369+2	9.1451-3
7.0380-4	6.8416-6	1.3920+4	2.4935+6	6.8281+2	4.9194-1	2.4928+6			1.0284+2	1.0283+2	9.0174-3
M1 7.0380-4	6.5547-6	1.4530+4	2.6026+6	6.8261+2	4.9194-1	2.6019+6			1.0734+2	1.0733+2	1.0445-2
7.1082-4	6.6825-6	1.4252+4	2.5525+6	7.2155+2	5.0073-1	2.5521+6			1.0634+2	1.0633+2	1.0294-2
7.2551-4	6.8569-6	1.3690+4	2.4521+6	7.8238+2	5.1835-1	2.4514+6			1.0425+2	1.0424+2	9.9764-3
8.0380-4	8.5324-6	1.1162+4	1.8994+6	8.2608+2	6.1880-1	1.8985+6			9.4167+1	9.4158+1	8.8728-3
1.0000-3	1.3538-5	7.0348+3	1.2801+6	8.7882+2	6.9337-1	1.2592+6			7.3812+1	7.3806+1	5.8888-3
1.3554-3	2.6975-5	3.5307+3	8.3242+5	8.7486+2	1.4168+0	6.3152+5			5.0178+1	5.0174+1	3.3552-3
1.5961-3	3.9809-5	2.3924+3	4.2852+5	8.4382+2	1.7886+0	4.2768+5			4.0014+1	4.0012+1	2.4191-3
2.1040-3	7.7293-5	1.2322+3	2.2071+5	7.4400+2	2.5640+0	2.1986+5			2.7129+1	2.7128+1	1.3686-3
2.2900-3	9.5425-5	9.8804+2	1.7877+5	6.9794+2	2.8448+0	1.7807+5			2.3904+1	2.3902+1	1.1383-3
2.5775-3	1.2808-4	7.4358+2	1.3319+5	6.1481+2	3.2887+0	1.3267+5			2.0030+1	2.0029+1	8.7918-4
2.8271-3	1.8123-4	5.8070+2	1.0581+5	5.3316+2	3.8442+0	1.0527+5			1.7448+1	1.7445+1	7.1848-4
3.0000-3	1.8896-4	5.0940+2	9.1245+4	4.5972+2	3.8925+0	9.0794+4			1.5985+1	1.5984+1	6.3114-4
3.0628-3	1.9723-4	4.8289+2	8.6498+4	4.2858+2	3.6831+0	8.6084+4			1.5452+1	1.5451+1	6.0185-4
3.1514-3	2.1233-4	4.4855+2	8.0344+4	3.7380+2	4.1112+0	7.9967+4			1.4773+1	1.4772+1	5.8378-4
3.2203-3	2.2458-4	4.2406+2	7.5959+4	3.1897+2	4.2111+0	7.5636+4			1.4278+1	1.4277+1	5.3650-4
3.2818-3	2.3221-4	4.1014+2	7.3485+4	2.7211+2	4.2712+0	7.3189+4			1.3993+1	1.3992+1	5.2103-4
3.2828-3	2.3822-4	4.0317+2	7.2217+4	2.4011+2	4.3021+0	7.1973+4			1.3851+1	1.3850+1	5.1332-4
3.3226-3	2.4355-4	3.9058+2	6.9959+4	1.7354+2	4.3575+0	6.9781+4			1.3591+1	1.3590+1	4.9958-4
3.3290-3	2.4508-4	3.8860+2	6.9607+4	1.6895+2	4.3660+0	6.9433+4			1.3549+1	1.3549+1	4.9717-4
3.3384-3	2.4685-4	3.8581+2	6.9107+4	1.7118+2	4.3783+0	6.8931+4			1.3489+1	1.3489+1	4.9397-4
3.3500-3	2.4902-4	3.8248+2	6.8507+4	1.8569+2	4.3937+0	6.8317+4			1.3418+1	1.3415+1	4.9005-4
L3 3.3500-3	7.5078-5	1.2688+3	2.2723+5	1.8569+2	4.3937+0	2.2704+5			4.4585+1	4.4584+1	1.5523+0
3.3782-3	7.6693-5	1.2418+3	2.2244+5	2.8790+2	4.4322+0	2.2216+5			4.4008+1	4.4008+1	1.5183+0
3.3931-3	7.7488-5	1.2294+3	2.2022+5	3.0730+2	4.4505+0	2.1991+5			4.3738+1	4.3734+1	1.5041+0
3.4113-3	7.8497-5	1.2133+3	2.1733+5	3.4335+2	4.4745+0	2.1688+5			4.3388+1	4.3388+1	1.4843+0
3.4308-3	7.9602-5	1.1984+3	2.1431+5	3.8412+2	4.5000+0	2.1394+5			4.3022+1	4.3022+1	1.4637+0
3.4807-3	8.1356-5	1.1706+3	2.0969+5	3.7537+2	4.5398+0	2.0931+5			4.2460+1	4.2460+1	1.4324+0
3.5080-3	8.4038-5	1.1333+3	2.0299+5	3.8088+2	4.5985+0	2.0281+5			4.1839+1	4.1839+1	1.3871+0
3.5281-3	8.5355-5	1.1158+3	1.9988+5	4.1298+2	4.6288+0	1.9944+5			4.1248+1	4.1248+1	1.3659+0
L2 3.5281-3	8.2044-5	1.5350+3	2.7488+5	4.1298+2	4.6288+0	2.7454+5			5.6779+1	5.6779+1	2.2409+0
3.5589-3	8.3375-5	1.5028+3	2.6918+5	4.8295+2	4.6693+0	2.6868+5			5.6053+1	5.6053+1	2.1936+0
3.5785-3	8.4152-5	1.4848+3	2.6592+5	5.1898+2	4.6927+0	2.6540+5			5.5841+1	5.5841+1	2.1669+0
3.6084-3	8.5477-5	1.4545+3	2.6054+5	5.6073+2	4.7231+0	2.5997+5			5.4958+1	5.4958+1	2.1230+0
3.6484-3	8.7379-5	1.4135+3	2.5318+5	5.8548+2	4.7878+0	2.5259+5			5.4021+1	5.4021+1	2.0632+0
3.6947-3	8.9812-5	1.3701+3	2.4542+5	5.9901+2	4.8487+0	2.4481+5			5.3020+1	5.3020+1	2.0002+0
3.7408-3	7.1672-5	1.3288+3	2.3802+5	5.9681+2	4.9093+0	2.3742+5			5.2058+1	5.2058+1	1.9403+0
3.7834-3	7.3711-5	1.2920+3	2.3143+5	6.2984+2	4.9659+0	2.3060+5			5.1187+1	5.1187+1	1.8886+0
L1 3.7834-3	6.4387-5	1.4768+3	2.8503+5	6.2984+2	4.9659+0	2.8440+5			5.8639+1	5.8639+1	2.2323+0
3.8291-3	6.8179-5	1.4391+3	2.5778+5	6.9201+2	5.0282+0	2.5708+5			5.7703+1	5.7703+1	2.1718+0
3.8805-3	6.7443-5	1.4121+3	2.5295+5	7.2617+2	5.0877+0	2.5221+5			5.7075+1	5.7075+1	2.1313+0
3.9424-3	7.0914-5	1.3448+3	2.4090+5	7.6912+2	5.1758+0	2.4013+5			5.5482+1	5.5482+1	2.0310+0
4.1779-3	8.1819-5	1.1889+3	2.0901+5	8.2395+2	5.4871+0	2.0818+5			5.0984+1	5.0984+1	1.7852+0
4.8018-3	1.0451-4	9.1128+2	1.8323+5	5.4828+2	6.0172+0	1.8238+5			4.3795+1	4.3795+1	1.3784+0
5.3218-3	1.5229-4	8.2537+2	1.1202+5	8.0714+2	6.8729+0	1.1202+5			3.4886+1	3.4886+1	9.4423-1
6.8705-3	2.7314-4	3.4868+2	8.2458+4	6.9237+2	8.3999+0	6.1755+4			2.4147+1	2.4147+1	5.2581-1
9.2112-3	6.4325-4	1.4806+2	2.6520+4	5.0803+2	1.0589+1	2.6001+4			1.4039+1	1.3818+1	2.2137-1
1.0000-2	8.0042-4	1.1898-2	2.1313+4	4.6495-2	1.1523+1	2.0838+4			1.2214+1	1.2037+1	1.7736-1
1.3335-2	1.7441-3	5.4805+1	9.7809+3	3.2889+2	1.3744+1	9.4403+3			7.3795+0	7.2991+0	8.0385-2
1.6781-2	3.2563-3	2.9258+1	5.2404+3	2.3288+2	1.5413+1	4.9924+3			4.9113+0	4.8689+0	4.2474-2
2.0225-2	5.4277-3	1.7547+1	3.1430+3	1.6528+2	1.6853+1	2.9811+3			3.5113+0	3.4862+0	2.5159-2
2.2053-2	6.9119-3	1.3779+1	2.4681+3	1.3544+2	1.7244+1	2.3154+3			2.9940+0	2.9744+0	1.9689-2
2.3549-2	8.3237-3	1.1442+1	2.0495+3	1.1027+2	1.7706+1	1.8215+3			2.6534+0	2.6371+0	1.6320-2
2.3888-2	8.6739-3	1.0980+1	1.8687+3	1.0427+2	1.7780+1	1.8447+3			2.5842+0	2.5688+0	1.5667-2
2.4525-2	9.3723-3	1.0182+1	1.8202+3	9.0477+1	1.7917+1	1.7118+3			2.4821+0	2.4478+0	1.4537-2
2.4787-2	9.6590-3	9.8598+0	1.7881+3	8.3588+1	1.7869+1	1.6845+3			2.4178+0	2.4037+0	1.4135-2
2.5048-2	1.0016-2	9.5081+0	1.7031+3	7.2840+1	1.8028+1	1.6125+3			2.3887+0	2.3550+0	1.3683-2
2.5281-2	1.0337-2	9.2131+0	1.6503+3	6.2070+1	1.8077+1	1.5701+3			2.3282+0	2.3149+0	1.3333-2
2.5384-2	1.0461-2	9.1041+0	1.6307+3	6.0528+1	1.8098+1	1.5521+3			2.3109+0	2.2977+0	1.3180-2
2.5489-2	1.0582-2	9.0172+0	1.6152+3	6.3029+1	1.8120+1	1.5340+3			2.2834+0	2.2804+0	1.3028-2
X 2.5489-2	1.7311-3	5.5015+1	9.8544+3	6.3029							

October 31, 1989
Atomic Weight 107.870

ENDL Evaluated
Photon Data

47-Ag
Density 10.500 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (keV/cm)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
5.5823- 2	1.3568- 2	7.0194+ 0	1.2573+ 3	5.1378+ 1	2.1091+ 1	1.1848+ 3			3.8777+ 0	2.7424+ 0	1.1353+ 0
8.8148- 2	4.6385- 2	2.0532+ 0	3.6778+ 2	2.2803+ 1	2.1140+ 1	3.2383+ 2			1.6857+ 0	1.3737+ 0	3.1201- 1
1.0000- 1	8.4441- 2	1.4779+ 0	2.6473+ 2	1.8091+ 1	2.0893+ 1	2.2575+ 2			1.3412+ 0	1.1233+ 0	2.1791- 1
1.2833- 1	1.1850- 1	8.1747- 1	1.4843+ 2	1.1708+ 1	2.0127+ 1	1.1458+ 2			8.7350- 1	7.6274- 1	1.1075- 1
1.5576- 1	1.9014- 1	5.0088- 1	8.9718+ 1	7.8859+ 0	1.9417+ 1	6.2435+ 1			6.0416- 1	5.4378- 1	8.0380- 2
1.8403- 1	3.0138- 1	3.1800- 1	5.8802+ 1	5.1505+ 0	1.8406+ 1	3.3046+ 1			4.2158- 1	3.8961- 1	3.1862- 2
2.4088- 1	4.4195- 1	2.1550- 1	3.8600+ 1	3.3732+ 0	1.7324+ 1	1.7903+ 1			3.1278- 1	2.9548- 1	1.7328- 2
2.9034- 1	5.8317- 1	1.8331- 1	2.9253+ 1	2.3332+ 0	1.8350+ 1	1.0569+ 1			2.5501- 1	2.4478- 1	1.0232- 2
3.4841- 1	7.2655- 1	1.3108- 1	2.3480+ 1	1.8437+ 0	1.5392+ 1	6.4448+ 0			2.2822- 1	2.1839- 1	8.2389- 3
4.2381- 1	8.8927- 1	1.0710- 1	1.8183+ 1	1.1021+ 0	1.4281+ 1	3.7903+ 0			2.0602- 1	2.0435- 1	3.8714- 3
5.1019- 1	1.0412+ 0	9.1466- 2	1.6384+ 1	7.8110- 1	1.3291+ 1	2.3316+ 0			2.0765- 1	2.0539- 1	2.2582- 3
6.8237- 1	1.2558+ 0	7.5838- 2	1.3584+ 1	4.5229- 1	1.1886+ 1	1.2384+ 0			2.2487- 1	2.2368- 1	1.1972- 3
9.8068- 1	1.5945+ 0	5.9729- 2	1.0699+ 1	2.0660- 1	9.9684+ 0	5.2378- 1			2.8165- 1	2.8115- 1	5.0800- 4
1.0000+ 0	1.8128+ 0	5.9060- 2	1.0578+ 1	1.8662- 1	9.8778+ 0	5.0278- 1			2.8528- 1	2.8477- 1	4.6770- 4
1.0220+ 0	1.6336+ 0	5.8288- 2	1.0443+ 1	1.8022- 1	9.7738+ 0	4.7840- 1			2.8907- 1	2.8881- 1	4.6408- 4
1.0251+ 0	1.6367+ 0	5.8189- 2	1.0423+ 1	1.8977- 1	9.7584+ 0	4.7550- 1	1.3340- 7		2.8959- 1	2.8913- 1	4.6124- 4
1.0281+ 0	1.6398+ 0	5.8086- 2	1.0405+ 1	1.8788- 1	9.7438+ 0	4.7275- 1	9.8650- 7		2.9008- 1	2.8962- 1	4.5857- 4
1.0287+ 0	1.6402+ 0	5.8064- 2	1.0401+ 1	1.8775- 1	9.7406+ 0	4.7215- 1	1.3339- 6		2.9019- 1	2.8973- 1	4.6789- 4
1.0295+ 0	1.6410+ 0	5.8038- 2	1.0396+ 1	1.8747- 1	9.7389+ 0	4.7147- 1	1.8266- 6		2.9031- 1	2.8985- 1	4.6733- 4
1.0301+ 0	1.6415+ 0	5.8017- 2	1.0392+ 1	1.8728- 1	9.7340+ 0	4.7082- 1	2.2959- 6		2.9041- 1	2.8995- 1	4.5680- 4
1.0310+ 0	1.6424+ 0	5.7988- 2	1.0387+ 1	1.8683- 1	9.7298+ 0	4.7010- 1	3.1415- 6		2.9058- 1	2.9010- 1	4.5600- 4
1.0320+ 0	1.6434+ 0	5.7952- 2	1.0380+ 1	1.8657- 1	9.7247+ 0	4.6919- 1	4.2984- 6		2.9072- 1	2.9027- 1	4.5512- 4
1.0332+ 0	1.6448+ 0	5.7911- 2	1.0373+ 1	1.8614- 1	9.7189+ 0	4.6810- 1	6.0213- 6		2.9092- 1	2.9047- 1	4.5406- 4
1.0340+ 0	1.6453+ 0	5.7883- 2	1.0368+ 1	1.8566- 1	9.7150+ 0	4.6738- 1	7.3917- 6		2.9105- 1	2.9060- 1	4.5336- 4
1.0353+ 0	1.6466+ 0	5.7839- 2	1.0360+ 1	1.8539- 1	9.7087+ 0	4.6621- 1	1.0033- 5		2.9127- 1	2.9082- 1	4.5223- 4
1.0368+ 0	1.6479+ 0	5.7793- 2	1.0352+ 1	1.8492- 1	9.7022+ 0	4.6501- 1	1.3340- 5		2.9149- 1	2.9104- 1	4.5108- 4
1.0382+ 0	1.6494+ 0	5.7740- 2	1.0343+ 1	1.8437- 1	9.6948+ 0	4.6381- 1	1.8002- 5		2.9175- 1	2.9130- 1	4.4971- 4
1.0397+ 0	1.6509+ 0	5.7690- 2	1.0334+ 1	1.8384- 1	9.6874+ 0	4.6229- 1	2.3388- 5		2.9199- 1	2.9155- 1	4.4841- 4
1.0415+ 0	1.6528+ 0	5.7629- 2	1.0323+ 1	1.8321- 1	9.6787+ 0	4.6068- 1	3.1118- 5		2.9229- 1	2.9185- 1	4.4687- 4
1.0438+ 0	1.6548+ 0	5.7552- 2	1.0309+ 1	1.8241- 1	9.6677+ 0	4.5868- 1	4.3193- 5		2.9267- 1	2.9223- 1	4.4491- 4
1.0464+ 0	1.6573+ 0	5.7485- 2	1.0293+ 1	1.8150- 1	9.6553+ 0	4.5638- 1	6.0094- 5		2.9310- 1	2.9268- 1	4.4270- 4
1.0483+ 0	1.6592+ 0	5.7402- 2	1.0282+ 1	1.8085- 1	9.6482+ 0	4.5474- 1	7.4819- 5		2.9342- 1	2.9298- 1	4.4110- 4
1.0512+ 0	1.6620+ 0	5.7305- 2	1.0265+ 1	1.7986- 1	9.6324+ 0	4.5224- 1	1.0149- 4		2.9389- 1	2.9348- 1	4.3867- 4
1.0541+ 0	1.6647+ 0	5.7210- 2	1.0248+ 1	1.7889- 1	9.6188+ 0	4.4977- 1	1.3340- 4		2.9437- 1	2.9394- 1	4.3629- 4
1.0577+ 0	1.6682+ 0	5.7091- 2	1.0228+ 1	1.7787- 1	9.6018+ 0	4.4671- 1	1.8183- 4		2.9497- 1	2.9454- 1	4.3331- 4
1.0611+ 0	1.6714+ 0	5.6981- 2	1.0207+ 1	1.7654- 1	9.5858+ 0	4.4385- 1	2.3851- 4		2.9553- 1	2.9510- 1	4.3054- 4
1.0651+ 0	1.6752+ 0	5.6851- 2	1.0183+ 1	1.7523- 1	9.5672+ 0	4.4053- 1	3.1312- 4		2.9619- 1	2.9577- 1	4.2732- 4
1.0704+ 0	1.6803+ 0	5.6681- 2	1.0153+ 1	1.7351- 1	9.5427+ 0	4.3618- 1	4.3883- 4		2.9707- 1	2.9665- 1	4.2331- 4
1.0782+ 0	1.6867+ 0	5.6497- 2	1.0120+ 1	1.7185- 1	9.5180+ 0	4.3151- 1	6.0370- 4		2.9803- 1	2.9761- 1	4.1857- 4
1.0868+ 0	1.6939+ 0	5.6358- 2	1.0085+ 1	1.7027- 1	9.4980+ 0	4.2800- 1	7.5393- 4		2.9878- 1	2.9834- 1	4.1517- 4
1.0871+ 0	1.6960+ 0	5.6155- 2	1.0059+ 1	1.6825- 1	9.4685+ 0	4.2291- 1	1.0158- 3		2.9983- 1	2.9942- 1	4.1023- 4
1.0937+ 0	1.7021+ 0	5.5952- 2	1.0022+ 1	1.6623- 1	9.4389+ 0	4.1782- 1	1.3339- 3		3.0093- 1	3.0053- 1	4.0529- 4
1.1028+ 0	1.7104+ 0	5.5683- 2	9.9740+ 0	1.6358- 1	9.3975+ 0	4.1113- 1	1.8484- 3		3.0240- 1	3.0201- 1	3.9880- 4
1.1107+ 0	1.7178+ 0	5.5441- 2	9.9307+ 0	1.6122- 1	9.3620+ 0	4.0518- 1	2.4119- 3		3.0375- 1	3.0338- 1	3.9301- 4
1.1206+ 0	1.7269+ 0	5.5151- 2	9.8787+ 0	1.5840- 1	9.3191+ 0	3.9805- 1	3.2261- 3		3.0539- 1	3.0501- 1	3.8611- 4
1.1333+ 0	1.7384+ 0	5.4788- 2	9.8135+ 0	1.5489- 1	9.2649+ 0	3.8919- 1	4.4853- 3		3.0751- 1	3.0713- 1	3.7752- 4
1.1475+ 0	1.7510+ 0	5.4389- 2	9.7423+ 0	1.5110- 1	9.2054+ 0	3.7864- 1	6.1925- 3		3.0987- 1	3.0950- 1	3.6825- 4
1.1582+ 0	1.7655+ 0	5.4097- 2	9.6900+ 0	1.4834- 1	9.1813+ 0	3.7288- 1	7.8958- 3		3.1168- 1	3.1130- 1	3.6149- 4
1.1741+ 0	1.7744+ 0	5.3874- 2	9.6142+ 0	1.4437- 1	9.0989+ 0	3.6288- 1	1.0286- 2		3.1432- 1	3.1397- 1	3.5178- 4
1.1901+ 0	1.7881+ 0	5.3282- 2	9.5404+ 0	1.4054- 1	9.0334+ 0	3.5308- 1	1.3340- 2		3.1701- 1	3.1687- 1	3.4247- 4
1.2051+ 0	1.8007+ 0	5.2891- 2	9.4739+ 0	1.3709- 1	8.9751+ 0	3.4509- 1	1.6810- 2		3.1959- 1	3.1928- 1	3.3474- 4
1.2275+ 0	1.8181+ 0	5.2358- 2	9.3781+ 0	1.3218- 1	8.8900+ 0	3.3388- 1	2.2237- 2		3.2348- 1	3.2313- 1	3.2387- 4
1.2558+ 0	1.8484+ 0	5.1498- 2	9.2241+ 0	1.2438- 1	8.7505+ 0	3.1557- 1	3.3844- 2		3.3008- 1	3.2977- 1	3.0811- 4
1.2949+ 0	1.8720+ 0	5.0874- 2	9.1128+ 0	1.1882- 1	8.6475+ 0	3.0288- 1	4.3732- 2		3.3521- 1	3.3482- 1	2.9358- 4
1.3318+ 0	1.8996+ 0	5.0135- 2	8.9804+ 0	1.1235- 1	8.5228+ 0	2.8752- 1	5.7755- 2		3.4174- 1	3.4146- 1	2.7890- 4
1.3628+ 0	1.9219+ 0	4.9533- 2	8.8780+ 0	1.0735- 1	8.4225+ 0	2.7577- 1	7.0374- 2		3.4723- 1	3.4686- 1	2.6750- 4
1.3970+ 0	1.9482+ 0	4.8938- 2	8.7855+ 0	1.0215- 1	8.3148+ 0	2.6350- 1	8.5278- 2		3.5343- 1	3.5317- 1	2.5559- 4
1.4558+ 0	1.9869+ 0	4.7957- 2	8.5901+ 0	9.4102- 2	8.1382+ 0	2.4439- 1	1.1247- 1		3.6418- 1	3.6382- 1	2.3708- 4
1.5000+ 0	2.0144+ 0	4.7278- 2	8.4886+ 0	8.8881- 2	8.0142+ 0	2.3140- 1	1.3440- 1		3.7236- 1	3.7213- 1	2.2448- 4
1.5898+ 0	2.0682+ 0	4.6050- 2	8.2485+ 0	7.8954- 2	7.7787+ 0	2.0938- 1	1.8346- 1		3.8854- 1	3.8834- 1	2.0310- 4
1.7188+ 0	2.1371+ 0	4.4564- 2	7.6824+ 0	6.7578- 2	7.4891+ 0	1.8310- 1	2.6284- 1		4.1522- 1	4.1505- 1	1.7781- 4
1.7847+ 0	2.1713+ 0	4.3882- 2	7.6587+ 0	6.2892- 2	7.3138+ 0	1.7183- 1	3.0883- 1		4.2778- 1	4.2759- 1	1.6648- 4
1.8923+ 0	2.2227+ 0	4.2848- 2	7.6751+ 0	5.5783- 2	7.0780+ 0	1.5519- 1	3.8812- 1		4.4888- 1	4.4871- 1	1.5054- 4
2.0440+ 0	2.2882+ 0	4.1858- 2	7.4818+ 0	4.7829- 2	6.7782+ 0	1.3810- 1	4.9870- 1		4.8013- 1	4.8000- 1	1.3202- 4
2.0858+ 0	2.3038+ 0	4.1340- 2	7.4050+ 0	4.5934- 2	6.6983+ 0	1.3180- 1	5.2890- 1	4.7183- 7	4.8843- 1	4.8830- 1	1.2784- 4
2.0999+ 0	2.3094+ 0	4.1238- 2	7.3867+ 0	4.5320- 2	6.6718+ 0	1.3053- 1	5.3934- 1	1.1048- 8	4.9127- 1	4.9115- 1	1.2682- 4
2.1086+ 0	2.3121+ 0	4.1191- 2	7.3782+ 0	4.5033- 2	6.6590+ 0	1.2989- 1	5.4435- 1	1.5388- 6	4.9263- 1	4.9251- 1	1.2599- 4
2.1140+ 0	2.3150+ 0	4.1139- 2	7.3690+ 0	4.4718- 2	6.6451+ 0	1.2918- 1	5.4992- 1	2.1281- 6	4.9414- 1	4.9402- 1	1.2531- 4
2.1195+ 0	2.3172+ 0	4.1101- 2	7.3621+ 0	4.4487- 2	6.6349+ 0						

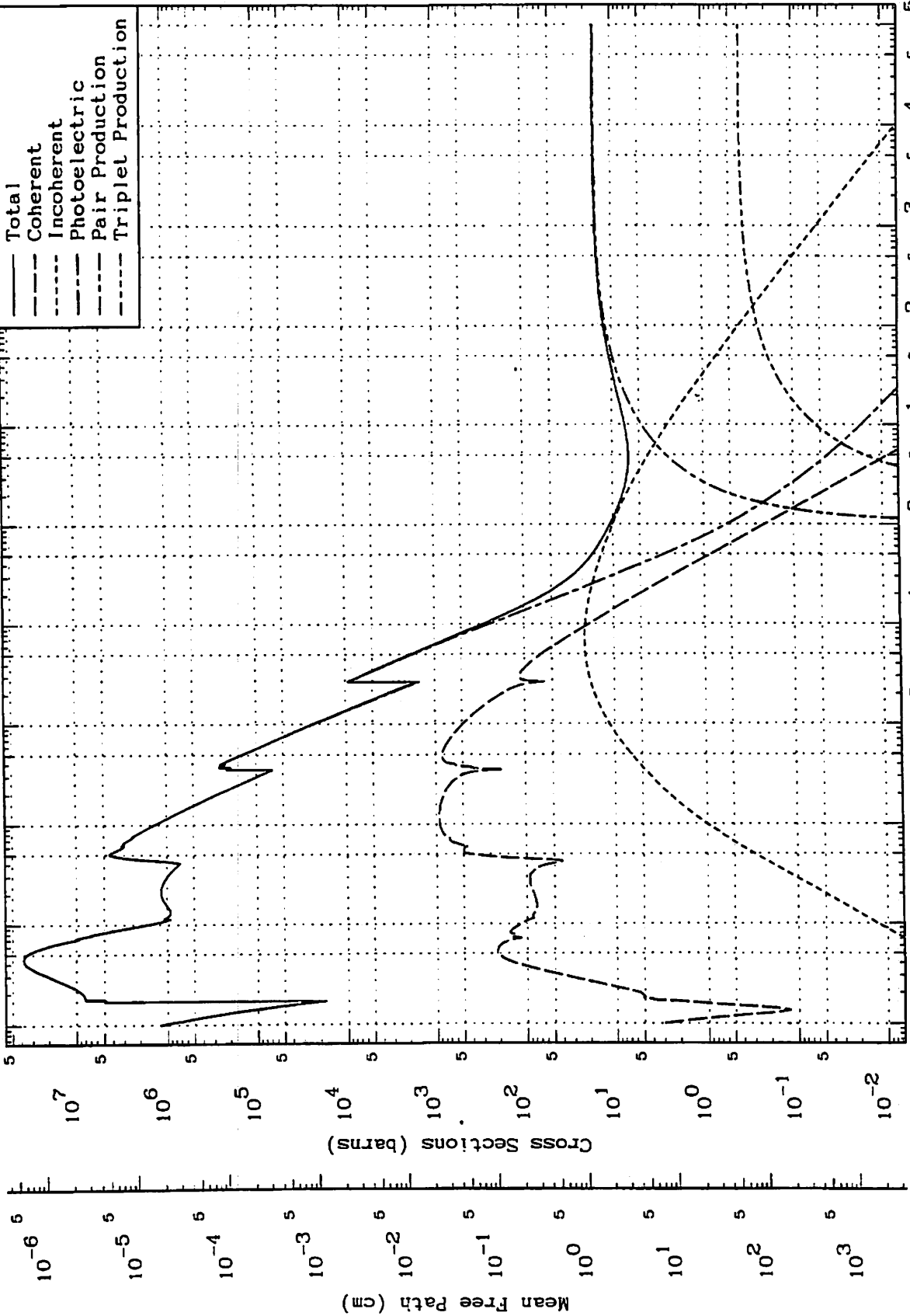
October 31, 1989
Atomic Weight 107.870

ENDL Evaluated
Photon Data

47-AI
Density 10.500 Gr/cm³

Energy keV	Total Mean Free Path cm	catn/gram	Total	Cross Sections (barns)						Energy Deposition (MeV/cc)		
				Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence	
2.6604+ 0	2.4984+ 0	3.8397- 2	6.8777+ 0	2.8254- 2	5.7982+ 0	9.0483- 2	9.6011- 1	7.2704- 4	6.1608- 1	6.1699- 1	8.7369- 5	
2.7453+ 0	2.4984+ 0	3.8299- 2	6.8824+ 0	2.8536- 2	5.6911+ 0	8.6186- 2	1.0193+ 0	9.7010- 4	6.3837- 1	6.3829- 1	8.7691- 5	
2.8090+ 0	2.5129+ 0	3.7900- 2	6.7898+ 0	2.5346- 2	6.8142+ 0	8.3178- 2	1.0849+ 0	1.7783+ 3	6.3808- 1	6.3800- 1	8.0883+ 5	
2.8045+ 0	2.5289+ 0	3.7845- 2	6.7431+ 0	2.5711- 2	5.5040+ 0	7.6990- 2	1.1346+ 0	1.5182+ 3	6.7846- 1	6.7639- 1	7.6611+ 5	
3.0399+ 0	2.5507+ 0	3.7239- 2	6.6981+ 0	2.1848- 2	5.3573+ 0	7.3722- 2	1.2334+ 0	2.0575+ 3	7.1244- 1	7.1207- 1	7.1511+ 5	
3.2344+ 0	2.5944+ 0	3.6651- 2	6.6008+ 0	1.8125- 2	5.1462+ 0	6.7503- 2	1.3651+ 0	2.8730+ 3	7.6071- 1	7.6035- 1	6.5478+ 5	
3.4374+ 0	2.6092+ 0	3.6500- 2	6.5390+ 0	1.6933- 2	4.9471+ 0	6.1806- 2	1.5080+ 0	4.0678+ 3	8.1841- 1	8.1535- 1	6.0049+ 5	
4.2500+ 0	2.8447+ 0	3.5811- 2	6.4504+ 0	1.3971- 2	4.6481+ 0	5.3963- 2	1.7282+ 0	6.2385+ 3	9.1101- 1	9.1088- 1	5.2374+ 5	
4.0000+ 0	2.6584+ 0	3.5683- 2	6.4235+ 0	1.2508- 2	4.4844+ 0	4.9910+ 0	1.8890+ 0	7.7290+ 3	9.7591- 1	9.7556- 1	4.8413+ 5	
4.2500+ 0	2.6732+ 0	3.5687- 2	6.3817+ 0	1.1090- 2	4.3116+ 0	4.6009+ 0	2.0134+ 0	9.5595+ 3	1.0501+ 0	1.0500+ 0	4.4629+ 5	
5.5135+ 0	2.8684+ 0	3.5731- 2	6.4002+ 0	6.5651- 3	4.0118+ 0	3.9827- 2	2.3090+ 0	1.3391+ 2	1.2131+ 0	1.2130+ 0	3.8429+ 5	
5.3840+ 0	2.8433+ 0	3.6030- 2	6.4339+ 0	4.9431- 3	3.8424+ 0	3.2639- 2	2.6991+ 0	1.8979+ 2	1.4783+ 0	1.4782+ 0	3.1831+ 5	
7.4833+ 0	2.5940+ 0	3.6715- 2	6.5764+ 0	3.5751- 3	2.8273+ 0	2.7163- 2	3.1030+ 0	2.6513+ 2	1.7852+ 0	1.7852+ 0	2.6348+ 5	
9.0000+ 0	2.5114+ 0	3.7982- 2	6.5782+ 0	2.4719- 3	2.8273+ 0	2.2221- 2	3.5779+ 0	3.5545+ 2	2.2898+ 0	2.2898+ 0	2.1555+ 5	
1.0000+ 1	2.4584+ 0	3.8771- 2	6.5448+ 0	2.0022- 3	2.3846+ 0	1.5700+ 0	4.4780+ 0	5.4520+ 2	3.3542+ 0	3.3542+ 0	1.7247+ 5	
1.3000+ 1	2.3123+ 0	4.1189- 2	7.3778+ 0	1.1849- 3	1.8672+ 0	1.1800+ 0	5.3240+ 0	7.3820+ 2	4.8482+ 0	4.8482+ 0	1.1252+ 5	
1.6000+ 1	2.1265+ 0	4.4766- 2	8.0222+ 0	6.1800+ 4	1.5407+ 0	8.0600+ 3	8.3730+ 0	9.9820+ 2	7.6220+ 0	7.6220+ 0	7.8183+ 6	
2.6000+ 1	1.9290+ 0	4.8371- 2	8.8434+ 0	2.8821- 4	1.1520+ 0	5.4090+ 3	7.5550+ 0	1.3070+ 1	1.2559+ 1	1.2558+ 1	5.2439+ 6	
4.2170+ 1	1.7060+ 0	5.5786+ 2	9.6878+ 0	1.1260+ 1	7.6696+ 1	3.2414+ 3	9.0273+ 0	1.7118+ 1	2.3674+ 1	2.3674+ 1	3.1442+ 6	
6.0000+ 1	1.5787+ 0	6.0403+ 2	1.0820+ 1	5.5622+ 5	5.8731+ 1	2.2470+ 3	1.0030+ 1	2.0000+ 0	3.6876+ 1	3.6876+ 1	2.1785+ 6	
1.0000+ 2	1.4394+ 0	6.6626+ 2	1.1934+ 1	2.0024+ 5	3.6510+ 1	1.3310+ 3	1.1310+ 1	2.3780+ 1	6.8801+ 1	6.8801+ 1	1.2911+ 6	
2.0000+ 2	1.2978+ 0	7.3383+ 2	1.3145+ 1	5.0060+ 6	2.1300+ 1	6.5890+ 4	1.2850+ 1	2.8090+ 1	1.5388+ 2	1.5288+ 2	8.3914+ 7	
5.0000+ 2	1.2007+ 0	7.6321+ 2	1.4208+ 1	8.0095+ 7	6.4075+ 2	2.6200+ 4	1.3790+ 1	3.2150+ 1	4.1512+ 2	4.1512+ 2	2.5414+ 7	
1.0000+ 3	1.1810+ 0	8.2034+ 2	1.4694+ 1	2.0024+ 7	5.2490+ 2	1.3070+ 4	1.4300+ 1	3.4150+ 1	8.6001+ 2	8.6001+ 2	1.2678+ 7	
5.0000+ 4	1.1228+ 0	8.4639+ 2	1.5187+ 1	8.0095+ 9	1.2419+ 2	2.6110+ 5	1.4820+ 1	3.6410+ 1	4.4528+ 3	4.4528+ 3	2.5327+ 8	
1.0000+ 5	1.1181+ 0	8.5332+ 2	1.5285+ 1	2.0024+ 9	6.6309+ 3	1.3050+ 5	1.4910+ 1	3.8820+ 1	6.9594+ 3	6.9594+ 3	1.2639+ 8	
1.0000+ 5	1.1097+ 0	8.5827+ 2	1.5373+ 1	2.0021+ 11	8.0090+ 4	1.3050+ 6	1.6000+ 1	3.7270+ 1	9.0117+ 4	9.0117+ 4	1.2639+ 9	

