

JAERI - M
92-077

INDC(JPN)-161/L

CURVES AND TABLES OF NEUTRON CROSS SECTIONS
OF FISSION PRODUCT NUCLEI IN JENDL-3

June 1992

(Ed.) Tsuneo NAKAGAWA

日 本 原 子 力 研 究 所
Japan Atomic Energy Research Institute

JAERI-Mレポートは、日本原子力研究所が不定期に公刊している研究報告書です。
入手の問合わせは、日本原子力研究所技術情報部情報資料課（〒319-11茨城県那珂郡東海村）あて、お申しこしてください。なお、このほかに財団法人原子力弘済会資料センター（〒319-11茨城県那珂郡東海村日本原子力研究所内）で複写による実費頒布をおこなっております。

JAERI-M reports are issued irregularly.

Inquiries about availability of the reports should be addressed to Information Division
Department of Technical Information, Japan Atomic Energy Research Institute, Tokai-
mura, Naka-gun, Ibaraki-ken 319-11, Japan.

©Japan Atomic Energy Research Institute, 1992

編集兼発行 日本原子力研究所
印刷 いばらき印刷(株)

Curves and Tables of Neutron Cross Sections
of Fission Product Nuclei in JENDL-3

(Ed.) Tsuneo NAKAGAWA

Department of Physics
Tokai Research Establishment
Japan Atomic Energy Research Institute
Tokai-mura, Naka-gun, Ibaraki-ken

(Received April 27, 1992)

Neutron cross sections of 172 nuclei in the fission product region stored in JENDL-3 are shown in graphs and tables. The evaluation work of these nuclei was made by the Fission Product Nuclear Data Working Group of the Japanese Nuclear Data Committee, in the neutron energy region from 10^{-5} eV to 20 MeV. Almost all the cross section data are reproduced in graphs in this report. The cross sections averaged over 38 energy intervals are listed in a table. Shown in other tables are thermal cross sections, resonance integrals, Maxwellian neutron flux average cross sections, fission spectrum average cross sections, 14-MeV cross sections, one group average cross sections in neutron flux of typical types of fission reactors and average cross sections in the 30-keV Maxwellian spectrum.

Keywords: Neutron Cross Section, Fission Product Nuclide, JENDL-3, Graph, Table, Thermal Cross Section, Resonance Integral, Average Cross Section

JENDL-3 核分裂生成物核種の中性子断面積の図・表

日本原子力研究所東海研究所物理部

(編) 中川 庸雄

(1992年4月27日受理)

JENDL-3 に格納されている172核分裂生成物核種の中性子断面積を図と表で示した。データの評価はシグマ委員会のFP核データワーキンググループで行われたもので、 10^{-5} eVから20MeVのエネルギー範囲でデータが与えられている。本報告には、それらのほとんど全ての断面積データを図で示した。また、38群エネルギー間隔で平均した断面積を表にした。さらに、他の表では、熱中性子断面積、共鳴積分値、マックスウェルスペクトル平均断面積、核分裂スペクトル平均断面積、14 MeVの断面積、典型的な原子炉の中性子束での平均断面積および30keVのマックスウェルスペクトル平均断面積を示した。

Contents

1. Preface	1
1.1 Figures	1
1.2 Tables	2
Acknowledgements	5
References	5
2. Cross Section Curves	19
3. Tables of Cross Sections Averaged Over 38 Energy Intervals	365
4. Table of the 2200-m/s and 14-MeV Cross Sections, Resonance Integrals, Maxwellian and Fission Spectrum Average Cross Sections	453
5. Table of One-group Cross Sections	489
6. Table of 30-keV Maxwellian Spectrum Average Capture Cross Sections	525

目 次

1. 前書き	1
1.1 図について	1
1.2 表について	2
謝 辞	5
参考文献	5
2. 断面積図	19
3. 38群平均断面積の表	365
4. 熱中性子エネルギー断面積, 14MeVの断面積, 共鳴積分値, マックスウェル スペクトル平均断面積および核分裂スペクトル平均断面積の表	453
5. 1群断面積の表	489
6. 30keV マックスウェルスペクトル平均捕獲断面積の表	525

1. Preface

The JENDL-3 general purpose file (JENDL-3.0) was released in 1989 with the evaluated data for 171 nuclei.¹⁾ In 1991, it was revised to JENDL-3.1 by adding the data for 172 nuclei in the fission product region evaluated by the Fission Product Nuclear Data Working Group²⁾ of the Japanese Nuclear Data Committee, and by correcting some minor errors. The part of JENDL-3 for the 172 nuclei in the fission product region is sometimes called as the JENDL-3 Fission Product Nuclear Data File (or Library). Finally, JENDL-3 contains the evaluated data for 324 nuclei[†]. The 172 nuclei in the fission product region are listed in Table 1 together with their MAT numbers, abundance of stable nuclei or half-lives of unstable ones, their spin and parity of ground state, and energy boundaries of the resolved and unresolved resonance regions. The data of abundance or half-life, spin and parity were taken from the wallet cards compiled by Tuli³⁾ which are based on the Evaluated Nuclear Structure Data File (ENSDF) as of March 1990.

This document provides graphs and tables concerning neutron induced reaction cross sections of the 172 nuclei in the fission product region stored in JENDL-3.1. The format of the graphs and tables is almost the same as that of JAERI-M 90-099⁴⁾ which shows the data of 171 nuclei in JENDL-3.0.

The figures of the cross sections are given in Chapter 2, and the tables in Chapters 3 to 6, which are briefly explained in the following sections. To make the graphs and tables of the cross sections, the data were processed first with RESENDD⁵⁾ to make pointwise cross-section files by reconstructing the cross sections at 0 K in the resonance region with an accuracy of 1.0 %. Therefore, it should be noted that the accuracy of data listed in the present tables is better than 1.0 % but not much better than 1.0 %, except the 2200-m/s cross sections which were calculated exactly at 0.0253 eV.

1.1 Figures

Three kinds of figures are given in Chapter 2 for each nuclide.

- (1) Figures containing the total, elastic and inelastic scattering, and capture cross sections
Curves of these cross sections are given in the energy range from 10^{-2} eV to 20 MeV.

[†] The data for 19 nuclei are compiled in the both parts of the JENDL-3 general purpose file for 171 nuclei and the JENDL-3 Fission Product Nuclear Data File.

These graphs were made from the pointwise cross-section files constructed with RESEND.

(2) Figures of average values of the total, elastic scattering and capture cross sections

The cross sections in the resonance region are overlapped in the graphs made from the pointwise files. In order to show average tendencies of cross section curves, the cross sections averaged over the 70 energy intervals from 0.32242 eV to 10 MeV with a constant weight are shown in the figures in the energy range from 10^{-2} eV to 10 MeV.

For some nuclei, the (n, α) cross section is not small even in the thermal neutron energy region. For such nuclei, the (n, α) cross section is also given in these graphs. They are ^{123}Te , ^{143}Nd , ^{145}Nd , ^{147}Sm , ^{149}Sm , ^{151}Eu , ^{153}Eu , ^{152}Gd , ^{155}Gd and ^{157}Gd . The nuclide of ^{109}Ag has also the (n, α) cross section in the thermal cross section. However, it is not given in the graph because it is too small as is listed in the table of 38-energy interval average cross sections.

(3) Figures of threshold reactions

All the threshold reaction cross sections having values larger than 0.1 mb are displayed on the figures.

1.2 Tables

The following four kinds of tables are made. They are given in Chapters 3 to 6, respectively.

(1) Tables of cross sections averaged over energy intervals in 38-energy group structure from 10^{-5} eV to 20 MeV

The cross sections were averaged with a constant weight, namely,

$$\bar{\sigma}_i = \frac{1}{E_{i+1} - E_i} \int_{E_i}^{E_{i+1}} \sigma(E) dE .$$

Each decade of energies was divided into four intervals except for the energy region below 10^{-2} eV where was only one energy interval. The last interval from 10 to 20 MeV is too wide to know the shape of the threshold reaction cross sections. In such cases, the third figure of each nuclide is helpful for users to get the information of shape and magnitude of the threshold reaction cross sections.

(2) A table of the 2200-m/s and 14-MeV cross sections, resonance integral, Maxwellian and fission spectrum average cross sections

The 2200-m/s cross sections were taken from the pointwise cross sections at 0 K calculated with RESENDD. The Maxwellian neutron flux average cross sections were calculated in the energy interval from 10^{-5} eV to 3.0 eV with the neutron flux at the temperature of 0.0253 eV. The resonance integral was calculated from the pointwise cross sections by assuming a cut-off energy of 0.5 eV, except for the total and elastic scattering cross sections. For the reactions whose Q-values are negative, their threshold energies are given in the place of these thermal data.

The 14-MeV cross sections are listed for all the reactions. The fission spectrum average cross sections were obtained by using the Watt-type spectrum of the ^{235}U thermal neutron induced fission given in the ENDF/B-V standard data file⁶⁾:

$$\chi(E) = \sqrt{4/(\pi a^3 b)} \times \exp(-ab/4 - E/a) \times \sinh\sqrt{bE} ,$$

where a and b are 0.988 MeV and 2.249 MeV^{-1} , respectively. This spectrum is the same as that used to make a corresponding table in JAERI-M 90-099. The integral was performed in the energy range from 10^{-5} eV to 20 MeV.

(3) A table of one-group average cross sections

The one-group cross sections were simply calculated as

$$\bar{\sigma} = \frac{\int \varphi(E)\sigma(E)dE}{\int \varphi(E)dE} ,$$

where $\varphi(E)$ is neutron flux. Five kinds of neutron flux data of the following typical reactors were used.

○ BWR

40 % void ratio, temperature = 286 K, no burn-up.

○ PWR

UO_2 fuel, the volume ratio of moderator to fuel = 1.9.

○ High Conversion Light Water Reactor (HCLWR ($V_m/V_f=1.4$))

UO_2 - PuO_2 (MOX) fuel, the volume ratio of moderator to fuel = 1.4.

- High Conversion Light Water Reactor (HCLWR ($V_m/V_f=0.5$))
 UO_2 - PuO_2 (MOX) fuel, the volume ratio of moderator to fuel = 0.5.
- Large liquid metal fast breeder reactor (LMFBR)
 MOX fuel, reactor power = 2600 MWt.

The neutron flux for BWR was calculated by Ando⁷⁾. Cell average flux of BWR was used in the present work. The other 4 spectra were obtained by Akie⁸⁾ by means of 90-group lattice calculation with SRAC system⁹⁾ based on JENDL-2¹⁰⁾.

These neutron flux data were originally provided in a multi-group structure. In the present calculation, however, they were changed into a pointwise form by simply selecting the energy points of the root-mean square of the energy boundaries, and connecting them by linear interpolation in a log-log scale.

$$E_{c,i} = \sqrt{E_i \times E_{i+1}},$$

where E_i and E_{i+1} are lower and upper boundaries of the i -th interval. In the lowest energy intervals, the neutron flux was extrapolated to 10^{-5} eV by assuming the neutron flux in the Maxwellian shape. Above 10 MeV, the values are not defined in the original flux data. Therefore, the fission spectra of ^{235}U and ^{239}Pu in JENDL-3 which were based on the recommendation of Madland and Nix¹²⁾ were used tentatively in this energy region. The neutron flux of the BWR, PWR and HCLWR($V_m/V_f=1.4$) was connected to the ^{235}U thermal fission spectrum, the neutron flux of the HCLWR($V_m/V_f=0.5$) to the ^{239}Pu thermal fission spectrum, and the neutron flux of the large LMFBR to the ^{239}Pu fast fission spectrum for the incident neutron energy of 1 MeV. Those neutron flux data used in the present work are shown in Figs. 1 to 5 together with the originally given multi-group ones. The numerical data of the fluxes are listed in Tables 2 to 6.

(4) A table of 30-keV Maxwellian spectrum average capture cross sections

The capture cross sections averaged with a 30-keV Maxwellian spectrum are of importance for astronomy in order to study a slow capture process (s process). The average cross sections were obtained as follows:

$$\bar{\sigma} = \frac{2}{\sqrt{\pi}} \frac{\int_{E_1}^{E_2} \sigma(E) E \exp(-E/kT) dE}{\int_{E_1}^{E_2} E \exp(-E/kT) dE},$$

where, $kT = 30$ keV, and E_1 and E_2 are 100 eV and 1 MeV. In the table, the average values are compared with those recommended by Bao and Kaeppler¹¹⁾.

Acknowledgements

This report is one of products of the Fission Product Nuclear Data Working Group of the Japanese Nuclear Data Committee. The editor appreciates all the members of the working group for their great efforts of the data evaluation and for many valuable comments on this report. He also appreciates Dr. R. Ando of Toshiba Corp. and Dr. H. Akie of JAERI for preparation of the neutron flux data of BWR, PWR, HCLWR and LMFBR.

He thanks Miss S. Ishibashi for her efforts in rearranging the figures.

References

- 1) Shibata K., Nakagawa T., Asami T., Fukahori T., Narita T., Chiba S., Mizumoto M., Hasegawa A., Kikuchi Y., Nakajima Y., and Igarasi S.: "Japanese Evaluated Nuclear Data Library, Version-3, -- JENDL-3 --," JAERI 1319 (1990).
- 2) Kawai M., Iijima S., Nakagawa T., Nakajima Y., Sugi T., Watanabe T., Matsunobu H., Sasaki M., and Zukeran A.: *J. Nucl. Sci. Technol.*, **29**, 195 (1992).
- 3) Tuli J.K.: "Nuclear Wallet Cards," BNL National Nuclear Data Center, Upton, New York (1990).
- 4) (Eds.) Nakagawa T., Asami T., Yoshida T.: "Curves and Tables of Neutron Cross Sections, -- Japanese Evaluated Nuclear Data Library Version-3 --," JAERI-M 90-099(1990).
- 5) Nakagawa T.: "Program RESEND (Version 84-07), A Program for Reconstruction of Resonance Cross Sections from Evaluated Nuclear data in the ENDF/B Format (Modified Version of RESEND)," JAERI-M 84-192 (1984).
- 6) Bhat M.R.: "ENDF-201, ENDF Summary Documentation", compiled by R.Kinsey, BNL-

$$\bar{\sigma} = \frac{2}{\sqrt{\pi}} \frac{\int_{E_1}^{E_2} \sigma(E) E \exp(-E/kT) dE}{\int_{E_1}^{E_2} E \exp(-E/kT) dE},$$

where, $kT = 30$ keV, and E_1 and E_2 are 100 eV and 1 MeV. In the table, the average values are compared with those recommended by Bao and Kaeppler¹¹⁾.

Acknowledgements

This report is one of products of the Fission Product Nuclear Data Working Group of the Japanese Nuclear Data Committee. The editor appreciates all the members of the working group for their great efforts of the data evaluation and for many valuable comments on this report. He also appreciates Dr. R. Ando of Toshiba Corp. and Dr. H. Akie of JAERI for preparation of the neutron flux data of BWR, PWR, HCLWR and LMFBR.

He thanks Miss S. Ishibashi for her efforts in rearranging the figures.

References

- 1) Shibata K., Nakagawa T., Asami T., Fukahori T., Narita T., Chiba S., Mizumoto M., Hasegawa A., Kikuchi Y., Nakajima Y., and Igarasi S.: "Japanese Evaluated Nuclear Data Library, Version-3, -- JENDL-3 --," JAERI 1319 (1990).
- 2) Kawai M., Iijima S., Nakagawa T., Nakajima Y., Sugi T., Watanabe T., Matsunobu H., Sasaki M., and Zukeran A.: *J. Nucl. Sci. Technol.*, **29**, 195 (1992).
- 3) Tuli J.K.: "Nuclear Wallet Cards," BNL National Nuclear Data Center, Upton, New York (1990).
- 4) (Eds.) Nakagawa T., Asami T., Yoshida T.: "Curves and Tables of Neutron Cross Sections, -- Japanese Evaluated Nuclear Data Library Version-3 --," JAERI-M 90-099(1990).
- 5) Nakagawa T.: "Program RESEND (Version 84-07), A Program for Reconstruction of Resonance Cross Sections from Evaluated Nuclear data in the ENDF/B Format (Modified Version of RESEND)," JAERI-M 84-192 (1984).
- 6) Bhat M.R.: "ENDF-201, ENDF Summary Documentation", compiled by R.Kinsey, BNL-

$$\bar{\sigma} = \frac{2}{\sqrt{\pi}} \frac{\int_{E_1}^{E_2} \sigma(E) E \exp(-E/kT) dE}{\int_{E_1}^{E_2} E \exp(-E/kT) dE},$$

where, $kT = 30$ keV, and E_1 and E_2 are 100 eV and 1 MeV. In the table, the average values are compared with those recommended by Bao and Kaeppler¹¹⁾.

Acknowledgements

This report is one of products of the Fission Product Nuclear Data Working Group of the Japanese Nuclear Data Committee. The editor appreciates all the members of the working group for their great efforts of the data evaluation and for many valuable comments on this report. He also appreciates Dr. R. Ando of Toshiba Corp. and Dr. H. Akie of JAERI for preparation of the neutron flux data of BWR, PWR, HCLWR and LMFBR.

He thanks Miss S. Ishibashi for her efforts in rearranging the figures.

References

- 1) Shibata K., Nakagawa T., Asami T., Fukahori T., Narita T., Chiba S., Mizumoto M., Hasegawa A., Kikuchi Y., Nakajima Y., and Igarasi S.: "Japanese Evaluated Nuclear Data Library, Version-3, -- JENDL-3 --," JAERI 1319 (1990).
- 2) Kawai M., Iijima S., Nakagawa T., Nakajima Y., Sugi T., Watanabe T., Matsunobu H., Sasaki M., and Zukeran A.: *J. Nucl. Sci. Technol.*, **29**, 195 (1992).
- 3) Tuli J.K.: "Nuclear Wallet Cards," BNL National Nuclear Data Center, Upton, New York (1990).
- 4) (Eds.) Nakagawa T., Asami T., Yoshida T.: "Curves and Tables of Neutron Cross Sections, -- Japanese Evaluated Nuclear Data Library Version-3 --," JAERI-M 90-099(1990).
- 5) Nakagawa T.: "Program RESEND (Version 84-07), A Program for Reconstruction of Resonance Cross Sections from Evaluated Nuclear data in the ENDF/B Format (Modified Version of RESEND)," JAERI-M 84-192 (1984).
- 6) Bhat M.R.: "ENDF-201, ENDF Summary Documentation", compiled by R.Kinsey, BNL-

- NCS-17541, 92-U-235 (MAT 1395) (1979).
- 7) Ando R.: private communication (1991).
 - 8) Akie H.: private communication (1990).
 - 9) Tsuchihashi K., Ishiguro Y., Kaneko K, and Ido M.: "Revised SRAC Code System",
JAERI 1302 (1986).
 - 10) (Ed.) Nakagawa T.: "Summary of JENDL-2 General Purpose File", JAERI-M 84-103
(1984).
 - 11) Bao Z.Y., and Kaeppler F.: Atomic Data And Nucl. Data, **36**, 411 (1987).
 - 12) Madland D.G., and Nix J.R.: Nucl. Sci. Eng., **81**, 213 (1982).

Table 1 Nuclei in the fission product region stored in JENDL-3

No	Nuclide	MAT	Abundance* or $T_{1/2}$	spin* parity	Resonance region (eV)**		
					E_1	E_2	E_3
1	33-As- 75	3301	100 %	3/2-	1.0E-5	9.7000E+3	1.0E+5
2	34-Se- 74	3401	0.89 %	0 +	1.0E-5	2.6000E+3	1.0E+5
3	34-Se- 76	3402	9.36 %	0 +	1.0E-5	9.0000E+3	1.0E+5
4	34-Se- 77	3403	7.63 %	1/2-	1.0E-5	2.7000E+3	1.0E+5
5	34-Se- 78	3404	23.78 %	0 +	1.0E-5	1.2000E+4	1.0E+5
6	34-Se- 79	3405	< 6.5E+4y	7/2+	no RRP	3.8000E+1	1.0E+5
7	34-Se- 80	3406	49.61 %	0 +	1.0E-5	3.5000E+4	1.0E+5
8	34-Se- 82	3407	1.4E+20y 8.73 %	0 +	1.0E-5	1.8000E+4	1.0E+5
9	35-Br- 79	3501	50.69 %	3/2-	1.0E-5	5.5000E+3	1.0E+5
10	35-Br- 81	3502	49.31 %	3/2-	1.0E-5	1.3000E+4	1.0E+5
11	36-Kr- 78	3601	0.35 %	0 +	1.0E-5	8.0000E+2	1.0E+5
12	36-Kr- 80	3602	2.25 %	0 +	1.0E-5	1.0000E+3	1.0E+5
13	36-Kr- 82	3603	11.6 %	0 +	1.0E-5	4.0000E+2	1.0E+5
14	36-Kr- 83	3604	11.5 %	9/2+	1.0E-5	2.7200E+2	1.0E+5
15	36-Kr- 84	3605	57.0 %	0 +	1.0E-5	2.4800E+3	1.0E+5
16	36-Kr- 85	3606	10.756 y	9/2+	no RRP	1.0000E+3	1.0E+5
17	36-Kr- 86	3607	17.3 %	0 +	1.0E-5	6.4000E+5	no URP
18	37-Rb- 85	3701	72.17 %	5/2-	1.0E-5	8.4680E+3	1.0E+5
19	37-Rb- 87	3702	4.75E+10y 27.83 %	3/2-	1.0E-5	1.2460E+4	1.0E+5
20	38-Sr- 86	3801	9.86 %	0 +	1.0E-5	3.7120E+4	1.0E+5
21	38-Sr- 87	3802	7.00 %	9/2+	1.0E-5	1.4080E+4	1.0E+5
22	38-Sr- 88	3803	82.58 %	0 +	1.0E-5	3.0000E+5	no URP
23	38-Sr- 89	3804	50.53 d	5/2+	no RRP	1.4000E+3	1.0E+5
24	38-Sr- 90	3805	29.1 y	0 +	no RRP	6.0000E+3	1.0E+5
25	39-Y - 89	3901	100 %	1/2-	1.0E-5	4.8000E+4	1.0E+5
26	39-Y - 91	3902	58.51 d	1/2-	no RRP	3.8000E+2	1.0E+5
27	40-Zr- 90	4001	51.45 %	0 +	1.0E-5	1.7100E+5	no URP
28	40-Zr- 91	4002	11.22 %	5/2+	1.0E-5	3.0160E+4	1.0E+5
29	40-Zr- 92	4003	17.15 %	0 +	1.0E-5	7.1000E+4	1.0E+5
30	40-Zr- 93	4004	1.53E+6y	5/2+	1.0E-5	1.7000E+3	1.0E+5
31	40-Zr- 94	4005	17.38 %	0 +	1.0E-5	5.3500E+4	1.0E+5
32	40-Zr- 95	4006	64.02 d	5/2+	no RRP	1.2500E+2	1.0E+5
33	40-Zr- 96	4007	>3.56E+17y 2.80 %	0 +	1.0E-5	1.0000E+5	no URP
34	41-Nb- 93	4101	100 %	9/2+	1.0E-5	7.0000E+3	1.0E+5
35	41-Nb- 94	4102	2.03E+4y	(6)+	1.0E-5	2.8000E+1	1.0E+5
36	41-Nb- 95	4103	34.97 d	9/2+	no RRP	2.5000E+1	1.0E+5
37	42-Mo- 92	4201	14.84 %	0 +	1.0E-5	5.0000E+4	1.0E+5
38	42-Mo- 94	4202	9.25 %	0 +	1.0E-5	2.0000E+4	1.0E+5
39	42-Mo- 95	4203	15.92 %	5/2+	1.0E-5	2.0000E+3	1.0E+5
40	42-Mo- 96	4204	16.68 %	0 +	1.0E-5	1.9000E+4	1.0E+5

* Abundance, $T_{1/2}$, spin and parity are taken from the nuclear Wallet Cards, J.K. Tuli (1990).

** E_1 : Lower boundary of the resolved resonance region.

E_2 : Upper boundary of the resolved resonance region (= lower boundary of the unresolved resonance region).

E_3 : Upper boundary of the unresolved resonance region.

no RRP: no resolved resonance parameters.

no URP: no unresolved resonance parameters.

Table 1 (continued)

No	Nuclide	MAT	Abundance* or T _{1/2}	spin* parity	Resonance region (eV)**		
					E ₁	E ₂	E ₃
41	42-Mo-97	4205	9.55 %	5/2+	1.0E-5	1.8000E+3	1.0E+5
42	42-Mo-98	4206	24.13 %	0 +	1.0E-5	3.2000E+4	1.0E+5
43	42-Mo-99	4207	65.94 h	1/2+	no RRP	2.4000E+1	1.0E+5
44	42-Mo-100	4208	9.63 %	0 +	1.0E-5	2.6000E+4	1.0E+5
45	43-Tc-99	4301	2.111E+5y	9/2+	1.0E-5	4.2190E+3	1.0E+5
46	44-Ru-96	4401	5.54 %	0 +	no RRP	2.0000E+2	1.0E+5
47	44-Ru-98	4402	1.86 %	0 +	no RRP	1.4000E+2	1.0E+5
48	44-Ru-99	4403	12.7 %	5/2+	1.0E-5	1.0000E+3	1.0E+5
49	44-Ru-100	4404	12.6 %	0 +	1.0E-5	1.1890E+4	1.0E+5
50	44-Ru-101	4405	17.1 %	5/2+	1.0E-5	1.0600E+3	1.0E+5
51	44-Ru-102	4406	31.6 %	0 +	1.0E-5	1.3400E+4	1.0E+5
52	44-Ru-103	4407	39.26 d	(3/2)+	no RRP	1.1050E+1	1.0E+5
53	44-Ru-104	4408	18.6 %	0 +	1.0E-5	1.1120E+4	1.0E+5
54	44-Ru-106	4409	373.59 d	0 +	no RRP	5.0000E+2	1.0E+5
55	45-Rh-103	4501	100 %	1/2-	1.0E-5	3.5800E+3	1.0E+5
56	45-Rh-105	4502	35.36 h	7/2+	1.0E-5	7.5000E+0	1.0E+5
57	46-Pd-102	4601	1.02 %	0 +	1.0E-5	2.5000E+2	1.0E+5
58	46-Pd-104	4602	11.14 %	0 +	1.0E-5	2.7900E+2	1.0E+5
59	46-Pd-105	4603	22.33 %	5/2+	1.0E-5	2.0485E+3	1.0E+5
60	46-Pd-106	4604	27.33 %	0 +	1.0E-5	4.2300E+2	1.0E+5
61	46-Pd-107	4605	6.5E+6 y	5/2+	1.0E-5	3.5250E+3	1.0E+5
62	46-Pd-108	4606	26.46 %	0 +	1.0E-5	9.0000E+3	1.0E+5
63	46-Pd-110	4607	11.72 %	0 +	1.0E-5	8.0000E+3	1.0E+5
64	47-Ag-107	4701	51.839%	1/2-	1.0E-5	7.0095E+3	1.0E+5
65	47-Ag-109	4702	48.161%	1/2-	1.0E-5	7.0095E+3	1.0E+5
66	47-Ag-110 _m	4703	249.76 d	6 +	1.0E-5	1.2500E+2	1.0E+5
67	48-Cd-106	4801	1.25 %	0 +	1.0E-5	7.0000E+2	1.0E+5
68	48-Cd-108	4802	0.89 %	0 +	1.0E-5	3.8000E+2	1.0E+5
69	48-Cd-110	4803	12.49 %	0 +	1.0E-5	7.0000E+3	1.0E+5
70	48-Cd-111	4804	12.80 %	1/2+	1.0E-5	1.8000E+3	1.0E+5
71	48-Cd-112	4805	24.13 %	0 +	1.0E-5	7.0000E+3	1.0E+5
72	48-Cd-113	4806	9.3E+15y 12.22 %	1/2+	1.0E-5	2.0000E+3	1.0E+5
73	48-Cd-114	4807	28.73 %	0 +	1.0E-5	8.0000E+3	1.0E+5
74	48-Cd-116	4808	7.49 %	0 +	1.0E-5	9.0000E+3	1.0E+5
75	49-In-113	4901	4.3 %	9/2+	1.0E-5	8.3000E+2	1.0E+5
76	49-In-115	4902	4.41E+14y 95.7 %	9/2+	1.0E-5	2.0000E+3	1.0E+5
77	50-Sn-112	5001	0.97 %	0 +	1.0E-5	1.5000E+3	1.0E+5
78	50-Sn-114	5002	0.65 %	0 +	1.0E-5	2.5000E+3	1.0E+5
79	50-Sn-115	5003	0.36 %	1/2+	1.0E-5	9.5000E+2	1.0E+5
80	50-Sn-116	5004	14.53 %	0 +	1.0E-5	2.0000E+3	1.0E+5
81	50-Sn-117	5005	7.68 %	1/2+	1.0E-5	2.3500E+3	1.0E+5
82	50-Sn-118	5006	24.22 %	0 +	1.0E-5	4.8000E+3	1.0E+5
83	50-Sn-119	5007	8.58 %	1/2+	1.0E-5	1.3000E+3	1.0E+5
84	50-Sn-120	5008	32.59 %	0 +	1.0E-5	7.0000E+4	1.0E+5
85	50-Sn-122	5009	4.63 %	0 +	1.0E-5	2.9000E+4	1.0E+5
86	50-Sn-123	5010	129.2 d	11/2-	no RRP	2.2000E+1	1.0E+5
87	50-Sn-124	5011	5.79 %	0 +	1.0E-5	1.0700E+4	1.0E+5
88	50-Sn-126	5012	1.E+5 y	0 +	no RRP	2.0000E+3	1.0E+5
89	51-Sb-121	5101	57.36 %	5/2+	1.0E-5	2.0000E+3	1.0E+5
90	51-Sb-123	5102	42.64 %	7/2+	1.0E-5	2.5000E+3	1.0E+5

Table 1 (continued)

No	Nuclide	MAT	Abundance* or $T_{1/2}$	spin* parity	Resonance region (eV)**		
					E_1	E_2	E_3
91	51-Sb-124	5103	60.2 d	3 -	no RRP	2.5400E+0	1.0E+5
92	51-Sb-125	5104	2.73 y	7/2+	no RRP	1.4000E+1	1.0E+5
93	52-Te-120	5201	0.095%	0 +	no RRP	6.8000E+1	1.0E+5
94	52-Te-122	5202	2.59 %	0 +	1.0E-5	5.0000E+3	1.0E+5
95	52-Te-123	5203	1.3E+13y 0.905%	1/2+	1.0E-5	7.0000E+2	1.0E+5
96	52-Te-124	5204	4.79 %	0 +	1.0E-5	7.0000E+3	1.0E+5
97	52-Te-125	5205	7.12 %	1/2+	1.0E-5	3.0000E+3	1.0E+5
98	52-Te-126	5206	18.93 %	0 +	1.0E-5	1.4700E+4	1.0E+5
99	52-Te-127 ^m	5207	109 d	11/2-	no RRP	5.3000E+0	1.0E+5
100	52-Te-128	5208	>8.E+24y 31.70 %	0 +	1.0E-5	8.0000E+3	1.0E+5
101	52-Te-129 ^m	5209	33.6 d	11/2-	no RRP	7.2000E+0	1.0E+5
102	52-Te-130	5210	<1.25E+21y 33.87 %	0 +	1.0E-5	3.0500E+4	1.0E+5
103	53-I -127	5301	100 %	5/2+	1.0E-5	4.2520E+3	1.0E+5
104	53-I -129	5302	1.57E+7y	7/2+	1.0E-5	3.3910E+3	1.0E+5
105	53-I -131	5303	8.04 d	7/2+	no RRP	3.0000E+1	1.0E+5
106	54-Xe-124	5401	0.10 %	0 +	1.0E-5	2.9000E+2	1.0E+5
107	54-Xe-126	5402	0.09 %	0 +	1.0E-5	4.8500E+2	1.0E+5
108	54-Xe-128	5403	1.91 %	0 +	1.0E-5	1.7000E+3	1.0E+5
109	54-Xe-129	5404	26.4 %	1/2+	1.0E-5	2.7000E+3	1.0E+5
110	54-Xe-130	5405	4.1 %	0 +	1.0E-5	3.6000E+3	1.0E+5
111	54-Xe-131	5406	21.2 %	3/2+	1.0E-5	2.2500E+3	1.0E+5
112	54-Xe-132	5407	26.9 %	0 +	1.0E-5	4.4000E+3	1.0E+5
113	54-Xe-133	5408	5.243 d	3/2+	no RRP	8.0500E+1	1.0E+5
114	54-Xe-134	5409	10.4 %	0 +	1.0E-5	1.0324E+4	1.0E+5
115	54-Xe-135	5410	9.14 h	3/2+	1.0E-5	1.9000E+2	1.0E+5
116	54-Xe-136	5411	>2.36E+21y 8.9 %	0 +	1.0E-5	4.9000E+5	no URP
117	55-Cs-133	5501	100 %	7/2+	1.0E-5	5.9800E+3	1.0E+5
118	55-Cs-134	5502	2.062 y	4 +	1.0E-5	1.7900E+2	1.0E+5
119	55-Cs-135	5503	2.3E+6 y	7/2+	1.0E-5	8.8000E+1	1.0E+5
120	55-Cs-136	5504	13.16 d	5 +	no RRP	2.9000E+1	1.0E+5
121	55-Cs-137	5505	30.1 y	7/2+	1.0E-5	1.5900E+3	1.0E+5
122	56-Ba-130	5601	0.106%	0 +	1.0E-5	2.5300E+3	1.0E+5
123	56-Ba-132	5602	0.101%	0 +	no RRP	6.8000E+1	1.0E+5
124	56-Ba-134	5603	2.42 %	0 +	1.0E-5	1.0575E+4	1.0E+5
125	56-Ba-135	5604	6.593%	3/2+	1.0E-5	5.9600E+3	1.0E+5
126	56-Ba-136	5605	7.85 %	0 +	1.0E-5	3.4490E+4	1.0E+5
127	56-Ba-137	5606	11.23 %	3/2+	1.0E-5	1.1885E+4	1.0E+5
128	56-Ba-138	5607	71.70 %	0 +	1.0E-5	1.0000E+5	no URP
129	56-Ba-140	5608	12.752 d	0 +	no RRP	1.4000E+4	1.0E+5
130	57-La-138	5701	1.05E+11y 0.0902%	5 +	1.0E-5	3.3000E+2	1.0E+5
131	57-La-139	5702	99.9098%	7/2+	1.0E-5	2.5900E+4	1.0E+5
132	58-Ce-140	5801	88.43 %	0 +	1.0E-5	2.0000E+5	no URP
133	58-Ce-141	5802	32.501 d	7/2-	1.0E-5	3.5000E+2	1.0E+5
134	58-Ce-142	5803	> 5.E+16y 11.13 %	0 +	1.0E-5	2.6000E+4	1.0E+5

Table 1 (continued)

No	Nuclide	MAT	Abundance* or $T_{1/2}$	spin* parity	Resonance region (eV)**		
					E_1	E_2	E_3
135	58-Ce-144	5804	284.893d	0 +	no RRP	5.0000E+1	1.0E+5
136	59-Pr-141	5901	100 %	5/2+	1.0E-5	1.3226E+4	1.0E+5
137	59-Pr-143	5902	13.57 d	7/2+	no RRP	4.0000E+0	1.0E+5
138	60-Nd-142	6001	27.13 %	0 +	1.0E-5	2.6000E+4	1.0E+5
139	60-Nd-143	6002	12.18 %	7/2-	1.0E-5	5.0000E+3	1.0E+5
140	60-Nd-144	6003	2.29E+15y 23.80 %	0 +	1.0E-5	1.2000E+4	1.0E+5
141	60-Nd-145	6004	8.30 %	7/2-	1.0E-5	4.0000E+3	1.0E+5
142	60-Nd-146	6005	17.19 %	0 +	1.0E-5	1.0000E+4	1.0E+5
143	60-Nd-147	6006	10.98 d	5/2-	1.0E-5	3.6000E+1	1.0E+5
144	60-Nd-148	6007	5.76 %	0 +	1.0E-5	8.0000E+3	1.0E+5
145	60-Nd-150	6008	> 1.E+18y	0 +	1.0E-5	1.3690E+4	1.0E+5
146	61-Pm-147	6101	2.6234 y	7/2+	1.0E-5	1.0200E+2	1.0E+5
147	61-Pm-148	6102	5.370 d	1 -	no RRP	1.1000E+0	1.0E+5
148	61-Pm-148m	6103	41.29 d	6 -	1.0E-5	6.0000E-1	1.0E+5
149	61-Pm-149	6104	53.08 h	7/2+	no RRP	2.6000E+0	1.0E+5
150	62-Sm-144	6201	3.1 %	0 +	no RRP	3.0000E+1	1.0E+5
151	62-Sm-147	6202	1.06E+11y 15.0 %	7/2-	1.0E-5	1.9900E+3	1.0E+5
152	62-Sm-148	6203	7.E+15 y 11.3 %	0 +	1.0E-5	8.0000E+3	1.0E+5
153	62-Sm-149	6204	> 2.E+15 y 13.8 %	7/2-	1.0E-5	5.2000E+2	1.0E+5
154	62-Sm-150	6205	7.4 %	0 +	1.0E-5	1.5380E+3	1.0E+5
155	62-Sm-151	6206	90 y	5/2-	1.0E-5	2.4610E+2	1.0E+5
156	62-Sm-152	6207	26.7 %	0 +	1.0E-5	5.0290E+3	1.0E+5
157	62-Sm-153	6208	46.27 h	3/2+	no RRP	4.4000E+0	1.0E+5
158	62-Sm-154	6209	22.7 %	0 +	1.0E-5	4.6540E+3	1.0E+5
159	63-Eu-151	6301	47.8 %	5/2+	1.0E-5	9.8200E+1	1.0E+5
160	63-Eu-152	6302	13.542 y	3 -	1.0E-5	6.5500E+0	1.0E+5
161	63-Eu-153	6303	52.2 %	5/2+	1.0E-5	9.7200E+1	1.0E+5
162	63-Eu-154	6304	8.592 y	3 -	1.0E-5	2.6200E+1	1.0E+5
163	63-Eu-155	6305	4.68 y	5/2+	1.0E-5	2.9700E+1	1.0E+5
164	63-Eu-156	6306	15.19 d	0 +	no RRP	1.0000E+0	1.0E+5
165	64-Gd-152	6401	1.08E+14y 0.20 %	0 +	1.0E-5	2.6600E+3	1.0E+5
166	64-Gd-154	6402	2.18 %	0 +	1.0E-5	2.7600E+3	1.0E+5
167	64-Gd-155	6403	14.80 %	3/2-	1.0E-5	1.8180E+2	1.0E+5
168	64-Gd-156	6404	20.47 %	0 +	1.0E-5	2.2140E+3	1.0E+5
169	64-Gd-157	6405	15.67 %	3/2-	1.0E-5	3.0370E+2	1.0E+5
170	64-Gd-158	6406	24.84 %	0 +	1.0E-5	6.5800E+3	1.0E+5
171	64-Gd-160	6407	21.86 %	0 +	1.0E-5	4.2240E+3	1.0E+5
172	65-Tb-159	6501	100 %	3/2+	1.0E-5	1.1880E+3	1.0E+5

Table 2 Neutron flux of BWR

E(eV)	Flux	E(eV)	Flux	E(eV)	Flux
1.00000- 5	9.20000- 2	9.48717- 4	8.37500+ 0	2.21349- 3	1.82350+ 1
3.98449- 3	3.13980+ 1	6.26149- 3	4.71150+ 1	9.04492- 3	6.45370+ 1
1.23336- 2	8.27680+ 1	1.61284- 2	1.00640+ 2	2.04287- 2	1.17690+ 2
2.52335- 2	1.32630+ 2	3.05483- 2	1.45060+ 2	3.63686- 2	1.54790+ 2
4.26934- 2	1.61090+ 2	4.95236- 2	1.64120+ 2	5.68585- 2	1.63770+ 2
6.50967- 2	1.60180+ 2	7.47579- 2	1.53160+ 2	8.60161- 2	1.42170+ 2
9.90530- 2	1.28210+ 2	1.13833- 1	1.11280+ 2	1.31056- 1	9.32110+ 1
1.52243- 1	7.34750+ 1	1.78688- 1	5.38850+ 1	2.11977- 1	3.62300+ 1
2.54097- 1	2.24260+ 1	3.07440- 1	1.32030+ 1	3.75025- 1	7.97240+ 0
4.60595- 1	5.28380+ 0	5.68625- 1	3.81120+ 0	6.57073- 1	3.20160+ 0
7.73454- 1	2.90400+ 0	9.92950- 1	2.19430+ 0	1.27500+ 0	1.70530+ 0
1.63721+ 0	1.32440+ 0	2.10205+ 0	1.01630+ 0	2.69936+ 0	7.85970- 1
3.46637+ 0	6.03340- 1	4.45072+ 0	4.66370- 1	5.71476+ 0	3.37540- 1
7.33811+ 0	2.55680- 1	9.42360+ 0	2.28710- 1	1.21005+ 1	1.81220- 1
1.55337+ 1	1.42360- 1	1.99439+ 1	1.02120- 1	2.56096+ 1	8.89100- 2
3.28873+ 1	6.71510- 2	4.22300+ 1	5.42530- 2	5.42209+ 1	4.37230- 2
6.96204+ 1	3.41430- 2	8.93955+ 1	2.89960- 2	1.14800+ 2	1.85240- 2
1.47400+ 2	1.66370- 2	1.89266+ 2	1.29710- 2	2.43050+ 2	1.02150- 2
3.12060+ 2	7.98460- 3	4.00667+ 2	6.31770- 3	5.14428+ 2	4.94410- 3
6.60531+ 2	3.86590- 3	8.48165+ 2	3.04000- 3	1.08903+ 3	2.38510- 3
1.39853+ 3	1.86270- 3	1.79596+ 3	1.45620- 3	2.30596+ 3	1.14930- 3
2.96085+ 3	8.95550- 4	3.80131+ 3	7.07980- 4	4.88078+ 3	5.56540- 4
6.26747+ 3	4.41570- 4	8.04755+ 3	3.43830- 4	1.03336+ 4	2.73990- 4
1.32665+ 4	2.18770- 4	1.70317+ 4	1.75080- 4	2.18734+ 4	1.39110- 4
2.80903+ 4	1.13040- 4	3.60679+ 4	9.23010- 5	4.63126+ 4	7.51940- 5
5.94651+ 4	6.24430- 5	7.63526+ 4	5.25080- 5	9.80427+ 4	4.44670- 5
1.25868+ 5	3.82540- 5	1.61630+ 5	3.31030- 5	2.07578+ 5	2.92690- 5
2.66515+ 5	2.64220- 5	3.42177+ 5	2.33140- 5	4.39358+ 5	1.57890- 5
5.64187+ 5	1.80410- 5	7.24388+ 5	1.68370- 5	9.30120+ 5	1.12520- 5
1.19418+ 6	9.30430- 6	1.53347+ 6	7.61040- 6	1.96913+ 6	5.64910- 6
2.52820+ 6	4.93690- 6	3.24659+ 6	2.82560- 6	4.16888+ 6	1.49470- 6
5.35267+ 6	7.66590- 7	6.87272+ 6	2.76320- 7	8.82496+ 6	7.50000- 8
8.82496+ 6	7.50001- 8	9.40000+ 6	4.70627- 8	1.00000+ 7	2.93963- 8
1.10000+ 7	1.33011- 8	1.20000+ 7	5.96318- 9	1.30000+ 7	2.65135- 9
1.40000+ 7	1.17051- 9	1.50000+ 7	5.13421-10	1.60000+ 7	2.23857-10
1.70000+ 7	9.73039-11	1.80000+ 7	4.24880-11	2.00000+ 7	7.89711-12

Table 3 Neutron flux of PWR

E(eV)	Flux	E(eV)	Flux	E(eV)	Flux
1.00000- 5	2.90000- 4	5.59920- 3	1.42030- 1	1.31630- 2	2.83070- 1
2.37740- 2	4.28850- 1	3.74280- 2	5.46700- 1	5.41370- 2	6.08640- 1
7.39410- 2	6.08470- 1	9.67460- 2	5.57710- 1	1.22540- 1	4.75670- 1
1.51440- 1	3.82570- 1	1.83390- 1	2.93940- 1	2.18390- 1	2.17200- 1
2.56440- 1	1.60180- 1	2.97540- 1	1.19980- 1	3.41690- 1	9.57860- 2
3.88890- 1	7.77850- 2	4.40690- 1	6.63580- 2	4.99370- 1	5.57940- 2
5.65890- 1	4.84900- 2	6.41250- 1	4.10400- 2	7.26580- 1	3.59300- 2
8.23290- 1	3.04580- 2	9.32930- 1	2.68030- 2	1.05700+ 0	2.27710- 2
1.19770+ 0	2.07030- 2	1.35730+ 0	1.85430- 2	1.53800+ 0	1.64870- 2
1.74260+ 0	1.41750- 2	2.10200+ 0	1.18060- 2	2.69940+ 0	9.09820- 3
3.46640+ 0	7.29400- 3	4.45070+ 0	5.52860- 3	5.71480+ 0	3.92180- 3
7.33810+ 0	2.82550- 3	9.42360+ 0	2.71770- 3	1.21010+ 1	2.19960- 3
1.55340+ 1	1.75860- 3	1.99440+ 1	1.19040- 3	2.56100+ 1	1.11870- 3
3.28870+ 1	8.12140- 4	4.22300+ 1	6.97210- 4	5.42210+ 1	5.63280- 4
6.96200+ 1	4.36670- 4	8.93950+ 1	3.56810- 4	1.14800+ 2	2.64820- 4
1.47400+ 2	2.20840- 4	1.89270+ 2	1.72230- 4	2.43050+ 2	1.36330- 4
3.12060+ 2	1.07750- 4	4.00670+ 2	8.56170- 5	5.14430+ 2	6.71380- 5
6.60530+ 2	5.27470- 5	8.48160+ 2	4.17120- 5	1.08900+ 3	3.29160- 5
1.39850+ 3	2.58980- 5	1.79600+ 3	2.03110- 5	2.30600+ 3	1.60820- 5
2.96080+ 3	1.25490- 5	3.80130+ 3	9.90940- 6	4.88080+ 3	7.78480- 6
6.26750+ 3	6.20030- 6	8.04760+ 3	4.84920- 6	1.03340+ 4	3.88500- 6
1.32670+ 4	3.12300- 6	1.70320+ 4	2.45730- 6	2.18730+ 4	1.98170- 6
2.80900+ 4	1.59720- 6	3.60680+ 4	1.29840- 6	4.63130+ 4	1.05550- 6
5.94650+ 4	8.81030- 7	7.63530+ 4	7.30540- 7	9.80430+ 4	6.23260- 7
1.25870+ 5	5.39880- 7	1.61630+ 5	4.68270- 7	2.07580+ 5	4.14830- 7
2.66520+ 5	3.75090- 7	3.42180+ 5	3.28340- 7	4.39360+ 5	2.15190- 7
5.64190+ 5	2.43170- 7	7.24430+ 5	2.21830- 7	9.30180+ 5	1.45930- 7
1.19420+ 6	1.18500- 7	1.53350+ 6	9.56510- 8	1.96910+ 6	7.05260- 8
2.52820+ 6	6.18710- 8	3.24660+ 6	3.51240- 8	4.16890+ 6	1.87100- 8
5.35270+ 6	9.81830- 9	6.87270+ 6	3.62110- 9	8.82500+ 6	8.87050-10
8.82500+ 6	8.87051-10	9.40000+ 6	5.56640-10	1.00000+ 7	3.47688-10
1.10000+ 7	1.57320-10	1.20000+ 7	7.05303-11	1.30000+ 7	3.13592-11
1.40000+ 7	1.38444-11	1.50000+ 7	6.07256-12	1.60000+ 7	2.64769-12
1.70000+ 7	1.15088-12	1.80000+ 7	5.02533-13	2.00000+ 7	9.34042-14

Table 4 Neutron flux of HCLWR(Vm/Vf=1.4)

E(eV)	Flux	E(eV)	Flux	E(eV)	Flux
1.00000- 5	3.20000- 5	5.59890- 3	1.56550- 2	1.31620- 2	3.05610- 2
2.37740- 2	4.62250- 2	3.74280- 2	6.03080- 2	5.41370- 2	6.87350- 2
7.39410- 2	7.07800- 2	9.67460- 2	6.73830- 2	1.22540- 1	5.95590- 2
1.51440- 1	4.96170- 2	1.83390- 1	3.89750- 2	2.18390- 1	2.90730- 2
2.56440- 1	2.29200- 2	2.97540- 1	1.89800- 2	3.41690- 1	1.90150- 2
3.88890- 1	2.07580- 2	4.40690- 1	2.42660- 2	4.99370- 1	2.42970- 2
5.65890- 1	2.38560- 2	6.41250- 1	2.09670- 2	7.26580- 1	1.83980- 2
8.23290- 1	1.40560- 2	9.32930- 1	9.29610- 3	1.05700+ 0	6.22380- 3
1.19770+ 0	9.48440- 3	1.35730+ 0	1.26560- 2	1.53800+ 0	1.28910- 2
1.74260+ 0	1.16100- 2	2.10200+ 0	9.89460- 3	2.69940+ 0	6.45830- 3
3.46640+ 0	6.61810- 3	4.45070+ 0	4.67610- 3	5.71480+ 0	3.42130- 3
7.33810+ 0	2.28420- 3	9.42360+ 0	2.59210- 3	1.21010+ 1	1.87620- 3
1.55340+ 1	1.52890- 3	1.99440+ 1	1.12660- 3	2.56100+ 1	1.14920- 3
3.28870+ 1	8.51550- 4	4.22300+ 1	6.69910- 4	5.42210+ 1	5.59070- 4
6.96200+ 1	4.40250- 4	8.93950+ 1	3.63160- 4	1.14800+ 2	2.88670- 4
1.47400+ 2	2.40130- 4	1.89270+ 2	1.91530- 4	2.43050+ 2	1.51390- 4
3.12060+ 2	1.21150- 4	4.00670+ 2	9.77260- 5	5.14430+ 2	7.63160- 5
6.60530+ 2	6.10450- 5	8.48160+ 2	4.82130- 5	1.08900+ 3	3.81690- 5
1.39850+ 3	3.02040- 5	1.79600+ 3	2.38670- 5	2.30600+ 3	1.88130- 5
2.96080+ 3	1.47050- 5	3.80130+ 3	1.16920- 5	4.88080+ 3	9.19120- 6
6.26750+ 3	7.38520- 6	8.04760+ 3	5.74520- 6	1.03340+ 4	4.58460- 6
1.32670+ 4	3.67860- 6	1.70320+ 4	2.98100- 6	2.18730+ 4	2.36500- 6
2.80900+ 4	1.90440- 6	3.60680+ 4	1.54860- 6	4.63130+ 4	1.25590- 6
5.94650+ 4	1.05310- 6	7.63530+ 4	8.75880- 7	9.80430+ 4	7.45580- 7
1.25870+ 5	6.43180- 7	1.61630+ 5	5.61030- 7	2.07580+ 5	4.98060- 7
2.66520+ 5	4.50190- 7	3.42180+ 5	3.90500- 7	4.39360+ 5	2.50540- 7
5.64190+ 5	2.88270- 7	7.24430+ 5	2.60620- 7	9.30180+ 5	1.68960- 7
1.19420+ 6	1.35080- 7	1.53350+ 6	1.08780- 7	1.96910+ 6	8.01180- 8
2.52820+ 6	7.25030- 8	3.24660+ 6	4.16850- 8	4.16890+ 6	2.25730- 8
5.35270+ 6	1.23340- 8	6.87270+ 6	4.73510- 9	8.82500+ 6	1.21410- 9
8.82500+ 6	1.21410- 9	9.40000+ 6	7.61870-10	1.00000+ 7	4.75879-10
1.10000+ 7	2.15324-10	1.20000+ 7	9.65344-11	1.30000+ 7	4.29211-11
1.40000+ 7	1.89487-11	1.50000+ 7	8.31147-12	1.60000+ 7	3.62388-12
1.70000+ 7	1.57520-12	1.80000+ 7	6.87814-13	2.00000+ 7	1.27842-13

Table 5 Neutron flux of HCLWR(Vm/Vf=0.5)

E(eV)	Flux	E(eV)	Flux	E(eV)	Flux
1.00000- 5	3.30000- 6	5.59890- 3	1.63890- 3	1.31620- 2	3.22540- 3
2.37740- 2	5.01570- 3	3.74280- 2	7.03930- 3	5.41370- 2	8.44480- 3
7.39410- 2	9.17650- 3	9.67460- 2	9.37270- 3	1.22540- 1	8.78000- 3
1.51440- 1	7.74610- 3	1.83390- 1	6.36320- 3	2.18390- 1	4.82900- 3
2.56440- 1	4.05590- 3	2.97540- 1	3.44520- 3	3.41690- 1	3.88750- 3
3.88890- 1	4.76530- 3	4.40690- 1	6.58910- 3	4.99370- 1	7.25660- 3
5.65890- 1	7.79060- 3	6.41250- 1	7.03360- 3	7.26580- 1	6.27590- 3
8.23290- 1	4.50400- 3	9.32930- 1	2.68380- 3	1.05700+ 0	1.60290- 3
1.19770+ 0	3.25860- 3	1.35730+ 0	5.58000- 3	1.53800+ 0	6.46390- 3
1.74260+ 0	6.09460- 3	2.10200+ 0	5.29310- 3	2.69940+ 0	3.21530- 3
3.46640+ 0	3.87400- 3	4.45070+ 0	2.58820- 3	5.71480+ 0	1.85780- 3
7.33810+ 0	1.19130- 3	9.42360+ 0	1.63200- 3	1.21010+ 1	1.13370- 3
1.55340+ 1	9.60910- 4	1.99440+ 1	7.25910- 4	2.56100+ 1	8.71280- 4
3.28870+ 1	6.40020- 4	4.22300+ 1	5.01030- 4	5.42210+ 1	4.36200- 4
6.96200+ 1	3.56450- 4	8.93950+ 1	3.05360- 4	1.14800+ 2	2.54140- 4
1.47400+ 2	2.21360- 4	1.89270+ 2	1.82200- 4	2.43050+ 2	1.47830- 4
3.12060+ 2	1.22610- 4	4.00670+ 2	9.49530- 5	5.14430+ 2	7.88630- 5
6.60530+ 2	6.50780- 5	8.48160+ 2	5.21060- 5	1.08900+ 3	4.14340- 5
1.39850+ 3	3.40380- 5	1.79600+ 3	2.75880- 5	2.30600+ 3	2.13830- 5
2.96080+ 3	1.69160- 5	3.80130+ 3	1.37610- 5	4.88080+ 3	1.08850- 5
6.26750+ 3	8.64210- 6	8.04760+ 3	6.60990- 6	1.03340+ 4	5.52140- 6
1.32670+ 4	4.53340- 6	1.70320+ 4	3.37910- 6	2.18730+ 4	2.90340- 6
2.80900+ 4	2.39840- 6	3.60680+ 4	1.85410- 6	4.63130+ 4	1.57160- 6
5.94650+ 4	1.29330- 6	7.63530+ 4	1.10930- 6	9.80430+ 4	9.31030- 7
1.25870+ 5	8.33570- 7	1.61630+ 5	6.87310- 7	2.07580+ 5	6.16780- 7
2.66520+ 5	5.55770- 7	3.42180+ 5	4.68950- 7	4.39360+ 5	2.73620- 7
5.64190+ 5	3.36820- 7	7.24430+ 5	2.91690- 7	9.30180+ 5	1.65990- 7
1.19420+ 6	1.27040- 7	1.53350+ 6	9.83930- 8	1.96910+ 6	7.02250- 8
2.52820+ 6	6.38620- 8	3.24660+ 6	3.42110- 8	4.16890+ 6	1.77750- 8
5.35270+ 6	9.43780- 9	6.87270+ 6	3.50720- 9	8.82500+ 6	8.83480-10
8.82500+ 6	8.83480-10	9.00000+ 6	7.54649-10	9.80000+ 6	4.20792-10
1.10000+ 7	1.73089-10	1.20000+ 7	8.17950-11	1.30000+ 7	3.83703-11
1.40000+ 7	1.78768-11	1.50000+ 7	8.28052-12	1.60000+ 7	3.81767-12
1.70000+ 7	1.75257-12	1.80000+ 7	7.98491-13	2.00000+ 7	1.66718-13

Table 6 Neutron flux of LMFBR

E(eV)	Flux	E(eV)	Flux	E(eV)	Flux
1.00000- 5	2.36380-22	1.82810- 4	2.36380-22	5.59920- 3	1.24540-21
1.31630- 2	4.01420-21	2.37740- 2	1.26070-20	3.74280- 2	4.64600-20
5.41370- 2	1.38590-19	7.39410- 2	3.35690-19	9.67460- 2	9.35220-19
1.22540- 1	1.92170-18	1.51440- 1	3.41580-18	1.83390- 1	5.55930-18
2.18390- 1	8.30150-18	2.56440- 1	1.29130-17	2.97540- 1	2.84070-17
3.41690- 1	9.68450-17	3.88890- 1	3.76890-16	4.40690- 1	1.30690-15
4.99370- 1	3.55220-15	5.65890- 1	8.36050-15	6.41250- 1	1.72920-14
7.26580- 1	3.17970-14	8.23290- 1	4.96270-14	9.32930- 1	5.23860-14
1.05700+ 0	7.61220-14	1.19770+ 0	6.69190-13	1.35730+ 0	3.28170-12
1.53800+ 0	7.26080-12	1.74260+ 0	1.14890-11	2.10200+ 0	1.51510-11
2.69940+ 0	1.90500-11	3.46640+ 0	4.74390-11	4.45070+ 0	5.29150-11
5.71480+ 0	1.07510-10	7.33810+ 0	2.55660-10	9.42360+ 0	1.26660- 9
1.21010+ 1	2.20630- 9	1.55340+ 1	5.71380- 9	1.99440+ 1	1.57330- 8
2.56100+ 1	5.42170- 8	3.28870+ 1	7.86790- 8	4.22300+ 1	1.18300- 7
5.42210+ 1	2.73980- 7	6.96200+ 1	5.12980- 7	8.93950+ 1	1.21000- 6
1.14800+ 2	1.89400- 6	1.47400+ 2	3.44250- 6	1.89270+ 2	5.15680- 6
2.43050+ 2	6.98800- 6	3.12060+ 2	9.09940- 6	4.00670+ 2	9.16360- 6
5.14430+ 2	1.36080- 5	6.60530+ 2	1.73710- 5	8.48160+ 2	1.94890- 5
1.08900+ 3	2.09500- 5	1.39850+ 3	2.35270- 5	1.79600+ 3	2.10100- 5
2.30600+ 3	1.13740- 5	2.96080+ 3	2.34260- 6	3.80130+ 3	6.61760- 6
4.88080+ 3	8.97050- 6	6.26750+ 3	8.61050- 6	8.04760+ 3	7.21260- 6
1.03340+ 4	8.09680- 6	1.32670+ 4	7.13280- 6	1.70320+ 4	5.14690- 6
2.18730+ 4	6.00780- 6	2.80900+ 4	5.51410- 6	3.60680+ 4	3.97550- 6
4.63130+ 4	3.79570- 6	5.94650+ 4	2.43760- 6	7.63530+ 4	2.68370- 6
9.80430+ 4	2.12830- 6	1.25870+ 5	1.87920- 6	1.61630+ 5	1.27740- 6
2.07580+ 5	1.05500- 6	2.66520+ 5	8.19930- 7	3.42180+ 5	6.21020- 7
4.39360+ 5	3.11390- 7	5.64190+ 5	3.87050- 7	7.24430+ 5	2.38340- 7
9.30180+ 5	1.18810- 7	1.19420+ 6	8.46150- 8	1.53350+ 6	6.21150- 8
1.96910+ 6	4.09800- 8	2.52820+ 6	3.19490- 8	3.24660+ 6	1.60410- 8
4.16890+ 6	7.86650- 9	5.35270+ 6	3.82370- 9	6.87270+ 6	1.37460- 9
8.82500+ 6	3.53690-10	8.82500+ 6	3.53690-10	9.00000+ 6	3.04666-10
9.80000+ 6	1.71501-10	1.10000+ 7	7.15838-11	1.20000+ 7	3.42460-11
1.30000+ 7	1.62657-11	1.40000+ 7	7.67491-12	1.50000+ 7	3.60059-12
1.60000+ 7	1.68221-12	1.70000+ 7	7.81738-13	2.00000+ 7	7.81164-14

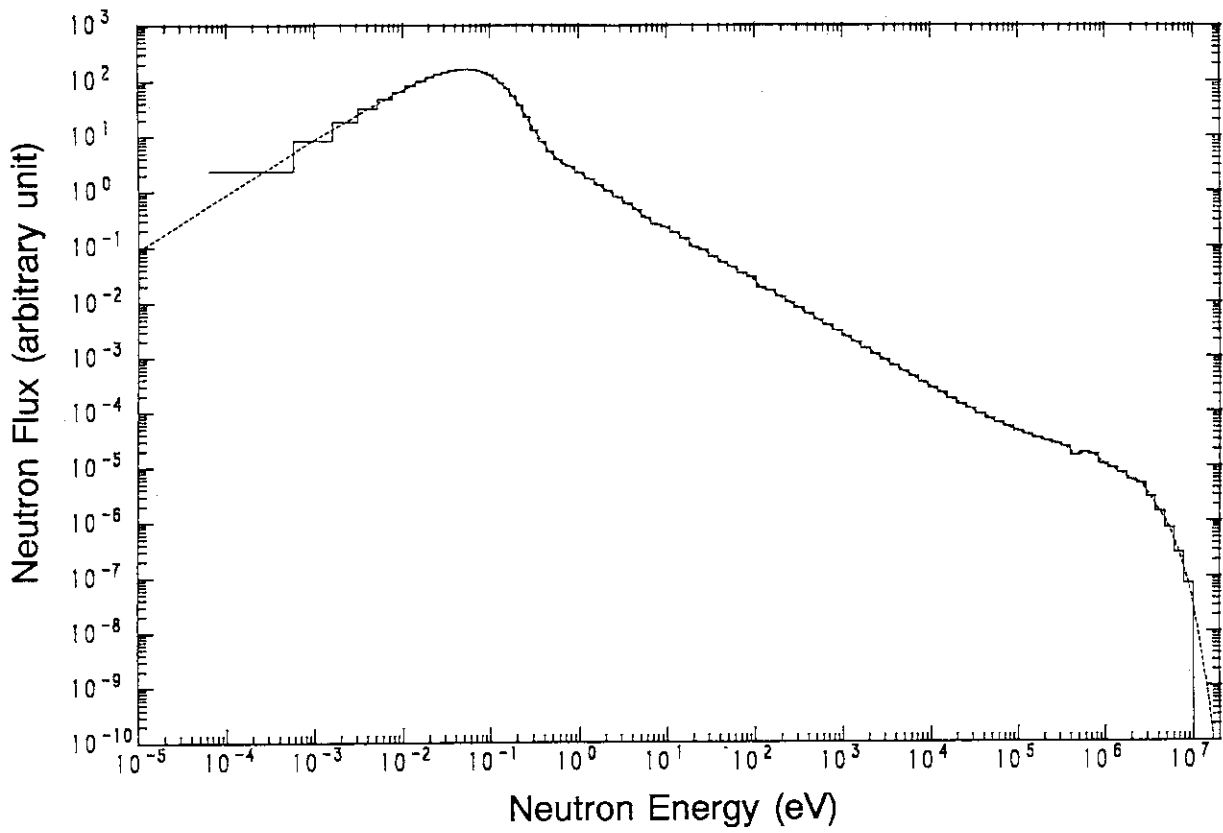


Fig. 1 Neutron flux of BWR

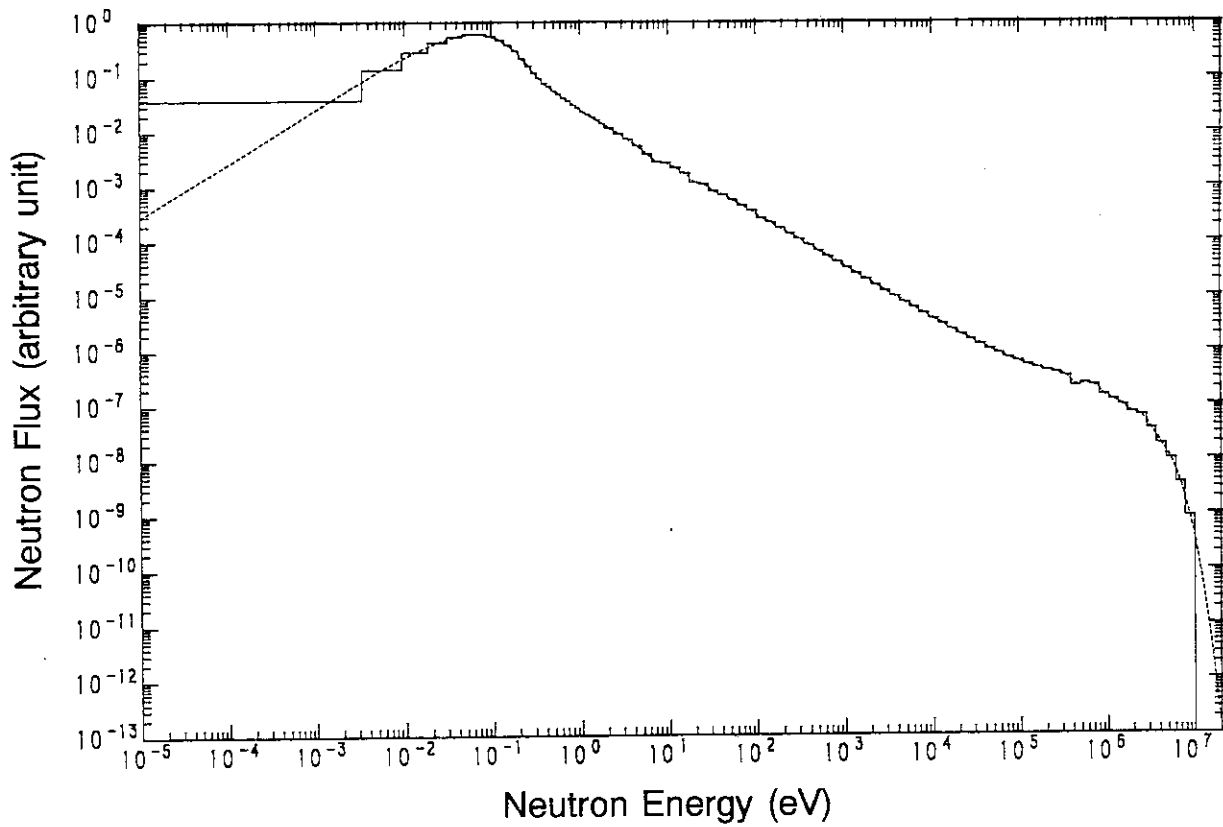


Fig. 2 Neutron flux of PWR

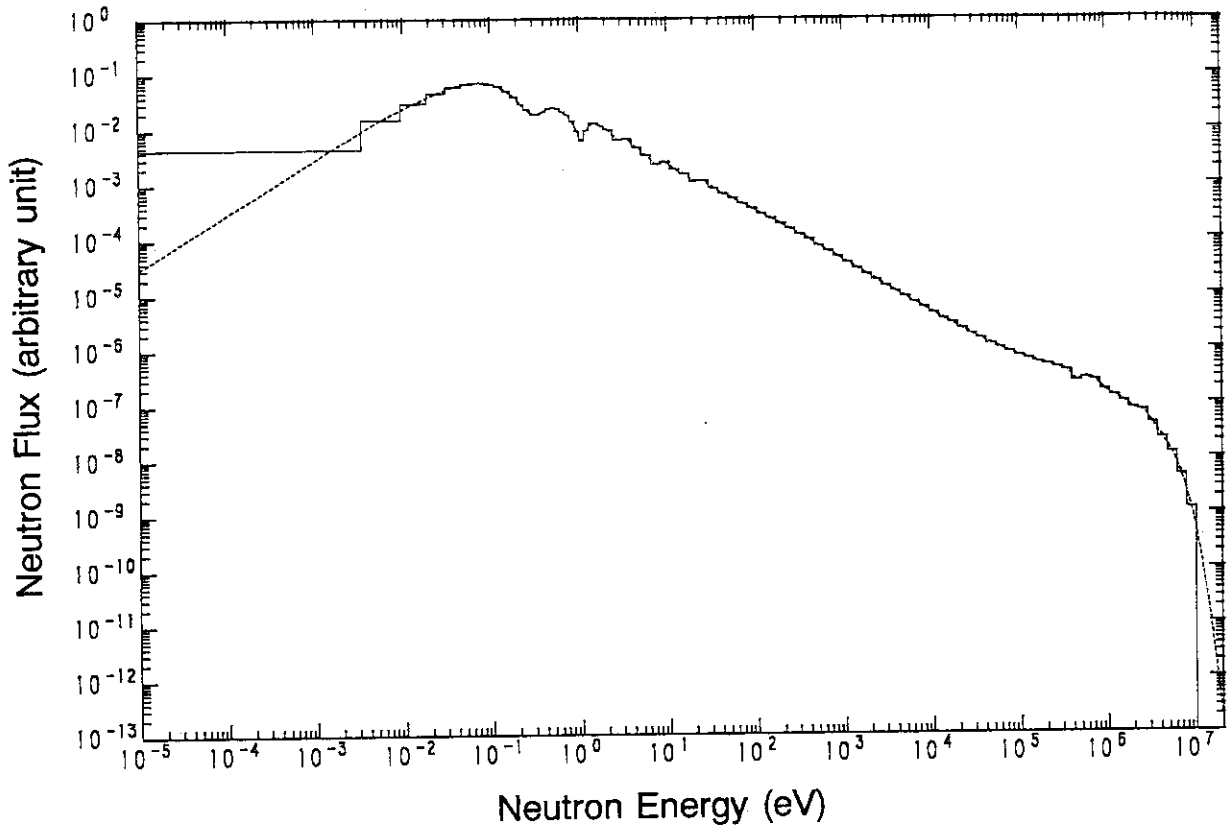


Fig. 3 Neutron flux of HCLWR ($V_m/V_f=1.4$)

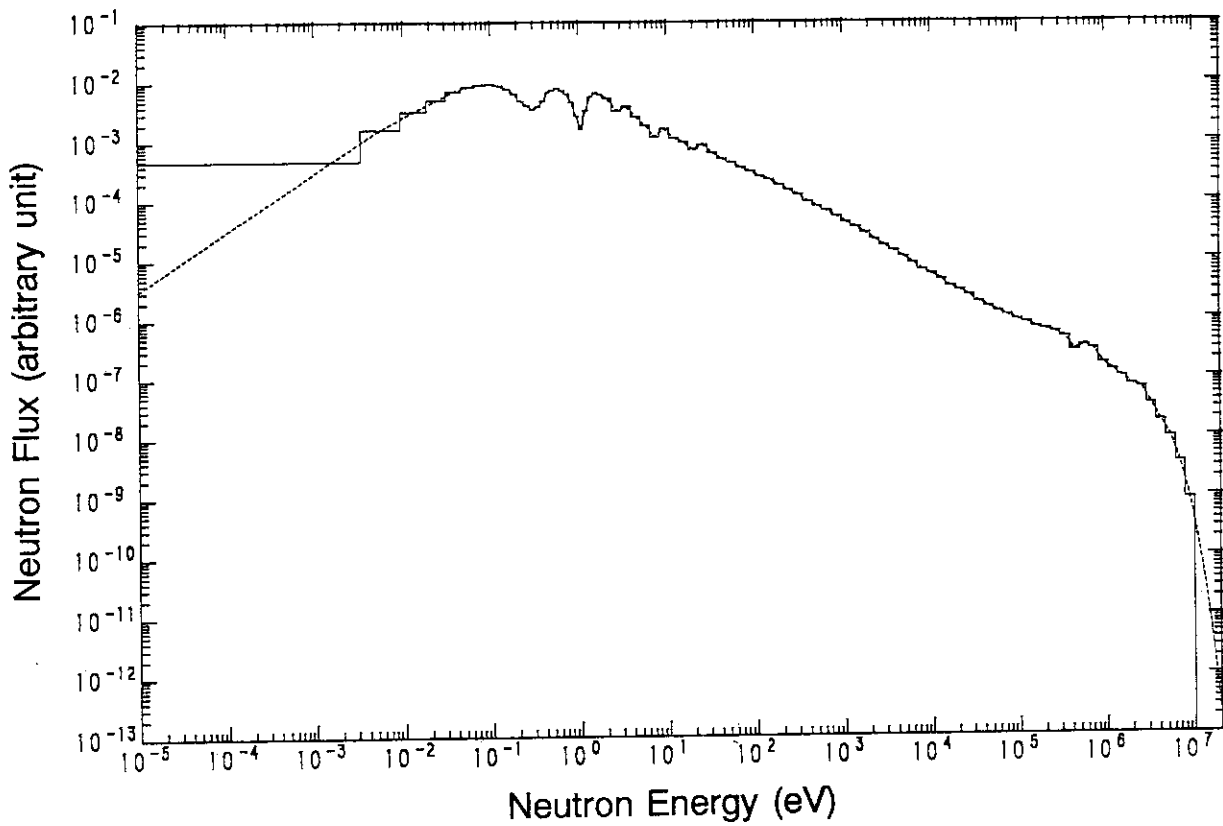


Fig. 4 Neutron flux of HCLWR ($V_m/V_f=0.5$)

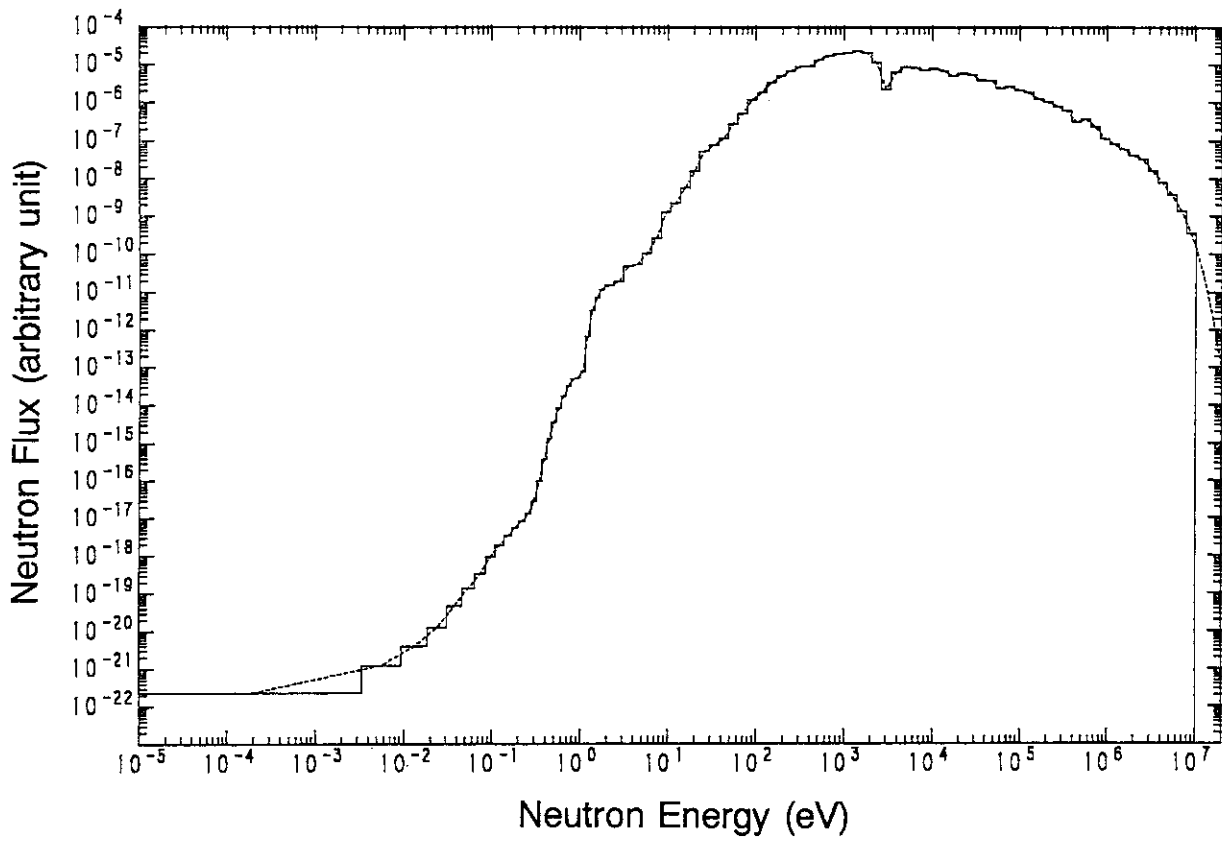
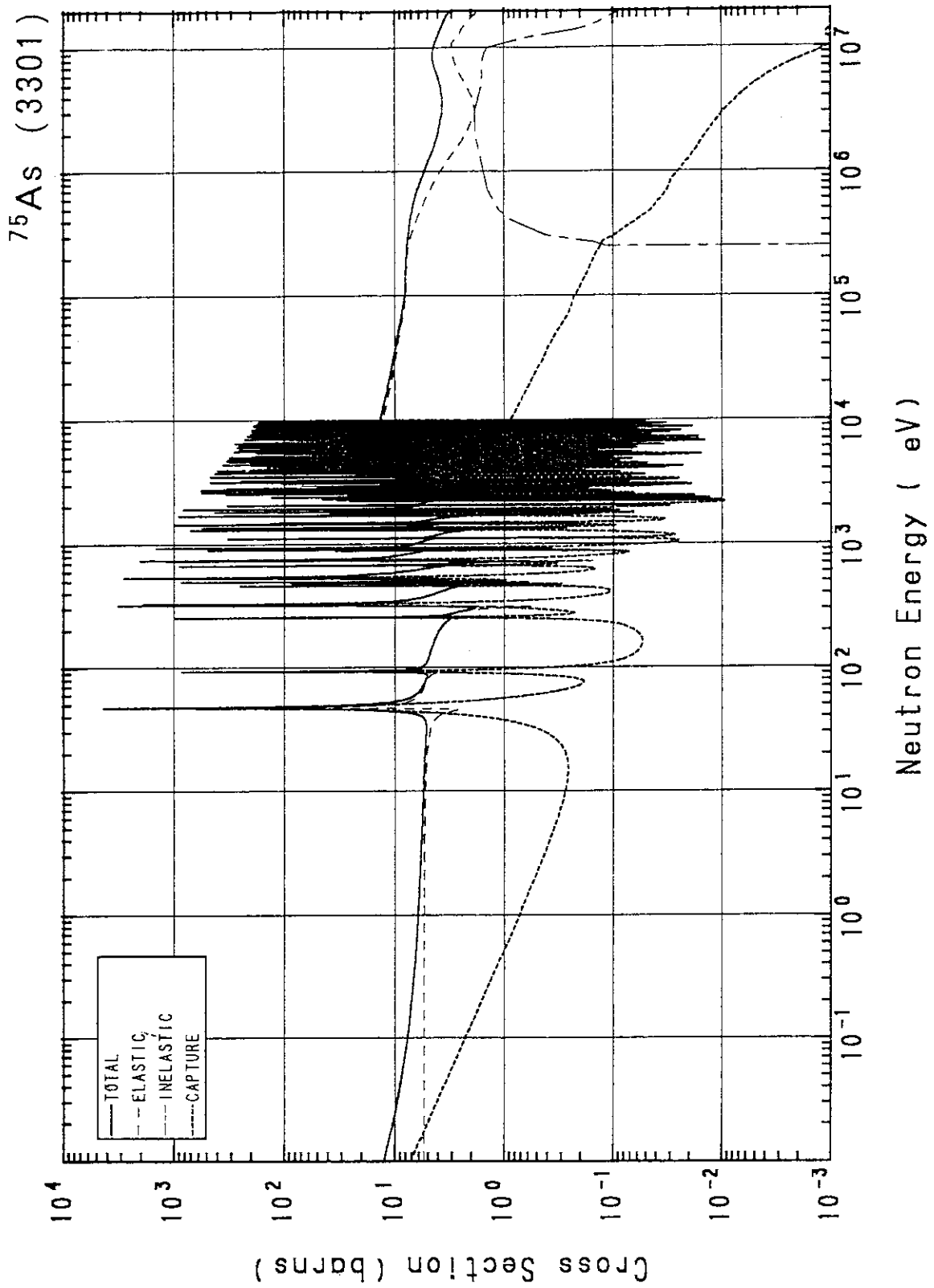
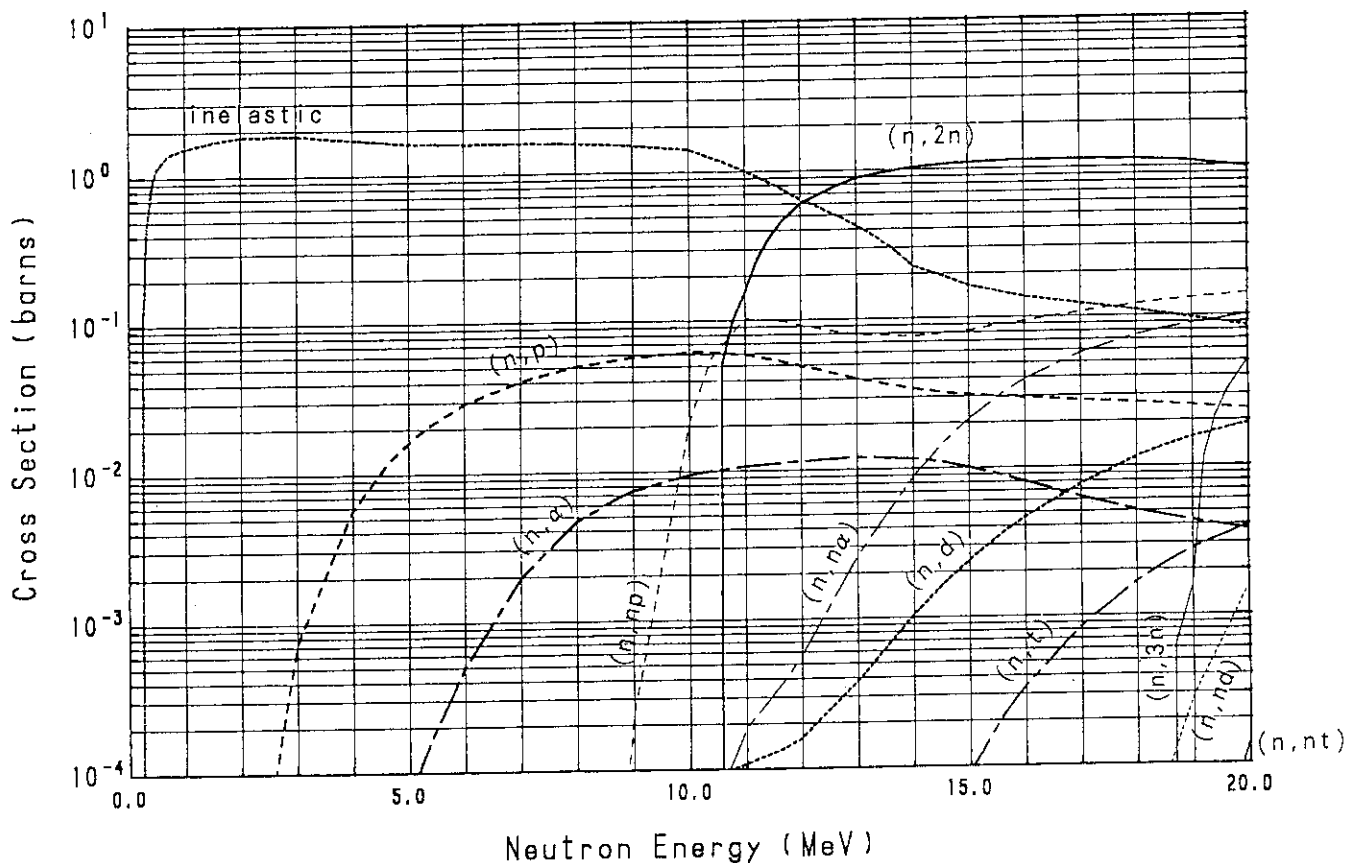
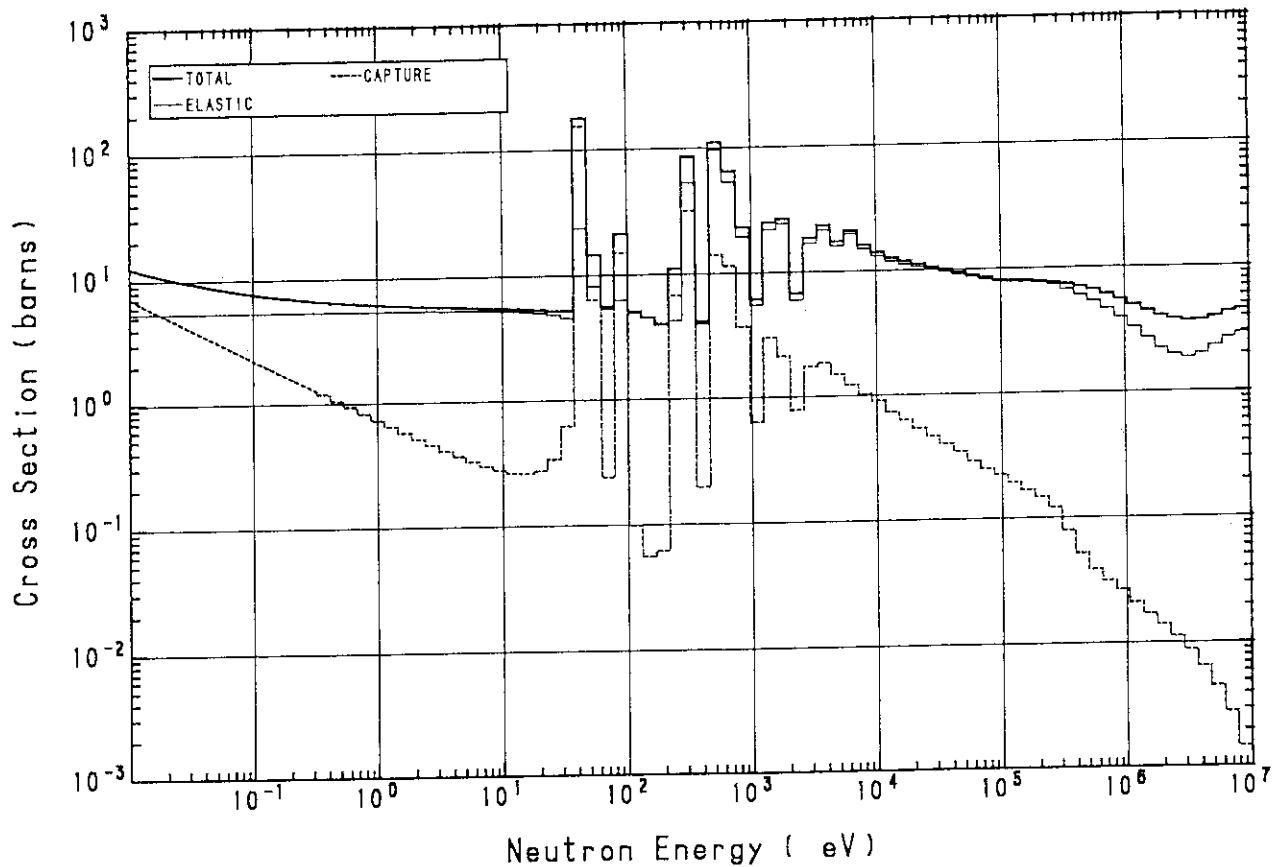


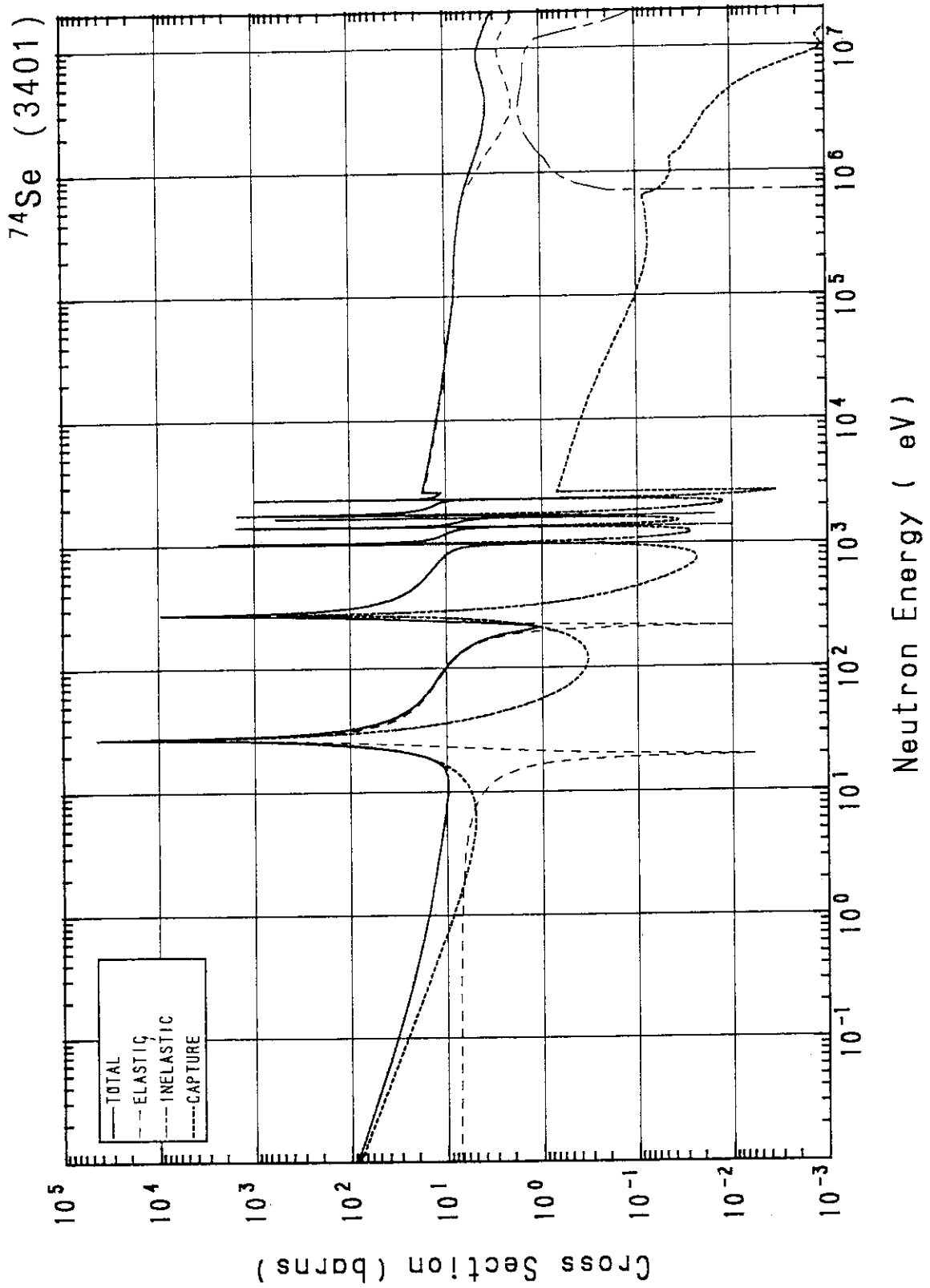
Fig. 5 Neutron flux of LMFBR

2. Cross Section Curves

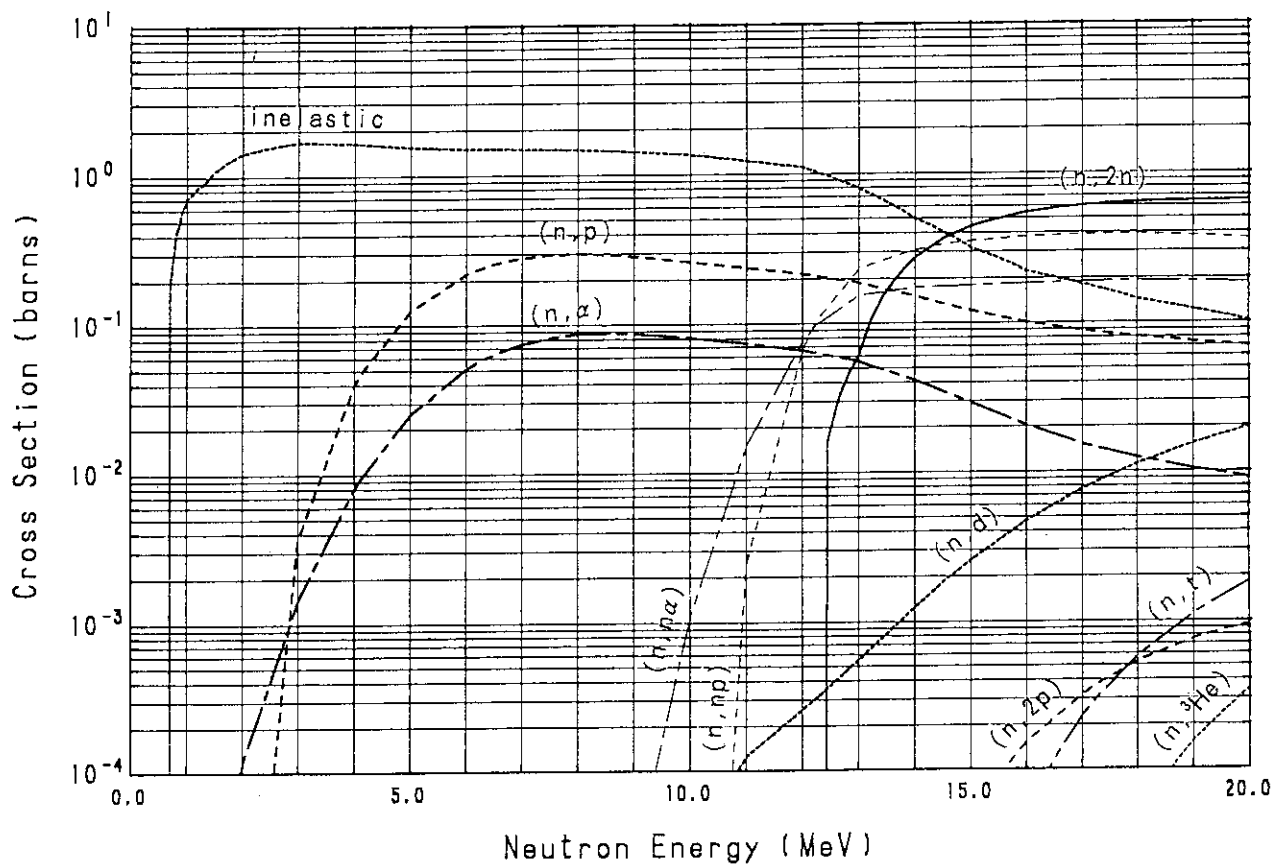
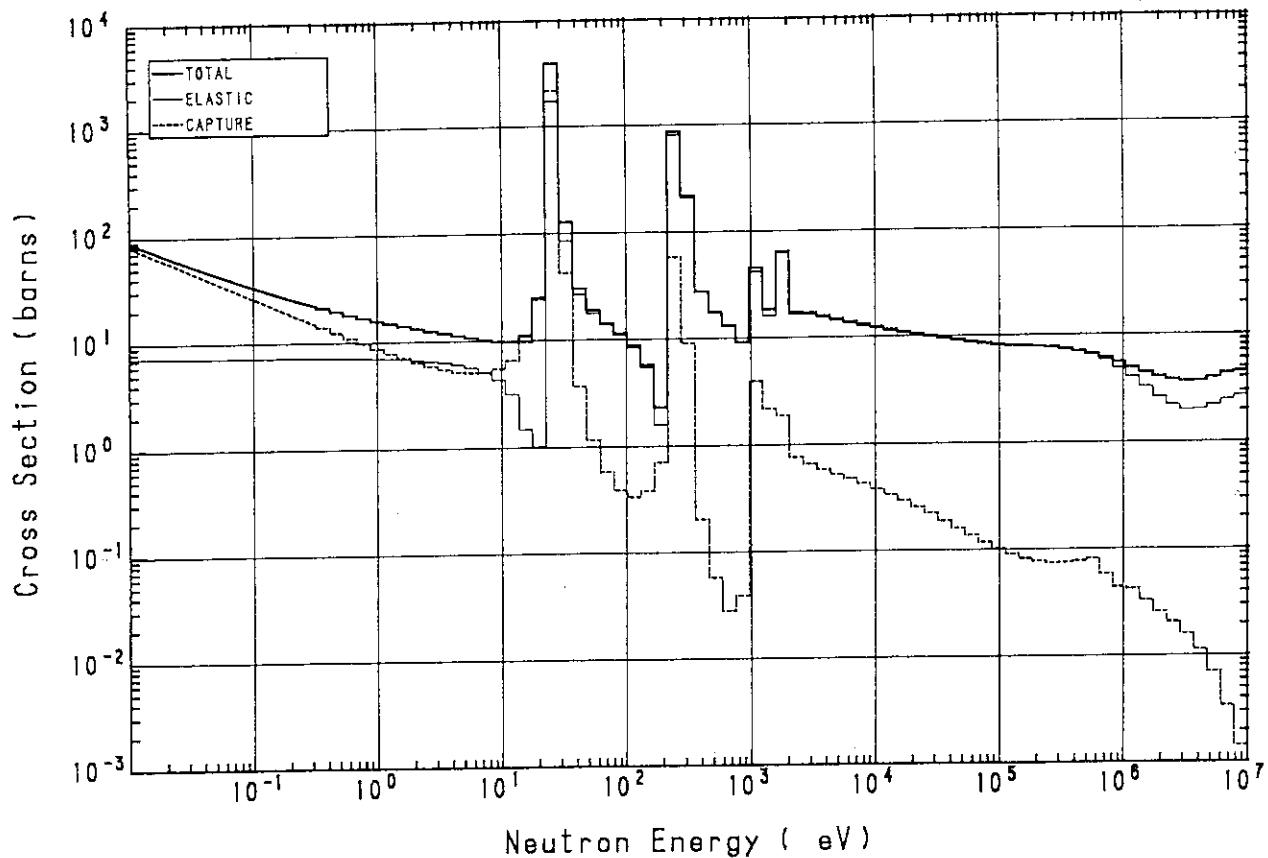


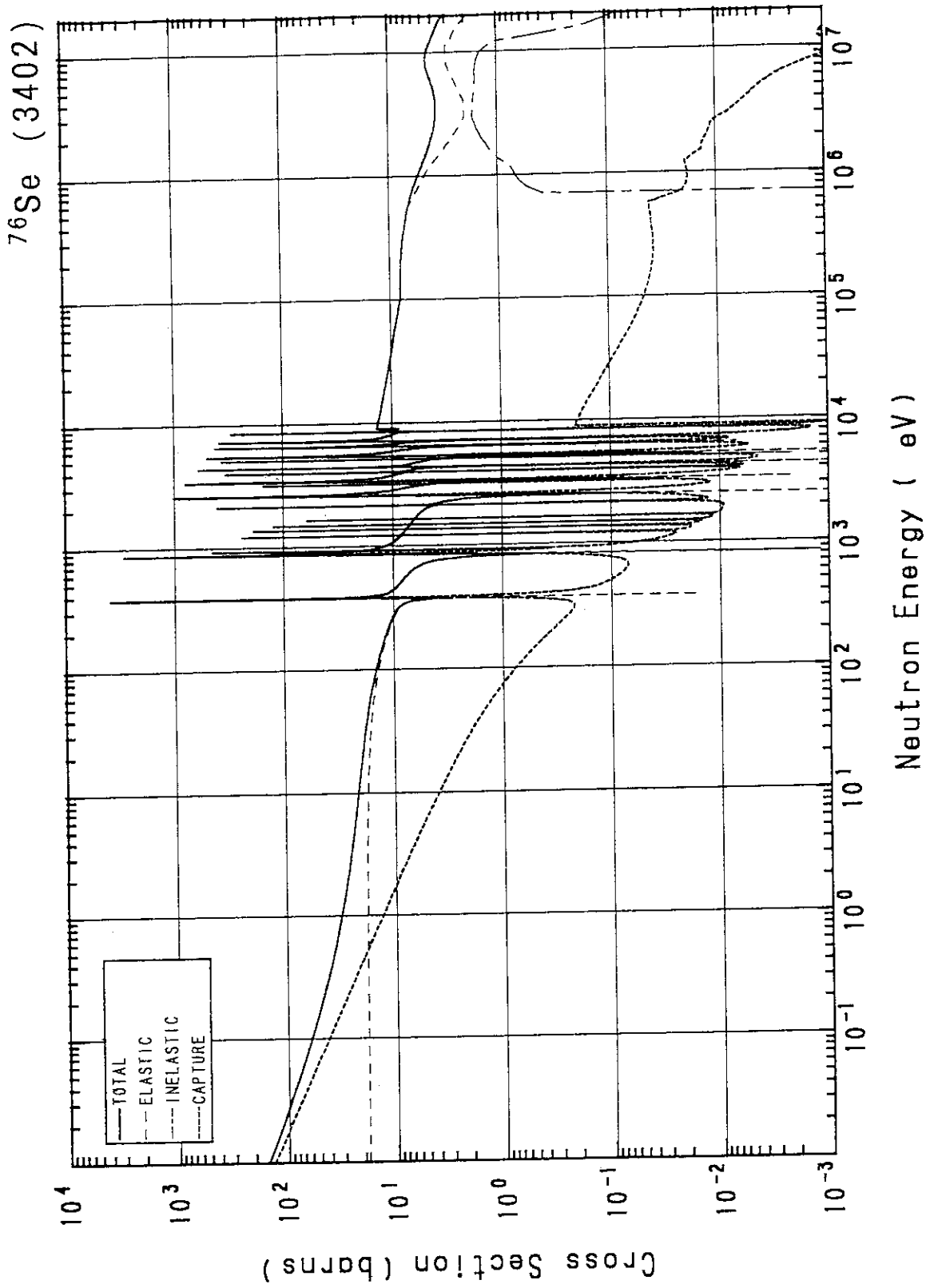
^{75}As (3301)



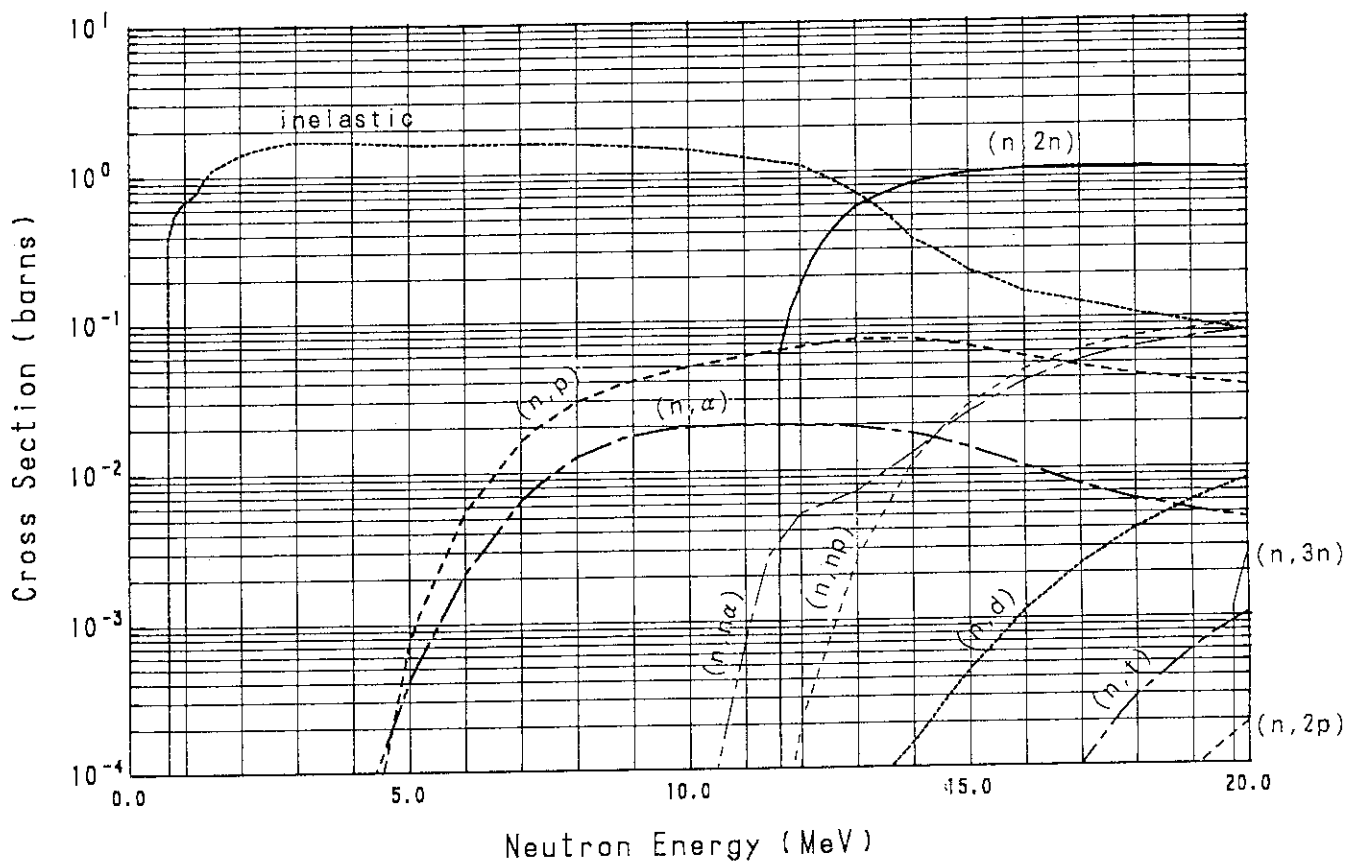
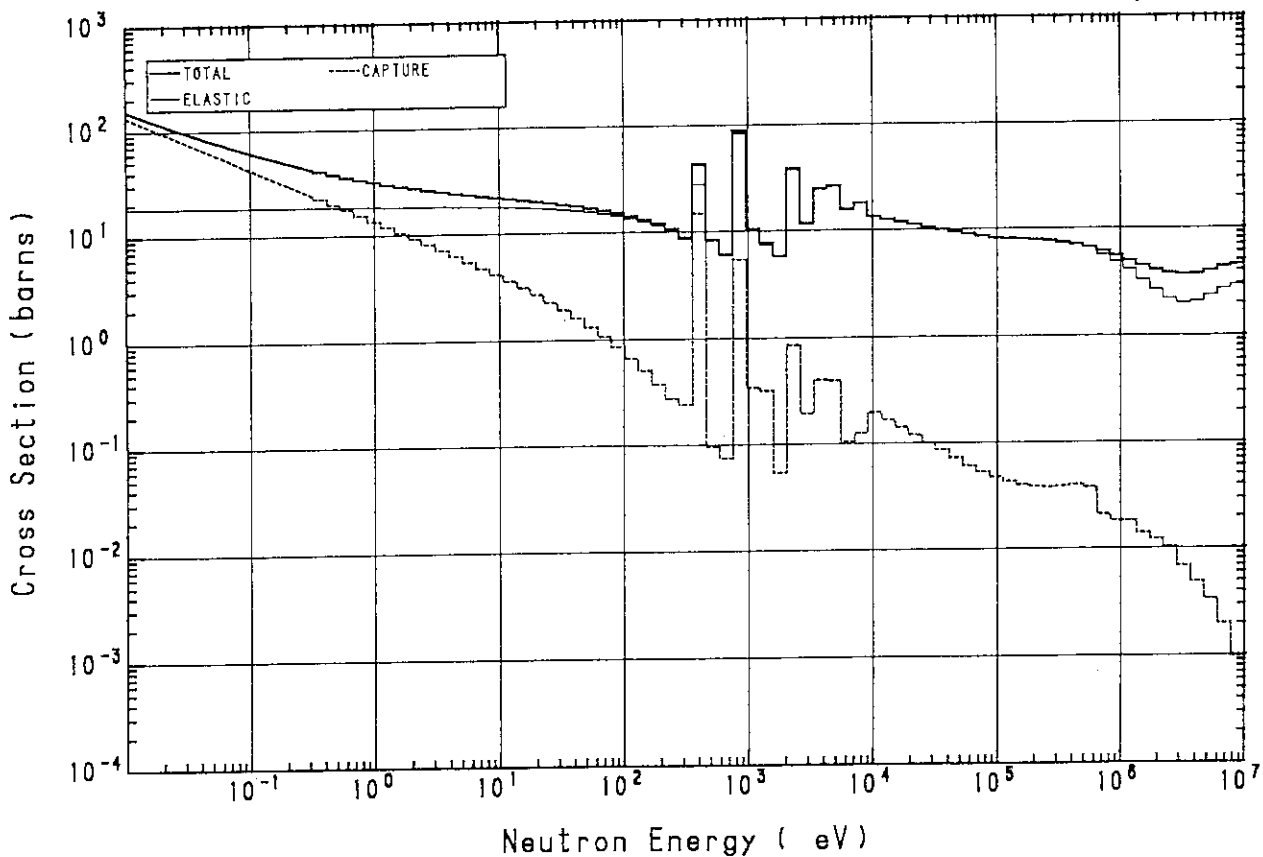


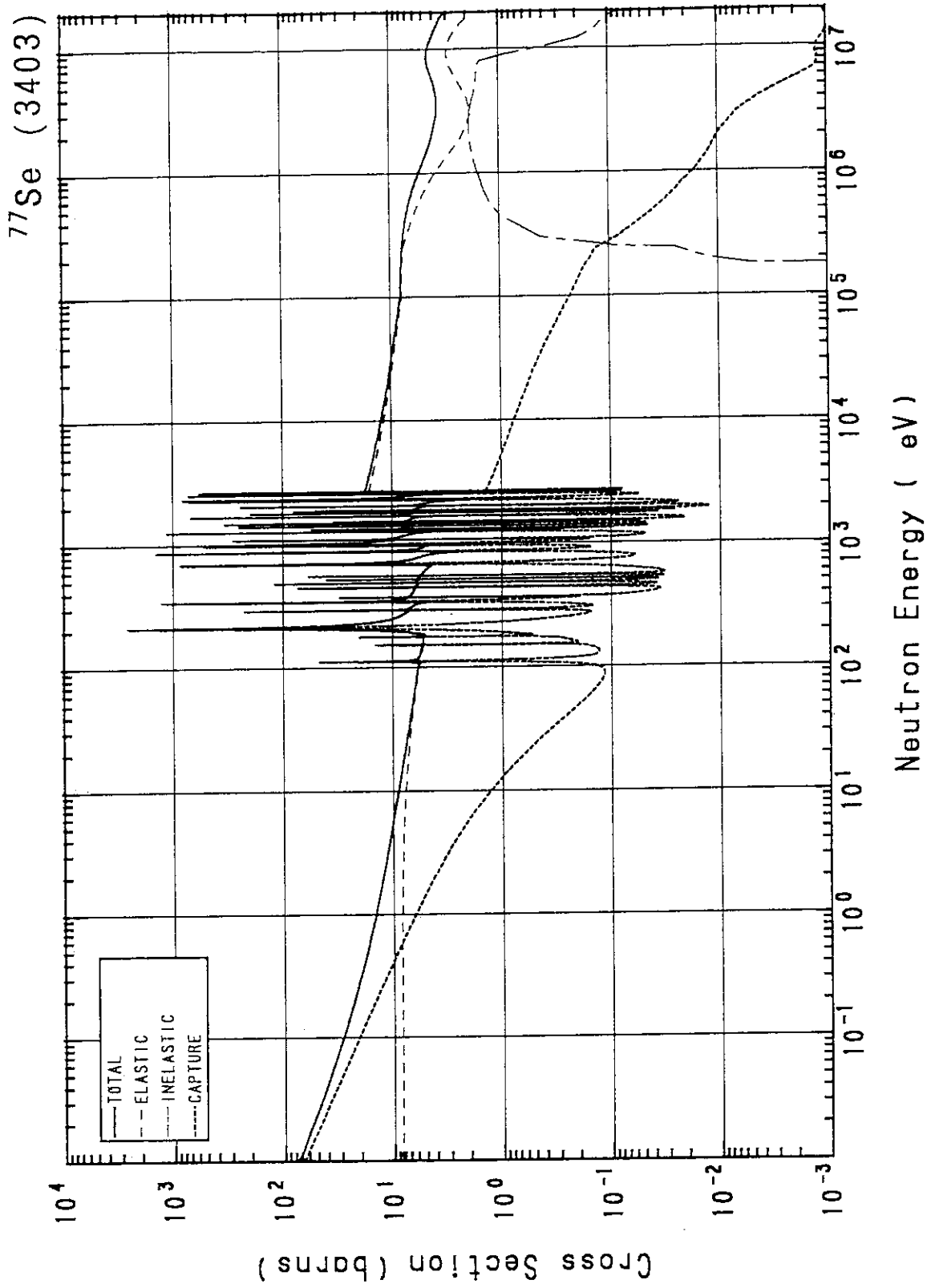
^{74}Se (3401)



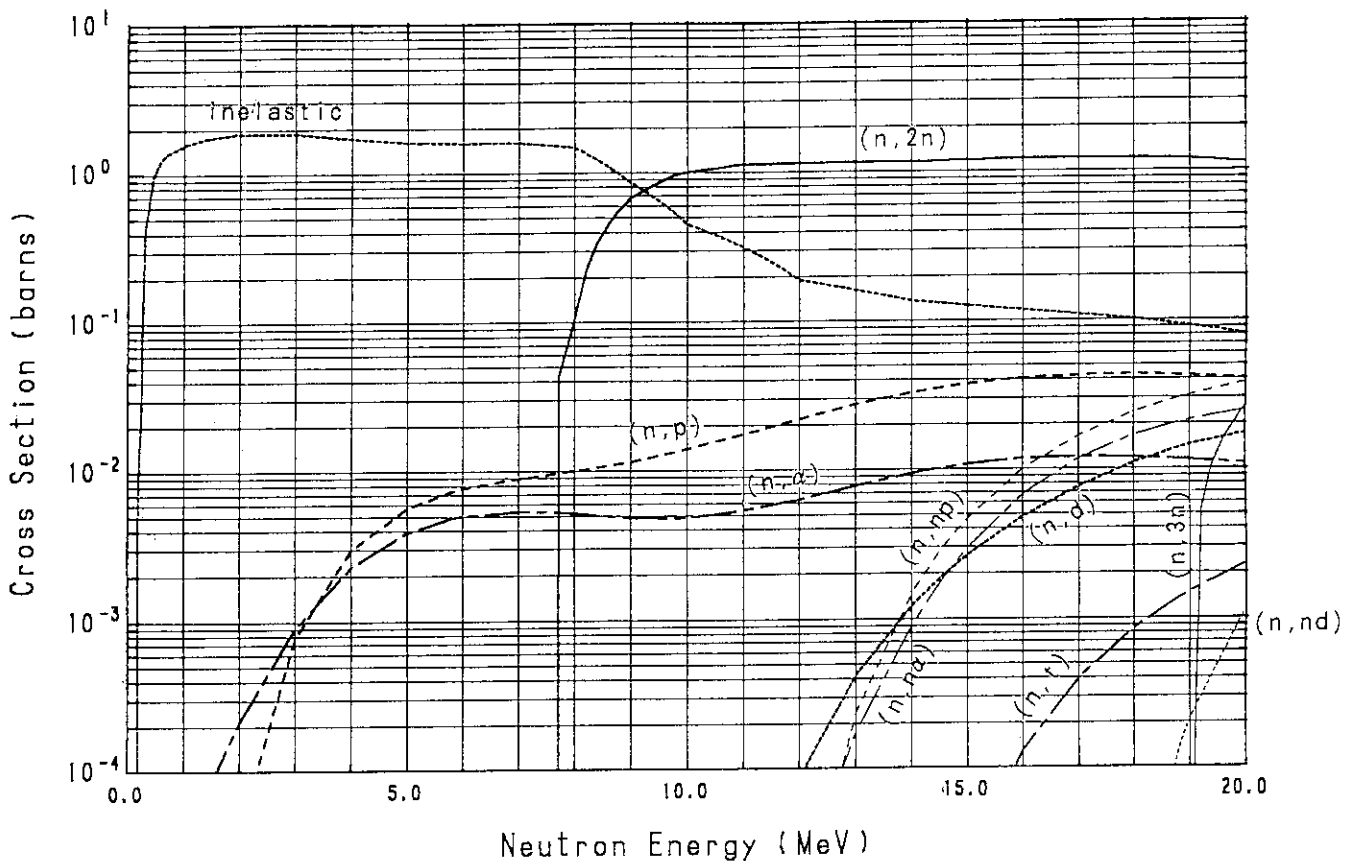
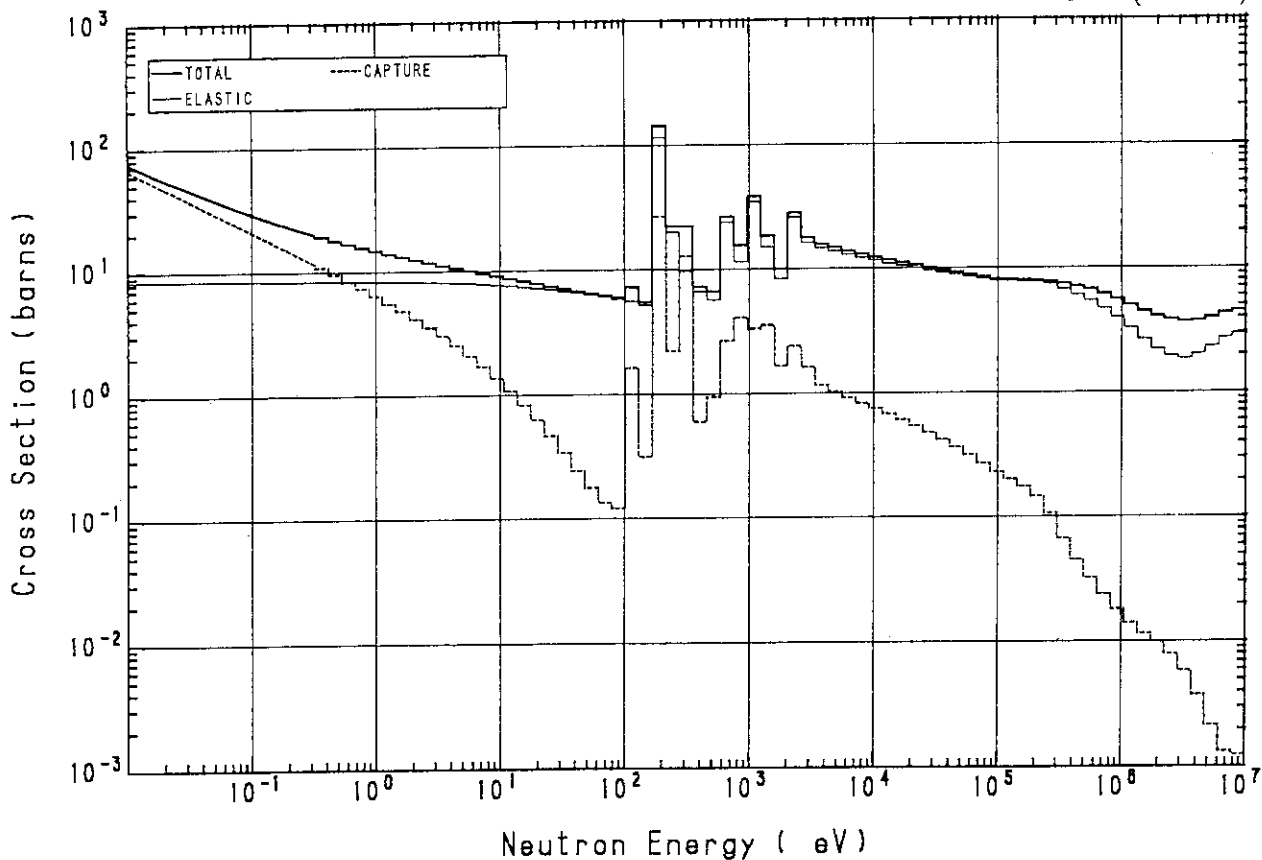


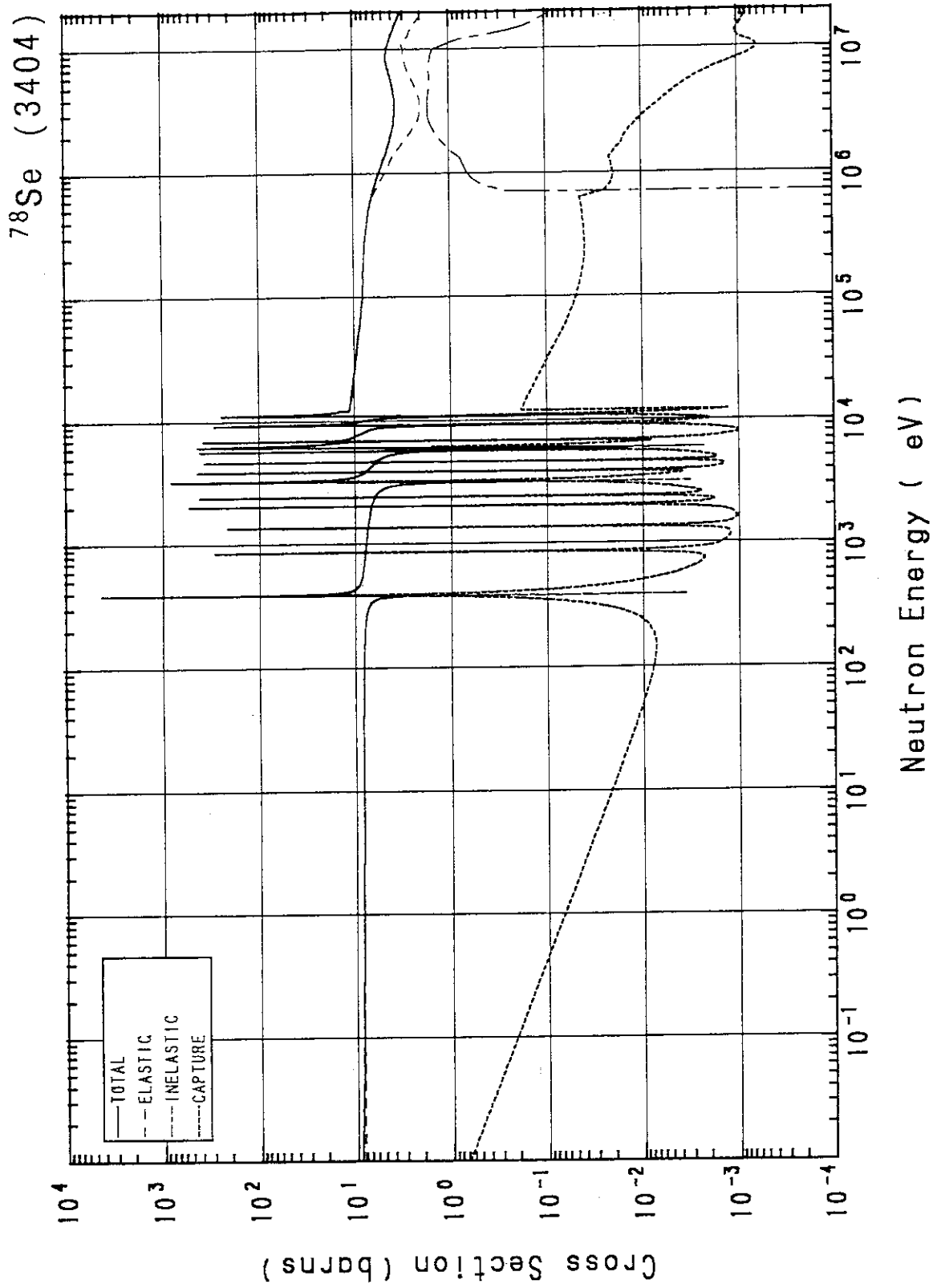
^{76}Se (3402)



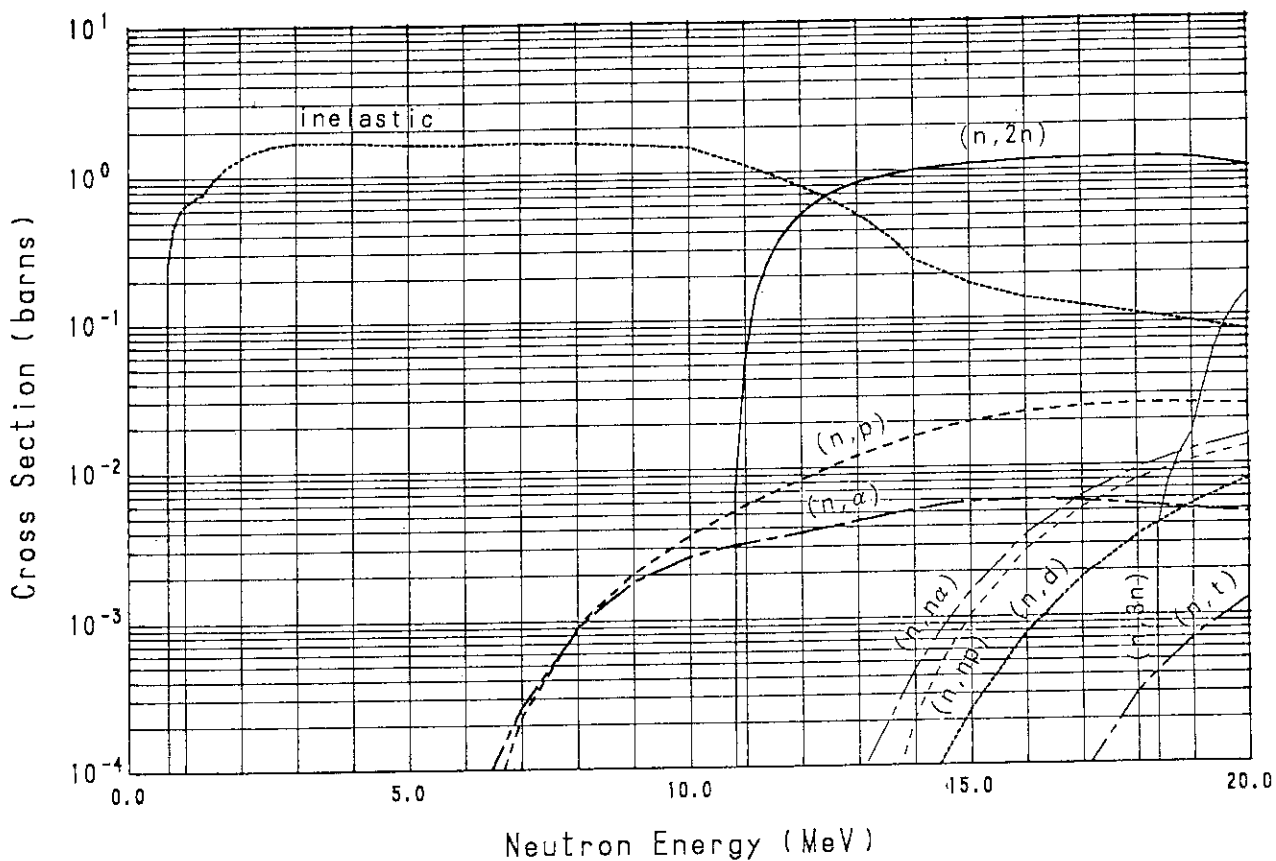
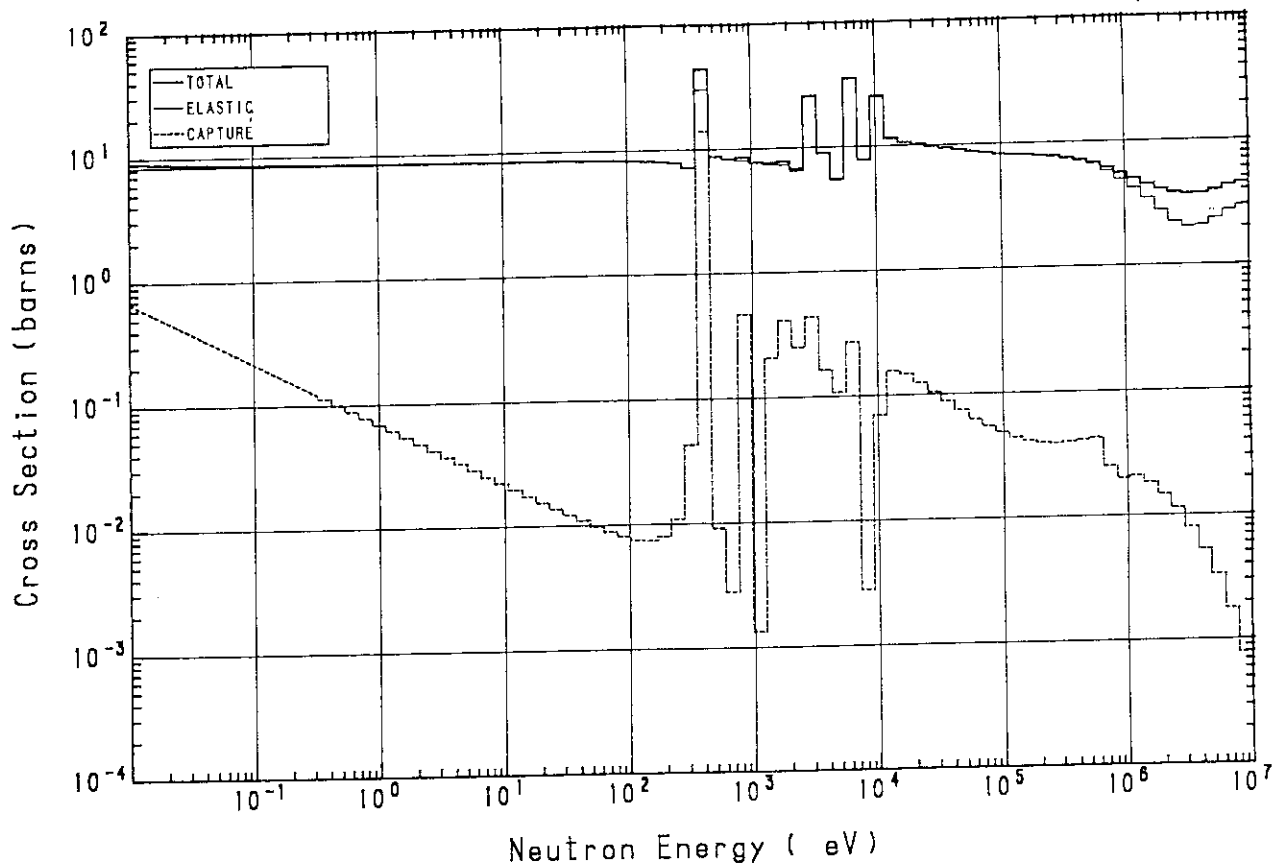


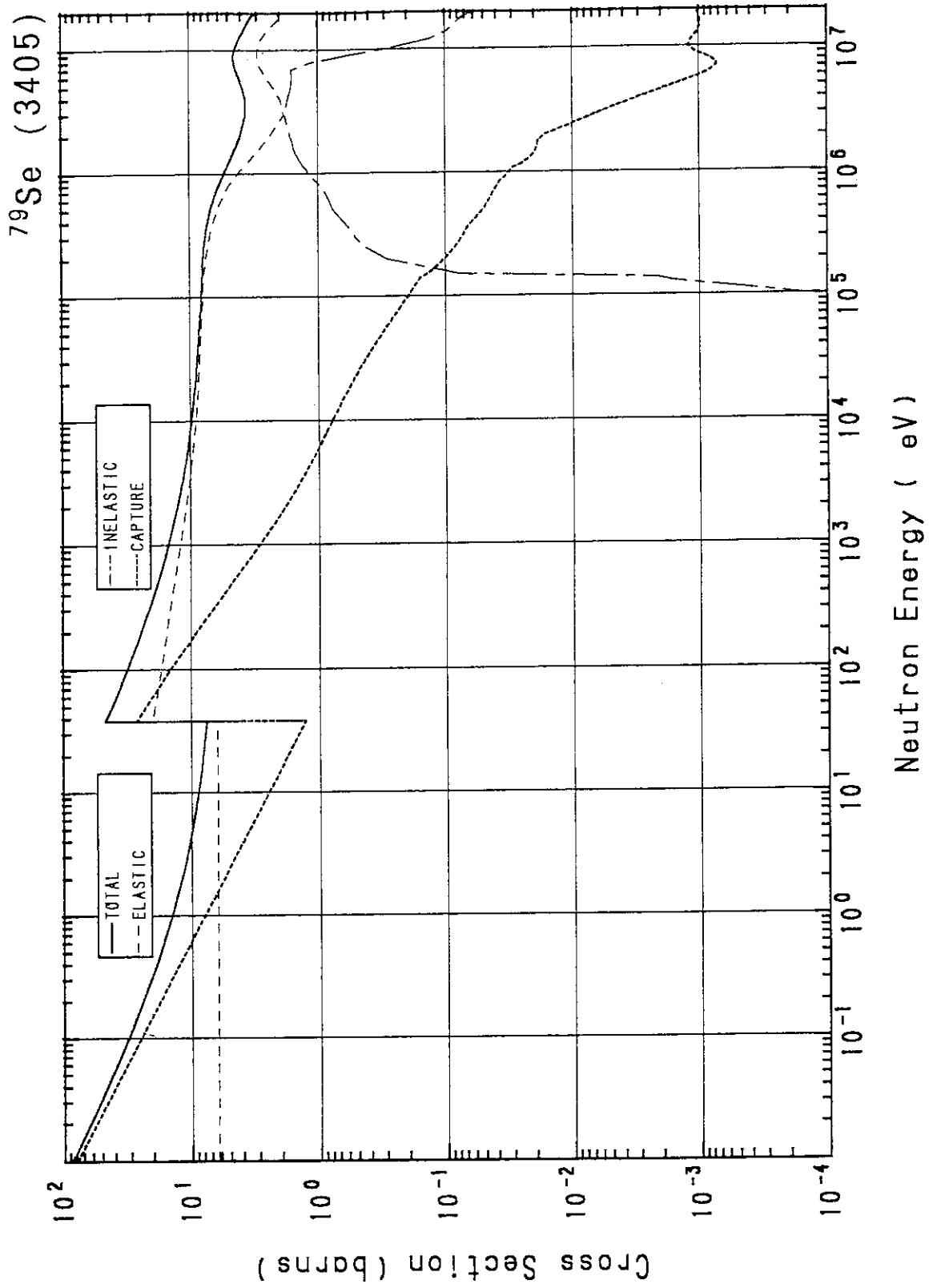
⁷⁷Se (3403)



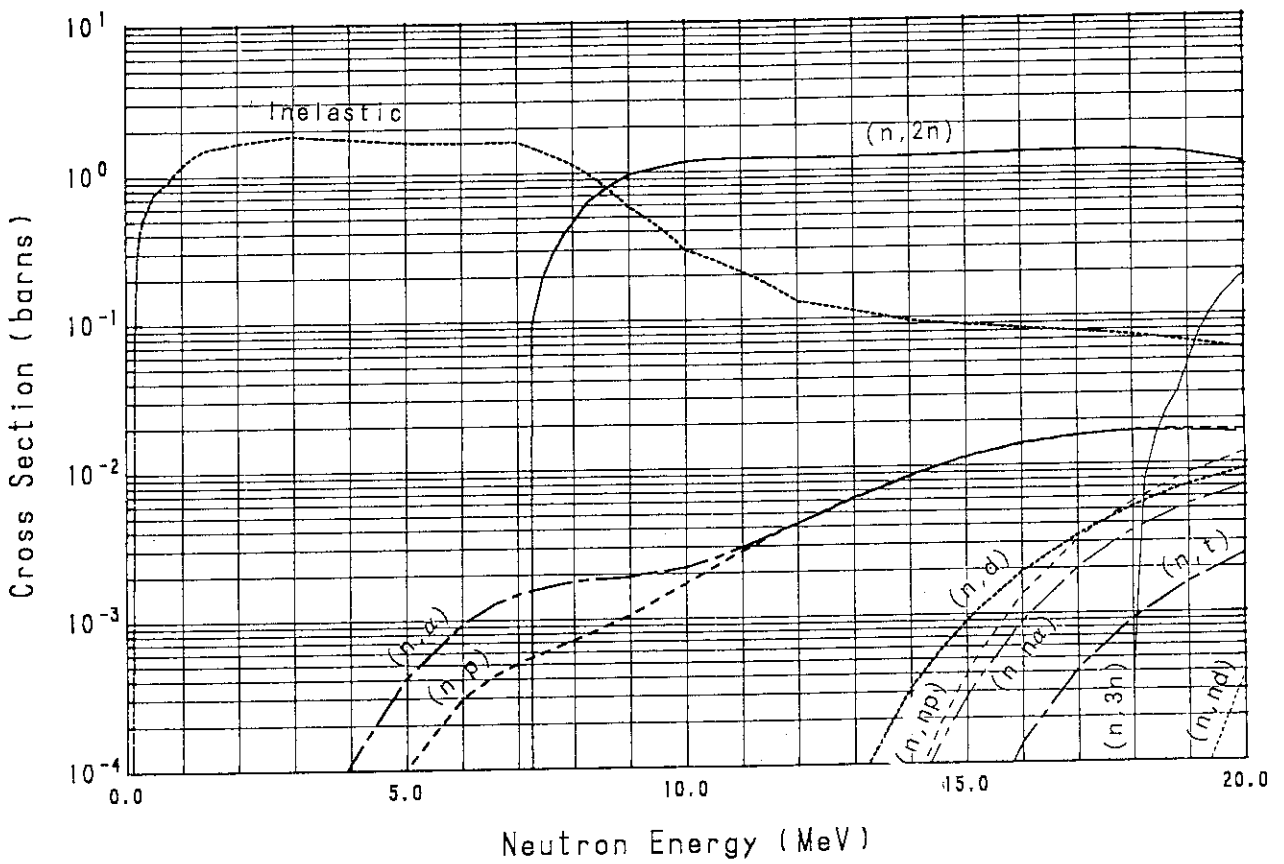
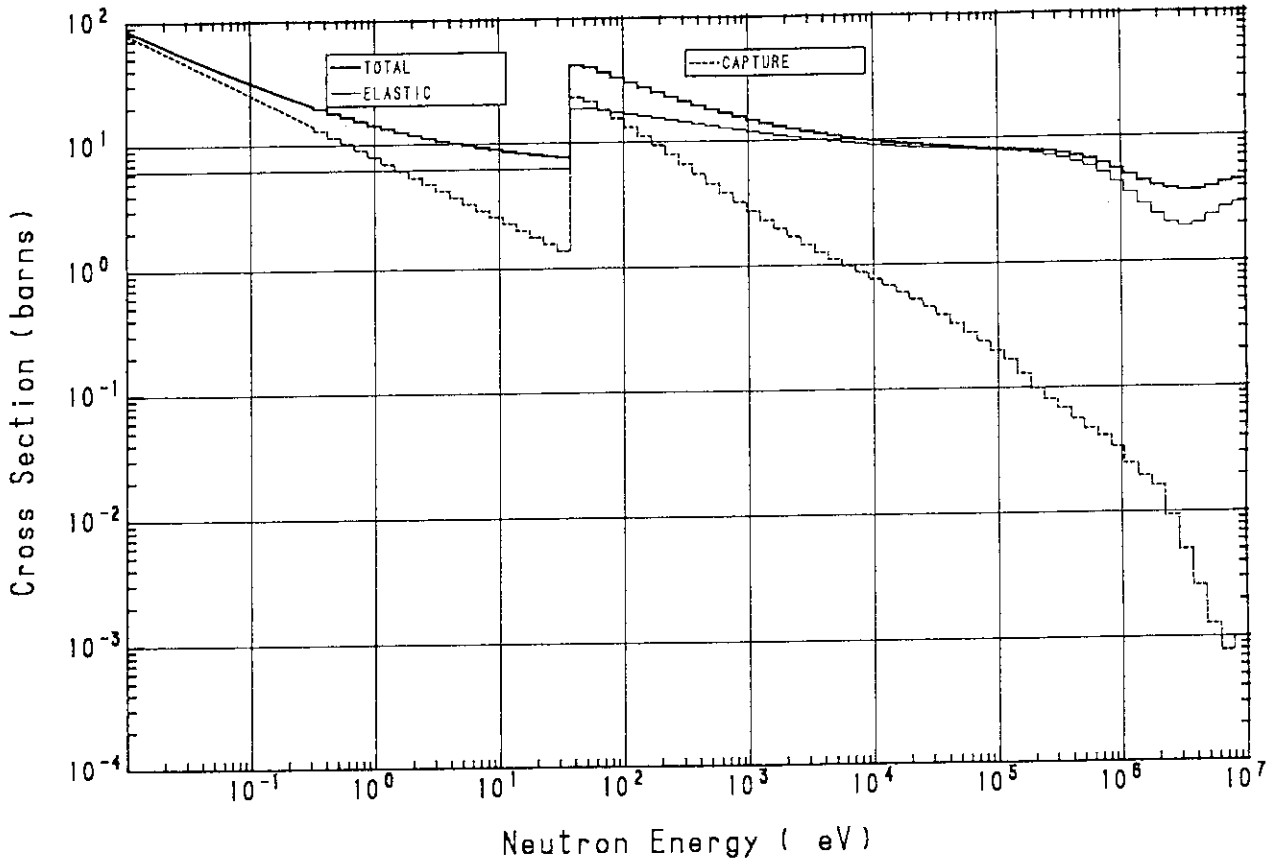


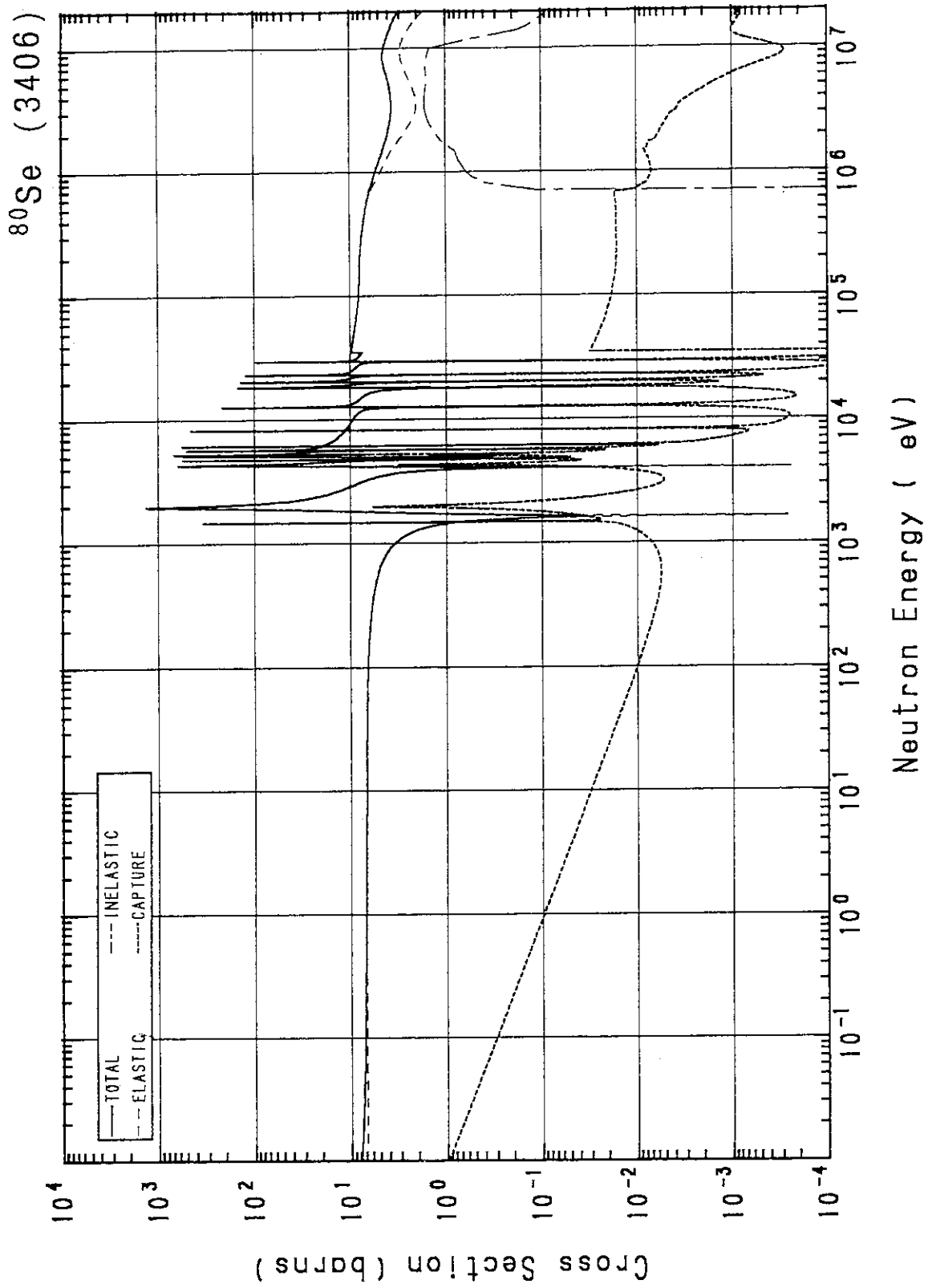
^{78}Se (3404)



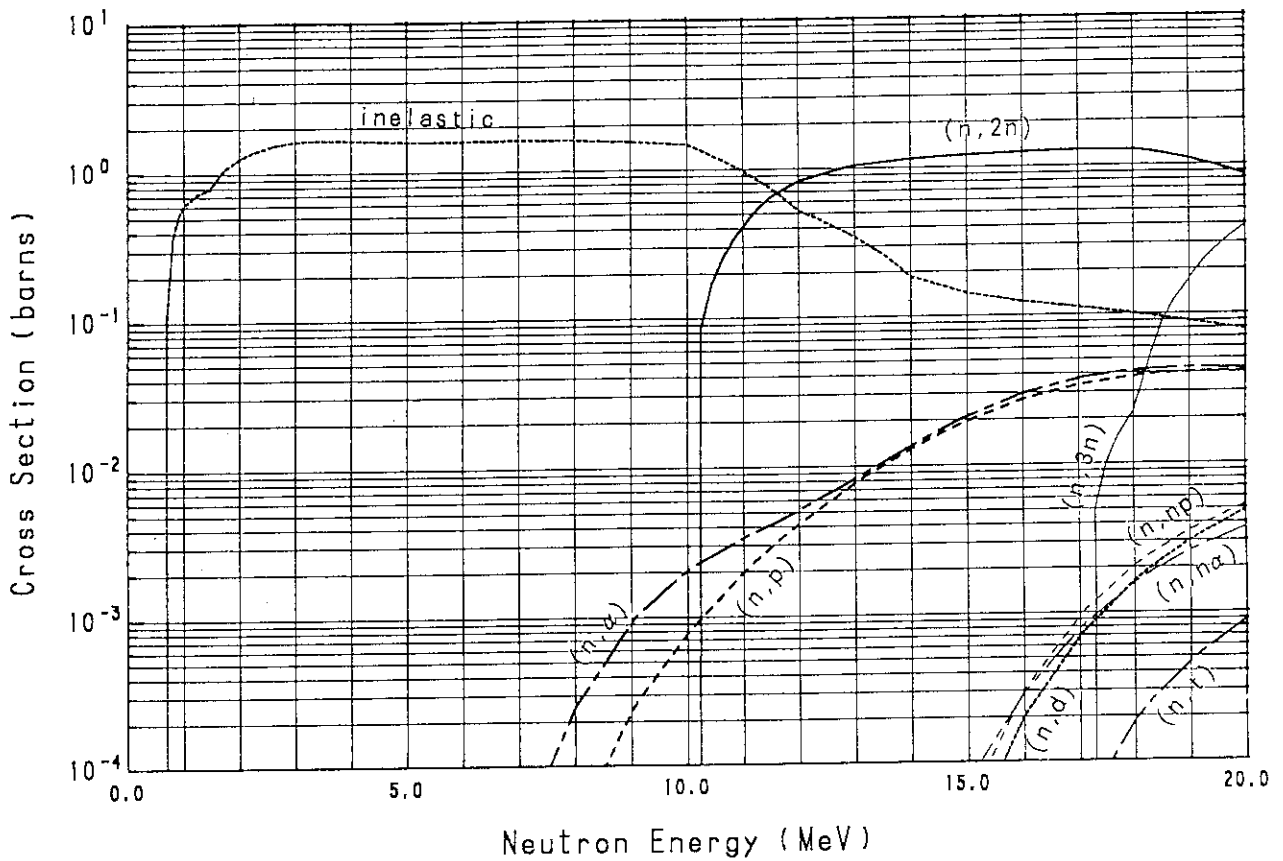
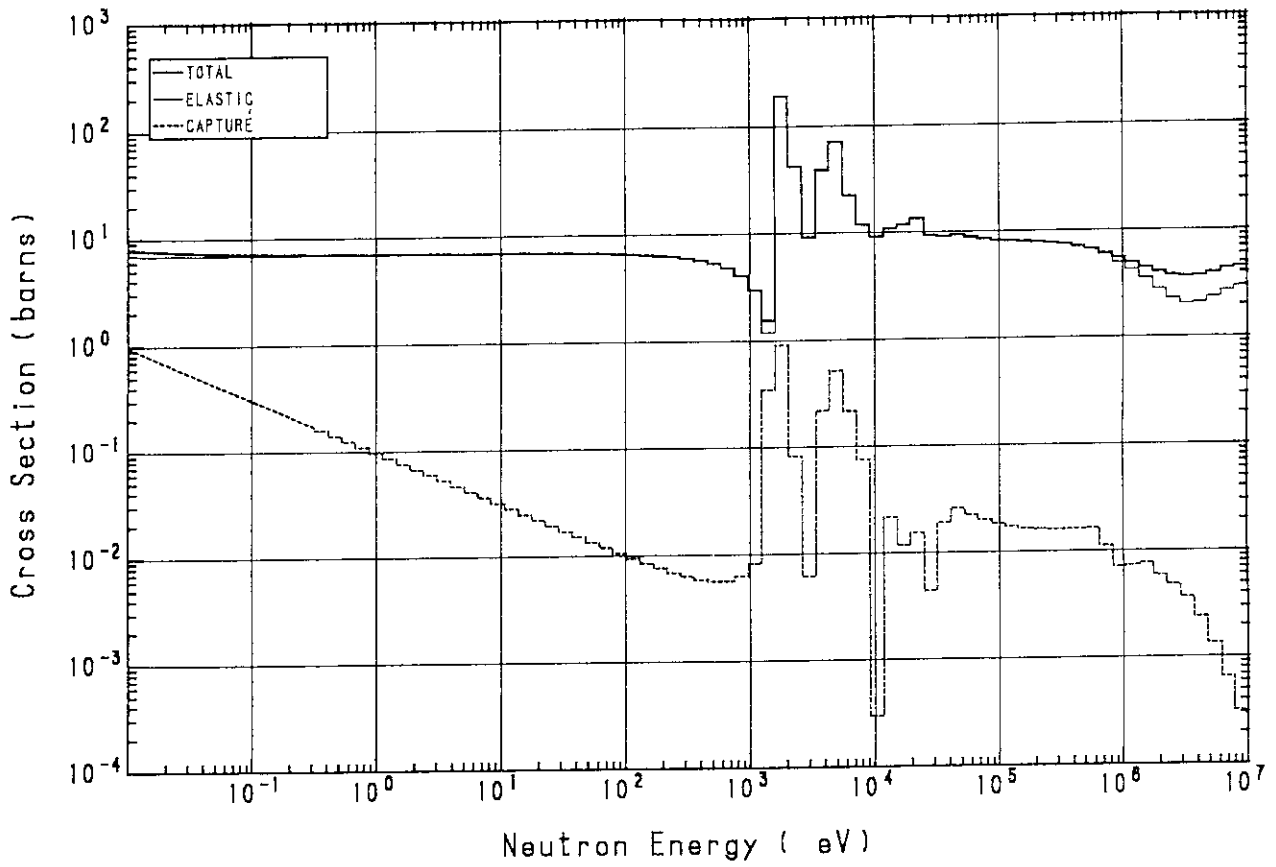


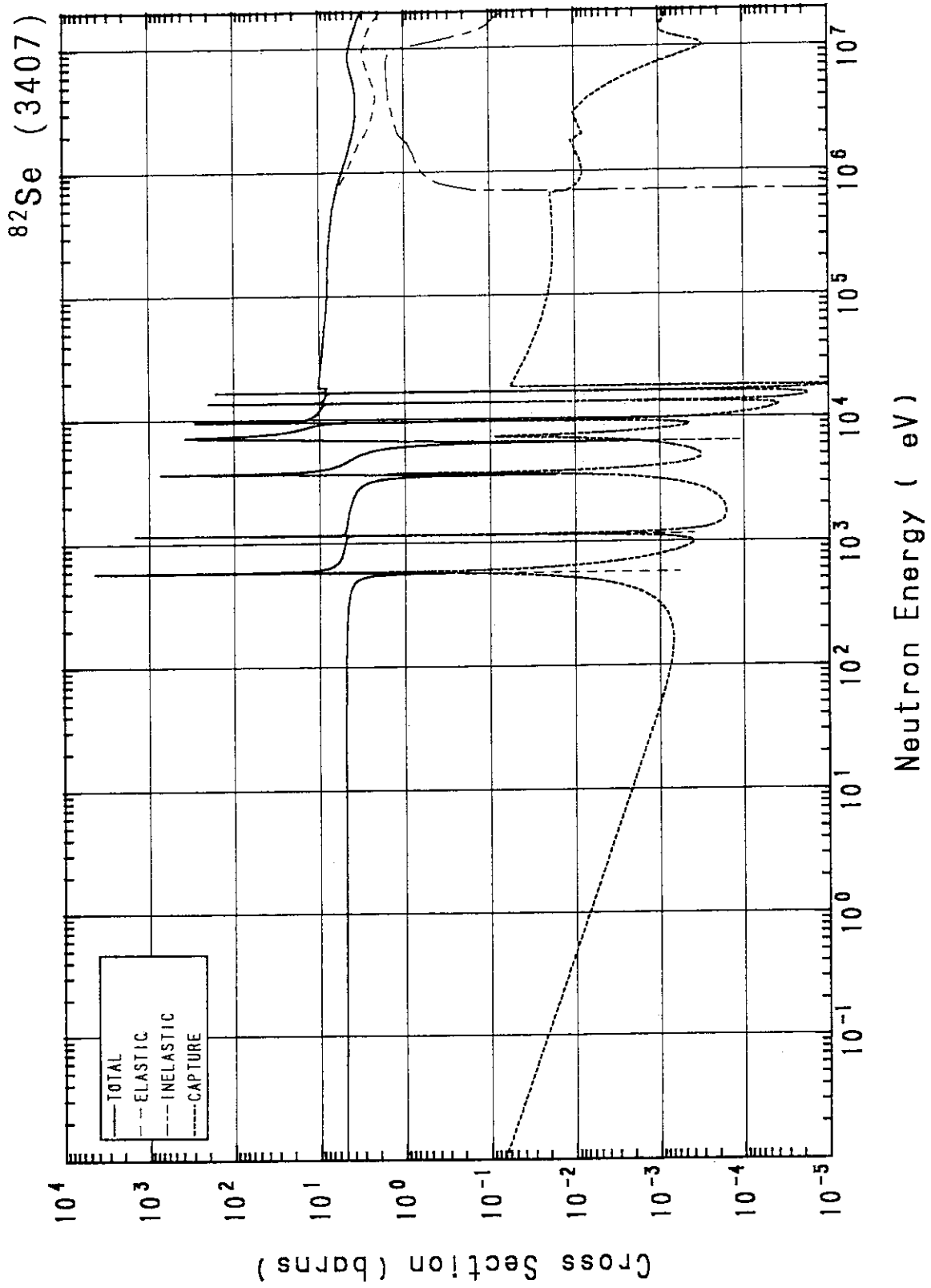
⁷⁹Se (3405)

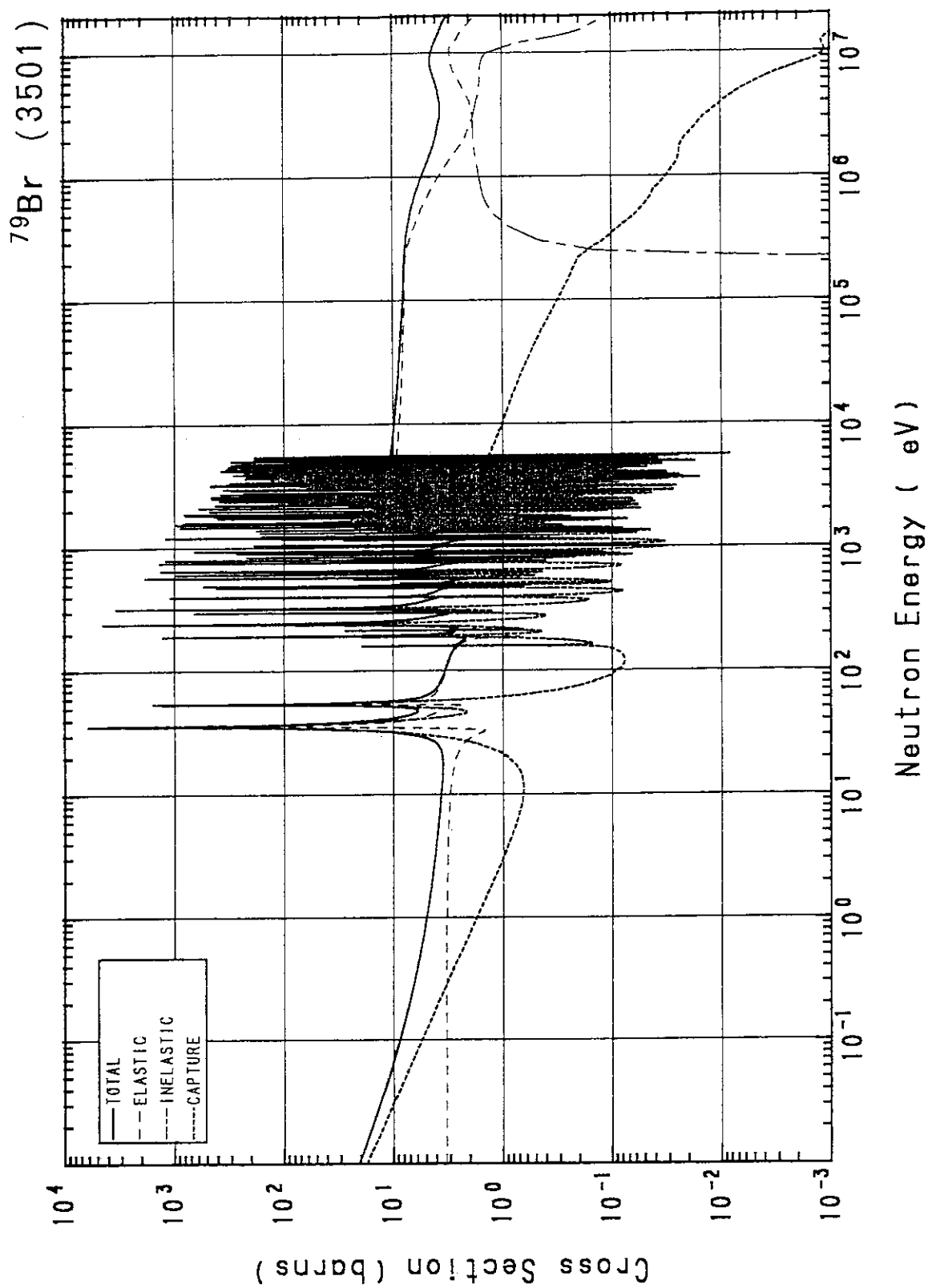




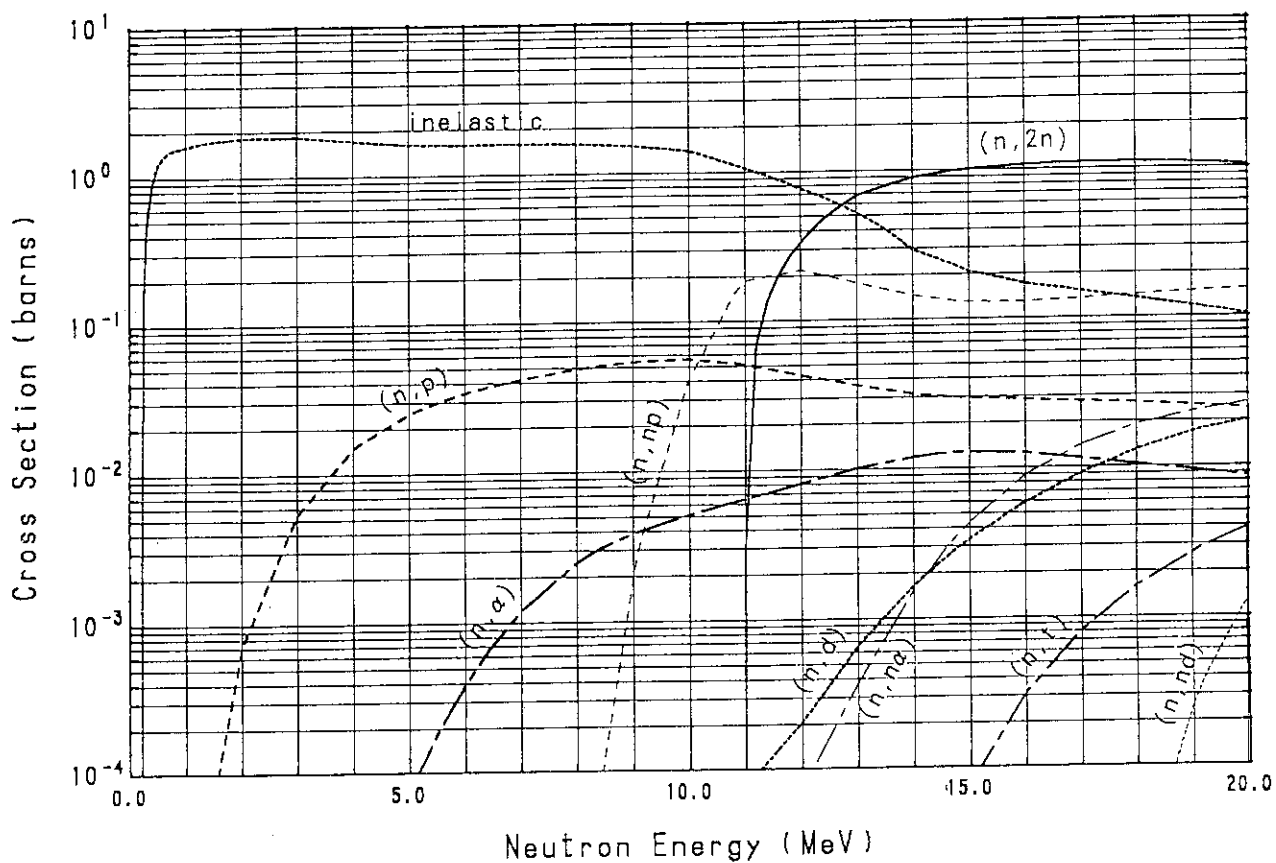
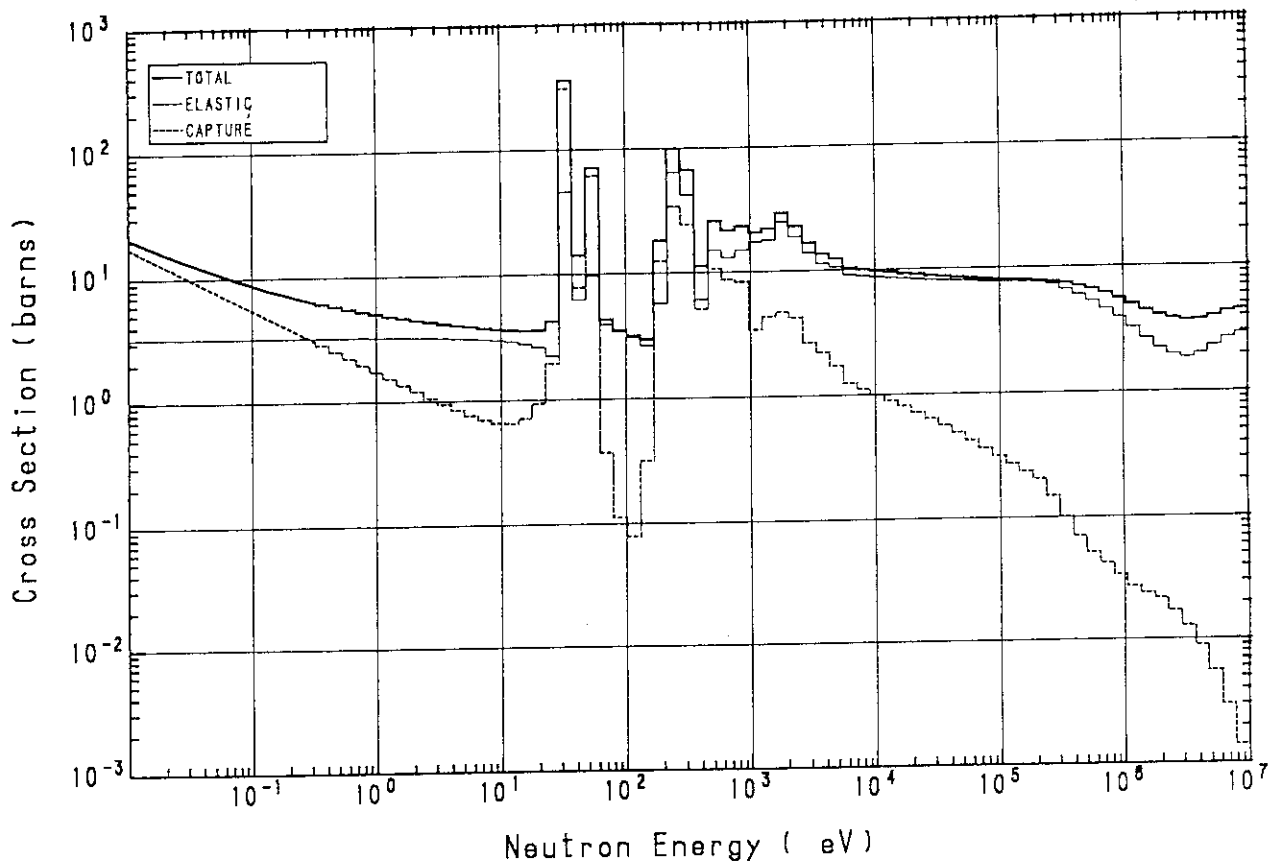
^{80}Se (3406)

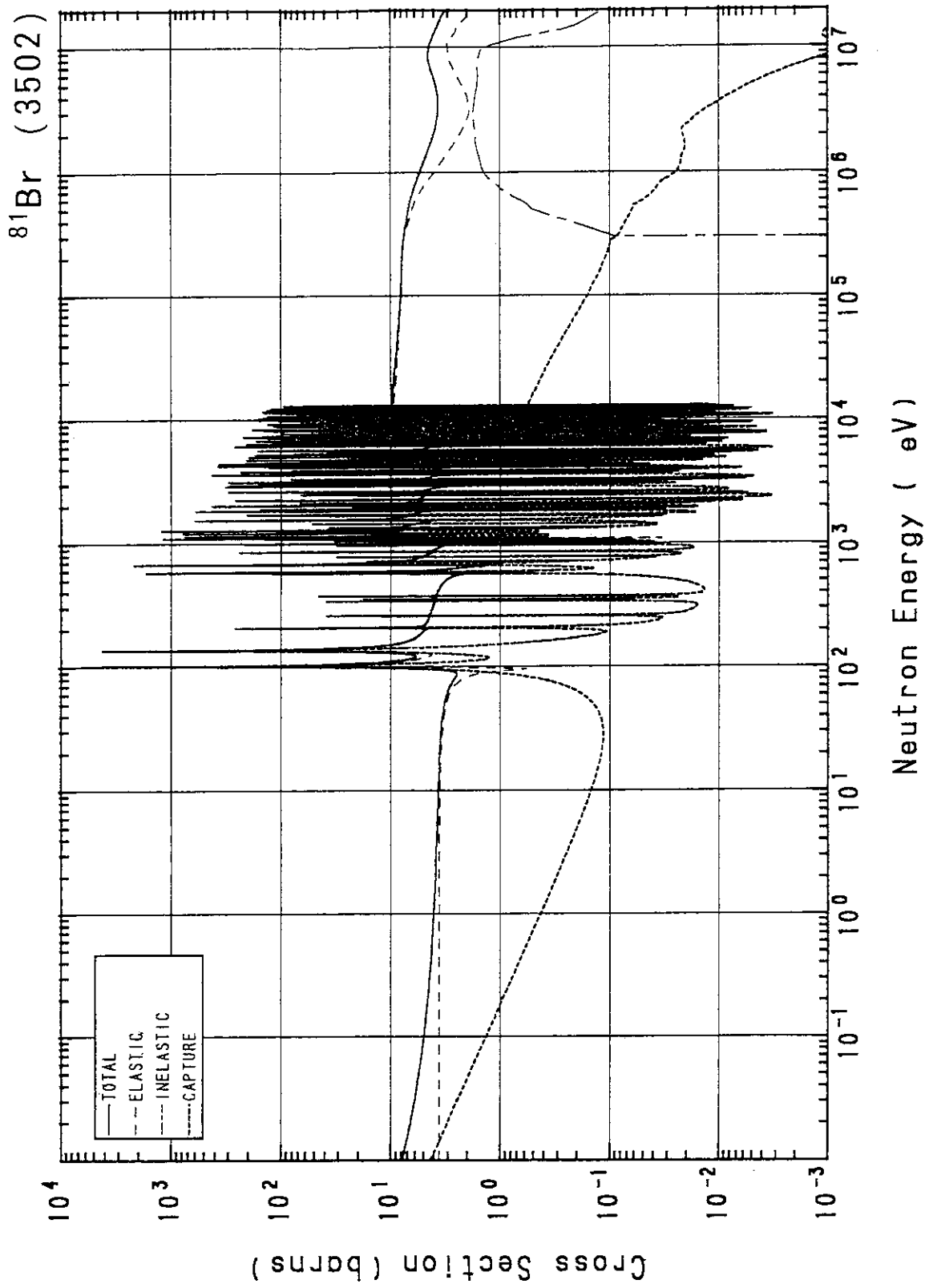




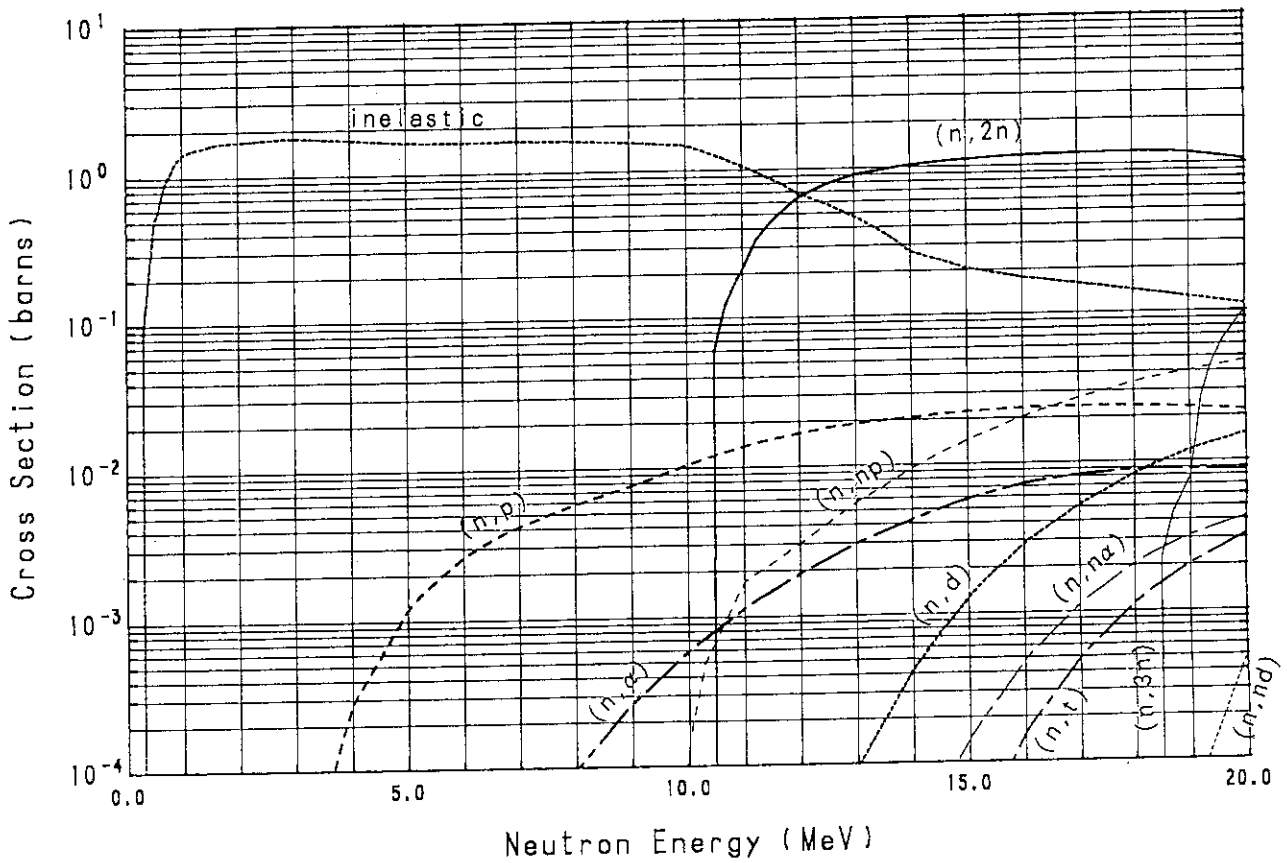
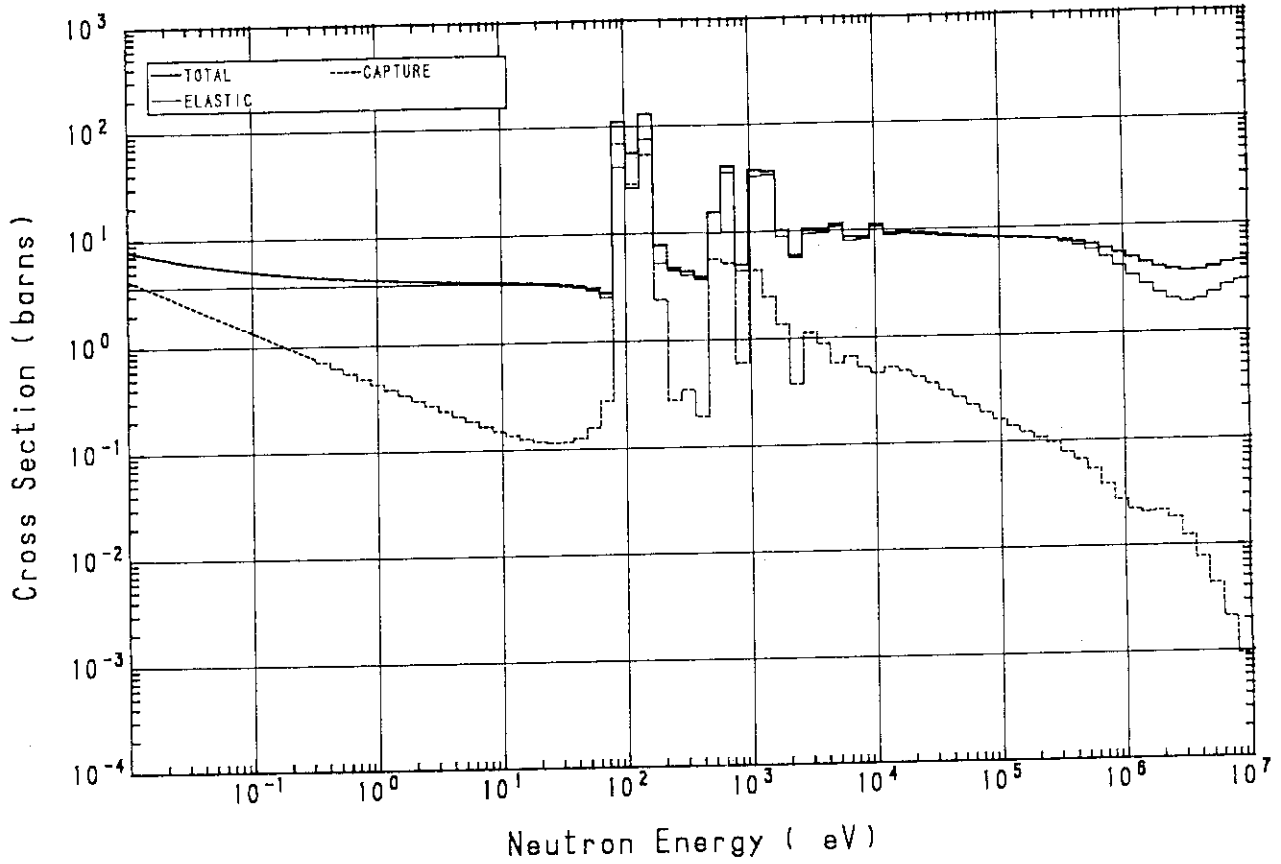


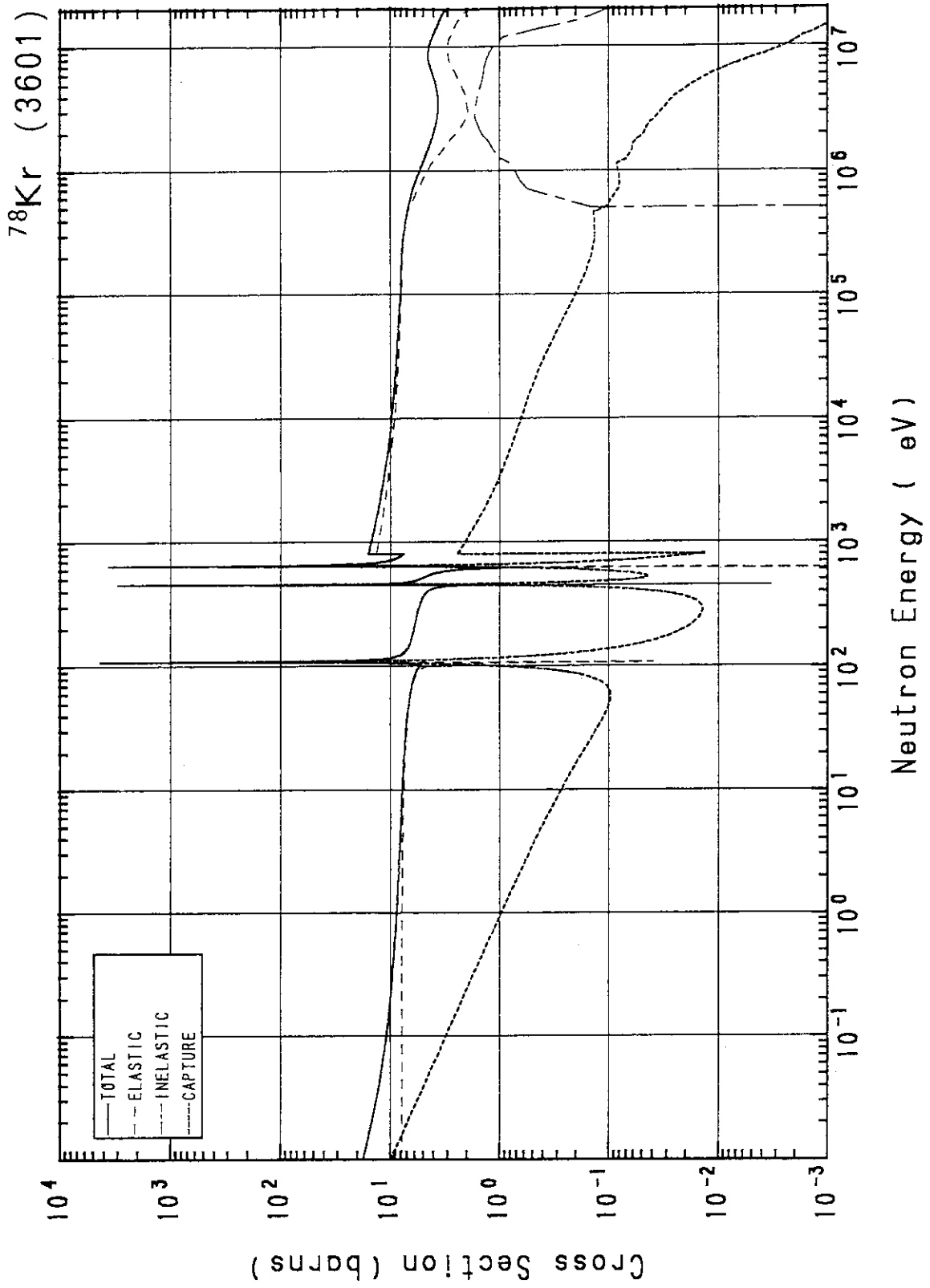
⁷⁹Br (3501)



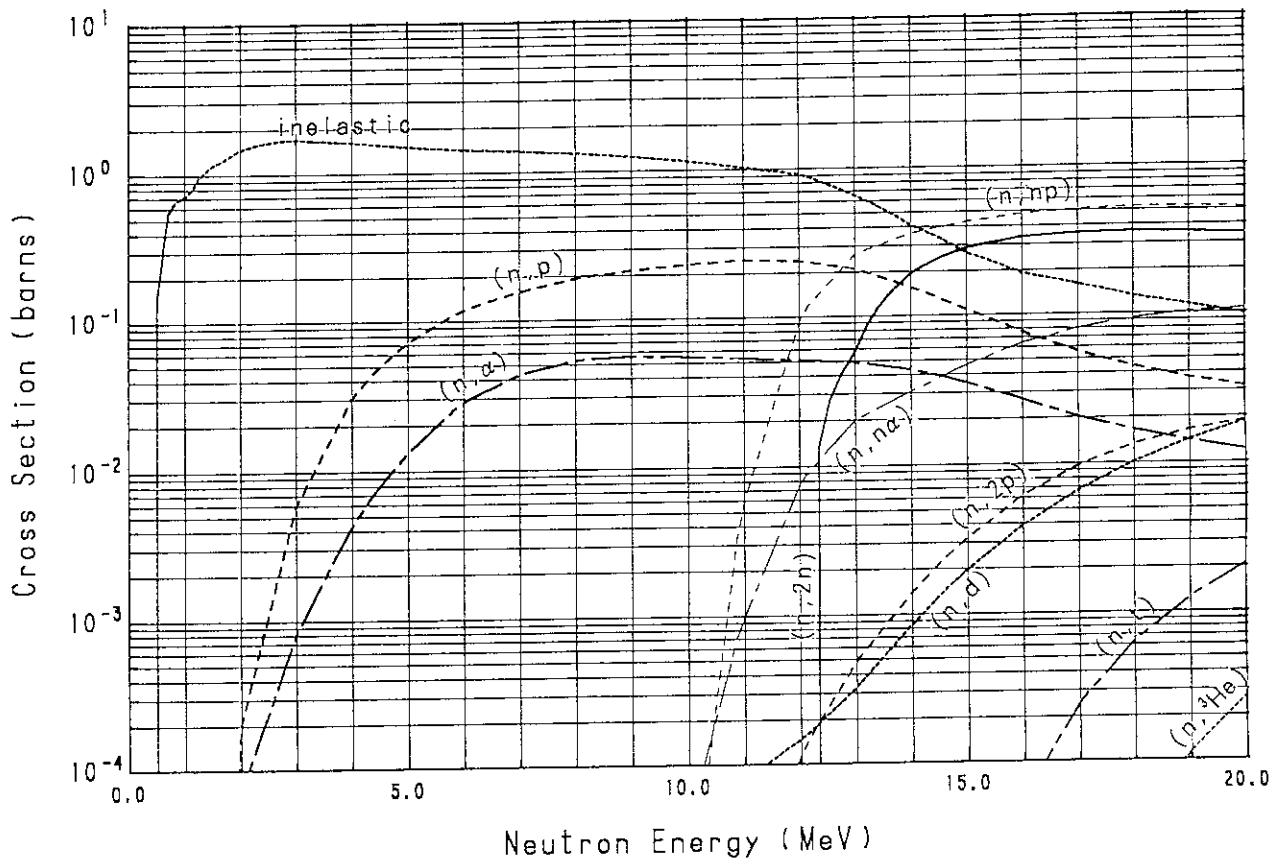
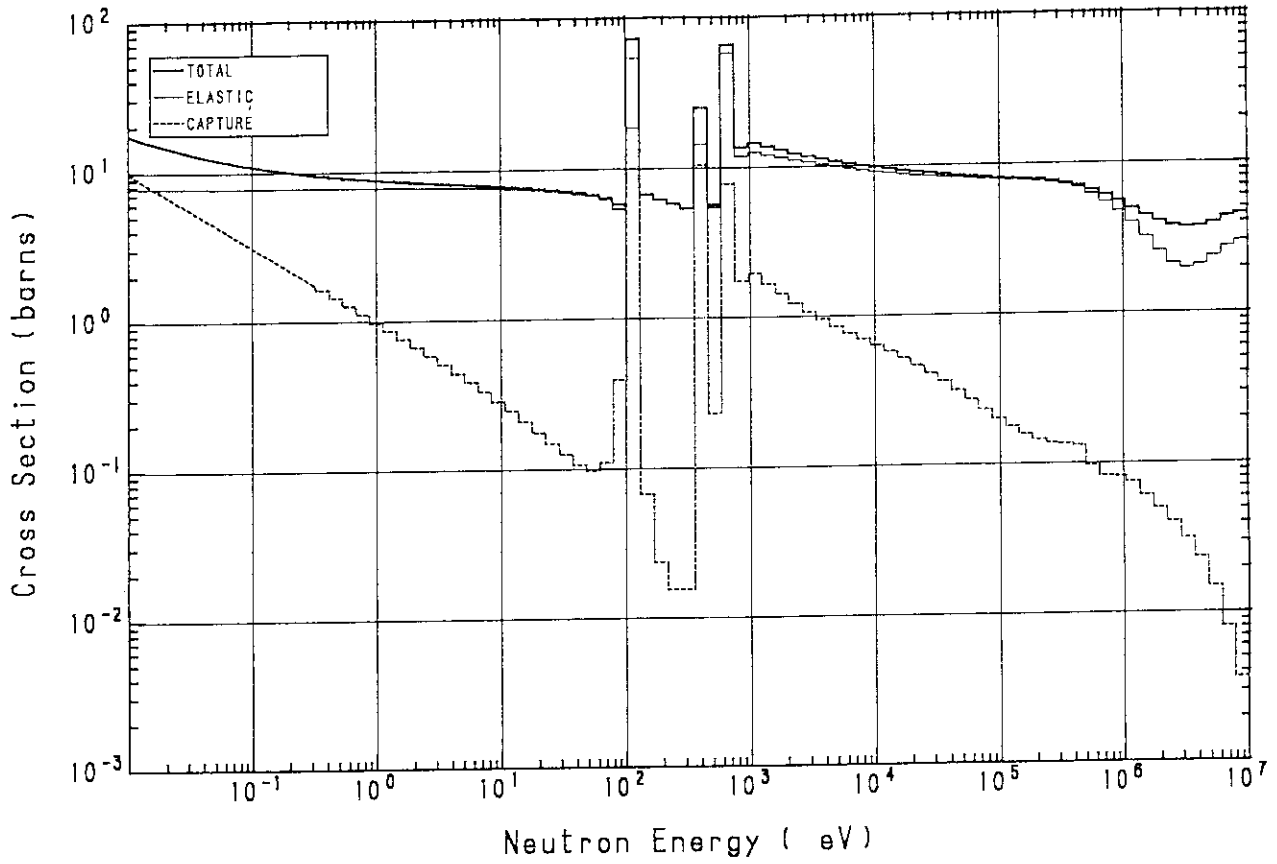


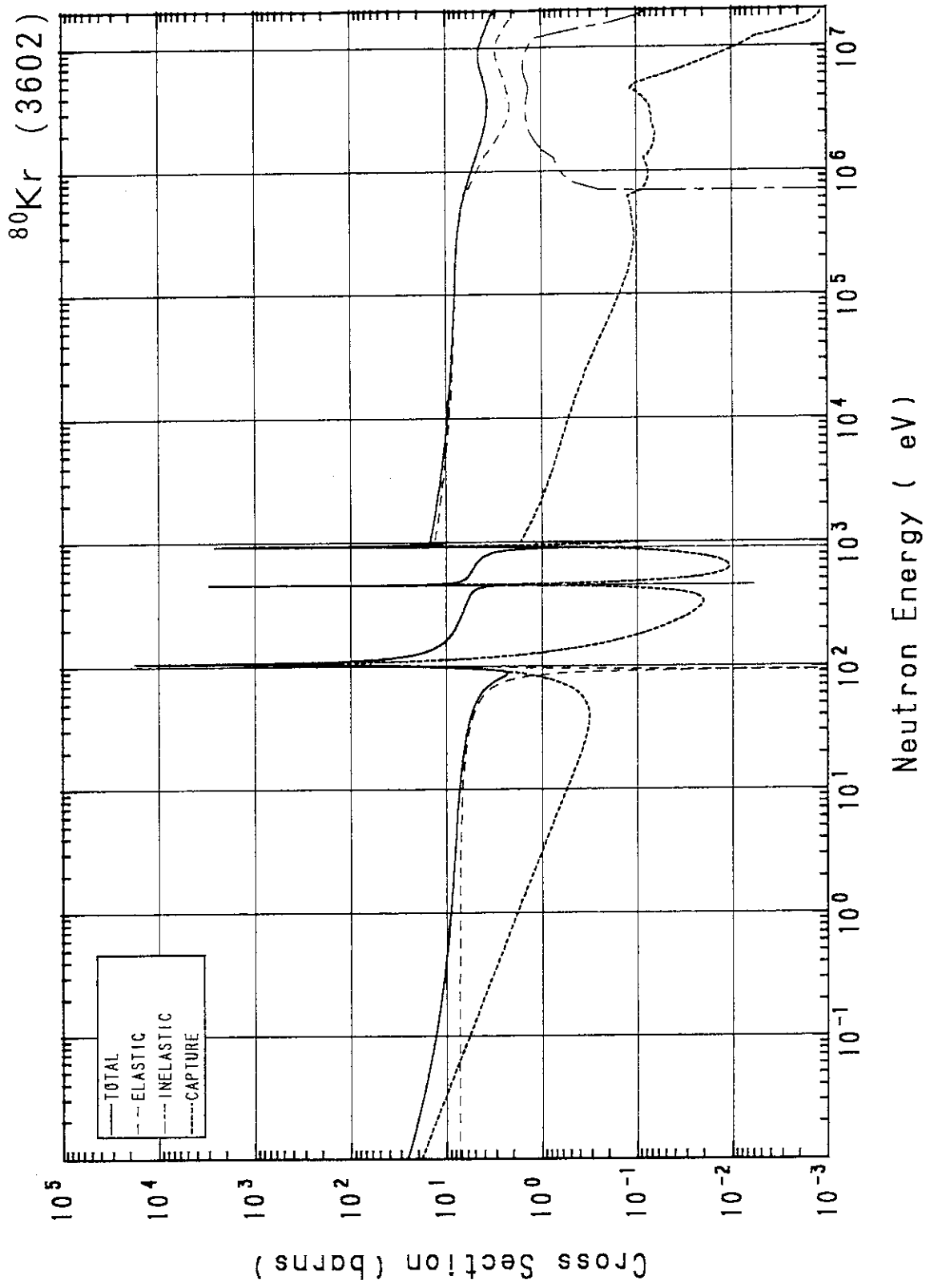
^{81}Br (3502)



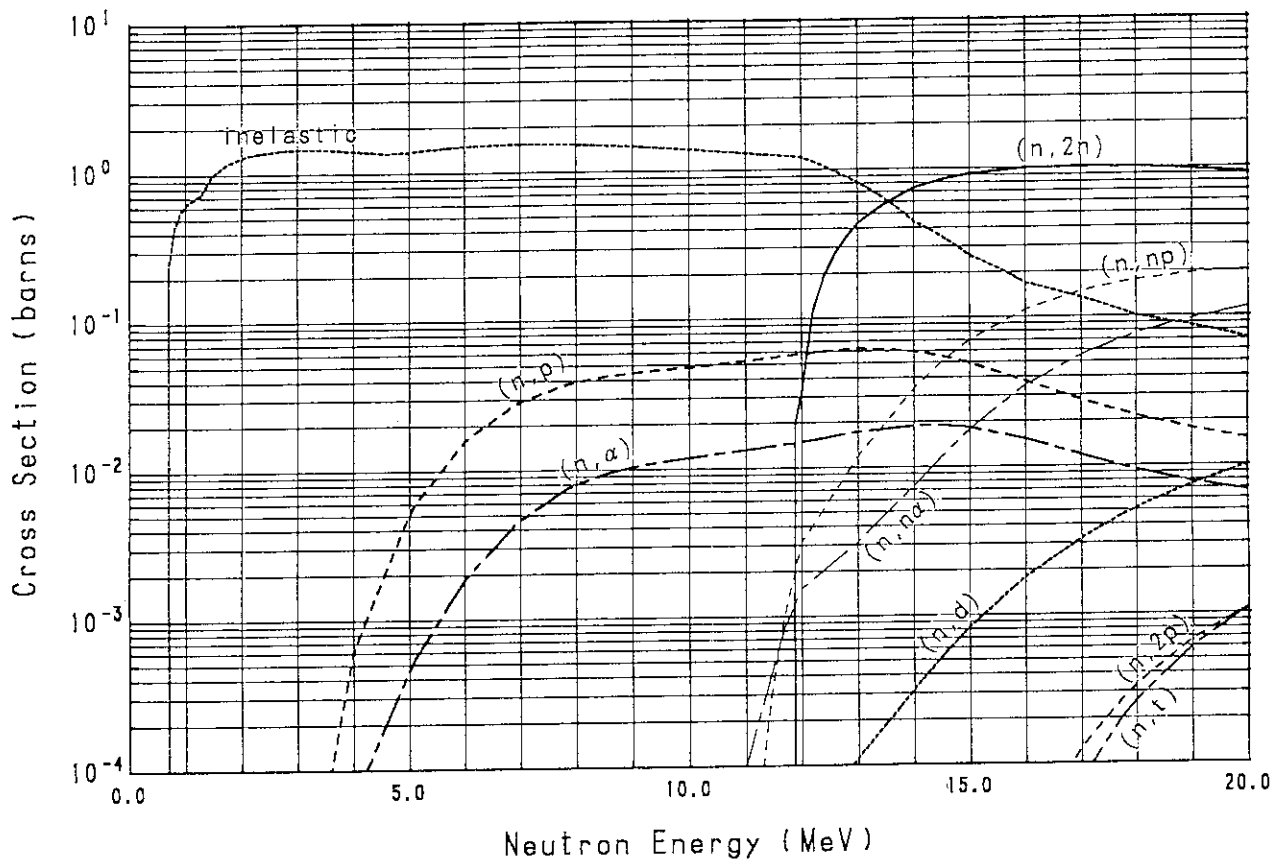
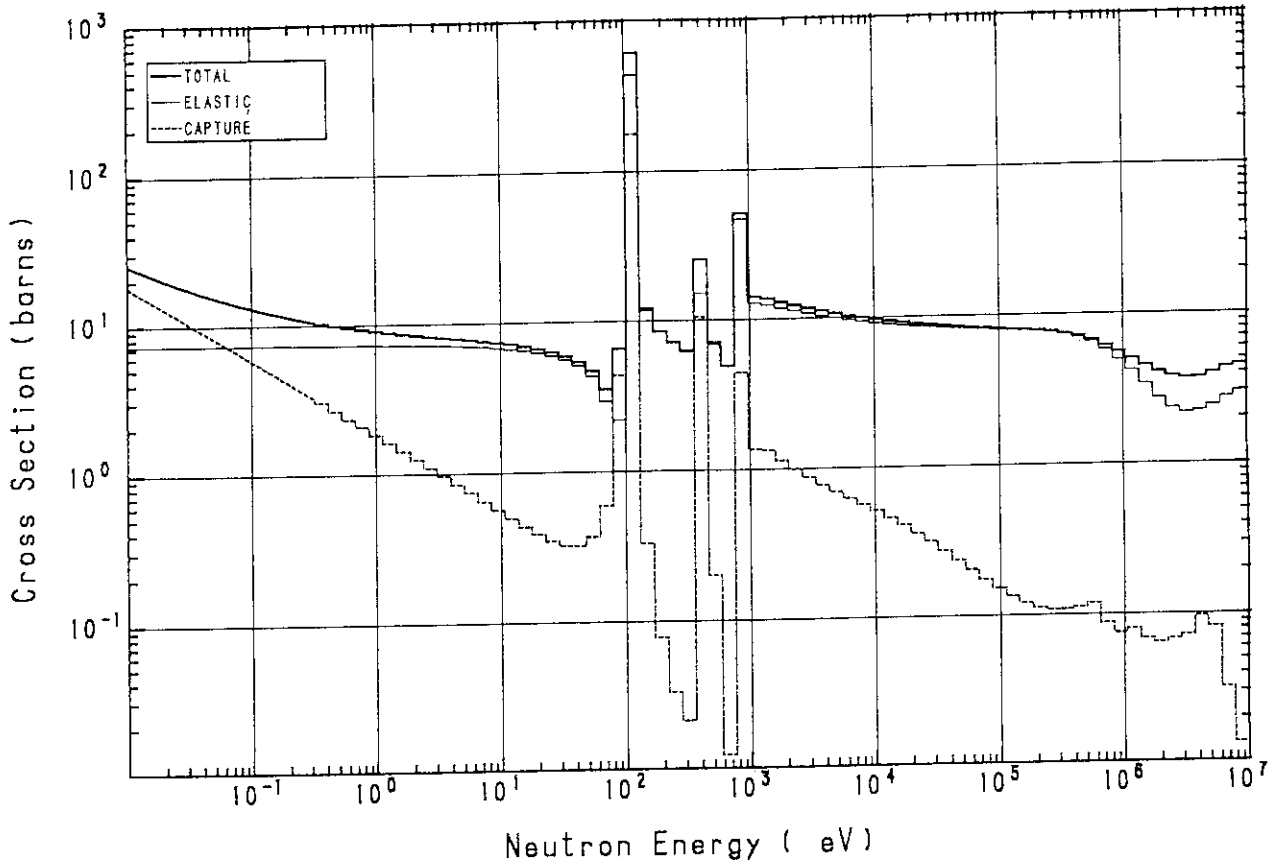


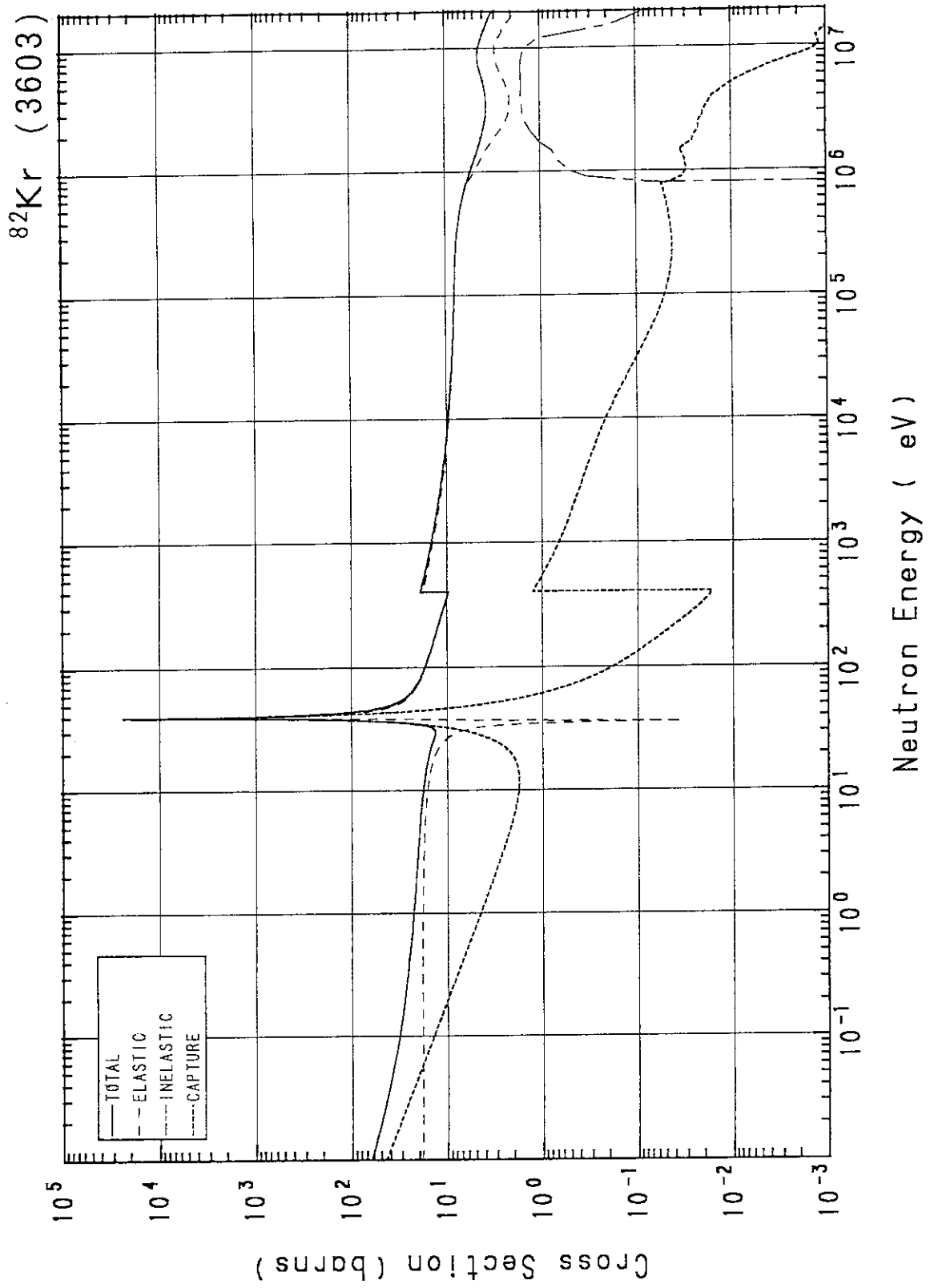
^{78}Kr (3601)



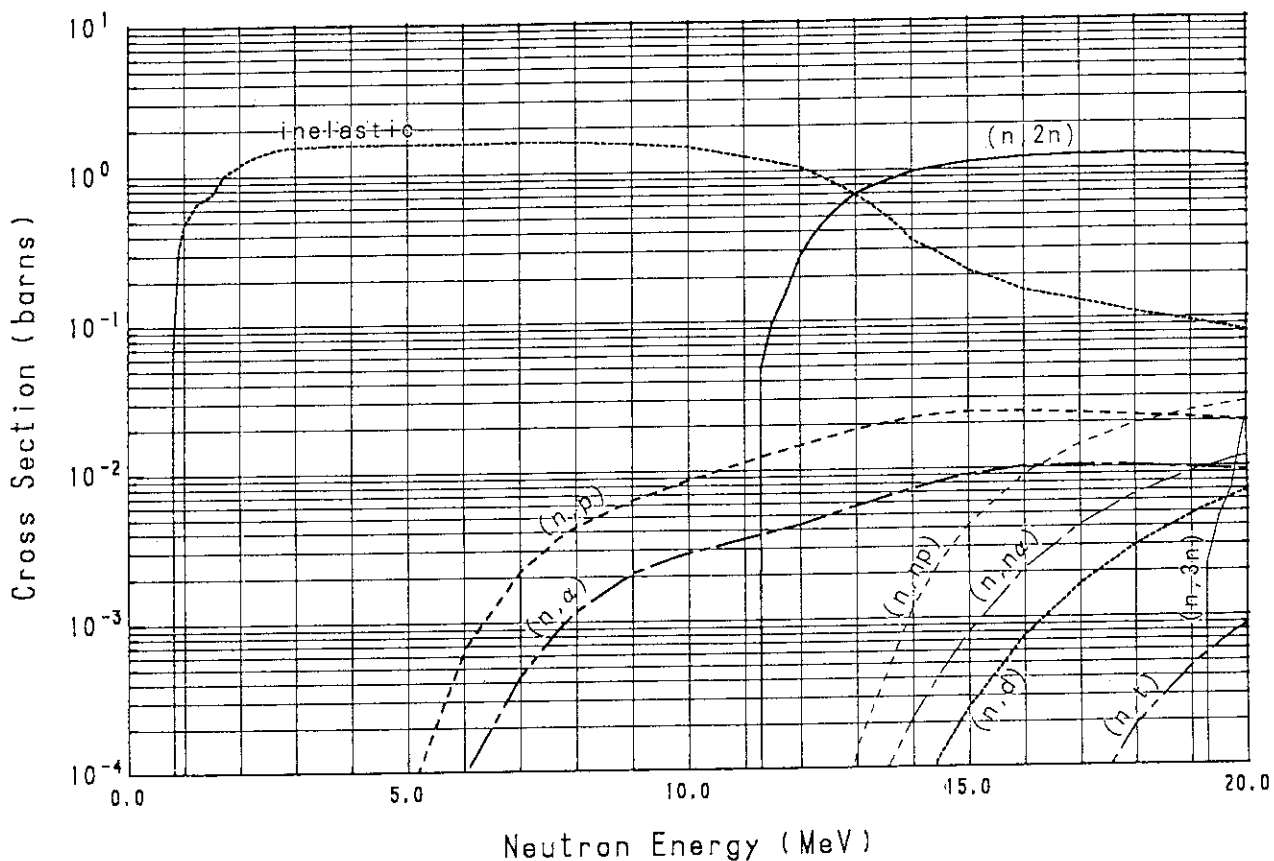
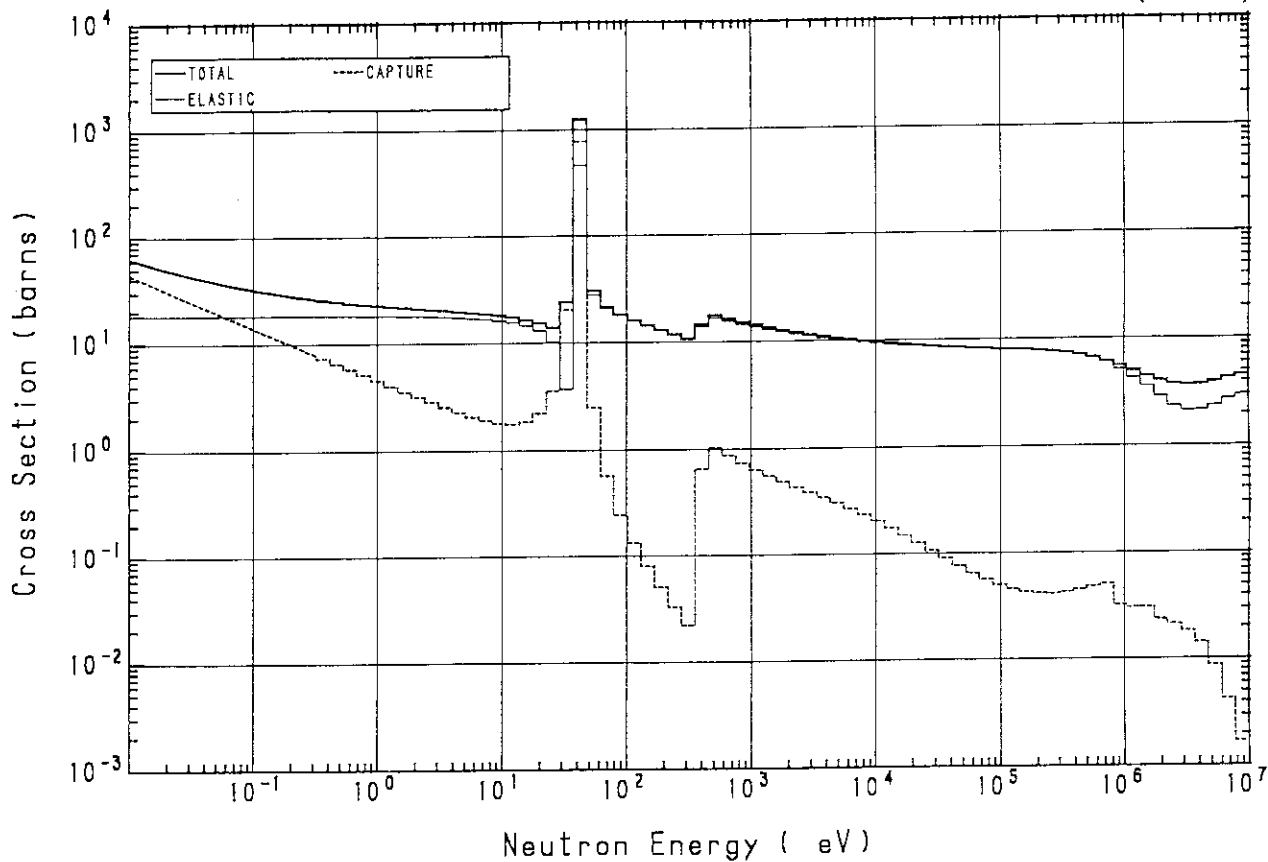


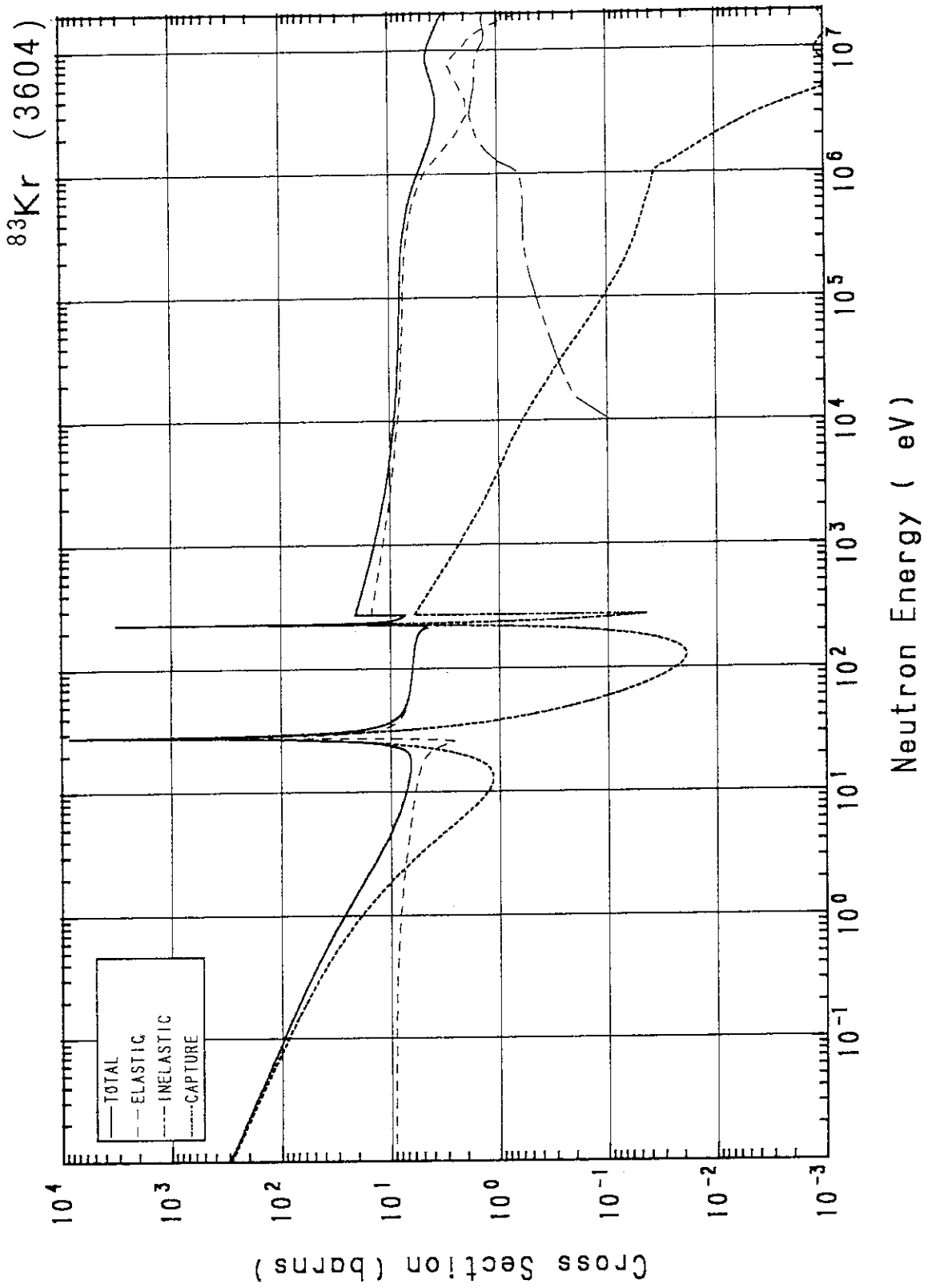
^{80}Kr (3602)



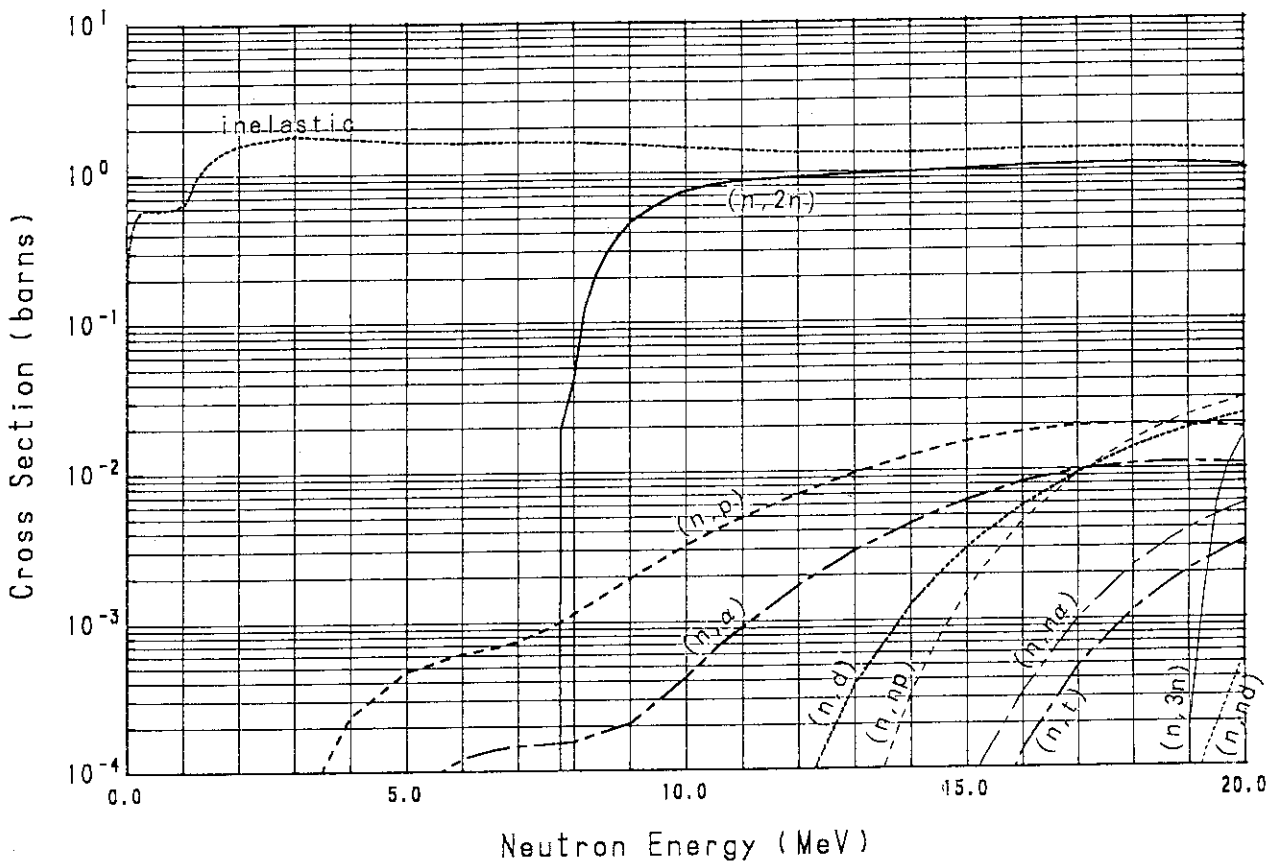
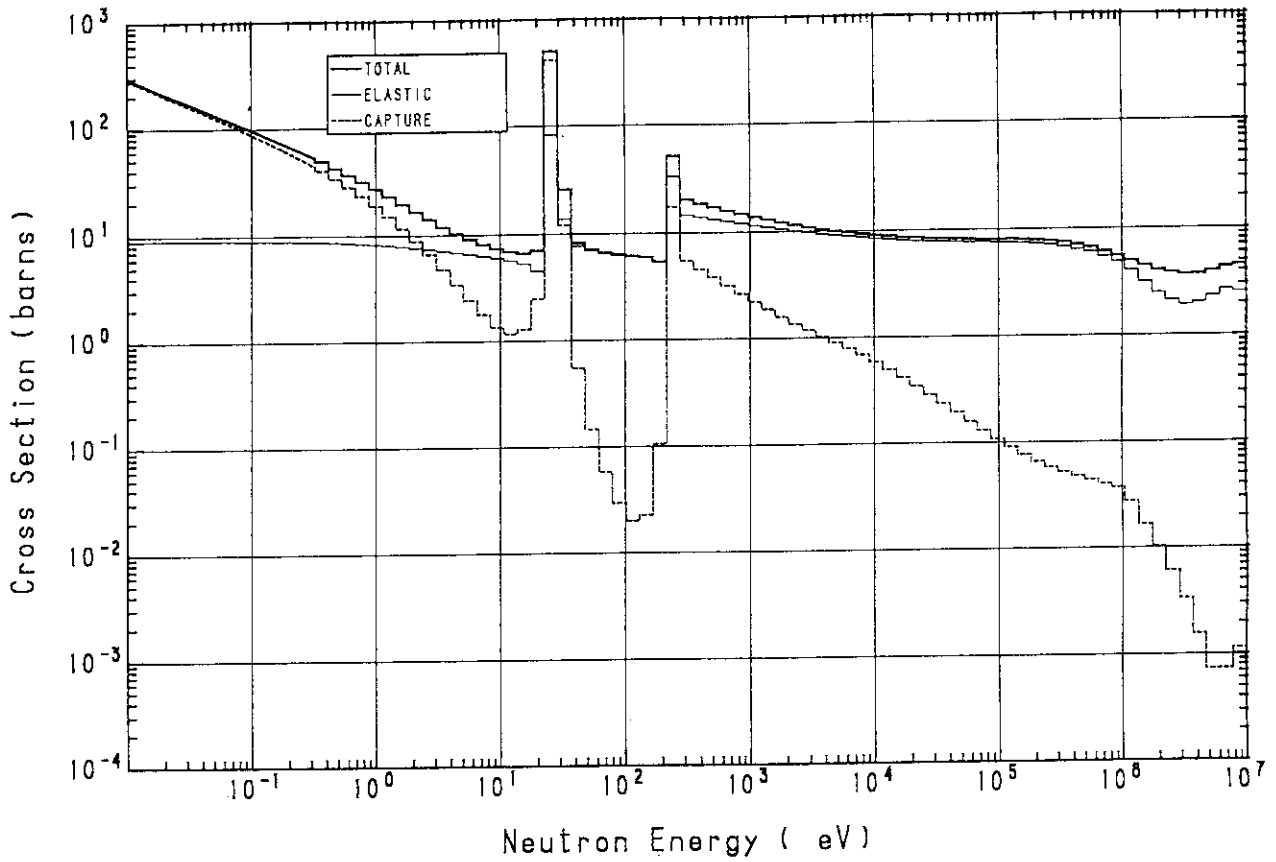


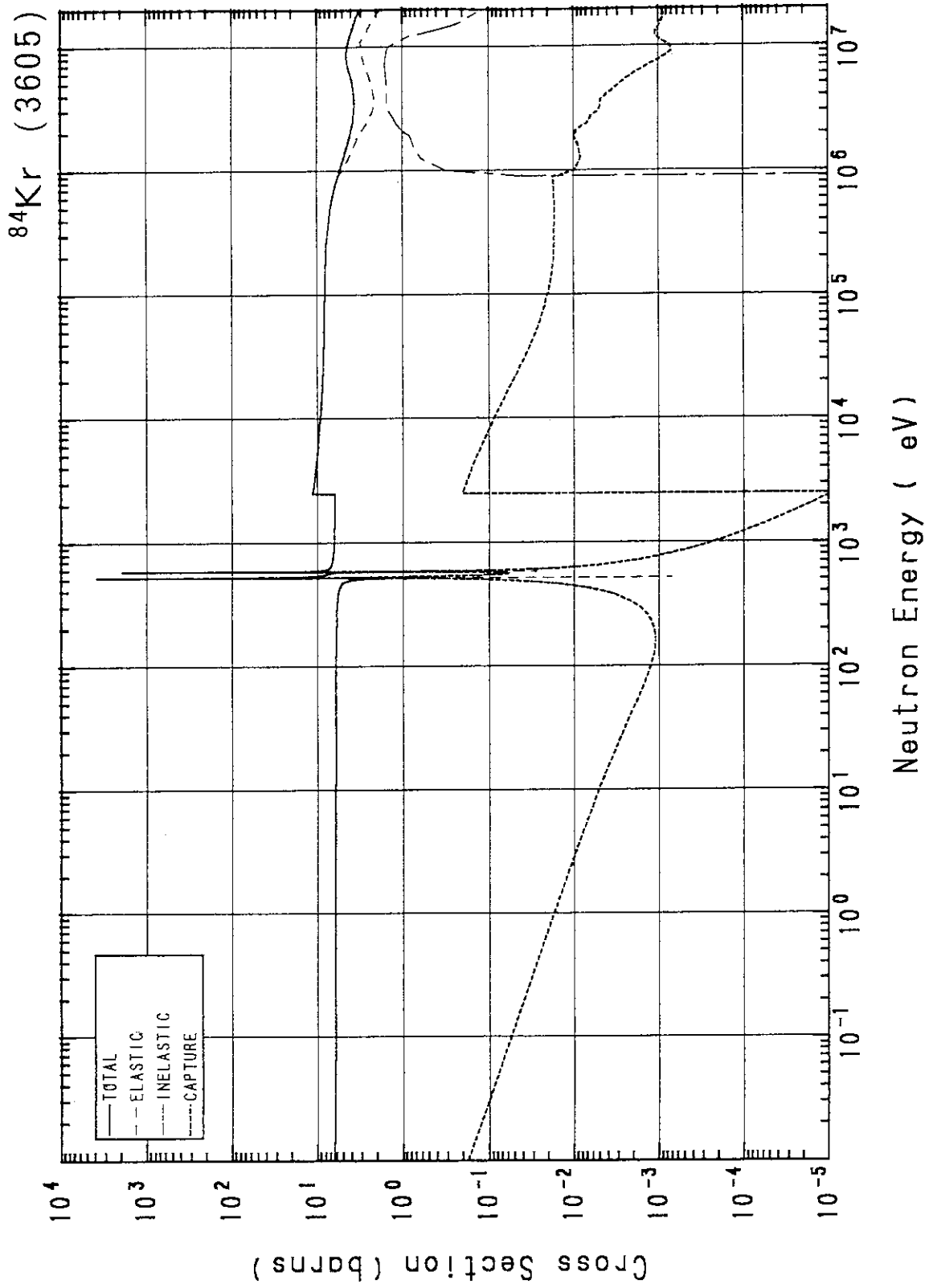
^{82}Kr (3603)



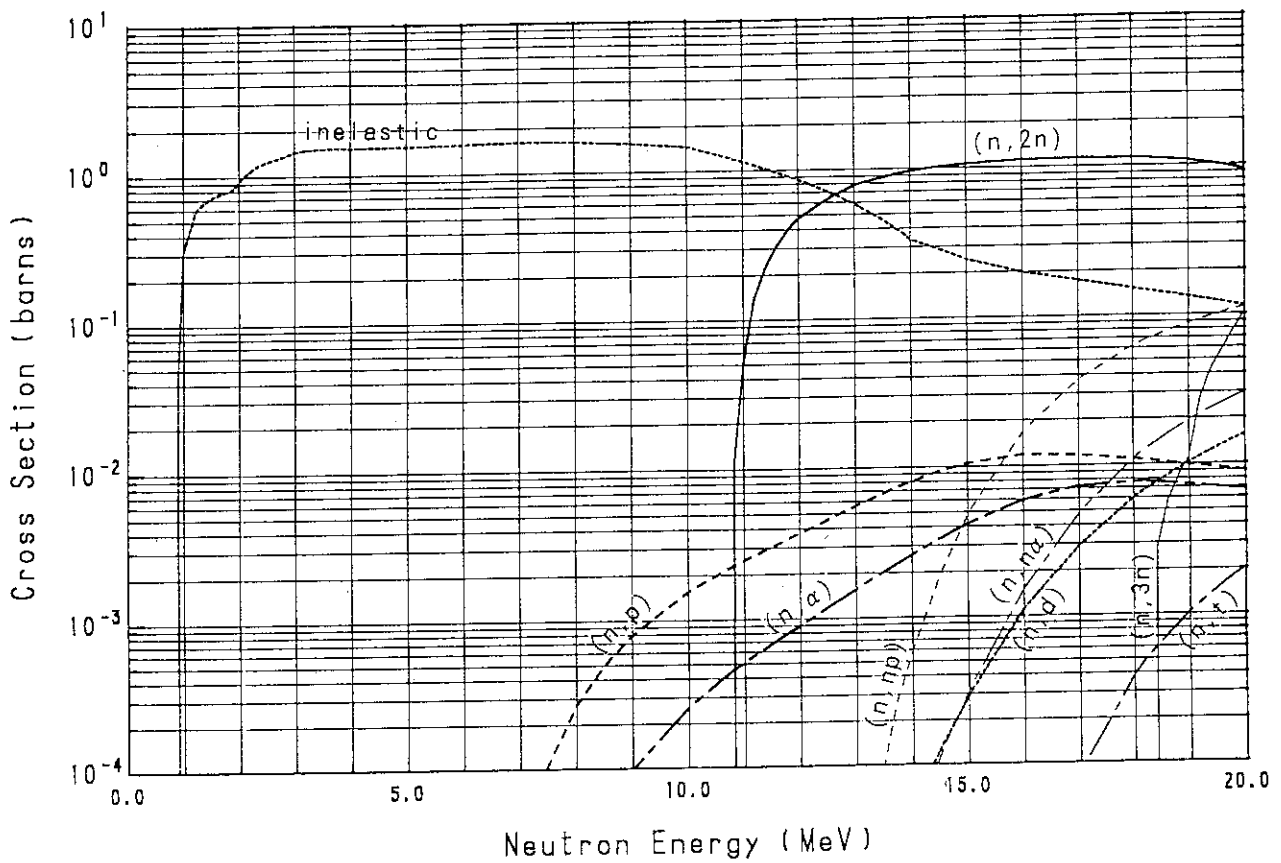
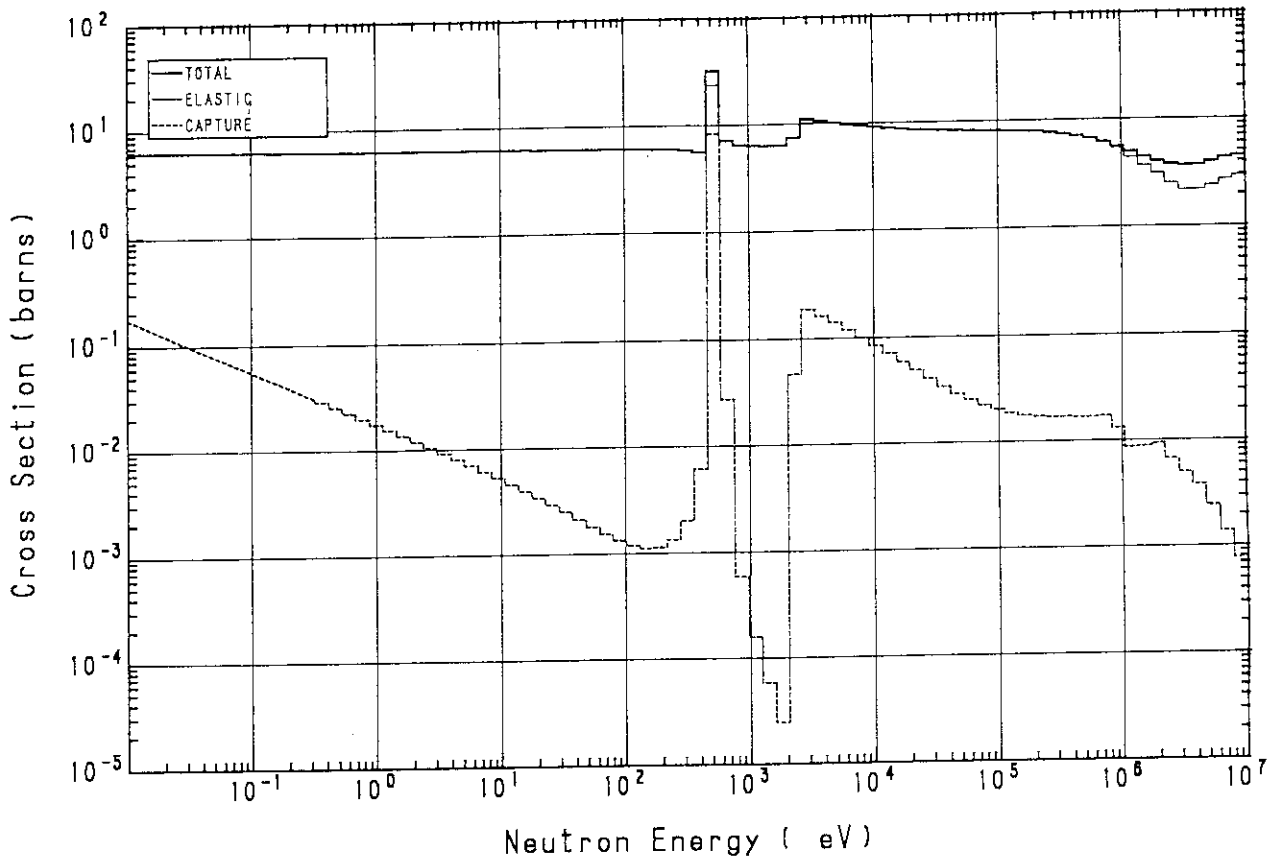


