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Activation Data from Karlsruhe Revisited

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February 2021

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Abstract

The ^{197}Au(n,γ) cross section represents a common reference for neutron capture data at keV neutron energies. New accurate measurements of this cross section are suggesting about 5% higher values than adopted previously in activation measurements at the Karlsruhe Van de Graaff accelerator. In the light of these results, the corresponding neutron capture cross sections obtained in the period between 1980 and 2019 have been revisited.

Note added by NDS

During update of EXFOR entries based on this report, we got a number of questions on revisions of SACS (spectrum averaged cross sections) and MACS (Maxwellian spectrum averaged cross sections). The main author of the report (Franz Käppler) is no longer available for discussion, and we decided to summarize our comments in this note. We thank him for dedication of his time for documentation of these systematic revisions.

Quantity	**kT~25 keV SACS**	**kT=25 keV MACS**	**kT=30 keV MACS**
(Typical) original gold standard [1]	586± 8 mb	648±10 mb	582±9 mb
New gold standard [2]	622.7±6.2 mb	681±7 mb	612±6 mb*
New standard/original standard	1.0626	1.051	1.051
Spectrum index heading in EXFOR	KT-DUMMY	KT	KT
Quantity expression in EXFOR	,SIG,,SPA	,SIG,,MXW	,SIG,,MXW

*611.6±6 mb is sometimes seen instead of this value in the INDC(GER)-0053 report.

[1] W. Ratynski et al, Phys.Rev.C37(1988)595.
[2] R. Reifarth et al., Eur.Phys.J.Plus 133(2018)424.

Svetlana Dunaeva and Naohiko Otsuka (IAEA NDS)
24 January 2022

Page	**Target**	**EXFOR #**	**Comment**
8	^{74}Ge	14237.002	38.6 mb ×1.0626~41.0 mb is expected as the revised cross section, but 39.8 mb is given in the "Revised data" table.
64	^{22}Ne	22255.003.2	Revision of the value originally published as 75.2±6.9 μb is expected, but the contents of the previous page (p.63) are repeated.
79	^{150}Nd	22305.004.2	166/648~0.2562 is expected as the measured cross section ratio, but the ratio of the previous page (p.78) is repeated.
86	^{150}Nd	22305.007.2	The kT value is changed from 30 keV to 25 keV during revision though the correction is made to the kT=30 keV value published in Table IV of Phys.Rev.C51(1995)1540: 159 mb×1.051×1.112=186 mb.
88	^{109}Ag	22306.003	887/648~1.369 is expected as the measured cross section ratio, but the ratio of the previous page (p.87) is repeated.
94	^{34}S	22424.002	(1) One cross section ratio is given for the four data points in the "Actual Data" table. The author's intention could be to give the average cross section ratio, i.e., 154/586~2.63×10^{-4}. (2) 256±9 mb is expected as the monitor cross section of the revised dataset, but the original monitor value 227±5 mb is repeated in the "Revised Data" table.
118	^{164}Er	22670.007	1075 mb ×1.051~1130 mb is expected as the revised cross section, but 1136 mb is given in the "Revised data" table. One would expect 1075 mb×1.051×1.011~1142 mb considering the additional correction factor for the 47.55 keV gamma intensity 1.001 (See p.124 of the report), but this is still different from 1136 mb.

127 - 134	^{96}Ru ^{102}Ru ^{104}Ru	22685.002 to 22685.007	The cross sections are published as MACS rather than SACS in Tables IX and XI of Phys.Rev.C66(2002)015803, but they are tabulated as SACS in the report.
129	^{104}Ru	22685.004	169/648~0.261 is expected as the cross section ratio (c.f. p.128), but the ratio in a previous page (p.127) is repeated.
145 to 153	^{84}Kr ^{40}Ar ^{86}Kr ^{22}Ne	22808.002 22808.004 22808.009 22808.013 22808.014	The equation deriving correction for revised gold standard 622.7/582=1.062 is mathematically incorrect. The 582 mb is an old gold kT=30 keV MACS while 622.7 mb is the new gold kT~25 keV SACS.
N/A	^{22}Ne ^{78}Kr ^{80}Kr ^{86}Kr	22808.003 22808.005 22808.006 22808.007 22808.008 22808.010 22808.011 22808.012	(These are excluded from the scope of this report since they do not include data points in the kT~25 keV energy region.)
148	^{86}Kr	22808.013	An old gold kT=30 keV MACS (582±9 mb) is introduced as the originally adopted gold kT~25 keV gold SACS.
186 to 187	^{74}Se ^{84}Sr	22892.011 22892.013	Revisions of kT=30 keV MACS are also done in pp.188-189 for 22892.015-016. (No difference in the revised data, so this is not a problem.)
191 to 192	^{120}Te	22939.002.1 22939.002.2	622.7±6.2 mb must replace 586±8 mb under the heading MONIT of the table for the revised data.
193 to 205	^{102}Pd ^{120}Te ^{130}Ba ^{132}Ba ^{156}Dy	22939.006 to 22939.018	The heading KT-DUMMY must replace KT in the "Actual data" table (These SACS original reported cross sections are clearly distinguished from MACS in I.Dillmann et al., Phys.Rev.C81(2010)015801 by two symbols $<\sigma_e>$ and $<\sigma>_{25keV}$.
200, 202	^{130}Ba ^{132}Ba	22939.013 22939.015	"average cross section ratio" is expected instead of "cross section ratio" since there are several data points in the "Actual data" table.
254 to 255	^{58}Ni	22971.004 22971.005	632±9 mb is introduced as kT=25 keV gold SACS but it is a kT=30 keV gold MACS newly determined in P.Ludwig et al., Phys.Rev.C95(2017)035803.
254 to 255	^{58}Ni	22971.004 22971.005	A revised kT~25 keV gold SACS of 632±9 mb (Kadonis ver.1.0, n_TOF and GELINA measurement) has been already used in original publication (Anton Wallner, 2021-11-27).
255	^{58}Ni	22971.004	"average cross section ratio" is expected instead of "cross section ratio" since there are several data points in the "Actual data table". The given ratio 0.0481 could be from 30.4 mb/632 mb~0.481.
301	^{175}Lu	23046.002	(1) 586±9 mb is given as kT~25 keV gold SACS in the "Actual data" table, but 681/648=1.051 is given as correction for revised gold

			standard in the “Revised data” table. (2) 681 mb is given as kT~25 keV gold SACS in the “Revised data” table, but it is kT=25 keV gold MACS.
303 to 305	^{54}Fe	23047.003 23047.004 23047.005	A revised kT~25 keV gold SACS of 632±9 mb (Kadonis ver.1.0, n_TOF and GELINA measurement) has been already used in original publication (Anton Wallner, 2021-11-27).
305	^{54}Fe	23047.004	(1) 611.6/582=1.051 as correction for revised gold standard, but 611.6/586=1.051 is given. (2) 611.6±6 mb is expected as the new kT=30 keV gold MACS but 622.7±6 mb is given in the “Revised data” table.
N/A	^{23}Na ^{124}Xe ^{134}Xe	23220.005 23220.006 23220.008	(These are excluded from the scope of this report since they are superseded.)
404	^{41}K	23306.005	622.7±6 mb is expected as the monitor cross section of the revised dataset, but the original monitor value 632±9 mb is repeated in the “Revised Data” table.
429 to 430	^{9}Be	23467.002 23467.003	A revised kT~25 keV gold SACS of 640±11 mb (standards value of 620±11 mb renormalized to experimental spectrum) has been already used in original publication (Anton Wallner, 2021-11-27).
431 to 435	^{35}Cl	23468.002 23468.003 23468.004	A revised kT~25 keV gold SACS of 640±11 mb (standards value of 620±11 mb renormalized to experimental spectrum) has been already used in original publication (Anton Wallner, 2021-11-27).

Activation Data from Karlsruhe Revisited

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Abstract. The ^{197}Au(n,γ) cross section represents a common reference for neutron capture data at keV neutron energies. New accurate measurements of this cross section are suggesting about 5% higher values than adopted previously in activation measurements at the Karlsruhe Van de Graaff accelerator. In the light of these results, the corresponding neutron capture cross sections obtained in the period between 1980 and 2019 have been revisited.

1. Introduction

Between 1980 and 2019 an extensive set of keV neutron capture cross sections has been measured at the Karlsruhe Van de Graaff accelerator by means of the activation technique. Mainly devoted to studies of stellar nucleosynthesis in the Big Bang and in Red Giant stars, this experimental programme was in many cases of interest for nuclear technology as well. The method was based on the production of quasi-Maxwellian spectra, mainly to mimic a thermal energy of kT=25 keV via the ^{7}Li(p,n)^{7}Be reaction [1, 2]. In addition, corresponding spectra for kT=5 and 52 keV were obtained by means of the (p,n) reactions on ^{18}O and ^{3}H, respectively [3,4].

All activation measurements in this series were performed relative to the capture cross section of ^{197}Au, which had independently been determined by Ratynski and Käppeler via activation using the induced ^{7}Be activity as a reference [2]. This work was based on a systematic study of the inherent uncertainties by variation of the experimental parameters in repeated activations, yielding an accuracy of 1.4% for the ^{197}Au cross section averaged over the quasi-Maxwellian spectrum. The result was lower by some 5% compared to the then current ENDF/B evaluation, but in perfect agreement with a TOF measurement of Winters and Macklin [5]. Therefore, the resulting value of 586±8 mb had been adopted as a standard for activations in the quasi-Maxwellian spectrum at kT=25 keV (see compilation of Bao and Käppeler [6] and related versions of KADoNiS [7]).

It is to be emphasized that the primary experimental result of these activation measurements is the **ratio** between the cross section of interest and the gold cross section, **independent** of the normalization. Therefore, this ratio has been added to the revised data sets presented here.

2. Quasi-Maxwellian neutron spectrum

The production of quasi-Maxwellian spectra relies on the fact that (p,n) reactions on light nuclei yield kinematically collimated neutrons if the proton energy is chosen slightly higher than the threshold energy. In case of the ^{7}Li(p,n)^{7}Be reaction it turned out that with a proton energy of 1912 keV, 31 keV above the reaction threshold, all neutrons are emitted in a forward cone of 120 deg opening angle. Integration over the entire angular range results in a quasi-Maxwellian spectrum corresponding to a thermal energy of kT=25±0.5 keV [2]. This feature has been demonstrated to be insensitive to small variations of the proton energy. As shown in Ref. [2], an increase of 2 keV in proton energy yields a thermal spectrum well within the uncertainty of 0.5 keV, thus greatly supporting the robustness and applicability of the

method. This finding is also confirmed by averaging the corresponding neutron spectra obtained with the interactive code PINO [8]. No significant spectrum differences can be found for proton energies of 1912 and 1914 keV, respectively.

3. New gold cross sections

The importance of the gold cross section as a standard in neutron physics motivated a set of recent experiments [9-11], taking advantage of improved TOF methods with the potential to obtain accuracies at the 1% level. These measurements of the energy-dependent cross section have been performed at GELINA [8,9] and at the CERN n_TOF facility [11], providing accurate new data in the resolved resonance region and at keV neutron energies. Both measurements were performed with C_6D_6 detectors, but used different neutron flux standards, a combination of the ^{6}Li(n,t) and ^{235}U(n,f) reactions at n_TOF and the ^{10}B(n,α) cross section at GELINA. In each case, the capture yield was self-normalized to the saturated gold resonance at 4.9 eV. The combination of improved detection systems with detailed simulations and analysis techniques has yielded data sets with MACS uncertainties slightly above 3% at n_TOF and between 1 and 2% at GELINA. The new results agree with each other within systematic uncertainties and provided clear evidence for a 5% higher gold cross section at keV neutron energies than the activation value of Ref. [2].

Apart from the measurements at n_TOF and GELINA, the quasi-stellar neutron spectrum at kT = 25keV has been verified at the 7-MV Van de Graaff laboratory at JRC Geel [12] and using the PIAF facility at the 3.75MV Van de Graaff accelerator of PTB Braunschweig [13]. Both measurements found also that slight shifts in proton energy or by spectral broadening of the proton beam could be excluded as the cause of the difference to the new TOF data. Instead, an additional activation at JRC-Geel [12] yielded a 5% higher gold cross section than Ref. [2].

The analyses of the new measurements all benefit from detailed Monte Carlo simulations of the involved corrections, whereas the earlier activation had tried to find an experimental access to these corrections. Monte Carlo (MC) simulations of the experimental situation in Ref. [2] indicated that the 5% discrepancy could be reconciled for part of the data in [14], thus supporting the need for a revision of the previous gold cross section.

The Maxwellian average cross section is defined as

$$MACS = \frac{2}{\sqrt{\pi}} \frac{1}{(kT)^2} \int_0^\infty \phi(E)\, \sigma(E)\, dE$$

where kT denotes the thermal energy, $\phi(E)$ the neutron spectrum and $\sigma(E)$ the cross section. At a thermal energy of kT=30 keV Maxwellian average gold cross sections have been obtained from the new experimental TOF work at GELINA and n_TOF are 613.3±6 mb [9,10] and 611±22 mb [10], respectively. As demonstrated by Reifarth et al. [13] these values are in remarkable agreement with the corresponding result obtained on the basis of the ENDF/B-VII.1 evaluation, which yields 616.5 mb, a difference of less than 1%. The impact of these results has been studied for a number of TOF measurements in Ref. [14].

Likewise, the revision of the (n,γ) cross section of ^{197}Au provides a possibility for renormalizing the above mentioned activation experiments, which were all based on the gold cross section as a standard. These results represent averages over the respective neutron spectrum

$$SACS = \frac{\int_{E1}^{E2} \phi(E)\, \sigma(E)\, dE}{\int_{E1}^{E2} \phi(E)\, dE}$$

where the integral runs from the lower to the upper limit of he experimental spectrum.

While Ratynski and Käppeler obtained a SACS cross section of 586 mb averaged over the quasi-Maxwellian spectrum for kT=25 keV for a spherical gold sample covering the entire neutron cone, Reifarth et al. [14] recommend a value of 622.7±6.2 mb. Accordingly, the corresponding Ratynski-based cross sections had to be renormalized by a correction factor 622.7/586 =1.0626. However, a different correction factor had to be applied, especially to measurements prior to 1988 or in cases where Maxwellian average cross sections were reported directly without listing the actually measured values.

4. Revised data

Each entry is structured in the following way: First, the actual EXFOR-data datasets (EXFOR Master File Version 2019-10-23) are repeated and complemented with the standard cross section used for normalization in the original paper. The part with the revised data starts by emphasizing that the measured quantity is in fact the cross section ratio of the isotope under investigation and of ^{197}Au. The quoted uncertainty of this ratio is independent of the gold standard used. The following line lists the correction for the revised gold standard, i.e. 622.7 mb/586 mb =1.062. It was found, that the spectrum averaged cross sections (SPA) were not consistently differentiated from the derived Maxwellian averages (MXW). This is corrected in the revised datasets according to the original publications.

It is worth noting that neutron energies are always given in the laboratory system. In the mass region A>50 the difference to the corresponding center-of-mass energies as given by A/(A+1) is small and can be neglected in practice. For lighter nuclei, the difference grows with decreasing mass and becomes significant, e.g. for ^{7}Li, ^{9}Be, ^{14}C. In fact, ^{14}C represents the only exception, where the center-of-mass energy is given in the original publication and was , therefore, kept in EXFOR (see entry 22995).

In addition, the input from literature concerning half-lives of the target nuclides and gamma-ray intensities of the activation products has been compared with the 2020 ENSDF-version [15]. Corrections of the revised cross section have been considered provided that changes in these values affect the cross section by more than 1%. For some unstable targets a corresponding correction is applied to account for the effect of an improved half-life (e.g. for ^{60}Fe). All these additional corrections are summarized below the revised entries.

It is to be noted that the revisions in this report refer directly to the original publications as listed in EXFOR and to not include other cross section information.

5. Special cases

a. Corrections for new gamma-intensities had to be applied for some 50 isotopes, mostly by a few percent. However, significant changes of more than 10% were required due to revised gamma-intensities in the decay of ^{187}W (18%), ^{143}Ce (20%), ^{151}Nd (11%), ^{159}Gd (21%), ^{161}Tb (62%!), and ^{177}Yb (15%). The values for the isomeric decay of ^{80}Br^{m} remained unchanged though, but the related cross section uncertainty could be reduced thanks to the improved gamma-intensity.
   An interesting exception is the decay of ^{82}Br (entry 23035), where the updated intensity in the 2020 ENSDF table for the 554.35 keV transition was ruled out for the following reason: in the cross section analysis four additional transitions at 698.37, 776.52, 1044.00, 1317.47 keV have been used as well and the results obtained with all four transitions were in perfect agreement with the cross section based on the original gamma-intensity of the 554.35 keV transition. On average the respective deviations were less than 2.5%, well consistent with the specified uncertainty of 3.7%, whereas

discrepancies of 12 to 17% are obtained if the revised 2020 ENSDF-intensity is used instead.

b. In entry 14248 the data for the Maxwellian average cross sections of ^{184}W and ^{186}W were missing in EXFOR and have been complemented accordingly.
c. The data sets in entry 22145 present a confusing mix of spectrum-averaged data (25 and 52 keV) and the respective Maxwellian average for kT=30 keV. Therefore it is suggested to split the corresponding tables into separate data sets for spectrum averaged data (SPA) and Maxwellian average values (MXW).
d. In subentries 23468.002.2 and 23468.003.2, the ^{35}Cl cross section is mistaken with the ratio of the **measured** cross section and the one obtained by folding the **evaluated** cross section from ENDF/B-VII.1 with the experimental neutron spectrum (shown in the same table of the original paper).
e. An example for an incomplete data set was found for ^{36}S (entry 22445), where an additional data set for the missing cross section data is suggested.

5. Summary

New accurate measurements of the ^{197}Au(n,γ) cross section yield about 5% higher values around 30 keV than adopted previously as a common reference of neutron capture data at the Karlsruhe Van de Graaff accelerator, in particular for a significant number of activation measurements in the years between 1980 and 2019. Accordingly, a revision of these results was called for and is presented in this report. Based on the 2020 ENSDF tabulation [15], the cross sections were also corrected for the effect of improved half-lives and gamma-ray intensities.

Acknowledgement

This project was initiated by Naohiko Otsuka from the IAEA Nucler Data Section, to whom we are deeply indebted for continuous support. His numerous suggestions contributed significantly to the completion of the manuscript.

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****** Entry=14228 ******

$^{60}Fe(n,\gamma)^{61}Fe$:

Actual data in EXFOR

```
Data set#= 14228.002
REACTION  =(26-FE-60(N,G)26-FE-61,,SIG,,MXW)
DECAY-DATA=(26-FE-60,1.5E+06YR)
           (26-FE-61,5.98MIN,DG,297.9,0.222,
                             DG,1027.42,0.222,
                             DG,1205.07,0.436)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Systematic uncertainty
---------------------------------------------
KT         DATA       ERR-S      ERR-SYS
KEV        MB         MB         MB
---------------------------------------------
25.0       10.2      1.4        2.9
---------------------------------------------
Gold standard for experimental spectrum: 586±8 mb
```

Revised data:

Measured quantity: cross section ratio 60Fe/197Au = 0.0174±0.0055

Correction for a) revised gold standard 622.7/586 =1.0626

b) revised half-life (see comment below) 1.57/2.60 = 0.577

c) revised gamma intensities (see below) 22.2/21.4 = 1.037

```
Revised Data set#= 14228.002
REACTION  =(26-FE-60(N,G)26-FE-61,,SIG,,SPA)
DECAY-DATA=(26-FE-60,2.6E+06YR)
           (26-FE-61,5.98MIN,DG,297.9,0.214,
                             DG,1027.42,0.410,
                             DG,1205.07,0.42
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Systematic uncertainty
---------------------------------------------
KT-DUMMY   DATA       ERR-S      ERR-SYS
KEV        MB         MB         MB
---------------------------------------------
25.0       6.3       0.8        1.1
---------------------------------------------
```

Comment:

cross section value in subentry 14228.002 is renormalized

a) for new gold cross section
b) by an additional factor 1.5/2.6= 0.577, which accounts for the new weighted half-life of 2.60 (5) My from *G. Rugel, T. Faestermann, K. Knie et al., Phys. Rev. Lett.* ***103****, (2009) 072502* and from *A. Wallner, M. Bichler, K. Buczak, R. Dressler, L. K. Fifield, D. Schumann, J. H. Sterba, S. G. Tims, G. Wallner, and W. Kutschera, Phys. Rev. Lett.* ***114*** *(2015) 041101*
c) by an additional factor 22.2/21.4 = 1.037, which accounts for the revised gamma-intensities for the 297.8 and 1205 keV transitions in the 61Fe-decay *(NDS/ENSDF 2020)*.

$^{60}Fe(n,\gamma)^{61}Fe$:

Actual data in EXFOR

```
Data set#= 14228.003
REACTION  =(26-FE-60(N,G)26-FE-61,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Systematic uncertainty
---------------------------------------------
KT          DATA       ERR-S      ERR-SYS
KEV         MB         MB         MB
---------------------------------------------
   25.0      9.9        1.4        2.8
   30.0      9.0
   40.0      7.8
   60.0      6.2
   80.0      5.3
  100.0      4.7
---------------------------------------------
```

Revised data:

Correction for a) revised gold standard 622.7/586 =1.0626
b) revised half-life (see comment below) 1.57/2.60 = 0.577
c) revised gamma intensities (see below) 22.2/21.4 = 1.037

```
Revised Data set#= 14228.003
---------------------------------------------
KT          DATA       ERR-S      ERR-SYS
KEV         MB         MB         MB
---------------------------------------------
   25.0      6.3       0.8       1.1
   30.0      5.7
   40.0      5.0
   60.0      3.9
   80.0      3.3
  100.0      3.0
---------------------------------------------
```

Comment:

cross section value in subentry 14228.002 is renormalized

a) for new gold cross section
b) by an additional factor 1.5/2.6= 0.577, which accounts for the new weighted half-life of 2.60 (5) My from *G. Rugel, T. Faestermann, K. Knie et al., Phys. Rev. Lett.* ***103****, (2009) 072502* and from *A. Wallner, M. Bichler, K. Buczak, R. Dressler, L. K. Fifield, D. Schumann, J. H. Sterba, S. G. Tims, G. Wallner, and W. Kutschera, Phys. Rev. Lett.* ***114*** *(2015) 041101*
c) by an additional factor 22.2/21.4 = 1.037, which accounts for the revised gamma-intensities for the 297.8 and 1205 keV transitions in the 61Fe-decay *(NDS/ENSDF 2020)*.

****** Entry=14237 ******

^{74}Ge(n,γ)^{75}Ge:

Actual data in EXFOR

```
Data set#= 14237.002
REACTION  =(32-GE-74(N,G)32-GE-75,,SIG,,MXW)
DECAY-DATA=(32-GE-75,82.78MIN,DG,198.6,0.0119,
                              DG,264.6,0.114)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      ERR-1      KT
MB         MB         PER-CENT   KEV
---------------------------------------------
38.6       4.0        2.0        25.0
---------------------------------------------
Gold standard for experimental spectrum: 586±8 mb
```

Revised data:

Measured quantity: cross section ratio 74Ge/197Au = 0.0659±0.0067
Correction for revised gold standard 622.7/586 =1.0626

```
Revised Data set#= 14237.002
REACTION  =(32-GE-74(N,G)32-GE-75,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      ERR-1      KT-DUMMY
MB         MB         PER-CENT   KEV
---------------------------------------------
39.8       4.1        1.0        25.0
---------------------------------------------
```

Comment:

cross section value in subentry 14237.002 is renormalized

a) for new gold cross section

$^{76}Ge(n,\gamma)^{77g}Ge$:

Actual data in EXFOR

```
Data set#= 14237.003
REACTION  =(32-GE-76(N,G)32-GE-77-G,,SIG,,MXW)
DECAY-DATA=(32-GE-77-G,11.30HR,DG,211.03,0.308,
                               DG,215.50,0.286,
                               DG,264.44,0.539)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      ERR-1      KT
MB         MB         PER-CENT   KEV
---------------------------------------------
11.9       0.4        2.0        25.0
---------------------------------------------
```

Gold standard for experimental spectrum: 586±8 mb

Revised data:

Measured quantity: cross section ratio 76Ge-G/197Au = 0.02031±0.00055
Correction for revised gold standard 622.7/586 =1.0626

```
Revised Data set#= 14237.003
REACTION  =(32-GE-76(N,G)32-GE-77-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      ERR-1      KT-DUMMY
MB         MB         PER-CENT   KEV
---------------------------------------------
12.6       0.4        1.0        25.0
---------------------------------------------
```

Comment:

cross section value in subentry 14237.003 is renormalized

a) for new gold cross section

$^{76}Ge(n,\gamma)^{77m}Ge$:

Actual data in EXFOR

```
Data set#= 14237.004
REACTION  =(32-GE-76(N,G)32-GE-77-M,,SIG,,MXW)
DECAY-DATA=(32-GE-77-M,52.9SEC,DG,159.7,0.19,
                               DG,215.5,0.216)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      ERR-1      KT
MB         MB         PER-CENT   KEV
---------------------------------------------
12.8       1.8        2.0        25.0
---------------------------------------------
```

Gold standard for experimental spectrum: 586±8 mb

Revised data:

Measured quantity: cross section ratio 76Ge-M/197Au = 0.0218±0.0030

Correction for revised gold standard 622.7/586 =1.0626

```
Revised Data set#= 14237.004
REACTION  =(32-GE-76(N,G)32-GE-77-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      ERR-1      KT-DUMMY
MB         MB         PER-CENT   KEV
---------------------------------------------
13.6       1.9        1.0        25.0
---------------------------------------------
```

Comment:

cross section value in subentry 14237.004 is renormalized

a) for new gold cross section

$^{75}As(n,\gamma)^{76}As$:

Actual data in EXFOR

```
Data set#= 14237.005
REACTION  =(33-AS-75(N,G)33-AS-76,,SIG,,MXW)
DECAY-DATA=(32-GE-75,82.78MIN,DG,198.6,0.0119,
                              DG,264.6,0.114)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      ERR-1      KT
MB         MB         PER-CENT   KEV
---------------------------------------------
371.0      20.0       2.0        25.0
---------------------------------------------
```

Gold standard for experimental spectrum: 586±8 mb

Revised data:

Measured quantity: cross section ratio 75As/197Au = 0.633±0.032

Correction for revised gold standard 622.7/586 =1.0626

```
Revised Data set#= 14237.005
REACTION  =(33-AS-75(N,G)33-AS-76,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      ERR-1      KT-DUMMY
MB         MB         PER-CENT   KEV
---------------------------------------------
394.2      20.0       1.0        25.0
---------------------------------------------
```

Comment:

cross section value in subentry 14237.005 is renormalized

a) for new gold cross section

$^{74}Ge(n,\gamma)^{75}Ge$:

Actual data in EXFOR:

```
Data set#= 14237.006
REACTION  =(32-GE-74(N,G)32-GE-75,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	ERR-T MB	ERR-1 PER-CENT
5.0	106.0	12.0	2.0
10.0	70.2	7.3	2.0
15.0	55.0	5.8	2.0
20.0	46.9	5.0	2.0
25.0	41.1	4.6	2.0
30.0	37.6	3.9	2.0
40.0	32.6	3.4	2.0
50.0	29.0	3.1	2.0
60.0	6.3	2.8	2.0
80.0	23.4	2.8	2.0
100.0	22.0	3.0	2.0

Revised data:

Correction for revised gold standard 622.7/586 =1.0626

```
Revised Data set#= 14237.006
REACTION  =(32-GE-74(N,G)32-GE-75,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	ERR-T MB	ERR-1 PER-CENT
5.0	112.6	12.0	1.0
10.0	74.5	7.9	1.0
15.0	58.4	6.4	1.0
20.0	49.8	5.4	1.0
25.0	43.7	5.0	1.0
30.0	40.0	4.1	1.0
40.0	34.6	3.5	1.0
50.0	30.8	3.2	1.0
60.0	27.9	2.9	1.0
80.0	24.9	2.8	1.0
100.0	23.4	2.9	1.0

Comment:

cross section value in subentry 14237.006 is renormalized

a) for new gold cross section

$^{76}Ge(n,\gamma)^{77}Ge$:

Actual data in EXFOR

```
Data set#= 14237.007
REACTION  =(32-GE-76(N,G)32-GE-77,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
KT          DATA       ERR-T      ERR-1
KEV         MB         MB         PER-CENT
---------------------------------------------
   5.0       58.0        5.8       2.0
  10.0       39.8        3.4       2.0
  15.0       31.3        2.7       2.0
  20.0       26.7        2.3       2.0
  25.0       23.5        2.0       2.0
  30.0       21.5        1.8       2.0
  40.0       18.2        1.5       2.0
  50.0       16.3        1.4       2.0
  60.0       15.0        1.3       2.0
  80.0       13.0        1.1       2.0
 100.0       12.3        1.1       2.0
---------------------------------------------
```

Revised data:

Correction for revised gold standard 622.7/586 =1.0626

```
Revised Data set#= 14237.007
REACTION  =(32-GE-76(N,G)32-GE-77,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
KT          DATA       ERR-T      ERR-1
KEV         MB         MB         PER-CENT
---------------------------------------------
   5.0        61.6      12.0      1.0
  10.0        42.3       7.9      1.0
  15.0        33.3       6.4      1.0
  20.0        28.4       5.4      1.0
  25.0        25.0       5.0      1.0
  30.0        22.8       4.1      1.0
  40.0        19.3       3.5      1.0
  50.0        17.3       3.2      1.0
  60.0        15.9       2.9      1.0
  80.0        13.8       2.8      1.0
 100.0        13.1       2.9      1.0
---------------------------------------------
```

Comment:

cross section value in subentry 14237.007 is renormalized

a) for new gold cross section

$^{75}As(n,\gamma)^{76}As$:

Actual data in EXFOR

```
Data set#= 14237.008
REACTION  =(33-AS-75(N,G)33-AS-76,,SIG,,MXW,CALC)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-1 PER-CENT
5.0	1124.0	60.0	65.0	2.0
10.0	725.0	38.0	52.0	2.0
15.0	559.0	29.0	36.0	2.0
20.0	466.0	24.0	27.0	2.0
25.0	404.0	21.0	21.0	2.0
30.0	362.0	19.0	19.0	2.0
40.0	304.0	17.0	16.0	2.0
50.0	266.0	16.0	14.0	2.0
60.0	247.0	13.0	17.0	2.0
80.0	211.0	11.0	18.0	2.0
100.0	174.0	14.0	11.0	2.0

Revised data:

Correction for revised gold standard 622.7/586 =1.0626

```
Revised Data set#= 14237.008
REACTION  =(33-AS-75(N,G)33-AS-76,,SIG,,MXW,CALC)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-1) Uncertainty in reference cross section
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-1 PER-CENT
5.0	1194.0	60.0	65.0	1.0
10.0	770.0	38.0	52.0	1.0
15.0	594.0	29.0	36.0	1.0
20.0	495.0	24.0	27.0	1.0
25.0	429.0	21.0	21.0	1.0
30.0	385.0	19.0	19.0	1.0
40.0	323.0	17.0	16.0	1.0
50.0	283.0	16.0	14.0	1.0
60.0	262.0	13.0	17.0	1.0
80.0	224.0	11.0	18.0	1.0
100.0	185.0	14.0	11.0	1.0

Comment:

cross section value in subentry 14237.008 is renormalized

a) for new gold cross section

**** Entry=14238 ****

$^{40}Ca(n,\gamma)^{41}Ca$:

Actual data in EXFOR

```
Data set#= 14238.002
REACTION  =(20-CA-40(N,G)20-CA-41,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-3) Uncertainty in monitor cross-section
---------------------------------------------
KT          DATA       ERR-T      ERR-3
KEV         MB         MB         PER-CENT
---------------------------------------------
30.0        5.73       0.34        2.0
---------------------------------------------
```

Gold standard for experimental spectrum: 586±8 mb

Revised data:

Measured quantity: cross section ratio 40Ca/197Au = 0.00985±0.00058
Correction for revised gold standard 622.7/586 =1.0626

```
Revised Data set#= 14238.002
REACTION  =(20-CA-40(N,G)20-CA-41,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-3) Uncertainty in monitor cross-section
---------------------------------------------
KT          DATA       ERR-T      ERR-3
KEV         MB         MB         PER-CENT
---------------------------------------------
30.0        6.09       0.35        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 14238.002 is renormalized

a) for new gold cross section
b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 40/41

$^{40}Ca(n,\gamma)^{41}Ca$:

Actual data in EXFOR

```
Data set#= 14238.003
REACTION  =(20-CA-40(N,G)20-CA-41,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-3) Uncertainty in monitor cross-section
-------------------------------------------
KT          DATA       ERR-T     ERR-3
KEV         MB         MB        PER-CENT
-------------------------------------------
  5.0       11.96      0.5       2.0
 10.0       11.49      0.5       2.0
 15.0        9.23      0.5       2.0
 20.0        7.56      0.5       2.0
 25.0        6.46      0.5       2.0
 40.0        4.93      0.5       2.0
 50.0        4.53      0.5       2.0
 60.0        4.28      0.5       2.0
 80.0        3.91      0.5       2.0
100.0        3.59      0.5       2.0
-------------------------------------------
```

Revised data:

Correction for revised gold standard 622.7/586 =1.0626

```
Revised Data set#= 14238.003
Data set#= 14238.003
REACTION  =(20-CA-40(N,G)20-CA-41,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-3) Uncertainty in monitor cross-section
-------------------------------------------
KT          DATA       ERR-T     ERR-3
KEV         MB         MB        PER-CENT
-------------------------------------------
  5.0       11.96      0.75      1.0
 10.0       11.49      0.72      1.0
 15.0        9.23      0.58      1.0
 20.0        7.56      0.40      1.0
 25.0        6.46      0.41      1.0
 30.0        5.73      0.36      1.0
 40.0        4.93      0.31      1.0
 50.0        4.53      0.28      1.0
 60.0        4.28      0.27      1.0
 80.0        3.91      0.25      1.0
100.0        3.59      0.23      1.0
-------------------------------------------
```

Comment:

cross section value in subentry 14238.003 is renormalized

a) for new gold cross section
b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 40/41

**** Entry=14248 ****

$^{184}W(n,\gamma)^{185}W$:

Actual data in EXFOR

```
* Data set#= 14248.002
REACTION  =(74-W-184(N,G)74-W-185,,SIG,,MXW)
DECAY-DATA=(74-W-185,75.3D,DG,125.358,0.000192)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
-------------------------------------------
EN          DATA      ERR-T      MONIT-ERR
KEV         MB        MB         PER-CENT
-------------------------------------------
25.         225.0     12.0       2.0
-------------------------------------------
```

Gold standard for experimental spectrum: 586±8 mb

Revised data:

Measured quantity: cross section ratio 184W/197Au = 0.384±0.019

Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 14248.002
REACTION  =(74-W-184(N,G)74-W-185,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
-------------------------------------------
KT-DUMMY    DATA       ERR-T      MONIT-ERR
KEV         MB         MB         PER-CENT
-------------------------------------------
25.         239.0      12.1       1.0
-------------------------------------------
```

Comment:

cross section value in subentry 14248.002 is renormalized

a) for new gold cross section

$^{186}W(n,\gamma)^{187}W$:

Actual data in EXFOR

```
* Data set#= 14248.003
REACTION  =(74-W-186(N,G)74-W-187,,SIG,,MXW)
DECAY-DATA=(74-W-187,23.72HR,DG,685.73,0.273,
                             DG,772.89,0.0412)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
ERR-ANALYS=(ERR-2) Uncertainty in gamma ray intensity
-------------------------------------------------------
EN          DATA        ERR-T       MONIT-ERR  ERR-2
KEV         MB          MB          PER-CENT   PER-CENT
-------------------------------------------------------
25.         228.0       10.0        2.0        3.3
-------------------------------------------------------
```

Gold standard for experimental spectrum: 586±8 mb

Revised data:

Measured quantity:	cross section ratio 186W/197Au = 0.389±0.019
Correction for revised gold standard	622.7/586 =1.0626
Correction for revised gamma-intensities	33.2/27.3 = 0.8223 (E_γ=685.72 keV, 772.89)

```
* Revised Data set#= 14248.003
REACTION  =(74-W-186(N,G)74-W-187,,SIG,,SPA)
DECAY-DATA=(74-W-187,23.72HR,DG,685.73,0.0.332,
                             DG,772.89,0.0.0502)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
ERR-ANALYS=(ERR-2) Uncertainty in gamma ray intensity
--------------------------------------------------------
KT-DUMMY  DATA        ERR-T       MONIT-ERR  ERR-2
KEV       MB          MB          PER-CENT   PER-CENT
--------------------------------------------------------
25.       199.0       5.8         1.0        1.5
--------------------------------------------------------
```

Comment:

cross section value in subentry 14248.003 is renormalized

a) for new gold cross section
b) by an additional factor 33.2/27.3 = 0.8223, which accounts for the revised gamma-intensities for the 685.72 and 772.89 keV transitions in the 187W-decay *(NDS/ENSDF 2020)*

$^{184}W(n,\gamma)^{185}W$:

NEW DATA:

Correction for revised gold standard 622.7/586 =1.0626

```
* Data set for Maxwell-averaged cross section is missing
REACTION  =(74-W-184(N,G)74-W-185,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
```

NEW Data set#= 14248.004

KT KEV	DATA MB	ERR-T MB	MONIT-ERR PER-CENT
5.0	728	233	1.0
10.0	434	98	1.0
15.0	336	50	1.0
20.0	287	27	1.0
25.0	257	14	1.0
30.0	236	16	1.0
40.0	205	20	1.0
50.0	183	26	1.0
60.0	165	29	1.0
80.0	139	33	1.0
100.0	121	36	1.0

Comment:

cross section value in subentry 14248.004 is renormalized

a) for new gold cross section

$^{186}W(n,\gamma)^{187}W$:

NEW DATA:

Correction for revised gold standard 622.7/586 =1.0626
Correction for revised gamma-intensities 33.2/27.3 = 0.8223 (E_γ=685.72 keV, 772.89)

```
* Data set for Maxwell-averaged cross section is missing
REACTION  =(74-W-186(N,G)74-W-187,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
ERR-ANALYS=(ERR-2) Uncertainty in gamma ray intensity
```

NEW Data set#= 14248.005

KT KEV	DATA MB	ERR-T MB	MONIT-ERR PER-CENT	ERR-2 PER-CENT
5.0	523	147	1.0	1.5
10.0	327	56	1.0	1.5
15.0	263	25	1.0	1.5
20.0	232	15	1.0	1.5
25.0	214	10	1.0	1.5
30.0	204	10	1.0	1.5
40.0	179	10	1.0	1.5
50.0	172	11	1.0	1.5
60.0	160	12	1.0	1.5
80.0	141	15	1.0	1.5
100.0	126	17	1.0	1.5

Comment:

cross section value in subentry 14248.003 is renormalized

a) for new gold cross section
b) by an additional factor 33.2/27.3 = 0.8223, which accounts for the revised gamma-intensities for the 685.72 and 772.89 keV transitions in the 187W-decay *(NDS/ENSDF 2020)*.

