

INTERNATIONAL NUCLEAR DATA COMMITTEE

WRENDA 79/80

World Request List for Nuclear Data

D.W. Muir, IAEA, Editor

Published on behalf of

National Nuclear Data Center, Brookhaven, USA (C.L. Dunford, coordinator) NEA Data Bank, Saclay, France (N. Tubbs and P. Johnston, coordinators) Nuclear Data Section, Vienna, Austria (P.M. Smith and D.W. Muir, coordinators) Nuclear Data Center, Obninsk, USSR (O.D. Kazachkovskij, coordinator)

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ABSTRACT

WRENDA 79/80 is the sixth edition of the World Request List for Nuclear Data. This list is produced from a computer file of nuclear data requests, maintained by the Nuclear Data Section of the International Atomic Energy Agency (IAEA). The requests are provided by official bodies, such as national nuclear data committees, through four regional data centers serving all Member States of the IAEA. The requests in this edition come from 15 different countries and one international organisation.

This edition reflects numerous recent changes to the request file, the first major file update since the production of the previous edition, WRENDA 76/77. The revised list contains a total of 1780 requests, 60% of which are either new or modified since the previous edition. The total number of requests related to fission reactor technology is 1329, very nearly unchanged, while the number related to nuclear fusion has increased from 328 to 449. In contrast to previous editions, requests associated with all applications are presented here in a single, unified list.

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I. GENERAL INTRODUCTION TO WRENDA

I.A. Summary

WRENDA 79/80 is the sixth edition of the World Request List for Nuclear Data. The request list is intended to serve as a guide to experimentalists, evaluators and administrators, when planning nuclear data programs. WRENDA is produced from a computer file of nuclear data requests, maintained by the Nuclear Data Section of the International Atomic Energy Agency (IAEA). Input to this request file is provided by official bodies, such as national nuclear data committees, through four regional data centers serving all Member States of the IAEA. The requests in this edition come from 15 different countries and one international organisation.

This edition reflects numerous recent changes to the request file, the first major file update since the production of the previous edition, WRENDA 76/77. To summarize the changes, 465 requests listed in the previous edition were withdrawn, 487 were modified and 573 new requests were added, bringing the total number of current requests to 1780, a net increase of 108.

The number of current requests associated with fission reactor technology (including nuclear materials safeguards) is 1329, very nearly the same as in the previous edition. The number of requests related to nuclear fusion, on the other hand, increased from 328 to 449. In a change from the organisation of previous editions of WRENDA, requests associated with the different applications are presented here in a single, unified list.

<u>Part II</u> of this report provides a detailed description of the WRENDA request list structure. <u>Part III</u> provides explanations of the various priority criteria in use and other supplementary information, to assist the user in interpreting the requests. <u>Part IV</u> contains the actual list. <u>Part V</u> contains an index of requests which appeared in the previous edition, but are now withdrawn or satisfied.

I.B. Background Information

The practice of using a "request list" to communicate the data requirements of a developing technology to the producers of data has a long history in both the United States and the United Kingdom. In 1968, the Neutron Data Compilation Centre at Saclay initiated publication of a request list for neutron data measurements from a computerized file, known as RENDA, on behalf of the European-American Nuclear Data Committee (EANDC). That list contained requests from the countries represented on the EANDC. In 1971, the International Nuclear Data Committee (INDC) recommended that the IAEA assume responsibility for publication of an expanded international data request list, which would include neutron data requests from a larger number of countries and international organisations.

In response to this INDC recommendation, the Nuclear Data Section (NDS) of the IAEA developed a new, computerized, data-request file, WRENDA. The input to this data request file is provided by official bodies, such as national nuclear data committees, through the following regional nuclear data centers:

- NNDC National Nuclear Data Center, Brookhaven National Laboratory, Upton, L.I., N.Y., USA.
- NEA-DB NEA Data Bank, Nuclear Energy Agency, Saclay, France.
- NDS Nuclear Data Section, International Atomic Energy Agency, Vienna, Austria.
- CJD Centr po Jadernym Dannym, Obninsk, USSR.

Concurrently with the transfer of responsibility for the neutron data request file from the NEA to the IAEA, the Nuclear Data Section had developed international nuclear data request lists for technologies related to nuclear materials safeguards and to controlled fusion. It was expedient to develop the new WRENDA system to accommodate data requests for all applications.

An immediate consequence of the expanded scope was that the new WRENDA system was designed to accommodate requests for data related to other nuclear processes as well as to neutron-induced reactions. Also concurrently with the development of the WRENDA system it was agreed that data requests related to fusion, safeguards and other applications should also be handled through the regional data centers.

The WRENDA system was designed as a cooperative effort by representatives of the regional centers, coordinated at the NDS by P.M. Attree. The associated computer programmes for file maintenance, error detection and book production were written in the PL/I language by P.M. Smith. The system and computer programmes are described in detail in informal documents maintained by the NDS.

This report, listing the current contents of the WRENDA request file, is published on behalf of the four regional centers by the IAEA. The excellent co-operation of the other three centers in the production of the updated WRENDA file is gratefully acknowledged.

I.C. New Features of this Edition

WRENDA requests for all applications (for example, fission reactors, fusion and nuclear materials safeguards) are stored in a single computer master-file. Each request contains an "application code" which specifies the area of application of the requested data. In recent editions of WRENDA, the requests have been listed separately for each application. However, at the 9th INDC meeting in May 1977, it was agreed that, beginning with WRENDA 79/80, requests for all applications should be combined into a single unified list, so that users can more easily locate all requests specifying the same material and data type. As described in <u>Section II.A.</u>, a tagging procedure has been introduced to allow the reader of the WRENDA report to easily identify the application associated with each request.

A second new feature of this edition is a reduction in the amount of space devoted to status comments, which are also discussed in Section II.A.

Ideally, status comments could provide concise and up-to-date information on the accuracy of available data, as well as a summary of work planned or in progress to improve the data. Unfortunately, no organisation has been in a position to accept continuing responsibility to compile this detailed information on a continuing basis for all requested data.

Most of the status comments of this detailed type which were listed in the previous edition have become obsolete, so they have been removed from the status file. The only status comments listed in the present edition are short comments, provided by the NDS, indicating which quantities are under continuous review by members of technical subcommittees of INDC and NEANDC. (More information on these reviews can be found in <u>Appendix A</u>). Comments from WRENDA users concerning the need for more detailed status comments would be particularly helpful in planning future editions.

A third aspect of this edition worth noting is an increase in the number of requests for high-energy neutron data, such as the numerous fusion requests for data up to energies as high as 50 MeV. Some of these new high-energy requests specify reactions previously not allowed by the WRENDA system, a fact which accounts for most of the 12 new allowed reaction types indicated in Table III on page II.7.

I.D. User Participation and WRENDA Services

The request list is intended to serve as a guide to experimentalists, evaluators and administrators when planning nuclear data measurement and evaluation programmes. When measurers and evaluators begin work which will provide data requested in this document, they are asked to inform the requestor(s). Information about such work should also be provided to the Nuclear Data Section or to one of the regional data centers listed in Section I.B. The names of the requestors are printed with each request, and their addresses are given in Appendix D.

Future editions of WRENDA will be issued every two years in the summer. Before each publication the national data committees will be asked to review their requests so that the lists can be kept current.

Although major updating of the file will usually occur in the spring prior to book publication, the master-files can be updated at other times as well. Between book-publications computer listings of the current files can be requested from the IAEA Nuclear Data Section. Special sorts and selective retrievals from the files can also be obtained upon request. For example, one can obtain, in essentially the same format as the complete request list, a listing of all requests originating in a given country or a given year, or relating to a given application, or having a given priority assignment - as well as arbitrary combinations.

Comments from the users of WRENDA are encouraged so that the document and the special services available from the system can better meet their needs.

II. DESCRIPTION OF REQUEST LIST STRUCTURE

We now present a detailed description of the organisation of the WRENDA request list, together with instructions on how to find requests within the list.

II.A. Request Block Format

The request list appearing in <u>Part IV</u> of this report is made up of a series of "request blocks". A request block contains all current data requests of a given type, that is, all requests specifying the same <u>target</u>, <u>projectile</u> (incident particle) and <u>quantity</u> (type of reaction or process).

A WRENDA "data request" consists of a concise statement of what data are needed, the desired accuracy, the priority assignment, the intended application, and the name and affiliation of the requestor - all coded into a particular format for computerized storage, retrieval and report production. In addition, most requests also include free-text comments in which the requestor further defines his requirements.

A request block may also contain "status comments", which are short statements describing the quality of existing data or referencing work in progress. A typical example of a request block, containing 3 data requests and 1 status comment, is listed on the following page.

Block-heading

Referring to this example, the first line of a request block gives, from left to right, the target nuclide, the projectile and the quantity. This line of text is enclosed by a double line to make the beginning of each block stand out visually. The meaning of a quantity generally conforms to CINDA ¹ usage with the addition of some quantities to describe nuclear structure data and complex reactions. A list of the allowed quantities appears in <u>Section II.B.</u> The target nuclide description consists of the atomic number (Z), the element name, and the mass number (A) of the isotope. In case the target is the natural elemental mixture of several isotopes, the mass number is left blank. In the same way, if the target is a mixture of different elements, the atomic number is omitted.

Reference number

Following the block-heading, the individual data requests are listed. A serial number, the REFERENCE number, appears in the left-most field of the first line of each request. The reference number identifies a request in relation to this specific edition of WRENDA only. (Compare this with the IDENTIFICATION number, discussed below).

¹ <u>CINDA - An Index to the Literature on Microscopic Neutron Data</u> published annually by the International Atomic Energy Agency.



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Energy

The next two entries on the first line of each request give the range of energy of the incident particle over which data are desired. The energy unit is given after each number. Because no lower case is used, we have adopted the notation MV for milli-electron volts, reserving MEV for million electron volts.

If an energy appears in the first field with the second field blank, then the requested information is required at only a single energy. In the case of a resonance integral, the single entry gives the lower energy limit for the integral. Requests for data at "thermal" energies have been entered at 25.3 MV. An entry in the second field preceded by the words "UP TO" in the first field indicates that data are needed up to the specified energy. This format appears most frequently for threshold reactions. All spectrum averages and non-standard energy specifications must be explained in the requestor's comments (see below).

Accuracy

The fourth field on the first line gives the accuracy required of the requested data stated in percent. Any accuracy requirements which cannot be stated as a single number are given in the requestor's comments. Unless specified otherwise, requested accuracies are one standard deviation. Any other meaning is explained in the comments.

Priority

The fifth field on the first line gives the priority of the requested information. Each of the three major application areas covered in this edition (fission, fusion and safeguards) employs a different set of priority criteria, which are presented in separate sections of Part III.

Requestor

The next three fields of the first line are used to identify the requestor. The first piece of information is a three letter code for the country originating the request. The codes and their explanations are given in <u>Appendix B</u>. The country code is followed by the name of the requestor. Mailing addresses for the requestors are given in <u>Appendix D</u>. The last piece of information is a three character code for the requestor's organisation. These codes conform to the CINDA codes and are listed along with the organisation name in <u>Appendix C</u>. In cases where there is more than one requestor for a request, then their names and organisation codes are given on successive lines.

Identification number

The number in the ninth field of the first line of each request is the IDENTIFICATION number. The number assigned is unique and remains associated with a request from one edition to the next. When a request is withdrawn, this number is <u>not</u> assigned to another request. The first two digits of the identification number are the last two digits of the year in which the request was originated. The third digit represents the responsible nuclear data center (1 = NNDC, 2 = NEA-DB, 3 = NDS, 4 = CJD) and the final three digits are a sequence number. The data centers are responsible for assigning the identification number.

Application Tag

Each request stored in the WRENDA master file contains a twocharacter application code which identifies the application associated with the request. These application codes are listed along with explanations in <u>Table I</u>. In this report, the <u>first</u> character of the application code is listed just to the right of the identification number as a short APPLICATION TAG, allowing the user to quickly identify the general area of application. The most frequently occuring tags are R (fission reactors), F (fusion) and N (nuclear materials safeguards).

Requestor's comments

Comments by requestors follow below the requestors' names on the right hand side of the page. The comments are grouped into four types denoted by the characters Q, A, O and M. The group of comments designated by Q refers to further experimental specifications such as details of the quantity to be measured and the energy range of incident or secondary particles. Those denoted by an <u>A</u> refer to further details concerning <u>accuracy</u> or energy resolution required. The category <u>O</u> includes all <u>other</u> comments such as use of or justification for requested data. The last group of comments, designated by an <u>M</u>, contains statements about <u>modifications</u> which have been made since the previous version of WRENDA, such as "new request" etc.

Table I. Explanation of Application Codes

L.	rusion
FA	Fusion, reactor physics
FB	Fusion, shielding
FC	Fusion, radiation damage
N	Safeguards
NA	Safeguards, active assay
NB	Safeguards, passive assay
NC	Burn-up determination
R	Fission reactors
RA	Fission reactors, core physics
RB	Fission reactors, shielding
RC	Fission reactors, dosimetry
RD	Fission reactors, radiation damage
RE	Fission reactors, standards
RF	Fission reactors, evaluations
S	Space
G	General

Status comments

Some request blocks include a section devoted to status comments. These comments may refer to the accuracy of the available data, or to work in progress to improve the data, or to recent reviews of the data quality. Status comments are stored in a separate file from the data requests and can be updated whenever new information is available. At the time of WRENDA publication, they are listed together with the corresponding data requests. The standard form of a status comment is an organisation code (see <u>Appendix C</u>), followed by a name and the text of the comment.*

II.B. How to Find a Request in WRENDA

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As is discussed in the previous section, all data requests for a single target nucleus, projectile, and quantity are blocked together. These blocks are sorted first by target, then by projectile and then by quantity. Within a given block, requests are sorted by increasing identification number, hence, chronologically.

The target nuclei are listed in order of increasing atomic number (Z). (The elements are listed alphabetically, along with the corresponding atomic number, on the back cover of this report.) For fixed Z, request blocks are ordered by increasing mass number (A). An element with two or more naturally-occurring isotopes is listed <u>before</u> the individual isotopes of the element. On the other hand, an element consisting of a single stable isotope is listed in the appropriate position <u>among</u> the individual isotopes of the element. Following the request blocks of highest Z are requests in which the target is lumped fission products and, finally, requests in which the target is an alloy or chemical compound.

Below are given two additional tables for assistance in locating requests. The first table gives the projectile sorting order, and the second gives the quantity sorting order. The main features of the quantity sorting order can be roughly categorized as follows: (1) structure and decay data, (2) scattering, (3) gamma-ray production, (4) neutron production. (5) charged-particle production and (6) fission.

However, see the discussion in <u>Section I.C.</u> regarding the reduced role of status comments in this edition.

Table II. Projectile Sorting Order

1 No incident particle (e.g., decay data)

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2 Photon

3 Neutron

4 Proton

5 Deuteron

6 Triton

7 Helium-3

8 Alpha

9 Lithium-6

Table III. Quantity Sorting Order

LEVEL DENSITY PARAMETERS DISCRETE LEVEL STRUCTURE (ENERGY, SPIN, PARITY) HALF LIFE FISSION HALF LIFE TOTAL CROSS SECTION ELASTIC CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION INELASTIC CROSS SECTION ANGULAR DIFFERENTIAL INELASTIC CROSS SECTION ENERGY DIFFERENTIAL INELASTIC CROSS SECTION ENERGY-ANGLE DIFFERENTIAL INELASTIC CROSS SECTION a THERMAL SCATTERING LAW TOTAL SCATTERING CROSS SECTION DIFFERENTIAL TOTAL SCATTERING CROSS SECTION NON-ELASTIC CROSS SECTION ABSORPTION CROSS SECTION CAPTURE CROSS SECTION ENERGY DIFFERENTIAL CAPTURE CROSS SECTION CAPTURE GAMMA RAY SPECTRUM DELAYED CAPTURE GAMMA RAY SPECTRUM PHOTON PRODUCTION CROSS SECTION IN INELASTIC SCAT. TOTAL PHOTON PRODUCTION CROSS SECTION GAMMA RAY YIELD ENERGY DIFF. PHOTON-PRODUCTION CROSS SECTION Ъ Ъ ENERGY-ANGLE DIFF. PHOTON-PRODUCTION CROSS SECTION X • N X.N NEUTRON SPECTRA X,2N X.2N ANGULAR DISTRIBUTION X+2N NEUTRON SPECTRA X . 3N Ъ X+4N Ъ X,5N NEUTRON EMISSION CROSS SECTION TOTAL NEUTRON YIELD DELAYED NEUTRON YIELD ENERGY DIFFERENTIAL NEUTRON-EMISSION CROSS SECTION ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION а X.P X,P. DELAYED NEUTRON YIELD X,NP X,2P TOTAL PROTON PRODUCTION CROSS SECTION ъ ENERGY DIFF. PROTON-PRODUCTION CROSS SECTION Ъ ENERGY-ANGLE DIFF. PROTON-PRODUCTION CROSS SECTION X • D X . ND X.T X,NT X+HELIUM-3 These quantity expansions have been re-worded since the previous а. edition.

b. These quantities have been added since the previous edition.

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Table III. Quantity Sorting Order (continued)

	X, ALPHA
	X,NALPHA
	X,NJALPHA
Ъ	X,N4ALPHA
	TOTAL ALPHA PRODUCTION CROSS SECTION
Ъ	ENERGY DIFFERENTIAL ALPHA-PRODUCTION CROSS SECTION
Ъ	ENERGY-ANGLE DIFF. ALPHA-PRODUCTION CROSS SECTION
b	TOTAL HYDROGEN-PRODUCTION CROSS SECTION
ъ	TOTAL HELIUM-PRODUCTION CROSS SECTION
ĥ	SPECIAL QUANTITY
-	FISSION CROSS SECTION
	SECOND CHANCE EISSION CROSS SECTION
	CAPTURE TO EISSION RATIO (ALPHA)
	NEUTRONS EMITTED PER NEUTRON ABSORPTION (ETA)
	NEUTRONS EMITTED PER NON-ELASTIC PROCESS
	NEUTRONS EMITTED PER EISSION (NU BAR)
	DELAYED NEUTRONS EMITTED RED EISSION
	PROMPT NEUTRONS EMITTED DED EISSION
	INFORMATION ON NEUTRONS FROM A FISSION FRAGMENT
	ENERGY SPECTDIM OF FISSION AFISSION FRAGMENT
	ENERGY SPECTRUM OF REAVED EXECTON NEUTRONS
	SPECTRUM OF DELATED FISSION NEUTRUNS
	SPECTRUM OF FRUMEL DAMMA RATS EMITTED IN FISSION
	DELINED CANNA EDECTRUM FROM FISCION PRODUCTS
	DELATED GAMMA SPECIRUM FRUM FISSIUN PRODUCTS
	TISSION PRODUCT MASS TIELD SPECIRUM
	INFORMATION ON KINETICS OF FISSION FRAGMENTS
	RESUNANCE PARAMETERS
	ABSURFIIUN RESUNANCE INTEGRAL
	CAPIURE RESUNANCE INTEGRAL
	FISSION RESONANCE INTEGRAL

II.8

These quantities have been added since the previous edition

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III. PRIORITY CRITERIA AND OTHER INFORMATION

III.A. Priority Criteria for Fission Reactor (R) Requests

The fission reactor data requests (i.e., those tagged by an "R" following the identification number) are assigned a numerical priority ranging from 1 to 3 (1 being the highest). The priorities are defined as follows:

Priority 1

Nuclear data which satisfy the criteria of Priority 2 and which have been selected for maximum practicable attention, taking into account the urgency of nuclear energy programme requirements.

For example, the Nuclear Energy Agency Committee for Reactor Physics assigns its highest priorities for reactor measurements as follows:

"The highest priority should be given to requests for nuclear data for reactors to be built in the near future if:

a. These data are still necessary to predict the different reactor properties after all information from integral experiments and operating reactors has been used; or

b. information on an important reactor parameter is in principle attainable through mathematical calculation from nuclear data only; or

c. these data are needed for materials required in reactor physics measurements."

Priority 2

Nuclear data which will be required during the next few years in the applied nuclear energy programme (e.g., the design of a reactor or fuel processing plant; data needed for optimum use of reactor fuel and construction materials such as neutron moderators, absorbers and radiation shields; space application and biomedical studies; data required for better understanding of some significant aspect of reactor behaviour).

Priority 3

Nuclear data of more general interest and data required to fill out the body of information needed for nuclear technology.

III.1

III.B. Supplementary Information from Contributors of Fission Reactor (R) Requests

L.N. Usachev's requests

The first set of requests concerns differential cross sections. These requests together make a unique system of requirements for the accuracy of evaluated nuclear data which would assure calculation of K_{eff} and breeding ratio (BR) of a fast plutonium breeder with accuracies of 1% and 2% respectively.

A second set of requests concerns spectrum-averaged (n,γ) , (n,f) and (n,2n) cross sections for the actinides. Here the accuracy requirements have been determined by the following target accuracies of build-up calculations for fast reactors:

 236 Pu (30%), 238 Pu (20%), 240 Pu (5%), 241 Pu (4%), 242 Pu (10%), 241 Am (5%), 242m Am (20%), 243 Am (20%), 242 Cm (20%), and 244 Cm (30%).

Priorities

Accuracies requirements designated 2nd priority would assure the necessary calculational accuracy on the basis only of microscopic data without the use of data from integral experiments.

In connection with using the new integral experiment set for adjustment, those 1st priority requests appearing in WRENDA 76/77 are now withdrawn.

Meaning of uncertainty

As in all other WRENDA requests uncertainty (or accuracy) is characterized by one standard deviation.

Uncertainty of a point is supposed to be represented as a sum of components with different correlative properties. Accuracy specifications are for those components of the uncertainty which determine the accuracy of the integral under the curve in the partial energy interval mentioned in each request.

In requests for measurements the use of standards - \overline{v} of 252 Cf, the 10 B (n, α) cross section (below 100 keV) and the 2350 U (n,f) cross section (above 100 keV) - is assumed. In all requests except those for standards, the accuracy specifications refer to measurements relative to standards, and the accuracies required of the standards are specified separately.

The algorithm used to derive these requirements is described in References 2 through 6.

- L. N. Usachev and Yu. G. Bobkov, "Planning of an optimum set of microscopic experiments and evaluations to obtain a given accuracy in reactor parameter calculations" <u>Evaluation of Nuclear Data</u>, (Proc. Panel, Vienna, 1971), Report IAEA-153, IAEA Vienna, 1973 (in Russian). English translation: INDC(CCP)-19 (1972).
- 3. L.N. Usachev, V.N. Manokhin and Yu.G. Bobkov, "The accuracy of nuclear data and its influence on fast reactor development", <u>Nuclear Data in</u> <u>Science and Technology</u>, (Proc. Symp., Paris, 1973), IAEA, Vienna, 1973, Vol. 1, p. 129 (in Russian).
- 4. Yu.G. Bobkov, L.T. Pyatnitskaya and L.N. Usachev, "Planning of experiments and evaluations on neutron data for reactors" <u>The Metrology of Neutron Radiation in Reactors and Accelerators</u>, (Proc. Conf., Moscow, 1974), Report FEI-527 (1974) (in Russian).
- 5. L. N. Usachev, "Unique Definition of Nuclear Data Accuracy," pp. 102-107 in the Proceedings of the 7th INDC Meeting, Lucas Heights, October 1974, INDC-18/L, International Atomic Energy Agency (1975) (in English). Report FEI-537 (1974) (in Russian).
- 6. L. N. Usachev, Yu. G. Bobkov, V.E. Kolesov, A.S. Krivtsov, "Determination of transactinide nuclear data required accuracy for burn-up calculation in fast reactors", contributed paper to Conf. on Neutron Physics and Nuclear Data for Reactors and other Applied Purposes, Harwell, U.K., September 1978.

M.N. Nikolaev's requests

Basic demands for accuracy of K_{eff} and BR prediction are 1 and 1.6 percent, respectively.

The requests are formulated for the totality of microscopic data without taking into account the results of integral experiments. Therefore, these requests are, as a rule, of the second priority.

The comparatively less demanding accuracies specified in this set of requests are stipulated by an assumption about the sense of uncertainties which differs from the assumption used in Usachev's requests. In this set of requests complete correlation of uncertainties within each group in the ABBN 26-group set and full statistical independence of uncertainties of neighbouring groups is supposed.

Correlation of uncertainties for different isotopes, cross sections and \overline{v} values is taken into account by assuming as standards the U-235 fission cross section and \overline{v} of Cf-252.

The author of the requests considers that these conditions would exist for instance, when on each adjacent lethargy interval 0.5 - 1 there would fall, on the average, one experiment carried out by an independent method with the requested, guaranteed accuracy.

The algorithm of request formulation and substantiation of basic requirements for K_{eff} and BR are described in paper by S.M. Zaritsky, M.N. Nikolaev, M.F. Troyanov, "Nuclear Data Requirements for Calculation of Fast Reactors," Report INDC(CCP)-17, IAEA, Vienna, 1972.

Conclusion

The two sets of requirements presented here emphasize the importance of precise understanding of accuracy specifications.

III.C. Priority Criteria for Nuclear Fusion (F) Requests

The following priority criteria for fusion requests were developed by the IAEA with the assistance of the International Fusion Research Council (IFRC), the INDC and many scientists engaged in fusion research:

Priority 1

In general highest (first) priority shall be assigned to those nuclear data upon which some important aspect of fusion research is immediately contingent. Specifically Priority 1 shall be assigned to requests for nuclear data which

- 1. are required for evaluation of the feasibility of a proposed fusion reactor concept, or
- 2. are required for immediate application of plasma phenomena in a fusion reactor context, or
- 3. are essential for application of a material which is of conceptual importance in fusion research, or
- 4. are required for an important decision involving allocation of resources or redirection of research effort in fusion programmes, or
- 5. are necessary to develop some important aspect of current fusion programmes to a level consistent with progress in other aspects of these programmes.

Priority 2

Priority 2 shall be assigned to nuclear data which

- 1. are required for evaluation of materials of high potential utility in current fusion reactor designs, or
- 2. are expected to contribute to significant progress in fusion research or reactor design studies in the near future.

Priority 3

Priority 3 shall be assigned to nuclear data which

- 1. are of use in current design studies but are not of crucial importance, or
- 2. are not of immediate importance but which have probability of becoming important as fusion programmes develop.

Priority 4*

Priority 4 shall be assigned to nuclear data which

- 1. fill out the body of information needed for fusion reactor technology, or
- 2. are of potential interest for fusion research but which cannot be assigned a more definite priority at present.

III. D. Priority Criteria for Nuclear Materials Safeguards (N) Requests

The following criteria were recommended by the International Nuclear Data Committee (INDC) for use in assigning priorities to nuclear data requests for nuclear materials safeguards pruposes:

Priority 1

First priority shall be given to those requests for nuclear data that

- 1. are necessary for the refinement of an existing technique in order to bring its accuracy to within acceptable limits for safe-guards purposes, or
- 2. are essential for the development of a new and promising technique for the nondestructive assay and control of nuclear material in amounts that are significant to the safeguards system.

Priority 2

Second priority shall be given to those requests for nuclear data that

1. are essential for the use or interpretation of an existing or proposed technique for nondestructive assay and that are now obtained either by extrapolation or by an empirical method but for which experimental confirmation is desirable, or

^{*} At present, there are no Priority 4 requests in the request file.

2. are necessary for the development of a technique for nondestructive assay that may reasonably be expected to be useful for safeguards purposes.

Priority 3

Third priority shall be given to those requests for nuclear data that

- 1. may be needed for the nondestructive assay of materials not now included in the safeguards system but that are likely to be in the future, or
- 2. are necessary for the assessment or elimination of minor sources of error in the assay of nuclear material, or
- 3. are needed for the exploration of new techniques for nondestructive assay for future applications, or
- 4. may be needed for the development of new techniques for nondestructive assay for which the required technology does not now exist but which may reasonably be expected to in the future.

W R E N D A *****

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TARGET	PAG
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1 HYDROGE	N 1		NEU	TRON		TOTAL	CROSS	SECTION
1	1.00	KEV	15.0	MEV	0.3%	2	USA	R.S.CASWELL NBS 781175
	,						D: M:	TO DISTINGUISH BETWEEN LOMON-WILSON AND HOPKINS- BREIT PARAMETERIZATIONS.
STATUS								STATUS
UN	DER CON	TINUOUS	REVIE	W BY IN	DC AND NE	ANDC.	SEE APP	PENDIX A.
1 HYDROGE	N 1		NEU =====	TRON		CAPTU	RE CROS	SS SECTION
•					~ ~~			N CTEEN DET 701170
2	23.3	MV			0.3%	1	054	TO HELD DESCUE DISCREDANCIES IN THERMAL
							M:	CRITICALITY PARAMETERS. NEW REQUEST.
	======================================		SSERE NEU			EEEEEE		======================================
				======				
3	1.00	EV	10.0	MEV		1	USA	N.STEEN BET 721002
							Q:	NEED FREE ATOM SCATTERING CROSS SECTION.
							0:	ABOVE 10 KEV, 5.0 PERCENT. FOR THERMAL REACTOP ANALYSIS. SUBSTANTIAL MODIFICATIONS.
						_		
4	1.00	EV	1.00	KEV	1.0%	ى	USA	S-VISNER CHE /610/2)
							M:	NEW REQUEST.
	======= N 2		SSSESS NFU		==========	====== N• 2N	======	
5	U	р то	20.0	MEV	5.0%	1	USA	N.STEEN BET 781180
							c:	FOR THERMAL REACTOR ANALYSIS.
							м:	NEW REQUEST.
1 HYDROGE	N 2		ALP	HA	=============	ELAST	IC CRO	SS SECTION
6	UF	• TQ	2.00	MEV	10.0%	1	USA	C.R.HEAD DOE 781071
							Α:	ACCURACY 10.0 PC RELATIVE, 30.0 PC ABSOLUTE Required.
							0: M:	REQUIRED TO CALCULATE HEATING OF PLASMA FUEL BY FUSION PRODUCT ALPHAS. New Request.
1 HYDROGE	N 3		NEU	TRON		N,2N ======		
-				454		•		
,	0+	5 10	12.0	MEV		2	FR	A.MICHAUDUN BRC /32093
					=======================================	======		ACCORACT REGOINED TO BETTER THAN 20 PERCENT.
1 HY DROGE	N 3		DEU	TERON		D,N	=======================================	
8	Ur	• TO	10.0	KEV	10.0%	1	USA	C.R.HEAD DOE 7810699
							A:	ACCURACY 10.0 PC RELATIVE, 30.0 PC ABSOLUTE REQUIRED.
STATUS							~•	NEW REGULT:
UN	DER CO	NTINUOUS	REVIE	W BY IN	DC. SEE A	PPENDI	х А.	

1 HYDROGE	N 3		TR I =====	TON ========	========	T,2N	======	***************************************
0			10.0	KEV	10.0*		116 A	
9	Űŀ		10.0	~ . •	10.0%	1	U5A A •	ACCURACY 10.0 DC DEL ATIVE. 30.0 DC ABSOLUTE
							n:	REQUIRED. DATA REQUIRED TO ANALYZE BACKGROUND NEUTRONS AND
							M:	ESTIMATE TRITIUM ION TEMPERATURES. New REQUEST.
STATUS								ST ATUS
UN	DER CO	TINUOUS	REVIE	W BY IN	DC. SEE A	PPENDI	х А.	
		*******				===z== E,=		
1 HTDROGE	N 3 		ALP	HA ========	===================	ELAST	1C CR0	33 36. (I UN 29 36. 1 I UN
10	110	Ρ ΤΟ	2.00	MEV	10-0*	۱	USA	C.R.HEAD DOF 791072
10				···•		•	A:	ACCURACY 10.0 PC RELATIVE. 30.0 PC ABSOLUTE
							<u>a:</u>	REQUIRED.
							 M:	FUSION PRODUCT ALPHAS. New Request.
========	*******			*******		======		

2 HELIUM	======= 3 ======		NEU	TRON		N,P		
						_		
11	10.0	KEV	3.00	MEV	1.0%	2	USA	P-B-HEMMIG DDE 691001 ABSOLUTE VALUES REQUIRED.
							A: C:	INTERMEDIATE ACCURACY USEFUL. FOR USE AS A SECONDARY STANDARD.
12	1.00	KEV	3.00	MEV		1	USA	R.S.CASWELL NBS 691003
							Q: A:	ABSOLUTE VALUES REQUIRED. ACCURACY OF 2 PERCENT BELOW 200 KEV, 3 PERCENT
							0:	ABOVE. Increasingly useful as a standard and for
							м:	SUBSTANTIAL MODIFICATIONS.
13	100.	KEV	1.00	MEV	2.0%	2`	UK	B.ROSE HAF 692003
							A: 0:	ENERGY DEPENDENCE NEEDED MORE ACCURATELY USED AS A STANDARD IN CROSS-SECTION MEASUREMENTS.
14	100.	KEV	10.0	MEV	3.0%	1	IND	M.P.NAVALKAR TRM 713001
							Q: D:	ENERGY STEPS OF 0.1 MEV. FOR NEUTRON SPECTRUM MEASUREMENTS WITH SANDWICHED HE-3 SPECTROMETER.
15	1.00	ĸEV	15.0	MEV	10.0%	1	FR	A.MICHAUDON BPC 752096
3 LITHIU	====== M	======		===== HA			======= A • N	
				83855				**=====================================
16	100.	KEV	6.50	MEV	6.0%	2	USA	R.B.WALTON LAS 781167
							A:	THICK TARGET YIELDS REQUIPED. Relative error of 3.0 percent needed.
							м:	ALPHA ENERGY RESOLUTION 100 KEV. New request.
17	U	IP TO	7.00	MEV	30.0%	2	UK ·	A.WHITTAKER UKW 792107
					· ·		0: M:	FOR FUEL PROCESSING. New request.
======= 3 LITHIU	======= M 6		8====== NFU				======	
12:12:12:				=====			======	
18	7.50	MEV	15.0	MEV	10 x	2	JAP	Y.SEKI JAE 762168
							0:	NEUTRON TRANSPORT CALCULATIONS
3 LITHIU	====== M 6		A====== NEU	===== TRON	**********	DIFF	ERENTIA	L ELASTIC CROSS SECTION
19	1.00	MEV	15.0	MEV	10.0%	2	GER	D.DARVAS JUL 722060
							Q: 0: M:	AN IMPROVEMENT IN ACCURACY BELOW 6 MEV REQUIRED. CALCULATION OF NEUTRON TRANSPORT. SUBSTANTIAL MODIFICATIONS.
20	1.00	KEV	15.0	MEV	20.0%	3	UK	G.M.MC CRACKEN CUL 722061
							0:	EVALUATION REQUIREMENT. FOR SHIELDING CALCULATIONS AND NEUTRON TRANSPORT
21	4.00	MEV	15.0	MEV	10.0%	2	ССР	I.N.GOLOVIN KUR 724001
		:					Q: 0:	REFINEMENT OF DATA BELOW 7 MEV AND ADDITIONAL DA Above 7 Mev Reguired. Calculation of Neutron Transmission.
22	14.0	MEV			10.0%	1	FR	B. DUCHEMIN SAC 73200
							0:	EVALUATION OF NEUTRON BALANCE.
23	7.50	MEV	15.0	MEV	10 . X	2	JAP	Y•SEKI JAE 76205)
							0:	NEUTRON TRANSPORT CALCULATIONS
24	1.00	MEV	20.0	MEV	20.0%	· 1	ITY	C.COCEVA BOL 792094
							Q: D: M:	ANGULAR DISTRIBUTION OF REACTION PRODUCTS NEEDED BLANKET CALCULATIONS IN FUSION PEACTORS. New request.
3 LITHIU	======= M 6		s=sssssss NEU	TRON	**********	ANGUL	LAR DIF	FERENTIAL INELASTIC CROSS SECTION
				=====		*****		
25	1.00	MEV	20.0	MEV	20.0%	1	ITY	C.CDCEVA BOL 79209
							0: 0:	ANGULAR DISTRIBUTION OF REACTION PRODUCTS NEEDED. BLANKET CALCULATIONS IN FUSION REACTORS.
				=====			M: 	NEW REQUEST.
3 LITHIU	M 6		NEU	TRON		TOTA	L PHOTO	N PRODUCTION CROSS SECTION
34	0.00	NEN	16 0	WE.4		~		
20	300	~ Z V	13.0	MEV	13.0%	2	0:	GAMMA RAY PRODUCTION CROSS SECTIONS AND GAMMA DAY
							0:	SPECTRA ARE REQUIRED. GAMMA RAY HEATING AND SHIELDING CALCULATIONS.

3 LITHIU	4 6 ========================	NEUTRON		TOTAL	PH0 T01	N PRODUCTION CROS	S SECTION (CONTINUED)
27	1.00 MEV	15.0 MEV	15 . X	2	JAP '	M.KASAI Y.SEKI	MAP JAE	762054F
					0:	GAMMA-RAY HEATIN	G CALCULATIONS	
3 LITHIU	4 6 	NEUTRON		N • 2N				======================================
28	UP TO	20.0 MEV	20.0%	1	ITY	C.COCEVA	BOL	792096F
					0	BLANKET CALCULAT	IONS IN FUSION REACTORS.	S NEEDED.
					======	=======================================		
3 LITHIU =========	4 6 ====================================	NEUTRON		ENERG	Y-ANGLI	E DIFF. NEUTRON-E	MISSION CROSS SECTION	-=2=0555555
20			20 0 ×		CED	D. DADVAC		7000645
29		13.0 MEV	20.0%	2	. GE M	NEUTRON SPECTRA	UP TO MAXIMUM ENERGIES AN	722004F RE
· .					•••	REQUIRED. NEUTRON ANGULAR	DISTRIBUTIONS AT A FEW E	NERGIES
					0:	WOULD BE USEFU	L. OF NEUTRON TRANSPORT AND	D
				-	м:	SHIELDING. SUBSTANTIAL MODI	FICATIONS.	
accessos 3 LITHIU		NEUTRON		======== N.P	======			
					=======		# 8 R C R R R R R R R R R R R R R R R R R	
30	UP TO	20.0 MEV	20.0%	1	ITY	C.CGCEVA	BOL	792097F
					0:	ANGULAR DISTRIBU	TION OF REACTION PRODUCTS	S NEEDED.
			· · ·		м:	NEW REQUEST.	IONS IN FUSION REACTORS.	
3 LITHIU		NEUTRON		N,ND	======			
31	UP TO	15.0 MEV	10.0%	2	GER	D.DARVAS	JUL	722151F
					Α:	ENERGY PESOLUTIO	N OF 0.2 TO 0.5 MEV WOULD	D BE
	. •		•		0: M:	FOR SHIELDING AN SUBSTANTIAL MODI	D CALCULATION OF HEAT GEN FICATIONS.	NERATION.
32	UP TO	15.0 MEV	10.0%	1	CCP	I.N.GOLOVIN	KUR	724003F
				•	0:	NEUTRONICS CALCU BLANKET MATERI	LATIONS AND ENERGY DEPOS	ITION IN
33		15.0 MEV	10. *	2		Y.SEVI	145	7620525
	0, 10			2	0:	NEUTRONICS CALCU	LATIONS AND ENERGY DEPOS	ITICN
34	07 40	20.0 MEV	20.0%	1	114	C.CUCEVA	BUL	792098F
		•			Ö: M:	BLANKET CALCULAT NEW REQUEST.	IONS IN FUSION REACTORS.	
3 LITHIUM		NEUTRON		======= N, T		**************		*********
********					========		882=2=222=23=22=222=222	
35	1.00 KEV	3.00 MEV	1.0%	1	USA	C.E.TILL P.B.HENNIG	ANL	691009R
		• •			Α:	ACCUFACY OF 3 PE	RCENT USEFUL	
					0:	ENERGY RESOLUTIO	N MUST REPRODUCE TRUE SH	APE.
36	500. EV	3.00 MEV	3.0*	2	115 4	G. N. HALE		6010110
30	300. 20	3.00 M2.	3.04	2	034	ABSOLUTE VALUES	REQUIRED.	0910114
		-			0: M:	FOR USE AS A STA SUBSTANTIAL MODI	NDARD. FICATIONS.	
77			5 AF		66D) V PV	(000000
31	5.00 KEV	IS.U MEV	5.0%		92R 0:	STANDARD.	KFK .	692004R
38	100. KEV	5.00 MEV	5.0%	3	UK -	C.G.CAMPBELL	WIN	692005P
•					0:	FLUX MONITOR FOR DISCREPANCIES AR EVALUATION ALSO	NEUTRON SPECTRUM MEASUR E PARTICULARLY LARGE ABO REQUIRED. 10KEV-5MEV. PR	EMENTS. Ve 1 mev Iority 2.
39.	500. KEV	5.00 MEV	5.0%	2	ик	B.ROSE	HAR	712002R
-						C.G.CAMPBELL	WIN	
			•		A: 0:	EVALUATION: 10-3 STANDARD FOR CRO NEUTRON SPECTR	SUKEV(2.0%).350KEV-5MEV(SS-SECTION MEASUREMENTS / UM MEASUREMENTS.	S.OX) REQD And For
40	100. KEV	10.0 MEV	3.0%	1	IND	M.P.NAVALKAR	TRM	713002R
					Q: 0:	ENERGY STEPS OF For Neutron Spec LI-6 Spectrome	0.1 MEV. Trum measurements with s/ Ter.	ANDWICHED
41	500. KEV	13.0 MEV	5.0%	2	USA Q:	H.T.MOTZ ABSOLUTE VALUES	LAS REQUIRED. FICATIONS-	721008R

3 LITHIUN	4 6 ======	=====	NEU1	TRON		N,T =====				(CONTINUED)
	10.0	E 14	100	KEV	1 02				NDC	721 0008
42	10.0		100.	NG 1	1.0*	•	03.	FOR USE AS STAND	ARD BELOW 1 MEV.	721009K
							м:	SUBSTANTIAL MODI	FICATIONS.	
43	300.	KEV	15.0	MEV	5.0%	1	GER	D.DAFVAS	JUL	722062F
							Q: A:	TOTAL TRITIUM PR	ODUCTION REQUIRED. N SHOULD REPRODUCE TRU	E SHAPE.
							ö:	FOR DETERMINATIO	N OF MOSE ACCURATE TRI S.	TIUM
							м:	SUBSTANTIAL MODI	FICATIONS.	
44	100.	KEV	3.00	MEV	3.0%	1	ССР	I.N.GOLOVIN	KUR	724002F
							с:	FOR TRITIUM BREE	DING AND ENERGY DEPOSI	TION.
45	3.00	MEV	14.0	MEV	5.0%	1	FR	B. DUCHEMIN	SAC	732002F
							C:	FOR EVALUATION D	F NEUTRON BALANCE.	
46	20.0	KEV	15.0	MEV	5.0%	1	BI G		MOL	7420248
40	2010	1.2.1	1010			•	Q:	SECONDARY ANGULA	R DISTRIBUTION REQUIRE	D UP TO
								2 MEV WITH EMPHA 500 KEV.	SIS BELOW 100 KEV AND	ABOVE
							A:	ANGULAR RESOLUTI	ON - 10 DEGREES. ESCLUTION - 5 KEV UP T	0 400 KEV
							0:	DETERMINATION OF	NEUTRON SPECTRA FROM	TRITON
							м:	SUBSTANTIAL MODI	FICATIONS.	
47	5.00	KEV	15.0	MEV	5.0%	1	GER	M.KUECHLE	KFK	742110F
							0:	STANDARD.		
48	3.00	MEV	15.0	MEV	5. X	,		Y-SEK I	JAF	762053F
	5100					•	0:	TRITIUM BREEDING	AND ENERGY DEPOSITION	CALCULATION
49	100.	KEV	2.00	MEV	10.0%	2	UK	G.M.MC CRACKEN	CUL REMENT.	762245F
							0.	FOR TRITIUM BREE	DING CALCULATIONS.	
50	500.	KEV	5.00	MEV	10.0%	2	USA	C.R.HEAD	DOE	781160F
							0:	NEEDED TO DESCRI	BE BREEDING IN D-T SYS	TEMS.
STATUS								NEW REQUEST.		STATUS
UI	NDER CO	NTINU	SUS REVIE	W BY	INDC AND NE	ANDC.	SEE AP	PENDIX A.		

3 117410	M 0 ======			1RUN = = = = = = =		N • N † = = = = = =				================
51	U	рто	20.0	MEV	20.0%	1	ITY	C.COCEVA	BOL	792099F
							Q:	ANGULAR DISTRIBU	TION OF REACTION PRODU	CTS NEEDED.
							D: M:	NEW REQUEST.	IONS IN FUSION FEACTOR	.5 •
======================================	== = === M 6			===== TRCN		TOTAL	 ALPHA	PRODUCTION CROSS	SECTION	
		*****		====		= = = = = = =				
52	1.00	KEV	18.0	MEV	10.0%	2	USA	W.N.MC ELROY	HED	691012R
							0:	FOR USE AS A FLU Total Helium Pro	ENCE MONITOR. Duction for mass spect	ROMETER.
3 LITHIU	M 6 ======	******	HEL ======	IUM-3		HEL IU	JM-3,P			*******
53	500.	KEV	2.00	MEV	.10.0%	1	USA	C.R.HEAD	DOE	781073F
			•				A:	ACCURACY 10.0 PC	RELATIVE. 30.0 PC ABS	OLUTE
							0:	FOR ADVANCED FUE	L FUSION DEVICES.	
			\$========	=====			 			
3 LITHIU	M 6 =======	=====	LIT: ========	HIUM-	6 ===============	SPEC	AL QUA	NTITY (DESCRIPTIO	N 8ELOW)	
EA	600		2	454					205	7010765
54	500.	REV	2.00	MEV	10.0%	L	U5A A+	CROSS SECTIONS F	OR ALL SIGNIFICANT DEA	781074F
								WANTED, INCLUDIN (LIG.T), (LIG.HE3	IG (LI6,N)+(LI6,P),(LI6	(LI6.PA)
							Α:	ACCURACY 10.0 PC REQUIRED.	RELATIVE, 30.0 PC ABS	SOLUTE
				•			0: M:	FOR ADVANCED FUE New Request.	L FUSION DEVICES.	
	====== N 7		5332222222 NC!!		*********	= #= = = = = = = = = = = = = = = = = =		SS SECTION		
	======		========		**********	=====				***********
55	7.50	MĖV	15.0	MEV	5.00%	2	JAP	Y. SEK I	JAE	762230F
							:	NEUTRON TRANSPOR	T CALCULATIONS	

.

3 LITHI	JM 7	=====	NEU	TRON		DIFFE	RENTIA	L ELASTIC CROSS SECTION	********
				=====		223255	238857		
56	1.00	MEV	15.0	MEV	10.0%	1	GER	D.DARVAS JUL	722066F
							Q: D: M:	ADDITIONAL DISTRIBUTIONS BETWEEN 1 AND 7 Reguired in Steps of 0.5 to 1 MeV. For calculation of Neutron Transport. Substantial Modifications.	MEV
57	2.00	MEV	15.0	MEV	10.0%	1	CCP	I.N.GOLOVIN KUP	724005F
							o: c:	REFINEMENT OF DATA BELOW 7 MEV AND ADDITI Above 7 Mev Required. For Tritium Breeding and Energy Defositio	ONAL DATA N.
58	14.0	MEV			10.0%	1	FR D:	B.DUCHEMIN SAC EVALUATION OF NEUTRON BALANCE.	732003F
59	7.50	MEV	15.0	MEV	10. X	2	JAP	Y.SEKI JAE	762055F
							0:	NEUTRON TRANSPORT CALCULATIONS	
60	1.00	MEV	20.0	MEV	20.0%	1	ITY	C.COCEVA BOL	792100F
							Q: D: M:	ANGULAR DISTRIBUTION OF REACTION PRODUCTS BLANKET CALCULATIONS IN FUSION REACTORS. NEW REQUEST.	NEEDED.
======== 3 [THIN			NFU	===== TRON					********
				22225					********
61	500.	KEV	15.0	MEV	10.0%	2	GER	D.DARVAS JUL	722068F
							Q: 0: M:	CROSS SECTION FOR 0.478 MEV LEVEL REQUIRE FOR SHIELDING ESTIMATES AND CALCULATION O GENERATION. SUBSTANTIAL MODIFICATIONS.	D. F HEAT
62	UP	то	15.0	MEV	15.0%	1	ССР	I.N.GOLOVIN KUP	724006F
							9: 0:	CROSS SECTION FOR 0.478 MEV LEVEL REQUIRE NEUTPONICS CALCULATIONS AND ENERGY DEPOSI	D. TION.
63	UP	τo	15.0	MEV	15.0%	2	JAP	Y.SEKI JAE	762231F
							0:	NEUTRON TRANSPORT CALCULATIONS	
3 LITHI	 JM 7		NEU	TRON		ANGUL	AR DIF	FERENTIAL INELASTIC CROSS SECTION	
	*******			=====	***********	222223	e==t=4	***************************************	
64	1.00	MEV	20.0	MEV	20.0%	1	ITY	C.COCEVA BOL	792101F
							Q: 0: M:	ANGULAR DISTRIBUTION OF REACTION PRODUCTS BLANKET CALCULATIONS IN FUSION REACTORS. NEW REQUEST.	NEEDED.
3 LITHIC			NEU			ENERG	Y DIFF	ERENTIAL INELASTIC CROSS SECTION	
65	UP	TO	15.0	MEV	20.0%	3	UK	T.D.BEYNON BIR G.M.MC CRACKEN CUL	732119F
							0:	EVALUATION REQUIREMENT. For tritium breeding calculations.	
66	UP	τo	15.0	MEV	15. X	2	JAP	Y.SEKI JAE	762056F
							0:	NEUTRON TRANSPORT CALCULATIONS	
3 LITHIC	JM 7 1========		NEU1	TRON	8228222222 8222228	TOTAL	PHOTO	N PRODUCTION CROSS SECTION	*******
67	9.00	MEV	15.0	MEV	15.0%	1	ССР	I.N.GOLOVIN KUR	724010F
							a: 0:	GAMMA RAY PRODUCTION CROSS SECTIONS AND G. Spectra are required. Gamma ray heating and shielding calculation	AMMA RAY Ons.
68	25.3	MV	15.0	MEV	15. X	2	JAP	Y.SEKI JAE	762059F
				•			Q: 0:	GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA-FAY HEATING CALCULATIONS	
3 LITHIC	JM 7		NEU1	TRON		N.2N			
69	UP	TO	15.0	MEV	20.0%	2	GER	D. DARVAS JUL	722071F
							0: M:	FOR ESTIMATES OF NEUTRON MULTIPLICATION. SUBSTANTIAL MODIFICATIONS.	
70	UP	TO	15.0	MEV	15.0%	1	CCP	I.N.GOLOVIN KUR	724009F
							a: c:	SECONDARY ENERGY AND ANGULAR DISTRIBUTIONS 14 TO 15 MEV REQUIRED. BLANKET NEUTRONICS CALCULATIONS.	5 AT
71	UP	то	20.0	MEV	20.0X	1	ΙΤΥ	C.COCEVA BOL	792102F
							Q: 0: M:	ANGULAR DISTRIBUTION OF REACTION PRODUCTS Blanket Calculations in fusion reactors. New request.	NEEDED.

3 LITHIUM		NEUTRON		N • 2N	ANGULA	R DISTRIBUTION		******
72	UP TO	15.0 MEV	15.0%	2	JAP O:	Y.SEKI Blanket Neutron	JAE ICS CALCULATIONS.	762232F
3 LITHIUM		NEUTRON		N,2N	NEUTRO	EN SPECTRA		=======================================
73	UP TO	15.0 MEV	15. X	2	JAP 0:	Y.SEKI Blanket Neutroni	JAE CS CALCULATIONS	762057F
3 LITHIUM		NEUTRON		ENERG	SY-ANGLE	DIFF. NEUTRON-E	MISSION CROSS SECTION	zazzzzszz =zzzzzszz
74	9.00 MEV	14.0 MEV	10.0%	1	USA D:	C.R.HEAD FOR SHIELDING, AN NEXT GENERATION	DDE CTIVATION AND TFANSPORT S N D-T REACTOR DESIGNS.	781042F TUDIES OF
3 LITHIUM		NEUTRON		===== N,NP				
75	UP TO	20.0 MEV	20.0%	1	1 TY		801	792103F
	•			•	G: D: M:	ANGULAR DISTRIBU BLANKET CALCULAT NEW REQUEST.	TION OF REACTION PRODUCTS IONS IN FUSION PEACTORS.	NEEDED.
3 LITHIUM	5=====================================	NEUTRON	======================================	ENER	SY-ANGLE	DIFF. PROTON-PR	ODUCTION CROSS SECTION	======================================
76	14.0 MEV	•		2	USA A: O: M:	C.R.HEAD ACCURACY TO BE D DATA REQUIRED FO NEW REQUEST.	DOE ETEPMINED. F Radiation Damage Calcul	781135F At Ions .
3 LITHIUM		NEUTRON				*******************		===========
77	UP TO	20.0 MEV	20.0 X	1	1TY Q: 0: M:	C.CDCEVA ANGULAR DISTRIBU BLANKET CALCULAT NEW REQUEST.	BOL TION OF REACTION PRODUCTS IONS IN FUSION REACTORS.	792104F NEEDED•
3 LITHIUM		NEUTRON		N,N7				
78	υρ το	15.0 MEV	5.0%	1	GER A: D: M:	D.DARVAS RESOLUTION AND E SUFFICIENT. DETERMINATION OF RATIOS. SUBSTANTIAL MODI	JUL NERGY STEPS OF +2 TO +5 M MORE ACCURATE TRITIUM BR FICATIONS+	722069F EV EEDING
79	UP TO	15.0 MEV	5.0%	1	сср 0:	I.N.GOLOVIN For tritium bree	KUR DING AND ENERGY DEPOSITIO	724007F
80	10.0 MEV	15.0 MEV	15.0%	1	CCP Q:	I.N.GOLOVIN Secondary Energy Required. Neutron transmis	KUR AND ANGULAR DISTRIBUTION SION CALCULATIONS.	724008F IS
81	3.00 MEV	14.0 MEV	5.0%	• 1	FR O:	B.DUCHEMIN Evaluation of Ne	SAC SUTRON BALANCE.	732004F
82	UP TO	15.0 MEV	5 • X	1	JAP Q: D:	Y.SEKI NEUTRON SPECTRA REQUIRED. TRITIUM BREEDING	JAE WITH ACCURACY 15 PER CENT ; AND ENERGY DEPOSITION CA	762058F Also Alculation
83	UP TO	15.0 MEV	· 10.0%	2	UK Q: D:	T.D.BEYNON ENERGY SPECTRA D EVALUATION REQUI TRITIUM BREEDING MODE OF BREAK-UP REGION.	BIR FEMITTED PARTICLES NEEDE REMENT. AND CROSS-SECTION IN THR	762246F D. RESHOLD
84	11.0 MEV	14.0 MEV	10.0%	2	USA D: M:	C.R.HEAD NEEDED TO DESCRI NEW REQUEST.	DDE Be Breeding in D-T System	781159F IS•
85	UP TO	20.0 MEV	20.0%	1	17¥ 0: M:	C.COCEVA ANGULAR DISTRIBU BLANKET CALCULAT New Request.	BOL TION OF REACTION PRODUCTS IONS IN FUSION REACTORS.	792105F NEEDED.
3 LITHIUN		NEUTRON		ENER	======= GY-ANGL ======	E DIFF. ALFHA-PRO	DUCTION CROSS SECTION	
86	14.0 MEV			2	USA A: 0: M:	C.R.HEAD ACCURACY TO BE D DATA REQUIRED FO New Request.	DOE DETERMINED. DR RADIATION DAMAGE CALCUL	781114F

87	9.00 MEV	14.0 MEV	10.0%	1	USA	C.R.HEAD DOE 781	1051
					0: M:	FOR RADIATION DAMAGE STUDIES OF NEXT GENERATIO D-T REACTOR DESIGNS. New Request.	ON
			********				====
88	9.00 MEV	14.0 MEV	10.0%	1	USA	C.R.HEAD DOE 781	1060
					о: м:	FOR RADIATION DAMAGE STUDIES OF NEXT GENERATION D-T REACTOR DESIGNS. NEW REQUEST.	ON
							====
8222282				======	2202222		
89	2.00 MEV	15.0 MEV	10.0%	2	CCP		4011
					 	FUR NEUTRUN TRANSMISSIUN CALCULATIUNS.	
BERYLL	IUM 9	NEUTRON		INEL	ASTIC C	ROSS SECTION	====
· ·				-			
90	00 10	15.0 MEV	15.0%	2	0:	ISNAGULOVIN KUR 724 NEUTRONICS CALCULATIONS FOR PLANKET AND SHIFLD	4012 D.
91	UP TO	15.0 MEV	15 . X	2	JAP	Y-SEKI JAE 762	2060
						BLANKET NEUTRUNICS CALCULATIUNS	
BERYLL	IUM 9 22222222222222	NEUTRON		ENER	GY-ANGL	E DIFFERENTIAL INELASTIC CROSS SECTION	
92	8.00 MEV	15.0 MEV	10.0%	2	GER	D. DARVAS JUL 722	2074
					м:	SUBSTANTIAL MODIFICATIONS.	
93	UP TO	15.0 MEV	10.0%	1	FR	C.PHILIS BRC 792	2001
	•				0:	NEUTRON TRANSPORT CALCULATIONS	
				======			====
BERYLL J	IUM 9	NEUTRON		THER	====== MAL SCA =======	TTERING LAW	
94	IUM 9 25.3 MV			THER	======= MAL SCA ====================================	J.FELL WIN 792	==== ==== 2163
94	IUM 9 25.3 MV			THER ====== 3	MAL SCA UK Q: 0:	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C FOR THERMAL REACTORS. NEW REQUEST.	==== ==== 2163
94	10M 9 25.3 MV			3	MAL SCA UK Q: M:	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST.	==== 2163
94 BERYLLI BERYLLI	IUM 9 25.3 MV IUM 9	NEUTRON		3	UK Q: O: M: ON PROD	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST.	==== 2163 ====
94 92 94 95	IUM 9 25.3 MV IUM 9 8.00 MEV	NEUTRON NEUTRON NEUTRON	10.0%	3 PHOT	UK UK O: M: D: M: GER	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. JCTION CROSS SECTION IN INELASTIC SCAT.	==== 2163 ==== ====
94 94 BERYLL 1 95	IUM 9 25.3 MV IUM 9 8.00 MEV	NEUTRON NEUTRON 15.0 MEV	10.0%	THER 3 PHOT	UK UK O: DN PROD GER Q:	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. JCTION CROSS SECTION IN INELASTIC SCAT. D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED.	==== 2163 ==== 2075
94 94 BERYLL I 95	IUM 9 25.3 MV IUM 9 8.00 MEV	NEUTRON NEUTRON 15.0 MEV	10.0X	3 2 2	UK UK O: M: ON PROD GER GER	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. JCTION CROSS SECTION IN INELASTIC SCAT. D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS.	==== 2163 ==== 2075
94 95 95	IUM 9 25.3 MV IUM 9 8.00 MEV	NEUTRON NEUTRON 15.0 MEV	10.0X	3 3 PHOT 2	UK UK O: M: ON PROD GER Q: M: PHOTO	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. JCTION CROSS SECTION IN INELASTIC SCAT. JCTION CROSS SECTION IN INELASTIC SCAT. D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N PRODUCTION CROSS SECTION NOTION	2163 22163 2075
94 94 BERYLL 1 95 BERYLL 1 96	IUM 9 25.3 MV IUM 9 8.00 MEV IUM 9 3.00 MEV	NEUTRON NEUTRON 15.0 MEV NEUTRON NEUTRON	10.0X 15.0X	3 3 PHOT 2 TOTA	UK UK Q: D: D: D: D: D: D: D: D: D: D: D: D: D:	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. JCTION CROSS SECTION IN INELASTIC SCAT. JCTION CROSS SECTION IN INELASTIC SCAT. D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS.	==== 2163 ==== 2075 ==== 4015
94 94 95 95 95 96	IUM 9 25.3 MV IUM 9 8.00 MEV IUM 9 3.00 MEV	NEUTRON NEUTRON 15.0 MEV NEUTRON 15.0 MEV	10.0X 15.0X	3 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	UK UK G: D: M GER GER GER GER G: CCP G: CCP	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. JCTION CROSS SECTION IN INELASTIC SCAT. D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N PRODUCTION CROSS SECTION I.N.GOLOVIN KUR 724 GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY HEATING AND SHIELDING CALCULATIONS.	===== 2163 ===== 2075 ===== 4015
94 94 95 95 96 BERYLL I	IUM 9 25.3 MV IUM 9 8.00 MEV IUM 9 3.00 MEV	NEUTRON NEUTRON 15.0 MEV NEUTRON 15.0 MEV	10.0X 15.0X	3 9H0T 2 TOTA 2 2	UK Q: O: M: ON PROD GER Q: M: PHOTO CCP Q: O:	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. FOR THERMAL REACTORS. D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N.PRODUCTION CROSS SECTION I.N.GOLOVIN KUR I.N.GOLOVIN KUR 724 GAMMA RAY SPECTRA ALSO REQUIRED. GALCULATIONS.	===== 2163 ===== 2075 ===== 4015
94 94 95 95 96 96	IUM 9 25.3 MV IUM 9 8.00 MEV IUM 9 3.00 MEV	NEUTRON NEUTRON 15.0 MEV NEUTRON 15.0 MEV	10.0X 15.0X	3 9H0T 2 10TA	UK Q: D: M: ON PROD GER Q: M: D: M: CCP Q: Q: O: O: O: O: O: O: O: O: O: O: O: O: O:	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. JCTION CROSS SECTION IN INELASTIC SCAT. 722 D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N PRODUCTION CROSS SECTION 1.N.GOLOVIN KUR 724 GAMMA RAY SPECTRA ALSO REQUIRED. GALCULATIONS.	2163 2075 4015
94 94 95 95 96 BERYLL I 96	IUM 9 25.3 MV IUM 9 8.00 MEV 3.00 MEV IUM 9 UP TO	NEUTRON NEUTRON 15.0 MEV NEUTRON 15.0 MEV	10.0× 15.0× 20.0×	3 3 PHOT 2 TOTA 2 2 N, 2N 1	UK Q: D: D: D: D: D: D: D: D: D: D: D: D: D:	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. JCTION CROSS SECTION IN INELASTIC SCAT. JCTION CROSS SECTION IN INELASTIC SCAT. D.DARVAS JUL T22 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N PRODUCTION CROSS SECTION I.N.GOLOVIN KUR 724 GAMMA RAY SPECTRA ALSO REQUIRED. GALCULATIONS. F.FROEHNER KFK 722	===== 2163 ===== 2075 ===== 4015 ===== ====
94 94 95 95 96 86RYLL 1 96	UM 9 25.3 MV UM 9 8.00 MEV UM 9 3.00 MEV UM 9 UP TO	NEUTRON NEUTRON 15.0 MEV 15.0 MEV 15.0 MEV NEUTRON 15.0 MEV	10.0X 15.0X 20.0X	3 9H0T 2 1	UK UK GER GER CCP GER GER GER GER GER GER GER GER	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. JJCTION CROSS SECTION IN INELASTIC SCAT. JUL D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N PRODUCTION CROSS SECTION 1.N.GOLOVIN KUR I.N.GOLOVIN KUR 724 GAMMA RAY SPECTRA ALSO REQUIRED. GALCULATIONS. F.FROEHNER KFK 722 ANGULAR DISTRIBUTIONS AND ENERGY SPECTRA OF SECONDARY NEUTRONS AND GAMMA RAYS ALSO NEEDE RAUAR RAYS ALSO NEEDE SUBSTANTIAL MODIFICATIONS. SUBSTANTIAL MODIFICATIONS.	2163 2075 4015 2077 ED•
94 94 95 95 96 96 97 97 98	UM 9 25.3 MV UM 9 8.00 MEV 3.00 MEV UM 9 UP TO UP TO	NEUTRON NEUTRON 15.0 MEV NEUTRON 15.0 MEV NEUTRON 15.0 MEV	10.0x 15.0x 20.0x	3 3 PHOT 2 TOTA 2 1	UK Q: DX PROD GER Q: M: CCP Q: GER Q: GER Q: GER Q: M: CCP	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. J.TION CROSS SECTION IN INELASTIC SCAT. JCTION CROSS SECTION IN INELASTIC SCAT. J.TION CROSS SECTION IN INELASTIC SCAT. JCTION CROSS SECTION D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N PRODUCTION CROSS SECTION IN.GOLOVIN KUR F.FROEHNER KFK 724 GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY SPECTRA ALSO REQUIRED. F.FROEHNER KFK 722 ANGULAR DISTRIBUTIONS AND ENERGY SPECTRA OF SECONDARY NEUTRONS AND GAMMA RAYS ALSO NEEDE RADIATION DAMAGE ESTIMATES. SUBSTANTIAL MODIFICATIONS. I.N.GOLOVIN KUR 724	===== 2163 ===== 2075 ===== 4015 ===== 2077 ED•
94 94 95 95 96 96 97 98	IUM 9 25.3 MV IUM 9 8.00 MEV IUM 9 3.00 MEV IUM 9 UP TO UP TO	NEUTRON NEUTRON 15.0 MEV NEUTRON 15.0 MEV NEUTRON 15.0 MEV	10.0X 15.0X 15.0X	3 PHOT 2 TOTA 2 N.2N 1	MAL SCA UK Q: ON PROD GER Q: PHOTOO CCP Q: GER Q: O: GER Q: CCP CCP Q: CCP CCP CCP CCP CCP CCP CCP CCP CCP CC	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. J.TION CROSS SECTION IN INELASTIC SCAT. JUL J.TION CROSS SECTION IN INELASTIC SCAT. JUL D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N.PRODUCTION CROSS SECTION I.N.GOLOVIN KUR F.FROEHNER KFK 724 GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY SPECTRA ALSO REQUIRED. SUBSTANTIAL MODIFICATIONS AND ENERGY SPECTRA OF SECONDARY NEUTRONS AND GAMMA RAYS ALSO NEEDE MAGULAR DISTRIBUTIONS AND GAMMA RAYS ALSO NEEDE SUBSTANTIAL MODIFICATIONS. I.N.GOLOVIN KUR 724 ENERGY AND ANGULAR DISTRIBUTION OF SECONDARY NEUTRONS REQUIRED. Y24 ENERGY AND ANGULAR DISTRIBUTION AND TRANSMISSIO CALCULATIONS.	===== 2163 ==== 2075 ==== 4015 ==== 2077 ED • 4013 DN
94 94 95 95 8ERYLL1 96 8ERYLL1 96 97 97 98 98	IUM 9 25.3 MV 25.3 MV IUM 9 8.00 MEV 3.00 MEV IUM 9 UP TO UP TO 2.00 MEV	NEUTRON NEUTRON 15.0 MEV NEUTRON 15.0 MEV NEUTRON 15.0 MEV 15.0 MEV 15.0 MEV	10.0X 10.0X 15.0X 15.0X	3 PHOT 2 TOTA 2 TOTA 2 N.2N 1 2	UK Q: D: D: GER Q: CCP GER Q: CCP Q: GER Q: D: GER Q: D: CCP Q: CCP CCP CCP CCP CCP CCP CCP CCP CCP CC	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEEDED. FOR THERMAL REACTORS. NEW REQUEST. J.TION CROSS SECTION IN INELASTIC SCAT. 722 D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N.PRODUCTION CROSS SECTION 724 GAMMA RAY SPECTRA ALSO REQUIRED. 724 GAMMA RAY SPECTRA ALSO REQUIRED. 724 GAMMA RAY HEATING AND SHIELDING CALCULATIONS. 724 F.FROEHNER KFK 722 ANGULAR DISTRIBUTIONS AND ENERGY SPECTRA OF SECONDARY NEUTRONS AND GAMMA RAYS ALSO NEEDE RADIATION DAMAGE ESIMATES. SUBSTANTIAL MODIFICATIONS. I.N.GOLOVIN KUR 724 ENERGY AND ANGULAR DISTRIBUTION OF SECONDARY NEUTRONS EQUIRED. 724 ENERGY AND ANGULAR DISTRIBUTION OF SECONDARY NEUTRONS REQUIRED. 724 ENERGY AND ANGULAR DISTRIBUTION AND TRANSMISSIO CALCULATIONS. 732 B.DUCHEMIN SAC 732 TO IMPROVE NEUTRON BALANCE CALCULATIONS. 732	===== 2163 ===== 2075 ===== 4015 ===== 2077 ED• 4013 DN 2005
94 BERYLL1 95 96 BERYLL1 96 97 98 99 99	10M 9 25.3 MV 10M 9 8.00 MEV 10M 9 3.00 MEV 10M 9 UP TO UP TO 2.00 MEV	NEUTRON NEUTRON 15.0 MEV NEUTRON 15.0 MEV 15.0 MEV 15.0 MEV 15.0 MEV	10.0x 10.0x 15.0x 20.0x 15.0x 15.0x	3 PHOT 2 TOTA 2 TOTA 1 2 2 2 2 2 2 2 2	UK Q: Q: Q: Q: Q: Q: Q: Q: Q: Q: Q: Q: Q:	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEDEDED. FOR THEMAL REACTORS. NEW REQUEST. J.TION CROSS SECTION IN INELASTIC SCAT. 722 D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N.PRODUCTION CROSS SECTION 724 GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA RAY SPECTRA ALSO REQUIRED. SUBSTANTIAL MODIFICATIONS AND ENERGY SPECTRA OF SECONDARY NEUTRONS AND ENERGY SPECTRA OF SECONDARY NEUTRONS AND EARMA RAYS ALSO NEEDE RADIATION DAMAGE ESTIMATES. SUBSTANTIAL MODIFICATIONS. 1.N.GOLDVIN I.N.GOLDVIN KUR 724 ENERGY AND ANGULAR DISTRIBUTION OF SECONDARY NEUTRONS REQUIRED. 1.100000000000000000000000000000000000	===== 2163 ===== 2075 ===== 4015 ===== 2077 ED • 4013 DN 2005
94 94 95 95 96 96 97 97 98 99 99 99 9100	IUM 9 25.3 MV IUM 9 8.00 MEV 3.00 MEV IUM 9 UP TO UP TO 2.00 MEV UP TO	NEUTRON NEUTRON 15.0 MEV NEUTRON 15.0 MEV 15.0 MEV 15.0 MEV 15.0 MEV 14.0 MEV 15.0 MEV	10.0X 10.0X 15.0X 15.0X 15.0X 15.0X	3 PHOT 2 TOTA 2 TOTA 1 2 2 2 2 2 2 3	MAL SCA UK Q: ON PROD GER Q: M: PHOTO CCP Q: O: GER Q: O: GER Q: CCP CCP CCP CCP CCP CCP CCP CCP CCP CC	J.FELL WIN 792 MAXWELLIAN SPECTRUM AVERAGE FROM 20C TO 1200C NEDEDED. FOR THERMAL REACTORS. NEW REQUEST. J.TION CROSS SECTION IN INELASTIC SCAT. 722 D.DARVAS JUL 722 ENERGY DISTRIBUTION OF GAMMA RAYS REQUIRED. SUBSTANTIAL MODIFICATIONS. N PRODUCTION CROSS SECTION 724 GAMMA RAY SPECTRA ALSO REQUIRED. 724 GAMMA RAY HEATING AND SHIELDING CALCULATIONS. 724 I.N.GOLOVIN KUR 722 ANGULAR DISTRIBUTIONS AND ENERGY SPECTRA OF SECONDARY NEUTRONS AND GAMMA RAYS ALSO NEEDE RADIATION DAMAGE ESTIMATES. SUBSTANTIAL MODIFICATIONS. I.N.GOLOVIN KUR 724 ENERGY AND ANGULAR DISTRIBUTION OF SECONDARY NEUTRONS REQUIRED. 724 ENERGY AND ANGULAR DISTRIBUTION AND TRANSMISSIO CALCULATIONS. 732 B. DUCHEMIN SAC 732 TO IMPROVE NEUTRON BALANCE CALCULATIONS. 724 WETRONS MAP 762	===== 2075 2075 ===== 4015 ===== 2077 ED • 4013 DN 2005 2061

4 BERYLL	IUM 9		NEU	TRON		N,2N	ANGUL	AR DISTRIBUTI	======================================		
101	U	IP 70	15.0	MEV	15.0X	2	JAP 0:	Y.SEKI NEUTRON TRAN	JAE SPORT CALCUL	ATIONS	762233F
= ======				=====	***********			*======	=============		
4 BERYLL	IUM 9 ======		NEU ========	TRON	**********	N,2N	NEUTR	ON SPECTRA			
102	υ	P TO	15.0	MEV	15. X	3	JAP	Y•SEK I	JAE		762062F
							0:	NEUTRON TRAN	SPORT CALCUL	ATIONS	
4 BERYLL	IUM 9			TRON		ENERG	Y-ANGL	E DIFF. NEUTR	0N-EMISSION	CROSS SECT	ICN
103		MEV	E 00								
103	1.00	MEV	5.00	MEV	15.0%	2	USA A:	ACCURACY 50	DUE MB AT 2-3 ME	٧.	621002R
								RESOLUTION, CUTGDING E	5 PERCENT IN NERGY.	ICIDENT ENER	RGY. 500 KEV IN
							0:	FOR BE MODER FOR THERMAL NEUTRON ECON	ATED FAST SP BREEDERS OR OMY CALCULAT	CONVERTORS	TORS.
104	9.00	MEV	14.0	MEV	10.0*	2	USA		DOF		7810705
			1.10		1000%	-	0:	DATA NEEDED	FOR SHIELDIN	G. ACTIVAT	ION AND NEUTRON
							MI	TFANSPORT NEW REQUEST.	CALCULATIONS	•	
4 BERYLL	====== IUM 9	=====	 NEU	TRON		.===== N•P	DELAYE	D NEUTRON YIE	=========== LD		

105	14.0	MEV	16.0	MEV	10.0%	2	CCP	V.K.MARKOV	GAC		714037N
							٥:	DELAYED NEUT	RON YIELD FR	OM BE-9 PRO	DDUCED BY BETA
							0:	ALLOWANCE FO COUNTING	R BACKGROUND	D IN. DELAYE	NEUTRON
4 BERYLL	====== IUM 9	=====	NEU	TRON		ENERG	Y-ANGLI	E DIFF. PROTO	N-PRODUCTIO	CROSS SEC	
******		=====									
106	14.0	MEV				2	USA	C.R.HEAD	DOE		781145F
							A: D: M:	ACCURACY TO DATA REQUIRE NEW REQUEST.	BE DETERMINE D FOR RADIAT	ION DAMAGE	CALCULATIONS .
4 BERYLL	====== TUM 9										
		=====		=====	=======================================						
107	8.00	MEV	15.0	MEV	10.0%	1	GER	F.FROEHNER	KFK		722078F
							Q: 0: M:	TOTAL ALPHA Calculation Substantial	PRODUCTION P OF NEUTRON T MODIFICATION	REQUIRED. RANSPORT.	
108	8.00	MEV	15.0	MEV	15.0%	2	ССР	I.N.GOLOVIN	KUF		724014F
							0:	FOR HELIUM A	CCUMULATION	CALCULATIO	15.
109	8.00	MEV	15.0	MEV	15 . X	з	JAP	Y. SEKI	JAE		762063F
							0:	HELIUM ACCUM	ULATION CAL	CULATIONS	
4 BERYLL	IUM 9		======================================	TRON		ENERC	GY-ANGL	E DIFF. ALPHA	-PPODUCTION	CROSS SECT	I ON
110	14.0	MEV				2	USA	C.R.HEAD	DOE		781 1 24F
• • •						-	A:	ACCURACY TO	BE DETERMINE	ED.	
							0: M:	DATA REQUIRE New Request.	D FOR RADIA	TION DAMAGE	CALCULATIONS.
4 BERYLL	IUM 9		NEU	TRON	************	TOTAL	HYDRO	GEN-PRODUCT IO	N CROSS SEC		
111	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD	DOE		781103F
							A: 0:	ACCURACY FRO SENSITIVIT FOR RADIATIO	M 10. TO 50 Y STUDIES IN DAMAGE CAU	PC TO BE CULATIONS.	DETERMINED FROM
							•••=====	HEW REQUEST.			
4 BERYLL	IUM 9		NEU	TRON		TOTAL	HELIU	M-PRODUCTION	CROSS SECTI)N	
				MEN	10.05	•			005		
112	9.00	MC.V	14.0	MC V	10.0%	2	054	ACCURACY EDD	DUE N 10- TO 50		781091F
							0:	SENSITIVIT FOR RADIATIO	Y STUDIES	CULATIONS.	DETERMINED FROM
							M: ======	NEW REQUEST.			
4 BERYLL	IUM 9	.======	ALP	PHA		ALPH	A, N				
113	100-	KEV	6.50	MEV	6-04	2	115 A	RABAWAL TON	IAC		7011601
						-	Q:	THICK TARGET	YIELDS REG	JIRED.	
							ă: M:	RELATIVE ERR ALPHA ENERGY NEW REQUEST.	RESOLUTION	ERCENT NEED	ED •
						.=====	_=======	== = = = = = = = = = = = = =			

5 80RON	***********	NEUTRON		TOTAL	CROSS	SECTION				
	**************						====			
114	4.50 MEV	15.0 MEV		2	USA	P.B. HEMMIG DOE 741	001 R			
					A: D: M:	ACCURACY REQUIRED - 3 TO 4 PERCENT. FOR SHIELDING EFFECT OF BORON CARBIDE. SUBSTANTIAL MODIFICATIONS.				
			==========				====			
5 BORON		NEUTRON		DIFFE	RENTIAL	ELASTIC CROSS SECTION	====			
115	4.50 MEV	15.0 MEV	15.0%	.2	USA M:	P.8.FEMMIG DOE 741 SUBSTANTIAL MODIFICATIONS.	003R			
							====			
5 BORON	**********	NEUTRON		ENERG	Y-ANGLI	E DIFFERENTIAL INELASTIC CROSS SECTION	====			
116	UP TO	15.0 MEV	10.0%	2	USA	P.B.HEMMIG DOE 741	005R			
					A:	15 PERCENT IN ENERGY SPECTRA. 20 PERCENT IN ANGULAR DISTRIBUTION IF NOT ISGTROPIC. OUTGOING ENERGY RESOLUTION 10 PERCENT.				
	***********		=========				====			
5 BORON ========	*================	NEUTRON ====================================		ENERG	Y-ANGL1	E DIFF. PHOTON-PRODUCTION CROSS SECTION	sa = =			
117	1.00 KEV	15.0 MEV	15.0%	2	USA	P.B.HEMMIG DOE 741	007R			
					Α:	20 PERCENT IN ANGULAR DISTRIBUTION IF NOT ISOTROPIC. GAMMA ENERGY RESOLUTION 10 PERCENT.				
	*==============		==========		= = = = = = = = = = = = = = = = = = = =					
5 BURUN	*============		========		•N ======		====			
				_						
118	UP TO	10.0 MEV	20 . X	2	SWD	H.HAEGGBLUM AE 762	160N			
					0:	NEUTRON OUTPUT OF SOLIDIFIED NUCLEAR WASTE				
119	UP TO	7.00 MEV	30.0%	2	UK	A.WHITTAKER UKW 792	113R			
					C: M:	FOR FUEL REPROCESSING. New Request.				
	**********		.========							
S BURUN I				ENERG		_ DIFF• PHUIUN-PRODUCTION CRUSS SECTION	====			
				_						
120	9.00 MEV	14.0 MEV	10.0%	2	USA	C.R.HEAD DOE 781	156F -			
					M:	DATA NEEDED FOR BLANKET, SHIELD AND MAGNET HEAD DEPOSITION CALCULATIONS. NEW REQUEST.	1			
5 80RON 1	*======================================	NEUTRON		*= = = = = = = = = = = = = = = = = = =			====			
	**********	*************		******						
121	8.00 MEV	14.0 MEV	15.0%	2	FR	B. DUCHEMIN SAC 732	006F			
	••••			-	o:	FOR IMPROVED CALCULATION OF NEUTRON BALANCE.				
5 BORON 1	10	NEUTRON		N . 3N						
122	10.0 MEV	14.0 MEV	15.0%	2	FR	B. DUCHEMIN SAC 732	007F			
					0:	FOR IMPROVED CALCULATION OF NEUTRON BALANCE.				
5 8000N 1	**********					CONTRACTOR CONTRACTOR CONTRACTOR CONTRACTOR	====			
				======			====			
127	0 00 MEV		10.0*	•						
125	9.00 MLV	ITTO MET	10.0%	2	034	DATA NEEDED SOD SHIELDING. ACTIVATION AND NEUT	000F			
					M:	TRANSPORT CALCULATIONS. NEW REQUEST.				
5 BORON 1	================== L 0	NEUTRON		ENERG	Y-ANGL	E DIFF. PROTON-PRODUCTION CROSS SECTION				
********	***********									
124	14.0 MEV			2	USA	C.R.HEAD DOE 781	154F			
				-	A:	ACCURACY TO BE DETERMINED.				
					0: M:	DATA REQUIRED FOR RADIATION DAMAGE CALCULATION	s.			
							====			
5 BORON 1	10 	NEUTRON	.========	N.ALP	HA ======		====			
125	100. KEV	1.00 MEV	2.0%	1	UK	B.ROSE HAR 642	001R			
					Q: A:	ALSO (N.ALPHA GAMMA). Energy dependence needed more accurately.				
					0:	USED AS A STANDARD IN CROSS SECTION MEASUREMEN	TS.			
126	10.0 KFV	2.00 MEV		1	BLG	A.FABRY MOL 6820	004P			
				-	 A:	ACCURACY 1 PERCENT TO 100 KEV. 3 PERCENT ABOVE	•			
					<u>;</u>	STANDARD CROSS SECTION. CALCULATION OF STANDARD NEUTRON SPECTRUM.	-			
5 BORON	10	=======	NEU	TRON		N, ALP	HA ======			(CONTINUED)
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127	1.00	KEV	10.0	MEV		1	USA	C.E.TILL P.B.HEMMIG F.C.MAIENSCHEIN	ANL DOE ORL	691364R
							Q:	ABSOLUTE VALUES ALPHA-0/ALPHA-1 GAMMA DETECTION	REQUIRED. Ratio Needed for Both	ALPHA AND
							A: 0:	1-100 KEV,ACCUR 100-300 KEV,ACCU 0.3-10 MEV,ACCU FOR USE AS A ST	ACY 1 PERCENT, 3 PERCEN URACY 3 PERCENT, 10 PER RACY 5 PERCENT, 10 PER ANDAPD.	IT USEFUL. CENT USEFUL. CENT USEFUL.
128	1.00	KEV	10.0	MEV		1	USA	C.E.TILL P.B.HEMMIG F.C.MAIENSCHEIN	ANL DOE DRL	691373R
							Q: A:	ABSOLUTE CROSS GAMMA IS REQU 1-100 KEV,ACCUR 100-300 KEV.ACCU	SECTION FOR PRODUCTION IRED. ACY 1 PERCENT, 3 PERCEN URACY 3 PERCENT, 10 PER	OF 480 KEV IT USEFUL. RCENT USEFUL.
			· ·				0:	0.3-10 MEV, ACCU FOR USE AS A ST	RACY 5 PERCENT, 10 PERC ANDAPD.	ENT USEFUL.
129	50.0	KEV	200.	KEV	1.0%	1	USA	R.S.CASWELL	NBS	721028R
							Q: D: M:	BOTH TOTAL AND FOR USE AS A ST SUBSTANTIAL MOD	ALPHA 1 CROSS SECTIONS ANDARD. IFICATIONS.	NEEDED.
130	5.00	KEV	10.0	MEV		2	CCP	L.N.USACHEV	FEI	754025R
							A: 0: M:	FROM 5.0 - 100 STANDARD CROSS FOR MORE DETAIL SUBSTANTIAL MOD	KEV ACCURACY 2 PERCEN SECTION BELOW 100 KEV. SEE INTFODUCTION. IFICATIONS.	4T •
131	500.	EV	200.	KEV	5.0%	1	USA	R.S.CASWELL	NBS	761110R
							Q: 0: M:	SECONDARY ENERG NEEDED FOR THIN B-10 (N.ALPHA) NEW REQUEST.	Y-ANGLE DISTRIBUTION W/ Foil measurements with Standard.	ANTED.
132	10.0	MV	10.0	EV	1.0%	1	USA	R.S.CASWELL	NBS	781176R
							0: M:	TO SEE WHETHER New Request.	B IS 1/V IN THIS REGION	4.
133	200.	KEV	1.00	MEV	5.0%	3	UK .	C.G.CAMPBELL	WIN	792124R
							с: м:	FOR FAST REACTO SEE ALSO REQUES NEW REQUEST.	RS. T NO. 792125.	
134	1.00	MEV	5.00	MEV	10.0%	з	UK	C.G.CAMPBELL	WIN	792125R
							0: M:	FOR FAST REACTO SEE ALSO REQUES NEW REQUEST.	RS. T ND. 792124.	
135	100.	KEV	1.00	MEV	2.0%	1	GER	H. KUESTERS	KFK	792187R
STATUS							M:	NEW REQUEST.		STATUS
U	NDER CO	NTINUOUS	S REVIE	W BY	INDC AND NEA	NDC.	SEE APP	PENDIX A.		
5 BORON	====== 10 =======		NEU	TRON		TCTAL	ALPHA	PRODUCTION CROS	S SECTION	
1 36	1.00	KEV	18.0	MEV	10.0%	1	USA	W.N.MC ELROY	HED	691026R
					•		. c:	FOR USE AS A FL Total Helium Pr	UENCE MONITOR. ODUCTION FOR MASS SPECT	ROMETER.
5 BORON			NEU	TRON		ENERG	Y-ANGL	E DIFF. ALPHA-PR	ODUCTION CROSS SECTION	
137	14.0	MEV				2	USA	C.R.HEAD	DOE	781133F
							A: 0: M:	ACCURACY TO BE DATA REQUIRED F NEW REQUEST.	DETERMINED. OR RADIATION DAMAGE CAL	CULAT IONS .
5 BORON	====== 10 =======		NEU	TRON	************	TOTAL	HYDRO	GEN-PRODUCTION C	ROSS SECTION	
138	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD	DOE	781112F
							A: 0: M:	ACCURACY FROM 1 SENSITIVITY S FOR RADIATION D NEW REQUEST.	0. TO 50. PC TO BE DET TUDIES Amage calculations.	ERMINED FROM
5 BORON	2222222 10 2222222		NEU	TRON		TOTAL	HELIU	M-PRODUCTION CRO	SS SECTION	
139	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD	DOE	781100F
							A: 0:	ACCURACY FROM 1 SENSITIVITY S FOR RADIATION D NEW REQUEST.	0. TO 50. PC TO BE DET TUDIES AMAGE CALCULATIONS.	ERMINED FROM
202222 0 2	92222 20	*******		ie = = = ė						

5 8080N 1	1		NEU NEU	===== TRON ======		70TAL	CROSS	SECTION		
140	500.	KEV	5.00	MEV	10.0%	2	UK D: M:	C.G.CAMPBELL For fast react New request.	WIN Ors.	792126R
5 80RON 1	. 1 		======================================	TRON	=================	ELAST	IC CRO	SS SECTION		=======================================
141	500.	KEV.	5.00	MEV	10.0%	2	UK 0: M:	C.G.CAMPBELL For fast react New request.	WIN Ors.	792127R
5 BGRON 1	1		NEU NEU	TRON	======================================	ENEPG	Y-ANGL	E DIFF. PHOTON-	PRODUCTION CROSS SECTI	0N ====================================
142	9.00	MEV	14.0	MEV	10.0%	2.	USA O: M:	C.R.HEAD DATA NEEDED FO DEPOSITION C NEW REQUEST.	DOE R Blanket, Shield and Alculations,	781157F Magnet Heat
5 BORON 1	. 1 . ==================================		======================================	TRON		ENERG	Y-ANGL	E DIFF. NEUTRON	-EMISSION CROSS SECTIO	======================================
143	9.00	MEV	14.0	MEV	10.0%	1	USA O: M:	C.R.FEAD For shielding, Next generat New request.	DOE Activation and transf Ion D-T reactor design	781047F PORT STUDIES OF IS• `
5 80RON 1	. I 		NEU	TRON		ENERG	Y-ANGL	E DIFF. PROTON-	PRODUCTION CROSS SECTI	ON ====================================
144	14.0	MEV				2	USA A: D: M:	C.R.HEAD ACCURACY TO BE DATA REQUIRED I NEW REQUEST.	DDE DETERMINED. FOR RADIATION DAMAGE C	781140F
5 BORON 1		= = = = = = = = = = = = = = = = = = =	NEU	TRON		ENERG	SY-ANGL	E DIFF. ALPHA-P	RODUCTION CROSS SECTIO	:=====================================
145	14.0	MEV				2	USA	C.R.FEAD	DOE DETERMINED.	781119F
				 TRON			M:	NEW REQUEST.	FUR RADIA IUN DAMAGE (======================================
146	9.00	MEV	14.0	MEV	10.0%	1	USA O: M:	C.R.HEAD FOR RADIATION D-T REACTOR NEW REQUEST.	DOE DAMAGE STUDIES OF NEXT DESIGNS.	781056F GENERATION
5 80RON 1	1		NEU	TRON		TOTAL	HELIU	M-PRODUCTION CR	OSS SECTION	
147	9.00	MEV	14.0	MEV	10.0%	1	USA D: M:	C.R.HEAD FOR RADIATION D-T REACTOR New Request.	DOE DAMAGE STUDIES OF NEXT DESIGNS.	781065F Generation
5 BORÓN X	====== 1		======== PRO	 TON		P,N				***********
148	500.		2.00	=====	10.08	1				7810755
	5001		2000			•	A: 0: M:	ACCURACY 10.0 REQUIRED. FOR ADVANCED F NEW REQUEST.	PC RELATIVE, 30.0 PC A UEL FUSION DEVICES.	BSOLUTE
5 BORON 1	1	==================		====== HA ======		ALPHA	, N .			12
149	500.	KEV	2.00	MEV	10:0%	1	USA A: D: M:	C.F.HEAD Accuracy 10.0 Required. For Advanced F New Request.	DOE PC RELATIVE, 30.0 PC A UEL FUSION DEVICES.	781077F IBSOLUTE
5 BORON 1	1 1 1		ALP	===== HA ======		AL PHA	•P			*************
150	500.	KEV	2.00	MEV	10.0%	1	USA A: D: N:	C.R.HEAD ACCURACY 10.0 REGUIRED. FOR ADVANCED F NEW REQUEST.	DOE PC RELATIVE, 30.0 PC A UEL FUSION DEVICES.	781076F BSOLUTE

6 CARBON		======= =======	NEU	TRON	=======================================	TOTAL	CROSS	
151	20.0	MEV	50.0	MEV	10.0%	1	USA	C.F.HEAD DOE 781003E
							Α:	ACCURACY REQUIRED 10 TO 15 PERCENT.
							0: M:	FOR SHIELD DESIGN IN FMIT FACILITY. New request.
6 CARBON		======	NEU	===== TRON		DIFFE	RENTIAL	L ELASTIC CROSS SECTION
				20232				
152	20.0	MEV	50.0	MEV	10.0%	1	USA	C.R.HEAD DOE 781006F
							A:	ACCURACY REQUIRED 10 TO 15 PERCENT. For shield design in fmit facility.
							M :	NEW REQUEST.
STATUS							SEE 400	STATUS
=============		======						
6 CARBON	******		NEU	TRON		NON-E	LASTIC	CROSS SECTION
153	20.0	MEV	50.0	MEV	10.0*			
100	20.0	MEV	50.0		10.0%	1	USA A:	ACCURACY REQUIRED 10 TO 15 PERCENT.
							0:	FOR SHIELD DESIGN IN FMIT FACILITY. New request.
			=========	=====	================	======		
=========		======	**********	TRON		======		UCTION CRUSS SECTION IN INCLASTIC SCAT.
154	5.00	MEV	20.0	MEV	5.0%	1	USA	F.G.FEREY ORL 741177R
							Q :	ANGULAR DISTRIBUTION AT 4 OR MORE ANGLES REQUIRED
							м:	FUR 4.43 MEV GAMMA. New Request.
6 CARBON			NEU	TRON	**********	ENERG	Y-ANGLE	E DIFF. NEUTRON-EMISSION CROSS SECTION
				=====				▋▖▖▋▌▝▖▖▖▋▋▋▋▋▖▖▊▌▋▋▋▋▋▋▌▖▖▖▖▋▋▖▋▖▖▖▋▋▌▖▖▖▋▋▋▖▖▋▋
155	9.00	MEV	14.0	MEV	10.0%	1	USA	C.R.HEAD DDE 781043F
							0:	FOR SHIELDING, ACTIVATION AND TPANSPORT STUDIES OF NEXT GENERATION D-T REACTOR DESIGNS.
							м:	NEW REQUEST.
6 CARBON			NEU	TRON		ENERG	Y-ANGLE	E DIFF. PROTON-PRODUCTION CROSS SECTION
156	14.0	MEV				2	USA	C.R.HEAD DDE 781136F
								ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCULATIONS.
				=====		-====		
6 CARBON			NEU ========	TRON =====		ENERG	SY-ANGL	E DIFF. ALPHA-PRODUCTION CROSS SECTION
157	14.0	MEV				2		C. R. NEAD DOE 791115E
151	1400	ML V				2	A:	ACCURACY TO BE DETERMINED.
							0: M:	DATA REQUIRED FOR RADIATION DAMAGE CALCULATIONS. New request.
2=====================================		=======	========					
			======	22222		======		Gen-Pruductium (russ sectium Ingen-engenering and and an
158	9.00	MEV	14.0	MEV	10.0%	1 .	USA	C.R.HEAD DOE 781052F
							0:	FOR RADIATION DAMAGE STUDIES OF NEXT GENERATION
							м:	NEW REQUEST.
6 CARBON	======	=====\$	NEU	===== TRON		TOTAL	HELIU	M-PRODUCTION CROSS SECTION
8===268==	=====	=======			22725212372	*****		
159	9.00	MEV	14.0	MEV	10.0%	1	USA	C.R.HEAD DOE 781061F.
							• 0:	FOR RADIATION DAMAGE STUDIES OF NEXT GENERATION D-T REACTOR DESIGNS.
							M:	NEW REQUEST.
6 CARBON		========	ALP	HA =====		ALPHA	A,N	
160	100.	KEV	6.50	MEV	6.0%	2	USA	R.B.WALTON LAS 781169N
							A:	RELATIVE ERROR OF 3.0 PERCENT NEEDED.
							М:	NEW REQUEST.
6 CARBON	12		NEU	TRON		DIFFE	RENT I A	L ELASTIC CROSS SECTION
==========								
161	8.00	MEV	15.0	MEV	10.0%	2	ССР	I.N.GOLOVIN KUR 724016F
							0:	NEUTRON TRANSMISSION CALCULATIONS.
STATUS			IS REVIE	 W RY		ANDC -	SEE 40	
=======	520253			=====				

6 CARBON	12	NEUTRON		INELA	STIC C	ROSS SECTION	
162	8.00 MEV	15.0 MEV	10. %	2	JAP	Y.SEKI JAE 76200	54F
					o:	INELASTICALLY SCATTERED NEUTRON SPECTRA REQUIRED WITH INCIDENT ENERGY STEPS 0.5 MEV. NEUTRON TRANSPORT CALCULATIONS	>
==========				======			-==
6 CARBON	12	NEUTRON	 ================	N, ALF	PHA =======		===
			_				
163	UP TO	15.0 MEV	15.0%	2	ССР	I.N. GOLOVIN KUR 72401	175
					0:	NEGTRUN ABSURPTION CALCULATIONS.	
164	UP TO	30.0 MEV	10.0%	2	USA	R.S.CASWELL NBS 7611	11R
					a:	MEASUREMENT AT THRESHOLD AND SEVERAL ENERGIES	
					0:	NEEDED FOR ENERGY DEPOSITION CALCULATIONS FOR	
					м:	NEW REQUEST.	
CARBON	12	NEUTRON		====== N+N34			
=========				======			
165	ир то	15.0 MEV	15.0%	2	ССР		18F
				-	 Q:	SECONDARY NEUTRON ENERGY DISTRIBUTION REQUIRED	
					0:	AT 14. MEV. FOR BLANKET NEUTRONICS CALCULATIONS.	
166	UP TO	20.0 MEV	15.0%	1	USA	F.G.PEREY DRL 74117	74R
					М:	NEW REQUEST.	
167	UP TO	30.0 MEV	10.0%	1	USA	R.S.CASWELL NBS 7611	12R
					Q:	MEASUREMENT AT THRESHOLD AND SEVERAL ENERGIES	
					0:	THROUGHOUT THE RANGE SHOULD BE SUFFICIENT. NEEDED FOR ENERGY DEPOSITION CALCULATIONS FOR	
					м:	RADIOTHERAPY. New request.	
168	UP TO	15.0 MEV	15. %	2	JAP	Y.SEKI JAE 76200	55F
					Q:	TOTAL ALPHA PRODUCTION CROSS SECTION AND SECOND/ NEUTRON ENERGY SPECTRUM REQUIRED.	ARY
					·0:	NEUTRON TRANSPORT AND HELIUM ACCUMULATION CALC.	
232522222				2 2 ± = = 5		***************************************	
6 CARBON	12	ALPHA		ALPHA			
6 CARBON	12			ALPHA			
6 CARBON	12 UP TO	ALPHA 7.00 MEV	30.0X	ALPHA	UK	C.G.CAMPBELL WIN 7921	=== 14R
6 CARBON	12 UP TO	ALPHA	30.0X	ALPHA ====== 2	UK	C.G.CAMPBELL WIN 7921 A.WHITTAKER UKW	=== 14R
6 CARBON	12 UP TO	ALPHA	30.0X	ALPHA ====== 2	UK 0: M:	C.G.CAMPBELL WIN 7921 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST.	===
6 CARBON	UP TO	ALPHA 7.00 MEV	30.0X	2	UK 0: M:	C.G.CAMPBELL WIN 7921 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST.	=== L 4 R :==
6 CARBON 169 6 CARBON	12 UP TO	ALPHA	30.0X	2 2 2 ALPHA ALPHA	UK 0: M:	C.G.CAMPBELL WIN 7921 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST.	= = = 1 4 R : = =
6 CARBON 169 6 CARBON	12 UP TO 13	ALPHA	30.0X			C.G.CAMPBELL WIN 7921 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST.	=== 1 4 R :== :==
6 CARBON 169 6 CARBON 170	12 UP TO 13 UP TO	ALPHA 7.00 MEV ALPHA 10.0 MEV	30.0X	2 2 4 4 2 4 2 2 2	UK 0: M: N.N JAP	C.G.CAMPBELL WIN 7921 A.WHITTAKER UKW 7921 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST.	=== 1 4 R === 70 R
6 CARBON 169 6 CARBON 170	12 UP TO 13 UP TO	ALPHA 7.00 MEV ALPHA 10.0 MEV	30.0X	2 2 AL PHA AL PHA 2 2	UK D: M: JAP Q:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPEFIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEY TO 10 MEV.	=== 14R === 70R
6 CARBON 169 6 CARBON 	12 UP TO 13 UP TO	ALPHA 7.00 MEV ALPHA 10.0 MEV	30.0X	2 2 AL PHA AL PHA 2 2	UK 0: M: M: JAP Q: 0:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON	==== 1 4 R ==== 70 R
6 CARBON 169 6 CARBON 170	12 UP TO 13 UP TO	ALPHA 7.00 MEN ALPHA 10.0 MEN	30.0X	2 2 AL PHA AL PHA 2	UK 0: M: JAP 0: 0:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79207 EXPEFIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS.	=== 14R === 70R
6 CARBON 169 6 CARBON 5 CARBON 170	12 UP TO 13 UP TO	ALPHA 7.00 MEV ALPHA 10.0 MEV	30.0X	2 2 AL PHA AL PHA 2	UK 0: M: JAP 0: 0: M:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPEFIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST.	=== 1 4 R === 70 R
6 CARBON 169 6 CARBON 170 170	12 UP TO 13 UP TO	ALPHA 7.00 MEV ALPHA 10.0 MEV	30.0X	2 2 ALPHA ALPHA 2 2 2	UK 0: M: JAP 0: 0: M:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR REUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST.	==== 1 4 R ==== 70 R :L
6 CARBON 169 6 CARBON 170 170	12 UP TO 13 UP TO	ALPHA 7.00 MEV ALPHA 10.0 MEV NEUTRON	30.0X	2 2 AL PHA 2 2 2 2 2 2	UK O: M: JAP O: O: M: JRE CRO	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SUBRCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST.	==== 1 4 R ==== 70 R :==
6 CARBON 169 6 CARBON 170 170 170 171	12 UP TO 13 UP TO N 1.00 KEV	ALPHA 7.00 MEV ALPHA 10.0 MEV	30.0X 20.0X	2 2 ALPHA 2 2 2 2 CAPTU	UK U: M: JAP Q: O: URE CRO	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 70211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. 79201 N.YAMANO SAE 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. SS SECTION	==== 14R ==== 70R === :=== ;===
6 CARBON 169 6 CARBON 170 170 171	12 UP TO 13 UP TO N 1.00 KEV	ALPHA 7.00 MEV ALPHA 10.0 MEV NEUTRON	30.0X 20.0X	2 2 AL PHA 2 2 2 CAPTU	UK 0: M: JAP 0: 0: VRE CRO USA 0:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 70211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. 79201 N.YAMANO SAE 79201 EXPEFIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED.	==== 14R ==== 70R EL :===)9R
6 CARBON 169 6 CARBON 170 170 171	12 UP TO 13 UP TO N 1.00 KEV	ALPHA 7.00 MEV ALPHA 10.0 MEV NEUTRON	30.0X 20.0X	2 2 AL PHA 2 2 2 CAPTU	UK 0: M: JAP 0: 0: M: VEE CRO USA 0: A:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT.	==== 1 4 R ==== 70 R :=== :===)9 R
6 CARBON 169 6 CARBON 170 170 170 171 171 171	12 UP TO 13 UP TO N 1.00 KEV	ALPHA 7.00 MEV ALPHA 10.0 MEV NEUTRON 1.00 MEV	30.0X 20.0X	2 2 ALPHA 2 2 2 CAPTU 2 2 DIFFE	UK UK JAP Q: USA Q: IRE CRO USA Q: A: RENTIA	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SUURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT.	==== 1 4R ==== 70 R === :===)9 R
6 CARBON 169 6 CARBON 170 170 171 171 7 NITROGE	12 UP TO 13 UP TO N 1.00 KEV	ALPHA 7.00 MEV ALPHA 10.0 MEV NEUTRON 1.00 MEV	30.0X 20.0X	2 2 ALPHA 2 2 2 2 2 2 2 2 2 2 2 2	UK O: M: JAP Q: O: M: VEC CRO USA Q: A: RENTIA	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMAND SAE 79207 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SURCE. FOR VEUTRON SHIELDING AND EVALUATION OF NEUTRON SURCE. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT.	==== 1 4R ==== 70R === .===)9R .===
6 CARBON 169 6 CARBON 170 170 171 7 NITROGE 171 172	12 UP TO 13 UP TO N 1.00 KEV N 14 1.00 MEV	ALPHA 7.00 MEV ALPHA 10.0 MEV NEUTRON 1.00 MEV	30.0X 20.0X 10.0X	2 2 ALPHA 2 2 2 CAPTU 2 DIFFE	UK O: M: JAP O: O: VRE CRO USA Q: A: RENTIA FR	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 70211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. 79201 N.YAMANO SAE 79201 EXPEFIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT. A.MICHAUDON BRC 69201	==== 1 4R ==== 70 R === 1 5R
6 CARBON 169 6 CARBON 170 170 170 171 7 NITROGE 171 171 172	12 UP TO 13 UP TO N TO 1.00 KEV N 14 1.00 MEV	ALPHA 7.00 MEV ALPHA 10.0 MEV 10.0 MEV NEUTRON 1.00 MEV	30.0X 20.0X 10.0X	2 ALPHA ALPHA 2 2 2 CAPTU 2 DIFFE	UK D: M: JAP Q: O: VICE CRO USA Q: A: SRENTIA: FR A:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. 79201 N.YAMANO SAE 79201 EXPEFIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT. L ELASTIC CROSS SECTION A.MICHAUDON BRC 69201	==== 14R ==== 70R === 15R
6 CARBON 169 6 CARBON 170 170 170 171 7 NITROGE 171 171 172	12 UP TO 13 UP TO N 1.00 KEV N 14 1.00 MEV	ALPHA 7.00 MEV ALPHA 10.0 MEV NEUTRON 1.00 MEV NEUTRON 1.00 MEV	30.0X 20.0X 10.0X 20.0X	2 2 AL PHA 2 2 2 CAPTU 2 DIFFE	UK D: M: JAP Q: D: VSA Q: A: SRENTIA: FR A:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT. LELASTIC CROSS SECTION A.MICHAUDON BRC 69201 AVERAGE (1-COS) ACCURACY 10 PERCENT. ANGULAR RESOLUTION - 2.5 DEGREES UP TO 20 DEGREES.	==== 14R ==== 70R ====)9R ==== 15R :S,
6 CARBON 169 6 CARBON 170 170 170 171 7 NITROGE 171 172	12 UP TO 13 UP TO N 1.00 KEV N 1.00 KEV	ALPHA 7.00 MEV ALPHA 10.0 MEV 10.0 MEV 1.00 MEV 1.00 MEV	30.0X 20.0X 10.0X 20.0X	2 2 ALPHA 2 2 CAPTU 2 DIFFE	UK UK U: JAP Q: O: VEE CRO USA Q: A: FR A: O:	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SUBRCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT. A.MICHAUDON BRC 69201 AVERAGE (1-COS) ACCURACY 10 PERCENT. ANGULAR RESOLUTION - 2.5 DEGREES UP TO 20 DEGREES FOR ALCALING. NEW EVALUATION TO BE DONE IF NEW EXPERIMENTAL	==== 14R ==== 70R === 15R :=== 15R :S•
6 CARBON 169 6 CARBON 170 170 170 171 7 NITROGE 171 172	12 UP TO 13 UP TO N 1.00 KEV N 14 1.00 MEV	ALPHA 7.00 MEV ALPHA 10.0 MEV 10.0 MEV 1.00 MEV 1.00 MEV	30.0X 20.0X	2 2 AL PHA 2 2 CAPTL 2 2 DIFFE	UK 0: M: JAP 0: 0: 0: VEC CRO USA 0: CENTIA: FR A: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. SS SECTION SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT. A.MICHAUDON BRC 69201 AVERAGE (1-CDS) ACCURACY 10 PERCENT. ANGULAR RESOLUTION - 2.5 DEGREES UP TO 20 DEGREES FOR ALCLATION TO BE DONE IF NEW EXPERIMENTAL DATA.	==== 14R ==== 70R ==== 15R :=== 15R :S,
6 CARBON 169 6 CARBON 170 170 170 171 7 NITROGE 172 7 NITROGE 172	12 UP TO 13 UP TO 1.00 KEV N 14 1.00 MEV	ALPHA 7.00 MEV ALPHA 10.0 MEV 10.0 MEV NEUTRON 1.00 MEV NEUTRON 15.0 MEV	30.0X 20.0X 10.0X 20.0X	2 2 ALPHA 2 2 2 CAPTU 2 DIFFE 2 2	UK UK JAP O: O: NE CRO USA Q: A: RENTIA: FR A: O: PHOTOI	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMAND SAE 79207 EXPEFIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT. A.MICHAUDON BRC 69201 AVERAGE (1-COS) ACCURACY 10 PERCENT. A.MICHAUDON BRC 69201 AVERAGE (1-COS) ACCURACY 10 PERCENT. A.MICHAUDON TO BE DONE IF NEW EXPERIMENTAL DATA. N PRODUCTION CROSS SECTION	==== 14R ==== 70R ====)9R ==== 15R :=== 15R
6 CARBON 169 6 CARBON 170 170 7 NITROGE 171 7 NITROGE 172 7 NITROGE	12 UP TO 13 UP TO 1.00 KEV N 14 1.00 MEV	ALPHA 7.00 MEV ALPHA 10.0 MEV 10.0 MEV 1.00 MEV 1.00 MEV 1.00 MEV	30.0X 20.0X 10.0X	AL PHA 2 AL PHA 2 2 CAPTU 2 DIFFE 2 2	UK D: M: JAP Q: C: VRE CRO USA Q: A: FR A: C: PHOTOI	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 7900 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESONANCE PARAMETERS NEEDED. RESONANCE PARAMETERS NEEDED. RESONANCE PARAMETERS NEEDED. A.MICHAUDON BRC 69201 AVERAGE (1-COS) ACCURACY 10 PERCENT. ANICHAUDON BRC 69201 AVERAGE (1-COS) ACCURACY 10 PERCENT. ANICHAUDON TO BE DONE IF NEW EXPERIMENTAL DATA.	==== 14R ==== 70R === === 15R === 15R === ===
6 CARBON 169 6 CARBON 170 7 NITROGE 171 7 NITROGE 172 7 NITROGE 173	12 UP TO 13 UP TO 100 TO 1.00 KEV N 14 1.00 MEV N 14	ALPHA 7.00 MEV ALPHA 10.0 MEV NEUTRON 1.00 MEV 1.00 MEV NEUTRON 15.0 MEV	30.0X 20.0X 10.0X 20.0X	AL PHA 2 2 AL PHA 2 2 2 CAPTU 2 2 DIFFE 2 2 2	UK O: M: JAP Q: O: USA Q: A: FR A: O: FR A: O: FR	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79207 EXPERIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESONANCE PARAMETERS NEEDED. RESOLUTION 20 PERCENT. L ELASTIC CROSS SECTION A.MICHAUDON BRC 69201 AVERAGE (1-COS) ACCURACY 10 PERCENT. ANGULAR RESOLUTION - 2.5 DEGREES UP TO 20 DEGREES FOR AIR SCATTERING CALCULATION. NEW EXPERIMENTAL DATA. N PRODUCTION CROSS SECTION C.PHILIS BRC 79200	==== 14R ==== 70R ====)9R ==== 15R === 15R ==== 12R
6 CARBON 169 6 CARBON 170 7 NITROGE 171 7 NITROGE 172 7 NITROGE 172 173	12 UP TO 13 UP TO 1.00 KEV N 14 1.00 MEV N 14 1.00 KEV	ALPHA 7.00 MEV ALPHA 10.0 MEV 10.0 MEV 10.0 MEV 10.0 MEV 10.0 MEV 10.0 MEV	30.0X 20.0X 10.0X	AL PHA 2 AL PHA 2 2 CAPTU 2 DIFFE 2 2 1	UK UK U: JAP Q: O: VEE CRO VEE CRO USA Q: A: FR A: O: FR A: O: FR A: O: C: C: C: C: C: C: C: C: C: C	C.G.CAMPBELL WIN 79211 A.WHITTAKER UKW 79211 FOR FAST REACTORS AND FOR FUEL REPROCESSING. NEW REQUEST. N.YAMANO SAE 79201 EXPEFIMENTAL DATA WANTED. ANGULAR DISTRIBUTION ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV. FOR NEUTRON SHIELDING AND EVALUATION OF NEUTRON SOURCE. FOR EVALUATION OF NEUTRON ENERGY SPECTRUM IN FUE RECYCLE PROCESS. NEW REQUEST. SS SECTION P.B.HEMMIG DOE 74100 RESOLUTION 20 PERCENT. L ELASTIC CROSS SECTION A.MICHAUDON BRC 69201 AVERAGE (1-COS) ACCURACY 10 PERCENT. A.MICHAUDON BRC 69201 AVERAGE (1-COS) ACCURACY 10 PERCENT. AMICHAUDON BRC 69202 AVERAGE (1-COS) ACCURACY 10 PERCENT. AMICHAUDON BRC 69202 AVERAGE (1-COS) ACCURACY 10 PERCENT. AMICHAUDON BRC 69202 AVERAGE (1-COS) SECTION C.PHILIS BRC 79200 EVALUATION SUFFICIENT	==== 14R ==== 70R ====)9R ==== 15R === 15R === 15R === 12R

7 NITPOGE	N 14		NEU	TRON		NEUTR	ON ENI	SSION CROSS SECTION
174	4.00	MEV	15.0	MEV	20.0%	2	FR	A.MICHAUDON BRC 692017
							0: A: 0:	SECONDARY ENERGY-ANGLE DISTRIBUTIONS REQUIRED. AVERAGE (1-CDS) ACCURACY 10 PERCENT. FOR AIR SCATTERING CALCULATION. NEW EVALUATION TO BE DONE IF NEW EXPERIMENTAL DATA.
7 NITROGE	N 14	=======	NEU	TRON	*********	ENERG	Y-ANGL	E DIFF. NEUTRON-EMISSION CROSS SECTION
1 75	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD DOE 781085
							0: M:	DATA NEEDED FOR SHIELDING, ACTIVATION AND NEUTRON TRANSPORT CALCULATIONS. New request.
7 NITROGE	====== N 14	======================================	====== NEU =======		==================	ENERG	Y-ANGL	E DIFF. PROTON-PRODUCTION CROSS SECTION
176	14.0	MEV				2	USA	C.R.HFAD DOF 781151
				•		-	A: 0: M:	ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCULATIONS. NEW REQUEST.
7 NITROGE	N 14		======= NEU =======	TRON		ENERG	Y-ANGL	E DIFF. ALPHA-PRODUCTION CROSS SECTION
177	14.0	MEV				2	USA	C.R.HEAD DOE 781130
							A: 0: M:	ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCULATIONS. New request.
7 NITROGE	N 14		===== NEU	TRON		TOTAL	HYDRO	GEN-PRODUCTION CROSS SECTION
								•
178	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD DOE 781109
					,		0: M:	SENSITIVITY STUDIES FOR RADIATION DAMAGE CALCULATIONS. NEW REQUEST.
7 NITROGE	N 14	=======	SECRET	TRON		TOTAL	HELIU	M-PRODUCTION CROSS SECTION
179	9.00	MEV	1420	MEV	10.0X	2	USA A:	C.R.FEAD DOE 781097 ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES
							M:	NEW REQUEST.
7 NITROGE	N 14			HA ========		ALPHA	,N	
180	u		7.00	MEV	30.0*	3	UK	
						U	0: M:	FOR FUEL REPROCESSING. NEW REQUEST.
B OXYGEN		=======	++++++++++++++++++++++++++++++++++++++	TRON		TOTAL	CROSS	SECTION
1.01	20.0	MEN	50.0					C 0 1510
181	20.0	MEV	50.0	MEV	10.0%	1	USA A:	ACCURACY REQUIRED 10 TO 15 PERCENT.
							0: M:	FOR SHIELD DESIGN IN FMIT FACILITY. NEW REQUEST.
8 OXYGEN			====== NEU	TRON		ELAST	IC CRO	SS SECTION
182	5-00	KEV	10.0	MEV	5.04		US A	N.STEEN DET
102	3.00	RE V	10.0	M E V	5104	·	034	TO RESOLVE DISCREPANCIES BETWEEN CALCULATED AND MEASURED MULTIPLICATION FACTORS IN SMALL CRITICAL FACILITIES.
							. M 	NEW REQUEST.
8 OXYGEN			NEU	TRON		DIFFE	RENTIA	L ELASTIC CROSS SECTION
183	10.0	KEV	16.0	MEV	5.0%	1	USA	P.B.HEMMIG DOE 661028
							0:	NEEDED FOR FAST REACTOR REFLECTOR WORTHS.
184	100.	KEV	15.0	MEV		2	SWD	H.HAEGGBLOM AE 712004
. •							A:, 0:	5 PERC. BETWEEN 100 KEV- 4 MEV. 10 PERC. BETWEEN 4-15 MEV. For fast reactor calculations.
185	5.00	KEV	10.0	MEV	5.0%	1	USA	N.STEEN BET 761051
							0: M:	TO RESOLVE DISCREPANCIES BETWEEN CALCULATED AND MEASURED MULTIPLICATION FACTORS IN SMALL CRITICAL FACILITIES. New Request.