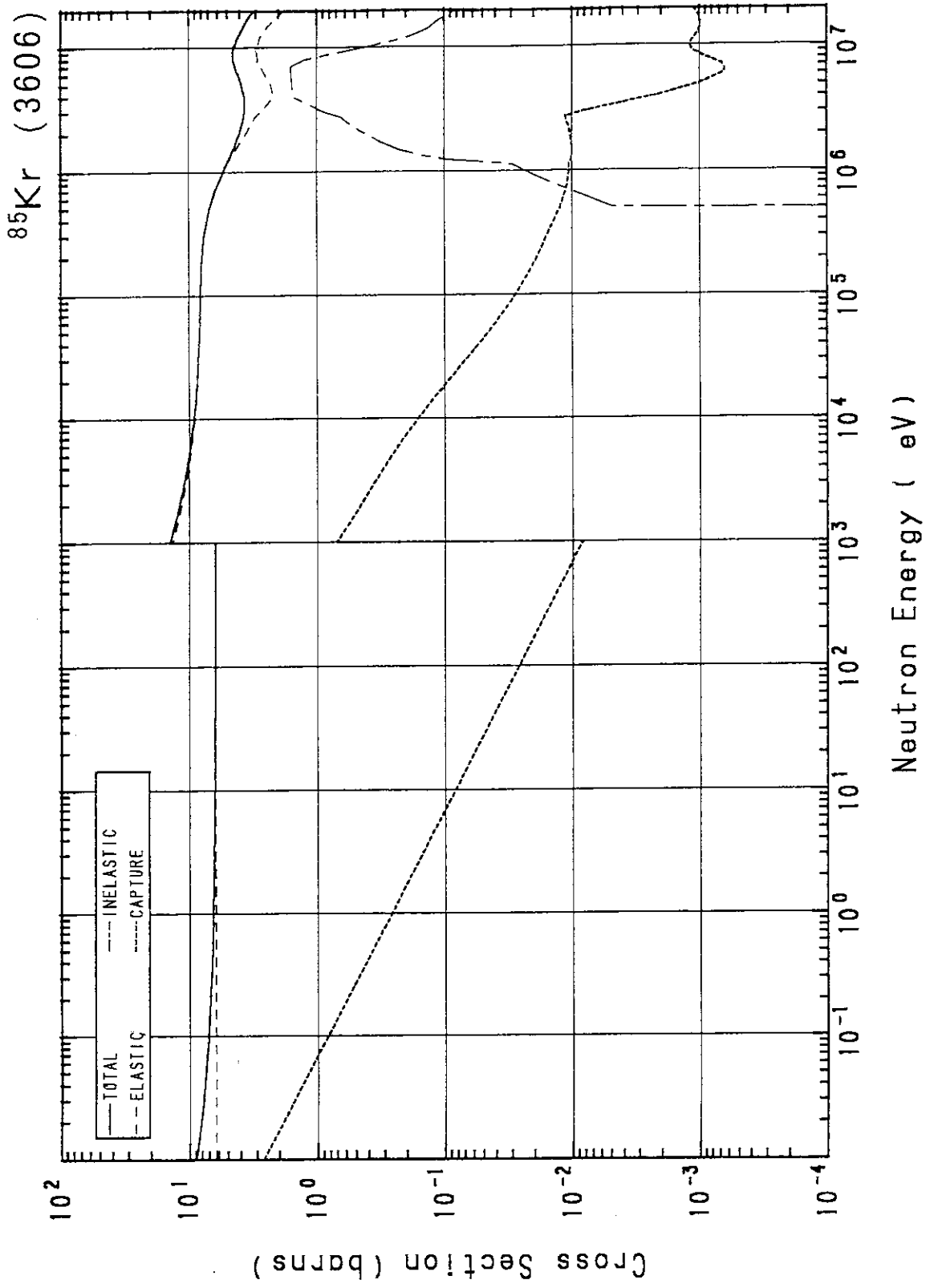
^{83}Kr (3604)



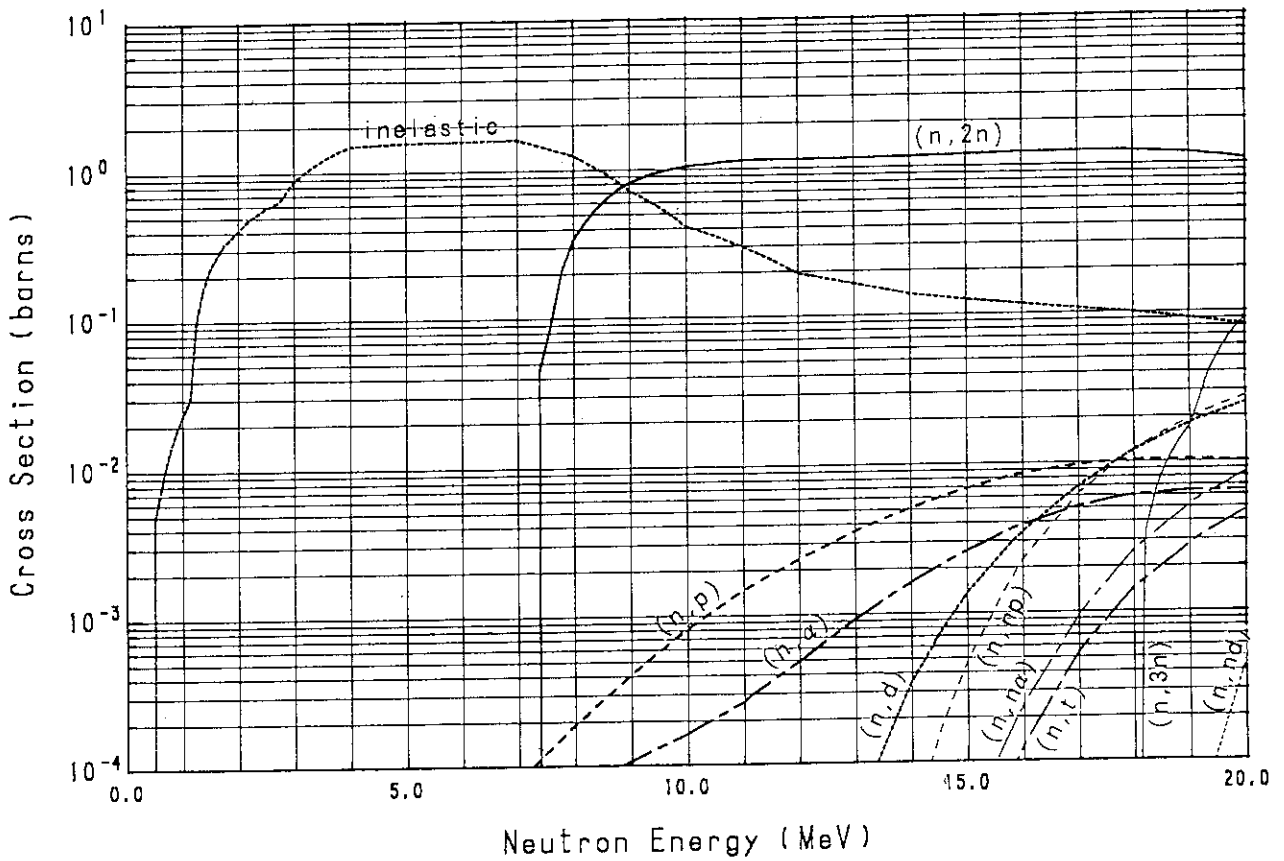
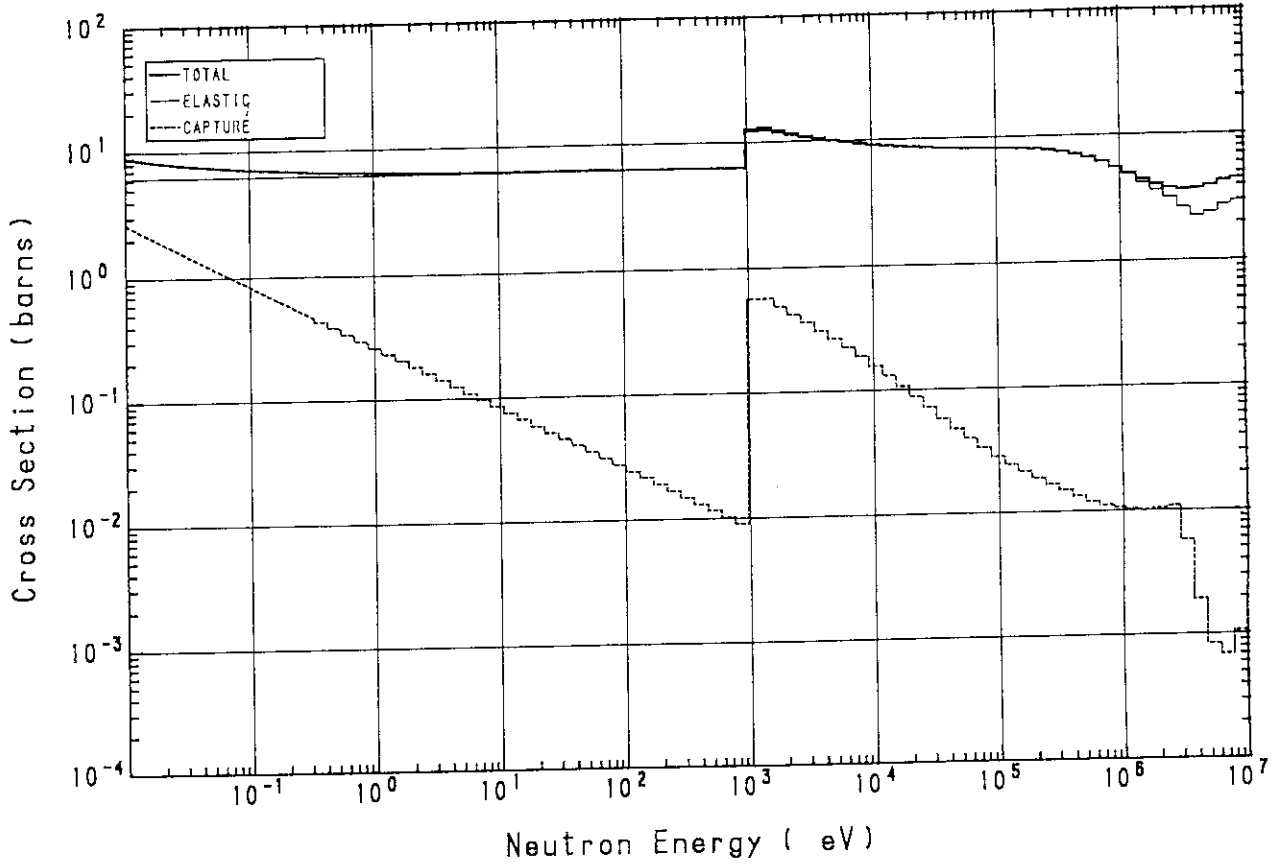


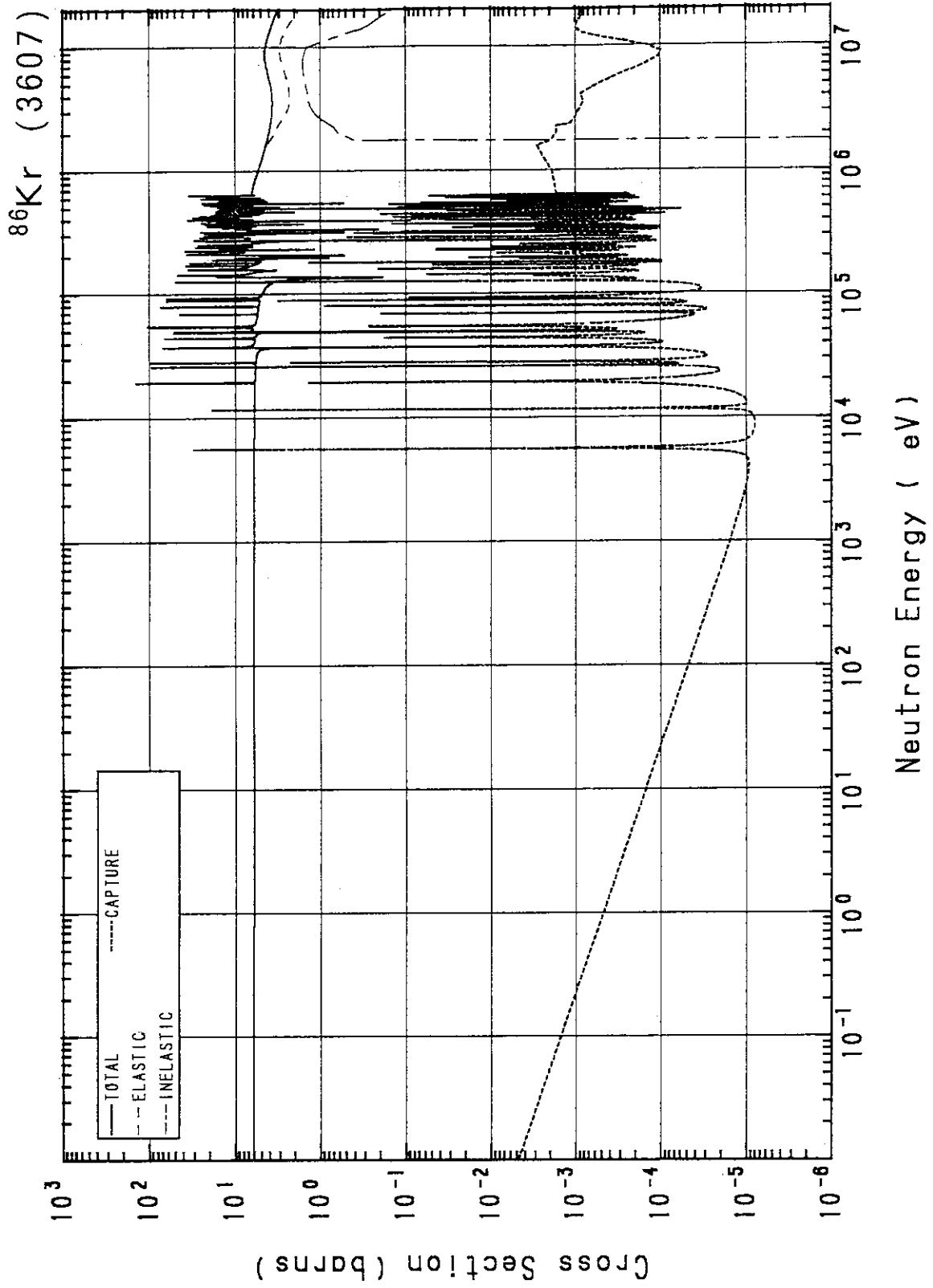
^{84}Kr (3605)



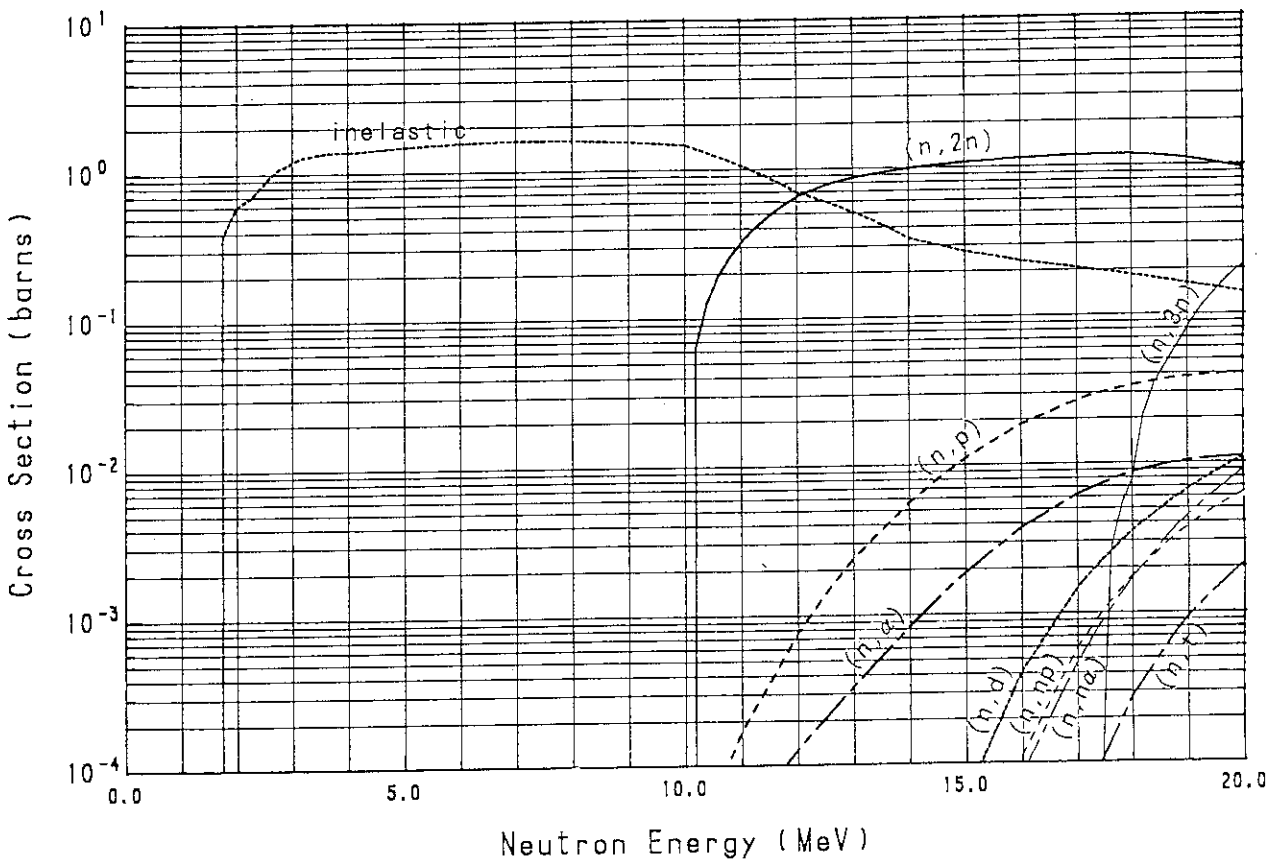
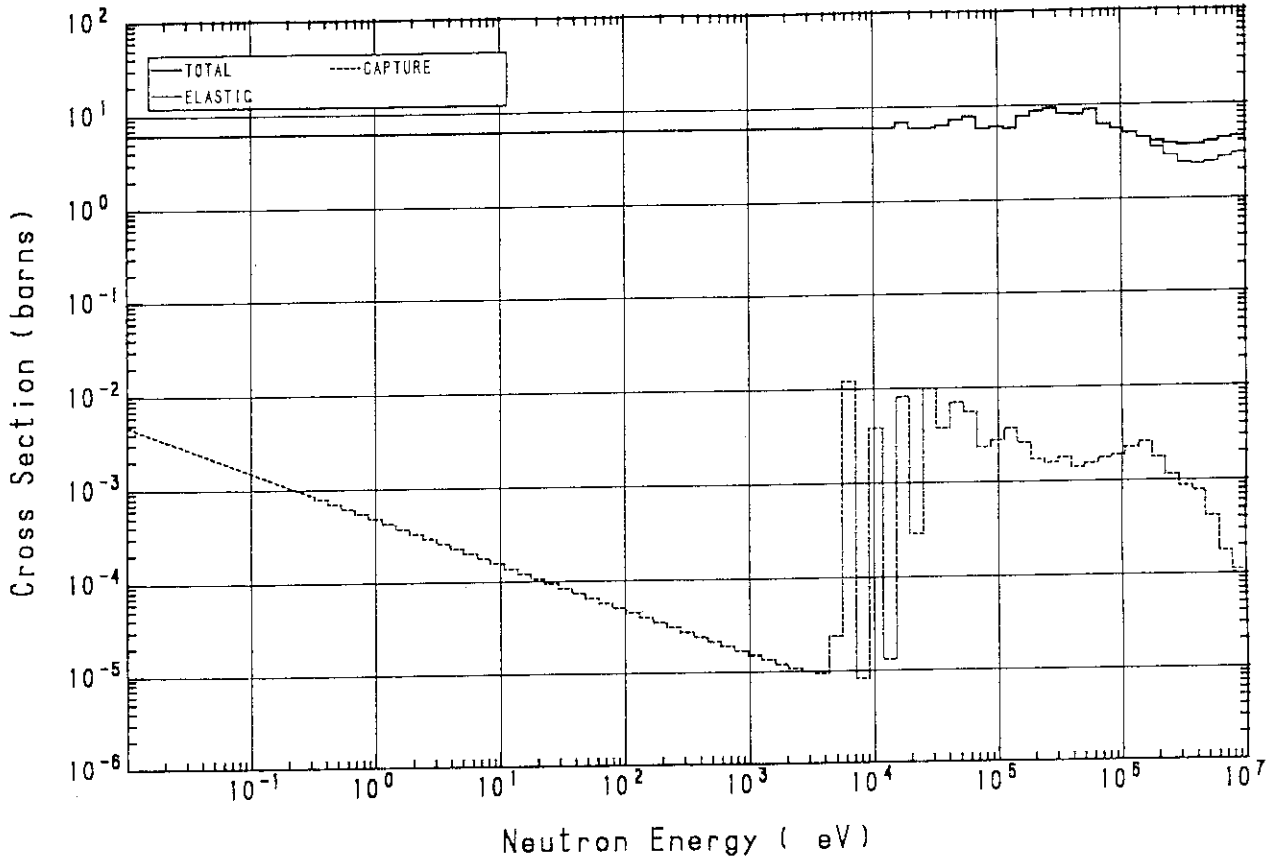


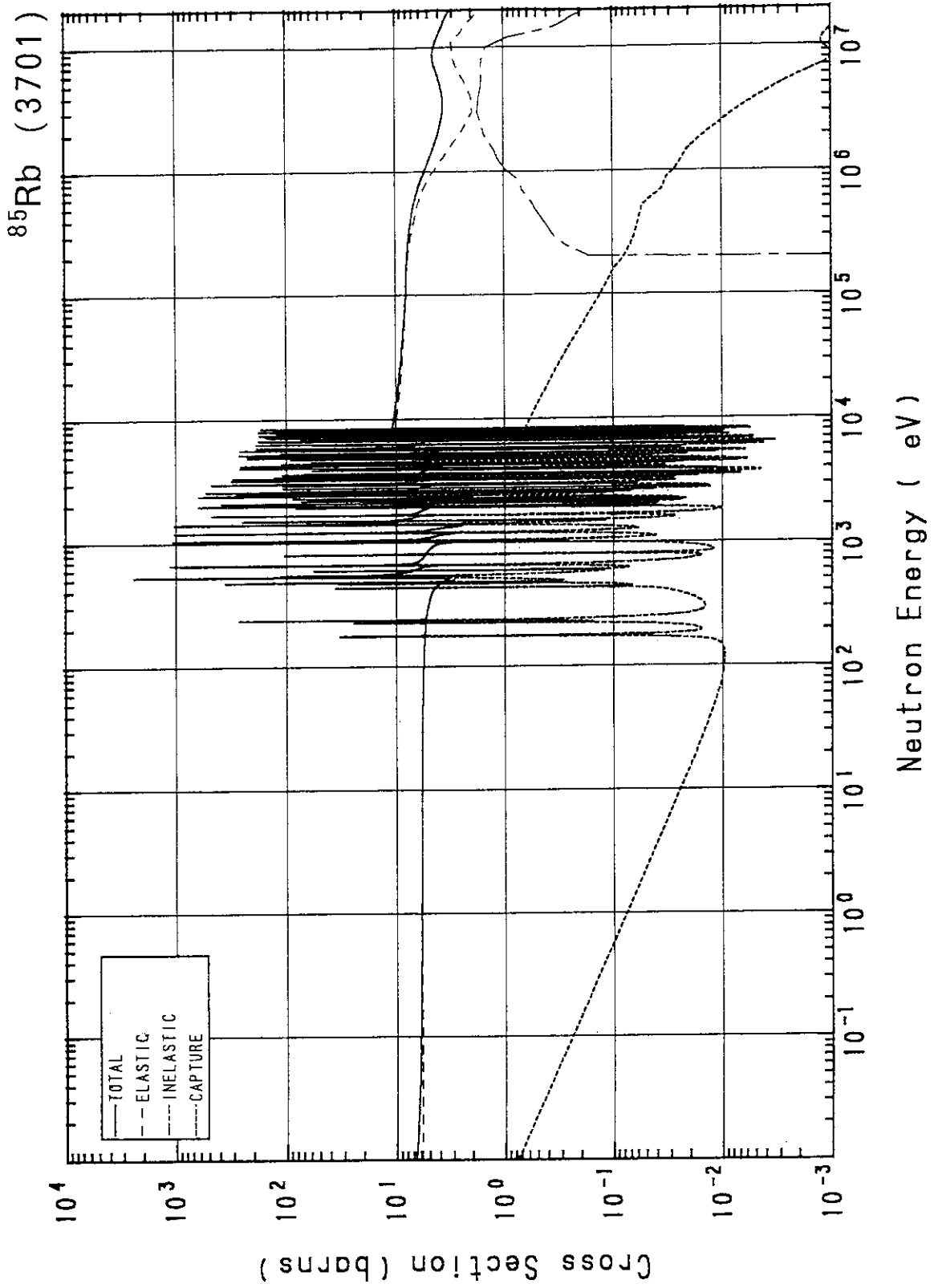
^{85}Kr (3606)



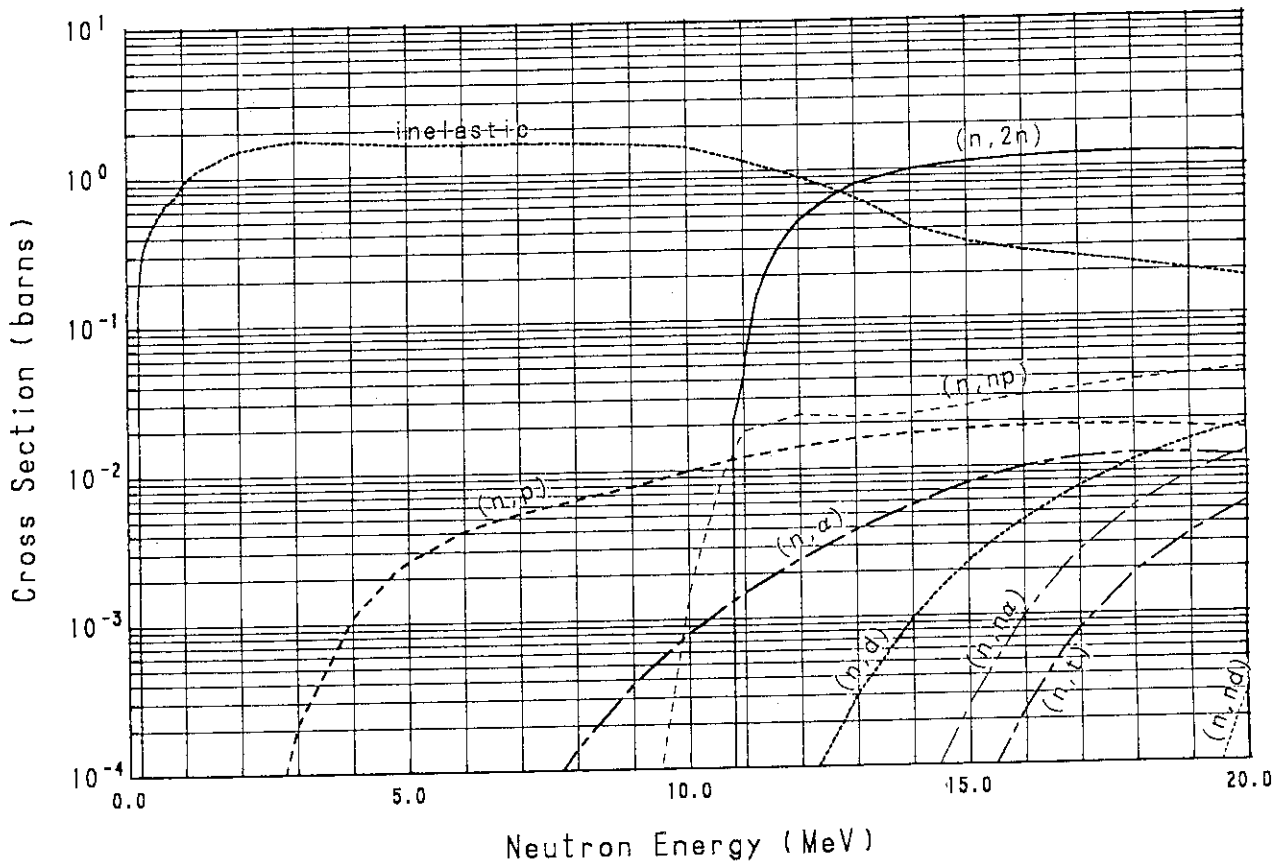
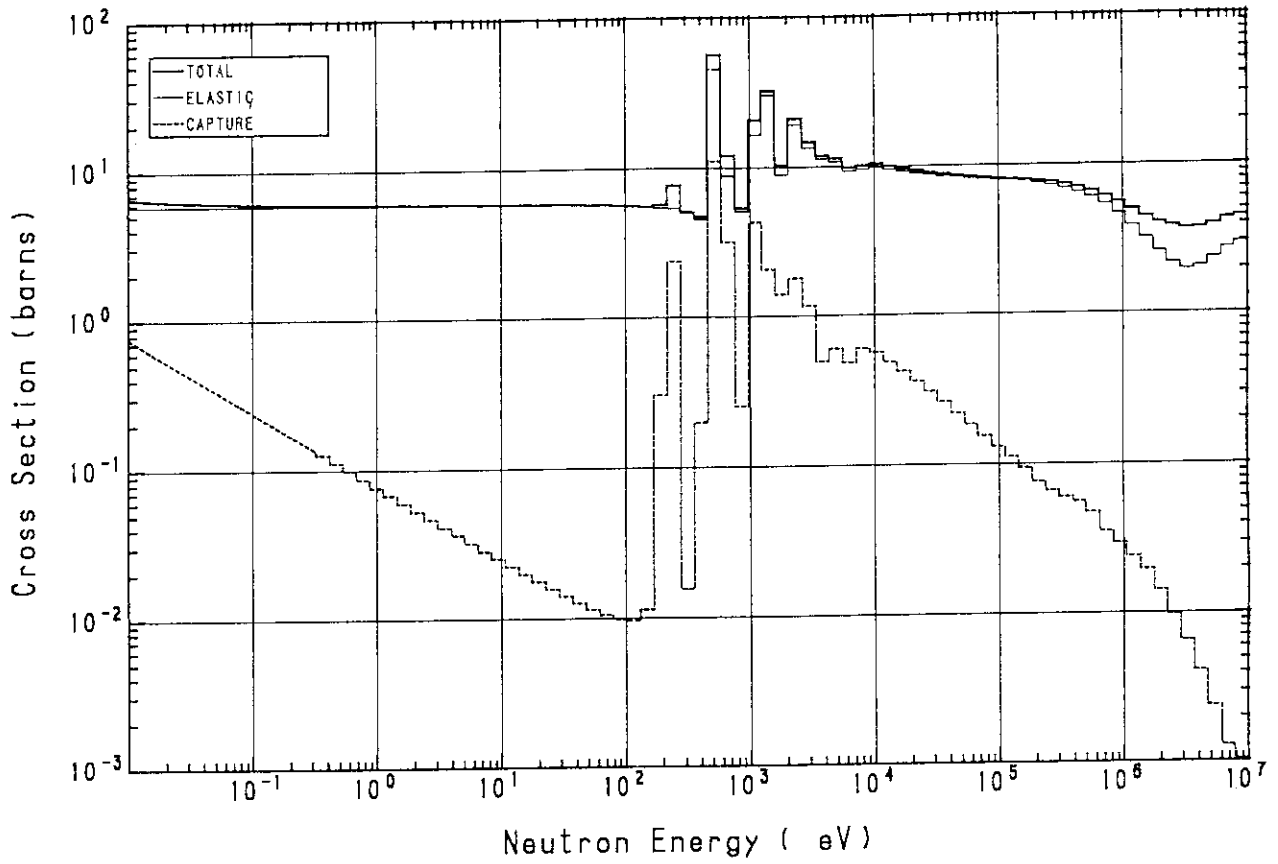


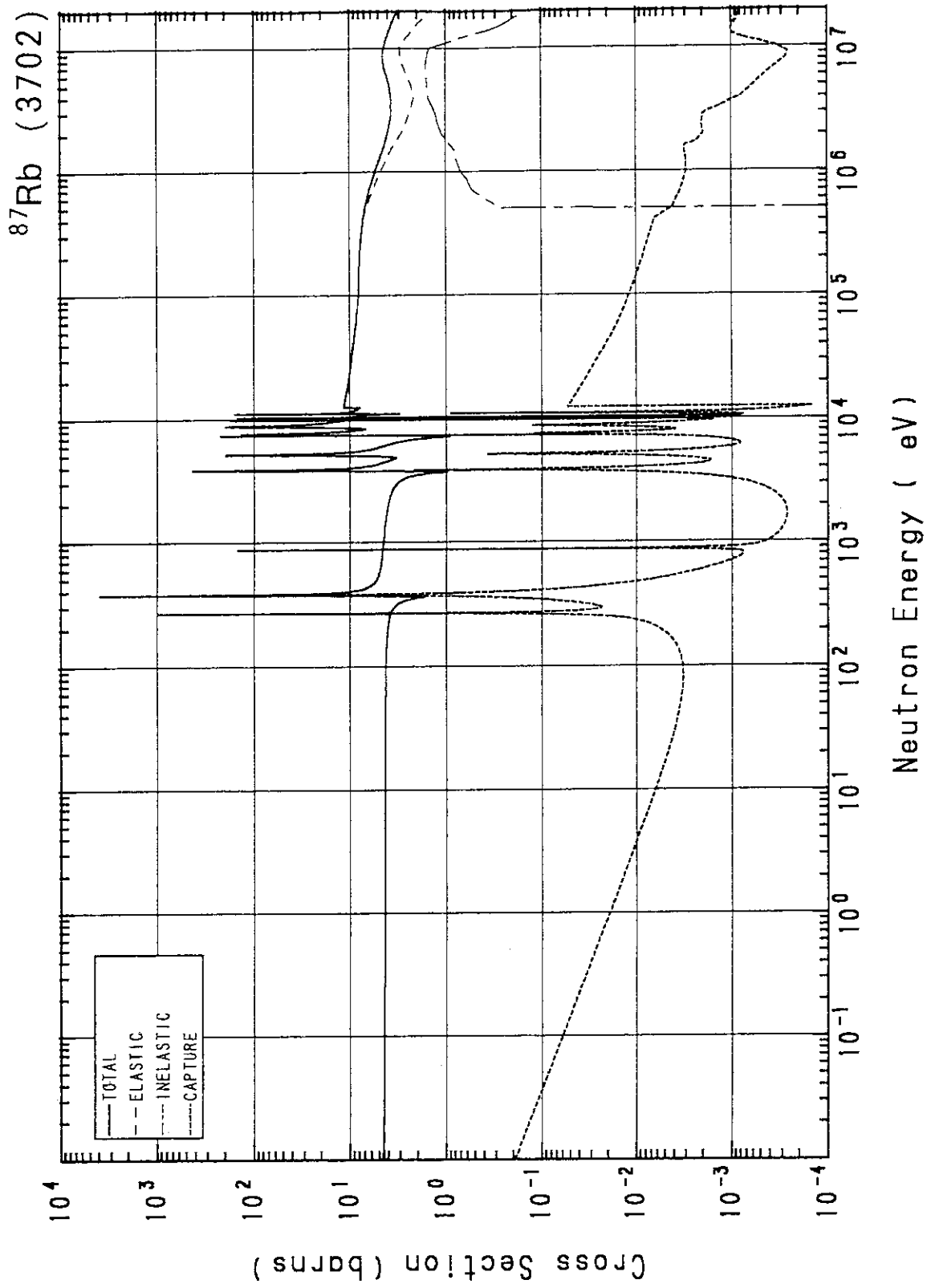
^{86}Kr (3607)



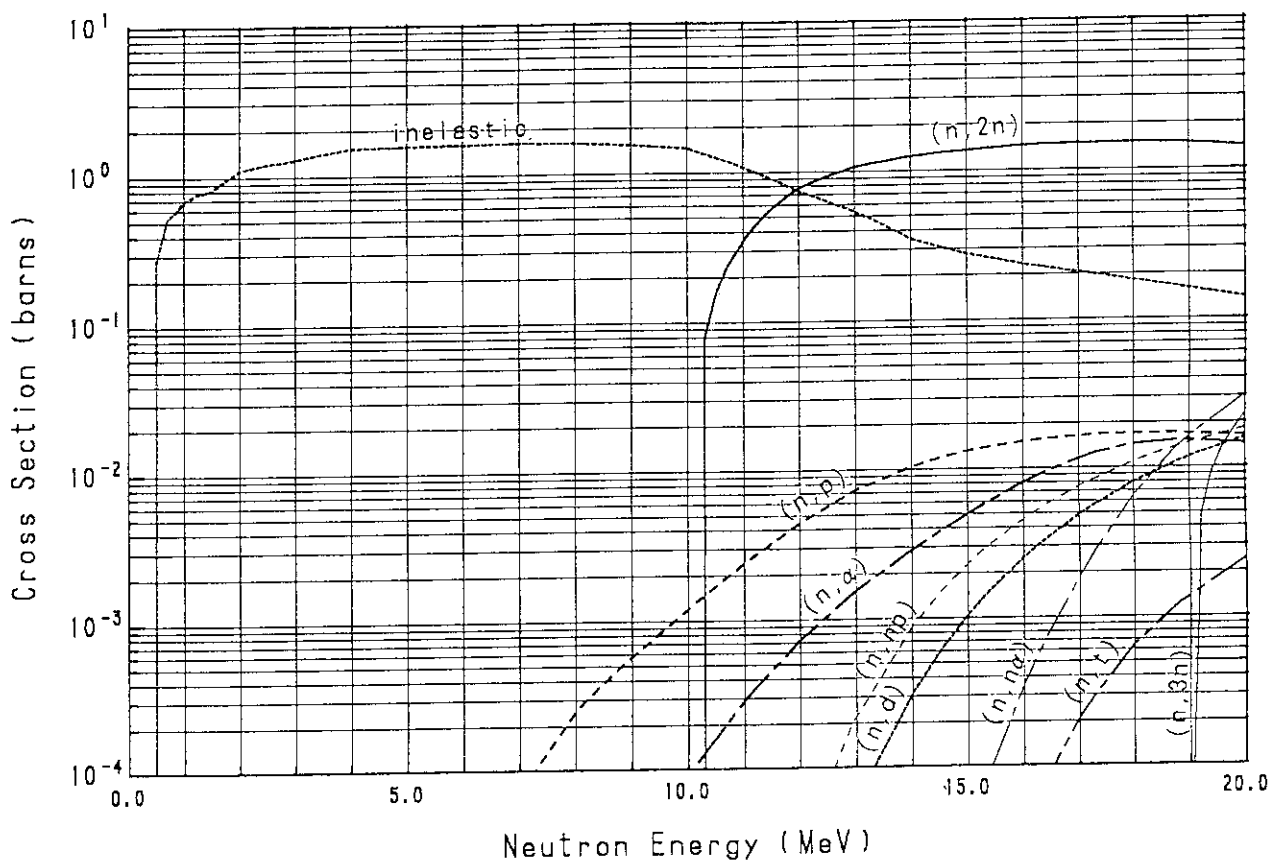
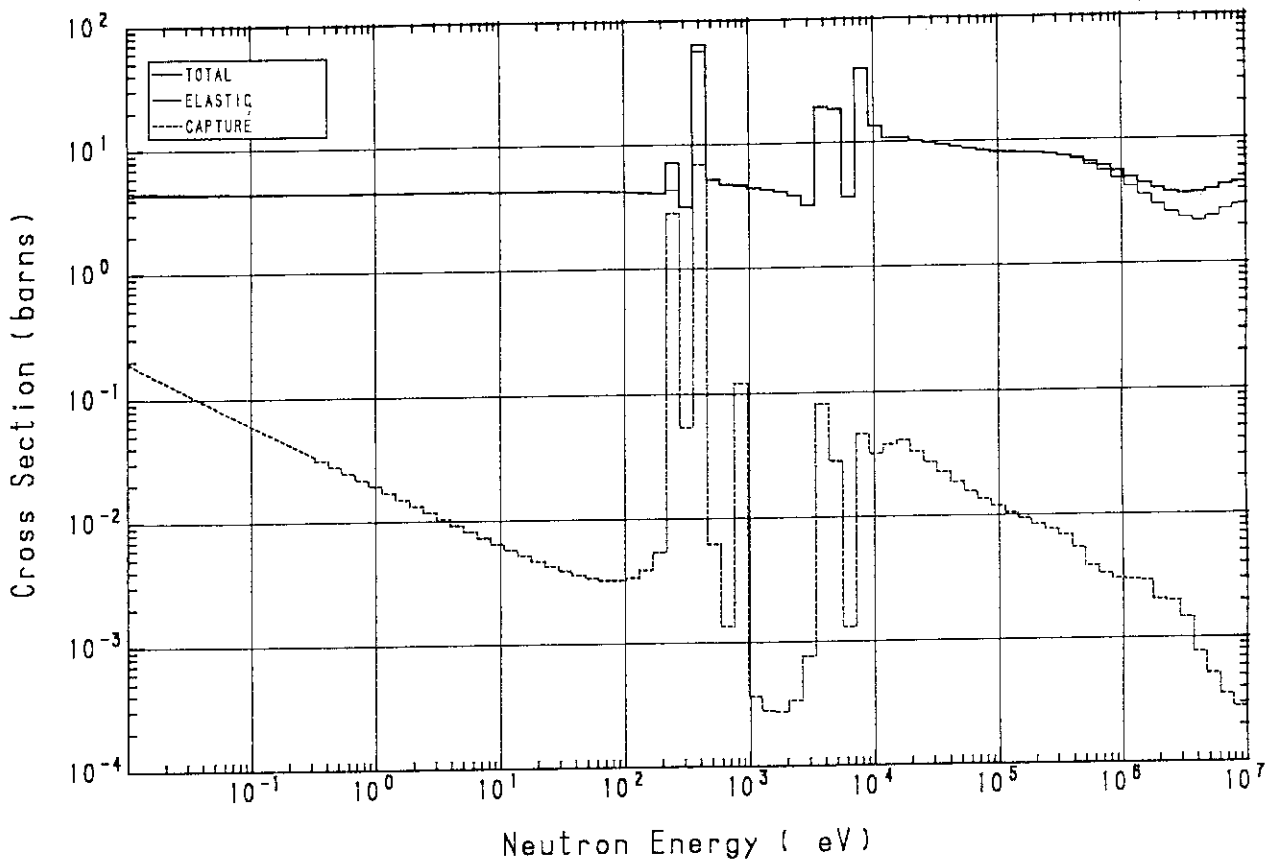


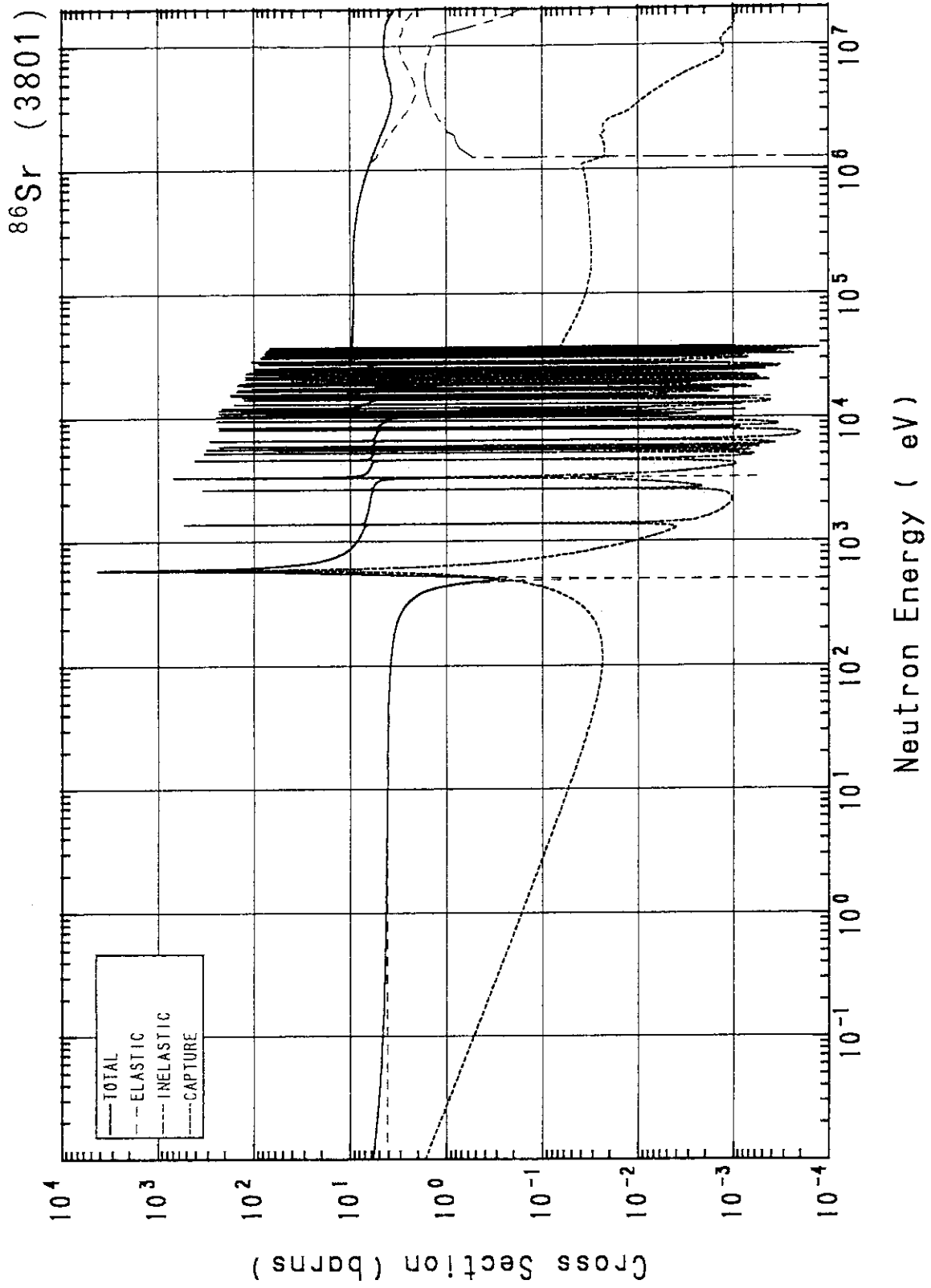
^{85}Rb (3701)



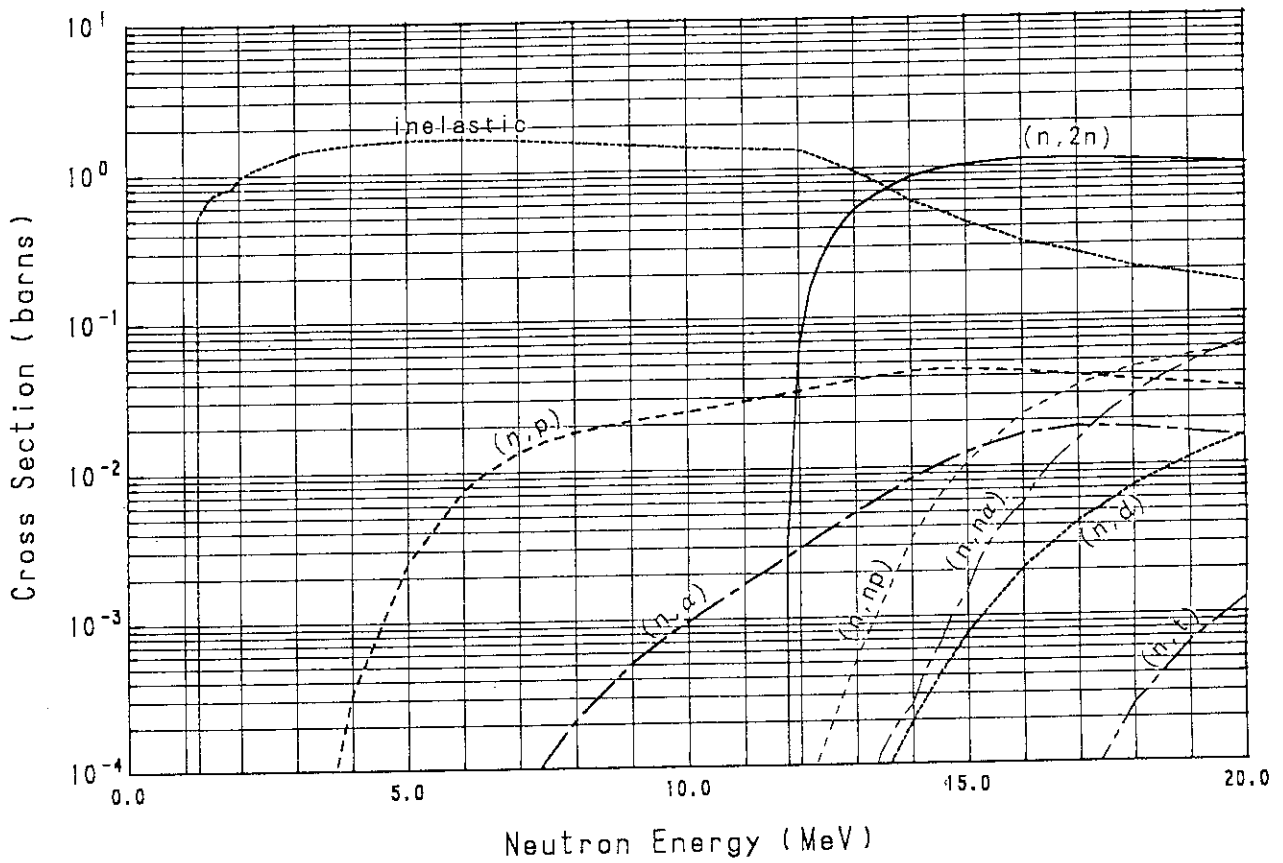
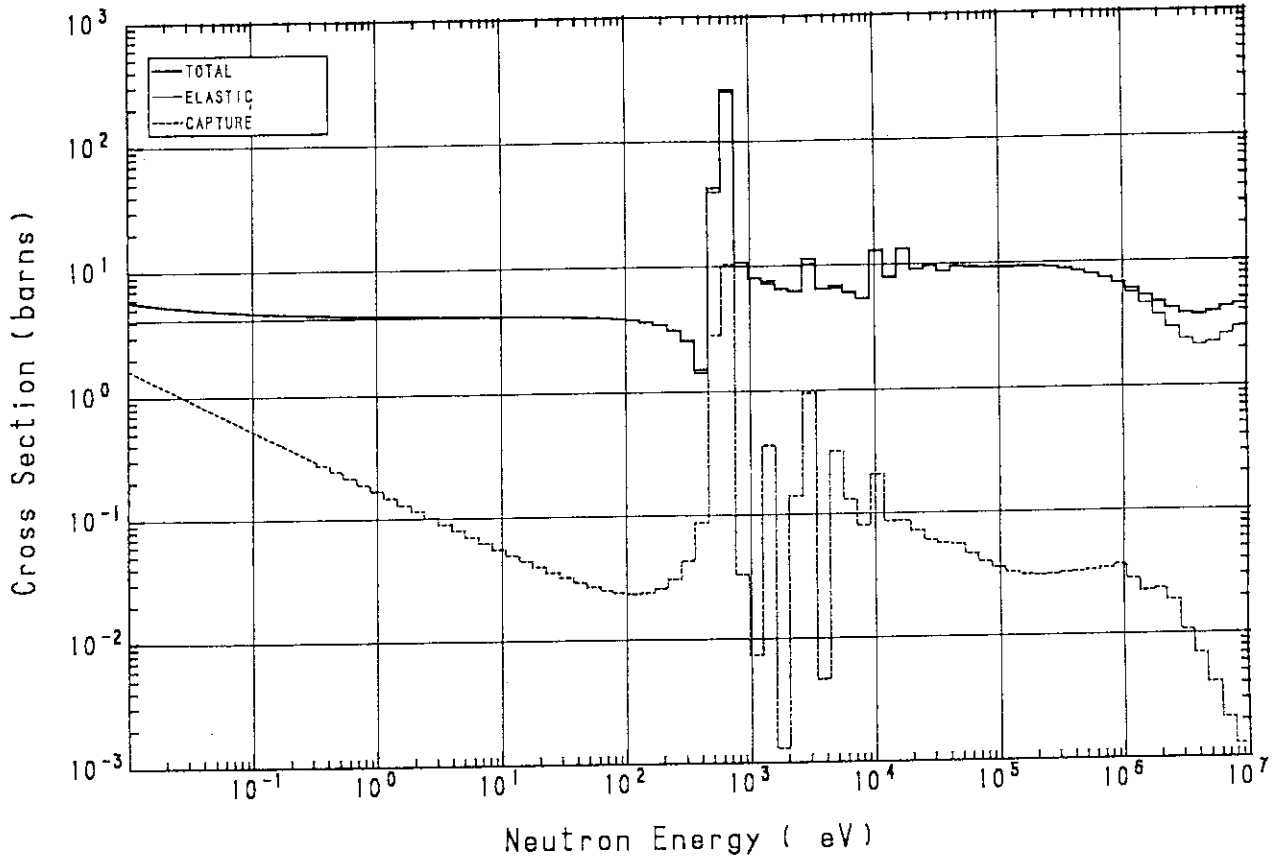


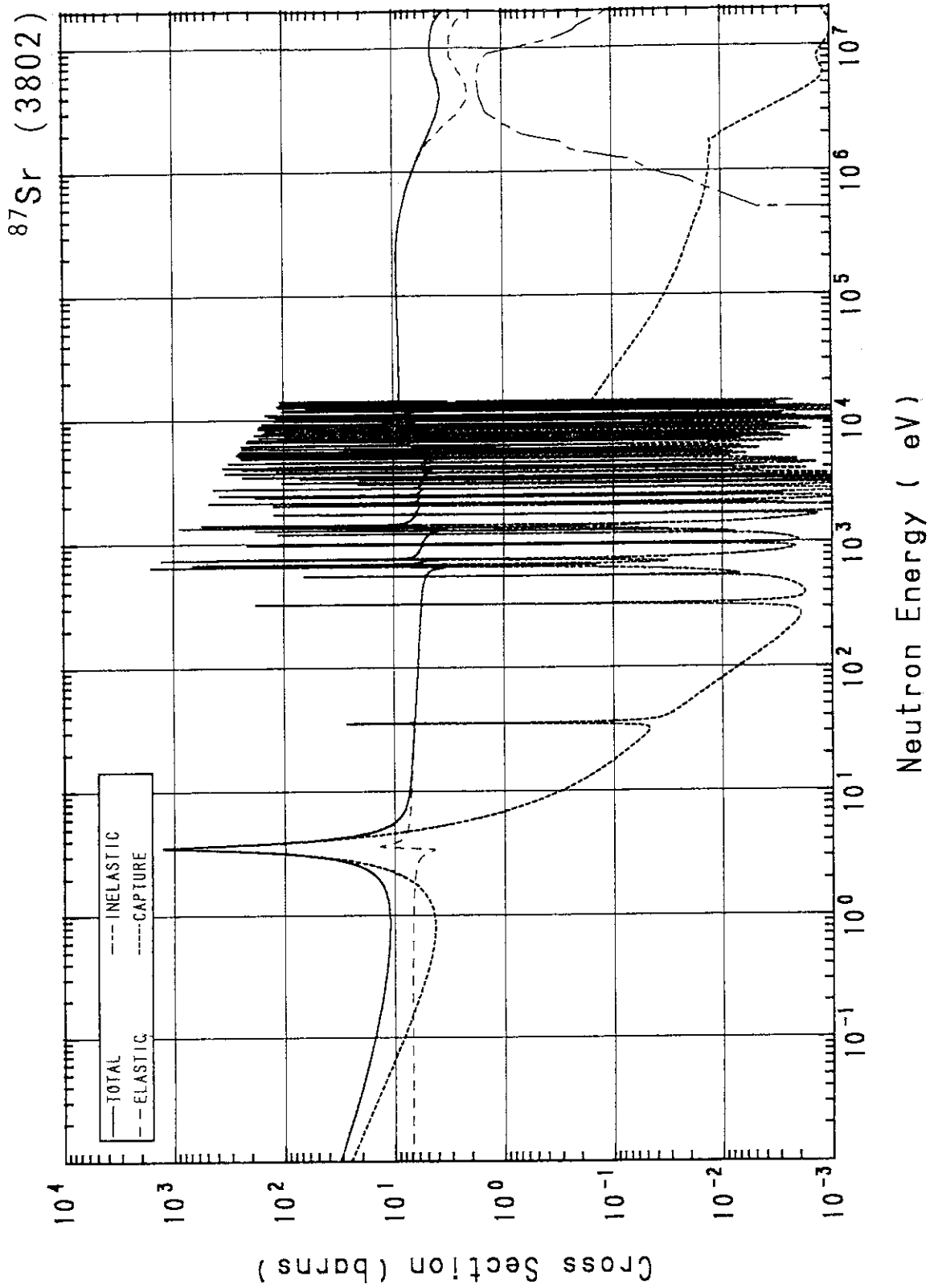
⁸⁷Rb (3702)



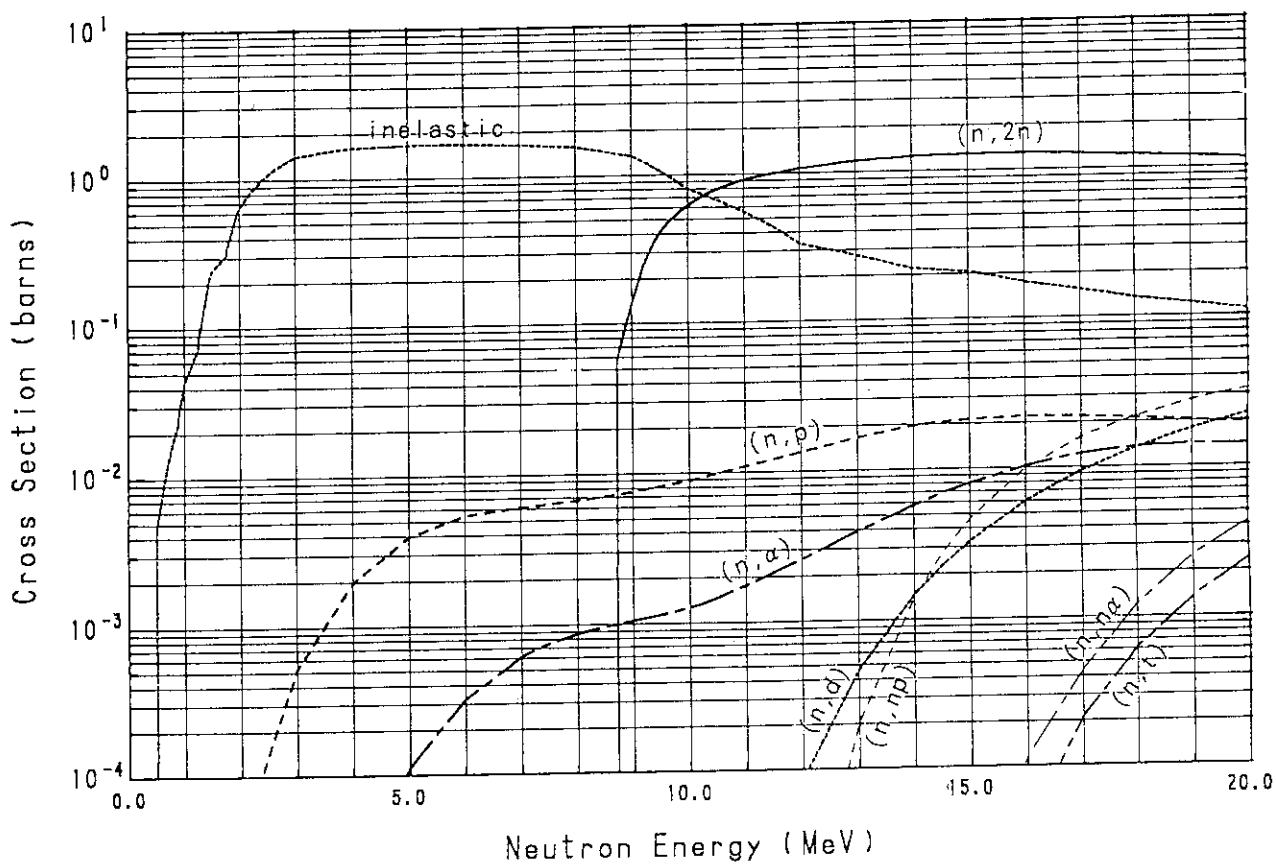
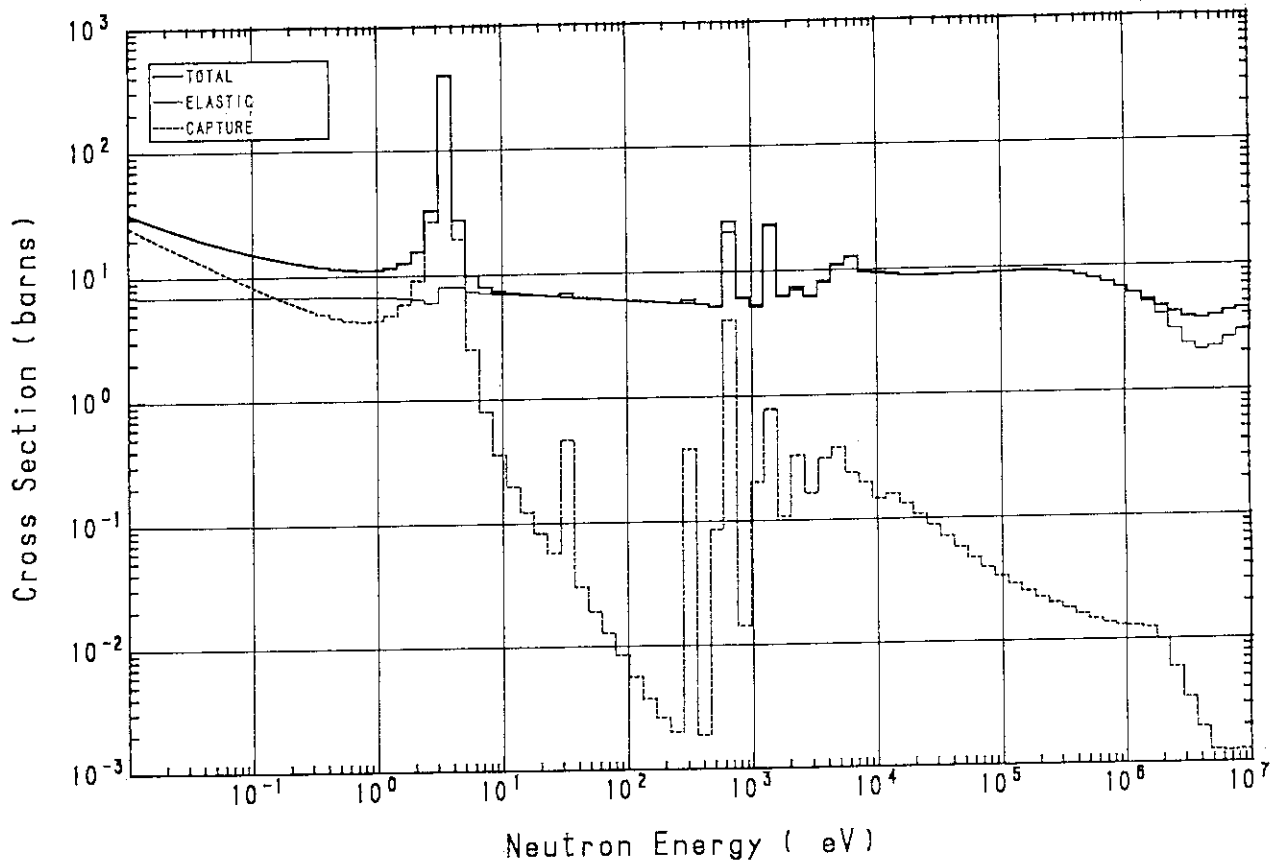


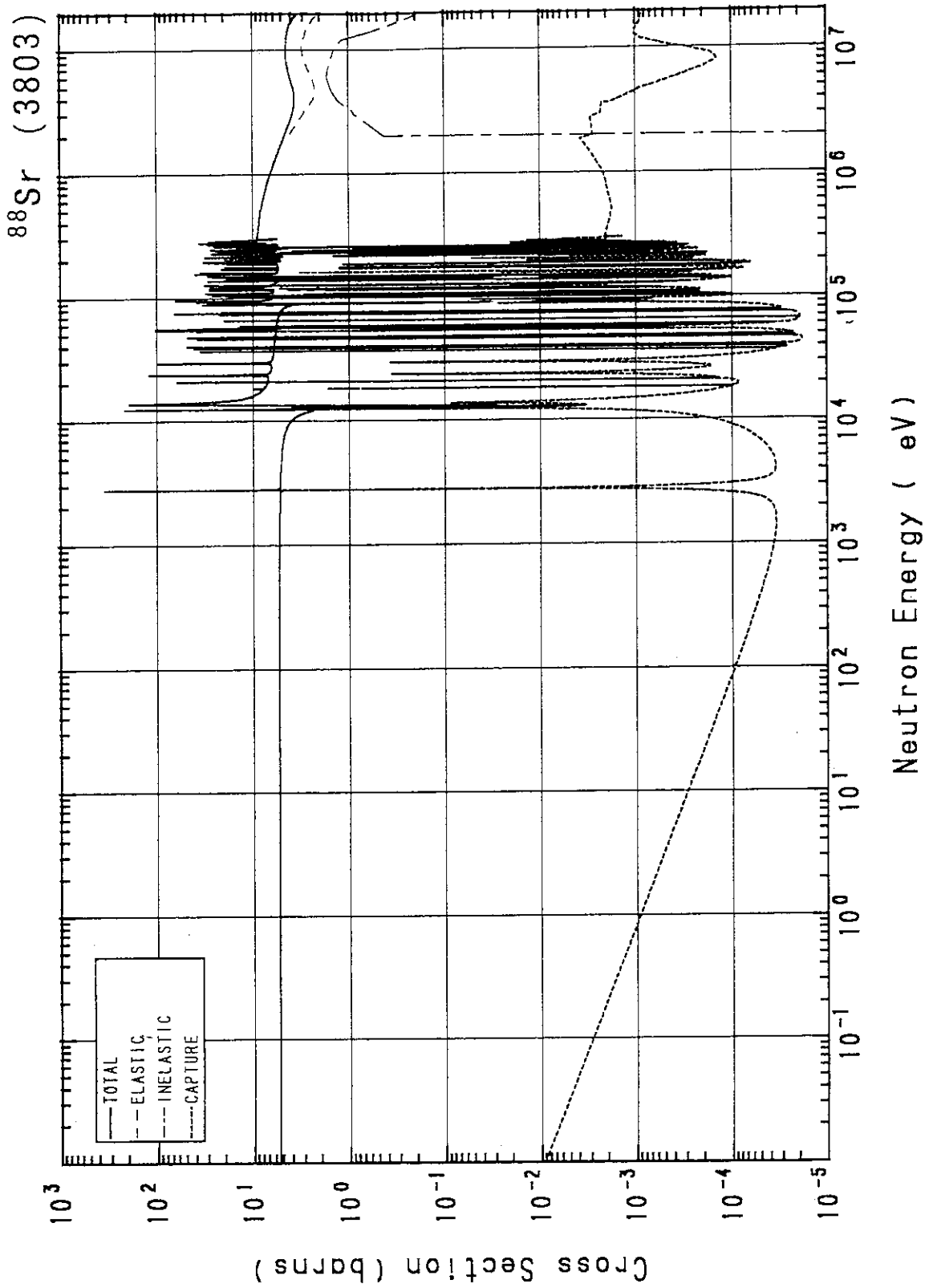
^{86}Sr (3801)



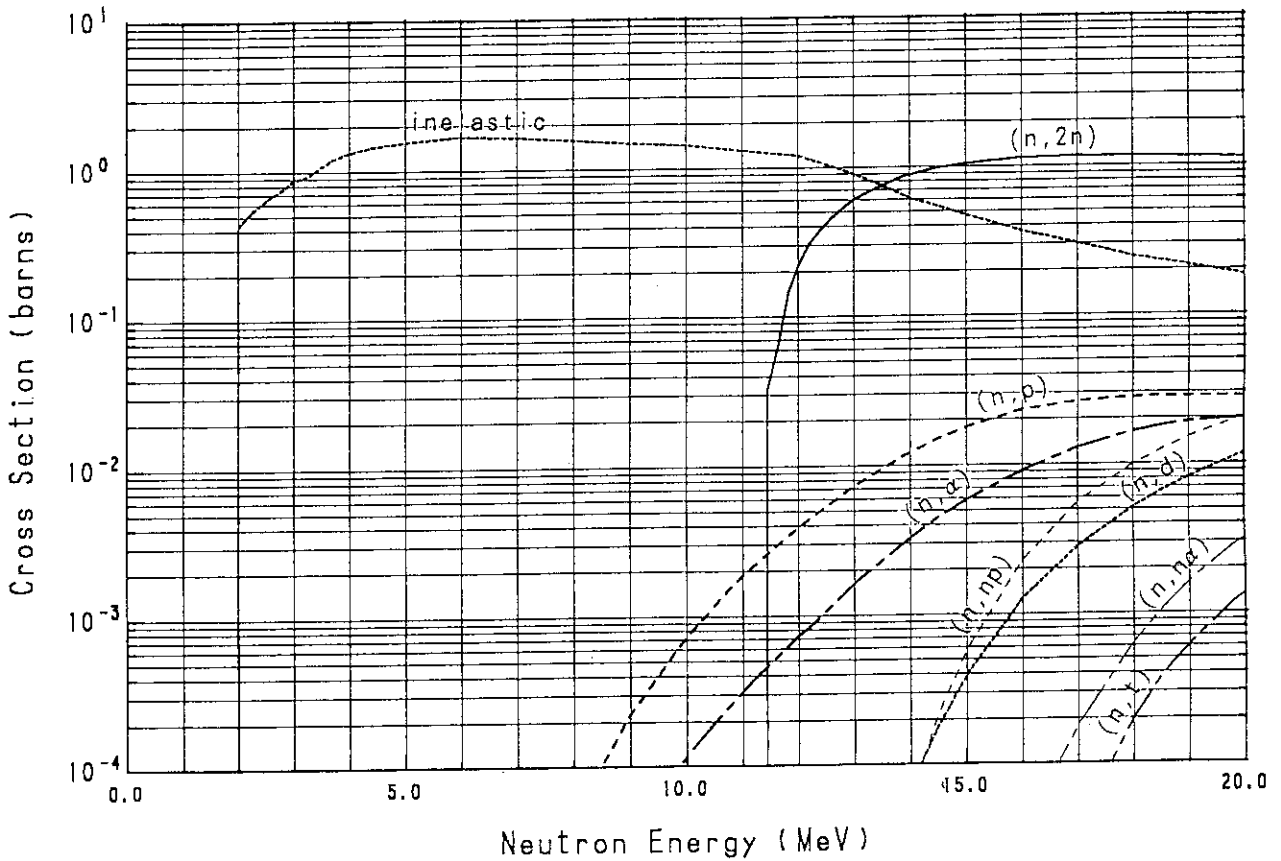
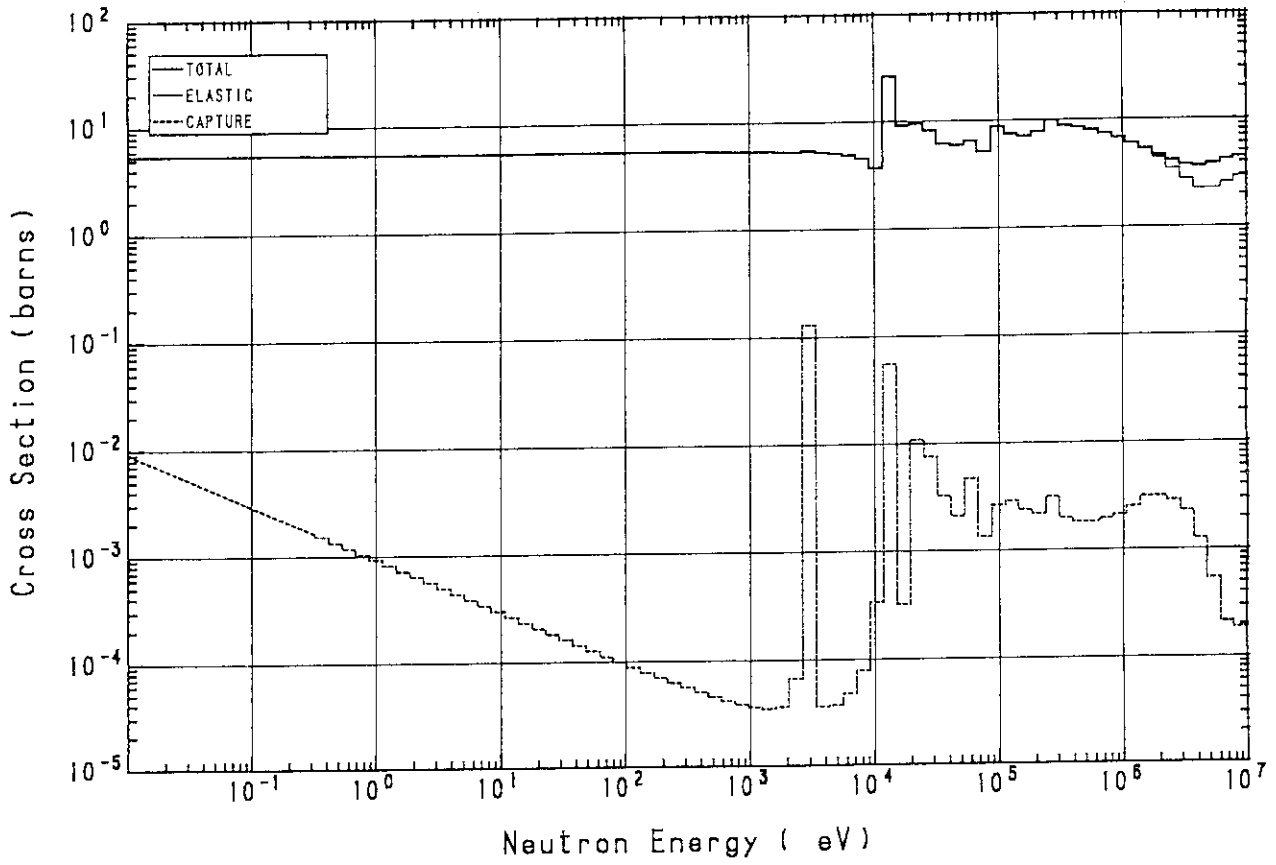


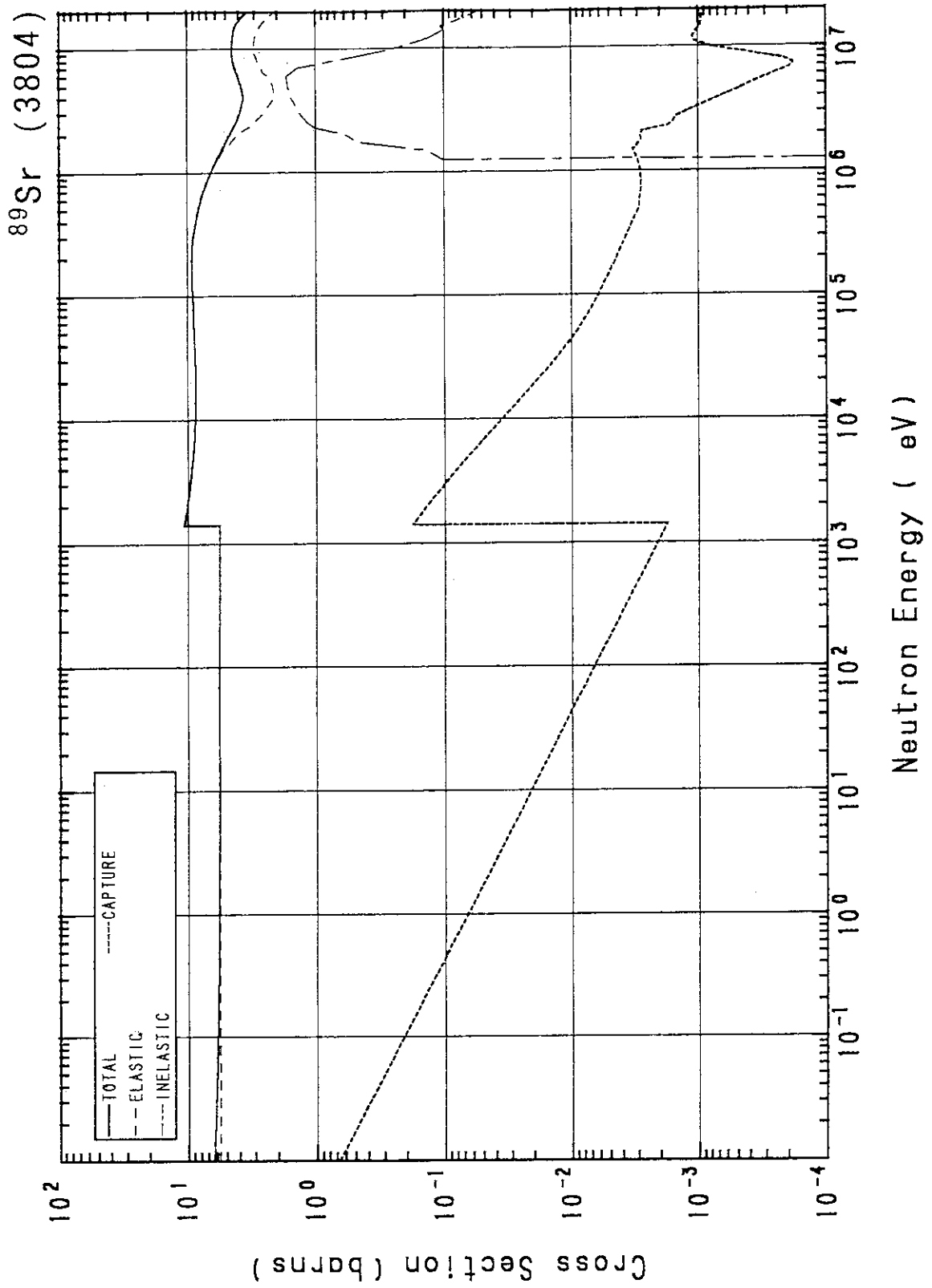
^{87}Sr (3802)



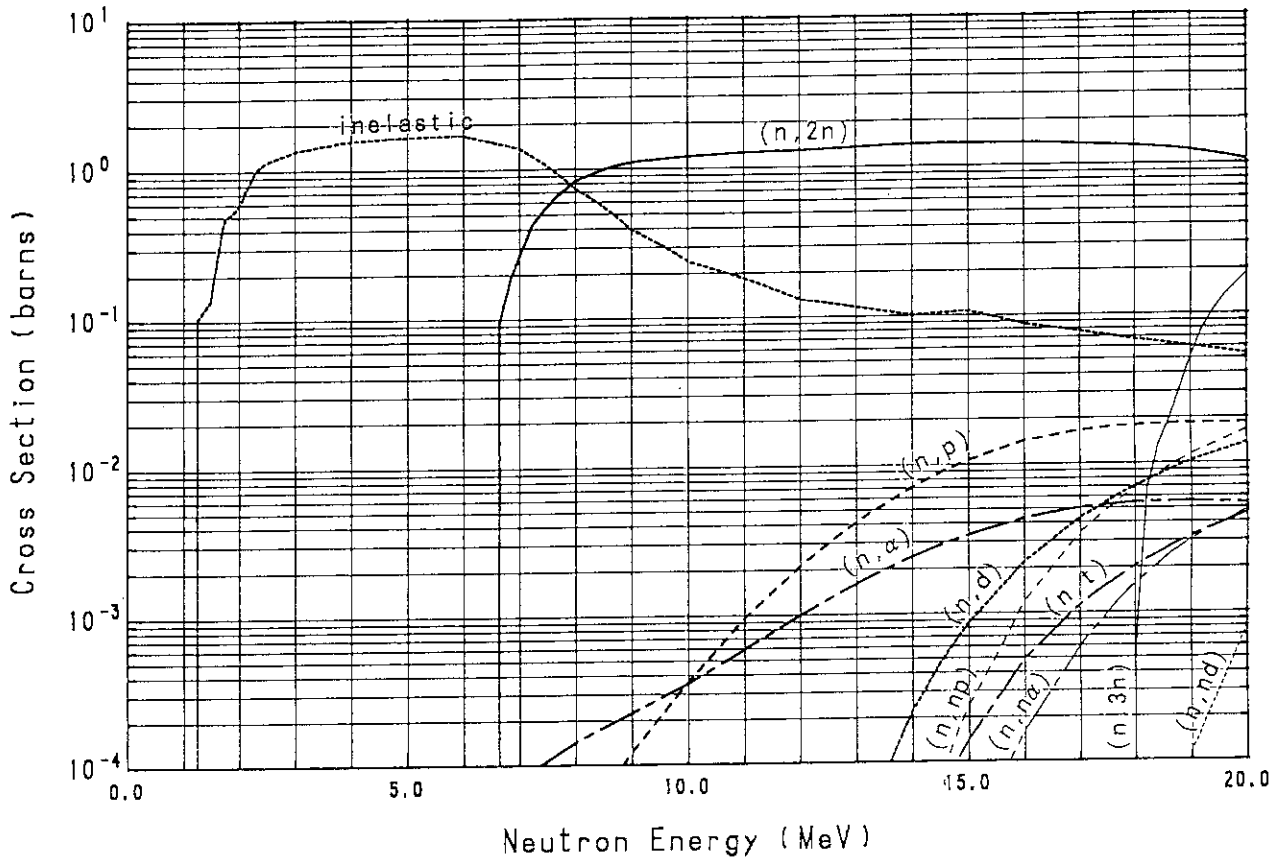
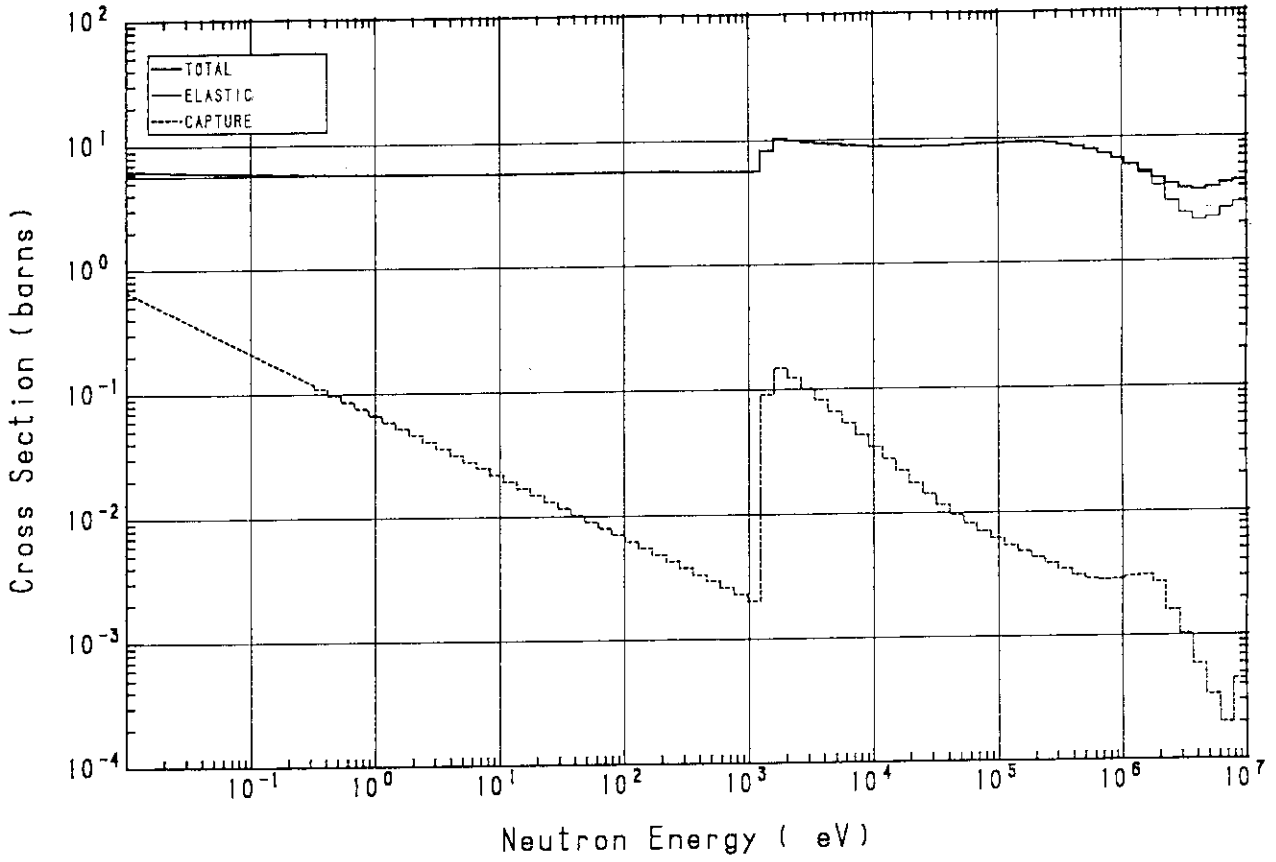


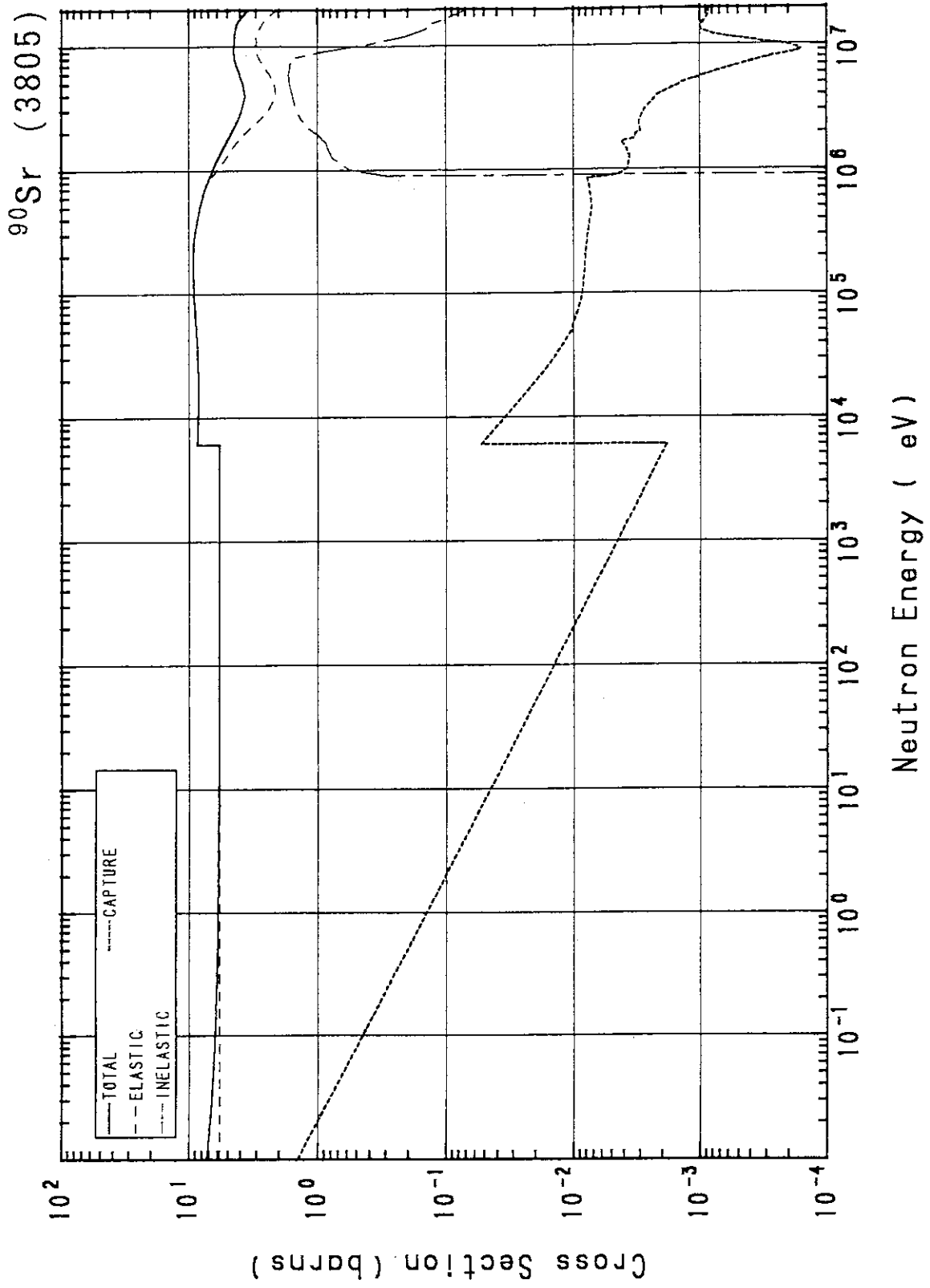
⁸⁸Sr (3803)



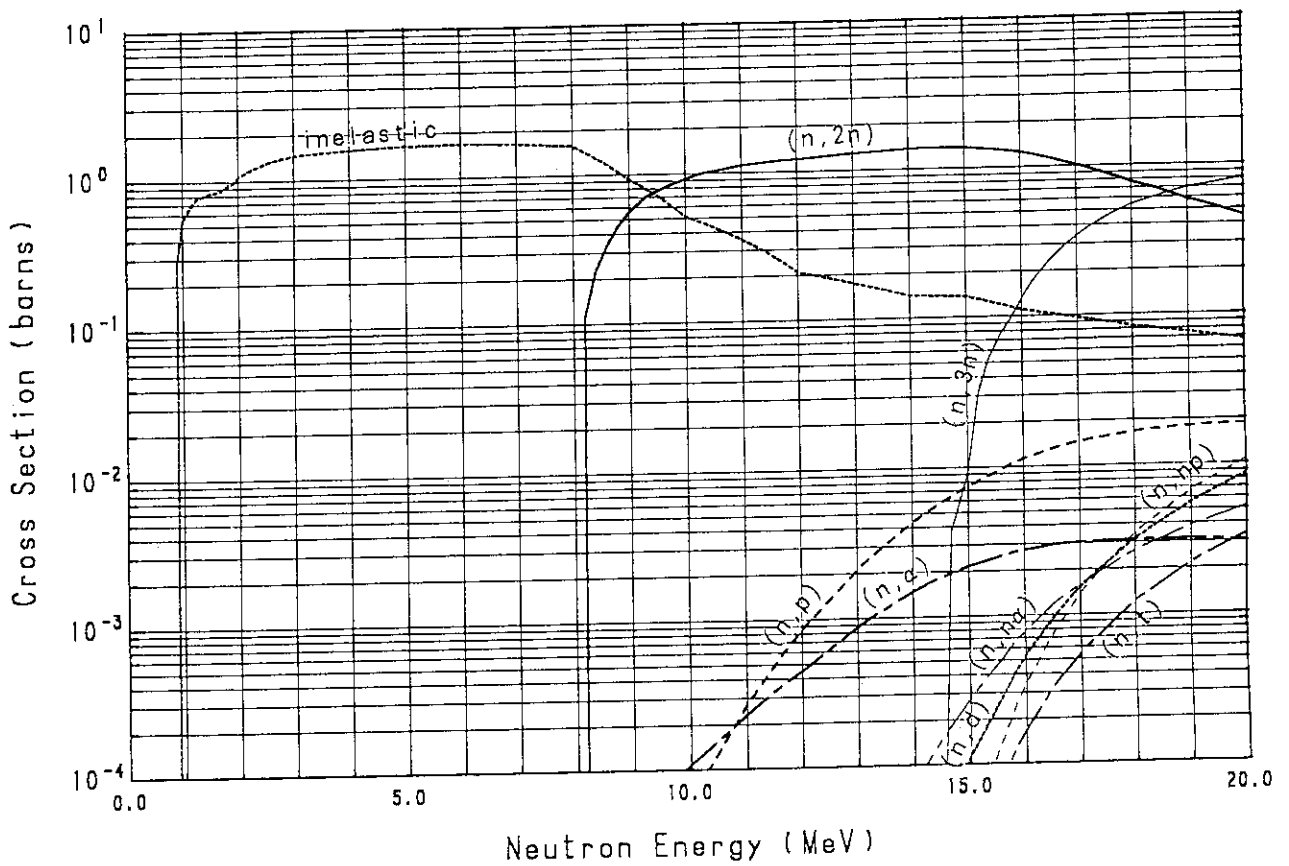
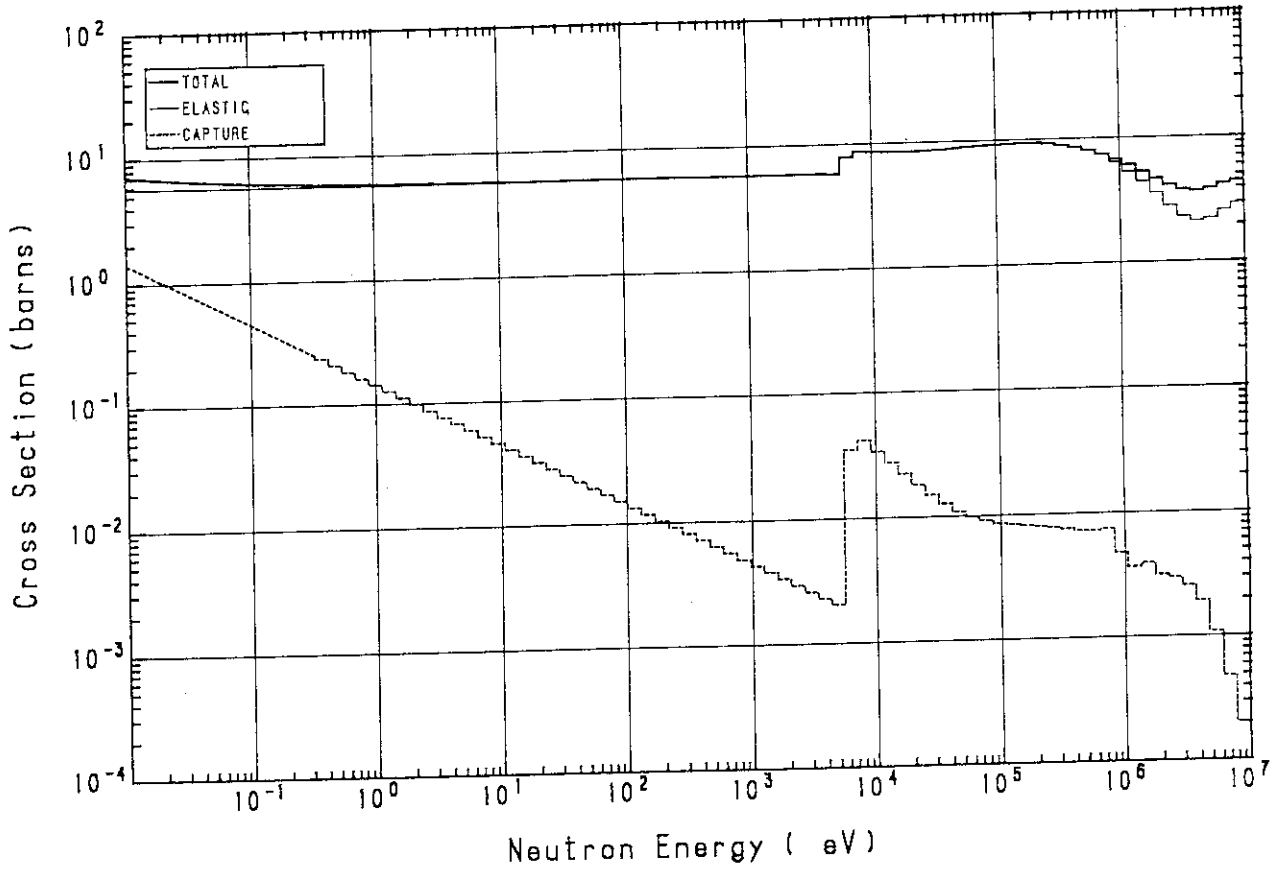


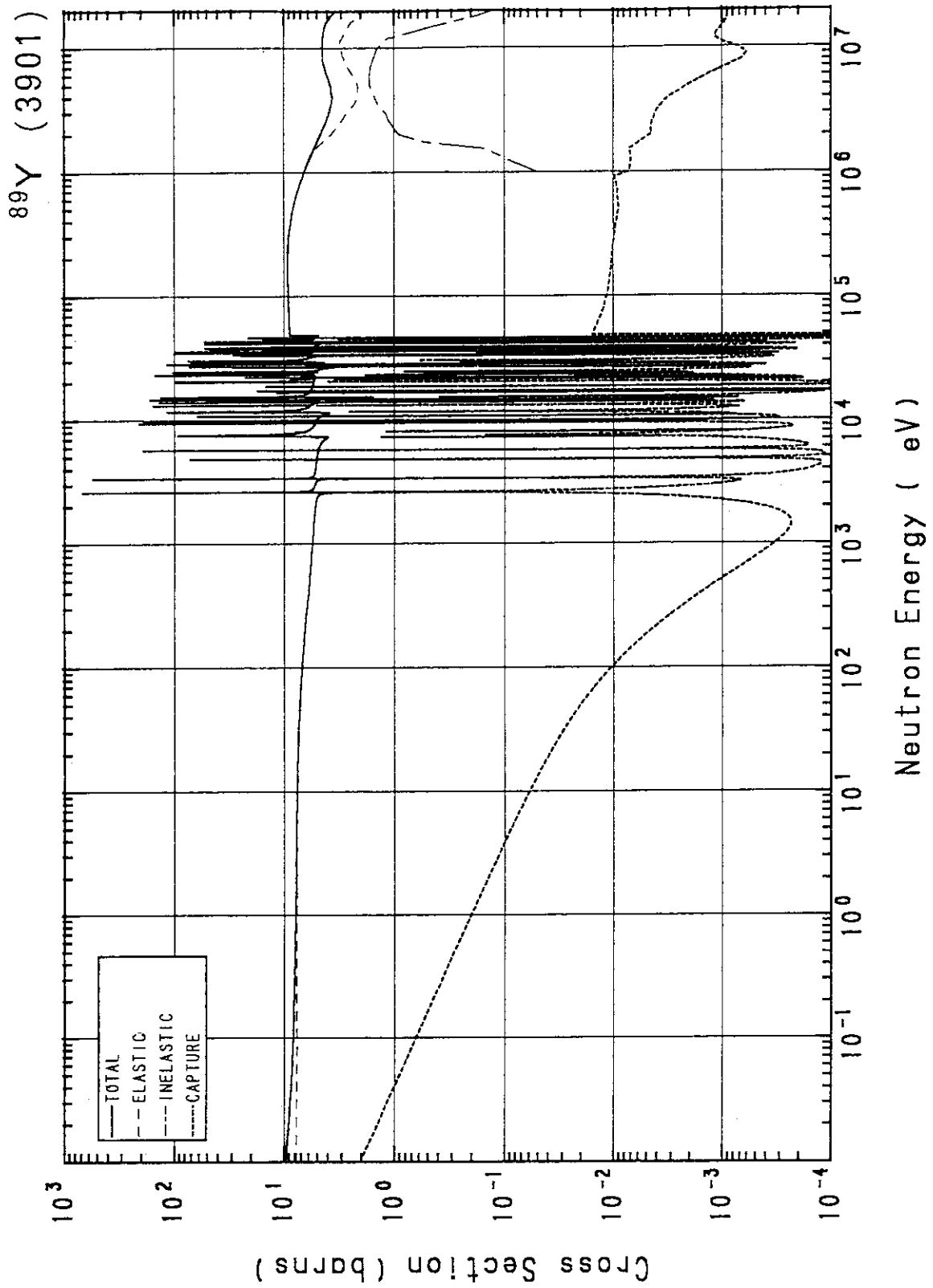
⁸⁹Sr (3804)



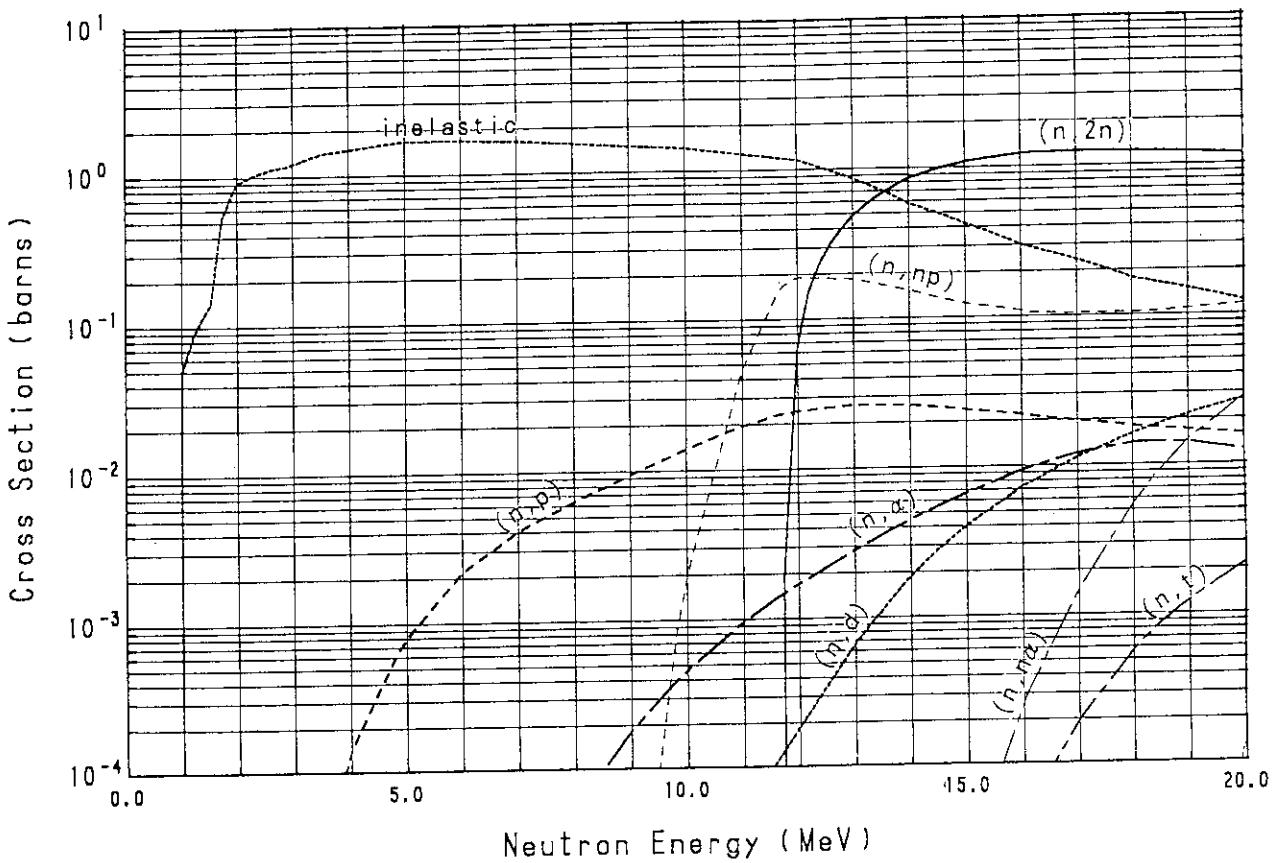
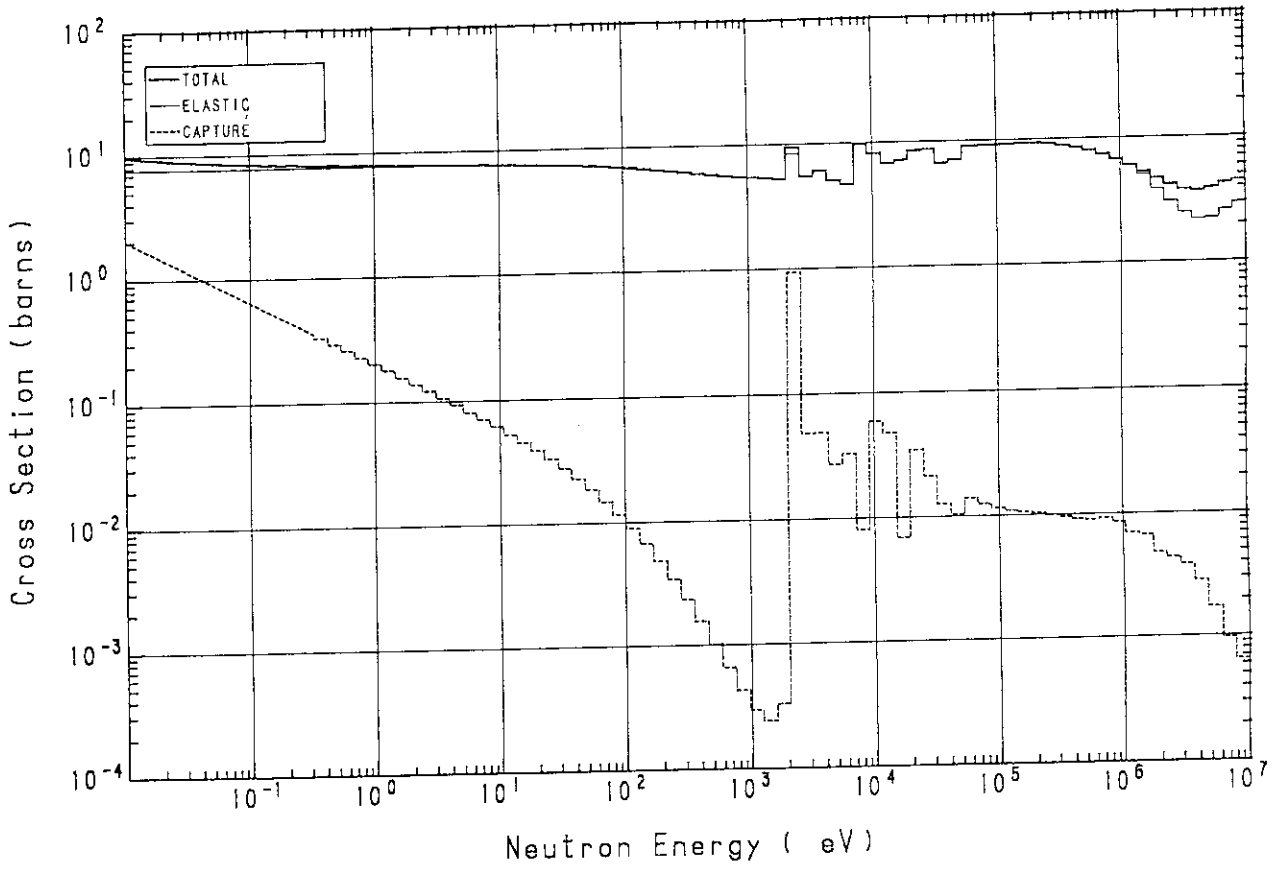


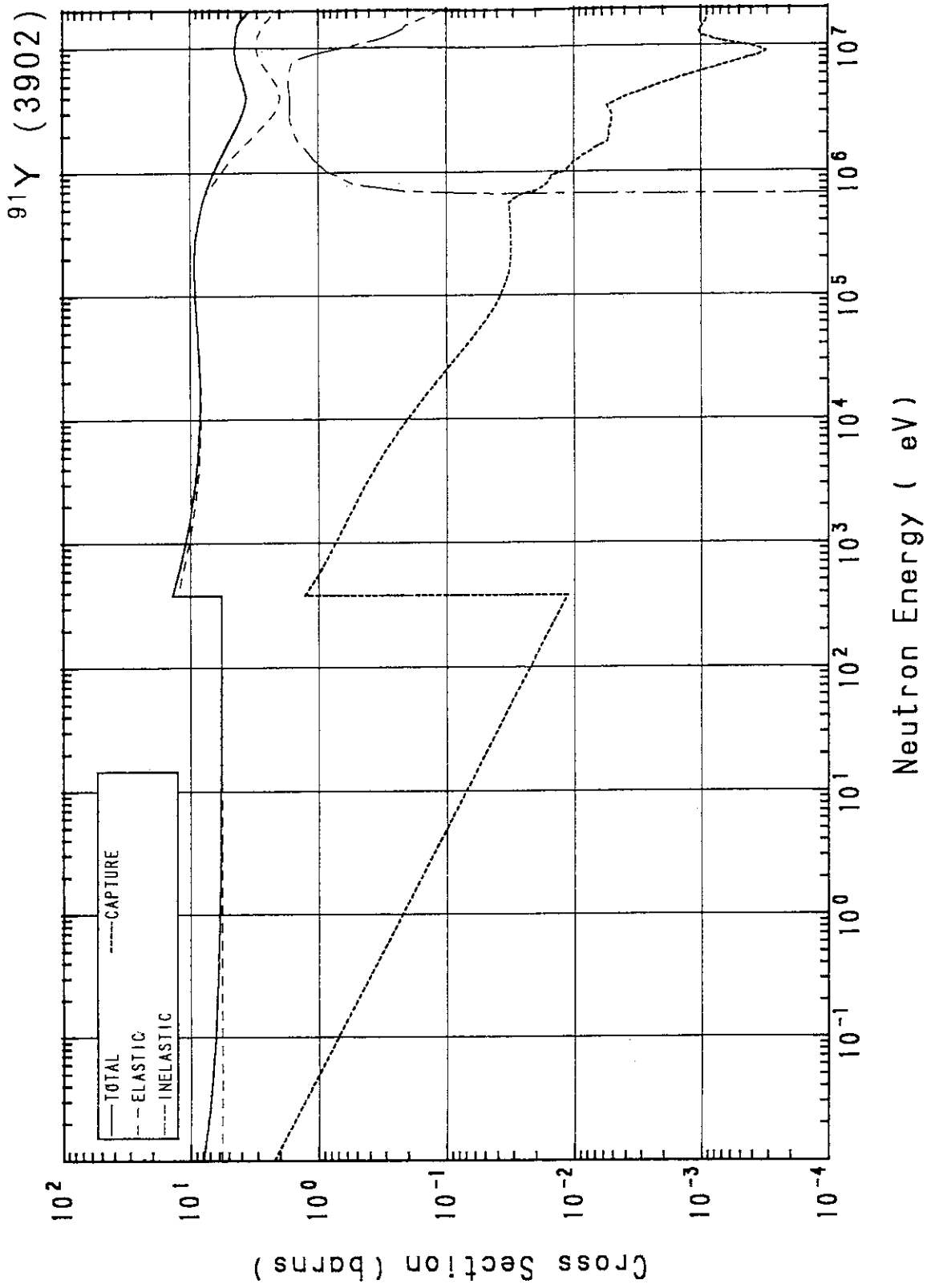
^{90}Sr (3805)



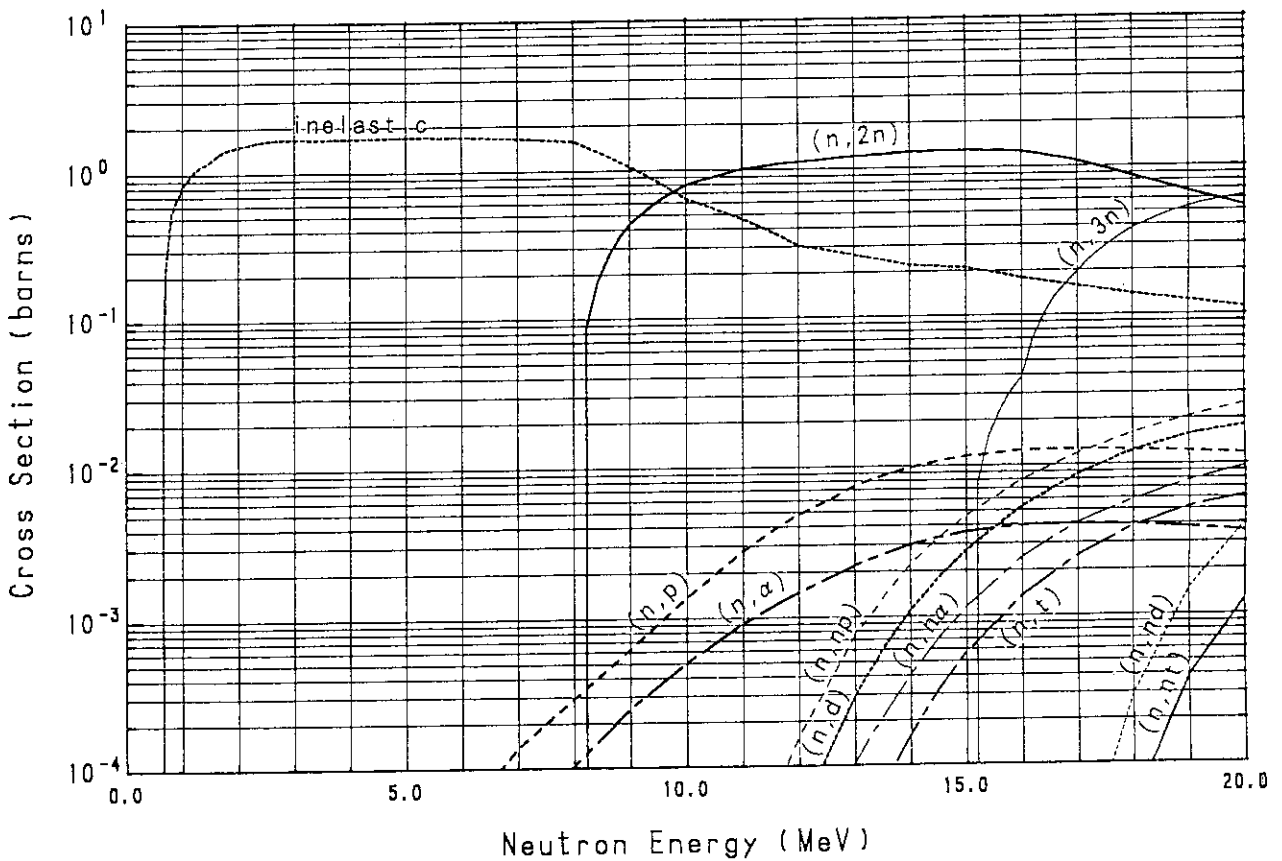
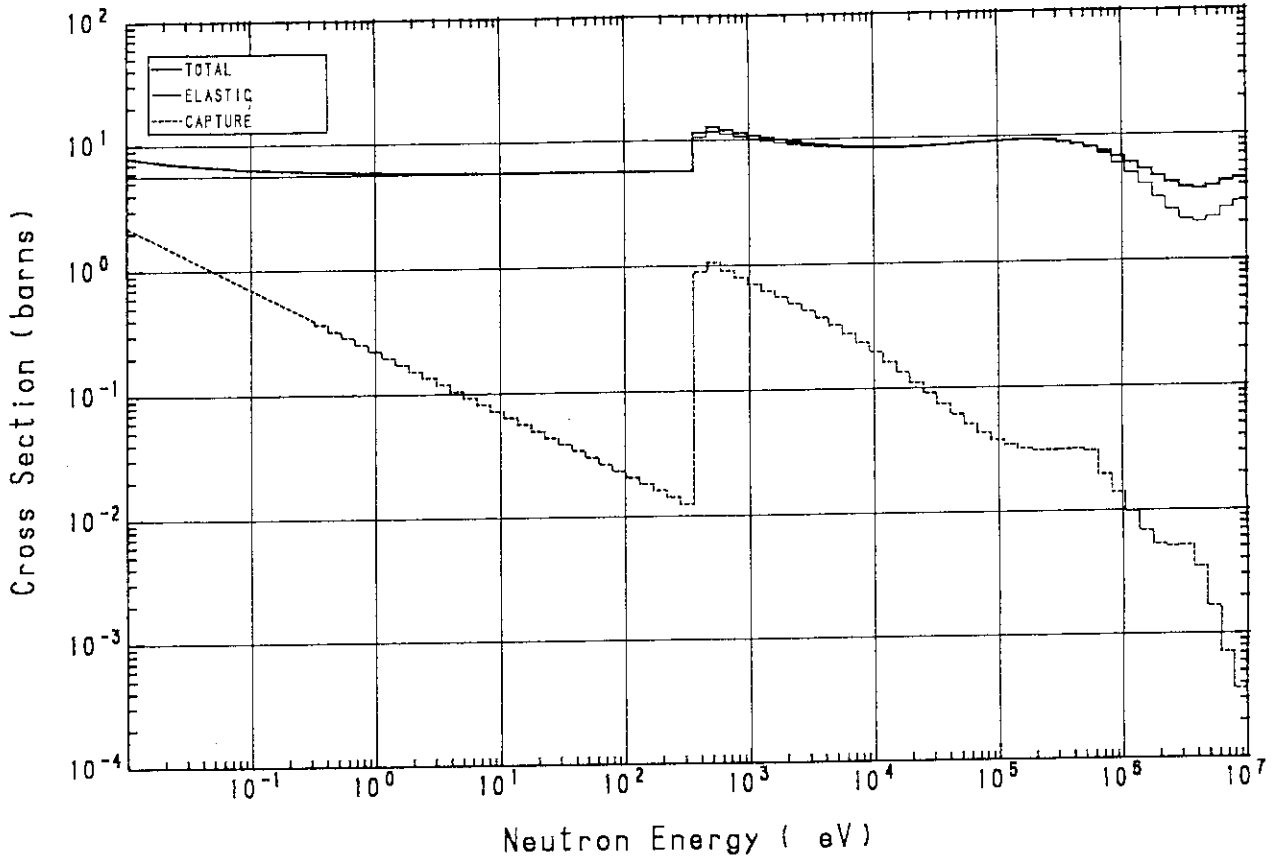


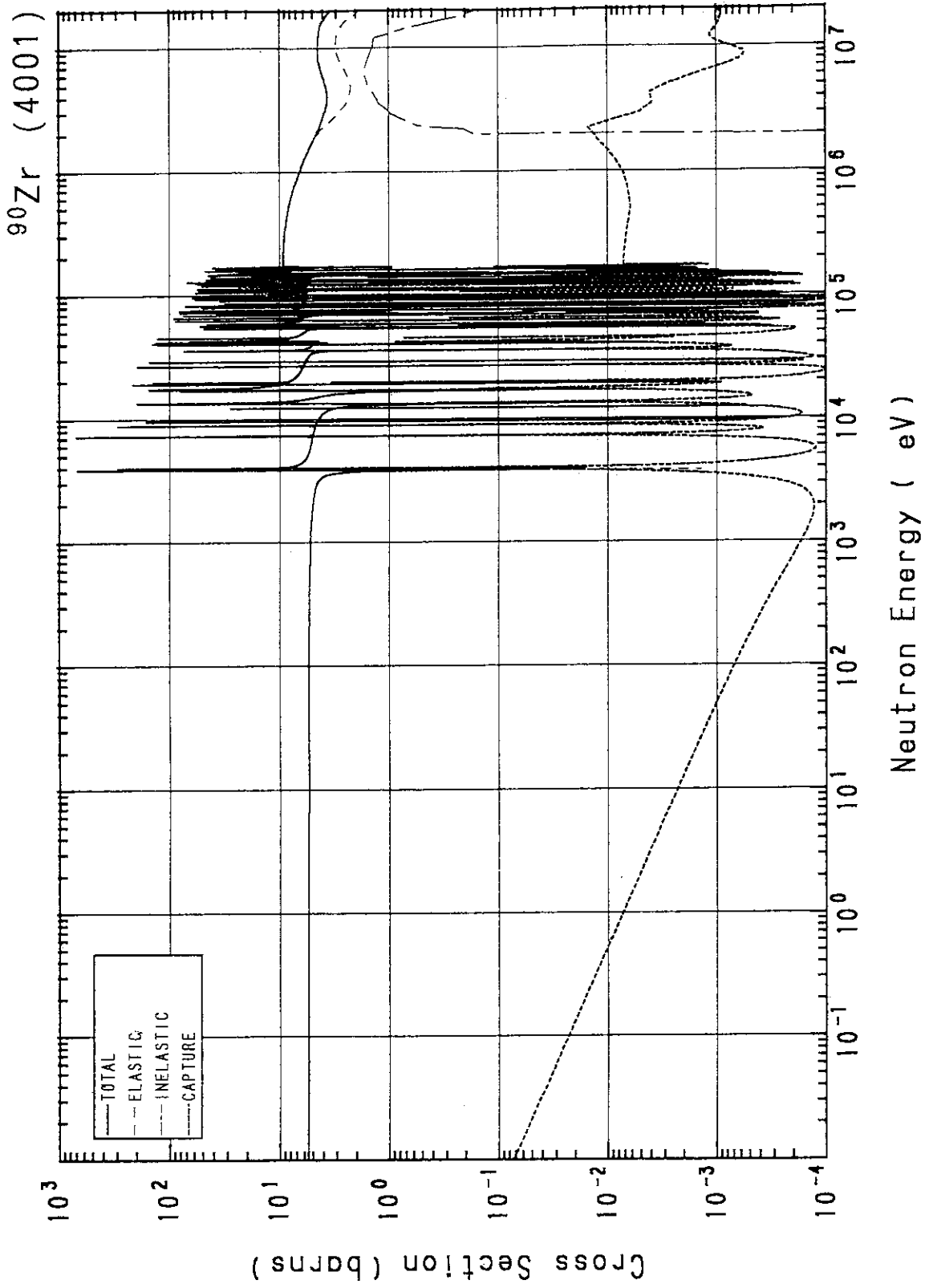
^{89}Y (3901)



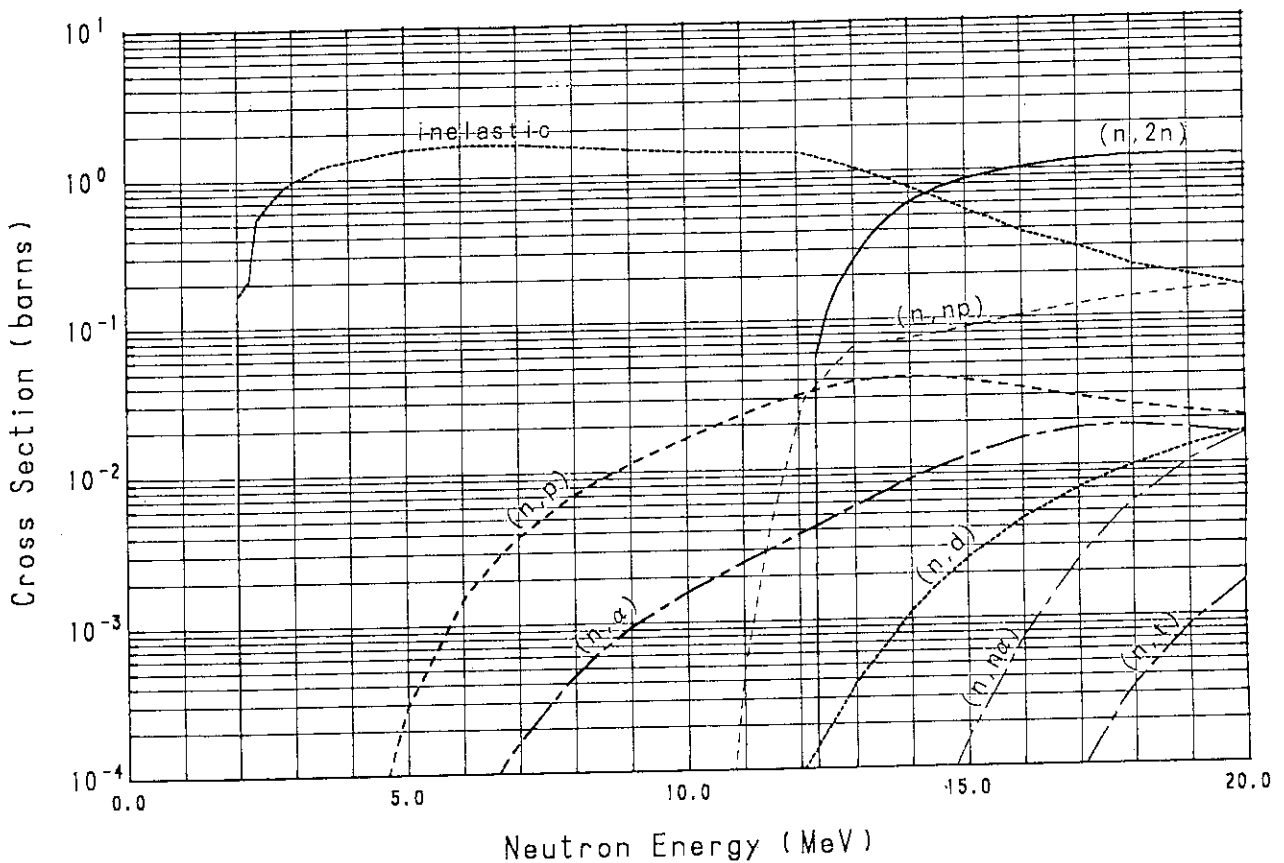
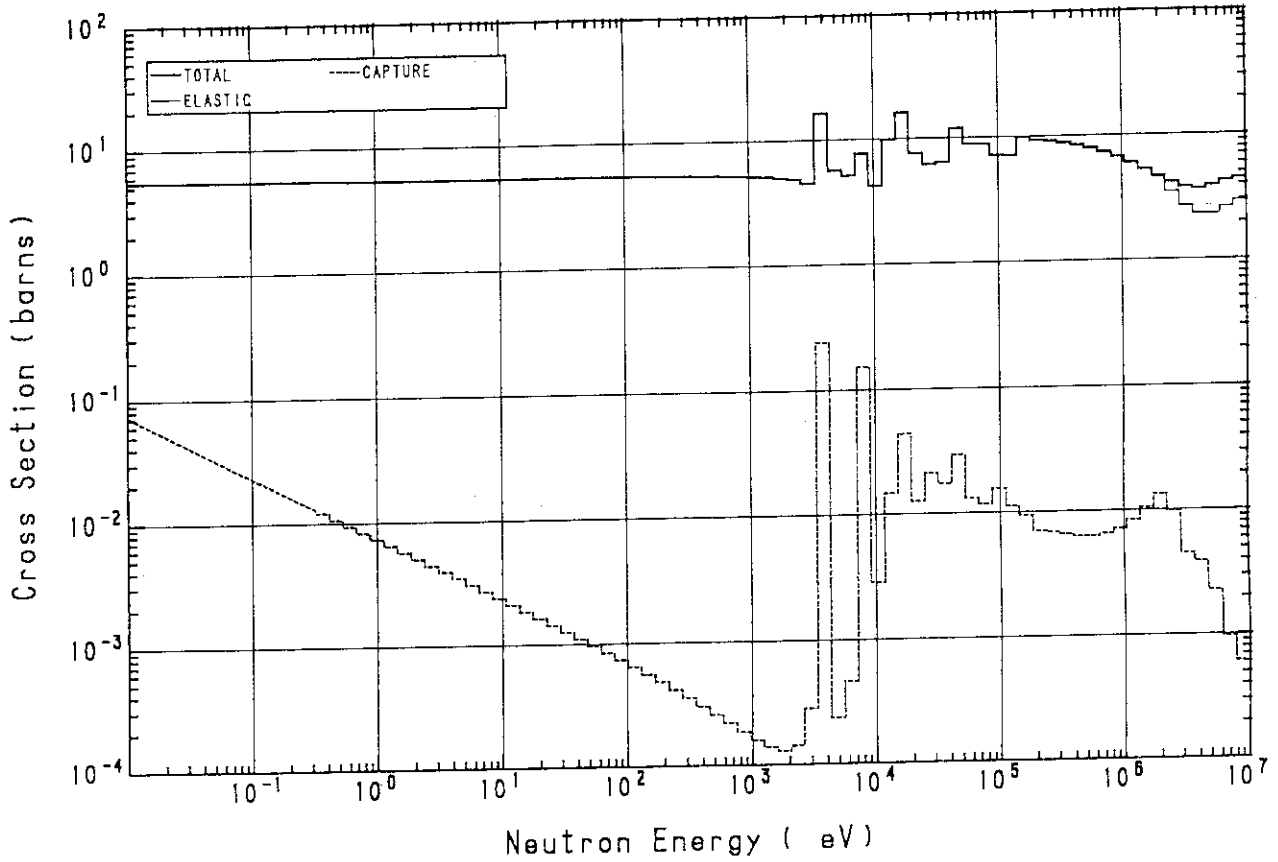


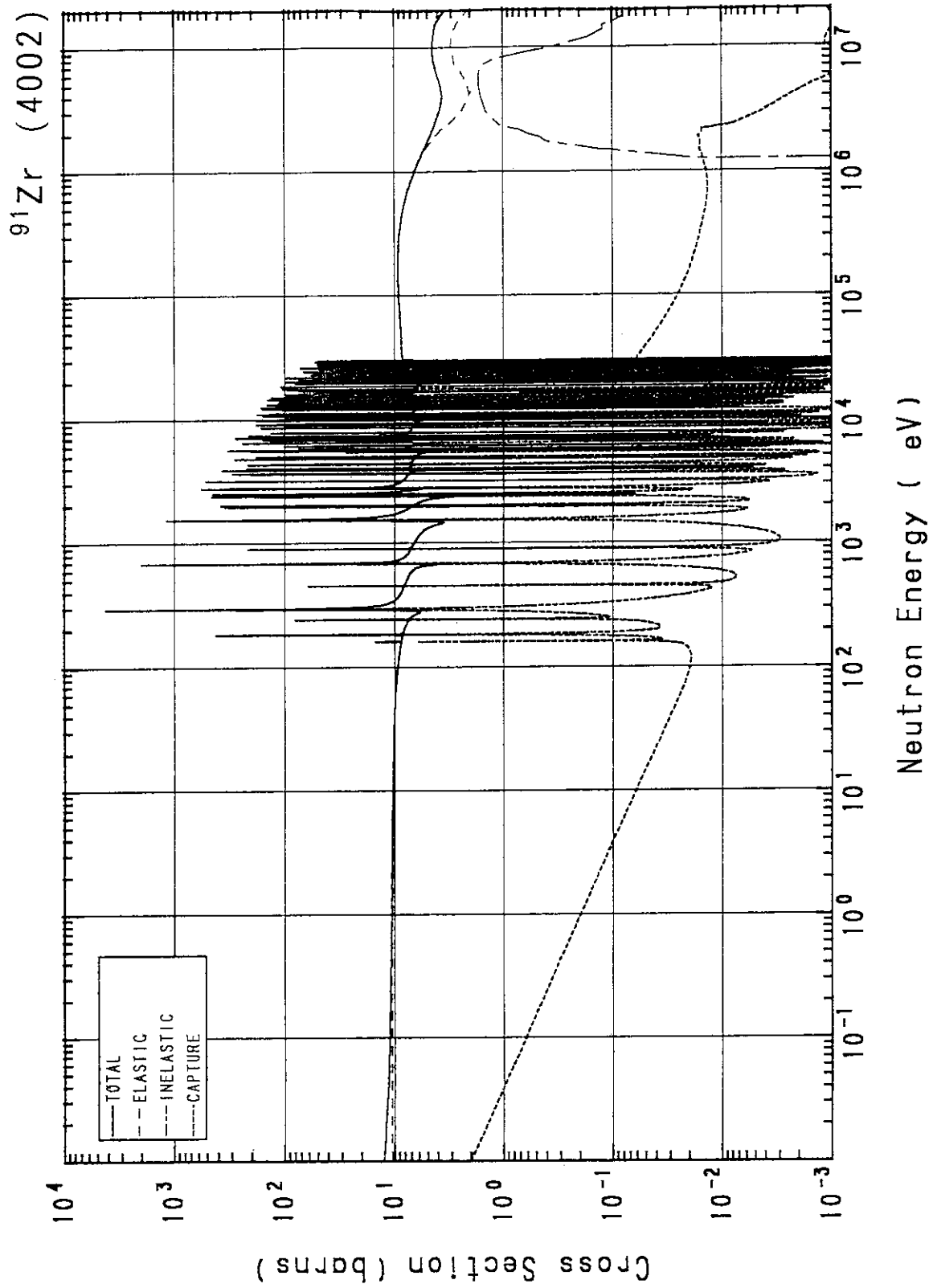
^{91}Y (3902)



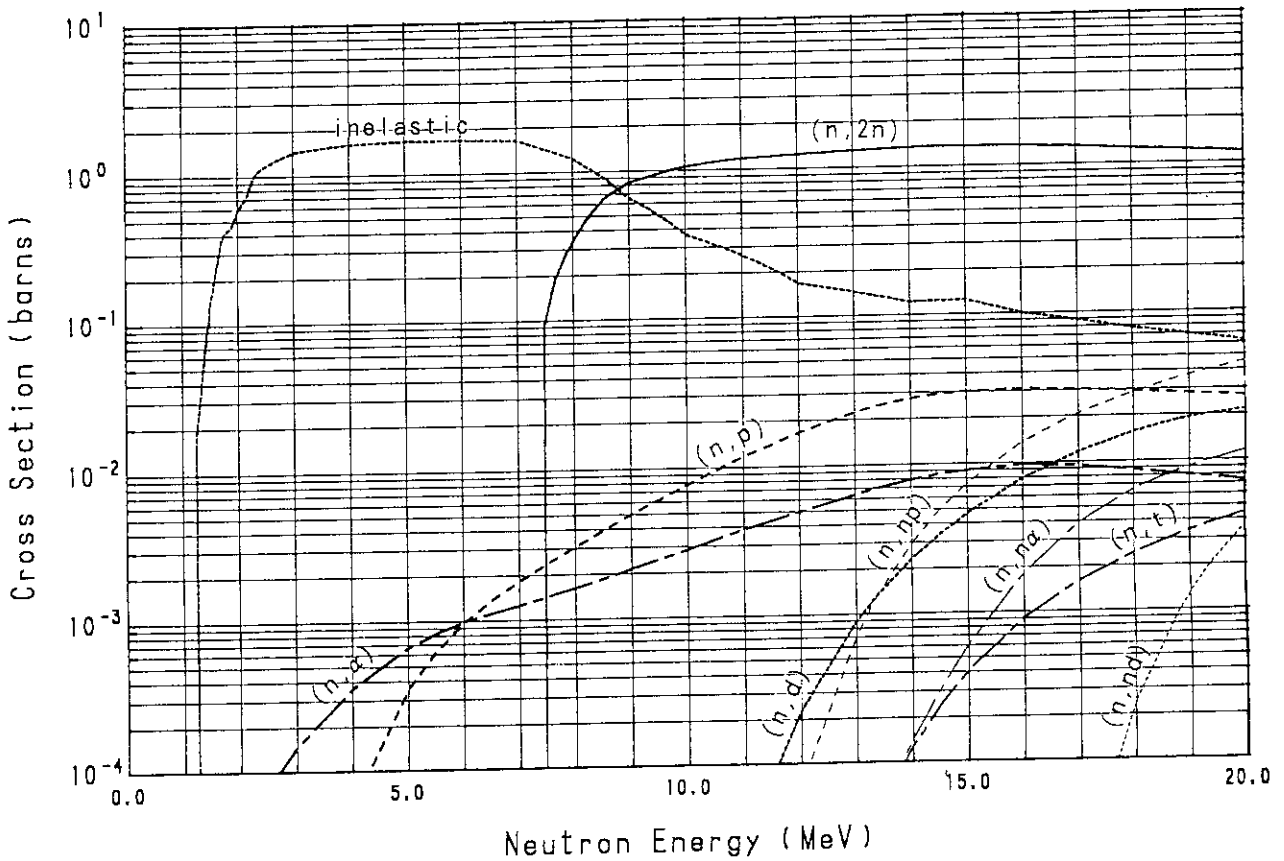
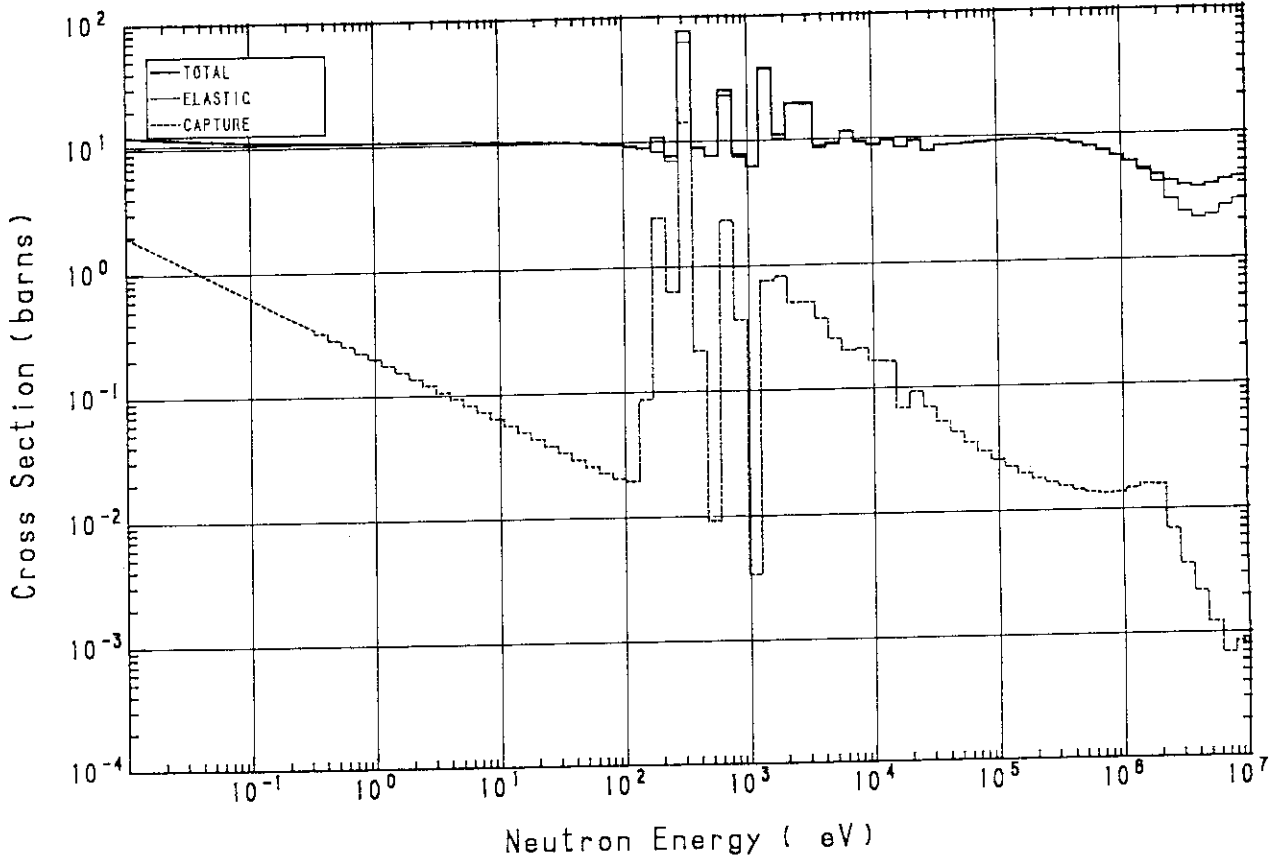


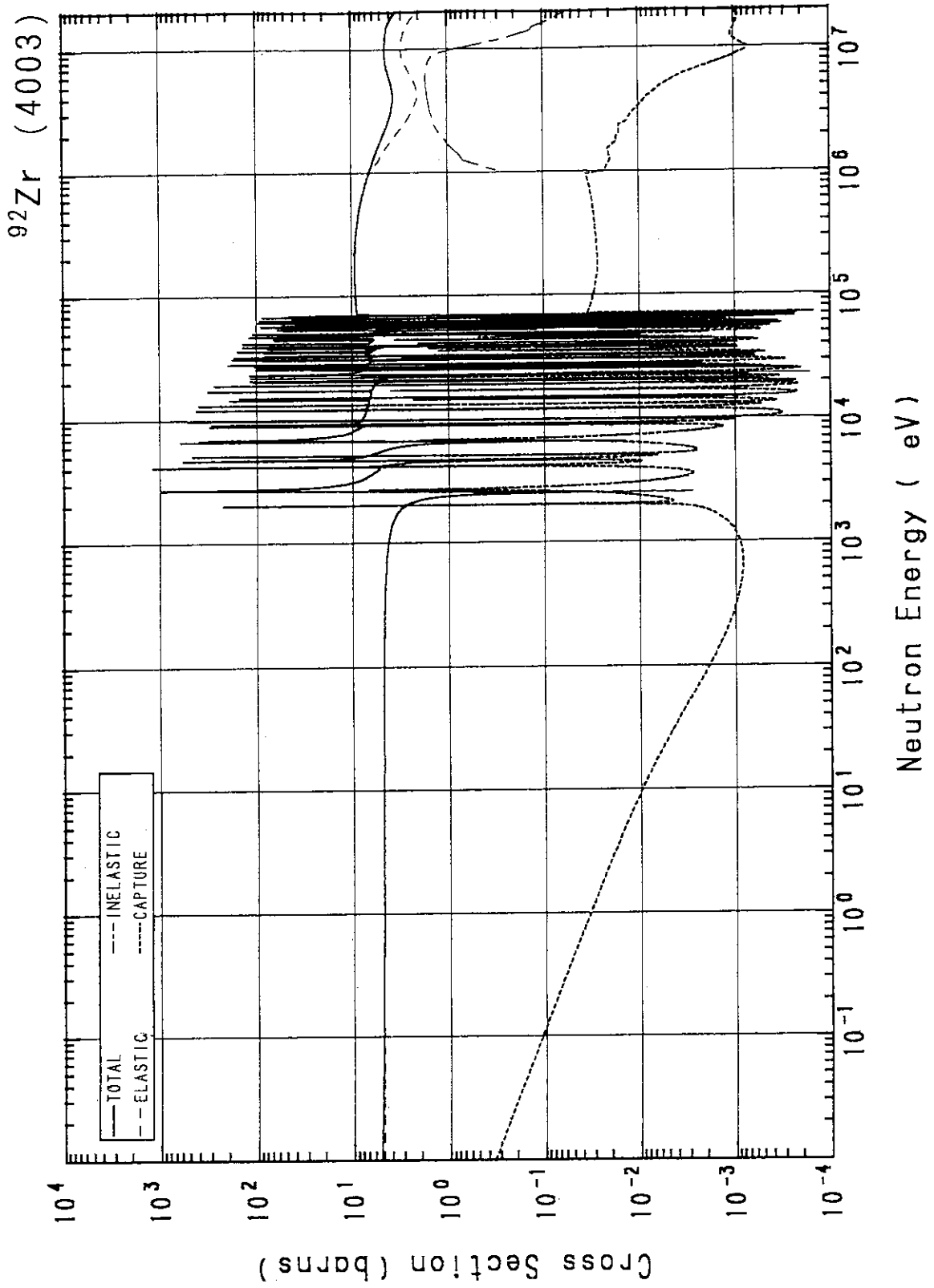
^{90}Zr (4001)



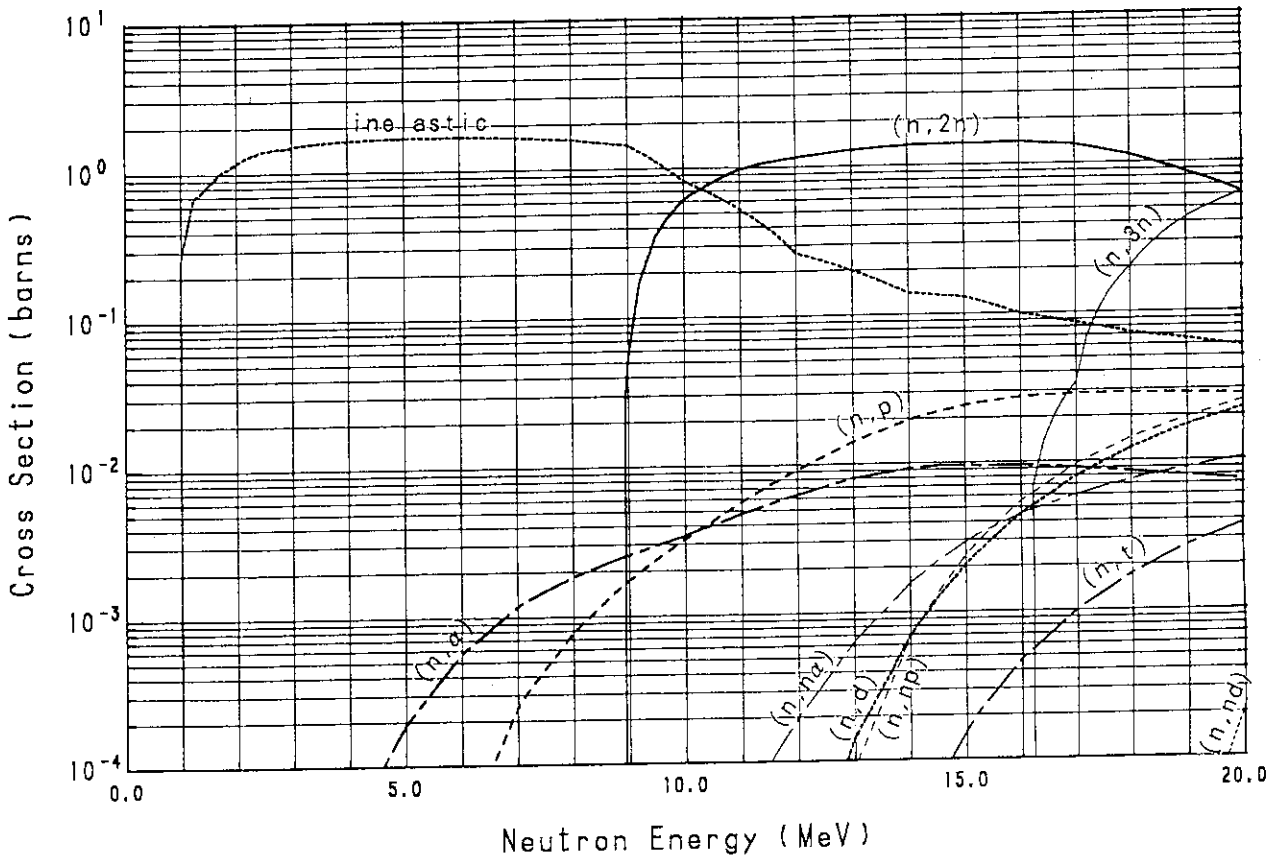
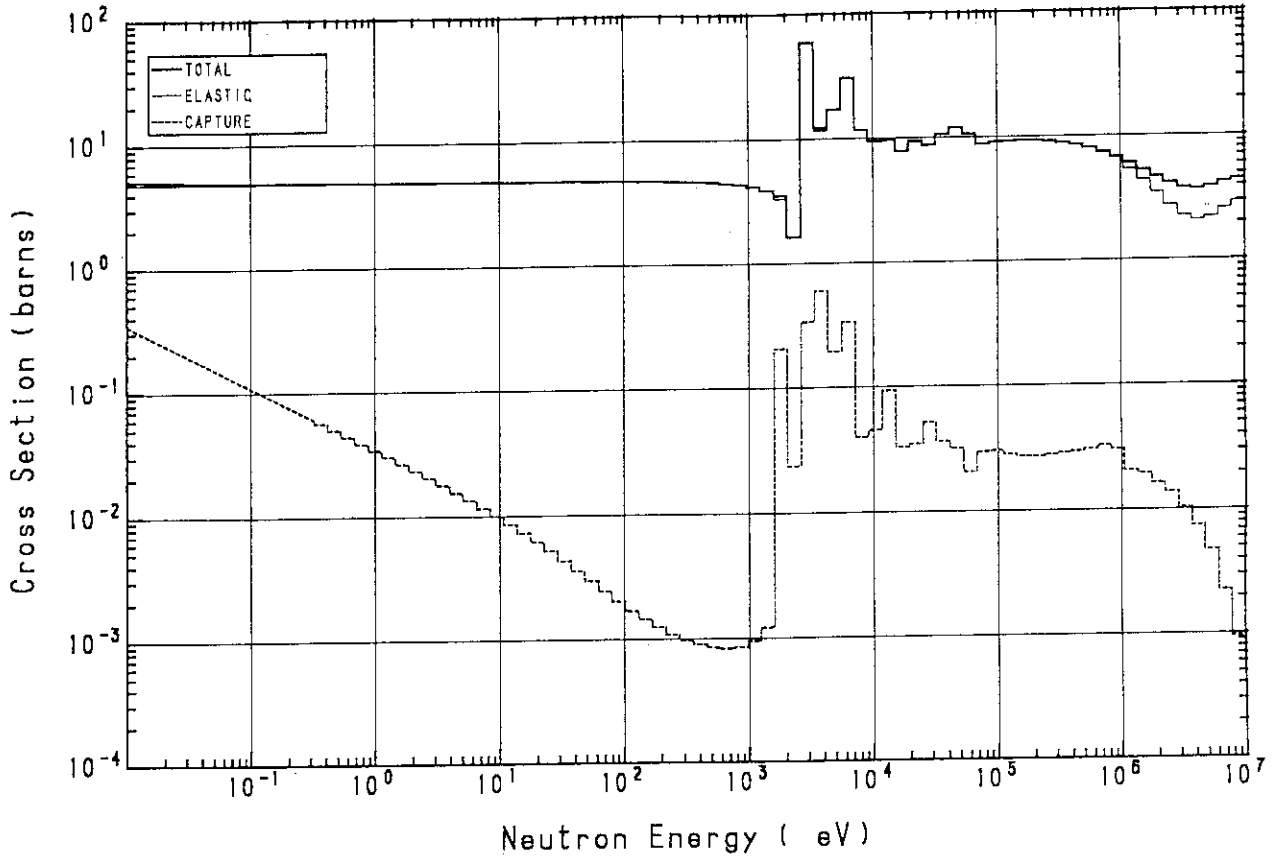


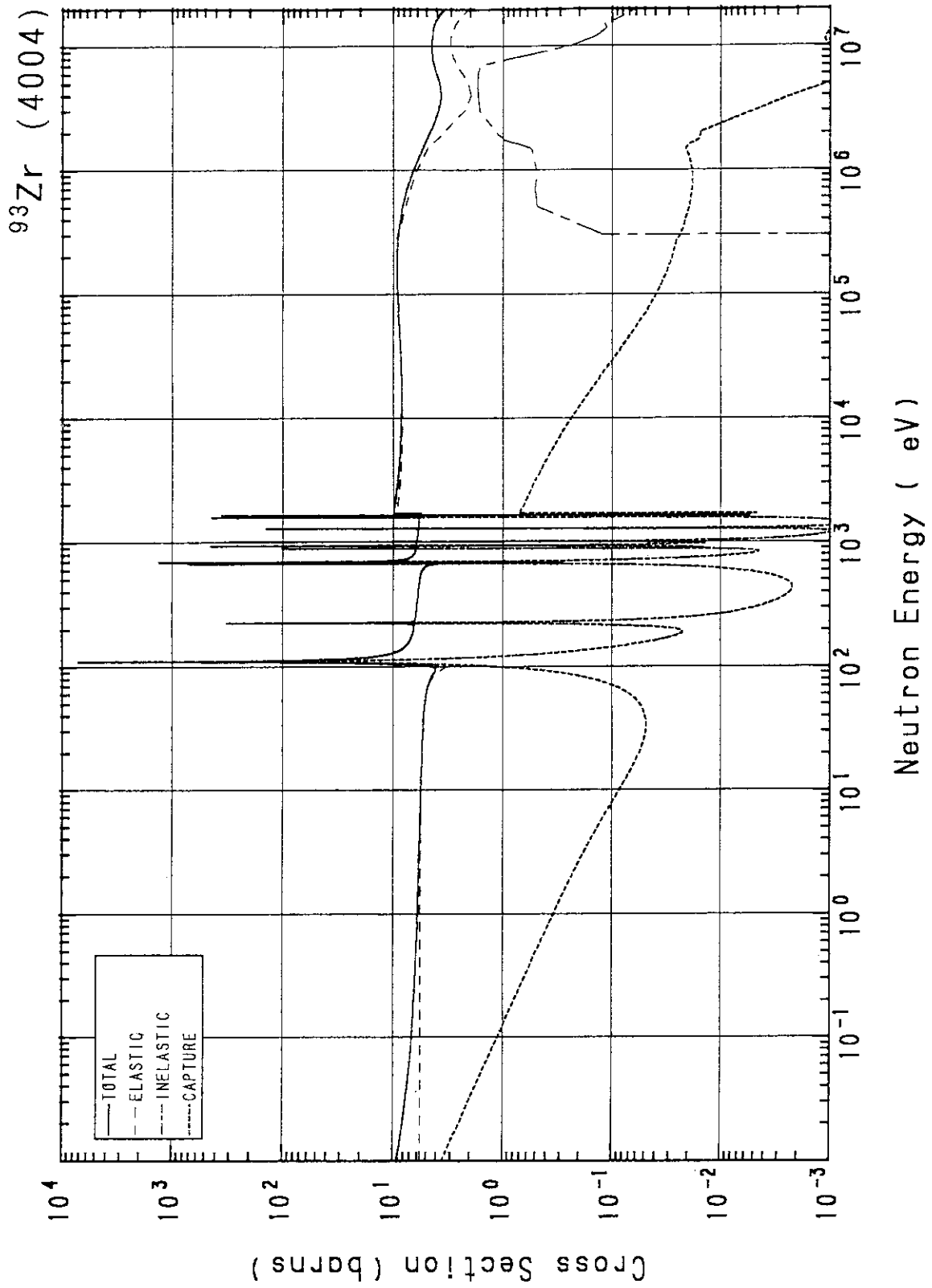
^{91}Zr (4002)



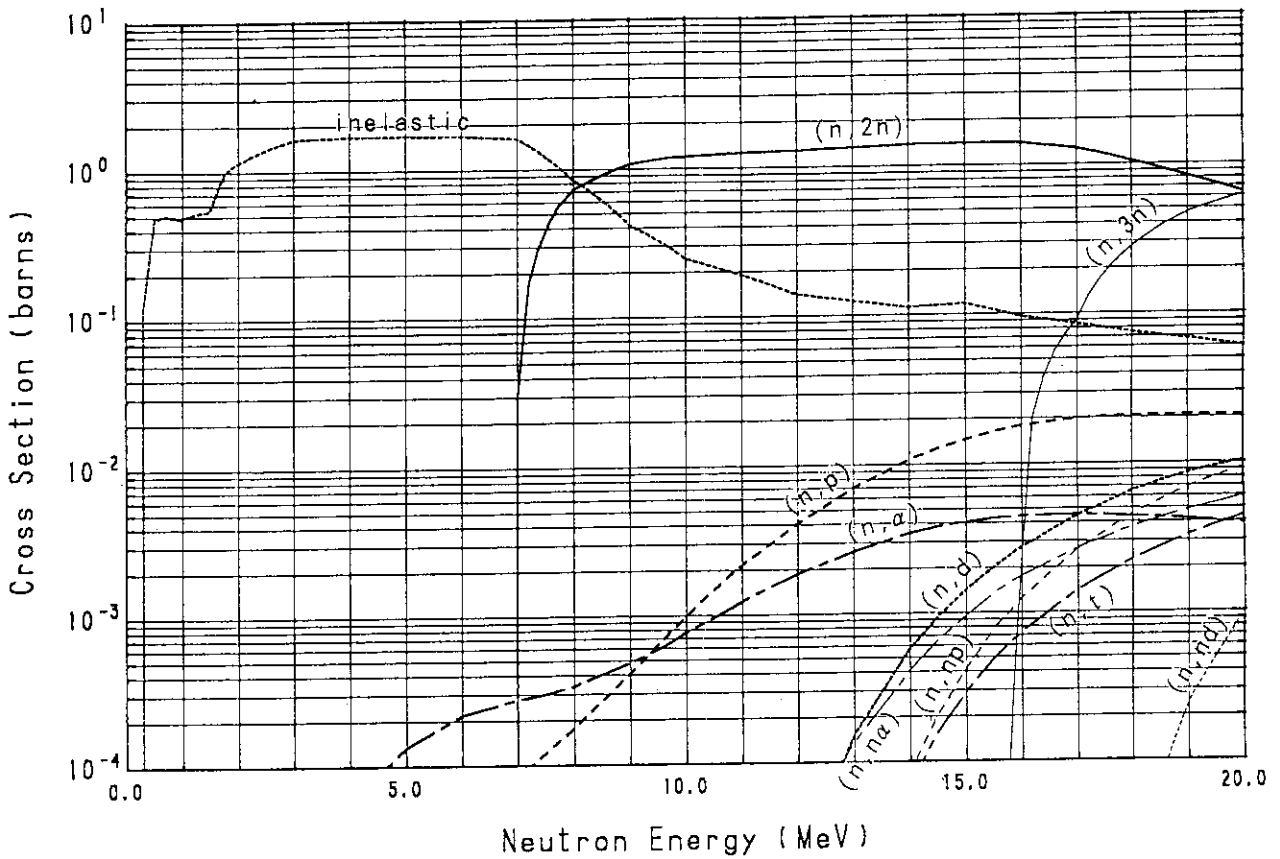
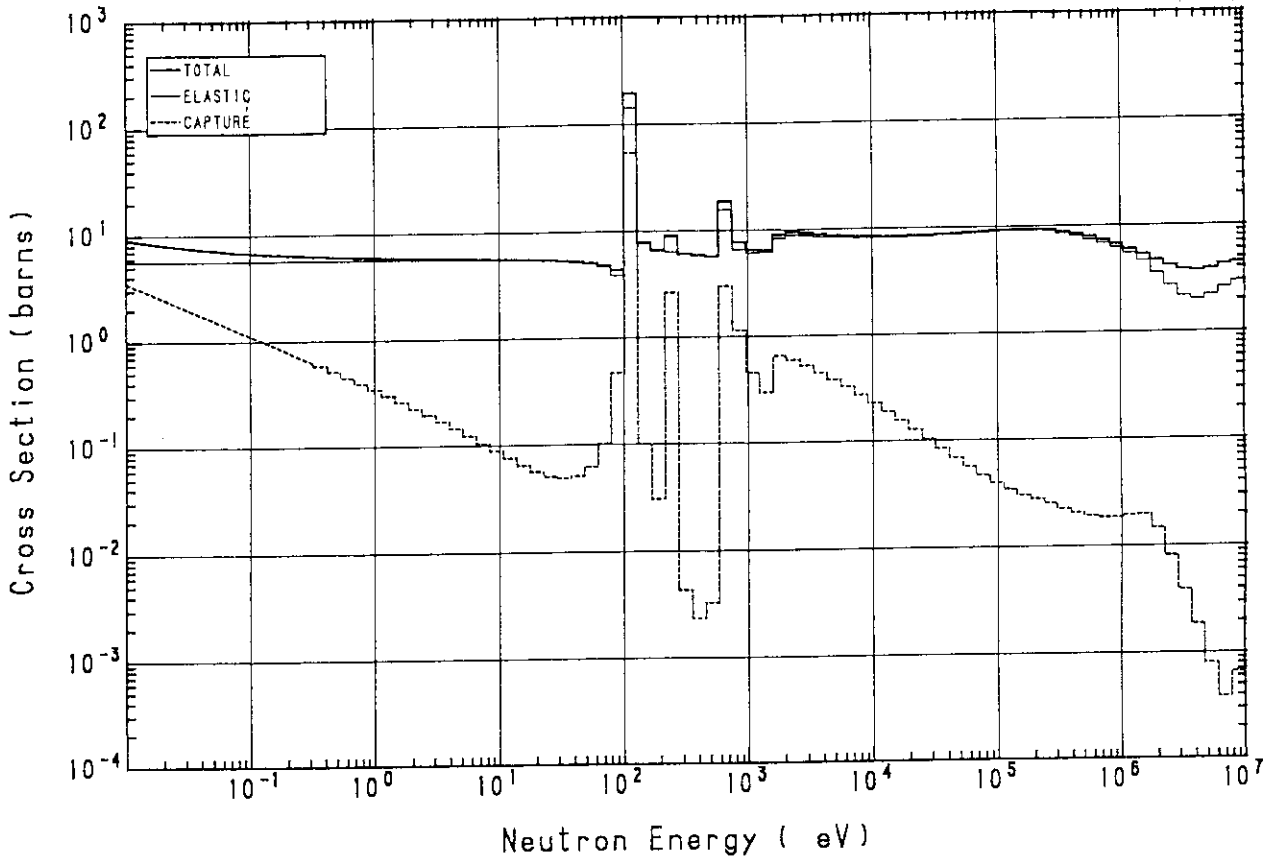


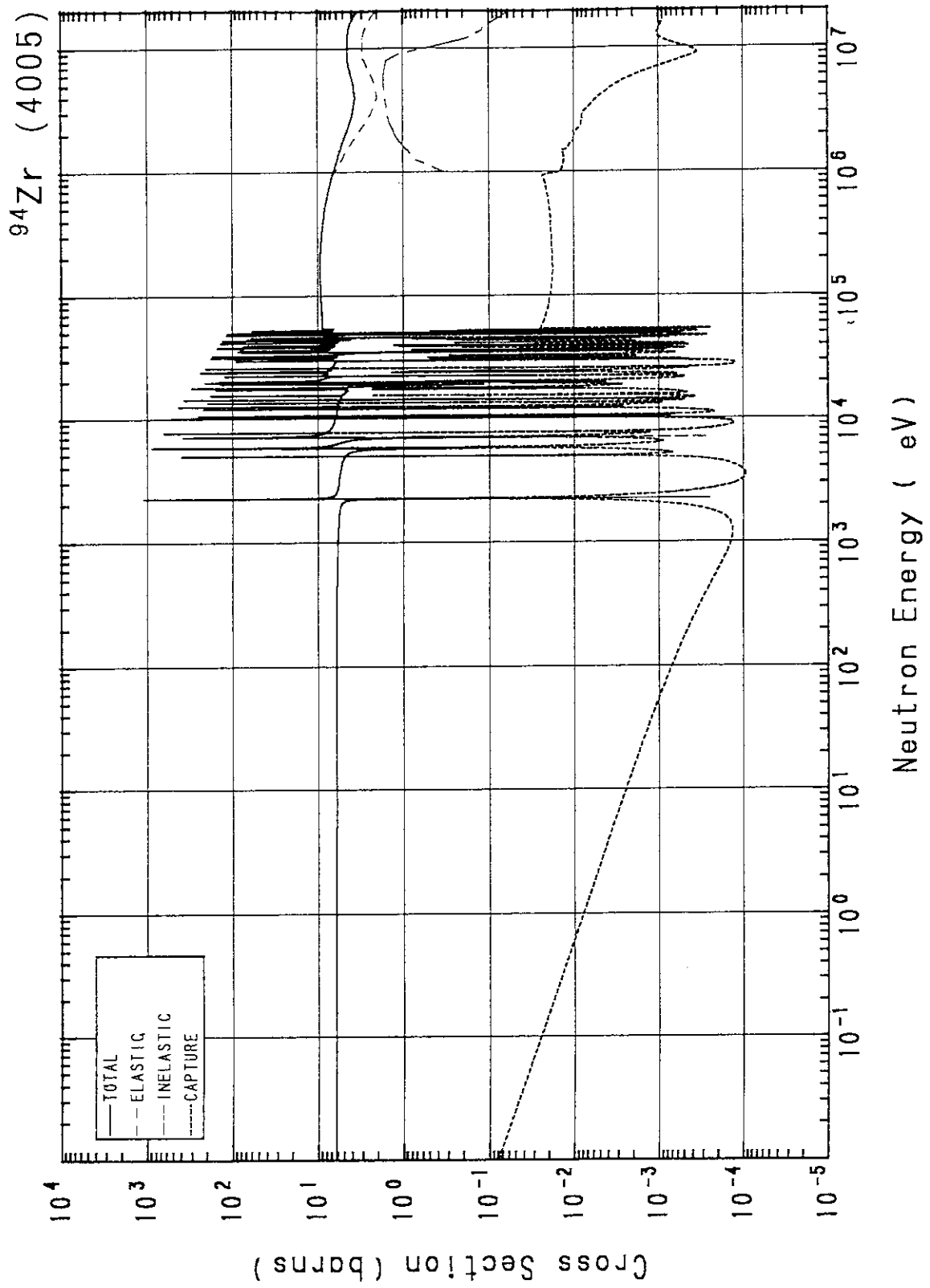
^{92}Zr (4003)



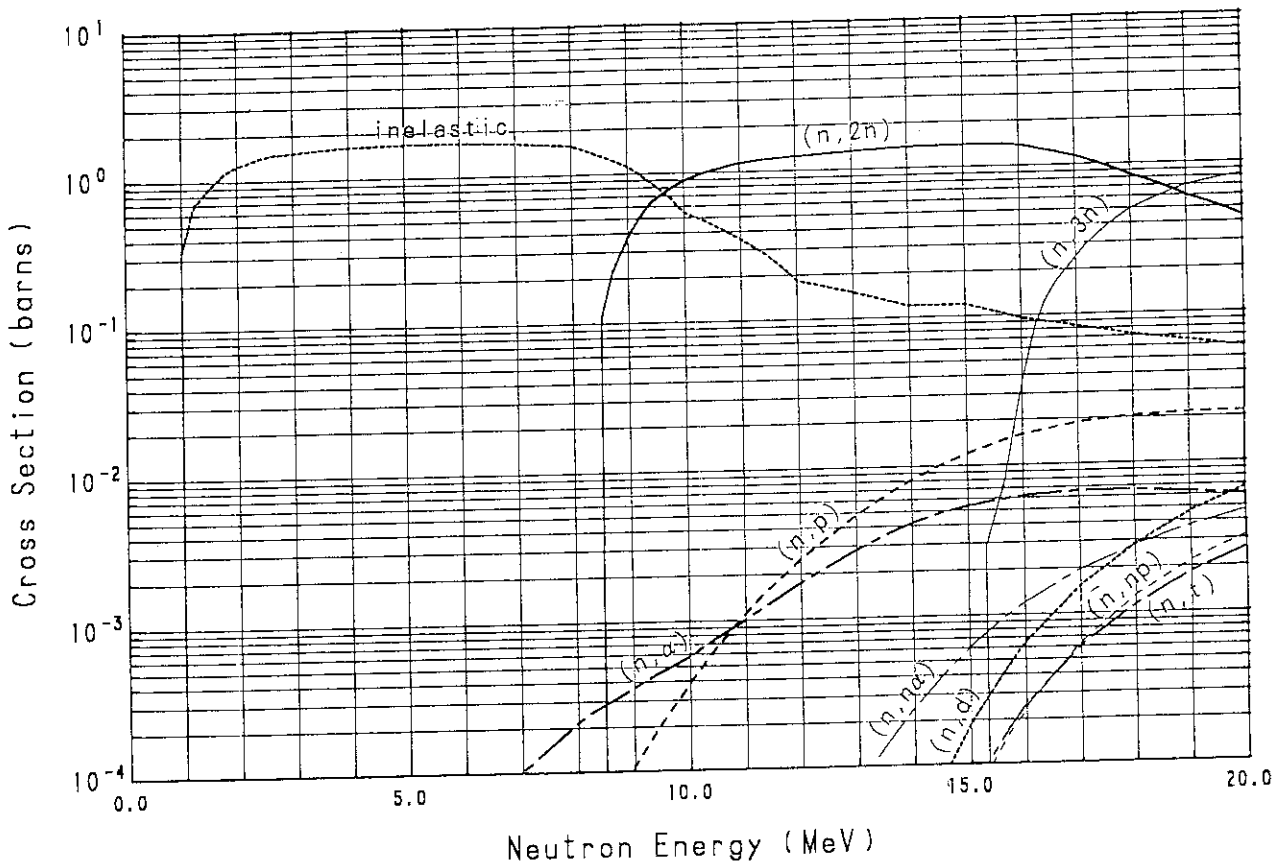
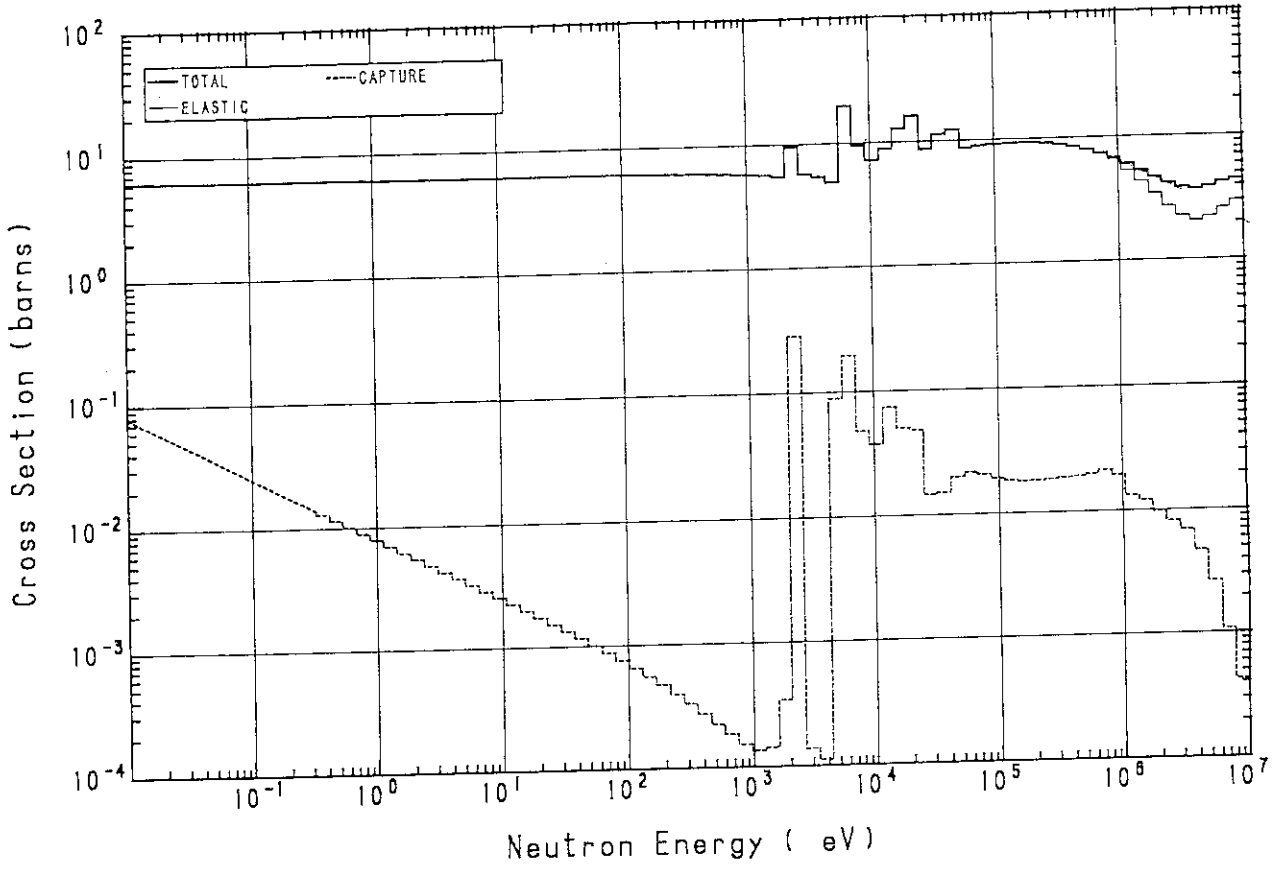


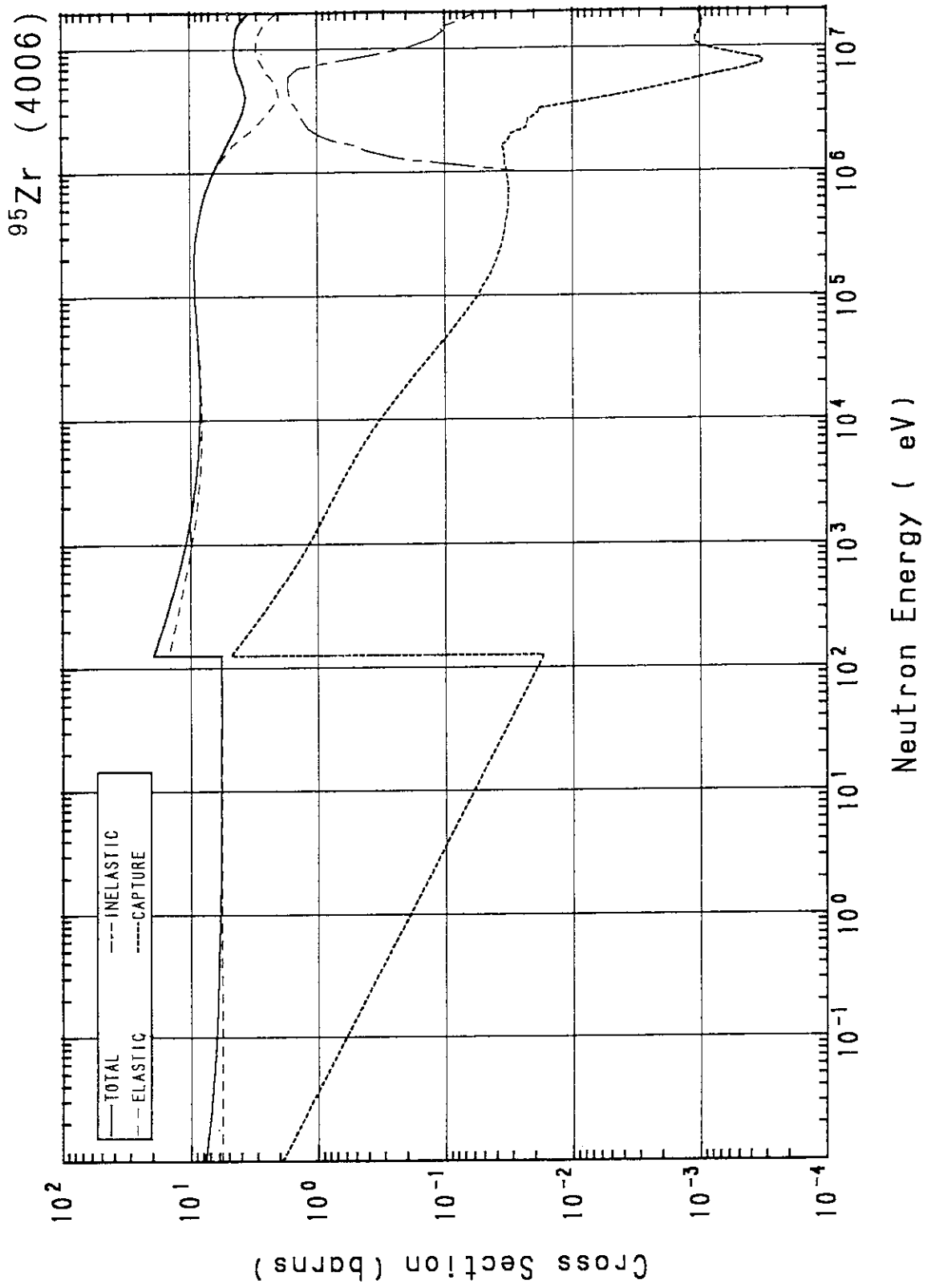
⁹³Zr (4004)



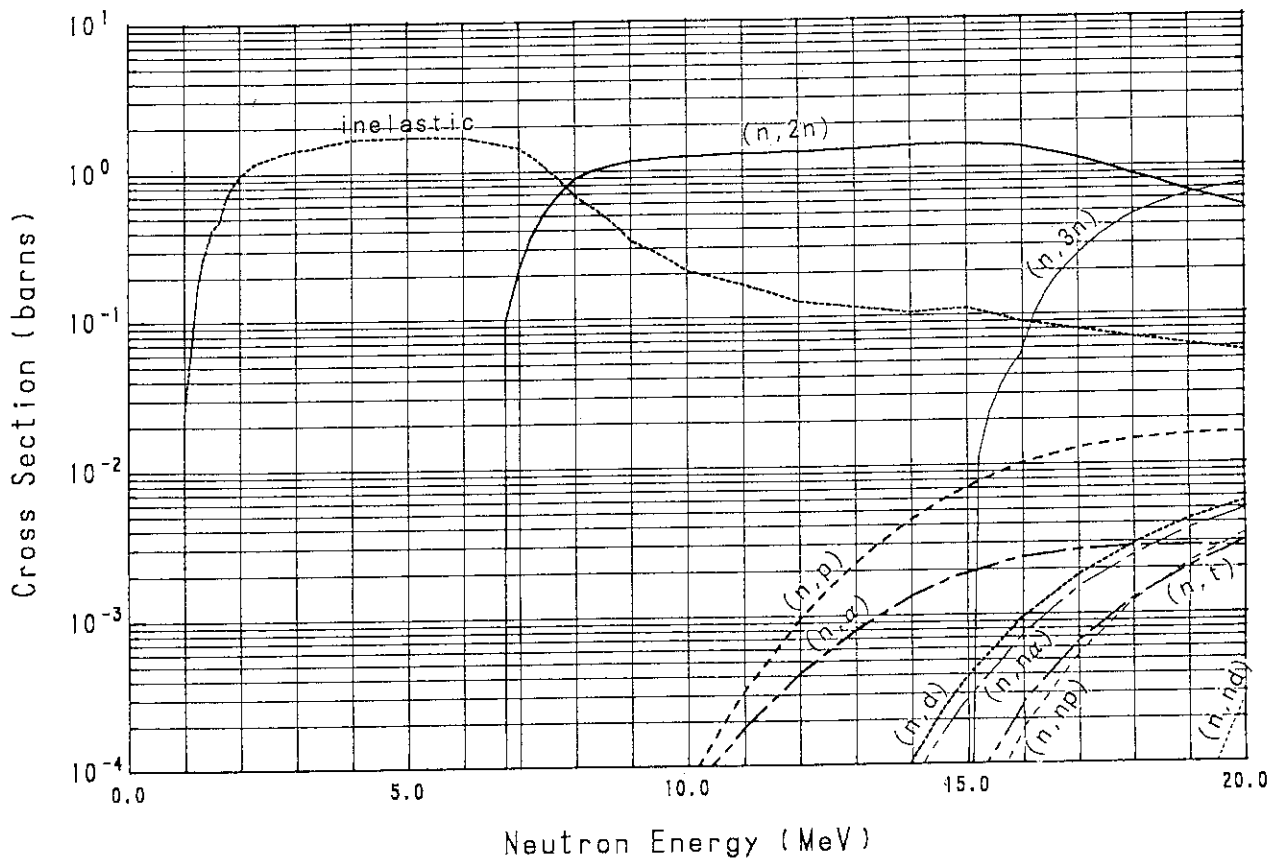
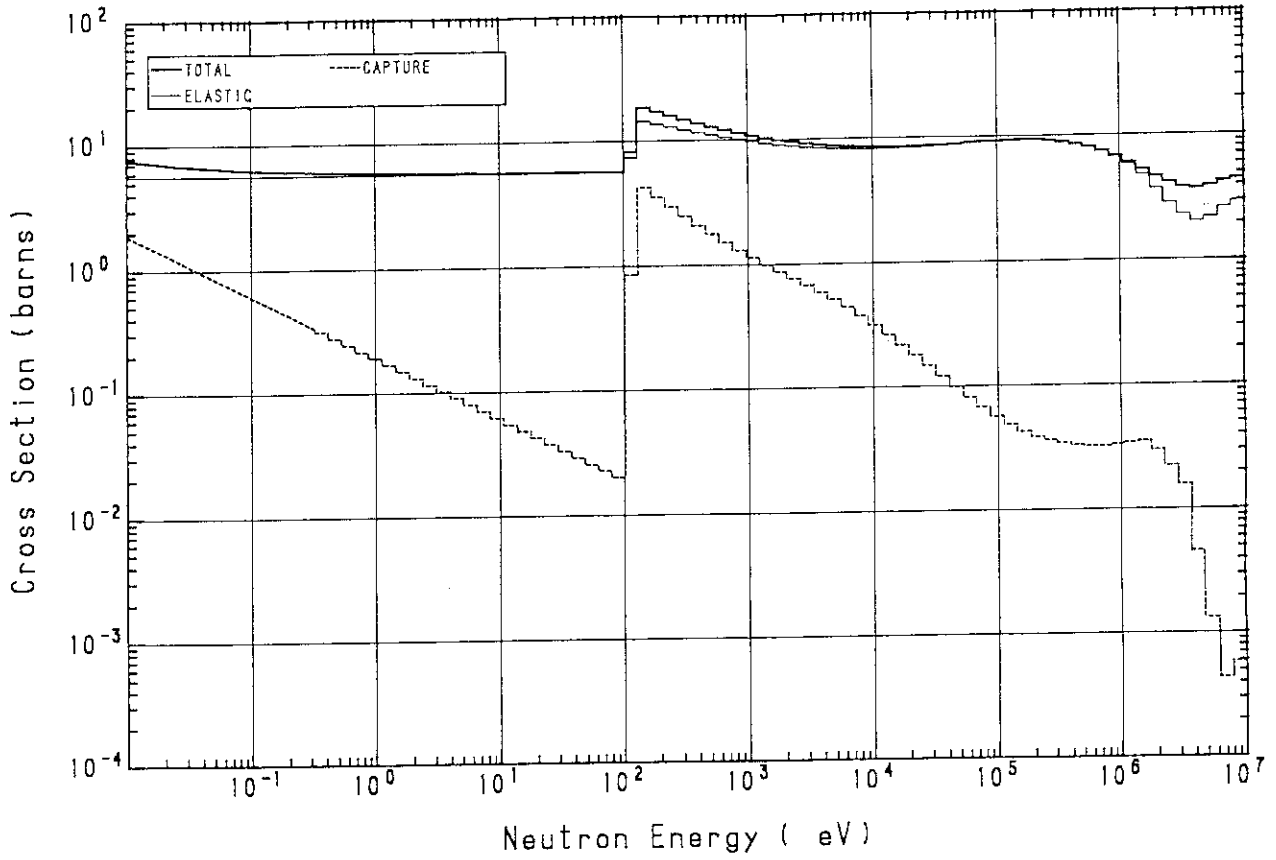


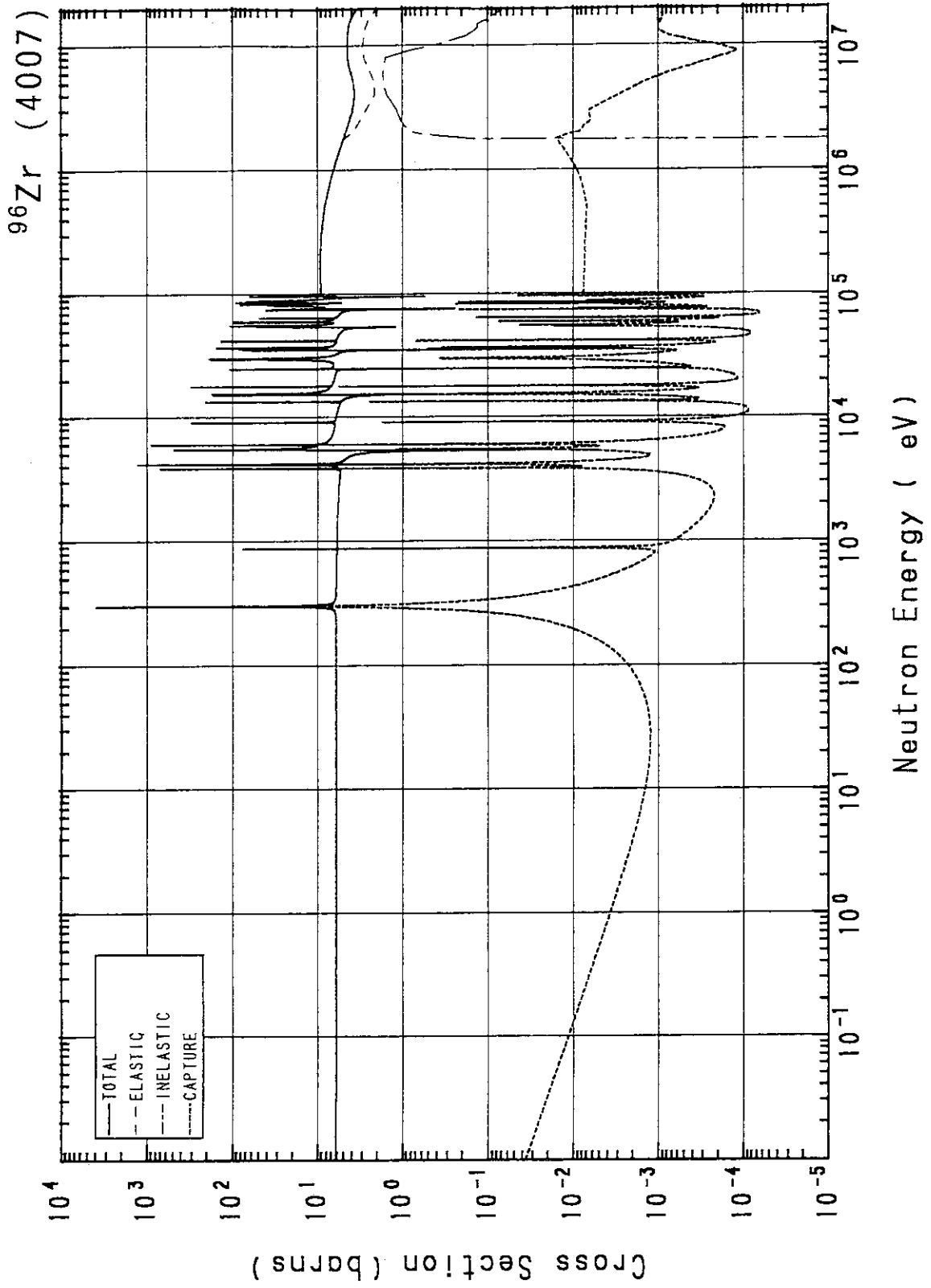
^{94}Zr (4005)



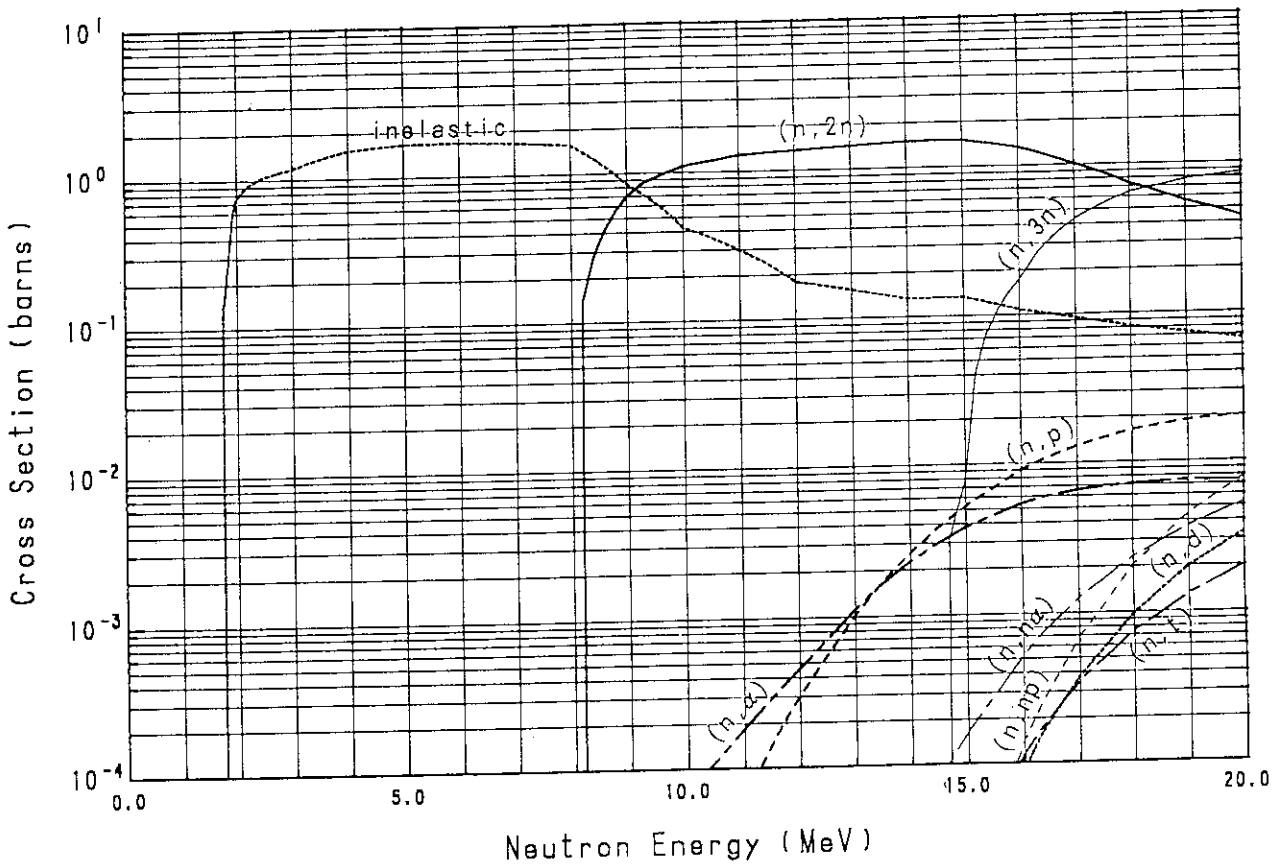
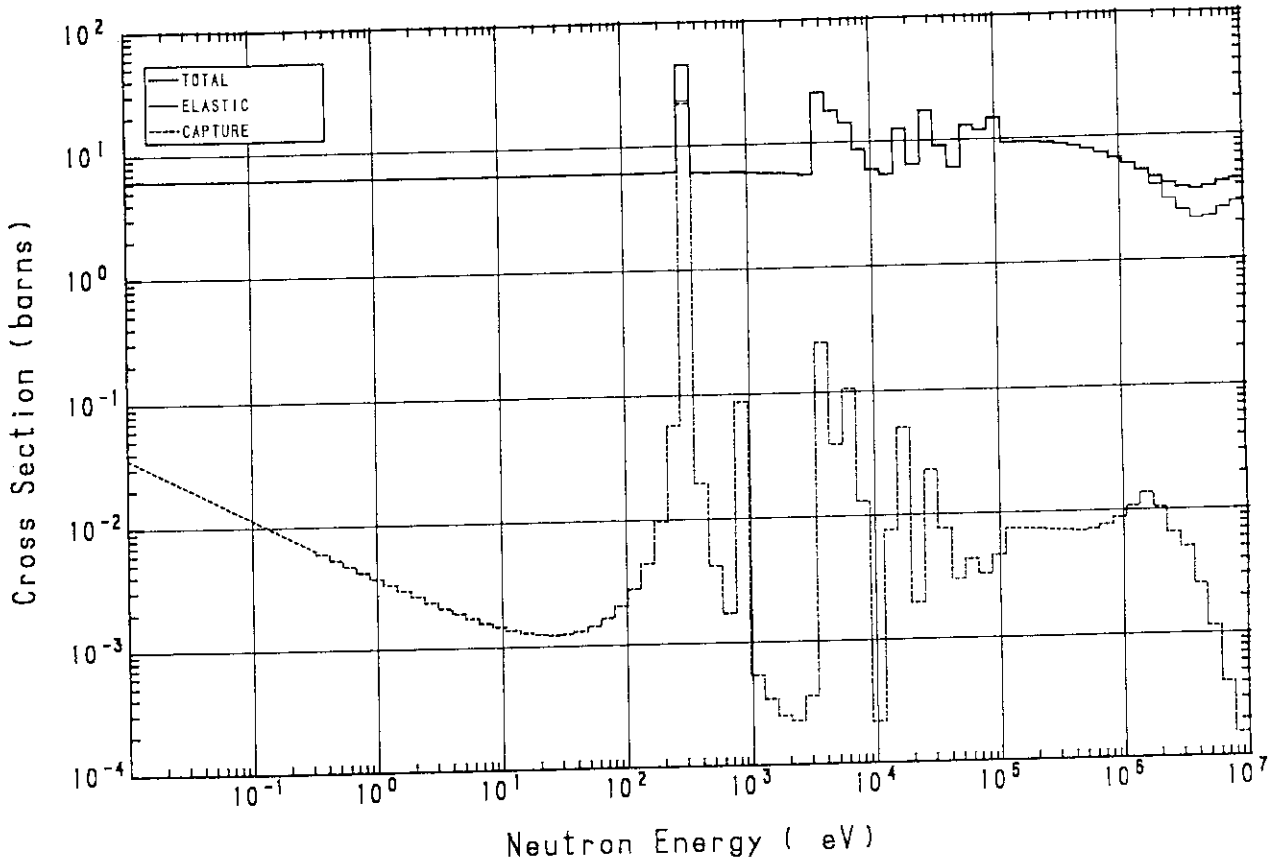


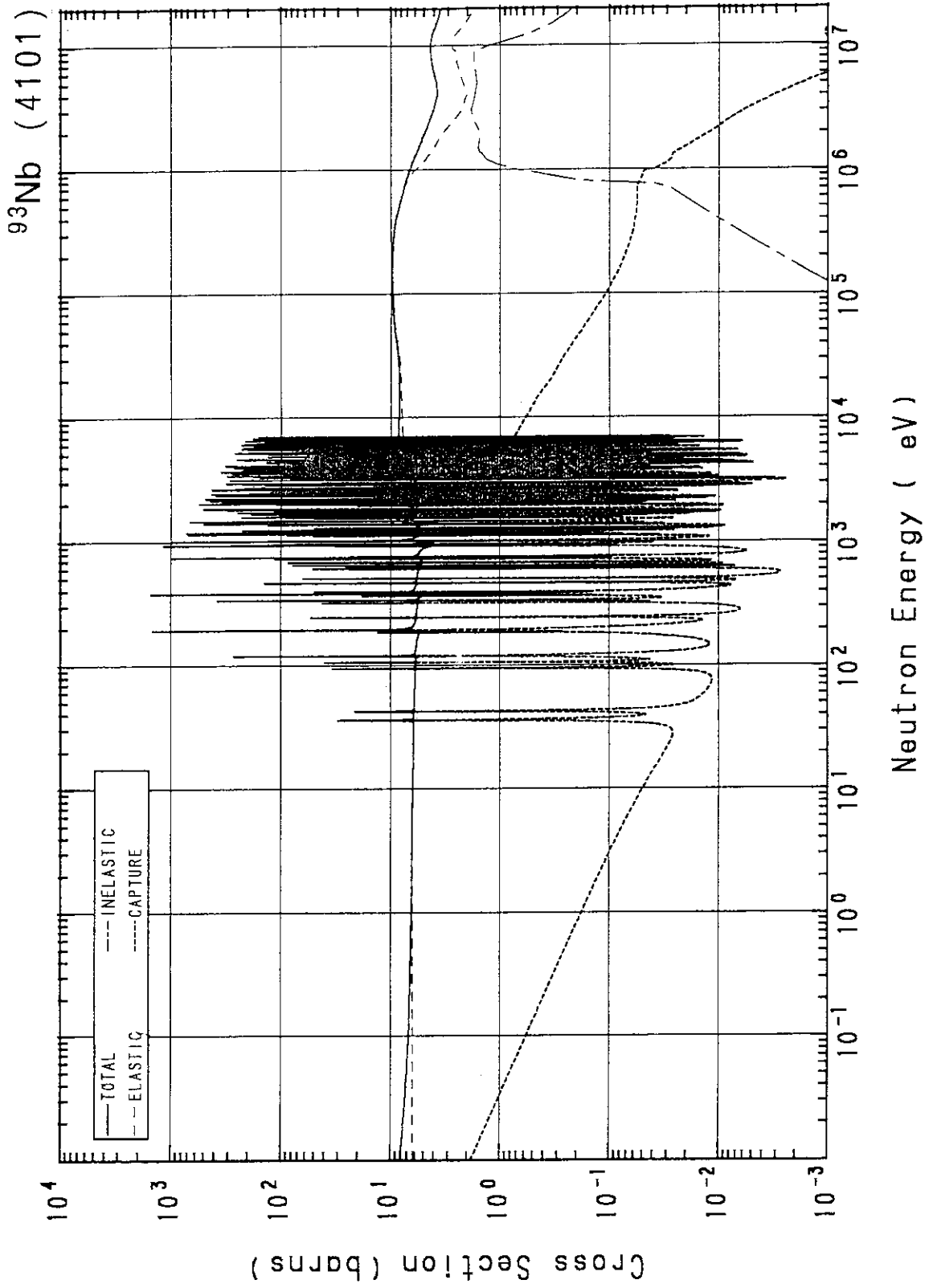
^{95}Zr (4006)



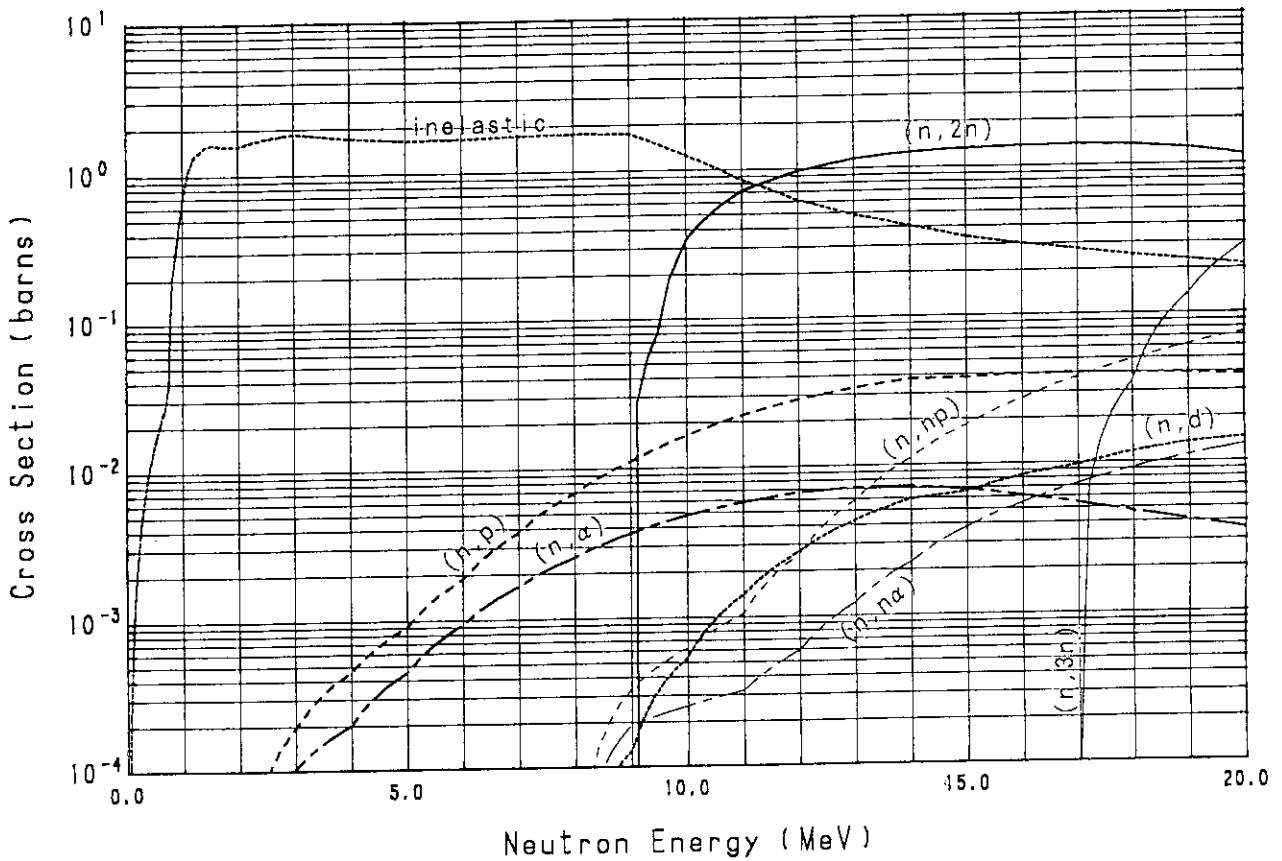
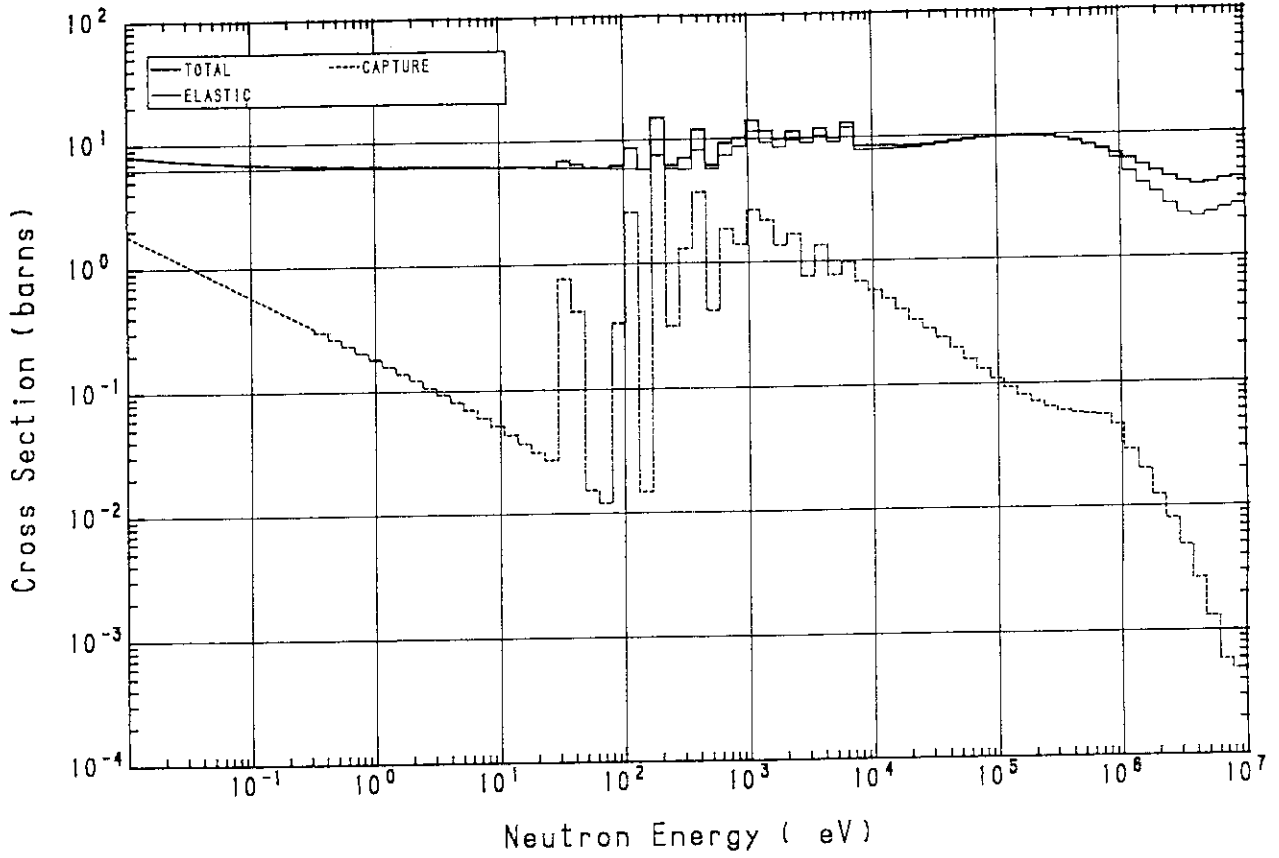


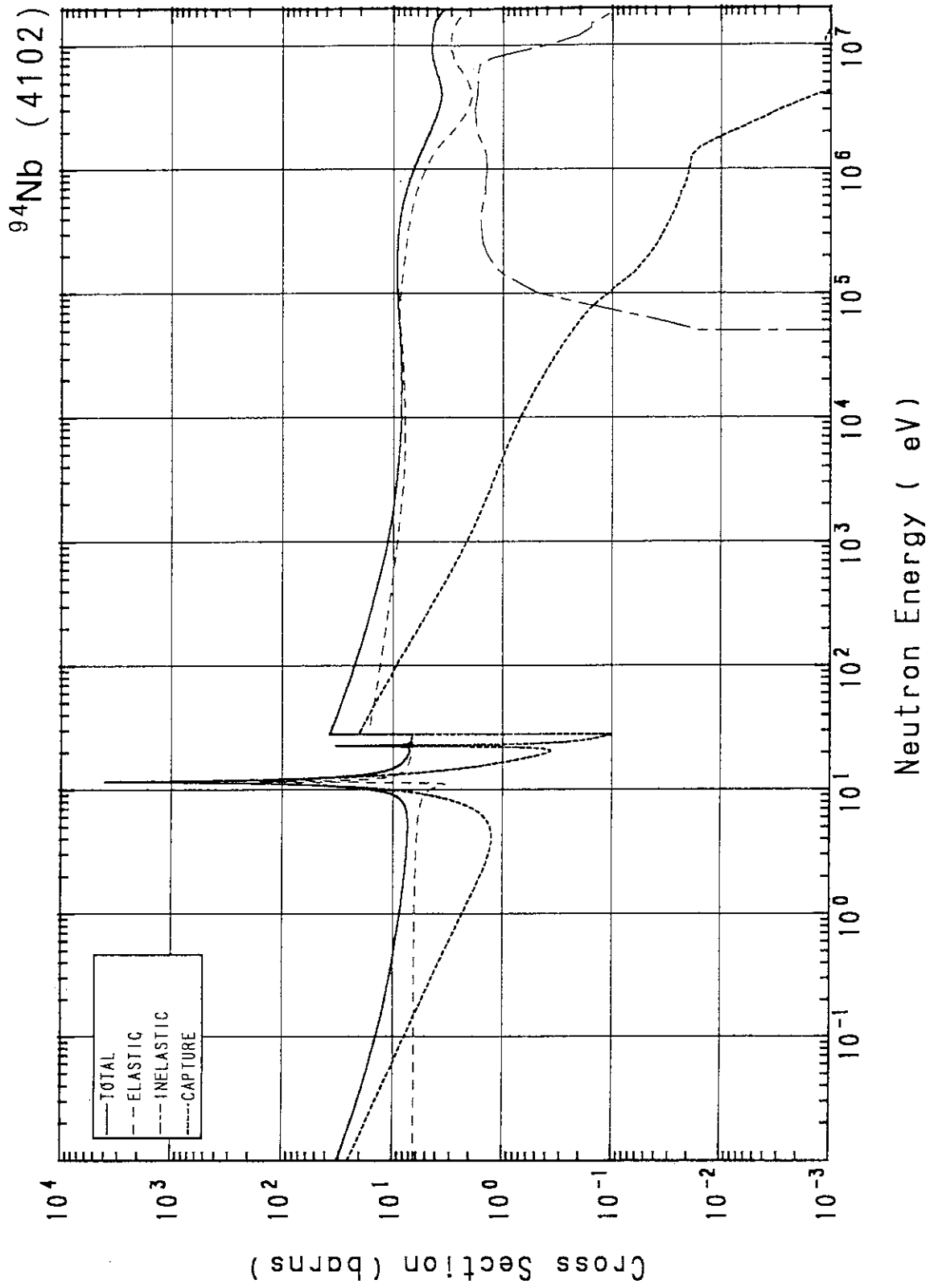
^{96}Zr (4007)



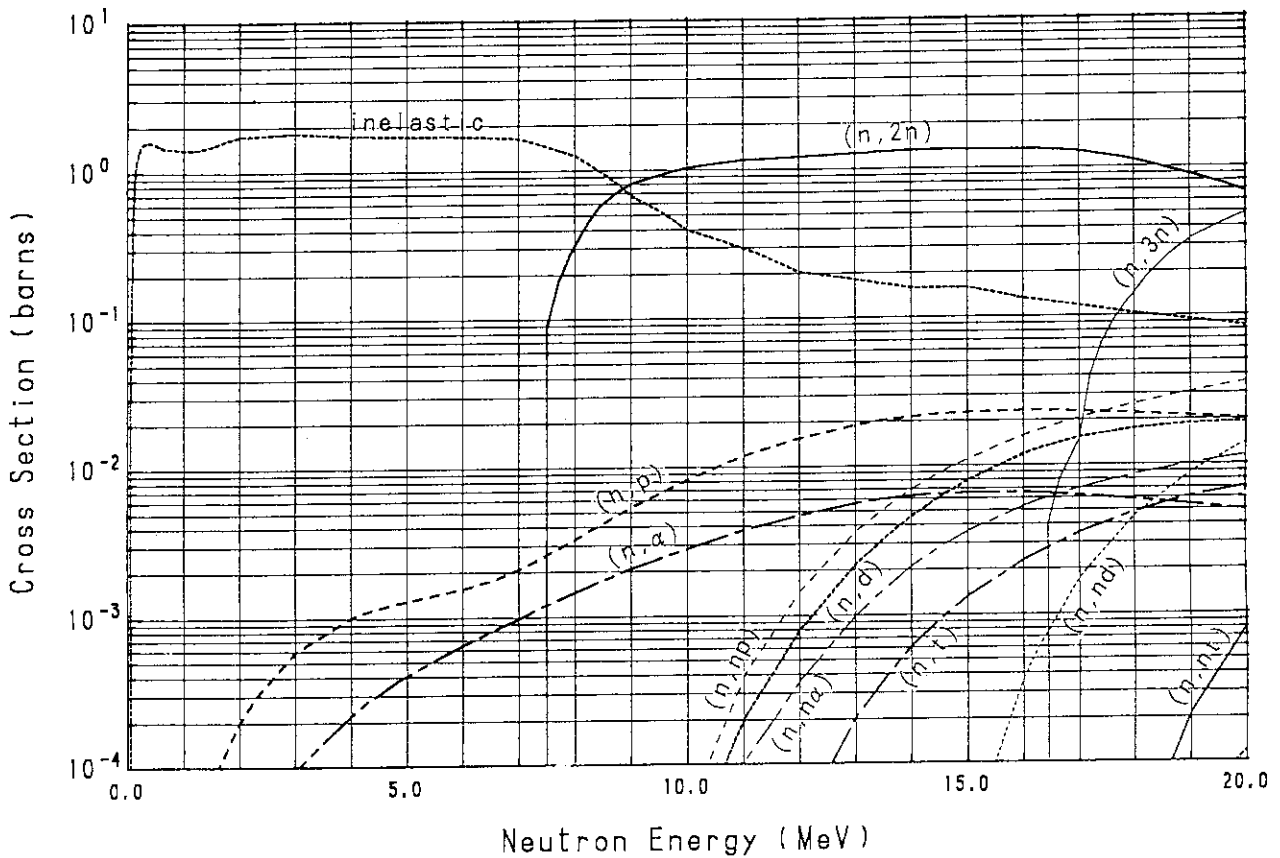
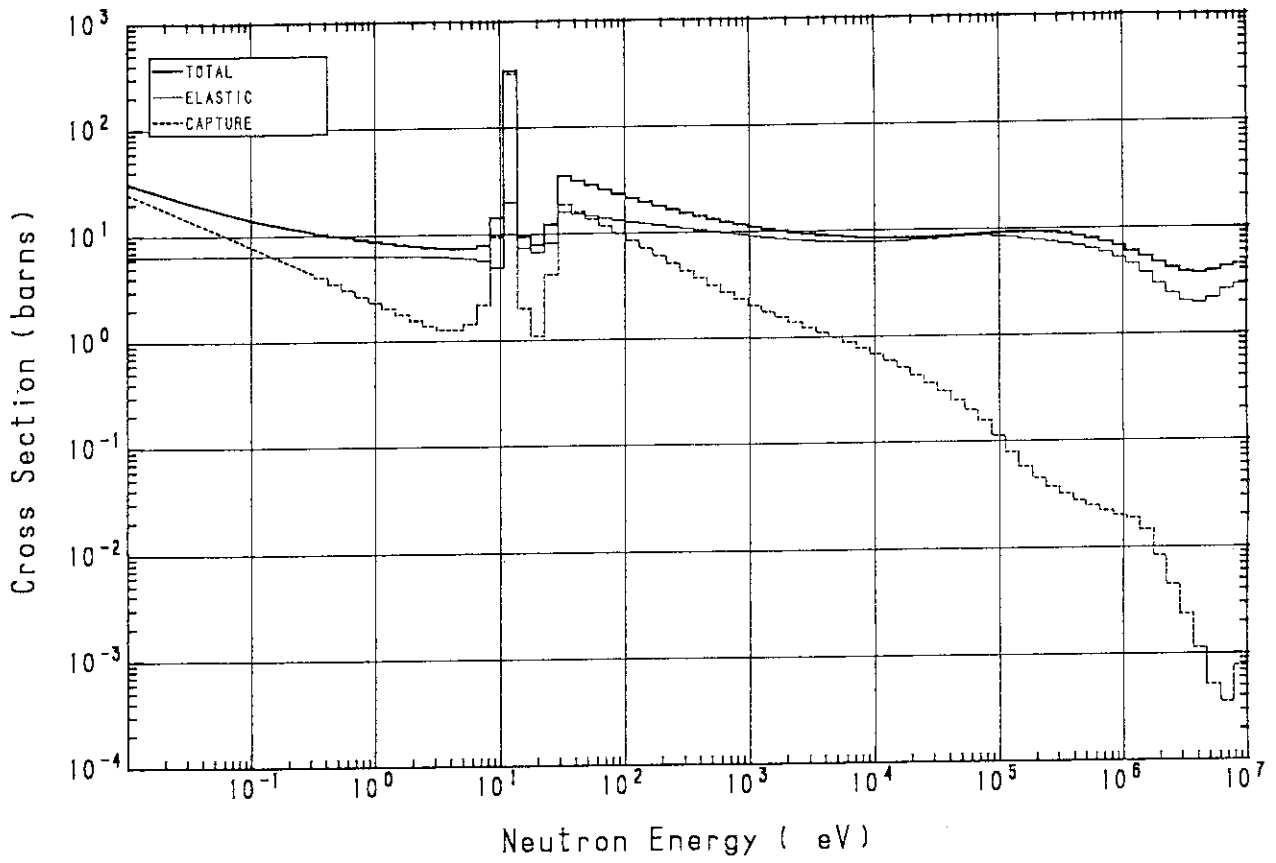


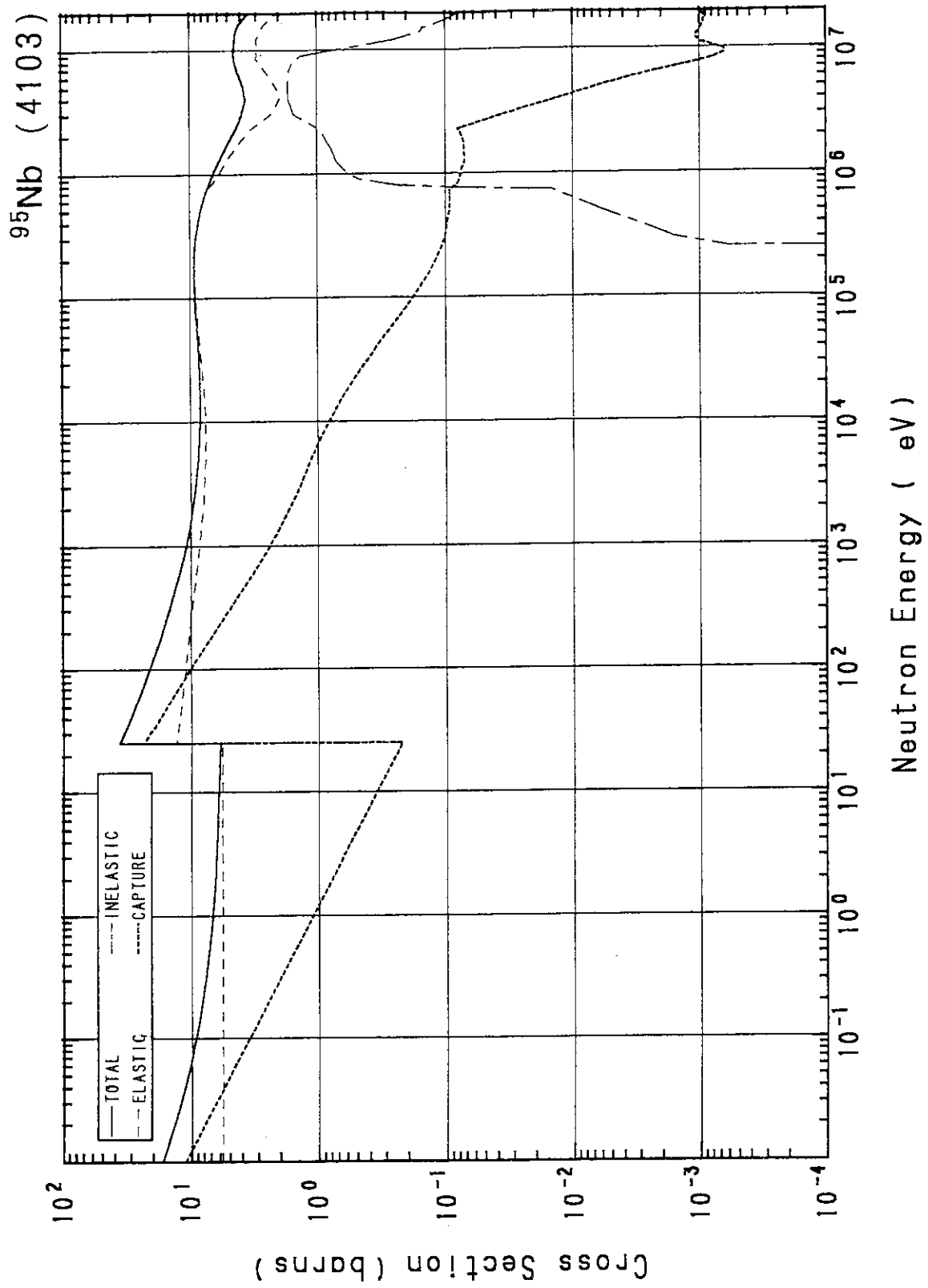
⁹³Nb (4101)



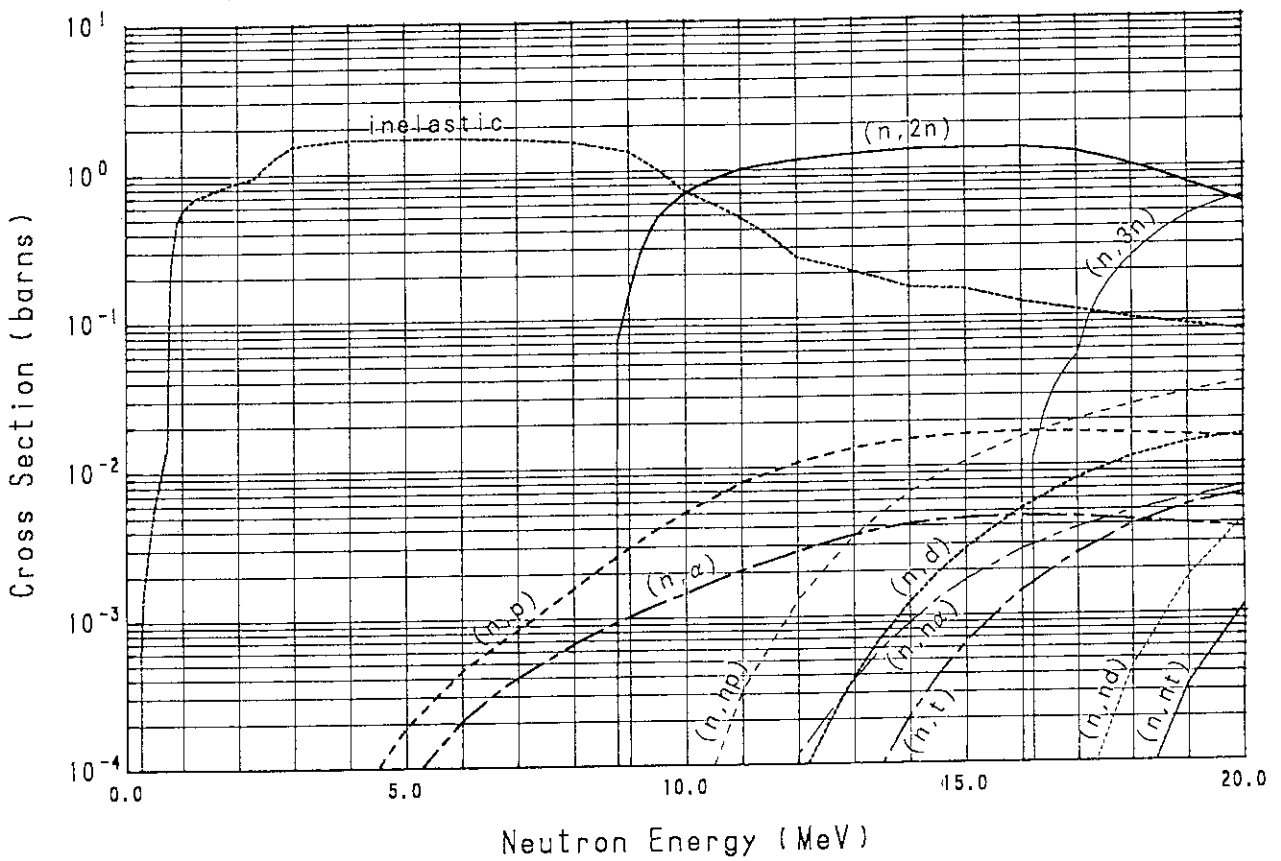
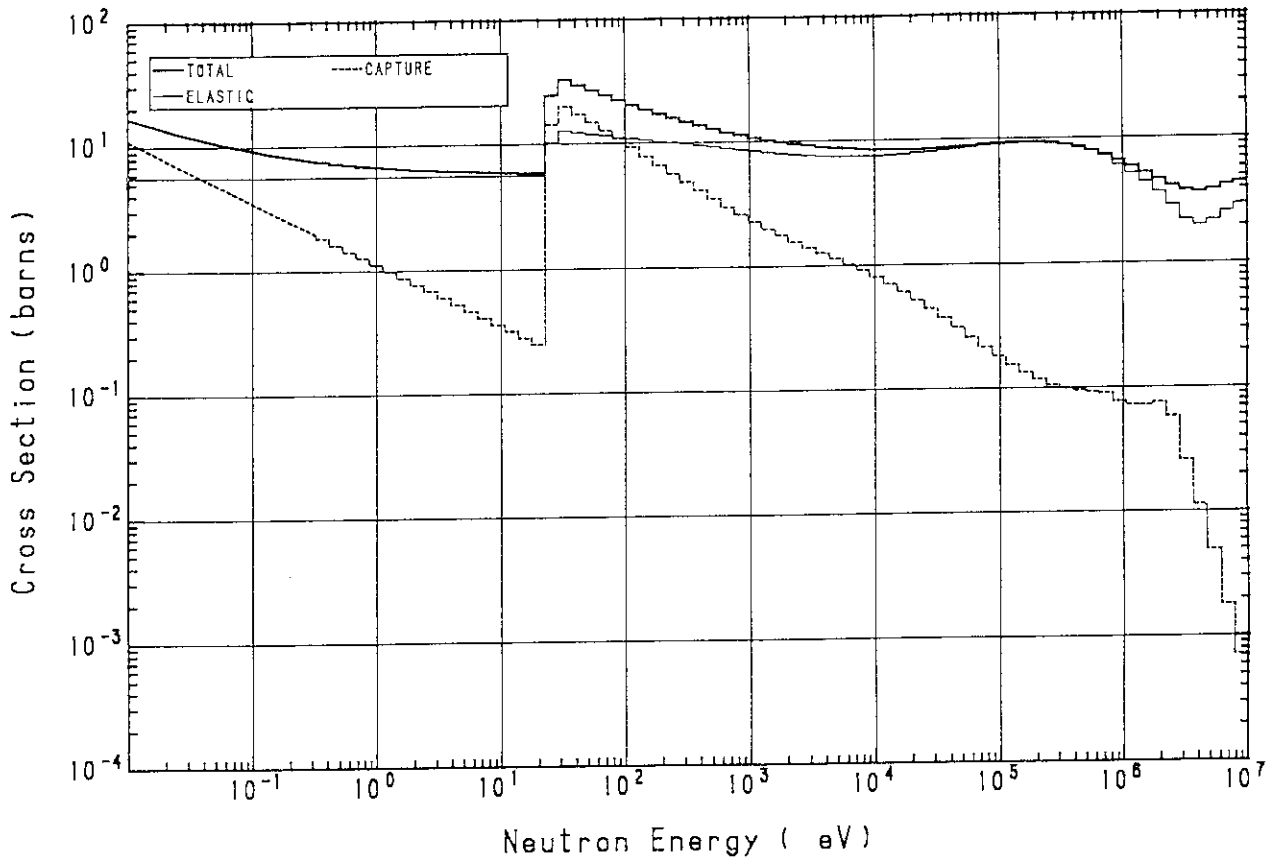