**** Entry=21647 ****

^{138}Ba(n,γ)^{139}Ba:

Actual data in EXFOR

```
Data set#= 21647.002
REACTION  =(56-BA-138(N,G)56-BA-139,,SIG,,SPA)
DECAY-DATA=(56-BA-139,82.7MIN,DG,165.85,.23)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      ERR-1
KEV         MB          MB          KEV         PER-CENT
-------------------------------------------------------
23          4.55        0.23        30.         2.5
-------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Measured quantity: cross section ratio 138Ba/197Au = .00718±0.00046

Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.002
REACTION  =(56-BA-138(N,G)56-BA-139,,SIG,,SPA)
DECAY-DATA=(56-BA-139,82.7MIN,DG,165.85,.237)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
---------------------------------------------
KT-DUMMY    DATA        ERR-T       ERR-1
KEV         MB          MB          PER-CENT
---------------------------------------------
25.         4.67        0.21        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 21647.002 is renormalized

a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section
c) by an additional factor 23/23.7 = 0.97, which accounts for the revised gamma-intensities for the 165.85 keV transition in the 139Ba-decay *(NDS/ENSDF 2020)*

$^{140}Ce(n,\gamma)^{141}Ce$:

Actual data in EXFOR

```
Data set#= 21647.003
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,SPA)
DECAY-DATA=(58-CE-141,32.51D,DG,145.44,.4844)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      ERR-1
KEV         MB          MB          KEV         PER-CENT
-------------------------------------------------------
24.         12.63       0.57        30.         2.5
-------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Measured quantity: cross section ratio 140Ce/197Au = 0.0199±0.019
Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.003
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
---------------------------------------------
KT-DUMMY    DATA        ERR-T       MONIT-ERR
KEV         MB          MB          PER-CENT
---------------------------------------------
25.         13.42       0.52        1.0
---------------------------------------------
```

Comment:

1) cross section value in subentry 21647.003 is renormalized
   a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
   b) for new gold cross section

$^{142}Ce(n,\gamma)^{143}Ce$:

Actual data in EXFOR

```
Data set#= 21647.004
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,SPA)
DECAY-DATA=(58-CE-143,33.HR,DG,293.26,.5137)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      ERR-1
KEV         MB          MB          KEV         PER-CENT
-------------------------------------------------------
24          22.6        1.1         30.         2.5
-------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Measured quantity: cross section ratio 142Ce/197Au = 0.0199±0.019
Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.004
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,SPA)
DECAY-DATA=(58-CE-143,33.HR,DG,293.26,.428)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MOINT-ERR) Uncertainty in monitor cross-section
---------------------------------------------
KT-DUMMY    DATA        ERR-T       MONIT-ERR
KEV         MB          MB          PER-CENT
---------------------------------------------
25.         28.7        1.2         1.0
---------------------------------------------
```

Comment:

cross section value in subentry 21647.004 is renormalized
a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section
c) by an additional factor 51.37/42.8 = 1.20, which accounts for the revised gamma-intensities for the 293.26 keV transition in the 143Ce-decay *(NDS/ENSDF 2020)*

$^{175}Lu(n,\gamma)^{176m}Lu$:

Actual data in EXFOR

```
Data set#= 21647.005
REACTION  =(71-LU-175(N,G)71-LU-176-M,,SIG,,SPA)
DECAY-DATA=(71-LU-176-M,3.68HR,DG,88.35,.0886)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      ERR-1
KEV         MB          MB          KEV         PER-CENT
-------------------------------------------------------
24          906         54          30.         2.5
-------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Measured quantity: cross section ratio 176Lu/197Au = 1.485±0.089
Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.005
REACTION  =(71-LU-175(N,G)71-LU-176-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
--------------------------------------------
KT-DUMMY    DATA       ERR-T       MONIT-ERR
KEV         MB         MB          PER-CENT
--------------------------------------------
25          941        52          1.0
--------------------------------------------
```

Comment:

cross section value in subentry 21647.005 is renormalized
a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section

^{176}Lu(n,γ)^{177}Lu:

Actual data in EXFOR

```
* Data set#= 21647.006
REACTION  =(71-LU-176(N,G)71-LU-177,,SIG,,SPA)
DECAY-DATA=(71-LU-177-G,6.71D,DG,208.36,.110)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-----------------------------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      MONIT       MONIT-ERR   ERR-1
KEV         MB          MB          KEV         MB          MB          PER-CENT
-----------------------------------------------------------------------------
 24         1925.0      95.0        30.         610.        15.         2.5
-----------------------------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Measured quantity: cross section ratio 176Lu/197Au = 3.156±0.156
Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.006
REACTION  =(71-LU-176(N,G)71-LU-177,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
---------------------------------------------
KT-DUMMY    DATA        ERR-T       MONIT-ERR
KEV         MB          MB          PER-CENT
---------------------------------------------
25          2039        89          1.0
---------------------------------------------
```

Comment:

cross section value in subentry 21647.006 is renormalized
a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section

$^{181}Ta(n,\gamma)^{182}Ta$:

Actual data in EXFOR

```
* Data set#= 21647.007
REACTION  =(73-TA-181(N,G)73-TA-182,,SIG,,SPA)
DECAY-DATA=(73-TA-182-G,115.D,DG,1121.0,.3486)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-----------------------------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      MONIT       MONIT-ERR   ERR-1
KEV         MB          MB          KEV         MB          MB          PER-CENT
-----------------------------------------------------------------------------
 22         1192.0      62.0        30.         610.        15.         2.5
-----------------------------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Measured quantity: cross section ratio 181Ta/197Au = 1.954±0.0912
Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.007
REACTION  =(73-TA-181(N,G)73-TA-182,,SIG,,SPA)
DECAY-DATA=(73-TA-182-G,115.D,DG,1121.0,0.3524)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
--------------------------------------------
KT-DUMMY    DATA        ERR-T       MONIT-ERR
KEV         MB          MB          PER-CENT
--------------------------------------------
25          1277.0      60.0        1.0
--------------------------------------------
```

Comment:

cross section value in subentry 21647.007 is renormalized
a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section
c) by an additional factor 35.24/34.86= 1.011, which accounts for the revised gamma-intensity for the 1121.0 keV transition in the 182Ta-decay *(NDS/ENSDF 2020)*

$^{138}Ba(n,\gamma)^{139}Ba$:

Actual data in EXFOR

```
Data set#= 21647.008
REACTION  =(56-BA-138(N,G)56-BA-139,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      ERR-1
KEV         MB          MB          KEV         PER-CENT
-------------------------------------------------------
30          4.22        0.25        30.         2.5
-------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.008
REACTION  =(56-BA-138(N,G)56-BA-139,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
---------------------------------------------
KT          DATA        ERR-T       ERR-1
KEV         MB          MB          PER-CENT
---------------------------------------------
30          4.34        0.20        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 21647.008 is renormalized

a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section
c) by an additional factor 23.7/23 = 0.97, which accounts for the revised gamma-intensities for the 165.85 keV transition in the 139Ba-decay *(NDS/ENSDF 2020)*

$^{140}Ce(n,\gamma)^{141}Ce$:

Actual data in EXFOR

```
Data set#= 21647.009
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      ERR-1
KEV         MB          MB          KEV         PER-CENT
-------------------------------------------------------
30          11.52       0.57        30.         2.5
-------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.009
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(MONIT-ERR) Uncertainty in monitor cross-section
---------------------------------------------
KT          DATA        ERR-T       MONIT-ERR
KEV         MB          MB          PER-CENT
---------------------------------------------
30          12.24       0.47        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 21647.009 is renormalized
a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section

$^{142}Ce(n,\gamma)^{143}Ce$:

Actual data in EXFOR

```
Data set#= 21647.010
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-------------------------------------------------------
KT          DATA       ERR-T      KT-NRM     ERR-1
KEV         MB         MB         KEV        PER-CENT
-------------------------------------------------------
30          22.6       1.1        30.        2.5
-------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.010
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
--------------------------------------------
KT         DATA       ERR-T      MONIT-ERR
KEV        MB         MB         PER-CENT
--------------------------------------------
30         24.9       1.2        1.0
--------------------------------------------
```

Comment:

cross section value in subentry 21647.010 is renormalized
a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section
c) by an additional factor 51.37/42.8 = 1.20, which accounts for the revised gamma-intensities for the 293.26 keV transition in the 143Ce-decay *(NDS/ENSDF 2020)*

$^{176}Lu(n,\gamma)^{177}Lu$:

Actual data in EXFOR

```
Data set#= 21647.011
REACTION  =(71-LU-176(N,G)71-LU-177,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      ERR-1
KEV         MB          MB          KEV         PER-CENT
-------------------------------------------------------
30          1718        85          30.         2.5
-------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.011
REACTION  =(71-LU-176(N,G)71-LU-177,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
---------------------------------------------
KT          DATA        ERR-T       MONIT-ERR
KEV         MB          MB          PER-CENT
---------------------------------------------
30          1820        79         1.0
---------------------------------------------
```

Comment:

cross section value in subentry 21647.011 is renormalized
a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section

$^{181}Ta(n,\gamma)^{182}Ta$:

Actual data in EXFOR

```
* Data set#= 21647.012
REACTION  =(73-TA-181(N,G)73-TA-182,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
-----------------------------------------------------------------------------
KT          DATA        ERR-T       KT-NRM      MONIT       MONIT-ERR   ERR-1
KEV         MB          MB          KEV         MB          MB          PER-CENT
-----------------------------------------------------------------------------
30          960.0       50.0        30.         610.        15.         2.5
-----------------------------------------------------------------------------
```

Gold standard for thermal spectrum of kT=30 keV: 610±15 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 21647.012
REACTION  =(73-TA-181(N,G)73-TA-182,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-1) Uncertainty in monitor cross-section
---------------------------------------------
KT          DATA        ERR-T       MONIT-ERR
KEV         MB          MB          PER-CENT
---------------------------------------------
30          1030.0      49.0        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 21647.012 is renormalized
a) by conversion of gold standard cross section (in publication only given for kT=30 keV as 610±15 mb) to experimental spectrum (En=25 keV, 634±15 mb with data from [2], correction factor 0.997)
b) for new gold cross section
c) by an additional factor 35.24/34.86= 1.011, which accounts for the revised gamma-intensity for the 1121.0 keV transition in the 182Ta-decay *(NDS/ENSDF 2020)*

**** Entry=21690 ****

^{241}Am(n,γ) $^{242g/t}$Am:

Actual data in EXFOR

```
* Data set#= 21690.006.1
REACTION  =(95-AM-241(N,G)95-AM-242-G/T,,SIG/RAT)
ASSUMED    (ASSUM1,95-AM-241(N,G)95-AM-242,,SIG)
           (ASSUM2,79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) total error. no details
-------------------------------------------------------
EN         DATA      1DATA-ERR  1ASSUM1     ASSUM2
EV         NO-DIM     NO-DIM     B          B
-------------------------------------------------------
1.475E-02  9.2E-01    6.0E-02    1.299E+02
2.7E+04    6.80E-01   7.0E-02    6.18E-01   2.51E+00
2.9E+04    6.50E-01   5.0E-02    5.55E-01   2.32E+00
-------------------------------------------------------
```

Gold standard for experimental spectrum at En=27 keV: 618±15 mb
Gold standard for experimental spectrum at En=29 keV: 555±14 mb

Revised data:

Measured quantity: cross section ratio (241Am→242gAm)/197Au via electron spectra, normalized by capture cross section ratio 197Au/241Am
Correction for revised gold standard at En=29 keV: 561/555 =1.011
Correction for revised gold standard at En=27 keV: 620/618 =1.003

```
* Revised Data set#= 21690.006.1
REACTION  =(95-AM-241(N,G)95-AM-242-G/T,,SIG/RAT)
ASSUMED    (ASSUM1,95-AM-241(N,G)95-AM-242,,SIG)
           (ASSUM2,79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) total error. no details
-------------------------------------------------------
EN         DATA      1DATA-ERR  1ASSUM1     ASSUM2
EV         NO-DIM     NO-DIM     B          B
-------------------------------------------------------
1.475E-02  9.2E-01    6.0E-02    1.299E+02
2.7E+04    6.80E-01   7.0E-02    6.20E-01   2.51E+00
2.9E+04    6.57E-01   5.0E-02    5.61E-01   2.32E+00
-------------------------------------------------------
```

Comment:

a) cross section value in subentry 21690.006.1 is renormalized for new gold cross section folded with neutron spectrum given in the original reference (entry ASSUM1)
b) Isomeric Ratio (IR) for En=27 keV unchanged because correction below 1%

$^{197}Au(n,\gamma)^{198}Au/^{241}Am(n,\gamma)^{242}Am$:

Actual data in EXFOR

```
* Data set#= 21690.006.2
REACTION  =((79-AU-197(N,G)79-AU-198,,SIG)/(95-AM-241(N,G)95-AM-242,,SIG))
ASSUMED   =(ASSUM2,95-AM-241(N,G)95-AM-242,,SIG)
ASSUMED   =(ASSUM1,79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) total error. no details
-------------------------------------------------------
EN          DATA      2DATA-ERR  2ASSUM1     ASSUM2
EV          NO-DIM     PER-CENT   B          B
-------------------------------------------------------
1.475E-02  1.59E-01   3.2E+00    1.299E+02
2.7E+04    2.46E-01   5.6E+00    6.18E-01   2.51E+00
2.9E+04    2.39E-01   5.6E+00    5.55E-01   2.32E+00
-------------------------------------------------------
```

Gold standard for experimental spectrum at En=27 keV: 618±15 mb
Gold standard for experimental spectrum at En=29 keV: 555±14 mb

Comment:

These are not measured but evaluated ratios to derive the 241Am neutron capture isomeric ratio.

**** Entry=21768 ****

^{180}Hf(n,γ)^{181}Hf:

Actual data in EXFOR

```
* Data set#= 21768.004
REACTION  =(72-HF-180(N,G)72-HF-181,,SIG,,SPA)
DECAY-DATA=(72-HF-181,42.4D,DG,482.,0.81)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(MONIT-ERR) Uncertainty in Au standard,
ERR-ANALYS=(ERR-1) Uncertainty in decay scheme
-------------------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR   ERR-1
KEV         MB          MB          MB          MB          PER-CENT
-------------------------------------------------------------------
 25.        193.        10.         672.4       16.8        2.5
-------------------------------------------------------------------
```

Gold standard for kT=25 keV: 672.4±16.8 mb

Revised data:

Measured quantity: cross section ratio 180Hf/197Au = 0.287±0.015
Correction for revised gold standard 681/672.4 =1.013

```
* Revised Data set#= 21768.004
REACTION  =(72-HF-180(N,G)72-HF-181,,SIG,,SPA)
DECAY-DATA=(72-HF-181,42.4D,DG,482.,0.805)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(MONIT-ERR) Uncertainty in Au standard,
ERR-ANALYS=(ERR-1) Uncertainty in decay scheme
-------------------------------------------------------------------
KT-DUMMY    DATA        ERR-T       MONIT       MONIT-ERR   ERR-1
KEV         MB          MB          MB          MB          PER-CENT
-------------------------------------------------------------------
 25.        193.        5.          681.        7.          0.5
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 21768.004 is renormalized
a) for new gold cross section
b) by an additional factor 81/80.5 = 1.006, which accounts for the revised gamma-intensity for the 482.18 keV transition in the 181Hf-decay *(NDS/ENSDF 2020)*

****** Entry=22037 ******

^{74}Ge(n,γ)^{75}Ge:

Actual data in EXFOR

```
* Data set#= 22037.016
REACTION  =(32-GE-74(N,G)32-GE-75,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.         59.        7.         657.       20.
 30.         54.        7.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 74Ge/197Au = 0.0898±0.011
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.016
REACTION  =(32-GE-74(N,G)32-GE-75,,SIG,,MXW)
DECAY-DATA=(32-GE-75,,DG,264.6,0.114)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.         59.        7.         681.       7.
 30.         55.        7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.016 is renormalized
a) for new gold cross section
b) by an additional factor 11.1/11.4 = 0.974, which accounts for the revised gamma-intensity for the 264.6 keV transition in the 75Ge-decay *(given without uncertainty in NDS/ENSDF 2020)*

The half-life of ^{75}Ge adopted in the cross section determination is unknown.

$^{76}Ge(n,\gamma)^{77}Ge$:

Actual data in EXFOR

```
* Data set#= 22037.017
REACTION  =(32-GE-76(N,G)32-GE-77,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.         18.        1.3       657.       20.
 30.         16.        1.3
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 76Ge/197Au = 0.0274±0.0020
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.017
REACTION  =(32-GE-76(N,G)32-GE-77,,SIG,,MXW)
DECAY-DATA=(32-GE-77,,DG,215.53,0.279)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.         19.2       1.2        681.       7.
 30.         17.1       1.1
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.017 is renormalized
a) for new gold cross section
b) by an additional factor 28.6/27.9 = 1.03, which accounts for the revised gamma-intensity for the 215.53 keV transition in the 77Ge-decay

The half-life of ^{77}Ge adopted in the cross section determination is unknown.

$^{71}Ga(n,\gamma)^{72}Ga$:

Actual data in EXFOR

```
* Data set#= 22037.018
REACTION  =(31-GA-71(N,G)31-GA-72,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.         137.        8.       657.       20.
 30.         125.        8.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 71Ga/197Au = 0.2085±0.0122
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.018
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.         142.       6.7        681.       7.
 30.         130.       6.1
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.018 is renormalized
a) for new gold cross section

The half-life and gamma lines of ^{72}Ga adopted in the cross section determination are unknown.

$^{75}As(n,\gamma)^{76}As$:

Actual data in EXFOR

```
* Data set#= 22037.019
REACTION  =(33-AS-75(N,G)33-AS-76,,SIG,,MXW)
DECAY-DATA=(33-AS-76,26.4HR,DG,559.,0.450)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.        631.       33.       657.       20.
 30.        576.       35.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 75As/197Au = 0.9604±0.0502
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.019
REACTION  =(33-AS-75(N,G)33-AS-76,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.         654.       28.        681.       7.
 30.         597.       30.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.019 is renormalized
a) for new gold cross section

^{79}Br(n,γ)^{80m}Br:

Actual data in EXFOR

```
* Data set#= 22037.020
REACTION  =(35-BR-79(N,G)35-BR-80-M,,SIG,,MXW)
DECAY-DATA=(35-BR-80-M,4.42HR,DG,37.,0.391)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.        87.        8.         657.       20.
 30.        79.        8.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 79Br-m/197Au = 0.1324±0.0122
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.020
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.         90.       8.         681.       7.
 30.         82.       8.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.020 is renormalized
a) for new gold cross section
b) gamma-intensity for the 37 keV transition in the 80Br-m-decay unchanged but improved accuracy considered (*NDS/ENSDF 2020)*

$^{79}Br(n,\gamma)^{80}Br$:

Actual data in EXFOR

```
* Data set#= 22037.021
REACTION  =(35-BR-79(N,G)35-BR-80,,SIG,,MXW)
DECAY-DATA=(35-BR-80-M,4.42HR,DG,37.,0.391)
DECAY-DATA=(35-BR-80-G,17.6MIN,DG,616.,0.067)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
 25.        697.        42.         657.        20.
 30.        636.        42.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 79Br/197Au = 1.061±0.064
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.021
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
 25.        722.        38.         681.        7.
 30.        659.        39.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.021 is renormalized
a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 22037.022
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
DECAY-DATA=(35-BR-82,35.34HR,DG,776.,0.834)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
 25.        347.        14.         657.        20.
 30.        317.        16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 81Br/197Au = 0.528±0.021
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.022
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
 25.        359.        10.         681.        7.
 30.        328.        14.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.022 is renormalized

a) for new gold cross section

$^{86}Kr(n,\gamma)^{87}Kr$:

Actual data in EXFOR

```
* Data set#= 22037.023
REACTION  =(36-KR-86(N,G)36-KR-87,,SIG,,MXW)
DECAY-DATA=(36-KR-87,76.3MIN,DG,403.,0.500)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.        5.0        0.7        657.       20.
 30.        4.6.       0.7
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 86Kr/197Au = 0.00761±0.00107
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.023
REACTION  =(36-KR-86(N,G)36-KR-87,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.        5.2       0.7        681.       7.
 30.        4.8       0.7
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.023 is renormalized

a) for new gold cross section

$^{85}Rb(n,\gamma)^{86}Rb$:

Actual data in EXFOR

```
* Data set#= 22037.024
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,MXW)
DECAY-DATA=(37-RB-86-G,18.8D,DG,1077.,0.088)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.        394.       18.        657.       20.
 30.        360.       20.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 85Rb/197Au = 0.5997±0.00274
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.024
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.        416.       15.        681.       7.
 30.        380.       18.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.024 is renormalized

a) for new gold cross section
b) by an additional factor 0.088/0.0864=1.019, which accounts for the gamma-intensity for the 1077 keV transition in the 86Rb-decay (*NDS/ENSDF 2020)*

$^{87}Rb(n,\gamma)^{88}Rb$:

Actual data in EXFOR

```
* Data set#= 22037.025
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,MXW)
DECAY-DATA=(37-RB-88,17.8MIN,DG,898.,0.140)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.        12.        2.         657.       20.
 30.        11.        2.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±20 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 87Rb/197Au = 0.0183±0.0031
Correction for revised gold standard 681/657 =1.036

```
* Revised Data set#= 22037.025
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
 25.        12.4       2.0        681.       7.
 30.        11.4       2.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 22037.025 is renormalized

a) for new gold cross section

**** Entry=22078 ****

$^{14}N(n,p)^{14}C$:

Actual data in EXFOR

```
* Data set#= 22078.002
REACTION  =(7-N-14(N,P)6-C-14,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total errors
-----------------------------------------------------------------
KT         MONIT      MONIT-ERR  DATA       ERR-T      FLAG
KEV        MB         MB         MB         MB         NO-DIM
-----------------------------------------------------------------
 2.5000E+01 6.4800E+02 1.0000E+01 8.7000E-01 1.3000E-01 1.0000E+00
 2.5000E+01 6.4800E+02 1.0000E+01 7.8000E-01 8.0000E-02 2.0000E+00
 2.5000E+01 6.4800E+02 1.0000E+01 1.1000E+00 9.0000E-02 2.0000E+00
 2.5000E+01 6.4800E+02 1.0000E+01 8.5000E-01 2.9000E-01 2.0000E+00
 2.5300E+01                       8.0000E-01 1.2000E-01 3.0000E+00
 2.5300E+01                       8.6000E-01 8.0000E-02 3.0000E+00
 2.5300E+01                       7.3000E-01 4.0000E-02 3.0000E+00
 2.5300E+01                       8.4000E-01 6.0000E-02 3.0000E+00
 5.2400E+01 4.2600E+02 6.0000E+00 5.5000E-01 8.0000E-02 4.0000E+00
 5.2400E+01 4.2600E+02 6.0000E+00 5.0000E-01 8.0000E-02 4.0000E+00
-----------------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

Measured quantity at KT=25 keV: cross section ratio 14N/197Au = 0.00132±0.00012
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22078.002
REACTION  =(7-N-14(N,P)6-C-14,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total errors
-----------------------------------------------------------------
KT         MONIT      MONIT-ERR  DATA       ERR-T      FLAG
KEV        MB         MB         MB         MB         NO-DIM
-----------------------------------------------------------------
 2.5000E+01 6.8100E+02 7.0000E+00 9.1000E-01 1.4000E-01 1.0000E+00
 2.5000E+01 6.8100E+02 7.0000E+00 8.2000E-01 8.4000E-02 2.0000E+00
 2.5000E+01 6.8100E+02 7.0000E+00 1.1600E+00 9.4000E-02 2.0000E+00
 2.5000E+01 6.8100E+02 7.0000E+00 8.9000E-01 3.0000E-01 2.0000E+00
 2.5300E+01 6.7700E+02 7.0000E+00 8.4000E-01 1.3000E-01 3.0000E+00
 2.5300E+01 6.7700E+02 7.0000E+00 9.0000E-01 8.3000E-02 3.0000E+00
 2.5300E+01 6.7700E+02 7.0000E+00 7.6000E-01 4.1000E-02 3.0000E+00
 2.5300E+01 6.7700E+02 7.0000E+00 8.8000E-01 6.2000E-02 3.0000E+00
 5.2400E+01 4.4800E+02 5.0000E+00 5.8000E-01 8.4000E-02 4.0000E+00
 5.2400E+01 4.4800E+02 5.0000E+00 5.3000E-01 8.4000E-02 4.0000E+00
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22078.002 is renormalized

a) for new gold cross section

b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 14/15

**** Entry=22099 ****

$^{197}Au(n,\gamma)^{198}Au$:

Actual data in EXFOR

```
* Data set#= 22099.002
REACTION  =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
DECAY-DATA=(79-AU-198,2.62,DG,412.,.955)
MONITOR   =(3-LI-7(P,N)4-BE-7,,SIG)
ERR-ANALYS=(ERR-T) Total errors
-------------------------------------------
KT         KT-ERR     DATA       ERR-T
KEV        KEV        MB         MB
-------------------------------------------
25.          0.5      648.       10.
-------------------------------------------
```

Revised data:

Measured quantity: absolute cross section of 197Au
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22099.002
REACTION  =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
MONITOR   =(3-LI-7(P,N)4-BE-7,,SIG)
ERR-ANALYS=(ERR-T) Total errors
---------------------------------------------
KT         KT-ERR     DATA       ERR-T
KEV        KEV        MB         MB
---------------------------------------------
25.        0.5        681.       6.
---------------------------------------------
```

Comment:

cross section value in subentry 22099.002 is renormalized

a) for new gold cross section

**** Entry=22145 ****

^{84}Kr(n,γ)^{85m}Kr:

Actual data in EXFOR

```
* Data set#= 22145.002
REACTION  =(36-KR-84(N,G)36-KR-85-M,,SIG,,MXW)
DECAY-DATA=(36-KR-85-M,4.48HR,DG,151.,0.753,
                              DG,305.,0.14)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          MONIT       MONIT-ERR  DATA        ERR-T
KEV         MB          MB         MB          MB
-------------------------------------------------------
2.5000E+01 6.1900E+02 2.2000E+01 1.9300E+01 1.3000E+00
3.0000E+01 5.6200E+02 2.0000E+01 1.6700E+01 1.2000E+00
5.2000E+01 4.3100E+02 1.5000E+01 1.0700E+01 9.0000E-01
-------------------------------------------------------
```

Gold standard for kT=25 keV: 619±22 mb

Revised data:

Measured quantity: cross section ratio 84Kr/197Au = 0.0312±0.0021 for kT=25 keV
Correction for revised gold standard 681/619 =1.100

```
* Revised Data set#= 22145.002
REACTION  =(36-KR-84(N,G)36-KR-85-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------------------
KT-DUMMY    MONIT       MONIT-ERR  DATA        ERR-T
KEV         MB          MB         MB          MB
---------------------------------------------------------
2.5000E+01 6.8100E+02 7.0000E+00 2.1200E+01 1.2000E+00
5.2000E+01 4.7400E+02 5.0000E+00 1.1800E+01 9.1000E-01
---------------------------------------------------------
```

Note: data for 25 and 52 keV are spectrum averages (SPA, corresponding to KT-DUMMY), value at 30 keV corresponds to Maxwellian average and is listed below as separate data set (MXW, corresponding to KT)

Comment:

cross section value in subentry 22145.002 is renormalized

a) for new gold cross section

$^{84}Kr(n,\gamma)^{85m}Kr$:

NEW and REVISED data:

```
* Data set#= 22145.002x
```

Correction for revised gold standard 681/619 =1.100

```
* Revised Data set#= 22145.002x
REACTION  =(36-KR-84(N,G)36-KR-85-M,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          MONIT      MONIT-ERR  DATA       ERR-T
KEV         MB         MB         MB         MB
-------------------------------------------------------
3.0000E+01 6.1800E+02 6.0000E+00 1.8400E+01 1.2000E+00
-------------------------------------------------------
```

Note: data set 22145.002 has been split as explained above to list spectrum averages (SPA, corresponding to KT-DUMMY) and derived Maxwellian averages (MXW, corresponding to KT) separately

Comment:

cross section value in subentry 22145.002x is renormalized

a) for new gold cross section

$^{86}Kr(n,\gamma)^{87}Kr$:

Actual data in EXFOR

```
* Data set#= 22145.003
REACTION  =(36-KR-86(N,G)36-KR-87,,SIG,,SPA)
DECAY-DATA=(36-KR-87,76.3MIN,DG,403.,0.50)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         MONIT      MONIT-ERR  DATA       ERR-T
KEV        MB         MB         MB         MB
-------------------------------------------------------
2.5000E+01 6.1900E+02 2.2000E+01 3.5800E+00 3.0000E-01
3.0000E+01 5.6200E+02 2.0000E+01 3.5000E+00 3.0000E-01
5.2000E+01 4.3100E+02 1.5000E+01 3.3000E+00 5.0000E-01
-------------------------------------------------------
```

Gold standard for kT=25 keV: 619±22 mb

Revised data:

Measured quantity: cross section ratio 86Kr/197Au = 0.00578±0.00048 for kT=25 keV

Correction for revised gold standard 681/619 =1.100

```
* Revised Data set#= 22145.003
REACTION  =(36-KR-86(N,G)36-KR-87,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT-DUMMY   MONIT      MONIT-ERR  DATA       ERR-T
KEV        MB         MB         MB         MB
-------------------------------------------------------
2.5000E+01 6.8100E+02 7.0000E+00 3.9400E+00 3.0000E-01
5.2000E+01 4.7400E+02 5.0000E+00 3.6300E+00 5.4000E-01
-----------------------------------------------
```

Note: data for 25 and 52 keV are spectrum averages (SPA, corresponding to KT-DUMMY), value at 30 keV corresponds to Maxwellian average and is listed below as separate data set (MXW, corresponding to KT)

Comment:

cross section value in subentry 22145.003 is renormalized

a) for new gold cross section

$^{86}Kr(n,\gamma)^{87}Kr$:

NEW and REVISED data:

```
* Data set#= 22145.003x
```

Correction for revised gold standard 681/619 =1.100

```
* Revised Data set#= 22145.003x
REACTION  =(36-KR-86(N,G)36-KR-87,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          MONIT      MONIT-ERR  DATA       ERR-T
KEV         MB         MB         MB         MB
-------------------------------------------------------
3.0000E+01 5.6200E+02 2.0000E+01 3.5000E+00 3.0000E-01
-------------------------------------------------------
```

Note: data set 22145.003 has been split as explained above to list spectrum averages (SPA, corresponding to KT-DUMMY) and derived Maxwellian averages (MXW, corresponding to KT) separately

Comment:

cross section value in subentry 22145.003x is renormalized

a) for new gold cross section

$^{84}Kr(n,\gamma)^{85m/t}Kr$:

Actual data in EXFOR

```
* Data set#= 22145.004
REACTION  =(36-KR-84(N,G)36-KR-85-M/T,,SIG/RAT,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         MONIT      MONIT-ERR  DATA       ERR-T
KEV        MB         MB         NO-DIM     NO-DIM
-------------------------------------------------------
 2.5000E+01 6.1900E+02 2.2000E+01 4.9000E-01 6.0000E-02
 3.0000E+01 5.6200E+02 2.0000E+01 4.8000E-01 6.0000E-02
 5.2000E+01 4.3100E+02 1.5000E+01 4.2000E-01 6.0000E-02
-------------------------------------------------------
```

Gold standard for kT=25 keV: 619±22 mb

Note: data for 25 and 52 keV are spectrum averages (SPA, corresponding to KT-DUMMY), data at 30 keV are derived Maxwellian averages (MXW, corresponding to KT)

Comment:

Data in subentry 22145.004 are independent of new gold cross section because the Au correction cancels out in cross section ratio

$^{84}Kr(n,\gamma)^{85m/t}Kr$:

NEW and REVISED data:

```
* Data set#= 22145.004x
```

Correction for revised gold standard 681/619 =1.100

```
* Revised Data set#= 22145.004x
REACTION  =(36-KR-84(N,G)36-KR-85-M/T,,SIG/RAT,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          MONIT      MONIT-ERR  DATA       ERR-T
KEV         MB         MB         MB         MB
-------------------------------------------------------
3.0000E+01 5.6200E+02 2.0000E+01 3.5000E+00 3.0000E-01
-------------------------------------------------------
```

Note: data set 22145.004 has been split as explained above to list spectrum averages (SPA, corresponding to KT-DUMMY) and derived Maxwellian averages (MXW, corresponding to KT) separately

Comment:

cross section value in subentry 22145.004x is renormalized

a) for new gold cross section

****** Entry=22171 ******

$^{7}Li(n,\gamma)^{8}Li$:

Actual data in EXFOR

```
* Data set#= 22171.002
REACTION  =(3-LI-7(N,G)3-LI-8,,SIG,,MXW)
DECAY-DATA=(3-LI-8,0.840SEC,B-,12964.)
DECAY-DATA=(4-BE-8,,A,1570.)
MONITOR   =(3-LI-6(N,T)2-HE-4,,SIG,,MXW)
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-----------------------------------------------------------------
DATA       ERR-T      FLAG       KT         MONIT1     MONIT1-ERR
MICRO-B    PER-CENT   NO-DIM     KEV        MB         PER-CENT
-----------------------------------------------------------------
2.1400E+01            1.0000E+00 2.5000E+01 6.4800E+02 1.5000E+00
2.5200E+01 1.7000E+01            2.5000E+01 6.4800E+02 1.5000E+00
2.6300E+01 1.5500E+01            2.5000E+01 6.4800E+02 1.5000E+00
2.8500E+01 1.5500E+01 2.0000E+00 2.5000E+01 6.4800E+02 1.5000E+00
2.0100E+01 9.0000E+00            2.5000E+01 6.4800E+02 1.5000E+00
-----------------------------------------------------------------
```

Note: Last line has been complemented, was missing in original EXFOR entry
Gold standard for kT=25 keV: 648±10 mb

Revised data:

Measured quantity: cross section ratio 7Li/197Au = (3.24±0.29)E-05
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22171.002
REACTION  =(3-LI-7(N,G)3-LI-8,,SIG,,MXW)
MONITOR   =(3-LI-6(N,T)2-HE-4,,SIG,,MXW)
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-----------------------------------------------------------------
DATA       ERR-T      FLAG       KT         MONIT1     MONIT1-ERR
MICRO-B    PER-CENT   NO-DIM     KEV        MB         PER-CENT
-----------------------------------------------------------------
2.2500E+01            1.0000E+00 2.5000E+01 6.8100E+02 1.0000E+00
2.6500E+01 1.7000E+01            2.5000E+01 6.8100E+02 1.0000E+00
2.7600E+01 1.5500E+01            2.5000E+01 6.8100E+02 1.0000E+00
3.0000E+01 1.5500E+01 2.0000E+00 2.5000E+01 6.8100E+02 1.0000E+00
2.1100E+01 1.5500E+01            2.5000E+01 6.8100E+02 1.0000E+00
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22171.002 is renormalized

a) for new gold cross section
b) corrected for missing line in previous data set
c) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 7/8

$^{7}Li(n,\gamma)^{8}Li$:

Actual data in EXFOR

```
* Data set#= 22171.003
REACTION  =(3-LI-7(N,G)3-LI-8,,SIG,,SPA)
MONITOR   =(3-LI-6(N,T)2-HE-4,,SIG,,SPA)
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
DATA       ERR-T      KT         MONIT1     MONIT1-ERR
MICRO-B    MICRO-B    KEV        MB         PER-CENT
-------------------------------------------------------
 21.0       1.9        25.        648.       1.5
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

Measured quantity: cross section ratio 7Li/197Au = (3.10±0.14)E-05
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22171.003
REACTION  =(3-LI-7(N,G)3-LI-8,,SIG,,SPA[1])
MONITOR   =(3-LI-6(N,T)2-HE-4,,SIG,,SPA)
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
DATA       ERR-T      KT         MONIT1     MONIT1-ERR
MICRO-B    MICRO-B    KEV        MB         PER-CENT
-------------------------------------------------------
 22.1       2.0        25.        681.       1.0
-------------------------------------------------------
```

Note: MXW cross section must be obtained from adopted SPA cross section of 21.0±1.9 mb by multiplication with 2/√π

Comment:

cross section value in subentry 22171.003 is renormalized

a) for new gold cross section
b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 7/8

[1] Note by NDS: The authors confirmed its combination with the heading KT is correct.

**** Entry=22177 ****

$^{89}Y(n,\gamma)^{90}Y$:

Actual data in EXFOR

```
* Data set#= 22177.002
REACTION  =(39-Y-89(N,G)39-Y-90,,SIG,,MXW)
DECAY-DATA=(39-Y-90-G,64.1 h, B-,2284.)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
2.5000E+01 2.1300E+01 6.0000E-01 6.4800E+02 1.5000E+00
3.0000E+01 1.9000E+01 6.0000E-01
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

Measured quantity: cross section ratio 89Y/197Au = 0.0329±0.0093

Correction for revised gold standard 681/648 =1.051 (applied to both values at kT=25 and 30 keV)

```
* Revised Data set#= 22177.002
REACTION  =(39-Y-89(N,G)39-Y-90,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
2.5000E+01 2.2400E+01 5.8000E-01 6.8100E+02 1.0000E+00
3.0000E+01 2.0000E+01 5.9000E-01 6.1800E+02 1.0000E+00
-------------------------------------------------------
```

Comment:

cross section value in subentry 22177.002 is renormalized

a) for new gold cross section

$^{88}Sr(n,\gamma)^{89}Sr$:

Actual data in EXFOR

```
* Data set#= 22177.003
REACTION  =(38-SR-88(N,G)38-SR-89,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
 2.5000E+01 6.7200E+00 1.8000E-01 6.4800E+02 1.5000E+00
 3.0000E+01 6.1300E+00 1.8000E-01
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

Measured quantity: cross section ratio 88Sr/197Au = 0.01037±0.00028
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22177.003
REACTION  =(38-SR-88(N,G)38-SR-89,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
 2.5000E+01 7.0600E+00 1.7000E-01 6.8100E+02 1.0000E+00
 3.0000E+01 6.4400E+00 1.7000E-01
-------------------------------------------------------
```

Comment:

cross section value in subentry 22177.003 is renormalized

a) for new gold cross section

The half-life of ^{89}Sr adopted in the cross section determination is unknown.

$^{86}Sr(n,\gamma)^{87m}Sr$:

Actual data in EXFOR

```
* Data set#= 22177.004
REACTION  =(38-SR-86(N,G)38-SR-87-M,,SIG,,MXW)
DECAY-DATA=(38-SR-87-M,,DG,388.4,.8226)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
2.5000E+01 5.2900E+01 1.1000E+00 6.4800E+02 1.5000E+00
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

Measured quantity: cross section ratio (86Sr(n,γ)87Sr-m/197Au = 0.08164±0.00143

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22177.004
REACTION  =(38-SR-86(N,G)38-SR-87-M,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
2.5000E+01 5.5600E+00 0.97000E-01 6.8100E+02 1.0000E+00
-------------------------------------------------------
```

Comment:

cross section value in subentry 22177.004 is renormalized

a) for new gold cross section

****** Entry=22182 ******

$^{94}Zr(n,\gamma)^{95}Zr$:

Actual data in EXFOR

```
* Data set#= 22182.002.1
REACTION  =(40-ZR-94(N,G)40-ZR-95,,SIG,,MXW)
DECAY-DATA=(40-ZR-95,64.02D,DG,756.7,.545)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA      1ERR-T     1MONIT      MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
2.5000E+01 2.8600E+01 1.0000E+00 6.4800E+02 1.5000E+00
3.0000E+01 2.6400E+01 1.0000E+00
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

Measured quantity:	cross section ratio (94Zr(n,γ)95Zr)/197Au = 0.04414±0.00154 at kT=25 keV
Correction for revised gold standard	681/648 =1.051

```
* Revised Data set#= 22182.002.1
REACTION  =(40-ZR-94(N,G)40-ZR-95,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
2.5000E+01 3.0100E+01 1.0000E+00 6.8100E+02 1.0000E+00
3.0000E+01 2.7700E+01 1.0000E+00
-------------------------------------------------------
```

Comment:

cross section value in subentry 22182.002.1 is renormalized

a) for new gold cross section

$^{96}Zr(n,\gamma)^{97}Zr$:

Actual data in EXFOR

```
* Data set#= 22182.002.2
REACTION  =(40-ZR-96(N,G)40-ZR-97,,SIG,,MXW)
DECAY-DATA=(40-ZR-97,16.90HR,DG,743.3,.9475)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA       1ERR-T      1MONIT       MONIT-ERR
KEV         MB          MB          MB          PER-CENT
-------------------------------------------------------
2.5000E+01 1.1600E+01 4.0000E-01 6.4800E+02 1.5000E+00
3.0000E+01 1.0700E+01 5.0000E-01
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

Measured quantity:	cross section ratio 96Zr/197Au = 0.01790±0.00062 at kT=25 keV
Correction for revised gold standard	681/648 =1.051

```
* Revised Data set#= 22182.002.2
REACTION  =(40-ZR-96(N,G)40-ZR-97,,SIG,,MXW)
DECAY-DATA (40-ZR-97,16.90HR,DG,743.3,.9309)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          PER-CENT
-------------------------------------------------------
2.5000E+01 1.2200E+01 4.0000E-01 6.8100E+02 1.0000E+00
3.0000E+01 1.1100E+01 5.0000E-01
-------------------------------------------------------
```

Comment:

cross section value in subentry 22182.002.2 is renormalized

a) for new gold cross section

b) by an additional factor 0.9475/0.9309=1.018, which accounts for the gamma-intensity for the 743.36 keV transition in the 97Zr-decay (*NDS/ENSDF 2020)*

****** Entry=22255 ******

$^{22}Ne(n,\gamma)^{23}Ne$:

Actual data in EXFOR

```
* Data set#= 22255.002
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW,DERIV)
DECAY-DATA=(10-NE-23,38.SEC,DG,439.,.329)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
MONITOR   =(36-KR-78(N,G)36-KR-79-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA       ERR-T      MONIT       MONIT-ERR
KEV         MICRO-B    MICRO-B    MB          PER-CENT
-------------------------------------------------------
2.5E+01    6.6E+01    5.0E+00    6.4800E+02  1.5000E+00
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

Measured quantity (Not directly measured 22Ne/197Au ratio)
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22255.002
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MICRO-B    MICRO-B    MB         PER-CENT
-------------------------------------------------------
2.5000E+01 6.9E+01    5.0E+00    6.8100E+02 1.0000E+00
-------------------------------------------------------
```

Comment:

cross section value in subentry 22182.002.1 is renormalized

a) for new gold cross section
b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 23/24

$^{22}Ne(n,\gamma)^{23}Ne$:

Actual data in EXFOR

```
* Data set#= 22255.003.1
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
DECAY-DATA=(10-NE-23,38.SEC,DG,439.,.329)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
MONITOR   =(36-KR-78(N,G)36-KR-79-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT       MONIT-ERR
KEV        MICRO-B    MICRO-B    MB          PER-CENT
-------------------------------------------------------
25.        65.2        6.2       6.4800E+02  1.5000E+00
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb
Additional Monitor 78Kr(n,γ)Kr-79-m

Revised data:

Measured quantity: cross section ratio 22Ne/197Au = (1.006±0.096)E-04
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22255.003.1
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------
KT         DATA       ERR-T
KEV        MICRO-B    MICRO-B
---------------------------------
25         68.5       6.3
---------------------------------
```

Comment:

cross section value in subentry 22255.003.1 is renormalized

a) for new gold cross section
b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 23/24

The measured cross section does not depend on 78Kr(n,g)79gKr cross section.

$^{22}Ne(n,\gamma)^{23}Ne$:

Actual data in EXFOR

```
* Data set#= 22255.003.2
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
DECAY-DATA=(10-NE-23,38.SEC,DG,439.,.329)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
MONITOR   =(36-KR-78(N,G)36-KR-79-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MICRO-B    MICRO-B    MB         PER-CENT
-------------------------------------------------------
25.        65.2        6.2        6.4800E+02 1.5000E+00
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb
Additional Monitor 78Kr(n,γ)79Kr-g

Revised data:

Measured quantity: cross section ratio 22Ne/197Au = (1.006±0.096)E-04
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22255.003.2
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------
KT         DATA       ERR-T
KEV        MICRO-B    MICRO-B
---------------------------------
25.        68.5       6.5
---------------------------------
```

Comment:

cross section value in subentry 22255.003.2 is renormalized

a) for new gold cross section
b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 23/24

The measured cross section does not depend on 78Kr(n,g)79gKr cross section.

$^{22}Ne(n,\gamma)^{23}Ne$:

Actual data in EXFOR

```
* Data set#= 22255.003.3
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
DECAY-DATA=(10-NE-23,38.SEC,DG,439.,.329)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
MONITOR   =(36-KR-80(N,G)36-KR-81-M,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT       MONIT-ERR
KEV        MICRO-B    MICRO-B    MB          PER-CENT
-------------------------------------------------------
25.        63.6       4.0        6.4800E+02  1.5000E+00
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb
Additional Monitor 80Kr(n,γ)81Kr-m

Revised data:

Measured quantity: cross section ratio 22Ne/197Au = (0.9815±0.062)E-04
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22255.003.3
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------
KT         DATA       ERR-T
KEV        MICRO-B    MICRO-B
---------------------------------
25.        66.8       4.1
---------------------------------
```

Comment:

cross section value in subentry 22255.003.3 is renormalized

a) for new gold cross section
b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 23/24

The measured cross section does not depend on 80Kr(n,g)81mKr cross section.

$^{22}Ne(n,\gamma)^{23}Ne$:

Actual data in EXFOR

```
* Data set#= 22255.003.4
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
DECAY-DATA=(10-NE-23,38.SEC,DG,439.,.329)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
MONITOR   =(36-KR-84(N,G)36-KR-85-M,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT       MONIT-ERR
KEV        MICRO-B    MICRO-B    MB          PER-CENT
-------------------------------------------------------
25.        68.3       4.5        6.4800E+02  1.5000E+00
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb
Additional Monitor 84Kr(n,γ)85Kr-m

Revised data:

Measured quantity: cross section ratio 22Ne/197Au = (1.054±0.069)E-04
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22255.003.4
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------
KT         DATA       ERR-T
KEV        MICRO-B    MICRO-B
---------------------------------
25.        71.8       4.7
---------------------------------
```

Comment:

cross section value in subentry 22255.003.4 is renormalized

a) for new gold cross section
b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 23/24

The measured cross section does not depend on 84Kr(n,g)85mKr cross section.

$^{22}Ne(n,\gamma)^{23}Ne$:

Actual data in EXFOR

```
* Data set#= 22255.003.5
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
DECAY-DATA=(10-NE-23,38.SEC,DG,439.,.329)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
MONITOR   =(36-KR-86(N,G)36-KR-87,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT       MONIT-ERR
KEV        MICRO-B    MICRO-B    MB          PER-CENT
-------------------------------------------------------
25.        68.0       4.3        6.4800E+02  1.5000E+00
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb
Additional Monitor 86Kr(n,γ)87Kr

Revised data:

Measured quantity: cross section ratio 22Ne/197Au = (1.049±0.066)E-04
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22255.003.5
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------
KT         DATA       ERR-T
KEV        MICRO-B    MICRO-B
---------------------------------
25.        71.5       4.5
---------------------------------
```

Comment:

cross section value in subentry 22255.003.5 is renormalized

a) for new gold cross section
b) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 23/24

The measured cross section does not depend on 86Kr(n,g)87Kr cross section.

$^{22}Ne(n,\gamma)^{23}Ne$:

Actual data in EXFOR

```
* Data set#= 22255.004
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW,DERIV)
DECAY-DATA=(10-NE-23,38.SEC,DG,439.,.329)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT       MONIT-ERR
EV         MB         MB         MB          PER-CENT
-------------------------------------------------------
3.0 E+4     0.053      0.0044      6.4800E+02 1.5000E+00
2.5 E-2    38.        11.    (theoretical extrapolation)
-------------------------------------------------------
```

Gold standard for kT=30 keV not correct, the 648±10 mb at kT=25 keV need to be extrapolated to kT=30 keV, yielding 574 mb

Revised data:

extrapolated quantity: cross section ratio 22Ne/197Au = (0.923±0.066)E-04
Correction for revised gold standard 612/574 =1.066

```
* Revised Data set#= 22255.004
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MICRO-B²    MB         MB         PER-CENT
-------------------------------------------------------
30.        0.056      0.0046     6.1200E+02 1.0000E+00
-------------------------------------------------------
```

Comment:

cross section value in subentry 22255.004 is renormalized

a) for new gold cross section
b) thermal cross section is not an experimental result and should be omitted
c) note that the quoted neutron energies refer to the lab system; effective energies in the c.m. system have to be reduced by 23/24

[2] Note by NDS: Probably it should read MB (milli-barn).

**** Entry=22305 ****

^{146}Nd(n,γ)^{147}Nd:

Actual data in EXFOR

```
* Data set#= 22305.002.1
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
DECAY-DATA=(60-ND-147,10.98D,DG,91.105,0.2790)
                             DG,531.016,0.1308)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         97.1        4.5
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 146Nd/197Au = 0.1498±0.0069

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.002.1
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         102.1       4.6
---------------------------------------------
```

Comment:

cross section value in subentry 22305.002.1 is renormalized

a) for new gold cross section

^{146}Nd(n,γ)^{147}Nd:

Actual data in EXFOR

```
* Data set#= 22305.002.2
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
DECAY-DATA=(60-ND-147,10.98D,DG,91.105,0.2790)
                             DG,531.016,0.1308)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         93.4        4.4
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 146Nd/197Au = 0.1441±0.0068
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.002.2
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         98.2        4.5
---------------------------------------------
```

Comment:

cross section value in subentry 22305.002.2 is renormalized

a) for new gold cross section

^{146}Nd(n,γ)^{147}Nd:

Actual data in EXFOR

```
* Data set#= 22305.002.3
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
DECAY-DATA=(60-ND-147,10.98D,DG,91.105,0.2790)
                             DG,531.016,0.1308)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         92.6        4.2
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 146Nd/197Au = 0.1429±0.0065
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.002.3
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         97.3        4.3
---------------------------------------------
```

Comment:

cross section value in subentry 22305.002.3 is renormalized

a) for new gold cross section

^{146}Nd(n,γ)^{147}Nd:

Actual data in EXFOR

```
* Data set#= 22305.002.4
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
DECAY-DATA=(60-ND-147,10.98D,DG,91.105,0.2790)
                             DG,531.016,0.1308)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         100.        5.4
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 146Nd/197Au = 0.1543±0.0065
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.002.4
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         101.5       5.4
---------------------------------------------
```

Comment:

cross section value in subentry 22305.002.4 is renormalized

a) for new gold cross section

^{148}Nd(n,γ)^{149}Nd:

Actual data in EXFOR

```
* Data set#= 22305.003.1
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
DECAY-DATA=(60-ND-149,1.72HR,DG,211.309,0.2590,
                             DG,114.314,0.1904)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         170.        10.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 148Nd/197Au = 0.2623±0.0154

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.003.1
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         179.        10.
---------------------------------------------
```

Comment:

cross section value in subentry 22305.003.1 is renormalized

a) for new gold cross section

^{148}Nd(n,γ)^{149}Nd:

Actual data in EXFOR

```
* Data set#= 22305.003.2
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
DECAY-DATA=(60-ND-149,1.72HR,DG,211.309,0.2590,
                             DG,114.314,0.1904)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         164.         10.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 148Nd/197Au = 0.2531±0.0154

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.003.2
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         172.        10.
---------------------------------------------
```

Comment:

cross section value in subentry 22305.003.2 is renormalized

a) for new gold cross section

^{148}Nd(n,γ)^{149}Nd:

Actual data in EXFOR

```
* Data set#= 22305.003.3
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
DECAY-DATA=(60-ND-149,1.72HR,DG,211.309,0.2590,
                             DG,114.314,0.1904)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         162.        10.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 148Nd/197Au = 0.2500±0.0154
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.003.3
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         170.        10.
---------------------------------------------
```

Comment:

cross section value in subentry 22305.003.3 is renormalized

a) for new gold cross section

^{148}Nd(n,γ)^{149}Nd:

Actual data in EXFOR