						DIECE			
B DXTGEN		******	NEU	======		======			
186	10.0	KEV	20.0	MEV	5.0%	1	USA O:	S.VISNER CBE IMPROVED LEAKAGE CALCULATIONS FOR U-	761073R 233 AND U-235
							м:	NEW REQUEST.	
187	20.0	MEV	50.0	MEV	10.0%	1	USA	C.R.HEAD DOE	781206F
							A : 0 : M :	ACCURACY REQUIRED 10 TO 15 PERCENT. FOR SHIELD DESIGN IN FMIT FACILITY. NEW REQUEST.	
8 OXYGEN	*******		====== NEU	====== TRON		====== NON-E	LASTIC	CROSS SECTION	

188	20.0	MEV	50.0	MEV	10.0%	1	USA	C.R.HEAD DOE	781208F
							A: 0: M:	ACCURACY REQUIRED 10 TO 15 PERCENT. FOR SHIELD DESIGN IN FMIT FACILITY. NEW REQUEST.	
8 OXYGEN			NÉU	TRON		TOTAL	. PHOTO	PRODUCTION CRDSS SECTION	
189	1.00	KEV	15.0	MEV	10.0%	2	FR O:	A.MICHAUDON BRC	742028R
				======					==================
8 OXYGEN			NEU	TRON		ENER	GY-ANGL	DIFF. NEUTRON-EMISSION CROSS SECTIO	N ====================================
190	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD DOE	781089F
							0:	DATA NEEDED FOR SHIELDING, ACTIVATIO TRANSPORT CALCULATIONS.	N AND NEUTRON
								NEW #EQUESI.	
8 OXYGEN		=======	NEU	TRON		ENERG	GY-ANGL	DIFF. PROTON-PRODUCTION CROSS SECTI	ON ===================
191	14.0	MEV				2	USA	C.R.HEAD DOE	781155F
							A: D:	ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE C.	ALCULATIONS.
								NEW REQUEST.	
8 DXYGEN			NEU	TRON		ENERG	SY-ANGL	DIFF. ALPHA-PRODUCTION CROSS SECTIO	N ====================================
192	14.0	MEV				2	USA	C.R.HEAD DOE	781134F
							A: 0:	ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE C.	ALCULATIONS.
							M:	NEW REQUEST.	
8 OXYGEN			NEU	TRON		TOTAL	HYDRO	GEN-PRODUCTION CROSS SECTION	
193	9.00	MEV	14.0	MEV	10.0%	2	USA		781113F
						-	A:	ACCURACY FROM 10. TO 50. PC TO BE DE	TERMINED FROM
							C: M:	FOR RADIATION DAMAGE CALCULATIONS. New REQUEST.	
8 OXYGEN		******	NEU	====== TRON			HELIU		
				======	********				
194	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD DDE	781101F
							A: 0: M:	ACCURACY FROM 10. TO 50. PC TO BE DE Sensitivity Studies For Radiation Damage Calculations. New Request.	TERMINED FROM
8 DXYGEN			ALP	====== HA ======		ALPHA			
								·	
195	U	Р ТО	15.0	MEV	20.0%	3	FR D:	L.COSTA CAD	762138R
								INHERENT SOURCE IN-CORE	
196	U	9 TO	10.0	MEV	20. X	2	SWD	H. HAEGGELOM AE	762162N
					. -:	-	U:	STRUM DUFFUL OF SULIDIFIED NUCLEAR	HAJIE
197	100.	KEV	6.50	MEV	6.0%	2	USA	R.B.WALTON LAS	781170N
							X: M:	RELATIVE ERFOR OF 3.0 PERCENT NEEDED ALPHA ENERGY RESOLUTION 100 KEV. New Request.	•
198	U	р то	7.00	MEV	30.0%	1	ÚK	C.G.CANPBELL WIN	792119R
							0: M:	FOR FAST REACTORS AND FOR FUEL REPRO	CESSING
199	4.40	MEV	6.10	MEV	30.0%	2	GER	H. KUESTERS K FK	792254R
							Q:	THICK-TARGET YIELD FOR UD2 OR PUD2. Measurement wanted.	
				82230-1			0: M:	NEUTRON EMISSION FROM FUEL. New request.	

B OXYGEN	16	NEUTRON	*==========	TOTAL	CROSS	SECTION	
					=====		==
200	5.00 KEV	10.0 MEV		2	ССР	L.N.USACHEV FEI 75401	6R
					Α:	FROM 5.0 - 100 KEV ACCURACY 10 PERCENT. FROM 0.1 - 0.8 MEV ACCURACY 6 PERCENT. FROM 0.8 - 4.5 MEV ACCURACY 10 PERCENT.	
					0: M:	ABOVE 4.5 MEV REQUIREMENTS 2 TIMES WEAKER. NEED FOR FAST REACTOR CALCULATIONS. FOR MORE DETAIL SEE INTRODUCTION. SUBSTANTIAL MODIFICATIONS.	
8 OXYGEN	16	NEUTRON		N, ALPH	A =======		== ==:
	40 TO			_		, 	
201	00 10	30.0 MEV	10.0%	2	05A 0:	R.S.CASWELL NBS 76111 MEASUREMENT AT THRESHOLD AND SEVERAL ENERGIES	3R
					0: M:	THROUGHOUT THE RANGE SHOULD BE SUFFICIENT. NEEDED FOR ENERGY DEPOSITION CALCULATIONS FOR RADIOTHERAPY. NEW REQUEST.	
202	7.50 MEV	15.0 MEV	15 . X	2	JAP	Y.SEKI JAE 76206	6F
					a: 0:	TOTAL ALPHA PRODUCTION CROSS SECTION Helium accumulation calc. In LI-DXIDE Blankets	
							:==
8 OXYGEN	16	NEUTRON		N.NALP	HA ======		==
203	UP TO	30.0 MEV	10,0%	2	USA	R.S.CASWELL NBS 76111	4R
					Q:	MEASUREMENT AT THRESHOLD AND SEVERAL ENERGIES	
					0: M:	NEEDED FOR ENERGY DEPOSITION CALCULATIONS FOR RADIOTHERAPY. NEW REQUEST.	
204	UP TO	15.0 MEV	15. X	2	JAP	Y. SEK I JAE 76206	•7F
					Q: 0:	SECONDARY NEUTRON ENERGY SPECTRA REQUIRED. CALCULATION OF NEUTRON TRANSPORT AND HELIUM ACCUMULATION IN LI-OXIDE BLANKETS	
8 OXYGEN	16	NEUTRON		N, N4 AL	EEEEEE Pha	\$ = = = = = = = = = = = = \$ = = = = = =	-==
********		***************				======================================	==
205	UP TO	30.0 MEV	10.0%	1 1	USA	R.S.CASWELL NBS 76111	58
					Q:	AT LEAST DNE MEASUREMENT URGENTLY NEEDED FOR NORMALIZATION. MEASUREMENT AT THRESHOLD AND SEVERAL ENERGIES THROUGHOUT THE RANGE SHOULD BE SUFFICIENT.	
					U: M:	RADIOTHERAPY. NEW REQUEST.	
========		=================			=====	\$ # = = = = = = = = = = = = = = = = = =	:==
8 OXYGEN	16	TRITON		T.N =======			:==
206	UP TO	12.0 MEV	10.0%	2	JAP		'1F
					Q:	EXPERIMENTAL DATA WANTED.	
					ô:	FOR PRECISE ESTIMATION OF LI20 BURNUP IN CTR BLANKET. FOR EVALUATION OF NUMBER OF 0 18 ATOMS FROM BETA PLUS DECAY OF F 18 PRODUCED THROUGH	
					м:	U 16 (T,N) F 18. New Request.	
							==
=======		NEUTRUN			=====	55 SECTION 	:==
207	25.3 MV			2	CAN	G.C.HANNA CRC 69180)1R
					A: 0:	ACCURACY 0.2 BARNS. For understanding absorption in heavy water.	
8 OXYGEN	17	NEUTRON		N, ALPH	====== A		:==
208	25.3 MV	15.0 MEV	30.0%	2	JAP	T.KAWAKITA MAP 79207	'3R
					0: M:	FOR EVALUATED DATA WANTED. FOR EVALUATION OF QUANTITY OF C 14 FROM OXIDE FU IN FAST REACTOR. BOTH EVALUATIONS AND MEASUREMEN ARE SCARCE. NEW REQUEST.	JËL ITS
8 OXYGEN	17	ALPHA		ALPHA,	====== N		:==
							.==
209	UP TO	10.0 MEV	20.0%	2	JAP ^•	N.YAMANO SAE 79207 EXPERIMENTAL DATA WANTED, ANGULAR DISTRICTION	72R
					v. 	ALSO REQUIRED. REQUIRED NEUTRON ENERGIES ARE 100 KEV TO 10 MEV.	
						SURCE. FOR EVALUATION OF NEUTRON ENERgy SPECTRU IN FUEL CYCLE PROCESS.	Л
					M:		

8 OXYGEN	18	===== =====	NEU	TRON		N,AL	PHA			
210	1.50	MEV			20.0%	2	SWD	J.ELKERT	AKA	792093R
							M:	NEW REQUEST.	FISSION SPECIRUM	
8 OXYGEN	18	===== =====	222222222 ALP	PHA		ALPH				
								_	_	
211	U	P TO	7.00	MEV	10.0%	3	USA A: D: M:	N.STEEN ALPHA ENERGY RES NEEDED FOR INTRI CORES. SUBSTANTIAL MODI	BET OLUTION 0.2 MEV. NSIC NEUTRON SOURCE FICATIONS.	661010R For Clean
212	4.00	MEV	7.50	MEV	30.0%	2	FR	8. DUCHEMIN	SAC	692029R
						-	Q: A: 0:	SECONDARY ENERGY RESOLUTION FOR E FOR SHIELDING OF NEW EVALUATION T DATA.	DISTRIBUTION REQUIR AND E', 1.0 MEV, ALPHA EMITTING SAMP D BE DONE IF NEW EXP	PLES. PLES. PERIMENTAL
213	U	P TO	10.0	MEV	20.0%	2	JAP	N. YAMANO	SAE	792074R
							Q: 0: M:	EXPERIMENTAL DAT ALSO REQUIRED. R 100 KEV TO 10 ME FOR NEUTRON SHIE SOURCE. FOR EVAL IN FUEL RECYCLE NEW REQUEST.	A WANTED. ANGULAR DI Equired Neutron Ener V. Lding and Evaluation Uation of Neutron En Process.	STRIBUTION GIES ARE I OF NEUTRON IERGY SPECTRUM
8 DXYGEN			======== ALF	PHA		 TOTA	L NEUTRO	N YIELD		
2222222			===========						=============================	*********
214	5.10	MEV	5.50	MEV	5. X	2	JAP Q: 0:	K.ONISHI ABSOLUTE NEUTRON DETECTION OF PU	PNC YIELD REQUIRED. By Neutron Coinciden	762041N
			======================================				ESESSES ECENTIAL		20000000000000000000000000000000000000	

215	1.00	MEV	15.0	MEV	10.0%	2	GER	D.DARVAS	JUL	722080F
							Q: D: M:	INCIDENT ENERGY CALCULATION OF N SUBSTANTIAL MODI	STEPS FROM 10 TO 20 EUTRON TRANSPORT. FICATIONS.	PERCENT .
216	2.00	MEV	15.0	MEV	10.0%	2	сср 0:	I.N.GOLOVIN USE IN COOLANT.	KUP	724019F
			=========== N\$1							
			322232222							
217	1.00	MEV	15.0	MEV	10.0%	2	GER	D.DARVAS	JUL	722081F
							Q: D: M:	INELASTIC EXCITA CALCULATION OF H ESTIMATES. SUBSTANTIAL MODI	TION FUNCTIONS REQUI EAT GENERATION AND S Fications.	RED. HIELDING
218	1.00	MEV	15.0	MEV	15.0%	2	ССР	I.N.GOLOVIN	KUR	724020F
							0:	NEUTRONICS CALCU	LATIONS FOR BLANKET	AND SHIELD.
219	1.00	MEV	15.0	MEV	10. X	3	JAP D:	Y.SEKI POTENTIAL CONSTI	JAE TUENT IN COOLANT.ELI	762068F
					•		•••	TRITIUM BREEDING	CALCULATIONS	
9 FLUORI	NE 19	===== =====	222322222 NEU 222222222	JTRON		ENER	GY-ANGLE	DIFFERENTIAL IN	ELASTIC CROSS SECTIO	: = = = = = = = = = = = = = = = = = = =
220		ME 1/			~~ ~~	•		D. DADWAC		2000075
220	1.00	MEV	15.0	MEV	20.0x	2	GER 0: M:	CALCULATION OF H ESTIMATES, SUBSTANTIAL MODI	JUL EAT GENERATION AND S FICATIONS.	722083F HIELDING
221	100.	KEV	20.0	MEV	15.0%	1	USA	F. G. PEREY	ORI	7411698
			2000			-	Q: M:	DATA AT 14 MEV A	ND BELOW 3.6 MEV REQ	WIRED.
									============================	
9 FLOURI	NE 19		NEU 888838888			AB50	=======		83708±#================	
222	25.3	MV	15.0	MEV	15.0%	2	CCP Q:	I.N.GOLOVIN ALL NEUTRON ABSO	KUR RPTION PROCESSES SHO	724021F
							0:	INCLUDED. NEUTRONICS CALCU COOLANT.	LATIONS AND ENERGY D	EPOSITION IN
223	25.3	MV	14.0	MEV	10.0%	2	FR Ot	B.DUCHEMIN UTILIZATION IN T	SAC	732008F
	• • •	ME	~~ ~							
224	2.00	MEV	20.0	MEV	5.0%	1	USA M:	REW REQUEST.	UKL	741170F

	=========================			ABSOR	PTICN (CROSS SECTION	*****************	(CONTINUED)
225	25.3 MV	15.0 MEV	10. *	٦	·14D	Y-SEY I	IAE	7620605
225	ESES MV		101 2	5	JAF 0:	POTENTIAL CONST	JAC TITUENT IN CODLANT.E	102009F
					0.	TRITIUM BREEDIN	NG CALCULATIONS	
9 FLUORI	======================================	NEUTRON		====== РНОТО	N PROD	UCTION CROSS SEC	CTION IN INELASTIC S	CAT.
	=======================================				=====	***************		
226	1.00 MEV	15.0 MEV	20.0%	2	GER	D.DARVAS	JUL	722084F
					٥:	ENERGY AND ANG	ULAR DISTRIBUTION OF	GAMMA RAYS
					0:	CALCULATION OF	HEAT GENERATION AND	SHIELDING
					м:	SUBSTANTIAL MOI	DIFICATIONS.	
9 FLUORI	======================================	NEUTRON	*********	TOTAL	PHOTO	N PRODUCTION CR	DSS SECTION	

227	500. KEV	15.0 MEV	15.0%	2	ССР	I.N.GOLCVIN	KUR	724022F
					Q: 0:	GAMMA RAY SPECT	TRA ALSO REQUIRED. Ing and shielding ca	LCULATIONS.
				======				
9 FLUORI	NE 19 =============	NEUTRON		N.2N				
000				-			5.45	7000075
220	01 40	14.0 MEV	20.0%	3	гч л•	B.DUCHEMIN		792003F
					м:	NEW REQUEST.	THE COLLARS	
9 FLUORI	 NE 19	NEUTRON		ENERG	Y-ANGL	E DIFF. NEUTRON-	-EMISSION CROSS SECT	
	==================							
229	9.00 MEV	14.0 MEV	10.0%	2	USA	C.R.HEAD	DOE	781087F
					0:	DATA NEEDED FOR	R SHIELDING, ACTIVAT	ION AND NEUTRON
				•	м:	NEW REQUEST.		
9 FLUORI	 NE 19	NEUTRON		 N,P				====================
230	UP TO	14.0 MEV	20.0%	з	FR	B. DUCHEMIN	SAC	792004F
					0: M:	UTILISATION IN	THE COOLANT	
				======	======			
9 FLUDRI	NE 19	NEUTRON		ENERG	Y-ANGL	E DIFF. PROTON-	PRODUCTION CROSS SEC	TION
9 FLUORI	NE 19	NEUTRON		ENERG	Y-ANGL	E DIFF. PROTON-	PRODUCTION CROSS SEC	781153E
9 FLUORI 231	NE 19 14.0 MEV			ENERG 2	Y-ANGL USA	C.R.HEAD	DOE DEE	781153F
9 FLUORI 231	NE 19	NEUTRON		2	Y-ANGL USA A: O: M:	C.R.HEAD C.R.HEAD ACCURACY TO BE DATA REQUIRED 1 NEW REQUEST.	DOE DOE DETERMINED. FOR RADIATION DAMAGE	781153F
9 FLUDRI 231	NE 19 14.0 MEV	NEUTRON		ENERG 2	USA A: O: M:	C.R.HEAD ACCURACY TO BE DATA REQUIRED 1 NEW REQUEST.	DOE DOE DETERMINED. FOR RADIATION DAMAGE	781153F
231 231 9 FLUORI	NE 19 14.0 MEV NE 19	NEUTRON NEUTRON		2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	USA A: 0: M: HA	E DIFF. PROTON- C.R.HEAD ACCUFACY TO BE DATA REQUIRED I NEW REQUEST.	DOE DOE DETERMINED. FOR RADIATION DAMAGE	781153F
9 FLUORI 231 9 FLUORI 9 FLUORI	NE 19 14.0 MEV NE 19 NE 19	NEUTRON NEUTRON	10.0%	2 2 N, ALP	USA A: O: M: HA GER	C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST.	DOE DOE DETERMINED. FOR RADIATION DAMAGE	781153F
9 FLUORI 231 9 FLUORI 232	NE 19 14.0 MEV NE 19 UP TO	NEUTRON NEUTRON 15.0 MEV	10.0X	2 2 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	USA A: O: M: HA GER	C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION	781153F CALCULATIONS. 722086F AND TRANSMISSION
231 231 9 FLUORI 9 FLUORI 232	NE 19 14.0 MEV NE 19 UP TO	NEUTRON NEUTRON 15.0 MEV	10 .0 X	2 2 N, ALP	Y-ANGL USA A: 0: M: HA GER 0: M:	C.R.HEAD ACCUFACY TO BE DATA REQUIRED I NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS.	781153F CALCULATIONS. 722086F AND TRANSMISSION
231 231 9 FLUORI 9 FLUORI 232	NE 19 14.0 MEV NE 19 UP TO	NEUTRON NEUTRON 15.0 MEV	10.0X	2 2 N, ALP 2	USA A: O: M: HA GER O: M:	C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS.	781153F CALCULATIONS. 722086F AND TRANSMISSION
231 231 9 FLUORI 232 232 233	NE 19 14.0 MEV NE 19 UP TO UP TO	NEUTRON NEUTRON 15.0 MEV 14.0 MEV	10.0x 20.0x	2 N, ALP 2 3	USA A: O: M: HA GER O: M: FR	E DIFF. PROTON- C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTIL ISATION IN	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE CODLANT	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F
231 231 9 FLUORI 232 232 233	NE 19 14.0 MEV NE 19 UP TO UP TO	NEUTRON NEUTRON 15.0 MEV 14.0 MEV	10.0X 20.0X	2 N, ALP 2 3	Y-ANGL 	C.R.HEAD ACCUFACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTIL ISATION IN NEW REQUEST.	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F
9 FLUORI 231 9 FLUORI 232 233 9 FLUORI	NE 19 14.0 MEV NE 19 UP TO UP TO UP TO	NEUTRON NEUTRON 15.0 MEV 14.0 MEV NEUTRON	10.0X 20.0X	2 N, ALP 2 3 ENERG	Y-ANGL USA A: 0: HA GER 0: M: FR 0: Y-ANGL	E DIFF. PROTON- C.R.HEAD ACCURACY TO BE DATA REQUIRED I NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTILISATION IN NEW REQUEST. E DIFF. ALPHA-P	DOE DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F
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9 FLUORI 231 9 FLUORI 232 233 233 9 FLUORI 234	NE 19 14.0 MEV NE 19 UP TO UP TO NE 19 14.0 MEV	NEUTRON NEUTRON 15.0 MEV 14.0 MEV NEUTRON	10.0X 20.0X	2 N, ALP 2 3 ENERG	Y-ANGL USA A: O: M: HA GER O: M: FR O: M: Y-ANGL	C.R.HEAD ACCUFACY TO BE DATA REQUIRED NEW REQUIST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTILISATION IN NEW REQUEST. C.R.HEAD	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT RODUCTION CROSS SECT DOE	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F
231 231 9 FLUORI 232 233 9 FLUORI 234	NE 19 UP TO UP TO NE 19 14.0 MEV	NEUTRON NEUTRON 15.0 MEV 14.0 MEV	10.0x 20.0x	2 N, ALP 2 3 ENERG	Y-ANGL USA A: 	C.R.HEAD ACCUFACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTIL ISATION IN NEW REQUEST. E DIFF. ALPHA-P C.R.HEAD ACCURACY TO BE DATA REQUIRED	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT RODUCTION CROSS SECT DOE DETERMINED. FOR RADIATION DAMAGE	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F 100 781132F CALCULATIONS.
9 FLUORI 231 9 FLUORI 232 233 9 FLUORI 9 FLUORI 234	NE 19 14.0 MEV NE 19 UP TO UP TO NE 19 14.0 MEV	NEUTRON NEUTRON 15.0 MEV 14.0 MEV	10.0x 20.0x	2 N, ALP 2 3 ENERG	Y-ANGL USA A: O: M: HA GER O: M: FR O: M: Y-ANGL Y-ANGL USA A: M:	C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW PEQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTIL ISATION IN NEW REQUEST. C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST.	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT RODUCTION CROSS SECT DOE DETERMINED. FOR RADIATION DAMAGE	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F 100 781132F CALCULATIONS.
9 FLUORI 231 9 FLUORI 232 233 9 FLUORI 234	NE 19 14.0 MEV NE 19 UP TO UP TO NE 19 14.0 MEV NE 19	NEUTRON NEUTRON 15.0 MEV 14.0 MEV NEUTRON	10.0X 20.0X	2 2 N, ALP 2 3 ENERG 2 2	Y-ANGL USA A: O: W: HA GER O: M: FR O: M: Y-ANGL USA A: O: W: HYDRO	C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTILISATION IN NEW REQUEST. C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST.	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT CODUCTION CROSS SECT DOE DETERMINED. FOR RADIATION DAMAGE	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F 10N 781132F CALCULATIONS.
9 FLUORI 231 9 FLUORI 232 233 9 FLUORI 234 9 FLUORI	NE 19 UP TO UP TO 14.0 MEV 14.0 MEV 14.0 MEV	NEUTRON NEUTRON 15.0 MEV 14.0 MEV NEUTRON	10.0x	2 N, ALP 2 3 ENERG . 2 TOTAL	Y-ANGL USA A: M: M: HA GER 0: M: FR 0: Y-ANGL USA A: M: HI Y-ANGL HI Y-ANGL	C.R.HEAD ACCUFACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTILISATION IN NEW REQUEST. C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST.	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT RODUCTION CROSS SECT DOE DETERMINED. FOR RADIATION DAMAGE	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F 100 781132F CALCULATIONS.
9 FLUORI 231 9 FLUORI 232 233 9 FLUORI 234 9 FLUORI 234	NE 19 14.0 MEV NE 19 UP TO UP TO NE 19 14.0 MEV NE 19 9.00 MEV	NEUTRON NEUTRON 15.0 MEV 14.0 MEV NEUTRON NEUTRON	10.0x 10.0x	2 N, ALP 2 3 ENERG 2 2 3 ENERG 2 2 3 2 2 3 2 2 3 2 2 3 2 2 3 2 2 2 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2	USA GER O: M: FR USA USA USA	C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTIL ISATION IN NEW REQUEST. C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST.	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT RODUCTION CROSS SECT DOE DETERMINED. FOR RADIATION DAMAGE CROSS SECTION	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F TON 781132F CALCULATIONS. 781111F
9 FLUORI 231 9 FLUORI 232 233 9 FLUORI 234 9 FLUORI 234	NE 19 14.0 MEV NE 19 UP TO UP TO UP TO 14.0 MEV 14.0 MEV NE 19 9.00 MEV	NEUTRON NEUTRON 15.0 MEV 14.0 MEV NEUTRON NEUTRON	10.0X	2 N, ALP 2 3 ENERG 2 2 3 ENERG 2 2 2 3 2 2 3 2 2 2 2 3 2 2 2 3 2 2 3 2 2 2 2 2 2 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2	Y-ANGL USA A: O: W: HA GER O: M: FR O: Y-ANGL USA A: O: W: USA A:	C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTIL ISATION IN NEW REQUEST. C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. GEN-PRODUCTION C.R.HEAD ACCURACY FROM	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT DOE DETERMINED. FOR RADIATION DAMAGE CROSS SECTION DOE 10. TO 50. PC TO BE	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F 10N 781132F CALCULATIONS. 781111F DETERMINED FROM
9 FLUORI 231 9 FLUORI 232 233 9 FLUORI 234 9 FLUORI 234	NE 19 UP TO UP TO UP TO 14.0 MEV 14.0 MEV 14.0 MEV	NEUTRON NEUTRON 15.0 MEV 14.0 MEV NEUTRON NEUTRON	10.0x	2 N, ALP 2 3 ENERG 2 2 3 ENERG 2 2 2 2 2 2 2 2 2 2 2 2 2	Y-ANGL USA A: O: M: HA GER O: M: FR O: M: FR O: M: Y-ANGL USA A: O: M: USA A: O: M: C C C C C C C C C C C C C C C C C C	C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTILISATION IN NEW REQUEST. C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. C.R.HEAD ACCURACY FROM SENSITIVITY FOR RADIATION NEW REQUEST.	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT DOE DETERMINED. FOR RADIATION DAMAGE CROSS SECTION DOE 10. TO 50. PC TO BE STUDIES DAMAGE CALCULATIONS.	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F TON 781132F CALCULATIONS. 781111F DETERMINED FROM
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9 FLUORI 231 9 FLUORI 232 233 9 FLUORI 234 9 FLUORI 235 9 FLUORI 235	NE 19 14.0 MEV NE 19 UP TO UP TO UP TO 14.0 MEV NE 19 9.00 MEV NE 19 9.00 MEV	NEUTRON NEUTRON 15.0 MEV 14.0 MEV NEUTRON 14.0 MEV NEUTRON 14.0 MEV	10.0x	2 N, ALP 2 3 ENERG 2 2 3 ENERG 2 2 3 TOTAL 2 2 2 2 2 2 2 2 2 2 2 2 2	Y-ANGL USA A: O: M: HA GER O: FR O: Y-ANGL Y-ANGL USA A: O: M: USA A: O: M: USA A: O: M: USA A: O: C: C: C: C: C: C: C: C: C: C: C: C: C:	C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. D.DARVAS CALCULATION OF RATES. SUBSTANTIAL MO B.DUCHEMIN UTIL ISATION IN NEW REQUEST. C.R.HEAD ACCURACY TO BE DATA REQUIRED NEW REQUEST. GEN-PRODUCTION C.R.HEAD ACCURACY FROM SENSITIVITY FOR RADIATION CR C.R.HEAD ACCURACY FROM SENSITIVITY FOR RADIATION	DOE DETERMINED. FOR RADIATION DAMAGE JUL NEUTRON ABSORPTION DIFICATIONS. SAC THE COOLANT DOE DETERMINED. FOR RADIATION DAMAGE CROSS SECTION DOE 10. TO 50. PC TO BE STUDIES DAMAGE CALCULATIONS.	781153F CALCULATIONS. 722086F AND TRANSMISSION 792005F TON 781132F CALCULATIONS. 781111F DETERMINED FROM 781099F DETERMINED FROM

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9 FLUOPI	NE 19	ALPHA	==========	ALPHA	•••		

237	UP TO	15.0 MEV	30.0%	2	FR	B.DUCHEMIN SAC 7	32039R
					<u>.</u>	ENERGY DISTRIBUTION REQUIRED. For shielding of Alpha-Emitting Materials.	
238	UР ТО	10.0 MEV	20.0%	2	SWD	H.HAEGGBLOM AE 70	62161N
					0:	NEUTRON OUTPUT OF SOLIDIFIED NUCLEAR WASTE.	
239	100. KEV	6.50 MEV	6.0%	2	USA	R.B.WALTON LAS 78	81171N
					Q: A: M:	THICK TARGET YIELDS REQUIRED. Relative error of 3.0 percent needed. Alpha energy resolution 100 kev. New request.	
240	UP TO	7.00 MEV	30.0%	2	UK	A.WHITTAKER UKW 7	92116R
					0: M:	FOR FUEL REPROCESSING. New request.	
						SS SECTION	
=======			============		=======		
241	25.0 MV	15.0 MEV	15.0%	1	GER	H. KUESTERS KFK 7	92194R
					Q: 0: M:	EVALUATION WANTED. Reduction of NA22. New request.	
	======================================			TOTAL	CROSS	SECTION	2222 S 2
========							
242	10.0 KEV	15.0 MEV	•	1	USA	P.B.HEMMIG DDE 7	41010R
					Α:	ACCURACY BELOW 7 MEV - 2 TO 5 PERCENT. ACCURACY ABOVE 7 MEV - 5 PERCENT.	
243	100. KEV	500. KEV	2.0%	2.	UK .	J.BUTLER WIN 7	92120R
					м:	NEW REQUEST.	
11 SODIU	======================================	NEUTRON		DIFFE	RENTIA	L ELASTIC CROSS SECTION	====== ======
244	10.0 KEV	15.0 NEV	10.0*	2	115 4		410128
					A:	15 PERCENT IN ANGULAR DISTRIBUTION.	
							======
245	3.00 MEV	14.0 MEV	15.0%	з	FR	B.DUCHEMIN . SAC 74	92006F
					0: M:	UTILISATION IN THE COOLANT New request.	
			*********				======
	M 23 9988888888888888888888888888888888888			=====			=====
246	2.00 MEV	10.0 MEV	10.0%	2	USA	C.E.TILL ANL 6/ P.B.HEMMIG DOE	21006R
					۵:	TOTAL INTEGRAL OVER 4 PI REQUIRED. SPECTRA AT SEVERAL ANGLES IF SIGNIFICANTLY	
					A:	ANISOTROPIC. ENERGY RESOLUTION LESS THAN 10 PERCENT INCID AND FINAL ENERGIES.	ENŤ
11 SODIU		NEUTRON		ENERG	Y-ANGL	E DIFFERENTIAL INELASTIC CROSS SECTION	======
		****************	==========			***************************************	
247	UP TO	15.0 MEV	10.0%	2	SWD	H. HAEGGBLOM AE 7	12005R
				•	0:	FOR FAST REACTOR CALCULATIONS.	
248	UP TO	15.0 MEV		2	USA	P.B.HEMMIG DOE 7	41014R
					A:	ACCURACY BELOW 2 MEV - 5 PERCENT. ACCURACY ABOVE 2 MEV - 10 PERCENT. 15 PERCENT IN ENERGY SPECTRA. OutgCing Energy Resolution 10 Percent.	
		NEU:RUN				JJ JC(IUN III 50000000000000000000000000000000000	
249	100. EV	100. KEV		2	UK	C.G.CAMPBELL WIN 6	42002R
					A:	ACCURACY 10 PERCENT UP TO 10 KEV, 20 PERCENT	
					C:	FOR FAST REACTORS. DISCREPANCY IN RADIATION WIDTH DATA AT 3 KEV Resonance.	

• '

11 SODIU	4 23		NEU	TRON =======		CAPTU	RE CROS	S SECTION	(C	ONTINUED)
250	25.3	ΜV	4.00	KEV		2	CCP Q:	M.N.NIKOLAEV Capture width of Measured in th Shguld coincit	FEI - 2.9 KEV RESONANCE SHOULD HREE DIFFERENT EXPERIMENTS DE WITHIN LIMITS OF 5-7 PE	714002R BE , RESULTS RCENT,
								IF HIGH RPI CAP DEPENDENCE OF MEASURED FROM INVESTIGATE IN FESONANCE CAP MEASUREMENTS OF	IURE WIDTH CONFIRMED, ENER Capture cross section sho Thermal to resonance regi Nterference between direct "URE. Gamma ray spectra in ther	GY ULD BE ON TO AND MAL AND
								2.95 KEV REGIO EXISTENCE OF DIRECT MEASUREME INTEGRAL IN TH NEUTRCN SOURCE THE QUESTION A	DAS DESTRABLE FOR DECISION Interference effects. Int of the effective reson te sodium medium from 24 k E seems to be useful for d bout the 2.9 kev resonanc	ABOUT ANCE EV EC IDING E
		·					A: 0:	CAPTURE WIDTH ACCURACY REQUIRE FOR CALCULATION SEE ALSO GENERAL	D TO BETTER THAN 10. PER OF NA ACTIVATION IN LMFBR . COMMENTS IN THE INTRODUC	CENT. TION.
251	1.00	KEV	100.	KEV	20.0%	2	USA A:	P.B.HEMMIG ACCURACY OF 0.5	DDE MB OR 20 PERCENT WANTED.	741016R
252	5.00	KEV	10.0	MEV		2	ССР	L • N • US ACHEV	FEI	75401 7R
							A: 0: M:	FROM 5.0 - 100 F FROM 0.1 - 0.8 F FROM 0.8 - 4.5 I ABOVE 4.5 MEV RI NEED FOR FAST RE FOR MORE DETAIL SUBSTANTIAL MOD	KEV ACCURACY 44 PERCENT. MEV ACCURACY 50 PERCENT. MEV ACCURACY 50 PERCENT. EQUIREMENTS 2 TIMES WEAKER FACTOR CALCULATIONS. SEE INTRODUCTION. IFICATIONS.	•
11 SODIU	 4 23		NEU	======= TRON		CAPTU	RE GAMM	A RAY SPECTRUM		s=======
253	2.95	KEV	1322 522		10.0%	2	USA	C.E.TILL	ANL	721032R
	4 23		NEU	TRON		ENERG	Y-ANGLE	DIFF. PHOTON-PF	RODUCTION CROSS SECTION	*******
				======			2224221			332232202 3
254	2.00	MEV	15.0	MEV	15.0%	2	USA A:	P.B.HEMMIG 20 PERCENT IN AN ISOTROPIC.	DOE NGULAR DISTRIBUTION IF NOT	741018F
	*******					=====	=======	GAMMA ENERGY RES	SOLUTION 10 PERCENT.	
11 SOD IU	M 23		NEU	TRON		N,2N	======			38 92222 02
255	U	P TO	16.0	MEV	15.0%	2	USA O:	P.B.HEMMIG	DOE ANT ACTIVATION.	741020R
			NFL	======		RESON	ANCE P			329222202
		=======			*********	======	=======		. 22 220222 22 22 22 22 22 22 22 22 22 22	********
256	2.95	KEV			10.0%	1	USA	C.E.TILL P.B.HEMMIG	ANL DOE	621008R
							0:	NEUTRON AND CAP	TURE WIDTH NEEDED.	
257	2.90	KEV	100.	KEV		2	CCP	M.N.NIKOLAEV	FEI	714001R
							A: 0:	NEUTRON WIDTH FO S PERCENT ACCO ALL OTHER WIDTHS ACCURACY. FOR FAST REACTOR	DR 2.95 KEV LEVEL WANTED W JRACY 5 REQUIRED WITH 10 PERCENT R CALCULATION.	ITH
STATUS										STATUS
	NDER CU	=======		* BY N	EANDC. SEE	APPEN	DIX A.			********
12 MAGNES	5 IUM 2======		ALP	HA ======:		ALPHA	•N			*******
258	100.	KEV	6.50	MEV	6.0%	2	USA	R.B.WALTON	LAS	781174N
							Q: A: M:	THICK TARGET YI RELATIVE ERROR ALPHA ENERGY RE NEW REQUEST.	ELDS REQUIRED. DF 3.0 PERCENT NEEDED. Solution 100 Kev.	
259	U	P TO	7.00	MEV	30.0%	3	UK O I	A.WHITTAKER	UKW	792117R
							Mi	NEW REQUEST.		
13 ALUMI	≈====== NUM 27 ≠======		NEU	TRON		ENERG	Y DIFFI	ERENTIAL INELAST	IC CROSS SECTION	**********
260	U	р то	15.0	MEV	15.0%	2	CCP	I.N.GOLOVIN	KUR	794011F
							0: M:	FOR NEUTRON TRAN New Request.	NSPORT CALCULATIONS.	
13 ALUMI	SESSES NUM 27		NE U	TRON	======================================	CAPTU	RE CRO	SS SECTION		:\$23222222 :\$22222222
261	25.3	MV	15.0	MEV	15• X	3	JAP	M.KASAI	MAP	762074F
	se=====	======	******			======	0:	GAMMA-RAY HEATI	NG CALCULATIONS	********

	NUM 27 ================	NEUTRON		TOTAL PHOTO	N PRODUCTION CROSS SECTION	
262	25.3 MV	15.0 MEV	15. %	3 JAP	M.KASAI MAP	762075F
				0:	GAMMA-RAY HEATING CALCULATIONS	
13 ALUMIN	NUM 27	NEUTRON	**********	N • 2N		
						322222223
263	UP TO	15.0 MEV	15. X	3 JAP	M.KASAI MAP	762070f
				0:	POTENTIAL CONSTITUENT FOR STRUCTURAL MATE	RIAL.
					NEUTRON MULTIPLICATION CALCULATIONS	-
13 ALUMIN	======================================	NEUTRON	**********	NEUTRON EMI	SSION CROSS SECTION	==========
25 52 53 50 50 5				**********	D == \$\$4222222442222424222222222222222222	********
264	500. KEV	15.0 MEV	15.0%	2 SWD	G.ENGSTROEM FOA	7621636
				Q:	SECONDARY ANGULAR AND ENERGY DISTRIBUTION	ALSO
				0:	USEFUL. SHIELDING NEUTRON TRANSPORT CALCULATIONS.	

13 ALUMI	NUM 27	NEUTRON		ENERGY-ANGL	E DIFF. NEUTRON-EMISSION CROSS SECTION	
						_
265	9.00 MEV	14.0 MEV	10.0%	2 USA	C.R.HEAD DOE	781078F
				. 0:	DATA NEEDED FOR SHIELDING, ACTIVATION AND	NEUTRON
				м:	NEW REQUEST.	
********				***********		********
13 ALUMIN	NUM 27 ==============			N,P ===========		222222222
266	UP TO	15.0 MEV	15• X	3 JAP	M.KASAI MAP	762071F
				0:	HYDROGEN ACCUMULATION CALCULATIONS	
STATUS						STATUS
UI	NDER CONTINUO	US REVIEW BY I	NDC. SEE AF	PPENDIX A.	·	
13 ALUMIN	======================================	NEUTRON		ENERGY-ANGL	E DIFF. PROTON-PRODUCTION CROSS SECTION	*********
*******			===========	**********		*=====*;
267	14.0 MEV			2 1154		7811446
201					ACCURACY TO BE DETERMINED.	1011-41
				<u>õ</u> :	DATA REQUIRED FOR RADIATION DAMAGE CALCUL	ATIONS.
				••		
13 ALLIMTE		NEUTOON				
22222222	NUM 27 Eddactoret	NEUTRUN		N.D		
22222222	NUM 27 ====================================		***********	N,D	***********	*==*===
268	UP TO	15.0 MEV	15. X	N.D 3 JAP	M.KASAI MAP	======== 762072F
268	UP TO	15.0 MEV	15. X	N,D 3 JAP 3 0:	M.KASAI MAP Hydrogen accumulation calculations	**************************************
268	UP TO		15. X	N,D 3 JAP 0:	M.KASAI MAP Hydrogen accumulation calculations	
268	UP TO	15.0 MEV	15. X	N,D 3 JAP 0:	M.KASAI MAP Hydrogen accumulation calculations	762072F
268	UP TO	15.0 MEV	15. X	N,D 3 JAP 0:	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS	762072F
269	UP TO UP TO NUM 27 UP TO	15.0 MEV	15. X	AAL E G T,N T,N G AAL E	M.KASAI MAP Hydrogen accumulation calculations 	762072F
269	UP TO UP TO NUM 27 UP TO	15.0 MEV	15. X	AAL E G G G G G G G G G G G G G G G G G G G	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS 	762072F
269	UP TO UP TO NUM 27 UP TO NUM 27	15.0 MEV	15. X	N, D 3 JAP 0: 	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS	762072F
269	UP TO UP TO UP TO UP TO UP TO	15.0 MEV NEUTRON 15.0 MEV	15. X	N,D 3 JAP 0: N,T 3 JAP 0: N,ALPHA	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS	762072F
268 13 ALUMI 269 13 ALUMI 13 ALUMI 270	UP TO UP TO UP TO UP TO NUM 27	15.0 MEV NEUTRON 15.0 MEV	15. x 15. x 15. x	N,D 3 JAP 0: N,T 3 JAP 0: N,ALPHA 1 EUR	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS	762072F
268 13 ALUMI 269 13 ALUMI 270	UP TO UP TO UP TO UP TO UP TO	15.0 MEV	15. x 15. x 2.0x	N,D 3 JAP 0: N,T 3 JAP 0: N,ALPHA 1 EUR 0:	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION	762072F
268 13 ALUMI 269 13 ALUMI 270	UP TO UP TO NUM 27 UP TO UP TO	15.0 MEV NEUTRON 15.0 MEV	15. X 15. X 15. X	N,D 3 JAP 0: N,T 3 JAP 0: N,ALPHA 1 EUR 0: 0: 0: 0: 0: 0: 0: 0: 0: 0:	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTIO	762072F
268 13 ALUMI 269 13 ALUMI 270	UP TO UP TO NUM 27 UP TO UP TO	15.0 MEV	15. x 15. x 2.0x	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 0:	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTIO DOSIMETRY PURPOSES.	762072F 762073F 762073F 762114F SPECTRUM NS FOR
268 13 ALUMI 269 13 ALUMI 270	UP TO UP TO UP TO UP TO NUM 27	15.0 MEV NEUTRON 15.0 MEV	15. x 15. x 2.0x	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 0: 2 FUR	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTIO DOSIMETRY PURPOSES.	762072F
268 13 ALUMI 269 13 ALUMI 270 271	UP TO UP TO UP TO UP TO NUM 27 NUM 27	15.0 MEV NEUTRON 15.0 MEV NEUTRON NEUTRON	15. x 15. x 2.0x 5.0x	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 0: 2 EUR	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTIO DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRON DOSIMETRY GROUP GEL	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING
268 13 ALUMI 269 13 ALUMI 270 271	UP TO UP TO UP TO UP TO NUM 27 NUM 27	15.0 MEV NEUTRON 15.0 MEV NEUTRON	15. x 15. x 2.0x 5.0x	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0:	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTIO DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFO METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWE	762072F
268 13 ALUMI 269 13 ALUMI 270 271	UP TO NUM 27 UP TO UP TO NUM 27 NUM 27	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON	15. x 15. x 2.0x 5.0x	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0:	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTIO DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFO METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWE INTEGRAL AND DIFFERENTIAL MEASUREMENTS.	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN
268 13 ALUMI 269 13 ALUMI 270 271 271 STATUS	UP TO UP TO UP TO UP TO NUM 27 Sector MEV	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON	15. x 15. x 2.0x 5.0x	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0:	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFO METHODS. GREATET THAN 10 PERCENT DISCREPANCY BETWE INTEGRAL AND DIFFERENTIAL MEASUREMENTS.	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN STATUS
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO UP TO UP TO NUM 27 6.40 MEV NDER CONTINUO	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON 11.9 MEV	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 2 EUR 0: 2	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTIO DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFO METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWE INTEGRAL AND DIFFERENTIAL MEASUREMENTS.	762072F
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO UP TO UP TO NUM 27 6.40 MEV NDER CONTINUOU	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON 11.9 MEV JS REVIEW BY I	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, T 1 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0:	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFOM METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEE INTEGRAL AND DIFFERENTIAL MEASUREMENTS.	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN STATUS
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO UP TO UP TO NUM 27 6.40 MEV NDER CONTINUOU NUM 27	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON 11.9 MEV JS REVIEW BY I NEUTRON	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTIO DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFO METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWE INTEGRAL AND DIFFERENTIAL MEASUREMENTS.	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN STATUS
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO UP TO UP TO NUM 27 6.40 MEV NDER CONTINUOU NUM 27	15.0 MEV NEUTRON 15.0 MEV NEUTRON 11.9 MEV JS REVIEW BY I NEUTRON	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFOM METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEE INTEGRAL AND DIFFERENTIAL MEASUREMENTS. C.B. HEAD DOS	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN STATUS
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO UP TO UP TO NUM 27 6.40 MEV NDER CONTINUOU NUM 27 14.0 MEV	15.0 MEV NEUTRON 15.0 MEV NEUTRON 11.9 MEV JS REVIEW BY I NEUTRON	15. X 15. X 2.0X 5.0X	3 JAP 0: N,T 3 JAP 0: N,ALPHA 1 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFO METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEE INTEGRAL AND DIFFERENTIAL MEASUREMENTS. C.R.HEAD DOE	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN STATUS
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO UP TO UP TO NUM 27 6.40 MEV NDER CONTINUO NUM 27 14.0 MEV	15.0 MEV NEUTRON 15.0 MEV NEUTRON 11.9 MEV JS REVIEW BY I	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 1 EUR 1 EUR 0: 1 EUR 1 E	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFO METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEE INTEGRAL AND DIFFERENTIAL MEASUREMENTS. C.R.HEAD DOE ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCUL	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN STATUS STATUS STATUS
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO UP TO UP TO NUM 27 6.40 MEV NDER CONTINUO NUM 27 14.0 MEV	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 1 EUR 1	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFO METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWE INTEGRAL AND DIFFERENTIAL MEASUREMENTS. C.R.HEAD DOE ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCUL NEW REQUEST.	762072F
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO UP TO NUM 27 0.00 TO NUM 27 0.00 MEV NUM 27 14.0 MEV NUM 27	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON 11.9 MEV JS REVIEW BY I NEUTRON	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 1 EUR 1	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFO METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWE INTEGRAL AND DIFFERENTIAL MEASUREMENTS. C.R.HEAD DOE ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCUL NEW REQUEST.	762072F
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO NUM 27 UP TO NUM 27 6.40 MEV NDER CONTINUOU NUM 27 14.0 MEV	15.0 MEV NEUTRON 15.0 MEV NEUTRON 11.9 MEV JS REVIEW BY I NEUTRON	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 1 EUR 1	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRON DOSIMETRY GROUP GEL FOR NEUTRON DOSIMETRY GROUP GEL FOR NEUTRON DOSIMETRY USING SPECTRUM UNFON METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWE INTEGRAL AND DIFFERENTIAL MEASUREMENTS. C.R.HEAD DOE ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCUL NEW REQUEST. GEN-PRODUCTION CROSS SECTION	762072F
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO NUM 27 UP TO NUM 27 6.40 MEV NDER CONTINUOU NUM 27 14.0 MEV NUM 27 9.00 MEV	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON JS REVIEW BY I NEUTRON NEUTRON	15. X 15. X 2.0X 5.0X NDC. SEE AF 10.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 1 EUR 0: 2 EUR 1 EUR 0: 2 EUR 1 EUR 2 EUR 2 EUR 1 EUR 2 EUR 2 EUR 1 EUR 2 EUSA 2 EUR 2 EUR	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRCN DOSIMETRY USING SPECTRUM UNFOR METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEE INTEGRAL AND DIFFERENTIAL MEASUREMENTS. C.R.HEAD DOE ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCUL NEW REQUEST. C.R.HEAD DOE	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN STATUS STATUS STATUS
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO NUM 27 UP TO NUM 27 6.40 MEV NDER CONTINUOU NUM 27 14.0 MEV NUM 27 9.00 MEV	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON JS REVIEW BY I NEUTRON NEUTRON	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 4 EUR 0: 2 EUR 0: 4 EUR 1: 4 EUR 1: 4 EUR 1: 4 EUR 1: 4 EUR 1: 4 EUR 1: 4 EUR 1: 4 EUR 1:	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRON DOSIMETRY GROUP GEL FOR NEUTRON DOSIMETRY GROUP GEL FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOM METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEE INTE GRAL AND DIFFERENTIAL MEASUREMENTS. C.R.HEAD DOE ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCUL NEW REQUEST. C.R.HEAD DOE ACCURACY FROM 10. TO 50. PC TO BE DETERMINED.	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN STATUS STATUS STATUS
268 13 ALUMI 269 13 ALUMI 270 271 STATUS	UP TO UP TO UP TO UP TO NUM 27 6.40 MEV NDER CONTINUOU NUM 27 14.0 MEV NUM 27 9.00 MEV	15.0 MEV NEUTRON 15.0 MEV 15.0 MEV NEUTRON JS REVIEW BY I NEUTRON NEUTRON	15. X 15. X 2.0X 5.0X	N, D 3 JAP 0: N, T 3 JAP 0: N, ALPHA 1 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 2 EUR 0: 1 EUR 0: 2 EUR 0: 1 EUR 1 EU	M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS M.KASAI MAP HYDROGEN ACCUMULATION CALCULATIONS NEUTRON DOSIMETRY GROUP GEL AVERAGE CROSS SECTION IN A U-235 FISSION DESIRED. FOR NORMALIZATION OF AVERAGE CROSS SECTION DOSIMETRY PURPOSES. NEUTRON DOSIMETRY GROUP GEL FOR NEUTRON DOSIMETRY GROUP GEL FOR NEUTRON DOSIMETRY USING SPECTRUM UNFON METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEE INTEGRAL AND DIFFERENTIAL MEASUREMENTS. C.R.HEAD DOE ACCURACY TO BE DETERMINED. DATA REQUIED FOR RADIATION DAMAGE CALCUL NEW REQUEST. C.R.HEAD DOE ACCURACY FROM 10. TO 50. PC TO BE DETERMI SENSITIVITY STUDIES FOR RADIATION DAMAGE CALCULATIONS.	762072F 762073F 762073F 762073F 742114F SPECTRUM NS FOR 742123F LD ING EN STATUS STATUS STATUS

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13 ALUMI	NUM 27		NEU	TRON	***********	TOTAL	L HELIVI	M-PRODUCTION CR	OSS SECTI		
274	9.00	MEV	14.0	MEV	10.0%	2	USA A: D: M:	C.R.HEAD ACCURACY FROM SENSITIVITY FOR RADIATION NEW REQUEST.	DDE 10. TO 50 STUDIES DAMAGE CA	• PC TO BE D LCULATIONS.	781090F Etermined from
I3 ALUMI	NUM 27		ALP	====== HA ======		ALPH	====== A • N =======		*********		
• 275	100.	KEV	6.50	MEV	6.0%	2	USA	R.B.WAL TON	LAS		781172N
							Q: A: M:	THICK TARGET Y RELATIVE ERROR Alpha Energy R New Request.	IELDS REQ OF 3.0 P ESOLUTION	UIRED. Ercent Neede 100 Kev.	D•
14 SILIC	2228222 ON 2228222		NEU	TRON		TOTA	L CROSS	SECTION			
276	20.0	MEV	50.0	MEV	10.0%	1	USA	C.R.HEAD	DOE		781001F
-			4			-	A: 0: M:	ACCURACY REQUI FOR SHIELD DES NEW REQUEST.	RED 10 TO IGN IN FM	15 PERCENT. IT FACILITY.	
14 SILIC	======= ON		NEU	TRON		DIFF	ERENTIA	L ELASTIC CROSS	SECTION		
277	20.0	MEV	50,0	MEV	10.0%	1	USA A: 0: M:	C.R.FEAD ACCURACY REQUI FOR SHIELD DES NEW REQUEST.	DCE RED 10 TO Ign In Fm	15 PERCENT.	781004F
	=======		======== NFU	=====	====================	=====	======= FLASTIC	CROSS SECTION			\$=====================================
*******	2225200			=====		=====					5222222222222
278	20.0	MEV	50.0	MEV	10.0%	1	USA A: D:	C.R.HEAD Accuracy Requi For Shield Des	DOE RED 10 TO Ign in Fm	15 PERCENT.	781007F
				=====	********	22222	: M =======	NEW REQUEST.			
14 SILIC	ON =======		NEU ========	TRON =====			URE CRO	SS SECTION			*======
279	25•3	MV	200•-	KEV	10.0%	З	UK 0:	J.FELL For thermal re	WIN ACTOPS.		792164P
IA SILIC	0N		======= NEU *=======	===== TRON ======		===== NEUTI =====	RON EMI	SSION CROSS SEC	T 1 ON		
280	500.	KEV	15.0	MEV	15 . X	2	SWD	G.ENGSTROEM	FOA		762164R
	• •						Q: D:	SECONDARY ANGU USEFUL. SHIELDING.	ILAR AND E	NERGY DISTRI	BUTION ALSO
			======= NC11	=====							======================================
5======	=======			=====	********	ENER	======				
281	9.00	MEV	14.0	MEV	10.0%	1	USA	C.R.HEAD	DOE		781045F
******						=====	 M:	NEXT GENERAT	ION D-T R	EACTOR DESIG	NS.
14 SILIC	0N		NEU	TRON	d===========	ENER	GY-ANGL	E DIFF. PROTON-	PRODUCTIO	ON CROSS SECT	ION ====================================
282	14.0	MEV				2	USA	C.R.HEAD	DOE		781138F
							A: 0: M:	ACCURACY TO BE Data Required New Request.	DETERMIN For Radia	IED. TION DAMAGE	CALCULATIONS.
14 SILIC	2222222 20N 2222222		NEU	TRON	======================================	ENER	GY-ANGL	E DIFF. ALPHA-P	RODUCTION	I CROSS SECT I	======================================
283	14.0	MEV				2	USA	C.R.HEAD	DOE		781117F
			•				A: 0: M:	ACCURACY TO BE Data required New request.	DETERMIN For Radia	ED. TION DAMAGE	CALCULATIONS.
14 SILIC			NEU	TRON		TOTA	L HYDRO	GEN-PRODUCTION	CROSS SEC	TION	
2002222	0.00			MEN	10 02	=5	2 []CA	C. D. HEAD	#		
204	9.00	~ C V	14.0	~~ C, V	10.02		054	FOR RADIATION	DAMAGE SI	UDIES OF NEX	781054F T GENERATION
	=======	******	3= = = = = = = =	====		=====	M:	U-I REACTOR New Request.	UESIGNS.		

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14 SILICO)N :====================================	NEUTRON		TOTAL	HELIU	M-PRODUCTION CROSS SECTION
285	9.00 MEV	14.0 MEV	10.0%	1	USA D: M:	C.R.HEAD DOE 781063F FOR RADIATION DAMAGE STUDIES OF NEXT GENERATION D-T REACTOR DESIGNS. NEW REQUEST.
14 SILICO	:=====================================		***********	ALPHA		
286	UP TO	7.00 MEV	30.0%	2	UK 0: M:	A.WHITTAKER UKW 792118F For fuel reprocessing. New request.
14 SILICO	DN 30	NEUTRON		CAPTU	JRE CRO	ss section
287	1.00E-04 EV	100. KEV	10.0%	3	JAP Q:	N. ADYAGI JAE 792075F EXPERIMENTAL DATA WANTED.
					U: M:	NEUTRON IRRADIATION TO MARE SEMICONDUCTOR ONLY A FEW OLD DATA ARE AVAILABLE. NEW REQUEST.
15 PHOSP	HORUS 31	NEUTRON		====== N,P	*******	
288	UP TO	15.0 MEV		2	SWT	F.HEGEDUES WUR 692050F
					A: 0:	REQUIRED 5. PERCENT ACCURACY TO 6. MEV AND 10. PERCENT ABOVE. FAST FLUX MEASUREMENTS IN SHIELDS. DISAGREEMENT BETWEEN DIFFERENT MEASUREMENTS OF INSUFFICIENT ACCURACY. NO DATA BETWEEN 10 AND 14 MEV.
289	2,20 MEV	7.00 MEV	5.0%	2	EUR O:	NEUTRON DOSIMETRY GROUP GEL 742124F FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS.
16 SULFU	; ; ;	NEUTRON		TOTAL	CRDSS	SECTION
290	10.0 KEV	500. KEV	3.0%	2	USA	P.B.HEMMIG DOE 741021F
16 SULFUR		NEUTRON		CAPTO	JRE CRO	
291	10.0 KEV	500. KEV	10.0%	2	USA	P+B+HEMMIG DOE 7410236
==========					:0 ======	FOR SHIELDING EFFECT OF CONCRETE.
16 SULFU	? ====================================	NEUTRON		CAPTU	JRE GAM	MA FAY SPECTRUM
292	10.0 KEV	500, KEV	15.0X	2	USA O:	P.B.HEMMIG DOE 741025F FOR SHIELDING EFFECT OF CONCRETE.
		NEUTRON		====== N.P		

293	UP TO	15.0 MEV		2	SWT A: O:	F.HEGEDUES WUR 692053F REQUIRED 5. PERCENT ACCURACY TO 6. MEV AND 10. PERCENT ABOVE. STANDARD FOR FLUX MEASUREMENTS.
STATUS						STATUS
U ==========	NDER CONTINUOUS	REVIEW BY	INDC. SEE A	PPEND	X A.	
17 CHLOR	[NE ====================================	NEUTRON		DIFFE	RENTIA	L ELASTIC CROSS SECTION
294	25.3 MV	15.0 MEV	20.0%	3	UK C: M:	J.SMITH WIN 792177F For fused salt reactors. New request.
17 CHLOR		NEUTRON		ENERG	SY-ANGL	E DIFFERENTIAL INELASTIC CROSS SECTION
295	UP TO	15.0 MEV	30.0%	3	UK 0:	J.SMITH WIN 792178F FOR FUSED SALT REACTORS.
17 CHLOR	INE 	NEUTRON		CAPTL	JRE CRO	SS SECTION
296	25.3 MV	1.00 MEV	20.0X	3	UK .	J. SMITH WIN .7921796
					Q: 0: M:	ACCURACY 20 PERCENT OR 1 MB. For fused salt reactors. New request.

17 CHLOR	INE	NEUTRON						**************
	=========================			======			****************	
297	10.0 KEV	2.00 MEV	10.0%	з	UK	J-SMITH	WIN	602054P
				-	0:		D REQUIRED TO 15 ME	V.
						FOR FUSED SALT	REACTORS .	••
298	UP TO	15.0 MEV		-	116	I. SMITH	W T N	7021 800
				5	0.	ACCURACY 2 MB.	W 1 (V	/ 32100 K
					ŏ:	FOR FUSED SALT	REACTORS.	
					м:	NEW REQUEST.	SI NUMBER 092054.	
					======			==================
17 CHLOR =======	INE ====================================	NEUTRON	=========	N, ALP	9HA 1992222		*****************	==================
299	UP TO	15.0 MEV		3	UK	J.SMITH	WIN	792181R
					0:	ACCURACY 5 MB.	REACTORS .	
					M:	NEW REQUEST.		
			===========					======================================
=======			==========	======	ERENTIA		SECTION	
				-				
300	25.3 MV	15.0 MEV	20.0%	3	UK	J.SM ITH	WIN	792182R
					0: M:	FOR FUSED SALT NEW REQUEST.	REACTORS .	
=======	*************							=======================
17 CHLOR	INE 37	NEUTRON		ENERG	Y-ANGL	E DIFFERENTIAL	INELASTIC CROSS SEC	T10N ====================================
301	UP TO	15.0 MEV	30.0%	3	UK	J.SMITH	WIN	792183R
					<u>.</u>	FOR FUSED SALT	REACTORS .	
						NEW REQUEST.		
17 CHLOR	INE 37	NEUTRON		CAPTU	RE CRO	SS SECTION		
				522223	222322	=======================================	*========================	=====================
302	25.3 MV	1.00 MEV	20.0%	з	UK	J.SMITH	WIN	792184R
					Q:	ACCURACY 20 PER	RCENT OF 1 MB.	
					C: M:	FOR FUSED SALT NEW REQUEST.	REACTORS .	
	4=====================================							
17 CHLOR	INE 37	NEUTRON		N,P				
303	UP TO	15.0 MEV		з	UK	J.SMITH	WIN	792185R
					0:	ACCURACY 2 MB.		
					0: M:	FOR FUSED SALT NEW REQUEST.	REACTORS .	
17 CHLOR	INE 37	NEUTRON		N,ALP	PHA ======			================================
304	UP TO	15.0 MEV		3	UK	J.SMITH	WIN	792186R
					0: 0:	ACCURACY 5 MB. FOR FUSED SALT	REACTORS .	
					MI	NEW REQUEST.		
18 APGON		NEUTRON	**********	======================================	======			=============================
			*********	======				*****************
305	25.2 NV	15.0 MEV	30. Y	2			MAD	7621770
		1000 420	500 %	-	0.			OD EDD SAEETY
					0.	ANALYSIS.	ING CALCOLATIONS.	ON FOR SALET
			*********	======		55 SECTION 52=2==================================		232282255555555555555555555555555555555
706				2	140		NIC	3100060
300	00 10	TOTO MEA		2	JAP	Menawai		712000R
					ô:	FOR REACTOR HA	ZARD CALCULATION.	20.0 PERCENI.
307	25.0 MV	15.0 MEV	15.0%	1	GER	H. KUESTERS	KFK	792195R
					Q: 0:	PRODUCTION OF	TED. AR41.	
					м:	NEW REQUEST.	-	
19 POTAS	======================================	NEUTRON					c======cg====cc==sc	
=========							*******************	
308	26 3 NV	15.0 MEV	70 OF	2		T KAWAKITA		3000360
308	EJOJ MV	IDOO MEA	30.0%	2	JAP 	INNAMARITA	MAM	792076R
					0:	FOR REACTOR HA	ZARD CALCULATION	
					м:	NEW REQUEST.	CAPENIMENTAL DATA	IN MEV REGION.
		***********		=======			*****************	
19 PUTAS	51UM 41	NEUTRON	========	N,P ======			=========================	
-				_				
309	UP TO	15.0 MEV	30.0%	2	UK	C.G.CAMPBELL	WIN	792128R
					0: M:	FOR FAST REACT	OR CIRCUIT ACTIVITY	•

20 CALCI	======= UM =======		======== NEU ========	TRON	************	TOTAL	CROSS	SECTION
. 310	20.0	MEV	50-0	MEV	10-0*	,	115 4	C-R-FEAD DOE 781002F
310	20.0		50,0	MEV	10.02	• • •	A:	ACCURACY REQUIRED 10 TO 15 PERCENT.
	·						M:	NEW REQUEST.
20 CALCI	====== UM ========		NEU	TRON	*============	ELASI	IC CRO	SS SECTION
311	1.00	MEV	15.0	MEV	15.0%	3	JAP	Y.SEKI JAE 762234F
							0.	SHIELDING DESIGN.
20 CALCI	====== UM	*****	NEU	===== TRON	**********	DIFFE	ERENTIAL	LLASTIC CROSS SECTION
32228324				=====	222222222222			
312	1.00	MEV	15.0	MEV	15. X	3	JAP	Y•SEKI JAE 762076F
							0:	INCLUDED IN CONCRETE Shielding design
313	20.0	MEV	50.0	MEV	10.0%	1	USA	C.R.HEAD DDE 781005F
							A: 0:	ACCURACY REQUIRED 10 TO 15 PERCENT. For shield design in fmit facility.
			========					
20 CALCI	UM =======		• NEU	TRON		NON-E	ELASTIC	CROSS SECTION
314	20.0	MEV	50.0	MEV	10.0%	1	USA	C.R.HEAD DDE 781008F
							A:	ACCURACY REQUIRED 10 TO 15 PERCENT.
							M:	NEW REQUEST.
20 CALCI	====== UM =======	1225 222 1225 222	NEU	TRON		CAPTU	JRE CRO	SS SECTION
716		~=~	500	v=u -		•		0.0.45447C 005 7410200
315	1.00	KEV	500.	KE V	10.0%	2	054	FOR SHIELDING EFFECT OF CONCRETE.
316	25.3	MV	15.0	MEV	15 . X	3	JAP	Y.SEKI JAE 762077F
							ő	INCLUDED IN CONCRETE. SHIELDING DESIGN AND GAMMA-RAY HEATING CALCULATION
		*****						N PRODUCTION COSS SECTION
20 CALCI			NCU	=====	***********		-	
317	500.	KEV	15.0	MEV	15. X	з	JAP	Y.SEKI JAE 762078F
							9:	GAMMA RAY SPECTRA ALSO REQUIRED.
							_	GAMMA-RAY HEATING CALCULATIONS
20 CALCI	======= UM =======	*******	NEU	TRON	2222333322223 ========================	NEUTR	RON EMI	SSION CRCSS SECTION
318	500.	KEV	15.0	MEV	15 . X	2	SWD	G.ENGSTROEM FOA 762165R
							a: 0:	SECONDARY ANGULAR AND ENERGY DISTRIBUTION ALSO USEFUL. SHIFLDING.
								NEUTRON TRANSPORT CALCULATIONS.
20 CALCI	2222222 UM 22222222		ALP			ALPHA		
319	100.	KEV	6.50	MEV	6.0%	2	USA	R.B.WALTON LAS 781173N
					• •		A:	ALPHA ENERGY RESOLUTION 100 KEV.
							M:	NEW REQUEST.
21 SCAND	IUM 45		NEU	TRON		CAPTU	JRE CRO	
320	1.00	KEV	18.0	MEV	10.0%	2	USA	W.N.MC ELROY HED 691065R
		-			-		0:	FOR USE AS A FLUENCE MONITOR.
321	1.00	KEV	3.00	MEV	10.0%	2	FR	C.PHILIS BRC 692062R
							9:	PRODUCTION OF SC-46 (84 DAY).
			********		2922282222		 	
22 TITAN	IUM		NEU	TRON	=============================	DIFFE	RENTIA	L ELASTIC CROSS SECTION
322	15-0	MEV	35-0	MEV	10.01	1	USA	C+R+KEAD DOE 781033F
						-	A:	ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM
22222 2255		******					0: M:	SCHSITIVIT STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.

22, TITAN I	UM	NEL	UTRON		INELA	STIC C	ROSS SECTION
		= = = = = = = = = = = = = = = = = = = =	=======		=======		***************************************
323	3.00 M	EV 14.0	MEV	10.0%	з	FR	B.DUCHEMIN SAC 732009F
						0:	POTENTIAL CONSTITUENT OF CONTAINMENT VESSEL.
324	00	10 15 0	MEV	15 V	· _	140	
324	UP	10 13-0	MEV	12. 7	3	JAP	MARASAI MAP 1020/9F
						0.	NEUTRON TRANSPORT CALCULATIONS
22 TITAN 1		======================================				PTION	CPOSS SECTION
				=======================================			
325	500. E	V 15.0	MEV	25.0%	з	ÉR	P. HAMMER CAD 712007R
				20007	Ū.	0:	FOR FAST REACTOR CALCULATIONS.
22 TITAN 1	[UM ========	NEL	UTRON		CAPTU	RE CRO	SS SECTION
326	100. E	V 100.	KEV	20.0%	2	UK	C.G.CAMPBELL WIN 692065R
						0:	FDR FAST REACTORS.
22 TITAN]	========= [UM	NEL	UTRON		TOTAL	. PHOTO	N PRODUCTION CROSS SECTION
222222923					******	.======	
327	25.3 M	V 15.0	NEV	15 . X	`з	JAP	M.KASAI MAF 762083F
						0:	POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL
							GAMMA-RAY HEATING CALCULATIONS
22 TITAN]	UM	======================================	EEEEEE UTRON		ENERG	Y-ANGL	E DIFF. PHOTON-PRODUCTION CROSS SECTION
			=====				***************************************
328	30.0 K	EV 16.0	MEV	20.0%	1	USA	D.BARTINE ORL 691068P
						0:	FOR USE IN REACTOR SHIELDING CALCULATIONS.
						м:	SUBSTANTIAL MODIFICATIONS.
329	9.00 M	EV 14.0	MEV	10.0%	2	USA	C.R.HEAD DOE 781158F
						0:	DATA NEEDED FOR BLANKET, SHIELD AND MAGNET HEAT
						м:	DEPOSITION CALCULATIONS. New Request.
			====		******		
22 TITAN]	[UM ========	NE	UTRON ======		N,2N	.=====	
330	UP	TO 15.0	MEV	15. X	з	JAP	M.KASAI NAP 762080F
330	UP	TO 15.0	MEV	15 . X	З	JAP D:	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS
330	UP	TO 15.0	MEV	15. X	3	ĴAP 0:	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS
330 22 TITAN	UP	TO 15.0	MEV	15. X	3 ENERG	JAP D: SY-ANGL	M.KASAI NAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION
330 22 TITAN	UP	TO 15.0	MEV	15. X	3 ENERG	JAP D: SY-ANGL	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION
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330 22 TITAN 331	UP	TO 15.0	MEV UTRON MEV	15. X	3 ENERG	JAP D: SY-ANGL USA A:	M.KASAI NAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES.
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330 22 TITAN 331	UP IUM 15.0 M	TO 15.0	MEV UTRON MEV	15. X	3 ENERG	JAP D: SY-ANGL USA A: M:	M.KASAI NAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.
330 22 TITAN 331 332	UP IUM 15.0 M 9.00 M	TO 15.0	MEV UTRON MEV MEV	15. X	3 ENERG 1 2	JAP O: VY-ANGL USA A: O: M: USA	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DDE 781080F
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330 22 TITAN 331 332	UP 15.0 M 9.00 M	TO 15.0	MEV	15. X	3 ENERG 1 2	JAP D: USA A: USA USA USA D: M:	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TD BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F C.R.HEAD DOE 781080F C.R.HEAD DOE 781080F MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.
330 22 TITAN 331 332 22 TITAN	UP 15.0 M 9.00 M	TO 15.0	MEV UTRON MEV MEV	15. X	3 ENERG 1 2 N+P	JAP O: Y-ANGL USA A: O: M: USA O: M:	M.KASAI NAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F E DATA NEEDED FOR SHIELDING. ACTIVATION AND NEUTRON TRANSPORT CALCULATIONS. NEW REQUEST.
330 22 TITAN 331 332 22 TITAN	UP 15.0 M 9.00 M	TO 15.0	MEV	15. X	3 ENERG 1 2 N.P	JAP O: USA A: O: M: USA O: M:	M.KASAI NAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TD BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F C.R.HEAD DOE 781080F MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.
330 22 TITAN 331 332 22 TITAN 2333	UP 15.0 M 9.00 M	TO 15.0	MEV	15. X 10.0X 10.0X	3 ENERG 1 2 N, P	JAP D: USA A: USA USA O: M: USA EUR	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F C.R.HEAD DOE 781080F DATA NEEDED FOR SHIELDING, ACTIVATION AND NEUTRON TRANSPORT CALCULATIONS. NEW REQUEST. NEW REQUEST. NEUTRON DOSIMETRY GROUP GEL 742118R
330 22 TITAN 331 332 22 TITAN 22 TITAN 333	UP 15.0 M 9.00 M	TO 15.0	MEV	15. X	3 ENERG 1 2 N, P	JAP D: USA A: USA USA C: EUR C:	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F E DATA NEEDED FOR SHIELDING, ACTIVATION AND NEUTRON TRANSPORT CALCULATIONS. NEW REQUEST. NEW REQUEST. NEW REQUEST. NEUTRON DOSIMETRY GROUP GEL 742118R ROUTINE FAST NEUTRON FLUENCE MONITOR.
330 22 TITAN 331 332 22 TITAN 333	UP 15.0 M 9.00 M	TO 15.0	MEV	15. X 10.0X 10.0X	3 ENERG 1 2 N.P	JAP D: USA A: USA C: M: USA C: M: EUR	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F C.R.HEAD DOE 781080F DATA NEEDED FOR SHIELDING, ACTIVATION AND NEUTRON TRANSPORT CALCULATIONS. NEW REQUEST. NEUTRON DOSIMETRY GROUP GEL 742118R ROUTINE FAST NEUTRON FLUENCE MONITOR. SUBSTANTIAL MODIFICATIONS.
330 22 TITAN 331 332 22 TITAN 333 333	UP 15.0 M 9.00 M 100 3.40 M	TO 15.0	MEV	15. X 10.0X 10.0X 5.0X	3 ENERG 1 2 N.P	JAP D: USA A: USA USA C: M: USA C: M: USA C: M: USA C: M: USA C: M: USA	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TD BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F C.R.HEAD DOE 781080F DATA NEEDED FOR SHIELDING, ACTIVATION AND NEUTRON TRANSPORT CALCULATIONS. NEW REQUEST. NEUTRON DOSIMETRY GROUP GEL 742118R ROUTINE FAST NEUTRON FLUENCE MONITOR. SUBSTANTIAL MODIFICATIONS. M.KASAI MAP 762081F
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330 22 TITAN 331 332 22 TITAN 333 334 STATUS	UP 15.0 M 9.00 M 3.40 M UP	TO 15.0	MEV	15. X 10.0X 10.0X 10.0X 10.0X 10.0X 10.0X 10.0X	3 ENERG 1 2 N.P 1 3	JAP 0: USA 4: 0: 	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NATERIAL NEUTRON MULTIPLICATION CALCULATIONS SECTION E.DIFF. NEUTRON-EMISSION CROSS SECTION SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. NEW REQUEST. C.R.HEAD DOE 781080F SENSITIVITY STUDIES. C.R.HEAD DOE 781080F CALCULATIONS. NEW REQUEST. NEW REQUEST. ODE 781080F NEW REQUEST. NEW REQUEST. SENSITIVITY GROUP NEUTRON DOSIMETRY GROUP GEL 742118R ROUTINE FAST NEUTRON FLUENCE MONITOR. SUBSTANTIAL MODIFICATIONS. 762081F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL HYDROGEN ACCUMULATION CALCULATIONS STATUS
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330 22 TITAN 331 332 22 TITAN 333 334 STATUS	UP 15.0 M 9.00 M 3.40 M UP NDER CONT	TO 15.0	MEV	15. X 10.0X 10.0X 5.0X 15. X INDC. SEE	3 ENERG 1 2 N.P 1 3 3 APPEND 1 ENERG	JAP 0: USA 4: 0: M: USA 0: M: USA 0: M: USA 0: M: USA 0: M: USA 0: M: USA 0: M: USA	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F DATA NEEDED FOR SHIELDING, ACTIVATION AND NEUTRON TRANSPORT CALCULATIONS. NEW REQUEST. NEUTRON DOSIMETRY GROUP GEL 742118R ROUTINE FAST NEUTRON FLUENCE MONITOR. SUBSTANTIAL MODIFICATIONS. M.KASAI MAP 762081F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL HYDROGEN ACCUMULATION CROSS SECTION E DIFF. PROTON-PRODUCTION CROSS SECTION
330 22 TITAN 331 332 22 TITAN 333 334 STATUS	UP 15.0 M 9.00 M 100 M 100 M UP 100 CONT	TO 15.0	MEV	15. X 10.0X 10.0X 10.0X 10.0X 10.0X 10.0X 10.0X 10.0X	3 ENERG 1 2 N, P 1 3 APPEND 1 ENERG	JAP D: USA A: O: M: USA O: M: JAP O: IX A.	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS MATERIAL EDIFF. NEUTRON-EMISSION CROSS SECTION FOR MATERIAL DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. FOR MATERIAL DAMAGE CALCULATIONS. C.R.HEAD DOE 781080F DATA NEEDED FOR SHIELDING. ACTIVATION AND NEUTRON TRANSPORT CALCULATIONS. NEUR REQUEST. NEUTRON DOSIMETRY GROUP GEL 742118R ROUTINE FAST NEUTRON FLUENCE MONITOR. SUBSTANTIAL MODIFICATIONS. STAUS M.KASAI MAP 762081F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL HYDROGEN ACCUMULATION CALCULATIONS E DIFF. PROTON-PRODUCTION CROSS SECTION STAUS C.R.HEAD DOE 781146F
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330 22 TITAN 331 332 22 TITAN 333 334 STATUS	UP 15.0 M 9.00 M 3.40 M UP NDER CONT IUM	TO 15.0	MEV	15. X 10.0X 10.0X 5.0X 15. X INDC. SEE	3 ENERG 1 2 N.P 1 3 APPEND 1 ENERG 2	JAP O: USA A: O: WSA O: M: USA O: M: JAP O: SY-ANGL VSA	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E. DIFF. NEUTRON-EMISSION CROSS SECTION C.R.MEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TD BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F CAR.HEAD DOE NEUTRON DOSIMETRY GROUP GEL ROUTINE FAST NEUTRON FLUENCE MONITOR. SUBSTANTIAL MODIFICATIONS. M.KASAI MAP 762081F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL HYDROGGEN ACCUMULATION CALCULATIONS E. DIFF. PROTON-PRODUCTION CROSS SECTION E. DIFF. PROTON-PRODUCTION CROSS SECTION C.R.HEAD DOE CAR.HEAD DOE C.R.HEAD DOE CAR.HEAD DOE CAR.HEAD DOE CACCURACY TO BE DETERMINED.
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330 22 TITAN 331 332 22 TITAN 333 334 STATUS	UP 15.0 M 9.00 M 13.40 M UP NDER CONT 14.0 M	TO 15.0	MEV	15. X 10.0X 10.0X 10.0X 10.0X 10.0X 10.0X 10.0X 10.0X 10.0X	3 ENERG 1 2 N.P 1 3 3 APPEND 1 5 ENERG 2 2 N.ALF	JAP 0: USA A: 0: M: USA 0: M: USA 0: M: USA 0: M: USA 0: V-ANGL USA V-ANGL	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE 781080F DATA NEEDED FOR SHIELDING, ACTIVATION AND NEUTRON TRANSPORT CALCULATIONS. NEW REQUEST. NEUTRON DOSIMETRY GROUP GEL 742118R ROUTINE FAST NEUTRON FLUENCE MONITOR. SUBSTANTIAL MODIFICATIONS. M.KASAI MAP 762081F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL HYDROGEN ACCUMULATION CALCULATIONS C.R.HEAD DOE 781146F C.R.HEAD DOE 781146F ACCURACY TO BE DETERMINED. DATA REQUIST.
330 22 TITAN 331 332 22 TITAN 333 334 STATUS 22 TITAN 335 22 TITAN 336	UP 15.0 M 9.00 M 14.0 M 14.0 M 14.0 M	TO 15.0	MEV	15. X 10.0X 10.0X 10.0X 10.0X 10.0X	3 ENERG 1 2 N.P 1 3 APPEND J ENERG 2 2 N.ALF 3	JAP 0: USA A: 0: WSA 0: WSA 0: USA 0: USA 0: V-ANGL V-ANGL V-ANGL V-ANGL V-ANGL V-ANGL V-ANGL	M.KASAI MAP 762080F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL NEUTRON MULTIPLICATION CALCULATIONS E. DIFF. NEUTRON-EMISSION CROSS SECTION C.R.HEAD DOE 781039F ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST. C.R.HEAD DOE TRANSPORT CALCULATIONS. NEW REQUEST. NEW REQUEST. C.R.HEAD DOE TRANSPORT CALCULATIONS. NEW REQUEST. NEUTRON DOSIMETRY GROUP GEL 742118R ROUTINE FAST NEUTRON FLUENCE MONITOR. SUBSTANTIAL MODIFICATIONS. M.KASAI MAP 762081F POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL MYDROGEN ACCUMULATION CALCULATIONS E. DIFF. PROTON-PRODUCTION CROSS SECTION C.R.HEAD DOE C.R.HEAD DOE MAP 781146F ACCURACY TO BE DETERMINED. TATION DATA REQUIRED FOR RADIATION DAMAGE CALCULATIONS. NEW REQUEST. B.DUCHEMIN

22 TITANI	UM ======		NEU'	TRON		N . ALF	PHA = ===========	***************************************	(CONTINUED)
337	0.00	EV	15.0	MEV	15. X	3	JAP	M.KASAI MAP POTENTIAL CONSTITUENT OF STRUCTURAL M HEL IUM ACCUMULATION CALCULATIONS	762082F ATEFIAL
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338	14.0	NEV				2	USA	C.R.HEAD DOE	781125F
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22 TITAN 1		========	neu	TRON		TOTAL	L HYDRO	SEN-PRODUCTION CROSS SECTION	
	22222				==============	=====;			,==0002922=500
339	15.0	MEV	35.0	MEV	10.0%	1	USA	C.R.HEAD DOE	781027F
							A: C: M:	ACCURACY FROM 10. TO 50. PC TO BE DET Sensitivity Studies. For Matefial Damage Calculations. New Request.	ERMINED FROM
340	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD DOE	781104F
							A: 0: N:	ACCURACY FROM 10. TO 50. PC TO BE DET SENSITIVITY STUDIES FOR RADIATION DAMAGE CALCULATIONS. New Request.	ERMINED FROM
22 TITAN			======= NEU	TRON		TOTA	L HELIU	A-PRODUCTION CROSS SECTION	
					====================				
341	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD DOE	781092F
,							A: 0: M:	ACCURACY FROM 10. TO 50. PC TO BE DET SENSITIVITY STUDIES For radiation damage calculations. New request.	ERMINED FROM
342	15.0	MEV	35.0	MEV	10.0%	1	USA	C.R.HEAD DOE	781212F
					• · ·		A: 0: M;	ACCURACY FRCM 10. TO 50. PC TO BE DET SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.	ERMINED FROM
22 TITAN 1	UM 46	======	SEESEEE NEU	TRON	=================	N • P	=========		.=================
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343	1.00	MEV	18.0	MEV	10.0%	2	USA	W.N.MC ELROY HED	691 069R
							Q: A: D:	REQUIRED IS ACTIVATION. DATA REQUIRED AT 500 KEV INTERVALS. ENERGY RESOLUTION 100 KEV. For use as a fluence monitor.	
344	3.40	MEV	12.5	MEV	5.0%	2	EUR	NEUTRON DOSIMETRY GROUP	GEL 742126R
							0: M:	FOR NEUTRON DOSIMETRY USING SPECTRUM METHODS. GREATER THAN 10 PERCENT DISCREPANCY & INTEGRAL AND DIFFERENTIAL MEASUREME SUBSTANTIAL MODIFICATIONS.	UNFOLDING Between Ents.
STATUS									STATUS
UN	IDER CO		S REVIE	W BY	INDC. SEE A	PPEND	IX A.		
22 TITAN	UM 47		NEU	TRON		N.P	=======		
345	1.00	MEV	18.0	MEV	10.0%	2	USA Q:	W.N.MC ELROY HED REQUIRED IS ACTIVATION. DATA REQUESTED IN 1 MEV INTERVALS.	691071R
							ô:	FOR USE AS A FLUENCE MONITOR .	
346	2.10	MEV	7.00	MEV	5.0%	2	EUR	NEUTRON DOSIMETRY GROUP	GEL 7421278
							0:	FOR NEUTRON DOSIMETRY USING SPECTRUM METHODS. GREATER THAN 10 PERCENT DISCREPANCY (UNFOLD ING BETWEEN
								INTEGRAL AND DIFFERENTIAL MEASUREME	ENTS.
51A1US			S REVIE		INDC. SEE		IX 4.		STATUS
========		=======							
22 TITAN	UM 48	========	NEU	TRON	============	N,P =====	==ecca=		
347	1.00	MEV	18-0	MEV	10-0%	2	USA	W.N.MC ELROY HED	691073P
						-	Q: A: 0:	REQUIRED IS ACTIVATION. DATA REQUIRED AT 500 KEV INTERVALS. ENERGY RESOLUTION 100 KEV. For use as fluence monitor.	
348	6.60	MEV	12.8	MEV	5.0X	2	EUR	NEUTRON DOSIMETRY GROUP	GEL 742128R
•			-				0:	FOR NEUTRON DOSIMETRY USING SPECTRUM Methods. Greater Than 10 percent discrepancy i Integral and differential measurem	UNFOLDING Between Ents.

22 TITAN	IUM 48	NE ====================================	UTRON		N,P)) 	CONTINUED
STATUS		_ 							STATUS
. U	INDER CONT	INUDUS REVI	EW BY	INDC. SEE A	PPEND	IX A.			
23 VANAD		======================================	UTRON		ELASI	IC CROS	S SECTION		.492002281
		22223222222			===		:\$\$ == = = = = = = = = = = = = = = = = =	***************************************	
349	2.00 M	EV 15.0	MEV	10.0%	1	ССР	I.N.GOLOVIN K	UR	7240231
						0:	POTENTIAL USE AS ST FOR DETERMINATION (TRUCTURAL MATERIAL. OF NEUTRON TRANSMISSION	4.
350	25.3 M	V 20.0	MEV	3.0%	2	IND	S.B.GARG T	RM	753040
						0:	REQUIRED FOR STRUC	TURAL-MATERIAL CALCULAT	TIONS.
====== 3 vanad		=#========= NE	UTRON	**********		ERENTIA	ELASTIC CROSS SEC		
=======		=======================================						2232822022203250222222	
351	.1.40 M	EV 10.0) MEV	10.0%	З.	UŞA	C.E.TILL A	NL	621009
						Α:	ENERGY RESOLUTION	500 KEV.	
						•	ANGULAR RESOLUTION	10 DEGREES.	
352	15.0 M	EV 35.0	MEV	10.0%	1	USA	C.R.HEAD D	0E	7810320
						A: 0: M:	ACCURACY FROM 10. SENSITIVITY STUD FOR MATERIAL DAMAG NEW REQUEST.	TO 50. PC TO BE DETERMI IES. E CALCULATIONS.	INED FROM
======= 3 vanad	:========) UM	=========== NE	UTRON		INEL	ASTIC C	ROSS SECTION	===============================	
	**********							*********************	=========
353	3.00 M	EV 14.0) MEV	10.0%	2	FR	B. DU CHEMIN S	AC	732013
		•	•	·		0:	POTENTIAL CONSTITU	ENT OF CONTAINMENT VESS	BEL.
354	UP	TO 20.0	MEV	3.0%	2	IND	S.B.GARG T	RM	753041
•						0:	REQUIRED FOR STRUC	TURAL-MATERIAL CALCULAT	TIONS.
355	ue	TO 15.0	MEV	10. 3	2.	JAP	M.KASAT M	A P	762084
	•				-	0:	POTENTIAL CONSTITU	ENT OF STRUCTURAL MATER	RIAL
							NEUTRON TRANSPORT	CALCULATIONS	
3 VANAD	•=====================================	NE	UTRON		ENER	SY DIFF	RENTIAL INELASTIC	CROSS SECTION	
356	1.50 M	EV 10.0) MEV	15.0%	3	USA	C.E.TILL A P.GREEBLER G	NL EB	621011
						·0:	TOTAL INTEGRAL OVE	R & PI REQUIRED.	
							SPECTRA AT SEVERAL ANISCTROPIC.	ANGLES IF SIGNIFICANTE	_¥ ·
357	2.00 M	EV 15.0		15-08		CCP		110	7240.24
337	2800 M	2. 13.	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	15.0%	1	0:	NEUTRONICS CALCULA	TIONS FOR BLANKET AND S	SHIELD.

3 VANAD) I UN : 9\$==0=====	NE = = = = = = = = = = = = = = = = = = =		*===========	AB\$0	RPTION	CROSS SECTION		
358	1.00 K	EV 150.	KEV	10.0%	3	USA	C.E.TILL A	NL	621015
					-		P.GREEBLER G P.B.HEMMIG D	JEB OE	
						A:	ENERGY RESOLUTION	10 PERCENT.	A -
359	500. E	V 15.0	D MEV	25.0%	3	FR	P.HAMMER C		712010
								ALCOLA (IONS.	
3 VANA	DIUM 	NE	UTRON		CAPT	URE CRO	SS SECTION		
760	100 5	V 100	KEV	10.08	•				602077
300	100.	v 100.	, KEV	10.04	2	۵: ۱	FOR FAST REACTORS.		092073
						• •			
361	1.00 K	EV 2.00) MEV	15.0%	1	CCP O'	I.N.GOLOVIN K	UR L. CAMMA DAY HEATING, AN	724027
						.0.	PRODUCTION OF HI	GHER ISOTOPES.	
362	14.0 M	EV		15.0%	1	CCP	I.N.GOLOVIN K	UR	724028
						0:	NEUTRON ABSORPTION	. GAMMA RAY HEATING. A	ND
							PRODUCTION OF HI	GHER ISUTOPES.	
363	25 .3 M	v 20.0	D MEV	3.0%	2	IND	S.B.GARG T	RM	753042
						0:	REQUIRED FOR STRUC	TURAL-MATERIAL CALCULA	TIONS.
364	25.3 M	v 15.0	MEV	10. X	2	JAP	K. IOKI M	IAP	762088
						0:	POTENTIAL CONSTITU	DENT OF STRUCTURAL MATER	RIAL
					******				========

23 VANAD		NEUTRON		TOTAL	PHOTO	N PRODUCTION CROSS SECTION
365	300. KEV	15.0 MEV	15.0%	1	CCP Q:	I.N.GOLCVIN KUR 724029 GAMMA RAY SPECTRUM ALSO WANTED.
					Ő:	ĜAMMA RAY HEĀTINĠ CAĒCŪLATIONS.
366	25.3 MV	15.0 MÉV	10. %	2	JAP G:	M.KASAI MAP 762089 POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL
						GAMMA-RAY HEATING CALCULATIONS
23 VANAD	IUM ===========================	NEUTRON		N , 2N =====		
367	2.00 MEV	15.0 MEV	15.0%	1	CCP	I.N. GOLDVIN KUR 724025
					0:	NEUTRON BLANKET CALCULATIONS.
368	14.0 MEV		15.0%	1	ССР	I•N•GOLOVIN KUR 724026
				-	Q:	ENERGY AND ANGULAR DEPENDENCE OF SECONDARY
					0:	NEUTRON BLANKET CALCULATIONS.
369	UP TO	14.0 MEV	10.0%	2	FR	B. DUCHEMIN SAC 732014
					0:	POTENTIAL CONSTITUENT OF CONTAINMENT VESSEL.
370	UP TO	15.0 MEV	10. X	2	JAP	N.KASAI MAP 762085
					0:	POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL Neutron multiplication calculations
	*************	5=2===================================				
23 VANAD	10M ====================================			=====	THE ANGL	E DIFF. NEUTRON-EMISSION CROSS SECTION
371	15.0 MEV	35.0 MEV	10.0%	1	USA	C.R.HEAD DOE 781038
					A:	ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES.
					0: M:	FOR MATERIAL DAMAGE CALCULATIONS. New request.
372	9.00 NEV		10.0*	2	115.4	
0.2	JUGO MEV		10102	-	031	DATA NEEDED FOR SHIELDING, ACTIVATION AND NEUTRON
					м:	TRANSPORT CALCULATIONS. NEW REQUEST.
23 VANAD	 IUM	NEUTRON		****** N,P		
373	UP TO	15.0 MEV	15.0%	1	CCP	I.N. GOLOVIN KUR 724030
					0:	FUR HYDRUGEN ACCUMULATION CALCULATIONS.
374	UP TO	14.0 MEV	10.0%	2	FR	B. DUCHEMIN SAC 732015
					0:	PUTENTIAL CONSTITUENT OF CUNTAINMENT VESSEL.
375	0.00 EV	15.0 MEV	10. X	2	JAP	M.KASAI MAP 762086 K.IOKI MAP 762086
					0:	POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL Hydrogen accumulation calculations
23 VANAD	================== 1UM	NEUTRON		ENERG	Y-ANGLI	E DIFF. PROTON-PRODUCTION CROSS SECTION
376	14.0 MEV			2	USA	C.R.HEAD DOE 781152
					A: 0: M:	ACCURACY TO BE DETERMINED. Data reguired for radiation damage calculations. New request.
					======	
23 VANAD	10M P# 0~ 0 # 2 = = = = = = = = = = = = = = = = = =		===========	N, ALP	HA 222222	
377	UP TO	15.0 MEV	15.0%	1	CCP	I.N.GOLOVIN KUR 724031
					0:	HELIUM ACCUMULATION CALCULATIONS.
378	UP TO	14.0 MEV	10.0%	2	FR	B. DUCHEMIN SAC 732016
					0:	POTENTIAL CONSTITUENT OF CONTAINMENT VESSEL.
379	0.00 EV	15.0 MEV	10. %	2	JAP	M.KAŠAI MAP 762087 K.IOKI MAP 762087
					0:	POTENTIAL CONSTITUENT OF STRUCTURAL MATERIAL
						CALCULATIONS.
23 VANAD	IUM	NEUTRON		ENERG	Y-ANGL	E DIFF. ALPHA-PRODUCTION CROSS SECTION
380	14.0 MEV			2	USA	C.R.HEAD DOE 781131
					A: 0: M:	DATA REQUIRED FOR RADIATION DAWAGE CALCULATIONS. New request.

23 VANAD 1	UM	NEU	TRON		TOTAL	HYDRO	GEN-PRODUCTION	CROSS SECTION	
			=====			=======		=======================================	
381	15.0 MEV	35.0	MEV	10.0%	1	USA	C.R.FEAD	DOE	781026F
						A: 0: M:	ACCURACY FROM SENSITIVITY FOR MATERIAL D New Request.	10. TO 50. PC TO BE DET Studies. Amage calculations.	ERMINED FROM
382	9.00 MEV	. 14.0	MEV	10.0%	2	USA	C.R.HEAD	DOE	781110F
						A: 0: M:	ACCURACY FROM SENSITIVITY FOR RADIATION NEW REQUEST.	10. TO 50. PC TO BE DE Studies Damage calculations.	FERMINED FROM
23 VANADI	======================================	========== NEU	TRON		TOTAL	HELIU	M-PRODUCTION CR	CERTINN	

383	9.00 MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD	DOE	781098F
						A: D: M:	ACCURACY FROM SENSITIVITY FOR RADIATION New request.	10. TO 50. PC TO BE DE' Studies Damage calculations.	FERMINED FROM
384	15.0 MEV	35.0	MEV	10.0%	1	USA	C.R.HEAD	DOE	781211F
						A: D: N:	ACCURACY FROM SENSITIVITY FOR MATERIAL D NEW REQUEST.	10. TO 50. PC TO BE DE STUDIES. Amage calculations.	FERMINED FROM
23 VANAD 1	UM 50	nen en	TRON		N, 2N				
======	********						************		
385	UP TO	15.0	MEV	10. *	з	JAP	M. KASAI	MAP	762091F
						0:	TRANSMUTATION	CALCULATIONS	
23 VANADI	UM 50	e e e e e e e e e e e e e e e e e e e	TRON		N,ALF	======= Pha	************		
			= = = = = =					######################################	*************
386	0.00 EV	15.0	MEV	10. %	з	JAP	K.IOKI M.KASAI	MAP MAP	762092F
						0:	TRANSMUTATION	CALCULATIONS	
		= 0 = = = = = = = = = = = = = = = = = =				CD055	SECTION		************
			=====		=====		=========================		
387	1.00 KEV	20.0	MEV	3.0%	2	USA	P.8.HEMMIG		721035R
						A:	5 PERCENT ALCU ENERGY RESOLUT STRUCTURE .	RACY IN DEEP MINIMA. Ion sufficient to resol	VE MAJOR
388	1.00 KEV	20.0	MEV	3.0%	2	USA	P. GREEBLER	GEB	741031R
					=====				
24 CHROMI	UM	NEU	TRON		ELAS	TIC CRO	SS SECTION		
389	25.3 MV	20.0	MEV	3.0%	2	IND	S.B.GARG	TRM	753031R
							REGUIRED FUR S	TROCTORAL-MATERIAL CAL	LULATIONS.
24 CHROM		NEU	TRON		DIFF	ERENTIA	L ELASTIC CROSS	SECTION	
300	2.00 MEN	16.0	MEV	20.04	2	50		SAC	6030770
390	2.00 M21	10.0	MEV	20.0%	E	FR A:	ACCURACY 10 PE	RCENT PREFERRED.	6920778
						0:	ENERGY RESOLUT Angular resolu Evaluation May	IDN 0.5 MEV. TION 5 TO 10 DEGREES. BE SUFFICIENT.	
391	100. KEV	15.0	MEV	10.0%	3	USA	P.B.HEMMIG	DOE	741032R
392	15.0 MEV	35.0	MEV	10.0%	1	USA	C.R.HEAD	DOE	781217F
						A: D: M:	ACCURACY FROM SENSITIVITY FOR MATERIAL D NEW REQUEST.	IO. TO 50. PC TO BE DE STUDIES. DAMAGE CALCULATIONS.	TERMINED FROM
24 CHROM	1==222222222 [UM ==2222222222	NEL	JTRON		INEL	ASTIC C	ROSS SECTION		
	,							·····	
393	3.00 MEV	14.0	MEV	10.0%	3	FR O:	B. DUCHEMIN	SAC	732017F
394	UP TO	20.0	MEV	3.0%	2	IND O:	S.B.GARG REQUIRED FOR S	TRM	753032R CULATIONS.
-		• - -			-			145	
	UP 10	12.0	MEV.	¥ • 61	2	JAP Q:	INELASTIC GAMM	JAE NA RAY SPECTRA ALSO REQ	762093F UIRED
•						0:	NEUTRON TRANSP	ORT AND GAMMA-RAY HEAT	ING CALC.

.