October 31, 1989
 Atomic Weight 112.400
 ENUL Evaluated
 Photon Cross Sections
 Density 8.650 Grams/cc



48-Cd

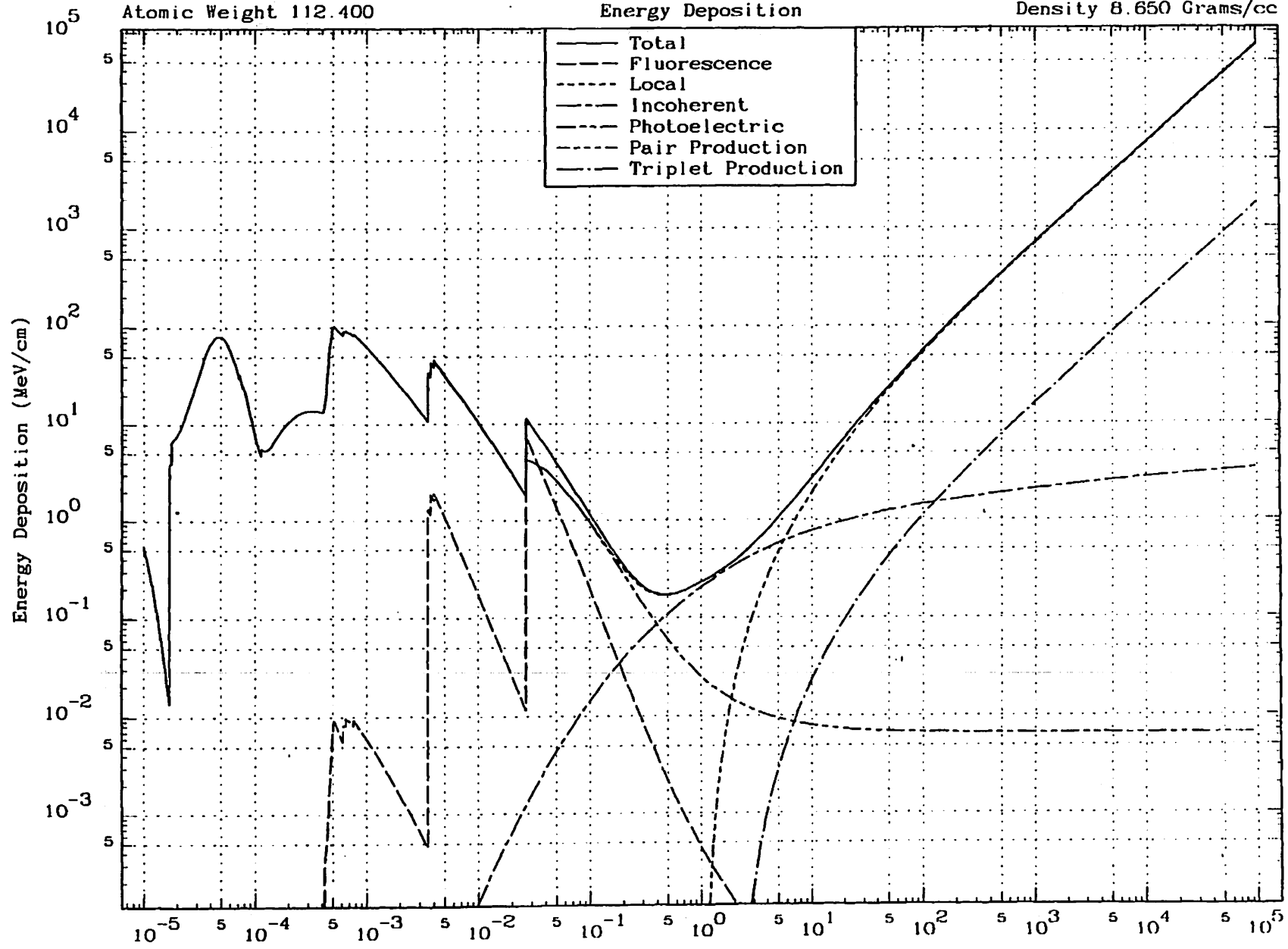
335

October 31, 1989
Atomic Weight 112.400

ENDL Evaluated
Energy Deposition

48-Cd
Density 8.650 Grams/cc

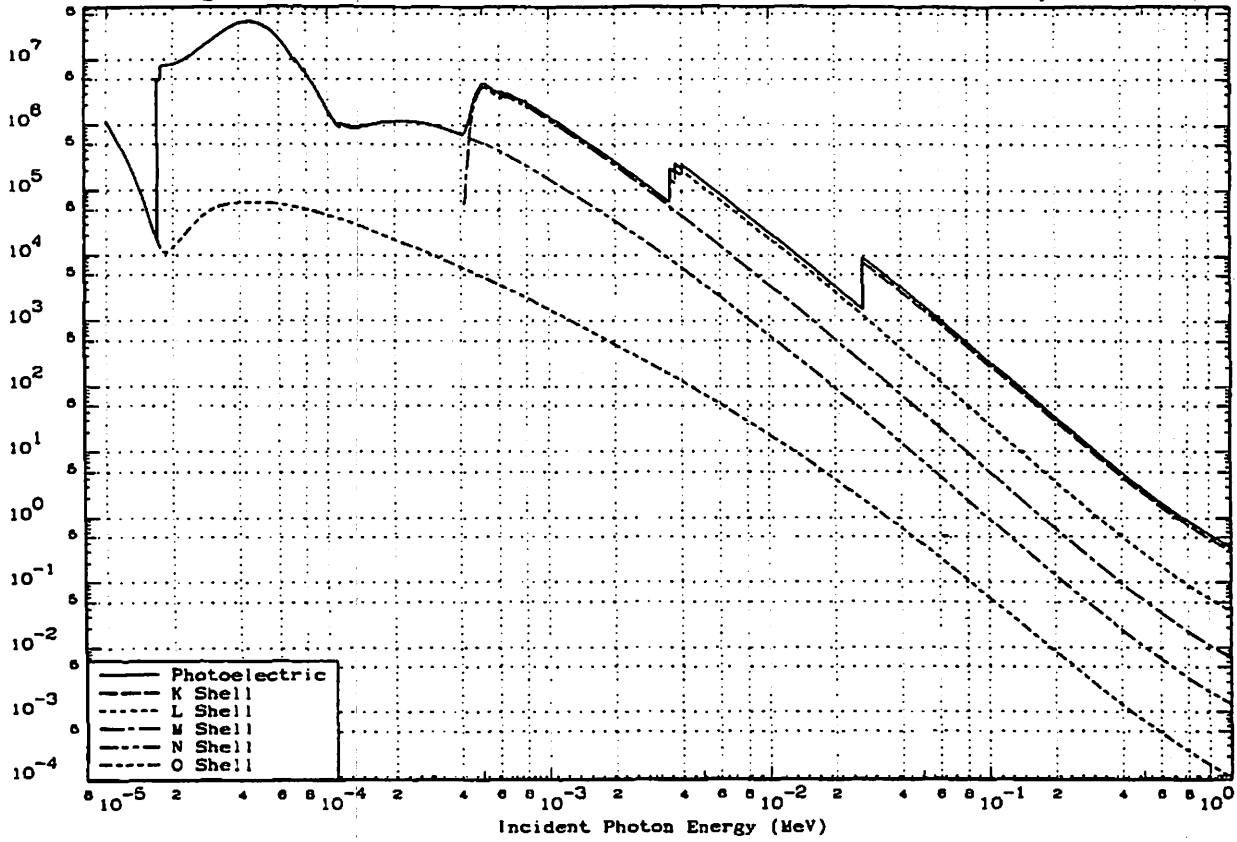
336



October 31, 1989
Atomic Weight 112.400

ENDL Evaluated
Photoelectric Shell Cross Sections

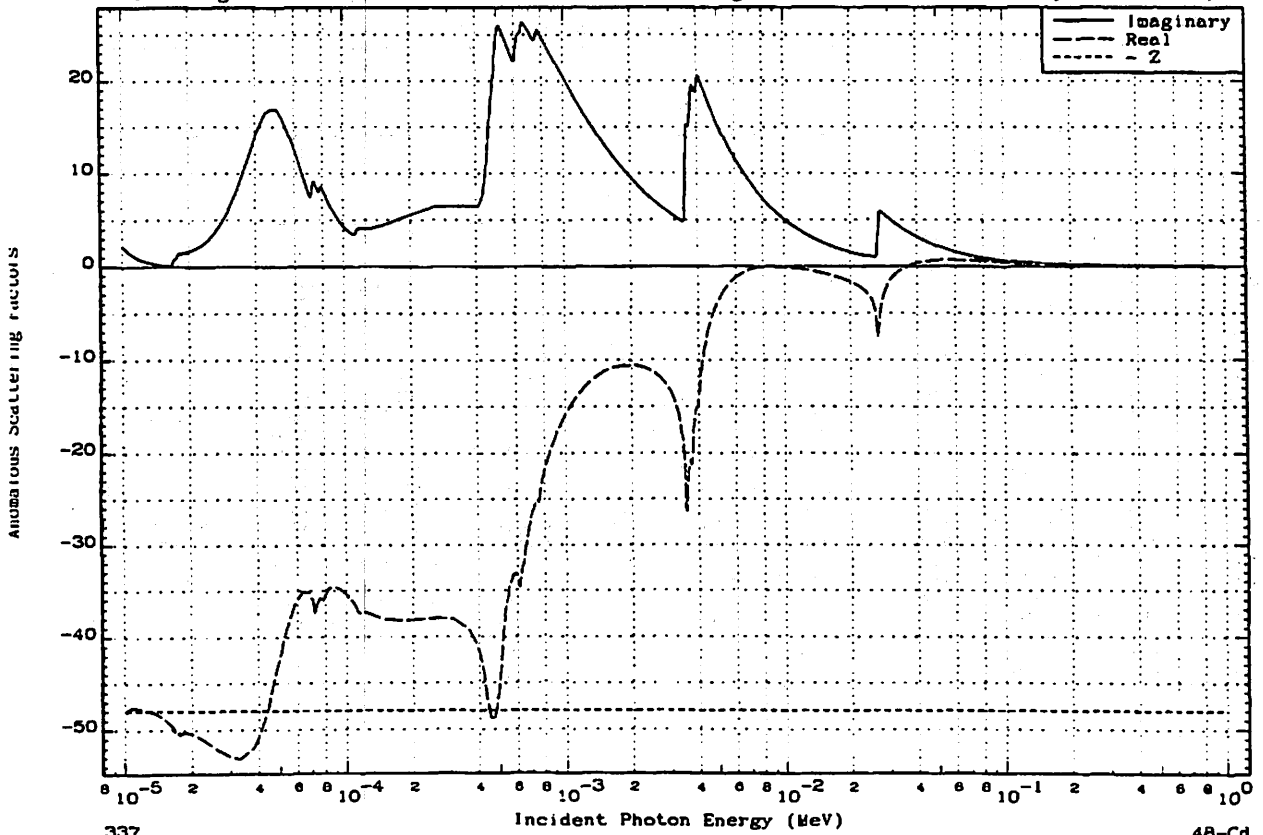
48-Cd
Density 8.650 Grams/cc



October 31, 1989
Atomic Weight 112.400

ENDL Evaluated
Anomalous Scattering Factors

48-Cd
Density 8.650 Grams/cc



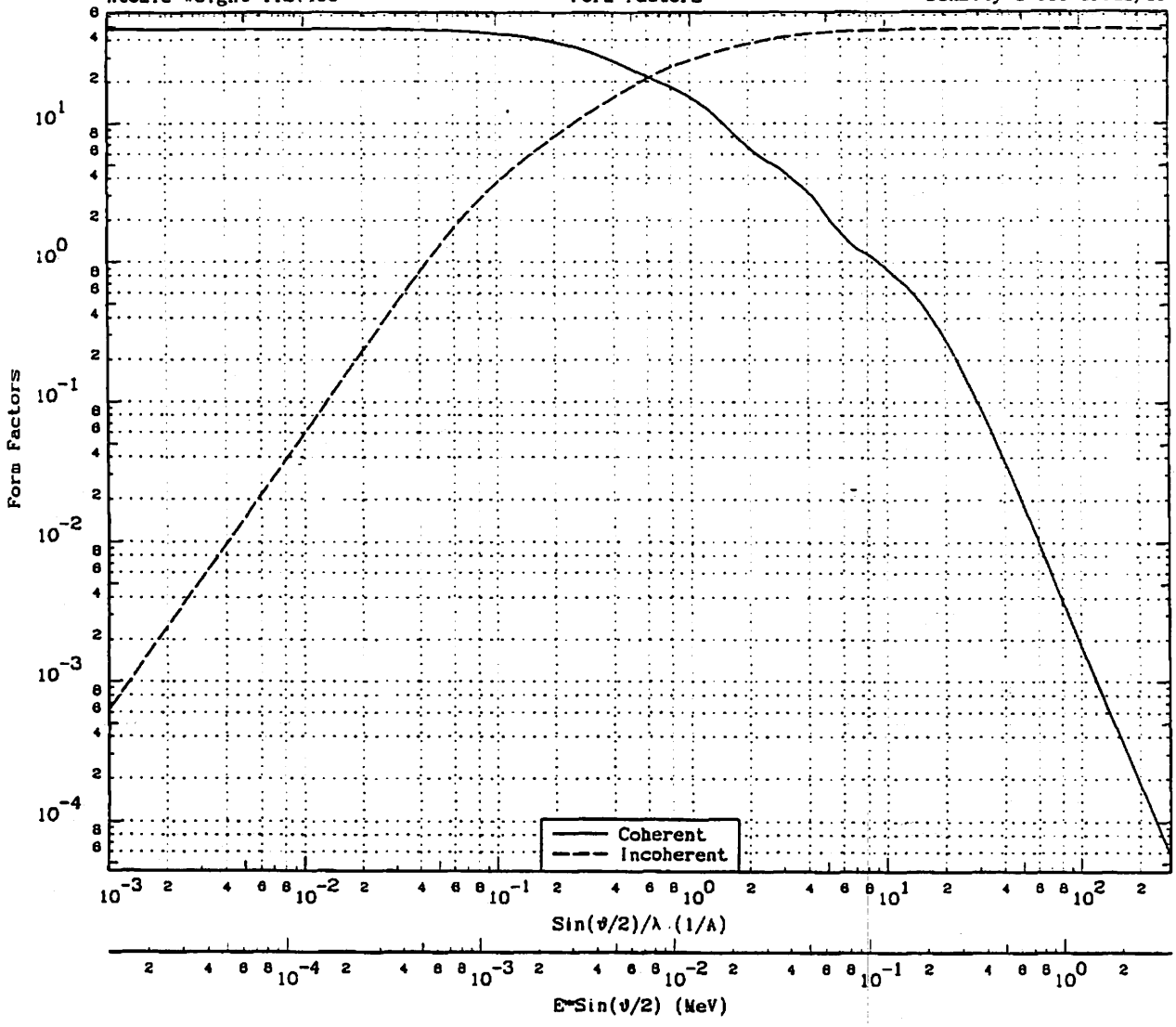
337

48-Cd

October 31, 1989
Atomic Weight 112.400

ENDL Evaluated
Form Factors

48-Cd
Density 8.650 Grams/cc



$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/A	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+ 0	0.0000+ 0	4.8000+ 1	0.0000+ 0	7.0000- 1	8.8790- 3	1.9657+ 1	2.3501+ 1	1.7089+ 1	2.1183- 1	4.0002- 1	4.7916+ 1
1.0000- 3	1.2399- 5	4.8000+ 1	8.2388- 4	8.0000- 1	9.9188- 3	1.8249+ 1	2.5548+ 1	2.0000+ 1	2.4797- 1	2.7687- 1	4.7963+ 1
5.0000- 3	6.1993- 5	4.7986+ 1	1.5000- 2	9.0000- 1	1.1159- 2	1.6845+ 1	2.7252+ 1	2.4430+ 1	3.0290- 1	1.8471- 1	4.7993+ 1
1.0000- 2	1.2399- 4	4.7956+ 1	5.9000- 2	1.0000+ 0	1.2399- 2	1.5533+ 1	2.8705+ 1	3.0885+ 1	3.8293- 1	8.4407- 2	4.8007+ 1
1.5000- 2	1.8598- 4	4.7910+ 1	1.3210- 1	1.2500+ 0	1.5488- 2	1.2484+ 1	3.1666+ 1	3.9756+ 1	4.9292- 1	3.8835- 2	4.8003+ 1
2.0000- 2	2.4797- 4	4.7841+ 1	2.3240- 1	1.5000+ 0	1.8598- 2	9.8830+ 0	3.4048+ 1	5.0000+ 1	6.1993- 1	1.8518- 2	4.8000+ 1
2.5000- 2	3.0996- 4	4.7753+ 1	3.5820- 1	2.0000+ 0	2.4797- 2	6.6907+ 0	3.7818+ 1	6.0000+ 1	9.9188- 1	3.8464- 3	4.8000+ 1
3.0000- 2	3.7196- 4	4.7647+ 1	5.0750- 1	2.3750+ 0	2.8446- 2	5.5499+ 0	3.9545+ 1	1.0000+ 2	1.2399+ 0	1.8150- 3	4.8000+ 1
4.0000- 2	4.9594- 4	4.7383+ 1	8.6850- 1	2.5000+ 0	3.0998- 2	5.3031+ 0	4.0085+ 1	1.7111+ 2	2.1215+ 0	3.0855- 4	4.8000+ 1
5.0000- 2	6.1993- 4	4.7059+ 1	1.2880+ 0	3.0000+ 0	3.7196- 2	4.5486+ 0	4.1870+ 1	2.8881+ 2	3.5783+ 0	5.7874- 5	4.8000+ 1
7.0000- 2	8.8790- 4	4.6238+ 1	2.2373+ 0	3.5000+ 0	4.3395- 2	3.7941+ 0	4.3188+ 1	5.3880+ 2	6.8603+ 0	8.1834- 6	4.8000+ 1
9.0000- 2	1.1159- 3	4.5263+ 1	3.2201+ 0	4.0000+ 0	4.9594- 2	3.2442+ 0	4.4184+ 1	1.0000+ 3	1.2399+ 1	1.2318- 6	4.8000+ 1
1.0000- 1	1.2399- 3	4.4733+ 1	3.7000+ 0	4.4250+ 0	5.4873- 2	2.7238+ 0	4.4811+ 1	2.6333+ 3	3.2849+ 1	6.7128- 8	4.8000+ 1
1.2500- 1	1.5498- 3	4.3329+ 1	4.8433+ 0	5.0000+ 0	6.1993- 2	2.1445+ 0	4.5437+ 1	6.6119+ 3	8.1978+ 1	4.4412- 9	4.8000+ 1
1.5000- 1	1.8598- 3	4.1859+ 1	5.9210+ 0	6.0000+ 0	7.4391- 2	1.5803+ 0	4.6139+ 1	1.4898+ 4	1.8473+ 2	4.1810- 10	4.8000+ 1
1.7500- 1	2.1697- 3	4.0376+ 1	6.9607+ 0	6.7891+ 0	8.4175- 2	1.3291+ 0	4.6505+ 1	4.2648+ 4	5.2875+ 2	2.0342- 11	4.8000+ 1
2.0000- 1	2.4797- 3	3.8890+ 1	7.9800+ 0	7.0000+ 0	8.8790- 2	1.2859+ 0	4.6589+ 1	1.0000+ 6	1.2399+ 4	2.6074- 15	4.8000+ 1
2.5000- 1	3.0996- 3	3.5964+ 1	9.9556+ 0	8.0000+ 0	9.9188- 2	1.1580+ 0	4.6915+ 1	5.6234+ 6	6.9722+ 4	1.8906- 17	4.8000+ 1
3.0000- 1	3.7196- 3	3.3184+ 1	1.1812+ 1	9.1387+ 0	1.1331- 1	1.0077+ 0	4.7198+ 1	7.4899+ 7	9.2975+ 5	1.1062- 20	4.8000+ 1
4.0000- 1	4.9594- 3	2.8343+ 1	1.5185+ 1	1.0000+ 1	1.2399- 1	9.0210- 1	4.7388+ 1	1.0000+ 8	1.2399+ 7	8.2552- 24	4.8000+ 1
5.0000- 1	6.1993- 3	2.4619+ 1	1.8283+ 1	1.3154+ 1	1.8309- 1	8.3687- 1	4.7739+ 1				
6.0000- 1	7.4391- 3	2.1883+ 1	2.1084+ 1	1.5000+ 1	1.8598- 1	5.1652- 1	4.7850+ 1				

October 31, 1989
Atomic Weight 112.400

ENDL Evaluated
Photon Data

48-Cd
Density 8.650 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cm)			
	cm	cc*cm/graz	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.8553-5	6.2313-3	1.1630+6	3.0285+0	1.3500-4	1.1630-6			5.3901-1	5.3901-1	
1.0526-5	2.5618-5	4.5127+3	8.4227+5	1.9298+0	1.4944-4	8.4227+5			4.1087-1	4.1087-1	
1.0841-5	3.0858-5	3.7464+3	6.9924-5	1.4573+0	1.5847-4	6.9924-5			3.5132-1	3.5132-1	
1.1558-5	4.6380-5	2.4937+3	4.6543+5	7.4585+0	1.7994-4	4.6543+5			2.4932-1	2.4932-1	
1.1959-5	5.8770-5	1.9871+3	3.8715-5	4.8390-1	1.8252-4	3.8715-5			2.0348-1	2.0348-1	
1.2798-5	9.5275-5	1.2134+3	2.2848-5	1.9878-1	2.2028-4	2.2848-5			1.3433-1	1.3433-1	
1.3062-5	1.1185-4	1.0336+3	1.8292-5	1.5242-1	2.2939-4	1.8292-5			1.1679-1	1.1679-1	
1.3434-5	1.3938-4	8.2944+2	1.5481-5	1.2355-1	2.4252-4	1.5481+5			9.8385-2	9.8385-2	
1.3962-5	1.8301-4	5.8898+2	1.1179+5	1.4811-1	2.8178-4	1.1179-5			7.2334-2	7.2334-2	
1.4200-5	2.2402-4	5.1607+2	9.6321+4	1.8069-1	2.7071-4	9.6321+4			6.3387-2	6.3387-2	
1.4844-5	2.9566-4	3.9101+2	7.2981+4	2.7593-1	2.8777-4	7.2981+4			4.8528-2	4.8528-2	
1.5458-5	5.0443-4	2.2918+2	4.2776+4	7.4351-1	3.2039-4	4.2776+4			3.0644-2	3.0644-2	
1.5814-5	6.3448-4	1.8220+2	3.4007+4	1.0789+0	3.3519-4	3.4006+4			2.4822-2	2.4822-2	
1.6450-5	9.4364-4	1.2251+2	2.2856+4	1.8227+0	3.6251-4	2.2856+4			1.7431-2	1.7431-2	
1.6830-5	1.0430-3	1.1084+2	2.0688+4	2.4079+0	3.7041-4	2.0688+4			1.5943-2	1.5943-2	
1.6900-5	1.2098-3	9.5557+1	1.7835+4	3.6829+0	3.8244-4	1.7832+4			1.3966-2	1.3966-2	
1.6970-5	1.2538-3	9.2209+1	1.7210+4	3.8627+0	3.8558-4	1.7208+4			1.3532-2	1.3532-2	
5 1.6970-5	4.4040-6	2.8251+4	4.8995+6	3.8627+0	3.8558-4	4.8995+6			3.8533+0	3.8533+0	
1.7048-5	4.4082-6	2.8225+4	4.8948+6	4.0723+0	3.8910-4	4.8948+6			3.8873+0	3.8873+0	
1.7168-5	4.4188-6	2.8188+4	4.8875+6	4.0407+0	3.9455-4	4.8875+6			3.8887+0	3.8887+0	
1.7254-5	4.4195-6	2.8159+4	4.8824+6	3.9727+0	3.9848-4	4.8824+6			3.8040+0	3.8040+0	
1.7451-5	4.4289-6	2.8087+4	4.8709+6	4.2582+0	4.0759-4	4.8709+6			3.8386+0	3.8386+0	
1.7837-5	4.4394-6	2.8041+4	4.8604+6	4.8893+0	4.1824-4	4.8604+6			3.9728+0	3.9728+0	
1.7710-5	4.4431-6	2.8019+4	4.8564+6	5.0297+0	4.1966-4	4.8564+6			3.8859+0	3.8859+0	
14 1.7710-5	2.6950-6	4.2896+4	8.0064+6	5.0297+0	4.1966-4	8.0064+6			6.5714+0	6.5714+0	
1.7782-5	2.6959-6	4.2882+4	8.0037+6	5.1718+0	4.2305-4	8.0037+6			6.5958+0	6.5958+0	
1.7917-5	2.8977-6	4.2855+4	7.9988+6	5.0588+0	4.2847-4	7.9988+6			6.8418+0	6.8418+0	
1.8014-5	2.8989-6	4.2835+4	7.9950+6	4.8927+0	4.3408-4	7.9950+6			6.8746+0	6.8746+0	
2.0000-5	2.8807-6	4.4787+4	8.3611+6	5.5492+0	5.3420-4	8.3611+6			7.7498+0	7.7498+0	
2.2134-5	2.2376-6	5.1666+4	9.6432+6	8.7013+0	6.5323-4	9.6432+6			9.8918+0	9.8918+0	
2.4485-5	1.8083-6	6.3930+4	1.1832-7	1.4438+1	7.8878-4	1.1832-7			1.3548+1	1.3548+1	
3.0000-5	1.0907-6	1.0599+5	1.9783+7	3.9327+1	1.1944-3	1.9783+7			2.7504+1	2.7504+1	
3.3133-5	8.4837-7	1.3827+5	2.5434+7	6.2562+1	1.4540-3	2.5434+7			3.9055+1	3.9055+1	
3.5908-5	7.1045-7	1.6278+5	3.0371+7	8.7778+1	1.7045-3	3.0371+7			5.0544+1	5.0544+1	
3.8587-5	6.2827-7	1.8401+5	3.4344+7	1.1759+2	1.9847-3	3.4344+7			6.1418+1	6.1418+1	
4.0000-5	5.8538-7	1.8417+5	3.8242+7	1.3400+2	2.1093-3	3.8242+7			6.7184+1	6.7184+1	
4.4706-5	5.8184-7	2.0573+5	3.8398+7	1.8227+2	2.8277-3	3.8398+7			7.8557+1	7.8557+1	
4.8066-5	5.8853-7	1.9710+5	3.6788+7	2.0276+2	3.0319-3	3.6788+7			8.1948+1	8.1948+1	
5.0057-5	6.1492-7	1.8800+5	3.5090+7	2.1495+2	3.2851-3	3.5089+7			8.1403+1	8.1403+1	
5.2332-5	6.6578-7	1.7385+5	3.2410+7	2.1524+2	3.5865-3	3.2410+7			7.8804+1	7.8804+1	
5.6035-5	7.9421-7	1.4556+5	2.7188+7	2.1132+2	4.1051-3	2.7188+7			7.0553+1	7.0553+1	
5.8810-5	9.2483-7	1.2499+5	2.3328+7	2.0746+2	4.4861-3	2.3328+7			6.3366+1	6.3366+1	
6.0000-5	1.0015-6	1.1544+5	2.1546+7	2.0142+2	4.6987-3	2.1546+7			5.9912+1	5.9912+1	
6.3571-5	1.2708-6	9.0975+4	1.8980-7	1.8727+2	5.2870-3	1.8980-7			5.0025+1	5.0025+1	
6.4807-5	1.3757-6	8.4032+4	1.5684+7	1.7824+2	5.4713-3	1.5684+7			4.7107+1	4.7107+1	
6.7571-5	1.6878-6	6.8496+4	1.2785+7	1.6014+2	5.9418-3	1.2784+7			4.0035+1	4.0035+1	
7.0497-5	2.0855-6	5.5406+4	1.0341+7	1.3206+2	6.4608-3	1.0341+7			3.3786+1	3.3786+1	
7.1472-5	2.2514-6	5.1348+4	9.5839+6	1.1722+2	6.6385-3	9.5838+6			3.1745+1	3.1745+1	
7.1792-5	2.3078-6	5.0084+4	9.3488+6	1.1533+2	6.8973-3	9.3497+6			3.1108+1	3.1108+1	
7.2190-5	2.3795-6	4.8584+4	9.0878+6	1.2030+2	6.7708-3	9.0878+6			3.0337+1	3.0337+1	
V3 7.2190-5	2.1072-6	5.4864+4	1.0240+7	1.2030+2	6.7708-3	1.0240+7			3.4259+1	3.4259+1	1.4179-5
7.2460-5	2.1478-6	5.3832+4	1.0047+7	1.2378+2	6.8209-3	1.0047+7			3.3740+1	3.3740+1	1.4088-5
7.2955-5	2.2232-6	5.2000+4	9.7055+6	1.3554+2	6.9133-3	9.7053+6			3.2815+1	3.2815+1	1.3923-5
7.3499-5	2.3087-6	5.0074+4	9.3481+6	1.4429+2	7.0154-3	9.3480+6			3.1835+1	3.1835+1	1.3745-5
7.5748-5	2.7311-6	4.2300+4	7.8007+6	1.4608+2	7.4459-3	7.8006+6			2.7735+1	2.7735+1	1.3045-5
7.7728-5	3.1589-6	3.8597+4	6.8306+6	1.3505+2	7.8354-3	6.8305+6			2.4608+1	2.4608+1	1.2306-5
7.8220-5	3.2738-6	3.5314+4	6.5913+6	1.3868+2	7.8334-3	6.5911+6			2.3893+1	2.3893+1	1.2101-5
V2 7.8220-5	3.0381-6	3.8052+4	7.1023-6	1.3868+2	7.8334-3	7.1021+6			2.5746+1	2.5746+1	2.0869-5
7.8452-5	3.2858-6	3.5077+4	6.5470+6	1.5014+2	8.1821-3	6.5468+6			2.4107+1	2.4107+1	2.0455-5
8.2582-5	4.1208-6	2.8054+4	5.2382-6	1.5438+2	8.8310-3	5.2380+6			2.0040+1	2.0040+1	1.8836-5
8.8368-5	6.1583-6	1.8772+4	3.5038-6	1.4398+2	1.0085-2	3.5036+6			1.4349+1	1.4349+1	1.5415-5
1.0000-4	1.3144-5	8.7951+3	1.6416+6	1.1834+2	1.2888-2	1.6414+6			7.6072+0	7.6072+0	1.0330-5
1.0802-4	1.9684-5	5.8732+3	1.0962-6	6.7476+1	1.5008-2	1.0961+6			5.4870+0	5.4870+0	8.3978-6
1.1070-4	2.1779-5	5.3083+3	9.9076+5	9.0908+1	1.5751-2	9.9076+5			5.0826+0	5.0826+0	7.9079-6
1.1289-4	2.3474-5	4.9250+3	9.1822+5	8.3316+1	1.6372-2	9.1914+5			4.8090+0	4.8090+0	7.5929-6
1.1336-4	2.3816-5	4.8541+3	9.0600+5	8.3679+1	1.6506-2	9.0591+5			4.7594+0	4.7594+0	7.5282-6
V1 1.1336-4	1.8784-5	5.8435+3	1.0907+6	8.3679+1	1.6506-2	1.0906+6			5.7295+0	5.7295+0	1.0355-5
1.1809-4	2.1010-5	5.5025+3	1.0270+6	8.7309+1	1.7301-2	1.0289+6			5.5252+0	5.5252+0	9.8867-6
1.2340-4	2.3054-5	5.0148+3	9.3595+5	8.5049+1	1.8518-2	9.3587+5			5.3523+0	5.3523+0	9.2925-6
1.3300-4	2.3738-5	4.8708+3	9.0908+5	8.1074+1	2.2826-2	9.0889+5			5.8030+0	5.8030+0	8.8914-6
1.4051-4	2.3224-5	4.9780+3	9.2912+5	7.9388+1	2.5214-2	9.2904+5			6.0487+0	6.0487+0	8.3924-6
1.5000-4	2.2088-5	5.2339+3	9.7888+5	7.7425+1	2.8886-2	9.7881+5			6.7905+0	6.7905+0	8.0877-6
1.7714-4	1.9504-5	5.9275+3	1.1063+6	8.0512+1	3.9828-2	1.1063+6			8.0819+0	8.0819+0	7.6494-6
2.0000-4	1.8650-5	6.1989+3	1.1570+6	8.3803+1	5.0608-2	1.1589+6			1.0723+1	1.0723+1	7.3432-6
2.3735-4	1.8978-5	6.0922+3	1.1371+6	9.0903+1	7.0948-2	1.1370+6			1.2507+1	1.2507+1	6.7153-6
2.6787-4	2.0005-5	5.7788+3	1.0786+6	9.2879+1	8.9839-2	1.0785+6			1.3379+1	1.3379+1	6.1714-6
3.0486-4	2.1900-5	5.2789+3	9.8528+5	9.2346+1	1.1812-1	9.8519+5			1.3910+1	1.3910+1	5.5827-6
3.5853-4	2.5859-5	4.4707+3	8.3444+5	7.8513+1	1.5898-1	8.3438+5			1.3864+1	1.3864+1	4.7341-6
3.8688-4	2.8297-5	4.0855+3	7.8253+5	6.2493+1	1.8393-1	7.8247+5			1.3871+1	1.3871+1	4.3837-6
4.1286-4	3.0582-5	3.7803+3	7.0557+5	4.3534+1	2.0832-1	7.0552+5			1.3499+1	1.3499+1	4.0957-6
4.1286-4	2.8102-5	4.1138+3	7.6781+5	4.3534+1	2.0832-1	7.6777+5			1.4690+1	1.4690+1	4.8828-6
4.1697-4	2.8035-5	4.1237+3	7.6967+5	4.1435+1	2.1231-1	7.6963+5			1.4873+1	1.4873+1	4.7356-6
4.2008-4	2.7748-5	4.1684+3	7.7763+5	4.0857+1	2.1534-1	7.7759+5			1.5138+1	1.5138+1	4.8388-6
V4 4.2008-4	2.5849-5	4.4724+3	8.3474+5	4.0857+1	2.1534-1	8.3470+5			1.6250+1	1.6250+1	3.1884-4
4.2343-4	2.4984-5	4.8309+3	8.6433+5	4.0240+1	2.1866-1	8.6429+5			1.6861+1	1.6861+1	3.3321-4
4.2847-4	2.2747-5	5.0822+3	9.4857+5	4.1785+1	2.2367-1	9.4853+5			1.8835+1	1.8835+1	3.5969-4
4.3348-4	1.9755-5	5.8520+3	1.0922+6	4.8784+1	2.2872-1	1.0922+6			2.1942+1	2.1942+1	4.0940-4