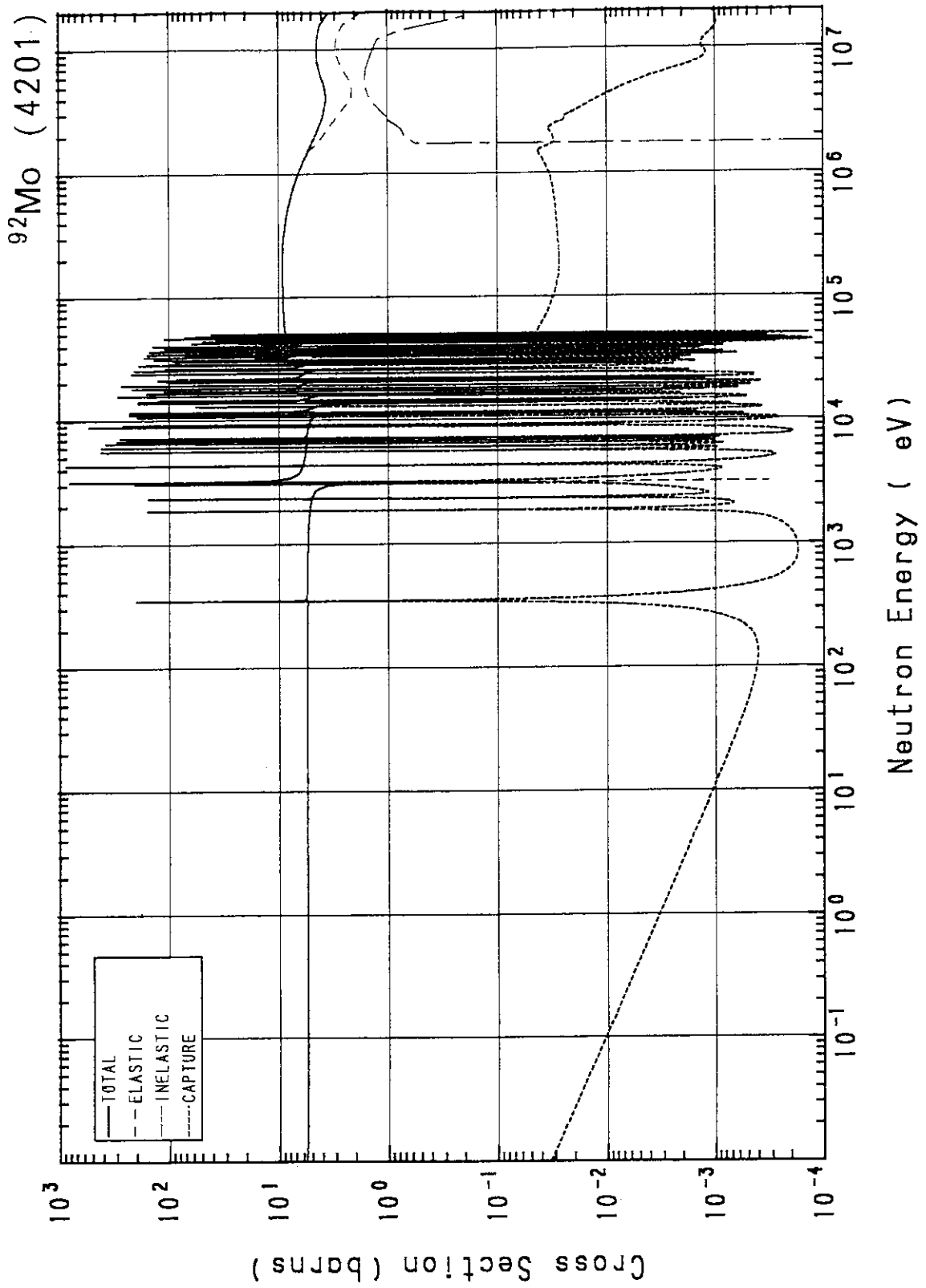
⁹⁴Nb (4102)



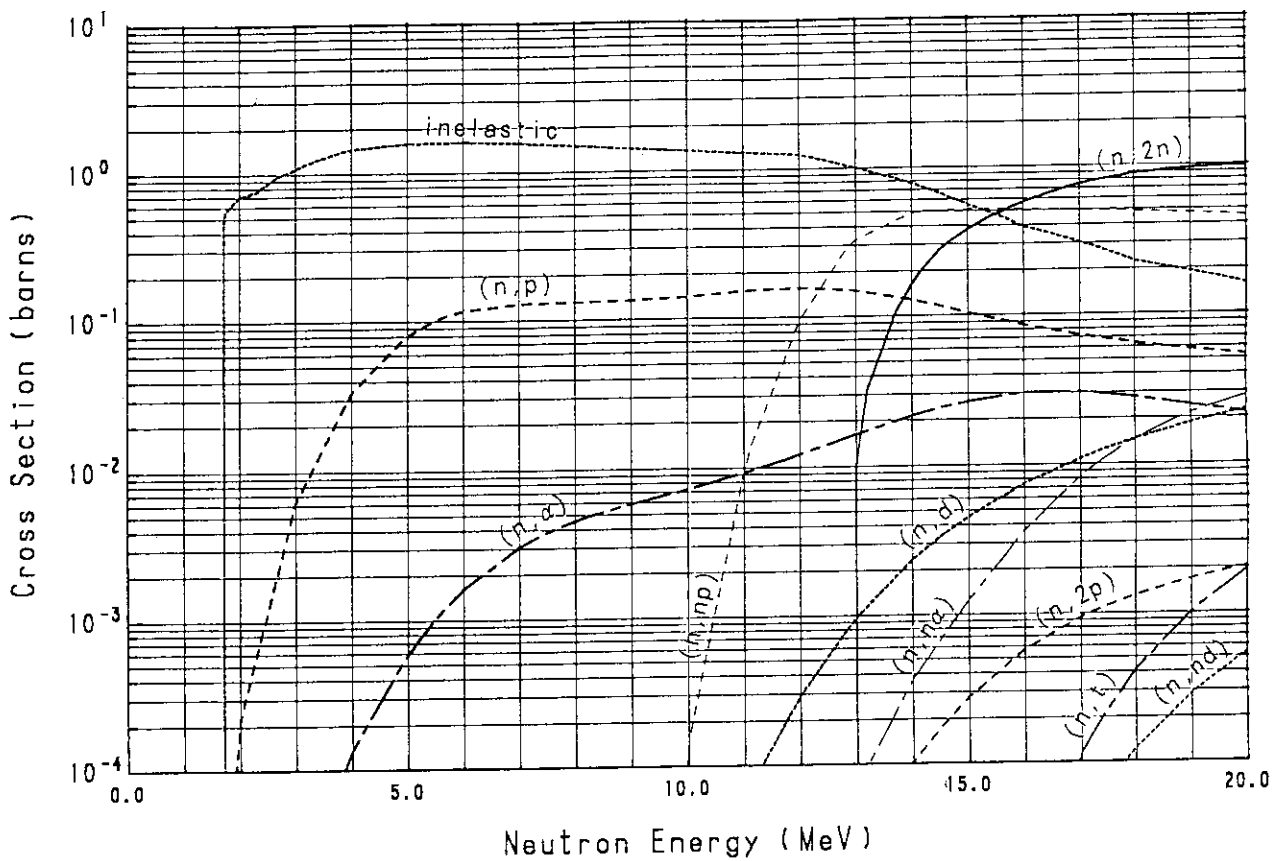
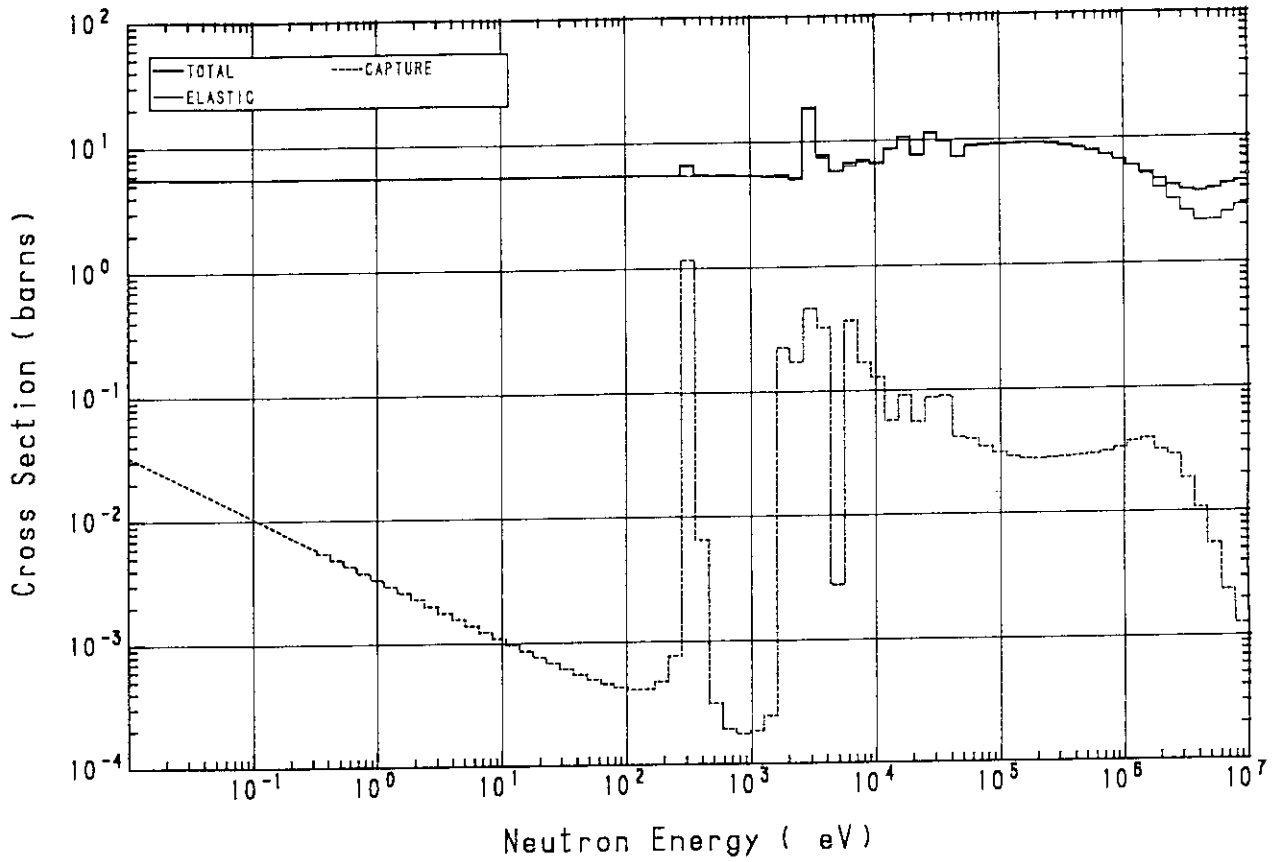


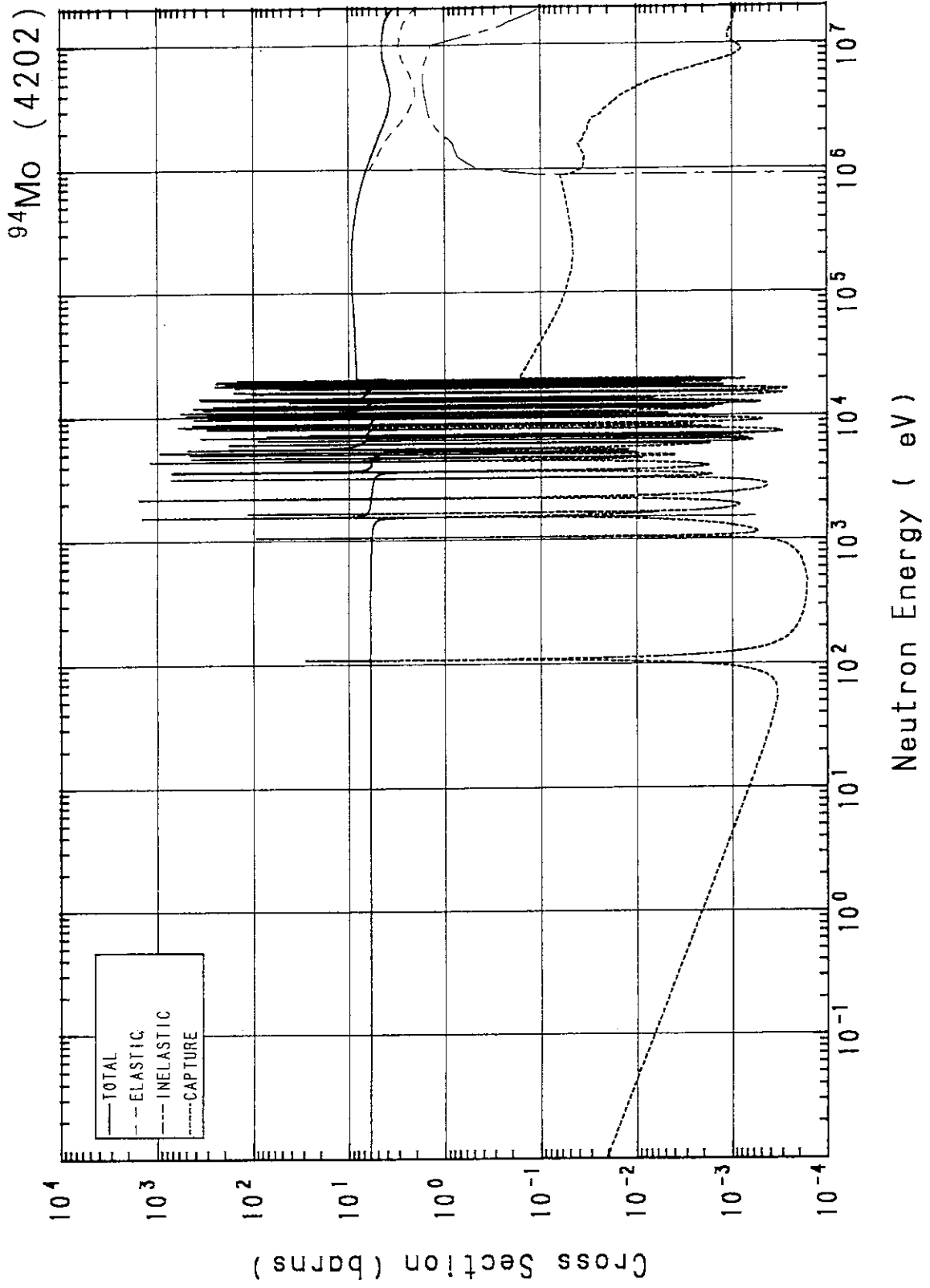
⁹⁵Nb (4103)



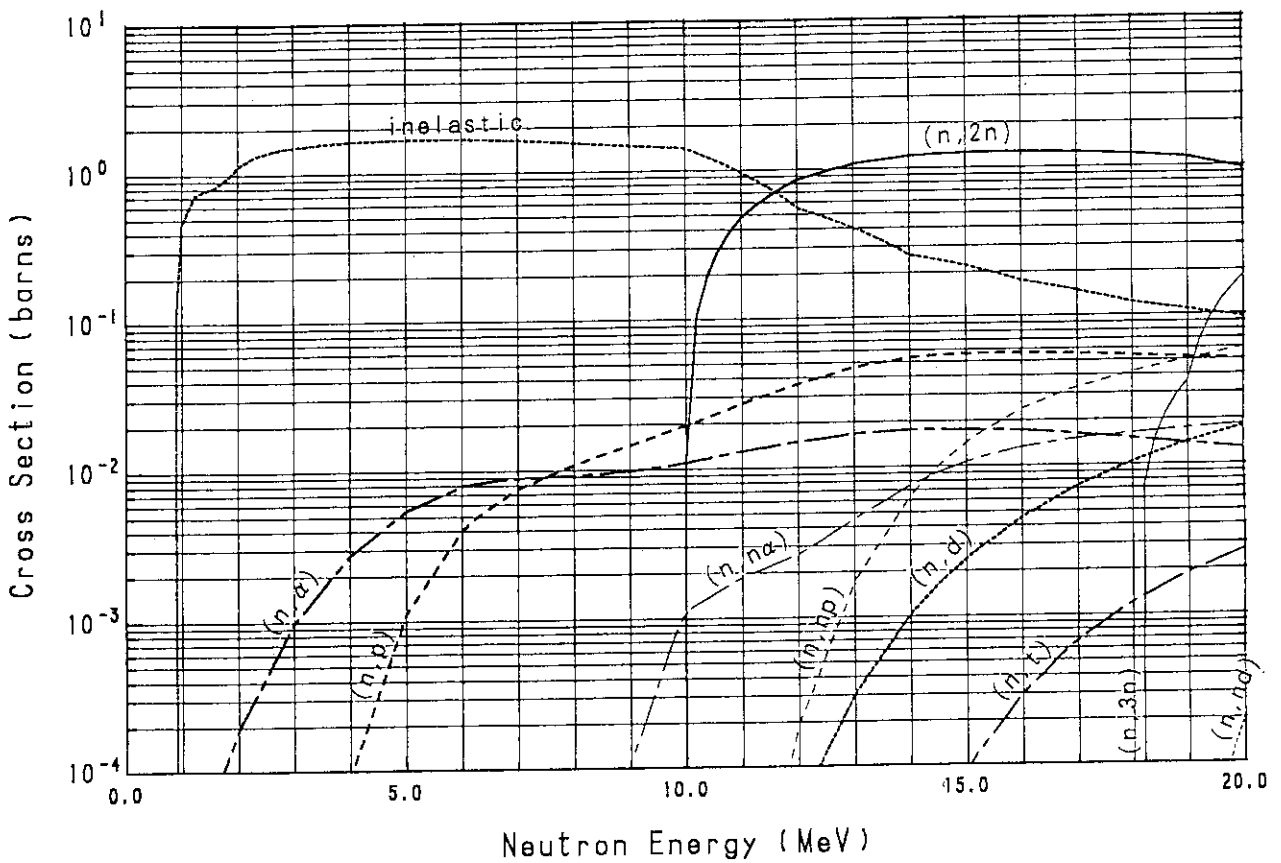
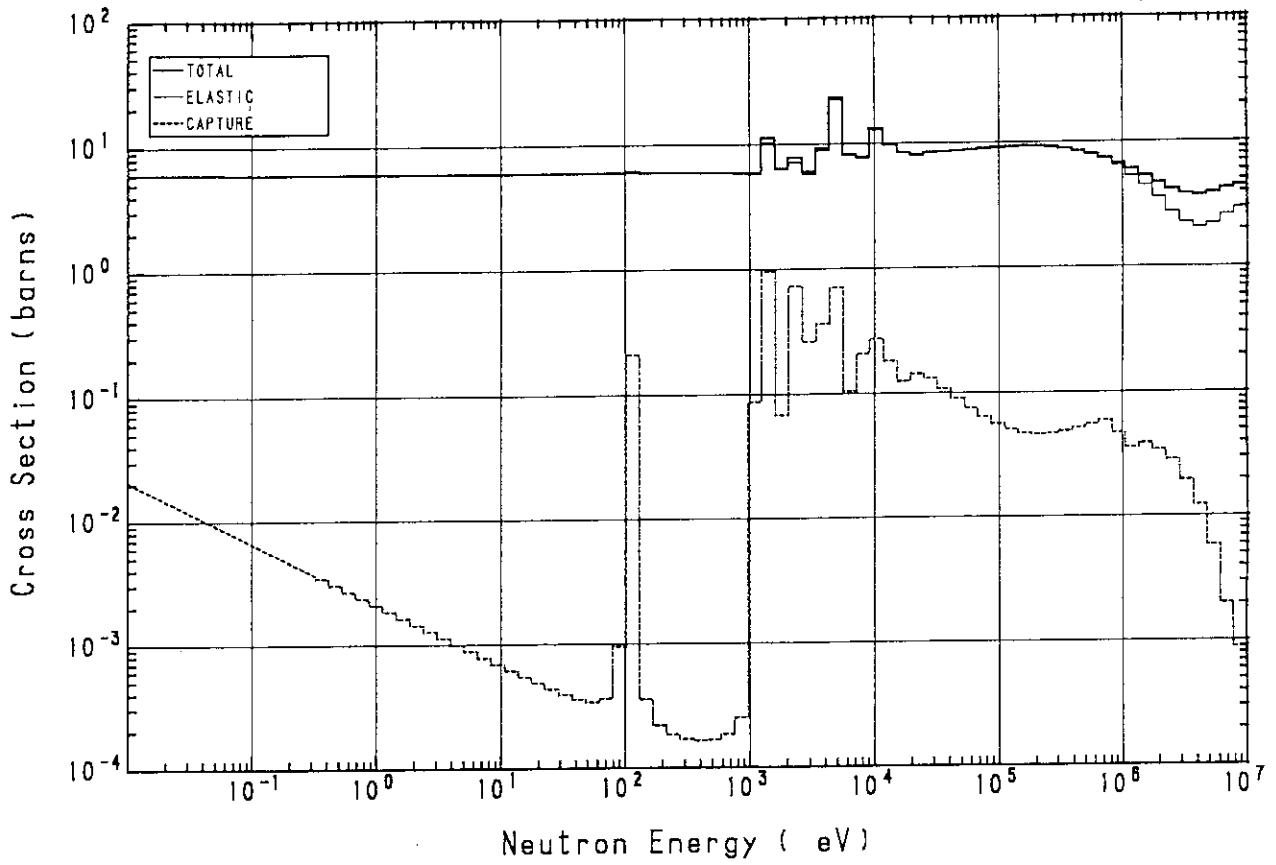


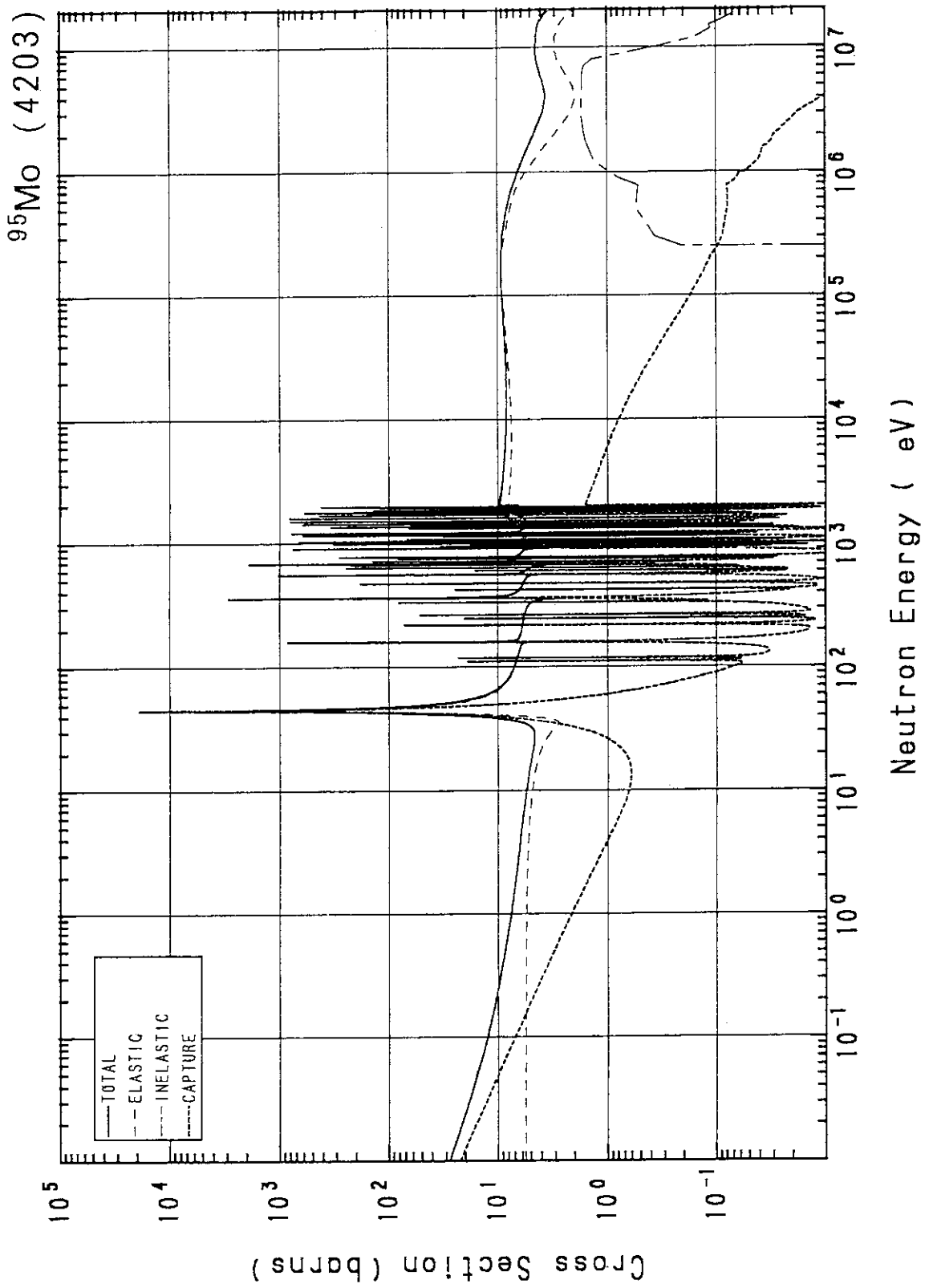
^{92}Mo (4201)



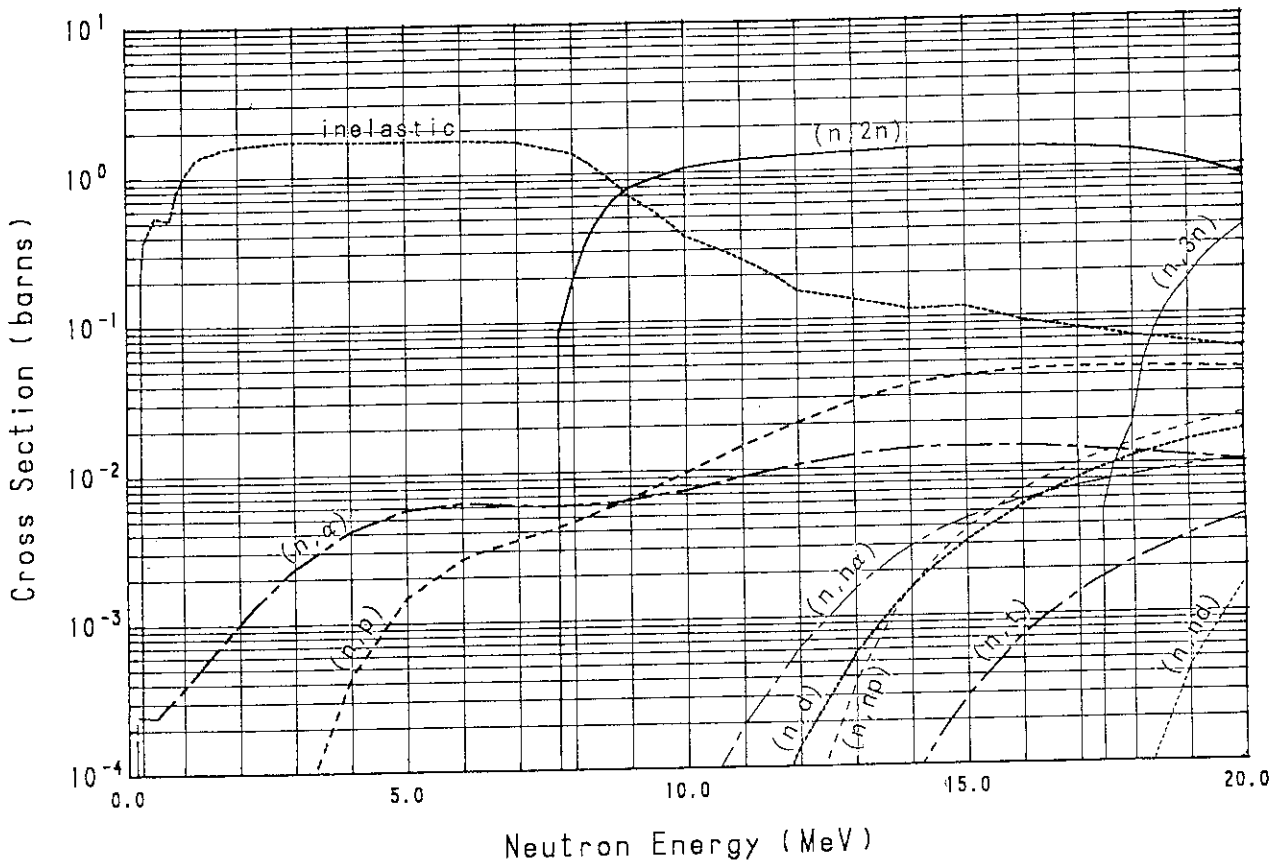
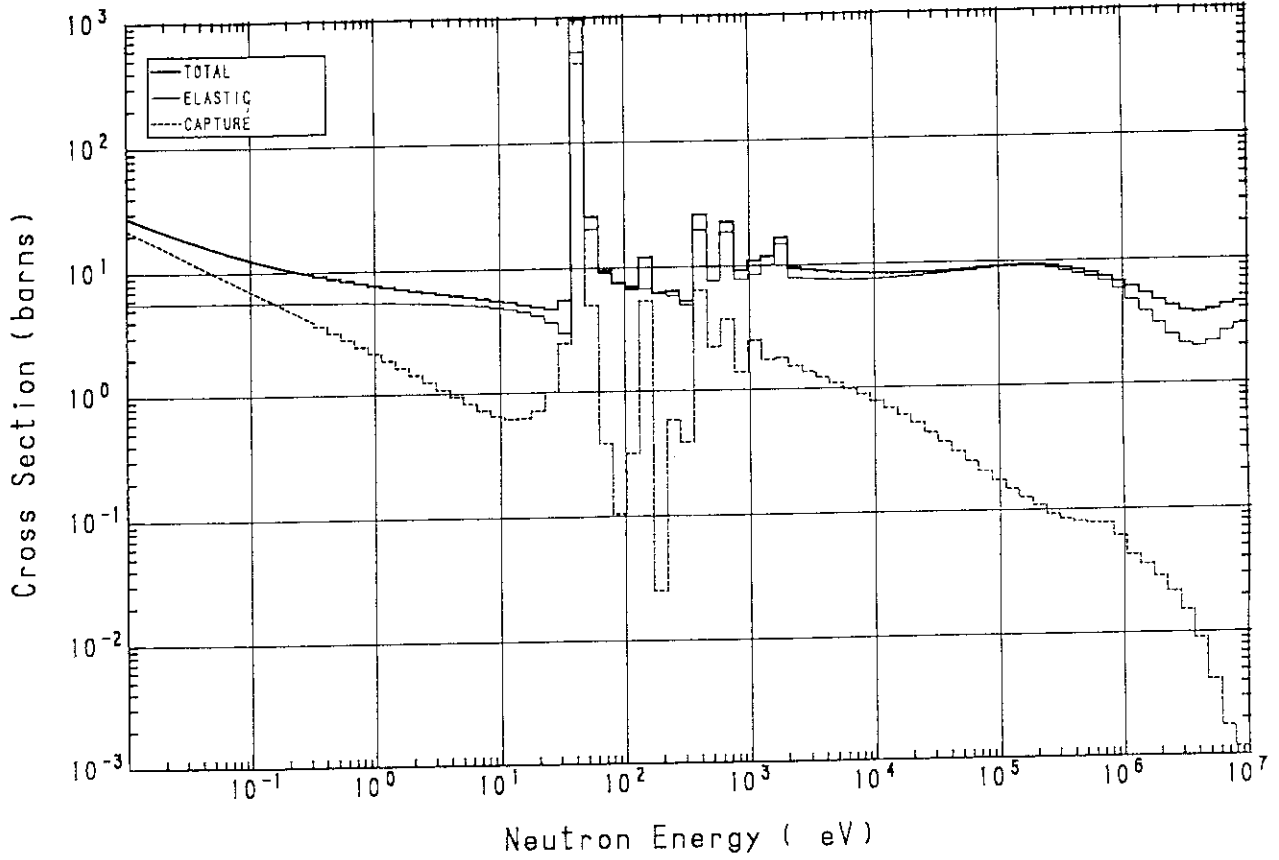


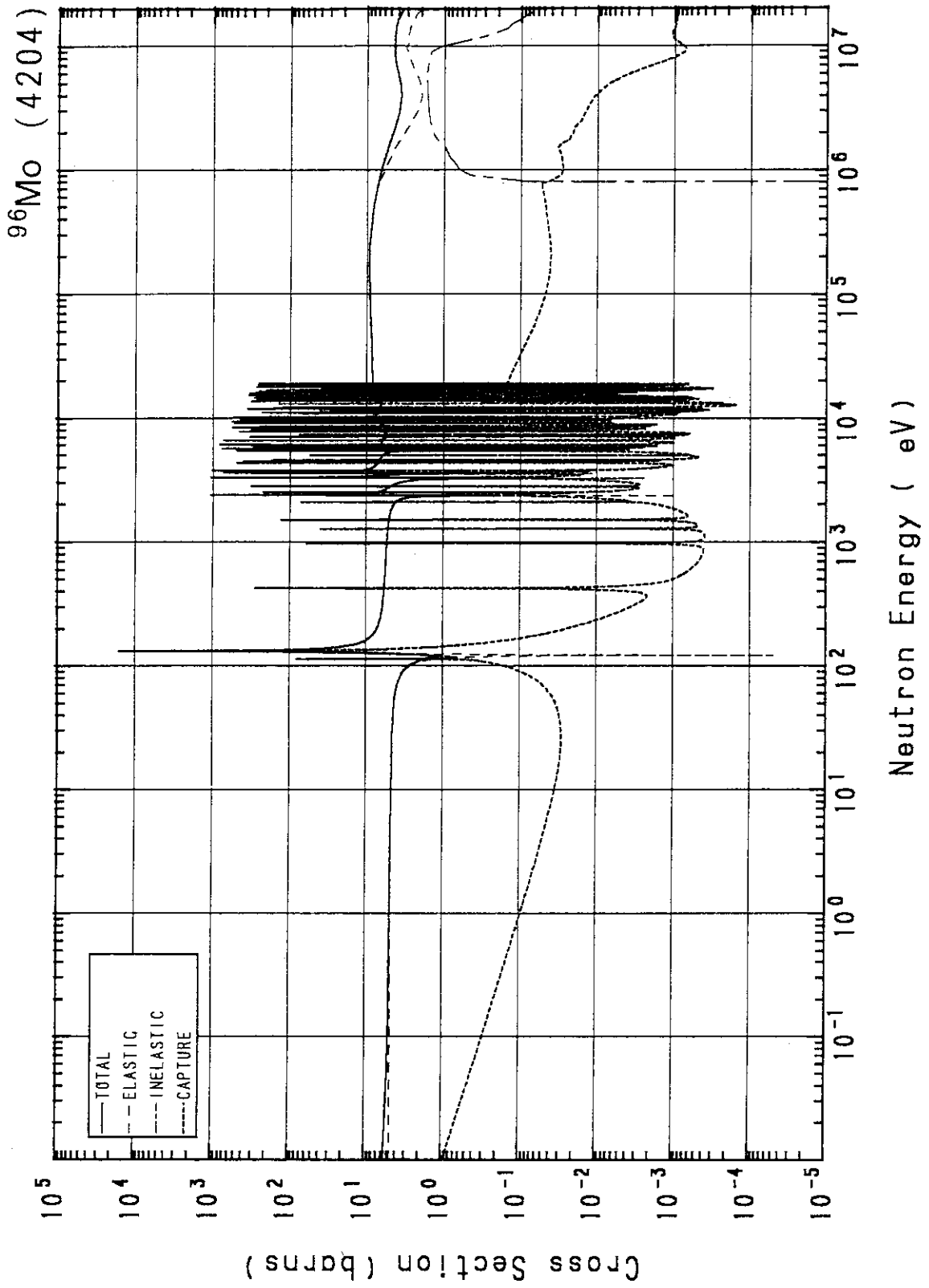
^{94}Mo (4202)



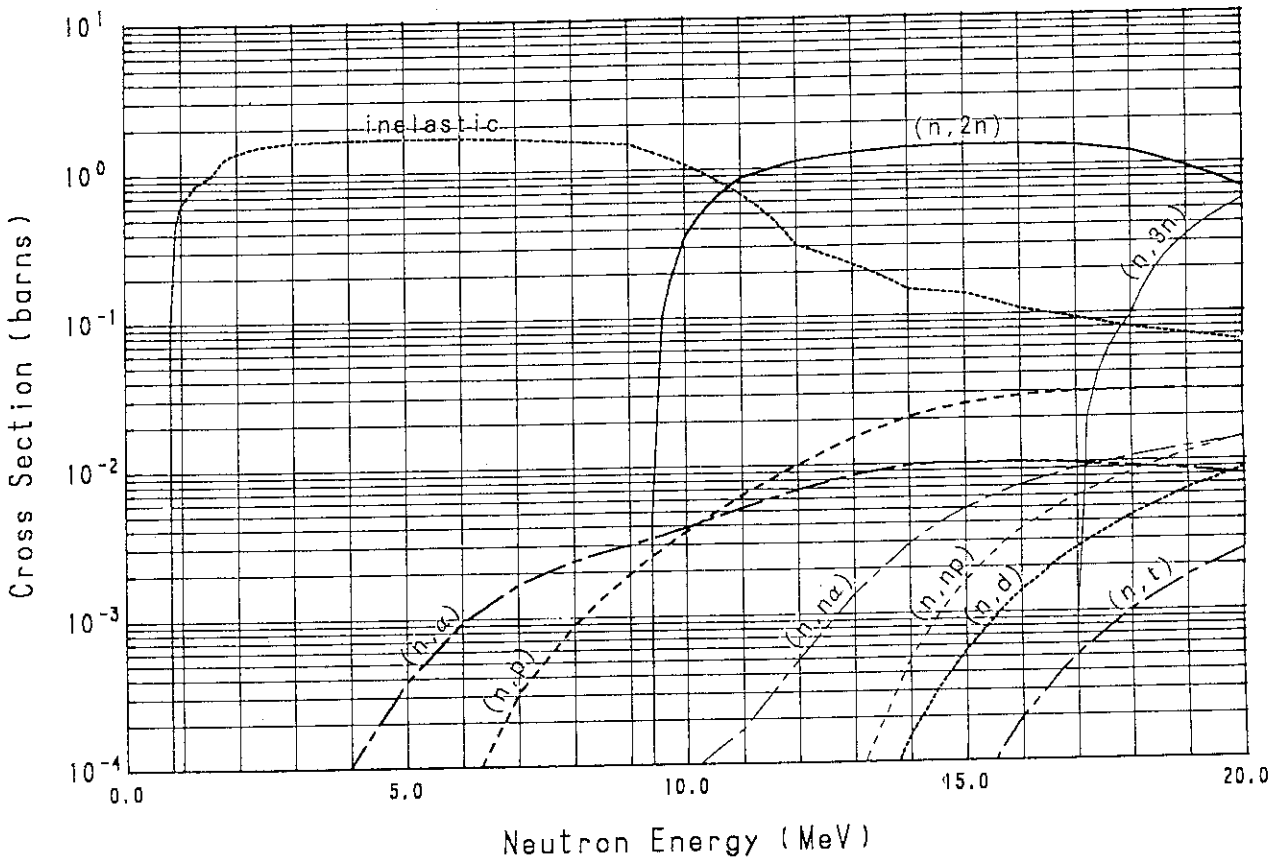
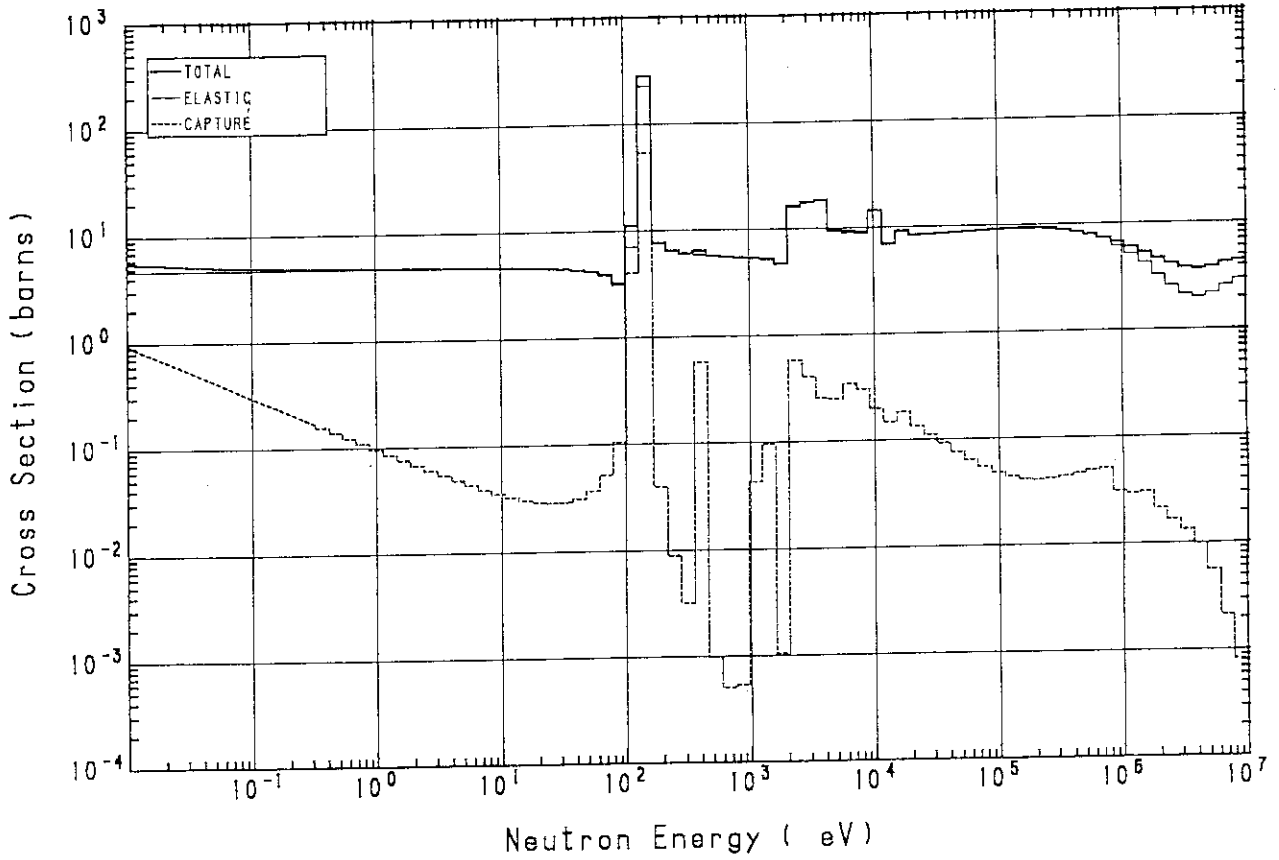


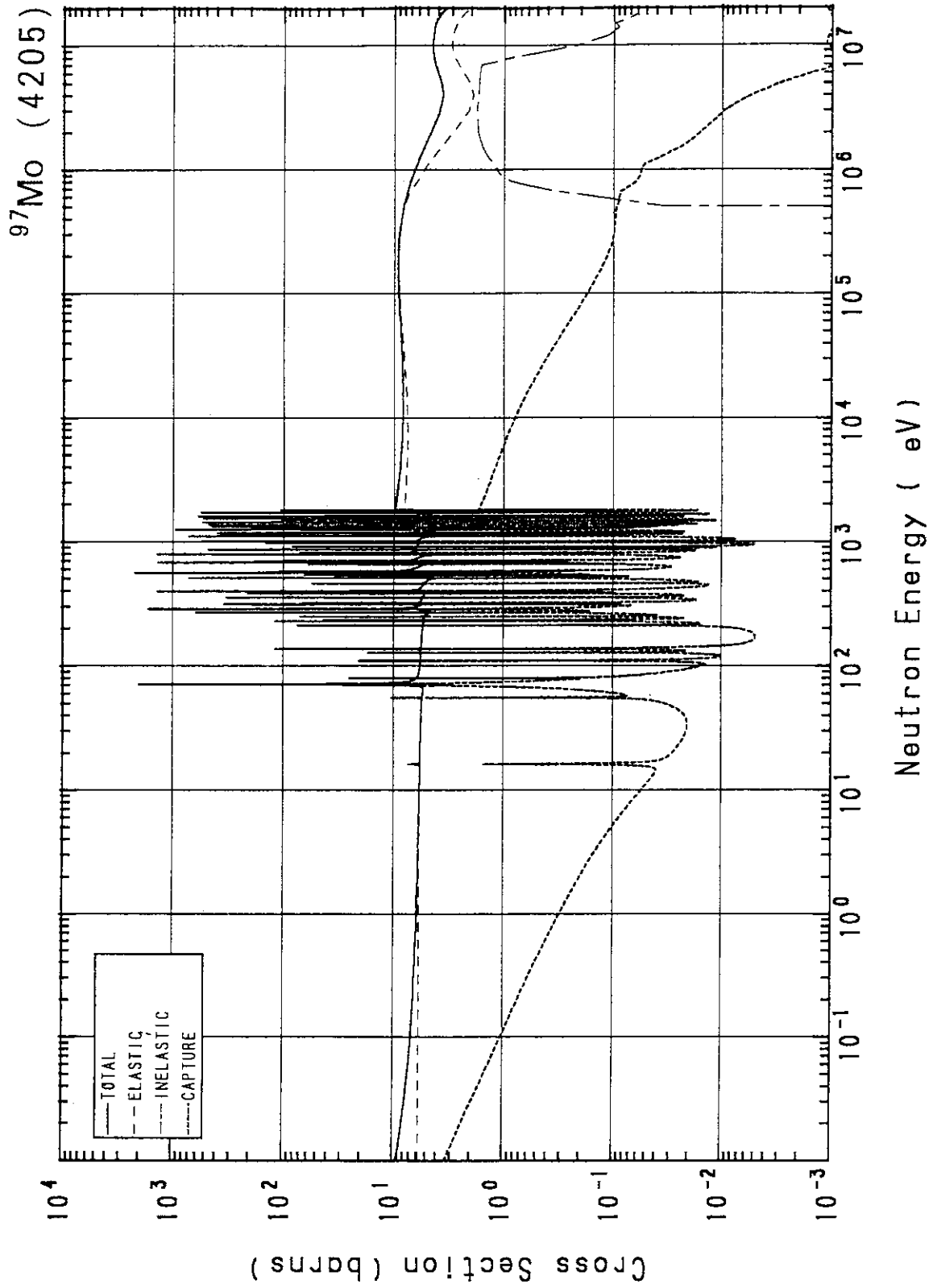
^{95}Mo (4203)



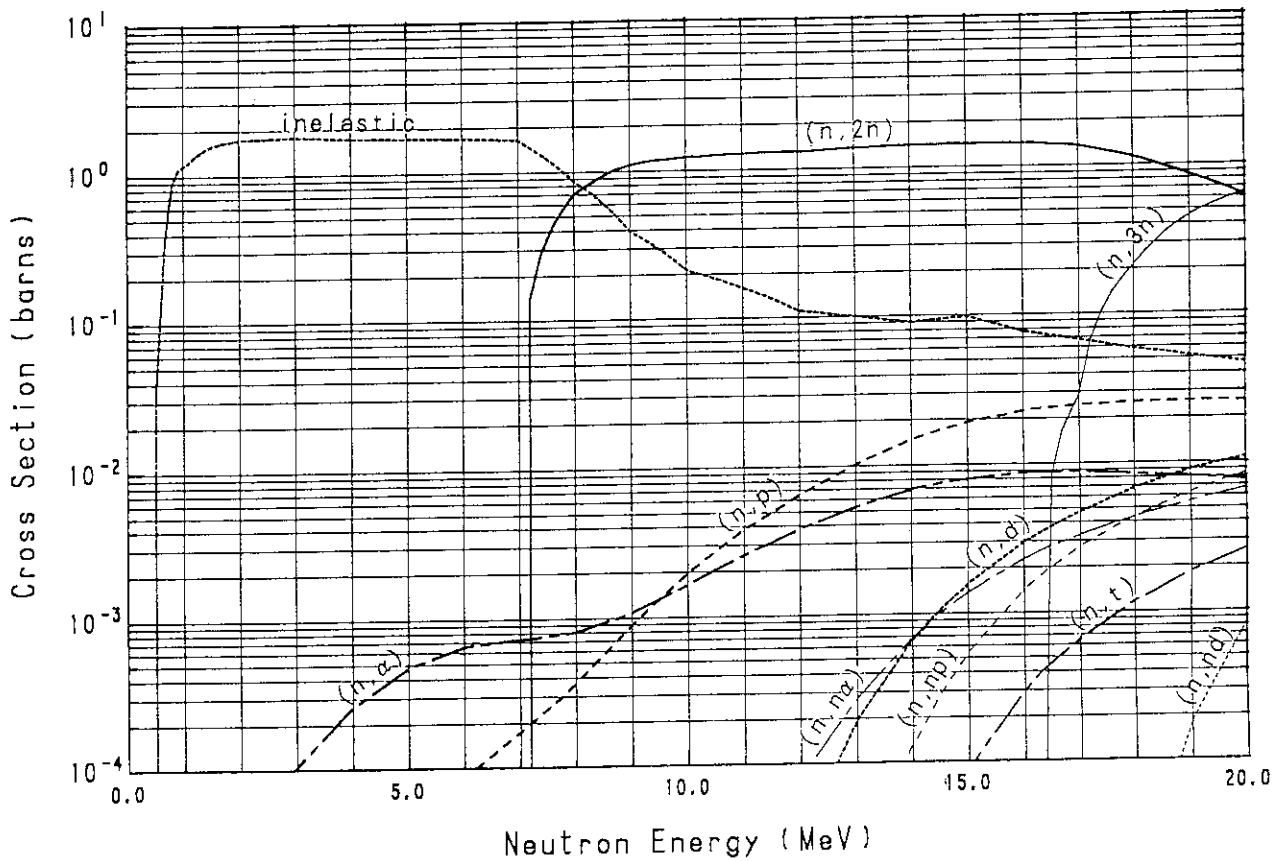
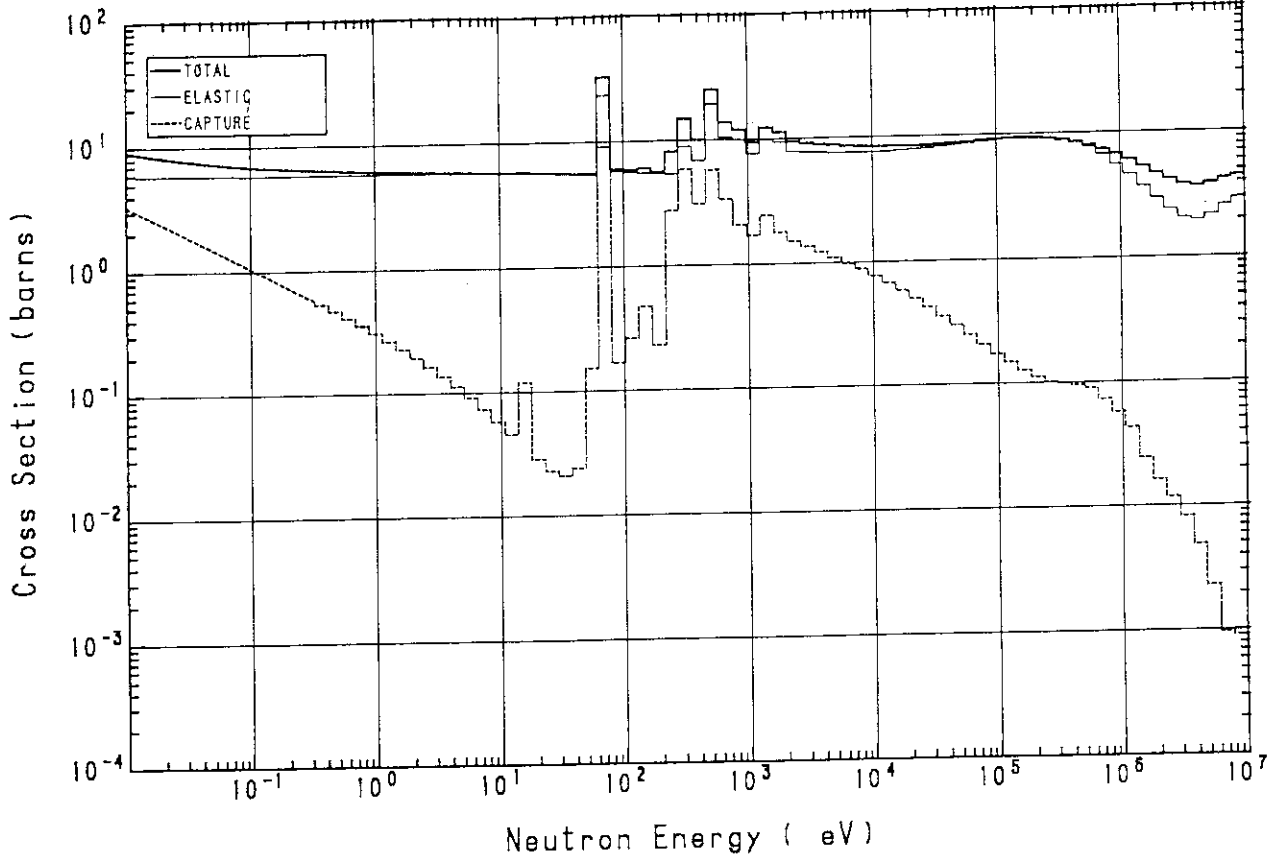


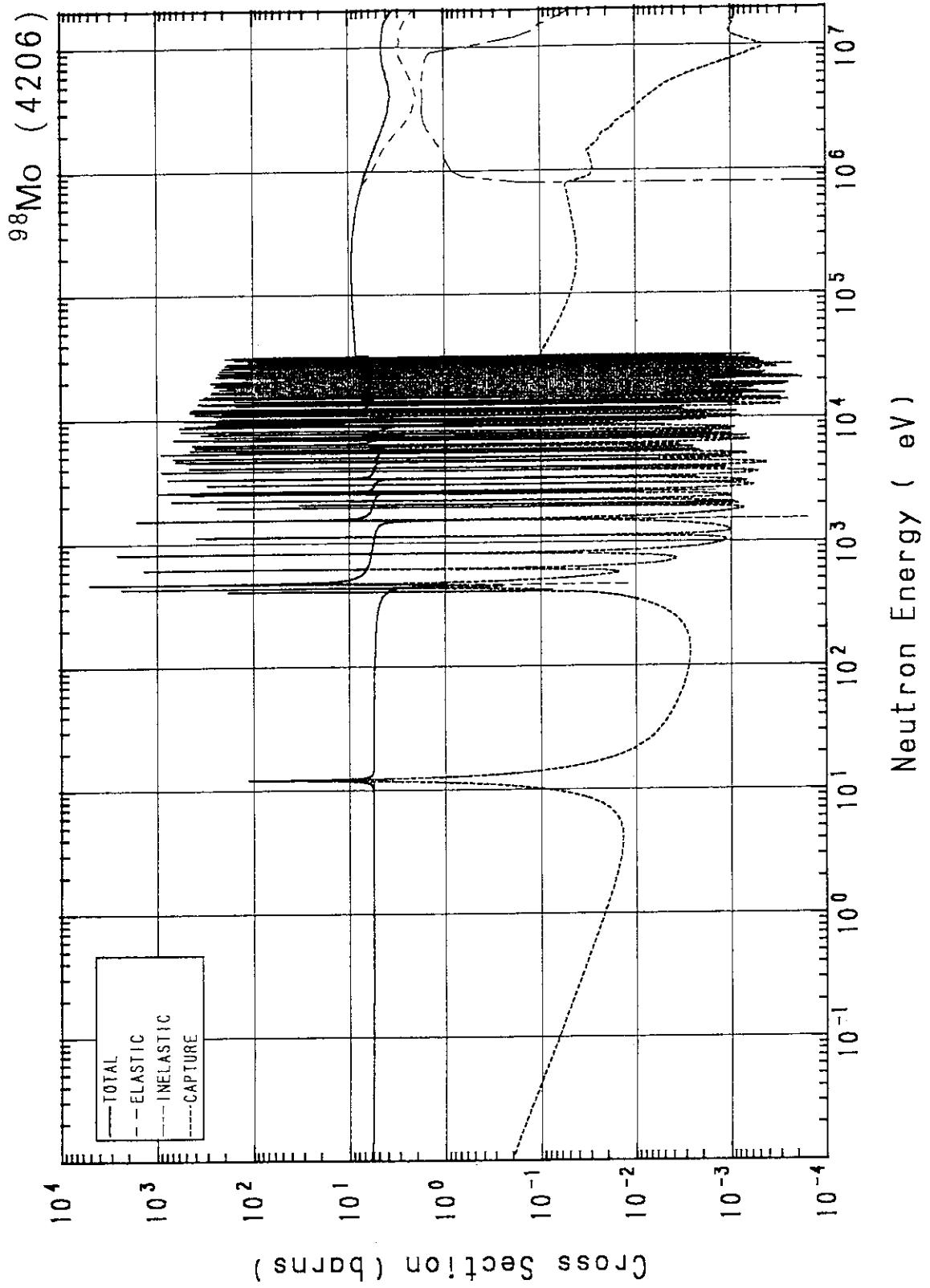
⁹⁶Mo (4204)



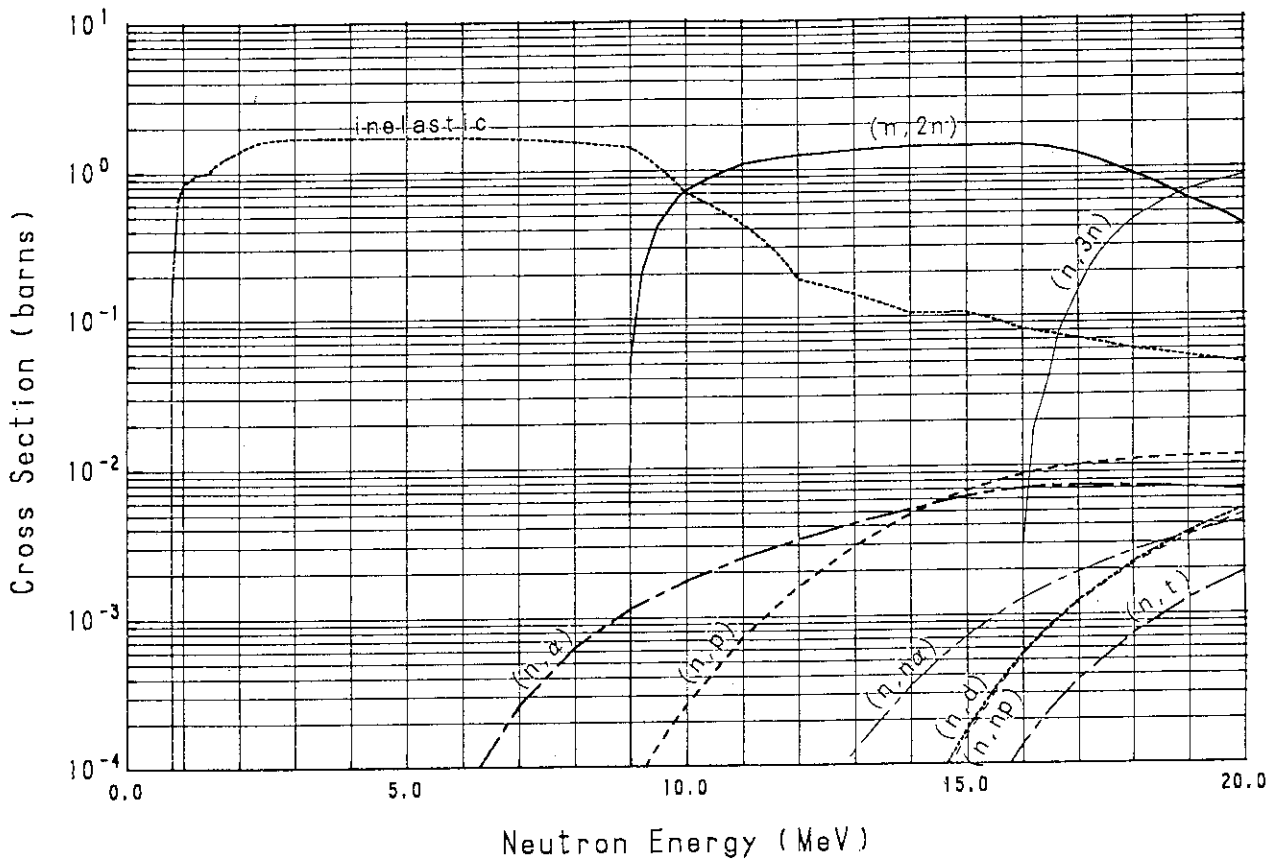
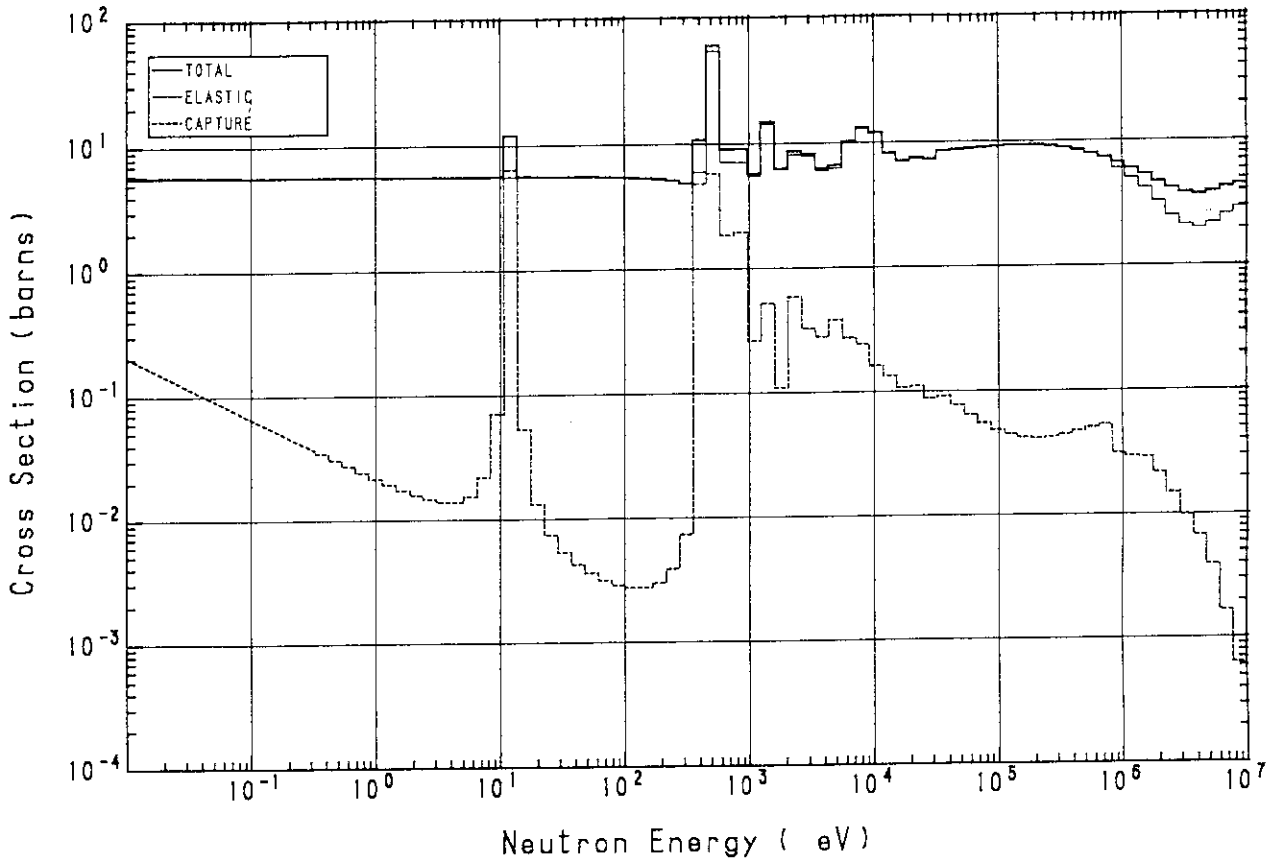


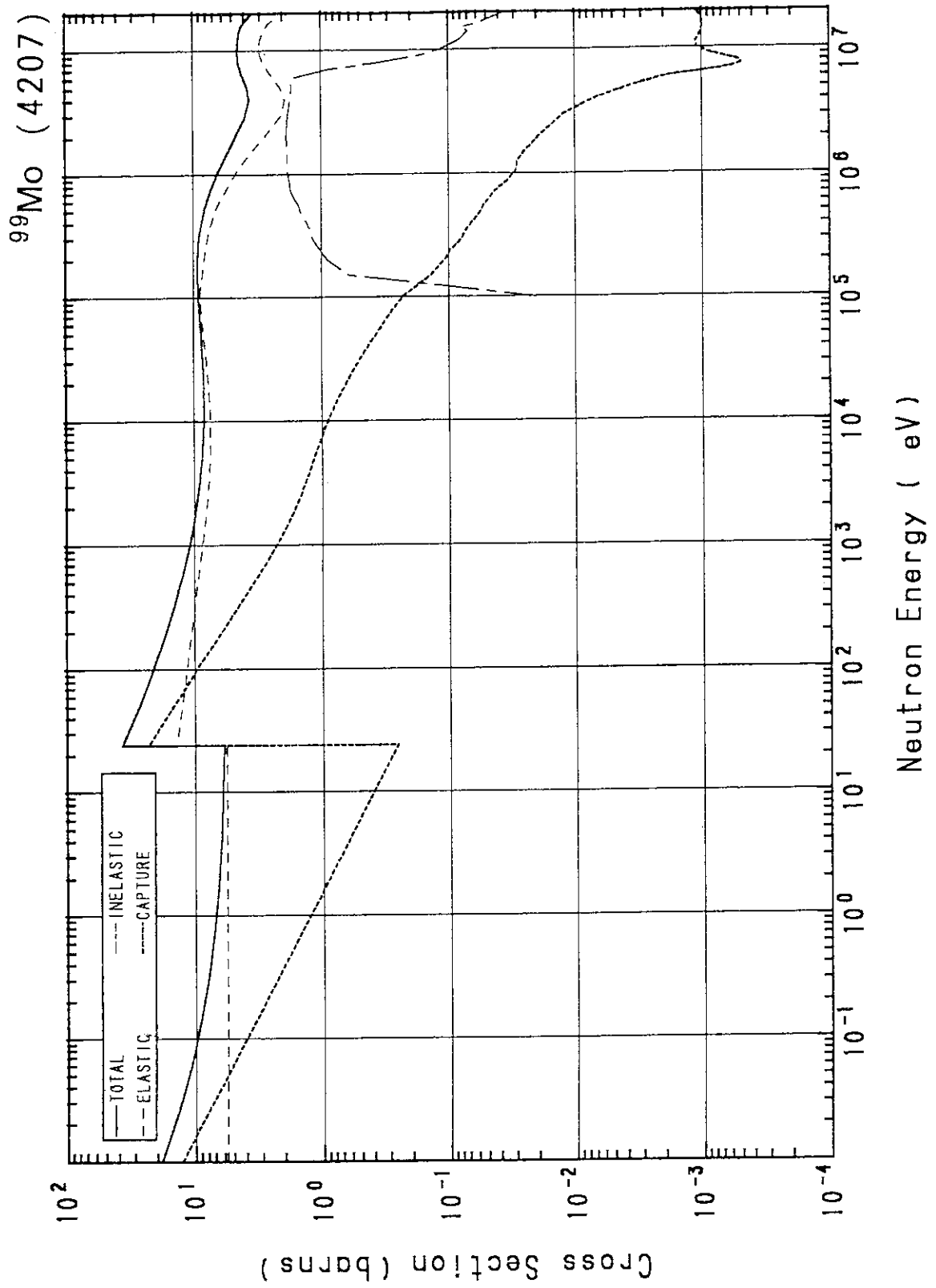
⁹⁷Mo (4205)



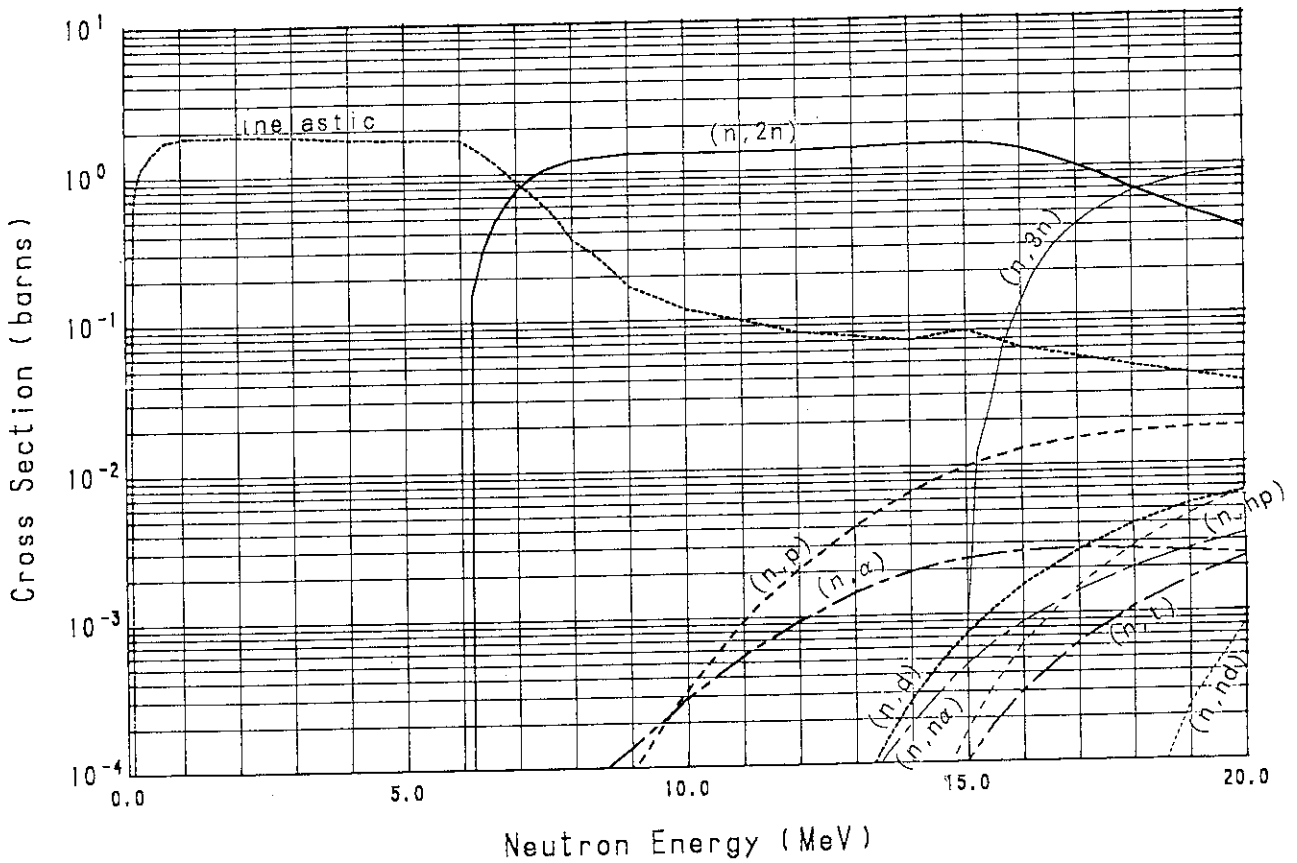
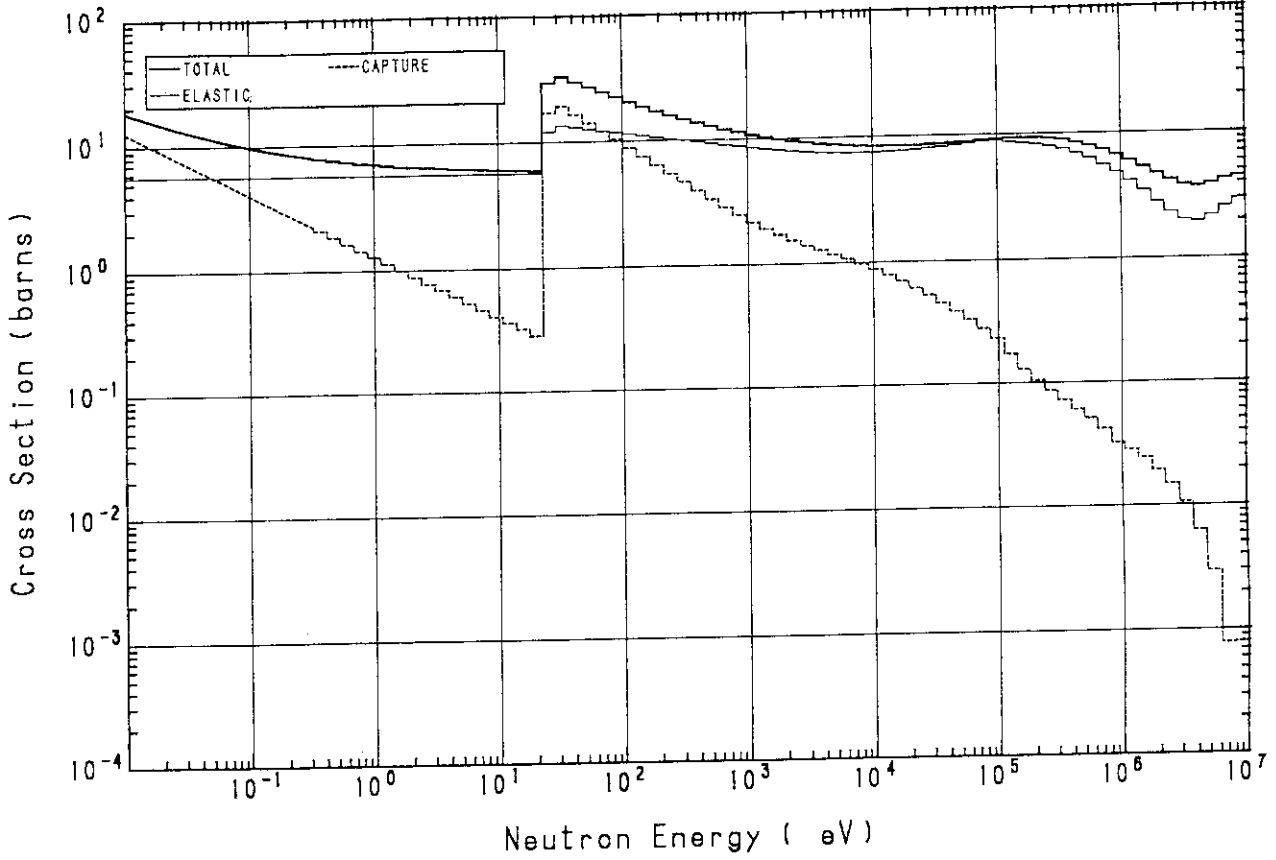


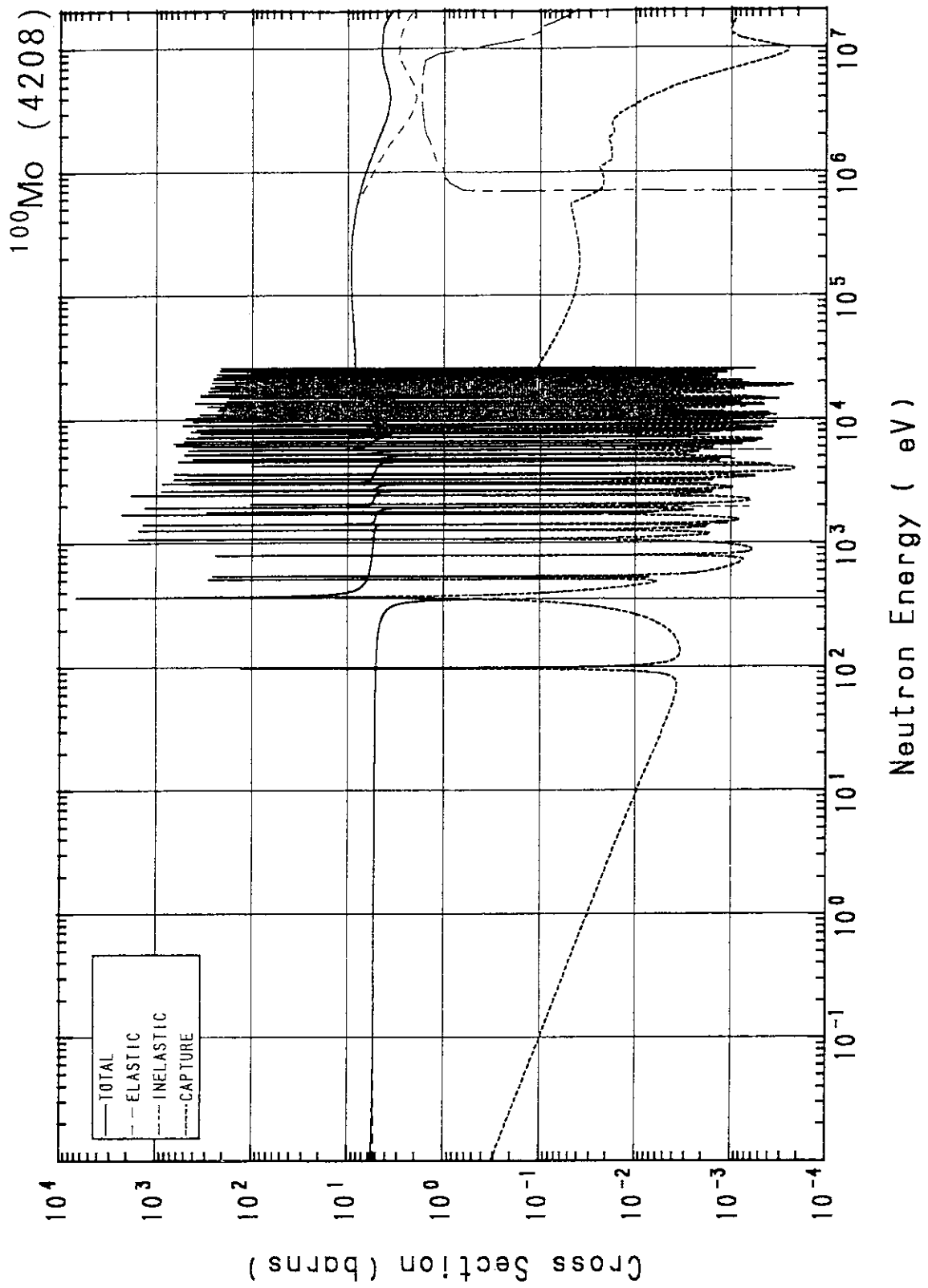
^{98}Mo (4206)

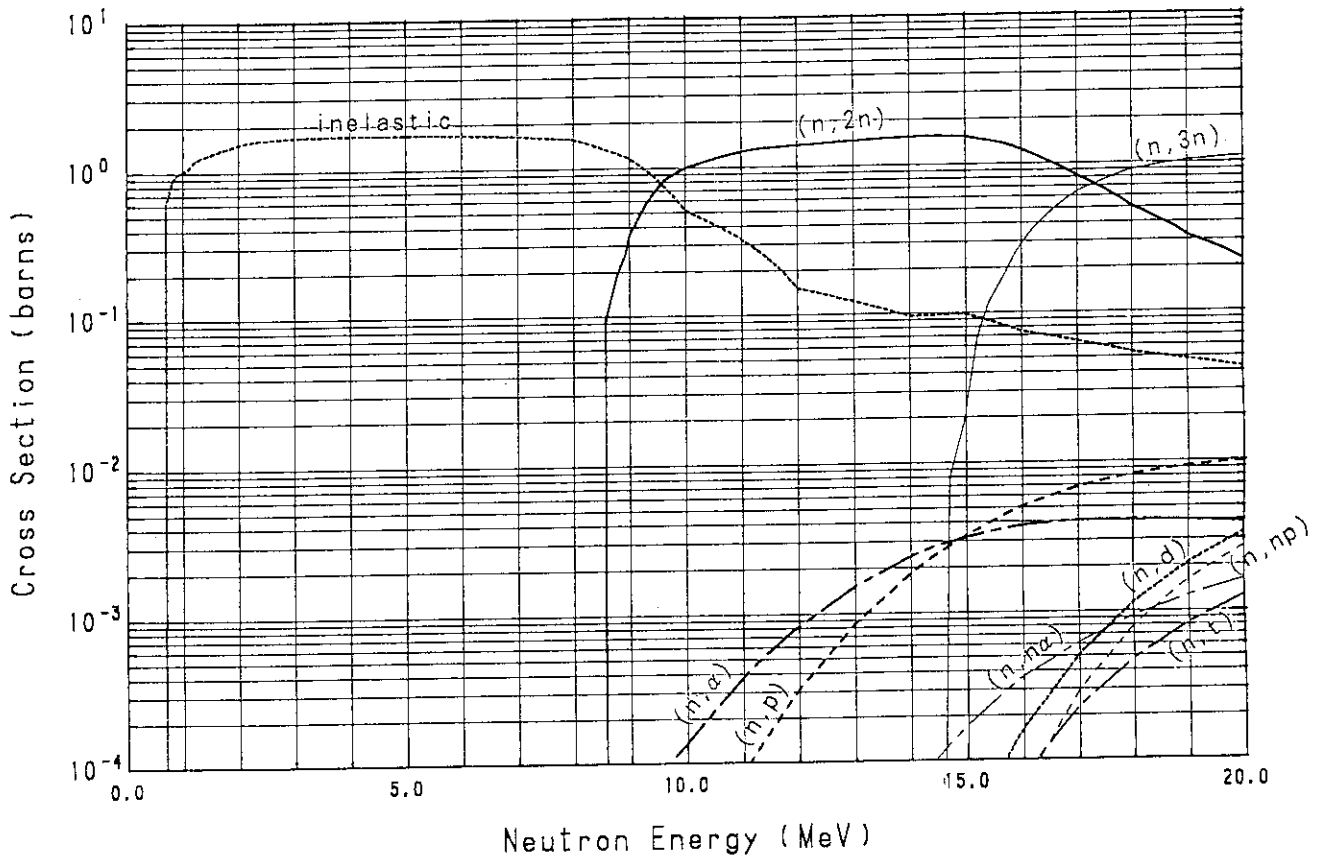
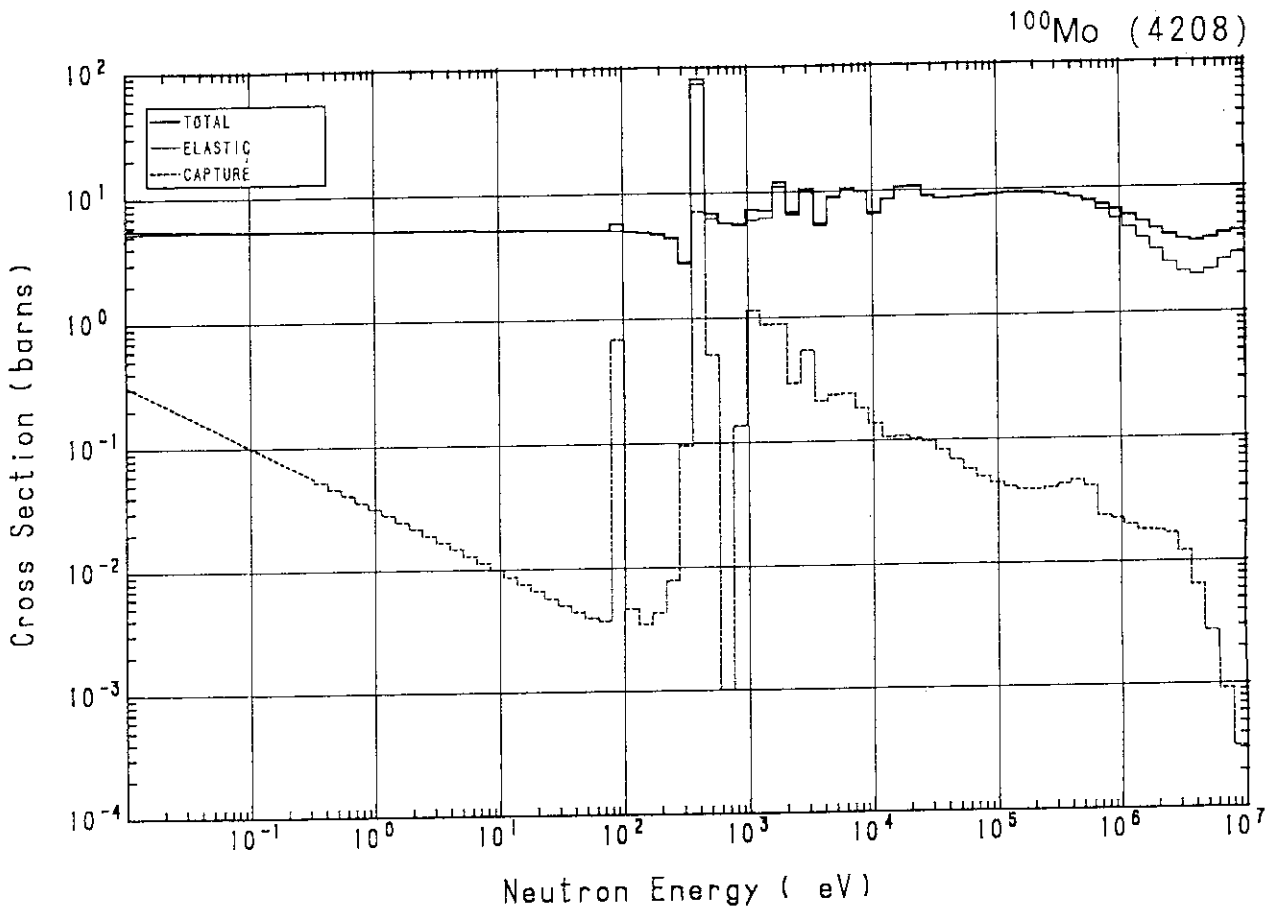


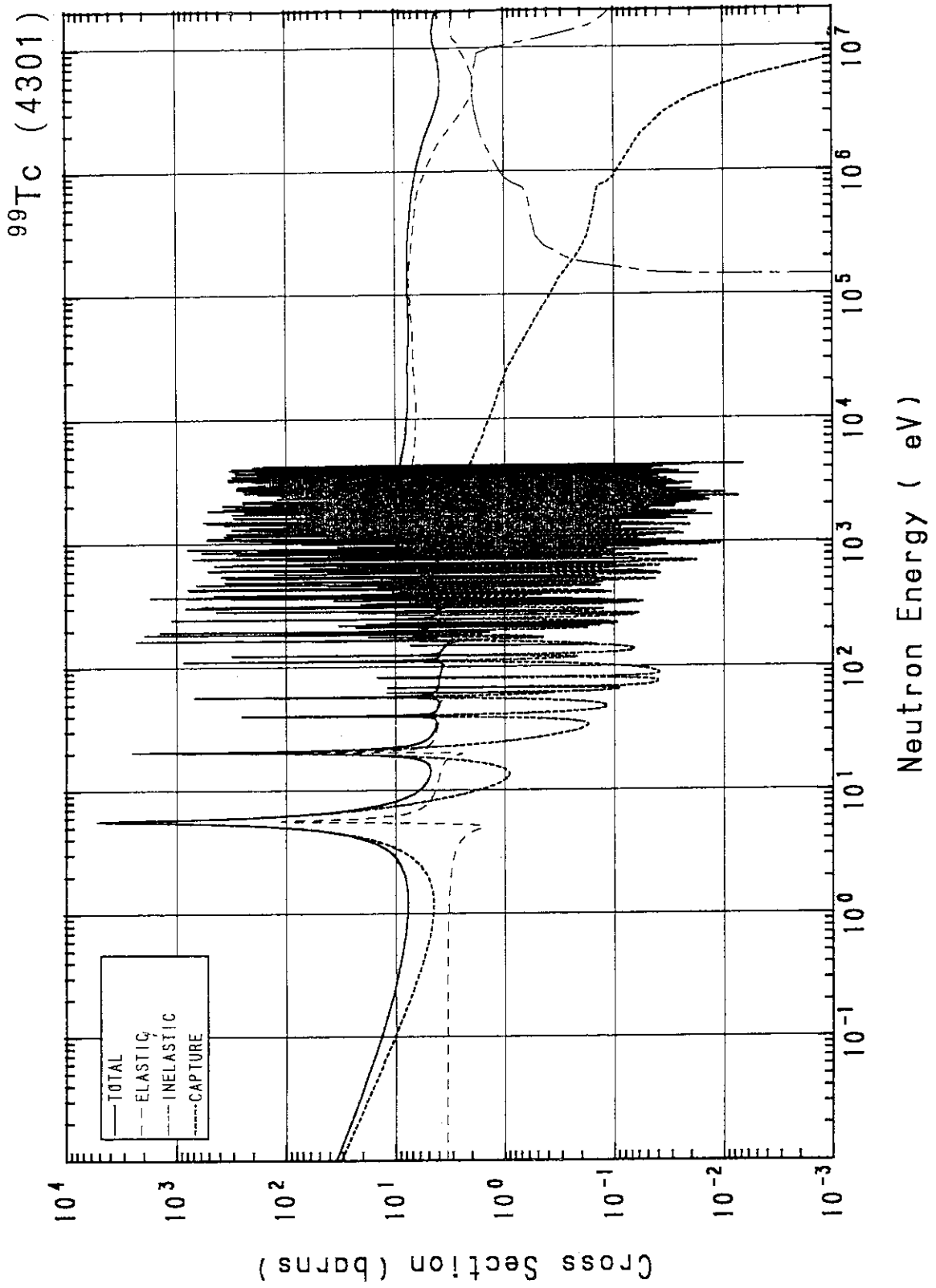


⁹⁹Mo (4207)

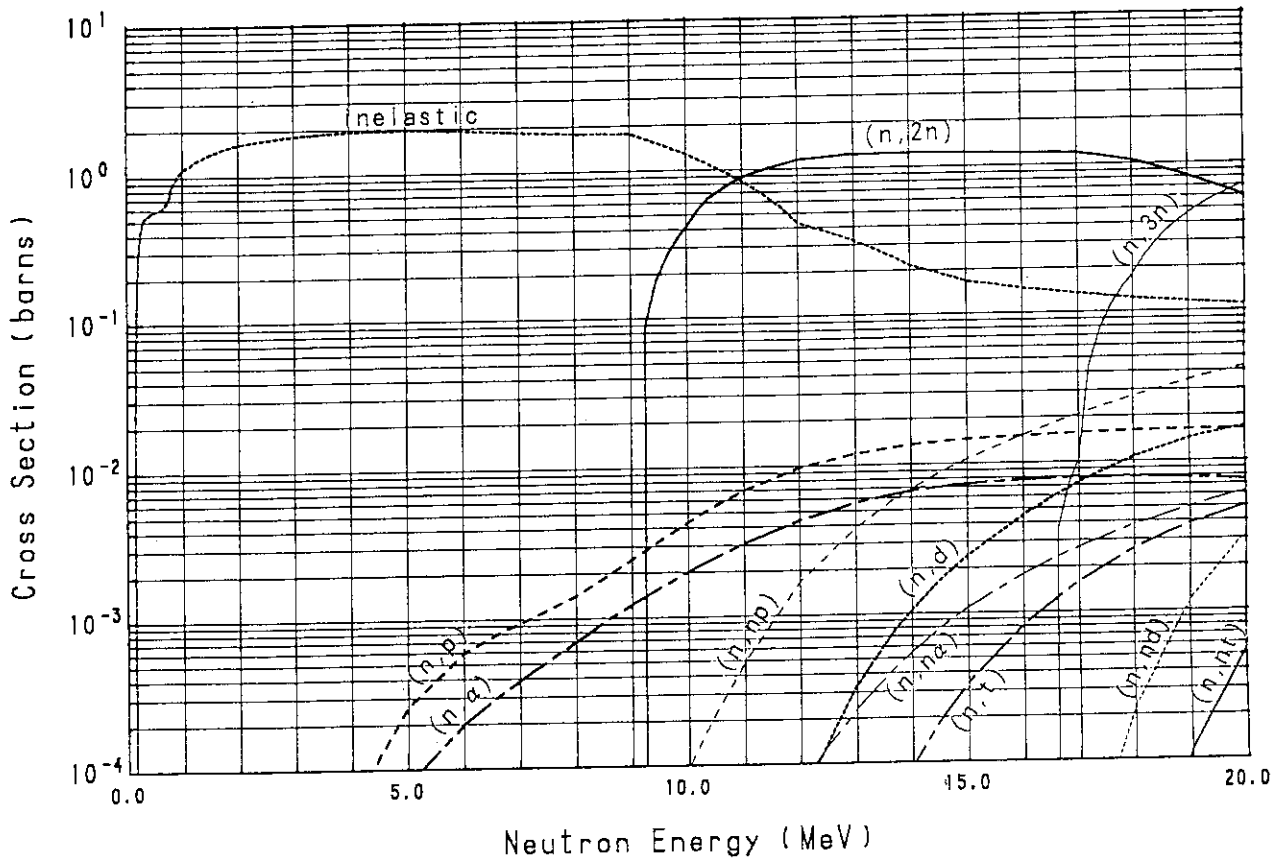
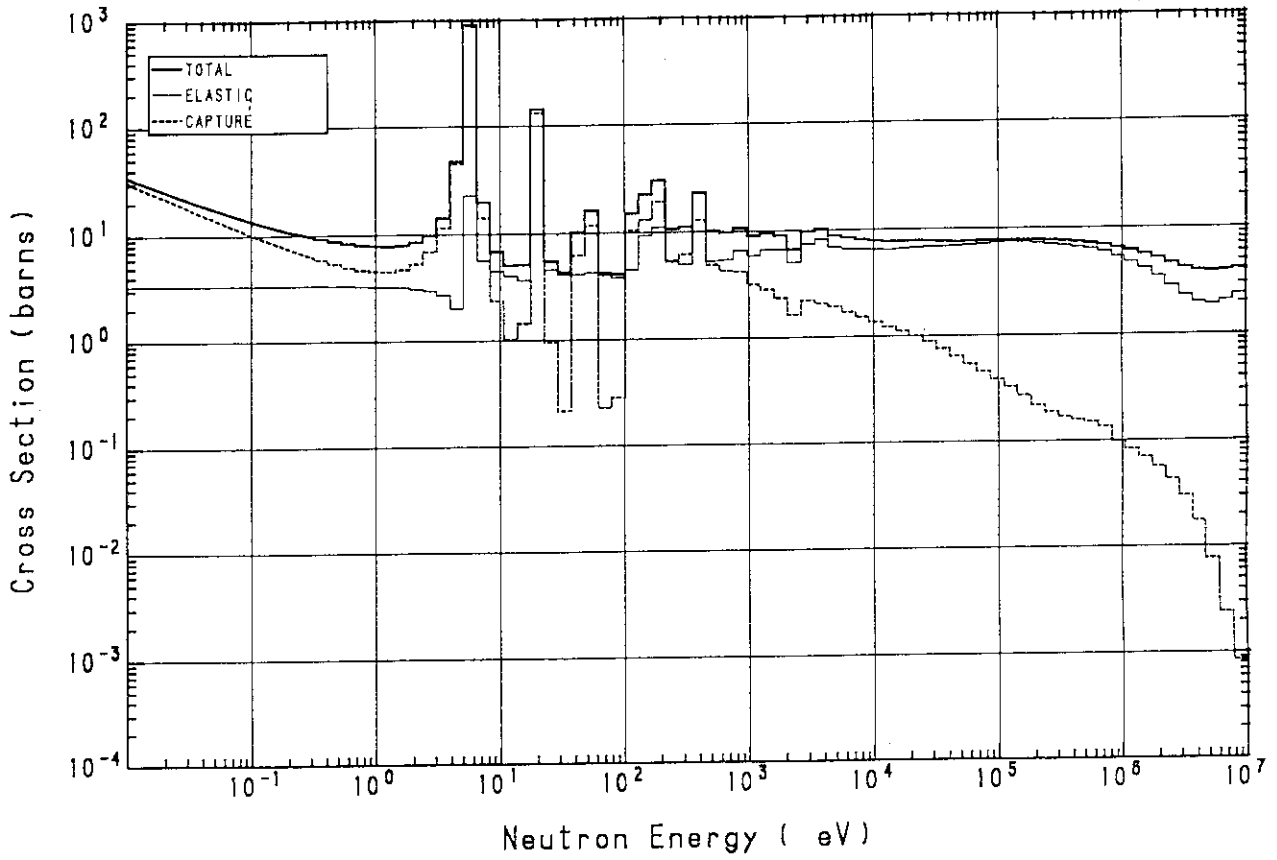


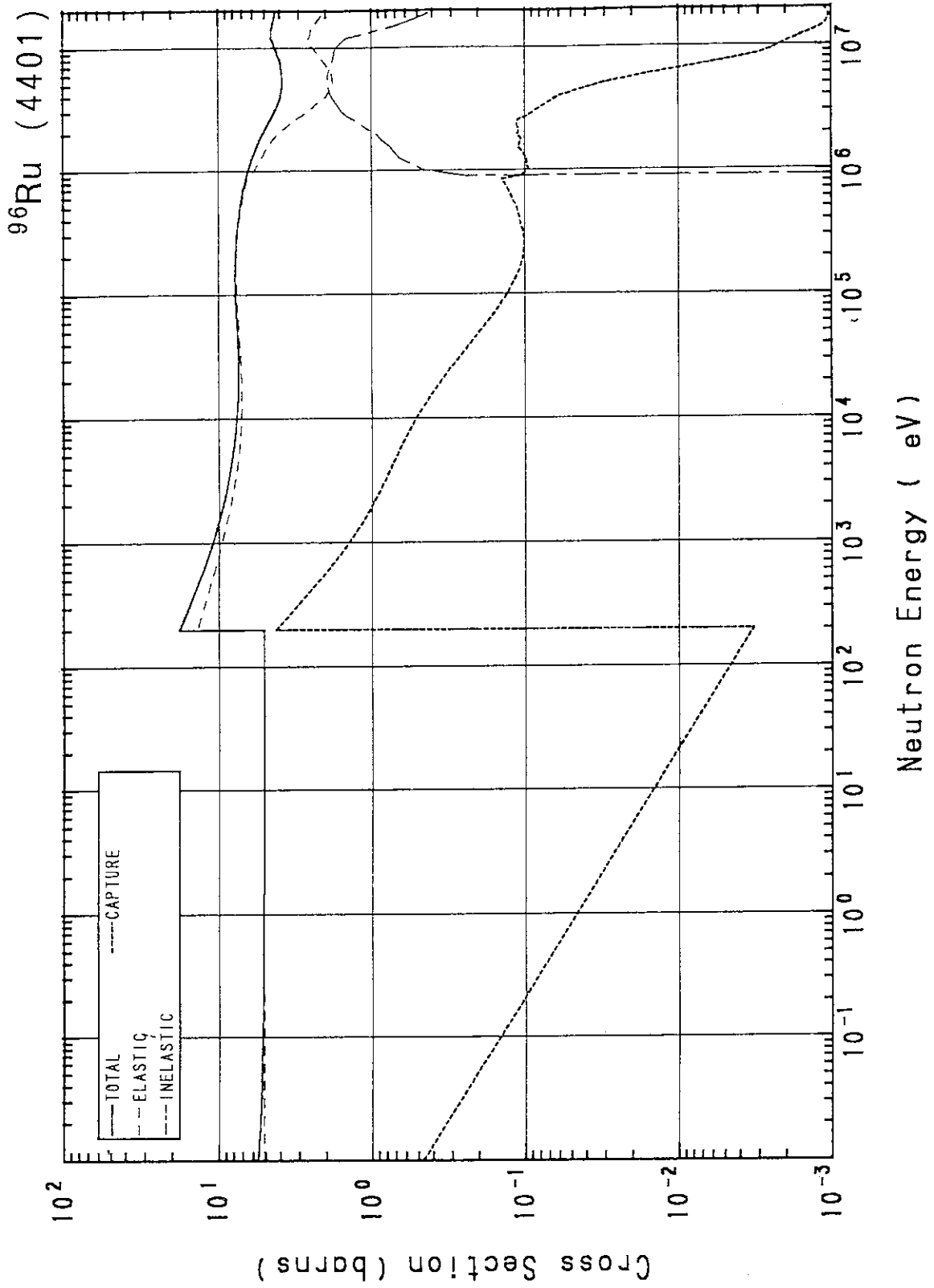




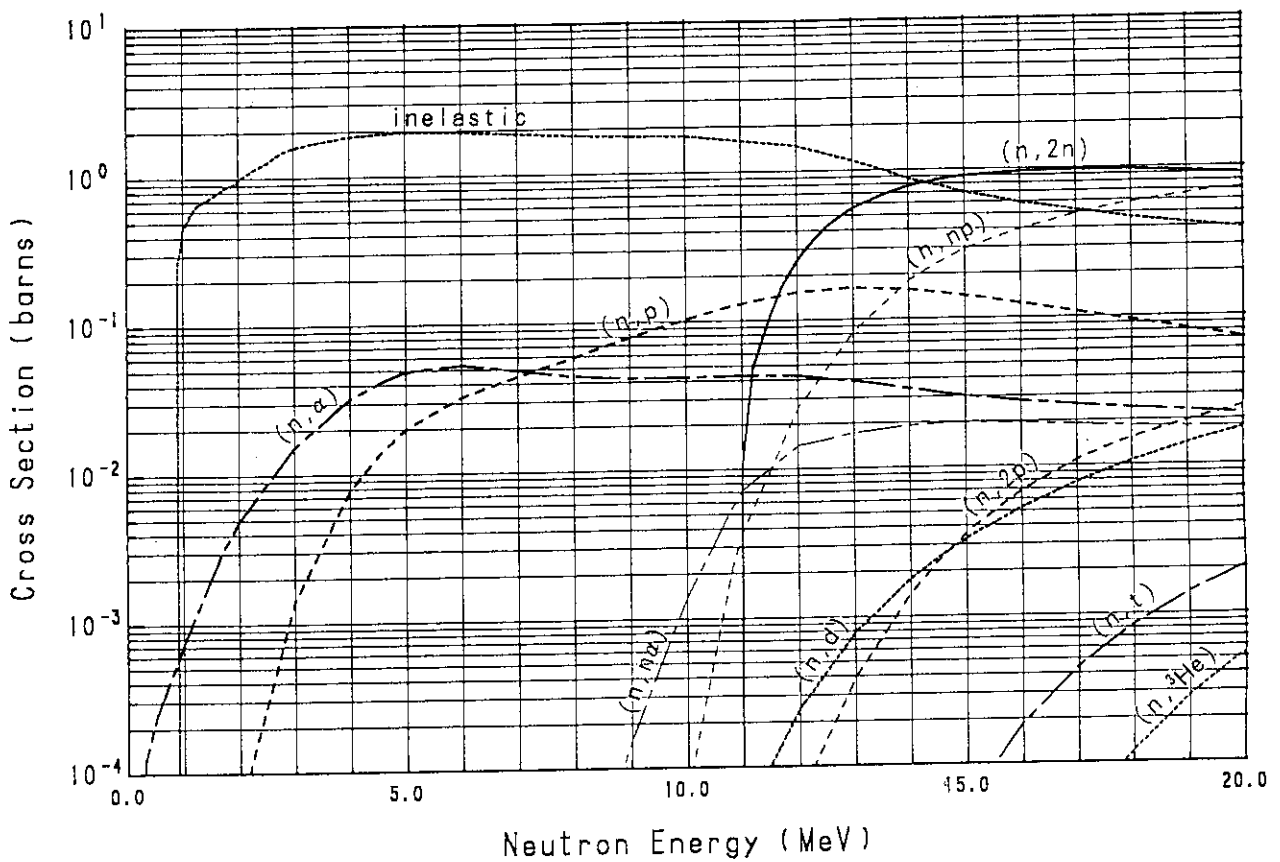
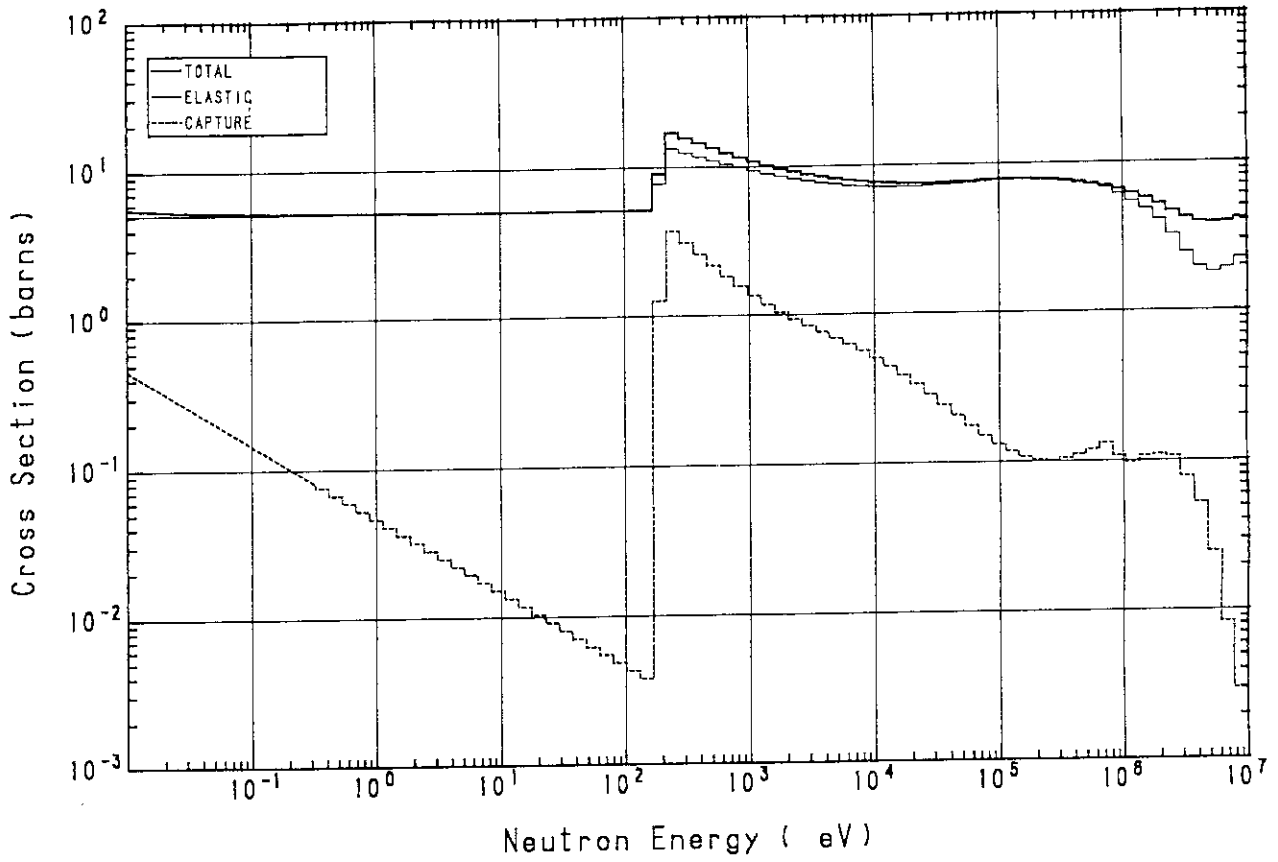


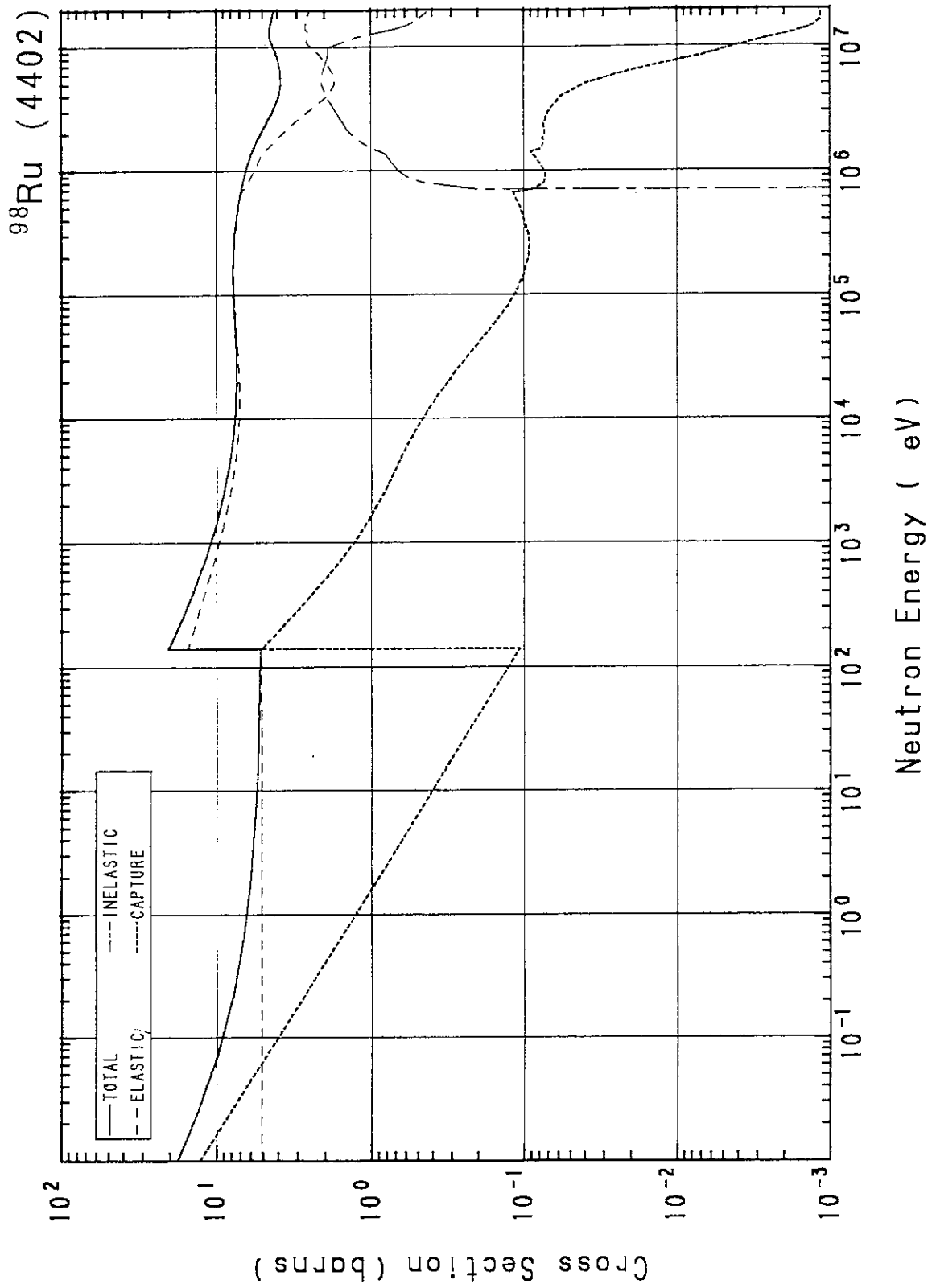
^{99}Tc (4301)



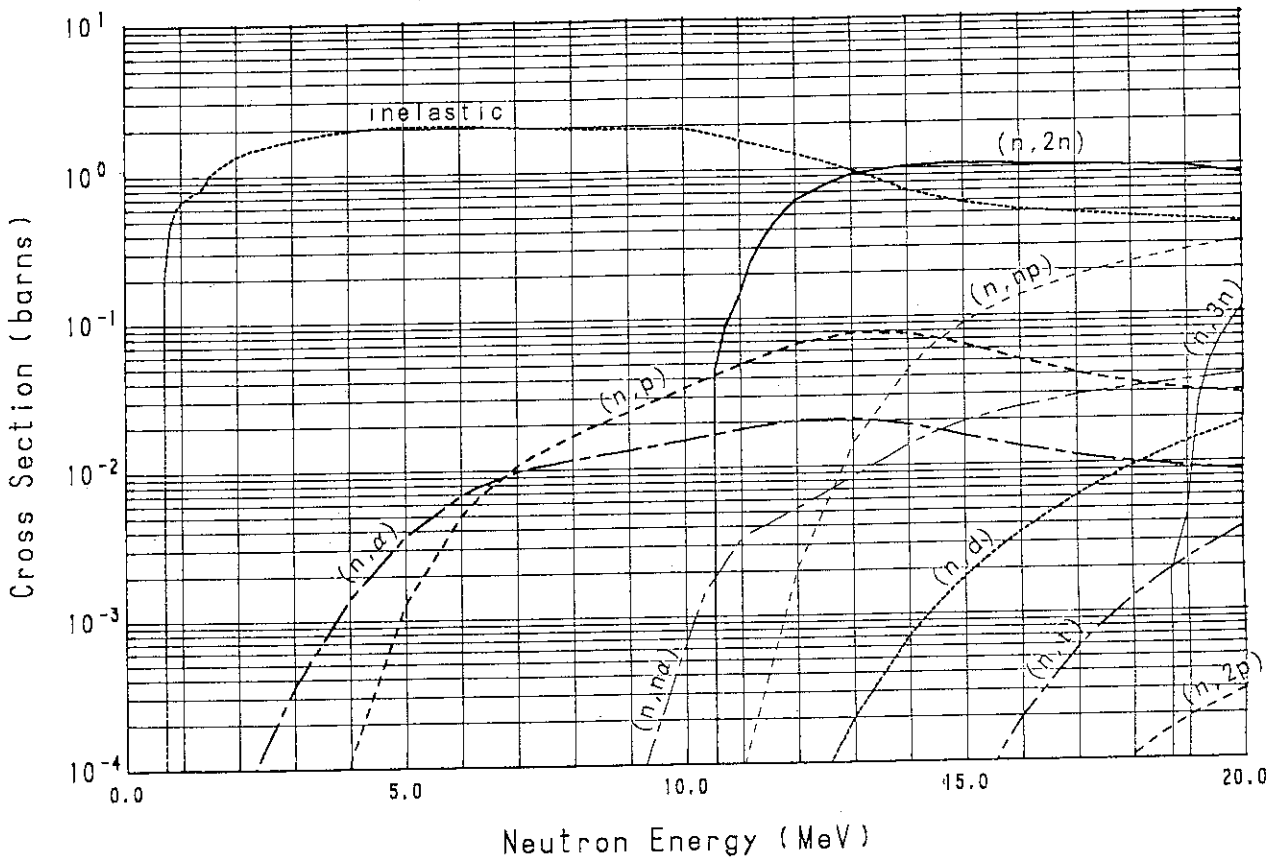
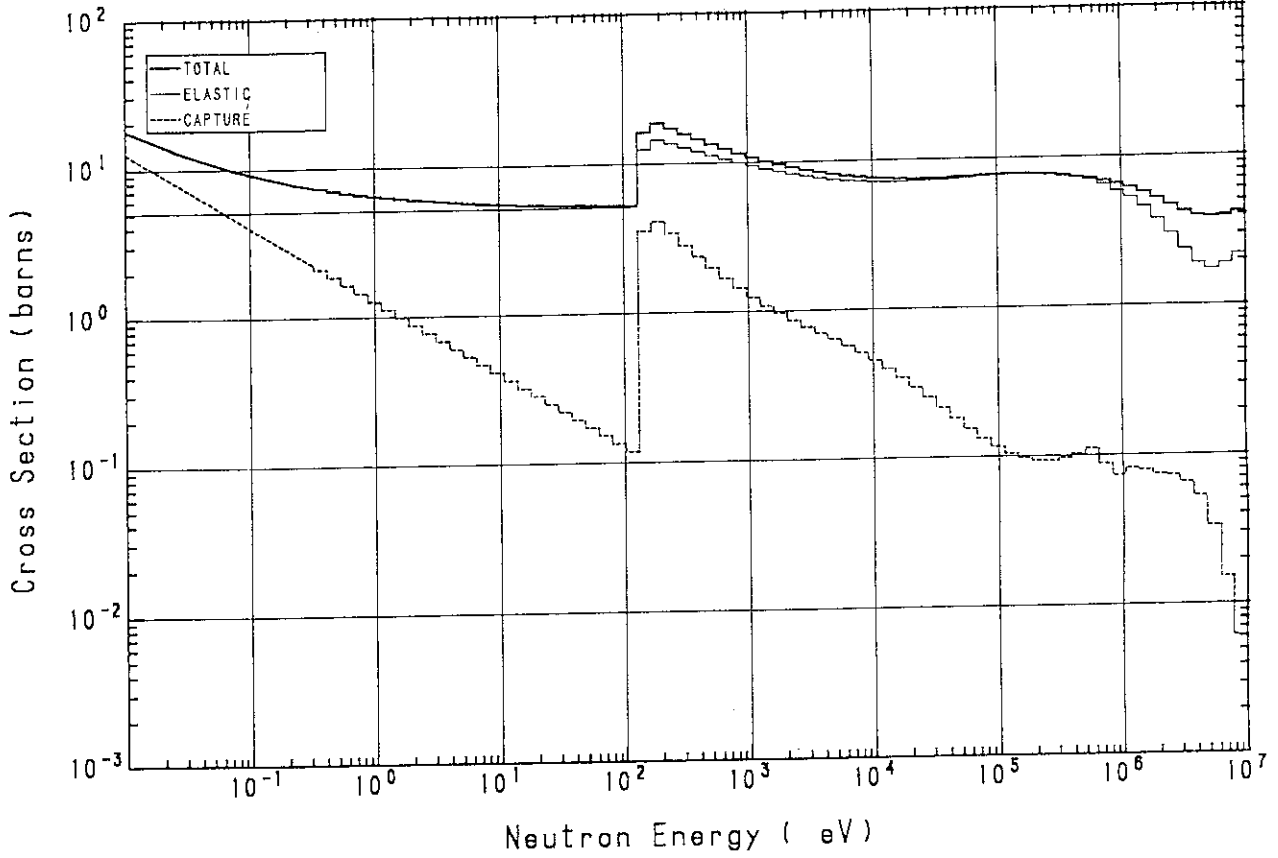


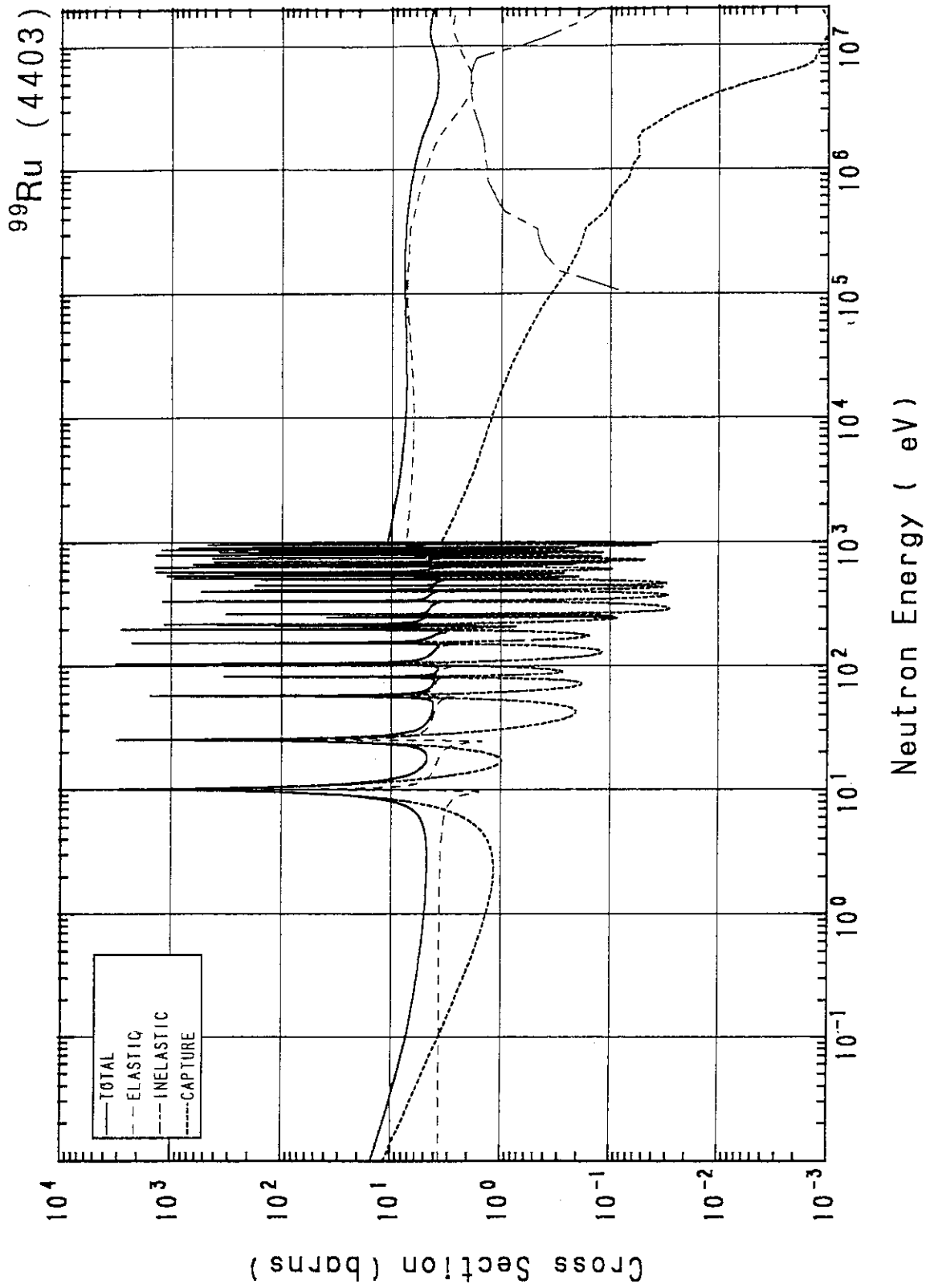
^{96}Ru (4401)



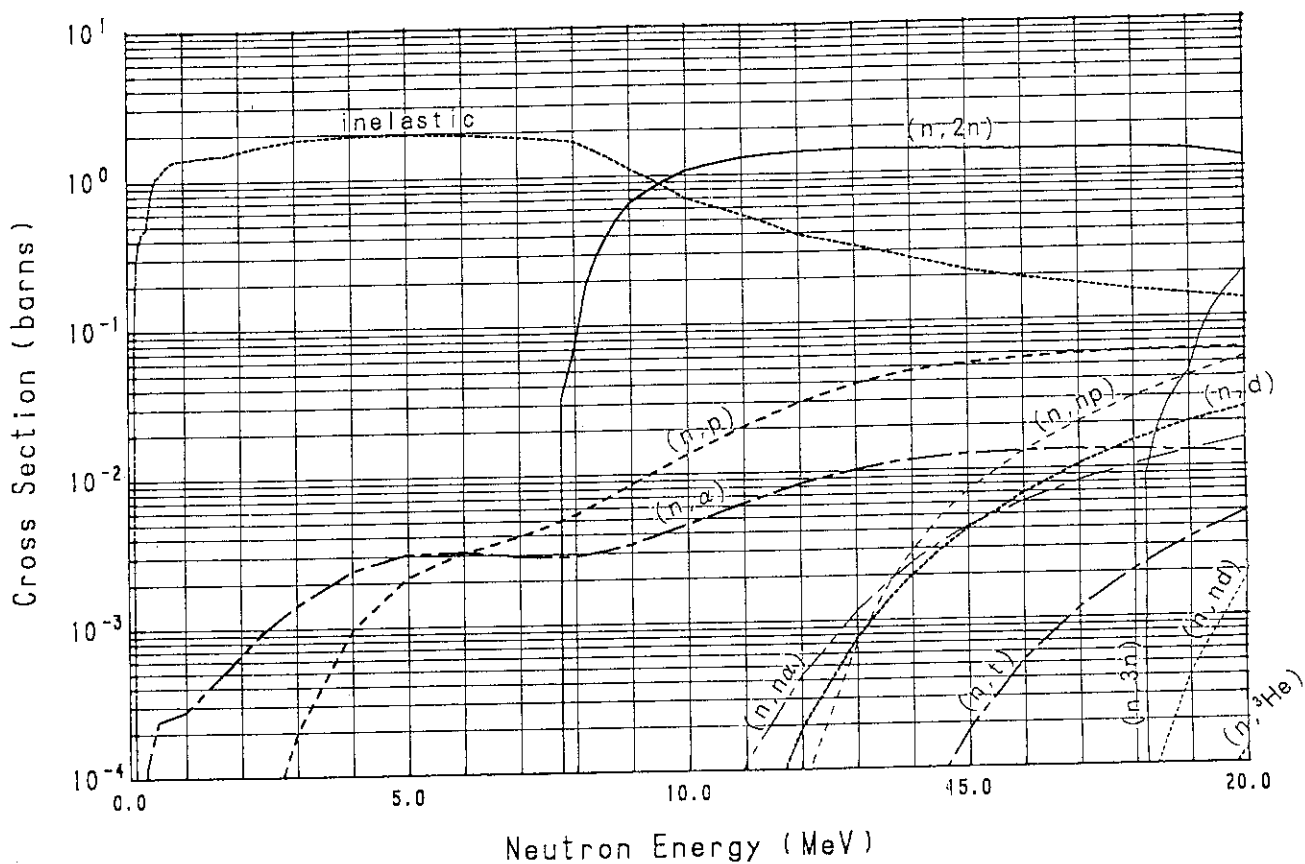
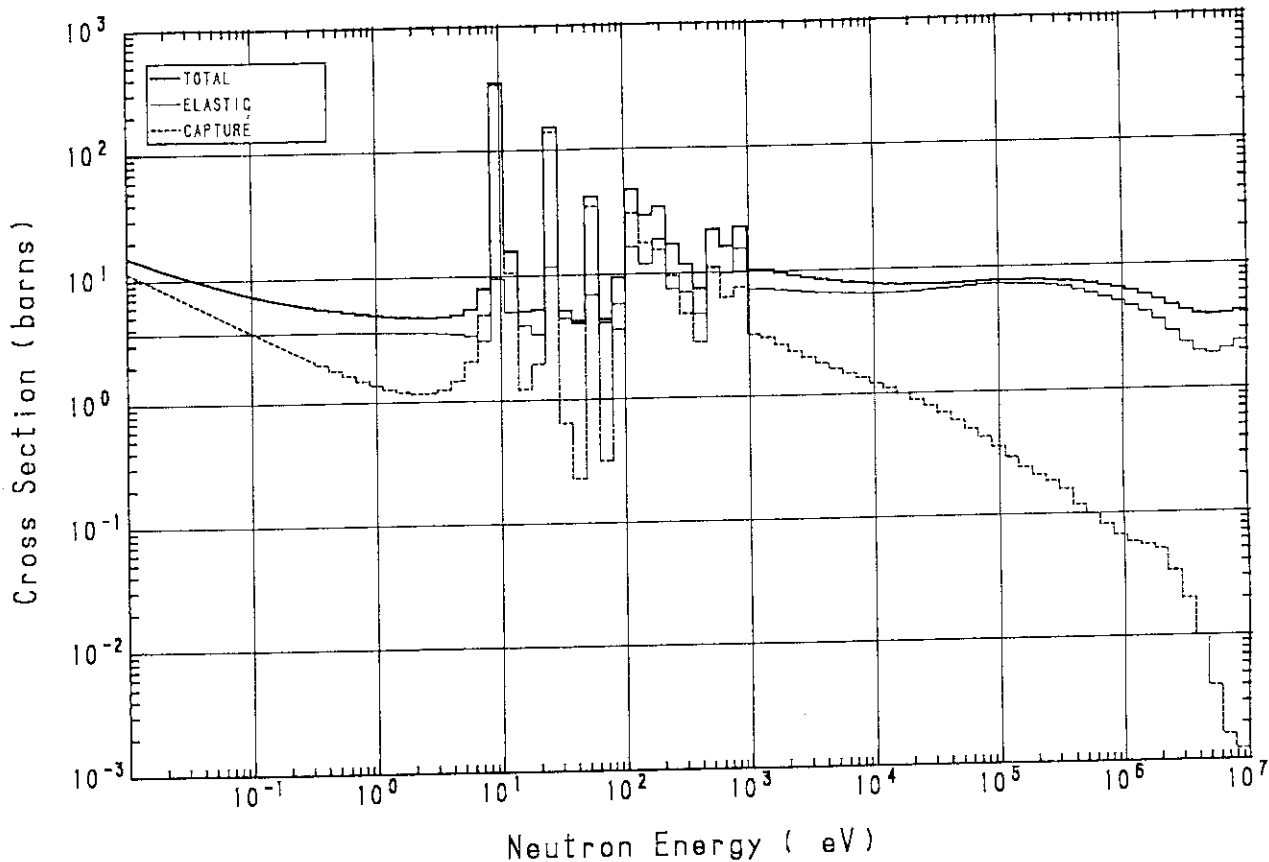


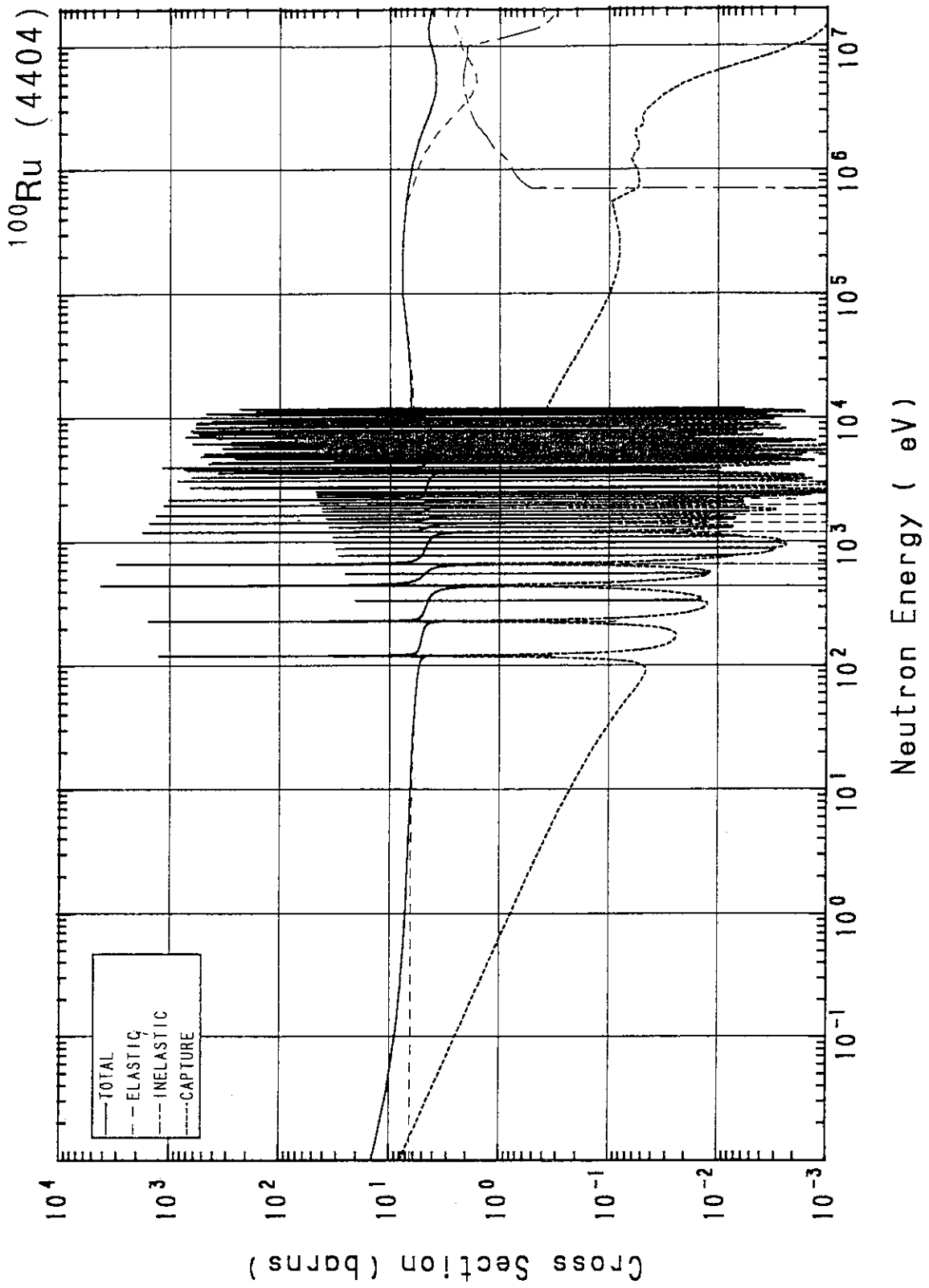
⁹⁸Ru (4402)



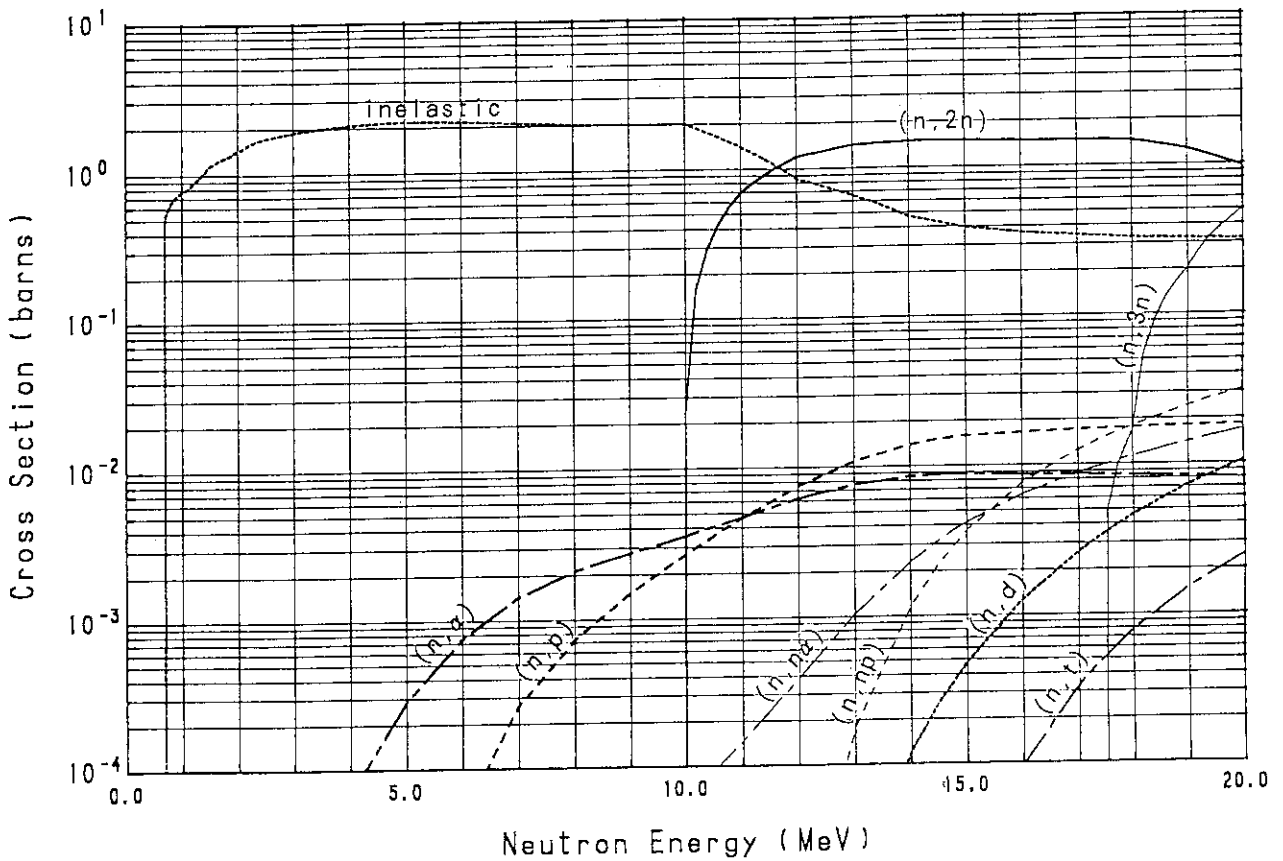
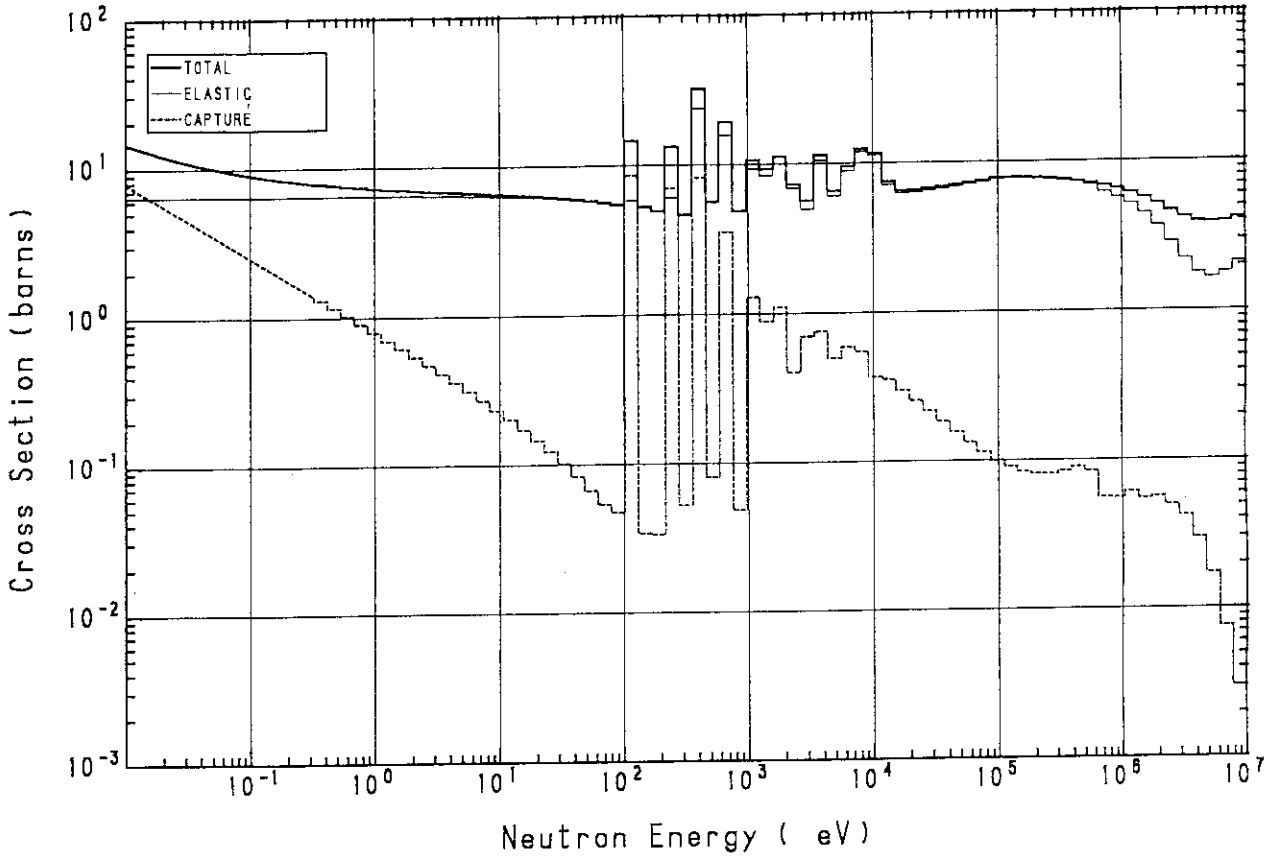


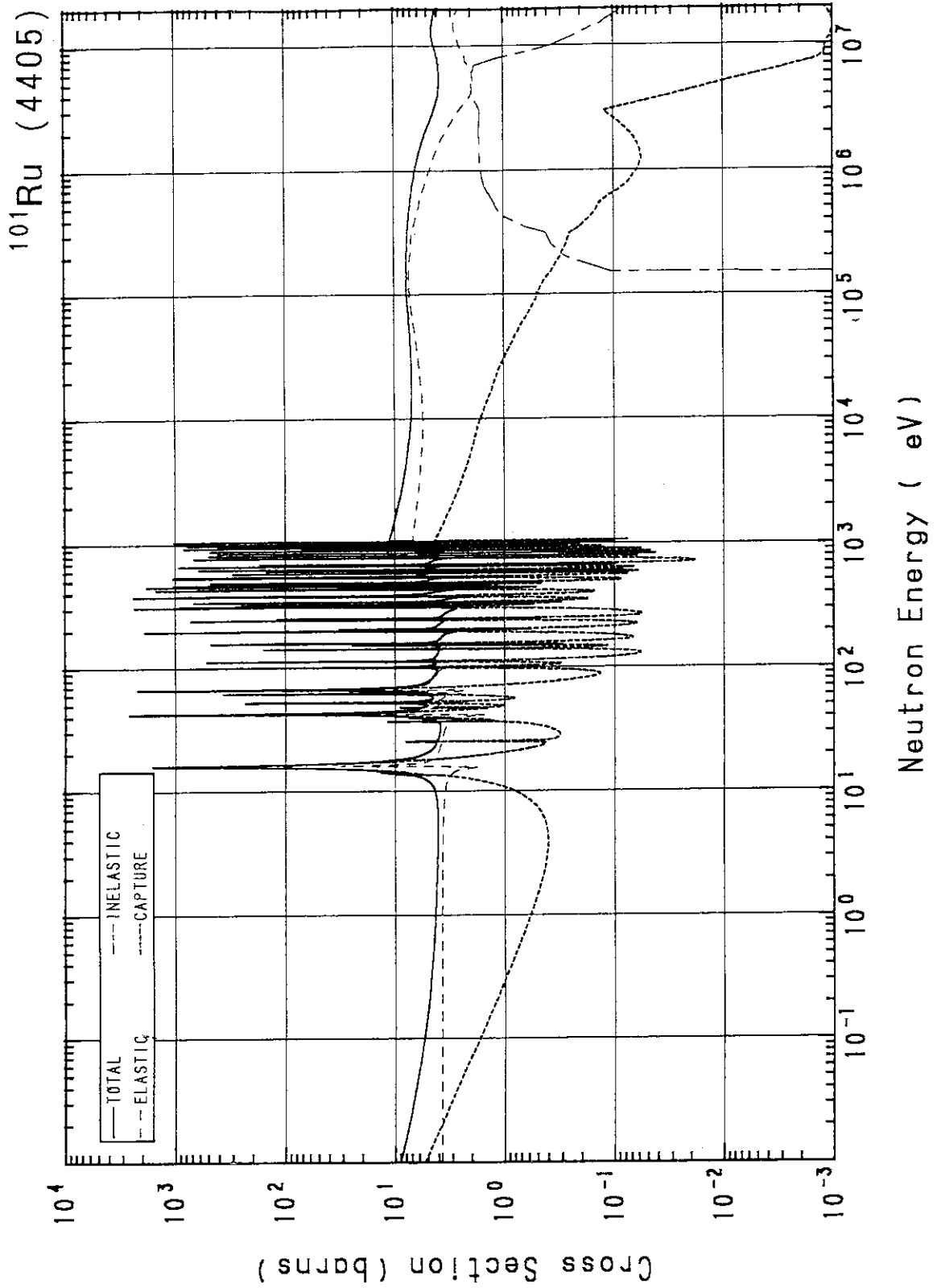
⁹⁹Ru (4403)



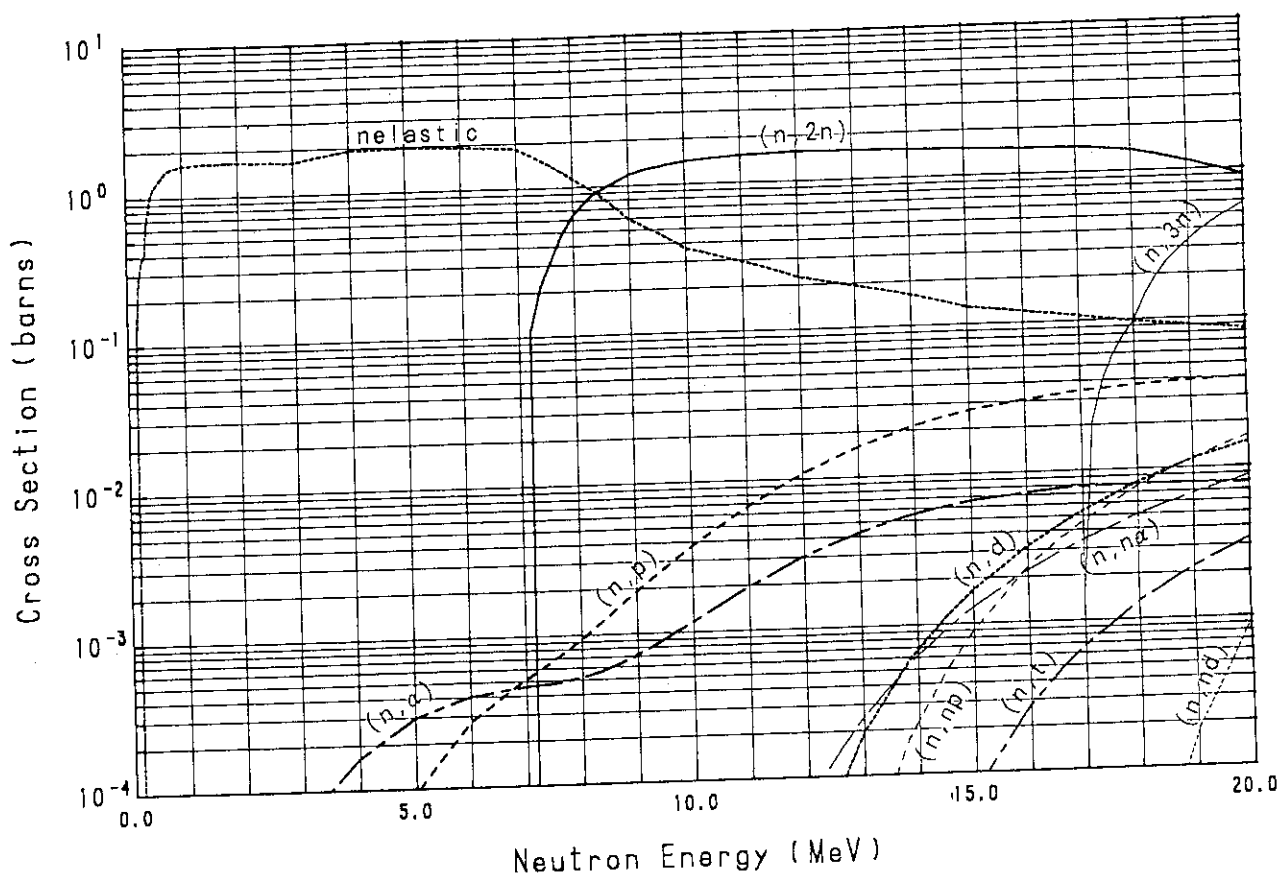
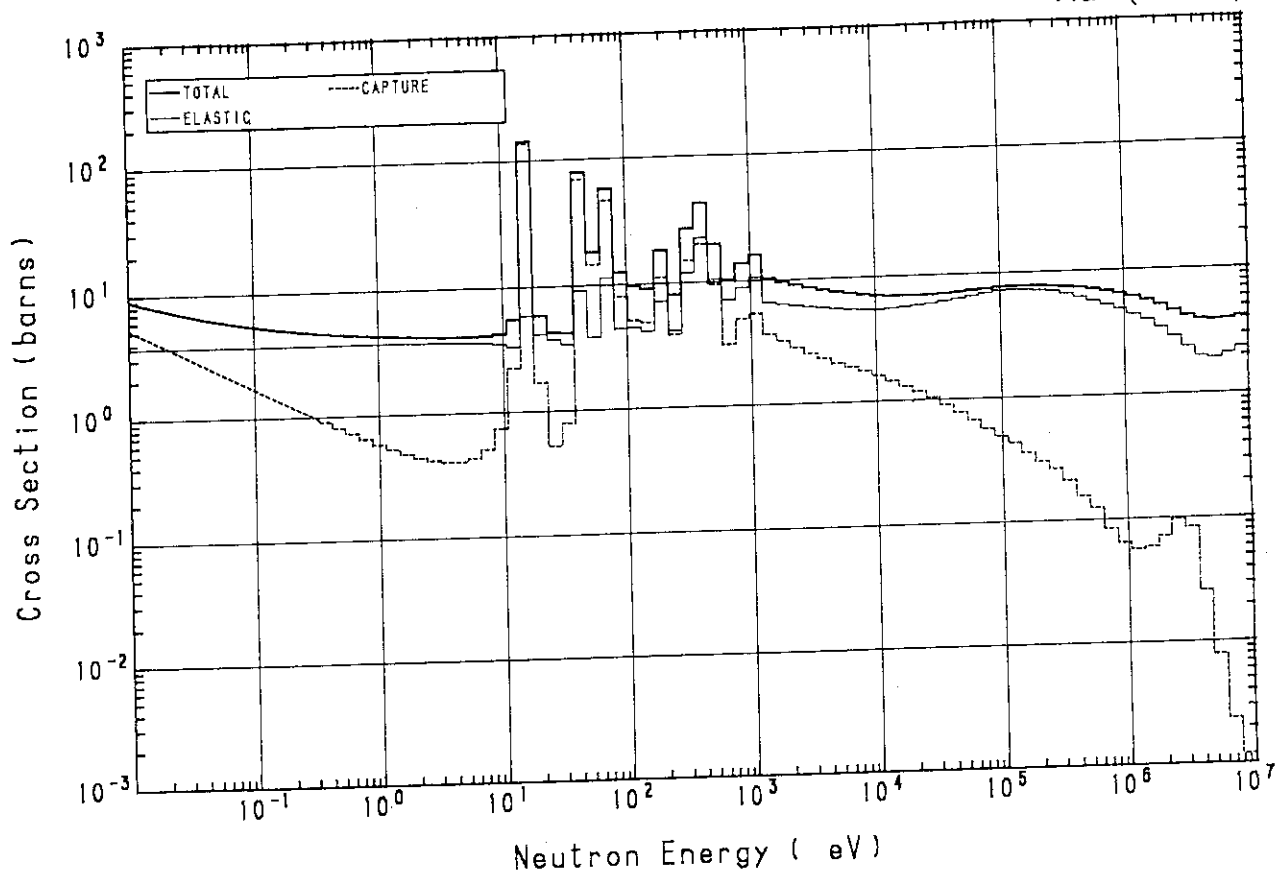


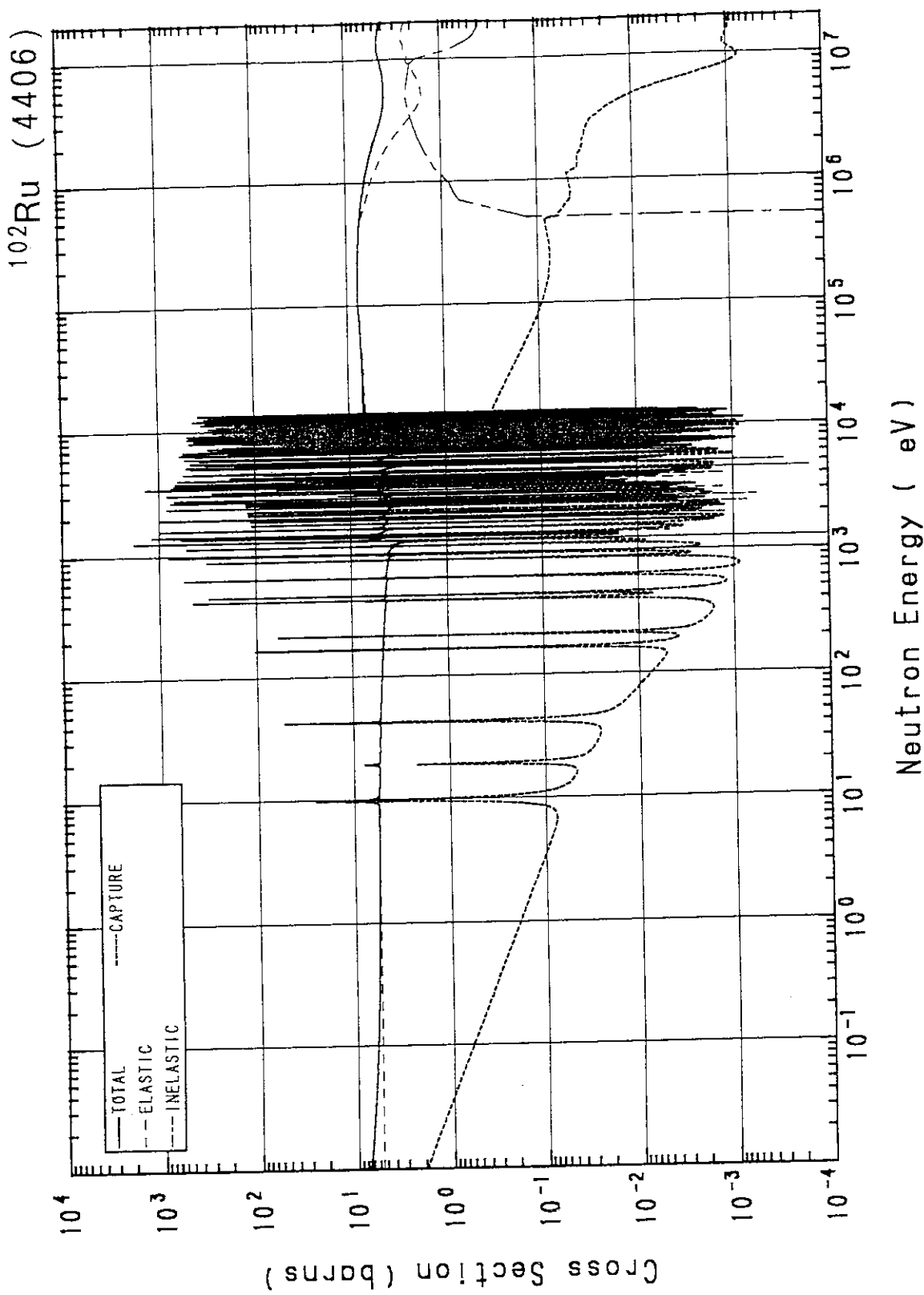
^{100}Ru (4404)



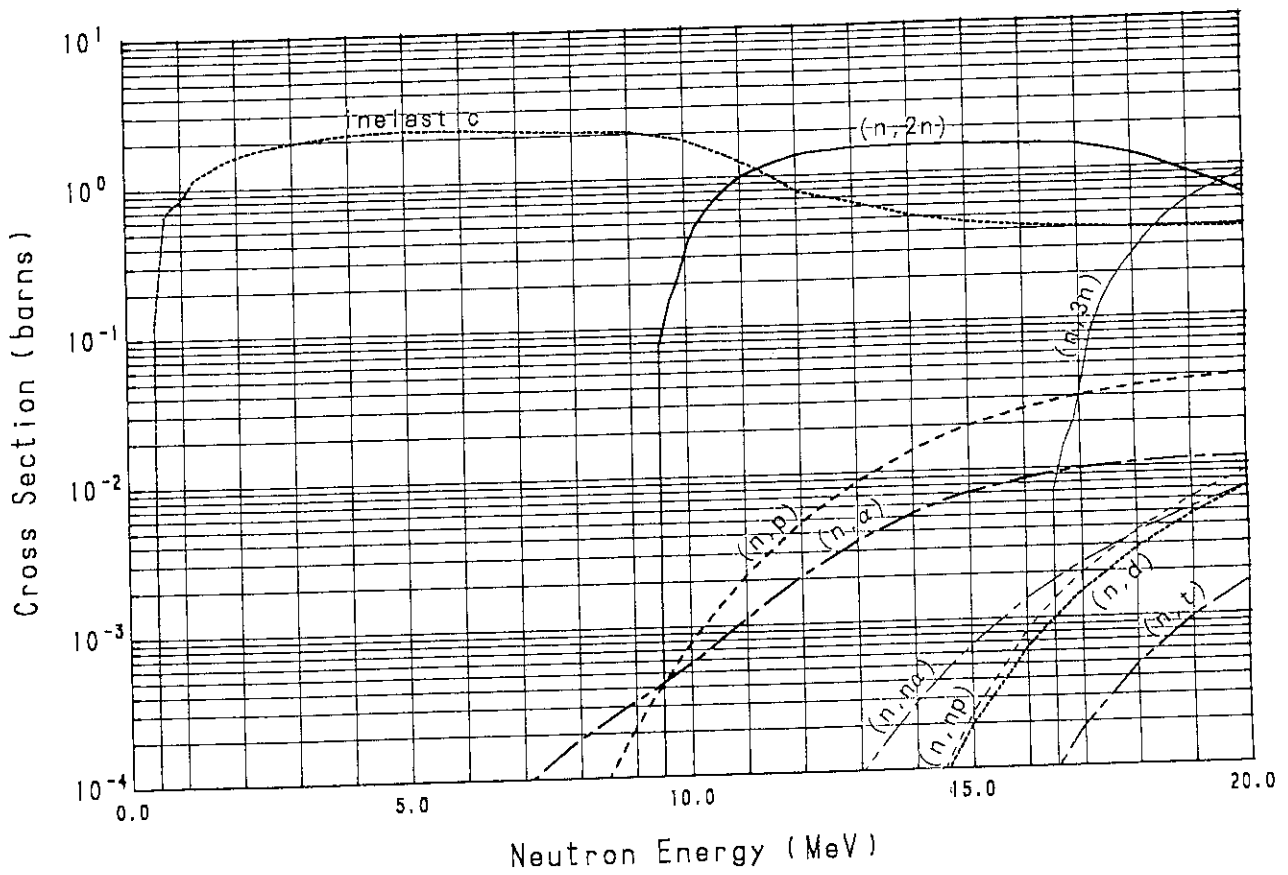
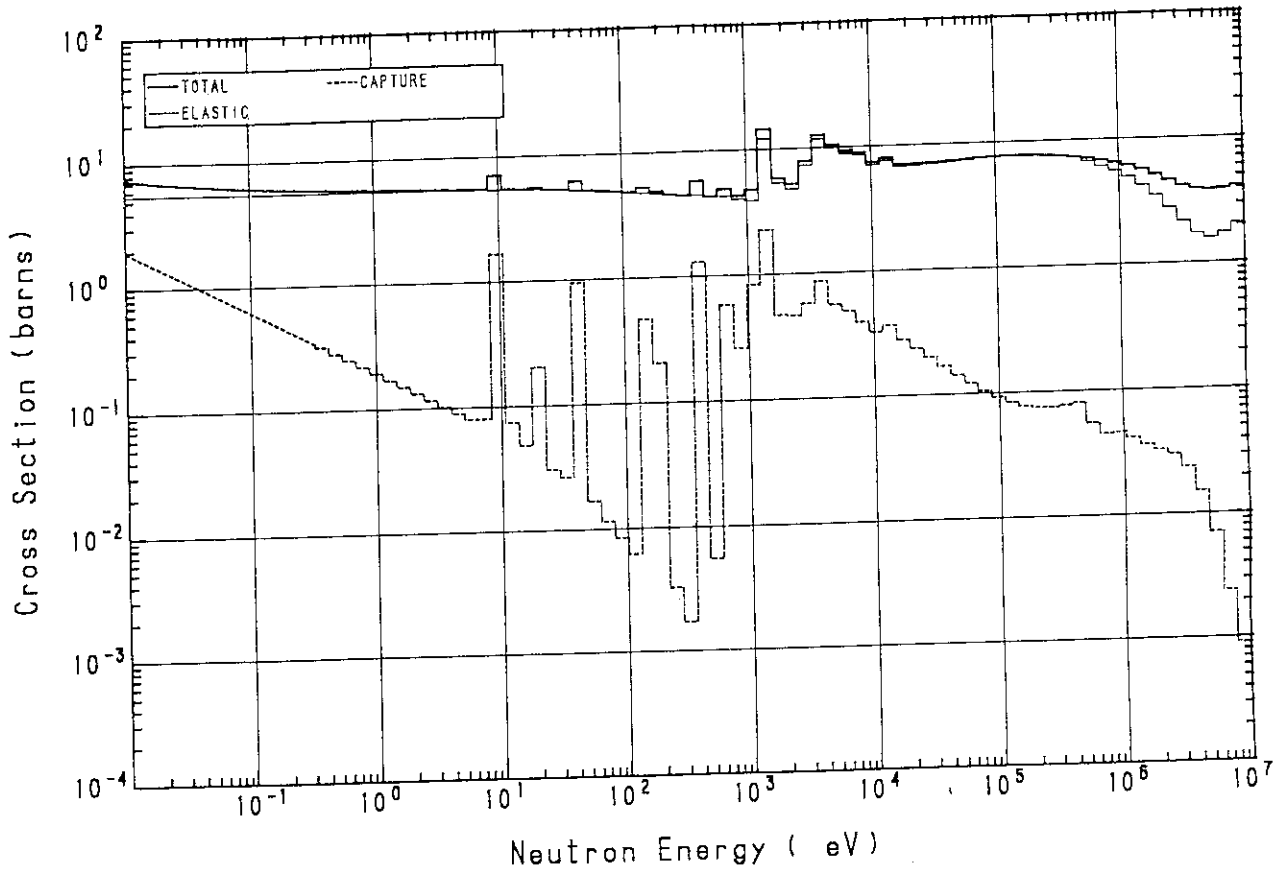


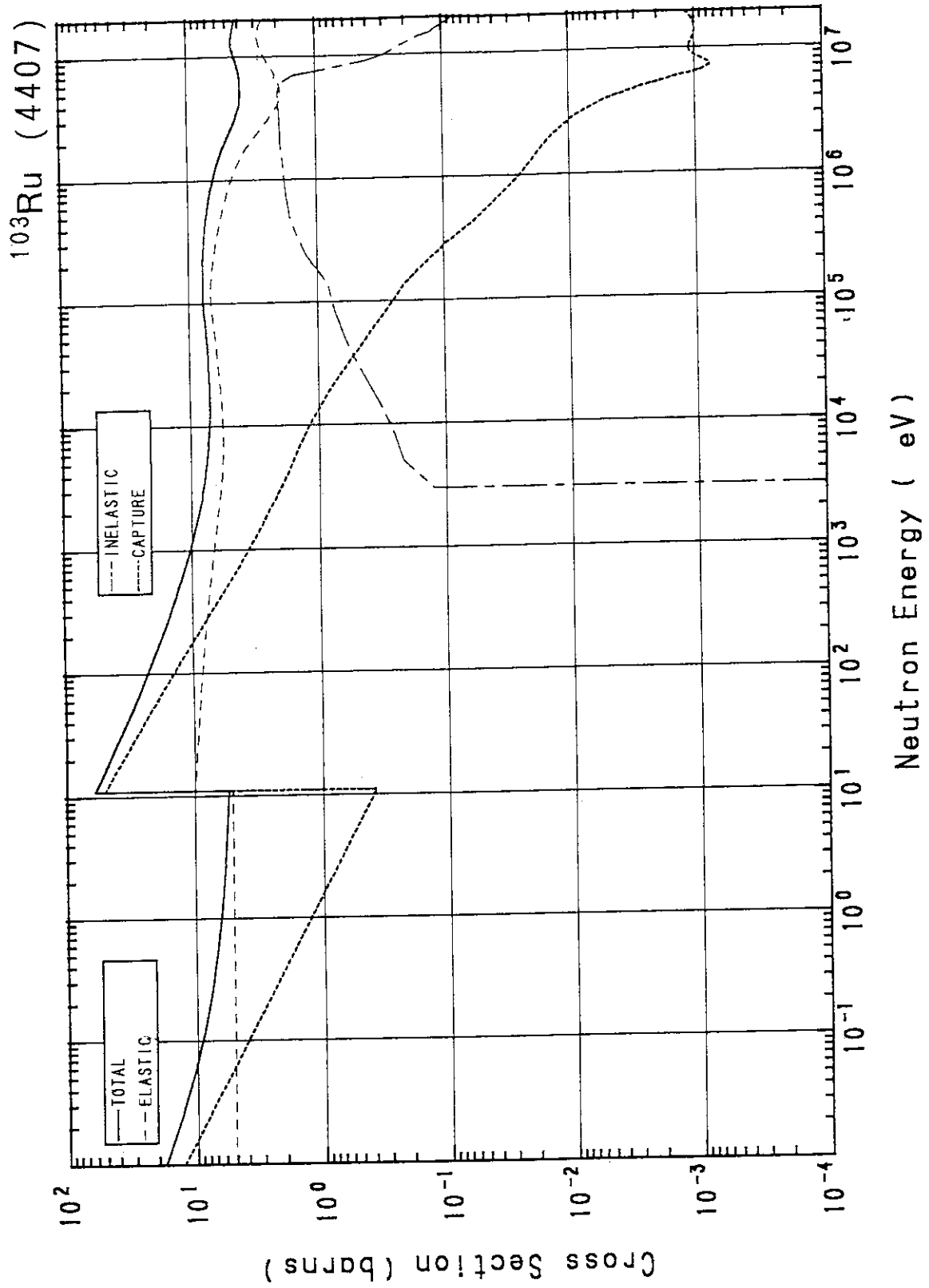
^{101}Ru (4405)



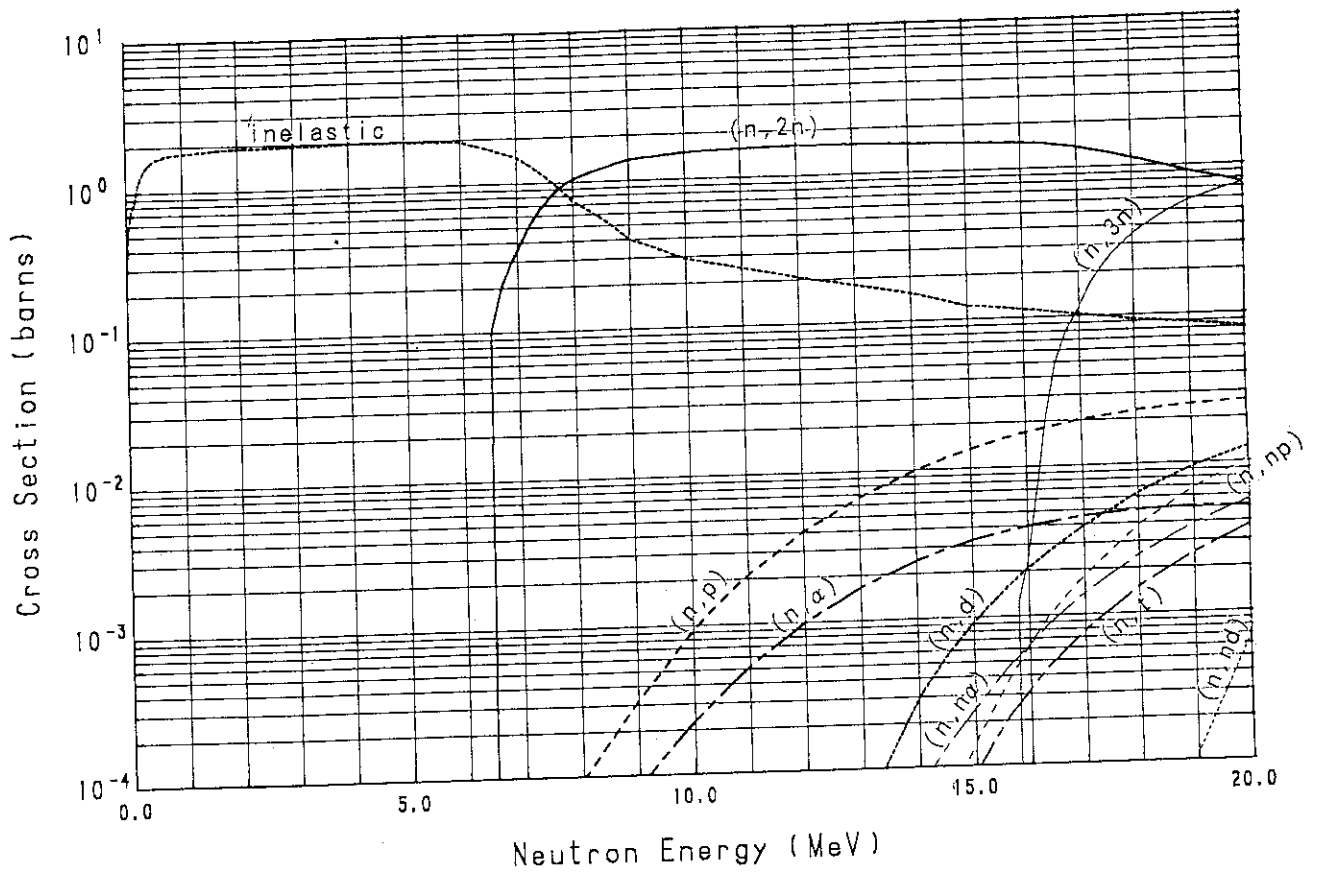
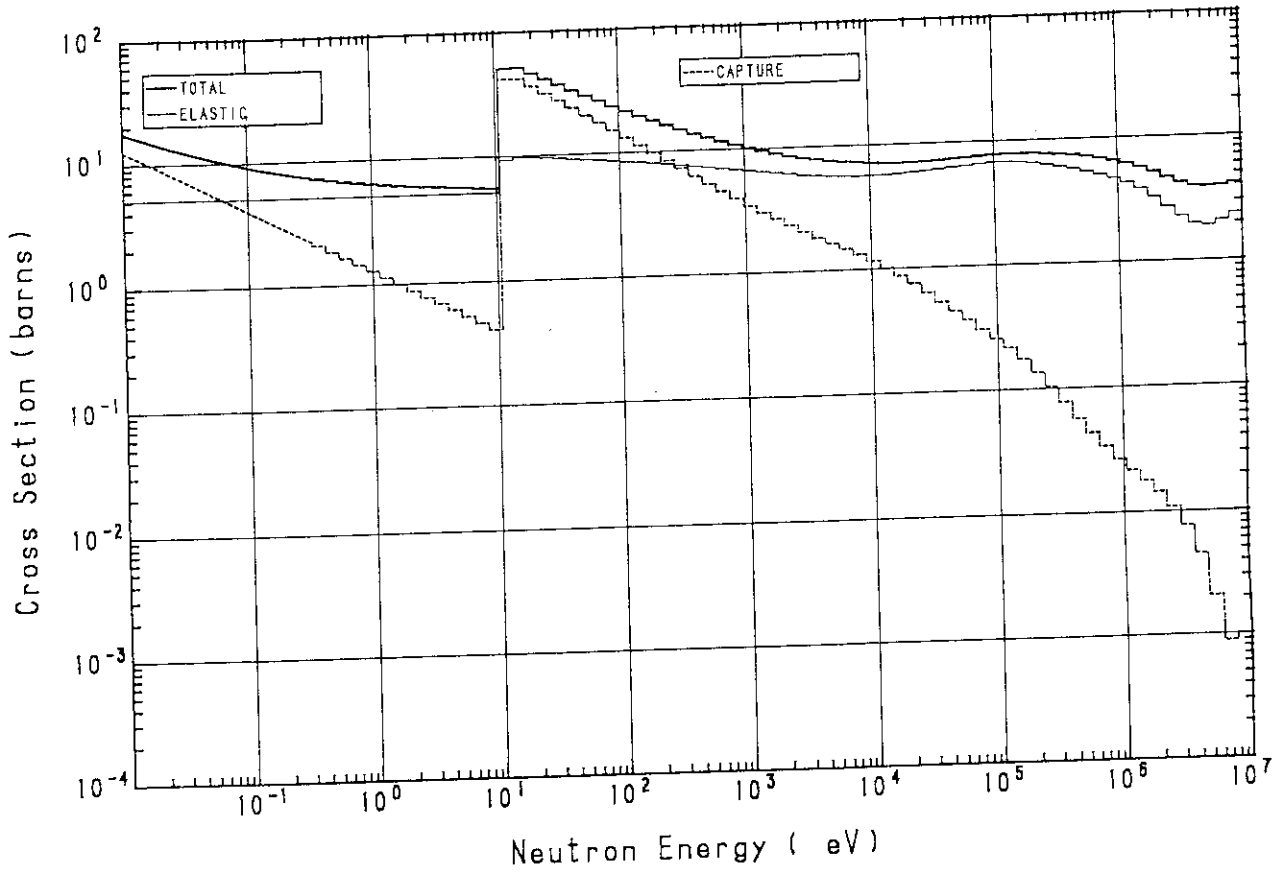


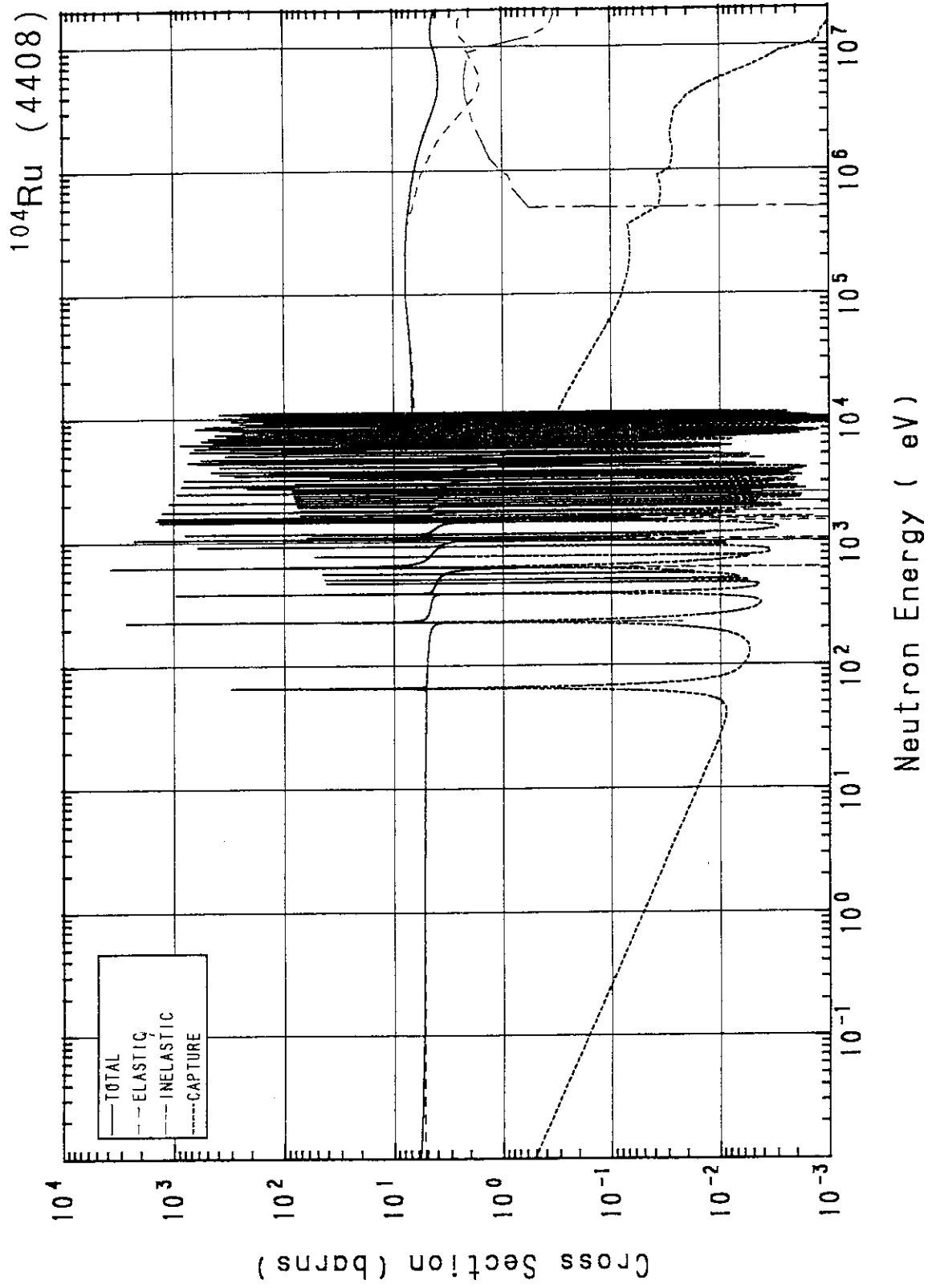
^{102}Ru (4406)



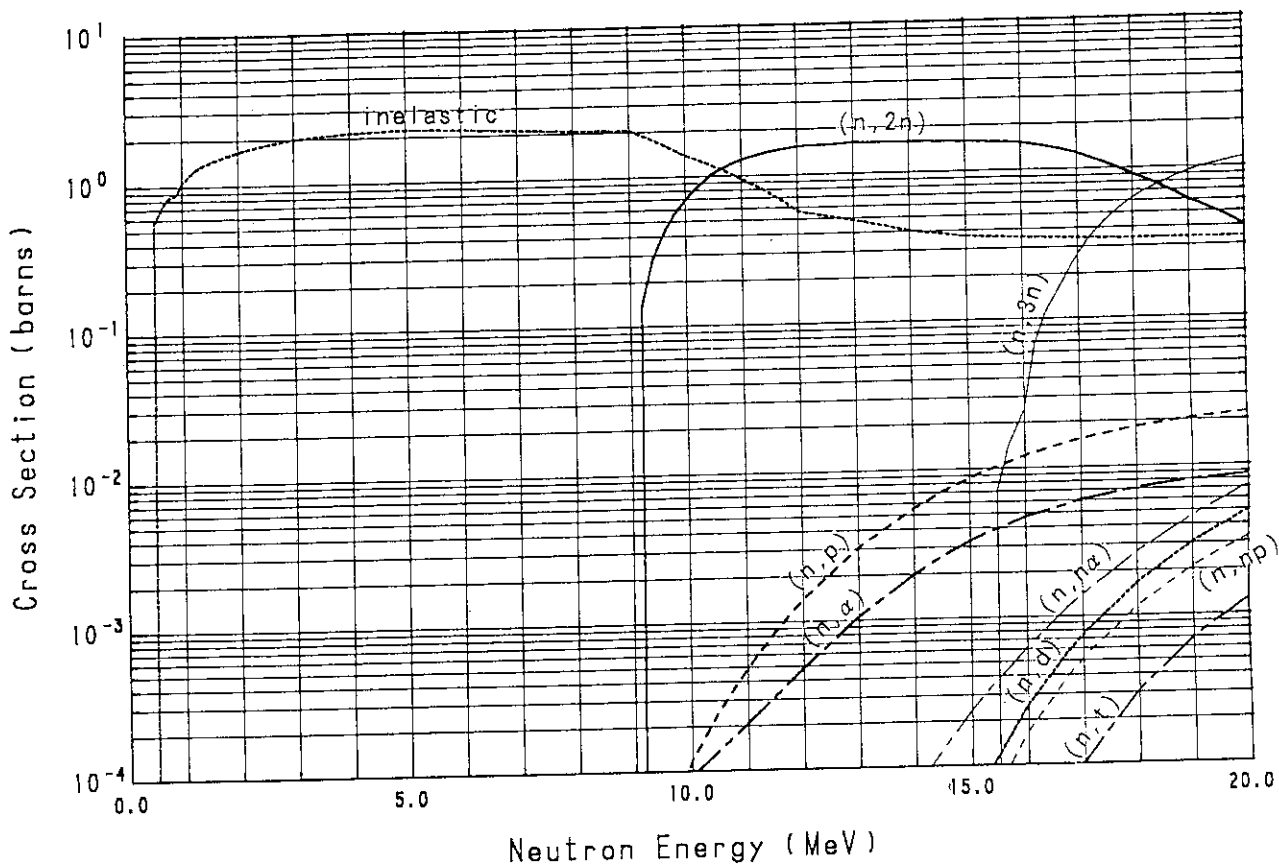
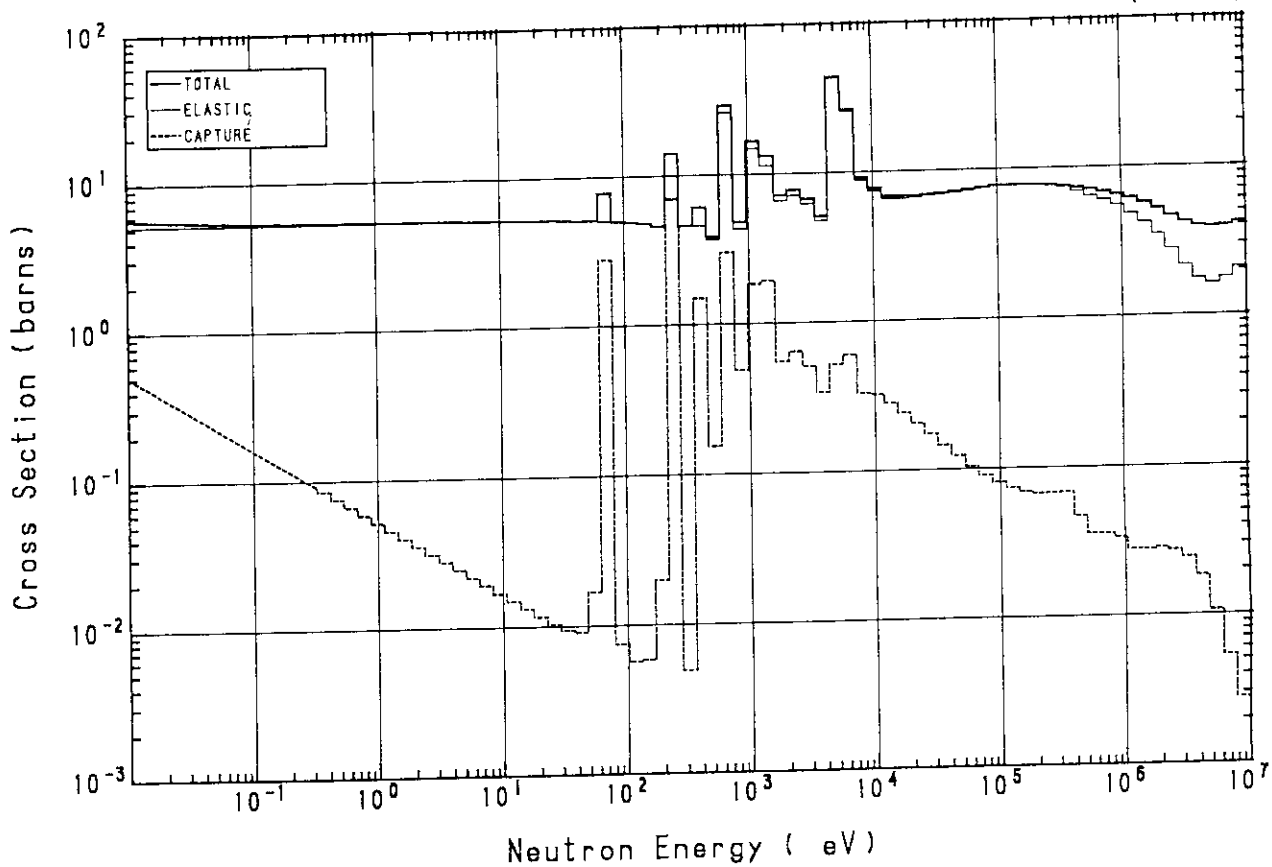


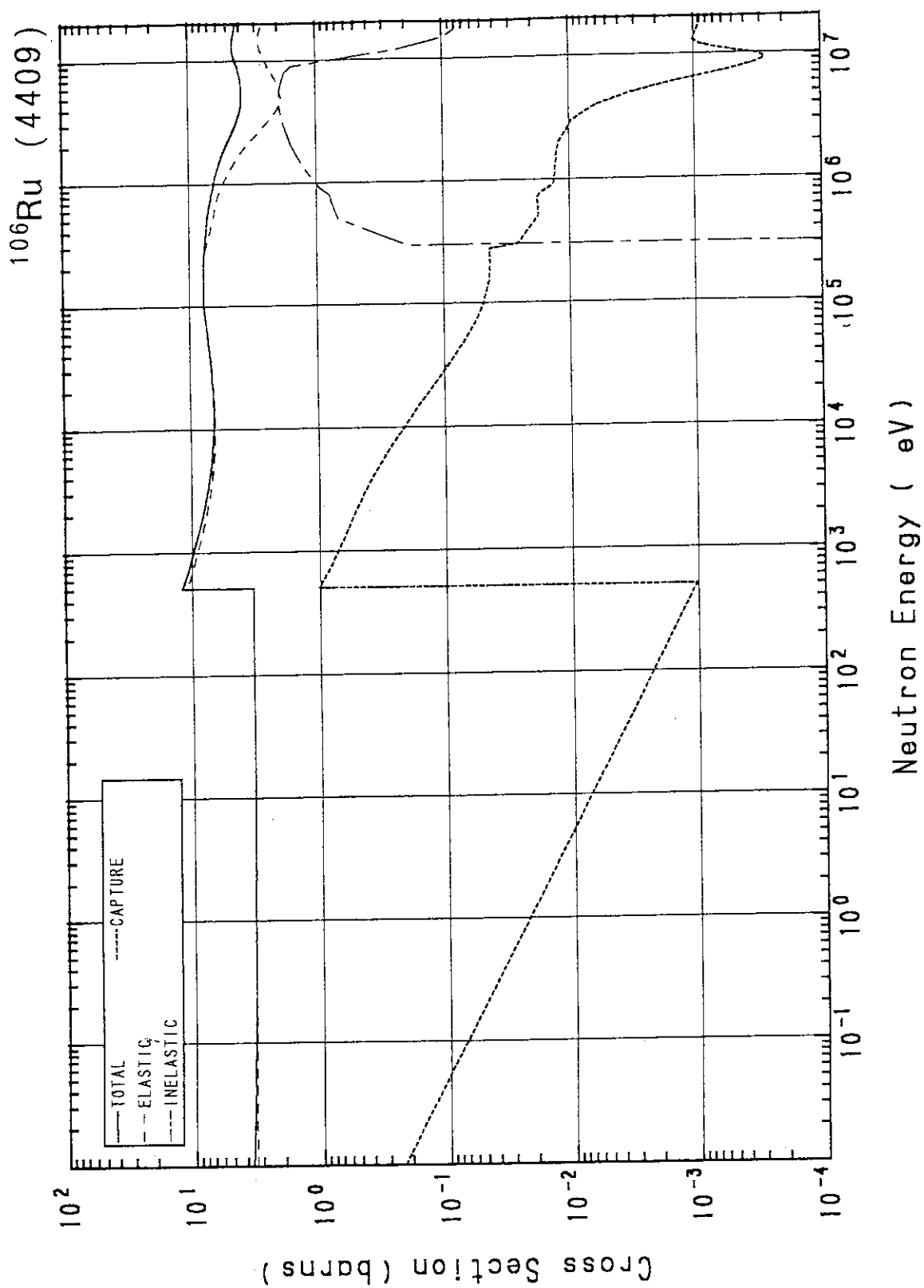
^{103}Ru (4407)



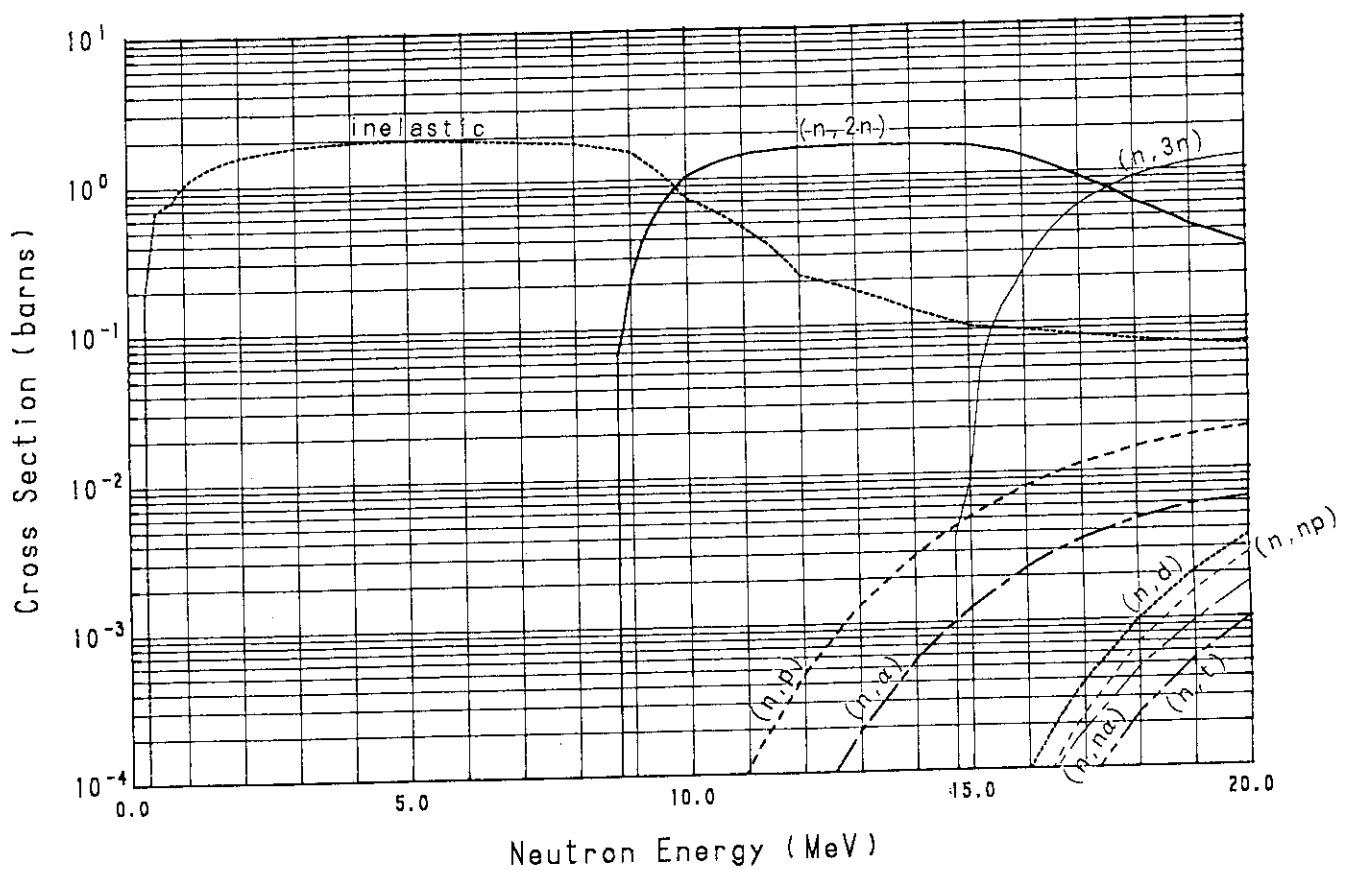
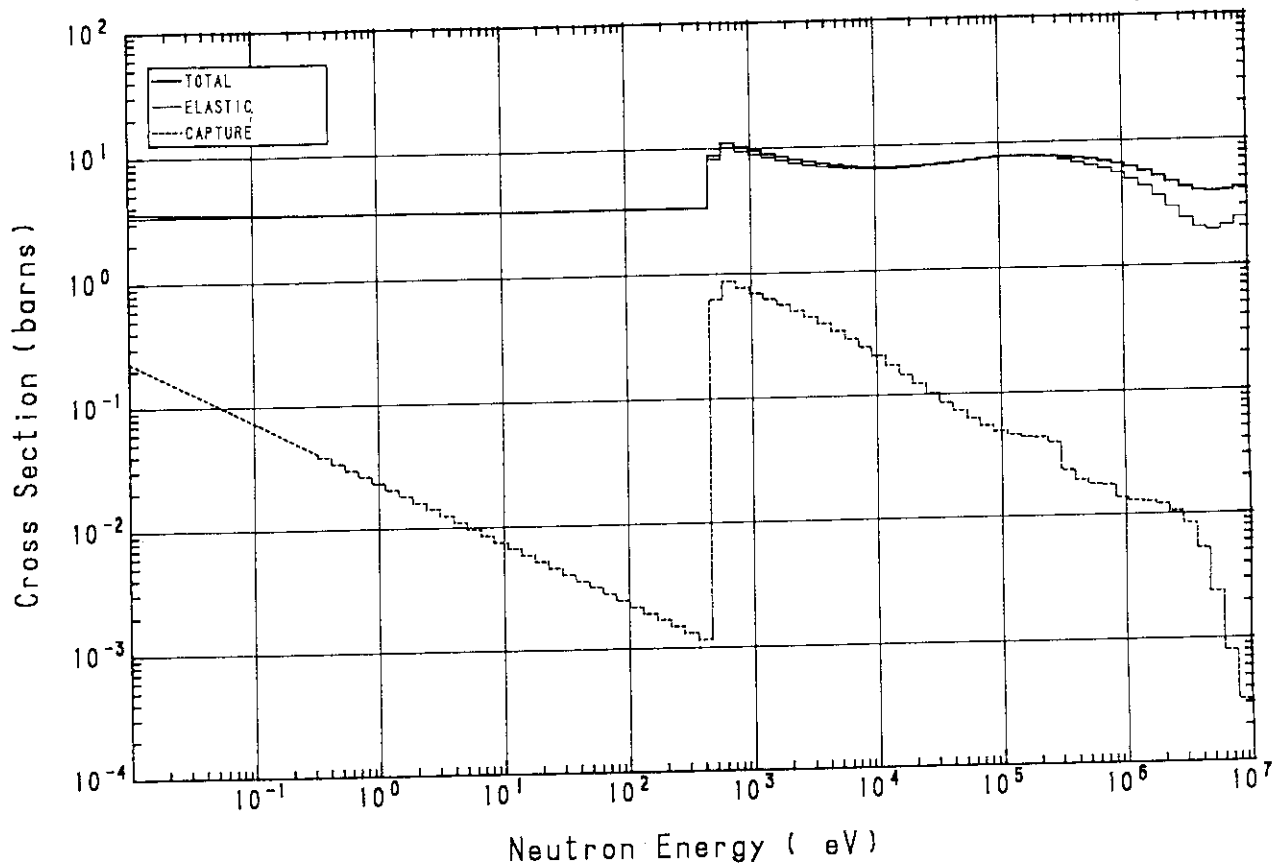


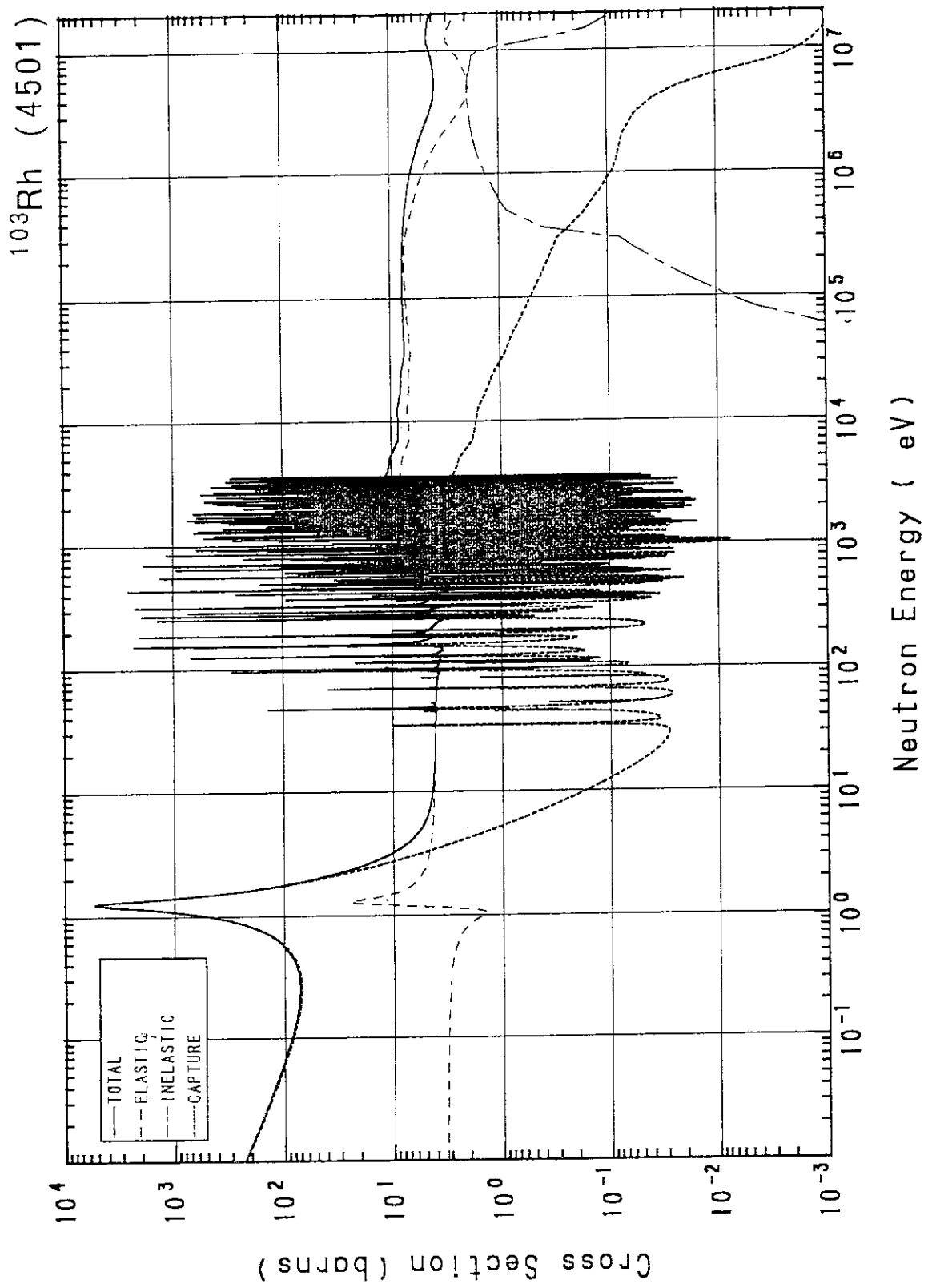
^{104}Ru (4408)



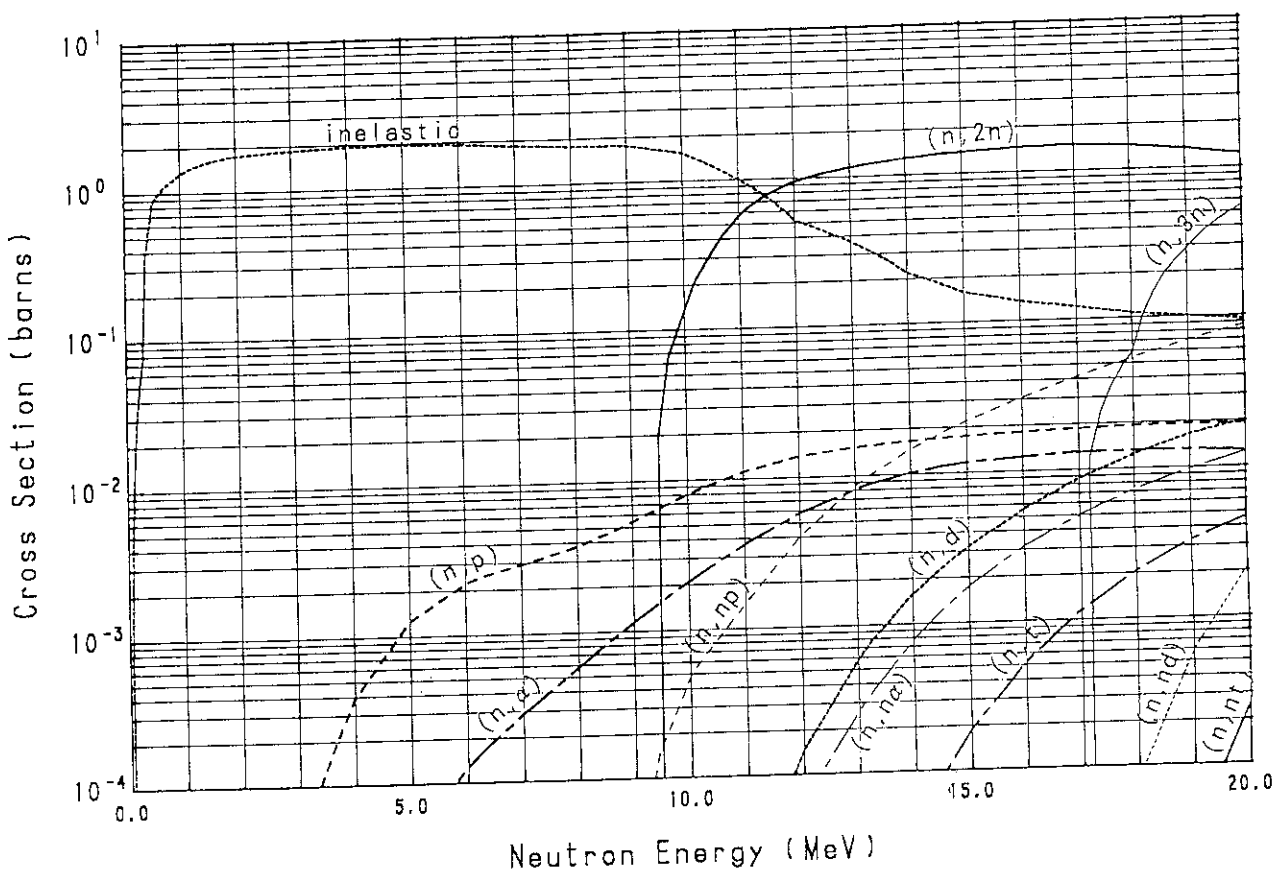
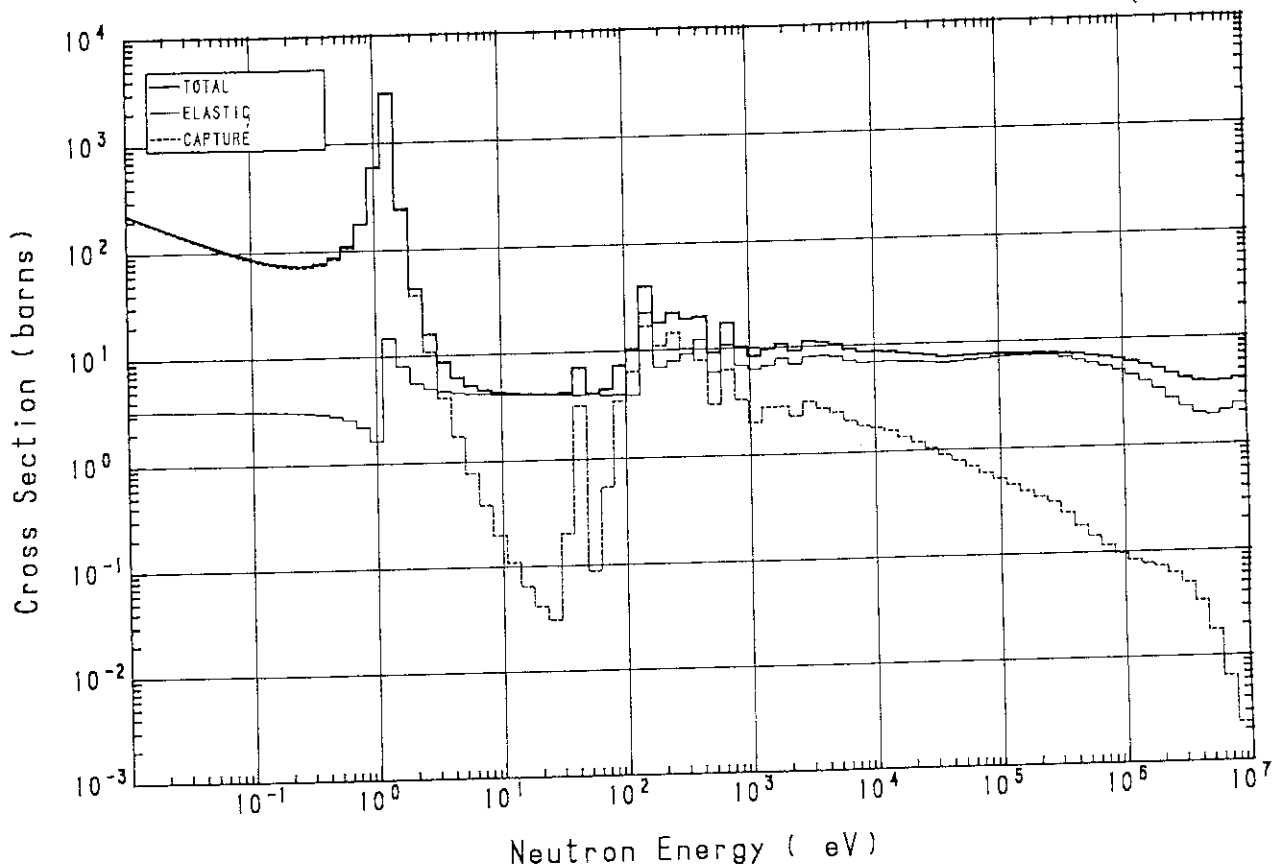


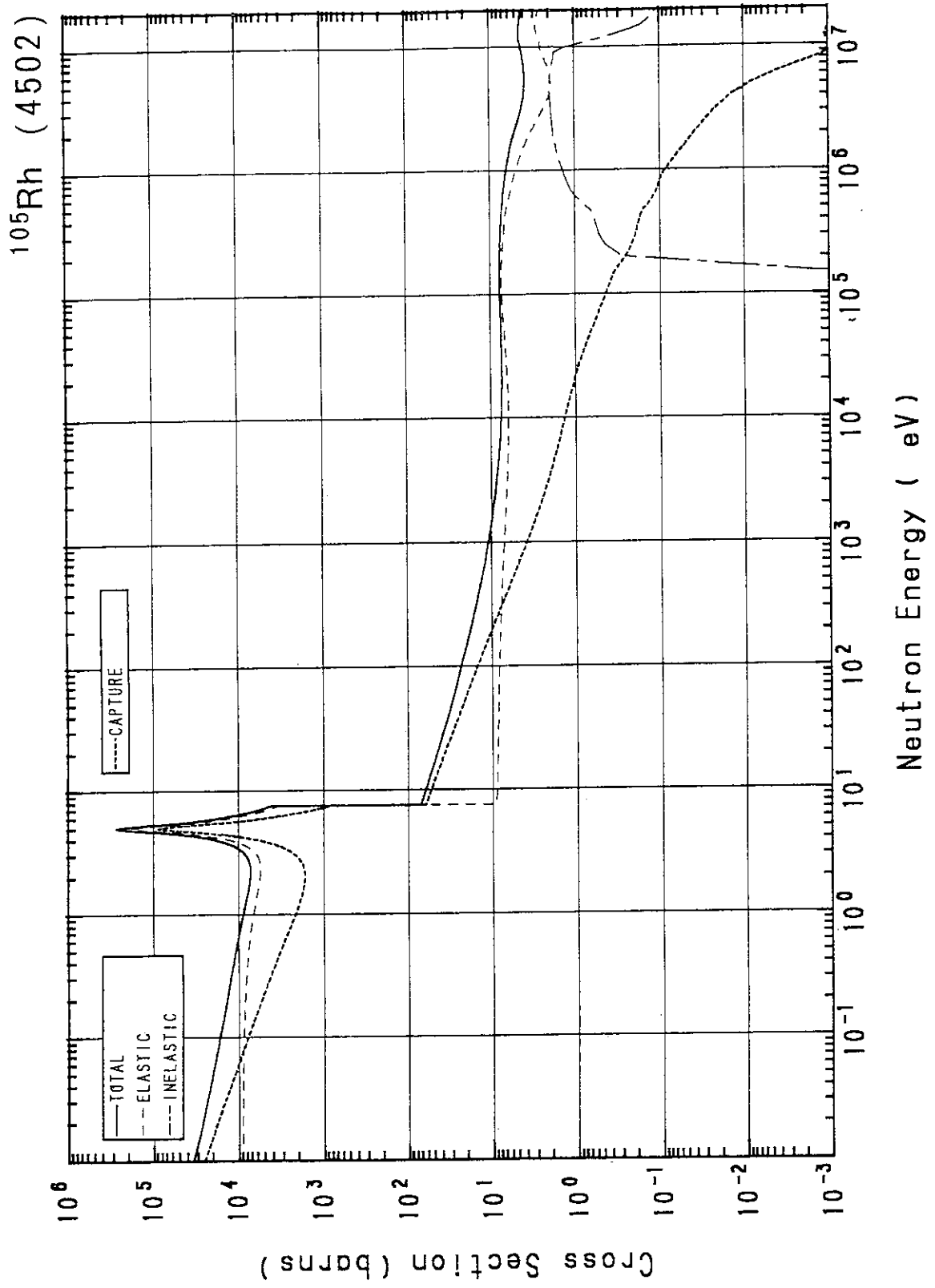
^{106}Ru (4409)



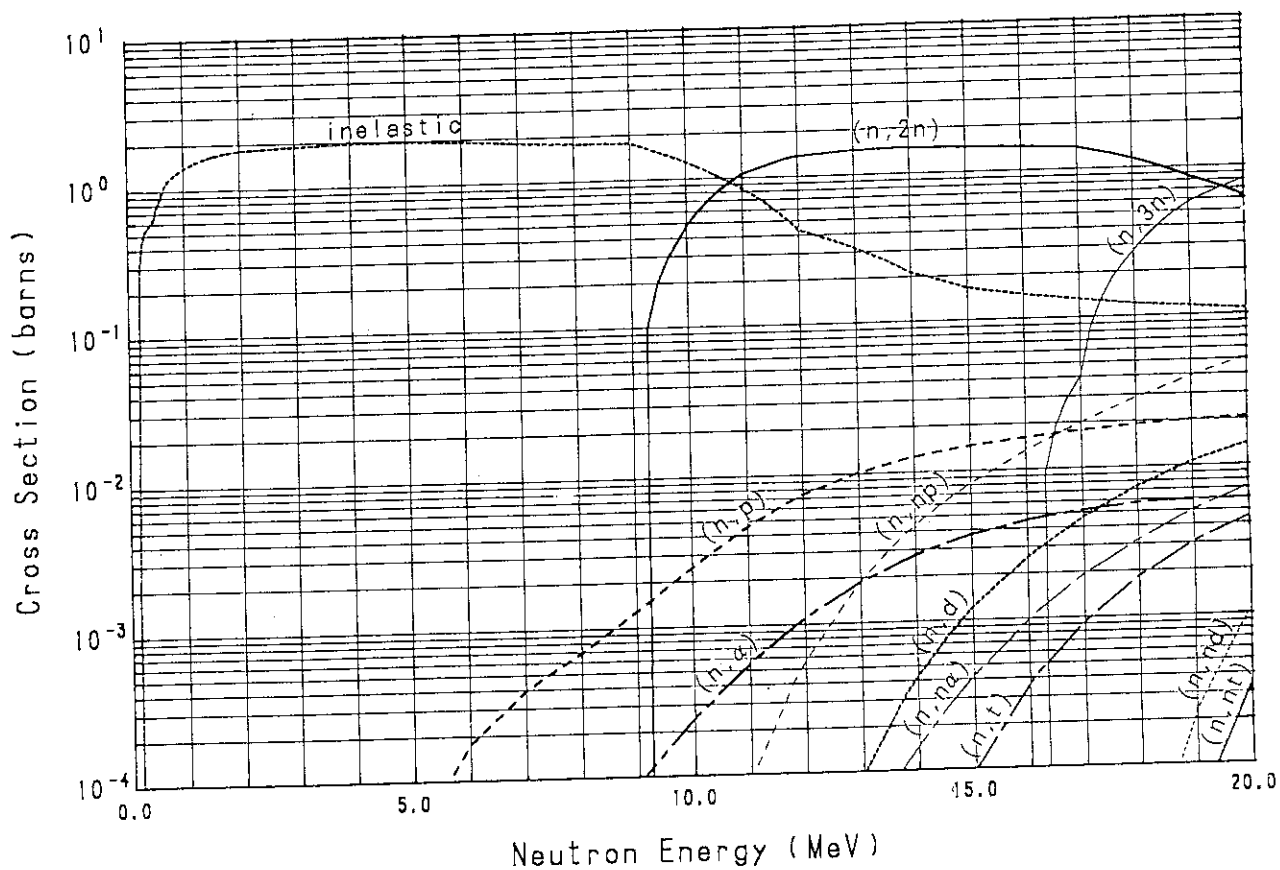
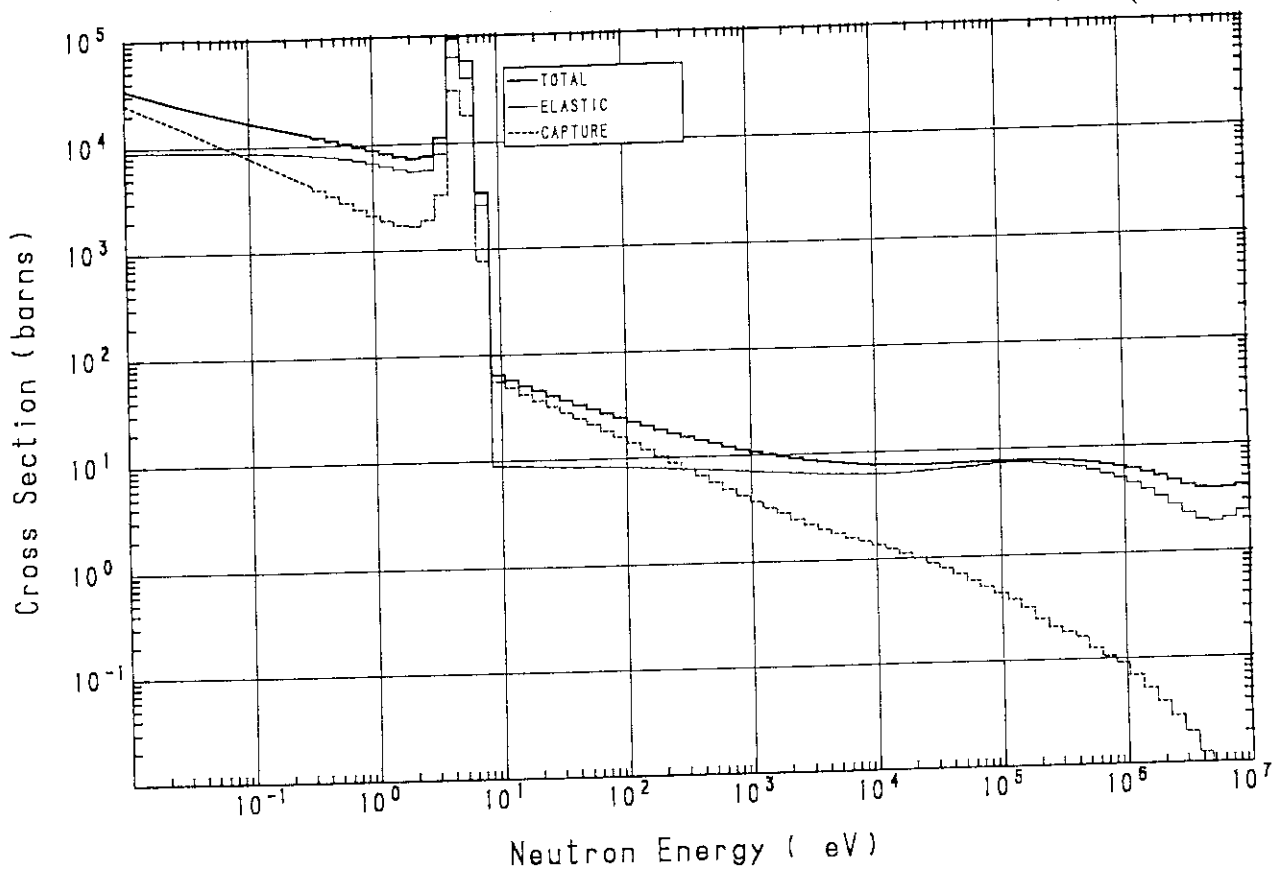


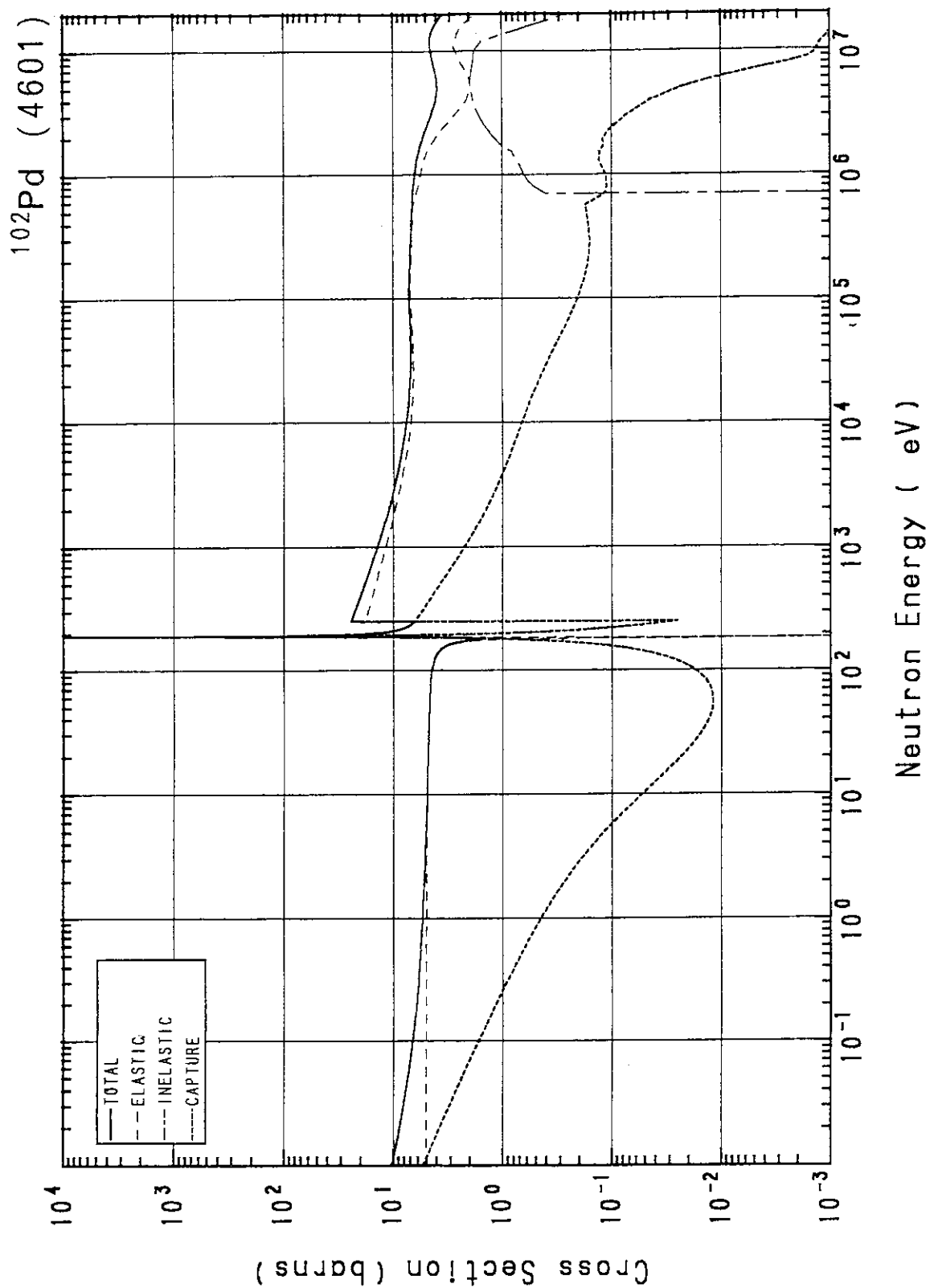
^{103}Rh (4501)



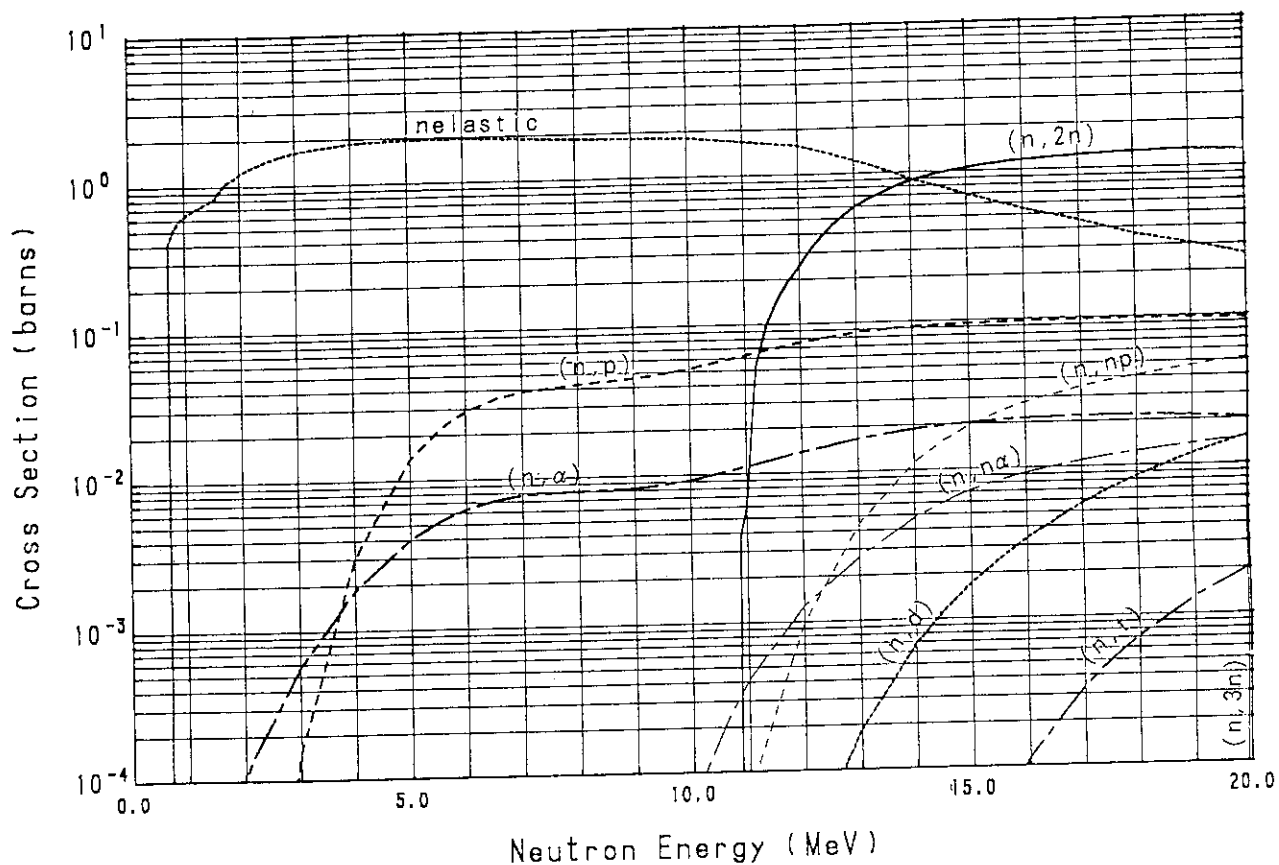
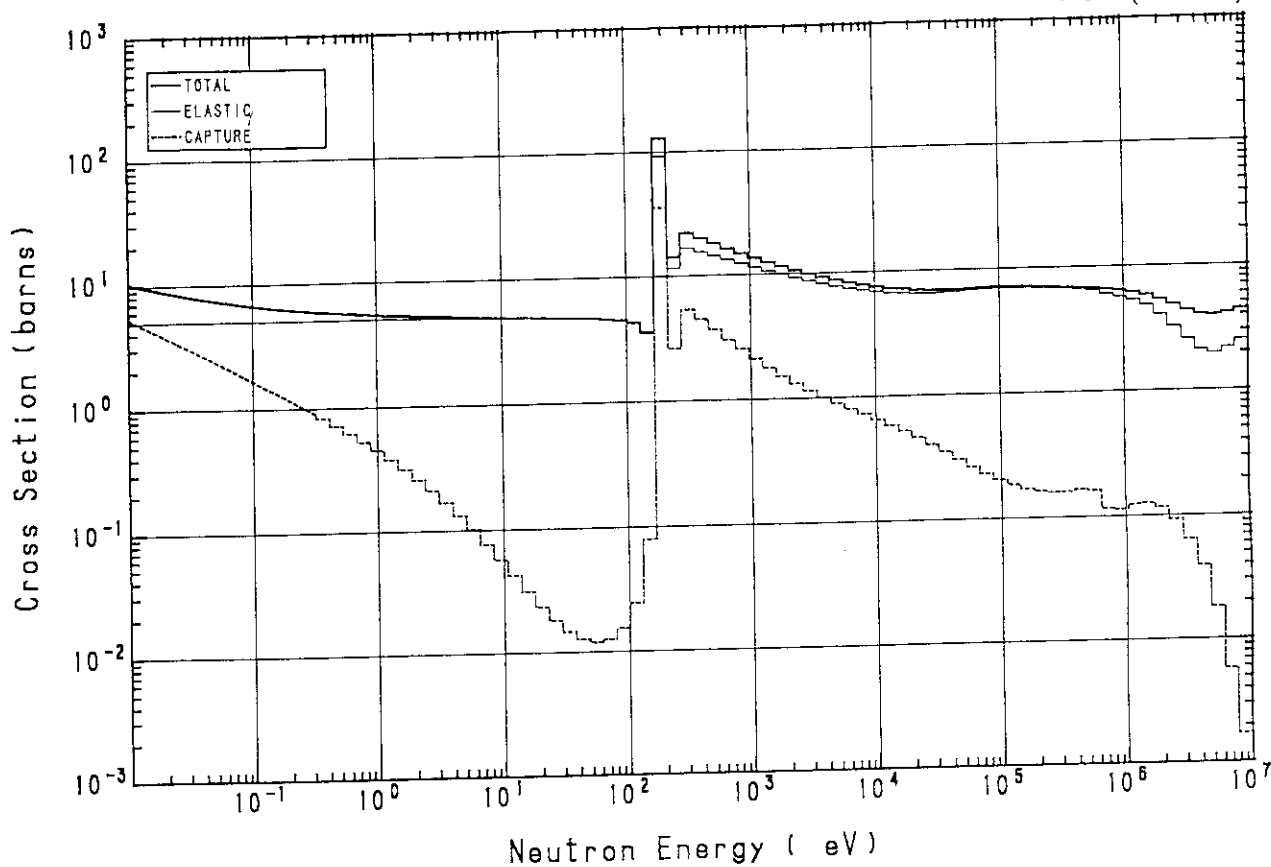


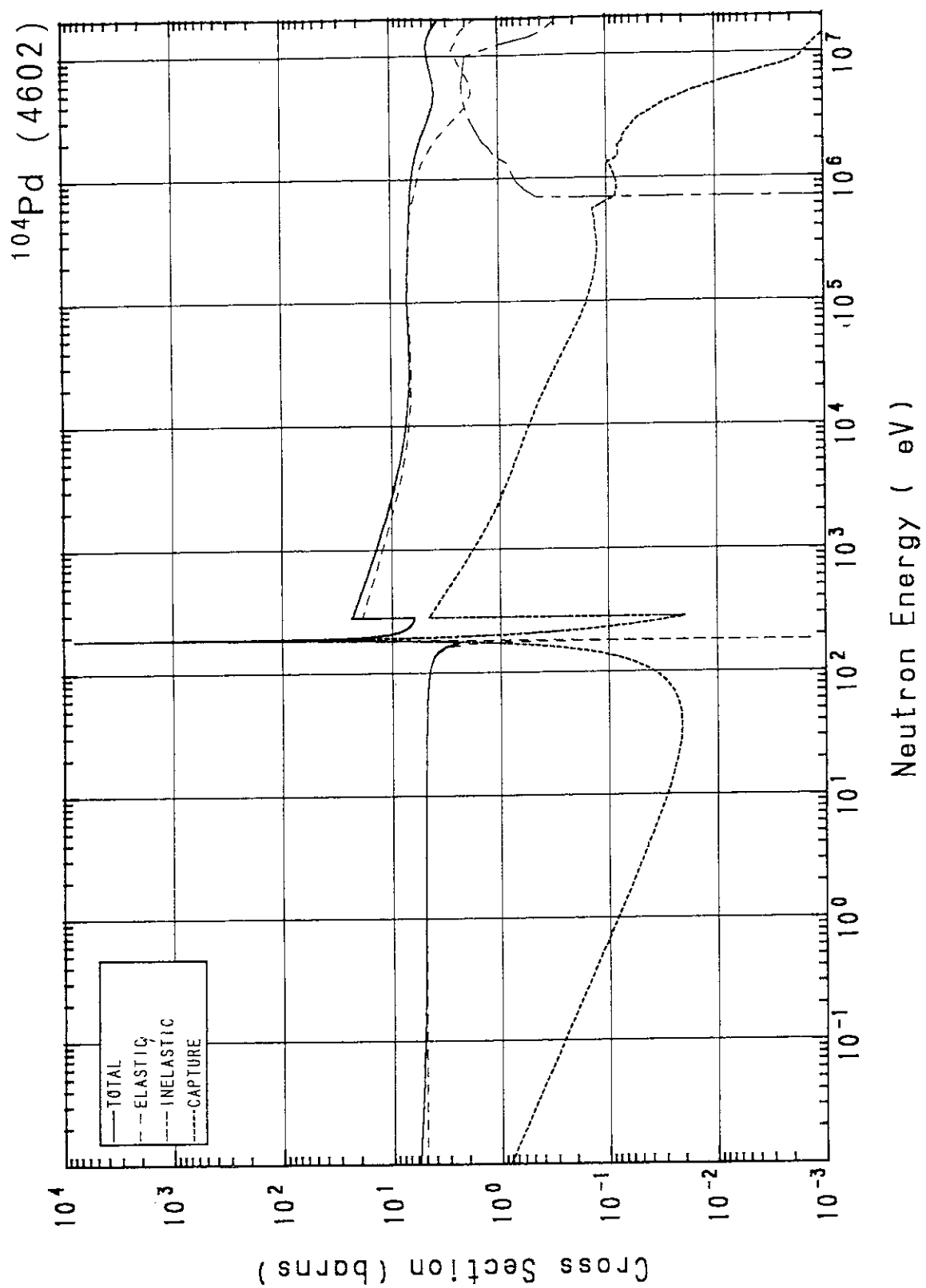
^{105}Rh (4502)