24 CHROMI	[UM ========		NEU ======	TRON		INEL	STIC C	ROSS SECTION		(CONTINUED)
						-			6 111	7/00705
396	UP	τo	15.0	MEV	30.0%	2	UK 0:	G.M.MC CRACKEN	CUL IRENENT.	/62238F
								FOR NEUTRON ECO	NOMY CALCULATIONS.	
24 CHROM	IUM		neu	TRON	**********	ENERG	Y DIFF	ERENTIAL INELAST	IC CROSS SECTION	**********

397	500.	KEV	15.0	MEV	10.0%	2	USA	P.GREEBLER P.B.HEMMIG	GEB DOE	661012R
							Q: A:	TOTAL INTEGRAL SPECTRA AT SEVE ANISOTROPIC. ENERGY RESOLUTI STRUCTURE.	OVER 4 PI REQUIRED. Ral Angles IF Signific On required to determi	ANTLY Ne major
398	UP	та	15.0	MEV	20.0%	3	FR	P.HAMMER	CAD	732040R
							e:	FOR FAST REACTO	R CALCULATIONS.	
24 CHROM	=======================================	=====	=== = = = = NEU	TRON	*==========	ABSOR	RPTION	CROSS SECTION		**********
				=====	***********			****************	********************	************
399	500.	EV	15.0	MEV	5.0%	1	FR	P. HAMMER	CAD	712014R
							0:	FOR FAST REACTOR	R CALCULATIONS.	
24 CHR OM	======= IUM		===== NEU	TRON	*********		RE CRO	SS SECTION		*=======
				=====	*********					*==**********
400	100 .	EV	100.	KEV	20.0%	1	UK	C.G.CAMPBELL	WIN	6920 82R
					•		0:	FOR FAST REACTOR	RS.	
401	25.3	MV	200.	KEV	10.0%	1	GER	F.FROEHNER	KFK	692083R
						-	Q:	RESONANCE PARAMI	ETERS ALSO REQUIRED PA	RTICULARY
							A: 0:	FOR CR-53. ADDITIONAL CAPTI DETERMINATION EMPHASIS ON ACCI FOR BROAD S LEV DOPPLER COEFFIC CAPTURE WIDTHS I DISCREPANCIES CAPTURE RESON, FROM CIFFEREN	URE MEASUREMENTS AND C S FOR INDIVIDUAL RESON URATE (10 PERCENT) RAD ELS AND ON P LEVELS CO IENT. NEEDED BECAUSE OF LARG DETWEEN DIRECTLY MEAS ANCE INTEGRAL AND THAT TAAL CADTURE MEASUREME	APTURE WIDTH ANCES WANTED. IATION WIDTHS NTRIBUTING TO E URED INFINITE CALCULATED NTS.
				•	·		м :	SUBSTANTIAL MOD	IFICATIONS.	
402	500.	EV	1.00	MEV	5.0%	1	FR	P. HAMMER	CAD	692084R
							٥:	NEED OF RESONAN	CE PARAMETERS FOR THE	MAIN
							0:	FAST REACTOR CAL EVALUATION AND 8	LCULATIONS. Experiment needed.	
403	1.00	KEV	600.	KEV	25.0%	2	FR	B. DUCHEMIN	SAC	692085R
							0:	FOR HEATING AND EVALUATION MAY	CIRCUIT ACTIVATION CA BE SUFFICIENT.	LCULATION.
404	1.00	KEV	1.00	MEV	15.0%	2	USA	P.GREEBLER P.B.HEMMIG	GEB DOE	721036R
							Α:	ENERGY RESOLUTIO	ON 20 PERCENT.	
405	25.3	MV	20.0	MEV	3.0%	2	IND	S.B.GARG	TRM	753033R
							0:	REQUIRED FOR ST	RUCTURAL-MATERIAL CALC	ULATIONS.
406	0.00	EV	15.0	MEV	15. *	•	140	VEFT	145	76 2 2 2 4
400		_ •	1340		131 4	2	JAF Q:	GAMNA RAY SPECT	RA ALSO REQUIRED.	762094F
							ō:	GAMMA-RAY HEATIN	NG CALCULATIONS	
407	25.3	M ∨	15.0	MEV	30.0%	2	UK	G.M.MC CRACKEN	CUL	762247F
							0:	EVALUATION REQUI	IREMENT.	
408	100.	ËV	100.	KEV	20.0%	1	GER	H.KUESTERS	KFK	792198R
STATUS							M :	NEW REQUEST.		·
UN	NDER CON	TINUOUS	REVIE	W BY 1	NDC AND NE	ANDC.	SEE AP	PENDIX A.		STAIUS
=======	=========					======			=======================================	
24 CHROMI	[UM =======	=======	NEU =====	TRON		TOTAL	PHOTO	N PRODUCTION CROS	SS SECTION	
409	1.00	KEV	15.0	MEV	10.0%	2	FR	B.DUCHEMIN	SAC	6020800
-							Q:	GANNA SPECTRA RE	EQUIRED	
				*====			A: 0:	ENERGY RESOLUTIO THAN 1 MEV AND THAN 1 MEV. EVALUATION MAY D	DN OF 250 KEV FOR GAMM D 500 KEV FOR ENERGIES BE SUFFICIENT.	A RAYS LESS GREATER

24 CHROMI	UM	NEUTRON		ENERG	Y DIFF.	• PHOTON-PRODUCTION CROSS SECTION
242222 822			==========			= # = = # = = = = = = = = # = = # = # =
410	UP TO	15.0 MEV	10.0%	2	USA	P.B.FEMMIG DOE 721037R
		· .		. • •	Q: A:	ENERGY REQUESTED IS A MAXIMUM VALUE ONLY. GAMMA-RAY INTERVALS - 500 KeV. EOR USE IN SHELDING CALCULATIONS.
					=======	
24 CHROMI	UM	NEUTRON		N.2N		
411	UP TO	14.0 MEV	10.0%	3	FR C:	B.DUCHEMIN SAC 732018F POTENTIAL CONSTITUENT OF CONTAINMENT VESSEL.
412	UP TO	15.0 MEV	15. %	2	JAP. O:	Y.SEKI JAE 762095F NEUTRON BALANCE CALCULATIONS
413	UP TO	15.0 MEV	20.0%	2	UK	G.M.MC CRACKEN CUL 792162F
					0:	EVALUATION REQUIREMENT FOR FUSION REACTORS. FOR NEUTRON ECONOMY.
					MI	NEW REQUEST.
24 CHROMI	:================ :UM	NEUTRON	=========	NEUTR	ON EMIS	SSION CROSS SECTION
-\$222\$223						
414	2.00 MEV	14.0 MEV	10.0%	2	FR	B.DUCHEMIN SAC 692079R
					9:	SECONDARY ENERGY-ANGLE DISTRIBUTION REQUIRED.
					ô:	ENERGY RESOLUTION IN PERCENT. FOR FAST REACTOR SHIELDING CALCULATIONS. EVALUATION MAY BE SUFFICIENT.
			\$ 32 25 25 2 C	ENERG	SEECES	E DIEF, NEUTRON-ENISSION CROSS SECTION
24 CHROMI			********			
415	9.00 MEV	14-0 MEV	10.0*	1	1154	
415	9100 MLV	14.0 MEV	10.04	•	0.0	EDE SHIELDING, ACTIVATION AND TRANSPORT STUDIES OF
					-M:	NEXT GENERATION D-T REACTOR DESIGNS.
416	15.0 MEV	35.0 MEV	10.0%	1	USA	C.R.HEAD DOE 781218F
•					Α:	ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM
					0:	FOR MATERIAL DAMAGE CALCULATIONS.
24 CHROMI		NEUTRON		N.P		
417			30.0%	3	UK	C.G.CAMPBELL WIN 692086R
					Q: D:	FISSION SPECTRUM AVERAGE WANTED. For Fast reactors.
					-	
418	UP TO	15.0 MEV	10.0%	1	FR	P.HANNER CAD 712016R
					0:	FOR FAST REACTOR CALCULATIONS.
419	UP TO	14.0 MEV	10.0%		FR	B.DUCHEMIN SAC 732019F
					0:	POTENTIAL CONSTITUENT OF CONTAINMENT VESSEL.
420	UP TO	15.0 MEV	20 . X	2	JAP	Y. SEKI JAE 762096F
					0:	HYDROGEN ACCUMULATION CALCULATIONS
421	UP TO	15.0 MEV	25.0 %	2	UK	G.M.MC CRACKEN CUL 762241F
					0:	EVALUATION REQUIREMENT.
						FOR HYDROGEN GAS PREDUCTION RATES AND NEUTRUN ECONOMY CALCULATIONS.
			70 04			1. KUSSTERS
422	00 10	15.0 MEV	30.02	1	GER	
					Mi	NEW REQUEST.
24 CHROM		NEUTRON		ENERG	SY-ANGL	E DIFF. PROTON-PRODUCTION CROSS SECTION
423	14.0 MEV			2	USA	C.R.HEAD DOE 781142F
					A:	ACCURACY TO BE DETERMINED.
					M:	NEW REQUEST.
				SESSES		
24 CHRUM. 25222252				149 ALP 222223		
A0 4	410 TO	15.0 454	10-04	9	F P	
424	01 40	ADAU MEV	10.0%	۲	r.K.	DEDUCIEMENT GAU (J2020F
					M:	SUBSTANTIAL MODIFICATIONS.
A35	3.00 MEM	15.0 454	10.0~		ED	
463	JOU MEV	IJOU MEV	. U . U X	1		
					0:	I JUN FROM PLACIUM CALCULATIONS.
426	0.00 EV	15.0 MEV	20 . X	2	JAP	Y.SEKI JAE 762097F
					0:	HELIUM ACCUMULATION CALCULATIONS

24 CHROMI	UM 232232222222	NEUTRON	N, AL	PHA		(CONTINUED)
						7600435
427	UP TO	15.0 MEV	25 .0% 2	UK 0:	G.M.MC CHACKEN CUL EVALUATION REQUIREMENT. FOR HELIUM GAS PRODUCTION RAT ECONDMY CALCULATIONS.	ES AND NEUTRON
	110 70		20.07	PL C		7021088
428	UP TU	12.0 WEV	20.04 2	0: 0: M:	TOTAL HELIUM PRODUCTION REQUI For use as a fluence monitor. New request.	RED.
429	UP TO	15.0 MEV	30.0% 1	GER M:	H.KUESTERS KFK NEW REQUEST.	792200R

24 CHROM 1 ========	:UM :===================================	NEUTRON ====================================	ENER ===================================	GY-ANGL	E DIFF. ALPHA-PRODUCTION CROSS	
430	14.0 MEV		2	USA	C.R.HEAD DOE	781121F
				A: 0: M:	ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION D NEW REQUEST.	AMAGE CALCULATIONS.
24 CHROM 1	:=====================================		TOTA	L HYDRO	GEN-PRODUCTION CROSS SECTION	=======================================
431	9.00 MEV	14.0 MEV	10.0X 1	USA 0:	C.R.HEAD DUE FOR RADIATION DAMAGE STUDIES	781058F DF NEXT GENERATION
				M:	D-T REACTOR DESIGNS. NEW REQUEST.	
432	15.0 MEV	35.0 MEV	10.0% 1	USA	C.R.HEAD DOE	781215F
				A: 0: M:	ACCURACY FROM 10. TO 50. PC T Sensitivity Studies. For Material Damage Calculati New Request.	O BE DETERMINED FROM ONS.
24 CHROM		NEUTRON	TOTA	L HELIU	M-PRODUCTION CROSS SECTION	
433	9.00 MEV	14.0 MEV	10.0X 1	USA	C.R.HEAD DOE	781067F
				M:	D-T REACTOR DESIGNS. NEW REQUEST.	OF NEXT GENERATION
434	15.0 MEV	35.0 MEV	10.0% 1	USA	C.R.HEAD DOE	781216F
				A: 0: M:	ACCURACY FROM 10. TO 50. PC T Sensitivity studies. For Material Damage Calculati New Request.	O BE DETERMINED FROM ONS.
24 CHROM	UM 50	NEUTRON	CAPT	URE CRO	SS SECTION	
435	100. EV	1.00 MEV	25.0% 1	UK	C.G. CAMPBELL WIN	· 7921298
				M:	NEW REQUEST.	· · · ·
436	100. EV	15.0 MEV	25.0 % 1	GER	H.KUESTERS KEK	792193R
				а: 0: м:	EVALUATION WANTED. ACTIVATION OF CODLANT AND STR GENERATION IN STRUCTURAL MATE NEW REQUEST.	UCTURE AND HEAT RIALS.
437	25'.3 MV	3.00 MEV	10.0% 1	FR	L.COSTA CAD	792252R
				0: M:	DUT-OF-CORE CYCLE New Request.	
24 CHROMI		NEUTRON		NANCE P	ARAMETERS	********************
22220000						*********************
438	UP TO	100. KEV	10.0% 2	USA	F.G.FEREY ORL	741033R
				0:	ENERGY REQUESTED IS A MAXIMUM NEUTRON WIDTH, GAMMA WIDTH, S WANTED.	VALUE ONLY. PIN AND PARITY
24 CHROM	IUM 52	NEUTRON	======================================	18022362 1 12268822	=======================================	s=====================================
430	110 70				M KACAT NAD	7620085
439				0:	TRANSMUTATION CALCULATIONS	/020901
24 CHR 0M		NEUTRON			= 8 = = = = = = = = = = = = = = = = = =	
85555555					=======================================	=============================
440	UP TO	15.0 MEV	1	GER	B.GOEL KFK	692088R
22092222	===================		==# ===============	A: D: M:	ACCURACY 10-20 PERCENT DESIRE Main Absorption Process in Me Substantial Modifications.	D. V RANGE. ====================================