```
* Data set#= 22305.003.4
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
DECAY-DATA=(60-ND-149,1.72HR,DG,211.309,0.2590,
                             DG,114.314,0.1904)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         169.        11.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 148Nd/197Au = 0.2608±0.0170

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.003.4
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         178.        11.
---------------------------------------------
```

Comment:

cross section value in subentry 22305.003.4 is renormalized

a) for new gold cross section

^{148}Nd(n,γ)^{149}Nd:

Actual data in EXFOR

```
* Data set#= 22305.003.5
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
DECAY-DATA=(60-ND-149,1.72HR,DG,211.309,0.2590,
                             DG,114.314,0.1904)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         171.        10.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 148Nd/197Au = 0.2639±0.0154

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.003.5
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         180.        10.
---------------------------------------------
```

Comment:

cross section value in subentry 22305.003.5 is renormalized

a) for new gold cross section

^{150}Nd(n,γ)^{151}Nd:

Actual data in EXFOR

```
* Data set#= 22305.004.1
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
DECAY-DATA=(60-ND-151,12.44MIN,DG,116.80,0.4337)
                               DG,255.68,0.1643)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
--------------------------------------------
KT         KT-ERR     DATA       ERR-T
KEV        KEV        MB         MB
--------------------------------------------
25.        0.5        174.       11.
--------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 150Nd/197Au = 0.2685±0.0170
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.004.1
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
DECAY-DATA=(60-ND-151,12.44MIN,DG,116.80,0.390)
                               DG,255.68,0.148)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
--------------------------------------------
KT         KT-ERR     DATA       ERR-T
KEV        KEV        MB         MB
--------------------------------------------
25.        0.5        203.       12.
--------------------------------------------
```

Comment:

cross section value in subentry 22305.004.1 is renormalized

a) for new gold cross section
b) by an additional factor 0.4337/0.390=1.112, which accounts for the gamma-intensities for the 116.8 and 255.68 keV transitions in the 151Nd decay (*NDS/ENSDF 2020)*

^{150}Nd(n,γ)^{151}Nd:

Actual data in EXFOR

```
* Data set#= 22305.004.2
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
DECAY-DATA=(60-ND-151,12.44MIN,DG,116.80,0.4337)
                               DG,255.68,0.1643)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
--------------------------------------------
KT         KT-ERR     DATA       ERR-T
KEV        KEV        MB         MB
--------------------------------------------
25.        0.5        166.       11.
--------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 150Nd/197Au = 0.2685±0.0170
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.004.2
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
DECAY-DATA=(60-ND-151,12.44MIN,DG,116.80,0.390)
                               DG,255.68,0.148)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
--------------------------------------------
KT         KT-ERR     DATA       ERR-T
KEV        KEV        MB         MB
--------------------------------------------
25.        0.5        193.       12.
--------------------------------------------
```

Comment:

cross section value in subentry 22305.004.2 is renormalized

a) for new gold cross section
b) by an additional factor 0.4337/0.390=1.112, which accounts for the gamma-intensities for the 116.8 and 255.68 keV transitions in the 151Nd decay (*NDS/ENSDF 2020)*

^{150}Nd(n,γ)^{151}Nd:

Actual data in EXFOR

```
* Data set#= 22305.004.3
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
DECAY-DATA=(60-ND-151,12.44MIN,DG,116.80,0.4337)
                               DG,255.68,0.1643)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         178.        11.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 150Nd/197Au = 0.2747±0.0170
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.004.3
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
DECAY-DATA=(60-ND-151,12.44MIN,DG,116.80,0.390)
                               DG,255.68,0.148)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         208.        12.
---------------------------------------------
```

Comment:

cross section value in subentry 22305.004.3 is renormalized

a) for new gold cross section
b) by an additional factor 0.4337/0.390=1.112, which accounts for the gamma-intensities for the 116.8 and 255.68 keV transitions in the 151Nd decay (*NDS/ENSDF 2020)*

^{146}Nd(n,γ)^{147}Nd:

Actual data in EXFOR

```
* Data set#= 22305.005.1
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         95.4        4.6
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 146Nd/197Au = 0.1472±0.0071

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.005.1
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         100.3       4.7
---------------------------------------------
```

Comment:

cross section value in subentry 22305.005.1 is renormalized

a) for new gold cross section

^{146}Nd(n,γ)^{147}Nd:

Actual data in EXFOR

```
* Data set#= 22305.005.2
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
30.         0.5         87.1        4.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

derived quantity: cross section ratio 146Nd/197Au = 0.1497±0.0069

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.005.2
REACTION  =(60-ND-146(N,G)60-ND-147,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
30.         0.5         91.5        4.1
---------------------------------------------
```

Comment:

cross section value in subentry 22305.005.2 is renormalized

a) for new gold cross section

^{148}Nd(n,γ)^{149}Nd:

Actual data in EXFOR

```
* Data set#= 22305.006.1
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         166.        10.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 148Nd/197Au = 0.2562±0.0154
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.006.1
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         174.5       10.3
---------------------------------------------
```

Comment:

cross section value in subentry 22305.006.1 is renormalized

a) for new gold cross section

^{148}Nd(n,γ)^{149}Nd:

Actual data in EXFOR

```
* Data set#= 22305.006.2
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
30.         0.5         152.        9.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

derived quantity: cross section ratio 148Nd/197Au = 0.2612±0.0155

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.006.2
REACTION  =(60-ND-148(N,G)60-ND-149,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
30.         0.5         159.8       9.3
---------------------------------------------
```

Comment:

cross section value in subentry 22305.006.2 is renormalized

a) for new gold cross section

^{150}Nd(n,γ)^{151}Nd:

Actual data in EXFOR

```
* Data set#= 22305.007.1
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         174.        11.
---------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 150Nd/197Au = 0.2685±0.0170
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22305.007.1
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         203.        13.
---------------------------------------------
```

Comment:

cross section value in subentry 22305.007.1 is renormalized

a) for new gold cross section
b) by an additional factor 0.4337/0.390=1.112, which accounts for the gamma-intensity for the 116.8 keV transition in the 151Nd decay (*NDS/ENSDF 2020)*

^{150}Nd(n,γ)^{151}Nd:

Actual data in EXFOR

```
* Data set#= 22305.007.2
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
30.         0.5         159.        10.
---------------------------------------------
```

Gold standard for kT=25 keV: 582±9 mb

Revised data:

measured quantity: cross section ratio 150Nd/197Au = 0.2685±0.0170
Correction for revised gold standard 612/582 =1.051

```
* Revised Data set#= 22305.007.2
REACTION  =(60-ND-150(N,G)60-ND-151,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
KT          KT-ERR      DATA        ERR-T
KEV         KEV         MB          MB
---------------------------------------------
25.         0.5         186.        12.
---------------------------------------------
```

Comment:

cross section value in subentry 22305.007.1 is renormalized

a) for new gold cross section
b) by an additional factor 0.4337/0.390=1.112, which accounts for the gamma-intensity for the 116.8 keV transition in the 151Nd decay (*NDS/ENSDF 2020)*

****** Entry=22306 ******

$^{107}Ag(n,\gamma)^{108}Ag$:

Actual data in EXFOR

```
* Data set#= 22306.002
REACTION  =(47-AG-107(N,G)47-AG-108,,SIG,,MXW)
DECAY-DATA=(47-AG-108-G,2.41MIN,DG,633.,0.0176)
ASSUMED   =(ASSUM,47-AG-107(N,G)47-AG-108-M/T,,SIG/RAT)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         MB
-------------------------------------------------------
786.        60.        25.       648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 107Ag/197Au = 1.213±0.093

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22306.002
REACTION  =(47-AG-107(N,G)47-AG-108,,SIG,,MXW)
ASSUMED   =(ASSUM,47-AG-107(N,G)47-AG-108-M/T,,SIG/RAT)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         MB
-------------------------------------------------------
826.        62.        25.       681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22306.002 is renormalized

a) for new gold cross section

$^{109}Ag(n,\gamma)^{110}Ag$:

Actual data in EXFOR

```
* Data set#= 22306.003
REACTION  =(47-AG-109(N,G)47-AG-110,,SIG,,MXW)
DECAY-DATA=(47-AG-110-G,24.6SEC,657.8,0.0450)
ASSUMED   =(ASSUM,47-AG-109(N,G)47-AG-110-M/T,,SIG/RAT)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         MB
-------------------------------------------------------
887.        75.        25.       648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 109Ag/197Au = 1.213±0.093
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22306.003
REACTION  =(47-AG-109(N,G)47-AG-110,,SIG,,MXW)
ASSUMED   =(ASSUM,47-AG-109(N,G)47-AG-110-M/T,,SIG/RAT)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         MB
-------------------------------------------------------
932.        78.        25.       681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22306.003 is renormalized

a) for new gold cross section

**** Entry=22376 ****

^{147}Pm(n,γ)^{148g}Pm:

Actual data in EXFOR

```
* Data set#= 22376.002
REACTION  =(61-PM-147(N,G)61-PM-148-G,,SIG,,MXW)
DECAY-DATA=(61-PM-147,2.62YR,DG,121.,2.8E-05)
DECAY-DATA=(61-PM-148-G,5.4D,DG,1465.,0.224)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         MB
-------------------------------------------------------
301.        42.        25.       648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 147Pm/197Au = 0.465±0.065

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22376.002
REACTION  =(61-PM-147(N,G)61-PM-148-G,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         MB
-------------------------------------------------------
316.        42.        25.       681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22376.002 is renormalized

a) for new gold cross section

$^{147}Pm(n,\gamma)^{148m}Pm$:

Actual data in EXFOR

```
* Data set#= 22376.003
REACTION  =(61-PM-147(N,G)61-PM-148-M,,SIG,,MXW)
DECAY-DATA=(61-PM-147,2.62YR,DG,121.,2.8E-05)
DECAY-DATA=(61-PM-148-G,5.4D,DG,1465.,0.224)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         MB
-------------------------------------------------------
202.        32.        25.       648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 147Pm/197Au = 0.312±0.049
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22376.003
REACTION  =(61-PM-147(N,G)61-PM-148-M,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         MB
-------------------------------------------------------
212.        34.        25.       681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22376.003 is renormalized

a) for new gold cross section

$^{147}Sm(n,\gamma)^{148}Sm$:

Actual data in EXFOR

```
* Data set#= 22376.004
REACTION  =(62-SM-147(N,G)62-SM-148,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-1) TOTAL SYSTEMATIC ERROR
ERR-ANALYS=(ERR-S) STATISTICAL ERROR
-------------------------------------------------------------------
DATA       ERR-S      ERR-1      KT         MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
933.        14.        38.       25.       648.        10.
-------------------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 147Sm/197Au = 1.440±0.059

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22376.004
REACTION  =(62-SM-147(N,G)62-SM-148,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR (SUM 0F STATISTICAL AND TOTAL SYSTEMATIC
ERROR)
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         MB
-------------------------------------------------------
981.        40.        25.       681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22376.004 is renormalized

a) for new gold cross section

**** Entry=22401 ****

$^{7}Li(n,\gamma)^{8}Li$:

Actual data in EXFOR

```
* Data set#= 22401.003
REACTION  =(3-LI-7(N,G)3-LI-8,,SIG,,SPA)
DECAY-DATA=(4-BE-8,,A,2140.)
MONITOR   =(3-LI-6(N,T)2-HE-4,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
```

EN-MIN KEV	EN-MAX EV	EN-MEAN KEV	DATA B	ERR-S PER-CENT	MONIT B	MONIT-ERR PER-CENT
5.0	105.	54.	3.66E-05	2.	0.808	3.

Revised data:

measured quantity: cross section ratio 7Li/6Li(n,alpha) = (4.53±0.32) E-05

```
* Revised Data set#= 22401.003
REACTION  =(3-LI-7(N,G)3-LI-8,,SIG,,SPA)
MONITOR   =(3-LI-6(N,T)2-HE-4,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Systematical uncertainty
```

EN-MIN KEV	EN-MAX KEV	EN-MEAN KEV	DATA B	ERR-S PER-CENT	ERR-SYS PER-CENT	MONIT B	MONIT-ERR PER-CENT
5.0	105.	54.	3.66E-05	2.6	6.5	0.808	3.

Comment:

a) systematical uncertainty is missing in original data set
b) dimension of EN-MAX must be KEV
c) thermal value is not documented in original entry 22401 and has been suggested below
d) monitor reaction is 6Li(n,α), therefore no correction with respect to revised gold cross section

$^{7}Li(n,\gamma)^{8}Li$:

Additional data set suggested for entry 22401:

measured quantity: cross section ratio 7Li/6Li(n,alpha) = (4.81±0.28) E-05

```
* Additional Data set#= 22401.004
REACTION  =(3-LI-7(N,G)3-LI-8,,SIG,,SPA)
DECAY-DATA=(4-BE-8,,A,2140.)
MONITOR   =(3-LI-6(N,T)2-HE-4,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Systematical uncertainty
```

EN-MIN EV	EN-MAX EV	EN-MEAN EV	DATA B	ERR-S PER-CENT	ERR-SYS PER-CENT	MONIT B	MONIT-ERR PER-CENT
0.0017	0.020	0.005	0.1019	2.0	5.6	2117.	1.0

Comment:

This data set should be added to EXFOR entry 22401

(Comment by NDS: This data point is actually compiled in 22401.002.)

****** Entry=22424 ******

$^{34}S(n,\gamma)^{35}S$:

Actual data in EXFOR

```
* Data set#= 22424.002
REACTION  =(16-S-34(N,G)16-S-35,,SIG,,MXW)
DECAY-DATA=(16-S-35,85.D,B-,167.)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
MONITOR   =(21-SC-45(N,G)21-SC-46,,SIG)
MONITOR   =(27-CO-59(N,G)27-CO-60,,SIG)
MONITOR   =((MONIT)16-S-34(N,G)16-S-35,,SIG)
ERR-ANALYS=(DATA-ERR) Statistical and systematical are included
```

DATA MICRO-B	DATA-ERR MICRO-B	FLAG NO-DIM	KT KEV	EN-NRM MILLI-EV	MONIT MB	MONIT-ERR MB
157.	9.	1.	25.	25.3	227.	5.
155.	17.	2.	25.	25.3	227.	5.
154.	7.	3.	25.	25.3	227.	5.
154.	6.	4.	25.	25.3	227.	5.

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb

Revised data:

measured quantity: cross section ratio 34S/197Au = (2.63±0.10) E-04
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22424.002
REACTION  =(16-S-34(N,G)16-S-35,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
MONITOR   =(21-SC-45(N,G)21-SC-46,,SIG)
MONITOR   =(27-CO-59(N,G)27-CO-60,,SIG)
MONITOR   =((MONIT)16-S-34(N,G)16-S-35,,SIG)
ERR-ANALYS=(DATA-ERR) Statistical and systematical are included
```

DATA MICRO-B	DATA-ERR MICRO-B	FLAG NO-DIM	KT-DUMMY KEV	EN-NRM MILLI-EV	MONIT MB	MONIT-ERR MB
188.	12.	1.	25.	25.3	227.	5.
186.	21.	2.	25.	25.3	227.	5.
186.	10.	3.	25.	25.3	227.	5.
185.	9.	4.	25.	25.3	227.	5.

Comment:

cross section value in subentry 22424.002 is renormalized

a) for new gold cross section
b) for revised thermal capture cross section of 34S: 227±5 mb (Mughabghab, J. F., Divadeenam, M., & Holden, N. E. 1981, Neutron Cross Sections, Vol. 1A (New York: Academic Press)) 256±9 mb (S.F. Mughabghab, Atlas of Neutron Resonances, 6th Edition, Elsevier Science 2018), correction factor is 1.128

$^{34}S(n,\gamma)^{35}S$:

Actual data in EXFOR

```
* Data set#= 22424.008
REACTION  =(16-S-34(N,G)16-S-35,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
MONITOR   =(21-SC-45(N,G)21-SC-46,,SIG)
MONITOR   =(27-CO-59(N,G)27-CO-60,,SIG)
---------------------------------------------
KT         DATA       DATA-MIN   DATA-MAX
KEV        MICRO-B    MICRO-B    MICRO-B
---------------------------------------------
  5.        367.       357.       378.
 10.        256.       249.       264.
 15.        213.       207.       220.
 20.        204.       197.       211.
 25.        212.       204.       221.
 30.        226.       217.       236.
 35.        239.       229.       250.
 40.        250.       238.       262.
 45.        257.       245.       270.
 50.        262.       249.       275.
 55.        265.       252.       279.
 60.        267.       254.       281.
 65.        269.       255.       283.
 70.        269.       255.       283.
 75.        269.       255.       283.
 80.        269.       254.       284.
 85.        268.       254.       283.
 90.        267.       253.       282.
 95.        266.       251.       281.
100.        265.       250.       280.
---------------------------------------------
```

(See next page for the revised data.)

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22424.008
REACTION  =(16-S-34(N,G)16-S-35,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
MONITOR   =(21-SC-45(N,G)21-SC-46,,SIG)
MONITOR   =(27-CO-59(N,G)27-CO-60,,SIG)
```

KT KEV	DATA MICRO-B	DATA-MIN MICRO-B	DATA-MAX MICRO-B
5.	440.	424.	456.
10.	307.	295.	319.
15.	255.	244.	266.
20.	245.	234.	256.
25.	254.	243.	266.
30.	271.	258.	285.
35.	254.	243.	266.
40.	267.	253.	316.
45.	308.	291.	287.
50.	278.	264.	292.
55.	281.	268.	296.
60.	284.	270.	298.
65.	286.	271.	301.
70.	323.	304.	342.
75.	323.	304.	342.
80.	323.	305.	343.
85.	321.	302.	341.
90.	320.	301.	339.
95.	318.	299.	338.
100.	317.	298.	337.

Comment:

cross section value in subentry 22424.008 is renormalized

a) for new gold cross section
b) for revised thermal capture cross section of 34S: 227±5 mb (Mughabghab, J. F., Divadeenam, M., & Holden, N. E. 1981, Neutron Cross Sections, Vol. 1A (New York: Academic Press)) →256±9 mb (S.F. Mughabghab, Atlas of Neutron Resonances, 6th Edition, Elsevier Science 2018), correction factor is 1.128

****** Entry=22445 ******

$^{36}S(n,\gamma)^{37}S$:

Actual data in EXFOR

```
* Data set#= 22445.002.2
REACTION  =(16-S-36(N,G)16-S-37,,SIG,,MXW)
DECAY-DATA=(16-S-37,5.05MIN,DG,3103.,0.940)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) total error
-------------------------------------------------------
DATA      2ERR-T     KT         MONIT      MONIT-ERR
MB         MB        KEV        MB         MB
-------------------------------------------------------
0.187      0.014     25.       586.        9.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb

Revised data:

measured quantity: cross section ratio 36S/197Au = (2.716±0.059) E-04
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22445.002.2
REACTION  =(16-S-36(N,G)16-S-37,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-----------------------------------------------------------
DATA       ERR-T      KT-DUMMY      MONIT      MONIT-ERR
MB         MB         KEV           MB         MB
-----------------------------------------------------------
0.199      0.015      25.           622.7      6.2
-----------------------------------------------------------
```

Comment:

cross section value in subentry 22445.002.1 is renormalized

a) for new gold cross section

$^{36}S(n,\gamma)^{37}S$:

Actual data in EXFOR

```
* Data set#= 22445.003
REACTION  =(16-S-36(N,G)16-S-37,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
EN          EN-RSL      DATA        ERR-T       MONIT-ERR
KEV         KEV         MB          MB          PER-CENT
-------------------------------------------------------
151.        15.         0.081       0.007         3.
176.        20.         0.125       0.011         3.
218.        23.         0.078       0.007         3.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb

Revised data:

Measured quantity (The respective gold cross sections not specified in original paper.)
Correction for revised gold standard 622.7/586 =1.062

```
* Revised suggested Data set#= 22445.002.2
REACTION  =(16-S-36(N,G)16-S-37,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------------------
EN          EN-MIN      EN-MAX      DATA        ERR-T       MONIT-ERR
KEV         KEV         KEV         MB          MB          PER-CENT
-------------------------------------------------------------------
151.        136.        166.        0.086       0.007         1.
176.        156.        196.        0.133       0.011         1.
218.        195.        241.        0.083       0.007         1.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22445.002.2 is renormalized

a) for new gold cross section

**** Entry=22448 ****

$^{135}Cs(n,\gamma)^{136}Cs$:

Actual data in EXFOR

```
* Data set#= 22448.003
REACTION  =(55-CS-135(N,G)55-CS-136,,SIG,,MXW)
DECAY-DATA=(55-CS-136-G,13.16D,DG,340.,,
                               DG,818.,,
                               DG,1048.,,
                               DG,1235.)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) No information on source of uncertainty
---------------------------------
KT         DATA       DATA-ERR
KEV        MB         MB
---------------------------------
 30.        176.       15.
---------------------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

measured quantity: MXW cross section ratio 135Cs/197Au = 0.2716±0.023

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22448.003
REACTION  =(55-CS-135(N,G)55-CS-136,,SIG,,MXW)
DECAY-DATA=(55-CS-136-G,13.16D,DG,340.,,
                               DG,818.,,
                               DG,1048.,,
                               DG,1235.)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       DATA-ERR   MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        185.       16.        611.6      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22448.003 is renormalized

a) for new gold cross section
b) intensities of four gamma lines are not specified in the original paper, but not critical due to high (99.7%) instensity of the 818 keV transition.

****** Entry=22459 ******

^{155}Eu(n,γ)^{156}Eu:

Actual data in EXFOR

```
* Data set#= 22459.002
REACTION  =(63-EU-155(N,G)63-EU-156,,SIG,,MXW)
DECAY-DATA=(63-EU-155,4.68YR)
DECAY-DATA=(63-EU-156,15.19D,DG DG,60.0,0.001214,
                             DG,86.5,0.3280,
                             DG,105.3,0.2184)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         1470.      90.        648.       10.
-------------------------------------------------------
Gold standard for kT=25 keV: 648±10 mb
```

Revised data:

measured quantity: cross section ratio 155Eu/197Au = 2.269±0.139
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22459.002
REACTION  =(63-EU-155(N,G)63-EU-156,,SIG,,MXW)
DECAY-DATA=(63-EU-155,4.753YR)
DECAY-DATA=(63-EU-156,15.19D,DG,60.0,0.01175,
                             DG,86.5,0.307,
                             DG,105.3,0.211)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         1662.      100.       681.       7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22459.002 is renormalized

a) for new gold cross section
b) for new 155Eu half-life of 4.753 yr by factor 4.68/4.753=0.984
c) for new gamma-intensities of 155Eu: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.054
d) for new gamma-intensities of 156Eu: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.038

^{155}Eu(n,γ)^{156}Eu:

Actual data in EXFOR

```
* Data set#= 22459.005
REACTION  =(63-EU-155(N,G)63-EU-156,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-5) Uncertainty in correction on the energy dependence at
extrapolation
---------------------------------------------
KT          DATA        ERR-T       ERR-5
KEV         MB          MB          PER-CENT
---------------------------------------------
30.         1320.       84.         6.4
---------------------------------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22459.005
REACTION  =(63-EU-155(N,G)63-EU-156,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
ERR-ANALYS=(ERR-5) Uncertainty in correction on the energy dependence at
extrapolation
---------------------------------------------
KT          DATA        ERR-T       ERR-5
KEV         MB          MB          PER-CENT
---------------------------------------------
30          1493.       94.         6.3
---------------------------------------------
```

Comment:

cross section value in subentry 22459.005 is renormalized

a) for new gold cross section
b) for new 155Eu half-life of 4.753 yr by factor 4.68/4.753=0.984
c) for new gamma-intensities of 155Eu: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.054
d) for new gamma-intensities of 156Eu: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.038

**** Entry=22603 ****

^{152}Sm(n,γ)^{153}Sm:

Actual data in EXFOR

```
* Data set#= 22603.002.1
REACTION  =(62-SM-152(N,G)62-SM-153,,SIG,,MXW)
DECAY-DATA=(62-SM-153,46.75HR,DG,103.18,0.283)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         430.        26.         657.        16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

measured quantity: cross section ratio 152Sm/197Au = 0.654±0.040
Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 22603.002.1
REACTION  =(62-SM-152(N,G)62-SM-153,,SIG,,MXW)
DECAY-DATA=(62-SM-153,46.75HR,DG,103.18,0.2925)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         428.        24.         681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.002.1 is renormalized

a) for new gold cross section
b) by an additional factor 0.283/0.2925=0.9593, which accounts for the gamma-intensity for the 103.18 keV transition in the 153Sm decay (*NDS/ENSDF 2020)*

$^{152}Sm(n,\gamma)^{153}Sm$:

Actual data in EXFOR

```
* Data set#= 22603.002.2
REACTION  =(62-SM-152(N,G)62-SM-153,,SIG,,MXW,DERIV)
DECAY-DATA=(62-SM-153,46.75HR,DG,103.18,0.283)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         401.        24.         657.        16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

Correction for revised gold standard 681/557 =1.037

```
* Revised Data set#= 22603.002.2
DECAY-DATA=(62-SM-153,46.75HR,DG,103.18,0.2925)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         399.        22.         611.6       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.002.2 is renormalized

a) for new gold cross section
b) by an additional factor 0.283/0.2925=0.9593, which accounts for the gamma-intensity for the 103.18 keV transition in the 153Sm decay (*NDS/ENSDF 2020)*

$^{151}Eu(n,\gamma)^{152m1}Eu$:

Actual data in EXFOR

```
* Data set#= 22603.003.1
REACTION  =(63-EU-151(N,G)63-EU-152-M1,,SIG,,MXW)
DECAY-DATA=(63-EU-152-M1,9.3HR,DG,841.0,0.145,
                               DG,963.4,0.119)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         1766.      198.       657.       16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

measured quantity: cross section ratio 151Eu-m1/197Au = 2.688±0.301
Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 22603.003.1
REACTION  =(63-EU-151(N,G)63-EU-152-M1,,SIG,,MXW)
DECAY-DATA=(63-EU-152-M1,9.3HR,DG,841.0,0.121)
                               DG,963.4,0.116)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         1913.      205.       681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.003.1 is renormalized

a) for new gold cross section
b) by an additional factor of 0.1.023, which accounts for the gamma-intensities for the 841.63 and 963 keV transitions in the 152Eu-m decay (*NDS/ENSDF 2020)*

$^{151}Eu(n,\gamma)^{152m1}Eu$:

Actual data in EXFOR

```
* Data set#= 22603.003.2
REACTION  =(63-EU-151(N,G)63-EU-152-M1,,SIG,,MXW,DERIV)
DECAY-DATA=(63-EU-152-M1,9.3HR,DG,841.0,0.145,
                               DG,963.4,0.119)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         1639.      184.       657        16
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 22603.003.2
REACTION  =(63-EU-151(N,G)63-EU-152-M1,,SIG,,MXW,DERIV)
DECAY-DATA=(63-EU-152-M1,9.3HR,DG,841.0,0.121)
                               DG,963.4,0.116)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         1775.      191.       611.6      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.003.2 is renormalized

a) for new gold cross section
b) by an additional factor 0.1.023, which accounts for the gamma-intensities for the 841.63 and 963 keV transitions in the 152Eu-m decay (*NDS/ENSDF 2020)*

^{152}Gd(n,γ)^{153}Gd:

Actual data in EXFOR

```
* Data set#= 22603.004.1
REACTION  =(64-GD-152(N,G)64-GD-153,,SIG,,MXW)
DECAY-DATA=(64-GD-153,241.6D,DG,97.5,0.273,
                             DG,103.2,0.194)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         1118.      71.        657.       16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

measured quantity: cross section ratio 152Gd/197Au = 1.702±0.108
Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 22604.004.1
REACTION  =(64-GD-152(N,G)64-GD-153,,SIG,,MXW)
DECAY-DATA=(64-GD-153,241.6D,DG,97.5,0.290)
                             DG,103.2,0.211)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         1085.      65.        681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.004.1 is renormalized

a) for new gold cross section
b) by an additional factor 0.936, which accounts for the gamma-intensities for the 97.43 and 103.2 keV transitions in the 153Gd decay (*NDS/ENSDF 2020)*

$^{152}Gd(n,\gamma)^{153}Gd$:

Actual data in EXFOR

```
* Data set#= 22603.004.2
REACTION  =(64-GD-152(N,G)64-GD-153,,SIG,,MXW,DERIV)
DECAY-DATA=(64-GD-153,241.6D,DG,97.5,0.273,
                             DG,103.2,0.194)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         1045.      65.        657.       16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 22603.004.2
REACTION  =(64-GD-152(N,G)64-GD-153,,SIG,,MXW,DERIV)
DECAY-DATA=(64-GD-153,241.6D,DG,97.5,0.290)
                             DG,103.2,0.211)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         1020.      61.        611.6      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.004.2 is renormalized

a) for new gold cross section
b) by an additional factor 0.936, which accounts for the gamma-intensities for the 97.43 and 103.2 keV transitions in the 153Gd decay (*NDS/ENSDF 2020)*

^{158}Gd(n,γ)^{159}Gd:

Actual data in EXFOR

```
* Data set#= 22603.005.1
REACTION  =(64-GD-158(N,G)64-GD-159,,SIG,,MXW)
DECAY-DATA=(64-GD-159,18.56HR,DG,363.3,0.093)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG) ERR-ANALYS=(ERR-T) Total
uncertainty
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         236.        21.         657.        16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

measured quantity: cross section ratio 158Gd/197Au = 0.360±0.032

Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 22604.005.1
DECAY-DATA=(64-GD-159,18.56HR,DG,363.3,0.1178)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         193.        17.         681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.005.1 is renormalized

a) for new gold cross section
b) by an additional factor 0.093/0.1178=0.789, which accounts for the gamma-intensity for the 363.54 keV transition in the 159Gd decay (*NDS/ENSDF 2020)*

^{158}Gd(n,γ)^{159}Gd:

Actual data in EXFOR

```
* Data set#= 22603.005.2
REACTION  =(64-GD-158(N,G)64-GD-159,,SIG,,MXW)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         221.        20.         657.        16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 22603.005.2
REACTION  =(64-GD-158(N,G)64-GD-159,,SIG,,MXW)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         181.        16.         611.6       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.005.2 is renormalized

a) for new gold cross section
b) by an additional factor 0.093/0.1178=0.789, which accounts for the gamma-intensity for the 363.54 keV transition in the 159Gd decay (*NDS/ENSDF 2020)*

^{160}Gd(n,γ)^{161}Gd:

Actual data in EXFOR

```
* Data set#= 22603.006.1
REACTION  =(64-GD-160(N,G)64-GD-161,,SIG,,MXW)
DECAY-DATA=(65-TB-161,6.90D,DG,74.6,0.165)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         155.        15.         657.        16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

measured quantity: cross section ratio 160Gd/197Au = 0.236±0.023
Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 22604.006.1
REACTION  =(64-GD-160(N,G)64-GD-161,,SIG,,MXW)
DECAY-DATA=(65-TB-161,6.90D,DG,74.6,0.102)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         260.        24.         681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.006.1 is renormalized

a) for new gold cross section
b) by an additional factor 0.165/0.102=1.62, which accounts for the gamma-intensity for the 74.57 keV transition in the 161Tb decay (*NDS/ENSDF 2020)*

^{160}Gd(n,γ)^{161}Gd:

Actual data in EXFOR

```
* Data set#= 22603.006.2
REACTION  =(64-GD-160(N,G)64-GD-161,,SIG,,MXW,DERIV)
DECAY-DATA=(65-TB-161,6.90D,DG,74.6,0.165)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        144.       14.        657.       16.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 657±16 mb

Revised data:

Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 22603.006.2
REACTION  =(64-GD-160(N,G)64-GD-161,,SIG,,MXW,DERIV)
DECAY-DATA=(65-TB-161,6.90D,DG,74.6,0.102)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        242.       29.        611.6      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22603.006.2 is renormalized

a) for new gold cross section
b) by an additional factor 0.165/0.102=1.62, which accounts for the gamma-intensity for the 74.57 keV transition in the 161Tb decay (*NDS/ENSDF 2020)*

****** Entry=22670 ******

^{152}Sm(n,γ)^{153}Sm:

Actual data in EXFOR

```
* Data set#= 22670.002
REACTION  =(62-SM-152(N,G)62-SM-153,,SIG,,MXW)
DECAY-DATA=(62-SM-153,1.946D,DG,69.7,0.0525,
                             DG,97.4,0.0073,
                             DG,103.2,0.283)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         473.        17.         648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 152Sm/197Au = 0.730±0.026
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22670.002
REACTION  =(62-SM-152(N,G)62-SM-153,,SIG,,MXW)
DECAY-DATA=(62-SM-153,1.946D,DG,103.2,0.2925)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         477.        16.         681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.002 is renormalized

a) for new gold cross section
b) by an additional factor 0.283/0.2925=0.9593, which accounts for the gamma-intensity for the 103.18 keV transition in the 153Sm decay (*NDS/ENSDF 2020).* The 69.7 and 97.4 keV transitions are rather weak, and discarded.

$^{154}Sm(n,\gamma)^{155}Sm$:

Actual data in EXFOR

```
* Data set#= 22670.003
REACTION  =(62-SM-154(N,G)62-SM-155,,SIG,,MXW)
DECAY-DATA=(62-SM-155,22.3MIN,DG,104.3,0.746,
                              DG,141.4,0.0192)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         226.        9.          648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 154Sm/197Au = 0.349±0.014
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22670.003
REACTION  =(62-SM-154(N,G)62-SM-155,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         238.        9.          681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.003 is renormalized

a) for new gold cross section

$^{151}Eu(n,\gamma)^{152m1}Eu$:

Actual data in EXFOR

```
* Data set#= 22670.004
REACTION  =(63-EU-151(N,G)63-EU-152-M1,,SIG,,MXW)
DECAY-DATA=(63-EU-152-M1,9.274HR,DG,344.3,0.0244,
                                 DG,841.6,0.146,
                                 DG,963.4,0.120)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        1577.      200.       648.       10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio (151Eu(n,g)152Eu-m1)/197Au = 2.434±0.309

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22670.004
REACTION  =(63-EU-151(N,G)63-EU-152-M1,,SIG,,MXW)
DECAY-DATA=(63-EU-152-M1,9.274HR,DG,841.6,0.142)
                                 DG,963.4,0.116)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        1696.      215.       681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.004 is renormalized

a) for new gold cross section
b) by an additional factor 1.023, which accounts for the gamma-intensities for the 841.63 and 963.4 keV transitions in the 152Eu-m1 decay (*NDS/ENSDF 2020)*

$^{151}Eu(n,\gamma)^{152g+m2}Eu$:

Actual data in EXFOR

```
* Data set#= 22670.005
REACTION  =(63-EU-151(N,G)63-EU-152-G+M2,,SIG,,MXW)
DECAY-DATA=(63-EU-152-G,13.542YR,DG,244.7,0.0749,
                                 DG,344.3,0.266,
                                 DG,778.9,0.1379,
                                 DG,964.1,0.1434,
                                 DG,1112.1,0.135,
                                 DG,1408.0,0.2087)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        2520.      71.        648.       10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio (151Eu(n,g)152Eu(g+m2))/197Au = 3.889±0.110

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22670.005
REACTION  =(63-EU-151(N,G)63-EU-152-G+M2,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        2649.      68.        681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.005 is renormalized

a) for new gold cross section

$^{153}Eu(n,\gamma)^{154}Eu$:

Actual data in EXFOR

```
* Data set#= 22670.006
REACTION  =(63-EU-153(N,G)63-EU-154,,SIG,,MXW)
DECAY-DATA=(63-EU-154-G,8.593YR,DG,247.9,0.0691,
                                DG,591.8,0.0496,
                                DG,723.4,0.2011,
                                DG,873.2,0.1220,
                                DG,996.3,0.1053,
                                DG,1004.8,0.1790,
                                DG,1274.5,0.345)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         2917.      82.        648.       10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 153Eu/197Au = 4.502±0.127

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22670.006
REACTION  =(63-EU-153(N,G)63-EU-154,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         3066.      79.        681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.006 is renormalized

a) for new gold cross section

$^{164}Er(n,\gamma)^{165}Er$:

Actual data in EXFOR

```
* Data set#= 22670.007
REACTION  =(68-ER-164(N,G)68-ER-165,,SIG,,MXW)
DECAY-DATA=(68-ER-165,10.36HR,XR,47.55,0.3832,
                              XR,46.70,0.2150)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         1075.       45.         648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 164Er/197Au = 1.659±0.069

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22670.007
REACTION  =(68-ER-164(N,G)68-ER-165,,SIG,,MXW)
DECAY-DATA=(68-ER-165,10.36HR,XR,46.70/47,55,0.5982)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         1136.       46.         681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.007 is renormalized

a) for new gold cross section

$^{170}Er(n,\gamma)^{171}Er$:

Actual data in EXFOR

```
* Data set#= 22670.008
REACTION  =(68-ER-170(N,G)68-ER-171,,SIG,,MXW)
DECAY-DATA=(68-ER-165,7.52HR,DG,308.3,0.644)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         177.7       7.          648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 170Er/197Au = 0.274±0.011
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22670.008
REACTION  =(68-ER-170(N,G)68-ER-171,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         186.8       7.1         681.        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.008 is renormalized

a) for new gold cross section

$^{152}Sm(n,\gamma)^{153}Sm$:

Actual data in EXFOR

```
* Data set#= 22670.009
REACTION  =(62-SM-152(N,G)62-SM-153,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         431.        16.         582.        9.
-------------------------------------------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22670.009
REACTION  =(62-SM-152(N,G)62-SM-153,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         435.        15.         611.6       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.009 is renormalized

a) for new gold cross section
b) by an additional factor 0.283/0.2925=0.9593, which accounts for the gamma-intensity for the 103.18 keV transition in the 153Sm decay (*NDS/ENSDF 2020)*

$^{154}Sm(n,\gamma)^{155}Sm$:

Actual data in EXFOR

```
* Data set#= 22670.010
REACTION  =(62-SM-154(N,G)62-SM-155,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         206.        9.          582.        9.
-------------------------------------------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22670.010
REACTION  =(62-SM-154(N,G)62-SM-155,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         217.        9.          611.6        6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.010 is renormalized

a) for new gold cross section

$^{151}Eu(n,\gamma)^{152}Eu$:

Actual data in EXFOR

```
* Data set#= 22670.011
REACTION  =(63-EU-151(N,G)63-EU-152,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         3736.      210.       582.       9.
-------------------------------------------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22670.011
REACTION  =(63-EU-151(N,G)63-EU-152,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         4036.      219.       611.6.     6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.011 is renormalized

a) for new gold cross section
b) by an additional factor 0.146/0.142=1.028, which accounts for the gamma-intensity for the 841.63 keV transition in the 152Eu-m1 decay (*NDS/ENSDF 2020)*

$^{153}Eu(n,\gamma)^{154}Eu$:

Actual data in EXFOR

```
* Data set#= 22670.012
REACTION  =(63-EU-153(N,G)63-EU-154,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         2710.      77.        582.       9.
-------------------------------------------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22670.012
REACTION  =(63-EU-153(N,G)63-EU-154,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         2848.      74.        611.6      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.012 is renormalized

a) for new gold cross section

$^{164}Er(n,\gamma)^{165}Er$:

Actual data in EXFOR

```
* Data set#= 22670.013
REACTION  =(68-ER-164(N,G)68-ER-165,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         1084.      51.        582.       9.
-------------------------------------------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22670.013
REACTION  =(68-ER-164(N,G)68-ER-165,,SIG,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         1152.      53.        611.6      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.013 is renormalized

a) for new gold cross section
b) by an additional factor 0.3832/0.379=1.011, which accounts for the gamma-intensity for the 47.55 keV $K_{\alpha 1}$ transition in the 165Er decay (*NDS/ENSDF 2020)*

$^{170}Er(n,\gamma)^{171}Er$:

Actual data in EXFOR

```
* Data set#= 22670.014
REACTION  =(68-ER-170(N,G)68-ER-171,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         170.        7.          582.        9.
-------------------------------------------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22670.014
REACTION  =(68-ER-170(N,G)68-ER-171,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         179.        7.1         611.6       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22670.014 is renormalized

a) for new gold cross section

****** Entry=22677 ******

^{147}Pm(n,γ)^{148}Pm:

Actual data in EXFOR

```
* Data set#= 22677.002
REACTION  =(61-PM-147(N,G)61-PM-148,,SIG,,MXW)
DECAY-DATA=(61-PM-147,2.62YR,DG,121.)
           (61-PM-148-G,5.37D,DG,550.3,,
                              DG,914.9)
DECAY-DATA=(61-PM-148-M,41.3D,DG)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        685.       69.        648.       10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb
Note: ERR-T is 10%, not 10 MB!

Revised data:

measured quantity: cross section ratio 147Pm/197Au = 1.057±0.106
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22677.002
REACTION  =(61-PM-147(N,G)61-PM-148,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        720.       72.        681.       7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22677.002 is renormalized

a) for new gold cross section

The gamma intensities of ^{148g}Pm as well as the gamma lines and intensities of ^{148m}Pm adopted in the cross section determination are unknown.