October 31, 1989
Atomic Weight 112.400

ENDL Evaluated
Photon Data

48-Cd
Density 8.650 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
4.3928-4	1.6372-5	7.0611+3	1.3179+6	5.8632+1	2.3462-1	1.3179+6			2.6830-1	2.6829+1	4.9268-4
4.5056-4	1.1118-5	1.0398+4	1.9408+6	1.0053+2	2.4630-1	1.9407+6			4.0524+1	4.0523+1	7.9216-4
4.5818-4	9.4239-6	1.2267+4	2.2897+6	1.2968+2	2.5222-1	2.2895+6			4.8404+1	4.8403+1	1.0603-3
4.5862-4	8.6674-6	1.3338+4	2.4895+6	1.5127-2	2.5587-1	2.4893+6			5.3025+1	5.3024+1	1.2646-3
4.7036-4	7.0551-6	1.8388+4	3.0584+6	2.1751+2	2.6742-1	3.0582+6			6.6864+1	6.6862+1	2.1755-3
4.8301-4	6.0102-6	1.9235+4	3.5801+6	2.9316+2	2.8087-1	3.5898+6			8.0359+1	8.0355+1	4.0611-3
5.0000-4	5.0562-6	2.2869+4	4.2884+6	4.2473+2	2.9639-1	4.2879+6			9.8898+1	9.8890+1	8.2209-3
5.0581-4	4.9739-6	2.3243+4	4.3381+6	4.5687+2	3.0581-1	4.3377+6			1.0184+2	1.0163-2	8.9114-3
5.1487-4	5.0455-6	2.2813+4	4.2768+6	4.6882+2	3.1581-1	4.2761+6			1.0199+2	1.0189+2	9.0560-3
5.4969-4	5.8417-6	1.9790+4	3.6937+6	5.0298+2	3.5684-1	3.6932+6			9.4083+1	9.4078+1	7.5125-3
5.7238-4	8.4140-6	1.8024+4	3.3641+6	4.9115+2	3.8431-1	3.3638+6			8.9228+1	8.9219+1	6.6375-3
6.0000-4	7.0988-6	1.8288+4	3.0397+6	4.5453+2	4.1928-1	3.0392+6			8.4511+1	8.4508+1	5.8496-3
6.0424-4	7.1948-6	1.8068+4	2.9990+6	4.4837+2	4.2474-1	2.9985+6			8.3988+1	8.3982+1	5.7675-3
6.0891-4	7.3019-6	1.5832+4	2.9550+6	4.5014+2	4.3083-1	2.9546+6			8.3377+1	8.3372+1	5.6790-3
6.1263-4	7.3877-6	1.5849+4	2.9207+6	4.7597+2	4.3571-1	2.9203+6			8.2812+1	8.2807+1	5.6099-3
M3 6.1283-4	6.8982-6	1.7259+4	3.2214+6	4.7597+2	4.3571-1	3.2209+6			9.1449+1	9.1440+1	8.2656-3
6.2018-4	6.8083-6	1.8980+4	3.1693+6	5.3485+2	4.4539-1	3.1687+6			9.1078+1	9.1070+1	8.2645-3
6.3030-4	6.9562-6	1.6619+4	3.1019+6	5.6795+2	4.5825-1	3.1013+6			9.0583+1	9.0584+1	8.2630-3
6.4248-4	7.1584-6	1.8150+4	3.0143+6	5.8654+2	4.7397-1	3.0137+6			8.9734+1	8.9728+1	8.1718-3
6.4770-4	7.2589-6	1.5831+4	2.9734+6	6.1074+2	4.8089-1	2.9728+6			8.9247+1	8.9239+1	8.0959-3
M2 6.4778-4	6.9579-6	1.8815+4	3.1011+6	6.1074+2	4.8089-1	3.1005+6			9.3083+1	9.3073+1	8.7032-3
6.5778-4	7.1288-6	1.8217+4	3.0288+6	6.5743+2	4.9403-1	3.0282+6			9.2252+1	9.2242+1	8.5852-3
6.8234-4	7.8045-6	1.5202+4	2.8374+6	8.9454+2	5.2897-1	2.8367+6			8.9705+1	8.9696+1	9.2508-3
7.0394-4	8.0528-6	1.4356+4	2.6795+6	7.1376+2	5.5672-1	2.6789+6			8.7392+1	8.7383+1	8.9102-3
7.4786-4	9.0495-6	1.2775+4	2.3844+6	7.1257+2	6.1934-1	2.3837+6			8.2617+1	8.2609+1	8.1535-3
7.5537-4	9.2287-6	1.2530+4	2.3388+6	7.3089+2	6.3034-1	2.3379+6			8.1842+1	8.1834+1	8.0299-3
M1 7.5537-4	8.8449-6	1.3071+4	2.4395+6	7.3089+2	6.3034-1	2.4388+6			8.5376+1	8.5367+1	9.3175-3
7.6528-4	9.0679-6	1.2749+4	2.3795+6	7.7881+2	6.4498-1	2.3788+6			8.4387+1	8.4388+1	9.1370-3
7.8439-4	9.5108-6	1.2155+4	2.2687+6	8.1457+2	6.7362-1	2.2678+6			8.2444+1	8.2436+1	8.7932-3
8.0868-4	1.0108-5	1.1438+4	2.1348+6	8.4147+2	7.0831-1	2.1339+6			7.9975+1	7.9968+1	8.3782-3
9.0418-4	1.2789-5	9.0538+3	1.8898+6	8.8974+2	8.5127-1	1.8889+6			7.0772+1	7.0785+1	7.0066-3
1.0000-3	1.5738-5	7.3457+3	1.3710+6	8.1455+2	1.0049+0	1.3701+6			6.3498+1	6.3492+1	5.9611-3
1.2443-3	2.5880-5	4.5018+3	8.4025+5	9.2840+2	1.3982+0	8.3932+5			4.8401+1	4.8397+1	4.0813-3
1.5000-3	3.9700-5	2.9120+3	5.4351+5	9.0791+2	1.8113+0	5.4280+5			3.7720+1	3.7717+1	2.8345-3
2.0000-3	7.8589-5	1.4709+3	2.7453+5	8.1462+2	2.5849+0	2.7371+5			2.5370+1	2.5368+1	1.5853-3
2.2634-3	1.0689-4	1.0808+3	2.0170+5	7.5806+2	2.9755+0	2.0094+5			2.1078+1	2.1077+1	1.2225-3
2.5775-3	1.4787-4	7.8180+2	1.4592+5	6.7413+2	3.4494+0	1.4524+5			1.7350+1	1.7349+1	9.2442-4
2.7137-3	1.6810-4	6.8773+2	1.2838+5	6.3785+2	3.8391+0	1.2772+5			1.6083+1	1.6082+1	8.2750+4
3.0000-3	2.1511-4	5.3742+2	1.0031+5	5.4235+2	4.0393+0	9.8761+4			1.3870+1	1.3869+1	6.6512-4
3.0813-3	2.3045-4	5.0185+2	9.3631+4	5.1208+2	4.1532+0	9.3115+4			1.3297+1	1.3296+1	6.2560+4
3.2319-3	2.6085-4	4.4353+2	8.2782+4	4.4402+2	4.3645+0	8.2334+4			1.2332+1	1.2332+1	5.6080+4
3.3239-3	2.8028-4	4.1246+2	7.6883+4	3.8838+2	4.4837+0	7.6590+4			1.1788+1	1.1788+1	5.2590+4
3.3989-3	2.9858-4	3.8980+2	7.2754+4	3.3245+2	4.5984+0	7.2417+4			1.1400+1	1.1400+1	5.0038+4
3.4421-3	3.0705-4	3.7851+2	7.0274+4	2.8330+2	4.6602+0	6.9866+4			1.1185+1	1.1184+1	4.8541+4
3.4846-3	3.1238-4	3.7011+2	6.9079+4	2.5058+2	4.6918+0	6.8823+4			1.1051+1	1.1050+1	4.7824+4
3.5084-3	3.2247-4	3.5850+2	6.8913+4	1.8253+2	4.7507+0	6.8675+4			1.0843+1	1.0843+1	4.6528+4
3.5132-3	3.2410-4	3.5870+2	6.8578+4	1.7772+2	4.7603+0	6.8393+4			1.0810+1	1.0810+1	4.6320+4
3.5289-3	3.2582-4	3.5471+2	6.8205+4	1.7741+2	4.7711+0	6.8032+4			1.0773+1	1.0773+1	4.6091+4
3.5354-3	3.2930-4	3.5107+2	6.5528+4	1.9829+2	4.7916+0	6.5325+4			1.0703+1	1.0703+1	4.5657+4
L3 3.5354-3	1.0075-4	1.1474+3	2.1418+5	1.9829+2	4.7916+0	2.1396+5			3.0567+1	3.0739+1	1.3180+0
3.5800-3	1.0249-4	1.1278+3	2.1052+5	2.5836+2	4.8262+0	2.1026+5			3.4690+1	3.3385+1	1.2854+0
3.5725-3	1.0338-4	1.1183+3	2.0872+5	2.9830+2	4.8439+0	2.0842+5			3.4507+1	3.3223+1	1.2841+0
3.5830-3	1.0485-4	1.1028+3	2.0579+5	3.4604+2	4.8728+0	2.0544+5			3.4209+1	3.2943+1	1.2858+0
3.6074-3	1.0589-4	1.0917+3	2.0377+5	3.6677+2	4.8930+0	2.0340+5			3.4004+1	3.2750+1	1.2833+0
3.6253-3	1.0721-4	1.0783+3	2.0128+5	3.8022+2	4.9174+0	2.0068+5			3.3749+1	3.2512+1	1.2878+0
3.6582-3	1.0861-4	1.0557+3	1.9703+5	3.8851+2	4.9574+0	1.9884+5			3.3319+1	3.2107+1	1.2118+0
3.7003-3	1.1288-4	1.0244+3	1.9119+5	3.8824+2	5.0148+0	1.9080+5			3.2720+1	3.1544+1	1.1780+0
3.7155-3	1.1402-4	1.0139+3	1.8925+5	3.9982+2	5.0543+0	1.8894+5			3.2518+1	3.1354+1	1.1640+0
3.7309-3	1.1519-4	1.0038+3	1.8732+5	4.2280+2	5.0542+0	1.8689+5			3.2315+1	3.1183+1	1.1521+0
L2 3.7309-3	8.3871-5	1.3784+3	2.5727+5	4.2280+2	5.0542+0	2.5684+5			4.4410+1	4.2520+1	1.8902+0
3.7705-3	8.8079-5	1.3430+3	2.5087+5	5.0973+2	5.1054+0	2.5018+5			4.3713+1	4.1872+1	1.8412+0
3.7957-3	8.7500-5	1.3212+3	2.4660+5	5.5087+2	5.1380+0	2.4604+5			4.3281+1	4.1470+1	1.8110+0
3.8177-3	8.8782-5	1.3024+3	2.4309+5	5.7427+2	5.1684+0	2.4252+5			4.2908+1	4.1122+1	1.7852+0
3.8565-3	9.1018-5	1.2702+3	2.3707+5	5.8598+2	5.2166+0	2.3847+5			4.2283+1	4.0522+1	1.7409+0
3.9181-3	9.8895-5	1.1858+3	2.2315+5	6.0945+2	5.3393+0	2.2254+5			4.0753+1	3.9115+1	1.6387+0
3.9941-3	9.8291-5	1.1643+3	2.1731+5	6.3882+2	5.3842+0	2.1667+5			4.0107+1	3.8511+1	1.5857+0
L1 3.9941-3	8.5657-5	1.3488+3	2.5180+5	6.3882+2	5.3842+0	2.5126+5			4.6510+1	4.4587+1	1.9224+0
4.0528-3	9.0169-5	1.2821+3	2.3830+5	7.1223+2	5.4698+0	2.3858+5			4.4809+1	4.2890+1	1.8193+0
4.0738-3	9.1288-5	1.2687+3	2.3642+5	7.3384+2	5.4989+0	2.3589+5			4.4407+1	4.2889+1	1.7879+0
4.2189-3	9.8888-5	1.1881+3	2.1820+5	7.9179+2	5.6812+0	2.1740+5			4.2487+1	4.0825+1	1.6626+0
4.5886-3	1.2185-4	9.5038+2	1.7738+5	8.4309+2	6.1800+0	1.7653+5			3.7549+1	3.6193+1	1.3553+0
5.2024-3	1.8779-4	6.8899+2	1.2860+5	8.3901+2	6.8813+0	1.2775+5			3.0801+1	2.9819+1	9.8178-1
6.2238-3	6.2603-4	4.3457+2	8.1110+4	7.6121+2	8.0470+0	8.0341+4			2.3173+1	2.2555+1	6.1892-1
7.7904-3	4.7859-4	2.4158+2	4.5085+4	6.3514+2	9.6758+0	4.4440+4			1.8044+1	1.5701+1	3.4295-1
1.0000-2	9.3030-4	1.2427+2	2.3194+4	4.9022+2	1.1868+0	2.2892+4			1.0517+1	1.0341+1	1.7524-1
1.3344-2	2.0288-3	5.8988+1	1.0637+4	3.4845+2	1.3970+1	1.0278+4			6.3548+0	6.2752+0	7.9417-2
1.7154-2	4.0080-3	2.8844+1	5.3838+3	2.3977+2	1.5843+1	5.1280+3			4.0789+0	4.0373+0	3.9621-2
2.0000-2	6.0873-3	1.8991+1	3.5448+3	1.8308+2	1.6858+1	3.3447+3			3.1008+0	3.0750+0	2.5842-2
2.2202-2	8.1362-3	1.4208+1	2.6520+3	1.4742+2	1.7582+1	2.4870+3			2.5598+0	2.5404+0	1.9213-2
2.3548-2	9.5948-3	1.2049+1	2.2489+3	1.2825+2	1.8005+1	2.1048+3			2.2878+0	2.2813+0	1.8258-2
2.4339-2	1.0530-2	1.0978+1	2.0491+3	1.1452+2	1.8189+1	1.9184+3			2.1825+0	2.1478+0	1.4803-2
2.4980-2	1.1344-2	1.0191+1	1.9021+3	1.0364+2	1.8335+1	1.7801+3			2.0818+0	2.0480+0	1.3751-2
2.5687-2	1.2285-2	9.4103+0	1.7584+3	8.9649+1	1.9488+1	1.6483+3			1.9817+0	1.9489+0	1.2732-2
2.5921-2	1.2860-2	9.1314+0	1.7043+3	8.2941+1	1.8544+1	1.6028+3			1.9286+0	1.9142+0	1.2381-2

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.6578-2	1.3729-2	8.4209+0	1.5717+3	6.0140+1	1.8688+1	1.4929+3			1.8401+0	1.8286+0	1.1531-2
2.6688-2	1.3859-2	8.3414+0	1.5569+3	6.2657+1	1.8712+1	1.4755+3			1.8262+0	1.8148+0	1.1397-2
K 2.6868-2	2.2984-3	5.0298+1	9.3978+3	6.2657+1	1.8712+1	9.3065+3			1.1512+1	4.2222+0	7.2898-0
2.6886-2	2.3605-3	4.8976+1	9.1412+3	6.2520+1	1.8776+1	9.0399+3			1.1289+1	4.2143+0	7.0638-0
2.7117-2	2.3883-3	4.8405+1	9.0346+3	6.0353+1	1.8804+1	8.8254+3			1.1206+1	4.2108+0	6.9950+0
2.7237-2	2.4142-3	4.7887+1	8.8378+3	6.5668+1	1.8829+1	8.8233+3			1.1124+1	4.2077+0	6.9160+0
2.7467-2	2.4856-3	4.6888+1	8.7514+3	1.0143+2	1.8878+1	8.6311+3			1.0969+1	4.2017+0	6.7871+0
2.8099-2	2.6121-3	4.4258+1	8.2805+3	1.0635+2	1.9011+1	8.1321+3			1.0586+1	4.1857+0	6.5807+0
2.9524-2	2.9647-3	3.8995+1	7.2781+3	1.1528+2	1.9302+1	7.1435+3			9.7848+0	4.1508+0	5.8141+0
3.0973-2	3.3544-3	3.4464+1	6.4326+3	1.1452+2	1.9573+1	6.2685+3			9.0097+0	4.0501+0	4.9598+0
3.3603-2	4.1405-3	2.7921+1	5.2114+3	1.0838+2	1.9921+1	5.0831+3			7.8477+0	3.8305+0	4.0172+0
4.1474-2	7.1601-3	1.8148+1	3.0138+3	8.5375+1	2.0839+1	2.9074+3			5.5799+0	3.2827+0	2.3189+0
5.1523-2	1.2858-2	8.9908+0	1.8781+3	6.1829+1	2.1445+1	1.5947+3			3.8887+0	2.5338+0	1.2748+0
7.7337-2	3.8293-2	3.0190+0	5.6348+2	3.0700+1	2.1841+1	5.1114+2			1.8405+0	1.4291+0	4.1140+1
1.0000-0	7.8882-2	1.5235+0	2.8435+2	1.9163+1	2.1299+1	2.4389+2			1.1447+0	0.4794+1	1.9881-1
1.3765-1	1.6849-1	8.8614-1	1.2807+2	1.0540+1	2.0247+1	9.7278+1			6.4321-1	5.6452-1	7.8897-2
1.7321-1	2.8229-1	4.0954-1	7.6439+1	6.7949+0	1.9303+1	5.0341+1			4.3568-1	3.8510-1	4.0777-2
2.1512-1	4.3256-1	2.8720-1	4.9871+1	4.4627+0	1.8308+1	2.7101+1			3.1239-1	2.8043-1	2.1981-2
2.7193-1	6.3978-1	1.6070-1	3.3727+1	2.8139+0	1.7029+1	1.3885+1			2.3106-1	2.1982-1	1.1245-2
3.1448-1	7.6095-1	1.4803-1	2.7630+1	2.1092+0	1.8281+1	9.2393+0			2.0138-1	1.8390-1	7.4841-3
3.7258-1	9.5286-1	1.2135-1	2.2850+1	1.5060+0	1.5295+1	6.8485+0			1.8108-1	1.7633-1	4.7419-3
4.4721-1	1.1398+0	1.0143-1	1.8931+1	1.0471+0	1.4301+1	3.5827+0			1.7173-1	1.6883-1	2.9017-3
5.7571-1	1.3984+0	8.2888-2	1.5430+1	6.3303-1	1.2891+1	1.9059+0			1.7578-1	1.7424-1	1.5448-3
7.4448-1	1.6620+0	6.9559-2	1.2983+1	3.7898-1	1.1558+1	1.0463-0			1.6572-1	1.8487-1	8.4905-4
1.0000+0	1.9889+0	5.8130-2	1.0850+1	2.1010-1	1.0086+1	5.5346-1			2.3216-1	2.3172-1	4.4941-4
1.0220+0	2.0151+0	5.7372-2	1.0708+1	2.0122-1	9.9802+0	5.2870-1			2.3520-1	2.3477-1	4.2768-4
1.0251+0	2.0189+0	5.7263-2	1.0688+1	2.0001-1	9.9844+0	5.2350-1	1.4111-7		2.3581-1	2.3518-1	4.2508-4
1.0281+0	2.0225+0	5.7161-2	1.0668+1	1.9889-1	9.9495+0	5.2048-1	1.0435-8		2.3600-1	2.3558-1	4.2282-4
1.0287+0	2.0233+0	5.7139-2	1.0665+1	1.9861-1	9.9462+0	5.1982-1	1.4111-8		2.3609-1	2.3566-1	4.2209-4
1.0295+0	2.0242+0	5.7113-2	1.0680+1	1.9832-1	9.9425+0	5.1807-1	1.9311-6		2.3819-1	2.3576-1	4.2148-4
1.0301+0	2.0249+0	5.7092-2	1.0658+1	1.9809-1	9.9395+0	5.1846-1	2.4285-8		2.3628-1	2.3584-1	4.2099-4
1.0310+0	2.0260+0	5.7062-2	1.0650+1	1.9775-1	9.9350+0	5.1756-1	3.3231-6		2.3638-1	2.3586-1	4.2025-4
1.0320+0	2.0272+0	5.7028-2	1.0644+1	1.9737-1	9.9300+0	5.1656-1	4.5468-6		2.3651-1	2.3609-1	4.1844-4
1.0332+0	2.0287+0	5.6987-2	1.0638+1	1.9691-1	9.9241+0	5.1536-1	6.3893-8		2.3867-1	2.3825-1	4.1847-4
1.0340+0	2.0298+0	5.6960-2	1.0631+1	1.9661-1	9.9201+0	5.1458-1	7.8189-8		2.3878-1	2.3838-1	4.1783-4
1.0353+0	2.0312+0	5.6919-2	1.0623+1	1.9612-1	9.9138+0	5.1327-1	1.0613-5		2.3895-1	2.3853-1	4.1877-4
1.0368+0	2.0328+0	5.6871-2	1.0615+1	1.9562-1	9.9070+0	5.1195-1	1.4111-5		2.3712-1	2.3671-1	4.1570-4
1.0382+0	2.0347+0	5.6818-2	1.0605+1	1.9503-1	9.8993+0	5.1041-1	1.9043-5		2.3733-1	2.3692-1	4.1448-4
1.0397+0	2.0365+0	5.6768-2	1.0595+1	1.9447-1	9.8919+0	5.0894-1	2.4740-5		2.3753-1	2.3711-1	4.1328-4
1.0415+0	2.0387+0	5.6707-2	1.0584+1	1.9391-1	9.8831+0	5.0719-1	3.2918-5		2.3778-1	2.3735-1	4.1184-4
1.0438+0	2.0414+0	5.6631-2	1.0570+1	1.9326-1	9.8718+0	5.0496-1	4.5689-5		2.3807-1	2.3766-1	4.1003-4
1.0464+0	2.0448+0	5.6544-2	1.0554+1	1.9201-1	9.8591+0	5.0246-1	6.3568-5		2.3841-1	2.3800-1	4.0799-4
1.0483+0	2.0488+0	5.6481-2	1.0542+1	1.9132-1	9.8499+0	5.0084-1	7.9144-5		2.3886-1	2.3845-1	4.0652-4
1.0512+0	2.0503+0	5.6388-2	1.0524+1	1.9027-1	9.8358+0	4.9789-1	1.0736-4		2.3904-1	2.3864-1	4.0428-4
1.0541+0	2.0537+0	5.6291-2	1.0506+1	1.8924-1	9.8219+0	4.9517-1	1.4111-4		2.3942-1	2.3902-1	4.0208-4
1.0577+0	2.0581+0	5.6173-2	1.0484+1	1.8795-1	9.8045+0	4.9179-1	1.9234-4		2.3990-1	2.3950-1	3.9933-4
1.0611+0	2.0621+0	5.6063-2	1.0464+1	1.8678-1	9.7882+0	4.8885-1	2.5018-4		2.4035-1	2.3995-1	3.9678-4
1.0651+0	2.0668+0	5.5935-2	1.0440+1	1.8538-1	9.7692+0	4.8499-1	3.3121-4		2.4087-1	2.4048-1	3.9381-4
1.0704+0	2.0731+0	5.5788-2	1.0408+1	1.8355-1	9.7441+0	4.8021-1	4.6208-4		2.4157-1	2.4118-1	3.8993-4
1.0782+0	2.0799+0	5.5583-2	1.0374+1	1.8158-1	9.7169+0	4.7505-1	6.3880-4		2.4234-1	2.4195-1	3.8574-4
1.0806+0	2.0851+0	5.5445-2	1.0349+1	1.8012-1	9.6965+0	4.7120-1	7.9750-4		2.4292-1	2.4254-1	3.8281-4
1.0871+0	2.0926+0	5.5245-2	1.0311+1	1.7798-1	9.6684+0	4.6558-1	1.0745-3		2.4378-1	2.4340-1	3.7808-4
1.0937+0	2.1003+0	5.5043-2	1.0273+1	1.7585-1	9.6362+0	4.5999-1	1.4111-3		2.4465-1	2.4428-1	3.7351-4
1.1028+0	2.1108+0	5.4775-2	1.0224+1	1.7305-1	9.5959+0	4.5281-1	1.9583-3		2.4583-1	2.4548-1	3.6752-4
1.1107+0	2.1198+0	5.4536-2	1.0179+1	1.7055-1	9.5596+0	4.4604-1	2.5513-3		2.4690-1	2.4654-1	3.6218-4
1.1206+0	2.1311+0	5.4247-2	1.0125+1	1.6757-1	9.5159+0	4.3821-1	3.4126-3		2.4821-1	2.4786-1	3.5582-4
1.1333+0	2.1454+0	5.3886-2	1.0058+1	1.6385-1	9.4606+0	4.2845-1	4.7445-3		2.4990-1	2.4955-1	3.4790-4
1.1475+0	2.1612+0	5.3453-2	9.9842+0	1.5885-1	9.3998+0	4.1793-1	6.5503-3		2.5179-1	2.5145-1	3.3936-4
1.1582+0	2.1729+0	5.3203-2	9.9301+0	1.5693-1	9.3548+0	4.1028-1	8.1403-3		2.5322-1	2.5289-1	3.3313-4
1.1741+0	2.1902+0	5.2784-2	9.8519+0	1.5273-1	9.2891+0	3.9923-1	1.0881-2		2.5535-1	2.5502-1	3.2418-4
1.1901+0	2.2073+0	5.2376-2	9.7757+0	1.4868-1	9.2242+0	3.8868-1	1.4111-2		2.5750-1	2.5719-1	3.1559-4
1.2051+0	2.2228+0	5.2009-2	9.7072+0	1.4502-1	9.1647+0	3.7987-1	1.7571-2		2.5957-1	2.5926-1	3.0845-4
1.2275+0	2.2457+0	5.1480-2	9.6084+0	1.3881-1	9.0778+0	3.6730-1	2.3523-2		2.6287-1	2.6237-1	2.9824-4
1.2856+0	2.2833+0	5.0830-2	9.4499+0	1.3157-1	8.9354+0	3.4734-1	3.5597-2		2.6788-1	2.6770-1	2.8204-4
1.2949+0	2.3114+0	5.0016-2	9.3353+0	1.2571-1	8.8303+0	3.3310-1	4.6250-2		2.7210-1	2.7183-1	2.7048-4
1.3318+0	2.3456+0	4.8287-2	9.1892+0	1.1887-1	8.7029+0	3.1843-1	6.1081-2		2.7735-1	2.7709-1	2.5894-4
1.3828+0	2.3732+0	4.6713-2	9.0920+0	1.1358-1	8.6005+0	3.0348-1	7.4378-2		2.8177-1	2.8152-1	2.4842-4
1.3970+0	2.4032+0	4.8105-2	8.9785+0	1.0808-1	8.4903+0	2.8988-1	9.0093-2		2.8675-1	2.8651-1	2.3544-4
1.4558+0	2.4524+0	4.7140-2	8.7984+0	9.9558-2	8.3112+0	2.6891-1	1.1873-1		2.9539-1	2.9517-1	2.1835-4
1.5000+0	2.4877+0	4.6472-2	8.6738+0	9.3803-2	8.1858+0	2.5460-1	1.4180-1		3.0200-1	3.0179-1	2.0973-4
1.5898+0	2.5540+0	4.5285-2	8.4484+0	8.3533-2	7.9412+0	2.3038-1	1.9335-1		3.1589-1	3.1569-1	1.8705-4
1.7188+0	2.6390+0	4.3808-2	8.1765+0	7.1498-2	7.6271+0	2.0143-1	2.7645-1		3.3866-1	3.3849-1	1.6358-4
1.7847+0	2.6810+0	4.3121-2	8.0483+0	6.6329-2	7.4823+0	1.8880-1	3.2488-1		3.4682-1	3.4666-1	1.5330-4
1.8923+0	2.7441+0	4.2130-2	7.8633+0	5.9021-2	7.2277+0	1.7071-1	4.0582-1		3.6393-1</		