24 CHROMI	UM 52		NEU	TRON		RESON	ANCE P	ARAMETERS
				======				
441	U	Р ТО	100.	KEV	10.0%	2	USA	F.G.PEREY OPL 741034
							0:	ENERGY REQUESTED IS A MAXIMUM VALUE ONLY. Neutron width, gamma width, spin and parity wanted.
2222222222	===== UM 53	= = = = = = = = = =	********		*********	RESON	ANCE P	******
200000000	======		======	=======		S 2 2 2 2 2 2		ARAME ERS
442	U	р то	100.	KEV	10.0%	2	USA	F.G.PEREY ORL 741035
							Q:	ENERGY REQUESTED IS A MAXIMUM VALUE ONLY
								WANTED.
25 MANGAN	===== ESE 54	=======	NEU	TRON		CAPTU	RE CRO	ISS SECTION
	~~~==	9 = 2 = 2 <u>2 </u> 2 2	=== &==		2293202222	******		
443	25.3	MV			5.0%	2	BLG	N.MAENE MOL 692092
							0:	FOR BURN-UP CALCULATION OF FE-54(N.P) MN-54
				92 <del>2</del> 2 2 2 2 2		*****		
25 MANGAN	ESE 55 =====		NEU	TRON		TOTAL	CROSS	SECTION
						_		
444					4.0%	2	USA	F.G.PEREY ORL 741195
							0:	NEED VALUES IN FE WINDOWS.
25 MANGAN	ESE 55		NEU	TRON		ABSOR	PTION	CROSS SECTION
					. ,			
445	500.	EV	15.0	MEV	7.00%	2	FR	P.HAMMER CAD 712017
							0:	FOR FAST REACTOR CALCULATIONS.
25 MANGAN	222292 ESE 55		IIIII NEU	TRON		CAPTU	RE CRO	SS SECTION
			=====	#=====				
446	100.	EV	100.	KEV	20.0%	2	UK	C.G.CAMPBELL WIN 682010
							0:	FOR FAST REACTORS.
447	1.00	MV	0.50	EV	1.04	2	IICA	N. STEEN BET 761052
	1.00	PR V	0,00	2.	1104	2	034	NEEDED TO INTERPRET MANGANESE BATH MEASUREMENTS
							M:	OF NU AND ETA. New Request.
					========	_ = = = = = =	*******	
25 MANGAN	ESE 55		NEU	TRON		N,2N ======		
			17.0	MEN		•	<b>C</b> 11D	
448	0	P 10	13.0	MEV	3408	2	50K 0:	THE NEUTRON DOSIMETRY USING SPECTRUM UNERLDING
								METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEEN
	•							INTEGRAL AND DIFFERENTIAL MEASUREMENTS.
STATUS								STATU
UN	DER CO	NTINUOUS	REVIE	W BY I	NDC. SEE A	PPENDI	X A.	
25 MANGAN	ESE 55	=======================================	NEU	TRON	=======================================	CAPTU	URE RES	SONANCE INTEGRAL
440	0.50	EV			5-0×	2	USA	N.STEEN BET 741034
						-	Q:	ENERGY REQUESTED IS A MINIMUM VALUE ONLY.
							0:	NEEDED FOR ANALYSIS OF MANGANESE BATH EXPERIMENTS
26 IRON	=====	= 0 = = = = = = = = = = =	NEU	TRON		TOTAL	CROSS	:=====================================
============	22222				============	*====		***************************************
450	500.	EV	15.0	MEV	1.0%	2	FR	P.HANMER CAD 712021
				•			0:	FOR FAST REACTOR CALCULATIONS.
451	10.0	KEV	1.00	MEV	5.0%	2	CCP	N.N.NIKOLAEV FEI 714003
					••••	_	Q:	CAREFUL MEASUREMENTS OF INTERFERENCE MINIMA
								NEEDED. Observation of P-wave resonances is wanted.
							A:	TRANSMISSION MEASUREMENTS WITH POOR RESOLUTION BU STRONG ATTENUATION OF THE PRIMARY BEAM ARE WANT
								ED FOR MINIMA CS MEASUREMENTS. HIGH RESOLUTION MEASUREMENTS ARE DESIRED FOR P-
								WAVE RESUNANCE OBSERVATION AND RESONANCE PARAMETER DERIVATION.
							a:	THE TOTAL AND CAPTURE CROSS SECTIONS FOR FAST
								COMPARISON OF THE S AND P-WAVE LEVEL DENSITIES IS
			·					DENSITY PARITY DEPENDENCE CONFIRMATION.
452	20.0	MEV	50.0	MEV	10.0%	1	USA	C.R.HEAD DOE 781203
						-	Α:	ACCURACY REQUIRED 10 TO 15 PERCENT.
				· .			0: M:	FOR SHIELD DESIGN IN FMIT FACILITY. New Request.
822222	462269		*=====					

26 IRON		NEUTRON		ELAS	TIC CRO	SS SECTION
453	25.3 MV	20.0 MEV	3.0%	2	IND O:	S.B.GARG TRM 753034 REQUIRED FOR STRUCTURAL-MATERIAL CALCULATIONS.
20 IRUN 525555555			============	=====	======	
454	500. KEV	3.00 MEV	5.0%	1	USA	D.BARTINE ORL 691085
					Q: A: C:	REQUIRED AT SEVERAL PEAKS AND VALLEYS. ENERGY RESOLUTION 1 PERCENT. REQUIRED FOR SHIELDING.
455	1.00 KEV	15.0 MEV	10.0%	1	USA	C+E+TILL ANL 691086
				-	A:	RESOLUTION AT LEAST TO RESOLVE INTERMEDIATE STRUCTURE.
456	1.00 KEV	15.0 MEV	10.0%	1	USA	P. 8. HEMMIG DDE 691087
457	8.00 MEV	15.0 MEV	10.0%	2	GER	B.GOEL KFK 692094
					a: 0:	MEASUREMENTS DESIRED IN ENERGY STEPS OF 1 MEV, AN Angular steps of 10 degrees. For shielding calculations.
458	15.0 MEV	35.0 MEV	10.0%	1	USA	C.R.HEAD DOE 781030
					A: D: M:	ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM Sensitivity studies. For material damage calculations. New request.
459	20.0 MEV	50.0 MEV	10.0%	1	USA	C.R.HEAD DOE 781205
					A: 0: M:	ACCURACY REQUIRED 10 TO 15 PERCENT. For shield design in fmit facility. New request.
26 IRON		NEUTRON	205022228	INEL	ASTIC C	FREE SECTION
	========================	***********	2222300000		======	
460	UP TC	15.0 MEV	20.0%	2	UK 0:	G.M.MC CRACKEN CUL 722102 Evaluation requirement. For blanket heating calculations.
461	3.00 MEV	14.0 MEV	10.0%	2	FR	B. DUCHEMIN SAC 732021
				-	0:	POTENTIAL CONSTITUENT OF CONTAINMENT VESSEL.
462	UP TO	20.0 MEV	3.0%	2	IND	S.B.GARG TRM 753035
					0:	REQUIRED FOR STRUCTURAL-MATERIAL CALCULATIONS.
463	UP TO	15.0 MEV	15 <b>. X</b>	2	JAP	Y.SEKI JAE 762099
					Q: D:	INELASTIC GAMMA FAY SPECTRA ALSO REQUIRED. Neutron transport and gamma-ray heating calc.
26 IRON		NEUTRON	**********	ENER	GY DIFF	ERENTIAL INELASTIC CROSS SECTION
464	850. KEV	2.00 MEV	5.0%	1	USA	P.GREEBLER GEB 661016 P.B.HEMMIG DOE 661016
					0:	TOTAL INTEGRAL OVER 4 PI WANTED. Spectra at several angles if significantly
					A:	ANISOTROPIC. ACCURACY OF 5.0 PERCENT BELOW 2 MEV, 10.0 PERCENT ABOVE. Resolution 20 KeV for incident and scattered Neutrons.
465	8.00 MEV	15.0 MEV	20.0%	2	GER	B.GOEL KFK 692100
					Α:	ENERGY RESOLUTION 500 KEV FOR INCIDENT NEUTRONS AND 200 KEV FOR SECONDARY NEUTRONS
465	UP TO	14.0 MEV	5.0%	1	FR	P.HAMMER CAD 702007
				•	0: M:	FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS.
467	900. KEV	15.0 MEV	5.0%	2	ССР	M.N.NIKOLAEV FEI 714004
					0: A: 0:	IN CONTINUUM REGION ENERGY DEPENDENCE OF NUCLEAR TEMPERATURE WANTED. IN THE REGION BELOW 3 MEV AVERAGE CHARACTERISTICS OF STRUCTURE IN THE CROSS SECTION ARE WANTED FO EVALUATION OF SELF SHIELDING. TRANSMISSION MEASUREMENTS USING THE SELF- INDICATION METHOD WITH DETECTION OF GAMMA RAYS FROM INELASTIC SCATTERING ARE DESIRED. MEASUREMENTS SHOULD EXTEND TO PRIMARY-BEAM ATTENUATION DOWN TO 1/100 OR 1/1000. CROSS SECTION FOR INELASTIC REMOVAL BELOW FISSION THRESHOLD OF U-238 WANTED WITH 5.0 PERCENT ACCURACY. LEVEL EXCITATION CROSS SECTION DESIRED WITH 10 PERCENT ACCURACY. SEE GENERAL COMMENTS IN THE INTRODUCTION.
468	UP TO	15.0 MEV	10.0X	2	USA	D.BARTINE ORL 761075
				-	0:	TO RESOLVE SPECTRA MEASUREMENTS FROM STAINLESS STEEL.
					M:	NEW REQUEST.

26 IRON			NEU NEU	TRON		ENER	GY-ANGLE	DIFFERENTIAL INE	LASTIC CROSS SECTION	
469	U	P TO	10.0	MEV		3	UK	C.G.CAMPBELL J.BUTLER	WIN WIN	692098R
							0:	EVALUATION REQUIR FOR FAST REACTORS	T ABOVE Rement. 5 AND Shielding.	AND
470	υ	р то	4.00	MEV	5.0%	1	GER	H. KUESTERS	KFK	792205R
·							. M:	NEW REQUEST.		
471	4.00	MEV	15.0	MEV		1	GER A: M:	H.KUESTERS ACCURACY OF 5-30 NEW REQUEST.	KFK PERCENT REQUIRED.	792206R
26 IRON		====== =======	NEU	===== TRON		NON-	ELASTIC	CROSS SECTION		
472	20.0	MEV	50-0	MEV	10.0*	1	USA		DO F	781207F
					1000	•	A: 0: M:	ACCURACY REQUIRED FOR SHIELD DESIGNEW REQUEST.	D 10 TO 15 PERCENT. N IN FMIT FACILITY.	
26 IRON		====== =======	NEU	===== TRON =====		ABSO	RPTION (	CROSS SECTION		**********
473	500.	EV	15.0	MEV	5.0%	1	FR	P.HAMMER	CAD	712023R
		_					0:	FOR FAST REACTOR	CALCULATIONS.	
26 IRON		=== <b>=</b> == ======	NEU	TRON		CAPT	URE CRO	SS SECTION		
474	100.	EV	1.00	MEV		1	UK	C.G.CAMPBELL	WIN	692101R
							A: C:	ACCURACY REQUIRE 20. PERCENT AB FOR FAST REACTOR	D 10 PERCENT TO 100 KEV, DVE. S.	
475	25.3	MV	300.	KEV	10.0%	1	GER	F.FROEHNER	KFK	692103R
							A: 0: M:	HIGH RESOLUTION I MULTILEVEL PARAM RADIATION WIDTHS FOR BROAD S LEVE Existing data di Strong disagreem Substantial Modi	RESONANCE CROSS SECTIONS ETERISATION WANTED. ACCU Should be 10 percent or LS AND 1.15KEV FE-56 p L Sagree up to 200 percent Ent Between 10 and 100 k Fications.	AND RACY OF BETTER Evel • Ev.
476	500.	EV	1.00	MEV	5.0X	1	FR	P.HAMMER	CAD	692104R
							Q: 0:	NEED OF RESONANCE ISOTOPES. For fast reactor	E PARAMETERS FOR THE MAI Calculations.	N
477	500.	EV	800.	KEV	10.0%	1	ССР	M.N.NIKOLAEV	FEI	714005R
							Q: A: D:	DESIFABLE TC USE NOT VERY SENSI CAPTURE-AFTER- 20 PERCENT ABOVE SEE GENERAL COMM FIRST PFIORITY B THE IFON CAPTU ACCURACY FROM	EXPERIMENTAL METHODS WH TIVE TO SELF-SHIELDING A Scattering effects, 100 KeV would be very u ents in the introduction ecause it is difficult t re cross section to requ Macroscopic experiments	ICH ARE ND TO SEFUL. O EVALUATE ESTED ONLY.
478	1.00	KEV	1.00	MEV		1	USA	F.G.PEREY P.B.HEMMIG C.E.TILL	DRL DOE ANL	741040R
							Α:	ACCURACY REQUIRE	D - 5 TO 10 PERCENT.	
479	25.3	MV	20.0	MEV	3.0%	2	IND D:	S.B.GARG REQUIRED FOR STR	TRM UCTURAL-MATERIAL CALCULA	753036R Tions.
480	25.3	MV	15.0	MEV	15. X	2	JAP	Y.SEKI	JAE	762100F
							0: 0:	GAMMA RAY SPECTR Neutron transpor	A ALSO REQUIRED. T and gamma-ray heating	CALC.
481	25.3	MV	15.0	MEV	15.0%	2	UK	G.M.MC CRACKEN	CUL	762248F
							0:	EVALUATION REQUI	REMENT. Neutron Economy Calculat	IONS.
482	100.	EV	100.	KEV		1	GER	H.KUESTERS	KFK	792201R
							A: M:	ACCURACY OF 5-10 New Request.	PERCENT REQUIRED.	
483	100.	KEV	1.00	MEV		۱	GER	H.KUESTERS ACCURACY DF 10-2	KFK 0 Percent Required.	792202R
CTATHE							M :	NEW REQUEST.		CT A TI
U	NDER CO		US REVIE	W BY	INDC AND NE	ANDC.	SEE AP	PENDIX A.		- 31 A 103

26 IRO	N 12 ============	=====	NEU	TRON		ENER	GY DIFF	ERENTIAL CAPTURE	CROSS SECTION	
					10	· .	u c A		0.01	7411709
484	24.0	KEV			10.0%	L	054	NO MEASUREMENTS	AVAILABLE IN IRON WINDOW.	7411790
							м:	NEW REQUEST.		
485	1.00	KEV	1.00	MEV	5.0%	2	USA	F.G.PEREY	ORL	741184R
							M:	NEW REQUEST.		
26 IRO	N ====================================		NEU	TRON	=======================	CAPT	URE GAM	MA RAY SPECTRUM		
496	1 00	KEV	5 00	KEN	5 A¥	,				7610705
400	1.00	KEV	5.00	KEV	5.0%	1	USA M:	NEW REQUEST.	*C* .	1010396
							=======			
20 140	*********			=====			=======			
487	1.00	KEV	15.0	MEV	10.0%	2	FR	B.DUCHEMIN	SAC	692096F
						·	Q: A:	GAMMA SPECTRA RE ENERGY RESOLUTIO	QUIRED. In of 250 key for gamma ray	S LESS
								THAN I MEV AND THAN 1 MEV.	) 500 KEV FOR ENERGIES GREA	TER
							0.	EVALUATION MAY B	E SUFFICIENT.	
488	25.3	MV	15.0	MEV	10. X	2	JAP	M.KASAI	MAP	762104F
							0:	GAMMA-RAY HEATIN	IG CALCULATIONS	
489	100.	KEV	15.0	MEV	15. X	2	SWD	G.ENGSTROEM	FOA	762166R
				•			Q:	GAMMA RAY ANGULA	AR AND ENERGY DISTRIBUTIONS	ALSO
							A: 0:	GAMMA RAY ENERGY SHIELDING CALCUL	RESOLUTION 0.5 MEV. Ations	
26 190					********	======			ON CROSS SECTION	
20 100						2222				
490	1.00	ME V	15.0	MEV	10.0%	2	ССР	I.N.GOLOVIN	KUR	794012F
							0: M:	FOR GAMMA-RAY HE New Request.	ATING AND SHIELDING CALCUL	ATIONS.
26 780	======================================	======	======= NFU	===== TRON		N. 2N				
				=====		=====				
491	UP	от	15.0	MEV	10.0%	2	UK	G.M.MC CRACKEN	CUL	7221 06F
							0:	EVALUATION REQUI	REMENT. Iomy Calculations.	
492	ЦР	то	14-0	MEV	10.0*	2	FR	B. DUCHENIN	540	7320226
492	0F		1400	~~ <b>_ *</b>		2	0:	POTENTIAL CONSTI	TUENT OF CONTAINMENT VESSE	, <u>52022</u> ,
493	UP	то	15.0	MEV	10. *	2		Y-SEK I	JAF	762101F
425	0.		1510		101 8	5	0:	NEUTRON MULTIPLI	CATION CALCULATIONS	/021011
26 180	======================================		*====== NFU	===== TRON			======= GY-ANGL F	DIFF. NEUTRON-F	MISSION CROSS SECTION	
		======	*******		***********	====	=======			======
49,4	15.0	MEV	35.0	MEV	10.0%	1	USA	C.R.HEAD	DOE	781036F
							A:	ACCURACY FROM 10 SENSITIVITY ST	• TO 50. PC TO BE DETERMIN UDIES.	ED FROM
							0: M:	FOR MATERIAL DAM New Request.	AGE CALCULATIONS.	
495	9.00	MEV	14.0	MEV	10.0%	1	USA	C.R.HEAD	DOE	781048F
							0:	FOR SHIELDING, A NEXT GENERATIO	CTIVATION AND TRANSPORT ST N D-T REACTOR DESIGNS.	UDIES OF
_		_					м:	NEW REQUEST.		
26 IRO	1232222222 V 1232222222	=====	NEU	TRON		N,P	=======================================			======================================
					10.00			D. 114 MILED	<b>640</b>	
490	0P	10	15.0	MEV	10.00	1	F* 0:	FOR FAST REACTOR	CALCULATIONS.	/12026R
407			15.0	MEV	20.0*	2			C111	7001075
	0P	10	13.0	MCV	20.04	٤	0:	EVALUATION REQUI	REMENT.	/221076
								FOR HYDROGEN GAS	PRODUCTION RATES AND NEUT	RON
498	UP	то	14.0	MEV	10.0%	2	FR	B.DUCHEMIN	SAC	732023F
		-				-	0:	POTENTIAL CONSTI	TUENT OF CONTAINMENT VESSE	Le
400	0.00	EV	15-0	MEV	20. ¥	2	JAP	Y. SEK I	JAE	7621025
				•••••		-	0:	HYDROGEN ACCUMUL	ATION CALCULATIONS	
500	UP	то	15-0	MEV	30.0*	1	GER	H.KUESTERS	KFK	7922039
		-				-	 M:	NEW REQUEST.		

26 IRON	************	NEUTRON		N, P	=======			(CONTINUED)
STATUS								STATU5
UN	DER CONTINUOU	US REVIEW BY	INDC. SEE	APPEND	IX A.			
26 IRON		NEUTRON NEUTRON	=====================================	ENER	GY-ANGL	E DIFF. PROTON-PR	ODUCTION CROSS SECTION	= = = = = = = = = = = = = = = = = = =
501	14.0 MEV		•	2	USA	C.R.HEAD	DOE	781141F
					A: 0: M:	ACCURACY TO BE D DATA REQUIRED FO NEW REQUEST.	DETERMINED. DR RADIATION DAMAGE CA	LCULATIONS.
26 IRON		NEUTRON	:==================    ================	N, ALI	 PHA 			
502	25.3 MV	15.0 ME	20.0 <b>X</b>	1	GER	8.GOEL	KFK	692105R
					C: M:	FOR THE THERMAL MB IS AVAILABL Substantial Modi	VALUE ONLY AN UPPER-L E. IFICATIONS.	IMIT OF 0.01
503	UP TO	15.0 ME	20.0%	2	UK	G.M.MC CRACKEN	CUL	722108F
	<u>.</u>		•		0:	EVALUATION REQUI For Helium gas f Economy calculat	REMENT. PRODUCTION RATES AND N TIONS.	EUTRON
504	UP TO	15.0 ME	10.0%	2	FR	B. DU CHEMIN	SAC	732024F
					0:	POTENTIAL CONSTI	TUENT OF CONTAINMENT	VESSEL.
505	UP TO	15.0 ME	10.0%	1	FR	P. HAMMER	CAD	732042R
					0:	FOR FAST REACTOR	CALCULATIONS.	
506	0.00 EV	15.0 ME	20. X	2	JAP	Y. SEK I	JAE	762103F
					<b>0</b> :	HELIUM ACCUMULAT	TION CALCULATIONS	
507	UP TO	15.0 ME	10.0%	2	BLG	H. TOURWE	MOL	792109R
					Q: C: M:	TOTAL HELIUM PRO For use as a flu New request.	DUCTION REQUIRED. JENCE MONITOR.	
508	UP TO	15.0 ME\	30.0%	1	GER M:	H.KUESTERS New Request.	KFK	792204R
26 IRON		NEUTRON		ENER	====== GY-ANGL	E DIFF. ALPHA-PRO	DUCTION CROSS SECTION	
57222 <u>5</u> 29		**********			******			
509	14.0 MEV			2	USA	C.R.HEAD	DOE	781120F
					A: 0: M:	ACCURACY TO BE D DATA REQUIRED FO NEW REQUEST.	DETERMINED. DR RADIATION DAMAGE CA	LCULATIONS .
26 IRON		NEUTROI		101A	L HYDRO	GEN-PRODUCTION CF	ROSS SECTION	=======================================
510	15.0 MEV	35.0 ME	/ 10.0%	1	USA	C.R.HEAD	DOE	781024F
					A: 0: M:	ACCUFACY FROM 10 SENSITIVITY ST For Material Dan New Request.	), TO 50. PC TO BE DET TUDIES. MAGE CALCULATIONS.	ERMINED FROM
511	9.00 MEV	14.0 ME	10.0X	1	USA	C.R.HEAD	DOE	781057F
					0: M:	FOR RADIATION DA D-T REACTOR DE NEW REQUEST.	AMAGE STUDIES OF NEXT ESIGNS.	GENERATION
26 IRDN		NEUTRO		TOTA	L HELIU	M-PRODUCTION CROS	S SECTION	
512	9.00 MEV	14.0 ME	10.0%	1	USA	C.R.HEAD	DOE ANAGE STUDIES OF NEXT	781066F
					M:	D-T REACTOR DE	ESIGNS.	GENERATION
513	15.0 MEV	35.0 ME	/ 10.0%	1	USA	C.R.HEAD	DOE	781209F
					0: M:	SENSITIVITY S FOR MATERIAL DAN NEW REQUEST.	TUDIES. MAGE CALCULATIONS.	ERMINED FRUM
26 IRON S	======================================	NEUTROI	*=====================================	CAPT	URE CRO	ISS SECTION		
514	25.3 MV	3.00 ME	V 20.0X	1	FR	L.COSTA	CAD	792007F
zazzczaż:			62222222	-	0: M:	DUT-OF-CORE CYCL NEW REQUEST.	LE ===============================	
		•		. –				· <b>-</b> -
		•						

26 IRON 9	54 54 52	============ NE ======================	EUTRON	=======================================	N,P				======== =========
515	1.00 M	EV` 18.(	O MEV	10.0%	2	USA Q: A: D:	W.N.MC ELROY Required is acti Energy steps of Energy resolutio For use as a flu	HED VATION. 500 KEV. N 250 KEV. ENCE MONITOR.	691099R
516	1.00 M	EV 40.0	O MEV	20.0X	1	USA C: M:	C.R.HEAD Dosimetry for fm New request.	DOE IT FACILITY.	781018F
517	25 <b>.</b> 3 M	V 3.00	O MEV	10.0%	1	FR 0: M:	L.COSTA OUT-OF+CORE CYCL NEW REQUEST.	CAD E	792008R
STATUS									STATUS
U	NDER CONT	INUOUS REV	IEW BY	INDC. SEE AF	PPEND	[X A.			
26 IRON	54 54 	= = = = = = = = = = = = = = = = = = =	EUTRON		N, ALF	PHA 98888888	************************		=========
518	1.00 M	EV 40.	O MEV	20.0%	1	USA	C.R.HEAD	DOE	781019F
						0: M:	DOSIMETRY FOR FM New Request.	IT FACILITY.	
26 IRDN	======== 54	=======================================	EUTRON		RESON	ANCE P	ARAMETERS		
									*******
519	VP	TO 100	• KEV	10.0%	2	USA	F.G.PEREY P.B.HEMMIG C.E.TILL	ORL Doe Anl	741043R
						Q:	ENERGY REQUESTED Neutron Width, G WANTED.	IS A MAXIMUM VALUE ONLY. Amma width, spin and parit	Y
26 IRON	56		EUTRON		N, ALF	PHA			8288222
		==========							
520	UP	TO 10.0	O MEV	15.0%	2	USA O:	P.GREEBLER TO DETERMINE HE	GEB PRODUCTION IN FAST REACTOR	721040R 5.
26 IDDN (									
20 1808 3						easses	ARAMETERS 22222222222222222		========
521	UP	TO 400.	• KEV	10.0%	1	USA	F.G.PEREY P.B.HEMMIG C.E.TILL	ORL DOE ANL	741046R
						Q:	ENERGY REQUESTED Neutron width, G. Wanted.	IS A MAXIMUM VALUE ONLY. Amma width, spin and parit	Y
26 IRON 5	 57	= = = = = = = = = = = = = = = = = = =	EUTRON		RESON	ANCE P	ARAMETERS		********
								*************************	
522	UP	TO 100.	• KEV	10.0%	2	USA	F.G.PEREY P.B.HEMMIG C.E.TILL	DRL DDE ANL	741 049R
						Q:	ENERGY REQUESTED Neutron Width, G. Wanted.	IS A MAXIMUM VALUE ONLY. Amma width. Spin and parit	Y
2022222222	 58	= = = = = = = = = = = = = = = = = = =	EUTRON					=======================================	
		===============			22222	=======		******************************	
523	1.00 K	EV 18.0	D MEV	10.0%	2	USA	W.N.MC ELROY	HED	691104R
						0: G:	REQUIRED IS ACT IN FOR USE AS A FLUE	VATION. ENCE MONITOR.	
524	25.2 M	v 15.0	D MEV	20 <b>. X</b>	2	JAP	M.KAWAI	NIG	762179R
						. <b>0:</b>	FOR RADIATION SH FROM IRON-59 IN (	IELDING TO 1.2916 MEV GAMM Corrosion products.	A FAY
26 IRON S	59	= = = = = = = = = = = = = = = = = = =	EUTRON		CAPTU	RE CROS	S SECTION	*************************	
					.=====			*****************************	*******
525	25.3 M	v 3.00	D MEV	10.0%	1	FR	L.COSTA	CAD	792009R
						0: M:	OUT-OF-CORE CYCLE NEW REQUEST.	E	
27 COBAL	7 58 	=================== NE ================	UTRON	************	CAPTU	RE CROS	SS SECTION		======== =======
526				10.0X	2	USA	N.STEEN	вет	721045P
-20					-	o:	WANTED FOR BOTH AND THE 9.1 HOI ALL ENERGIES. THERMAL CROSS SE RESONANCE INTEGE FOR INTERPRETATIO DATA.	THE 71.3 DAY RADIDACTIVE T UR ISOMER. Ction Most Important. AL ALSO NEEDED. ON OF NI-58(N,P) FLUENCE M	ARGET

27 COBAL	T 58 ======		NEU	TRON =====		CAPTU	RE CROS	SS SECTION	(CONTINUED)
527	25.0	MV	15.0	MEV	15.0%	1	GER	H.KUESTERS KFK	792196R
							Q: 0: M:	EVALUATION WANTED. REDUCTION OF CO58. NEW REQUEST.	
		*=====		=====			======		
EEEEEEEE			NEU ========	=====			=======		***************************************
528	500.	EV	15.0	MEV	25.0%	2	FR	P.HAMMER CAD	712027P
							0:	FOR FAST REACTOR CAL	CULATIONS.
	=======				=================				
27 COBAL	T 59 ======		NEU	TRON		CAPTU	RE CROS	SS SECTION	
520		KEV	18-0	MEV	10-08	2	115.4		6911060
527			1010		10104	L	Q:	REQUIRED IS ACTIVATION	ON OF BOTH GROUND AND
							с:	METASTABLE STATES. For use as a fluence	MONITOR.
530	ູບ	P TO	10.0	MEV		2	JAP	M.KAWAI NIG	712028R
							A: 0:	ACCURACY REQUIRED TO FOR FUEL CASK DESIGN	BETTER THAN 20.0 PERCENT. AND CONTROL ROD DESIGN.
STATUS									STATUS
U	NDER CO	NTINUC	US REVIE	W BY	INDC. SEE AF	PPENDI	X A.		
27 COBAL	====== T 59			TRON		= = = = = = N , 2N	======		
	*******					3=====			
531	10.6	MEV	40.0	MEV	20.0%	1	USA	C.R.HEAD DOE	781014F
							0: M:	DOSIMETRY FOR FMIT F	ACILITY.
		=== ===							
27 CUBAL		=====:	NEU 	=====		N, 3N ======			
532	19.4	MEV	40.0	MEV	20.0%	1	USA	C.R.HEAD DOE	781015F
		•					0:	DOSINETRY FOR FMIT F	ACILITY.
							M: s:	NEW REQUESI.	
27 COBAL	T 59		NEU	TRON		N, 4N			
									-
533	30.9	MEV	40.0	MEV	20.0%	1	054	DOSIMETRY FOR FMIT F	ACILITY.
							Mi	NEW REQUEST.	
27 COBAL	T 59		NEU	TRON		n.P			
- 534	1.00	MEV	40.0	MEV	20.0%	1	USA	C.R.HEAD DOE	781017F
							0: M:	DOSIMETRY FOR FMIT F. New Request.	ACILITY.
28 NICKE	======		====================================		=======================================				
22222222		====:		=====		======	======		*************************
535	1.00	KEV	20.0	MEV	3.0%	2	USA	P.B.HEMMIG DOE	721047R
							Α:	ACCURACY NEEDED TO 3 ENERGY RESOLUTION SU	TO 5 PERCENT IN DEEP MINIMA. FFICIENT TO RESOLVE MAJOR
							0:	STRUCTURE. FOR USE IN INCONEL S	HIELD CALCULATIONS.
						======			
28 NICKE	L 2220003		NEU =========	=====	***********	ELASI		\$5 SECTION ====================================	
536	25.3	MV	20.0	MEV	3.0%	2	IND	S.B.GARG TRM	7530 37R
							0:	REQUIRED FOR STRUCTU	RAL-MATERIAL CALCULATIONS.
28 NICKE	======= L		NEU	TRON		DIFFE	RENTIA	L ELASTIC CROSS SECTI	11441122244222222222222222222222222222
******	=======	:====:					******	===#========	
537	1.50	MEV	3.00	MEV	15.0%	2	GER	8.GOEL KFK	692120R
							A:	ABOUT 100 KEV ENERGY 5 DEGREES ANGULAR. Resolution 10 percen	RESOLUTION AND ABOUT T DN AVERAGE (COS).
538	8.00	MEV	15.0	MEV	20.0*	2	GER		692122F
- 30						-	0:	FOR SHIELDING CALCUL	ATIONS.
530	8-00	MEV	15-0	MEV	20.04	2	FC		6021238
	3.00				20108	-	· •	ACCURACY 10 PERCENT	PREFERRED.
							0:	ENERGY RESOLUTION - ANGULAR RESOLUTION - FOR FAST REACTOR SHI EVALUATION MAY BE SU	500 KEV. 10 degrees. Elding calculations. Fficient.

28 NICKE	L =================	NEUTRON	0 ===============	IFFERENTIAL	LELASTIC CROSS SECTION	(CON'INUED)
540	100. KEV	15.0 MEV		2 USA	C.E.TILL ANL P.B.HEMMIG DOE	721048R
				A:	ACCURACY REQUIRED - 5 TO 10 PERC RESOLUTION OF INTERMEDIATE STRUC ADEQUATE.	ENT. Ture probably
541	15.0 MEV	35.0 MEV	10.0%	1 USA A:	C.R.HEAD DOE ACCURACY FROM 10. TO 50. PC TO E SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS	781031F Be determined from
				M:	NEW REQUEST.	-
28 NICKE	======================================	±=====================================	=========== I	NELASTIC C	ROSS SECTION	
						*****************
542	3.00 MEV	14.0 MEV	10.0%	3 FR	B.DUCHEMIN SAC	732025F
				0:	POTENTIAL CONSTITUENT OF CONTAIN	MENT VESSEL.
543	UP TO	20.0 MEV	3.0%	2 IND	S.B.GARG TRM	753038R
				0:	REQUIRED FOR STRUCTURAL-MATERIAL	CALCULATIONS.
544	UP TO	15.0 MEV	15 <b>. X</b>	2 JAP	Y.SEKI JAE M.KASAI MAP	762105F
				0: 0:	INELASTIC GAMMA RAY SPECTRA ALSO NEUTRON TRANSPORT AND GAMMA-RAY	) REQUIRED HEATING CALC.
			=========			***************
28 NICKE	L . =====================	NEUTRON	E	NERGY DIFF	ERENTIAL INELASTIC CROSS SECTION	
545	UP TO	15.0 MEV	10.0%	2 USA	P.GREEBLER GEB P.B.FEMMIG DOE	661024R
				0:	TOTAL INTEGRAL OVER 4 PI REQUIRE Spectra at several angles if sig	D. NIFICANTLY
				Α:	ANISOTROPIC. ENERGY RESOLUTION - 10 PERCENT F	OF INCIDENT AND
				0:	STRUCTURE. FOR INCONEL SHIELD DESIGN.	DETERMINE MAJUR
546	UP TO	15.0 MEV	30.0X	3 FR	P.HAMMER CAD	702008R
				0:	FOR FAST REACTOR CALCULATIONS.	
	L ====================================					
547	UP TO	7.00 MEV		1 UK	C.G.CAMPBELL WIN	642004R
				A: 0: M:	ACCURACY REQUIRED 5.0 PERCENT BE 5.0 TO 10.0 PERCENT ABOVE. EVALUATION REQUIREMENT. FOR FAST REACTORS. SUBSTANTIAL MODIFICATIONS.	LOW 4.0 MEV,
548	UP TO	4.00 MEV	5.0%	1 GER	H.KUESTERS KFK	792211R
				Mi	NEW REQUEST.	
549	4.00 MEV	15.0 MEV		1 GER	H.KUESTERS KFK	792251R
				A : M :	ACCURACY OF 5-30 PERCENT REQUIRE New request.	Đ•
28 NICKE	======================================	NEUTRON		BSORPTION		****************
		***********				*==============
550	500. EV	15.0 MEV	5.0%	1 FR	P.HAMMER CAD	712031R
				0:	FOR FAST REACTOR CALCULATIONS.	
28 NICKE	======================================	NEUTRON		APTURE CRO		******************
******	*****************	032555555555825				*************
551	100. EV	1.00 MEV		1 UK	C.G.CAMPBELL WIN	692128R
				A: C:	ACCURACY REQUIRED 10 PERCENT TO 20.0 PERCENT OR 2 MB ABOVE. FOR FAST REACTORS.	100 KEV,
552	25.3 MV	300. KEV	10.0%	1 GER	F.FROEHNER KFK	692131R
				A:	HIGH RESOLUTION RESONANCE CROSS	SECTIONS AND
				MI	MULTILEVEL PARAMETERISATION WAN WIDTHS SHOULD BE ACCURATE TO 10 FOR BROAD S LEVELS AND FOR P LEV TO DOPPLER COEFFICIENT. SUBSTANTIAL MODIFICATIONS.	FED. RADIATION PERCENT OR BETTER VELS CONTRIBUTING
553	500. EV	1.00 MEV	5.0%	1 FR	P.HAMMER CAD	702009R
				Q: 0:	RESONANCE PARAMETERS ALSO REQUIR FOR FAST REACTOR CALCULATIONS.	RED.
554	1.00 KEV	1.00 MEV	10.0%	2 USA	F.G.PEREY ORL	741053R
					P.B.HEMMIG DDE C.E.TILL ANL R.A.DONCALS WEW	
555	25.3 MV	20.0 MEV	3.0X	2 IND	S.B.GARG TRM	753039R
					REQUIRED FOR STRUCTURAL-MATERIAL	_ CALCULATIONS.

28 NICKE	L # # # # # # # # # # # # # # # # # # #	NEUTRON			RE CROS	S SECTION	( CCNT INU	ED) ====
556	25.3 MV	15.0 MEV	15. %	2	JAP	Y. SEK I	JAE 7621	10F
					0:	GAMMA RAY SPECTRA GAMMA-RAY HEATING	ALSO REQUIRED. CALCULATIONS	
557	25.3 MV	15.0 MEV	30.0%	2	υκ	G.M.MC CRACKEN	CUL 7622	4 9F
	•				0:	EVALUATION REQUIR For Neutron Econo	EMENT. My calculations.	
558	100. EV	100. KEV	10.0%	1	GER	H. KUESTERS	KFK 7922	07R
559	100. KEV	1.00 MEV	20.0%	1	GER	H. KUESTERS	KFK 7922	08R
					м:	NEW REQUEST.		_
STATUS	NDER CONTINUOU	IS REVIEW BY I	NDC AND NEA		SEE APP	PENDIX A.	STA	TUS
	*============		===========					
28 NICKE	L #===============	NEUTRON	*==========	TOTAL	PHOTON	PRODUCTION CROSS	SECTION	
560	1.00 KEV	15.0 MEV	10.0%	2	FR	B.DUCHEMIN	SAC 6921	25R
					Q: A: 0:	GAMMA SPECTRA REQ ENERGY RESOLUTION THAN 1 MEV AND THAN 1 MEV. FOR FAST REACTOR	UIRED. 1 DF 250 KEV FOR GAMMA RAYS LES 500 KEV FOR ENERGIES GREATER Shielding Calculations.	S
561	25 3 MV			2	140	EVALUATION MAT DE	- SUFFICIENT.	115
561	25.3 MV	15.0 MEV	10. %	2	JAP O:	M.KASAI GAMMA-RAY HEATING	CALCULATIONS	116
	*==eeee=========			ENERG			N CORS SECTION	*==
	-		**********		=======			==2
562	25.3 MV	600. KEV	20.0%	1	USA	P.B.HEMMIG D.BARTINE	DDE 7210 ORL	52R
					0: M:	FOR SHIELDING AND SUBSTANTIAL MODIF	GAMMA HEATING CALCULATIONS. ICATIONS.	
	************				******			
	L 533322222222222			N • 2N		****************		===
563	UP 70	14.0 MEV	10.0%	з	FR	B.DUCHEMIN	SAC 7320	26F
					0:	POTENTIAL CONSTIT	UENT OF CONTAINMENT VESSEL.	
564	UP TO	15.0 MEV	15. %	2	JAP	Y•SEKI M•KASAI	JAE 7621 MAP	06F
					0:	NEUTRON BALANCE C	ALCULATIONS	
565	UP TO	15.0 MEV	30.0%	2	UK	G.M.MC CRACKEN	CUL 7622	40F
					0:	EVALUATION REQUIR For Neutron Econo	EMENT. My calculations.	
STATUS							STA	TUS
	STATES	JS REVIEW BY I	NUC. SEE AP	PENDI	× A.			
28 NICKE	L \$==============	NEUTRON		NEUTR	ON EMIS	SION CROSS SECTIO	)N ====================================	===
566	2.00 MEV	15.0 MEV	10.0%	2	FR	B.DUCHEMIN	SAC 6921	246
					٥:	SECONDARY ENERGY	DISTRIBUTION REQUIRED.	
					0:	TO PERCENT. FOR FAST REACTOR	SHIELDING CALCULATIONS .	
	#====================			.======				
28 NICKE	L #=============	NEUTRON		ENERG	Y-ANGLE	DIFF. NEUTRON-EN	ISSION CROSS SECTION	===
567	15.0 MEV	35.0 MEV	10.0%	1	USA	C.R.HEAD	DOE 7810	37F
					A:	ACCURACY FROM 10. SENSITIVITY STU	TO 50. PC TO BE DETERMINED FR	OM
					D: M:	FOR MATERIAL DAMA New Request.	GE CALCULATIONS.	
568	9.00 MEV	14.0 MEV	10.0%	1	USA	C+R+HEAD	DOE 7810	44F
		•			о: м:	FOR SHIELDING. AC NEXT GENERATION NEW REQUEST.	TIVATION AND TRANSPORT STUDIES	; OF
	s=====================================							===
28 NICKE	L \$2220222 <b>22</b> 222	NEUTRON		N.P		******************		.===
569	UP TO	15.0 MEV	10.0%	1	FR	P.HAMMER	CAD 7020	105
					0:	FOR FAST REACTOR	CALCULATIONS.	
570	UP TO	14.0 MEV	10.0%	3	FR	B. DU CHEM IN	SAC 7320	)27F
					0:	POTENTIAL CONSTIT	WENT OF CONTAINMENT VESSEL .	

28 NICK	EL = = = = = = = = = = = = = = = = = = =	NEUTRON		N.P			(C	ONT INUED
<b></b>				-				
571	0.00 EV	15.0 MEV	20 <b>. X</b>	2	JAP	V•SEK1 M•KASAI	JAE MAP	/6219/6
					0:	HYDROGEN ACCUMUL	ATION CALCULATIONS	
572	UP TO	15.0 MEV	20.0%	2	UK	G.M.MC CRACKEN	CUL	762242F
					0:	EVALUATION REQUI FOR HYDROGEN GAS ECONGMY CALCULAT	REMENT. Production rates and neu Ions.	TRON
573	UP TO	15.0 MEV	30.0%	1	GER	HAKUESTERS	KEK	7922098
				-	M :	NEW REQUEST.		
STATUS-							*****	STATUS
	UNDER CONTINUOU	IS REVIEW BY I	NDC• SEE /	APPENDI	[X A. ======			
28 NICK	EL =====================	NEUTRON		ENER	SY-ANGL	E DIFF. PROTON-PRO	DDUCTION CROSS SECTION	==============
574	14.0 MEV			2	USA	C.R.HEAD	DOE	781137F
					A:	ACCURACY TO BE D	ETERMINED. R RADIATION DANAGE CALCUL	ATTONS
		,			M:	NEW REQUEST.	CARDIA ION DAMAGE CRECCE	
28 NICK	2=0======= EL 2000=========	NEUTRON	***********		*******			*********
6 <b>7</b> 6	(10, 70)			_				
575	00 10	15.0 MEV	15. %	3	JAP O:	TRANSMUTATION CA	MAP LCULATIONS	/62109F
						========================	*************************	===========
220 0100	cu 8 = = = = = = = = = = = = = = = = = = =		**********					*********
576	UP TO	10.0 MEV	15.0%	2	USA	P.GREEBLER	GEB	721051R
					0:	TO DETERMINE HE	PRODUCTION IN FAST REACTO	RS.
577	UP ТО	15.0 MEV	10.0%	· 2	FR.	B.DUCHEMIN	SAC	732028F
					0: M:	POTENTIAL CONSTIT	TUENT OF CONTAINMENT VESS	EL.
578	UP TO	15.0 MEV	10.0%	1	FR	P.HAMMER	CAD	732044R
					0:	FOR FAST REACTOR	CALCULATIONS.	
579	0.00 EV	15.0 MEV	20. X	2	JAP	Y.SEKI	JAE	762108F
					0:	HELIUM ACCUMULAT	MAP ION CALCULATIONS	
580		15.0 MEV	30-08	7	UK	G. M. MC CRACKEN	CIII	7622445
300		1000 MLV		5	0:	EVALUATION REQUI	REMENT.	1022441
						ECONOMY CALCULAT	RUDUCTION RATES AND NEUTR	UN .
581	25.3 MV	15.0 MEV	10.0%	2	GER	8.GOEL	KFK	762250R
					0: M:	FOR NEUTRON DAMAG	GE PREDICTION. FICATIONS.	
682		15.0 NEV	10.08	2	81.6			7031100
302	0, 10	1310 MEV	10.04	Ľ,	Q:	TOTAL HELIUM PRO	DUCTION REQUIRED.	7921104
					C: M:	FOR USE AS A FLUI New request.	ENCE MONITOR.	
583	<b>UP</b> то	15.0 MEV	30.0%	1	GER	H.KUESTERS	KFK	792210R
					м:	NEW REQUEST.		
STATUS					······			STATUS
28 NICK	EL 2000-222222220 2000-22222222	NEUTRON	**********	ENERG	SY-ANGL	E DIFF. ALPHA-PROD	CUCTION CROSS SECTION	
584	14.0 MEV			2	USA	C.R.HEAD	DOE	781116F
					A: 0:	ACCURACY TO BE DE DATA REQUIRED FOR	ETERMINED. R RADIATION DAMAGE CALCUL	ATIONS.
8===#3=:					M:	NEW REQUEST.		
28 NICK	EL ================	NEUTRON		TOTAL	HYDRO	GEN-PRODUCTION CR	DSS SECTION	
585	15.0 MEV	35.0 MEV	10-0*	r	US∆		DOF	7810255
				•	A:	ACCURACY FROM 10	TO 50. PC TO BE DETERMI	NED FROM
					0: M:	FOR MATERIAL DAMA	AGE CALCULATIONS.	
584	0.00 MEV		10.0*		116 4	C. D. HEAD	DOF	701003-
566	JUUN MEV		LUEUA	•	0:	FOR RADIATION DA	AGE STUDIES OF NEXT GENE	RATION
2222222					M:	D-T REACTOR DES New Request.	51 GNS • ====================================	

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28 NICKEL	-		NEU	TRON		TOTAL	HELIUN	A-PRODUCTION CR	OSS SECTION	
		2525222	********							
587	9.00	MEV	14.0	MEV	10.0%	1	USA	C.R.HEAD	DOE	781062F
							0:	FOR FADIATION	DAMAGE STUDIES	OF NEXT GENERATION
							м:	D-T REACTOR NEW REQUEST.	DESIGNS.	
588	15.0	MEV	35.0	MEV	10.0%	1	USA	C.R.HEAD	DOE	781210F
							Α:	ACCURACY FROM	10. TO 50. PC	TO BE DETERMINED FROM
							0: M:	FOR MATERIAL D	AMAGE CALCULAT	IONS.
28 NICKEL	. 58	*******	NEU	TRON =====:		TOTAL	CROSS	SECTION	**********	******************
589	1.00	MEV	15.0	MEV	10.0%	2	FR	E.FORT	CAD	792012R
							0: M:	EVALUATION PRO NEW REQUEST.	BLEMS	
				=====						
28 NICKEL	_ 58 =======		NEU	TRON #=#==:		ELAST	TIC CR0	SS SECTION		
										2000120
240	1.00	MEV	15.0	MEV	10.0%	. 2	FR	E.FURI		792013R
							M	NEW REQUEST.	DECMO	
	59									**********************
222222222	=======	======		=====						
591	25.3	MV	3.00	MEV	20.0%	1	FR	L.COSTA	CAD	792010R
						-	0:	POTENTIAL CONS	TITUENT OF CON	TAINMENT VESSEL
							м:	NEW REQUEST.		
28 NICKEL	 58	******	NEU	===== TRON		N,2N				
		======		==#==		******	*=====			=======================================
592	12.4	MEV	40.0	MEV	20.0%	1	USA	C.R.HEAD	DOE	781020F
							0:	DOSIMETRY FOR	FMIT FACILITY.	
							MI	NEW REQUEST.		
593	υ	р ТО	15.0	MEV	10.0%	2	UK	J.BUTLER	WIN	7921218
		•					<u>.</u>	ACTIVATION DET	ECTOR.	
STATUS										
01000										
	NDER CO		IS REVIE	W 8Y	INDC. SEE		TX A.			
U1	NDER CO		JS REVIE	W BY	INDC. SEE	APPEND	IX A.			
U1 28 NICKEL	NDER CO  L 58	NTINUOU	JS REVIE	W BY ===== TRON =====	INDC. SEE	APPEND 	IX A.			
UI 28 NICKEI	NDER CO ====== L 58 ======	NTINUOU ========	JS REVIE	W BY ===== TRON =====	INDC. SEE	APPEND) ====== N.3N ======	IX A.			
UI 28 NICKEI ====================================	NDER CO 58 22.9	NTINUOU ======= ===========================	JS REVIE NEU 40.0	W BY ===== TRON ===== MEV	INDC. SEE	APPEND) 	IX A. ======== ===========================	C.R.HEAD	DOE	  781021F
UI 28 NICKEI 594	NDER CO 58 22.9	NTINUOU ======= ========= MEV	JS REVIE	W BY ===== TRON ===== MEV	INDC. SEE .	APPEND) 	IX A.	C.R.HEAD DOSIMETRY FOR NEW REQUEST.	DOE FMIT FACILITY.	 
UI 28 NICKEI 594	NDER CO	NTINUOU ====== ======= MEV	JS REVIE NEU 40.0	W BY TRON TRON MEV	INDC. SEE	APPEND) N.3N 1	USA C: M:	C.R.HEAD Dosimetry for New request.	DOE FMIT FACILITY.	781021F
01 28 NICKEI 594 28 NICKEI	NDER CO	NTINUOU	JS REVIE NEU 40.0	W BY	INDC. SEE	APPEND)	USA C:	C.R.HEAD Dosimetry for New Request.	DOE FMIT FACILITY.	781021F
U1 28 NICKEI 594 28 NICKEI	NDER CO		JS REVIE NEU 40.0	W BY	INDC. SEE	APPEND) 	IX A. USA C: M:	C.R.HEAD DOSIMETRY FOR NEW REQUEST.	DOE FMIT FACILITY.	781021F
01 28 NICKE 594 28 NICKE 28 NICKE	NDER CO 58 22.9 25.9		40.0 NEU 40.0	W BY TRON MEV TRON TRON	INDC. SEE 20.0%	APPEND) N, 3N 1 N, P 3	USA C: WSA	C.R.HEAD DOSIMETRY FOR NEW REQUEST.	DOE FMIT FACILITY. BET	781021F
U1 28 NICKEI 594 28 NICKEI 28 NICKEI	NDER CO 58 22.9 25.9	NTINUOU ====== MEV ======= =======	40.0 NEU 40.0	W BY TRON MEV TRON TRON	INDC. SEE 20.0%	APPEND 1 N.3N 1 N.P 3	USA USA C: USA USA USA	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS.	781021F 721055R TOR.
UI 28 NICKEI 594 28 NICKEI 595	NDER CO 58 22.9 25.9 U 58 22.9 U 0	NTINUOU ====== MEV ======= P TC	JS REVIE NEU 40.0 NEU 15.0	W BY TRON MEV TRON TRON	INDC. SEE	APPEND) N, 3N 1 N, P 3	USA USA USA USA USA O: M: T	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS.	781021F 781021F 721055R TOR. 6FL 742115R
U1 28 NICKEI 594 28 NICKEI 595 595	NDER CO 58 22.9 258 58 58 58 58	NTINUOU BERESE MEV BERESE PTC	JS REVIE NEU 40.0 NEU NEU	W BY	INDC. SEE 20.0%	APPEND 1 1 N,P 3	USA USA C: M: USA O: M: EUR Q:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A U	781021F 781021F 721055R TOR. GEL 742115R 
01 28 NICKE 594 28 NICKE 595 595	NDER CO 58 22.9 58 58 58 58	NTINUOU ====== MEV ======= P TC	40.0 NEU 40.0	W BY TRON MEV TRON TRON	INDC. SEE 20.0%	APPEND 1 N, 3N 1 N, P 3 1	USA USA C: M: USA O: M: USA O: M: C: C: C: C: C: C: C: C: C: C: C: C: C:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A L TION OF AVERAGE	781021F 781021F 721055R TOR. GEL 742115R H235 FISSION SPECTRUM CROSS SECTIONS FOR
01 28 NICKEI 594 28 NICKEI 595 596	NDER CO 58 22.9 L 58 L 58 L 58 L 58 L 58 L 58 L 58 L 58	NTINUOU ======= MEV ======== P TC	40.0 NEU 40.0	W BY	INDC. SEE 20.0%	APPEND 1	USA USA C: M: USA O: M: EUR Q: O:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A L TION OF AVERAGE JRPOSES.	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR
UI 28 NICKEI 28 NICKEI 28 NICKEI 595 596	NDER CO 58 22.9 258 	NTINUOU ======= MEV ======= P TC	40.0 NEU 40.0 15.0	W BY	INDC. SEE 20.0% 5.0%	APPEND 1 N.3N 1 N.P 3 1	USA USA C: M: USA O: M: C: M: C: C: C: C: C: C: C: C: C: C: C: C: C:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PL	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A L TION OF AVERAGE JRPOSES. ETRY GROUP	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R
UI 28 NICKEI 594 28 NICKEI 595 596 597	NDER CO 58 22.9 258 0 0 0 2.10	MEV	JS REVIE NEU 40.0 NEU 15.0 7.00	W BY TRON MEV TRON TRON MEV	INDC. SEE 20.0% 5.0%	APPEND 1 1 N,P 3 1 2	USA USA C: M: USA O: M: EUR Q: O: EUR O:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTRON DOSIMU ROUTINE FAST N	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A L TION OF AVERAGE JRPOSES. ETRY GROUP NEUTRON FLUENCE	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R
594 28 NICKEI 594 28 NICKEI 595 596 597	NDER CO 58 22.9 258 	NTINUOU ====== MEV ======= P TC MEV	JS REVIE NEU 40.0 NEU 15.0 7.00	W BY TRON MEV TRON MEV	INDC. SEE 20.0% 5.0% 5.0%	APPEND 1 1 N.P 3 1 2	USA USA C: M: USA O: EUR C: EUR C:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTRON DOSIME ROUTINE FAST M STRONG DISCREF	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A L TION OF AVERAGE JRPOSES. ETRY GROUP NEUTRON FLUENCE DANCY BETWEEN D JE IN U-235 FIS	781021F 781021F 721055R TOR. GEL 742115R -235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R JEFFERNTIAL DATA AND SION NEUTRON SPECTRUM.
01 28 NICKE 594 28 NICKE 595 596 596	NDER CO 58 22.9 258 0	NTINUOU ====== MEV ======= P TC	40.0 NEU 15.0	W BY TRON MEV TRON MEV	INDC. SEE 20.0% 5.0%	APPEND 1 1 N.JN 1 3 1 2	USA USA C: M: USA C: M: USA O: EUR Q: C: EUR O: M:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTFON DOSIME ROUTINE FAST M STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A LU TION OF AVERAGE JRPOSES. ETRY GROUP NEUTRON FLUENCE DANCY BETWEEN D JE IN U-235 FIS DDIFICATIONS.	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R GEL 742117R GEL 742117R SIGN NEUTRON SPECTRUM.
594 28 NICKEI 28 NICKEI 595 596 597 598	NDER CO 58 22.9 25.9 U 2.10	ME V ME V ME V	40.0 NEU 40.0 15.0 7.00	W BY	INDC. SEE 20.0% 20.0% 2.0% 2.0% 2.0%	APPEND 1 N.3N 1 3 1 2 1	USA USA C: M: USA O: M: EUR Q: C: EUR 0: M: USA	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTFON DOSIMU ROUTINE FAST P STRONG DISCREF AVERAGE VALU SUBSTANTIAL MO C.R.HEAD	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A LU TION OF AVERAGE JAPOSES. ETRY GROUP NEUTRON FLUENCE DANCY BETWEEN D JE IN U-235 FIS DDIFICATIONS. DOE	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R GEL 742117R IFFERENTIAL DATA AND SION NEUTRON SPECTRUM. 781022F
594 28 NICKEI 594 28 NICKEI 595 596 597 598	NDER CO 58 22.9 258 UU 2.10	MEV	JS REVIE NEU 40.0 NEU 15.0 7.00 40.0	MEV	INDC. SEE 20.0x 5.0x 5.0x 20.0x	APPEND 1 1 N,P 3 1 2 1	USA USA C: M: USA C: M: USA C: USA C: USA C: USA	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTFON DOSIME STRONG DISCREF AVERAGE VALU SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A L TION OF AVERAGE JAPOSES. ETRY GROUP NEUTRON FLUENCE CANCY BETWEEN D DE IN U-235 FIS DDIFICATIONS. DOE FMIT FACILITY.	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R GEL 742117R IFFERENTIAL DATA AND ISION NEUTRON SPECTRUM. 781022F
594 28 NICKEI 594 28 NICKEI 595 596 597 598	NDER CO 58 22.9 258 	NT I NUOU ======= MEV ======= P T C MEV MEV	JS REVIE NEU 40.0 NEU 15.0 7.00 40.0	MEV	INDC. SEE 20.0X 5.0X 2.0X 2.0X	APPEND 1 1 N,P 3 1 2 1	USA USA C: M: USA C: M: USA C: C: EUR C: USA C: M: USA	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTFON DOSIME STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR NEW REQUEST.	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A L TION OF AVERAGE JRPOSES. ETRY GROUP NEUTRON FLUENCE DANCY BETWEEN D JE IN U-235 FIS DDIFICATIONS. DOE FMIT FACILITY.	781021F 781021F 721055R TOR. GEL 742115R P235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R GEL 742117R DIFFERENTIAL DATA AND SION NEUTRON SPECTRUM. 781022F
UI 28 NICKEI 594 28 NICKEI 595 596 597 598 598	NDER CO 58 22.9 22.9 2.10 1.00 25.3	NTINUOU ======= MEV ======= PTC MEV MEV MV	JS REVIE NEU 40.0 15.0 7.00 40.0 3.00	W BY	INDC. SEE 20.0% 5.0% 2.0% 20.0%	APPEND 1 1 1 3 1 2 1 1	USA USA C: M: USA C: M: USA C: EUR C: USA C: M: USA C: M: C: C: C: C: C: C: C: C: C: C: C: C: C:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTRON DOSIME ROUTINE FAST M STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR NEW REQUEST. L.COSTA	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A LU TION OF AVERAGE JRPOSES. ETRY GROUP NEUTRON FLUENCE JE IN U-235 FIS DDIFICATIONS. DOE FMIT FACILITY. CAD	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R GEL 742117R MONITOR. GEL 742117R JEFFERENTIAL DATA AND SION NEUTRON SPECTRUM. 781022F 792011R
594 28 NICKEI 28 NICKEI 595 596 597 598 598 599	NDER CO 58 22.9 22.9 2.10 1.00 25.3	NT I NUOU ======= MEV ======= P TC MEV MEV MV	40.0 NEU 40.0 15.0 7.00 40.0 3.00	W BY	INDC. SEE 20.0% 20.0% 2.0% 2.0% 2.0% 20.0% 10.0%	APPEND 1 N, 3N 1 3 1 1 2 1	USA USA C: M: USA USA C: M: USA C: M: USA C: M: USA C: M: USA C: M: USA	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTRON DOSIME ROUTINE FAST M STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR NEW REQUEST. L.COSTA	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A LU TION OF AVERAGE JRPOSES. ETRY GROUP NEUTRON FLUENCE JANCY BETWEEN D JE IN U-235 FIS DDIFICATIONS. DOE FMIT FACILITY. CAD YCLE	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R MONITOR. IFFERENTIAL DATA AND SION NEUTRON SPECTRUM. 781022F 792011R
UI 28 NICKEI 594 28 NICKEI 595 595 596 597 598 598 599 599	NDER CO 58 22.9 2.10 2.10 1.00 25.3	NT I NUOL MEV MEV MEV MEV MEV MEV	40.0 15.0 7.00 40.0 3.00	W BY TRON TRON MEV MEV MEV MEV	INDC. SEE 20.0% 20.0% 2.0% 2.0% 2.0% 20.0% 10.0%	APPEND 1 	USA USA USA USA USA C: M: USA C: M: USA C: M: USA C: M: USA C: M: USA	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PL NEUTRON DOSIME ROUTINE FAST M STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR NEW REQUEST. L.COSTA	DOE FMIT FACILITY. BET ST FLUENCE MONI DIFICATIONS. ETRY GROUP SECTION IN A L TION OF AVERAGE SETRY GROUP NEUTRON FLUENCE DANCY BETWEEN C DETRY GROUP NEUTRON FLUENCE DANCY BETWEEN C DIFICATIONS. DOE FMIT FACILITY. CAD YCLE	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R MONITOR. GEL 742117R DIFFERENTIAL DATA AND SION NEUTRON SPECTRUM. 781022F 792011R
UI 28 NICKEI 594 28 NICKEI 595 596 597 598 598 599 599 5799	NDER CO	NT I NUQU 	JS REVIE NEU 40.0 15.0 7.00 40.0 3.00	W BY	INDC. SEE	APPEND 1 N, 3N 1 N, P 3 1 2 1 1 1 APPEND	IX A. USA C: M: USA C: M: USA C: C: EUR C: C: EUR C: M: USA C: M: USA	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTFON DOSIME ROUTINE FAST M STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR NEW REQUEST.	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A LUENCE JRPOSES. ETRY GROUP NEUTRON FLUENCE DANCY BETWEEN D JE IN U-235 FIS DDIFICATIONS. DOE FMIT FACILITY. CAD YCLE	781021F 781021F 721055R TOR. GEL 742115R P235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R DIFFERENTIAL DATA AND SION NEUTRON SPECTRUM. 781022F 792011R 792011R
UI 28 NICKEI 594 28 NICKEI 595 596 597 598 598 599 STATUS	NDER CO	NT I NUOU MEV MEV MEV MEV MEV MEV MINUOU	JS REVIE NEU 40.0 15.0 7.00 40.0 3.00	W BY	INDC. SEE 20.0% 20.0% 2.0% 2.0% 2.0% 20.0% 10.0%	APPEND 1 N.3N 1 N.P 3 1 1 2 1 1 1 1 APPEND	USA USA C: M: USA C: M: USA C: C: C: C: C: C: C: C: C: C: C: C: C:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTFON DOSIME ROUTINE FAST M STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR NEW REQUEST. L.COSTA DUT-OF-CORE CY NEW REQUEST.	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A LU TION OF AVERAGE JRPOSES. ETRY GROUP NEUTRON FLUENCE DANCY BETWEEN D JE IN U-235 FIS DDIFICATIONS. DOE FMIT FACILITY. CAD YCLE	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R GEL 742117R GEL 742117R MONITOR. 7400117 SION NEUTRON SPECTRUM. 781022F 792011R 792011R
UI 28 NICKEI 594 28 NICKEI 595 596 597 598 598 599 STATUS	NDER CO		JS REVIE NEU 40.0 15.0 7.00 40.0 3.00	W BY	INDC. SEE 20.0% 20.0% 2.0% 2.0% 2.0% 20.0% 10.0%	APPEND 1 	USA USA C: USA USA O: EUR O: EUR O: EUR O: M: IX A.	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PU NEUTRON DOSIME ROUTINE FAST M STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR NEW REQUEST. L.COSTA OUT-OF-CORE C' NEW REQUEST.	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A LU TION OF AVERAGE JRPOSES. ETRY GROUP NEUTRON FLUENCE JANCY BETWEEN D JE IN U-235 FIS DDIFICATIONS. DOE FMIT FACILITY. CAD YCLE	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R GEL 742117R IFFERENTIAL DATA AND SION NEUTRON SPECTRUM. 781022F 792011R 792011R
UI 28 NICKE 594 28 NICKE 595 595 596 597 598 598 599 STATUS	NDER CO		JS REVIE NEU 40.0 15.0 7.00 40.0 3.00	W BY	INDC. SEE 20.0% 2.0% 2.0% 2.0% 2.0% 2.0% 20.0% 10.0%	APPEND ] N, 3N 1 1 3 1 2 1 1 1 APPEND N, ALL N, AL	USA USA C: USA C: M: USA C: EUR C: EUR C: EUR C: EUR C: EUR C: EUR C: EUR C: EUR C: EUR C: EUR C: EUR C: C: EUR C: C: C: C: C: C: C: C: C: C:	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PL NEUTRON DOSIME ROUTINE FAST M STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR NEW REQUEST. L.COSTA OUT-OF-CORE CT NEW REQUEST.	DOE FMIT FACILITY. BET ST FLUENCE MONI DIFICATIONS. ETRY GROUP SECTION IN A L TION OF AVERAGE SETRY GROUP NEUTRON FLUENCE DANCY BETWEEN D JE IN U-235 FIS DD IFICATIONS. DOE FMIT FACILITY. CAD YCLE	781021F 781021F 721055R TOR. GEL 742115R 235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R GEL 742117R DIFFERENTIAL DATA AND SION NEUTRON SPECTRUM. 781022F 792011R 792011R
UI 28 NICKE 594 28 NICKE 595 596 597 598 598 599 STATUS- U 28 NICKE 600	NDER CO 58 22.9 22.9		JS REVIE NEU 40.0 15.0 7.00 40.0 3.00 US REVIE	W BY TRON MEV MEV MEV MEV MEV	INDC. SEE	APPEND 1 N, 3N 1 N, P 3 1 1 2 1 APPEND 	USA USA C: M: USA O: EUR O: EUR O: EUR O: M: USA M: IX A. PHA GER	C.R.HEAD DOSIMETRY FOR NEW REQUEST. N.STEEN FOR USE AS FAS SUBSTANTIAL MO NEUTRON DOSIME AVERAGE CROSS DESIRED. FOR NORMALIZAT DOSIMETRY PL NEUTFON DOSIME ROUTINE FAST N STRONG DISCREF AVERAGE VALL SUBSTANTIAL MO C.R.HEAD DOSIMETRY FOR NEW REQUEST. L.COSTA DUT-OF-CORE CO NEW REQUEST.	DOE FMIT FACILITY. BET ST FLUENCE MONI DDIFICATIONS. ETRY GROUP SECTION IN A LUENCE SETRY GROUP NEUTRON FLUENCE DETWEEN D JE IN U-235 FIS DDIFICATIONS. DOE FMIT FACILITY. CAD YCLE KFK	781021F 781021F 721055R TOR. GEL 742115R -235 FISSION SPECTRUM CROSS SECTIONS FOR GEL 742117R GEL 742117R GEL 742117R 742117R 781022F 792011R 792011R 792011R 792011R

28 NICKEL 58	NEUTRON	N • AL	_PHA	( CONT INUED ) 		
STATUS				status		
UNDER CONTI	NUQUS REVIEW BY	INDC. SEE APPEN	DIX A.			
28 NICKEL 58	======================================	======================================	NANCE P			
	**************					
601 UP T	0 100. KEV	10.0% 2	USA	F.G.PEREY ORL 741056F P.B.HEMMIG DOE C.E.TILL ANL		
			Q:	ENERGY REQUESTED IS A MAXIMUM VALUE ONLY. NEUTRON WIDTH, GAMMA WIDTH, SPIN AND PARITY WANTED.		
28 NICKEL 59	NEUTRON		10222020 _PHA			
602 25.3 MV	500. EV	20.0% 2	BLG	N.MAENE MOL 742023F		
			A: 0:	EVEN AN ACCURACY OF 50 PERCENT WOULD BE USEFUL. EVALUATION OF HE PRODUCTION IN STEEL IN HIGH FLUX REACTORS THROUGH THE REACTION CHAIN NI-58(N.GAMMA)NI-59(N.ALPHA)FE-56.		
603 25.3 MV	10.0 MEV	25.0% 2	GER	8.GDEL KFK 762251F		
			0:	FOR NEUTRON DAMAGE PREDICTION.		
28 NICKEL 60	NEUTRON	======================================				
604 2.08 ME	V 40.0 MEV	20.0% 1	USA	C.R.HEAD DOE 781023F		
			О. М	: DOSIMETRY FOR FMIT FACILITY. : NEW REQUEST.		
28 NICKEL 60	NEUTRON	RES	DNANCE P	?ARAMETERS *====================================		
605 UP T	Ú 100. KEV	10.0% 2	USA	F.G.PEREY ORL 741059F P.B.HEMMIG DDE 741059F C.E.TILL ANL		
			9:	ENERGY REQUESTED IS A MAXIMUM VALUE ONLY. NEUTRON WIDTH, GAMMA WIDTH, SPIN AND PARITY Wanted.		
		======================================	NANCE D			
606 UP T	O 100. KEV	10.0% 3	USA	F.G.PEREY ORL 741062 P.B.HEMMIG DOE C.E.TILL ANL		
			Q:	: ENERGY REQUESTED IS A MAXIMUM VALUE ONLY. Neutron width. Gamma width. Spin and parity Wanted.		
28 NICKEL 62	NEUTRON		AL CROSS	S SECTION		
	<b>8222222222222</b>	==Rese:============				
607 1.00 ME	V 15.0 MEV	10.0% 2	FR	E.FORT CAD 792014F		
			D: M:	: EVALUATION PROBLEMS : NEW REQUEST.		
		*******				
28 NICKEL 62			STIC CRU	JSS SECTION 		
608 1.00 ME	V 15.0 MEV	10.0% 2	FR	E.FORT CAD 792015F		
			0:	EVALUATION PROBLEMS		
			M:	: NEW REQUEST.		
28 NICKEL 62	NEUTRON		TURE CRO	DSS SECTION		
609 25.3 MV	3.00 MEV	20.0% 1	FR	L.COSTA CAD 762139F		
			M:	SUBSTANTIAL MODIFICATIONS.		
610 100. EV	1.00 MEV	25.0% 2	UK	C.G.CAMPBELL WIN 792130F		
			C: M:	: FOR FAST REACTOR CIRCUIT ACTIVITY.		
			*=======			
28 NICKEL 62	NEUTRON	RES	JNANCE P	PARAMETERS ====================================		
611 UP T	0 100. KEV	10.0% 3	USA	F.G.PEREY ORL 741065F P.B.HEMMIG DOE 741065F		
			Q:	ELECTION WIDTH, GAMMA WIDTH, SPIN AND PARITY WANTED.		
28 NICKEL 63		======================================	 F L <b>if</b> e			
	** ******	****************				
612		10.0% 2	USA · D:	N.STEEN BET 761054F : FLUX MONITOR FROM CU(N,P) REACTION.		
			• • = = = = = = = =	, ntw ntwold(). 		
28 NICKE	- 63	NEUTRON		CAPT	JRE CRO	S SECTION
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613	1.00 MV	10.0 MEV	10.0%	2	USA	N.STEEN BET 761053R
					0: M:	FLUX MONITOR FROM CU(N,P) REACTION. New request.
28 NICKE	================= L 64	NEUTRON		RESON	ANCE P	
*******					*******	
614	UP TO	100. KEV	10.0%	З	USA	F.G.PEREY ORL 741068R P.B.HEMMIG DUE C.E.TILL ANL
					Q:	ENERGY REQUESTED IS A MAXIMUM VALUE ONLY. Neutron Width, gamma Width, spin and parity Wanted.
29 COPPE	======= R	NEUTRON	12655555555	ELAS	TIC CRO	SS SECTION
				22222		
615	8.00 MEV	15.0 MEV	10.0%	2	сср 0:	I.N.GOLOVIN KUR 724032F NEUTRON TRANSMISSION CALCULATIONS.
29 COPPE	============ R	NEUTRON		DIFF	ERENTIA	ELASTIC CROSS SECTION
5		***********				
616	15.0 MEV	35.0 MEV	10.0%	1	USA	C.R.HEAD DOE 781034F
					A: 0: M:	ACCUFACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.
29 COPPE	======================== R	NEUTRON			URE CRO	SS SECTION
\$1922\$18	2222252222233	***********		25552:		
617	25.3 MV	15.0 MEV	15. X	2	9 A L	Y.SEKI JAE 762114F
					<u>.</u>	GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA-RAY HEATING IN MAGNETS
SECESSES				=====		ICTION CODES SECTION IN INCLASTIC SCAT.
	****************			22222		
618	UP TC	15.0 MEV	15.0%	2	ССР	I.N.GOLCVIN KUR 724033F
					0:	NEUTRONICS CALCULATIONS FOR BLANKET AND SHIELD.
619	UP TO	15.0 MEV	15. X	2	JAP	Y•SEKI JAE 762112F
					Q:	GAMMA FAY SPECTRA ALSO REQUIRED. Gamma-ray heating in magnets
20 0000						N DOMUCTION CONS. SECTION
S=======				=====	=======	
620	500. KEV	15.0 MEV	15.0%	2	ССР	I.N.GOLCVIN KUR 724034F
					Q:	GAMMA RAY SPECTRA ALSO WANTED. GAMMA RAY HEATING AND SHIELDING CALCULATIONS.
621	25.3 MV	15.0 MEV	15. X	2	JAP	Y•SEKI JAE 762113F
					0: D:	GAMMA RAY SPECTRA ALSO REQUIRED. Gamma-Ray heating in magnets
				ENED		- NEG. NEUTON-ENTERIN CORE SECTION
29 COFFE	***********					
622	15.0 MEV	35.0 MEV	10.0%	1	USA	C.R.HEAD DOE 781040F
					A: D: M:	ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.
623	9.00 MEV	14.0 MEV	10.0%	1	USA	C.R.HEAD DOE 781046F
					0: M:	FOR SHIELDING, ACTIVATION AND TRANSPORT STUDIES OF NEXT GENERATION D-T REACTOR DESIGNS. New REQUEST.
					======	
======	**************************************	NEO / RUN		N • F	=======	44==#3===5555555555555555555555555555555
624	UP TO	15.0 MEV	15.0%	2	CCP	I.N.GOLOVIN KUR 724035F
					======	
29 COPPE 3====3=	R ====================================	NEUTRON		ENER	GY-ANGL	E DIFF. PROTON-PRODUCTION CROSS SECTION
625	14.0 MEV			2	USA	C.R.HEAD DOE 781139F
	_				A:	ACCURACY TO BE DETERMINED.
			·		U: M:	NEW REQUINED FUN HADIATIUN DAMAGE CALCULATIONS.

29 COPPER	}	NEUT	RON ====================================	N, ALP	HA ======	
626	UP TO	15.0	MEV 15.0%	2	сср 0:	I.N.GOLOVIN KUR 724036F HELIUM ACCUMULATION CALCULATIONS.
STATUS						STATUS
UN	DER CONTIN	UDUS REVIEW	BY INDC. SEE	APPENDI	X A.	
29 COPPER		NEUT	======================================	ENERG		E DIFF. ALPHA-PRODUCTION CROSS SECTION
627	14.0 MEV			2	USA	C.R.HEAD DOE 781118F
					A: 0: M:	ACCURACY TO BE DETERMINED. DATA REQUIRED FOR RADIATION DAMAGE CALCULATIONS. NEW REQUEST.
29 COPPER	***************************************	NEUT	======================================	TOTAL	HYDRO	GEN-PRODUCTION CROSS SECTION
628	15.0 MEV	35.0	MEV 10.0%	1	USA	C.R.HEAD DOE 781028F
					C: M:	SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.
629	9.00 MEV	14.0	MEV 10.0%	1	USA	C.R.FEAD DOE 781055F
					0: M:	FOR RADIATION DAMAGE STUDIES OF NEXT GENERATION D-T REACTOR DESIGNS. New request.
29 COPPER		NEUT	======================================	TOTAL	HELIU	M-PRODUCTION CROSS SECTION
630	9.00 MEV	14.0	MEV 10.0%	1	USA	C.R.HEAD DOE 781064F
					M:	D-T REACTOR DESIGNS. NEW REQUEST.
631	15.0 MEV	35.0	MEV 10.0%	1	USA	C.R.HEAD DOE 781213F
					A: 0: M:	ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.
29 COPPER	8 63	NEUT	======================================	CAPTU	RE CRO	SS SECTION
	**********					
632	25.3 MV	1.00	KEV	2	USA	P.B.HEMMIG DOE 671001R
					A: 0:	ACCURACY 2 PERCENT NEAR THERMAL, 5 PERCENT ABOVE THERMAL. For detector applications.
633	1.00 KEV	18.0	MEV 10.0%	2	USA	W.N.MC ELROY HED 691132R
					a: C:	REQUIRED IS ACTIVATION. For use as a fluence monitor.
634	1.00 MV	15.0	MEV 5.0%	2	USA	N.STEEN BET 761056F
					C: M:	NEEDED FOR LONG TERM FLUX MONITOR. New request.
29 COPPER	<pre>e===================================</pre>	NEUT	======================================	N, 2N		
	*========					
635	11.9 MEV	16.4	MEV 5.0%	<b>2</b> ·	EUR	NEUTRON DOSIMETRY GROUP GEL 742130R
					0:	FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS.
STATUS						STATUS
UN	DER CONTIN	UOUS REVIEW	BY INDC. SEE	APPENDI	X A.	·
29 COPPER	63 ========		800 800 8008	N, P		
636	υρ το	15.0	MEV 5.0%	2	USA	N.STEEN BET 7610556
•				-	0: M:	NEEDED FOR LONG TERM FLUX MONITOR. NEW REQUEST.
29 COPPER	8 63 8 63	======================================	======= RON ============================	N,ALP	====== HA ======	
				_		
637	0.00 MEV	18.0	MEV 10.0%	2	USA Q:	WENNELLEUY HED 691133R REQUIRED IS ACTIVATION.
					ō:	FOR USE AS A FLUENCE MONITOR.
638	6.10 MEV	11.3	MEV 5.0%	1	EUR	NEUTRON DOSIMETRY GROUP GEL 742120R
					0:	ROUTINE FAST NEUTRON FLUENCE MONITOR.
639	6.00 MEV	18.0	MEV 5.0%	1	BLG	H.TOURWE MOL 792111F
					Q: C: M:	REQUIRED IS ACTIVATION. For use as a fluence monitor. New request.

29 CO	PPER 63			NEUI	TRON		N, ALPH		(CON	TINUED)
STATU	s									-STATUS
	UNDER	CONTI	NUOUS	REVIEN	W BY	INDC. SEE	APPENDI	X A.		
			======				========			
29 CO	PPER 65			NEU 1	TRON		CAPTUR	RE CRO	DSS SECTION THE THE THE THE THE THE THE THE THE THE	
64	0 25	.3 MV		1.00	KEV		2	USA		6710028
	· 25				~~ •		L	A:	ACCURACY 2 PERCENT NEAR THERMAL, 5 PERCENT	ABOVE.
								0:	: FOR DETECTOR APPLICATIONS.	
===== 30 ZI	NC 64		*****	NEU	TRON		CAPTU	RE CRO	======================================	3355265
=====	= = = = = = = = = = = = = = = = = = = =	:=====	<u> </u>		=====	=========================		======		2232225
64	1 25.	3 MV		15.0	MEV	20.0%	2	JAP	T.KAWAKITA MAP	792077R
								0:	: EXPERIMENTAL DATA WANTED. : FOR ESTIMATION OF RADIOACTIVITY OF SPENT	
									STRUCTURAL MATERIALS IN FAST REACTORS. BOTH EXPERIMENTAL AND EVALUATED DATA ARE SC	ARCE
								м:	: NEW REQUEST.	
64	2 25.	0 MV		15.0	MEV	15.0%	1	GER	H.KUESTERS KFK	792197R
								<u>a:</u>	: EVALUATION WANTED.	
								M:	NEW REQUEST.	
===== 30 ZI	 NC 64		33 <b>8</b> 8 8 8	====== NEU'	s= TRON		N•P			
			522222	=====				=====		
64	3 2.3	30 ME	v	7.80	MEV	5.0%	2	ÉUR	NEUTRON DOSIMETRY GROUP GEL	7421319
								0:	FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLD	ING
									ABOUT 20 PERCENT DISCREPANCY BETWEEN INTEGR	AL
									AND DIFFERENTIAL MEASUREMENTS.	
35 BR	OMINE 8	7 ======	======	======	=====		GAMMA	RAY Y	YIELD	
64	4					10• X	з	JAP	H.SHIMOJIMA TOS	762001N
								Q:	: YIELD PER DISINTEGRATION OF 1419 KEV GAMMA REQUIRED.	RAY
								0:	(FOLLOWING BETA DECAY EVENT) : DETECTION OF FAILED FUEL	
=====			======		= = = = = =			=====		
35 88	CMINE 6		======	=====		*********	GAMMA		YIELD ====================================	
64	5					10. *	з	JAP		762002N
	-						-	a:	: YIELD PER DISINTEGRATION OF 767 KEV GAMMA R	RAY
									REQUIRED. (FOLLOWING BETA DECAY EVENT)	
								0:	: DETECTION OF FAILED FUEL	
36 KR	YPTON 8	2		NEU	TRON		CAPTU	RE CRO	OSS SECTION	
64	6 40	.0 EV	,			10.0%	2	USA	R.S.CASWELL NBS	761116G
								a: 0:	: VALUES FOR A FEW HIGHER RESONANCES ALSO NEE : NEEDED TO GROUND, FIRST AND SECOND EXCITED	DED. STATES
								M :	FOR GAMMA RAY LASER. : NEW REQUEST.	
=====					=====	***********				
36 KR	YPTON 8	3 • = = = = =		NEU	TRON =====		CAPTU	RE CRO =====		
64	7 1.	00 MV	,	1.00	KEV	10.08	2	USA		6711908
						10104	2	UUN	F.FEINER KAP	0111300
								0: M:	: FOR FISSION PRODUCT ABSORPTION CALCULATION: : SUBSTANTIAL MODIFICATIONS.	•
=====					====					
36 KP =≈===	PTON 8	4 = = = = = = =		NE U	=====		CAPTU	FE CRO	OSS SECTION	********
64	9 1.	00 KE	. v	3 00	MEV	10.0*		ED		7420400
04			. •	3.00	ML V	10.0%	•	· • •	CIPHILIS DRC	1420400
=====				=====	=====					.=======
36 KR =====	YPTON 9	0 ======				***********	GAMMA =======	RAY Y	Y1ELD	
_	-						_	,		
64	9					10. %	3	JAP	H.SHIMUJIMA TOS	762003N
								Q:	I: TIELD PER DISINTEGRATION OF MAJOR GAMMA RAY REQUIRED. //COLONING BETA DECAM EVENTS	13
								0:	(FULLUWING BEIA DECAT EVENT) DETECTION OF FAILED FUEL	
===== 37 EU		====== 85		== = = = = = = = = = = = = = = = = = =	TRON		N.2N			
=====				=====	=====					
65	50 10	.0 ME	v	15.0	MEV	5.0%	1	FR	C.PHILIS BRC	692147F
								<u>o</u> :	: PRODUCTION OF RB-84 (33 DAY).	
								0: M:	SUBSTANTIAL MODIFICATIONS.	
22222	-4 == == = = =									

40 ZIRCD	NIUM	NEUTRON		ELAS	TIC CRO	
651	5.00 MEV	15.0 MEV	10.0%	2	ССР	I.N. GOLOVIN KUR 724037F
						NEUTRON TRANSMISSION CALCULATIONS.
40 ZIRCD	NIUM	NEUTRON		DIFF	ERENTIA	L ELASTIC CROSS SECTION
652	200. KEV	1.50 MEV	10.0%	2	USA	F.FEINER KAP 691295R
					ô:	TO RESOLVE DISCREPANCIES IN EXISTING DATA.
653	7.00 MEV	14.0 MEV	20.0%	2	USA	F.FEINER KAP 691296R
					Α:	ENERGY RESOLUTION 2.5 PERCENT.
=======						
40 ZIRCO						
654	UP TO	15.0 MEV	15.0%	2	ССР	I.N.GOLOVIN KUP 724038F
					0:	NEUTRONICS CALCULATIONS FOR BLANKET AND SHIELD.
40 21RC0				AB 50	=======	
655	500. EV	15.0 MEV	25.0%	3	FR	P.HAMMER CAD 712034R
					0:	FOR FAST REACTOR CALCULATIONS.
40 ZIRCO			============		URE CRO	SS SECTION 
656	25.3 MV	1.00 KEV	5-0%	2	USA	G.T.ORTON RL 671005R
0.50	2383 MV		5.0%	2	034	FOR REACTOR MODERATION AND REACTIVITY EFFECTS.
		_			_	
657	1.00 MV	50.0 KEV	10.0%	2	USA	N. STEEN BET 761057R
					0: 0: M:	WANT 2 PERCENT ACCURACY IN THERMAL VALUE. For verification of recent measurements. New request.
658	25.0 MV	25.0 NV	5.00%	1	FR	H.TELLIER SAC 762137R
					0:	CLAD AND STRUCTURE MATERIAL
659	25.3 MV	3.00 MEV	10.0%	1	FR	B. DUCHEMIN SAC 792017R
					0: M:	FOR SHIELDING CALCULATIONS - EVALUATION MAY BE SUFFICIENT NEW REQUEST.
40 ZIRCO	============ NIUM ===================	NEUTRON		TOTA	L PHOTO	N PRODUCTION CROSS SECTION
660	UP TO	15.0 MEV	15.0%	2	CCP	I.N.GOLOVIN KUR 724039F
					0:	GAMMA RAY HEATING AND SHIELDING CALCULATIONS.
661	25.3 MV	15.0 MEV	10.0%	1	FR	B.DUCHEMIN SAC 792016R
					Q: A:	GAMMA SPECTRA REQUIRED Energy resolution of 250 kev for gamma rays less
						THAN 1 MEV AND 500 KEV FOR ENERGIES GREATER THAN 1 MEV
					0: M:	FOR SHIELDING CALCULATIONS - EVALUATION MAY BE SUFFICIENT NEW REQUEST.
40 ZIRCO	NIUM	NEUTRON		N, 2N	******	
*******						=======================================
662	UP TO	15.0 MEV	15.0%	2	ССР	I.N.GOLOVIN KUR 724040F
					0:	FOR NEUTRON MULTIPLICATION CALCULATIONS.
40 ZIRCO	NIUM ====================================		92992202235 222922022365	ENER	GY-ANGL	E DIFF. NEUTRON-EMISSION CROSS SECTION
663	3.00 MEV	14.0 MEV	10.0%	1	USA	F.FEINER KAP 671003R
						C+E+TILL ANL
					ô:	FOR DESIGN OF PRESSURIZED WATER REACTORS USING ZR.
40 ZIRCO	========== NIUM	NEUTRON	***********		******	***************************************
********	**********		======================	538592:	*******	\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$\$
664	UP TO	15.0 MEV	15.0%	2	ССР	I.N.GOLOVIN KUR 724041F
					0:	HYDROGEN ACCUMULATION CALCULATIONS.
40 ZIRCO	============ NIUM	NEUTRON	===za========	N. AL	5555555 PHA	
********				853652	ca=====	=======================================
665	UP TO	15.0 MEV	15.0%	2	CCP	I.N.GOLOVIN KUR 724042F
					0:	HELIUM ACCUNULATION CALCULATIONS.

40 ZIRCON	1UM 		NEU"	TRON		CAPT	URE RESO	NANCE INTEGRAL			
666	0.50	EV			5.0%	1	USA	F.FEINEF N.STEEN	KAP Bét		691143R
							a: D:	SHIELDED INTEGRA Integral ALSO To resolve discr	LS DOWN TO 0.4 Wanted. Epancies in ex	TIMES DILUTE	
667	0.50	EV			5.00%	1	FR	H.TELLIER	SAC		762136R
							0:	CLAD AND STRUCTU	RE MATERIAL		
40 Z1RCOM	222222	=== = = = = =	NEU	TRON		TOTA	L CROSS	SECT ION			
=======	******				=======	====		*****************			
668	2.00	·MV	100.	EV	10.0%	2	тик	A.ISYAR	CNA		752092R
							0:	FOR REACTIVITY E	FFECTS MEASURE	MENTS.	
40 ZIRCON	IUM 91		NEU	TRON		CAPT	URE CROS	S SECTION			********
669	2.00	MV	100.	EV	10.0%	2	TUK	A. ISYAR	CNA		7520918
*******							U: 	FOR REACTIVITY E	FFECTS MEASURE	MENTS.	
40 ZIRCON	IUM 93		NEU	TRON		CAPT	URE CROS	S SECTION			
6 70		~ ~									
670	1.00	KEV	10.0	MEV	20.0%	2	054	CALCULATION OF F	HED	POISON FOR	741071R Fast
								REACTORS.	ISSIN PRODUCT	4	A31
671 .	100.	EV	500.	ĸev	20.0%	2	JAP	S∙IIJIMA H•MATSUNOBU	NIG Sae		752004R
							0:	FOR FAST REACTOR ONLY ONE RESONAN MORE RESONANCE D SEE ALSO REQUEST	BURNUP CALCUL ICE LEVEL AT 11 Data are requir Number 792068	ATIONS. 0 EV. NO KEV ED.	DATA.
							м:	NO EXPERIMENTAL SUBSTANTIAL MODI	DATA ABOVE 100 FICATIONS.	EV.	
=========			12 = 2 = 2 = 3 = 3						********		
40 21RCOP		=====	NEO	22222	**********	RE30		183555555555555555555555555555555555555		***********	
672	100.	E۷	500.	KEV	20.0%	2	JAP	H. MATSUNOBU	SAE		792068R
							0:	SEE ALSO REQUEST	NIG NUMBER 752004		
							M:	MORE RESONANCE D ONLY ONE RESONAN FOR FAST REACTOR NEW REQUEST.	ATA ARE REQUIR NCE LEVEL AT 11 BURNUP CALCUL	ĚD. O EV. NO KEV ATIONS.	DATA
222222222			NEU	=====				-	**************		
673	1.00	EV	10.0	KEV		3	USA	N. STEEN	BET		671010R
							a:	RADIDACTIVE TAR	ET. 65 DAY.		
							A:	ACCURACY 10 PERC	ENT IF CROSS S 20 PERCENT IF	ECTION GREAT	ER THAN ND 100
								ENERGIES ABOVE 1 IN RESONANCE	LEV OF INTERES	T TO GIVE 10 ATER THAN 10	PERCENT
								BARNS AND 20 F	PERCENT IF BETW	EEN 100 AND	1000
		•					D: M:	SUBSTANTIAL MODI	AN IMPORTANT F IFICATIONS.	ISSION PRODU	CT.
674	0.50	EV	10.0	KEV		з	USA	F.FEINER	KAP		671011R
							Q:	RADIOACTIVE TARC THERMAL CROSS SE	GET: 65 DAY. Ection and ri w	ANTED.	
							Α:	ACCURACY 10 PERC 100 BARNS AND BARNS.	ENT IF CROSS S 20 PERCENT IF	ECTION GREAT BETWEEN 10 A	ER THAN ND 100
								ENERGIES ABOVE 1 IN RESONANCE 1 BARNS AND 20 F BARNS	L EV OF INTERES Integral IF Gre Percent IF Betw	ATER THAN 10 EEN 100 AND	PERCENT 00 1000
							0: M:	THE DECAY IS TO SUBSTANTIAL MODI	AN IMPORTANT F IFICATIONS.	ISSION PRODU	ст.
675	25.3	MV				2	CAN	W.H.WALKER	CPC		6918029
							A: 0:	ACCURACY REQUIRE	ED 20 BARNS. UNKNOWN CROSS	SECTION.	
676	25.3	MV .			5.0%	3	ССР	S.A.SKVCRTSOV O.A.MILLER	KUR KUR		704003N
							0: 0:	ALSO WANTED FOR FOR ASSAY OF U A FISSION PRODUC	•06 EV INCIDEN AND PU IN FUEL CT GAMMA RADIAT	T NEUTRONS. ELEMENTS FRO ION.	M
677	1.00	KEV	10.0	MEV	20.0%	2	USA	R.E.SCHENTER	HED		741073F
							0: 0:	RADIDACTIVE TARG	GET, 65.5 DAY. Fission product	POISON FOR	FAST
	222										

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40 ZIRCON	IUM 96	=====	20022222 NEU 20022222	TRON		RESO	NANCE P	======================================
678	300.	EV			10.0%	1	USA	F.FEINER KAP 741074R
							Q: 0:	NEUTRON AND GAMMA WIDTHS REQUIRED. Needed to verify measurement on 300 ev resonance and remove discrepancies.
41 NIOBIU	===== M 92	= = = = =	======================================	TRON			====== PHA	
	<b>TR</b> 2 <b>2</b> 25	====	******					
679	0.00	EV	15.0	MEV	30. %	3	JAP O:	K, IOKI MAP 762115F TRANSMUTATION CALCULATIONS
		====						
41 N10810	#22233	=====	NEU 2222222220	CERE	*********	=====	200220	32(   10N ====================================
680	2.00	MV	25.0	мv	10.0%	2	тик	A. ISYAR CNA 752090R
=========	======	====	=======					FOR REACTIVETY EFFECTS MEASUREMENTS.
41 NIOBIU ========	M 93 ======		NEU	TRON		ELAS	TIC CRO	SS SECTION SS SECTION
681	25.3	MV	20.0	MEV	3.0%	2	IND	S.B.GARG TRM 753043R
						•	0:	REQUIRED FOR STRUCTURAL-MATERIAL CALCULATIONS.
41 NIOBIU	N 93	=== ==	======= NEU =========	TRON	**************	0 IFF	ERENTIA	L ELASTIC CROSS SECTION
682	1.00	MEV	15.0	MEV	10.0%	2	GER	D.DARVAS JUL 722125F
							Q:	ANGULAR DISTRIBUTIONS AT A FEW SELECTED ENERGIES
							0: M:	RADIATION DAMAGÉ ÉSTIMATES. SUBSTANTIAL MODIFICATIONS.
683	3.00	MEV	15.0	MEV	10.0%	1	CCP	I.N.GOLOVIN KUR 724043F
							0:	NEUTRON TRANSMISSION CALCULATIONS.
684	15.0	ME V	35.0	MEV	10.0%	1	USA	C.R.HEAD DOE 781221F
							A: 0: M:	ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS. NEW REQUEST.
41 NIOBIU	×===== M 93		esesseses NEU	TRON	===============	INEL/	ASTIC C	ROSS SECTION
102222222	222322	32233		=====		= 20221		
685	U	р то	15.0	MEV	10.0%	1	SWT	F.HEGEDUES WUR 692155R
							- Q: D: M:	FORMATION OF THE 13.6 YEAR ISOMER (E' = 29 MEV). For fast flux measurements. Substantial modifications.
686	U	Р ТО	15.0	MEV	10.0%	2	GER	D.DARVAS JUL 722126F
							Q: 0: M:	FORMATION OF 13.6 YEAR ISOMER WANTED. CALCULATION OF MEAT GENERATION AND RADIOACTIVE AFTERMEAT. SUBSTANTIAL MODIFICATIONS.
687	υ	р то	8.00	MEV	5.0%	1	EUR	NEUTRON DOSIMETRY GROUP GEL 7421218
	-					-	Q: D:	PRODUCTION OF 3.7 YEAR ISOMER NEEDED. PROMISING FAST NEUTRON FLUENCE MONITOR DUE TO LOW THRESHOLD ENERGY.
688	U	р то	20.0	MEV	3.0%	2	IND	S.B.GARG TRM 753044R
						-	0:	REQUIRED FOR STRUCTURAL-MATERIAL CALCULATIONS.
689	U	р то	15.0	MEV	20. %	2	JAP	M.KASAI MAP 762117F
							Q: A: D: M:	NB-93M PRODUCTION CROSS~SECTION BY INELASTIC 15.0 % REQUIRED FOR NEUTRON TRANSPORT CALCULATIONS TRANSMUTATION AND NEUTRON TRANSPORT CALCULATIONS. SUBSTANTIAL MODIFICATIONS.
690	u	е то	15.0	MEV	10.0*	1	UK	J- RUTI FR WIN 7921225
0,00	5		1010			•	0:	DETECTOR FOR DAMAGE MONITORING.
							MI	NEW REQUEST.
691	U	P TO	15.0	MEV	10.0%	2	GER	H.KUESTERS KFK 792190R
							Q: M·	PRODUCTION OF ISOMER. Evaluation wanted. New Reviews
STATUS							m.	STATUS
UN	DER CO	NTINU	OUS REVIE	W BY	INDC. SEE A	PPENDI	IX A.	
41 NIOBIU	====== M 93	= = = = = = = = = = = = = = = = = = =	*====== NEU *======	===== TRON =====		ENERG	Y DIFF	ERENTIAL INELASTIC CROSS SECTION
692	U	P TO	15.0	MEV	15.0%	1	CCP	I.N.GOLOVIN KUR 724044F
********			********				0:	NEUTRON CALCULATIONS FOR BLANKET AND SHIELD.

41 NIOBI	UM 93	NEUTRON		ABSOR	RPTION (	ROSS SECTION	=====
*******							
693	25.3 MV	5.00 MEV	20.0%	1	FR	P.HAMMER CAD 71	2037R
					M:	SUBSTANTIAL MODIFICATIONS,	
41 NIOBI	UM 93	NEUTRON		CAPTI	JRE CROS	S SECTION	
694	1.00 KEV	100. KEV	10.0%	2	USA	P.B.HEMMIG DOE 62 C.E.TILL ANL	10498
					Q: A: D:	LOOK FOR NON-1/V BELOW 1 EV. ACCURACY - 5 PERCENT IN CALCULATED DILUTE AND SELF-SHIELDED RESONANCE INTEGRAL, For FAST REACTOR CALCULATIONS, TO RESOLVE	
						DISCREPANCIES IN THERMIONIC REACTOR WORTHS.	
695	100. EV	100 <b>.</b> Kev	20.0%	2	UK C:	C.G.CAMPBELL WIN 68 FOR FAST REACTORS.	2020R
696	10.0 MEV	15.0 MEV	15.0%	1	ССР 0:	I.N.GOLDVIN KUR 72 HEAVIER ISOTOPE ACCUMULATION CALCULATIONS.	4045F
697	2.00 MV	25.0 MV	10.0%	2	тик о:	A.ISYAR CNA 75 FOR REACTIVITY EFFECTS MEASUREMENTS.	20898
698	25.3 MV	20.0 MEV	3.0%	2	IND C:	S.B.GARG TRM 75 REQUIRED FOR STRUCTURAL-MATERIAL CALCULATIONS	3045R
699	25.3 MV	15.0 MEV	15. *	2		V 6541 146 74	21 225
033	2010 111		131 %	2	Q: 0:	GAMMA RAY SPECTRA ALSO REQUIRED. GAMMA-RAY HEATING CALCULATIONS	21225
700	25.3 MV	15.0 MEV	20. X	з	JAP	M.KASAI MAP 76	2123F
					Q: 0:	CAPTURE CROSS-SECTION TO NB-94M IS REQUESTED. TRANSMUTATION CALCULATIONS	
STATUS						S	TATUS
U	NDER CONTINUO	US REVIEW BY I	NDC. SEE AF	PPEND	IX A.		
41 NIOBI	UM 93	NEUTRON		PHOT(	ON PRODU	JCTION CROSS SECTION IN INELASTIC SCAT.	=====
701	1-00 MEV	15.0 MEV	20.08		GER		21305
			20102		Q:	ENERGY AND ANGULAR DISTRIBUTION OF GAMMA FAYS REQUIRED.	21306
					0: M:	RADIATION DAMAGE ESTIMATES. SUBSTANTIAL MODIFICATIONS.	
41 NIOBI	UM 93	NEUTRON	*********		====== L PHOTON	PRODUCTION CROSS SECTION	
							*****
702	UP TO	15.0 MEV	15.0%	1	ССР	I.N.GOLCVIN KUR 72	4046F
					0:	GAMMA RAY HEATING AND SHIELDING CALCULATIONS.	
703	25.3 MV	15.0 MEV	15. X	2	JAP	Y. SEKI JAE 76	2124F
					0:	GAMMA RAY SPECIAL ALSO REQUESTED GAMMA-RAY HEATING CALCULATIONS	
41 NIOBI	UM 93	NEUTRON		N • N			
704	UP TO	15.0 MEV	10.0%	1	BLG Q:	H.TOURWE MOL 79	21126
					0: M:	FOR USE AS A FLUENCE MONITOR. New Request.	
41 NIOBI	UM 93	NEUTRON	ees=======	 N, 2N	*******		
27323222					*******	***************************************	=====
705	UP TO	15.0 MEV	10.0%	2	GER	D.DARVAS JUL 72	2134F
					Q : D : M :	A MEASUREMENT COUNTING THE DUTCOMING NEUTRONS WOULD BE PREFERRED TO CLARIFY THE SITUATION HITHERTO UNOBSERVED DECAY MODES. FOR RADIATION DAMAGE ESTIMATES. SUBSTANTIAL MODIFICATIONS.	OF
706	UP TO	15.0 MEV	10.0%	1	ССР	I.N.GOLOVIN KUR 72	4047F
					Q: D:	ENERGY AND ANGULAR DEPENDENCE OF SECONDARY NEUTRONS REQUIRED. FOR NEUTRON MULTIPLICATION AND RADIATION DAMA ESTIMATES.	GE
707	UP TO	15.0 MEV	5.0%	2	EUR		2133
			•	-	0:	FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLDIN METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND STEEDENTING METHODS	1G
						ANTENNE AND DIFFERENTIAL MEASUREMENTS.	
708	UP TO	15.0 MEV	10 <b>. X</b>	2	JAP O:	M.KASAI MAP 76 NEUTRON MULTIPLICATION CALCULATIONS	521 1 8F
					<u> </u>		

	2222022	======		22222	============				
STATUS									ST ATU
U	NDER CO	NTINUD	US REVIE	W BY	INDC. SEE	APPENDI	х А.		
AL NIGRI	2====== UM 93		======== NFU			ENERG	HANGL	DIFF. NEUTRON-EMISSION CROSS SECT	:=====================================
709	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD DOE	781081
							0:	DATA NEEDED FOR SHIELDING. ACTIVAT	TON AND NEUTRON
							м:	NEW REQUEST.	
710	15-0	MEV	35.0	MEV	10.0%	1	USA		781222
						-	A:	ACCURACY FROM 10. TO 50. PC TO BE	DETERMINED FROM
							0:	SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS.	
						•	MI	NEW REQUEST.	
41 NIOBI	UM 93		NEU	TRON		N,P			
711	3.00	MEV	15.0	MEV	20.0%	2	GER	D.DARVAS JUL	722136
							. 0:	RADIATION DAMAGE ESTIMATES, CALCUL TRANSMUTATION RATES AND RADIDACT	ATION OF IVE AFTERHEAT.
							M :	SUBSTANTIAL MODIFICATIONS.	
712	U	JP TO	15.0	MEV	15.0%	1	ССР	I.N.GOLOVIN KUR	724048
							0:	HYDROGEN ACCUMULATION CALCULATIONS	•
					~ ~ ~				760110
713	0.00	EV	15.0	MEV	20. X	2	JAP	M•KASAI MAP K•IOKI MAP	/62119
							0:	HYDROGEN ACCUMULATION CALCULATIONS	\$
41 NI OBI	======= UM 93		====== NEU	===== TRON		ENERG	Y-ANGLI	DIFF. PROTON-PRODUCTION CROSS SEC	
				=====			======		
714	14.0	MEV				2	USA	C.R.HEAD DOE	781147
							A:	ACCURACY TO BE DETERMINED.	
							U: M:	NEW REQUEST.	CALCULATIONS.
	******		======== NC1		=============				************
=======	=======		========	=====		=======	======		**************
715		IP TO	15.0	MEV	15.08	,	CCP		724049
	-					-	0:	HELIUM ACCUMULATION CALCULATIONS.	
716	0.00	EV	15.0	MEV	15. X	2	JAP	M.KASAI MAP K.IOKI MAP	762120
							0:	HELIUM ACCUMULATION CALCULATIONS	
			======= NEI1	22222 TDON				PRODUCTION CROSS SECTION	
=========		======	========	====	**********				
717	0.00	EV	15.0	MEV	15. X	2	JAP	K.IOKI MAP	762121
							0:	HELIUM ACCUMULATION CALCULATIONS	
				=====					
41 NIDBI	UM 93		NEU	TRON	500 2332000	ENERG	Y-ANGLI	DIFF. ALPHA-PRODUCTION CROSS SECT	ION
						•			701106
/18	14.0	ME V				2	054		/81120
							Ö: M:	DATA REQUIRED FOR RADIATION DAMAGE	CALCULATIONS.
41 NIO81	UM 93		NEU =========	TRON		TOTAL ======	HYDRO	SEN-PRODUCTION CROSS SECTION	
						-			
719	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD DUE	78110:
							n:	SENSITIVITY STUDIES	DETERMINED PROP
							Mi	NEW REQUEST.	
720	15.0	MEV	35.0	MEV	10.0%	I	USA	C.R. HEAD DDE	781219
							A:	ACCURACY FROM 10. TO 50. PC TO BE	DETERMINED FROM
							0:	SENSITIVITY STUDIES. FOR MATERIAL DAMAGE CALCULATIONS	5 <b>.</b>
							м:	NEW REQUEST.	
41 NIOBI	UM 93		NEU	TRON		TOTAL	HELIU		
3222222	******			49322					
721	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD DOE	781093
							Α:	ACCURACY FROM 10. TO 50. PC TO BE	DETERMINED FROM
							<u>.</u> :	FOR RADIATION DAMAGE CALCULATIONS.	•
							0: M:	FOR RADIATION DAMAGE CALCULATIONS. New Request.	•

41 NIOBIU	JM 93	******	NEU	TRON		TOTAL	HELIUN	-PRODUCTION CROS	S SECTION	(CONTINUED)
722	15.0	MEV	35.0	MEV	10.0%	1	USA	C.R.HEAD	DOE	781220F
							A: 0: M:	ACCURACY FROM 10 SENSITIVITY ST FOR MATERIAL DAM NEW REQUEST.	). TO 50. PC TO BE TUDIES. MAGE CALCULATIONS.	DETERMINED FROM
41 NIOBIQ	JM 93	=========	======= NEU =======	====== TRON ======		CAPTU	RE RESC	DNANCE INTEGRAL	***************************************	s===::::::::::::::::::::::::::::::::::
723	1.00	EV	10.0	KEV	5.0%	2	EUR Q:	NEUTRON DOSIMETR PRODUCTION OF NE	RY GROUP 3-94 (20000 YEARS)	GEL 792106R Wanted.
							0: M:	POSSIBLE LONG TE New Request.	ERM FLUENCE MONITO	R•
41 NIOBIU	JM 94	====== =======	0===0=0 NEU	TRON		CAPTU	RE CROS	S SECTION		*===================================
724	25.3	MV	15.0	MEV	10 • X	3	JAP 0:	M.KASAI Transmutation C/	MAP	762125F
725	100.	EV	1.00	MEV	25.0%	2	UK	C.G.CAMPBELL	WIN	792131R
							0: M:	FOR FAST REACTOR New Request.	R CIRCUIT ACTIVITY	•
41 NIOBIU	x===== /M 95	======= -========	NEU	TRON		CAPTU	RE CRO	S SECTION		
726	25.3	MV				2	USA Q:	F.FEINER RADIOACTIVE TAR	КАР Set - 35 D.	671012R
							A: 0:	THERMAL AVERAGE WANT 20 PERCENT SECTION IS 10 DECAYS TO AN IMP	WILL BE USEFUL. ACCURACY IF ABSOR TO 100 B. 10 PERC PORTANT FISSION PR	PTION CROSS ENT IF GREATER. ODUCT POISON.
42 MOLYB	ENUM		NEU	TRON		ELAST	IC CRO	S SECTION		s=azzzzzzzzenzzzz
727	1.00	MEV	15.0	MEV	10.0%	2	JAP Q:	Y.SEKI CROSS-SECTIONS F	JAE FOR EACH ISOTOPE A	762235F RE REQUESTED
========		=======	*******							#=======
42 MOLYBO	DENUM =======	******	NEU	TRON		DIFFE	RENTIAL	_ ELASTIC CROSS S	SECTION	s = = = = = = = = = = = = = = = = = = =
728	1.00	MEV	15.0	MEV	10.0%	2	GER	D.DARVAS	JUL	722140F
							Q: D: M:	DISTRIBUTIONS FO WOULD SUFFICE CONFIRMATION OF RADIATION DAMAGE SUBSTANTIAL MOD	DR ENERGY STEPS OF Anl Data Useful. E estimates. Ifications.	10 TO 20 PERCENT
729	3.00	MEV	15.0	MEV	10.0%	1	ССР	I.N.GOLOVIN	KUR	7 <u>2</u> 4050F
							0:	NEUTRON TRANSMIS	SSION CALCULATIONS	•
730	1.00	MEV	15.0	MEV	10. X	2	JAP	Y. SEKI	JAE	762126F
							ő	NEUTRON TRANSPOR	RT CALCULATIONS	
42 MOLYB		=======	NEU	TRON		INELA	STIC C	ROSS SECTION		=======================================
771	7 00	MEN	14 0	MEN		-	ED		5 4 6	7720205
751	3:00		14.0		10.0%	3	0:	POTENTIAL CONST	ITUENT OF CONTAINM	ENT VESSEL .
732	U	P TO	15.0	MEV	15.0%	2	JAP	Y.SEKI	JAE	762236F
	-	-					a: 0:	CROSS-SECTIONS I GAMMA-RAY SPECTI NEUTRON TRANSPOS	FOR EACH ISOTOPE A RA ALSO REQUIRED. RT CALCULATIONS	RE REQUESTED
42 MOLYB	DENUM		NEU	TRON		ENERG	Y DIFF	ERENTIAL INELAST	IC CROSS SECTION	_======================================
733	1.50	MEV	3.00	MEV	20.08	٦		C. E. TILL	A NI	7910700
755	1.50	MEV	3.00	Pi <b>L</b> V	20.04	J	USA	P.B.HEMMIG		7210708
							a: A:	SPECTRA AT SEVER ANISOTROPIC. ENERGY RESOLUTIONE NEUTRONS 20 PI	DVEN 4 PI REQUIRED Ral angles if sign On of primary and Ercent.	IFICANTLY SCATTERED
734	u	IP TO	15.0	MEV	15.0%	1	ССР	I.N.GOLCVIN	KUR	724051F
							0:	NEUTRON CALCULA	TIONS FOR BLANKET	AND SHIELDING.
735	U	P TO	15.0	MEV	15 <b>. X</b>	2	JAP	Y. SEKI	JAE	762127F
							Q:	CROSS SECTIONS I GAMMA RAY SPECT	FOR EACH ISDTOPE A RA ALSO REQUIRED.	RE ALSO REQUESTED
32222822:	-====		======	=====	===========				RI CALCULA'IUNS BESEBEESEESEESEE	

42 MOLYB	DENUM	NEUTRON	********	ENERG	SY-ANGL	E DIFFERENTIAL INELASTIC CROSS SECTION	10223222
		************	=========				=======
736	1.50 MEV	5.00 MEV	10.0%	2	UK	C.G.CAMPBELL WIN	792132R
					0: M:	FOR FAST REACTORS. New request.	
	DENLM	22222222222222222222222222222222222222			9710N	CONSTITUTION	
			==2:22222	======			
737	500. EV	15.0 MEV	7.00%	2	FR	P.HAMMER CAD	712040R
					0:	FOR FAST REACTOR CALCULATIONS.	
	**********						=====
42 MOL YB	DENUM ================	NEUTRON		CAPTU	FE CRO	SS SECTION 	
770	100 54			~			(00) 570
738	100. EV	1.00 MEV		2	UK	C.G.CAMPBELL WIN	692157R
					0:	FOR FAST REACTORS.	ABUVE
739	1.00 KEV	1.00 MEV	10.0%	з	USA	P.8.HEMMIG DOE	721072R
					0:	TO RESOLVE DISCREPANCY IN REACTIVITY WORTH	
						MEASUREMENTS .	
740	10.0 MEV	15.0 MEV	15.0%	1	ССР	I.N.GOLOVIN KUR	724052F
					0:	HEAVY ISOTOPE ACCUMULATION CALCULATIONS.	
741	1.00 MEV	15.0 MEV	15 <b>.</b> X	2	JAP	Y.SEKI JAE	762131F
					0:	CAMMA RAY SPECTRA ALSO PEQUIRED. NEUTRON EALANCE AND GAMMA-RAY HEATING CALCU	LATION
42 MOL YR	======================================	NEUTRON		 Totai	PHOTO	N PRODUCTION CROSS SECTION	=====
22222222			========	======	=======		
742	25.3 MV	15.0 MEV	15.0*	,	CCP		7240535
	2000 40		13.00	•		GANNA RAY HEATING AND SHIELDING CALCULATION	1240351
					======		
42 MOLYB		NEUTRON		N , 2N			
743	UP TO	15.0 MEV	10.0%	2	GER	D.DARVAS JUL	722146F
					٥:	COUNTING OF OUTGOING NEUTRONS TO DETERMINE	
						REQUIRED, SINCE ACTIVITY IS PRODUCED BY M	10-92
					. 0:	CALCULATION OF NEUTRON MULTIPLICATION AND	
					м:	SUBSTANTIAL MODIFICATIONS.	
744	UP TO	15.0 MEV	15.0%	1	CCP		724054F
					Q:	SECONDARY ENERGY SPECTRUM REQUIRED AT 14.0	MEV
					0:	NEUTRON MULTIPLICATION CALCULATIONS.	
745	UP TO	15.0 MEV	10.0%	3	FR	B.DUCHEMIN SAC	732030F
					0:	POTENTIAL CONSTITUENT OF CONTAINMENT VESSEL	•
746	UP TO	15.0 MEV	10. X	2	DAD	Y.SEKI JAE	762128F
					Q:	CROSS SECTIONS FOR EACH ISOTOPE ARE ALSO RE	QUESTED
					0:	NEUTRON TRANSPORT CALCULATIONS	
42 MOLYBI	DENUM	NEUTRON		ENERG	Y-ANGLE	E DIFF. NEUTRON-EMISSION CROSS SECTION	3223355
	==========================			======		***************************************	3692222
747	9.00 MEV	14.0 MEV	10.0%	2	USA	C.R.HEAD DOE	781084F
					0:	DATA NEEDED FOR SHIELDING. ACTIVATION AND N	EUTRON
					м:	NEW REQUEST .	
				N P			
							======
748	UP ТО	14.0 MEV	10.0%	2	GER	B.GOEL KFK	692159R
749	1.50 MEV	15.0 MEV	20.0%	2	GER	D.DARVAS JUL	722148F
				-	 0:	RADIATION DAMAGE ESTIMATES, CALCULATION OF	
					M:	TRANSMUTATION RATES AND RADIOACTIVE AFTER SUBSTANTIAL MODIFICATIONS.	HEAT.
750	UP TO	15.0 MEV	15.0%	1	CCP	I.N.GOLOVIN KUR	724055F
	_ · <b>-</b>			-	0:	HYDROGEN ACCUMULATION CALCULATIONS.	
				_			
751	UP TO	14.0 MÉV	10.0%	3	FR		732031F
					0:	PUTENTIAL CUNSTITUENT OF CONTAINMENT VESSEL	•

42 MOLYBO	ENUM 	. NEUTRON	N ===============	•P ===========	(CONTINUED)
752	0.00 EV	15.0 MEV	10. X	2 JAP	Y.SEKI JAE 762129F K.IOKI MAP H.IIDA JAE
	-			Q:	CROSS SECTION FOR EACH ISOTOPE ARE ALSO REQUESTED. ESPECIALLY, DATA DF MD 95,96 ARE REQUIRED FOR ESTIMATION OF DOSE RATES AROUND THE MOLYBDENUM STRUCTURES.
				0:	HYDROGEN ACCUMULATION CALCULATIONS AND FOR CALCULATION OF INDUCED ACTIVITIES.
42 MOL YBD	:=====================================	NEUTRON	================ E ===================	NERGY-ANGL	E DIFF. PROTON-PRODUCTION CROSS SECTION
753	14.0 MEV			2 USA	C.R.HEAD DOE 781150F
				A: 0: M:	ACCURACY TO BE DETERMINED. Data required for radiation damage calculations. New request.
42 MOLYBO		NEUTRON	:=== ======== N	======================================	
				**********	
754	5,00 MEV	15•0 MEV	20.0%	2 GER 0: M:	D.DARVAS JUL 722149F RADIATION DAMAGE ESTIMATES, CALCULATION OF TRANSMUTATION RATES AND RADIOACTIVE AFTERHEAT. SUBSTANTIAL MODIFICATIONS.
755	ИР ТО	15.0 MEV	15.0%	1 CCP	L.N. GOLOVIN KUR 724056F
			• • • • • •	0:	HELIUM ACCUMULATION CALCULATIONS.
756	UP TO	14.0 MEV	10.0%	3 FR	B. DUCHEMIN SAC 732032F
				0:	POTENTIAL CONSTITUENT OF CONTAINMENT VESSEL.
757	0.00 EV	15.0 MEV	20. X	2 JAP	Y.SEKI JAE 762130F K.IOKI MAP 762130F
				Q: 0:	CROSS SECTIONS FOR EACH ISOTOPE ARE ALSO REQUESTED HELIUM ACCUMULATION CALCULATIONS
758	UP TO	15.0 MEV	25.0%	2 UK	C.G.CAMPBELL WIN 792133R
				0: M:	RADIATION DAMAGE IN FAST REACTORS. New request.
42 MOL YBO	ENUM	NEUTRON		NERGY-ANGL	E DIFF. ALPHA-PRODUCTION CROSS SECTION
					· · · · · · · · · · · · · · · · · · ·
759	14.0 MEV			2 USA A:	C.R.HEAD DOE 781129F ACCURACY TO BE DETERMINED.
				0: M:	DATA REQUIRED FOR RADIATION DAMAGE CALCULATIONS. New request.
42 MOL YBD	:=====================================	NEUTRON	======================================	OTAL HYDRO	GEN-PRODUCTION CROSS SECTION
760	0.00 MEV	14.0 MEV	•• ••	2 4154	
760	900 MEV	14.0 MEV	10.0%	2 USA A:	ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM
				0: M:	FOR FADIATION DAMAGE CALCULATIONS. NEW REQUEST.
42 MOLYBO	ENUM	NEUTRON		OTAL HELIU	M-PRODUCTION CROSS SECTION
761	9.00 MEV	14.0 MEV	10.0%	2 USA	C. R. HEAD DDF 781096F
			10000	A:	ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM
				0: M:	FOR RADIATION DAMAGE CALCULATIONS. New request.
42 MOLYBO	ERUM 92	NEUTRON		APTURE CRO	SS SECTION
762	25.3 MV	15.0 MEV	10 • X	2 JAP	K.IOKI MAP 762132F
				٥:	NEUTRON BALANCE AND TRANSMUTATION CALCULATIONS
763	25.2 MV	10.0 MEV	20 <b>. X</b>	2 JAP	T-HOJUYAMA MAP 762181R
		·		0: M:	FOR FAST REACTOR CALCULATIONS SUBSTANTIAL MODIFICATIONS.
42 MOLYB	DENUM 92	NEUTRON	122222222222 N	#========= *•NP	
·					
764		15.0 MEV	20.0%	2 JAP Q:	H.IIDA JAL 792078F EXPERIMENTAL DATA REQUIRED.
		•		0: M1	FOR CALCULATION OF INDUCED ACTIVITIES AROUND Molybdenum structures. New request.
42 MOLYBO	ENUM 94	NEUTRON	======================================	TOTAL CROSS	SECTION
765	25.2 MV	1.50 MFV	10. *	2 .140	
			7	01	FOR FAST REACTOR CALCULATIONS SUBSTANTIAL MODIFICATIONS

42 MOL YB	======================================	NEUTRON		CAPTURE CRO	S SECTION	
766	25.2 MV	100. KEV	20 • X	2 JAP	T . HO JUYAMA	MAP 762184
				0: M:	FOR FAST REACTOR SUBSTANTIAL MODIF	CALCULATIONS ICATIONS.
42 MOLYBI	 Denum 94	NEUTRON		N, 2N		***************************************
			*=======			
767	UP TO	15.0 MEV	10. X	2 JAP 0:	K.IOKI NEUTRON BALANCE A	MAP 762133 ND TRANSMUTATION CALCULATIONS
42 MUL YBI 22222222	DENUM 94 ====================================			N,P 		
768	UP TO	15.0 MEV	30 <b>. X</b>	2 JAP	T.HOJUYAMA	MAP 762186
				0:	FOR FAST REACTOR	CALCULATIONS
42 MOLYB	DENUM 94	NEUTRON		N, ALPHA		
769	25.2 MV	15.0 MEV	30 <b>. X</b>	2 JAP	T.HOJUYAMA	MAP 762187
				0:	FOR FAST REACTOR	CALCULATIONS
42 MOLYB	222222222222222 DENUM 95 22222222222222222	NEUTRON		TOTAL CROSS	SECTION	
					T. 100 MIXANA	
770	25.2 MV	15.0 MEV	10. %	2 JAP C:	FOR FAST REACTOR	CALCULATIONS
42 MOLYBI		NEUTRON		INFLASTIC C	ROSS SECTION	
771	UP TO	15.0 MEV	20 <b>. X</b>	2 JAP	T. HO JUYAMA	MAP 762189
				:0	FOR FAST REACTOR	CALCULATIONS
42 MOLY8	DENUM 95	NEUTRON	.=========	N, ALPHA	**************	
772	25.2 MV	15.0 MEV	20 <b>. X</b>	2 JAP	T.HOJUYAMA	MAP 762191
				0:	FOR FAST REACTOR	CALCULATIONS
				==============		
42 MOCIO	UENUM 95 	NEUTRUN		CAPTURE RES	DNANCE INTEGRAL	
	0 50 50				DNANCE INTEGRAL	
773	0.50 EV	10.0 KEV	10.0X	CAPTURE RESO 3 USA 0:	N.STEEN Major Fission Pro	BET 741075
773	0.50 EV	10.0 KEV	10.0X	3 USA 0: M:	DNANCE INTEGRAL N.STEEN Major fission pro Substantial modif	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS.
773	0.50 EV	10.0 KEV	10.0X	3 USA O: M: CAPTURE CRO	DAANCE INTEGRAL N.STEEN Major Fission pro Substantial Modif SS Section	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS.
773 42 MOL YBI	0.50 EV DENUM 96 DENUM 96 25.2 MV	10.0 KEV	10.0X	3 USA 0: M: CAPTURE CRO	DNANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS.
773 42 MOL 181 42 MOL 181	0.50 EV DENUM 96 DENUM 96 25.2 MV	NEUTRON 10.0 KEV NEUTRON 100. KEV	10.0X 20. X	3 USA O: M: CAPTURE CRO 2 JAP 0: M:	DNANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS
773 42 MOL 101 42 MOL YBI 774	0.50 EV	NEUTRON 10.0 KEV NEUTRON 100. KEV	10.0x 20. x	3 USA O: M: CAPTURE CRO 2 JAP D: M:	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS.
773 42 MOL YBI 42 MOL YBI 774	0.50 EV DENUM 96 25.2 MV DENUM 96	NEUTRON 10.0 KEV 100. KEV NEUTRON	10.0X 20. X	3 USA O: M: CAPTURE CRO 2 JAP O: M: N, ALPHA	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS.
773 42 MOL YBI 42 MOL YBI 774 42 MOL YBI 42 MOL YBI 775	0.50 EV DENUM 96 25.2 MV DENUM 96	10.0 KEV NEUTRON 100. KEV NEUTRON 15.0 MEV	10.0x 20. x 30. x	3 USA O: M: CAPTURE CRO 2 JAP D: M: N: ALPHA 2 JAP	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS. MAP 762195
773 42 MOL 181 42 MOL YBI 774 42 MOL YBI 775	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV	NEUTRON NEUTRON 100. KEV NEUTRON 15.0 MEV	10.0X 20. X 30. X	3 USA O: M: CAPTURE CRO 2 JAP O: M: 2 JAP O: 0:	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS. MAP 762195 CALCULATIONS
773 42 MOL YBI 42 MOL YBI 774 42 MOL YBI 775 42 MOL YBI	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV 25.2 MV	NEUTRON 10.0 KEV 100. KEV NEUTRON 15.0 MEV	10.0x 20. x 30. x	3 USA O: M: CAPTURE CRO 2 JAP O: N, ALPHA 2 JAP O: TOTAL CROSS	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SECTION	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS. MAP 762195 CALCULATIONS
773 42 MOL YB 774 42 MOL YB 775 42 MOL YB 776	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97	10.0 KEV 10.0 KEV 100. KEV 100. KEV 15.0 MEV NEUTRON 15.0 KEV	10.0x 20. x 30. x	2 JAP 2 JAP 2 JAP 0: M: N, ALPHA 2 JAP 0: TOTAL CROSS 2 JAP	DANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SECTION	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS. MAP 762195 CALCULATIONS AP 762196 AP 762196
773 42 MOL YBI 42 MOL YBI 774 42 MOL YBI 775 42 MOL YBI 775 42 MOL YBI	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 96 25.2 MV	10.0 KEV 10.0 KEV 100. KEV 100. KEV 100. KEV	10.0X 20. X 30. X	3 USA O: M: CAPTURE CRO 2 JAP O: N, ALPHA 2 JAP O: TOTAL CROSS 2 JAP	DNANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SECTION T.HOJUYAMA FOR FAST REACTOR	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS CALCULATIONS MAP 762195 CALCULATIONS MAP 762195 CALCULATIONS MAP 762196 CALCULATIONS
773 42 MOL YB 774 42 MOL YB 775 42 MOL YB 776 42 MOL YB	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97 25.2 MV DENUM 97 25.2 MV	10.0 KEV NEUTRON 100. KEV NEUTRON 15.0 MEV NEUTRON 100. KEV	10.0x 20. x 30. x 10. x	3 USA O: M: CAPTURE CRO 2 JAP O: N.ALPHA 2 JAP O: TOTAL CROSS 2 JAP O: N. M. 1NELASTIC C	DANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS. MAP 762195 CALCULATIONS MAP 762195 CALCULATIONS MAP 762196 CALCULATIONS