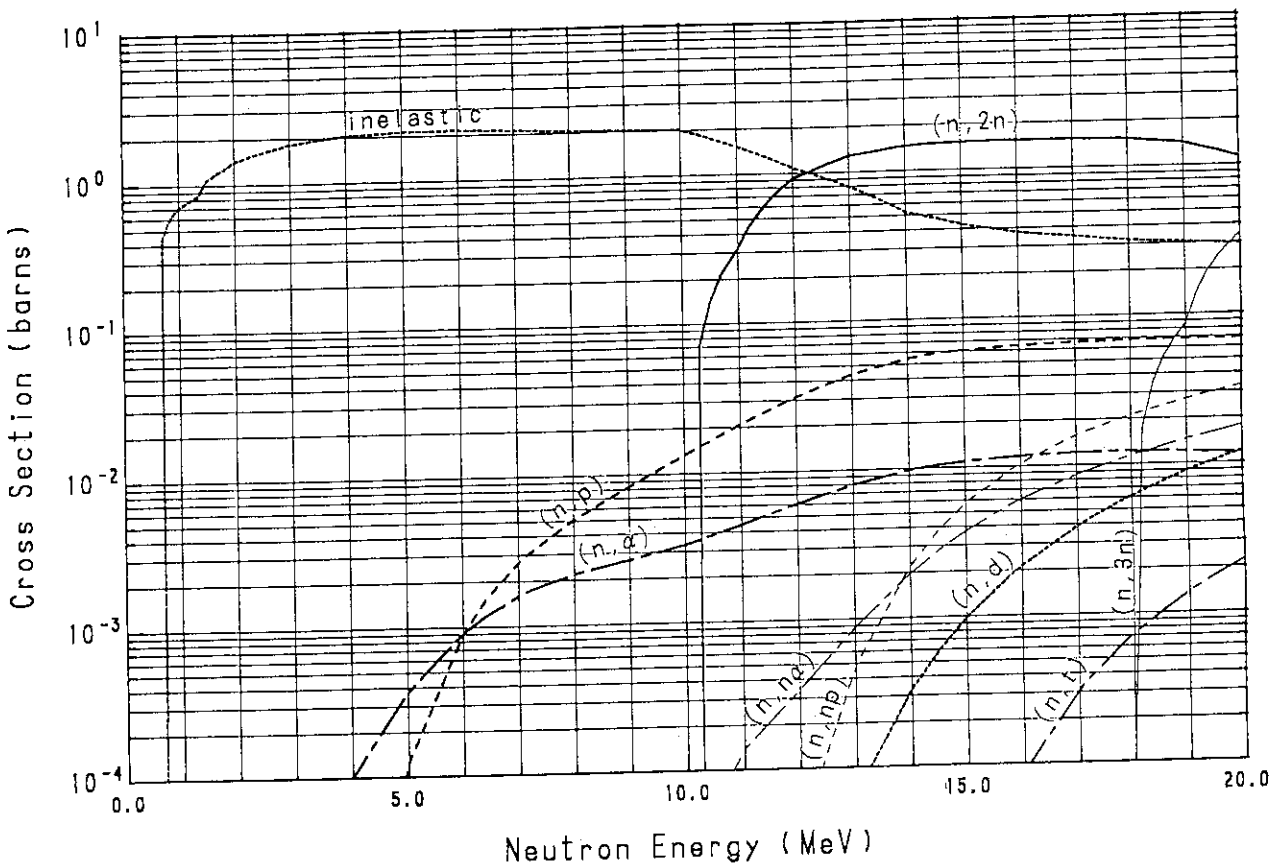
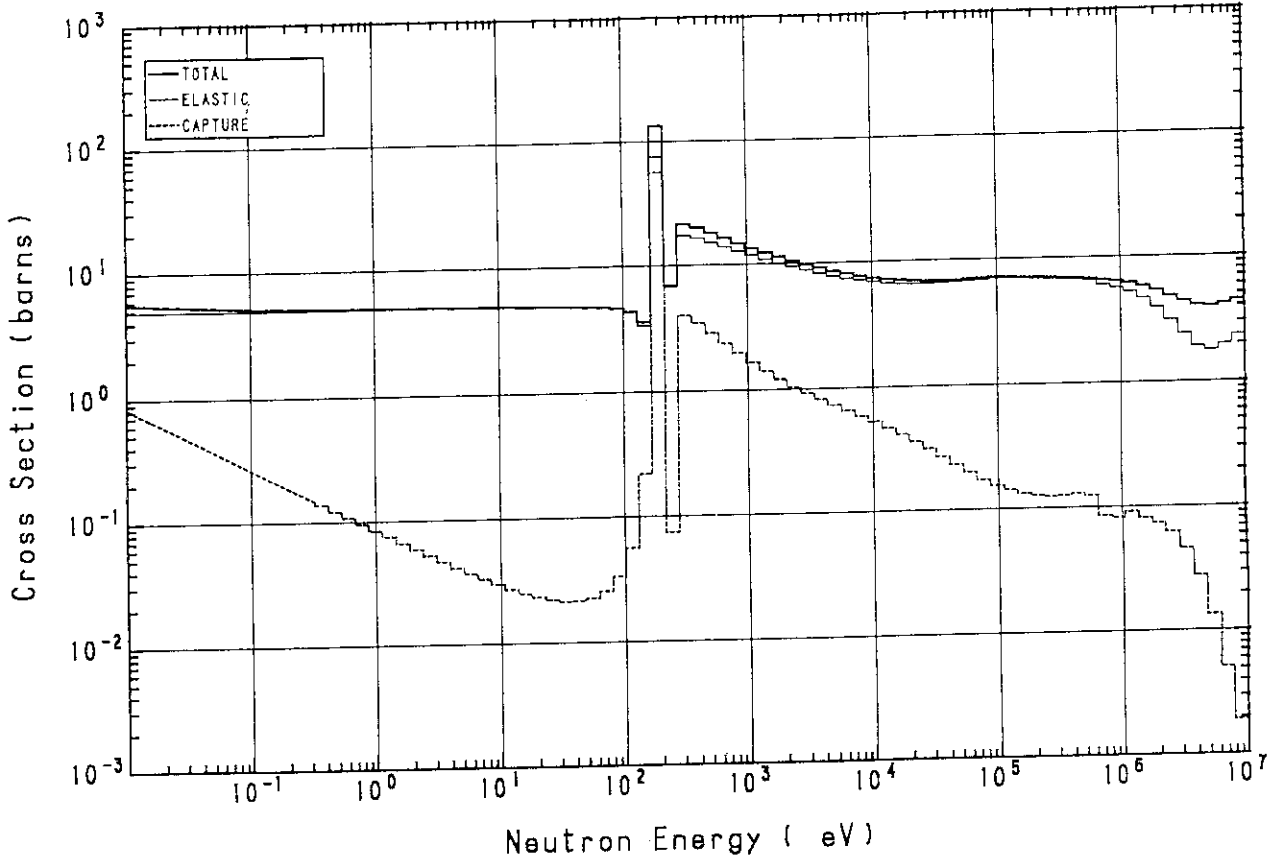


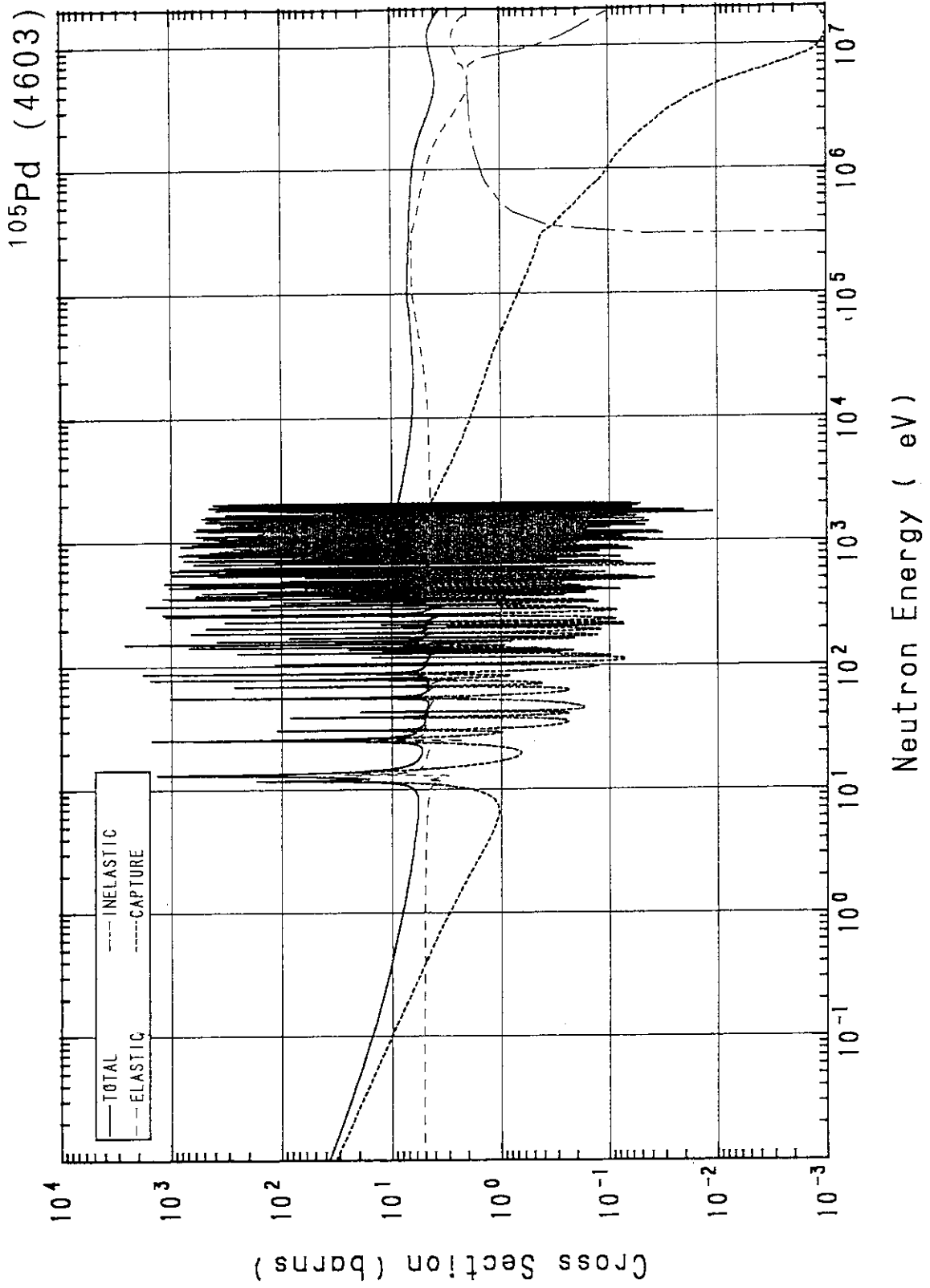
^{102}Pd (4601)



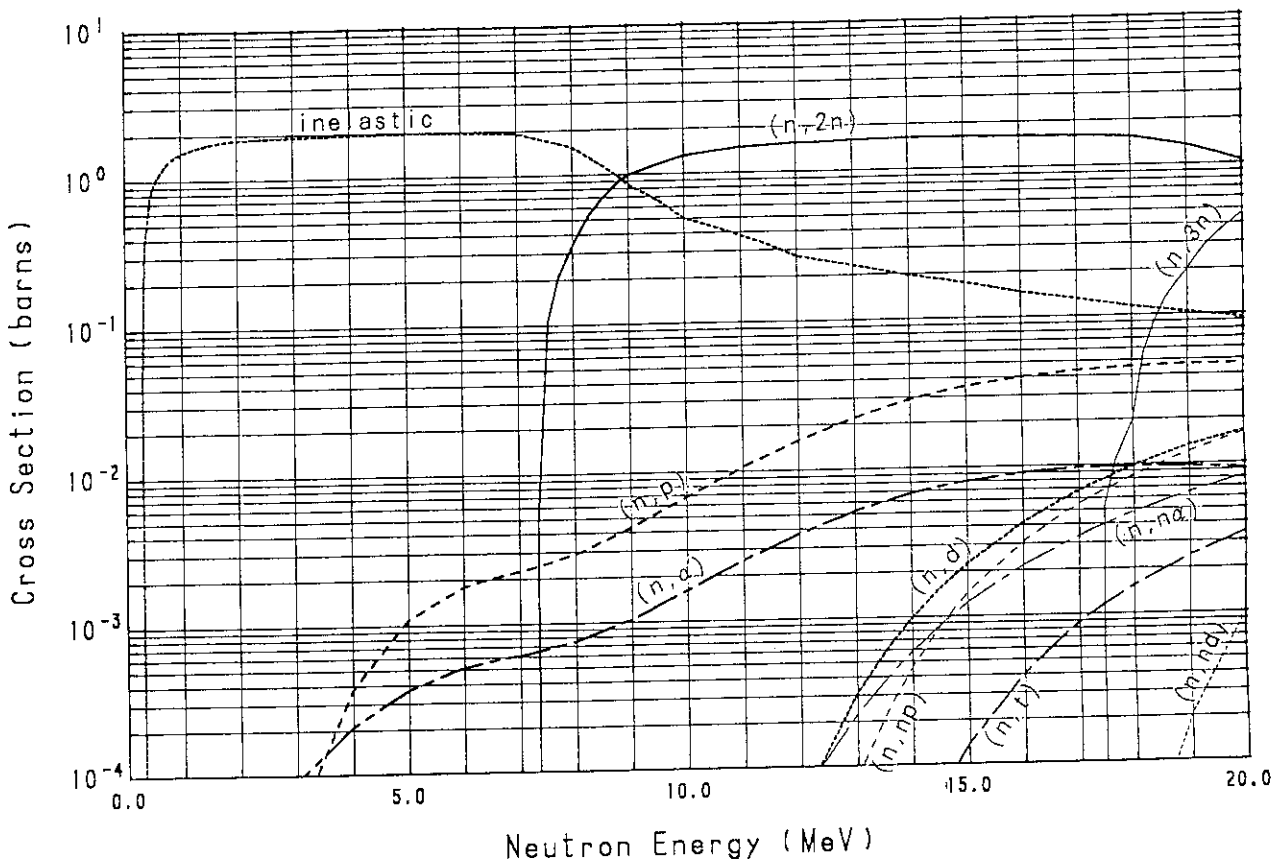
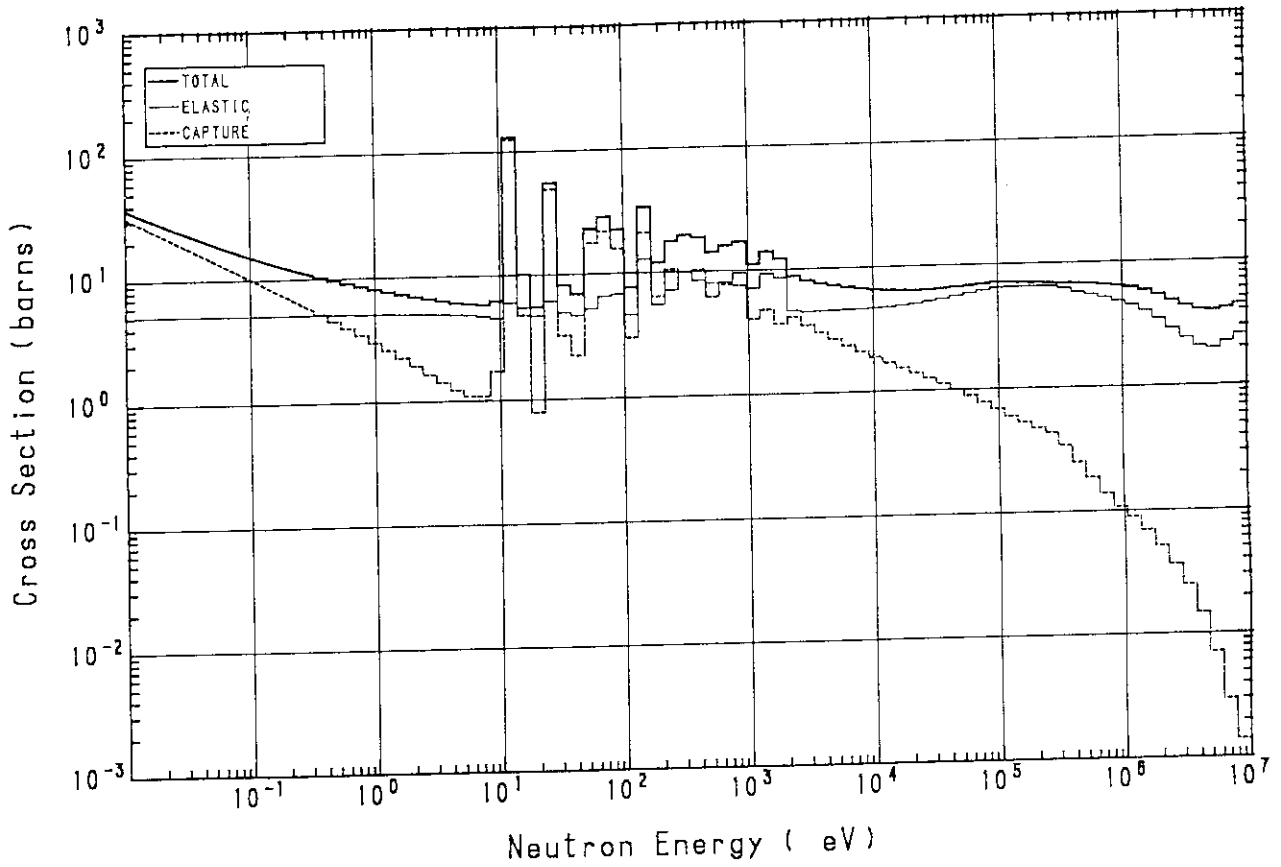


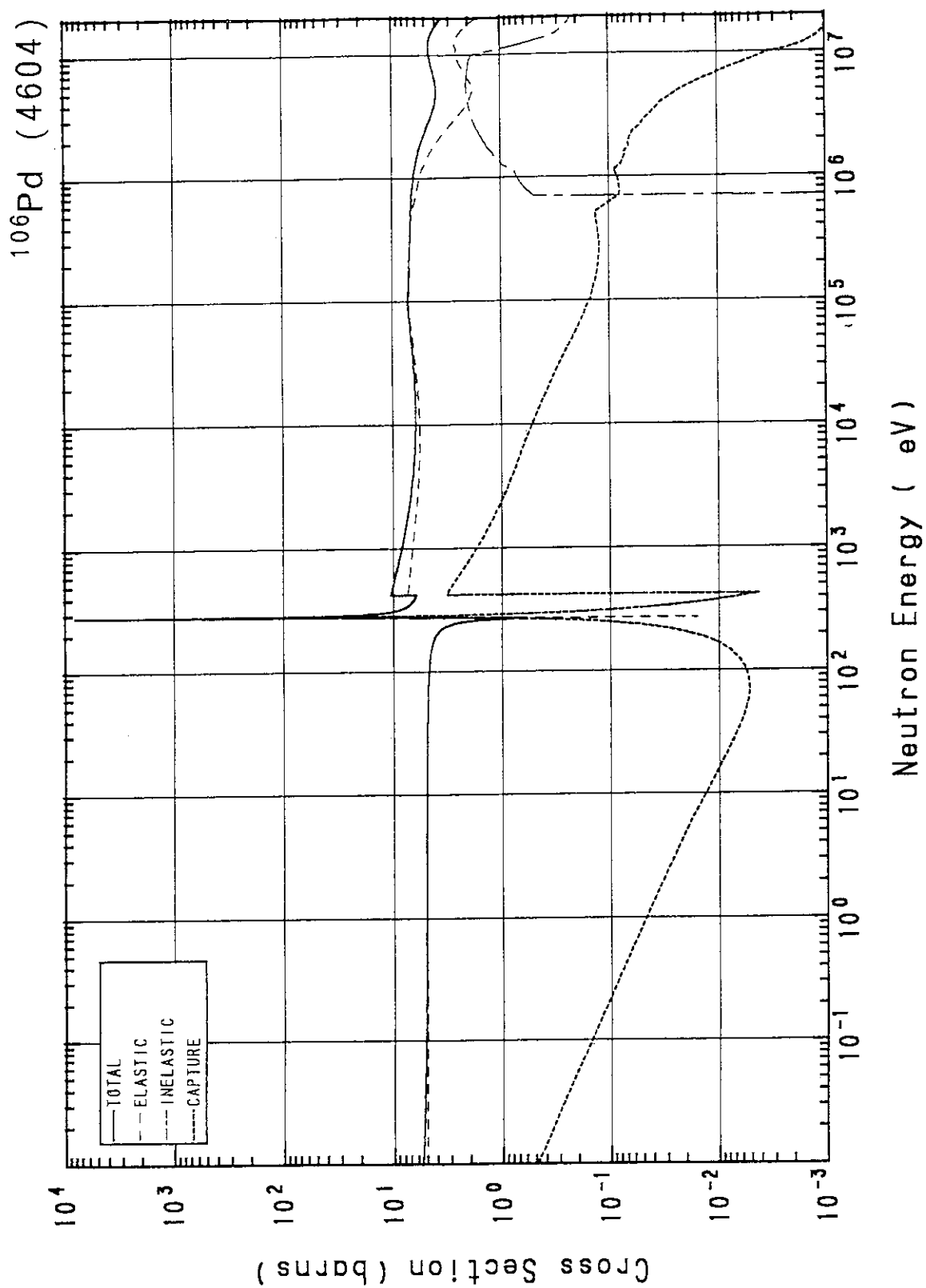
^{104}Pd (4602)



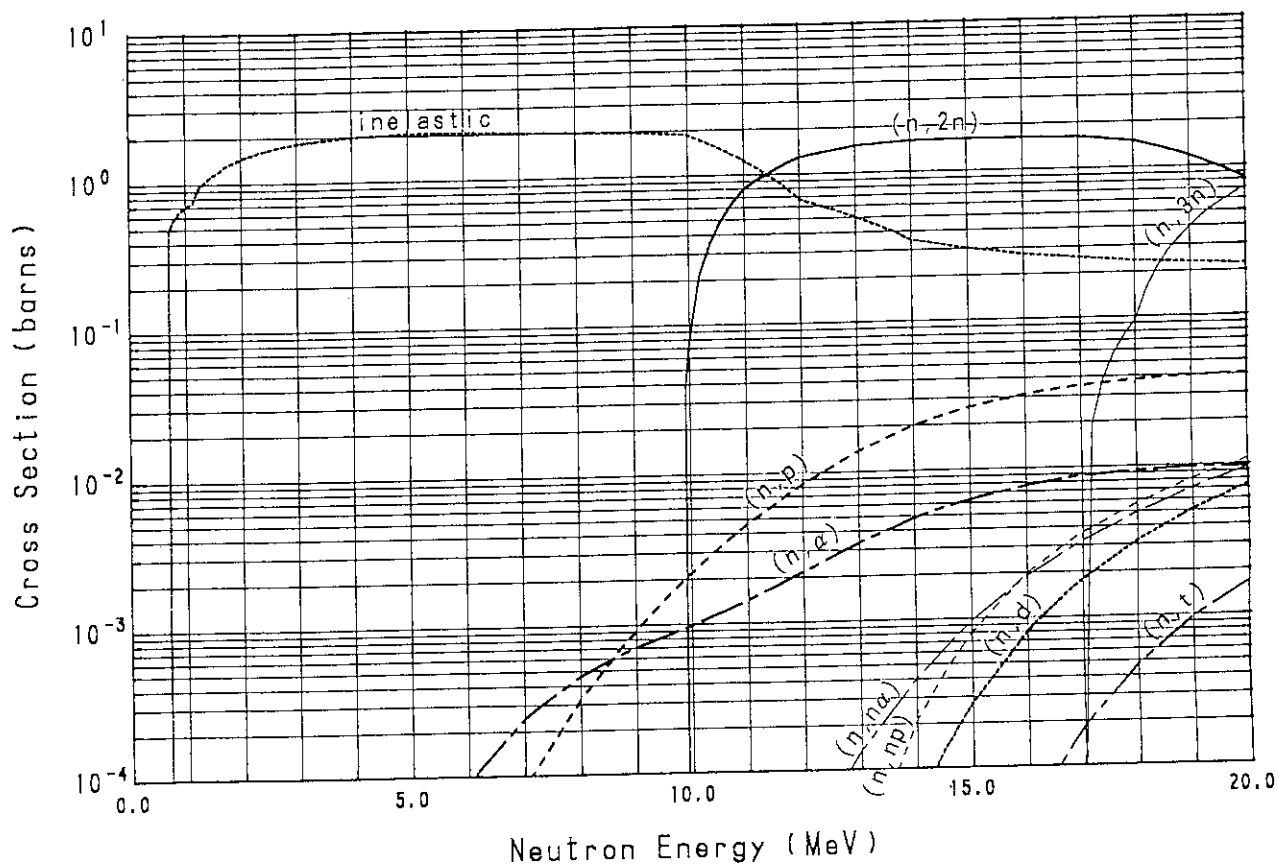
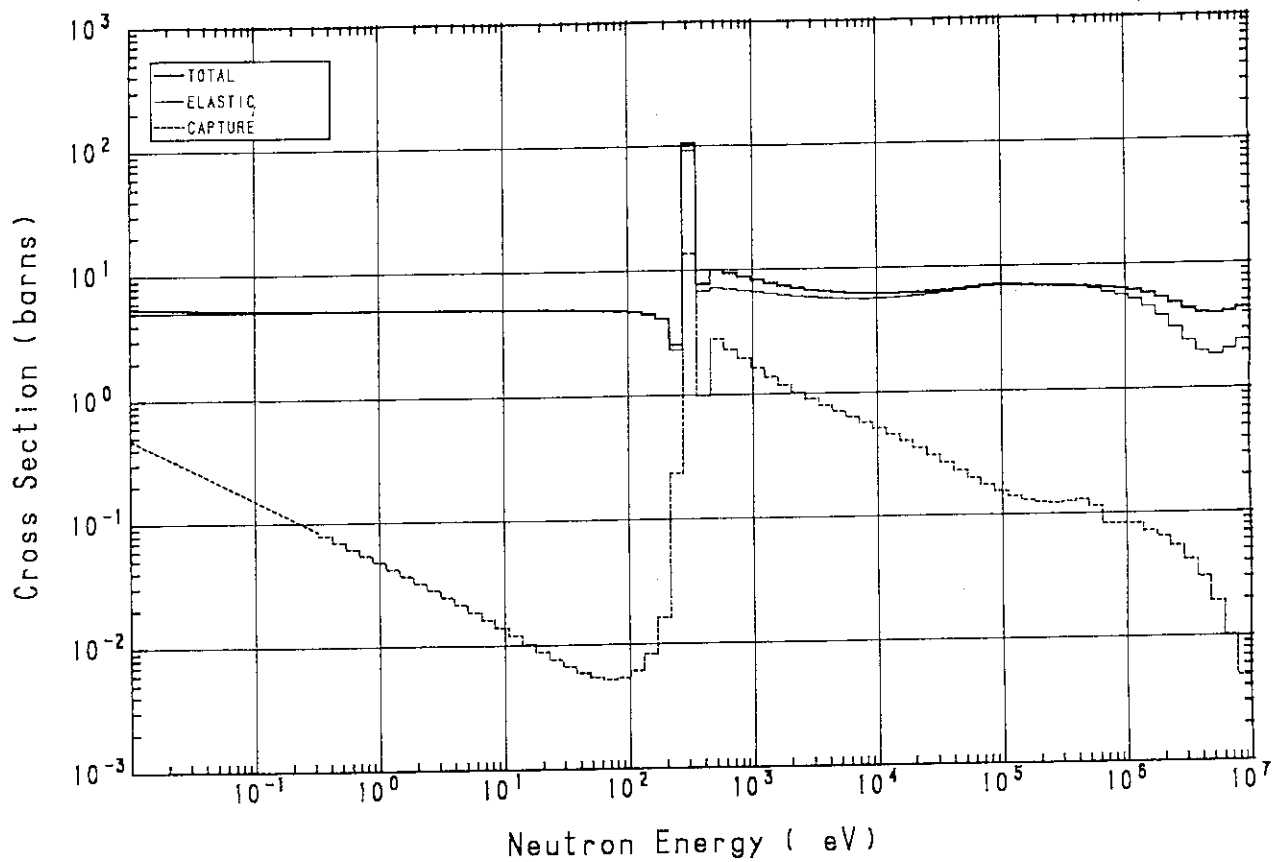


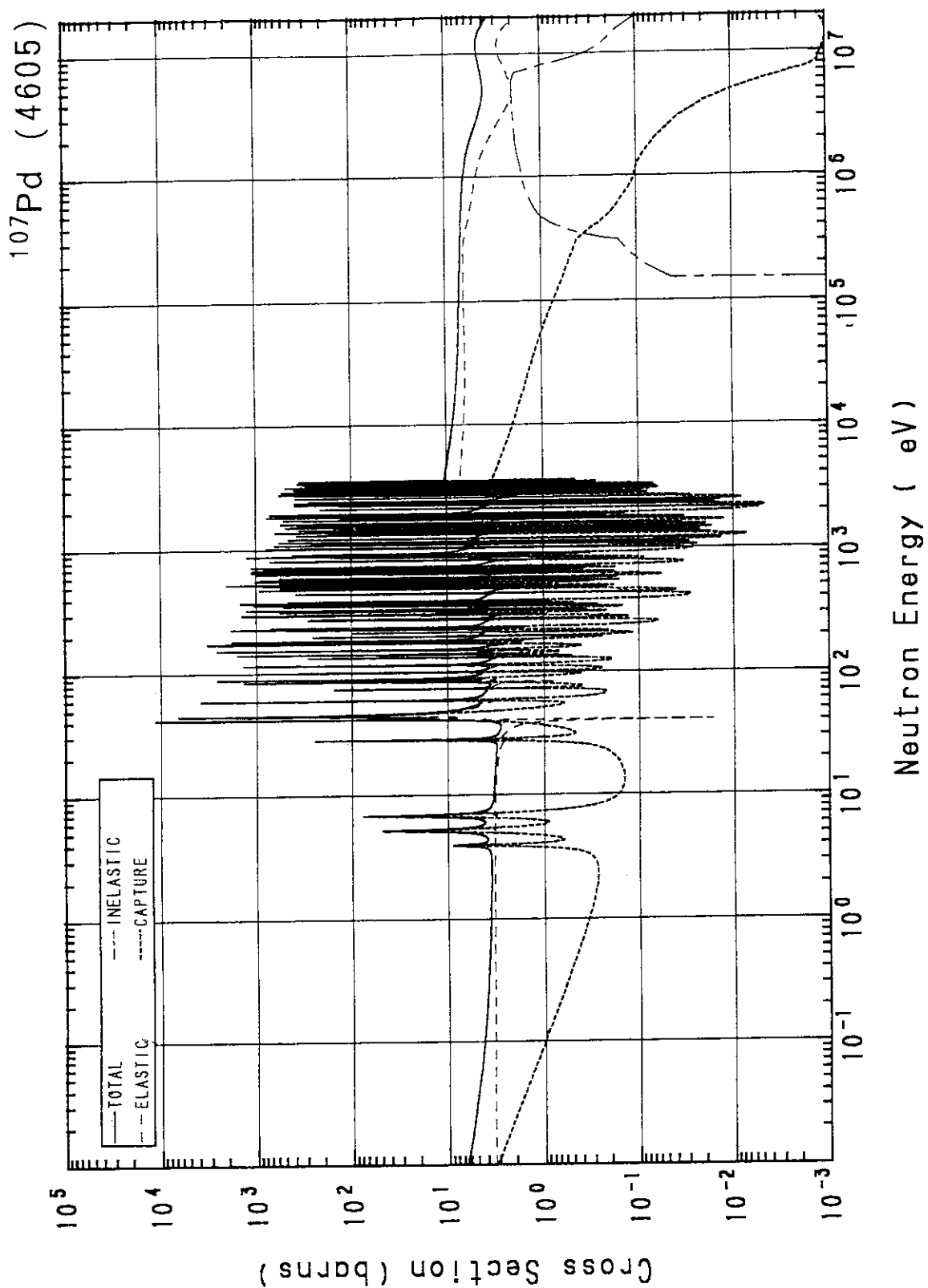
^{105}Pd (4603)



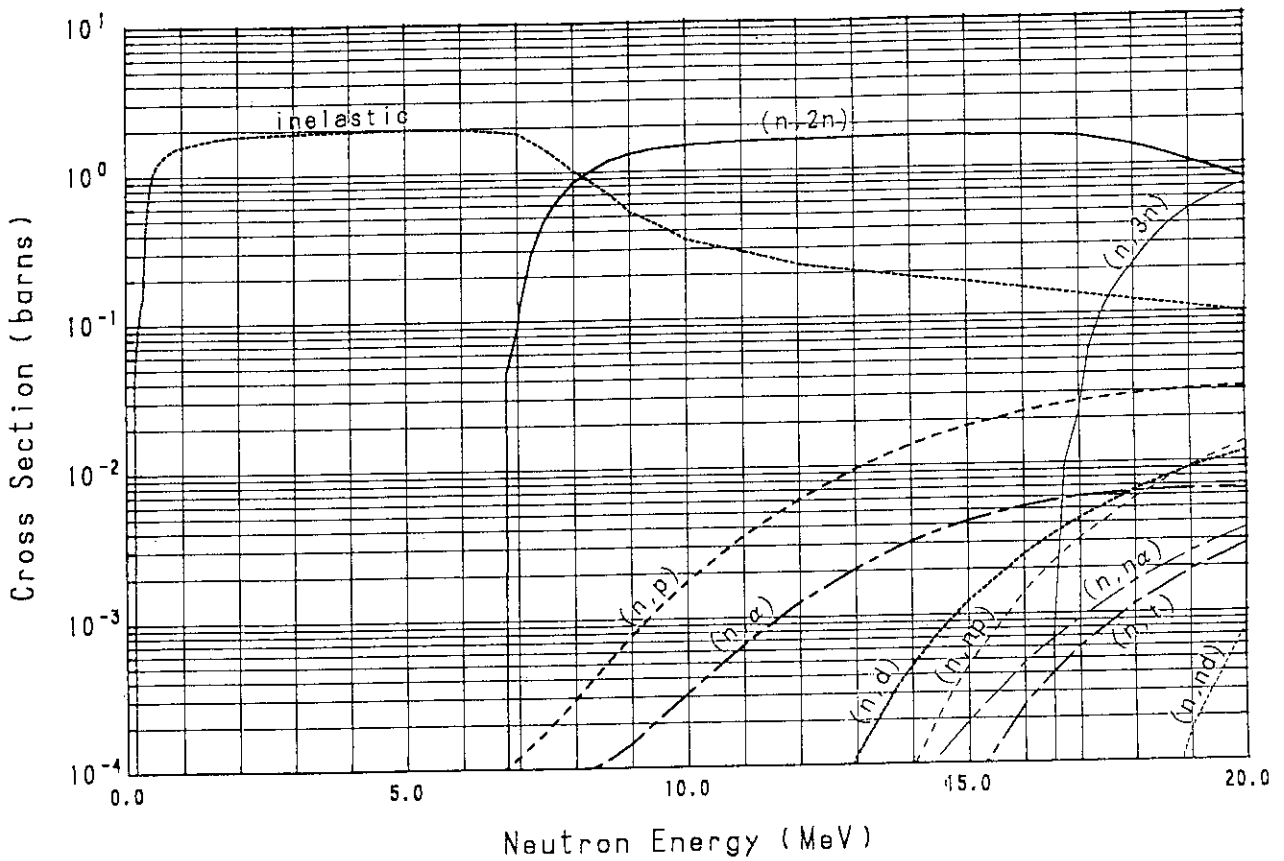
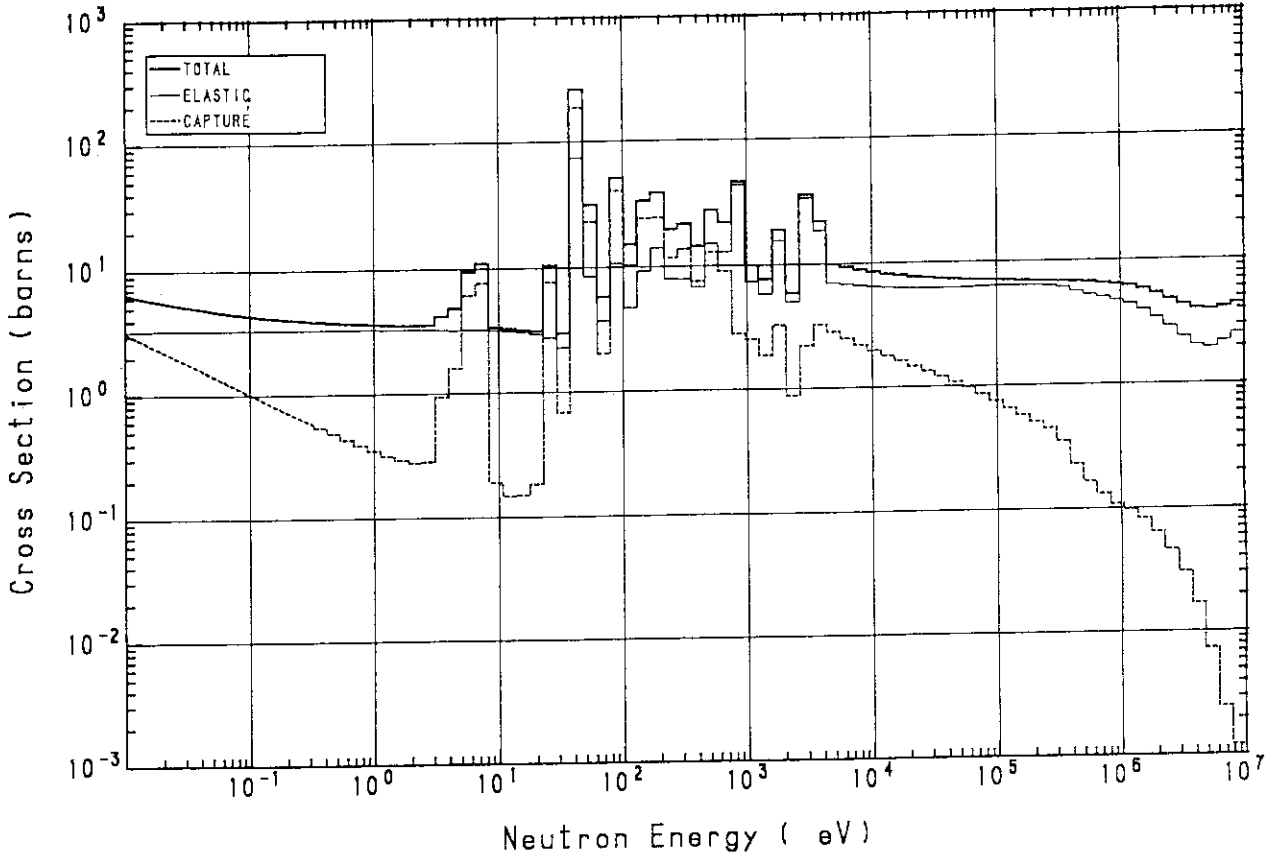


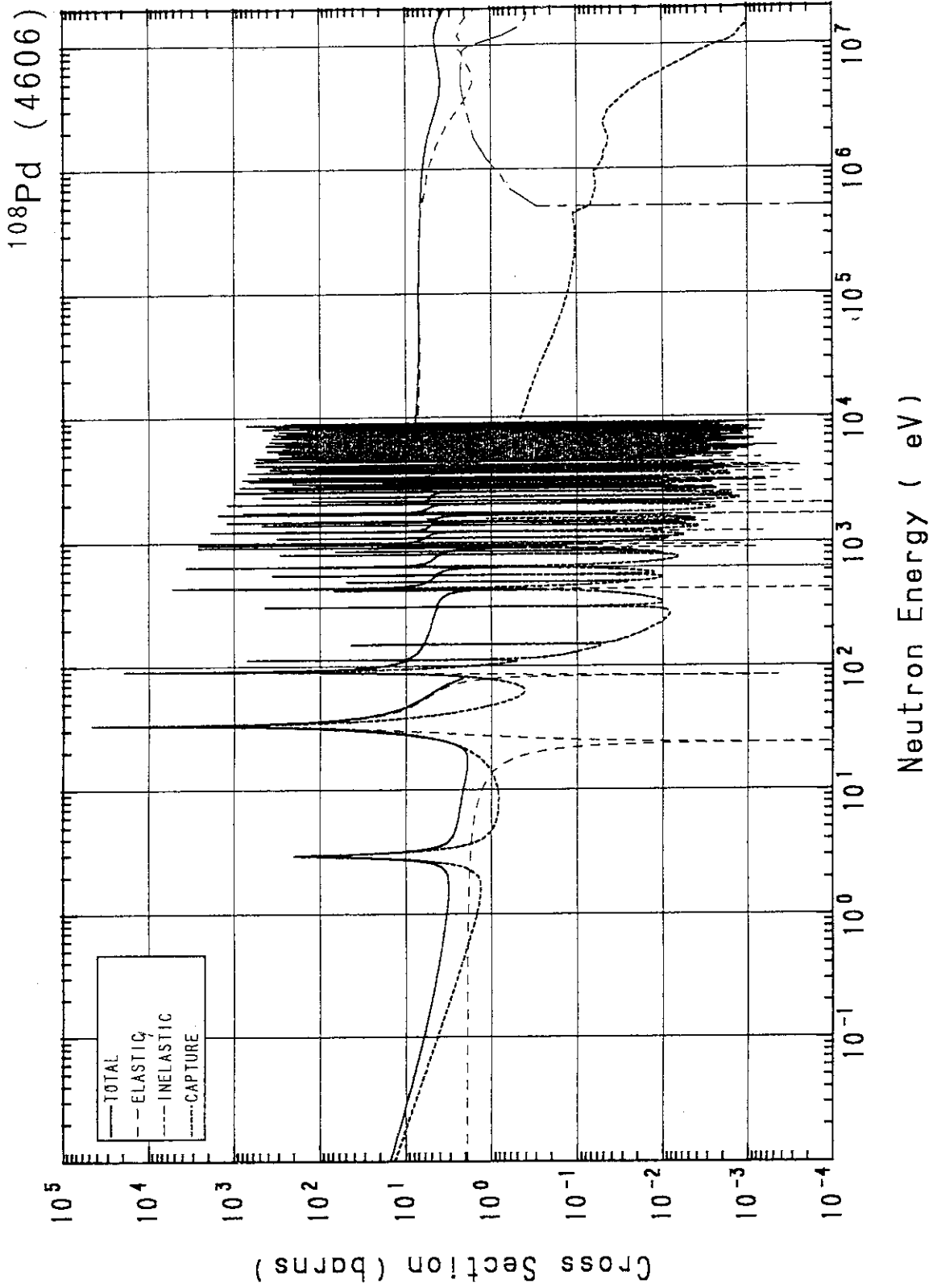
^{106}Pd (4604)



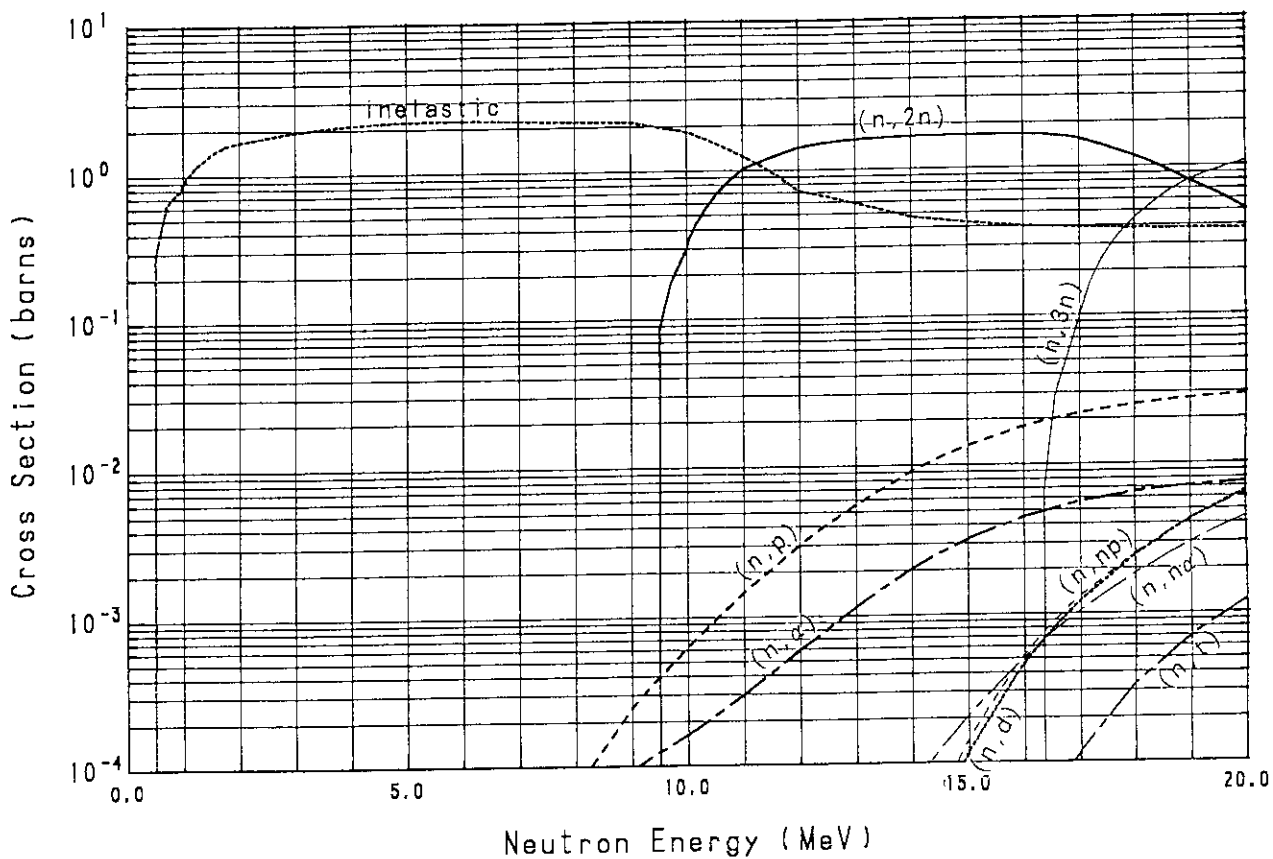
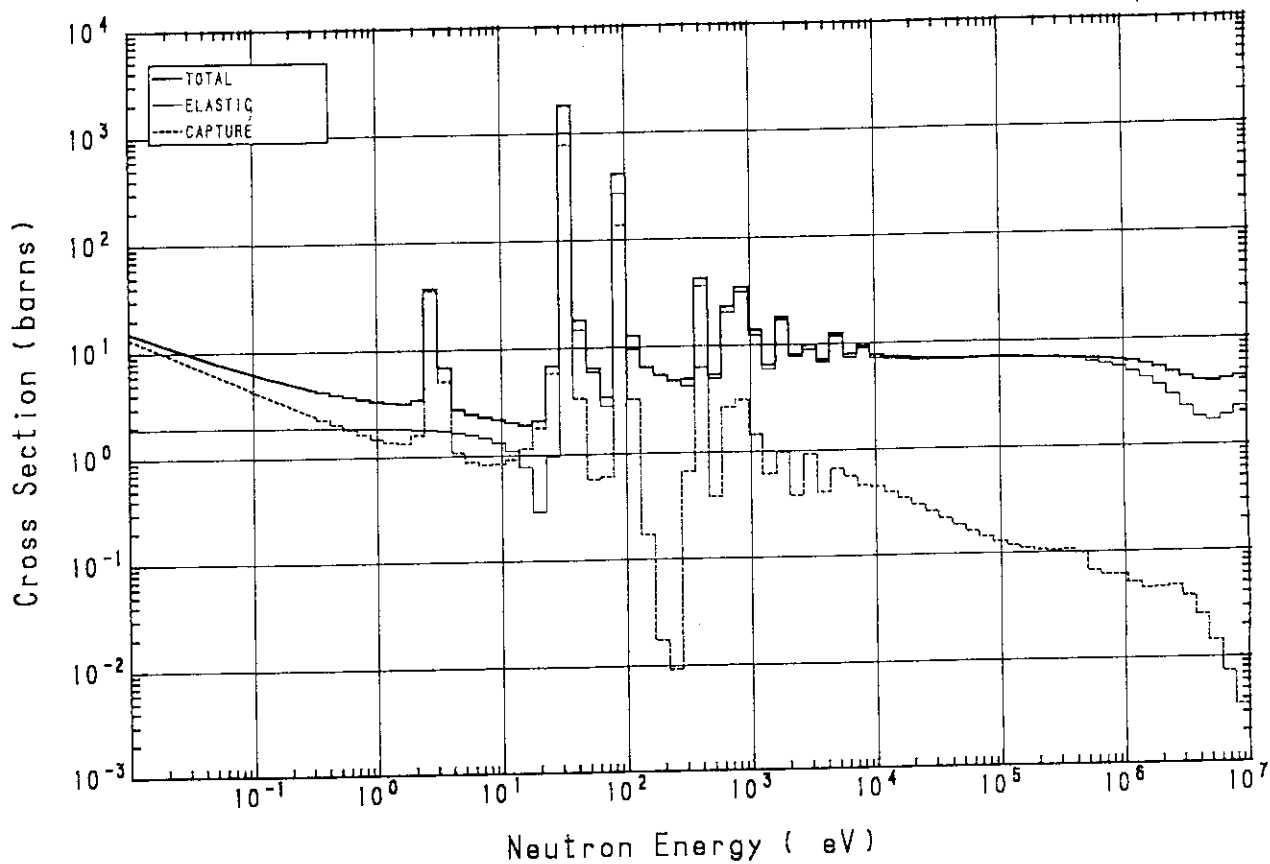


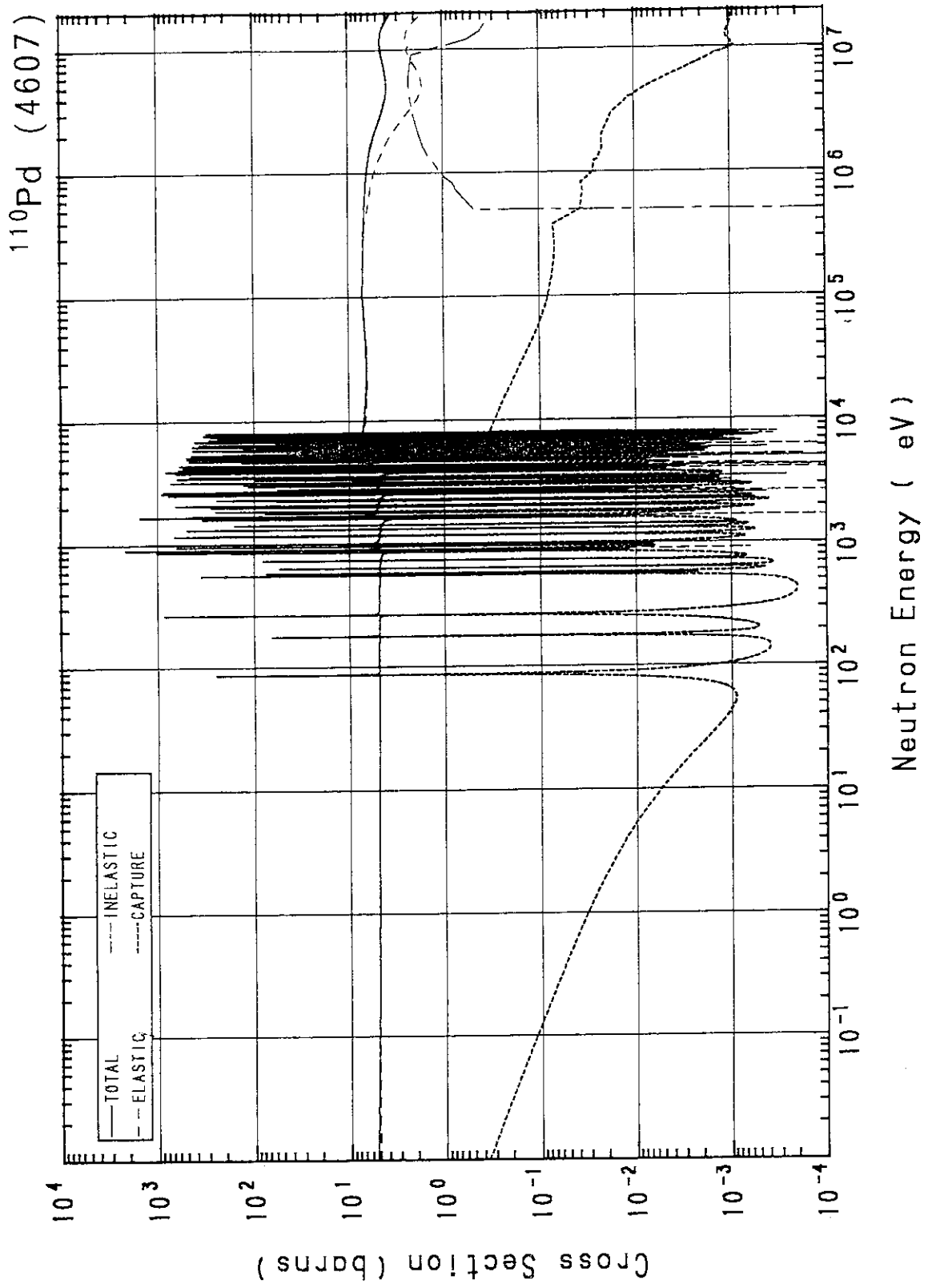
^{107}Pd (4605)



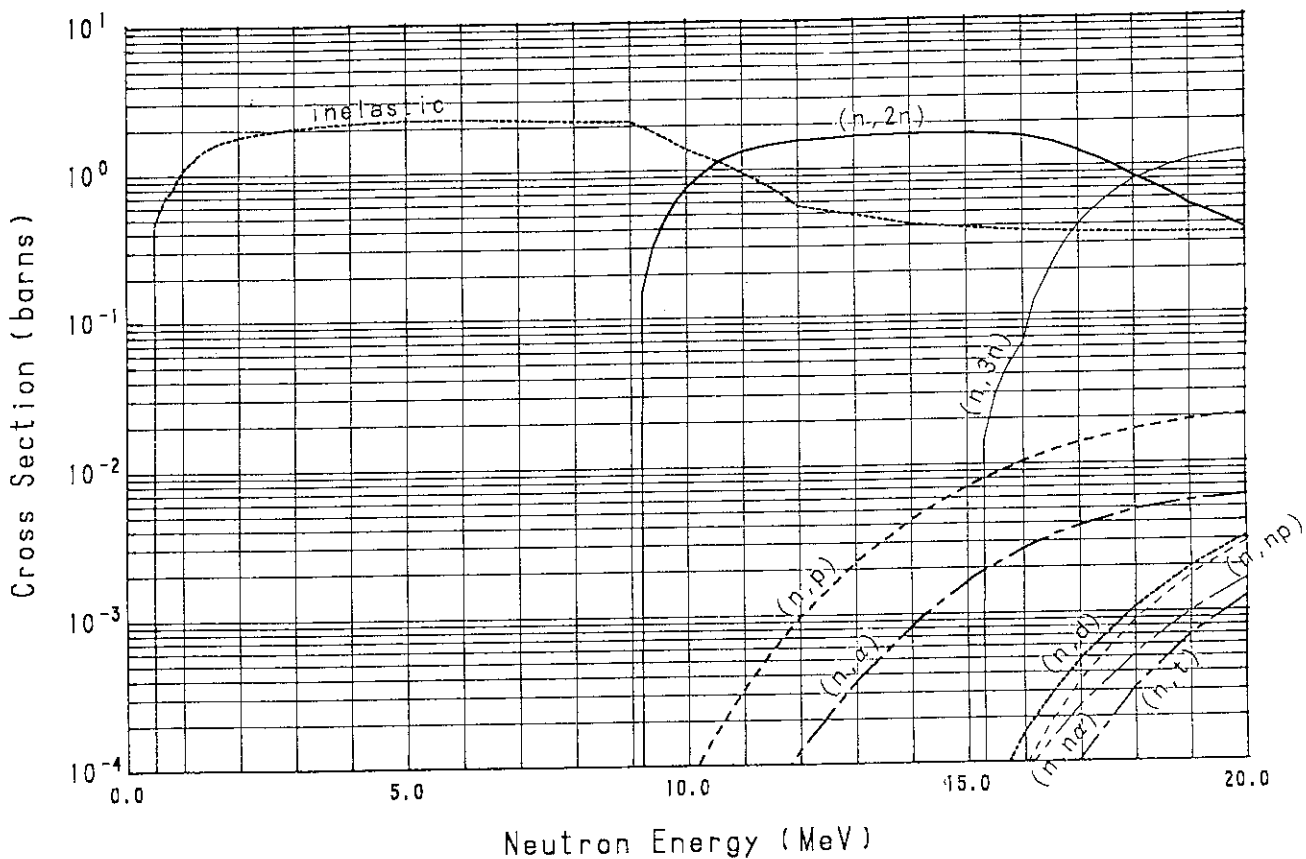
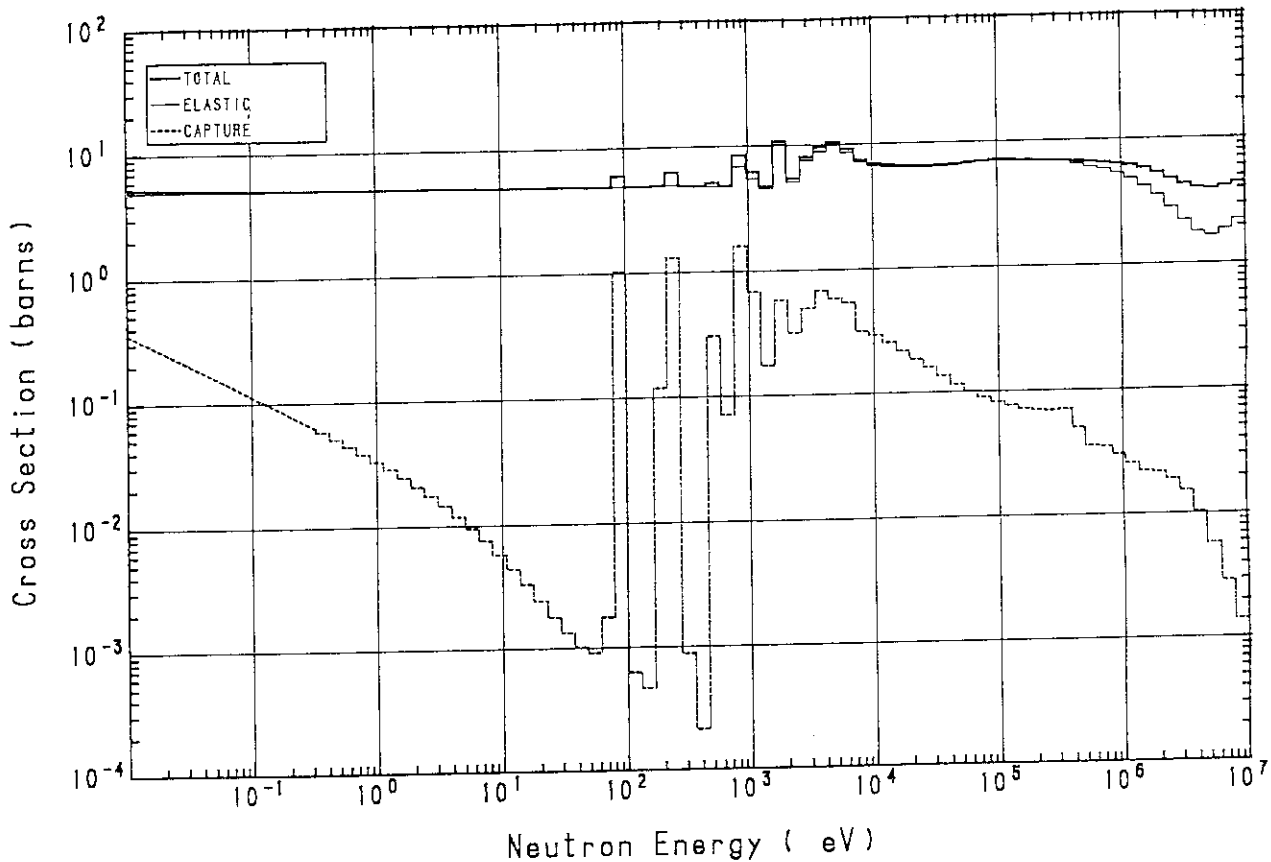


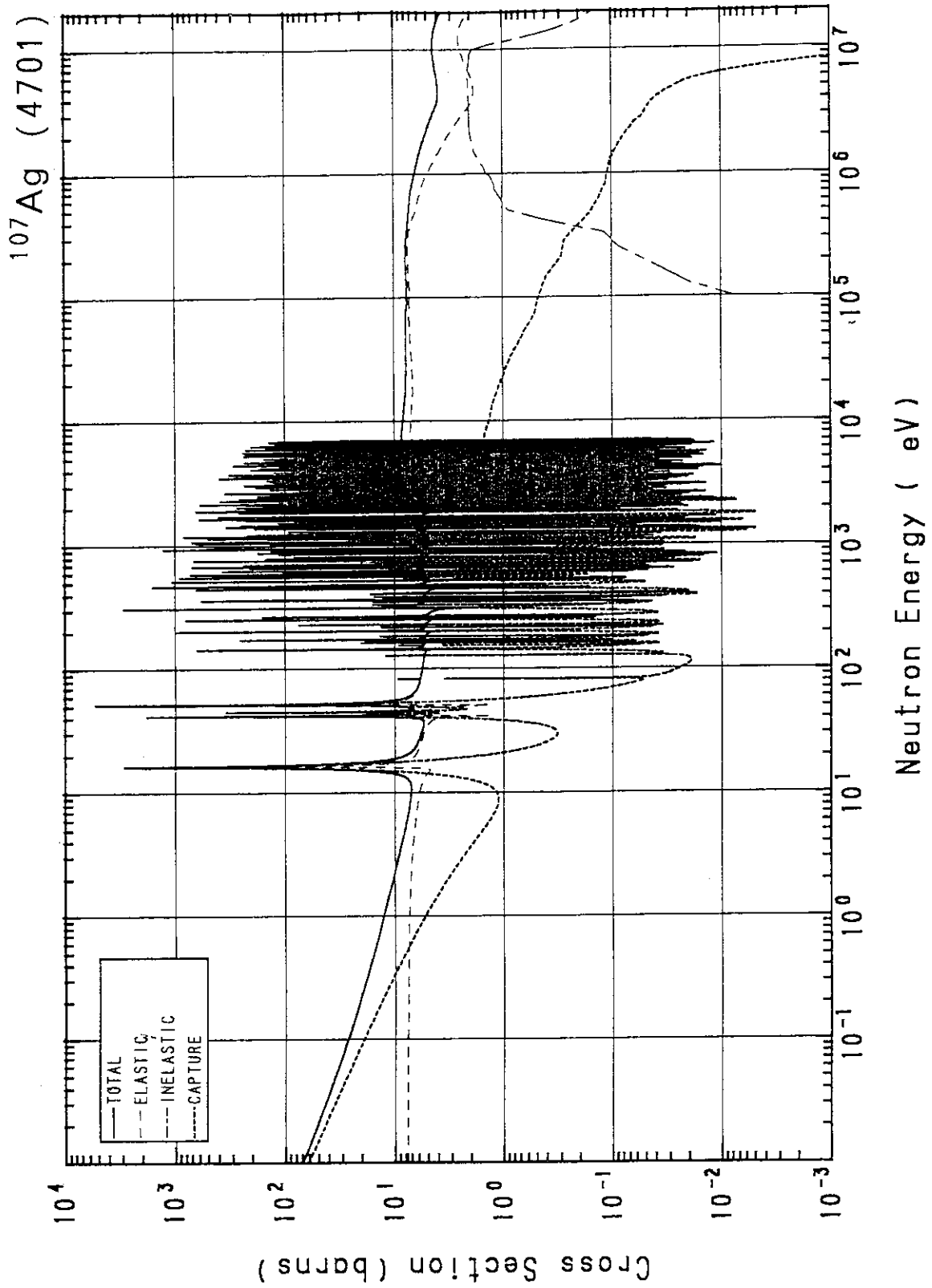
^{108}Pd (4606)



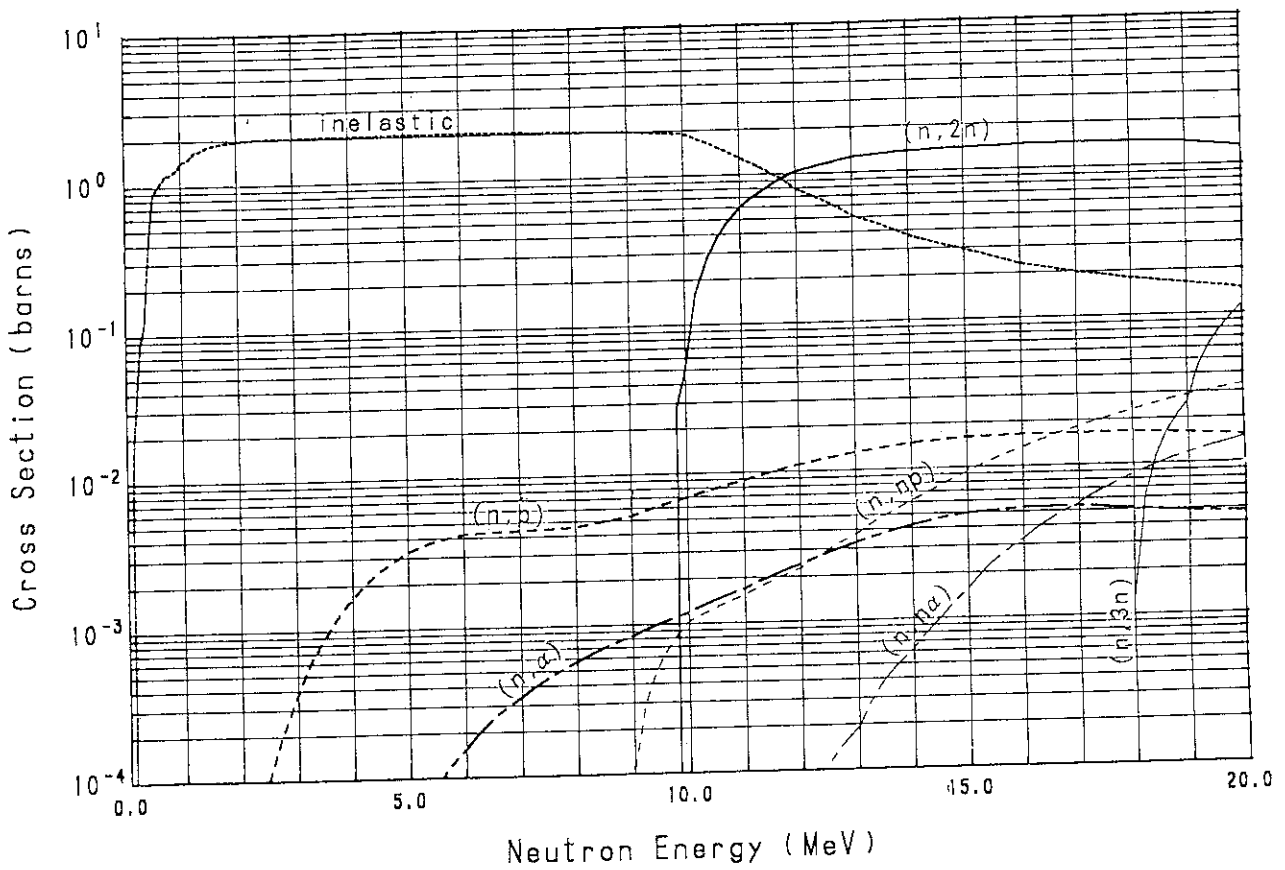
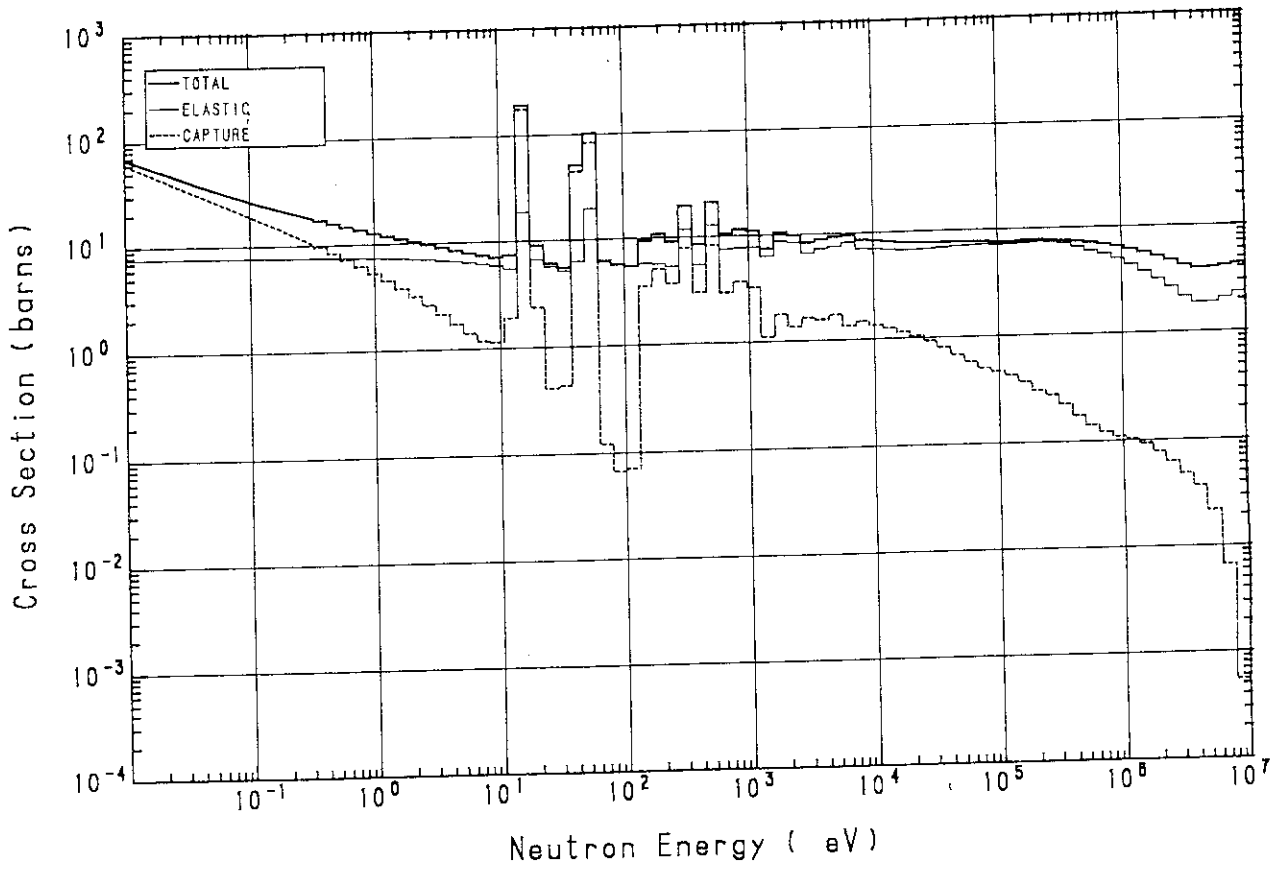


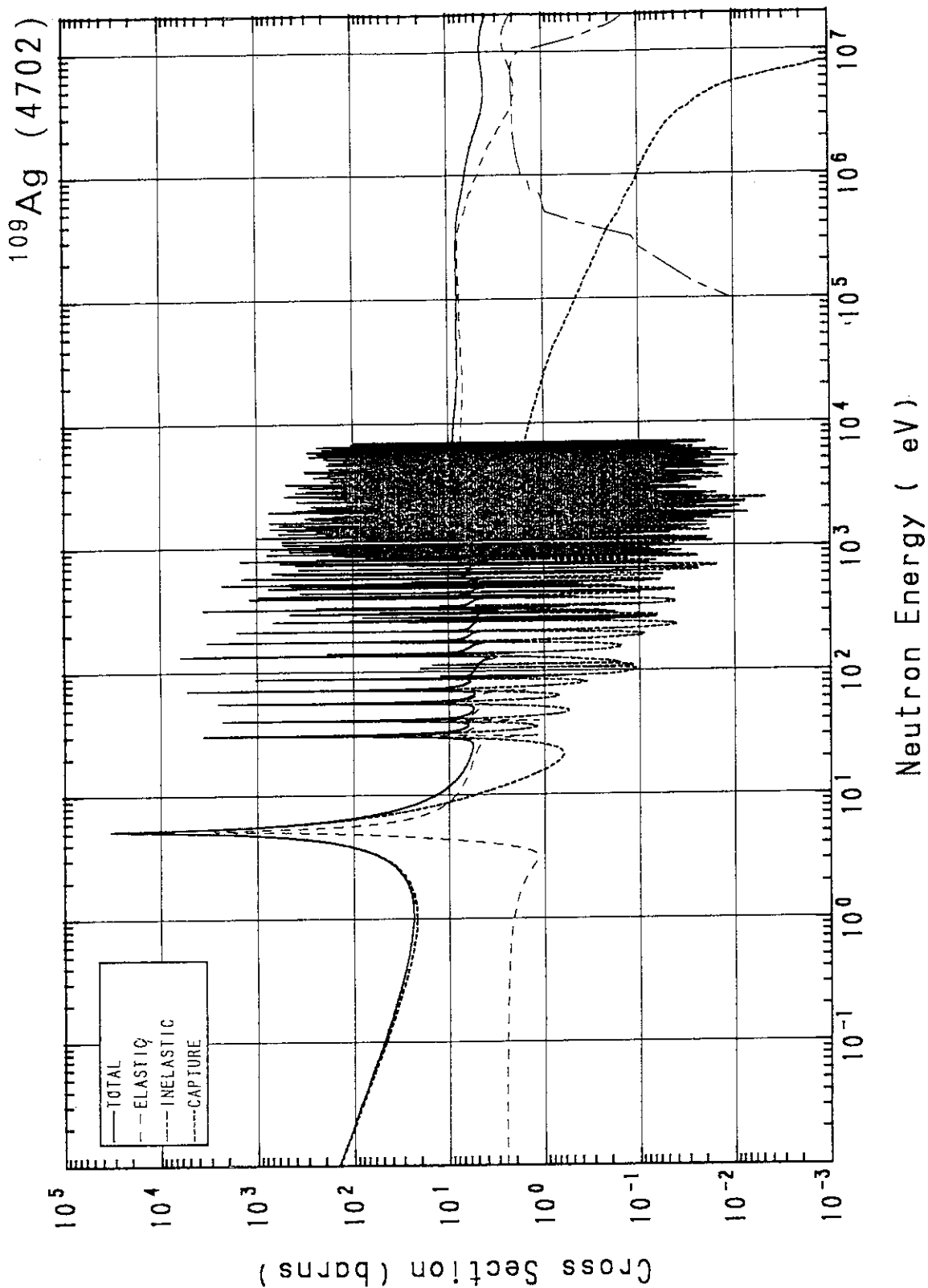
^{110}Pd (4607)



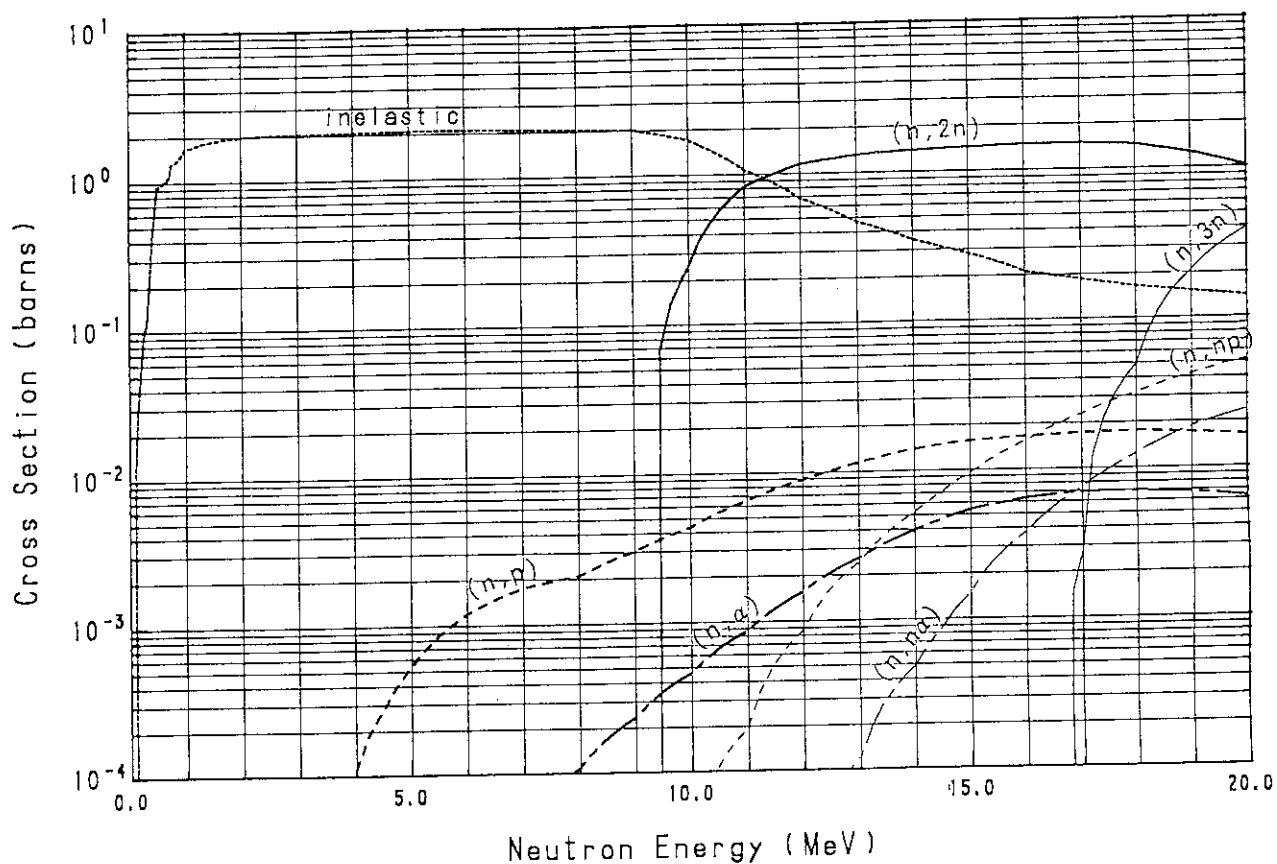
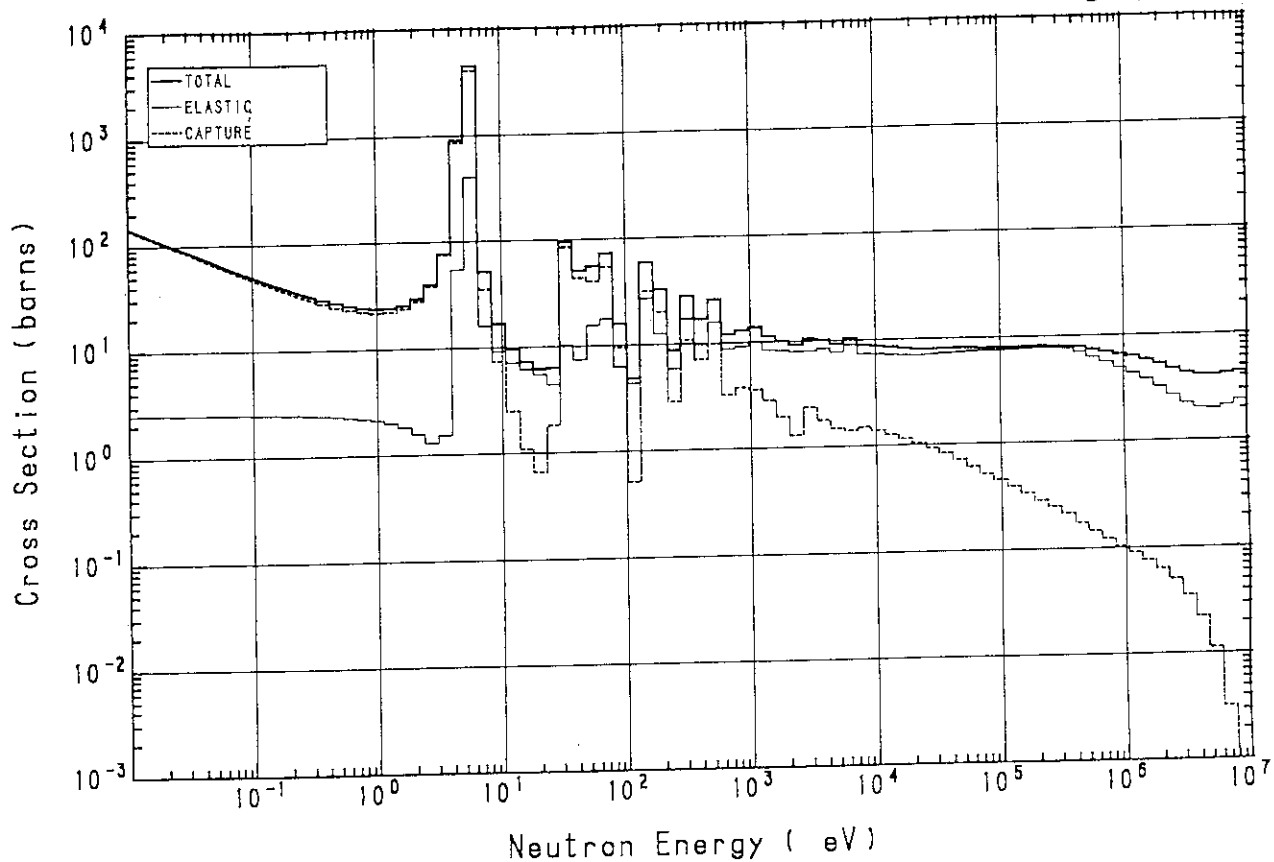


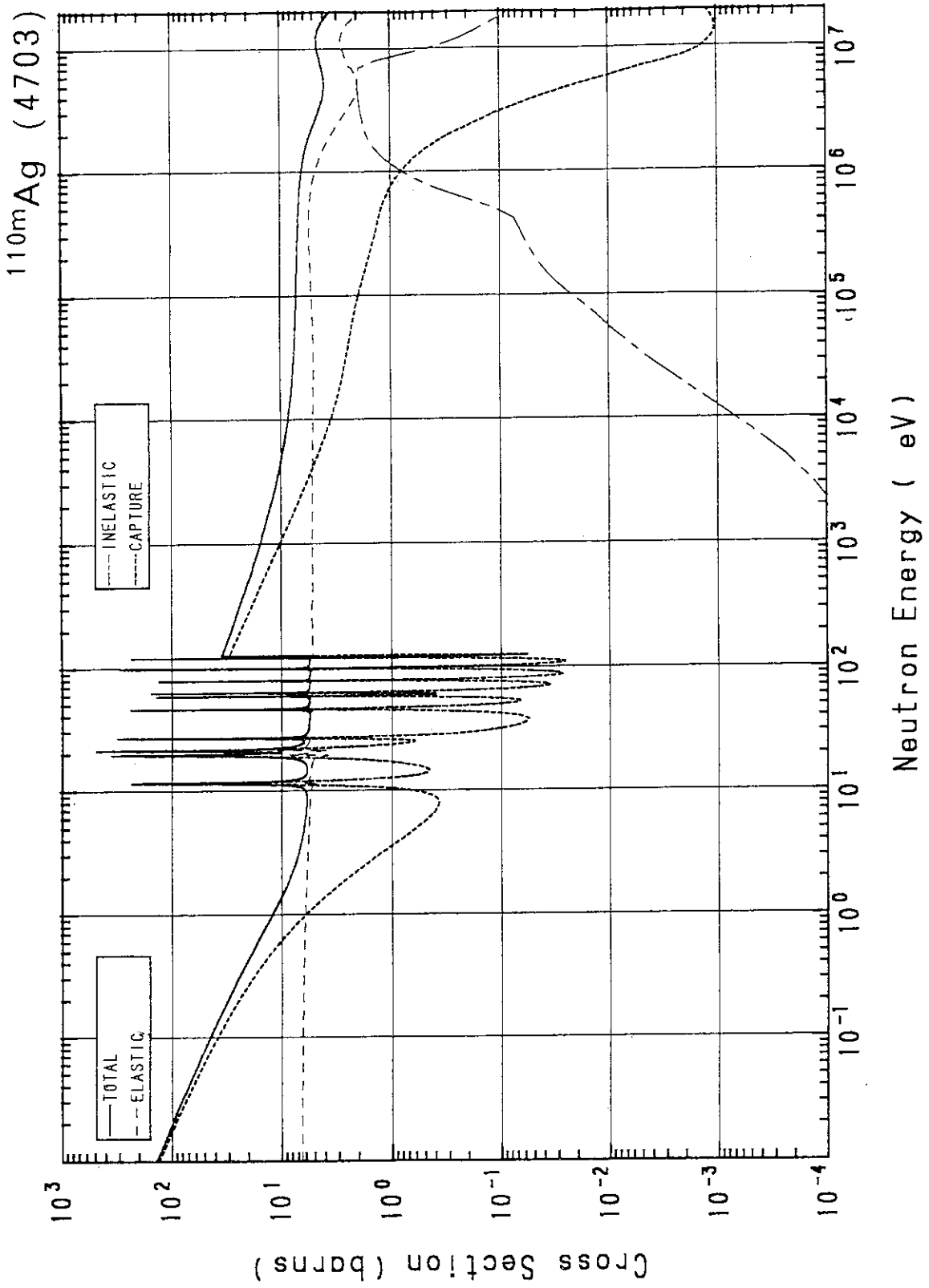
^{107}Ag (4701)



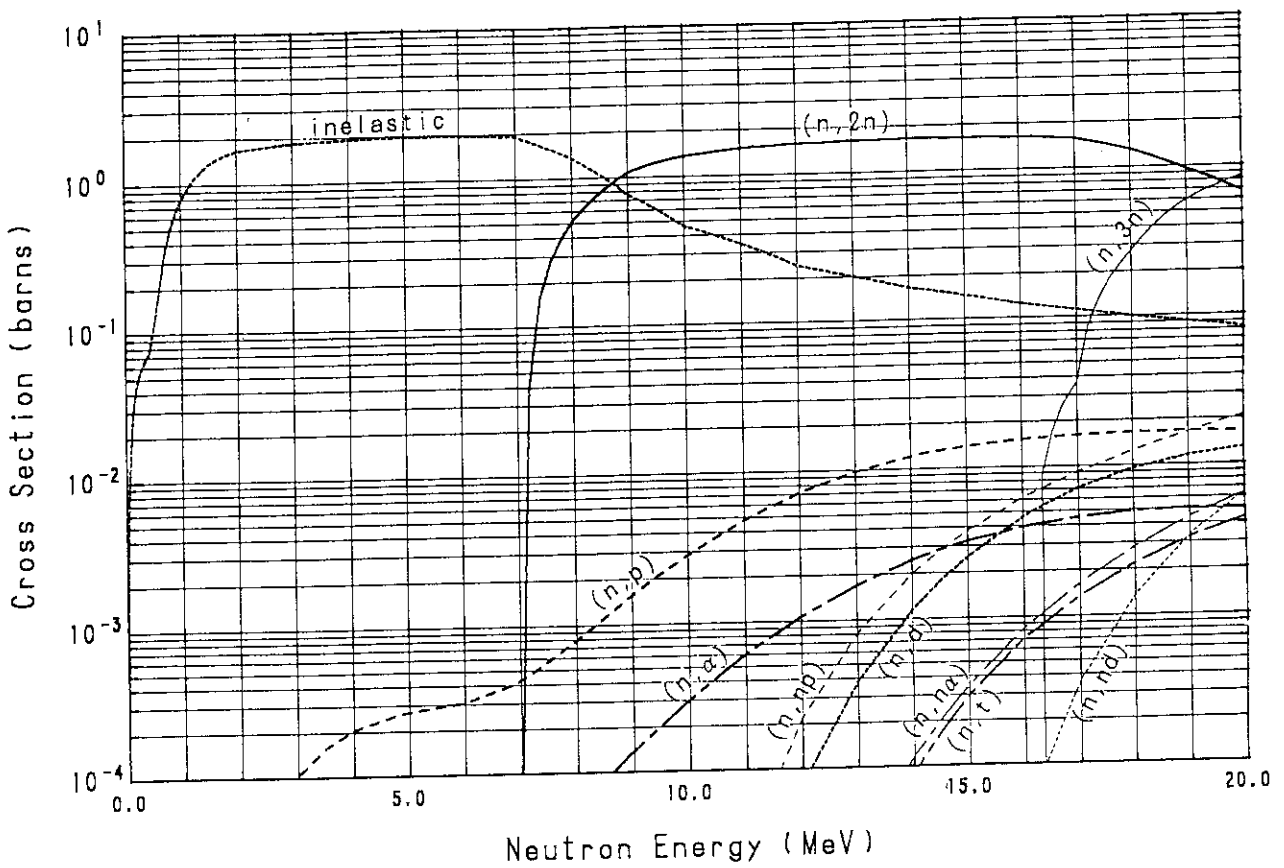
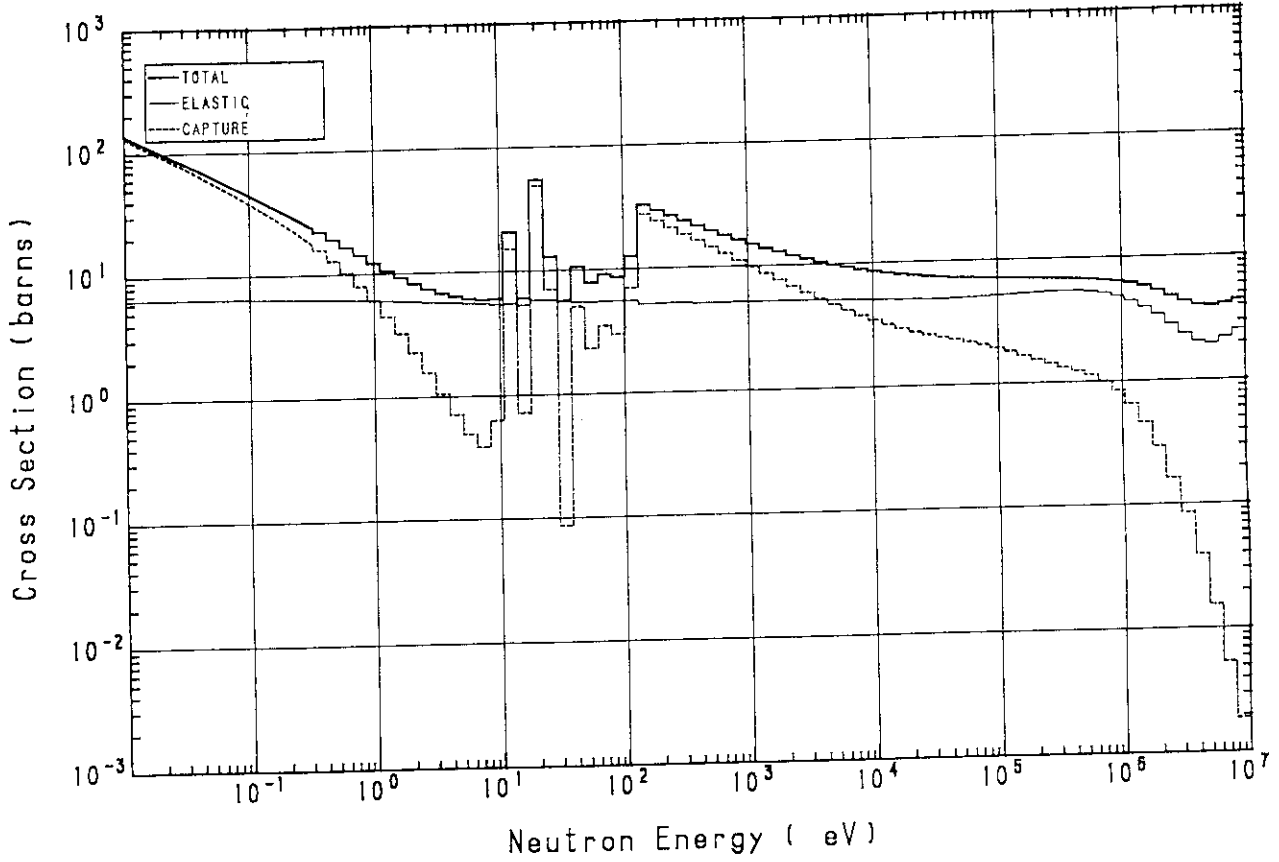


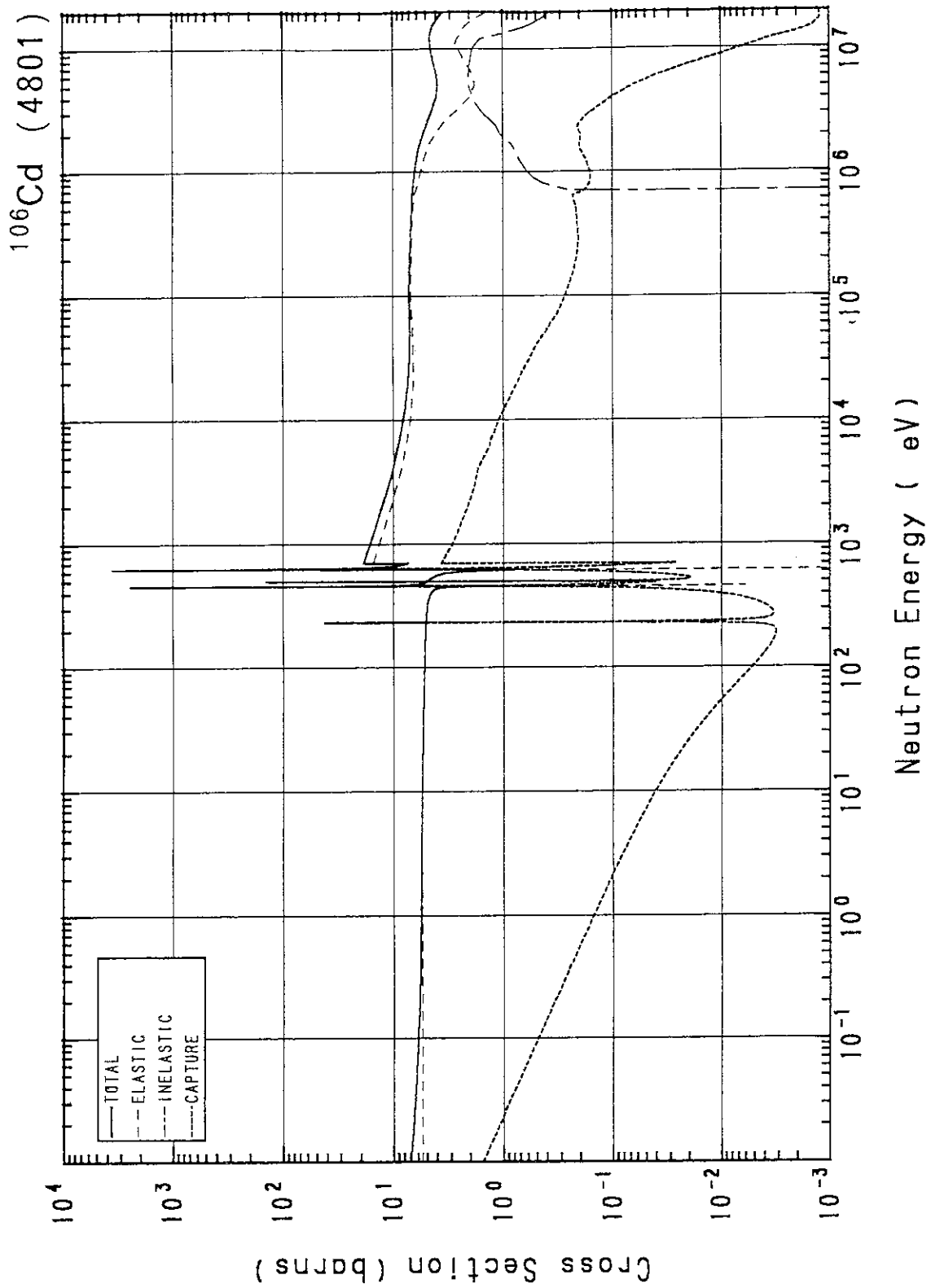
^{109}Ag (4702)



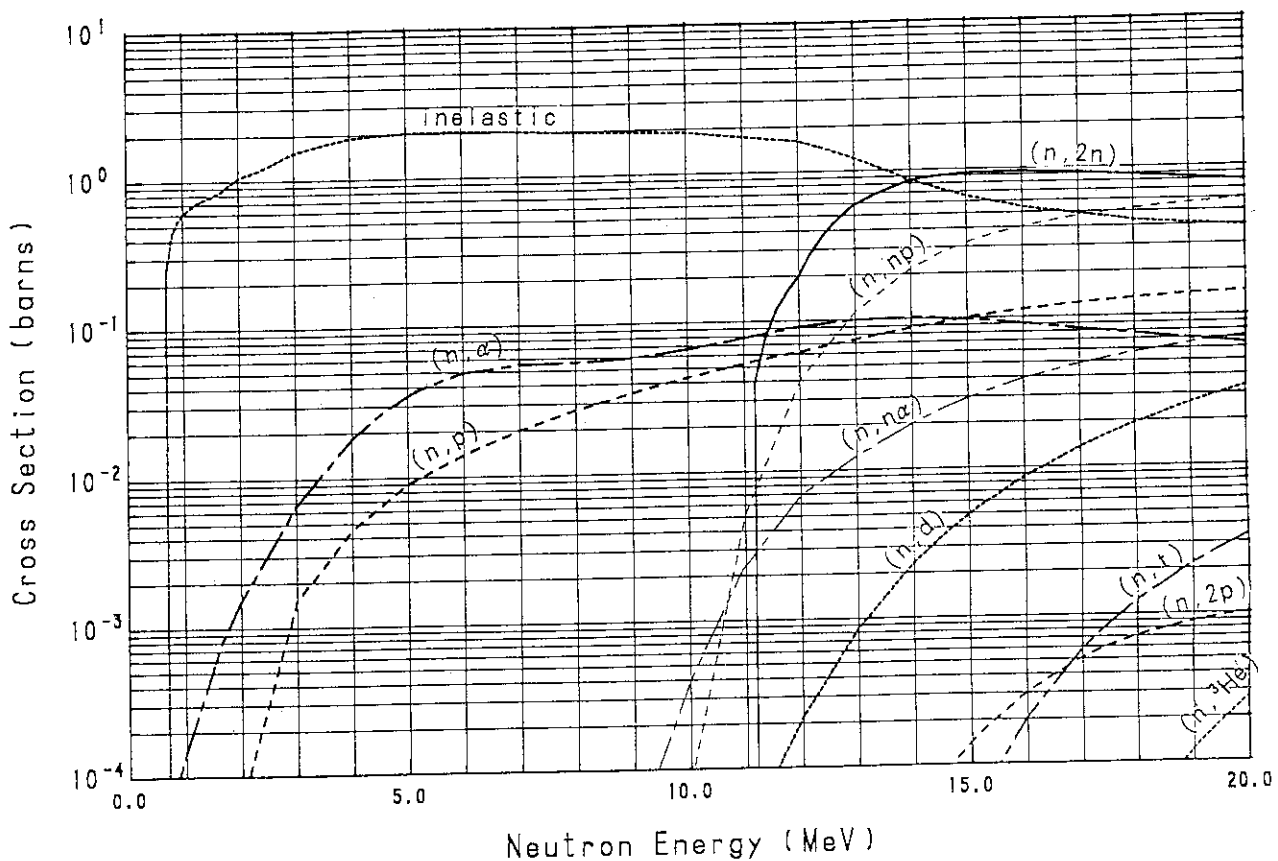
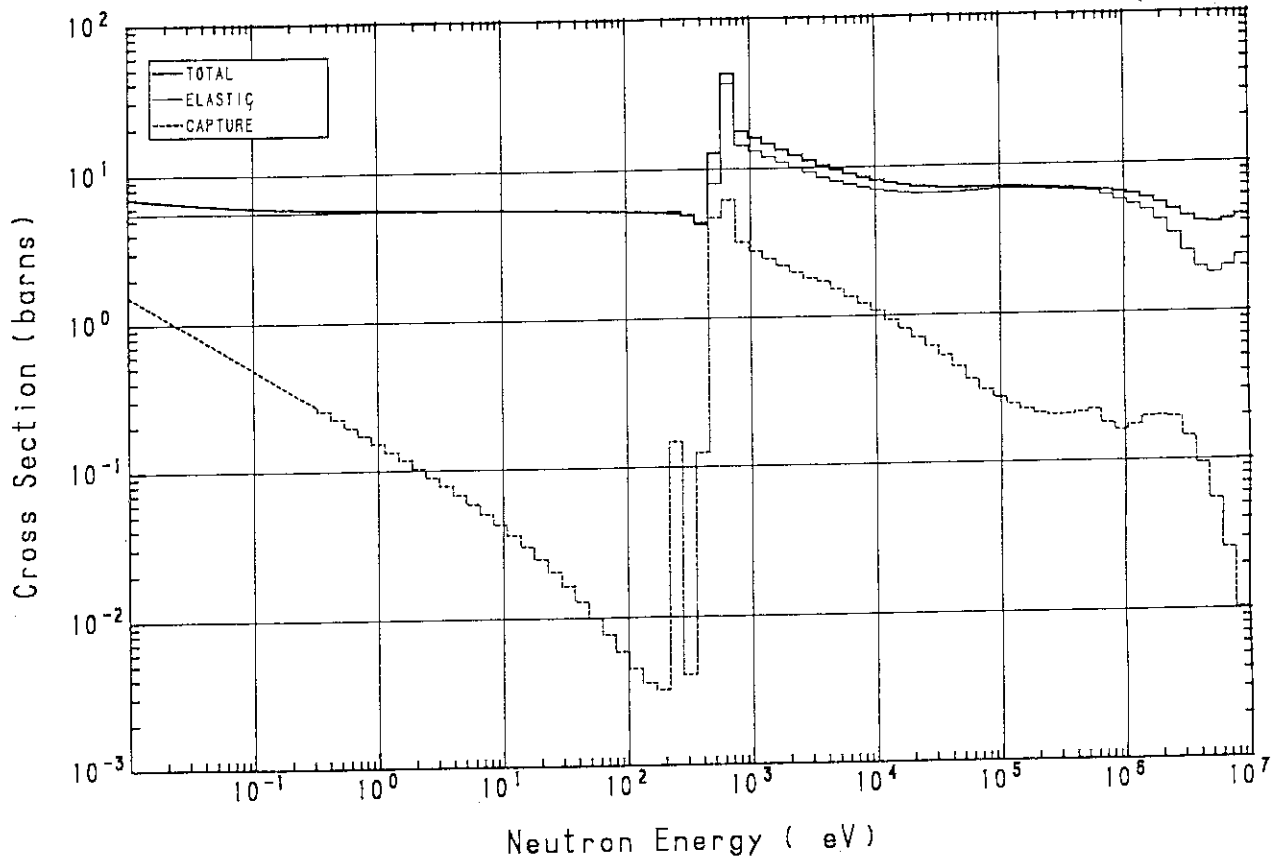


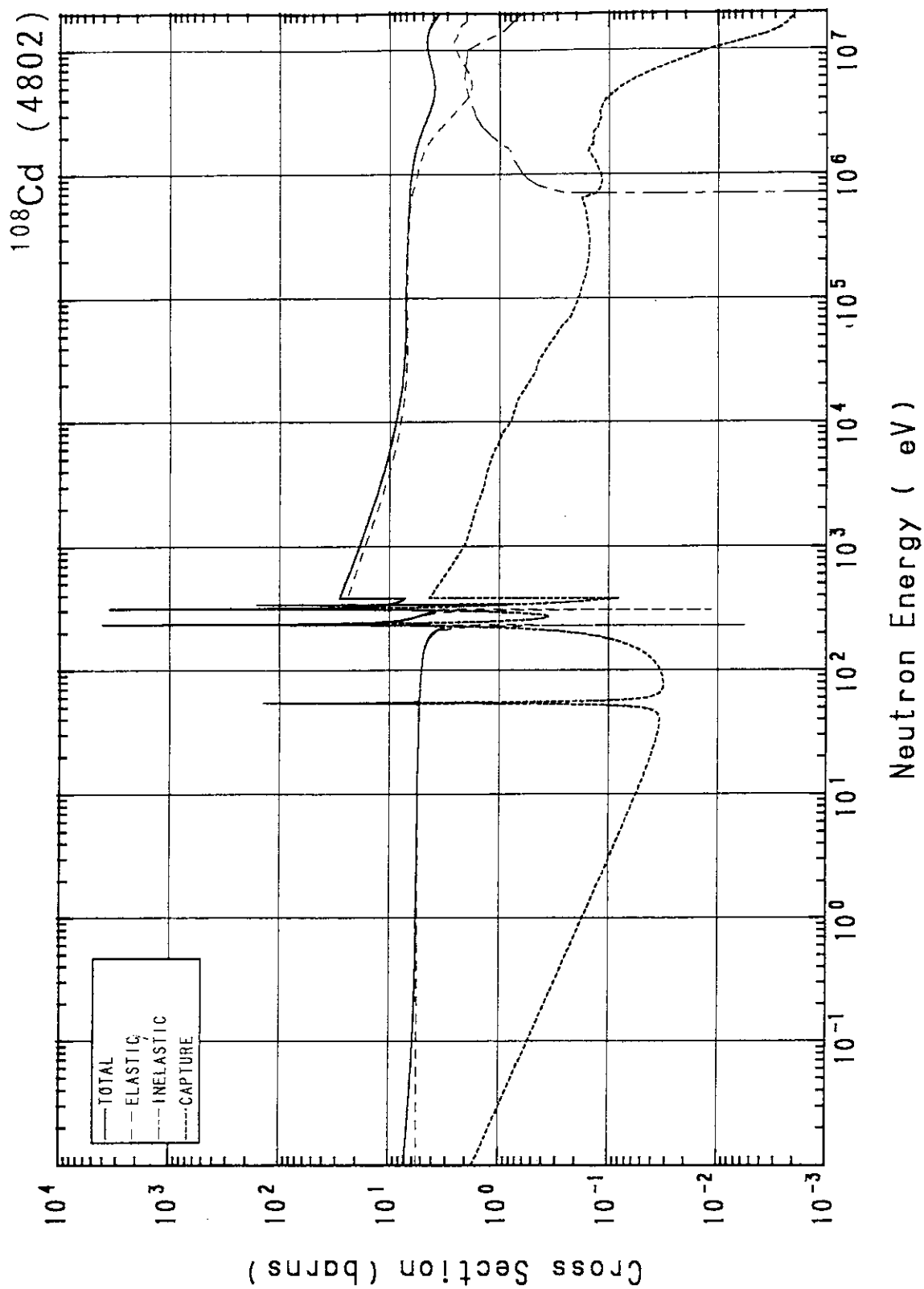
^{110m}Ag (4703)



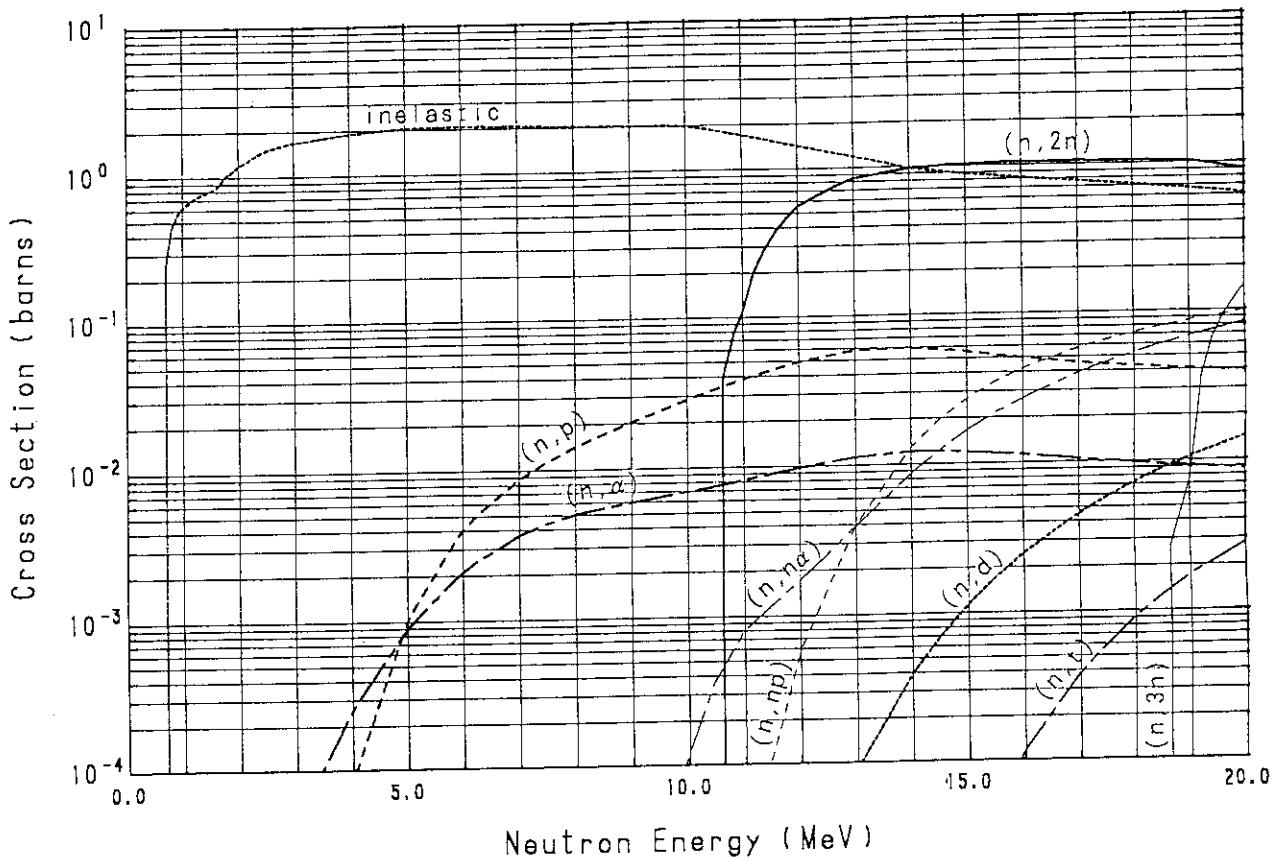
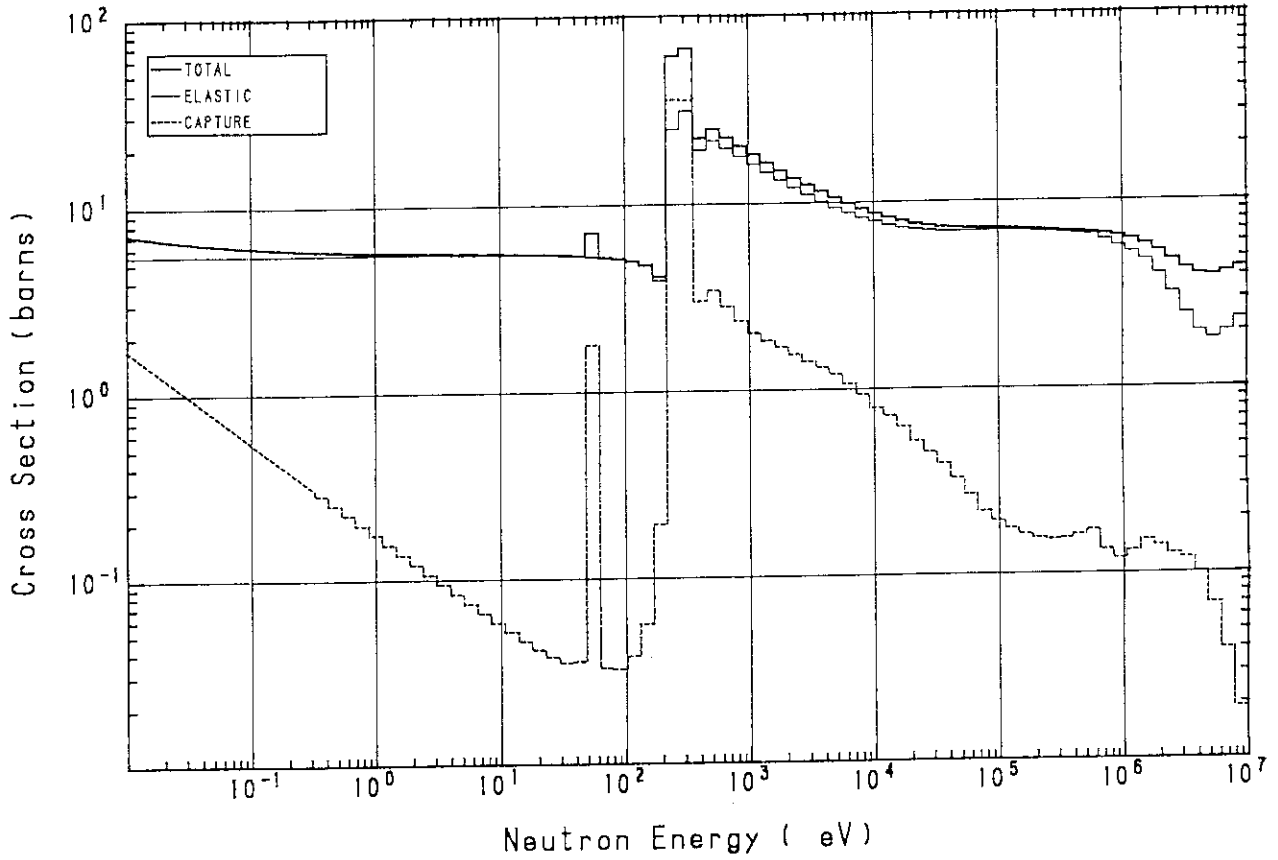


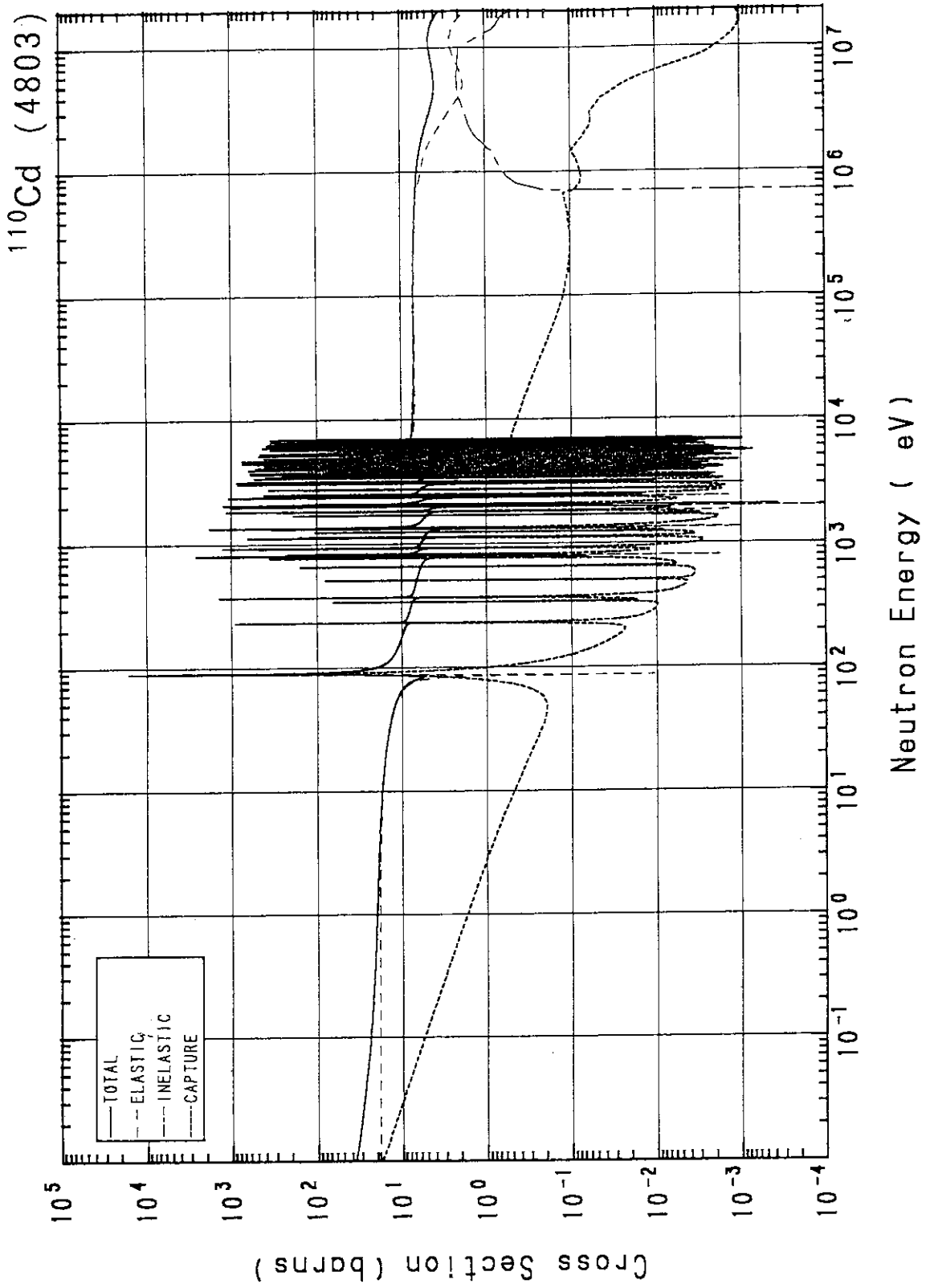
^{106}Cd (4801)



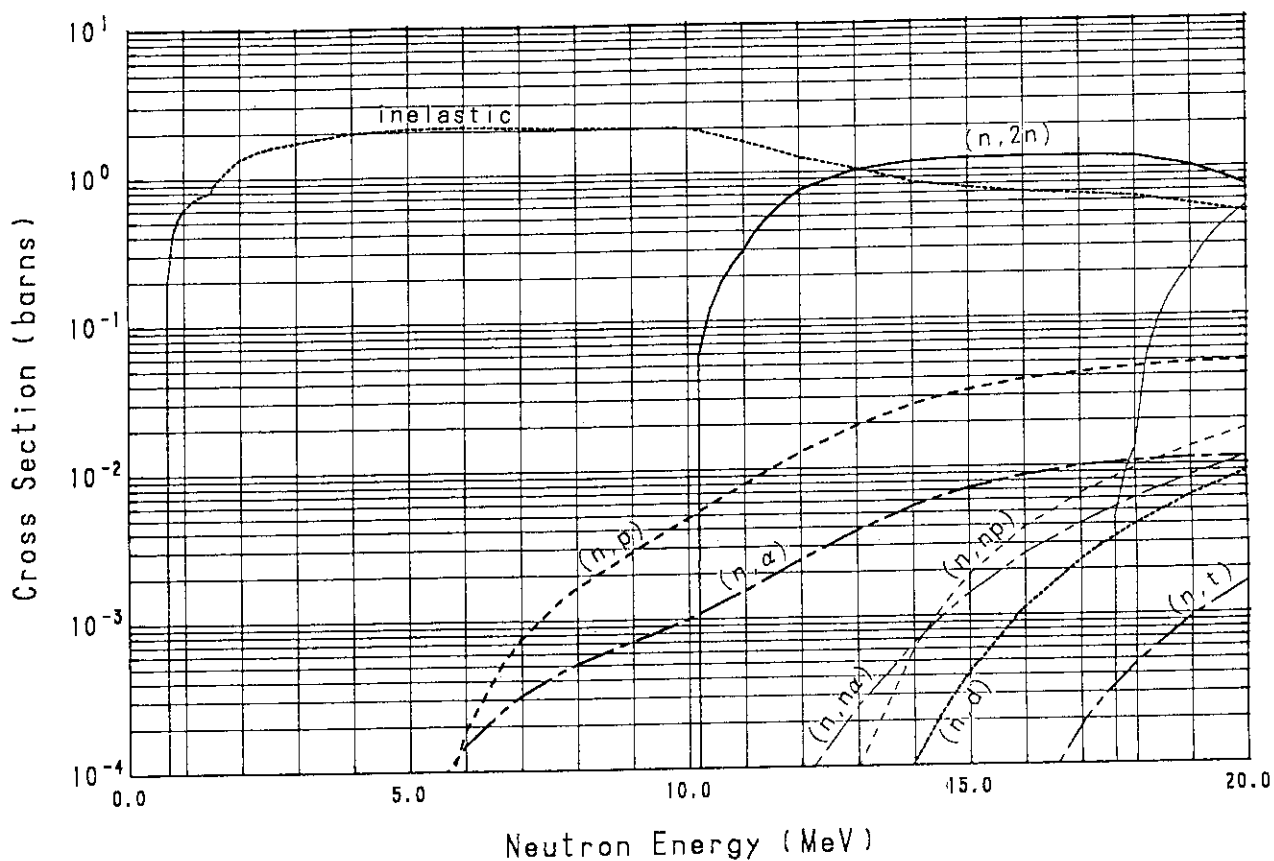
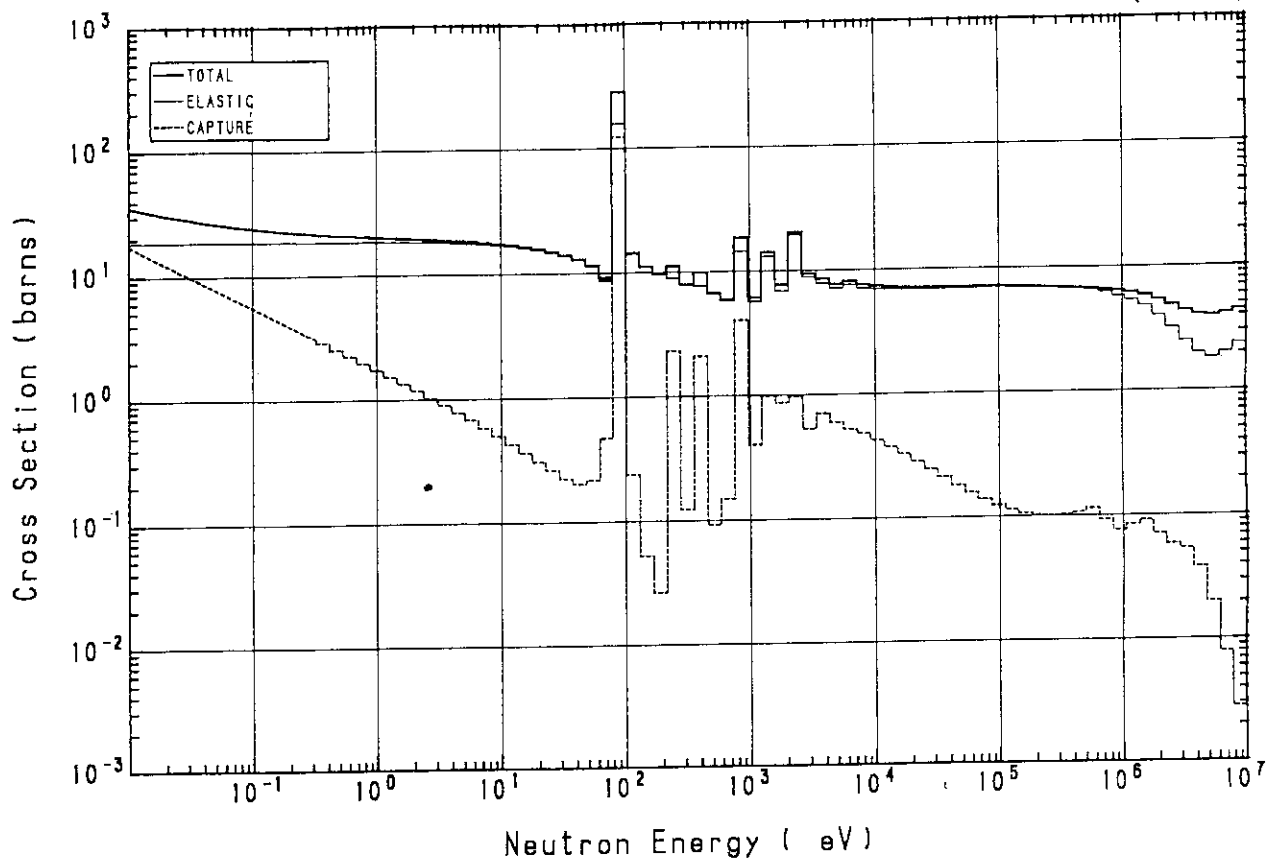


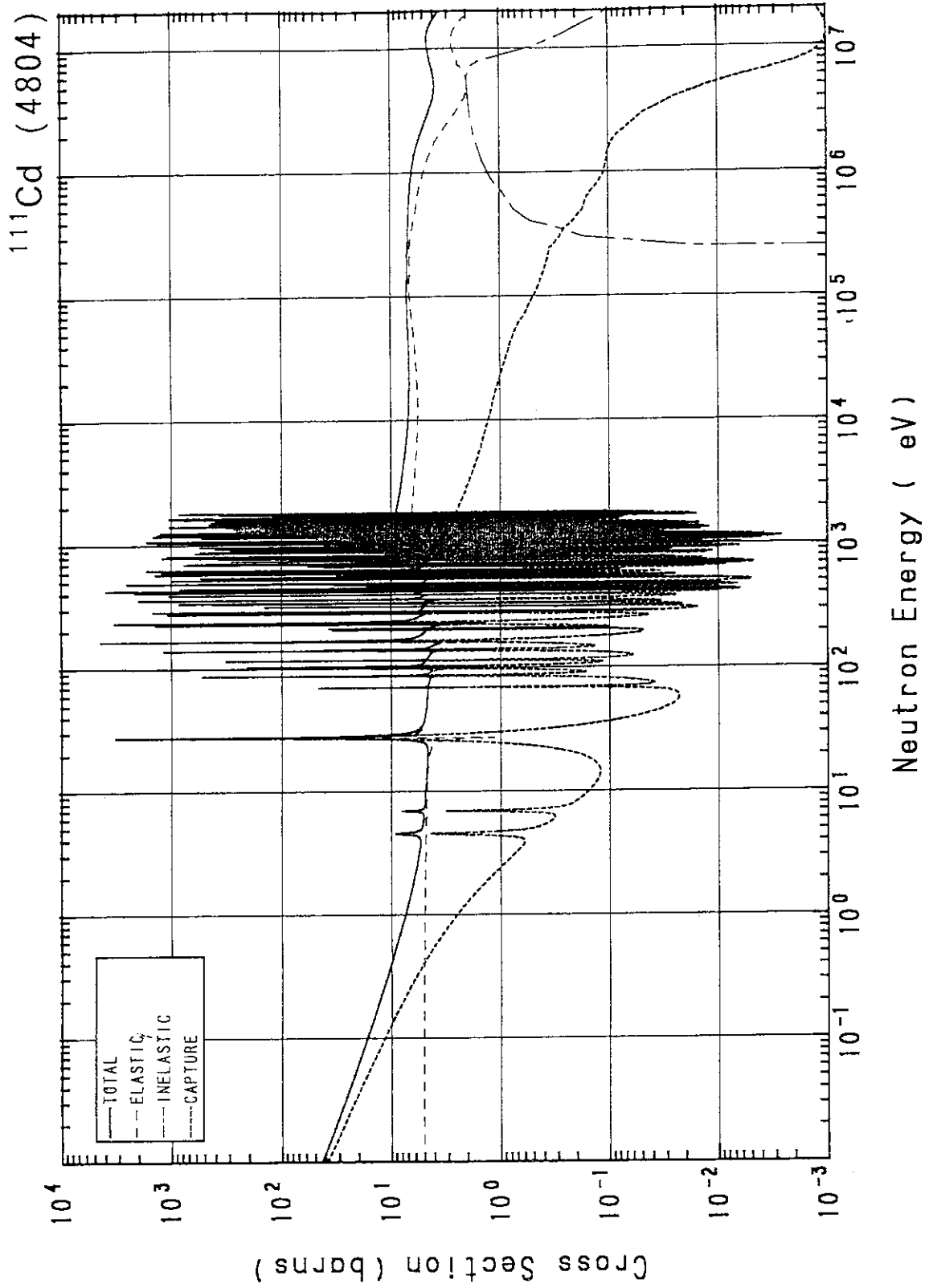
^{108}Cd (4802)



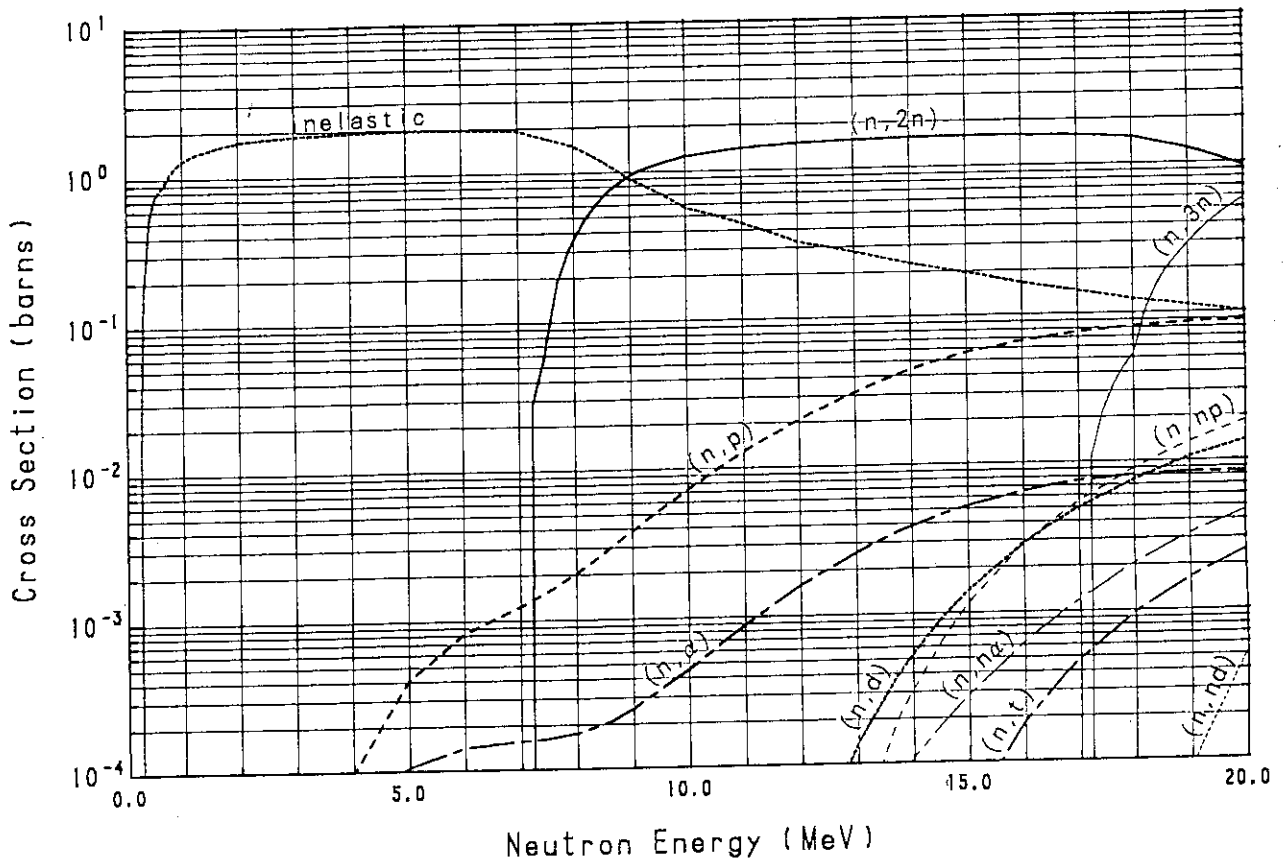
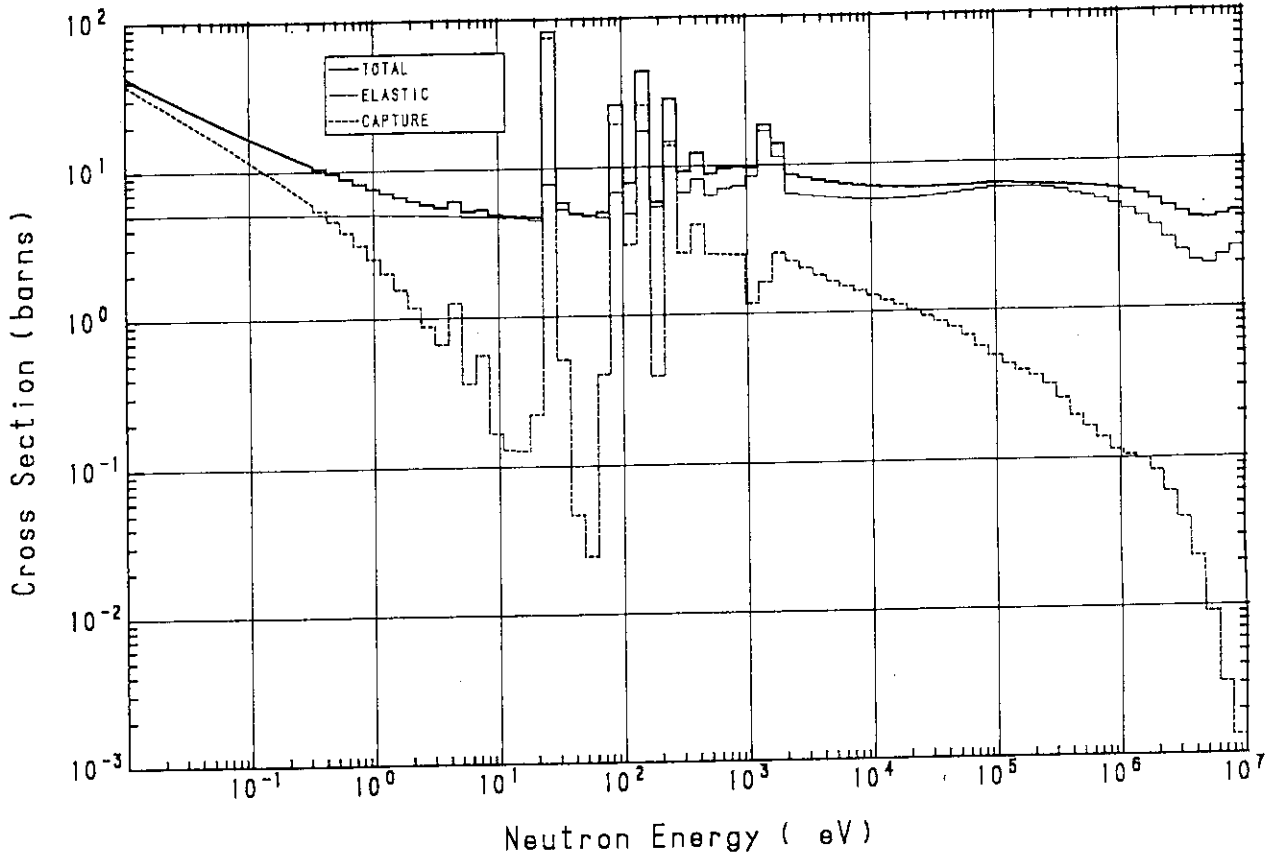


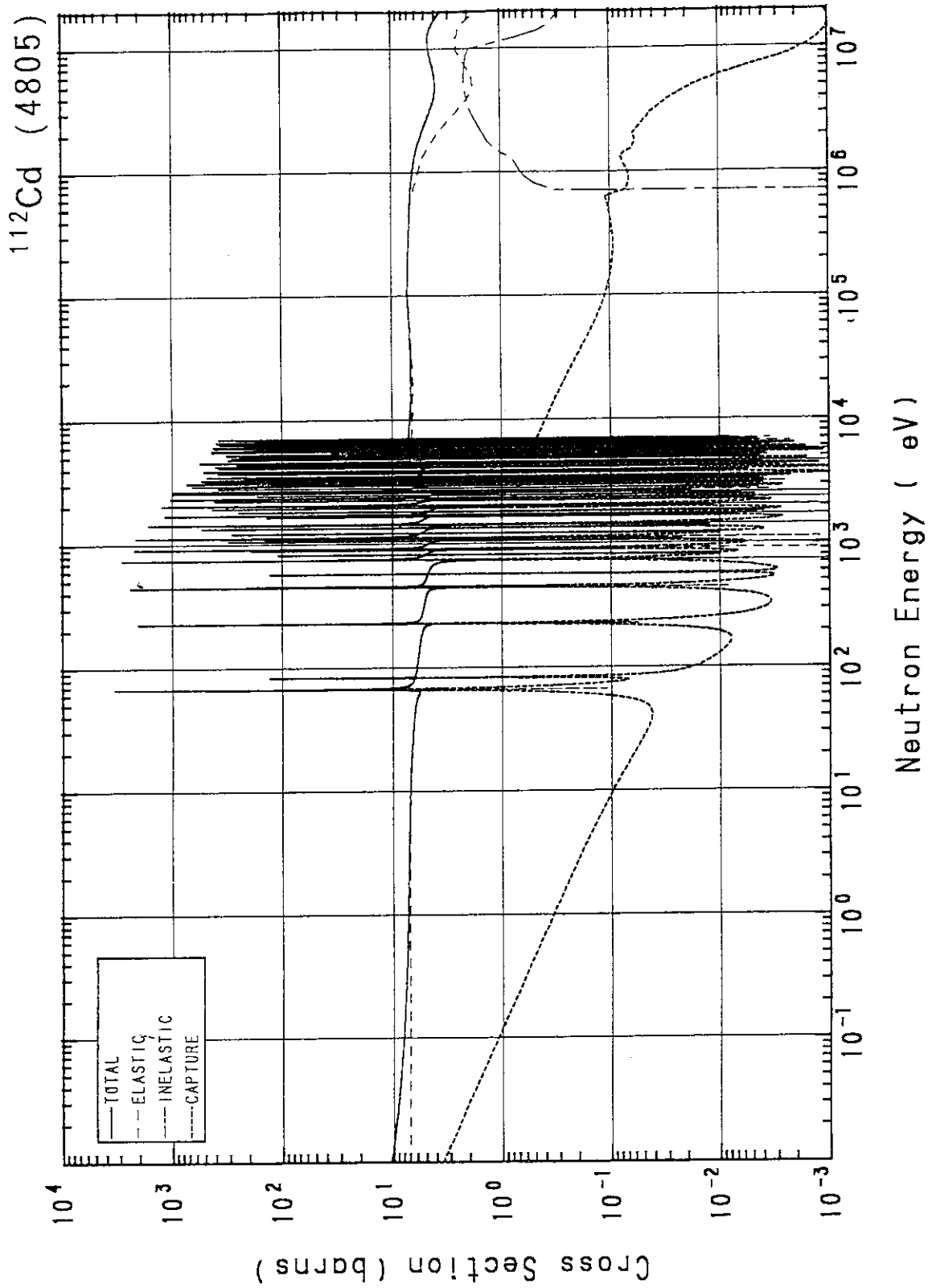
^{110}Cd (4803)

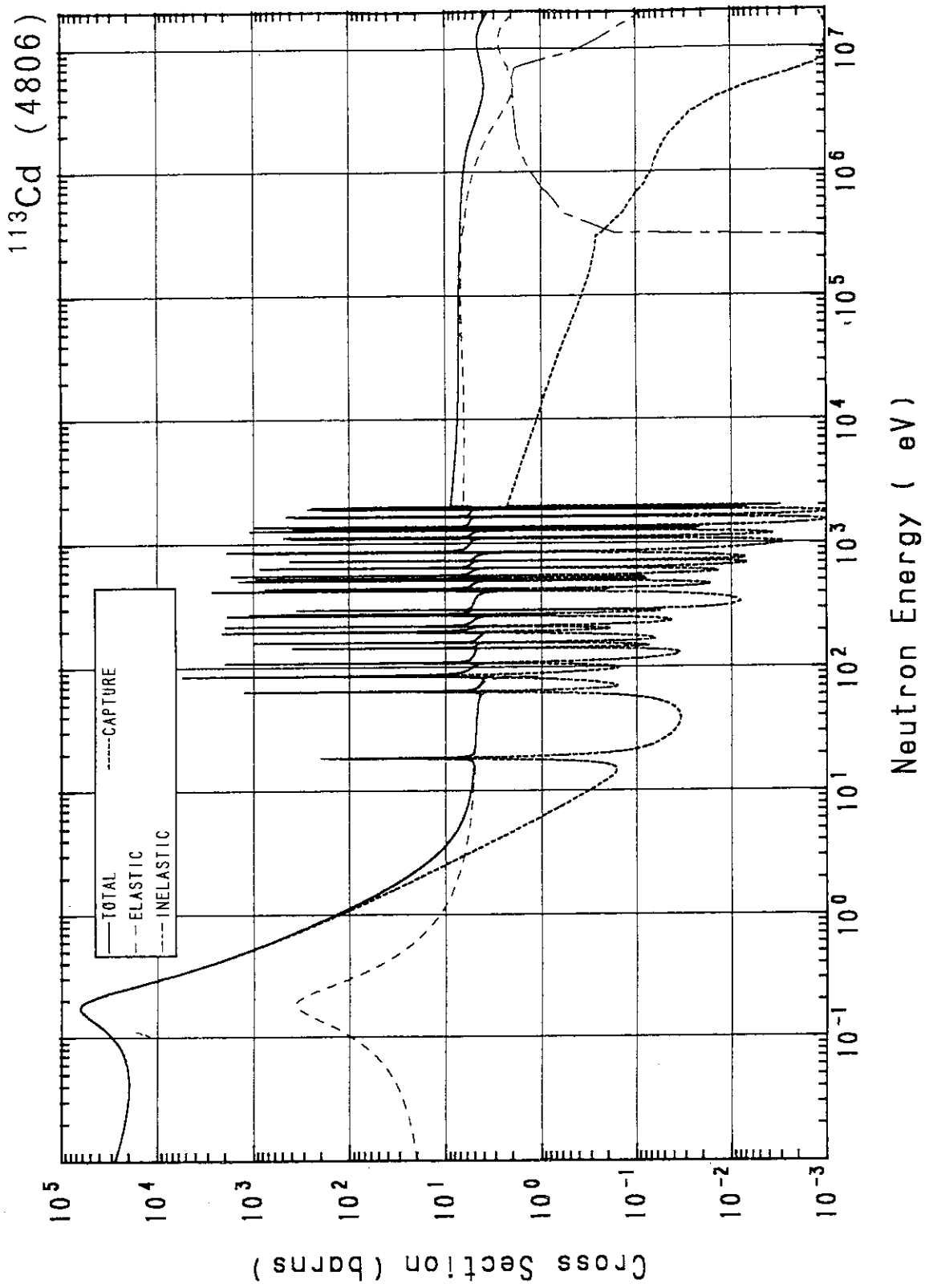




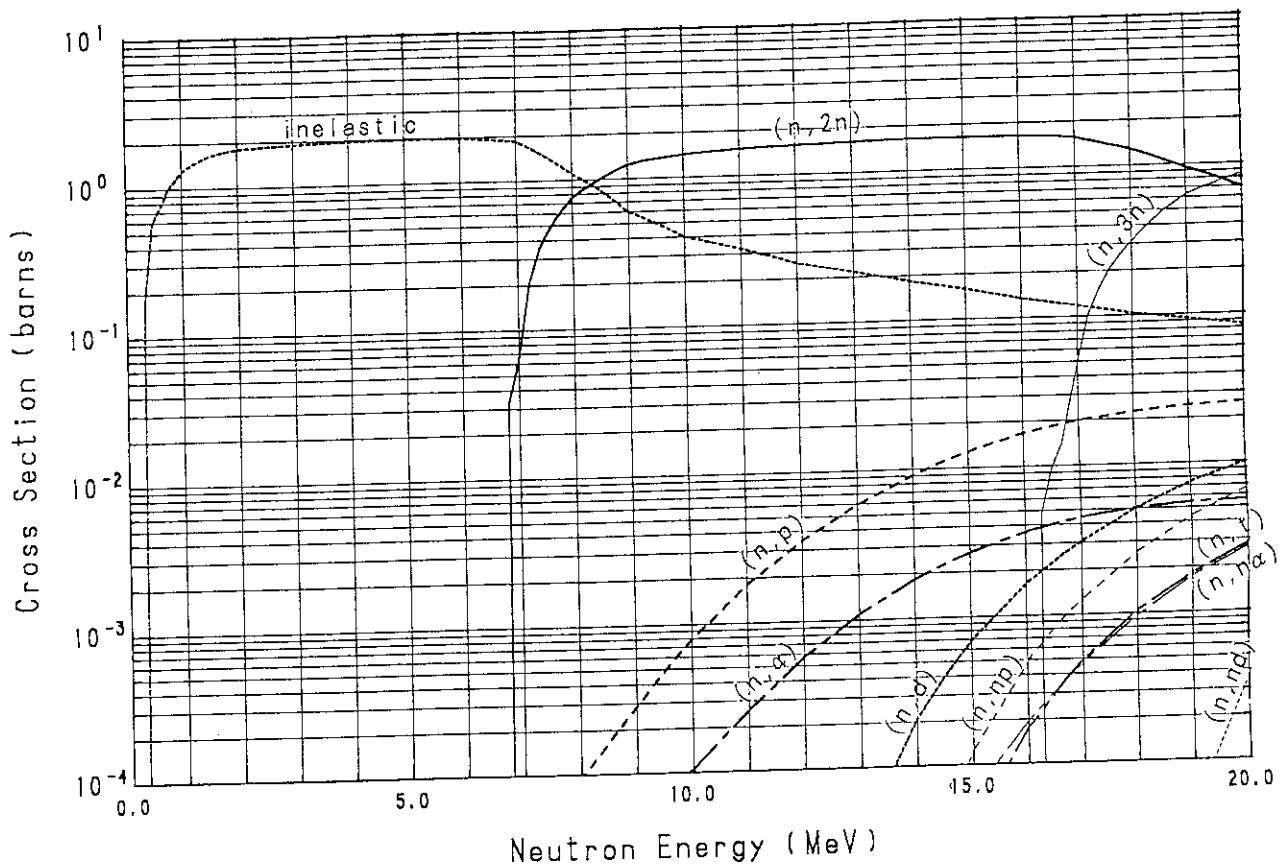
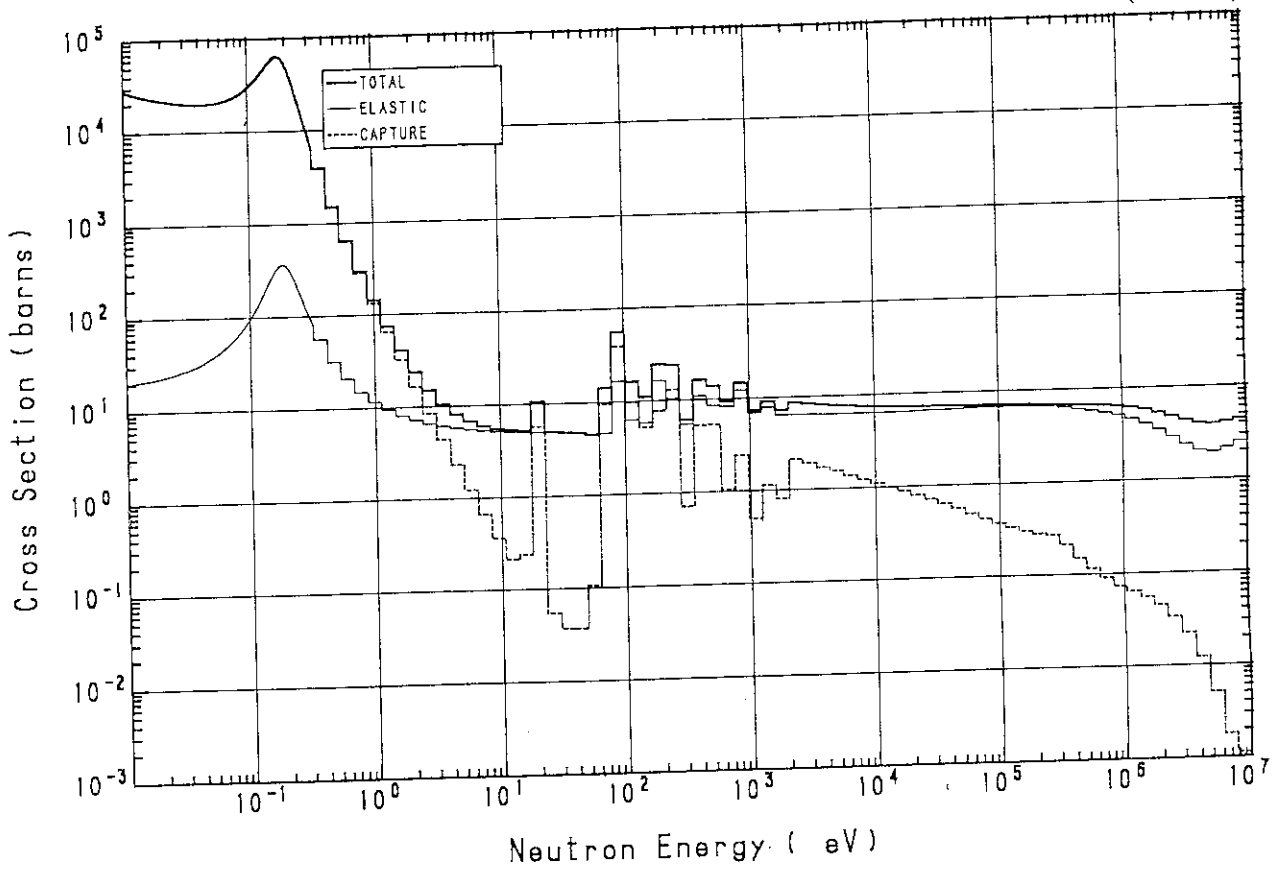
^{111}Cd (4804)

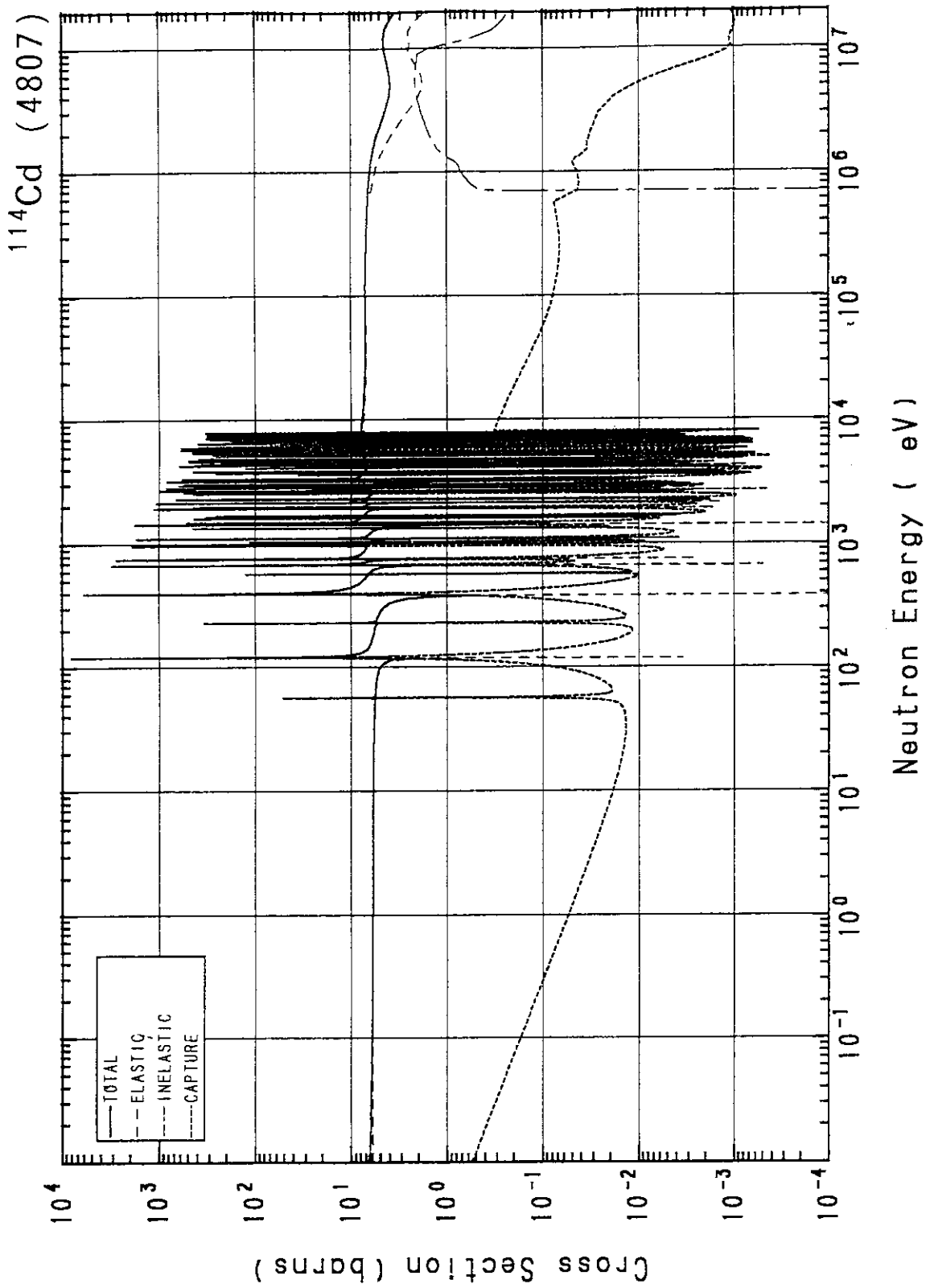




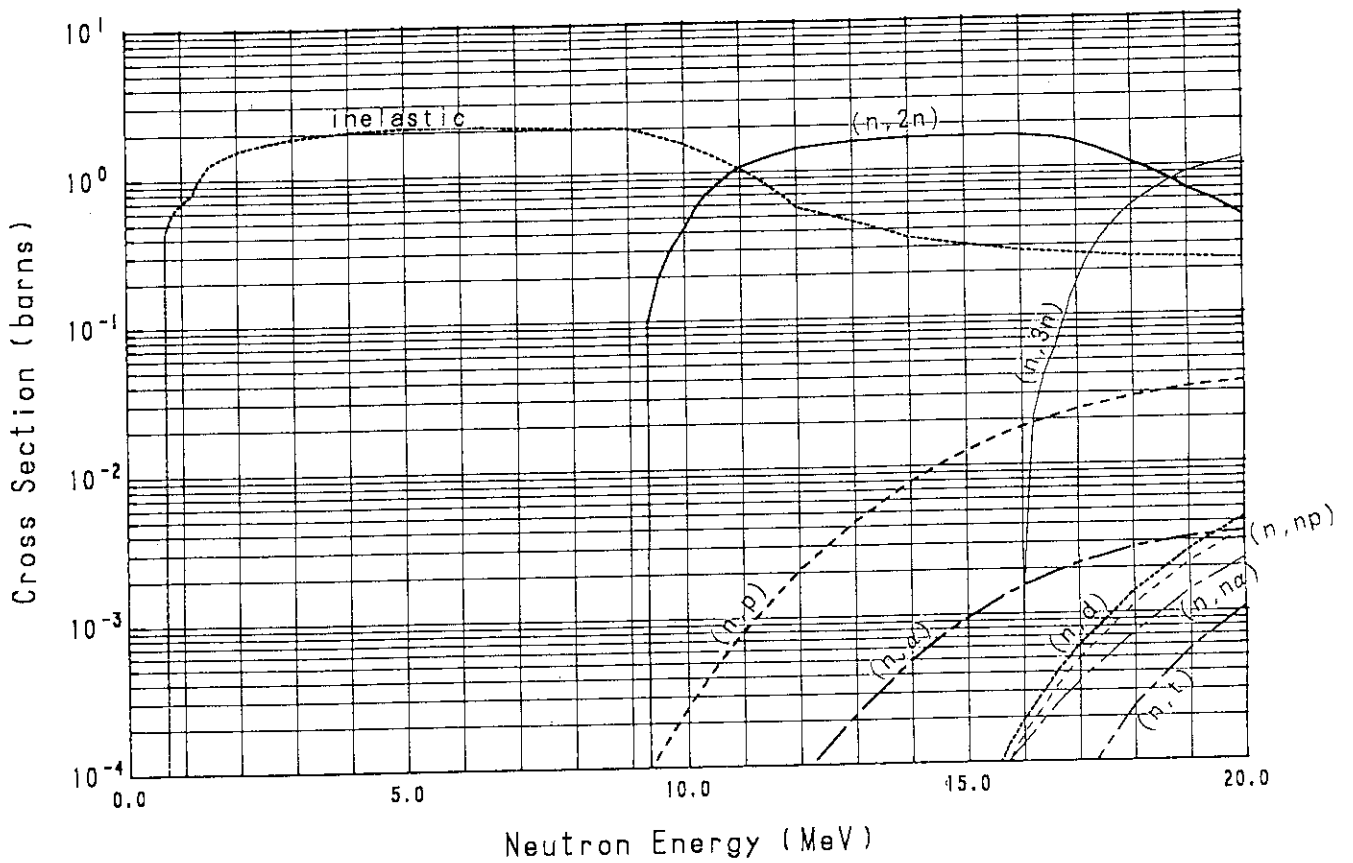
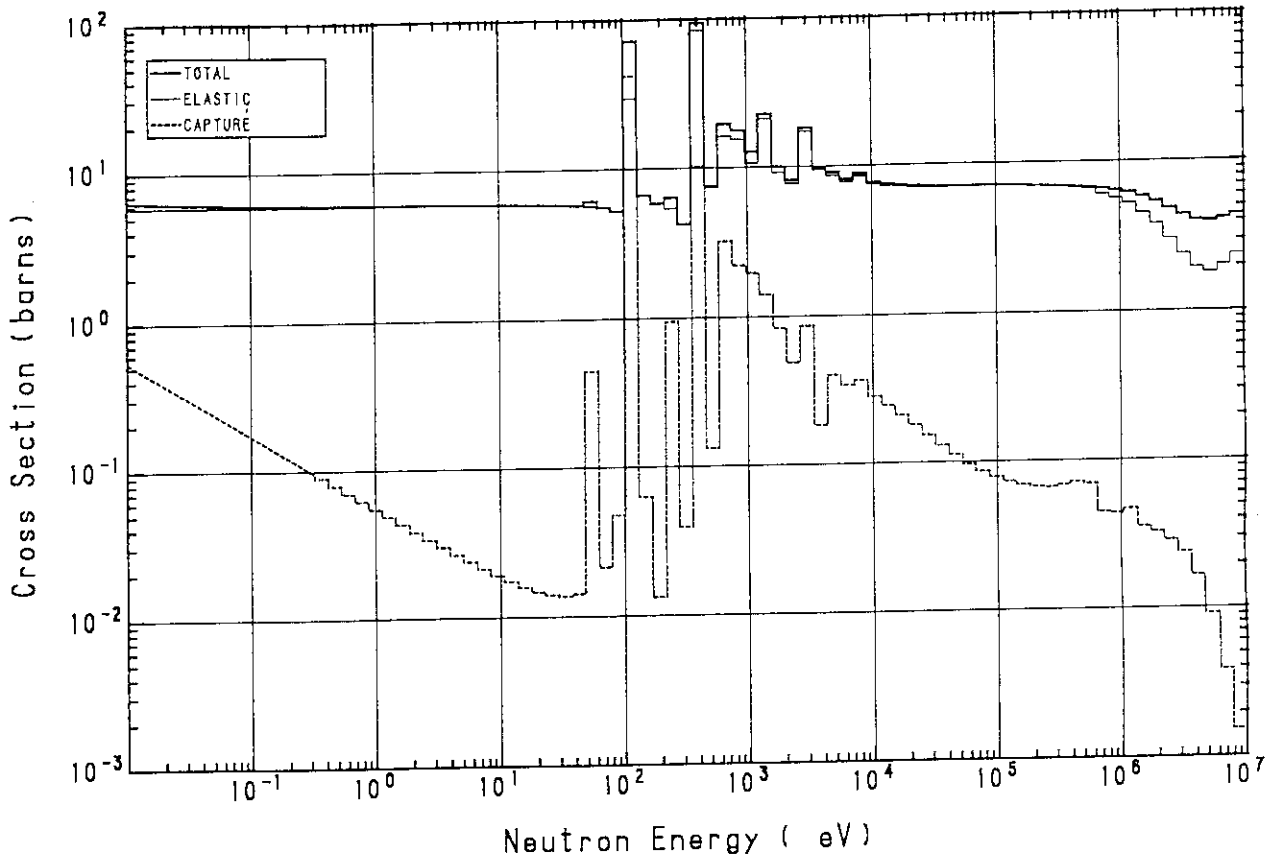


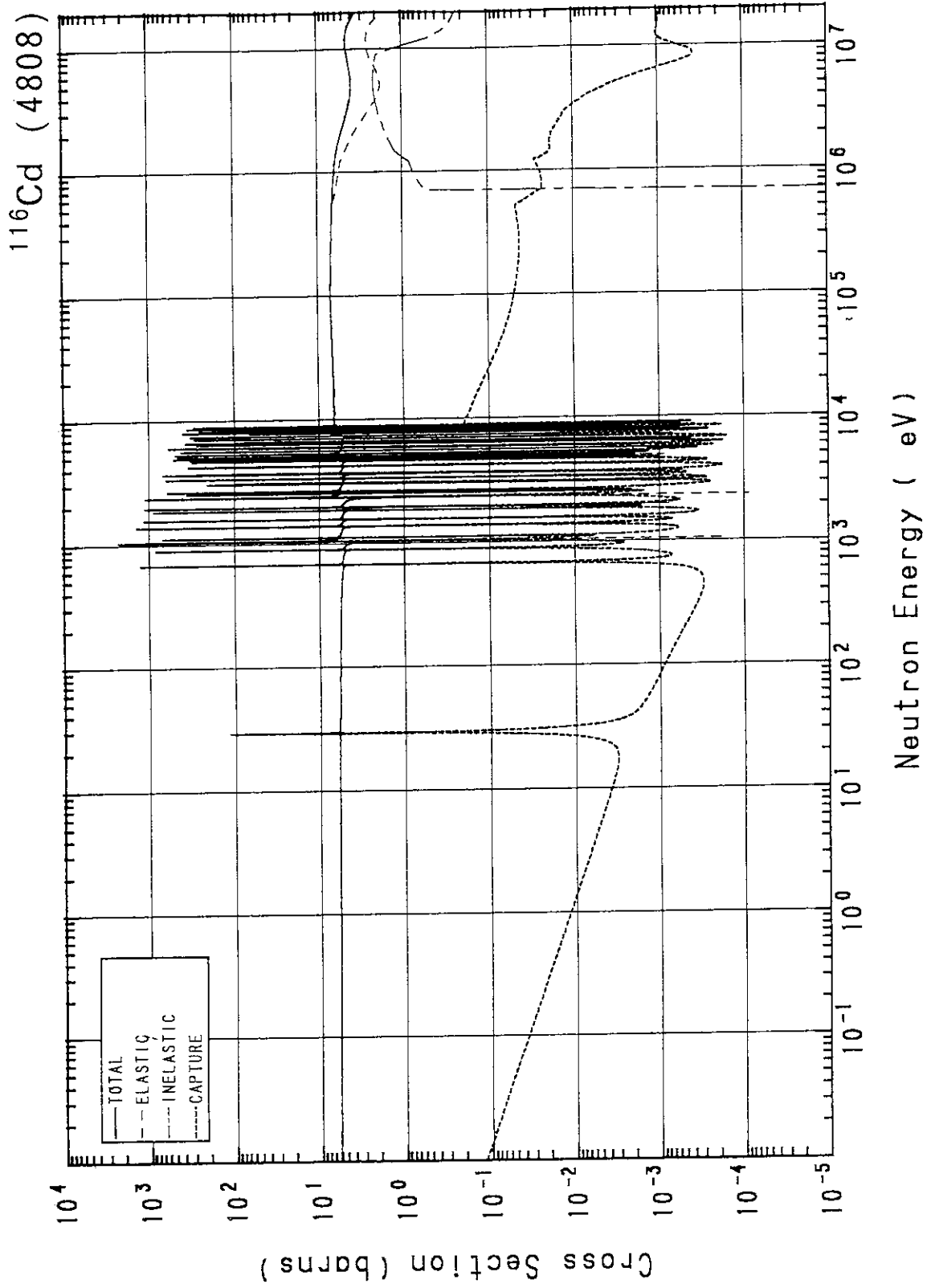
^{113}Cd (4806)



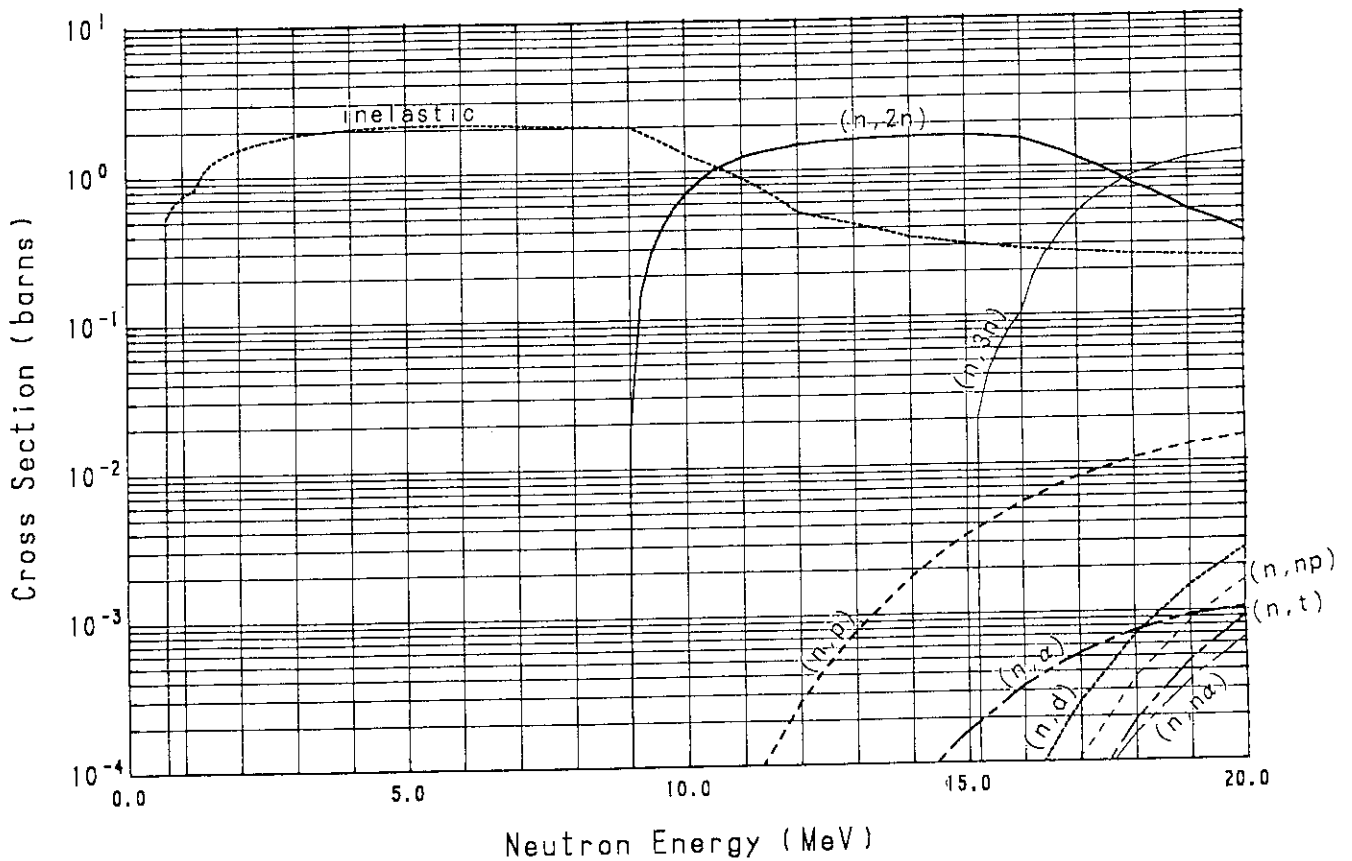
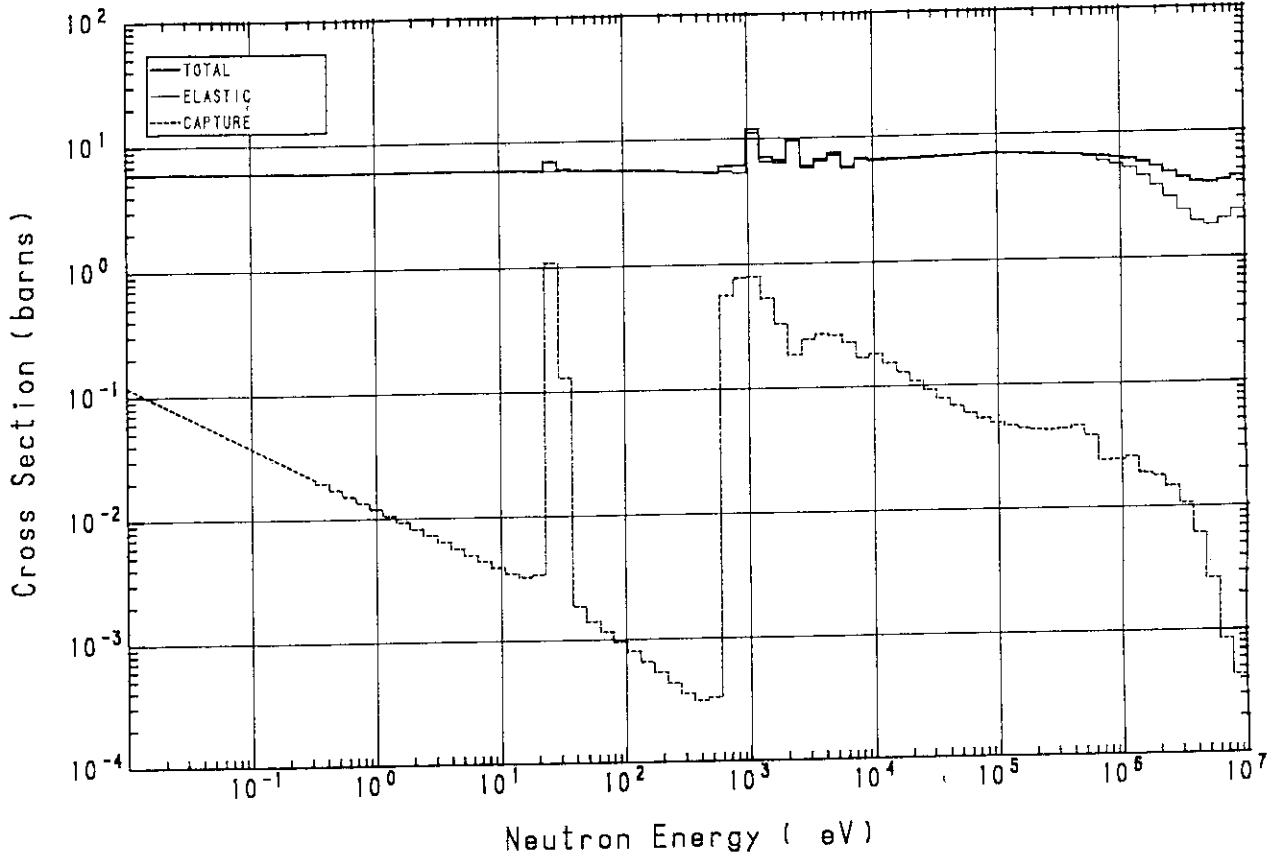


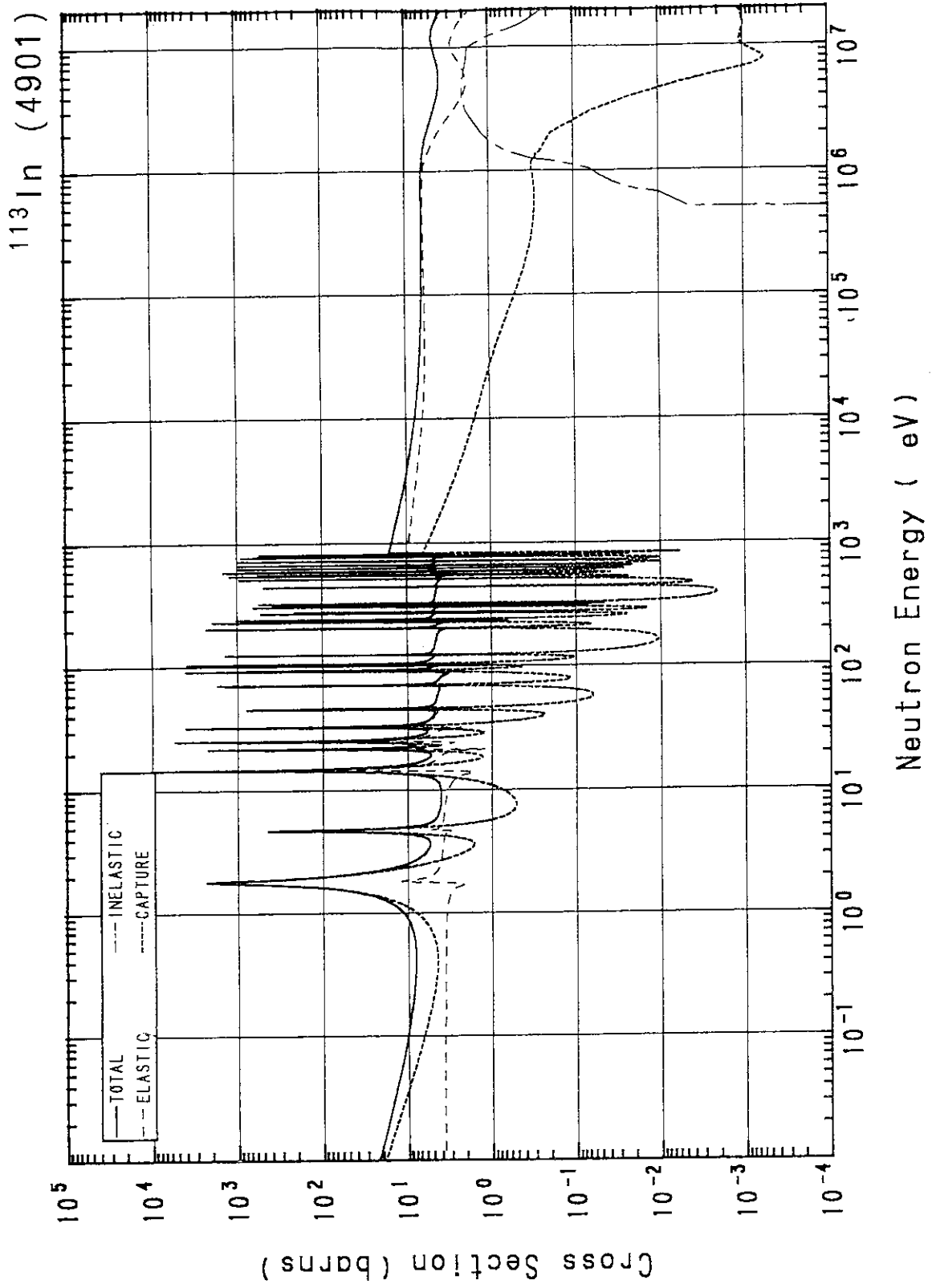
^{114}Cd (4807)



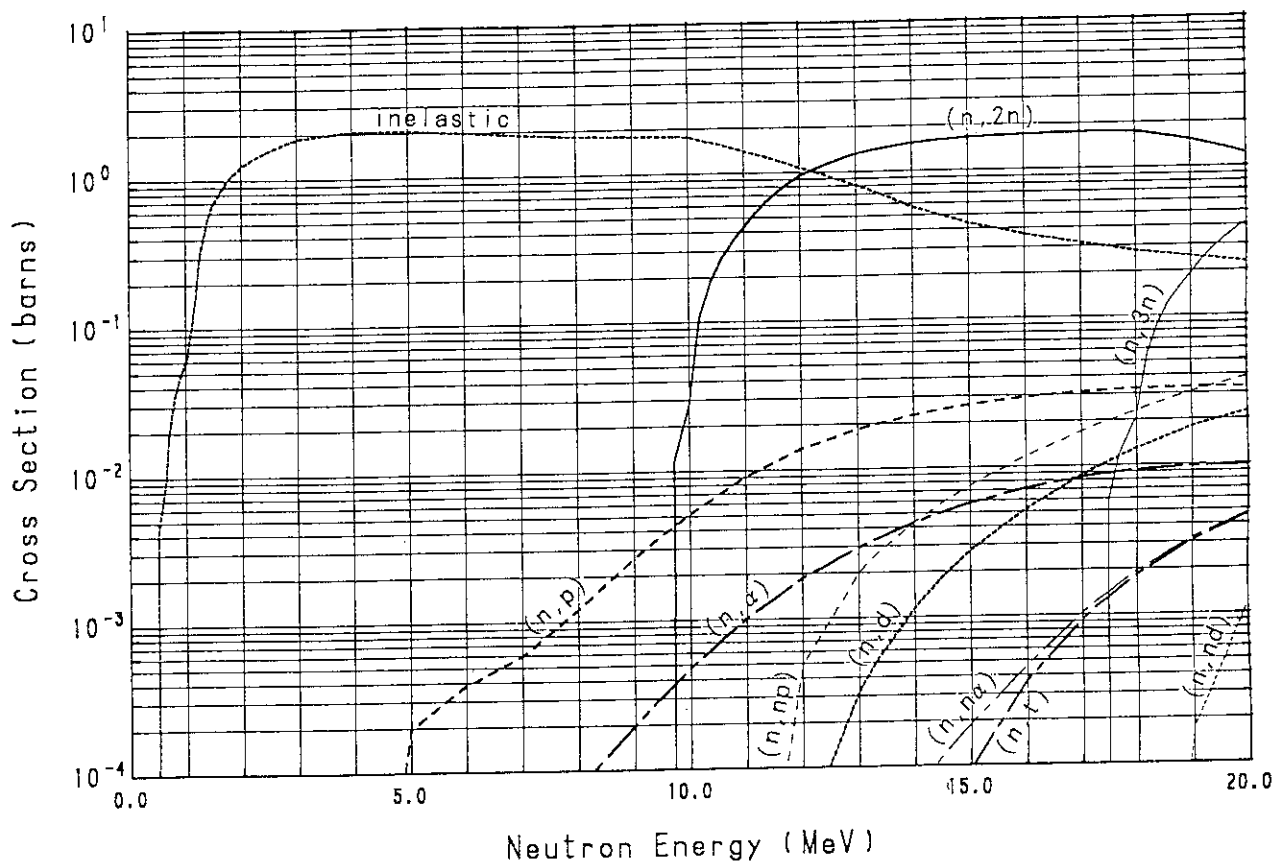
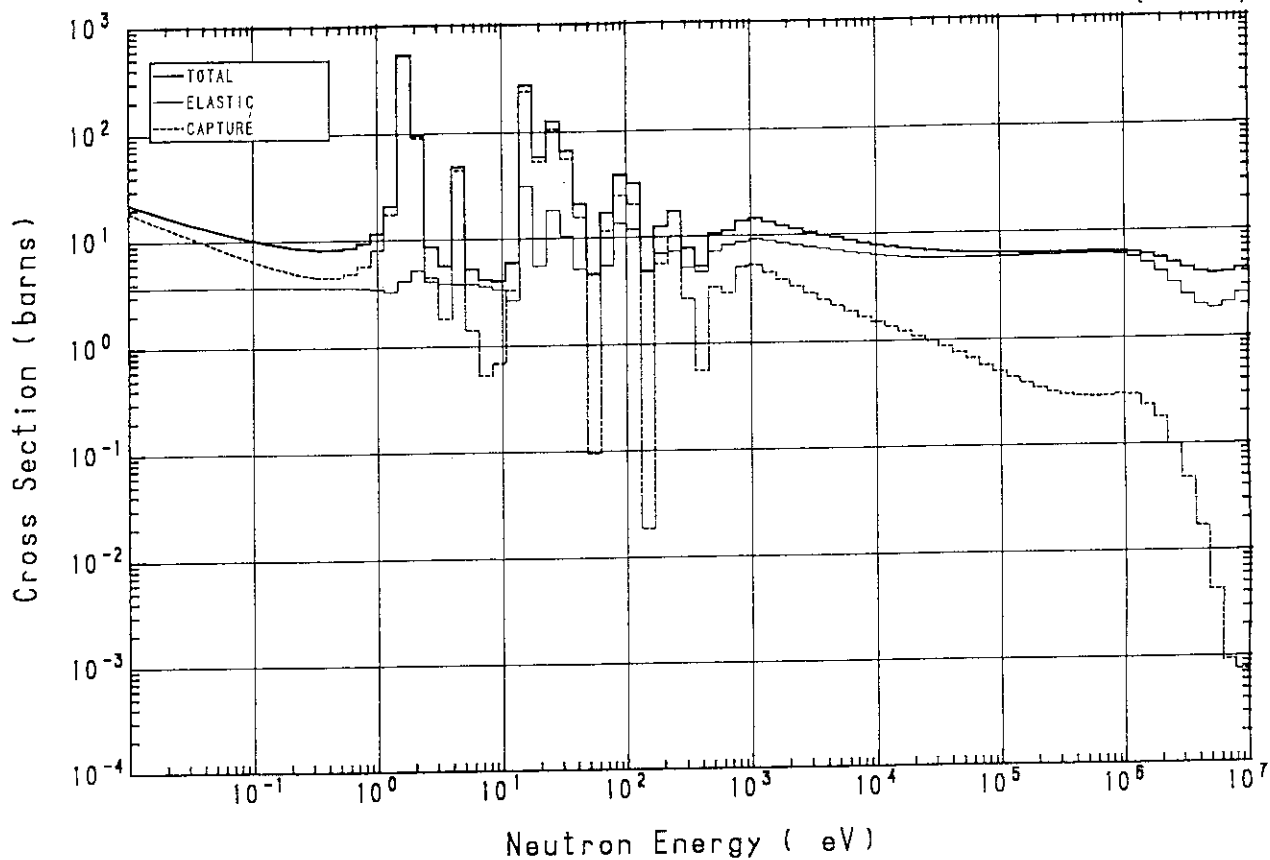


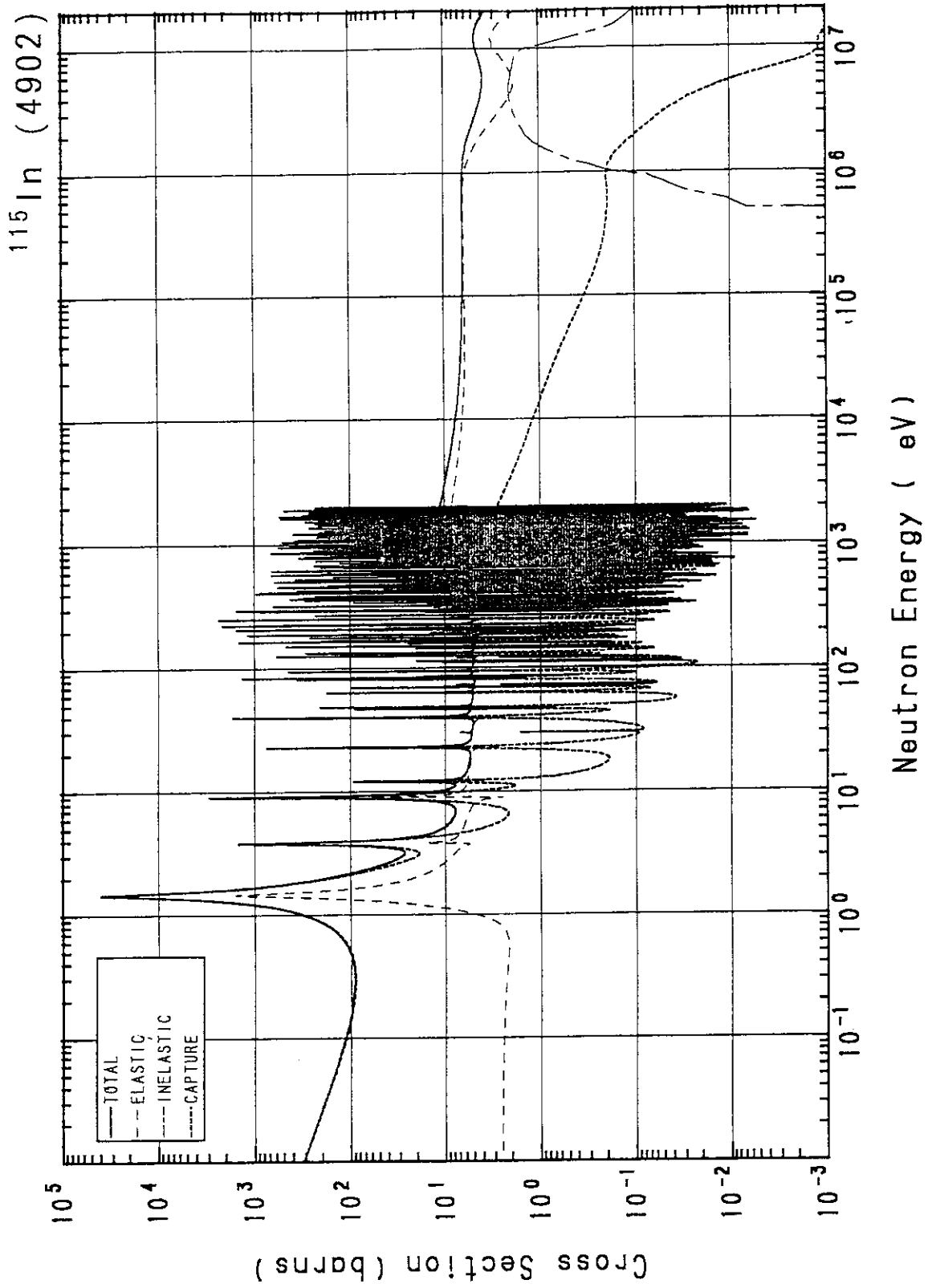
^{116}Cd (4808)



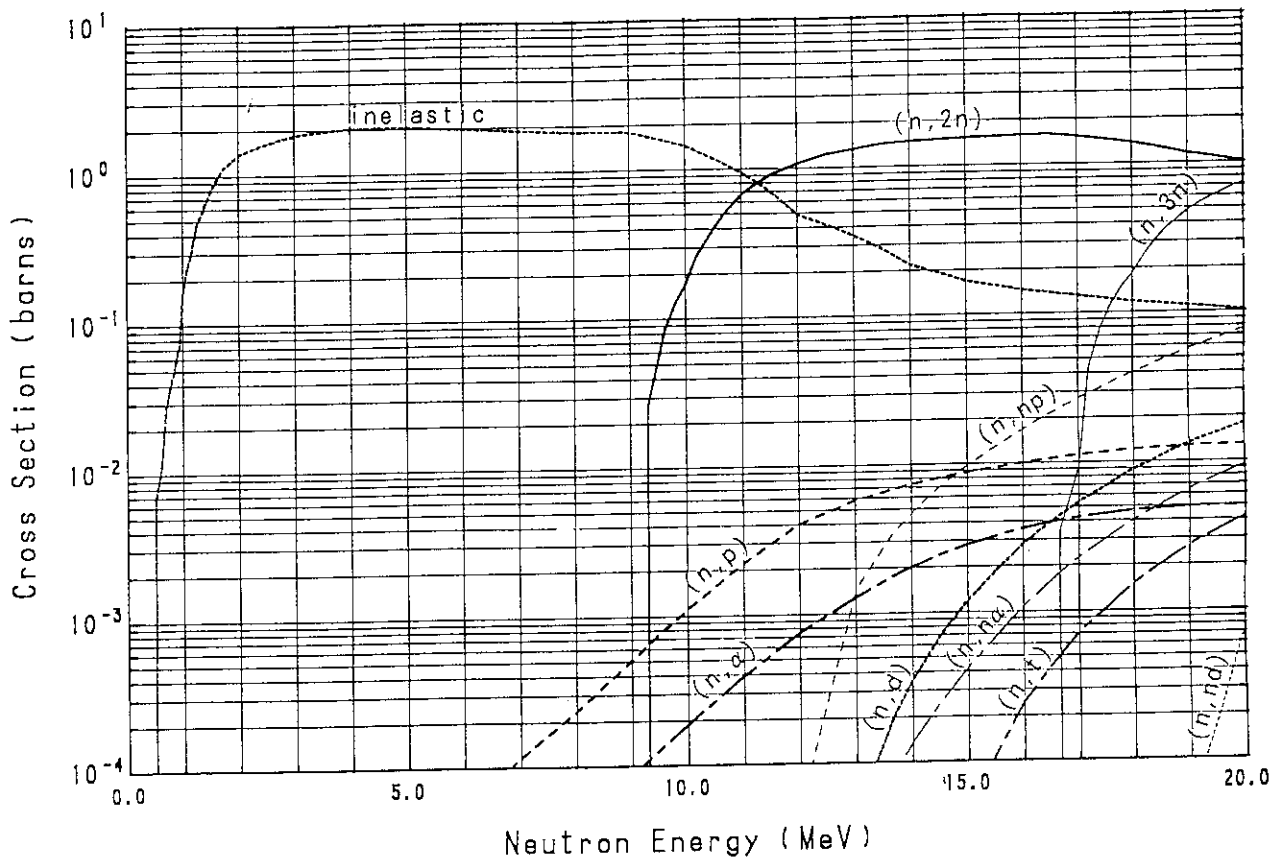
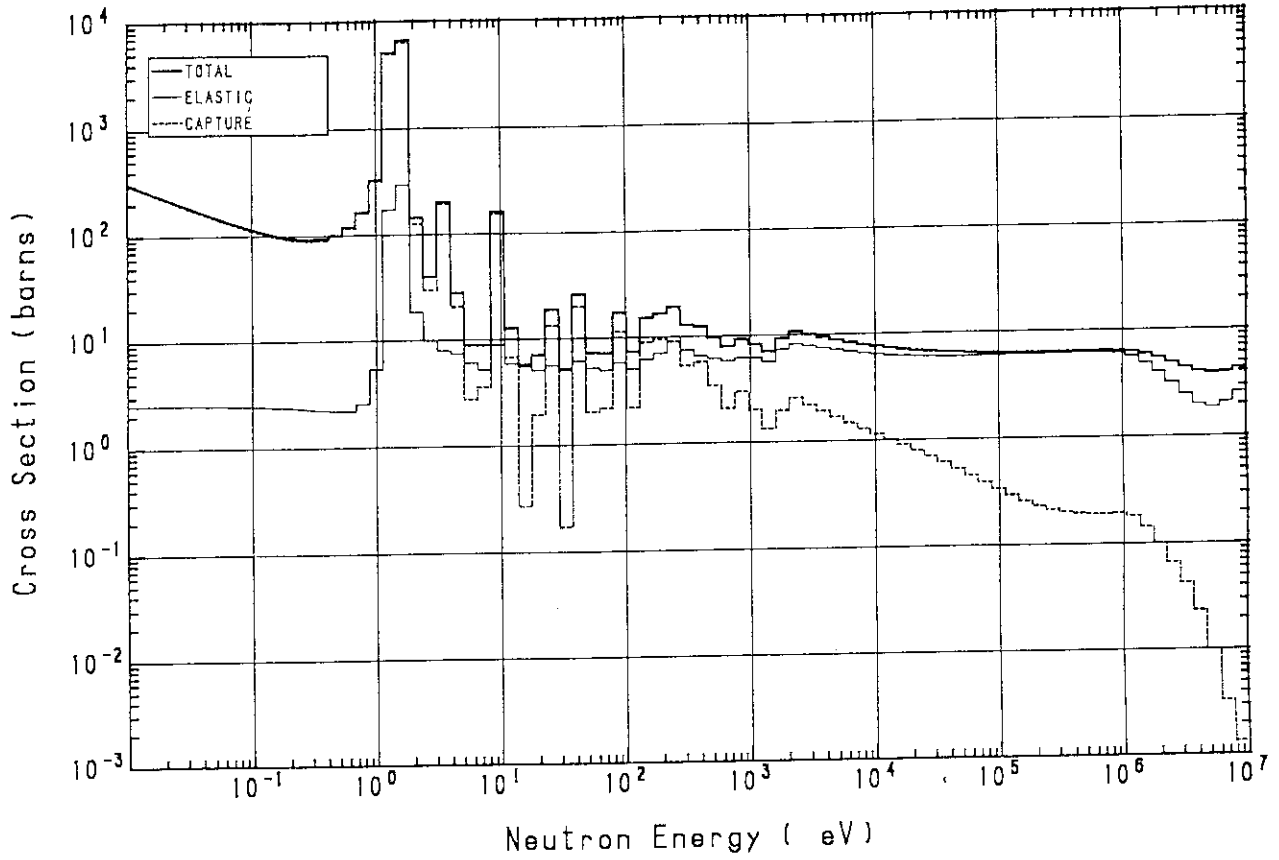


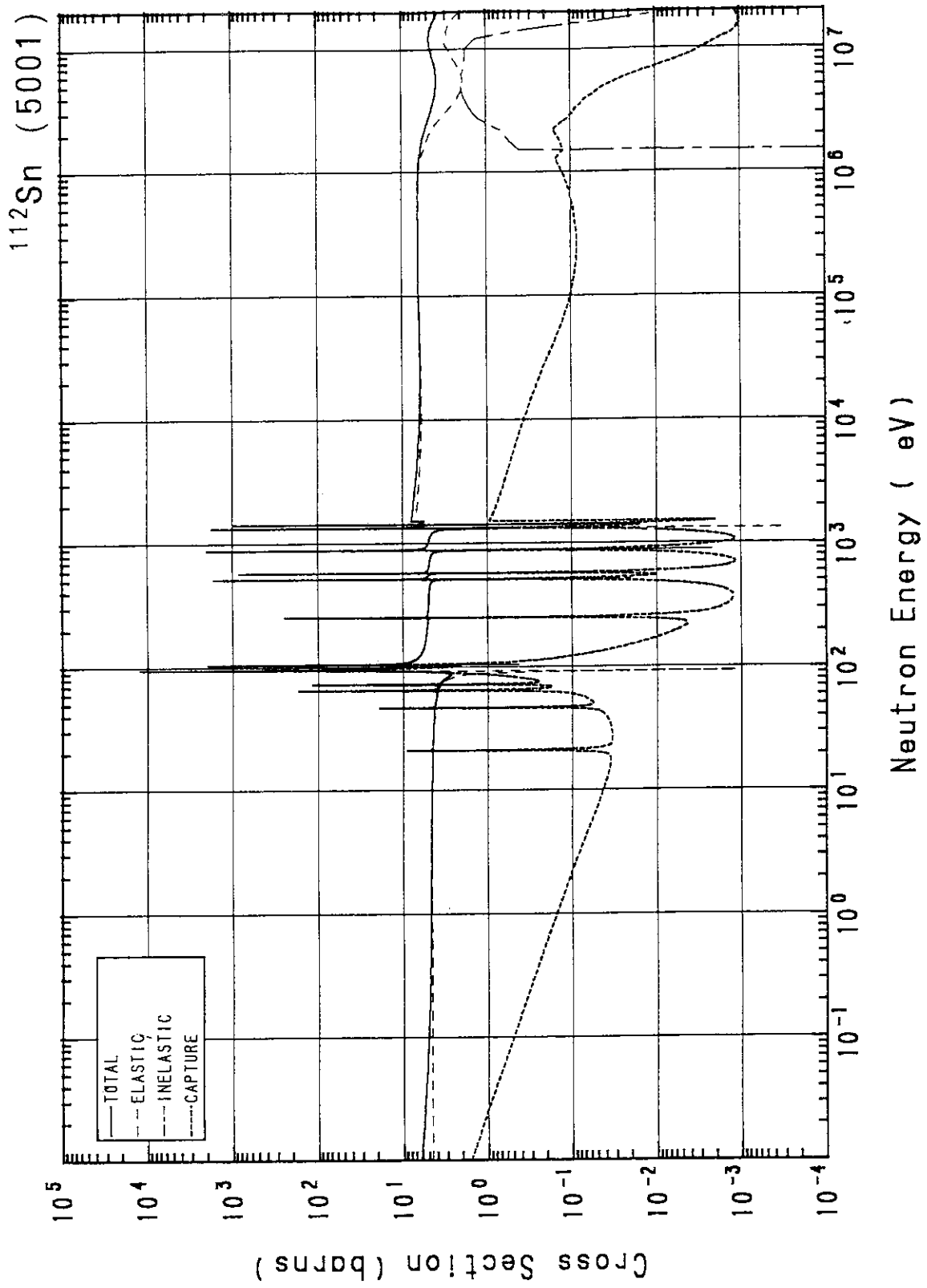
^{113}In (4901)



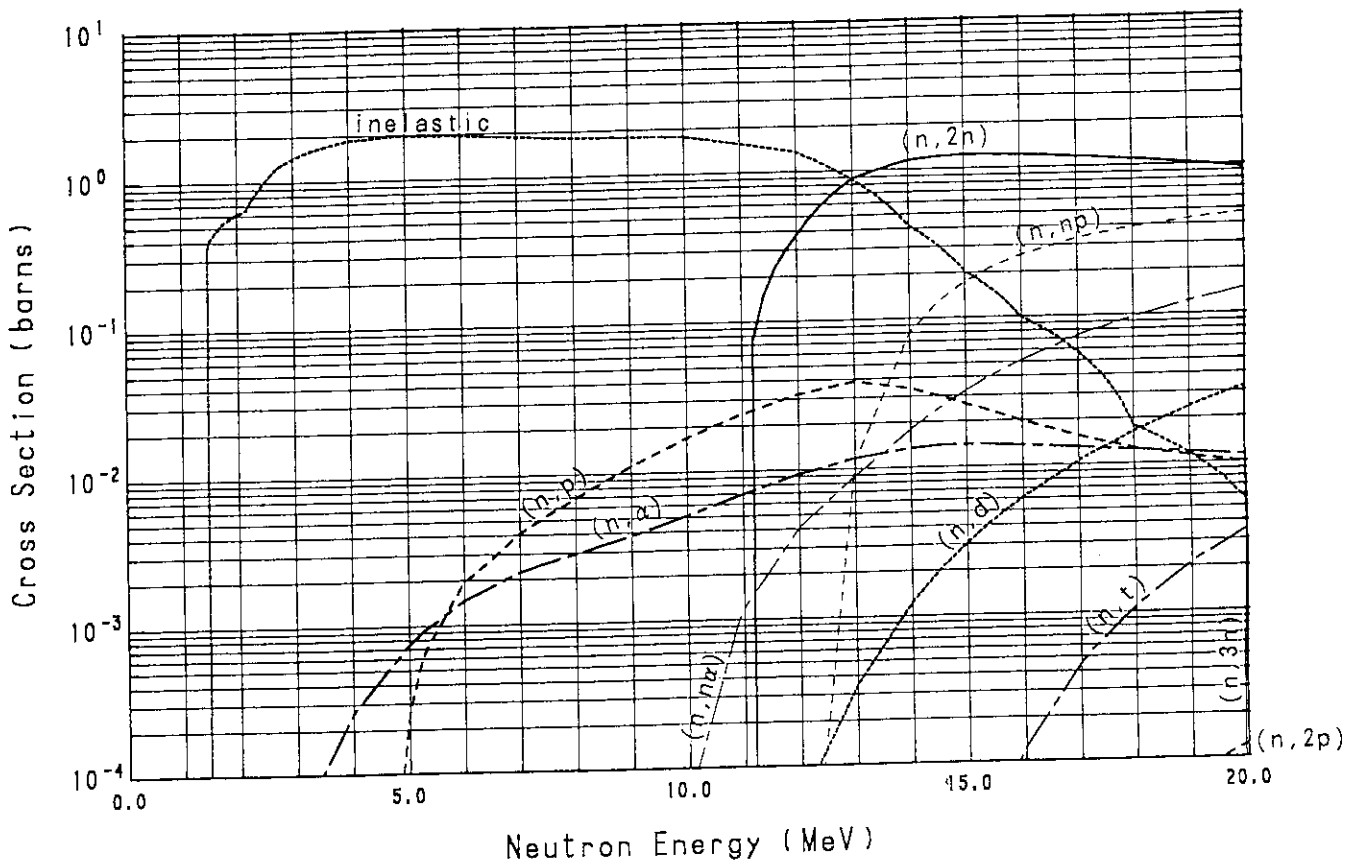
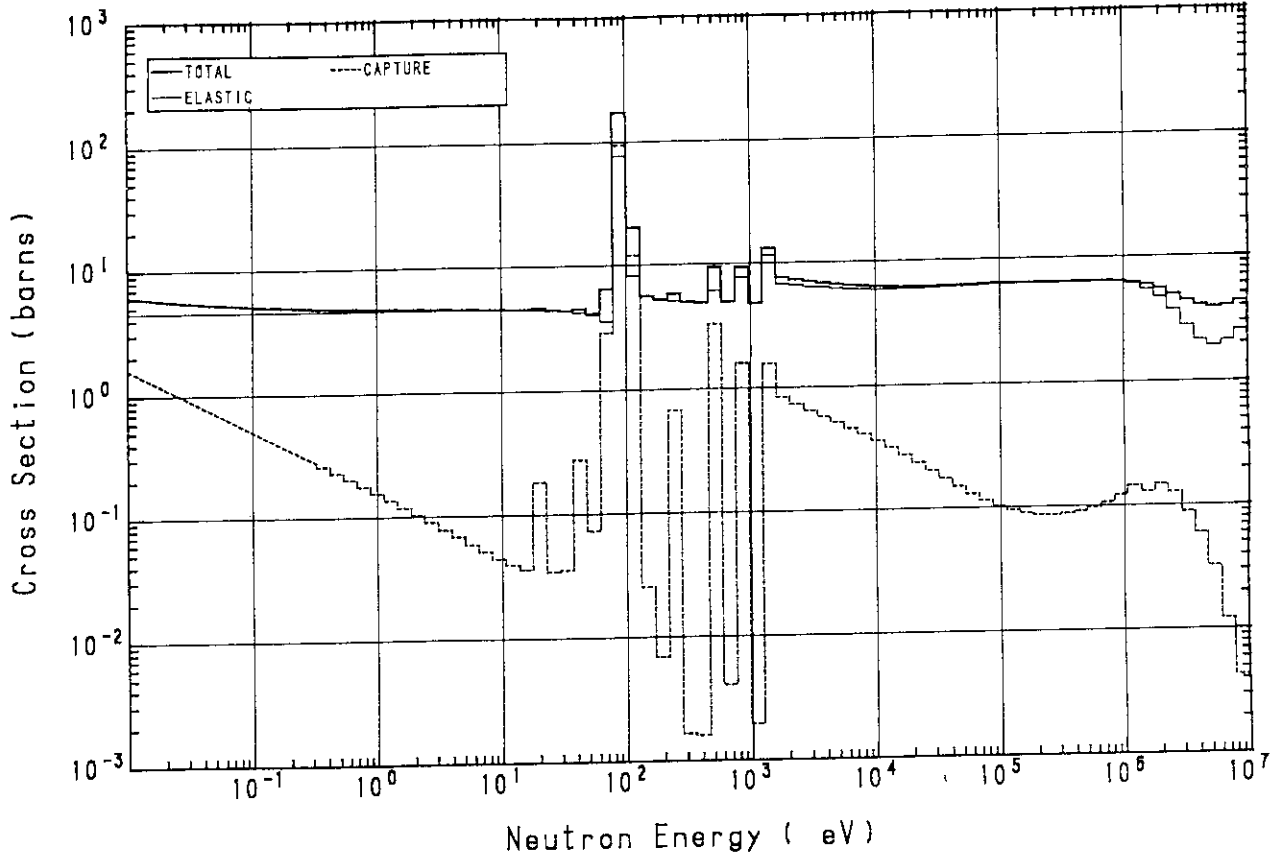


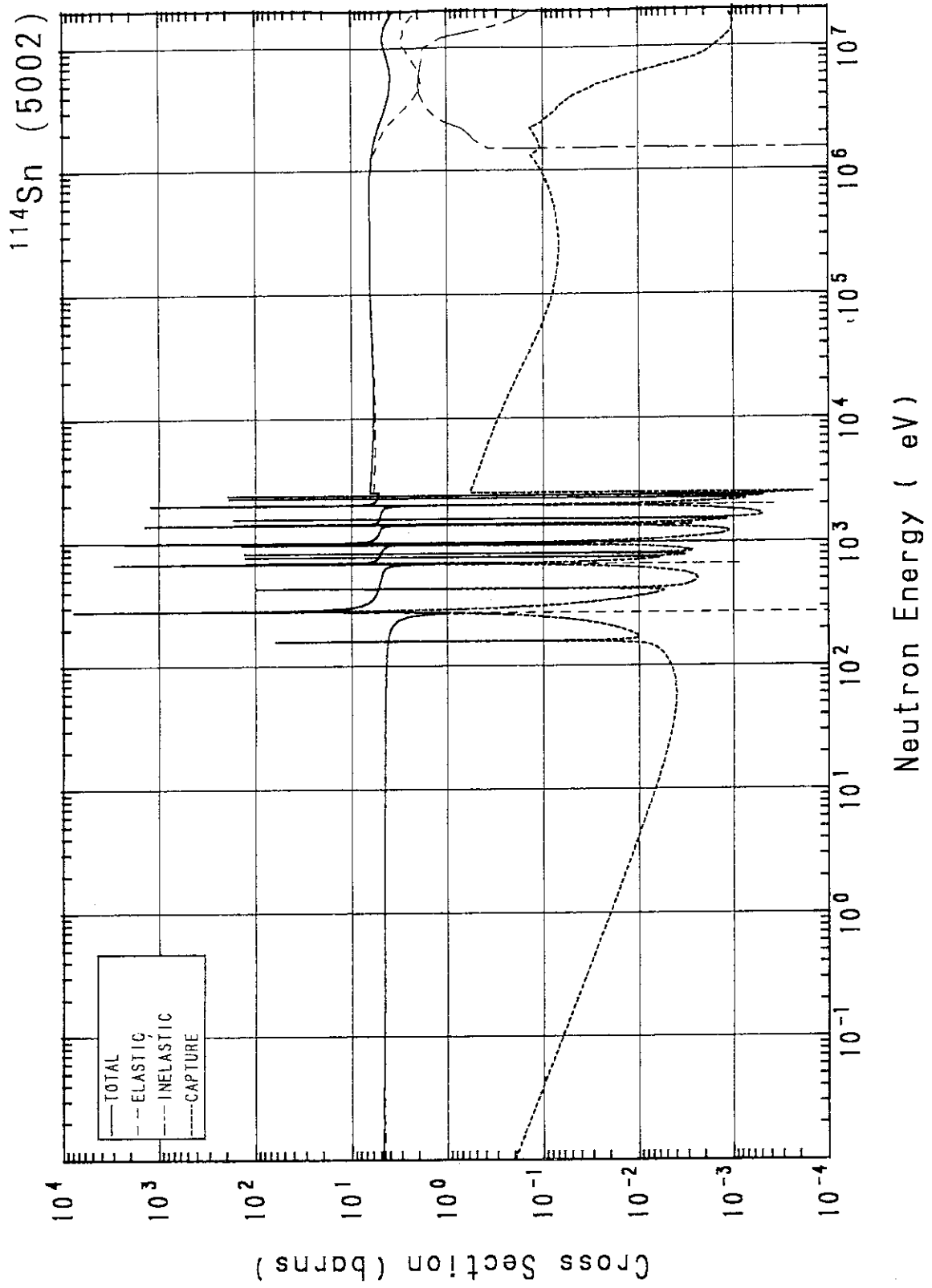
^{115}In (4902)



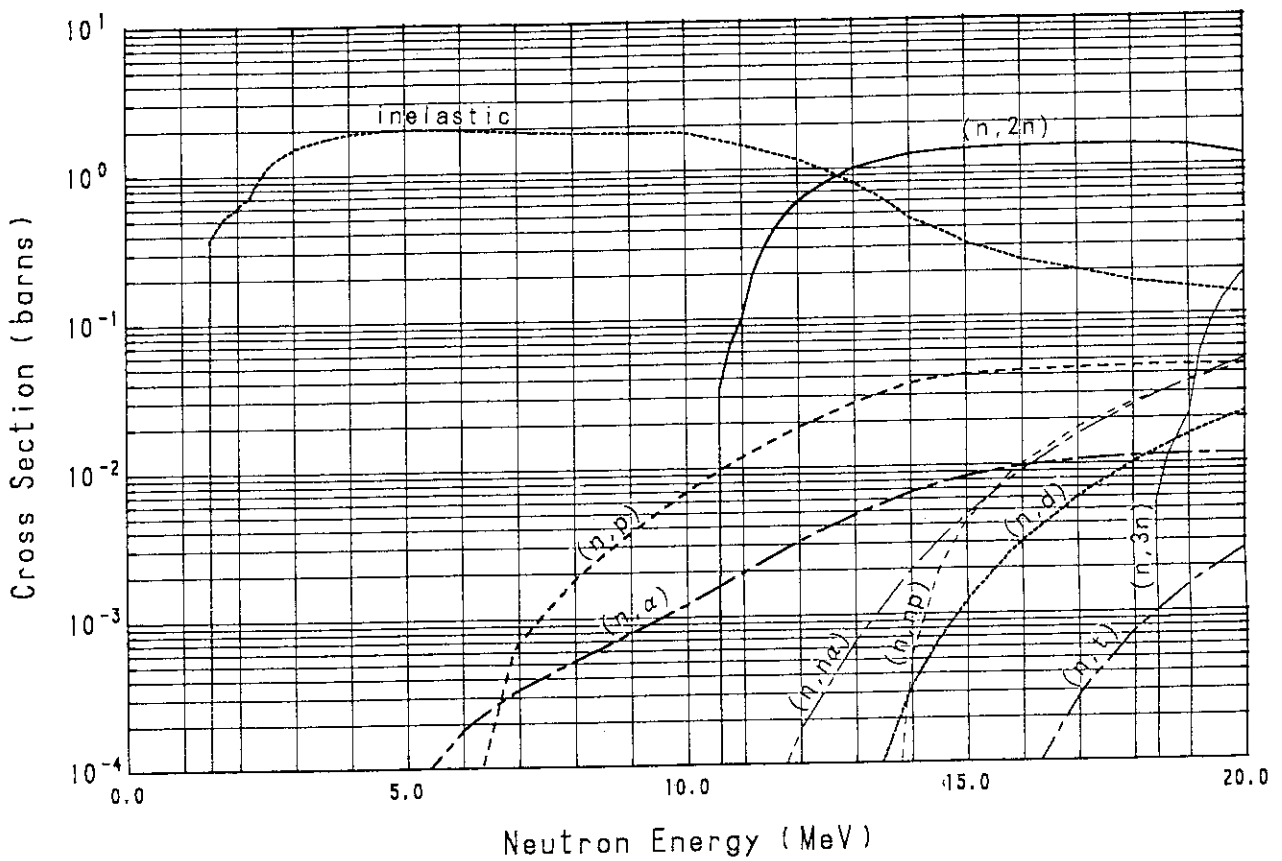
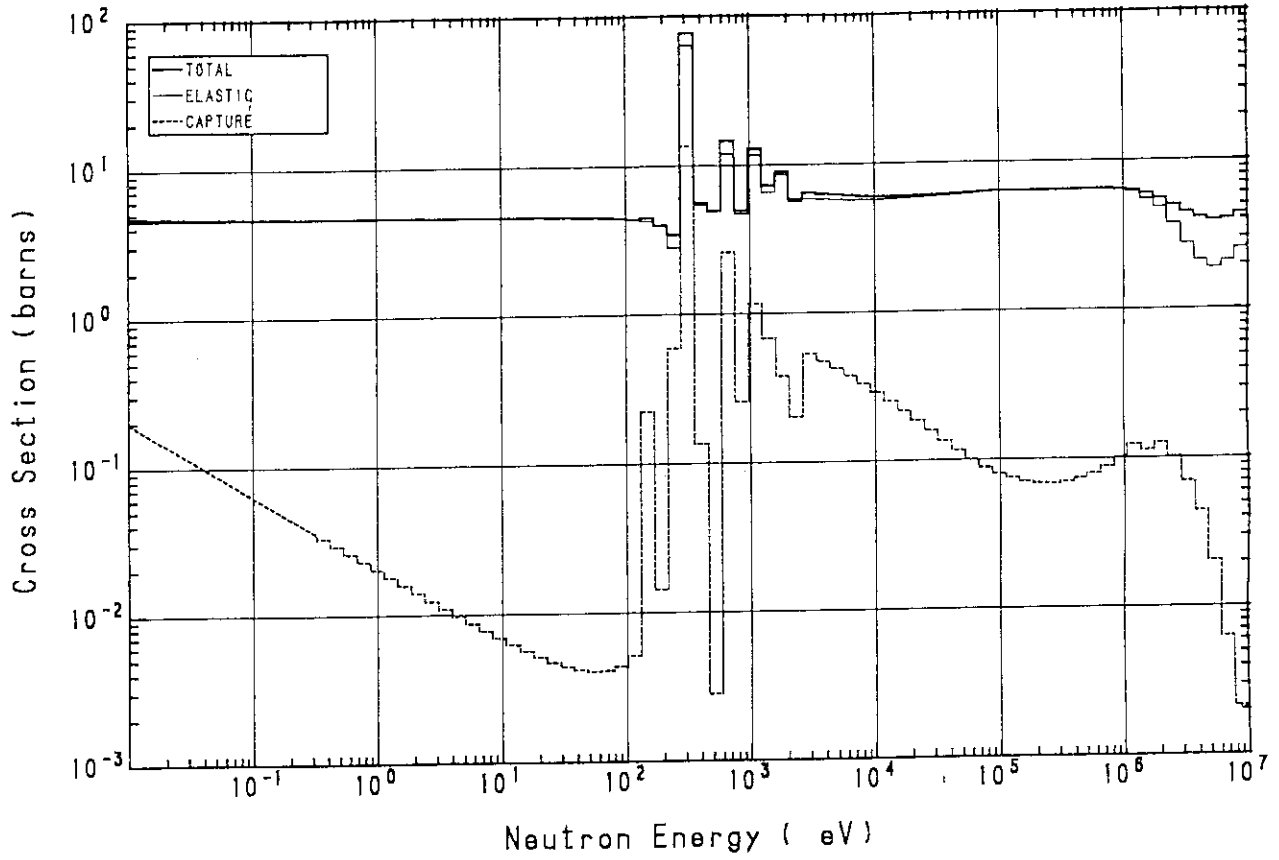


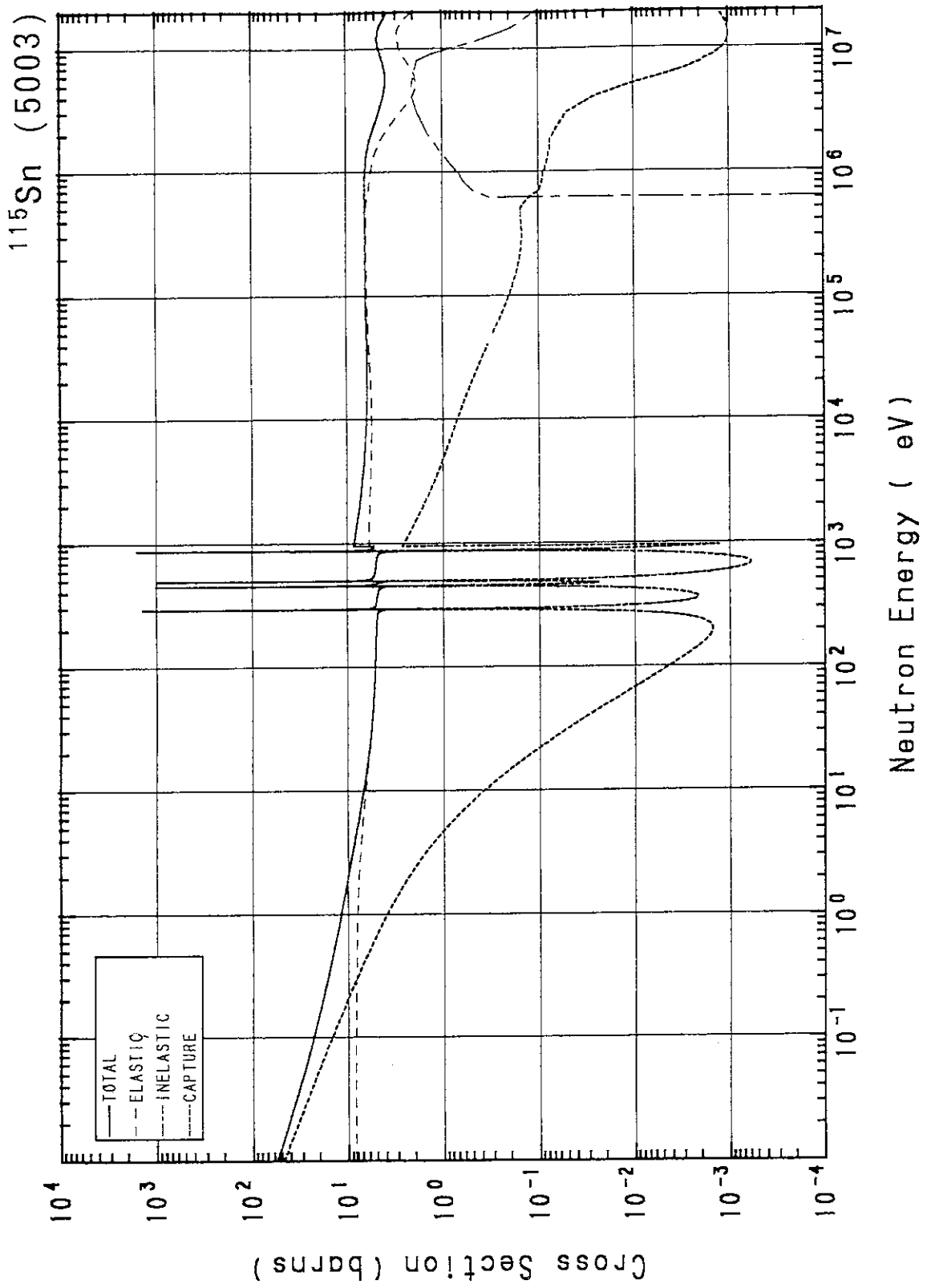
^{112}Sn (5001)



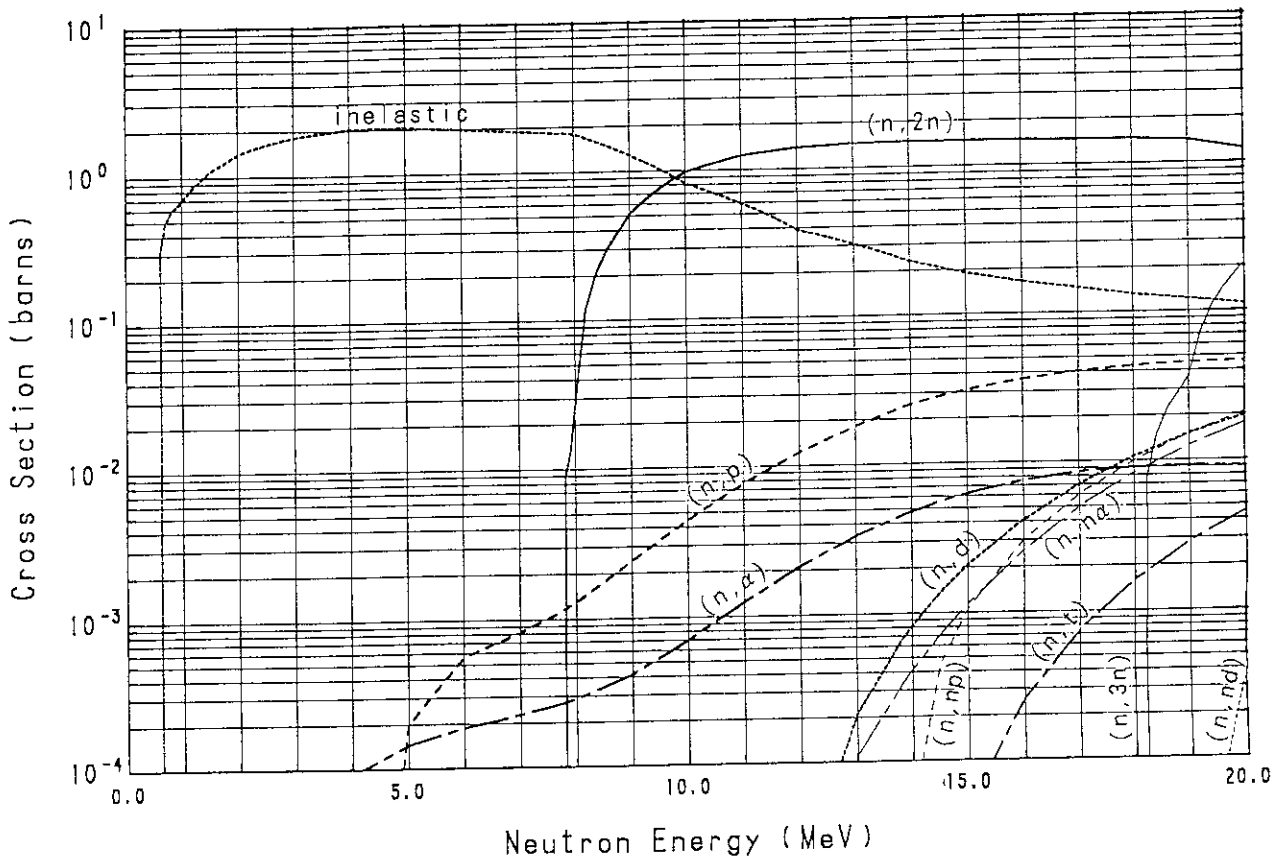
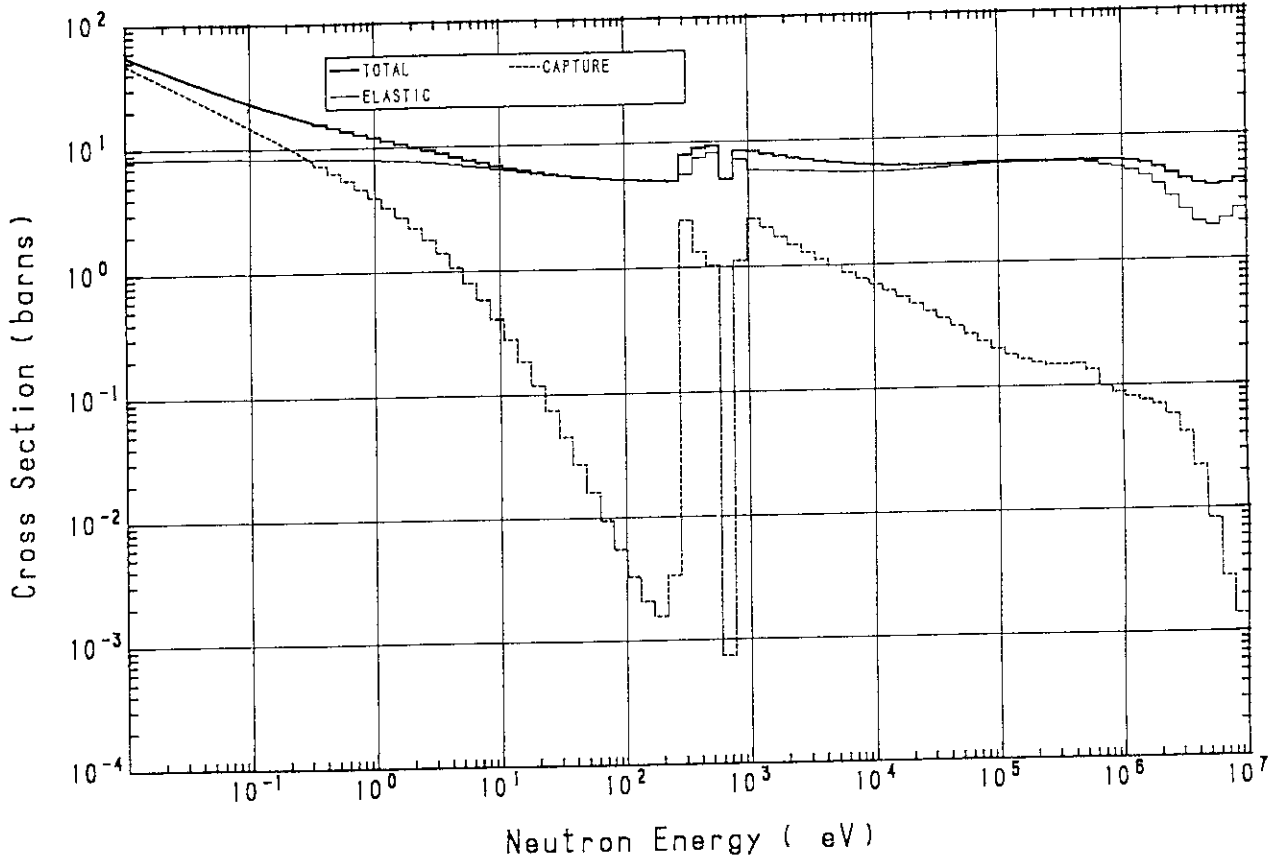