This data set is **superseded** by 22829.004 (from an experiment under improved conditions)

****** Entry=22685 ******

^{96}Ru(n,γ)^{97}Ru:

Actual data in EXFOR

```
* Data set#= 22685.002
REACTION  =(44-RU-96(N,G)44-RU-97,,SIG,,SPA)
DECAY-DATA=(44-RU-97,2.88D,DG,215.7,0.8617,
                           DG,324.6,0.1024)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total Error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         229.        9.          648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 96Ru/197Au = 0.353±0.014

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22685.002
REACTION  =(44-RU-96(N,G)44-RU-97,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total Error
-------------------------------------------------------
KT-DUMMY    DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         241.        9.          681.        7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22685.002 is renormalized

a) for new gold cross section

$^{102}Ru(n,\gamma)^{103}Ru$:

Actual data in EXFOR

```
* Data set#= 22685.003
REACTION  =(44-RU-102(N,G)44-RU-103,,SIG,,SPA)
DECAY-DATA=(44-RU-103,39.254D,DG,497.1,0.909)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total Error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         169.        8.          648.        10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 102Ru/197Au = 0.261±0.012

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22685.003
REACTION  =(44-RU-102(N,G)44-RU-103,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total Error
-------------------------------------------------------
KT-DUMMY    DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
25.         178.        8.          681.        7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22685.003 is renormalized

a) for new gold cross section

$^{104}Ru(n,\gamma)^{105}Ru$:

Actual data in EXFOR

```
* Data set#= 22685.004
REACTION  =(44-RU-104(N,G)44-RU-105,,SIG,,SPA)
DECAY-DATA=(44-RU-105,4.44HR,DG,262.8,0.0658,
                             DG,469.0,0.1755,
                             DG,676.4,0.1566,
                             DG,724.3,0.473)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total Error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         169.       8.         648.       10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 104Ru/197Au = 0.353±0.014
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22685.004
REACTION  =(44-RU-104(N,G)44-RU-105,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total Error
-------------------------------------------------------
KT-DUMMY    DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         178.       8.         681.       7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22685.004 is renormalized

a) for new gold cross section

$^{96}Ru(n,\gamma)^{97}Ru$:

Actual data in EXFOR

```
* Data set#= 22685.005
REACTION  =(44-RU-96(N,G)44-RU-97,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total Error
---------------------------------
EN-MEAN    DATA       ERR-T
KEV        MB         MB
---------------------------------
7.5        414.       16.
15.        342.       13.
22.5       295.       12.
30.        258.       10.
37.5       229.        9.
45.        207.        8.
60.        175.        7.
75.        154.        6.
90.         38.        5.
120.        119.       5.
150.        108.       4.
---------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Note: columns MONIT and MONIT-ERR should be omitted from table, the values refer only to kT=25 keV

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22685.005
REACTION  =(44-RU-96(N,G)44-RU-97,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total Error
---------------------------------
EN-MEAN    DATA       ERR-T
KEV        MB         MB
---------------------------------
7.5        435.       16.
15.        359.       13.
22.5       310.       12.
30.        271.       10.
37.5       241.        9.
45.        218.        8.
60.        184.        7.
75.        162.        6.
90.        145.        5.
120.       125.        5.
150.       114.        4.
---------------------------------
```

Comment:

cross section value in subentry 22685.005 is renormalized

a) for new gold cross section

$^{102}Ru(n,\gamma)^{103}Ru$:

Actual data in EXFOR

```
* Data set#= 22685.006
REACTION  =(44-RU-102(N,G)44-RU-103,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total Error
---------------------------------
EN-MEAN    DATA       ERR-T
KEV        MB         MB
---------------------------------
7.5        456.       22.
15.        297.       14.
22.5       232.       11.
30.        194.        9.
37.5       169.        8.
45.        151.        7.
60.        127.        6.
75.        111.        5.
90.         98.        5.
120.        83.        4.
150.        72.        4.
---------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Note: columns MONIT and MONIT-ERR should be omitted from table, the values refer only to kT=25 keV

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22685.006
REACTION  =(44-RU-102(N,G)44-RU-103,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total Error
---------------------------------
EN-MEAN    DATA       ERR-T
KEV        MB         MB
---------------------------------
7.5        479.       23.
15.        312.       15.
22.5       244.       12.
30.        204.       10.
37.5       178.        9.
45.        159.        8.
60.        133.        7.
75.        117.        6.
90.        103.        5.
120.        87.        5.
150.        76.        4.
---------------------------------
```

Comment:

cross section value in subentry 22685.006 is renormalized

a) for new gold cross section

$^{104}Ru(n,\gamma)^{105}Ru$:

Actual data in EXFOR

```
* Data set#= 22685.007
REACTION  =(44-RU-104(N,G)44-RU-105,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total Error
---------------------------------
EN-MEAN    DATA       ERR-T
KEV        MB         MB
---------------------------------
7.5        440.       21.
15.        291.       14.
22.5       229.       11.
30.        193.        9.
37.5       169.        8.
45.        151.        7.
60.        128.        6.
75.        112.        5.
90.        100.        5.
120.        84.        4.
150.        74.        4.
---------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Note: columns MONIT and MONIT-ERR should be omitted from table, the values refer only to kT=25 keV

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22685.007
REACTION  =(44-RU-104(N,G)44-RU-105,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total Error
---------------------------------
EN-MEAN    DATA       ERR-T
KEV        MB         MB
---------------------------------
7.5        462.       22.
15.        306.       16.
22.5       241.       12.
30.        203.        9.
37.5       178.        9.
45.        159.        8.
60.        135.        7.
75.        118.        6.
90.        105.        5.
120.        88.        5.
150.        78.        4.
---------------------------------
```

Comment:

cross section value in subentry 22685.007 is renormalized

a) for new gold cross section

****** Entry=22749 ******

$^{33}S(n,\alpha)^{30}Si$:

Actual data in EXFOR

```
* Data set#= 22749.002.1
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT          DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         184.8      3.2        17.1       648.      10.
-----------------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 33S(n,α)/197Au = 0.285±0.053

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22749.002.1
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT-DUMMY    DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         194.2      3.4       18.0       681.      6.
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22749.002.1 is renormalized

a) for new gold cross section

$^{33}S(n,\alpha)^{30}Si$:

Actual data in EXFOR

```
* Data set#= 22749.002.2
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT          DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         176.4      3.0        16.0       648.      10.
-----------------------------------------------------------------
Gold standard for kT=25 keV: 648±10 mb
```

Revised data:

measured quantity: cross section ratio 33S(n,α)/197Au = 0.272±0.044
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22749.002.2
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-STAT) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT-DUMMY    DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         185.4      3.2       16.8       681.      6.
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22749.002.2 is renormalized

a) for new gold cross section

$^{33}S(n,\alpha)^{30}Si$:

Actual data in EXFOR

```
* Data set#= 22749.002.3
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT          DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         163.3      1.5        30.7       648.      10.
-----------------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 33S(n,α)/197Au = 0.252±0.047

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22749.002.3
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT-DUMMY    DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         171.6      1.6       32.3       681.      6.
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22749.002.3 is renormalized

a) for new gold cross section

$^{33}S(n,\alpha)^{30}Si$:

Actual data in EXFOR

```
* Data set#= 22749.002.4
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT          DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         197.8      2.4        12.4       648.      10.
-----------------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 33S(n,α)/197Au = 0.305±0.019
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22749.002.4
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT-DUMMY    DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         207.8      2.5       12.8       681.      6.
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22749.002.4 is renormalized

a) for new gold cross section

$^{33}S(n,\alpha)^{30}Si$:

Actual data in EXFOR

```
* Data set#= 22749.002.5
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT          DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         155.5      2.0        21.4       648.      10.
-----------------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 33S(n,α)/197Au = 0.240±0.033
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22749.002.5
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-STAT) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT-DUMMY    DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         163.4      2.1       22.        681.      6.
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22749.002.5 is renormalized

a) for new gold cross section

$^{33}S(n,\alpha)^{30}Si$:

Actual data in EXFOR

```
* Data set#= 22749.002.6
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-STAT) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT          DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         168.6      1.0        57.3       648.      10.
-----------------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 33S(n,α)/197Au = 0.260±0.088

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22749.002.6
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-STAT) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-----------------------------------------------------------------
KT-DUMMY    DATA       ERR-S      ERR-SYS    MONIT     MONIT-ERR
KEV         MB         MB         MB         MB        MB
-----------------------------------------------------------------
25.         177.2      1.1       60.2       681.      6.
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22749.002.6 is renormalized

a) for new gold cross section

$^{33}S(n,\alpha)^{30}Si$:

Actual data in EXFOR

```
* Data set#= 22749.003
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         175.       9.         648.       10.
-------------------------------------------------------
Gold standard for kT=25 keV: 648±10 mb
```

Revised data:

measured quantity: cross section ratio 33S(n,α)/197Au = 0.276±0.014

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22749.003
REACTION  =(16-S-33(N,A)14-SI-30,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         183.9      9.2        681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22749.003 is renormalized

a) for new gold cross section

$^{36}Cl(n,\alpha)^{33}P$:

Actual data in EXFOR

```
* Data set#= 22749.006
REACTION  =(17-CL-36(N,A)15-P-33,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
30.         0.91       0.2
---------------------------------
```

Note: value inferred from theoretical fit of measured data

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22749.006
REACTION  =(17-CL-36(N,A)15-P-33,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
30.         0.96       0.2
---------------------------------
```

Comment:

cross section value in subentry 22749.006 is renormalized

a) for new gold cross section

$^{36}Cl(n,p)^{36}S$:

Actual data in EXFOR

```
* Data set#= 22749.012
REACTION  =(17-CL-36(N,P)16-S-36,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
30.         91.        8.
---------------------------------
```

Note: value inferred from theoretical fit of measured data

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22749.012
REACTION  =(17-CL-36(N,P)16-S-36,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
30.         96.        8.
---------------------------------
```

Comment:

cross section value in subentry 22749.012 is renormalized

a) for new gold cross section

**** Entry=22781 ****

$^{18}O(n,\gamma)^{19}O$:

Actual data in EXFOR

```
* Data set#= 22781.002
REACTION  =(8-O-18(N,G)8-O-19,,SIG,,MXW)
DECAY-DATA=(8-O-19,26.91SEC,DG,1357.,0.504,
                            DG,197.,0.958)
MONITOR   =(36-KR-86(N,G)36-KR-87,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) Not specified
---------------------------------
KT          DATA       ERR-T
KEV         MICRO-B    MICRO-B
---------------------------------
25.         7.93       0.7
---------------------------------
```

Gold standard for quasi-Maxwellian neutron spectrum at kT=25 keV: 586±9 mb

Revised data:

measured quantity: cross section ratio 18O/197Au = (1.35±0.012) E-05

Comment:

cross section value in subentry 22781.002 does not require renormalization for new gold cross section
The capture kernels and capture widths determined in this experiment are **discarded** without revision.

****** Entry=22808 ******

^{84}Kr(n,γ)^{85m}Kr:

Actual data in EXFOR

```
* Data set#= 22808.002
REACTION  =(36-KR-84(N,G)36-KR-85-M,,SIG,,SPA)
DECAY-DATA=(36-KR-85-M,4.48HR,DG,151.159,0.753,
                              DG,304.87,0.140)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
EN-MEAN    EN-RSL     DATA       ERR-T      MONIT-ERR
KEV        KEV        MB         MB         PER-CENT
-------------------------------------------------------
 30.        5.       15.4        1.69       3.
104.       20.       8.76        0.96       3.
149.       20.       6.82        0.75       3.
180.       20.       6.49        0.71       3.
215.       23.       6.36        0.70       3.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian neutron spectrum at kT=25 keV: 586±9 mb

Revised data:

Measured quantity at neutron energy 30±5 keV: cross section ratio (84Kr(n,g)85Kr-m)/197Au = 0.0265±0.0029
Correction for revised gold standard 622.7/582 =1.062 at 30 keV, gradually reduced to 1.010 at 215 keV

```
* Revised Data set#= 22808.002
REACTION  =(36-KR-84(N,G)36-KR-85-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
EN-MEAN    EN-RSL     DATA       ERR-T      MONIT-ERR
KEV        KEV        MB         MB         PER-CENT
-------------------------------------------------------
 30.        5.        16.4       1.79       1.
104.       20.        9.30       1.02       1.
149.       20.        7.11       0.78       1.
180.       20.        6.62       0.72       1.
215.       23.        6.42       0.71       1.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22808.002 is renormalized

a) for new gold cross section

$^{40}Ar(n,\gamma)^{41}Ar$:

Actual data in EXFOR

```
* Data set#= 22808.004
REACTION  =(18-AR-40(N,G)18-AR-41,,SIG,,SPA)
DECAY-DATA=(18-AR-41,109.34MIN,DG,1293.587,0.991)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
MONITOR   =(36-KR-84(N,G)36-KR-85-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
EN-MEAN    EN-RSL     DATA       ERR-T      MONIT-ERR
KEV        KEV        MB         MB         PER-CENT
-------------------------------------------------------
 30.        5.       0.842      0.091      3.
104.       20.       1.45       0.16       3.
149.       20.       0.771      0.085      3.
180.       20.       1.11       0.12       3.
215.       23.       1.35       0.15       3.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian neutron spectrum at kT=25 keV: 586±9 mb

Revised data:

Measured quantity at neutron energy 30±5 keV: cross section ratio 40Ar/197Au = 0.00145±0.00016
Correction for revised gold standard 622.7/582 =1.062 at 30 keV, gradually reduced to 1.010 at 215 keV

```
* Revised Data set#= 22808.004
REACTION  =(18-AR-40(N,G)18-AR-41,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,SPA)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
EN-MEAN    EN-RSL     DATA       ERR-T      MONIT-ERR
KEV        KEV        MB         MB         PER-CENT
-------------------------------------------------------
 30.        5.        0.894      0.096      1.
104.       20.        1.54       0.17       1.
149.       20.        0.803      0.088      1.
180.       20.        1.13       0.12       1.
215.       23.        1.36       0.15       1.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22808.004 is renormalized

a) for new gold cross section

$^{84}Kr(n,\gamma)^{85m}Kr$ serves only as a mediator, and should not be coded under MONITOR.

$^{40}Ar(n,\gamma)^{41}Ar$:

Actual data in EXFOR

```
* Data set#= 22808.009
REACTION  =(18-AR-40(N,G)18-AR-41,,SIG,,MXW)
DECAY-DATA=(18-AR-41,109.34MIN,DG,1293.587,0.991)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
MONITOR   =(36-KR-84(N,G)36-KR-85-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          DATA       ERR-T      MONIT-ERR
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         2.24       0.24       3.
30.         2.35       0.24       3.
---------------------------------------------
```

Gold standard for quasi-Maxwellian neutron spectrum at kT=25 keV: 586±9 mb

Revised data:

Correction for revised gold standard 622.7/582 =1.062

```
* Revised Data set#= 22808.009
REACTION  =(18-AR-40(N,G)18-AR-41,,SIG,,SPA[3])
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          DATA       ERR-T      MONIT-ERR
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         2.38       0.24       1.
52.         2.50       0.24       1.
---------------------------------------------
```

Comment:

cross section value in subentry 22808.009 is renormalized

a) for new gold cross section

$^{84}Kr(n,\gamma)^{85m}Kr$ serves only as a mediator, and should not be coded under MONITOR.

[3] Note by NDS: The authors confirmed its combination with the heading KT is correct.

^{86}Kr(n,γ)^{87}Kr:

Actual data in EXFOR

```
* Data set#= 22808.013
REACTION  =(36-KR-86(N,G)36-KR-87,,SIG,,MXW)
DECAY-DATA=(36-KR-87,76.3MIN,DG,402.587,0.500)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
MONITOR   =(36-KR-84(N,G)36-KR-85-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          DATA       ERR-T      MONIT-ERR
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         3.49       0.4        3.
---------------------------------------------
```

Gold standard for quasi-Maxwellian neutron spectrum at kT=25 keV: 582±9 mb

Revised data:

Correction for revised gold standard 622.7/582 =1.062

```
* Revised Data set#= 22808.013
REACTION  =(36-KR-86(N,G)36-KR-87,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          DATA       ERR-T      MONIT-ERR
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         3.71       0.42       1.
---------------------------------------------
```

Comment:

cross section value in subentry 22808.013 is renormalized

a) for new gold cross section

^{84}Kr(n,γ)^{85m}Kr serves only as a mediator, and should not be coded under MONITOR.

$^{22}Ne(n,\gamma)^{23}Ne$:

Actual data in EXFOR

```
* Data set#= 22808.014
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          DATA       ERR-T      MONIT-ERR
KEV         MB         MB         PER-CENT
---------------------------------------------
  1.0       0.296      0.019      3.
  1.2       0.270      0.017      3.
  1.4       0.250      0.016      3.
  1.6       0.234      0.015      3.
  1.8       0.221      0.014      3.
  2.0       0.210      0.013      3.
  2.5       0.188      0.012      3.
  3.0       0.172      0.011      3.
  4.0       0.149      0.010      3.
  5.0       0.133      0.009      3.
  6.0       0.122      0.008      3.
  7.0       0.113      0.007      3.
  8.0       0.106      0.007      3.
 10.0       0.095      0.006      3.
 12.0       0.087      0.006      3.
 15.0       0.078      0.005      3.
 17.0       0.073      0.005      3.
 20.0       0.068      0.004      3.
 21.0       0.065      0.004      3.
 25.0       0.062      0.004      3.
 30.0       0.058      0.004      3.
 35.0       0.056      0.004      3.
 40.0       0.056      0.005      3.
 50.0       0.061      0.007      3.
 52.0       0.063      0.008      3.
 60.0       0.069      0.011      3.
 70.0       0.077      0.014      3.
 80.0       0.085      0.017      3.
 90.0       0.091      0.019      3.
100.0       0.095      0.021      3.
104.0       0.097      0.021      3.
120.0       0.100      0.023      3.
149.0       0.100      0.024      3.
150.0       0.100      0.024      3.
180.0       0.094      0.023      3.
200.0       0.090      0.022      3.
215.0       0.086      0.022      3.
220.0       0.085      0.021      3.
230.0       0.082      0.021      3.
250.0       0.077      0.020      3.
---------------------------------------------
```

(See next page for the revised data.)

Revised data:

Correction for revised gold standard 622.7/582 =1.062 up to 50 keV, gradually reduced to 1.01 at 250 keV

```
* Revised Data set#= 22808.014
REACTION  =(10-NE-22(N,G)10-NE-23,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------------------
KT          DATA       ERR-T      MONIT-ERR
KEV         MB         MB         PER-CENT
---------------------------------------------
  1.0       0.314      0.018      1.
  1.2       0.287      0.015      1.
  1.4       0.266      0.014      1.
  1.6       0.249      0.013      1.
  1.8       0.235      0.012      1.
  2.0       0.223      0.011      1.
  2.5       0.200      0.010      1.
  3.0       0.183      0.010      1.
  4.0       0.158      0.009      1.
  5.0       0.141      0.008      1.
  6.0       0.130      0.007      1.
  7.0       0.120      0.006      1.
  8.0       0.113      0.006      1.
 10.0       0.101      0.005      1.
 12.0       0.092      0.005      1.
 15.0       0.083      0.004      1.
 17.0       0.078      0.004      1.
 20.0       0.072      0.003      1.
 21.0       0.069      0.003      1.
 25.0       0.066      0.003      1.
 30.0       0.062      0.003      1.
 35.0       0.059      0.004      1.
 40.0       0.059      0.005      1.
 50.0       0.065      0.007      1.
 52.0       0.066      0.008      1.
 60.0       0.073      0.012      1.
 70.0       0.081      0.015      1.
 80.0       0.089      0.018      1.
 90.0       0.096      0.020      1.
100.0       0.100      0.022      1.
104.0       0.101      0.022      1.
120.0       0.105      0.024      1.
149.0       0.105      0.024      1.
150.0       0.105      0.024      1.
180.0       0.098      0.024      1.
200.0       0.094      0.023      1.
215.0       0.088      0.022      1.
220.0       0.087      0.021      1.
230.0       0.084      0.021      1.
250.0       0.078      0.020      1.
---------------------------------------------
```

Comment:

cross section value in subentry 22808.014 is renormalized

a) for new gold cross section

$^{40}Ar(n,\gamma)^{41}Ar$:

Actual data in EXFOR

```
* Data set#= 22808.015
REACTION  =(18-AR-40(N,G)18-AR-41,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
```

KT KEV	DATA MB	ERR-T MB	MONIT-ERR PER-CENT
1.0	3.35	0.05	3.
1.2	3.08	0.05	3.
1.4	2.9	0.04	3.
1.6	2.78	0.04	3.
1.8	2.71	0.04	3.
2.0	2.68	0.04	3.
2.5	2.74	0.06	3.
3.0	2.88	0.08	3.
4.0	3.15	0.12	3.
5.0	3.3	0.14	3.
6.0	3.32	0.15	3.
7.0	3.27	0.16	3.
8.0	3.17	0.15	3.
10.0	2.96	0.15	3.
12.0	2.8	0.16	3.
15.0	2.66	0.18	3.
17.0	2.62	0.19	3.
20.0	2.59	0.22	3.
21.0	2.57	0.24	3.
25.0	2.56	0.26	3.
30.0	2.52	0.28	3.
35.0	2.46	0.3	3.
40.0	2.38	0.3	3.
50.0	2.23	0.29	3.
52.0	2.2	0.29	3.
60.0	2.08	0.27	3.
70.0	1.95	0.25	3.
80.0	1.83	0.23	3.
90.0	1.72	0.22	3.
100.0	1.63	0.2	3.
104.0	1.59	0.2	3.
120.0	1.46	0.18	3.
149.0	1.28	0.15	3.
150.0	1.27	0.15	3.
180.0	1.12	0.13	3.
200.0	1.03	0.11	3.
215.0	0.98	0.11	3.
220.0	0.96	0.1	3.
230.0	0.93	0.1	3.
250.0	0.86	0.09	3.

(See next page for the revised data.)

Revised data:

Correction for revised gold standard 622.7/582 =1.062 up to 50 keV, gradually reduced to 1.01 at 250 keV

```
* Revised Data set#= 22808.015
REACTION  =(18-AR-40(N,G)18-AR-41,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
```

KT KEV	DATA MB	ERR-T MB	MONIT-ERR PER-CENT
1.0	3.35	0.05	1.
1.2	3.08	0.05	1.
1.4	2.9	0.04	1.
1.6	2.78	0.04	1.
1.8	2.71	0.04	1.
2.0	2.70	0.04	1.
2.5	2.77	0.06	1.
3.0	2.94	0.08	1.
4.0	3.22	0.12	1.
5.0	3.43	0.14	1.
6.0	3.45	0.15	1.
7.0	3.39	0.15	1.
8.0	3.29	0.14	1.
10.0	3.17	0.13	1.
12.0	2.91	0.16	1.
15.0	2.77	0.18	1.
17.0	2.72	0.19	1.
20.0	2.69	0.22	1.
21.0	2.67	0.24	1.
25.0	2.66	0.26	1.
30.0	2.65	0.28	1.
35.0	2.58	0.3	1.
40.0	2.50	0.3	1.
50.0	2.32	0.29	1.
52.0	2.29	0.29	1.
60.0	2.16	0.27	1.
70.0	2.03	0.25	1.
80.0	1.88	0.23	1.
90.0	1.77	0.22	1.
100.0	1.68	0.2	1.
104.0	1.64	0.2	1.
120.0	1.50	0.18	1.
149.0	1.31	0.15	1.
150.0	1.30	0.15	1.
180.0	1.14	0.13	1.
200.0	1.04	0.11	1.
215.0	0.99	0.11	1.
220.0	0.97	0.1	1.
230.0	0.94	0.1	1.
250.0	0.87	0.1	1.

Comment:

cross section value in subentry 22808.015 is renormalized

a) for new gold cross section according to measured resonance contribution (see Fig. 8 in original paper)

**** Entry=22815 ****

^{126}Te(n,γ)$^{127m/t}$Te:

Actual data in EXFOR

```
* Data set#= 22815.005
* Data set#= 22815.006
* Data set#= 22815.007
```

Note: determination of isomeric ratio independent of gold cross section, revision of data sets in this entry is **not** required

****** Entry=22829 ******

^{147}Pm(n,γ)^{148g}Pm:

Actual data in EXFOR

```
* Data set#= 22829.002
REACTION  =(61-PM-147(N,G)61-PM-148-G,,SIG,,MXW)
DECAY-DATA=(61-PM-148-G,5.370D,DG,550.27,0.220,
                               DG,914.85,0.115)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        344.       62.        648.       10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 147Pm-g/197Au = 0.531±0.096

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22829.002
REACTION  =(61-PM-147(N,G)61-PM-148-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT-DUMMY   DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        362.       65.        681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22829.002 is renormalized

a) for new gold cross section

^{147}Pm(n,γ)^{148m}Pm:

Actual data in EXFOR

```
* Data set#= 22829.003
REACTION  =(61-PM-147(N,G)61-PM-148-M,,SIG,,MXW)
DECAY-DATA=(61-PM-148-M,41.29D,DG,550.27,0.945,
                               DG,629.97,0.886,
                               DG,725.70,0.327,
                               DG,915.33,0.171,
                               DG,1013.8,0.202)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        433.       61.        648.       10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 147Pm-m/197Au = 0.668±0.0964
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22829.003
REACTION  =(61-PM-147(N,G)61-PM-148-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT-DUMMY   DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        455.       64.        681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22829.003 is renormalized

a) for new gold cross section

$^{147}Pm(n,\gamma)^{148(g+m)}Pm$:

Actual data in EXFOR

```
* Data set#= 22829.004
REACTION  =(61-PM-147(N,G)61-PM-148,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         777.       116.       648.       10.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 147Pm/197Au = 1.199±0.180
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22829.004
REACTION  =(61-PM-147(N,G)61-PM-148,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT-DUMMY    DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
25.         817.       122.       681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22829.004 is renormalized

a) for new gold cross section

$^{147}Pm(n,\gamma)^{148g}Pm$:

Actual data in EXFOR

```
* Data set#= 22829.005
REACTION  =(61-PM-147(N,G)61-PM-148-G,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         313.        60.         582.        9.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22829.005
REACTION  =(61-PM-147(N,G)61-PM-148-G,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         329.        63.         611.6       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22829.005 is renormalized

a) for new gold cross section

$^{147}Pm(n,\gamma)^{148m}Pm$:

Actual data in EXFOR

```
* Data set#= 22829.006
REACTION  =(61-PM-147(N,G)61-PM-148-M,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         395.        55.         582.        9.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22829.006
REACTION  =(61-PM-147(N,G)61-PM-148-M,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG, MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA        ERR-T       MONIT       MONIT-ERR
KEV         MB          MB          MB          MB
-------------------------------------------------------
30.         415.        58.         611.6       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22829.006 is renormalized

a) for new gold cross section

$^{147}Pm(n,\gamma)^{148}Pm$:

Actual data in EXFOR

```
* Data set#= 22829.007
REACTION  =(61-PM-147(N,G)61-PM-148,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         709.       100.       582.       9.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22829.007
REACTION  =(61-PM-147(N,G)61-PM-148,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         745.       105.       611.6       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22829.007 is renormalized

a) for new gold cross section

$^{147}Pm(n,\gamma)^{148}Pm$:

Actual data in EXFOR

```
* Data set#= 22829.008
REACTION  =(61-PM-147(N,G)61-PM-148,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
----------------------
KT         DATA
KEV        MB
----------------------
  5.       2257.
  8.       1602.
 10.       1373.
 15.       1055.
 20.        887.
 25.        782.
 30.        709.
 40.        613.
 50.        553.
 60.        503.
 80.        455.
100.        418.
----------------------
```

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22829.008
REACTION  =(61-PM-147(N,G)61-PM-148,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
----------------------
KT         DATA
KEV        MB
----------------------
  5.       2372.
  8.       1684.
 10.       1443.
 15.       1109.
 20.        932.
 25.        822.
 30.        745.
 40.        644.
 50.        581.
 60.        529.
 80.        478.
100.        439.
----------------------
```

Comment:

cross section value in subentry 22829.008 is renormalized

a) for new gold cross section

****** Entry=22841 ******

^{171}Tm(n,γ)^{172}Tm:

Actual data in EXFOR

```
* Data set#= 22841.002
REACTION  =(69-TM-171(N,G)69-TM-172,,SIG,,MXW)
DECAY-DATA=(69-TM-172,63.6HR,DG,1094.)
ERR-ANALYS=(DATA-ERR) Not specified
---------------------------------
KT          DATA        DATA-ERR
KEV         MB          MB
---------------------------------
25.         350.        30.
---------------------------------
```

Gold standard for kT=25 keV: 648±10 mb

Revised data:

measured quantity: cross section ratio 147Pm-g/197Au = 0.531±0.096
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22841.002
REACTION  =(69-TM-171(N,G)69-TM-172,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) Not specified
-------------------------------------------------------
KT          DATA        DATA-ERR   MONIT      MONIT-ERR
KEV         MB          MB         MB         MB
-------------------------------------------------------
25.         362.        65.        681.       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22841.002 is renormalized

a) for new gold cross section

Note:

information on gamma intensity in decay of 172Tm is missing in original paper

****** Entry=22846 ******

$^{135}Cs(n,\gamma)^{136}Cs$:

Actual data in EXFOR

```
* Data set#= 22846.002
REACTION  =(55-CS-135(N,G)55-CS-136,,SIG,,SPA)
DECAY-DATA=(55-CS-136-G,13.16D,DG,818.5,0.997)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Not specified
-------------------------------------------------------
EN-MEAN    EN-RSL-FW  DATA       ERR-T      MONIT-ERR
KEV        KEV        MB         PER-CENT   PER-CENT
-------------------------------------------------------
30.        40.        164.       6.1        2.
-------------------------------------------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

measured quantity: cross section ratio 135Cs/197Au = 0.253±0.015
Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22846.002
REACTION  =(55-CS-135(N,G)55-CS-136,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------------------
EN-MEAN    EN-RSL-FW  DATA       ERR-T      MONIT      MONIT-ERR
KEV        KEV        MB         MB         MB         MB
-------------------------------------------------------------------
30.        40.        172.       10.        611.6      6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22846.002 is renormalized

a) for new gold cross section

This is not from irradiation under a quasi-Maxwellian spectrum.

$^{135}Cs(n,\gamma)^{136}Cs$:

Actual data in EXFOR

```
* Data set#= 22846.004
REACTION  =(55-CS-135(N,G)55-CS-136,,SIG,,,CALC)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Experimental uncertainty as well as additional
uncertainty due to extrapolation for data below 30 keV and above 500 keV
---------------------------------
EN         DATA       DATA-ERR
KEV        MB         MB
---------------------------------
    1.      1561.      156.
    3.       676.       68.
    5.       482.       48.
   10.       317.       28.
   20.       213.       17.
   30.       160.       10.
   40.       133.        9.
   50.       115.        8.
   60.       104.        7.
   80.        88.2       6.2
  100.        78.3       5.5
  200.        56.3       4.0
  300.        43.2       3.4
  400.        37.8       3.2
  500.        34.9       3.0
 1000.        30.6       3.8
---------------------------------
```

(See next page for the revised data.)

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22846.004
REACTION  =(55-CS-135(N,G)55-CS-136,,SIG,,,CALC)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,SPA)
ERR-ANALYS=(DATA-ERR) Experimental uncertainty as well as additional
uncertainty due to extrapolation for data below 30 keV and above 500 keV
---------------------------------
EN          DATA       DATA-ERR
KEV         MB         MB
---------------------------------
    1.      1641.      164.
    3.       710.       71.
    5.       507.       51.
   10.       333.       29.
   20.       224.       18.
   30.       168.       11.
   40.       140.        9.
   50.       121.        8.
   60.       109.        7.
   80.        92.7       6.5
  100.        82.3       5.8
  200.        59.2       4.2
  300.        45.4       3.6
  400.        39.7       3.4
  500.        36.7       3.2
 1000.        32.2       4.0
---------------------------------
```

Comment:

cross section value in subentry 22846.004 is renormalized

a) for new gold cross section

$^{135}Cs(n,\gamma)^{136}Cs$:

Actual data in EXFOR

```
* Data set#= 22846.006
REACTION  =(55-CS-135(N,G)55-CS-136,,SIG,,MXW,CALC)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) No information on source of uncertainties
---------------------------------
KT         DATA       DATA-ERR
KEV        MB         MB
---------------------------------
   5.       522.       52.
   8.       383.       36.
  10.       329.       30.
  15.       251.       21.
  20.       208.       17.
  25.       180.       13.
  30.       160.       10.
  40.       134.        8.7
  50.       117.        8.2
  60.       105.        7.3
  80.        88.0       6.2
 100.        78.7       5.7
---------------------------------
```

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 22846.006
REACTION  =(55-CS-135(N,G)55-CS-136,,SIG,,MXW,CALC)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,SPA)
ERR-ANALYS=(DATA-ERR) No information on source of uncertainties
---------------------------------
KT         DATA       DATA-ERR
KEV        MB         MB
---------------------------------
   5.       549.       55.
   8.       403.       38.
  10.       346.       32.
  15.       264.       22.
  20.       219.       18.
  25.       189.       14.
  30.       168.       11.
  40.       141.        9.1
  50.       123.        8.6
  60.       110.        7.7
  80.        92.5       6.5
 100.        82.7       6.0
---------------------------------
```

Comment:

cross section value in subentry 22846.006 is renormalized

a) for new gold cross section

****** Entry=22852 ******

$^{208}Pb(n,\gamma)^{209}Pb$:

Actual data in EXFOR

```
* Data set#= 22852.002
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG)
RAD-DET   =(82-PB-209,B-)
RAD-DET   =(79-AU-198,B-)
ERR-ANALYS=(DATA-ERR). The uncertainty is reported by authors in figure.
ERR-ANALYS=(EN-ERR). The error is reported by authors in figure.
```

EN KEV	EN-ERR KEV	DATA MB	DATA-ERR MB
30.	5.	9.7E-02	2.9E-02
103.	15.	0.24	3. E-02
149.	14.	0.27	5. E-02
215.	21.	0.31	5. E-02

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: not given, estimated as 586±10 mb.
Data scanned from figure.

Revised data:

measured quantity at 30±5 keV: cross section ratio 208Pb/197Au = (1.8±0.5) E-04
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22852.002
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,SPA)
ERR-ANALYS=(DATA-ERR). The uncertainty is reported by authors in figure.
ERR-ANALYS=(EN-ERR). The error is reported by authors in figure.
```

EN KEV	EN-ERR KEV	DATA MB	DATA-ERR MB
30.	5.	10.3E-02	3.1E-02
103.	15.	0.25	3.2E-02
149.	14.	0.29	5.3E-02
215.	21.	0.33	5.3E-02

Comment:

cross section value in subentry 22852.002 is renormalized

a) for new gold cross section

$^{208}Pb(n,\gamma)^{209}Pb$:

Actual data in EXFOR

```
* Data set#= 22852.003
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,MXW)
RAD-DET   =(82-PB-209,B-)
RAD-DET   =(79-AU-198,B-)
ERR-ANALYS=(DATA-ERR). The uncertainty is reported by authors in figure.
---------------------------------
KT         DATA       DATA-ERR
KEV        MB         MB
---------------------------------
25.        0.33       7.E-02
52.        0.29       8.E-02
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: not given, estimated as 586±10 mb.
Data scanned from figure.

Revised data:

Correction for revised gold standard, 25 keV 622.7/586 =1.062
Correction for revised gold standard, 52 keV 463/442 =1.048

```
* Revised Data set#= 22852.003
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR). The uncertainty is reported by authors in figure.
---------------------------------
KT         DATA       DATA-ERR
KEV        MB         MB
---------------------------------
25.        0.35       7.E-02
52.        0.30       8.E-02
---------------------------------
```

Comment:

cross section value in subentry 22852.003 is renormalized

a) for new gold cross section

****** Entry=22879 ******

$^{139}La(n,\gamma)^{140}La$:

Actual data in EXFOR

```
* Data set#= 22879.002
REACTION  =(57-LA-139(N,G)57-LA-140,,SIG,,MXW)
DECAY-DATA=(57-LA-140,1.6781D,DG,328.76,0.203,
                              DG,487.02,0.455,
                              DG,815.77,0.233,
                              DG,1596.2,0.954)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
-------------------------------------------------------
EN         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        33.2       0.7        586.       8.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb
Note: cross section for experimental spectrum, not KT=30 keV

Revised data:

measured quantity: cross section ratio 139La/197Au = 0.0567±0.0010
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22879.002
REACTION  =(57-LA-139(N,G)57-LA-140,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
-------------------------------------------------------
KT-DUMMY   DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        35.3       0.7        622.7      6.2
-------------------------------------------------------
```

Comment:

cross section value in subentry 22879.002 is renormalized

a) for new gold cross section

$^{139}La(n,\gamma)^{140}La$:

Actual data in EXFOR

```
* Data set#= 22879.003
REACTION  =(57-LA-139(N,G)57-LA-140,,SIG,,MXW)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) The error reported by authors in table 6.
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
   5.       104.
   8.       76.3
  10.       65.8
  15.       50.0
  20.       41.3
  23.       37.7
  25.       35.7       0.7
  30.       31.6       0.7
  40.       26.0
  50.       22.4
  60.       19.8
  80.       16.3
 100.       14.1
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22879.003
REACTION  =(57-LA-139(N,G)57-LA-140,,SIG,,MXW)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) The error reported by authors in table 6.
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
   5.       110.
   8.       81.0
  10.       69.9
  15.       53.1
  20.       43.9
  23.       40.0
  25.       37.9       0.8
  30.       33.6       0.8
  40.       27.6
  50.       23.8
  60.       21.0
  80.       17.3
 100.       15.0
---------------------------------
```

Comment:

cross section value in subentry 22879.003 is renormalized

a) for new gold cross section

****** Entry=22883 ******

^{208}Pb(n,γ)^{209}Pb:

Actual data in EXFOR

```
* Data set#= 22883.002
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,MXW/RAW)
DECAY-DATA=(82-PB-209,3.25HR,B-)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.265      0.015      25.        1.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 208Pb/197Au = (4.52±0.26) E-04
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22883.002
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.281       0.016     25.        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 22883.002 is renormalized

a) for new gold cross section

$^{208}Pb(n,\gamma)^{209}Pb$:

Actual data in EXFOR

```
* Data set#= 22883.003
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,MXW/RAW)
DECAY-DATA=(82-PB-209,3.25HR,B-)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.292       0.016     25.        1.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 208Pb/197Au = (4.98±0.27) E-04
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22883.003
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.310      0.017      25.        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 22883.003 is renormalized

a) for new gold cross section

$^{208}Pb(n,\gamma)^{209}Pb$:

Actual data in EXFOR

```
* Data set#= 22883.004
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,MXW/RAW)
DECAY-DATA=(82-PB-209,3.25HR,B-)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.292      0.015      25.        1.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 208Pb/197Au = (4.98±0.26) E-04
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22883.004
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.310      0.015      25.        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 22883.004 is renormalized

a) for new gold cross section

$^{208}Pb(n,\gamma)^{209}Pb$:

Actual data in EXFOR

```
* Data set#= 22883.005
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,MXW/RAW)
DECAY-DATA=(82-PB-209,3.25HR,B-)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.269      0.012      25.        1.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 208Pb/197Au = (4.59±0.20) E-04
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22883.005
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.286      0.012      25.        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 22883.005 is renormalized

a) for new gold cross section

$^{209}Bi(n,\gamma)^{210g}Bi$:

Actual data in EXFOR

```
* Data set#= 22883.006
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW/RAW)
DECAY-DATA=(83-BI-210-G,5.01D,B-)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
2.46       0.10       25.        1.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (209Bi(n,g)210Bi-g)/197Au = 0.00420±0.00017

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22883.006
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
2.61       0.10       25.        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 22883.006 is renormalized

a) for new gold cross section

$^{209}Bi(n,\gamma)^{210g}Bi$:

Actual data in EXFOR

```
* Data set#= 22883.007
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW/RAW)
DECAY-DATA=(83-BI-210-G,5.01D,B-)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
2.27       0.10       25.        1.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (209Bi(n,g)210Bi-g)/197Au = 0.00387±0.00017

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22883.007
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
2.41       0.10       25.        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 22883.007 is renormalized

a) for new gold cross section

$^{209}Bi(n,\gamma)^{210g}Bi$:

Actual data in EXFOR

```
* Data set#= 22883.008
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW/RAW)
DECAY-DATA=(83-BI-210-G,5.01D,B-)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
2.45       0.10       25.        1.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (209Bi(n,g)210Bi-g)/197Au = 0.00418±0.00017

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22883.008
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
2.60       0.10       25.        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 22883.008 is renormalized

a) for new gold cross section

$^{208}Pb(n,\gamma)^{209}Pb$:

Actual data in EXFOR

```
* Data set#= 22883.009
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,MXW,RECOM)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.31       0.02       25.        1.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 208Pb/197Au = (5.29±0.34) E-04
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22883.009
REACTION  =(82-PB-208(N,G)82-PB-209,,SIG,,MXW,RECOM)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
0.33       0.02       25.        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 22883.009 is renormalized

a) for new gold cross section

$^{209}Bi(n,\gamma)^{210g}Bi$:

Actual data in EXFOR

```
* Data set#= 22883.010
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW,RECOM)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
2.54       0.15       25.        1.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (209Bi(n,g)210Bi-g)/197Au = 0.00433±0.00026

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22883.010
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) TOTAL ERROR
---------------------------------------------
DATA       ERR-T      KT         MONIT-ERR
MB         MB         KEV        PER-CENT
---------------------------------------------
2.70       0.16       25.        1.0
---------------------------------------------
```

Comment:

cross section value in subentry 22883.010 is renormalized

a) for new gold cross section

****** Entry=22892 ******

$^{74}Se(n,\gamma)^{75}Se$:

Actual data in EXFOR

```
* Data set#= 22892.007
REACTION  =(34-SE-74(N,G)34-SE-75,,SIG,,MXW)
DECAY-DATA=(34-SE-75,119.79D,DG,136.0,0.583,
                             DG,264.7,0.589)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error without error of the gold monitor
-------------------------------------------------------------------
KT         KT-ERR     DATA       ERR-T      MONIT      MONIT-ERR
KEV        KEV        MB         MB         MB         MB
-------------------------------------------------------------------
25.        0.5        281.       16.        586.       8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 74Se/197Au = 0.480±0.027
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22892.007
REACTION  =(34-SE-74(N,G)34-SE-75,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR including error of the gold monitor
-------------------------------------------------------------------
KT-DUMMY   KT-ERR     DATA       ERR-T      MONIT      MONIT-ERR
KEV        KEV        MB         MB         MB         MB
-------------------------------------------------------------------
25.       0.5         298.       17.        622.7      6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22892.007 is renormalized

a) for new gold cross section

$^{84}Sr(n,\gamma)^{85g}Sr$:

Actual data in EXFOR

```
* Data set#= 22892.008.1
REACTION  =(38-SR-84(N,G)38-SR-85-G,,SIG,,MXW)
DECAY-DATA=(38-SR-85-G,64.8D,DG,514.,0.96)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error without error of the gold monitor
-------------------------------------------------------------------
KT          KT-ERR      DATA        ERR-T       MONIT       MONIT-ERR
KEV         KEV         MB          MB          MB          MB
-------------------------------------------------------------------
25.         0.5         112.        8.          586.        8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (84Sr(n,g)85Sr-g)/197Au = 0.191±0.014
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22892.008.1
REACTION  =(38-SR-84(N,G)38-SR-85-G,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR including error of the gold monitor
-------------------------------------------------------------------
KT-DUMMY    KT-ERR      DATA        ERR-T       MONIT       MONIT-ERR
KEV         KEV         MB          MB          MB          MB
-------------------------------------------------------------------
25.         0.5         119.        9.          622.7       6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22892.008.1 is renormalized

a) for new gold cross section

$^{84}Sr(n,\gamma)^{85m}Sr$:

Actual data in EXFOR

```
* Data set#= 22892.008.2
REACTION  =(38-SR-84(N,G)38-SR-85-M,,SIG,,MXW)
DECAY-DATA=(38-SR-85-M,67.6MIN,DG,151.2,0.129,
                               DG,231.9,0.844)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error without error of the gold monitor
-------------------------------------------------------------------
KT         KT-ERR     DATA       ERR-T      MONIT      MONIT-ERR
KEV        KEV        MB         MB         MB         MB
-------------------------------------------------------------------
25.        0.5        189.       10.        586.         8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (84Sr(n,g)85Sr-m)/197Au = 0.323±0.017

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22892.008.2
REACTION  =(38-SR-84(N,G)38-SR-85-M,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR including error of the gold monitor
-------------------------------------------------------------------
KT-DUMMY   KT-ERR     DATA       ERR-T      MONIT      MONIT-ERR
KEV        KEV        MB         MB         MB         MB
-------------------------------------------------------------------
25.        0.5        201.       11.        622.7      6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22892.008.2 is renormalized

a) for new gold cross section

$^{84}Sr(n,\gamma)^{85}Sr$:

Actual data in EXFOR

```
* Data set#= 22892.009
REACTION  =(38-SR-84(N,G)38-SR-85,,SIG,,MXW)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error without error of the gold monitor
-------------------------------------------------------------------
KT         KT-ERR     DATA       ERR-T      MONIT      MONIT-ERR
KEV        KEV        MB         MB         MB         MB
-------------------------------------------------------------------
25.        0.5        301.       18.        586.       8.
-------------------------------------------------------------------
Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb
```

Revised data:

measured quantity: cross section ratio 84Sr/197Au = 0.514±0.031
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22892.009
REACTION  =(38-SR-84(N,G)38-SR-85,,SIG,,SPA
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) TOTAL ERROR including error of the gold monitor
-------------------------------------------------------------------
KT-DUMMY   KT-ERR     DATA       ERR-T      MONIT      MONIT-ERR
KEV        KEV        MB         MB         MB         MB
-------------------------------------------------------------------
25.        0.5        320.       19.        622.7      6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22892.009 is renormalized

a) for new gold cross section

$^{84}Sr(n,\gamma)^{85m/t}Sr$:

Actual data in EXFOR

```
* Data set#= 22892.010
REACTION  =(38-SR-84(N,G)38-SR-85-M/T,,SIG/RAT,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error without error of the gold monitor
-------------------------------------------------------------------
KT-DUMMY   KT-ERR     DATA       ERR-T      MONIT      MONIT-ERR
KEV        KEV        MB         MB         MB         MB
-------------------------------------------------------------------
25.        0.5        0.63       0.04       586.       8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb
Revision not required because gold cross section cancels out in the ratio
84Sr(n,γ)85Sr-m/tot

$^{74}Se(n,\gamma)^{75}Se$:

Actual data in EXFOR

```
* Data set#= 22892.011
REACTION  =(34-SE-74(N,G)34-SE-75,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
-------------------------------------------------------
KT         DATA       MONIT      MONIT-ERR  ERR-T
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       775.
 10.       500.
 15.       395.
 20.       337.
 25.       298.       586.       8.        5.7
 30.       271.
 40.       233.
 50.       209.
 60.       192.
 80.       170.
100.       157.
170.       133.
215.       123.
260.       115.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb
Maxwellian averages for other kT values derived using energy dependence from JEFF-3.0

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22892.011
REACTION  =(34-SE-74(N,G)34-SE-75,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
-------------------------------------------------------
KT         DATA       MONIT      MONIT-ERR  ERR-T
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       823.
 10.       531.
 15.       419.
 20.       358.
 25.       316.       622.7.     6.        5.6
 30.       288.
 40.       247.
 50.       222.
 60.       204.
 80.       181.
100.       167.
170.       141.
215.       131.
260.       122.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22892.011 is renormalized

a) for new gold cross section

$^{84}Sr(n,\gamma)^{85}Sr$:

Actual data in EXFOR

```
* Data set#= 22892.013
REACTION  =(38-SR-84(N,G)38-SR-85,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
-------------------------------------------------------
KT         DATA       MONIT      MONIT-ERR  ERR-T
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       683.
 10.       499.
 15.       413.
 20.       361.
 25.       326.       586.       8.         7.9
 30.       300.
 40.       264.
 50.       240.
 60.       224.
 80.       201.
100.       187.
170.       167.
215.       164.
260.       161.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb
Maxwellian averages for other kT values derived using energy dependence from JEFF-3.0

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22892.013
REACTION  =(38-SR-84(N,G)38-SR-85,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
-------------------------------------------------------
KT         DATA       MONIT      MONIT-ERR  ERR-T
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       725.
 10.       530.
 15.       439.
 20.       383.
 25.       346.       622.7      6.         7.8
 30.       319.
 40.       280.
 50.       255.
 60.       238.
 80.       213.
100.       199.
170.       177.
215.       174.
260.       171.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22892.013 is renormalized

a) for new gold cross section

$^{74}Se(n,\gamma)^{75}Se$:

Actual data in EXFOR

```
* Data set#= 22892.015
REACTION  =(34-SE-74(N,G)34-SE-75,,SIG,,,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS= <DATA-ERR> The uncertainty is reported by authors in table.
Errors are not specified <ERR-T> Supposed by compiler when err.structure
given
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        271.       15.        586.       8.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22892.015
REACTION  =(34-SE-74(N,G)34-SE-75,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS= <DATA-ERR> The uncertainty is reported by authors in table.
Errors are not specified <ERR-T> Supposed by compiler when err.structure
given
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        288.       16.        622.7       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22892.015 is renormalized

a) for new gold cross section

$^{84}Sr(n,\gamma)^{85}Sr$:

Actual data in EXFOR

```
* Data set#= 22892.016
REACTION  =(38-SR-84(N,G)38-SR-85,,SIG,,,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS= <DATA-ERR> The uncertainty is reported by authors in table.
Errors are not specified <ERR-T> Supposed by compiler when err.structure
given
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        300.       17.        586.       8.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22892.016 MXW
REACTION  =(38-SR-84(N,G)38-SR-85,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS= <DATA-ERR> The uncertainty is reported by authors in table.
Errors are not specified <ERR-T> Supposed by compiler when err.structure
given
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        319.       18.        622.7       6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22892.016 is renormalized

a) for new gold cross section

$^{84}Sr(n,\gamma)^{85m}Sr$:

Actual data in EXFOR

```
* Data set#= 22892.017
REACTION  =(38-SR-84(N,G)38-SR-85-M,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS= <DATA-ERR> The uncertainty is reported by authors in table.
Errors are not specified <ERR-T> Supposed by compiler when err.structure
given
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        190.       10.        586.       8.
-------------------------------------------------------
```

Gold standard for kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22892.017
REACTION  =(38-SR-84(N,G)38-SR-85-M,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS= <DATA-ERR> The uncertainty is reported by authors in table.
Errors are not specified <ERR-T> Supposed by compiler when err.structure
given
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        202.       10.        622.7      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22892.017 is renormalized

a) for new gold cross section

****** Entry=22939 ******

$^{120}Te(n,\gamma)^{121m}Te$:

Actual data in EXFOR

```
* Data set#= 22939.002.1
REACTION  =(52-TE-120(N,G)52-TE-121-M,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) No information about source of uncertainties
-----------------------------------------------------------------
DATA       DATA-ERR   KT-NRM     MONIT      MONIT-ERR  KT
MB         MB         KEV        MB         MB         KEV
-----------------------------------------------------------------
61.        2.         25.        586.       8.         30.
-----------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.002.1
REACTION  =(52-TE-120(N,G)52-TE-121-M,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) No information about source of uncertainties
-----------------------------------------------------------------
DATA       DATA-ERR   KT-NRM     MONIT      MONIT-ERR  KT
MB         MB         KEV        MB         MB         KEV
-----------------------------------------------------------------
65.        2.         25.        586.       8.         30.
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22939.002.1 is renormalized

a) for new gold cross section

This data set is superseded by the result compiled in 22939.011 from Phys.Rev.C81(2010)015801.

$^{120}Te(n,\gamma)^{121g}Te$:

Actual data in EXFOR

```
* Data set#= 22939.002.2
REACTION  =(52-TE-120(N,G)52-TE-121-G,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) No information about source of uncertainties
-------------------------------------------------------------------
DATA       DATA-ERR   KT-NRM     MONIT      MONIT-ERR  KT
MB         MB         KEV        MB         MB         KEV
-------------------------------------------------------------------
390.       16.        25.        586.       8.         30.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.002.2
REACTION  =(52-TE-120(N,G)52-TE-121-G,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) No information about source of uncertainties
-------------------------------------------------------------------
DATA       DATA-ERR   KT-NRM     MONIT      MONIT-ERR  KT
MB         MB         KEV        MB         MB         KEV
-------------------------------------------------------------------
414.       16.        25.        586.       8.         30.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22939.002.2 is renormalized

a) for new gold cross section

This data set is superseded by the result compiled in 22939.009 from Phys.Rev.C81(2010)015801.