773 42 MOL YBI 774 42 MOL YBI 774 42 MOL YBI 775 42 MOL YBI 776 42 MOL YBI	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97 25.2 MV	NEUTRON 10.0 KEV NEUTRON 100. KEV NEUTRON 15.0 MEV NEUTRON 100. KEV	10.0x 20. x 30. x	3 USA O: M: CAPTURE CRO 2 JAP O: N.ALPHA 2 JAP O: TOTAL CROSS 2 JAP O: TOTAL CROSS 2 JAP	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS. MAP 762195 CALCULATIONS CALCULATIONS CALCULATIONS ICATIONS.
773 42 MOL YBI 774 42 MOL YBI 775 42 MOL YBI 776 42 MOL YBI 777	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97 25.2 MV DENUM 97 25.2 MV DENUM 97 UP TO	NEUTRON 10.0 KEV NEUTRON 100. KEV NEUTRON 15.0 MEV NEUTRON 100. KEV NEUTRON 15.0 MEV	10.0x 20. x 30. x 10. x	3 USA O: M: CAPTURE CRO 2 JAP O: N. ALPHA 2 JAP O: TOTAL CROSS 2 JAP O: M: INELASTIC CO	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF SUBSTANTIAL MODIF SUBSTANTIAL MODIF	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS. MAP 762195 CALCULATIONS ICATIONS ICATIONS ICATIONS. MAP 762196 CALCULATIONS ICATIONS. MAP 762197
773 42 MOL YB 774 42 MOL YB 775 42 MOL YB 776 42 MOL YB 776 777	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97 25.2 MV DENUM 97 25.2 MV DENUM 97 UP TO	10.0       KEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         15.0       MEV	10.0x 20. x 30. x 10. x 30. x	3 USA O: M: CAPTURE CRO 2 JAP O: N, ALPHA 2 JAP O: TOTAL CROSS 2 JAP O: INELASTIC CP 2 JAP O: N:	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF ROSS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS. MAP 762195 CALCULATIONS ICATIONS ICATIONS ICATIONS. MAP 762196 CALCULATIONS ICATIONS. MAP 762197 CALCULATIONS
773 42 MOL YB 42 MOL YB 774 42 MOL YB 775 42 MOL YB 776 42 MOL YB 777 42 MOL YB	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97 25.2 MV DENUM 97 UP TO DENUM 97	NEUTRON 10.0 KEV NEUTRON 100. KEV NEUTRON 100. KEV NEUTRON 15.0 MEV NEUTRON 15.0 MEV	10.0x 20. x 30. x 10. x 30. x	3 USA O: M: CAPTURE CRO 2 JAP O: M: N, ALPHA 2 JAP O: TOTAL CROSS 2 JAP O: M: INELASTIC CO 2 JAP O: N:	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF ROSS SECTION T.HCJUYAMA FOR FAST REACTOR T.HCJUYAMA	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS. MAP 762195 CALCULATIONS MAP 762195 CALCULATIONS ICATIONS. MAP 762196 CALCULATIONS ICATIONS.
773 42 MOL YB 774 42 MOL YB 775 42 MOL YB 776 42 MOL YB 777 42 MOL YB 777 42 MOL YB 777	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97 25.2 MV DENUM 97 UP TO DENUM 97 25.2 MV	10.0       KEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         15.0       MEV         NEUTRON         15.0       MEV	10.0x 20. x 30. x 10. x 30. x 30. x	3 USA O: M: CAPTURE CRO 2 JAP O: N, ALPHA 2 JAP O: 1NELASTIC CO 2 JAP O: N, ALPHA 0: M: 1NELASTIC CO	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF COSS SECTION T.HCJUYAMA FOR FAST REACTOR T.HCJUYAMA	BET       741075         DUCT FOR THERMAL REACTORS.         ICATIONS.         MAP         762193         CALCULATIONS         ICATIONS.         MAP         762195         CALCULATIONS         CALCULATIONS         CALCULATIONS         MAP         762195         CALCULATIONS         CALCULATIONS         MAP         762196         CALCULATIONS         ICATIONS.         MAP         762197         CALCULATIONS         MAP         762197         CALCULATIONS         MAP         762198
773 42 MOL YBI 42 MOL YBI 43 MOL YBI 44 MOL YBI 44 MOL YBI 45 MOL YBI 45 MOL YBI 46 MOL YBI 47 MOL YBI	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97 25.2 MV DENUM 97 UP TO DENUM 97 25.2 MV	10.0       KEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         15.0       MEV         NEUTRON         15.0       MEV         15.0       MEV         NEUTRON         15.0       MEV	10.0x 20. x 30. x 10. x 30, x 30, x	3 USA O: M: CAPTURE CRO 2 JAP O: N, ALPHA 2 JAP O: 1NELASTIC CO 2 JAP O: N, ALPHA 0: N, ALPHA 0: N; ALPHA 0: N; ALPHA 0: N; ALPHA 0: N; ALPHA	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR T.HOJUYAMA FOR FAST REACTOR T.HOJUYAMA FOR FAST REACTOR T.HOJUYAMA	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS ICATIONS CALCULATIONS ICATIONS
773 42 MOL YBI 774 42 MOL YBI 775 42 MOL YBI 777 42 MOL YBI 778 42 MOL YBI 778	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97 25.2 MV DENUM 97 UP TO DENUM 97 25.2 MV DENUM 97	NEUTRON 10.0 KEV NEUTRON 100. KEV NEUTRON 15.0 MEV NEUTRON 15.0 MEV NEUTRON 15.0 MEV NEUTRON	10.0x 20. x 30. x 10. x 30. x 30. x	3 USA O: M: CAPTURE CRO 2 JAP O: N. ALPHA 2 JAP O: 1NELASTIC CF 2 JAP O: N. ALPHA 0: N. ALPHA	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF COSS SECTION T.HCJUYAMA FOR FAST REACTOR T.HOJUYAMA FOR FAST REACTOR T.HOJUYAMA	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS CALCULATIONS CALCULATIONS CALCULATIONS CALCULATIONS CALCULATIONS CALCULATIONS CALCULATIONS MAP 762197 CALCULATIONS MAP 762198 CALCULATIONS
773 42 MOL YB 774 42 MOL YB 775 42 MOL YB 776 42 MOL YB 776 42 MOL YB 777 42 MOL YB 777 42 MOL YB 777 42 MOL YB 777 42 MOL YB	0.50 EV DENUM 96 25.2 MV DENUM 96 25.2 MV DENUM 97 25.2 MV DENUM 97 UP TO DENUM 97 25.2 MV DENUM 97 UP TO DENUM 97 25.2 MV	10.0       KEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         100.       KEV         NEUTRON         15.0       MEV         NEUTRON         15.0       MEV	10.0x 20. x 30. x 10. x 30. x 30. x	3 USA O: M: CAPTURE CRO 2 JAP O: N, ALPHA 2 JAP O: INELASTIC CF 2 JAP O: N, ALPHA 2 JAP O: N, ALPHA 2 JAP O: N, ALPHA	DAANCE INTEGRAL N.STEEN MAJOR FISSION PRO SUBSTANTIAL MODIF SS SECTION T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF T.HOJUYAMA FOR FAST REACTOR SUBSTANTIAL MODIF ROSS SECTION T.HOJUYAMA FOR FAST REACTOR T.HOJUYAMA FOR FAST REACTOR T.HOJUYAMA FOR FAST REACTOR T.HOJUYAMA	BET 741075 DUCT FOR THERMAL REACTORS. ICATIONS. MAP 762193 CALCULATIONS CALCULATIONS CALCULATIONS ICATIONS. MAP 762195 CALCULATIONS ICATIONS. MAP 762196 CALCULATIONS ICATIONS ICATIONS ICATIONS ICATIONS ICALCULATIONS ICALCULATI

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42 MOLYE	DENUM 99	)	NEUT	TRON		CAPT	URE CROS	S SECTION		
780	1.00	MV	1.00	KEV		з	USA	N.STEEN F.FEINER	BET KAP	671013R
							Q: A:	RADIOACTIVE TARG RESONANCE PARAME WANT 20 PERCENT SECTION IS 10 ENERGIES ABOVE 1 IN RESONANCE 11 IN RESONANCE 20	ET 66 HOURS. TERS ALSO WANTED. ACCURACY IF ABSORPTION CR TO 100 B. 10 PERCENT IF G EV OF INTEREST TO GIVE 1 NTEGRAL IF GREATER THAN 1 DECENT IF GREATER THAN 1	ROSS BREATER.
							D: M:	BARNS AND 20 P BARNS. THE DECAY IS TO SUBSTANTIAL MODI	AN IMPORTANT FISSION PROD Fications.	)UCT.
781	25.3	MV				2	CAN	W.H.WALKER	CRC	691803R
							A: 0:	ACCURACY REQUIRE FISSION PRODUCT,	D 600 B. UNKNOWN CROSS SECTION.	
42 MOLYE	DENUM 10	0 0 	NEU	2222 TRON 22222		N,P	=#22332; 			
782	UP	, то	15.0	MEV	30. X	2	JAP	T.HOJUYAMA	MAP	762203R
							0:	FOR FAST REACTOR	CALCULATIONS	
42 MOLY		==== )0	NEU	TRON		===== N, AL	======= PHA			*********
				-9225		*****	======	=	=======================================	
783	25.2	MV	15.0	MEV	30 <b>x</b>	2	JAP	T.HOJUYAMA	MAP	762204R
					•		<b>C:</b>	FOR FAST REACTOR	CALCULATIONS	
43 TECH	ETIUM 99	,	NEU	TRON	***********	CAPT	URE CRO	SS SECTION		**********
784	1.00	MV	10.0	KEV	10.0%	2	USA	N.STEEN	BET	741076R
							0: M:	THERMAL CROSS SE Important fissio Substantial modi	CTION AND RI WANTED. N PRODUCT FOR THERMAL RE/ FICATIONS.	ACTORS.
785	100.	EV	500.	EV	10.0%	1	JAP	S.IIJIMA H.MATSUNOBU	NIG SAE	752007R
							Q: 0: N:	DESIRED WITH LOW FOR FAST REACTOR ONLY ONE SET OF SUBSTANTIAL MODI	ER PRIORITY FOR WIDER END Burnup Calculations. Data for E Less Than 50 P Fications.	EFGY RANGE <ev•< td=""></ev•<>
		,===;		=====						
44 RUTH	ENIUM 101	l ====:	NEU	TRON =====		CAPT =====	URE CRO	SS SECTION		
786	1.00	MV	10.0	KEV	10.0%	з	USA	N.STEEN	ĐET	741077R
						•	Q:	THERMAL CROSS SE	CTION AND RI WANTED.	
							0: M:	CALCULATION OF F REACTORS. SUBSTANTIAL MODI	ISSION PRODUCT POISON FOF Fications.	R THERMAL
797	1 00	KEV	10.0	NEV	10.00					
181	1.00	NE V	10.0	MEV	10.0%	1	054	CALCULATION OF F	ISSION PRODUCT POISON FOR	7410788 R FAST
								REACTORS.		
788	100.	Eν	500.	KEV	10.0%	1	JAP	S.IIJIMA H.MATSUNOBU	NIG SAE	752008R
							0:	FOR FAST REACTOR	BURNUP CALCULATIONS.	
							М:	SUBSTANTIAL MODI	FICATIONS.	
44 RUTH	INIUM 103	3		eszzz		GAMM	A RAY Y	======================================		
									***************************************	
789					1.0%	2	<b>JAP</b>	K.TASAKA	JAE	722002N
							<b>u</b> :	GAMMA RAY REQU	IRED. A DECAY EVENT)	KEV
							0:	FOR BURN UP CALC MEASUREMENT.	ULATION FROM NON-DESTRUC	TIVE
2222222 44 RUTH		9522: 1	======================================		*********			SS SECTION		
	=======	, , , , ,		=====	.5==== = = = = = = = = =	=====	2222222		***************************************	
790	1.00	ΜV	1.00	KE V		Э	USA	N.STEEN F.FEINER	BET KAP	671015R
							<b>a</b> :	RADICACTIVE TARG	ET 40 DAYS.	
							A:	20 PERCENT ACCUR RANGE 10 TO 10 ENERGIES ABOVE 1	ACY DESIRED IF CROSS SEC 0 Barns, 10 percent if LA EV DE INTEREST TO GIVE	TION IN Arger. 10 geocent
								IN RESONANCE I BARNS AND 20 P	NTEGRAL IF GREATER THAN T ERCENT IF BETWEEN 100 ANI	1000 D 1000
							0: M:	BARNS. WANTED FOR FISSI THERMAL REACTO SUBSTANTIAL MODI	ON PRODUCT POISON CALCUL RS. Fications.	ATIONS IN
791	25.3	MV				2	CAN	W.H.WALKER	CRC	691804R
	-						A	ACCURACY REQUIRE		
							0:	FISSION PRODUCT.	UNKNOWN CROSS SECTION.	
	•									
							58			

44 RUTHE	NIUM 103	NEUTRON		CAPTUR	RE CRO	SS SECTION		(CONTINUED)
792	1.00 KEV	10.0 MEV	20.0%	2	USA	R.E.SCHENTER	HED	741079R
					Q: 0:	RADIOACTIVE TAR CALCULATION OF REACTORS.	GET 39.6 DAY. FISSION PRODUCT POISON F	FOR FAST
							•	
793	100. EV	500. KEV	20.0%	2	JAP	S.IIJIMA	NIG	792079R
					0: 0: M:	FOR FAST REACTO NO DIFFERENTIAL VERY LARGE DISC NEW REQUEST.	IR CALCULATION, 40 DAYS L . CR INTEGRAL DATA EXIST. Repancies between evalu	IFETIME.
					=====			
44 RUTHE	NIUM 104 ================	NEU I RON SSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSSS		======	E CRU	SS SECTION	*****	
704	KEV						450	7410810
/94	1.00 KEV	IU.U MEV	10.0%	1	054	ROLOACTIVE TAR		7410818
					ŏ:	CALCULATION OF	FISSION PRODUCT POISON F	FOR FAST
						REACTORS		
44 RUTHE	NIUM 106	NEUTRON		CAPTUR	E CRO	SS SECTION		
795	25.3 MV		10.0%	3	ССР	S.A. SKVCRTSOV	KUR	704006N
					<b>.</b>	ALSO WANTED FOR	-06 EV INCIDENT NEUTRON	19.
				•	ŏ:	FOR ASSAY OF U FISSION PRODU	AND PU IN FUEL ELEMENTS	FROM
796	1.00 KEV	10.0 MEV	10-0%	1	USA	R.E.SCHENTER	HED	7410828
				-	Q:	RADICACTIVE TAR	GET 2.18 HOUR.	
•					0:	CALCULATION OF REACTORS.	FISSION PRODUCT POISON F	FOR FAST
	***********							*==========
45 RHODI =======	UM 103 ==================	NEUTRON ================		INELAS	STIC C	ROSS SECTION		
							_	
797	UP TO	15.0 MEV	5.0%	1	GER	M.KUECHLE		692477R
					Q:	GAMMA DE-EXC	EADING TO ISOMERIC STATE	EAFTER
					0: M:	SUBSTANTIAL MOD	TOR. DIFICATIONS.	
700	110 70		5	•				
798	01 40	IO.U MEV	5.0%	1	EUR	NEUTRON DUSIMET		L 742122R
					0:	PRODUCTION OF S	NEUTRON FLUENCE MONITOR	DUE TO LOW
						THRESHELD ENE	HGT .	
799	UP TO	15.0 MEV	5.0%	1	GER	H.KUESTERS	KFK	792191R
					<b>a</b> :	PRODUCTION OF I	SOMER.	
					м:	NEW REQUEST.	ED•	
STATUS								STATUS
U	NDER CONTINUO	US REVIEW BY IN	NDC. SEE A	PPENDI	( A.			
45 RHODI	a=====================================	NEUTRON						
800	1.00 MV	1.00 FV	10.0*	2	USA		GEB	671018P
				-	a:	FOR CALCULATION	I OF FISSION PRODUCT POIS	50NS.
					••			
801	1.00 MV	1.00 KEV	5.0%	3	DEN	C.F.HOEJERUP	RIS	712044R
					0:	WANTED FOR FISS	SIGN PRODUCT CALCULATIONS	5.
802	10.0 MV	5.00 KEV	10.0%	2	FR	H.TELLIER	SAC	732058R
					0:	REACTOR CALCULA	TIONS.	
				=======				
45 RHODI	UM 105 2222222	NEUTRON			RE CRO	SS SECTION		
803	1.00 MV	1.00 EV	10.0%	2	USA	P. GREEELER	GEB	671019R
					ŏ:	FOR CALCULATION	OF FISSION PRODUCT POIS	SONS.
804	10-0 MV	500. EV		2			CPC	601 00EB
	///	41		-	۵. ۲	ACCURACY 5- PER	CENT TO 10 EV. 20 DEDCEN	NT AROVE.
					ő:	AVAILABLE DATA	SUGGEST LARGE RESONANCE	NEAR
						ADDITIONAL DATA	NEEDED TO DETERMINE DEP	PENDANCE ON
	*****						CONTRACTOR CONTRACTOR	
45 RHODI	UM 106			GAMMA	RAY Y			
805			1.0%	. 2	JAP	K.TASAKA	JAE	722004N
					0:	YIELD PER DISIN	TEGRATION OF 512,616,622 S REQUIRED.	2 AND 1050
					0:	(FOLLOWING BE	TA DECAY EVENT)	JCTIVE
******	************					MEASUREMENT,		

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46 PALLA	DIUM 10	)5  ======	NEU	TRON		CAPT	URE CRO	SS SECTION	=======================================	=======================================	*********
806	1.00	KEV	10.0	MEV	10.0%	1	USA	R.E.SCHENTER	HED		741086R
							0:	CALCULATION OF REACTORS.	FISSION PRO	DUCT POISON FO	R FAST
807	100.	EV	500.	KEV	10.0%	1	JAP	S.IIJIMA H.MATSUNOBU	NIG Sae		752011R
			•				Q:	EVALUATION ALSO	D REQUIRED. Dr Burnup Ca	LCULATIONS.	
							MI	DATA BETWEEN 10 NO EXPERIMENTAL SUBSTANTIAL MOD	60 EV TO A F L DATA ABOVE DIFICATIONS.	EW KEV ARE LAC	K ING.
46 PALLA	DIUM 10	)7	NEU	TRON		CAPT	URE CRO	SS SECTION			
808	25.3	MV				2		W.H.WALKER	CRC		691806R
							ő:	PU FISSION PRO	DUCT, UNKNOW	N CROSS SECTIO	Ν.
809	1.00	KEV	10.0	MEV	10.0%	1	USA	R.E.SCHENTER	HED		741084R
							0: 0:	RADIOACTIVE TAL CALCULATION OF REACTORS.	RGET - 6.5 N FISSION PRO	ILLION YEARS. Duct Poison Fo	R FAST
810	100.	EV	500.	KEV	10.0%	1	JAP	S.IIJIMA H.MATSUNDBU	NIG Sae		752012R
							0:	FOR FAST REACT	DR BURNUP CA	LCULATIONS.	
	•						м:	NO KEV DATA SUBSTANTIAL MOI	DIFICATIONS.		
47 SILVE	====== R 109		saaaasaas NEU	TRON		CAPT	URE CRO	SS SECTION		\$802222228282882	
222222	c 3 = 2 3 3 3	.====	********			= = = = = =	22\$222				2==02222286
811	1.00	MV	1.00	E۷	10.0%	2	USA	P.GREEBLER	GEB		671021R
				•			0:	FISSION PRODUC	T POISON.		
812	100.	EV	500.	KEV	10.0%	2	JAP	S.IIJIMA H.MATSUNOBU	NIG Sae		752013R
			·				A: 0: M:	10.0 TO 20.0% FOR FAST REACT( DISCREPANT SER DATA ARE ALSO SUBSTANTIAL MOI	DR CALCULATI IES OF DATA Available fo Difications	ONS. In Kev Region. R ag 107 and N	ATURAL AG.
813	3.00	KEV	1.00	NEV	10.0*	•	ED	5 5087	CAD		7020100
015	5.00		1.00	ML V	10.0*	•	0: M:	REACTOR CALCULA	ATIONS		7920188
48 CADMI	 UM 113			TRON		CAPT	URE CRO	SS SECTION			********
	******	=====		*****	**********	====		842222922222222			2223222205
814	U	IP TO	100.	E۷	5.0%	з	FR	H.TELLIER	SAC		732063R
						====	0: =======	CONTROL AND PO	I SON . ===============		============
49 INDIU =======	M 115 ======		GAM ========	INA =====	*===========	SPEC	IAL QUA	NTITY (DESCRIPT)	ION BELOW)		
815	500.	KEV	10.0	MEV	20.0X	Э	<b>qal</b>	Y.OKA	דסא		792080R
							о: : м:	EXPERIMENTAL D FOR CORRECTION IN-115(N,N°)IN- DOSIMETRY APPL NEW REQUEST.	ATA WANTED F OF IN-115M -115M, FOR R ICATIONS.	OR (G.G') REAC Production thr Eactor shieldi	TION. DUGH Ng And
49 INDIU	 M 115		essesses NEU	TRON		INEL	ASTIC C	ROSS SECTION	*=#22222222		=========
					.=================					************	882228225
816	u	JP TO	15.0	MEV	3.0%	1	GER	M. KUECHLE	KFK		692180R
							Q: 0:	CROSS SECTION C GAMMA DE-EXC THRESHOLD DETEC	LEADING TO I Itation is n Ctop.	SOMERIC STATE A	AFTER
817	5.00	MEV	15.0	MEV	10.0%	2	SWT	F. HE GEDUES	WUR		692194R
							0: 0:	FORMATION OF TH	HE 4.5 HOUR MEASUREMENTS	ISOMER (E' = .	335 MEV).
818					2.0%	1	EUR	NEUTRON DOSIME	TRY GROUP	GEL	742116R
							a: 0:	PRODUCTION OF AVERAGE CROSS S DESIRED. FOR NORMALIZAT DOSIMETRY PUT	IN-115 (4.5 Section in a Ion of Avera Rposes.	HOUR) ISOMER. U-235 FISSION GE CROSS SECTION	SPECTRUM ONS FOR
819	U	P TO	15.0	MEV	5.0X	1	GER	H.KUESTERS	KFK		7921928
	-					-	٥:	PRODUCTION OF	ISOMER. TED.		
CTATUS							м:	NEW REQUEST.			<b></b>
U	NDER CO	NTINU	DUS REVIE	W BY	INDC. SEE A	PPEND	IX A.	<u>u</u> <del>_</del>			STATUS
*******	======	=====				=====	=======		=============	*************	

========= 50 TIN		=====	========= NEU	TRON		DIFF	ERENTIA	L ELASTIC CROS	S SECTION	========	
		=====					*******				
820	15.0	MEV	35.0	MEV	10.0%	1	USA	C.R.HEAD	DÖE		781035F
							A:	ACCURACY FROM SENSITIVITY	10. TO 50. PO STUDIES.	C TO BE (	DETERMINED FROM
							U: M:	NEW REQUEST.	DAMAGE CALCUL	ATIUNS.	
50 TIN	======= ========		NEU	TRON	************	ENER	GY-ANGL	E DIFF. NEUTRO	N-EMISSION CR	DSS SECT	IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII
831	15.0	MEV	35 0	MEV	10.0*				DDE		7910415
821	15.0	MEV	35.0	MEV	10.0%	L	USA A:	ACCURACY FROM	10. TO 50. P	C TO BE (	VETERMINED FROM
							0: M:	SENSITIVITY FOR MATERIAL NEW REQUEST.	' STUDIES. DAMAGE CALCUL	ATIONS.	
822	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD	COE		781083F
							0: M:	DATA NEEDED F Transport C New Request.	OR SHIELDING. ALCULATIONS.	ACTIVATI	ON AND NEUTRON
	=====	=====			***********	= = = = = =					
50 TIN =======			NEU	TRON		ENER	GY-ANGLI	E DIFF. PROTON	-PRODUCTION C	ROSS SECT	'ION 
823	14.0	MEV				2	USA	C.R.HEAD	DOE		781149F
							A: C: M:	ACCURACY TO B DATA REQUIRED NEW REQUEST.	E DETERMINED. FOR RADIATION	N DAMAGE	CALCULATIONS.
			==========			-2					
50 TIN =======	******		NEU	TRON		ENER	GY-ANGL	E DIFF. ALPHA- ====================================	PRODUCTION CRO	155 SECT 1	0N 
824	14.0	MEV				2	USA	C.R.HEAD	00E		781128F
							A: 0; M:	ACCURACY TO B DATA REQUIRED NEW REQUEST.	E DETERMINED. FOR RADIATION	N DAMAGE	CALCULAT IONS .
	=======										
50 TIN #=======	******	*****	NEU			TOTA =====	L HYDRO	GEN-PRODUCTION Second Second Second	CROSS SECTION	N :====================================	
825	15.0	MEV	35.0	MEV	10.0%	1	USA	C.R.HEAD	DOE		781029F
							A:	ACCURACY FROM	10. TO 50. PC	то ве с	ETERMINED FROM
	-						0: M:	FOR MATERIAL NEW REQUEST.	DAMAGE CALCUL	ATIONS.	
826	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD	DOE		781107F
							A:	ACCURACY FROM SENSITIVITY	10. TO 50. PO STUDIES	C TO 8E 0	ETERMINED FROM
					:		0: M:	FOR RADIATION NEW REQUEST.	I DAMAGE CALCU	_ATIONS.	
	******	=====	2222222222 NEU	TRON	===============	==== Tota	L HELIU	M-PRODUCTION C	ROSS SECTION		
			********								
827	9.00	MEV	14.0	MEV	10.0%	2	USA	C.R.HEAD	DOE		781095F
							A:	ACCURACY FROM	10. TO 50. PO STUDIES	C TO BE C	ETERMINED FROM
							C: M:	FOR RADIATION NEW REQUEST.	I DAMAGE CALCUI	LATIONS.	
828	15.0	ME V	35.0	MEV	10.0%	1	USA	C.R.HEAD	DOE		781214F
							A: 0:	ACCURACY FROM SENSITIVITY FOR MATERIAL	10. TO 50. PO Studies. Damage calcula	C TO BE D Ations.	ETERMINED FROM
8222525	222222=	====						NEW REQUEST.			
50 TIN 1	26 ======	=====	NEU	TRON		CA PT	URE CRO	SS SECTION			
829	25.3	MV				2	CAN	W.H.WALKER	CRC		691807R
							A:	ACCURACY REQU	IRED 120 BARNS	S. DASS SECT	TON
22200222	=====										
51 ANT IM	ONY 121	=====	NEU	TRON	*********	CAPT	URE CROS	SS SECTION			
830	25.2	MV	15.0	MEV	15 <b>. X</b>	2	qAL	T.HOJUYAMA	MAP		762205R
							0:	FOR NEUTRON S	OURCE CALCULAT	TION.	
51 ANT IM	DNY 123	= = = = = = = = = = = = = = = = = = =	NEU	TRON		CAPT	URE CRO	SS SECTION			
831	25.2	MV	15.0	MEV	15. X	2	JAP	T.HOJUYAMA			762206R
							υ.	. SA ACVINON S	CONCE CALCULA		

51 ANTIN	IONY 124	=====	NEU	TRON		CAPTL	RE CROS	S SECTION		
2902030 <b>:</b>				====\$						
832	25.3	MV			20.0%	3	JAP	K.NISHIMURA	JAE	792082R
							0:	FOR ESTIMATION C NEUTRON SOURCE. VERY LARGE DISCF DATA.	REPANCIES EXIST	TION IN SU-BE Among Experimental
							М:	NEW REQUEST.		
51 ANTIN	125 IONY					GAMM	RAY YI	:=====================================		
5-5-5121				======		s\$===:				
833					1.0%	2	JAP	K.TA SAKA	JAE	722006N
			·				a: c:	YIELD PER DISINT 601, 607, 636 (FOLLOWING BET FOR BURN UP CALC MEASUREMENT.	TEGRATION OF 176 AND 672 KEV GAM A DECAY EVENT) CULATION FROM NO	, 381, 428, 464, Ma Rays Reguired. N-DESTRUCTIVE
51 ANT IN	ONY 125		NEU	TRON	*======	CAPTU	JRE CROS	S SECTION		
.834	25.3	MV				3	CAN	W.H.WALKER	CRC	691808R
							A: 0:	ACCURACY REQUIRE	ED 300 BARNS. UNKNOWN CROSS :	SECTION.
51 ANT IN	10NY 127		NEU	TRON	=======================================	CAPT	JRE CROS	S SECTION		
835	25.3	MV				3	CAN	W.H.WALKER	CPC	691809P
							<u>A:</u>	ACCURACY REQUIRE	D 4000 BARNS.	SECTION
#=====:				=====	\$233838388±					
52 TELLU	JRIUM 12	7	NEU	TRON			JRE CROS	S SECTION		
836	1.00	MV	1.00	E۷	20.0%	2	USA	F.FEINER	KAP	671022R
							o: 0	RADIGACTIVE TARG Thermal or ther Needed for calcu	GET 105 DAY ISOM Mal average valu Jlation of fissi	ER. E USEFUL. ON PRODUCT POISONS.
837	25.3	MV				З	CAN	W.H.WALKER	CRC	691810R
							Q: . A: . D:	FOR THE ISOMERIC ACCURACY REQUIRE FISSION PRODUCT	C STATE (105 D). ED 900 BARNS.	
52 TELL	JRIUM 12		======== NÉU	TRON	*===========		JRE CROS	S SECTION		
					5======					******************
838	25.3	MV				з	CAN	W.H.WALKER	CRC	691811R
	-						Q: A: D:	FOR THE ISOMERIC ACCURACY REQUIR FISSION PRODUCT	C STATE (33 D). Ed 1000 Barns.	
					**********	- 2			= = = = = = = = = = = = = = = = = = =	
3222222		.====	NEU =========	=====		= = = = = = = = = =				
839	10.0	MEV	14.6	MEV	5.0%	2	EUR	NEUTRON DOSIMET	RY GROUP	GEL 742134R
							0:	FOR NEUTRON DOS METHODS. MORE THAN 25 PEI AND DIFFERENT	IMETRY USING SPE RCENT DISCREPANC IAL MEASUREMENTS	CTRUM UNFOLDING Y BETWEEN INTEGRAL •
53 IOD II	NE 129		========= NEU	TRON		CAPT	JRE CROS	SESSESSESSESSESSESSESSESSESSESSESSESSES		******************
\$======		====				25222				
840	1.00	ĸev	10.0	MEV	20.0%	2	USA	R.E.SCHENTER	HED	741087R
							Q: 0:	RADIOACTIVE TAR CALCULATION OF I REACTCRS.	GET - 15.9 MILLI FISSION PRODUCT	ON YEARS. Poison for fast
841	10.0	MV	1.00	MEV	20.0%	1	GER	H.KUESTERS	KFK	7922238
							Q: D: M:	EVALUATION WANTS FOR THERMAL READ NEW REQUEST.	ED. CTORS.	
	escesees					=====				******************
33 IUUI 3466666	NC 133 =======	=== 0	NEU 222222222		******	LAP1 = = = = = =	JKE (RO) =======	33 SECTION 2322222222222222222222222222222222222		=======================================
842	1.00	MV	1.00	KEV	20.0%	2	USA	N.STEEN	BET	671024F
							Q: A:	RADIOACTIVE TAR ACCURACY 10 PER	GET 21 HOURS. Cent IF cross se	CTION LARGER THAN
							0:	ABOVE 1 EV RESO IF BETWEEN 90 IF LARGER THA WANTED FOR FISS	NANCE INTEGRAL W 00 AND 90000 BAR N 90000 BARNS. Ion Product Pois	ANTED TO 20 PERCENT NS AND 10 PERCENT ON CALCULATIONS.
	=====		*=========			- = = = = = =				

===== 53 IO =====	D INE	135	=====				=====	50000 50000	A RAY Y			======================================
84	3					10.	x	3	JAP 0:	H.SHIMOJIMA	TOS TEGRATION OF 527.1132.1	762004N 260 AND 1458
									o:	KEV GAMMA RAYS F (FCLLCWING BET DETECTION OF FAI	REQUIRED. TA DECAY EVENT) ILED FUEL	
53 IO	DINE	137	===== =====					GAMM/	A RAY Y			**********
	۵. ۵					10.	¥	3		H. SHIMOJIMA	TOS	762005N
	•						~	-	Q:	YIELD PER DESINT REQUIRED.	TEGRATION OF MAJOR GAMM	A RAYS
									0:	(FOLLOWING BE DETECTION OF FA	TA DECAY EVENT) Iled fuel	
53 IO	DINE	138	=====	======================================		========		GAMM/	A RAY Y	IELO		=======================================
84	5					10.	x	з	JAP	H.SHIMOJIMA	TOS	7620061
									0:	YIELD PER DISINT REQUIRED.	TEGRATION OF 589 KEV GA	MMA RAY
									0:	(FELLEWING BET Detection of FA)	TA DECAY EVENT) Iled fuel	
53 10	DINE	139	= = = = = = = = = = = = =		******	=======		HALF	LIFE			===========================
84	6					10.	x	3	JAP	H.SHIMCJIMA	TOS	· 762013N
									0:	DETECTION OF FAL	ILED FUEL	
53 IO	DINE	139	= = = = = = = = = = =	======================================		=======	*****	GAMM/	A RAY Y	IELD		=======================================
- 84	7					10.	¥	з		H. SHIND JIMA	TOS	7620078
	•						~	Ū	Q:	YIELD PER DISINI	TEGRATION OF MAJOR GAMM	A RAYS
									0:	(FOLLOWING BET DETECTION OF FAX	TA DECAY EVENT) Iled fuel	
===== 54 XE	NON	131	====	NEU	TRON			CAPTL	JRE CRO	SS SECTION		52222222222
			=====									========
84	8	1.00	MV	1.00	KEV	10.0	x	1	USA Q:	N.STEEN THERMAL CROSS SE	BET Ection and resonance in	671025R TEGRAL
									Α:	WANTED. ENERGIES ABOVE : ACCURACY IN RE	1 EV OF INTEREST TO GIV Esonance integral.	E 10 PERCENT
									D: M:	FISSION PRODUCT	IF ICATIONS .	
84	9	1.00	MV	1.00	KEV	10.0	x	2	USA	P.GREEBLER	GEB	671026R
									Q: A:	THERMAL CROSS SE WANTED. ENERGIES ABOVE	ECTIEN AND RESONANCE IN 1 ev of interest to giv	TEGRAL E 10 PERCENT
									0: M:	ACCURACY IN RE FISSION PRODUCT NEW REQUEST.	ESDNANCE INTEGRAL. •	
85	0	10.0	MV	5.00	KEV	10.0	x	2	FR	H.TELL IER	SAC	732064R
									0:	REACTOR CALCULAT	TIONS.	
85	1	100.	EV	500.	KEV	20.0	x	2	JAP	S.IIJIMA H.MATSUNOBU	NIG Sae	752014R
									0:	FOR FAST REACTOR	R BURNUP CALCULATIONS. ALSO REQUIRED.	
										NO KEV DATA AT A SEE ALSO REQUEST	ALL. T NUMBER 792069.	
			= = = = =	000000000000				=====				
54 85		=====	- 92 22	=======				====	TETETE	ARAME / ENS ====================================		***********
85	2	100.	EV	500.	KEV	20.0	x	2	JAP	S.IIJIMA H.MATSUNCBU	N I G SAE	792069R
									0:	FOR FAST REACTOR	R BURNUP CALCULATIONS. NUMBER 752014.	
										EVALUATIONS ARE	VERY DISCREPANT. ALSD REQUIRED.	
				======				====	M:	NEW REQUEST.		
54 XE =====		133		NEU =====	TRON			CAPT	JRE CRO	SS SECTION		***********
85	3	25.3	мν			10.0	x	2	USA	P.GREEBLER	GEB	671 02 7R
									a: c:	RADIGACTIVE TARG Thermal or ther Wanted For Fiss:	GET 5.3 DAYS. Mal Average Value Wante Icn product Poison Calc	D. ULATIONS.
85	4	1.00	MV	1.00	KEV	5.0	x	з	DEN	C.F.HOEJERUP	RIS	712045R
									0:	WANTED FOR FISS	ION PRODUCT CALCULATION	s.

54 XENON	133 ======		NEU	TRON	=================	CAPTU	JRE CRO	SS SECTION	************	(CO)	TINUED)
855	1.00	MV	5.00	KEV	10.0%	2	USA Q: D: M:	N.STEEN RADIOACTIVE THERMAL CROS WANTED. FOR FISSION SUBSTANTIAL	BET TARGET - 5.29 D S SECTION AND F PRODUCT POISON MODIFICATIONS.	AY. RESONANCE INTEGRA CALCULATIONS.	741088R
54 XENÓN	135			TRON		CAPTU	JRE CRO	S SECT 10N		****************	
856	1.00	MV	2.00	EV	5.0%	2	USA Q: D:	R.H.DAHLBERG Radioactive For design o	GA TARGET 9.17 HOU F THORIUM CYCLE	JR. Reactors.	671028R
857	10.0	MV	5.00	KEV	10.0%	2	FR O:	H.TELLIER Reactor calc	SAC SAC		732065R
858	1.00	MV	5.00	KEV		1	USA Q: A: D: M:	N.STEEN RADIDACTIVE ACCURACY REQ FOR FISSION SUBSTANTIAL	BET TARGET - 9.17 H UIRED - BELOW S ABOVE S PRODUCT POISON MODIFICATIONS.	OUR. 5 EV. 2 PERCENT. 5 EV. 5 PERCENT. CALCULATIONS.	741089R
859	1.00	MV	5.00	EV	3.0%	2	USA D: M:	F.FEINER BETTER DATA CALCULATIO NEW REQUEST.	KAP NEEDED TO IMPRO NS•	VE XENON POISONI	761070R ING
54 XENON	135		NEU	TRON		ENERG	Y DIFF	PHOTON-PROD	UCTION CROSS SE	CT ION	
860	25.3	MV				2	USA Q: A: 0:	F.FEINER RADIOACTIVE GAMMA RAY SP BETWEEN 1 GAMMA RESOLU NEEDED FOR G CALCULATIO	KAP TARGET 9.17 HOL ECTRA WANTED FC AND 8 MEV. ITION 10-20 PERC AMMA SHIELDING INS.	JR. Gamma Ray Ener :Ent. And Heating	671029R Rgies
54 XENON	139			====		GAMMA	RAY Y	 IELD			
861	* = = = = = = = = =				10. X	3	JAP	H.SHIMOJIMA	TOS		762008N
							0:	JIELD PER DI 393 KEV GAMM (FOLLOWING DETECTION OF	SINTEGRATION OF A RAYS REQUIRED BETA DECAY EVE FAILED FUEL	ENT)	7 AND
55 CESIU	M 133		NEU	TRON		ABSOR	PTION	CROSS SECTION			
862	500.	EV	15.0	MEV	30.0%	2	FR O:	8.DUCHEMIN For fast rea	SAC	DNS .	732069R
55 CES IV	acessa M 133	=====	NEU	TRON		CAPTU	JRE CRO	SS SECTION			
					=================	=== = = = =					
863	25.3	MV			3.0%	2	ССР а: 0:	S.A.SKVGRTSO O.A.MILLER ALSO WANTED FOR ASSAY OF FISSION PR	NV KUR KUR FOR •06 EV INCI U AND PU IN FU NDUCT GAMMA RAU	IDENT NEUTRONS. JEL ELEMENTS FROM JATION.	704007N M
864	25.3	MV	14.0	MEV	3.0%	1	JAP Q:	H.OKASHITA Resonance in For burn up	JAE Itegral also wan Calculation Fri	NTED.	722021N VF
865	100.	EV	500.	KEV	10.0%	1	JAP	MEASUREMEN S.IIJIMA	NIG		752015R
							0: M:	FOR FAST REA EVALUATIONS SYSTEMATIC D SUBSTANTIAL	ACTOR BURNUP CAL ARE ALSO REQUIN DISCREPANCY BET MODIFICATIONS.	LCULATIONS. Red. Ween the kev data	A SETS.
55 CESIU		*****	NEU	TRON		CAPTL	JRE RES	ONANCE INTEGR	=====================================		
866	0.50	EV	1.00	KEV	10.0%	1	USA	P.GREEBLER N.STEEN	GEB Bet		671032R
<b>*</b> *****							:0	FOR CALCULAT	ION OF FISSION	PRODUCT POISONS	•
55 CESIU	M 134					GAMM/	A RAY Y				
867					1.0%	2	JAP	H. OKASHITA		- 563,560,704,80	722007N
		=====;					 o:	1365 KEV GAM (FOLLOWING FOR BURN UP MEASUREMEN	MA PAYS REQUIRE BETA DECAY EVE CALCULATION FRONT IT.	ED . ENT) DM NON-DESTRUCTIO	 VE

55 CESI	JM 134		======== NEU ========	TRON	***********	CAPTU	JRE CRO	SS SECTION	======================================		
868	25.3	MV			3.0%	2	ССР	S.A.SKVORTSOV	KUR		704008N
							0: 0:	ALSO WANTED FOR FOR ASSAY OF U FISSION PRODU	•06 EV I AND PU IN CT GAMMA	NCIDENT NEUTRONS. FUEL ELEMENTS FROM RADIATION.	4
869	25.3	MV			3.0%	1	JAP	H.OKASHITA	JAE		722022N
							Q: C:	RESONANCE INTEG FOR BURN UP CAL MEASUREMENT.	RAL ALSO CULATION	WANTED. FROM NON-DESTRUCTIN	/E
870	25.3	MV	10.0	MEV	20. X	1	JAP	K.TASAKA	JAE		762024N
							Q: A: D:	CROSS SECTION V ARE NEEDED.AS W 10 PER CENT ACC 20 PER CENT ACC BURN-UP DETERMI MEASUREMENT OF ESTIMATION OF T	ALUES AT ELL AS AT URACY FOR NATION BA ACTIVITY HE DECAY	HIGHER NEUTRON ENER THERMAL ENERGY. 25.3 MV, Higher Energy Reg. Sed on Absolute Ratio CS-134/CS-13 Power of Fission Pr	RGIES ION. 7 RODUCTS
871	10.0	MV	1.00	MEV	20.0%	1	GER	H.KUESTERS	KFK		792224R
				•			Q: C: M:	EVALUATION WANT FOR THERMAL REA New Request.	ED. CTORS.	•	
55 CES I	JM 135		====== NEU =======	TRON	***********	CAPTU	JRE CRO	SS SECTION			*******
872	1.00	MV	10.0	KEV	10.0%	2	USA	N.STEEN	BET		741090P
	••••		• • • • •			-	Q:	RADIOACTIVE TAR	GET - 3.3	MILLION YEARS.	
							0: M:	FOR FISSION PRO	DUCT POIS	O RESUMANCE INTEGRA ON CALCULATIONS. S.	AL .
873	1.00	KEV	10.0	MEV	10.0%	1	USA	R.E.SCHENTER	HED		741091R
							Q: 0:	RADICACTIVE TAR CALCULATION OF REACTORS.	GET - 3.3 FISSION P	MILLION YEARS. Roduct Poison for f	AST
874	100.	EV	500.	KEV	10.0%	1	JAP	S.IIJIMA H.MATSUNOBU	NIG Sae		752016R
							0: M:	FOR FAST REACTO EVALUATIONS ARE NO DATA AT ALL. NO EXPERIMENTAL SUBSTANTIAL MOD	R BURNUP VERY DIS Data Fro Ification	CALCULATIONS. CREPANT. M 100 EV TO 400 KEN S.	/•
55 CESI	JM 137		======== NEU	TRON		CAPTU	JRE CRO	SS SECTION		**********************	
			======							*********************	
875	25.3	MV			10.0%	2	CCP	S.A.SKVORTSOV D.A.MILLER	KUR KUR	NCTOENT NEUTRONS	704013N
							č:	FOR ASSAY OF U	AND FU IN CT GAMMA	FUEL ELEMENTS FROM RADIATION.	4
56 BAR IU	JM 133			======	************	MISC		***************************************	======================================	************************	
876					3. X	з	JAP	K.HISATAKE	TIT		762207R
							Q: 0:	RELATIVE YIELDS And 356.0 kev g Intensity stand	OF 53.2. Amma Rays Ards For	79.6.81.0.160.6.270 Gamma Ray Measurem	5.4,302. Ents.
======= 56 BARIL			======= NEU	TRON			JRE CRO	SS SECTION		=======================================	
			********		=====================						
877	25.3	MV			5.0%	3	ССР	S.A.SKVCRTSOV O.A.MILLER	KUR Kur		704015N
							Q: 0:	ALSO WANTED FOR FOR ASSAY OF U FISSION PRODUC	.06 EV I AND PU IN CT GAMMA	NCIDENT NEUTRONS. FUEL ELEMENTS FROM RADIATION.	4
57 LANTH	HANUM 14	0	 			GAMMA	RAY Y	======================================	======================================	5== == #= = = = = = = = = = = = = = = =	
878					1.0%	2	ССР	S.A.SKVGRTSOV D.A.MILLER	KUR Kur	•	704016N
							a: C:	YIELD OF GAMMA FOR 328.8 AND FOR ASSAY OF U FISSION PRODUC	QUANTA PE 815.8 KE AND PU IN CT GAMMA	R BETA DECAY EVENT V GAMMAS. Fuel elements from Radiation.	WANTED
879					1.0%	2	JAP	K.TASAKA	JAE		722009N
2007227	18585==~						0: 0:	YIELD PER DISIN AND 2522.0 KE (FOLLCWING BE FOR BURN UP CAL MEASUREMENT.	TEGRATION V GAMMA R TA DECAY CULATION	OF 328.8, 487.0, 8 AYS REQUIRED. Event) FROM NON-DESTRUCTIN	915.8, /E

.

58 58	CERIUM		= = = = = = = = = = = = = = = = = = =		==3== =====	=======================================	GAMMA	RAY YI	:=====================================		
											7040400
	880					1.0%	2		0.A.MILLER	KUR	704018N
								o: C:	YIELD OF GAMMA FOR 133.5 KEV FOR ASSAY OF U FISSION PRODU	GUANTA PER BETA DECAY EVENT Gamma, and Pu in fuel elements fro CT gamma radiation.	WANTED
	881					1.0%	2	JAP	H.OKASHITA	JAE	722011N
		•						۵:	YIELD PER DISIN REQUIRED.	TEGRATION OF 133.5 KEV GAMM	IA RAY
								0:	(FOLLOWING BE FOR BURN UP CAL MEASUREMENT.	TA DECAY EVENT) Culation from Non-Destructi	VE
58	CERIUN	 4 144	=====	======== NEU	===== TRON	===================	CAPTU	RE CROS	SS SECTION	***************************************	
==		1222122	348821		= = = = =	29223022222	2888321	======			
	882	1.00	KEV	10.0	MEV	10.0%	1	USA	R.E.SCHENTER	HED	741093R
								ŏ:	CALCULATION OF REACTORS.	FISSION PRODUCT POISON FOR	FAST
59	PRASEC	DYMIUM	141	NEU	TRON	o*====================================	CAPTU	RE CROS	S SECTION		
	883	25.3	MV	14.0	MEV	3.0%	1	JAP	H.OKASHITA	JAE	722023N
								ŏ:	FOR BURN UP CAL MEASUREMENT.	CULATION FROM DESTRUCTIVE	
== 59	PRASEC	DYMIUM	===±= 144				GAMMA	RAY Y	============================== I EL O		
<b>s</b> =	= = = = = = = = = = = = = = = = = = = =		52222:		****		222328	222223			
	884					1.0%	1	JAP	H.OKASHITA	JAE	722012N
								a:	YIELD PER DISIN 2185.7 KEV GA (FCLLCWING BE	TEGRATION OF 696.5, 1498.1, MMA RAYS REQUIRED. TA DECAY EVENT)	AND
								0:	FOR BURN UP CAL MEASUREMENT.	CULATION FROM NON-DESTRUCT	IVE
 60	NEODYN	 4IUM 14	===== 3	NEU	TRON		CAPTU	RE CR05	SECT ION		
\$2			53250		=====						
	885	1.00	MV	1.00	KEV	10.0%	1	USA	P. GREEBLER	GEB	671035R
								Q:	THERMAL CROSS S WANTED.	ECTION AND RESONANCE INTEGR	
								0: M:	IN RESONANCE FOR CALCULATION NEW REQUEST.	INTEGRAL . OF FISSION PRODUCT POISONS	
	886	100.	Eν	400.	KEV	20.0%	1	JAP	S.11JIMA H.MATSUNDBU	NIG SAE	752017R
								9: 0:	DESIRED WITH LC For FAST REACTO	WER PRIORITY FOR WIDER ENER R Calculations.	RGY RANGE
== 60	NEODY	 MIUM 14	3	========= NEU	TRON		CAPTU	RE RES	DNANCE INTEGRAL		
==							===4==	======	22255222222222222	;===\$2828=222222222222222222222222222222	
	887	0.50	EV	1.00	KEV	5.0%	1	USA	N•STEEN F•FEINER	BET Kap	671034R
								0: M:	FOR CALCULATION SUBSTANTIAL MOD	OF FISSION PRODUCT POISONS	5.
s= 60			=====	0==05=021 NG1							
s=	=======	========	3====		====		======	222223			
	888	1.00	MV	1.00	KEV	10.0%	1	USA	P.GREEBLER	GEB	671037R
								Q:	THERMAL CROSS S	ECTION AND RESONANCE INTEGR	
								A: 0:	IN RESONANCE	I EV OF INTEREST TO GIVE IN INTEGRAL. I OF FISSION PRODUCT POISONS	5 PERCENT
								м:	NEW REQUEST.		
	889	1.00	KEV	10.0	MEV	10.0%	1	USA	R.E.SCHENTER	HED	741094R
								0:	CALCULATION OF REACTORS.	FISSION PRODUCT POISON FOR	FAST
	890	100.	EV	400.	KEV	20.0%	1	JAP	S.IIJIMA H.MATSUNOBU	N I G SAE	752018R
								Q: D:	DESIRED WITH LO	WER PRIORITY FOR WIDER ENER DR CALCULATIONS.	RGY RANGE
==							======				
60 ==	NEODY	MIUM 14 822288	5 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	NEL ========			LAPTU 222222		UNANCE INTEGRAL		
	891	0.50	εv	1.00	KEV	10.0%	1	USA	N.STEEN	BET	671036R
								0: M:	FOR CALCULATION SUBSTANTIAL MOD	N OF FISSION PRODUCT POISON DIFICATIONS.	S.

60 NEODY	MIUM 14	6  =====	NEU	TRON		CAP	TURE CRO	SS SECTION		
892	500.	εv	200.	KEV	20.0X	z	FR	P.HAMMER	CAD	732075R
							0:	BURN UP STUDY.		
	2======		============						**********************	
222200 22	2002201			22220	*********	3 8 3 5				
893	1.00	MV	1.00	KE V		2	USA	F•FEINE [©]	KAP	671039R
							Q:	RADIDACTIVE TARG	ET. 11 DAYS.	
		•					MI	WANTED. SUBSTANTIAL MODI	FICATIONS.	TEGRAL
894	1.00	MV	1.00	KEV		2	USA	N. STEEN	BET	671040R
							Q:	RADIDACTIVE TARG	ET - 11 DAYS.	TECRAI
							A:	WANTED. ACCURACY REQUIRE	0 - 5 TO 10 PERCENT.	
							M :	NEW REQUEST.		
895	25.3	MV				2	CAN	W.H.WALKER	CRC	691812R
							A:	REQUIRED WITH 35	0 BARN ACCURACY. WITH UNKNOWN CROSS SEC	TION.
								. 100104 PRODUCT		
896	1.00	MV	1.00	KEV	5.0%	3	DEN	C.F.HOEJERUP	RIS	712046R
								WANTED FOR FISSI	ON PRODUCT CALCULATION	S.
897	10.0	NV	5.00	KEV	10.0%	1	FR	H.TELLIER	SAC	732076R
							. 0:	BURN UP PHYSICS.		
60 NEODY	MIUM 14	===== 8	neu	TRON		CAP	TURE CRO	SS SECTION		
822228 88						***				
898	500.	ΈV	200.	KEV	20.0%	2	FR	P.HAMMER	CAD	732077R
							0:	BURN UP STUDY.		
61 PROME	THIUM S	=====   47	nEU	TRON		CAP	TURE CRO	SS SECTION	===***==******	
========	=======	10 20 2	- 3 2 - 2 - 2 - 2 - 2	88885				* * * * * * * * * * * * * * * * * * * *	**************************	282822222222
899	1.00	MV	1.00	KEV	5.0%	з	DEN	C.F.HOEJERUP	RIS	712047P
							0:	WANTED FOR FISSI	ON PRODUCT CALCULATION	S•
900	100.	EV	500.	KEV	10.0%	1	JAP	Ŝ.IIJIMA H.MATSUNDBU	NIG SAE	752019R
							D: M:	FOR FAST REACTOR NO KEV DATA. SUBSTANTIAL MODI	CALCULATIONS. FICATIONS.	
SI PRUME			NEU	====		=====		55 SECTION ====================================		***********
901	1.00	MV	1.00	KEV	10.0%	2	USA	N.STEEN P.GREEBLER	BET GEB	671044R
							Q:	RADIOACTIVE TARG	ET - 41 DAY ISOMER.	
							Α:	ENERGIES ABOVE 1 PERCENT IN RES	.0 EV OF INTEREST TO G	IVE 10
					-		0: M:	FOR CALCULATION SUBSTANTIAL MODI	OF FISSION PRODUCT POI FICATIONS.	SONS.
902	1.00	MV	1.00	KEV	10.0%	2	USA	N.STEEN P.GREEBLER	BET Geb	671046R
							Q:	RADIDACTIVE TARG	ET - 5.37 DAY.	
							<b>.</b> .	THERMAL CROSS SE	CTION AND RI WANTED.	c .
							· U: M:	SUBSTANTIAL MODI	FICATIONS.	5.
903	1.00	MV	1.00	EV	10.0%	2	USA	F.FE INER	KAP	671048R
							Q:	RADIOACTIVE TARG	ET - 5.37 DAY.	
							<b>,</b> M:	FOR FISSION PROD SUBSTANTIAL MODI	UN VALUE AT 0.025 EV W DUCT POISON CALCULATION FICATIONS.	ANTED. S.
904	5.00	Eν	500.	EV	20.0%	3	CAN	W.H.WALKER	CRC	691813R
							Q:	FOR THE ISOMERIC ADDITIONAL DATA NEUTRON TEMPER	STATE (42 D). Needed to determine de Ature and epithermal f	PENDENCE ON LUX.
005	10.0	, a	1 00	MEN	30.04		A CED	L. MIECTEDC	KEV	700005
302	10.0	ΜV	1.00	14 C. V	£U • U %	1	0EK 0*	TARGET IN METACT	ABLE STATE-	TYZZZOR
					·,		G: M:	EVALUATION WANTE FOR THERMAL REAC NEW REQUEST.	D. TORS.	
				= # # = =		====			== = = = = = = = = = = = = = = = = = = =	

61 PROME	THIUM 1	49	NEU	TRON	=======================================	CAPTI	URE CROS	S SECTION
906	1.00	MV	1.00	KEV	20.0X	2	USA	N.STEEN BET 671049R P.GREEBLER GEB
		·.					Q: A: M:	RADIGACTIVE TARGET - 53 HOUR. THERMAL CROSS SECTION AND RI WANTED. ACCURACY 10 PEPCENT WANTED IF CROSS SECTION GREATER THAN 1000 BARNS, 20 PERCENT IF BETWEEN 10 AND 1000 BARNS. ENERGIES ABOVE 1 EV OF INTEREST TO GIVE RESGNANCE INTEGRAL TO 10 PERCENT IF GREATER THAN 10000 BARNS OR 20 PEFCENT IF BETWEEN 1000 AND 10000 BARNS OR 20 PEFCENT IF BETWEEN 1000 AND 10000 BARNS.
907	1.00	MV	1.00	εv	20.08	2	USA	F.FFINER KAP 6710518
							Q: A: M:	RADIOACTIVE TARGET - 53 HOUR. THERMAL AVERAGE OR VALUE AT 0.025 EV WANTED. ACCUFACY 10 PERCENT WANTED IF CROSS SECTION GREATER THAN 1000 BARNS. 20 PERCENT IF BETWEEN 10 AND 1000 BARNS. SUBSTANTIAL MODIFICATIONS.
61 PROME	THIUM 1	51	NEU	TRON		CAPT	UPE CROS	S SECTION
908	1.00	MV	1.00	KEV	10.0%	2	USA	N.STEEN BET 671057R P.GREEBLER GEB
							Q: A: D:	RADIDACTIVE TARGET 28 HDUP. THERMAL CROSS SECTION AND RI WANTED. ENERGIES ABOVE 1 EV OF INTEREST TO GIVE RESONANCE INTEGRAL TO 10 PERCENT. FOR CALCULATION OF FISSION PRODUCT POISONS.
62 SAMAS	IUM 147		NEU	SSEEE TRON	***********	CAPT	URE CROS	S SECTION
909	500.	EV	200.	KEV	20.0%	1	FR Q:	P.HAMMER CAD 732079R RELATIVE VALUE VERSUS ENERGY OR VALUE RELATIVE
							0:	TO CAPTURE IN ANOTHER NUCLEUS SUCH AS U-238. FISSION PRODUCT EFFECT IN FAST REACTORS.
62 SAMAR	IUM 149	;	NE U	TRON		CAPT	URE CROS	S SECTION
910	1.00	MV	1.00	KEV	5.0%	3	DEN	C.F.HOEJERUP RIS 7120488
								WANTED FOR FISSION PRODUCT CALCULATIONS.
911	1.00	KEV	10.0	MEV	10.0%	1	USA n:	R.E.SCHENTER HED 7410955 CALCULATION OF FISSION PRODUCT POISON FOR FAST
								REACTORS.
912	100.	EV	500.	KEV	10.0%	1	JAP	S.IIJIMA NIG 752020F H.MATSUNDBU SAE 752020F
							о: м:	FOR FAST REACTOR BURNUP CALCULATIONS. DISCREPANCY BETWEEN STEK DATA AND RECENT DIFFERENTIAL DATA. NO EXPERIMENTAL DATA EXCEPT A MEASUREMENT AT 30 KEV. SUBSTANTIAL MODIFICATIONS.
913	1.00	MV	0.50	EV	10.0%	2	USA	N.STEEN BET 761058F
							0: M:	IMPORTANT THERMAL FISSION PRODUCT. New request.
62 SAMAR	IUM 151		NEU	TRON		CAPT	URE CROS	SS SECTION
914	1.00	MV	1.00	KEV	5.0%	2	USA	N.STEEN BET 6710544 P.GREEBLER GEB
							Q: A: 0:	RADICACTIVE TARGET - 93 YEARS. THERMAL CROSS SECTION AND RI WANTED. DESIRED ENERGY RESOLUTION 5 PERCENT. ENERGIES ABOVE I EV OF INTEREST TO GIVE RESONANCE INTEGRAL TO 10 PERCENT. WANTED FOR CALCULATION OF FISSION PRODUCT POISONS. SUBSTANTIAL MODIFICATIONS.
						_		
915	10.0	MV	5.00	KEV	10.0%	2	FF, 0:	H.TELLIER SAC 732082 REACTOR CALCULATIONS.
916	1.00	KEV	10.0	MEV	10.0%	1	USA	R.E.SCHENTER HED 7410966
							Q: 0:	RADIOACTIVE TARGET - 93 YEARS. Calculation of fission product poison for fast Reactors.
917	100.	ËV	500.	KEV	10.0%	1	JAP	S.IIJIMA NIG 752021 H.MATSUNOBU SAE 752021
							0:	FOR FAST REACTOR BURNUP CALCULATIONS. NO KEV DATA.
							MI	SUBSTANTIAL MODIFICATIONS.
918	10.0	MV	1.00	MEV	20 <b>.0%</b>	1	GER	H.KUESTERS KFK 792225
							0: M:	EVALUATION WANTEC. New Request.

======= 62	IUM 153	222222 222222	NEU	TRON		CAPTU	RE CRO	SS SECTION		
919	1.00	MV	1.00	KEV		_ 2	USA	N•STEEN F•FEINER	BET Kap	671061R
							Q: A:	RADIOACTIVE TARG THERMAL CROSS SE ACCURACY DF 10 GREATER THAN 3 ENERGIES ABOVE 1 INTEGRAL TO 20 BARNS OR 10 PE	GET - 47 HOURS. GETION AND RI WANTED. PERCENT REQUIRED IF CROSS SI 30000 BARNS, 20 PERCENT IF I . EV OF INTEREST TO GIVE RE: 0 PERCENT IF BETWEEN 30 AND PERCENT IF LARGER.	ECTION LOWER. Sonance 300
							M:	SUBSTANTIAL MODI	FICATIONS.	•
920	25.3	MV				З	CAN A: 0:	W.H.WALKER Required with a Fission product	CRC 10000 BARN ACCURACY. WITH UNKNOWN CROSS SECTION.	691814R
63 EUROP	 IUM 		NEU NEU	TRON		TOTAL	CROSS	SECTION		********
921	1.00	EV	15.0	MEV	15.0%	2	USA	P.GREEBLER P.B.HEMMIG	GEB DOE	741097R
=======							:0 =======	NEEDED FOR RESON	NANCE SELF-SHIELDING.	*=====
63 EUROP	IUM =======	======	NEU	TRON		CAPTU	RE CRO	SS SECTION		t=====
922	100.	EV	15.0	MEV	10.0%	2	UK 0:	C.G.CAMPBELL Evaluation Regui For Fast Reactor	WIN Rement. S.	732111R
53 EUROP	 IUM 151		======================================	TRON		CAPTU	RE CRO	SS SECTION		*******
		=====	12132022	*****			******	552=5\$2555222222	***************************************	** 3== = = =
923	25.3	₩∨	5.00	KEV	5.0%	3	FR O:	H.TELLIER Reactor Calculat	SAC IONS.	732084R
924	1.00	KEV	1.00	MEV	5.0%	1	USA	P.B.HEMMIG	DOE	741099R
925	1.00	KEV	1.00	MEV	10.0%	2	USA	P.B.HEMMIG F.G.PEREY	DOE ORL	741102R
							Q:	RATIO GROUND STA	TE TO ISOMER CAPTURE WANTE	0.
926	0.50	EV	5.00	KEV	5.0 <b>X</b>	1	USA M:	P.GREEBLER New Request.	GEB	761076R
927	1.00	EV	2.00	MEV	10.0%	2	FR M:	P.HAMMER New Request.	CAD	792019R
928	100.	EV	15.0	MEV	15.0%	2	υκ <b>C</b> :	C.G.CAMPBELL For Fast Reactor	WIN	792134R
				=====				NEW REQUEST.		
22222222		==2===	=========	=====		======				
929	1.00	KEV	1.00	MEV	10.0%	2	USA	P.B.HEMMIG F.G.PEREY	DOE ORL	741100R
63 EUR OP	IUM 152		NEU	TRON	======================================	CAPTU	RE CRO	======================================		
<del>9</del> 30	1.00	MV	1.00	KEV	10.0x	1	USA	P.GREEBLER	GEB	761077R
							а: м:	RADIDACTIVE TARG ALSO FEGUIRE RES Integral. New Request.	ET- 13 YEARS Sonance parameters and reson	NANCE
63 EUR OP	IUM 153	******	======== NEU	===== 7ron		CAPTU	RE CRO	SS SECTION		*******
				======						
931	1.00	MV	5.00	KEV		1	USA A: 0: M:	P.GREEBLER ACCURACY OF 2 PE ABOVE. ENEFGIES ABOVE 1 RESONANCE INTE FOR CALCULATION SUBSTANTIAL MODI	GEB RCENT NEAR THERMAL AND 5 PE EV OF INTEREST TO GIVE GRAL TO 10 PERCENT. OF FISSION PRODUCT POISON. FICATIONS.	671064R ERCENT
932	25.3	MV	14.0	MEV	5.0%	1	JAP	H.OKASHITA	JAE	722038N
	·						Q: ):	RESCNANCE INTEGR FOR BURN UP CALC MEASUREMENT.	AL ALSO WANTED. Sulation from non-destruction	/E
933	1.00	EV	5.00	KEV	10.0%	з	FR O:	H.TELLIER REACTOR CALCULAT	SAC TIONS.	732085R
934	1.00	<b>⊀</b> ev	1.00	MEV	5.0%	1	USA	P.B.HEMMIG	DOE	741105R
935	1.00	Eν	2.00	MEV	10.0%	2	FR M:	P.HAMMER New Request.	CAD	792020R

63 EUROPI	UM 153		NEU	TPON ======			RE CROS	SS SECTION	400) •••••••••••••••••••••••••••••••••••	TINUED)
936	100.	EV	15.0	MEV	15.0%	2	UK C: M:	C.G.CAMPBELL For Fast Peactors New Request.	WIN 5.	792135R
63 EUROP1	UM 153		NEU	TRON		CAPTU	JRE GAM	A RAY SPECTRUM		
937	1.00	KEV	1.00	MEV	10.0%	2	USA	P.B.HEMMIG F.G.FEREY	DOE OFL	741106P
63 EUROPI	UM 154	*******	NEU	TRON		CAPTU	JRE CROS	S SECTION		
938	1.00	MV	1.00	KFV	10-08	, ·	USA		GEB	6710676
	1.00		1.00		10.0%	I	Q: A: O: M:	RADICACTIVE TARG THEFMAL CROSS SE RESONANCE PARAME ENERGIES ABOVE 1 INTEGRAL TO 10 FOR CALCULATION ( NEW REQUEST.	SED ET - 8.6 YEARS. CTION AND RI WANTED. TERS WANTED. EV OF INTEREST TO GIVE RES PEPCENT. DF FISSION PRODUCT POISONS.	SONANCE
939	25.3	MV			5.0%	1	JAP	H.OKASHITA	JAE	722039N
		×					Q: 0:	RESONANCE INTEGRA FOR BURN UP CALCU MEASUREMENT.	AL ALSO WANTED. ULATION FROM NON-DESTRUCTIV	VE
63 EUROPI	UM 155		========	s====;		GAMMA	RAY Y			
940					1.0%	2	JAP Q:	K. TASAKA VIELD PER DISINT	JAE Egration of 86.5 and 105.3	722015N KEV
							0:	GAMMA RAYS REQU (FOLLOWING BET) FOR BURN UP CALCO MEASUREMENT.	JIRED. A DECAY EVENT) ULATION FROM NON-DESTRUCTI	VE
63 EURCP1	UM 155		NEU	TRON		CAPTL	JPE CRO	S SECTION		
						925				
941	1.00	MV	1.00	KEV	10.0%	1	USA Q:	P.GREEELER RADIOACTIVE TARG	GEB ET - 4.8 YEARS.	671069R
							A: 0: M:	THERMAL CROSS SE RESCNANCE PARAME ENERGIES ABOVE 1 INTEGRAL TO 10 FOR CALCULATION NEW FEQUEST.	CTION AND RI WANTED. TERS NEEDED. EV OF INTEREST TO GIVE RE: PERCENT. DF FISSION PRODUCT POISONS	SONANCE
942	1.00	MV	1.00	KEV	5.0%	з	DEN	C.F.HOEJERUP	RIS	712050R
							0:	WANTED FOR FISSI	ON PRODUCT CALCULATIONS.	
\$43	1.00	KEV	10.0	MEV	20.0%	2	USA	R.E.SCHENTER	HED	7411088
							0:	CALCULATIONS OF I REACTORS.	FISSION PRODUCT POISON FOR	FAST
63 EUROP1	UM 156		NEU	TRON	*****	CAPTU	JRE CRO	SS SECTION		******
							,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			
944	25.3	MV				3	CAN A:	W.H.WALKER REQUIRED WITH A	CRC 700 BARN ACCURACY.	691815F
							: : :	FISSION PRODUCT	WITH UNKNOWN CROSS SECTION	•
64 GADOL	INIUM		NEU	TRON				L ELASTIC CROSS S	ECTION	*******
945	1.50	MEV	10.0	MEV	10.0%	1	USA	P.GREEBLER	GE8	671070F
64 GADOL	19922222 [N]UM		======================================	TRON		ENER	GY-ANGL	E DIFF. NEUTRON-E	MISSION CROSS SECTION	
94.6	1.50	MEN	10.0	MEV	15.08	,	115.4		CER	6710710
940	1.50		1010	ME V	13.04	•	A: 0:	INCIDENT AND EXI FOR DESIGN OF TH	T RESOLUTION 15 PERCENT. ERMAL REACTORS HAVING APPR	ECIABLE
	=======	= = = <b>= =</b>	========	=====		=====:				==\$==252
947	0.50	EV			5.0%	1	USA O:	P.GREEBLER For evaluating R	GEB ESONANCE PARAMETERS.	691180F
64 GADOL	INIUM 1	 55	====== NEU	TRON		CAPTI	URE CRO	SS SECTION		==\$====
					**********	=====				*******
948	0.50	EV	1.00	KEV	5.0%	1	USA	P.GREEBLER	GEB	671072F
							A: 0:	INTEGRAL TO 5 NEEDED TO DEFINE EITHER GD-155	PERCENT. NEGATIVE ENERGY RESONANCE OR GD-157.	IN

64 GADOL	INIUM 155	NEUTRON	*********	CAPTU	RE CR0	SS SECTION	· · · · · · · · · · · · · · · · · · ·	TINUED)
949	10-0 MV	5-00 KEV	5.0%	2	FD	HATELL TER	SAC	7320860
				-	0:	CONSUMABLE POISO	N.	, of or a
54 GADUL	1NIUM 155	NEUTRON		PESON	ANCE P	ARAMETERS IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII		
. 950	UP TO	500. EV	10.0%	1	USA	P.GREEBLER	GEB	6911828
					<b>a</b> :	NEUTRON AND CAPT	URE WIDTH NEEDED.	
						MINIMUM ENERGY M RESONANCE.	UST INCLUDE LOWEST RESOLVED	)
						REQUIRED TO VERI	FT EXISTING MEASUREMENTS.	
64 GADOL	INIUM 155	NEUTRON		CAPTU	RE RES	NANCE INTEGRAL		
951	0.50 EV		5.0%	1	USA	P. GREEBLER	GEB	691181R
					0: 0:	ENEFGY FEQUESTED	IS A MINIMUM VALUE ONLY. ESONANCE PARAMETERS.	
						EITHER GD-155	DR GD-157.	IN
54 GADOL	INIUM 156	NEUTRON		CAPTU	====== RE CRO	SS SECTION		******
			==============	******	======			********
952	1.00 MV	1.00 KEV	5.0%	1	USA	•.GREEBLER	GEB	671073R
					Α:	ENERGIES ABOVE 1	EV OF INTEREST TO GIVE RES	GNANCE
					0:	FOR CALCULATING	OF BURN UP IN THERMAL REACT	CRS.
64 GADOL	 INIUM 156	NEUTRON		FESCN	ANCE P	ARAMETERS	**==============================	.=======
********							***************************************	
953	UP TO	2.00 KEV	5.0%	1	USA	P.GREEELER	GEB	691183R
					0:	NEUTRON AND CAPT	URE WIDTH NEEDED.	
					o:	RESONANCE.	EY EXISTING MEASUREMENTS.	
					======			.=======
64 GADOL	INIUM 156	NEUTRON		CAPTU	RE RES	DNANCE INTEGRAL		
						• • • • • • •		
954	0.50 EV		5.0%	1	USA	P.GREEBLER		6912988
						FOR EVALUATING R	ESUNANCE PARAMETERS.	
64 GADOL	INIUM 157	NEUTRON	*********	CAPTU	RE CRO	SS SECTION		
955	0.50 EV	1.00 KEV	5.0%	1	USA	P.GREEBLER	GEB	671074R
					A. 0:	INTEGRAL TO 5	PERCENT. DE FUEN UP IN THERMAL SEACT	OPS.
					0.			000
956	1.00 MV	1.00 KEV	5.0%	3	DEN	C.F.HOEJERUP	RIS	712051R
					0:	WANTED FOR FISSI	ON PRODUCT CALCULATIONS.	
957	10.0 MV	5.00 KEV	5.0%	2	FR	H.TELLIER	SAC	732087R
					c:	CONSUMABLE POISO	N .	
GA GADOL		NEUTRON		RESON	====== ANCE P/	RAMETERS		
			********				***************************************	
958	UP TO	1.00 KEV	10.0%	1	USA	P.GREEBLER	GEB	691185R
					۵:	NEUTRON AND CAPT	URE WIDTH NEEDED.	
					o:	RESONANCE.	EY EXISTING MEASUREMENTS.	
64 GADOL	INIUM 157	NEUTRON		CAPTU	RE RESC	DNANCE INTEGRAL		
	0.50 EV							
323	0.50 EV		5.0%	1	USA	P.GREEBLER	GEB	691184R
<b>7</b> 37	0.50 EV		5.0%	1	USA 0:	P.GREEBLER FOR EVALUATING R	GEB ESONANCE PARAMETERS.	691184R
939 64 GADQL1	0.50 EV Inium 158	NEUTRON	5.0X	1 RESON	USA O: ANCE P	P.GREEBLER FOR EVALUATING R ARAMETERS	GEB ESONANCE PARAMETERS.	691184R
939 64 GADOL1	0.50 EV	NEUTRON	5.0%	1 RESON	USA O: ANCE P	P.GREEBLER FOR EVALUATING R RAMETERS	GEB ESONANCE PARAMETERS.	691184R
960	0.50 EV INIUM 158 UP TO	NEUTRON 2.00 KEV	5.0X	1 RESON.	USA O: ANCE P USA	P.GREEBLER FOR EVALUATING R ARAMETERS P.GREEBLER	GEB ESONANCE PARAMETERS. GEB	691184R
960	0.50 EV INIUM 158 UP TO	NEUTRON 2.00 KEV	5.0X	1 RESON	USA O: ANCE P/ USA Q:	P.GREEBLER FOR EVALUATING RI ARAMETERS P.GREEBLER ELASTIC AND GAMM ENERGY TO INCLUD	GEB ESONANCE PARAMETERS. GEB A WIDTH WANTED. E LOWEST RESOLVED RESONANCE	691184R  741109R
960	0.50 EV	NEUTRON 2.00 KEV	5.0X	1 RESON 1	USA D: ANCE P USA Q: C:	P.GREEBLER FOR EVALUATING R ARAMETERS P.GREEPLER ELASTIC AND GAMM ENERGY TO INCLUD TO VERIFY EXISTI	GEB ESONANCE PARAMETERS. GEB A WIDTH WANTED. E LOWEST RESOLVED RESONANCE NG MEASUREMENTS.	691184R  741109R
960 64 GAD OL 1 960 64 GAD OL 1	0.50 EV INIUM 158 UP TO INIUM 160	NEUTRON 2.00 KEV NEUTRON	5.0X	1 RESON	USA O: ANCE P/ USA Q: C:	P.GREEBLER FOR EVALUATING R ARAMETERS P.GREEBLER ELASTIC AND GAMM ENERGY TO INCLUDI TO VERIFY EXISTI	GEB ESONANCE PARAMETERS. GEB A WIDTH WANTED. E LOWEST RESOLVED RESONANCE NG MEASUREMENTS.	691184R 741109R
960 64 GAD OL 1 960 64 GAD OL 1	0.50 EV INIUM 158 UP TO INIUM 160	NEUTRON 2.00 KEV NEUTRON	5.0X	1 RESON 1 RESON	USA O: ANCE P/ USA Q: C: ANCE P/	P.GREEBLER FOR EVALUATING R ARAMETERS P.GREEBLER ELASTIC AND GAMM ENERGY TO INCLUD TO VERIFY EXISTIC	GEB ESONANCE PARAMETERS. GEB A WIDTH WANTED. E LOWEST RESOLVED RESONANCE NG MEASUREMENTS.	691184R 741109R
960 960 961	0.50 EV INIUM 158 UP TO INIUM 160 UP TO	NEUTRON 2.00 KEV NEUTRON 2.00 KEV	5.0x 10.0x	1 RESON 1 RESON RESON	USA O: ANCE P USA Q: C: ANCE P USA	P.GREEBLER FOR EVALUATING R ARAMETERS P.GREEPLER ELASTIC AND GAMM ENERGY TO INCLUD TO VERIFY EXISTI ARAMETERS P.GREEBLER	GEB ESONANCE PARAMETERS. GEB A WIDTH WANTED. E LOWEST RESOLVED RESONANCE NG MEASUREMENTS. GEB	691184R 741109R
960 960 64 GAD OL 1 64 GAD OL 1 961	0.50 EV INIUM 158 UP TO INIUM 160 UP TO	NEUTRON 2.00 KEV NEUTRON 2.00 KEV	5.0x 10.0x 10.0x	1 RESON RESON 1 RESON	USA O: ANCE P/ USA Q: C: USA Q: USA Q:	P.GREEBLER FOR EVALUATING R ARAMETERS P.GREEBLER ELASTIC AND GAMM ENERGY TO INCLUD TO VERIFY EXISTIC RAMETERS P.GREEBLER ELASTIC AND GAMM ENERGY TO INCLUD	GEB ESONANCE PARAMETERS. GEB A WIDTH WANTED. E LOWEST RESOLVED RESONANCE MEASUREMENTS. GEB A WIDTH WANTED. E LOWEST RESOLVED RESONANCE	691184R 741109R 741109R

962	1.00	MV	1.00	KEV	5.0%	2	USA	P. GREEELER	GEB	7811995
							Q: D: M:	RESONANCE PARAME For Thermal and New Request.	TERS OF INTEREST. Intermediate spectrum rea	ACTORS.
8 EF.8 IU	 M 167	======= ========	========= NEU =========	TRON		CAPT	URE CR0	SS SECTION		
963	U	р тс	2.00	εv	3.0%	2	USA	R.H.DAHLBERG	GA	741 1 3 3 F
							0: 0:	ENERGY REQUESTED NEEDED FOR BURNA	IS A MAXIMUM VALUE ONLY BLE POISON IN TRIGA REAC	TORS.
964	1.00	MV	1.00	εv	2.0%	1	USA	P. GREEBLER	GEB	7812025
							Q: D: M:	RESONANCE PARAME For Thermal And New Request.	TERS OF INTEREST. INTERMEDIATE SPECTRUM REA	ACTORS.
8 ERBIU	====== M 168 =======			TRON		CAPT	URE CRO	SS SECTION		
965	1.00	MV	1.00	KEV	5.0%	2	USA Q:	P.GREEBLER RESONANCE PARAME	GEB TERS OF INTEREST.	7812005
========		======	=======	=====			0: M:	FOR THERMAL AND New Request.	INTERMEDIATE SPECTRUM RE	ACTORS.
9 THULI	UM 169 ======		NEU	TRON		N,P =====				
966	U	РТС	15.0	MEV	10.0X	1	FR	C.PHILIS	BRC	692290
	-					-	0:	PRODUCTION OF ER	-169 (9.4 DAY).	
	.======			20-222	==============		:U =======	ACTIVATION DETEC	10R•	
9 THULI	UM 169		NEU =======	TRON	=======================================	N,AL	PHA ======		*======================================	********
557	U	P T0	15.0	MEV	10.0%	2	FR	C.PHILIS	BRC	692291
							Q: 0:	PRODUCTION OF HO ACTIVATION DETEC	-166 (27 HOUR). TCR.	-
O YTTER	====== BIUM 17	======	====== NEU	====== TRON			SESESSE URE CRO	======================================		
									************************	
968	1.00	MV	1.00	KEV	5.0%	2	USA	P.GREEBLER	GEB	781201
							0:: 	RESONANCE PARAME For thermal and New feguest.	TERS OF INTEREST. INTERMEDIATE SPECTRUM RE/	ACTORS.
1 LUTET	IUM 175		======================================	====== ITRON =======			VRE CRO			
96.9	1 00	KEV	1 00	MEV	20.0*	7	<b>E</b> 0		800	692037
909	1.00	NE V	1.00	M C V	20.04	3	с: С:	PRODUCTION OF LU AND LU-176M (3	-176 (30 THOUSAND-MILLION •7 HOURS)•	VYEARS)
							c:	ACTIVATION DETEC DISCREPANCY AT 1	TCR. 0 KEV (2.5 AND 7 B).	
2 HAFNI ======	- = = = = = = = = = = = = = = = = = = =	=======	NEU	====== ITRON =======		ELAS	TIC CRO	SS SECTION		
970	25.3	MV	10.0	MEV	10.0%	2	UK	J.FELL	WIN	792165
							0: M:	FOR THERMAL REAC New Request.	TORS.	
2 HAFNT	====== UM	******	========= NF!!		=======================================	======= ( APT	====== URE (PO	SS SECTION		
=========================						======				
971	1.00	MV	1.00	E۷	2.0%	1	USA	N•STEEN F•FEINER	BET Kap	621024
							0:	NEEDED FOR MONTE Thermal reacto to resolve discr	CARLO CALCULATIONS OF BURS. RS. Epancies in Thermal Data	URNUP IN
972	25.3	MV	10.0	MEV	10.0%	2	UK	J.FELL	WIN	792166
							C: M:	FOR THERMAL REAC	TORS.	
2 HAFNI	 Um 176 		 NEU 	======  TRON ======		CAPT	URE CRO	======================================		
973	1.00	MV	5.00	KEV		1	USA	N. STEEN F. FE INEF	ВЕТ КАР	621026
							A:	THERWAL VALUE WA BELOW 1 EV, 40 P BETWEEN 10 AND 1 WIDTHS NEEDED ABOVE 100 EV, 20 AVERAGE P-WAVE S-WAVE STRENGTH TO RESOLVE DISCE	NTED TO 20 PERCENT. ERCENT ACCURACY NEEDED. 00 EV, TOTAL, NEUTRON ANI WITH 10 PERCENT ACCURACY PERCENT ACCURACY REQUIR CAPTURE WIDTH TO 20 PERC FUNCTION TO 40 PERCENT. EPANCIES IN RESONANCE IN'	D CAPTURE ED. ENT.

72 HAFNIG	JM 176	====	NEU	TRON	==================		JRE CRO	SS SECTION		(CONTINUED)
974	10.0	™V	5.00	KEV	10.0%	1	FR	H.TELLIER	SAC	732088R
		=====				=====				============================
72 HAFNI(	JM 177	====	. NEU	EEEEE		CAPT( ====:	JRE CRO	55 SECTION . ====================================		
975	1.00	MV	5.00	KEV		1	USA	N.STEEN F.FEINER	ВЕТ Кар	621028R
							A: 0:	S-WAVE STRENGTH NEED AVERAGE P- BELDW 1 EV. 4 P BETWEEN 10 AND WIDTHS NEEDED ABOVE 100 EV. 2 5.89, 6.57, AND TO RESOLVE DISC NEEDED FOR MONT	FUNCTION TO 20 P WAVE CAPTURE WIDT ERCENT ACCURACY N 100 EV, TOTAL, NEI WITH 10 PERCENT 0 PERCENT ACCURAC 8.87 EV RESONANCE REPANCIES IN RESO E CARLO BURN UP C	ERCENT. H TO 20 PERCENT. EEDED. UTRON AND CAPTURE ACCURACY. Y REQUIRED. WIDTHS 5 PERCENT. NANCE INTEGRAL. ALCULATIONS.
976	10.0	MV	5.00	KEV	5.0%	1	FR .	H.TELLIER	SAC	692302R
							Q: A: D:	RESONANCE INTEG ACCURACY 1 PERC RESONANCE INT EVALUATION MAY DISCREPANCIES	RAL ALSO WANTED. ENT AT THERMAL AN Egral. Suffice if it expi	D 5 PERCENT FOR LAINS
72 HAFNI	JM 178	====	NEU	TRON		CAPT	JRE CRO	SS SECTION		
977	1.00	MV	5.00	KEV		1	USA .	N.STEEN F.FEINER	BET Kap	621030R
							A: 0:	BELOW 1 EV, 5 P BETWEEN 10 AND WIDTHS NEEDED ABOVE 100 EV, 2 7.78-EV RESONAN S-WAVE STRENGTH P-WAVE ÀVERAGE TO RESOLVE DISC NEEDED FOR MONT	ERCENT ACCURACY N. 100 EV, TOTAL, NEL WITH 10 PERCENT A 0 PERCENT ACCURAC CE WIDTH TO 3 PER FUNCTION TO 20 P CAPTURE WIDTH TO 3 REPANCIES IN RESOI E CARLO BURN UP C	EEDED. UTRON AND CAPTURE ACCURACY. Y REQUIRED. CENT. ERCENT. 20 PERCENT. NANCE INTEGFAL. ALCULATIONS.
978	10.0	MV	5.00	KEV	5.0%	1	FR	H.TELLIER	SAC	692304R
							Q: A: D:	RESONANCE INTEG ACCURACY 1 PERC RESONANCE INT EVALUATION MAY DISCREPANCIES	RAL ALSO WANTED. ENT AT THERMAL AND Egral. Suffice if it expl •	D 5 PERCENT FOR LAINS
72 HAFNI	JM 179		NEU	TRON		CAPTI	JRE CRO	SS SECTION		
979	1.00	MV	5.00	KEV		1	USA.	N•STEEN F•FEINER	BET KAP	621032P
							A: 0:	BELOW 1 EV, 5 P BETWEEN 10 AND WIDTHS NEEDED ABOVE 100 EV, 2 5.68-EV RESONAN S-WAVE STRENGTH AVERAGE P-WAVE TO RESOLVE DISC NEEDED FOR MONT	ERCENT ACCURACY N. 100 EV, TOTAL, NEU WITH 10 PERCENT . 0 PERCENT ACCURAC CE WIDTHS TO 5 PEI FUNCTION TO 20 PI CAPTURE WIDTH TO : FEPANCIES IN RESOI E CARLO BURN UP C	EEDED. UTRON AND CAPTURE ACCURACY. Y REQUIRED. RCENT. ERCENT. 20 PERCENT. NANCE INTEGRAL. ALCULATIONS.
980	10.0	MV	5.00	KEV	5.0%	1	FR	H.TELLIER	SAC	692305R
							Q: A: D:	RESONANCE INTEG ACCUFACY 1 PERC RESONANCE INT EVALUATION MAY DISCREPANCIES	RAL ALSO WANTED. ENT AT THERMAL ANI Egral. Suffice if it expi •	D 5 PERCENT FOR LAINS
72 HAFNI	JM 180	====	sesesses NEU	TRON		CAPTI	JRE CRO	SS SECTION		
981	1.00	MV	5.00	KEV		1	USA	N•STEEN F•FEINER	BET Kap	671080R
							A: 0:	BELOW 1 EV. 4 P BETWEEN 10 AND WIDTHS NEEDED ABOVE 100 EV. 2 S-WAVE STRENGTH AVERAGE P-WAVE TO RESOLVE DISC NEEDED FOR MONT	ERCENT ACCURACY N. 100 EV, TOTAL, NEU WITH 10 PERCENT 6 PERCENT ACCURAC FUNCTION TO 20 PI Capture Width to Repancies in Resoi E Carlo Burn UP C	EEDED. UTRON AND CAPTURE ACCURACY. Y REGUIRED. ERCENT. 20 PERCENT. NANCE INTEGRAL. ALCULATIONS.
982	10.0	MV	5.00	ĸev	5.0%	1	FR O:	H.TELLIER	SAC	732089P
					*===========					
73 TANTAL	.UM 181	====	NEU = = = = = = = = =	RON			JRE CRO	55 SECTION		
983	1.00	EV	500.	ĸev		2	USA	P+B+HEMMIG	DOE	691192R
							A:	ACCURACY - 1 EV - 1 KE - 150 DOUBLE ACCURACY FAST REFERENCE	TO 1 KEV, 10 PER V TO 150 KEV, 5 PI KEV TO 500 KEV, 10 USEFUL, NTROL AND BURN-10	CENT. ERCENT. D PERCENT.

73 TANTAL	.UM 181	NEUTRON		ENERG	Y DIFF	PHOTON-PRODUCTION CROSS SECT	ION
322222222						.2285212523888888888888888888888888888888	
984	1.00 EV	16.0 MEV	15.0%	2	USA	P.B.HEMMIG DOE	741111R
					٥:	GAMMA FAYS BELOW 1 MEV IMPORT	ANT.
35555555555555555555555555555555555555		=======================================					
=========				======	======	55 SEC! ICN 1829522222222222222222222222222222222222	
985	25.3 MV		10.07	7			7020840
,00	23.3		10.04	5	01	EXPECTMENTAL DATA DEGUTEED	/ 32 0 0 4 7
					ŏ:	FOR ESTIMATION OF NEUTRON FLU	ENCE AND SPECTRUM
74 TUNGS	TEN	NEUTRON		DIFFE	RENTIA	ELASTIC CROSS SECTION	
	·						
986	1.00 KEV	15.0 MEV	10.0%	1	FR	C.PHILIS BRC	742046P
		•			C:	FOR CRITICAL ASSEMBLIES.	
	1322222222228 Ten						
========					======	(USS SECTION	
0.97		14 0 1151		-			
901	3.00 MEV	14.0 MEV	10.0%	3	FR OA	B.DUCHEMIN SAC	/32033F
					0:	PUTENTIAL CONSTITUENT OF CON	AINMEN! VESSEL.
74 TUNGS	EN	NEUTRON		ENERG	Y-ANGL	DIFFERENTIAL INELASTIC CROSS	SECTION
52482822				******			
988	UP TO	15.0 MEV	10.0%	1	FR	C.PHILIS BPC	742047P
					0:	FOR CRITICAL ASSEMBLIES.	
74 TUNGS1	[EN ==================	NEUTRON	=========	CAPTU	RE CRO	SS SECTION  ====================================	******************
			•				
989	1.00 KEV	3.00 MEV	10.0%	1	FR	C.PHILIS BRC	742049R
					c:	FOR CRITICAL ASSEMBLIES.	
34 TUNGS	:=====================================	NEUTRON	=======	ENERG	Y-ANGL	DIFF. PHOTON-PRODUCTION CROS	S SECTION
	****************	**************		******			************************
<del>9</del> 90	1.00 KEV	1.00 MEV	20.0%	2	USA	D.BARTINE ORL	£31004S
					Q :	ALL GAMMA ENERGIES OF INTERES	ST.
					0:	FOR USE IN SHIELDING CALCULAT	IONS.
	**************************************	NEUTRON		====== N , 2N			
				*******			
991	UP TO	14.0 MEV	10.0%	з	FR	B-DUCHEMIN SAC	732034F
				-	0:	POTENTIAL CONSTITUENT OF CONT	AINMENT VESSEL
				==#====			
74 TUNGS1	[EN  ====================================	NEUTRON		ENERG	Y-ANGL	DIFF. NEUTRON-EMISSION CROSS	SECTION
992	4.00 MEV	16.0 MEV	5.0%	2	USA	D.BARTINE ORL	661040R
					0:	LOW ENERGY NEUTRONS SHOULD BE SPECTRA AT A FEW ANGLES MAY	INCLUDED.
		•			Α:	ANGULAR RESOLUTION - 10 DEGRE	ES.
						ENERGY RESOLUTION 5 PERCENT.	
E 99	9.00 MEV	14.0 MEV	10-0*	2	USA		7810825
	5600 HL			-	000	DATA NEEDED FOR SHIELDING. A	TIVATION AND NEUTRON
						TRANSPORT CALCULATIONS.	
==========					-====		
74 TUNGST	EN	NEUTRON		N.P			
994	UP TO	14.0 MEV	10.0%	з	FR	B.DUCHEMIN SAC	732035F
					0:	POTENTIAL CONSTITUENT OF CON	AINMENT VESSEL.
======================================	1222222222222 [FN	=2222222222222222222222222222222222222		======			
122222221			.========	== == == == =			JU SECTION 1999-1995-1998-1998-1998
005				•			7011400
	TAAN WEA			٤	U3A 1-		/81148F
					0:	DATA REQUIRED FOR RADIATION I	DAMAGE CALCULATIONS.
					M:	NEW REQUEST:	
74 TUNGS	1EN	NEUTRON		N. ALF	HA		
223222888					252282		
996	UP TO	14.0 MEV	10.0%	з	FR	B.DUCHEMIN SAC	732037F
					0:	POTENTIAL CONSTITUENT OF CON	AINMENT VESSEL .

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74 TUNGSTEN NEUTRON ENERGY-ANGLE DIFF. ALPHA-PRODUCTION CROSS SECTION 997 C.R. HEAD DOE 14.0 MEV 2 USA 781127F A: ACCURACY TO BE DETERMINED. O: DATA REQUIRED FOR RADIATION DAMAGE CALCULATIONS. M: NEW REQUEST. N NEUTRON TOTAL HYDROGEN-PRODUCTION CROSS SECTION 74 TUNGSTEN 998 14.0 MEV 2 DOE 9.00 MEV 10.0% USA C.F.HEAD 781106F A: ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES D: FOR RADIATION DAMAGE CALCULATIONS. M: NEW REQUEST. 74 TUNGSTEN NEUTRON TOTAL HELIUM-PRODUCTION CROSS SECTION 999 9.00 MEV 14.0 MEV 10.0% 2 USA C.R.HEAD DOE 781094F A: ACCURACY FROM 10. TO 50. PC TO BE DETERMINED FROM SENSITIVITY STUDIES D: FOR RADIATION DAMAGE CALCULATIONS., M: NEW REQUEST. 74 TUNGSTEN 182 NEUTRON CAPTURE CROSS SECTION 1000 0.50 EV 10.0 MEV 5.0 % 2 USA P.B.HEMMIG DOE 691202R Q: RESONANCE PARAMETERS ALSO OF INTEREST. D: FAST BREEDER CONTROL AND BURNUP CALCULATIONS. 74 TUNGSTEN 183 NEUTRON CAPTURE CROSS SECTION 1001 0.50 EV 10.0 MEV 5.0 % 2 USA P.B.HEMMIG DOE 691203R Q: RESONANCE PARAMETERS ALSO OF INTEREST. D: FAST BREEDER CONTROL AND BURN UP CALCULATIONS. 74 TUNGSTEN 184 NEUTRON CAPTURE CROSS SEC ===== 184 NEUTRON CAPTUFE CROSS SECTION 1002 0.50 EV 10.0 MEV 5.0 X 2 USA P.B.HEMMIG DOE 691204R Q: RESONANCE PARAMETERS ALSO OF INTEREST. D: FAST BREEDER CONTROL AND BURNUP CALCULATIONS. 1003 1.00 KEV 3.00 MEV 10.0% C.PHILIS BRC 692309R 1 FR G: PRODUCTION OF W-185 (74 DAY). D: ACTIVATION DETECTOR. CAPTURE CROSS SECTION 74 TUNGSTEN 186 NEUTRON 1004 0.50 10.0 MEV P. 8. HEMMIG DOE 691207R ΕV 5.0 X 2 USA Q: RESONANCE PARAMETERS ALSO OF INTEREST. Q: FAST BREEDER CONTROL AND BURNUP CALCULATIONS. 1.00 KEV 1005 3.00 MEV C.PHILIS BRC 10.0% 1 FR 692313R Q: PRODUCTION OF W-187 (24 HOUR). D: ACTIVATION DETECTOR. 78 PLATINUM NEUTRON DIFFERENTIAL ELASTIC CROSS SECTION 1006 1.00 KEV 15.0 MEV FR A. MI CHAUDON BRC 10.0% . 1 742054R USA 1007 10.0 MV 10.0 E۷ 10.0% 1 NBS 7811778 R.S.CASWELL C: FOR SCATTERING CORRECTIONS IN PT FISSION DEPOSIT BACKINGS. M: NEW REQUEST. 78 PLATINUM NEUTRO ENERGY-ANGLE DIFFERENTIAL INELASTIC CROSS SECTION NEUTRON 15.0 MEV UP TO FR A.MICHAUDON BRC CAPTURE CROSS SECTION 3822222222222222222222222 78 PLATINUM NEUTRON BRC 1009 3.00 MEV ES. A. MI CHAUDON 1.00 KEV 1 10.0% 742058R TOTAL PHOTON PRODUCTION CROSS SECTION 78 PLATINUM NEUTRON TO 1.00 KEV 15.0 MEV 2 1010 20.0% FR A.MICHAUDON BRC 742056R 78 PLATINUM 190 NSUTRON N.P 1011 UP TO 15.0 MEV 20.0% 2 ER A.MICHAUDON BRC 742059R O: FOR ACTIVATION.

78 PLATIN	NUM 192		NEU	TRON		N.P				
1012	U	PTO	15.0	MEV	20.0%	2 ·	FR 0:	A.MICHAUDON For Activation.	BRC	742060R
==========	*******	= = = = = =							. = = = = = = = = = = = = = = = = = =	
78 PLATI	NUM 198	=====	NEU =======	TRGN ======			RE CROS	SS SECTION	.============================	
1013	1.00	KEV	3.00	MEV	20.0%	2	FR	A.MICHAUDON	BRC	742061 <u>R</u>
							:0	FOR ACTIVATION.	•	
	=======	= \$ = = = =						FLASTIC CROSS	SECTION	
				=====:		======				
1014	1.00	KEV	15.0	MEV	10.0%	1,	FR	A.MICHAUDON	BRC	742062R
79 GOLD 1	======= 197	*****	NEU	TRON		ENERG	Y-ANGLI	E DIFFERENTIAL 1	INELASTIC CROSS S	ECTION
	******	225228	********							
1015	U	P TO ` ======	15.0	MEV	10.0%	1	FR	A.MICHAUDON	BRC	742063R
79 GOLD	197		NEU	TRON		CAPTU	RE CRO	SS SECTION		
						· ·		•		
1016	0.50	E۷	1.00	KEV	1.0x	2 .	USA	N.STEEN	BET	671082R
							٥:	INDIVIDUAL AND	AVERAGE RESONANC	E PARAMETERS
		- ,					A: C:	ENERGIES ABOVE INFINITE DILL 1 PERCENT. FOR USE AS A ST	0.5 EV WANTED SC JTION RESONANCE I Fandard.	) AS TO GIVE NTEGRAL TO
_										
1017	10.0	KEV	3.00	MEV	3.0%	1	BLG	A.FABRY	MOL	682041R
1010		VEN		MEN	2			DETECTOR APPLIC	CATIONS.	7010730
1018	10.0	KEV	1.00		2.0%	<b>2,</b>	USA	Restance		1210138
							0.	REGUIRED AS PRI	EMART STARDARD	
1019	500.	κev	5.00	MEV	5.0X	2	FR	E.FORT ·	CAD	792021R
				•			<u>.</u>	STANDARD CROSS	SECTION	
STATUS							•••			
	NDER CO			w dv ·			·			••••••
			JUS REVIE		INUL ANU N	EANDC.	SEE APP	PENDIX A.		
========		======			1900 AND N 255222222	EANDC.	SEE AP9	PENDIX A. 2222222222222222	**************	
79 GOLD		=======	NEU	TRON	1900 AND N 5220000000	EANDC. ======= N,2N	SEE APS ====================================	PENDIX A. ====================================		
79 GOLD	197	======	NEU	TRON	INDC AND N	EANDC. ======= N,2N =======	SEE APS ======= =======	PENDIX A.		
79 GOLD	8•12	====== ===============================	40.0	TRON TRON MEV	20.0X	EANDC. ======= N,2N ======= 1	USA	C.R.HEAD	DOE	781010F
79 GOLD	8.12	MEV	40.0	MEV	20.0%	EANDC. ======= N,2N ======= 1	USA 0: M:	C.R.HEAD DOSIMETRY FOR F NEW REQUEST.	DOE FMIT FACILITY.	761010F
79 GOL D 1020	8.12	====== MEV	40.0	MEV	20.0X	EANDC. N,2N I I	USA 0: 	C.R.HEAD DOSIMETRY FOR F NEW REQUEST.	DOE FMIT FACILITY.	781010F
79 GOLD 1020 79 GOLD	8.12	MEV	40.0	MEV	20.0%	EANDC. N.2N I I N.3N	USA 0: 	C.R.HEAD DOSIMETRY FOR F NEW REQUEST.	DOE FMIT FACILITY.	781010F
79 GOLD 1020 79 GOLD	8.12 197	MEV	40.0	MEV	20.0X	EANDC.	USA 0: 	C.R.HEAD DOSIMETRY FOR F NEW REQUEST.	DOE FMIT FACILITY.	781010F
79 GOLD 1020 79 GOLD 79 GOLD 1021	8.12 197 197 197 14.8	MEV	40.0 NEU	MEV TRON MEV TRON MEV	20.0x	EANDC. ======= N,2N 1 ======= N,2N 1	USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST.	DOE FMIT FACILITY.	781010F
79 GOLD 1020 79 GOLD 79 GOLD 1021	8.12 197 197 197 197 14.8	MEV	40.0	MEV TRON MEV	20.0x	EANDC. ====== N,2N 1 ====== N,3N ====== 1	USA USA USA USA USA USA O: M:	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F
79 GOLD 1020 79 GOLD 1021	8.12 197 197 197 197 14.8	MEV	40.0 NEU	MEV MEV TRON TRON	20.0X	EANDC. ====== N, 2N 1 ====== N, 3N ======= 1 	USA 0: 	C.R.HEAD C.R.HEAD C.R.HEAD C.R.HEAD C.R.HEAD DOSIMETRY FOR J NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F
79 GOLD 1020 79 GOLD 1021 79 GOLD	8.12 197 197 197 14.8	MEV	40.0 NEU	MEV MEV	20.0X	EANDC.	USA USA USA USA USA O: M: USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F
79 GOLD 1020 79 GOLD 1021 1021	8.12 197 197 197 14.8	MEV	40.0 NEU	MEV MEV	20.0X	EANDC.	USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F
79 GOLD 1020 79 GOLD 1021 79 GOLD 79 GOLD 1022	8.12 197 197 14.8 197 23.2	MEV	40.0 NEU	MEV MEV TRON TRON TRON MEV	20.0x	EANDC.	USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781011F 781012F
79 GOLD 1020 79 GOLD 1021 1021 79 GOLD 1022	8.12 197 197 14.8 197 23.2	MEV	40.0 NEU	MEV	20.0x	EANDC. ====== N,2N 1 ====== N,3N ====== 1 N,4N ====== 1	USA USA USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD C.R.HEAD DOSIMETRY FOR I NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781011F 781012F
79 GOLD 1020 79 GOLD 1021 79 GOLD 1021 1022	8.12 197 197 14.8 197 23.2 197	MEV	40.0 NEU NEU 40.0 NEU	MEV TRON TRON TRON TRON MEV	20.0x	EANDC. ====== N, 2N 1 ====== N, 3N ====== 1 ====== N, 5N	USA USA USA USA USA USA USA USA USA 0: 	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F ,
79 GOLD 1020 79 GOLD 1021 79 GOLD 1022 1022 79 GOLD	8.12 197 197 14.8 197 23.2 197	MEV	40.0 NEU 40.0 NEU 40.0	MEV TRON TRON TRON TRON MEV	20.0x	1 1 1 1 1 1 1 1 1 1 1 1 1 1	USA USA USA USA USA USA USA C: M: USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST. C.R.HEAD C.R.HEAD DOSIMETRY FOR J NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F ,
79 GOLD 1020 79 GOLD 1021 1021 1022 1022 1022 1023	8.12 197 197 14.8 197 23.2 197 23.2 197 23.2	MEV	40.0 NEU	MEV MEV TRON TRON TRON MEV	20.0x	EANDC. 	USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781012F 781013F
79 GOLD 1020 79 GOLD 1021 1021 1022 1022 79 GOLD 1022 1023	8.12 197 14.8 197 23.2 197 23.2 197 29.9	MEV	40.0 NEU	MEV	20.0x	EANDC.	USA USA USA USA USA USA USA 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0: 0:	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781012F 781013F
79 GOLD 1020 79 GOLD 1021 1021 79 GOLD 1022 79 GOLD 1022 1023	8.12 197 14.8 197 14.8 197 23.2 197 23.2 197 29.9	MEV	40.0 NEU	MEV TRON TRON TRON MEV	20.0x	EANDC.	USA USA USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781012F 781013F
79 GOLD 1020 79 GOLD 1021 1021 1022 79 GOLD 1022 79 GOLD 1023 79 GOLD	8.12 197 197 14.8 197 23.2 197 29.9 198	MEV	40.0 NEU 40.0 NEU 40.0 NEU 40.0 NEU	MEV TRON TRON MEV MEV	20.0x 20.0x 20.0x	EANDC.	USA USA USA USA USA USA USA USA O: 	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781012F 781013F
79 GOLD 1020 79 GOLD 1021 1021 1022 79 GOLD 1023 79 GOLD	197 197 197 14.8 197 23.2 197 29.9 198	MEV	40.0 NEU 40.0 40.0 NEU 40.0	MEV TRON TRON MEV MEV TRON MEV	20.0X	I CAPTU	USA USA USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781012F 781013F
79 GOLD 1020 79 GOLD 1021 1021 1022 79 GOLD 1023 79 GOLD 1023 79 GOLD 1024	197         197         197         197         14.8         197         23.2         197         23.2         197         23.2         197         23.2         197         23.2         197         23.2         197         23.2         197         23.2         197         23.2         197         23.2         197         23.2         197         23.3	MEV	40.0 NEU 40.0 NEU 40.0 NEU 40.0 NEU 40.0	MEV TRON TRON MEV MEV MEV	20.0x 20.0x 20.0x 20.0x 20.0x 20.0x	I CAPTU	USA USA USA USA USA USA USA USA USA USA	C.R. HEAD DOSIMETRY FOR F NEW REQUEST. C.R. HEAD DOSIMETRY FOR J NEW REQUEST. C.R. HEAD DOSIMETRY FOR J NEW REQUEST. C.R. HEAD DOSIMETRY FOR J NEW REQUEST. S SECTION	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781012F 781013F 781013F
79 GOLD 1020 79 GOLD 1021 1021 79 GOLD 1022 79 GOLD 1023 79 GOLD 1023 79 GOLD 1024	8.12 197 14.8 197 14.8 197 23.2 197 29.9 198 25.3	MEV	40.0 NEU 40.0 NEU 40.0 NEU 40.0	MEV	20.0x 20.0x 20.0x 20.0x 20.0x	I I I I I I I I I I I I I I	USA USA USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. SS SECTION M.KOYAMA EXPERIMENTAL D FOR ESTIMATION	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781012F 781012F 781013F 781013F
79 GOLD 1020 79 GOLD 1021 1021 1022 79 GOLD 1023 79 GOLD 1023 79 GOLD 1024	8.12 197 14.8 197 14.8 197 23.2 197 23.2 197 29.9 198 25.3	MEV	40.0 NEU	MEV	20.0x 20.0x 20.0x 20.0x	I CAPTU	USA USA USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. SS SECTION M.KOYAMA EXPERIMENTAL D FOR ESTIMATION NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY.	781010F 781011F 781012F 781013F 781013F 781013F
79 GOLD 1020 79 GOLD 1021 1021 1022 79 GOLD 1022 79 GOLD 1023 79 GOLD 1023 79 GOLD 1024	8.12 197 14.8 197 14.8 197 23.2 197 23.2 197 29.9 198 25.3 1UM .204	MEV	40.0 NEU 40.0 NEU 40.0 NEU 40.0 NEU 40.0	ME V TRON TRON	20.0X	EANDC.	USA USA USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. SS SECTION NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. COE FMIT FACILITY.	781010F 781011F 781011F 781012F 781013F 781013F 792085F NCE AND SPECTRUM
79 GOLD 1020 79 GOLD 1021 1021 1022 79 GOLD 1022 79 GOLD 1023 79 GOLD 1023 79 GOLD 1024	197 197 14.8 197 14.8 197 23.2 197 29.9 198 25.3 IUM 204	MEV	40.0 NEU 40.0 NEU 40.0 NEU 40.0 NEU 40.0 NEU NEU	MEV TRON TRON MEV TRON MEV	20.0x 20.0x 20.0x 20.0x	I I I I I I I I I I I I I I	USA USA USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. SS SECTION M.KOYAMA EXPERIMENTAL D FOR ESTIMATION NEW REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. KTO ATA REQUIRED OF NEUTRON FLUER	781010F 781011F 781011F 781012F 781013F 781013F
79 GOLD 1020 79 GOLD 1021 1021 79 GOLD 1022 79 GOLD 1023 79 GOLD 1023 79 GOLD 1024 81 THALL 81 THALL 1025	197 197 14.8 197 14.8 197 23.2 197 23.2 197 23.2 197 25.3 10M.204	MEV	40.0 NEU 40.0 NEU 40.0 NEU 40.0 NEU 40.0	MEV TRON TRON MEV TRON MEV	20.0x 20.0x 20.0x 20.0x 20.0x 20.0x	EANDC. 	USA USA USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST. C.R.HEAD DOSIMETRY FOR J NEW REQUEST. C.R.HEAD DOSIMETRY FOR M NEW REQUEST. S SECTION M.KOYAMA EXPERIMENTAL D NEW REQUEST. S SECTION M.W REQUEST.	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. COE FMIT FACILITY.	781010F 781011F 781012F 781013F 781013F 792085F NCE AND SPECTRUM 651008F
79 GOLD 1020 79 GOLD 1021 79 GOLD 1022 79 GOLD 1022 79 GOLD 1023 79 GOLD 1023 79 GOLD 1024 81 THALL 1025	197 197 14.8 197 14.8 197 23.2 197 23.2 197 29.9 198 25.3 10M.204	MEV MEV MEV MEV	40.0 NEU	ME V	20.0x 20.0x 20.0x 20.0x 20.0x 20.0x	I CAPTU CAPTU 2	USA USA USA USA USA USA USA USA USA USA	C.R.HEAD DOSIMETRY FOR F NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. C.R.HEAD DOSIMETRY FOR I NEW REQUEST. SS SECTION M.KOYAMA EXPERIMENTAL D FOR ESTIMATION NEW REQUEST. SS SECTION SS SECTION G.T.ORTON RADIDACTIVE TA	DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. DOE FMIT FACILITY. COE FMIT FACILITY. KTO ATA REQUIRED OF NEUTRON FLUEN RL RL	781010F 781011F 781012F 781012F 781013F 781013F 792085F NCE AND SPECTRUM 651008F

82 LEAD	**************	NEUTRON		INELA	STIC C	ROSS SECTION		
1026	3.00 MEV	15.0 MEV	15-07	2	ED	B. DUCHENIN	SAC	7920246
, 1020			13004	5	0:	NEUTRON MULTIP	LIER	1920241
=======	-					NEW REQUES!.		
82 LEAD		NEUTRON		TOTAL	PHOTO!	PRODUCTION CR	OSS SECTION	
1027	1.00 KEV	16.0 MEV	10.0%	2	FE	8. DUCHEMIN	SAC	692319R
				-	a:	ENERGY RESOLUT	ION OF 250 KEV F	OF GAMMA RAYS
					A :	GREATER THAN 1 ME	V AND 500 KEV FU MEV MMA ENERGY RESOL	R ENERGIES
					0:	FOR SHIELDING NEW EVALUATION DATA.	CALCULATION. TO BE DONE IF N	EW EXPERIMENTAL
1028	25.3 MV	15.0 MEV	15.0%	2	сср	I.N.GOLOVIN	KUR	724057F
					0:	GAMMA RAY SPEC Gamma Ray Heat	TRA REQUIRED. Ing and shieldin	G CALCULATIONS.
1029	25.3 MV	15-0 MEV	15. X	2		Y. SEVI	145	7621345
1025	2010 147	13.00 MEV	130 %	, <b>c</b>	Q:	GAMMA RAY SPEC	TRA ALSO REQUIRE	D.
					Α:	AN UPPER LIMIT 20 PER CENT US NEUTRON ENERGY AND 10 PER CEN GAMMA ENERGY R	OF THE CROSS SE EFUL. RESCLUTION 300 T OTHERWISE. ESCLUTION 1 MEV.	CTION OR ACCURACY KEV ABOVE 100 KEV
					0:	SHIELDING DESI	GN AND GAMMA-RAY	HEATING CALCULATION
1030	1.00 KEV	15.0 MEV	10.0%	2	FR	P.HAMMER	CAD	792022R
	***********				******			=======
82 LEAD =======	*================	NEUTRON		N , 2N	******			
1031	UP 70	15.0 MEV	15.0%	2	CCP		KIID	7240585
				-	0:	POSSIBLE USE A	S NEUTRON MULTIP	LIER.
1032	UP TO	15.0 MEV	15.0%	2	FR	B.DUCHEMIN	SAC	792023F
					0:	NEUTRON MULTIP	LIER	
	*********							
82 LEAD	***********	NEUTRON		NEUTRO	CN EMIS	SSION CRCSS SEC	T 10N ====================================	
1033	2.00 MEV	16.0 MEV	5.0%	3	USA	D.BART INE	ORL	. 631005R
					Q: M:	SECONDARY ENER	GY-ANGLE DISTRIB	UTIONS REQUIRED.
1034	500- KEV	16-0 MEV	10.0*	2	<b>ED</b>		SAC	4023190
1034	JUU. KLV		10.0%	2	с». Q:	SECONDARY ENER	GY-ANGLE DISTRIB	UTIONS REQUIRED.
					A: 0:	ENERGY STEP - S ENERGY RESOLUT FOR SHIELDING NEW EVALUATION DATA.	500 KEV(INCIDENT IDN - 250 KEV(EM CALCULATION. TO BE DONE IF N	NEUTRONS). ITTED NEUTRONS) Ew Experimental
82 LEAD	************	NEUTRON		ENERG	Y-ANGLI	DIFF. NEUTRON	-EMISSION CROSS	SECTION
		**************					8#8===± <b>2</b> 868 <b>2</b> ===±	=======================================
1035	9.00 MEV	14.0 MEV	10.0%	1	USA	C.R.FEAD	DOE	781050F
					о: м:	FOR SHIELDING. NEXT GENERAT: NEW REQUEST.	ACTIVATION AND ION D-T REACTOR	TRANSPORT STUDIES OF Designs.
82 LEAD		NEUTRON		ENERG		DIFF. PROTON-	PRODUCTION CROSS	SECTION
22272283;				******				
1036	14.0 MEV			2	USA	C.R.HEAD	DOE	781143F
					A: 0: M:	ACCURACY TO BE DATA REQUIRED I NEW REQUEST.	DETERMINED. FOR RADIATION DA	MAGE CALCULATIONS.
	*********	NEUTRON		ENFRG		DIFF. ALPHA-P		
1037	14.0 MEV			2	USA	C.R.HEAD	DOE	781122F
	•				A: 0:	ACCURACY TO BE DATA REQUIRED	DETERMINED. FOR RADIATION DA	MAGE CALCULATIONS.
622555 <b>5</b> 7'					M:	NEW REQUEST.		
82 LEAD		NEUTRON		TOTAL	HYDROG	SEN-PRODUCTION	CROSS SECTION	
1038	9.00 MEV	14-0 MEV	10-0*	1	USA		DOF	781 0605
2		··•• ·		-	0:	FOR RADIATION	DAMAGE STUDIES D	F NEXT GENERATION
*******					M:	D-T REACTOR ( New Request.	DESIGNS. ====================================	

82 LEAD		NEUTRON		TOTAL	LHELIUM	-PRODUCTION CRO	SS SECTION	
1039	9.00 MEV	14.0 MEV	10.0%	1	USA	C.R.HEAD	DOE	781068F
					0: M:	FOR RADIATION D D-T REACTOR D NEW REQUEST.	AMAGE STUDIES OF NEXT GENE Esigns.	RATION
82 LEAD	======================================	NEUTRON		N, AL	======= Ph <b>a</b>			
********	*================							
1040	UP TO	15.0 MEV	20.0%	2	JAP			792091F
					0: M:	FOR FUSION REAC FOR CALCULATION NO EXPERIMENTAL NEW REQUEST.	TOR SHIELDING CALCULATION. OF RESIDUAL ACTIVITY. DATA EXCEPT FOR A FEW AT	14 MEV.
83 BISMU	TH 209	NEUTRON		TOTAL	L PHOTON	PRODUCTION CRO	SS SECTION	======
								40202225
1041	25.3 MV	15.0 MEV	15.0%	2	CCP Q:	I.N.GOLOVIN GAMMA RAY SPECT	KUR RA REQUIRED.	724059F
					0:	GAMMA RAY HEATI	NG AND SHIELDING CALCULATI	ONS.
83 BISMU	TH 209	NEUTRON		N, 2N				
1042	UP TO	15.0 MEV	15.0%	2	C C P	I.N.GOLOVIN	KUR	724060F
secciese:				======				
90 THORIS	UM 230	NEUTRON	*********	CAPT	URE CROS	S SECTION	\$=====================================	=======
1043	25.3 MV	1.00 MEV	10.0%	2	USA	D.BARTINE	ORL	781196R
					0: M:	KEY REACTION FO	R FRODUCTION OF U-232.	
							***************************************	========
90 (HDRI)	JM 232 55555555555555555555555555555555555	NEUTRON			L CROSS	SECTION	_================================	
1044	1.00 MV	6.00 EV	0.5%	2	USA	8.R.LEONARD	BNW	761 080R
••••				-	0:	NEEDED FOR THER	MAL EVALUATION.	
					M:	NEW REQUEST.		
1045	1.00 MV	20.0 EV	0.5%	2	USA	N.STEEN	BET	781181R
					м:	NEW REQUEST.		
1046	6.00 EV	100. KEV	2.0%	1	USA	R.W.PEELLE	ORL	781197R
					0: M:	FOR RESOLVED RE NEW REQUEST.	SONANCE PARAMETER EVALUATI	ON.
52222222			*********					********
90 THORI	JM 232 858555555555555555555555555555555555	NEUTRON		0166	ERENTIAL SUSSESS	ELASTIC CROSS	SECTION	=========
1047	1.00 MEV	5.00 MEV	10.0%	3	USA	C.E.TILL	ANL	721074R
90 THORI	======================================	NEUTRON		ENER	GY DIFFE	RENTIAL INELAST	IC CROSS SECTION	======#=
\$ <b>2</b> 2 2 4 8 2 2 1		*================						
1048	UP TO	10.0 MEV	10.0%	3	GER	H.GERWIN	JUL	692325R
1049	1.00 MEV	4.00 MEV	5.0X	з	USA	C.E.TILL	ANL	721075R
					Α:	IF ANISOTROPIC, (1-COS).	NEED 20 PERCENT ACCURACY	IN
						INCIDENT AND EX	IT ENERGY RESOLUTION 20 PE	RCENT.
90 THORI	1322222222222222 UM 232	NEUTRÓN		CAPT	URE CROS	S SECTION		======
1050	1.00 MV	5.00 KEV		1	USA	N. STEEN	BET	621034R
					Q:	THICK SAMPLE TR EXPERIMENTS D RESONANCE PARAM	ANSMISSION AND SELF-INDICA Desirable. Deters and resonance integr	AL ALSO
					A:	ACCURACY REQUIR	ED - BELDW 20 EV. 2 PERCEN	Τ.
							ABOVE 20 EV, 5 PERCEN AT THERMAL, 0,5 PERCE	NT.
				•	0:	THERMAL SHAPE V CALCULATIONS.	PARAMETERS TO BETTER THAN VERY IMPORTANT FOR THERMAL	BREEDER
							_, _enen.e	
1051	1.00 KEV	1.00 MEV	3.0%	З	UK	C.G.CAMPBELL	WIN	692329R
					с:	FOR FAST REACTO	IFS.	
1052	4.00 KEV	10.0 MEV		1	GER	H.GERWIN H.KUESTERS	JUL KFK	692330R
					A :	ACCURACY 5 PERC	ENT TO 2 MEV AND 10 PERCEN	T ABOVE.
					MI	SUBSTANTIAL MOD	IT ICALIUNS.	
1053	25.3 MV		2.0%	3	FR	H.TELLIER	SAC	732090R

1054       23. 3 MV       20.0 MEV       3.04       2       USA       4.415MCE       CBE       TREATOR FUEL CYCLE EVALUATION.         1055       25.3 MV       3.00 MEV       10.01       2       FL       LCOSTA       CAD       TREATOR FUEL CYCLE EVALUATION.         1055       25.3 MV       3.00 MEV       10.01       2       FL       LCOSTA       CAD       TREATOR FUEL CYCLE EVALUATION.         1056       25.3 MV       3.00 MEV       10.02       2       FL       LCOSTA       CAD       TREATOR FUEL CYCLE EVALUATION.         1056       10.0. MEV       10.03 MEV       1       USA       0.00ATTIME       OPL       TREATOR FUEL CYCLE	90 THORIU	JM 232			N ====================================	CAPTU	RE CROS	S SECTION		(CONT INUED)
9: 109 TERDEMA, REACTOR FUEL CYCLE FUALUATION.         1055       25.3 MV       3.00 MEV       10.0 K       2       FR       LCOSTA       CAO       7621400         1056       100. MEV	1054	25.3	1V 20	.0 ME	v 3.0%	2	USA	S.VISNER	CBE	761079R
105       25.3       HV       3.00       MEY       19.0X       2       FR       L-COSTA       CAD       762100         105       103.       KEY       10.0X       2       FR       L-COSTA       MEDIFICITIONS.         105       103.       KEY       10.0X       FR       SUBSTANTION MEDIFICITIONS.       TOTO							0: M:	FOR THERMAL New Request.	REACTOP FUEL CYCLE	EVALUATION.
0: E AST TACTOR PEGATIONS.         0: THORING 235         10:50       10.0       NEUTRON         10:50       10.0       NEV       1       USA DIALPRODUCTION COSSI SECTION         10:50       10.0       NEV       1       USA DIALPRODUCTION COSSI SECTION         10:50       10.0       NEV       1       USA DIALPRODUCTION COSSI DIALPRODUCTION COSSI SECTION         10:51       10.0       NEV       1.0.0       NEV       1       USA DIALPRODUCTION COSSI DIALPRODUCTION         10:51       10:52       NEUTRON       A.2%       NEEDED FOR CONTROL OF USES PEDOUCTION.         10:52       NP TO       10.0       NEV       20.02       3       GER NICERON MULTIPLIER       OTIONED         10:58       UP TO       15.0       NEV       20.02       3       GER NICERON MULTIPLIER.       72400EF         10:50       UP TO       15.0       NEV       5.05       2       CCF INVERSION MULTIPLIER.       7240EF         10:61       11.0       MEV       10.02       2       USA CIARCHARD NEUTRON MULTIPLIER.       74164F         10:62       14.2       MEV       15.02       2       FA BUDIERIN MULTIPLIER.       74164F         10:61       11.0       MEV	1055	25.3	۰V 3.	00 ME	V 10.0X	2	FR	L.COSTA	CAD	762140R
201 THORELUK 232       SEUTHON       ENERGY DIF*       PHOTOL-PHODUCTION CROSS SECTION         1056       100. KKV       10.0 KKVV       10.0 KKV       10.0 KKV       10.0 KKV       10.0 KKV       10.0 KKVV       10.0 KKVVV       10.0 KKVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVVV							0: M:	FAST REACTOR SUBSTANTIAL	PROJECT MODIFICATIONS.	
1056         100.0         NEV         1         USA         0.0.01111         OPL         7610780           1057         UP TO         10.0         NEV         10.03         1         USA         P.GREEDT         COULES P.ST FERCEDT         COULES P.ST FERCEDT<	90 THORIU			NEUTRO		ENERG	Y DIFF.	PHOTON-PROD	DUCTION CROSS SECTIO	
A:         ACCURACY - 52 200 180 PERCENT EEGUIREE- INCENT.           00 THORIUM 232         NEUTRON         N.W.           1057         UP TO         10.0 MEV         10.0X         1         UA P.GREEDLER         GEE           1057         UP TO         10.0 MEV         10.0X         1         UA P.GREEDLER         GEE         6710835           1057         UP TO         10.0 MEV         20.0X         3         GEE H.GEEWIN         JUL         0923266           1059         UP TO         15.0 MEV         15.0X         2         CCP         LIN-GOLOVIN         KUT         7810857           1060         UP TO         15.0 MEV         5.0X         2         UA N.STEEN         BET         7810857           1061         11.0 MEV         14.0 MEV         10.0X         2         UA N.STEEN         BET         781067           1061         11.0 MEV         14.0 MEV         10.0X         2         UA N.STEEN         BET         781067           1062         14.2 MEV         15.0X         2         FR         B.DUCHENIN         SAC         7920267           1063         UP TO         15.0 KEV         15.0X         2         CCP         I.N.GLEVEND PUT         F	1056	100. )	(EV 10	.0 ME	v	1	USA	D.BARTINE	ORL	761078F
BOT THOTION 232         NEUTRON         N.2N           1057         UP TO         10.0         NEV         10.03         1         USA         P.GREEDLER         GEE         6710838           1056         UP TO         10.0         NEV         20.03         3         GER         H.GEBWIN         JUL         6923260           1059         UP TO         15.0         NEV         20.03         3         GER         H.GEBWIN         JUL         6923260           1059         UP TO         15.0         NEV         15.05         2         CCP         I.N.GOLOVIN         KUR         7240615           1060         UP TO         15.0         NEV         15.05         2         USA         N.STEEN         BET         7610658           1061         11.0         NEV         14.0         MEV         10.05         2         USA         CR.MEAD DOE         781164F           1062         14.2         NEV         15.03         2         CCP         I.N.GOLOVIN         KUP         720207           1053         UP TO         15.0         KEV         15.03         2         CCP         I.N.GOLOVIN         KUP         720207           1			â		•		A: 0: M:	ACCURACY - 5 NEEDED FOR G NEW REQUEST.	5.0 TO 10.0 PERCENT GAS COOLED FAST REAC	REQUIRED. TOR SHIELDING.