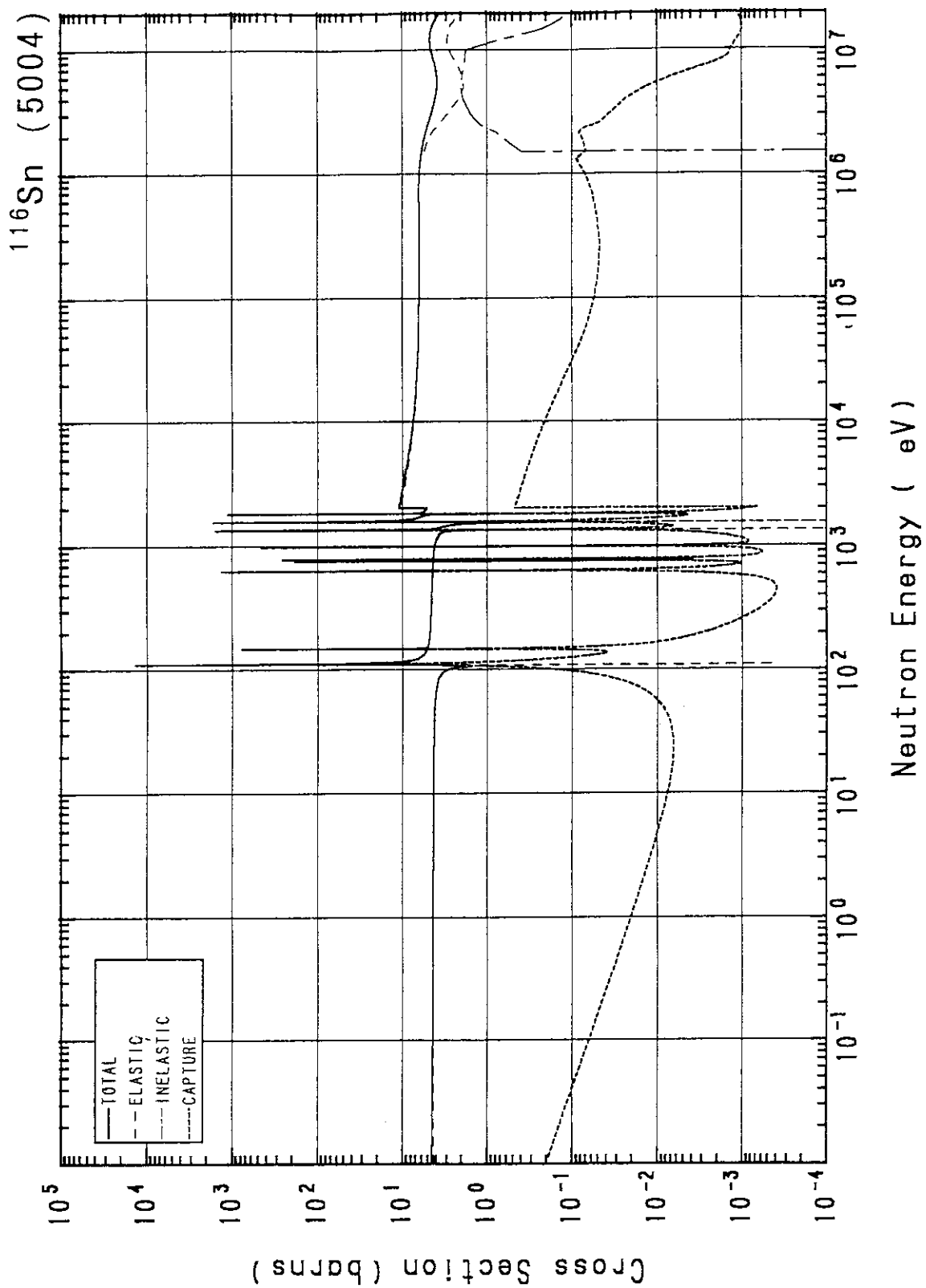
^{114}Sn (5002)



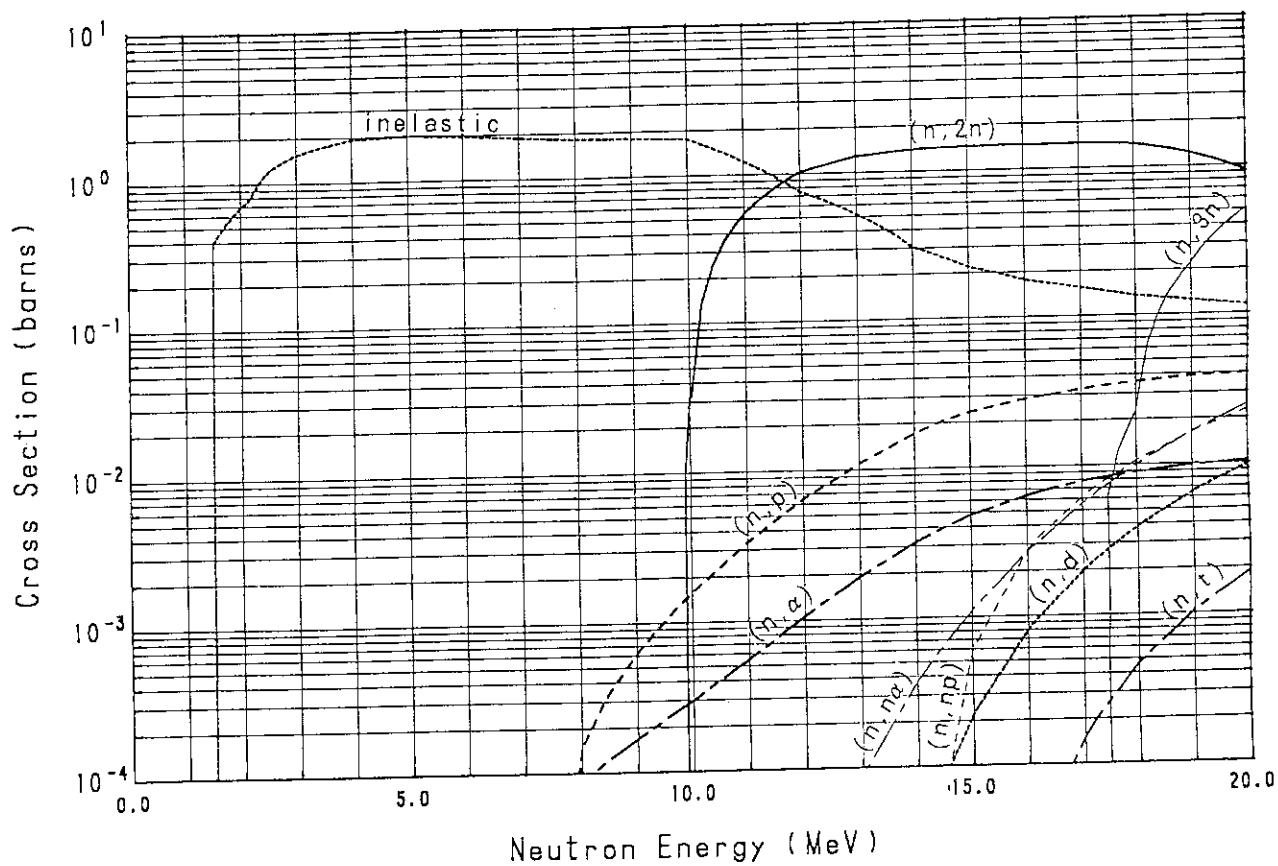
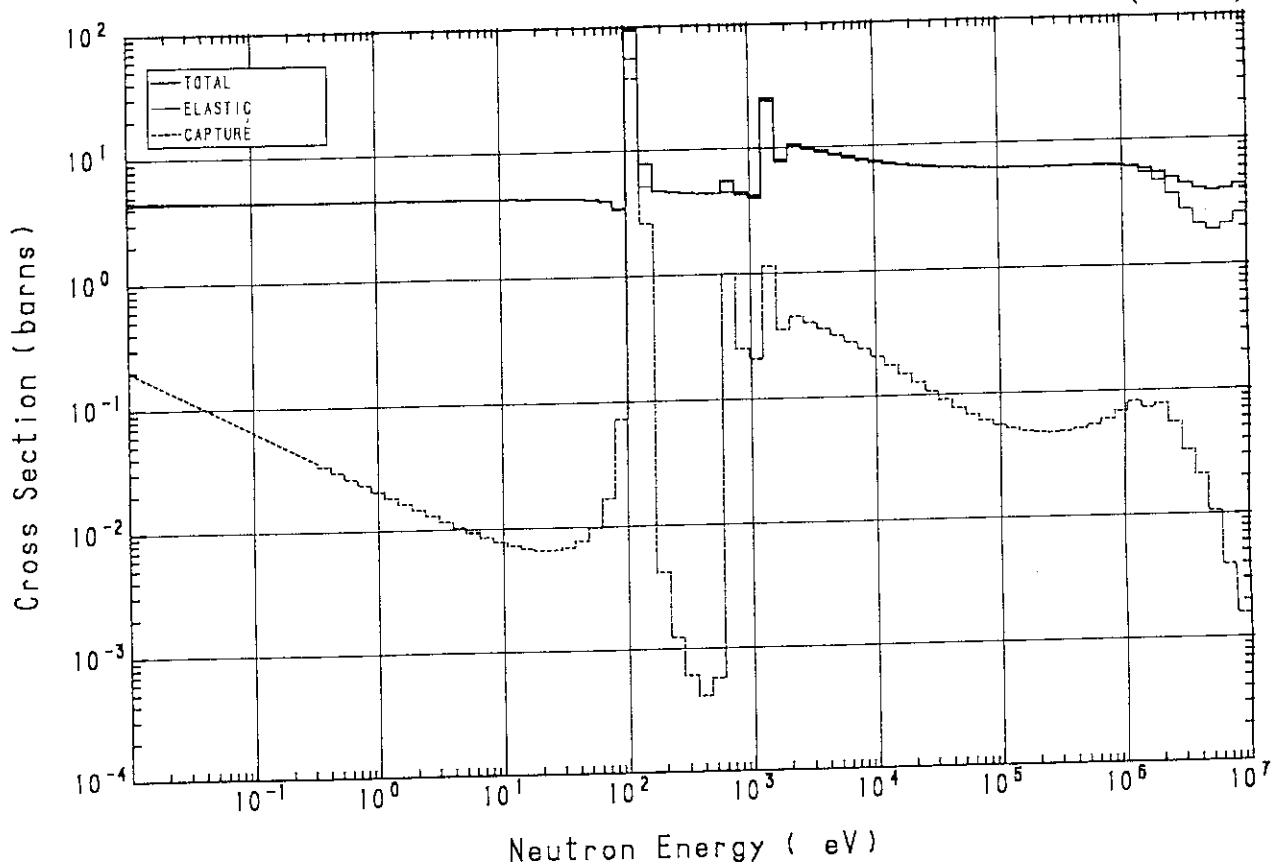


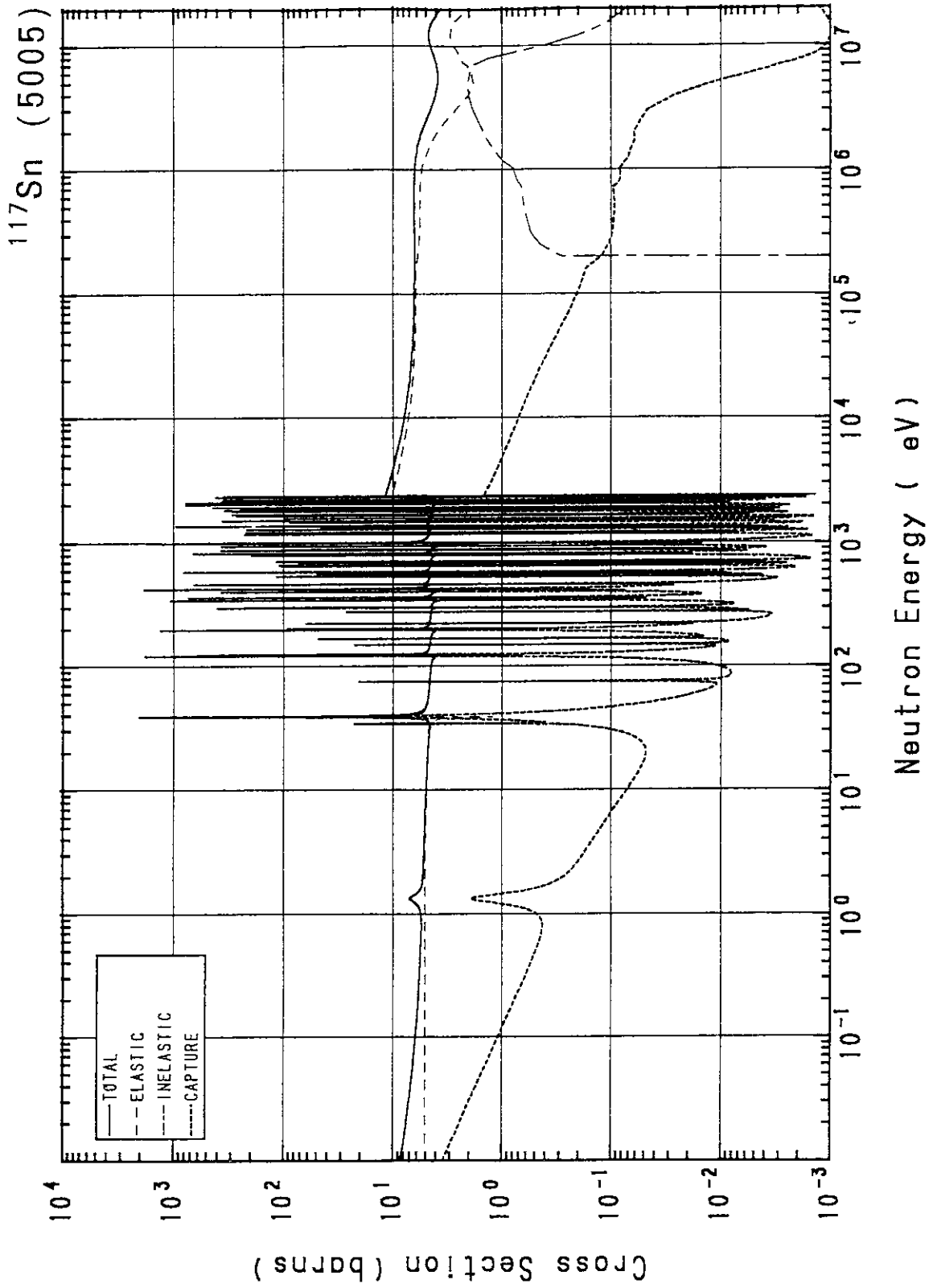
^{115}Sn (5003)



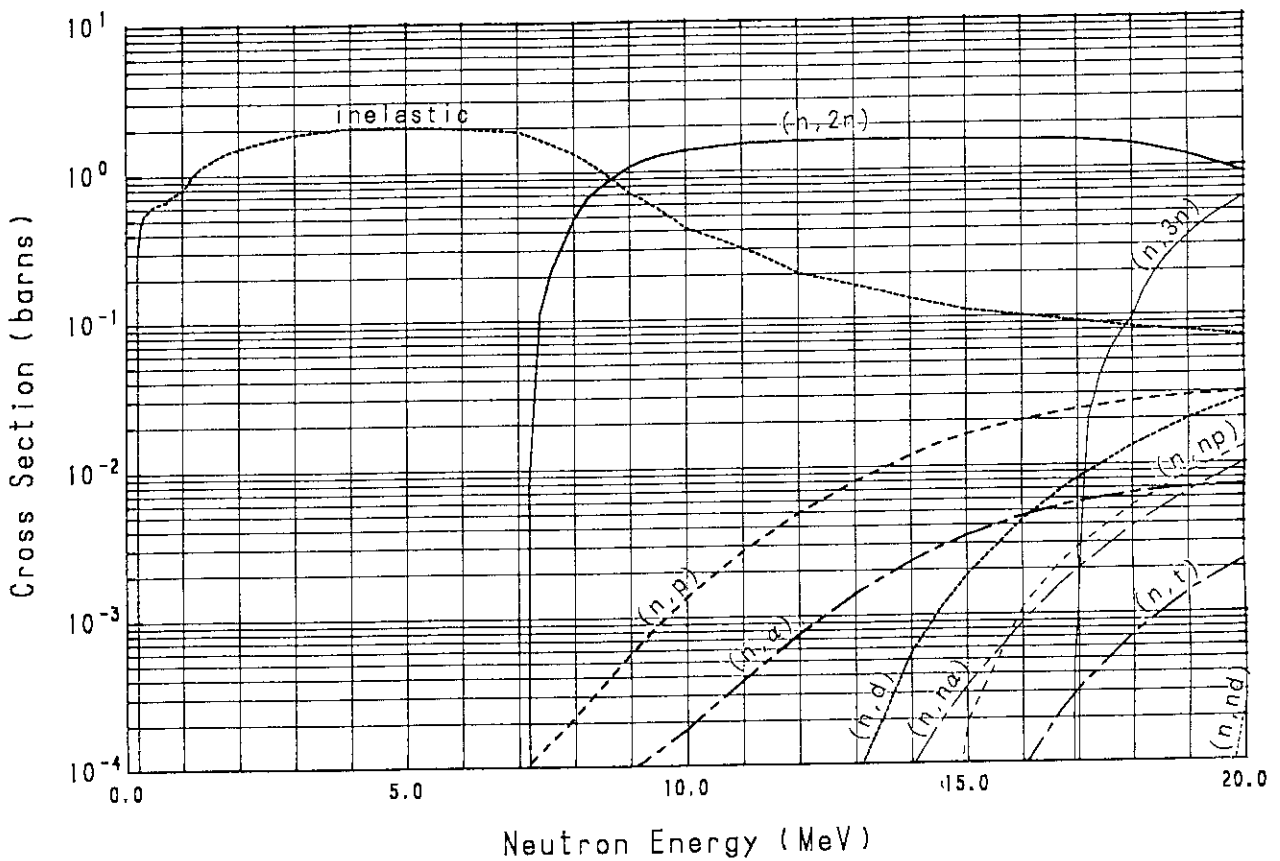
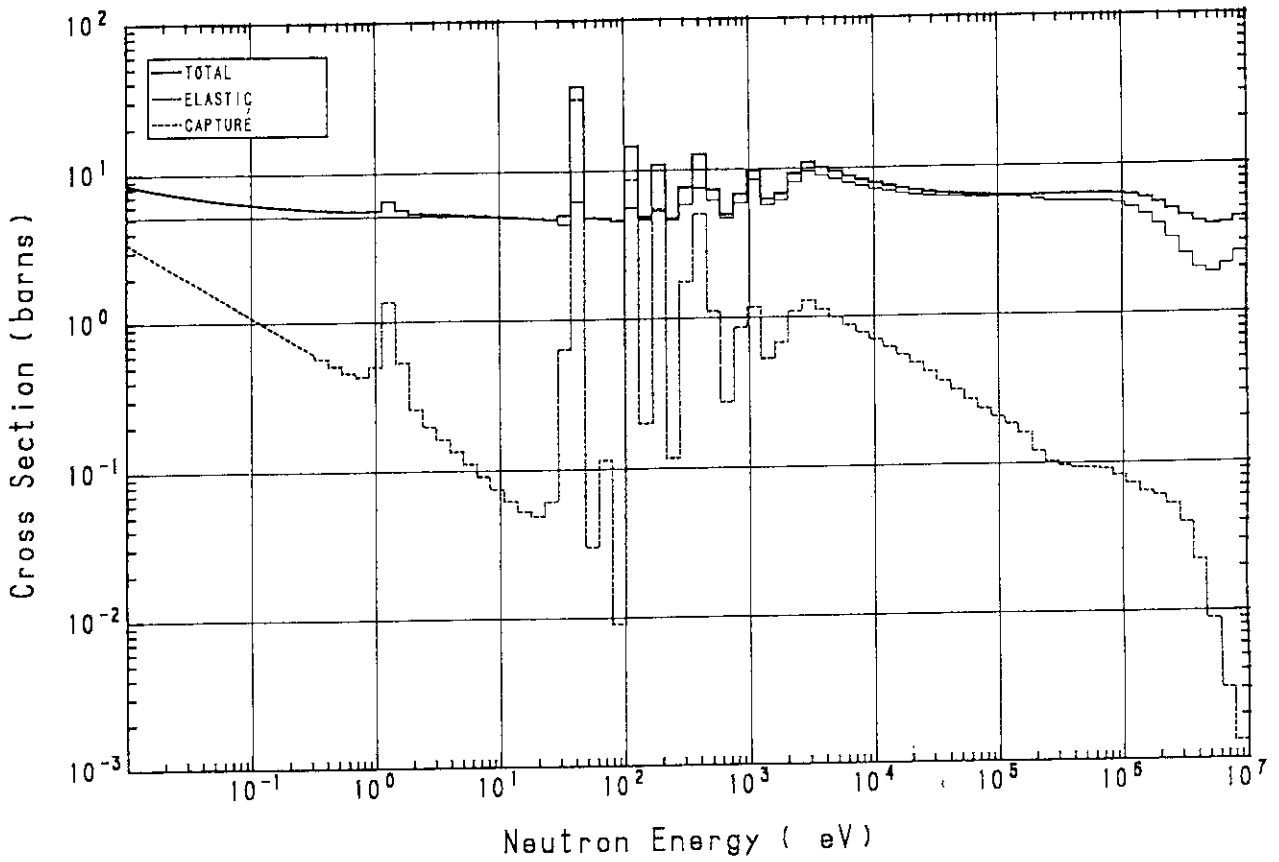


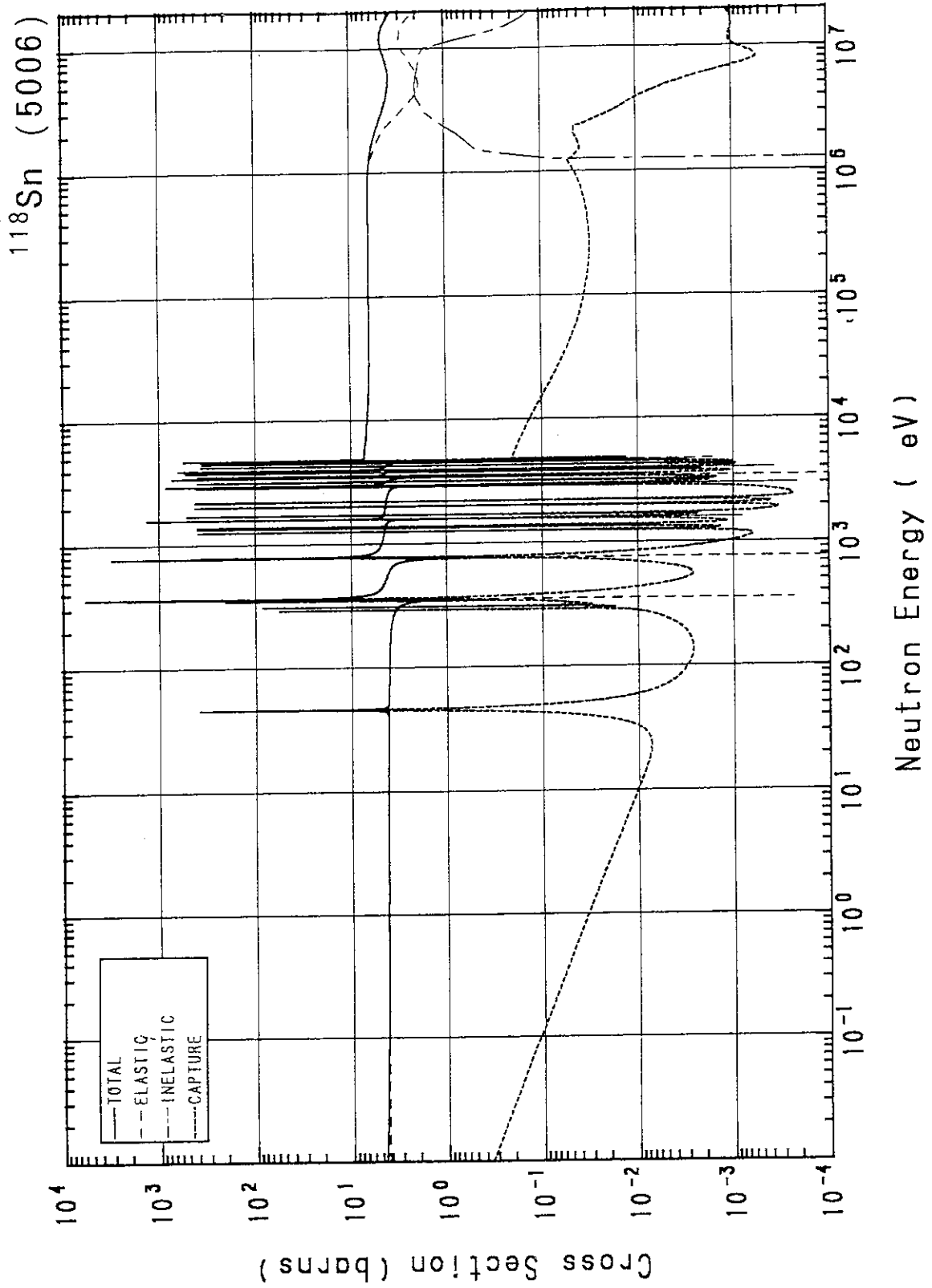
^{116}Sn (5004)



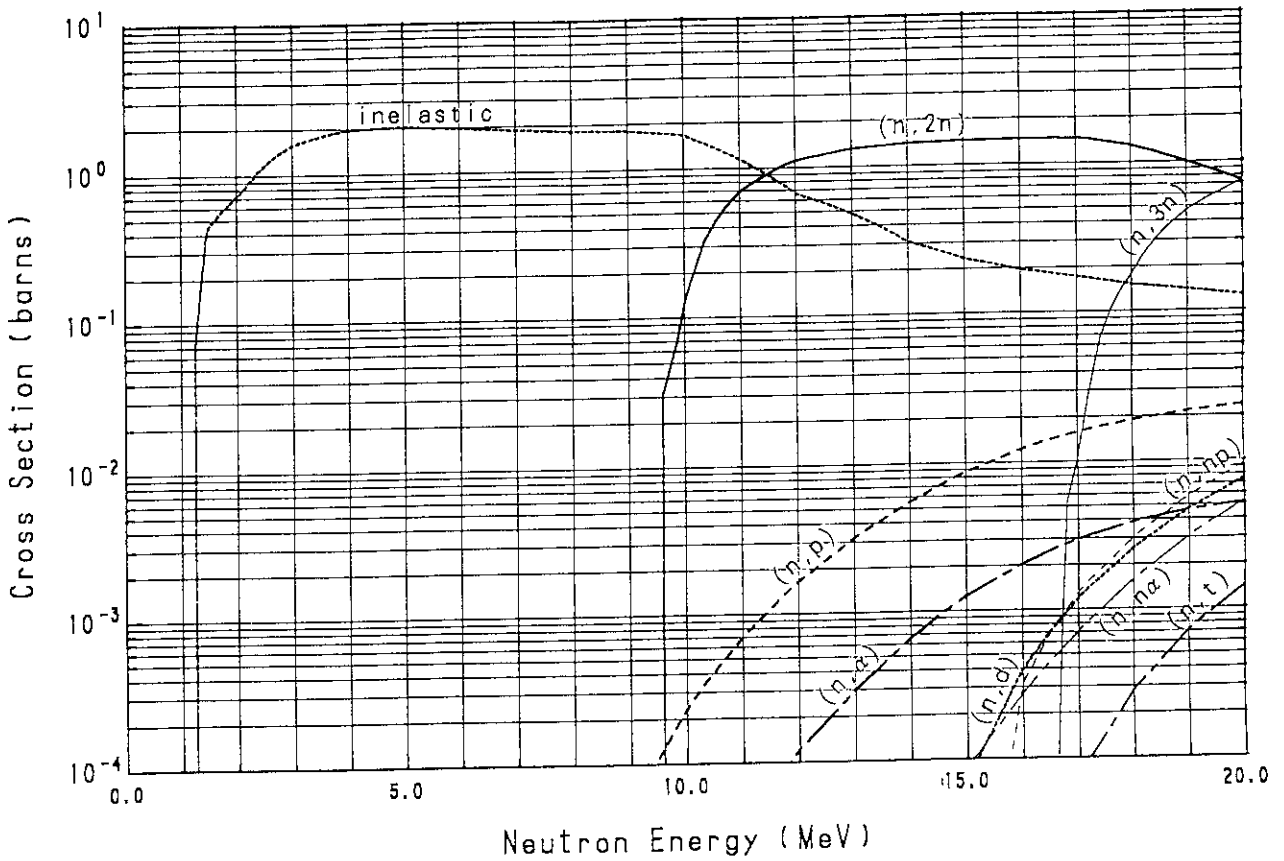
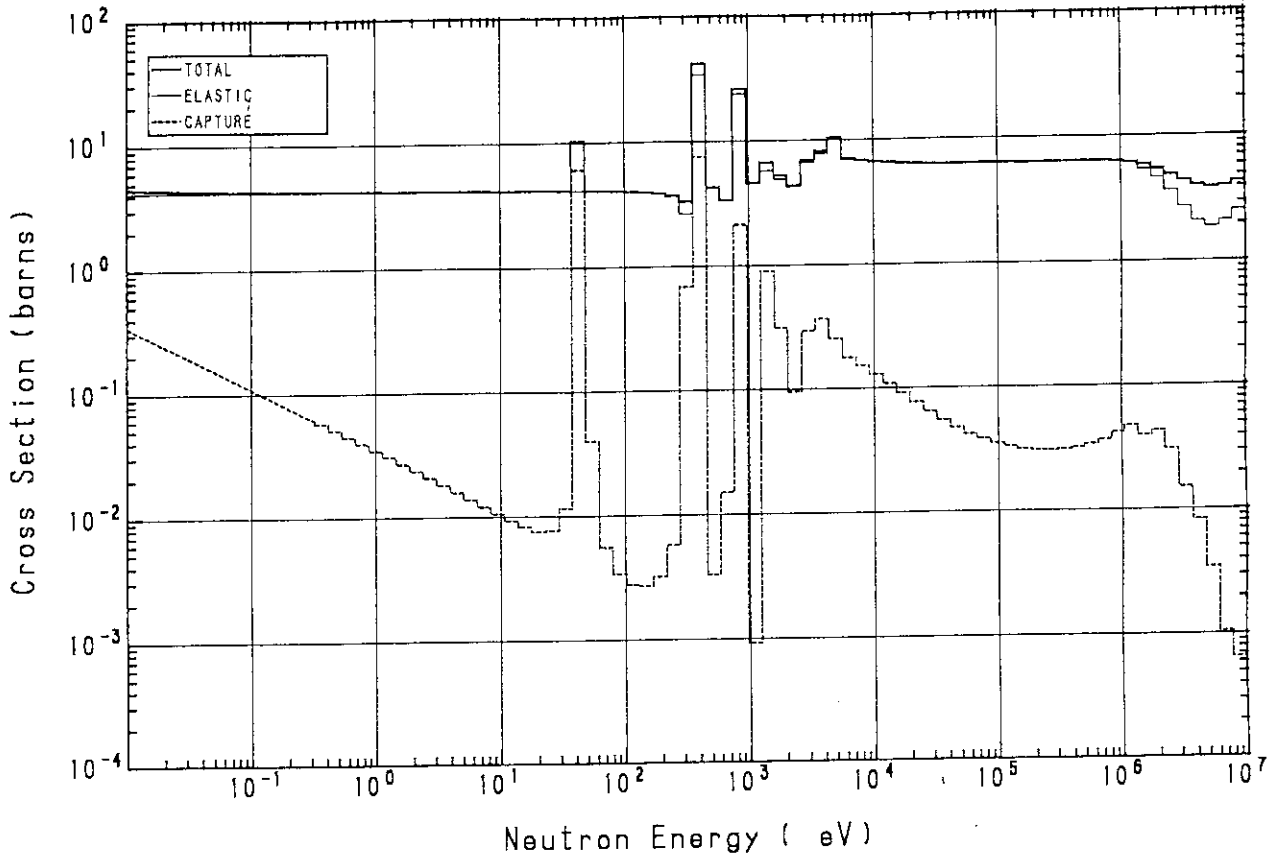


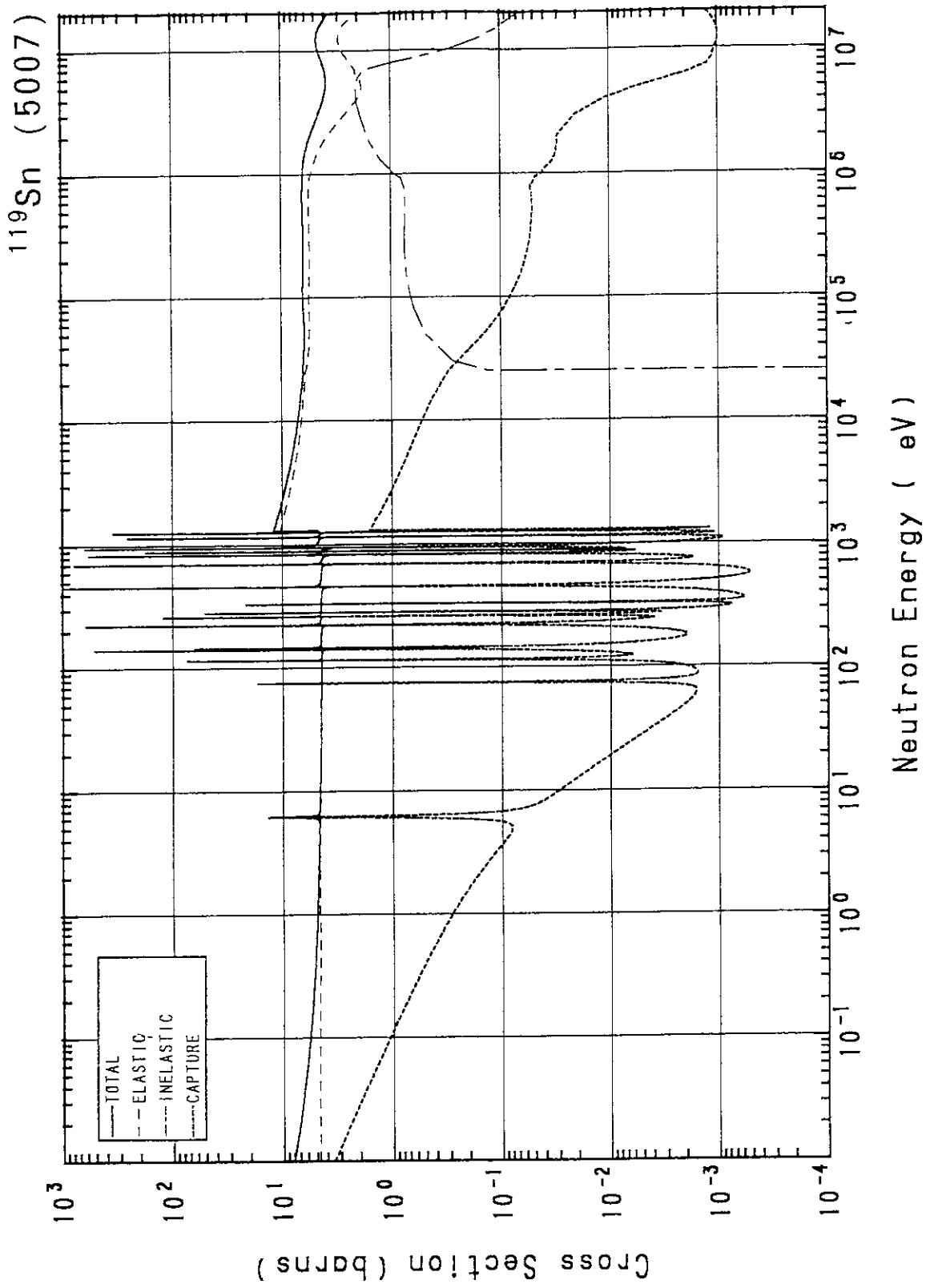
^{117}Sn (5005)



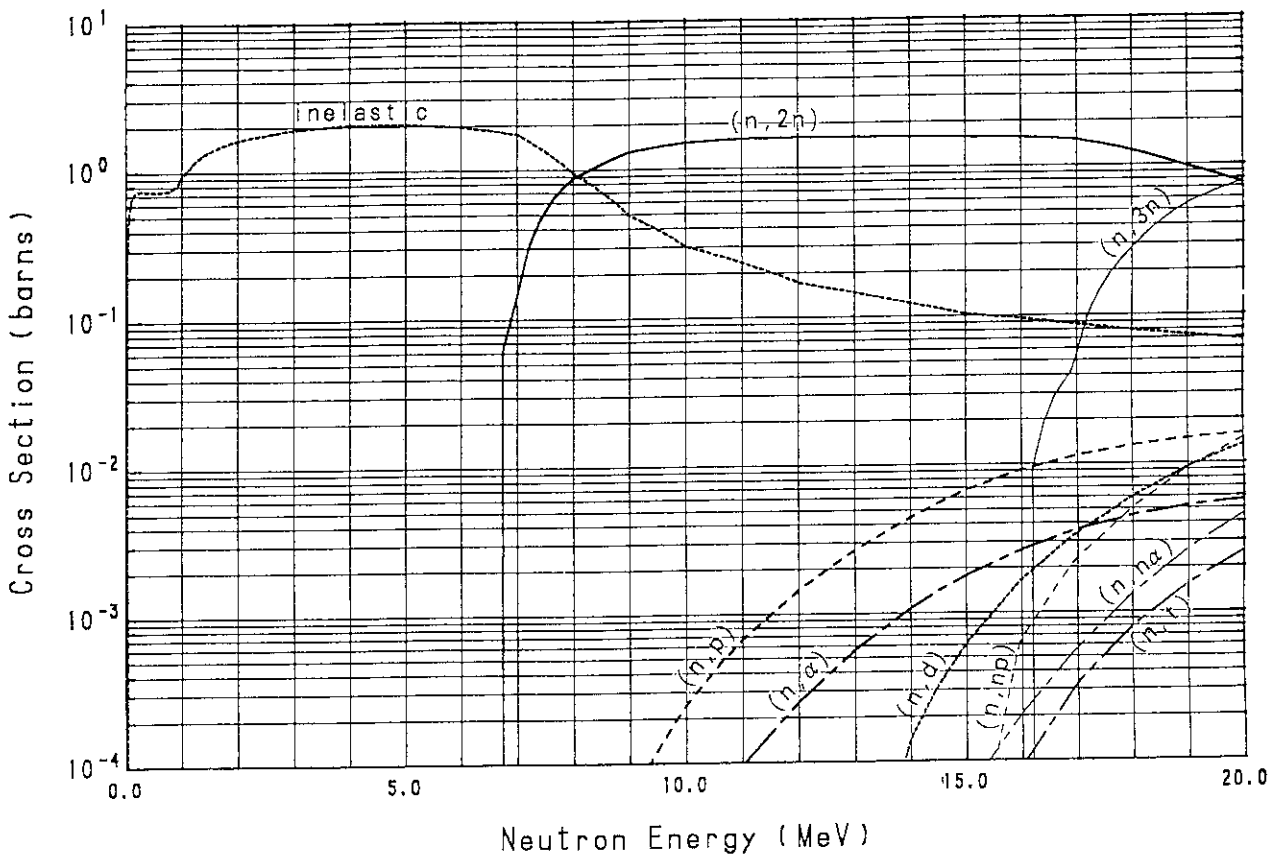
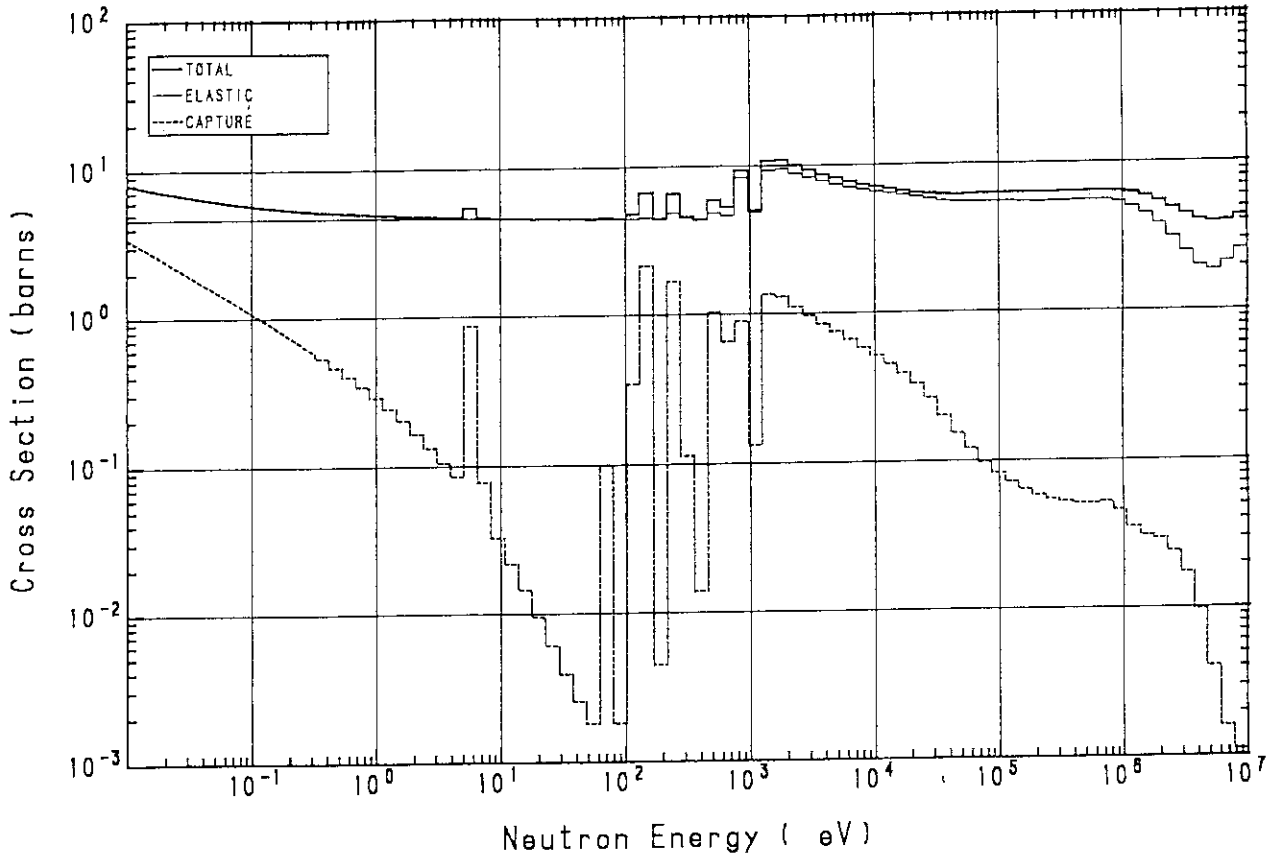


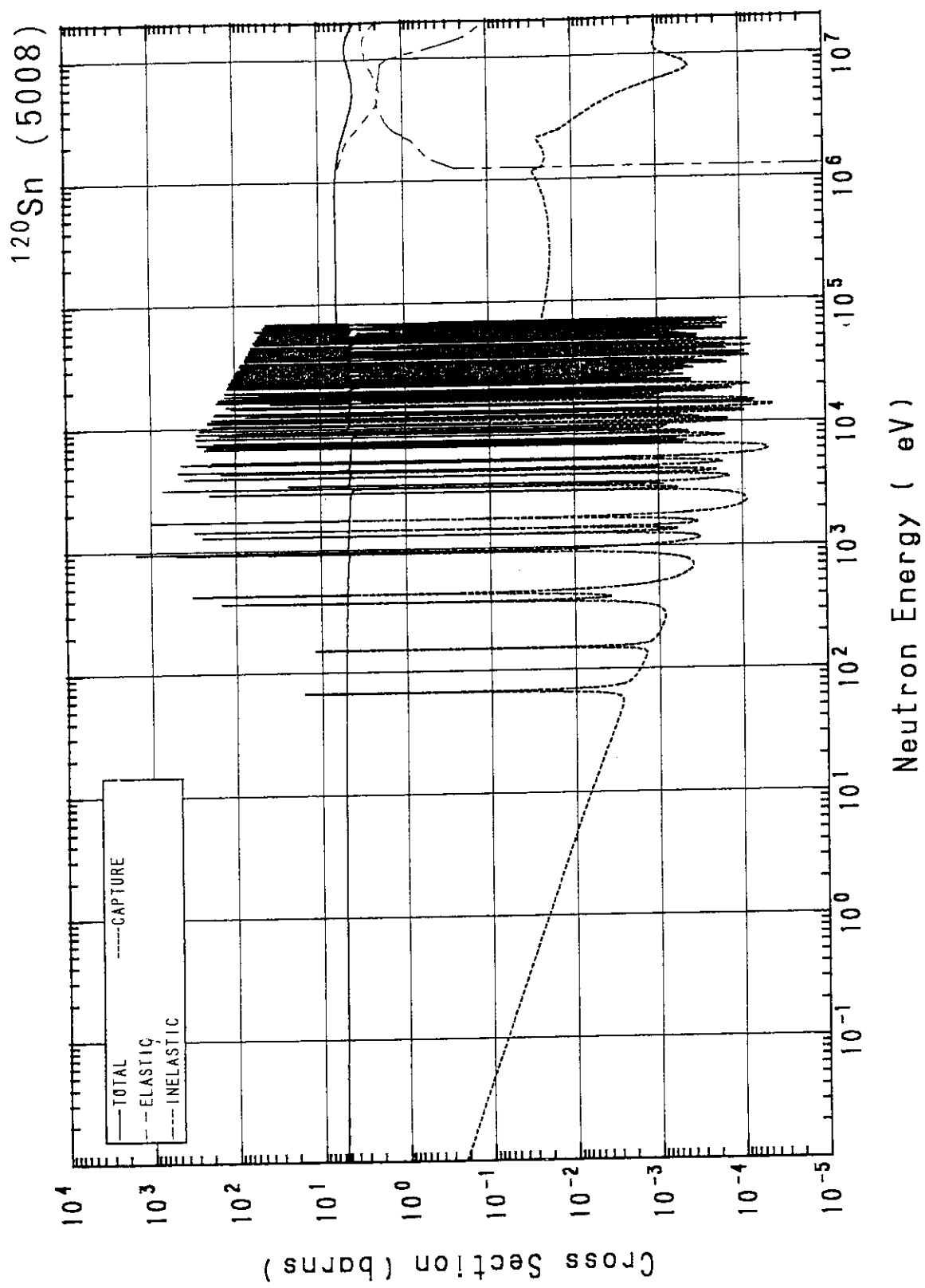
^{118}Sn (5006)



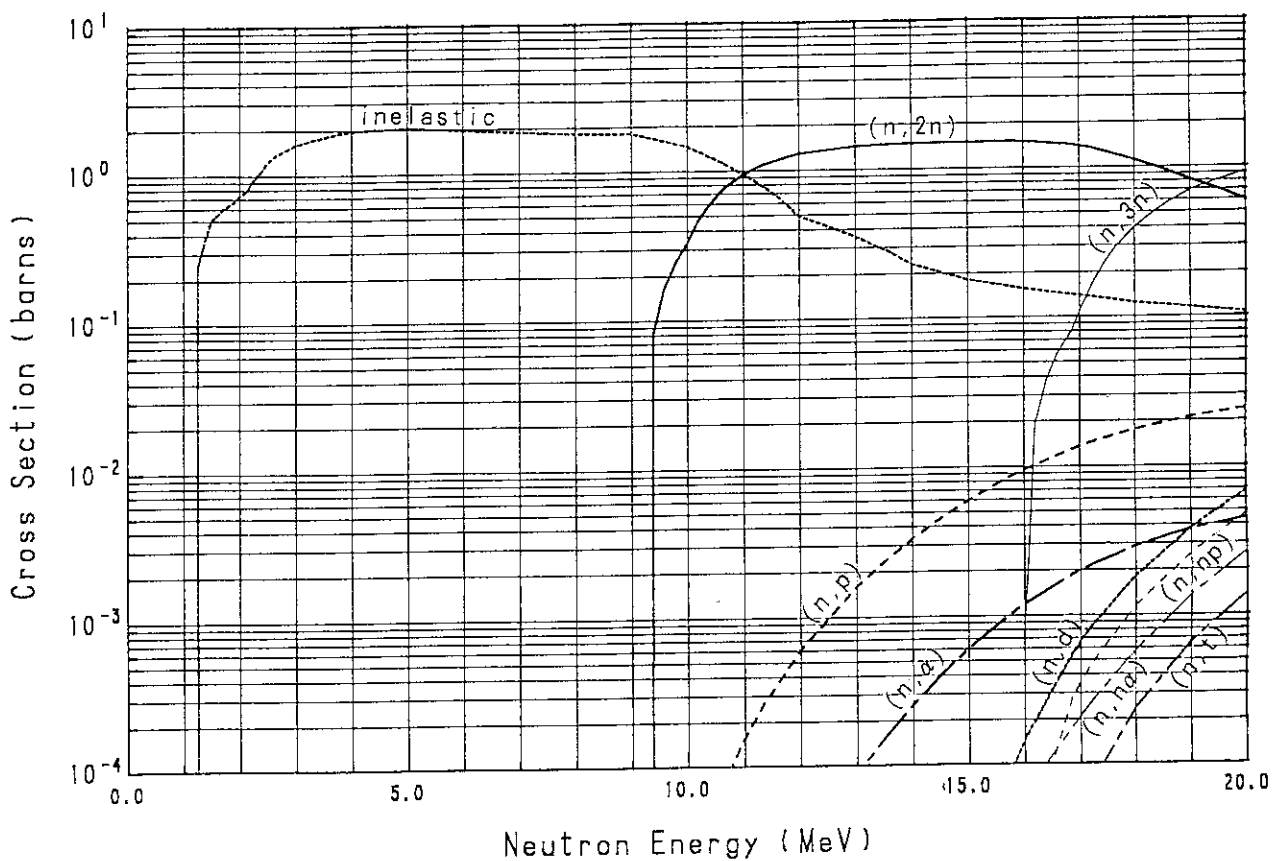
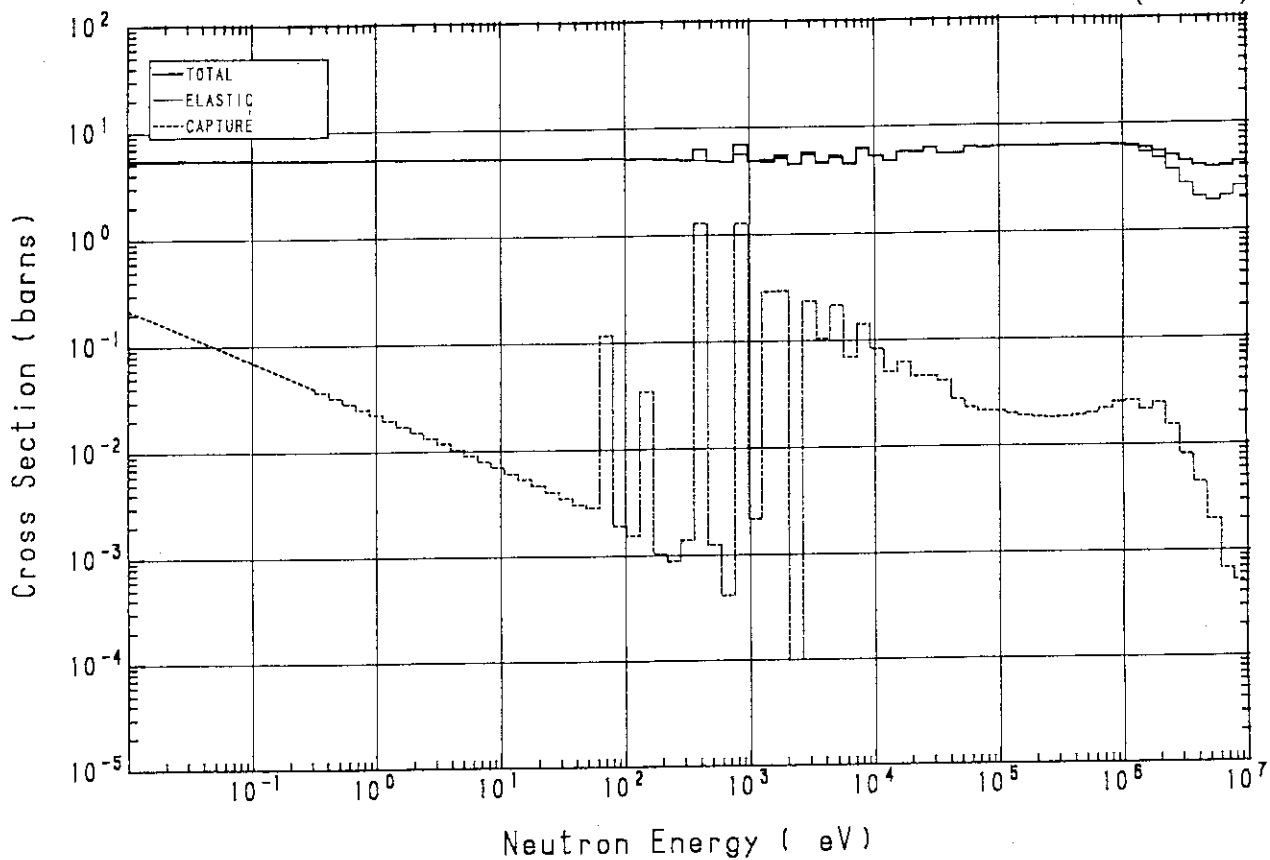


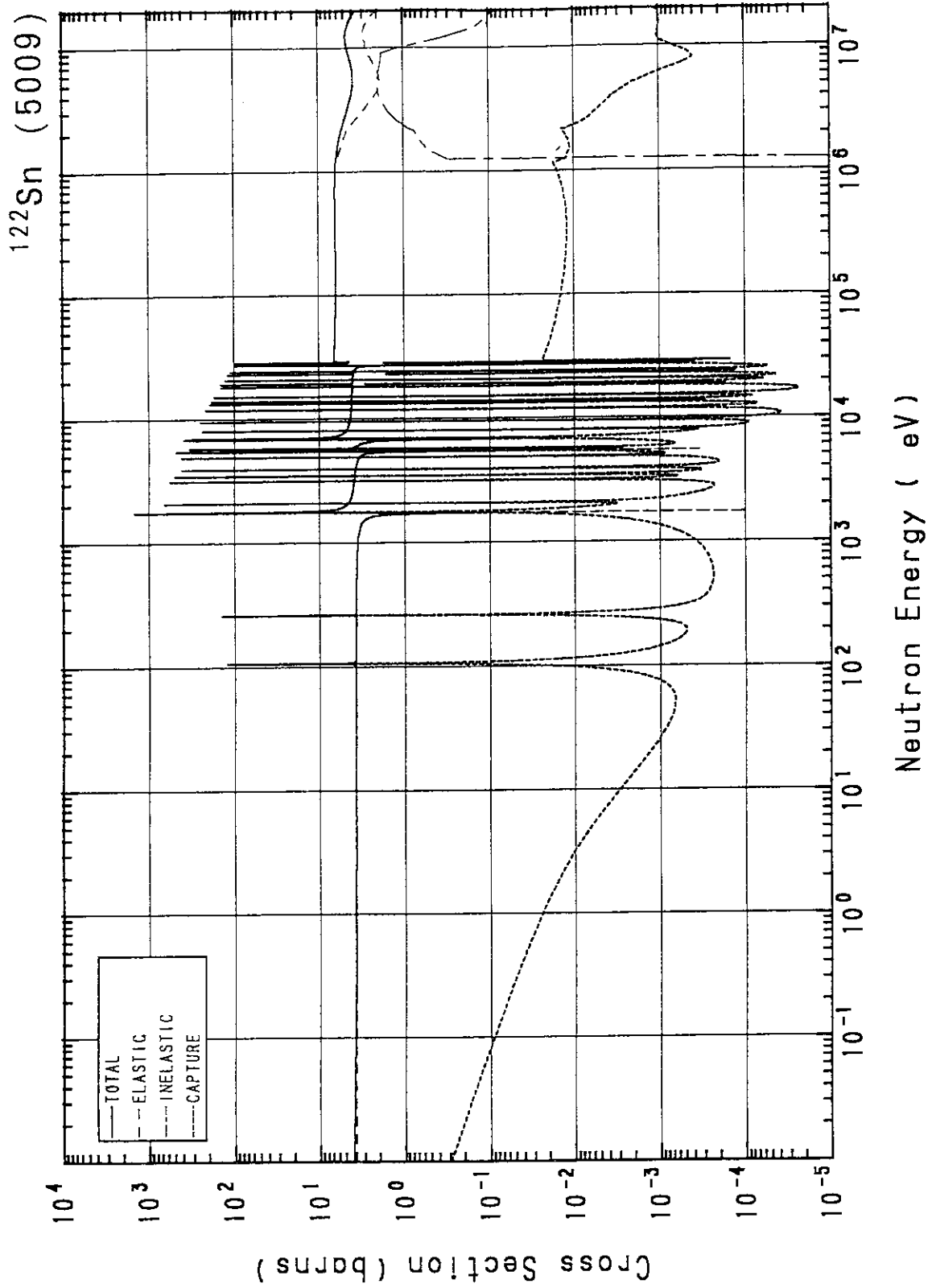
^{119}Sn (5007)



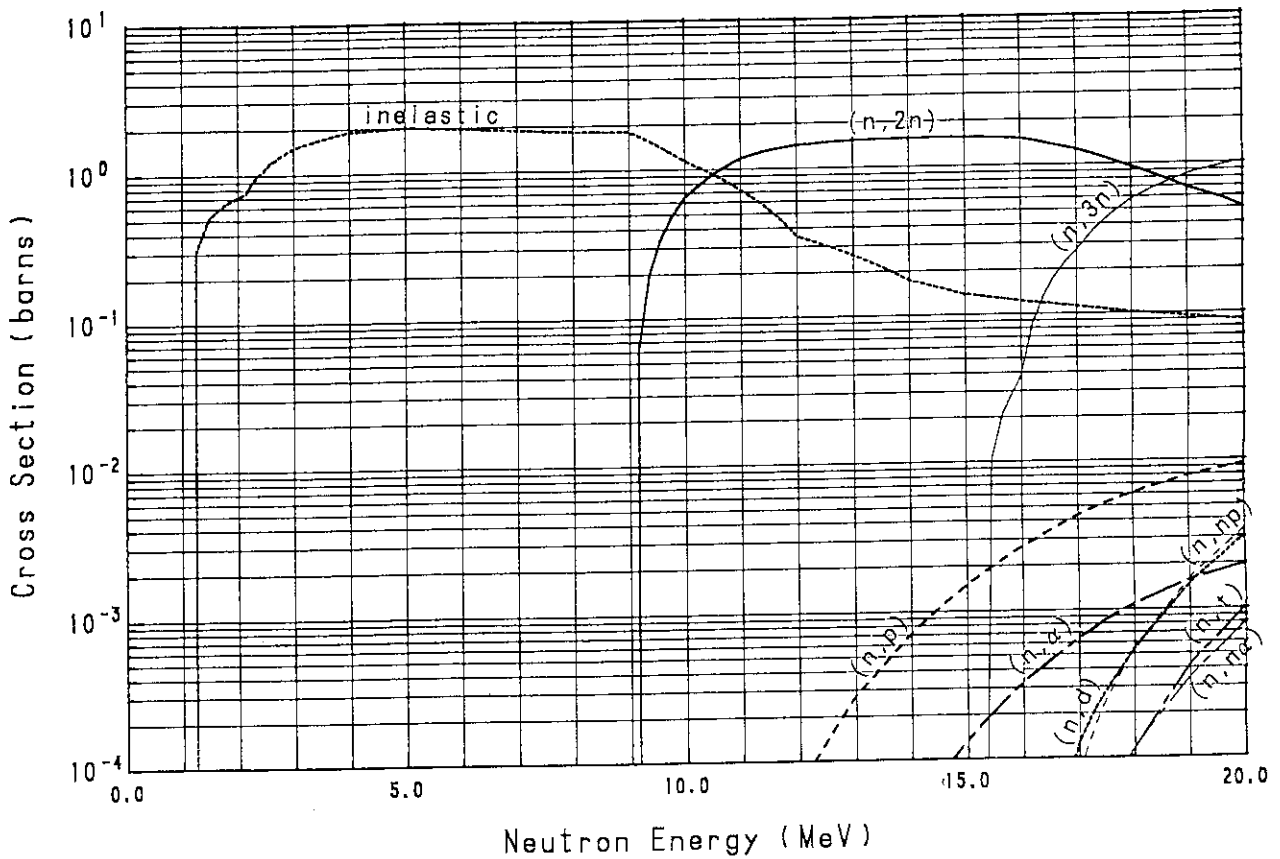
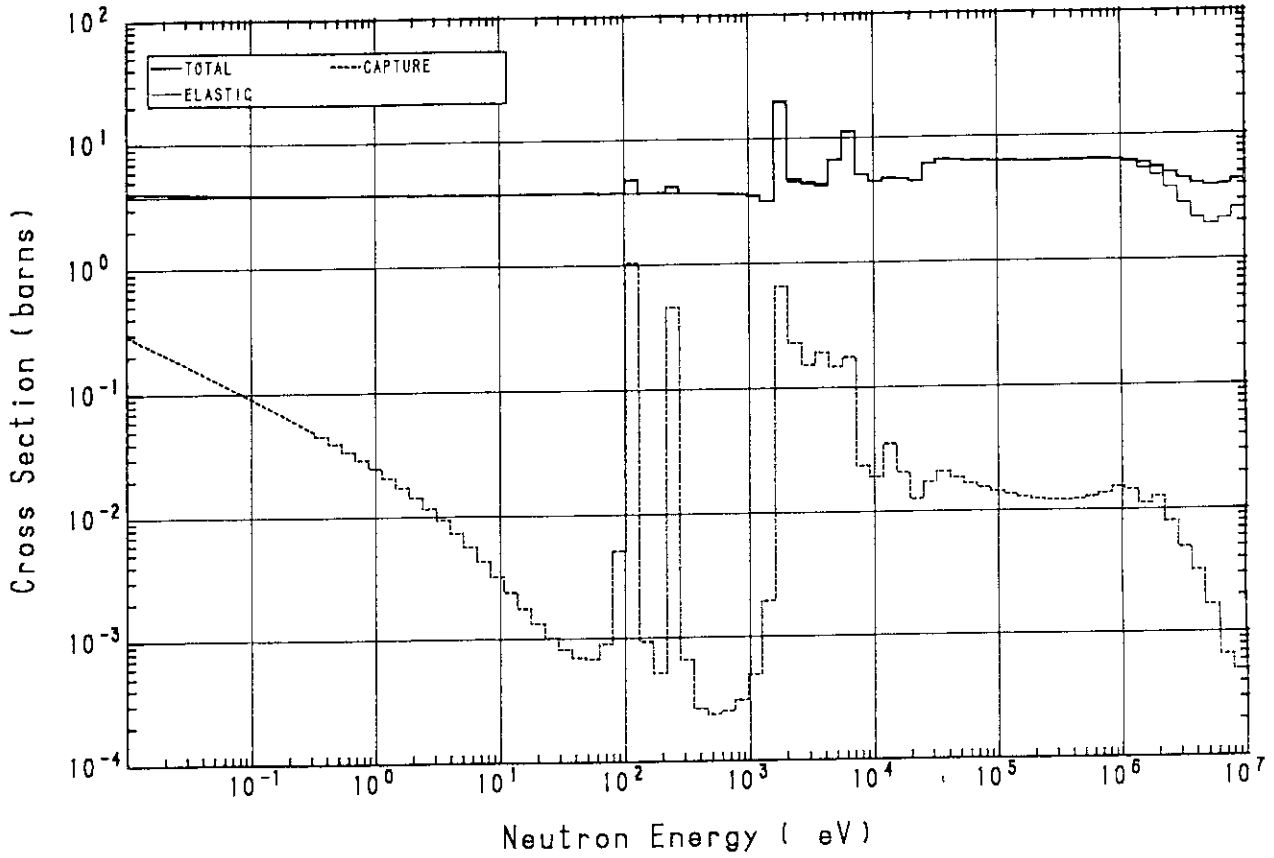


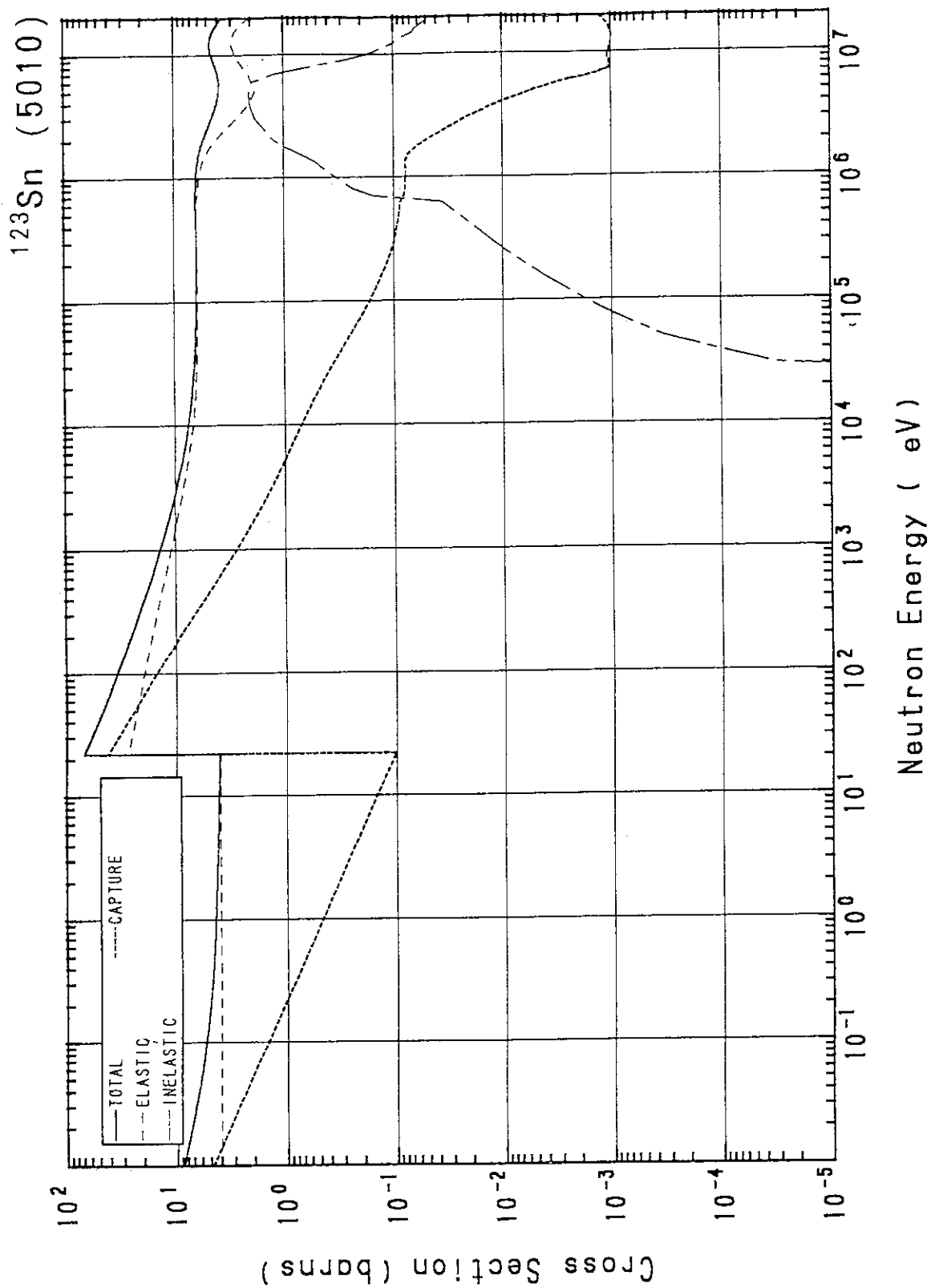
^{120}Sn (5008)



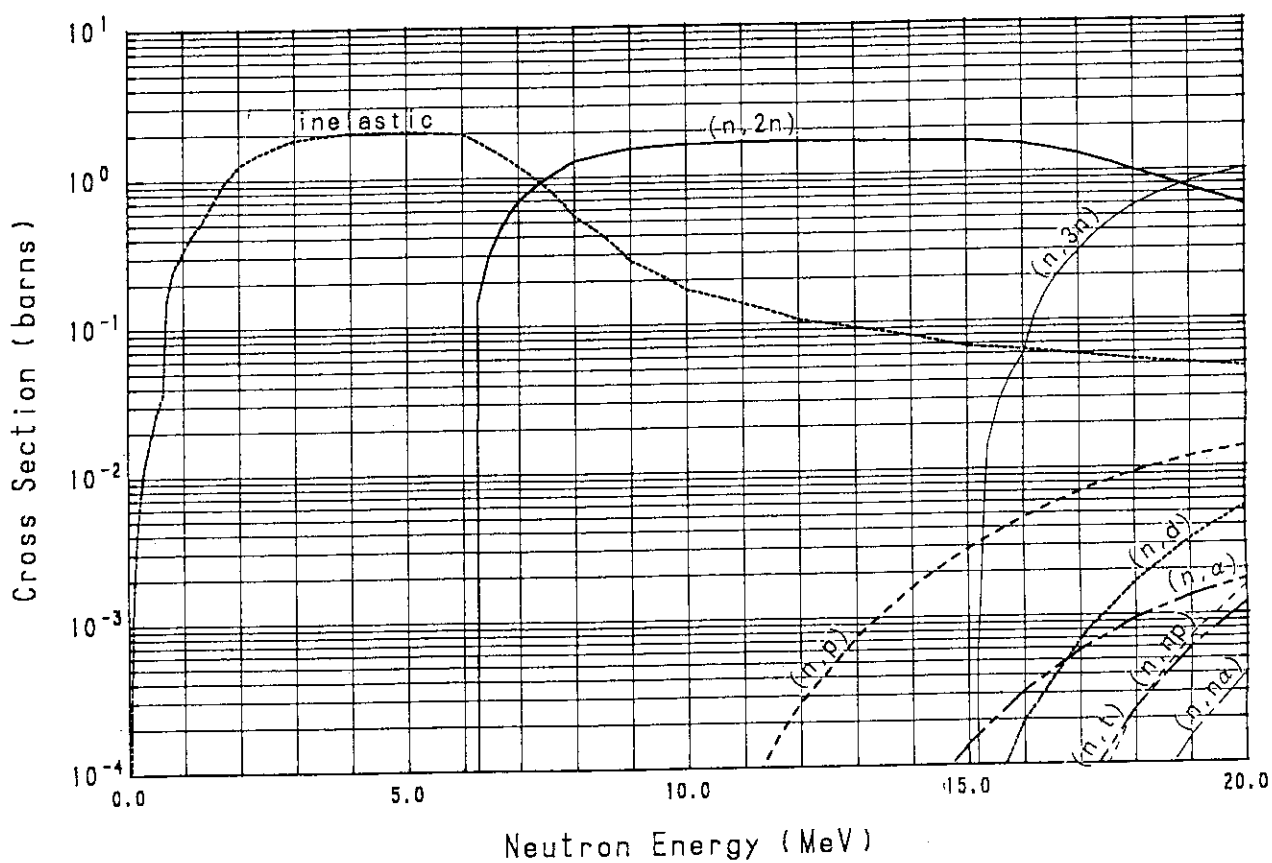
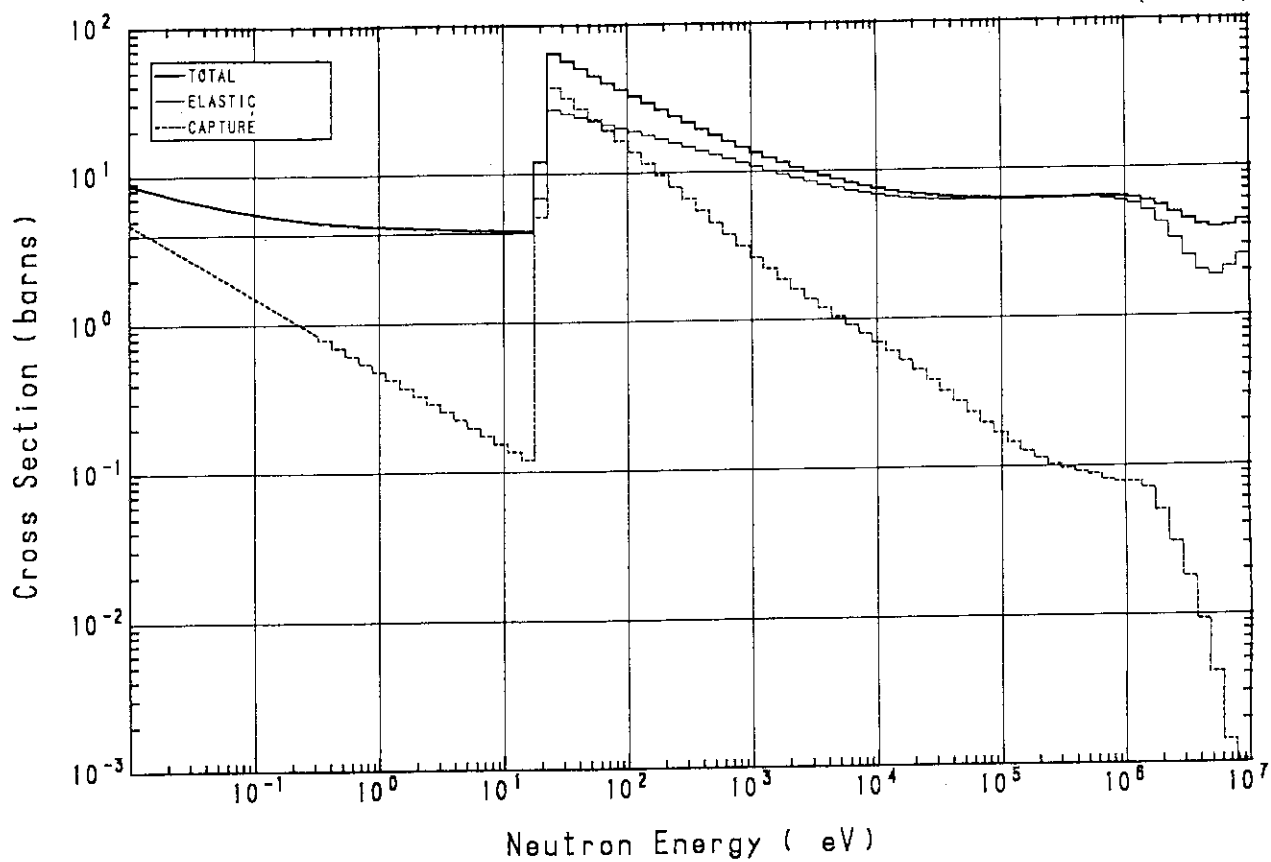


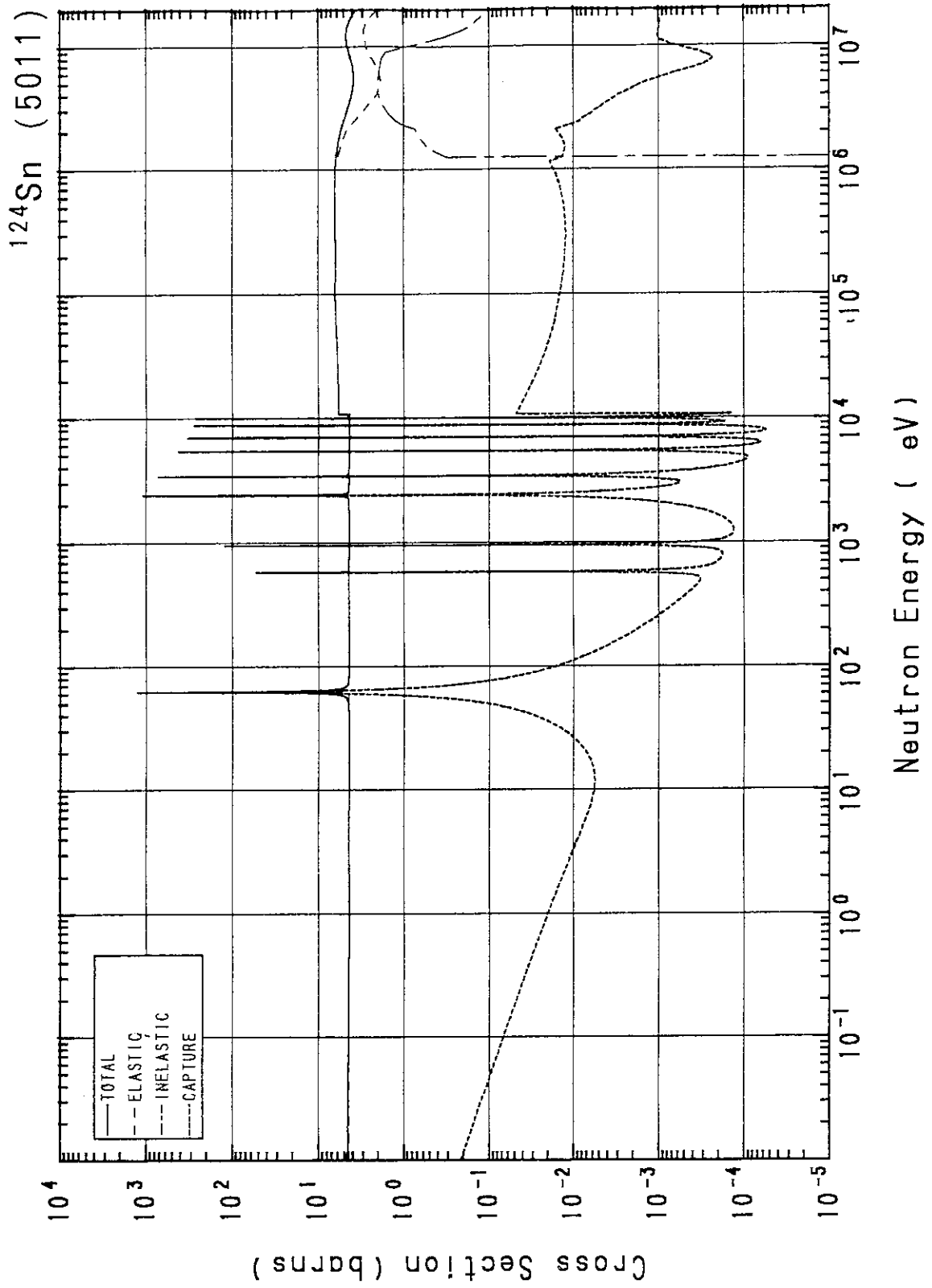
^{122}Sn (5009)



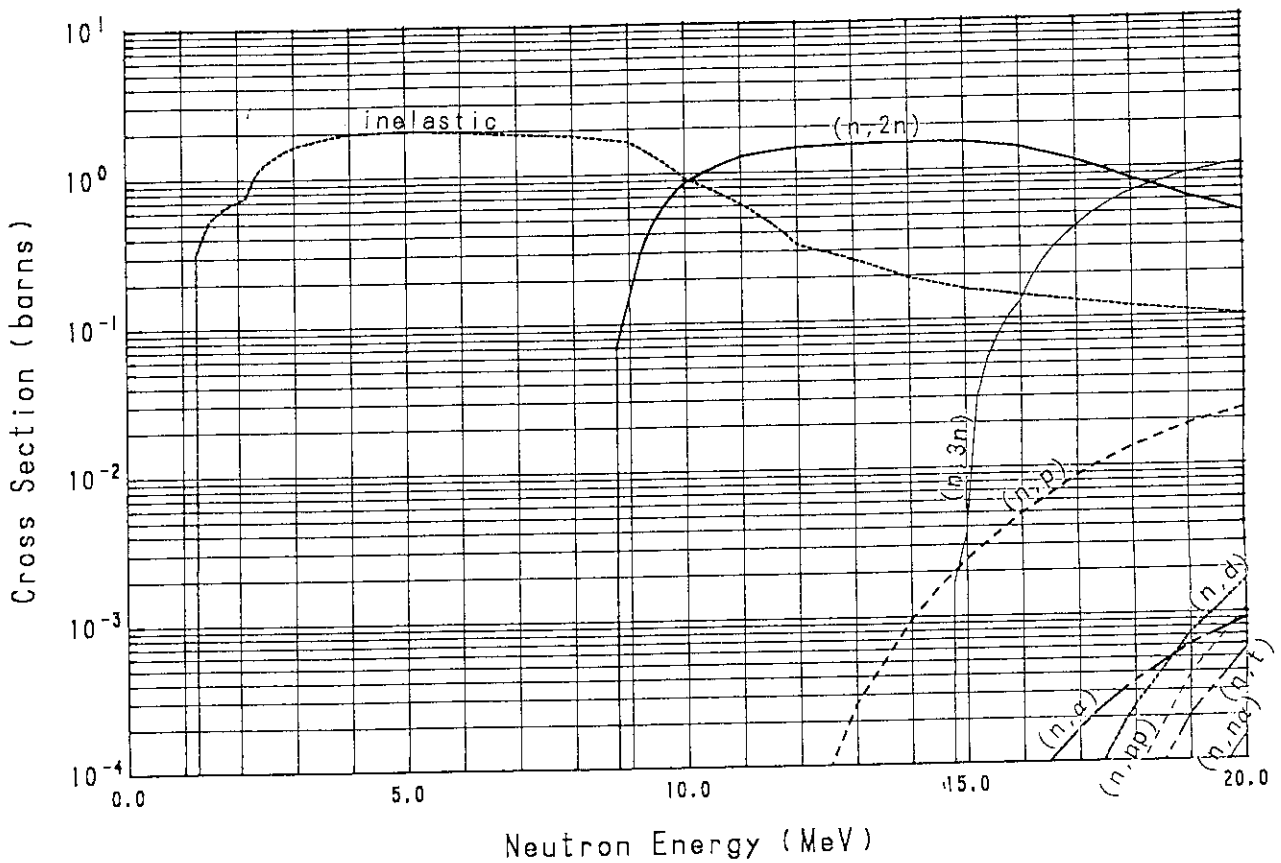
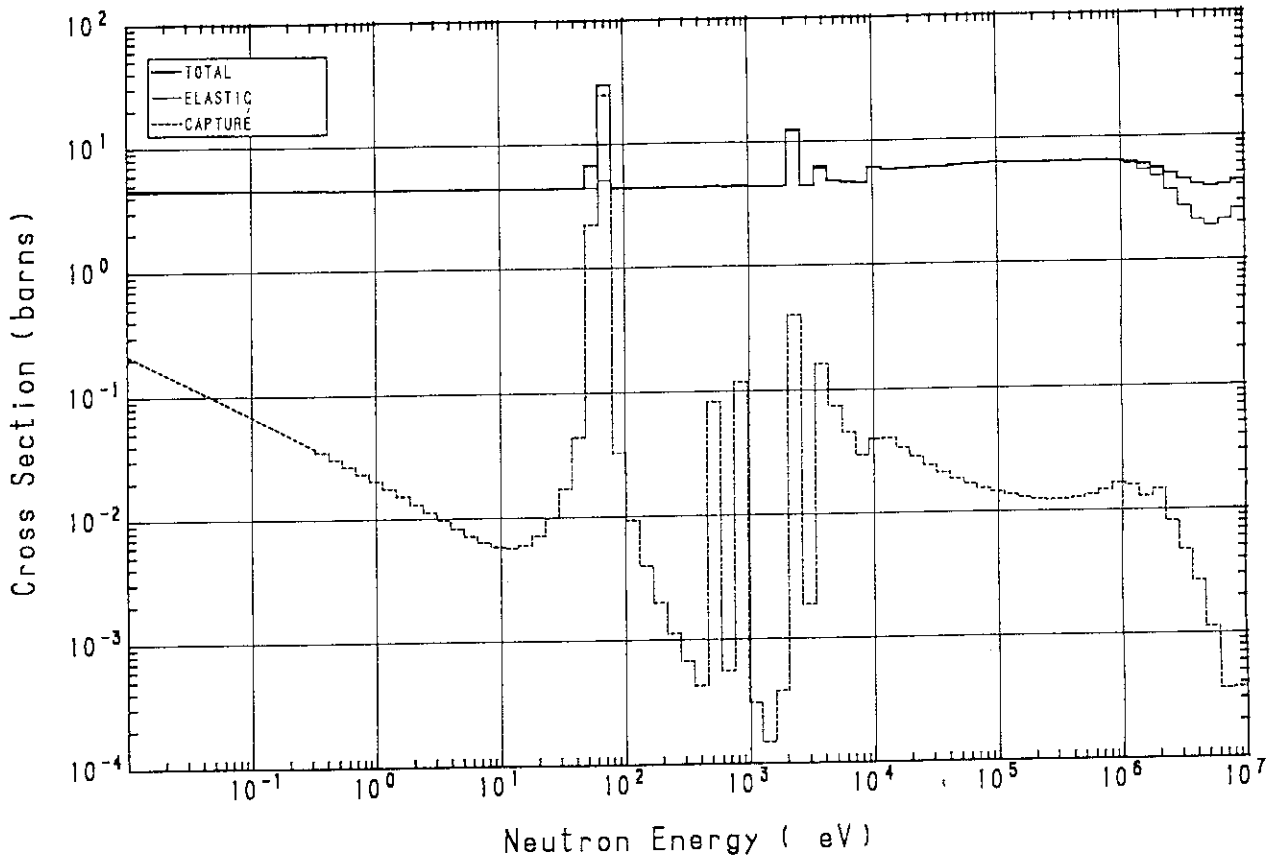


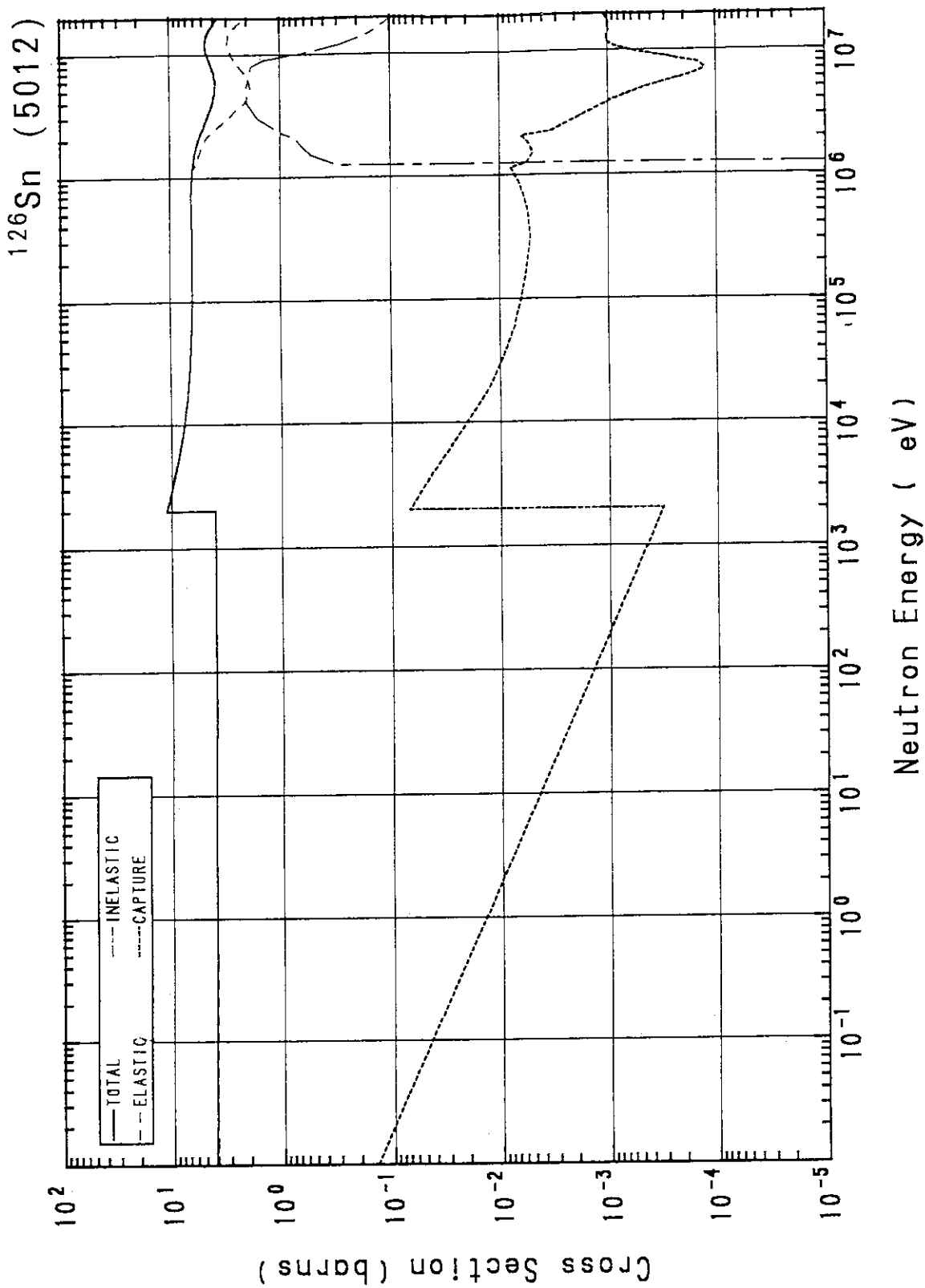
^{123}Sn (5010)



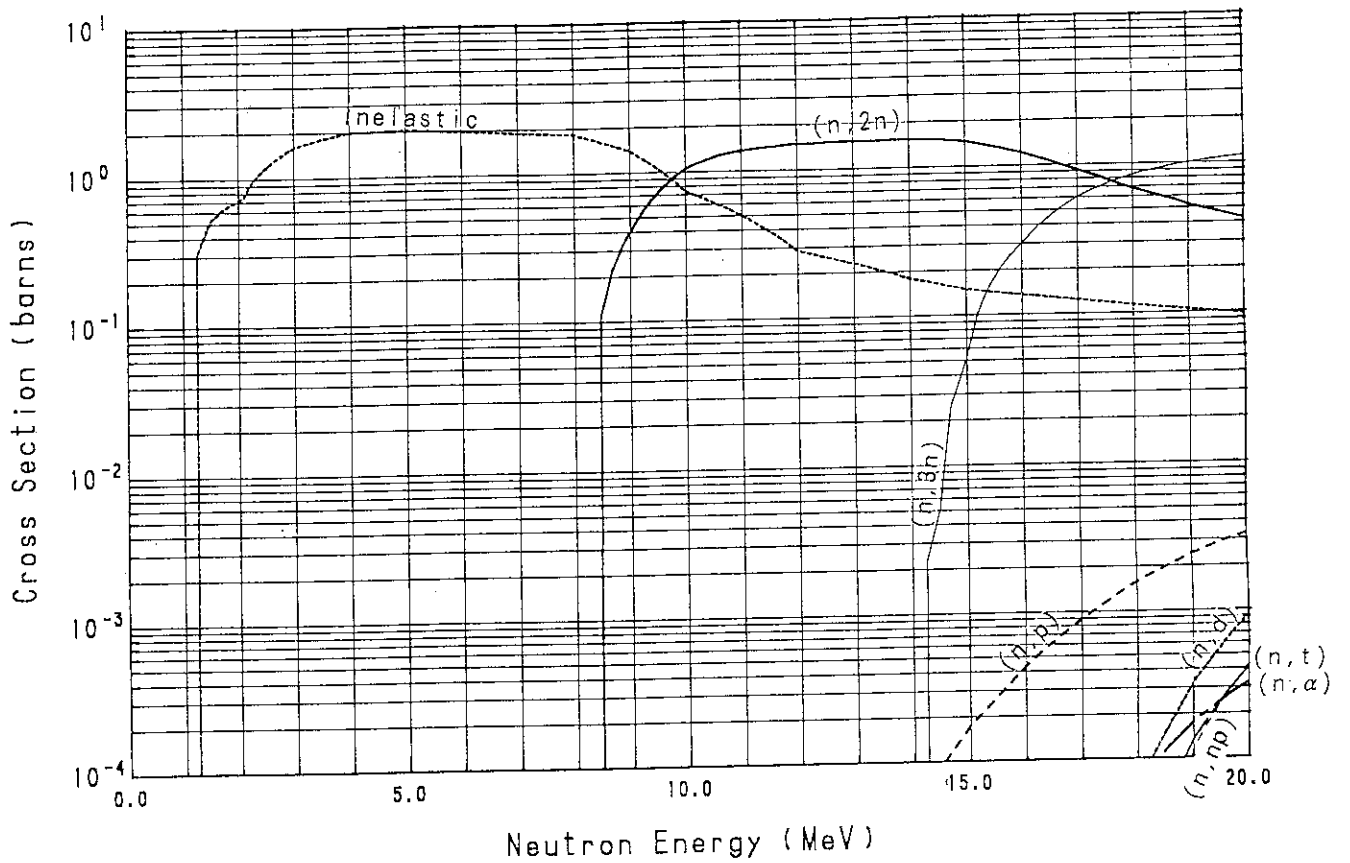
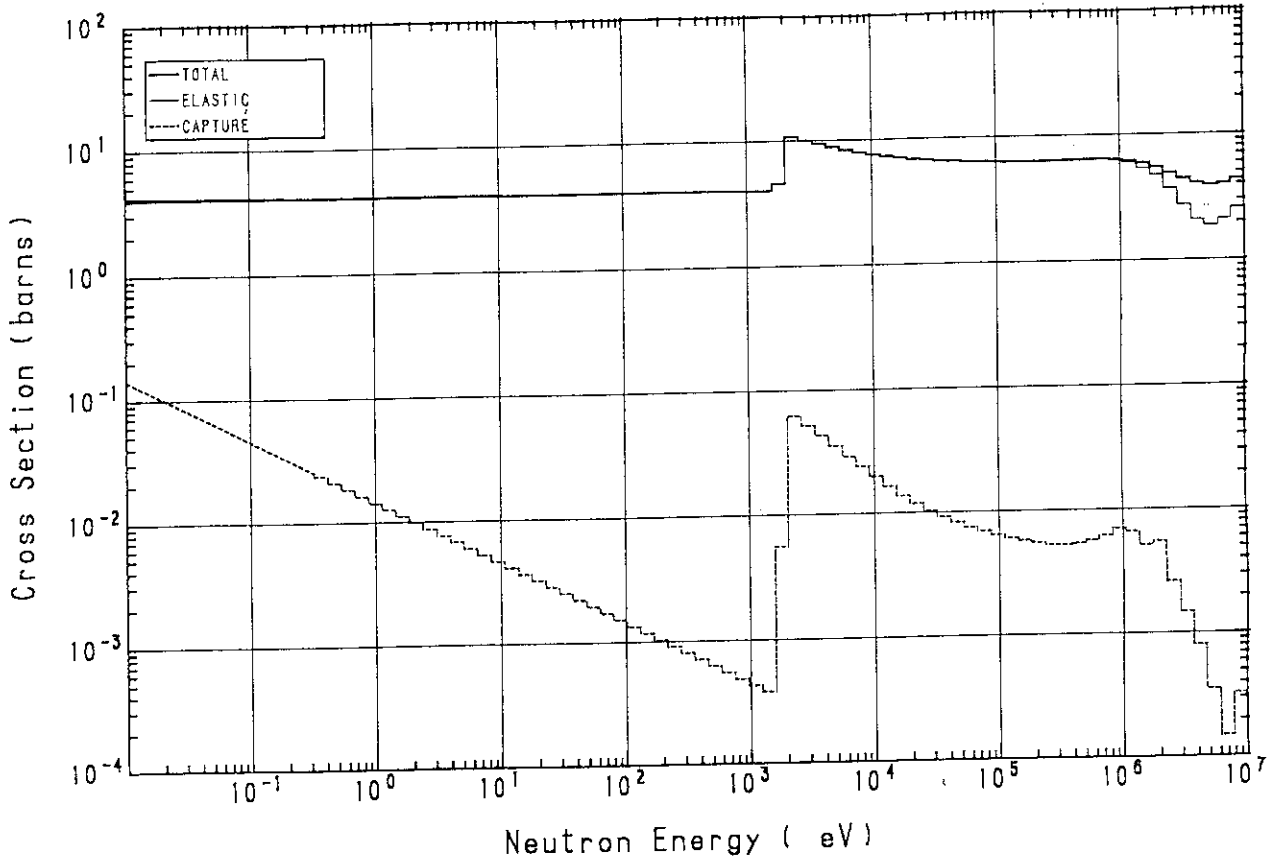


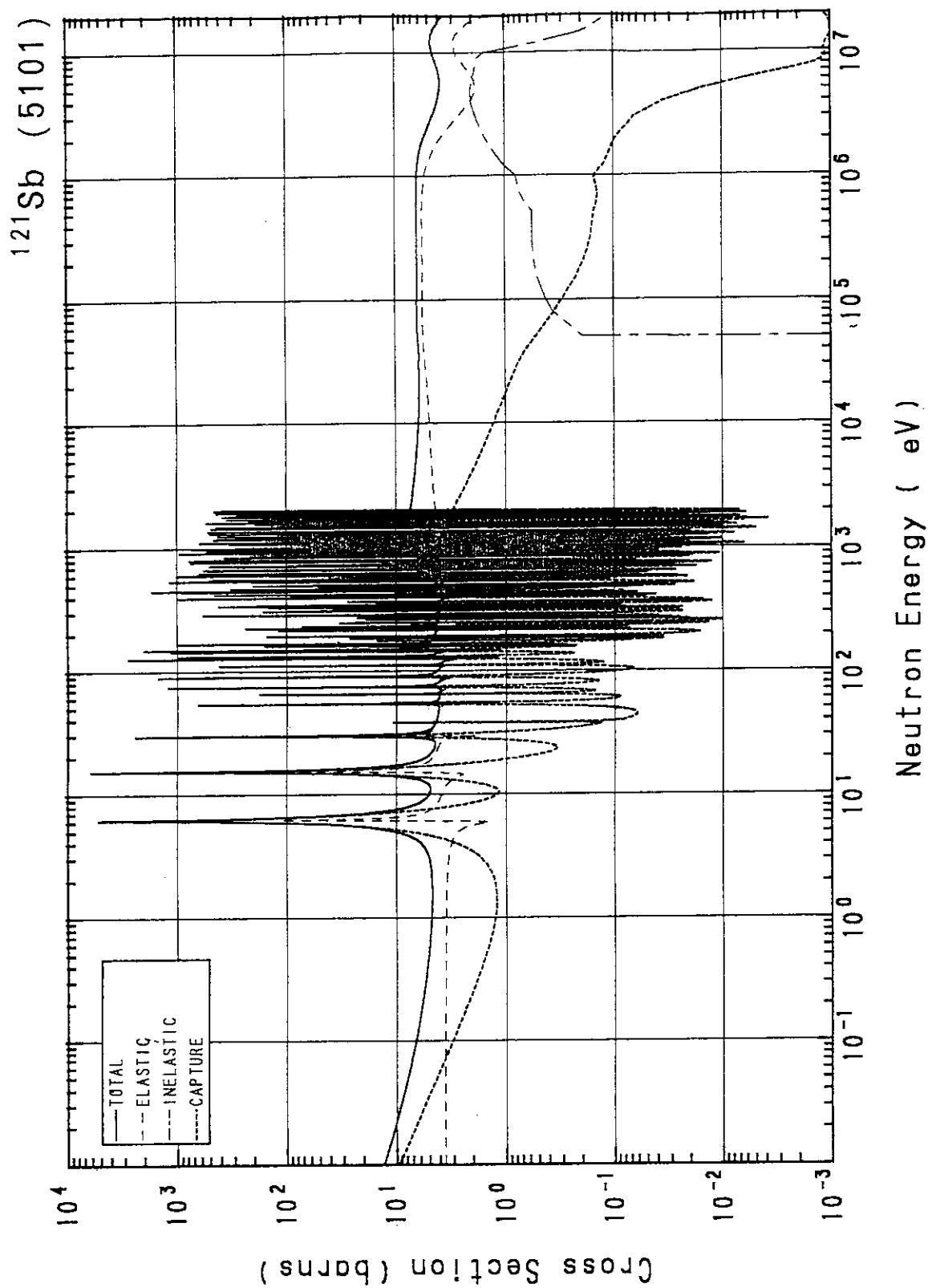
^{124}Sn (5011)



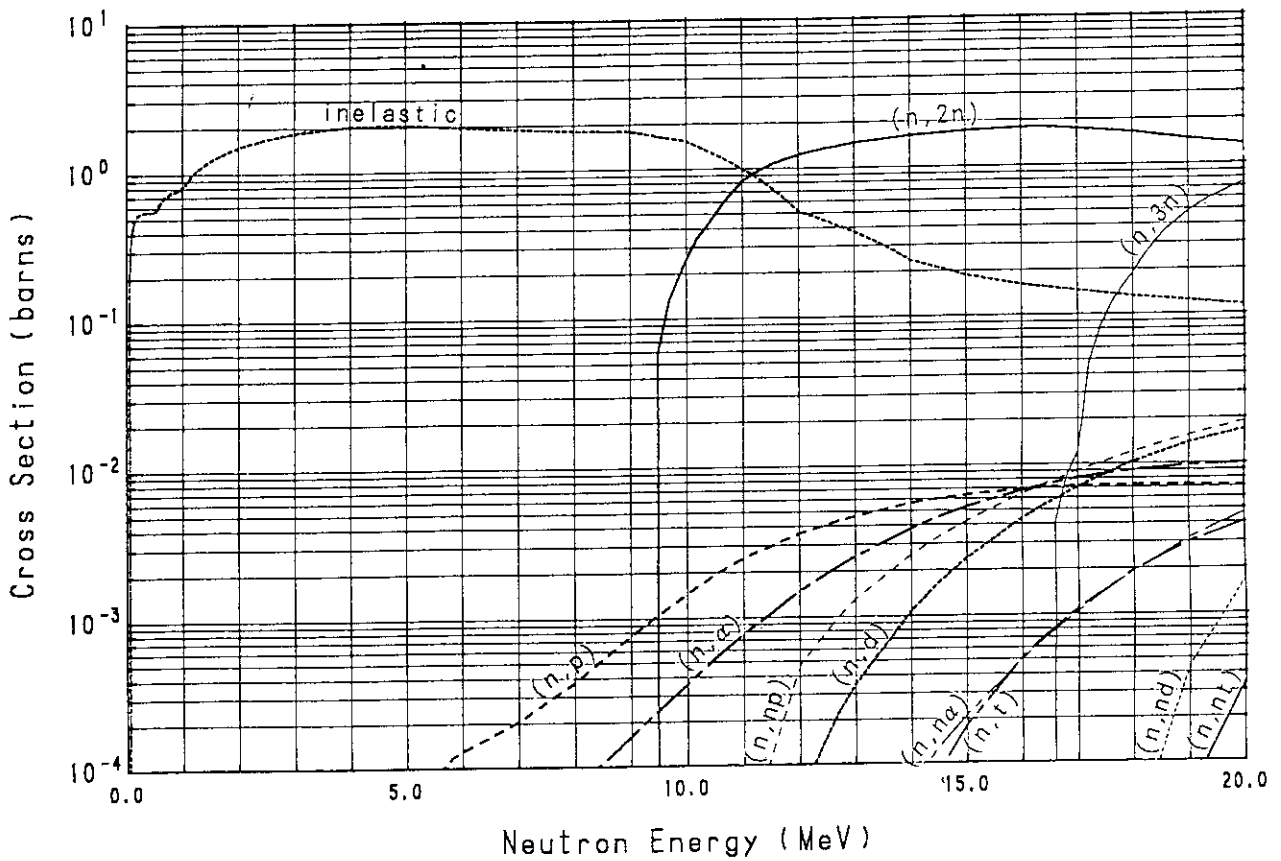
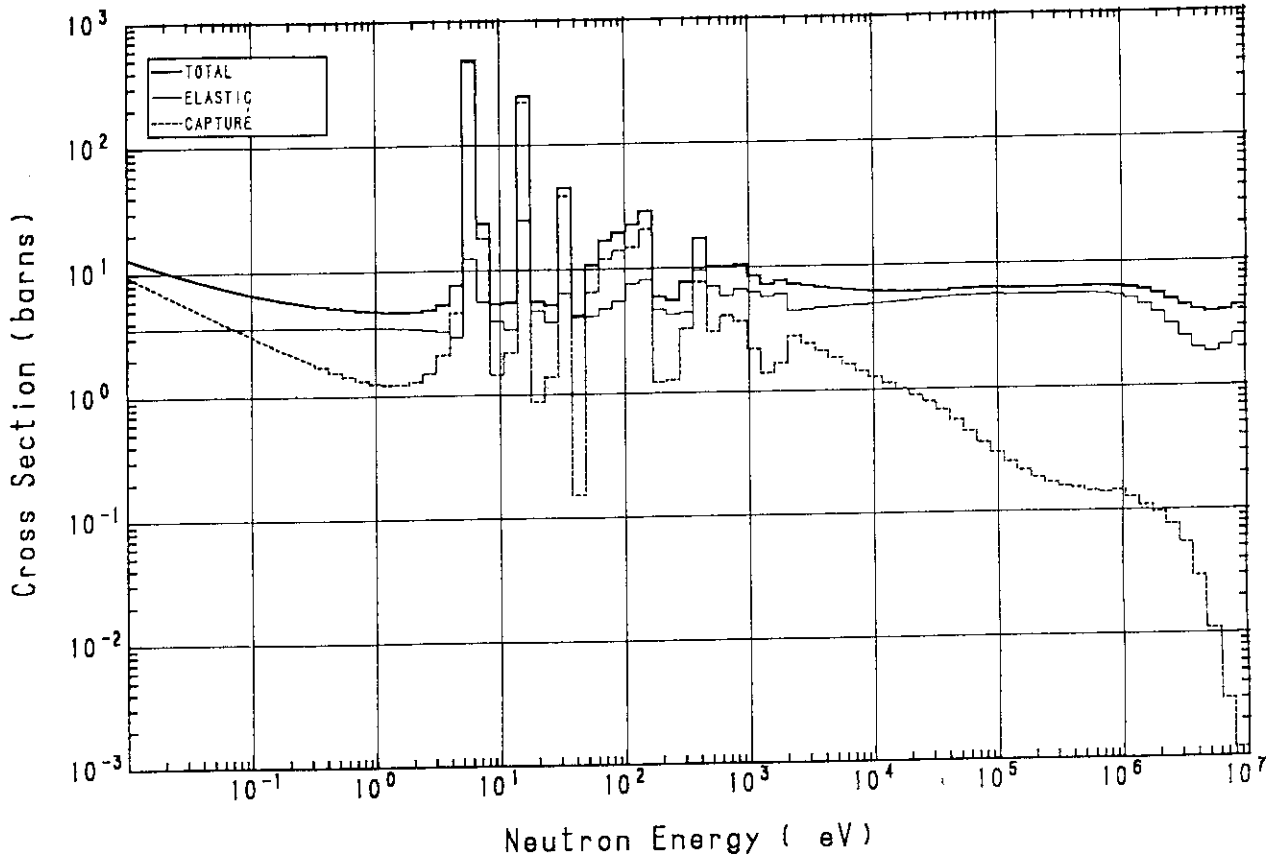


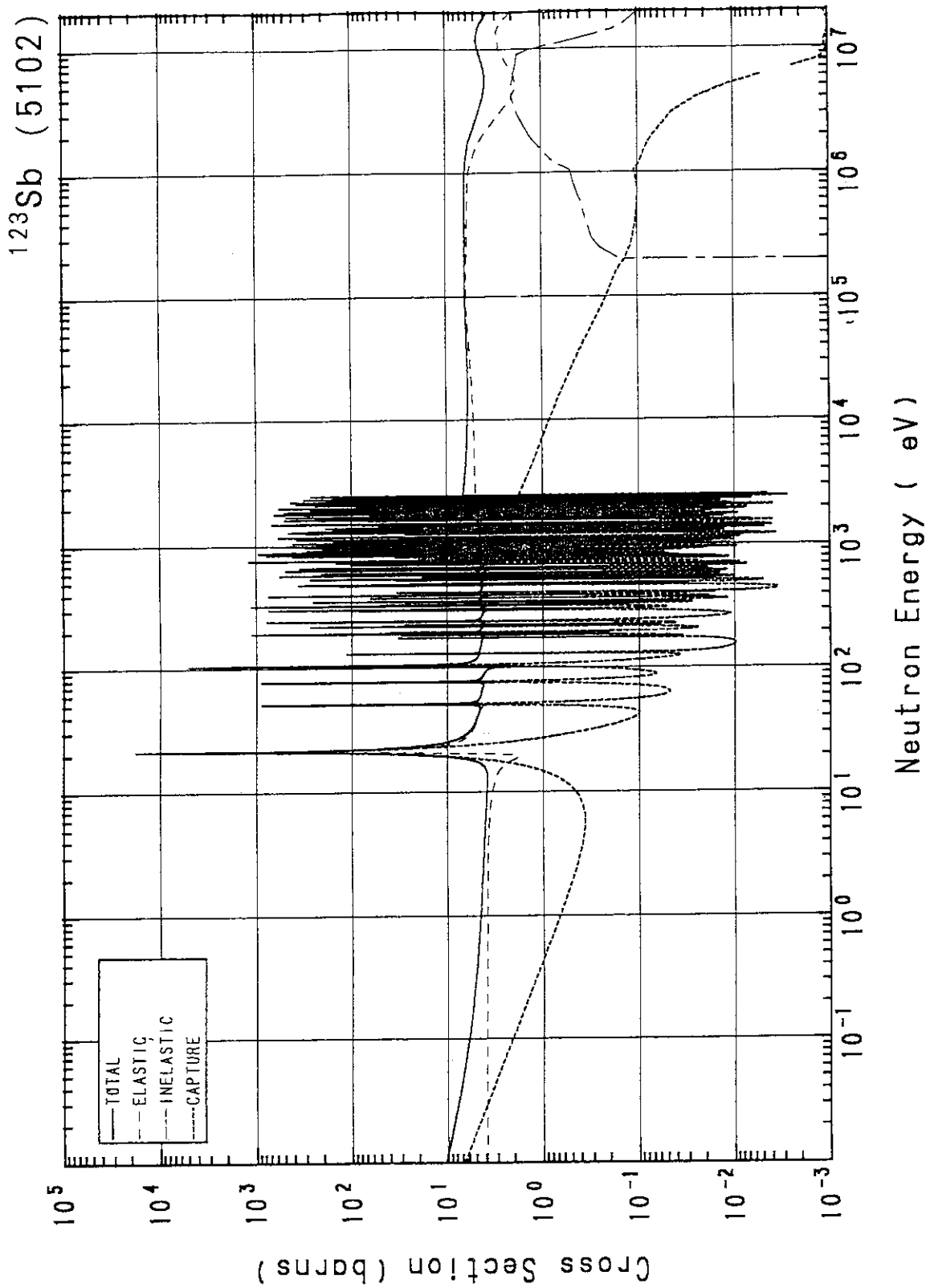
^{126}Sn (5012)



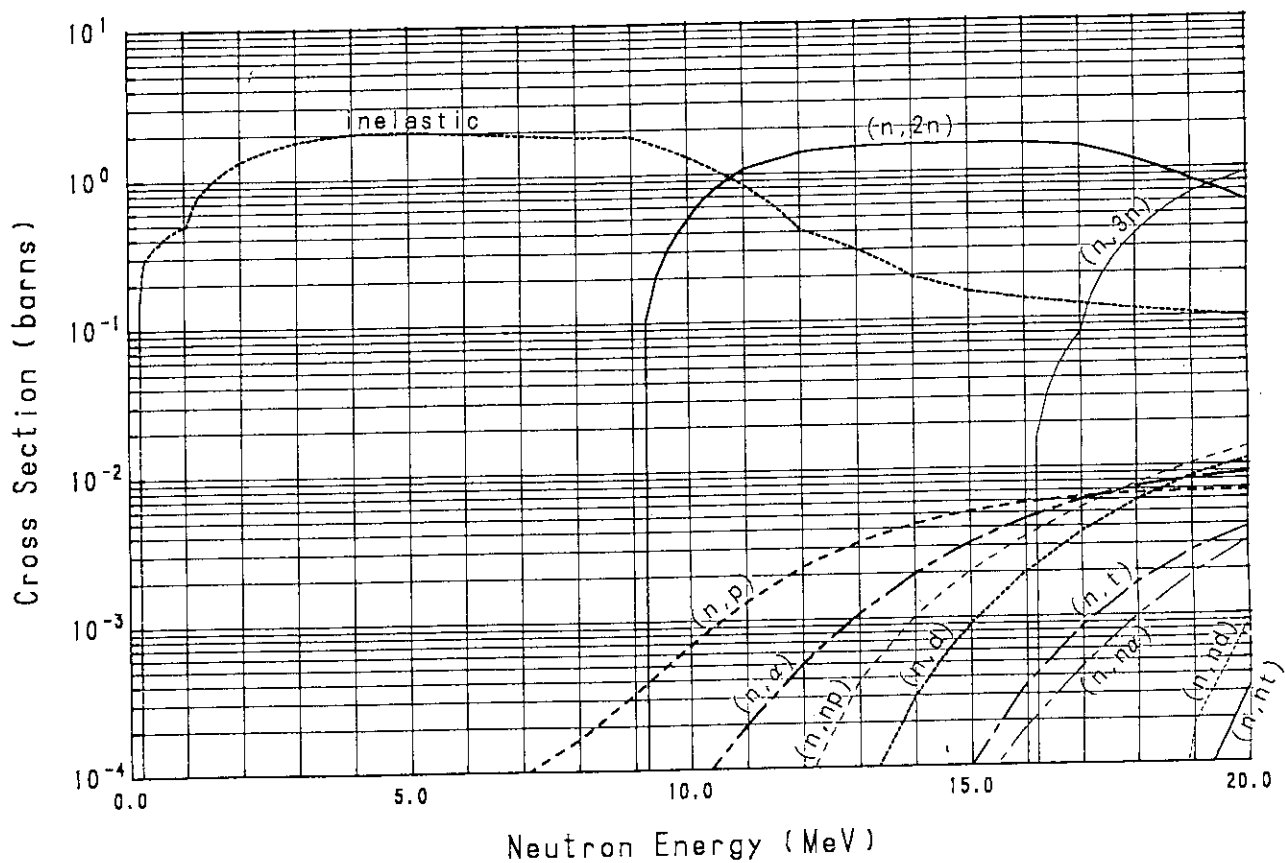
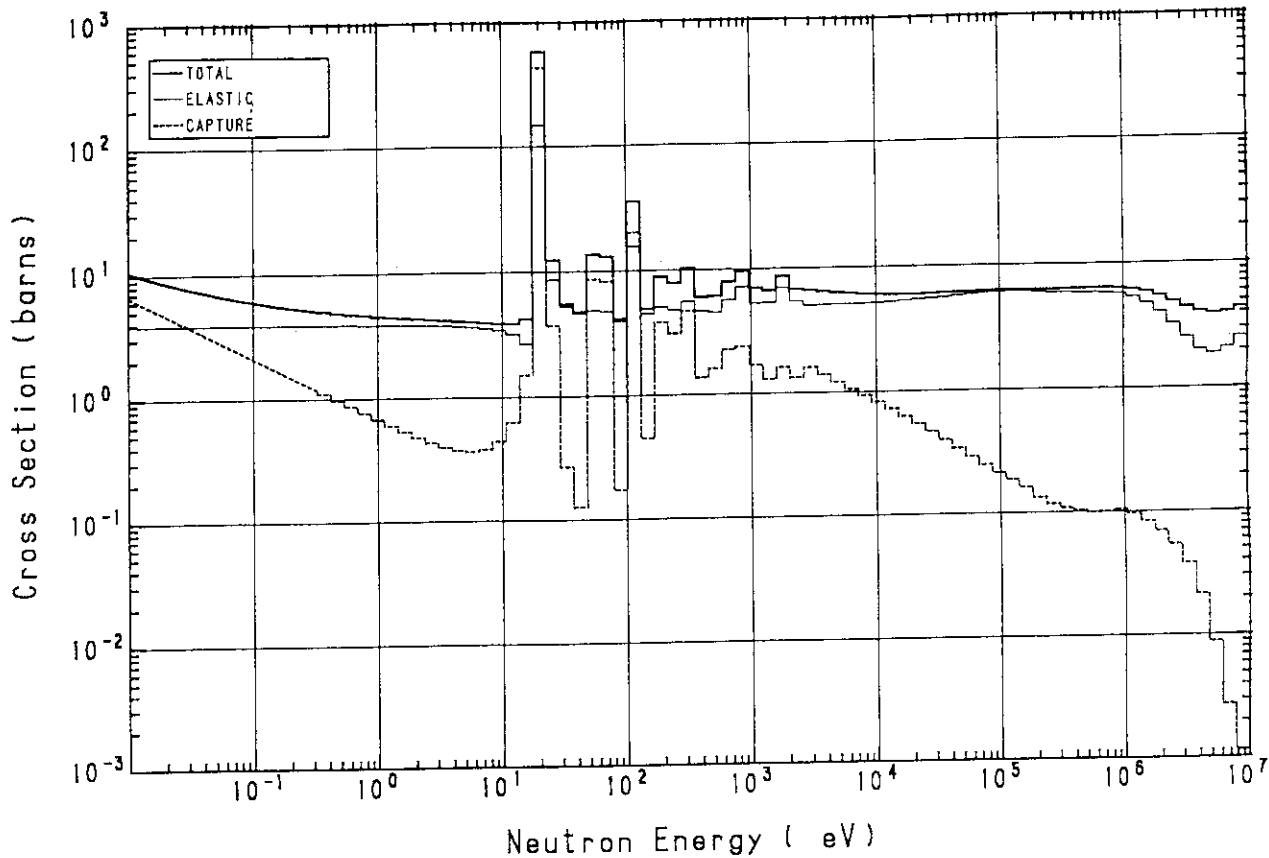


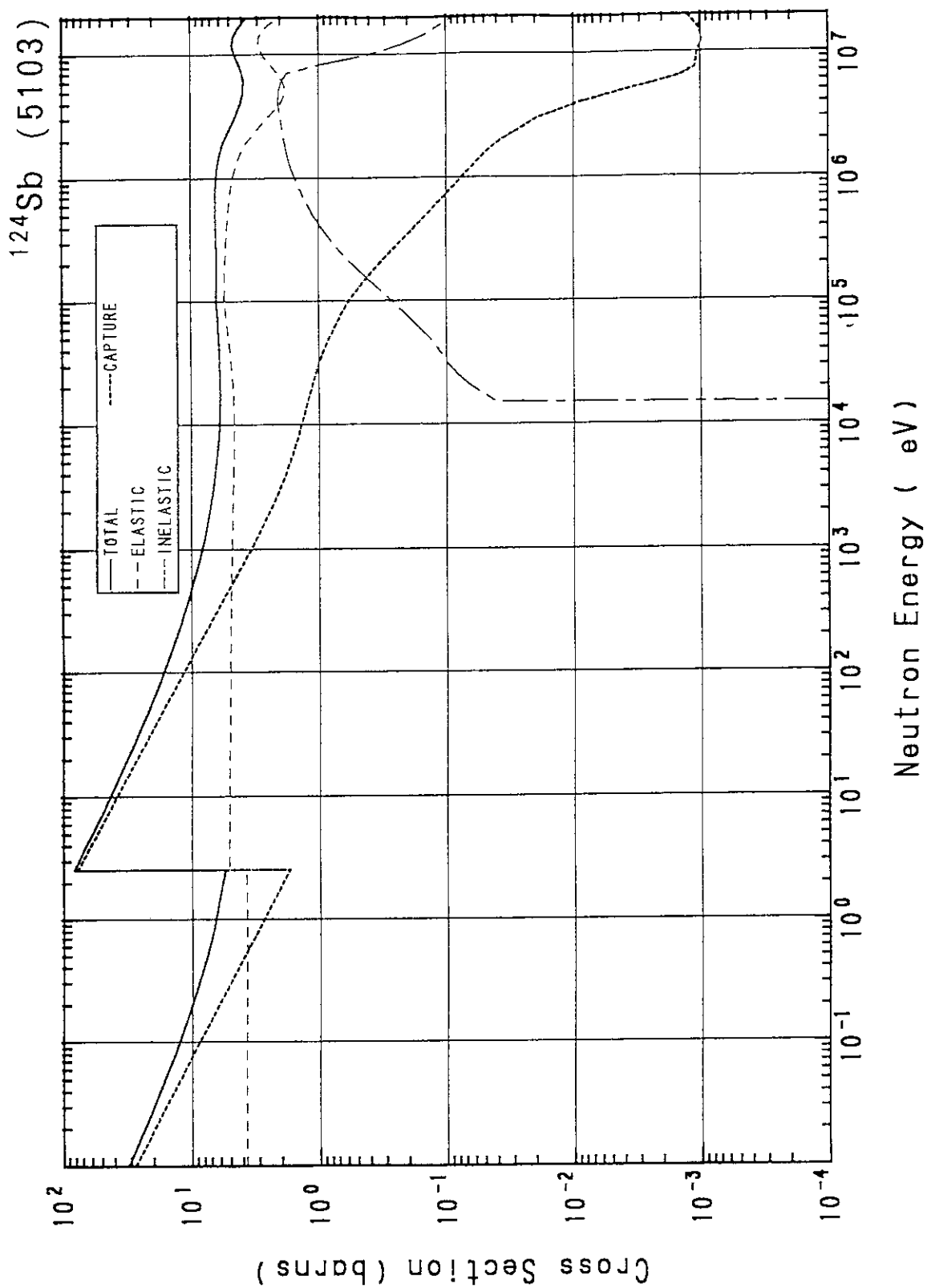
^{121}Sb (5101)



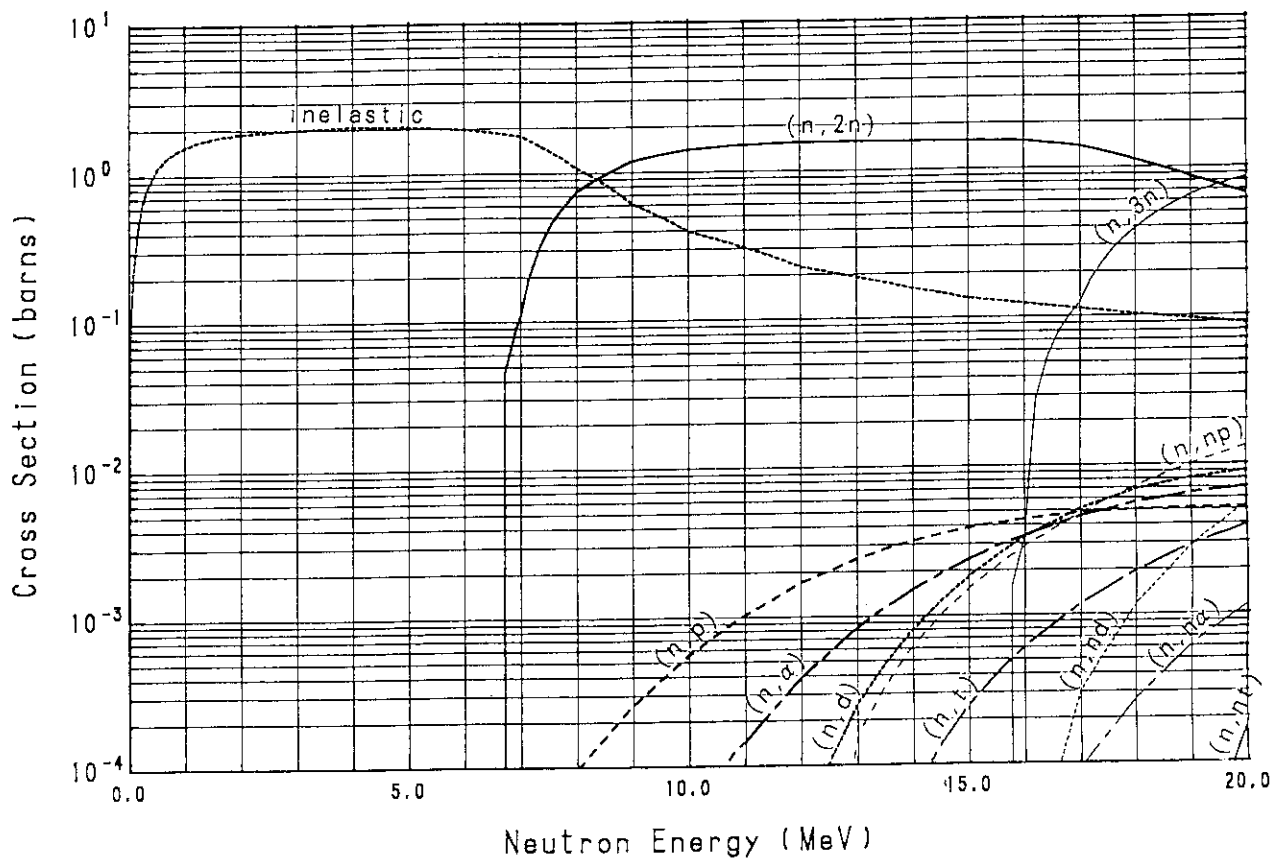
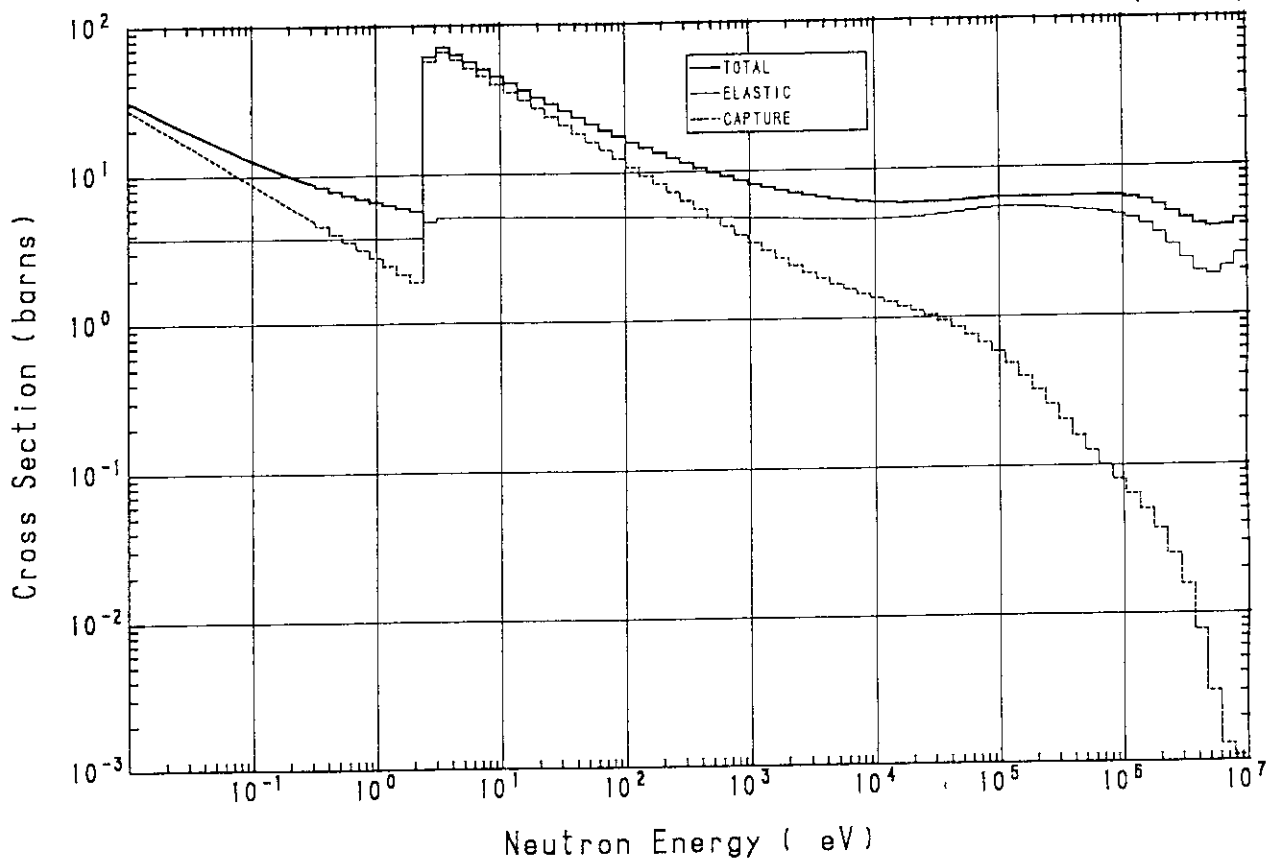


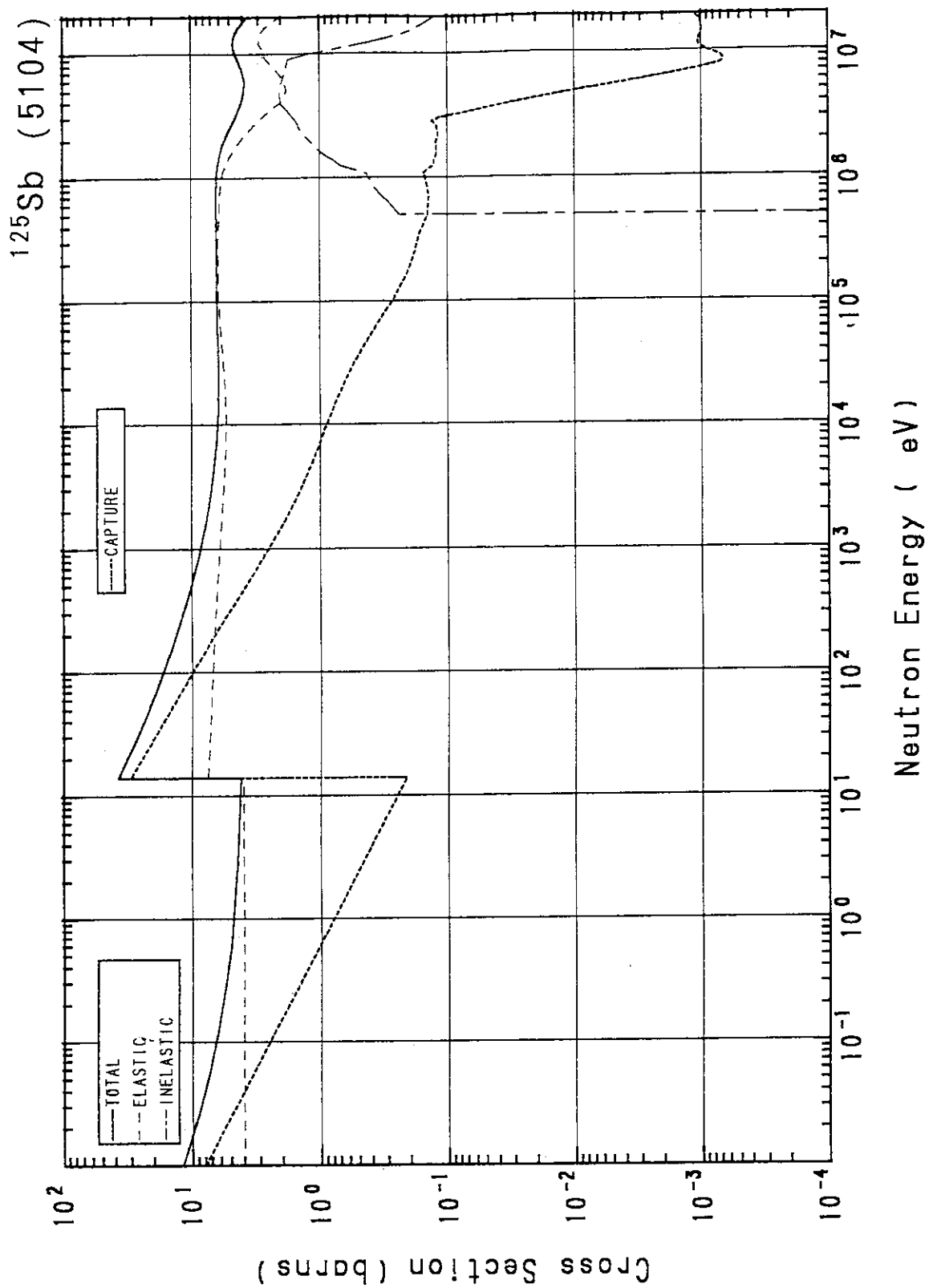
^{123}Sb (5102)



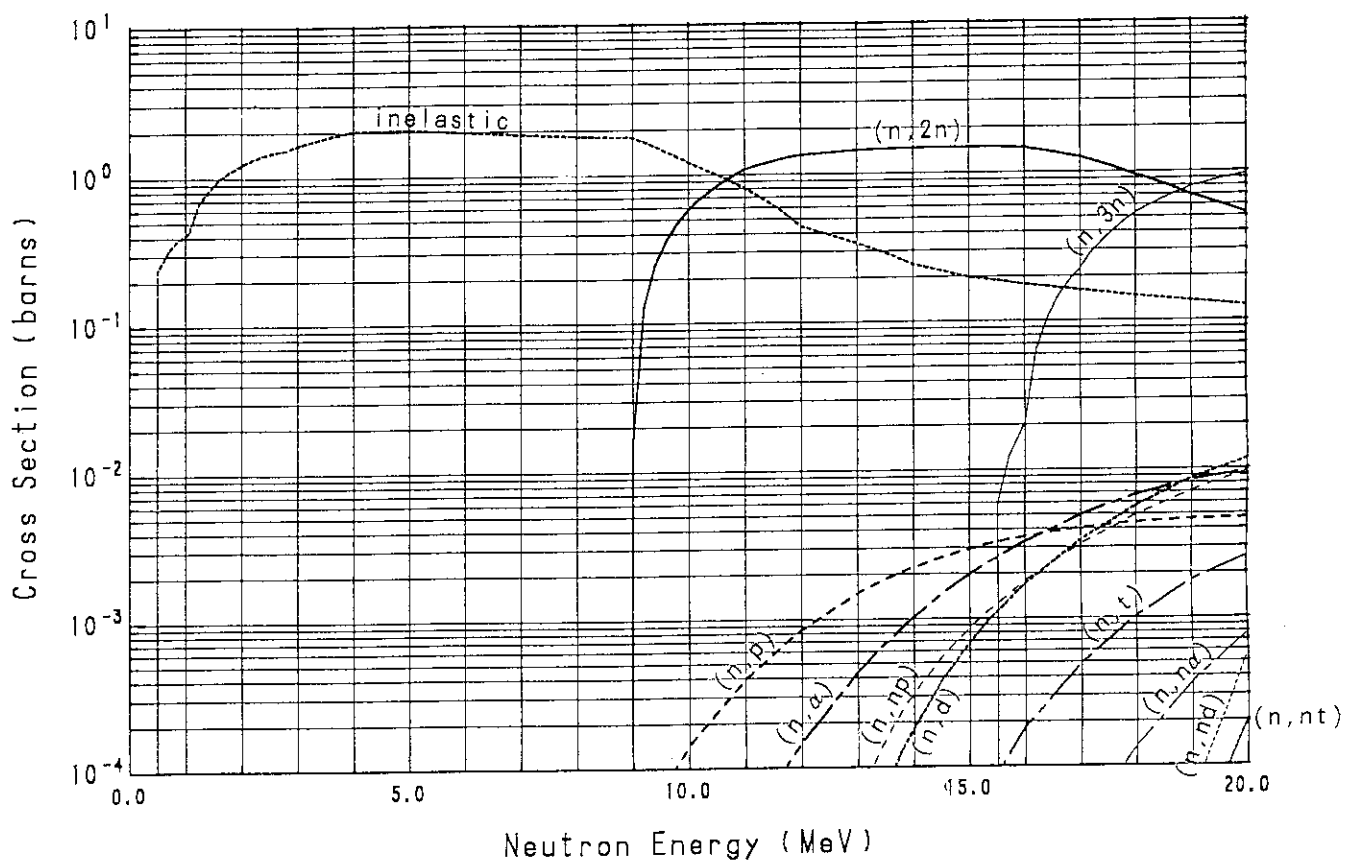
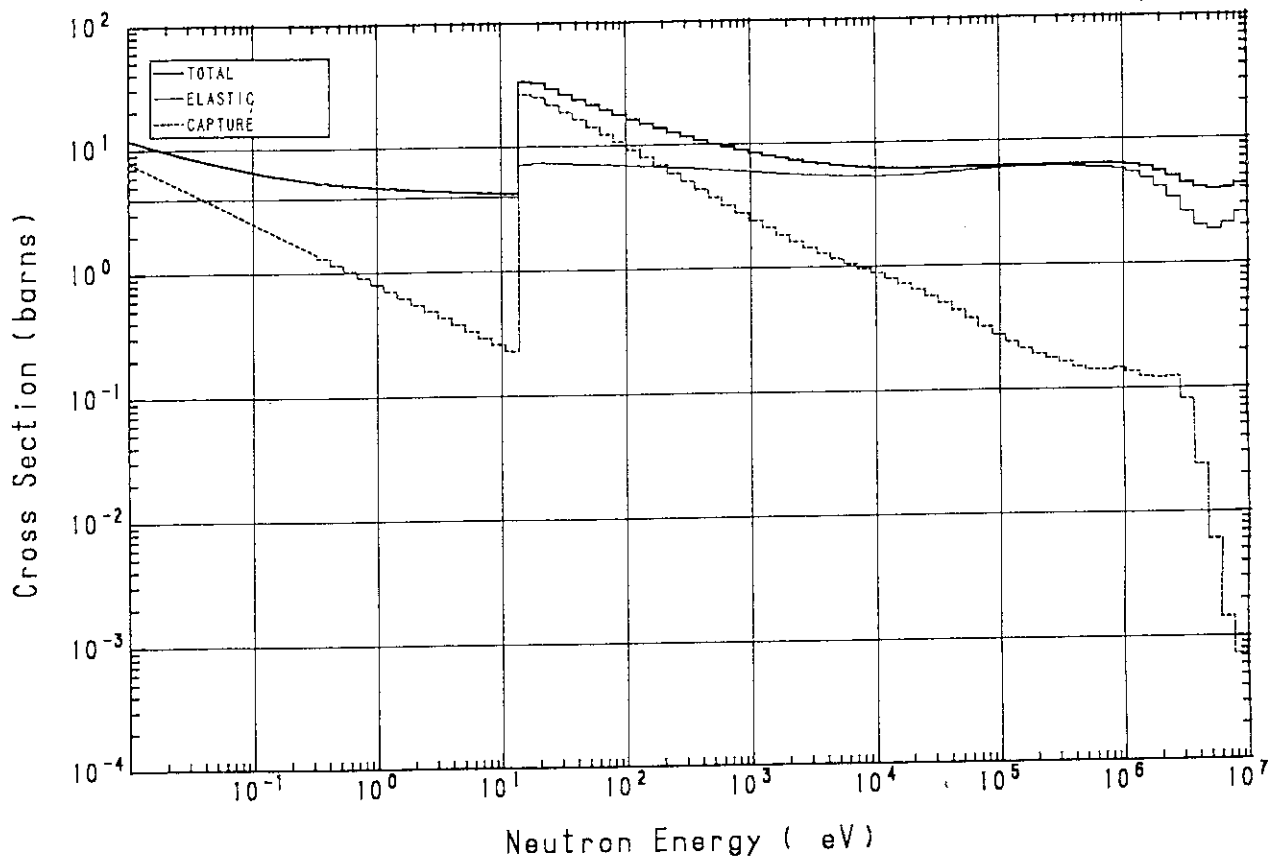


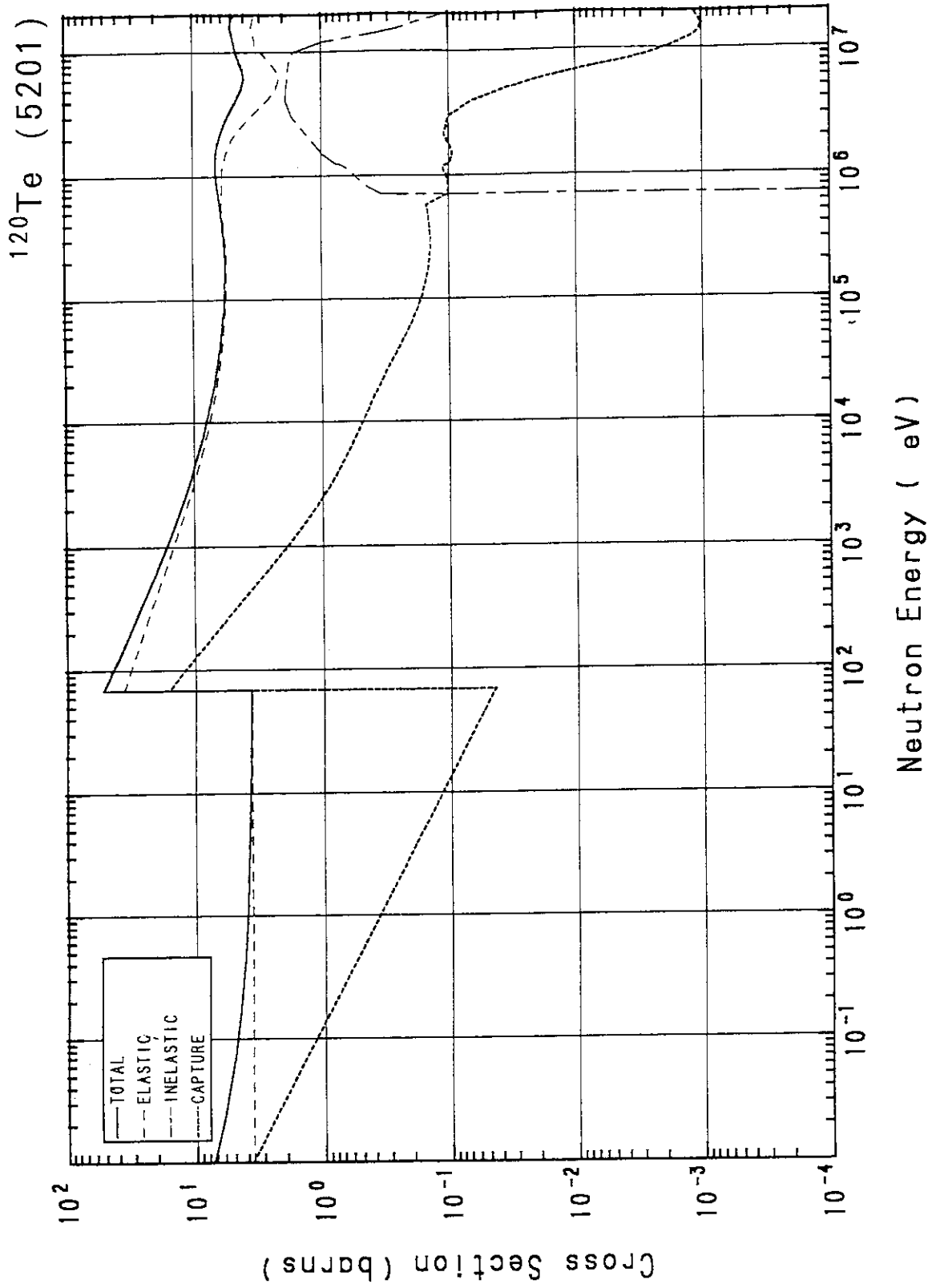
^{124}Sb (5103)



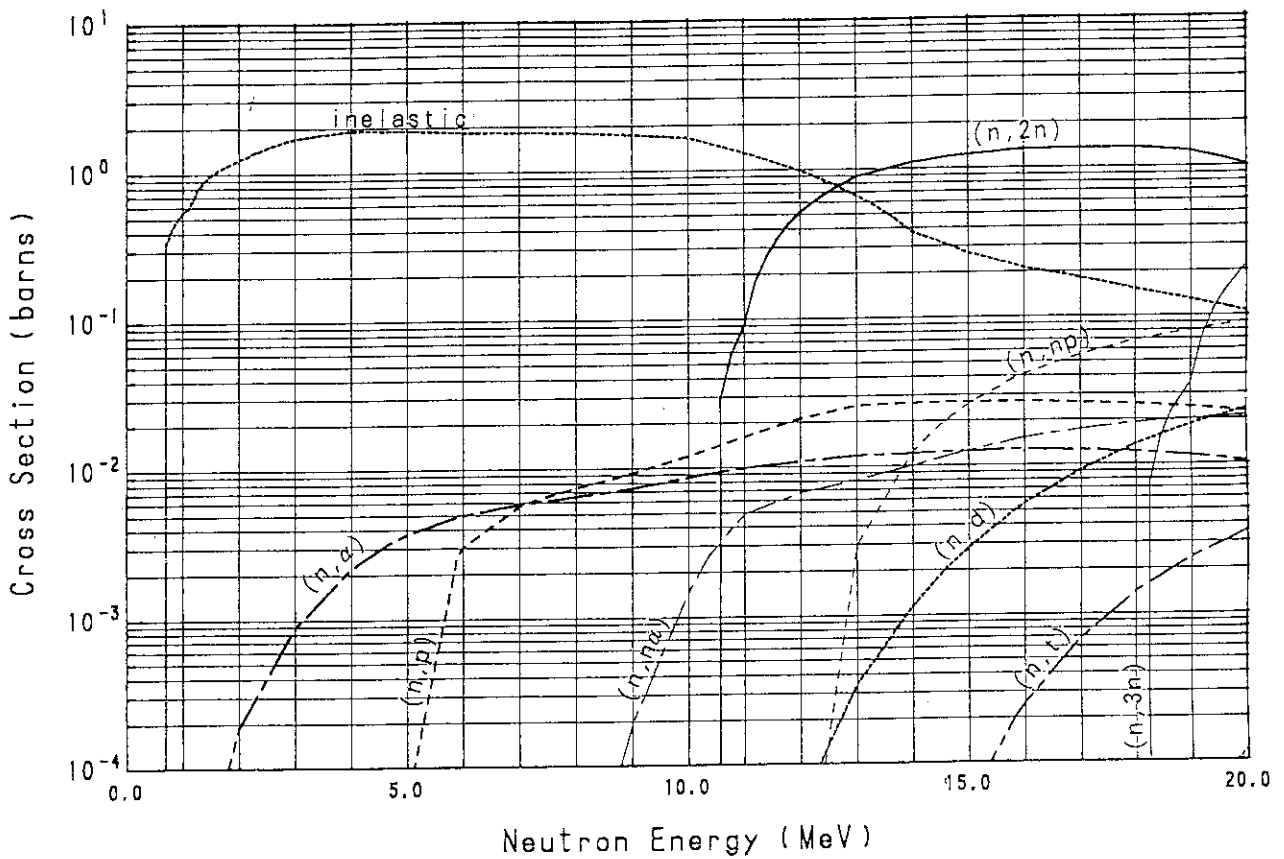
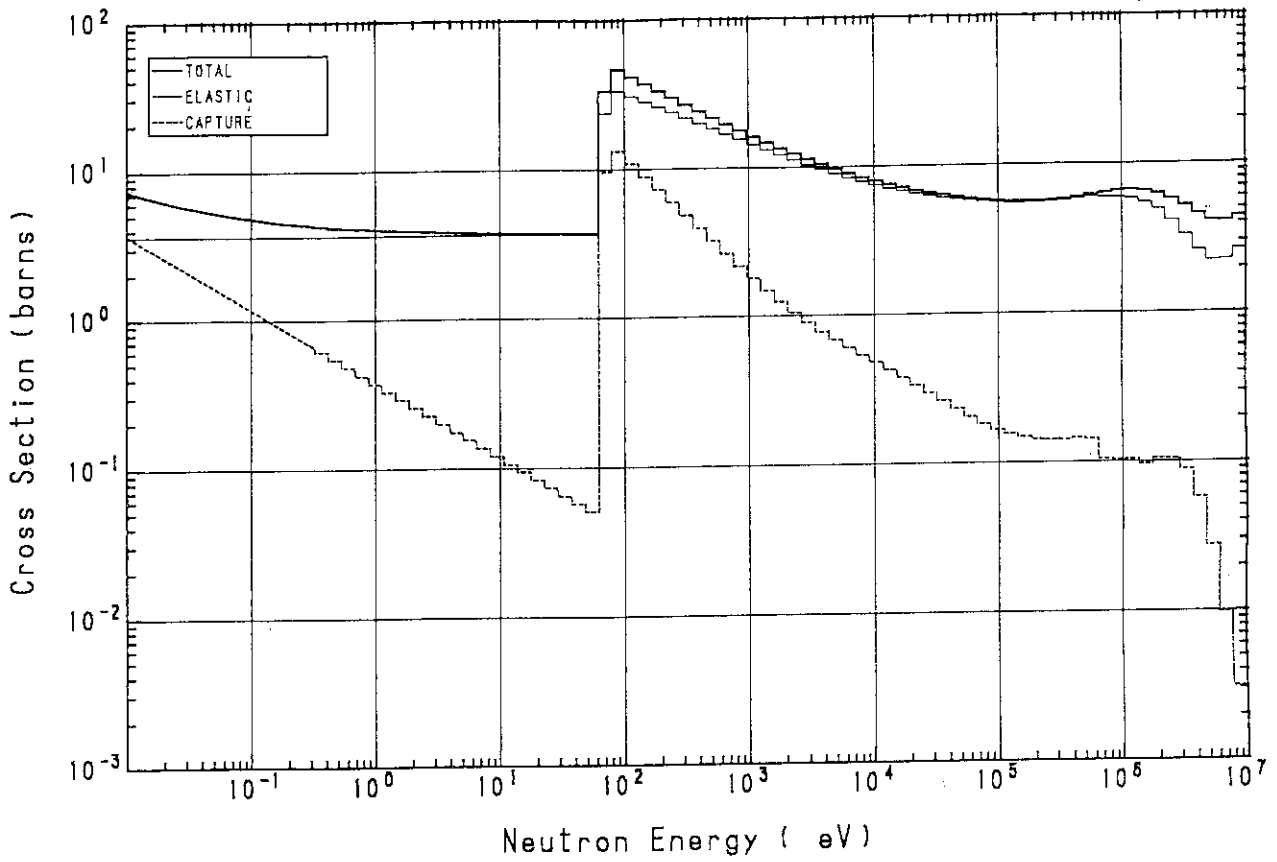


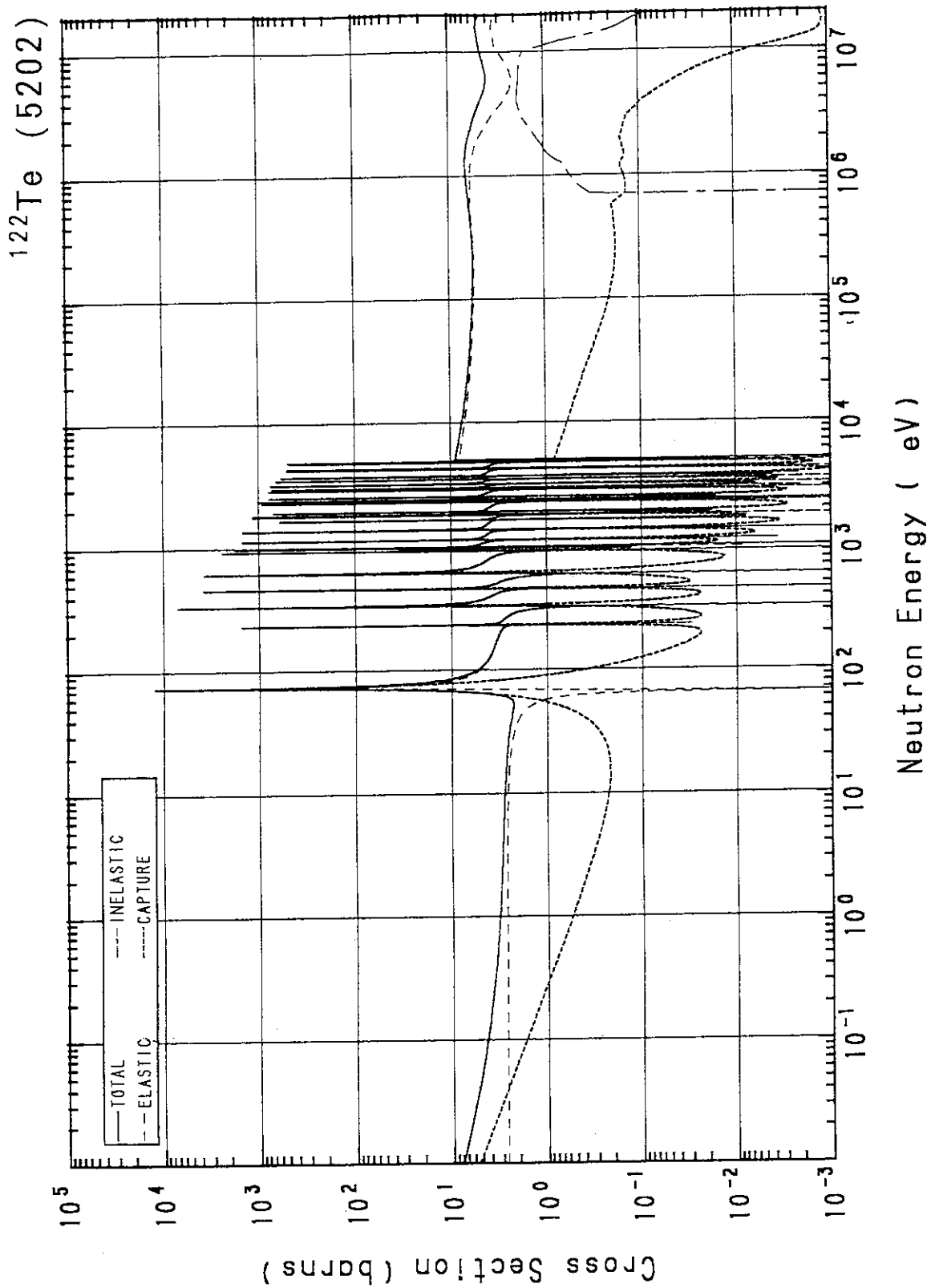
^{125}Sb (5104)



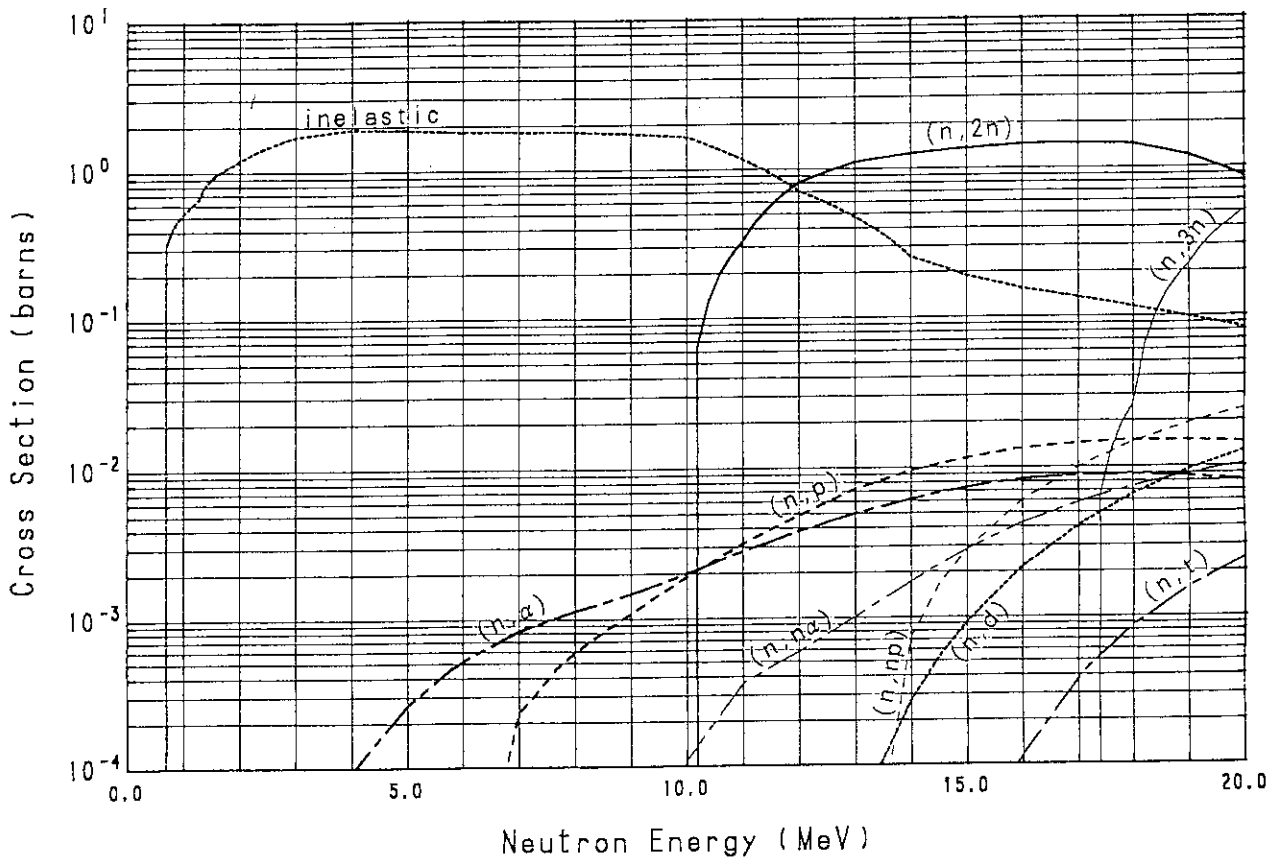
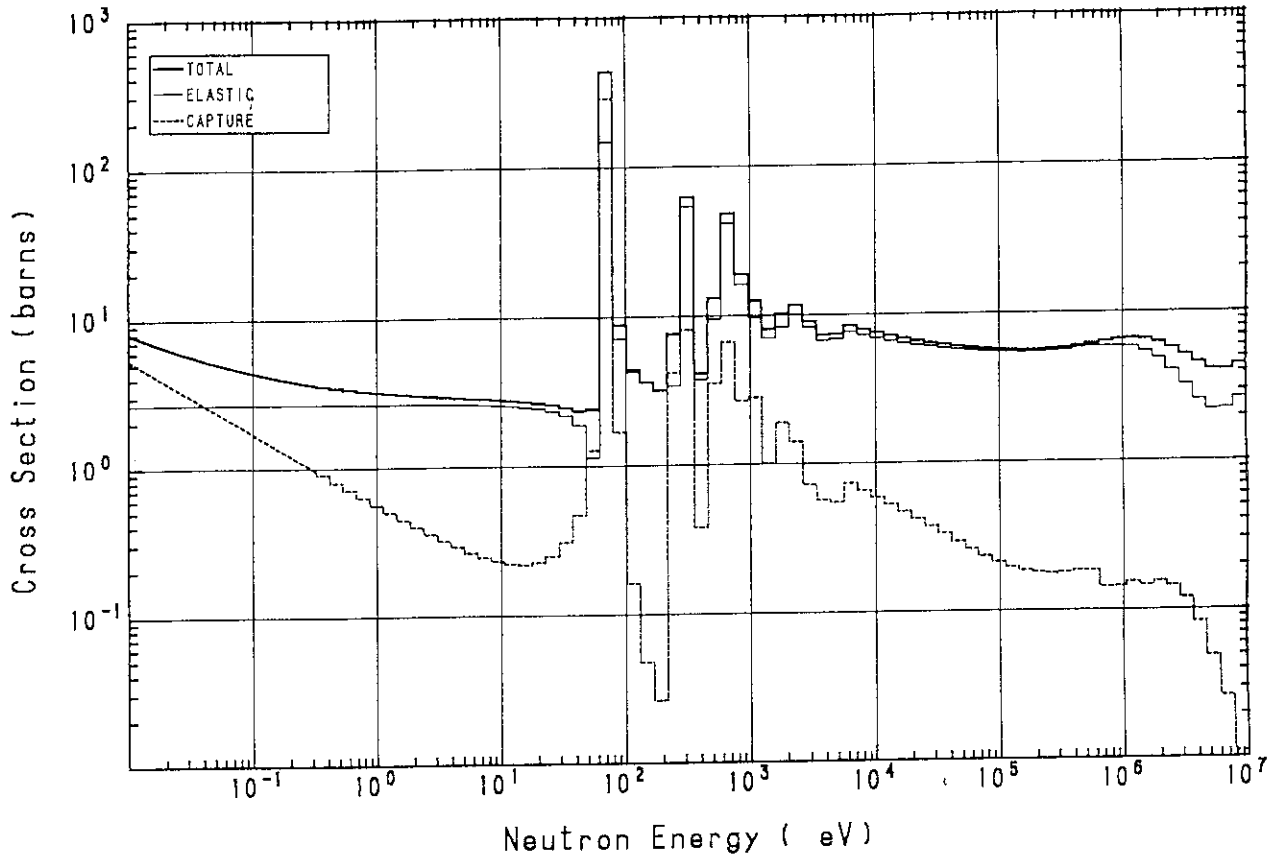


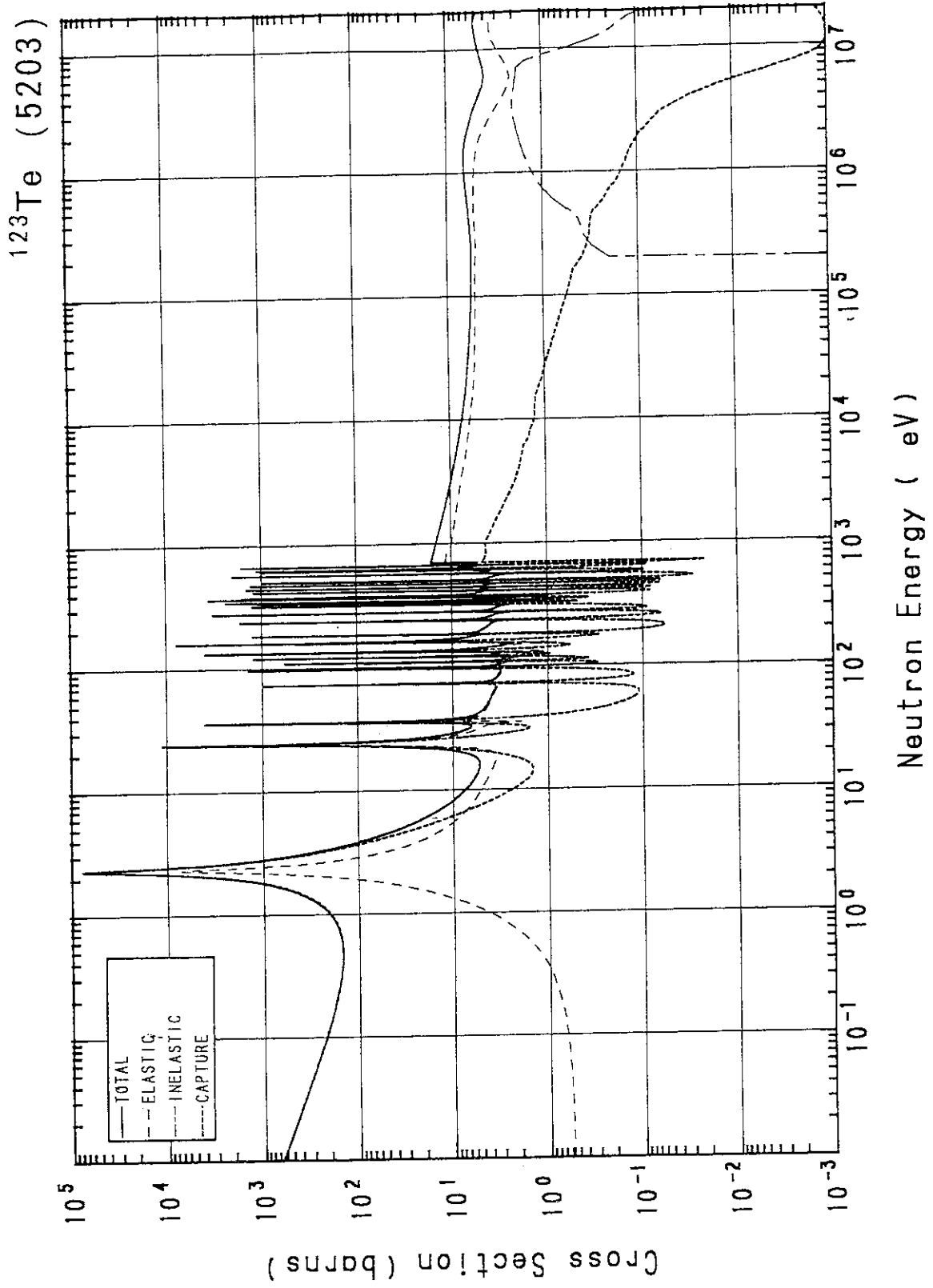
^{120}Te (5201)



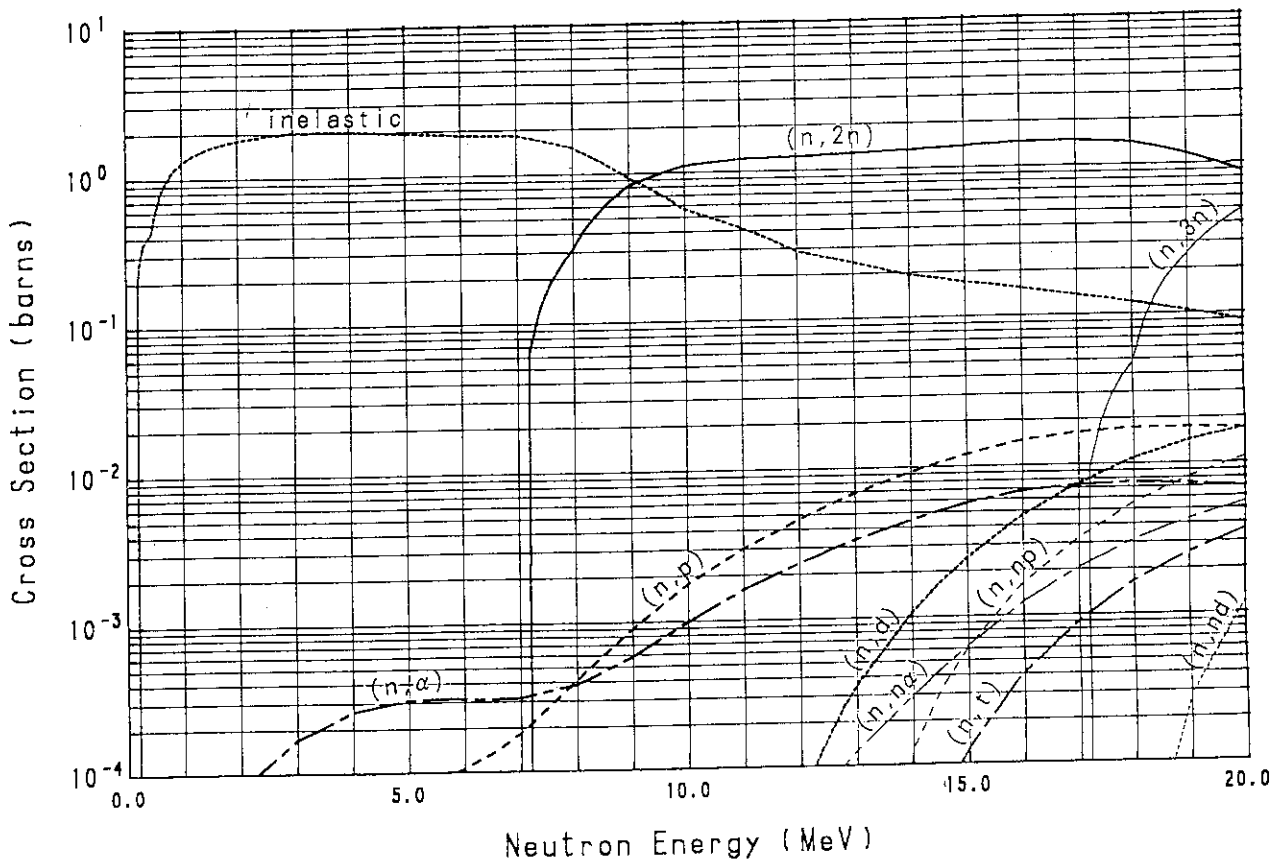
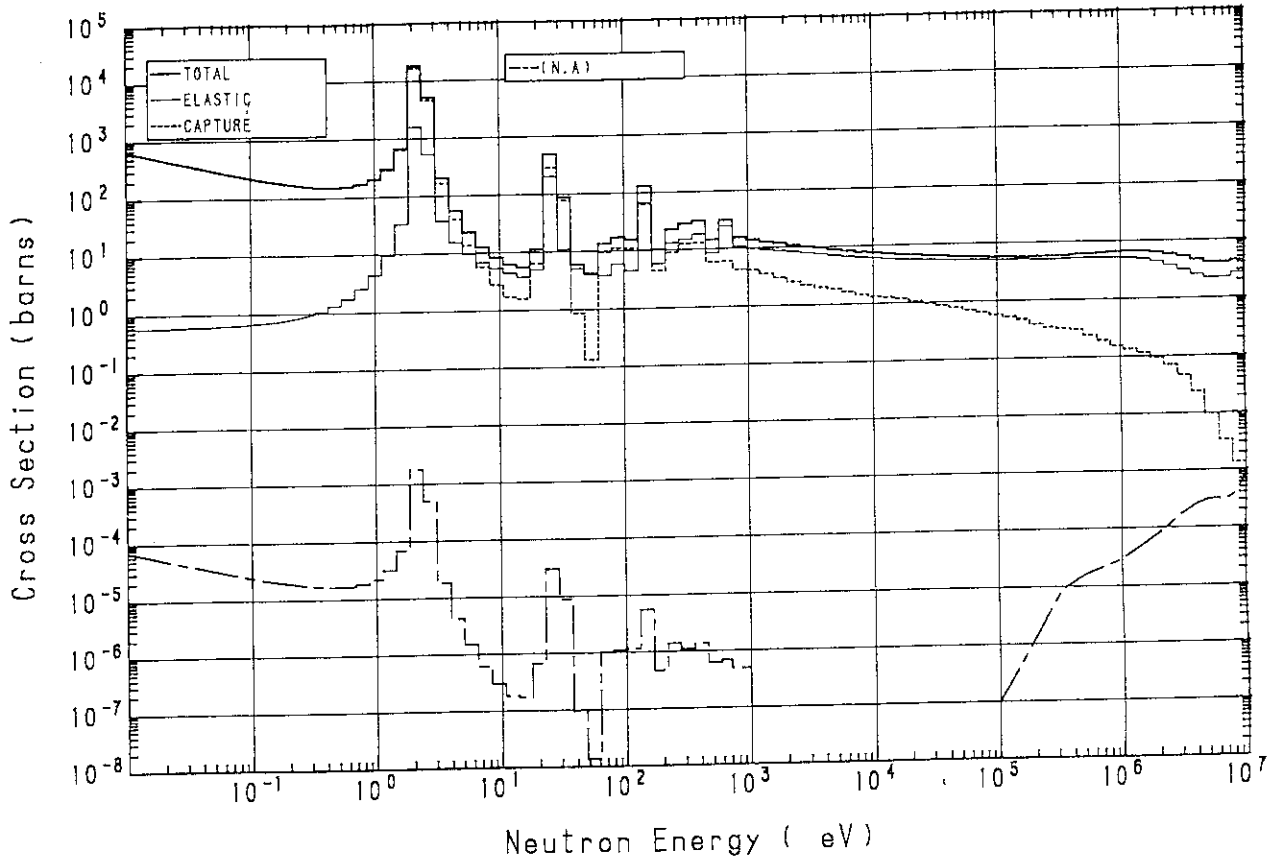


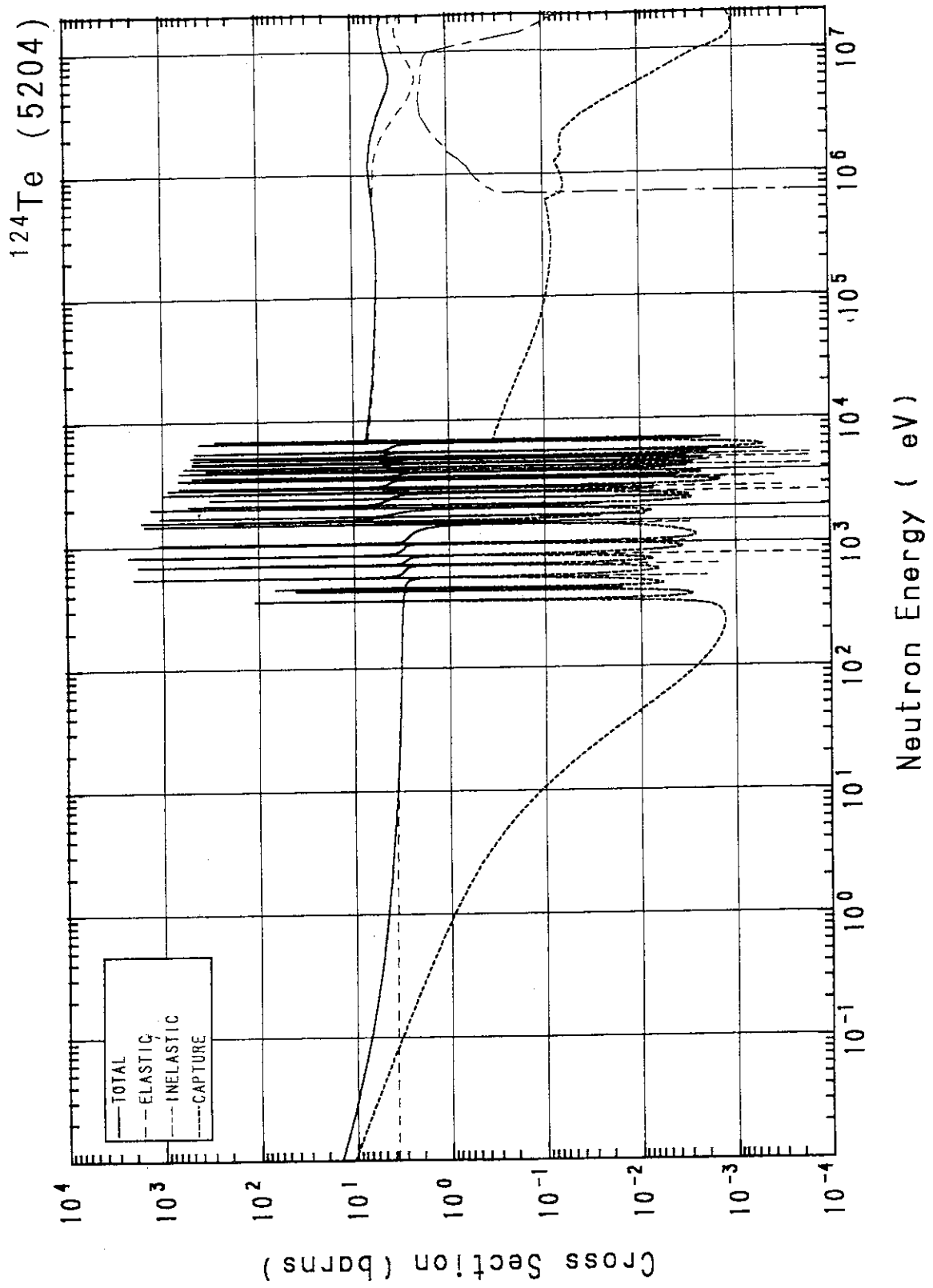
^{122}Te (5202)



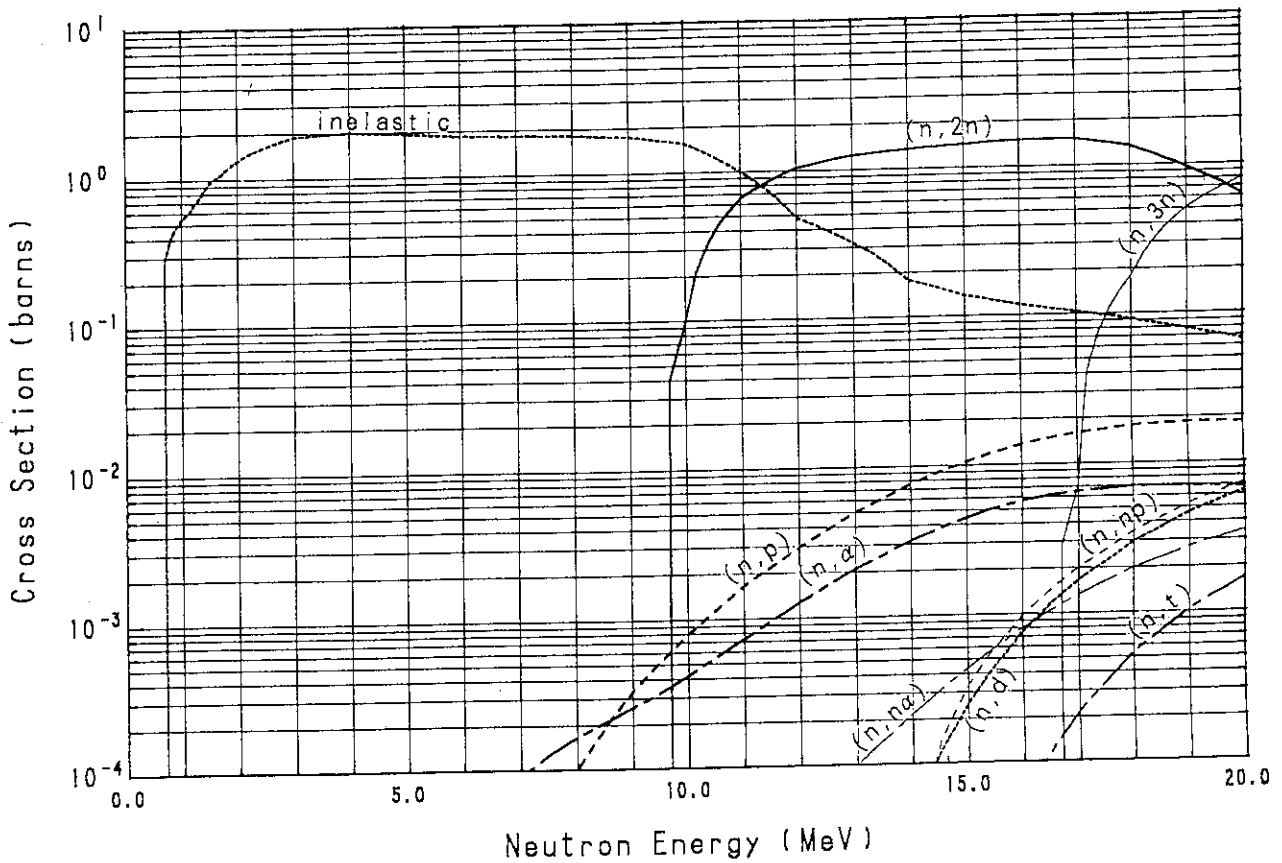
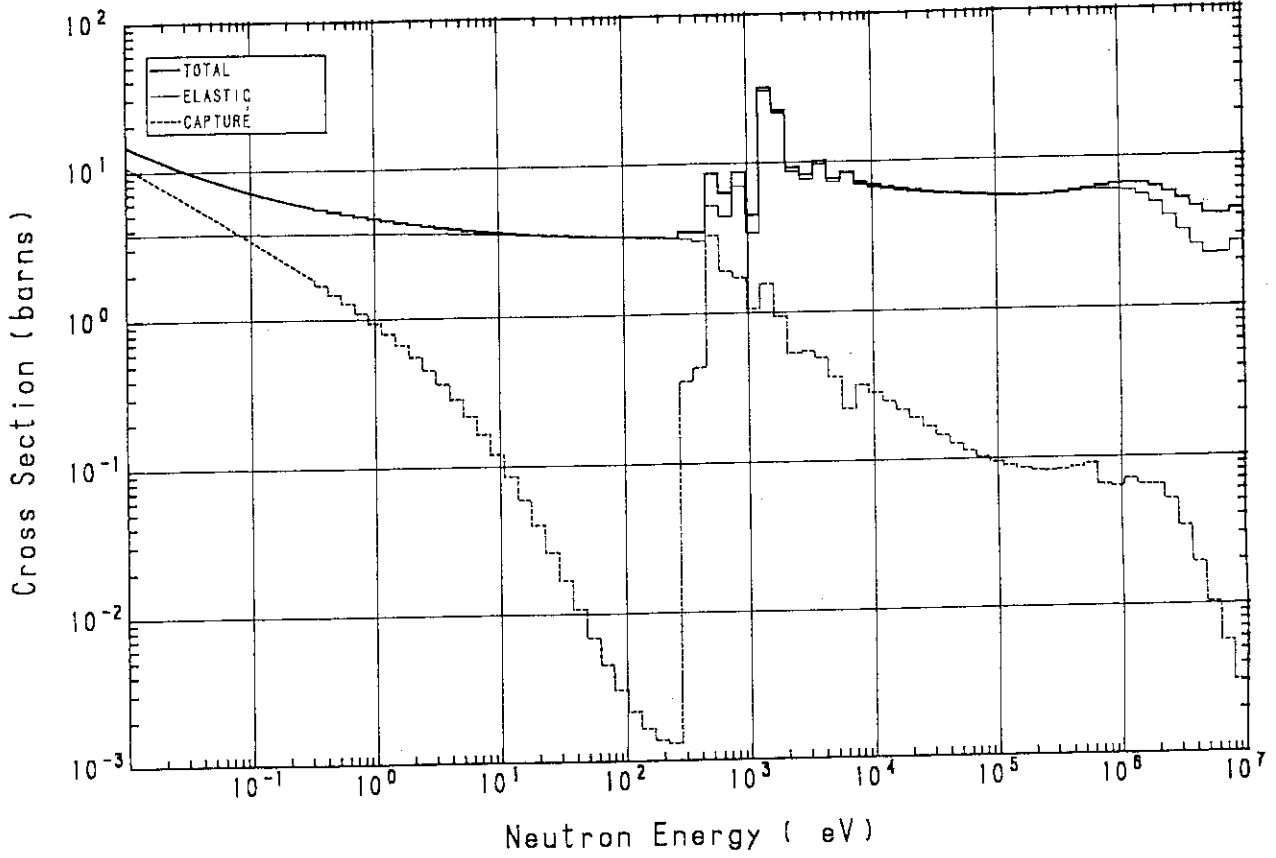


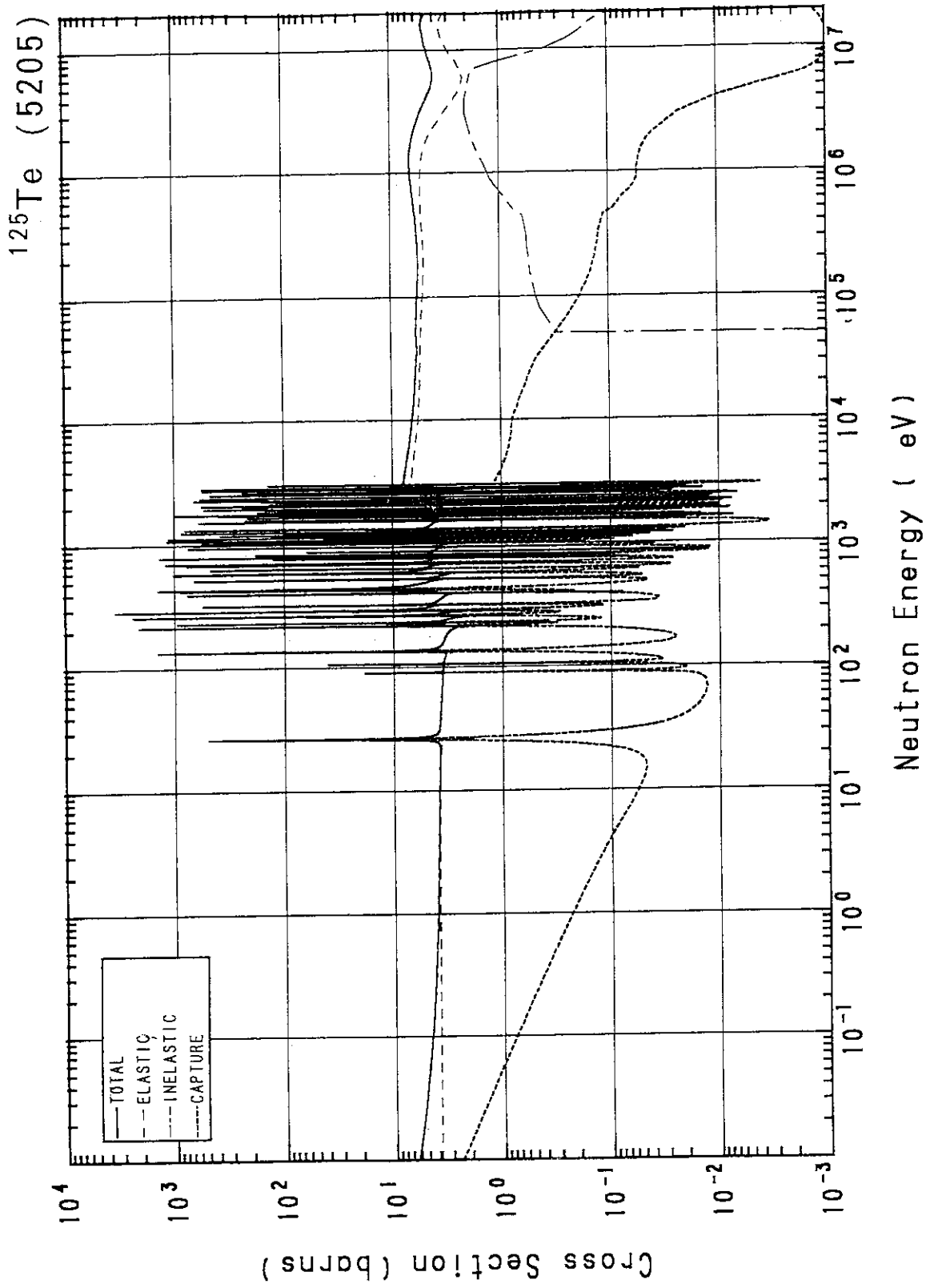
^{123}Te (5203)



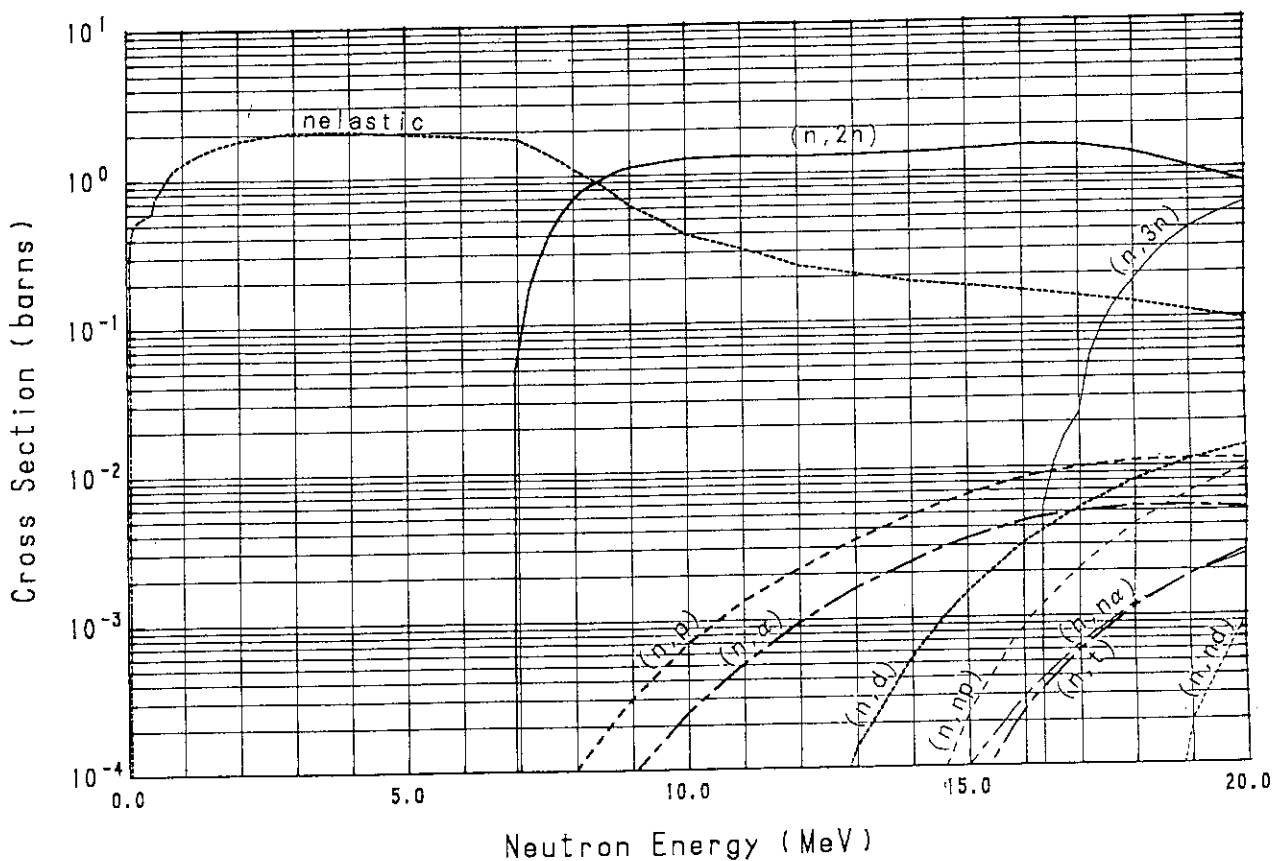
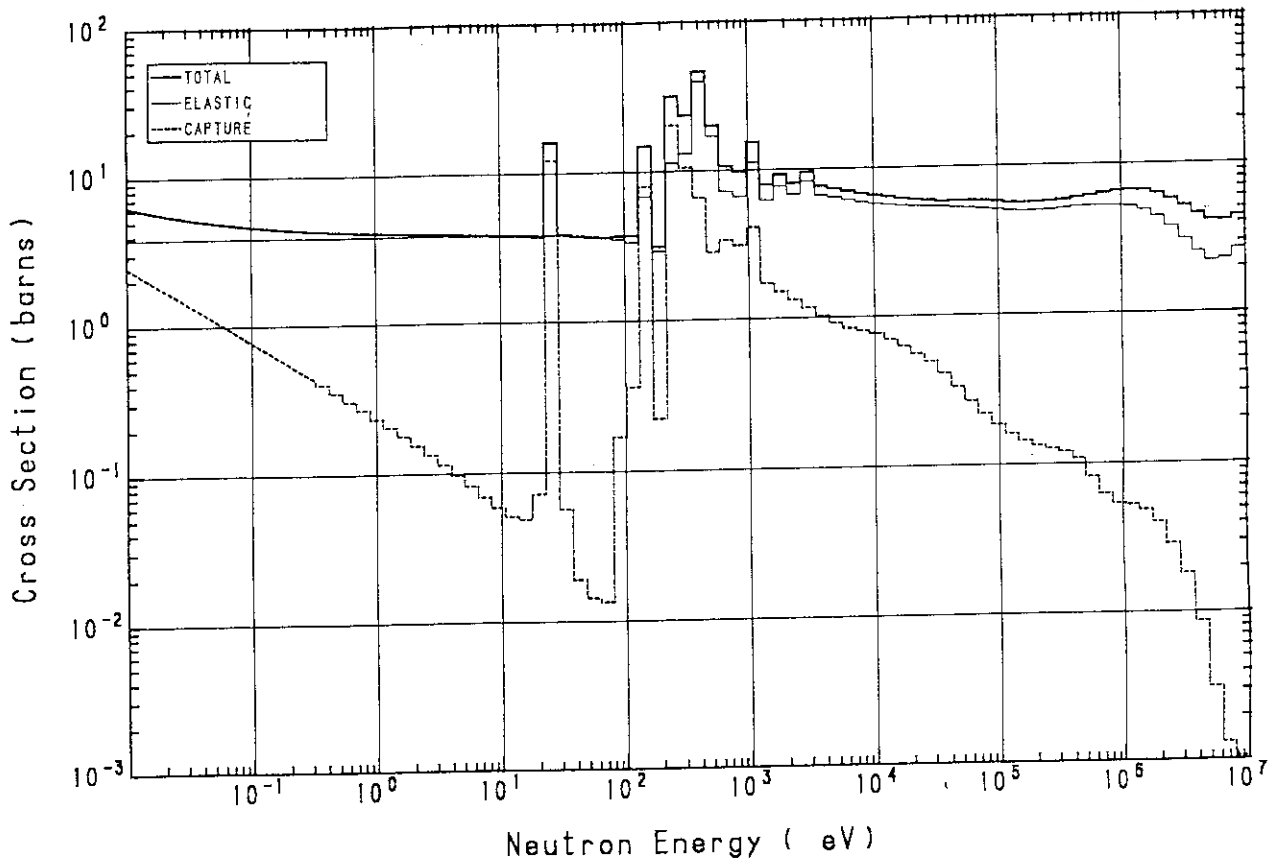


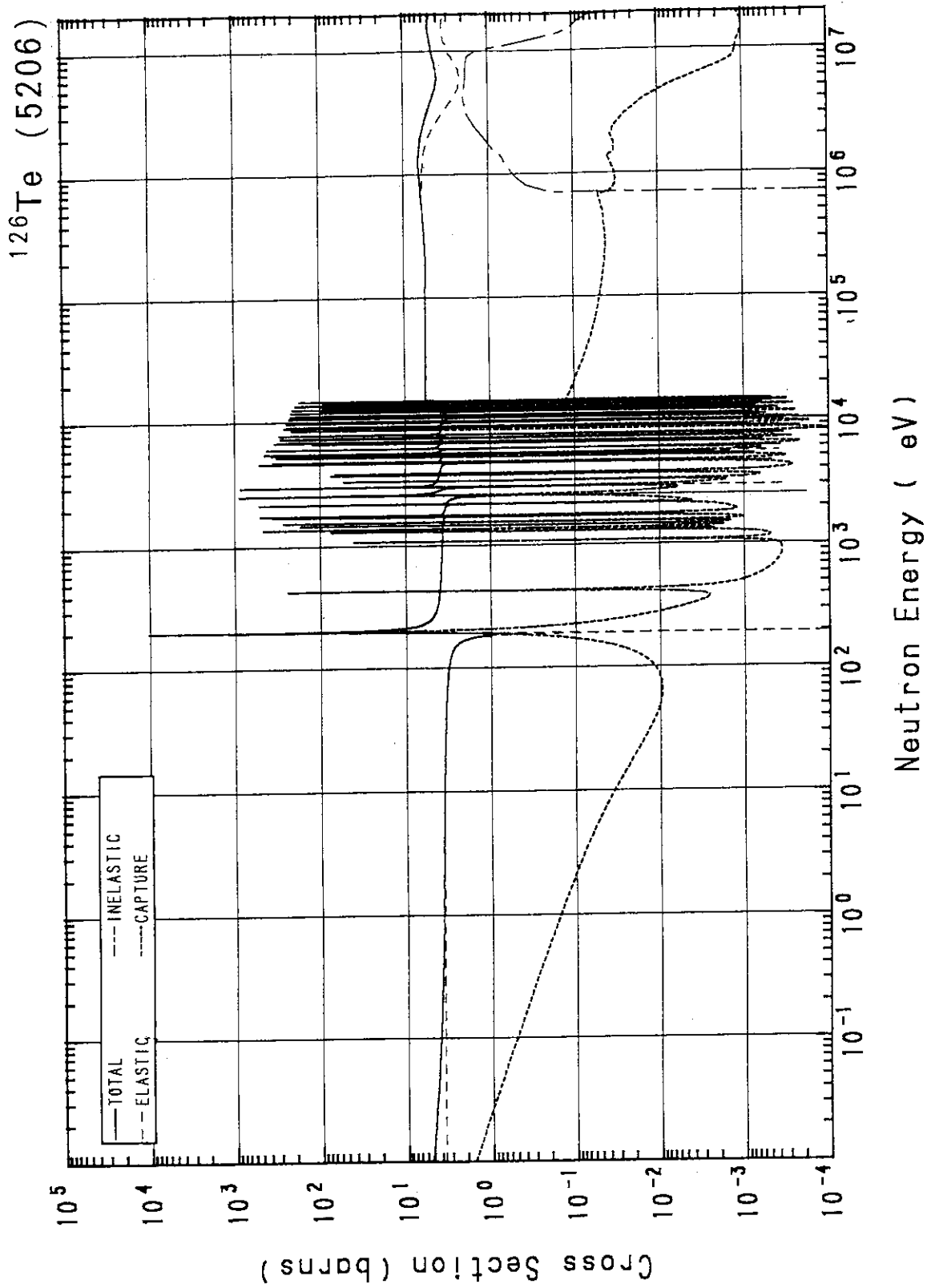
^{124}Te (5204)



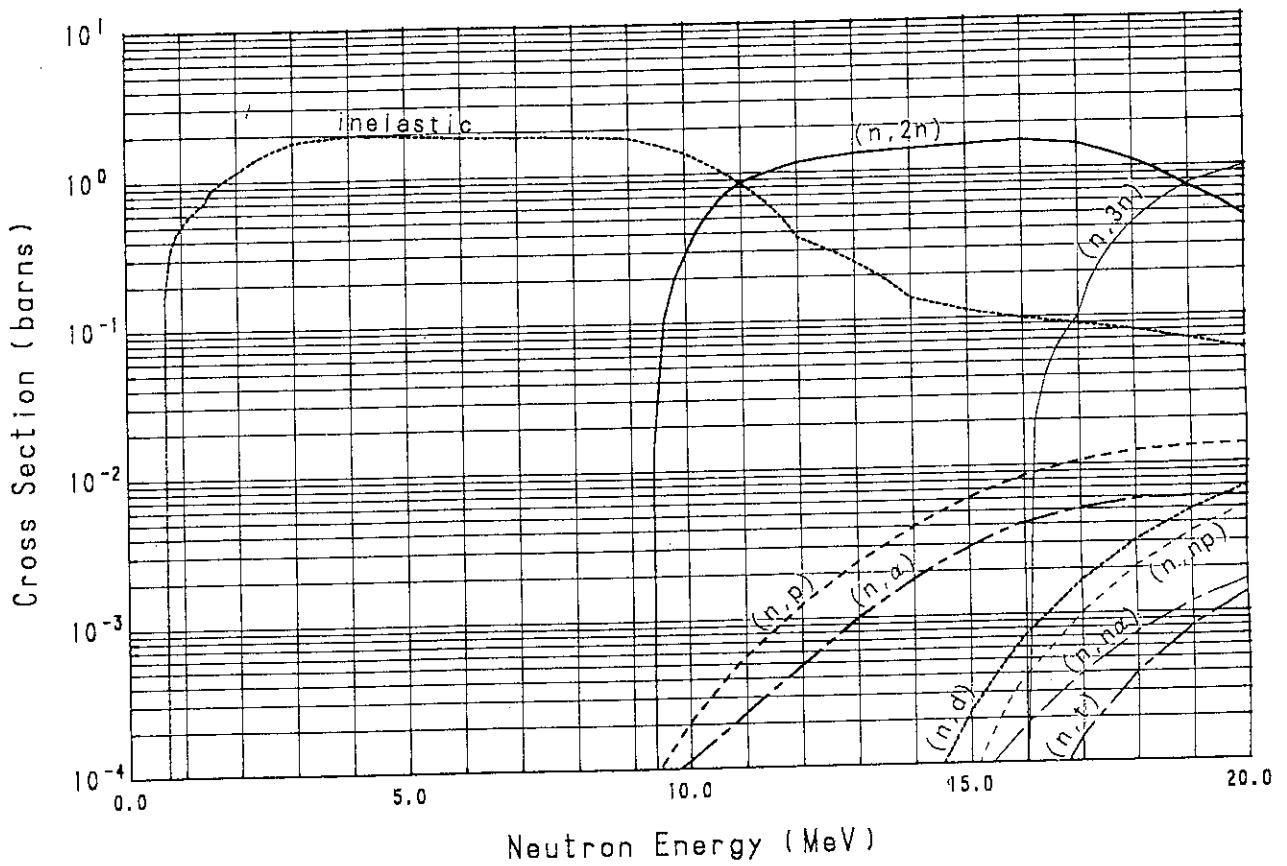
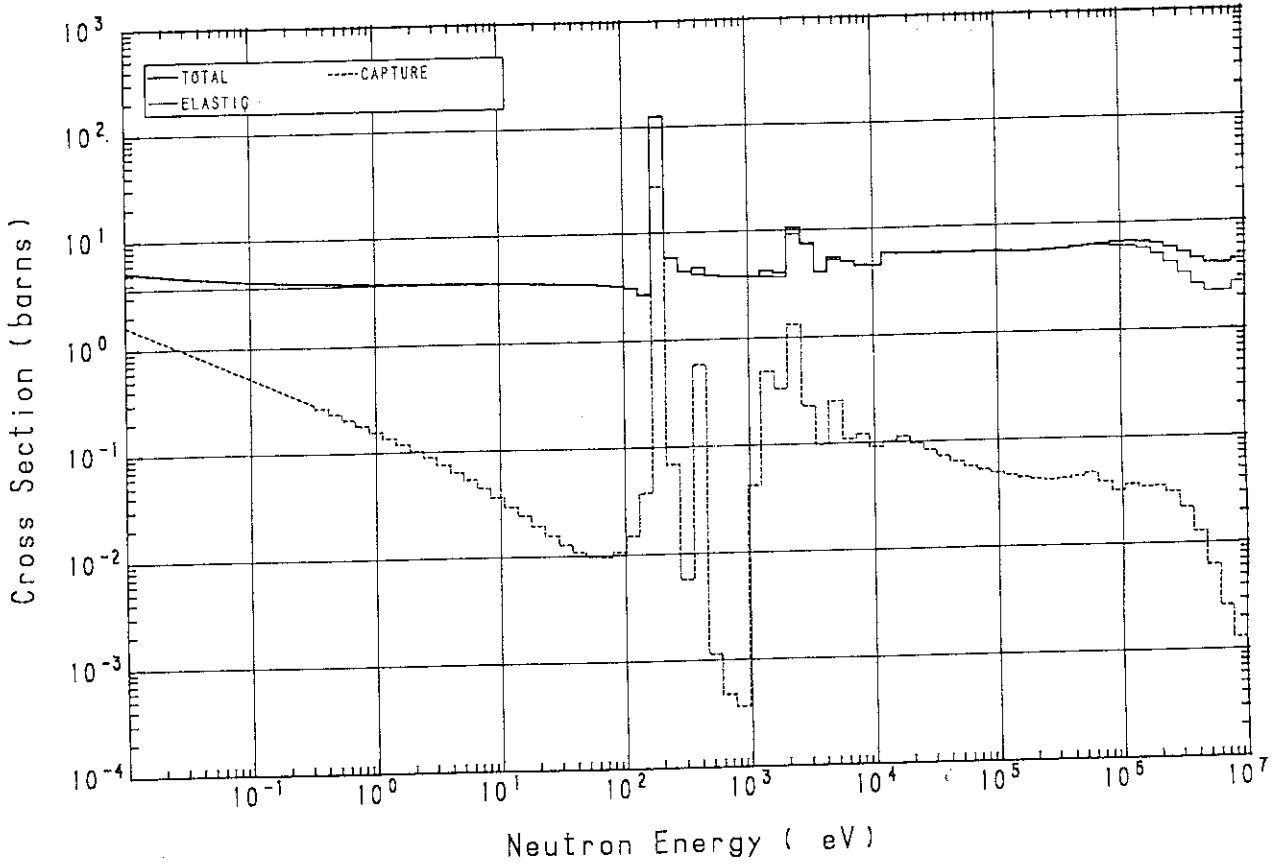


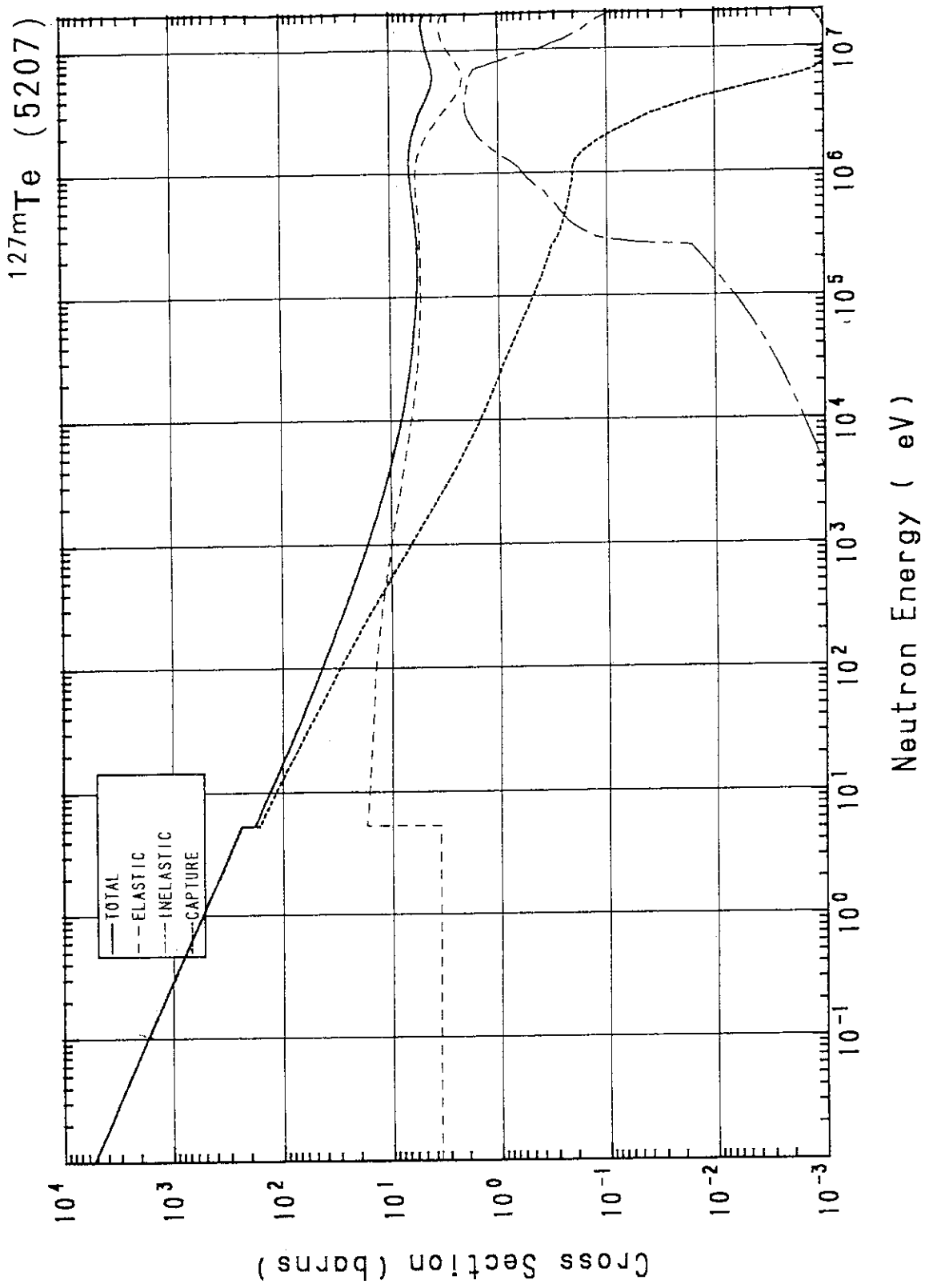
^{125}Te (5205)



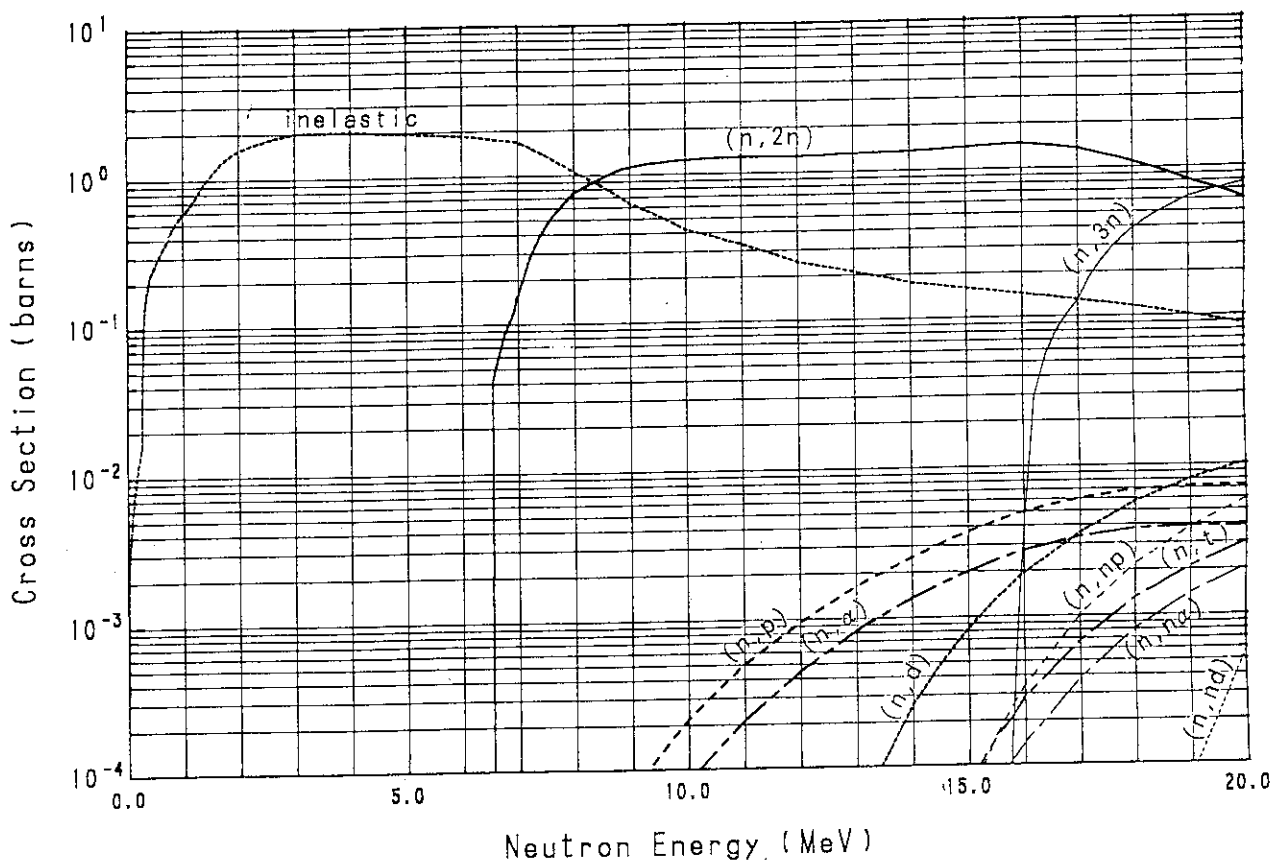
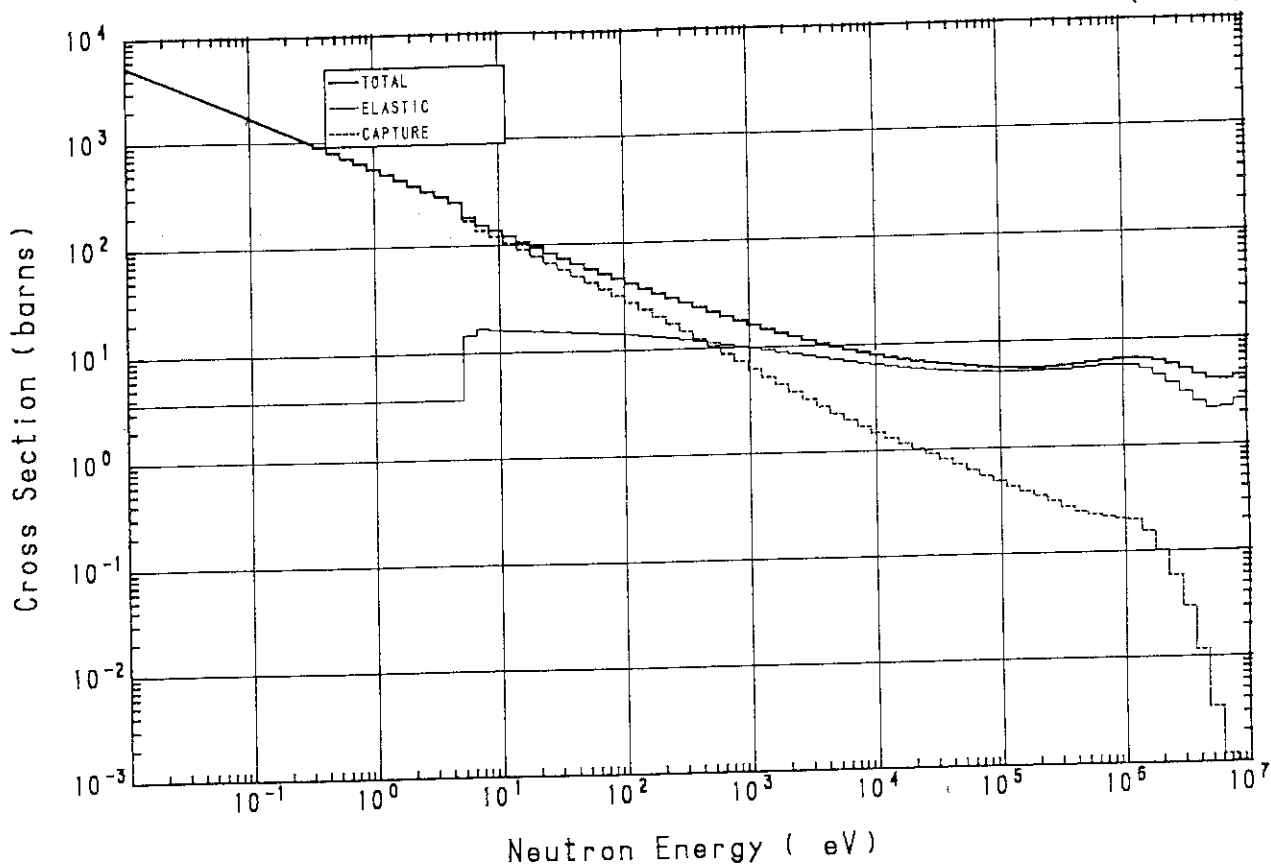


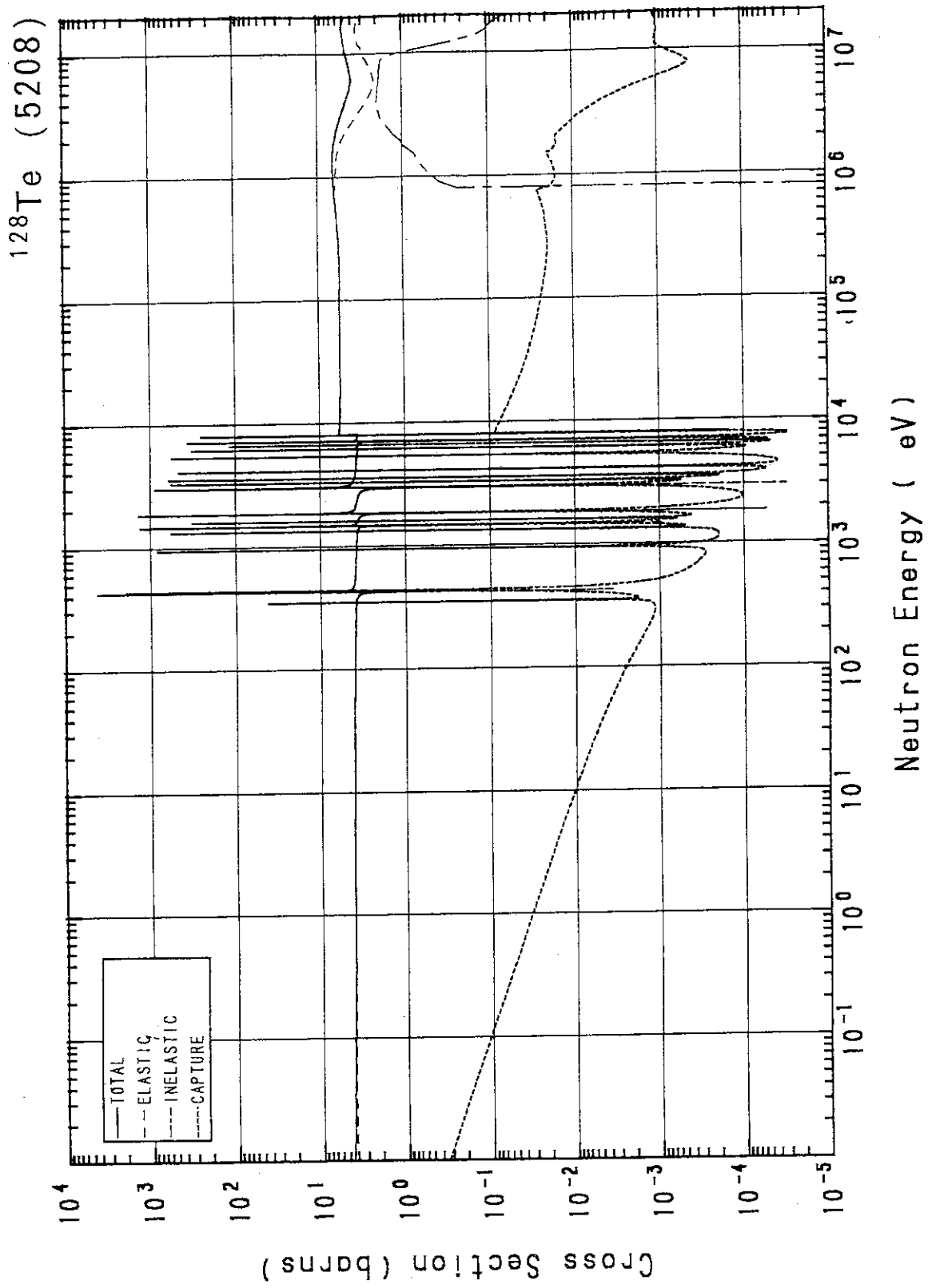
^{126}Te (5206)



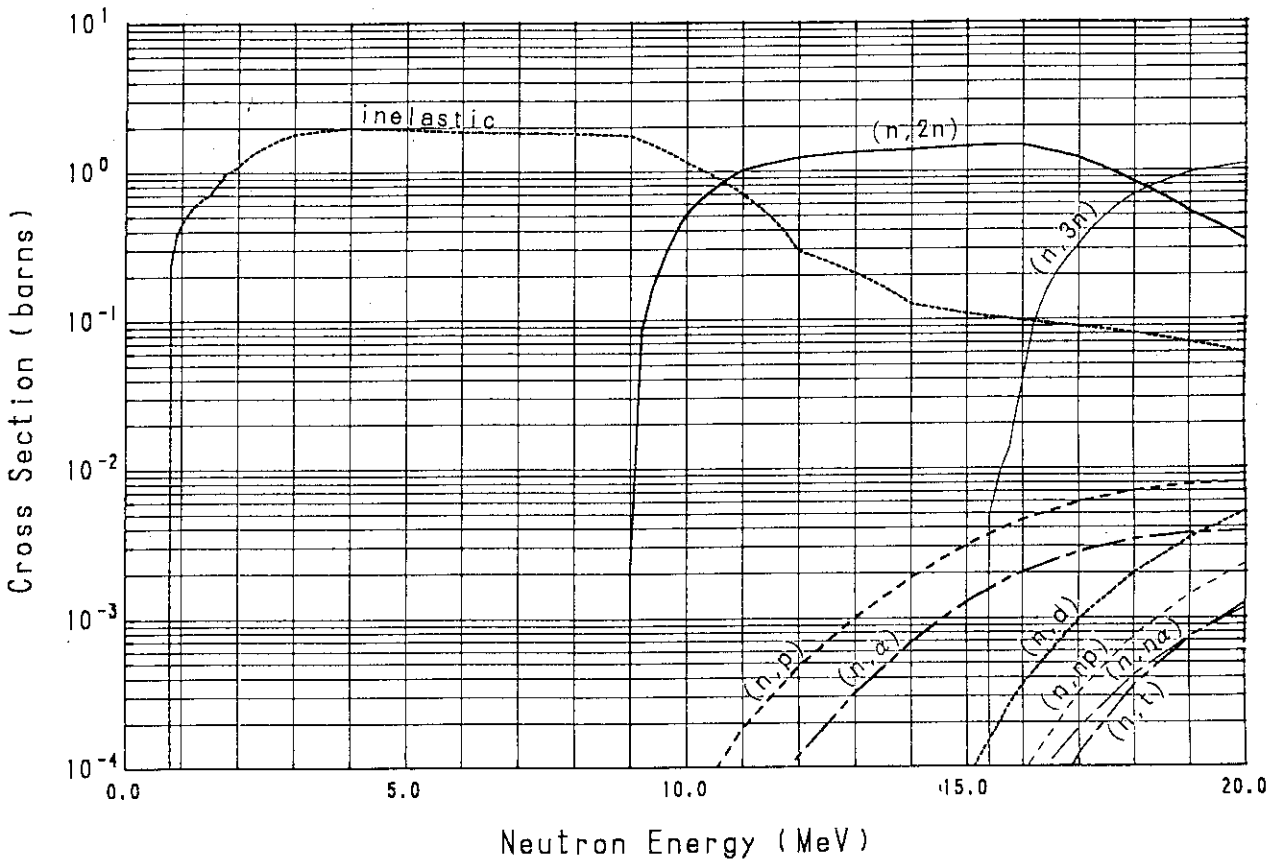
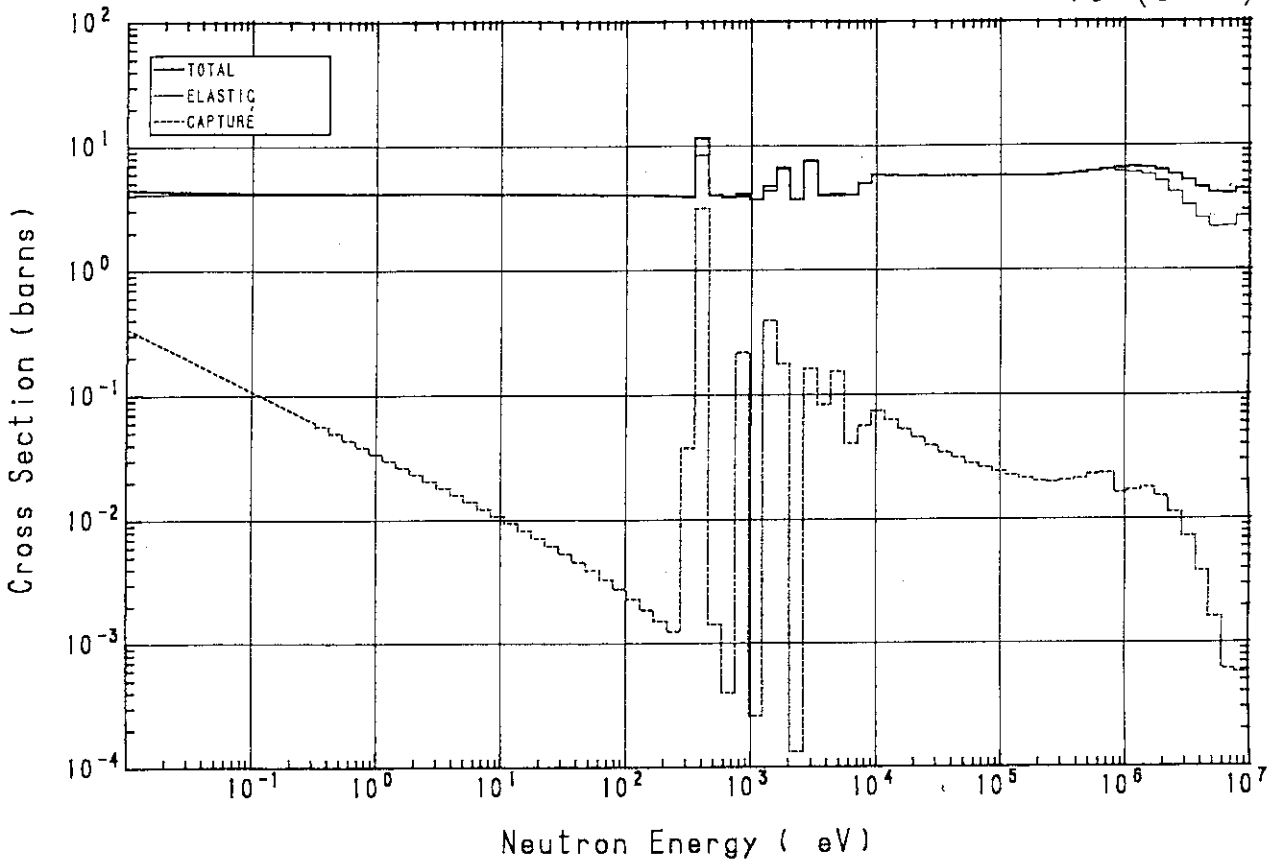


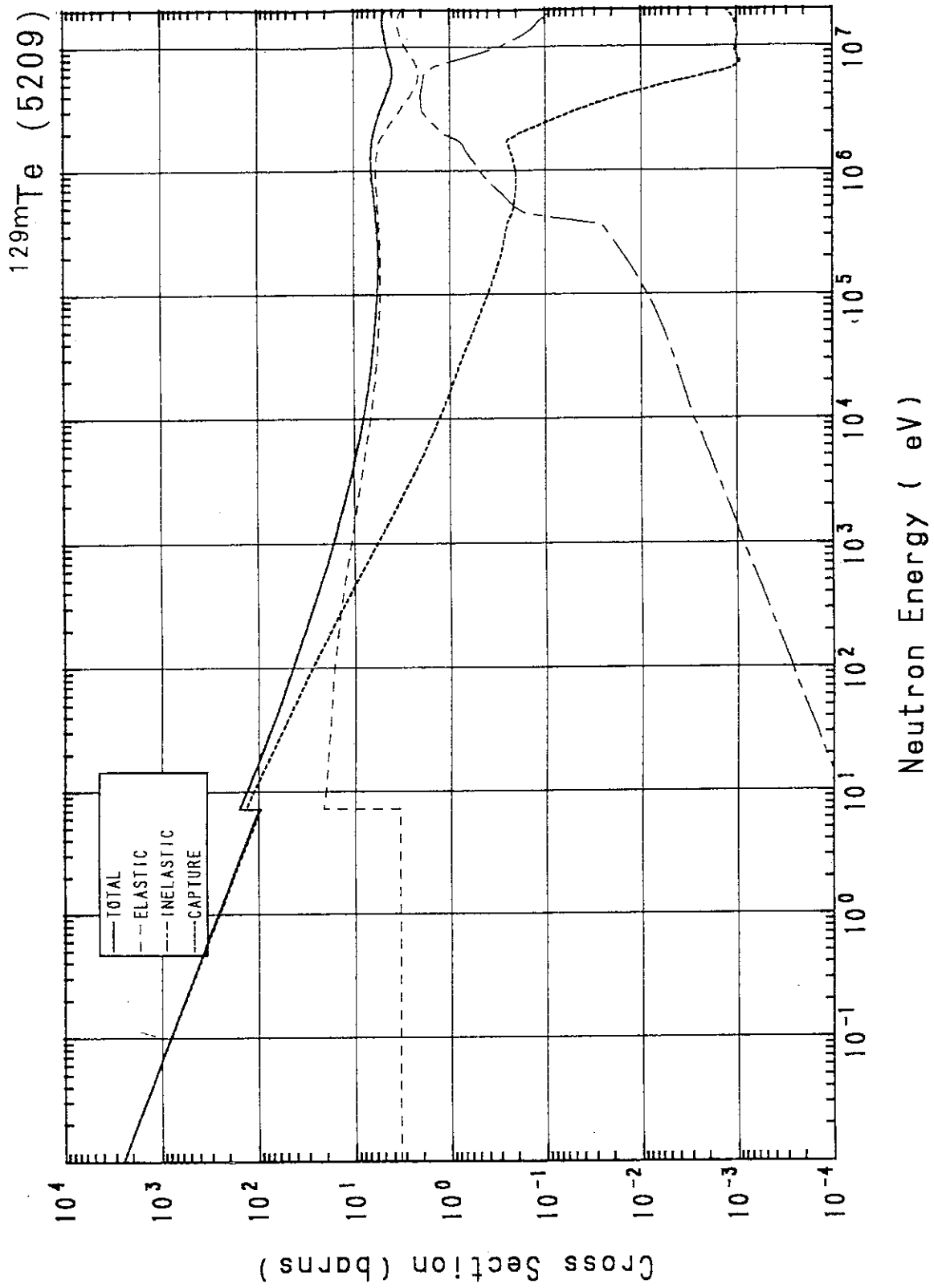
^{127m}Te (5207)