$^{102}Pd(n,\gamma)^{103}Pd$:

Actual data in EXFOR

```
* Data set#= 22939.006
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,SPA)
DECAY-DATA=(46-PD-103,16.991D,DG,357.5,0.000221)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT KEV	KT-ERR KEV
374.	18.	25.	586.	8.	25.	0.5
357.	17.	25.	586.	8.	25.	0.5
403.	19.	25.	586.	8.	25.	0.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: average cross section ratio 102Pd/197Au = 0.645±0.029
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.006
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT-DUMMY KEV	KT-ERR KEV
397.	19.	25.	622.7	6.	25.	0.5
379.	18.	25.	622.7	6.	25.	0.5
428.	20.	25.	622.7	6.	25.	0.5

Comment:

cross section value in subentry 22939.006 is renormalized

a) for new gold cross section

$^{102}Pd(n,\gamma)^{103}Pd$:

Actual data in EXFOR

```
* Data set#= 22939.007
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT         KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
376.       17.        25.        586.       8.         25.        0.5
-----------------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 102Pd/197Au = 0.642±0.029
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.007
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT-DUMMY   KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
399.       17.        25.        622.7      6.         25.        0.5
-----------------------------------------------------------------------------
```

Comment:

cross section value in subentry 22939.007 is renormalized

a) for new gold cross section

$^{120}Te(n,\gamma)^{121g}Te$:

Actual data in EXFOR

```
* Data set#= 22939.008
REACTION  =(52-TE-120(N,G)52-TE-121-G,,SIG,,SPA)
DECAY-DATA=(52-TE-121-G,19.16D,DG,573.1,0.803)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT KEV	KT-ERR KEV
474.4	22.9	25.	586.	8.	25.	0.5
465.5	22.4	25.	586.	8.	25.	0.5
484.0	23.2	25.	586.	8.	25.	0.5
462.2	22.3	25.	586.	8.	25.	0.5
468.2	22.7	25.	586.	8.	25.	0.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: average cross section ratio (120Te(nγ)121Te-g)/197Au = 0.804±0.039
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.008
REACTION  =(52-TE-120(N,G)52-TE-121-G,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT-DUMMY KEV	KT-ERR KEV
503.8	23.7	25.	622.7	6.	25.	0.5
494.4	23.1	25.	622.7	6.	25.	0.5
514.0	24.0	25.	622.7	6.	25.	0.5
490.8	23.0	25.	622.7	6.	25.	0.5
497.2	23.5	25.	622.7	6.	25.	0.5

Comment:

cross section value in subentry 22939.008 is renormalized

a) for new gold cross section

$^{120}Te(n,\gamma)^{121g}Te$:

Actual data in EXFOR

```
* Data set#= 22939.009
REACTION  =(52-TE-120(N,G)52-TE-121-G,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT         KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
470.6      22.7       25.        586.       8.         25.        0.5
-----------------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (120Te(nγ)121Te-g)/197Au = 0.803±0.039
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.009
REACTION  =(52-TE-120(N,G)52-TE-121-G,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT-DUMMY   KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
499.8      23.5       25.        622.7      6.         25.        0.5
-----------------------------------------------------------------------------
```

Comment:

cross section value in subentry 22939.009 is renormalized

a) for new gold cross section

$^{120}Te(n,\gamma)^{121m}Te$:

Actual data in EXFOR

```
* Data set#= 22939.010
REACTION  =(52-TE-120(N,G)52-TE-121-M,,SIG,,SPA)
DECAY-DATA=(52-TE-121-M,154.D,DG,212.2,0.814)
                             ,DG,1102.1,0.0254)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT KEV	KT-ERR KEV
66.6	2.8	25.	586.	8.	25.	0.5
70.1	2.9	25.	586.	8.	25.	0.5
66.5	2.8	25.	586.	8.	25.	0.5
65.7	2.9	25.	586.	8.	25.	0.5
69.4	3.1	25.	586.	8.	25.	0.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: average cross section ratio (120Te(nγ)121Te-m)/197Au = 0.116±0.005
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.010
REACTION  =(52-TE-120(N,G)52-TE-121-M,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT-DUMMY KEV	KT-ERR KEV
70.7	2.9	25.	622.7	6.	25.	0.5
74.4	3.0	25.	622.7	6.	25.	0.5
70.6	2.9	25.	622.7	6.	25.	0.5
69.8	3.0	25.	622.7	6.	25.	0.5
73.7	3.2	25.	622.7	6.	25.	0.5

Comment:

cross section value in subentry 22939.010 is renormalized

a) for new gold cross section

$^{120}Te(n,\gamma)^{121m}Te$:

Actual data in EXFOR

```
* Data set#= 22939.011
REACTION  =(52-TE-120(N,G)52-TE-121-M,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT         KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
67.6       2.9        25.        586.       8.         25.        0.5
-----------------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (120Te(nγ)121Te-m)/197Au = 0.115±0.005
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.011
REACTION  =(52-TE-120(N,G)52-TE-121-M,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT-DUMMY   KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
71.8       3.0        25.        622.7      6.         25.        0.5
-----------------------------------------------------------------------------
```

Comment:

cross section value in subentry 22939.011 is renormalized

a) for new gold cross section

$^{120}Te(n,\gamma)^{121}Te$:

Actual data in EXFOR

```
* Data set#= 22939.012
REACTION  =(52-TE-120(N,G)52-TE-121,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT         KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
538.2      25.6       25.        586.       8.         25.        0.5
-----------------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.012
REACTION  =(52-TE-120(N,G)52-TE-121,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT-DUMMY   KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
571.6      26.4       25.        622.7      6.         25.        0.5
-----------------------------------------------------------------------------
```

Comment:

cross section value in subentry 22939.012 is renormalized

a) for new gold cross section

$^{130}Ba(n,\gamma)^{131}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.013
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,SPA)
DECAY-DATA=(56-BA-131-G,11.50D,DG,216.1,0.204,
                               DG,373.2,0.140)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT KEV	KT-ERR KEV
724.	29.	25.	586.	8.	25.	0.5
748.	29.	25.	586.	8.	25.	0.5
718.	27.	25.	586.	8.	25.	0.5
737.	29.	25.	586.	8.	25.	0.5
752.	30.	25.	586.	8.	25.	0.5
743.	29.	25.	586.	8.	25.	0.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 130Ba/197Au = 1.258±0.049
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.013
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT-DUMMY KEV	KT-ERR KEV
769.	30.	25.	622.7	6.	25.	0.5
794.	29.	25.	622.7	6.	25.	0.5
763.	27.	25.	622.7	6.	25.	0.5
783.	30.	25.	622.7	6.	25.	0.5
799.	31.	25.	622.7	6.	25.	0.5
789.	30.	25.	622.7	6.	25.	0.5

Comment:

cross section value in subentry 22939.013 is renormalized

a) for new gold cross section

$^{130}Ba(n,\gamma)^{131}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.014
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT KEV	KT-ERR KEV
736.	29.	25.	586.	8.	25.	0.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 130Ba/197Au = 1.256±0.049
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.014
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT-DUMMY KEV	KT-ERR KEV
782.	30.	25.	622.7	6.	25.	0.5

Comment:

cross section value in subentry 22939.014 is renormalized

a) for new gold cross section

$^{132}Ba(n,\gamma)^{133}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.015
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,SPA)
DECAY-DATA=(56-BA-133-G,10.52YR,DG,356.0,0.6205)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT KEV	KT-ERR KEV
396.0	15.2	25.	586.	8.	25.	0.5
403.9	15.6	25.	586.	8.	25.	0.5
381.8	13.7	25.	586.	8.	25.	0.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 132Ba/197Au = 0.672±0.025
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.015
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT-DUMMY KEV	KT-ERR KEV
420.6	15.4	25.	622.7	6.	25.	0.5
428.9	15.9	25.	622.7	6.	25.	0.5
405.5	13.8	25.	622.7	6.	25.	0.5

Comment:

cross section value in subentry 22939.015 is renormalized

a) for new gold cross section

$^{132}Ba(n,\gamma)^{133}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.016
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT         KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
392.8      14.8       25.        586.       8.         25.        0.5
-----------------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 132Ba/197Au = 0.670±0.049
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.016
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
-----------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT-DUMMY   KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-----------------------------------------------------------------------------
417.2      15.0       25.        622.7      6.         25.        0.5
-----------------------------------------------------------------------------
```

Comment:

cross section value in subentry 22939.016 is renormalized

a) for new gold cross section

^{156}Dy(n,γ)^{157}Dy:

Actual data in EXFOR

```
* Data set#= 22939.017
REACTION  =(66-DY-156(N,G)66-DY-157,,SIG,,SPA)
DECAY-DATA=(66-DY-157,8.14HR,DG,326.3,0.93)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT KEV	KT-ERR KEV
1669.	121.	25.	586.	8.	25.	0.5
1638.	114.	25.	586.	8.	25.	0.5
1619.	114.	25.	586.	8.	25.	0.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: average cross section ratio 156Dy/197Au = 2.802±0.198
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.017
REACTION  =(66-DY-156(N,G)66-DY-157,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty including respective uncertainty of
gold
```

DATA MB	ERR-T MB	KT-NRM KEV	MONIT MB	MONIT-ERR MB	KT-DUMMY KEV	KT-ERR KEV
1772.	127.	25.	622.7	6.	25.	0.5
1740.	120.	25.	622.7	6.	25.	0.5
1719.	120.	25.	622.7	6.	25.	0.5

Comment:

cross section value in subentry 22939.017 is renormalized

a) for new gold cross section

^{156}Dy(n,γ)^{157}Dy:

Actual data in EXFOR

```
* Data set#= 22939.018
REACTION  =(66-DY-156(N,G)66-DY-157,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT         KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-------------------------------------------------------------------------------
1641.      117.       25.        586.       8.         25.        0.5
-------------------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 132Ba/197Au = 2.80±0.20
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.018
REACTION  =(66-DY-156(N,G)66-DY-157,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------------------
DATA       ERR-T      KT-NRM     MONIT      MONIT-ERR  KT-DUMMY   KT-ERR
MB         MB         KEV        MB         MB         KEV        KEV
-------------------------------------------------------------------------------
1743.      123.       25.        622.7      6.         25.        0.5
-------------------------------------------------------------------------------
```

Comment:

cross section value in subentry 22939.018 is renormalized

a) for new gold cross section

$^{102}Pd(n,\gamma)^{103}Pd$:

Actual data in EXFOR

```
* Data set#= 22939.019.1
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	1ERR-T MB	1KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	835.	41.	25.	586.	8.
10.	611.	29.	25.	586.	8.
15.	511.	24.	25.	586.	8.
20.	449.	21.	25.	586.	8.
25.	405.	18.	25.	586.	8.
30.	371.	17.	25.	586.	8.
40.	323.	15.	25.	586.	8.
50.	292.	13.	25.	586.	8.
60.	270.	12.	25.	586.	8.
80.	243.	11.	25.	586.	8.
100.	225.	10.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from ENDF/B-VII.0 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.019.1
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	1ERR-T MB	1KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	887.	42.	25.	622.7	6.
10.	649.	30.	25.	622.7	6.
15.	543.	25.	25.	622.7	6.
20.	477.	22.	25.	622.7	6.
25.	430.	18.	25.	622.7	6.
30.	394.	18.	25.	622.7	6.
40.	343.	15.	25.	622.7	6.
50.	310.	13.	25.	622.7	6.
60.	287.	12.	25.	622.7	6.
80.	258.	11.	25.	622.7	6.
100.	239.	10.	25.	622.7	6.

Comment:

cross section value in subentry 22939.019.1 is renormalized

a) for new gold cross section

$^{102}Pd(n,\gamma)^{103}Pd$:

Actual data in EXFOR

```
* Data set#= 22939.019.2
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	2ERR-T MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	913.	41.	25.	586.	8.
10.	657.	30.	25.	586.	8.
15.	534.	24.	25.	586.	8.
20.	458.	21.	25.	586.	8.
25.	404.	18.	25.	586.	8.
30.	365.	16.	25.	586.	8.
40.	311.	14.	25.	586.	8.
50.	275.	12.	25.	586.	8.
60.	250.	11.	25.	586.	8.
80.	218.	10.	25.	586.	8.
100.	198.	9.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from JEFF 3.0A/3.1 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.019.2
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	2ERR-T MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	970.	42.	25.	622.7	6.
10.	698.	31.	25.	622.7	6.
15.	567.	25.	25.	622.7	6.
20.	486.	22.	25.	622.7	6.
25.	429.	19.	25.	622.7	6.
30.	388.	16.	25.	622.7	6.
40.	330.	14.	25.	622.7	6.
50.	292.	12.	25.	622.7	6.
60.	266.	11.	25.	622.7	6.
80.	232.	10.	25.	622.7	6.
100.	210.	9.	25.	622.7	6.

Comment:

cross section value in subentry 22939.019.2 is renormalized

a) for new gold cross section

$^{102}Pd(n,\gamma)^{103}Pd$:

Actual data in EXFOR

```
* Data set#= 22939.019.3
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	3ERR-T MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	905.	36.	25.	586.	8.
10.	644.	27.	25.	586.	8.
15.	527.	23.	25.	586.	8.
20.	455.	20.	25.	586.	8.
25.	406.	18.	25.	586.	8.
30.	370.	17.	25.	586.	8.
40.	321.	15.	25.	586.	8.
50.	289.	13.	25.	586.	8.
60.	267.	12.	25.	586.	8.
80.	239.	11.	25.	586.	8.
100.	222.	10.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from JENDL 3.1 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.019.3
REACTION  =(46-PD-102(N,G)46-PD-103,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	3ERR-T MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	961.	37.	25.	586.	8.
10.	684.	28.	25.	586.	8.
15.	560.	24.	25.	586.	8.
20.	483.	21.	25.	586.	8.
25.	431.	18.	25.	586.	8.
30.	393.	18.	25.	586.	8.
40.	341.	15.	25.	586.	8.
50.	307.	13.	25.	586.	8.
60.	284.	12.	25.	586.	8.
80.	254.	11.	25.	586.	8.
100.	236.	10.	25.	586.	8.

Comment:

cross section value in subentry 22939.019.3 is renormalized

a) for new gold cross section

$^{120}Te(n,\gamma)^{121}Te$:

Actual data in EXFOR

```
* Data set#= 22939.020.1
REACTION  =(52-TE-120(N,G)52-TE-121,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	1DATA-ERR MB	1KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1319.	58.	25.	586.	8.
10.	919.	42.	25.	586.	8.
15.	749.	35.	25.	586.	8.
20.	649.	31.	25.	586.	8.
25.	583.	28.	25.	586.	8.
30.	535.	26.	25.	586.	8.
40.	472.	22.	25.	586.	8.
50.	431.	21.	25.	586.	8.
60.	403.	19.	25.	586.	8.
80.	368.	18.	25.	586.	8.
100.	348.	17.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from ENDF/B-VII.0 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.020.1
REACTION  =(52-TE-120(N,G)52-TE-121,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	1DATA-ERR MB	1KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1401.	60.	25.	622.7	6.
10.	976.	43.	25.	622.7	6.
15.	795.	36.	25.	622.7	6.
20.	689.	32.	25.	622.7	6.
25.	619.	29.	25.	622.7	6.
30.	568.	27.	25.	622.7	6.
40.	501.	23.	25.	622.7	6.
50.	458.	22.	25.	622.7	6.
60.	428.	20.	25.	622.7	6.
80.	391.	19.	25.	622.7	6.
100.	348.	18.	25.	622.7	6.

Comment:

cross section value in subentry 22939.020.1 is renormalized

a) for new gold cross section

$^{120}Te(n,\gamma)^{121}Te$:

Actual data in EXFOR

```
* Data set#= 22939.020.2
REACTION  =(52-TE-120(N,G)52-TE-121,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	2DATA-ERR MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1215.	63.	25.	586.	8.
10.	880.	44.	25.	586.	8.
15.	733.	36.	25.	586.	8.
20.	645.	31.	25.	586.	8.
25.	585.	28.	25.	586.	8.
30.	540.	26.	25.	586.	8.
40.	478.	22.	25.	586.	8.
50.	436.	21.	25.	586.	8.
60.	407.	19.	25.	586.	8.
80.	368.	18.	25.	586.	8.
100.	345.	17.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb

Note: Data derived from JEFF 3.1 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.020.2
REACTION  =(52-TE-120(N,G)52-TE-121,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	2DATA-ERR MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1290.	65.	25.	622.7	6.
10.	935.	46.	25.	622.7	6.
15.	778.	37.	25.	622.7	6.
20.	685.	32.	25.	622.7	6.
25.	621.	29.	25.	622.7	6.
30.	573.	27.	25.	622.7	6.
40.	508.	23.	25.	622.7	6.
50.	463.	22.	25.	622.7	6.
60.	432.	20.	25.	622.7	6.
80.	391.	19.	25.	622.7	6.
100.	366.	17.	25.	622.7	6.

Comment:

cross section value in subentry 22939.020.2 is renormalized

a) for new gold cross section

$^{120}Te(n,\gamma)^{121}Te$:

Actual data in EXFOR

```
* Data set#= 22939.020.3
REACTION  =(52-TE-120(N,G)52-TE-121,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1319.	58.	25.	586.	8.
10.	919.	42.	25.	586.	8.
15.	749.	35.	25.	586.	8.
20.	649.	31.	25.	586.	8.
25.	583.	28.	25.	586.	8.
30.	535.	26.	25.	586.	8.
40.	472.	22.	25.	586.	8.
50.	431.	21.	25.	586.	8.
60.	403.	19.	25.	586.	8.
80.	368.	18.	25.	586.	8.
100.	348.	17.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from JENDL 3.3 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.020.3
REACTION  =(52-TE-120(N,G)52-TE-121,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1401.	60.	25.	622.7	6.
10.	976.	43.	25.	622.7	6.
15.	795.	36.	25.	622.7	6.
20.	689.	32.	25.	622.7	6.
25.	619.	29.	25.	622.7	6.
30.	568.	27.	25.	622.7	6.
40.	472.	23.	25.	622.7	6.
50.	458.	22.	25.	622.7	6.
60.	428.	20.	25.	622.7	6.
80.	391.	19.	25.	622.7	6.
100.	370.	18.	25.	622.7	6.

Comment:

cross section value in subentry 22939.020.3 is renormalized

a) for new gold cross section

$^{130}Ba(n,\gamma)^{131}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.021.1
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	1ERR-T MB	1KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1600.	67.	25.	586.	8.
10.	1163.	45.	25.	586.	8.
15.	979.	38.	25.	586.	8.
20.	874.	34.	25.	586.	8.
25.	805.	31.	25.	586.	8.
30.	756.	29.	25.	586.	8.
40.	687.	27.	25.	586.	8.
50.	642.	25.	25.	586.	8.
60.	610.	24.	25.	586.	8.
80.	568.	22.	25.	586.	8.
100.	542.	21.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from ENDF/B-VII.0 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.021.1
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	1ERR-T MB	1KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1699.	69.	25.	622.7	6.
10.	1235.	46.	25.	622.7	6.
15.	1040.	39.	25.	622.7	6.
20.	928.	35.	25.	622.7	6.
25.	855.	32.	25.	622.7	6.
30.	803.	29.	25.	622.7	6.
40.	730.	28.	25.	622.7	6.
50.	682.	25.	25.	622.7	6.
60.	648.	24.	25.	622.7	6.
80.	603.	22.	25.	622.7	6.
100.	576.	21.	25.	622.7	6.

Comment:

cross section value in subentry 22939.021.1 is renormalized

a) for new gold cross section

$^{130}Ba(n,\gamma)^{131}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.021.2
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	2DATA-ERR MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1862.	64.	25.	586.	8.
10.	1291.	45.	25.	586.	8.
15.	1040.	38.	25.	586.	8.
20.	894.	34.	25.	586.	8.
25.	797.	31.	25.	586.	8.
30.	728.	29.	25.	586.	8.
40.	635.	27.	25.	586.	8.
50.	575.	25.	25.	586.	8.
60.	532.	24.	25.	586.	8.
80.	470.	22.	25.	586.	8.
100.	425.	21.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb

Note: Data derived from JEFF 3.0A after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.021.2
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	2DATA-ERR MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1977.	64.	25.	622.7	6.
10.	1371.	45.	25.	622.7	6.
15.	1104.	38.	25.	622.7	6.
20.	949.	34.	25.	622.7	6.
25.	846.	31.	25.	622.7	6.
30.	773.	28.	25.	622.7	6.
40.	674.	28.	25.	622.7	6.
50.	611.	26.	25.	622.7	6.
60.	565.	25.	25.	622.7	6.
80.	499.	23.	25.	622.7	6.
100.	451.	22.	25.	622.7	6.

Comment:

cross section value in subentry 22939.021.2 is renormalized

a) for new gold cross section

$^{130}Ba(n,\gamma)^{131}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.021.3
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1634.	69.	25.	586.	8.
10.	1171.	45.	25.	586.	8.
15.	982.	38.	25.	586.	8.
20.	874.	34.	25.	586.	8.
25.	804.	31.	25.	586.	8.
30.	754.	29.	25.	586.	8.
40.	686.	27.	25.	586.	8.
50.	640.	25.	25.	586.	8.
60.	608.	24.	25.	586.	8.
80.	566.	22.	25.	586.	8.
100.	540.	21.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb

Note: Data derived from JEFF 3.1 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.021.3
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1735.	71.	25.	622.7	6.
10.	1244.	46.	25.	622.7	6.
15.	1043.	39.	25.	622.7	6.
20.	928.	35.	25.	622.7	6.
25.	854.	32.	25.	622.7	6.
30.	801.	29.	25.	622.7	6.
40.	729.	28.	25.	622.7	6.
50.	680.	25.	25.	622.7	6.
60.	646.	23.	25.	622.7	6.
80.	601.	22.	25.	622.7	6.
100.	573.	21.	25.	622.7	6.

Comment:

cross section value in subentry 22939.021.3 is renormalized

a) for new gold cross section

$^{130}Ba(n,\gamma)^{131}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.021.4
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1634.	69.	25.	586.	8.
10.	1171.	45.	25.	586.	8.
15.	982.	38.	25.	586.	8.
20.	874.	34.	25.	586.	8.
25.	804.	31.	25.	586.	8.
30.	754.	29.	25.	586.	8.
40.	686.	27.	25.	586.	8.
50.	640.	25.	25.	586.	8.
60.	608.	24.	25.	586.	8.
80.	566.	22.	25.	586.	8.
100.	540.	21.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb

Note: Data derived from JENDL 3.3 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.021.4
REACTION  =(56-BA-130(N,G)56-BA-131,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	1735.	71.	25.	622.7	6.
10.	1244.	46.	25.	622.7	6.
15.	1043.	39.	25.	622.7	6.
20.	928.	35.	25.	622.7	6.
25.	854.	32.	25.	622.7	6.
30.	801.	29.	25.	622.7	6.
40.	729.	28.	25.	622.7	6.
50.	680.	25.	25.	622.7	6.
60.	646.	23.	25.	622.7	6.
80.	601.	22.	25.	622.7	6.
100.	573.	21.	25.	622.7	6.

Comment:

cross section value in subentry 22939.021.4 is renormalized

a) for new gold cross section

$^{132}Ba(n,\gamma)^{133}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.022.1
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	929.	35.	25.	586.	8.
10.	641.	24.	25.	586.	8.
15.	530.	20.	25.	586.	8.
20.	468.	18.	25.	586.	8.
25.	427.	16.	25.	586.	8.
30.	398.	15.	25.	586.	8.
40.	358.	14.	25.	586.	8.
50.	331.	13.	25.	586.	8.
60.	313.	12.	25.	586.	8.
80.	290.	11.	25.	586.	8.
100.	277.	11.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from ENDF/B-VII.0 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.022.1
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	987.	36.	25.	622.7	6.
10.	681.	24.	25.	622.7	6.
15.	563.	20.	25.	622.7	6.
20.	497.	18.	25.	622.7	6.
25.	453.	16.	25.	622.7	6.
30.	423.	15.	25.	622.7	6.
40.	380.	14.	25.	622.7	6.
50.	352.	13.	25.	622.7	6.
60.	332.	12.	25.	622.7	6.
80.	308.	11.	25.	622.7	6.
100.	294.	11.	25.	622.7	6.

Comment:

cross section value in subentry 22939.022.1 is renormalized

a) for new gold cross section

$^{132}Ba(n,\gamma)^{133}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.022.2
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	2DATA-ERR MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	915.	35.	25.	586.	8.
10.	637.	24.	25.	586.	8.
15.	528.	20.	25.	586.	8.
20.	467.	18.	25.	586.	8.
25.	426.	16.	25.	586.	8.
30.	397.	15.	25.	586.	8.
40.	357.	14.	25.	586.	8.
50.	331.	13.	25.	586.	8.
60.	312.	12.	25.	586.	8.
80.	290.	11.	25.	586.	8.
100.	276.	11.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from JEFF 3.0A/3.1 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.022.2
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	2DATA-ERR MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	972.	36.	25.	622.7	6.
10.	676.	24.	25.	622.7	6.
15.	561.	20.	25.	622.7	6.
20.	496.	17.	25.	622.7	6.
25.	452.	16.	25.	622.7	6.
30.	422.	15.	25.	622.7	6.
40.	379.	14.	25.	622.7	6.
50.	351.	13.	25.	622.7	6.
60.	331.	12.	25.	622.7	6.
80.	308.	11.	25.	622.7	6.
100.	293.	11.	25.	622.7	6.

Comment:

cross section value in subentry 22939.022.2 is renormalized

a) for new gold cross section

$^{132}Ba(n,\gamma)^{133}Ba$:

Actual data in EXFOR

```
* Data set#= 22939.022.3
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	2DATA-ERR MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	915.	35.	25.	586.	8.
10.	637.	24.	25.	586.	8.
15.	528.	20.	25.	586.	8.
20.	467.	18.	25.	586.	8.
25.	426.	16.	25.	586.	8.
30.	397.	15.	25.	586.	8.
40.	357.	14.	25.	586.	8.
50.	331.	13.	25.	586.	8.
60.	312.	12.	25.	586.	8.
80.	290.	11.	25.	586.	8.
100.	276.	11.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from JENDL 3.3 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.022.3
REACTION  =(56-BA-132(N,G)56-BA-133,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	2DATA-ERR MB	2KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	972.	36.	25.	622.7	6.
10.	676.	24.	25.	622.7	6.
15.	561.	20.	25.	622.7	6.
20.	496.	17.	25.	622.7	6.
25.	452.	16.	25.	622.7	6.
30.	422.	15.	25.	622.7	6.
40.	379.	14.	25.	622.7	6.
50.	351.	13.	25.	622.7	6.
60.	331.	12.	25.	622.7	6.
80.	308.	11.	25.	622.7	6.
100.	293.	11.	25.	622.7	6.

Comment:

cross section value in subentry 22939.022.3 is renormalized

a) for new gold cross section

$^{156}Dy(n,\gamma)^{157}Dy$:

Actual data in EXFOR

```
* Data set#= 22939.023.1
REACTION  =(66-DY-156(N,G)66-DY-157,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	4742.	336.	25.	586.	8.
10.	3012.	214.	25.	586.	8.
15.	2501.	176.	25.	586.	8.
20.	2125.	150.	25.	586.	8.
25.	1885.	132.	25.	586.	8.
30.	1716.	121.	25.	586.	8.
40.	1495.	105.	25.	586.	8.
50.	1353.	95.	25.	586.	8.
60.	1253.	88.	25.	586.	8.
80.	1117.	79.	25.	586.	8.
100.	1028.	72.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from ENDF/B-VII.0 after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.023.1
REACTION  =(66-DY-156(N,G)66-DY-157,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	5036.	352.	25.	622.7	6.
10.	3199.	219.	25.	622.7	6.
15.	2355.	168.	25.	622.7	6.
20.	2001.	143.	25.	622.7	6.
25.	1775.	126.	25.	622.7	6.
30.	1616.	115.	25.	622.7	6.
40.	1408.	100.	25.	622.7	6.
50.	1274.	91.	25.	622.7	6.
60.	1180.	84.	25.	622.7	6.
80.	1052.	75.	25.	622.7	6.
100.	968.	69.	25.	622.7	6.

Comment:

cross section value in subentry 22939.023.1 is renormalized

a) for new gold cross section

$^{156}Dy(n,\gamma)^{157}Dy$:

Actual data in EXFOR

```
* Data set#= 22939.023.2
REACTION  =(66-DY-156(N,G)66-DY-157,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	4060.	288.	25.	586.	8.
10.	2710.	193.	25.	586.	8.
15.	2216.	158.	25.	586.	8.
20.	1948.	139.	25.	586.	8.
25.	1775.	126.	25.	586.	8.
30.	1651.	118.	25.	586.	8.
40.	1478.	105.	25.	586.	8.
50.	1359.	97.	25.	586.	8.
60.	1269.	91.	25.	586.	8.
80.	1142.	81.	25.	586.	8.
100.	1056.	75.	25.	586.	8.

Gold standard for kT=25 keV: 586±8 mb
Note: Data derived from JEFF 3.0A after normalization to experimental results

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22939.023.2
REACTION  =(66-DY-156(N,G)66-DY-157,,SIG,,MXW,DERIV)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
```

KT KEV	DATA MB	3DATA-ERR MB	3KT-NRM KEV	MONIT MB	MONIT-ERR MB
5.	4312.	302.	25.	622.7	6.
10.	2878.	202.	25.	622.7	6.
15.	2353.	166.	25.	622.7	6.
20.	2069.	146.	25.	622.7	6.
25.	1885.	132.	25.	622.7	6.
30.	1753.	124.	25.	622.7	6.
40.	1570.	110.	25.	622.7	6.
50.	1443.	102.	25.	622.7	6.
60.	1348.	95.	25.	622.7	6.
80.	1213.	85.	25.	622.7	6.
100.	1121.	79.	25.	622.7	6.

Comment:

cross section value in subentry 22939.023.2 is renormalized

a) for new gold cross section

**** Entry=22963 ****

^{174}Hf(n,γ)^{175}Hf:

Actual data in EXFOR

```
* Data set#= 22963.002
REACTION  =(72-HF-174(N,G)72-HF-175,,SIG)
DECAY-DATA=(72-HF-175,70.D,DG,343.4,0.84)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
```

KT KEV	DATA MB	ERR-S MB	MONIT MB	MONIT-ERR MB	ERR-T PER-CENT
25.	980.	45.	586.	8.	4.6
25.	985.	45.	586.	8.	4.6
25.	1005.	47.	586.	8.	4.6

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 174Hf/197Au = 1.689±0.089
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22963.002
REACTION  =(72-HF-174(N,G)72-HF-175,,SIG, SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG, SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
```

KT-DUMMY KEV	DATA MB	ERR-S MB	MONIT MB	MONIT-ERR MB	ERR-T PER-CENT
25.	1041.	48.	622.7	6.	4.5
25.	1046.	48.	622.7	6.	4.5
25.	1067.	50.	622.7	6.	4.5

Comment:

cross section value in subentry 22963.002 is renormalized

a) for new gold cross section

^{174}Hf(n,γ)^{175}Hf:

Actual data in EXFOR

```
* Data set#= 22963.003
REACTION  =(72-HF-174(N,G)72-HF-175,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
-------------------------------------------------------------------
KT          DATA        ERR-S      MONIT      MONIT-ERR  ERR-T
KEV         MB          MB         MB         MB         PER-CENT
-------------------------------------------------------------------
25.         990.        26.        586.       8.         4.6
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 174Hf/197Au = 1.689±0.089
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22963.003
REACTION  =(72-HF-174(N,G)72-HF-175,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
-------------------------------------------------------------------
KT-DUMMY    DATA        ERR-S      MONIT      MONIT-ERR  ERR-T
KEV         MB          MB         MB         MB         PER-CENT
-------------------------------------------------------------------
25.         1041.       28.        622.7      6.         4.5
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22963.003 is renormalized

a) for new gold cross section

$^{180}Hf(n,\gamma)^{181}Hf$:

Actual data in EXFOR

```
* Data set#= 22963.004
REACTION  =(72-HF-180(N,G)72-HF-181,,SIG,,MXW)
DECAY-DATA=(72-HF-181,42.39D,DG,133.0,0.4331,
                             DG,345.9,0.1512,
                             DG,482.2,0.8050)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
```

KT KEV	DATA MB	ERR-S MB	MONIT MB	MONIT-ERR MB	ERR-T PER-CENT
25.	151.5	4.4	586.	8.	4.4
25.	157.6	4.5	586.	8.	4.4
25.	158.7	4.6	586.	8.	4.4
25.	161.5	6.1	586.	8.	4.4
25.	166.4	6.4	586.	8.	4.4

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 180Hf/197Au = 0.272±0.015
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22963.004
REACTION  =(72-HF-180(N,G)72-HF-181,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
```

KT-DUMMY KEV	DATA MB	ERR-S MB	MONIT MB	MONIT-ERR MB	ERR-T PER-CENT
25.	160.9	4.7	622.7	6.	4.3
25.	167.4	4.8	622.7	6.	4.3
25.	168.5	4.9	622.7	6.	4.3
25.	171.5	6.6	622.7	6.	4.3
25.	176.7	6.8	622.7	6.	4.3

Comment:

cross section value in subentry 22963.004 is renormalized

a) for new gold cross section

^{180}Hf(n,γ)^{181}Hf:

Actual data in EXFOR

```
* Data set#= 22963.005
REACTION  =(72-HF-180(N,G)72-HF-181,,SIG,,MXW)
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
-------------------------------------------------------------------
KT          DATA        ERR-S      MONIT      MONIT-ERR  ERR-T
KEV         MB          MB         MB         MB         PER-CENT
-------------------------------------------------------------------
25          157.9       2.2        586.       8.         4.4
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 180Hf/197Au = 0.269±0.012
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22963.005
REACTION  =(72-HF-180(N,G)72-HF-181,,SIG,,SPA)
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
-------------------------------------------------------------------
KT-DUMMY    DATA        ERR-S      MONIT      MONIT-ERR  ERR-T
KEV         MB          MB         MB         MB         PER-CENT
-------------------------------------------------------------------
25          167.7       2.3        622.7      6.         4.3
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22963.005 is renormalized

a) for new gold cross section

^{182}Hf(n,γ)^{183}Hf:

Actual data in EXFOR

```
* Data set#= 22963.006
REACTION  =(72-HF-182(N,G)72-HF-183,,SIG,,MXW)
DECAY-DATA=(72-HF-183,1.018HR,DG,73.2,0.384,
                              DG,459.1,0.297,
                              DG,783.8,0.655)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
```

KT KEV	DATA MB	ERR-S MB	MONIT MB	MONIT-ERR MB	ERR-T PER-CENT
25.	144.4	8.	586.	8.	5.5
25.	143.6	8.1	586.	8.	5.5
25.	144.6	5.2	586.	8.	5.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 182Hf/197Au = 0.246±0.018

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22963.006
REACTION  =(72-HF-182(N,G)72-HF-183,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
```

KT-DUMMY KEV	DATA MB	ERR-S MB	MONIT MB	MONIT-ERR MB	ERR-T PER-CENT
25.	153.4	8.5	622.7	6.	5.4
25.	152.5	8.6	622.7	6.	5.4
25.	153.6	5.5	622.7	6.	5.4

Comment:

cross section value in subentry 22963.006 is renormalized

a) for new gold cross section

The 73.2 keV transition (38.4%) was not used for cross section determination.

^{182}Hf(n,γ)^{183}Hf:

Actual data in EXFOR

```
* Data set#= 22963.007
REACTION  =(72-HF-182(N,G)72-HF-183,,SIG,,MXW)
DECAY-DATA=(72-HF-183,1.018HR,DG,73.2,0.384,
                              DG,459.1,0.297,
                              DG,783.8,0.655)
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG)
MONITOR   =((MONIT2)72-HF-180(N,G)72-HF-181,,SIG)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
```

KT KEV	DATA MB	ERR-S MB	MONIT MB	MONIT-ERR MB	ERR-T PER-CENT
25.	139.7	7.1	586.	8.	5.5
25.	139.4	4.8	586.	8.	5.5
25.	139.4	7.1	586.	8.	5.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 182Hf/197Au = 0.238±0.011
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22963.007
REACTION  =(72-HF-182(N,G)72-HF-183,,SIG,,SPA)
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
MONITOR   =((MONIT2)72-HF-180(N,G)72-HF-181,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-T) Overall systematic uncertainty
```

KT-DUMMY KEV	DATA MB	ERR-S MB	MONIT MB	MONIT-ERR MB	ERR-T PER-CENT
25.	148.4	7.5	622.7	6.	5.3
25.	148.0	5.1	622.7	6.	5.3
25.	148.0	7.5	622.7	6.	5.3

Comment:

cross section value in subentry 22963.007 is renormalized

a) for new gold cross section

The 73.2 keV transition (38.4%) was not used for cross section determination.

The 180Hf neutron capture cross section (159.8±2.0 mb) has also been determined relative to the gold reference cross section.

^{174}Hf(n,γ)^{175}Hf:

Actual data in EXFOR

```
* Data set#= 22963.008
REACTION  =(72-HF-174(N,G)72-HF-175,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
-------------------------------------------------------
KT          DATA        DATA-ERR   MONIT      MONIT-ERR
KEV         MB          MB         MB         MB
-------------------------------------------------------
  5.        2797.
 10.        1766.
 15.        1394.
 20.        1195.
 25.        1071.                  586.       8.
 30.         983.        46.
 40.         663.
 50.         784.
 60.         727.
 80.         651.
100.         604.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22963.008
REACTION  =(72-HF-174(N,G)72-HF-175,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
-------------------------------------------------------
KT          DATA        DATA-ERR   MONIT      MONIT-ERR
KEV         MB          MB         MB         MB
-------------------------------------------------------
  5.        2970.
 10.        1875.
 15.        1480.
 20.        1269.
 25.        1137.                  622.7      6.
 30.        1044.       47.
 40.         917.
 50.         833.
 60.         772.
 80.         691.
100.         641.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22963.008 is renormalized

a) for new gold cross section

$^{182}Hf(n,\gamma)^{183}Hf$:

Actual data in EXFOR

```
* Data set#= 22963.009
REACTION  =(72-HF-182(N,G)72-HF-183,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Total uncertainty
-------------------------------------------------------
KT          DATA        DATA-ERR   MONIT      MONIT-ERR
KEV         MB          MB         MB         MB
-------------------------------------------------------
  5.        352.
 10.        238.
 15.        195.
 20.        171.
 25.        154.                   586.       8.
 30.        141.        8.
 40.        120.
 50.        104.
 60.         92.
 80.         75.
100.         64.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22963.009
REACTION  =(72-HF-182(N,G)72-HF-183,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total uncertainty
-------------------------------------------------------
KT          DATA        DATA-ERR   MONIT      MONIT-ERR
KEV         MB          MB         MB         MB
-------------------------------------------------------
  5.        374.
 10.        253.
 15.        207.
 20.        182.
 25.        164.                   622.7      6.
 30.        150.        8.
 40.        127.
 50.        110.
 60.         98.
 80.         80.
100.         68.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22963.009 is renormalized

a) for new gold cross section

The 180Hf neutron capture cross section (159.8±2.0 mb) has also been determined relative to the gold reference cross section.

**** Entry=22968 ****

$^{19}F(n,\gamma)^{20}F$:

Actual data in EXFOR

```
* Data set#= 22968.002.1
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,MXW)
DECAY-DATA=(9-F-20,11.163SEC,DG,1634.,0.999995)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT         DATA      1ERR-SYS   1ERR-S      MONIT      MONIT-ERR
KEV        MB         PER-CENT   PER-CENT   MB         MB
-------------------------------------------------------------------
25.        3.40       3.37       1.27       586.       8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb
Note typo: DATA = 3.46!

Revised data:

measured quantity: cross section ratio 19F/197Au = (0.580±0.021) E-02
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22968.002.1
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT-DUMMY   DATA      1ERR-SYS   1ERR-S      MONIT      MONIT-ERR
KEV        MB         PER-CENT   PER-CENT   MB         MB
-------------------------------------------------------------------
25.        3.67       3.18       1.27       622.7      6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22968.002.1 is renormalized

a) for new gold cross section

$^{19}F(n,\gamma)^{20}F$:

Actual data in EXFOR

```
* Data set#= 22968.002.2
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,MXW)
DECAY-DATA=(9-F-20,11.163SEC,DG,1634.,0.999995)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT          DATA      2ERR-SYS   2ERR-S     2MONIT      MONIT-ERR
KEV         MB         PER-CENT   PER-CENT   MB          MB
-------------------------------------------------------------------
25.         3.50       3.35       1.07       586.        8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 19F/197Au = (0.597±0.021) E-02
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22968.002.2
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT-DUMMY    DATA      2ERR-SYS   2ERR-S     2MONIT      MONIT-ERR
KEV         MB         PER-CENT   PER-CENT   MB          MB
-------------------------------------------------------------------
25.         3.72       3.16       1.27       622.7       6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22968.002.2 is renormalized

a) for new gold cross section

$^{19}F(n,\gamma)^{20}F$:

Actual data in EXFOR

```
* Data set#= 22968.002.3
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,MXW)
DECAY-DATA=(9-F-20,11.163SEC,DG,1634.,0.999995)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT          DATA      3ERR-SYS   3ERR-S     3MONIT      MONIT-ERR
KEV         MB         PER-CENT   PER-CENT   MB          MB
-------------------------------------------------------------------
25.         3.63       3.35       1.47       586.        8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 19F/197Au = (0.619±0.023) E-02
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22968.002.3
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT-DUMMY    DATA      3ERR-SYS   3ERR-S     3MONIT      MONIT-ERR
KEV         MB         PER-CENT   PER-CENT   MB          MB
-------------------------------------------------------------------
25.         3.86       3.16       1.27       622.7       6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22968.002.3 is renormalized

a) for new gold cross section

$^{19}F(n,\gamma)^{20}F$:

Actual data in EXFOR

```
* Data set#= 22968.002.4
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,MXW)
DECAY-DATA=(9-F-20,11.163SEC,DG,1634.,0.999995)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT          DATA      4ERR-SYS   4ERR-S     4MONIT      MONIT-ERR
KEV         MB         PER-CENT   PER-CENT   MB          MB
-------------------------------------------------------------------
25.         3.46        3.35       1.16      586.        8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 19F/197Au = (0.590±0.021) E-02
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22968.002.4
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT-DUMMY    DATA      4ERR-SYS   4ERR-S     4MONIT      MONIT-ERR
KEV         MB         PER-CENT   PER-CENT   MB          MB
-------------------------------------------------------------------
25.         3.67        3.16       1.27      622.7       6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22968.002.4 is renormalized

a) for new gold cross section

$^{19}F(n,\gamma)^{20}F$:

Actual data in EXFOR

```
* Data set#= 22968.002.5
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,MXW)
DECAY-DATA=(9-F-20,11.163SEC,DG,1634.,0.999995)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT          DATA      5ERR-SYS   5ERR-S     5MONIT      MONIT-ERR
KEV         MB         PER-CENT   PER-CENT   MB          MB
-------------------------------------------------------------------
25.         3.64       3.35       1.09       586.        8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 19F/197Au = (0.621±0.022) E-02
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22968.002.5
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT-DUMMY    DATA      5ERR-SYS   5ERR-S     5MONIT      MONIT-ERR
KEV         MB         PER-CENT   PER-CENT   MB          MB
-------------------------------------------------------------------
25.         3.87       3.16       1.27       622.7       6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22968.002.5 is renormalized

a) for new gold cross section

$^{19}F(n,\gamma)^{20}F$:

Actual data in EXFOR

```
* Data set#= 22968.003
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT          DATA       ERR-S      ERR-S      ERR-SYS    ERR-SYS
KEV         MB         MB         PER-CENT   MB         PER-CENT
-------------------------------------------------------------------
25.         3.54       0.02       0.6        0.12       3.4
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 19F/197Au = (0.604±0.021) E-02
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22968.003
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical error of experiment
ERR-ANALYS=(ERR-SYS) Systematic error of experiment
-------------------------------------------------------------------
KT-DUMMY    DATA       ERR-S      ERR-S      ERR-SYS    ERR-SYS
KEV         MB         MB         PER-CENT   MB         PER-CENT
-------------------------------------------------------------------
25.         3.76        0.02       0.6        0.12       3.2
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 22968.003 is renormalized

a) for new gold cross section

$^{19}F(n,\gamma)^{20}F$:

Actual data in EXFOR

```
* Data set#= 22968.004
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Uncertainty of the measured value
-----------------------------------------------------------
KT          DATA        ERR-T      MONIT      MONIT-ERR
KEV         MB          MB         MB         MB
-----------------------------------------------------------
  5.        1.2
 10.        4.1
 15.        4.5
 20.        4.2
 25.        3.7         0.1        586.       8.
 30.        3.2
 40.        2.5
 50.        2.0
 60.        1.7
 80.        1.2
100.        1.0
-----------------------------------------------------------
```

Gold standard for kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22968.004
REACTION  =(9-F-19(N,G)9-F-20,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Uncertainty of the measured value
-----------------------------------------------------------
KT          DATA        ERR-T      MONIT      MONIT-ERR
KEV         MB          MB         MB         MB
-----------------------------------------------------------
  5.        1.3
 10.        4.4
 15.        4.8
 20.        4.5
 25.        3.9         0.1        622.7      6.
 30.        3.4
 40.        2.7
 50.        2.1
 60.        1.8
 80.        1.3
100.        1.1
-----------------------------------------------------------
```

Comment:

cross section value in subentry 22968.004 is renormalized

a) for new gold cross section

****** Entry=22971 ******

$^{78}Se(n,\gamma)^{79}Se$:

Actual data in EXFOR

```
* Data set#= 22971.003
REACTION  =(34-SE-78(N,G)34-SE-79,,SIG,,SPA)
ASSUMED   =(ASSUM,34-SE-78(N,G)34-SE-79,,SIG)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) Not specified
-----------------------------------------------------------------
DATA       DATA-ERR   ASSUM      ASSUM-ERR  KT         KT-ERR
MB         MB         MB         MB         KEV        KEV
-----------------------------------------------------------------
61.        10.        0.43       0.02       25.        0.5
-----------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 78Se/197Au = 0.104±0.017
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22971.003
REACTION  =(34-SE-78(N,G)34-SE-79,,SIG,,SPA)
ASSUMED   =(ASSUM,34-SE-78(N,G)34-SE-79,,SIG)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Not specified
-----------------------------------------------------------------
DATA       DATA-ERR   ASSUM      ASSUM-ERR  KT-DUMMY   KT-ERR
MB         MB         MB         MB         KEV        KEV
-----------------------------------------------------------------
65.        11.        0.43       0.02       25.        0.5
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 22971.003 is renormalized

a) for new gold cross section

^{58}Ni(n,γ)^{59}Ni:

Actual data in EXFOR

```
* Data set#= 22971.004
REACTION  =(28-NI-58(N,G)28-NI-59,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Total statistical - 3% .
ERR-ANALYS=(ERR-SYS) Total systematical - 7.7%
```

DATA MB	ERR-SYS MB	ERR-S MB	KT KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
30.4	2.3	4.1	25.	0.5	632.	9.
29.0	2.2	1.1	25.	0.5	632.	9.
32.2	2.5	1.8	25.	0.5	632.	9.
29.9	2.3	0.9	25.	0.5	632.	9.