1057         UP TD         10.0         NEV         10.0x         1         USA         P.GREEDLES         GEE         6710838           1058         UP TD         10.0         NEV         20.0X         3         GER         M.GEMYIN         JUL         692369           1059         UP TO         15.0         NEV         15.0X         2         CCP         I.M.GOLOVIN         KUB         7280617           1050         UP TO         15.0         NEV         5.0X         2         USA         N.STEEN         BET         7280617           1060         UP TO         15.0         NEV         5.0X         2         USA         N.STEEN         BET         7280617           1061         11.0         NEV         10.0X         2         USA         C.R.HEAD         DOE         7911617           1062         14.2         NEV         15.0X         2         FFR         BLOUMENT         SAC         7920267           1063         UP TO         15.0         NEV         16.0X         2         CCF         J.N.GUCVIN         KUP         7280627           1064         11.0         MEV         16.0X         2         CCF         J.N						======				
1057       UP T0       10.0 MEY       10.05       1       USA       P.GREERLES       GEE       6710838         1058       UP T0       10.0 MEY       20.01       3       GER       N.GEWIN       JUL       6923260         1059       UP T0       15.0 MEV       15.0 X       2       CCP       I.N.GGLOVIN       KUR       724061F         1060       UP T0       15.0 MEV       5.0X       2       USA       N.STEEN       BET       7610626         1060       UP T0       15.0 MEV       5.0X       2       USA       N.STEEN       BET       7610626         1061       11.0 MEV       14.0 MEV       10.0X       2       USA       N.STEEN       BET       7610626         1062       14.2 MEV       15.0 X       2       FR       B.DUCHEMIN       SAC       7620267         1063       UP T0       15.0 MEV       15.0 X       2       FR       B.DUCHEMIN       SAC       7620267         1064       11.0 MEV       14.0 MEV       15.0 X       2       FR       B.DUCHEMIN       SAC       7620267         1063       UP T0       15.0 X       2       FR       B.DUCHEMIN       SAC       7620277     <				======	N 82525888882283	N 1 2/4 ======				
1056       UP T0       10.0       NEV       20.0X       3       GER       H.GENYIN       JUL       6923267         1059       UP T0       15.0       NEV       15.0X       2       CCP       1.N.GOLOVIN       KUR       724061F         1060       UP T0       15.0       NEV       5.0X       2       USA       N.STEEN       0ET       7510658         1061       11.0       NEV       14.0       NEV       10.0X       2       USA       N.STEEN       0ET       7610658         1062       14.2       MEV       10.0X       2       USA       C.A.MERAD       ODE       791161F         1062       14.2       MEV       10.0X       2       USA       C.A.MERAD       ODE       791161F         1063       UP T0       15.0       X       2       FR       6.DUCHENIN       SAC       762026F         1064       11.0       MEV       10.0X       2       USA       C.A.MEAD       ODE       781162F         1064       11.0       MEV       10.0X       2       USA       C.A.MEAD       ODE       781162F         1065       14.2       MEV       15.0X       2       FR <td>1057</td> <td>UP</td> <td>TO 10</td> <td>.0 ME</td> <td>V 10.0X</td> <td>1</td> <td>USA o:</td> <td>P.GREEBLER NEEDED FOR C</td> <td>GEE Control of U-232 pro</td> <td>671083R DUCTION.</td>	1057	UP	TO 10	.0 ME	V 10.0X	1	USA o:	P.GREEBLER NEEDED FOR C	GEE Control of U-232 pro	671083R DUCTION.
10.0         0         10.0         10.0         10.0         10.0         10.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0         0.0	1058		TO 10	.0 NE	V 20.0*	7	CEP	H. CEDUIN		6023260
1059         UP TO         15.0         NEV         15.0         2         CCP         1.N.GOLOVIN         KUR         724061F           1060         UP TO         15.0         HEV         5.0%         2         USA         N.STEEN         BET         761065R           1061         11.0         MEV         14.0         HEV         10.0%         2         USA         N.STEEN         BET         761065R           1061         11.0         MEV         14.0         MEV         10.0%         2         USA         C.R.HEAD         DOE         791161F           1062         14.2         MEV         15.0%         2         FR         B.DUCHEMIN         SAC         792026F           1063         UP TO         15.0         MEV         15.0%         2         CCP         I.N.GOLOVIN         KUR         724062F           1064         11.0         MEV         15.0%         2         CCP         I.N.GOLOVIN         KUR         724052F           1064         14.0         MEV         10.0%         2         CCP         I.N.GOLOVIN         KUR         724052F           1065         14.2         MEV         15.0%         2	1058	UP	10 10	•• ••2	V 2040A	5	Q:	SECONDARY EN	JUL HERĜY DISTRIBUTION R	EQUIRED.
1053         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050         1050 <th< td=""><td>1059</td><td></td><td>70 15</td><td>.0 45</td><td>V 15.0*</td><td>2</td><td>CCP</td><td></td><td>KID</td><td>7240615</td></th<>	1059		70 15	.0 45	V 15.0*	2	CCP		KID	7240615
1060         UP TO         15.0         HEV         5.0x         2         USA         N.STEEN         BET         761065R           1061         11.0         MEV         14.0         MEV         10.0x         2         USA         C.R.HEAD         DOE         761161F           1061         11.0         MEV         14.0         MEV         10.0x         2         USA         C.R.HEAD         DOE         761161F           1062         14.2         MEV         15.0x         2         FR         B.DUCHENIN         SAC         792026F           00         THORIUM 232         NEUTRON         N.3N         724062F         781162F           1063         UP TO         15.0         MEV         15.0x         2         CCP         J.H.GOLVIN         KUP         724062F           1064         11.0         MEV         14.0         MEV         10.0x         2         USA         C.R.HEAD         DOE         781162F           1065         14.2         MEV         15.0x         2         FR         B-DUCHENIN         SAC         79202F           1066         14.2         MEV         15.0x         2         FR         B-DUCHENIN	1039	0F	10 13	•V ME	V 1340X	2	0:	POSSIBLE USE	AS NEUTRON MULTIPL	IER.
1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       1000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000       10000	1060	UP	TO 15	.0 ME	V 5.0¥	2		N. STEEN	BET	7610658
N:         NEW ATCORST.           1061         11.0         MEV         14.0         MEV         10.0X         2         USA         C.R.HEAD         DOE         701161F           1062         14.2         MEV         15.0X         2         FR         B.DUCHENIN         SAC         702026F           1063         UP TO         15.0X         2         FR         B.DUCHENIN         SAC         702026F           1064         11.0         MEUTRON         N.3N         TAUGROUEST.FLEG         TAUGROUEST.FLEG           1064         11.0         MEUTRON         N.3N         TAUGROUEST.FLEG         TAUGROUEST.FLEG           1064         11.0         MEV         19.02         2         CCP         I.N.GOLEVIN         KUP         724062F           1065         14.2         MEV         10.02         2         USA         C.R.HEAD         DOE         761162F           1065         14.2         MEV         15.0X         2         FR         B.DUCHENIN         SAC         79202FF           1066         14.2         MEV         15.0X         2         FR         B.DUCHENIN         SAC         79202FF           1066         14.2	1000	0F	10 13			2	03.	FOR CALCULAT	ION OF FUEL ACTIVIT	Y IN TH-232 CYCLE
1061       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.HEAD       DDE       701161F         1062       14.2       MEV       15.0X       2       FR       B.DUCHEMIN       SAC       702020F         00       THOPTUM 232       MEUTRON       N.3X       THOPTUM 232       MEUTRON       N.3X         1063       UP TO       15.0       MEV       15.0X       2       CCP       J.N.GOLCVIN       KUR       724062F         1064       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.HEAD       DDE       701162F         1064       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.HEAD       DDE       701162F         1065       14.2       MEV       15.0X       2       CCP       J.N.GOLCVIN       KUR       70202F         1065       14.2       MEV       15.0X       2       USA       C.R.HEAD       DDE       701162F         1065       14.2       MEV       15.0X       2       USA       C.R.HEAD       DDE       70102F         1066       14.2       MEV       15.0X       2		•					м:	REACTORS. NEW REQUEST.		
0: FOR HYBRID SYSTEM DESIGN.         1062       14.2 MEV       15.0X       2 FR       B.DUCHENN       SAC       792026F         00       THORIUM 232       NEUTRON       N.3N       THE FEOREST.       SAC       792026F         00       THORIUM 232       NEUTRON       N.3N       THE FEOREST.       SAC       792026F         1063       UP TO       15.0       MEV       15.0X       2       CCP       I.N.GOLCVIN       KUP       724062F         1064       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.HEAD       DOE       781162F         1065       14.2       MEV       15.0X       2       FR       B.DUCHENIN       SAC       76202FF         1065       14.2       MEV       15.0X       2       FR       B.DUCHENIN       SAC       76202FF         1065       14.2       MEV       15.0X       2       FR       B.DUCHENIN       SAC       76202FF         1066       14.2       MEV       15.0X       2       FR       B.DUCHENIN       SAC       76202FF         1066       14.2       MEV       10.0X       2       GER       H.GERWIN       JUL	1061	11.0	14 AEV 14	.0 ME	V 10.0%	2	USA	C.R.HEAD	DOE	781161F
1062       14.2       MEU       15.0X       2       FR       B.DUCHEMIN       SAC       792026F         00       THORIUM 232       NEUTRON       N.3M       N.3M       724062F         1063       UP TO       15.0       MEU       15.0X       2       CCP       J.N.GOLEVIN       KUP       724062F         1064       11.0       MEU       14.0       MEU       10.0X       2       USA       C.R.HEAD       DOE       781162F         1064       11.0       MEU       14.0       MEU       10.0X       2       USA       C.R.HEAD       DOE       781162F         1065       14.2       MEU       15.0X       2       FR       B.DUCHENIN       SAC       79202F         01       THORIUM 232       IS.0X       2       FR       B.DUCHENIN       SAC       79202F         1065       14.2       MEU       15.0X       2       FR       B.DUCHENIN       SAC       79202F         01       THORIUM 232       MEUTRON       IS.0X       2       FR       B.DUCHENIN       SAC       79202F         1065       14.2       MEU       10.0X       3       FR       H.GERWIN       JUL       6							0: M:	FOR HYBRID S New Request.	SYSTEM DESIGN.	
90         THORIUM 232         NEUTRON         N.3M           1063         UP TO         15.0 MEV         15.0 X         2 CCP         I.N.GOLCVIN         KUP         724062F           1064         11.0 MEV         14.0 MEV         10.0 X         2 USA         C.R.HEAD         DOE         781162F           1065         14.2 MEV         15.0 X         2 FR         B.DUCHEMIN         SAC         792027F           1065         14.2 MEV         15.0 X         2 FR         B.DUCHEMIN         SAC         792027F           1065         14.2 MEV         15.0 X         2 FR         B.DUCHEMIN         SAC         792027F           1065         14.2 MEV         15.0 X         2 FR         B.DUCHEMIN         SAC         792027F           1065         14.2 MEV         15.0 X         2 FR         B.DUCHEMIN         SAC         792027F           1066         14.2 MEV         15.0 X         2 GER         H.GERWIN         JUL         692328R           1066         10.0 KEV         10.0 MEV         5.0 X         2 EUR         NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING METHERN HAL MEASUREMENTS:           1066         1.50 MEV         7.20 MEV         5.0 X         2 EUR         NEUTRON MULTIP	1062	14.2	AEV.		15.0%	2	FR 0: M:	B.DUCHEMIN Neutron Mult New Request.	SAC IPLIER	792026F
1063         UP TO         15.0         MEV         15.0x         2         CCP         I.N.GOLCVIN         KUR         724062F           1064         11.0         MEV         14.0         MEV         10.0x         2         USA         C.R.HEAD         DOE         781162F           1064         11.0         MEV         14.0         MEV         10.0x         2         USA         C.R.HEAD         DOE         781162F           1065         14.2         MEV         15.0x         2         FR         B.DUCHEMIN         SAC         792027F           0         THORIUM 232         NEUTRON         FISSION CROSS SECTION         SCCTON         MULTIPLIER           90         THORIUM 232         NEUTRON         FISSION CROSS SECTION         G02328F           1066         25.3         NV         10.0         MEV         5.0x         2         GER         H.GERWIN         JUL         692328F           1066         1.50         MEV         10.0         MEV         10.0x         2         EUR         NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING METERAL AND DIFFERENTIAL MESUREMENTS.           1066         1.50         MEV         10.0x         2         EUR         NEUTRON DOSIME	90 THORIL	 JM 232		====== NEUTRO	============= N	 N, 3N		***********	******************	
1063       UP TO       15.0 MEV       15.0 X       2       CCP       J.N.GOLCVIN       KUR       724062F         1064       11.0 MEV       14.0 MEV       10.0 X       2       USA       C.R.HEAD       DDE       781162F         1064       11.0 MEV       14.0 MEV       10.0 X       2       USA       C.R.HEAD       DDE       781162F         1065       14.2 MEV       15.0 X       2       FR       B.DUCHEMIN       SAC       79202F         0:       NEUTRON       FISSION CROSS SECTION       0:       NEUTRON       FISSION CROSS SECTION         1066       25.3 MV       10.0 MEV       5.0 X       2       GER       H.GERWIN       JUL       69232BR         1067       100. KEV       10.0 MEV       5.0 X       2       GER       H.GERWIN       JUL       69232BR         1066       1.50 MEV       7.20 MEV       5.0 X       2       EUR NEUTRON MUTTON MUTTON OSIMETRY USING SPECTRUM UNFOLDING GRAFTER THAN 10 PERCENT DISCREPANCY BETWEN       GER FIRE THAN 10 PERCENT DISCREPANCY BETWEN         1068       1.50 MEV       7.20 MEV       5.0 X       2       EUR NEUTRON METRY USING SPECTRUM UNFOLDING GRAFTER THAN 10 PERCENT DISCREPANCY BETWEN         1069       11.0 MEV       14.0 MEV       10.0			.====:::::		*******			=======================================	*******************	
1064 11.0 MEV 14.0 MEV 10.0X 2 USA C.R.HEAD DOE 781162F 1065 14.2 MEV 15.0X 2 FR B.DUCHEMIN SAC 792027F 0: NEUTRON NULTIPLIER NEW REQUEST. 1066 25.3 MV 10.0 MEV 5.0X 2 GER H.GERWIN JUL 692328R 0: SPECTRUM INDEX. 1067 100. KEV 10.0 MEV 10.0X 3 FR H.TELLIER SAC 732091R 1068 1.50 MEV 7.20 MEV 5.0X 2 EUR NEUTRON DOSIMETRY GROUP GEL 742135R 0: FOR FWIDDS. 1069 11.0 MEV 14.0 MEV 10.0X 2 USA C.R.HEAD DOE 781163F 1069 11.0 MEV 14.0 MEV 10.0X 2 USA C.R.HEAD DOE 781163F 1069 11.0 MEV 14.0 MEV 10.0X 2 USA C.R.HEAD DOE 781163F 1070 14.2 MEV 15.0X 2 FR B.DUCHEMIN SAC 792025F 1071 UP TO 5.00 MEV 5.0X 3 UK C.G.CAMPBELL WIN 792136R 1071 UP TO 5.00 MEV 5.0X 3 UK C.G.CAMPBELL WIN 792136R 1075 1075 100.0 MEV 10.0X 3 FR B.DUCHEMIN SAC 792025F 1070 14.2 MEV 15.0X 2 FR B.DUCHEMIN SAC 792025F 1071 UP TO 5.00 MEV 5.0X 3 UK C.G.CAMPBELL WIN 792136R 1075 100 MEV 5.0X 3 FR B.DUCHEMIN SAC 792025F 1076 FATT FAR REQUEST. 1071 UP TO 5.00 MEV 5.0X 3 UK C.G.CAMPBELL WIN 792136R 1075 C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.C.	1063	UP	TO 15	.0 ME	V 15.0X	2	CCP	I.N. GOLOVIN	KUR	724062F
1064       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.HEAD       DDE       781162F         1065       14.2       MEV       15.0X       2       FR       B.DUCHEMIN       SAC       792027F         0:       NEUTRON NULTIPLIER       M:       NEUTRON NULTIPLIER       792027F         0:       NEUTRON NULTIPLIER       M:       NEW REQUEST.         1066       25.3       MV       10.0       MEV       5.0X       2       GER       H.GERWIN       JUL       692328F         1066       25.3       MV       10.0       MEV       5.0X       2       GER       H.GERWIN       JUL       692328F         1066       1.50       MEV       10.0       MEV       5.0X       2       GER       H.GERWIN       JUL       692328F         1066       1.50       MEV       10.0       MEV       10.0X       3       FR       H.TELLIER       SAC       732091F         1066       1.50       MEV       7.20       MEV       5.0X       2       EUR       NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS.         1069       11.0							0:	PUSSIBLE USE	AS NEUTRON MULTIPL	IER•
<ul> <li>1065 14.2 MEV</li> <li>105 14.2 MEV</li> <li>15.0% 2 FR</li> <li>B. DUCHEMIN</li> <li>SAC</li> <li>792027F</li> <li>D. NEUTRON MULTIPLIER</li> <li>MED REQUEST.</li> <li>1066 25.3 MV</li> <li>10.0 MEV</li> <li>5.0% 2 GER</li> <li>H.GERWIN</li> <li>JUL</li> <li>692328P</li> <li>D: SPECTRUM INDEX.</li> <li>1066 1.50 MEV</li> <li>7.20 MEV</li> <li>5.0% 2 EUR</li> <li>NEUTRON DOSIMETRY GROUP</li> <li>GEL 742135R</li> <li>O: FOR HULTRON DOSIMETRY USING SPECTRUM UNFOLDING METHODS.</li> <li>1069 11.0 MEV</li> <li>14.2 MEV</li> <li>15.0% 2 USA</li> <li>C.R.HEAD</li> <li>C.R.HEAD</li> <li>C.R.HEAD</li> <li>C.F.GR HYBRID SYSTEM DESIGN.</li> <li>MEV REQUEST.</li> <li>1070 14.2 MEV</li> <li>S.0% 3 UK</li> <li>C.G.CAMPBELL WIN</li> <li>TOTI UP TO</li> <li>S.0% MEV</li> <li>S.0% 3 UK</li> <li>C.G.CAMPBELL WIN</li> <li>TOTI NUOUS REVIEW BY INDC. SEE APPENDIX A.</li> </ul>	1064	11.0	14 IEV	.0 ME	V 10.0X	2	USA	C.R.HEAD	DOE	781162F
1065       14.2       MEV       15.0X       2       FR       B. DUCHEMIN       SAC       792027F         90       THORIUM 232       NEUTRON       FISSION CROSS SECTION       1066       25.3       MV       10.0       MEV       5.0X       2       GER       H. GERWIN       JUL       692328F         1066       25.3       MV       10.0       MEV       5.0X       2       GER       H. GERWIN       JUL       692328F         1067       100.       KEV       10.0       MEV       10.0X       3       FR       H. TELLIER       SAC       732091R         1068       1.50       MEV       7.20       MEV       5.0X       2       EUR       NEUTRON DOSIMETRY GROUP       GEL       742135R         1068       1.50       MEV       7.20       MEV       5.0X       2       EUR       NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS.         1069       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.MEAD       DOE       781163F         1070       14.2       MEV       15.0X       2       FR       B.DUCHEMIN       SAC       792025F <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>M:</td> <td>NEW REQUEST.</td> <td>STSTEM DESIGN.</td> <td></td>							M:	NEW REQUEST.	STSTEM DESIGN.	
0: NEW TRON MULTIPLIER         90 THORIUM 232       NEUTRON         90 THORIUM 232       NEUTRON         1066       25.3 MV       10.0 MEV       5.0X       2 GER       H.GERWIN       JUL       692328BR         1067       100. KEV       10.0 MEV       5.0X       2 GER       H.GERWIN       JUL       692328BR         1067       100. KEV       10.0 MEV       5.0X       2 GER       H.GERWIN       JUL       692328BR         1066       1.50 MEV       10.0 MEV       10.0X       3 FR       H.TELLIER       SAC       732091R         1066       1.50 MEV       7.20 MEV       5.0X       2 EUR       NEUTRON DOSIMETRY GROUP       GEL       742135R         1068       1.50 MEV       7.20 MEV       5.0X       2 EUR       NEUTRON DOSIMETRY GROUP       GEL       742135R         0166       1.50 MEV       7.20 MEV       5.0X       2 USA       C.R.HEAD       DOE       781163F         1069       11.0 MEV       14.0 MEV       10.0X       2 USA       C.R.HEAD       DOE       792025F         1070       14.2 MEV       15.0X       2 FR       B.DUCHEMIN       SAC       792025F         1071       UP TO       5.00 MEV	1065	14.2	AE V		15.0%	2	FR	B.DUCHEMIN	SAC	792027F
90 THURIUM 232       NEUTRON       FISSION CROSS SECTION         1066       25.3 MV       10.0 MEV       5.0X       2 GER       H.GERWIN       JUL       692328P         1067       100. KEV       10.0 MEV       10.0X       3 FR       H.TELLIER       SAC       73209IR         1068       1.50 MEV       7.20 MEV       5.0X       2 EUR NEUTRON DOSIMETRY GROUP       GEL       742135R         0: FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING METHODS.       GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTREGAL AND DIFFERENTIAL MEASUREMENTS.         1069       11.0 MEV       14.0 MEV       10.0X       2 USA       C.R.HEAD       DOE       781163F         1070       14.2 MEV       15.0X       2 FR       B.DUCHEMIN       SAC       792025F         1071       UP TO       5.00 MEV       5.0X       3 UK       C.G.CAMPBELL       WIN       792136R         0: FOR FAST REACTORS.       M: NEW REQUEST.       1071       UP TO       5.00 MEV       5.0X       3 UK       C.G.CAMPBELL       WIN       792136R         0: FOR FAST REACTORS.       M: NEW REQUEST.       3 UK       C.G.CAMPBELL       WIN       792136R         1071       UP TO       5.00 MEV       5.0X       3 UK       C.G.CAMPBELL <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td>0: M:</td><td>NEUTRON MULT New Request.</td><td>IPLIER</td><td></td></td<>							0: M:	NEUTRON MULT New Request.	IPLIER	
90 THURIUM 232       NEUTRON       P13510N CRUSS SECTION         1066       25,3 MV       10.0 MEV       5.0X       2 GER       H.GERWIN       JUL       692328R         1067       100. KEV       10.0 MEV       10.0X       3 FR       H.TELLIER       SAC       732091R         1068       1.50 MEV       7.20 MEV       5.0X       2 EUR       NEUTRON DOSIMETRY GROUP       GEL       742135R         0168       1.50 MEV       7.20 MEV       5.0X       2 EUR       NEUTRON DOSIMETRY GROUP       GEL       742135R         0168       1.50 MEV       7.20 MEV       5.0X       2 EUR       NEUTRON DOSIMETRY GROUP       GEL       742135R         0169       11.0 MEV       14.0 MEV       10.0X       2 USA       C.R.HEAD       DOE       781163F         1069       11.0 MEV       14.0 MEV       10.0X       2 USA       C.R.HEAD       DOE       781163F         1070       14.2 MEV       15.0X       2 FR       B.DUCHEMIN       SAC       792025F         1071       UP TO       5.00 MEV       5.0X       3 UK       C.G.C.AMPBELL       WIN       792136R         0170       14.2 MEV       15.0X       3 UK       C.G.C.AMPBELL       WIN       7				======						
1066       25.3 MV       10.0 MEV       5.0X       2 GER       H.GERWIN       JUL       692328R         1067       100. KEV       10.0 MEV       10.0X       3 FR       H.TELLIER       SAC       732091R         1068       1.50 MEV       7.20 MEV       5.0X       2 EUR       NEUTRON DOSIMETRY GROUP       GEL       742135R         1068       1.50 MEV       7.20 MEV       5.0X       2 EUR       NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING METHODS         0:       FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING       GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS.         1069       11.0 MEV       14.0 MEV       10.0X       2 USA       C.R.HEAD       DOE       781163F         1070       14.2 MEV       15.0X       2 FR       B.DUCHEMIN       SAC       792025F         1071       UP TO       5.00 MEV       5.0X       3 UK       C.G.CAMPBELL       WIN       792136R         1071       UP TO       5.00 MEV       5.0X       3 UK       C.G.CAMPBELL       WIN       792136R         1071       UP TO       5.00 MEV       5.0X       3 UK       C.G.CAMPBELL       WIN       792136R         1071       UP TO       5.00 MEV       5.0X			********	======		======	2222222	S SC(IUN		
D: SPECTRUM INDEX. 1067 100. KEV 10.0 MEV 10.0X 3 FR H.TELLIER SAC 732091R 1068 1.50 MEV 7.20 MEV 5.0X 2 EUR NEUTRON DOSIMETRY GROUP GEL 742135R 0: FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS. 1069 11.0 MEV 14.0 MEV 10.0X 2 USA C.R.HEAD DOE 781163F 0: FOR HYBRID SYSTEM DESIGN. M: NEW REQUEST. 1070 14.2 MEV 15.0X 2 FR B.DUCHEMIN SAC 792025F 0: NEUTRON MULTIPLIER M: NEW REQUEST. 1071 UP TO 5.00 MEV 5.0X 3 UK C.G.CAMPBELL WIN 792136R D: FOR FAST REACTORS. M: NEW REQUEST. STATUS	1066	25.3 1	NV 10	•0 ME	v 5.0x	2	GER	H.GERWIN	JUL	692328R
1067       100. KEV       10.0 MEV       10.0X       3       FR       H.TELLIER       SAC       732091R         1068       1.50 MEV       7.20 MEV       5.0X       2       EUR       NEUTRON DOSIMETRY GROUP       GEL       742135R         0:       FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS.       0:       FOR HYBRIDS. GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS.         1069       11.0 MEV       14.0 MEV       10.0X       2       USA       C.R.HEAD       DOE       781163F         1069       11.0 MEV       14.0 MEV       10.0X       2       USA       C.R.HEAD       DOE       792025F         1070       14.2 MEV       15.0X       2       FR       B.DUCHEMIN       SAC       792025F         1071       UP TO       5.00 MEV       5.0X       3       UK       C.G.CAMPBELL       WIN       792136R         0:       FOR FAST REACTORS. M: NEW REQUEST.       STATUS       STATUS       STATUS       STATUS							.0:	SPECTRUM IND	DEX.	
1068       1.50       MEV       7.20       MEV       5.0X       2       EUR       NEUTRON DOSIMETRY GROUP       GEL       742135R         0:       FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS.         1069       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.HEAD       DOE       781163F         1069       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.HEAD       DOE       781163F         1070       14.2       MEV       15.0X       2       FR       B.DUCHEMIN       SAC       792025F         1071       UP TO       5.00       MEV       5.0X       3       UK       C.G.CAMPBELL       WIN       792136R         1071       UP TO       5.00       MEV       5.0X       3       UK       C.G.CAMPBELL       WIN       792136R         1071       UP TO       5.00       MEV       5.0X       3       UK       C.G.CAMPBELL       WIN       792136R         0:       FOR FAST REACTORS. M: NEW REQUEST.       M: NEW REQUEST.       STATUS       STATUS       STATUS	1067	100. #	EV 10	.0 ME	V 10.0X	3	FR	H. TELL IER	SAC	732091R
0: FOR NEUTRON DOSIMETRY USING SPECTRUM UNFOLDING METHODS. GREATER THAN 10 PERCENT DISCREPANCY BETWEEN INTEGRAL AND DIFFERENTIAL MEASUREMENTS. 1069 11.0 MEV 14.0 MEV 10.0X 2 USA C.R.HEAD DOE 781163F O: FOR HYBRID SYSTEM DESIGN. M: NEW REQUEST. 1070 14.2 MEV 15.0X 2 FR B.DUCHEMIN SAC 792025F O: NEUTRON MULTIPLIER M: NEW REQUEST. 1071 UP TO 5.00 MEV 5.0X 3 UK C.G.CAMPBELL WIN 792136R D: FOR FAST REACTORS. M: NEW REQUEST. STATUS	1068	1.50	1EV 7.	20 NE	v 5.0x	2	EUR	NEUTRON DOSI	METRY GROUP	GEL 7421358
1069       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.HEAD       DOE       781163F         0:       FOR HYBRID SYSTEM DESIGN. M: NEW REQUEST.       0:       FOR HYBRID SYSTEM DESIGN. M: NEW REQUEST.       792025F         1070       14.2       MEV       15.0X       2       FR       B.DUCHEMIN       SAC       792025F         0:       NEUTRON MULTIPLIER M: NEW REQUEST.       0:       NEUTRON MULTIPLIER M: NEW REQUEST.       792136R         1071       UP TO       5.00       MEV       5.0X       3       UK       C.G.CAMPBELL M: NEW REQUEST.       WIN       792136R         STATUS       UNDER CONTINUOUS REVIEW BY INDC. SEE APPENDIX A.	-						0:	FOR NEUTRON METHODS. GREATER THAN INTEGRAL A	DOSIMETRY USING SPE 10 PERCENT DISCREP ND DIFFERENTIAL MEA	CTRUM UNFOLDING Ancy between Surements.
10009       11.0       MEV       14.0       MEV       10.0X       2       USA       C.R.MEAD       DUE       781183F         0:       FOR HYBRID SYSTEM DESIGN.       M:       NEW REQUEST.       1070       14.2       MEV       15.0X       2       FR       B.DUCHEMIN       SAC       792025F         0:       NEUTRON MULTIPLIER       M:       NEW REQUEST.       0:       NEUTRON MULTIPLIER         1071       UP TO       5.00       MEV       5.0X       3       UK       C.G.CAMPBELL       WIN       792136R         0:       FOR FAST REACTORS.       M:       NEW REQUEST.       STATUS       STATUS       STATUS       STATUS       SEE APPENDIX A.										
M: NEW REQUEST. 1070 14.2 MEV 15.0% 2 FR B.DUCHEMIN SAC 792025F O: NEUTRON MULTIPLIER M: NEW REQUEST. 1071 UP TO 5.00 MEV 5.0% 3 UK C.G.CAMPBELL WIN 792136R D: FOR FAST REACTORS. M: NEW REQUEST. STATUS	1063	11.0	1EV 14	•0 ME	V 10.0X	2	USA O:	FOR HYBRID S	DUE System design.	781163F
1070 14.2 MEV 15.0X 2 FR B.DUCHEMIN SAC 792025F O: NEUTRON MULTIPLIER M: NEW REQUEST. 1071 UP TO 5.00 MEV 5.0X 3 UK C.G.CAMPBELL WIN 792136R O: FOR FAST REACTORS. M: NEW REQUEST. STATUS							М:	NEW REQUEST.		
0: NEUTRON MULTIPLIER M: NEW REQUEST. 1071 UP TO 5.00 MEV 5.0% 3 UK C.G.CAMPBELL WIN 792136R D: FOR FAST REACTORS. M: NEW REQUEST. STATUSSTATUS UNDER CONTINUOUS REVIEW BY INDC. SEE APPENDIX A.	1070	14.2	EV		15.0%	2	FR	B.DUCHEMIN	SAC	792025F
1071 UP TO 5.00 MEV 5.0% 3 UK C.G.CAMPBELL WIN 792136R D: FOR FAST REACTORS. M: NEW REQUEST. STATUSSTATUS UNDER CONTINUOUS REVIEW BY INDC. SEE APPENDIX A.							0: M:	NEUTRON MULT New Request.	IPLIER	
D: FOR FAST REACTORS. M: NEW REQUEST. STATUSSTATUS UNDER CONTINUOUS REVIEW BY INDC. SEE APPENDIX A.	1071	UP	TO 5.	00 ME	v 5.0%	з	UK	C.G.CAMPBELL	WIN	792136R
M. NEW REWUESI. STATUSSTATUS UNDER CONTINUOUS REVIEW BY INDC. SEE APPENDIX A.	-	-					<b>D:</b>	FOR FAST REA	CTORS.	
UNDER CONTINUOUS REVIEW BY INDC. SEE APPENDIX A.	STATUS						. M 			STATUS
	UN	DER CONT	INUOUS RE	VIEW B	Y INDC. SEE A	PPENDI	X A.			

90 THORI	UM 232	NEUTRON	=========	ENERG	RGY SPECTRUM OF DELAYED FISSION NEUTRONS	*****
1072			2.0%	1	USA N.STEEN BET . 781	182R
					Q: NEED FAST GROUP YIELDS AND SPECTRA. C: TO VERIFY EXISTING EVALUATIONS. M: NEW REQUEST.	
				0222022		
	UM 232		=======	======	UNANCE PARAMETERS EIJI-Desters desters des	
1073	UP TO	10.0 KEV	10.0%	1	GER H.GERWIN JUL 692 H.KUESTERS KFK	23239
					0: RADIATION WIDTH NEEDED. M: SUBSTANTIAL MODIFICATIONS.	
1074	UP TO	10.0 KEV	10.0%	1	GER H.KUESTERS KFK S M: NEW REQUEST.	2214R
======= 91	CTINIUM 231	NEUTRON		CAPTU	TURE CROSS SECTION	
	*=================			822228		
1075	25 <b>.</b> 3 MV	10.0 MEV	10.0%	2	USA P.GREEBLER GEB 691 G: NEEDED FCR CONTROL OF U-232 PRODUCTION.	1219R
1076	1.00 MV	1.00 KEV		2	USA N.STEEN BET 76	1066R
			0		Q: ALSO NEED RESONANCE PARAMETERS AND RESONANCE INTEGRAL.	
					A: ACCURACY OF 5.0 TO 10.0 PERCENT REQUIRED. O: FOR CALCULATION OF FUEL ACTIVITY IN TH-232 CYO REACTORS. M: NEW FEQUEST.	CLE
91 PROTA	CTINIUM 231	NEUTRON		====== ENERG	RGY SPECTRUM OF DELAYED FISSION NEUTRONS	
========				=======		2===C
1077			5.0%	1	USA N.STEEN BET 78	1183R
					C: TO VERIFY EXISTING EVALUATIONS. M: NEW REQUEST.	
91 PROTA	CTINIUM 233	NEUTRON		======= TOTAL		*****
			********			****
1078	25.3 MV	20.0 MEV	5.0%	2	IND S.B.GARG TRM 75: D: REQUIRED FOR THORIUM FUEL-CYCLE STUDIES.	3011R
1079	UP TO	3.00 MEV	3.0%	2	USA R.W.PEELLE ORL 78	1198R
					D: FOR THORIUM CYCLE REACTOR EVALUATION. M: New Request.	
		=======================================	.=======			=====
91 PR017	ACTINIUM 233	NEUTRON		ELAST	STIC CROSS SECTION 	92233
1080	25.3 MV	20.0 MEV	5.0%	2	IND S.B.GARG TRM 75	3012R
					D: REQUIRED FOR THORIUM FUEL-CYCLE STUDIES.	
91 PROT	ACTINIUM 233	======================================		INEL	LASTIC CROSS SECTION	===== =====
1081	118 70	20.0 NEV	5.08	2		30130
1001	0- 10	2000 MEV	5.04	-	0: REQUIRED FOR THORIUM FUEL-CYCLE STUDIES.	50151
======= 91 PROT/	ACTINIUM 233	NEUTRON			ORPTICN CROSS SECTION	\$ <b>5</b> 5===
=======						*****
1082	25.3 MV	500. EV	5.0%	1	GER MAERKL SRE 69	2333R
91 PROT	ACTINIUM 233	NEUTRON		CAPTU	TURE CROSS SECTION	*****
						10000
1083	1.00 MV	1.00 KEV		2	A: ACCURACY 5 PERCENT BELOW 2 EV, 10 PERCENT ABO D: DESIGN OF THORIUM CYCLE REACTORS.	VE.
1084	25.3 MV	20.0 MEV	5.0%	2	IND S.B.GARG TRM 75	3014R
					O: REQUIRED FOR THORIUM FUEL-CYCLE STUDIES.	
1085	1.00 MV	100. EV	5.0%	2	USA N.STEEN BET 76	1059R
					Q: RESONANCE PARAMETERS ALSO DESIRED. D: NEEDED FOR ANALYSIS OF TH-232 CYCLE THERMAL Reactors. M: New Request.	
1086	500. EV	3.00 MEV	15.0%	2	FR P.HAMMER CAD 76	21428
					D: FAST REACTOR PROJECT M: Substantial modifications.	
1087	20.0 EV	15.0 MEV	10. X	1	JAP R.SHINDO JAE 76	2208F
	· · · · · · ·				0: FOR BURN-UP CALCULATION OF THORIUM FUELED THE Reactors.	RMAL
3=2=822	===0\$\$=0\$=======		===========	******		

91 PROTAC	TINIUM	233	NEU	TRON		N, ALP	PHA		***********			
1088	25.3	MV	500.	EV	5.0%	1	GER M:	H.KUESTERS	5 KFK ST•			792215R
1090					10.04		650	H. KUESTEDS				7022168
1005					10404	•.	Q:	RESONANCE	INTEGRAL.			/ JEE LOK
							M:	NEW REQUES	ST.			
91 PROTAC	TINIUM	233	NEU	TRON	***********	FISSI	ON CRO	SS SECTION	============			*******
		- 22 - 22 - 23 - 2		* = = = = = =	**========							*=====
1090	25.3	MV	20.0	MEV	5.0%	2	IND	S. B. GARG	TRM	•		753015R
							o:	REQUIRED P	FOR THORIUM	FUEL-CYCLE	STUDIES.	
1091	500.	FV	3.00	MEV	15.0*	2	FF	P. HAMMER	CAD			762141R
						-	0:	FAST REACT	TOR PROJECT			
							M :	SUBSTANTIA	AL MODIFICA	TIONS.		
91 PROTAC	TINIUM	233	NEU	TRON		ABSOR	PTION	RESONANCE	INTEGRAL			********
202283888												
1092	0.50	EV			10.0%	1	GER	MAERKL	SRE			692334R
		234	· NF U	TRON			CROSS	SECTION	=================	**********		*******
					*==========							*******
1093	25.3	MV	20.0	MEV	5.0%	2	IND	S.B.GARG	TRM			753016R
					•		0:	REQUIRED P	FOR THORIUM	FUEL-CYCLE	STUDIES.	
820222222	=======			======							52 23 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	
91 PROTAC	TINIUM	234	NEU	TRON		ELAST	IC CRO	SS SECTION			********	=======
1004	05 3	M17	20.0	MEN	E 0.2	2	TND		TOM			7630170
1094	20.3	MV	20.0	MEV	5.0%	2	140	DECUTOED E	18M		STUDIES.	/5301/4
91 PROTAC	TINIUM	234	NEU	TRON		INELA	STIC C	OSS SECTIO	)N ============			
1095	U	Р ТО	20.0	MEV	5.0%	2	IND	S.B.GARG	TRM			753018R
						•	0:	REQUIRED F	FOR THORIUM	FUEL-CYCLE	STUDIES.	
91 PROTAC	TINIUM	234	NEU	TRON	*****************	CAPTU	RE CRO	SS SECTION	***********		2000055552	
1096	25.3	MV	20.0	MEV	5.0%	2	IND	S.B.GARG	TRM	• •		753019R
							0:	REQUIRED F	FOR THORIUM	FUEL-CYCLE	STUDIES.	
91 PROTAC	TINIUM	234	====== NEU	TRON		FISSI	ON CR0	SS SECTION			*********	
				=====							**********	*******
1097	25.3	MV	20.0	MEV	5.0%	2	IND	S.B.GARG	TRM			753020R
						,	0:	REQUIRED F	OR THORIUM	FUEL-CYCLE	STUDIES.	
	======	*******					======		**********		*******	
92 UPANIO		2522222				HALF					*=======*;	
1098					0.5*	1	USA		NRS			761118R
						•	Q:	ALPHA HALF	LIFE REQU	IRED.		
							0: M:	FOR MASS D NEW REQUES	DETERMINATIO	DN OF FISSIO	NABLE DEPO	5175.
========		*******					======			*********		
92 URANIC	M 232	========	NEU	======				55 SECTION				
1099	500 -	EV	10.0	MEV		2	USA		ERG GA			7411340
						-	A:	ACCURACY R	REQUIRED -	2 TO 10 PERC	ENT.	
							<b>o</b> :	FOR FAST R	REACTOR BLA	NKETS.		
1100	1.00	MV	1.00	KEV		2	USA	N.STEEN	вет			761067R
							Q :	ALSO NEED	RESONANCE	PARAMETERS A	ND RESONAN	CE
							A:	ACCURACY C	F 2.0 TO 5	.0 PERCENT R	EQUIRED.	
						•	U. M:	REACTORS	ST.		111 III-292	LILLE
									-			
1101	1.00	KEV	3.00	MEV	50.0%	3	FR	P.HAMMER.	CAD			792028R
							0: M:	EVALUATION NEW REQUES	SUFFICIEN	T		
	======		.=======	=====	**********	*****					=============	
92 URANIU	M 232		NEU	TRON		FISSI	UN CROS	SS SECTION			***********	
1100	1 65	v =	3 00	MEN	50 AF	7	E0		~ ~ ~			7000000
1102	1.00	NEV	3.00		JU . U X	3	۲× ۵۰	FVAL HATTON	CAD	т [.]		192029R
			.=====				M:	NEW REQUES				
92 URANI	UM 233			HALF	LIFE		****					
----------	----------	----------	--------------------	------------	-----------	--------------------------------------------------------------------------------------------------------------------------	------					
1103			0.54	,		N CTEEN DET 7411	1 60					
1105			0.5%	1	03.	VERIFICATION OF LATEST MEASUREMENTS DESIRED.	1.24					
1104			1.0%	1	USA	J. GRUNDL N8S 7611	19R					
					0:	ALPHA HALF LIFE REQUIRED.						
					M	NEW REQUEST.	•					
STATUS						STA	TUS					
92 URANI	UM 233	NEUTRON		TOTA	L CROSS	SECT ION						
				_	_							
1105	25.3 MV	20.0 MEV	5.0%	2	IND 0:	S.B.GARG TRM 7530 REQUIRED FOR THORIUM FUEL-CYCLE STUDIES.	)21R					
1106	1.00 MV	2.00 FV	0.5%	2	USA		182P					
				-	0:	NEEDED FOR THERMAL CROSS SECTION EVALUATION.	.02.					
					M :	NEW REQUEST.						
1107	60.0 EV	100. KEV	3.0 %	1	USA	L.STEWART LAS 7910	01P					
					U: N:	THE RECENT ANL DATA WHICH BEGINS AT 42 KEV. New request.	þ					
92 URANI	UM 233	NEUTRON	#=========	ELAS	TIC CROS	SS SECTION						
******			# <b>===</b> =====				===					
1108	25.3 MV	20.0 MEV	5.0%	2	IND	S.B.GARG TRM 7530	)22R					
					0:	REQUIRED FOR THORIUM FUEL-CYCLE STUDIES.						
92 URANI	UM 233	NEUTRON	*********	INEL	ASTIC C	ROSS SECTION	===					
52522255					20209321		.===					
1109	UP TO	20.0 MEV	5.0%	2	IND	S.B.GARG TRM 7530	23R					
		•			0:	REQUIRED FOR THORIUM FUEL-CYCLE STUDIES.						
92 URANI	UM 233	NEUTRON		ENER	GY DIFFE	ERENTIAL INELASTIC CROSS SECTION						
1110	40.0 KEV	7.00 MEV	20.0%	2	USA	C.E.TILL ANL 6710	986R					
					A:	NEED ENERGY DEPENDENCE TO 5 TO 10 PERCENT ABOVE	E					
					M:	SUBSTANTIAL MODIFICATIONS.						
92 URANI	UM 233	NEUTRON		ENER	GY-ANGL	DIFFERENTIAL INELASTIC CRDSS SECTION						
	00 10	3.00 MEV	20.0%	. <b>3</b>	UK C:	FOR FAST REACTORS.	939R					
========				=====								
92 URANI	UM 233	NEUTRON		CAPT	URE CROS	SS SECTION 	===					
1112	25.3 MV	1.00 MEV	20.0%	1	GER	H.GERWIN JUL 6923	350R					
					0:	ACCURACY INSUFFICIENT.						
1113	1.00 MEV	10-0 MEV	20.08	2	GER	H.GFRWIN III 6923	1528					
				~	Q:	ALPHA ALSO USEFUL.						
1114	UP TO	10.0 KEV	3.0%	3	FR	H. TELL IER SAC 7320	93R					
					0:	EVALUATION PROBABLY NOT SUFFICIENT.						
1115	1.00 MV	2.00 EV		1	USA	N.STEEN BET 7411	12R					
					A: 0:	ACCURACY REQUIRED - BELOW 0.5 EV. 1 PERCENT. Above 0.5 EV. 2 Percent. Verification of Recent Ornl Results desired.						
1116	25.3 MV	20.0 MEV	5.0%	2	IND	S.B.GARG TRM 7530	024R					
					0:	REQUIRED FOR THORIUM FUEL-CYCLE STUDIES.						
1117	100. EV	1.50 MEV		1	USA	R.W.PEELLE ORL 7610	081R					
-				-	0:	MOST IMPORTANT BELOW_0.5_MEV.	2					
					A: M:	REQUIRED ACCURACY - 5.0 TO 10.0 PERCENT. New Request.						
1118	500. EV	3.00 MEV	10.0X	2	FR	P.HAMMER CAD 7621	143R					
					0: M:	FAST REACTOR PROJECT SUBSTANTIAL MODIFICATIONS.						

92 URAN	IUM 233	NEUTRON	*********	CAPTU	JRE CROS	SS SECTION		(CONTINUED)
1119	60.0 EV	500. KEV		1	USA	L.STEWART	LAS	791002P
					A: 0:	ACCURACY REQUIRE NEEDED TO COVER TO HIGHER ENER ND DATA AVAILABLI MEASUREMENTS OF	0 - 5 TO 8 PEPCENT. THE UNRESOLVED FANGE JIES. Above 2 kev except Diven.	AND TO EXTEND
	·				м:	NEW REQUEST.		
1120	1.00 MEV	20.0 MEV	10.0%	1	JAP	N. ASANO	SAE	792083R
		•			Q: M:	EXPERIMENTAL DATA	REQUIRED.	
1121	25.3 MV	1.00 MEV	20.0%	1	GER M:	H.KUESTERS New Request.	KFK	79221 <b>7</b> R
								***********
JEREETE	IUM 233 ===================================			N, 2N			************************	***********
1122	UP TO	15.0 MEV	10.0%	2	USA	P.B.HEMMIG	DOE	671088R
				•	0: M:	FOR CONTAMINATION SUBSTANTIAL MODIF	N OF U-233 BY U-232. Tications,	
1123	UP TO	15.0 MEV	10.0%	1	FR	C.PHILIS	BRC	692341R
1124	UP TO	15.0 MEV	10.0%	2	FR	L.COSTA	CAD	792030R
				· -	0: M:	IN- AND OUT-OF-CO	DRE CYCLE	
	· · ·			•				
1125	UP TO	20.0 MEV	10.0%	1	JAP	N.ASANO	SAE	792092R
					M:	NEW REQUEST.	WANYED.	
92 URAN	IUM 233	NEUTRON		ENERO	SY-ANGL	DIFF. NEUTRON-EI	AISSION CROSS SECTION	
								*****
1126	1.00 MEV			2	USA	L.STEWART	LAS	791004R
				•	Q:	ABSOLUTE CROSS SI MEASURE AT SEVERA	AL ANGLES AND DETECT	LOW ENERGY
					A: M:	ACCURACY REQUIRED	- 5 TO 10 PERCENT.	
52 ORAN								
1127	1.00 MV	1.00 KEV	10.0%	1	USA	R. H. DAHLBERG	GA	621036R
					0: A:	SHAPE IMPORTANT / WANT ETA TO 0.25 WANT INTEGRAL ET/	AT LOW ENERGIES. Percent below 1 ev. To 1 percent below	1 KEV.
1128	10.0 KEV	15.0 MEV	1.0%	1	USA	G.E.HANSEN	LAS	- 671089R
					Q:	RATIO WANTED REL	TIVE TO U-235.	
1129	1.00 KEV	10.0 MEV	1.0%	1	USA	P.B.HEMMIG	DOE	691226R
					Q:	RATIO WANTED RELA	TIVE TO U-235.	
		•			M:	RESOLUTION 3 PL ACCURACY OF 2 TO SUBSTANTIAL MODIN	RCENT. 3 PERCENT WOULD BE U ICATIONS.	SEFUL.
1130	25.3 MV	50.0 EV	2.0%	2	GER	H.GERWIN	JUL	692342R
1131	50.0 EV	10-0 MEV		2	GFR	H. GERWIN	.0.0	6923438
	5000 20			E	A: 0:	ACCURACY REQUIRED	D TO BETTER THAN 10.0	PERCENT.
1132	500. EV	3.00 MEV	10.0%	2	FR	P.HAMMER	CAD	692344R
					A:	THIS ACCURACY CO	CERNS THE FISSION RA	TIO U-233
					м:	ACCURACY OF 2 PER 1 MEV. SUBSTANTIAL MODIN	CENT NEEDED BETWEEN	10 KEV AND
1133	UP TO	10.0 KEV	3.0%	3	FR	H. TELLIER	SAC	7320928
1134	25.3 MV	20.0 MEV	5.0%	2	IND	S. B. GARG	TRM	753025R
1154	2000 40	2010 1121		-	0:	REQUIRED FOR THO	NUM FUEL-CYCLE STUDI	ES.
1175	1.00 44	20.0 MEV		,	421	N. STEEN	RET	7811040
1155	1.00 MV	2010 MLV		•	A:	ACCURACY WANTED -	- 1 PERCENT BELOW 100	EV.
					C: M:	FOR THERMAL REAC' NEW REQUEST.	5 PERCENT ABOVE. FOR ANALYSIS.	
1136	60.0 EV	100. KEV		1	USA	L.STEWART	LAS	791003R
					٥:	MEASUREMENTS REL	TIVE TO U-235 NOT DE	SIRED CUE TO
					A: 0: M:	ACCURACY REQUIRED NEEDED TO COVER THE RATIO MEASU NEW REQUEST.	THE UNRESOLVED RANGE JREMENTS OF CARLSON.	AND OVERLAP

¢

92 URA	NIUM 23	3========	NEU1	TRON		; =======	F1SS) == ===	10N C	ROS	S SECTION	))	ONTINUED)
STATUS											, 	STATUS
	UNDER	CONTINUOU	S REVIE	W BY	INDC	AND NEAM	NDC.	SEE	APP	ENDIX A.		
92 URAI	NIUM 23	3 3 4 # = = = = = = = = = = = = = = = = = =	NEU	TRON		========= ( ========		JRE T	0 F	ISSION RATIO (A	LPHA) Destruit site states and	
1137	5.0	0 MV	20.0	MEV			1	USA		N.STEEN	BET	621041R
									<b>a:</b>	CAPTURE CROSS SE	CTION EQUALLY USEFUL. ENTS NEEDED TO RESOLVE	
									A:	DISCREPANCIES. ACCURACY REQUIRE	D - 2 TO 8 PERCENT BELOW	0.5 EV.
										5 TO 10 PERCEN WANT ETA TO 0.25	T ABOVE 10 KEV (PRIORITY PERCENT BELOW 3 EV (1 PI	2). RCENT
										1 KEV (5 PERCE 1 KEV TO 30 KE	NT USEFUL) AND 2 PERCENT	FROM
									0: M:	WANT VERIFICATIO	N OF RECENT ORNL AND BET FICATIONS.	TIS WORK.
1138	1.0	0 MV	3.00	MEV				USA	•	R.H.DAHLBERG	GA	621042R
									Q: A:	CAPTURE CROSS SE PRIORITY ENERGY	CTION EQUALLY USEFUL. RANGE ACCURACY	
										1 1 MV 1 2 1 KEV WANT ETA TO 0.25	TO 3 MEV 10 TO 20 PERCENT PERCENT BELOW 3 EV (1 P	ERCENT
										USEFUL BELOW 1 1 KEV (5 PERCE 1 KEV TO 30 KE	EV), 1 PERCENT FROM 30   NT USEFUL) AND 2 PERCENT V.	EV TO From
1139	1.0	0 KEV	3.00	MEV			1	USA	•	C.E.TILL	ANL	621043R
									Q: A:	CAPTURE CROSS SE ACCURACY REQUIRE	CTION EQUALLY USEFUL. D - 10 TO 20 PERCENT.	
									м:	WANT ETA TO 2 PE Substantial Modi	RCENT FROM 1 TO 30 EV. FICATIONS.	
1140	1.0	0 KEV	3.00	MEV	•		2	USA	1	P.B.HEMMIG	DOE	671090R
							,		Q: A:	CAPTURE CROSS SE ACCURACY REQUIRE	CTION EQUALLY USEFUL. D - 10 TO 20 PERCENT.	
									м:	NEW REQUEST,	RCENT FROM 1 TO SU EV.	
1141	1.0	0 KEV	100.	KEV	5	•0%	3	UK		C.G.CAMPBELL	WIN	692346R
									<b>c:</b>	FOR FAST REACTOR	s.	
92 URA	NIUM 23		NEU	TRON		2========   2===========	NEUTI	RONS	EMI	TTED PER NEUTRON	ABSORPTION (ETA)	
1142	10.	ο Μν	0.20	EV	0	•5%	2	UK		J.FELL	WIN	692345R
									Q: A:	VALUE RELATIVE T ACCURACY IS FOR	0 25.3 MV ETA WANTED. Average values in 0.02 e	V STEPS.
									0:	FOR THERMAL REAC	TOPS.	
1143	1.0	0 MV	1.00	εv	0	.4x	1	USA	· .	N.STEEN	BET	741113R
									0: M:	TO VERIFY MANGAN SUBSTANTIAL MODI	ESE BATH RESULTS. FICATIONS.	
STATUS												STATUS
	THERMA	L VALUE U	NDER CO	NT I NI ====:	UOUS R	EVIEW B	¥ IN ====	DC. S	SEE ====	APPENDIX A.		
92 URA	NIUM 23	3	NEU	TRON	szzz <i>z</i> 2	5222225	NEUTI	RONS	EMS	TTED PER FISSION	(NU BAR)	*======
1144	1.0	0 KEV	3.00	MEV		•	1	USA	4	R.H.DAHLBERG	GA	661075R
									A: 0:	ACCURACY REQUIRE	D - 1 TO 3 PERCENT. CTURE BELOW 1 MEV.	
									M :	NEW REQUEST.		
1145	1.0	0 MV	30.0	KEV			1	USA	۱ ٥:	N.STEEN	BET	691443R
										PREFERRED.	TURE MAY BE IMPORTANT.	1 DEDCENT
									A .	FROM 30 EV TO	1 KEV, AND 2 PERCENT FRO 3 PERCENT ABOVE.	M 1 KEV
									0: M:	NEEDED TO RESOLV FARAMETERS AND SUBSTANTIAL MODI	E DISCREPANCIES IN THERM BREEDING PREDICTION. FICATIONS.	AL
1146	30.	0 KEV	10-0	MEV	,	.0*	2	GEE	,		.00	6924868
STATUS									·			STATUS
	THERMA	L VALUE U	NDER CO	NTIN	UDUS R	EVIEW B	Y IN	DC. S	5EE	APPENDIX A.		
92 URA	NIUM 23	==#====# 3 ==#======	======= NEU ========	TRON	====== ======	=========	DELA	==== YED N =====	NEUT	RONS EMITTED PER	5=====================================	**********
1147	25	 7 MV				.0*	1	116	4	N. STEEN	8FT	7411160
1147	23.	~ "*			5		1	03/	<b>a:</b>	TO RESOLVE DISCR	EPANCIES.	-41110R
STATUS												STATUS
	UNDER	CONTINUOU	S REVIE	W BY	INDC.	SEE AP	PEND	IX A	•			

92 URANIU	JM 233		NEUT	RON		ENER	GY SPECT	RUM OF FISSION	NEUTRONS	
		======								
1148	25.3	MV			1.0%	1	USA	N.STEEN	BET	781185R
		•					Q:	NEED SHAPE OF N	EUTRON ENERGY D	ISTRIBUTION FROM
							A:	RELATIVE PEAK T	0 1 PERCENT.	
							0: M:	NEEDED FOR CRIT NEW REQUEST.	ICALITY CALCULAT	I I UNS •
1149	100.	KEV			2.0%	3	UK	C.G.CAMPBELL	WIN	792123R
						-	A:	2 PERCENT ACCUR 10 PERCENT ACCU	ACY ON MEAN FIS: Racy wanted on 1	S. SPECTRUM ENERGY. NUMBER OF NEUTRONS
							0:	ABOVE 5 MEV AND FOR FAST REACTO	ON NUMBER BELO	W 0.25 MEV.
							M:	NEW REQUEST.		
SESSER		======	======================================			FISS		DUCT MASS YIFLD	SPECTRUM	
						======				
1150	25.3	1412			1	2	CAN	W. M. WALKED	CRC	7118018
1150	23.3	14 ¥			1.04	2	0.	VIELD DE YE-135	WANTED.	
							ŏ:	FOR CALCULATION	OF FISSION PRO	DUCT ABSORPTION.
1151	25.3	MV			1.0%	1	USA	R.SILEN F.FEINER	KAP	/01191k
							a:	NUCLIDES OF INT	EREST ARE Y-89.	SR-90. MO-95.
								TC-99, RH-103 CS-137, LA-13	, RH-105, XE-13 9, PR-141, PM-14	5, CS-135, XE-136, 47, ND-147, SM-149,
							0:	SM-151, SM-15 DATA NEEDED TO	2 AND EU-153. IMPROVE ACCURACY	Y OF PREDICTED
							N :	FISSION PRODU	CT POISONS.	
STATUS										
31A103							TY A.			
	NDER (U		JUS REVIE		INDC. SEE A					
92 URANI	JM 233		NEU	TRON		RESO	NANCE P	ARAMETERS		
						-===-				
1152	25.3	MV	5.00	KEV		з	USA	C.E.TILL	ANL	671195R
								P.B.HEMMIG	DOE	
							Q:	MULTILEVEL PARA DISTRIBUTIONS	WANTED IN EV R	ISTICAL Ange.
							Α:	ACCURACY 10 PER	CENT WANTED TO	100 EV, 30 PERCENT
							C:	FOR THERMAL BRE	EDER CALCULATIO	NS.
				·						
92 URANI	UM 234					HALF	LIFE			
1153					0.3%	1	USA	J.GRUNDL	NBS	761120R
							Q:	ALPHA HALF LIFE	REQUIRED.	
							0: M:	FOR MASS DETERM NEW REQUEST.	INATION OF FISS	IONABLE DEPOSITS.
				=====			======			
92 URANI	UM 234 ======	=====	NEU	TRON		TOTAL	L CROSS	SECTION		*****************
1154	25.3	MV	20.0	MEV	5.0%	2	IND	S.B.GARG	TRM	753026R
							0:	REQUIRED FOR TH	ORIUM FUEL-CYCL	E STUDIES.
		= = = :	1222222333 NGU							
92 ORANI 33852222	UM 234 ======			=====		22222		55 SECTION ====================================		
										25-4420
1155	25.3	MV	20.0	MEV	5.0%	2	IND	S.B.GARG		/5302/R
							0:	REQUIRED FOR TH	ORIUM FUEL-CYCL	E STUDIES.
92 URANI	UM 234		NEU	TRON		EZESSI INEL/	ASTIC C	ROSS SECTION	=======================================	*======================
						*====				******
1156	u	P TO	20.0	MEV	5.0%	2	IND	S.B.GARG	TRM	753028R
	· ·	-		•			0:	REQUIRED FOR TH	ORIUM FUEL-CYCL	E STUDIES.
		======				*==**	======			
92 URANI	UM 234		NEU	TRON		CAPTI	URE CR0	SS SECTION		*****************
1157	1.00	MV	10.0	MEV		2	USA	C.E.TILL	ANL	691400R
			0				A:	ACCURACY 3 PERC	ENT BELOW 2 EV,	6 PERCENT BELOW 10
							м:	SUBSTANTIAL MOD	IFICATIONS.	2V FURGENI ADUVE.
		_								
1158	1.00	Eν	10.0	MEV	15.0%	2	GER	H.GERWIN	JUL	692356R
1159	U	р то	10.0	KEV	5.0%	з	FR	H.TELLIER	SAC	732094R
	•	-			-					
1160	25.3	MV	20.0	MEV	5.0%	2	IND	S.B.GARG	TRM	753029R
							0:	REQUIRED FOR TH	ORIUM FUEL-CYCL	E STUDIES.
1161	1.00	KEV	3.00	MEM	50-04	٦	FP		CAD	7020310
1101			5100			~			ICIENT	· 22031R
								NEW REQUEST.		====================================

92 URANIU	M 234	NE	UTRON		N. 2N				
222222222		==========						:=\$23==#EI392\$22= <b>#</b> EI\$ <b>#</b> E <b>22</b> 2 <b>2</b>	
1162	UP	TD 15.0	MEV	10.0%	1	FR	J. SALVY	BRC .	682050R
92 URANIU	====== M 234	= 1 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2 = 2	UTRON		===== N,3N				
\$\$ <b>=</b> 2 <b>508</b> 2		*********		=========					
1163	UP	TO 15.0	MEV	15.0%	1	FR	J.SALVY	BRC	682051R
92 URANIU	====== M 234	a 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	UTRON		===== FISSIC	IN CROS	S SECTION		======
522±05255			*****				*****************		
1164	4.00 M	EV 10.	MEV	15.0%	2	GER	H.GERWIN	JUL	692353R
						0:	SPECTRUM INDEX.		
1165	25.3 M	V 20.0		5.0%	2		S.B.GARG	TRM	753030R
	2000	2000			-	0:	REQUIRED FOR THO	RIUM FUEL-CYCLE STUDIES.	
1166	1.00 K	EV 3.00		50.04	. 3	ED		CAD	7020320
1100	1.00 K	LV 3.00	, m <b>. v</b>	30104		<u>.</u> :	EVALUATION SUFFIC	CIENT	792032N
•.						(* •	NEW REQUEST.		
92 URANIU	M 234	u = = = = = = = = = = = = = = = = = = =	EUTRON		ENERG	SPECT	RUM OF DELAYED F	ISSION NEUTRONS	
222222222	=========				*****		******************		
1167			•	5.0%	1	USA	N.STEEN	BET	781187R
						Q:	NEED FAST GROUP	YIELDS AND SPECTRA.	
						0: M:	NO MEASUREMENTS FOR NON-DESTRUCT NEW REQUEST.	AVAILABLE. IVE ASSAY OF U-233 TH-232 F	UEL.
\$2522\$ <b>2</b> 20					=====		***************		======
92 URANIU	M 235	==========			HALF L	_IFE			0==9==7
1168				0.3%	1	USA	J . GR UNDL	NBS	761121R
						8:	ALPHA HALF LIFE	REQUIRED.	TTC.
						Mi	NEW REQUEST.	ARTICA OF FISSIONADEL DEFOS	1.130
STATUS									-STATUS
UN	DER CONT	INUOUS REV	LEW BY IND	C. SEE AP	PENDI	X A.			
	========	========================			=====				2223222
92 URANIC	M 235		8 MMA 3 2 2 2 3 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2		=====	JN PRUL	THE STREET STREET STREET	PECIRUM 88/8888888888888888888888888888888888	=======
					-				
1169	4.00 M	EV 14.0	0 MEV	10• X	3	JAP	ReMIKI	ĸĸu	762034N
						Q:	TOTAL FISSION YI REQUIRED. YIELD	ELD PRODUCED BY BREMSSTRAHL May be in the UNIT of YIELD	UNG
							ROENTGEN*NUCLEUS PHOTO ACTIVATION	OR RELATIVE TO U-238 OR OT VIELDS.	HER
						0:	BREMSSTRAHLUNG C SUFFICIENT THICK	ONVERTER (PREFERABLY TA ) O NESS TO STOP ELECTRONS.	F
							NON-DESTRUCTIVE	ASSAY OF U	
1170	A 00 M	EV 14		6. ¥	7	140	O NIVI	KKII	
	4.00 1	LV 144		J. A	5	JAF 		REU .	7630438
						<b>.</b>	CHAIN ATTVE VIELO	S OF WICH EISCION VIELD ISC	762042N
	•					0:	CUMULATIVE YIELD BREMSSTRAHLUNG C	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF	TOPES.
						0:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE	S OF HIGH FISSION YIELD ISC Onverter (Prefepably TA) of Ness to stop electrons, Assay of nuclear materials	TOPES.
00 1104 1171						0:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF Ness to stop electrons, Assay of nuclear materials	762042N
92 URANI	JM 235	= == = = = = = = = = = = = = = = = = =	EUTRON		TOTAL	CROSS	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS, ASSAY OF NUCLEAR MATERIALS	762042N TOPES.
92 URANI	UM 235	= = = = = = = = = = = = = = = = = = =	EUTRON		TOTAL	CROSS	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS, ASSAY OF NUCLEAR MATERIALS	762042N PTOPES.
92 URANIQ	1.00 M	N N V 1.0	EUTRDN EUTRDN EEV	0.5x	TOTAL	USA	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION SECTION B.R.LEONARD	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS, ASSAY OF NUCLEAR MATERIALS	762042N
92 URANI( ====================================	1.00 M	× 1.00	EUTRDN O EV	0.5%	TOTAL	USA M:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST.	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION	762042N TOPES. 
92 URANI( 1171	1.00 M	V 1.0	EUTRON O EV	0.5x		USA CROSS USA C: M:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST.	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION	762042N PTOPES. 
92 URANI( 1171 92 URANI(	1.00 M	V 1.0	EUTRON	0.5x	1 ELAST	USA CROSS USA O: M: IC CROS	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST.	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION	762042N PTOPES. 761083R
92 URANI( 1171 92 URANI( 92 URANI(	M 235	V 1.0	EUTRON	0.5%	1 TOTAL 1 ELAST	USA CROSS USA C: M: IC CROS	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST.	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION	762042N PTOPES. 761083R
92 URANIC 1171 92 URANIC 92 URANIC	I.00 M	V _ 1 • 0	EUTRON	0.5x	1 ELAST	USA CROSS USA C: M: IC CROS	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST. SS SECTION	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION	762042N PTOPES. 761083R
92 URANIQ 1171 92 URANIQ 1172	I.00 M	V <u>1</u> .0	EUTRON	0.5x	1 ELAST	USA CROSS USA C: M: IC CROS UK UK C:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION SECTION NEEDED FOR THERM NEW REQUEST. SS SECTION J.FELL THERMAL AVERAGE FOR LONG TERM IM	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS HURLEAR MATERIALS BNW HAL CROSS SECTION EVALUATION HIN INCIDENT ENERGY. INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION	762042N PTOPES. 761083R 1. 692360R
92 URANIQ 1171 92 URANIQ 1172	I.00 M	V 1.0	EUTRON	0.5x	1 EL AST	USA CROSS USA C: M: IC CROS UK Q: C:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST. SS SECTION J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION.	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION	762042N 2TOPES. 761083R N. 692360R
92 URANIC 1171 92 URANIC 1172	1.00 M	E y 15-		0.5x 10.0x	1 ELAST 3	USA CROSS USA C: M: UK Q: C:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST. J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION.	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION	762042N PTOPES. 761083R 692360R N CROSS
92 URANIC 1171 92 URANIC 1172 1172	1.00 M	EV 15.	O EV	0.5x 10.0x	1 I ELAST 3	USA CROSS USA C: M: IC CROS UK C: FR	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST. J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION. A.MICHAUDON	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION BRC EMBLIES.	762042N 2TOPES. 761083R 761083R 692360R N CROSS 742067R
92 URANIC 1171 92 URANIC 1172 1172	1.00 M	EV 15.	O EV	0.5x 10.0x	1 ELAST 3	USA O: M: IC CROS UK Q: C: FR G:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION SECTION NEEDED FOR THERM NEW REQUEST. SS SECTION J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION. A.MICHAUDON FOR CRITICAL ASS	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW TAL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION BRC EMBLIES.	762042N 270PES. 761083R 692360R N CROSS 742067R
92 URANIC 1171 92 URANIC 1172 1173 92 URANIC	I.00 M 1.00 M 1.00 K	EV 15.	O EV	0.5x 10.0x	1 ELAST 3 1 DIFFE	USA CROSS USA C: M: IC CROS UK Q: C: FR C: RENTIA	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION SECTION NEEDED FOR THERM NEW REQUEST. SS SECTION J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION. A.MICHAUDON FOR CRITICAL ASS	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION BRC EMBLIES.	762042N 270PES. 761083R 692360R N CROSS 742067R
92 URANIC 1171 92 URANIC 1172 1173 92 URANIC	I.00 M 1.00 M	V 1.0	O EV	0.5x 10.0x	1 ELAST 3 1 DIFFE	USA O: M: IC CROSS IC CROS IC CROSS IC CROS	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION SECTION NEEDED FOR THERM NEW REQUEST. SS SECTION J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION. A.MICHAUDON FOR CRITICAL ASS	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION BRC EMBLIES.	762042N 2TOPES. 761083R 692360R A CROSS 742067R
92 URANIQ 1171 92 URANIQ 1172 1173 92 URANIQ 1174	1.00 M 1.00 M	EV 15.	O EV EUTRON EUTRON O MEV EUTRON	0.5x 10.0x 10.0x	1 ELAST 3 1 DIFFE 2	USA USA UK Q: CROSS M: M: M: C: C: FR Q: RENTIAL	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION SECTION NEEDED FOR THERM NEW REQUEST. SS SECTION J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION. A.MICHAUDON FOR CRITICAL ASS _ ELASTIC CROSS S C.E.TILL	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW MAL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. IFROVEMENT OF THE ABSORPTION BRC EMBLIES.	762042N 2TOPES. 761083R 692360R 742067R 691237R
92 URANIQ 1171 92 URANIQ 1172 1173 92 URANIQ 1174	I.00 M JM 235 I.00 K JM 235	EV 15.	O EV EUTRON O MEV EUTRON	0.5x 10.0x 20.0x	1 ELAST 3 1 DIFFE 2	USA UK Q: CROSS USA C: FR Q: C: VK Q: C: UK Q: C: USA	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION SECTION NEEDED FOR THERM NEW REQUEST. SS SECTION J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION. A.MICHAUDON FOR CRITICAL ASS L ELASTIC CROSS S C.E.TILL P.B.HEMMIG	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW MAL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION BRC EMBLIES.	762042N PTOPES. 761083R 692360R 742067R 691237R
92 URANIQ 1171 92 URANIQ 1172 1173 92 URANIQ 1174	I.00 M I.00 K JM 235	EV 15.	O EV	0.5x 10.0x 20.0x	1 ELAST 3 1 DIFFE	USA USA USA UK G: C: FR C: UK G: UK G: C: USA USA A: C:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST. SS SECTION J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION. A.MICHAUDON FOR CRITICAL ASS L ELASTIC CROSS S C.E.TILL P.B.HEMMIG ENERGY RESOLUTIO NEEDED FOR ANALY	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW AL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION BRC BRC EMBLIES. ECTION ANL DCE IN AT LEAST 0.5 MEV. ZING FAST CRITICAL EXPERIME	762042N PTOPES. 761083R 692360R 742067R 691237R ENTS.
92 URANIQ 1171 92 URANIQ 1172 1173 92 URANIQ 1173 92 URANIQ	1.00 M 1.00 M 1.00 K 1.00 K	EV 15.	O EV	0.5x 10.0x 20.0x	1 ELAST 3 1 DIFFE	USA UK CROSS USA C: UK C: FR C: UK C: USA A: O:	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST. J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION. A.MICHAUDON FOR CRITICAL ASS LELASTIC CROSS S C.E.TILL P.B.HEMMIG ENERGY RESOLUTIO NEEDED FOR ANALY	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW VAL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION BRC EMBLIES.	762042N PTOPES. 761083R 692360R 742067R 691237R ENTS.
92 URANIC 1171 92 URANIC 1172 1172 1173 92 URANIC 1174 1174	1.00 M 1.00 M 1.00 K 1.00 M	EV 15.0	O EV EUTRON O MEV EUTRON O MEV	0.5x 10.0x 20.0x	1 ELAST 3 1 DIFFE 2	USA CROSS USA C: IC CROS IC CROS UK Q: C: FR C: USA A: O: FR	CUMULATIVE YIELD BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE SECTION B.R.LEONARD NEEDED FOR THERM NEW REQUEST. J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION. A.MICHAUDON FOR CRITICAL ASS L ELASTIC CROSS S C.E.TILL P.B.HEMMIG ENERGY RESOLUTIO NEEDED FOR ANALY A.MICHAUDON	S OF HIGH FISSION YIELD ISC ONVERTER (PREFEPABLY TA) OF NESS TO STOP ELECTRONS. ASSAY OF NUCLEAR MATERIALS BNW TAL CROSS SECTION EVALUATION WIN INCIDENT ENERGY. FROVEMENT OF THE ABSORPTION BRC EMBLIES. SECTION ANL DCE NAT LEAST 0.5 MEV. ZING FAST CRITICAL EXPERIME BRC	762042N PTOPES. 761083R 761083R 692360R 742067R 691237R ENTS. 742068F

92 URANI	UM 235	NEUTRON		INEL/	STIC C	ROSS SECTION		*********
1176	110 70		10.05	•	6WD		AE	6023630
11/6	UP 10	13.0 MEV	10.0%	2	5WU 0:	FAST CRITICAL SY	STEMS.	6923034
1177	UP TO	15.0 MEV	10.0%	2	FR O'	A.MICHAUDUN	BRC	7420708
					0.	TOR CRITICAL HOS		
1178	800. KEV	5.00 MEV		2	CCP	L.N.USACHEV	FEI	754024R
					A.	FROM 1.4 - 2.5 M	NEV ACCURACY 15 PERCENT.	
					0:	NEED FOR FAST RE	ACTOR CALCULATION. SEE INTRODUCTION.	
					M:	SUBSTANTIAL MODI	FICATIONS.	
92 URANI	UM 235	NEUTRON		ENER	Y DIFF	RENTIAL INELAST	C CROSS SECTION	*======
1170	10 70			_	660	M N NEKO ASV	66 T	7140060
1179		15.0 MEV	-	2	0:	CROSS SECTION EC	FEI IR INFLASTIC REMOVAL BELOW	FISSION
					•••	THRESHOLDS OF PU-240 OR NP-2	U-238 (7 PERCENT ACCURACY) 37 (10 PERCENT ACCURACY)	AND OF
			•			EXCITATION CROSS REQUESTED WITH	SECTION FOR LOW LYING LEV 15 PERCENT ACCURACY.	VELS
						AS WELL AS DIR CONTRIBUTIONS	ECT AND PRE-EQUILIBRIUM ME	ECHANISM
					0:	SEE GENERAL COMM	ENTS IN THE INTRODUCTION.	•
1180	50.0 KEV	6.00 MEV	10.0%	2	USA	C.E.TILL P.B.HEMMIG	ANL	721076R
					Q:	LOW ENERGY NEUTRABSOLUTE SPECTRA	AT 30 AND 75 DEGREES MAY	SUFFICE
					A:	INCIDENT AND EXI	T ENERGY RESOLUTIONS 10. P	PERCENT.
92 URANI	UM 235	NEUTRON		ENERG	Y-ANGLE	DIFFERENTIAL IN	ELASTIC CROSS SECTION	
						· · · · · · · · · · · · · · · · · · ·		
1181	UP TO	15.0 MEV	20.0%	2	FR	A.MICHAUDON	BRC	742071R
				======		FOR CRITICAL ASS	EMBLIES.	
92 URANI	UM 235	NEUTRON		CAPTU	JRE CRO	S SECTION		
1192	1 00 MEV	10 0 451			140	S KATCUDACT	145	6000555
1102	1.00 MEV	10.0 MEV		1	JAP	H. MATSUNOBU	SAE	0820358
					Q: A:	ALPHA ALSO WANTE REQUIRED ACCURAC	D. Y - 5 TO 10 PERCENT.	
					0:	FOR FAST REACTOR	U 2 PERCENT. S. 1 UATION.	
					м:	NO EXPERIMENTAL SUBSTANTIAL MODI	DATA ABOVE 2.6 MEV. Fications.	
1183	10.0 KEV	10.0 MEV		2	GER	H.GERWIN	JUL	692378R
					A: 0:	ACCURACY TO OBTA Analysis of CRIT	IN 1 PERCENT IN ALPHA. ICAL EXPERIMENTS.	
1184	1.00 MV	1.00 EV	1.0%	1	USA	N.STEEN	BET	741117R
				-	Q:	SHAPE ESPECIALLY	IMPORTANT AT LOW ENERGY.	
					0:	TO RESOLVE DISCR	EPANCIES IN THERMAL PARAME	ETERS.
1185	200. EV	500. KEV	3.0%	2	SWD	H.HAEGGBLOM	AE	742005R
					0:	FAST REACTOR CAL	CULATIONS.	
1186	UP TO	3.00 MEV	5.0%	1	FR	A. MI CHAUDON	BRC	742078R
					C:	FOR CRITICAL ASS	EMBLIES.	
1187	5.00 KEV	10.0 MEV		2	CCP	L.N.USACHEV	FEI	754007R
					Α:	FROM 5.0 - 100 K	EV ACCURACY 3.7 PERCENT.	
		•				FROM 0.8 - 4.5 M ABOVE 4.5 MEV RE	EV ACCURACY 50 PERCENT. QUIREMENTS 2 TIMES WEAKER.	•
					0:	NEED FOR FAST RE FOR MORE DETAIL	ACTOR CALCULATIONS: SEE INTRODUCTION: FICATIONS:	
				======				********
92 URANI	UM 235 ====================================	NEUTRON		TOTAL	PHOTON	PRODUCTION CRDS	S SECTION	
1188	1.00 KEV	15.0 MEV	10-0*	1	FP		BRC	7420600
				•	0:	FOR SHIELDING.	- •	
	12742312226223							
92 UKANI 2222222	um 233 1998255555555333	1001RUN 12222553222222		14 8 2 N Ferences				
1189	UP TO	15.0 MEV	15.0%	1	FR	C.PHILIS	BRC	792033R
					<u>.</u> :	FOR CRITICAL ASS	EMBLIES	
					M 1 =======	NEW REQUEST.		

1190	U	9 TO	15.0	MEV	15.0%	1	FR O:	A.MICHAUDON BRC FOR CRITICAL ASSEMBLIES.	7420725
				=====	==========				
2 URANI	UM 235 ======		NEU =======	TRON		FISS	10N CRO	S SECTION	
1191	10.0	KEV .	15.0	MEV	1.0%	1	USA	G.E.HANSEN LAS	661043F
1192	1.00	ΕV	1.00	KEV	3.0%	2	USA	P.GREEBLER GEB	6912419
							0:	USED AS STANDARD AT HIGHER ENERGIES.	
1193	100.	KEV	20.0	MEV	1.0%	1	USA	R.S.CASWELL NBS	691245
							Q: M:	EXCITATION FUNCTION WITH ABSOLUTE CALIBR AT SEVERAL ENERGIES. SUBSTANTIAL MODIFICATIONS.	ATION
1194	1.00	KEV	14.0	MEV	1.0%	1	USA	C.E.TILL ANL P.B.HEMMIG DDE F.C.MAIENSCHEIN DRL	6912465
÷							Q: A: D:	REQUIRED IS RATIO OF U-235(N.F) TO B-10( AND TO H-1(N.P) TO 1 PERCENT. INTERMEDIATE ACCURACY OF 3 PERCENT USEFU NEEDED TO COMPARE STANDARDS.	N,ALPHA}, L.
1195	1.00	KEV	14.0	MEV		1	USA	P.GREEBLER GEB P.B.HEMMIG DOE R.A.DONCALS WEW	6914491
							Q: A: C:	ABSOLUTE VALUES REQUIRED. FROM 1-20 KEV, ACCURACY 2 PERCENT, 5 PER USEFUL. FROM 20 KEV - 3 MEV, ACCURACY 1 PERCENT, USEFUL. FROM 3-14 MEV. ACCURACY 2 PERCENT, 5 PERCENT USEFUL. FOR FAST REACTOR CALCULATIONS AND FOR US STANDARD.	CENT 3 PERCEN
1.00		<b>5</b> 11					650		600766
1196	100.	EV	10.0	MEV		1	GER A:	ACCURACY 5 PERCENT FOR 100 EV - 10 KEV, 2 PERCENT FOR 10 KEV - 1 MEV AND 5 PERCENT FOR 1-10 MEV.	6923661
							0:	SPECTRUM INDEX. Standard cross section.	
1197	1.00	MEV	5.00	MEV	3.0%	1	UK	C.G.CAMPBELL WIN	692368
		-					A: 0:	ACCURACY FOR AVERAGE VALUE OF THE ERROR E AND 2E. Standard for PU cross-sections. For fast reactors.	BETWEEN
1198	200.	EV	500.	KEV	2.0%	2	SWD 0:	H.HAEGGBLOM AE FAST REACTOR CALCULATIONS.	692496
1199	5.00	KEV	7.00	MEV	2.0%	2	ССР	M.N.NIKOLAEV FEI	714007
							<b>a:</b>	BELOW 20 KEY MEASUREMENTS OF TRANSMISSIO BY FLAT RESPONSE DETECTOR AND BY SELF METHOD WITH FISSION DETECTOR WANTED FO SELFSHIELDING EVALUATION. THESE CURVES MUST BE MEASURED WITH ATTEN THE PRIMARY BEAM DOWN TO 1. PERCENT. AVERAGE CS IN FISSION NEUTRON SPECTRUM. TIMES NU-BAR OF CF-252 IS OF GREAT INT REDUCING THE DEPENDENCE OF THE ACCURAC	UN CURVES DETECTION DR UNATIONS OF DF CF-252 TEREST FOR CY OF NEU-
							Α:	TRON PRODUCTION CALCULATIONS UPON THE OF THE CF-252 NU-BAR STANDARD (REQUIRE 1 PERCENT). ACCURACY DETERMINED BY USE OF THIS CROSS	ACCURACY D ACCURAC SECTION
								FOR OTHER ISOTOPES. IF MEASUREMENT IS ABSOLUTE AND PU-239 AH FISSIGN CROSS SECTIONS ARE MEASURED RE U-235 FISSION, THEN 2-0 PERCENT ACCURA	ND U-238 ELATIVE TO ACY IS
							0.	REQUIRED. BEST ACCURACY OF 1.5 PERCENT DESIRABLE 2.5 MEV REGION BECAUSE OF U-238 FISSIC SECTION NORMALIZATION. SEE GENERAL COMMENTS IN THE INTRODUCTION	IN 1.2 TO DN CROSS
								REQUEST CONSIDERED FULFILLED, WHEN AT LE MEASUREMENTS WITH DIFFERENT METHODS AG REQUESTED ACCURACY.	AST THREE REE WITHI
1200	1.00	MV	1.00	EV	5.0%	1	USA Q:	N.STEEN BET Shape especially important at low energy	741118
1201	400.	KEV	2.00	MEV	1.5%	1	USA	W.DAVEY LAS	741209
•							Q: D:	A RELATIVE MEASUREMENT NORMALIZED TO EXI DATA ABOVE 1 MEV IS SUFFICIENT. EXTENSION OF LASL ABSOLUTE MEASUREMENT E TO OVERLAP IMPORTANT LOWER ENERGY DATA A REFERENCE WHICH IS VITAL TO ALL REACTO	ISTING BELOW 1 ME DR STUDIES
1202	ι	UP TO	15.0	MEV		1	FR	A.MICHAUDON BRC	742073
								ACCURACE 3 DEDGENT TO 1 KEW O DEDGENT	

00.004.00			NEU	TOON				S SECTION		
92 URANI	UM 235 ======		NEU 2222222	=====		F155	SIUN CRU:			
1203					2.0%	2	EUR	NEUTRON DOSIMETR	Y GROUP	GEL 742113R
							Q:	AVERAGE CROSS SE DESIRED.	CTION IN A U-235 FI	SSION SPECTRUM
					•		с:	FOR NORMALIZATIO DOSIMETRY PURP SUBSTANTIAL MODI	N OF AVERAGE CROSS OSES. FICATIONS.	SECTIONS FOR
1204	5.00	KEV	10.0	MEV		2	CCP	L.N.USACHEV	FEI	754008R
							A:	FROM 5.0 - 100 K	EV ACCURACY 1.2 PER	
								FROM 0.8 - 4.5 M ABOVE 4.5 MEV RE	EV ACCURACY 1.4 PER QUIREMENTS 2 TIMES	CENT. WEAKER.
							0:	NEED FOR FAST RE	ACTOR CALCULATIONS. E 100 KEV.	
							M:	SUBSTANTIAL MODI	FICATIONS.	
1205	5.00	MV	1.00	EV	1.0%	1	USA	R.S.CASWELL	NBS	761107R
					•.		0:	NEEDED AS A REFE	RENCE STANDARD FOR	CROSS SECTION
							м:	NEW REQUEST.		
1206	7.50	EV	11.5	EV	1.0%	1	USA	R.S.CASWELL	NBS	761108R
							0: M:	FOR NORMALIZATIO	N OF U-235 MEASUREN	ENTS.
1207	1.00	MEV	5.00	MEV	3.0%.	1	GER	H.KUESTERS	KFK	792188R
							0:	AN EVALUATION IS 100 EV TO 5 MEV.	FEQUIRED FOR THE E	NERGY RANGE
6TATUS			•				M:	NEW REQUEST.		STATUS
U	NDER CO	INTINUOL	S REVIE	W BY	INDC AND NE	ANDC.	SEE APP	PENDIX A.		
92 URANI	 UM 235	******	NEU	TRON		CAPT	URE TO S	FISSION RATIO (A	LPHA)	
======										
1208	1.00	MV	7.00	MEV		2	USA	C•E•TILL P•greebler P•b•hemmig	ANL GEB DOE	691249P
							Q: A: O:	CAPTURE CROSS SE Required Accurac Experimental UNC	CTION EQUALLY USEFU Y - 5 TO 10 PERCENT ERTAINTIES NEED VER	IFICATION.
1209	100.	ΕV	1.00	MEV	5.0%	2	UK	C.G.CAMPBELL	WIN	692373R
							A:	ACCURACY FOR AVE	RAGE VALUE OF THE E	RRCR BETWEEN
							0.	FUR FAST REACTOR	<b>2</b> •	
1210	100.	EV	800.	KEV	• 7.0%	1	CCP	MANANIKOLAEV	FEI	714008R
								AND FISSION-RE MEASUREMENTS OF	SONANCE SELF SHIED	NG. WITH FLAT-
								RESPONSE DETEC WITH CAPTURE A	TOR AND BY SELF-IND ND FISSION DETECTOR	S IN THE TEMP-
							Α:	IN REGION 1~100	KEV BETTER ACCURACY	DESIRABLE
								IN THE TRANSMISS	ION MEASUREMENTS AT	TENUATION OF AT
					·		0:	SEE GENERAL COMM ALSO NEEDED FOR	ENTS IN THE INTRODU COMPARISON WITH ALF	PHA PU-239 FOR
								AT LEAST THREE D WITHIN REQUEST	IFFERENT RESULTS MU	IST COINCIDE
1211	1.00	MV	1.00	EV	1.0%	1	USA	N. STEEN	BET	721077R
							<u>e</u> :	CAPTURE CROSS SE	CTION EQUALLY USEFU	
STATUS										STATUS
U	NDER CO	NTINUOU	S REVIE	W BY	INDC. SEE A	PPEND	DIX A.			
92 URANI	====== VM 235	******	NEU	TRON	***********	NEUT	RONS EM	ITTED FER NEUTRON	ABSORPTION (ETA)	
	******			22225						.885229492285922
1212	25.3	MV	50.0	KEV		2	USA	C•E•TILL P•greebler P•B•hemmig	ANL. GEB DDE	671100R
					۲.		Α:	ACCURACY 1/2 PER ELSEWHERE.	CENT AT THERMAL. 2	PERCENT
1213	10.0	MV	0.40	EV	0.5%	1	UK	J.FELL	WIN	692370R
							• • • •	VALUE RELATIVE T	C 25.3 MV ETA WANTE	
							A: 0:	UP TO 0.2 EV. FOR TEMPERATURE	AVERAGE VALUES IN 2 AND IN 50 MV STEPS COEFFICIENT WORK.	ABOVE.
1214	1.00	MV	1.00	EV	0.4%	1	USA	N. STEEN	BET	741119R
							a:	SHAPE ESPECIALLY USE TECHNIQUE OT	IMPORTANT AT LOW E HER THAN MANGANESE	NERGY. Bath.
1215	10.0	MV	0.40	E۷	0.5%	2	GER	H.KUESTERS	KFK	792218R
							0: M:	VALUE RELATIVE T	0 25.3 MV ETA WANTE	D.

92 UR	ANIUM 235		NEU	TRON		NEUT	RONS EM	ITTED PER NEU	UTRON ABSORPTION	(ETA) (CONTINUED)
STATU	s									STATUS
	THERMAL	VALUE	UNDER CO	NTINUOU	S REVIEW	BY IN	DC. SEE	APPENDIX A.		
===== 92 UR	ANIUM 235		======= NEU	====== TRON		NEUT	RONS EM	ITTED PER FIS	SION (NU BAR)	
86358										
121	6 25.3	MV	3.00	MEV	1.0%	1	USA	C.E.TILL P.GREEBLER P.B.HEMMIG	ANL GEB DOE	691253R
							A: D: M:	ACCURACY OF BETTER THAN NEEDED AS A SUBSTANTIAL	2 PERCENT USEFUL 0.5 PERCENT REQU CROSS CHECK WITH MODIFICATIONS.	IRED AT THERMAL. OTHER ISOTOPES.
121	7 25.3	ΜV	2.50	MEV	0.5%	2	CCP	M.N.NIKOLAE	V FEI	714009R
							Q: A:	RATIO TO CF- ABSOLUTE MEA NEUTRONS V CENT AS WE FOR LOWERS STANDARD. ENERGY DEPEN	-252 NU REQUIRED. ASUREMENTS OF U-2: AITH ACCURACY NOT ELL AS ETA MEASURI ING THE DEPENDENCI	35 NU-BAR FOR THERMAL WORSE THAN 0.5 PER- Ements Would Be Useful On The CF-252 ANTED WITH 0.7
							0:	LETHARGY I	RESOLUTION IN THE COMMENTS IN THE	REGION BELOW 2.5 MEV. INTRODUCTION.
121	8 1	ир то	15.0	MEV		,	FR		BRC	7420758
			1010			•	A: C:	ACCURACY 2 F FOR CRITICAL	PERCENT TO 1 KEV, ASSEMBLIES.	1 PERCENT ABOVE.
121	9 5.00	KEV	10.0	MEV		2	CCP	L.N.USACHEV	FEI	754010R
							A: 0:	FROM 5.0 + 1 FROM 0.1 - 0 FROM 0.8 - 4 ABOVE 4.5 ME NEED FOR FAS FOR MORE DET	100 KEV ACCURACY 0.8 MEV ACCURACY 4.5 MEV ACCURACY EV REQUIREMENTS 2 ST REACTOR CALCUL TAIL SEE INTRODUC	0.5 PERCENT. 0.5 PERCENT. 1.2 PERCENT. TIMES WEAKER. ATIONS. IONS.
							. <b>M</b> :	SUBSTANTIAL	MODIFICATIONS.	
122	0 1.00	MV	1.00	EV	0.2%	1	USA Q: M:	N.STEEN MEASUREMENTS	BET S RELATIVE TO U-2:	781189R 33 AND PU-2 <b>3</b> 9 WANTED.
STATU	s									STATUS
	UNDER C	ONTINU	OUS REVIE	W BY IN	DC. SEE	APPEND	IX A.			
92 UR 92 ER	ANIUM 235	-======	======== NEU ========	====== TRON =======	=======================================	DELA	YED NEU	TRONS EMITTE	PER FISSION	
122	1 25.3	MV	5.00	MEV	5.0%	2	USA	P.B.HEMMIG	DOE	691260R
							o: 0:	DELAYED NEUT YIELD,HALF-L NEEDED FOR / EXISTING (	TRON ENERGY SPECT IFE, AND ENERGY ( ANALYSIS OF FAST ( DATA.	RUM WANTED. Needed. Criticals and to check
122	2				3.0%	1	USA	N.STEEN	BET	741120R
							0: 0:	FOR THE ENTI TO RESOLVE U	IRE ENERGY RANGE. UNCERTAINTIES IN A	AVAILABLE DATA.
122	3 25.3	MV	10.0	MEV	5. X	2	JAP	T. MURATA	NIG	762046N
			. •				- Q:	THE REQUESTE AND GROUP YI CAN BE USED NEUTRONS FOR	ED QUANTITIES ARE IELDS (NORMALIZED TO FIT THE DECAY R THE TIME RANGE 5 DED CENT	THE GROUP HALF LIVES TO 1 FISSION) WHICH CURVE OF DELAYED 0.1-300 SEC WITHIN AN
							0:	INCIDENT ENI	ERGY STEP LESS TH	AN 2 MEV. And Irradiated fuel
STATU	s									ST ATUS
	UNDER C	DNTINU	OUS REVIE	W BY IN	DC. SEE	APPEND	IX A.			
92 UR	ANIUM 235		NEU	TRON		ENER	GY SPEC	TRUM OF FISS	ION NEUTRONS	
D-222										
122	4 25.3	MV	3.00	MËV	5.0%	2	USA D:	C.E.TILL P.B.HEMMIG VERIFICATION	ANL DOE N OF FISSION SPEC	691256F
122	5 100.	KEV			2.04	•	116		w T M	6037760
122	5 100.	KE ¥			2.04	٤	UK	A. WHITTAKER S.B. WR IGHT		
							0:	ACCURACY FOR ACCURACY 10 ABOVE 5 ME LOW RESOLUT FOR FAST REA	R AVERAGE E'. Percent on Number EV And Below .25 ( Ion Adequate for Actors.	EV. R OF NEUTRONS Mev. Incident Energy.
122	6 25-3	MV			1.0*	1	USA	FOR REACTION	N RATE ANALYSIS.	7010808
						-	Q: A: D: M:	NEED SHAPE ( DISTRIBUT RELATIVE PE NEEDED FOR SUBSTANTIAL	OF SECONDARY NEUT ION FROM 100 KEV AK TO 1 PERCENT. CRITICALITY CALCU MODIFICATIONS.	RON ENERGY TO 15 MEV. LATIONS.
100	7		16-0	MEV	5.0*	,	FC	A-MICHAUDON	PPC	7400770
•	•	Jr 10	13.0	me v	3.00%		 G:	FOR CRITICAL	L ASSEMBLIES.	(42U/7H

	UM 235		NEU ======	TRON		ENER	GY SPEC	TRUM OF FISSION	NEUTRONS	(CONT INUED)
STATUS										STATUS
	INDER CU		REVIE	.W 87.1	INDC. SEE	APPEND.				
92 URAN	UM 235		NEU	TRON		SPEC	FRUM CF	PROMPT GAMMA RA	YS EMITTED IN FISSION	
1228	25.3	MV	14.0	MEV	2.0 X	з	ССР	S.S.KOVALENKO	RI	734001N
						,	0: A: D:	YIELD AND SPECT 10.0 KEV GAMMA ( FOR ASSAY OF U Gammas.	RA WANTED FOR 5 TO 15 M Resolution Wanted. In fuel elements from M	MEV GAMMAS. FROMPT
92 UF.AN	UM 235		NEU	TRON		DELAY	YED GAM	MA SPECTRUM FROM	FISSION PRODUCTS	
1229	25.3	MV			15.0X	3	USA	R.B.WALTON	LAS	701029N
							۵:	FISSION PRODUCT	GAMMA RAY ENERGIES FRO	DM 0.25 TO
						÷	A: C: M:	DELAY TIME FROM ASSOCIATE GAMMA POSSIELE. GE(LI) RESOLUTION-DESTRUCTIVE SUBSTANTIAL MOD	1 MILLISECOND TO 12 HC RAYS WITH FISSION PROD DN AT 1.2 MEV SHOULD BE ASSAY OF U-235. IFICATIONS.	DURS. DUCTS IF E 2.5 KEV.
	*******					======				
92 URAN	UM 235		NEU	TRON		FISS	ION PRO	DUCT MASS YIELD	SPECTRUM ====================================	
1230	25.3	MV			1.0%	2	CC₽	S.A.SKVCRTSOV O.A.WILLER	KUR Kuf	704022N
					,		0: 0:	YIELDS OF ZR-95 For Assay of U The Fission P	AND RU-106 ARE REQUIRE IN SPENT FUEL ELEMENTS RODUCT GAMMA RAYS.	BY
1231	25.3	MV			1.0%	2	CAN	W.H.WALKER	CRC	711802R
		•				-	Q:	YIELD OF XE-135	WANTED.	
							0:	CALCULATION OF	FISSION PRODUCT POISONS	5 •
1232	25.3	MV			1.0%	1	USA	N.STEEN F.FEINER	BET Kap	781192R
							Q: []: M:	NUCLIDES OF INT CS-137, ND-14 DATA NEEDED TO FISSION PRODUC NEW FEQUEST,	EREST ARE RH-105, XE-13 7, SM-149 AND EU-153. Improve accuracy of pre CT poisoning.	35, CS-135, Edicted
STATUS									**	STATUS
ι	INDER CO	NTINUOUS	REVIE	W BY I	NDC. SEE	APPEND	IX A.			
92 URAN	UM 235		NEU	TRON		RESON	NANCE P	ARAMETERS		
								=========================		
1233	25.3	MV	200.	EV						
			200.		10.0%	1	USA	C.E.TILL P.GREEBLER P.B.HEMMIG	ANL GEB DDE	691262R
				_	10.0%	1	USA Q: 0: M:	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR REGION. SUBSTANTIAL MOD	ANL GEB DDE WANTED WHERE FEASIBLE. Apolation to Unresolved Ifications.	691262R ) RESONANCE
1234	25.3	MV	200.	EV	10.0x	1 2	USA Q: D: M: USA	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET	691262R D RESONANCE 691263R
1234	25.3	MV	200.	EV	10.0x	1 2	USA Q: D: M: USA Q: M:	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST.	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL.	691262R ) RESONANCE 691263R
1234 1235	25.3	MV	200.	EV	10.0x 10.0x 3.0x	2	USA Q: O: M: USA Q: M: FR	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR. REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC	691262R 0 RESONANCE 691263R 702025R
1234 1235	25.3 1.00	MV	200.	EV	10.0x 10.0x 3.0x	1 2	USA Q: O: M: USA Q: O: FR O:	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SU	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING.	691262R D RESONANCE 691263R 702025R
1234 1235 Status	25.3 1.00	MV EV	200.	EV EV	10.0x 10.0x 3.0x	1 2 2	USA G: O: USA G: M: FR O:	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING.	691262R RESONANCE 691263R 702025R STATUS
1234 1235 STATUS	25.3 1.00 JNDER CO	MV EV NTINUOUS	200. 200. REVIE	EV Ev	10.0X 10.0X 3.0X	1 2 2 APPEND1	USA Q: O: M: USA Q: O: M: FR O: CX A.	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT M REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING.	691262R 0 RESONANCE 691263R 702025R
1234 1235 STATUS	25.3 1.00 UNDER CO	MV EV NT I NUOUS	200. 200.	EV EV W BY I	10.0% 10.0% 3.0%	1 2 2 APPEND1 ========	USA Q: O: USA Q: O: M: C: M: C: C: C: C: C: C: C: C: C: C: C: C: C:	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING.	691262R RESONANCE 691263R 702025R STATUS
1234 1235 ST ATUS	25.3 1.00 UNDER CO		200. 200. REVIE	EV EV W BY I	10.0X 10.0X 3.0X	1 2 2 APPEND1 ======	USA G: O: USA G: M: FR O: C: X A.	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT I NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT I VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING.	691262R 0 RESONANCE 691263R 702025R STATUS
1234 1235 ST ATUS	25.3 1.00 UNDER CO		200. 200. REVIE	EV EV W BY I	10.0x 10.0x 3.0x INDC. SEE	1 2 APPEND 1 ENERC =======	USA Q: O: USA Q: C: M: D: M: CCP Q: CCP	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST M.N.NIKOLAEV (ROSS SECTION EN	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING. TC CROSS SECTION	691262R 0 RESONANCE 691263R 702025R STATUS STATUS 
1234 1235 ST ATUS	25.3 1.00 UNDER CO UM 236	MV EV NTINUOUS	200. 200. REVIE	EV EV W BY I TRON MEV	10.0X 10.0X 3.0X INDC. SEE	1 2 2 APPEND1 ====== 2	USA G: O: USA G: O: FR O: CCP G:	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT M REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST ERENTIAL INELAST M.N.NIKOLAEV CROSS SECTION FO THRESHOLDS OF THIN SPHERE TRAM SUBCE AND FIS USEFUL.	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING. FEI DR INELASTIC REMOVAL BE U-236 AND U-238 WANTED NSMISSION MEASUREMENTS SSION THRESHOLD DETECTO	691262R 0 RESONANCE 691263R 702025R 702025R 702025R 714012R 714012R 0 FISSION WITH CF-252 0 RS WOULD BE
1234 1235 ST ATUS	25.3 1.00 UNDER CO		200. 200. REVIE	EV EV W BY I	10.0x 10.0x 3.0x INDC. SEE	1 2 2 APPEND1 ====================================	USA Q: O: USA Q: O: M: CCP Q: Q: Q: Q: O: O: O: O: O: O: O: O: O: O	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT M REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST CROSS SECTION FO THRESHOLDS OF THRESHOLDS OF THIN SPHERE TRAI SOURCE AND FIS USEFUL. SEE GENERAL COM	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING. IC CROSS SECTION FEI DR INELASTIC REMOVAL BE U-236 AND U-238 WANTED SSION THRESHOLD DETECTO MENTS IN THE INTPODUCT 1	691262R 0 RESONANCE 691263R 702025R STATUS STATUS STATUS STATUS 
1234 1235 ST ATUS	25.3 1.00 UNDER CO UM 236	MV EV NTINUOUS	200. 200. REVIE	EV EV W BY I TRON MEV	10.0x 10.0x 3.0x NDC. SEE 10.0x	1 2 2 APPEND ====== 2 2 CAPT(	USA G: O: USA G: M: FR O: TX A. SY DIFF CCP G: O: URE CRO	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST M.N.NIKOLAEV CROSS SECTION FI USEFUL. SEE GENERAL COM	ANL GEB DDE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING. IC CROSS SECTION FEI DR INELASTIC REMOVAL BE U-236 AND U-238 WANTED SSION THRESHOLD DETECTO MENTS IN THE INTPODUCT I	691262R 0 RESONANCE 691263R 702025R 702025R 702025R 714012R CLOW FISSION WITH CF-252 PRS WOULD BE 10N.
1234 1235 ST ATUS	25.3 1.00 UNDER CO UM 236	MV EV NTINUOUS P TO	200. 200. REVIE	EV EV W BY I TRON MEV	10.0x 10.0x 3.0x INDC. SEE 10.0x	1 2 APPEND1 ENERC ENERC 2 2	USA Q: D: M: USA Q: M: CCP Q: Q: Q: Q: CCP Q: Q: Q: Q: Q: Q: Q: Q: Q: Q:	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT M REGION. SUBSTANTIAL MODI N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST M.N.NIKOLAEV CROSS SECTION FIT THRESHOLDS OF THIN SPHERE TRAM SOURCE AND FIS USEFUL. SEE GENERAL COMP	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING. FEI DR INELASTIC REMOVAL BE U-236 AND U-238 WANTED NSMISSION MEASUREMENTS SSION THRESHOLD DETECTO MENTS IN THE INTPODUCT I	691262R 0 RESONANCE 691263R 702025R 702025R 714012R 14012R 14012R 14012R 14012R 14012R 14012R 14012R 14012R 14012R 14012R 14012R 14012R 14012R 14012R
1234 1235 ST ATUS	25.3 1.00 JNDER CO UM 236 UM 236 UM 236	MV EV NTINUOUS P TO	200. 200. REVIE	EV EV W BY I TRON MEV	10.0x 10.0x 3.0x INDC. SEE 10.0x	1 2 2 APPEND1 ENERC 2 2 2	USA G: O: USA G: O: M: FR O: CCP G: G: JRE_CRO USA	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST ERENTIAL INELAST M.N.NIKOLAEV CROSS SECTION FI SEE GENERAL COM SEE GENERAL COM P.GREEBLER P.GREEBLER	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING. IC CROSS SECTION FEI DR INELASTIC REMOVAL BE U-236 AND U-238 WANTED SSION THRESHOLD DETECTO MENTS IN THE INTPODUCT I GEB	691262R 0 RESONANCE 691263R 702025R 702025R 702025R 714012R CLOW FISSION WITH CF-252 0RS WOULD BE 10N. 671109R
1234 1235 ST ATUS	25.3 1.00 UNDER CO UM 236 UM 236 UM 236	MV EV NTINUOUS P TO	200. 200. REVIE	EV EV W BY I TRON MEV	10.0x 10.0x 3.0x INDC. SEE 10.0x	1 2 2 APPEND ====== 2 2 CAPT( ======= 1	USA G: O: USA G: M: FR O: TX A. G: G: G: USA G: USA CCP G: G: G: G: G: G: G: G: G: G: G: G: G:	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT M NEEDED FOR EXTR REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT M VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST ERENTIAL INELAST M.N.NIKOLAEV CROSS SECTION FI USEFUL. SEE GENERAL COMM SS SECTION P.GREEBLER REQUIRED 10 PERG ABOVE 1 KEV PRIC NEDED FOR CONT	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING. IC CROSS SECTION FEI DR INELASTIC REMOVAL BE U-236 AND U-238 WANTED SSION THRESHOLD DETECTO MENTS IN THE INTPODUCT I SSION THRESHOLD DETECTO MENTS IN THE INTPODUCT I GEB CENT ACCURACY IN CAPTUR RDL OF U-232 PRODUCTION	691262R 0 RESONANCE 691263R 702025R 702025R 702025R 714012R CLOW FISSION WITH CF-252 NS WOULD BE ION. 671109R RE WIDTHS.
1234 1235 ST ATUS	25.3 1.00 UNDER CO UM 236 UM 236 25.3	MV EV NTINUOUS P TO MV EV	200. 200. REVIE 5.00	EV EV W BY I TRON MEV	10.0x 10.0x 3.0x INDC. SEE 10.0x 10.0x 5.0x	1 2 2 APPEND1 ENERC ENERC 2 2 1	USA G: O: USA FR O: CCP G: VSA A: O: CAN	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT MEDED FOR EXTR REGION. SUBSTANTIAL MODI N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST ERENTIAL INELAST M.N.NIKOLAEV CROSS SECTION FO THIN SPHERE TRAM SOURCE AND FIS USEFUL. SEE GENERAL COMM SS SECTION P.GREEBLER REQUIRED 10 PERG ABOVE 1 KEV PRI NEEDED FOR CONTF W.H.WALKER	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING. FEI DR INELASTIC REMOVAL BE U-236 AND U-238 WANTED SSION THRESHOLD DETECTO MENTS IN THE INTPODUCTION GEB CENT ACCURACY IN CAPTUR ROL OF U-232 PRODUCTION CRC	691262R 0 RESONANCE 691263R 702025R 702025R 702025R 714012R 714012R COW FISSION WITH CF-252 ORS WOULD BE ION. 671109R RE WIDTHS. 681801R
1234 1235 ST ATUS	25.3 1.00 UNDER CO UM 236 UM 236 25.3 1.00	MV EV NTINUOUS P TO MV EV	200. 200. REVIE	EV EV W BY I TRON MEV	10.0x 10.0x 3.0x INDC. SEE 10.0x 10.0x 5.0x	1 2 APPEND1 ENERC 2 2 1	USA Q: D: M: USA C: CCP Q: VIE CRO USA A: CAN Q: Q: Q: Q: Q: Q: Q: Q: Q: Q: Q: Q: Q:	C.E.TILL P.GREEBLER P.B.HEMMIG MULTILEVEL FIT M REGION. SUBSTANTIAL MOD N.STEEN MULTILEVEL FIT VERIFICATION OF NEW REQUEST. H.TELLIER FOR RESONANCE SI ERENTIAL INELAST ERENTIAL INELAST CROSS SECTION FIT M.N.NIKOLAEV CROSS SECTION FIT SUBJECT AND FIT USEFUL. SEE GENERAL COMM SOURCE AND FIT USEFUL. SEE GENERAL COMM SS SECTION P.GREEBLER REQUIRED 10 PERG ABOVE 1 KEV PRIC NEEDED FOR CONTF W.H.WALKER DISAGREEMENT BET MEASUREMENTS.	ANL GEB DOE WANTED WHERE FEASIBLE. APOLATION TO UNRESOLVED IFICATIONS. BET WHERE FEASABLE. EXISTING DATA USEFUL. SAC ELF SHIELDING. IC CROSS SECTION FEI DR INELASTIC REMOVAL BE U-236 AND U-238 WANTED SSION THRESHOLD DETECTO MENTS IN THE INTPODUCT I SSION THRESHOLD DETECTO MENTS IN THE INTPODUCT I GEB CENT ACCURACY IN CAPTUR ROL OF U-232 PRODUCTION CRC IWEEN INTEGRAL AND DIFF	691262R 0 RESONANCE 691263R 702025R 702025R 702025R 714012R CON FISSION WITH CF-252 RS WOULD BE 10N. 671109R RE WIDTHS. 681801R FERENTIAL

	UN 076			7000		C			×		
92 UKANI 22222222	CM 236 SSSSSS	=====	NEU	=====		====		55 SECTION			JNTINUED)
1240	1.00	Ē٧	10.0	MEV	20.0%	2	GER	.H.GERWIN	JUL ·		692381R
1241	1.00	ĸev	3.00	MEV	50.0%	з	FR	P.HAMMER	CAD		712064R
							Q: D: M:	RATIO TO U-235 F For Fast Reactor Substantial Modi	FISSION OR U- R CALCULATION FICATIONS.	238 CAPTURE NI IS•	EEDED.
1242	500.	EV	1.40	MEV	7.0%	2	ССР	M.N.NIKOLAEV	FEI		714015R
					•		Q: 0:	RATIC WANTED REL See general comm	ATIVE TO U-2 Ments in the	35 FISSION. INTRODUCTION.	
1243	25.3	MV	14.0	MEV		2	JAP	Y.NAITO	JAE		722040N
							A: 0:	ACCURACY REQUIRE PERCENT ABOVE FOR BURN UP CALC REACTOR.	ED AT THERMAL	IS 3 PERCENT	. 10 ERMAL
92 URANI	UM 236		======= NEU	TRON		FISS	ION CRO	SS SECTION	***********		
					530=0052229	====					
1244	U	р то	15.0	MEV	10.0%	1	FR	J.SALVY	BRC		682058R
							0:	EVALUATION MAY E	BE SUPPICIEN:	• • •	
1245	4.00	MEV	10.0	MEV	5.0%	2	GER	H.GERWIN	JUL		692380P
1246	1.00	KEV	3.00	MEV	50.0%	3	FR	P.HAMMER	CAD		712062R
							0: D: M:	WANTED RELATIVE FOR FAST REACTOR SUBSTANTIAL MODI	TO U-235 FIS R CALCULATION IFICATIONS.	ISION CROSS SEG	CTION.
1247	100.	KEV	5.00	MEV	5.0%	2	CCP	N.N.NIKOLAEV	FEI		714013R
				•.	·		o:	RATIO WANTED REL AVERAGE CS IN FJ TIMES NU-BAR ( (REQUIRED ACCU SEE GENERAL COM	LATIVE TO U-2 ISSION NEUTRO DF CF-252 WOU JRAGY 1 PERCE MENTS IN THE	35. N SPECTRUM OF LD BE VERY US NT). INTRODUCTION.	CF-252 EFUL