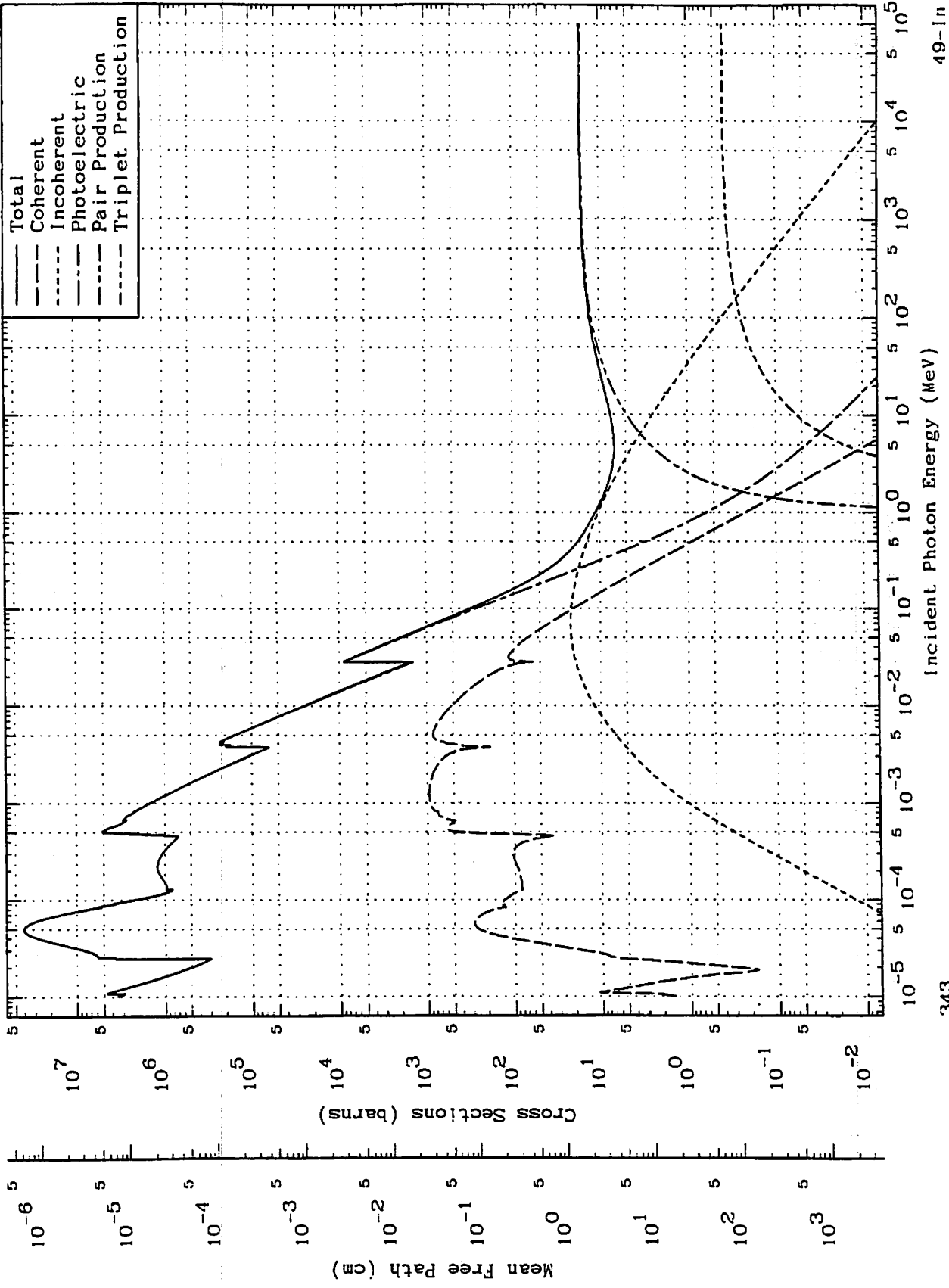
October 31, 1989
Atomic Weight 112.400

ENDL Evaluated
Photon Data

48-Cd
Density 8.650 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
2.2148-0	2.9035+0	3.9817-2	7.4316-0	4.3112-2	6.6009+0	1.3228-1	6.5532-1	2.7425-5	4.1771-1	4.1760-1	1.0739-4
2.2342-0	2.9120+0	3.9701-2	7.4099+0	4.2368-2	6.5689+0	1.3048-1	6.7014-1	3.6891-5	4.2102-1	4.2091-1	1.0595-4
2.2537-0	2.9203+0	3.9587-2	7.3888+0	4.1639-2	6.5331+0	1.2874-1	6.8523-1	4.8158-5	4.2438-1	4.2428-1	1.0453-4
2.2815+0	2.9318+0	3.9433-2	7.3599+0	4.0832-2	6.4858+0	1.2631-1	7.0713-1	6.7454-5	4.2825-1	4.2815-1	1.0256-4
2.3070+0	2.9418+0	3.9288-2	7.3347+0	3.9740-2	6.4432+0	1.2415-1	7.2757-1	8.8601-5	4.3378-1	4.3368-1	1.0081-4
2.3382+0	2.9536+0	3.9141-2	7.3055+0	3.8688-2	6.3920+0	1.2159-1	7.5307-1	1.1913-4	4.3942-1	4.3932-1	9.8728-5
2.3774+0	2.9677+0	3.8955-2	7.2707+0	3.7424-2	6.3293+0	1.1849-1	7.8531-1	1.6498-4	4.4660-1	4.4651-1	9.8214-5
2.4102+0	2.9802+0	3.8791-2	7.2402+0	3.6414-2	6.2781+0	1.1600-1	8.0947-1	2.0983-4	4.5245-1	4.5235-1	9.4190-5
2.4488+0	2.9935+0	3.8619-2	7.2081+0	3.5334-2	6.2222+0	1.1332-1	8.3691-1	2.6892-4	4.5907-1	4.5898-1	9.2012-5
2.4859+0	3.0089+0	3.8447-2	7.1759+0	3.4233-2	6.1640+0	1.1056-1	8.6678-1	3.3606-4	4.6629-1	4.6621-1	8.9777-5
2.5564+0	3.0291+0	3.8166-2	7.1234+0	3.2373-2	6.0626+0	1.0587-1	9.2212-1	4.6158-4	4.7669-1	4.7660-1	8.5962-5
2.6604+0	3.0578+0	3.7808-2	7.0566+0	2.9896-2	5.9209+0	9.9515-2	1.0055+0	7.4238-4	5.0018-1	5.0010-1	8.0606-5
2.7453+0	3.0813+0	3.7519-2	7.0028+0	2.8078-2	5.8116+0	9.4780-2	1.0873+0	9.8363-4	5.1675-1	5.1668-1	7.6961-5
2.8090+0	3.0989+0	3.7330-2	6.9674+0	2.6821-2	5.7331+0	9.1466-2	1.1148+0	1.2033-3	5.2959-1	5.2951-1	7.4270-5
2.9045+0	3.1173+0	3.7086-2	6.9219+0	2.5088-2	5.6206+0	8.6842-2	1.1878+0	1.5502-3	5.4951-1	5.4944-1	7.0515-5
3.0399+0	3.1421+0	3.6793-2	6.8673+0	2.2906-2	5.4707+0	8.1051-2	1.2905+0	2.1010-3	5.7867-1	5.7861-1	6.5813-5
3.2344+0	3.1824+0	3.6328-2	6.7803+0	2.0238-2	5.2653+0	7.4203-2	1.4276+0	3.0360-3	6.1841-1	6.1835-1	6.0253-5
3.4375+0	3.2116+0	3.5996-2	6.7185+0	1.7917-2	5.0518+0	6.8042-2	1.5765+0	4.1542-3	6.6319-1	6.6314-1	5.5250-5
3.7847+0	3.2533+0	3.5538-2	6.6325+0	1.4782-2	4.7485+0	5.9333-2	1.8055+0	6.3722-3	7.4147-1	7.4142-1	4.8178-5
4.0000+0	3.2657+0	3.5401-2	6.6073+0	1.3235-2	4.5794+0	5.4840-2	1.9520+0	7.8930-3	7.8439-1	7.8434-1	4.4530-5
4.2500+0	3.2808+0	3.5239-2	6.5772+0	1.1724-2	4.4030+0	5.0545-2	2.1023+0	9.7518-3	8.5539-1	8.5535-1	4.1043-5
4.7500+0	3.2833+0	3.5211-2	6.5720+0	9.3870-3	4.0988+0	4.3522-2	2.4088+0	1.3839-2	9.8901-1	9.8897-1	3.5339-5
5.5135+0	3.2707+0	3.5348-2	6.5872+0	6.9878-3	3.7198+0	3.5803-2	2.8149+0	1.8980-2	1.2039+0	1.2039+0	2.9072-5
6.3840+0	3.2406+0	3.5674-2	6.6584+0	5.2304-3	3.3521+0	2.9816-2	3.2342+0	2.7874-2	1.4581+0	1.4581+0	2.4210-5
7.4833+0	3.1771+0	3.6388-2	6.7916+0	3.7830-3	2.9994+0	2.4384-2	3.7277+0	3.6290-2	1.8222+0	1.8222+0	1.9799-5
9.0000+0	3.0732+0	3.7818-2	7.0212+0	2.6155-3	2.6337+0	1.9510-2	4.3170+0	4.8310-2	2.3638+0	2.3638+0	1.5842-5
1.0000+1	3.0042+0	3.8481-2	7.1823+0	2.1188-3	2.4453+0	1.7230-2	4.6820+0	5.5660-2	2.7457+0	2.7457+0	1.3991-5
1.3000+1	2.8238+0	4.0840-2	7.8412+0	1.2537-3	2.0089+0	1.2720-2	5.5430+0	7.5370-2	3.9737+0	3.9737+0	1.0328-5
1.8000+1	2.5944+0	4.4559-2	8.3188+0	6.5393-4	1.5734+0	8.8380-3	6.8320+0	1.0190-1	6.2518+0	6.2517+0	7.1785-6
2.8000+1	2.3512+0	4.9189-2	9.1771+0	3.1343-4	1.1784+0	5.8270-3	7.8810+0	1.3340-1	1.0308+1	1.0308+1	4.8127-6
4.2170+1	2.0804+0	5.5571-2	1.0372+1	1.1915-4	8.0263-1	3.5538-3	9.3911+0	1.7487-1	1.8442+1	1.8442+1	2.8855-6
6.0000+1	1.9203+0	6.0202-2	1.1236+1	5.6856-5	5.9978-1	2.4830-3	1.0430+1	2.0400-1	3.0368+1	3.0366+1	2.0000-6
1.0000+2	1.7405+0	6.8422-2	1.2397+1	2.1188-5	3.9328-1	1.4580-3	1.1780+1	2.4270-1	5.6511+1	5.6511+1	1.1839-6
2.0000+2	1.5791+0	7.3212-2	1.3865+1	5.2970-6	2.1752-1	7.2200-4	1.3160+1	2.8850-1	1.2564+2	1.2584-2	5.6626-7
5.0000+2	1.4812+0	7.8118-2	1.4787+1	8.4752-7	9.8419-2	2.8710-4	1.4340+1	3.2790-1	3.4110+2	3.4110+2	2.3312-7
1.0000+3	1.4129+0	8.1823-2	1.5272+1	2.1188-7	5.3804-2	1.4320-4	1.4870+1	3.4820-1	7.0887+2	7.0887+2	1.1828-7
5.0000+3	1.3682+0	8.4822-2	1.5784+1	8.4752-8	1.2682-2	2.8600-5	1.5410+1	3.7180-1	3.6588+3	3.6588+3	2.3223-8
1.0000+4	1.3586+0	8.5095-2	1.5883+1	2.1188-8	6.7715-3	1.4300-5	1.6500+1	3.7580-1	7.3596+3	7.3596+3	1.1612-8
1.0000+5	1.3502+0	8.5824-2	1.5981+1	2.1181-11	8.1789-4	1.4300-8	1.5600+1	3.8050-1	7.4084+4	7.4084+4	1.1812-9

October 31, 1989
 Atomic Weight 114.820
 ENDL Evaluated
 Photon Cross Sections
 Density 7.310 Grams/cc
 49-In



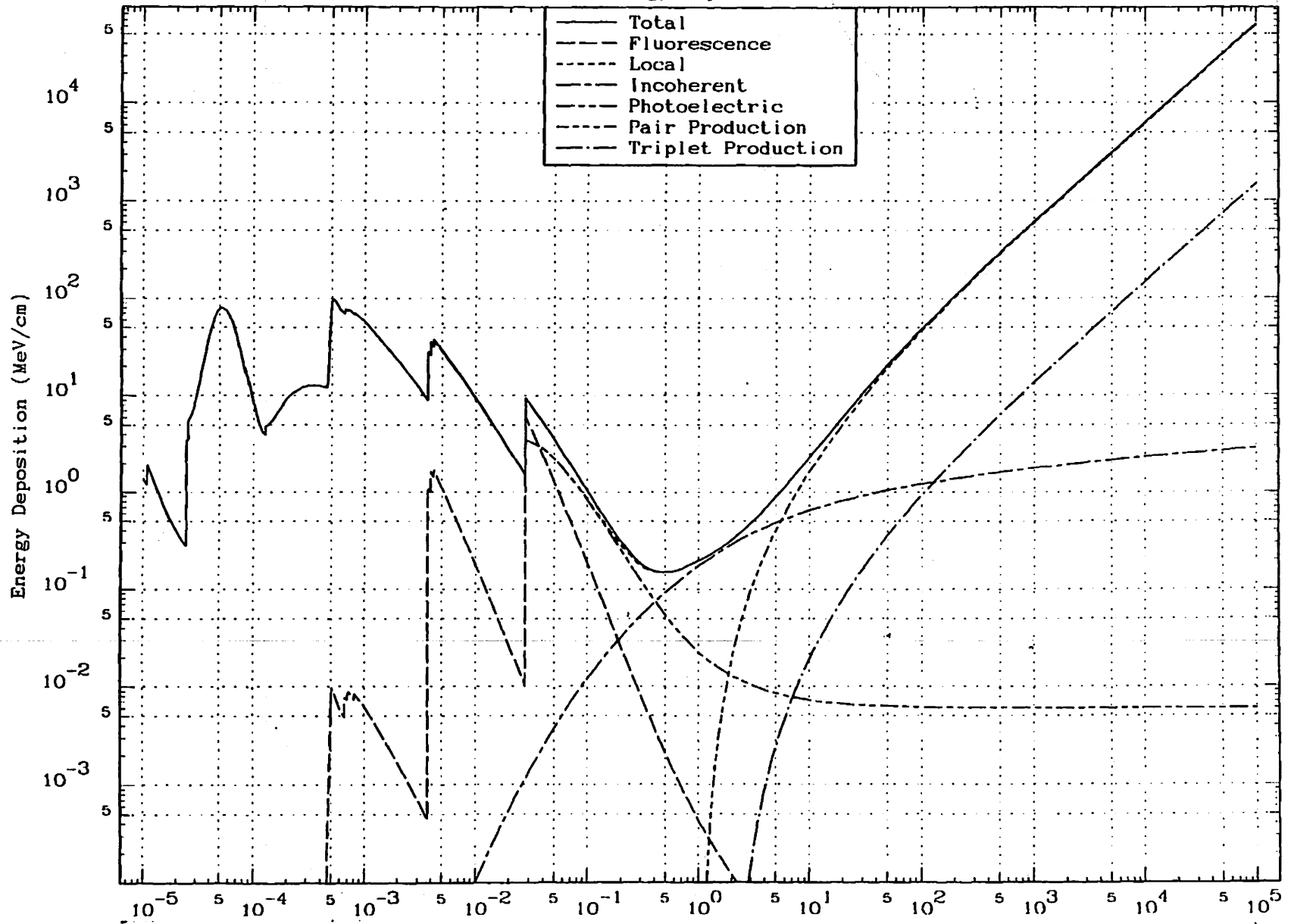
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October 31, 1989
Atomic Weight 114.820

ENDL Evaluated
Energy Deposition

49-In
Density 7.310 Grams/cc

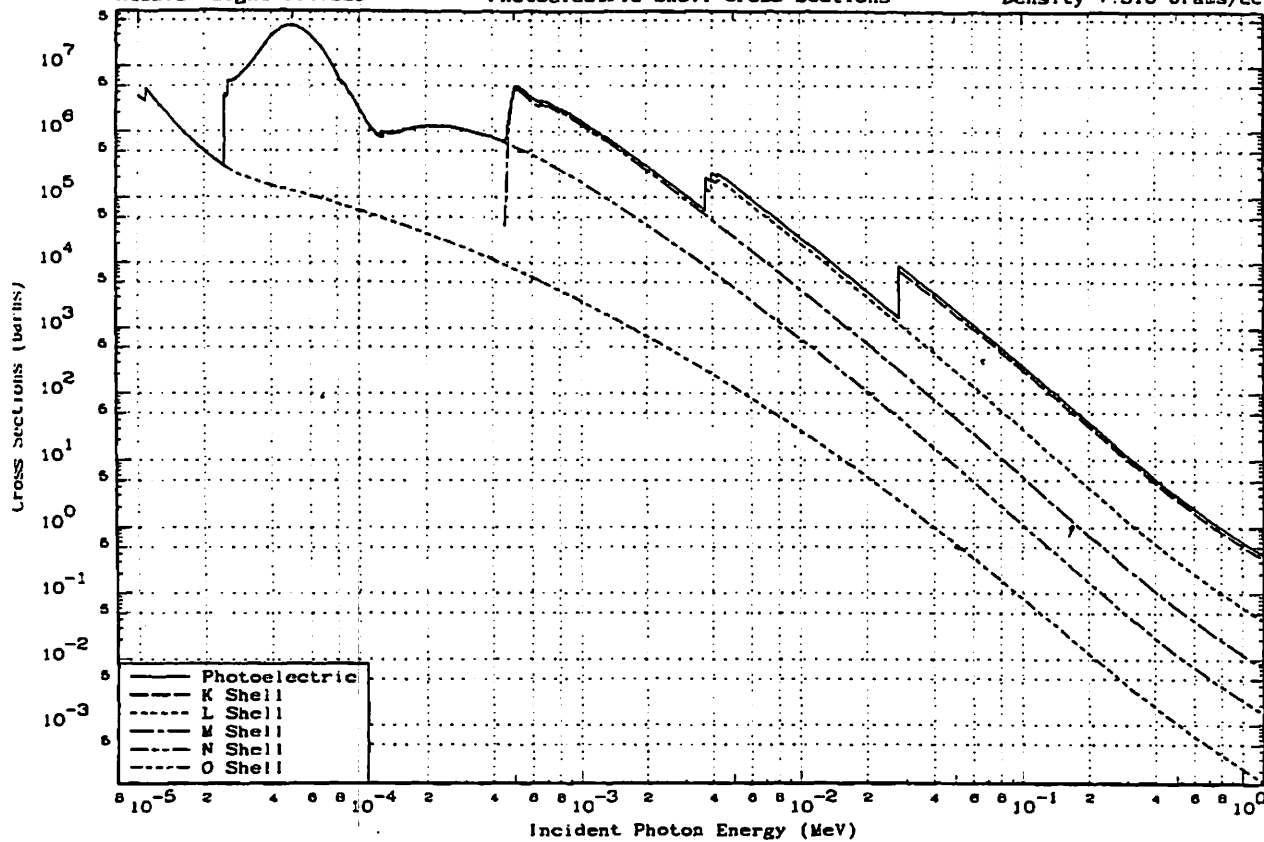
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October 31, 1989
Atomic Weight 114.820

ENDL Evaluated
Photoelectric Shell Cross Sections

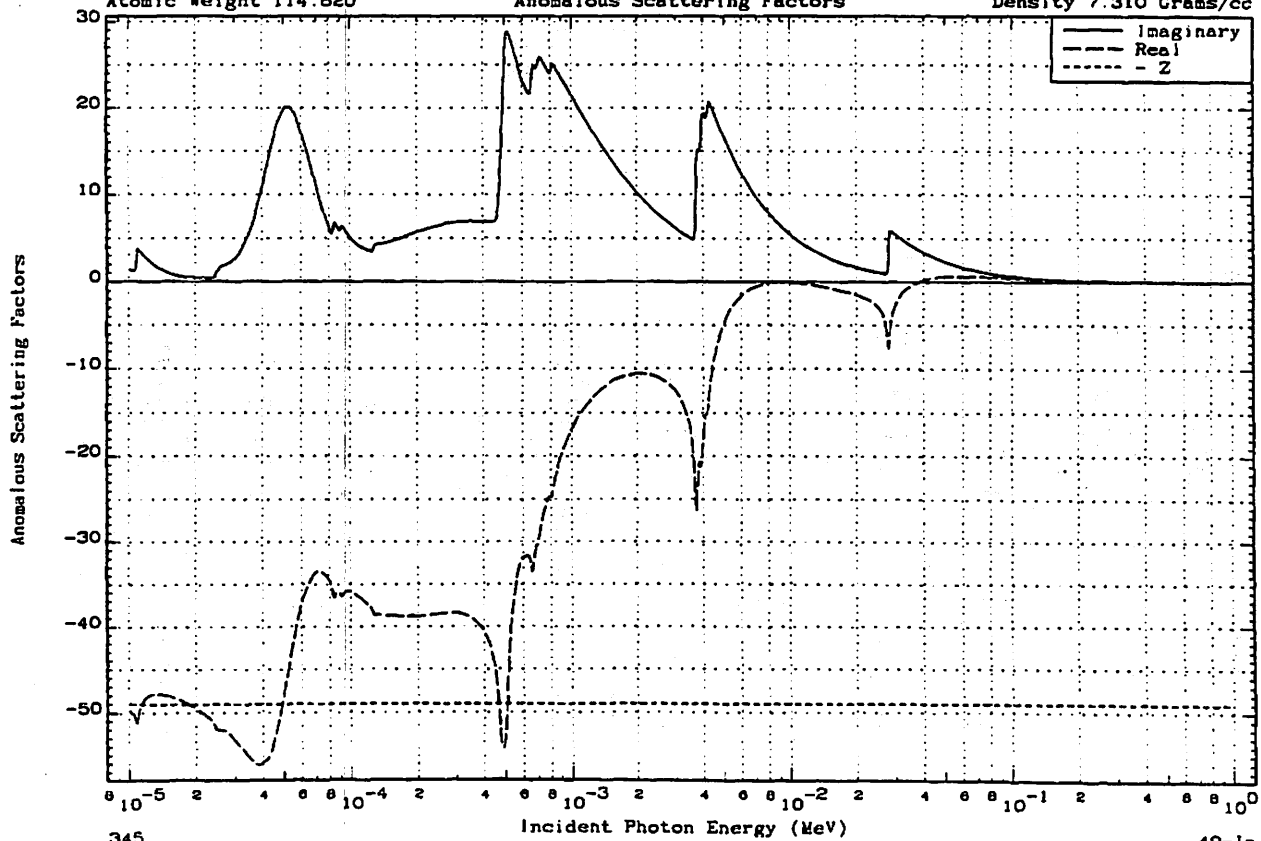
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Density 7.310 Grams/cc



October 31, 1989
Atomic Weight 114.820

ENDL Evaluated
Anomalous Scattering Factors

49-In
Density 7.310 Grams/cc



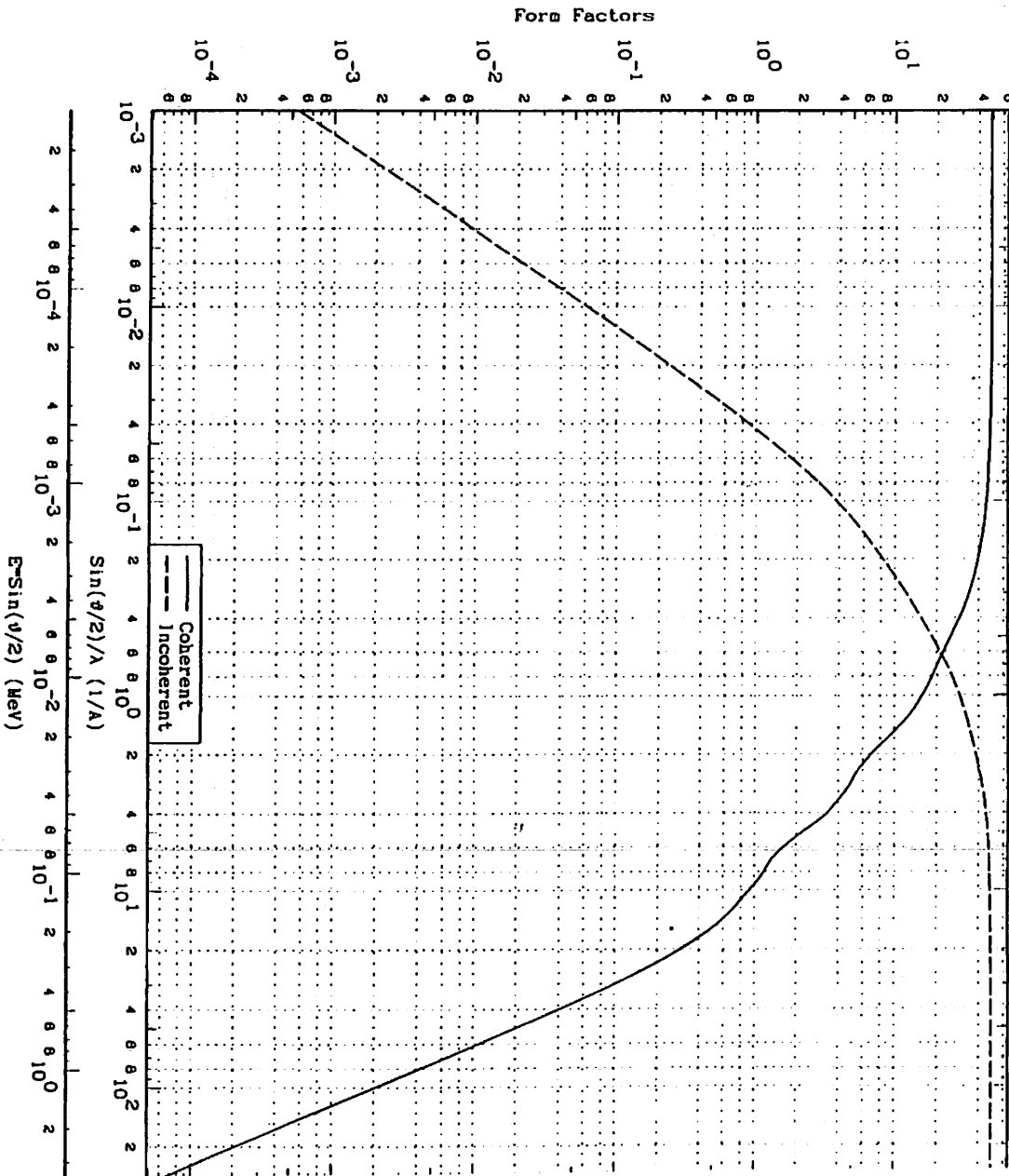
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49-In

October 31, 1989
Atomic Weight 114.820

ENDL Evaluated
Form Factors

49-11
Density 7.310 Grcs/cc



$\text{Sin}(\psi/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\psi/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\psi/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\psi/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\psi/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\psi/2)$ MeV	Coherent	Incoherent
0.0000-0	0.0000-0	4.9000+1	0.0000-0	7.0000-1	8.6780-3	2.0220+1	2.3778+1	1.7069+1	2.1183-1	4.2059-1	4.8907+1
1.0000-3	1.2289-5	4.8000+1	5.5601-4	8.0000-1	9.8188-3	1.8565+1	2.5908+1	2.0000+1	2.4787-1	2.8287-1	4.8959+1
5.0000-3	6.1893-5	4.8980+1	1.5000-2	9.0000-1	1.1159-2	1.7185+1	2.7691+1	2.4430+1	3.0290-1	1.7547-1	4.8992+1
1.0000-2	1.2299-4	4.8947+1	6.2000-2	1.0000+0	1.2399-2	1.5882+1	2.8203+1	3.0885+1	3.8283-1	9.0854-2	4.9008+1
2.0000-2	1.8588-4	4.8899+1	1.3750-1	1.2500+0	1.5488-2	1.2805+1	3.2228+1	3.9756+1	4.9292-1	4.2043-2	4.9004+1
3.0000-2	2.4787-4	4.8821+1	2.4170-1	1.5000+0	1.8588-2	1.0282+1	3.4634+1	5.0000+1	6.1893-1	2.0171-2	4.9000+1
4.0000-2	3.0986-4	4.8722+1	3.7220-1	2.0000+0	2.4787-2	8.9144+0	3.8253+1	6.0000+1	8.9188-1	4.2277-3	4.9000+1
5.0000-2	4.6594-4	4.8603+1	5.2690-1	2.3750+0	2.8946-2	5.8718+0	4.0218+1	1.0000+2	1.2299-0	2.0020-3	4.9000+1
6.0000-2	6.1893-4	4.7952+1	8.8820-1	3.0000+0	3.0986-2	5.4102+0	4.0774+1	3.5458+2	2.1215+0	3.4288-4	4.9000+1
7.0000-2	8.6780-4	4.7054+1	1.3340+0	3.5000+0	3.7186-2	4.6541+0	4.2805+1	7.0000+2	2.1215+0	3.3777-5	4.9000+1
8.0000-2	1.1159-3	4.6010+1	3.3444+0	4.0000+0	4.3385-2	3.8878+0	4.3877+1	1.0000+3	8.7225+0	4.0948-6	4.9000+1
9.0000-2	1.2289-3	4.5453+1	3.8630+0	4.4288+0	5.4873-2	2.8238+0	4.5003+1	1.0000+3	1.2299+1	1.3948-6	4.9000+1
1.2500-1	1.8588-3	4.4000+1	5.0700+0	5.0000+0	6.1883-2	2.2230+0	4.6321+1	2.8333+3	3.2848+1	7.6825-8	4.9000+1
1.5000-1	2.1687-3	4.2810+1	6.2070+0	6.0000+0	7.4391-2	1.6532+0	4.7059+1	4.8911+3	6.0518+1	1.2405-8	4.9000+1
2.0000-1	2.4787-3	3.9579+1	7.2757+0	8.0000+0	8.4175-2	1.3854+0	4.7438+1	1.1674+4	1.4474+2	9.7730-10	4.9000+1
2.5000-1	3.0986-3	3.6718+1	8.2870+0	7.0000+0	9.6790-2	1.3188+0	4.7828+1	3.5515+4	4.4033+2	3.9856-11	4.9000+1
3.0000-1	3.7186-3	3.3989+1	1.0244+1	8.0000+0	9.9189-2	1.1870+0	4.7863+1	1.0000+6	1.2299+4	3.0773-15	4.9000+1
4.0000-1	4.6594-3	2.9280+1	1.5444+1	8.8518+0	1.0975-1	9.2100+0	4.8087+1	5.6234+7	6.9722+4	2.2512-17	4.9000+1
5.0000-1	6.1893-3	2.5280+1	1.8489+1	1.0000+1	1.2289-1	8.2813+1	4.8328+1	7.4889+7	9.2878+5	1.3363-20	4.9000+1
6.0000-1	7.4391-3	2.1289+1	2.1289+1	1.0000+1	1.8588-1	5.3854+1	4.8805+1	1.0000+9	1.2299+7	7.6897-24	4.9000+1