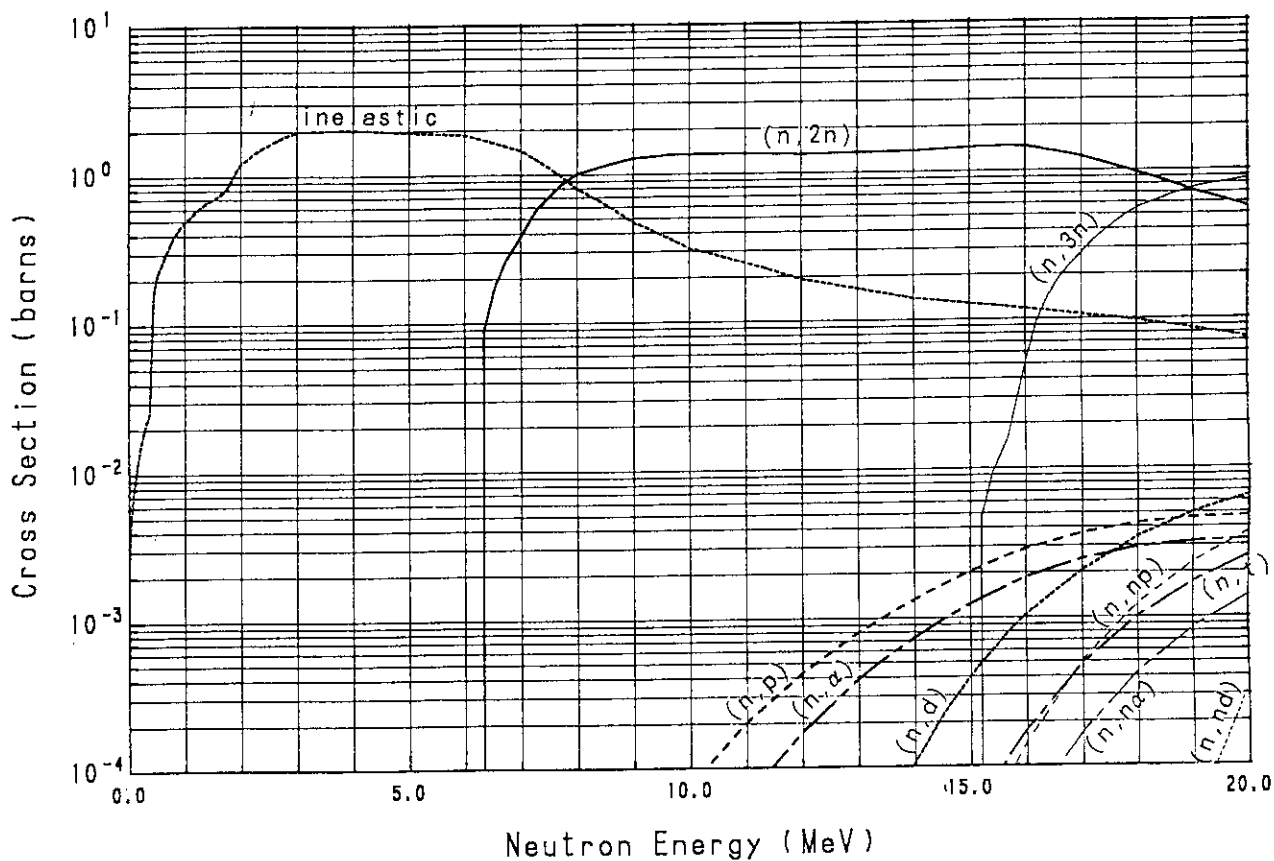
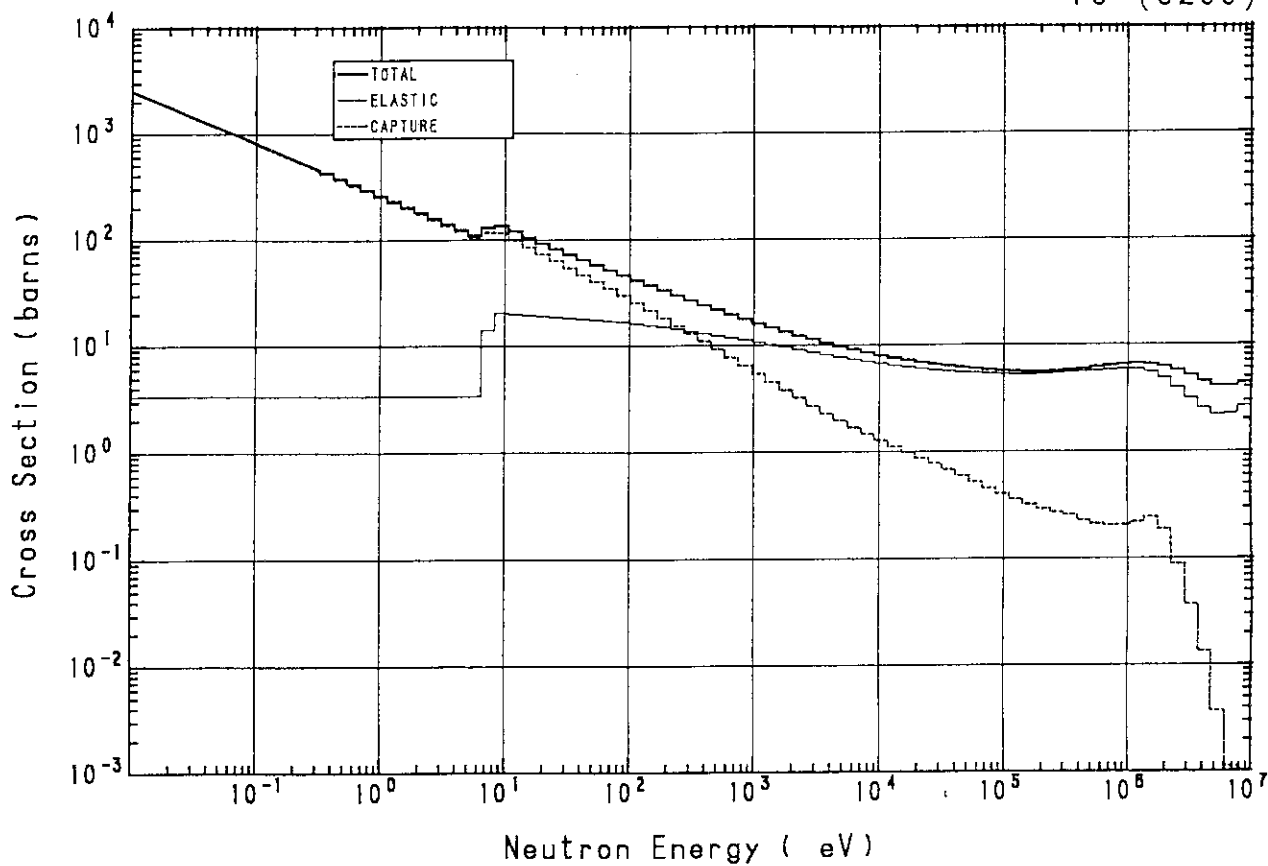


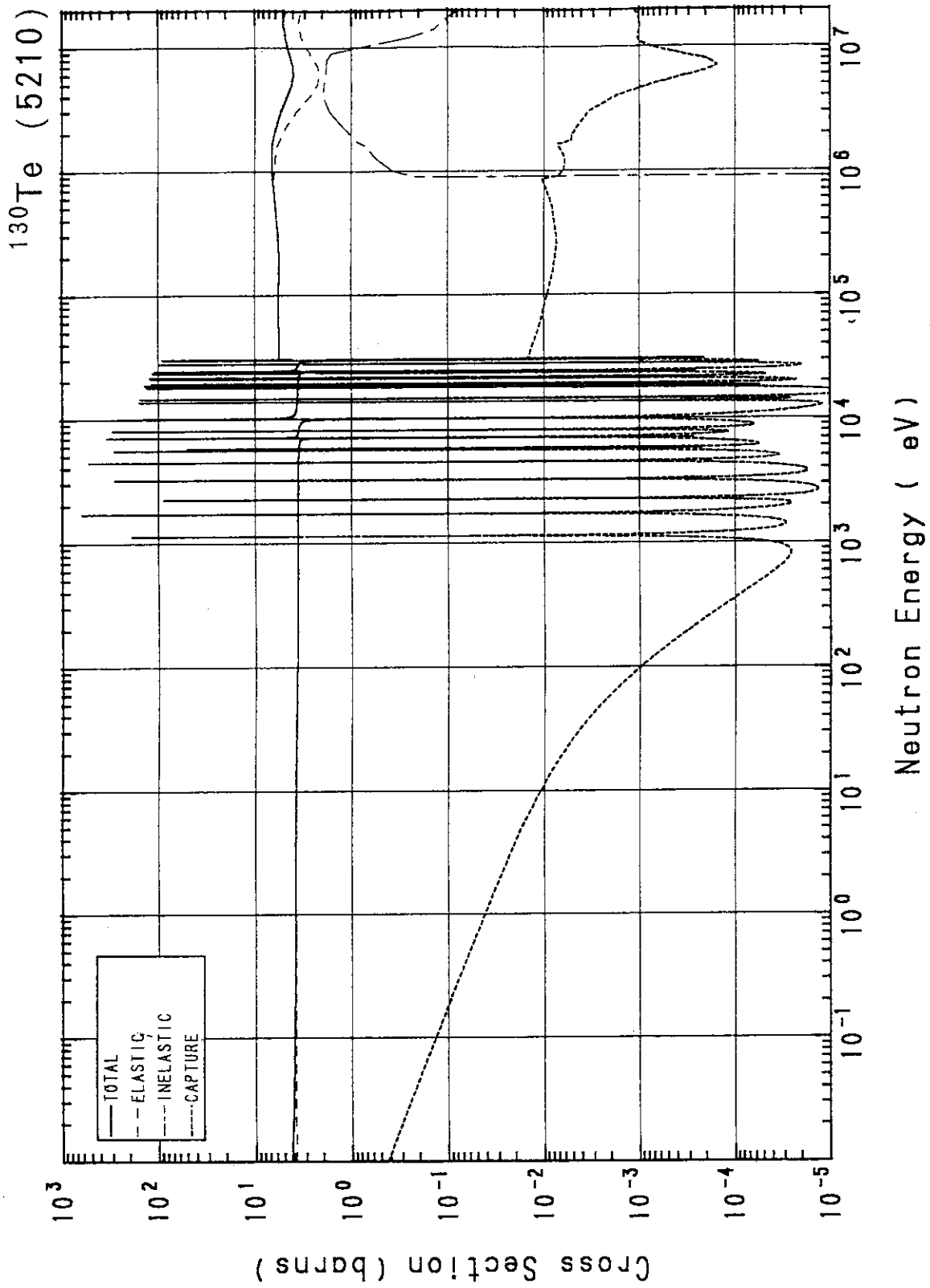
^{128}Te (5208)



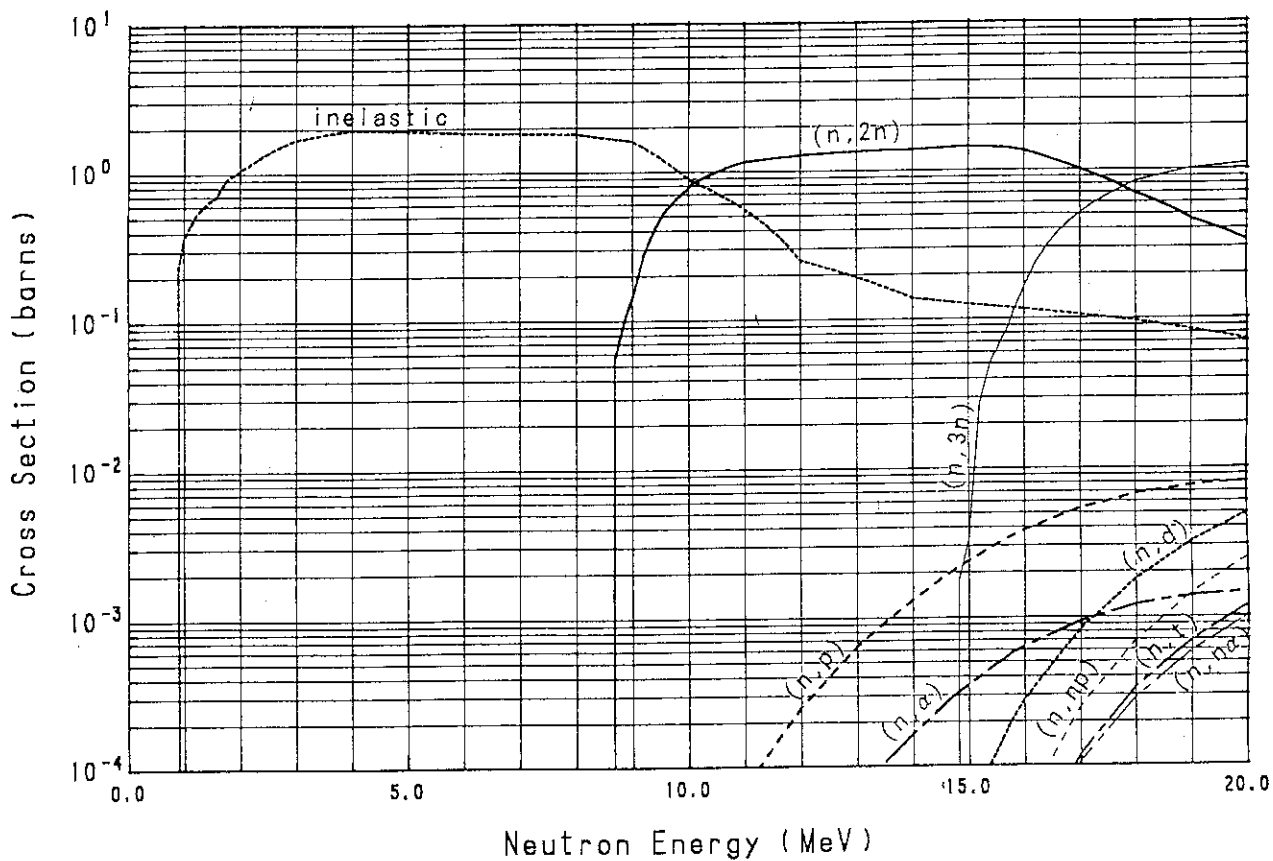
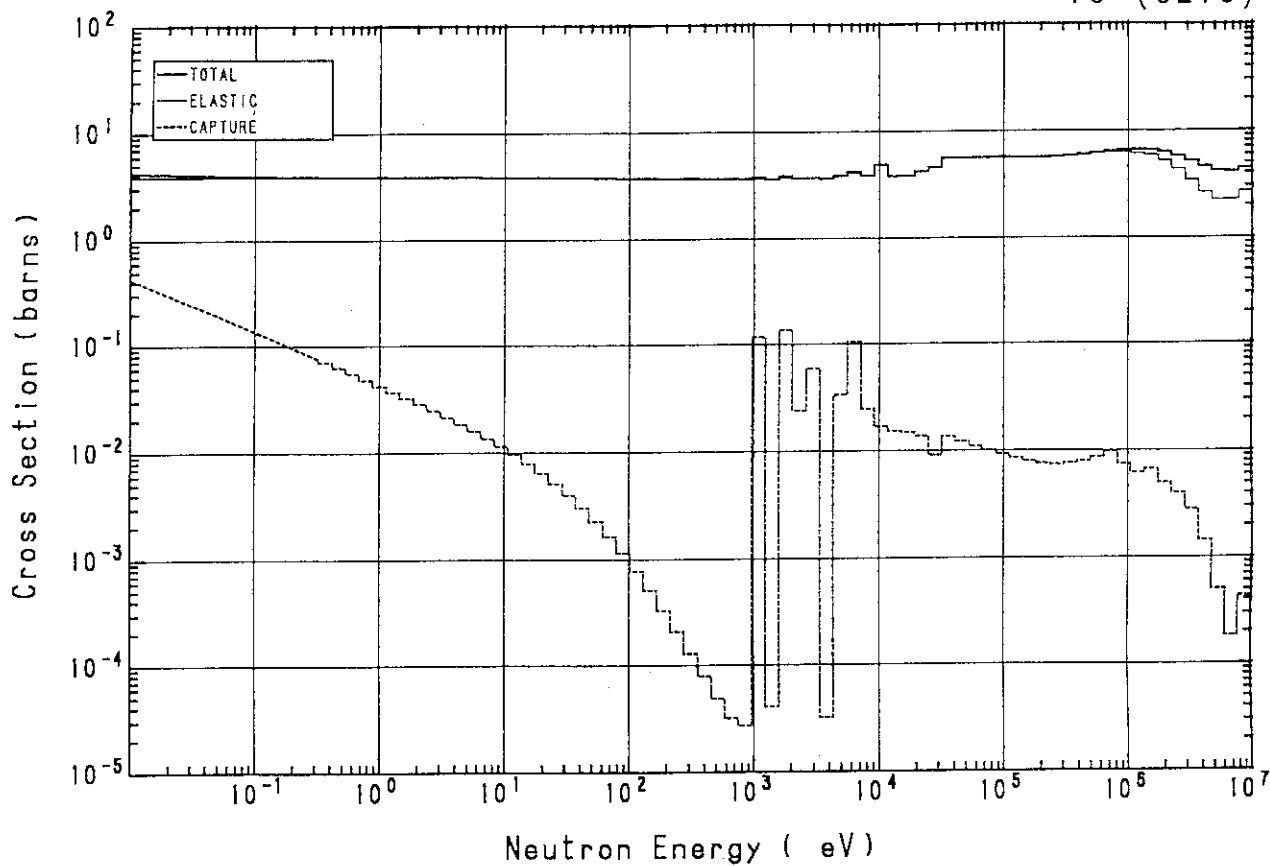


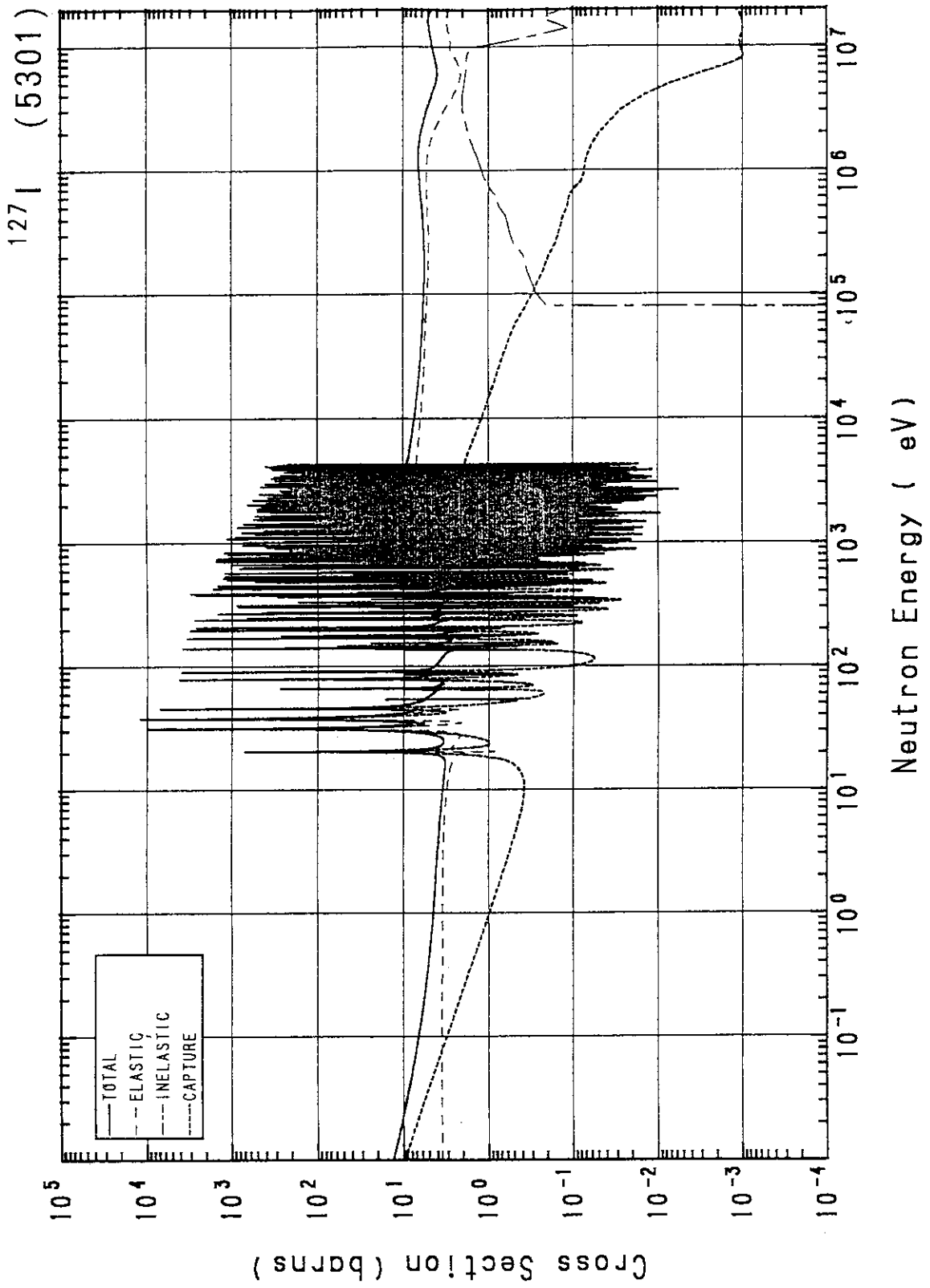
^{129m}Te (5209)



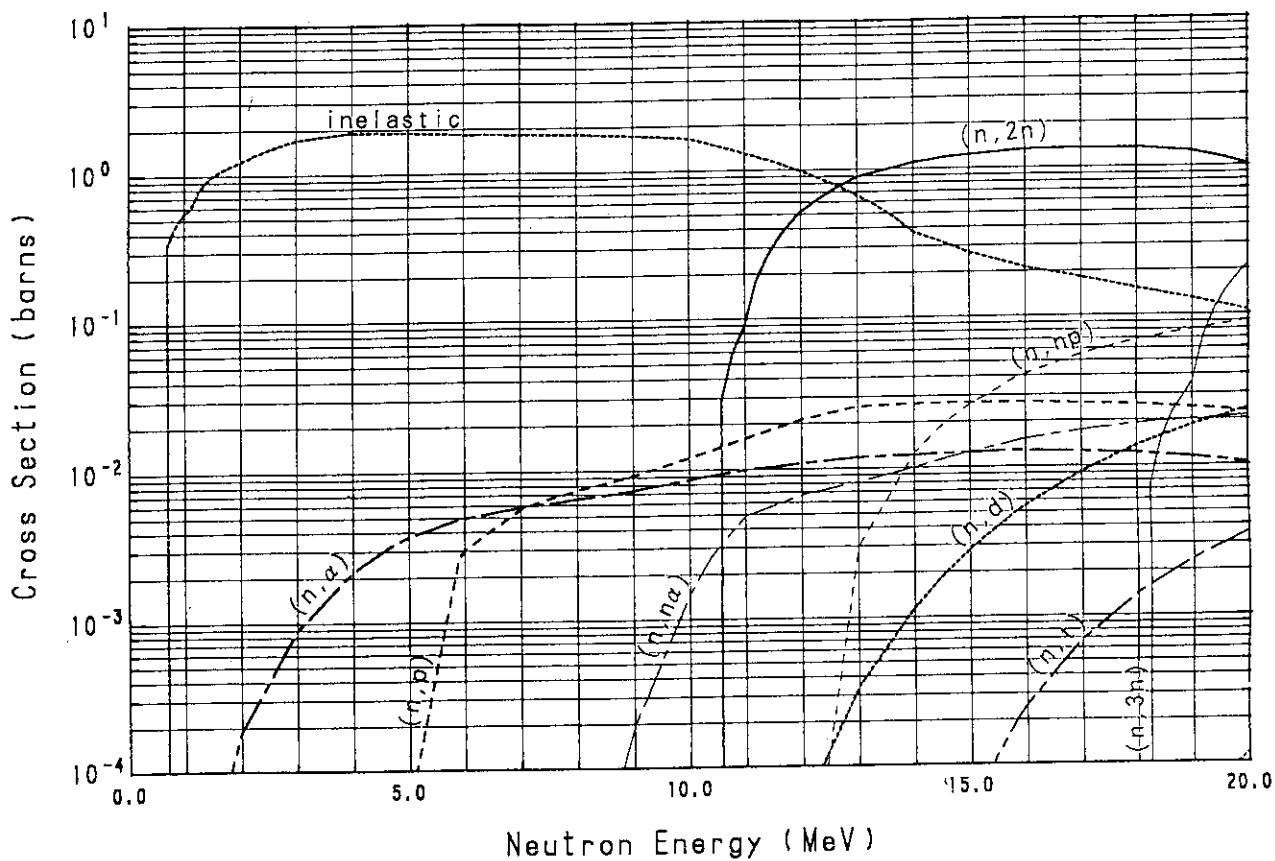
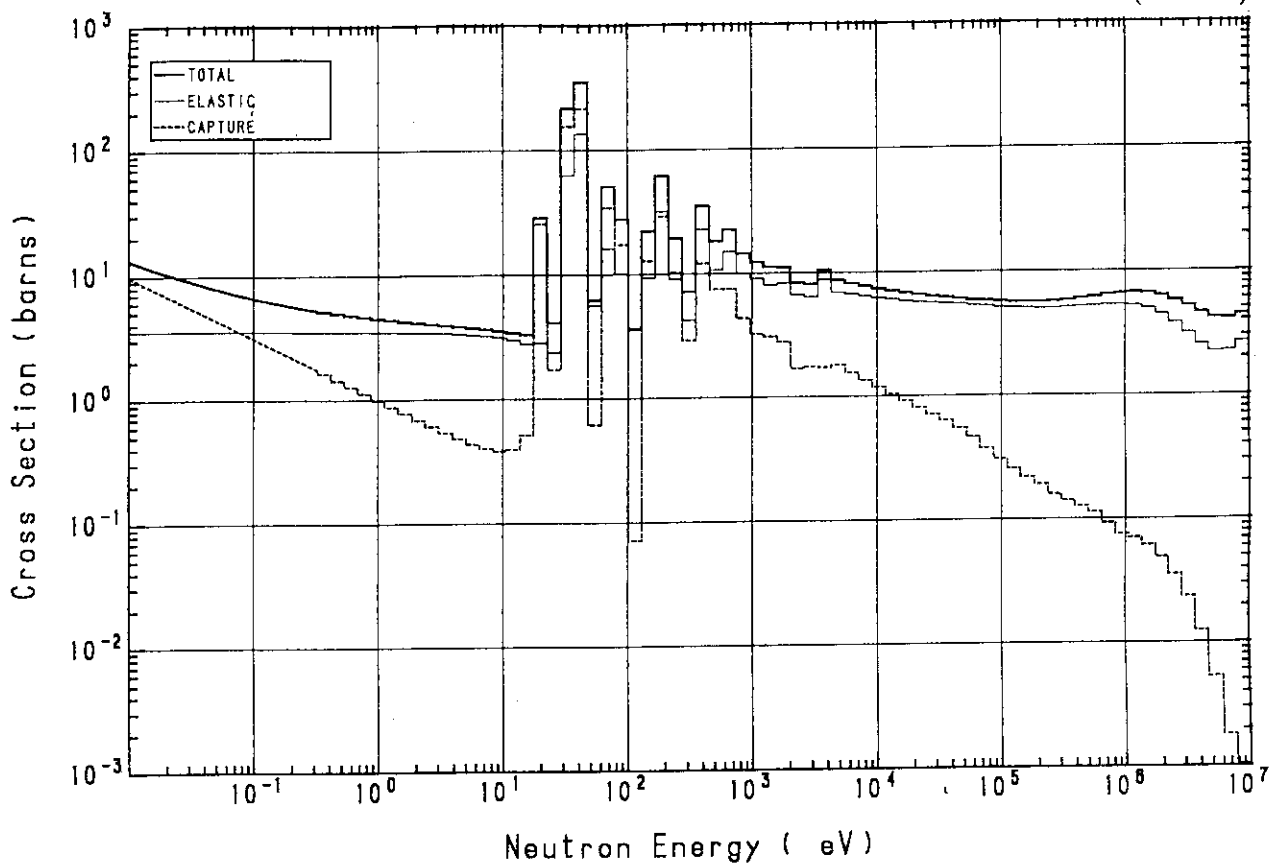


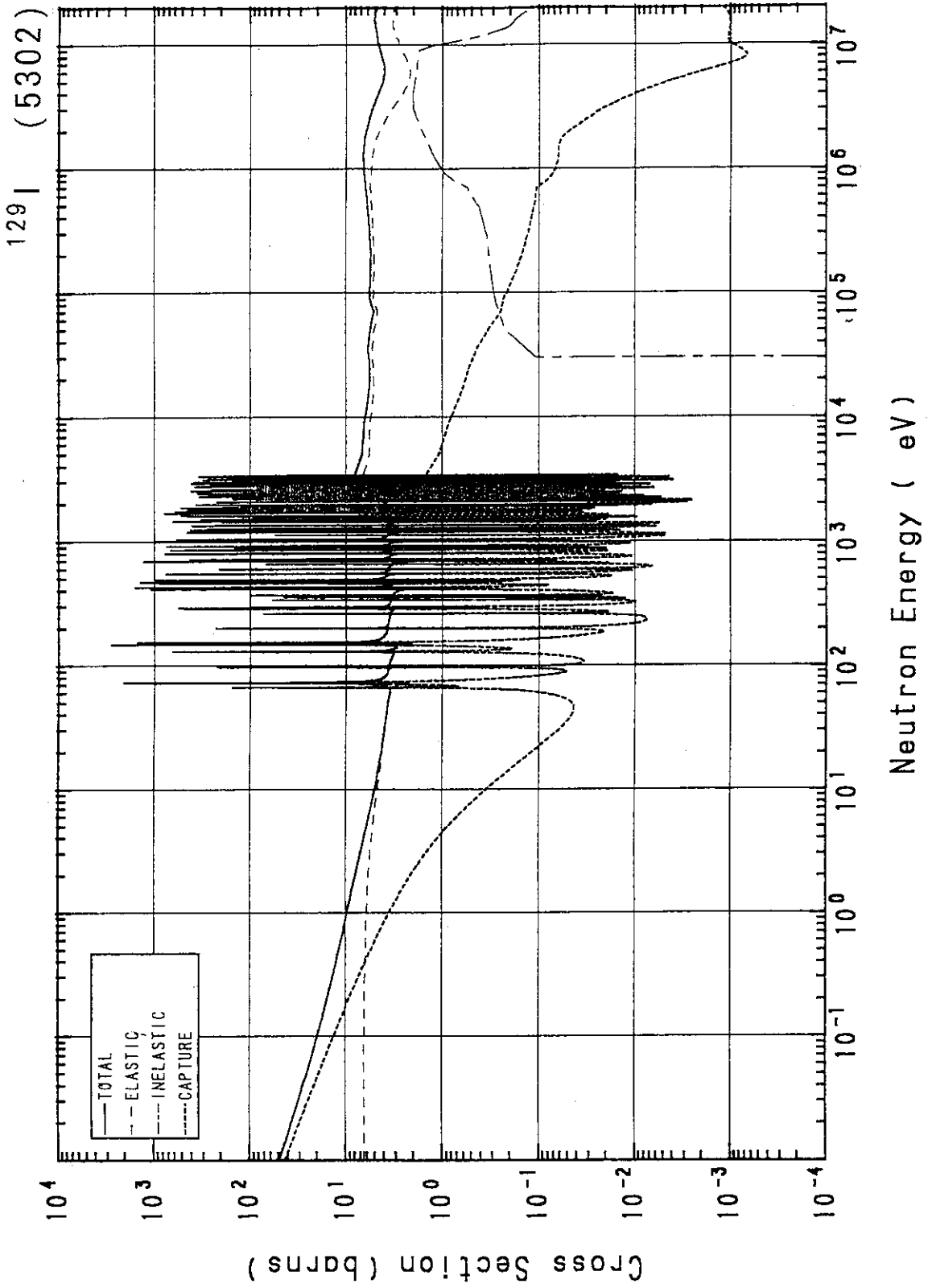
^{130}Te (5210)

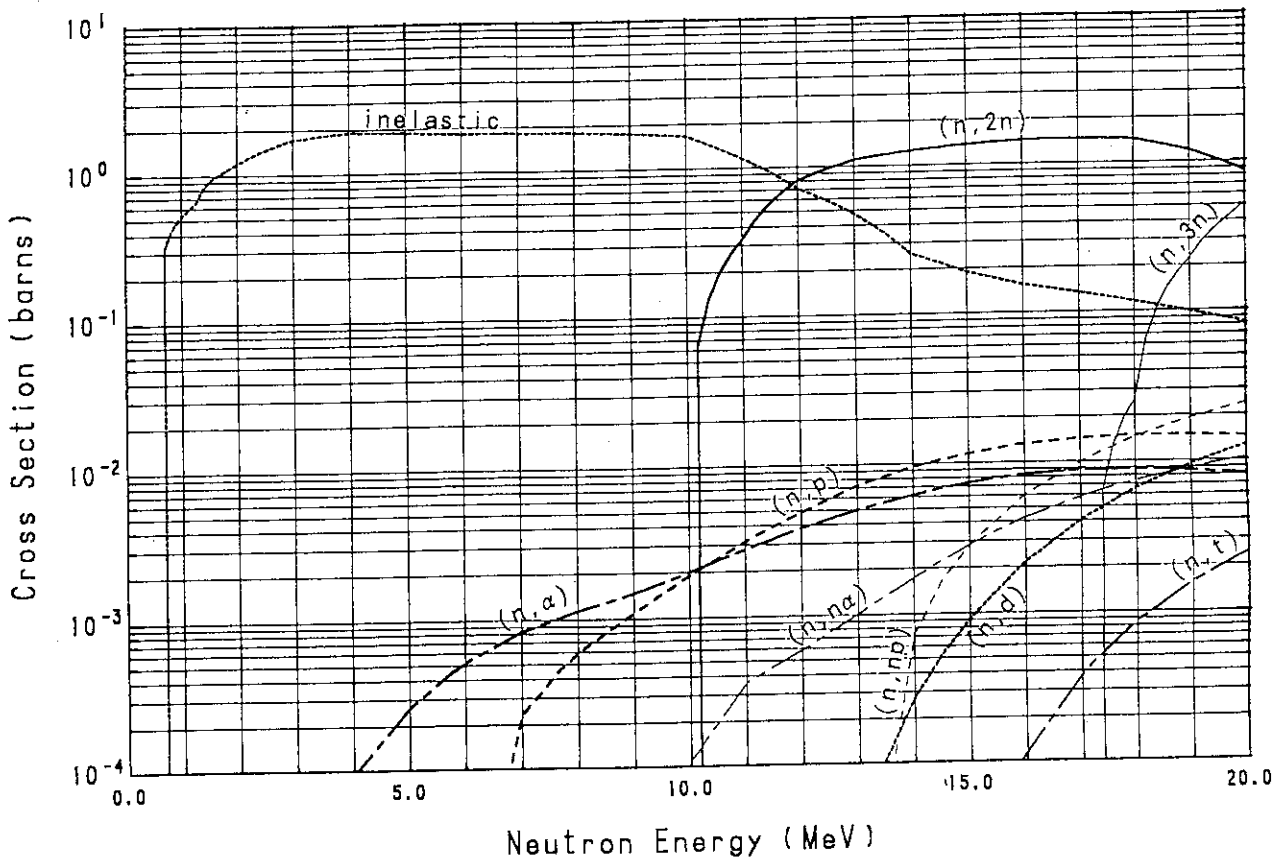
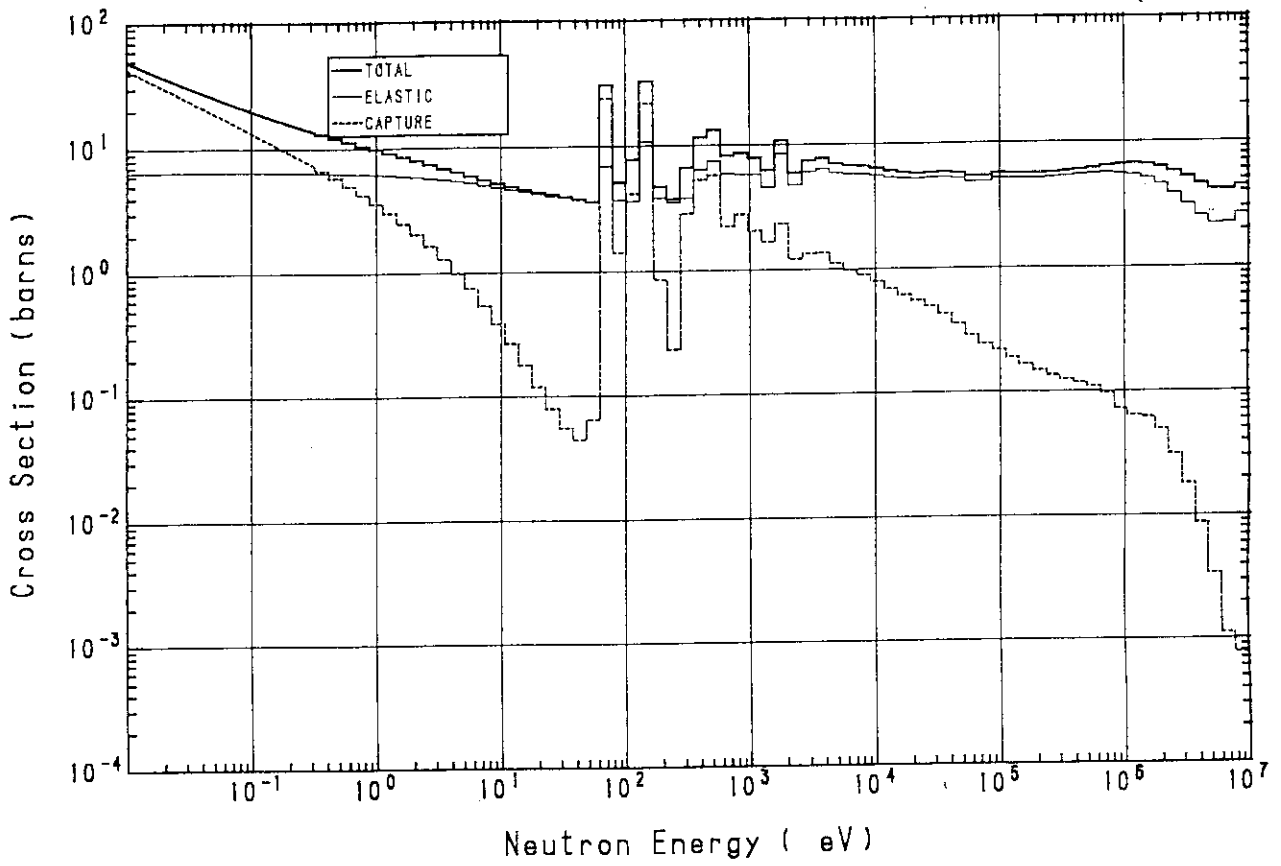


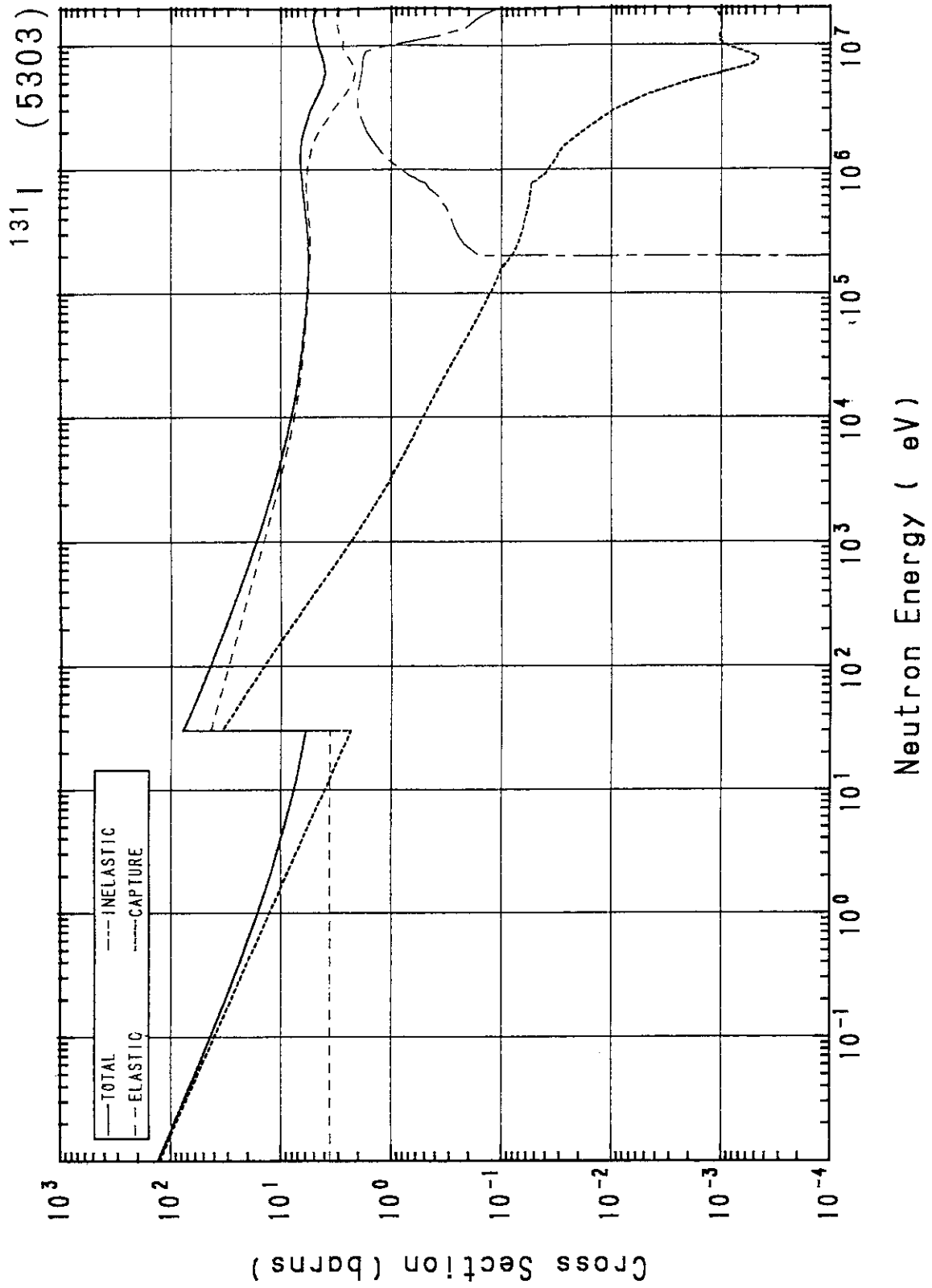


127 | (5301)

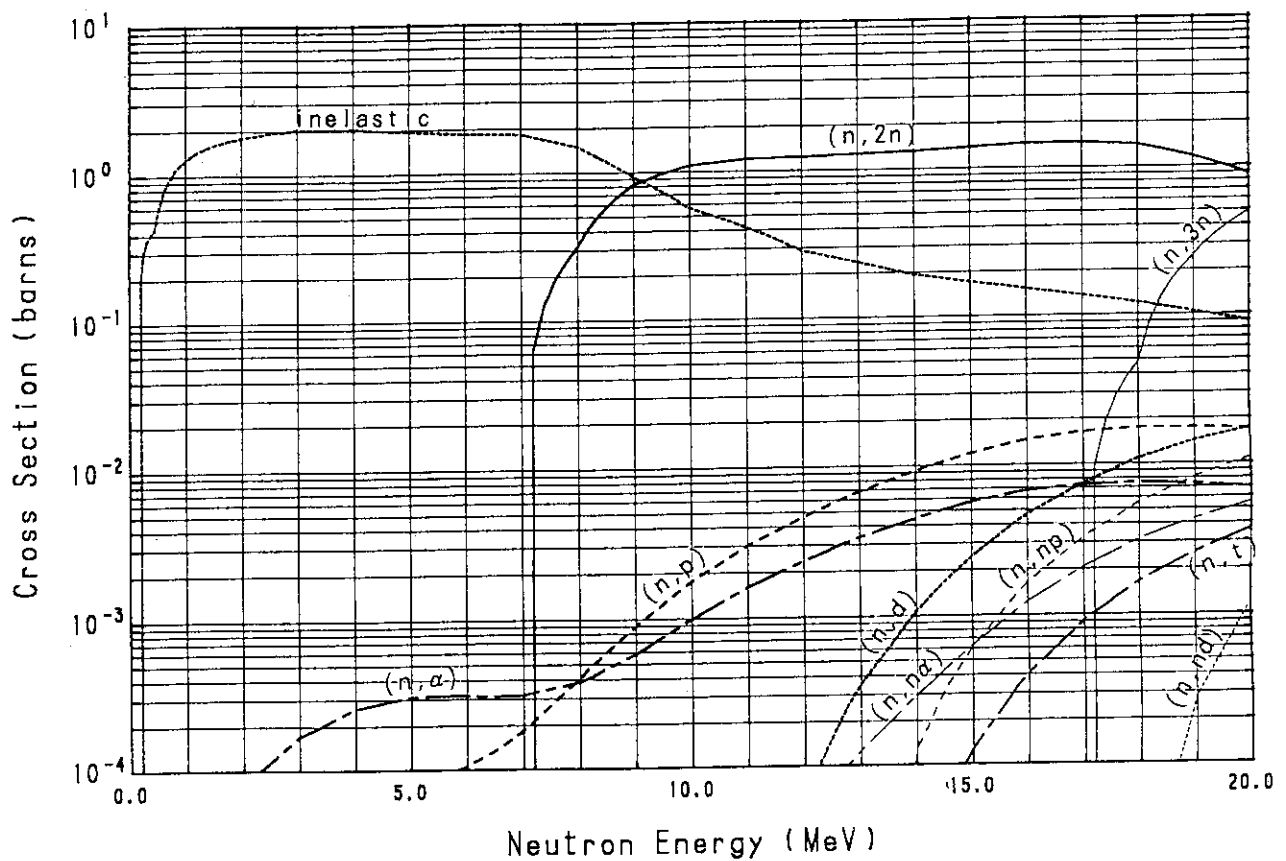
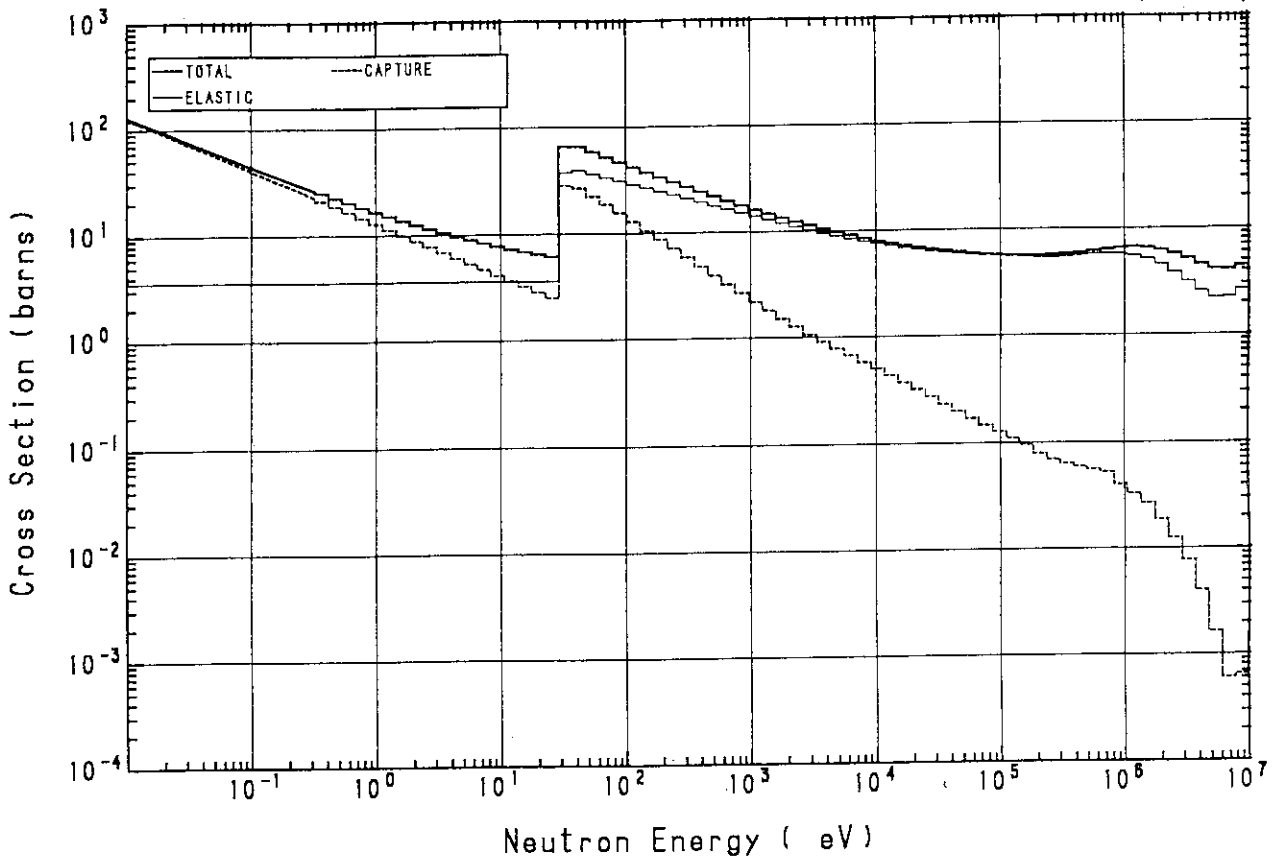


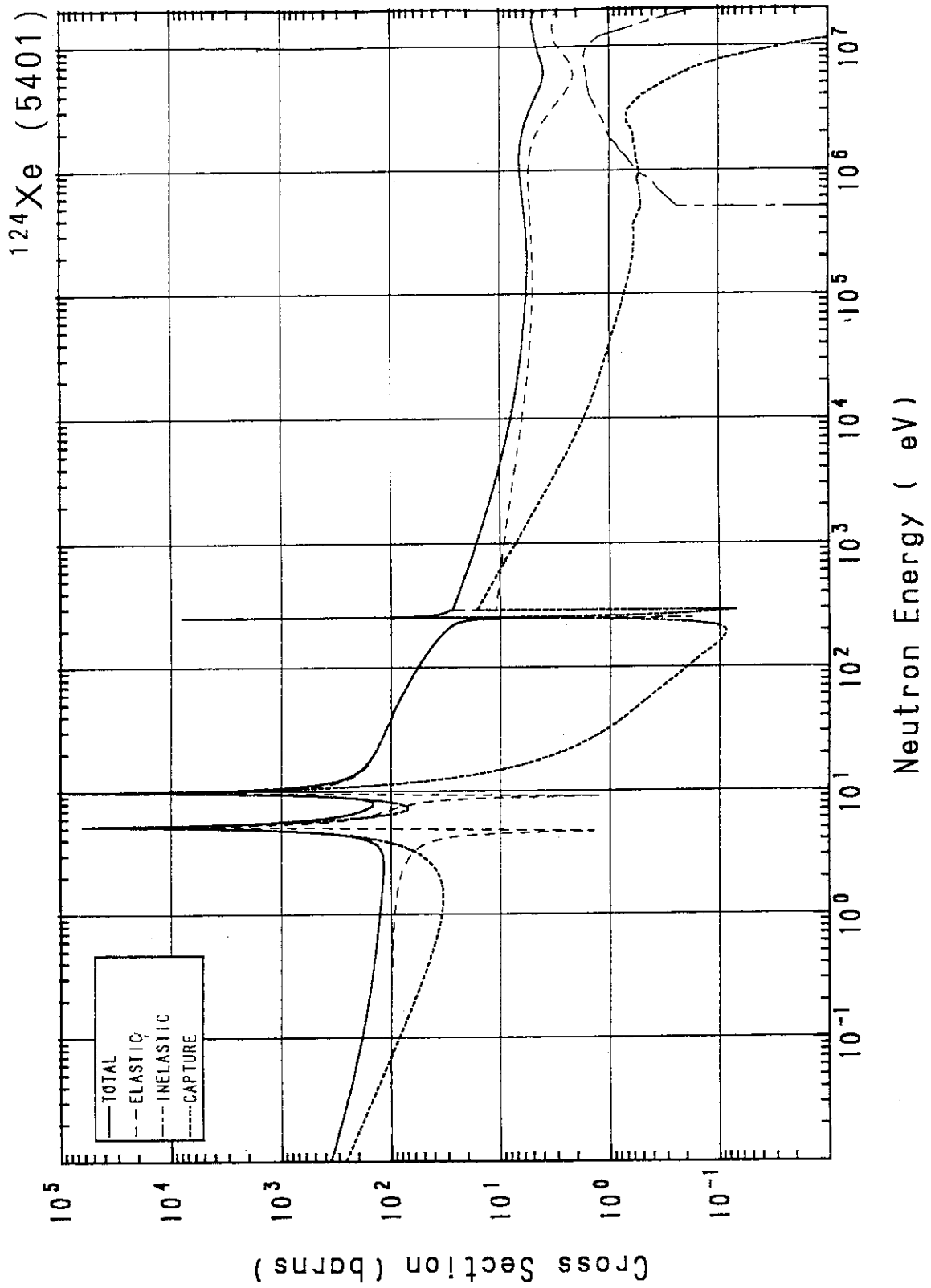




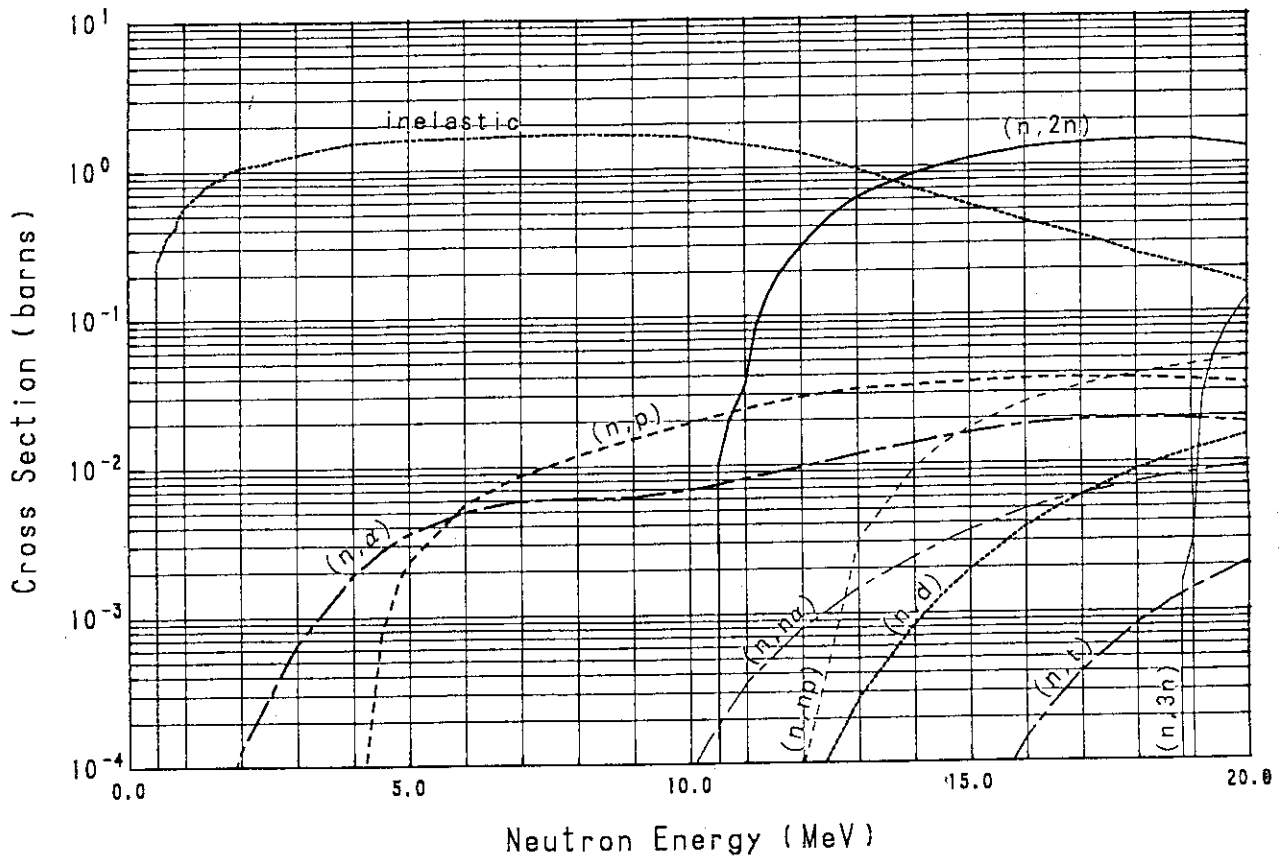
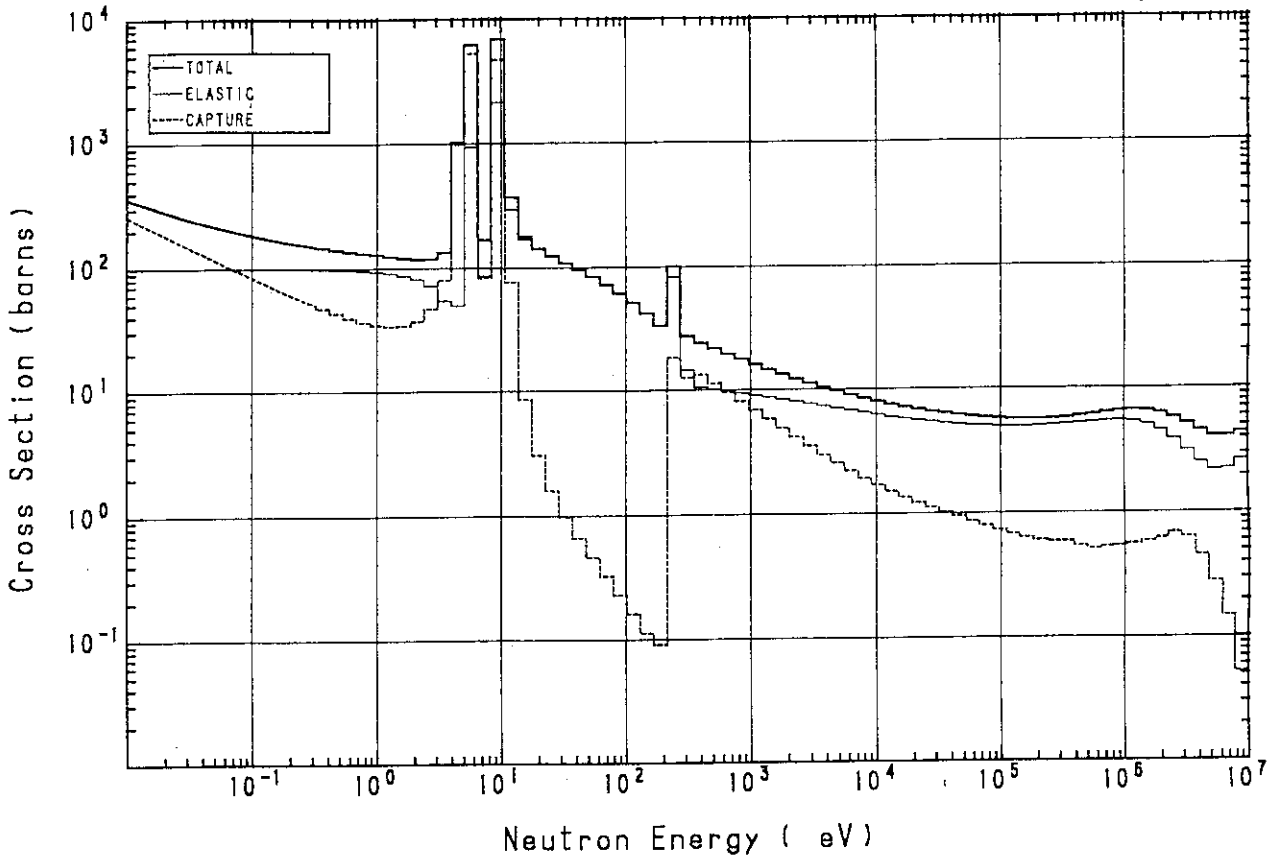


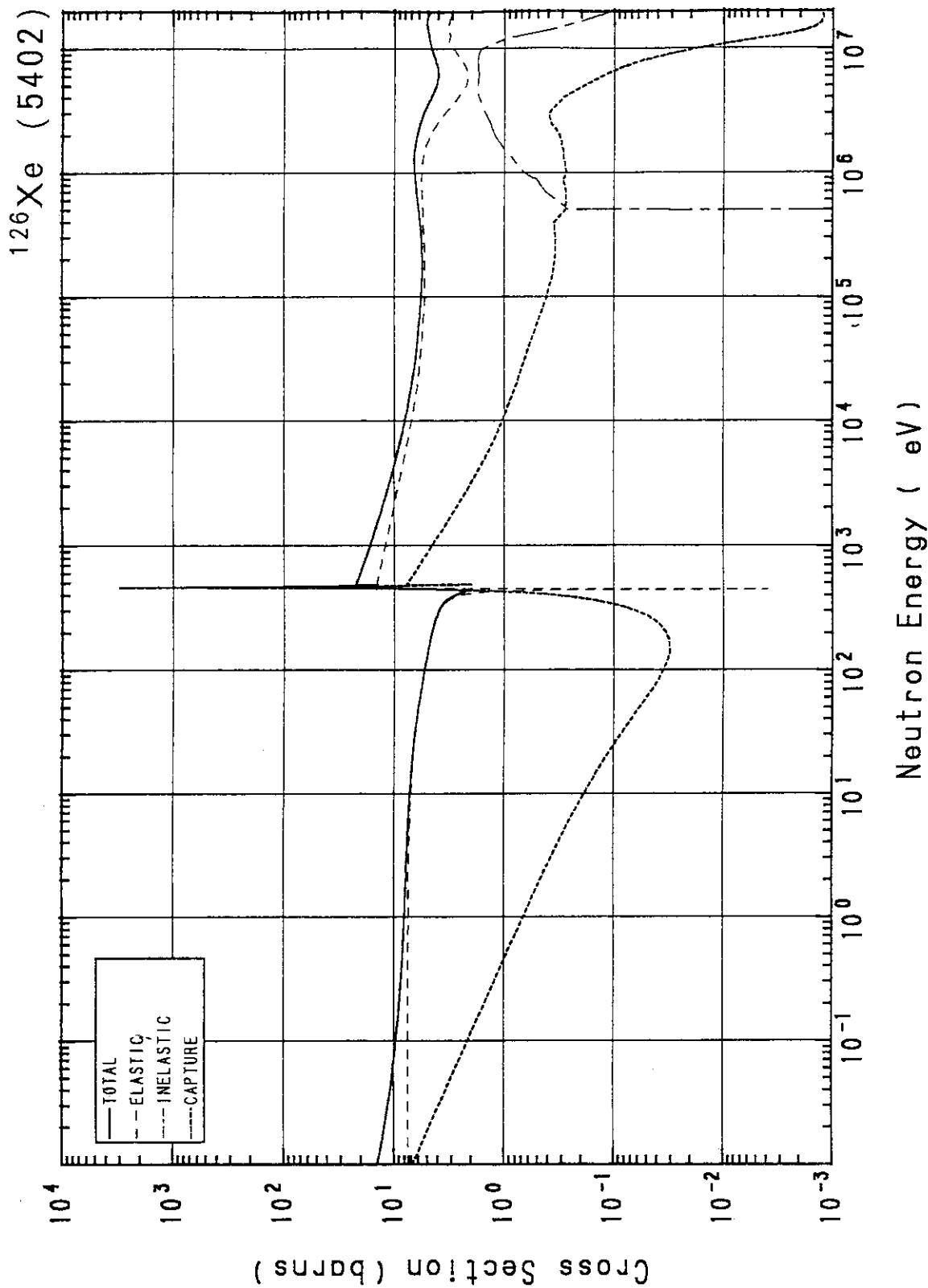
¹³¹I (5303)



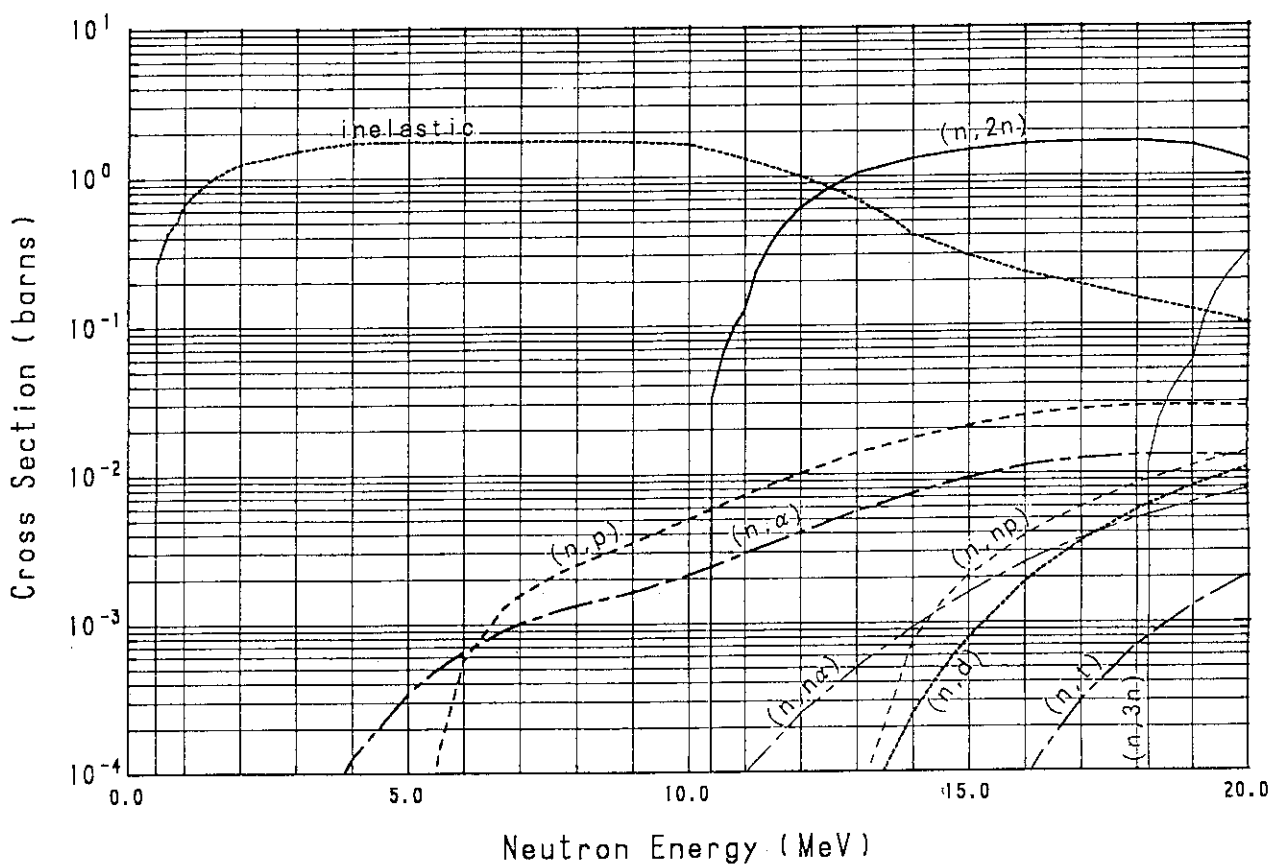
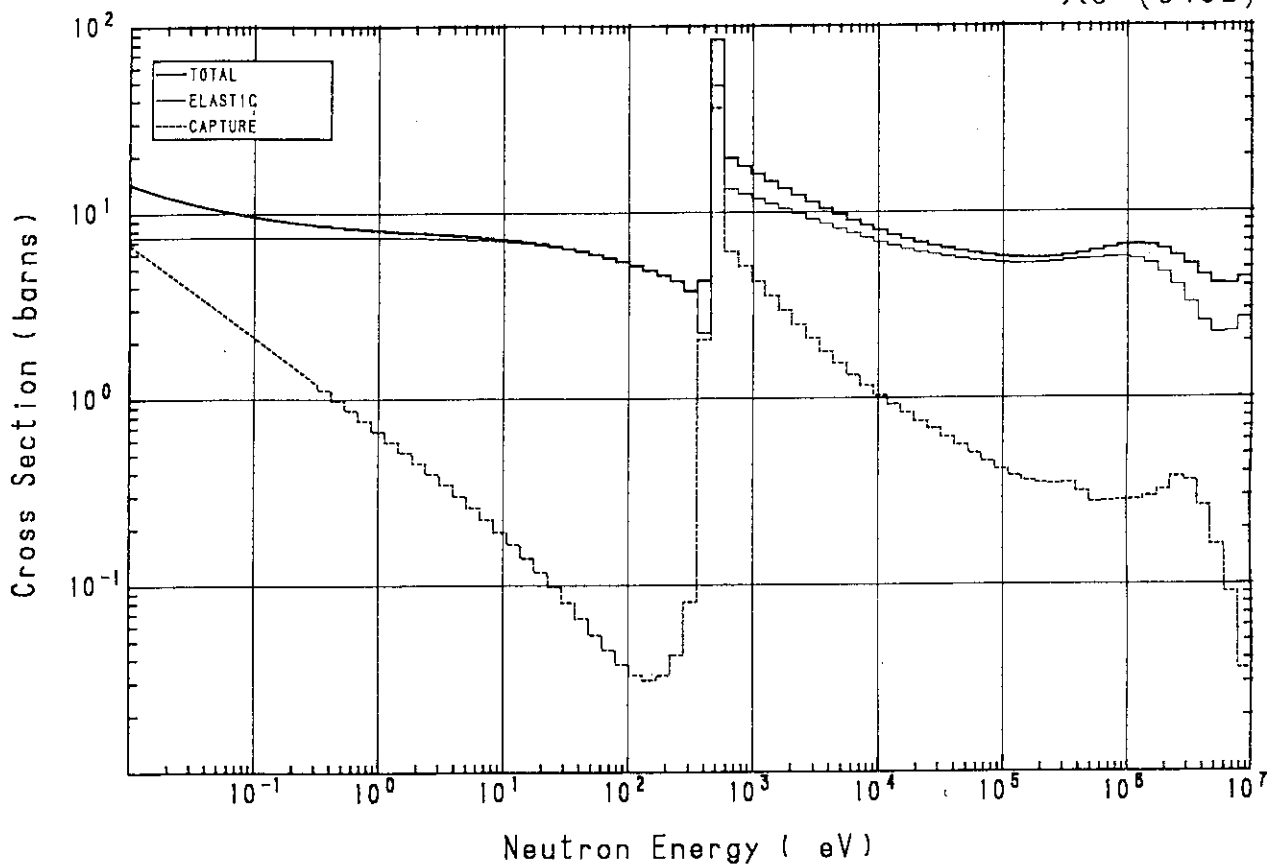


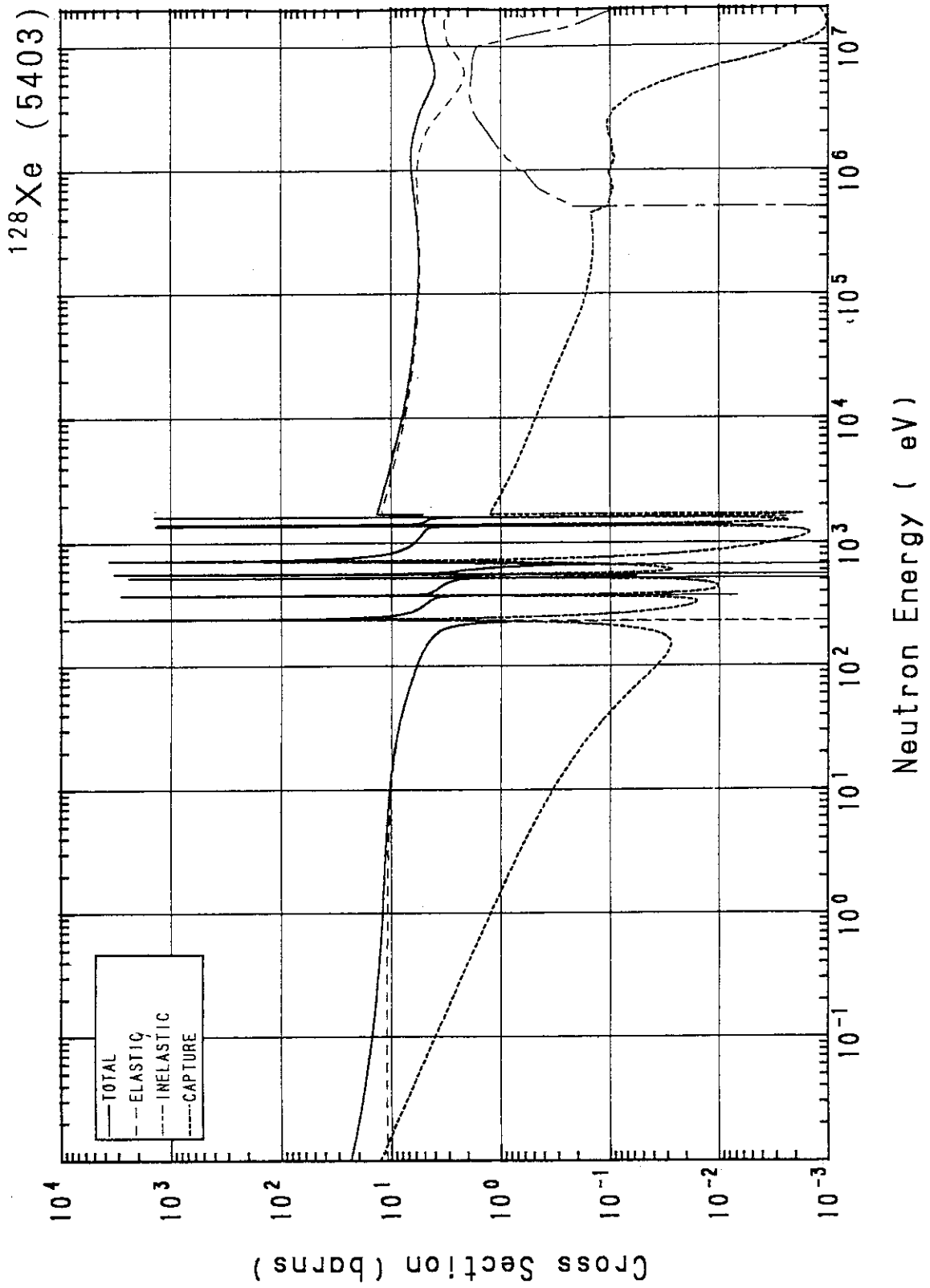
^{124}Xe (5401)



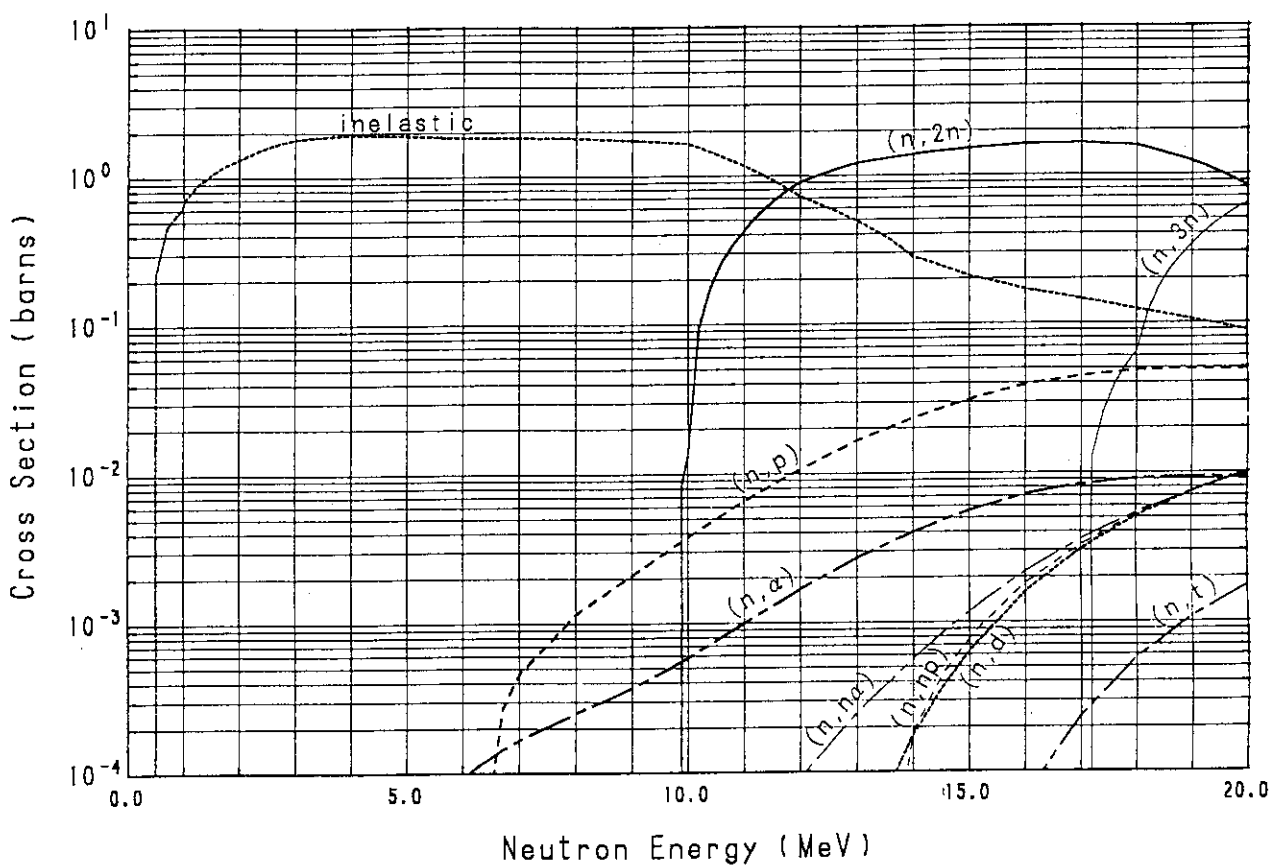
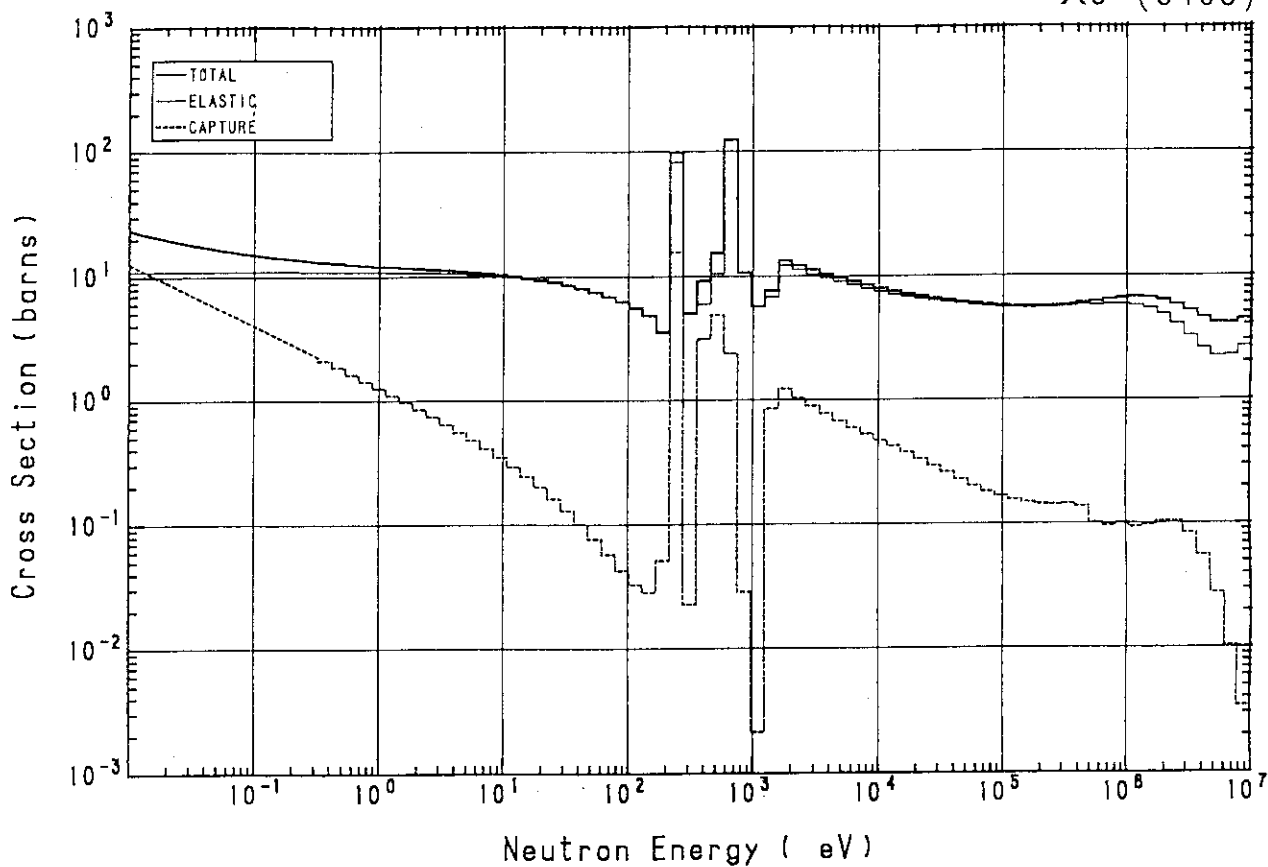


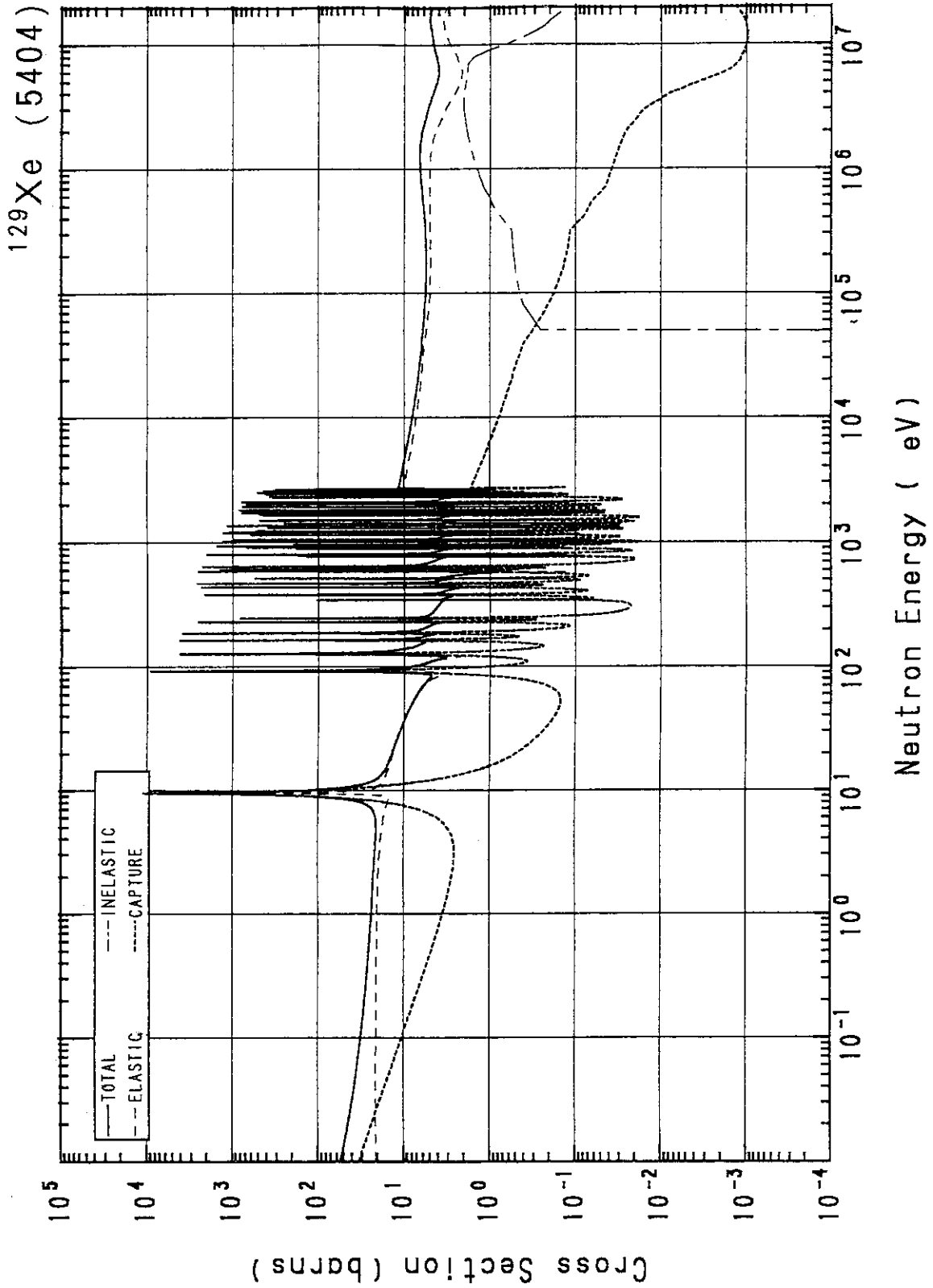
^{126}Xe (5402)



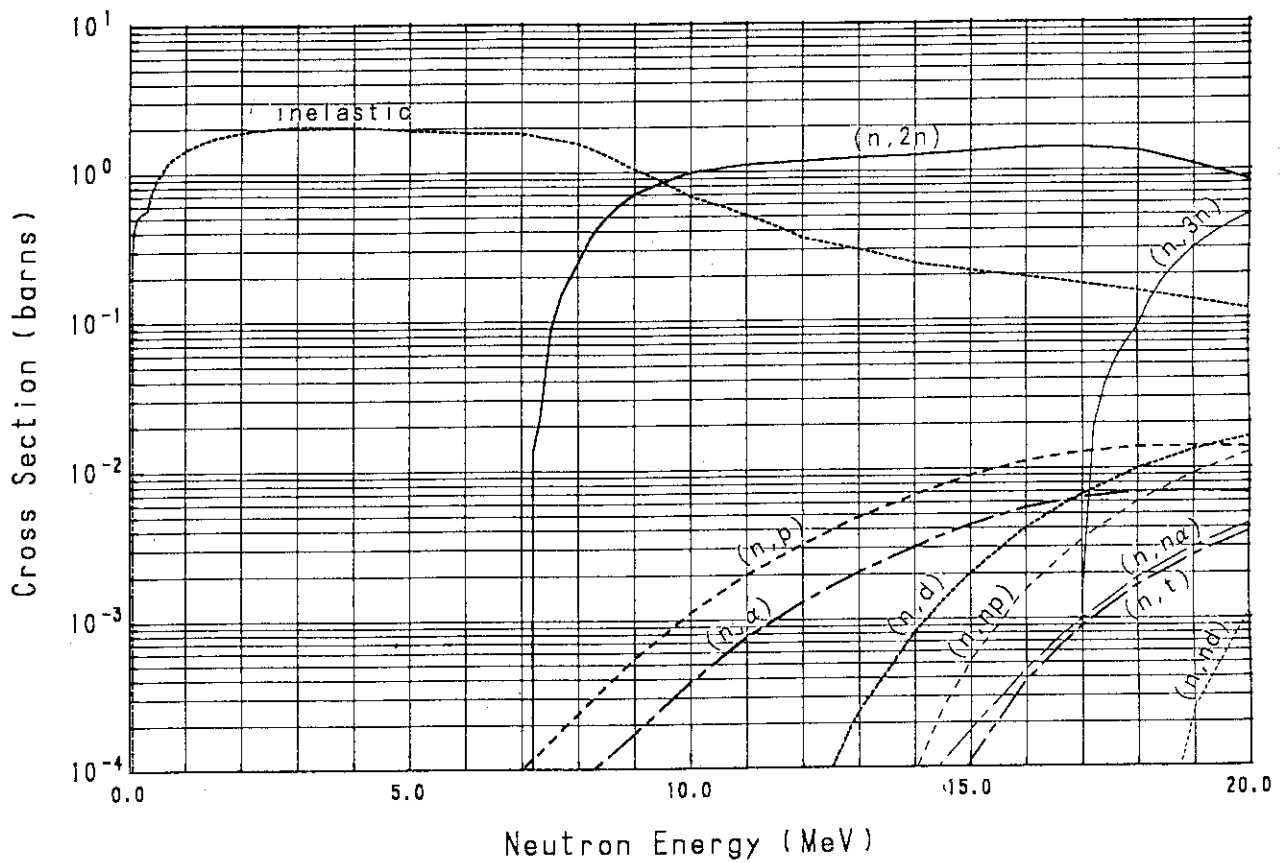
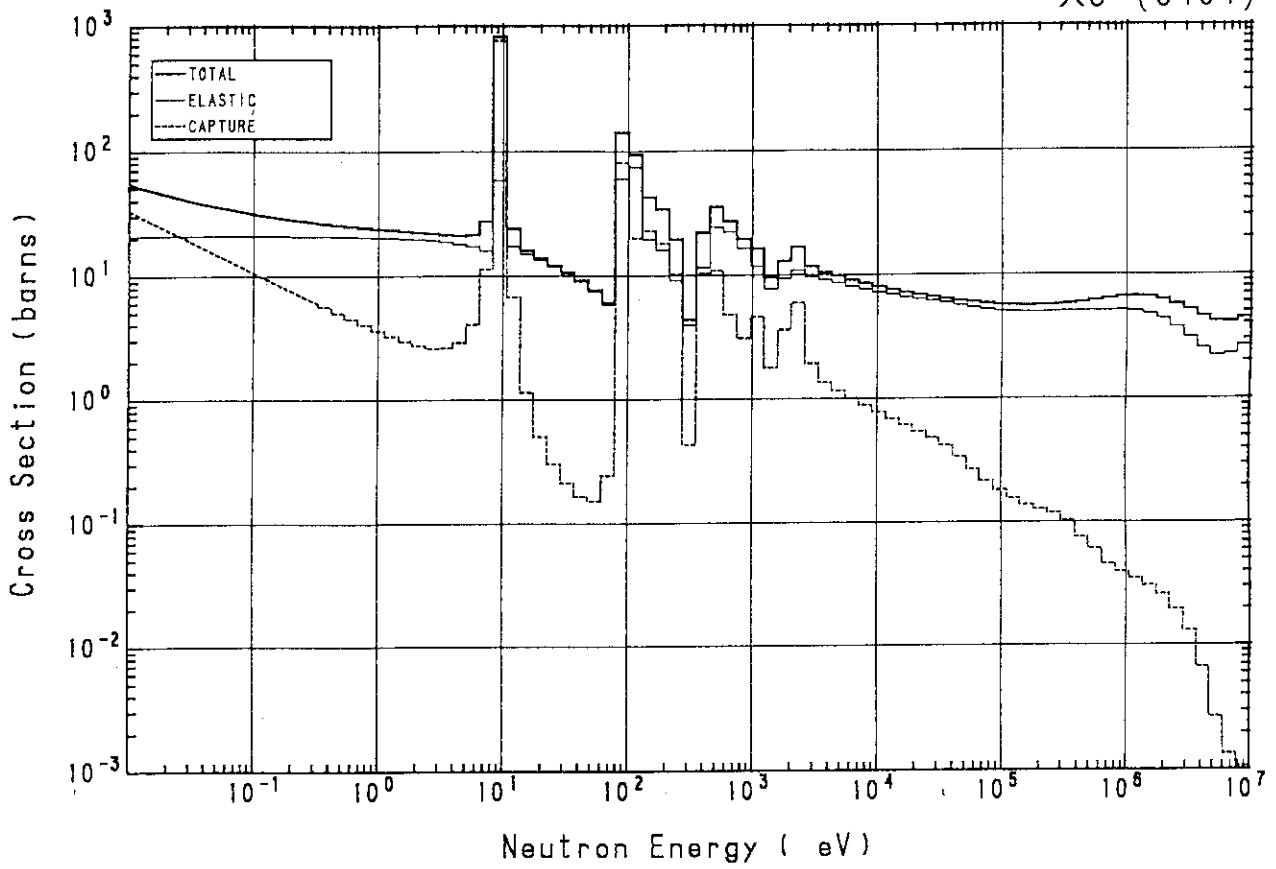


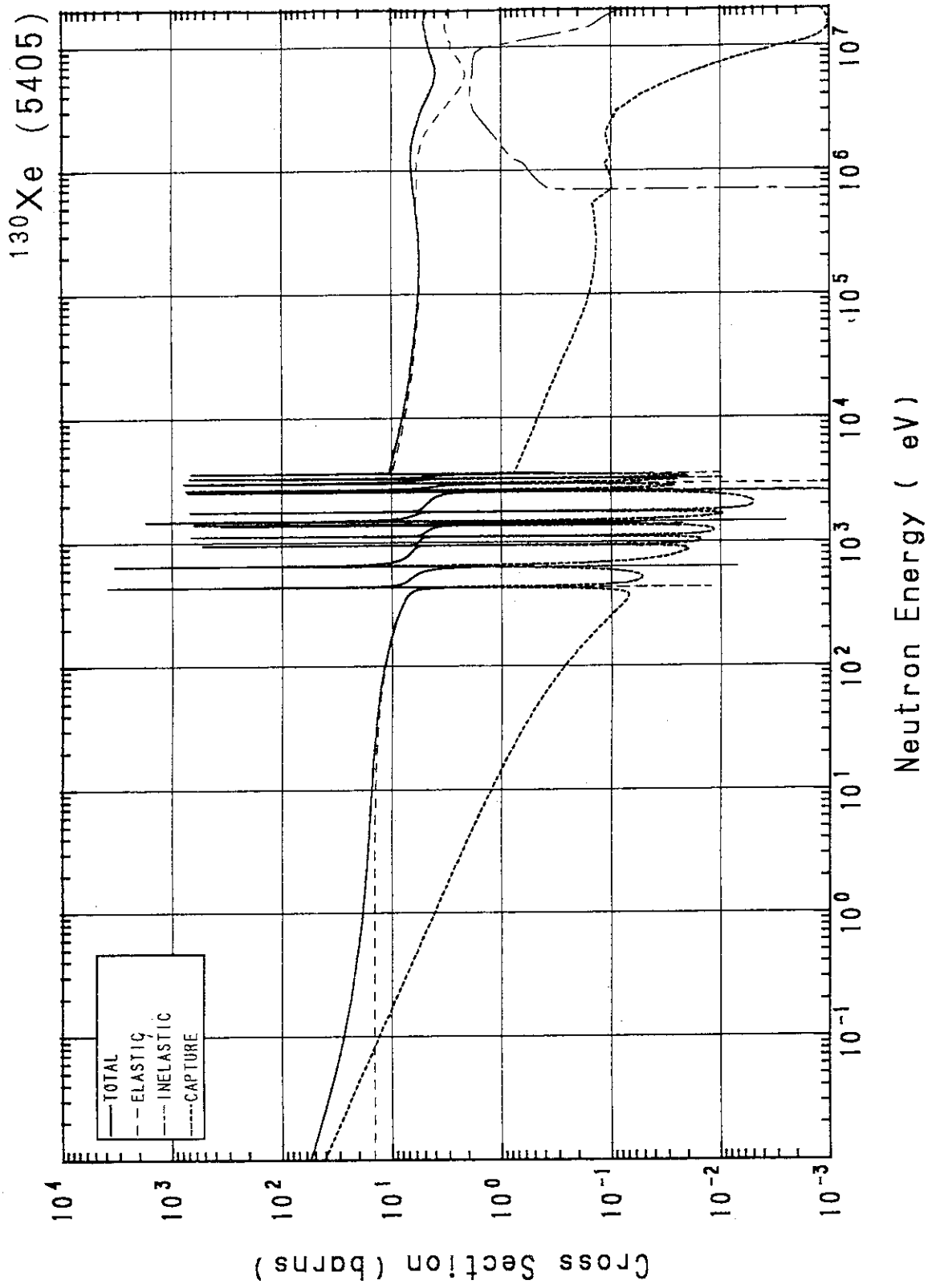
^{128}Xe (5403)



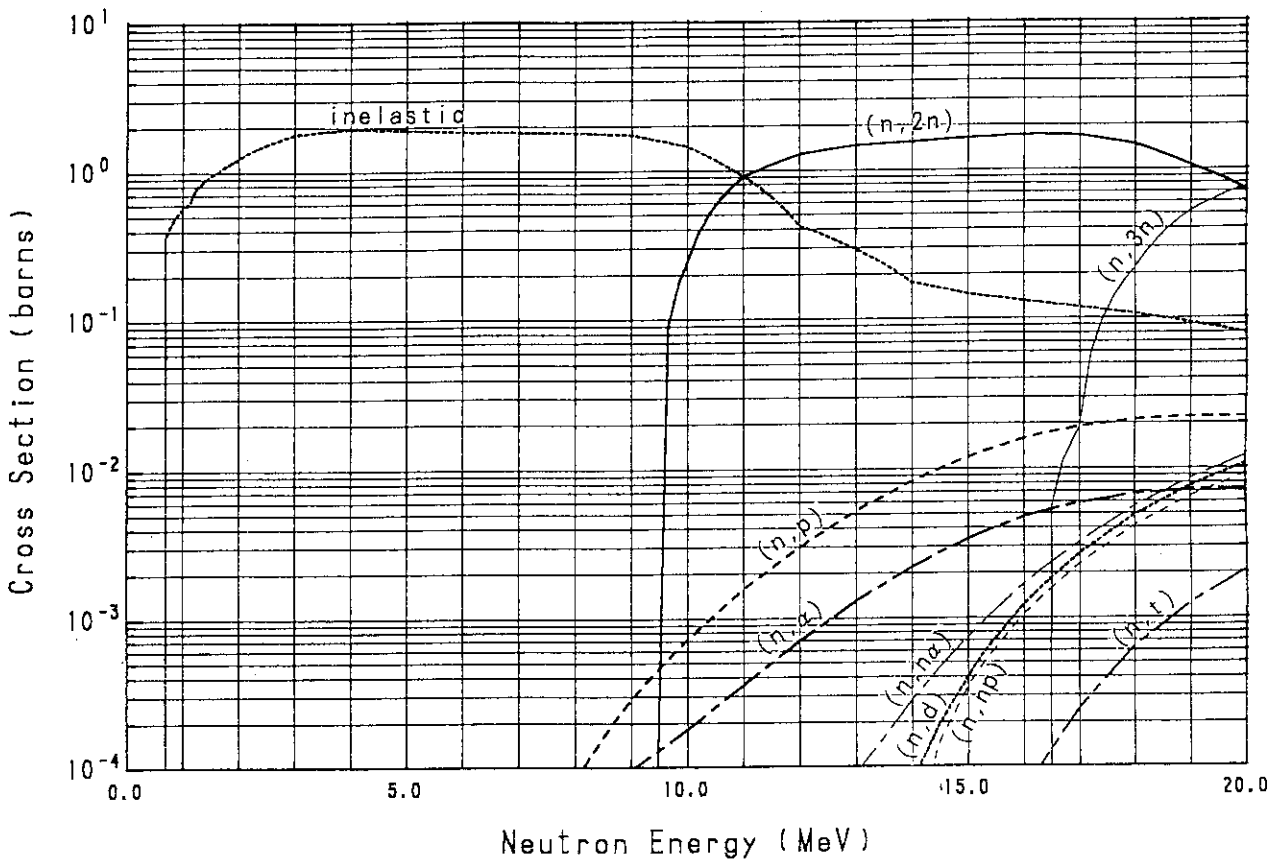
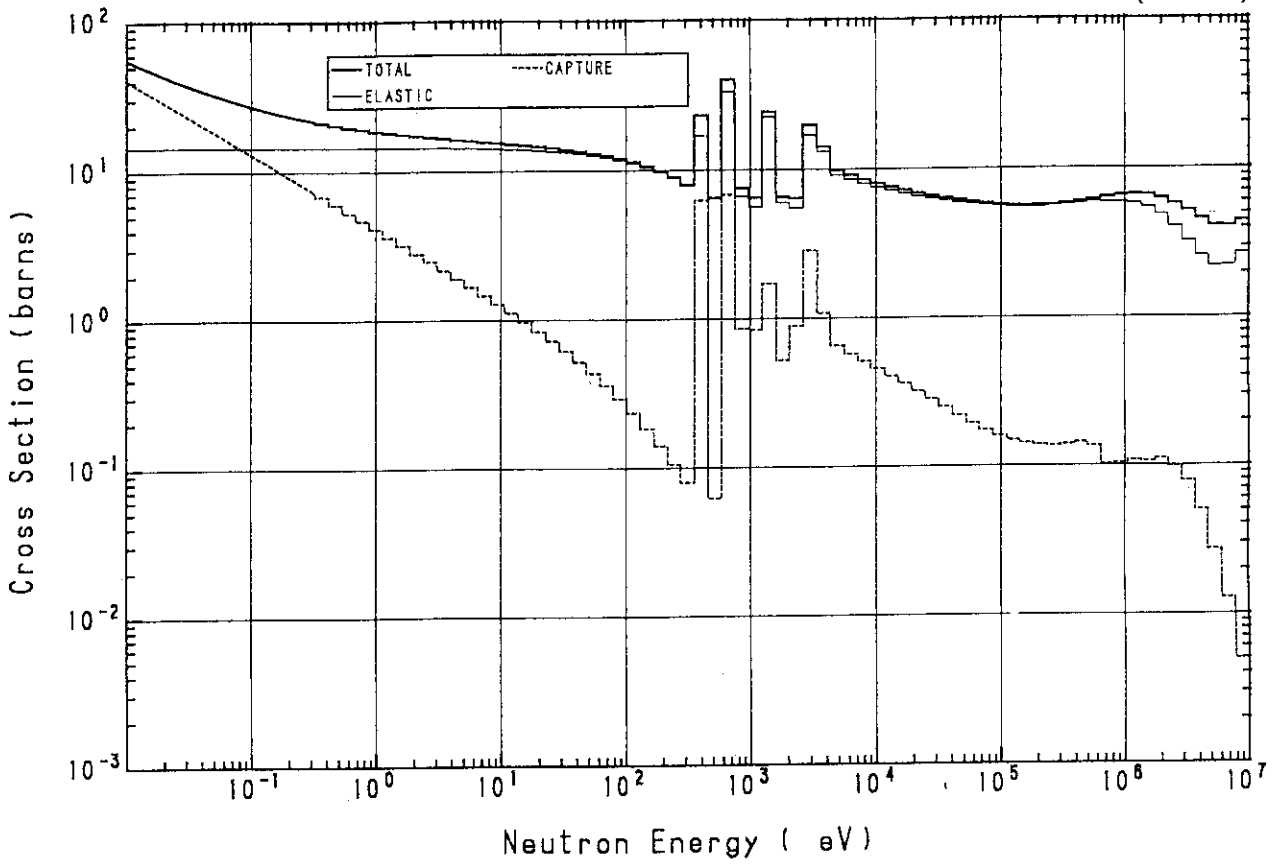


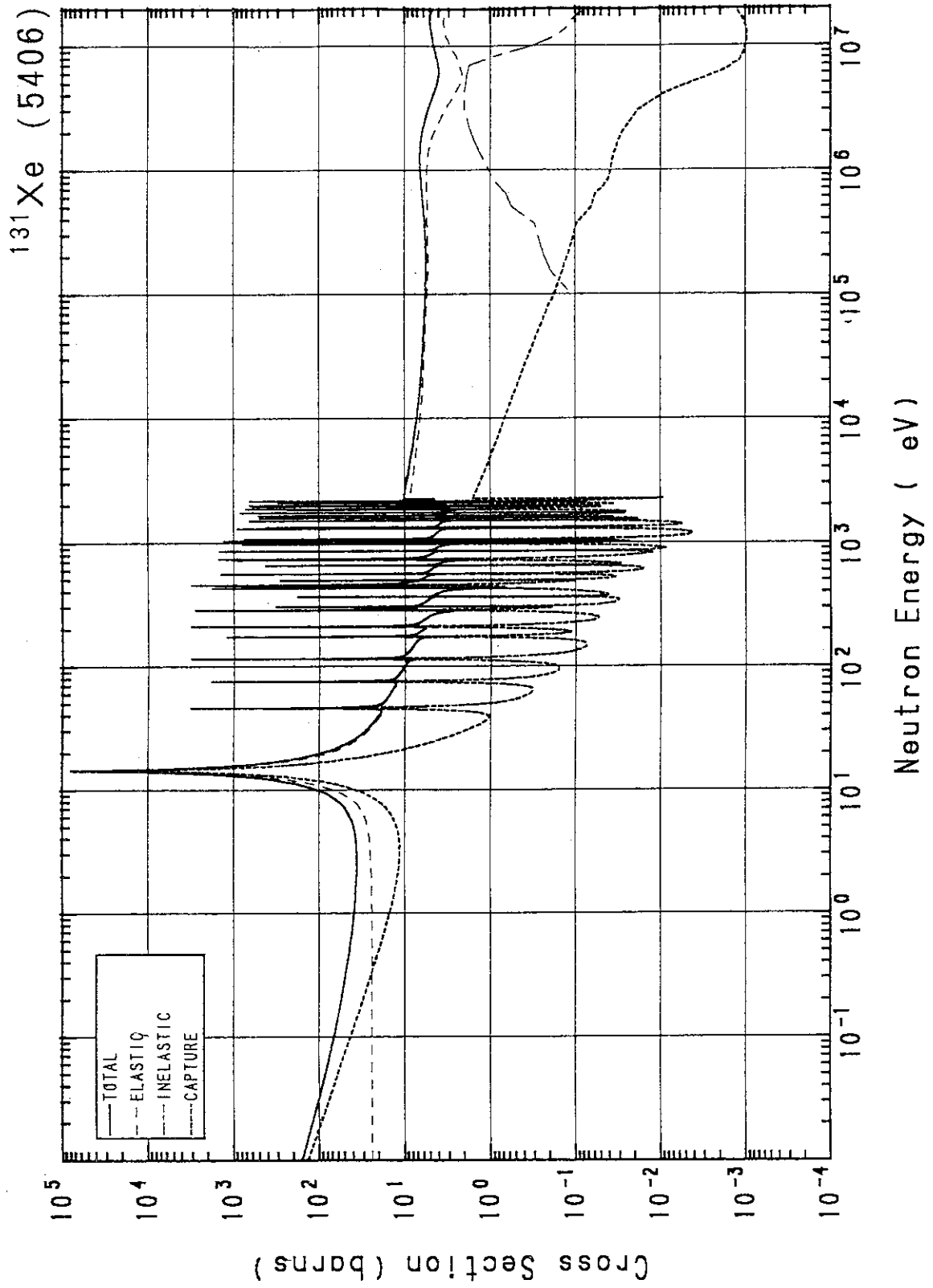
^{129}Xe (5404)



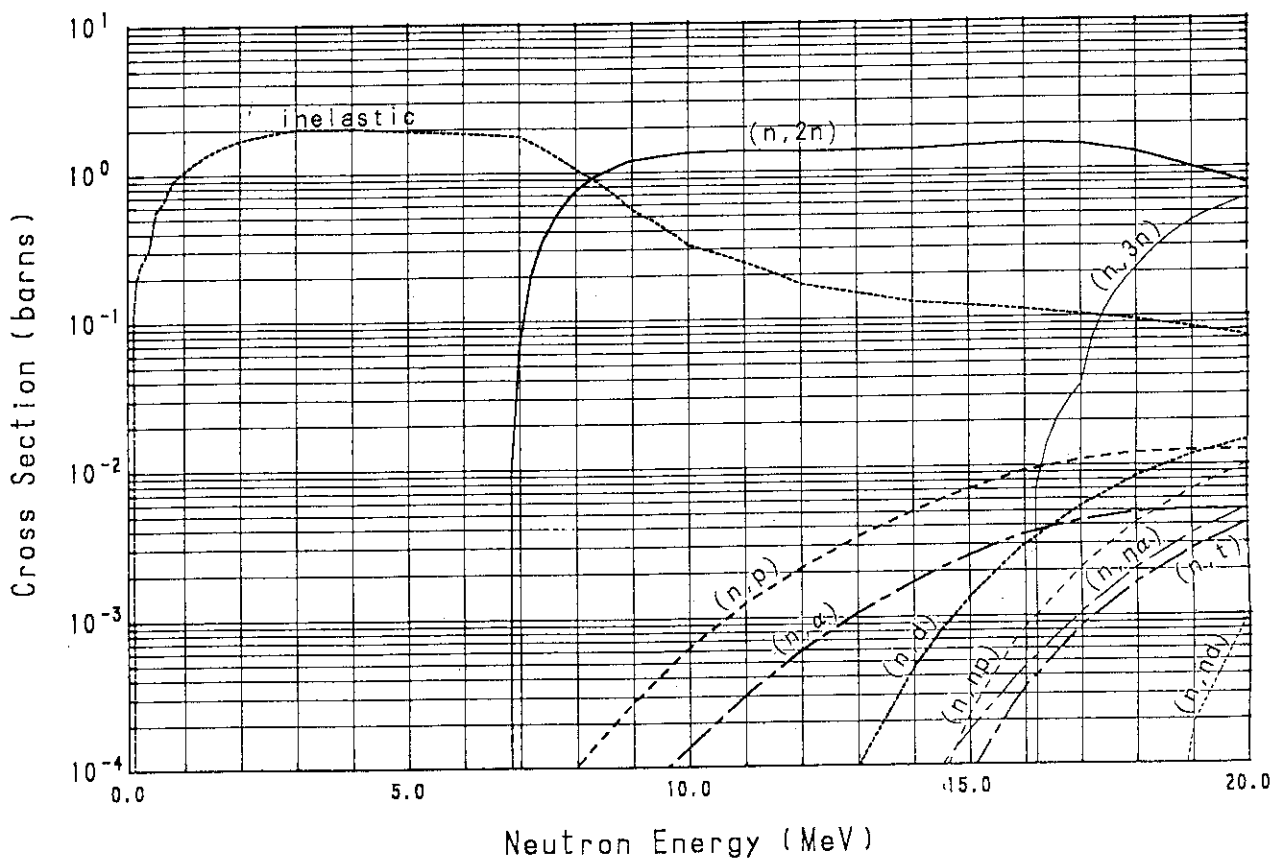
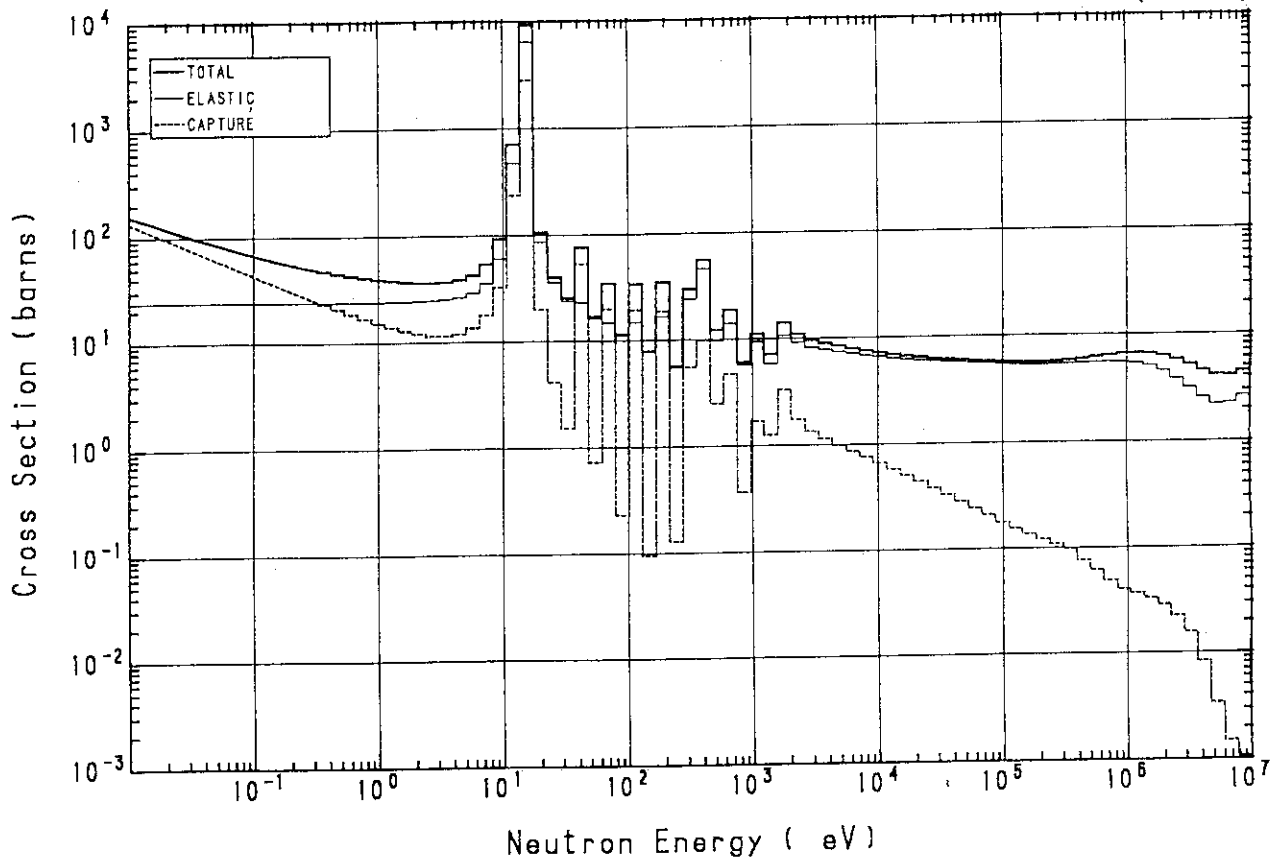


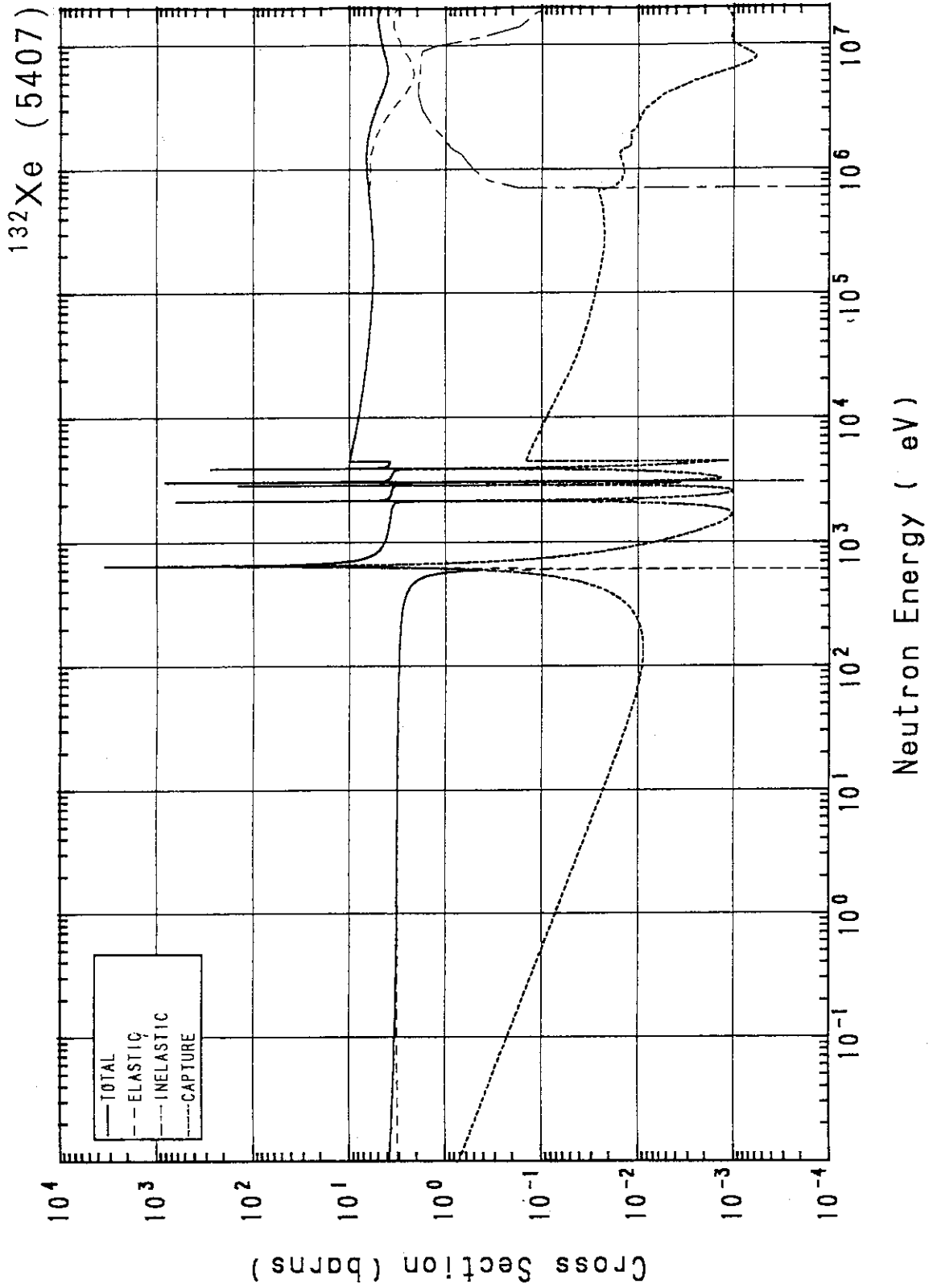
^{130}Xe (5405)



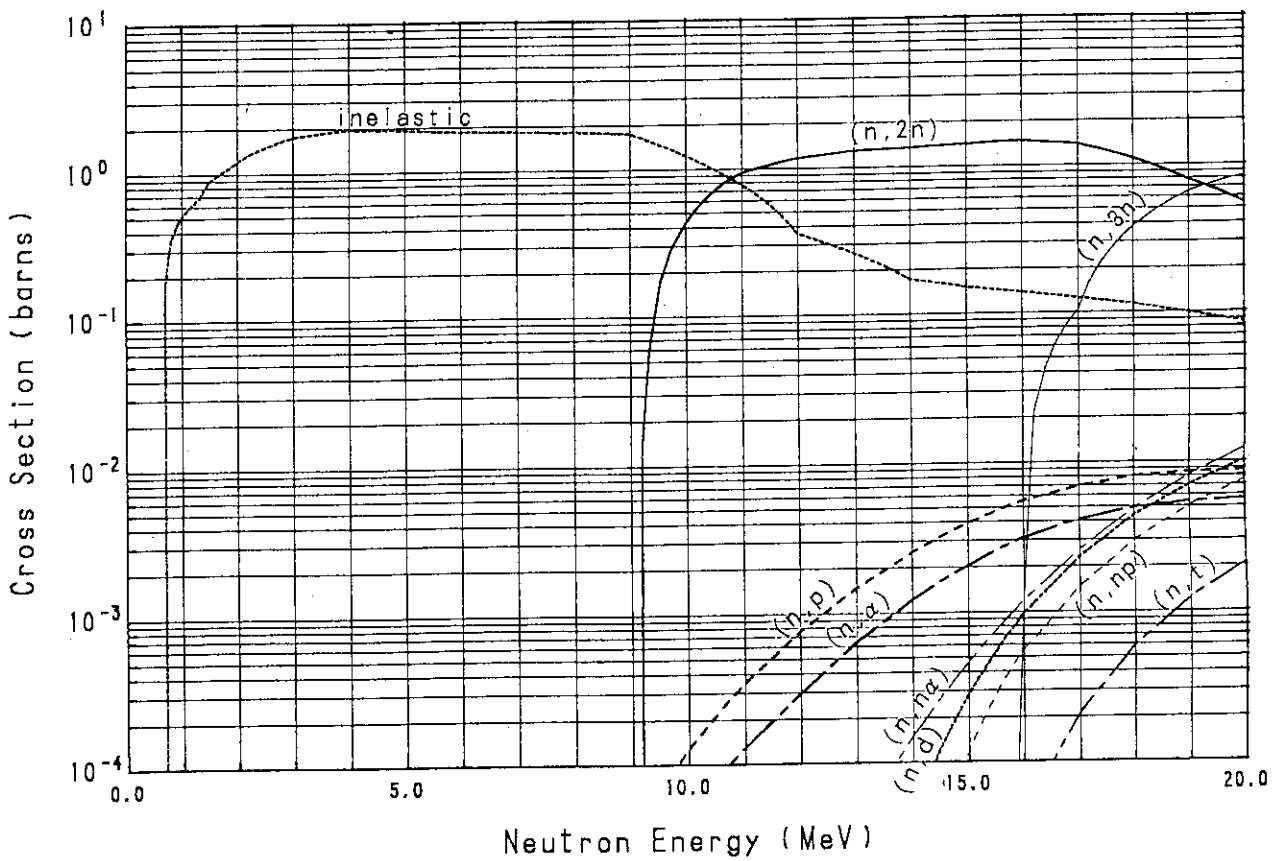
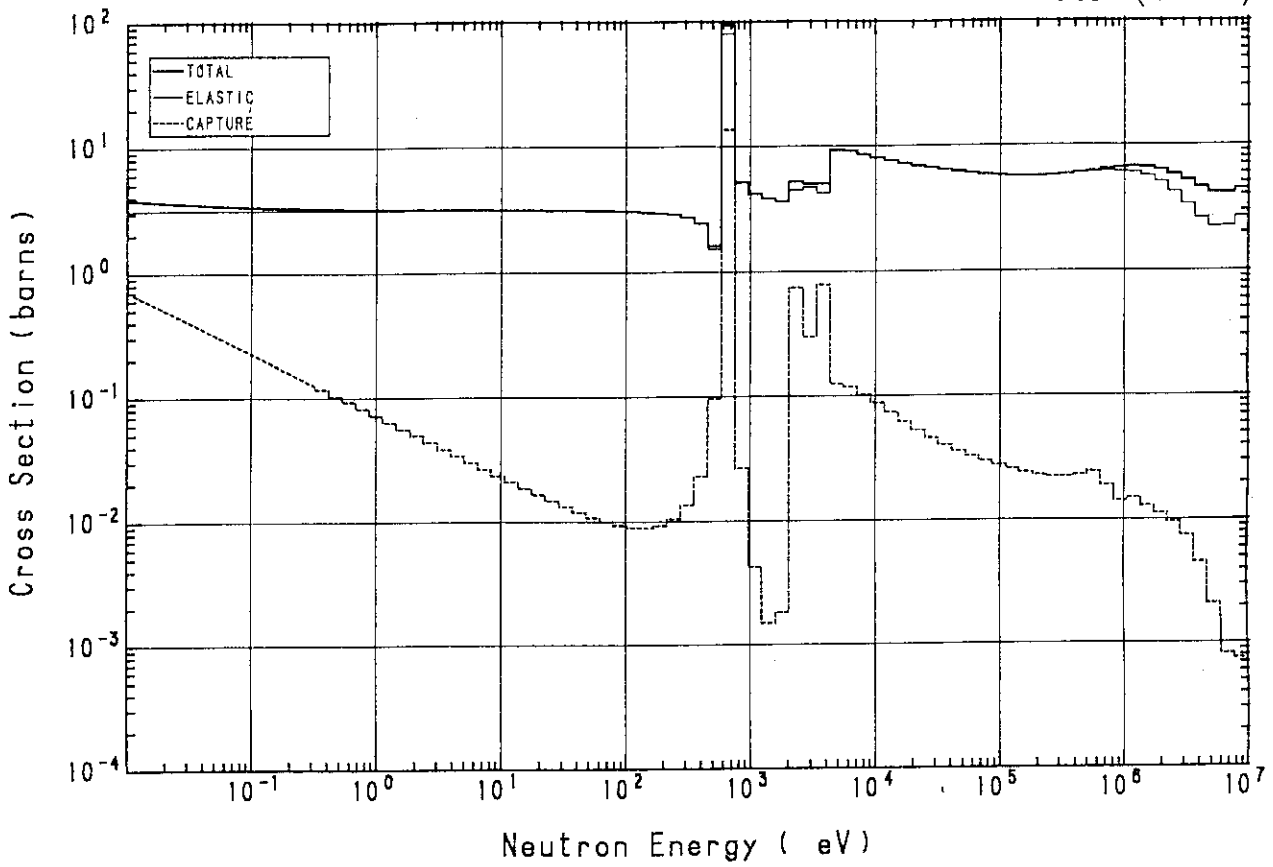


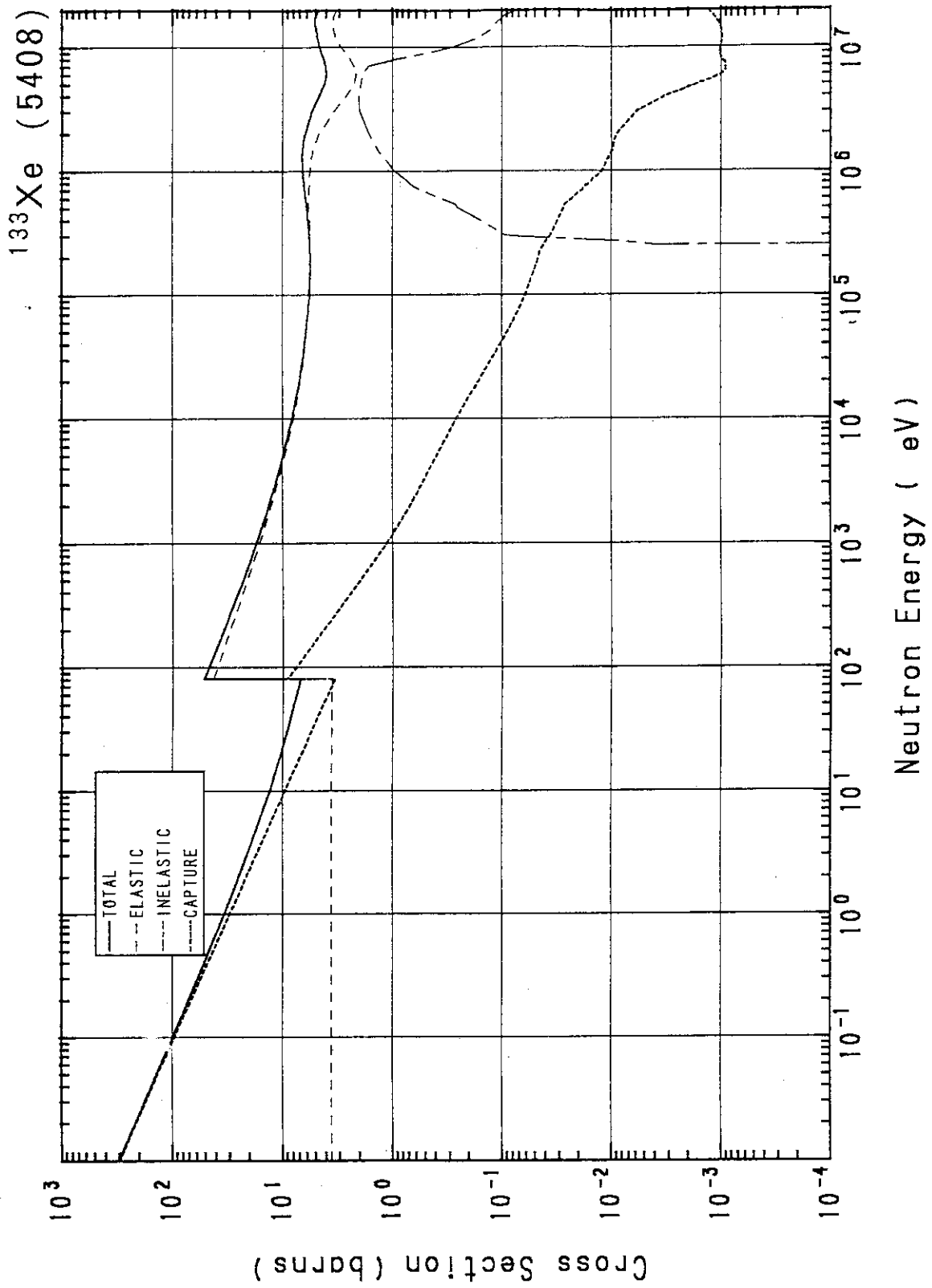
^{131}Xe (5406)



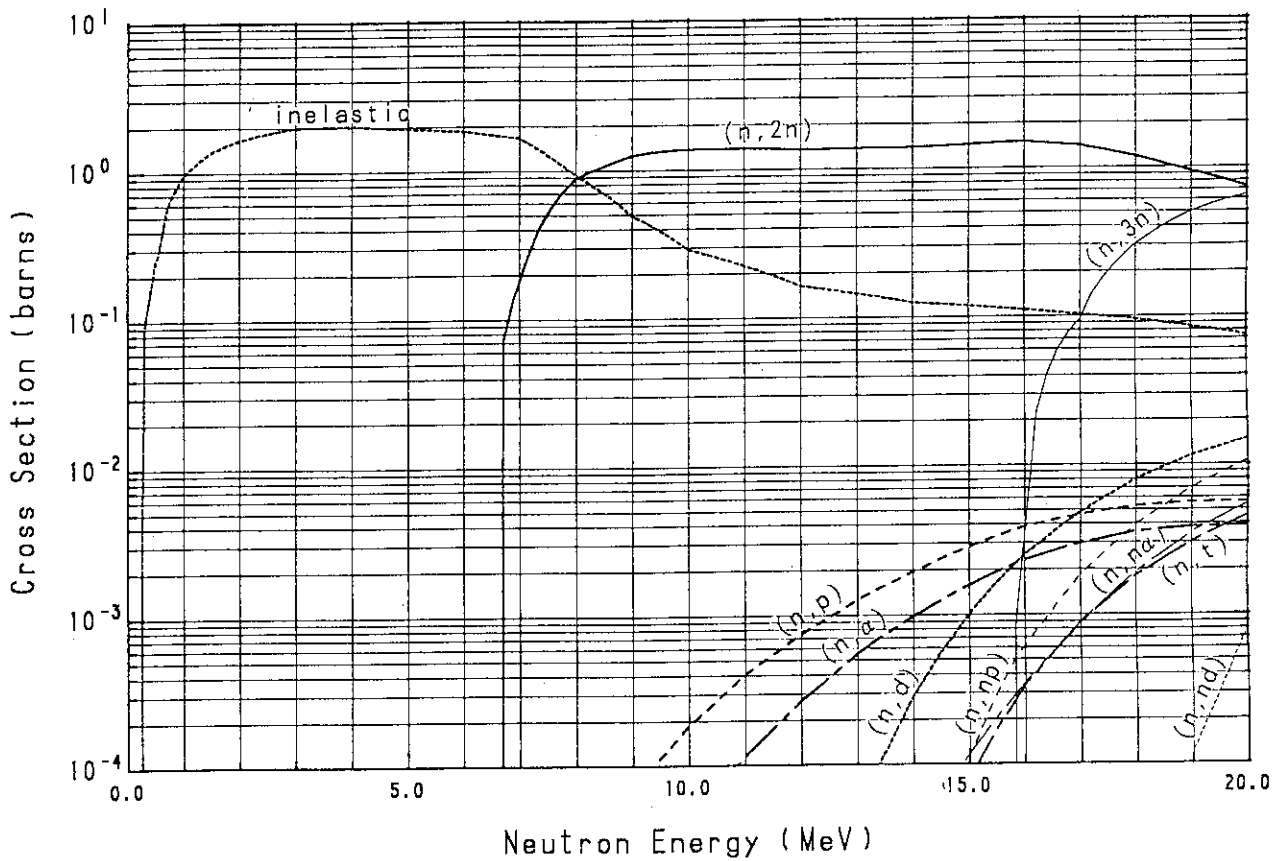
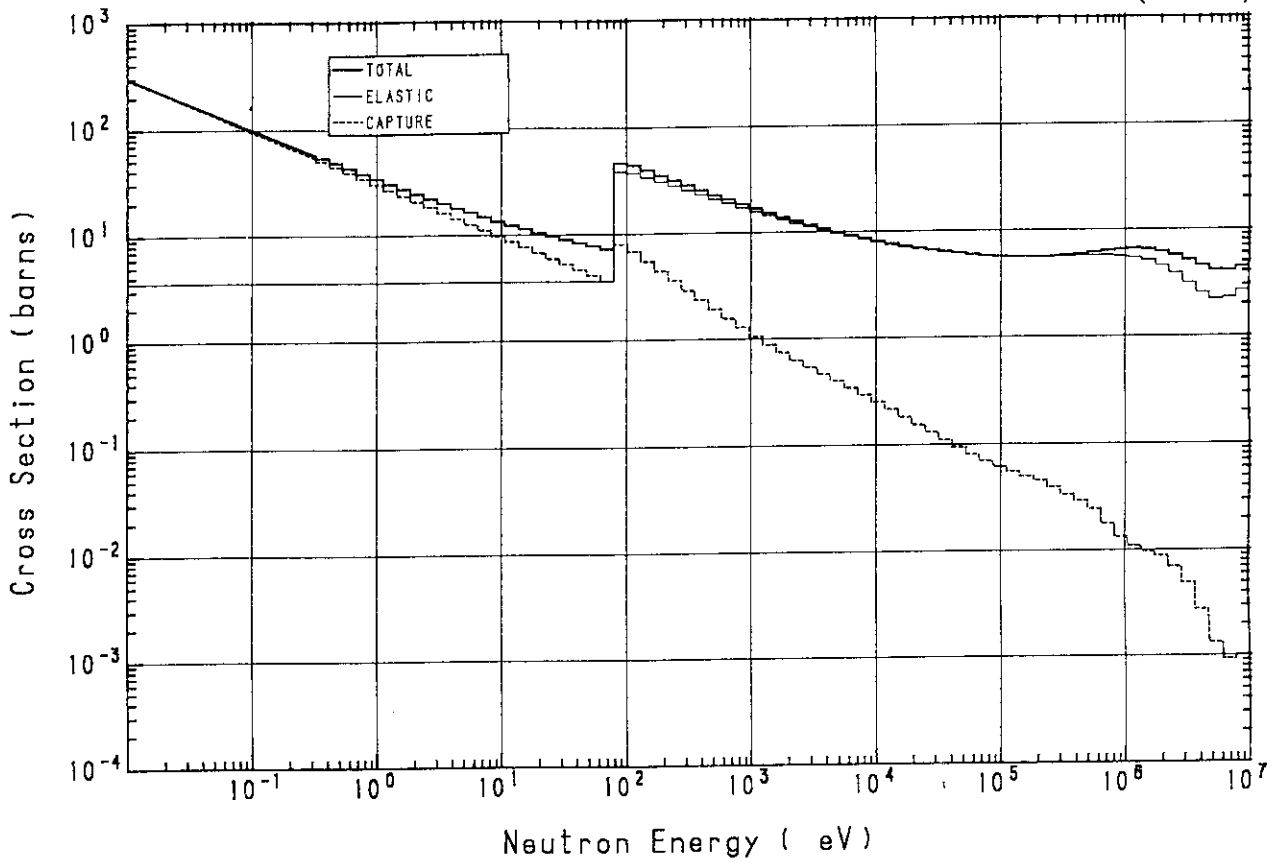


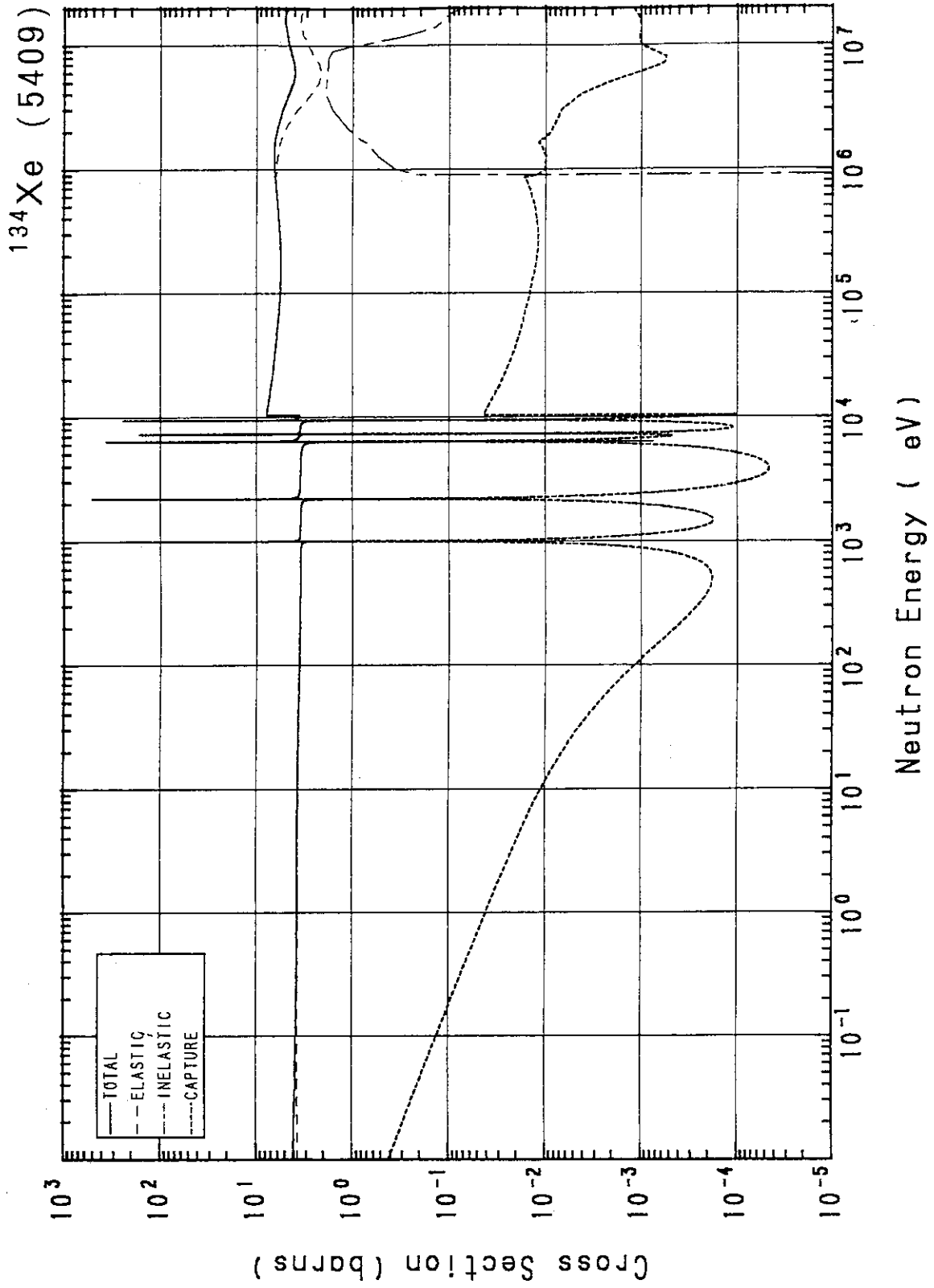
^{132}Xe (5407)



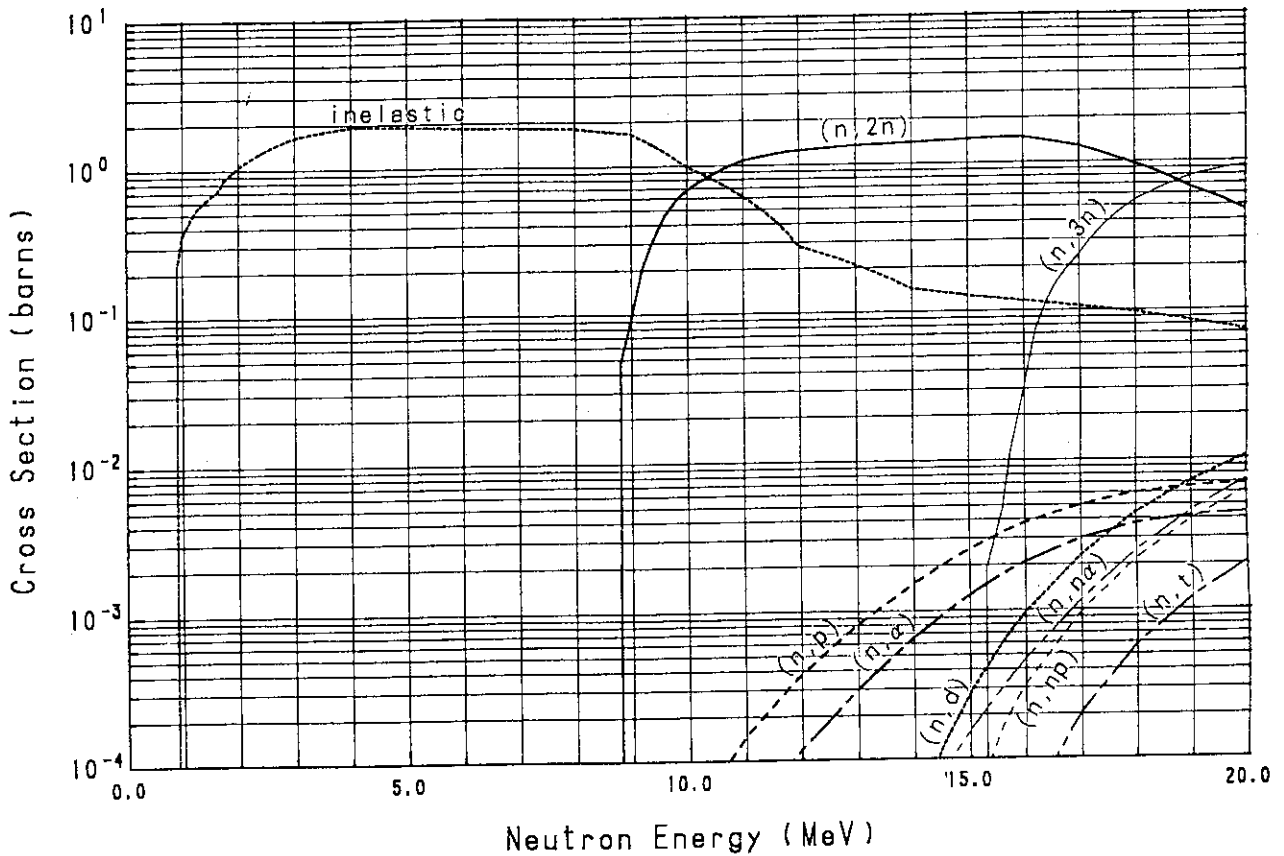
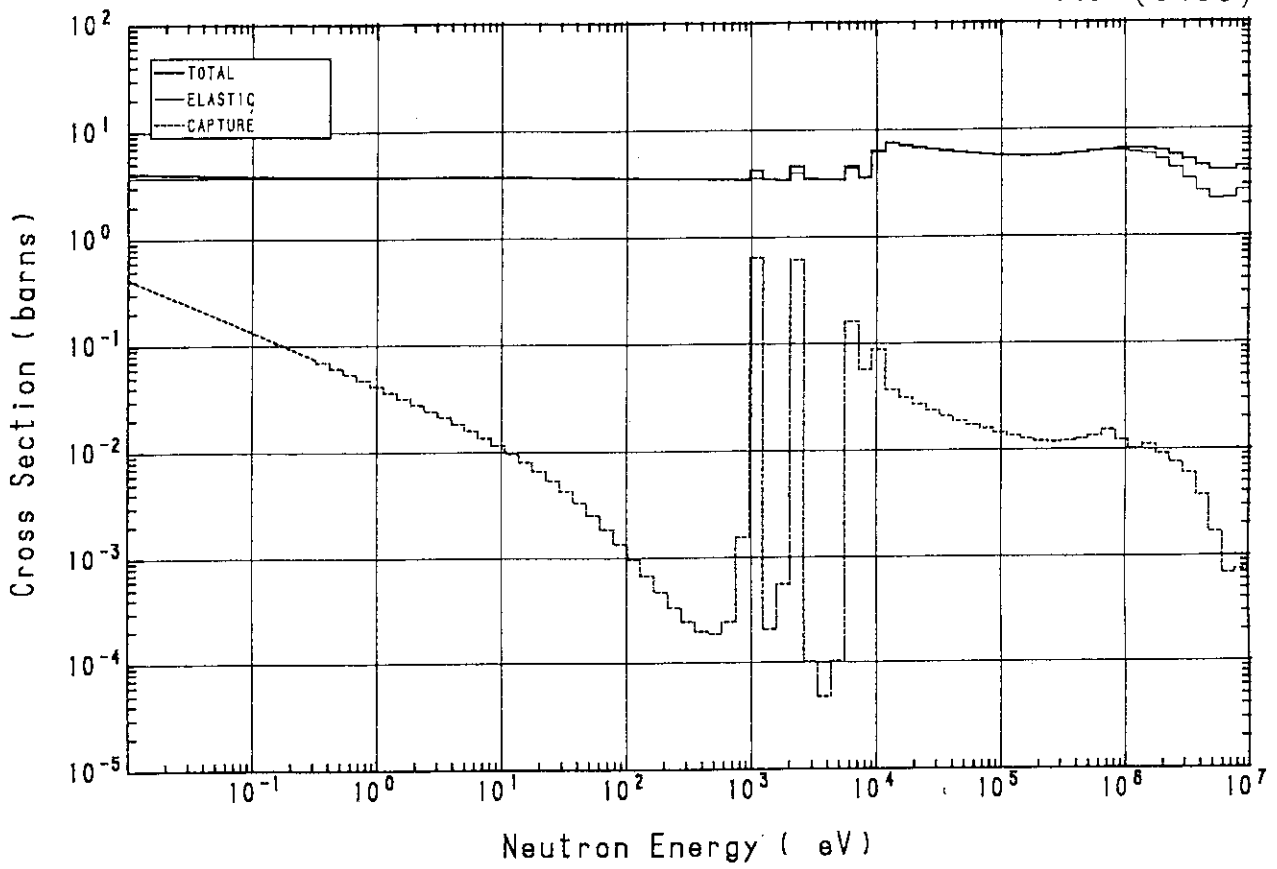


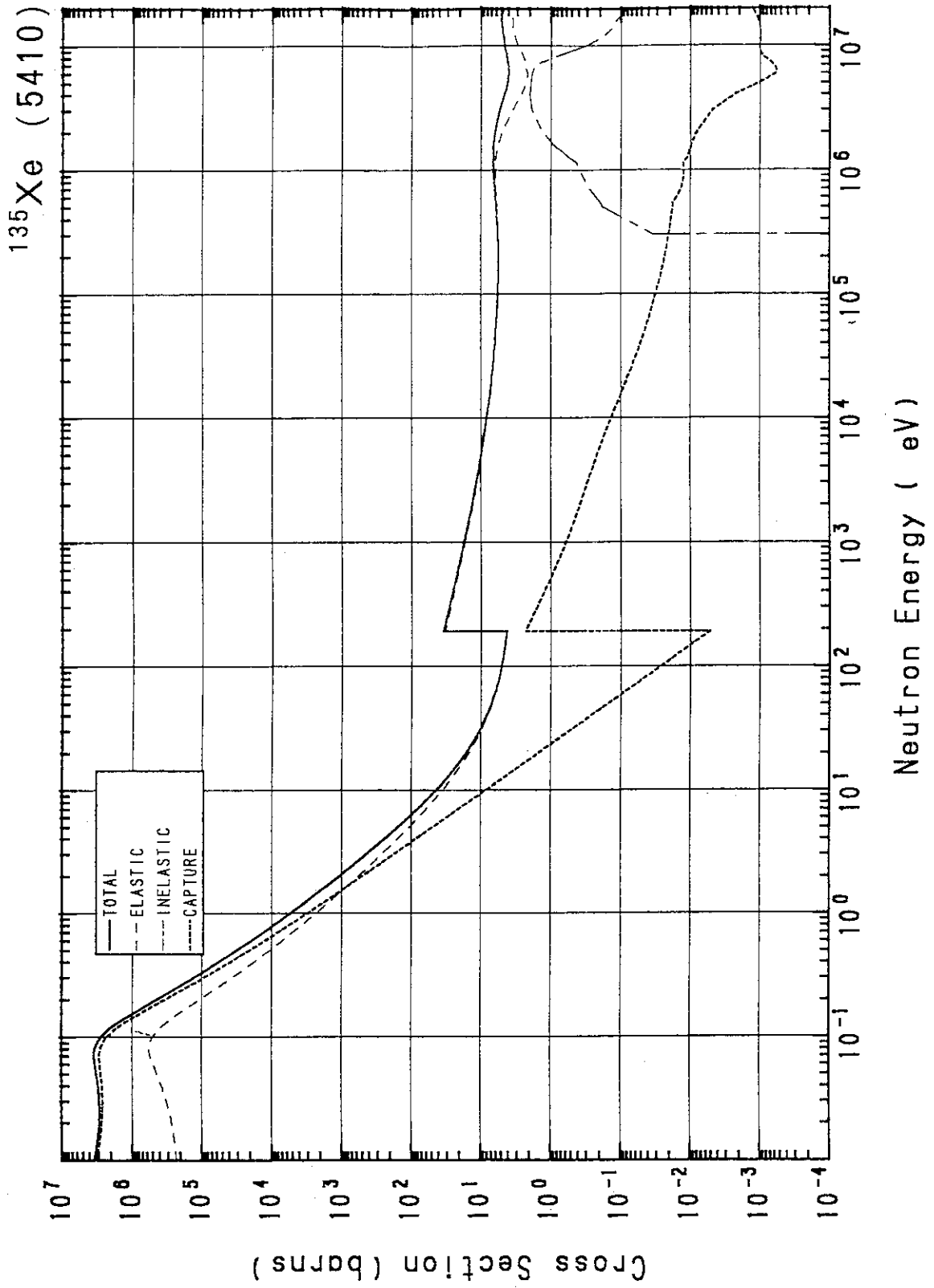
^{133}Xe (5408)



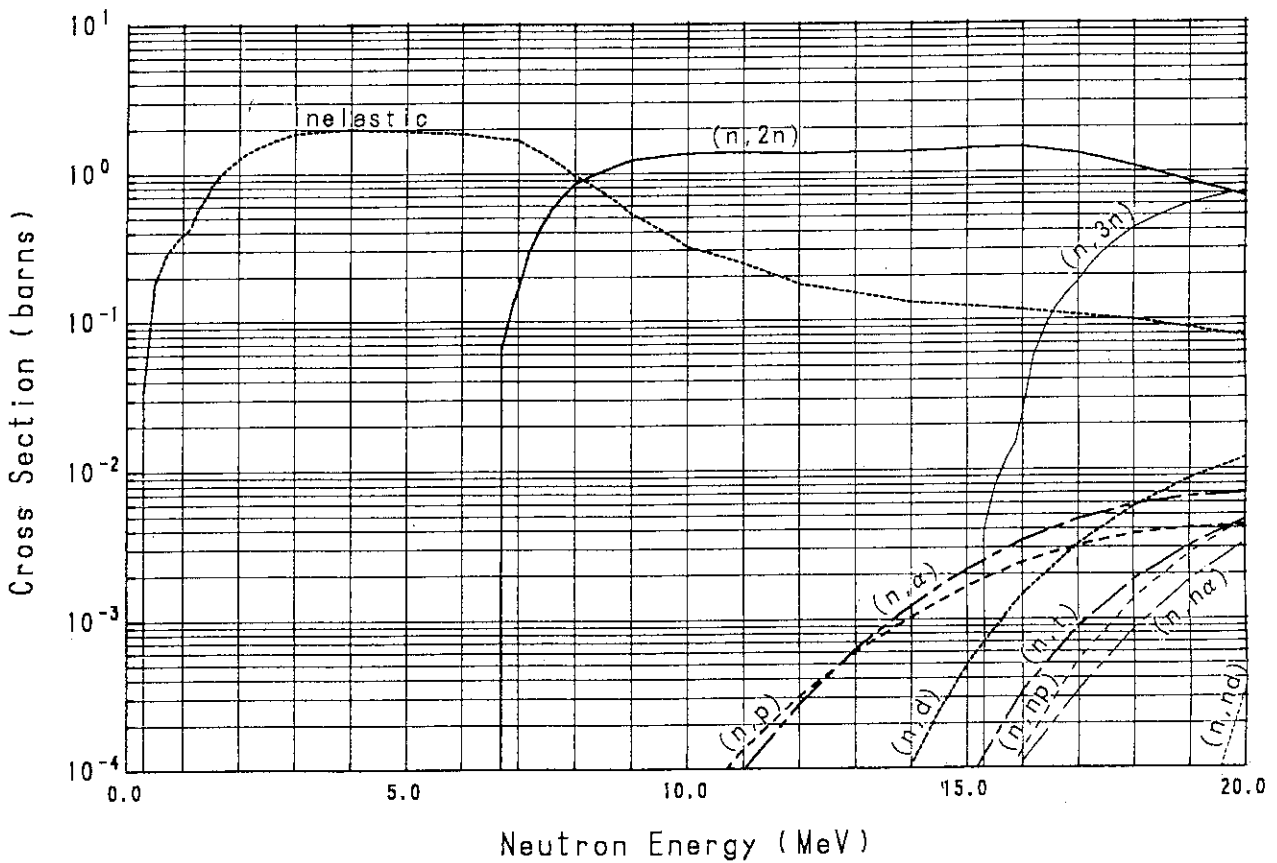
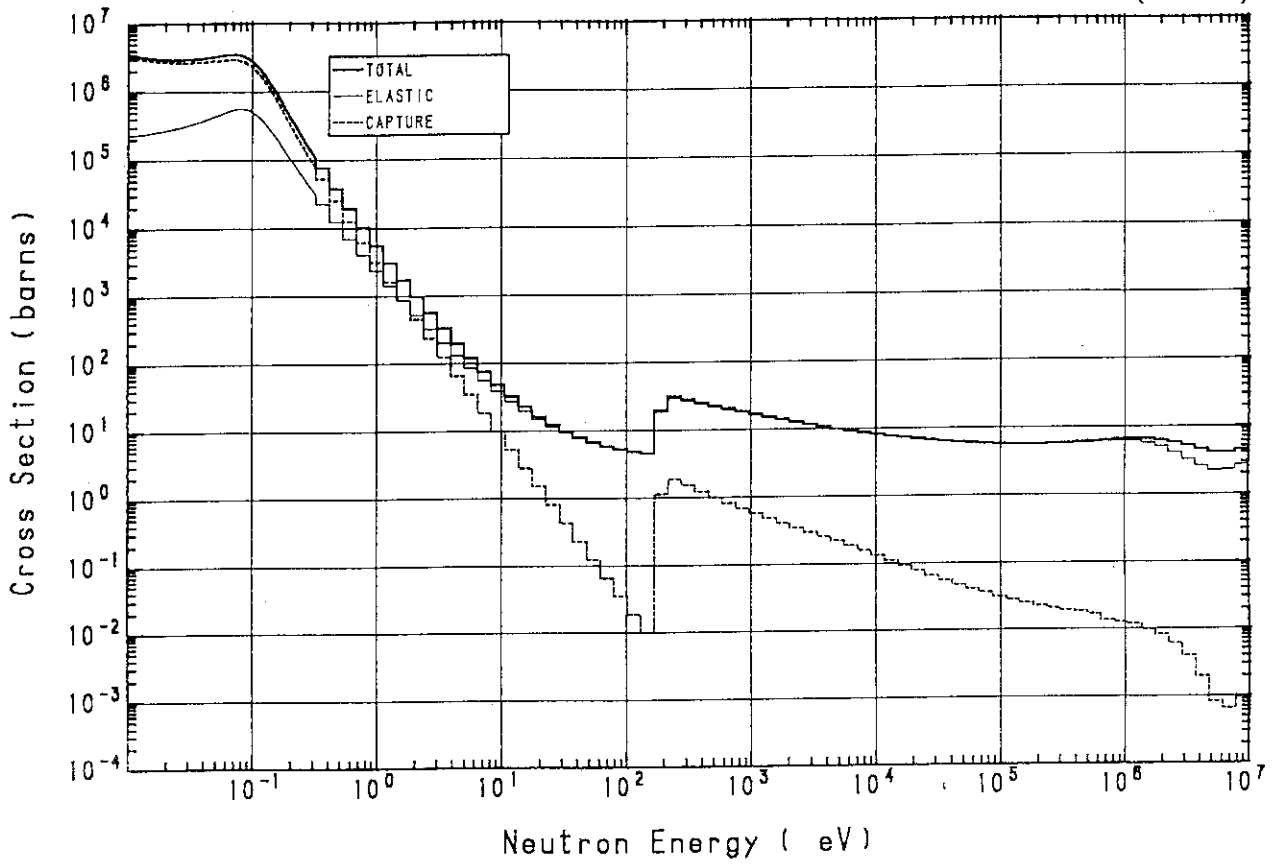


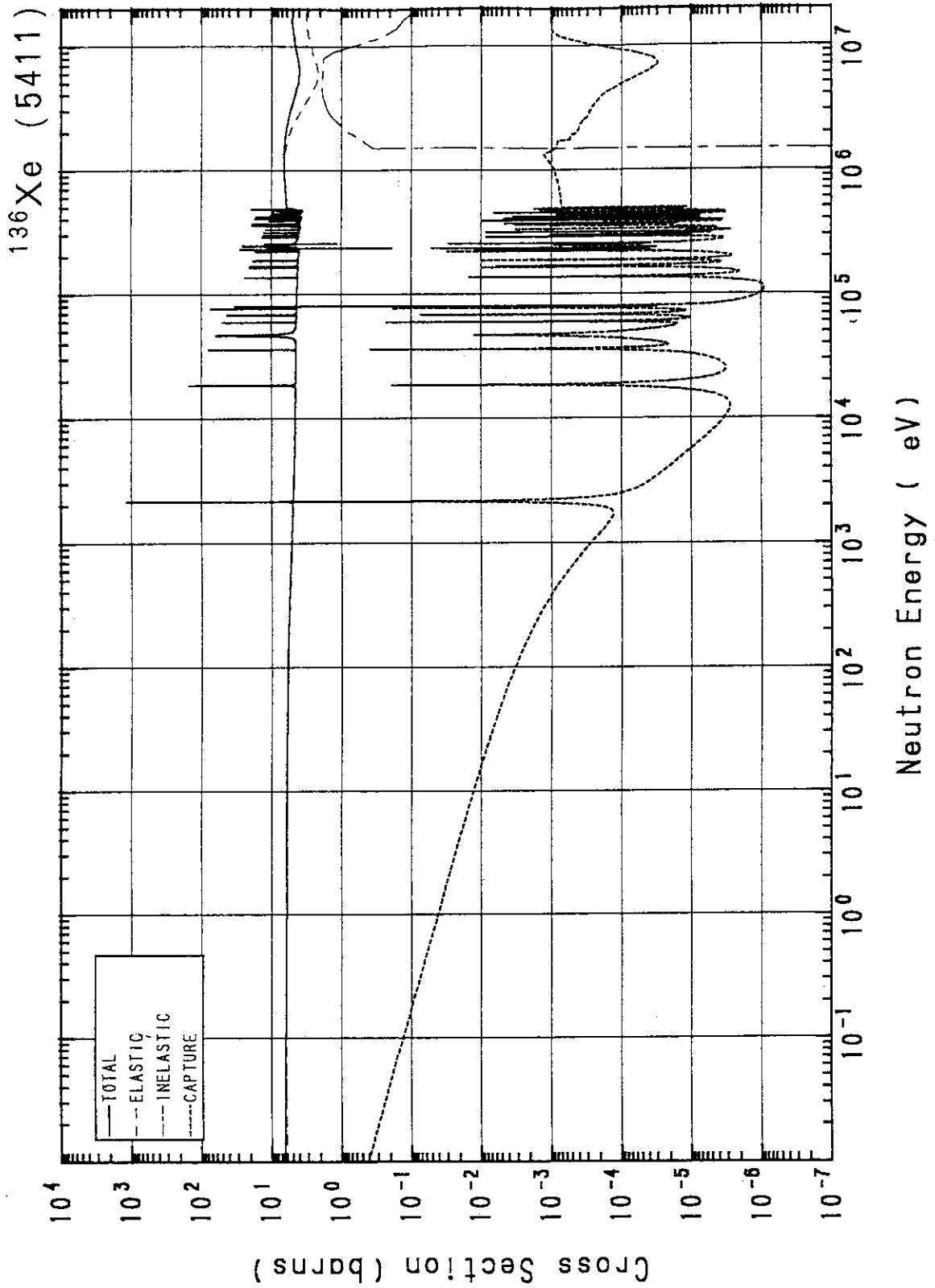
^{134}Xe (5409)



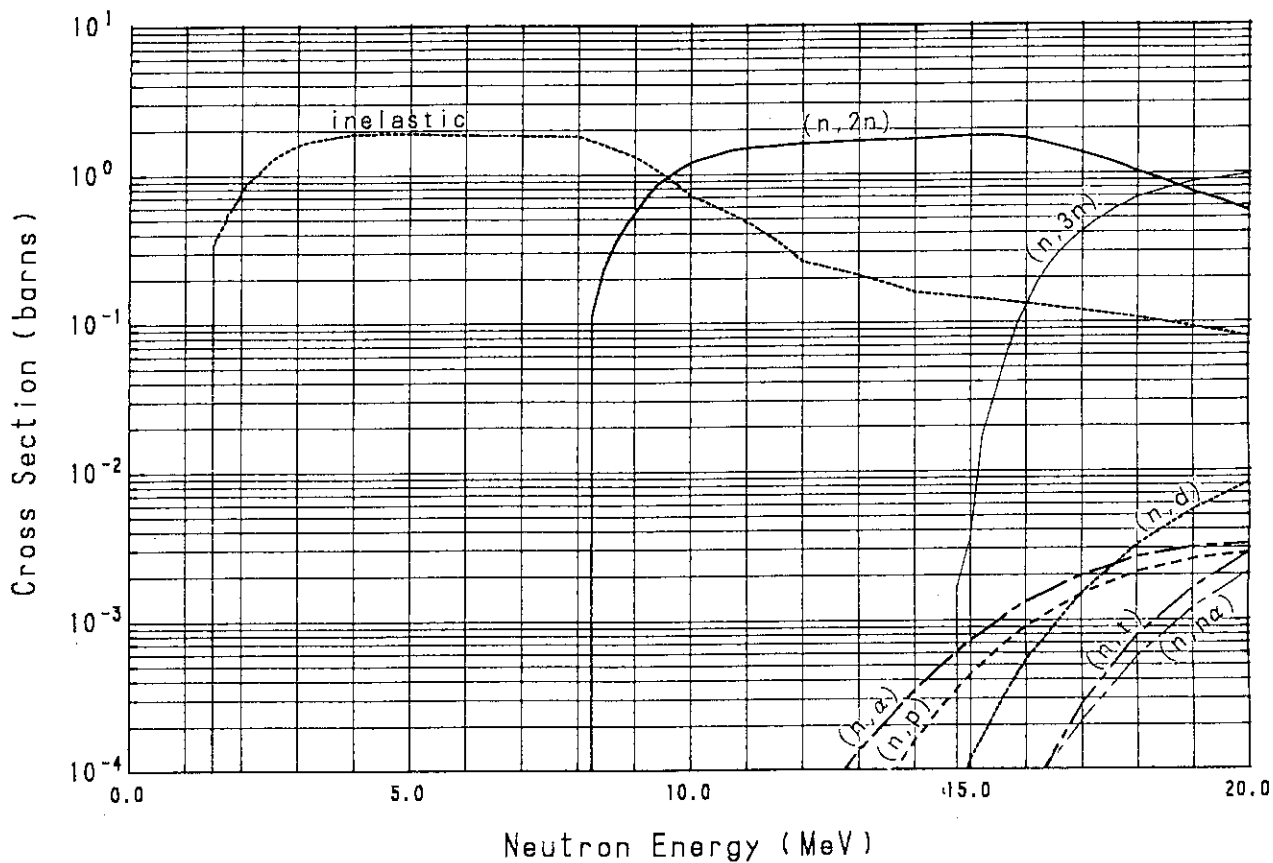
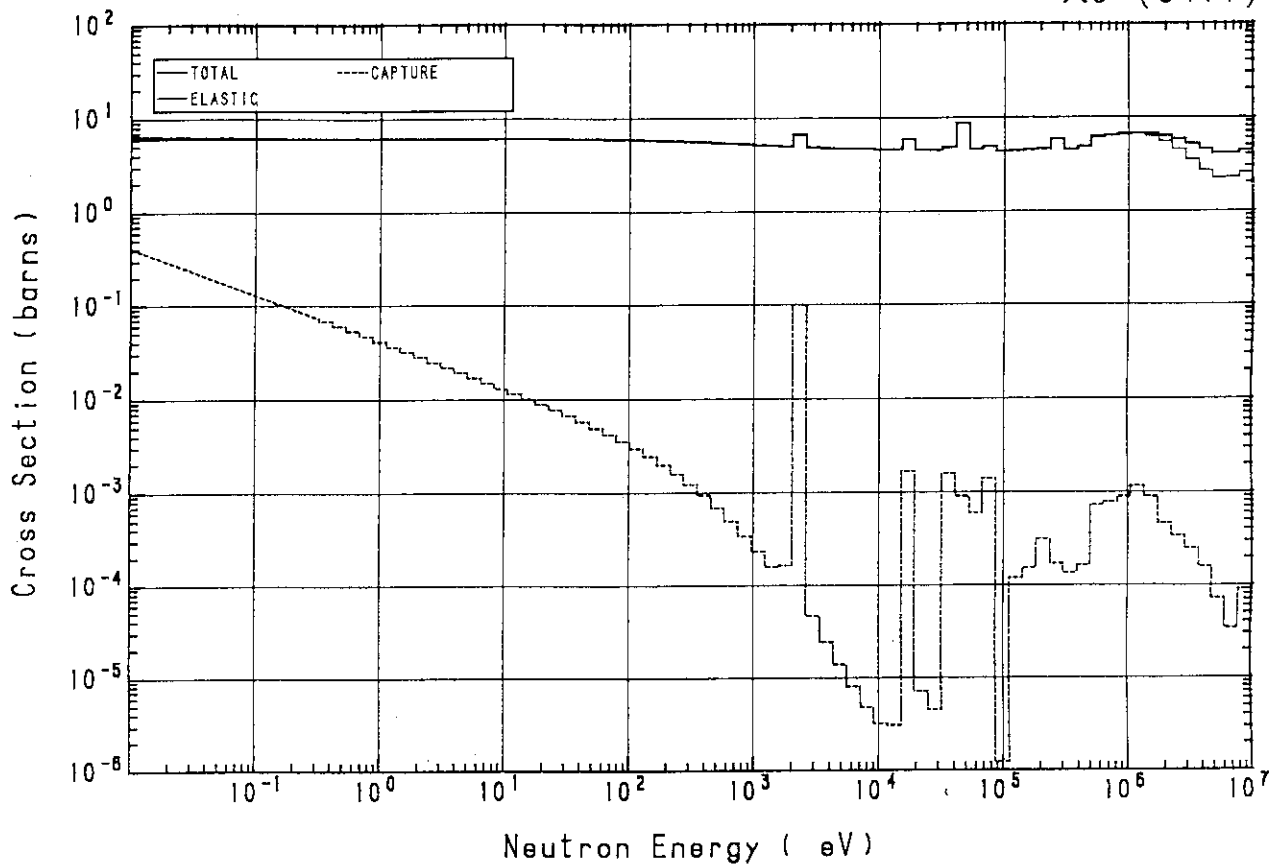


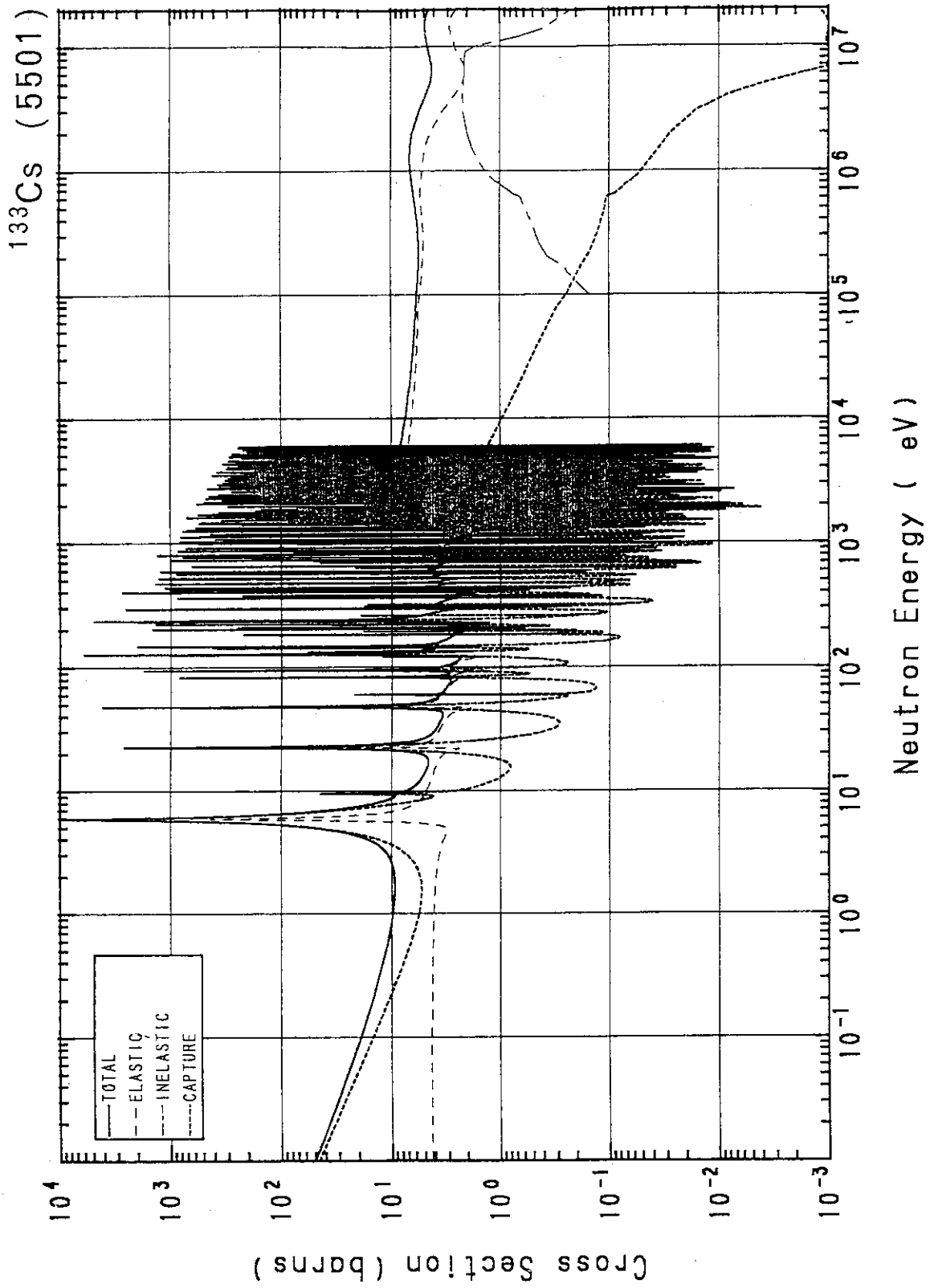
^{135}Xe (5410)



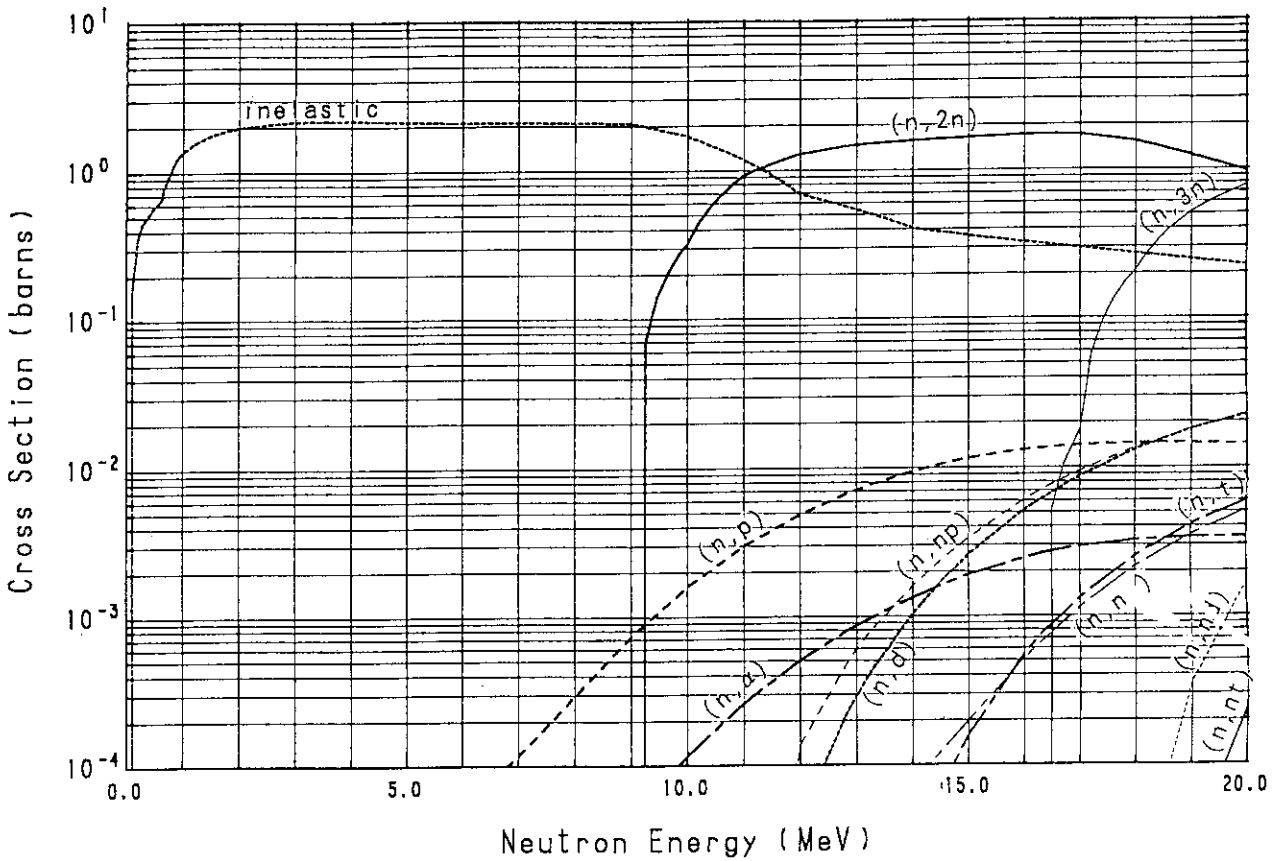
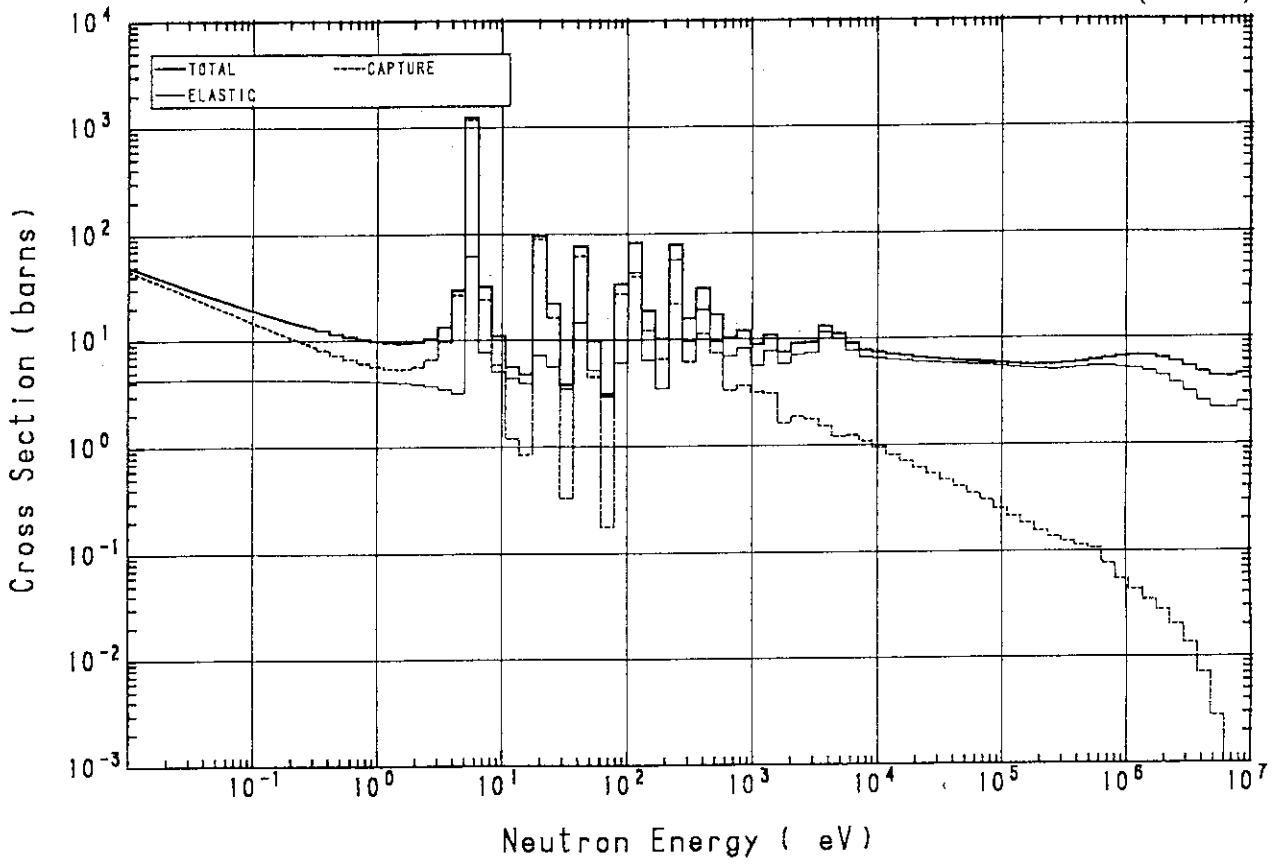


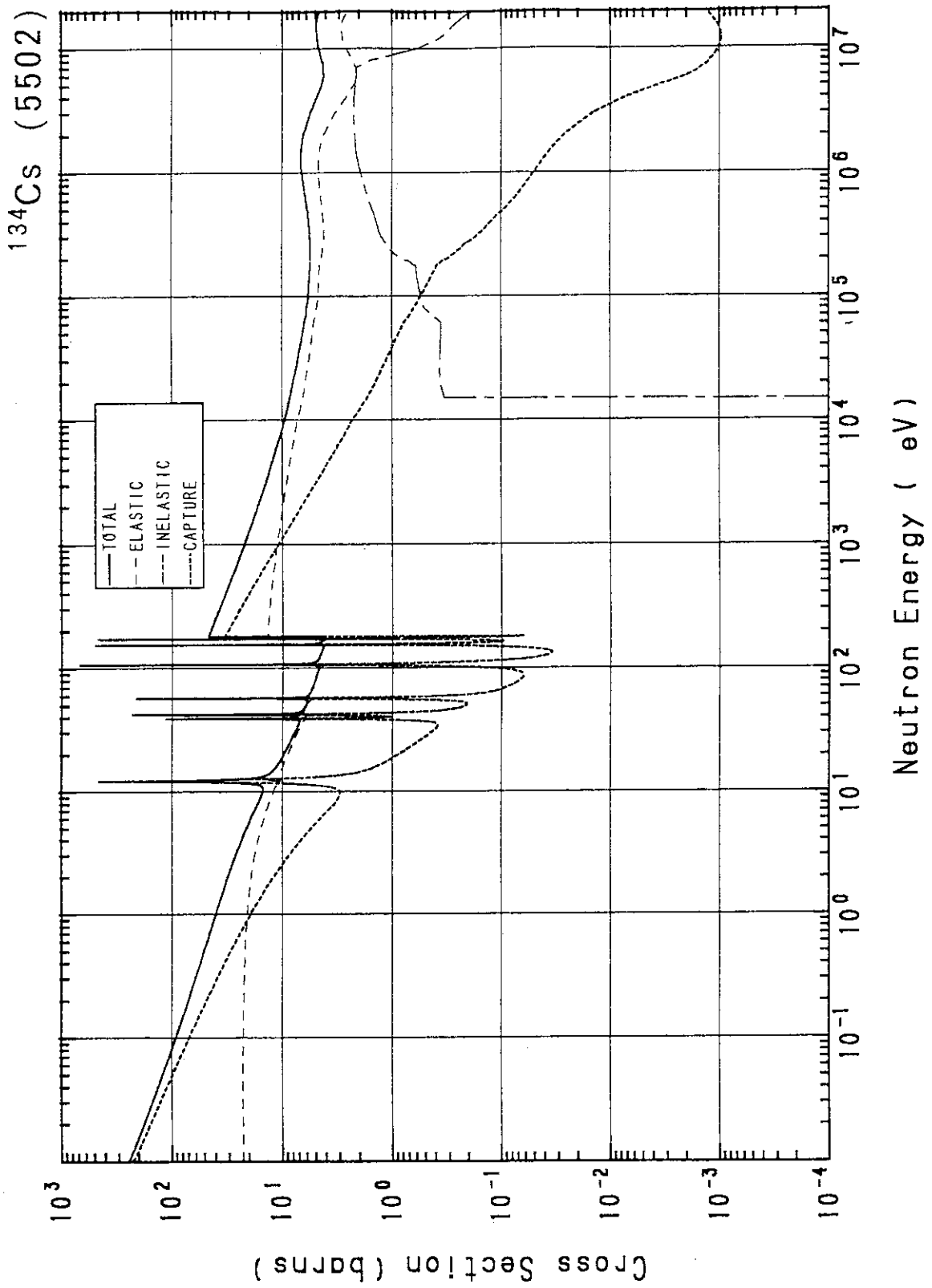
^{136}Xe (5411)



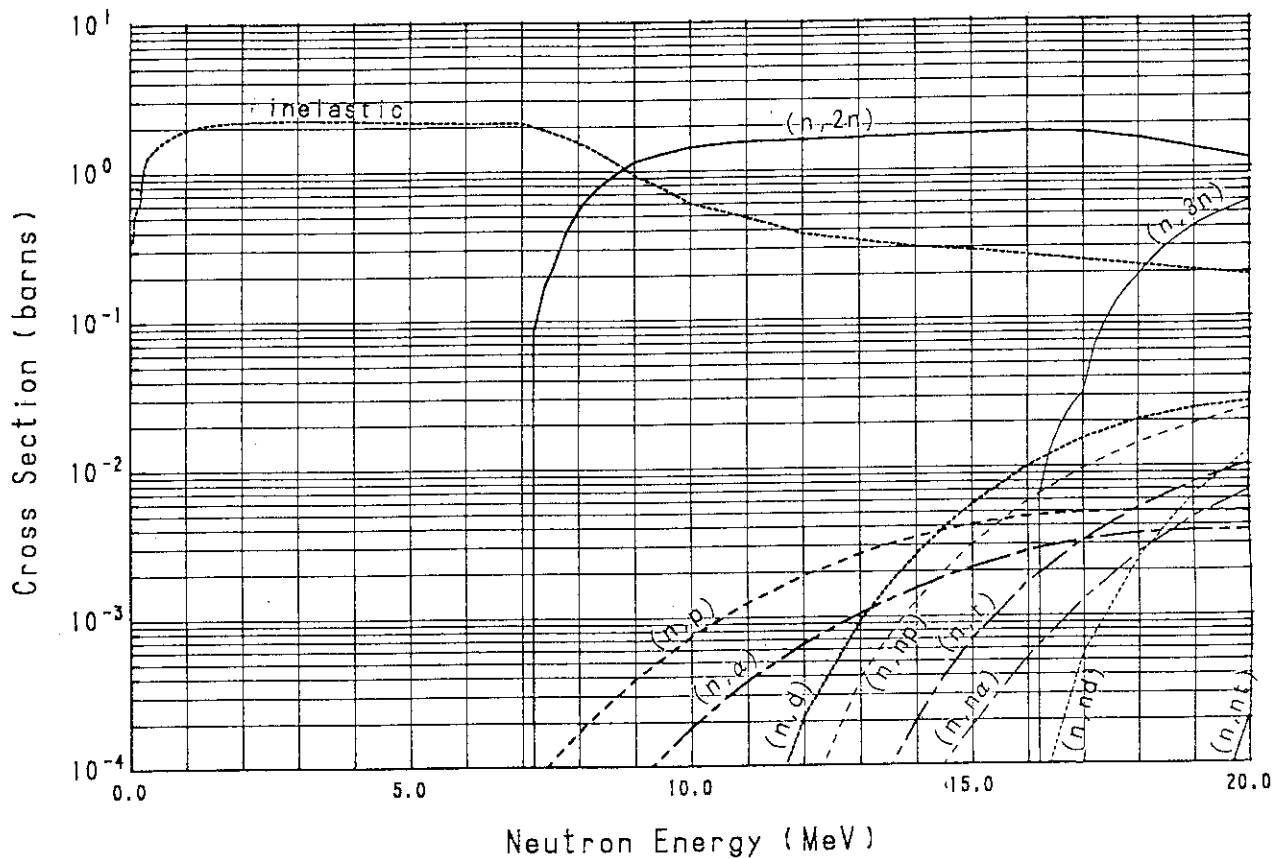
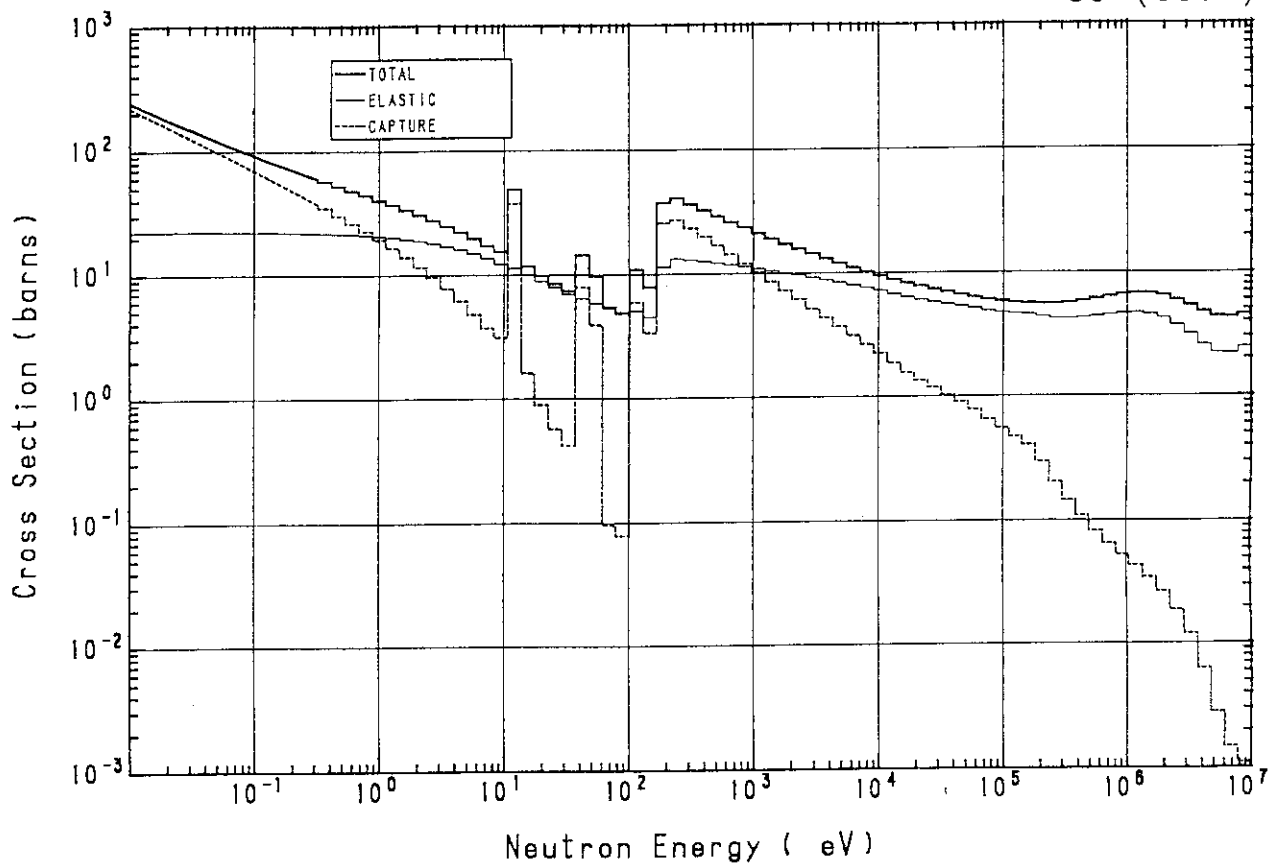


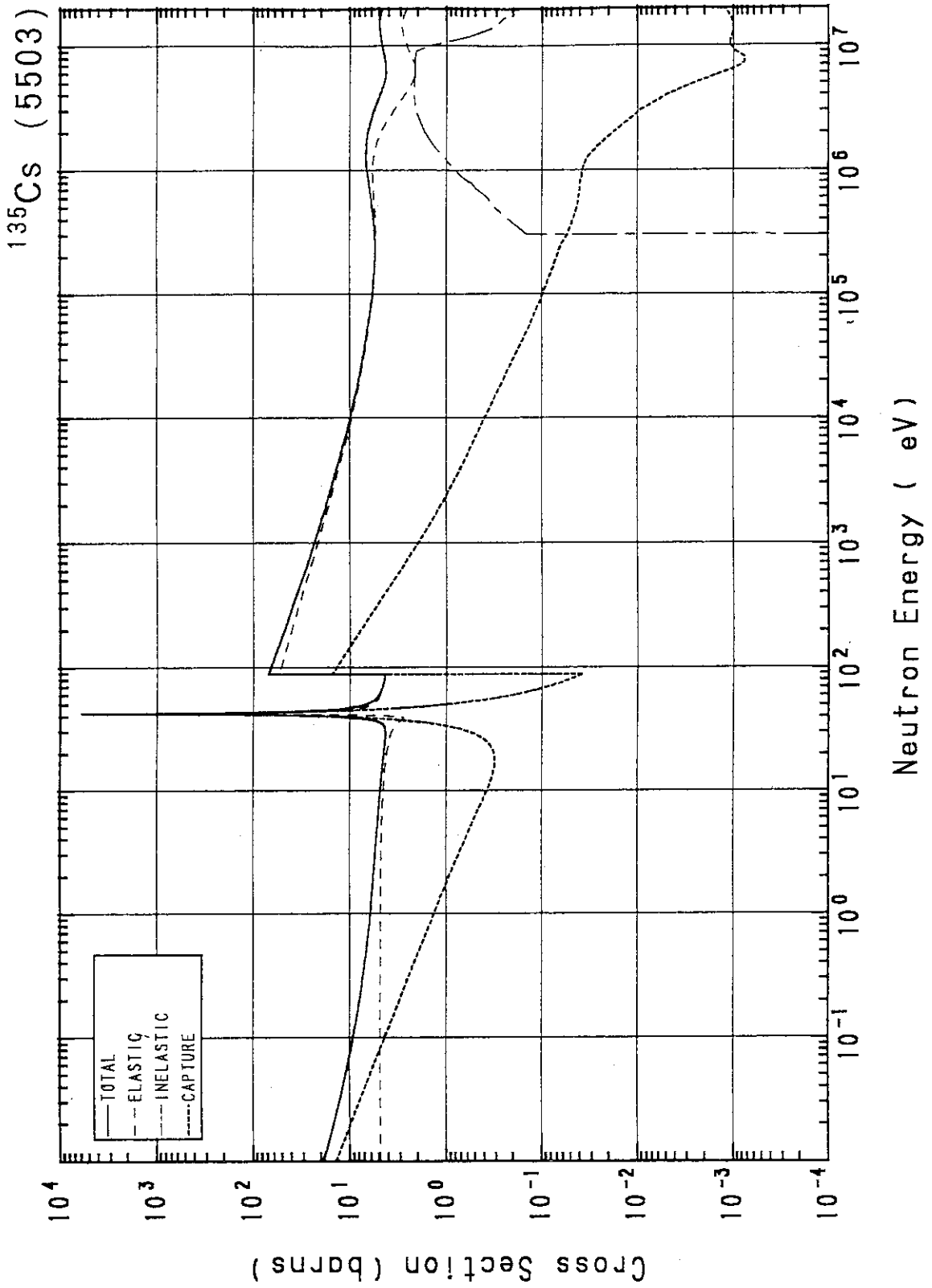
^{133}Cs (5501)



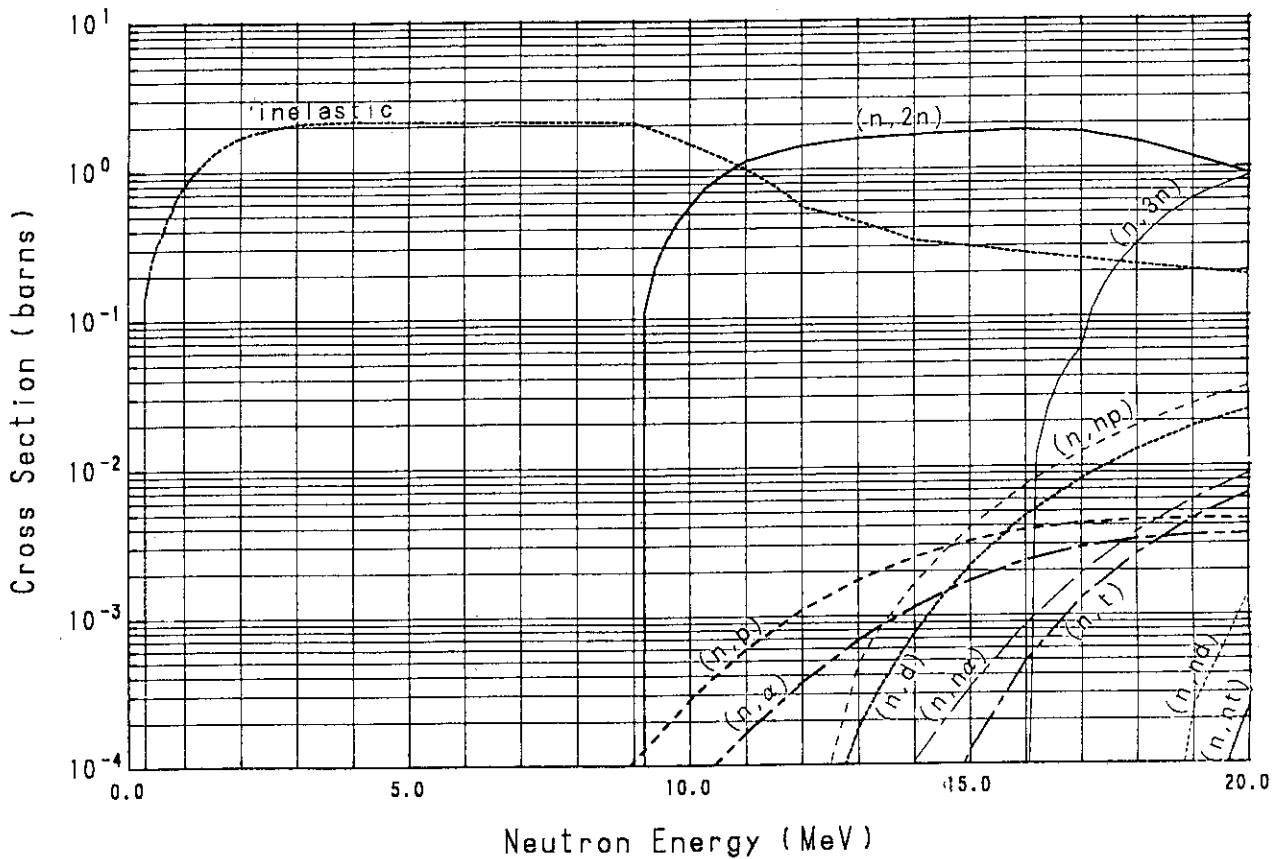
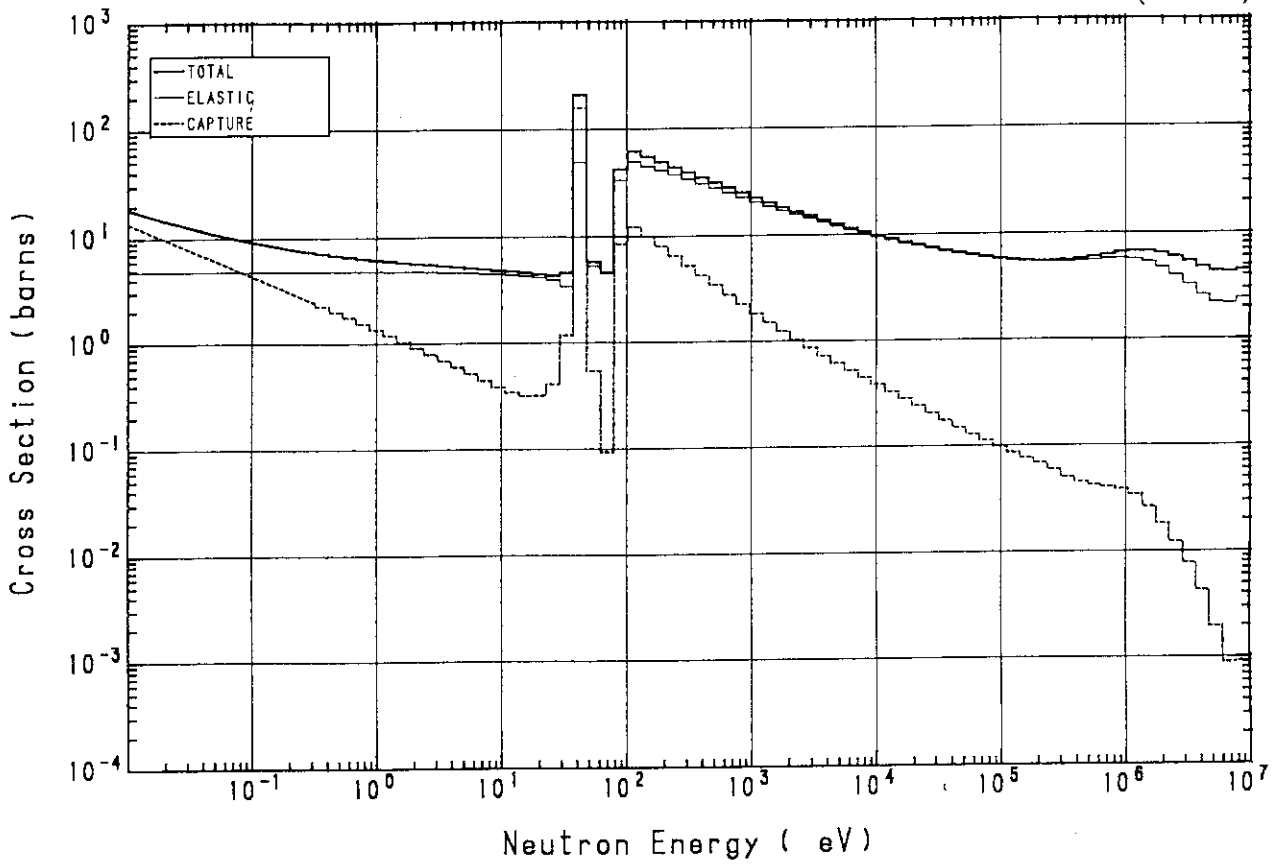


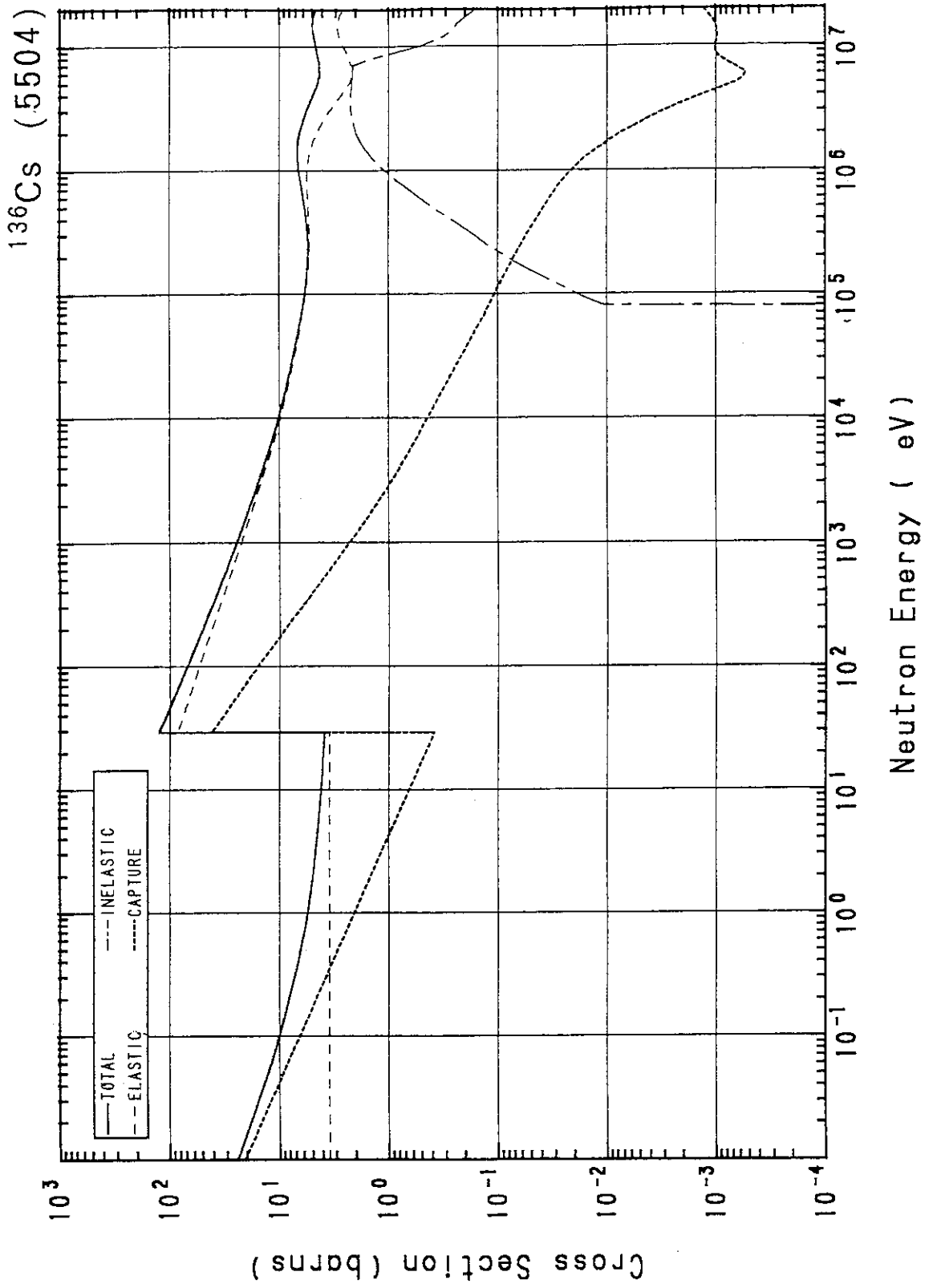
^{134}Cs (5502)



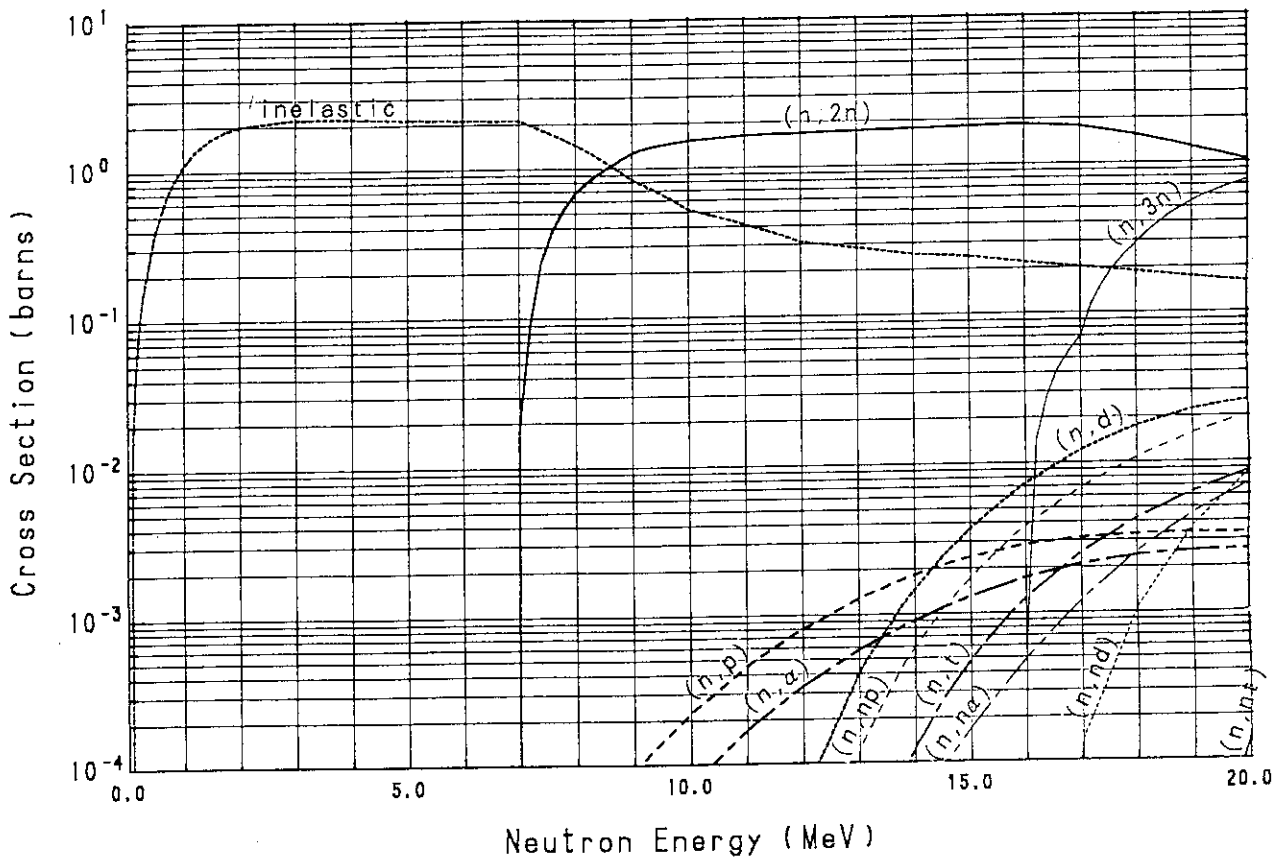
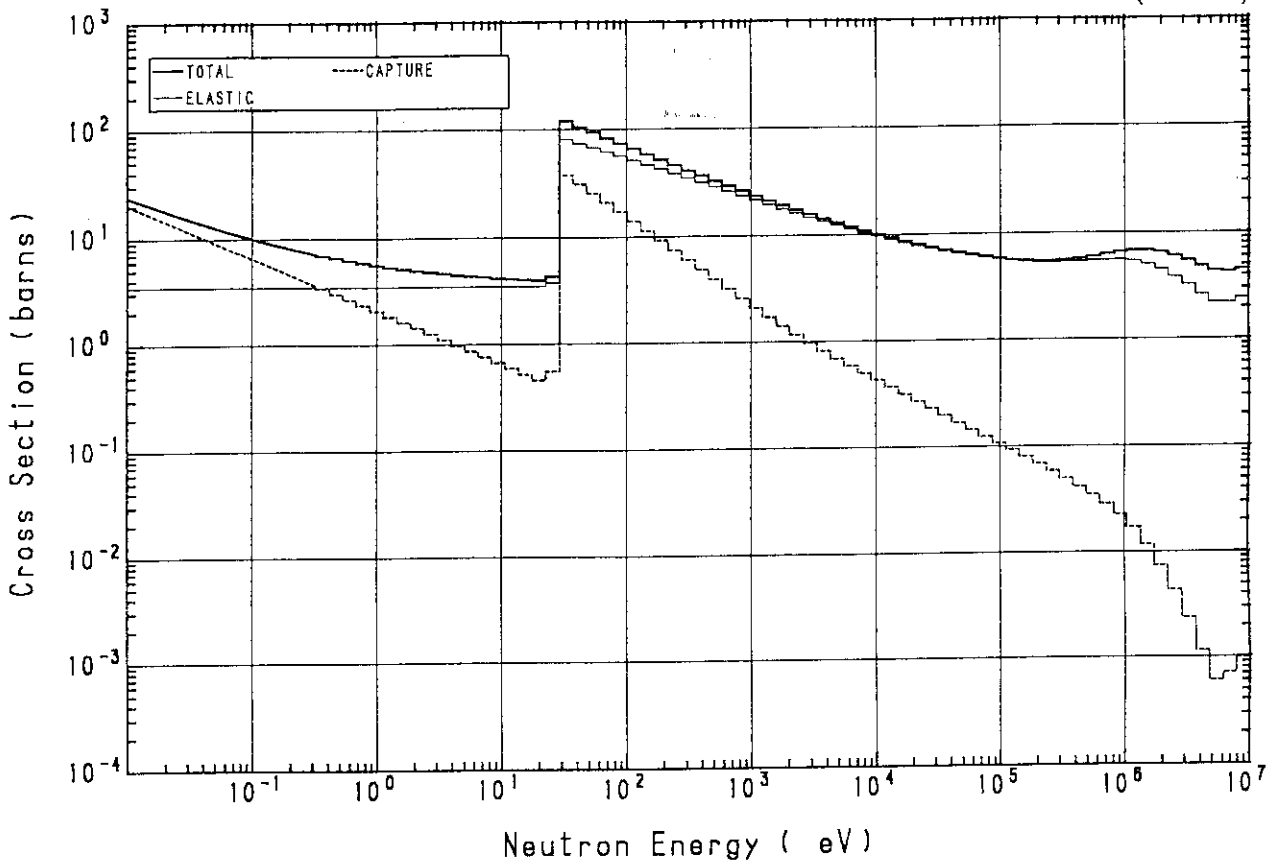


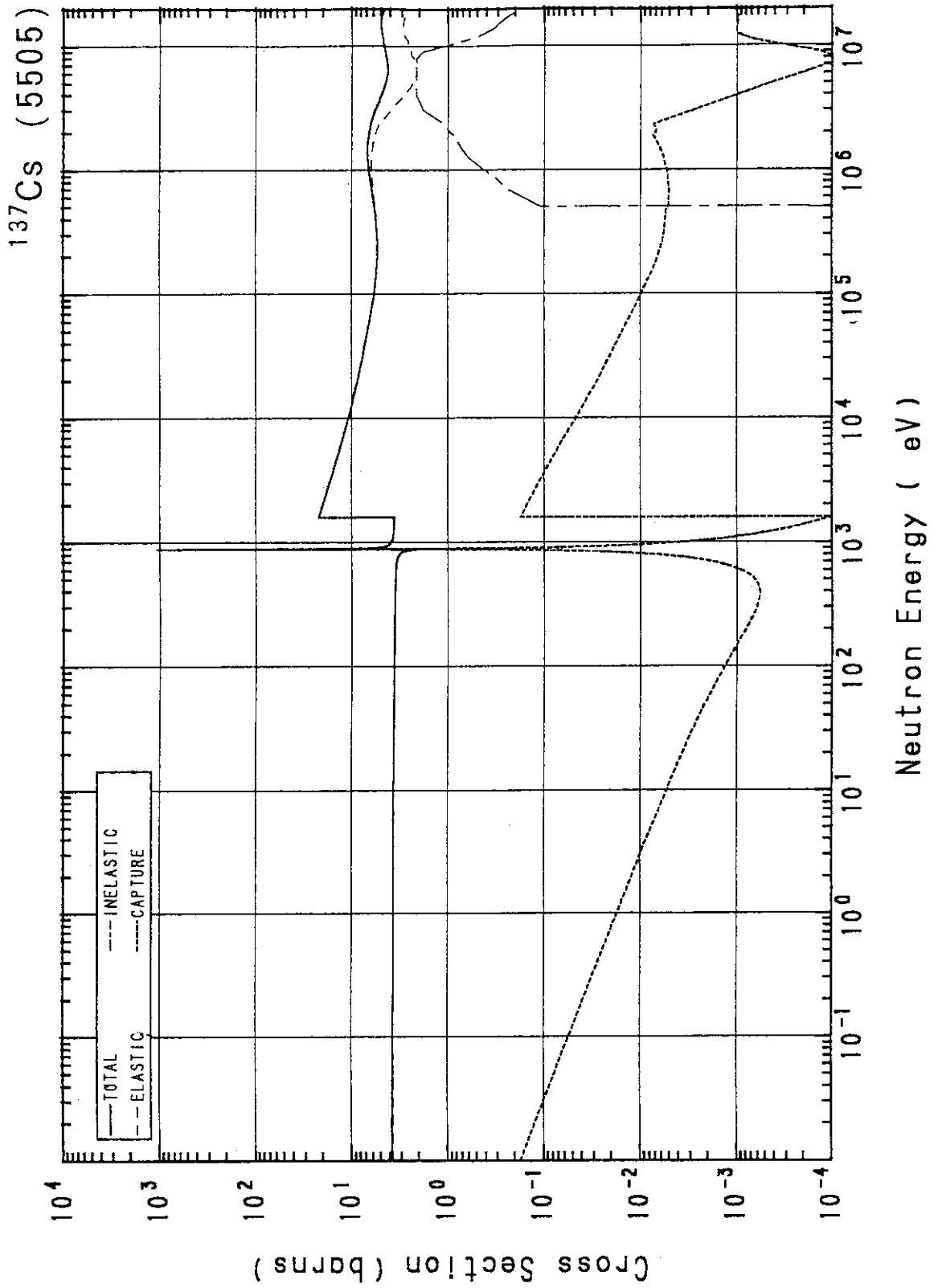
^{135}Cs (5503)



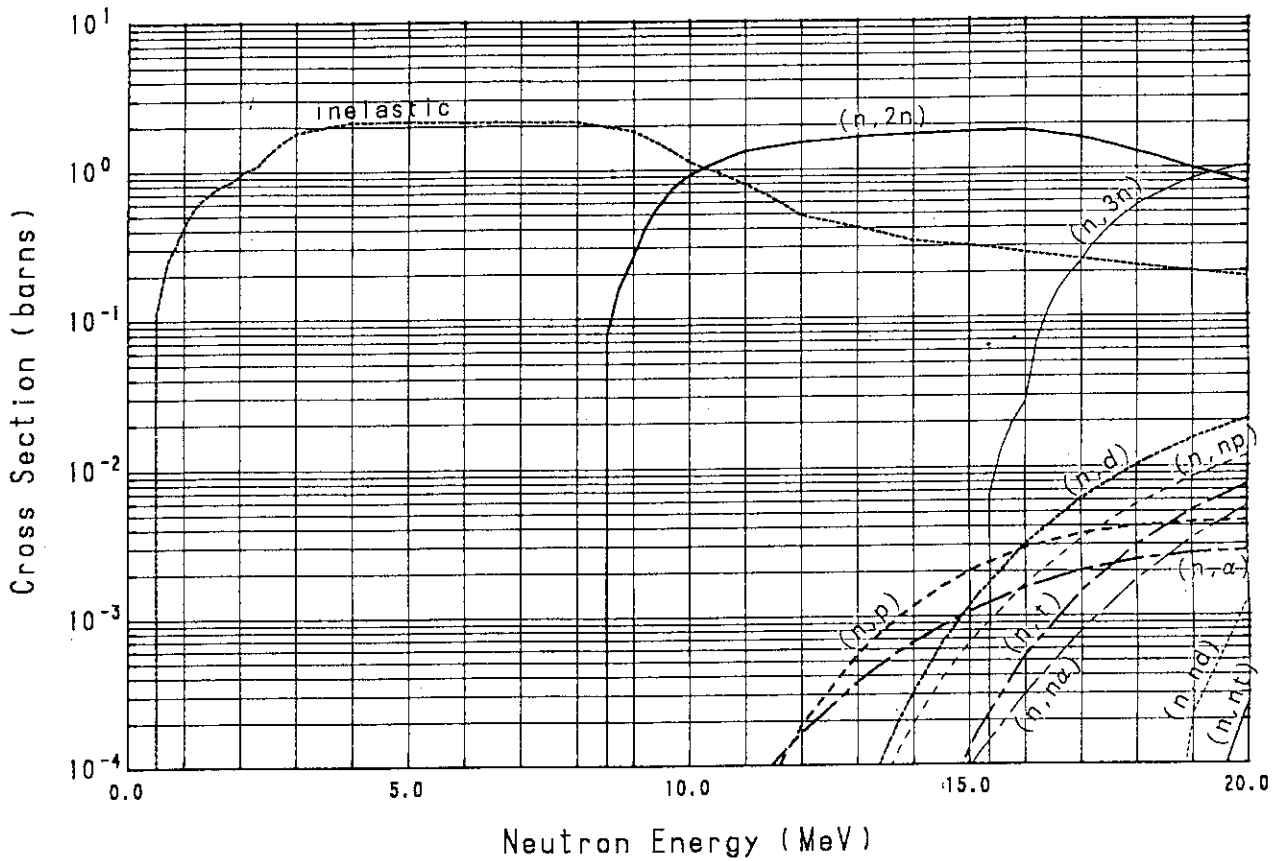
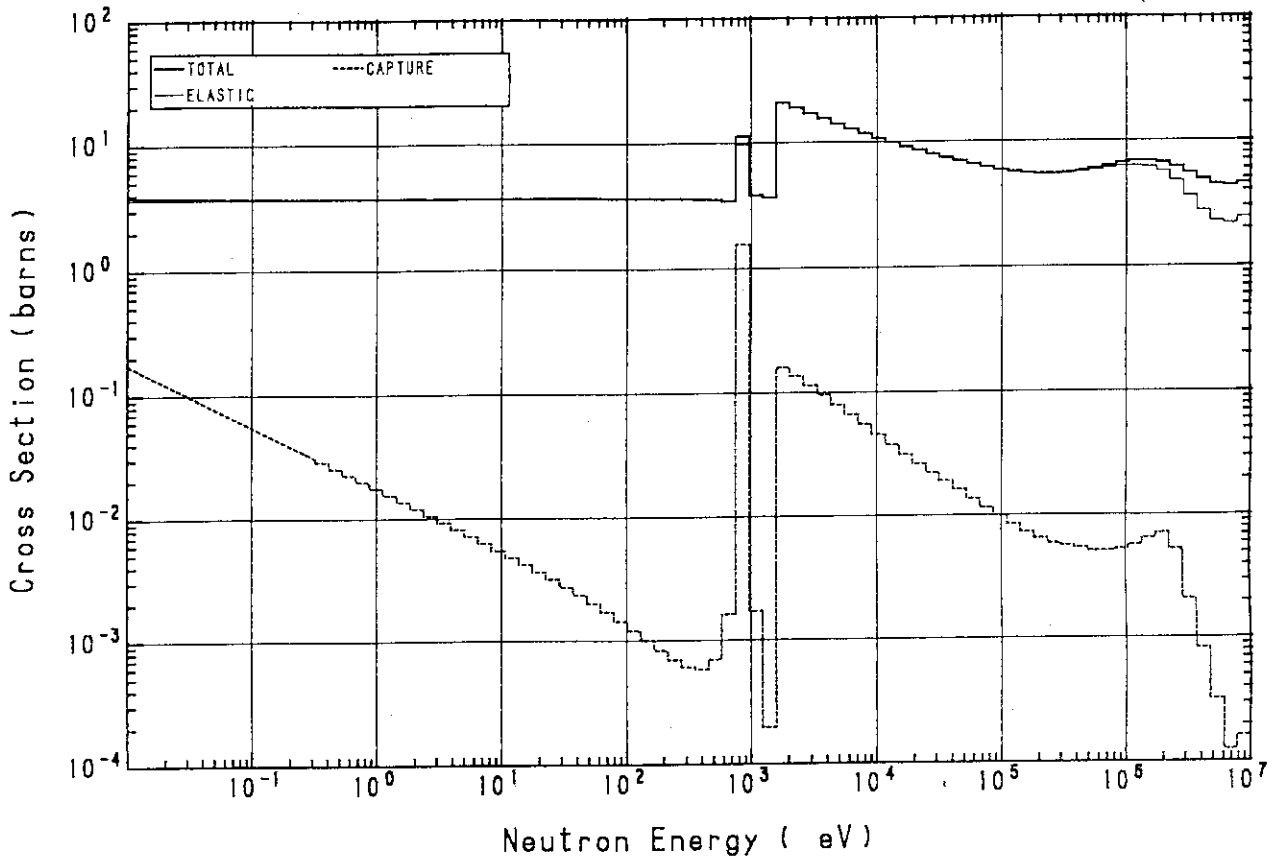


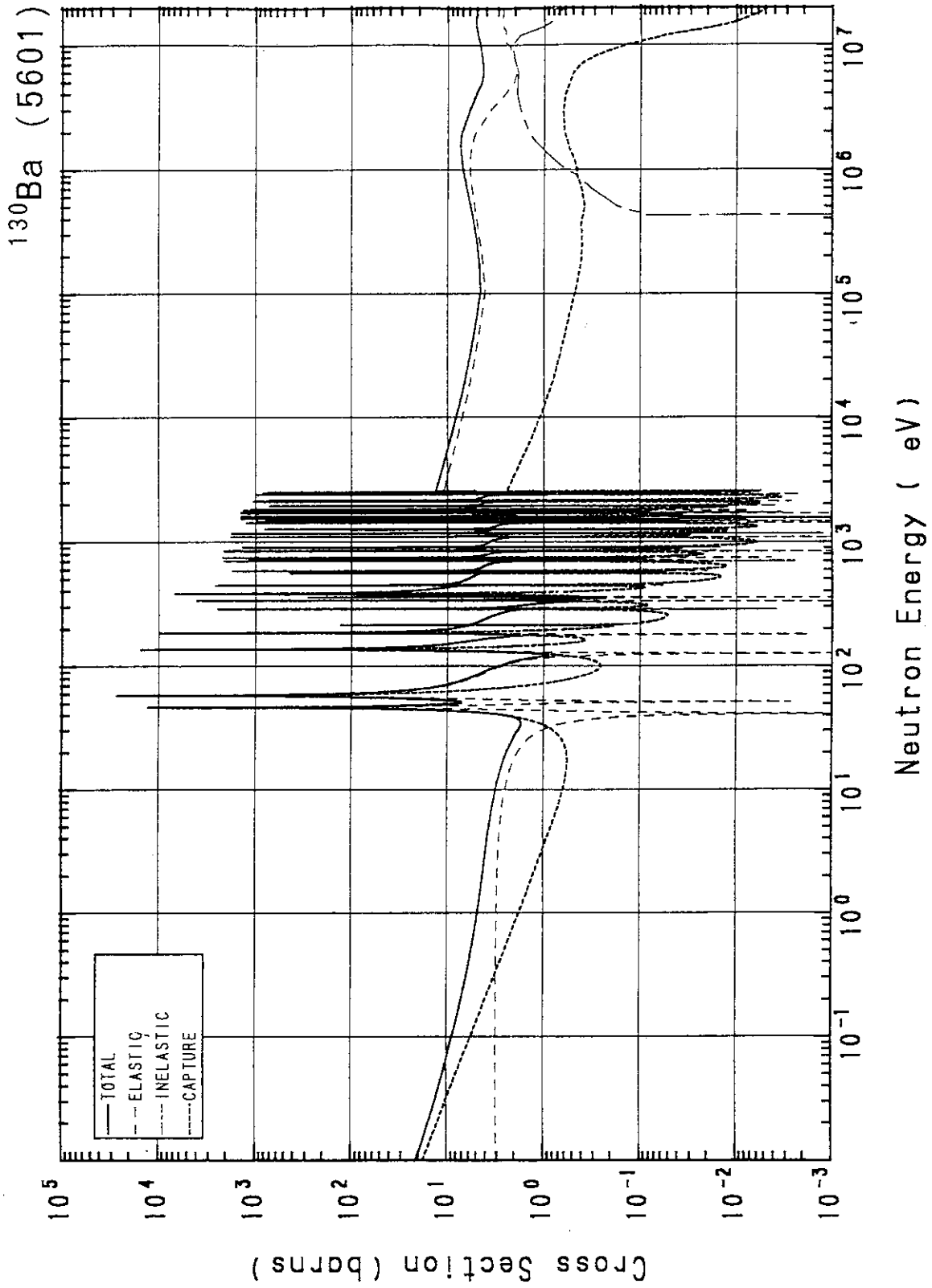
^{136}Cs (5504)



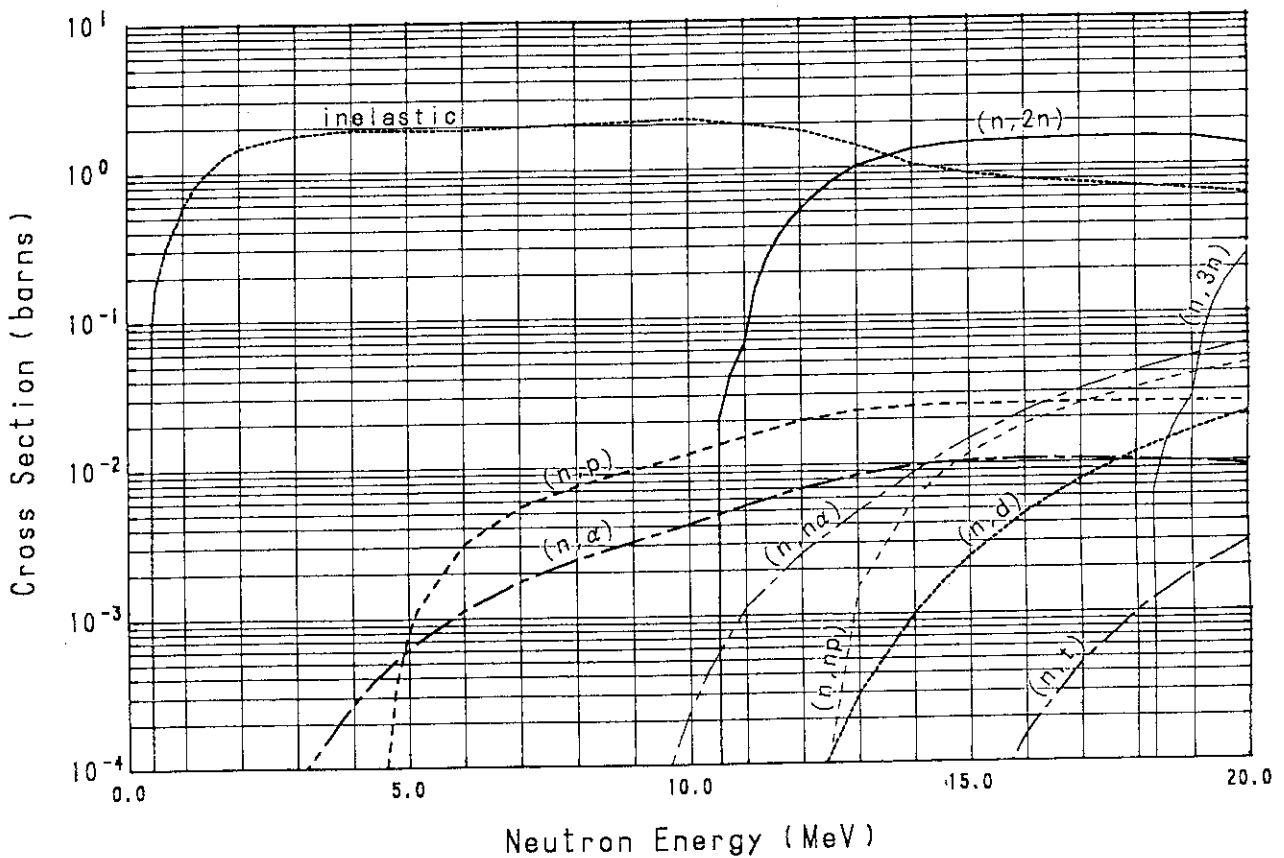
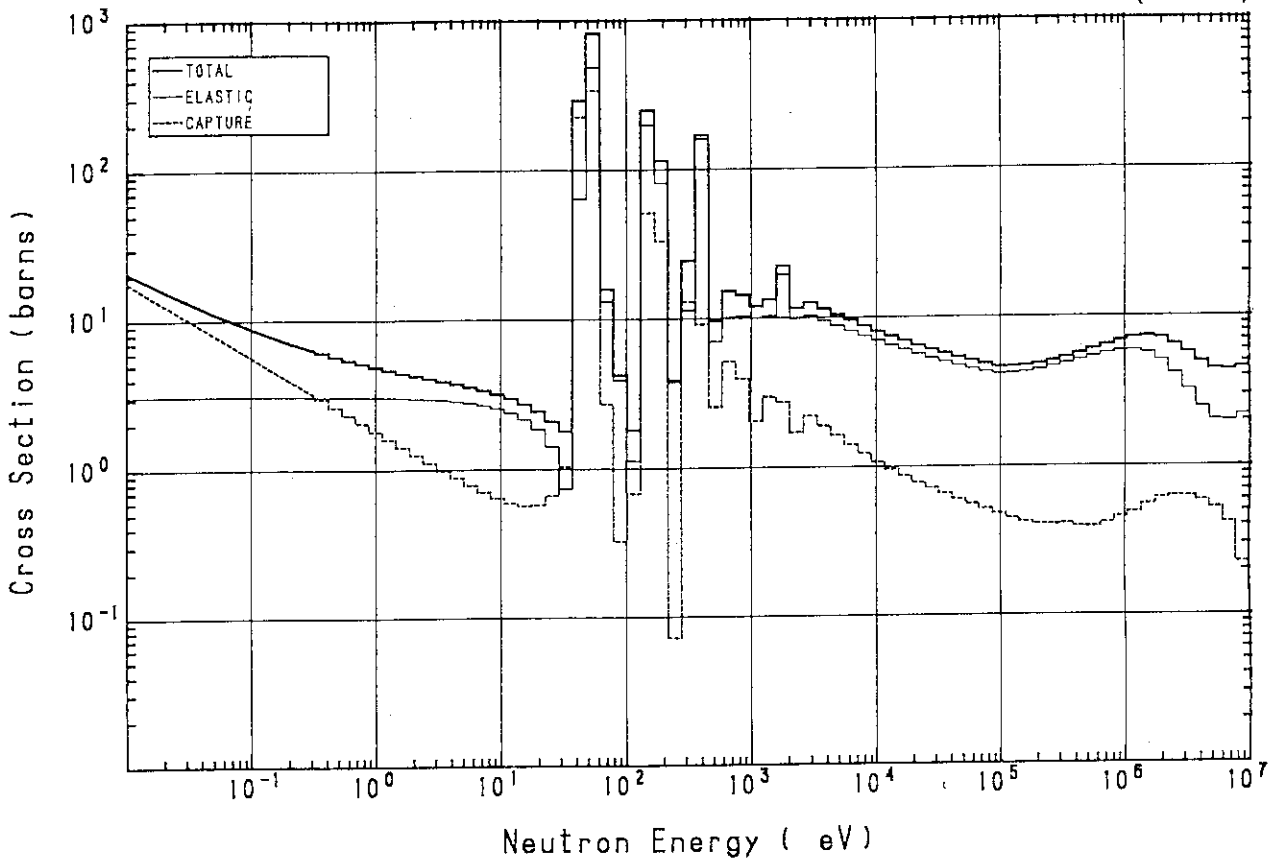