92 URANI	UM 236	*****	NEU	TRON		NEU1	RONS EM	ITTED PER FISSION	N (NU BAR)		*********
1248	500.	EV	15.0	MEV	3.0%	З.	FR	P. HAMMER	CAD	952.	712063P
							. 0:	FOR FAST REACTOR	CALCULATION	15.	
1249	U	р то	5.00	MEV	1.0%	2	CCP	M.N.NIKOLAEV	FEI		714014R
							: 	SEE GENERAL COM	MENTS IN THE	INTRODUCTION.	
92 URANI	UM 236	= = = = = = = =	NEU	TRON		ENER	GY SPEC	TRUM CF DELAYED	FISSION NEUTR	ONS	
1250					5.0*	1	USA	N. STEEN	AFT		7811888
1200					5104	•	Q:	NEED FAST GROUP	YIELDS AND S	PECTRA.	,011001
						•	. D: M:	NO MEASUREMENTS FOR NON-DESTRUCT NEW REQUEST.	AVAILABLE. TIVE ASSAY OF	- U-233 TH-232	FUEL.
92 URANI	UM 236	== <b>=</b> ==	NEU	TRON	*****	RESC	NANCE P	ARAMETERS			
*******						====					
1251	10.0	Eν	5.00	KEV		2	CCP 0:	M.N.NIKOLAEV	FEI TURE WIDTHS N	ANTED FOR EVA	714011R
							A:	OF SELFSHIELD OBSERVATION OF	ING IN RESOLV	ED RESONANCE	REGION.
					X		o:	DESIRED. SEE GENERAL COM	MENTS IN THE	INTERVAL TO I	KEV IS
								STATISTICAL ANAL RESONANCE PAR AVERAGE S AND P	LYSIS OF MEAS Ameters Wante Wave Resonat	SURED ED. NCE PARAMETERS	SHOULD
		s = = = = =				=====					
92 URANI	UM 237		*******			GAM! ====:	4A RAY Y =======	IELD			
1252					5.0%	2	JAP	Y.NODA H.OKABAYASHI	NIS NIS		792090R
							0:	YIELD PER DISIN GAMMA RAYS.	TEGRATION OF	59.5 AND 208	KEV
				·			0:	STATUS	EETS, 23 71 (	-UR PU-241 DAU (1978): Evalua	TION 10%.
			`				M: 	NEW REQUEST.			
92 URANI	UM 237	= <b>=</b>	 NEL	TRON		CAP	TURE CRO	SS SECTION			
1253	1-00	KFV	3,00	MEV	50.0*	з	FR		CAD		7920340
	100	· · · · · · ·	0.00			5	 0:	EVALUATION SUFF	ICIENT	· ,	. 220346
		\$====				====	M: =======	NEW REQUEST.			

92 · URA	NIUM 23	===: 7 ===:	******	NEU	===== TRON ======		===== FISS1	0N CR	ROS	S SECTION		********
							_					
1254	1.0	<b>5</b> +	EV	3.00	MEV	50.0%	3	FR	0:	P.HAMMER Evaluation_Suffi	CIENT	792035 <u>R</u>
								M 	M: 1	NEW REQUEST.		
92 URA	NIUM 23	8 8 8 8 8 8 8 8 8			 ====		HALF	 LIFE =====	===			********
1255	5					0.3%	1	USA	• •	J. GRUNDL	NBS	761122R
									0: M:	FOR MASS DETERMIN New Request.	NATION OF FISSIONABLE DEPO	SITS.
92 URA		===: 9	.=====	 GAM	====== MA		EISSI		=== 800	UCT MASS VIELD S	======================================	*******
22222				=====				=====	===			*******
1258	5 4.0	0 1	ME V	14.0	MEV	10. X	. 3	JAP		R.MIKI	ĸĸų	762035N
								G	<b>a</b> :	TOTAL FISSION YI	ELD PRODUCED BY BREMSSTRAH	
	•								Ì	RDENTGEN*NUCLEUS PHOTOACTIVATION	OR RELATIVE TO OTHER YIELDS.	
								C	0:	BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE	ONVERTER (PREFERABLY TA) NESS TO STOP ELECTRONS. Assay of U	
1257	7 4.0	0 1	1E V	14.0	MEV	5. X	3	JAP		R.MIKI	ĸĸIJ	762043N
								G	a: (	CUMULATIVE VIELD	S OF HIGH FISSION YIELD IS Assay of Nuclear Materials	OTOPES.
RE 5223	********		******				==2==				***************************************	======
92 URA	NIUM 23	9 == = = =		NEU	TRON ======		ELAST		ROS:	S SECTION		=======
1256		<b>.</b> .	(EV	15.0	MEN	E 0¥	2	<b>6</b> 0				7420810
1230				13.0	MEV	5.0*	2	<u>с</u> с	o:	FOR CRITICAL ASS	EMBLIES.	742001K
R=====						===========	=====		====	*************		=======
92 URA =====	NIUM 23	9 ===:		NEU	TRON ======		DIFFE	RENTI =====		ELASTIC CROSS S	ECTION	
1250	1.0	<b>.</b> .		10.0	MEN			115 4		C. E. T.I.I	4 NI	6014070
1253	× 1.0		~~ •	10.0				USA	1	P.GREEBLER P.B.HEMMIG	GEB DDE	0914078
								A	A:	ACCUFACY 10 PERC S PERCENT FROM 3 10 PERCENT FROM 3 FACTORS OF 2 LOW SHORT TERM.	ENT FROM 1 TO 300 KEV. 00 KEV TO 2 MEV. 2 TO 10 MEV. ER ACCURACY WOULD BE USEFU	LON
1260	1.0	۱	(FV	15.0	MEV	5.0*	2	FR			BPC	7420820
							-	c	0: 1	FOR CRITICAL ASS	EMBLIES.	
822222		===:		=====			=====		===			*******
92 URA 222333	ESSESS	===:		NEU 222222	======		INELA	=====	===			
1261	L	UP	те	15.0	MEV	5.0%	1	FR			CAD	692387R
								G	a:	ALTERNATE QUANTI	TY - NONELASTIC CROSS SECT	ION.
								C N	0: I M: I	FOR FAST REACTOR SUBSTANTIAL MODIA	CALCULATIONS. Fications.	
1262	2 1.2		łEV	2.00	MEV	10.0%	2	GER	I	F.WELLER	KFK	692393R
								G	a: (	LEVEL EXCITATION 148 KEV LEVELS	CROSS SECTIONS FOR THE 45 WANTED.	AND
1263	3	UP	то	15.0	MEV	5.0%	2	FR		C.PHILIS	BRC	742083R
								c	<b>c:</b> 1	FOR CRITICAL ASS	EMBLIES.	
1264	100		(EV	10.0	MEV		2	ССР		L.N.USACHEV	FEI	754021R
							-	A	A: 1	FROM 0.1 - 0.8 M	EV ACCURACY 3.4 PERCENT.	
								C · M	о: м:	FROM 0.8 - 1.4 M FROM 1.4 - 2.5 M FROM 2.5 - 5.0 M FROM 5.0 - 6.5 M FROM 6.5 - 10 M NEED FOR FAST R6 FOR MORE DETAIL SUBSTANTIAL MODII	EV ACCURACY 2.7 PERCENT. EV ACCURACY 3.0 PERCENT. EV ACCURACY 10 PERCENT. EV ACCURACY 7.0 PERCENT. EV ACCURACY 10 PERCENT. ACTOR CALCULATION. SEE INTRODUCTION. FICATIONS.	
STATUS	\$											STATUS
	UNDER	CON.	TINUOUS	REVIE	W 8Y N	EANDC. SEE	APPEN	DIX A	A .			
92 URA	NIUM 23	-==: 9 ==::		NEU	TRON		ANGUL	AR DI	IFF	ERENTIAL INELAST	IC CROSS SECTION	*********
1265	5	qu	то	2.00	MEV	10.0%	_2	GER		B.GOEL	KFK	692390R

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92 URANI	======= UM 238 =======	====== ========	NEU	===== TRON =====		ENER	GY DIFF	ERENTIAL INELASTI	C CROSS SECTION	
1266	50.0	KEV	10.0	MEV	5.0%	1	USA	C.E.TILL P.GREEELER P.B.HEMMIG R.A.DONCALS	ANL GEB DOE WEW	6912705
							0: A:	EMISSION INSTEAD BE USEFUL. ACCURACY OF 20 F ENERGY RESOLUTION	OF INELASTIC AN ERCENT WOULD BE N 5 PERCENT.	ND N,2N MIGHT USEFUL.
1267	U	P TC	15.0	MEV	5.0%	1	FR	P. HAMMER	CAD	692391R
					·		Q: A: D: M:	SEPARATION OF LE ACCURACY ON NUCL FOR FAST REACTOR SUBSTANTIAL MODI	VELS UP TO 2 MEY EAP TEMPERATURE Calculations, Fications,	/ REQUIRED. Above 2 Mev.
1268	7.00	MEV	14.0	MEV	5.0%	2	GER	B.GOEL	KFK	692394R
1269	50.0	KE V	15.0	MEV		1	CCÞ 0: ▲:	M.N.NIKOLAEV DECISION ABOUT T 1.0 TO 2.5 MEV TEMPERATURE FOR HIGHER ENERGIE SPECTRA AND CROS SCATTERING PRO MEV REGION AS UTIONS. CROSS_SECTION FO	FEI DTAL INELASTIC ( WANTED. INELASTIC NEUTRO S. S. S. S. S. S. S. S. S. S. S. S. S.	714018R ROSS SECTION AT DNS WANTED AT THE RECTIONELASTIC RESTIGATED IN THE RECHANISM CONTRIB- DVAL BELOW FISSION
							0:	CROSS SECTION FO THRESHOLD OF P PERCENT. EXCITATION CS FO MEV SHOULD BE NEUTRCN SPECTRA ACCURACY AT 2. SEE GENERAL COMM PRECISICN MEASUR PARAMETERS IN WITH CF-252 NE FISSION THRESH NEUTRCN SPECTR	238 WANTED ID J R INELASTIC REMU U-240 OR NP-237 R FIRST LEVEL AG MEASURED WITH 5 TO 2E MEASURED V 515 MEV. ENTS IN THE INTF EMENTS OF MENTIC SHELL TRANSMISSJ OUTRON SOURCE ANN OLD DETECTORS AS OMETER SEEMS VEF	VAL BELOW FISSION WANTED TO 3 - 5 BOVE THRESHOLD TO 2 PERCENT ACCURACY. VITH 5 PERCENT RODUCTION. RODUCTION. RODUCTION. CON EXPERIMENTS 0 U-238 AND NP-237 5 WELL AS BY Y USEFUL.
1270	45.0	KEV	3.00	MEV	5.0%	1	USA	P.GREEBLER	GEB	761084R
							D: M:	FOR FAST REACTOR NEW REQUEST.	CALCULATIONS.	
U 92 URANI 	NOER CO	NTINU( ====== =============================	DUS REVIE	W BY	NEANDC. SEE	APPE ==== ENEF ====	UK	C.G.CAMPBELL	ELASTIC CROSS SE	692392R
						-	c:	FOR FAST REACTOR	5.	7400040
1272	500.	KEV	5.00	MEV	5.0%	2	GER	H.KUESTERS	KFK	792219R
							M:	NEW REQUEST.		
92 URANI	UM 238		NEU	TRON	**************	NON-	ELASTIC	CROSS SECTION		***************************************
1274	10.0	KEV	15.0	MEV		2	C CP A: 0:	M.N.NIKOLAEV DIRECT MEASUREME DESIRABLE WITH For Evaluation o Section for fa	FEI NTS BY SHELL TR 3-5 PERCENT ACC F INELASTIC SCA ST REACTORS.	714017R ANSMISSION CURACY. TTERING CROSS
92 URANI	UM 238		======================================	TRON		CAPI	URE CRO	SS SECTION		*****************
1075	E 0.0									6014100
1275	500.	EV	10.0	MEV		1	USA	P.B.HEMMIG	GEB DOE	6914198
							A: 0:	ACCURACY 6 PERCE FROM 1 KEV TO 500 KEV, 10 PE ACCURACY OF 10 P USEFUL. HIGHEST PRIORITY CALCULATIONS.	NT FROM 500 EV 300 KEV, 6 PERCI RCENT FROM 500 I ERCENT FROM 1 KI NEED FOR FAST 1	TO 1 KEV, 4 PERCENT ENT FROM 300 KEV TO KEV TO 10 MEV. EV TO 10 MEV. PEACTOR
1276	10.0	KEV	10.0	MEV		۱	USA	C•E•TILL P•GREEBLER P•B•HEMMIG	ANL GEB DOE	691435R
							0: A:	NEEDED IS RATIO FISSION CROSS DIRECT RATIO NEE MEASUREMENT. ACCURACY 1.5 PER ABOVE. INTERMEDIATE ACC	DF CAPTURE CROS: SECTION OF PU-2: DED TO SUPPLEME CENT BELOW 300 I URACY USEFUL NE	S SECTION U-238 TO 39 OP U-235. NT SEPARATE KEV, 7 PERCENT AR TERM.
1277	5.00	мv	6.00	EV		1	UK A: C:	J.FELL Accuracy require For thermal reac	WIN D .03 BARNS. Tors.	692401F

92 URANI	UM 238		NEU	TRON		CAPTU	JRE CRO	SS SECTION		( CONT INUED )
1278	500.	EV	800.	KEV		1	GER	H.GERWIN	JUL	692403P
							A: 0:	ACCURACY 2 PERCI 3 PERCENT ELSI FAST REACTOR CA	ENT 10 TO 400 KEV; EWHERE: LCULATIONS:	
1279	10.0	KEV	2.00	MEV	3.0%	. 1	UK	C.G.CAMPBELL	WIN	692405R
							A: C:	ACCURACY FOR AVI E AND 2E. MEASUREMENTS RE EVALUATION REQU FOR FAST REACTOR	ERAGE VALUE OF THE ER Qui¤ed 10.0kev TC 80. IRED OVEF WHOLE FANGE RS.	ROR BÉTWEEN Okev
1280	5.00	KEV	1.00	MEV	3.0%	2	SWD	H.HAEGGELOM	AE	692406R
							c:	NEEDED FOR FAST	REACTOR CALCULATIONS	•
1281	500.	E٧	1.40	MEV	3.0%	1	ССР	M.N.NIKOLAEV	FEI	714022P
							A:	RATIO IG U-235 ABSOLUTE MEASUR AND LI-6(N,AL USEFUL, AND A NP-237 FISSID TRANSMISSIDN ME DETECTOR AND CAFTURE GAMMA RANGE 70-2500 UATION OF SEL SPHERICAL TRANS MENTS SEEM TO FOR DETERMINI CROSS-SECTION BETWEEN 1 AND 1 SELFSHIELDING AL, CONSULTA WITH 2 PERCEN LETHARGY INTE TEMPERATURE DIF MUST BE KNOWN SEE GENERAL COM FIRST PRIORITY INTERFRET THE FACTORS FROM	FISSION CS IS WAN'ED. EMENTS OF RATIOS TO B PHA) CROSS SECTIONS W T HIGHER ENERGIES THE N CS. ASUREMENTS WITH FLAT- BY THE SELF-INDICATIO -RAY DETECTOR IN THE DEGFEES K ARE DESIRE F-SHIELDING AND DOPPL MISSION TIME-OF-FLIGH BE A USEFUL INDEPEND NG THE RELIABILITY OF DATA. 00 KEV INFORMATION ON FACTORS (SEE BOOK BY, NTS BUREAU, NEW YORK, T ACCURACY AND AVERAG PVALS DESIRED. WITH 7 PERCENT ACCUR WENTS IN THE INTFODUC DECAUSE IT IS DIFFICU DOPPLER-EFFECT AND S MACROSCOPIC DATA ONLY	-10(N.ALPHA) OULD ALSO BE RATIO TO THE RESPONSE N METHOD WITH TEMPERATURE D FOR EVAL- ER EFFECTS. T MEASURE- ENT METHOD CAPTURE PESONANCE ABAGYAN ET 1964) ED OVER 0.2 DING FACTORS ACY. TION. LT TC ELF-SHIELDING
1282	1.00	EV	20.0	KE V	5.0%	1	USA	N.STEEN	8ET	741123R
							Q: 0: M:	NEED PARAMETERS THICK SAMPLE TR MEASUREMENTS A TO RESOLVE DISC DIFFERENTIAL SHIELDING EXI SUBSTANTIAL MOD	FOP LOWEST RESONANCE ANSMISSION AND SELF-I DESIRABLE. Fepancies Among integ experiments when stro STS. Ifications.	S. NDICATION RAL AND NG SELF-
1283	1.00	KEV	3.00	MEV	5.0%	1	FR C:	C.PHILIS For critical as	BRC Semelies.	742087R
1284	5.00	KEV	10.0	MEV		2	CCP	L.N.USACHEV	FEI	754005R
							A: 0: M:	FRCM 5.0 - 100 FROM 0.1 - 0.8 FROM 0.8 - 4.5 ABOVE 4.5 MEV R NEED FOR FAST R FOF MORE DETAIL SUBSTANTIAL MOD	KEV ACCUPACY 2.1 PERC MEV ACCUPACY 2.7 PERC MEV ACCUPACY 9.3 PERC EQUIREMENTS 2 TIMES W EACTOR CALCULATIONS. SEE INTRODUCTION. IFICATIONS.	ENT• ENT• ENT• EAKER•
1285	100.	MV	6.00	EV	0.5%	1.	USA	B.R.LEONARD	BNW	761085R
							0: M:	FOR THERMAL CRD New Request.	SS SECTION EVALUATION	•
1286	10.0	MV	1.00	EV	2.0%	2	FR	H.TELLIER	SAC	792036R
							о: м:	TO CHECK CAREFU IS 1/V DEPENDEN NEW REQUEST.	LLY IF THE CAPTURE CR T OR NOT	OSS SECTION
1287	10.0	KEV	80.0	KEV	3.0%	2	GER	H.KUESTERS	KFK	792220R
CTATUS							M:	NEW REQUEST.		
U 4 03-4	UNDER CO		US REVIE	W BY 1	NDC AND N	EANDC.	SEE AP	PENDIX A.		514105
92 URANI	UM 238		NEU	TRON		TOTAL	L PHOTO	N PRODUCTION CRO	SS SECTION	
1288	25.0	MV	5.00	MEV	20.0%	3	UK	C.G.CAMPBELL	WIN	712066P
							Q: A: 0:	GAMMA SPECTRUM LOW RESCLUTION PHOTON SPECTR EVALUATION REQU	WANTED. Adequate for incident UM. Ifement.	ENERGY AND
	******					======		FUR STUDT UP AC	TTATION AND MEAT REL	LAGE IN CURE.
92 URAN	UM 238		NEU	TRON		ENER(	GY-ANGL ======	E DIFF. PHOTON-P	RODUCTION CROSS SECTI	0N ====================================
1289	1.00	MV	15.0	MEV	10.0%	2	USA	P.B.FEMMIG	DOE	721079R
							A: 0:	GAMMA-ENERGY IN FOR SHIELDING A	TERVALS - 500 KEV. ND GAMMA-HEATING CALC	ULATIONS.

92 URANI	UM 238	NEUTRON	N	, 2N		.422222222222222
1290	UP TO	20.0 MEV		2 ССР	M.N.NIKOLAEV FEI	714019R
				Q: A: 0:	SECONDARY ENERGY DISTRIBUTION REQUIP ACCURACY 5 TO 10 PERCENT WANTED. ENERGY SPECTRA OF SECONDARY NEUTRONS WITH 5 PERCENT ACCURACY AND 0.2 RE LETHARGY. FOR FAST REACTORS.	RED. 5 DESIRABLE ESOLUTION IN
					·	
1291	00 10	10.0 MEV	7.0%	1 USA 0:	P.GREEBLER GEB Important to production of U-238.	721078R
1292	UP TO	15.0 MEV	15.0%	2 CCP	I.N.GOLOVIN KUR Possiale use as neutron multiplier.	724063F
1293		15.0 MEV	10.07	1 50		7621040
1270			1000	C: M:	FUEL CYCLE IN-CORE SUBSTANTIAL MODIFICATIONS.	, UL 144K
1294			25.0%	2 ССР	L.N.USACHEV FEI	794007R
				Q: C: M:	AVERAGE CROSS SECTION IN A FAST-REAG REQUESTED. FOR FAST-REACTOR BURN-UP CALCULATION SEE GENERAL COMMENTS. NEW REQUEST.	CTOR SPECTRUM
92 UFANI	UM 238	NEUTRON	N	,3N		
1295	UP TO	15.0 MEV	15.0%	2 ССР	I.N.GOLOVIN KUR	724064F
				0:	POSSIBLE USE AS NEUTRON MULTIPLIER.	
92 URANI	22222222222222 UM 238	NEUTRON	F=====================================	ISSICN CRO	SS SECTION	
					· · · · · · · · · · · · · · · · · · ·	
1296	500. KEV	15.0 MEV		I USA	G.E.HANSEN LAS	671203R
				Q: A: C:	RATIO TO U-235 FISSION WANTED. ACCURACY 5 PERCENT TO 1.3 MEV AND 1 ENERGY RESOLUTION - 3 PERCENT. ENERGY CALIBRATION - 1 PERCENT. FOR FAST BREEDER CALCULATIONS. FOR CURIUM AND CALIFORNIUM PRODUCTION	PERCENT ABOVE.
1297	500. EV	14.0 MEV		I USA		691416R
			·	Q: A:	RATIO WANTED RELATIVE TO U-235 FISS ACCURACY 4 PERCENT BELOW 1.3 MEV, 2 5. MEV, 3 PERCENT ABOVE 5. MEV. ENEPGY RESOLUTION 3 PERCENT, ENERGY CALIBRATION 1 PERCENT. INTERMEDIATE ACCURACY USEFUL.	ION. PERCENT 1.3 TO
1298			2.0%	2 UK	C.G.CAMPBELL WIN	712067R
•				o: o:	FISSION SPECTRUM AVERAGE WANTED. EVALUATION REQUIREMENT. FOR FAST AND THERMAL REACTORS.	
1299	800. KEV	15.0 MEV		1 CCP	M.N.NIKCLAEV FEI	714020R
•	-			a: A: c:	RATID TO U-235 FISSION CS IS WANTED. ABSOLUTE MEASUREMENTS AND MEASUREMEN TO THE NP-237 FISSION CS WOULD BE AVERAGE CS IN FISSION-NEUTRON SPECT TIMES NU-BAR OF CF-252 IS OF GREAT REDUCING THE DEPENDENCE OF THE ACC NEUTRON PRODUCTION CALCULATIONS UF ACCURACY OF THE CF-252 NU-BAR STAT (REQUIRED ACCURACY 1 PERCENT). REQUESTED ACCURACYS 1 PERCENT) AND ABOVE 6.5 MEV. AND ABOVE 6.5 MEV. ABSOLUTE VALUES WITH 2 TO 3 PERCENT SEE GENEPAL COMMENTS IN THE INTRODUC AT LEAST THREE DIFFERENT MEASUREMENT ACCURACIES WANTED.	VT OF THE RATIO VERY USEFUL. RUM OF CF-252 T INTEREST FOR CUPACY OF PON THE NDARD LOW 1.3 MEV. BETWEEN ACCURACY. CTION. TS WITH THESE
					FIRST PRIORITY BECAUSE HIGH ACCURAC FISSION CS IS IMPORTANT IN CONNECT USE OF THIS CS AS A CONVENIENT ST THRESHOLD-REACTION MEASUREMENTS.	FOF THE 0-238 FION WITH THE ANDARD FOR
1300	UP TO	5.00 MEV	3.0X	1 UK с:	C.G.CAMPBELL WIN For fast reactors.	732112R
1301	OT 9U	15.0 MEV	3.0%	1 FR C:	C.PHILIS BRC	742086R
1302			2.0%	1 EUR Q: D:	NEUTRON DOSIMETRY GROUP RATIC OF AVERAGE CROSS SECTION IN A SPECTRUM TO AVERAGE U-235 FISSION IS WANTED. FOR NORMALIZATION OF AVERAGE CROSS S DOSIMETRY PURPOSES.	GEL 742112R U-235 FISSION CROSS SECTION SECTIONS FOR
1303	800. KEV	10.0 MEV		2 CCP	L.N.USACHEV FEI	754019R
				A: 0: M:	FROM 0.8 - 10. MEV ACCURACY 1.8 PER NEED FOR FAST REACTOR CALCULATIONS. FOP MORE DETAIL SEE INTRODUCTION. SUBSTANTIAL MODIFICATIONS.	CENT.

92 URAN	IUM 238	NEUTRON	F	ISSICN	ROSS SECTION	(CONTINUED)
STATUS-						STATUS
	UNDER CONTINUOUS	REVIEW BY I	NDC AND NEAN	DC. SEE	APPENDIX A.	
92 URAN	IUM 238	NEUTRON	N ==============	EUTRONS	EMITTED PER FISSION (NU BAR)	
1304	UP TO	10.0 MEV	1.0%	1 US/	A C.E.TILL ANL P.B.HEMMIG DOE	€91275F
					0: ENERGY REQUESTED IS A MAXIMUM VA RATID TO CF-252 NU WANTED. 0: TO VERIFY MEASUREMENT OF SOLEILA	LUE ONLY. C.
1305	UP TO	5.00 MEV	0.7%	2 CC	M.N.NIKOLAEV FEI	7140216
					A: ENERGY DEPENDENCE MUST BE KNOWN ACCURACY AND ABOUT 10 PERCENT RESOLUTION. D: SEE GENERAL COMMENTS IN THE INTR	WITH 0.7 PERCENT ENERGY ODUCTION.
1306	UP TO	15.0 MEV	1.0%	1 FR	C.PHILIS BRC D: FOR CRITICAL ASSEMBLIES.	742088F
1307	800. KEV	10.0 MEV		2 CC9	L.N.USACHEV FEI	7540205
					A: FROM 0.8 - 10. MEV ACCURACY 1.0 D: NEED FOR FAST REACTOR CALCULATIO FOR MORE DETAIL SEE INTRODUCTIO M: SUBSTANTIAL MODIFICATIONS.	PERCENT. NS. N.
STATUS~						STATUS
	UNDER CONTINUOUS	REVIEW BY 1	NDC AND NEAN	DC. SEE	APPENDIX A.	
92 URAN	IUM 238	NEUTRON	D	ELAYED	EUTRONS EMITTED PER FISSION	
1308	5.00 MEV	14.0 MEV	5.0X	3 US/	R.B.WALTON LAS	701 0351
					D: DATA DESIRED FOR EXTRAPOLATION T Calculations of moderating assem M: Substantial modifications.	O 15 MEV. Blies for U Assay.
1309	UP TO	5.00 MEV	5 <b>.0%</b>	1 US/	P.B.HEMMIG DOE M: NEW REQUEST.	7610875
1310	25.3 MV	10.0 MEV	5. %	2 JAF	T.MURATA NIG	7620471
					0: THE REQUESTED QUANTITIES ARE THE AND GROUP YIELDS (NORMALIZED TO CAN BE USED TO FIT THE DECAY CUR NEUTRONS FOR THE TIME RANGE 0.1- ACCURACY OF 5.PER CENT. 0: INCIDENT ENERGY STEP LESS THAN 2 ACTIVE ASSAY OF MIXED FRESH AND	GROUP HALF LIVES 1 FISSION) WHICH VE OF DELAYED 300 SEC WITHIN AN MEV. IRRADIATED FUEL
STATUS-	UNDER CONTINUOUS	REVIEW BY I	NDC AND NEAN	DC. SEE		STATUS
		=========================		========		== 2== = = = = = = = = = = = = = = = =
92 URAN	IUM 238 ====================================	NEUTRON	E =================	NERGY SP	PECTRUM OF FISSION NEUTRONS	
1311	2.00 MEV		2.0%	3 UK	C.G.CAMPBELL WIN	692400F
n					A: INCIDENT ENERGY, ABOUT 2 MEV. ACCURACY FOR AVERAGE E'. ACCURACY 10 PERCENT ON NUMBER OF ABOVE 5. MEV AND BELOW .25 MEV LOW RESCLUTION ADEQUATE FOR INCI C: EVALUATION REQUIREMENT. FOR FAST REACTORS.	NEUTRONS Dent Energy.
1312	UP TO	5.00 MEV	5.0%	1 US/	P.B.HEMMIG DDE	7211455
					Q: WANT AVERAGE FISSION NEUTRON ENE O: TO RESOLVE DISCREPANCIES IN EXIS M: SUBSTANTIAL MODIFICATIONS.	RGY TO 5 PERCENT. TING DATA.
1313	UP TO	15.0 MEV	2.0%	1 FR	C.PHILIS BRC	7420895
STATUS-						STATUS
	UNDER CONTINUOUS	REVIEW BY I	NDC. SEE APP	ENDIX A		
92 URAN		NEUTRON	F	ISSION F	RODUCT MASS YIELD SPECTRUM	
1314			10 <b>.</b> X	3 JAF	<ul> <li>H.SHIMOJIMA TOS</li> <li>CUMULATIVE YIELDS CF BR-87,BR-88</li> <li>.I-139,XE-137,XE-138 FOR FISSION</li> </ul>	7620441 KR-90,1-137,1-138 NEUTRON AND 1-14
STATUS-					MEV NEUTRON SPECTRA. O: DETECTION OF FAILED FUEL	
0.0.00	UNDER CONTINUOUS	REVIEW BY I	NDC. SEE APP	ENDIX A		STATUS

92 URANI	UM 238		NEU	TRON	==========	RESON	======	ARAMETERS ====================================			
1315	1.00	EV .	20.0	KEV	10-04	,	115 4		0.05		60128
		2.	2000		10104	•	034	C.E.TILL P.GREEBLER R.A.DONCALS	ANL GEB WEW		09120
							0: 0:	WANTED TO AS HI NEEDED FOR DOPP NEED ANSWERS TO AND UNCERTAIN	GH AN ENER Ler effect Questions Ty of gamm	GY AS CAN BE MEA IN FAST REACTOR OF MISSING P-WA A WIDTHS.	SURED. S. VE LEVE
1316	2.00	KEV .	5.00	KEV	3.0X	2	SWD	H.HAEGGBLOM	AE		69238
				•		•	<u>.</u>	NEUTRON CAPTURE NEEDED FOR FAST	AND FISSI REACTOR C	ON WIDTH NEEDED. Alculations.	
1317	U	PTO	5.00	KEV		1	CC¤	M.N.NIKOLAEV	FEI		71401
			·				0:	OBSEFVATION OF DESIRED. RESOLUTION OF 9 CONTROLLED BY LEVEL SPACING	VERY WEAK O PEPCENT PORTER-TH DISTRIBUT	P-WAVE RESONANCE OF P-WAVE RESONA OMAS DISTO IBUTIO	S IS NCES N AND
							0:	RESONANCES BE CAREFUL IDENTIF NEEDED FOR DE FUNCTION. REQUEST CONNECT	LOW 5 KEV ICATION OF TERMINATIO	IS DESIPED. S AND P WAVE RE N OF P WAVE STRE	SONANCE NGTH
								EVALUATION IN ATTENTION TO BE BETWEEN THE 1 FIRST PRIORITY DEFENCENCE OF A SCIENTIEIC	UNRESOLVE PAID TO T /2 (+) AND BECAUSE IN LEVEL DEN	D RESONANCE REGI HE PROBABLE DIFF 1/2 (-) LEVEL D VESTIGATION OF T SITY IS OF INTER EFOM A PRACTICA	ON. ERENCE ENSITIE HE PARI EST FRO
								OF VIEW.			
1318	6.00	EV	10.0	KEV	3.0%	1	ŲΚ	C.G.CAMPBELL	WIN		73211
							A:	ACCURACY IS FOR 2E. BROAD RESOLUTIO	THE AVERA	GE ERROR BETWEEN Ents could suff1	E AND
				•			0:	FOR FAST REACTO TO GIVE SHIELDE TO GIVE DOPPLER TEMPERATURES	RS. D CROSS SE Change To Between 30	CTIONS TO 3 PERC 5 PERCENT FOR 0 AND 1200 DEGRE	ENT.
1319	Ū	P TO	5.00	KEV	3.0 <b>x</b>	1	USA	R.W.PEELLE	0 PL		78119
							<b></b>	NEEDED TO COMPLI	TE CAPTURE		SHIELDE
							M:	THERMAL SYSTE	MS.	IN HIGHLY SELF~	
STATUS							M:	THERMAL SYSTE	MS.		STAT
STATUS U	NDER CO		 S REVIE		NDC AND N	EANDC.	M: SEE API	THERMAL SYSTE NEW REQUEST.	MS.	IN HIGHLY SELF~	STATI
STATUS U 93 NEPTU	NDER CO	NT'I NUQU:	 S REVIE ======== NEU	W BY I	NDC AND N	EANDC. ====================================	SEE API	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION	MS.		STATI
ST ATUS	NDER CO	NT I NUCU:		W BY I	NDC AND N	EANDC. F1SS1	SEE APP	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION R. S. CASWELL	MS.		STAT(
5T ATUS	NDER CO	NT I NUCU ======= 7 ======= KEV	S REVIE	W BY I	NDC AND N	EANDC. F1551	SEE API	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION R.S.CASWELL FOR MATERIALS D	MS.		STAT(
ST ATUS	NDER CO	NT I NUOU 7 7 KEV	S REVIE	W BY I	NDC AND N	EANDC. F1SS1	USA USA	R. S. CASWELL FOR MATERIALS D REQUEST.	MS.		STAT(
5T ATUS	NDER CO NIUM 13 50.0	NT I NUOU 7 8 KEV 6 8	S REVIE	W BY I	NDC AND N	EANDC. FISSI 1 CAPTU	USA C: W: USA C: M: M: M: M: M: M: M: M: M: M: M: M: M:	R. S. CASWELL FOR MATERIALS D NEW REQUEST.	MS.		STAT(
5T ATUS	NDER CO NIUM 13 50.0	NT I NUOU 7 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8 8	7.00 NEU	W BY I	NDC AND N 2.0%	EANDC. FISSI 1 CAPTU	USA C: BRE CRO	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION R.S.CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION	MS.		STAT(
ST ATUS	NDER CO NIUM 13 50.0 NIUM 23 1.00	NT I NUQU 7 KEV 6 KEV	5 REVIE NEU 7.00 NEU	MEV	NDC AND N 2.0%	EANDC. FISSI 1 CAPTU	USA C: M: USA C: M: RE CRO FR M:	PENDIX A. SS SECTION R.S.CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST.	MS.		STAT(
ST ATUS	NDER CO NIUM 13 50.0 NIUM 23 1.00	NT I NUOU 7 7 KEV 6 8 8 8 8 8 8 8	7.00 NEU 7.00	W BY I	NDC AND N 2.0%	EANDC. FISSI 1 CAPTU 3 FISSI	USA USA USA FR M: ION CROS	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION FOR MATERIALS D NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. SS SECTION	MS. NBS OSIMETQY. CAD		STATI
ST ATUS	NDER CO NIUM 13 50.0 NIUM 23 1.00	NT I NUOU 7 KEV 6 KEV 6 KEV	5 REVIE NEU 7.00 NEU 1.00	MEV	NDC AND N 2.0X 50.0X	EANDC. FISSI 1 CAPTU 3 FISSI	USA USA C: M: USA C: M: M: M: M: M: M: M: M: M: M: M: M: M:	PENDIX A. SS SECTION R. S. CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST.	MS. NBS OSIMETQY. CAD CAD		STAT( 78117. 79203
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ST ATUS	NDER CO NIUM 13 50.0 NIUM 23 1.00 NIUM 23 1.00	NT I NUQU 7 KEV 6 KEV 6 KEV 6 KEV	5 REVIE NEU 7.00 1.00 1.00	MEV	NDC AND N 2.0% 50.0%	EANDC. FISSI 1 CAPTU 3 FISSI 3 HALF	USA USA C: M: USA C: M: M: FR FR FR FR FR FR H: LIFE	PENDIX A. SS SECTION R.S.CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST.	MS. NBS OSIMETQY. CAD CAD		STAT( 7 e1 1 7 7 e1 1 7 7 92 0 3
ST ATUS	NDER CO NIUM 13 50.0 NIUM 23 1.00 NIUM 23	NT I NUOU 7 KEV 6 KEV 6 KEV 7	S REVIE NEU 7.00 NEU 1.00	W BY I	NDC AND N 2.0X 50.0X 50.0X	EANDC. FISSI 1 CAPTU 3 FISSI 3 HALF	USA FR M: USA C: W: M: FR M: USA	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION R.S.CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST.	MS. NBS OSIMETOY. CAD CAD CAD NBS		STAT(
ST ATUS	NDER CO NIUM 13 50.0 NIUM 23 1.00	NT I NUQU	S REVIE NEU 7.00 1.00	W BY I	NDC AND N 2.0X 50.0X 50.0X	EANDC. FISSI 1 CAPTU 3 FISSI 3 HALF	USA FR M: USA C: M: USA FR M: LIFE USA C: M: USA C: M: USA C: M: USA	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION R.S.CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. J.GRUNDL ALPHA HALF LIFE FOR MASS DETERM NEW REQUEST.	MS. NBS OSIMETOY. CAD CAD CAD CAD REQUIRED. INATION OF	FISSIONABLE DEF	STAT
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ST ATUS	NDER CO NIUM 13 50.0 NIUM 23 1.00 NIUM 23 1.00	NT I NUQU 7 KEV 6 KEV 6 KEV 7 7	S REVIE	MEV	NDC AND N 2.0X 50.0X 50.0X	EANDC. FISSI 1 CAPTU 3 FISSI 3 HALF 1 GAMMA	USA FR M: USA C: M: USA FR M: USA C: C: C: C: C: C: C: C: C: C:	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION R.S.CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. J.GRUNDL ALPHA HALF LIFE FOR MASS DETERM NEW REQUEST.	MS. NBS OSIMETPY. CAD CAD CAD CAD SEQUIRED. INATION OF	FISSIONABLE DEF	STAT( 78117) 78117 79203 79203 79203 79203
ST ATUS	NDER CO NIUM 13 50.0 NIUM 23 1.00 NIUM 23 1.00	NT I NUQU	S REVIE NEU 7.00 1.00 1.00	MEV	NDC AND N 2.0X 50.0X 50.0X 1.0X	EANDC. FISSI 1 CAPTU 3 FISSI 3 FISSI 1 ALF	USA FR FR FR M: USA C: FR M: USA C: CON CRO: CON CRO:	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION R.S.CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. J.GRUNDL ALPHA HALF LIFE FOR MASS DETERM NEW REQUEST.	MS. MS. NBS OSIMETQY. CAD CAD CAD CAD REQUIRED. INATION OF UKW U-236.	FISSIONABLE DEF	STAT(
ST ATUS	NDER CO NIUM 13 50.0 NIUM 23 1.00 NIUM 23 1.00	NT I NUQU	S REVIE NEU 7.00 1.00	W BY I	NDC AND N 2.0X 50.0X 50.0X 1.0X	EANDC. F1SS1 1 CAPTU 3 FISS1 3 FISS1 4 ALF 1 GAMMA 3	USA C: FR FR M: USA C: FR M: USA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C: VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C VSA C C C C C C C C C C C C C C C C C C C	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION R.S.CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. SS SECTION P.HAMMER NEW REQUEST. J.GRUNDL ALPHA HALF LIFE FOR MASS DETERM NEW REQUEST. A.WHITTAKER PRODUCTION OF P FOR AN AVERAGE ZIFCALCY AND FOR ISOTOPE PRO	MS. MS. NBS OSIMETPY. CAD CAD CAD CAD CAD CAD CAD CAD	FISSIONABLE DEF	STATI 78117 79203 79203 79203 79203 79203 79203 76112 20051TS. 69240 C,
ST ATUS	NDER CO NUM 13 50.0 NIUM 23 1.00 NIUM 23 1.00	NT I NUQU 7 KEV 6 KEV 6 KEV 7 7	S REVIE NEU 7.00 1.00 1.00	MEV	NDC AND N 2.0X 50.0X 1.0X 20.0X	EANDC. FISSI 1 CAPTU 3 FISSI 3 HALF 1 SAMMA	USA C: FR CON CRO USA C: FR M: USA C: CON CRO C: FR M: USA C: C: N: C: C: FR	THERMAL SYSTE NEW REQUEST. PENDIX A. SS SECTION F. S. CASWELL FOR MATERIALS D NEW REQUEST. SS SECTION P. HAMMER NEW REQUEST. SS SECTION P. HAMMER NEW REQUEST. J. GRUNDL ALPHA HALF LIFE FOR MASS DETERM NEW REQUEST. A. WHITTAKER PRODUCTION OF P FOR AN AVERAGE ZIFCALCY AND FOR ISOTOPE PRO	MS. MS. NBS OSIMETQY. CAD CAD CAD CAD CAD NBS REQUIRED. INATION OF UKW U-236. GAMMA RAY STAINLESS DUCTION. CAD	FISSIONABLE DEF	STATU 781176 781176 792030 792030 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037 792037

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93 NEPTU	NIUM 237	=====	NEU	TRON		CAPT	URE CROS	S SECTION
1326	1.00	MV	5.00	MEV		1	USA A: O:	P.GREEBLER GEB 671115R ACCUFACY - 3 PERCENT FROM THERMAL TO 10 EV, 10 PERCENT ABOVE 10 EV, 5 PERCENT IN NEUTRON WIDTH, 10 PERCENT IN GAMMA WIDTH FROM THERMAL TO 1 KEV. ABOVE 1 KEV FFIORITY 2. FOR THERMAL REACTOR CALCULATIONS AND PU-238 PRODUCTION.
1327	25.3	MV	2.00	MEV	15.0%	1	FR O: M:	L.COSTA CAD 762146R FUEL CYCLE IN-CORE SUBSTANTIAL MODIFICATIONS.
1328	25•3	MV	1.00	KEV	10 • 0 <b>x</b>	<b>1</b>	JAP Q: D: M:	I.OHTAKE PNC 792086R EXPERIMENTAL DATA WANTED. EVALUATION DESIRABLE RESONANCE PARAMETERS ARE ALSO REQUIRED. FOR BURNUP CALCULATION OF THERMAL AND FAST REACTORS. NEW REQUEST.
1329	1.00	KEV	15.0	MEV	20.0%	, <b>1</b>	JAP Q: C: M:	I.OHTAKE PNC 7920898 EXPERIMENTAL DATA REQUIRED. EVALUATION DESIRABLE. FOR EURNUP CALCULATION OF THERMAL AND FAST REACTORS. NEW REQUEST.
1330	500.	EV	5.00	MEV	15.0X	2	ССР Q: С: М:	L.N.USACHEV FEI 794006R AVERAGE CROSS SECTION IN A FAST-REACTOR SPECTRUM REQUESTED. FOR FAST-REACTOF BURN-UP CALCULATION. SEE GENERAL COMMENTS. NEW REQUEST.
93 NEPTU	N IUM 237	=====	======= NEU =======	TRON		N • 2N		
1331	UP	то	15.0	MEV	10.0%	2	USA O:	R.W.EENJAMIN SRL 671112R TO EVALUATE CONTAMINATION OF PU-238 BY PU-236.
1332	UP	то	10.0	MEV	10.0%	2	USA D:	P.GREEBLER GEB 691290R NEEDED FOR CONTROL OF U-232 PRODUCTION.
1333	UP	то	15.0	MEV	15.0%	1	FR O: M:	L.COSTA CAD 762147R FUEL CYCLE OUT-OF-CORE SUBSTANTIAL MODIFICATIONS.
1334					15.0X	2	ССР Q: С: М:	L.N.USACHEV FEI 794008F AVERAGE CROSS SECTION IN A FAST-REACTOR SPECTRUM REQUESTED. FOR FAST-REACTOR BURN-UP CALCULATION. SEE GENERAL COMMENTS. NEW REQUEST.
93 NEPTU	NIUM 237		======== NEU ==========	TRON		FISS	ION CRO	SS SECTION
1335	20.0	EV	50.0	KEV	10.0%	3	USA Q: A:	G.E.HANSEN LAS 661044F RATIC TC U-235 FISSION WANTED. ENERGY RESOLUTION - 30 PERCENT.
1336	50.0	KËV	1.00	MEV	5.0%	1	USA Q: A:	G.E.HANSEN LAS 661045F Ratio TC U-235 Fission Wanted. Energy Resolution - 3 Percent.
1337	1.00	MEV	15.0	MEV	1.0%	·2	USA Q: A:	G.E.HANSEN LAS 661046F PATIC TC U-235 FISSION WANTED. ENERGY RESOLUTION - 3 PERCENT.
1338	UP	• TO	15.0	MEV	1. X	2	JAP Q: A: D:	Y.SEKI JAE 762135F RATIC TC U-235 FISSION USEFUL. ACCUFACY 3 PER CENT USEFUL. NEUTRON ENERGY RESOLUTION 300 KEV. FOR MONITOR REACTION AND RADIATION DOSIMETRY IN NEUTRONICS EXPERIMENTS ON BLANKET SYSTEM OF FUSION FEACTORS.
1339	25.3	MV	2.00	MEV	15.0%	1	FR M:	L.COSTA CAD 792039F
STATUS								STATUS
U	NDER CON		US REVIE	W 8Y	INDC. SEE A	PPEND	IX A.	
93 NEP TU	INIUM 238	3	NEU	TRON		CAFT	URE CRO	SS SECTION
1340	25.3	MV				2	CAN A: D:	W.H.WALKER CRC 681802F ACCUFACY REQUIRED 100 B. UNKNOWN CROSS SECTION.

93 NEPTU	NIUM 238 ==============	NEUTRON			FE CROS	S SECTION		(CONTINUED)
1341	25.3 MV		20. %	2	SWD ວະ	H.HAEGGELOM Calculation of	AE PU-238 PRODU	762169N JCT ION
1342	1,00 KEV	2.00 MEV	50.0%	2	FR C:	L.COSTA IN- AND -CUT-OF	CAD -CORE CYCLE	792040R - EVALUATION SUFFICIENT
222222222 93 NEPTU	 NIUM 238	NEUTRON		====== F 1 S S I	M:	NEW REQUEST.		
							======================================	*************************************
1343	1.00 KEV	2.00 MEV	50.0%	2	F۵	L.COSTA	CAD	792041R
					0:	IN- AND -CUT-OF NEW REQUEST.	-CORE CYCLE	- EVALUATION SUFFICIENT
SE								
93 NEPTU	NIUM 239	NEUTRON			FE CROS	5 SECTION		
1344	10.0 KEV	5.00 MEV	20.0%	з	JAP	M. CHTA	KYU	712075P
					Q: D: M:	SOME POINT DATA FOR NORMALIZATI CROSS SECTION FOR EURNUP CALC SUBSTANTIAL MOD	AFE ALSO US ON CF CALCUL ULATION. IFICATIONS.	SEFUL. ATED CAPTURE
1345	25.3 MV	10.0 MEV	10. X	3	JAP	M.YADA	NFI	762025N
					5:	FOR HIGHER BURN	-UP CALCULAT	TIONS
1346	1.00 KEV	2.00 MEV	50.0%	2	FR	P.HAMMER	CAD	762148R
					9: M:	FAST REACTOR OP	ERATION IFICATIONS.	
1347	25.2 MV	15.0 MEV	20. X	2	JAP	R. SHINDC	JAE	762209R
					C.	FOR BURK-OP CAL	CULATION OF	HERMAL REACION.
1349	25.3 MV	1.00 MEV	30.0%	2	ŪK	C.G.CAMPBELL	WIN	792138R
					C: M:	FOR FAST REACTO NEW REQUEST.	5.	
93 NEPTU	======================= NIUM 239	NEUTRON		====== N,2N			=======================================	
\$1858555	***********		********				=============	
1349	UP TO	15.0 MEV	50.0X	2	FF	L.COSTA	CAD	792042F
					0: M:	IN- AND -OUT-OF NEW REQUEST.	-CORE CYCLE	- EVALUATION SUFFICIENT
							==============	
STEELEE	======================================			F1551		S SECTION ====================================		
1350	25.3 MV	10.0 MEV	25. %	3	JAP	M. YADA	NFI	762032N
					Q: A: D:	THE VALUE OF NU 10 PER CENT ACC NO EXPERIMENTAL BURN-UP ANALYSI	ALSC WANTER URACY IS DE DATA. S GF FAST B	D. SIRABLE FOR APPLICATION. Reedef Reactors
1351	1.00 KEV	2.00 MEV	50.0%	2	FR O:	P.HAMMER FAST REACTOR OP	CAD PERATION	762149R
1352	25.3 MV	10.0 MEV	30.0%	2	UK	C.G.CAMPBELL	WIN	792137R
				-	0:	FOR FAST REACTO	RS.	
					M: =======	NEW REQUEST.		
93 NEPTU	NIUM 239	NEUTRON		NEUTR	ONS EM	ITTED PER FISSIO	N (NU BAR)	
1767			50 Q¥	2	<b>6</b> 0		CAD	7621 600
1353	00 10	15.0 MEV	50 • V A	2	гк G:	FAST REACTOR OF	PERATION	/021508
*====*=								*=================================
93 NEPTU 5======	NIUM 240	NEUTRON ++=============		CAPT(	JRE CRO	SS SECTION		
1354	1.00 KEV	2.00 MEV	50.0%	3	ES	P.HAMMER	CAD	792043R
				-	0:	EVALUATION_SUFF	ICIENT	
					M:	NEW REQUEST.		
93 NEPTU	NIUM 240	NEUTRON		FISS	ION CRO	S SECTION		
1355	1.00 KEV	2.00 MEV	50.0%	3	FR	P.HAMMER		7920445
					U: M:	NEW REQUEST.	- ICIENI	
94 PLUTO	NIUM 236	NEUTRON		ABSOR	RPTION	CROSS SECTION	***********	
\$8888258	*=*==*********	**************		3232 <b>9</b> 41				=======================================
1356	500. EV	200. KEV	50.0%	2	FR	L.COSTA	CAD	762151R
					:0	FUEL CYCLE OUT-	OF-CORE	

94 PLUTCH			====== NEU	TRON	============	CAPTU	RE CRO	SS SECTION			
		======		*******	============		=====	=======================================			
1357	1.00	KEV	2.00	MEV	10.0%	1	FR	L.COSTA	CAD		792253R
							0:	OUT-OF-CORE C	YCLE		
				******	=========	=====		=======================================			
94 PLUTON	1UM 236	=======	NEU	TRON		FISSI	CN CRO	SS SECTION			=======
1358	1.00	KEV	2.00	MEV	10.0%	1	F۹	L.COSTA	CAD		7920455
							0: M:	NEW REQUEST .	TYCLE		
		<b>=</b> ===========	======								======
94 PLUTO	NIUM 237	=======	NEU	TRON =======		CAPTU	FE CP0	SS SECTION	************		
			~ ~ ~			_		0	<b>C</b> 1 <b>D</b>		
1359	1.00	KEV	2.00	MEV	50.0%	3	FR	P. HAMMER	CAD		7920465
								NEW REQUEST.			
94 PLUTO	1UM 237		NEU	TRON		FISSI	CN CRO	SS SECTION			
1360	1.00	KEV	2.00	MEV	50.0%	3	FR	P. HAMMER	CAD		792047F
							м:	NEW REQUEST.			
		== = = = = = = = =	======		========== s	======		======================================		*****************	******
		======			============		======				*=====
1361					1.0%	2	115.4	R. R. PEREY	ANI		741151N
• •						-	A:	ACCUEACY 3-5	PERCENT USEF	IL IN SHORT TERM.	
							ö:	FOR CALCULATI SPONTANEOUS NUCLEAR MAT	ION OF THE EFE S FISSION MEAS TERIALS SAFEGU	ECTIVE PU-240 FOR SUREMENTS OF PU IN JARDS.	
1362					1. X	2	JAP	K.CNISHI	PNC		762014N
							:0	DETECTION OF	PU BY NEUTRON	COINCIDENCE METH	CD
		======				======					
94 PLUIU	10M 238	======	======			GAMMA	RAY Y	IELD ========================	.========================		=======
							•				
1363					1. X	1	ЈАР	1.SUZUKI	JAE		762009N
							0:	GAMMA RAYS RE	QUIRED.	IF 43.45.99.7.152.	7 KEV
							0:	THOUGH PRESEN THE REQUIREME ASSAY OF PU-I	ALPHA DECAT E AT STATUS OF A INT CONFIRMATI SOTOPES BY GA	COURACY SEEMED TO ON IS REQUIRED. MMA-RAY SPECTROSCO	MEET
			****		*========:					=======================================	
555555555555555555555555555555555555555	100 238		======	========	;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;	======		111ED PER F155		=======================================	
1364					1 0 7	2	1164		A 511		** • • • • • • • •
1504					1.0%	2	USA	ROBOPERRI	ANL DEDCENT USEE	IN SHORT TERM	(41154N
							0:	FOR CALCULATI SPONTANEOUS NUCLEAR MAT	FISSION MEAS	ECTIVE PU-240 FOR WREMENTS OF PU IN WARDS.	
94 PLUTON	NIUM 238		GAM	========= MA		TOTAL	NEUTR	======================================		*******************	
		******		========						******************	
1365	ŲP	TG	10.0	MEV	10.0%	2	CCP	V.K.MARKOV	GAC		714046N
							0:	PHOTONUCLEAR	ASSAY OF PU.		
=========	=======	== == = = = = =	=======				======			***************************************	
94 PLUTON	11UM 238		GAMI	MA = = = = = = = = = = =		F1SS1	ON CRO ======	SS SECTION			
1766		70	10 0		10.05						
1300	UP	10	10.0	MEV	10.0%	۷	(CP 	V.K.MARKUV	GAL		/14044N
								FUR FHUIDNUCL	EAR ASSAY OF	PU.	
94 PLUTON	IUM 238		GAM	MA		FISSI	CN PRO	DUCT MASS YIEL	D SPECTRUM	************************	=======
1367	UP	TO	10.0	MEV	10.0%	2	CCP	V.K.MARKOV	GAC		714045N
							0:	PHOTONUCLEAR	ASSAY OF PU.		
1368	4.00	MEV	14.0	MEV	10. X	з	JAP	R.MIKI	ĸĸu		762036N
						•	Q:	TOTAL FISSION	YIELD PRODUC	ED BY BREMSSTRAHL	JNG
							0:	BREMSSTRAHLUN SUFFICIENT TH EXPERIMENTAL NON-DESTRUCTI	IG CONVERTER ( IICKNESS TO ST DATA. VE ASSAY DF L	PREFERABLY TA) OF OP ELECTRONS. NO	
			-======				======				
94 PLUTON	IUM 238		NEU	TRON =======		CAPTU	RE CRO ======	SS SECTION		********************	
1369	25.3	٩v			5.0%	2	CAN	W.H.WALKER	CRC		5818030
						-	0:	DISAGREEMENT	BETWEEN INTEG	RAL (APPROX 450 B	) AND

: DISAGREEMENT BETWEEN INTEGRAL (APPROX 450 B) AND DIFFERENTIAL (APPROX 530 B) MEASUREMENTS.

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94 PLUTO	NIUM 238	NEUTRON	_=========	CAPTU	RE CRO	SS SECTION		(CONTINUED)
1370	1.00 KEV	3.00 MEV	15.0%	,	EO		CAD	7720060
				-	Q:	VALUE RELATIVE T	0 U-238 CAPTURE CROSS SI CALCULATIONS.	ECTION.
1 3 7 1	1 00 KEV	7 00 464		•		SUBSTANTIAL MUDI	FICATIONS.	
1371	1.00 KEV	3.00 MEV	20.0%	2	F H	J. SALVY	BRC	742093R
1372	25.3 MV	500 <b>.</b> Kev	20.0%	2	JAP Q: Q: M:	I.OHTAKE EXPERIMENTAL DAT EVALUATED DATA A FOR BURNUP CALCU REACTORS. NEW FEQUEST.	PNC A DESIRED. LSO REQUIRED. LATION OF THERMAL AND F/	792087R AST
1373	500. EV	15.0 MEV	10.0%	2	JAP	I.OHTAKE	PNC	792088R
					Q: 0: M:	EXPERIMENTAL DAT Evaluated data a for burnup calcu Reactors. New request.	A DESIRED. LSO REQUIRED. LATION OF THERMAL AND F/	AST
94 PLUTO	NIUM 238	NEUTRON		N,2N	=======	***************		
82228200						* = = = = = = = = = = = = = = = = = = =		
1374	UP TO	15.0 MEV	10.0%	1	FR	J.SALVY	BRC	682062R
1375	UP TO	15.0 MEV	15.0%	1	FR	L.COSTA	CAD	792048R
					0: M:	IN- AND -GUT-OF- New Request.	CORE CYCLE	
94 PLUTO	NIUM 238	NEUTRON		FISSI	ON CRO	SS SECTION		
1376	UP TO	15 <b>.0</b> Mev	20.0%	1	FR O:	J.SALVY MEASUREMENTS DON REQUEST UP TO EVALUATION MAY B	BRC E AT LOS ALAMOS MAY SAT I MEV• E SUFFICIENT	682064R ISFY THIS
1377	1.00 KEV	3.00 MEV	15.0%	<b>1</b> .	FR	L.COSTA	CAD	732095R
					Q: D: м:	VALUE RELATIVE T FOR FAST REACTOR SUBSTANTIAL MODI	0 U-235 FISSION CROSS SU Calculations. Fications.	ECTION.
94 PLUTO	NIUM 238	NEUTRON		NEUTR	ONS EM	ITTED PER FISSION	(NU BAR)	
1375	500. EV	15.0 MEV	4. DOX	2	FR Q:	L.COSTA VALUE RELATIVE T	CAD 0 CF-252 NU.	7 320 9 7R
						FOR FAST REACTOR	CALCULATIONS.	
94 PLUTO	NIUM 238	*===============		MISC	=======			
1379			0.5%	1	JAP	K.ON ISHI	PNC	76201 BN
					Q:	DECAY HEAT (W/G)	REQUIRED.	
					======			
94 PLUTO	INIUM 239 ====================================	SPONTANEOU	S ====================================	FISSI ======	ON HAL	F LIFE ====================================		**********
1380			1. X	2	JAP	K.ONISHI	PNC	762015N
		• · · ·			0:	DETECTION OF PU	BY NEUTREN COINCIDENCE	METHOD
94 PLUTO	NIUM 239	*****************	*=#*******	GAMMA	RAY Y	======================================		
	•			_				
1381			1. X	1	JAP Q:	T.SUZUKI YIELD PER DISINT	JAE EGRATION DF 45.2,104.2	762010N AND 642.3
					0:	KEV GAMMA RAYS F (FOLLOWING ALP THOUGH PRESENT S THE REQUIREMENT ASSAY OF PU-ISOT	EQUIRED. HA DECAY EVENT) TATUS OF ACCURACY SEEME CONFIRMATION IS REQUIRE OPES BY GAMMA-RAY SPECT	D TO MEET D. Roscopy
94 PLUTO	NIUM 239	GAMMA		FISSI	ON PRO	DUCT MASS YIELD S	PECTRUM	
1382	4.00 MEV	14.0 MEV	10• X	3	JAP Q:	R.MIKI TOTAL FISSION YI	KKU ELD PRODUCED BY BREMSST	762037N Rahlung
					0:	REQUIRED. YIELD ROENTGEN*NUCLEUS PHOTOACTIVATION BREMSSTRAHLUNG C SUFFICIENT THICK	MAY BE IN THE UNIT OF Y. OR RELATIVE TO U-238 D YIELDS. ONVERTER (PREFEFABLY TA NESS TO STOP ELECTRONS.	IELD/ R OTHER ) OF
						NON-DESTRUCTIVE	ASSAY DE PU	
1383	4.00 MEV	14.0 MEV	5 <b>. X</b>	3	JAP	R.MIKI	KKU	762045N
		3			ő	BREMSSTRAHLUNG C SUFFICIENT THICK NON-DESTRUCTIVE	ONVERTER (PREFERABLY TA NESS TO STOP ELECTRONS. ASSAY OF NUCLEAF MATERI.	ALS

94 PLUTO	NIUM 239	======================================	NEUTR	2222222 ON 2222222	*********	TOTAL	CROSS	SECTION		
1384	1.00	EV 50	)о. к	EV	3.0%	1	USA A:	P.GREEBLER Energy resolution To 10 Kev.	GEB N TO SHOW SECONDARY STRUCTU	7411248 JRE UP
1385	0.50 (	EV 5.	.00 E	v	1.0%	1	USA D: M:	B.F.LECNARD NEEDED FOR THERM NEW REQUEST.	BNW AL CROSS SECTION EVALUATION	7610888 1.
1386	10.0	KEV 10	оо. к	ΈV	2. X	1	JAP C:	M.KAWAI Fission reactor	NIG	762210R
94 PLUTO	NIUM 239		NEUTR	2222222 ON		ELAST	IC CRO	SS SECTION	***************************************	
						_				
1387				1	0.0x	3	0K 0:	J.FELL THERMAL AVERAGE FOR LONG TERM IM SECTION.	WIN INCIDENT ENERGY. PROVEMENT OF THE ABSORPTION	6924169 I CROSS
1388	1.00	KEV 15	5.0 M	IEV	5.0%	1	FR C:	C.PHILIS For critical ASS	BPC EMBLIES.	742094R
	********				========	=====			=======================================	
94 PLUTO	NIUM 239		NEUTR	20N ========		DIFFE	RENTIA	L ELASTIC CROSS S	EC ⁺ ION ====================================	
1389	1.00	MEV 3.	00 м	IEV 1	0.0%	2	USA	C.E.TILL P.B.HEMMIG	ANL DOE	691303R
							Α:	ENERGY RESOLUTIO	N 500 KEV OR BETTER.	
1390	1.00	KEV 15	5.0 м	EV	5.0%	1	FR	C.PHILIS	BRC	742095R
							с:	FOR CRITICAL ASS	EMBLIES:	
			NEU72	=======			====== STIC C	ROSS SECTION		
					=========	8====	======			
1391	UP	το 15	5.0 M	EV 1	0.0%	2	FR C:	C.PHILIS FOR CRITICAL ASS	BRC EMBLIES.	742097P
							-			
1392	800. 1	<ev 5.<="" td=""><td>.00 M</td><td>ΈV</td><td></td><td>2</td><td>ССР А: О: м:</td><td>L.N.USACHEV FROM 0.8 - 1.4 M FROM 1.4 - 2.5 M FROM 2.5 - 5.0 M NEED FOR FAST RE FOR MORE DETAIL SUBSTANTIAL MODI</td><td>FEI EV ACCURACY 15 PERCENT. EV ACCURACY 17 PERCENT. EV ACCURACY 30 PERCENT. ACTOR CALCULATION. SEE INTRODUCTION. FICATIONS.</td><td>754023R</td></ev>	.00 M	ΈV		2	ССР А: О: м:	L.N.USACHEV FROM 0.8 - 1.4 M FROM 1.4 - 2.5 M FROM 2.5 - 5.0 M NEED FOR FAST RE FOR MORE DETAIL SUBSTANTIAL MODI	FEI EV ACCURACY 15 PERCENT. EV ACCURACY 17 PERCENT. EV ACCURACY 30 PERCENT. ACTOR CALCULATION. SEE INTRODUCTION. FICATIONS.	754023R
94 PLUTO	NIUM 239		NEUTR	0N		ENERG	DIFF	ERENTIAL INELASTI	C CROSS SECTION	
1393	UP	TO 15	5.0 14	IEV ·		2	CCP A: 0:	M.N.NIKOLAEV CROSS SECTION FO THRESHOLDS OF 1 DESIRED WITH EXCITATION CROSS REQUIRED WITH SEE GENERAL COMM	FEI R INELASTIC REMCVAL BELOW F U-238 AND OF PU-240 OR NP-2 0 PERCENT ACCURACY. SECTION FOR LOW LYING LEVE 15 PERCENT ACCURACY. ENTS IN THE INTRODUCTION.	714023R ISSION 37 IS
1394	10.0	KEV 10	.0 м	IEV 2	0.0%	1	USA	P.B.HEMMIG	DOE	721084R
94 PLUTO	NIUM 239	=======================================	NEUTR	======= ON =============	20022222	ENERG	Y-ANGL	E DIFFERENTIAL IN	ELASTIC CROSS SECTION	
1395	UP	TO 15	5.0 M	EV 2	0.0%	2	FR	J. SALVY	BRC	742098R
			.=====		********		c:	FOR CRITICAL ASS	EM8LIES. 	
94 PLUTO	NIUM 239		NEUTR	ON ========		ABSOR	NCITC	CROSS SECTION		
1396	10.0	MV 0.	.80 E	v	1.0%	1	UK C: M:	J.FELL For thermal reac New request.	WIN Tors.	792167R
94 PLUTO	NIUM 239		NEUTR	0N	*=====	CAPTUR	RE CRO	SS SECTION		
1397	1.00	KEV 50	00. K	EV	3.0%	2	SWD O:	H.HAEGGBLOM NEEDED FOR FAST	AE REACTOR CALCULATIONS.	692437R
1308	1.00	KEV 1-	.00 M	EV 1	0.01	2	GFR	B.GOEL	ќғк	7120820
1420			M	1		-	Q: A: 0:	ALPHA ALSO USEFUI PREFER 5 PERCENT FOR BURNUP CALCU	ACCURACY UP TO 100 KEV. LATIONS.	. 124924
1399	1.00	KEV 3.	00 M	Eν	5.0%	1	FR	J.SALVY	BRC	742104R
							0:	FOR CRITICAL ASS	EMBLIES.	

94 PLUTO	NIUM 239	NEUTRON	C	APTURE CROS	S SECTION	(CENTINUED)
1400	5.00 KEV	10.0 MEV		2 CCP	ERDM 5-0 - 100 KEY ACCURACY 3	754012R
					FROM 0.1 - 0.8 MEV ACCURACY 10 FROM 0.8 - 4.5 MEV ACCURACY 50	PERCENT. PERCENT.
				0:	ABOVE 4.5 MEV REQUIREMENTS 2 1 NEED FOP FAST REACTOR CALCULAT	IMES WEAKER. 10ns.
				м:	SUBSTANTIAL MODIFICATIONS.	.UN •
STATUS						ST ATUS
U	NDER CONTINUOU	S REVIEW BY IN	IDC. SEE APP	ENDIX A.		_
94 PLUTO	NIUM 239	NEUTRON	C	APTURE GAMM	AA RAY SPECTRUM	
1401	25 <b>.</b> 3 MV	100. EV	20.0%	3 USA	R.8.WALTON LAS	701044N
				A:	GAMMA RESOLUTION OF 2.5 KEV AT	1.2 MEV. 1.2 MEV.
				0.		
1402	25.3 MV		20.0%	3 USA	R.B.WALTON LAS	741138N
				0:	ABSOLUTE SPECTRUM REQUIRED. FOR DEVELOPMENT OF NONDESTRUCT	IVE ASSAY METHODS.
s====s==						
94 PLUTO	NIUM 239 ===============	NEUTRON	† ==============	OTAL PHOTON	PRODUCTION CROSS SECTION	
1403				2 114		60.24.1.89
1403	120. KEV		20.0%	2 UK Q:	GAMMA SPECTRUM WANTED.	C924188
				Ă:	INCIDENT ENERGY. ABOUT 120 KEY Low resolution adequate for in	ICIDENT ENERGY AND
				0:	FOR STUDY OF ACTIVATION AND HE	AT RELEASE IN CORE.
14.04	1.00 KEV	15.0 MEV	10.0*	1 50		7420069
1404		IJID MCV	10004		FOR SHIELDING.	142030
1405	25.3 MV	15.0 MEV	10.0%	1 FR	B. DUCHEMIN SAC	792049R
				A:	ENERGY RESOLUTION OF 250 KEV I THAN 1 MEV AND 500 KEV FOR END	FOR GAMMA RAYS LESS Frgies greater than
				0:	1 MEV FOR SHIELDING CALCULATIONS - 1	EVALUATION MAY BE
				м:	SUFFICIENT New request.	
		NEUTRON				
*******		************	***********			, ,
1406	UP TO	15.0 MEV	10.0%	1 FP	C.PHILIS BRC	682067R
1407	6.00 MEV	10.0 MEV	10.0%	2 USA	P.B.HEMMIG DOE	6913069
				0:	NEEDED TO PREDICT BUILDUP OF I	PU-236.
				a		7601500
1408	UP TO	15.0 MEV	15.0%	2 FR 0:		/621528
				M:	SUBSTANTIAL MODIFICATIONS.	
94 PLUTO	======================================	NEUTRON	:================== N			
******		************				-#8
1409	UP TO	15.0 MEV	20.0%	1 FP	J.SALVY BRC	682068P
94 PLUTO	NIUM 239	NEUTRON	F	ISSICN CFC	SS SECTION	
5=4882.28						
1410	10.0 KEV	15.0 MEV	1.0%	1 USA	G.E.HANSEN LAS	661049F
				Q : A :	RELATIVE TO U-235. ENERGY RESOLUTION 3 PERCENT, 1	ENERGY
					CALIERATION 1 PERCENT.	
1411	1.00 EV	10.0 MEV		1 USA	C.E.TILL ANL P.B.HEMMIG DOE	691467R
					P.GREEBLER GEB	
				A : 0 :	ACCURACY 2 PERCENT BELOW 3 ME HIGHEST PRIORITY FOR FAST REA	V. 5 PERCENT ABOVE. CTOR CALCULATIONS.
			·	MI	SUBSTANTIAL MODIFICATIONS.	
1412	1.00 MEV	5.00 MEV	3.0%	1 UK	C.G.CAMPBELL WIN	692426R
				Q: A:	RATIC TO U-235 FISSION CROSS ACCURACY FOR AVERAGE VALUE OF	SECTION ACCEPTABLE. THE ERROR BETWEEN
				0:	E AND 2E. For fast reactors.	

94 PLU	TONIUM 23	9	NEU	TRON		FISS	ION CRO	S SECTION		(CONTINUED)
1413	1.00	ĸev	4.00	MEV		1	ССР	M.N.NIKOLAEV	FEI	714024R
1413		ĸev				•	a: A: 0:	RATIO TO U-235 J MEASUREMENT AI (N,ALPHA), LI OTHER STANDAR BELOW 30 KEV ME. BY FLAT RESPOI METHOD WITH F SELFSHIELDING THESE CURVES MU THE PRIMARY B ACCURACY REQUIR OPTIMUM PRECISI REGION 20 KEV LETHARGY RESOLU SUFFICIENT FO SEE GENERAL COM REQUEST CONSIDE MEASUREMENTS REQUESTED ACC FIRST PRIORITY J INTERPRET THE	FISSION CS IS WA ND MEASUREMENT O -6(N,ALPHA) CROS OS WOULD BE VERY ASUREMENTS OF TR NSE DETECTOR AND ISSION DETECTOR EAM DOWN TO 1 PE EAM DOWN TO 1 PE ED TO BETTER THA DN OF 1.5 PERCE TO 1 MEV. TION OF ABOUT 0. R SUCH MEASUREME MENTS IN THE INT RED FULFILLED. W WITH DIFFERENT M DECAUSE IT IS DI SECAUSE IT IS DI SECAUSE IT IS DI	NTED BUT ABSOLUTE FRATIOS TO B-10 IS SECTIONS AND USEFUL ANSMISSION CURVES BY SELF DETECTION WANTED FOR WITH ATTENUATIONS OF RCENT. N 2.0 PERCENT. NT DESIRED IN 2 CONSIDERED NTS. RODUCTION. HEN AT LEAST THREE ETHODS AGREE WITHIN FFICULT TO FACTORS FRCM
1414	25.3	MV	1.00	KEV	1.0%	2	USA	P. GREEELER	GEB	7210858
							0:	DIRECT MEASUREM IMPROVED PRECIS U AND PU HALF L AFFECT THIS M	ENTS DISAGREE. Ion needed for t Ives should be c Easurement.	HERMAL REACTORS. ONFIRMED AS THEY
1415	10.0	KEV	14.0	MEV	2.0%	1	USA	P.8.HEMMIG	DOE	721086R
							Q:	RELATIVE TO U-2. AVERAGES OVER 1	35. 0 TO 20 PERCENT	ENERGY INTERVALS
						·	Α:	WANTED. ENERGY RESOLUTION CALIBRATION 1	ON 3 PERCENT, EN Percent.	IERGY
1416	10.0	KEV	1.00	MEV	2.0%	2	USA Q:	P.GREEBLER Ratio to U-235	GEB (N.F) WANTED.	741125R
			<i>c</i>	ME 14			0.40			7400060
1417	1.00	KEV	5.00	MEV		2	SWU A: 0:	ACCURACY 2 PERCI FAST REACTOR CA	AE ENT TO 1 MEV, 5 LCULATIONS.	PERCENT ABOVE.
1418	u	P TO	15.0	MEV		1 .	FR	C.PHILIS	BRC	7420998
							A: 0:	ACCURACY 5 PERC For critical as	ENT TO 1 KEV, 2 SEMBLIES.	PERCENT ABOVE.
1419	5.00	KEV	10.0	MEV		2	ССР А: D: м:	L.N.USACHEV FROM 5.0 - 100 FROM 0.1 - 0.8 FROM 0.8 - 4.5 ABOVE 4.5 MEV R NEED FOR FAST R FOR MORE DETAIL SUBSTANTIAL MOD	FEI KEV ACCURACY 1.2 MEV ACCURACY 1.3 MEV ACCURACY 2.6 EQUIREMENTS 2 TI EACTOR CALCULATI SEE INTRODUCTIO IFICATIONS.	754009R PERCENT. PERCENT. PERCENT. MES WEAKER. CNS.
1420	1.00	EV	3.00	MEV		1	USA A: D: M:	R.A.DONCALS NEED 3 PERCENT PERCENT ABOVE NEEDED FOR FAST NEW REQUEST.	WEW ACCURACY UP TO 2 REACTOR CALCULA	761040R 0 KEV AND 5.0 .TIONS.
1421	100.	KEV	20.0	MEV	2.0%	2	USA G: M:	P.GREEBLER Absolute measur New request.	GEB EMENT DES IRED •	761089R
1422	10.0	KEV	20.0	MEV	3. X	1	JAP	M.KAWAI	NIG	762211R
		•					0: M:	FISSION REACTOR SUBSTANTIAL MOD	IFICATIONS.	
1423	1.00	KEV	100.	KEV	2.0%	1	GER M:	H.KUESTERS	KFK	792221R
STATUS										STATUS
	UNDER CO	NTINU	OUS REVIE	W BY	INDC AND NE	ANDC.	SEE AP	PENDIX A.		
94 PLU	TONIUM 23		======= NEU =======	TRON		CAPT	JRE TO I	FISSION RATIO (	ALPHA)	
1424	100.	EV	10.0	MEV		1	USA	C.E.TILL P.GREEBLER P.B.HEMMIG F.C.MAIENSCHEIN	ANL GEB DDE DRL	691314R
		•					Q: A:	CAPTURE CROSS SI ACCURACY 100 EV •• 1 KE •• 50 KE •• 600 KE	ECTION EQUALLY U TO 1 KEV, 8 V TO 50 KEV, 4 V TO 600 KEV, 6 V TO 10 MEV, 10	SEFUL. PERCENT, PERCENT, PERCENT, PERCENT.
1425	20.0	KEV	100.	KEV	10.0%	з	UK	C.G.CAMPBELL	WIN	712078R
							A: 0:	EVALUATION REQU 0.1KEV TO 100KE ACCURACY FOR AV E AND 2E. For fast reacto	IPED OVER WIDER V• ERAGE VALUE OF T FS•	ENERGY RANGE FROM He error between

•

94 PLU ======	TONIUM 239		NEU ======	TRON		CAPT(	JRE TO	FISSION RATIO	(ALPHA)	(CONTINUED)
1426	100.	EV	800.	KEV	7.0%	1	ССР	M.N.NIKCLAEV	FEI	714025R
							Q:	FOR EVALUATIO FISSION-RES MEASUREMENTS RESPONSE DE	N OF DIFFERENC Onance Self St of Transmissic Tectop and by	ES IN CAPTURE AND HIELDING. DN CUPVES WITH FLAT- SELF-INDICATION METHOD
							A:	WITH CAPTUR BEAM ATTENUAT IN PEGION 1 T	E AND FISSION ION DOWN TO 1 O 100 KEV: 4 1	DETECTORS ARE WANTED. PERCENT WANTED.
					•		~•	DESIRABLE.	LUTION OF 0.2	SUFFICIENT FOR REGION
								AT LEAST THRE WITHIN REGU	E DIFFERENT RE	EQUESTS MUST COINCIDE
							0:	SEE GENERAL C FIRST PRIORIT INTERPRET T MACRESCOPIC	OMMENTS IN THE Y BECAUSE IT HE SELF-SHIELD DATA ONLY.	E INTRODUCTION. Is difficult to Ding factors from
1427	25.3	MV	14.0	MEV		· 2	JAP	Y.NA ITO	JAE	722046N
		* 			• •		A: 0:	ACCURACY REQU PEFCENT A80 FOR BURN UP C REACTOR+	IRED AT THERM VE. ALCULATION OF	AL IS 1 PERCENT, 5 A PU LOADED THERMAL
STATUS										STATUS
======	UNDER CON	TINUOUS ======	REVIE =====	W BY =====	INDC. SEE /	APPEND:	[X A. =======			
94 PLU ======	CONIUM 239	=======	NEU	TRON =====		NEUT	RONS EM	ITTED PER NEUT	RON ABSORPTION	N (ETA)
1428	10.0	MV	0.50	E۷	0.75%	1	UK	J.FELL	WIN	642006R
							Q: A: C:	VALUE RELATIV ACCURACY IS F FOR TEMPERATU	E TO 25.3 MV E Or average val Re coefficient	ETA WANTED. Lues in 20 mv steps. [ Work.
1429	25.3	MV	1.00	Eν	0.5%	1	USA	P.GREEBLER	GEB	671124R
							0: M:	FOR PU-FUELED SUBSTANTIAL M	OREACTOR CALCU	JLATIONS.
STATUS							SEE AD			STATUS
		======	======		SESSESSESSESSESSESSESSESSESSESSESSESSES	=======				
94 PLU	TONIUM 239	\$== <b>=</b> ===	NEU =====	TRON			RONS EM	ITTED PER FISS	10N (NU BAR)	
1430	25.3	мv	3.00	MEV	0 • 3X	1	USA	C.E.TILL P.GREEBLER P.B.HEMMIG	ANL GEB DOE	661050R
	•					-	A: D: M:	ACCURACY OF O HIGHEST PRIOR NEW REQUEST.	5 PERCENT WOU	ULD BE USEFUL. Reactor calculations.
1431	UP	TO	15.0	MEV		1	JAP	M.KAWAI	NIG	702037R
							A: C: M:	ACCUFACY REQU For fast read Substantial M	IRED TO BETTER TORS CALCULATI ODIFICATIONS.	R THAN 0.2 PERCENT. Lons.
1432	25.3	MV	2.50	MEV	0.5%	2	CCP	M.N.NIKOLAEV	FEI	714026R
·.							Q: A: D:	RATIO TO CF-2 ABSOLUTE MEAS THERMAL NEU PERCENT WOU DEPENDENCE CF-252 NU-B ENERGY DEPEND PERCENT ACC ENERGY RESOLU 2.5 MEV. SEE GENERAL CO	152 NU GEQUIRE UREMENTS OF NU TRONS WITH ACC ILD BE VERY US OF PU-239 NU-1 AR STANDARD. ENCE OF NU IS URACY. ITION OF 10. PI	D- J-BAR AND ETA FOR CUPACY OF AT LEAST 0.5 FFUL FOR LOWERING THE BAR RESULTS FROM THE WANTED WITH 0.7 ERCENT REQUIRED BELOW E INTRODUCTION.
1433	25.3	MV			0.5%	2	JAP	Y.NA ITO	JAE	722048N
							9: 0:	DATA WANTED F For Burn up C Reactor.	OR EPI-THERMAN	- NEUTRONS ALSO. A PU LOADED THERMAL
1434	UP	то	15.0	MEV		1	FR	C.PHILIS	BRC	742101R
							A: 0:	ACCURACY 2 PE For critical	RCENT TO 1 KEY Assemblies.	V. 1 PERCENT ABOVE.
1435	5.00	KEV	10.0	MEV		2	CCP	L.N.USACHEV	FEI	754011P
	•				·		A: D: M:	FROM 5.0 - 10 FROM 0.1 - 0. FROM 0.8 - 4. ABOVE 4.5 MEV NEED FOR FAST FOR MORE DETA SUBSTANTIAL M	00 KEV ACCURAC 8 MEV ACCURAC 5 MEV ACCURAC 7 REQUIREMENTS 7 REACTOR CALCU 11 SEE INTROD 100IFICATIONS.	Y 0.5 PERCENT. Y 0.5 PERCENT. Y 1.2 PERCENT. 2 TIMES WEAKER. JLATIONS. JCTION.
1436	25.3	MV .	10.0	MEV	1.0%	1.	USA	R.A.DONCALS	WEW	761041R
							A: 0: M:	NEED 0.5 PERC Essential for New request.	ENT ACCURACY ACCURATE FAS	BETWEEN 1 AND 3 KEV. T REACTOR CALCULATIONS.
1437	1.00	MV	1.00	ΕV	0.2%	1	USA	N.STEEN	BET	781190R
							Q: M:	MEASUREMENTS NEW REQUEST.	RELATIVE TO U	-233 AND U-235 WANTED.

========	NIUM 23	======		=====		525555	=======	==================		
STATUS										STATU
т 	HERMAL	VALUE	UNDER CO	NTINUC	DUS REVIEW	BY IN	DC AND	NEANDC. SEE	APPENDIX A.	
94 PLUTO	NIUM 23	9	NEU EEEEEE	TRON		DELA	YED NEU	TRONS EMITTE	D PER FISSION	
1438	25.3	MV	5.00	MEV		2	USA	C.E.TILL P.B.HEMMIG	ANL	691312
							0: D: M:	HALF LIFE, NEEDED FOR REACTOR C SUBSTANTIAL	AND ENERGY SPECTR ANALYSIS OF FAST ALCULATIONS. MODIFICATIONS.	UM NEEDED. CRITICALS AND FAST
1439	25.3	MV	5.00	MEV	5.0%	2	USA M:	C.E.TILL New request	ANL	761 090
1440	25.3	MV	10.0	MEV	5. X	2	JAP	T.MURATA	NIG	762048
								THE REQUEST AND GROUP Y CAN BE USED NEUTRONS FO ACCURACY OF INCIDENT EN ACTIVE ASSA	ED QUANTITIES ARE IELDS (NORMALIZED TO FIT THE DECAY R THE TIME RANGE 5 PEP CENT. ERGY STEP LESS TH Y OF MIXED FRESH	THE GROUP HALF LIVES TO 1 FISSION) WHICH CURVE OF DELAYED 0.1-300 SEC WITHIN AN AN 2 MEV. AND IRRADIATEC FUEL
STATUS							~	*~		STATU
U	NDER CO	NTINU	OUS REVIE	W 8Y :	INDC. SEE	APPEND	IX A.			X
94 PLUTO	NIUM 23	9	NEU	TRON		ENER	GY SPEC	RUM OF FISS	ICN NEUTPONS	*****************
1441	100.	KEV			2.0%	1	UK	C.G.CAMFBEL A.WHITTAKER	L WIN UKW	692433
							A: 0:	INCIDENT EN ACCURACY 2 10 PERCENT AND BELOW Low Resolut For Fast Re For Reactio	ERGY. ABCUT 100 K Percent average e on the number df .25 mev. Ion adequate for Actors. N rate analysis.	EV. NEUTRONS ABOVE 5 MEV Incident energy.
1442	U	Р ТО	15.0	MEV	- 1.0%	1	FR	C.PHILIS	BRC	742103
							c:	FOR CRITICA	L ASSEMBLIES.	
1443	25.3	MV	20.0	MEV .	10.0%	• 2	USA M:	P.GREEBLER New Request	GEB •	761 091
1444	25.3	MV			1.0%	2	USA	N.STEEN	BET	781186
							Q: A: D: M:	NEED SHAPE 100 KEV T Relative pe Needed for New request	OF NEUTRON ENERGY D 15 MEV. AK TO 1 PERCENT. CRITICALITY CALCU	DISTRIBUTION FROM
1445	100.	KEV			2.0%	1	GER	H.KUESTERS	KFK	792222
							A: M:	INCIDENT EN 2 PERCENT A 10 PERCENT NEUTRONS AB NEW REQUEST	ERGY, ABDUT 100 K CCURACY DN MEAN F ACCURACY WANTED D OVE 5 MEV AND BEL ;	EV. ISS. SPECTRUM ENERGY. N THE NUMBER GF OW .25 MEV.
STATUS	NDER CO	NTINU	OUS REVIE	W BY :	INDC. SEE	APPEND	 IX A.			STATU
94 PLUTO	NIUM 23	9	22222222 NEU 2222222222	TRON	**********	SPEC	TRUM OF	PROMPT GAMM	A RAYS EMITTED IN	FISSION
1446	25.3	MV	14.0	MEV	2.0 X	з	ССР	S.S.KOVALEN	KO RI	734002
							Q: A: D:	YIELD AND S 10.0 KEV GA For Assay D Gammas.	PECTRA WANTED FOR MMA RESOLUTION WA F PU IN FUEL ELEM	5 TO 15 MEV GAMMAS. NTED. ENTS FROM PROMPT
94 PLUTO	====== NIUM 23	9	NEU	TRON		DELA	YED GAM	MA SPECTPUM	FROM FISSION PROD	======================================
1447	25.3	MV			15.0%	з	USA	R.B.WALTON	LAS	701043
							0:	FISSION PRO 5. MEV. DELAY TIME	CUCT GAMMA RAY EN	ERGIES FROM 0.25 TO D TO 12 HOURS,
							A: 0: M:	GE (LI) RESO ACCURACY FO NON-DESTRUC SUBSTANTIAL	LUTION AT 1.2 MEV R ABSOLUTE GAMMA TIVE ASSAY OF PU- MODIFICATIONS.	SHOULD BE 2.5 KEV. RAY YIELDS. 239
94 PLUTO	NIUM 23	 9 	NEU	TRON		FISS	ION PRO	DUCT MASS YI	ELD SPECTRUM	
1448	25.3	MV			3.0%	2	USA	N.STEEN	BET	671125
							Q: 0:	CUMULATIVE 15 MINUTE FOR CALCULA	AND DIRECT YIELD ISOMER IS WANTED TION OF FISSION P	OF XE-135 INCLUSIVE D

94 PLUTONIUM 239		NEU	TRON		FISS	ION PRO	OUCT MASS VIELD	SPECTRUM (CC	NT INUED)	
1449	25.3	MV			1.0%	2	USA	N. STEEN	BET	671126R
					-		Q: 0:	FISSION PRODUCT	YIELD OF CS-137 WANTED.	
1450	25.3	MV			3.0%	2	USA	N. STEEN	8FT	6711288
						-	Q: 0:	FISSION PRODUCT FOR CALCULATION	YIELD OF ND-147 AND SM-149 OF FISSION PRODUCT POISONS	WANTED.
1451	25.3	MV			1.0%	1	ССР	S.A.SKVCRTSOV O.A.MILLER	KUR	704020N
				•			Q: 0:	YIELDS OF CS-133 FOR ASSAY OF PU THE FISSION PE	3 AND CS-137 WANTED. In Spent Fuel elements by Roduct gamma rays.	
1452	25.3	MÝ	、		1.0%	2	ССР	S.A.SKVCRTSOV D.A.MILLER	KUR	704023N
					•		a: c:	YIELDS CF ZR-95 ARE REQUIRED. FOR ASSAY OF PU THE FISSION PF	, RU-106, BA-140 AND CE-144 In spent fuel elements by Roduct gamma Rays,	
1453	25.3	MV			1.0%	. <b>2</b>	CAN	W.H.WALKER	CRC	711803R
							0: 0:	YIELD OF XE-135 FOR CALCULATION	WANTED. OF FISSION PRODUCT ABSORPT	TION.
1454	<b>2</b> 5.3	MV	15.0	MEV	5.0X	2	USA Q:	P.GREEBLER All Fission Prod	GEB DUCTS.	741126R
STATUS										STATUS
	JNDER CO	NTINUC ======	US REVIE	W BY ====:	INDC. SEE	APPEND	IX A. =======			
94 PLUT(	INIUM 23	9 ======	NEU	TRON ====:		RESO	STREET	ARAMETERS		
1455	25.3	MV	600.	EV	10.0%	2	USA	C.E.TILL S.VISNER	ANL CBE	691319R
							с:	FOR THERMAL REAC TO DETERMINE STA EXTRAPOLATION REACTORS.	CTORS. ATISTICAL PARAMETERS FOR TO HIGHER ENERGIES FOR FAS	ST
1456	25.3	MV	50.0	EV	10.0%	2	USA	P.B.HEMMIG P.GREEBLER	DOE GEB	691320R
					·.		с: м:	FOR EXTRAPOLATIC STATISTICAL P/ FOR FAST REACTOR NEW REQUEST.	DN TO HIGHER ENERGIES VIA Arameters. R Calculations.	
1457	250.	εv	1.00	KEV	3.0%	2	SWD	H.HAEGGBLOM	AE	692415R
							0:	NEUTRON, CAPTURI NEEDED FOR FAST	E AND FISSION WIDTH NEEDED REACTOR CALCULATIONS.	•
STATUS	INDER CO		US REVIE	 W BY	INDC. SEE	APPEND	 IX A.			STATUS
======= 94 PLUTO	======= NIUM 23	====== 9		29221	4,===============	MISC	=======			
				232,21					* *************************************	
1458					0.5%	1	AP G:	K,ONISHI Decay Heat (W/G)	PNC ) REQUIRED.	762019N
								ASSAY OF PU BY	CALORIMETRY	
94 PLUT(	NIUM 24	0				HALF	LIFE	==#=## <b>#</b> ##############################	***********************	
1459					1.0%	1	USA	J.GRUNDL	NBS	761125R
							0: D M:	ALPHA HALF-LIFE FOR MASS DETERMINEW REQUEST.	REQUIRED. INATION.OF FISSIONABLE DEP	OSITS.
94 PLUT	DNIUM 24	 0	======= SPO		============ EQUS	FISS	ION HAL			
				====						
1460					1.0×	2	USA A:	R.B.PERRY ACCURACY 3-5 PER	ANL RCENT USEFUL IN SHORT TERM	741152N
							0:	FOR CALCULATION SPONTANEOUS F NUCLEAR MATER	OF THE EFFECTIVE PU-240 FO ISSION MEASUREMENTS OF PU IALS SAFEGUARDS.	DR IN
1461					1. ×	2	JAP	K.ON ISHI		762016N
		======	========				0: ======== 4		======================================	============
2222222						576M 1222223	2222222			
1462					1. %	1	۹۹۲ ۵:	T.SUZUKI YIELD PER DISIN KEV GAMMA RAYS ( (FOLLEWING A)	JAE TEGRATION OF 45.2,104.2 AN REQUIRED. PHA DECAY EVENT)	762011N D 642.3
							0:	THOUGH PRESENT	STATUS OF ACCURACY SEEMED CONFIRMATION IS REQUIRED.	TO MEET
5122822							======			

94 PLUTON	NIUM 24		SP0	NTANEOU	5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5	NEUTR	ONS EM	ITTED PER FISSION	(NU BAR)	
1463					1.0%	_2	USA	R.B.PERFY	ANL	741155N
							A: 0:	ACCURACY 3-5 PER FOR CALCULATION SPONTANEOUS FI NUCLEAR MATERI	CENT USEFUL IN SHORT TERM. OF THE EFFECTIVE PU-240 FO ISSION MEASUREMENTS OF PU I ALS SAFEGUARDS.	RN
94 PLUTON	NIUM 24	= = = = = = = = = = = 0 = = = = = = = =	GAM	======= MA ========		FISSI	ON PRO	DUCT MASS YIELD S	EEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEEE	======================================
1464	4.00	MEV	14.0	MEV	10. %	з	JAP	R.MIKI	κκυ	762038N
						-	Q: C:	TOTAL FISSION YI REQUIRED. YIELD RDENTGEN*HUCLEUS PHOTCACTIVATION BREMSSTRAHLUNG SUFFICIENT THICK EXPERIMENTAL DAT NON-DESTRUCTIVE	ELD PRODUCED BY BREMSSTRAH MAY BE IN THE UNIT OF YIEL OR RELATIVE TO U-238 DR C UNVERTER (PREFERABLY TA) O NESS TO STOP ELECTRONS. NO A. ASSAY OF PU	LUNG D∕ THER F
94 PLUTON	NIUM 24		NEU	TRON		TOTAL	CROSS	SECTION		********
1465	10.0	KEV	1.00	MEV	10.0%	2	GER A:	B.GOEL Between 10 and 1	KFK 00 kev at 1 NS/M Resolutig	692439R
										*****
	1UM 24		NEO IIIIIIIIIII	= 52 5222=	============	INELA	======	2033 SECTION		*******
1466	1.50	MEV	10.0	MEV	20.0%	2	USA	P.GREEBLER P.B.⊨EMMIG	GEB DOE	721087R
							0:	EMISSION CROSS S AT THE HIGHER	SECTION MIGHT BE EQUALLY US ENERGIES.	EFUL
94 PLUTOR	NIUM 24	======= 0 ============================	NEU	TRON		ENERG	Y DIFF	ERENTIAL INELASTI	C CROSS SECTION	22222222 20222222
1467	u.		5.00	MEV	10.08	2	CCP		FFI	7140295
1407	Ū	- 10	5.00	~~ ·	10.00	E	A: 0:	CROSS SECTION FC THRESHOLDS OF WITH 10 PERCEN EXCITATION CS FC ACCURACY DF 15 SEE GENERAL COMM	DR INELASTIC REMOVAL BELOW ( U-238 AND PU-240 OR NP-237 IT ACCURACY. DR LOW-LYING LEVELS REQUIRE 6 PERCENT. MENTS IN THE INTFODUCTION.	FISSION WANTED D WITH
94 PLUTON	VIUM 24	 0 	NEU	TRON	=======================================	ENERG	Y-ANGLI	E DIFFERENTIAL IN	ELASTIC CROSS SECTION	
1468	U	Р ТО	4.00	MEV	40.0%	2	ик с:	C.G.CAMPBELL For fast reactor	WIN 25.	692443R
94 PLUTON		======== 0	NEU	TRON		CAPTU	RE CRO	SS SECTION		
22222222	======						======	=======================================		======
1469	25.3	MV	100.	EV	3.0%	1	USA D:	P.GREEBLER IMPROVED PRECISI	GEB ON NEEDED FOR THERMAL REAC	671194R TCRS.
1470	500.	EV	150.	KEV	5.0%	1	USA	C.E.TILL	ANL	691389R
							A: 0:	ACCURACY OF 15 P HIGH PRICRITY FO	PERCENT USEFUL. IR FAST REACTOR CALCULATION	S.
1471	500.	ΕV	1.00	MEV	5.00%	2	FR	P.HAMMER	CAD	692451R
							Q: 0:	ABSOLUTE VALUES RELATIVE VALUE To U-238 CAPTU For fast reactor	USEFUL BUT REQUEST CONCERN S VERSUS ENERGY OR RELATIV JRE OR U-235 FISSION. C CALCULATIONS.	S MAINLY E VALUES
1472	1.00	KEV	500.	KEV	10.0%	2	SWD	H.HAEGGBLOM	AE	692452R
							A: 0:	ENERGY DEPENDANC Needed for fast	E WITHIN 10 PERCENT. REACTOR CALCULATIONS.	
1473	5.00	KEV	1.00	MEV	10.0%	2	GER	B.GOEL	KFK	692453R
							A.	I NOVE RESULUTION		
1474	500.	EV	1.40	MEV	7.0%	2	ە: دە:	M.N.NIKOLAEV RATIO TO U-235 F B-10, LI-6, HE VERY USEFUL, SEE GENERAL COMM	FEI FISSION CS WANTED BUT RATIO 	*714032R S TO LD BE
1475	150.	KEV	1.00	MEV	10.0%	1	USA	P.GREEBLER P.B.HEMMIG	GEB DOE	721137R
							A: 0:	ACCURACY OF 15 P HIGH PRIORITY FO	PERCENT USEFUL. NR FAST REACTOR CALCULATION:	S.
1476	5.00	KEV	10.0	MEV		2	ССР	L.N.USACHEV	FEI	754006R
							A: 0: M:	FROM 5.0 - 100 K FROM 0.1 - 0.8 M FROM 0.8 - 4.5 M ABOVE 4.5 MEV RE NEED FOR FAST RE FOR MORE DETAIL SUBSTANTIAL MODI	EV ACCURACY 7.0 PERCENT. EV ACCURACY 14 PERCENT. EV ACCURACY 46 PERCENT. EQUIREMENTS 2 TIMES WEAKER. ACTOR CALCULATIONS. SEE INTRODUCTION. FICATIONS.	

94 PLUTO	NIUM 240	-===:	NEU =======	TRON =====		CAPT	URE CRO ======	SS SECTION ====================================	CO) ====================================	NTINUED)
1477			500	VEN						
1477	1.00	NE V	500.	ĸev	10. X	1	JAP 0:	Y.SEKI FOR EVALUATION OF REACTIVITY CHANGE	MAP BREEDING RATIC AND BURNU IN FAST REACTOR CALCULAT	7622146 P 10NS.
1478	500.	EV	5.00	MEV	4.0%	2	CCP	L.N.USACHEV	FEI	794001R
							а: 0: м:	AVERAGE CROSS SEC REQUESTED. FOR FAST-REACTOR SEE GENERAL COMME NEW REQUEST.	TION IN A FAST-REACTOR SP BURN-UP CALCULATION. ENTS.	ECTRUM
94 PLUTO	NIUM 240	=====	 NEU	==== TRON	*********	====== CAPT	URE GAM	NA RAY SPECTRUM		<b>2</b> 22222222
		*===			######################################	=====				
1479	25.3	٩v			20.0%	1	USA	R.B.WALTON	LAS	741139N
							Q: C: M:	ABSOLUTE SPECTRA FOR DEVELOPMENT ( SUBSTANTIAL MODIF	REQUIRED. DF NONDESTRUCTIVE ASSAY ME FICATIONS.	THOD.
94 PLUTO	NIUM 240		======= NEU =========	TRON		TOTA	L PH070	N PRODUCTION CROSS	SECTION	\$ <b>55</b> 5555555555555555555555555555555555
1480	120.	< EV			20.0%	З	UK	C.G.CAMFBELL	WIN	692442R
							Q: A: 0:	GAMMA SPECTRUM WA INCIDENT ENERGY, LOW RESOLUTION AC PHOTON SPECTRUM FOR STUDY OF ACTI	ANTED. About 120 Kev. Deguate for incident energy (vation and heat release )	Y AND
1481	25.3	٩v	15.0	MEV	10.0%	3	FR	B.DUCHEMIN	SAC	792050B
							Q: A:	GAMMA SPECTRA REC ENERGY RESOLUTION THAN 1 MEV AND 50 1 MEV	DUIRED N OF 250 KEV FOF GAMMA RAY Do KEV FOR ENERGIÉS GREATE	S LESS R THAN
							0: M:	FOR SHIELDING CAL SUFFICIENT NEW REQUEST.	CULATIONS - EVALUATION MA	Y BE
94 PLUTO	NIUM 240	====: ===:	======================================	TRON		#===== FISS	ION CRO	SS SECTION		
						· .				
1482	1.00	ζEV	15.0	MEV	2.0%	2	USA Q:	G.E.HANSEN Ratio Wanted Rel/	LAS ATIVE TO U-235.	671130R
1483	100.	KEV	5.00	MEV	5.0%	2	CCP	M.N.NIKCLAEV	FEI	714030R
							o: 0:	RATIC TC U-235 CF MEASUREMENT OF AV SPECTRUM OF CF- ACCURACY OF 2 F SEE GENERAL COMME	R NP-237 FISSION CS WANTED VERAGE CS IN FISSION-NEUTF -252 TIMES NU-BAR OF CF-25 Percent IS desired. ENTS IN THE INTRODUCTION.	0. RON 52 WITH
1484	500. 1	KEV	10.0	MEV	5.0%	2	USA D:	P.GREEBLER IMPORTANT FOR FA	GEB ST PEACTOR CALCULATIONS.	721088R
1485	500.	EV	100.	KEV	9.0%	2	USA	P.B.HEMMIG	DOE	721089R
							0:	FOR FAST REACTOR	CALCULATIONS.	
1486	1.00	KEV	100.	KEV	5 <b>.0X</b>	3	USA Q:	P.B.HEMMIG Ratio Wanted Rel	DDE ATIVE TO U-235.	721090R
1487	100.	KEV	2.00	MEV	3.0%	2	USA	P.B.HEMMIG	DOE	721091R
							Q : A : M :	RATIO WANTED REL Accuracy of 5 per Substantial modif	ATIVE TO U-235. RCENT USEFUL. FICATIONS.	
1488	UP	то	5.00	MEV	10.0%	2	SWD	H.HAEGGELOM	AE	742008R
		• .					0:	FAST REACTOR CAL	CULATIONS.	
1489	1.00	KEV	15.0	MEV	5.0%	1	GER	B.GOEL	KFK	742022R
1490	1.00	KEV	15.0	MEV	3.0%	2	FR 0	J.SALVY For critical ass	BRC EMBLIES.	742105P
1491	5.00	KEV	10.0	MEV		2	ССР	L.N.USACHEV	FEI	754003P
							A : 0 : M :	FROM 0.1 - 0.8 M FROM 0.8 - 4.5 M ABOVE 4.5 MEV RE NEED FOR FAST RE FOR MORE DETAIL SUBSTANTIAL MODI	EV ACCURACY 5.3 PERCENT. EV ACCURACY 3.5 PERCENT. QUIREMENTS 2 TIMES WEAKER. ACTOR CALCULATIONS. SEE INTRODUCTION. FICATIONS.	•
1492	25•2	MV	1.00	MEV	10. X	1	JAP	M.SASAKI		762213R
94 PLUTO	DNIUM 240		======================================	TRON		====== NEUT	RONS EN	ITTED PER FISSION	(NU BAR)	
		7-	<b>.</b>			~	<b>~</b> ~~			
1493	UP	10	5.00	MEV	1.0%	2	ССР 0: 0:	RATIO TO CF-252   See general comm	FEI NU-BAR WANTED. ENTS IN THE INTRODUCTION.	714031R

94 PLUTO	NIUM 240	NEUTRÓN	===========	NEUTR	ONS EMI	TTED PER FISSION	(NU BAR)	(CONTINUED)
1494	UP TO	10.0 MEV	3.0%	2	USA	C.E.TILL P.B.HEMMIG	ANL DGE	721092R
					A:	ACCURACY OF 5 PE	RCENT WOULD BE USEFUL.	
1495	1.00 KEV	15.0 MEV	1.0%	2	FR	J.SALVY	BRC	742106R
1496	5.00 KEV	10.0 MEV		2	ССР А: О: М:	L.N.USACHEV FROM 0.1 - 0.8 M FROM 0.8 - 4.5 M ABOVE 4.5 MEV RE NEED FOR FAST RE FOR MORE DETAIL SUBSTANTIAL MODI	FEI MEV ACCURACY 3 PERCEN MEV ACCURACY 2 PERCEN OUIREMENTS 2 TIMES WEA ACTOR CALCULATIONS. SEE INTRODUCTION. FICATIONS.	754004R IT. IT. KER.
1497	UP TO	5.00 MÉV	2.0%	3	UK C:	C.G.CAMPBELL	WIN 25.	792139R
					м:	NEW REQUEST.		
94 PLUTO	NIUM 240	NEUTRON		DELAY	ED NEUT	RONS EMITTED PER	FISSION	
		************	=======			.21 -0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0		
1498	UP TO	5.00 MEV	10.0%	2	USA M:	P.B.HEMMIG New request.	DOE	761092R
1499	25.3 MV	10.0 MEV	5. *	2	JAP	T.MURATA	NIG	762049N
				-	6:	THE REQUESTED QU AND GROUP YIELDS CAN USED TO FIT NEUTRONS FOR THE ACCURACY OF S PE INCIDENT FREEKY	JANTITIES ARE THE GROUP 6 (NORMALIZED TO 1 FISS THE DECAY CURVE OF DEL TIME RANGE 0.1-300 SE R CENT.	HALF LIVES ION) WHICH AYED C WITHIN AN
						ACTIVE ASSAY OF	MIXED FRESH AND IRRADI	ATED FUEL
STATUS								ST ATUS
U	NDER CONTINUOU	S REVIEW BY IN	DC. SEE A	PPENDI	IX A.			
94 PLUTO	======================================	NEUTRON		ENERG	SY SPECT	RUM OF FISSION N	EUTRONS	
*******			********	======				
1500	UP TC	15.0 MEV	3.0%	2	FR A:	P.HAMMER ACCURACY FOR AVE U-235 OR PU-23	CAD ERAGE E' RELATIVE TO AV 39.	732098R ERAGE E!
94 PLUTO	======================================	================== NEUTRON		RESON	ANCE PA		***************************************	
		***********						
1501	100. EV	5.00 KEV	10.0%	2	USA	C.E.TILL P.B.HEMMIG	ANL	691391R
					0:	NEEDED FOR FAST DOPPLER EFFECT	REACTOR CALCULATIONS I •	NCLUŅING
1502	10.0 EV	5.00 KEV		2	ССР	M.N.NIKOLAEV	FEI	714028R
					a: . o:	NEUTRON AND CAPT OF SELF SHIELD AND EVALUATION SELF-INCICATION FOR P-WAVE RES AVERAGE S AND P BE DEFIVED. STATISTICAL ANAL PARAMETERS WAN SEE ALSO GENERAL	TURE WIDTHS WANTED FOR Sing in resolved resonance capture measurements a onance observation. Wave resonance paramet Lysis of measured resonance ted. Comments in the intro	EVALUATION NCE REGIONS PARAMETERS. RE DESIRED ERS SHOULD NANCE DUCTICN.
1503	100. EV	5.00 KEV	10.0%	2	USA	S. VI SNER	CBE	761093R
				-	0: M:	FOR THERMAL REAC EFFECTS. NEW REQUEST.	TOR APPLICATIONS INCLU	DING DOPPLER
1504	1.00 EV	10.0 KEV		1	JAP 0:	M.SASAKI For fast reactor	MAP CALCULATIONS	762215R
94 PLUTO	NIUM 240 =============			MISC				******
1505			0.3%	2	GER	V.SCHNE IDER	ALK	702079N
					a: c:	SPECIFIC DECAY + PERCENTAGE OF HE PARTICLES (X-F FOR CALORIMETRIC	HEAT IN WATTS/GRAM REQU AT CARRIED OFF BY LONG Rays,gamma Rays) Useful C PU Determination.	RANGE
1506			0.5%	1	JAP	K.ONISHI	PNC	762020N
		************	=========		Q: 0:	DECAY HEAT (W/G) ASSAY OF PU BY C	REQUIRED.	
. –								

94 PLUTO	NIUM 241		= = = = = = = = = = = = = = = = = = =		GAMM		ELD		
1507				5. X	1	JAP Q:	T.SUZUKI	JAE GRATION OF 56.4.77.103.5.	762012N
						A :	AND 160 KEV GAMMA (FOLLEWING ALPHA 1 PER CENT ACCURAC Rays, 5 PER CENT A Gamma Rays.	RAYS REQUIRED. A DECAY EVENT) CY FOR 103.5 AND 148.6 KE ACCURACY FOR 56.4.77 AND	V GAMMA 160 KEV
						0:	THOUGH PRESENT STA THE REQUIREMENT CO ASSAY OF PU-ISOTOF	ATUS OF ACCUFACY SEEMED T DNFIRMATION IS REQUIRED. PES BY GAMMA-RAY SPECTROS	О МЕЕТ СФРҮ
94 PLUTO	NIUM 241	GA	====== MMA ======		TOTA		IN YIELD		
1508	UP T	0 10.0	MEV	10.0%	2	сср о:	V.K.MARKOV G	GAC ASSAY OF PU.	714049N
====== 94 PLUTO	======== NIUM 241	===== GA	====== MMA	**********	FISS		S SECTION		******
*******			=====	**********					=======
1509	ר פע	10.0	MEV	10.0%	2	сср о:	V.K,MARKOV G	GAC ASSAY OF PU.	714047N
94 PLUTO			====== MMA		FISS	ION PROD	DUCT MASS YIELD SPE	======================================	
									=======
1510	UP 1	10.0	MEV	10.0%	2	ССР	V.K.MARKCV C	GAC	714048N
						0:	FOR PHOTONUCLEAR A	ASSAY OF PU.	
1511	4.00 ME	I4•0	MEV	10. X	3	JAP	R.MIKI H	ĸĸu	762039N
						o: 0:	TOTAL FISSION YIEL REQUIRED. YIELD MA RDENTGEN*NUCLEUS C FHOTDACTIVATION YI BREMSSTRAHLUNG CON SUFFICIENT THICKNE NON-DESTRUCTIVE AS	LD PRODUCED BY BREMSSTRAH AY BE IN THE UNIT OF YIEL OR RELATIVE TO U-238 OR C IELDS. NVERTER (PREFERABLY TA) O ESS TO STOP ELECTRONS. SSAY OF PU	LUNG D/ THER F
SEEEEEEE 94 PLUTO Seeeeeee	NIUM 241	NE	UTRON		TOTA	L CPOSS	SECTION		======================================
1512	1.00 KE	EV 15.0	MEV	10.0%	2	GER M:	B.GDEL N SUBSTANTIAL MODIF:	KFK ICATIONS.	692455R
1513	100. EV	/ 15.0	MEV	10. %	1	JAP O:	T.HOJUYAMA N FOR FAST REACTOR (	MAP CALCULATIONS	762216R
1514	10.0 M	/ 3.00	εv	1.0%	1	USA	R.W.PEELLE	ORL	781195R
·						0: M:	TOTAL CROSS-SECTIONEW REQUEST.	ON NOT CONSISTENT WITH PA	RTIALS.
94 PLUTO	NIUM 241		UTRON		ABSO	RPTION	CROSS SECTION		
					_				
1515	15.0 EV	V 300.	EV	8.0%	3	UK A: 0:	J.FELL ACCURACY FOR AVER E AND 2E. For Thermal React(	WIN AGE VALUE CF THE ERROR BE ORS.	712095R
1516	1.00 K	EV 2.00	KEV	20.0%	з	UK	J.FELL	WIN	712096P
						A: 0:	ACCURACY FOR AVERA E AND 2E. FOR THERMAL REACTO	AGE VALUE OF THE ERROR BE Ors.	TWEEN
94 PLUTO	INIUM 241	NE	UTRON	***********	CAPT	URE CRO	SS SECTION		
1517	25.3 M	V 30.0	) KEV	3.0%	1	USA Q: A:	P.GREEBLER ALPHA ALSO USEFUL ACCURACY TO 3 PERI	GEB CENT IN ETA. N NEEDED FOR THERMAL REAC	671132R
						0.	ALSO WANTED FOR F	AST REACTORS.	1043.
1518	1.00 K	EV 5.00	) MEV	10.0%	2	SWD a:	H.HAEGGBLOM	AE ULATIONS.	692470R
1510	200 5				•				(00.47.5
121A	200• E	• I•00	MEV	10.02	2	GER Q:	ALPHA IS USEFUL.		072471R
1520	5.00 Ki	EV 10.0	) MEV		2	ССР	L.N.USACHEV	FEI	754001 R
						A: 0: M:	FROM 5.0 - 100 KE FROM 0.1 - 0.8 ME FROM 0.8 - 4.5 ME ABOVE 4.5 MEV REQ NEED FOR FAST REA FOR MORE DETAIL S SUBSTANTIAL MODIF	V ACCURACY 18 PERCENT. V ACCURACY 30 PERCENT. V ACCURACY 50 PERCENT. UIREMENTS 2 TIMES WEAKER. CTOR CALCULATIONS. EE INTRODUCTION. ICATIONS.	, ,
1521	25.3 M	V 30.0	) KEV	3.0%	2	USA D: M:	S.VISNER For Thermal Reacti New Request.	CBE DR CALCULATIONS.	761'094R

94 PLUTO	NIUM 24	1 =====	NEU	TRON		CAPT	URE CR09	S SECTION	( COI	NT INUED)
1522	100.	MV	15.0	MEV	8. %	1	JAP 0:	T.HOJUYAMA For fast reactor	MAP CALCULATIONS	7622175
1523	500.	EV	5.00	MEV	7.0%	2	ССР Q: С: м:	L.N.USACHEV AVERAGE CROSS SE FEQUESTED. FOR FAST-REACTOP SEE GENERAL COMMINEW REQUEST.	FEI CTICN IN A FAST-REACTOR SPI BURN-UP CALCULATION. ENTS.	794002R ECTRUM
94 PLUTO	NIUM 24	=====	NEU	TRON		CAPT	URE GAM	A RAY SPECTRUM		
	AE 3									7411400
1524	2003	Μ¥			20.0*	1	03A 0: M:	ABSOLUTE SPECTRA FOR DEVELOPMENT I SUBSTANTIAL MODIA	REQUIRED. OF NONDESTRUCTIVE ASSAY ME FICATIONS.	THODS.
94 PLUTO	NIUM 24	=====	======= NEU	TRON		ATOTA		PRODUCTION CROS	S SECTION	
1525	120.	KEV			20.0%	3	UK Q: A: 0:	C.G.CAMPBELL GAMMA SPECTRUM W INCIDENT ENERGY, LOW RESOLUTION A PHOTON SPECTRU FOR STUDY OF ACT	WIN ANTED. Abdut 120 Kev. Dequate for incident energ M. Ivation and heat release 19	ES24604 Y AND N CORE.
1526	25.3	MV	15.0	MEV	10.0%	3	FR	B.DUCHEMIN	SAC	792051P
•							Q: A: 0:	GAMMA SPECTRA RE ENERGY RESOLUTIC THAN 1 MEV AND 5 1 MEV FOR SHIELDING CA	QUIRED N OF 250 KEV FOR GAMMA RAY: 00 KEV FOR ENERGIES GREATE LCULATIONS - EVALUATION MA	S LESS R ⁻⁷ HAN Y EE
							M :	SUFFICIENT NEW PEQUEST.		
94 PLUTO	NIUM 24	===== 1 ======	********** NEU	TRON		===== N,2N				
1527								T UO 11191MA		7600010
1527	0	P 10	15.0	MEV	20. %	2	JAP 0:	FOR FAST REACTOR	CALCULATIONS	7622219
94 PLUTON	NIUM 24	= = = = = = = = = = = = = = = = = = =	NEU	22222 TRON		===== F I SS	ION CROS	S SECTION		
		-							1 <b>2 8 3 4 4 5 2 6 7 5 7 5 7 6 6 7 7 7 7 7 7 7 7 7 7 7 7</b>	
1528	100.	EV	15.0	MEV	1.0%	2	USA Q: A:	G.E.HANSEN RATIC TO U-235 F ENERGY RESOLUTIO	LAS ISSION WANTED. N - 3 PERCENT.	661055R
1529	25.3	MV	10.0	EV	3.0%	1	USA	C.E.TILL P.GREEBLER	ANL GEB	691328R
							M:	SUBSTANTIAL MODI	FICATIONS.	
1.530	100.	EV	150.	KEV	5.0%	2	UK A: C:	C.G.CAMPBELL Accuracy for Avei E AND 2E. For fast reactor:	WIN RAGE VALUE OF THE ERROR BE S.	692462R TWEEN
1531	1.00	KEV	5.00	MEV	10.0%	2	SWD	H.HAEGGBLOM	AE	692463R
							0:	NEEDED FOR FAST	REACTOR CALCULATIONS.	
1532	U	P TO	5.00	KEV	5.0%	2	FR O:	H.TELLIER Reactor calculat	SAC IONS.	7320999
1533	1.00	KEV	15.0	MEV	10.0%	2	GER	8.GOEL	KFK	74201 <b>3</b> R
1534	5.00	ĸev	10.0	MEV		2	ССР А: О: М:	L.N.USACHEV FROM 5.0 - 100 KI FROM 0.1 - 0.8 M FROM 0.8 - 4.5 M ABOVE 4.5 MEV REU NEED FOR FAST RE FOR MORE DETAIL SUBSTANTIAL MODI	FEI EV ACCURACY 3.7 PERCENT. EV ACCURACY 5.0 PERCENT. EV ACCURACY 9.7 PERCENT. QUIREMENTS 2 TIMES WEAKER. ACTOR CALCULATIONS. SEE INTRODUCTION. FICATIONS.	754002R
1535	10.0	EV	30.0	KEV	10.0%	1	USA Q: M:	R.A.DONCALS Ratio to U-235 of New Request.	WEW R PU-239 WOULD BE USEFUL.	7610428
1536	1.00	MV	3.00	E♥	1.0%	1	USA O: M:	B.R.LEONARD For Thermal Cross New Request.	BNW S SECTION EVALUATION.	761095R
1537	1.00	EV	1.00	MEV	1-5.X	1	RUM	S.RAPEANU	RUM	763007명
1538	500.	EV	5.00	ME V	5.0%	2	CCP Q: 0: N:	L.N.USACHEV AVERAGE CROSS SEG REQUESTED. FOR FAST-REACTOR SEE GENERAL COMMINEW REQUEST.	FEI CTION IN A FAST-REACTOR SP BURN-UP CALCULATION. ENTS,	794009R ECTRUM

94 PLU	TONIUM 24	1	NEU	TRON		CAPT	URE TO	) F	ISSION RATIO (/	======================================	
								===			
1539	1.00	KEV	2.00	MEV	10.0%	1	USA		P.GREEBLER P.B.HEMMIG	GEB DOE	691 331 R
							C	::	CAPTURE CROSS SE	ECTION EQUALLY USEFUL.	
1540	25.3	MV			1.0%	2	FR		H.TELL IER	SAC	702043R
							C	:	EVALUATION MAY S DISCREPANCIES	SUFFICE IF IT EXPLAINS •	
1541	25.3	MV	14.0	MEV		2	JAP		Y.NAITO	JAE	722047N
					·		<i>,</i>	A: ):	ACCURACY REQUIRE PERCENT ABOVE FOR BURN UP CALC REACTOR.	ED AT THERMAL IS 1 PERCEN CULATION OF A PU LOADED	NT, 5 Thermal
1542	100.	мv	15.0	MEV	8• X	1	JAP		T.HOJUYAMA	MAP	76221 9R
							C	:	FOR FAST REACTOR	R CALCULATIONS	
1543	100.	EV	1.00	MEV	20.0%	3	UK		C.G.CAMPBELL	WIN	792140R
							C M	4:	FOR FAST REACTOP	RS.	
STATUS-	THERMAL	VALUE	UNDER CO	 NT ['] INU	OUS REVIEW	87 IN	IDC AND		EANDC. SEE APPEN	NDIX A.	—STA™US
94 PLU	TONIUM 24		======= NEU	===== TRON		===== NEU1	RONS E	= = = E M J	TTED PER NEUTRON	N ABSORPTION (ETA)	
		=====				====		===			
1544	10.0	MV	15.0	E۷		2	UK		J.FELL	WIN	642007R
							C A	2: A: ]:	VALUE RELATIVE T ACCURACY 2 PERCE FOR THERMAL REAC	TO 25.3 MV ETA WANTED. Ent to 1 EV, 6 Percent Ab Ctops.	BOVE.
1545	25.3	ΜV			1.0%	2	FR		H. TELL IER	SAC	692464R
							C	G :	FOR THERMAL REAGENALUATION MAY	CTOR CALCULATIONS. SUFFICE IF IT EXPLAINS	
CTATUC.									DISCREPANCIES	•	67 4 <b>7</b> 14 6
57 4105-	THERMAL	VALUE	UNDER CO	NT I NU	OUS REVIEW	BY IN	NDC AND	) N	IEANDC. SEE APPEN	- <b></b>	
											**********
======			======	=====		= = = = = =		===			**********
1546	1.00	KEV	1.00	MEV	2.0%	1	USA		P.B.HEMMIG	DCE	691330R
							M	4 :	SUBSTANTIAL MOD	IFICATIONS.	
1547	1.00	KEV	15.0	MEV	5.0%	2	GER		B.GOEL	К <b>F</b> К	692466R
1548	5.00	KEV	10.0	MEV		2	ССР		L.N.USACHEV	FEI	754013R
								A: 	FROM 5.0 - 100   FROM 0.1 - 0.8   FROM 0.8 - 4.5   ABCVE 4.5 MEY RE NEED FOR FAST RI FOR MORE DETAIL SUBSTANTIAL MOD	KEV ACCURACY 1.2 PERCENT. MEV ACCURACY 2.3 PERCENT. MEV ACCURACY 4.0 PERCENT EQUIREMENTS 2 TIMES WEAK EACTOR CALCULATIONS. SEE INTRODUCTION. IFICATIONS.	• • • • • •
ST ATUS-											STATUS
	THERMAL	VALUE	UNDER CO	NT INU	OUS REVIEW	8Y IN	NDC AND	^ ⊂ -=-	EANDC. SEE APPE	NDIX A.	
94 PLU	TONIUM 24	1	NEU	TRON		DELA	YED NE		RONS EMITTED PER	R FISSION	
1549	25.3	MV	10.0	MEV	5. X	2	JAP		T. MURATA	NIG	762050N
							. t	2:	THE FEQUESTED AL AND GROUP YIELDS CAN USED TO FIT NEUTRONS FOR THI ACCURACY DF 5 PI ACTIVE ASSAY DF INCIDENT ENERGY	UANTITIES ARE THE GROUP I S (NORMALIZED TO 1 FISSI The decay curve of dela' e time range 0.1-300 sec er cent. Mixed fresh and irradia' Step Less Than 2 MeV.	HALF LIVES ON) WHICH YED WITHIN AN TED FUEL
STATUS											STATUS
	UNDER C	טאדואט	OUS REVIE	W BY	INDC. SEE A	PPEN	DIX A.				
94 PLU ======	TONIUM 24	===== +1 =======	=========== NEU ============	===== TRON =====		FISS	SION PR	200	OUCT MASS YIELD	SPECTRUM	F==02==0568 F==02=525555
1550	25.3	MV		·	5.0%	з	ССР		S.A.SKVCRTSOV D.A.MILLER	KUR KUR	704021N
							9	9:	YIELD OF RU-144	WANTED.	NS
								•	OF FISSION PR	DUCT GAMMA RADIATION.	с <b>и</b>
1551	25.3	MV			1.0%	2	CAN	<b>a</b> :	W.H.WALKER	URC WANTED	711804R
							ć	5:	FOR CALCULATION	OF FISSION PRODUCT ABSO	RPTION.
STATUS	UNDER C				INDC- SEE	PPEN					STATUS
=======		=====		====		23251		= = = =		*******************************	**********

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94 PLUTO	NIUM 24	:==u==u= ! 	NEU	TRON		RESON	ANCE P	ARAMETERS		
1552	35.0	EV	200.	EV	10.0%	2	GER	E.GOEL	кғк	692459F
							Q:	NEUTRON WIDTHS NE	EEDED.	
1553	25.3	MV	400.	EV		2	USA	C.E.TILL	ANL	721140P
							A: D:	ACCURACY 5 PERCEN ACCURACY 20 PERCE For Thermal and F	NT TO 100 EV AND 10 PERCEN ENT USEFUL. FAST REACTOR CALCULATIGNS.	T ABOVE.
1554	25.3	MV	400.	Eν	10.0%	2	USA	S.VISNER	CBE	761 096R
							С: М:	FOR THERMAL REACT New request.	TOR APPLICATIONS AT HIGH B	URNUP.
1555	0.20	EV	200.	Ēν	10. X	1.	JAP	T.HOJUYAMA	MAP	762222P
							A: 0:	10 PER CENT IN FE FOR FAST REACTOR	ISSION WIDTH Calculations	
1556	1.00	EV			1.0%	1	USA	R.W.PEELLE	ORL	781194R
			•				0: M:	RESONANCE STRONGU SECTION EVALUAT NEW REQUEST.	LY INFLUENCES THERMAL CROS	s-
94 PLUTO	NIUM 24		=======			MISC				82=8== <b>2</b> 8
			=====							
1557					1.5%	2	GER	V.SCHNEIDER	ALK	702073N
							G:	PERCENTAGE OF HEA PARTICLES (X-RA FOR CALORIMETRIC	AT CARRIED OFF BY LONG RAN AT CARRIED OFF BY LONG RAN AYS.GAMMA RAYS) USEFUL. PU DETERMINATION.	GE
1558					0.5%	1	JAP	K.ONISHI	PNC	762021N
						•	a: 0:	DECAY FEAT (W/G) ASSAY OF PU BY CA	REQUIRED. ALOFIMETRY	
			=== = = = SPN			====== = I S S I				
							======		***************************************	= = = = = = = = = = = = = = = = = = = =
1559					1 • X	2	aAL ∶O	K.ONISHI Detection of PU f	PNC BY NEUTREN COINCIDENCE MET	762017N
			======					TTED DEP EISSION	(NIL BAD)	
								=================		*******
1560					1.0%	2	USA	R.B.FERRY	ANL	741156N
							A: 0:	ACCURACY 3-5 PERC FOR CALCULATION C SPONTANEOUS FIS NUCLEAR MATERIA	CENT USEFUL IN SHORT TERM. DF THE EFFECTIVE PU-240 FO SSION MEASUREMENTS OF PU I ALS SAFEGUARDS.	RN
94 PLUTO			====== NEU	======= TRON	*********				192500	
					*=======					
1561	10.0	KEV	15.0	MEV	10.0%	1	GER A:	F.FRGEHNER 5-10 PERCENT ENER	KFK RGY RESOLUTION SUFFICIENT	792255R
							о: м:	FOR CONSISTENT EN NO DATA AVAILABLE DIFFICULT TO RECO NEW REQUEST.	/ALUATION OF PARTIAL CROSS E ABOVE 600KEV, DATA BELOW DNCILE WITH DPTICAL MODEL	SECTION 150KEV
94 PLUTO		======= 2	====== NEU	TRON		CAPTU	RE CRO	SS SECTION		
										88222222
1562	25.3	MV			5.0%	1	FR	H.TELLIER	SAC	702047R
	•						0:	DISCREPANCIES.	JFFICE IF IT EXPLAINS	
1563	U	<b>э</b> то	5.00	KEV	5.0%	2	FR	H.TELLIEP	SAC	702048R
							A: D:	ACCURACY FOR RATE EVALUATION MAY SU DISCREPANCIES.	ID TO THERMAL CROSS SECTIC UFFICE IF IT EXPLAINS	N •
1564	1.00	KEV	3.00	MEV	10.0%	1	FR	L.COSTA	CAD	7121029
							0: 0: M:	RELATIVE VALUES V For fast reactor Substantial modif	VERSUS ENERGY OF TO U-238 CALCULATIONS. FICATIONS.	CAPTURE.
1565	1.00	KEV	7.00	MEV	20.0%	1	USA	P.B.HEMMIG	DOE	721098R
					•		0:	FOR FAST BREEDER PRODUCTION.	CALCULATIONS, CM AND CF	
1566	25.3	MV	7.00	MEV		1	USA	P.GREEBLER	GEB	721142R
							A: 0:	ACCURACY 3 PERCEN 1 KEV, 15-20 PE RESONANCE PARAMEN 10 KEV. FOR FAST BREEDER PRODUCTION.	NT TO 100 EV. 10 PERCENT 1 Reent 1 Kev to 7 Mev. Fers to 10-20 percent belo Calculations, CM and CF	00 EV TO W

94 PLUTO	NIUM 24 ======	2	NEU.	TRON		CAPTU	RE CR05	SS SECTION		(CONTINUED)
1567	25.3	MV	14.0	MEV		2	JAP	Y.NAITC	JAE	722043N
							Α:	ACCURACY REQUIRE	D AT THERMAL IS 5 PERCEN	NT. 10
							0:	FOR BURN UP CALCU REACTOR.	JLATION OF A PU LOADED "	THERMAL
1568	1.00	KEV	5.00	MEV	10.0%	3	SWD	H.HAEGGBLOM	AE	7420108
							0:	FAST REACTOR CAL	CULATIONS.	
1569	5.00	KEV	10.0	MEV		2	сср	L.N.USACHEV	FEI	754014R
							Α:	FROM 5.0 - 100 K	EV ACCURACY 30 PERCENT EV ACCURACY 30 PERCENT	•
							·.	ABOVE 4.5 MEV REC	EV ACCURACY 50 PERCENT QUIREMENTS 2 TIMES WEAK	ER.
							M:	FOR MORE DETAIL SUBSTANTIAL MODI	SEE INTRODUCTION. FICATIONS.	
1570	25.3	MV	1.00	KEV	3.0%	2	USA	S. VISNER	CBE	7610975
							С: М:	FOR THERMAL REACT	TOR APPLICATIONS AT HIG	н ви≈мир.
1571	1.00	KEV	15.0	MEV	10 <b>. X</b>	2	JAP	T . HO JUYAMA	MAP	762223P
							0:	FOR SHIELDING OF	SPENT FUEL.	
1572	10.0	MV	4.00	EV	10.0%	2	UK	J.FELL	WIN	792168R
							0: M:	FOR STUDIES OF PUNEW REQUEST.	LUTONIUM RECYCLE.	
1573	500,	εv	5.00	MEV	15.0%	2	ССР	L.N.USACHEV	FEI	794003R
							ø:	AVERAGE CROSS SEC	CTION IN A FAST-PEACTOR	SPECTRUM
					-		C:	FOR FAST-REACTOR	BURN-UP CALCULATION.	
							м:	NEW REQUEST.		
94 PLUTO	NIUM 24	2 2 = = = 5 = =	NEU	TRON		CAPTU	RE GAM	MA RAY SPECTRUM		
1574	25.3	MV			20.0%	1	USA	R.B.WALTON	LAS	741141N
							Q:	ABSOLUTE SPECTRA	REQUIRED.	
							0: M:	FOR DEVELOPMENT I SUBSTANTIAL MODIN	DF NONDESTRUCTIVE ASSAY Fications.	METHODS .
94 PLUTO	NIUM 24	2	NEU NEU	TRON		TOTAL	PHOTO	N PRODUCTION CROS	S SECTION	=======================================
1575	25,3	MV	15.0	MEV	10.0%	з	FR	B. DUCHEMIN	SAC	792052R
							Q: A:	GAMMA SPECTRA REG ENERGY RESOLUTION	QUIRED N OF 250 KEV FOP GAMMA	RAYS LESS
								THAN 1 MEV AND 50 1 MEV	00 KEV FOR ENERGIES GRE	ATER THAN
							U: M:	SUFFICIENT NEW REQUEST.	LCULATIONS - EVALUATION	MAY EE
	====== NIUM 24	===≠== 2	e======= NEU	TRON		FISSI	ON CRO	======================================		
	******	=======							E±===\$========================	
1576	20.0	KEV	400.	KEV	3.0%	1	USA	P.B.HEMMIG	DOE	721094R
							Q: M:	RATIC WANTED REL. SUBSTANTIAL MODIN	ATIVE TO U-235. Fications.	
1577	1.00	KEV	5.00	MEV	10.0*	а.	รษก		٨F	7420000
1011		· • • •	0.00	•••••			0:	FAST REACTOR CAL	CULATIONS.	
1578	1.00	KEV	15.0	MEV	10. 4	2			MAD	7622240
10/0		ŊL ¥	13.0		101 %	2	0:	FOR SHIELDING OF	SPENT FUEL	TOLEZAR
1579	1.00	EV	1.00	MEV	1-5 <b>.</b> X	1	RUM	S.RAPEANU	RUM	763008R
1580	1.00	KEV	3.00	MEV	10.0%	1	FR	LACOSTA	CAD	792053R
						-	0:	OUT-OF-CORE CYCLI	E	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
=======		======							******************	
94 PLUTC	NIUM 24	2	NEU	TRON =====	**********	NEUTR	ONS EM	ITTED PER FISSION	(NU BAR)	
1581	500.	KEV	10.0	MEV	5.0%	2	USA	P.B.HEMMIG	DOE	691334R
1582	500.	EV	15.0	MEV	5.0%	2	FR	P.HAMMER	CAD	712100R
							Q: D:	RELATIVE TO CF-2 For fast reactor	52 NU. Calculations.	
					*= = = = = = = = = = = = = = = = = = =					
94 PLUIC =======	3======	22222		=====	========	MISC				**********
1583					0.5%	1	JAP	K.ONISHI	PNC	762022N
						÷	9:	DECAY HEAT (W/G)	REQUIRED.	
========	5552335							AJJAT UP PU BY C	ALUKIME:KT ====================================	

94 PLUTO	NIUM 243		NEU	===== TRON ======		CAPTU	RE CROS	SS SECTION		
1584	1.00	KEV	3.00	MEV	50.0%	з	FR M:	P.HAMMER New Request.	CAD	792054R
		**=====								
=======	100 243	, .=======	NE0	ESSES		-1351	=======	12=9===================================		=======
1585	1.00	KEV	3.00	MEV	50.0%	3	FP M:	P.HAMMER New Request.	CAD	792055R
			==== === NEU		==============	====== FISSI				
========		, 				======				*******
1586	25.3	MV				2	CAN	W.H.WALKER	CRC	681804R
							Α:	ACCURACY REQUIRE	D 200 B.	
							0:	UNKNEWN CROSS SE	CTION.	
95 AMERIO	CIUM 241		GAM	===== MA		TOTAL	NEUTRO	IN YIELD		
				=== = = = =		= = = = = =				
1587	UF	то	10.0	MEV	10.0%	2	CC P	V.K.MARKOV	GAC	714052N
							0:	FOR PHOTONUCLEAR	ASSAY OF PU.	
95 AMERI		========	GAM	===== MA		====== FISSI		S SECTION		
========				======						
1588	UF	• то	10.0	MEV	10.0%	2	CCP	V.K.MARKOV	GAC	714051N
							0:	FOR PHOTONUCLEAR	ASSAY OF PU.	
				======						
95 AMERI(	CIUM 241		GAM	MA ======		FISSI	ON PRO	DUCT MASS YIELD S	PECTRUM ====================================	=======
1589	UP	P TO	10.0	MEV	10.0%	2	CCP	V.K.MARKUV		/14050N
							0:	FUR FHUIUNUCLEAR	ASSAT DE PO.	
1590	4.00	MEV	14.0	MEV	10 <b>. %</b>	3	JAP	R.MIKI	κκυ	762040N
							o: 0:	TOTAL FISSION YI REQUIRED. YIELD ROENTGEN*NUCLEUS PHOTEACTIVATION BREMSSTRAHLUNG CC SUFFICIENT THICKI NON-DESTRUCTIVE	ELD PRODUCED BY BREMSSTRAH MAY BE IN THE UNIT OF YIEL OR RELATIVE TO U-238 OF O YIELDS ONVERTER (PREFERABLY TA) C NESS TO STOP ELECTRONS. ASSAY OF PU	LUNG D/ THER F
95 AMERIC	10M 241		NEU E E E E E E E E E E	1RUN 200000		======	======	SECTION		======
1591	25.3	MV			3.0%	2	USA	G.T.ORTON	RL	691336R
1592	1.00	KEV	1.00	MEV	10.0%	2	FR	E.FORT	CAD	792056R
							9: M:	EVALUATION PROBLINEW REQUEST.	EMS	
1593	25.3	MV	1.00	MEV	10.0%	1	GER	F.FROEHNER	KFK	792256R