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	7.3658-6	1.8572+4	3.5411+6	1.5277+0	1.2031-4	3.5411-6			1.3576+0	1.3576-0	
1.0577-5	8.5478-6	1.8004+4	3.0514+6	2.2540+0	1.3473-4	3.0514-6			1.2374+0	1.2374-0	
1.0624-5	8.6485-6	1.5818+4	3.0159+6	2.8423+0	1.3593-4	3.0159-6			1.2284+0	1.2284+0	
1.0662-5	8.7314-6	1.5667+4	2.8872+6	3.1681+0	1.3692-4	2.8872-6			1.2211+0	1.2211+0	
1.0723-5	8.8634-6	1.5434+4	2.8427+6	4.6012+0	1.3849-4	2.8427-6			1.2098+0	1.2098+0	
1.0786-5	9.0020-6	1.5196+4	2.8974+6	6.8759+0	1.4013-4	2.8974-6			1.1881+0	1.1881+0	
1.0830-5	9.1006-6	1.5032+4	2.8660+6	8.3346+0	1.4130-4	2.8660-6			1.1800+0	1.1800+0	
1.0830-5	5.6563-6	2.4185+4	4.8113+6	8.3346+0	1.4130-4	4.8112-6			1.8147+0	1.8147+0	
1.0867-5	5.7308-6	2.3872+4	4.5514+6	8.7738+0	1.4227-4	4.5514-6			1.8863+0	1.8863+0	
1.0915-5	5.8276-6	2.3474+4	4.4757+6	1.0719+1	1.4353-4	4.4757-6			1.8728+0	1.8728+0	
1.0941-5	5.8831-6	2.3253+4	4.4335+6	1.0873+1	1.4425-4	4.4335-6			1.8598+0	1.8598+0	
1.0987-5	5.9784-6	2.2882+4	4.3628+6	1.0782+1	1.4547-4	4.3628-6			1.8378+0	1.8378+0	
1.1137-5	6.2047-6	2.1733+4	4.1436+6	8.3449+0	1.4850-4	4.1436-6			1.7693+0	1.7693+0	
1.1713-5	7.6139-6	1.7967+4	3.4256+6	6.4792+0	1.6550-4	3.4256-6			1.5384+0	1.5384+0	
1.3473-5	1.2959-5	1.0556+4	2.0126+6	2.9730+0	2.1947+4	2.0126-6			1.0396+0	1.0396+0	
1.4092-5	1.5394-5	8.8867+3	1.6944+6	2.2621+0	2.4026+4	1.6944+6			9.1541-1	9.1541-1	
1.5000-5	1.9568-5	6.9909+3	1.3329+6	1.4348+0	2.7252+4	1.3329-6			7.8655-1	7.8655-1	
1.5622-5	2.2622-5	6.0471+3	1.1530+6	1.0286+0	2.8577+4	1.1530-6			6.8054-1	6.8054-1	
1.6798-5	2.8324-5	4.8651+3	8.8947+5	5.2535-1	3.4242+4	8.8947+5			5.7288-1	5.7288-1	
1.7855-5	3.6707-5	3.7268+3	7.1056+5	2.2572-1	3.9173+4	7.1056+5			4.8913-1	4.8913-1	
1.8899-5	4.2991-5	3.1820+3	6.0669+5	1.7167-1	4.3511+4	6.0669+5			4.3981-1	4.3981-1	
1.9755-5	4.9053-5	2.7888+3	5.3172+5	2.5008-1	4.7844+4	5.3172+5			4.0273-1	4.0273-1	
2.0980-5	5.8582-5	2.3380+3	4.4538+5	5.4448-1	5.3892+4	4.4538+5			3.5828-1	3.5828-1	
2.1994-5	6.6636-5	2.0529+3	3.9142+5	9.7142-1	5.9360+4	3.9141+5			3.3006-1	3.3006-1	
2.3985-5	8.2233-5	1.6635+3	3.1718+5	3.5000+0	7.0892+4	3.1717+5			2.9167-1	2.9167-1	
2.4243-5	8.4396-5	1.6209+3	3.0905+5	4.4490+0	7.2463+4	3.0905+5			2.8725-1	2.8725-1	
2.4428-5	8.5946-5	1.5917+3	3.0347+5	5.4014+0	7.3585+4	3.0347+5			2.8419-1	2.8419-1	
2.4580-5	8.7237-5	1.5681+3	2.9898+5	6.0117+0	7.4540+4	2.9898+5			2.8175-1	2.8175-1	
N5 2.4580-5	7.0786-6	1.9326+4	3.6847+6	6.0117+0	7.4540+4	3.6847+6			3.4725+0	3.4725+0	
2.4710-5	7.0829-6	1.9316+4	3.6829+6	6.4743+0	7.5347+4	3.6829+6			3.4891+0	3.4891+0	
2.5025-5	7.0902-6	1.9294+4	3.6787+6	8.6418+0	7.7333+4	3.6787+6			3.5298+0	3.5298+0	
2.5237-5	7.0956-6	1.9279+4	3.6759+6	7.1635+0	7.8675+4	3.6759+6			3.5567+0	3.5567+0	
2.5385-5	7.0994-6	1.9269+4	3.6739+6	7.7391+0	7.9827+4	3.6739+6			3.5757+0	3.5757+0	
2.5490-5	7.1020-6	1.9262+4	3.6726+6	8.0038+0	8.0302+4	3.6726+6			3.5891+0	3.5891+0	
N4 2.5490-5	4.5488-6	3.0087+4	5.7385+8	8.0038+0	8.0302+4	5.7385+8			5.8082+0	5.8082+0	5.8093-8
2.5801-5	4.5375-6	3.0148+4	5.7482+8	8.2911+0	8.1017+4	5.7482+8			5.8420+0	5.8420+0	5.8449-8
2.6000-5	4.5047-6	3.0388+4	5.7901+8	8.2882+0	8.3828+4	5.7901+8			5.8718+0	5.8718+0	5.8741-8
2.7018-5	4.2970-6	3.1836+4	6.0700+8	8.9300+0	8.0482+4	6.0700+8			6.2880+0	6.2880+0	6.3075-8
2.8433-5	3.6881-6	3.5184+4	6.7083+8	1.1711+1	1.0044+4	6.7082+8			7.3127+0	7.3127+0	6.8306-6
3.0271-5	3.2028-6	4.2715+4	8.1442+8	1.7664+1	1.1419+4	8.1442+8			9.4519+0	9.4519+0	8.0346-6
3.2470-5	2.3945-6	5.7131+4	1.0893+7	2.8761+1	1.3184+4	1.0893+7			1.3580+1	1.3580+1	1.0793-5
3.6767-5	1.3642-6	1.0028+5	1.9120+7	6.6557+1	1.7006+4	1.9120+7			2.6952+1	2.6952+1	1.9289-5
3.8383-5	1.1280-6	1.2128+5	2.3124+7	8.7827+1	1.8572+4	2.3124+7			3.4029+1	3.4029+1	2.3563-5
4.0000-5	9.5232-7	1.4385+5	2.7388+7	1.0950+2	2.0210+4	2.7388+7			4.2003+1	4.2002+1	2.8597-5
4.2295-5	7.9650-7	1.7175+5	3.2747+7	1.4809+2	2.2857+4	3.2747+7			5.3101+1	5.3101+1	3.4820-5
4.4143-5	7.1824-7	1.9020+5	3.6264+7	1.7855+2	2.4731+4	3.6264+7			6.1374+1	6.1374+1	3.9232-5
4.7287-5	6.5312-7	2.0945+5	3.8935+7	2.2812+2	2.8474+4	3.8935+7			7.2401+1	7.2401+1	4.4092-5
5.0000-5	6.3863-7	2.1421+5	4.0841+7	2.6057+2	3.1921+4	4.0841+7			7.8292+1	7.8292+1	4.5751-5
5.0749-5	6.4419-7	2.1238+5	4.0489+7	2.6997+2	3.2908+4	4.0489+7			7.8780+1	7.8780+1	4.5512-5
5.2332-5	6.5680-7	2.0880+5	3.9772+7	2.8032+2	3.5045+4	3.9772+7			7.9797+1	7.9797+1	4.5021-5
5.8506-5	7.4573-7	1.8344+5	3.4976+7	2.8875+2	4.1010+4	3.4976+7			7.5772+1	7.5772+1	4.0188-5
6.0475-5	8.9815-7	1.5231+5	2.9040+7	2.8866+2	4.7127+4	2.9040+7			6.7331+1	6.7331+1	3.7388-5
6.4807-5	1.1575-6	1.1819+5	2.2534+7	2.7417+2	5.4304+4	2.2533+7			5.5899+1	5.5899+1	2.6354-5
7.0000-5	1.6549-6	8.2664+4	1.5781+7	2.4307+2	8.3591+4	1.5781+7			4.2299+1	4.2299+1	1.8807-5
7.2683-5	2.0373-6	6.7147+4	1.2802+7	2.2401+2	6.8683+4	1.2802+7			3.5675+1	3.5675+1	1.5158-5
7.4833-5	2.3937-6	5.7149+4	1.0896+7	2.0629+2	7.2910+4	1.0896+7			3.1262+1	3.1262+1	1.2930-5
7.7497-5	2.9743-6	4.5993+4	8.7892+6	1.8887+2	7.8325+4	8.7890+6			2.8055+1	2.8055+1	1.0424-5
8.1178-5	4.0025-6	3.4178+4	6.5165+6	1.5387+2	8.8137+4	6.5164+6			2.0281+1	2.0281+1	7.7607-6
8.2412-5	4.4351-6	3.0844+4	5.8809+6	1.3807+2	8.8838+4	5.8808+6			1.8581+1	1.8581+1	7.0058-6
8.3344-5	4.7878-6	2.8572+4	5.4477+6	1.2509+2	9.0908+4	5.4478+6			1.7407+1	1.7407+1	6.4812-6
8.3870-5	4.9972-6	2.7375+4	5.2195+6	1.2764+2	9.2089+4	5.2193+6			1.6783+1	1.6783+1	6.2188-6
N3 8.3870-5	4.3403-6	3.1518+4	6.0094+6	1.2764+2	9.2089+4	6.0092+6			1.6323+1	1.6323+1	1.5894-5
8.4484-5	4.5273-6	3.0218+4	5.7811+6	1.3057+2	9.3428+4	5.7810+6			1.8856+1	1.8856+1	1.5544-5
8.5104-5	4.7365-6	2.8882+4	5.5067+6	1.3811+2	9.4885+4	5.5065+6			1.7967+1	1.7967+1	1.5178-5
8.5550-5	4.8870-6	2.7992+4	5.3371+6	1.4083+2	9.5907+4	5.3370+6			1.7505+1	1.7505+1	1.4829-5
8.8708-5	6.1771-6	2.2146+4	4.2224+6	1.3587+2	1.0330+4	4.2223+6			1.4380+1	1.4380+1	1.3062-5
9.0201-5	6.8823-6	1.9877+4	3.7898+6	1.2895+2	1.0889+4	3.7897+6			1.3108+1	1.3108+1	1.2247-5
9.0770-5	7.1687-6	1.8083+4	3.6384+6	1.2847+2	1.0828+4	3.6383+6			1.2882+1	1.2882+1	1.1954-5
N2 9.0770-5	6.5216-6	2.0976+4	3.8994+6	1.2847+2	1.0828+4	3.8993+6			1.3918+1	1.3918+1	1.1877-5
9.2784-5	7.4211-6	1.8434+4	3.5145+6	1.3758+2	1.1328+4	3.5145+6			1.2502+1	1.2502+1	1.7624-5
9.6038-5	9.1402-6	1.4967+4	2.8536+6	1.3687+2	1.2154+4	2.8535+6			1.0507+1	1.0507+1	1.5871-5
1.0000-4	1.1671-5	1.1721+4	2.2348+6	1.3111+2	1.3203+4	2.2347+6			8.5678+0	8.5678+0	1.4035-5
1.0875-4	1.8604-5	7.3532+3	1.4020+8	1.1537+2	1.5658-2	1.4019+8			5.8451+0	5.8451+0	1.1022-5
1.1319-4	2.2435-5	6.0975+3	1.1628+8	1.0798+2	1.6885-2	1.1628+8			5.0448+0	5.0448+0	9.8467-6
1.2046-4	2.8204-5	4.8504+3	9.2479+5	9.5433+1	1.9273-2	9.2489+5			4.2706+0	4.2706+0	8.3183-6
1.2400-4	3.0500-5	4.4851+3	8.5515+5	8.8778+1	2.0442-2	8.5508+5			4.0650+0	4.0650+0	7.7400-6
1.2685-4	3.1782-5	4.3043+3	8.2068+5	8.0480+1	2.1409-2	8.2060+5			3.9910+0	3.9910+0	7.4381-6
1.2790-4	3.2177-5	4.2515+3	8.1080+5	8.0895+1	2.1770-2	8.1052+5			3.9745+0	3.9745+0	7.3332-6
1.2790-4	2.8375-5	5.1868+3	9.8893+5	8.0895+1	2.1770-2	9.8884+5			4.8490+0	4.8490+0	1.0302-5
1.2892-4	2.6588-5	5.1451+3	9.8099+5	8.1286+1	2.2124-2	9.8091+5			4.8483+0	4.8483+0	1.0185-5
1.2989-4	2.6792-5	5.1060+3	9.7353+5	8.3591+1	2.2464-2	9.7344+5			4.8477+0	4.8477+0	1.0095-5
1.3509-4	2.7201-5	5.0292+3	9.5888+5	8.3493+1	2.4313-2	9.5880+5			4.9860+0	4.9860+0	9.7627-6
1.4706-4	2.8535-5	5.1555+3	9.8297+5	8.3283+1	2.8756-2	9.8288+5			5.5418+0	5.5418+0	9.2099-6
1.6918-4	2.2131-5	6.1813+3	1.1785+8	6.8558+1	4.7301-2	1.1785+8			8.5488+0	8.5488+0	8.7089-6
2.0220-4	2.1484-5	6.3678+3	1.2141+6	9.0007+1	5.3981-2	1.2140+6			9.4110+0	9.4110+0	8.6371-6
2.2134-4	2.1153-5	6.4671+3	1.2330+6	9.3984+1	6.4524-2	1.2329+6			1.0463+1	1.0463+1	8.3861-6
2.8165-4											

Energy MeV	Total Mean Free Path		Cross Sect. (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
3.0572-4	2.4433-5	5.5889+3	1.0675-6	1.0488-2	1.2140-1	1.0674-6			1.2511-1	1.2511+1	6.8360-6
3.5139-4	2.7800-5	4.9209+3	9.3823-5	9.7671-1	1.5883-1	9.3813-5			1.2639-1	1.2639+1	5.9932-6
3.9297-4	3.1362-5	4.3618+3	8.3166-5	8.1688-1	1.9709-1	8.3158-5			1.2529-1	1.2529+1	5.3775-6
4.2466-4	3.4638-5	3.9494+3	7.5301-5	6.0489-1	2.2891-1	7.5295-5			1.2259-1	1.2259+1	4.9189-6
4.4833-4	3.7028-5	3.6944+3	7.0439-5	4.1708-1	2.5115-1	7.0435-5			1.2053-1	1.2053+1	4.6331-6
4.5300-4	3.7772-5	3.6217+3	6.8052-5	3.6582-1	2.5814-1	6.8048-5			1.1992-1	1.1992+1	4.5511-6
4.5300-4	3.5875-5	3.8132+3	7.2703-5	3.6582-1	2.5814-1	7.2699-5			1.2626-1	1.2626+1	4.9207-6
4.5375-4	3.5738-5	3.8278+3	7.2882-5	3.6054-1	2.5893-1	7.2878-5			1.2696-1	1.2696+1	4.9550-6
4.5822-4	3.4410-5	3.9755+3	7.5799-5	3.5799-1	2.6474-1	7.5795-5			1.3345-1	1.3345+1	5.2860-6
4.6104-4	3.3623-5	4.0687+3	7.7575-5	3.7612-1	2.6669-1	7.7571-5			1.3712-1	1.3712+1	5.4914-6
4.6104-4	3.1751-5	4.3084+3	8.2148-5	3.7612-1	2.6669-1	8.2142-5			1.4520-1	1.4519+1	2.3798-4
4.6289-4	3.0330-5	4.5103+3	8.5995-5	3.9327-1	2.6847-1	8.5991-5			1.5255-1	1.5254+1	2.6306-4
4.8528-4	2.7491-5	4.8782+3	9.4878-5	4.4938-1	2.7126-1	9.4873-5			1.6924-1	1.6924+1	3.0776-4
4.8784-4	2.4884-5	5.5019+3	1.0490-6	5.4547+1	2.7413-1	1.0490-6			1.8919-1	1.8919+1	3.6129-4
4.7617-4	1.4864-5	9.2031+3	1.7547-6	1.0961+2	2.8314-1	1.7546+6			3.2032-1	3.2032+1	6.7748-4
4.8103-4	1.1330-5	1.2074+4	2.3021-6	1.5658-2	2.8851-1	2.3020-6			4.2454-1	4.2453+1	1.0415-3
4.8336-4	1.0188-5	1.3454+4	2.5652-6	1.8550-2	2.9110-1	2.5650-6			4.7535-1	4.7533+1	1.2883-3
4.8954-4	8.0987-6	1.6891+4	3.2206-6	2.6215-2	2.8804-1	3.2203-6			6.0412-1	6.0440+1	2.4458-3
4.9528-4	6.7455-6	2.0280+4	3.8688-6	3.5498-2	3.0452-1	3.8683-6			7.3414-1	7.3410+1	4.5890-3
4.9900-4	5.9442-6	2.3014+4	4.3878-6	4.1818-2	3.0878-1	4.3875-6			8.3940-1	8.3933+1	6.9011-3
5.0187-4	5.5283-6	2.4745+4	4.7180-6	4.8411-2	3.1188-1	4.7175-6			9.0737-1	9.0729+1	8.4203-3
5.0533-4	5.2710-6	2.5853+4	4.9483-6	5.1378-2	3.1809-1	4.9478-6			9.5881-1	9.5851+1	9.4428-3
5.0997-4	5.1598-6	2.6512+4	5.0550-6	5.4542-2	3.2148-1	5.0544-6			9.8824-1	9.8814+1	9.7857-3
5.1463-4	5.2145-6	2.6234+4	5.0019-6	5.8565-2	3.2685-1	5.0013-6			9.8679-1	9.8670+1	9.4721-3
5.4685-4	5.9360-6	2.3046+4	4.3939-6	5.8969-2	3.6563-1	4.3933-6			9.2078-1	9.2070+1	7.8132-3
5.7814-4	6.9624-6	1.9648+4	3.7462-6	5.7608-2	4.0300-1	3.7456-6			8.2737-1	8.2730+1	6.6591-3
6.0000-4	7.8753-6	1.7371+4	3.3120-6	5.4500-2	4.3447-1	3.3114-6			7.6175-1	7.6169+1	5.8857-3
6.3238-4	8.7759-6	1.5688+4	2.8721-6	5.1224-2	4.7797-1	2.8716-6			7.2047-1	7.2041+1	5.2862-3
6.5320-4	9.3474-6	1.4635+4	2.7904-6	4.7303-2	5.0591-1	2.7899-6			6.9669-1	6.9663+1	4.9629-3
6.5935-4	9.5197-6	1.4370+4	2.7399-6	4.9338-2	5.1430-1	2.7394-6			6.9250-1	6.9245+1	4.8703-3
6.8087-4	9.5588-6	1.4314+4	2.7292-6	5.0418-2	5.1811-1	2.7287-6			6.9118-1	6.9114+1	4.8508-3
6.8087-4	8.9474-6	1.6005+4	3.0515-6	5.0418-2	5.1611-1	3.0510-6			7.7283-1	7.7275+1	7.7340-3
6.8831-4	8.7189-6	1.5894+4	2.8922-6	5.8978-2	5.2862-1	2.8918-6			7.8854-1	7.8847+1	7.8233-3
6.7881-4	8.9087-6	1.5359+4	2.8284-6	6.0284-2	5.3843-1	2.8278-6			7.9973-1	7.9968+1	7.5233-3
6.8982-4	9.4223-6	1.4519+4	2.7882-6	6.3052-2	5.7068-1	2.7875-6			7.4235-1	7.4227+1	7.2502-3
6.8982-4	9.2071-6	1.4858+4	2.8329-6	6.3052-2	5.7068-1	2.8322-6			7.5870-1	7.5862+1	8.0853-3
7.1691-4	9.3272-6	1.4887+4	2.7984-6	6.9901-2	5.9548-1	2.7977-6			7.8833-1	7.8824+1	8.8567-3
7.2444-4	9.5192-6	1.4371+4	2.7400-6	7.2256-2	6.0684-1	2.7393-6			7.6083-1	7.6074+1	8.7430-3
7.4363-4	1.0034-5	1.3634+4	2.5995-6	7.4885-2	6.3511-1	2.5988-6			7.4093-1	7.4085+1	8.3802-3
7.8737-4	1.1877-5	1.2152+4	2.3170-6	7.5883-2	7.0209-1	2.3163-6			6.9922-1	6.9914+1	7.6875-3
8.0113-4	1.1857-5	1.1738+4	2.2378-6	7.4905-2	7.2241-1	2.2368-6			6.8705-1	6.8697+1	7.4610-3
8.1124-4	1.1954-5	1.1444+4	2.1819-6	7.6580-2	7.3748-1	2.1812-6			6.7840-1	6.7833+1	7.3157-3
8.1124-4	1.1470-5	1.1927+4	2.2748-6	7.6580-2	7.3748-1	2.2732-6			7.0703-1	7.0694+1	8.4884-3
8.2050-4	1.1728-5	1.1687+4	2.2244-6	8.0802-2	7.5140-1	2.2238-6			6.9949-1	6.9941+1	8.3513-3
8.3841-4	1.2231-5	1.1185+4	2.1325-6	8.4494-2	7.7880-1	2.1317-6			6.8521-1	6.8513+1	8.0900-3
9.0000-4	1.4057-5	9.7318+3	1.8555-6	8.9791-2	8.7503-1	1.8548-6			6.3994-1	6.3987+1	7.2753-3
1.0000-3	1.7527-5	7.8052+3	1.4882-6	9.3819-2	1.0408-0	1.4872-6			5.7020-1	5.7014+1	6.1604-3
1.2354-3	2.8134-5	4.8624+3	9.2708-5	9.6080-2	1.4363+0	9.2611+5			4.3864-1	4.3860+1	4.2565-3
1.5477-3	4.7323-5	2.8908+3	5.5118-5	9.4179-2	1.9621+0	5.5022+5			3.2850-1	3.2847+1	2.8006-3
2.0513-3	9.2458-5	1.4798+3	2.8210-5	8.5340-2	2.7782+0	2.8125+5			2.2194-1	2.2118+1	1.6002-3
2.4880-3	1.4904-4	9.1784+2	1.7500-5	7.5145-2	3.4580+0	1.7424+5			1.6621-1	1.6620+1	1.0812-3
2.7711-3	1.9458-4	7.0308+2	1.3405-5	6.7807-2	3.8712+0	1.3337+5			1.4169-1	1.4168+1	8.4387-4
3.0000-3	2.3680-4	5.7789+2	1.1015-5	6.1140-2	4.1858+0	1.0933+5			1.2598-1	1.2597+1	7.1254-4
3.1805-3	2.7083-4	5.0511+2	9.6307-4	5.5819-2	4.4233+0	9.5744+4			1.1802-1	1.1801+1	6.3251-4
3.2882-3	2.8949-4	4.5677+2	8.7089-4	5.0771-2	4.6017+0	8.6577+4			1.0908-1	1.0907+1	5.7857-4
3.4069-3	3.2875-4	4.1812+2	7.9338-4	4.5451-2	4.7732+0	7.8879+4			1.0303-1	1.0303+1	5.3277-4
3.5068-3	3.5428-4	3.8813+2	7.3820-4	3.9889-2	4.9149+0	7.3219+4			9.8437-0	9.8432+0	4.8878-4
3.5840-3	3.7601-4	3.8478+2	6.8532-4	3.3858-2	5.0249+0	6.8207+4			9.5098-0	9.5093+0	4.7449-4
3.8300-3	3.8778-4	3.5277+2	8.7811-4	2.9183-2	5.0889+0	8.6984+4			9.3197-0	9.3193+0	4.6084-4
3.8551-3	3.9489-4	3.4842+2	8.8050-4	2.5680-2	5.1214+0	8.5789+4			9.2191-0	9.2187+0	4.5386-4
3.8978-3	4.0731-4	3.3588+2	6.4038-4	1.9028-2	5.1771+0	8.3841+4			9.0510-0	9.0508+0	4.4175-4
3.7050-3	4.0938-4	3.3418+2	6.3713-4	1.8505-2	5.1884+0	6.3523+4			8.0234-0	8.0229+0	4.3980-4
3.7130-3	4.1187-4	3.3230+2	6.3358-4	1.8428-2	5.1968+0	6.3168+4			8.9925-0	8.9921+0	4.3763-4
3.7284-3	4.1598-4	3.2888+2	6.2705-4	2.0027-2	5.2187+0	6.2499+4			8.9341-0	8.9338+0	4.3552-4
3.7284-3	1.3127-4	1.0421+3	1.8869-5	2.0027-2	5.2187+0	1.9849+5			2.8373-1	2.8243+1	1.1301+0
3.7589-3	1.3384-4	1.0236+3	1.8516-5	2.7695-2	6.2563+0	1.8488+5			2.8088-1	2.6975+1	1.1108+0
3.7783-3	1.3501-4	1.0133+3	1.9320-5	3.2222-2	5.2789+0	1.9287+5			2.7924-1	2.6824+1	1.1000+0
3.7888-3	1.3683-4	1.0012+3	1.8090-5	3.5988-2	5.3055+0	1.8053+5			2.7736-1	2.6848+1	1.0874+0
3.8180-3	1.3817-4	9.9010+2	1.8878-5	3.8007-2	5.3304+0	1.8839+5			2.7582-1	2.6488+1	1.0759+0
3.8501-3	1.4094-4	9.7082+2	1.8508-5	3.9524-2	5.3745+0	1.8498+5			2.7528-1	2.6202+1	1.0559+0
3.9033-3	1.4535-4	9.4118+2	1.7844-5	3.9148-2	5.4435+0	1.7905+5			2.8785-1	2.5789+1	1.0256+0
3.9283-3	1.4727-4	9.2890+2	1.7711-5	4.0275-2	5.4732+0	1.7670+5			2.6599-1	2.5588+1	1.0130+0
3.9425-3	1.4862-4	9.2047+2	1.7550-5	4.2593-2	5.4942+0	1.7507+5			2.8482-1	2.5458+1	1.0042+0
3.9425-3	1.0884-4	1.2455+3	2.3747-5	4.2593-2	5.4942+0	2.3704+5			3.5830-1	3.4209+1	1.6207+0
3.8816-3	1.1110-4	1.2314+3	2.3477-5	5.0437-2	5.5477+0	2.3428+5			3.5781-1	3.4151+1	1.6105+0
4.0174-3	1.1236-4	1.2175+3	2.3214-5	5.5488-2	5.5909+0	2.3158+5			3.5669-1	3.4070+1	1.5996+0
4.0544-3	1.1505-4	1.1890+3	2.2670-5	5.8992-2	5.6387+0	2.2611+5			3.5147-1	3.3585+1	1.5613+0
4.0973-3	1.1824-4	1.1570+3	2.2080-5	6.0849-2	5.6941+0	2.1998+5			3.4558-1	3.3038+1	1.5184+0
4.1864-3	1.2582-4	1.0873+3	2.0731-5	6.2362-2	5.8219+0	2.0688+5			3.3253-1	3.1827+1	1.4254+0
4.2138-3	1.2716-4	1.0758+3	2.0511-5	6.4053-2	5.8442+0	2.0447+5			3.3033-1	3.1623+1	1.4100+0
4.2138-3	1.1063-4	1.2343+3	2.3534-5	6.4053-2	5.8442+0	2.3470+5			3.7918-1	3.6231+1	1.8856+0
4.2712-3	1.1452-4	1.1948+3	2.2778-5	7.1825-2	5.9180+0	2.2704+5			3.7178-1	3.5547+1	1.6312+0
4.3225-3	1.1788-4	1.1807+3	2.2130-5	7.5721-2	5.9839+0	2.2054+5			3.6547-1	3.4982+1	1.5858+0
4.4794-3	1.2847-4	1.0848+3	2.0302-5	8.0820-2	6.1853+0	2.0220+5			3.4725-1	3.3288+1	1.4588+0
4											