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 632±9 mb

Revised data:

measured quantity: cross section ratio 58Ni/197Au = 0.0481±0.0037
Correction for revised gold standard 622.7/632 =0.985

```
* Revised Data set#= 22971.004
REACTION  =(28-NI-58(N,G)28-NI-59,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Total statistical - 3% .
ERR-ANALYS=(ERR-SYS) Total systematical - 7.7%
```

DATA MB	ERR-SYS MB	ERR-S MB	KT-DUMMY KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
30.0	2.3	4.0	25.	0.5	622.7	6.2
28.6	2.2	1.1	25.	0.5	622.7	6.2
31.7	2.5	1.8	25.	0.5	622.7	6.2
29.5	2.3	0.9	25.	0.5	622.7	6.2

Comment:

cross section value in subentry 22971.004 is renormalized

a) for new gold cross section

$^{58}Ni(n,\gamma)^{59}Ni$:

Actual data in EXFOR

```
* Data set#= 22971.005
REACTION  =(28-NI-58(N,G)28-NI-59,,SIG,,MXW)
ASSUMED   =(ASSUM,28-NI-58(N,G)28-NI-59,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Total statistical
ERR-ANALYS=(ERR-SYS) Total systematical
---------------------------------------------
KT          DATA       ERR-SYS    ERR-S
KEV         MB         MB         MB
---------------------------------------------
30.         30.4       2.3        0.9
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 632±9 mb

Revised data:

Correction for revised gold standard 622.7/632 =0.985

```
* Revised Data set#= 22971.005
REACTION  =(28-NI-58(N,G)28-NI-59,,SIG,,MXW)
ASSUMED   =(ASSUM,28-NI-58(N,G)28-NI-59,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Total statistical
ERR-ANALYS=(ERR-SYS) Total systematical
---------------------------------------------
KT          DATA       ERR-SYS    ERR-S
KEV         MB         MB         MB
---------------------------------------------
30.         30.0       2.3        0.9
---------------------------------------------
```

Comment:

cross section value in subentry 22971.005 is renormalized

a) for new gold cross section

**** Entry=22995 ****

$^{14}C(n,\gamma)^{15}C$:

Actual data in EXFOR

```
* Data set#= 22995.002
REACTION  =(6-C-14(N,G)6-C-15,,SIG,,MXW)
DECAY-DATA=(6-C-14,5700.YR,B-,156.)
DECAY-DATA=(6-C-15,2.449SEC,DG,5297.8,0.632)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total error equal to quadratic sum of its constituents
---------------------------------------------
KT          DATA       ERR-T      ERR-T
KEV         MICRO-B    MICRO-B    PER-CENT
---------------------------------------------
23.3        7.1        0.5        6.7
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 14C/197Au = (0.122±0.008) E-04
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22995.002
REACTION  =(6-C-14(N,G)6-C-15,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error equal to quadratic sum of its constituents
---------------------------------------------
KT          DATA       ERR-T      ERR-T
KEV         MICRO-B    MICRO-B    PER-CENT
---------------------------------------------
23.3        7.5        0.5        6.6
---------------------------------------------
```

Comment:

cross section value in subentry 22995.002 is renormalized

a) for new gold cross section
b) note that in this case the neutron energy is given in the center-of-mass system

**** Entry=22996 ****

$^{58}Fe(n,\gamma)^{59}Fe$:

Actual data in EXFOR

```
* Data set#= 22996.002
REACTION  =(26-FE-58(N,G)26-FE-59,,SIG,,MXW)
DECAY-DATA=(26-FE-59,44.495D,DG,1099.25,0.565)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT          DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         13.1       0.6        4.6
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 58Fe/197Au = 0.0224±0.0010
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.002
REACTION  =(26-FE-58(N,G)26-FE-59,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT-DUMMY    DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         13.9       0.6        4.5
---------------------------------------------
```

Comment:

cross section value in subentry 22996.002 is renormalized

a) for new gold cross section

$^{59}Co(n,\gamma)^{60}Co$:

Actual data in EXFOR

```
* Data set#= 22996.003
REACTION  =(27-CO-59(N,G)27-CO-60,,SIG,,MXW)
DECAY-DATA=(27-CO-60,5.2714YR,DG,1173.23,0.9985,
                              DG,1332.49,0.999826)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT          DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         41.1       1.5        3.0
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 59Co/197Au = 0.0701±0.0024
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.003
REACTION  =(27-CO-59(N,G)27-CO-60,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT-DUMMY    DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         43.6       1.5        2.8
---------------------------------------------
```

Comment:

cross section value in subentry 22996.003 is renormalized

a) for new gold cross section

$^{64}Ni(n,\gamma)^{65}Ni$:

Actual data in EXFOR

```
* Data set#= 22996.004
REACTION  =(28-NI-64(N,G)28-NI-65,,SIG,,MXW)
DECAY-DATA=(28-NI-65,2.5127HR,DG,1481.84,0.2359)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT          DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         8.40       0.28       3.1
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 64Ni/197Au = 0.0143±0.0010
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.004
REACTION  =(28-NI-64(N,G)28-NI-65,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT-DUMMY    DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         8.92       0.28       2.9
---------------------------------------------
```

Comment:

cross section value in subentry 22996.004 is renormalized

a) for new gold cross section

$^{63}Cu(n,\gamma)^{64}Cu$:

Actual data in EXFOR

```
* Data set#= 22996.005
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,MXW)
DECAY-DATA=(29-CU-64,12.700HR,DG,1345.77,0.00473)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT          DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         58.1       2.3        3.6
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 63Cu/197Au = 0.0991±0.0038
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.005
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT-DUMMY    DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         61.7       2.3        3.4
---------------------------------------------
```

Comment:

cross section value in subentry 22996.005 is renormalized

a) for new gold cross section

$^{65}Cu(n,\gamma)^{66}Cu$:

Actual data in EXFOR

```
* Data set#= 22996.006
REACTION  =(29-CU-65(N,G)29-CU-66,,SIG,,MXW)
DECAY-DATA=(29-CU-66,5.120MIN,DG,1039.2,0.0923)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT          DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         30.0       1.3        3.6
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 65Cu/197Au = 0.0512±0.0022
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.006
REACTION  =(29-CU-65(N,G)29-CU-66,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-SYS) Systematic error from Table III
---------------------------------------------
KT-DUMMY    DATA       ERR-T      ERR-SYS
KEV         MB         MB         PER-CENT
---------------------------------------------
25.         31.9       1.3        3.4
---------------------------------------------
```

Comment:

cross section value in subentry 22996.006 is renormalized

a) for new gold cross section

$^{58}Fe(n,\gamma)^{59}Fe$:

Actual data in EXFOR

```
* Data set#= 22996.007
REACTION  =(26-FE-58(N,G)26-FE-59,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Unsymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Unsymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	30.	9.5	1.4		1.5
10.	23.	4.6	1.1		1.5
15.	19.	2.0	0.9		1.5
20.	16.7	0.9	0.9		1.5
25.	14.5			0.7	1.5
30.	13.5	0.6	0.8		1.5
40.	12.3	0.6	1.5		1.5
50.	10.9	0.5	1.4		1.5
60.	10.4	0.5	1.9		1.5
80.	9.6	0.5	2.7		1.5
100.	9.1	0.4	3.3		1.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.007
REACTION  =(26-FE-58(N,G)26-FE-59,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Asymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Asymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	31.9	9.5	1.4		1.0
10.	24.4	4.6	1.1		1.0
15.	20.2	2.0	0.9		1.0
20.	17.7	0.9	0.9		1.0
25.	15.4			0.7	1.0
30.	14.3	0.6	0.8		1.0
40.	13.1	0.6	1.5		1.0
50.	11.6	0.5	1.4		1.0
60.	11.0	0.5	1.9		1.0
80.	10.2	0.5	2.7		1.0
100.	9.7	0.4	3.3		1.0

Comment:

cross section value in subentry 22996.007 is renormalized

a) for new gold cross section

$^{59}Co(n,\gamma)^{60}Co$:

Actual data in EXFOR

```
* Data set#= 22996.008
REACTION  =(27-CO-59(N,G)27-CO-60,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Unsymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Unsymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	115.	77.	7.		1.5
10.	85.4	17.	5.		1.5
15.	65.6	6.6	3.9		1.5
20.	54.1	3.4	3.3		1.5
25.	45.8			2.7	1.5
30.	39.6	2.7	2.5		1.5
40.	33.3	2.1	2.5		1.5
50.	28.1	2.3	1.8		1.5
60.	22.9	4.2	1.4		1.5
80.	12.5	10.5	0.7		1.5
100.	8.3	12.1	0.5		1.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.008
REACTION  =(27-CO-59(N,G)27-CO-60,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Asymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Asymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	122.	82.	7.		1.0
10.	90.7	18.	5.		1.0
15.	69.7	7.0	4.1		1.0
20.	57.5	3.6	3.5		1.0
25.	48.6			2.8	1.0
30.	42.1	2.8	2.6		1.0
40.	35.4	2.2	2.6		1.0
50.	29.8	2.4	1.9		1.0
60.	22.9	4.3	1.5		1.0
80.	13.3	11.2	0.7		1.0
100.	8.8	12.9	0.5		1.0

Comment:

cross section value in subentry 22996.008 is renormalized

a) for new gold cross section

$^{64}Ni(n,\gamma)^{65}Ni$:

Actual data in EXFOR

```
* Data set#= 22996.009
REACTION  =(28-NI-64(N,G)28-NI-65,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Unsymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Unsymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	11.8	16.	2.1		1.5
10.	13.6	8.6	2.6		1.5
15.	12.0	3.8	1.6		1.5
20.	10.3	1.4	0.7		1.5
25.	9.0			0.3	1.5
30.	8.0	0.5	0.8		1.5
40.	6.8	0.8	1.7		1.5
50.	6.1	0.5	2.2		1.5
60.	5.6	0.4	2.4		1.5
80.	5.1	0.17	2.6		1.5
100.	4.8	0.16	2.7		1.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.009
REACTION  =(28-NI-64(N,G)28-NI-65,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Asymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Asymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	12.5	17.	2.2		1.0
10.	14.4	9.1	2.8		1.0
15.	12.7	4.0	1.7		1.0
20.	10.9	1.5	0.7		1.0
25.	9.6			0.3	1.0
30.	8.5	0.5	0.8		1.0
40.	7.2	0.8	1.8		1.0
50.	6.5	0.5	2.3		1.0
60.	5.9	0.4	2.5		1.0
80.	5.4	0.17	2.8		1.0
100.	5.1	0.16	2.9		1.0

Comment:

cross section value in subentry 22996.009 is renormalized

a) for new gold cross section

$^{63}Cu(n,\gamma)^{64}Cu$:

Actual data in EXFOR

```
* Data set#= 22996.010
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Unsymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Unsymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	198.	22.	8.		1.5
10.	109.	18.	4.4		1.5
15.	81.	11.	3.2		1.5
20.	68.	5.4	2.7		1.5
25.	60.3			2.4	1.5
30.	56.	2.2	5.2		1.5
40.	50.	2.0	7.9		1.5
50.	47.	1.9	10.		1.5
60.	45.	1.8	12.		1.5
80.	39.	1.6	10.		1.5
100.	35.	1.4	9.6		1.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.010
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Asymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Asymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	210.	23.	8.2		1.0
10.	116.	19.	4.5		1.0
15.	88.	12.	3.0		1.0
20.	72.	5.7	2.7		1.0
25.	64.0			2.4	1.0
30.	59.	2.2	5.5		1.0
40.	53.	2.0	8.4		1.0
50.	50.	1.9	11.		1.0
60.	48.	1.8	13.		1.0
80.	41.	1.6	11.		1.0
100.	37.	1.4	10.		1.0

Comment:

cross section value in subentry 22996.010 is renormalized

a) for new gold cross section

$^{65}Cu(n,\gamma)^{66}Cu$:

Actual data in EXFOR

```
* Data set#= 22996.011
REACTION  =(29-CU-65(N,G)29-CU-66,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Unsymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Unsymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	111.	4.9	21.		1.5
10.	57.	2.6	2.6		1.5
15.	42.	2.7	1.8		1.5
20.	36.	1.7	1.6		1.5
25.	32.			1.4	1.5
30.	30.	1.3	1.9		1.5
40.	27.	1.2	3.2		1.5
50.	24.	1.1	3.2		1.5
60.	23.	1.0	4.3		1.5
80.	20.	0.9	4.2		1.5
100.	18.	0.8	4.1		1.5

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 22996.011
REACTION  =(29-CU-65(N,G)29-CU-66,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(+ERR-T) - Asymmetric Positive Total Error
ERR-ANALYS=(-ERR-T) - Asymmetric Negative Total Error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	ERR-T MB	MONIT-ERR PER-CENT
5.	118.	5.0	22.		1.5
10.	61.	2.7	2.7		1.5
15.	45.	2.8	1.9		1.5
20.	38.	1.7	1.6		1.5
25.	34.			1.4	1.5
30.	32.	1.3	2.0		1.5
40.	29.	1.2	3.4		1.5
50.	25.	1.1	3.4		1.5
60.	24.	1.0	4.6		1.5
80.	21.	0.9	4.5		1.5
100.	19.	0.8	4.4		1.5

Comment:

cross section value in subentry 22996.011 is renormalized

a) for new gold cross section

**** Entry=23035 ****

^{79}Br(n,γ)^{80g}Br:

Actual data in EXFOR

```
* Data set#= 23035.002.1
REACTION  =(35-BR-79(N,G)35-BR-80-G,,SIG,,MXW)
DECAY-DATA=(35-BR-80-G,17.68MIN,DG,616.3,0.067,
                                DG,665.9,0.0108)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
476.       3.         45.        25.        9.6
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (79Br(n,g)80Br-g)/197Au = 0.812±0.078

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.002.1
REACTION  =(35-BR-79(N,G)35-BR-80-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
506.       3.         48.        25.        9.5
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.002.1 is renormalized

a) for new gold cross section

$^{79}Br(n,\gamma)^{80g}Br$:

Actual data in EXFOR

```
* Data set#= 23035.002.2
REACTION  =(35-BR-79(N,G)35-BR-80-G,,SIG,,MXW)
DECAY-DATA=(35-BR-80-G,17.68MIN,DG,616.3,0.067,
                                DG,665.9,0.0108)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
445.       3.         41.        25.        9.6
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (79Br(n,g)80Br-g)/197Au = 0.759±0.070

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.002.2
REACTION  =(35-BR-79(N,G)35-BR-80-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
473.       3.         44.        25.        9.2
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.002.2 is renormalized

a) for new gold cross section

$^{79}Br(n,\gamma)^{80g}Br$:

Actual data in EXFOR

```
* Data set#= 23035.002.3
REACTION  =(35-BR-79(N,G)35-BR-80-G,,SIG,,MXW)
DECAY-DATA=(35-BR-80-G,17.68MIN,DG,616.3,0.067,
                                DG,665.9,0.0108)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
468.       6.         56.        25.        9.6
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (79Br(n,g)80Br-g)/197Au = 0.799±0.096

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.002.3
REACTION  =(35-BR-79(N,G)35-BR-80-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
497.       3.         51.        25.        10.2
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.002.3 is renormalized

a) for new gold cross section

$^{79}Br(n,\gamma)^{80m}Br$:

Actual data in EXFOR

```
* Data set#= 23035.003.1
REACTION  =(35-BR-79(N,G)35-BR-80-M,,SIG,,MXW)
DECAY-DATA=(35-BR-80-G,17.68MIN,DG,616.3,0.067,
                                DG,665.9,0.0108)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
169.       4.         16.        25.        9.8
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (79Br(n,g)80Br-m)/197Au = 0.288±0.028

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.003.1
REACTION  =(35-BR-79(N,G)35-BR-80-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
179.       4.         17.        25.        9.2
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.003.1 is renormalized

a) for new gold cross section

$^{79}Br(n,\gamma)^{80m}Br$:

Actual data in EXFOR

```
* Data set#= 23035.003.2
REACTION  =(35-BR-79(N,G)35-BR-80-M,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
171.       2.         16.        25.        9.8
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (79Br(n,g)80Br-m)/197Au = 0.292±0.028
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.003.2
REACTION  =(35-BR-79(N,G)35-BR-80-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
182.       2.         17.        25.        9.4
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.003.2 is renormalized

a) for new gold cross section

$^{79}Br(n,\gamma)^{80m}Br$:

Actual data in EXFOR

```
* Data set#= 23035.003.3
REACTION  =(35-BR-79(N,G)35-BR-80-M,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
185.       2.         22.        25.        9.8
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (79Br(n,g)80Br-m)/197Au = 0.316±0.038
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.003.3
REACTION  =(35-BR-79(N,G)35-BR-80-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
196.       2.         23.        25.        11.9
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.003.3 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.004.1
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
242.       2.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.413±0.016
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.004.1
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
257.        2.        9.5        25.        3.8
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.004.1 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.004.2
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
236.       3.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.403±0.016
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.004.2
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
251.       3.         9.5        25.        3.9
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.004.2 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.004.3
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
254.       1.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.433±0.015
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.004.3
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
270.        1.        9.5        25.        3.5
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.004.3 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.005.1
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
DECAY-DATA=(35-BR-82,35.282HR,DG,554.75,0.6245,
                              DG,698.37,0.28273,
                              DG,776.52,0.834,
                              DG,1044.00,0.28273,
                              DG,1317.47,0.26771)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
244.       1.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.416±0.015

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.005.1
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
259.       1.         9.5        25.        3.7
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.005.1 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.005.2
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
DECAY-DATA=(35-BR-82,35.282HR,DG,554.75,0.6245,
                              DG,698.37,0.28273,
                              DG,776.52,0.834,
                              DG,1044.00,0.28273,
                              DG,1317.47,0.26771)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
246.       1.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.420±0.015

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.005.2
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
261.       1.         9.6        25.        3.7
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.005.2 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.005.3
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
DECAY-DATA=(35-BR-82,35.282HR,DG,554.75,0.6245,
                              DG,698.37,0.28273,
                              DG,776.52,0.834,
                              DG,1044.00,0.28273,
                              DG,1317.47,0.26771)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
245.       5.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.413±0.016

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.004.1
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
260.       5.         9.5        25.        4.1
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.004.1 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.005.4
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
DECAY-DATA=(35-BR-82,35.282HR,DG,554.75,0.6245,
                              DG,698.37,0.28273,
                              DG,776.52,0.834,
                              DG,1044.00,0.28273,
                              DG,1317.47,0.26771)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      4ERR-S     4ERR-SYS   4KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
252.       5.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.430±0.018

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.005.4
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      4ERR-S     4ERR-SYS   4KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
268.        5.        9.5        25.        4.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.005.4 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.006.1
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
DECAY-DATA=(35-BR-82,35.282HR,DG,554.75,0.6245,
                              DG,698.37,0.28273,
                              DG,776.52,0.834,
                              DG,1044.00,0.28273,
                              DG,1317.47,0.26771)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
243.       2.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.415±0.016

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.006.1
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
258.       2.         9.5        25.        3.8
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.006.1 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.006.2
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
DECAY-DATA=(35-BR-82,35.282HR,DG,554.75,0.6245,
                              DG,698.37,0.28273,
                              DG,776.52,0.834,
                              DG,1044.00,0.28273,
                              DG,1317.47,0.26771)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
248.       4.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.423±0.016

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.006.2
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
263.        4.        9.5        25.        3.9
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.006.2 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.006.3
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW)
DECAY-DATA=(35-BR-82,35.282HR,DG,554.75,0.6245,
                              DG,698.37,0.28273,
                              DG,776.52,0.834,
                              DG,1044.00,0.28273,
                              DG,1317.47,0.26771)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
243.       2.         9.         25.        3.7
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81Br/197Au = 0.415±0.016

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.006.3
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
258.       2.         9.5        25.        3.8
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.006.3 is renormalized

a) for new gold cross section

$^{85}Rb(n,\gamma)^{86}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.007.1
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,MXW)
DECAY-DATA=(37-RB-86,18.642D,DG,1077.0,0.0864)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
232.       2.         7.         25.        3.0
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 85Rb/197Au = 0.396±0.012

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.007.1
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
246.       2.         7.3        25.        3.1
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.007.1 is renormalized

a) for new gold cross section

$^{85}Rb(n,\gamma)^{86}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.007.2
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,MXW)
DECAY-DATA=(37-RB-86,18.642D,DG,1077.0,0.0864)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
237.       6.         7.         25.        3.0
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 85Rb/197Au = 0.404±0.016

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.007.2
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
252.       6.         7.3        25.        3.8
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.007.2 is renormalized

a) for new gold cross section

$^{85}Rb(n,\gamma)^{86}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.007.3
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,MXW)
DECAY-DATA=(37-RB-86,18.642D,DG,1077.0,0.0864)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
234.       2.         7.         25.        3.0
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 85Rb/197Au = 0.399±0.012

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.007.3
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
249.       2.         7.3        25.        3.1
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.007.3 is renormalized

a) for new gold cross section

$^{85}Rb(n,\gamma)^{86}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.007.4
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,MXW)
DECAY-DATA=(37-RB-86,18.642D,DG,1077.0,0.0864)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      4ERR-S     4ERR-SYS   4KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
236.       2.         7.         25.        3.0
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 85Rb/197Au = 0.403±0.012

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.007.4
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      4ERR-S     4ERR-SYS   4KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
251.       2.         7.3        25.        3.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.007.4 is renormalized

a) for new gold cross section

$^{87}Rb(n,\gamma)^{88}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.008.1
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,MXW)
DECAY-DATA=(37-RB-88,17.773MIN,DG,898.03,0.1468)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
13.1       1.1        0.4        25.        3.2
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 87Rb/197Au = 0.0224±0.0019

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.008.1
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      1ERR-S     1ERR-SYS   1KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
13.9       1.1        0.4        25.        8.4
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.008.1 is renormalized

a) for new gold cross section

$^{87}Rb(n,\gamma)^{88}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.008.2
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,MXW)
DECAY-DATA=(37-RB-88,17.773MIN,DG,898.03,0.1468)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
16.5       3.0        0.5        25.        3.2
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 87Rb/197Au = 0.0282±0.0051

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.008.2
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      2ERR-S     2ERR-SYS   2KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
17.5       3.0        0.5        25.        17.4
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.008.2 is renormalized

a) for new gold cross section

$^{87}Rb(n,\gamma)^{88}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.008.3
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,MXW)
DECAY-DATA=(37-RB-88,17.773MIN,DG,898.03,0.1468)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT         ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
13.8       0.4        0.5        25.        3.2
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 87Rb/197Au = 0.0235±0.0011

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.008.3
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-SYS) Systematic error
-------------------------------------------------------
DATA      3ERR-S     3ERR-SYS   3KT-DUMMY   ERR-T
MB         MB         MB         KEV        PER-CENT
-------------------------------------------------------
13.9       0.4        0.5        25.        4.6
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.008.3 is renormalized

a) for new gold cross section

$^{79}Br(n,\gamma)^{80g}Br$:

Actual data in EXFOR

```
* Data set#= 23035.009
REACTION  =(35-BR-79(N,G)35-BR-80-G,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         460.       44.
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (79Br(n,g)80Br-g)/197Au = 0.785±0.075

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.009
REACTION  =(35-BR-79(N,G)35-BR-80-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         489.       46.
---------------------------------
```

Comment:

cross section value in subentry 23035.009 is renormalized

a) for new gold cross section

$^{79}Br(n,\gamma)^{80m}Br$:

Actual data in EXFOR

```
* Data set#= 23035.010
REACTION  =(35-BR-79(N,G)35-BR-80-M,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         174.       17.
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio (79Br(n,g)80Br-m)/197Au = 0.297±0.029

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.010
REACTION  =(35-BR-79(N,G)35-BR-80-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         185.       18.
---------------------------------
```

Comment:

cross section value in subentry 23035.010 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.011
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         245.       9.
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 81B/197Au = 0.418±0.015
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.011
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         260.       9.
---------------------------------
```

Comment:

cross section value in subentry 23035.011 is renormalized

a) for new gold cross section

$^{85}Rb(n,\gamma)^{86}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.012
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         235.       7.
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 85Rb/197Au = 0.401±0.012
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.012
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         250.       7.
---------------------------------
```

Comment:

cross section value in subentry 23035.012 is renormalized

a) for new gold cross section

$^{87}Rb(n,\gamma)^{88}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.013
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         13.9       0.8
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity: cross section ratio 87Rb/197Au = 0.0237±0.0014
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.013
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         14.8       0.8
---------------------------------
```

Comment:

cross section value in subentry 23035.013 is renormalized

a) for new gold cross section

$^{79}Br(n,\gamma)^{80}Br$:

Actual data in EXFOR

```
* Data set#= 23035.014
REACTION  =(35-BR-79(N,G)35-BR-80-G,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       +ERR-T     -ERR-T     MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
 5.         1726.      165.       166.       1.5
10.         1152.      110.       117.       1.5
15.          912.       87.        90.       1.5
20.          774.       74.        75.       1.5
25.          681.       65.        65.       1.5
30.          613.       59.        59.       1.5
40.          521.       53.        50.       1.5
50.          458.       48.        44.       1.5
60.          426.       42.        41.       1.5
80.          362.       36.        36.       1.5
100.         298.       40.        28.       1.5
-------------------------------------------------------------------------------
```

Note: These are **total** Maxwellian averages**including capture to the metastable state**.

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.014
REACTION  =(35-BR-79(N,G)35-BR-80,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       +ERR-T     -ERR-T     MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
 5.         1833.      175.       176.       1.0
10.         1223.      117.       124.       1.0
15.          969.       92.        96.       1.0
20.          822.       79.        80.       1.0
25.          723.       69.        69.       1.0
30.          651.       63.        63.       1.0
40.          553.       56.        53.       1.0
50.          486.       51.        47.       1.0
60.          452.       45.        44.       1.0
80.          384.       38.        38.       1.0
100.         316.       42.        30.       1.0
-------------------------------------------------------------------------------
```

Comment:

cross section value in subentry 23035.014 is renormalized

a) for new gold cross section

$^{81}Br(n,\gamma)^{82}Br$:

Actual data in EXFOR

```
* Data set#= 23035.015
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       +ERR-T     -ERR-T     MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
 5.         720.        27.       111.       1.5
10.         450.        18.        37.       1.5
15.         358.        14.        19.       1.5
20.         301.        11.        13.       1.5
25.         262.        10.        10.       1.5
30.         235.         9.         9.       1.5
40.         198.        10.         9.       1.5
50.         174.        10.         9.       1.5
60.         163.         6.        14.       1.5
80.         140.         5.        15.       1.5
100.        118.         7.         9.       1.5
-------------------------------------------------------
```

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.015
REACTION  =(35-BR-81(N,G)35-BR-82,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       +ERR-T     -ERR-T     MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
 5.         765.        27.       118.       1.0
10.         478.        18.        39.       1.0
15.         380.        14.        20.       1.0
20.         320.        11.        13.       1.0
25.         278.        10.        10.       1.0
30.         250.         9.         9.       1.0
40.         210.        10.         9.       1.0
50.         185.        10.         9.       1.0
60.         173.         6.        15.       1.0
80.         149.         5.        16.       1.0
100.        125.         7.         9.       1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.015 is renormalized

a) for new gold cross section

$^{85}Rb(n,\gamma)^{86}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.016
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       +ERR-T     -ERR-T     MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
 5.         666.        19.       224.       1.5
10.         443.        12.       120.       1.5
15.         345.        10.        60.       1.5
20.         288.         8.        24.       1.5
25.         249.         7.         7.       1.5
30.         221.        13.         6.       1.5
40.         183.        24.         5.       1.5
50.         158.        28.         4.       1.5
60.         141.        29.         4.       1.5
80.         119.        28.         3.       1.5
100.        101.        28.         3.       1.5
-------------------------------------------------------
```

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.016
REACTION  =(37-RB-85(N,G)37-RB-86,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
-------------------------------------------------------
KT          DATA       +ERR-T     -ERR-T     MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
 5.         707.        19.       238.       1.0
10.         470.        12.       127.       1.0
15.         366.        10.        64.       1.0
20.         288.         7.        25.       1.0
25.         264.         7.         7.       1.0
30.         235.        14.         6.       1.0
40.         194.        25.         5.       1.0
50.         168.        30.         4.       1.0
60.         150.        31.         4.       1.0
80.         126.        30.         3.       1.0
100.        107.        30.         3.       1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23035.016 is renormalized

a) for new gold cross section

$^{87}Rb(n,\gamma)^{88}Rb$:

Actual data in EXFOR

```
* Data set#= 23035.017
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	MONIT-ERR PER-CENT
5.	36.0	2.2	5.6	1.5
10.	24.9	3.9	0.9	1.5
15.	21.0	2.5	0.8	1.5
20.	18.8	1.5	0.7	1.5
25.	16.7	0.7	0.7	1.5
30.	15.8	0.7	0.9	1.5
40.	14.1	0.6	1.6	1.5
50.	12.8	0.6	2.1	1.5
60.	11.9	0.5	2.3	1.5
80.	10.8	0.5	2.3	1.5
100.	10.0	0.4	2.3	1.5

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23035.017
REACTION  =(37-RB-87(N,G)37-RB-88,,SIG,,MXW,EVAL)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
```

KT KEV	DATA MB	+ERR-T MB	-ERR-T MB	MONIT-ERR PER-CENT
5.	38.2	2.3	5.9	1.0
10.	26.4	4.1	0.9	1.0
15.	22.3	2.7	0.8	1.0
20.	20.0	1.6	0.7	1.0
25.	17.7	0.7	0.7	1.0
30.	16.8	0.7	0.9	1.0
40.	15.0	0.6	1.7	1.0
50.	13.6	0.6	2.2	1.0
60.	12.6	0.5	2.4	1.0
80.	11.5	0.5	2.4	1.0
100.	10.6	0.4	2.4	1.0

Comment:

cross section value in subentry 23035.017 is renormalized for new gold cross section

**** Entry=23043 ****

$^{76}Ge(n,\gamma)^{77g}Ge$:

Actual data in EXFOR

```
* Data set#= 23043.002
REACTION  =(32-GE-76(N,G)32-GE-77-G,,SIG,,MXW)
DECAY-DATA=(32-GE-77-G,11.3HR,DG,264.44,0.539,
                              DG,215.50,0.286,
                              DG,211.03,0.308)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         11.4       0.4
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity (kT=25 keV): cross section ratio (76Ge(n,g)76Ge-g)/197Au = 0.0195±0.0007
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23043.002
REACTION  =(32-GE-76(N,G)32-GE-77-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         12.1       0.4
---------------------------------
```

Comment:

cross section value in subentry 23043.002 is renormalized
for new gold cross section

$^{76}Ge(n,\gamma)^{77g}Ge$:

Actual data in EXFOR

```
* Data set#= 23043.003
REACTION  =(32-GE-76(N,G)32-GE-77-G,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
30.         12.4       0.7
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23043.003
REACTION  =(32-GE-76(N,G)32-GE-77-G,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total error
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
30.         13.2       0.7
---------------------------------
```

Comment:

cross section value in subentry 23043.002 is renormalized for new gold cross section

**** Entry=23046 ****

^{175}Lu(n,γ)^{176m}Lu:

Actual data in EXFOR

```
* Data set#= 23046.002
REACTION  =(71-LU-175(N,G)71-LU-176-M,,SIG,,MXW)
DECAY-DATA=(71-LU-176-M,3.7HR,DG,88.36,0.0890)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) Uncertainty is clearly dominated by systematic
effects, particularly by the intensity of 88 keV line and by the efficiency
of the HPGe detectors
-------------------------------------------------------
KT         DATA       DATA-ERR   MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
 5.1       3048.      195.       2028.      50.
25.        1153.       25.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb

Revised data:

measured quantity at kT=5.1 keV: cross section ratio (175Lu(n,g)176Lu-m)/197Au = 1.503±0.095
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 22892.008.2
REACTION  =(71-LU-175(N,G)71-LU-176-M,,SIG,,SPA)
MONITOR   =((MONIT)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR)
-------------------------------------------------------
KT-DUMMY   DATA       DATA-ERR   MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
 5.1       3203.      205.       2131.      47.
25.        1162.       26.        681.       7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 22892.008.2 is renormalized

a) for new gold cross section

The MONIT-ERR=20 mb is a typo. It should have been 50 mb.

The 5 kev gold cross section was scaled as at 25 keV.

^{175}Lu(n,γ)$^{176m/t}$Lu:

Actual data in EXFOR

```
* Data set#= 23046.005
REACTION  = (71-LU-175(N,G)71-LU-176-M/T,,SIG/RAT,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR) Error not specified
---------------------------------
KT          DATA       DATA-ERR
KEV         NO-DIM     NO-DIM
---------------------------------
25.         0.857      0.023
---------------------------------
```

Comment:

Revision of dataset NOT required because gold monitor cancels out in cross section ratio

**** Entry=23047 ****

$^{54}Fe(n,\gamma)^{55}Fe$:

Actual data in EXFOR

```
* Data set#= 23047.002
REACTION  =(26-FE-54(N,G)26-FE-55,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
----------------------
KT         DATA
KEV        MB
----------------------
25.        31.3
25.        30.3
----------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb
Note: data uncertainty estimated to 10%

Revised data:

measured quantity at kT=25 keV: cross section ratio 54Fe/197Au = 0.0526±0.0053
Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 23047.002
REACTION  =(26-FE-54(N,G)26-FE-55,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,SPA)
-------------------------------------------------------
KT-DUMMY   DATA       DATA-ERR   MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
25.        33.2       3.3        622.7      6.
25.        32.2       3.2.       622.7      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 23047.002 is renormalized

a) for new gold cross section

$^{54}Fe(n,\gamma)^{55}Fe$:

Actual data in EXFOR

```
* Data set#= 23047.003
REACTION  =(26-FE-54(N,G)26-FE-55,,SIG,,MXW,DERIV)
----------------------
KT         DATA
KEV        MB
----------------------
30.        30.8
30.        29.8
----------------------
```

Gold standard for kT=30 keV: 582±9 mb
Note: data uncertainty estimated to 10%

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 23047.003
REACTION  =(26-FE-54(N,G)26-FE-55,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
-------------------------------------------------------
KT         DATA       DATA-ERR   MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        32.4       3.0        611.6      6.
30.        31.3       3.0        611.6      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 23047.003 is renormalized

a) for new gold cross section

$^{54}Fe(n,\gamma)^{55}Fe$:

Actual data in EXFOR

```
* Data set#= 23047.004
REACTION  =(26-FE-54(N,G)26-FE-55,,SIG,,MXW,DERIV)
----------------------
KT         DATA
KEV        MB
----------------------
30.        30.3
----------------------
```

Gold standard for kT=30 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/586 =1.051

```
* Revised Data set#= 23047.004
REACTION  =(26-FE-54(N,G)26-FE-55,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
-------------------------------------------------------
KT         DATA       DATA-ERR   MONIT      MONIT-ERR
KEV        MB         MB         MB         MB
-------------------------------------------------------
30.        31.8       3.2        622.7      6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 23047.004 is renormalized

a) for new gold cross section

**** Entry=23051 ****

^{209}Bi(n,γ)^{210g}Bi:

Actual data in EXFOR

```
* Data set#= 23051.002
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW)
DECAY-DATA=(84-PO-210,138.376D,A,5304.)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-S) Uncertainty of number of counts,
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------------------
KT          DATA        ERR-T       ERR-S
KEV         MB          PER-CENT    PER-CENT
---------------------------------------------
25.         2.279       2.08        0.18
25.         2.223       2.03        0.21
23.         2.197       5.61        4.45
25.         2.203       3.69        1.42
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (209Bi(n,g)209Bi-g)/197Au = (3.800±0.127) E-03
Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 23051.002
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Uncertainty of number of counts,
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------------------
KT-DUMMY    DATA        ERR-T       ERR-S
KEV         MB          PER-CENT    PER-CENT
---------------------------------------------
25.         2.422       1.75        0.18
25.         2.362       1.69        0.21
23.         2.335       5.50        4.45
25.         2.341       3.52        1.42
---------------------------------------------
```

Comment:

cross section value in subentry 23051.002 is renormalized

a) for new gold cross section

$^{209}Bi(n,\gamma)^{210g}Bi$:

Actual data in EXFOR

```
* Data set#= 23051.003
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
MISC-COL   (MISC)  Absolute value of total uncertainty.
ERR-ANALYS=(ERR-T) Total uncertainty.
-------------------------------------------------------
DATA       ERR-T      MISC       KT         KT-ERR
MB         PER-CENT   MB         KEV        KEV
-------------------------------------------------------
2.23       3.14       0.07       25.0       0.5
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (209Bi(n,g)209Bi-g)/197Au = (3.805±0.119) E-03
Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 23051.003
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
MISC-COL   (MISC)  Absolute value of total uncertainty.
ERR-ANALYS=(ERR-T) Total uncertainty.
-------------------------------------------------------
DATA       ERR-T      MISC       KT-DUMMY   KT-ERR
MB         PER-CENT   MB         KEV        KEV
-------------------------------------------------------
2.37       2.93       0.07       25.0       0.5
-------------------------------------------------------
```

Comment:

cross section value in subentry 23051.003 is renormalized

a) for new gold cross section

$^{209}Bi(n,\gamma)^{210g}Bi$:

Actual data in EXFOR

```
* Data set#= 23051.004
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW)
DECAY-DATA=(84-PO-210,142.0D,A,5304.)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------------------
DATA       ERR-T      KT         KT-ERR
MB         MB         KEV        KEV
---------------------------------------------
2.27       0.07       25.0       0.5
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb
Note: data corrected for new half-life of 209Po α-decay (142±1.1)d

Revised data:

measured quantity at kT=25 keV: cross section ratio (209Bi(n,g)209Bi-g)/197Au = (3.874±0.119) E-03
Correction for revised gold standard 622.7/586 =1.0626

```
* Revised Data set#= 23051.004
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------------------
DATA       ERR-T      KT-DUMMY   KT-ERR
MB         MB         KEV        KEV
---------------------------------------------
2.41       0.07       25.0       0.5
---------------------------------------------
```

Comment:

cross section value in subentry 23051.004 is renormalized

a) for new gold cross section

As reported in R.Dressler et al., Annual Report, Paul Scherrer Institute, Villigen, Swizerland (2007), the preliminary value is 142.0±1.1 d instead of 138.376±0.002 d (S.Y.F.Chu et al., WWW Table of Radioactive Isotopes, database version, 28.2.1999), and the new preliminary value is adopted.

$^{209}Bi(n,\gamma)^{210g}Bi$:

Actual data in EXFOR

```
* Data set#= 23051.005
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------
DATA       ERR-T      KT
MB         MB         KEV
---------------------------------
2.16       0.07       30.
---------------------------------
```

Gold standard for Maxwell-spectrum at kT=30 keV: 582±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 23051.005
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------
DATA       ERR-T      KT
MB         MB         KEV
---------------------------------
2.27       0.07       30.
---------------------------------
```

Comment:

cross section value in subentry 23051.005 is renormalized

a) for new gold cross section

$^{209}Bi(n,\gamma)^{210g}Bi$:

Actual data in EXFOR

```
* Data set#= 23051.006
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------
DATA       ERR-T      KT
MB         MB         KEV
---------------------------------
2.20       0.07       30.
---------------------------------
```

Gold standard for Maxwell-spectrum at kT=30 keV: 582±9 mb
Note: data corrected for new half-life of 209Po α-decay (142±1.1)d

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 23051.006
REACTION  =(83-BI-209(N,G)83-BI-210-G,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------
DATA       ERR-T      KT
MB         MB         KEV
---------------------------------
2.31       0.07       30.
---------------------------------
```

Comment:

cross section value in subentry 23051.006 is renormalized

a) for new gold cross section

As reported in R.Dressler et al., Annual Report, Paul Scherrer Institute, Villigen, Swizerland (2007), the preliminary value is 142.0±1.1 d instead of 138.376±0.002 d (S.Y.F.Chu et al., WWW Table of Radioactive Isotopes, database version, 28.2.1999), and the new preliminary value is adopted.

$^{209}Bi(n,\gamma)^{210g/t}Bi$:

Actual data in EXFOR

```
* Data set#= 23051.007
REACTION  =(83-BI-209(N,G)83-BI-210-M/T,,SIG/RAT,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------
DATA       ERR-T      KT
NO-DIM     NO-DIM     KEV
---------------------------------
0.15       0.42       30.
---------------------------------
```

Gold standard for Maxwell-spectrum at kT=30 keV: 582±9 mb

Revised data:

Correction of partial cross section to ground state for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 23051.007
REACTION  =(83-BI-209(N,G)83-BI-210-M/T,,SIG/RAT,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty.
---------------------------------
DATA       ERR-T      KT
NO-DIM     NO-DIM     KEV
---------------------------------
0.11       0.42       30.
---------------------------------
```

Comment:

cross section value in subentry 23051.007 is renormalized

a) for new gold cross section

$^{209}Bi(n,\gamma)^{210g}Bi$:

Actual data in EXFOR

```
* Data set#= 23051.008
REACTION  =(83-BI-209(N,G)83-BI-210-M,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
```

Comment:

No data shown, subentry 23051.008 should be deleted

**** Entry=23064 ****

^{62}Ni(n,γ)^{63}Ni:

Actual data in EXFOR

```
* Data set#= 23064.002
REACTION  =(28-NI-62(N,G)28-NI-63,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Quoted errors are from AMS measurement only
-------------------------------------------------------------------
DATA       DATA-ERR   MONIT      MONIT-ERR  KT         KT-ERR
MB         MB         MB         MB         KEV        KEV
-------------------------------------------------------------------
34.8       9.8        586.       8.         25.0       0.5
22.6       5.6        586.       8.         25.0       0.5
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum of kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 63Ni/197Au = 0.0456±0.0156
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23064.002
REACTION  =(28-NI-62(N,G)28-NI-63,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Quoted errors are from AMS measurement only
-------------------------------------------------------------------
DATA       DATA-ERR   MONIT      MONIT-ERR  KT-DUMMY   KT-ERR
MB         MB         MB         MB         KEV        KEV
-------------------------------------------------------------------
37.0       10.2       622.7      6.         25.0       0.5
24.0       5.9        622.7      6.         25.0       0.5
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23064.002 is renormalized

a) for new gold cross section

$^{62}Ni(n,\gamma)^{63}Ni$:

Actual data in EXFOR

```
* Data set#= 23064.003
REACTION  =(28-NI-62(N,G)28-NI-63,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Quoted errors are from AMS measurement only.
-------------------------------------------------------------------
KT          KT-ERR      DATA        DATA-ERR    MONIT       MONIT-ERR
KEV         KEV         MB          MB          MB          MB
-------------------------------------------------------------------
25.         0.5         25.2        4.9         586.        8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum of kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 63Ni/197Au = 0.0430±0.0084
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23064.003
REACTION  =(28-NI-62(N,G)28-NI-63,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Quoted errors are from AMS measurement only.
-------------------------------------------------------------------
KT-DUMMY    KT-ERR      DATA        DATA-ERR    MONIT       MONIT-ERR
KEV         KEV         MB          MB          MB          MB
-------------------------------------------------------------------
25.         0.5         26.8        5.2         622.7       6.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23064.003 is renormalized

a) for new gold cross section

$^{62}Ni(n,\gamma)^{63}Ni$:

Actual data in EXFOR

```
* Data set#= 23064.004
REACTION  =(28-NI-62(N,G)28-NI-63,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Not specified
-------------------------------------------------------
KT          DATA        DATA-ERR   MONIT      MONIT-ERR
KEV         MB          MB         MB         MB
-------------------------------------------------------
30.         23.4        4.6        586.       8.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb

Revised data:

Correction for revised gold standard 611.6/582 =1.051

```
* Revised Data set#= 23064.004
REACTION  =(28-NI-62(N,G)28-NI-63,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,SPA)
ERR-ANALYS=(DATA-ERR) Not specified
-------------------------------------------------------
KT          DATA        DATA-ERR   MONIT      MONIT-ERR
KEV         MB          MB         MB         MB
-------------------------------------------------------
30.         24.6        4.8        611.6.     6.
-------------------------------------------------------
```

Comment:

cross section value in subentry 23064.004 is renormalized

a) for new gold cross section

$^{62}Ni(n,\gamma)^{63}Ni$:

Actual data in EXFOR

```
* Data set#= 23064.005
REACTION  =(28-NI-62(N,G)28-NI-63,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(DATA-ERR) Not specified
-------------------------------------------------------
KT          DATA       DATA-ERR   MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         26.        4.         586.       8.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±9 mb

Revised data:

This data set is a mixture of the activations and time-of-flight measurements, and should be deleted from EXFOR.