							A: 0: M:	5-10 PERCENT ENE NEEDED FOR CONSI CROSS SECTIONS. I SHOULD BE CHECKEI NEW REQUEST.	RGY RESOLUTION SUFFICIENT STENT EVALUATIONS OF PARTI Existing Thermal Cross Sec D	AL TIONS
95 AMERIC	CIUM 241		NEU	EEEEEE TRON		INEL A	STIC CF	ROSS SECTION		
=====				=====			======			2222222
1594	UP	• <b>•</b> 0	3.00	MEV	10.0%	2	FF	E.FORT	CAD	792057R
							0.	EVALUATION PROBLE	EMS	
					=======================================	2=0820	=======			======
95 AMERI(	CIUM 241		NEU	TRON		ABSOR	PTION C	ROSS SECTION		
						-				
1595	25.3	MV			5.0%	2	CAN	W.H.WALKER		681805R
							0.	WIDE JEREAD OF A	TRIERDEL TREVEJS	
1596	1.00	EV	500.	EV	10.0%	2	CAN	W.H.WALKER	CRC	681806R
							0:	DESIRE CONFIRMAT	ION OF RESONANCE INTEGRAL.	
1597	25.3	мv			5.0%	2	FR	H.TELLIER	SAC	712106R
						-		· • -		
1598	25.3	MV			10.0%	1	UK	J,FELL A.WHITTAKER	WIN UKW	792169R
							0:	FOR STUDIES OF PL	LUTONIUM RECYCLING AND FOR	FUEL
							м •	NEW REQUESSING AND	JI URAGE .	
95 AMERI	CIUM 24	s==== 1 s====	NEU:	TRON		CAPT	URE CROS	SS SECTION	===== =====	
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1599	25.3	MV	1.00	KEV	10.0%	1	USA	R.W.EENJAMIN SPL 6	71135F	
							Q: D:	PRODUCTION OF AM-242 AND AM-242 M WANTED. NEEDED FOR PU-238 PROGRAM, AND PRODUCTION OF CM-244.	:	
1600	25.3	MV .	1.00	KEV	10.0%	2	USA	G.T.CRTON RL 6	71136R	
х. — н							0: 0:	PRODUCTION OF AM-242 AND AM-242 M WANTED. NEEDED FOR PU-238 PROGRAM, AND PRODUCTION OF CM-244.		
1601	25.3	. <b>MV</b>			5.0%	2	CAN Q:	W.H.WALKER CRC 6 Production of Both AM-242 isomers wanted.	61807R	
1602	1.00	Ēν	500.	E٧	10.0%	, 2	CAN	W.H.WALKER CRC 6	81808P	
-	-						0:	DESIFE CENFIRMATION OF RESONANCE INTEGRAL MEASUREMENT OF BAK (AE 23 316).		
1603	10.0	KEV	1.00	MEV	10.0%	1	GER	B.GOEL KFK 7	12108R	
							0:	FOF BURNUP CALCULATIONS.		
1604	100.	EV	100.	KEV	20.0%	1	UK	C.G.CAMPBELL WIN 7	12109P	
	· ·	•					:0	EVALUATION ALSO REQUIRED, THERMAL TO 15.0MEV For fast reactors.	,	
1605	500.	ΕV	1.00	MEV	5.00%	2	FR	P.HAMMER CAD 7	12110R	
			,				0: 0:	RELATIVE VALUES VS.ENERGY OR TO U-238 CAPTUR FOR FUEL CYCLE CALCULATIONS.	Έ	
1606	25.3	MV	10.0	MEV	15.0%	2	USA C:	P.GREEBLER GEB 7 For spent fuel shielding.	'21 09 9F	
1607	1.00	KEV	2.00	MEV	20.0%	1	USA	P.B.HEMMIG DDE 7	41127R	
							0: 0:	PRODUCTION OF BOTH AM-242 AND AM-242M WANTED FOR SPENT FUEL SFIELDING.	•	
1608	1.00	ĸev	3.00	MEV	5.0X	2	FR	C.PHILIS BRC 7	42108R	
	· · .						с:	FOR CRITICAL ASSEMBLIES.		
1609	10.0	MV	20.0	EV		1	JAÞ	R.YUMOTO PNC 7 H.MATSUNDBU SAE T.HOJUYAMA MAP	52032P	
							Q: A: O:	ENERGY DEPENDENCE WANTED. ACCUPACY REQUIRED 5 TO 10 PERCENT. REACTOR BURN-UP CALCULATIONS AND ESTIMATION TRANS-URANIUM NUCLIDE BUILD-UP IN SPENT FU NEUTRON SHIELDING OF SPENT-FUEL TRANSPORT CA	OF JEL • NSK •	
1610	20.0	ΕV	15.0	MEV	10.0%	1	JAP	R.YUMOTO PNC 7 H.MATSUNOBU SAE T.HOILYAMA MAD	52033R	
							Q: 0:	PRODUCTION OF AM-242 AND AM-242 M WANTED REACTOR BURN-UP CALCULATIONS AND ESTIMATION TRANS-URANIUM NUCLIDE BUILD-UP IN SPENT FU NEUTRON SHIELDING OF SPENT-FUEL TRANSPORT CA	OF JEL • ASK •	
1611	25.3	MV	10.0	MEV	10.0%	2	USA	S.VISNER CBE 7	61098R	
							0: M:	FOR SPENT FUEL SHIELDING. Fast breeder applications. New request.		
1612	1.00	KEV	3.00	MEV	10.0%	1	FR	L.COSTA CAD	762153R	
							Q: A:	BRANCHING RATID, AM-242, AM-242M Relative accuracy requested on the branching	5 TO	
							0: M:	AM-242M Fuel Cycle in- and Out-of-Core Substantial modifications.		
1613	1.00	MV	1.00	ĸEV	10. X	2	SWD	H.HAEGGELOM AE	762170R	
							0:	CAPTURE CROSS SECTIONS TO THE GROUND AND ISC STATES WANTED.	MERIC	
							A: 0:	ACCURACY 10 PER CENT TO GROUND STATE AND TO ISOMERIC STATE. ACTINIDE PRODUCTION CALCULATIONS		
1614	100.	ΕV	100.	κEV	20.0%	1	GER	H.KUESTERS KFK	792228R	
							0: M:	HEASUREMENT WANTED. New request.		
1615	25.3	MV	15.0	MEV	20.0%	1	GER	H.KUESTERS KFK	792230R	
							Q : M :	EVALUATION WANTED. New Request.		
1616	25.3	MV	15.0	MEV	• .	1	GER	H.KUESTERS KFK	7922318	
#======				=====			Q: M:	WANT RATIO OF AM-242M PRODUCTION TO THAT OF Ground State. Evaluation Wanted. New Request.	122252-	

95 AMERIC	IUM 24	======== 1 ========		====== TRON =======		CAPTU	RE GAM	MA RAY SPECTFUM		
1617	25.3	MV			20.0%	2	USA	R.B.WALTON	LAS	741142N
						_	0:	ABSOLUTE SPECTRA	REQUIRED.	57400.
				=======				FOR DEVELOPMENT		
95 AMERIC	IUM 24	1	NEU	TRON	=============	FISSI	CN CFC9	SS SECTION	-	
1618	1.00	KEV	7.00	MEN	10.0*		FP		CAD	7121036
1018	1.00	NE V	3.00	,	10102		0:	RELATIVE VALUES FOR FUEL CYCLE C	VS. ENERGY OR TO U-235 FI: ALCULATIONS.	SSION
								CODUTAR TRE MODI		
1619	100.	EV	100.	KEV	20.0%	1	ик 0:	C.G.CAMPBELL EVALUATION ALSO FOR FAST REACTOR	WIN Required, Thermal to 15.01 S.	732115R MEV
1620	100.	KEV	15.0	MEV	10.08	1	GER	Ba GO FL		742018R
1020	1001	NL V	1300		10107	-	0: M:	FAST REACTOR DES SUBSTANTIAL MODI	IGN. FICATIONS.	
1621	1.00	KEV	15.0	MEV	3.0%	1	FS	C.PHILIS	BRC	7421075
							0:	FOR CRITICAL ASS	EMBLIES.	
1622	10.0	KEV	1.50	MEV		2	USA	R.W.PEELLE	ORL	761 099F
							A : M :	ACCURACY REQUIRE NEW REQUEST.	D - 5.0 TO 10.0 PERCENT.	
1623	100.	εv	100.	KEV	20.0%	t	GER	H.KUESTERS	KFK	7922279
							Q: M:	MEASUREMENT WANT New Request.	ED.	
1624	25.3	MV	15.0	MEV	20.0%	1	GER	H.KUESTERS	KFK .	792229R
							Q : M :	EVALUATION WANTE New Request.	D.	
95 AMERIC	IUM 24	1	======= NEU =======	TRON		NEUTR	ONS EM	ITTED PER FISSION		
1625	25.3	MV	10.0	MEV	5.0%	1	GER	E.GOEL	KEK	7121046
	2000		1000			•	A: C: M:	10 PERCENT ACCUR FOR FAST REACTOR SUBSTANTIAL MODI	ACY BELOW 100EV AND ABOVE DESIGN. FICATIONS.	1.0MEV
1626	500.	EV .	14.0	MEV	10.0%	2	FR	P.HAMMER	CAD	7121058
							Q: C:	RELATIVE TO CF-2 FOF FUEL CYCLE C	52 NU. ALCULATIONS.	
1627	25.3	MV	15.0	MEV	20.0%	1	υκ	C.G.CAMPBELL	WIN	792141P
							С: М:	FOR FAST REACTOR New Request.	S.	
1628	25.3	MV	15.0	MEV	20.0%	1	GER	H.KUESTERS	К <b>ғ</b> қ П.	792232P
							м:	NEW REQUEST.		
95 AMERIC	IUM 24		NEU	TRON		ABSOR	PTION R	SESONANCE INTEGRA		I 3 - 3 - 2 - 2 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 + 4 +
1629					10.0%	2	FF	H. TELL IER	SAC	712107P
1630					10.0%	ı	UK	J.FELL A.WHITTAKER	W IN UKW	792170R
							0: M:	FOR STUDIES OF P REPROCESSING AND NEW REQUEST.	LUTONIUM RECYCLING AND FO	R FUEL
		=======								**=======
95 AMERIC	10M 24					M15C	======		************************	
1631					0.5%	1	JAP	K.ON ISHI	PNC	762023N
							<u>a:</u>	DECAY HEAT (W/G) ASSAY OF PU BY C	REQUIRED. ALORIMETRY	
1632	25.3	MV	15.0	MEV	20.0%	1	UK	C.G.CAMPBELL	WIN .	792142F
							Q: D: M:	BRANCHING RATIO. For fast reactor New feguest.	S.	
95 AMERI(	IUM 24	2	NEU	JTRON		TOTAL	CROSS	SECTION		
1633	25.3	MV	10.0	KEV	10.0%	2	USA	R.W.BENJAMIN	SRL	671137P
					·		<u>.</u>	NEED AM-242 AND For PU-238 Produ	AM-242M RESONANCE ENERGIE: CTION:	5.

(CGNTINUED)		SECTION	L CROSS	101A		TPON ======	NEU	2	CIUM 24	5 AMERI
792257R	KFK	F.FPOEHNER	GER	1	10.0%	MEV	15.0	MV	25.3	1634
TION SUFFICIENT FOR Sonances and above ikev For consistent S sections.	T ENERGY RESOLUTIONS RESOLUTIONS RESOLUTIONS RESOLUTIONS RESOLUTIONS RESOLUTIONS RESOLUTIONS REPORTIAL CROSS R	5-10 PERCENT E AVERAGES. THERMAL CROSS AVERAGE PARAME EVALUATION OF NEW REQUEST.	A: 0: M:							
	======================================	ROSS SECTION	RPTION C	ABSO		====== TRON =======	NEU	===== 2 ======	CIUM 24	5 AMERI
792171R	W IN UKW	J.FELL A.WHITTAKER	UK	1	10.0%			MV	25.3	1635
ECYCLING AND FOR FUEL	OF PLUTONIUM REC G AND STORAGE.	FOR STUDIES OF REPRICESSING A NEW REQUEST.	0: M:							
		S SECTION	URE CROS	CAPT				====== 2 -=====	CIUM 24	====== 5 AMERI
691341R		R.W. FENJAMIN	us <b>a</b>	2		кеv [.]	10.0		25.3	1636
D 152 YEAR ISOMERS. D. 20 PERCENT.	BOTH 16 HOUR AND JE AND RI WANTED. CURACY - 10 TO 20 PRODUCTION.	WANTED FOR BOT THERMAL VALUE REQUIRED ACCUR FOR FU-238 PRO	Q: A: D:	_						
711805R	CRC	W.H.WALKER	CAN	2				MV	25.3	1637
	ISOMER. DUIRED 500 B. SS SECTION.	FOR 16 HOUR IS Accuracy requi Unknown cross	Q: A: D:							
721100R	GEB JEL SHIELDING,	P.GREEBLER For spent fuel	USA D:	2	15.0%	MEV	10.0	MV	25.3	1638
722045N	JAE	Y. NA ITO	JAP	2		MEV	14.0	MV	25.3	1639
AL IS 10 PERCENT, 20 A PU LOADED THERMAL	DUIRED AT THERMAL BOVE. CALCULATION OF A	ACCURACY REGUI PERCENT ABDY FOR BURN UP CA REACTOR.	A: 0:					•		
732101'R -242 (152 YEARS). NT.	SAC BLE STATE OF AM-2 Physics. May be sufficient	H.TELLIER For Metastable For Burn up Pr Evaluation May	FR Q: 0:	2	10.0X	KEV	5.00	MV	10.0	1640
732102R	CAD	P.HAMMER	FR	2	50.0%	MEV	15.0	E۷	500.	1641
-242 (152 YEARS). PTURE CROSS SECTION. S.	BLE STATE OF AM-2 IVE TO U-238 CAPT CLE CALCULATIONS.	FOR METASTABLE VALUE RELATIVE FOR FUEL CYCLE	` Q: C:							
752036P	PNC SAE JAE	R.YUMOTC H.MATSUNOBU R.SHINDO	JAP	1		KEV	100.	MV	25.3	1642
ERIC STATES. PERCENT, NS AND ESTIMATION DF ILD-UP IN SPENT FUEL. -FUEL TRANSPORT CASK.	GROUND AND ISOMER QUIRED 5 TO 20 PE N-UP CALCULATIONS NIUM NUCLIDE BUIL ELDING CF SPENT-F MODIFICATIONS.	WANTED FOR GRO ACCUFACY REQU REACTOF BURN-U TRANS-URANIU NEUTRON SHIELD SUBSTANTIAL MO	Q: A: D: M:							·
762026N	NF 1	M.YACA	JAP	з	10. X	MEV	10.0	MV	25.3	1643
CROSS SECTION BUT A FEW TION ARE AVAILABLE. TIONS	ENTS OF CAPTURE C SSION CROSS SECTI BURN-UP CALCULATI	NO MEASUREMEN DATA OF FISS FOR HIGHER BUR	0:				• •			
762027N	NFI	M.YADA	JAP	з	10. X	MEV	10.0	MV	25.3	1644
TIONS	BURN-UP CALCULATI	FOR HIGHER BUR	:0	-			· · ·			
762171F RI WANTED FOR THE GROUND ATIONS	AE SS SECTION AND RI C STATES. DDUCTION CALCULAT	H.HAEGGELUM THERMAL CROSS AND ISOMERIC S ACTINIDE PRODU	SWD Q: C:	2	20. %	KEV	1.00	MV	1.00	1645
792144R	L WIN	C.G.CAMPBELL	UK	1	30.0%	MEV	15.0	MV	25.3	1645
	ACTORS. •	FOR FAST REACT	С: м:							
792234R	KFK	H.KUESTERS	GER	1	30.0%	MEV	15.0	MV	25.3	1647
	EFASTABLE STATE. WANTED. •	EVALUATION WAN NEW REQUEST.	Q: M:							
794004R	FEI	L.N.USACHEV	CCP	2	20.0%	MEV	5.00	EV	500.	1648
FAST-REACTOR SPECTRUM ALCULATION.	L'ASTABLE STATE. SS SECTION IN A F ACTOR BURN-UP CAL COMMENTS.	ARGET IN MET AVERAGE CROSS REQUESTED. FOR FAST-REAC SEE GENERAL CO NEW REQUEST.	Q: C:							

	CIUM 24	2	NEU	TRON		FISS	ION CRO	S SECTION	***************************************	********
1649	25.3	MV	10.0	KEV	•	2	USA	R.W.EENJAMIN	SRL	691339R
							Q: A:	WANTED FOR BOTH Required Accurac	16 HOUR AND 152 YEAR ISOME Y - 10 to 20 Percent.	RS
1650	500.	ΕV	15.0	MEV	15.0%	2	FR	P.HAMMER	CAD	732100R
							Q:	FOR METASTABLE S Value Relative T For Fuel Cycle C	TATE OF AM-242 (152 YEARS) O U-235 FISSION CROSS SECT Alculations.	Ion.
1651	25.3	MV	10.0	MEV	5. X	3	JAP	M.YADA	NFI	762033N
					•		0: A: 0:	THE VALUE OF NU 10 PER CENT ACCU NO EXPERIMENTAL SECTION AND NU A CENT AT 25.3 MV. BURN-UP ANALYSIS	ALSO WANTED. RACY IS DESIRABLE FOR APPL DATA. THE VALUES OF FISSIO RE KNOWN WITHIN AN ERROR OF OF FAST BREEDEP REACTORS	ICATION. N CROSS F 5 PER
1652	1.00	MV	1.00	KEV	20 <b>. X</b>	2	SWD	H.HAEGGBLDM	AE	762172R
							0:	ACTINIDE PRODUCT	ION CALCULATIONS	
1653	25.3	MV	15.0	MEV	15.0X	1	UK	C.G.CAMPBELL	WIN	792143R
							C: M:	FOR FAST REACTOR New request.	S•	
1654	25.3	MV			10.0%	1	UK	J.FELL A.WHITTAKER	WIN - UKW	792173R
							0: M:	FOR STUDIES OF P Reprocessing and New request.	LUTONIUM RECYCLING AND FOR STORAGE.	FUEL
1655	25.3	ΜV	15.0	MEV	15.0%	1	GER	H.KUESTERS	KFK	792233R
							Q: M:	TARGET IN METAST Evaluation wante New request.	ABLE STATE. D.	
1656	500.	EV	5.00	MEV	20.0%	2	ССР	L.N.USACHEV	FEI	794010R
							Q: 0: M:	TARGET IN METAST AVERAGE CROSS SE REQUESTED. For fast-reactor See general comm New request.	ABLE STATE. CTION IN A FAST-REACTOR SPI BURN-UP CALCULATION. ENTS.	ECTRUM
95 AMERI	C1UM 24	-2 -2 	NEU	TRON		NEUT	RONS EM	TTED PER FISSION	(NU BAR)	
1657	500.	Eν	15.0	MEV	10.0%	2	FR	P. HAMMER	CAD	732103R
					· ·		o: 0:	FOR METASTABLE S Value Relative T For fuel cycle C	TATE OF AM-242 (152 YEARS). O CF-252 NU. Alculations	•
1658	25.3	MV	15.0	MEV	15.0%	1	UK	C.G.CAMPBELL	WIN	792145R
							C: M:	FOR FAST REACTOR New Request.	S•	
1659	25.3	MV	15.0	MEV	15.0%	1	GER	H.KUESTERS	KFK	792235R
							Q: M:	TARGET IN METAST EVALUATION WANTE NEW REQUEST.	ABLE STATE. D.	
95 AMERI	CIUM 24	2	NEU	TRON		ABSO	RPTION F	ESCNANCE INTEGRA		
1660	0.55	EV	2.00	MEV	10.0%	1	UK	J.FELL A.WHITTAKER	WIN UKW	792172R
	• *						M:	REPROCESSING AND NEW REQUEST.	STORAGE.	FUEL
95 AMERI =======	CIUM 24	2	NEU	TRON		FISS	ION RESC	NANCE INTEGRAL		
1661	0.55	EV	2.00	MEV	10.0%	1	UK	J.FELL A.WHITTAKER	WIN UKW	792174R
							0: M:	FOR STUDIES OF P Reprocessing and New Request.	LUTONIUM RECYCLING AND FOR STORAGE.	FUEL
95 AMERI	====== CIUM 24	===== 3	NEU	TRON	52822252285	===== TOTA	L CROSS	SECT ION		
		=====	********						======================================	
1662	25.3	MV	15.0	MEV	10.0%	1	GER	F.FROEHNER	KFK	792258R
#= 85 == ? ?		====					A: 0: M:	S-10 PERCENT ENE THERMAL CROSS SE AVERAGE PARAMETE EVALUATION OF PA NEW REQUEST.	RGY RESOLUTION SUFFICIENT CTIONS, RESONANCES AND ABOV RS NEEDED FOR CONSISTENT RTIAL CROSS SECTIONS.	/E 5KEV

95 AMER]	CIUM 24	3	======= NEU ========	TRON		AB \$0	RPTION (	ROSS SECTION	==,========= ==,===========	======================================	
1663	25.3	MV	•		5.0%	2	FR	H.TELL IER	SAC	•	712113R
95 AMER)	CIUM 24		======== NEU =========	TRON	************	CAP'(	URE CRO	SS SECTION			
1664	25.3	MV .			5.0%	2	CAN 0:	W.H.WALKER DISAGREEMENT BET DIFFERENTIAL M	CRC WEEN INTEG	RAL (90 B)	711806R AND
1665	. u	P TO	10.0	MEV	10.0%	1	USA	P.GREEBLER	GEB		721101R
			· .				A: 0:	WANT 5 TO 10 PER AND RESONANCE NEEDED FCR LONG FOR SPENT FUEL TO DETERMINE CM-	CENT ACCUR INTEGRAL. TERM REACT SHIELDING 244 PRODUC	ACY IN THEF IVITY CALCU TION.	MAL VALUE
1666	1.00	KEV	3.00	MEV	10.0%	1	FR	L.COSTA	CAD		732104R
•							C: M:	FOR FUEL CYCLE C NEUTRON DOSE FOR SUBSTANTIAL MODI	ALCULATION CYCLE OUT FICATIONS.	S. -OF-CORE.	
1667	1.00	KEV	200.	KEV	30+0%	1	USA Q:	P.B.HEMMIG For Spent fuel S	DCE HIELDING.		741128R
1668	25.3	MV	10.0	MEV	10.0%	2	USA	S.VI SNER	CBE		761100R
	•		•				0: M:	FOR SPENT FUEL S FAST REACTOR APP New Request.	HIELDING. LICATIONS.	.`	
1669	25.3	MV	2.00	MEV	20. %	3	JAP	M. YADA K. EB IZUKA	NFI TIT		762028N
					•		0: A: 0:	TOTAL, ELASTIC AN ALSO REQUIRED BY 10 PER CENT ACCU 20 PER CENT ACCU BURN-UP ANALYSIS	D INELASTI K.EBIZUKA Racy for 2 Pacy for H Of Fast B	C CROSS SEC TIT. 5 MV. Igher Energ Reeder Read	TIONS ARE TORS
1670	25.3	MV	15.0	MEV	30.0%	1	UK	C.G.CAMPBELL	WIN		792147R
					•		· C: M:	FOR FAST REACTOR STORAGE. New Request.	S AND FOR	FUEL REPROC	ESSING AND
1671	25.3	MV	15.0	MEV	30.0%	1	GER Q: M:	H.KUESTERS Evaluation wante New Request.	К <b>F</b> К D.		792237R
1672	50 <b>0.</b>	EV	5.00	MEV	20.0%	2	CCP 9: C: M:	L.N.USACHEV AVERAGE CROSS SE REQUESTED. For FAST-REACTOR SEE GENERAL COMM NEW REQUEST.	FEI CTION IN A BURN-UP C ENTS.	FAST-REACT	794005R OR SPECTRUM
95 AMER	ICIUM 24	3	========== NEU	TRON	**********	===== F1SS	10N CR0	SS SECTION	********		
1677	1.00	KEN.					E 0		CAD		7131118
1013			5.00	14 L V	10004	•	Q: 0: M:	RELATIVE TO U-23 FOR FUEL CYCLE C SUBSTANTIAL MODI	5 FISSION. ALCULATION FICATIONS.	IS•	//2/110
1674	25.2	MV .	4.00	MEV	20. %	1	JAP 0:	T.HOJUYAMA For fast reactor	MAP CALCULATI	ONS	762227R
1675	25.3	MV .	15.0	MEV	15.0%	1	UK	C.G.CAMPBELL	WIN		792146R
			-				0: M:	FOR FAST REACTOR STORAGE. NEW REQUEST.	S AND FOR	FUEL REPRO	CESSING AND
1676	25.3	MV	15.0	MEV	15.0%	1	GER	H.KUESTERS	KFK		792236R
							Q: M:	EVALUATION WANTE	D.		
95 AMER 95 AMER	ICIUM 24	 }3 	======== NEU =======	TRON	=========================	NEU7	RONS EM	ITTED PER FISSION	(NU BAR)	=======================================	**************
1677	500.	EV	15.0	MEV	25.0%	2	FR	L.COSTA	CAD		712112R
							Q: C:	RELATIVE TO CF-2 FOR FUEL CYCLE C	52 NU. ALCULATION	IS •	
1678	25.3	MV	15.0	MEV	15.0%	1	UK	C.G.CAMPBELL A.WHITTAKER	WIN UKW		- 792148R
					-		о: м:	FOR FAST REACTOR Storage. New Request.	S AND FOR	FVEL REPRO	CESSING AND
1679	25.3	MV	15.0	MEV	15.0%	1	GER	H.KUESTERS	KFK		792238R
======;			========				Q: M;	EVALUATION WANTE New Request.	D.		

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95 AMERI	CIUM 243	NEUTRON		ABSOR	PTION P	RESONANCE INTEGRA		*=========
1680			10.0%	2	FR	H.TELL IER	SAC	712114R
96 CURIU	JM 242	NEUTRON		CAPTU	RE CRO	S SECTION		
							· · · · · · · · · · · · · · · · · · ·	6711700
1681	25.3 MV		20.0%	2	USA Q:	R.W.BENJAMIN TARGET PALF-LIFE	SRL 163 D.	671139R
					0:	FOR PU-238 PRODUC	CTION.	
1682	10.0 MV	5.00 KEV	10.0%	2	FR	H.TELL IER	SAC	732107R
					0:	BURN UP PHYSICS.	· .	
1683	25.3 MV	15.0 MEV		1	JAP	R.YUMOTO H.MATSUNOBU T.HOJUYAMA	PNC SAE MAP	752042R
					A: 0:	ACCURACY REQUIRE REACTOR BURN-UP TRANS-URANIUM NEUTRON SHIELDIN	D 10 TO 20 PERCENT. Calculations and estimation Nuclide Build-up in Spent F G DF Spent-Fuel transport (	N OF FUEL • CASK •
1684	25.3 MV	10.0 MEV	20 <b>. X</b>	3	JAP	M. YADA	NFI	762029N
					A: 0:	10 PER CENT ACCU 20 PER CENT ACCU FOR HIGHER BURN-	RACY FOR 25.3 MV. Racy for Higher Energy. UP Calculations	
1685	500. EV	200. KEV	50.0%	2	FR	L.COSTA	CAD	762154R
					0:	FUEL CYCLE IN- A	ND OUT-OF-CORE	
1686	1.00 MV	1.00 KEV	15. X	2	SWD	H.HAEGGBLOM	AE	762173R
					Q: D:	THEPMAL CROSS SEC ACTINIDE PRODUCT	CTION AND RI WANTED. Ion Calculations	
1687	25.3 MV	15.0 MEV	30.0%	1	UK	C.G.CAMPBELL A.WHITTAKER	WIN WKW	792151R
					0: M:	FOR FAST REACTOR Storage. New request.	S AND FOR FUEL REPROCESSING	S AND
1688	25.3 MV	15.0 MEV	30.0%	1	GER	H.KUESTERS	KFK	792240R
					Q: M:	EVALUATION WANTE	D•	
				======== N. 2N	******			*******
			********					******
1689	UP TO	15.0 MEV	30.0%	<b>1</b>	UK	C.G.CAMPBELL A.WHITTAKER	WIN UKW	792149R
				•	D: M:	FOR FAST REACTORS Storage. New Request.	S AND FOR FUEL REPROCESSING	5 AND
1690	UP TO	15.0 MEV	30.0%	1	GER	H.KUESTERS	KFK	792241R
					Q: M:	EVALUATION WANTER	C.	•
96 CUR IL	IM 242	NEUTRON		FISSI	ON CROS	S SECTION		
1691	500. EV	15.0 MEV	25.0%	2	FR O:	L.COSTA	CAD N U-235 FISSION CROSS SECTI	732105R
					č	FOR FUEL CYCLE C	ALCULATIONS.	
1692	25 <b>.</b> 3 MV	15.0. MEV		1	JAP	R•YUMOTO H•Matsunobu T•H0juyama	PNC SAE MAP	752041R
					A: 0;	ACCURACY REQUIRE REACTOR BURN-UP TRANS-URANIUM NEUTRON SHIELDIN	D 10 TO 20 PERCENT. CALCULATIONS AND ESTIMATION NUCLIDE BUILD-UP IN SPENT F G OF SPENT-FUEL TRANSPORT (	N ÖF FUEL • CASK •
1693	UP TO	15.0 MEV	30.0%	1	UK	C.G.CAMPBELL A.WHITTAKER	WIN	792150R
					0:	FOR FAST REACTOR	S AND FOR FUEL REPROCESSING	S AND
					м:	NEW REQUEST.		
1694	25.3 MV	15.0 MEV	30.0%	. 1	GER	H.KUESTERS	KFK	792239R
				,	01 M1	NEW REQUEST.	U •	
96 CUR IU	JM 242	NEUTPON	*********	NEUTRO	DNS EMI	ITTED PER FISSION	(NU BAR)	********
1695	500. EV	15.0 MEV	30.0%	. 2	FR	L.COSTA	CAD	732106R
					a: c:	VALUE RELATIVE TO FOR FUEL CYCLE C	D CF-252 NU. ALCULATIONS.	

6 CURIUM	242		NEU	TRON ======		NEUTRO	NS EM	ITTED PER FISSION	(NU BAR) (CON	TINUED
1696	U	РТС	15.0	MEV	30.0%	1	UK	C.G.CAMPBELL A.WHITTAKER	WIN- UKW	792152
							о: м:	FOR FAST REACTORS Storage. New Pequest.	AND FOR FUEL REPPOCESSING	AND
1697	25.3	MV	15.0	MEV	30.0%	1	GER Q: M:	H.KUESTERS Evaluation wanted New Request.	KFK ).	792242
6 CURIUM	242		====== NEU	=== ==== TRON		RESONA	NCE P	ARAMETERS		
									_	
1698	25.3	MV .	1.00	KEV	20.0%	3	05A Q: D:	G.T.CRIUN ELASTIC AND GAMMA RADIATIVE CAPTURE FOR FU-238 PRODUC	RL WIDTHS WANTED. AND NEUTRON WIDTHS WANTED TION.	671192 )•
1699	25.3	MV	1.00	KEV	20.0%	з	USA	S.VISNER	CBE	761101
							0: M:	FOR FAST BREEDEF New Request.	APPLICATIONS.	
S CURIUM	243		====== NEU =======	======= TRON =========		CAPTUR	E CRO	SS SECTION		
1700	26 7	M\/				2	C 411		CRC	711907
1700	23.3	MV				2	A: 0:	ACCUPACY REQUIRED UNKNOWN CROSS SEC	50 B.	/1180/1
1701	20.0	EV	10.0	MEV		1	JAP	R.YUMOTO H.MATSUNOBU	PNC SAE	752047
-							A: 0:	ACCURACY REQUIRED REACTOR BURN-UP C TRANS-UPANIUM N NEUTRON SHIELDING	) 10 TO 20 PERCENT. Alculations and Estimaticn NUCLIDE BUILD-UP IN SPENT F CF SPENT-FUEL TRANSPORT (	UEL • LASK •
1702	25.3	MV	10.0	MEV	20 • X	3	JAP	M.YADA	NFI	762030
				_	••		A: C:	10 PER CENT ACCUR 20 PER CENT ACCUR FOR HIGHER BURN-U	RACY FOP 25.3 MV. RACY FOR HIGHER ENERGY REGI UP CALCULATIONS	
1703	500.	EV	200.	KEÝ	50.0%	2	FR	L.COSTA	CAD	762156
							0:	FUEL CYCLE. TRANS	SACTINIUM BUILD-UP	
1704	1.00	MV	1.00	KEV	15• X	2	SWD	H.HAEGGBLOM	AE	762174
							Q: 0:	THERMAL CROSS SEC ACTINIDE PRODUCTI	TICN AND RI WANTED.	
1705	25.3	MV	15.0	MEV	30.0%	1	UK	C.G.CAMPBELL	WIN	792154
							0: M:	FOR FAST REACTORS	S.	
1706	25.3	MV	15.0	MEV	30.0%	2	GER	H.KUESTERS	KFK	792248
							Q: M:	EVALUATION WANTED New request.	2.	
6 CUR IUM	243		NEU	TRÔN		FISSI	N CRO	S SECTION		
1707	3.00	MEV	10.0	MEV		1	JAP	R. YUNDTO	PNC	752045
							A: 0:	H. MATSUNDBU ACCURACY REQUIRED REACTOR BURN-UP ( TRANS-URANIUM N	SAE ) 10 TO 20 PERCENT. Calculations and estimatign Nuclide Build-up in Spent F	N OF
								NEUTRON SHIELDING	OF SPENT-FUEL TRANSPORT	CASK .
1708	500.	EV	15.0	MEV	50.0%	2	FR O:	L.COSTA FUEL CYCLE. TRANS	CAD Sactinium Build-Up	762155
1709	25.3	MV	15.0	MEV	30.0%	1	UK	C.G.CAMPBELL	WIN	792153
							C: M:	FOR FAST REACTORS New Reguest.	5.	
1710	25.3	MV	15.0	MEV	30.0%	2	GER	H.KUESTERS	KFK	792247
							0: M:	EVALUATION WANTED NEW REQUEST.	<b>.</b>	
5 CUR IUM	244		NEU	TRON		TOTAL	CROSS	SECT ION		
1711	1.00	KEV	15.0	MEV	10.0%	2	GER	F•FROE!NER	KFK	792259
		-		_		ī	A:	5-10 PERCENT ENER	RGY RESOLUTION SUFFICIENT STENT EVALUATION OF PARTIAL	

	- · ·	MEO I R	NUN	944 14	JRE CRO	SS SECTION	
			==================			***************************************	=======
1712	10.0 KEV	10.0 M	EV 10.0%	2	USA	P.GREEBLER SEB	6711429
					A: 0:	ACCUFACY OF 5 TO 10 PERCENT IN FI. FOR SPENT FUEL SHIELDING. TO EVALUATE OF PRODUCTION.	
1713	10.0 MV	5 <b>.</b> 00 K	EV 10.0%	2	FR D:	H.TELLIER SAC BURN UP PHYSICS.	732109R
1714	10.0 KEV	10.0 M	EV 10.0X	2	USA	S.VISNER CBE	761102R
					C: M:	FOR SPENT FUEL SHIELDING. FAST REACTOR APPLICATIONS. New request.	
	05 7 WV			-	140		7620711
1715	20.3 MV	10.0 M	EV 20. X	3	JAP	MOTADA NEL	7620310
					0:	20 PER CENT ACCURACY FOR HIGHER ENERGY REG FOR HIGHER BURN-UP CALCULATIONS	ION.
1716	500. EV	15.0 M	EV 10.0X	1	Fħ	L.COSTA CAD	762157P
					0: M:	FUEL CYCLE. TRANSACTINIUM BUILD-UP SUBSTANTIAL MODIFICATIONS.	
1717	25.3 MV	15.0 M	EV 30.0%	1	UK	C.G.CAMPBELL WIN	792157R
						A.WHILLAKER UKW	-
					M:	NEW REQUEST.	6.
1718	25.3 MV	15.0 M	EV 30.0%	1	GER	H.KUESTERS KFK	792244R
					0:	EVALUATION WANTED.	
96 CUR IU	M 244	NEUTR	ON	N, 2N		******	
	•						
1719	UP TO	15.0 M	EV 30.0%	1	UK	C.G.CAMPBELL WIN A.WHITTAKER UKW	792155R
					C: M:	FOR FAST REACTORS AND FCR FUEL REPROCESSIN NEW REQUEST.	G
1720	UP TO	15.0 M	EV 30-0%	,	GER		7922450
	0. 10			•	01	EVALUATION WANTED	1922401
					M:	NEW PEQUEST .	
				E 199			
========				=======			
1721	500. EV	15-0 M	EV 10-0¥	,	FP		7321080
1,51				•			732100R
	300° EV				0.5	VALUE DELATIVE IN USVAS ELSSION (DUSS SECT	TDM.
	500° EV				Q: D: M:	FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS.	10N.
1722	25.3 MV	15.0 M	EV 30.0%	1	0: 0: M: UK	VALUE RELATIVE TO 0-235 FISSION CRUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS.	10N• 792156R
1722	25.3 MV	15•0 M	EV 30•0%	1	UK Q: Q: M: Q:	C.G.CAMPBELL WIN A.WHITTAKER UKW	10N• 792156R
1722	25.3 MV	15.0 M	EV 30.0%	1	Q: M: UK C: M:	VALUE RELATIVE TO 0-235 FISSION CHUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST.	10N• 792156R G•
1722	25.3 MV	15.0 M	EV 30.0% EV 30.0%	1	GER	VALUE RELATIVE TO 0-235 FISSION CHUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK	10N• 792156R G• 792243R
1722	25.3 MV	15.0 M	EV 30.0%	1 1	GER GER	VALUE RELATIVE TO 0-235 FISSION CHUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED.	10N• 792156R G• 792243R
1722	25.3 MV 25.3 MV	15.0 M	EV 30.0%	1	GER GER	VALUE RELATIVE TO 0-235 FISSION CHUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST.	10N• 792156R G• 792243R
1722 1723 96 CUR IU	25.3 MV 25.3 MV	15.0 M 15.0 M NEUTR	EV 30.0X EV 30.0X	1 } NEUTF	GER GER GER GER GER	VALUE RELATIVE TO 0-235 FISSION CMDSS SECT         FOR FAST REACTOR CALCULATIONS.         SUBSTANTIAL MODIFICATIONS.         C.G.CAMPBELL       WIN         A.WHITTAKER       UKW         FOR FAST REACTORS AND FOR FUEL REPROCESSIN         NEW REQUEST.         H.KUESTERS       KFK         EVALUATION WANTED.         NEW REQUEST.         ITTED PER FISSION (NU BAR)	10N. 792156R G. 792243R
1722 1723 96 CUR IVI	25.3 MV 25.3 MV M 244	15.0 M 15.0 M NEUTR	EV 30.0% EV 30.0%	1 1 NEUTF	GER GER GER GER	VALUE RELATIVE TO 0-235 FISSION CHUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST.	10N. 792156R G. 792243R
1722 1723 96 CUR IVI	25.3 MV 25.3 MV 25.3 MV 244 500. EV	15.0 M 15.0 M NEUTR	EV 30.0X EV 30.0X	1 1 NEUTF	GER GER GER GER GER GER	VALUE RELATIVE TO 0-235 FISSION CMDSS SECT       FOR FAST REACTOR CALCULATIONS.       SUBSTANTIAL MODIFICATIONS.       C.G.CAMPBELL     WIN       A.WHITTAKER     UKW       FOR FAST REACTORS AND FOR FUEL REPROCESSIN       NEW REQUEST.       H.KUESTERS     KFK       EVALUATION WANTED.       NEW REQUEST.	10N. 792156R G. 792243R
1722 1723 96 CUR IVI 1724	25.3 MV 25.3 MV 25.3 MV 244 500. EV	15.0 M 15.0 M NEUTR 15.0 M	EV 30.0X EV 30.0X ON EV 30.0X	1 1 NEUTF	GER GER GER GER GER GER GER GER GER GER	VALUE RELATIVE TO 0-235 FISSION CMUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. P. HAMMER CAD VALUE RELATIVE TO CF-252 NU.	10N. 792156R G. 792243R
1722 1723 96 CUR IVI 1724	25.3 MV 25.3 MV 25.3 MV 244 500. EV	15.0 M 15.0 M NEUTR	EV 30.0X EV 30.0X ON EV 30.0X	1 1 NEUTF	GER GER GER GER GER GER GER GER M:	VALUE RELATIVE TO U-235 FISSION CHUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. P. HAMMER CAD VALUE RELATIVE TO CF-252 NU. FOR FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS.	10N. 792156R G. 792243R ======= 732110R
1722 1723 96 CUR IVI 1724 1725	25.3 MV 25.3 MV 25.3 MV 25.3 EV 25.3 MV	15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2	GER GER GER GER GER GER GER GER GER GER	VALUE RELATIVE TO U-235 FISSION CMDSS SECT         FOR FAST REACTOR CALCULATIONS.         SUBSTANTIAL MODIFICATIONS.         C.G.CAMPBELL WIN         A.WHITTAKER UKW         FOR FAST REACTORS AND FOR FUEL REPROCESSIN         NEW REQUEST.         H.KUESTERS KFK         EVALUATION WANTED.         NEW REQUEST.         ITTED PER FISSION (NU BAR)         P.HAMMER CAD         VALUE RELATIVE TO CF-252 NU.         FOR FUEL CYCLE CALCULATIONS.         SUBSTANTIAL MODIFICATIONS.         C.G.CAMPBELL WIN         A.WHITTAKER UKW	10N. 792156R G. 792243R  732110R 792158R
1722 1723 96 CUR IVI 1724 1725	25.3 MV 25.3 MV 25.3 MV 500. EV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 } NEUTF 2 1	GER GER GER GER GER GER GER GER GER GER	VALUE RELATIVE TO 0-235 FISSION CMDSS SECT         FOR FAST REACTOR CALCULATIONS.         SUBSTANTIAL MODIFICATIONS.         C.G.CAMPBELL WIN         A.WHITTAKER UKW         FOR FAST REACTORS AND FOR FUEL REPROCESSIN         NEW REQUEST.         H.KUESTERS KFK         EVALUATION WANTED.         NEW REQUEST.         ITTED PER FISSION (NU BAR)         FOR FUEL CYCLE CALCULATIONS.         SUBSTANTIAL MODIFICATIONS.         SUBSTANTIAL MODIFICATIONS.         C.G.CAMPBELL WIN         A.WHITTAKER UKW         FOR FAST REACTORS AND FOR FUEL REPROCESSIN         NEW REQUEST.	10N. 792156R G. 792243R ====== 732110R 792158R G.
1722 1723 96 CUR IVI 1724 1725	25.3 MV 25.3 MV 25.3 MV 500. EV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2 1	GER GER GER GER GER GER GER GER GER GER	VALUE RELATIVE TO U-235 FISSION CMDSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. P.HAMMER CAD VALUE RELATIVE TO CF-252 NU. FOR FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST.	IDN. 792156R G. 792243R ====== 732110R 792158R G.
1722 1723 96 CUR IVI 1724 1725 1726	25.3 MV 25.3 MV 25.3 MV 500. EV 25.3 MV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2 1	GER GER GER GER GER GER GER GER	VALUE RELATIVE TO U-235 FISSION CMDSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. P.HAMMER CAD VALUE RELATIVE TO CF-252 NU. FOR FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK	ION. 792156R G. 792243R ====== 732110R 792158R G. 792246R
1722 1723 96 CUR IVI 1724 1725 1726	25.3 MV 25.3 MV 25.3 MV 244 500. EV 25.3 MV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2 1	UK GER GER GER UK GER GER GER GER GER	VALUE RELATIVE TO U-235 FISSION CMDSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. P.HAMMER CAD VALUE RELATIVE TO CF-252 NU. FOR FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST.	10N. 792156R G. 792243R ======= 732110R 792158R G. 792246R
1722 1723 96 CUR IVI 1724 1725 1726	25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2 1	UK GER GER GER GER GER GER GER GER GER	VALUE RELATIVE TO U-235 FISSION CMUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. P.HAMMER CAD VALUE RELATIVE TO CF-252 NU. FOR FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST.	IDN. 792156R G. 792243R ====== 732110R 792158R G. 792246R
1722 1723 96 CUR IVI 1724 1725 1726	25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2 1 1 1 TOTAL	UK GER GER GER GER GER GER GER GER GER GER	VALUE RELATIVE TO U-235 FISSION CMUSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. TITED PER FISSION (NU BAR) TOP FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST.	IDN. 792156R G. 792243R  732110R 792158R G. 792246R
1722 1723 96 CUR IVI 1724 1725 1726	25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M 15.0 M 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2 1 1 1 TOTAL	GER GER GER GER GER GER GER GER GER GER	VALUE RELATIVE TO U-235 FISSION CMDSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. ITTED PER FISSION (NU BAR) FOR FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST.	IDN. 792156R G. 792243R ======= 732110R 792158R G. 792246R
1722 1723 96 CUR IV 1724 1725 1726 96 CUR IV 96 CUR IV	25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M 15.0 M 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2 1 1 1 TOTAL	UK GER GER GER UK GER GER GER GER GER GER GER GER GER	VALUE RELATIVE TO U-235 FISSION CMDSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. ITTED PER FISSION (NU BAR) P.HAMMER CAD VALUE RELATIVE TO CF-252 NU. FOR FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. SECTION R.W.EENJAMIN SFL C.MADE OF THEORY	IDN. 792156R G. 792243R ======= 732110R 792158R G. 792246R ======== 671144R
1722 1723 96 CUR IV 1724 1725 1726 96 CUR IV 96 CUR IV	25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M 15.0 M 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2 1 1 1 TOTAL	UK GER GER GER GER UK C: M: UK C: M: CROSS USA Q:	VALUE RELATIVE TO U-235 FISSION CMDSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. P.HAMMER CAD VALUE RELATIVE TO CF-252 NU. FOR FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. A.W.EENJAMIN SEL SHAPE OF THERMAL CROSS SECTION ESPECIALLY IMPORTANT.	IDN. 792156R G. 792243R ======= 732110R 792158R G. 792246R ======= 671144R
1722 1723 96 CUR IVI 1724 1725 1726 96 CUR IVI 96 CUR IVI 1727	25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV 25.3 MV	15.0 M 15.0 M NEUTR 15.0 M 15.0 M 15.0 M	EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X EV 30.0X	1 1 NEUTF 2 1 1 1 TOTAL	UK GER GER GER GER GER GER GER GER GER GER	VALUE RELATIVE TO U-235 FISSION CMDSS SECT FOR FAST REACTOR CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. P.HAMMER CAD VALUE RELATIVE TO CF-252 NU. FOR FUEL CYCLE CALCULATIONS. SUBSTANTIAL MODIFICATIONS. C.G.CAMPBELL WIN A.WHITTAKER UKW FOR FAST REACTORS AND FOR FUEL REPROCESSIN NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. H.KUESTERS KFK EVALUATION WANTED. NEW REQUEST. A.W.EENJAMIN SFL SHAPE OF THERMAL CROSS SECTION ESPECIALLY IMPORTANT. NED TO PERCENT IN RESONANCE INTEGRAL. TO EVALUATE CF PRODUCTION.	IDN. 792156R G. 792243R ======= 732110R 792158R G. 792246R ======== 671144R

96 CUR IU	4 245		NEU	TRON		CAPT	URE CRO	SS SECTION	
1728	25.3	MV	10.0	KEV	10.0%	1	USA	R.W.BENJAMIN SRL 69134	48R
							0:	SHAPE OF THERMAL CROSS SECTION ESPECIALLY	
							A:	RESCNANCE STRUCTURE NEEDED. NEED 10 PERCENT IN RESONANCE INTEGRAL. NEED INTEGRAL ALPHA TO 10 PERCENT.	
								TO EVALUATE OF PRODUCTIONS	
1729	25.3	MV	10.0	KEV	10.0%	2	USA	S.VISNER CBE 7611	03R
							0: M:	FOR FAST BREEDER APPLICATIONS. New request.	
1730	500.	EV	200.	KEV	50.0%	2	FR	L.COSTA CAD 7621	59R
							0:	FUEL CYCLE, TRANSACTINIUM BUILD-UP	
1731	25.3	MV	15.0	MEV	30.0%	1	UK	C.G.CAMPBELL WIN 7921	60R
							C: M:	FOR FAST REACTORS. New request.	
1732	25.3	MV	15.0	MEV	30.0%	2	GER	H.KUESTERS KFK 7922	50R
							Q: M:	EVALUATION WANTED. New Request.	
	\$22222	======	==================					***************************************	===
96 CURIU	M 245 ≤======	===\$==	NEU.	TRON		FISS	ION CRO:	\$\$ SECTION ====================================	===
1733	25.3	MV	10.0	KEV	10.0*	1	USA	D. W. BEN JAMIN SDI 6711	450
	23.5	MV	10.0			•	00, 0:	SHAPE OF THERMAL CROSS SECTION ESPECIALLY	70N
							A:	IMPORTANT. NEED 10 PERCENT IN RESONANCE INTEGRAL.	
							0:	NEED INTEGRAL ALPHA TO 10 PERCENT. TO EVALUATE CF PRODUCTION.	
1734	25.3	MV	10.0	KEV	10.0%	2	USA	S.VISNER CBE 7611	04R
							0:	FOR FAST BREEDER APPLICATIONS.	
							-1+		
1735	500.	ΕV	15.0	MEV	50.0%	2	FR	L.COSTA CAD 7621	58R
							0:	FUEL CYCLE. TRANSACTINIUM BUILD-UP	
1736	25.3	MV	15.0	MEV	30.0%	1	UK	C.G.CAMPBELL WIN 7921	59R
							C: M:	FOR FAST REACTORS. New request.	
1737	25.3	MV	15.0	MEV	30.0%	2	GER	H.KUESTEPS KFK 7922	49R
							Q:	EVALUATION WANTED.	
	======			=====			*======		===
96 CURIU	M 246 ≠======	== <b>=</b> ==	NEU	TRON =====		TOTA	L CROSS	SECT ION 	===
1738	25.3	MV	10.0	KEV	10.0%	2	USA	D. W. BENJAMIN SDI	460
					10000	-	Q:	SHAPE OF THERMAL CROSS SECTION ESPECIALLY	
						•	`A:	IMPORTANT. Resonance structure desired. Accuracy 10 percent in resonance integral.	
1739	25.3	MV	10.0	ĸev	10.0%	2	USA	S.VISNER CBE . 7611	05R
							0:	FOR FAST BREEDER APPLICATIONS.	
				=====					-==
96 CURIU	M 246 =====		NEU	TRON		CAPT	UPE CRO =======	SS SECTION	
1740	25.3	MV	10.0	KEV	10.0*		LISA	0. W. REN IAMIN 501 6013	500
1740	2005		10.0		10000	•	Q:	RESONANCE STRUCTURE DESIRED.	504
							A: 0:	NEED ACCURACY 10 PERCENT IN RESONANCE INTEGRAL. TO EVALUATE CF PRODUCTION.	
1741	1.00	KEV	3.00	MEV	50.0%	з	FR	L.COSTA CAD 7920	58R
							0: M:	OUT-OF-CORE CYCLE - EVALUATION SUFFICIENT New request.	
	======								===
96 CORIO	M 240 ======	======	NEU	=====		F155	TON CRU	55 SECTION 22284888888888888888888888888888888888	===
1742	1.00	KEV	3.00	MEV	50.0%	3	FS	L.COSTA CAD 7920	59R
							0:	DUT-OF-CORE CYCLE - EVALUATION SUFFICIENT	
							M:	NEW REQUEST.	
96 CURIU	<b>_</b> M 247 ======		NEU	TRON		CAPT	URE CRO	ISS SECTION	
								· · · · · · · · · · · · · · · · · · ·	
1743	25.3	MV	10.0	ĸev		1	USA	R.W.BENJAMIN SRL 6711	49R
							a:	SHAPE UP THERMAL CROSS SECTION ESPECIALLY IMPORTANT.	
							0:	THERMAL VALUE. NEEDED TO EVALUATE OF PRODUCTION.	

96 CURIU	M 247 =======	=======	NEU	TRON		CAPTU	JRE CROS	S SECTION	)) ===================================	ONT INUED )
1744	1.00	KEV	3.00	MEV	50.0%	3	FR	L.COSTA	CAD	792060R
							0: M:	DUT-OF-CORE CYCUNEW REQUEST.	E - EVALUATION SUFFICIENT	
										========
96 CURIU	M 247 ======	======	NEU =======	TRON		FISS	ION CROS	S SECTION		
							_			
1745	25.3	MV	10.0	KEV		1	USA	R.W.BENJAMIN	SRL	671148R
							Q :	SHAPE OF THERMAN	CROSS SECTION ESPECIALLY	
							AI	RESONANCE INTE	EGRAL.	
. 74 6		KEN			50.04	-				7000610
1740	1.00	KEV	3.00	MEV	50.0%	3	F#	CIT OF CODE CYC		7920018
							м:	NEW REQUEST.	LE - EVALUATION SUFFICIENT	
	======					======				
	<b>24</b> / 2222=22			=====						========
1747	25 3	MN	10.0	KEV	20.0*		115 4	D.W.BENIAMIN	501	6711470
1/4/	25.5	mv	10.0		20.04	•		NEED 20 PEOCENT	IN RECONANCE INTEGRAL	0/114/6
							<u>.</u>	TO EVALUATE CF I	PRODUCTION.	•
								SUBSTANTIAL MUU	(FICATIONS.	
96 CURIU	M 248		NEU	TRON		CAPTI	JRE CROS	S SECTION		
		-								
1748	1.00	KEV	3.00	MEV	50.0%	з	FR	L.COSTA	CAD	7920629
							0:	OUT-OF-CORE CYCI	E - EVALUATION SUFFICIENT	
								NEW REQUEST.		
96 CUR 10	M 248		NEU	TRON		FISS	ION CROS	S SECTION		
1749	1.00	KEV	3.00	MEV	50.0%	з	FR	L.COSTA	ĊAD	792063R
						·	0:	OUT-CF-CORE CYC	E - EVALUATION SUFFICIENT	
							M•	NEW REQUEST.		
97 BERKEL	LIUM 24	9	NEU	TRON		CAPT	JRE CROS	S SECTION		
						=====				
1750	25.3	MV	10.0	KEV	10.0%	1	USA	R.W.EENJAMIN	SRL	691354R
							Q:	SHAPE OF THERMAL	CROSS SECTION ESPECIALLY	
							AI	10 PERCENT THER	AL AND RESONANCE INTEGRAL	•
							υ.	FUR CF PRODUCTIO	jn •	
1751	1.00	KEV	3.00	MEV	50.0%	3	FR	L.COSTA	CAD	792064R
	• .						0:	OUT-OF-CORE CYC	E - EVALUATION SUFFICIENT	
							M :	NEW REQUEST.		
97 BERKEL	LIUM 24	9	NEU	TRON		FISS	ION CROS	S SECTION		
									*************************	********
1752	1.00	KEV	3.00	MEV	50.0%	з	FR	L.COSTA	CAD	792065R
							0:	OUT-OF-CORE CYCL	E - EVALUATION SUFFICIENT	
							Mi	NEW REQUEST.		
97 BERKEL	LIUM 24	9	NEU	TRON		RESON	ANCE PA	RAMETERS		
1753	25.3	MV.	10.0	KEV	20.0%	2	USA	R.W.BENJAMIN	SRL	671151R
							A:	NEED 20 PERCENT	IN PESONANCE INTEGRAL .	
							м:	SUBSTANTIAL MOD	FICATIONS.	
98 CALIE	SESSESSE		NEU	====== TRON			JRE CROS	S SECTION		********
										*******
1754	1.00	KEV	3.00	MEV	50.0*	٦	FR		CAD	7920668
						•	0:	OUT-OF-CORE CYCI	E - EVALUATION SUFFICIENT	1720001
							M:	NEW REQUEST.		
1755	1.00	KFV	3.00	MEV	50.0*	з	FR	L.COSTA	CAD	7920670
1.00		··••• •	2000	· · • • •		5	 n:	CUT-DE-CORE CYCI	E ~ EVALUATION SUFFICIENT	. 92007R
							Mi	NEW REQUEST.		
98 CALIE	DRN TUM	250	NEII	TRON			JRE CROS	S SECTION		
		<u>s</u> esses				=====			******************************	
1756	25.3	MV	10-0	KEV	10.0%	1	USA	R.W.BENJAMIN	SRL	691357P
2				_,		-	A:	NEED 10 PERCENT	IN RESONANCE INTEGRAL	
							0:	TO EVALUATE CF P	RODUCTION	

98 CALI	FORNIUM	250	NEL	JTRON		FISSI	ION CROS	S SECTION			
. 1757	. 25.3	MV	10.0	KEV	10.0*		1154		5.01		6711670
1,01	23.3	1-1 •	1010		10104	•	A:	ACCURACY 10 PE	RCENT IN RESO	NANCE INTEGRAL.	0/11038
							0:	TO EVALUATE CF	PRODUCTION.		
98 CAL I	FORNIUM	250	NEU	JTRON		RESON	NANCE PA	ARAMETERS			
1758	25.3	MV	10.0	KEV	20.0%	1	USA	R.W.BENJAMIN	SRI		671152R
-						-	A:	NEED 20 PERCEN	T ACCURACY IN	RESONANCE INTE	GRAL.
							0: M:	TO EVALUATE CF SUBSTANTIAL MO	PRODUCTION. DIFICATIONS.		
98 CAL I	FORNIUM	251	========= NEU	JTRON	================	CAPTU	JRE CROS	SS SECTION			
******	-4220223								**********		
1759	25.3	MV	10.0	KEV	10.0%	1	USA	R.W.EENJAMIN	SRL		671154R
							A: 0:	ACCURACY 10 PER TO EVALUATE CF	RCENT IN RESD PRODUCTION.	NANCE INTEGRAL.	
		251									
=======	========	251		222222		======					========
1760	25.3	MV	10.0	KEV	10.0%	1	USA	R.W.EENJAMIN	SRL		741132R
							9:	THERMAL CROSS	SECTION SHAPE	ESPECIALLY IMP	OFTANT.
							ő:	TO EVALUATE CF	PRODUCTION.	RESONANCE INTE	UNAL.
98 CALI	FORNIUM	251	NE L	JTRON		RESON	NANCE P	ARAMETERS			
1761	25.3	MV	10.0	KEV	10.0%	1	USA	R.W.BENJAMIN	SRL		761106R
							MI	NEW REQUEST.			
98 CALI	FORNIUM	252	SP(		OUS	NEUTR	RONS EM	ITTED PER FISSI	ON (NU BAR)		
1762					0.25%	1	USA	P.B.FEMMIG R.S.CASWELL	DOE NBS		691359R
							<b>A:</b> 0:	ACCURACY OF 1 For use as sta	PERCENT USEFU NDARD.	L.	
1763				•	0.3%	1	FR	E.FORT	CAD		712119R
	- "						0:	DISCREPANCY BE SPECTFUM EXP FOR 2200M/S	TWEEN DIFFERE ERIMENTS HAVE DATA.	NTIAL AND MAXWE To be resolved	ELL )
1764						1	CCP	M.N.NIKOLAEV	FEI		714033R
							A:	ACCURACY NOT W	DRSE THAN 0.3	PERCENT.	PERCENT
								OF AT LEAST LESS THAN TW	FOUR EXPERIME O DIFFERENT M	NTS CARRIED OUT ETHODS.	BY NOT
·							0:	SEE GENERAL CO FIRST PRIORITY	MMENTS IN THE BECAUSE IT I	S DIFFICULT TO	
								EXPERIMENTS.	13 STANDARD W	ITH MACHOSCOPIC	
1765						1	USA	N.STEEN	BET		761063R
							A:	ACCURACY REQUI	RED IS 0.25 P	ERCENT .	
STATUS-								NEW REQUEST.			STATUS
	UNDER CO		UOUS REVI	EW BY	INDC AND N	EANDC.	SEE AP	PENDIX A.			
 98 CALI	FORNIUM	252	========= \$P			ENER	GY SPEC	TRUM OF FISSION	NEUTRONS		
	=======		*======								
1766					5.0%	1	USA	R.S.CASWELL	NBS		721105R
							<b>a</b> :	INFORMATION AT	LOW NEUTRON	ENERGIES STILL	NEEDED.
1767					2.0%	1	UK	B.ROSE	HAR		732117R
							A:	ACCURACY FOR M	LAN SPECTRUM	ENERGY. FOR THE NUMBER	OF
				-			0:	NEUTRONS ABO	VE 5 MEV AND	BELOW .25 MEV.	
1768					1.0%	1	USA	F.FE INER	KAP		741131R
							0: D:	MEAN SPECTRUM For use as a s	ENERGY TO 1 P	ERCENT	
1769					1.0%	1	USA	N.STEEN	BET		761064R
							٥:	DETECTOR EFFIC	IENCY MUST BE	DETERMINED FRO	SM WELL
							A: 0: M:	MEAN SPECTRUM For Interpreta New Request.	ENERGY DESIRE	TIO MEASUREMEN	is.
1770					2.0%	1	GER	H.KUESTERS	KFK		792189R
							A:	2 PERCENT ACCU	RACY ON MEAN	FISS SPECTRUM	ENERGY.
							м:	NEUTRONS ABOVE	5 MEV AND BE	LOW .25 MEV.	

98 CAL	IFORNIUN	4 252	SP0	NTANE	OUS	ENERG	SY SPE	CTRUM OF FISSION NEUTRONS	(CONTINUED)
STATUS								#	STATUS
	UNDER C	CONTINUOL	S REVIE	W BY	INDC AND I	NEANDC.	SEE A	PPENDIX A.	
98 CAL	IFORNIU	4 252	NEU	TRON		CAPTU	RE CR	OSS SECTION	
1771	25.3	3 MV	10.0	KEV	10.0%	1	USA	R.W.BENJAMIN SRL	671155R
							Â	: ACCURACY 10 PERCENT IN RESONANCE : TO EVALUATE CF PRODUCTION.	INTEGRAL.
====== 99 EIN	STEINIUM	4 253	NEU	TRON		FISSI	ION CR	OSS SECTION	
	*******								
1772	25.3	3 MV	10.0	KEV	10.0%	1	USA	R.W.EENJAMIN SRL	741129R
FISSIC	IN PRODUC	CTS	NEU	TRON		I NEL A	STIC	CROSS SECTION	
1773	800	KEV	5.00	MEV		2	сср	L.N.USACHEV FEI	754022R
						-	A	FROM 0.8 - 1.4 MEV ACCURACY 13	PERCENT. PERCENT.
							o	FROM 2.5 - 5.0 MEV ACCURACY 30 NEED FOR FAST REACTOR CALCULATIO	PERCENT . N.
	ì					• •	м	SUBSTANTIAL MODIFICATIONS.	•
STATUS	UNDER (		JS REVIE		INDC. SEE	APPENDI	X A.		STATUS
======	N PRODUC			 TRON		========= ABSOR	===== PTION	CROSS SECTION	
1774	25.3	3 MV			5.0%	2	UK	J.FELL WIN	692476R
							O	FOR THERMAL REACTORS. INTEGRAL REQUIREMENT FOR TOTAL F POISONING IN IRRADIATED FUEL.	ISSION PRODUCT
STATUS									STATUS
	UNDER C	CONTINUO	JS REVIE	W BY	INDC. SEE	APPENDI	X A.		
FISSI0	N PRODUC		NEU	23255 TRON 23255		CAPTU	RE CR	OSS SECTION	=======================================
1775	100.	FV	100.	KFV	20.0%	2	CCP		7140368
						-	. a	AVERAGE CAPTURE CROSS SECTION FO	R LUMPED FISSION
								FISSICN PRODUCTS DATA FOF FISSION PRODUCTS OF U-2	35. U-238.
							o	PU-239 AND PU-240 ARE OF GREAT SEE GENERAL COMMENTS IN THE INTR	INTEREST. DDUCTION.
1776	5.00	) <b>KEV</b>	10.0	MEV		2	ССР	L.N.USACHEV FEI	754015R
							A	FROM 5.0 - 100 KEV ACCURACY 7	PERCENT .
								FROM 0.8 - 4.5 MEV ACCURACY 48 Above 4.5 Mev requirements 2 tim	PERCENT. ES WEAKER.
							0	NEED FOR FAST REACTOR CALCULATIO FOR MORE DETAIL SEE INTRODUCTION SUBSTANTIAL MODIFICATIONS.	NS. •
					•				
1777	100	• EV	1.00	MEV	20.0%	3	UK	C.G.CAMFEELL WIN	792161R
							. М	NEW REQUEST.	
STATUS	UNDER (		S REVIE		INDC. SEE		× .		STATUS
				=====					
======	EREEREE		NEU	TRON ======		ABSOF	PTION	RESUNANCE INTEGRAL	
1778	0.55	5 EV	2.00	MEV	10.0%	2	UK	J.FELL WIN	692495R
							с	INTEGRAL REACTORS.	ISSION PRODUCT
								POISONING IN IRRADIATED FUEL.	
STATUS	UNDER (	ONTINUOL	S REVIE	W BY	INDC. SEE	APPENDI	X A.		51A1US
	========			=====					=================================
=====				=====					9=====================================
1779	500	EV.	800.	KEV		1	сср	M.N.NIKOLAEV FEI	714035R
							Q	: RATIOS WANTED RELATIVE TO U-235 LI-6, HE-3 AND H-1 STANDARDS.	FISSION, 8-10,
							Å	: 10 PERCENT BELOW, 20 PERCENT ABO SEE GENERAL COMMENTS IN THE INTR	VE 100 KEV WANTED. ODUCTION.
								THAT THE CAPTURE CROSS SECTION STEEL IS MUCH GREATER THAN CAL	OF STAINLESS CULATED FROM
								MICROSCOPIC DATA. FIRST PRIORITY BECAUSE IT IS DIF	FICULT TO EVALUATE
								ACCURACY FROM MACROSCOPIC EXPE	RIMENTS ONLY.

STEEL		×=3282	NEU	TRON SSESESS	======	CAPTU	RE CRO	SS SECTION	**==********	( CON 	TINUED)
1780	5.00	KEV	10.0	MEV		2	CCP	L.N.USACHEV	FEI		754018R
							A: 0: <u>M:</u>	FROM 5.0 - 100 FROM 0.1 - 0.8 FROM 0.8 - 4.5 ABOVE 4.5 MEV NEED FCR FAST FOP MORE DETAI SUBSTANTIAL MO	KEV ACCURACY MEV ACCURACY MEV ACCURACY REQUIREMENTS REACTOR CALCU L SEE INTRODU DIFICATIONS.	11 PEPCENT. 15 PERCENT. 20 PERCENT. 2 TIMES WEAKER. LATIONS. CTION.	

## V. INDEX OF SATISFIED AND WITHDRAWN REQUESTS

The following index lists all requests which appeared in the previous edition but which, since then, have been removed from the request file. For convenient cross-reference, the WRENDA 76/77 reference number (see Section <u>II.A.</u>) of each request is listed in parentheses next to the identification number.

To remove a request from the file, the requestor may declare it either "satisfied" (if he considers that newly available data meets the expressed need) or "withdrawn" (if it is to be removed for any other reason).

It appears that requestors have not used these two designations to draw this distinction consistently in all cases, so for this edition we have combined "satisfied" and "withdrawn" requests into a single index.

1) 721001R USA 1 HYDROGEN 1 C (1195) 752094F FR 1 HYDROGEN 2 (1198) 741249F USA 2 HELIUM 3 C 7) 691008R USA 3 LITHIUM 6 741250F USA (1208) 3 LITHIUM 6 7320388 50 6 16) 3 LITHTUM 6 (1218) 741245F USA 3 LITHIUM 6 (1219)741244F USA 3 LITHIUM 6 (1220) 741246F USA 3 LITHTUM 6 741247F USA 3 LITHIUM 6 (1221) (1222)741248F USA 3 LITHIUM 6 (1239) 741251F USA 3 LITHIUM 7 (1246)741252F USA 3 LITHIUM 7 19) 721146R USA 3 LITHIUM 7 1 (1247) 722073F GER A REBYLLTUM 9 (1257) 741254F USA 4 BERYLLIUM 9 (1261) 741253F USA 4 BERYLLIUM 9 (1523) 701002N USA 4 BERYLLIUM 9 691016R USA 5 BORON 10 25) ( 26) 6910178 USA 5 BORON 10 t C 29) 691022R USA 5 BORON 10 35) 712003R SWD 6 CARBON 1 (1267)741255F USA 6 CARBON 36) 691031R USA 6 CARBON 12 ( (1272)741256F USA 6 CARBON 12 (1273)741258F USA 6 CARBON 12 (1275) 741259F USA 6 CARBON 13 741260F USA 6 CARBON 13 (1276)( 391 692016R SWD 7 NITROGEN 14 ( 40) 693002R HUN 7 NITROGEN 14 42) 692018R SWD 7 NITROGEN 14 C (1277) 7 NITROGEN 14 741261F USA 43) 692020R FR 7 NITROGEN 14 ć 44) 762175R JAP 7 NITROGEN 15 C 46) 661029R USA A DXYGEN 47) 692021R GER 8 OXYGEN 1 6920228 GER £ 48) 8 OXYGEN ł 46) 692023R SWD A DXYGEN (1278) 741262F USA 8 OXYGEN 692025R SWD ( 52) 8 OXYGEN (1279) 741263F USA 8 DXYGEN ( 55) 693003R HUN 8 DXYGEN 16 (1285)722082F UK 9 FLUORINE 19 C 60) 762176R JAP 9 FLUORINE 19 (1288) 762237F UK 9 FLUORINE 19 661011R USA 9 FLUORINE 19 £ 61) 62) 693004R HUN 9 FLUORINE 19 741264F USA 9 FLUORINE 19 (1295) 741265F USA 9. FLUGRINE 19 (1296) (1298) 741266F USA 9 FLUORINE 19 641 692032R GER 11 SODIUM 23 ť 692035R GER 11 SODIUM 23 86)

NEUTRON NEUTRON HELIUM-3 NEUTRON NEUTRON NEUTRON DEUTERON HELIUM-3 LITHIUM-6 LITHIUM-6 L TTHTUM-6 NEUTRON NEUTRON ALPHA NEUTRON NEUTRON

DIFFERENTIAL ELASTIC CROSS SECTION N.2N HELIUM-3,2P ELASTIC CROSS SECTION ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION N. AL DHA D.N HELIUM-3.P LITHIUM-6.T LITHIUM-6 HELIUM-3 I TTHTUM-6. AL PHA ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION N. NALPHA AL PHA .N DIFFERENTIAL ELASTIC CROSS SECTION N. 2N ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION N.P DELAYED NEUTRON YIELD TOTAL CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION N. AL PHA DIFFERENTIAL ELASTIC CROSS SECTION ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION DIFFEFENTIAL ELASTIC CROSS SECTION N. N3 AL PHA N, NJALPHA CAPTURE CROSS SECTION N. AL PHA DIFFERENTIAL ELASTIC CROSS SECTION N . 2N NEUTRON EMISSION CROSS SECTION ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION N.P N.F DIFFERENTIAL ELASTIC CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION DIFFERENTIAL FLASTIC CROSS SECTION ANGULAR DIFFERENTIAL INELASTIC CROSS SECTION NEUTRON EMISSION CROSS SECTION ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION N.P INELASTIC CROSS SECTION INELASTIC CROSS SECTION INELASTIC CROSS SECTION CAPTURE CROSS SECTION N. 2N ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION TOTAL PROTON PRODUCTION CROSS SECTION TOTAL ALPHA PRODUCTION CROSS SECTION DIFFEFENTIAL ELASTIC CROSS SECTION ANGULAR DIFFERENTIAL INELASTIC CROSS SECTION

( 71) 692038R JAP 11 SODIUM 23 (1301) 741268F USA 13 ALUMINUM 27 741269F USA 13 ALUMINUM 27 (1303) (1304) 741267F USA 13 ALUMINUM 27 (1306) 741276F USA 13 ALUMINUM 27 741277F USA 13 ALUMINUM 27 (1307) ( 81) 682007R JAP 13 ALUMINUM 27 (1310) 741274F USA 13 ALUMINUM 27 741275F USA 13 ALUMINUM 27 (1311)(1312) 741278F USA 14 SILICON 741280F USA 14 SILICON (1313)91) 742125R EUR 16 SULFUR 32 1 741282F USA-18 ARGON 40 (1314)95) 693009R HUN 18 ARGON 40 1 762178R JAP 18 ARGON 40 C 96) 97) 693010R HUN 19 POTASSIUM 41 C 7410278 USA C 98) 20 CALCIUM ( 103) 692061R FR 21 SCANDIUM 45 ( 104) 692064R FR 21 SCANDIUM 45 (1322) 732010F FR 22 TITANIUM (1324) 732011F FR 22 TITANIUM 692067R FR 22 TITANIUM 46 ( 110) (113)692070R FR 22 TITANIUM 47 ( 116) 691074R USA 22 TITANIUM 48 692072R FR ( 117) 22 TITANIUM 48 (1336) 741224F USA 23 VANADIUM 741283E USA 23 VANADIUM (1342)(1346) 741284F USA 23 VANADIUM (1350) 762090F JAP 23 VANADIUM (1351) 741285F USA 23 VANADIUM (127)692075R FR 23 VANADIUM 51 (1354) 741225F USA 24 CHROMIUM ( 131) 691076R USA 24 CHROMIUM ( 132) 692076R GER 24 CHROMIUM 692078R GER (134) 24 CHROMIUM 741226F USA (1358) 24 CHROMIUM (1361) 741230F USA 24 CHROMIUM (1364) 741227F USA 24 CHROMIUM (1368) 741228F USA 24 CHROMIUM 682008R FR ( 151) 24 CHROMIUM 741229F USA (1372) 24 CHROMIUM ( 153) 691077R USA 24 CHROMIUM (1374)741231F USA 24 CHROMIUM 52 741232F USA (1375) 24 CHROMIUM 52 ( 157) 691081R USA 24 CHROMIUM 53 (1376) 741287F USA 25 MANGANESE 55 (1377) 741233F USA 25 MANGANESE 55 (1378) 741286F USA 25 MANGANESE 55 ( 167) 741037R USA 26 IRON ( 169) 691084R USA 26 IRON 742029R FR ( 174) 26 IRON ( 177) 661018R USA 26 IRON ( 179) 712022R SWD 26 IRON

NEUTRON NEUTRON

CAPTURE CROSS SECTION N. 2N ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION N_AP TOTAL PROTON PRODUCTION CROSS SECTION TOTAL PROTON PRODUCTION CROSS SECTION N.ALPHA TOTAL ALPHA PRODUCTION CROSS SECTION TOTAL ALPHA PRODUCTION CROSS SECTION NEUTRON EMISSION CROSS SECTION TOTAL ALPHA PRODUCTION CROSS SECTION N.P N. 2N N.P N.P N.P TOTAL CROSS SECTION N. 2N N. ALPHA N. 2N N.P N.P N.P N, P N₁P TOTAL PHOTON PRODUCTION CROSS SECTION NEUTRON EMISSION CROSS SECTION TOTAL PROTON PRODUCTION CROSS SECTION N, AL PHA TOTAL ALPHA PRODUCTION CROSS SECTION N+ALPHA TOTAL CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION ABSORPTION CROSS SECTION TOTAL PHOTON PRODUCTION CROSS SECTION NEUTRON EMISSION CROSS SECTION TOTAL PROTON PRODUCTION CROSS SECTION N. ALPHA TOTAL ALPHA PRODUCTION CROSS SECTION CAPTURE RESONANCE INTEGRAL N.P N. ALPHA RESONANCE PARAMETERS TOTAL PHOTON PRODUCTION CROSS SECTION N. 2N N . 2N TOTAL CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION ENERGY DIFFERENTIAL INELASTIC CROSS SECTION ENERGY DIFFERENTIAL INELASTIC CROSS SECTION

( 182) 742030R FR 26 IRON (-185) 692102R JAP 26 IRON ( 188) 712024R SWD 26 IRON ( 190) 721039R USA 26 IRDN ( 192) 742032R FR 26 IRON ( 194) 661022R USA 26 IRON (1389) 762239F UK 26 IRON (1390) 741288F USA 26 IRON ( 197) 762167R SWD 26 IRON ( 198) 712025R SWD 26 IRON (1397) 741289F USA 26 IRON ( 201) 6921078 FR 26 JRON (1398)741290F USA 26 IRON ( 203) 691098R USA 26 IRON ( 204) 742033R FR 26 IRON 54 ( 206) 721044R USA 26 IRON 54 (1399) 741291F USA 26 IRON 54 7421198 EUR ( 207) 26 IRON 54 ( 209) 682012R JAP 26 TRON 56 ( 210) 692111R FR 26 IRON 56 ( 213) 691102R USA 26 IRON 57 (1400) 741292F USA 26 IRON 58 ( 221) 6921198 FR 27 COBALT 59 (1401) 741293F USA 28 NICKEL ( 224) 691110R USA 28 NICKEL (1405) 741294F USA 28 NICKEL ( 234) 6921298 JAP 28 NICKEL ( 239) 621020R USA 28 NICKEL ( 240) 631003R USA 28 NICKEL (1415)741295F USA 28 NICKEL 692132R FP ( 245) 28 NICKEL (1420)741296F USA 28 NICKEL ( 249) 691109R USA 28 NICKEL ( 250) 692133R FR 28 NICKEL 58 (1421) 741297F USA 28 NICKEL 58 741298F USA 28 NICKEL 58 (1422)(254) 692136R FR 28 NICKEL 58 (1423) 741299F USA 28 NICKEL 58 28 NICKEL 60 ( 259) 692137R FR ( 260) 692138R GER 28 NICKEL 60 (1424)741301F USA 28 NICKEL 60 ( 262) 691128R USA 28 NICKEL 61 682013R FR 28 NICKEL 62 ( 264) ( 267) 682014R FR 28 NICKEL 64 ( 268) 6921398 FR 28 NICKEL 64 (1425)741302F USA 29 COPPER (1427) 741303F USA 29 COPPER (1432) 741304F USA 29 COPPER ( 272) 732043R FR 29 COPPER 63 (1436) 741307F USA 29 COPPER 63 ( 273) 682015R JAP 29 COPPER 63 ( 274) 682016R JAP 29 COPPER 63 (1437) 741305F USA 29 COPPER 63 NEUTRON NEUTRON

ENERGY-ANGLE DIFFERENTIAL INELASTIC CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION TOTAL PHOTON PRODUCTION CROSS SECTION N, 2N NEUTRON EMISSION CROSS SECTION NEUTRON EMISSION CROSS SECTION N.P TOTAL PROTON PRODUCTION CROSS SECTION N. AL PHA TOTAL ALPHA PRODUCTION CROSS SECTION CAPTURE RESONANCE INTEGRAL CAPTURE CROSS SECTION N.P N.F N.P N.P N.P RESONANCE PARAMETERS CAPTURE CROSS SECTION N.P TOTAL CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION ABSORPTION CROSS SECTION CAPTURE CROSS SECTION TOTAL PHOTON PRODUCTION CROSS SECTION TOTAL PHOTON PRODUCTION CROSS SECTION TOTAL PROTON PRODUCTION CROSS SECTION N. ALPHA TOTAL ALPHA PRODUCTION CROSS SECTION CAPTURE RESONANCE INTEGRAL N.2N N,P N.P N, NP N. NP N, P N, ALPHA NI ALPHA RESONANCE PARAMETERS CAPTURE CROSS SECTION CAPTURE CROSS SECTION N. 2N TOTAL CROSS SECTION ABSORPTION CROSS SECTION TOTAL PHOTON PRODUCTION CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION N. 2N N. 2N N, P

(1438)	741306F USA	29 COPPER 63	NEUTRON	N, AL PHA
( 279)	682017R JAP	29 COPPER 65	NEUTRON	N, 2N
(280)	682018R JAP	29 COPPER 65	NEUTRON	N, 2N
(281)	693018R HUN	30 ZINC 64	NEUTRON	N, 2N
(1439)	741308F USA	30 ZINC 66	NEUTRON	N• 2N
( 283)	742038R FR	31 GALLIUM	NEUTRON	N•2N
(* 284)	693019R HUN	31 GALLIUM 69	NEUTRON	N, 2N
( 285)	671118R USA	36 KRYPTON 83	NEUTRON	TOTAL CROSS SECTION
( 291)	702014R JAP	40 ZIRCONIUM	NEUTRON	ENERGY DIFFERENTIAL INELASTIC CROSS SECTION
( 294)	691142R USA	40 ZIRCONIUM	NEUTRON	CAPTURE CROSS SECTION
( 299)	691152R USA	40 ZIRCONIUM 90		DISCRETE LEVEL STRUCTURE (ENERGY, SPIN, PARITY)
( 300)	721059R USA	40 ZIRCONIUM 90	NEUTRON	TOTAL CROSS SECTION
( 301)	721060R USA	40 ZIRCONIUM 90	NEUTRON	DIFFEFENTIAL ELASTIC CROSS SECTION
( 302)	691149R USA	40 ZIRCONIUM 90	NEUTRON	ANGULAR DIFFERENTIAL INELASTIC CROSS SECTION
( 303)	721061R USA	40 ZIRCONIUM 90	NEUTRON	ENERGY DIFFERENTIAL INELASTIC CROSS SECTION
( 304)	691151R USA	40 ZIRCONIUM 90	NEUTRON	RESUNANCE PARAMETERS
( 305)	691150R USA	40 ZIRCONIUM 90	NEUTRON	CAPTURE RESONANCE INTEGRAL
( 306)	691157R USA	40 ZIRCONIUM 91		DISCRETE LEVEL STRUCTURE (ENEPGY, SPIN, PARITY.)
( 308)	721063R USA	40 ZIRCONIUM 91	NEUTRON	DIFFERENTIAL ELASTIC CROSS SECTION
( 309)	691153R USA	40 ZIRCONIUM 91	NEUTRON	ANGULAR DIFFERENTIAL INELASTIC CROSS SECTION
( 310)	721064R USA	40 ZIRCONIUM 91	NEUTRON	ENERGY DIFFERENTIAL INELASTIC CROSS SECTION
( 312)	691154R USA	40 ZIRCONIUM 91	NEUTRON	N, ALPHA
( 313)	691156R USA	40 ZIRCONIUM 91	NEUTRON	RESONANCE PARAMETERS
( 314)	721065R USA	40 ZIRCONIUM 91	NEUTRON	RESONANCE PARAMETERS
( 315)	691155R USA	40 ZIRCONIUM 91	NEUTRON	CAPTURE RESONANCE INTEGRAL
( 316)	691161R USA	40 ZIRCONIUM 92		DISCRETE LEVEL STRUCTURE (ENERGY, SPIN, PARITY)
( 317)	721066R USA	40 ZIRCONIUM 92	NEUTRON	DIFFEFENTIAL ELASTIC CROSS SECTION
( 318)	691158R USA	40 ZIRCONIUM 92	NEUTRON	ANGULAR DIFFERENTIAL INELASTIC CROSS SECTION
( 319)	721067R USA	40 ZIRCONIUM 92	NEUTRON	ENERGY DIFFERENTIAL INELASTIC CROSS SECTION
( 320)	691160R USA	40 ZIRCONIUM 92	NEUTRON	RESONANCE PARAMETERS
( 321)	691159R USA	40 ZIRCONIUM 92	NEUTRON	CAPTURE RESONANCE INTEGRAL
( 324)	691163R USA	40 ZIRCONIUM 94		DISCRETE LEVEL STRUCTURE (ENERGY, SPIN, PARITY)
( 325)	671008R USA	40 ZIRCONIUM 94	NEUTRON	DIFFERENTIAL ELASTIC CROSS SECTION
( 326)	671009R USA	40 ZIRCONIUM 94	NEUTRON	ANGULAR DIFFERENTIAL INELASTIC CROSS SECTION
( 327)	741072R USA	40 ZIRCONIUM 94	NEUTRON	ENERGY DIFFERENTIAL INELASTIC CROSS SECTION
( 328)	691162R USA	40 ZIRCONIUM 94	NEUTRON	RESONANCE PARAMETERS
(1450)	762116F JAP	41 NIOBIUM 93	NEUTRON	INELASTIC CROSS SECTION
(1453)	722129F GER	41 NIOBIUM 93	NEUTRON	ENERGY-ANGLE DIFFERENTIAL INELASTIC CROSS SECTION
( 342)	742132R EUR	41 NIOBIUM 93	NEUTRON	CAPTURE CROSS SECTION
(1463)	741312F USA	41 NIOBIUM 93	NEUTRON	N.2N NEUTRON SPECTRA
(1468)	741311F USA	41 NIOBIUM 93	NEUTRON	TOTAL PROTON PRODUCTION CROSS SECTION
(1469)	722137F GER	41 NIOBIUM 93	NEUTRON	N, ALPHA
(1472)	741310F USA	41 NIOBIUM 93	NEUTRON	TOTAL ALPHA PRODUCTION CROSS SECTION
(1486)	741313F USA	42 MOLYBDENUM	NEUTRON	TOTAL PHOTON PRODUCTION CROSS SECTION
(1494)	742111F GER	42 MOLYBDENUM	NEUTRON	N,F
( 352)	762180R JAP	42 MOLYBDENUM 92	NEUTRON	TOTAL CROSS SECTION
(353)	762182R JAP	42 MOLYBDENUM 92	NEUTRON	INELASTIC CROSS SECTION
( 356)	762185R JAP	42 MOLYBDENUM 94	NEUTRON	INELASTIC CROSS SECTION
( 362)	752005R JAP	42 MOLYBDENUM 95	NEUTRON	CAPTURE CROSS SECTION
( 363)	762190R JAP	42 MOLYBDENUM 95	NEUTRON	N, F
( 366)	762192R JAP	42 MOLYBDENUM 96	NEUTRON	TOTAL CROSS SECTION
( 367)	762194R JAP	42 MOLYBDENUM 96	NEUTRON	INELASTIC CROSS SECTION
( 368)	693020R AUL	42 MOLYBDENUM 96	NEUTRON	CAPTURE CROSS SECTION

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( 373) 752006R JAP 42 MOLYBDENUM 97 NEUTRON ( 375) 762199R JAP 42 MOLYBDENUM 98 NEUTRON C 379) 762201R JAP 42 MOLYBDENUM 100 NEUTRON ( 380) 7622028 JAP 42 MOLYBDENUM 100 NEUTRON ( 388) 752009R JAP 44 RUTHENIUM 102 NEUTRON ( 393) 752010R JAP 44 RUTHENIUM 104 NEUTRON 395) 741080R USA 45 RHODIUM ( NEUTRON ( 398) 671017R USA 45 RHODIUM 103 NEUTRON ( 404) 741083R USA 45 RHODIUM 105 NEUTRON ( 407) 671020R USA 46 PALLADIUM 107 NEUTRON ( 411) 741085R USA 47 SILVER 107 NEUTRON ( 412) 693021R HUN 47 SILVER 107 NEUTRON (1502) 741314F USA 47 SILVER 109 NEUTRON 7020178 JAP ( 416) 49 INDIUM NEUTRON ( 428) 671023R USA 52 TELLURIUM 132 NEUTRON ¢ 443) 671030R USA 55 CESIUM 133 NEUTFON ( 444) 671031R USA 55 CESIUM 133 NEUTRON ( 452) 741092R USA 59 PRASEODYMIUM 141 NEUTRON ( 453) 692214R ITY 59 PRASEODYMIUM 141 NEUTRON 671042R USA 61 PROMETHIUM 147 ( 465) NEUTRON C 475) 692230R ITY 62 SAMARIUM NEUTRON ( 476) 693024R HUN 62 SAMARIUM 144 NEUTRON 671052R USA 62 SAMARIUM 150 ( 481) NEUTRON 671059R USA 62 SAMARIUM 152 NEUTRON ( 486) ¢ 488) 671062R USA 62 SAMARIUM 153 NEUTRON NEUTRON ( 490) 692253R GER 63 EUROPIUM 692254R GER 63 EUROPIUM ( 492) NEUT RON ( 493) 692255R GER 63 EUROPIUM NEUTRON 692257R GER ( 494) 63 EUROPIUM NEUTRON 63 EUROPIUM ( 495) 692258R GER NEUTRON ( 496) 692259R GER 63 EUROPIUM NEUTRON ( 502) 692260R GER 63 EUROPIUM 151 NEUTRON ( 505) 741104R USA 63 EUROPIUM 153 NEUTRON C 507) 752022R JAP 63 EUROPIUM 153 NEUTRON ( 509) 692263R GER 63 EUROPIUM 153 NEUTRON ( 510) 671066R USA 63 EUROPIUM 154 NEUTRON (511)671068R USA 63 EUROPIUM 155 NEUTRON ( 532) 692283R ITY 66 DYSPROSIUM 161 NEUTRON ( 533) 692286R ITY 68 ERBIUM NEUTRON NEUTRON ( 535) 693030R HUN 68 ERBIUM 168 ( 536) 6922898 FR 69 THULIUM 169 NEUTRON ( 540) 692294R SWT 71 LUTETIUM 175 NEUTRON 682036R FR 71 LUTETIUM 175 ( 541) NEUTRON 71 LUTETIUM 176 ( 542) 692296R SWT NEUTRON NEUTRON ( 543) 661036R USA 72 HAFNIUM ſ 545) 661037R USA 72 HAFNIUM NEUTRON ( 546) 661038R USA 72 HAFNIUM 174 NEUTRON ( 565) 692308R FR 74 TUNGSTEN 182 NEUTRON ( 566) 693040R HUN 74 TUNGSTEN 182 NEUTRON ( 572) 692312R FR NEUTRON 74 TUNGSTEN 186 ( 573) 701023R USA 76 OSMIUM 186 NEUTRON 701024R USA 76 OSMIUM 187 ( 574) NEUTRON ( 575) 742051R FR 77 IRIDIUM 191 NEUTRON CAPTURE CROSS SECTION INELASTIC CROSS SECTION TOTAL CROSS SECTION INELASTIC CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION CAFTURE CROSS SECTION CAPTURE CROSS SECTION CAFTURE CROSS SECTION N. ALPHA CAPTURE CROSS SECTION ENERGY DIFFERENTIAL INELASTIC CROSS SECTION CAPTURE CROSS SECTION CAFTURE CROSS SECTION CAPTURE CROSS SECTION CAPTURE CPOSS SECTION RESONANCE PARAMETERS CAPTURE CROSS SECTION RESONANCE PARAMETERS N . 2N CAPTURE CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION TOTAL CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION INELASTIC CROSS SECTION INELASTIC CROSS SECTION ENERGY DIFFERENTIAL INELASTIC CROSS SECTION CAPTURE CROSS SECTION RESONANCE PARAMETERS CAPTURE CROSS SECTION CAPTURE CROSS SECTION RESONANCE PARAMETERS CAPTURE CROSS SECTION CAPTURE CROSS SECTION RESONANCE PARAMETERS RESONANCE PARAMETERS N. AL PHA CAPTURE CROSS SECTION CAPTURE CROSS SECTION N. 2N CAPTURE CROSS SECTION DIFFERENTIAL ELASTIC CROSS SECTION ENERGY DIFFERENTIAL NEUTRON-EMISSION CROSS SECTION CAPTURE CROSS SECTION N+2N N. ALPHA N, 2N CAPTURE CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION

C	576)	742050R	FR	77	IRIDIUM	191	NEUTRON
C	577)	742053R	FR	77	IRIDIUM	193	NEUTRON
¢	578)	742052R	FR	77	IRIDIUM	193	NEUTRON
C	583)	742057R	FR	78		4	NEUTRON
C	592)	682044R	FR	81	THALLIU	4 203	NEUTRON
(	593)	682043R	FR	81	THALLIU	4 203	NEUTRON
(	595)	682046R	FR	81	THALLIU	4 205	NEUTRON
C	596)	682045R	FR	81	THALLIU	4 205	NEUTRON
(	1507)	741315F	USA	82	LEAD		NEUTRON
Ċ	1508)	741316F	USA	82			NEUTRON
ć	1512)	741317E	USA	82	LEAD 204	<b>1</b>	NEUTRON
ì	600)	7520030	BLG	88			NEUTRON
ì	6013	6023228	BLG	00	ACTINIU	4 227	NEUTON
Ì	602)	7530010		0.9		379	NEUTOON
Ż	6027	7530018	TND	90	THORIUM	232	NEUTRON
,	6037	7530028	TND	90	THORIOM	232	NEUTRON
	6057	7530038	IND	90	TUODIUM	232	NEUTRON
	612)	741204R	USA	90	HURIUM	232	NEUTRUN
	6131	753004R	IND	90	THORIUM	232	NEUTRON
(	619)	741205R	USA	90	THORIUM	232	NEUTRON
(	621)	753005R	IND	90	THORIUM	232	NEUTRON
(	623)	753006R	IND	90	THORIUM	233	NEUTRON
C	624)	753007R	IND	90	THORIUM	233	NEUTRON
(	625)	753008R	IND	90	THORIUM	233	NEUTRON
(	626)	753009R	IND	90	THORIUM	233	NEUTRON
ſ	627)	753010R	IND	90	THORIUM	233	NEUTRON
(	634)	691221R	USA	91	PROTACT	INIUM 233	NEUTRON
(	657)	741206R	USA	92	URANIUM	233	NEUTRON
(	660)	692337R	UK	92	URANIUM	233	NEUTRON
(	663)	621035R	USA	92	URANIUM	233	NEUTRON
C	665)	621037R	USA	92	URANIUM	233	NEUTRON
ł	672)	741207R	USA	92	URANIUM	233	NEUTRON
(	680)	741114R	USA	92	URANIUM	233	NEUTRON
C	681)	691229R	USA	92	URANIUM	233	NEUTRON
C	682)	691230R	USA	92	URANIUM	233	NEUTRON
C	685)	741208R	USA	92	URANIUM	233	NEUTRON
(	687)	671095R	USA	92	URANIUM	233	NEUTRON
¢	688)	671096R	USA	92	URANIUM	233	NEUTRON
C	689)	671097R	USA	92	URANIUM	233	NEUTRON
¢	703)	692379R	GER	92	URANIUM	235	
(	711)	692364R	GER	92	URANIUM	235	NEUTRON
C	714)	682052R	JAP	92	URANIUM	235	NEUTRON
¢	715)	693052R	BAN	92	URANIUM	235	NEUTRON
(	717)	752026R	JAP	92	URANIUM	235	NEUTRON
¢	718)	752027R	JAP	92	URANIUM	235	NEUTRON
¢	719)	692361 R	GER	92	URANIUM	235	NEUTRON
(	720)	693051 R	BAN	92	URANIUM	235	NEUTRON
(	723)	693060R	BAN	92	URANIUM	235	NEUTRON
	728)	671103R	USA	92	URANIUM	235	NEUTRON
è	729)	671104P	USA	92	URANTUM	235	NEUTRON
	730)	693053P	BAN	92	URANTIN	235	NEUTRON
ì	7311	6923620	UK	92 92	URANTIM	235	NEUTOON
	7371	762020		36	UDANTUM	235	NEUTOON
۰	1331	7630011	DOC	72	UDANT	235	NEUTOON
0	1202)	103001N	UUR	92	URANIUM	230	NEUIRON

N. 2N CAPTURE CROSS SECTION N, 2N N. 2N CAFTURE CROSS SECTION N . 2N CAPTURE CROSS SECTION N, 2N TOTAL CROSS SECTION ABSORPTION CROSS SECTION N+ 2N CAPTURE CROSS SECTION RESONANCE PARAMETERS TOTAL CROSS SECTION ELASTIC CROSS SECTION INELASTIC CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION TOTAL CROSS SECTION ELASTIC CROSS SECTION INELASTIC CROSS SECTION CAPTURE CROSS SECTION FISSION CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION TOTAL PHOTON PRODUCTION CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION . NEUTRONS EMITTED PER NEUTRON ABSORPTION. (ETA) NEUTRONS EMITTED PER FISSION (NU BAR) NEUTRONS EMITTED PER FISSION (NU. BAR) NEUTRONS EMITTED PER FISSION (NU BAR) FISSION PRODUCT MASS YIELD SPECTRUM FISSION PRODUCT MASS YIELD SPECTRUM FISSION PRODUCT MASS YIELD SPECTRUM DISCRETE LEVEL STRUCTURE (ENERGY, SPIN, PARITY) ENERGY DIFFERENTIAL INELASTIC CROSS SECTION ENERGY-ANGLE DIFFERENTIAL INELASTIC CROSS SECTION ENERGY-ANGLE DIFFERENTIAL INELASTIC CROSS SECTION TOTAL SCATTERING CROSS SECTION DIFFERENTIAL TOTAL SCATTERING CROSS SECTION NON-ELASTIC CROSS SECTION NON-ELASTIC CROSS SECTION CAPTURE CROSS SECTION CAPTURE GAMMA RAY SPECTRUM CAPTURE GAMMA RAY SPECTRUM PHOTON PRODUCTION CROSS SECTION IN INELASTIC SCAT. TOTAL PHOTON PRODUCTION CROSS SECTION N. 2N DELAYED NEUTRON YIELD

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( 743)	6930548 BAN	Q2 LIDAN THM 235	NEUTOON	EISSION CERSS SECTION
( 749)	752023P 1AP	92 URANTUM 235	NEUTRON	FISTER CROSS SECTION
( 750)	7520240 140	02 HRANTUM 235	NEUTRON	
( 751)	752024R JAP	92 URANIUM 235	NEUTRON	
( 751)	752025R JAF	92 URANIUM 235	NEUTRON	FISSIEN CROSS SECTION
(1363)	703004N DDR	92 URANIUM 235	NEUTRON	
( 760)	7411218 034	92 URANIUM 235	NEUTRON	NEUTRONS ENTITED PER NEUTRON ABSURPTION (ETA)
(1564)	701030N USA	92 URANIUM 235	NEUTRUN	DELAYED NEUTRUNS EMITTED PER FISSION
( 768)	691257R USA	92 URANIUM 235	NEUTRON	ENERGY SPECTRUM OF FISSION NEUTRONS
( 772)	6711USR USA	92 URANIUM 235	NEUTRON	FISSION PRODUCT MASS YIELD SPECTRUM
(773)	671106R USA	92 URANIUM 235	NEUTRON	FISSION PRODUCT MASS YIELD SPECTRUM
( 774)	671107R USA	92 URANIUM 235	NEUTRON	FISSION PRODUCT MASS YIELD SPECTRUM
(777)	692359R GER	92 URANIUM 235	NEUTRON	RESONANCE PARAMETERS
(1570)	701032N USA	92 URANIUM 236	NEUTRON	DELAYED NEUTRONS EMITTED PER FISSION
(1571)	701031N USA	92 URANIUM 236	NEUTRON	ENERGY SPECTRUM OF FISSION NEUTRONS
( 793)	742080R FR	92 URANIUM 237	NEUTRON	CAPTURE CROSS SECTION
( 794)	742079R FR	92 URANIUM 237	NEUTRON .	FISSION CROSS SECTION
( 799)	692389R SWD	92 URANIUM 238	NEUTRON	INELASTIC CROSS SECTION
( 809)	693062R BAN	92 URANIUM 238	NEUTRON	ENERGY-ANGLE DIFFERENTIAL INELASTIC CROSS SECTION
( 811)	693061R BAN	92 URANIUM 238	NEUTRON	NDN-ELASTIC CROSS SECTION
( 816)	692402R FR	92 URANIUM 238	NEUTRON	CAPTURE CROSS SECTION
(818)	692404R FR	92 URANIUM 238	NEUTRON	CAPTURE CROSS SECTION
( 821)	693066R BAN	92 URANIUM 238	NEUTRON	CAPTURE CROSS SECTION
( 822)	702032R JAP	92 URANIUM 238	NEUTRON	CAFTURE CROSS SECTION
( 827)	693063R BAN	92 URANIUM 238	NEUTRON	PHOTON PRODUCTION CROSS SECTION IN INELASTIC SCAT.
(1518)	741319F USA	92 URANIUM 238	NEUTRON	N • 2N
(1574)	763002N DDR	92 URANIUM 238	NEUTRON	DELAYED NEUTRON YIELD
(1521)	741318F USA	92 URANIUM 238	NEUTRON	ENERGY-ANGLE DIFF. NEUTRON-EMISSION CROSS SECTION
( 835)	693065R BAN	92 URANIUM 238	NEUTRON	FISSION CROSS SECTION
( 841)	742136R EUR	92 URANIUM 238	NEUTRON	FISSION CROSS SECTION
(1575)	763005N DDR	92 URANIUM 238	NEUTRON	FISSION CROSS SECTION
( 847)	692397R UK	92 URANIUM 238	NEUTRON	DELAYED NEUTRONS EMITTED PER FISSION
( 848)	741122R USA	92 URANIUM 238	NEUTRON	DELAYED NEUTRONS EMITTED PER FISSION
( 854)	702029R FR	92 URANIUM 238	NEUTRON	RESONANCE PARAMETERS
(1579)	732125N GER	93 NEPTUNIUM 237	NEUTRON	CAPTURE CROSS SECTION
(1580)	732126N GER	93 NEPTUNIUM 237	NEUTRON	CAPTURE CROSS SECTION
(1581)	732127N GER	93 NEPTUNIUM 237	NEUTRON	N, 2N
(1582)	702064N GER	93 NEPTUNIUM 237	NEUTRON	FISSION CROSS SECTION
( 874)	742092R FR	94 PLUTONIUM 237	NEUTRON	CAPTURE CROSS SECTION
( 875)	692411R FR	94 PLUTONIUM 237	NEUTRON	FISSION CROSS SECTION
(1586)	741146N USA	94 PLUTONIUM 238		HALF LIFE
(1587)	741143N USA	94 PLUTONIUM 238	SPONTANEOUS	FISSION HALF LIFE
(1591)	741145N USA	94 PLUTONIUM 238	SPONTANEOUS	NEUTRONS EMITTED PER FISSION (NU BAR)
(1597)	702066N GER	94 PLUTONIUM 238	NEUTRON	CAPTURE CROSS SECTION
(1598)	702065N GER	94 PLUTONIUM 238	NEUTRON	FISSION CROSS SECTION
(1600)	741147N USA	94 PLUTONIUM 239		HALF LIFE
( 891)	682066R JAP	94 PLUTONIUM 239	NEUTRON	ENERGY DIFFERENTIAL INELASTIC CRDSS SECTION
( 894)	693068R BAN	94 PLUTONIUM 239	NEUTRON	ENERGY-ANGLE DIFFERENTIAL INELASTIC CROSS SECTION
( 896)	693067R BAN	94 PLUTONIUM 239	NEUTRON	NON-ELASTIC CROSS SECTION
( 898)	693078R BAN	94 PLUTONIUM 239	NEUTRON	CAPTURE CROSS SECTION
( 899)	702039R JAP	94 PLUTONIUM 239	NEUTRON	CAPTURE CROSS SECTION
( 903)	693069R BAN	94 PLUTONIUM 239	NEUTRON	PHOTON PRODUCTION CROSS SECTION IN INELASTIC SCAT.
(1607)	763003N DDR	94 PLUTONIUM 239	NEUTRON	DELAYED NEUTRON YIELD
( 910)	762212R JAP	94 PLUTONIUM 239	NEUTRON	N, AL PHA

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( 912) 691439R USA 94 PLUTONIUM 239 NEUTRON ( 915) 693070R BAN 94 PLUTONIUM 239 NEUTRON (1608) 763006N DDR 94 PLUTONIUM 239 NEUTRON NEUTRON 661063R USA 94 PLUTONIUM 239 ( 929) (1611) 701042N USA 94 PLUTONIUM 239 NEUTRON 94 PLUTONIUM 239 NEUTRON ( 935) 732114R UK ( 937) 712080R JAP 94 PLUTONIUM 239 NEUTRON (1618) 741148N USA 94 PLUTONIUM 240 (1619) 741144N USA 94 PLUTONIUM 240 SPONTANEOUS ( 951) 682071R JAP 94 PLUTONIUM 240 NEUTRON (1626) 701045N USA 94 PLUTONIUM 240 NEUTRON (1630) 741149N USA 94 PLUTONIUM 241 94 PLUTONIUM 241 NEUTRON ( 981) 692457R GER ( 983) 762220R JAP 94 PLUTONIUM 241 NEUTRON ( 994) 682072R JAP 94 PLUTONIUM 241 NEUTRON (1002) 762218R JAP 94 PLUTONIUM 241 NEUTRON 94 PLUTONIUM 241 (1011) 721095R USA NEUTRON (1638) 701046N USA 94 PLUTONIUM 241 NEUTRON (1643) 741153N USA 94 PLUTONIUM 242 SPONTANEOUS (1647) 732128N GER 94 PLUTONIUM 242 NEUTRON (1649) 732129N GER 94 PLUTONIUM 242 NEUTRON 701047N USA NEUTRON (1650) 94 PLUTONIUM 242 (1030)752031R JAP 94 PLUTONIUM 243 NEUTRON 94 PLUTONIUM 243 NEUTRON (1031) 752029R JAP (1032) 752030R JAP 94 PLUTONIUM 243 NEUTRON (1652) 741150N USA 95 AMERICIUM 241 (1657) 702081N GER 95 AMERICIUM 241 NEUTRON (1047) 742014R GER 95 AMERICIUM 241 NEUTRON (1048) 742015R GER 95 AMERICIUM 241 NEUTRON (1659) 702080N GER 95 AMERICIUM 241 NEUTRON 762225R JAP 95 AMERICIUM 241 (1058) NEUTRON (1061) 742016R GER 95 AMERICIUM 241 NEUTRON (1062) 742017R GER 95 AMERICIUM 241 NEUTRON (1662) 732131N GER 95 AMERICIUM 242 NEUTRON (1665) 732130N GER 95 AMERICIUM 242 NEUTRON (1074) 752034R JAP 95 AMERICIUM 242 NEUTRON (1075) 752035R JAP 95 AMERICIUM 242 NEUTRON 762226R JAP 95 AMERICIUM 242 NEUTRON (1077) (1667) 732132N GER 95 AMERICIUM 243 NEUTRON 752038R JAP 95 AMERICIUM 243 NEUTRON (1084) 752037R JAP 95 AMERICIUM 243 NEUTRON (1086) (1669) 732133N GER 95 AMERICIUM 244 NEUTRON (1090) 752040R JAP 95 AMERICIUM 244 NEUTRON (1091) 752039R JAP 95 AMERICIUM 244 NEUTRON (1094) 742021 R GER 96 CURIUM 242 NEUTRON 742012R GER 96 CURIUN 242 NEUTRON (1099) 96 CURIUM 242 (1102) 742019R GER NEUTRON (1105) 752046R JAP 96 CURIUM 243 NEUTRON (1109) 752043R JAP 96 CURIUM 243 NEUTRON (1110) 752044R JAP 96 CURIUM 243 NEUTRON (1115) 752049R JAP 96 CURIUM 244 NEUTRON (1117) 762228R JAP 96 CURIUM 244 NEUTRON (1119) 752048R JAP 96 CURIUM 244 NEUTRON

FISSION CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION NEUTRONS EMITTED PER FISSION (NU BAR) DELAYED NEUTRONS EMITTED PER FISSION DELAYED NEUTRONS EMITTED PER FISSION ENERGY SPECTRUM OF FISSION NEUTRONS HALE LIFE FISSION HALF LIFE CAPTURE CROSS SECTION DELAYED NEUTRONS EMITTED PER FISSION HALF LIFE TOTAL CROSS SECTION INELASTIC CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION NEUTRONS EMITTED PER FISSION (NU BAR) DELAYED NEUTRONS EMITTED PER FISSION FISSION HALF LIFE CAPTURE CROSS SECTION FISSION CROSS SECTION DELAYED NEUTRONS EMITTED PER FISSION CAPTURE CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION HALF LIFE CAPTURE CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION NEUTRONS EMITTED PER FISSION (NU BAR) NEUTRONS EMITTED PER FISSION (NU BAR) CAPTURE CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION FISSION CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION FISSION CROSS SECTION CAPTURE CROSS SECTION FISSIGN CROSS SECTION NEUTRONS EMITTED PER FISSION (NU BAR) CAPTURE CROSS SECTION FISSION CROSS SECTION FISSION CROSS SECTION CAPTURE CROSS SECTION CAPTURE CROSS SECTION FISSION CROSS SECTION

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(1120)	762229R JAP	96 CURIUM 244	NEUTRON	FISSION CROSS SECTION
(1124)	752053R JAP	96 CURIUM 245	NEUTRON	CAPTURE CROSS SECTION
(1125)	752054R JAP	96 CURIUM 245	NEUTRON	CAPTURE CROSS SECTION
(1128)	752050R JAP	96 CURIUM 245	NEUTRON	FISSION CROSS SECTION
(1129)	752051R JAP	96 CURIUM 245	NEUTRON	FISSION CROSS SECTION
(1130)	752052R JAP	96 CURIUM 245	NEUTRON	FISSION CROSS SECTION
(1134)	752058R JAP	96 CURIUM 246	NEUTRON	CAPTURE CROSS SECTION
(1135)	752059R JAP	96 CURIUM 246	NEUTRON	CAPTURE CROSS SECTION
(1136)	752055R JAP	96 CURIUM 246	NEUTRON	FISSION CROSS SECTION
(1137)	752056R JAP	96 CURIUM 246	NEUTRON	FISSION CROSS SECTION
(1138)	752057R JAP	96 CURIUM 246	NEUTRON	FISSION CROSS SECTION
(1141)	752063R JAP	96 CURIUM 247	NEUTRON	CAPTURE CROSS SECTION
(1143)	752060R JAP	96 CURIUM 247	NEUTRON	FISSION CROSS SECTION
(1144)	752061R JAP	96 CURIUM 247	NEUTRON	FISSION CROSS SECTION
(1145)	752062R JAP	96 CURIUM 247	NEUTRON	FISSION CROSS SECTION
(1146)	752067R JAP	96 CURIUM 248	NEUTRON	CAPTURE CROSS SECTION
(1147)	752064R JAP	96 CURIUM 248	NEUTRON	FISSION CROSS SECTION
(1148)	752065R JAP	96 CURIUM 248	NEUTRON	FISSION CROSS SECTION
(1149)	752066R JAP	96 CURIUM 248	NEUTRON	FISSION CROSS SECTION
(1150)	752069R JAP	96 CURIUM 249	NEUTRON	CAPTURE CROSS SECTION
(1151)	752068R JAP	96 CURIUM 249	NEUTRON	FISSION CROSS SECTION
(1152)	752071R JAP	96 CURIUM 250	NEUTRON	CAPTURE CROSS SECTION
(1153)	752070R JAP	96 CURIUM 250	NEUTRON	FISSION CROSS SECTION
(1156)	752074R JAP	97 BERKELIUM 249	NEUTRON	CAPTURE CROSS SECTION
(1157)	752072R JAP	97 BERKELIUM 249	NEUTRON	FISSION CROSS SECTION
(1158)	752073R JAP	97 BERKEL IÚM 249	NEUTRON	FISSION CROSS SECTION
(1159)	752076R JAP	97 BERKELIUM 250	NEUTRON	CAPTURE CROSS SECTION
(1160)	752075R JAP	97 BERKELIUM 250	NEUTRON	FISSION CROSS SECTION
(1161)	752077R JAP	98 CALIFORNIUM 249	NEUTRON	CAPTURE CROSS SECTION
(1164)	752079R JAP	98 CALIFORNIUM 250	NEUTRON	CAPTURE CROSS SECTION
(1166)	752078R JAP	98 CALIFORNIUM 250	NEUTRON	FISSION CROSS SECTION
(1168)	752081R JAP	98 CALIFORNIUM 251	NEUTRON	CAPTURE CROSS SECTION
(1170)	752080R JAP	98 CALIFORNIUM 251	NEUTRON	FISSION CROSS SECTION
(1174)	741130R_USA	98 CALIFORNIUM 252	SPONTANEOUS	NEUTRONS EMITTED PER FISSION (NU BAR)
(1179)	752084R JAP	98 CALIFORNIUM 252	NEUTRON	CAPTURE CROSS SECTION
(1180)	752082R JAP	98 CALIFORNIUM 252	NEUTRON	FISSION CROSS SECTION
(1181)	752083R JAP	98 CALIFORNIUM 252	NEUTRON	FISSION CROSS SECTION
(1182)	752086R JAP	98 CALIFORNIUM 253	NEUTRON	CAPTURE CROSS SECTION
(1183)	752085R JAP	98 CALIFORNIUM 253	NEUTRON	FISSION CROSS SECTION
(1184)	752088R JAP	98 CALIFORNIUM 254	NEUTRON	CAPTURE CROSS SECTION
(1185)	752087R JAP	98 CALIFORNIUM 254	NEUTRON	FISSION CROSS SECTION
(1189)	693089R AUL	FISSION PRODUCTS	NEUTRON	CAPTURE CROSS SECTION

APPEN DI CE S

Appendix A

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## Review Reports by INDC and NEANDC

The two technical subcommittees of the International Nuclear Data Committee (INDC), the Subcommittee on Nuclear Standard Reference Data and the Subcommittee on Discrepancies in Important Nuclear Data and Evaluations have assumed a continuing responsibility for the review of particularly important nuclear data. The Nuclear Energy Agency Nuclear Data Committee (NEANDC) has a similar Subcommittee on Standard Reference Data and Discrepancies with reviewing responsibilities similar to those of the two INDC Subcommittees. These Subcommittees of INDC and NEANDC cooperate in establishing and updating a common file of review reports. In many cases, these reports contain detailed estimates of data uncertainties.

Whenever a request for a quantity under review appears in WRENDA, the review is mentioned in a status comment. Exceptions to this are requests for fission product and transactinium isotope nuclear data. These data are under continuous review by INDC, but requests for these data are so numerous that it has been decided to omit repetitious references to such review from the actual request list.

Requests for the latest information on quantities under review should be sent to Dr. J.J. Schmidt, INDC Scientific Secretary, Nuclear Data Section, International Atomic Energy Agency, P.O. Box 100, A-1400 Vienna, Austria.

The following quantities requested in WRENDA are under review by INDC and/or NEANDC:

	Revie	wed by:
Quantity	INDC	NEANDC
H(n,n)	x	x
⁶ Li(n,t)α	x	x
$^{10}B(n,\alpha)$	x	<b>x</b>
¹² C(n,n)	x	x
$197_{Au(n,\gamma)}$	x	X
²³⁵ U(n,f)	x	x
252 _{Cf-N(E)}	X .	x
252 cf - $\overline{v}$	x .	x
$T_{1/2}$ of $233_{U}$ , $235_{U}$ , $238_{Pu}$ , $241_{Pu}$	x	•
$T_{1/2}$ of 239 Pu	x	x

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Page

	Revie	wed by:
Quantity	INDC	NEANDC
Thermal parameters $\begin{pmatrix} 233 \\ U, 235 \\ U, 239 \\ Pu, 239 \\ Pu, 241 \\ Pu \\ thermal fission cross sections, \nabla and \eta)$	x	x
<pre>239 Pu(n,f) (&gt; 100 eV), ²³⁸U(n,f) (above thres- hold), ²³⁹Pu/235U and ²³⁸U/235U fission cross section ratios</pre>	· <b>x</b>	
239 Pu(n,f) (15 eV - 100 keV)	-	x
$^{233}U(n_{f})$ (100 keV - 10 MeV)	-	r
$239_{Pu}/235_{U}$ and $233_{U}/235_{U}$ fission cross section ratios	-	I
²³⁸ U(n,f) and ²³⁸ U/ ²³⁵ U fission cross section ratio (threshold - 20 MeV)	-	x
238 U(n, $\gamma$ ) and 238 U(n, $\gamma$ )/ 235 U(n,f) ratio (> 100 eV)	x	-
²³⁸ U(n,γ) (1 keV - 1 MeV) and resolved resonance parameters	x	x
$\alpha$ -values of ²³⁵ U and ²³⁹ Pu (> 100 eV)	x	•••
Resonance parameter data of ²³⁵ U and ²³⁹ Pu	x	
Resonance parameter data of 238 U	x	x
$\overline{v}$ -values for $235_{U}$ , $238_{U}$ and $239_{Pu}$	r	x
²³⁸ U(n,n')	x	-
238 U(n,n*) (particularly for 45 keV state and for energy range 1 - 3 MeV)	-	x
σ _{ny} of Cr, Fe and Ni (> 100 eV)	x	x
²³ Na capture and total cross sections in 3 keV resonance	I	-
$\Gamma_{\gamma}$ for 2.85 keV resonance in ²³ Na	-	x
Energy spectrum of fission neutrons of ²³⁵ U, ²³⁸ U and ²³⁹ Pu	x	-
Fission product nuclear data	x	x
Transactinium isotope nuclear data (TND)	x	x
Reactor dosimetry cross sections	x	x
Discrepancies and gaps in major CPND for fusion, (D,T), (T,T), etc.	x	-

Appendix A

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Quantity	Revie INDC	wed by: NEANDC
Delayed neutron emitters: ²³² Th, ²³³ U, ²³⁵ U ²³⁸ U, ²³⁹ Pu, ²⁴⁰ Pu, ²⁴¹ Pu	X	-
Delayed neutron yield for 238 U (2 - 3 MeV)	-	X
27 Al(n, $\alpha$ ) ²⁴ Na	x	-
63 Cu(n, $\alpha$ ) 60 Co	x	-
⁹³ Nb(n,n') ^{93m} Nb	x	~
$237_{Np(n,f)F.P.}$	x	-

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Appendix B

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## LIST OF COUNTRY CODES

ARG	ARGENTINA
AUL	AUSTRALIA
AUS	AUSTRIA
BAN	BANGLA DESH
BLG	BELGIUM
BUL	BULGARIA
BZL	BRAZIL
CAN	CANADA
ССР	SOVIET UNION
DDR	GERMAN DEMOCRATIC REPUBLIC
DEN	DENMARK
EUR	COMMISSION OF THE EUROPEAN COMMUNITIES
FR	FRANCE
GER	FEDERAL REPUBLIC OF GERMANY
HUN	HUNGARY
IND	INDIA
ISL	ISRAEL
ITY	ITALY
JAP	JAPAN
NED	NETHERLANDS
NOR	NORWAY
POL	POLAND
RUM	ROMANIA
SAF	REPUBLIC OF SOUTH AFRICA
SF	FINLAND
SWD	SWEDEN
SWT	SWITZERLAND
TUK	TURKEY
UK	UNITED KINGDOM
UNO	UNITED NATIONS ORGANIZATION
USA	UNITED STATES
YUG	YUGOSLAVIA
Z Z Z	INTERNATIONAL ORGANIZATION

LIST OF LABORATORY CODES

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Page 1

ABD	US ARMY ABERDEEN RESEARCH AND DEVEL. CENT ABERDEEN. MD.	USA
AE	AKTIEBOLAGET ATOMENERGI, STUDSVIK	SWD
AI	ATOMICS INTERNATIONAL, CANOGA PARK, CALIFORNIA	USA
AKA	ASEA-ATOM, VAESTERAS	SWD
ALD	UK AWRE, ALDERMASTON	UK
ALK	ALKEM GMBH, LEOPOLDSHAFEN	GER
ANC	AEROJET NUCLEAR CORP., IDAHO FALLS, IDAHO	USA
ANL	ARGONNE NATIONAL LABORATORY, LEMONI, ILLINOIS	USA
ARL	AEROSPACE RES.LABS, WRIGHT-PATTERSON AIR-FORCE BASE, OHIO	USA
AUA	AUSTRALIAN AEC RESEARCH ESTABLISHMENT, LUCAS HEIGHTS	AUL
AUB	AUBURN UNIVERSIIT, ALABAMA	USA
BEI	WESTINGHOUSE, BETTIS ATOMIC POWER LAB., PITTSBURGH, PA.	USA
DTK	UNIVERSITE OF BIRMINGHAMA ENGLAND	
	DATTELLE NOGTHWEET LADORATORY. DICHLAND WACHINGTON	USA
	CONTELLE NUMERWEST LADURATURIS ALCHLANDS WASHINGTUN	TTY
	CEN DENVERE LE CHATEL	211
BPK	INTVERSITY OF CALTEODNIA, LAWRENCE REDKELEY LAB, DEDKELEY	USA.
BUC	INSTITUTE FOR ATOMIC PHYSICS, BUCHAREST	RIM
		FR
CRE	COMBUSTION ENGINEERING. WINDSOR. CONNECTICUT	USA
CCP	SOVIET UNION	CCP
CNA	CERMECE NUCLEAR RESEARCH CENTER, ISTANBUL	TUK
COL	COLUMBIA UNIVERSITY, NEW YORK CITY, NEW YORK	USA
CRC	CHALK RIVER NUCLEAR LABORATORIES, ONTARIO	CAN
CSE	CASE INSTITUTE OF TECHNOLOGY, CLEVELAND, OHIO	USA
CUL	CULHAM LABORATORY, UNITED KINGDOM	UK
DEB	ATOMMAG KUTATO INTEZET. DEBRECEN	HUN
DKE	DUKE UNIVERSITY, DURHAM, NORTH CAROLINA	USA
DOE	US DEPARTMENT OF ENERGY, WASHINGTON, D.C.	USA
DUB	JOINT INSTITUTE FOR NUCLEAR RESEARCH, DUBNA	Z Z Z
FAR	CEA FONTENAY-AUX-ROSES, SEINE	FR
FE	FUJI ELECTRIC	JAP
FEI	FIZIKO-ENERGETICHESKIJ INSTITUT, OBNINSK	CCP
FOA	RESEARCH INSTITUTE OF NATIONAL DEFENSE, STOCKHOLM	SHD
FRK	J.W.GOETHE UNIVERSITY, FRANKFURT	GER
GA CAC	GENERAL ATUMICO SAN DIEGUO CALIFURNIA	USA
GED	INSTITUTE FOR GEU- AND ANALTITE CHEMISTRY, MUSLOW	
	DENERAL ELECTRICA DRUCA SUNNIVALEA GALIFA D.C.M.N. FUDATOM, GEEL	USA EUD
GEV	GENERAL ELECTRIC CO. VALLECITOS. CALLE	LUR
GIT	GEORGIA INSTITUTE OF TECHNOLOGY. ATLANTA. GEORGIA	
GRF	CEA AND UNIVERSITY + GRENOBLE	FR
GRT	GULF RADIATION TECHNOLOGY. SAN DIFGO. CALIFORNIA	USA
HAM	INSTITUT FUER EXPERIMENTALPHYSIK, HAMBURG	GER
HAR	UK ATOMIC ENERGY RESEARCH ESTABLISHMENT, HARWELL	UK
HED	HANFORD ENGINEERING DEVELOPMENT LAB., RICHLAND, WASH.	USA
HFA	TECHNION HAIFA	ISL
HLS	UNIVERSITY OF HELSINKI	SF
нок	HOKKAIDO UNIVERSITY	JAP
HRV	HARVARD UNIVERSITY, CAMBRIDGE, MASS	USA
IAE	INTERNATIONAL ATOMIC ENERGY AGENCY, VIENNA	UNO
IFU	INSTITUT FIZIKI AN UKRAINSKOI SSR, KIEV	CCP
IIT	ILLINOIS INSTITUTE OF TECHNOLOGY, CHICAGO, ILLINOIS	USA
IJ	INSTITUT JADERNYKH ISSLEDOVANIJ, KIEV	CCP
IRT	INTELCOM RADIATION TECHNOLOGY, SAN DIEGO, CALIF.	USA
JAE	JAMAN ATUMIC ENERGY RESEARCH INSTITUTE, TOKAI	JAP
JAP	VARAN KERNERRECHUNGGANI AGE - HIGH TOH	JAP
	NERVE VESCHUNDSANLADES JULLIUM KNOLLS ATOMIC DOWED LABODATODY, SCHENESTARY, NEW YORK	ULK .
NAF	NAGES ATOMIC FOWER LADURATORIA SURFACTABLE NEW YORK	USA

LIST OF LABORATORY CODES

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KFK	KERNFORSCHUNGSZENTRUM, KARLSRUHE	GER
KGU	GOSUDARSTVENNYJ UNIVERSITY, KIEV	CCP
κκυ	KINKI UNIVERSITY ATOMIC ENERGY RESEARCH INSTITUTE	JAP
KOS	KOSSUTH UNIVERSITY, DEBRECEN	HUN
кто	KYOTO UNIVERSITY	JAP
KTY	UNIVERSITY OF KENTUCKY, LEXINGTON, KENTUCKY	USA
KUR	I.V. KURCHATOV ATOMIC ENERGY INST., MOSCOW	ССР
KYU	KYUSHU UNIVERSITY, FUKUOKA	JAP
LAS	LOS ALAMOS SCIENTIFIC LABORATORY, NEW MEXICO	USA
LOU	UNIVERSITY OF LODZ, LODZ	POL
LRL	LAWRENCE LIVERMORE LABORATORY, LIVERMORE, CALIFORNIA	USA
LTI	LOWELL TECHNOLOGICAL INSTITUTE, LOWELL, MASS.	USA
MAP	MITSUBISHI A.P.I., INC.	JAP
MCM	MCMASTER UNIVERSITY, HAMILTON, ONTARIO	CAN
MGT	MICHIGAN TECHNOLOGICAL UNIVERSITY	USA
MHG	UNIVERSITY OF MICHIGAN	USA
MIT	MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, MASS.	USA
MND	MOUND LABORATORY, MIAMISBURG, OHIO	USA
MOL	C.E.N., MOL	BLG
MTR	IDAHO NUCLEAR CORP., IDAHO FALLS, IDAHO	USA
MUA	MUSLIM UNIVERSITY, ALIGARH	IND
MUN	TECH. HOCHSCHULE, MUENCHEN	GER
NBS	NATIONAL BUREAU OF STANDARDS, WASHINGTON, D.C.	USA
NDC	NEA NUCLEAR DATA COMPILATION CENTER, SACLAY, FRANCE	ZZZ
NEL	U.S. ARMY NUCLEAR EFFECTS LABORATORY, ABERDEEN, MARYLAND	USA
NEU	UNIVERSITY OF NEUCHATEL	SWT
NFI	NUCLEAR FUEL INDUSTRIES	JAP
NIG	NIPPON ATOMIC INDUSTRY GROUP	JAP
NIS	NATIONAL INSTITUTE OF RADIOLOGICAL SCIENCES, CHIBA	JAP
NPL	NATIONAL PHYSICAL LABORATORY, TEDDINGTON	UK
NRD	U.S. NAVAL RADIOLOGICAL DEFENSE LAB., SAN FRANCISCO	USA
NYU	NEW YURK UNIVERSITY, NEW YURK CITY	USA
OHO	UNIVERSITY, ATHENS, UNIU	USA
ORE	UNIVERSITY OF UREGOND EUGENED UREGON	USA
	UNTVERSITY OF OCLO	
	UNIVERSITY OF RADIA	
PAU	UNIVERSITY OF PADIS (THE (DEAV) DADIS	FO
PEI	AF ROADD, DEI THDARA, DECTOPIA	SAF
PNC	AC DUARDY FELINDADAY FREIDRIA DOWED REACTOR AND NUCLEAR FUEL DEV. CORD., TOKAT-MURA	JAP
PTN	PRINCETON UNIVERSITY. PRINCETON. N.J.	USA
RAM	ATOMIC ENERGY CENTRES RAMNAS DACCA	RAN
RCN	REACTOR CENTRUM NEDERLAND. PETTEN	NED
REH	REHOVOTH LAB. ISRAEL AFC.	ISL
RI	KHLOPIN RADIUM INSTITUTE. LENINGRAD	CCP
RIS	RISO, ROSKILDE	DEN
RL	RICHLAND OPERATIONS OFFICE, RICHLAND, WASHINGTON	USA
ROS	ROSSENDORF BEI DRESDEN	DDR
RPI	RENNSELAER POLYTECHNIC INSTITUTE, TROY, NEW YORK	USA
RUM	ROMANIA	RUM
SAC	C.E.N. SACLAY, GIF-SUR-YVETTE	FR
SAE	SUMITOMO ATOMIC ENERGY INDUSTRIES, LTD., TOKYO	JAP
SAI	SCIENTIFIC APPLICATIONS INC., LA JOLLA, CALIFORNIA	USA
SAS	UNIV. OF SASKATCHEWAN, SASKATOON	CAN
SGA	OEST.STUDIENGES.F.ATOMENERGIE, VIENNA	AUS
SOR	SOREQ RESEARCH CENTER, YAVNE	ISL
SRE	SIEMENS REAKTORENTWICKLUNG, ERLANGEN	GER
SRL	SAVANNAH RIVER LABORATORIES, AIKEN, S.C.	USA
SUN	SOUTHERN UNIVERSITIES NUCLEAR INST., FAURE, CAPE PROV.	SAF
SWD	SWEDEN	SWD

	LIST OF LABORATORY CODES Appendix C	
	Page 3	
THD	TECH. HOCHSCHULE, DARMSTADT	GER
TIT	TOKYO INSTITUTE OF TECHNOLOGY	JAP
TNC	TEXAS NUCLEAR CORPORATION, AUSTIN, TEXAS	USA
TOK	UNIVERSITY OF TOKYO	JAP
TOS	TOSHIBA RESEARCH AND DEVELOPMENT CENTER	JAP
TRM	BHABHA ATOMIC RESEARCH CENTRE, TROMBAY	IND
TUD	DRESDEN, TECHNICAL UNIVERSITY AT DRESDEN AND PIRNA	DDR
UK	UNITED KINGDOM	UK
UKW	WINDSCALE REACTOR DEVELOPMENT LABS., UKAEA	UK
UMK	UNION MINIERE DU HAUT KATANGA+ BRUSSELS	BLG
UPP	UNIVERSITY OF UPPSALA	S₩D
USA	UNITED STATES OF AMERICA	USA
USP	UNIVERSITY OF SAO PAULO, SAO PAULO	BZL
VÜN	CENTRAL BUREAU DER V.D.E.N., ARNHEM	NED
WEW	WESTINGHOUSE ADVANCED REACTOR DIVISION, PITTSBURG, PA.	USA
WIN	UK ATOMIC ENERGY ESTABLISHMENT, WINFRITH	UK
WIS	UNIVERSITY OF WISCONSON, MADISON, WISCONSON	USA
WMU	WESTERN MICHIGAN UNIVERSITY	USA
WUR	EIDG. INSTITUT FUER REAKTORFORSCHUNG, WUERENLINGEN	SWT
WWA	WARSAW UNIVERSITY	POL
YAL	YALE UNIVERSITY. NEW HAVEN. CONNECTICUT	USA
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