October 31, 1989
Atomic Weight 114.820

ENDL Evaluated
Photon Data

49-In
Density 7.310 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
8.4065-3	6.5389-4	2.0921+2	3.8888+4	6.1768+2	1.0397+1	3.8260+4			1.2852+1	1.2366+1	2.8588-1
1.0000-2	1.0390-3	1.3167+2	2.5104+4	5.1589+2	1.1857+1	2.4577+4			8.4228+0	9.2438+0	1.7916-1
1.3335-2	2.2548-3	6.0669+1	1.1587+4	3.6646+2	1.4166+1	1.1187+4			5.7184+0	5.6375+0	8.1819-2
1.6781-2	4.1835-3	3.2621+1	6.2197+3	2.6483+2	1.5930+1	5.9389+3			3.8213+0	3.7778+0	4.3501-2
2.0225-2	6.9888-3	1.9574+1	3.7321+3	1.9339+2	1.7215+1	3.5215+3			2.7311+0	2.7053+0	2.5798-2
2.3228-2	1.0238-2	1.3362+1	2.5476+3	1.4554+2	1.8204+1	2.3839+3			2.1235+0	2.1060+0	1.7481-2
2.4122-2	1.1389-2	1.2032+1	2.2941+3	1.3255+2	1.8441+1	2.1431+3			1.8826+0	1.8669+0	1.6720-2
2.5463-2	1.3229-2	1.0341+1	1.9716+3	1.1292+2	1.8752+1	1.8400+3			1.7970+0	1.7835+0	1.3501-2
2.6134-2	1.4245-2	9.8035+0	1.8310+3	1.0217+2	1.8902+1	1.7100+3			1.7142+0	1.7016+0	1.2550-2
2.6852-2	1.5420-2	8.8717+0	1.6915+3	8.8402+1	1.9061+1	1.5841+3			1.6318+0	1.6202+0	1.1828-2
2.7118-2	1.5888-2	8.6100+0	1.6416+3	8.1817+1	1.9119+1	1.5407+3			1.6029+0	1.5916+0	1.1310-2
2.7362-2	1.6349-2	8.3676+0	1.5854+3	7.3893+1	1.9172+1	1.4356+3			1.5771+0	1.5660+0	1.1030-2
2.7892-2	1.7019-2	8.0381+0	1.5326+3	6.0966+1	1.9243+1	1.4623+3			1.5431+0	1.5324+0	1.0683-2
2.7806-2	1.7222-2	7.9435+0	1.5145+3	5.9635+1	1.9287+1	1.4356+3			1.5318+0	1.5211+0	1.0541-2
2.7921-2	1.7380-2	7.8709+0	1.5007+3	6.2371+1	1.9282+1	1.4180+3			1.5202+0	1.5098+0	1.0420-2
2.7921-2	2.9131-3	4.8980+0	8.8535+3	6.2371+1	1.9282+1	8.8719+3			9.4988+0	3.4233+0	8.0753+0
2.8131-2	2.9858-3	4.8125+0	8.7843+3	7.4837+1	1.9337+1	8.7002+3			9.3814+0	3.4223+0	5.8591+0
2.8206-2	2.9844-3	4.5838+0	8.7397+3	8.0272+1	1.9352+1	8.6401+3			9.3404+0	3.4220+0	5.9185+0
2.8419-2	3.0394-3	4.5023+0	8.5843+3	9.2349+1	1.9397+1	8.4729+3			9.2261+0	3.4210+0	5.8051+0
2.8733-2	3.1226-3	4.3809+1	8.3528+3	1.0020+2	1.9463+1	8.2331+3			9.0826+0	3.4195+0	5.8431+0
2.9481-2	3.3265-3	4.1124+1	7.8408+3	1.0835+2	1.9514+1	7.7129+3			8.7068+0	3.4162+0	5.2907+0
3.0973-2	3.7802-3	3.6189+1	6.8997+3	1.1384+2	1.9903+1	6.7882+3			8.0037+0	3.3527+0	4.6510+0
3.3513-2	4.6294-3	2.9550+1	5.6341+3	1.1080+2	2.0247+1	5.5031+3			7.0034+0	3.2068+0	3.7986+0
3.8180-2	6.4853-3	2.1159+1	4.0342+3	8.8275+1	2.0627+1	3.9151+3			5.8977+0	2.8802+0	2.7175+0
4.4489-2	9.7277-3	1.4053+1	2.6813+3	8.0748+1	2.1374+1	2.5782+3			4.3849+0	2.5881+0	1.7688+0
5.8585-2	1.8556-2	7.3724+0	1.4056+3	5.5832+1	2.1885+1	1.3277+3			2.8802+0	1.8509+0	8.2828-1
8.2813-2	5.1589-2	2.8517+0	5.0559+2	2.8890+1	2.1982+1	4.5491+2			1.4521+0	1.1320+0	3.2010-1
1.0000-1	8.0654-2	1.8084+0	3.0668+2	2.0279+1	2.1705+1	2.6487+2			1.0268+0	6.4027-1	1.8865-1
1.3068-1	1.8723-1	8.1801-1	1.5596+2	1.2303+1	2.0811+1	1.2285+2			6.3312-1	5.4829-1	8.6831-2
1.7321-1	3.1809-1	4.2872-1	8.1741+1	7.1890+0	1.9884+1	5.4889+1			3.9118-1	3.5233-1	3.8850-2
2.1894-1	5.1304-1	2.8684-1	5.0839+1	4.5218+0	1.8547+1	2.7771+1			2.7074-1	2.5107-1	1.9871-2
2.7183-1	7.3415-1	1.8634-1	3.5528+1	2.9772+0	1.7371+1	1.5179+1			2.0559-1	1.8485-1	1.0746-2
3.1446-1	9.0062-1	1.5184-1	2.8951+1	2.2313+0	1.6910+1	1.0110+1			1.7822-1	1.7106-1	7.1589-3
3.8593-1	1.1480+0	1.1916-1	2.2718+1	1.4850+0	1.4508+1	5.8291+0			1.5847-1	1.5234-1	4.1307-3
4.4721-1	1.3288+0	1.0295-1	1.9828+1	1.1072+0	1.4594+1	3.8274+0			1.4988-1	1.4888-1	2.7808-3
5.7571-1	1.8385+0	8.3488-2	1.5918+1	8.6913-1	1.3158+1	2.0913+0			1.5189-1	1.5021-1	1.4818-3
7.0881-1	1.8935+0	7.2245-2	1.3775+1	4.4177-1	1.2048+1	1.2850+0			1.8381-1	1.8270-1	9.1222-4
8.8204-1	2.1734+0	6.2941-2	1.2001+1	2.8547-1	1.0922+1	7.8291-1			1.8351-1	1.8294-1	5.8250-4
1.0000+0	2.3437+0	5.8369-2	1.1129+1	2.2199-1	1.0269+1	6.0793-1			1.8782-1	1.8739-1	4.3181-4
1.0220+0	2.3765+0	5.7599-2	1.0882+1	2.1281-1	1.0191-1	5.7850-1			2.0034-1	1.9993-1	4.1072-4
1.0251+0	2.3785+0	5.7490-2	1.0861+1	2.1133-1	1.0175-1	5.7489-1	1.4823-7		2.0088-1	2.0027-1	4.0623-4
1.0281+0	2.3838+0	5.7386-2	1.0841+1	2.1011-1	1.0160-1	5.7188-1	1.1036-8		2.0101-1	2.0060-1	4.0587-4
1.0287+0	2.3848+0	5.7383-2	1.0837+1	2.0985-1	1.0158-1	5.7094-1	1.4923-8		2.0108-1	2.0067-1	4.0535-4
1.0295+0	2.3859+0	5.7337-2	1.0832+1	2.0955-1	1.0153+1	5.7011-1	2.0423-8		2.0116-1	2.0075-1	4.0476-4
1.0301+0	2.3887+0	5.7317-2	1.0828+1	2.0930-1	1.0149+1	5.6945-1	2.5685-8		2.0122-1	2.0082-1	4.0429-4
1.0310+0	2.3880+0	5.7285-2	1.0822+1	2.0894-1	1.0145+1	5.6848-1	3.5145-8		2.0132-1	2.0092-1	4.0359-4
1.0320+0	2.3895+0	5.7251-2	1.0816+1	2.0854-1	1.0140+1	5.6735-1	4.8087-8		2.0143-1	2.0103-1	4.0281-4
1.0332+0	2.3912+0	5.7210-2	1.0808+1	2.0806-1	1.0134+1	5.6604-1	6.7362-8		2.0156-1	2.0116-1	4.0187-4
1.0340+0	2.3923+0	5.7182-2	1.0803+1	2.0774-1	1.0130+1	5.6517-1	8.2893-8		2.0165-1	2.0125-1	4.0125-4
1.0353+0	2.3942+0	5.7137-2	1.0894+1	2.0722-1	1.0123+1	5.6375-1	1.1225-5		2.0179-1	2.0139-1	4.0025-4
1.0368+0	2.3961+0	5.7092-2	1.0885+1	2.0689-1	1.0118+1	5.6228-1	1.4823-5		2.0194-1	2.0154-1	3.9921-4
1.0382+0	2.3984+0	5.7038-2	1.0875+1	2.0607-1	1.0109+1	5.6081-1	2.0140-5		2.0211-1	2.0171-1	3.9802-4
1.0397+0	2.4005+0	5.6987-2	1.0865+1	2.0548-1	1.0101+1	5.5939-1	2.6165-5		2.0228-1	2.0188-1	3.9687-4
1.0415+0	2.4031+0	5.6928-2	1.0854+1	2.0478-1	1.0092+1	5.5798-1	3.4813-5		2.0247-1	2.0208-1	3.9550-4
1.0438+0	2.4084+0	5.6848-2	1.0839+1	2.0388-1	1.0080+1	5.5481-1	4.8321-5		2.0273-1	2.0233-1	3.9378-4
1.0484+0	2.4101+0	5.6781-2	1.0822+1	2.0288-1	1.0067+1	5.5188-1	6.7230-5		2.0301-1	2.0262-1	3.9181-4
1.0483+0	2.4128+0	5.6897-2	1.0810+1	2.0214-1	1.0058+1	5.4987-1	8.3703-5		2.0322-1	2.0283-1	3.9039-4
1.0512+0	2.4189+0	5.6800-2	1.0792+1	2.0104-1	1.0044+1	5.4684-1	1.1354-4		2.0354-1	2.0315-1	3.8824-4
1.0541+0	2.4210+0	5.6505-2	1.0773+1	1.9985-1	1.0029+1	5.4388-1	1.4823-4		2.0388-1	2.0347-1	3.8613-4
1.0577+0	2.4281+0	5.6385-2	1.0751+1	1.9859-1	1.0012+1	5.4015-1	2.0342-4		2.0428-1	2.0387-1	3.8349-4
1.0611+0	2.4309+0	5.6274-2	1.0729+1	1.9733-1	9.9951+0	5.3670-1	2.8459-4		2.0463-1	2.0425-1	3.8104-4
1.0651+0	2.4366+0	5.6144-2	1.0705+1	1.9606-1	9.9757+0	5.3268-1	3.5030-4		2.0507-1	2.0469-1	3.7819-4
1.0704+0	2.4440+0	5.5973-2	1.0672+1	1.9394-1	9.9501+0	5.2742-1	4.8870-4		2.0565-1	2.0528-1	3.7448-4
1.0762+0	2.4521+0	5.5788-2	1.0637+1	1.9187-1	9.9224+0	5.2178-1	6.7539-4		2.0629-1	2.0592-1	3.7044-4
1.0806+0	2.4582+0	5.5649-2	1.0610+1	1.9032-1	9.9015+0	5.1752-1	8.4345-4		2.0678-1	2.0641-1	3.6743-4
1.0871+0	2.4673+0	5.5445-2	1.0571+1	1.8806-1	9.8709+0	5.1136-1	1.1384-3		2.0750-1	2.0713-1	3.6305-4
1.0937+0	2.4764+0	5.5241-2	1.0533+1	1.8581-1	9.8400+0	5.0520-1	1.4923-3		2.0823-1	2.0787-1	3.5888-4
1.1026+0	2.4886+0	5.4971-2	1.0481+1	1.8285-1	9.7889+0	4.9710-1	2.0690-3		2.0821-1	2.0888-1	3.5293-4
1.1107+0	2.4998+0	5.4728-2	1.0435+1	1.8021-1	9.7189+0	4.8968-1	2.8982-3		2.1011-1	2.0976-1	3.4780-4
1.1208+0	2.5130+0	5.4437-2	1.0379+1	1.7708-1	9.7172+0	4.8128-1	3.8091-3		2.1120-1	2.1086-1	3.4189-4
1.1333+0	2.5300+0	5.4072-2	1.0309+1	1.7314-1	9.6608+0	4.7058-1	5.0178-3		2.1281-1	2.1229-1	3.3408-4
1.1475+0	2.5487+0	5.3674-2	1.0234+1	1.6891-1	9.5989+0	4.5900-1	6.8276-3		2.1418-1	2.1387-1	3.2588-4
1.1582+0	2.5627+0	5.3382-2	1.0178+1	1.6582-1	9.5529+0	4.5057-1	8.6092-3		2.1539-1	2.1507-1	3.1889-4
1.1741+0	2.5831+0	5.2958-2	1.0097+1	1.6139-1	9.4859+0	4.3848-1	1.1508-2		2.1717-1	2.1688-1	3.1129-4
1.1901+0	2.6034+0	5.2546-2	1.0019+1	1.5710-1	9.4197+0	4.2685-1</					

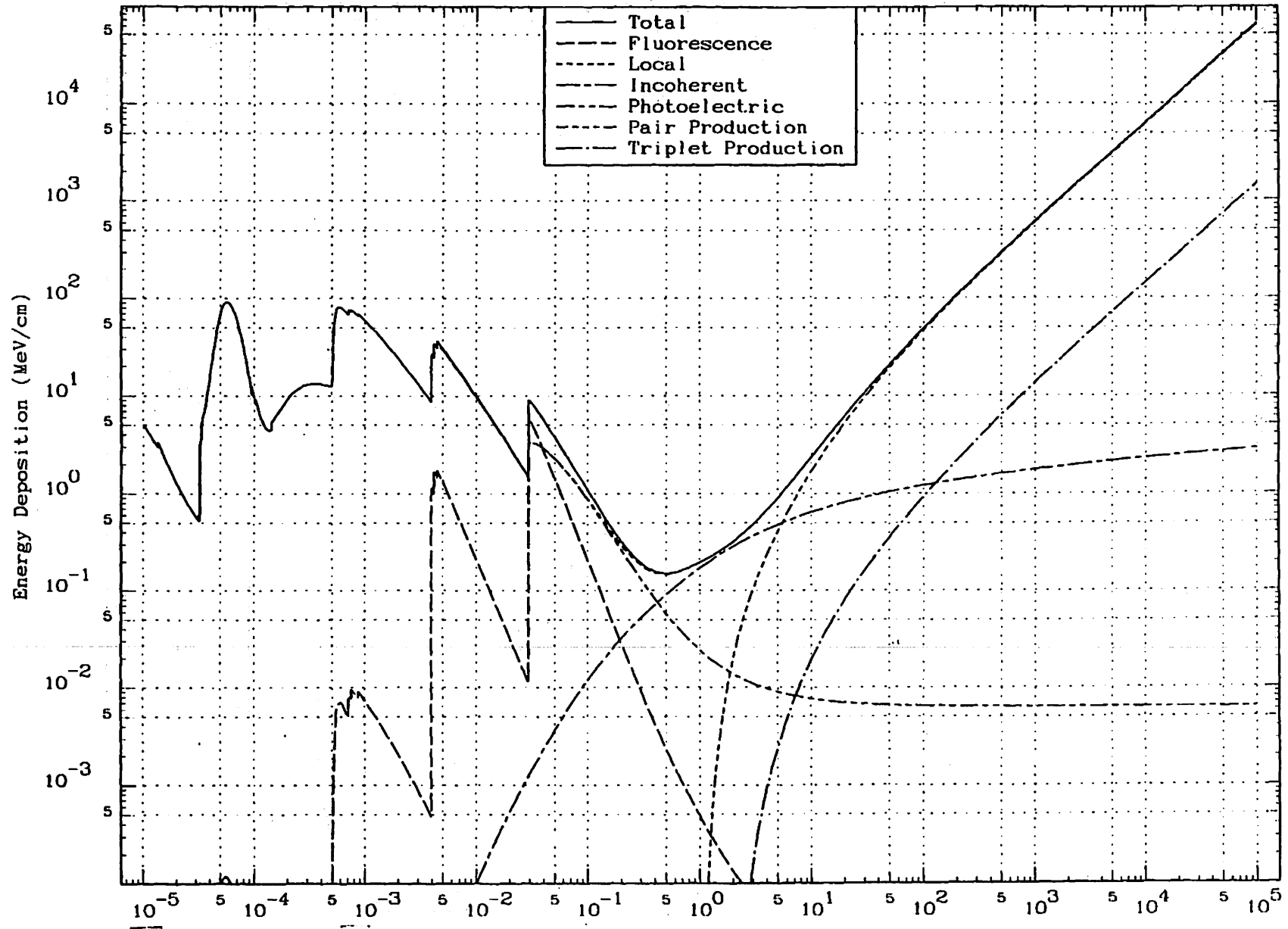
Energy MeV	Total Mean Free Path		Cross Sections (baras)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.7847+ 0	3.1626+ 0	4.3255- 2	8.2471+ 0	7.0096- 2	7.6281+ 0	2.0731- 1	3.4167- 1		2.8440- 1	2.8425- 1	1.4718- 4
1.8923+ 0	3.2366+ 0	4.2267- 2	8.0587+ 0	6.2373- 2	7.3825+ 0	1.8744- 1	4.2636- 1		3.0893- 1	3.0880- 1	1.3307- 4
2.0440+ 0	3.3276+ 0	4.1111- 2	7.8383+ 0	5.3482- 2	7.0711+ 0	1.8440- 1	5.4940- 1		3.3052- 1	3.3041- 1	1.1672- 4
2.0858+ 0	3.3526+ 0	4.0803- 2	7.7797+ 0	5.1362- 2	6.9867+ 0	1.8931- 1	5.8233- 1	4.9154- 7	3.3627- 1	3.3618- 1	1.1311- 4
2.0999+ 0	3.3808+ 0	4.0705- 2	7.7809+ 0	5.0876- 2	6.9589+ 0	1.8785- 1	5.9371- 1	1.1513- 6	3.3824- 1	3.3813- 1	1.1193- 4
2.1066+ 0	3.4046+ 0	4.0659- 2	7.7521+ 0	5.0355- 2	6.9457+ 0	1.8688- 1	5.8917- 1	1.6015- 6	3.3918- 1	3.3907- 1	1.1138- 4
2.1140+ 0	3.3887+ 0	4.0609- 2	7.7426+ 0	5.0004- 2	6.9313+ 0	1.8602- 1	6.0524- 1	2.2159- 6	3.4023- 1	3.4012- 1	1.1077- 4
2.1185+ 0	3.3718+ 0	4.0572- 2	7.7358+ 0	4.9745- 2	6.9207+ 0	1.8539- 1	6.0978- 1	2.7587- 6	3.4101- 1	3.4090- 1	1.1033- 4
2.1279+ 0	3.3784+ 0	4.0518- 2	7.7250+ 0	4.9353- 2	6.9044+ 0	1.8444- 1	6.1875- 1	3.7414- 6	3.4221- 1	3.4210- 1	1.0985- 4
2.1363+ 0	3.3609+ 0	4.0462- 2	7.7146+ 0	4.8968- 2	6.8884+ 0	1.8351- 1	6.2374- 1	4.9154- 6	3.4341- 1	3.4330- 1	1.0939- 4
2.1470+ 0	3.3687+ 0	4.0394- 2	7.7016+ 0	4.8481- 2	6.8680+ 0	1.8231- 1	6.3280- 1	6.7393- 6	3.4496- 1	3.4485- 1	1.0814- 4
2.1835+ 0	3.3953+ 0	4.0291- 2	7.6820+ 0	4.7745- 2	6.8369+ 0	1.8061- 1	6.4888- 1	1.0248- 5	3.4736- 1	3.4728- 1	1.0686- 4
2.1845+ 0	3.4088+ 0	4.0154- 2	7.6580+ 0	4.6833- 2	6.7978+ 0	1.4827- 1	6.6300- 1	1.6239- 5	3.5033- 1	3.5023- 1	1.0527- 4
2.2018+ 0	3.4181+ 0	4.0045- 2	7.6352+ 0	4.6101- 2	6.7661+ 0	1.4647- 1	6.7646- 1	2.2457- 5	3.5280- 1	3.5270- 1	1.0399- 4
2.2148+ 0	3.4229+ 0	3.9965- 2	7.6199+ 0	4.5562- 2	6.7425+ 0	1.4513- 1	6.8668- 1	2.7992- 5	3.5487- 1	3.5457- 1	1.0304- 4
2.2342+ 0	3.4329+ 0	3.9850- 2	7.5979+ 0	4.4778- 2	6.7078+ 0	1.4318- 1	7.0210- 1	3.7654- 5	3.5750- 1	3.5739- 1	1.0165- 4
2.2537+ 0	3.4426+ 0	3.9737- 2	7.5765+ 0	4.4006- 2	6.6734+ 0	1.4128- 1	7.1780- 1	4.9154- 5	3.6036- 1	3.6028- 1	1.0029- 4
2.2815+ 0	3.4568+ 0	3.9584- 2	7.5472+ 0	4.2941- 2	6.6250+ 0	1.3960- 1	7.4058- 1	6.8848- 5	3.6450- 1	3.6441- 1	9.8400- 5
2.3070+ 0	3.4677+ 0	3.9450- 2	7.5218+ 0	4.1998- 2	6.5815+ 0	1.3823- 1	7.6185- 1	9.0432- 5	3.6836- 1	3.6827- 1	9.6716- 5
2.3382+ 0	3.4814+ 0	3.9295- 2	7.4921+ 0	4.0887- 2	6.5293+ 0	1.3341- 1	7.8837- 1	1.2158- 4	3.7317- 1	3.7308- 1	9.4719- 5
2.3774+ 0	3.4978+ 0	3.9110- 2	7.4568+ 0	3.9552- 2	6.4653+ 0	1.3001- 1	8.2189- 1	1.6838- 4	3.7930- 1	3.7921- 1	9.2304- 5
2.4102+ 0	3.5124+ 0	3.8946- 2	7.4259+ 0	3.8484- 2	6.4129+ 0	1.2727- 1	8.4700- 1	2.1417- 4	3.8428- 1	3.8419- 1	9.0381- 5
2.4488+ 0	3.5278+ 0	3.8777- 2	7.3934+ 0	3.7343- 2	6.3559+ 0	1.2433- 1	8.7550- 1	2.7243- 4	3.8993- 1	3.8984- 1	8.8270- 5
2.4859+ 0	3.5434+ 0	3.8606- 2	7.3608+ 0	3.6179- 2	6.2985+ 0	1.2130- 1	9.0652- 1	3.4301- 4	3.9608- 1	3.9599- 1	8.6123- 5
2.5564+ 0	3.5892+ 0	3.8328- 2	7.3077+ 0	3.4213- 2	6.1929+ 0	1.1615- 1	9.6398- 1	4.9154- 4	4.0750- 1	4.0741- 1	8.2461- 5
2.6604+ 0	3.6024+ 0	3.7974- 2	7.2403+ 0	3.1595- 2	6.0483+ 0	1.0917- 1	1.0505+ 0	7.5773- 4	4.2498- 1	4.2490- 1	7.7510- 5
2.7453+ 0	3.6286+ 0	3.7680- 2	7.1881+ 0	2.9874- 2	5.9397+ 0	1.0397- 1	1.1147+ 0	1.0142- 3	4.3911- 1	4.3904- 1	7.3819- 5
2.8090+ 0	3.6477+ 0	3.7503- 2	7.1506+ 0	2.8346- 2	5.8565+ 0	1.0034- 1	1.1641+ 0	1.2282- 3	4.5007- 1	4.4999- 1	7.1235- 5
2.9045+ 0	3.6711+ 0	3.7284- 2	7.1048+ 0	2.6515- 2	5.7418+ 0	9.5258- 2	1.2389+ 0	1.5823- 3	4.6707- 1	4.6700- 1	6.7631- 5
3.0398+ 0	3.6994+ 0	3.6978- 2	7.0504+ 0	2.4208- 2	5.5886+ 0	8.8900- 2	1.3466+ 0	2.1444- 3	4.9199- 1	4.9192- 1	6.3118- 5
3.2344+ 0	3.7454+ 0	3.6524- 2	6.9638+ 0	2.1387- 2	5.3685+ 0	8.1360- 2	1.4895+ 0	3.0987- 3	5.2800- 1	5.2804- 1	5.7777- 5
3.4375+ 0	3.7784+ 0	3.6206- 2	6.9031+ 0	1.8936- 2	5.1608+ 0	7.4814- 2	1.6445+ 0	4.2401- 3	5.6434- 1	5.6429- 1	5.2874- 5
3.7847+ 0	3.8248+ 0	3.5787- 2	6.8194+ 0	1.5823- 2	4.9489+ 0	6.5063- 2	1.8833+ 0	6.5042- 3	6.3143- 1	6.3138- 1	4.8188- 5
4.0000+ 0	3.8377+ 0	3.5846- 2	6.7984+ 0	1.3988- 2	4.6782+ 0	6.0120- 2	2.0360+ 0	8.0570- 3	6.7681- 1	6.7677- 1	4.2684- 5
4.2500+ 0	3.8539+ 0	3.5497- 2	6.7879+ 0	1.2391- 2	4.4980+ 0	5.5408- 2	2.1821+ 0	9.8653- 3	7.2907- 1	7.2903- 1	3.8338- 5
4.7500+ 0	3.8543+ 0	3.5483- 2	6.7872+ 0	9.9210- 3	4.1853+ 0	4.7703- 2	2.5103+ 0	1.3928- 2	8.4358- 1	8.4358- 1	3.3888- 5
5.5135+ 0	3.8381+ 0	3.5681- 2	6.7992+ 0	7.3843- 3	3.8000+ 0	3.9233- 2	2.8322+ 0	2.0407- 2	1.0278+ 0	1.0278+ 0	2.7855- 5
6.3840+ 0	3.7974+ 0	3.6024- 2	6.8694+ 0	5.5281- 3	3.4348+ 0	3.2667- 2	3.3678+ 0	2.7633- 2	1.2460+ 0	1.2459+ 0	2.3193- 5
7.4833+ 0	3.7186+ 0	3.6778- 2	7.0121+ 0	3.9982- 3	3.0643+ 0	2.6710- 2	3.8601+ 0	3.7041- 2	1.5584+ 0	1.5583+ 0	1.8984- 5
9.0000+ 0	3.5945+ 0	3.8058- 2	7.2582+ 0	2.7844- 3	2.8908+ 0	2.1360- 2	4.4920+ 0	4.9300- 2	2.0233+ 0	2.0233+ 0	1.5185- 5
1.0000+ 1	3.5127+ 0	3.8944- 2	7.4252+ 0	2.2382- 3	2.4983+ 0	1.8860- 2	4.8480+ 0	5.6810- 2	2.3508+ 0	2.3507+ 0	1.3390- 5
1.3000+ 1	3.2978+ 0	4.1485- 2	7.9098+ 0	1.3250- 3	2.0524+ 0	1.3920- 2	5.7650+ 0	7.8910- 2	3.4059+ 0	3.4058+ 0	8.8828- 8
1.8000+ 1	3.0282+ 0	4.5205- 2	8.8189+ 0	6.9115- 4	1.8076+ 0	9.8700- 3	6.8970+ 0	1.0400- 1	5.3633+ 0	5.3633+ 0	8.8654- 8
2.8000+ 1	2.7410+ 0	4.9909- 2	9.5158+ 0	3.3127- 4	1.2020+ 0	6.4830- 3	8.1710+ 0	1.3800- 1	8.8483+ 0	8.8483+ 0	4.6028- 6
4.2170+ 1	2.4234+ 0	5.8449- 2	1.0763+ 1	1.2583- 4	8.2004- 4	3.8858- 3	9.7805+ 0	1.7814- 1	1.6694+ 1	1.6694+ 1	2.7588- 6
8.0000+ 1	2.2382+ 0	6.1174- 2	1.1884+ 1	6.2205- 5	6.1277- 5	2.6930- 3	1.0840+ 1	2.0810- 1	2.8081+ 1	2.8081+ 1	1.9120- 8
1.0000+ 2	2.0285+ 0	6.7505- 2	1.2871+ 1	2.2394- 5	4.0180- 1	1.5950- 3	1.2220+ 1	2.4740- 1	4.8540+ 1	4.8540+ 1	1.1324- 8
2.0000+ 2	1.8387+ 0	7.4398- 2	1.4185+ 1	5.5885- 6	2.2223- 1	7.8940- 4	1.3670+ 1	2.8200- 1	1.0780+ 2	1.0780+ 2	5.8045- 7
5.0000+ 2	1.7008+ 0	8.0430- 2	1.5335+ 1	8.8578- 7	1.0055- 1	3.1380- 4	1.4900+ 1	3.3420- 1	2.9306+ 2	2.9306+ 2	2.2278- 7
1.0000+ 3	1.6448+ 0	8.3183- 2	1.5880+ 1	2.2394- 7	5.4787- 2	1.5980- 4	1.5450+ 1	3.5500- 1	6.0713+ 2	6.0713+ 2	1.1118- 7
5.0000+ 3	1.5902+ 0	8.6028- 2	1.8402+ 1	8.8578- 8	1.2987- 2	3.1270- 5	1.6010+ 1	3.7890- 1	3.1433+ 3	3.1433+ 3	2.2201- 8
1.0000+ 4	1.5807+ 0	8.6541- 2	1.6500+ 1	2.2394- 9	6.9184- 3	1.5630- 5	1.6110+ 1	3.8520- 1	6.3252+ 3	6.3252+ 3	1.1097- 8
1.0000+ 5	1.5713+ 0	8.7058- 2	1.6599+ 1	2.2393- 11	8.3584- 4	1.5630- 6	1.6210+ 1	3.8800- 1	8.3639+ 4	8.3639+ 4	1.1097- 9