****** Entry=23094 ******

^{168}Yb(n,γ)^{169}Yb:

Actual data in EXFOR

```
* Data set#= 23094.002
REACTION  =(70-YB-168(N,G)70-YB-169,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
---------------------------------------------
KT         DATA       DATA-ERR1  KT-NRM
KEV        MB         MB         KEV
---------------------------------------------
  5.       2997.                 25.
 10.       2046.                 25.
 15.       1681.                 25.
 20.       1470.                 25.
 25.       1325.                 25.
 30.       1214.      61.        25.
 40.       1053.                 25.
 50.        937.                 25.
 60.        850.                 25.
 80.        728.                 25.
100.        649.                 25.
170.        512.                 25.
260.        448.                 25.
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.002
REACTION  =(70-YB-168(N,G)70-YB-169,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections.
---------------------------------------------
KT         DATA       DATA-ERR1  KT-NRM
KEV        MB         MB         KEV
---------------------------------------------
  5.       3183.                 25.
 10.       2173.                 25.
 15.       1785.                 25.
 20.       1561.                 25.
 25.       1407.                 25.
 30.       1290.      63.        25.
 40.       1118.                 25.
 50.        995.                 25.
 60.        903.                 25.
 80.        773.                 25.
100.        689.                 25.
170.        544.                 25.
260.        476.                 25.
---------------------------------------------
```

Comment:

cross section value in subentry 23094.002 is renormalized for new gold cross section

$^{180}W(n,\gamma)^{181}W$:

Actual data in EXFOR

```
* Data set#= 23094.003
REACTION  =(74-W-180(N,G)74-W-181,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
--------------------------------------------
KT         DATA       DATA-ERR1  KT-NRM
KEV        MB         MB         KEV
--------------------------------------------
  5.       1543.                  25.
 10.       1061.                  25.
 15.        869.                  25.
 20.        758.                  25.
 25.        682.                  25.
 30.        624.      54.         25.
 40.        538.                  25.
 50.        475.                  25.
 60.        426.                  25.
 80.        358.                  25.
100.        313.                  25.
170.        234.                  25.
260.        198.                  25.
--------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.003
REACTION  =(74-W-180(N,G)74-W-181,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
--------------------------------------------
KT         DATA       DATA-ERR1  KT-NRM
KEV        MB         MB         KEV
--------------------------------------------
  5.       1639.                 25.
 10.       1127.                 25.
 15.        923.                 25.
 20.        805.                 25.
 25.        724.                 25.
 30.        663.      57.        25.
 40.        571.                 25.
 50.        504.                 25.
 60.        452.                 25.
 80.        380.                 25.
100.        332.                 25.
170.        249.                 25.
260.        210.                 25.
--------------------------------------------
```

Comment:

cross section value in subentry 23094.003 is renormalized for new gold cross section

$^{184}Os(n,\gamma)^{185}Os$:

Actual data in EXFOR

```
* Data set#= 23094.004
REACTION  =(76-OS-184(N,G)76-OS-185,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
---------------------------------------------
KT          DATA        DATA-ERR1  KT-NRM
KEV         MB          MB         KEV
---------------------------------------------
  5.        1564.                  25.
 10.        1021.                  25.
 15.         816.                  25.
 20.         708.                  25.
 25.         639.                  25.
 30.         590.       43.        25.
 40.         524.                  25.
 50.         478.                  25.
 60.         445.                  25.
 80.         396.                  25.
100.         364.                  25.
170.         307.                  25.
260.         283.                  25.
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.004
REACTION  =(76-OS-184(N,G)76-OS-185,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
---------------------------------------------
KT          DATA        DATA-ERR1  KT-NRM
KEV         MB          MB         KEV
---------------------------------------------
  5.        1661.                  25.
 10.        1084.                  25.
 15.         867.                  25.
 20.         752.                  25.
 25.         679.                  25.
 30.         627.       45.        25.
 40.         556.                  25.
 50.         508.                  25.
 60.         473.                  25.
 80.         421.                  25.
100.         387.                  25.
170.         326.                  25.
260.         301.                  25.
---------------------------------------------
```

Comment:

cross section value in subentry 23094.004 is renormalized for new gold cross section

$^{191}Pt(n,\gamma)^{192}Pt$:

Actual data in EXFOR

```
* Data set#= 23094.005
REACTION  =(78-PT-190(N,G)78-PT-191,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
--------------------------------------------
KT          DATA       DATA-ERR1  KT-NRM
KEV         MB         MB         KEV
--------------------------------------------
  5.        1172.                 25.
 10.         792.                 25.
 15.         659.                 25.
 20.         587.                 25.
 25.         542.                 25.
 30.         511.       46.       25.
 40.         469.                 25.
 50.         441.                 25.
 60.         421.                 25.
 80.         389.                 25.
100.         363.                 25.
170.         293.                 25.
260.         234.                 25.
--------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.005
REACTION  =(78-PT-190(N,G)78-PT-191,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
--------------------------------------------
KT          DATA       DATA-ERR1  KT-NRM
KEV         MB         MB         KEV
--------------------------------------------
  5.        1245.                 25.
 10.         841.                 25.
 15.         700.                 25.
 20.         623.                 25.
 25.         576.                 25.
 30.         543.       49.       25.
 40.         498.                 25.
 50.         468.                 25.
 60.         447.                 25.
 80.         413.                 25.
100.         386.                 25.
170.         311.                 25.
260.         249.                 25.
--------------------------------------------
```

Comment:

cross section value in subentry 23094.005 is renormalized for new gold cross section

$^{196}Hg(n,\gamma)^{197}Hg$:

Actual data in EXFOR

```
* Data set#= 23094.006
REACTION  =(80-HG-196(N,G)80-HG-197,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
---------------------------------------------
KT          DATA        DATA-ERR1  KT-NRM
KEV         MB          MB         KEV
---------------------------------------------
  5.        522.                   25.
 10.        349.                   25.
 15.        281.                   25.
 20.        243.                   25.
 25.        219.                   25.
 30.        201.        11.        25.
 40.        178.                   25.
 50.        163.                   25.
 60.        151.                   25.
 80.        135.                   25.
100.        123.                   25.
170.         95.                   25.
260.         75.                   25.
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.006
REACTION  =(80-HG-196(N,G)80-HG-197,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR1) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
---------------------------------------------
KT          DATA        DATA-ERR1  KT-NRM
KEV         MB          MB         KEV
---------------------------------------------
  5.        554.                   25.
 10.        371.                   25.
 15.        298.                   25.
 20.        243.                   25.
 25.        258.                   25.
 30.        213.        11.        25.
 40.        189.                   25.
 50.        173.                   25.
 60.        160.                   25.
 80.        143.                   25.
100.        131.                   25.
170.        101.                   25.
260.         80.                   25.
---------------------------------------------
```

Comment:

cross section value in subentry 23094.006 is renormalized for new gold cross section

$^{196}Hg(n,\gamma)^{197m}Hg$:

Actual data in EXFOR

```
* Data set#= 23094.007
REACTION  =(80-HG-196(N,G)80-HG-197-M,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
--------------------------------------------
DATA       DATA-ERR   KT         KT-NRM
MB         MB         KEV        KEV
--------------------------------------------
26.3       1.4        30.        25.
--------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.007
REACTION  =(80-HG-196(N,G)80-HG-197-M,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Uncertainty quoted for kT=30keV corresponds
essentially to those of the measured cross sections
--------------------------------------------
DATA       DATA-ERR   KT-DUMMY   KT-NRM
MB         MB         KEV        KEV
--------------------------------------------
27.9       1.5        25.        25.
--------------------------------------------
```

Comment:

cross section value in subentry 23094.007 is renormalized

a) for new gold cross section
b) for proper spectrum average

The 25 keV SACS and 30 keV MACS are identical in this specific case.

^{168}Yb(n,γ)^{169}Yb:

Actual data in EXFOR

```
* Data set#= 23094.008
REACTION  =(70-YB-168(N,G)70-YB-169,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT          KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
1235.       61.         25.         5.
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.008
REACTION  =(70-YB-168(N,G)70-YB-169,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT-DUMMY    KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
1312.       63.         25.         5.
---------------------------------------------
```

Comment:

cross section value in subentry 23094.008 is renormalized

a) for new gold cross section

$^{180}W(n,\gamma)^{181}W$:

Actual data in EXFOR

```
* Data set#= 23094.009
REACTION  =(74-W-180(N,G)74-W-181,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT          KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
658.        56.         25.         5.
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.009
REACTION  =(74-W-180(N,G)74-W-181,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT-DUMMY    KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
699.        59.         25.         5.
---------------------------------------------
```

Comment:

cross section value in subentry 23094.009 is renormalized

a) for new gold cross section

$^{184}Os(n,\gamma)^{185}Os$:

Actual data in EXFOR

```
* Data set#= 23094.010
REACTION  =(76-OS-184(N,G)76-OS-185,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT          KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
586.        42.         25.         5.
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.010
REACTION  =(76-OS-184(N,G)76-OS-185,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT-DUMMY    KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
622.        44.         25.         5.
---------------------------------------------
```

Comment:

cross section value in subentry 23094.010 is renormalized

a) for new gold cross section

$^{191}Pt(n,\gamma)^{192}Pt$:

Actual data in EXFOR

```
* Data set#= 23094.011
REACTION  =(78-PT-190(N,G)78-PT-191,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT          KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
496.        45.         25.         5.
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.011
REACTION  =(78-PT-190(N,G)78-PT-191,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT-DUMMY    KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
527.        47.         25.         5.
---------------------------------------------
```

Comment:

cross section value in subentry 23094.011 is renormalized

a) for new gold cross section

$^{196}Hg(n,\gamma)^{197}Hg$:

Actual data in EXFOR

```
* Data set#= 23094.012
REACTION  =(80-HG-196(N,G)80-HG-197,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT         KT-ERR
MB         MB         KEV        KEV
---------------------------------------------
201.       10.        25.        5.
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.012
REACTION  =(80-HG-196(N,G)80-HG-197,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA       ERR-T      KT-DUMMY   KT-ERR
MB         MB         KEV        KEV
---------------------------------------------
213.       10.        25.        5.
---------------------------------------------
```

Comment:

cross section value in subentry 23094.012 is renormalized

a) for new gold cross section

$^{196}Hg(n,\gamma)^{197m}Hg$:

Actual data in EXFOR

```
* Data set#= 23094.013
REACTION  =(80-HG-196(N,G)80-HG-197-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT          KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
26.3        1.4         25.         5.
---------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.013
REACTION  =(80-HG-196(N,G)80-HG-197-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
DATA        ERR-T       KT-DUMMY    KT-ERR
MB          MB          KEV         KEV
---------------------------------------------
27.9        1.5          25.         5.
---------------------------------------------
```

Comment:

cross section value in subentry 23094.013 is renormalized

a) for new gold cross section

^{168}Yb(n,γ)^{169}Yb:

Actual data in EXFOR

```
* Data set#= 23094.014
REACTION  =(70-YB-168(N,G)70-YB-169,,SIG,,SPA)
DECAY-DATA=(70-YB-169,32.026D,DG,130.5,0.1131,
                              DG,177.2,0.222,
                              DG,198.0,0.358,
                              DG,307.7,0.1005)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
1225.	60.	25.	5.	586.	8.
1229.	60.	25.	5.	586.	8.
1212.	59.	25.	5.	586.	8.
1137.	56.	25.	5.	586.	8.
1211.	60.	25.	5.	586.	8.
1127.	56.	25.	5.	586.	8.
1324.	65.	25.	5.	586.	8.
1261.	62.	25.	5.	586.	8.
1283.	63.	25.	5.	586.	8.
1191.	58.	25.	5.	586.	8.
1216.	60.	25.	5.	586.	8.
1151.	57.	25.	5.	586.	8.
1364.	66.	25.	5.	586.	8.
1260.	62.	25.	5.	586.	8.
1364.	66.	25.	5.	586.	8.
1274.	63.	25.	5.	586.	8.
1263.	62.	25.	5.	586.	8.
1255.	63.	25.	5.	586.	8.
1332.	65.	25.	5.	586.	8.
1265.	62.	25.	5.	586.	8.
1301.	64.	25.	5.	586.	8.
1214.	59.	25.	5.	586.	8.
1188.	59.	25.	5.	586.	8.
1170.	58.	25.	5.	586.	8.

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

(See next page for the revised data.)

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.014
REACTION  =(70-YB-168(N,G)70-YB-169,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT-DUMMY KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
1301.	62.	25.	5.	622.7	6.0
1305.	62.	25.	5.	622.7	6.0
1287.	61.	25.	5.	622.7	6.0
1207.	58.	25.	5.	622.7	6.0
1286.	62.	25.	5.	622.7	6.0
1197.	58.	25.	5.	622.7	6.0
1406.	67.	25.	5.	622.7	6.0
1339.	64.	25.	5.	622.7	6.0
1363.	65.	25.	5.	622.7	6.0
1265.	60.	25.	5.	622.7	6.0
1291.	62.	25.	5.	622.7	6.0
1222.	59.	25.	5.	622.7	6.0
1449.	68.	25.	5.	622.7	6.0
1338.	64.	25.	5.	622.7	6.0
1449.	68.	25.	5.	622.7	6.0
1353.	65.	25.	5.	622.7	6.0
1341.	64.	25.	5.	622.7	6.0
1333.	65.	25.	5.	622.7	6.0
1415.	67.	25.	5.	622.7	6.0
1343.	64.	25.	5.	622.7	6.0
1382.	66.	25.	5.	622.7	6.0
1289.	61.	25.	5.	622.7	6.0
1262.	61.	25.	5.	622.7	6.0
1242.	60.	25.	5.	622.7	6.0

Comment:

cross section value in subentry 23094.014 is renormalized

a) for new gold cross section

$^{180}W(n,\gamma)^{181}W$:

Actual data in EXFOR

```
* Data set#= 23094.015
REACTION  =(74-W-180(N,G)74-W-181,,SIG,,SPA)
DECAY-DATA=(74-W-181,121.2D,DG,136.3,0.000311,
                            DG,152.3,0.00083)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-----------------------------------------------------------------
DATA       ERR-T      KT         KT-ERR     MONIT      MONIT-ERR
MB         MB         KEV        KEV        MB         MB
-----------------------------------------------------------------
702.       47.        25.        5.         586.       8.
620.       43.        25.        5.         586.       8.
-----------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.015
REACTION  =(74-W-180(N,G)74-W-181,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-----------------------------------------------------------------
DATA       ERR-T      KT-DUMMY   KT-ERR     MONIT      MONIT-ERR
MB         MB         KEV        KEV        MB         MB
-----------------------------------------------------------------
746.       49.        25.        5.         622.7      6.0
658.       45.        25.        5.         622.7      6.0
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 23094.015 is renormalized

a) for new gold cross section

$^{184}Os(n,\gamma)^{185}Os$:

Actual data in EXFOR

```
* Data set#= 23094.016
REACTION  =(76-OS-184(N,G)76-OS-185,,SIG,,SPA)
DECAY-DATA=(76-OS-185,93.6D,DG,646.116,0.780)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
603.	43.	25.	5.	586.	8.
577.	42.	25.	5.	586.	8.
578.	42.	25.	5.	586.	8.

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.016
REACTION  =(76-OS-184(N,G)76-OS-185,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT-DUMMY KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
640.	45.	25.	5.	622.7	6.0
613.	44.	25.	5.	622.7	6.0
614.	44.	25.	5.	622.7	6.0

Comment:

cross section value in subentry 23094.016 is renormalized

a) for new gold cross section

$^{190}Pt(n,\gamma)^{191}Pt$:

Actual data in EXFOR

```
* Data set#= 23094.017
REACTION  =(78-PT-190(N,G)78-PT-191,,SIG,,SPA)
DECAY-DATA=(78-PT-191,2.802D,DG,359.9,0.064,
                             DG,538.9,0.159)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
503.	47.	25.	5.	586.	8.
518.	49.	25.	5.	586.	8.
523.	49.	25.	5.	586.	8.
474.	42.	25.	5.	586.	8.
472.	42.	25.	5.	586.	8.
505.	44.	25.	5.	586.	8.

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.017
REACTION  =(78-PT-190(N,G)78-PT-191,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT-DUMMY KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
534.	50.	25.	5.	622.7	6.0
550.	52.	25.	5.	622.7	6.0
555.	52.	25.	5.	622.7	6.0
503.	45.	25.	5.	622.7	6.0
501.	45.	25.	5.	622.7	6.0
536.	47.	25.	5.	622.7	6.0

Comment:

cross section value in subentry 23094.017 is renormalized

a) for new gold cross section

$^{196}Hg(n,\gamma)^{197}Hg$:

Actual data in EXFOR

```
* Data set#= 23094.018
REACTION  =(80-HG-196(N,G)80-HG-197,,SIG,,SPA)
DECAY-DATA=(80-HG-197-G,64.14HR,DG,77.4,0.187)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA       ERR-T      KT         KT-ERR     MONIT      MONIT-ERR
MB         MB         KEV        KEV        MB         MB
-------------------------------------------------------------------
199.       10.        25.        5.         586.       8.
201.       10.        25.        5.         586.       8.
202.       10.        25.        5.         586.       8.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.018
REACTION  =(80-HG-196(N,G)80-HG-197,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA       ERR-T      KT-DUMMY   KT-ERR     MONIT      MONIT-ERR
MB         MB         KEV        KEV        MB         MB
-------------------------------------------------------------------
211.       10.        25.        5.         622.7      6.0
213.       10.        25.        5.         622.7      6.0
215.       10.        25.        5.         622.7      6.0
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23094.018 is renormalized

a) for new gold cross section

$^{196}Hg(n,\gamma)^{197m}Hg$:

Actual data in EXFOR

```
* Data set#= 23094.019
REACTION  =(80-HG-196(N,G)80-HG-197-M,,SIG,,SPA)
DECAY-DATA=(80-HG-197-M,23.8HR,DG,134.0,0.3348)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
25.5	2.1	25.	5.	586.	8.
28.0	1.9	25.	5.	586.	8.
23.1	2.6	25.	5.	586.	8.
26.5	1.7	25.	5.	586.	8.
27.3	2.4	25.	5.	586.	8.
25.7	2.2	25.	5.	586.	8.

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23094.019
REACTION  =(80-HG-196(N,G)80-HG-197-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT-DUMMY KEV	KT-ERR KEV	MONIT MB	MONIT-ERR MB
27.1	2.2	25.	5.	622.7	6.0
29.7	2.1	25.	5.	622.7	6.0
24.5	2.8	25.	5.	622.7	6.0
28.1	1.9	25.	5.	622.7	6.0
29.0	2.6	25.	5.	622.7	6.0
27.2	2.4	25.	5.	622.7	6.0

Comment:

cross section value in subentry 23094.019 is renormalized

a) for new gold cross section

**** Entry=23095 ****

$^{60}Fe(n,\gamma)^{61}Fe$:

Comment:

a) for 60Fe(n,γ)61Fe cross section see entry 14228

****** Entry=23166 ******

$^{64}Zn(n,\gamma)^{65}Zn$:

Actual data in EXFOR

```
* Data set#= 23166.002
REACTION  =(30-ZN-64(N,G)30-ZN-65,,SIG,,SPA)
DECAY-DATA=(30-ZN-65,243.93D,DG,1115.539,0.5004)
 MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         PER-CENT
-------------------------------------------------------
54.5       2.1        25.        586.       1.5
54.7       2.2        25.        586.       1.5
52.7       2.2        25.        586.       1.5
52.6       3.0        25.        586.       1.5
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 64Zn/197Au = 0.0915±0.0040
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23166.002
REACTION  =(30-ZN-64(N,G)30-ZN-65,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT      MONIT-ERR
MB         MB         KEV        MB         PER-CENT
-------------------------------------------------------
57.9       2.1        25.        622.7      1.0
58.1       2.2        25.        622.7      1.0
56.0       2.3        25.        622.7      1.0
55.9       3.1        25.        622.7      1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23166.002 is renormalized

a) for new gold cross section

$^{64}Zn(n,\gamma)^{65}Zn$:

Actual data in EXFOR

```
* Data set#= 23166.003
REACTION  =(30-ZN-64(N,G)30-ZN-65,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Because statistical uncertainties were found to be
practically negligible after averaging the results from repeated
activations, the final uncertainties are determined by systematic effects
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         53.5       1.5
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 64Zn/197Au = 0.0913±0.0026
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23166.003
REACTION  =(30-ZN-64(N,G)30-ZN-65,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         56.8       1.5
---------------------------------
```

Comment:

cross section value in subentry 23166.003 is renormalized

a) for new gold cross section

$^{68}Zn(n,\gamma)^{69m}Zn$:

Actual data in EXFOR

```
* Data set#= 23166.004
REACTION  =(30-ZN-68(N,G)30-ZN-69-M,,SIG,,SPA)
DECAY-DATA=(30-ZN-69-M,13.76HR,DG,438.636,0.948)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         PER-CENT
-------------------------------------------------------
3.37       0.13       25.        586.       1.5
3.38       0.14       25.        586.       1.5
3.25       0.14       25.        586.       1.5
3.31       0.19       25.        586.       1.5
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (68Zn(ng)68Zn-m)/197Au = 0.00583±0.0026
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23166.004
REACTION  =(30-ZN-68(N,G)30-ZN-69-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT      MONIT-ERR
MB         MB         KEV        MB         PER-CENT
-------------------------------------------------------
3.58       0.13       25.        622.7      1.0
3.59       0.13       25.        622.7      1.0
3.45       0.14       25.        622.7      1.0
3.52       0.20       25.        622.7      1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23166.004 is renormalized

a) for new gold cross section

$^{68}Zn(n,\gamma)^{68m}Zn$:

Actual data in EXFOR

```
* Data set#= 23166.005
REACTION  =(30-ZN-68(N,G)30-ZN-69-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Because statistical uncertainties were found to be
practically negligible after averaging the results from repeated
activations, the final uncertainties are determined by systematic effects
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.        3.30        0.09
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (68Zn(ng)68Zn-m)/197Au = 0.00563±0.00015
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23166.005
REACTION  =(30-ZN-68(N,G)30-ZN-69-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         3.50       0.09
---------------------------------
```

Comment:

cross section value in subentry 23166.005 is renormalized

a) for new gold cross section

$^{70}Zn(n,\gamma)^{71m}Zn$:

Actual data in EXFOR

```
* Data set#= 23166.006
REACTION  =(30-ZN-70(N,G)30-ZN-71-M,,SIG,,SPA)
DECAY-DATA=(30-ZN-71-M,3.96HR,DG,487.30,0.612)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
DATA       ERR-T      KT         MONIT      MONIT-ERR
MB         MB         KEV        MB         PER-CENT
-------------------------------------------------------
6.69       0.40       25.        586.       1.5
7.46       0.43       25.        586.       1.5
6.39       0.37       25.        586.       1.5
6.75       0.47       25.        586.       1.5
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (70Zn(ng)71Zn-m)/197Au = 0.01164±0.00072
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23166.006
REACTION  =(30-ZN-70(N,G)30-ZN-71-M,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
DATA       ERR-T      KT-DUMMY   MONIT      MONIT-ERR
MB         MB         KEV        MB         PER-CENT
-------------------------------------------------------
7.10       0.40       25.        622.7      1.0
7.92       0.44       25.        622.7      1.0
6.79       0.39       25.        622.7      1.0
7.17       0.49       25.        622.7      1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23166.006 is renormalized

a) for new gold cross section

$^{70}Zn(n,\gamma)^{71m}Zn$:

Actual data in EXFOR

```
* Data set#= 23166.007
REACTION  =(30-ZN-70(N,G)30-ZN-71-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Because statistical uncertainties were found to be
practically negligible after averaging the results from repeated
activations, the final uncertainties are determined by systematic effects
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         6.79       0.34
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (70Zn(ng)71Zn-m)/197Au = 0.01159±0.00058
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23166.007
REACTION  =(30-ZN-70(N,G)30-ZN-71-M,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         7.21       0.35
---------------------------------
```

Comment:

cross section value in subentry 23166.007 is renormalized

a) for new gold cross section

$^{70}Zn(n,\gamma)^{71g}Zn$:

Actual data in EXFOR

```
* Data set#= 23166.008
REACTION  =(30-ZN-70(N,G)30-ZN-71-G,,SIG,,SPA)
DECAY-DATA=(30-ZN-71-G,2.45MIN,DG,910.3,0.0784)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         4.18       0.67
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (70Zn(ng)71Zn-g)/197Au = 0.00713±0.00011
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23166.008
REACTION  =(30-ZN-70(N,G)30-ZN-71-G,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------
KT-DUMMY    DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         4.44       0.71
---------------------------------
```

Comment:

cross section value in subentry 23166.008 is renormalized

a) for new gold cross section

$^{64}Zn(n,\gamma)^{65}Zn$:

Actual data in EXFOR

```
* Data set#= 23166.009
REACTION  =(30-ZN-64(N,G)30-ZN-65,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         58.6       1.7
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23166.009
REACTION  =(30-ZN-64(N,G)30-ZN-65,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         62.2       1.7
---------------------------------
```

Comment:

cross section value in subentry 23166.009 is renormalized

a) for new gold cross section

$^{70}Zn(n,\gamma)^{71}Zn$:

Actual data in EXFOR

```
* Data set#= 23166.010
REACTION  =(30-ZN-70(N,G)30-ZN-71,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         11.7       0.8
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23166.010
REACTION  =(30-ZN-70(N,G)30-ZN-71,,SIG,,MXW,DERIV)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------
KT          DATA       ERR-T
KEV         MB         MB
---------------------------------
25.         12.4       0.8
---------------------------------
```

Comment:

cross section value in subentry 23166.010 is renormalized

a) for new gold cross section

**** Entry=23170 ****

$^{235}U(n,\gamma)^{236}U$:

Actual data in EXFOR

```
* Data set#= 23170.008
REACTION  =(92-U-235(N,G)92-U-236,,SIG,,SPA[4])
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
MONITOR   =((MONIT2)92-U-235(N,G)92-U-236,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT	DATA	ERR-T	MONIT1	EN-NRM2	MONIT2
KEV	B	B	MB	EV	B
25.	0.651	0.036	623.	0.0253	98.96

Comment:

Revision not required, data already based on new gold cross section

[4] Note by NDS: The authors confirmed its combination with the heading KT is correct.

$^{238}U(n,\gamma)^{239}U$:

Actual data in EXFOR

```
* Data set#= 23170.009
REACTION  =(92-U-238(N,G)92-U-239,,SIG,,SPA)
MONITOR   =((MONIT1)79-AU-197(N,G)79-AU-198,,SIG,,SPA)
MONITOR   =((MONIT2)92-U-238(N,G)92-U-239,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
KT-DUMMY   DATA       ERR-T      MONIT1     EN-NRM2    MONIT2
KEV        B          B          MB         EV         B
-------------------------------------------------------------------
25.        0.391      0.017      623.       0.0253     2.68
-------------------------------------------------------------------
```

Comment:

Revision not required, data already based on new gold cross section. But KT-DUMMY should replace KT.

**** Entry=23220 ****

^{132}Xe(n,γ)^{133g}Xe:

Actual data in EXFOR

```
* Data set#= 23220.003
REACTION  =(54-XE-132(N,G)54-XE-133-G,,SIG,,MXW)
DECAY-DATA=(54-XE-133-G,5.245D,DG,81.,0.37)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) Not specified.
-----------------------------------------------------------------
DATA       DATA-ERR   ERR-IDD    KT         MONIT      MONIT-ERR
MB         MB         NO-DIM     KEV        MB         MB
-----------------------------------------------------------------
67.        4.         0.01       25.        657.       16.
-----------------------------------------------------------------
```

Gold standard for Maxwell-spectrum at kT=25 keV: 657±16 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (132Xe(n,g)133Xe-g)/197Au = 0.102±0.0061
Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 23220.003
REACTION  =(54-XE-132(N,G)54-XE-133-G,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198-G,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) Not specified.
-----------------------------------------------------------------
DATA       DATA-ERR   ERR-IDD    KT         MONIT      MONIT-ERR
MB         MB         NO-DIM     KEV        MB         MB
-----------------------------------------------------------------
71.        4.         0.01       25.        681.       7.
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 23220.003 is renormalized

a) for new gold cross section
b) by an additional factor 0.55/0.538=1.022, which accounts for the gamma-intensity of the 188.43 keV transition in the ^{125}Xe decay (*NDS/ENSDF 2020*)[5]

[5] Note by NDS: Probably it was an intention of the authors to apply this correction not to this data set but to the ^{124}Xe(n,γ)^{125}Xe cross section compiled in EXFOR 23220.002, which is superseded by EXFOR 22253.010.

^{132}Xe(n,γ)^{133g}Xe:

Actual data in EXFOR

```
* Data set#= 23220.007
REACTION  =(54-XE-132(N,G)54-XE-133-G,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR) Not specified
---------------------------------
DATA       DATA-ERR   KT
MB         MB         KEV
---------------------------------
61.        4.         30.
---------------------------------
```

Gold standard for Maxwell-spectrum at kT=25 keV: 657±16 mb

Revised data:

Correction for revised gold standard 681/657 =1.037

```
* Revised Data set#= 23220.007
REACTION  =(54-XE-132(N,G)54-XE-133-G,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR) Not specified.
-------------------------------------------------------------------
DATA       DATA-ERR   ERR-IDD    KT         MONIT      MONIT-ERR
MB         MB         NO-DIM     KEV        MB         MB
-------------------------------------------------------------------
65.        4.         0.01       25.        681.       7.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23220.007 is renormalized

a) for new gold cross section
b) by an additional factor 0.55/0.538=1.022, which accounts for the gamma-intensity of the 5297.29 keV transition in the ^{15}C decay (*NDS/ENSDF 2020)*[6]

[6] Note by NDS: Probably it was an intention of the authors to apply this correction not to this data set but to the ^{14}C(n,γ)^{15}C cross section compiled in EXFOR 23252.002.

**** Entry=23252 ****

$^{14}C(n,\gamma)^{15}C$:

Actual data in EXFOR

```
* Data set#= 23252.002
REACTION  =(6-C-14(N,G)6-C-15,,SIG,,MXW)
DECAY-DATA=(6-C-15,2.449SEC,DG,5297.79,0.68)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Quadratic error propagation (25%) from
-------------------------------------------------------------------
KT         DATA       ERR-T      ERR-S      MONIT      MONIT-ERR
KEV        MICRO-B    PER-CENT   PER-CENT   MB         PER-CENT
-------------------------------------------------------------------
23.3       1.72       25.        23.        648.       1.5
-------------------------------------------------------------------
```

Gold standard for Maxwell-spectrum at kT=25 keV: 648±10 mb

Revised data:

measured quantity at kT=23.3 keV: cross section ratio 14C/197Au = (2.65±0.66) E-06
Correction for revised gold standard 681/648 =1.062

```
* Revised Data set#= 23252.002
REACTION  =(6-C-14(N,G)6-C-15,,SIG,,MXW)
DECAY-DATA=(6-C-15,2.449SEC,DG,5297.79,0.632)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Quadratic error propagation (25%) from
-------------------------------------------------------------------
KT         DATA       ERR-T      ERR-S      MONIT      MONIT-ERR
KEV        MICRO-B    PER-CENT   PER-CENT   MB         PER-CENT
-------------------------------------------------------------------
23.3       1.97       25.        23.        681.       1.0
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23252.002 is renormalized

a) for new gold cross section
b) by an additional factor 0.68/0.632=1.076, which accounts for the gamma-intensity of the 5297.29 keV transition in the ^{15}C decay (*NDS/ENSDF 2020)*

**** Entry=23267 ****

^{174}Yb(n,γ)^{175}Yb:

Actual data in EXFOR

```
* Data set#= 23267.002.1
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
DECAY-DATA=(70-YB-175,4.185D,DG,144.9,0.00672,
                             DG,282.5,0.613,
                             DG,396.3,0.132)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
169.       2.8        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 174Yb/197Au = 0.288±0.008
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.002.1
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
179.       2.6        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.002.1 is renormalized

a) for new gold cross section

^{174}Yb(n,γ)^{175}Yb:

Actual data in EXFOR

```
* Data set#= 23267.002.2
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
DECAY-DATA=(70-YB-175,4.185D,DG,144.9,0.00672,
                             DG,282.5,0.613,
                             DG,396.3,0.132)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
164.       2.9        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 174Yb/197Au = 0.282±0.008
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.002.2
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
174.       2.7        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.002.2 is renormalized

a) for new gold cross section

^{174}Yb(n,γ)^{175}Yb:

Actual data in EXFOR

```
* Data set#= 23267.002.3
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
DECAY-DATA=(70-YB-175,4.185D,DG,144.9,0.00672,
                             DG,282.5,0.613,
                             DG,396.3,0.132)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
171.       2.8         586.      1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 174Yb/197Au = 0.292±0.008
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.002.3
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
182.       2.6        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.002.3 is renormalized

a) for new gold cross section

^{174}Yb(n,γ)^{175}Yb:

Actual data in EXFOR

```
* Data set#= 23267.002.4
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
DECAY-DATA=(70-YB-175,4.185D,DG,144.9,0.00672,
                             DG,282.5,0.613,
                             DG,396.3,0.132)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
168.       2.9        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 174Yb/197Au = 0.287±0.008
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.002.4
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
178.       2.7        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.002.4 is renormalized

a) for new gold cross section

^{174}Yb(n,γ)^{175}Yb:

Actual data in EXFOR

```
* Data set#= 23267.002.5
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
DECAY-DATA=(70-YB-175,4.185D,DG,144.9,0.00672,
                             DG,282.5,0.613,
                             DG,396.3,0.132)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      5ERR-T     5MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
157.       3.1        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 174Yb/197Au = 0.268±0.008
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.002.5
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      5ERR-T     5MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
167.       2.9        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.002.5 is renormalized

a) for new gold cross section

^{174}Yb(n,γ)^{175}Yb:

Actual data in EXFOR

```
* Data set#= 23267.002.6
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
DECAY-DATA=(70-YB-175,4.185D,DG,144.9,0.00672,
                             DG,282.5,0.613,
                             DG,396.3,0.132)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      6ERR-T     6MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
160.       3.0        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 174Yb/197Au = 0.273±0.008
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.002.6
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      6ERR-T     6MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
170.       2.8        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.002.6 is renormalized

a) for new gold cross section

^{174}Yb(n,γ)^{175}Yb:

Actual data in EXFOR

```
* Data set#= 23267.002.7
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
DECAY-DATA=(70-YB-175,4.185D,DG,144.9,0.00672,
                             DG,282.5,0.613,
                             DG,396.3,0.132)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      7ERR-T     7MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
165.       2.8        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 174Yb/197Au = 0.282±0.008
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.002.7
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      7ERR-T     7MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
175.       2.6        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.002.7 is renormalized

a) for new gold cross section

^{176}Yb(n,γ)^{177}Yb:

Actual data in EXFOR

```
* Data set#= 23267.003.1
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.035,
                                DG,150.3,0.205,
                                DG,1080.5,0.059,
                                DG,1241.8,0.035)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
119.       7.3        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 176Yb/197Au = 0.203±0.015
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.003.1
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.0305,
                                DG,150.3,0.180,
                                DG,1080.5,0.0508,
                                DG,1241.8,0.0307)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
145.       7.2        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.003.1 is renormalized

a) for new gold cross section
b) for new gamma-intensities: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.147

^{176}Yb(n,γ)^{177}Yb:

Actual data in EXFOR

```
* Data set#= 23267.003.2
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.035,
                                DG,150.3,0.205,
                                DG,1080.5,0.059,
                                DG,1241.8,0.035)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
123.4     7.3         586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 176Yb/197Au = 0.211±0.015
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.003.2
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.0305,
                                DG,150.3,0.180,
                                DG,1080.5,0.0508,
                                DG,1241.8,0.0307)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
150.3      7.2        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.003.2 is renormalized

a) for new gold cross section
b) for new gamma-intensities: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.147

^{176}Yb(n,γ)^{177}Yb:

Actual data in EXFOR

```
* Data set#= 23267.003.3
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.035,
                                DG,150.3,0.205,
                                DG,1080.5,0.059,
                                DG,1241.8,0.035)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
123.3      7.4        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 176Yb/197Au = 0.210±0.016
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.003.3
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.0305,
                                DG,150.3,0.180,
                                DG,1080.5,0.0508,
                                DG,1241.8,0.0307)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
150.2      7.3        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.003.3 is renormalized

a) for new gold cross section
b) for new gamma-intensities: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.147

^{176}Yb(n,γ)^{177}Yb:

Actual data in EXFOR

```
* Data set#= 23267.003.4
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.035,
                                DG,150.3,0.205,
                                DG,1080.5,0.059,
                                DG,1241.8,0.035)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
113.0      7.4        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 176Yb/197Au = 0.193±0.014
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.003.4
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.0305,
                                DG,150.3,0.180,
                                DG,1080.5,0.0508,
                                DG,1241.8,0.0307)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
137.6      7.3        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.003.4 is renormalized

a) for new gold cross section
b) for new gamma-intensities: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.147

^{176}Yb(n,γ)^{177}Yb:

Actual data in EXFOR

```
* Data set#= 23267.003.5
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.035,
                                DG,150.3,0.205,
                                DG,1080.5,0.059,
                                DG,1241.8,0.035)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      5ERR-T     5MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
120.       7.3        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 176Yb/197Au = 0.205±0.015
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.003.5
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,SPA)
DECAY-DATA=(70-YB-177-G,1.911HR,DG,121.6,0.0305,
                                DG,150.3,0.180,
                                DG,1080.5,0.0508,
                                DG,1241.8,0.0307)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      5ERR-T     5MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
146.2      7.2        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.003.5 is renormalized

a) for new gold cross section
b) for new gamma-intensities: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.147

$^{190}Os(n,\gamma)^{191}Os$:

Actual data in EXFOR

```
* Data set#= 23267.004.1
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,SPA)
DECAY-DATA=(76-OS-191-G,15.4D,DG,129.4,0.2650)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
272.       4.0        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 190Os/197Au = 0.464±0.019
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.004.1
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
288.9      3.8        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.004.1 is renormalized

a) for new gold cross section

$^{190}Os(n,\gamma)^{191}Os$:

Actual data in EXFOR

```
* Data set#= 23267.004.2
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,SPA)
DECAY-DATA=(76-OS-191-G,15.4D,DG,129.4,0.2650)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
275.       4.2        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 190Os/197Au = 0.469±0.020
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.004.2
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
292.1      4.0        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.004.2 is renormalized

a) for new gold cross section

$^{190}Os(n,\gamma)^{191}Os$:

Actual data in EXFOR

```
* Data set#= 23267.004.3
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,SPA)
DECAY-DATA=(76-OS-191-G,15.4D,DG,129.4,0.2650)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
261.       4.1        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 190Os/197Au = 0.445±0.018
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.004.3
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
277.2      3.9        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.004.3 is renormalized

a) for new gold cross section

$^{190}Os(n,\gamma)^{191}Os$:

Actual data in EXFOR

```
* Data set#= 23267.004.4
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,SPA)
DECAY-DATA=(76-OS-191-G,15.4D,DG,129.4,0.2650)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
269.       4.0        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 190Os/197Au = 0.459±0.018
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.004.4
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
285.7      3.8        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.004.4 is renormalized

a) for new gold cross section

$^{192}Os(n,\gamma)^{193}Os$:

Actual data in EXFOR

```
* Data set#= 23267.005.1
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,SPA)
DECAY-DATA=(76-OS-193,30.11HR,DG,129.4,0.2650)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
156.5      4.2        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 192Os/197Au = 0.267±0.011
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.005.1
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
166.2      4.0        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.005.1 is renormalized

a) for new gold cross section

$^{192}Os(n,\gamma)^{193}Os$:

Actual data in EXFOR

```
* Data set#= 23267.005.2
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,SPA)
DECAY-DATA=(76-OS-193,30.11HR,DG,129.4,0.2650)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
153.4      4.3        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 192Os/197Au = 0.262±0.011
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.005.2
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
162.9      4.0        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.005.2 is renormalized

a) for new gold cross section

$^{192}Os(n,\gamma)^{193}Os$:

Actual data in EXFOR

```
* Data set#= 23267.005.3
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,SPA)
DECAY-DATA=(76-OS-193,30.11HR,DG,129.4,0.2650)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
152.6      4.2        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 192Os/197Au = 0.267±0.011
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.005.3
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
162.1      4.0        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.005.3 is renormalized

a) for new gold cross section

$^{192}Os(n,\gamma)^{193}Os$:

Actual data in EXFOR