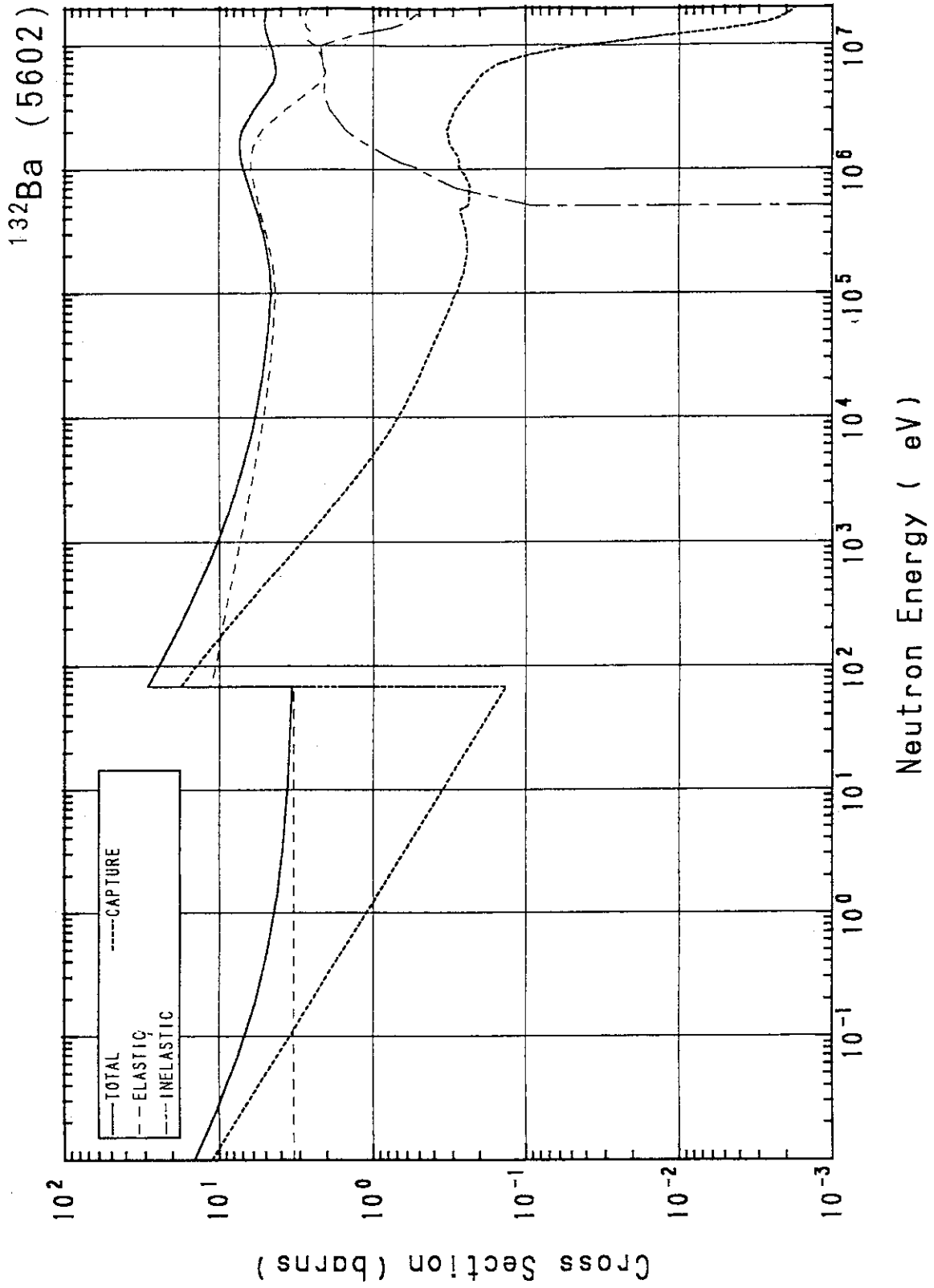
^{137}Cs (5505)



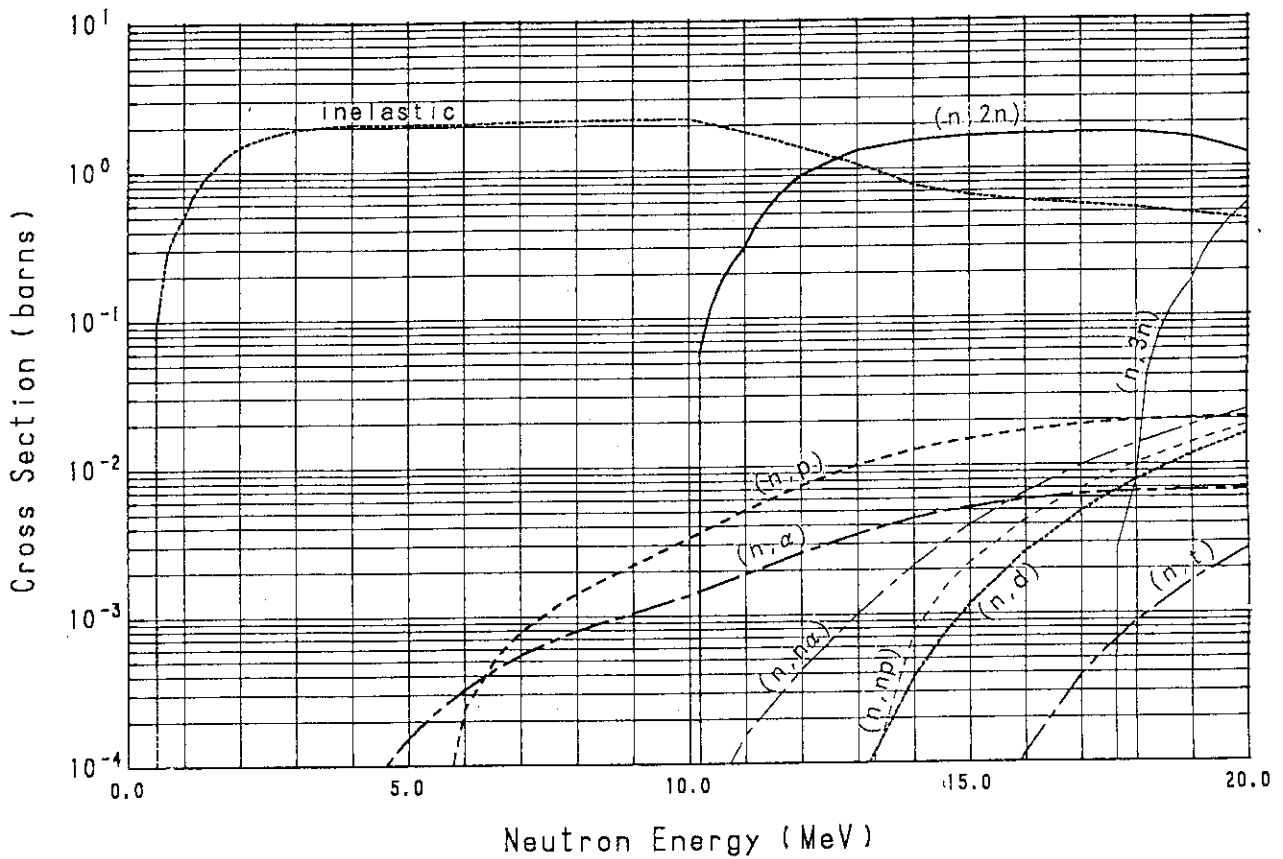
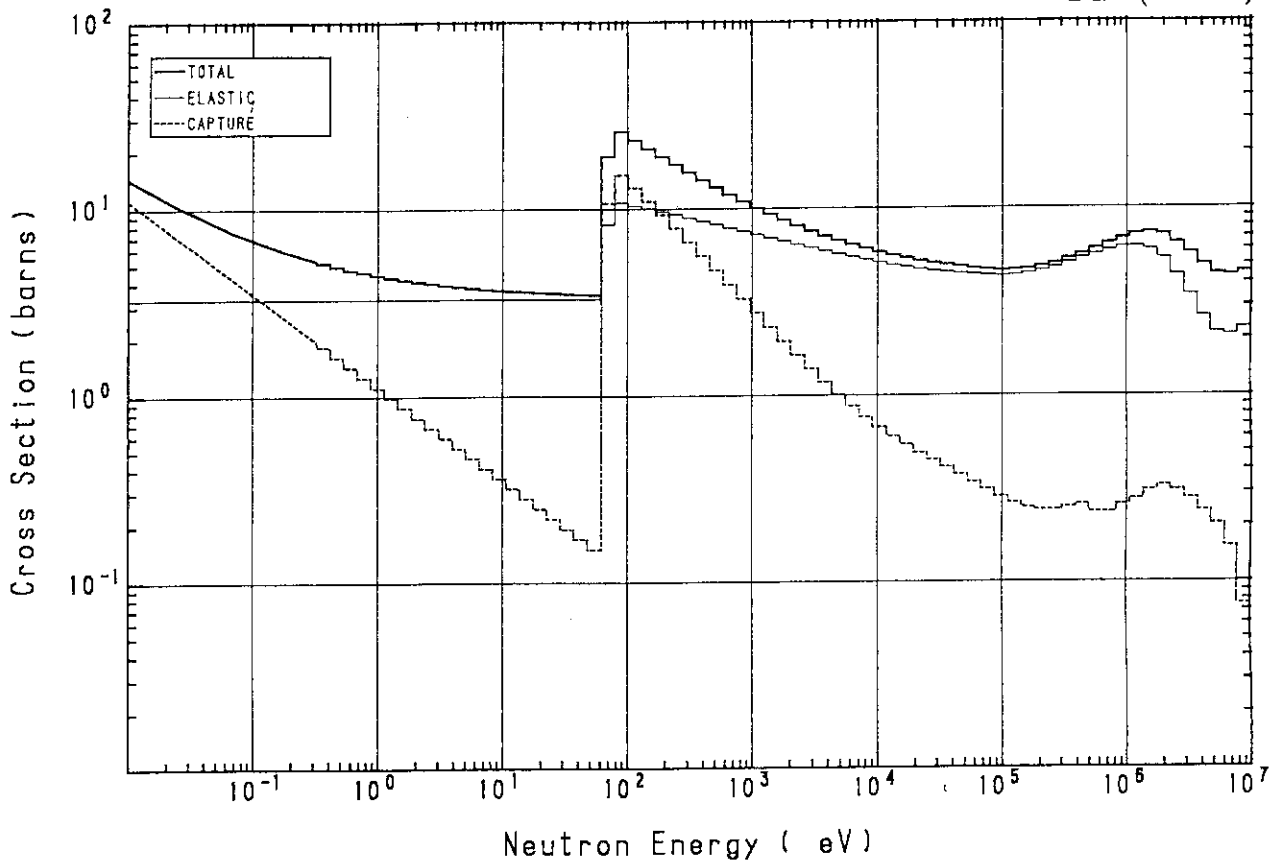


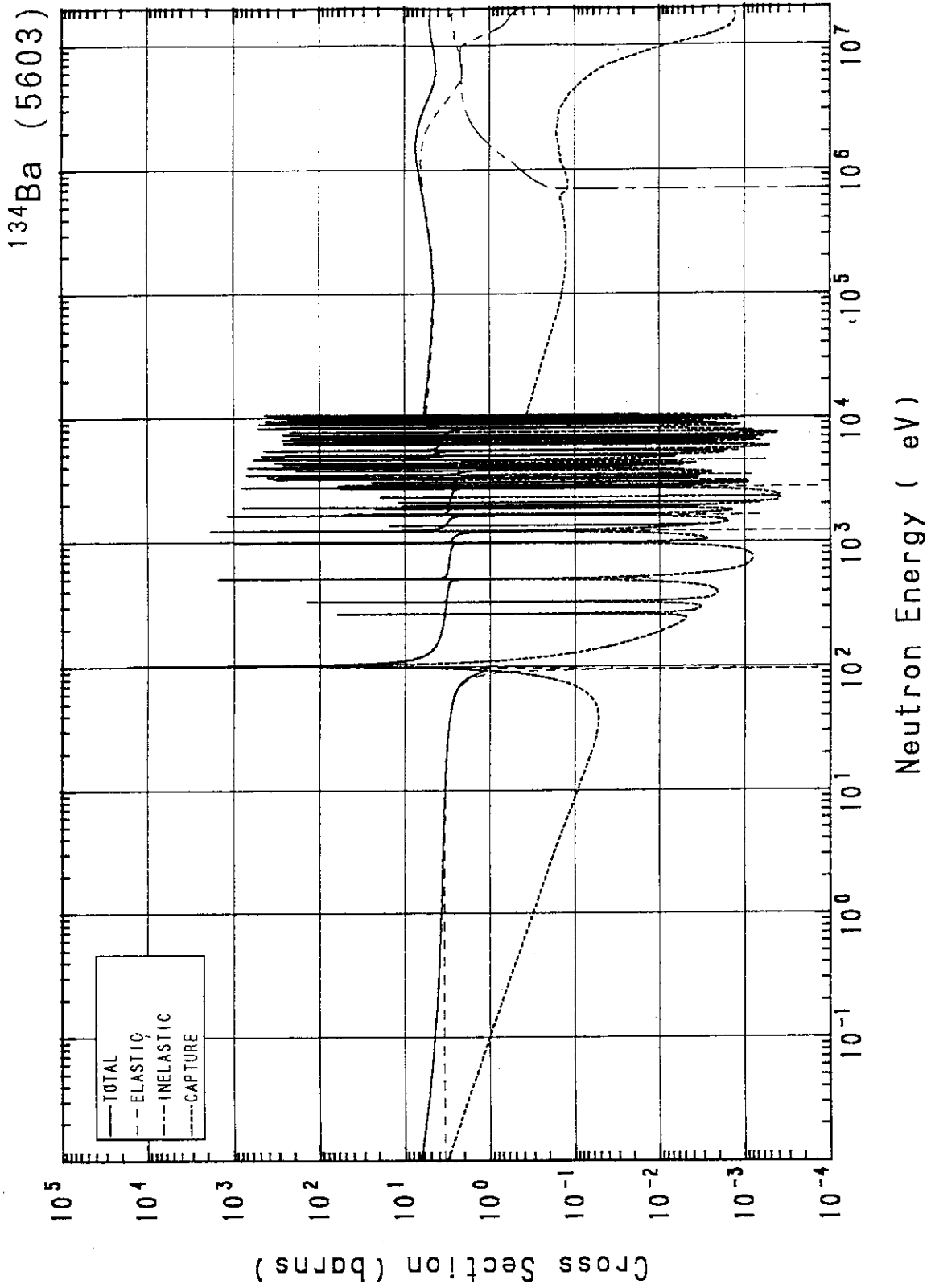
^{130}Ba (5601)



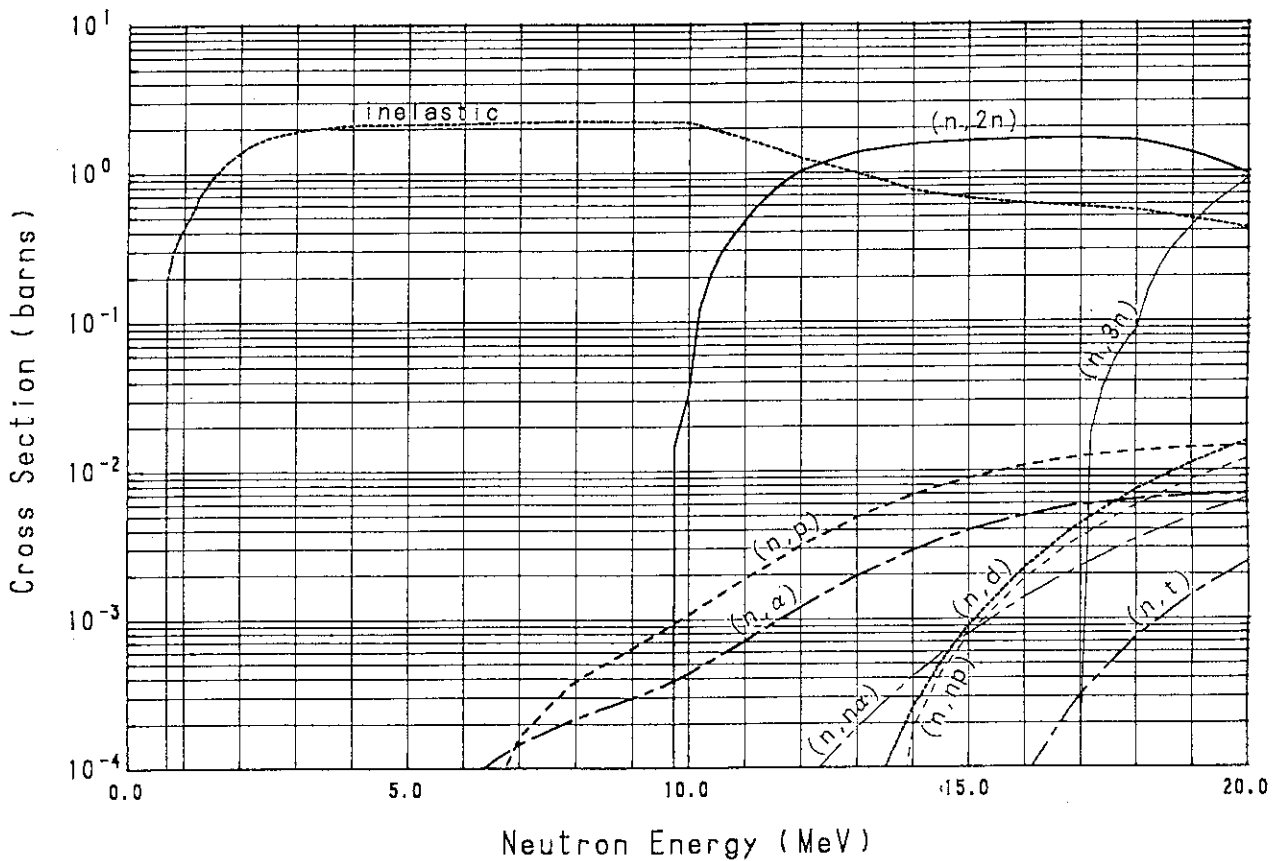
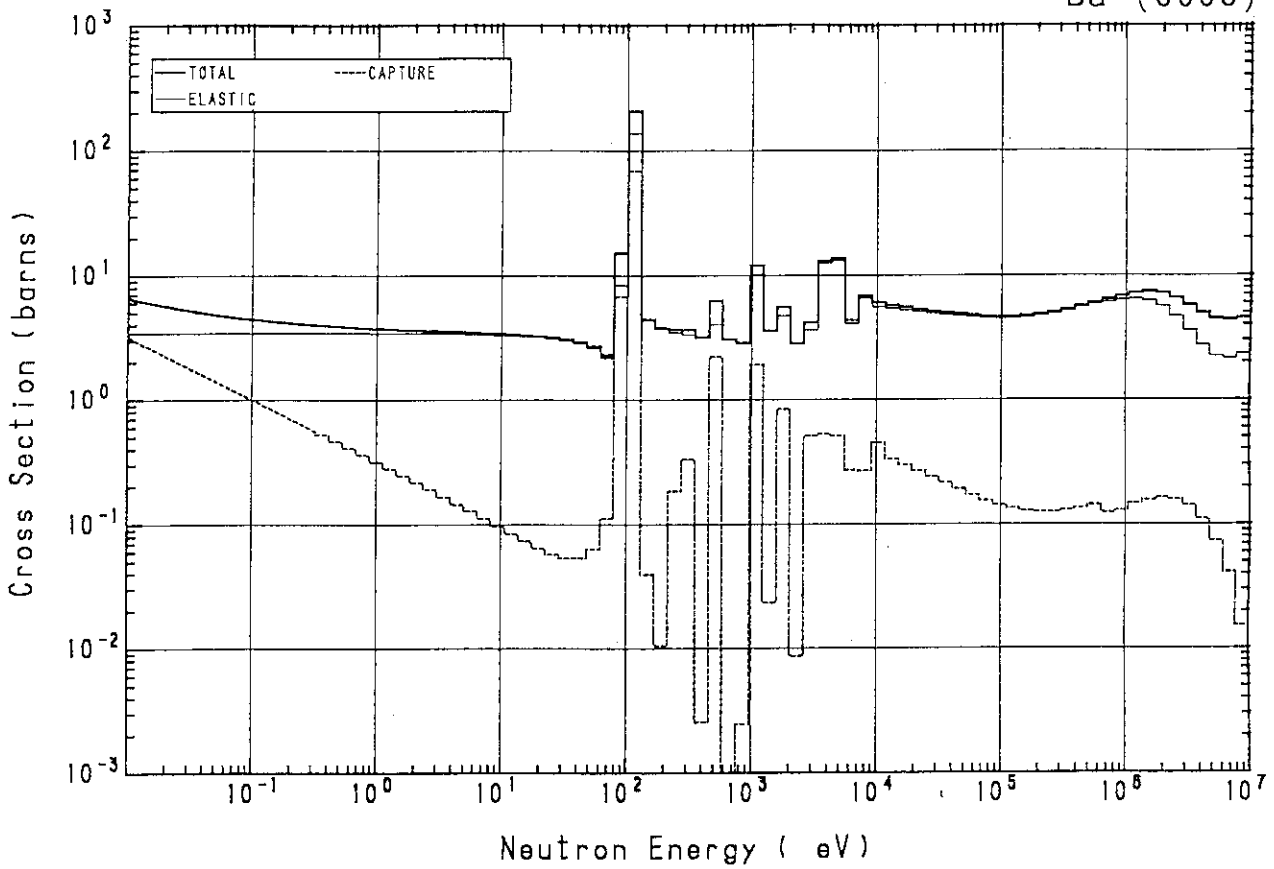


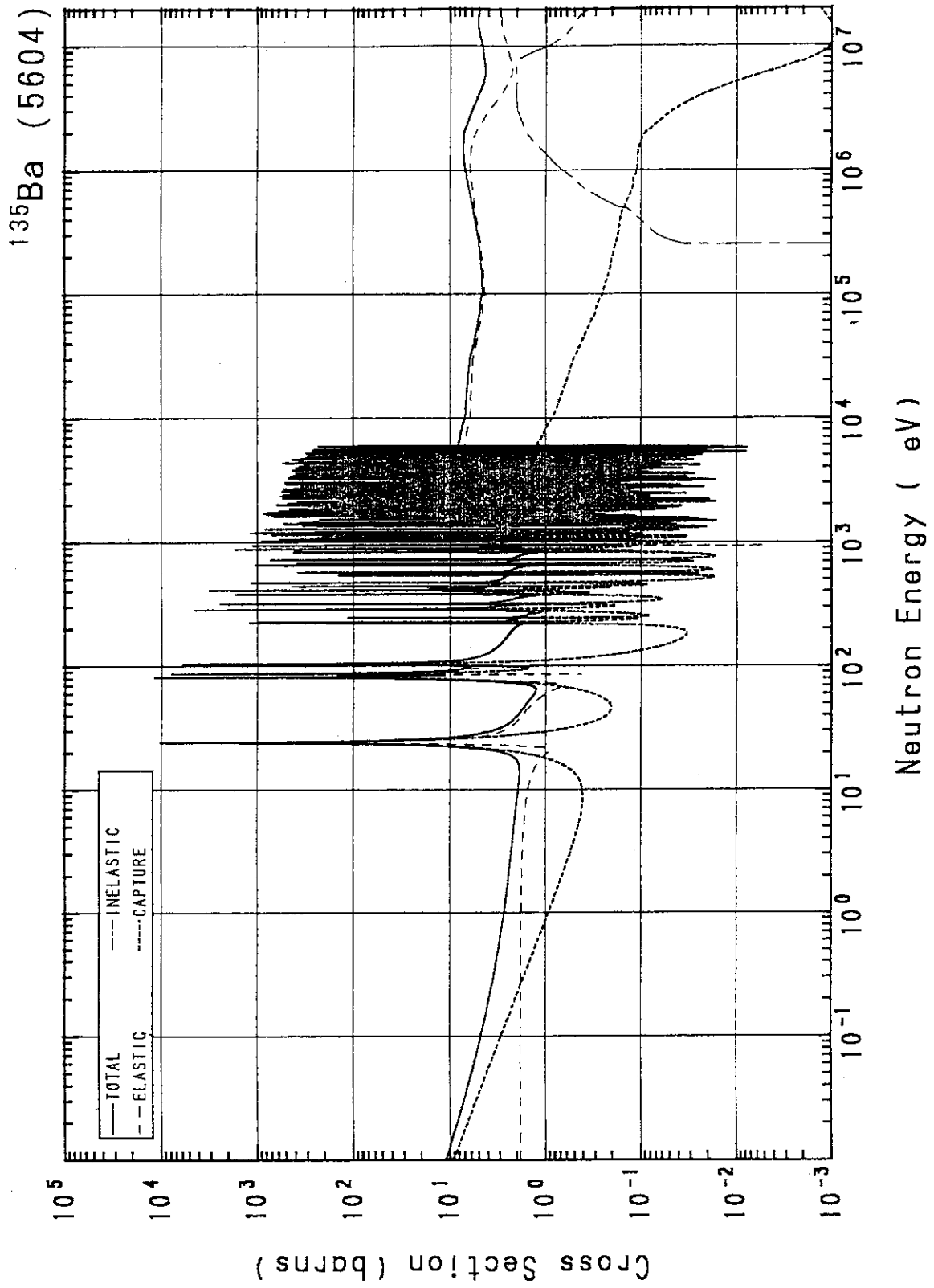
^{132}Ba (5602)

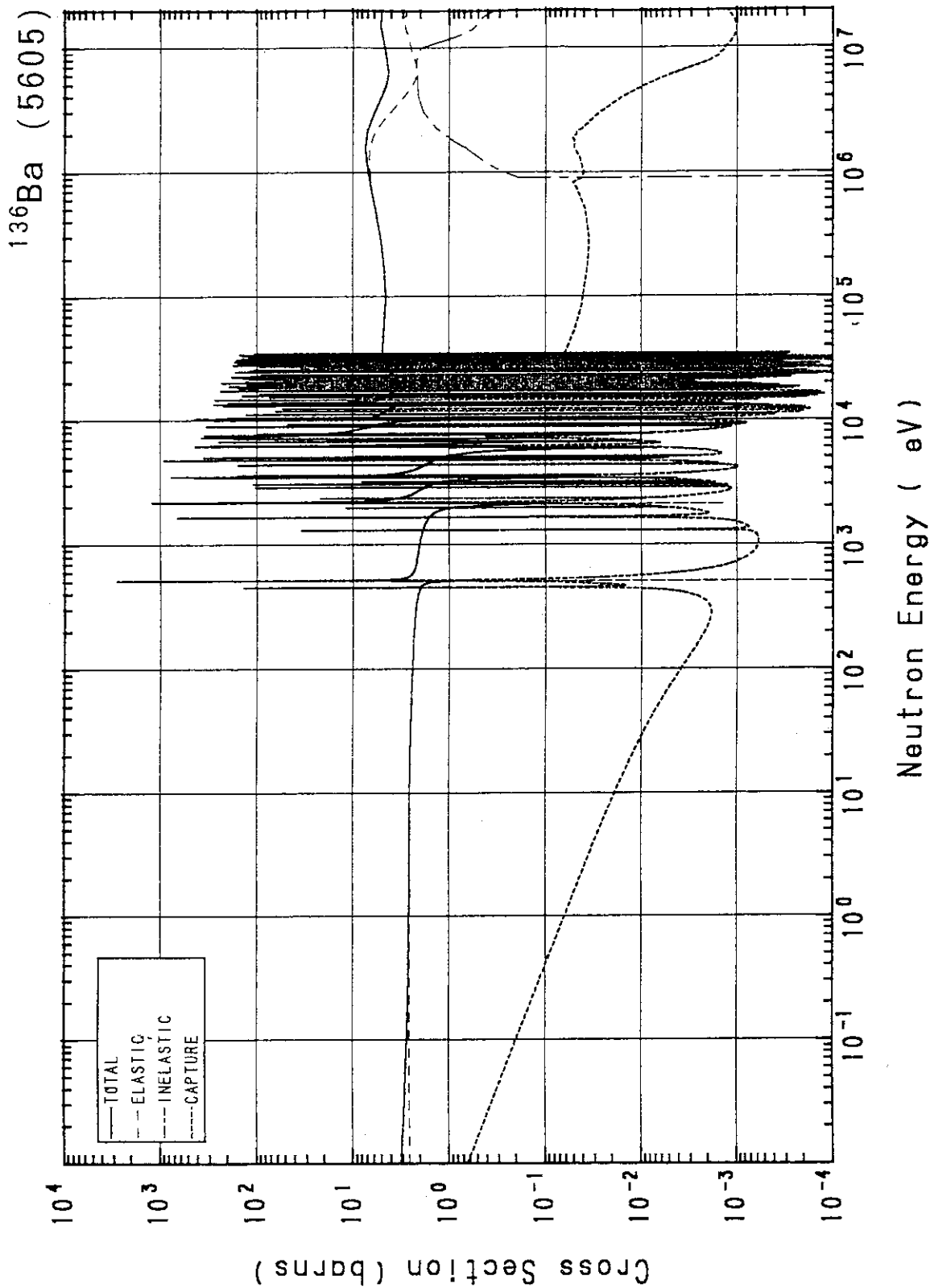




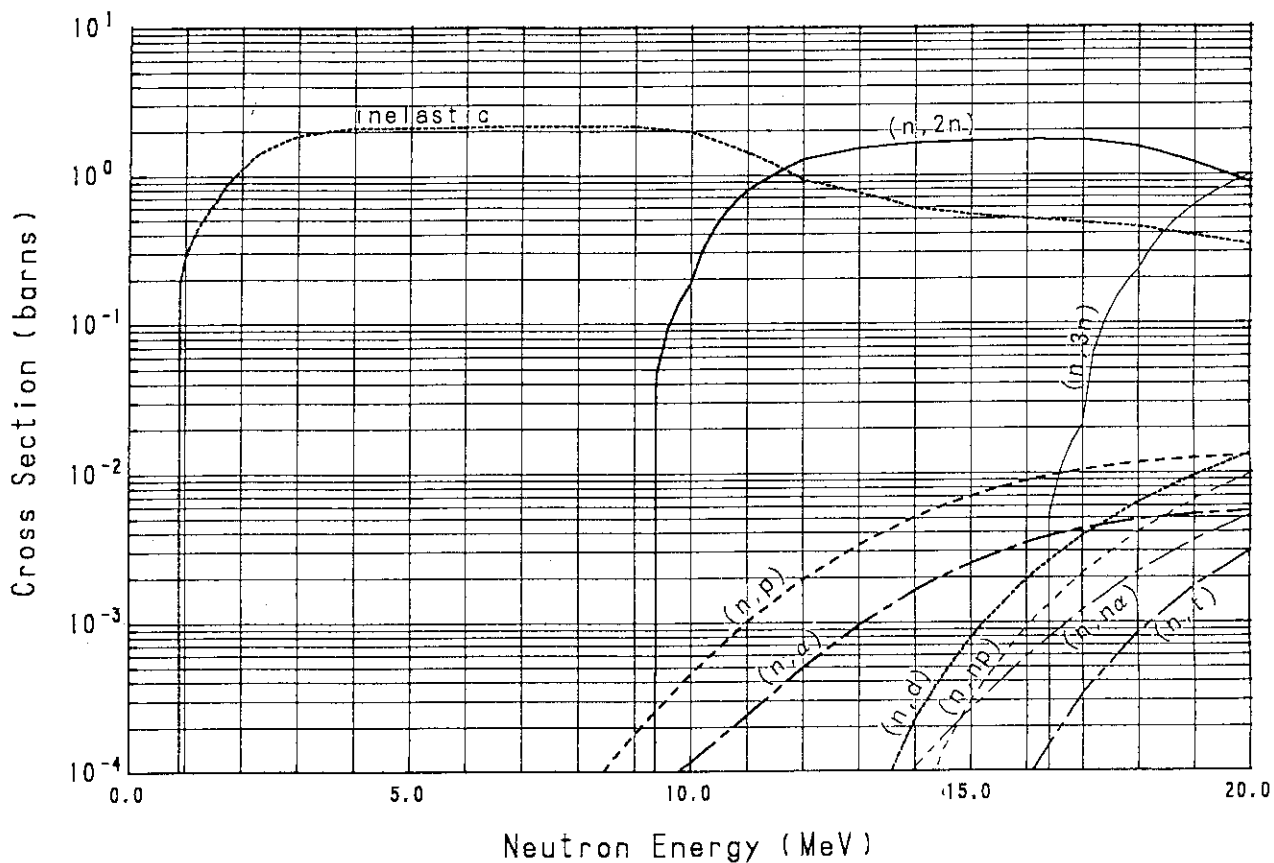
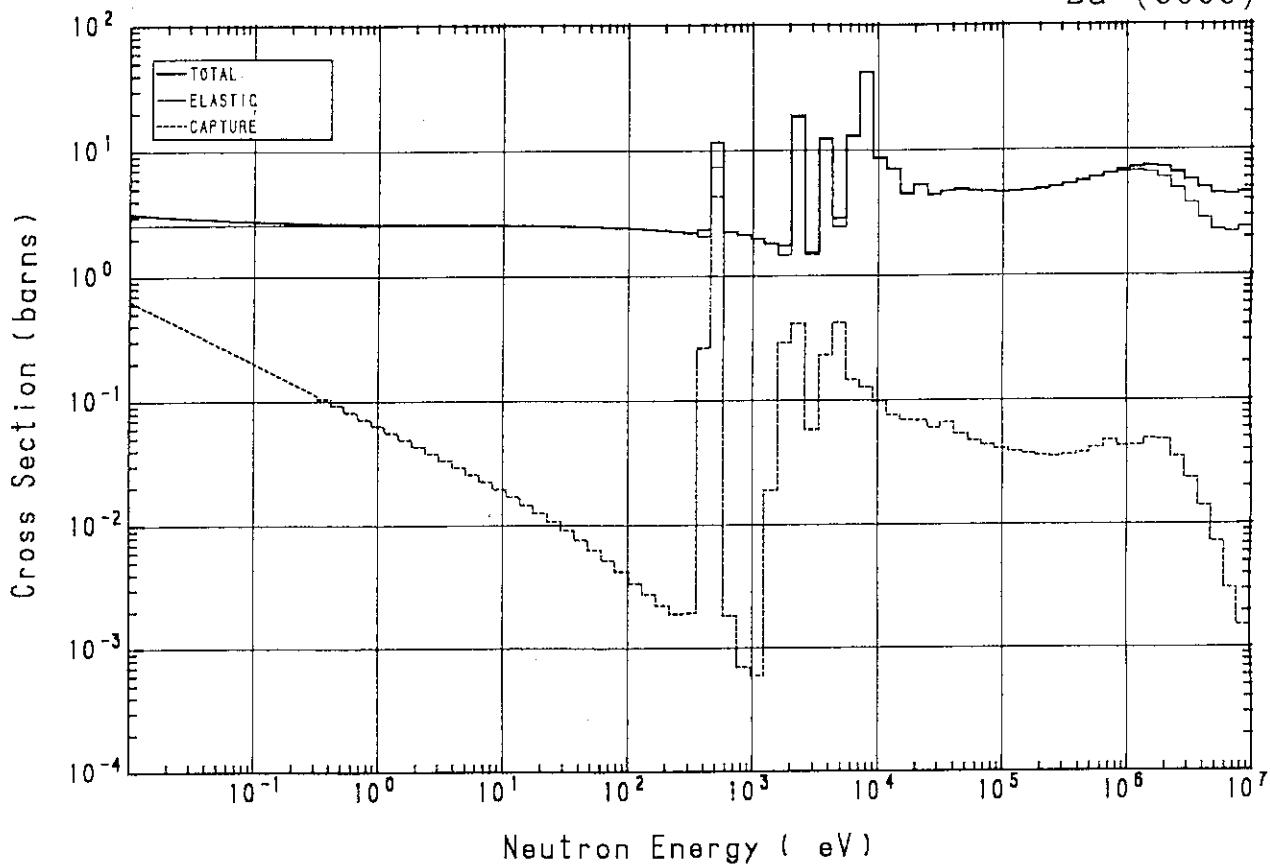
^{134}Ba (5603)

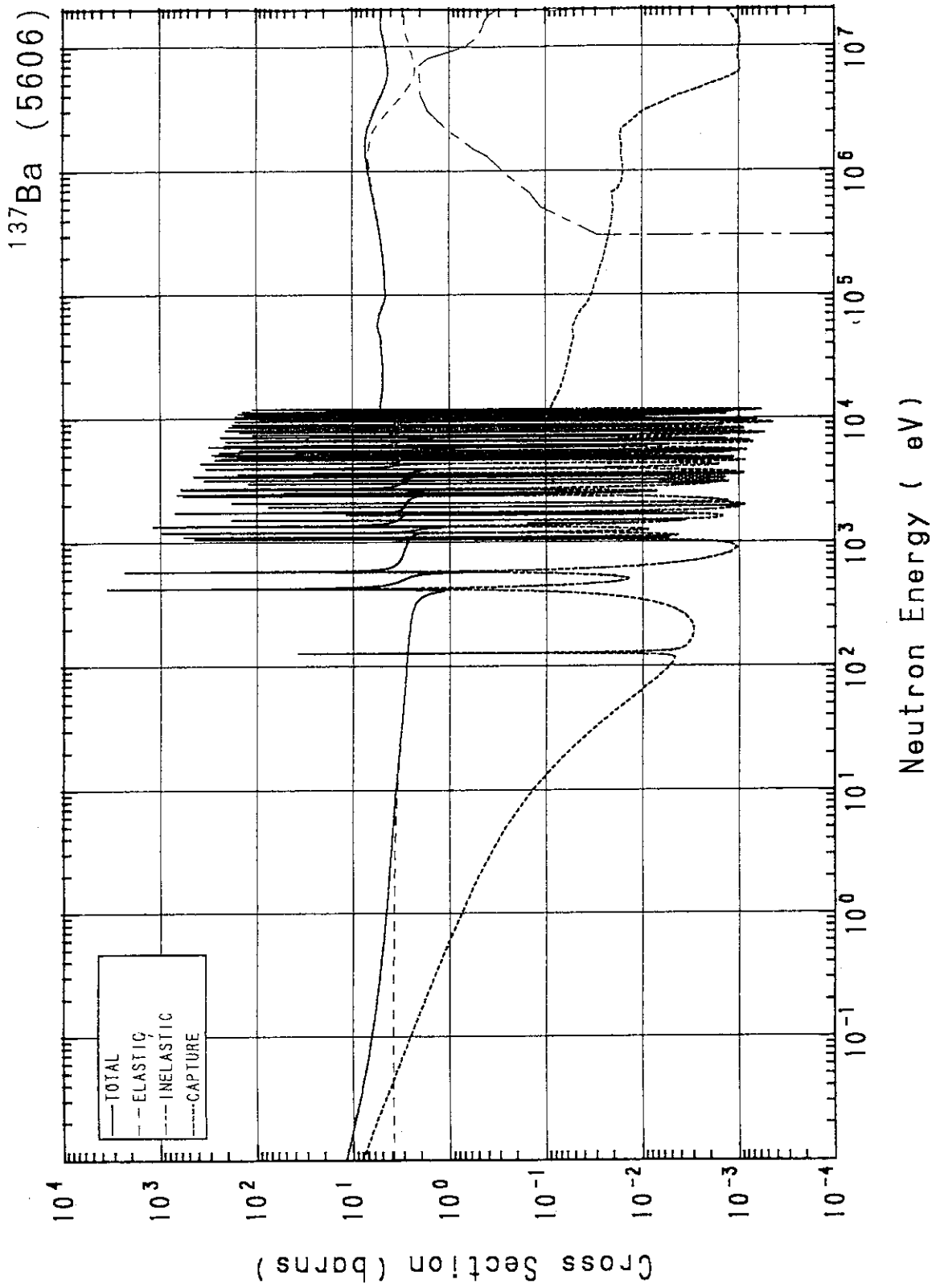




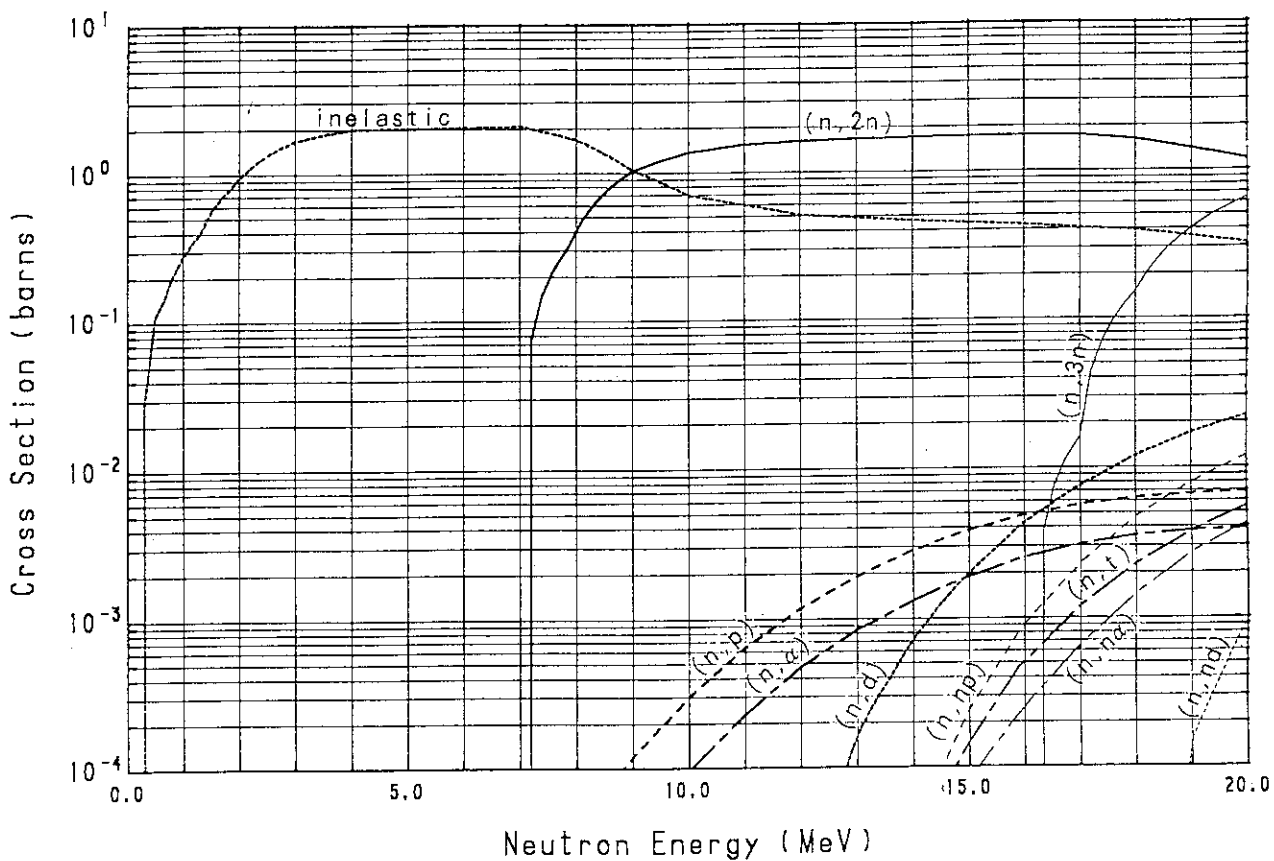
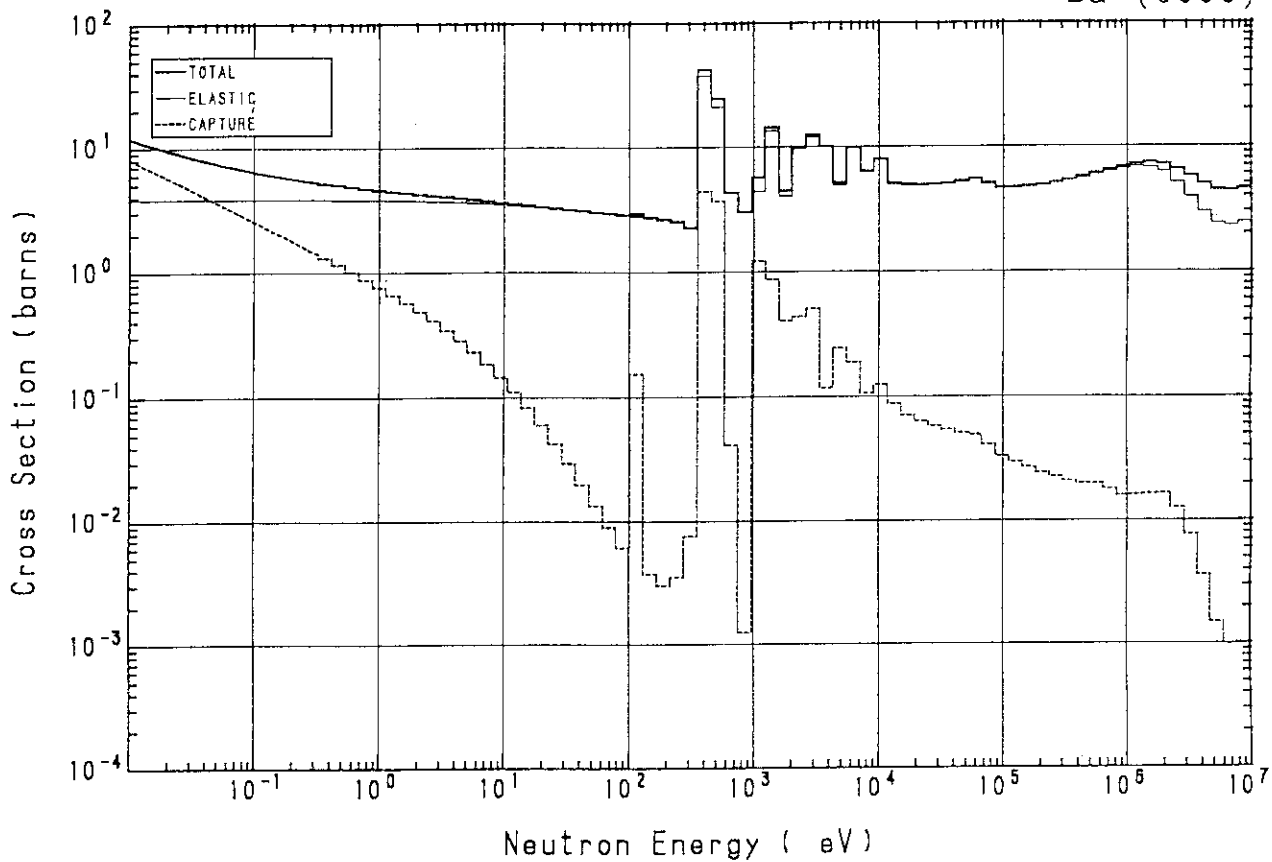


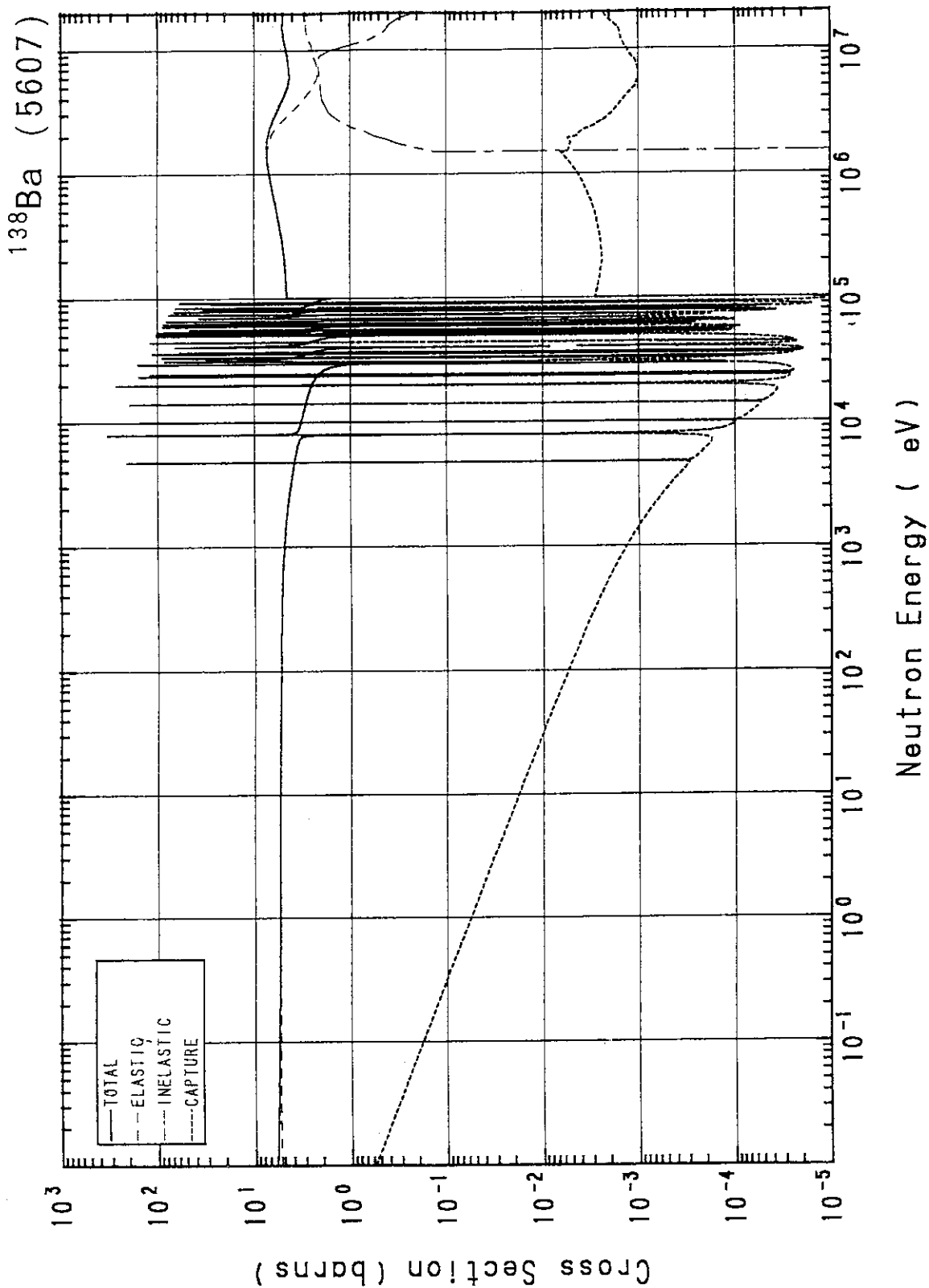
^{136}Ba (5605)



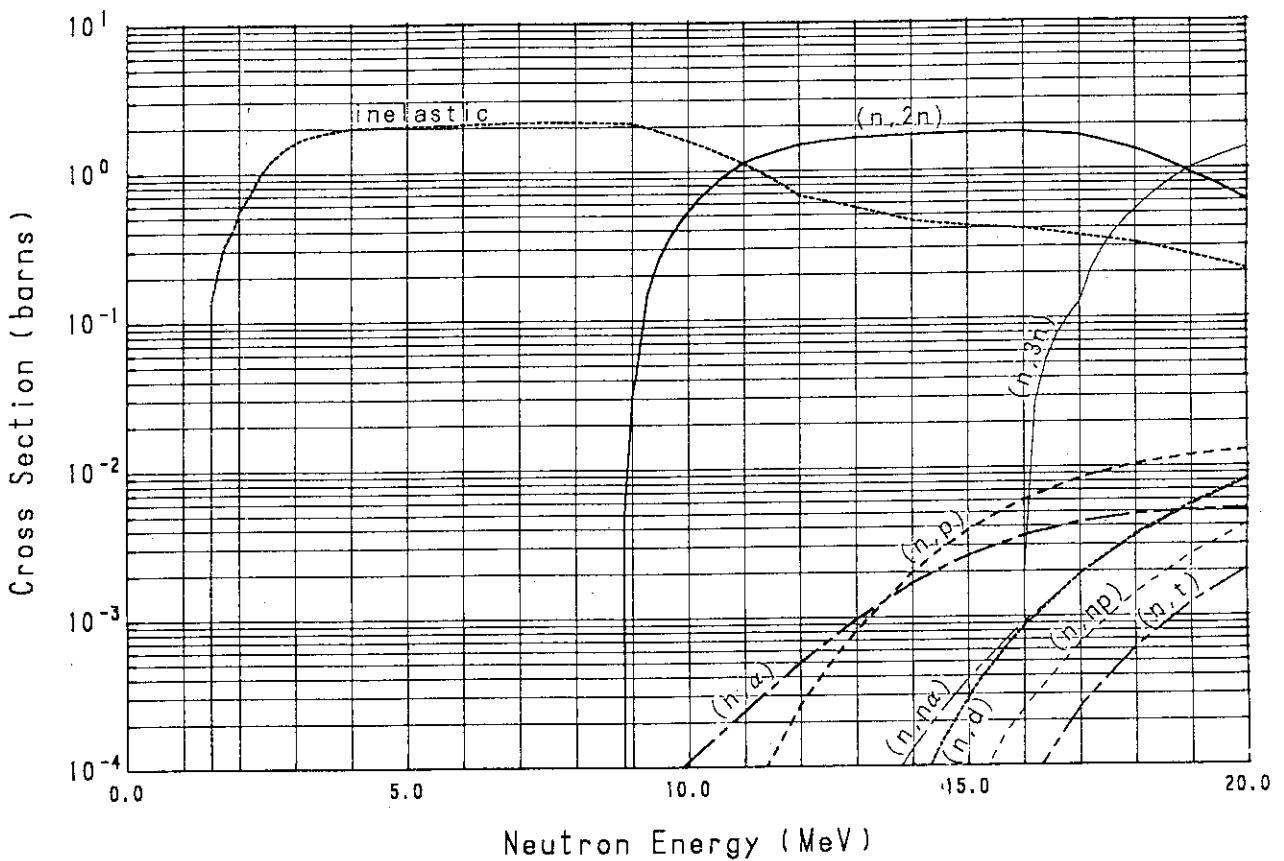
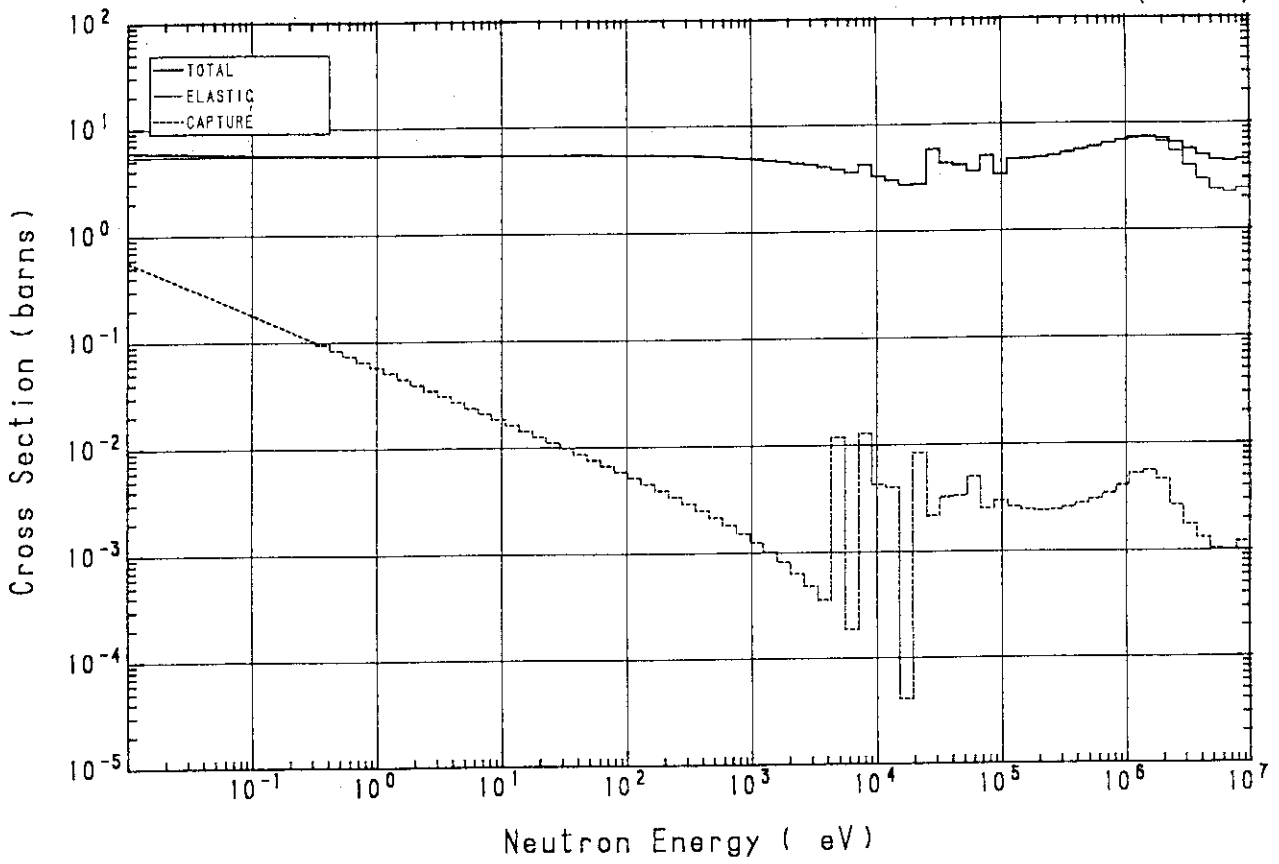


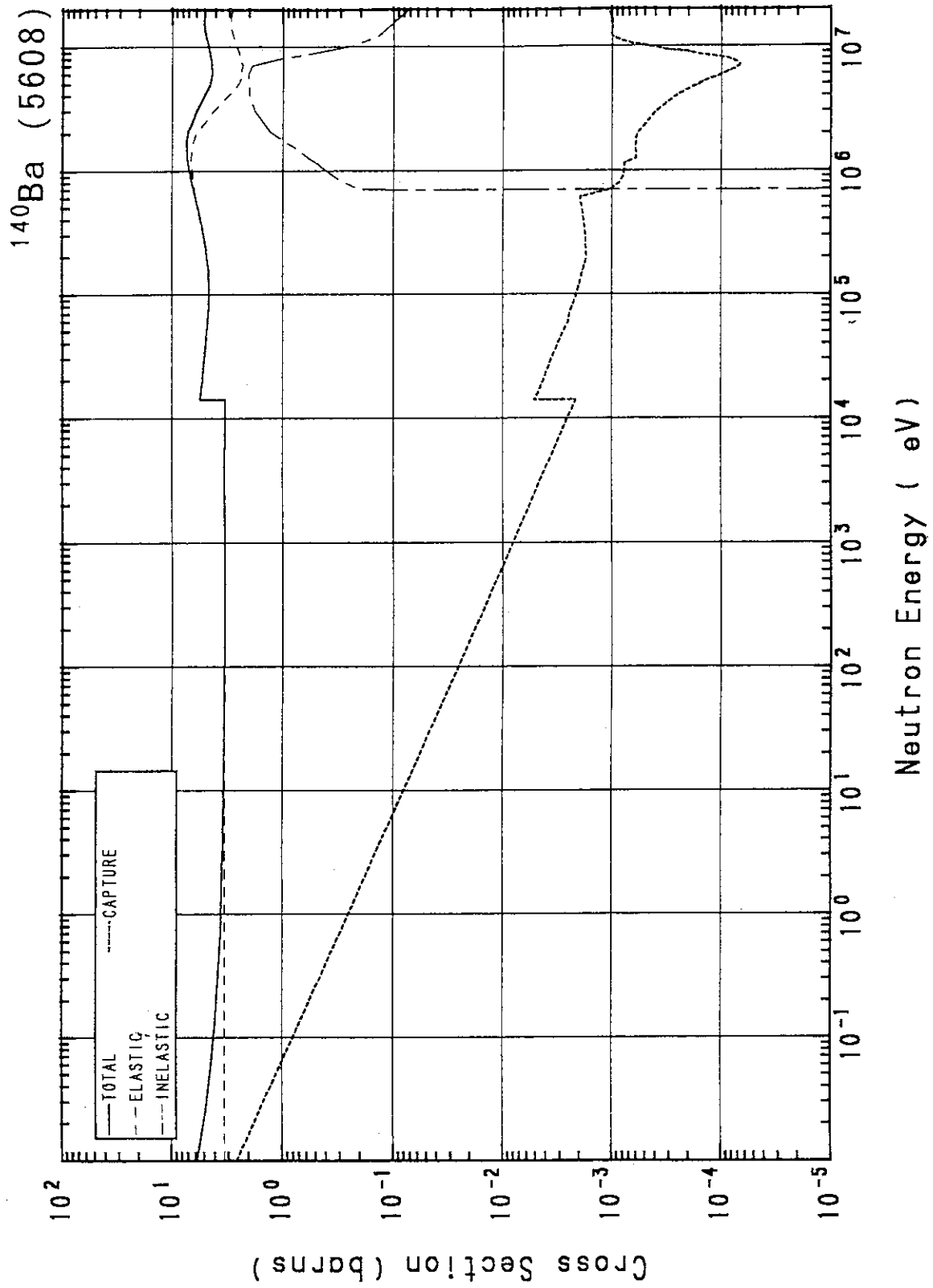
¹³⁷Ba (5606)



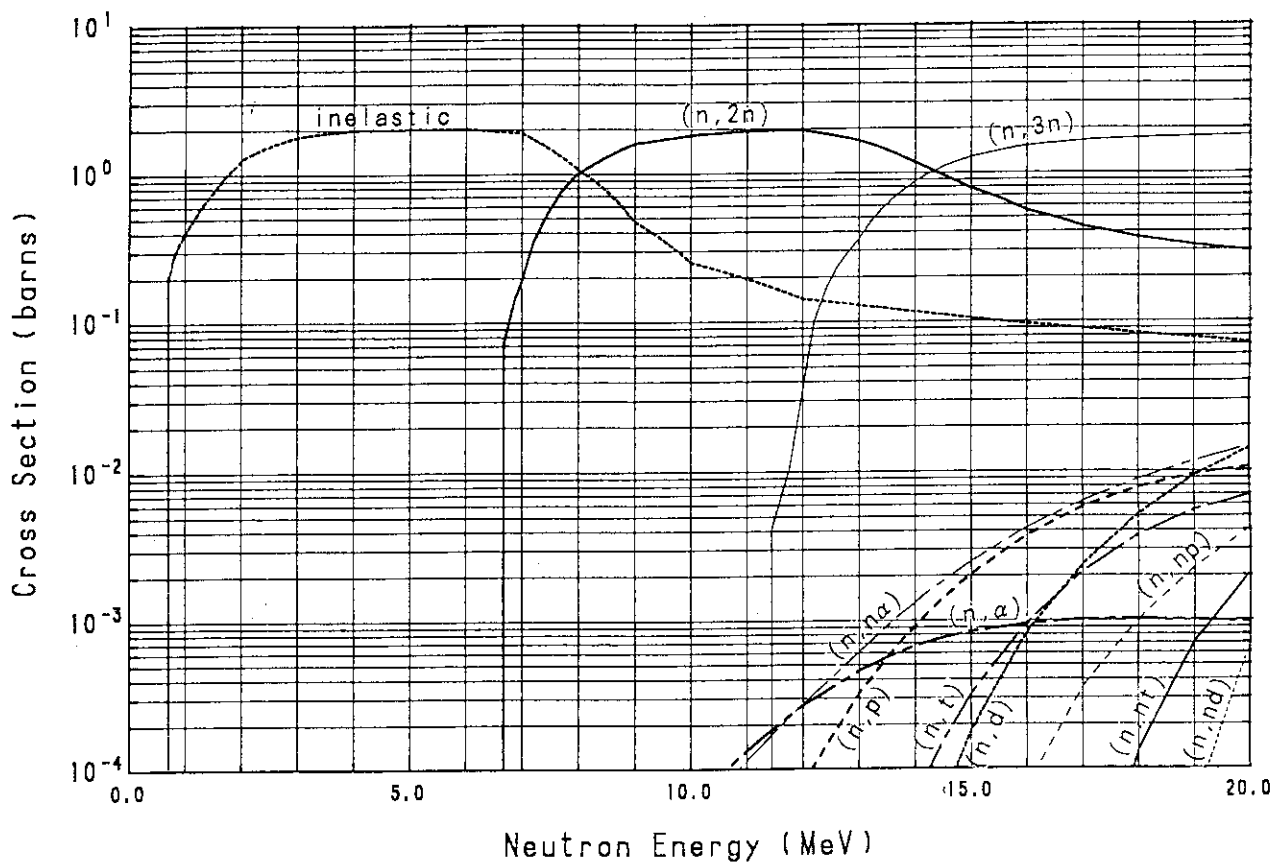
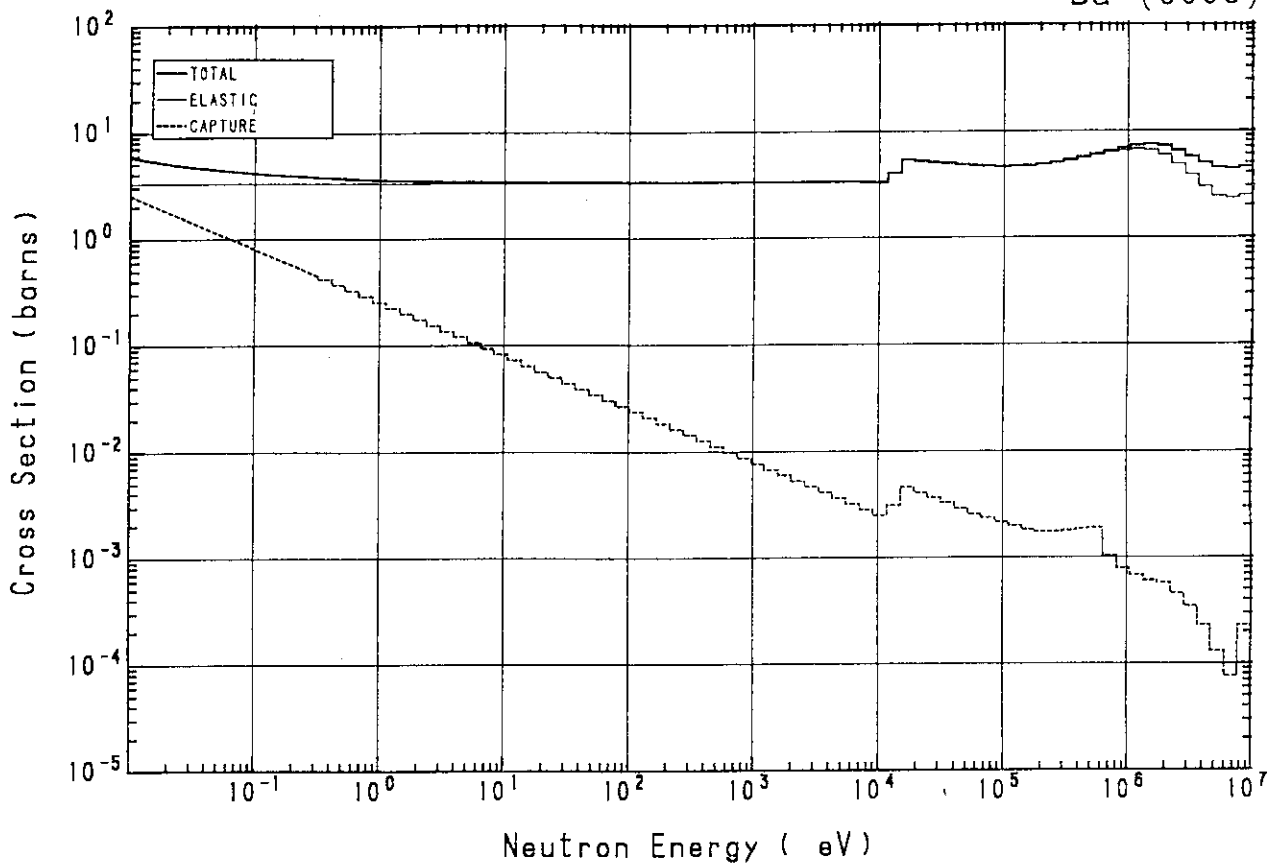


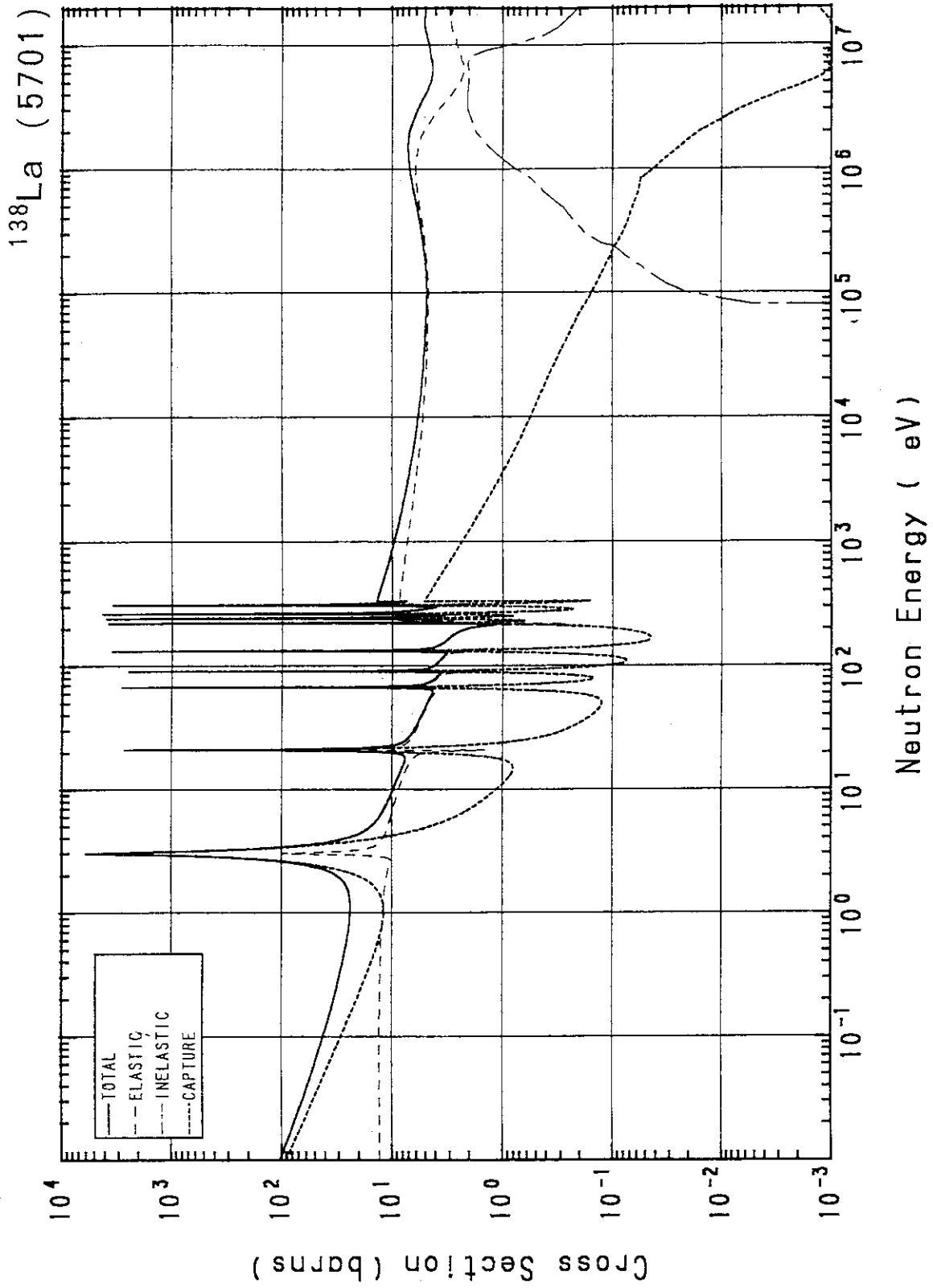
^{138}Ba (5607)



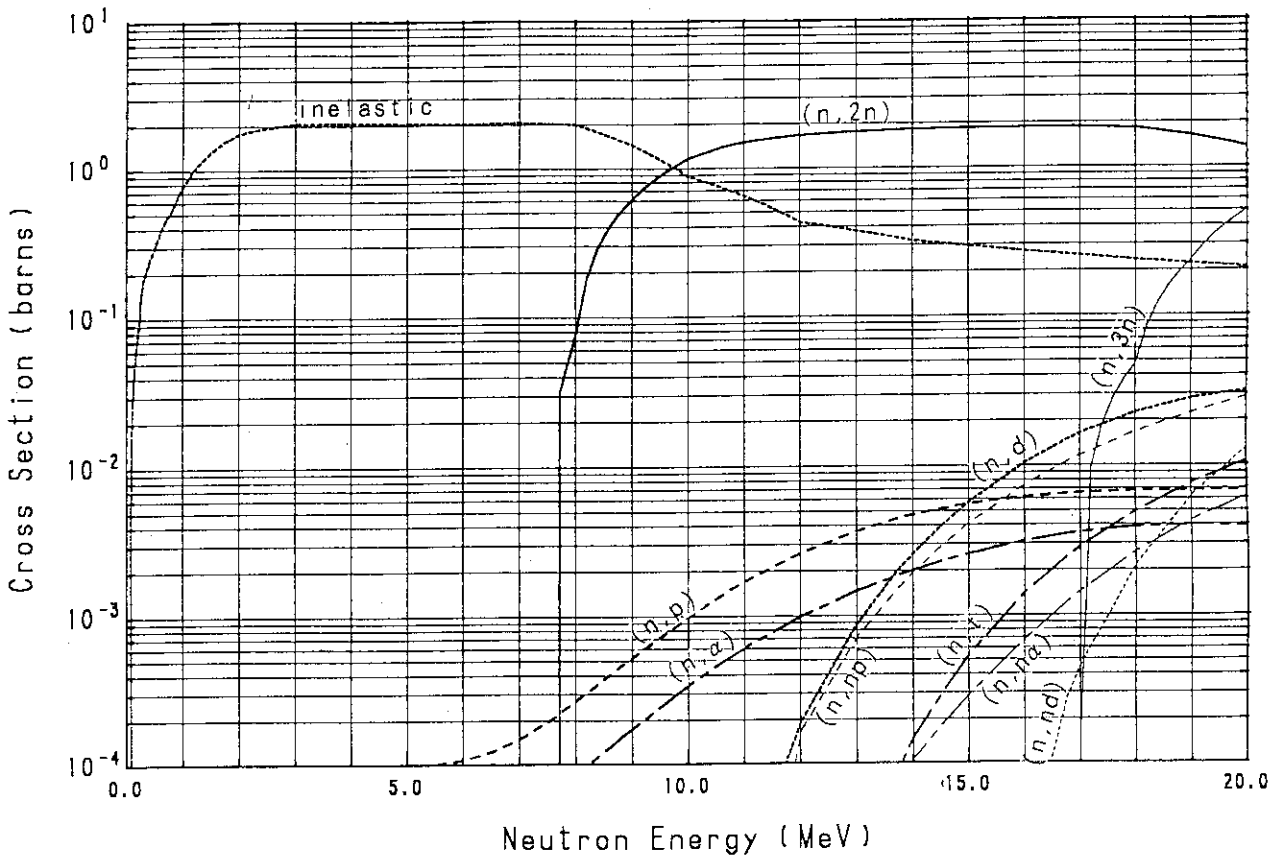
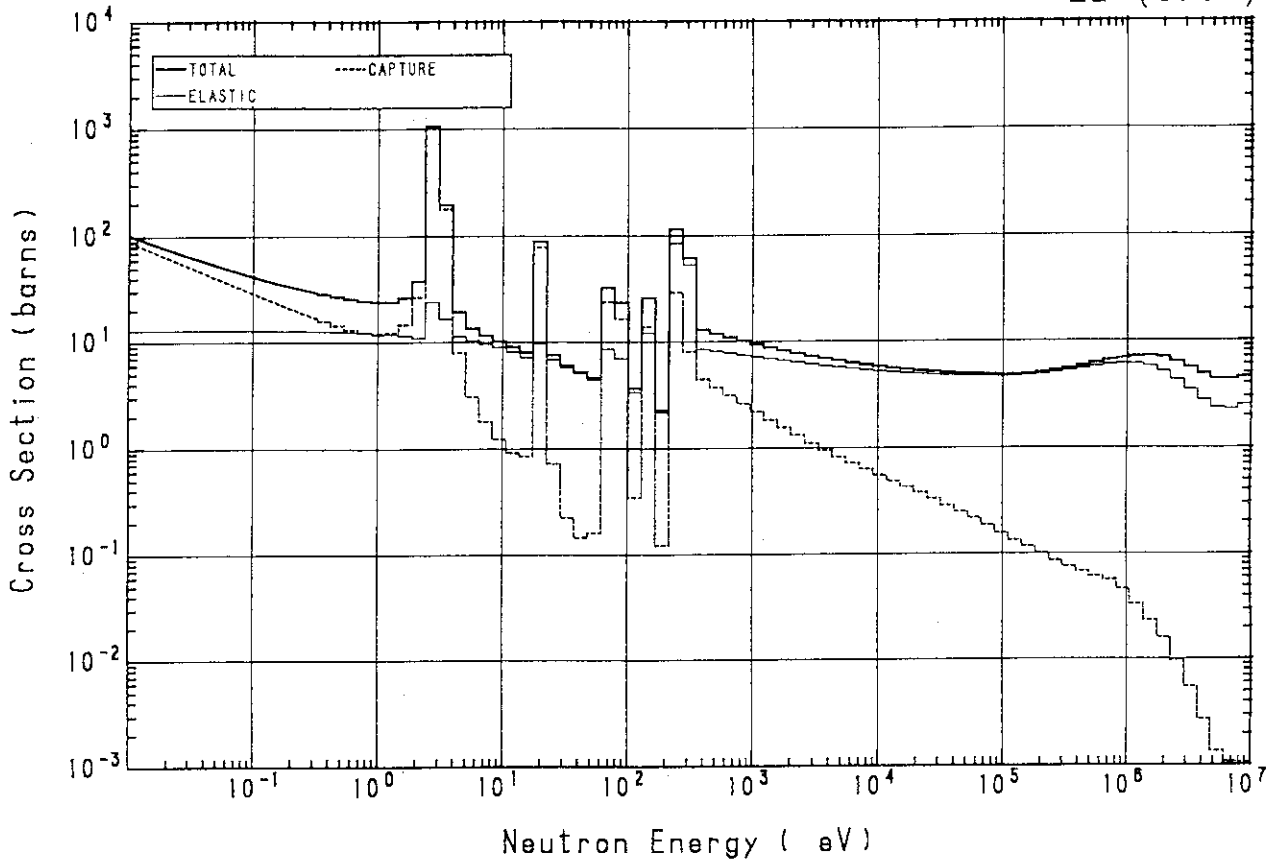


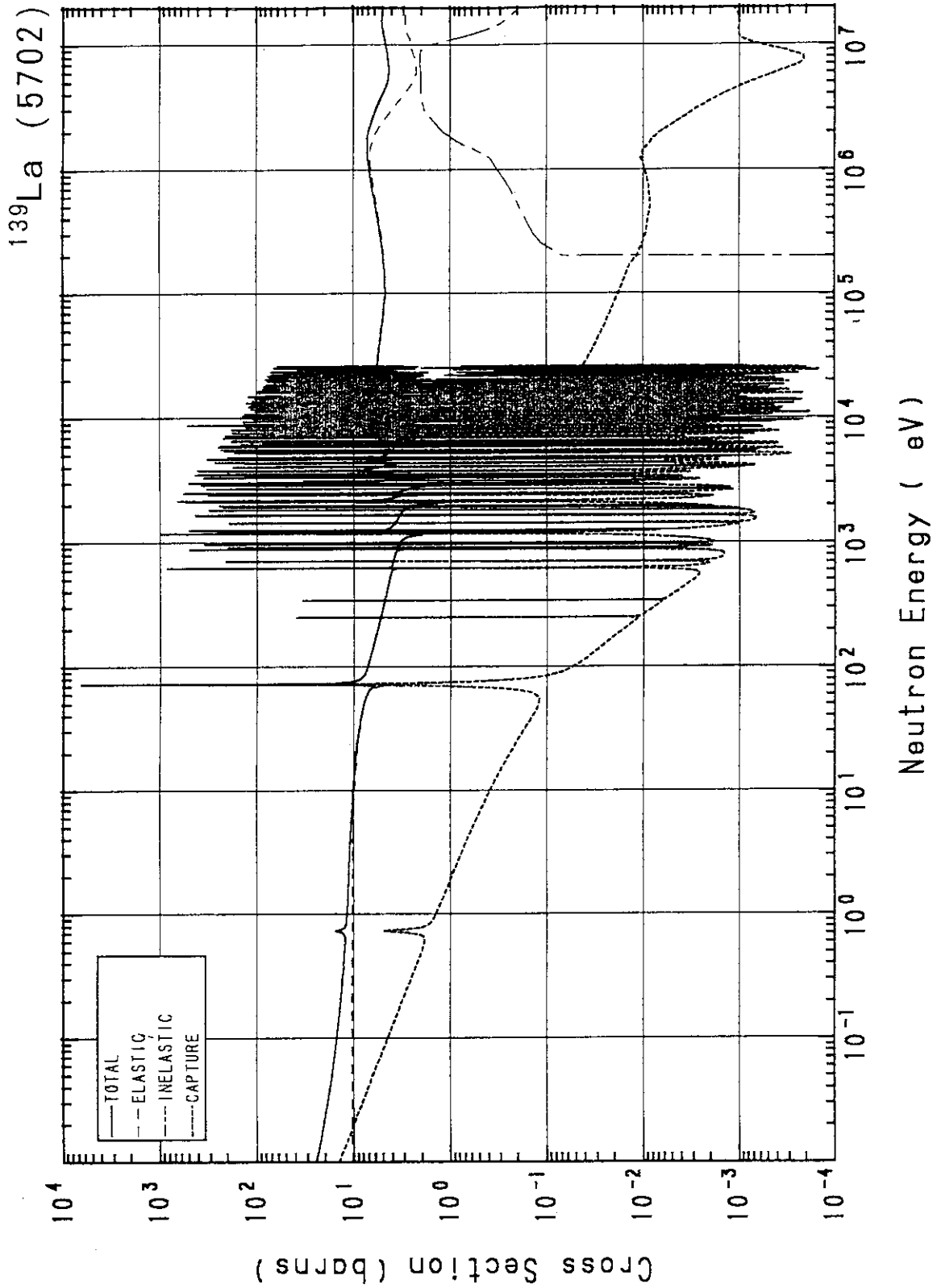
¹⁴⁰Ba (5608)



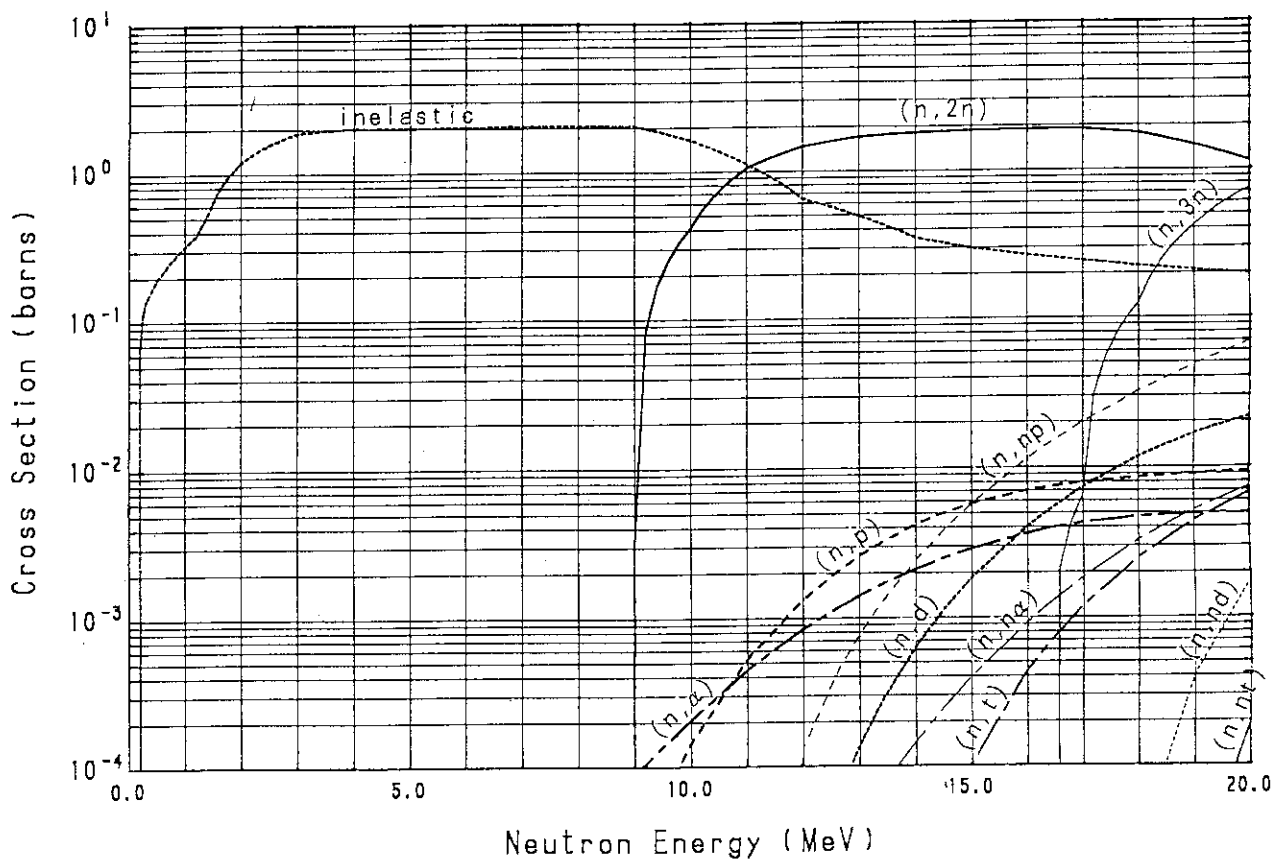
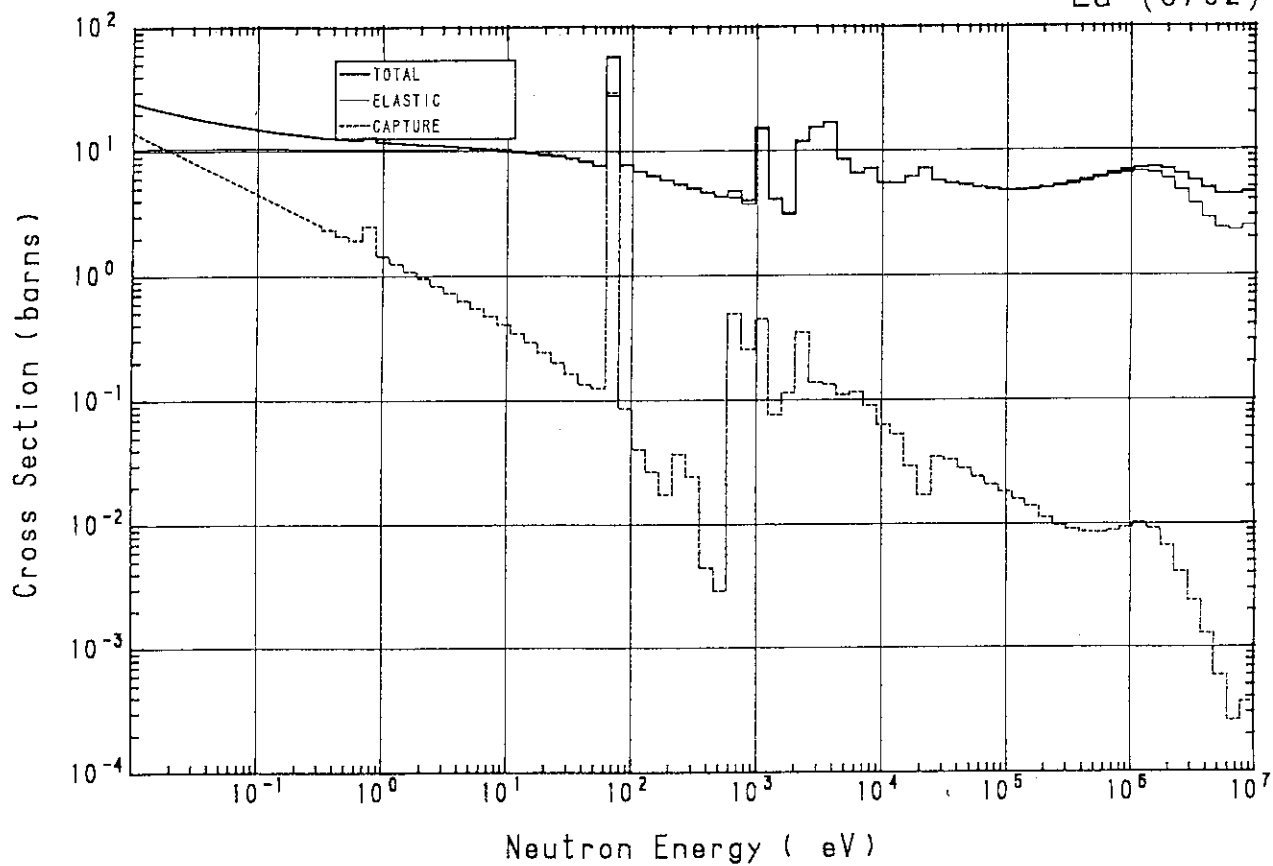


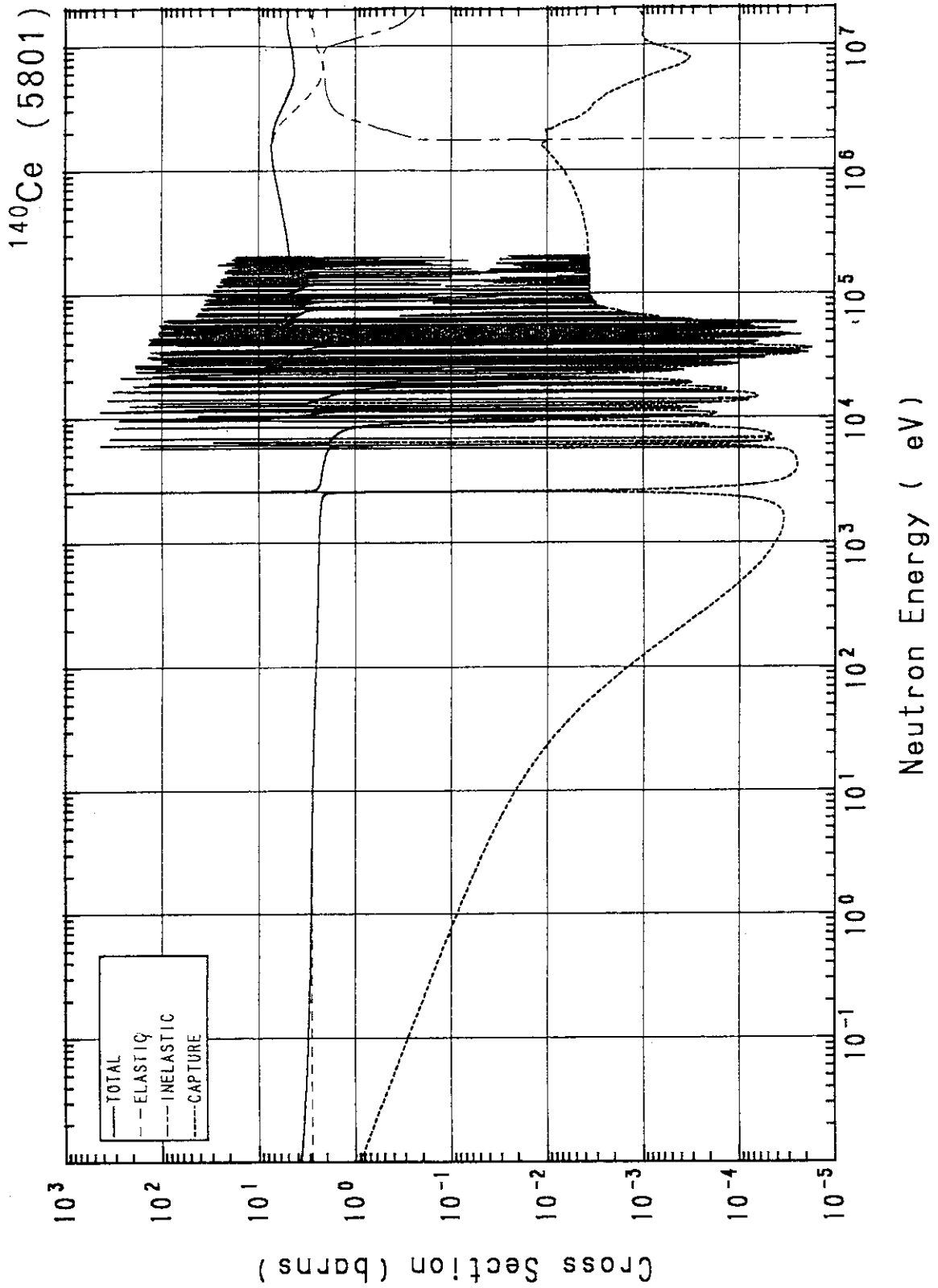
^{138}La (5701)



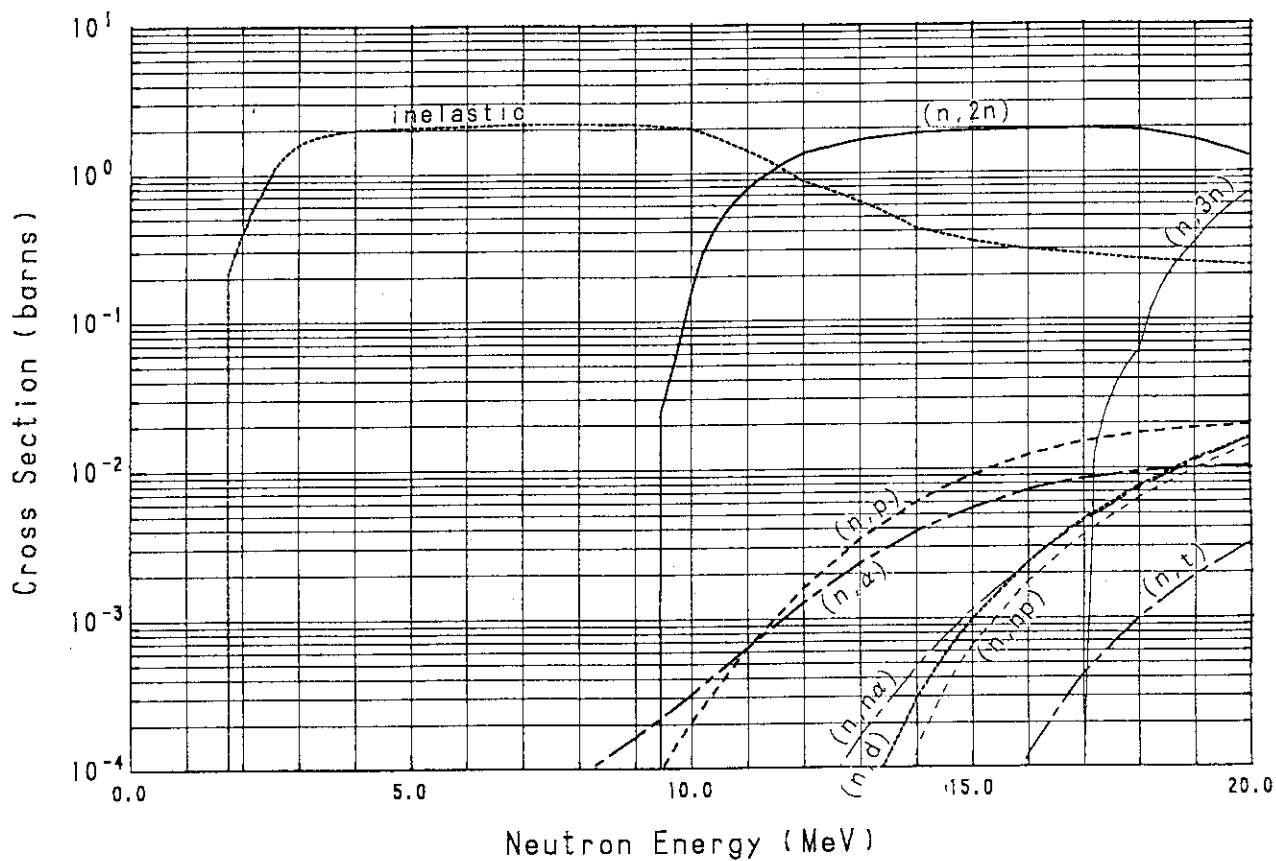
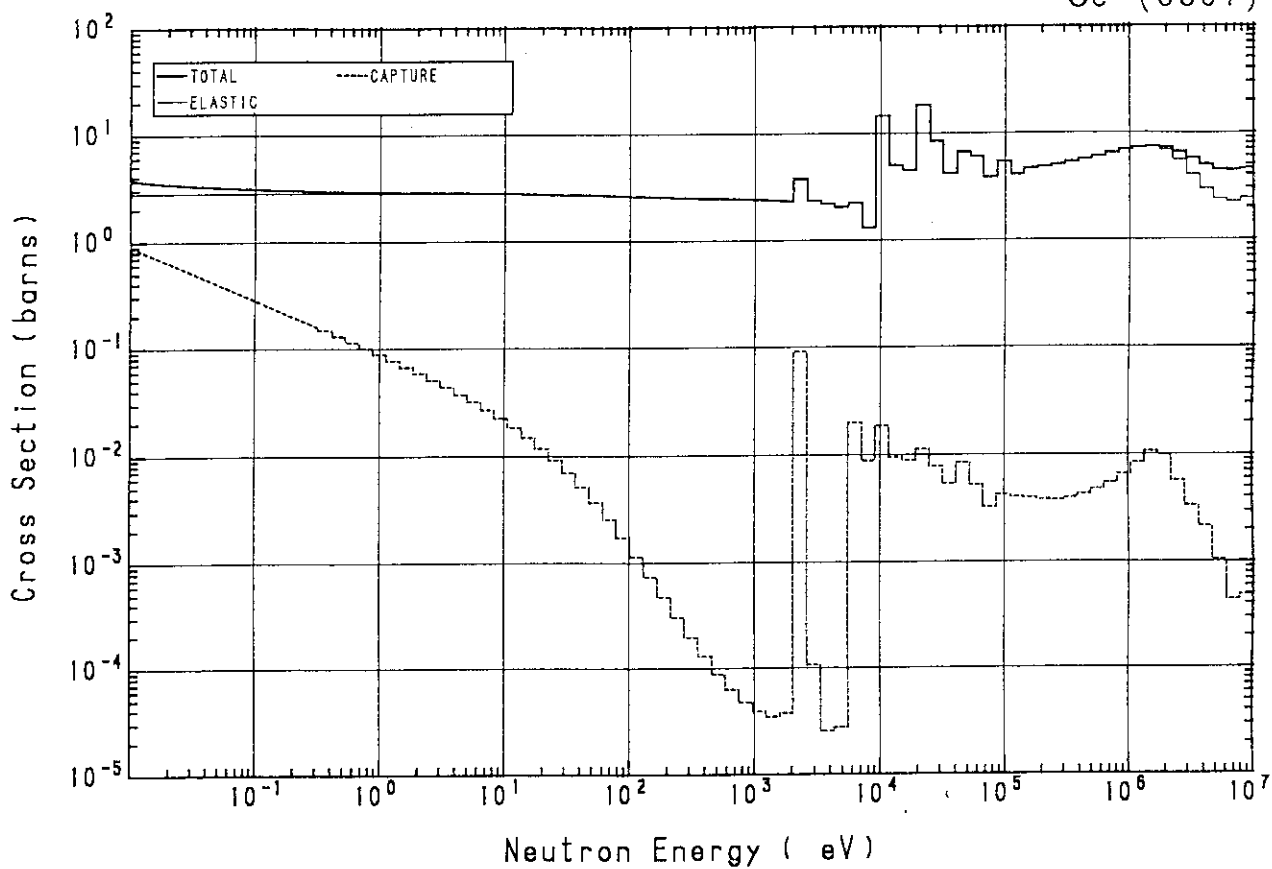


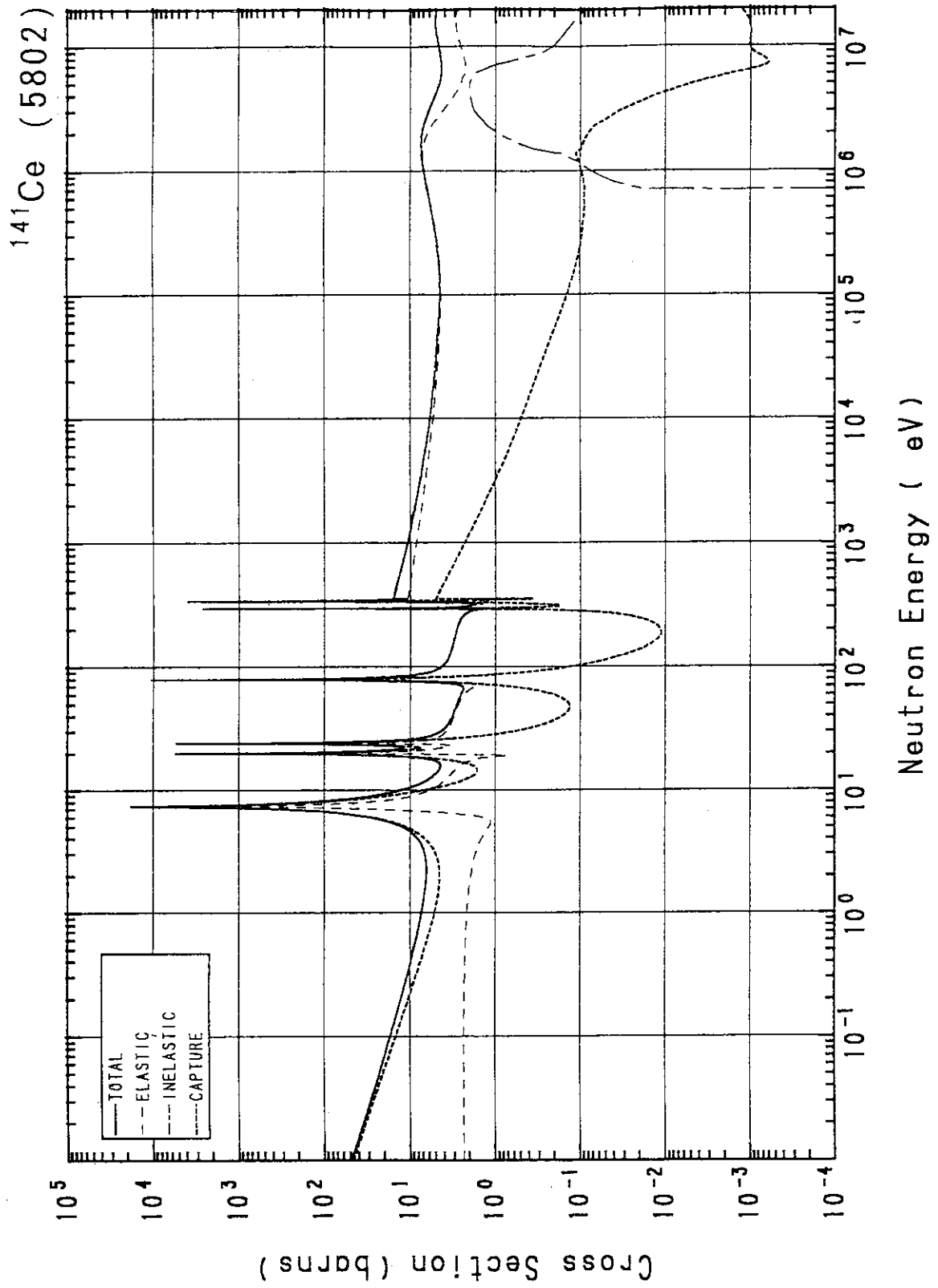
^{139}La (5702)



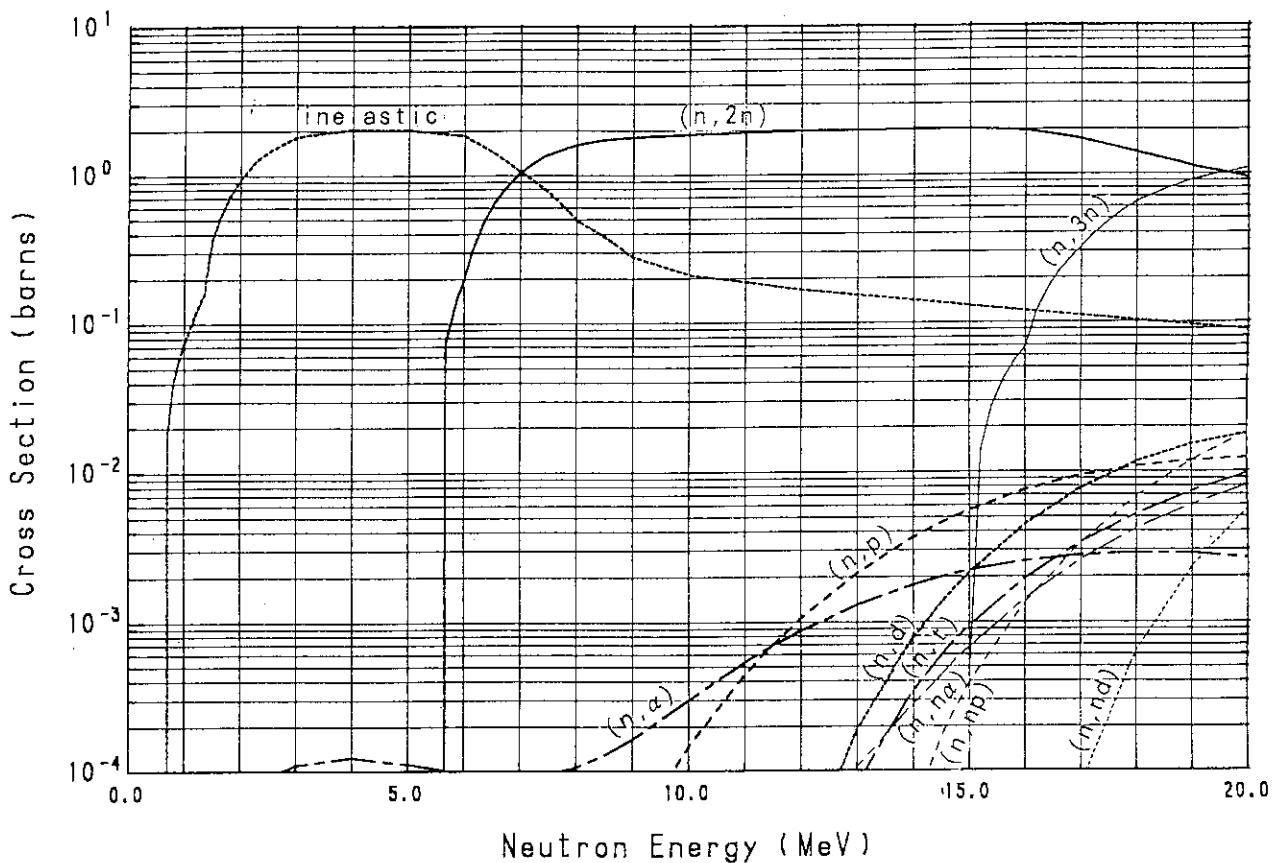
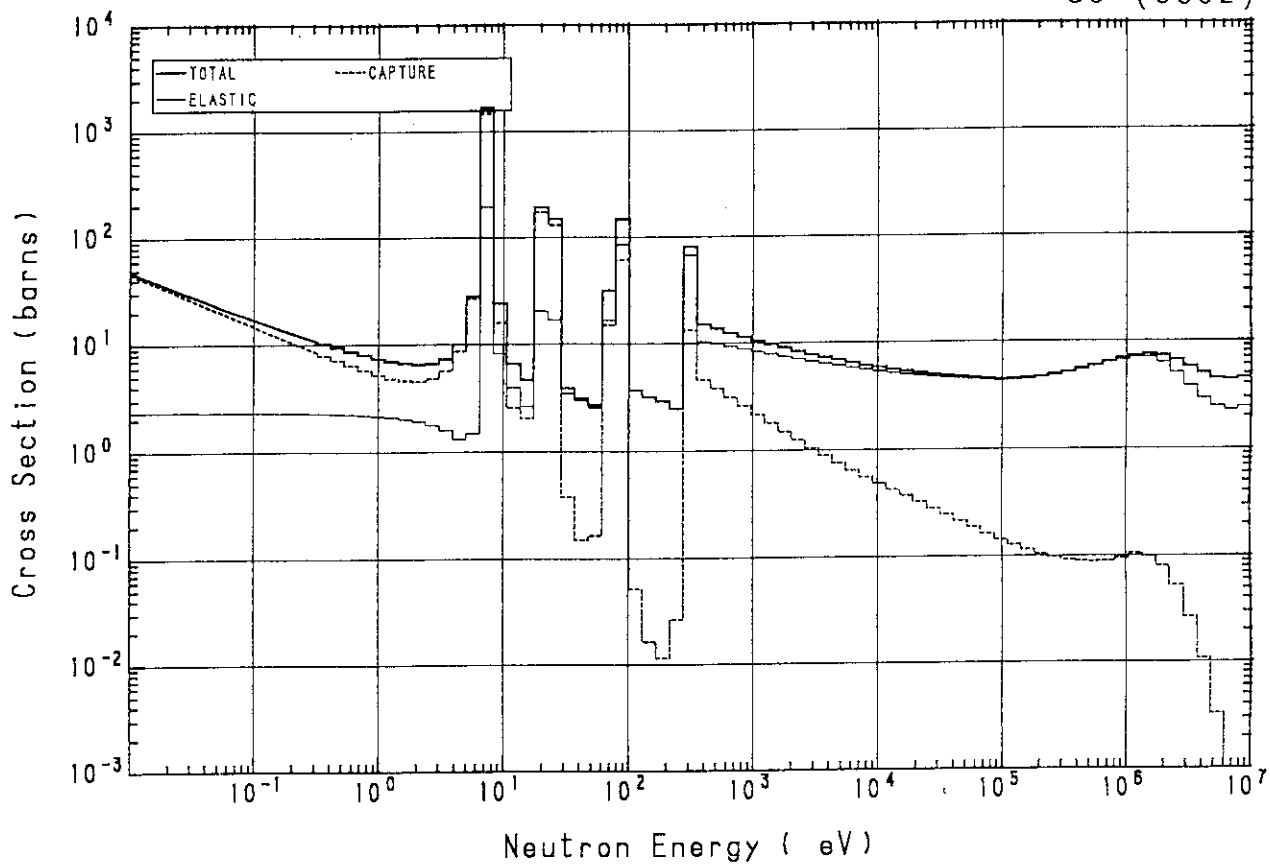


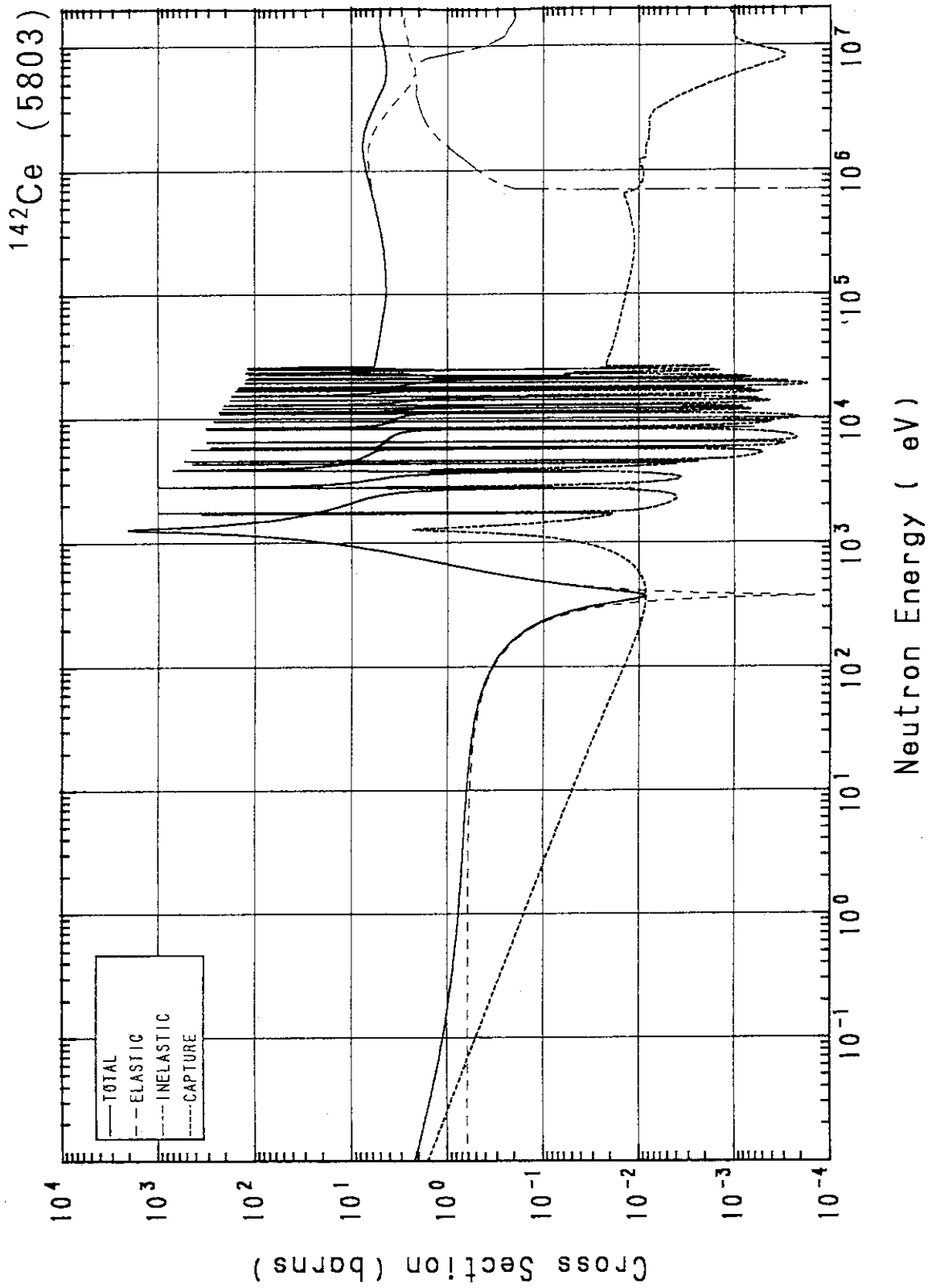
^{140}Ce (5801)



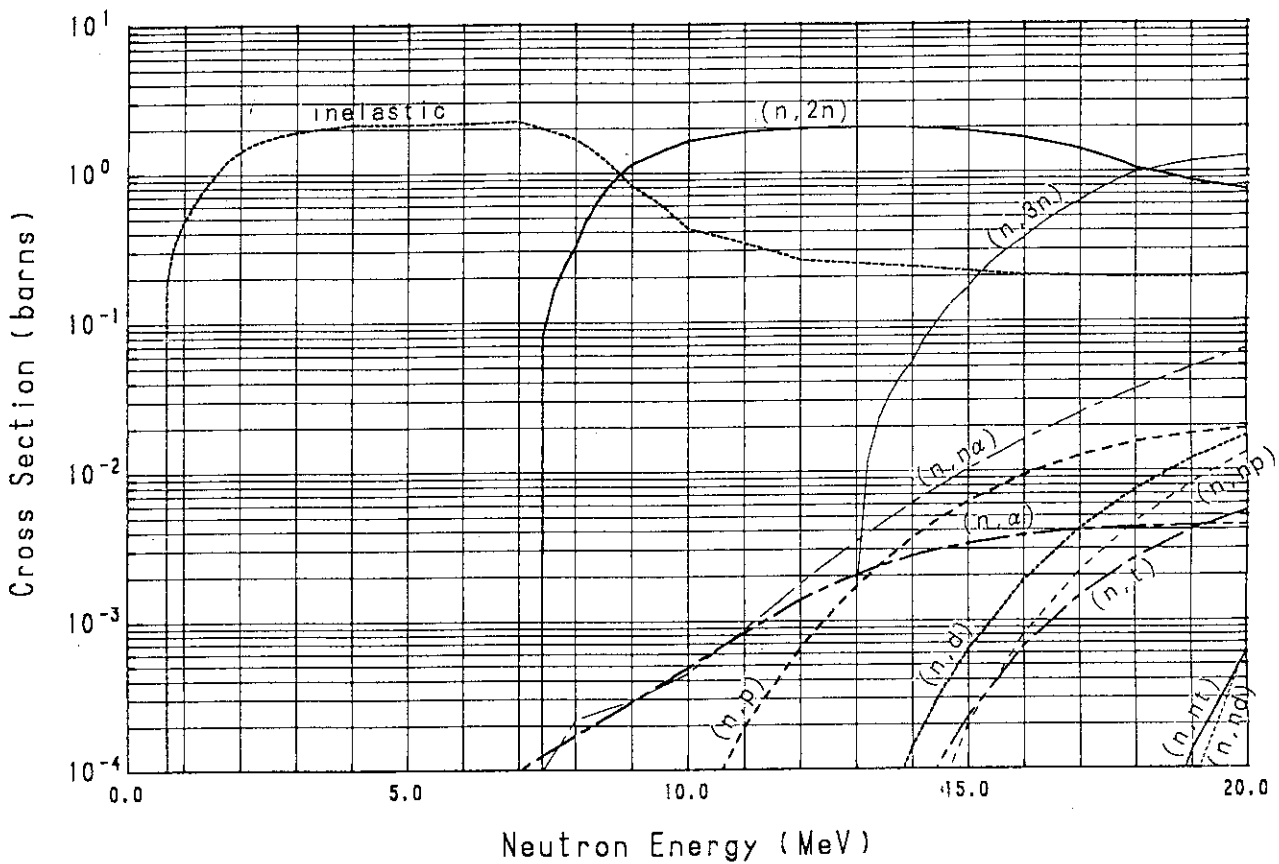
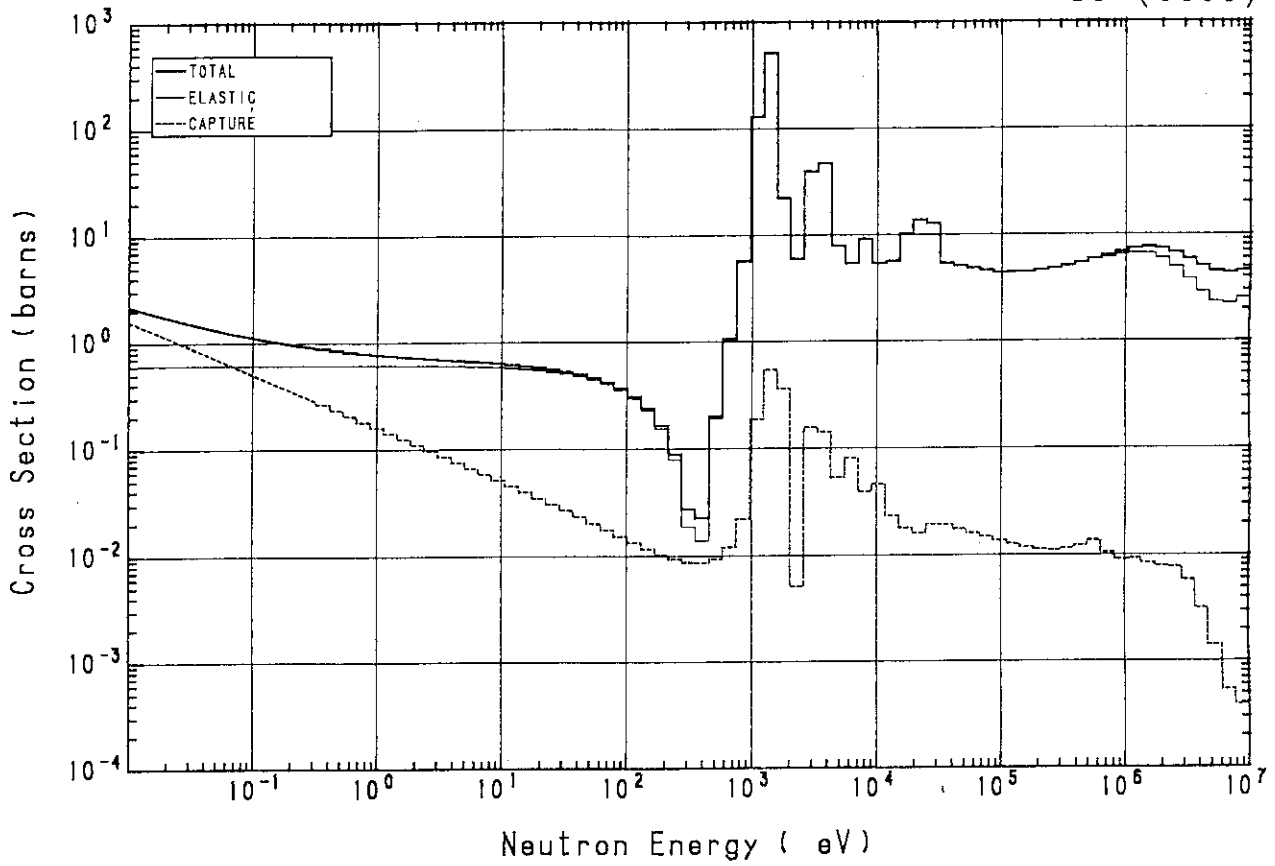


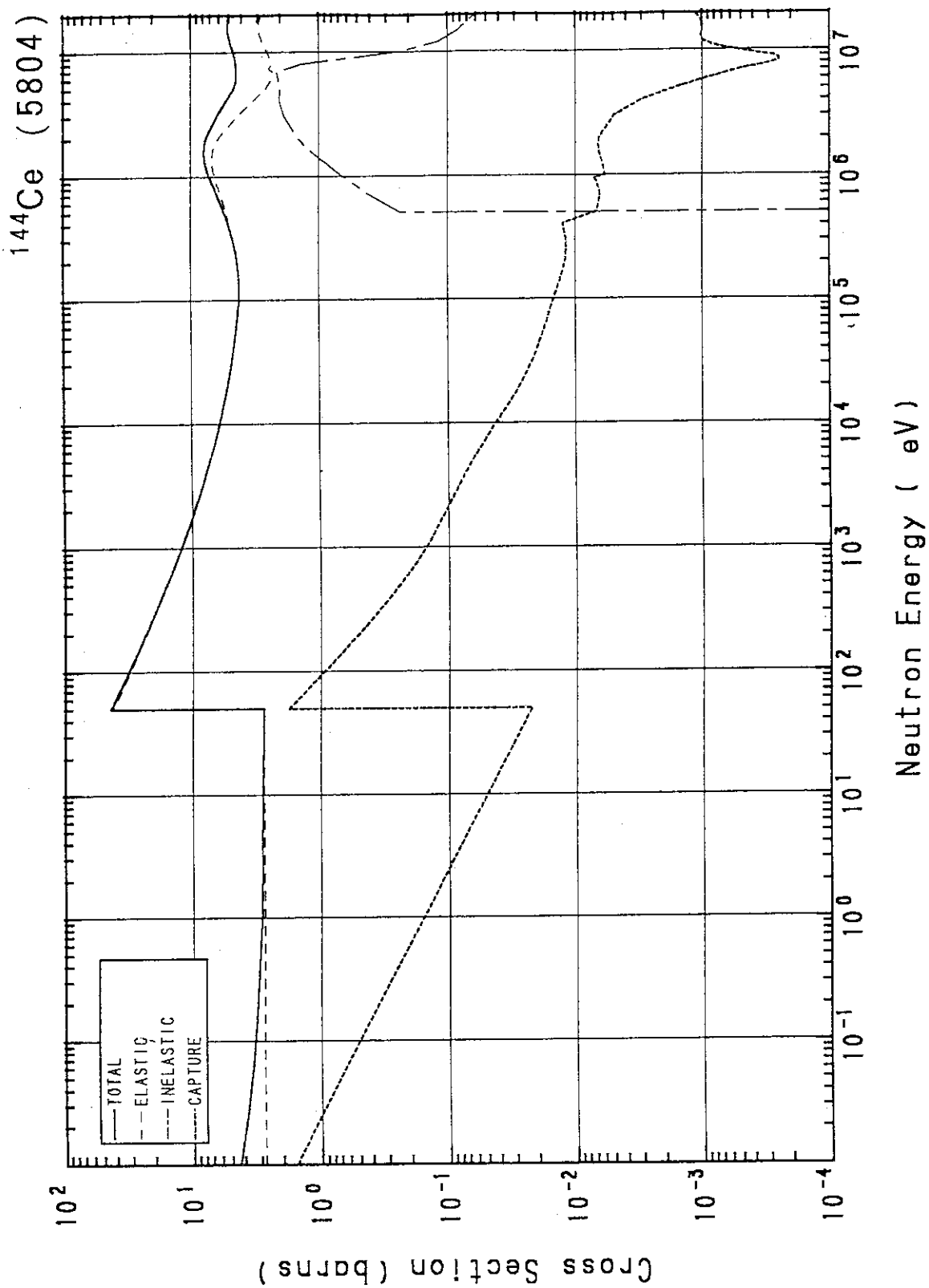
^{141}Ce (5802)



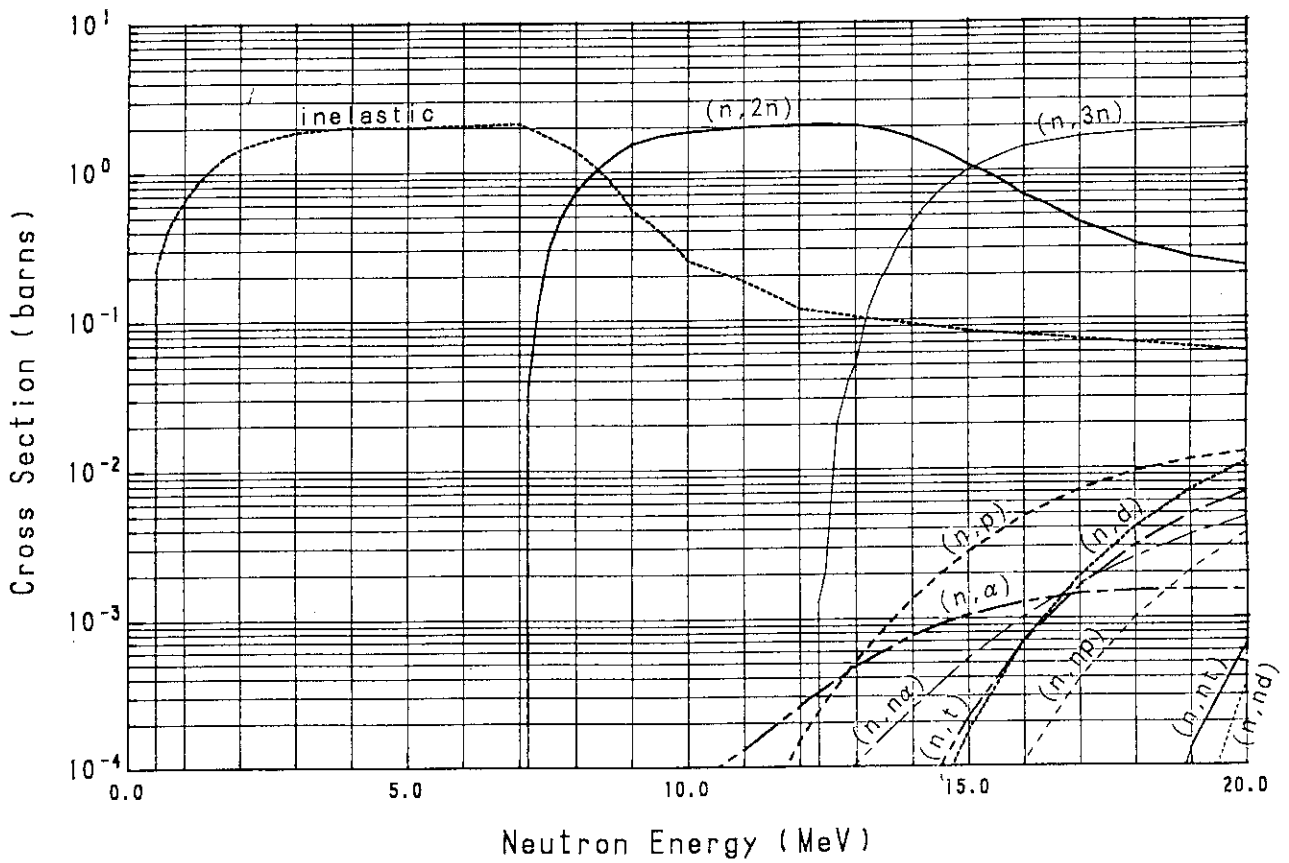
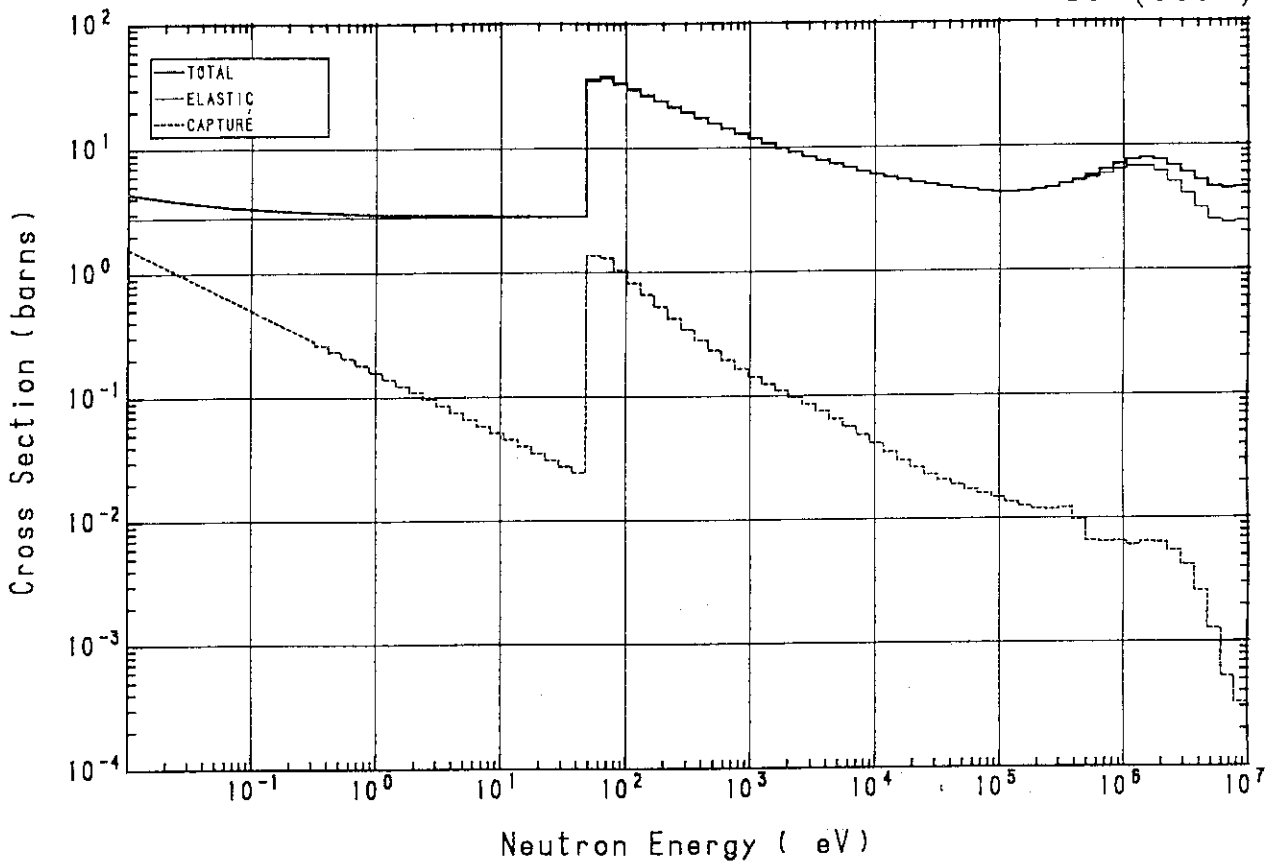


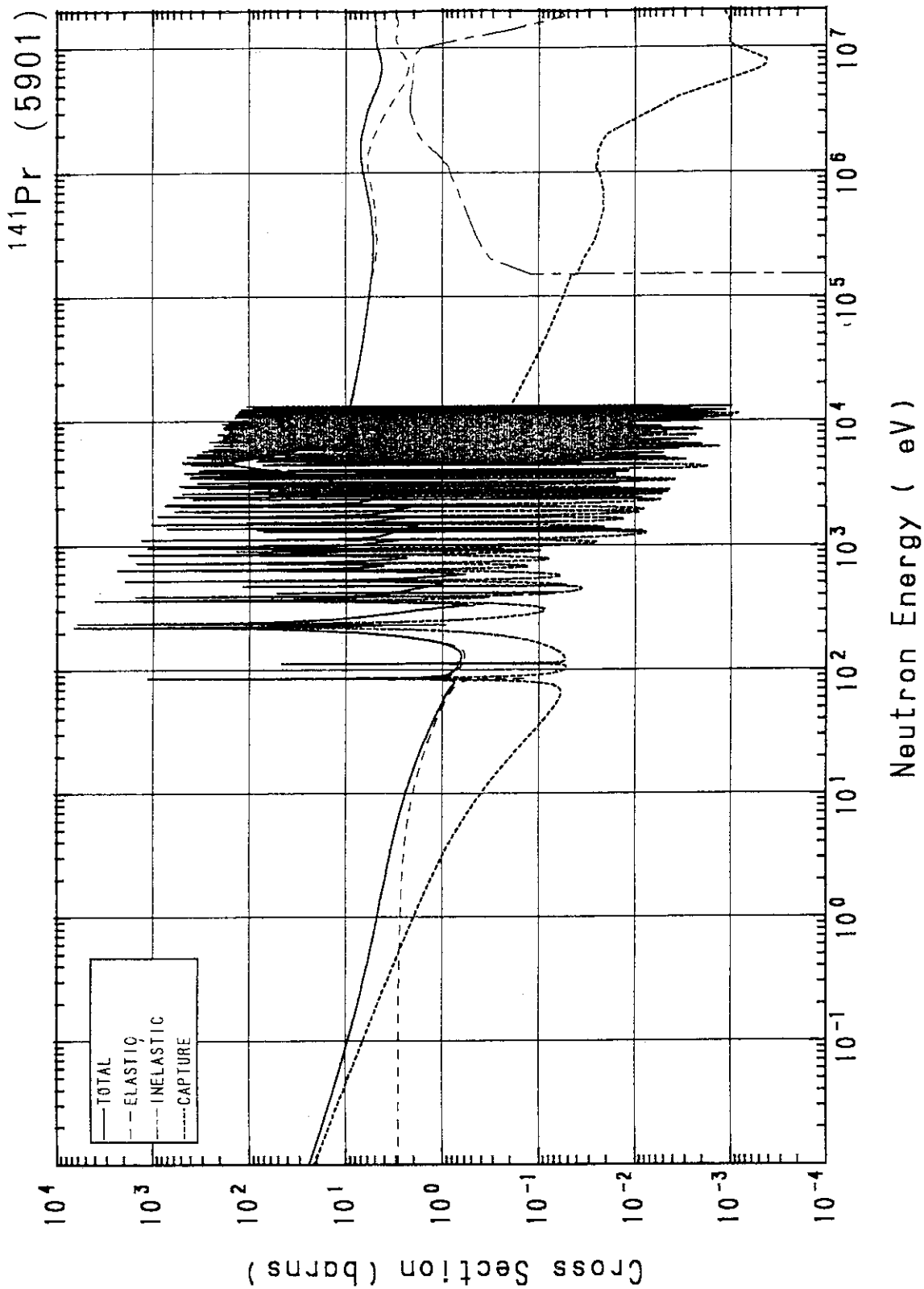
^{142}Ce (5803)



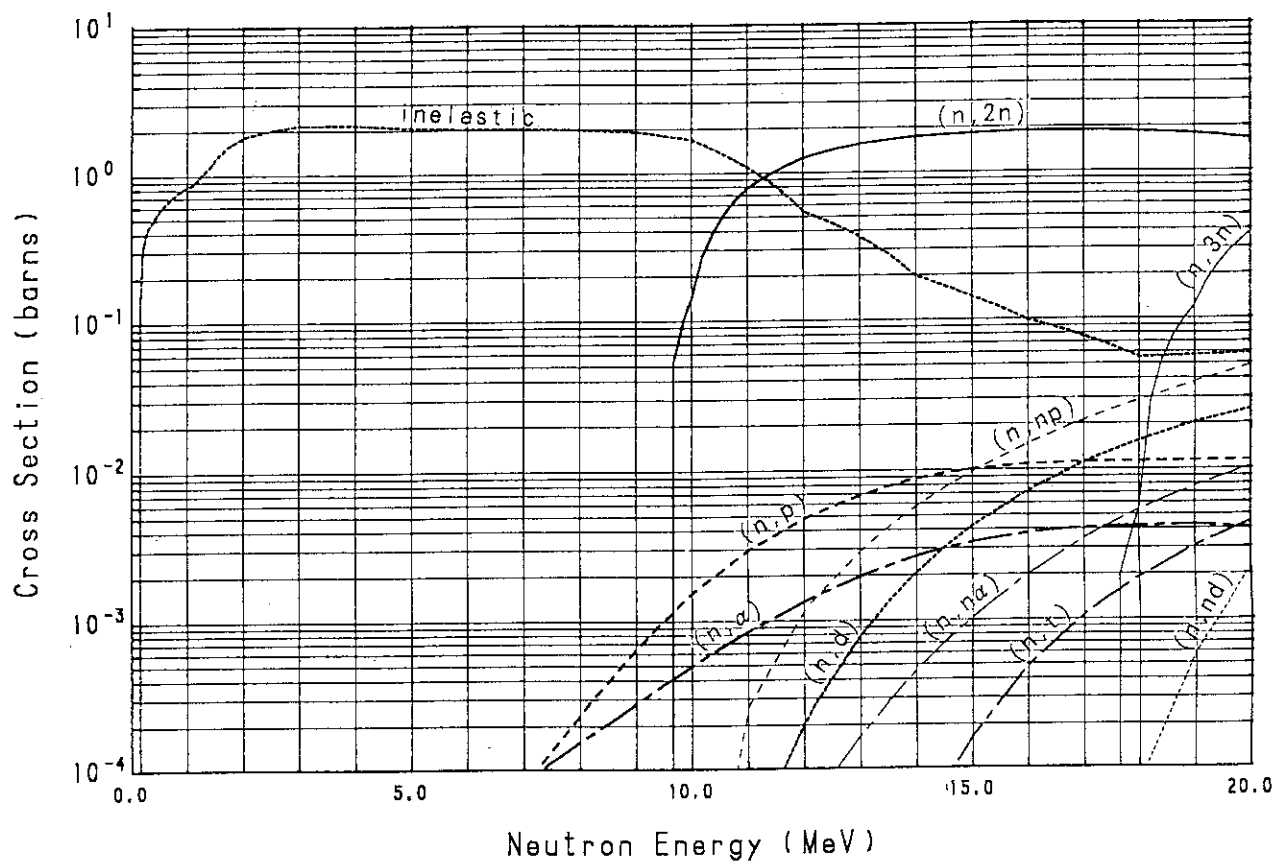
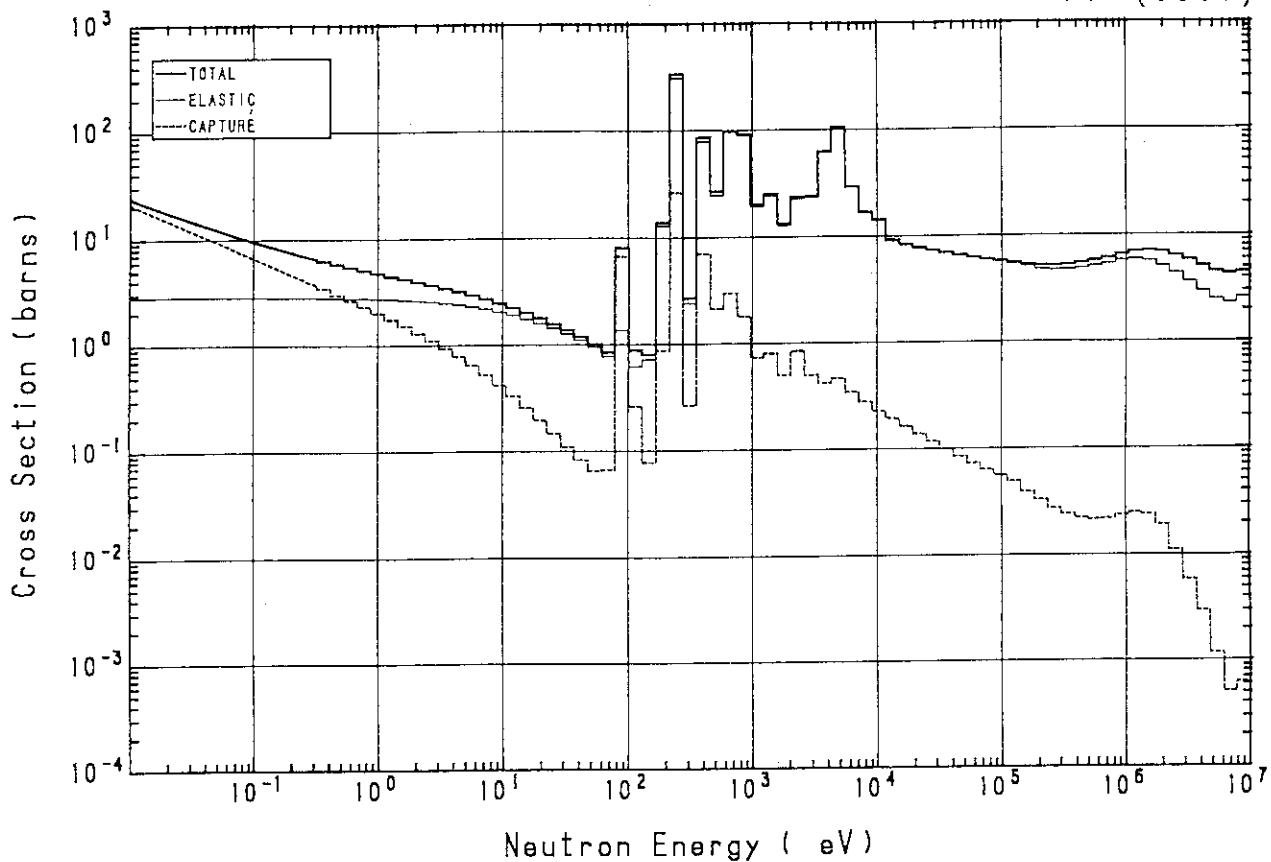


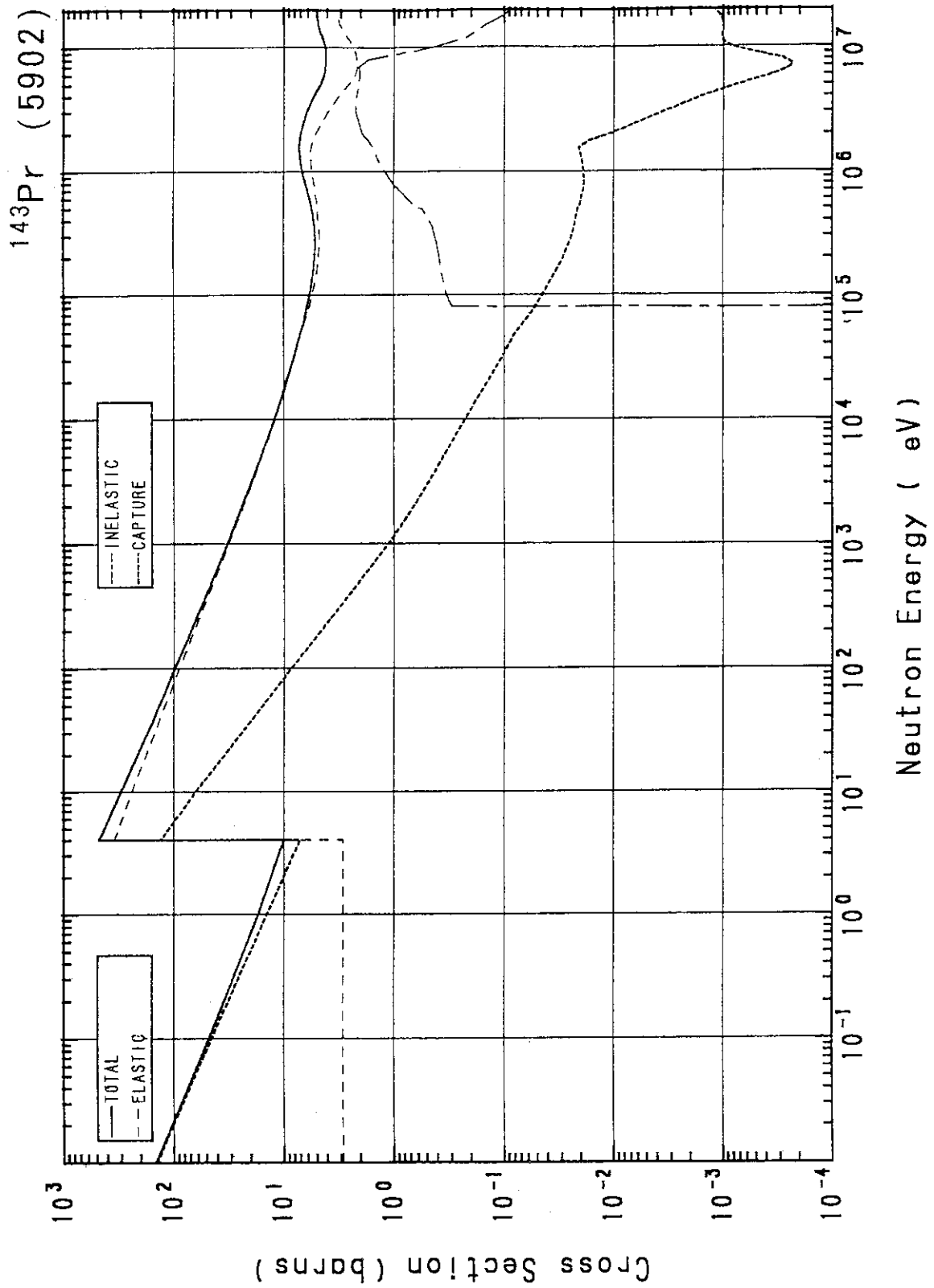
^{144}Ce (5804)



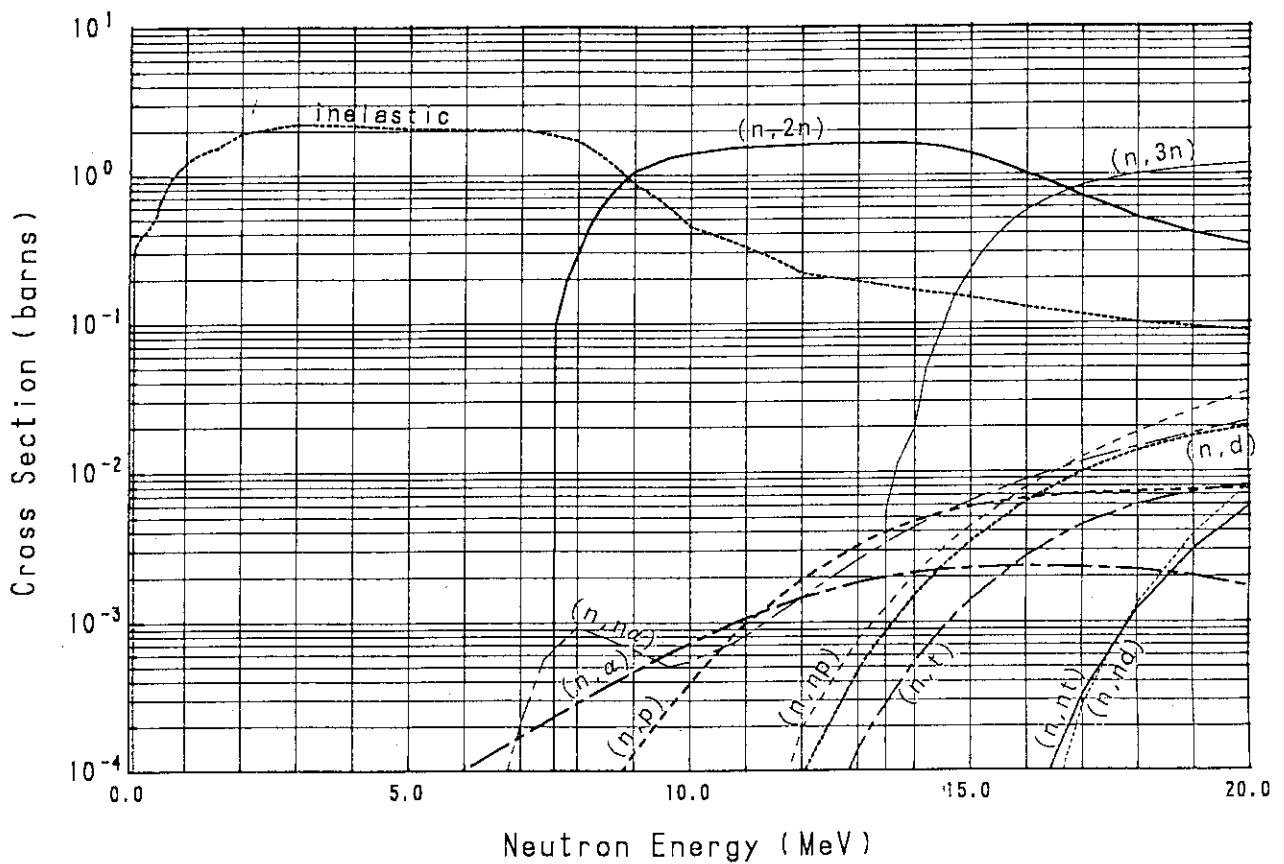
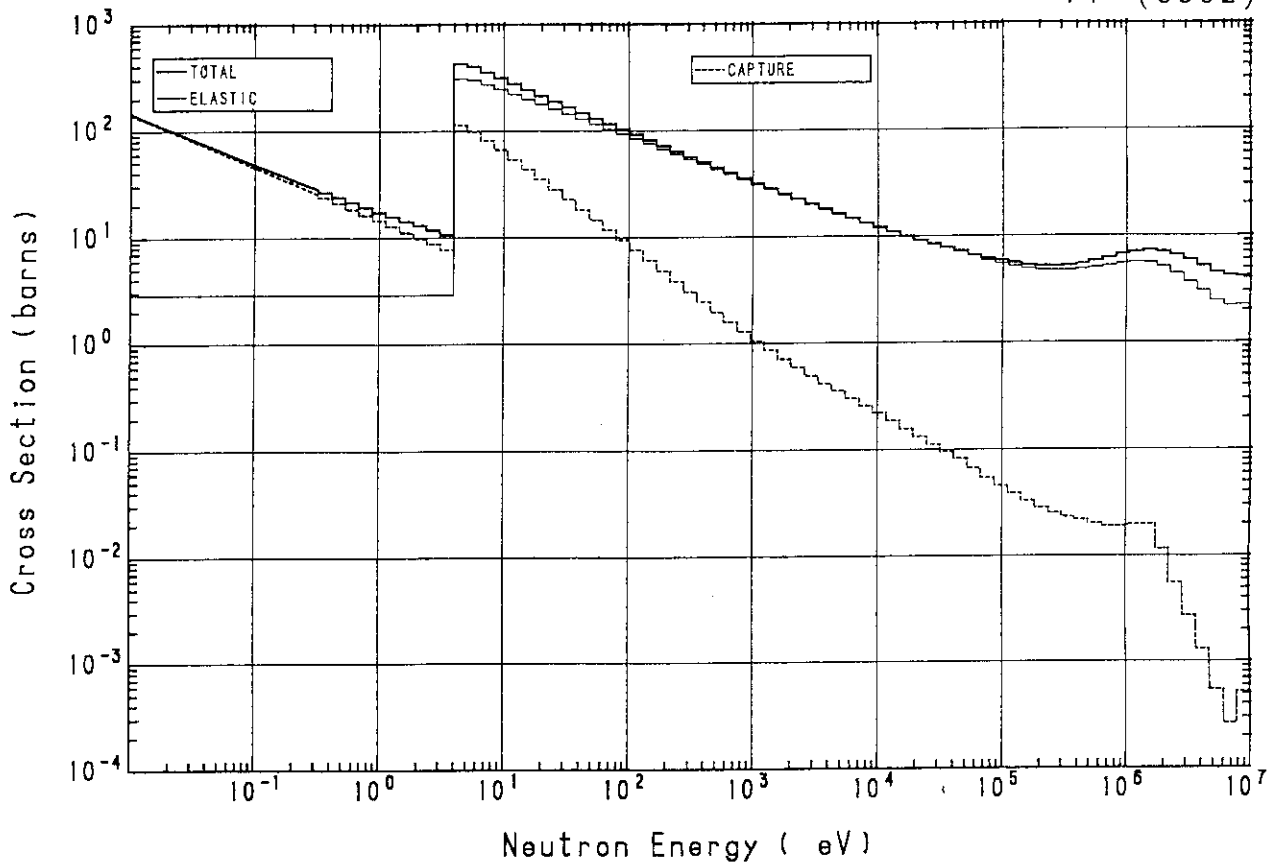


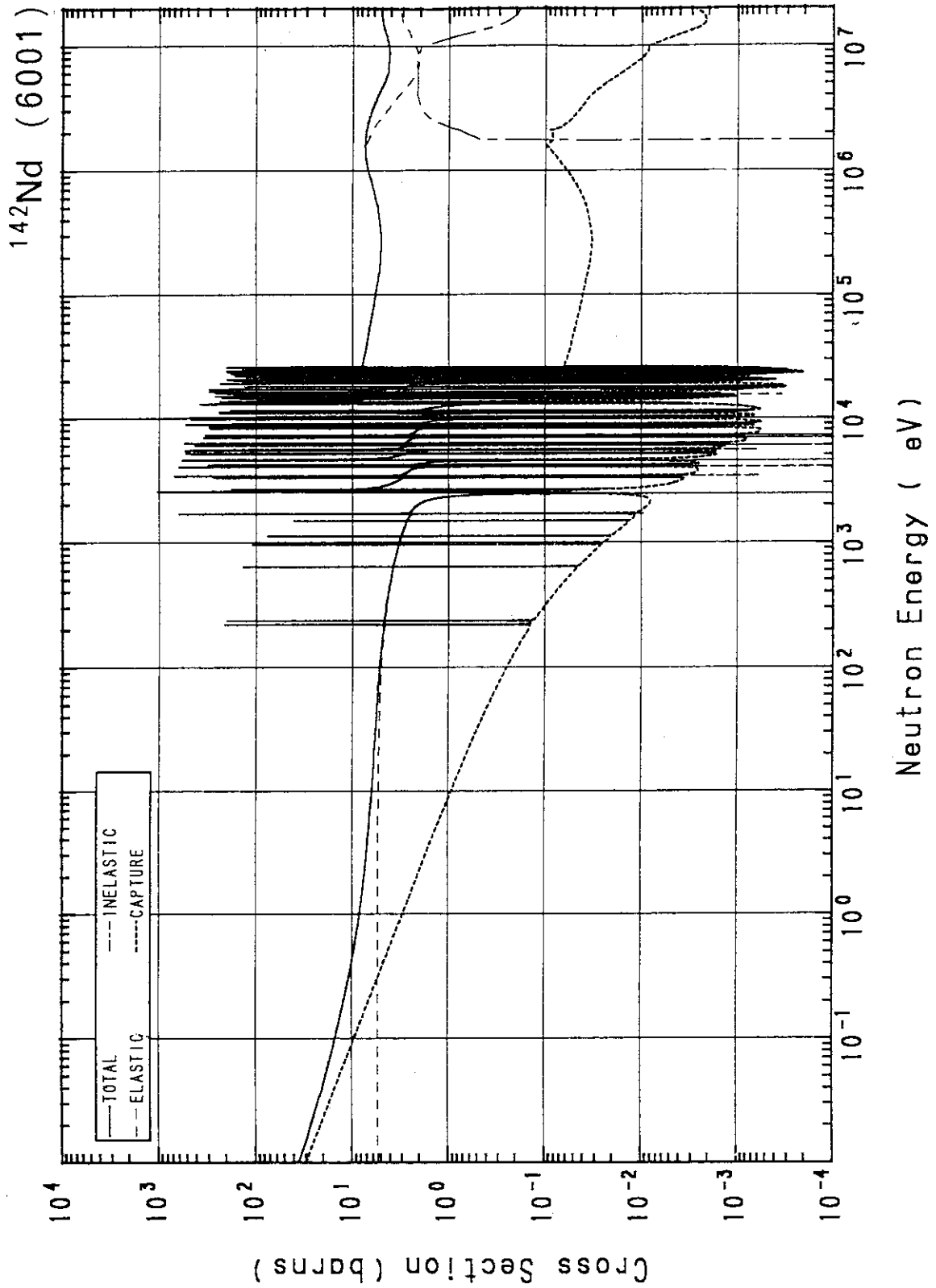
¹⁴¹Pr (5901)



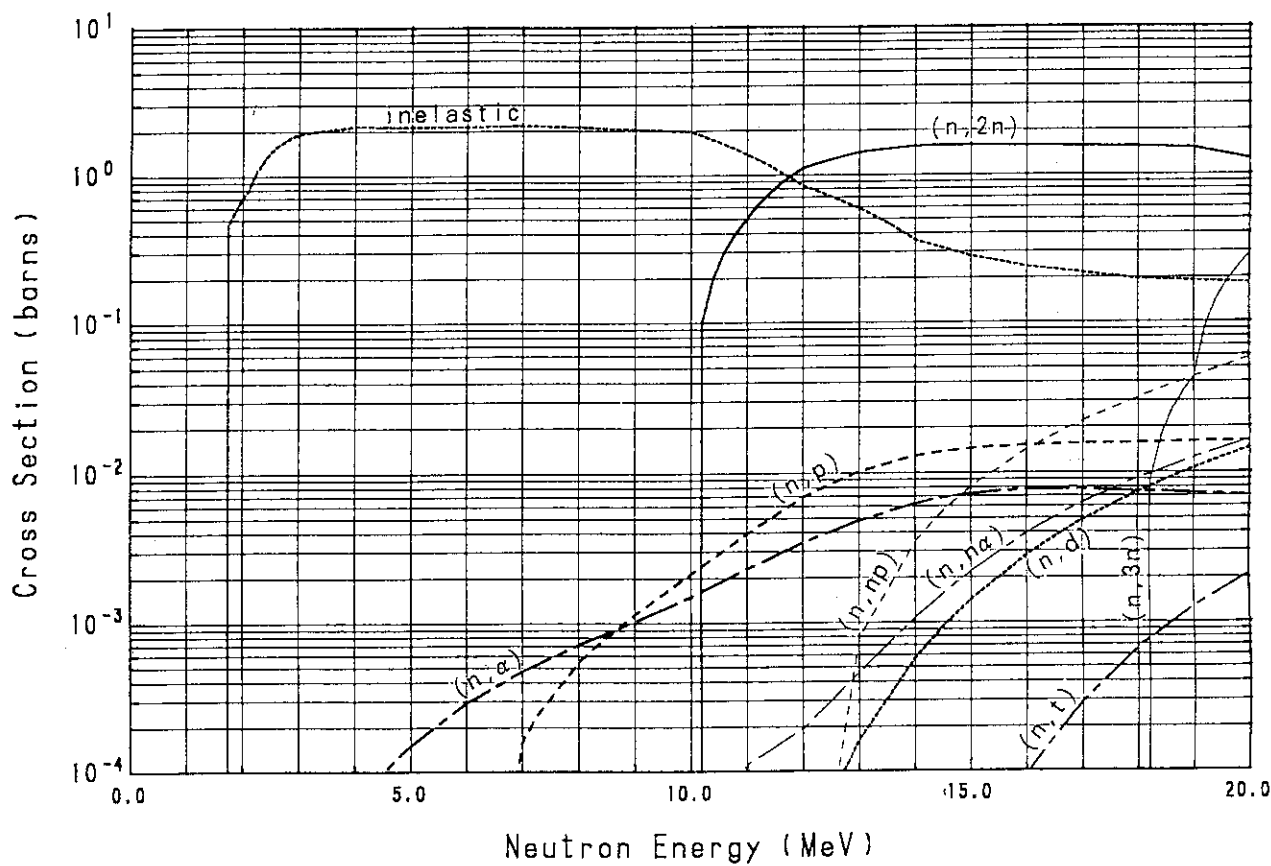
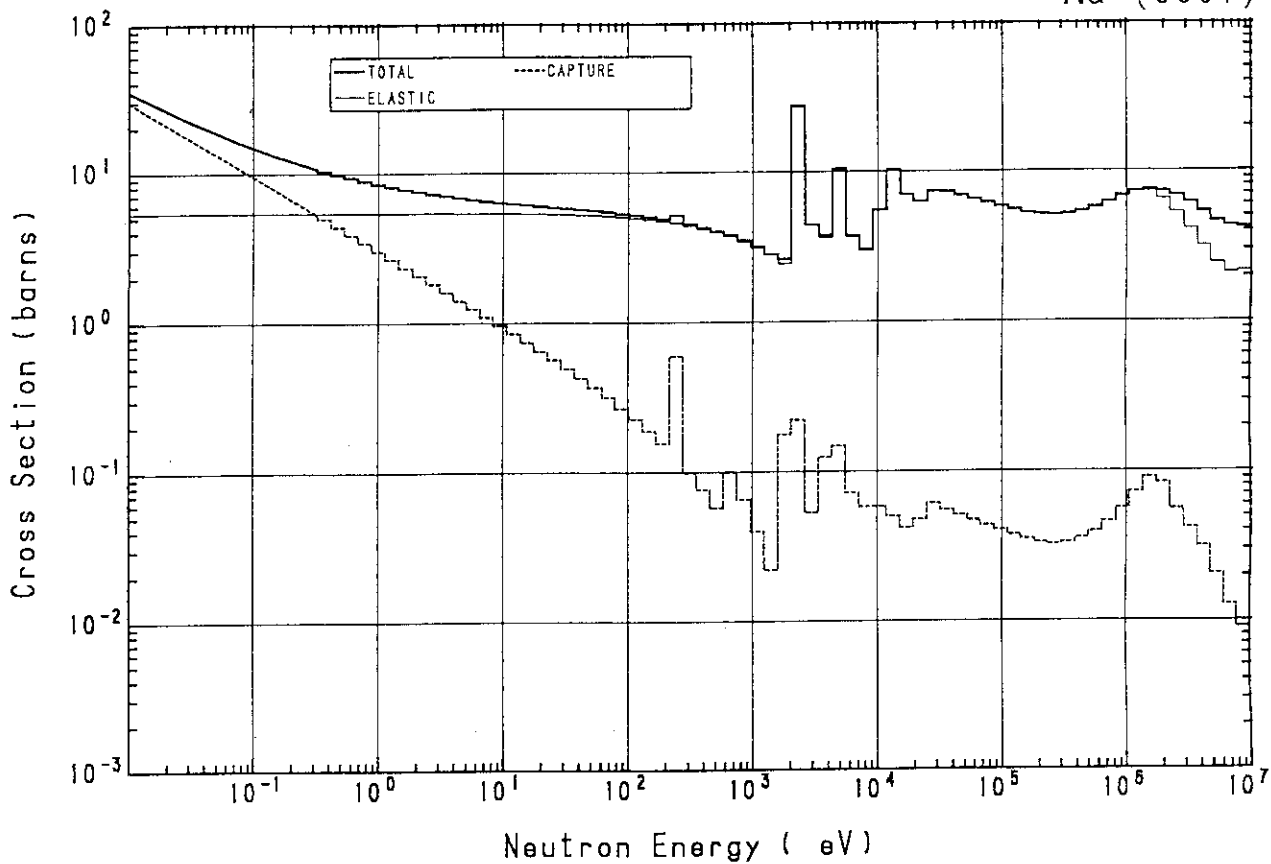


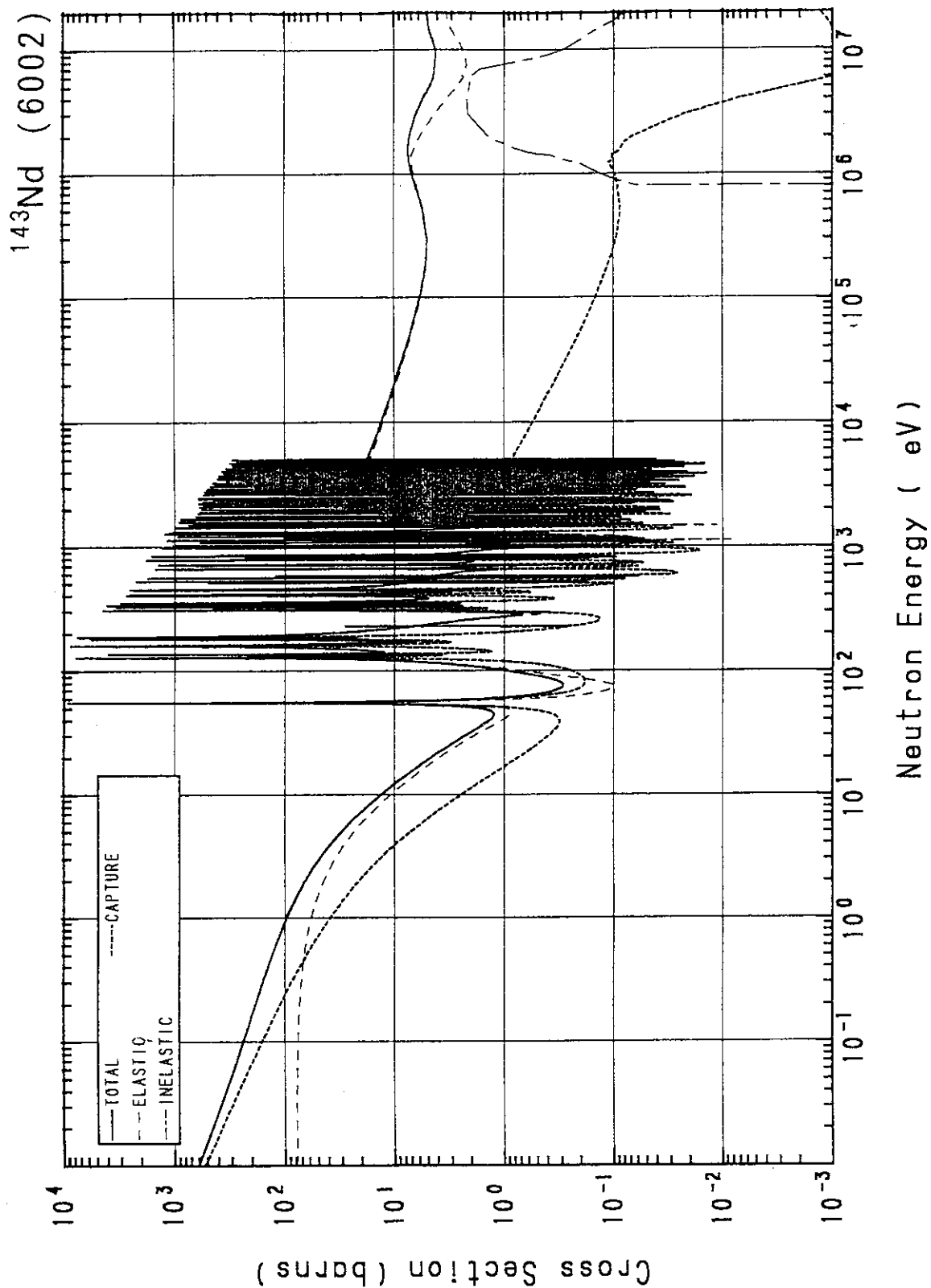
^{143}Pr (5902)



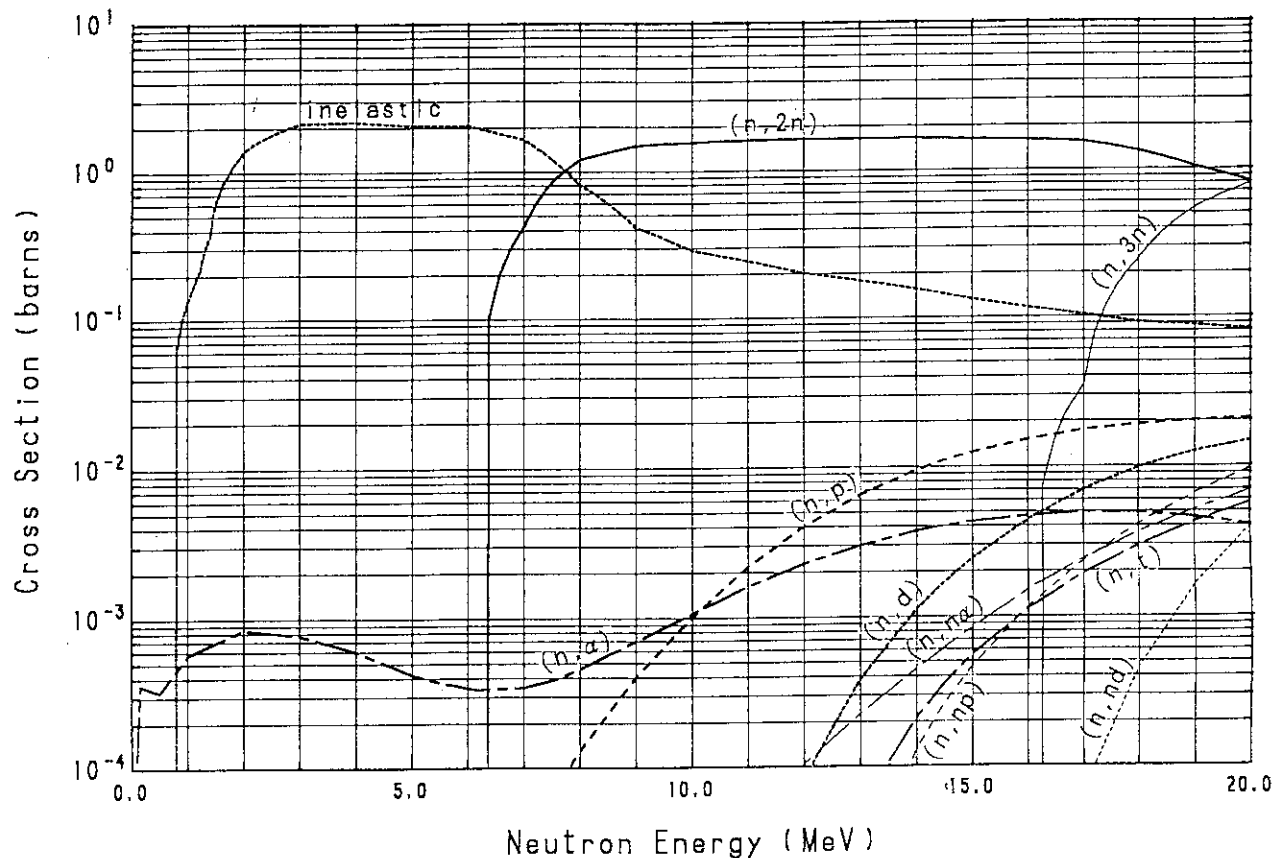
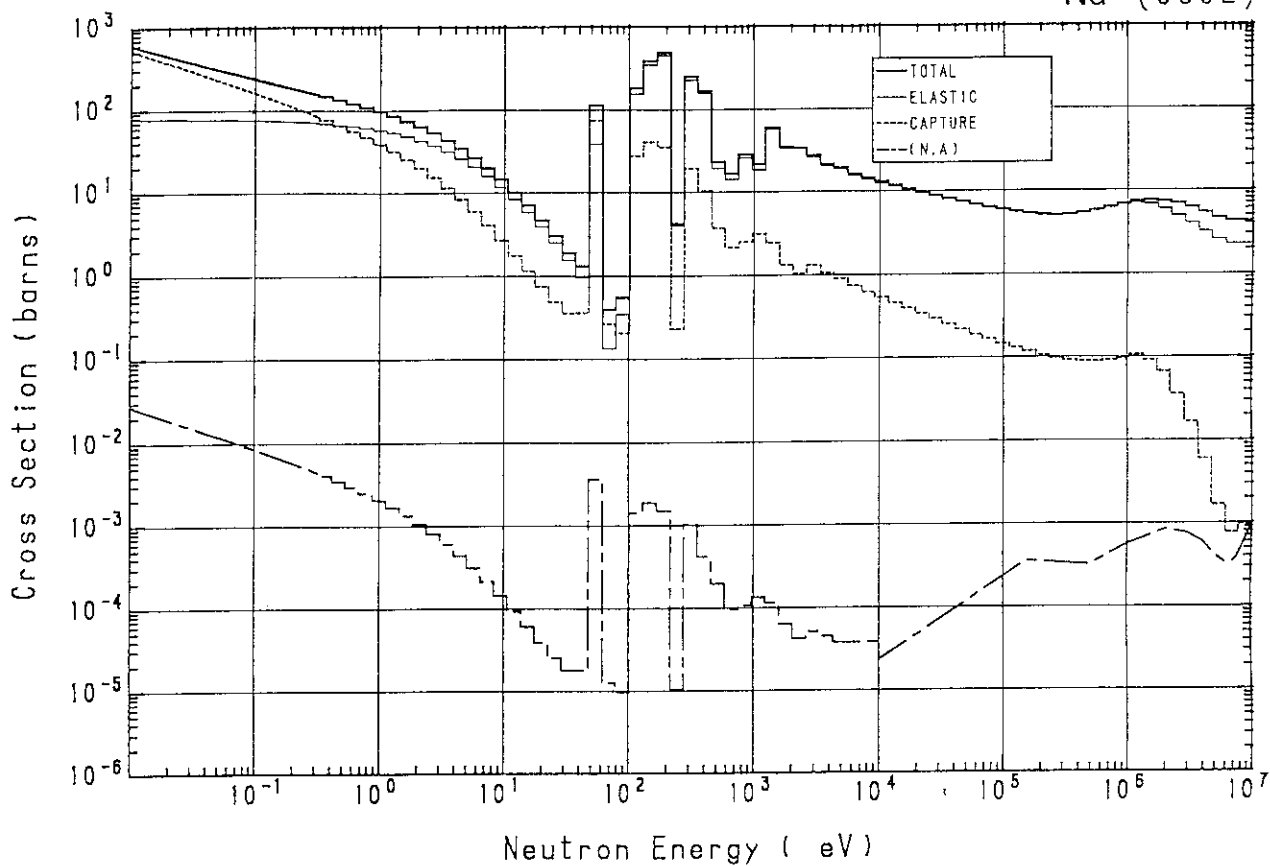


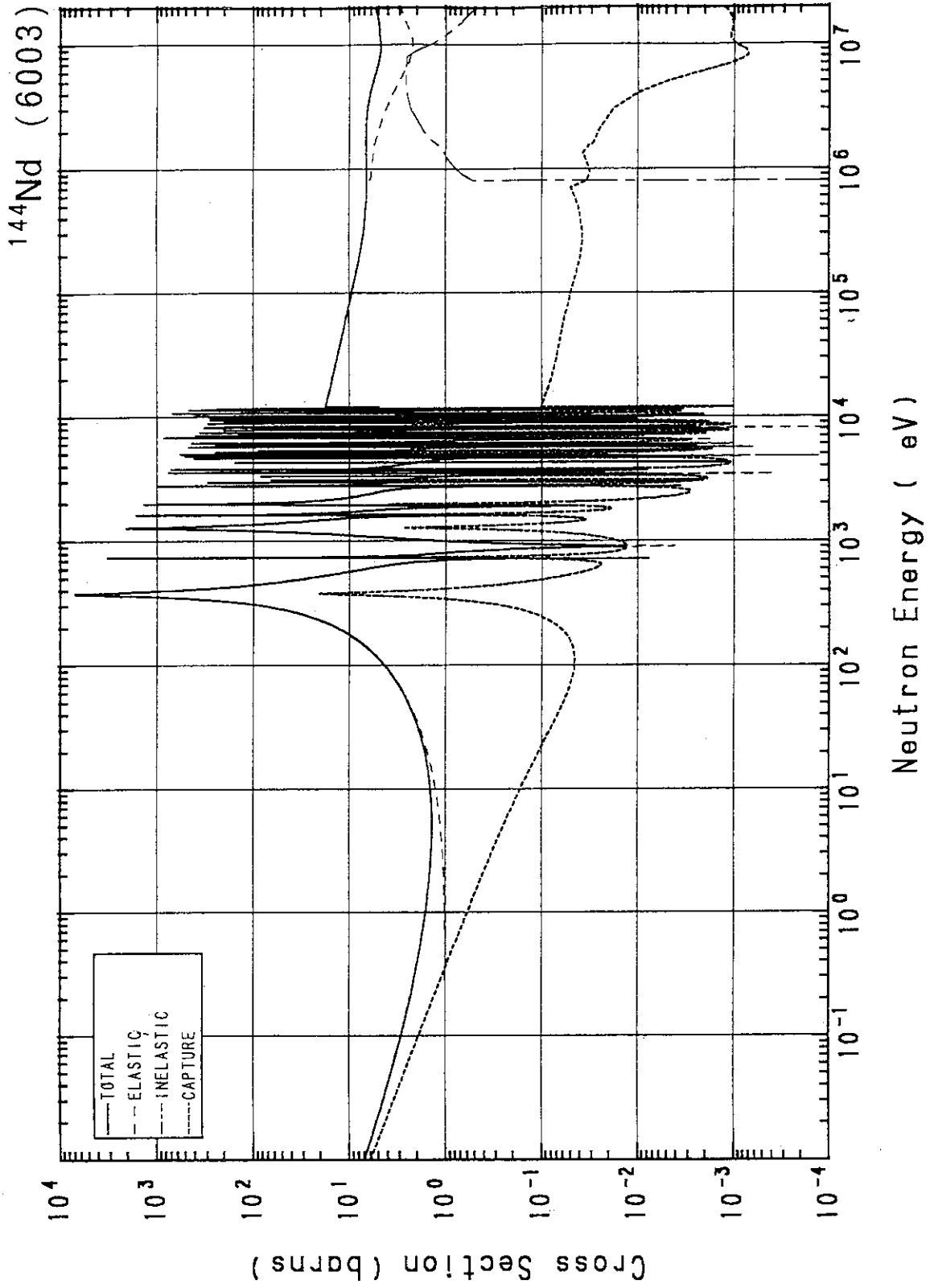
^{142}Nd (6001)



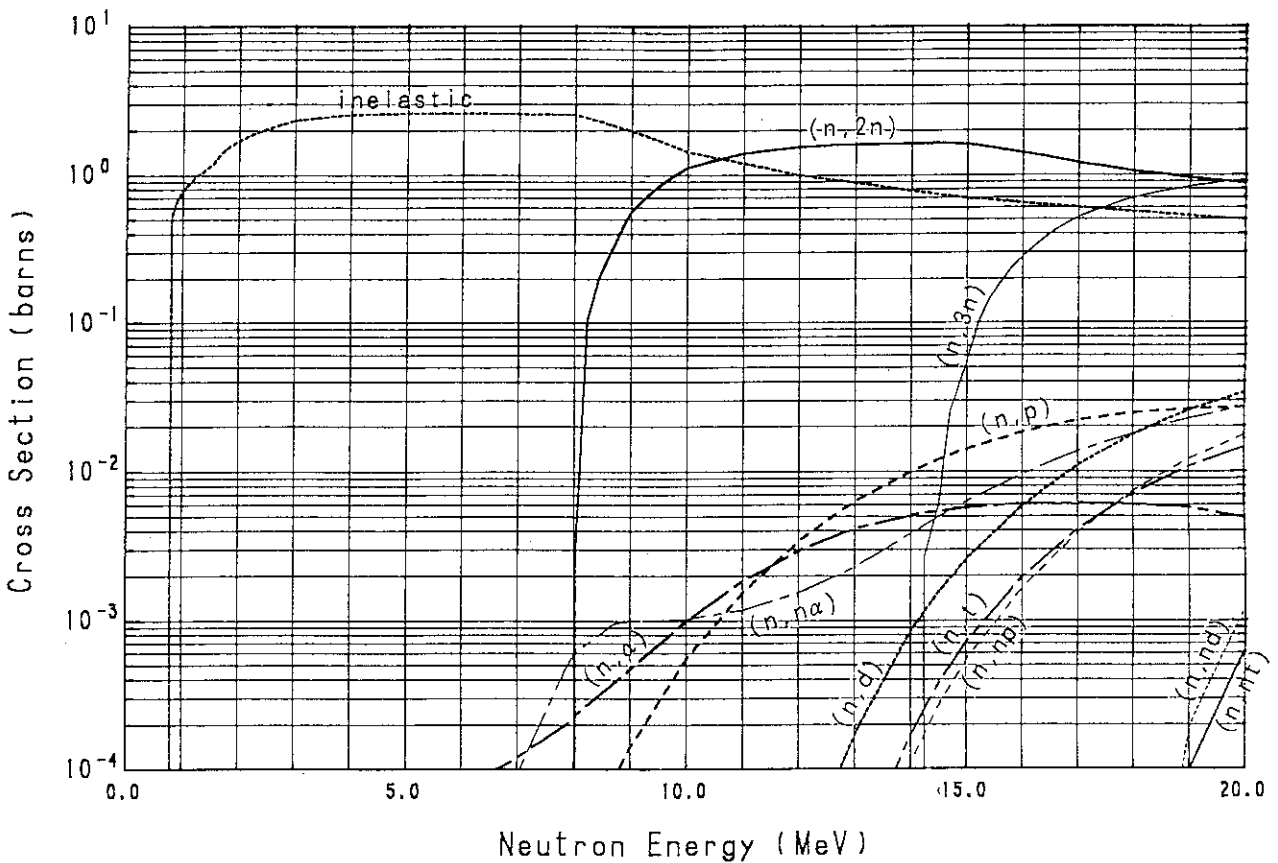
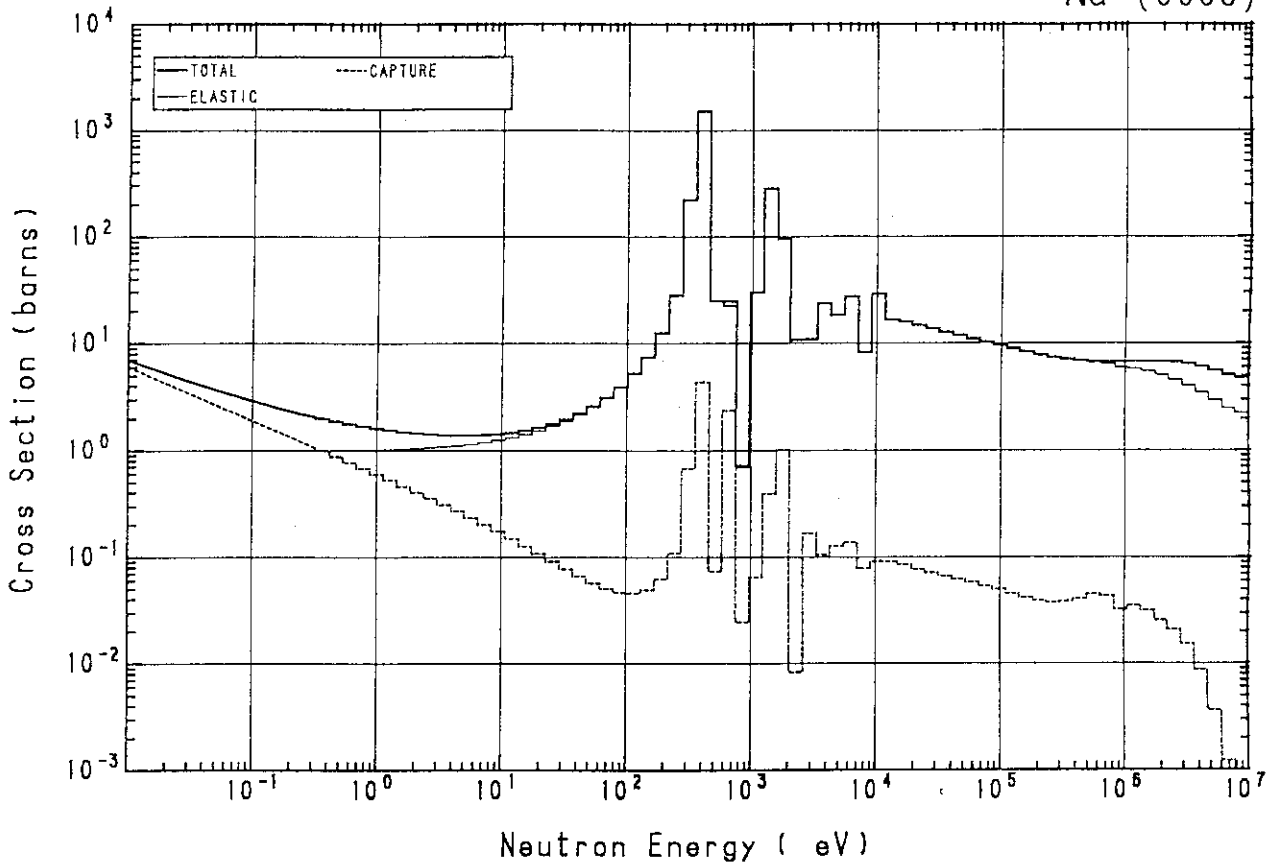


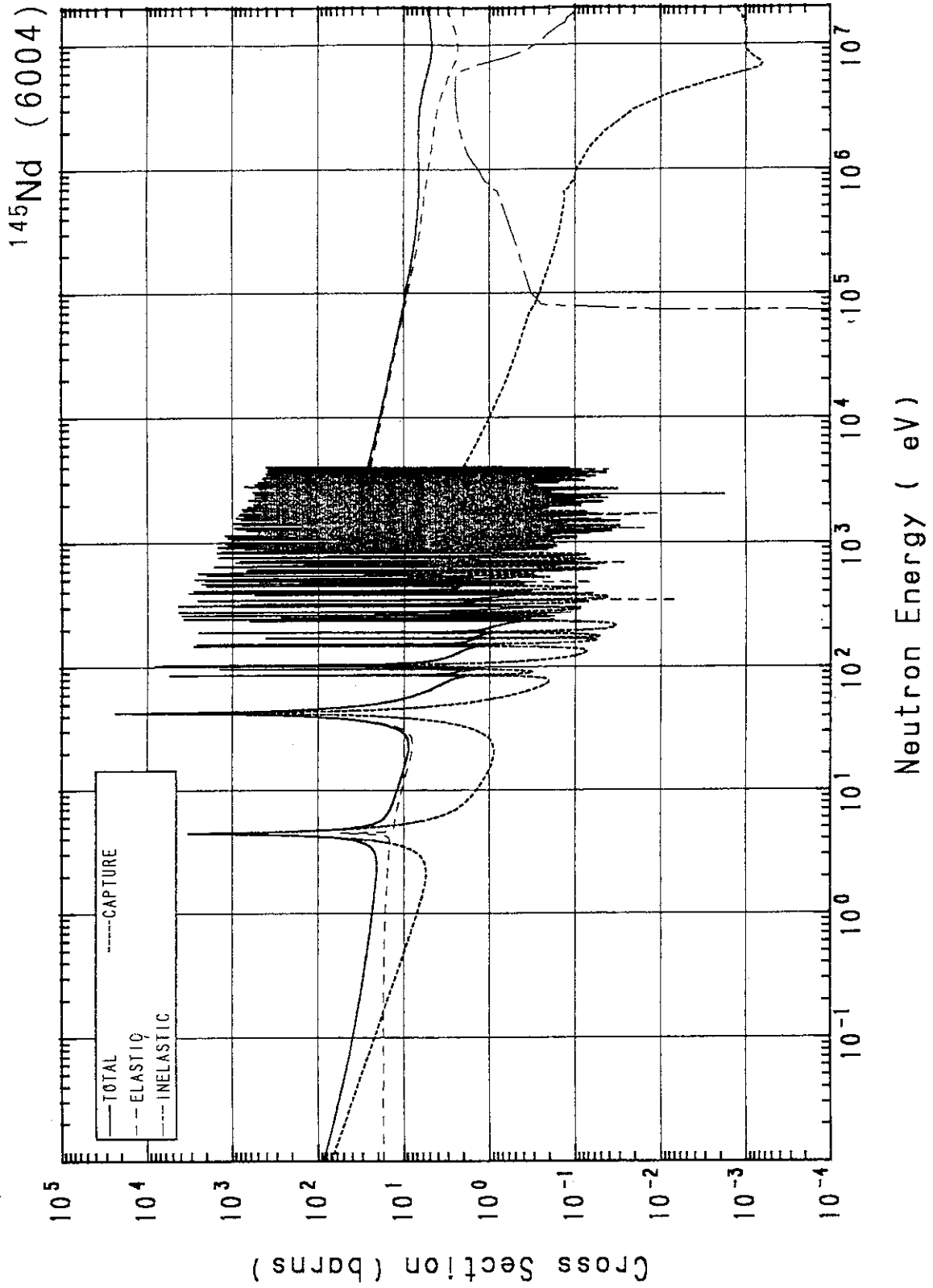
^{143}Nd (6002)



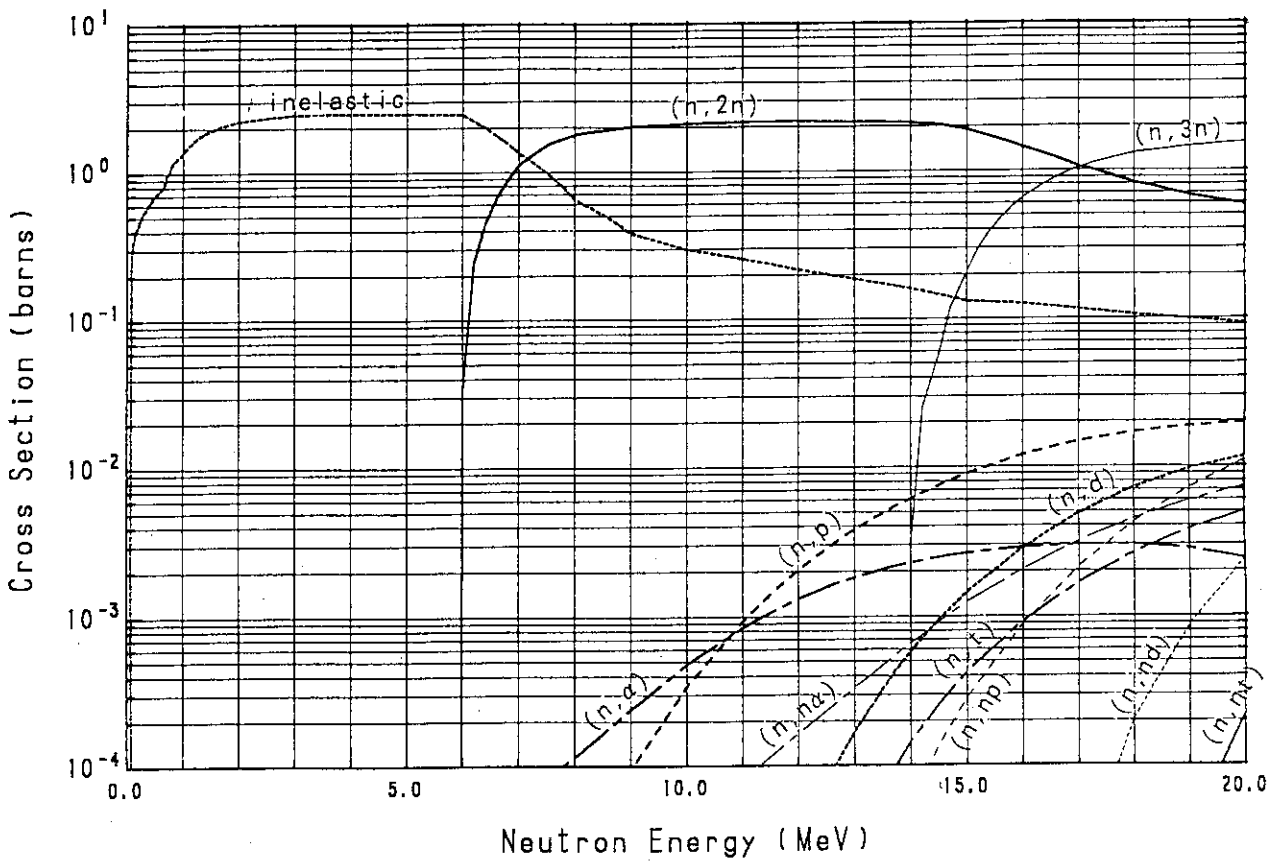
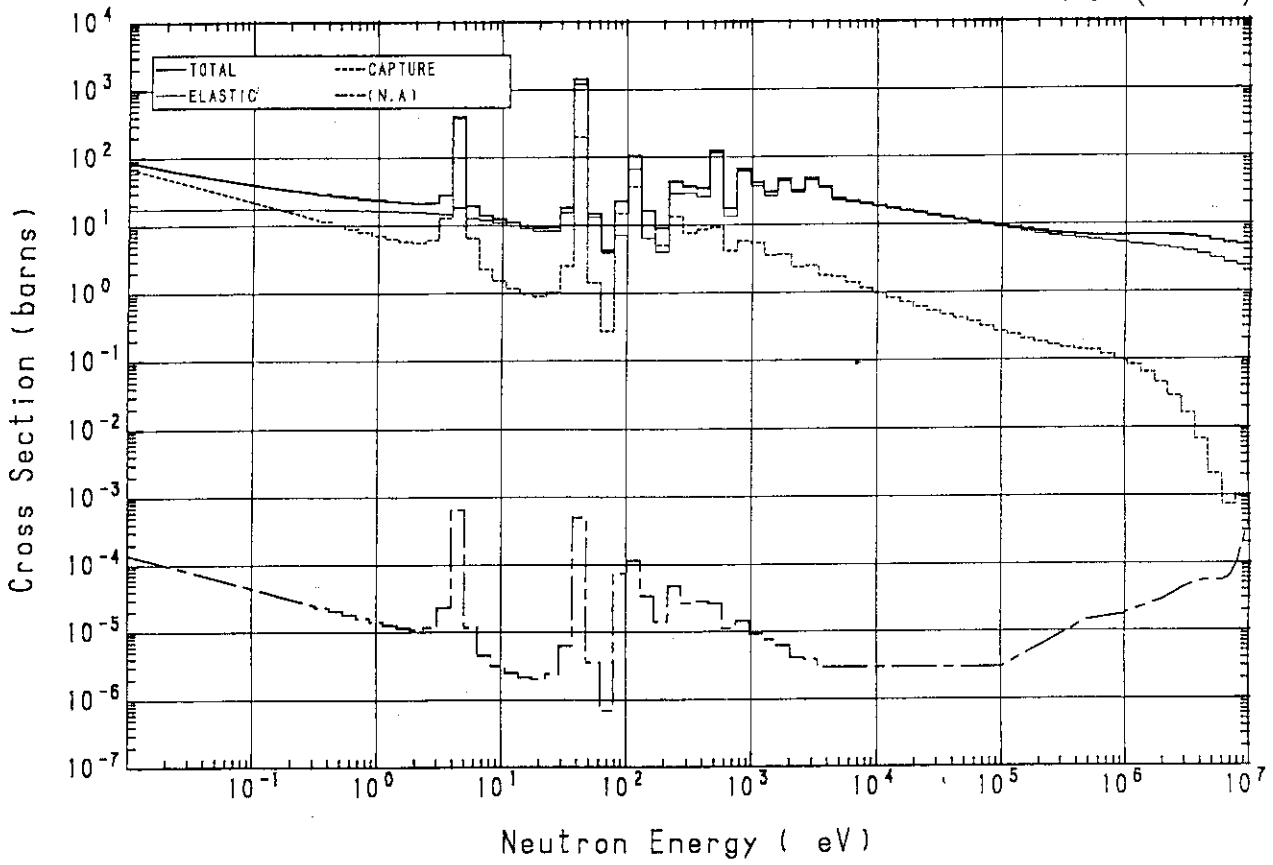


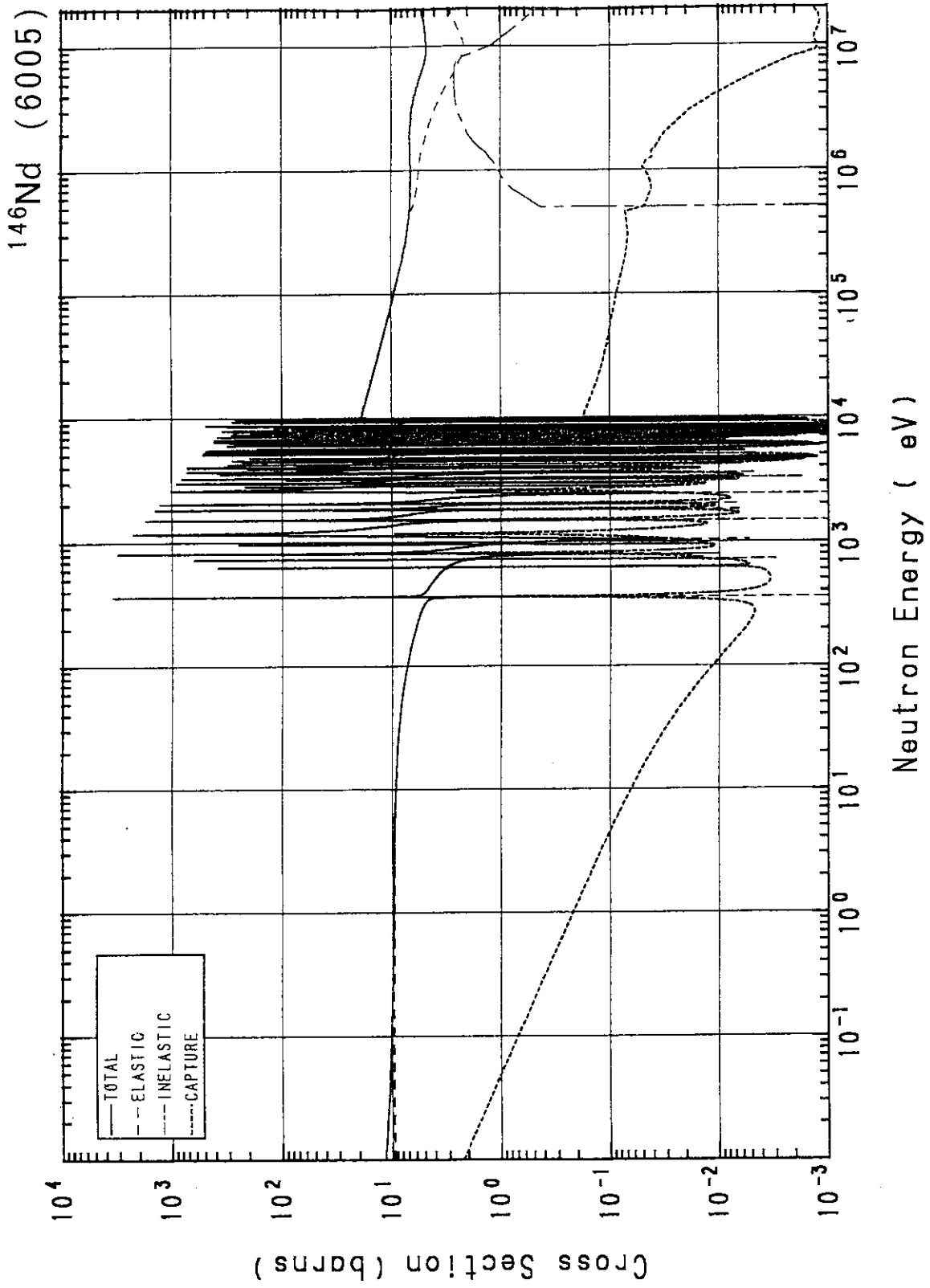
^{144}Nd (6003)



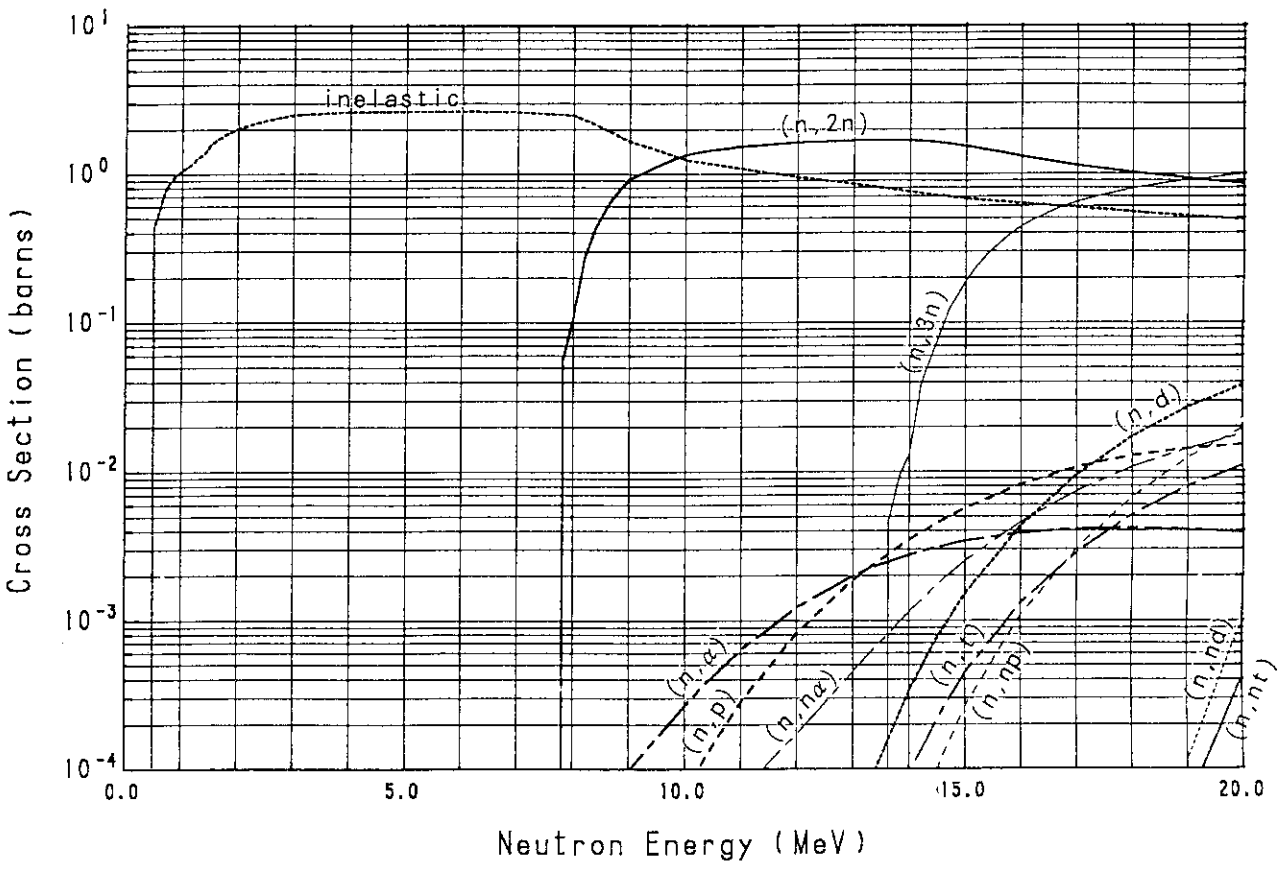
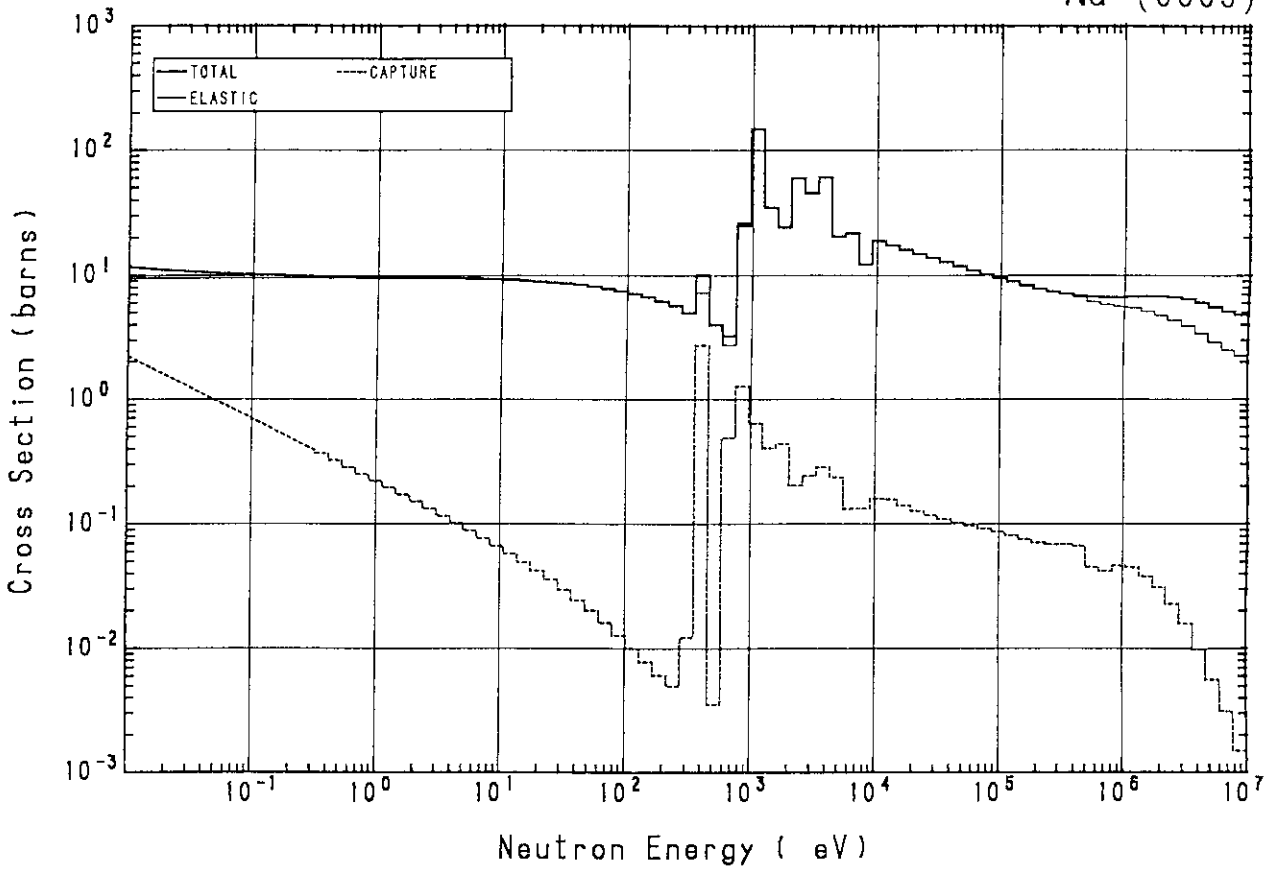


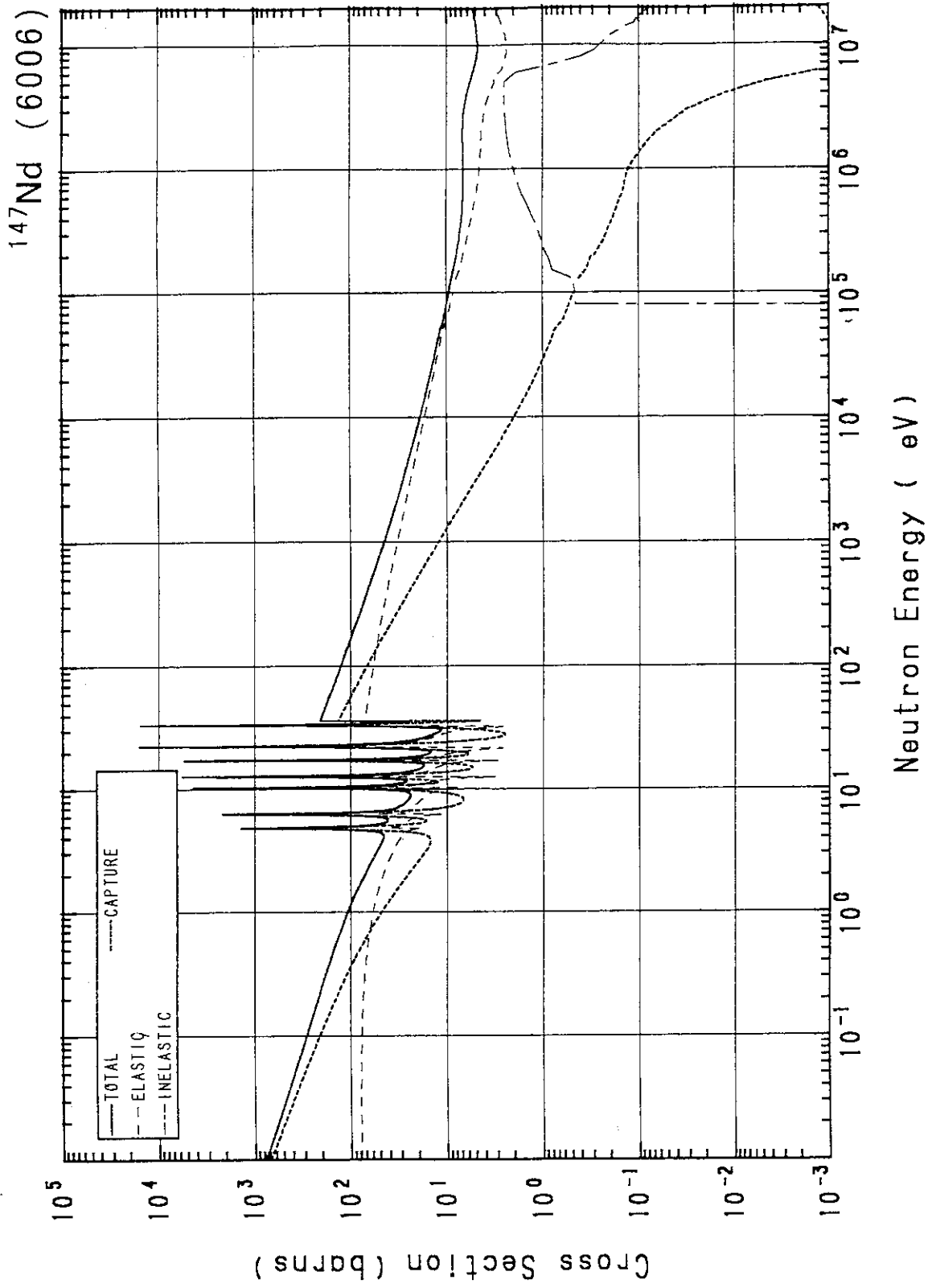
^{145}Nd (6004)



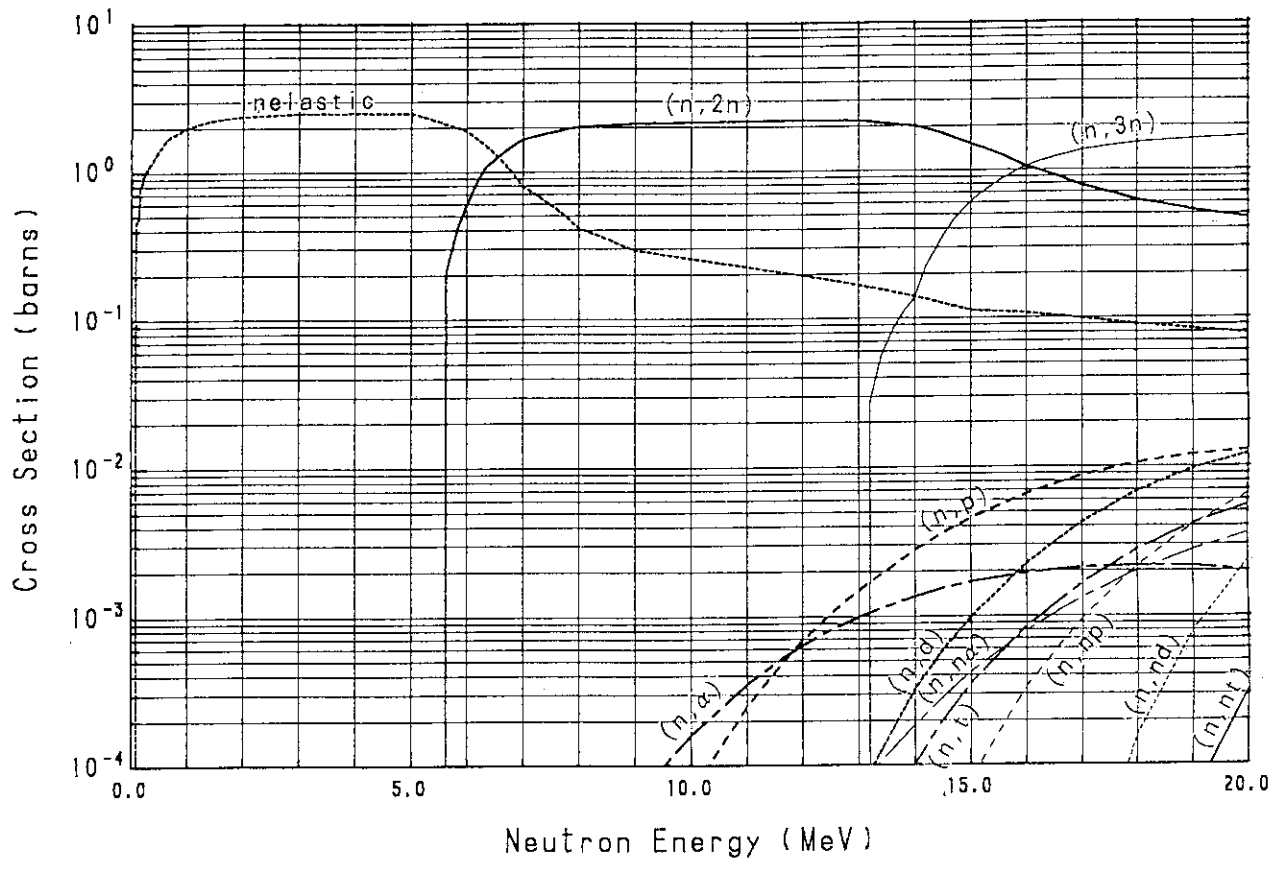
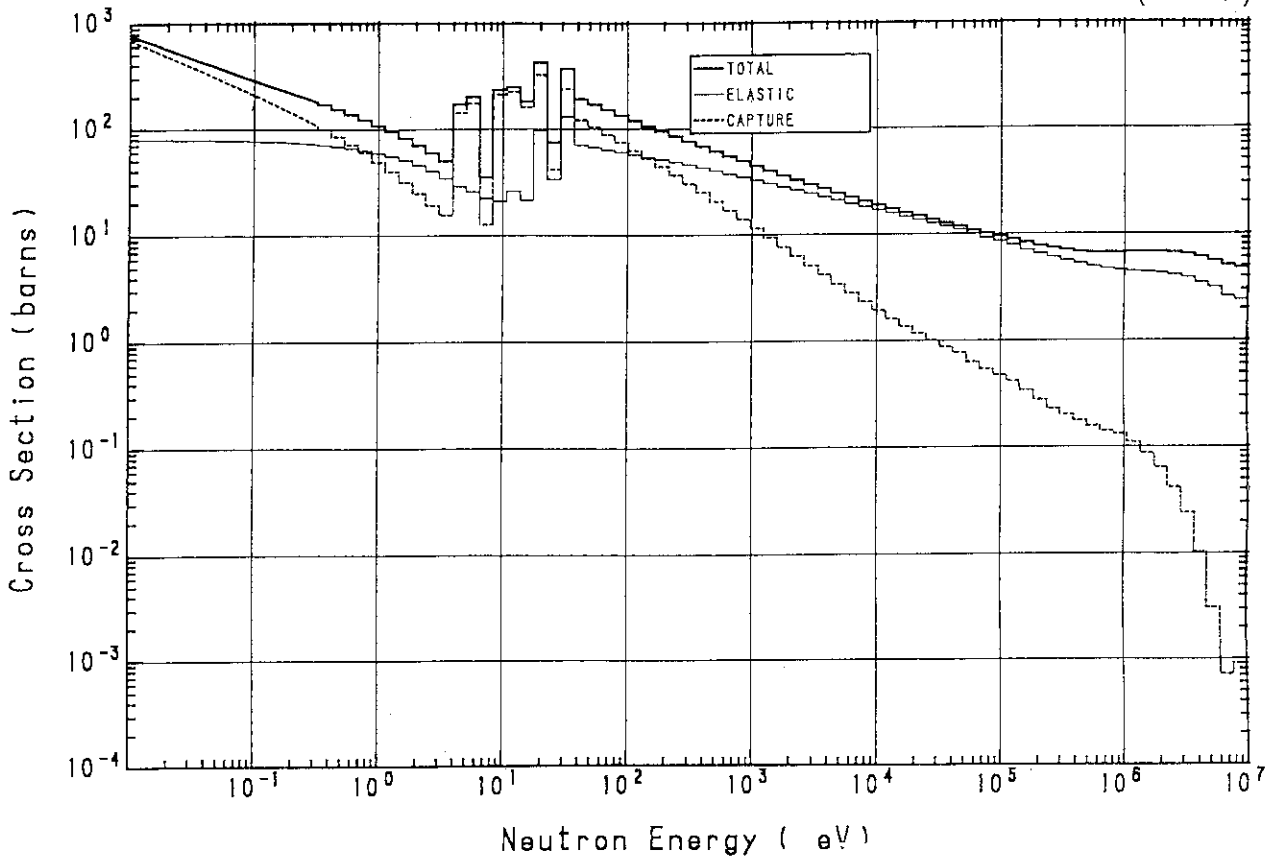


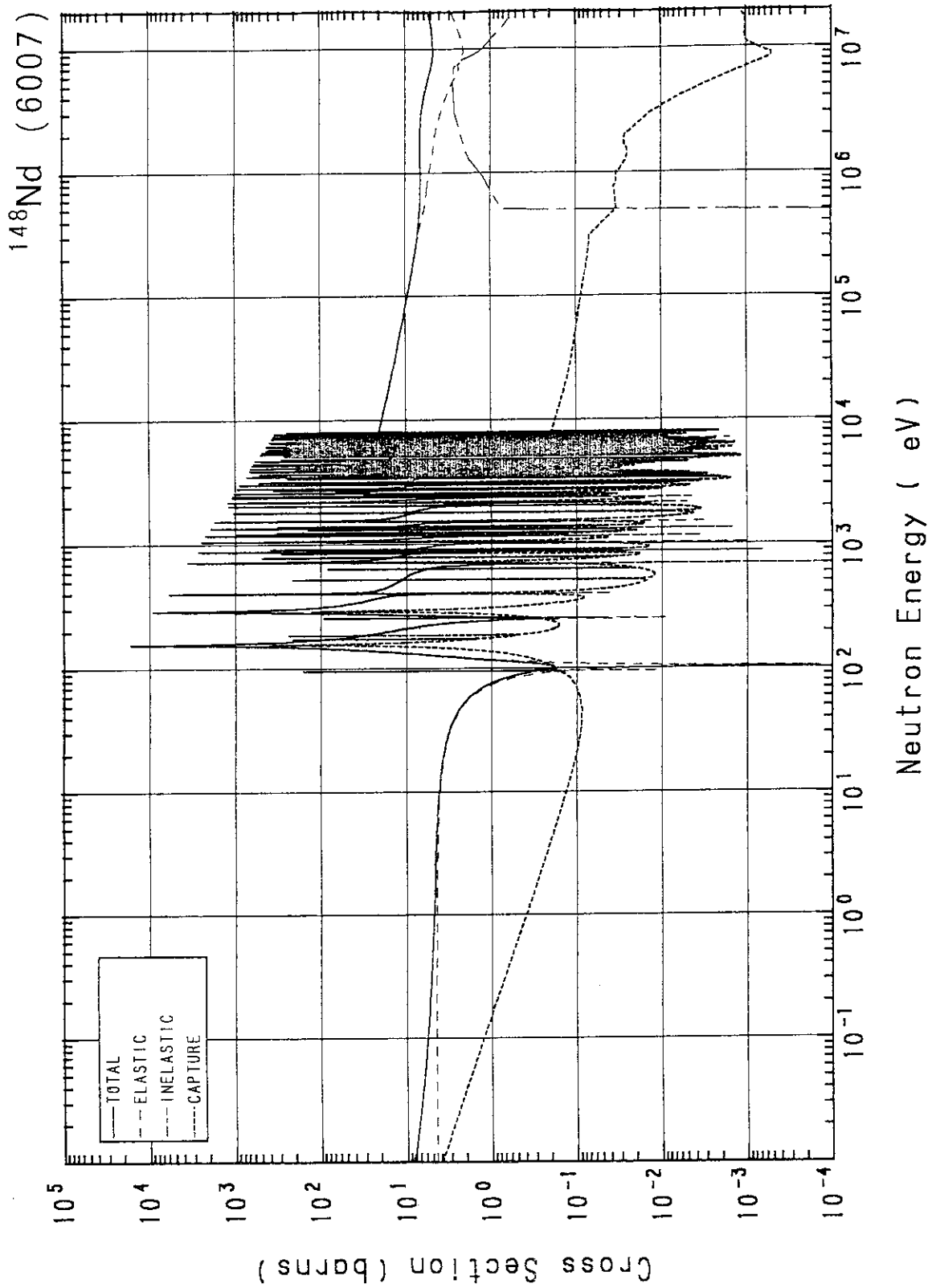
^{146}Nd (6005)



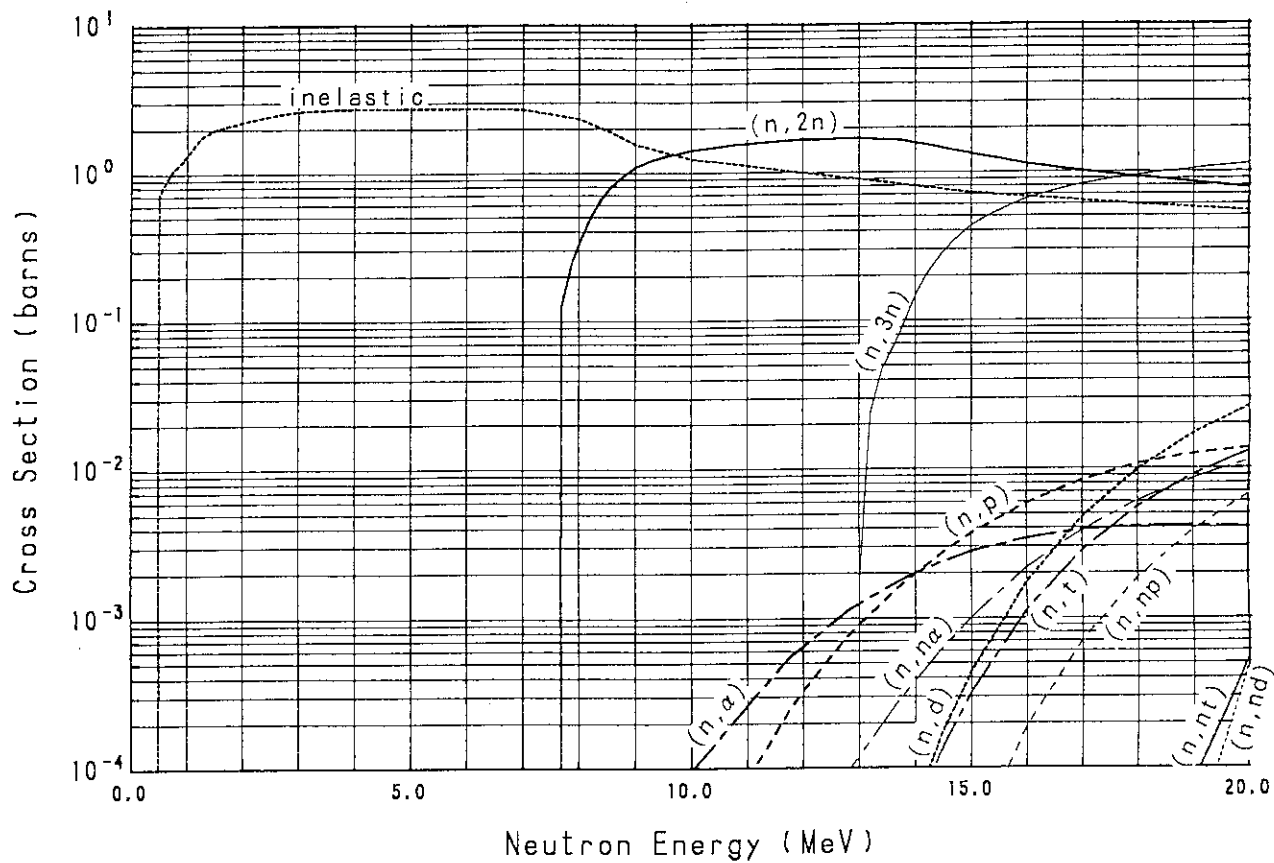
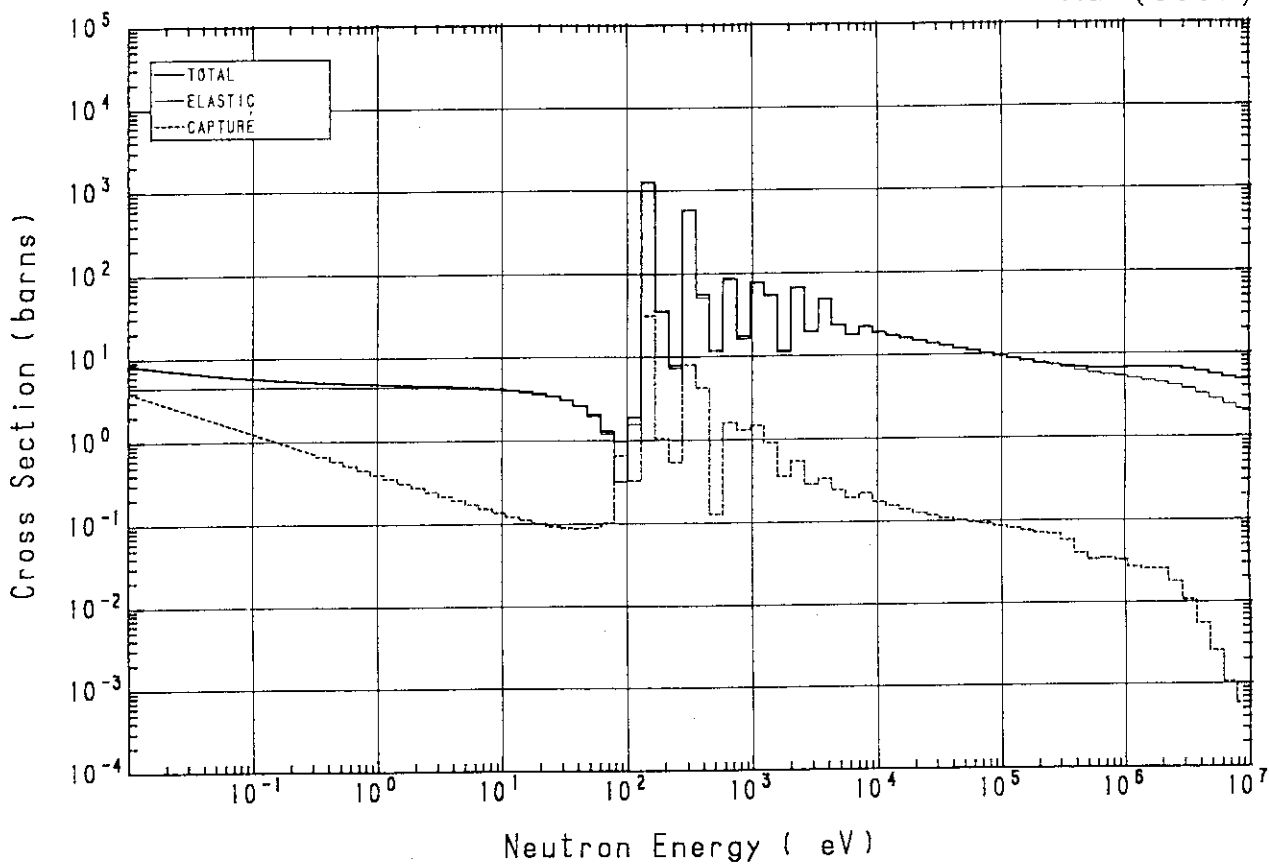