October 31, 1989
Atomic Weight 118.690

ENDL Evaluated
Energy Deposition

50-Sn
Density 7.310 Grams/cc

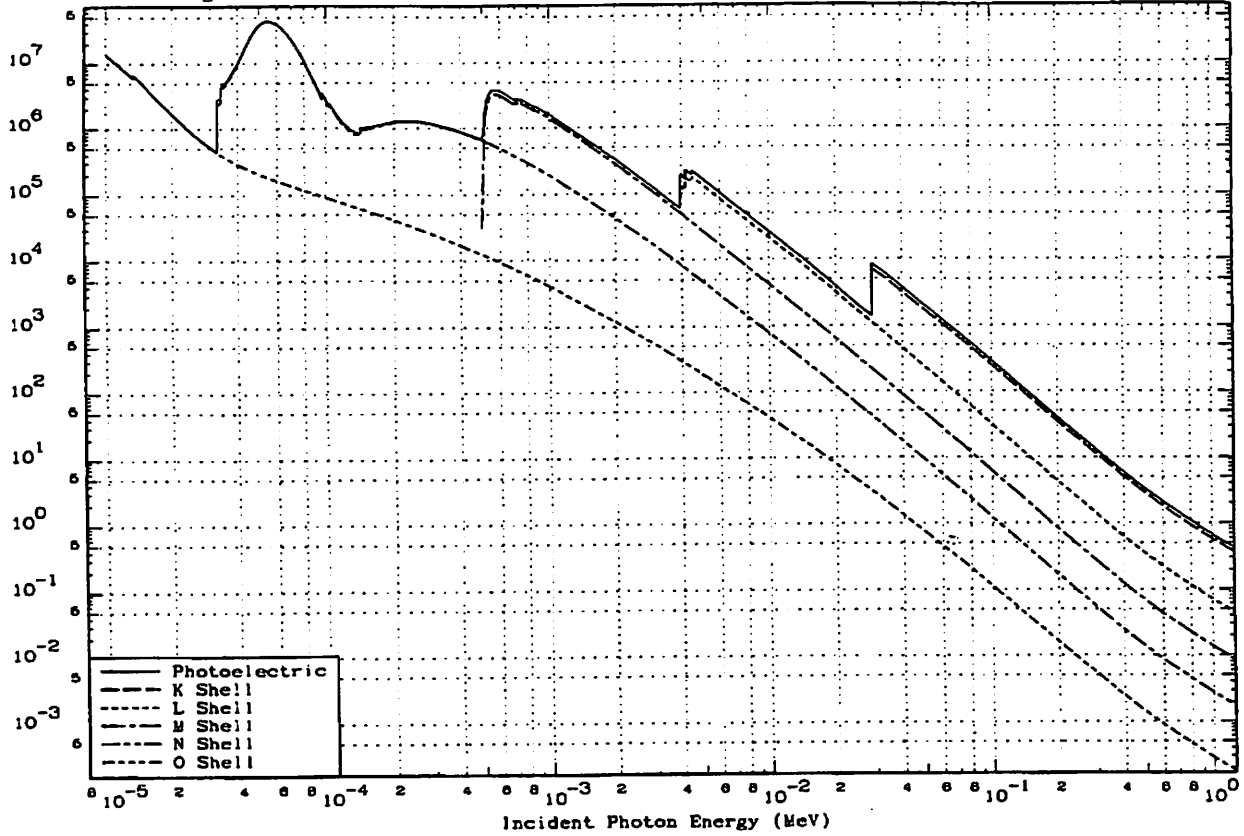
352



October 31, 1989
Atomic Weight 118.690

ENDL Evaluated
Photoelectric Shell Cross Sections

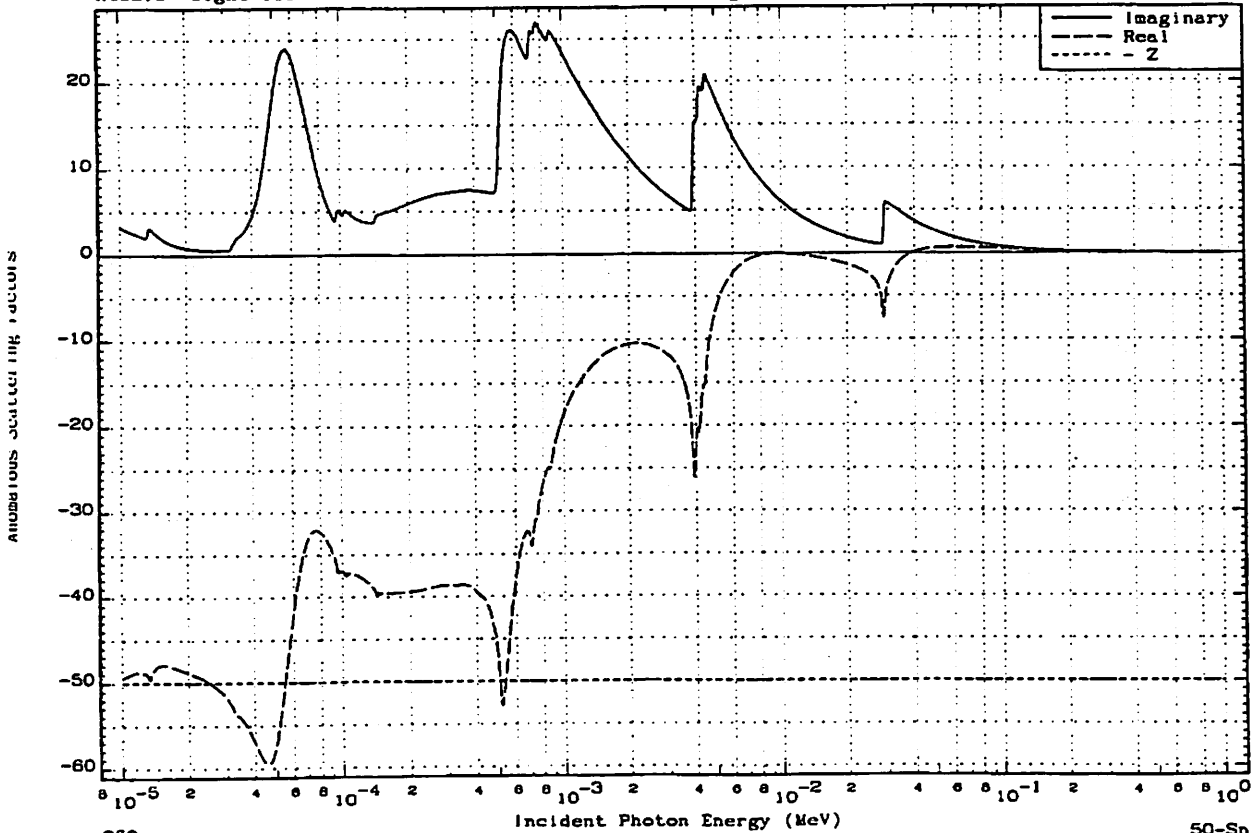
50-Sn
Density 7.310 Grams/cc

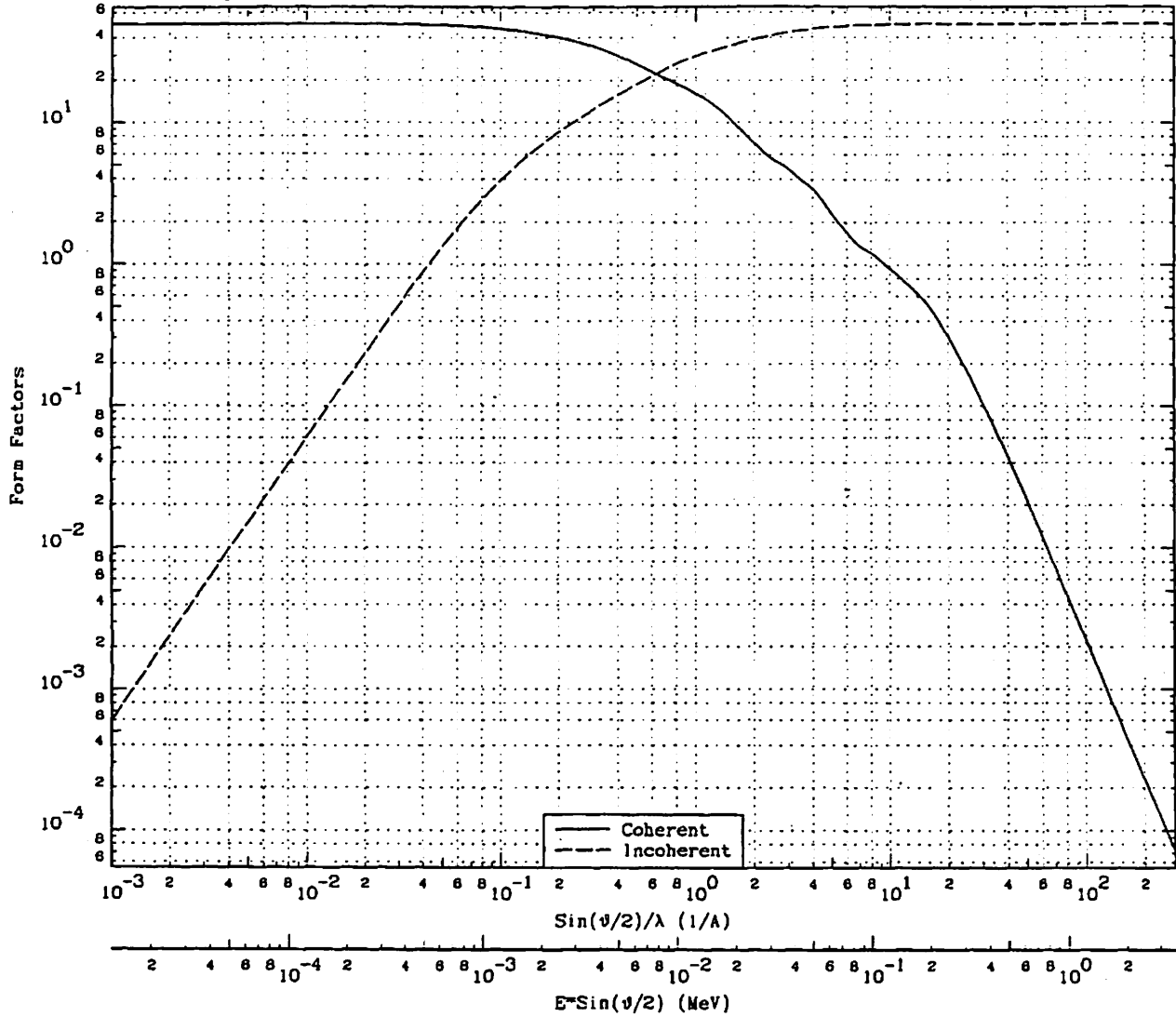


October 31, 1989
Atomic Weight 118.690

ENDL Evaluated
Anomalous Scattering Factors

50-Sn
Density 7.310 Grams/cc





$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent	$\text{Sin}(\theta/2)/\lambda$ 1/Å	$E \cdot \text{Sin}(\theta/2)$ MeV	Coherent	Incoherent
0.0000+0	0.0000+0	5.0000+1	0.0000+0	7.0000-1	6.6760-3	2.0611+1	2.4059+1	1.7069+1	2.1163-1	4.4145-1	4.8894+1
1.0000-3	1.2399-6	5.0000+1	6.0000-4	8.0000-1	9.9188-3	1.8885+1	2.8252+1	2.0000+1	2.4797-1	3.0921-1	4.9654+1
5.0000-3	6.1993-5	4.9981+1	1.5000-2	9.0000-1	1.1159-2	1.7469+1	2.8113+1	2.4430+1	3.0290-1	1.8657-1	4.9991+1
1.0000-2	1.2399-4	4.9946+1	6.0000-2	1.0000+0	1.2399-2	1.8205+1	2.9687+1	3.0885+1	3.8293-1	9.7173-2	5.0008+1
1.5000-2	1.8598-4	4.8895+1	1.3440-1	1.2500+0	1.5498-2	1.3304+1	3.2794+1	3.9756+1	4.9292-1	4.5433-2	5.0004+1
2.0000-2	2.4797-4	4.9814+1	2.3650-1	1.5000+0	1.8598-2	1.0899+1	3.5226+1	5.0000+1	8.1993-1	2.1932-2	5.0000+1
2.5000-2	3.0996-4	4.8711+1	3.8480-1	2.0000+0	2.4797-2	7.1560+0	3.8894+1	6.0000+1	9.9188-1	4.6388-3	5.0000+1
3.0000-2	3.7196-4	4.9589+1	5.1750-1	2.3750+0	2.9448-2	5.6030+0	4.0894+1	1.0000+2	1.2399+0	2.2047-3	5.0000+1
4.0000-2	4.9594-4	4.9280+1	8.8610-1	2.5000+0	3.0996-2	5.5243+0	4.1462+1	1.7111+2	2.1215+0	3.8065-4	5.0000+1
5.0000-2	6.1993-4	4.8906+1	1.3230+0	3.0000+0	3.7196-2	4.7808+0	4.3339+1	3.5459+2	4.3984+0	3.7819-5	5.0000+1
7.0000-2	8.6790-4	4.7984+1	2.3215+0	3.5000+0	4.3395-2	3.9969+0	4.4751+1	7.0351+2	8.7225+0	4.5826-6	5.0000+1
9.0000-2	1.1159-3	4.6862+1	3.3857+0	4.0000+0	4.9594-2	3.4392+0	4.5617+1	1.0000+3	1.2399+1	1.5773-6	5.0000+1
1.0000-1	1.2399-3	4.6274+1	3.9170+0	4.4256+0	5.4873-2	2.8223+0	4.6507+1	2.6333+3	3.2649+1	8.7326-8	5.0000+1
1.2500-1	1.5498-3	4.4743+1	5.2044+0	5.0000+0	6.1993-2	2.3238+0	4.7200+1	4.8811+3	6.0518+1	1.4202-8	5.0000+1
1.5000-1	1.8598-3	4.3182+1	6.4180+0	6.0000+0	7.4391-2	1.6924+0	4.7977+1	1.1674+4	1.4474+2	1.1253-9	5.0000+1
1.7500-1	2.1697-3	4.1683+1	7.5495+0	6.7891+0	8.4175-2	1.4037+0	4.8373+1	3.5515+4	4.4033+2	4.6197-11	5.0000+1
2.0000-1	2.4797-3	4.0212+1	8.6150+0	7.0000+0	8.6790-2	1.3552+0	4.8463+1	1.0000+6	1.2399+4	3.6293-15	5.0000+1
2.5000-1	3.0996-3	3.7388+1	1.0589+1	8.0000+0	9.9188-2	1.2170+0	4.8810+1	5.6234+6	6.9722+4	2.6796-17	5.0000+1
3.0000-1	3.7196-3	3.4719+1	1.2415+1	8.8516+0	1.0975-1	1.0947+0	4.9040+1	2.7384+8	3.3952+6	3.8043-22	5.0000+1
4.0000-1	4.9594-3	2.9894+1	1.5748+1	1.0000+1	1.2399-1	9.4070+0	4.9288+1	1.0000+9	1.2399+7	9.4057-24	5.0000+1
5.0000-1	6.1993-3	2.5932+1	1.9760+1	1.3750+1	1.7048-1	6.4203+0	4.9742+1				
6.0000-1	7.4391-3	2.2860+1	2.1541+1	1.5000+1	1.8598-1	5.6282-1	4.9820+1				

Energy MeV	Total Mean Free Path		Cross Sections (bars)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelec	Pair	Triplet	Total	Local	Fluorescence
1.0000-5	1.9739-6	8.9305-4	1.3659-7	7.2764-0	1.2983-4	1.3659-7			5.0662+0	5.0662+0	
1.1574-5	2.9630-6	4.6169-4	9.0994-6	5.3941-0	1.7390-4	9.0994-6			3.9060+0	3.9060+0	
1.2878-5	4.0219-6	3.4014-4	6.7038-6	3.7515-0	2.1529-4	6.7038-6			3.2019+0	3.2019+0	
1.3135-5	4.2708-6	3.2031-4	6.3130-6	3.2160-0	2.2399-4	6.3130-6			3.0756+0	3.0756+0	
1.3207-5	4.3421-6	3.1505-4	6.2093-6	3.1477-0	2.2645-4	6.2093-6			3.0416+0	3.0416+0	
1.3257-5	4.3923-6	3.1145-4	6.1383-6	3.2683-0	2.2818-4	6.1383-6			3.0183+0	3.0183+0	
1.3306-5	4.4416-6	3.0799-4	6.0702-6	3.6144-0	2.2986-4	6.0702-6			2.9958+0	2.9958+0	
1.3380-5	4.5268-6	3.0219-4	5.9559-6	4.7738-0	2.3276-4	5.9559-6			2.9579+0	2.9579+0	
01 1.3380-5	4.0024-8	3.4178-4	6.7384-6	4.7738-0	2.3276-4	6.7384-6			3.3455+0	3.3455+0	
1.3430-5	4.0434-6	3.3833-4	6.6881-6	5.4472-0	2.3415-4	6.6881-6			3.3215+0	3.3215+0	
1.3484-5	4.0990-6	3.3374-4	6.5777-6	6.3116-0	2.3603-4	6.5777-6			3.2995+0	3.2995+0	
1.3531-5	4.1483-6	3.2977-4	6.4995-6	6.9037-0	2.3768-4	6.4995-6			3.2818+0	3.2818+0	
1.3572-5	4.1921-6	3.2633-4	6.4315-6	7.2830-0	2.3915-4	6.4315-6			3.2376+0	3.2376+0	
1.3676-5	4.3025-6	3.1795-4	6.2665-6	7.6374-0	2.4281-4	6.2665-6			3.1786+0	3.1786+0	
1.4531-5	5.2964-6	2.5828-4	5.0905-6	6.9352-0	2.7413-4	5.0905-6			2.7436+0	2.7436+0	
1.5274-5	6.3065-6	2.1692-4	4.2752-6	5.9673-0	3.0285-4	4.2752-6			2.4219+0	2.4219+0	
1.5886-5	7.4085-6	1.8465-4	3.6393-6	4.9311-0	3.3173-4	3.6393-6			2.1577+0	2.1577+0	
1.7914-5	1.1017-5	1.2417-4	2.4472-6	2.8080-0	4.1651-4	2.4472-6			1.6260+0	1.6260+0	
1.8484-5	1.4532-5	9.4137-5	1.8554-6	1.7568-0	4.8280-4	1.8554-6			1.3408+0	1.3408+0	
2.0684-5	1.7841-5	7.7545-5	1.5283-6	1.2019-0	5.5539-4	1.5283-6			1.1725+0	1.1725+0	
2.1953-5	2.1348-5	6.4081-5	1.2630-6	7.7276-1	6.2560-4	1.2630-6			1.0284+0	1.0284+0	
2.3184-5	2.5339-5	5.3868-5	1.0640-6	4.8664-1	6.9771-4	1.0640-6			9.1496-1	9.1496-1	
2.4018-5	2.8283-5	4.8403-5	9.5397-5	3.2808-1	7.4880-4	9.5397-5			8.4981-1	8.4981-1	
2.5375-5	3.3288-5	4.1096-5	8.0996-5	2.3928-1	8.3578-4	8.0996-5			7.6228-1	7.6228-1	
2.6732-5	3.8389-5	3.5635-5	7.0233-5	5.8391-1	9.2756-4	7.0233-5			6.9635-1	6.9635-1	
2.8117-5	4.8125-5	2.8426-5	5.6024-5	1.3842-0	1.1004-3	5.6024-5			6.0502-1	6.0502-1	
3.1677-5	5.8836-5	2.3251-5	4.5825-5	5.1550-0	1.3024-3	4.5825-5			5.3839-1	5.3839-1	
3.2024-5	6.0342-5	2.2671-5	4.4681-5	6.5633-0	1.3311-3	4.4681-5			5.3069-1	5.3069-1	
3.2236-5	6.1285-5	2.2322-5	4.3994-5	7.7110-0	1.3490-3	4.3994-5			5.2603-1	5.2603-1	
3.2390-5	6.1958-5	2.2079-5	4.3516-5	8.3014-0	1.3617-3	4.3516-5			5.2276-1	5.2276-1	
N5 3.2390-5	9.6886-6	1.4120-4	2.7828-6	6.3014-0	1.3817-3	2.7828-6			3.3431+0	3.3431+0	
3.2564-5	9.6517-6	1.4174-4	2.7835-6	6.0287-0	1.3784-3	2.7835-6			3.3739+0	3.3739+0	
3.3030-5	9.5543-6	1.4318-4	2.8220-6	1.0112-1	1.4161-3	2.8219-6			3.4571+0	3.4571+0	
3.3480-5	9.4429-6	1.4487-4	2.8552-6	1.1715-1	1.4558-3	2.8552-6			3.5488+0	3.5488+0	
N4 3.3480-5	8.3872-8	2.1485-4	4.2344-6	1.1715-1	1.4558-3	4.2344-6			5.2597+0	5.2597+0	9.4028-6
3.3850-5	8.2925-8	2.1740-4	4.2847-6	1.2237-1	1.4897-3	4.2847-6			5.3476+0	5.3476+0	9.8007-8
3.3906-5	8.1752-8	2.2153-4	4.3682-6	1.2557-1	1.4921-3	4.3681-6			5.4907+0	5.4907+0	9.9250-8
3.5530-5	5.2751-8	2.5833-4	5.1112-6	1.6713-1	1.6385-3	5.1111-8			6.7354+0	6.7354+0	1.2183-5
3.7026-5	4.3415-8	3.1510-4	6.2103-6	2.3156-1	1.7794-3	6.2103-6			8.5285+0	8.5284+0	1.4747-5
4.0000-5	2.7082-8	5.0512-4	9.9555-6	4.6063-1	2.0767-3	9.9554-6			1.4770+1	1.4770+1	2.2589-5
4.3757-5	1.4624-8	9.3545-4	1.8437-7	1.0275-2	2.4851-3	1.8437-7			2.8922+1	2.8922+1	4.2541-5
4.9886-5	1.0627-8	1.2872-5	2.5370-7	1.5182-2	2.7447-3	2.5370-7			4.3272+1	4.3272+1	6.0682-5
4.7354-5	9.0245-7	1.5159-5	2.9876-7	1.9134-2	2.9103-3	2.9876-7			5.2472+1	5.2472+1	7.3332-5
5.0000-5	7.0909-7	1.9292-5	3.8023-7	2.6809-2	3.2447-3	3.8022-7			7.0512+1	7.0512+1	9.7853-5
5.2332-5	6.3403-7	2.1576-5	4.2525-7	3.2249-2	3.5543-3	4.2524-7			8.2538+1	8.2538+1	1.1228-4
5.3020-5	6.2527-7	2.1879-5	4.3120-7	3.3927-2	3.6484-3	4.3120-7			8.4796+1	8.4796+1	1.1466-4
5.4152-5	6.1189-7	2.2353-5	4.4056-7	3.5660-2	3.8058-3	4.4057-7			8.8484+1	8.8483+1	1.1830-4
5.6095-5	6.1803-7	2.2206-5	4.3766-7	3.8294-2	4.0838-3	4.3768-7			9.1057+1	9.1057+1	1.1876-4
5.7388-5	6.2867-7	2.1780-5	4.2887-7	3.9828-2	4.2742-3	4.2888-7			9.1284+1	9.1283+1	1.1745-4
6.0000-5	6.7715-7	2.0202-5	3.9817-7	4.0281-2	4.6721-3	3.9818-7			8.8808+1	8.8806+1	1.1001-4
6.2357-5	7.4407-7	1.8385-5	3.6236-7	4.0185-2	5.0484-3	3.6235-7			8.3805+1	8.3805+1	1.0155-4
6.8068-5	9.0729-7	1.5078-5	2.9716-7	3.8316-2	5.6649-3	2.9716-7			7.2818+1	7.2818+1	8.4239-5
7.0000-5	1.1722-6	1.1670-5	2.3000-7	3.5788-2	6.3591-3	2.2899-7			5.9713+1	5.9713+1	8.5775-5
7.4833-5	1.6809-6	8.1384-4	1.6040-7	3.1187-2	7.2674-3	1.6040-7			4.4519+1	4.4519+1	4.6180-5
8.0000-5	2.5448-6	5.3756-4	1.0595-7	2.6039-2	8.3056-3	1.0595-7			3.1436+1	3.1436+1	3.0624-5
8.5625-5	4.0849-6	3.3489-4	6.6003-6	2.0904-2	9.5144-3	6.6001+8			2.0961+1	2.0961+1	1.9070-5
8.8364-5	5.0864-6	2.6895-4	5.3007-6	1.8750-2	1.0133-2	5.3005+6			1.7372+1	1.7372+1	1.5312-5
9.2958-5	7.4063-6	1.8471-4	3.6404-6	1.4917-2	1.1214-2	3.6402+6			1.2551+1	1.2551+1	1.0489-5
9.5199-5	8.8913-6	1.5386-4	3.0324-6	1.2291-2	1.1781-2	3.0323+6			1.0707+1	1.0707+1	8.7198-6
9.5800-5	9.3303-6	1.4662-4	2.8897-6	1.2269-2	1.1910-2	2.8896+6			1.0287+1	1.0287+1	8.3048-6
N3 9.5800-5	7.7154-8	1.7731-4	3.4945-6	1.2269-2	1.1910-2	3.4944+8			1.2416+1	1.2416+1	1.7278-5
9.8210-5	7.8269-6	1.7258-4	3.4013-6	1.2254-2	1.2012-2	3.4012+8			1.2137+1	1.2137+1	1.6982-5
9.7518-5	8.6328-6	1.5847-4	3.1232-6	1.3184-2	1.2340-2	3.1231+8			1.1298+1	1.1298+1	1.6083-5
1.0000-4	1.0122-5	1.3515-4	2.6837-6	1.2814-2	1.2877-2	2.6838+8			9.8791+0	9.8791+0	1.4530-5
1.0141-4	1.1091-5	1.2334-4	2.4309-6	1.2824-2	1.3341-2	2.4308+8			8.1425+0	8.1424+0	1.3875-5
1.0301-4	1.2290-5	1.1131-4	2.1939-6	1.1812-2	1.3783-2	2.1937+8			6.3810+0	6.3810+0	1.2775-5
1.0364-4	1.2765-5	1.0692-4	2.1073-6	1.1920-2	1.3932-2	2.1071+8			6.0998+0	6.0998+0	1.2439-5
N2 1.0364-4	1.1291-5	1.2116-4	2.3880-6	1.1920-2	1.3932-2	2.3878+8			9.1788+0	9.1788+0	1.9371-5
1.0514-4	1.2260-5	1.1158-4	2.1991-6	1.2405-2	1.4334-2	2.1990+8			8.5748+0	8.5748+0	1.8495-5
1.1312-4	1.7904-5	7.8405-5	1.5059-6	1.2045-2	1.6579-2	1.5057+8			6.3177+0	6.3177+0	1.4874-5
1.2050-4	2.3233-5	5.8882-5	1.1805-6	1.1140-2	1.8797-2	1.1804+8			5.1884+0	5.1883+0	1.2457-5
1.2875-4	2.8211-5	4.8492-5	9.5572-5	1.0100-2	2.1437-2	9.5562-5			4.5632+0	4.5632+0	1.0628-5
1.3592-4	3.1188-5	4.3891-5	8.6505-5	9.1244-1	2.3874-2	8.6488-5			4.3604+0	4.3604+0	9.8109-6
1.4003-4	3.1939-5	4.2831-5	8.4415-5	8.3772-1	2.5329-2	8.4407-5			4.3837+0	4.3838+0	9.2278-6
1.4184-4	3.2025-5	4.2716-5	8.4188-5	7.8935-1	2.5913-2	8.4180-5			4.4223+0	4.4223+0	9.1005-6
1.4281-4	3.2044-5	4.2691-5	8.4139-5	8.0644-1	2.6340-2	8.4131-5			4.4562+0	4.4562+0	9.0182-6
1.4281-4	2.6776-5	5.1091-5	1.0070-6	8.0644-1	2.6340-2	1.0069+8			5.3332+0	5.3332+0	1.2535-5
1.4380-4	2.6745-5	5.1149-5	1.0081-6	8.1245-1	2.6704-2	1.0060+8			5.3763+0	5.3762+0	1.2484-5
1.4587-4	2.6689-5	5.1256-5	1.0102-6	8.4860-1	2.7398-2	1.0101+8			5.4576+0	5.4576+0	1.2389-5
1.4689-4	2.6618-5	5.1393-5	1.0129-6	8.6317-1	2.7856-2	1.0128+8			5.5179+0	5.5179+0	1.2330-5
1.7012-4	2.4187-5	5.8559-5	1.1147-6	8.8359-1	3.7290-2	1.1146+8			7.0329+0	7.0329+0	1.1830-5
2.0000-4	2.1487-5	6.3726-5	1.2560-6	9.8794-1	5.1429-2	1.2559+8			9.3160+0	9.3160+0	1.1971-5
2.2134-4	2.0762-5	6.5890-5	1.2986-6	1.0200-2	6.2802-2	1.2985+8			1.0690+1	1.0690+1	1.1796-5
2.4981-4	2.1037-5	6.5027-5	1.2818-6	1.0980-2	7.8872-2	1.2815+8			1.1884+1	1.1884+1	1.1281-5
2.7384-4	2.1825-5	6.2679-5	1.2353-6	1.1607-2	9.8012-2	1.2352+8			1.2546+1	1.2546+1	1.0708-5
3.0000-4	2.3041-5	5.8373-5	1.1702-6	1.1765-2	1.1458-1	1.1701+8			1.3019+1	1.3019+1	1.0080-5
3.5188-4											

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/ca)			
	cm	cc ³ /ca/gram	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
3 8039-4	2.8656-5	4 7739+3	9.4088+5	1.1682+2	1 8150-1	9 4076+5			1 3273+1	1 3273+1	8 1153-6
4 3505-4	3.3732-5	4.0555+3	7.9930+5	9.3283+1	2 3519-1	7 9921+5			1 2896+1	1 2896+1	6 9945-6
4 5534-4	3.5839-5	3.8171+3	7.5231+5	7.8608+1	2 5619-1	7 5223+5			1 2704+1	1 2704+1	6 8211-6
4 8360-4	3.8826-5	3.5234+3	6.8442+5	5.1101+1	2 8684-1	6 8437+5			1 2455+1	1 2455+1	6 1581-6
4 9278-4	3 9809-5	3 4384+3	6 7727+5	4.1098+1	2 9714-1	6 7723+5			1 2378+1	1 2378+1	6 0203-6
4 9462-4	4 0007-5	3 4184+3	6 7393+5	4 0180+1	2 9922-1	6 7389+5			1 2363+1	1 2363+1	5 9934-6
M5 4 9462-4	3.8241-5	3.5773+3	7 0505+5	4.0180+1	2 9922-1	7 0501+5			1 2934+1	1 2934+1	6 3994-6
4 9747-4	3 7390-5	3 8587+3	7 2110+5	3 8803+1	3 0248-1	7 2106+5			1 3304+1	1 3304+1	6 6338-6
5 0085-4	3 5582-5	3 8448+3	7 5773+5	4 0925+1	3 0634-1	7 5769+5			1 4075+1	1 4075+1	7 1408-6
5 0357-4	3 2854-5	4 1638+3	8 2065+5	4 7229+1	3 0946-1	8 2060+5			1 5327+1	1 5327+1	7 9667-6
M4 5 0357-4	3.1505-5	4.3421+3	8 5578+5	4 7229+1	3 0946-1	8 5573+5			1 5983+1	1 5983+1	2 0399-4
5 0528-4	2 8588-5	4 7851+3	9 4310+5	5 4067+1	3 1144-1	9 4304+5			1 7673+1	1 7673+1	2 5835-4
5 0781-4	2 4031-5	5 8828+3	1 1220+6	6 8848+1	3 1437-1	1 1218+6			2 1130+1	2 1130+1	3 7007-4
5 1073-4	1 8652-5	7 3343+3	1 4455+6	9 2881+1	3 1777-1	1 4454+6			2 7380+1	2 7380+1	5 4972-4
5 1364-4	1 4636-5	9 3465+3	1 8421+6	1 1905+2	3 2118-1	1 8420+6			3 5091+1	3 5090+1	7 8714-4
5 1627-4	1 2585-5	1 0870+4	2 1424+6	1 4889+2	3 2427-1	2 1422+6			4 1020+1	4 1019+1	1 0385-3
5 2025-4	1 0822-5	1 2841+4	2 4914+6	1 8832+2	3 2897-1	2 4912+6			4 8089+1	4 8088+1	1 4791-3
5 2467-4	9 7266-6	1 4062+4	2 7714+6	2 2750+2	3 3424-1	2 7721+6			5 3926+1	5 3924+1	2 0524-3
5 3198-4	8 8439-6	1 5828+4	3 1192+6	2 8170+2	3 4303-1	3 1189+6			6 1538+1	6 1535+1	3 2078-3
5 4127-4	7 7380-6	1 7679+4	3 4843+6	3 4557+2	3 5435-1	3 4840+6			6 9942+1	6 9937+1	4 7847-3
5 4707-4	7 4180-6	1 8441+4	3 8348+6	3 8043+2	3 8152-1	3 8342+6			7 3741+1	7 3738+1	5 5352-3
5 5542-4	7 1829-6	1 9088+4	3 7840+6	4 2801+2	3 7194-1	3 7838+6			7 7532+1	7 7528+1	6 2014-3
5 7544-4	7 0914-6	1 9291+4	3 8020+6	4 9478+2	3 9750-1	3 8015+6			8 1138+1	8 1130+1	6 7807-3
6 0000-4	7 3872-6	1 8518+4	3 6498+6	5 4349+2	4 2868-1	3 6493+6			8 1210+1	8 1203+1	7 1111-3
6 2504-4	7 9234-6	1 7265+4	3 4028+6	5 7191+2	4 8133-1	3 4022+6			7 8872+1	7 8865+1	6 8071-3
6 5201-4	8 6992-6	1 5725+4	3 0993+6	5 7085+2	4 9787-1	3 0988+6			7 4937+1	7 4931+1	6 1300-3
6 7473-4	9 3835-6	1 4579+4	2 8733+6	5 5808+2	5 2922-1	2 8727+6			7 1882+1	7 1886+1	5 6308-3
7 0000-4	1 0178-5	1 3440+4	2 6489+6	5 1657+2	5 6534-1	2 6484+6			6 8759+1	6 8754+1	5 1400-3
7 0586-4	1 0388-5	1 3195+4	2 6005+6	5 1703+2	5 7387-1	2 6000+6			6 8088+1	6 8083+1	5 0347-3
7 1032-4	1 0511-5	1 3015+4	2 5650+6	5 4487+2	5 8038-1	2 5645+6			6 7583+1	6 7558+1	4 9594-3
M3 7 1032-4	9 3882-6	1 4601+4	2 8777+6	5 4487+2	5 8038-1	2 8771+6			7 5800+1	7 5782+1	8 2433-3
7 1549-4	9 4980-6	1 4403+4	2 8387+6	5 9333+2	5 8789-1	2 8381+6			7 5315+1	7 5307+1	8 1649-3
7 2180-4	9 6585-6	1 4167+4	2 7921+6	6 3883+2	5 9733-1	2 7915+6			7 4731+1	7 4723+1	8 0710-3
7 3348-4	9 9532-6	1 3744+4	2 7088+6	6 5910+2	6 1480-1	2 7082+6			7 3878+1	7 3868+1	7 9022-3
7 4817-4	1 0280-5	1 3307+4	2 6227+6	6 6485+2	6 3402-1	2 6220+6			7 2585+1	7 2558+1	7 7250-3
7 5338-4	1 0487-5	1 3089+4	2 5758+6	6 9185+2	6 4502-1	2 5751+6			7 1854+1	7 1848+1	7 6285-3
M2 7 5338-4	9 9803-6	1 3707+4	2 7015+6	6 9185+2	6 4502-1	2 7008+6			7 5485+1	7 5458+1	9 4088-3
7 6843-4	1 0334-5	1 3238+4	2 6081+6	7 5323+2	6 8785-1	2 6084+6			7 4340+1	7 4331+1	8 3506-3
8 0000-4	1 1148-5	1 2272+4	2 4188+6	7 8855+2	7 1450-1	2 4178+6			7 1741+1	7 1732+1	8 8428-3
8 2537-4	1 1870-5	1 1525+4	2 2714+6	8 0539+2	7 5308-1	2 2708+6			6 9509+1	6 9500+1	8 4571-3
8 6229-4	1 2988-5	1 0550+4	2 0783+6	7 9848+2	8 1070-1	2 0785+6			6 8478+1	6 8468+1	7 9317-3
8 8905-4	1 3174-5	1 0394+4	2 0466+6	8 1694+2	8 2143-1	2 0458+6			6 5942+1	6 5934+1	7 8370-3
M1 8 8905-4	1 2843-5	1 0820+4	2 1325+6	8 1894+2	8 2143-1	2 1317+6			6 8709+1	6 8700+1	9 1094-3
8 8289-4	1 3028-5	1 0501+4	2 0898+6	8 7295+2	8 4328-1	2 0887+6			6 7727+1	6 7718+1	8 9329-3
9 0158-4	1 3571-5	1 0080+4	1 9887+6	9 0814+2	8 7388-1	1 9885+6			6 6403+1	6 6394+1	8 6952-3
1 0000-3	1 6788-5	8 1485+3	1 6060+6	9 7236+2	1 0405+0	1 6050+6			5 8528+1	5 8522+1	7 3695-3
1 2488-3	2 7385-5	4 9854+3	9 8455+5	1 0077+3	1 4691+0	9 8354+5			4 5588+1	4 5551+1	5 0975-3
1 5318-3	4 3820-5	3 1218+3	6 1528+5	9 9837+3	1 8658+0	6 1428+5			3 4900+1	3 4896+1	3 4836-3
2 0000-3	8 2268-5	1 8628+3	3 2774+5	9 1432+2	2 7899+0	3 2682+5			2 4243+1	2 4241+1	2 0774-3
2 3398-3	1 2137-4	1 1271+3	2 2214+5	8 4084+2	3 3344+0	2 2129+5			1 9203+1	1 9201+1	1 4934-3
2 7905-3	1 8785-4	7 2889+2	1 4388+5	7 3041+2	4 0248+0	1 4294+5			1 4794+1	1 4793+1	1 0297-3
3 1078-3	2 4518-4	5 5785+2	1 0997+5	6 4443+2	4 0698+0	1 0524+5			1 2601+1	1 2601+1	8 1487-4
3 3148-3	2 8924-4	4 7297+2	9 3216+4	5 7703+2	4 7842+0	9 2835+4			1 1389+1	1 1388+1	7 0484-4
3 4413-3	3 1841-4	4 2883+2	8 4875+4	5 2799+2	4 9893+0	8 4142+4			0 9740+1	0 9739+1	6 4780-4
3 8032-3	3 9538-4	3 8172+2	7 5232+4	4 5710+2	5 1832+0	7 4770+4			0 9623+0	0 9617+0	5 8422-4
3 7055-3	3 8527-4	3 5508+2	6 8982+4	3 8657+2	5 3345+0	6 8578+4			0 5828+0	0 5820+0	5 4853-4
3 7883-3	4 8902-4	3 3527+2	6 6078+4	3 3870+2	5 4468+0	6 5737+4			0 2388+0	0 2381+0	5 2181-4
3 8318-3	4 2039-4	3 2541+2	6 4135+4	2 8991+2	5 5088+0	6 3840+4			0 9729+0	0 9724+0	5 0689-4
3 8518-3	4 2821-4	3 2097+2	6 3258+4	2 8172+2	5 5382+0	6 2982+4			0 8991+0	0 8988+0	5 0277-4
3 8948-3	4 3891-4	3 1188+2	6 1429+4	1 9758+2	5 5953+0	6 1228+4			0 8441+0	0 8438+0	4 9040-4
3 9022-3	4 4112-4	3 1012+2	6 1121+4	1 9190+2	5 6058+0	6 0823+4			0 8174+0	0 8169+0	4 8827-4
3 9108-3	4 4359-4	3 0839+2	6 0781+4	1 9045+2	5 8173+0	6 0595+4			0 7875+0	0 7870+0	4 8590-4
3 9288-3	4 4819-4	3 0523+2	6 0157+4	2 0548+2	5 8395+0	5 9948+4			0 7308+0	0 7303+0	4 8141-4
L3 3 9288-3	1 4775-4	9 2589+2	1 8248+5	2 0548+2	5 8395+0	1 8227+5			2 8547+1	2 8437+1	1 1103+0
3 9815-3	1 4745-4	9 2777+2	1 8285+5	2 8673+2	5 8872+0	1 8258+5			2 8824+1	2 8699+1	1 1248+0
3 9764-3	1 4732-4	9 2859+2	1 8302+5	3 2480+2	5 7078+0	1 8288+5			2 6843+1	2 5813+1	1 1308+0
3 9948-3	1 4717-4	9 2955+2	1 8321+5	3 6153+2	5 7332+0	1 8284+5			2 7091+1	2 5852+1	1 1384+0
4 0334-3	1 4885-4	9 1904+2	1 8113+5	4 0388+2	5 7882+0	1 8073+5			2 7038+1	2 5804+1	1 1319+0
4 0601-3	1 5165-4	9 0207+2	1 7779+5	4 1363+2	5 8228+0	1 7737+5			2 6710+1	2 5800+1	1 1099+0
4 1184-3	1 5801-4	8 8578+2	1 7083+5	4 1078+2	5 8028+0	1 7022+5			2 6007+1	2 4944+1	1 0830+0
4 1437-3	1 6085-4	8 5155+2	1 6783+5	4 2208+2	5 8328+0	1 6740+5			2 5728+1	2 4883+1	1 0447+0
4 1808-3	1 6291-4	8 4177+2	1 6591+5	4 4359+2	5 8539+0	1 6548+5			2 5534+1	2 4502+1	1 0319+0
L2 4 1808-3	1 1993-4	1 1408+3	2 2481+5	4 4359+2	5 8539+0	2 2438+5			3 4823+1	3 2947+1	1 6784+0
4 2022-3	1 2290-4	1 1131+3	2 1938+5	5 2127+2	6 0049+0	2 1888+5			3 4110+1	3 2474+1	1 6381+0
4 2287-3	1 2458-4	1 0981+3	2 1843+5	5 5852+2	6 0351+0	2 1588+5			3 3440+1	3 2288+1	1 6145+0
4 2629-3	1 2709-4	1 0764+3	2 1215+5	5 8938+2	6 0786+0	2 1158+5			3 3448+1	3 1885+1	1 5835+0
4 2978-3	1 2956-4	1 0560+3	2 0812+5	6 0712+2	6 1225+0	2 0751+5			3 3077+1	3 1523+1	1 5542+0
4 4220-3	1 3854-4	9 8743+2	1 9481+5	6 2876+2	6 2748+0	1 9398+5			3 1815+1	3 0359+1	1 4563+0
4 4403-3	1 3988-4	9 7798+2	1 8275+5	6 4435+2	6 2971+0	1 9209+5			3 1638+1	3 0193+1	1 4428+0
L1 4 4403-3	1 1257-4	1 1252+3	2 2177+5	6 4435+2	6 2971+0	2 2112+5			3 6416+1	3 4684+1	1 7325+0
4 4883-3	1 2530-4	1 0918+3	2 1518+5	7 1930+2	6 3880+0	2 1445+5			3 5779+1	3 4097+1	1 6819+0
4 5771-3	1 3069-4	1 0467+3	2 0830+5	7 7122+2	6 4640+0	2 0652+5			3 4888+1	3 3275+1	1 6133+0
4 7327-3	1 4178-4	9 8497+2	1 8019+5	8 1883+2	6 8529+0	1 8938+5			3 3237+1	3 1748+1	1 4889+0
5 0000-3	1 8208-4	8 4414+2	1 6837+5	8 5581+2	6 9756+0	1 8551+5			3 0894+1	2 9389+1	