```
* Data set#= 23267.005.4
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,SPA)
DECAY-DATA=(76-OS-193,30.11HR,DG,129.4,0.2650)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
154.       4.2        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 192Os/197Au = 0.263±0.011
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.005.4
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
163.5      4.0        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.005.4 is renormalized

a) for new gold cross section

$^{196}Pt(n,\gamma)^{197(g+0.967m)}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.006.1
REACTION  =(78-PT-196(N,G)78-PT-197-G,M+,SIG,,SPA)
DECAY-DATA=(78-PT-197-G,19.8915HR,DG,77.35,0.172,
                                  DG,191.4,0.037)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
169.6      11.1       586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (196Pt(ng)197Pt-g+m/197Au = 0.289±0.032
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.006.1
REACTION  =(78-PT-196(N,G)78-PT-197-G,M+,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
180.3     11.0        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.006.1 is renormalized

a) for new gold cross section

$^{196}Pt(n,\gamma)^{197(g+0.967m)}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.006.2
REACTION  =(78-PT-196(N,G)78-PT-197-G,M+,SIG,,SPA)
DECAY-DATA=(78-PT-197-G,19.8915HR,DG,77.35,0.172,
                                  DG,191.4,0.037)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
162.5      11.1       586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (196Pt(ng)197Pt-g+m)/197Au = 0.277±0.031
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.006.2
REACTION  =(78-PT-196(N,G)78-PT-197-G,M+,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
172.6     11.0        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.006.2 is renormalized

a) for new gold cross section

$^{196}Pt(n,\gamma)^{197(g+0.967m)}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.006.3
REACTION  =(78-PT-196(N,G)78-PT-197-G,M+,SIG,,SPA)
DECAY-DATA=(78-PT-197-G,19.8915HR,DG,77.35,0.172,
                                  DG,191.4,0.037)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
177.1      11.1       586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (196Pt(ng)197Pt-g+m)/197Au = 0.302±0.034
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.006.3
REACTION  =(78-PT-196(N,G)78-PT-197-G,M+,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
188.1      11.0       622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.006.3 is renormalized

a) for new gold cross section

$^{196}Pt(n,\gamma)^{197(g+0.967m)}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.006.4
REACTION  =(78-PT-196(N,G)78-PT-197-G,M+,SIG,,SPA)
DECAY-DATA=(78-PT-197-G,19.8915HR,DG,77.35,0.172,
                                  DG,191.4,0.037)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
169.4      11.1       586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (196Pt(ng)197Pt-g+m)/197Au = 0.289±0.032
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.006.4
REACTION  =(78-PT-196(N,G)78-PT-197-G,M+,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
179.9      11.0       622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.006.4 is renormalized

a) for new gold cross section

$^{196}Pt(n,\gamma)^{197(g+m)}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.006.5
REACTION  =(78-PT-196(N,G)78-PT-197,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      5ERR-T     5MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         MB         MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
169.8      18.8       586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (196Pt(ng)197Pt-tot)/197Au = 0.290±0.032
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.006.5
REACTION  =(78-PT-196(N,G)78-PT-197,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      5ERR-T     5MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         MB         MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
180.3      19.9       622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.006.5 is renormalized

a) for new gold cross section

$^{196}Pt(n,\gamma)^{197m}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.008
REACTION  =(78-PT-196(N,G)78-PT-197-M,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA       ERR-T      MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
11.7       3.7        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (196Pt(ng)197Pt-m/197Au = 0.0200±0.0007
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.008
REACTION  =(78-PT-196(N,G)78-PT-197-M,,SIG,,SPA,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA       ERR-T      MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
12.4       3.5        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.008 is renormalized

a) for new gold cross section

$^{198}Pt(n,\gamma)^{199}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.009.1
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,SPA)
DECAY-DATA=(78-PT-199-G,30.8MIN,DG,543.0,0.1174)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
97.69      4.4        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 198Pt/197Au = 0.167±0.0074
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.009.1
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
103.7      4.3        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.009.1 is renormalized

a) for new gold cross section

$^{198}Pt(n,\gamma)^{199}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.009.2
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,SPA)
DECAY-DATA=(78-PT-199-G,30.8MIN,DG,543.0,0.1174)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
93.43      4.6        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 198Pt/197Au = 0.159±0.0073
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.009.2
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
99.22      4.5        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.009.2 is renormalized

a) for new gold cross section

$^{198}Pt(n,\gamma)^{199}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.009.3
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,SPA)
DECAY-DATA=(78-PT-199-G,30.8MIN,DG,543.0,0.1174)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
93.08      4.4        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 198Pt/197Au = 0.159±0.0070
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.009.3
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
98.85      4.3        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.009.3 is renormalized

a) for new gold cross section

$^{198}Pt(n,\gamma)^{199}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.009.4
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,SPA)
DECAY-DATA=(78-PT-199-G,30.8MIN,DG,543.0,0.1174)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
94.7       4.4        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 198Pt/197Au = 0.162±0.0071
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.009.4
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
100.6      4.3        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.009.4 is renormalized

a) for new gold cross section

$^{202}Hg(n,\gamma)^{203}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.010.1
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
DECAY-DATA=(80-HG-203,46.594D,DG,279.2,0.8156)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
63.20      4.0        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 202Hg/197Au = 0.108±0.0043
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.010.1
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
67.12      3.8        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.010.1 is renormalized

a) for new gold cross section

$^{202}Hg(n,\gamma)^{203}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.010.2
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
DECAY-DATA=(80-HG-203,46.594D,DG,279.2,0.8156)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
61.55      4.0        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 202Hg/197Au = 0.105±0.0042
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.010.2
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
65.37      3.8        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.010.2 is renormalized

a) for new gold cross section

$^{202}Hg(n,\gamma)^{203}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.010.3
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
DECAY-DATA=(80-HG-203,46.594D,DG,279.2,0.8156)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
62.81      4.0        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 202Hg/197Au = 0.107±0.0043
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.010.3
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
66.70      3.8        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.010.3 is renormalized

a) for new gold cross section

$^{202}Hg(n,\gamma)^{203}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.010.4
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
DECAY-DATA=(80-HG-203,46.594D,DG,279.2,0.8156)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
61.15      4.1        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 202Hg/197Au = 0.104±0.0043
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.010.4
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
64.94      3.9        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.010.4 is renormalized

a) for new gold cross section

$^{202}Hg(n,\gamma)^{203}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.010.5
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
DECAY-DATA=(80-HG-203,46.594D,DG,279.2,0.8156)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      5ERR-T     5MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
61.58      4.2        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 202Hg/197Au = 0.105±0.0044
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.010.5
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      5ERR-T     5MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
65.40      4.0        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.010.5 is renormalized

a) for new gold cross section

$^{202}Hg(n,\gamma)^{203}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.010.6
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
DECAY-DATA=(80-HG-203,46.594D,DG,279.2,0.8156)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      6ERR-T     6MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
62.50      4.1        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 202Hg/197Au = 0.107±0.0044
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.010.6
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      6ERR-T     6MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
66.38      3.9        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.010.6 is renormalized

a) for new gold cross section

$^{202}Hg(n,\gamma)^{203}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.010.7
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
DECAY-DATA=(80-HG-203,46.594D,DG,279.2,0.8156)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      7ERR-T     7MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
62.1       4.0        586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 202Hg/197Au = 0.106±0.0042
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.010.7
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      7ERR-T     7MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
66.0       3.8        622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.010.7 is renormalized

a) for new gold cross section

$^{204}Hg(n,\gamma)^{205}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.011.1
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,SPA)
DECAY-DATA=(80-HG-205,5.14MIN,DG,203.7,0.022)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
33.52      46.9       586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 204Hg/197Au = 0.057±0.027
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.011.1
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
35.60      46.9       622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.011.1 is renormalized

a) for new gold cross section

$^{204}Hg(n,\gamma)^{205}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.011.2
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,SPA)
DECAY-DATA=(80-HG-205,5.14MIN,DG,203.7,0.022)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      2ERR-T     2MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
34.45      47.7       586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 204Hg/197Au = 0.059±0.028
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.011.2
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      1ERR-T     1MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
36.58      47.7       622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.011.2 is renormalized

a) for new gold cross section

$^{204}Hg(n,\gamma)^{205}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.011.3
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,SPA)
DECAY-DATA=(80-HG-205,5.14MIN,DG,203.7,0.022)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
30.23      47.9       586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 204Hg/197Au = 0.052±0.025
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.011.3
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      3ERR-T     3MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
32.10      47.9       622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.011.3 is renormalized

a) for new gold cross section

$^{204}Hg(n,\gamma)^{205}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.011.4
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,SPA)
DECAY-DATA=(80-HG-205,5.14MIN,DG,203.7,0.022)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  EN-MEAN    EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
33.5       46.6       586.       1.40       25.        106.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 204Hg/197Au = 0.057±0.027
Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.011.4
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------------------
DATA      4ERR-T     4MONIT      MONIT-ERR  KT-DUMMY   EN-MAX
MB         PER-CENT   MB         PER-CENT   KEV        KEV
-------------------------------------------------------------------
35.6       46.6       622.7      1.0        25.        106.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23267.011.4 is renormalized

a) for new gold cross section

$^{174}Yb(n,\gamma)^{175}Yb$:

Actual data in EXFOR

```
* Data set#= 23267.012
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	ERR-T MB	MONIT MB	MONIT-ERR PER-CENT
5.	403.	37.	586.	1.40
10.	280.	16.	586.	1.40
15.	230.	10.	586.	1.40
20.	198.	8.	586.	1.40
25.	175.3	6.5	586.	1.40
30.	157.5	5.7	586.	1.40
40.	131.2	4.6	586.	1.40
50.	112.7	3.7	586.	1.40
60.	99.1	3.6	586.	1.40
80.	80.5	3.2	586.	1.40
100.	68.8	3.0	586.	1.40

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.012
REACTION  =(70-YB-174(N,G)70-YB-175,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	ERR-T MB	MONIT MB	MONIT-ERR PER-CENT
5.	428.	39.	622.7	1.0
10.	297.	17.	622.7	1.0
15.	230.	10.	622.7	1.0
20.	210.	8.	622.7	1.0
25.	186.2	6.6	622.7	1.0
30.	167.3	5.8	622.7	1.0
40.	139.3	4.6	622.7	1.0
50.	119.7	3.7	622.7	1.0
60.	105.2	3.6	622.7	1.0
80.	85.5	3.3	622.7	1.0
100.	73.1	3.1	622.7	1.0

Comment:

cross section value in subentry 23267.012 is renormalized

a) for new gold cross section

^{176}Yb(n,γ)^{177}Yb:

Actual data in EXFOR

```
* Data set#= 23267.013
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	ERR-T MB	MONIT MB	MONIT-ERR PER-CENT
5.	301.	63.	586.	1.40
10.	204.	28.	586.	1.40
15.	166.	16.	586.	1.40
20.	143.	12.	586.	1.40
25.	127.	10.	586.	1.40
30.	114.	9.	586.	1.40
40.	95.	9.	586.	1.40
50.	81.	8.	586.	1.40
60.	69.	8.	586.	1.40
80.	57.	7.	586.	1.40
100.	48.	6.	586.	1.40

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.013
REACTION  =(70-YB-176(N,G)70-YB-177,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
```

KT KEV	DATA MB	ERR-T MB	MONIT MB	MONIT-ERR PER-CENT
5.	367.	77.	622.7	1.0
10.	249.	34.	622.7	1.0
15.	202.	19.	622.7	1.0
20.	174.	15.	622.7	1.0
25.	155.	13.	622.7	1.0
30.	139.	10.	622.7	1.0
40.	116.	11.	622.7	1.0
50.	99.	9.	622.7	1.0
60.	84.	9.	622.7	1.0
80.	70.	8.	622.7	1.0
100.	58.	7.	622.7	1.0

Comment:

cross section value in subentry 23267.013 is renormalized

a) for new gold cross section
b) for new gamma-intensities: replacing the average adopted in original paper for a set of gamma-lines by data from NDS/ENSDF 2020 yields a correction factor of 1.147

$^{190}Os(n,\gamma)^{191}Os$:

Actual data in EXFOR

```
* Data set#= 23267.014
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       662.                  586.       1.40
 10.       442.                  586.       1.40
 15.       362.                  586.       1.40
 20.       321.                  586.       1.40
 25.       296.       12.        586.       1.40
 30.       278.       11.        586.       1.40
 40.       254.                  586.       1.40
 50.       235.                  586.       1.40
 60.       220.                  586.       1.40
 80.       195.                  586.       1.40
100.       175.                  586.       1.40
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.014
REACTION  =(76-OS-190(N,G)76-OS-191,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       703.                  622.7      1.0
 10.       469.                  622.7      1.0
 15.       384.                  622.7      1.0
 20.       341.                  622.7      1.0
 25.       314.       12.        622.7      1.0
 30.       295.       11.        622.7      1.0
 40.       270.                  622.7      1.0
 50.       250.                  622.7      1.0
 60.       234.                  622.7      1.0
 80.       207.                  622.7      1.0
100.       186.                  622.7      1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23267.014 is renormalized

a) for new gold cross section

$^{192}Os(n,\gamma)^{193}Os$:

Actual data in EXFOR

```
* Data set#= 23267.015
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       367.                  586.       1.40
 10.       248.                  586.       1.40
 15.       205.                  586.       1.40
 20.       183.                  586.       1.40
 25.       169.       7.         586.       1.40
 30.       160.       7.         586.       1.40
 40.       146.                  586.       1.40
 50.       136.                  586.       1.40
 60.       127.                  586.       1.40
 80.       113.                  586.       1.40
100.       101.                  586.       1.40
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.015
REACTION  =(76-OS-192(N,G)76-OS-193,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       390.                  622.7      1.0
 10.       263.                  622.7      1.0
 15.       218.                  622.7      1.0
 20.       194.                  622.7      1.0
 25.       179.       7.         622.7      1.0
 30.       170.       7.         622.7      1.0
 40.       155.                  622.7      1.0
 50.       144.                  622.7      1.0
 60.       135.                  622.7      1.0
 80.       120.                  622.7      1.0
100.       107.                  622.7      1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23267.015 is renormalized

a) for new gold cross section

$^{196}Pt(n,\gamma)^{197}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.016
REACTION  =(78-PT-196(N,G)78-PT-197,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       452.                  586.       1.40
 10.       295.                  586.       1.40
 15.       236.                  586.       1.40
 20.       204.                  586.       1.40
 25.       185.       20.        586.       1.40
 30.       171.       19.        586.       1.40
 40.       153.                  586.       1.40
 50.       142.                  586.       1.40
 60.       134.                  586.       1.40
 80.       123.                  586.       1.40
100.       114.                  586.       1.40
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.016
REACTION  =(78-PT-196(N,G)78-PT-197,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       480.                  622.7      1.0
 10.       313.                  622.7      1.0
 15.       251.                  622.7      1.0
 20.       217.                  622.7      1.0
 25.       196.      21.         622.7      1.0
 30.       182.      20.         622.7      1.0
 40.       162.                  622.7      1.0
 50.       151.                  622.7      1.0
 60.       142.                  622.7      1.0
 80.       131.                  622.7      1.0
100.       121.                  622.7      1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23267.016 is renormalized

a) for new gold cross section

$^{198}Pt(n,\gamma)^{199}Pt$:

Actual data in EXFOR

```
* Data set#= 23267.017
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.        287.                  586.       1.40
 10.        177.                  586.       1.40
 15.        137.                  586.       1.40
 20.        116.                  586.       1.40
 25.        103.       4.         586.       1.40
 30.         94.       4.         586.       1.40
 40.         83.                  586.       1.40
 50.         76.                  586.       1.40
 60.         71.                  586.       1.40
 80.         64.                  586.       1.40
100.         60.                  586.       1.40
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.017
REACTION  =(78-PT-198(N,G)78-PT-199,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA       ERR-T      MONIT      MONIT-ERR
KEV         MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.        305.                  622.7      1.0
 10.        188.                  622.7      1.0
 15.        145.                  622.7      1.0
 20.        123.                  622.7      1.0
 25.        109.       4.         622.7      1.0
 30.        100.       4.         622.7      1.0
 40.         88.                  622.7      1.0
 50.         81.                  622.7      1.0
 60.         75.                  622.7      1.0
 80.         68.                  622.7      1.0
100.         64.                  622.7      1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23267.017 is renormalized

a) for new gold cross section

$^{202}Hg(n,\gamma)^{203}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.018
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       185.       25.        586.       1.40
 10.       115.       10.        586.       1.40
 15.        90.0       6.4       586.       1.40
 20.        77.4       4.8       586.       1.40
 25.        68.9       3.8       586.       1.40
 30.        63.3       3.4       586.       1.40
 40.        56.0       2.8       586.       1.40
 50.        51.4       2.1       586.       1.40
 60.        48.2       2.1       586.       1.40
 80.        43.8       1.9       586.       1.40
100.        40.7       1.7       586.       1.40
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.018
REACTION  =(80-HG-202(N,G)80-HG-203,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       196.       26.        622.7      1.0
 10.       122.       11.        622.7      1.0
 15.        95.6       6.7       622.7      1.0
 20.        82.2       5.0       622.7      1.0
 25.        73.2       4.0       622.7      1.0
 30.        67.2       3.5       622.7      1.0
 40.        59.5       2.9       622.7      1.0
 50.        54.6       2.1       622.7      1.0
 60.        51.2       2.2       622.7      1.0
 80.        46.5       1.9       622.7      1.0
100.        43.2       1.7       622.7      1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23267.018 is renormalized

a) for new gold cross section

$^{204}Hg(n,\gamma)^{205}Hg$:

Actual data in EXFOR

```
* Data set#= 23267.019
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       75.                   586.       1.40
 10.       54.                   586.       1.40
 15.       44.                   586.       1.40
 20.       39.                   586.       1.40
 25.       35.        16.        586.       1.40
 30.       32.        15.        586.       1.40
 40.       29.                   586.       1.40
 50.       27.                   586.       1.40
 60.       25.                   586.       1.40
 80.       23.                   586.       1.40
100.       21.                   586.       1.40
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 586±8 mb

Revised data:

Correction for revised gold standard 622.7/586 =1.062

```
* Revised Data set#= 23267.019
REACTION  =(80-HG-204(N,G)80-HG-205,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT         DATA       ERR-T      MONIT      MONIT-ERR
KEV        MB         MB         MB         PER-CENT
-------------------------------------------------------
  5.       80.                   622.7      1.0
 10.       57.                   622.7      1.0
 15.       47.                   622.7      1.0
 20.       41.                   622.7      1.0
 25.       37.        17.        622.7      1.0
 30.       34.        16.        622.7      1.0
 40.       31.                   622.7      1.0
 50.       29.                   622.7      1.0
 60.       27.                   622.7      1.0
 80.       24.                   622.7      1.0
100.       22.                   622.7      1.0
-------------------------------------------------------
```

Comment:

cross section value in subentry 23267.019 is renormalized

a) for new gold cross section

**** Entry=23306 ****

$^{45}Sc(n,\gamma)^{46}Sc$:

Actual data in EXFOR

```
* Data set#= 23306.004
REACTION  =(21-SC-45(N,G)21-SC-46,,SIG,,SPA)
DECAY-DATA=(21-SC-46-G,120658.MIN,DG,889.28,0.99984)
                                  DG,1120.55,0.99987)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty.
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
```

DATA MB	ERR-S MB	ERR-SYS MB	KT KEV	MONIT MB	MONIT-ERR MB
64.0	0.9	1.8	25.	632.	9.
66.5	1.0	1.9	25.	632.	9.
64.4	0.7	1.8	25.	632.	9.
65.8	0.7	1.8	25.	632.	9.
65.0	0.7	1.8	25.	632.	9.
64.7	0.8	1.8	25.	632.	9.

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 632±9 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 45Sc/197Au = 0.1030±0.0026
Correction for revised gold standard 622.7/632 =0.985

```
* Revised Data set#= 23306.004
REACTION  =(21-SC-45(N,G)21-SC-46,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
```

DATA MB	ERR-S MB	ERR-SYS MB	KT-DUMMY KEV	MONIT MB	MONIT-ERR MB
63.0	0.9	1.6	25.	622.7	6.
65.5	1.0	1.7	25.	622.7	6.
63.4	0.7	1.6	25.	622.7	6.
64.8	0.7	1.6	25.	622.7	6.
64.0	0.7	1.6	25.	622.7	6.
63.7	0.8	1.6	25.	622.7	6.

Comment:

cross section value in subentry 23306.004 is renormalized for new gold cross section

$^{41}K(n,\gamma)^{42}K$:

Actual data in EXFOR

```
* Data set#= 23306.005
REACTION  =(19-K-41(N,G)19-K-42,,SIG,,SPA)
DECAY-DATA=(19-K-42,741.6MIN,DG,1524.6,0.1808)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty.
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT         MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
22.0       1.6        0.7        25.        632.       9.
21.8       0.5        0.6        25.        632.       9.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 632±9 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 41K/197Au = 0.0347±0.0014
Correction for revised gold standard 622.7/632 =0.985

```
* Revised Data set#= 23306.005
REACTION  =(19-K-41(N,G)19-K-42,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT-DUMMY   MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
21.7       1.6        0.6        25.        632.       9.
21.5       0.5        0.5        25.        632.       9.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23306.005 is renormalized for new gold cross section

****** Entry=23326 ******

$^{63}Cu(n,\gamma)^{64}Cu$:

Actual data in EXFOR

```
* Data set#= 23326.002.1
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,SPA)
DECAY-DATA=(29-CU-64,12.701HR,DG,1345.77,0.00475)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-----------------------------------------------------------------
DATA       ERR-S      ERR-SYS   KT         MONIT      MONIT-ERR
MB         MB         MB        KEV        MB         PER-CENT
-----------------------------------------------------------------
85.        1.3        5.9        25.       683.       1.2
-----------------------------------------------------------------
```

Gold standard for Maxwellian spectrum at kT=25 keV: 683±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 63Cu/197Au = 0.1245±0.0075
Correction for revised gold standard 681/683 =0.997

```
* Revised Data set#= 23326.002.1
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty.
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT-DUMMY   MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
84.8       1.3        5.9        25.        681.       7.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23326.002.1 is renormalized for new gold cross section

$^{63}Cu(n,\gamma)^{64}Cu$:

Actual data in EXFOR

```
* Data set#= 23326.002.2
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,SPA)
DECAY-DATA=(29-CU-64,12.701HR,DG,1345.77,0.00475)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-----------------------------------------------------------------
DATA       ERR-S      ERR-SYS   KT         MONIT      MONIT-ERR
MB         MB         MB        KEV        MB         PER-CENT
-----------------------------------------------------------------
88.6       0.9        6.1       25.        683.       1.2
-----------------------------------------------------------------
```

Gold standard for Maxwellian spectrum at kT=25 keV: 683±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 63Cu/197Au = 0.1297±0.0079
Correction for revised gold standard 681/683 =0.997

```
* Revised Data set#= 23326.002.2
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT-DUMMY   MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
88.3       1.3        5.9        25.        681.       7.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23326.002.2 is renormalized for new gold cross section

$^{63}Cu(n,\gamma)^{64}Cu$:

Actual data in EXFOR

```
* Data set#= 23326.002.3
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,SPA)
DECAY-DATA=(29-CU-64,12.701HR,DG,1345.77,0.00475)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-----------------------------------------------------------------
DATA       ERR-S      ERR-SYS   KT         MONIT      MONIT-ERR
MB         MB         MB        KEV        MB         PER-CENT
-----------------------------------------------------------------
87.4      1.1         6.0       25.        683.       1.2
-----------------------------------------------------------------
```

Gold standard for Maxwellian spectrum at kT=25 keV: 683±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 63Cu/197Au = 0.1280±0.0089
Correction for revised gold standard 681/683 =0.997

```
* Revised Data set#= 23326.002.3
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT-DUMMY   MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
87.1       1.3        6.0        25.        681.       7.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23326.002.3 is renormalized for new gold cross section

$^{63}Cu(n,\gamma)^{64}Cu$:

Actual data in EXFOR

```
* Data set#= 23326.002.4
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,MXW)
DECAY-DATA=(29-CU-64,12.701HR,DG,1345.77,0.00475)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-----------------------------------------------------------------
DATA       ERR-S      ERR-SYS   KT         MONIT      MONIT-ERR
MB         MB         MB        KEV        MB         PER-CENT
-----------------------------------------------------------------
92.1       1.2        6.4       25.        683.       1.2
-----------------------------------------------------------------
```

Gold standard for Maxwellian spectrum at kT=25 keV: 683±8 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 63Cu/197Au = 0.1348±0.0088
Correction for revised gold standard 681/683 =0.997

```
* Revised Data set#= 23326.002.4
REACTION  =(29-CU-63(N,G)29-CU-64,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT         MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
91.8       1.2        6.4        25.        681.       7.
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23326.002.4 is renormalized for new gold cross section

****** Entry=23337 ******

$^{23}Na(n,\gamma)^{24}Na$:

Actual data in EXFOR

```
* Data set#= 23337.003.1
DECAY-DATA=(11-NA-24,14.9590HR,DG,1368.63,1.0000)
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT         MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
2.05       0.06       0.02       25.        637.       13.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 637±13 mb

Note: ERR-S and ERR-SYS are reversed

Revised data:

measured quantity at kT=25 keV: cross section ratio 23Na/197Au = (3.218±0.099) E-03

Correction for revised gold standard 622.7/637 =0.978

```
* Revised Data set#= 23337.003.1
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical error
ERR-ANALYS=(ERR-S) Statistical uncertainty.
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT-DUMMY   MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
2.00       0.02       0.04       25.        622.7      6.2
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23337.003.1 is renormalized for new gold cross section

$^{23}Na(n,\gamma)^{24}Na$:

Actual data in EXFOR

```
* Data set#= 23337.003.2
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,SPA)
DECAY-DATA=(11-NA-24,14.9590HR,DG,1368.63,1.0000)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Systematical uncertainty
```

DATA MB	ERR-S MB	ERR-SYS MB	KT KEV	MONIT MB	MONIT-ERR MB
2.02	0.05	0.01	25.	637.	13.

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 637±13 mb

Note: ERR-S and ERR-SYS are reversed

Revised data:

measured quantity at kT=25 keV: cross section ratio 23Na/197Au = (3.171±0.099) E-03

Correction for revised gold standard 622.7/637 =0.978

```
* Revised Data set#= 23337.003.2
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty.
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
```

DATA MB	ERR-S MB	ERR-SYS MB	KT-DUMMY KEV	MONIT MB	MONIT-ERR MB
1.98	0.02	0.04	25.	622.7	6.2

Comment:

cross section value in subentry 23337.003.2 is renormalized for new gold cross section

$^{23}Na(n,\gamma)^{24}Na$:

Actual data in EXFOR

```
* Data set#= 23337.003.3
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,SPA)
DECAY-DATA=(11-NA-24,14.9590HR,DG,1368.63,1.0000)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Systematical uncertainty
-----------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT         MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-----------------------------------------------------------------
2.03       0.05       0.01       25.        637.       13.
-----------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 637±13 mb

Note: ERR-S and ERR-SYS are reversed

Revised data:

measured quantity at kT=25 keV: cross section ratio 23Na/197Au = (3.187±0.080) E-03

Correction for revised gold standard 622.7/637 =0.978

```
* Revised Data set#= 23337.003.3
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty.
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-----------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT-DUMMY   MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-----------------------------------------------------------------
1.99       0.01       0.03       25.        622.7      6.2
-----------------------------------------------------------------
```

Comment:

cross section value in subentry 23337.003.3 is renormalized for new gold cross section

$^{23}Na(n,\gamma)^{24}Na$:

Actual data in EXFOR

```
* Data set#= 23337.003.4
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,SPA)
DECAY-DATA=(11-NA-24,14.9590HR,DG,1368.63,1.0000)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty
ERR-ANALYS=(ERR-SYS) Systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT         MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
2.03       0.05       0.01       25.        637.       13.
-------------------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 637±13 mb

Note: ERR-S and ERR-SYS are reversed

Revised data:

measured quantity at kT=25 keV: cross section ratio 23Na/197Au = (3.187±0.080) E-03

Correction for revised gold standard 622.7/637 =0.978

```
* Revised Data set#= 23337.003.4
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-S) Statistical uncertainty.
ERR-ANALYS=(ERR-SYS) Total systematical uncertainty
-------------------------------------------------------------------
DATA       ERR-S      ERR-SYS    KT-DUMMY   MONIT      MONIT-ERR
MB         MB         MB         KEV        MB         MB
-------------------------------------------------------------------
1.99       0.01       0.03       25.        622.7      6.2
-------------------------------------------------------------------
```

Comment:

cross section value in subentry 23337.003.4 is renormalized for new gold cross section

$^{23}Na(n,\gamma)^{24}Na$:

Actual data in EXFOR

```
* Data set#= 23337.004
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total error
---------------------------------
KT          DATA       DATA-ERR
KEV         MB         MB
---------------------------------
 5.         10.1       0.4
25.         2.00       0.05
---------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 637±13 mb

Revised data:

Correction for revised gold standard 622.7/637 =0.978

```
* Revised Data set#= 23337.004
REACTION  =(11-NA-23(N,G)11-NA-24,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Total error
---------------------------------
KT          DATA       DATA-ERR
KEV         MB         MB
---------------------------------
  5.         9.9       0.4
 25.         1.96      0.04
---------------------------------
```

Comment:

cross section value in subentry 23337.004 is renormalized for new gold cross section

**** Entry=23420 ****

^{136}Ce(n,γ)^{137g}Ce:

Actual data in EXFOR

```
* Data set#= 23420.002
REACTION  =(58-CE-136(N,G)58-CE-137-G,,SIG,,MXW/FCT)
DECAY-DATA=(58-CE-137-G,9.0HR,DG,447.15,0.0178)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW/FCT)
ERR-ANALYS=(ERR-T) Total uncertainty of the activation measurement
-------------------------------------------------------
DATA        ERR-T      KT         MONIT      MONIT-ERR
MB          MB         KEV        MB         MB
-------------------------------------------------------
330.        45.        25.        648.       10.
326.        24.        25.        648.       10.
326.        26.        25.        648.       10.
321.        25.        25.        648.       10.
-------------------------------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (136Ce(n,g)137Ce-g)/197Au = 0.503±0.045
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.002
REACTION  =(58-CE-136(N,G)58-CE-137-G,,SIG,,MXW)
DECAY-DATA=(58-CE-137-G,9.0HR,DG,447.15,0.0168)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty of the activation measurement
-------------------------------------------------------
DATA        ERR-T      KT         MONIT      MONIT-ERR
MB          MB         KEV        MB         MB
-------------------------------------------------------
367.        44.        25.        681.       7.
363.        23.        25.        681.       7.
363.        25.        25.        681.       7.
357.        24.        25.        681.       7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 23420.002 is renormalized

a) for new gold cross section
b) by an additional factor 0.0178/0.0168=1.06, which accounts for the gamma-intensity for the 447.15 keV transition in the 137Ce decay (*NDS/ENSDF 2020)*

$^{136}Ce(n,\gamma)^{137m}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.003
REACTION  =(58-CE-136(N,G)58-CE-137-M,,SIG,,MXW/FCT)
DECAY-DATA=(58-CE-137-M,34.4HR,DG,254.29,0.110)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW/FCT)
ERR-ANALYS=(ERR-T) Total uncertainty of the activation measurement
-------------------------------------------------------
DATA        ERR-T      KT         MONIT      MONIT-ERR
MB          MB         KEV        MB         MB
-------------------------------------------------------
27.7        4.9        25.        648.       10.
27.1        3.6        25.        648.       10.
33.4        2.5        25.        648.       10.
30.7        2.2        25.        648.       10.
33.6        2.0        25.        648.       10.
-------------------------------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio (136Ce(n,g)137Ce-m)/197Au = 0.0471±0.0047
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.003
REACTION  =(58-CE-136(N,G)58-CE-137-M,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty of the activation measurement
-------------------------------------------------------
DATA        ERR-T      KT         MONIT      MONIT-ERR
MB          MB         KEV        MB         MB
-------------------------------------------------------
29.1        5.1        25.       681.        7.
28.5        3.8        25.       681.        7.
35.1        2.6        25.       681.        7.
32.3        2.3        25.       681.        7.
35.3        2.1        25.       681.        7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 23420.003 is renormalized

a) for new gold cross section

$^{138}Ce(n,\gamma)^{139}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.004
REACTION  =(58-CE-138(N,G)58-CE-139,,SIG,,MXW/FCT)
DECAY-DATA=(58-CE-139-G,137.640D,DG,165.85,0.7988)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW/FCT)
ERR-ANALYS=(ERR-T) Total uncertainty of the activation measurement
-------------------------------------------------------
DATA        ERR-T      KT         MONIT      MONIT-ERR
MB          MB         KEV        MB         MB
-------------------------------------------------------
191.         9.        25.       648.        10.
215.         8.        25.       648.        10.
192.         9.        25.       648.        10.
170.        11.        25.       648.        10.
202.         9.        25.       648.        10.
185.         5.        25.       648.        10.
-------------------------------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 138Ce/197Au = 0.297±0.013
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.004
REACTION  =(58-CE-138(N,G)58-CE-139,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty of the activation measurement
-------------------------------------------------------
DATA        ERR-T      KT         MONIT      MONIT-ERR
MB          MB         KEV        MB         MB
-------------------------------------------------------
201.        9.2        25.       681.        7.
226.        8.0        25.       681.        7.
202.        9.2        25.       681.        7.
179.       11.4        25.       681.        7.
212.        9.1        25.       681.        7.
194.        4.7        25.       681.        7.
-------------------------------------------------------
```

Comment:

cross section value in subentry 23420.004 is renormalized

a) for new gold cross section

$^{140}Ce(n,\gamma)^{141}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.005
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,MXW/FCT)
DECAY-DATA=(58-CE-141,32.501D,DG,145.44,0.482)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW/FCT)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT KEV	MONIT MB	MONIT-ERR MB
12.4	0.5	25.	648.	10.
13.0	0.5	25.	648.	10.
12.4	0.5	25.	648.	10.
11.1	0.4	25.	648.	10.
11.8	0.5	25.	648.	10.
11.1	0.4	25.	648.	10.

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 140Ce/197Au = 0.0185±0.0007
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.005
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT KEV	MONIT MB	MONIT-ERR MB
13.0	0.5	25.	681.	7.
13.7	0.5	25.	681.	7.
13.0	0.5	25.	681.	7.
11.7	0.4	25.	681.	7.
12.4	0.5	25.	681.	7.
11.7	0.4	25.	681.	7.

Comment:

cross section value in subentry 23420.005 is renormalized

a) for new gold cross section

$^{142}Ce(n,\gamma)^{143}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.006
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,MXW/FCT)
DECAY-DATA=(58-CE-143,33.039HR,DG,293.26,0.428)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW/FCT)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT KEV	MONIT MB	MONIT-ERR MB
31.1	1.3	25.	648.	10.
31.6	1.1	25.	648.	10.
31.7	1.3	25.	648.	10.
29.1	1.2	25.	648.	10.
30.8	1.2	25.	648.	10.
30.4	1.0	25.	648.	10.

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 142Ce/197Au = 0.0475±0.0018
Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.006
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty
```

DATA MB	ERR-T MB	KT KEV	MONIT MB	MONIT-ERR MB
32.7	1.3	25.	681.	7.
33.2	1.1	25.	681.	7.
33.3	1.3	25.	681.	7.
30.6	1.2	25.	681.	7.
32.4	1.2	25.	681.	7.
32.0	1.0	25.	681.	7.

Comment:

cross section value in subentry 23420.006 is renormalized

a) for new gold cross section

$^{136}Ce(n,\gamma)^{137g}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.007.1
Data set#= 23420.007.1
REACTION  =(58-CE-136(N,G)58-CE-137-G,,SIG,,MXW/FCT)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT         DATA      1DATA-ERR  1
KEV        MB         MB
---------------------------------
25.        322.       21.
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.007.1
REACTION  =(58-CE-136(N,G)58-CE-137-G,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT         DATA      1DATA-ERR  1
KEV        MB         MB
---------------------------------
 25.       359.        23.
---------------------------------
```

Comment:

cross section value in subentry 23420.006 is renormalized

a) for new gold cross section
b) by an additional factor 0.0178/0.0168=1.06, which accounts for the gamma-intensity for the 447.15 keV transition in the 137Ce decay (*NDS/ENSDF 2020)*

$^{136}Ce(n,\gamma)^{137g}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.007.2
REACTION  =(58-CE-136(N,G)58-CE-137-G,,SIG,,MXW/FCT,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         300.       21.
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.007.2
REACTION  =(58-CE-136(N,G)58-CE-137-G,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         334.       23.
---------------------------------
```

Comment:

cross section value in subentry 23420.007.2 is renormalized

a) for new gold cross section
b) by an additional factor 0.0178/0.0168=1.06, which accounts for the gamma-intensity for the 447.15 keV transition in the 137Ce decay (*NDS/ENSDF 2020)*

$^{136}Ce(n,\gamma)^{137m}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.008.1
REACTION  =(58-CE-136(N,G)58-CE-137-M,,SIG,,MXW/FCT)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      1DATA-ERR  1
KEV         MB         MB
---------------------------------
25.         32.6       1.7
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.008.1
REACTION  =(58-CE-136(N,G)58-CE-137-M,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      1DATA-ERR  1
KEV         MB         MB
---------------------------------
25.         34.3       1.7
---------------------------------
```

Comment:

cross section value in subentry 23420.008.1 is renormalized

a) for new gold cross section

$^{136}Ce(n,\gamma)^{137m}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.008.2
REACTION  =(58-CE-136(N,G)58-CE-137-M,,SIG,,MXW/FCT,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         28.2       1.6
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.008.2
REACTION  =(58-CE-136(N,G)58-CE-137-M,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         29.6       1.6
---------------------------------
```

Comment:

cross section value in subentry 23420.008.2 is renormalized

a) for new gold cross section

$^{138}Ce(n,\gamma)^{139}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.009.1
REACTION  =(58-CE-138(N,G)58-CE-139,,SIG,,MXW/FCT)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      1DATA-ERR  1
KEV         MB         MB
---------------------------------
 25.        193.        5.
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.009.1
REACTION  =(58-CE-138(N,G)58-CE-139,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      1DATA-ERR  1
KEV         MB         MB
---------------------------------
 25.        203.        5.
---------------------------------
```

Comment:

cross section value in subentry 23420.009.1 is renormalized

a) for new gold cross section

$^{138}Ce(n,\gamma)^{139}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.009.2
REACTION  =(58-CE-138(N,G)58-CE-139,,SIG,,MXW/FCT,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         179.       5.
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.009.2
REACTION  =(58-CE-138(N,G)58-CE-139,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         188.       5.
---------------------------------
```

Comment:

cross section value in subentry 23420.009.2 is renormalized

a) for new gold cross section

$^{140}Ce(n,\gamma)^{141}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.010.1
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,MXW/FCT)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      1DATA-ERR  1
KEV         MB         MB
---------------------------------
25.         12.0        0.4
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.010.1
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      1DATA-ERR  1
KEV         MB         MB
---------------------------------
25.         12.6       0.4
---------------------------------
```

Comment:

cross section value in subentry 23420.010.1 is renormalized

a) for new gold cross section

$^{140}Ce(n,\gamma)^{141}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.010.2
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,MXW/FCT,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         11.0       0.4
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.010.2
REACTION  =(58-CE-140(N,G)58-CE-141,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         11.6       0.4
---------------------------------
```

Comment:

cross section value in subentry 23420.010.2 is renormalized

a) for new gold cross section

$^{142}Ce(n,\gamma)^{143}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.011.1
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,MXW/FCT)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      1DATA-ERR  1
KEV         MB         MB
---------------------------------
25.         30.8       1.0
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.011.1
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,MXW)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      1DATA-ERR  1
KEV         MB         MB
---------------------------------
 25.        32.4       1.0
---------------------------------
```

Comment:

cross section value in subentry 23420.011.1 is renormalized

a) for new gold cross section

$^{142}Ce(n,\gamma)^{143}Ce$:

Actual data in EXFOR

```
* Data set#= 23420.011.2
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,MXW/FCT,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         28.3       1.0
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 648±10 mb

Revised data:

Correction for revised gold standard 681/648 =1.051

```
* Revised Data set#= 23420.011.2
REACTION  =(58-CE-142(N,G)58-CE-143,,SIG,,MXW,DERIV)
ERR-ANALYS=(DATA-ERR) uncertainty for the mean value was determined by
adding the systematic uncertainties of the six activation measurements in
quadrature.
---------------------------------
KT          DATA      2DATA-ERR  2
KEV         MB         MB
---------------------------------
30.         29.7       1.0
---------------------------------
```

Comment:

cross section value in subentry 23420.011.2 is renormalized

a) for new gold cross section

****** Entry=23467 ******

$^{9}Be(n,\gamma)^{10}Be$:

Actual data in EXFOR

```
* Data set#= 23467.002
REACTION  =(4-BE-9(N,G)4-BE-10,,SIG,,MXW)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainties
-------------------------------------------------------
DATA       DATA-ERR   KT         MONIT      MONIT-ERR
MICRO-B    MICRO-B    KEV        MB         MB
-------------------------------------------------------
10.71      0.79       25.        640.       11.
10.32      0.64       25.        640.       11.
-------------------------------------------------------
```

Gold standard for quasi-Maxwellian spectrum at kT=25 keV: 640±11 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 9Be/197Au = (1.67±0.12) E-05
Correction for revised gold standard 622.7/640 =0.973

```
* Revised Data set#= 23467.002
REACTION  =(4-BE-9(N,G)4-BE-10,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainties
-------------------------------------------------------
DATA       DATA-ERR   KT-DUMMY   MONIT      MONIT-ERR
MICRO-B    MICRO-B    KEV        MB         MB
-------------------------------------------------------
10.42       0.75      25.        622.7      6.2
10.04       0.61      25.        622.7      6.2
-------------------------------------------------------
```

Comment:

cross section value in subentry 23467.002 is renormalized

a) for new gold cross section

$^{9}Be(n,\gamma)^{10}Be$:

Actual data in EXFOR

```
* Data set#= 23467.003
REACTION  =(4-BE-9(N,G)4-BE-10,,SIG,,MXW)
ERR-ANALYS=(ERR-T) Total uncertainty of the mean value
---------------------------------
DATA       ERR-T      KT
MICRO-B    MICRO-B    KEV
---------------------------------
10.44      0.63       25.
---------------------------------
```

Gold standard for Maxwell spectrum at kT=25 keV: 640±11 mb

Revised data:

measured quantity at kT=25 keV: cross section ratio 9Be/197Au = (1.63±0.10) E-05
Correction for revised gold standard 622.7/640 =0.973

```
* Revised Data set#= 23467.003
REACTION  =(4-BE-9(N,G)4-BE-10,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainties
-------------------------------------------------------
DATA       DATA-ERR   KT-DUMMY   MONIT      MONIT-ERR
MICRO-B    MICRO-B    KEV        MB         MB
-------------------------------------------------------
10.16       0.60      25.        622.7      6.2
-------------------------------------------------------
```

Comment:

cross section value in subentry 23467.003 is renormalized

a) for new gold cross section

**** Entry=23468 ****

$^{35}Cl(n,\gamma)^{36}Cl$:

Actual data in EXFOR

```
* Data set#= 23468.002.1
REACTION  =(17-CL-35(N,G)17-CL-36,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT          DATA      1ERR-T     1MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
30.         9.2        0.5        616.5      8.6
-------------------------------------------------------
```

Gold standard adopted from ENDF/B-VII.1 with quoted uncertainty of 1.4%, corresponding to an average of 616.5±8.6 mb for the quasi-Maxwellian spectrum at kT=25 keV (see introductory text).

Revised data:

measured quantity at kT=28.41 keV: cross section ratio 35Cl/197Au = 0.0149±0.0008
Correction for revised gold standard 616.5/622.7 =0.990

```
* Revised Data set#= 23468.002.1
REACTION  =(17-CL-35(N,G)17-CL-36,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
-------------------------------------------------------
KT-DUMMY    DATA      1ERR-T     1MONIT      MONIT-ERR
KEV         MB         MB         MB         MB
-------------------------------------------------------
28.41       9.1        0.5        622.7      6.2
-------------------------------------------------------
```

Comment:

cross section value in subentry 23468.002.1 is renormalized

a) for new gold cross section

$^{35}Cl(n,\gamma)^{36}Cl$:

Actual data in EXFOR

```
* Data set#= 23468.002.2
REACTION  =((17-CL-35(N,G)17-CL-36,,SIG,,SPA)/
           (79-AU-197(N,G)79-AU-198,,SIG,,SPA))
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
--------------------------------------------
KT          DATA      2ERR-T     2MONIT
KEV         MB         MB         MB
--------------------------------------------
30.         1.13       0.06       8.10
--------------------------------------------
```

Comment:

In subentry 23468.002.2 the 35Cl cross section is mistaken with the ratio of the **measured** cross section and the one obtained by folding the **evaluated** cross section from ENDF/B-VII.1 with the experimental neutron spectrum (shown in the same table of the original paper). **Therefore, subentry 23468.002.2 must be removed from EXFOR.**

$^{35}Cl(n,\gamma)^{36}Cl$:

Actual data in EXFOR

```
* Data set#= 23468.003.1
REACTION  =(17-CL-35(N,G)17-CL-36,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
KT          DATA      1ERR-T     1MONIT
KEV         MB         MB         MB
---------------------------------------------
40.         6.42       0.29       5.99
---------------------------------------------
```

Gold standard adopted from ENDF/B-VII.1 with quoted uncertainty of 1.4%, corresponding to an average of 616.5±8.6 mb for the quasi-Maxwellian spectrum at kT=25 keV, see introductory text)

Revised data:

measured quantity at kT=40.54 ~~5~~ keV: cross section ratio 35Cl/197Au = 0.0149±0.0008
Correction for revised gold standard 616.5/622.7 =0.990

```
* Revised Data set#= 23468.003.1
REACTION  =(17-CL-35(N,G)17-CL-36,,SIG,,SPA)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
---------------------------------------------
KT-DUMMY    DATA      1ERR-T     1MONIT
KEV         MB         MB         MB
---------------------------------------------
40.54       9.1        0.5        6.2
---------------------------------------------
```

Comment:

cross section value in subentry 23468.003.1 is renormalized

a) for new gold cross section

$^{35}Cl(n,\gamma)^{36}Cl$:

Actual data in EXFOR

```
* Data set#= 23468.003.2
REACTION  =((17-CL-35(N,G)17-CL-36,,SIG,,SPA)/
           (79-AU-197(N,G)79-AU-198,,SIG,,SPA))
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(ERR-T) Total uncertainty
--------------------------------------------
KT          DATA      2ERR-T     2MONIT
KEV         MB         MB         MB
--------------------------------------------
40.         1.07       0.05       5.99
--------------------------------------------
```

Comment:

In subentry 23468.003.2 the 35Cl cross section is mistaken with the ratio of the **measured** cross section and the one obtained by folding the **evaluated** cross section from ENDF/B-VII.1 with the experimental neutron spectrum (shown in the same table of the original paper). **Therefore, subentry 23468.003.2 must be removed from EXFOR.**

$^{35}Cl(n,\gamma)^{36}Cl$:

Actual data in EXFOR

```
* Data set#= 23468.004
REACTION  =(17-CL-35(N,G)17-CL-36,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) Only the uncertainty of weighted average ratio was
considered.
---------------------------------
KT          DATA       DATA-ERR
KEV         MB         MB
---------------------------------
30.         8.33       0.32
---------------------------------
```

Revised data:

Correction for revised gold standard 616.5/622.7 =0.990

```
* Revised Data set#= 23468.004
REACTION  =(17-CL-35(N,G)17-CL-36,,SIG,,MXW,DERIV)
MONITOR   =(79-AU-197(N,G)79-AU-198,,SIG,,SPA)
ERR-ANALYS=(DATA-ERR) corresponds to the uncertainty of weighted average
ratio was considered.
---------------------------------
KT          DATA       DATA-ERR
KEV         MB         MB
---------------------------------
30.         8.25       0.31
---------------------------------
```

Comment:

cross section value in subentry 23468.004 is renormalized

a) for new gold cross section

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