October 31, 1989
Atomic Weight 118.690

ENDL Evaluated
Photon Data

50-Sn
Density 7.310 Grams/cc

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cm)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.0000- 2	9.9322- 4	1.3773+ 2	2.7146+ 4	5.4262+ 2	1.2029+ 1	2.6581+ 4			9.8627+ 0	9.8512+ 0	2.1150- 1
1.3741- 2	2.3261- 3	5.8809+ 1	1.1591+ 4	3.7211+ 2	1.4599+ 1	1.1204+ 4			5.7101+ 0	5.6206+ 0	8.9483- 2
1.7714- 2	4.8287- 3	2.8555+ 1	5.8249+ 3	2.5858+ 2	1.8579+ 1	5.5498+ 3			3.8483+ 0	3.6019+ 0	4.4367- 2
2.1581- 2	7.8954- 3	1.7326+ 1	3.4149+ 3	1.8412+ 2	1.7917+ 1	3.2128+ 3			2.5898+ 0	2.5438+ 0	2.5730- 2
2.4471- 2	1.1197- 2	1.2217+ 1	2.4078+ 3	1.4071+ 2	1.8732+ 1	2.2484+ 3			2.0412+ 0	2.0232+ 0	1.8016- 2
2.5281- 2	1.2258- 2	1.1160+ 1	2.1895+ 3	1.2858+ 2	1.8948+ 1	2.0510+ 3			1.8238+ 0	1.8074+ 0	1.8439- 2
2.6888- 2	1.4286- 2	9.5890+ 0	1.8899+ 3	1.0999+ 2	1.8312+ 1	1.7808+ 3			1.7435+ 0	1.7284+ 0	1.4115- 2
2.7318- 2	1.5242- 2	8.9753+ 0	1.7889+ 3	1.0057+ 2	1.8470+ 1	1.8489+ 3			1.6715+ 0	1.6583+ 0	1.3221- 2
2.8087- 2	1.6499- 2	8.2913+ 0	1.8341+ 3	8.7002+ 1	1.9658+ 1	1.5275+ 3			1.5911+ 0	1.5769+ 0	1.2249- 2
2.8345- 2	1.7001- 2	8.0465+ 0	1.5859+ 3	8.0544+ 1	1.9725+ 1	1.4856+ 3			1.5829+ 0	1.5510+ 0	1.1914- 2
2.8677- 2	1.7652- 2	7.7498+ 0	1.5274+ 3	8.9954+ 1	1.9805+ 1	1.4377+ 3			1.5303+ 0	1.5187+ 0	1.1530- 2
2.8951- 2	1.8222- 2	7.5072+ 0	1.4788+ 3	8.0207+ 1	1.9872+ 1	1.3983+ 3			1.5040+ 0	1.4828+ 0	1.1225- 2
2.9084- 2	1.8428- 2	7.4241+ 0	1.4832+ 3	8.9029+ 1	1.9890+ 1	1.3854+ 3			1.4935+ 0	1.4824+ 0	1.1103- 2
2.9184- 2	1.8594- 2	7.3570+ 0	1.4500+ 3	8.1774+ 1	1.9909+ 1	1.3683+ 3			1.4823+ 0	1.4713+ 0	1.0975- 2
K 2.9184- 2	3.1838- 3	4.3239+ 1	8.5220+ 3	8.1774+ 1	1.9909+ 1	8.4403+ 3			9.1372+ 0	3.2455+ 0	5.8917+ 0
2.9385- 2	3.2040- 3	4.2898+ 1	8.4150+ 3	7.1391+ 1	1.9938+ 1	8.3237+ 3			9.0860+ 0	3.2521+ 0	6.8139+ 0
2.9492- 2	3.2318- 3	4.2329+ 1	8.3425+ 3	7.9541+ 1	1.9958+ 1	8.2430+ 3			9.0167+ 0	3.2567+ 0	5.7800+ 0
2.9615- 2	3.2592- 3	4.1973+ 1	8.2724+ 3	8.8471+ 1	1.9978+ 1	8.1680+ 3			8.9699+ 0	3.2812+ 0	5.7086+ 0
2.9738- 2	3.2868- 3	4.1623+ 1	8.2035+ 3	9.1801+ 1	1.9997+ 1	8.0918+ 3			8.9245+ 0	3.2855+ 0	5.6590+ 0
3.0000- 2	3.3494- 3	4.0843+ 1	8.0496+ 3	9.7853+ 1	2.0003+ 1	7.9319+ 3			8.8271+ 0	3.2750+ 0	5.5521+ 0
3.0473- 2	3.4858- 3	3.9472+ 1	7.7794+ 3	1.0388+ 2	2.0112+ 1	7.6554+ 3			8.6495+ 0	3.2813+ 0	5.3883+ 0
3.1484- 2	3.7181- 3	3.8783+ 1	7.2485+ 3	1.0972+ 2	2.0284+ 1	7.1185+ 3			8.3052+ 0	3.2942+ 0	5.0110+ 0
3.3818- 2	4.4882- 3	3.0747+ 1	8.0588+ 3	1.1218+ 2	2.0810+ 1	5.8271+ 3			7.4277+ 0	3.2372+ 0	4.1905+ 0
3.8158- 2	5.3196- 3	2.5718+ 1	5.0683+ 3	1.0802+ 2	2.0838+ 1	4.8394+ 3			6.6083+ 0	3.1100+ 0	3.4883+ 0
4.2488- 2	6.2725- 3	1.8538+ 1	3.2592+ 3	9.0203+ 1	2.1583+ 1	3.1474+ 3			4.9590+ 0	2.7281+ 0	2.2329+ 0
5.4330- 2	1.5941- 2	8.5813+ 0	1.8813+ 3	8.2830+ 1	2.2311+ 1	1.6062+ 3			3.2340+ 0	2.0885+ 0	1.1455+ 0
7.7898- 2	4.2002- 2	3.2570+ 0	6.4192+ 3	2.3817+ 1	2.2493+ 1	5.6561+ 2			1.6978+ 0	1.2778+ 0	4.1895- 1
1.0000- 1	8.1128- 2	1.6882+ 0	3.3233+ 2	2.1420+ 1	2.2111+ 1	2.8880+ 2			1.0832+ 0	8.7520- 1	2.0787- 1
1.3344- 1	1.8902- 1	8.0935- 1	1.5851+ 2	1.2501+ 1	2.1138+ 1	1.2587+ 2			6.4084- 1	6.5004- 1	9.0787- 2
1.7321- 1	3.0950- 1	4.4201- 1	8.7115+ 1	7.5982+ 0	2.0085+ 1	5.8452+ 1			4.0039- 1	6.5648- 1	4.2918- 2
2.1384- 1	4.7535- 1	2.8778- 1	5.8720+ 1	5.0487+ 0	1.8074+ 1	3.2569+ 1			2.8043- 1	2.8989- 1	2.3540- 2
2.5108- 1	7.1801- 1	1.9106- 1	3.7655+ 1	3.1844+ 0	1.7732+ 1	1.8759+ 1			2.1505- 1	2.0284- 1	1.2111- 2
3.3118- 1	9.5231- 1	1.4385- 1	2.8312+ 1	2.1284+ 0	1.8821+ 1	9.5844+ 0			1.7829- 1	1.8938- 1	8.9110- 3
4.0000- 1	1.1842+ 0	1.1552- 1	2.2787+ 1	1.4802+ 0	1.5508+ 1	5.7878+ 0			1.5808- 1	1.5388- 1	4.1923- 3
5.0000- 1	1.4840+ 0	8.3442- 2	1.8417+ 1	9.3580- 1	1.4249+ 1	3.2312+ 0			1.5099- 1	1.4885- 1	2.3366- 3
6.3889- 1	1.7890+ 0	7.7331- 2	1.5241+ 1	5.7775- 1	1.2883+ 1	1.8000+ 0			1.5718- 1	1.5588- 1	1.3017- 3
9.1018- 1	2.2329+ 0	8.1274- 2	1.2078+ 1	2.8288- 1	1.0982+ 1	8.1179- 1			1.8831- 1	1.8572- 1	6.8781- 4
1.0000+ 0	2.3632+ 0	5.7888- 2	1.1409+ 1	2.3425- 1	1.0508+ 1	6.6844- 1			1.8899- 1	1.9851- 1	4.8283- 4
1.0220+ 0	2.3951+ 0	5.7117- 2	1.1257+ 1	2.2435- 1	1.0399+ 1	6.3420- 1			1.9945- 1	1.9899- 1	4.5847- 4
1.0251+ 0	2.3998+ 0	5.7008- 2	1.1238+ 1	2.2300- 1	1.0382+ 1	6.3035- 1	1.5755- 7		1.9979- 1	1.9933- 1	4.5689- 4
1.0281+ 0	2.4040+ 0	5.6904- 2	1.1215+ 1	2.2171- 1	1.0367+ 1	6.2670- 1	1.1851- 6		2.0010- 1	1.9965- 1	4.5404- 4
1.0287+ 0	2.4050+ 0	5.6881- 2	1.1211+ 1	2.2144- 1	1.0363+ 1	6.2591- 1	1.5755- 6		2.0017- 1	1.9972- 1	4.5347- 4
1.0295+ 0	2.4061+ 0	5.6855- 2	1.1208+ 1	2.2112- 1	1.0359+ 1	6.2500- 1	2.1581- 6		2.0025- 1	1.9980- 1	4.5281- 4
1.0301+ 0	2.4070+ 0	5.6835- 2	1.1202+ 1	2.2086- 1	1.0356+ 1	6.2427- 1	2.7115- 6		2.0032- 1	1.9988- 1	4.5228- 4
1.0310+ 0	2.4083+ 0	5.6804- 2	1.1195+ 1	2.2048- 1	1.0352+ 1	6.2319- 1	3.7103- 6		2.0041- 1	1.9996- 1	4.5149- 4
1.0320+ 0	2.4098+ 0	5.6769- 2	1.1189+ 1	2.2005- 1	1.0347+ 1	6.2189- 1	5.0788- 6		2.0052- 1	2.0007- 1	4.5081- 4
1.0332+ 0	2.4115+ 0	5.6728- 2	1.1180+ 1	2.1955- 1	1.0340+ 1	6.2064- 1	7.1115- 6		2.0065- 1	2.0020- 1	4.4957- 4
1.0340+ 0	2.4127+ 0	5.6700- 2	1.1175+ 1	2.1921- 1	1.0338+ 1	6.1958- 1	8.7300- 6		2.0073- 1	2.0028- 1	4.4888- 4
1.0353+ 0	2.4148+ 0	5.6655- 2	1.1168+ 1	2.1888- 1	1.0330+ 1	6.1802- 1	1.1850- 5		2.0087- 1	2.0042- 1	4.4775- 4
1.0368+ 0	2.4185+ 0	5.6609- 2	1.1157+ 1	2.1810- 1	1.0323+ 1	6.1643- 1	1.5755- 5		2.0101- 1	2.0057- 1	4.4659- 4
1.0382+ 0	2.4188+ 0	5.6558- 2	1.1147+ 1	2.1745- 1	1.0315+ 1	6.1458- 1	2.1822- 5		2.0118- 1	2.0074- 1	4.4525- 4
1.0397+ 0	2.4210+ 0	5.6508- 2	1.1137+ 1	2.1683- 1	1.0307+ 1	6.1281- 1	2.7823- 5		2.0134- 1	2.0090- 1	4.4397- 4
1.0415+ 0	2.4238+ 0	5.6444- 2	1.1125+ 1	2.1608- 1	1.0298+ 1	6.1089- 1	3.6752- 5		2.0153- 1	2.0109- 1	4.4244- 4
1.0438+ 0	2.4270+ 0	5.6366- 2	1.1108+ 1	2.1514- 1	1.0288+ 1	6.0801- 1	5.1013- 5		2.0178- 1	2.0134- 1	4.4049- 4
1.0464+ 0	2.4308+ 0	5.6278- 2	1.1092+ 1	2.1408- 1	1.0273+ 1	6.0489- 1	7.0975- 5		2.0208- 1	2.0182- 1	4.3831- 4
1.0483+ 0	2.4335+ 0	5.6215- 2	1.1078+ 1	2.1331- 1	1.0263+ 1	6.0280- 1	8.8386- 5		2.0226- 1	2.0182- 1	4.3672- 4
1.0512+ 0	2.4377+ 0	5.6118- 2	1.1060+ 1	2.1214- 1	1.0248+ 1	5.9948- 1	1.1887- 4		2.0257- 1	2.0214- 1	4.3432- 4
1.0541+ 0	2.4418+ 0	5.6022- 2	1.1041+ 1	2.1099- 1	1.0234+ 1	5.9621- 1	1.5755- 4		2.0288- 1	2.0245- 1	4.3185- 4
1.0577+ 0	2.4471+ 0	5.6903- 2	1.1018+ 1	2.0956- 1	1.0218+ 1	5.9214- 1	2.1475- 4		2.0327- 1	2.0284- 1	4.2900- 4
1.0611+ 0	2.4520+ 0	5.5791- 2	1.0996+ 1	2.0823- 1	1.0199+ 1	5.8838- 1	2.7934- 4		2.0363- 1	2.0320- 1	4.2828- 4
1.0651+ 0	2.4577+ 0	5.5681- 2	1.0970+ 1	2.0688- 1	1.0179+ 1	5.8395- 1	3.6881- 4		2.0408- 1	2.0363- 1	4.2308- 4
1.0704+ 0	2.4653+ 0	5.5490- 2	1.0939+ 1	2.0485- 1	1.0153+ 1	5.7819- 1	5.1583- 4		2.0483- 1	2.0421- 1	4.1889- 4
1.0782+ 0	2.4738+ 0	5.6304- 2	1.0900+ 1	2.0248- 1	1.0125+ 1	5.7187- 1	7.1301- 4		2.0525- 1	2.0483- 1	4.1439- 4
1.0809+ 0	2.4798+ 0	5.5185- 2	1.0873+ 1	2.0083- 1	1.0103+ 1	5.6733- 1	8.8044- 4		2.0572- 1	2.0531- 1	4.1103- 4
1.0871+ 0	2.4880+ 0	5.4982- 2	1.0832+ 1	1.9845- 1	1.0072+ 1	5.6057- 1	1.1997- 3		2.0642- 1	2.0601- 1	4.0813- 4
1.0937+ 0	2.4983+ 0	5.4757- 2	1.0782+ 1	1.9608- 1	1.0041+ 1	5.5382- 1	1.5755- 3		2.0713- 1	2.0673- 1	4.0124- 4
1.1028+ 0	2.5107+ 0	5.4487- 2	1.0739+ 1	1.9295- 1	9.9987+ 0	5.4483- 1	2.1843- 3		2.0809- 1	2.0769- 1	3.9480- 4
1.1107+ 0	2.5219+ 0	5.4244- 2	1.0691+ 1	1.8918- 1	9.9810+ 0	5.3702- 1	2.8485- 3		2.0898- 1	2.0857- 1	3.8908- 4
1.1208+ 0	2.5355+ 0	5.3954- 2	1.0634+ 1	1.8884- 1	9.9154+ 0	5.2758- 1	3.8102- 3		2.1003- 1	2.0965- 1	3.8223- 4
1.1333+ 0	2.5528+ 0	5.3588- 2	1.0562+ 1	1.8270- 1	8.8579+ 0	5.1583- 1	5.2973- 3		2.1140+ 1	2.1103- 1	3.7371- 4
1.1475+ 0	2.5719+ 0	5.3191- 2	1.0483+ 1	1.7824- 1	7.7948+ 0	5.0315- 1	7.3134- 3		2.1295+ 1	2.1258- 1	3.6453- 4
1.1582+ 0	2.5861+ 0	5.2888- 2	1.0425+ 1	1.7498- 1	9.7478+ 0	4.8980- 1	9.0887- 3		2.1411+ 1	2.1375- 1	3.5783- 4
1.1741+ 0	2.6088+ 0	5.2478- 2	1.0342+ 1	1.7031- 1	8.6793+ 0	4.8053- 1	1.2149- 2		2.1685+ 1	2.1550- 1	3.4821- 4
1.1901+ 0	2.6275+ 0	5.2064- 2	1.0281+ 1	1.6579- 1	9.8118+ 0	4.6789- 1	1.5755- 2		2.1781+ 1	2.1727- 1	3.3888- 4
1.2051+ 0	2.6463+ 0	5.1695- 2	1.0189+ 1	1.6171- 1	9.5489+ 0	4.5730- 1	1.9818- 2		2.1931+ 1	2.1889- 1	3.3131- 4
1.2275+ 0	2.6738+ 0	5.1184- 2	1.0084+ 1	1.5591- 1	9.4594+ 0	4.4215- 1	2.6285- 2		2.2188+ 1	2.2154- 1	3.2033- 4
1.2858+ 0	2.71										

Energy MeV	Total Mean Free Path		Cross Sections (barns)					Energy Deposition (MeV/cc)			
	cm	cm ² /g	Total	Coherent	Incoherent	Photoelect	Pair	Triplet	Total	Local	Fluorescence
1.8923+ 0	3.2673+ 0	4.1869- 2	8.2520+ 0	6.5830- 2	7.5332+ 0	2.0528- 1	4.4773- 1		3.0635- 1	3.0621- 1	1.4873- 4
2.0440+ 0	3.3584+ 0	4.0733- 2	8.0280+ 0	5.6447- 2	7.2154+ 0	1.8010- 1	5.7610- 1		3.2781- 1	3.2768- 1	1.3048- 4
2.0858+ 0	3.3838+ 0	4.0431- 2	7.9684+ 0	5.4210- 2	7.1293+ 0	1.7452- 1	6.1042- 1	5.0149- 7	3.3352- 1	3.3339- 1	1.2644- 4
2.0999+ 0	3.3917+ 0	4.0334- 2	7.9484+ 0	5.3486- 2	7.1009+ 0	1.7270- 1	6.2227- 1	1.1746- 6	3.3548- 1	3.3536- 1	1.2512- 4
2.1086+ 0	3.3955+ 0	4.0289- 2	7.9405+ 0	5.3147- 2	7.0875+ 0	1.7185- 1	6.2798- 1	1.8339- 6	3.3842- 1	3.3829- 1	1.2450- 4
2.1140+ 0	3.3996+ 0	4.0239- 2	7.9308+ 0	5.2776- 2	7.0728+ 0	1.7091- 1	6.3429- 1	2.2607- 6	3.3746- 1	3.3734- 1	1.2383- 4
2.1195+ 0	3.4027+ 0	4.0203- 2	7.9236+ 0	5.2503- 2	7.0619+ 0	1.7022- 1	6.3901- 1	2.8146- 6	3.3824- 1	3.3811- 1	1.2333- 4
2.1279+ 0	3.4073+ 0	4.0149- 2	7.9129+ 0	5.2090- 2	7.0454+ 0	1.6918- 1	6.4828- 1	3.8171- 6	3.3943- 1	3.3931- 1	1.2257- 4
2.1363+ 0	3.4118+ 0	4.0098- 2	7.9024+ 0	5.1884- 2	7.0290+ 0	1.6815- 1	6.5355- 1	5.0149- 6	3.4062- 1	3.4050- 1	1.2183- 4
2.1470+ 0	3.4176+ 0	4.0028- 2	7.8892+ 0	5.1189- 2	7.0081+ 0	1.6685- 1	6.6299- 1	6.8758- 6	3.4216- 1	3.4204- 1	1.2098- 4
2.1635+ 0	3.4282+ 0	3.9928- 2	7.8693+ 0	5.0392- 2	6.9784+ 0	1.6487- 1	6.7785- 1	1.0456- 5	3.4455- 1	3.4443- 1	1.1945- 4
2.1845+ 0	3.4377+ 0	3.9794- 2	7.8429+ 0	4.9430- 2	6.9386+ 0	1.6241- 1	6.8445- 1	1.8568- 5	3.4751- 1	3.4739- 1	1.1767- 4
2.2018+ 0	3.4470+ 0	3.9687- 2	7.8218+ 0	4.8857- 2	6.9042+ 0	1.6044- 1	7.0848- 1	2.2922- 5	3.4997- 1	3.4985- 1	1.1623- 4
2.2148+ 0	3.4539+ 0	3.9608- 2	7.8064+ 0	4.8089- 2	6.8802+ 0	1.5897- 1	7.1913- 1	2.8559- 5	3.5183- 1	3.5172- 1	1.1517- 4
2.2342+ 0	3.4637+ 0	3.9495- 2	7.7840+ 0	4.7258- 2	6.8447+ 0	1.5683- 1	7.3520- 1	3.8416- 5	3.5484- 1	3.5453- 1	1.1362- 4
2.2537+ 0	3.4734+ 0	3.9385- 2	7.7624+ 0	4.6448- 2	6.8096+ 0	1.5473- 1	7.5156- 1	5.0149- 5	3.5749- 1	3.5738- 1	1.1210- 4
2.2815+ 0	3.4887+ 0	3.9235- 2	7.7327+ 0	4.5322- 2	6.7602+ 0	1.5181- 1	7.7530- 1	7.0243- 5	3.6182- 1	3.6151- 1	1.0998- 4
2.3070+ 0	3.4984+ 0	3.9104- 2	7.7068+ 0	4.4327- 2	6.7158+ 0	1.4920- 1	7.9746- 1	9.2264- 5	3.6547- 1	3.6536- 1	1.0814- 4
2.3382+ 0	3.5120+ 0	3.8952- 2	7.6770+ 0	4.3154- 2	6.6628+ 0	1.4612- 1	8.2508- 1	1.2408- 4	3.7025- 1	3.7015- 1	1.0588- 4
2.3774+ 0	3.5283+ 0	3.8772- 2	7.6415+ 0	4.1745- 2	6.5972+ 0	1.4239- 1	8.5909- 1	1.7180- 4	3.7836- 1	3.7826- 1	1.0318- 4
2.4102+ 0	3.5428+ 0	3.8613- 2	7.6103+ 0	4.0618- 2	6.5439+ 0	1.3939- 1	8.8618- 1	2.1851- 4	3.8132- 1	3.8122- 1	1.0099- 4
2.4468+ 0	3.5582+ 0	3.8447- 2	7.5774+ 0	3.9414- 2	6.4857+ 0	1.3618- 1	9.1591- 1	2.7795- 4	3.8895- 1	3.8885- 1	9.8848- 5
2.4859+ 0	3.5738+ 0	3.8280- 2	7.5448+ 0	3.8188- 2	6.4250+ 0	1.3285- 1	9.4825- 1	3.4998- 4	3.9309- 1	3.9299- 1	9.6246- 5
2.5264+ 0	3.5891+ 0	3.8099- 2	7.4913+ 0	3.6111- 2	6.3193+ 0	1.2719- 1	1.0081+ 0	5.0149- 4	4.0448- 1	4.0439- 1	9.2150- 5
2.6604+ 0	3.6318+ 0	3.7667- 2	7.4238+ 0	3.3348- 2	6.1717+ 0	1.1955- 1	1.0684+ 0	7.7307- 4	4.2193- 1	4.2184- 1	8.6611- 5
2.7453+ 0	3.6586+ 0	3.7391- 2	7.3694+ 0	3.1320- 2	6.0579+ 0	1.1385- 1	1.1653+ 0	1.0347- 3	4.3804- 1	4.3598- 1	8.2483- 5
2.8090+ 0	3.6784+ 0	3.7210- 2	7.3338+ 0	2.9918- 2	5.9781+ 0	1.0966- 1	1.2167+ 0	1.2531- 3	4.4897- 1	4.4690- 1	7.9593- 5
2.8045+ 0	3.6893+ 0	3.6980- 2	7.2884+ 0	2.7886- 2	5.8588+ 0	1.0430- 1	1.2857+ 0	1.6143- 3	4.6397- 1	4.6389- 1	7.5562- 5
3.0399+ 0	3.7268+ 0	3.6707- 2	7.2345+ 0	2.5552- 2	5.7027+ 0	9.7327- 2	1.4068+ 0	2.1879- 3	4.8898- 1	4.8879- 1	7.0512- 5
3.2344+ 0	3.7717+ 0	3.6289- 2	7.1483+ 0	2.2573- 2	5.4781+ 0	8.9082- 2	1.5554+ 0	3.1615- 3	5.2288- 1	5.2281- 1	6.4539- 5
3.4375+ 0	3.8034+ 0	3.5987- 2	7.0888+ 0	1.9987- 2	5.2682+ 0	8.1885- 2	1.7166+ 0	4.3281- 3	5.6125- 1	5.6119- 1	5.9165- 5
3.7847+ 0	3.8479+ 0	3.5551- 2	7.0068+ 0	1.6490- 2	4.9479+ 0	7.1185- 2	1.9645+ 0	6.6360- 3	6.2837- 1	6.2832- 1	5.1573- 5
4.0000+ 0	3.8597+ 0	3.5443- 2	6.9855+ 0	1.4784- 2	4.7737+ 0	6.5780- 2	2.1230+ 0	8.2200- 3	6.7380- 1	6.7375- 1	4.7857- 5
4.2500+ 0	3.8745+ 0	3.5307- 2	6.9587+ 0	1.3079- 2	4.5898+ 0	6.0821- 2	2.2850+ 0	1.0156- 2	7.2810- 1	7.2808- 1	4.3919- 5
4.7500+ 0	3.8724+ 0	3.5327- 2	6.9628+ 0	1.0472- 2	4.2708+ 0	5.2185- 2	2.6149+ 0	1.4204- 2	8.4075- 1	8.4071- 1	3.7807- 5
5.5135+ 0	3.8508+ 0	3.5525- 2	7.0018+ 0	7.7731- 3	3.8777+ 0	4.2810- 2	3.0525+ 0	2.0813- 2	1.0253+ 0	1.0252+ 0	3.1088- 5
6.3840+ 0	3.8088+ 0	3.5918- 2	7.0791+ 0	5.8350- 3	3.5050+ 0	3.5718- 2	3.5044+ 0	2.8187- 2	1.2439+ 0	1.2439+ 0	2.5877- 5
7.4833+ 0	3.7273+ 0	3.8702- 2	7.2335+ 0	4.2202- 3	3.1269+ 0	2.8197- 2	4.0354+ 0	3.7791- 2	1.5571+ 0	1.5571+ 0	2.1153- 5
9.0000+ 0	3.5990+ 0	3.8010- 2	7.4913+ 0	2.9179- 3	2.7458+ 0	2.3350- 2	4.8690+ 0	5.0300- 2	2.0231+ 0	2.0231+ 0	1.6917- 5
1.0000+ 1	3.5151+ 0	3.8918- 2	7.8703+ 0	2.3835- 3	2.5484+ 0	2.0910- 2	5.0400+ 0	5.7950- 2	2.3517+ 0	2.3517+ 0	1.4922- 5
1.3000+ 1	3.2863+ 0	4.1501- 2	8.1794+ 0	1.3986- 3	2.0944+ 0	1.5210- 2	5.9900+ 0	7.8450- 2	3.4102+ 0	3.4102+ 0	1.1019- 5
1.8000+ 1	3.0217+ 0	4.5272- 2	8.8228+ 0	7.2933- 4	1.8404+ 0	1.0580- 2	7.1850+ 0	1.0800- 1	5.3749+ 0	5.3749+ 0	7.6508- 6
2.8000+ 1	2.7343+ 0	5.0031- 2	9.8808+ 0	3.4968- 4	1.2285+ 0	7.0790- 3	8.4880+ 0	1.3870- 1	8.8721+ 0	8.8721+ 0	5.1288- 6
4.2170+ 1	2.4183+ 0	5.6814- 2	1.1158+ 1	1.3292- 4	6.3880+ 0	4.2424- 3	1.0135+ 1	1.8163- 1	1.6748+ 1	1.6748+ 1	3.0735- 6
6.0000+ 1	2.2282+ 0	6.1395- 2	1.2100+ 1	6.5659- 5	6.2529- 1	2.8400- 3	1.1260+ 1	2.1210- 1	2.6180+ 1	2.6180+ 1	2.1300- 6
1.0000+ 2	2.0190+ 0	6.7758- 2	1.3354+ 1	2.3637- 5	4.1001- 1	1.7400- 3	1.2880+ 1	2.5220- 1	4.8725+ 1	4.8725+ 1	1.2808- 6
2.0000- 2	1.8322+ 0	7.4863- 2	1.4715+ 1	5.8094- 8	2.2878- 1	6.8140- 4	1.4180+ 1	2.8760- 1	1.0829- 2	1.0829+ 2	6.2407- 7
5.0000+ 2	1.6943+ 0	8.0743- 2	1.5914+ 1	9.4550- 7	1.0281- 1	3.4250+ 4	1.5470+ 1	3.4060- 1	2.8420+ 2	2.8420+ 2	2.4814- 7
1.0000+ 3	1.6382+ 0	8.3505- 2	1.6456+ 1	2.3637- 7	5.5888- 2	1.7090- 4	1.6040+ 1	3.8180- 1	6.0948+ 2	6.0948+ 2	1.2382- 7
5.0000+ 3	1.5842+ 0	8.6354- 2	1.7020+ 1	9.4550- 9	1.3222- 2	3.4120- 5	1.6820+ 1	3.8620- 1	3.1553+ 3	3.1553+ 3	2.4720- 8
1.0000+ 4	1.5751+ 0	8.8552- 2	1.7118+ 1	2.3637- 9	7.0598- 3	1.7060- 5	1.8720+ 1	3.9050- 1	6.3479+ 3	6.3479+ 3	1.2380- 8
1.0000+ 5	1.5651+ 0	8.7403- 2	1.7228+ 1	2.3630- 11	8.5272- 4	1.7050- 8	1.6830+ 1	3.9540- 1	6.3891+ 4	6.3891+ 4	1.2353- 9