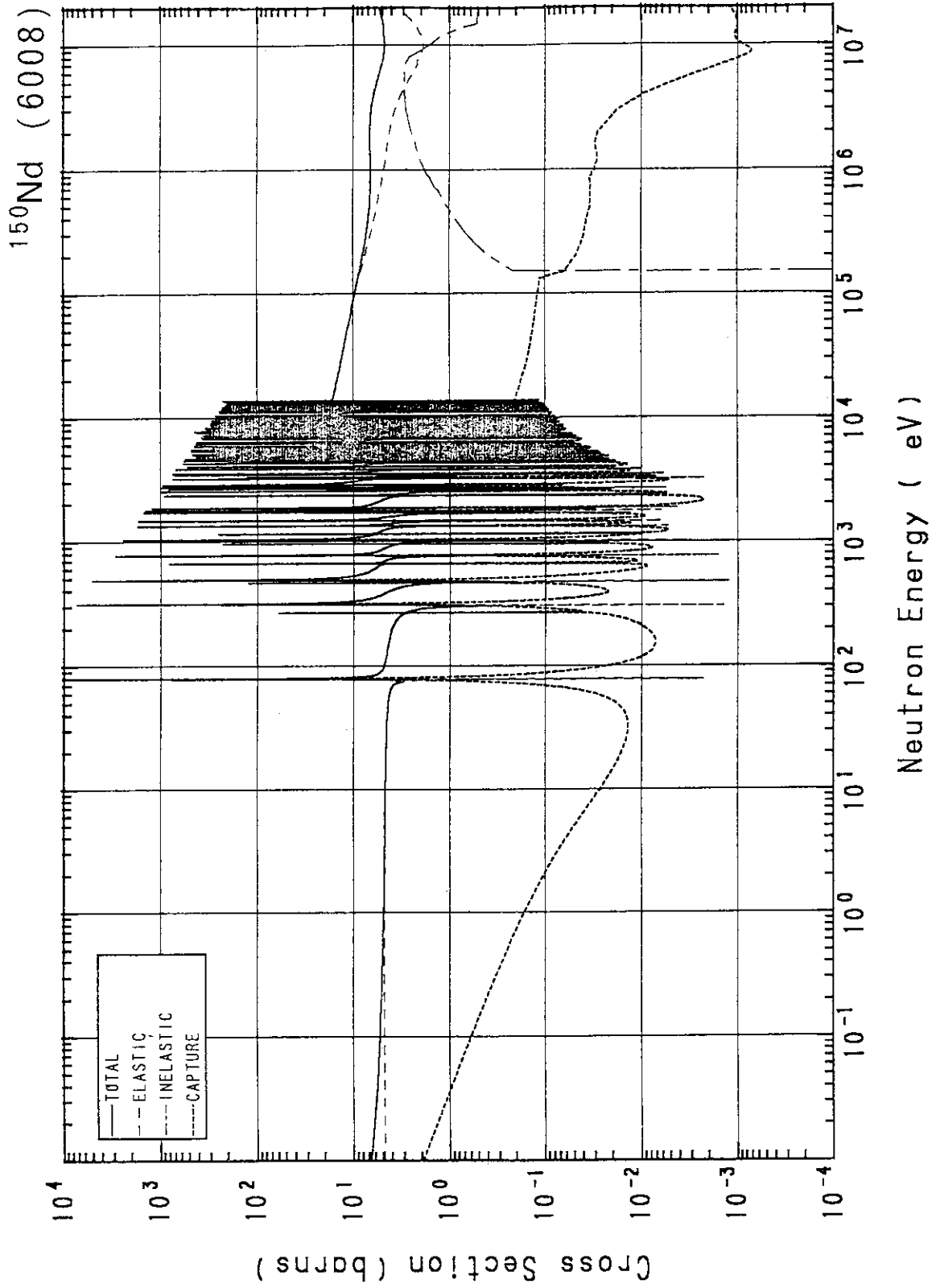
^{147}Nd (6006)



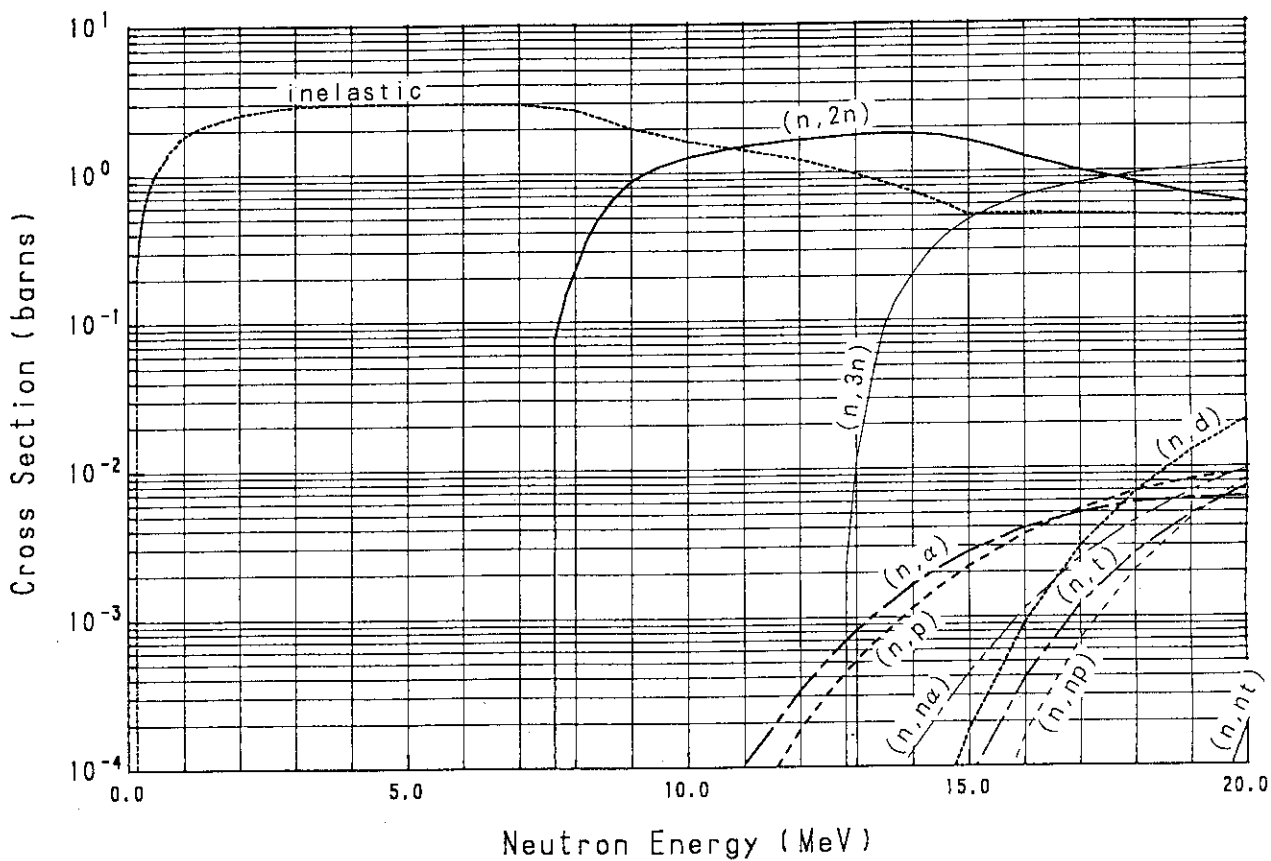
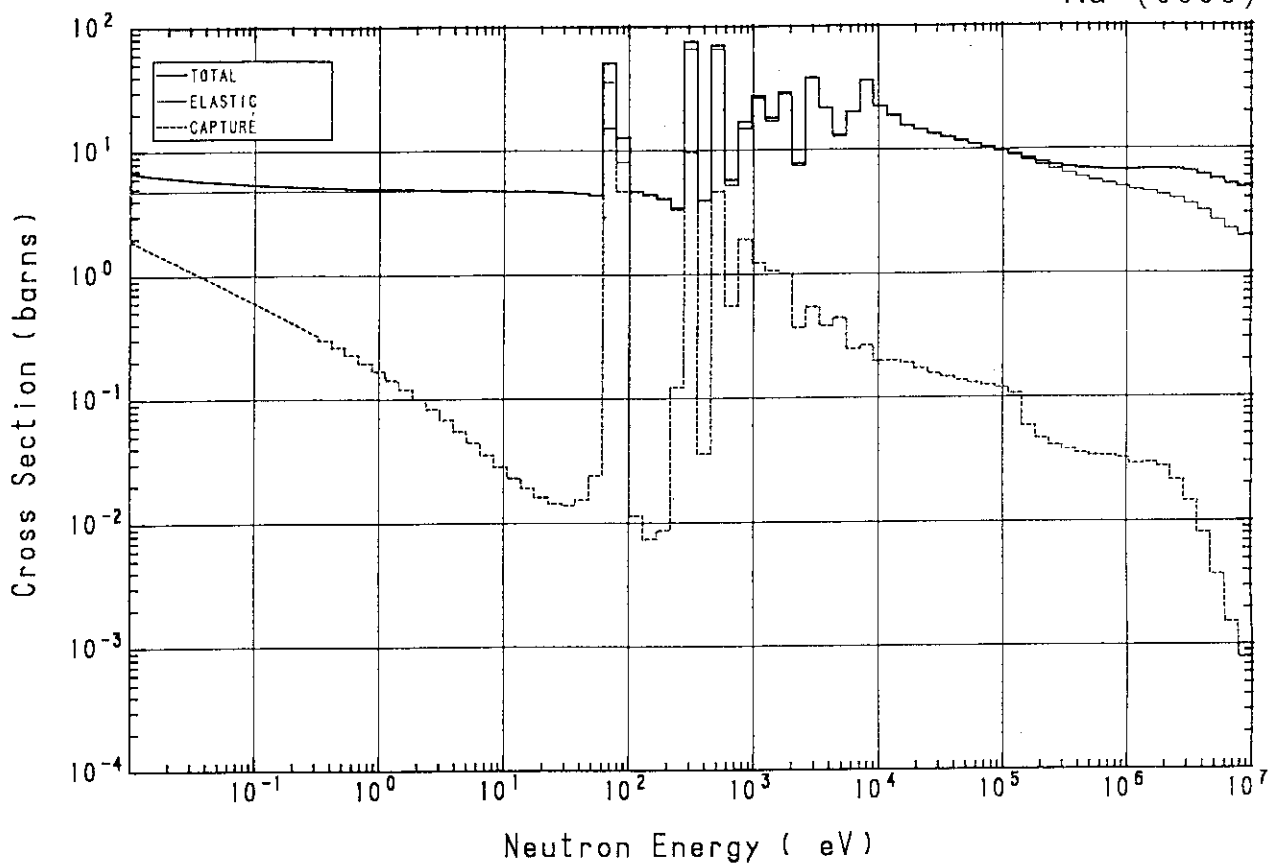


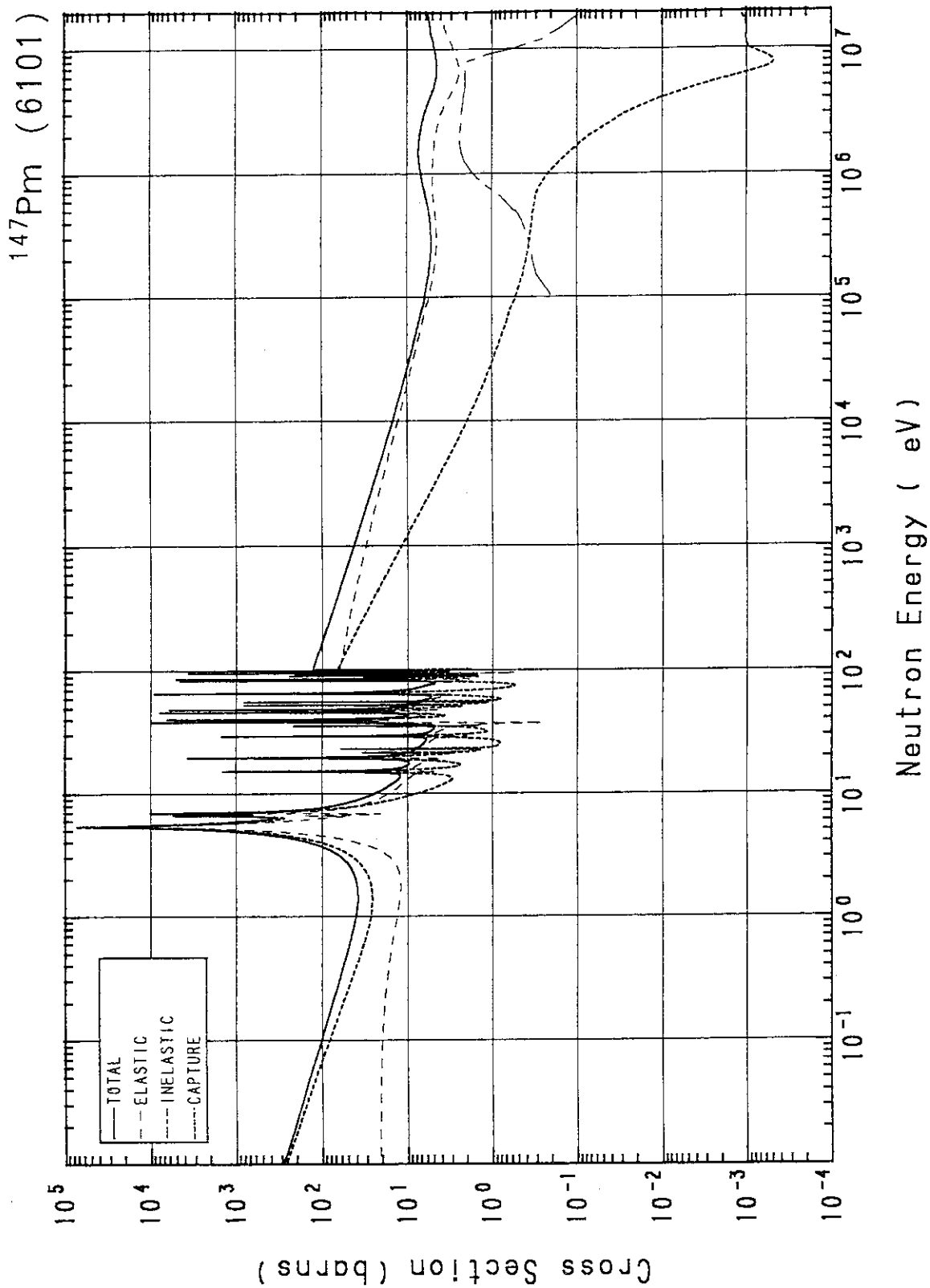
^{148}Nd (6007)



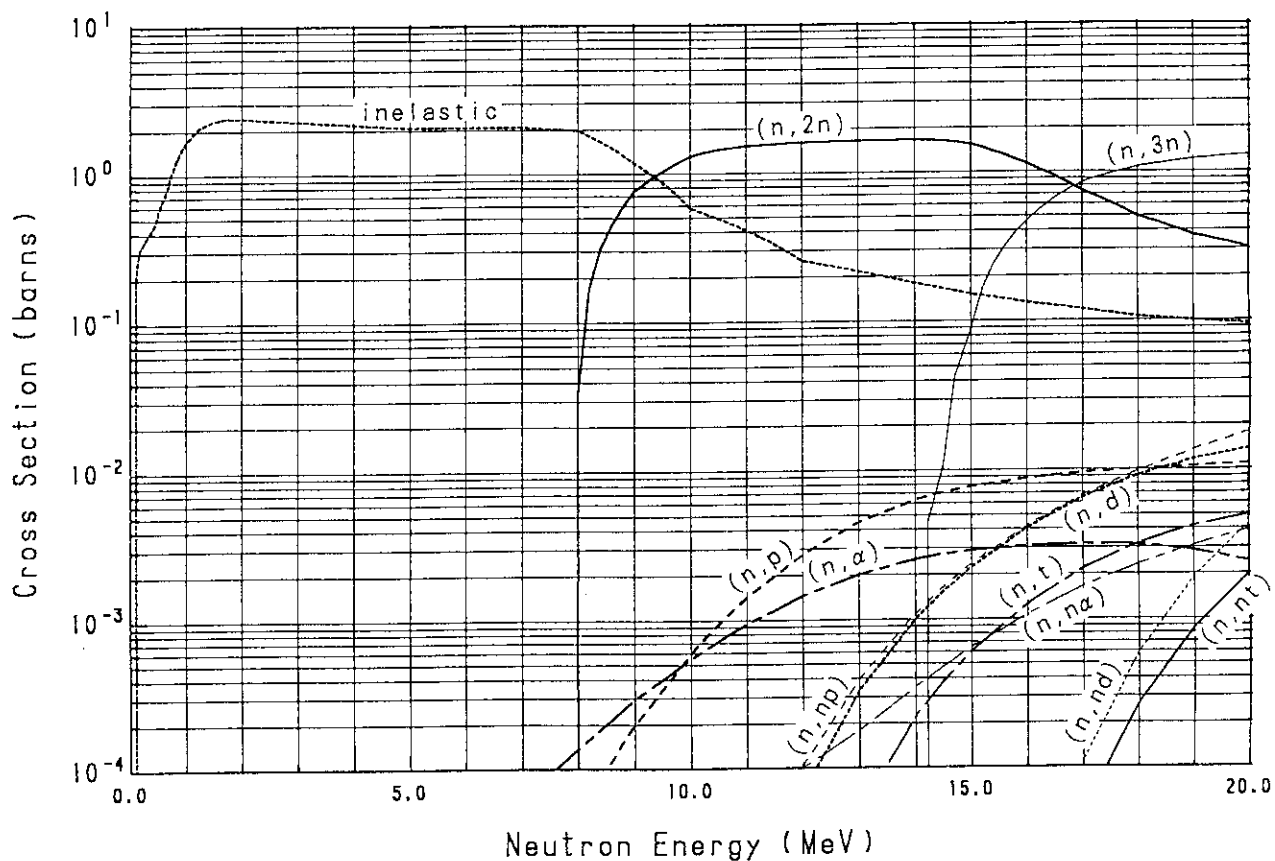
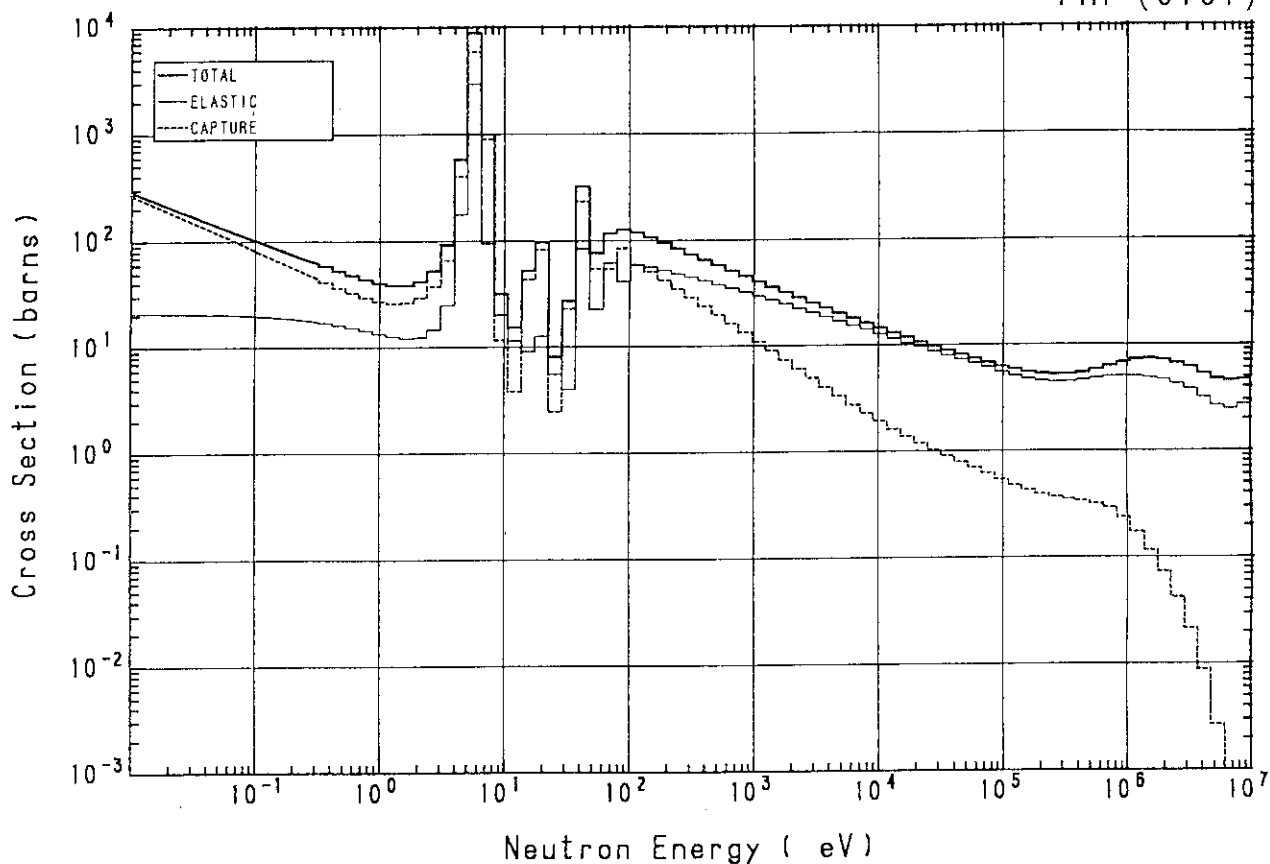


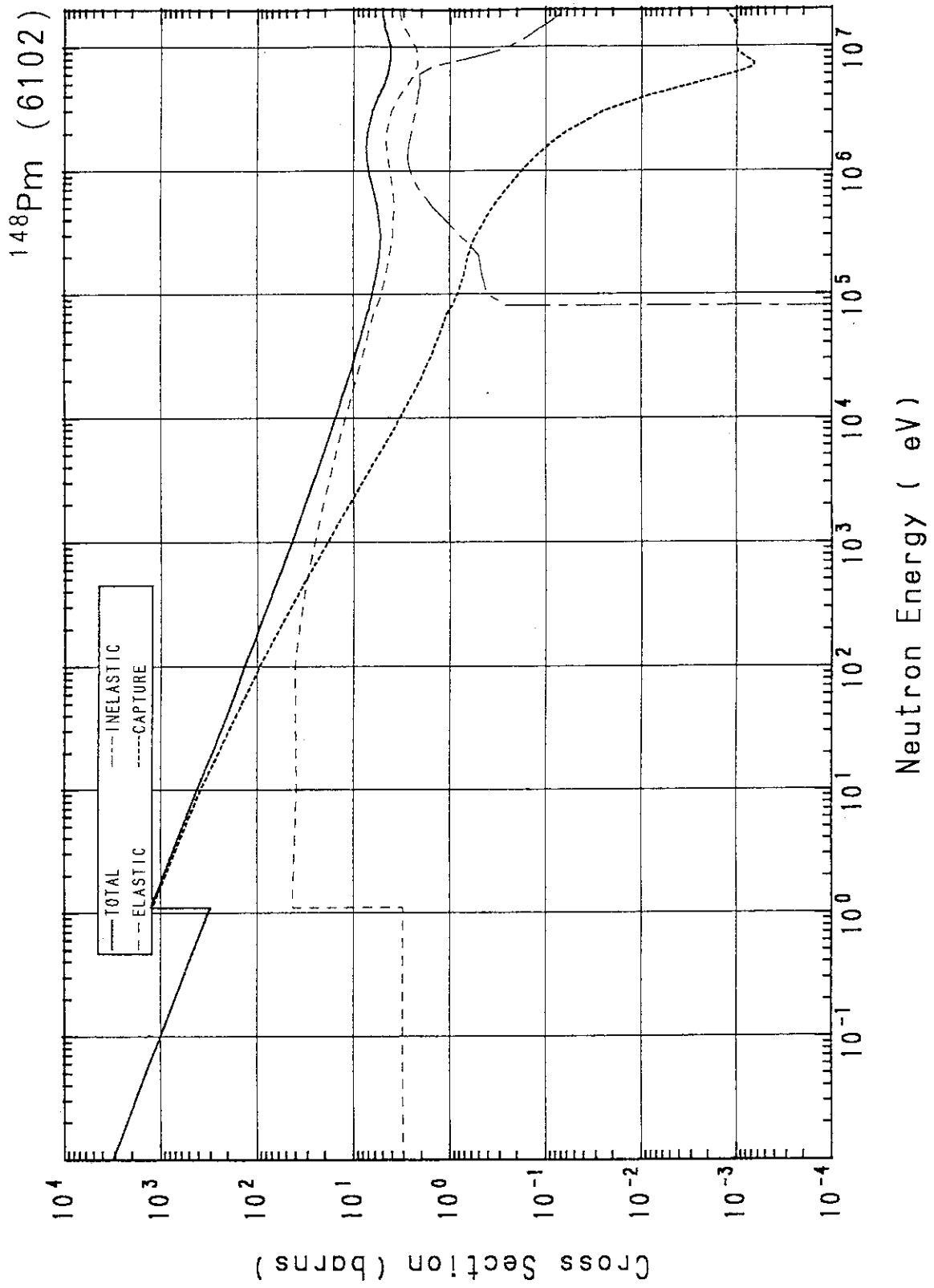
^{150}Nd (6008)



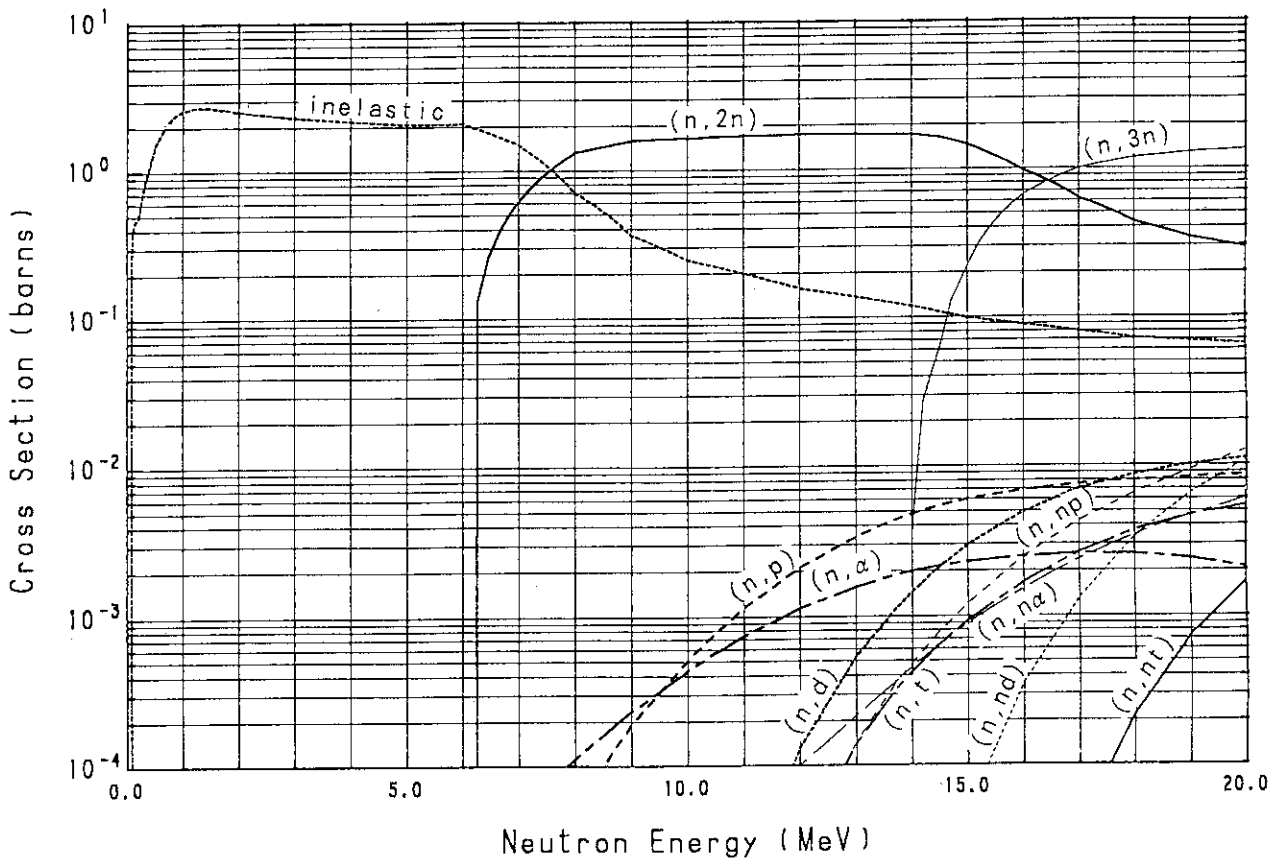
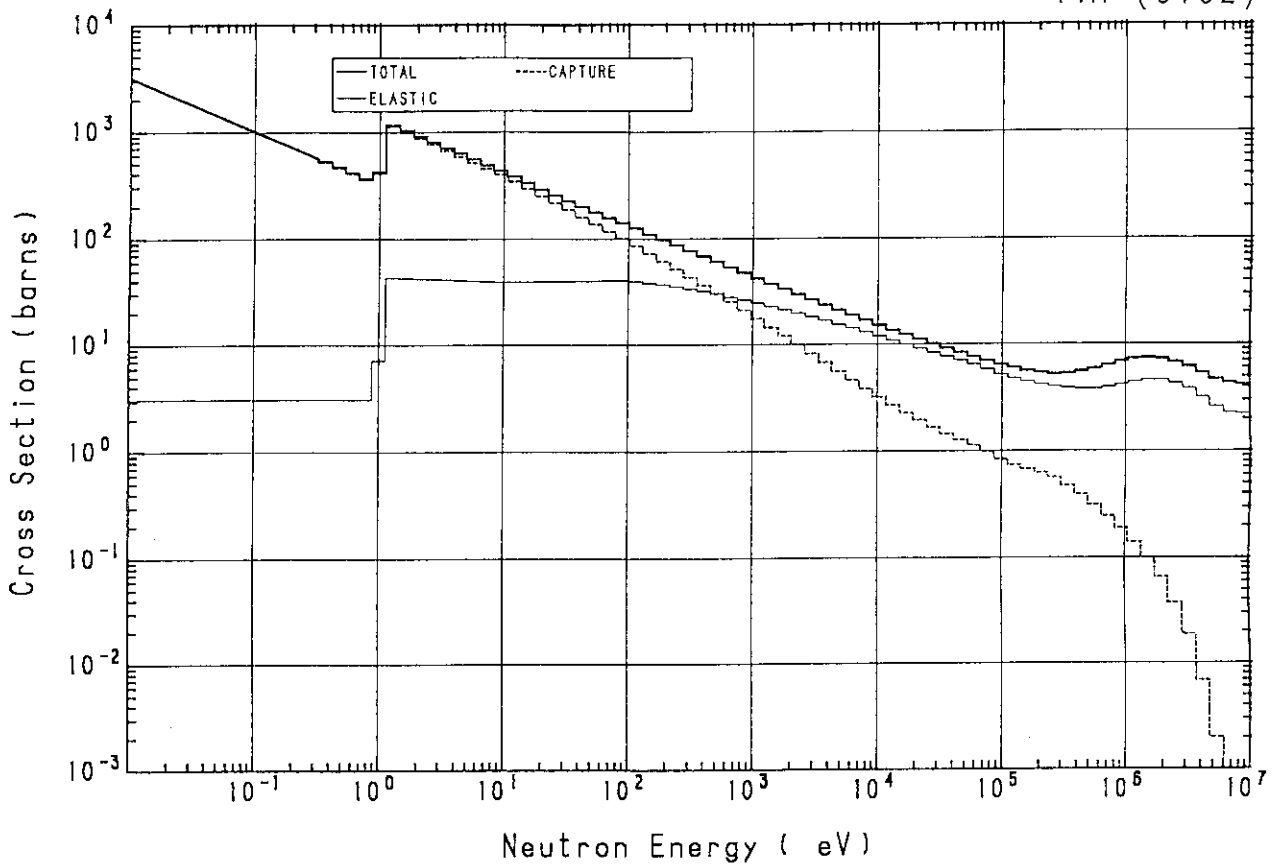


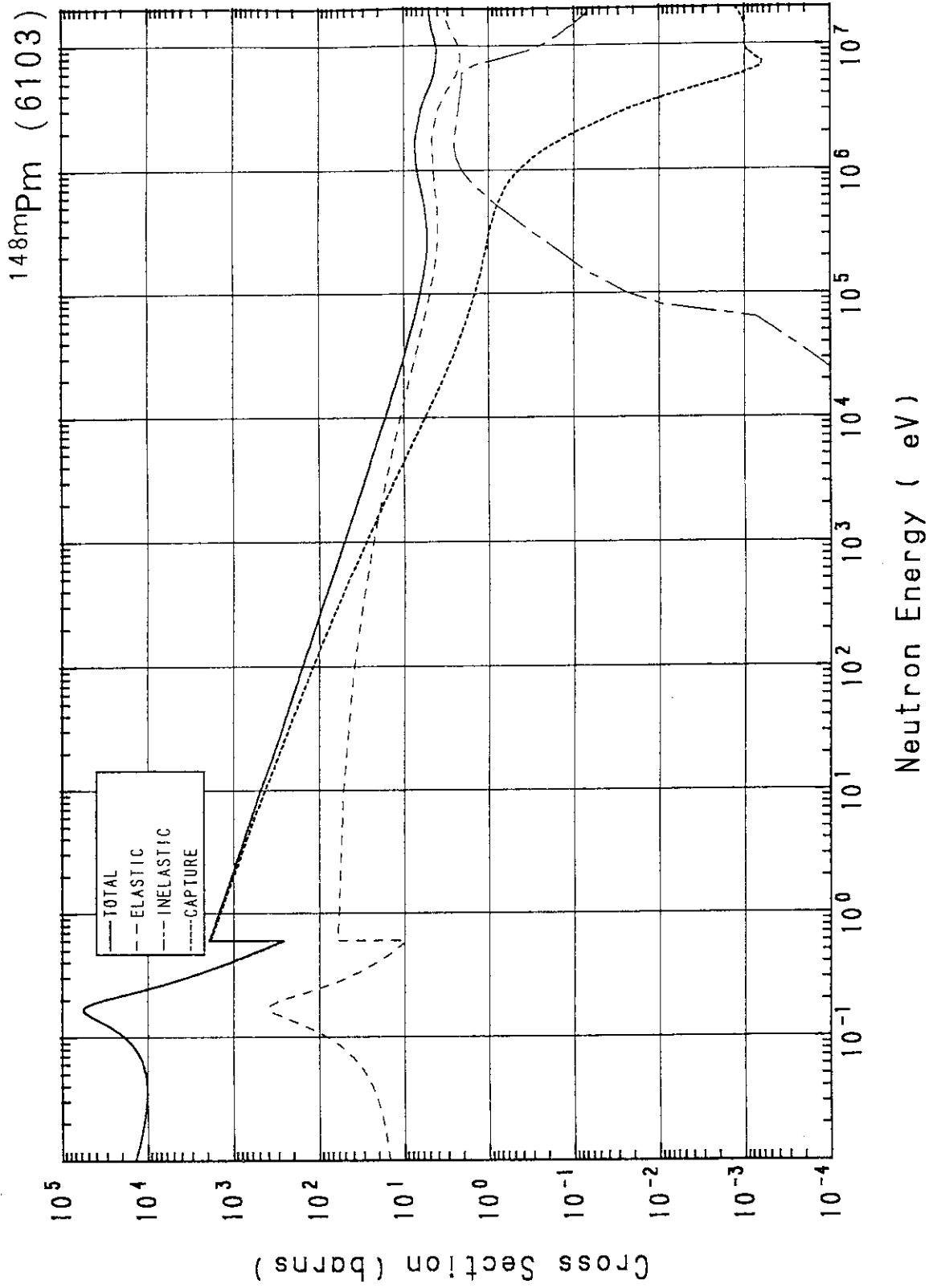
^{147}Pm (6101)



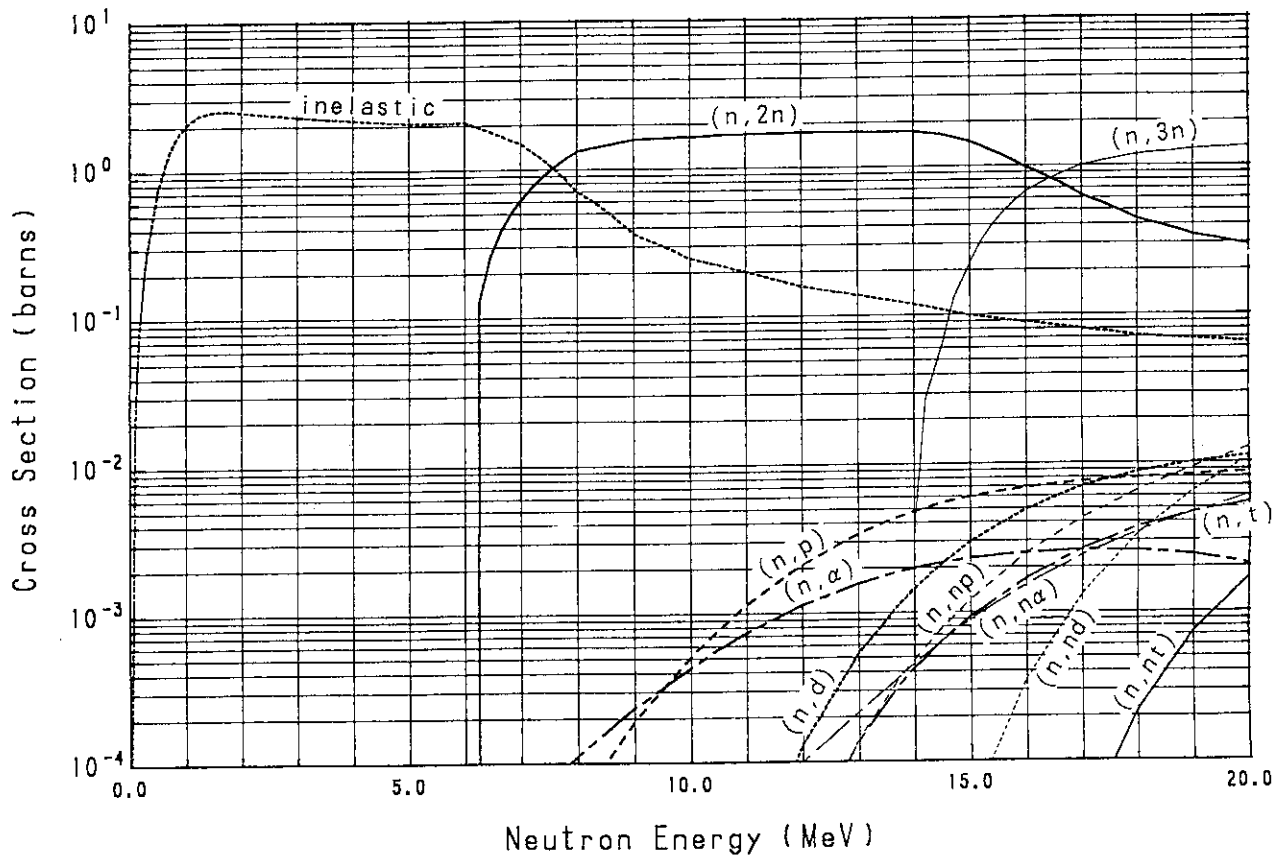
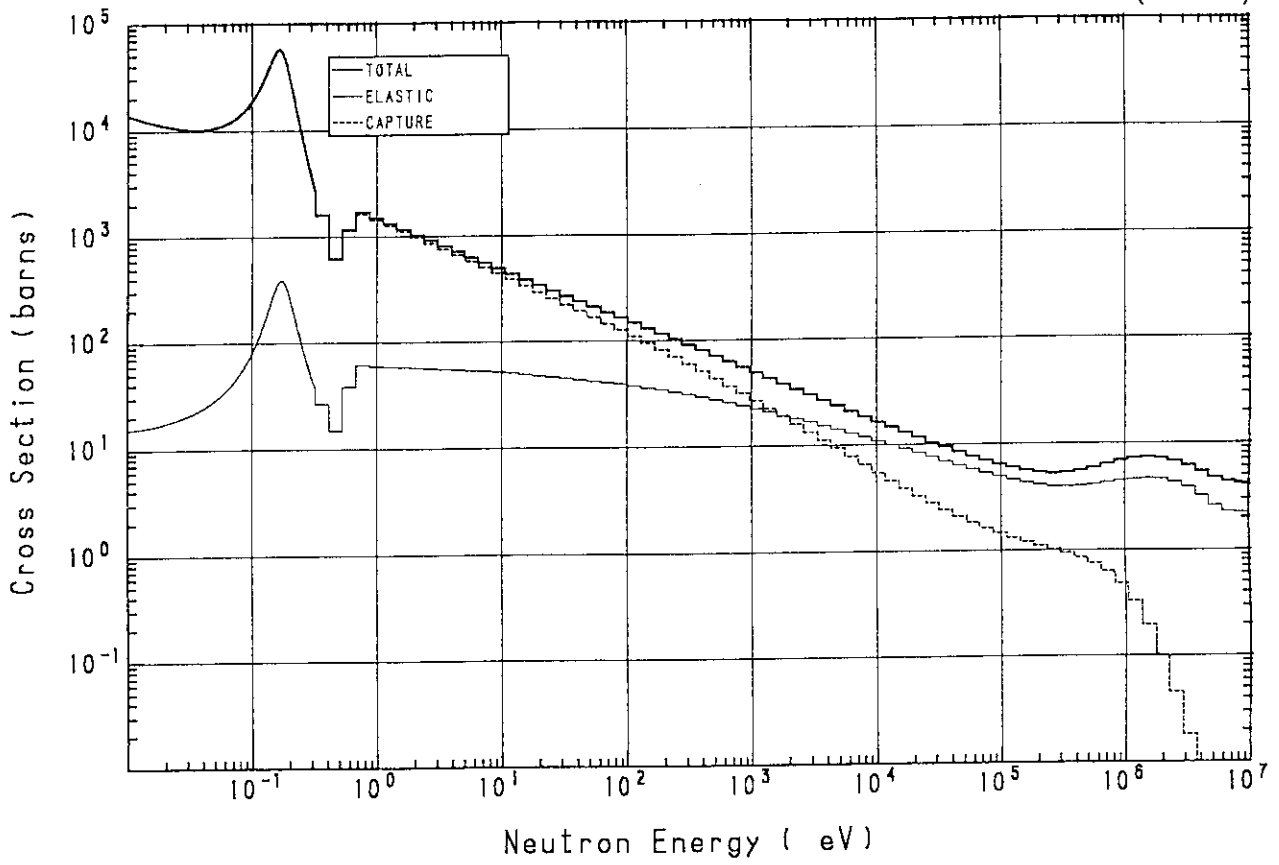


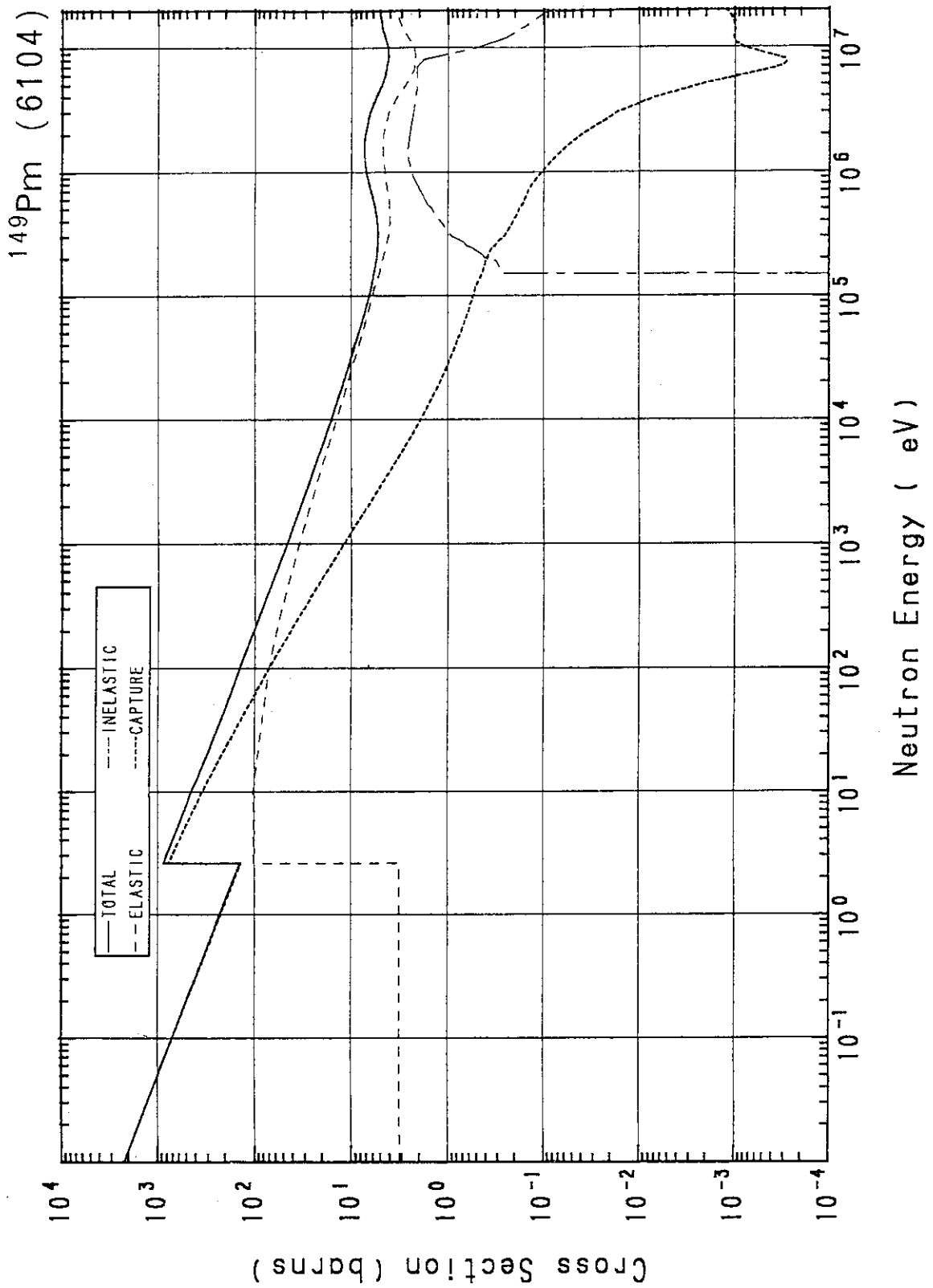
^{148}Pm (6102)



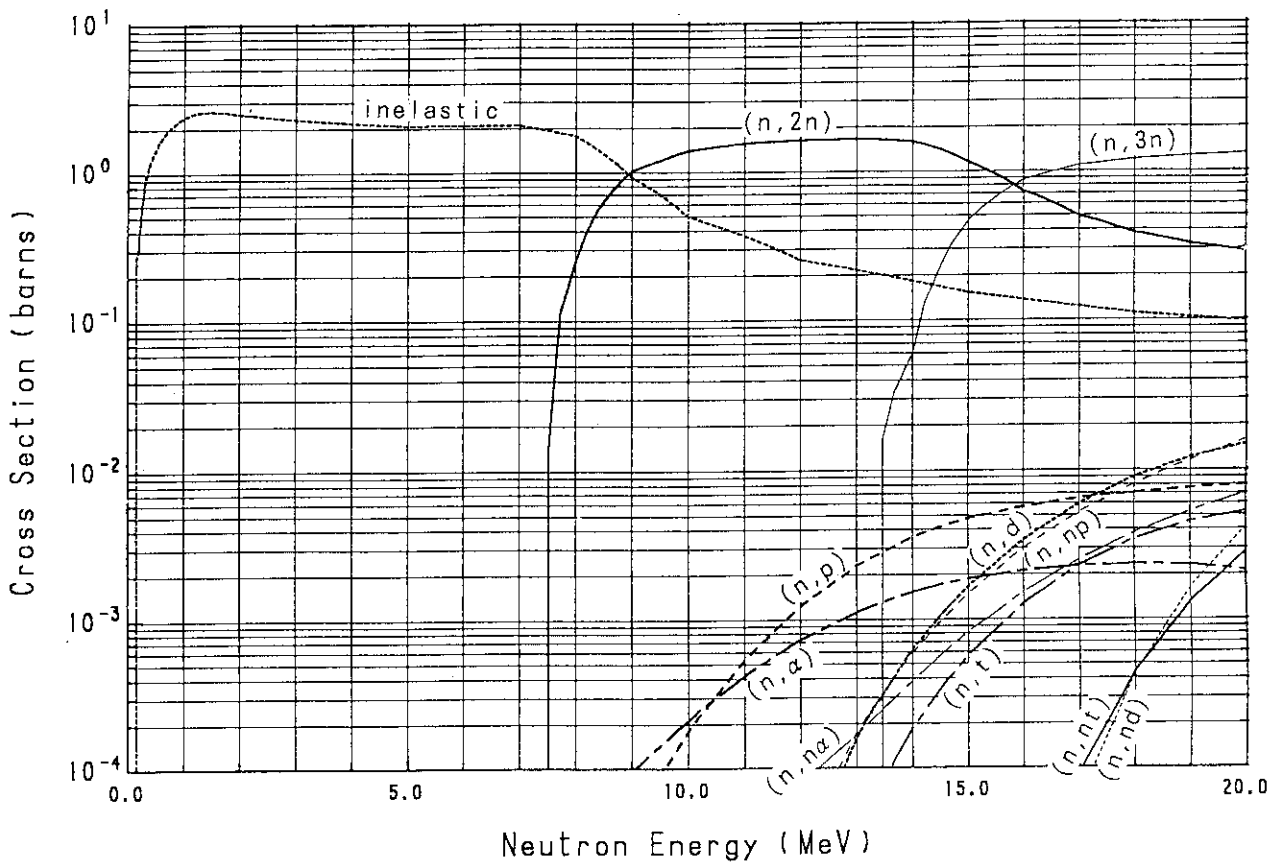
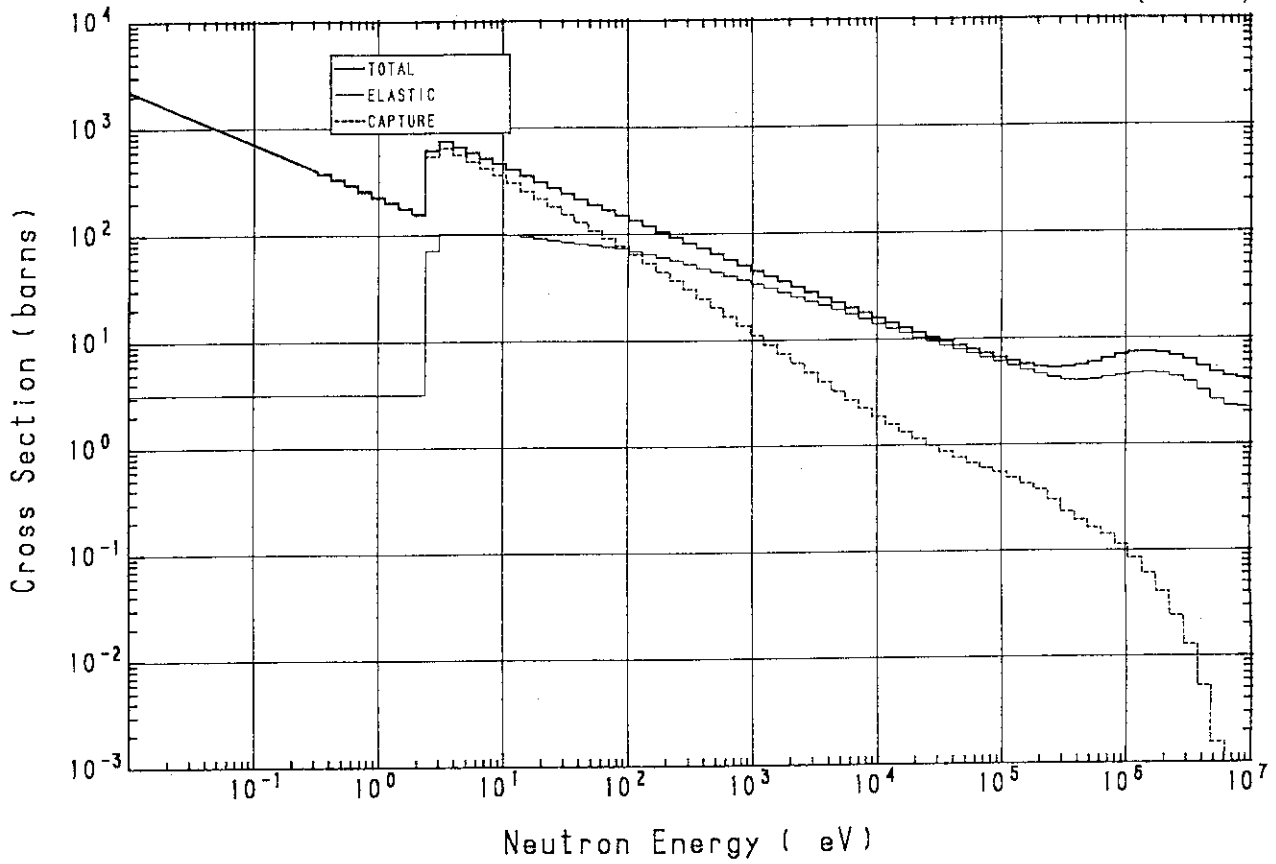


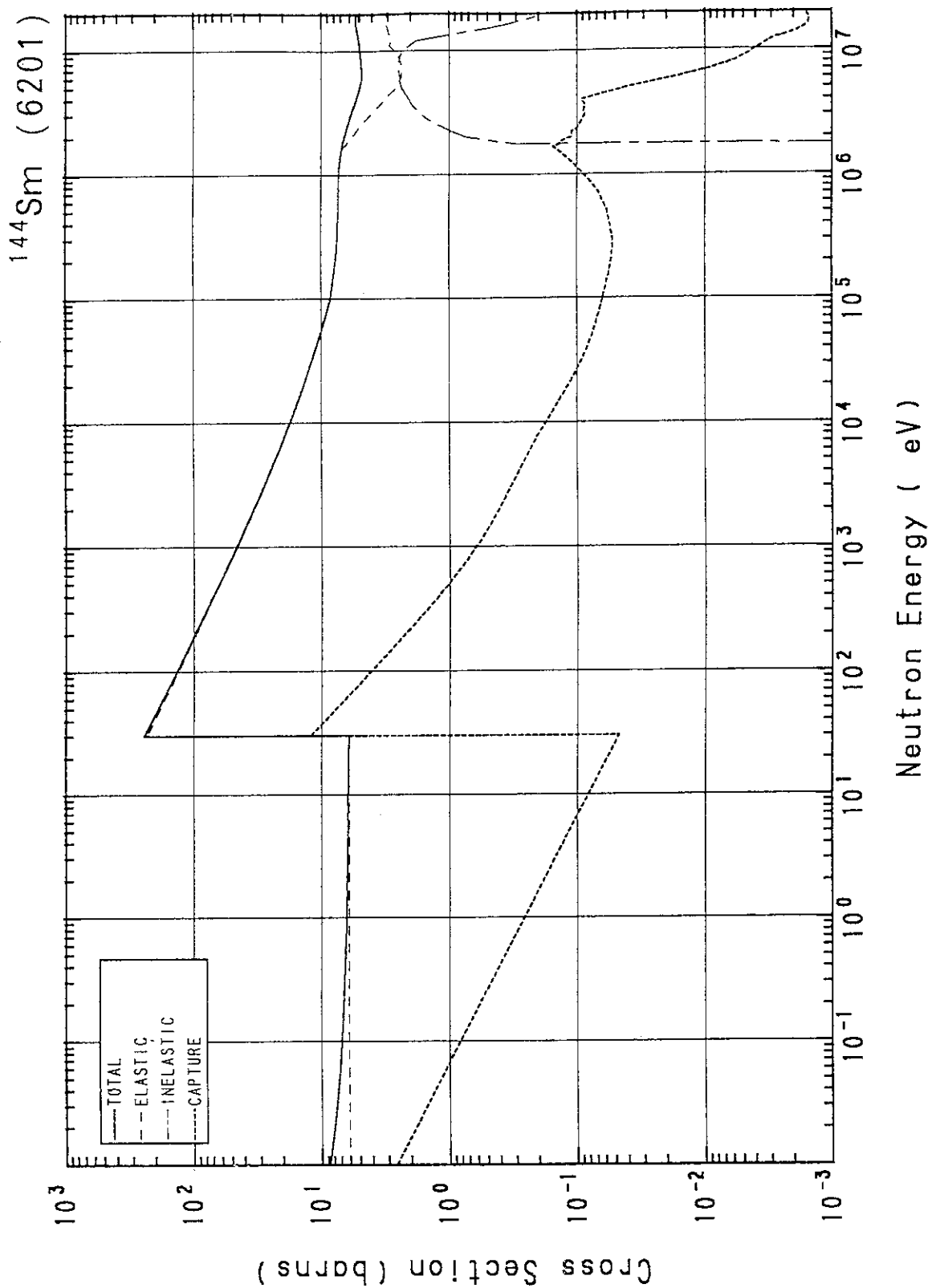
148mPm (6103)



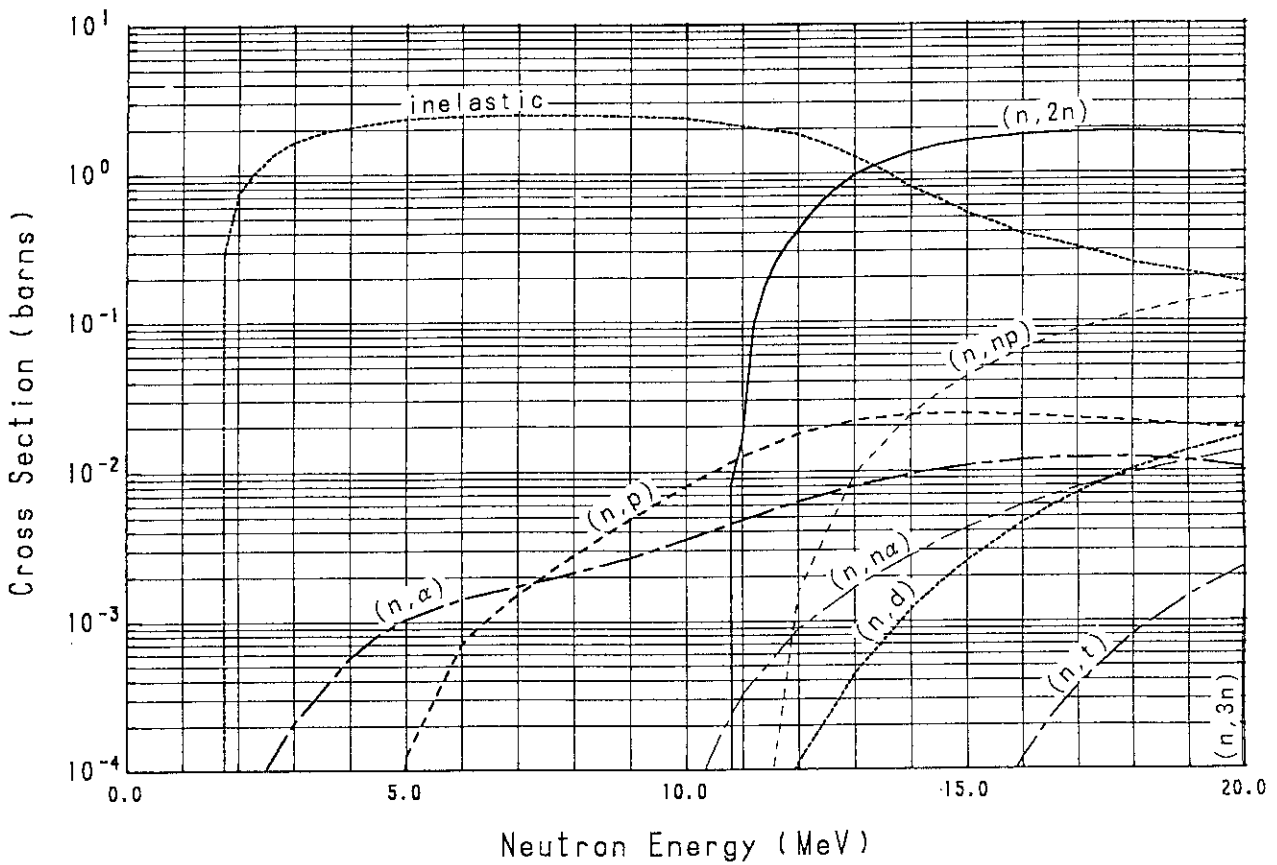
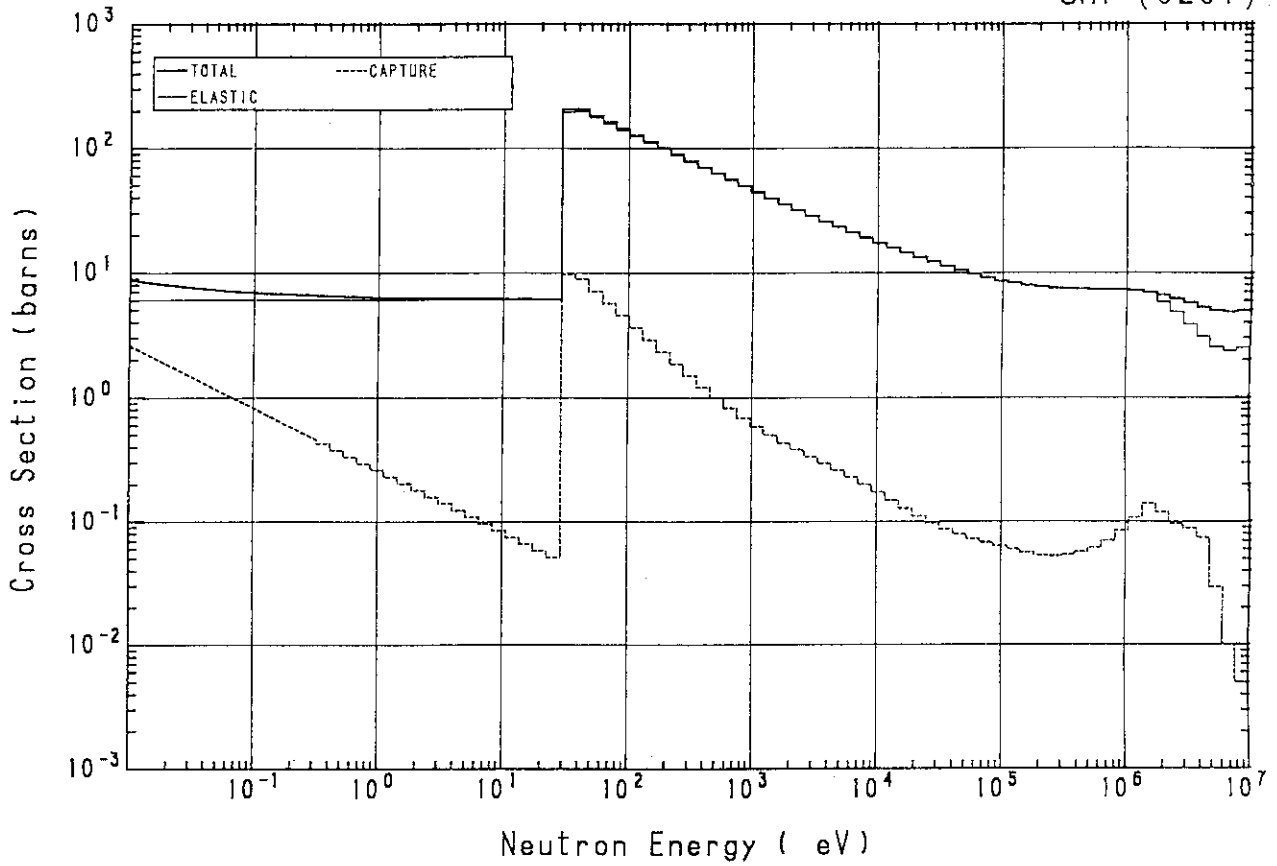


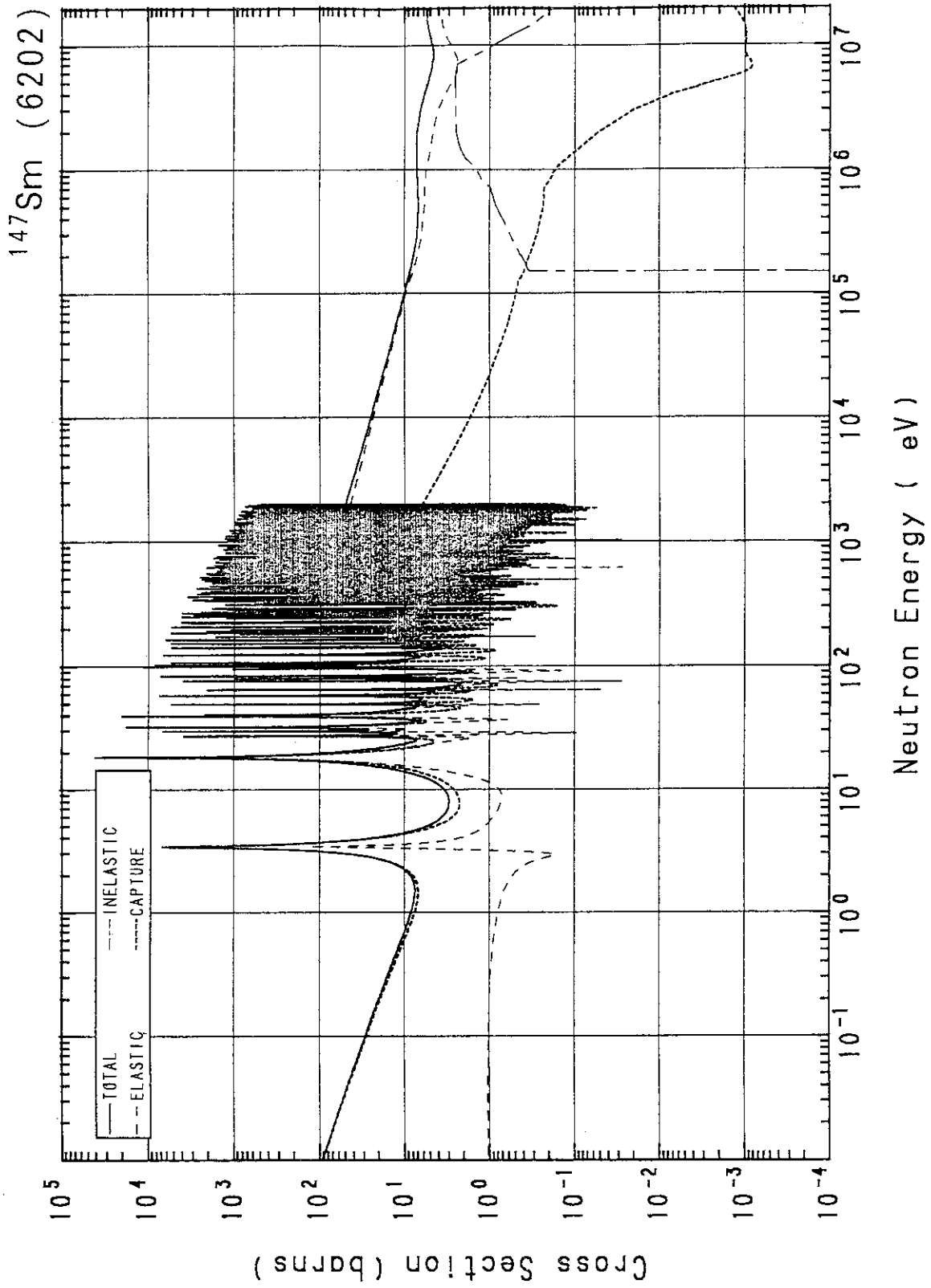
^{149}Pm (6104)



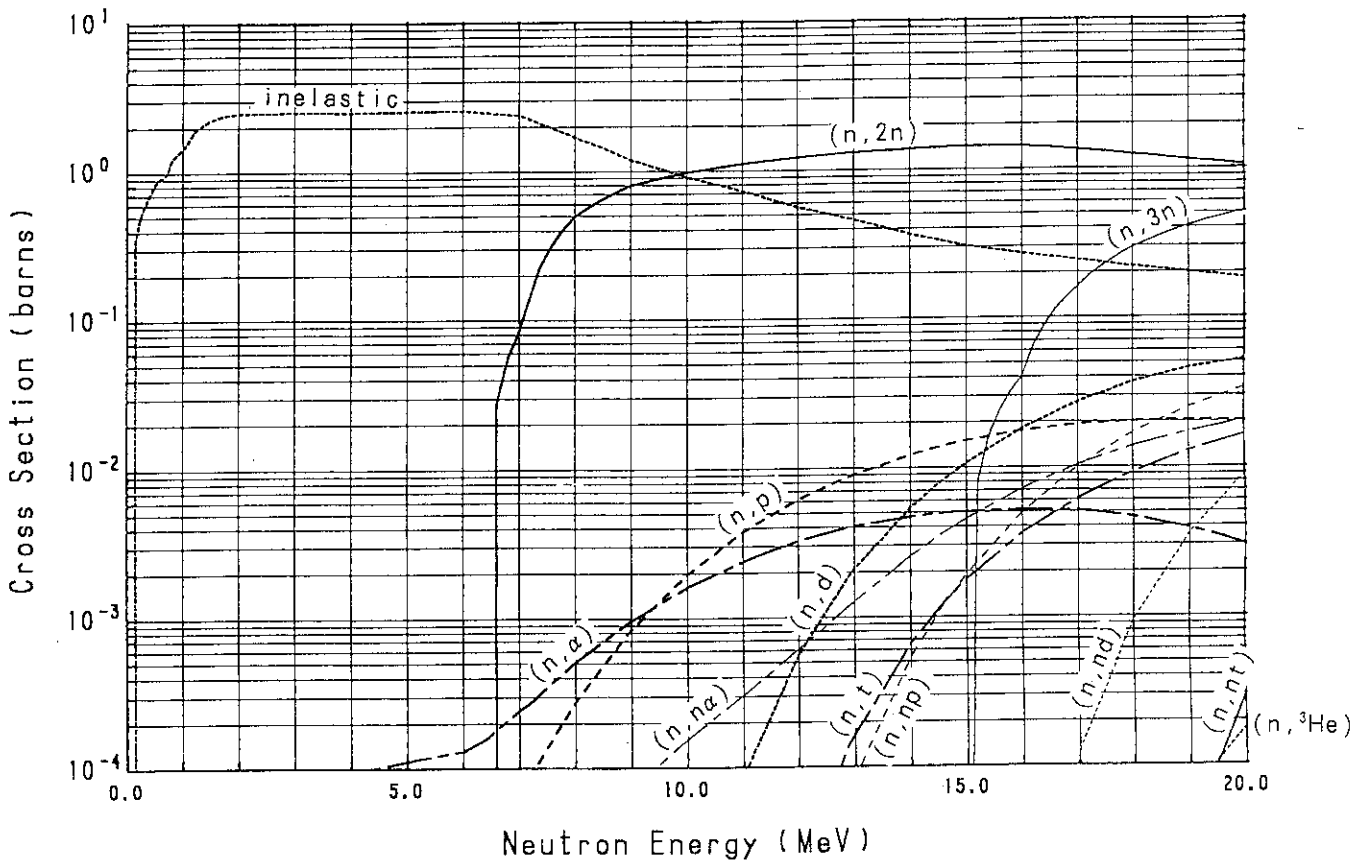
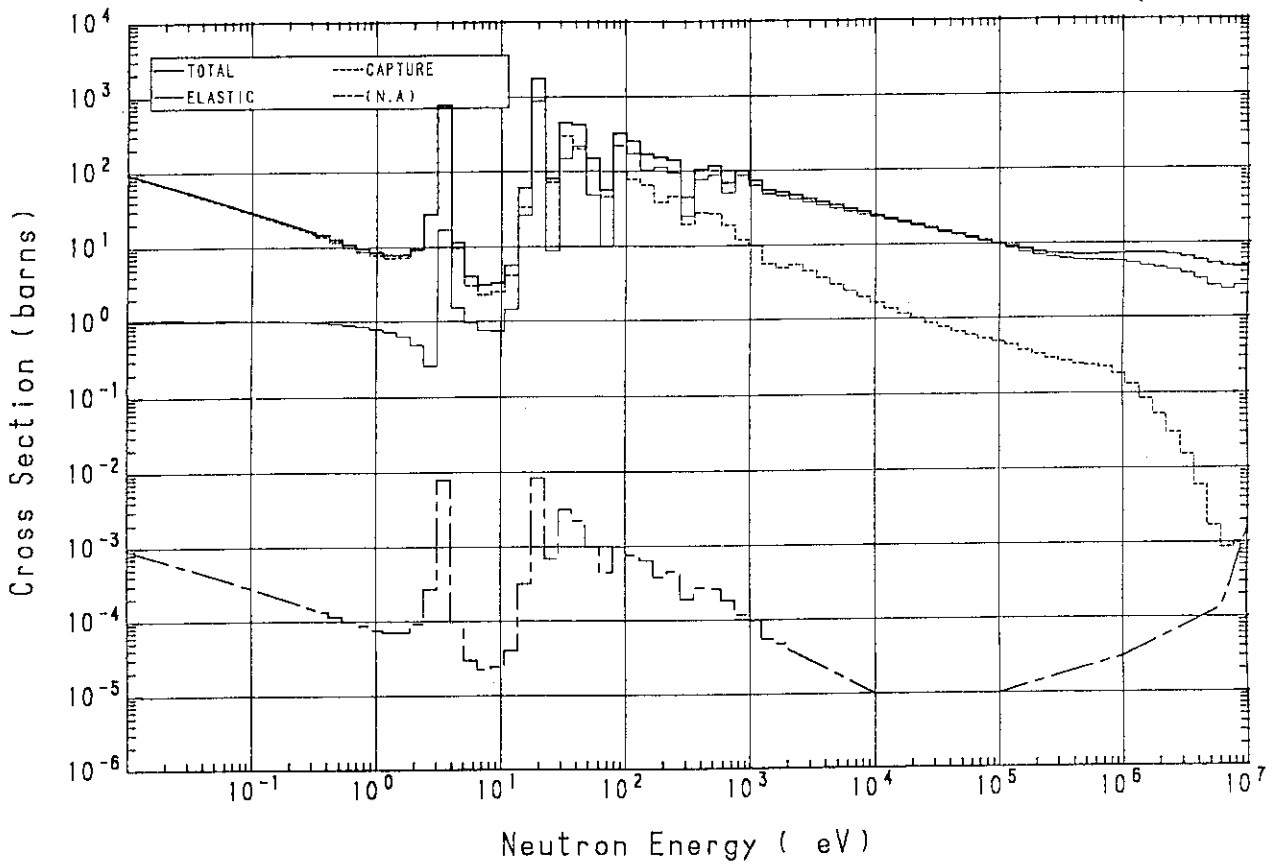


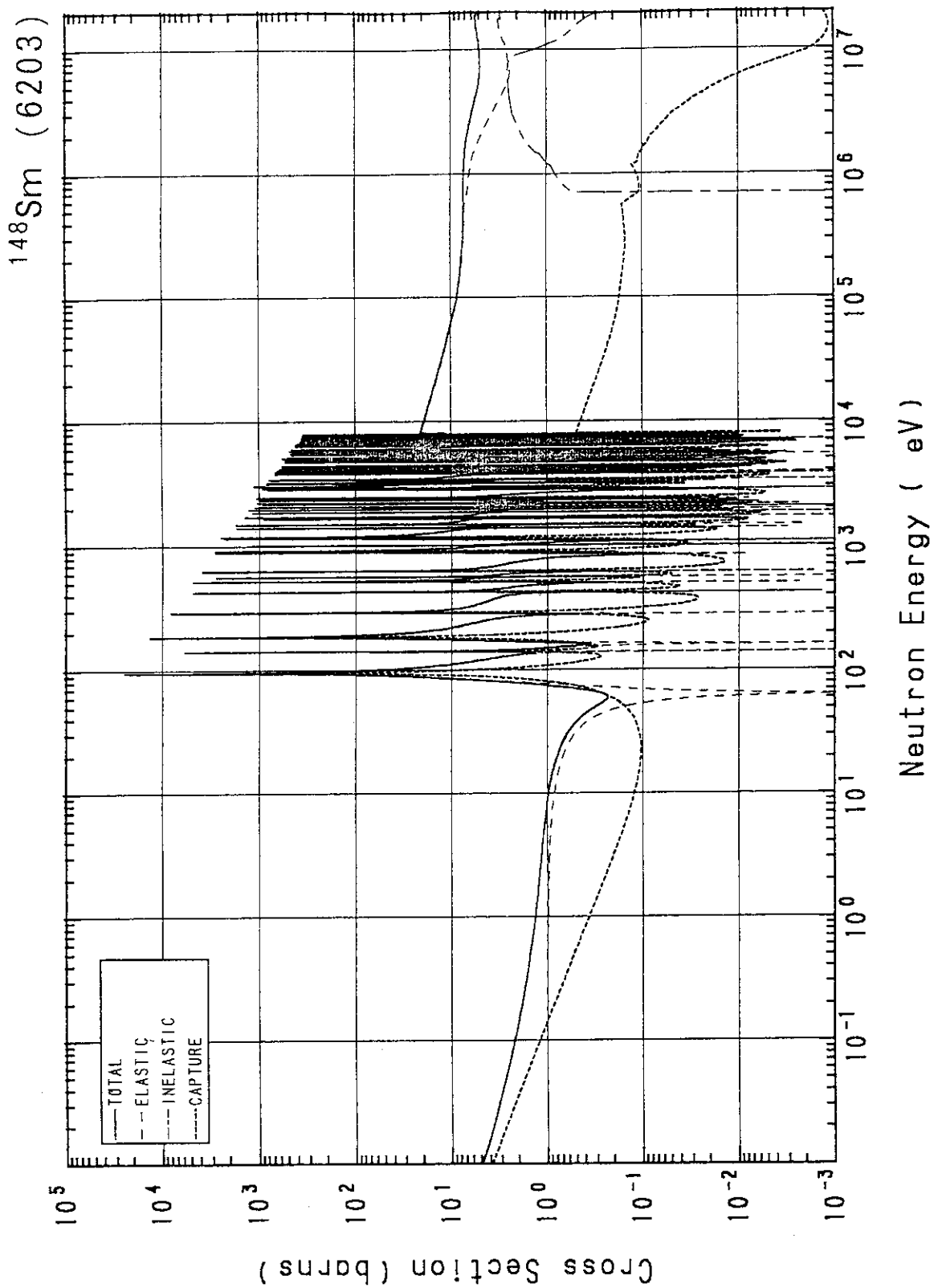
^{144}Sm (6201)



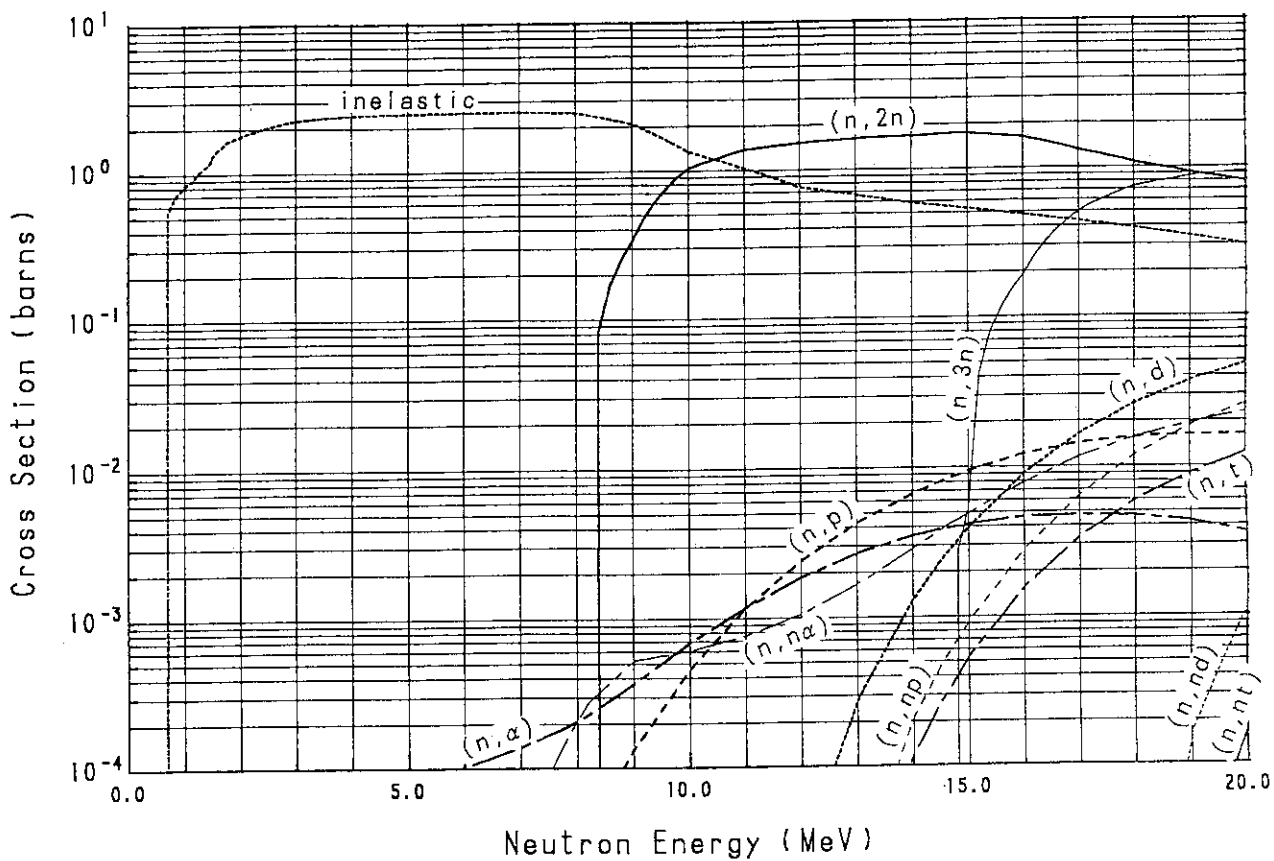
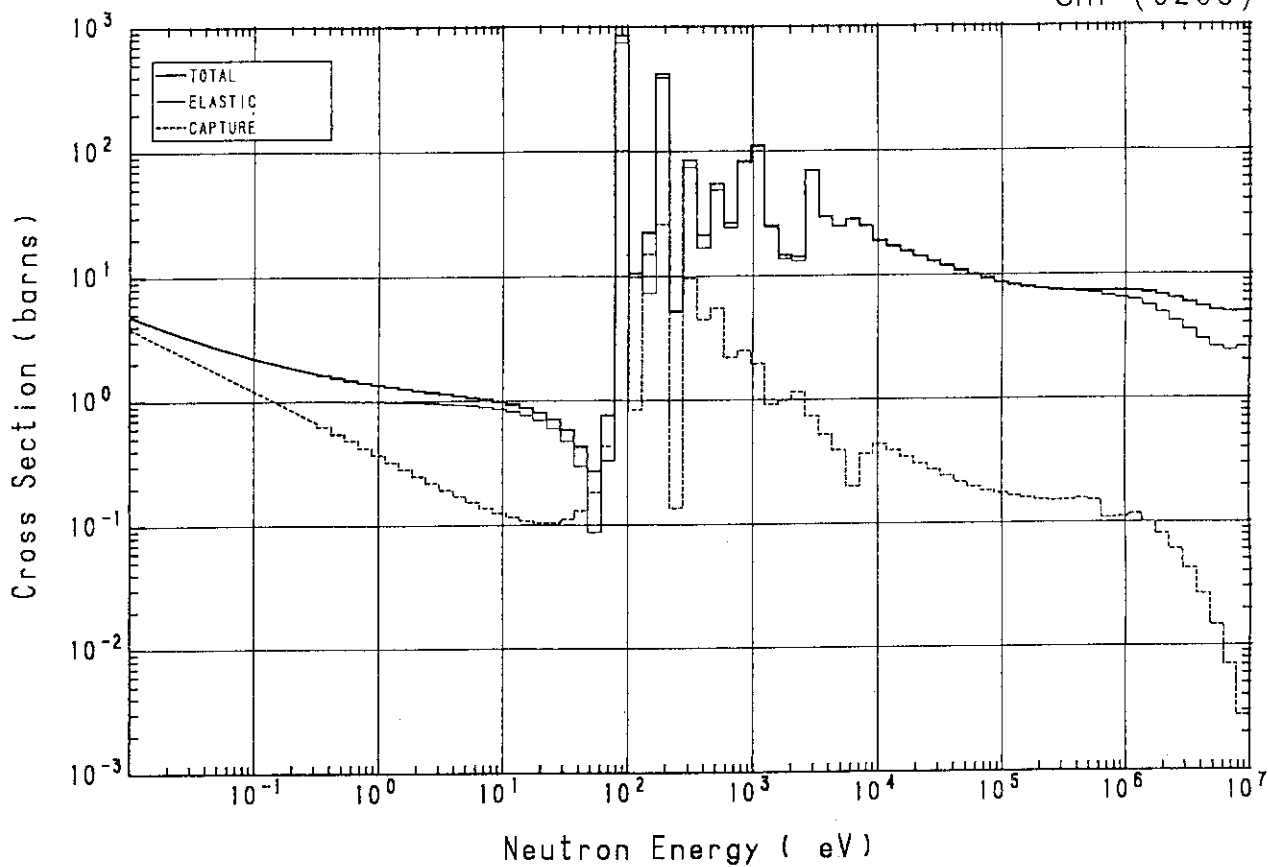


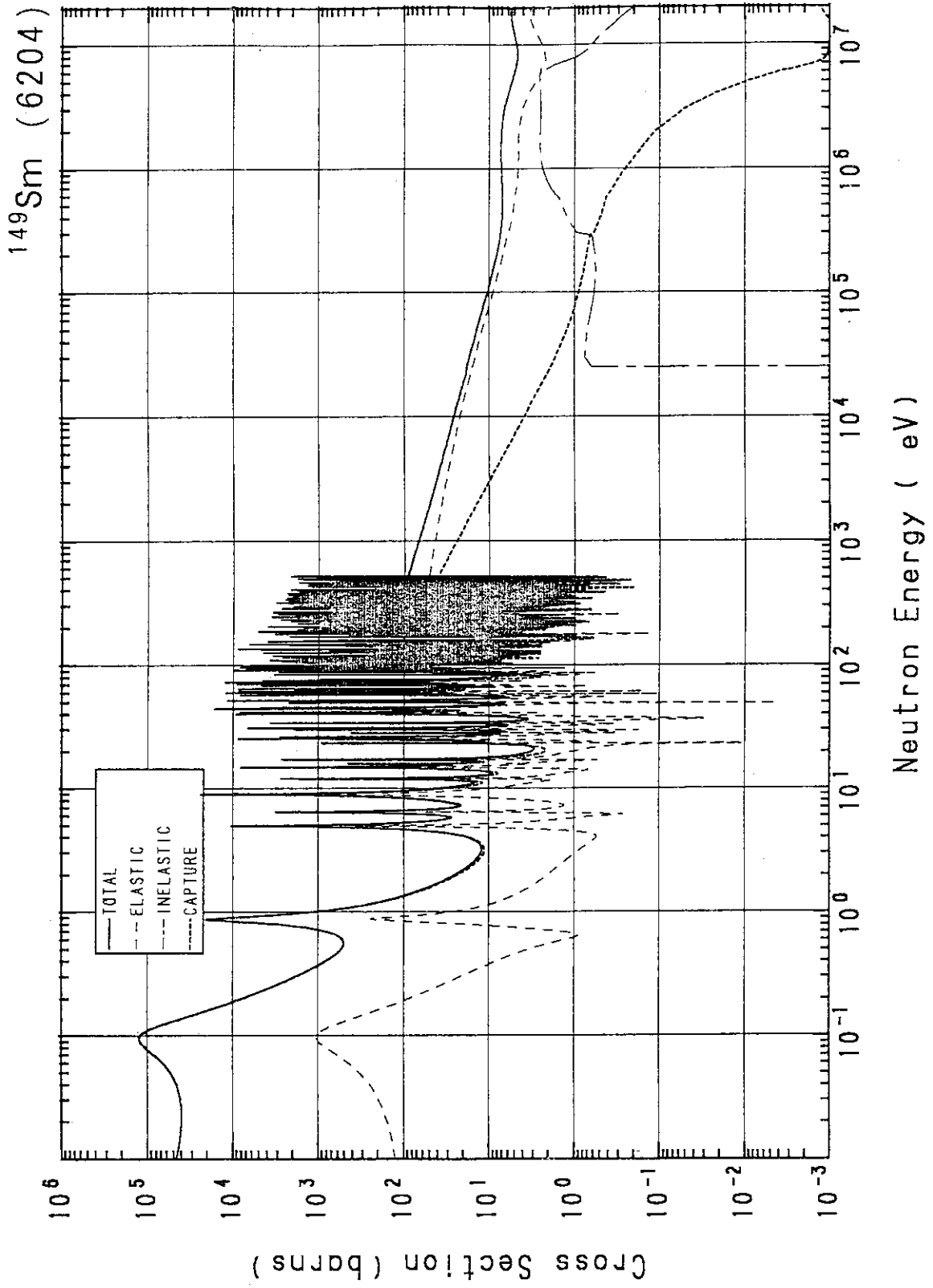
^{147}Sm (6202)



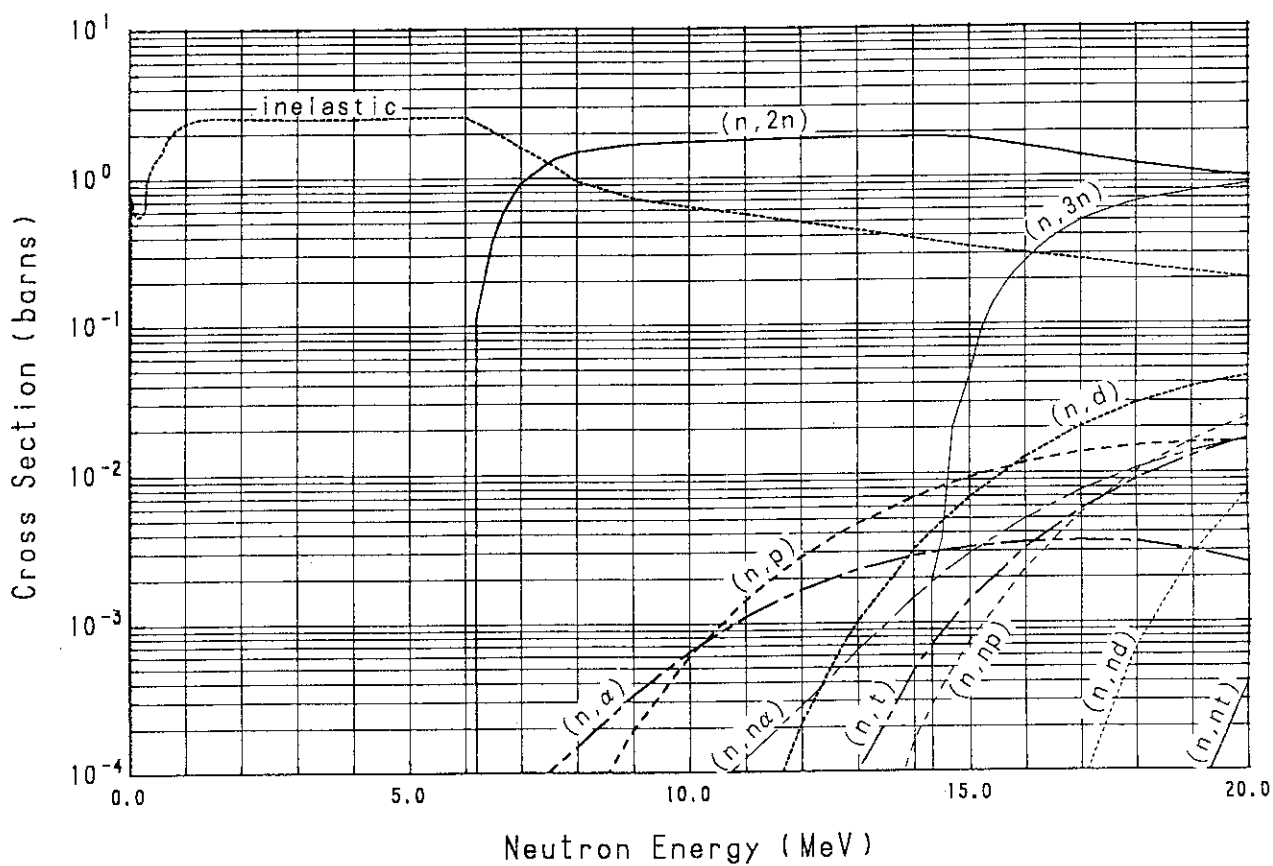
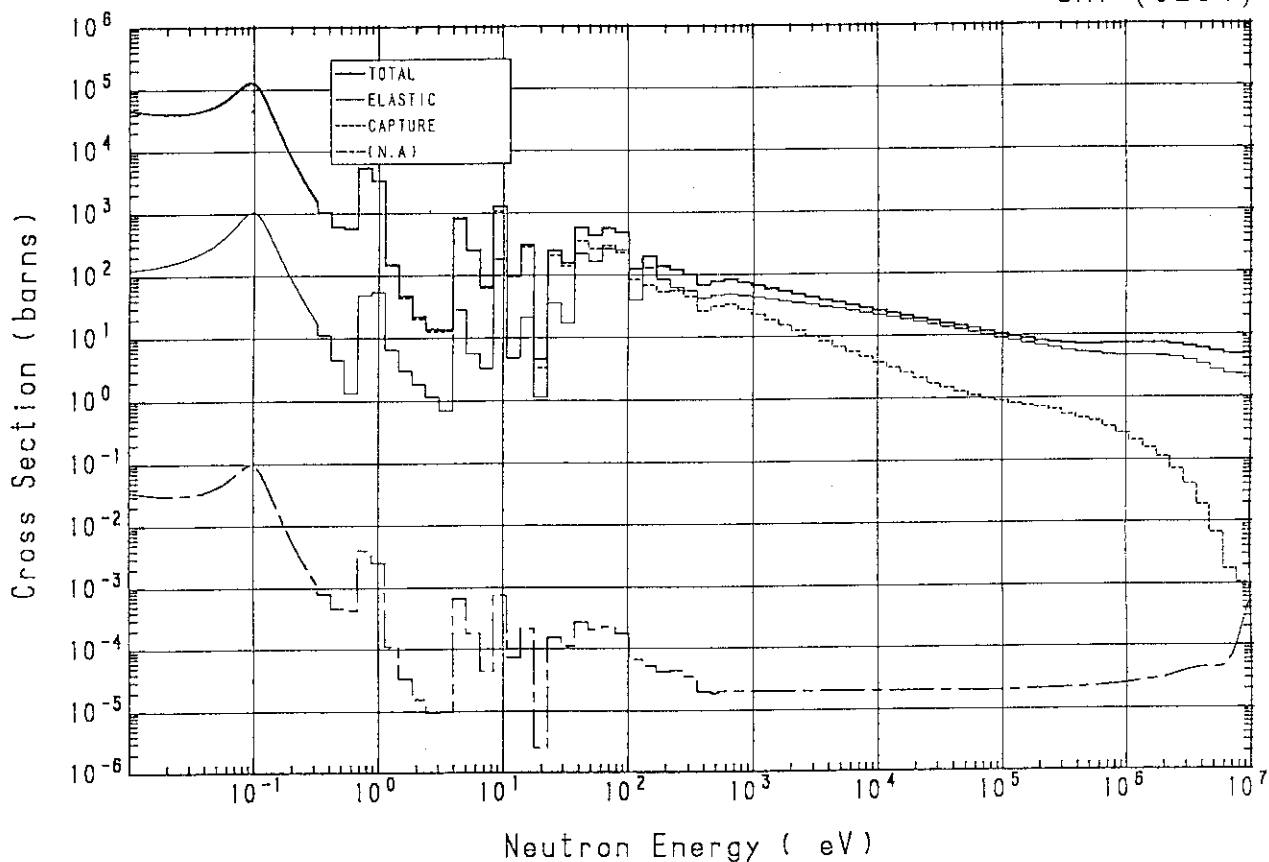


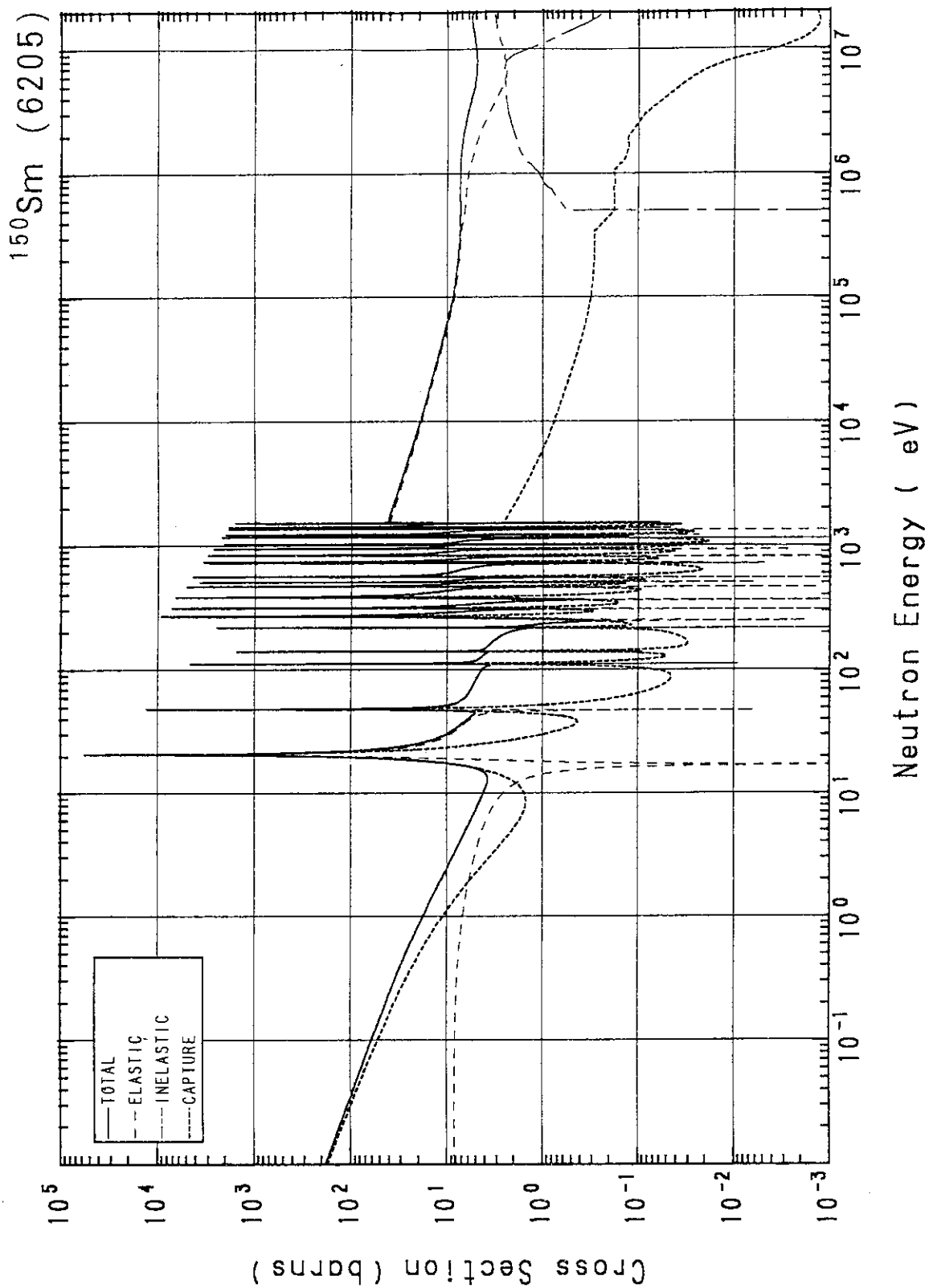
^{148}Sm (6203)



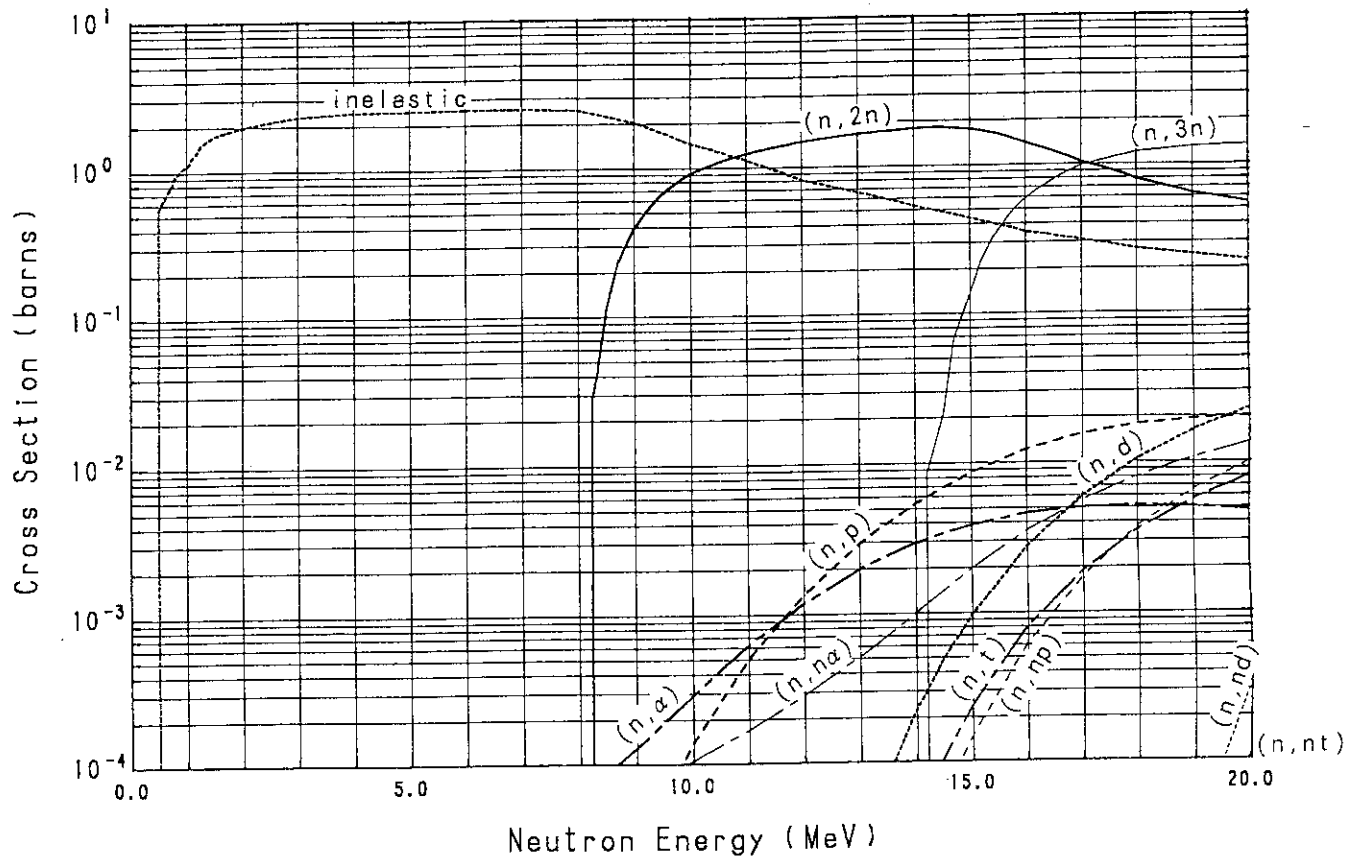
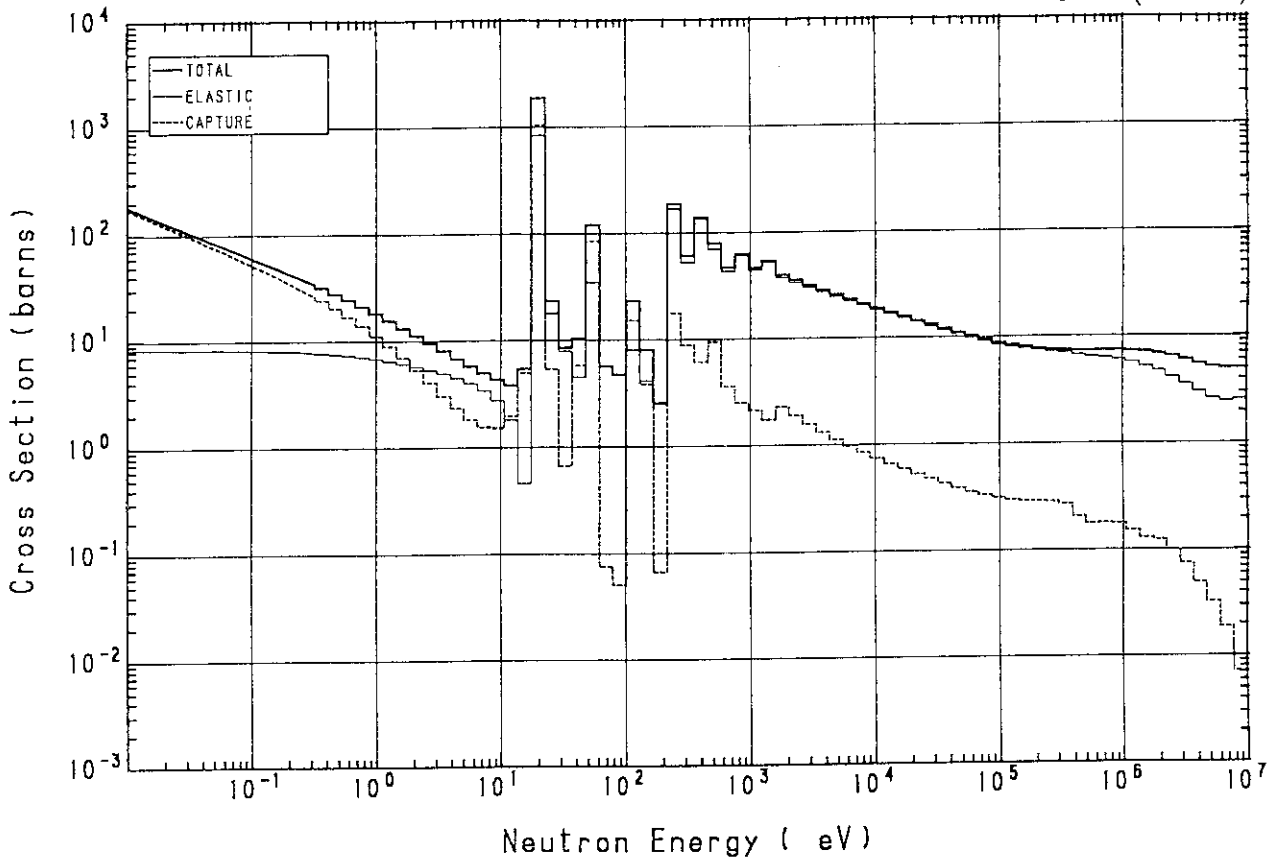


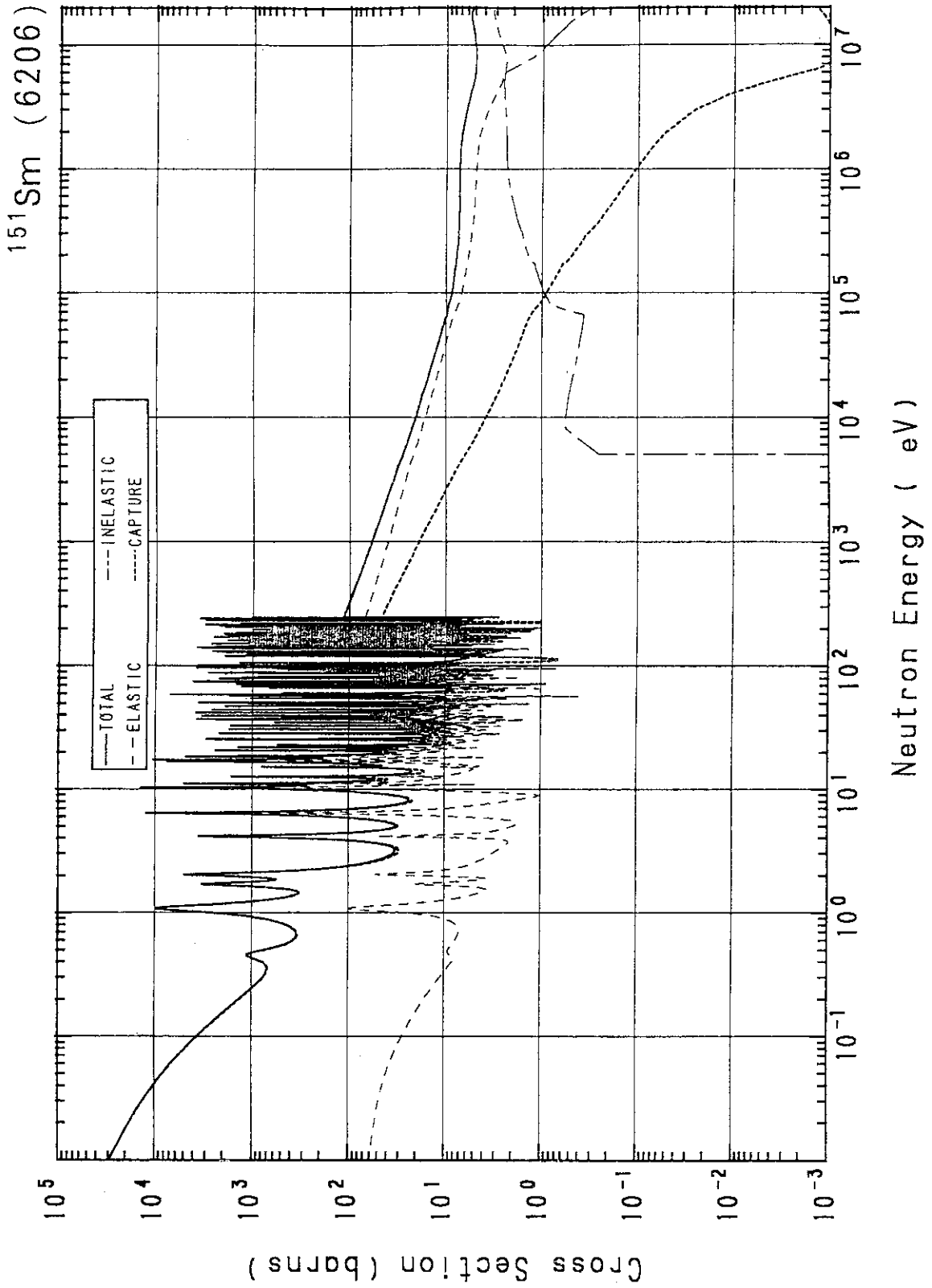
^{149}Sm (6204)



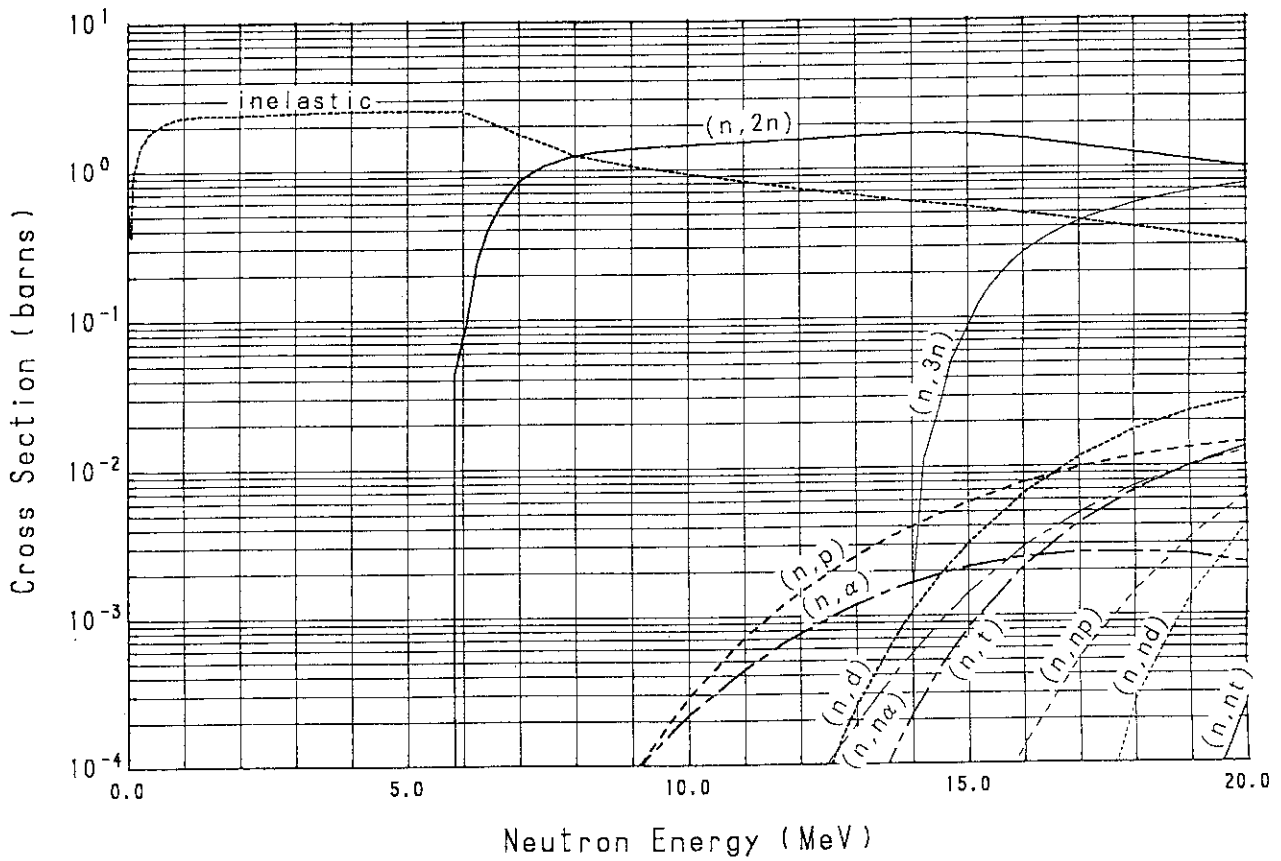
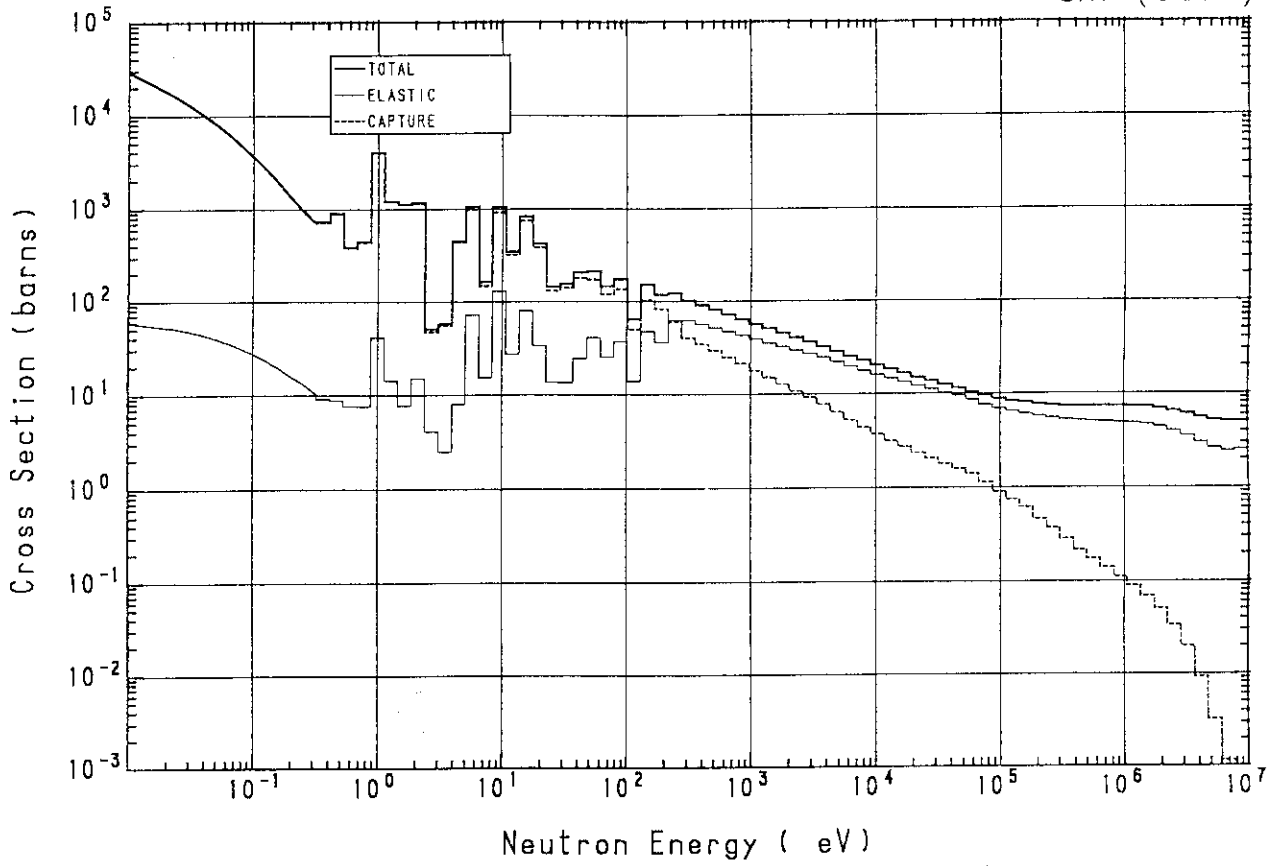


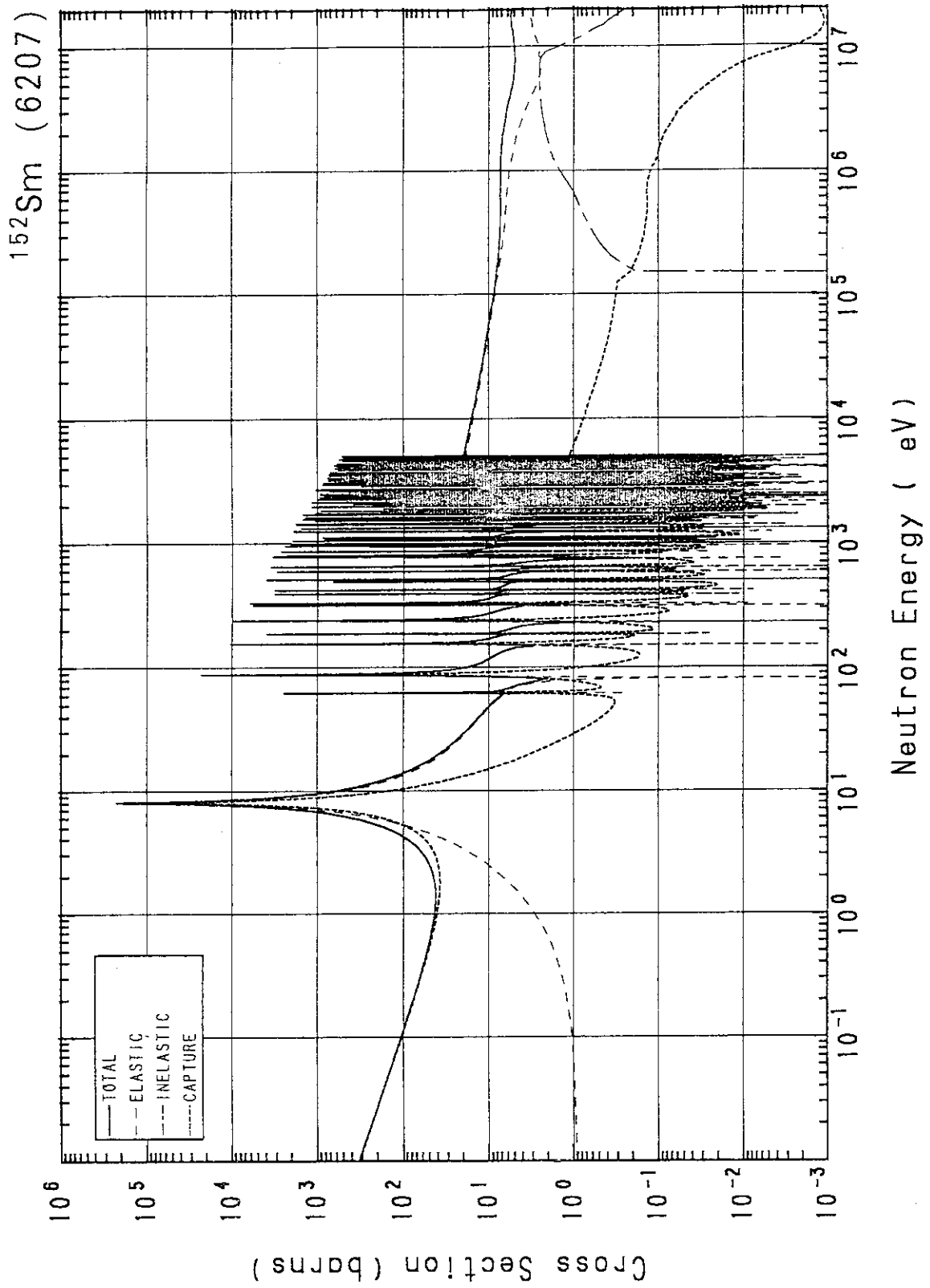
¹⁵⁰Sm (6205)



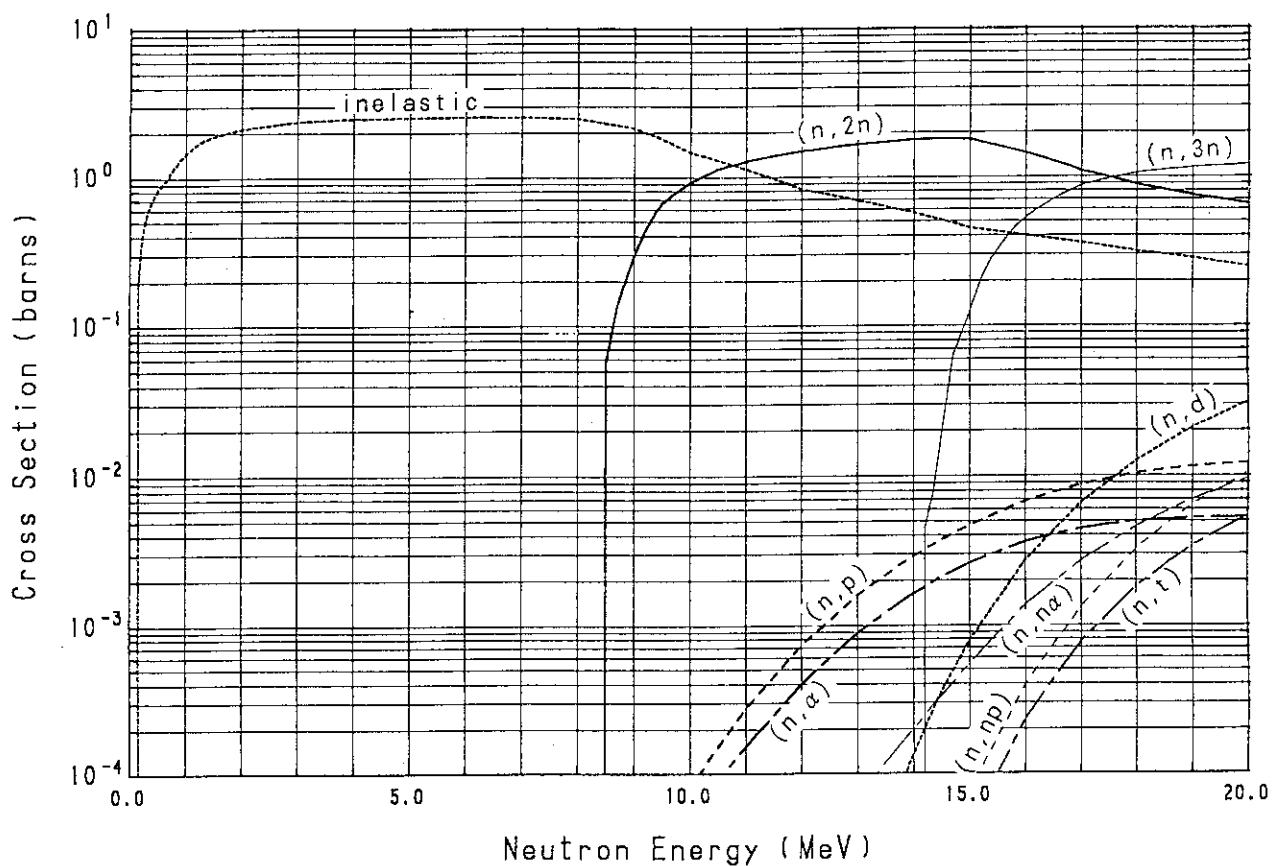
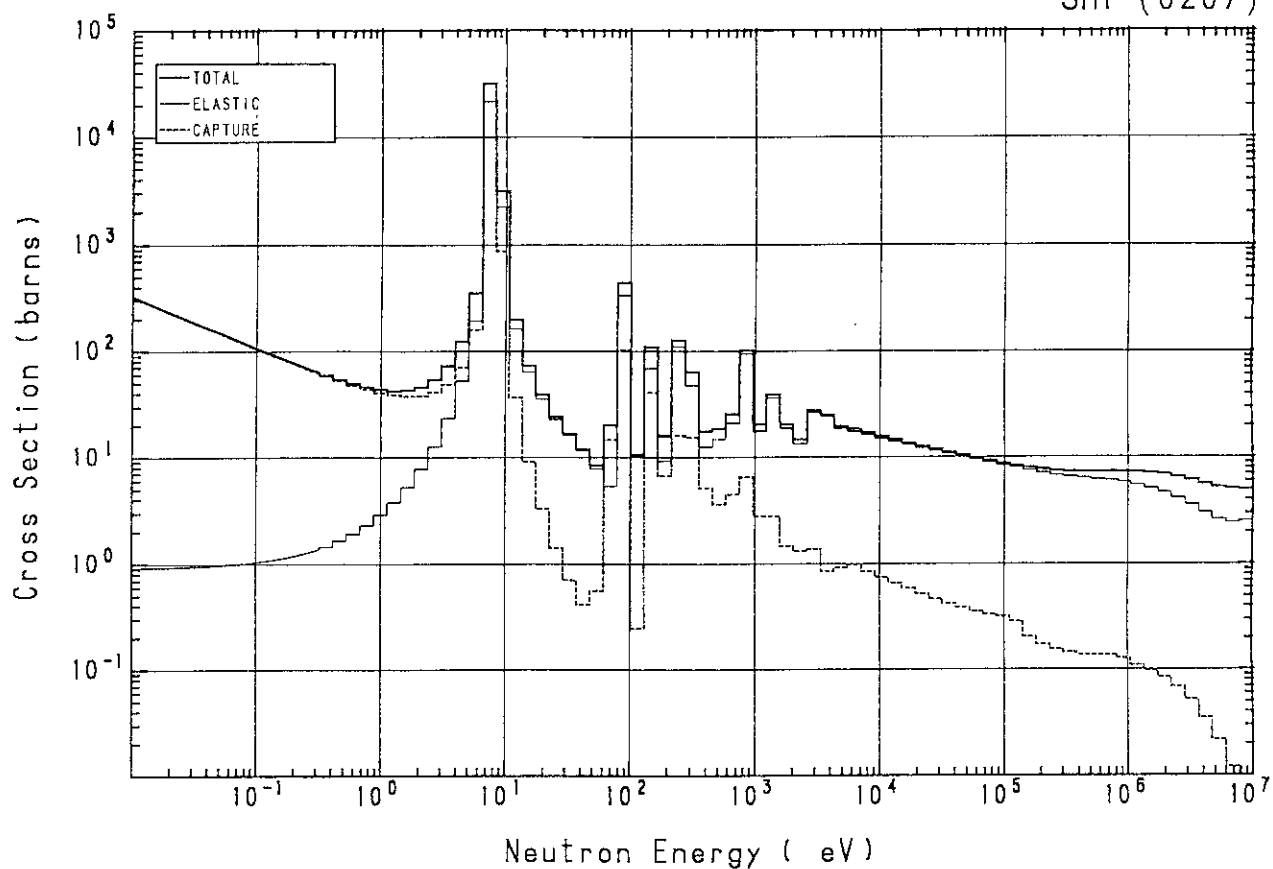


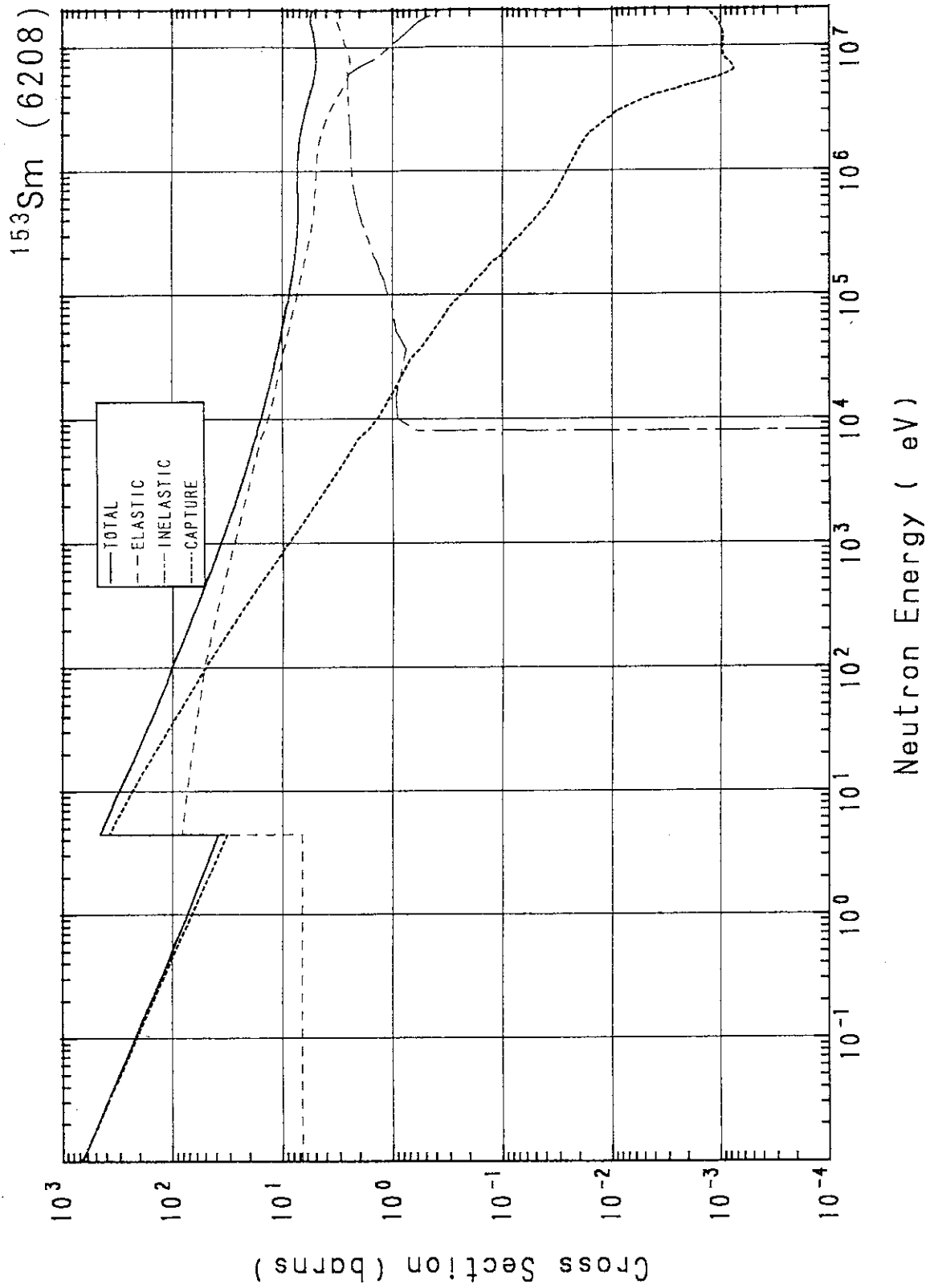
^{151}Sm (6206)



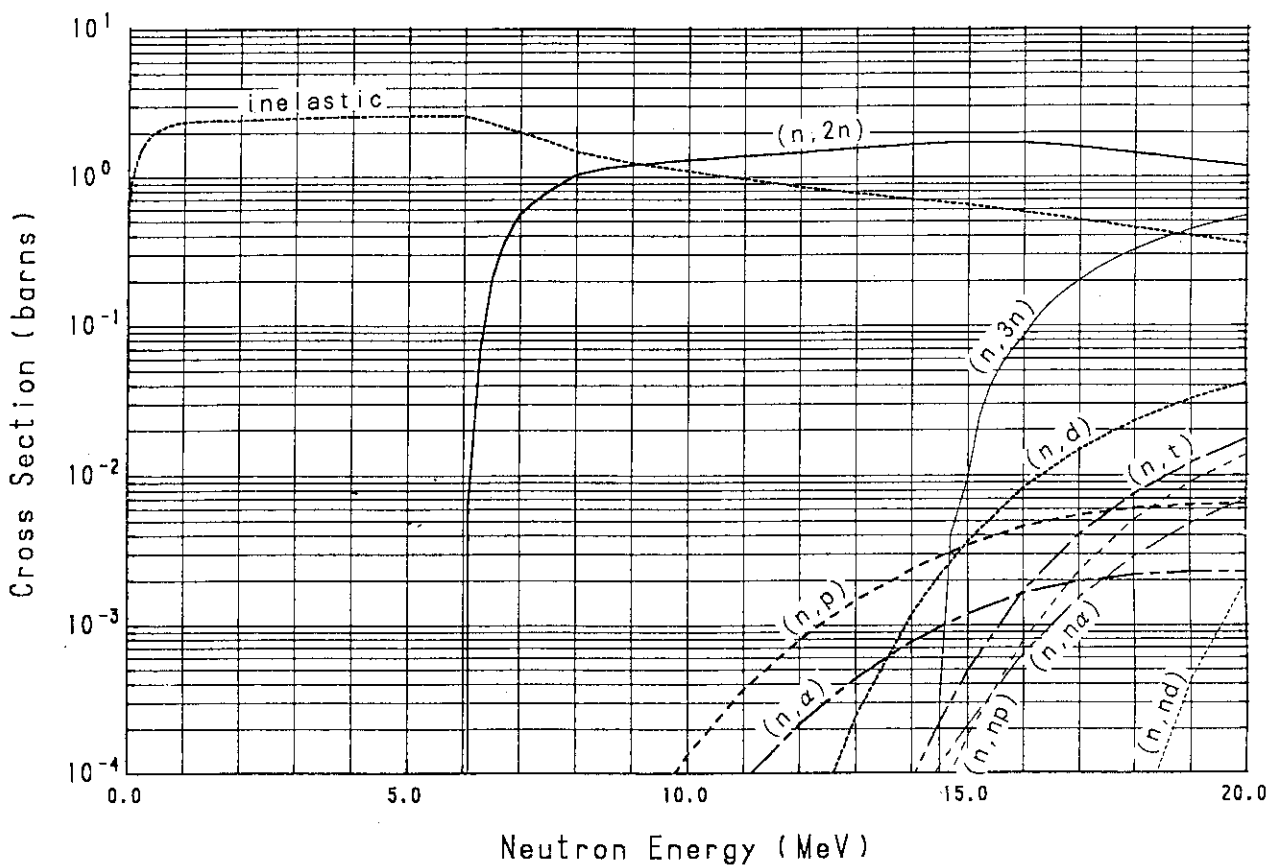
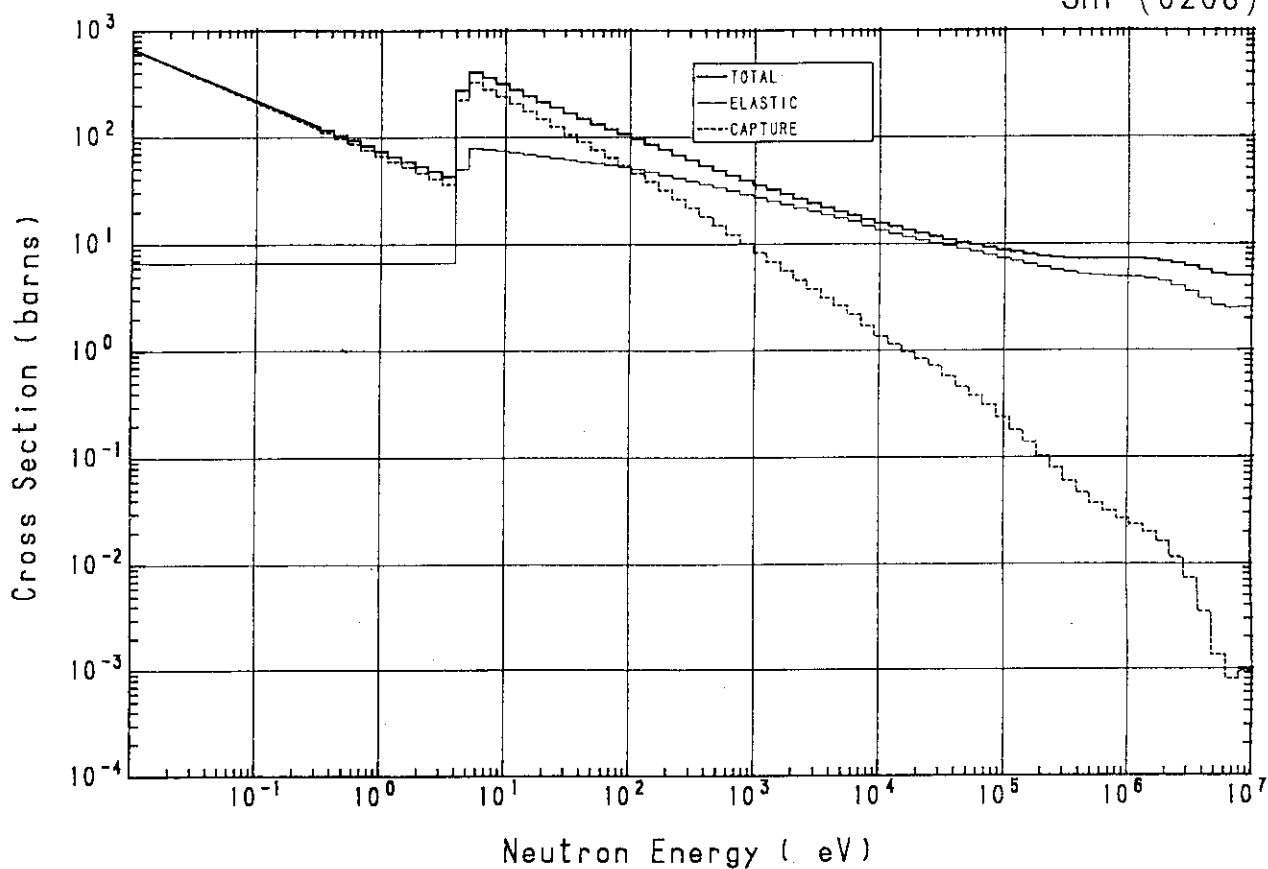


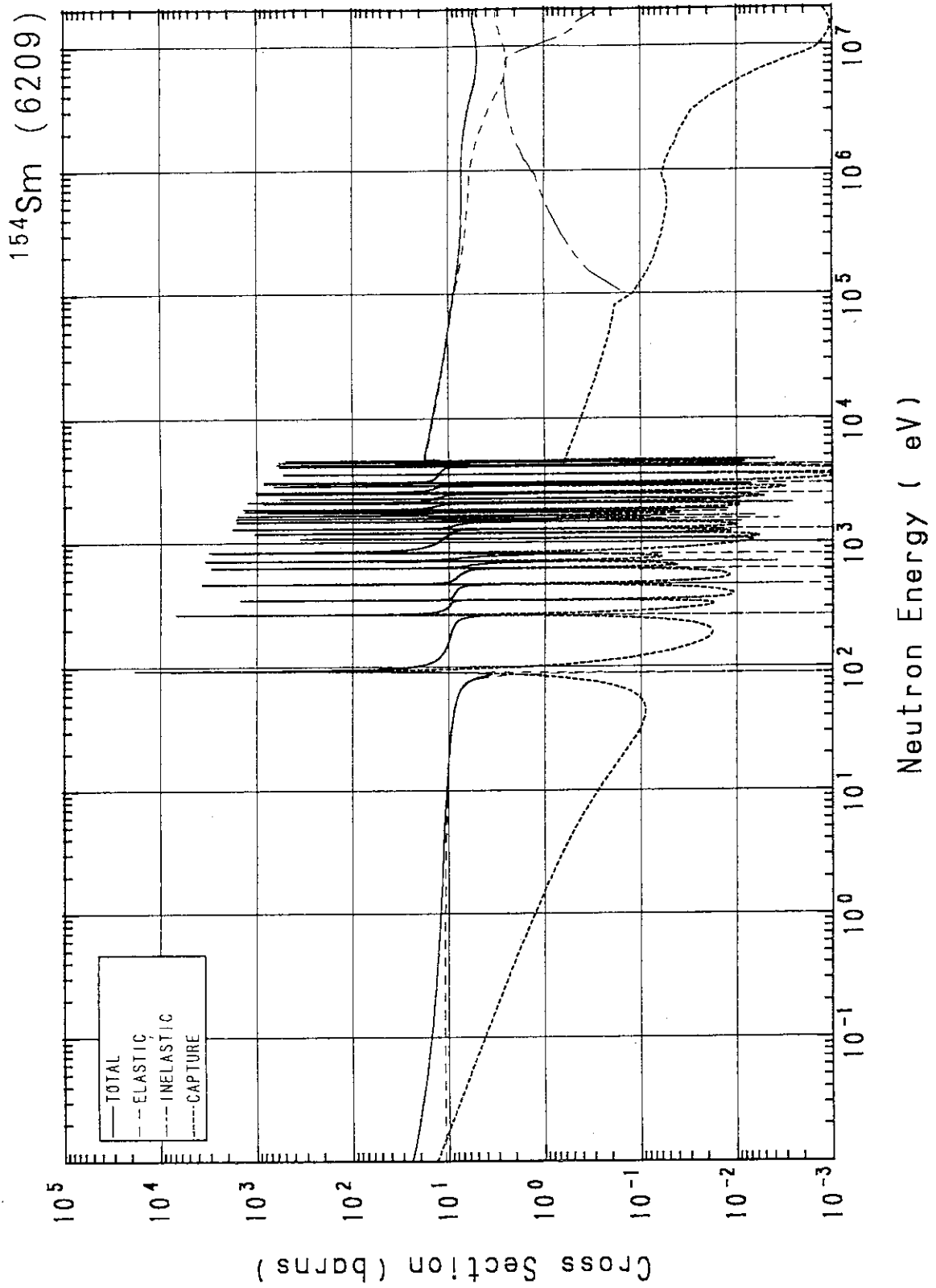
^{152}Sm (6207)



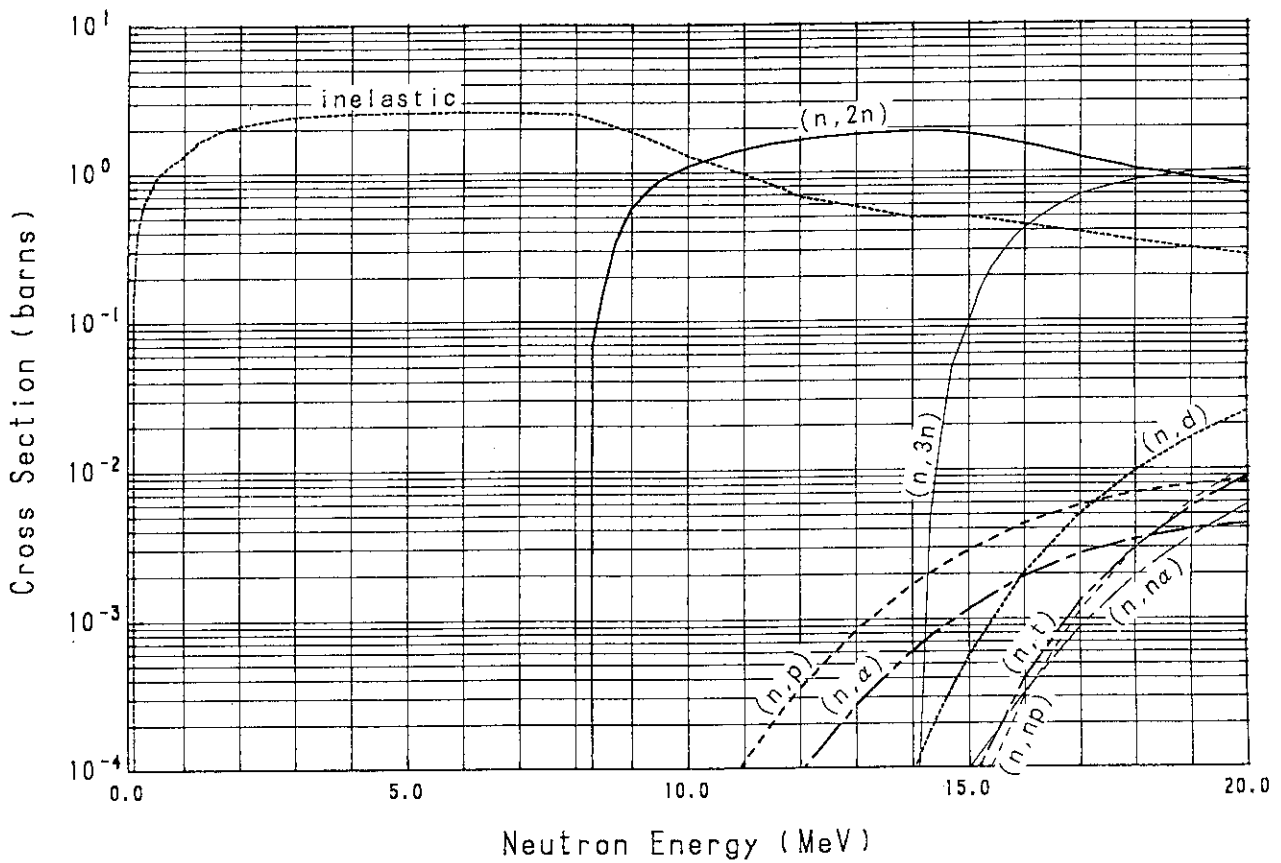
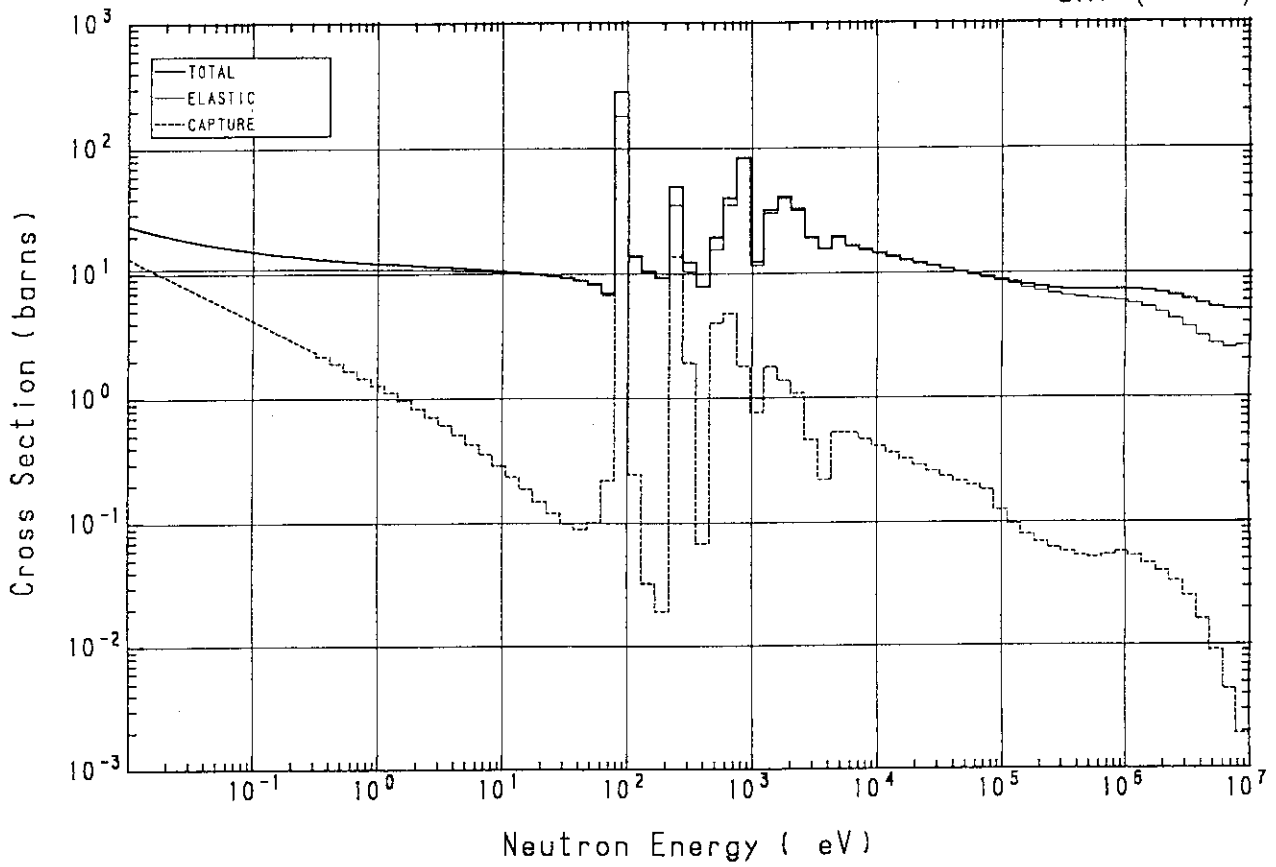


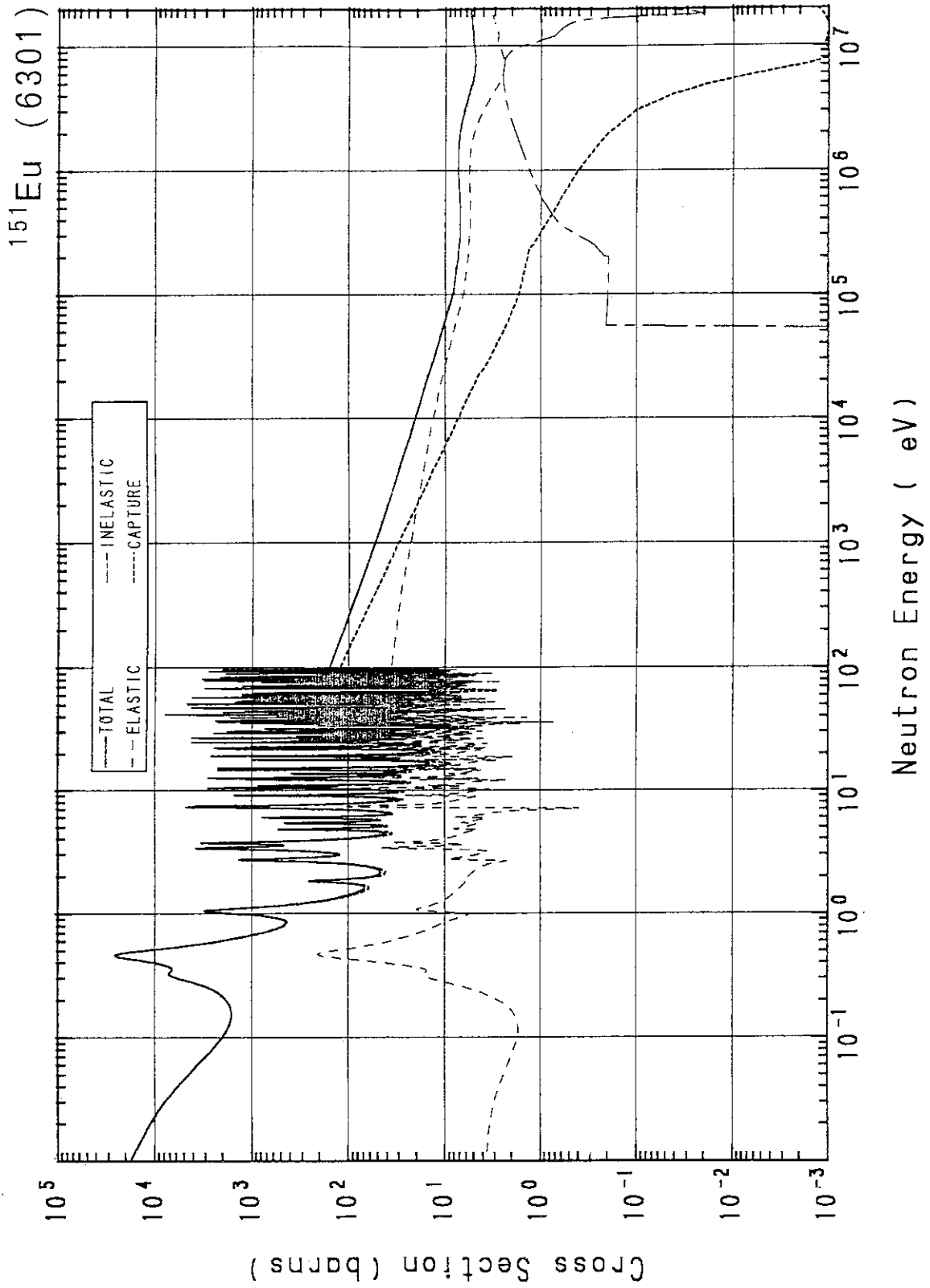
^{153}Sm (6208)



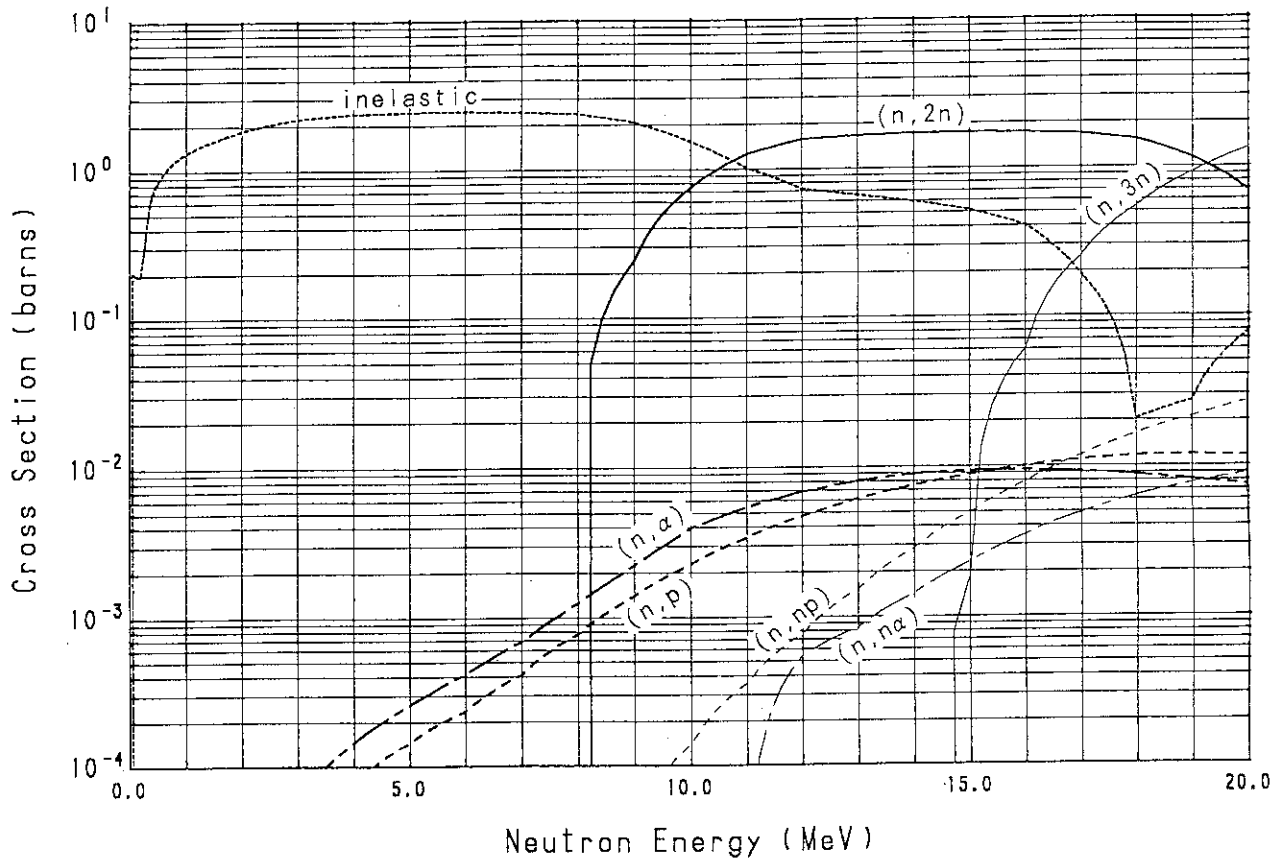
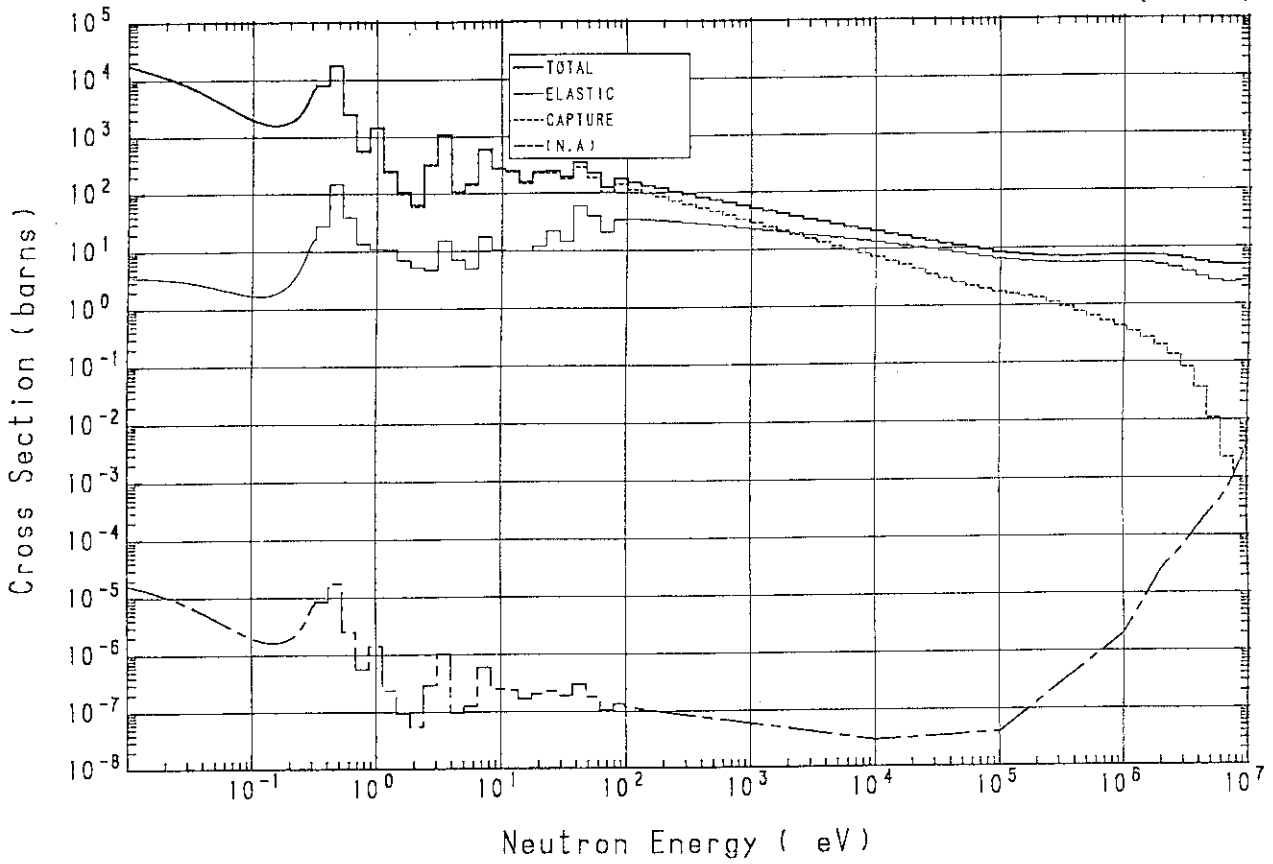


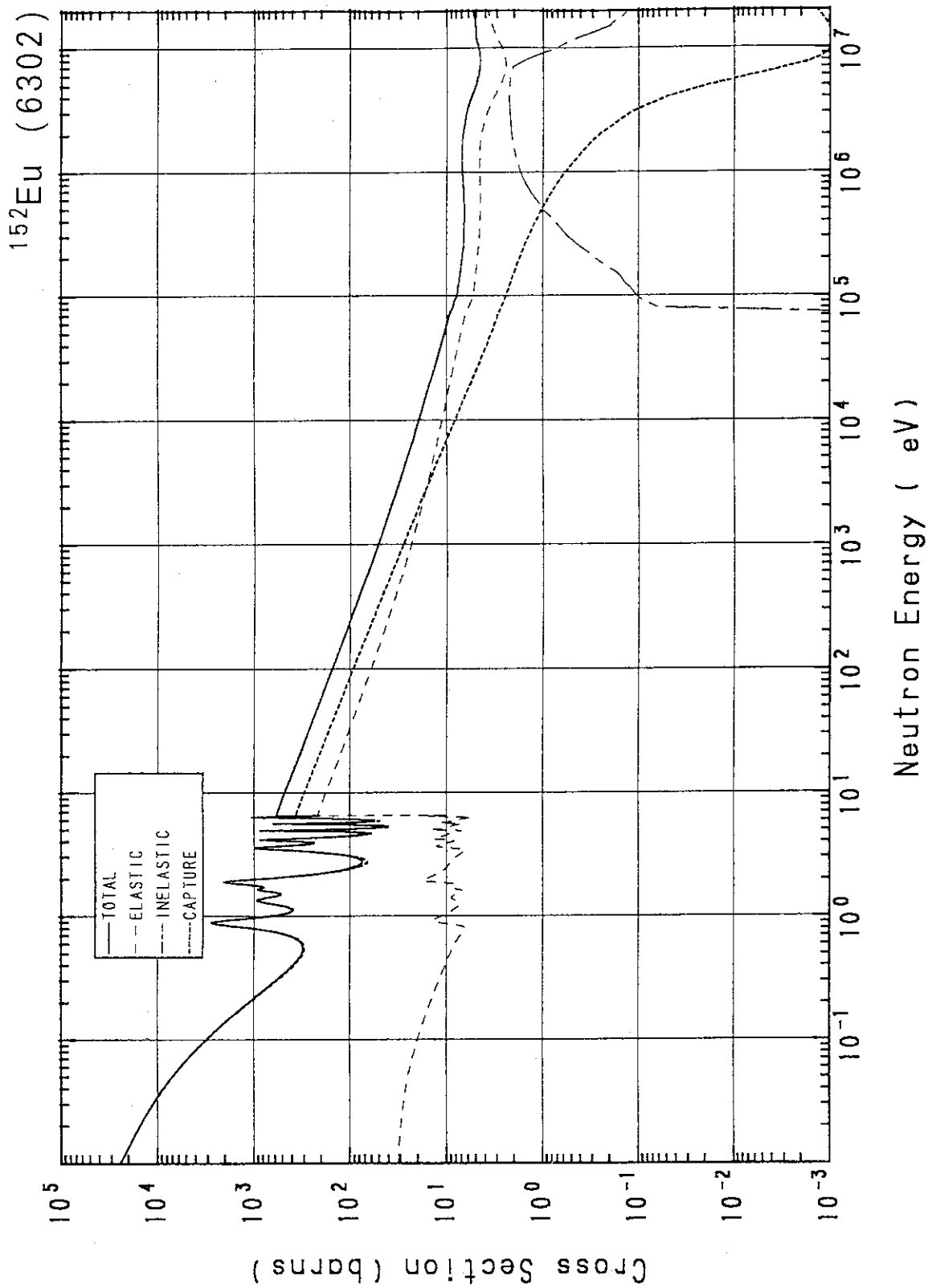
^{154}Sm (6209)



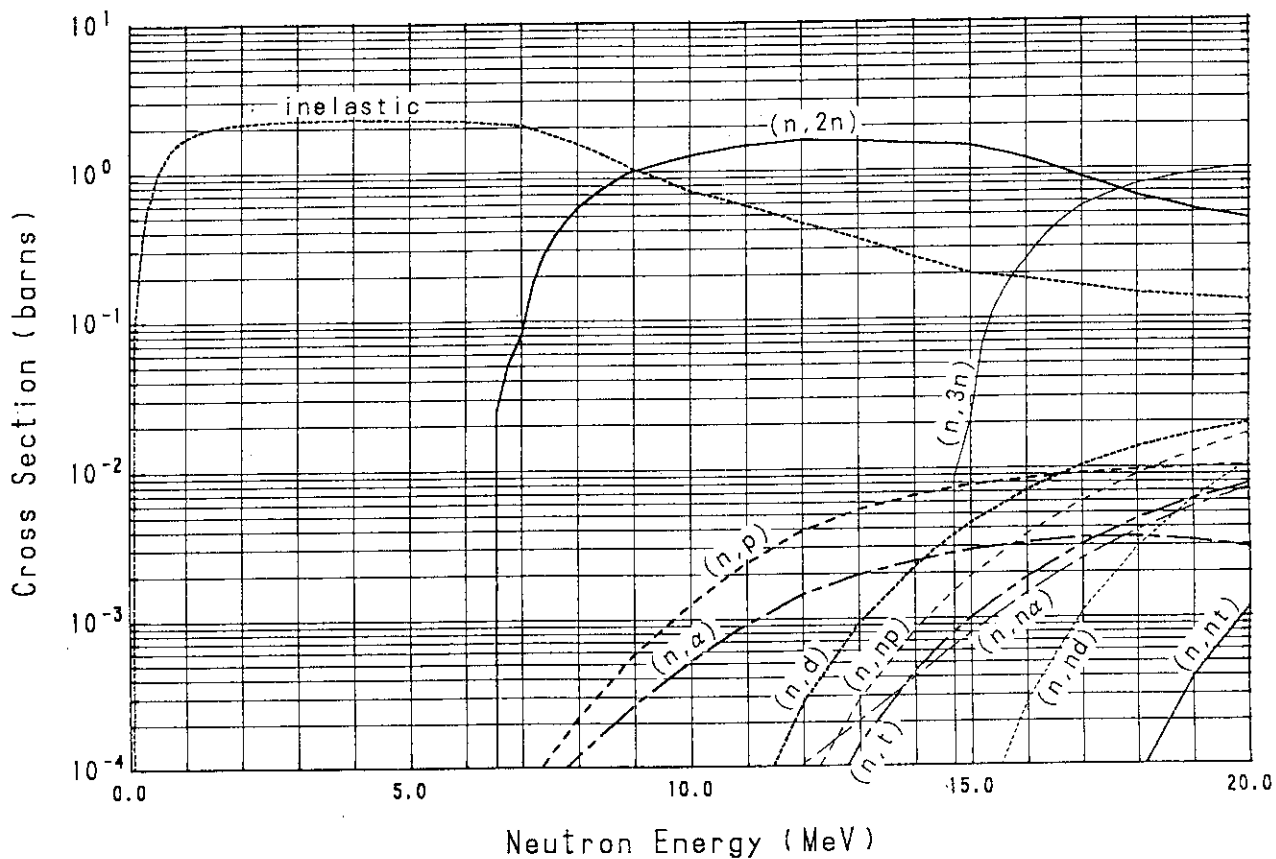
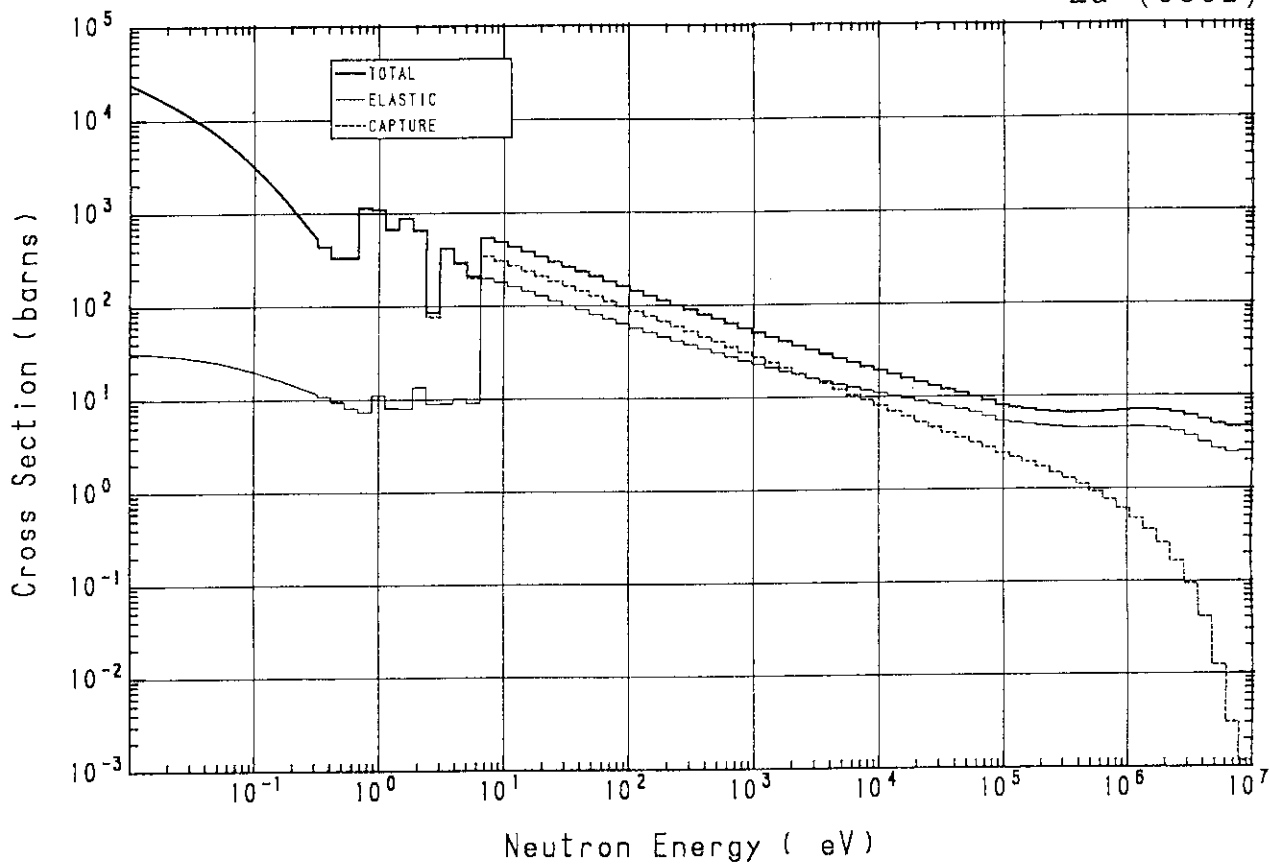


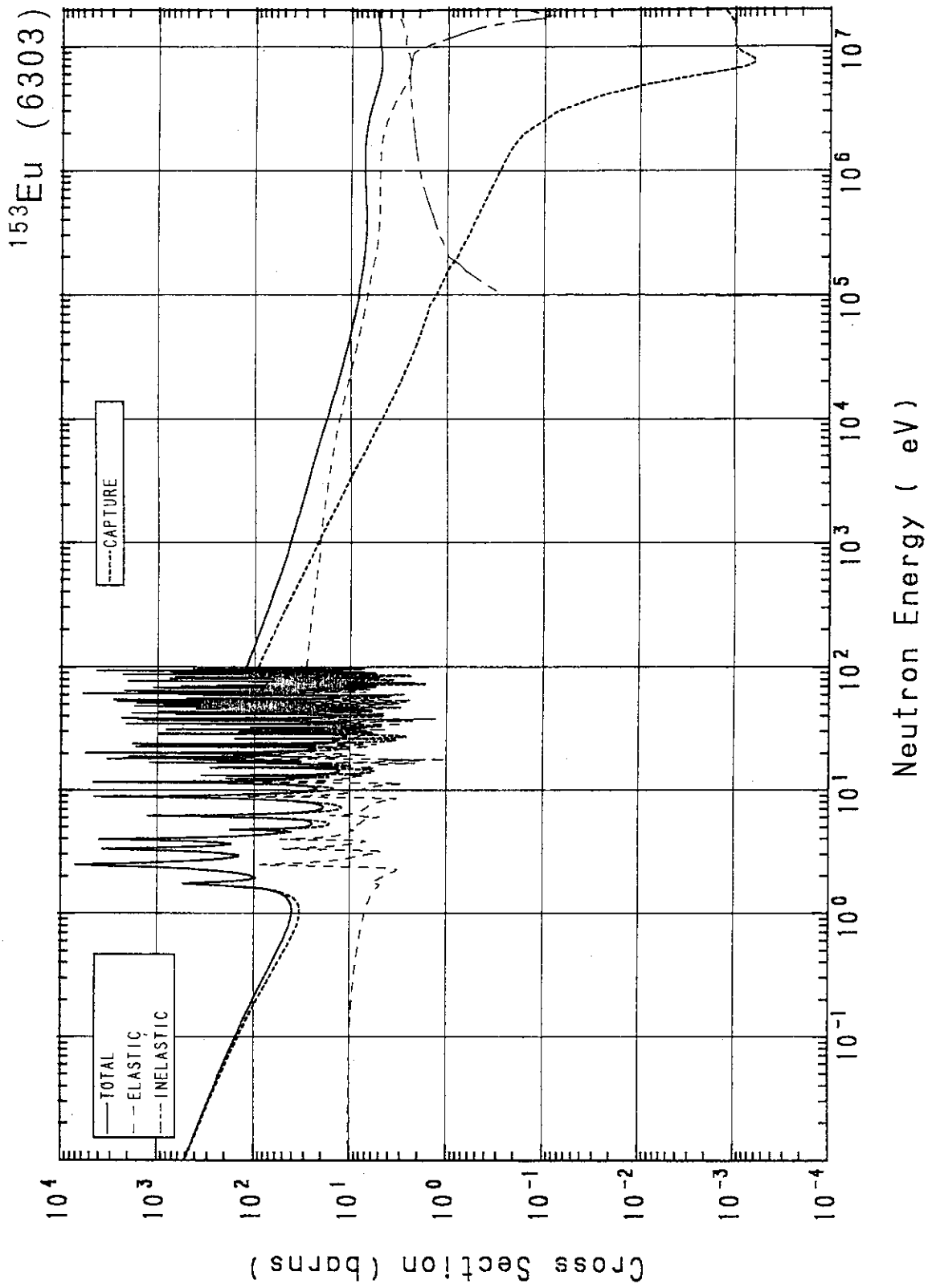
^{151}Eu (6301)



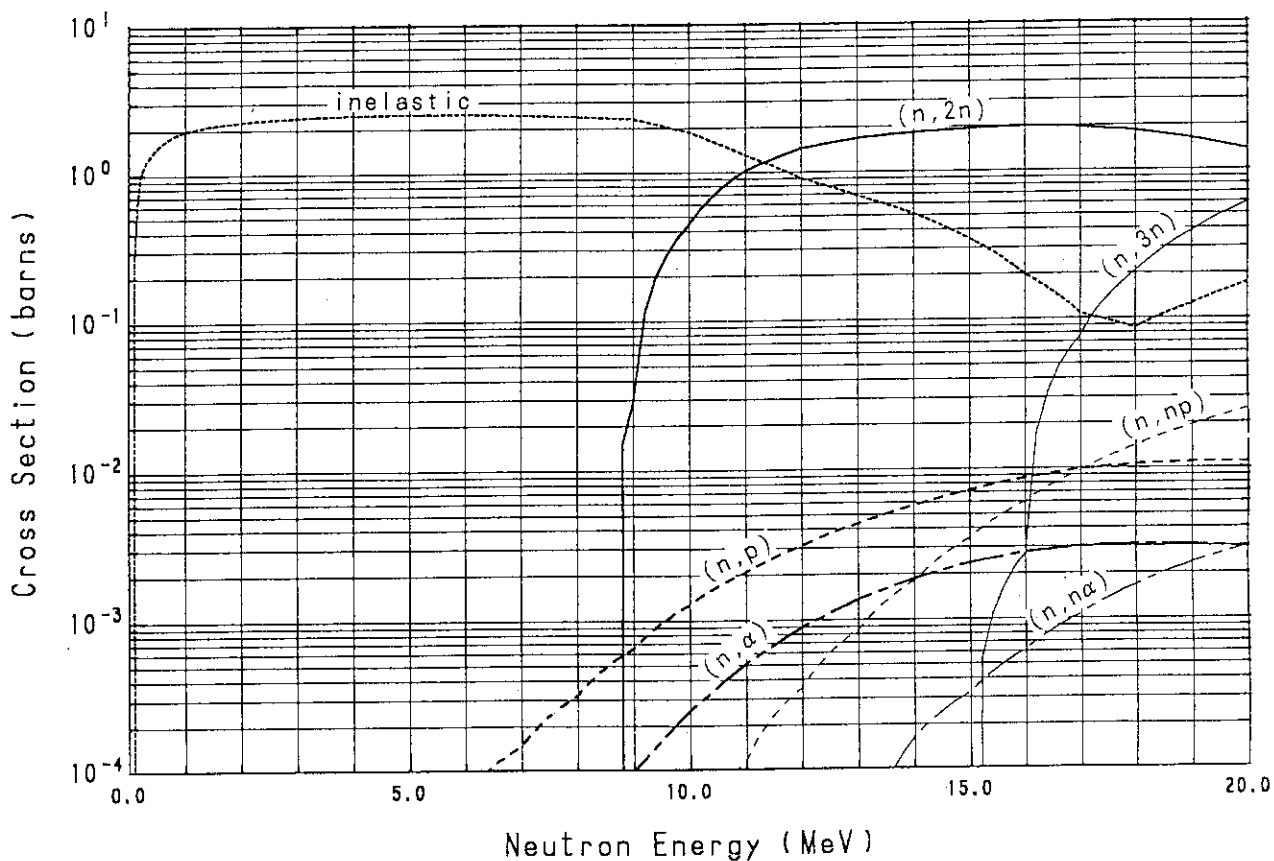
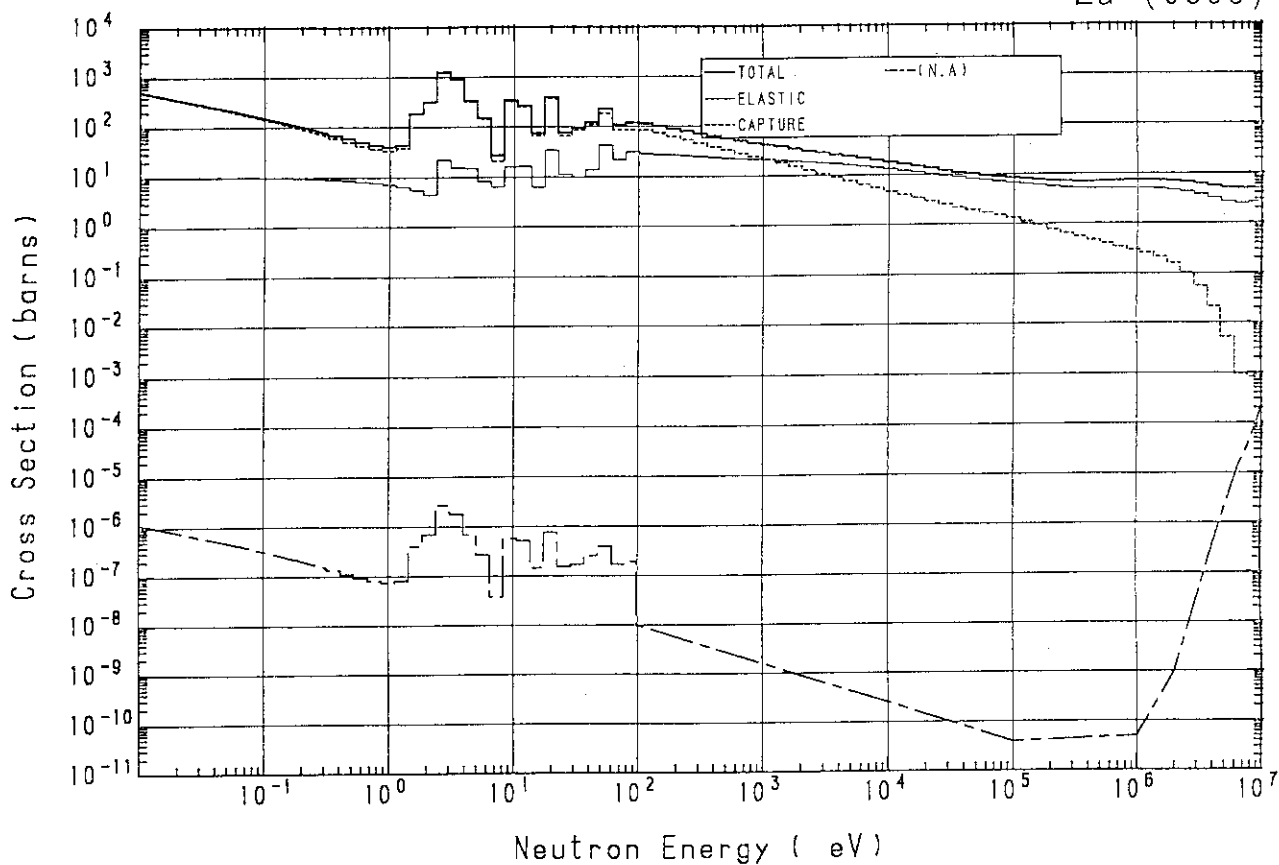


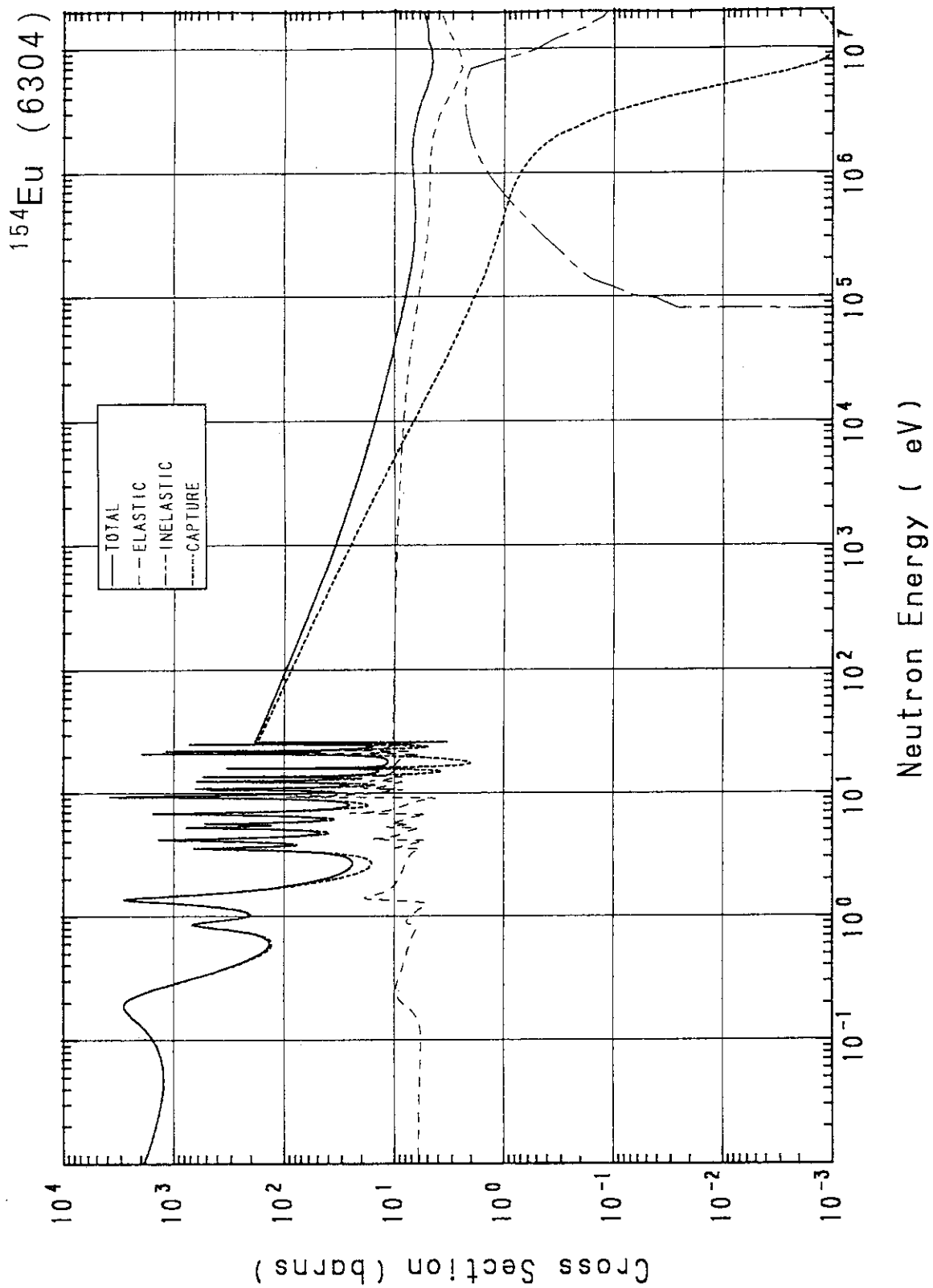
^{152}Eu (6302)



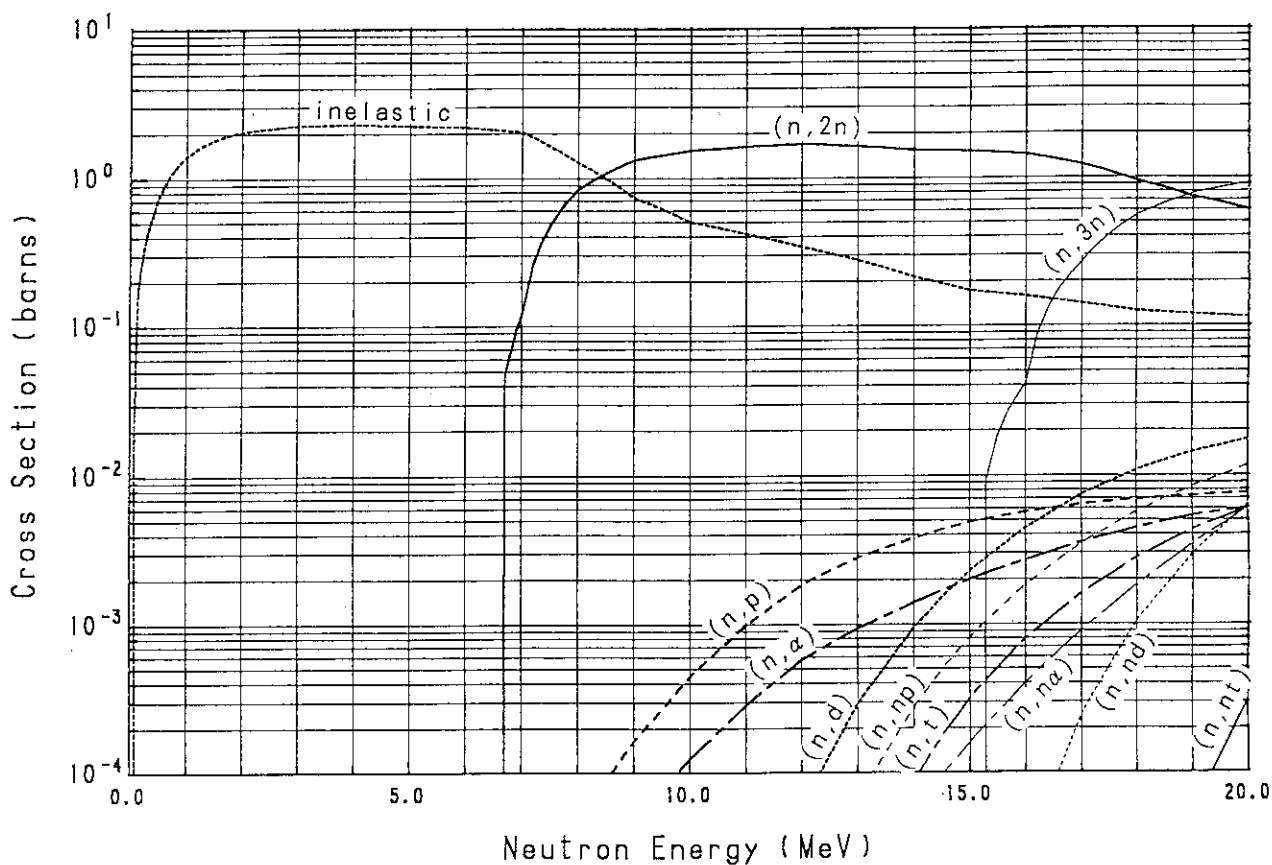
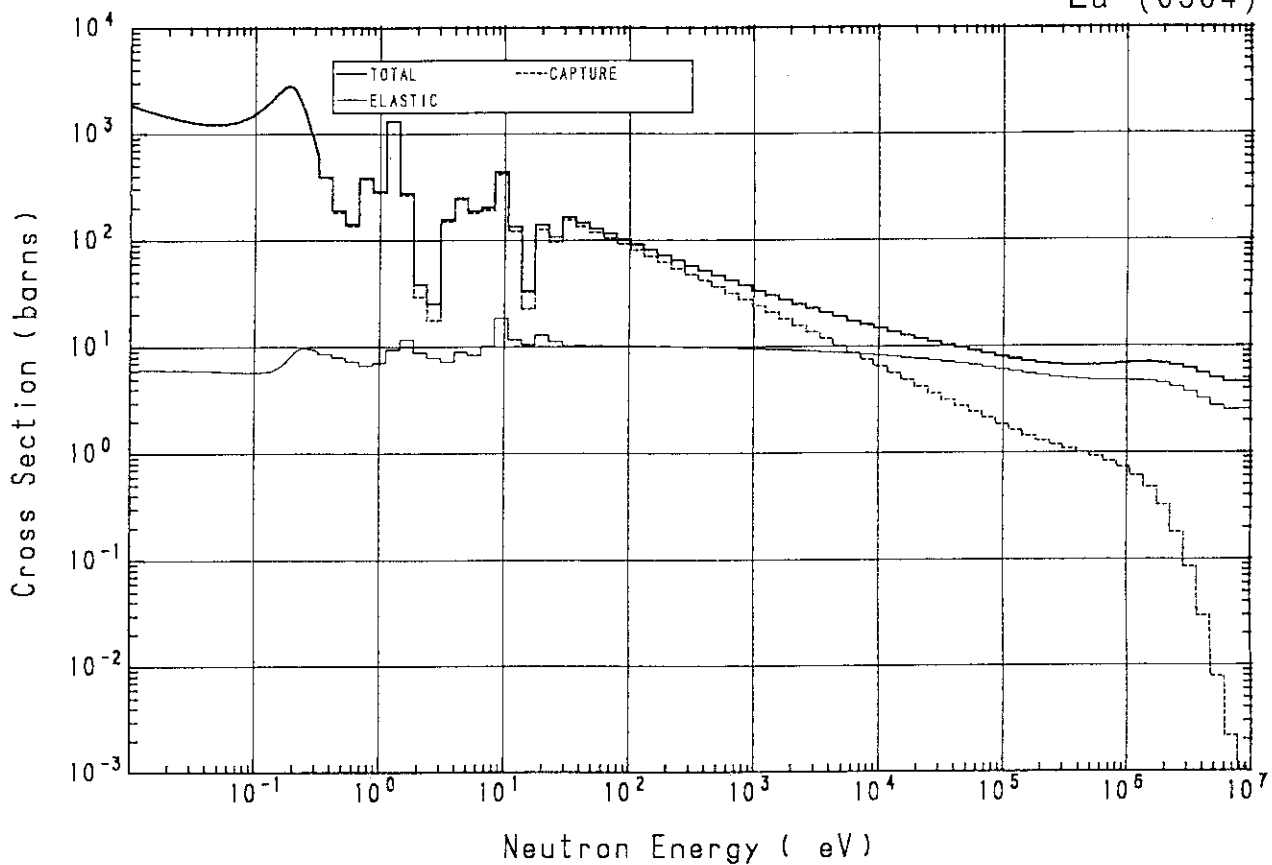


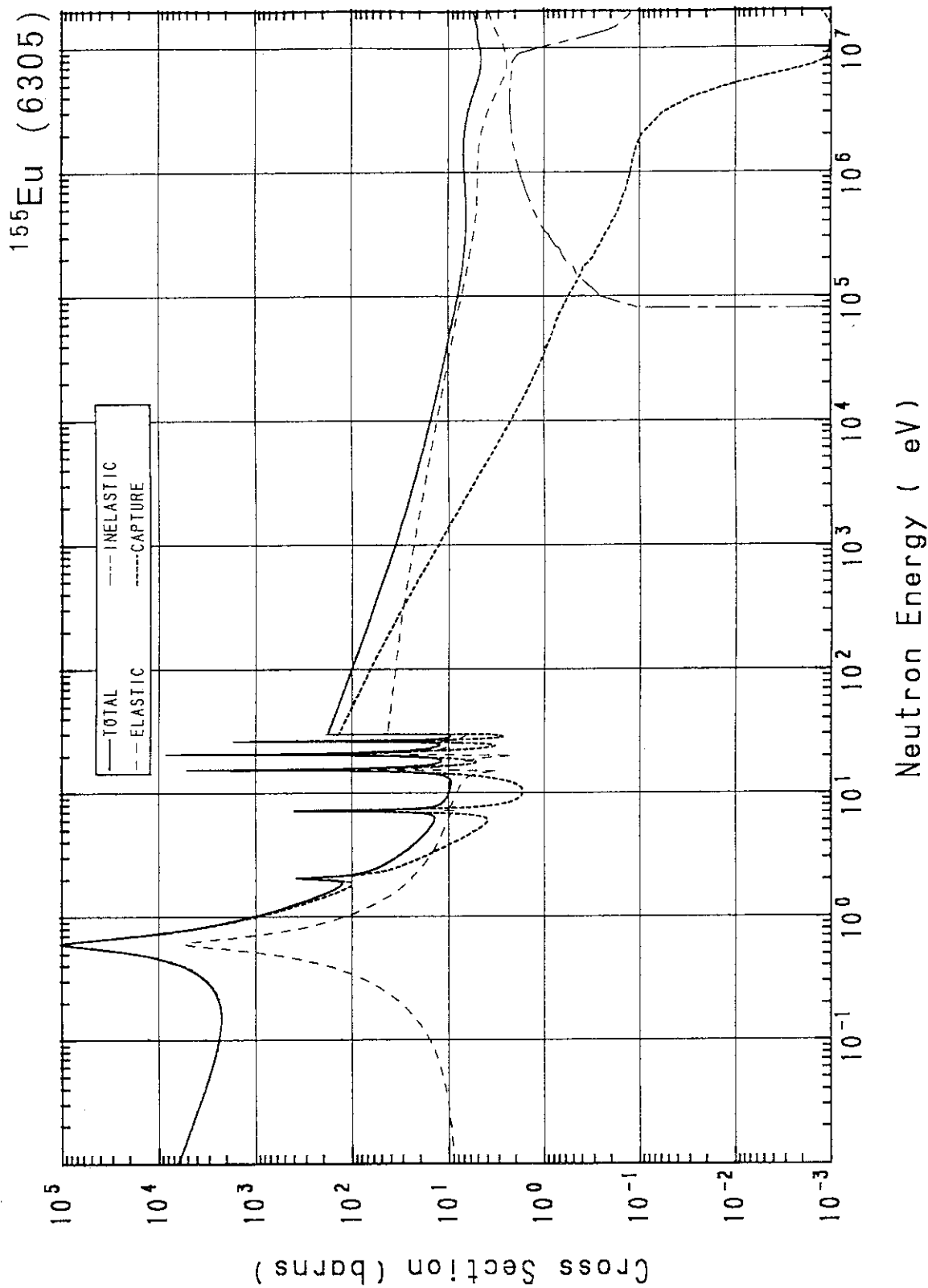
^{153}Eu (6303)



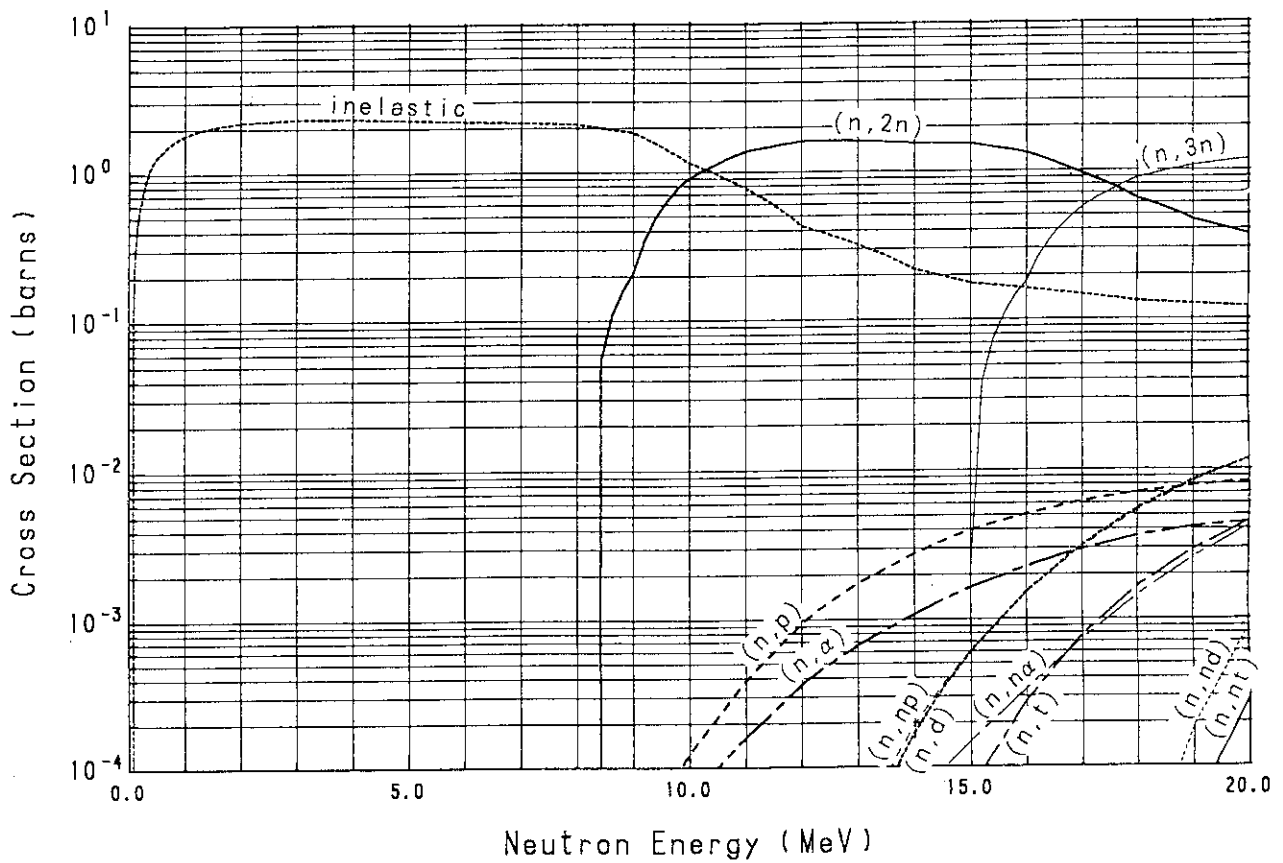
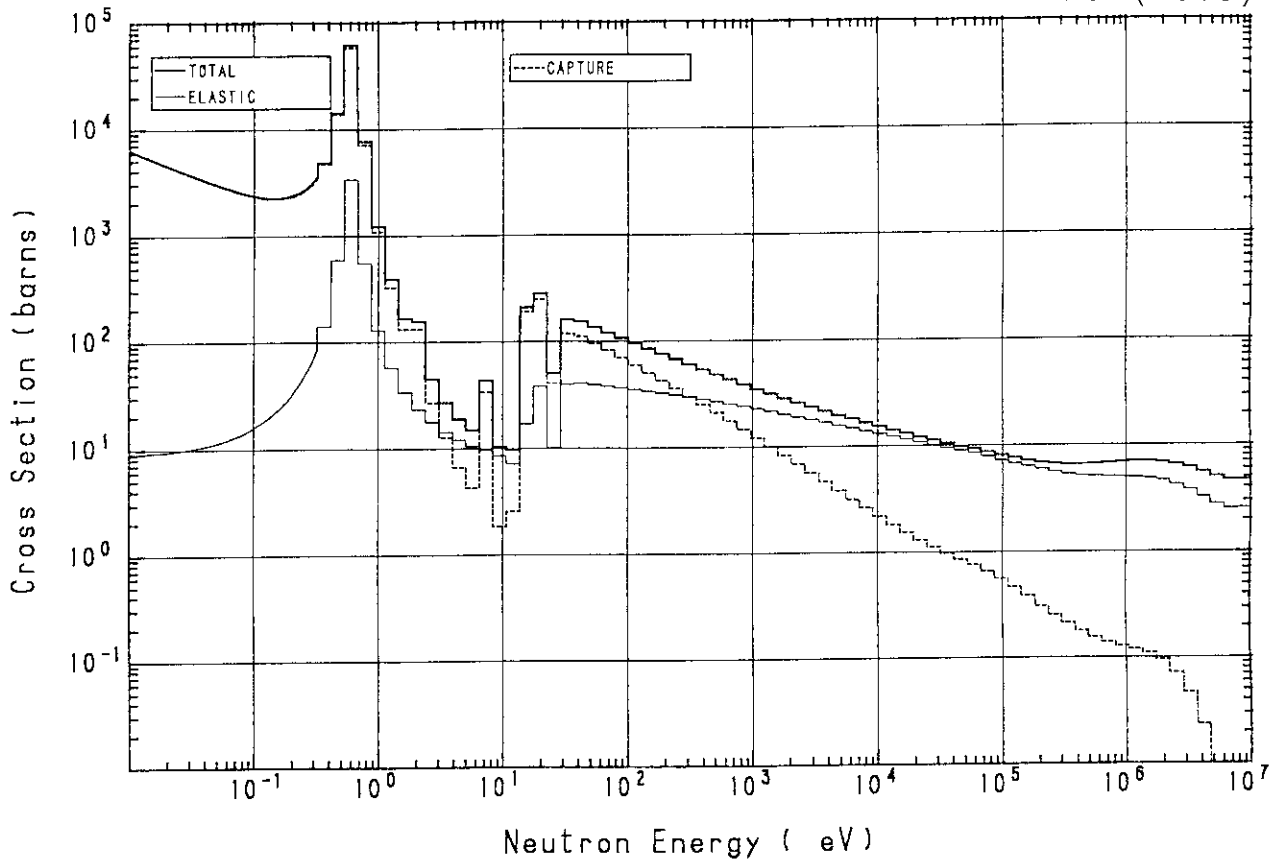


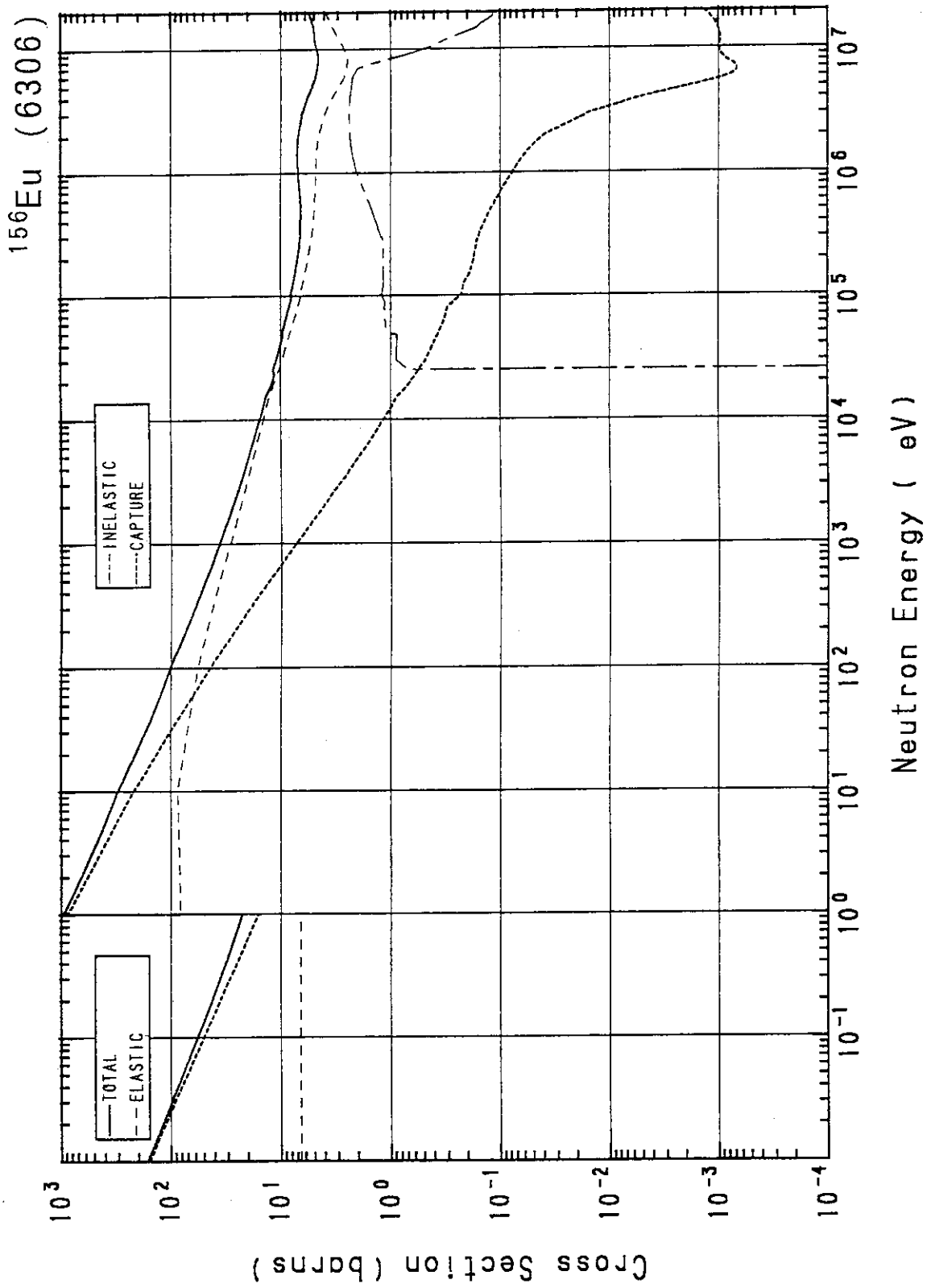
^{154}Eu (6304)



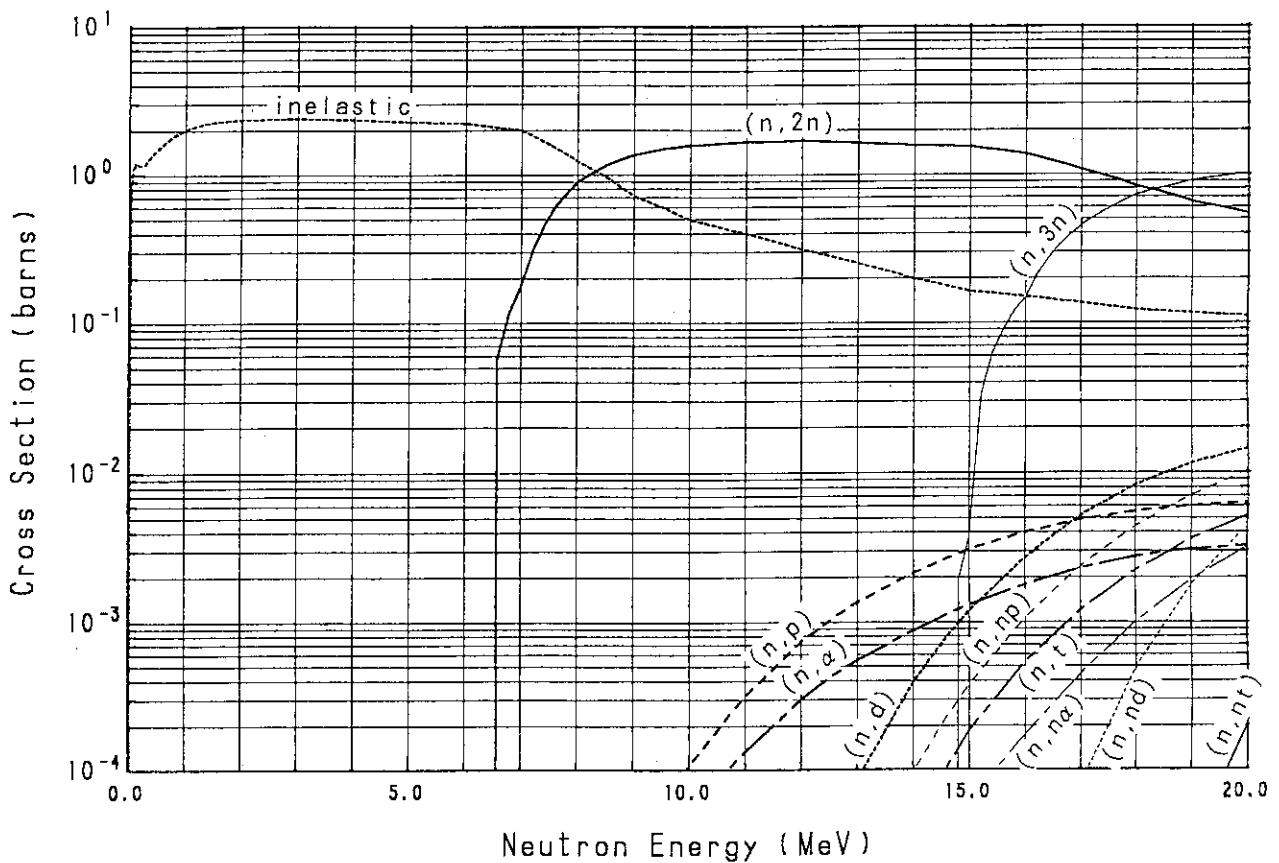
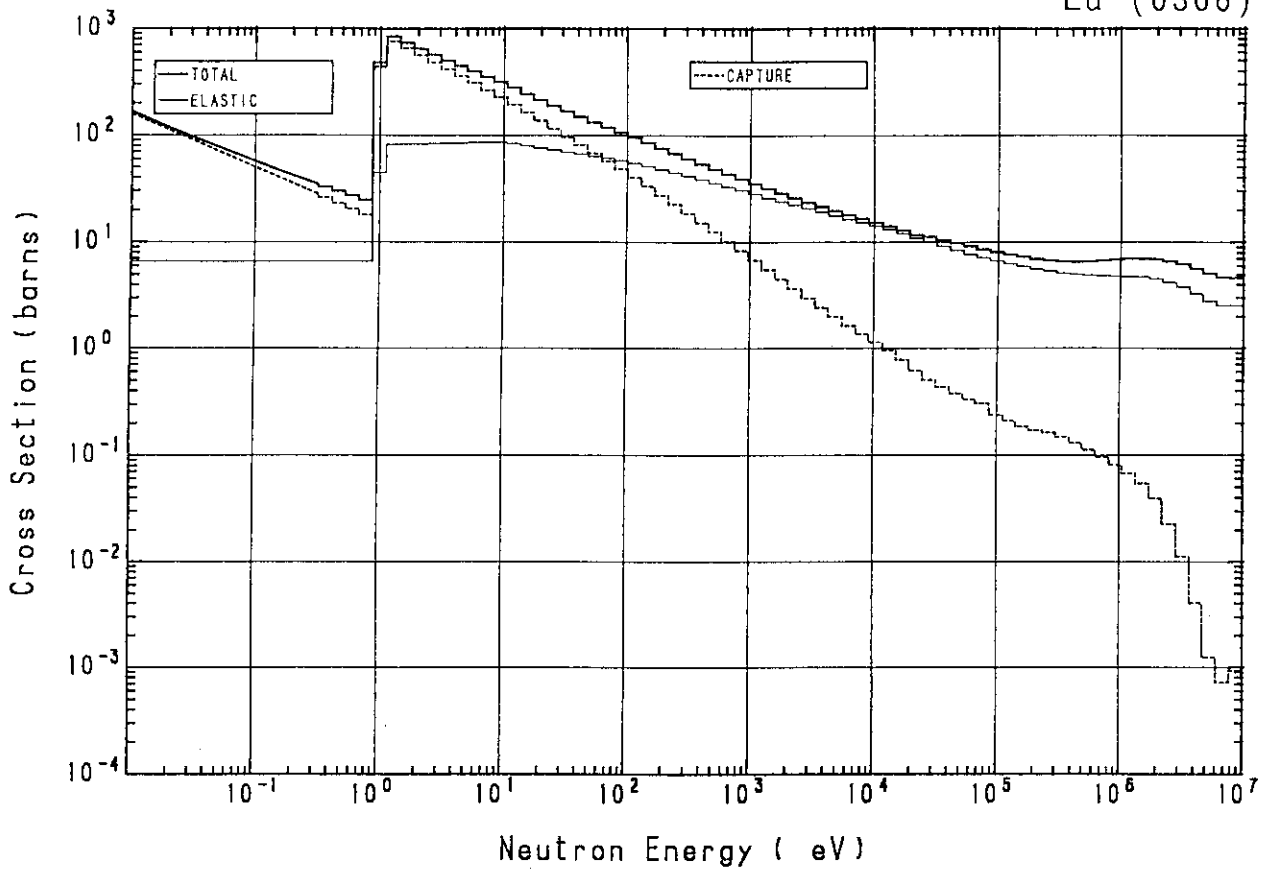


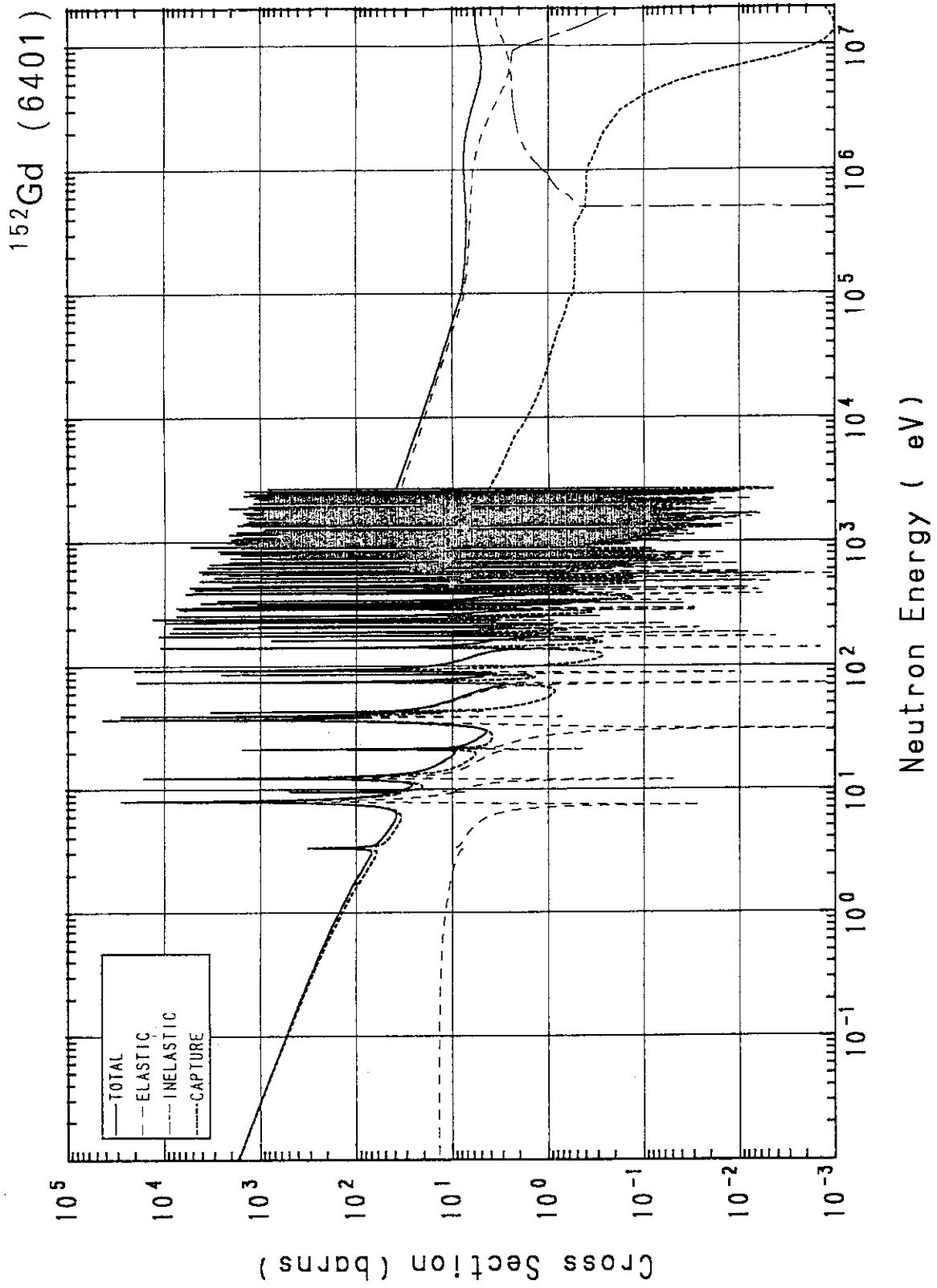
^{155}Eu (6305)



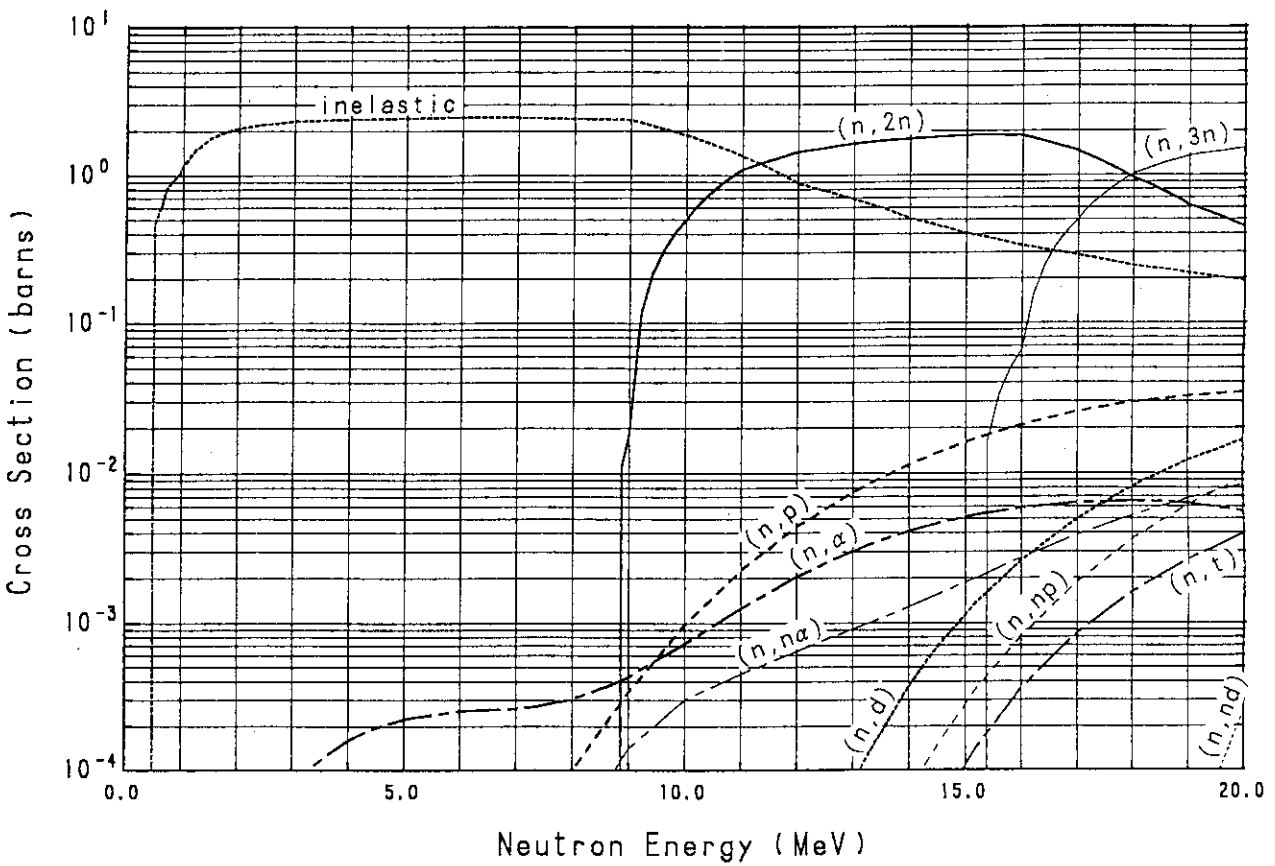
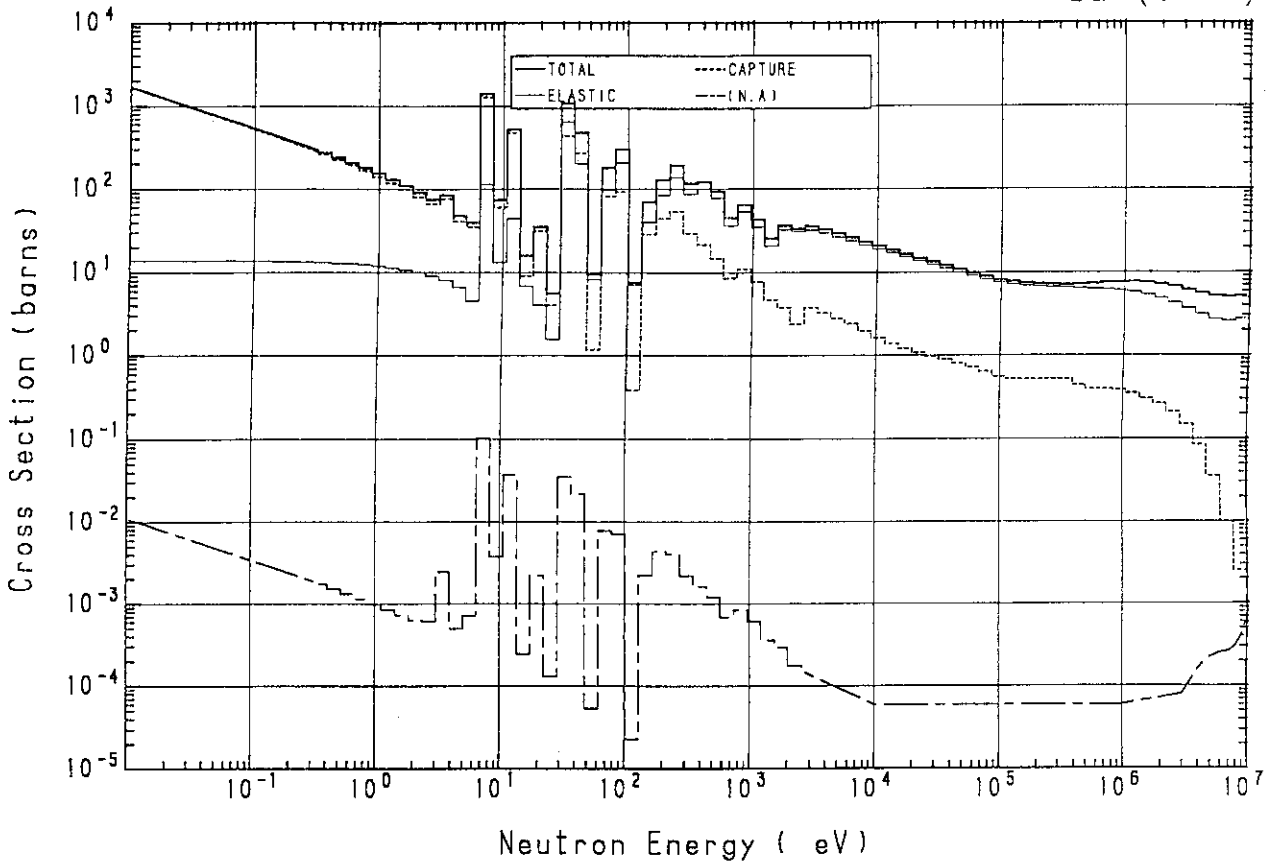


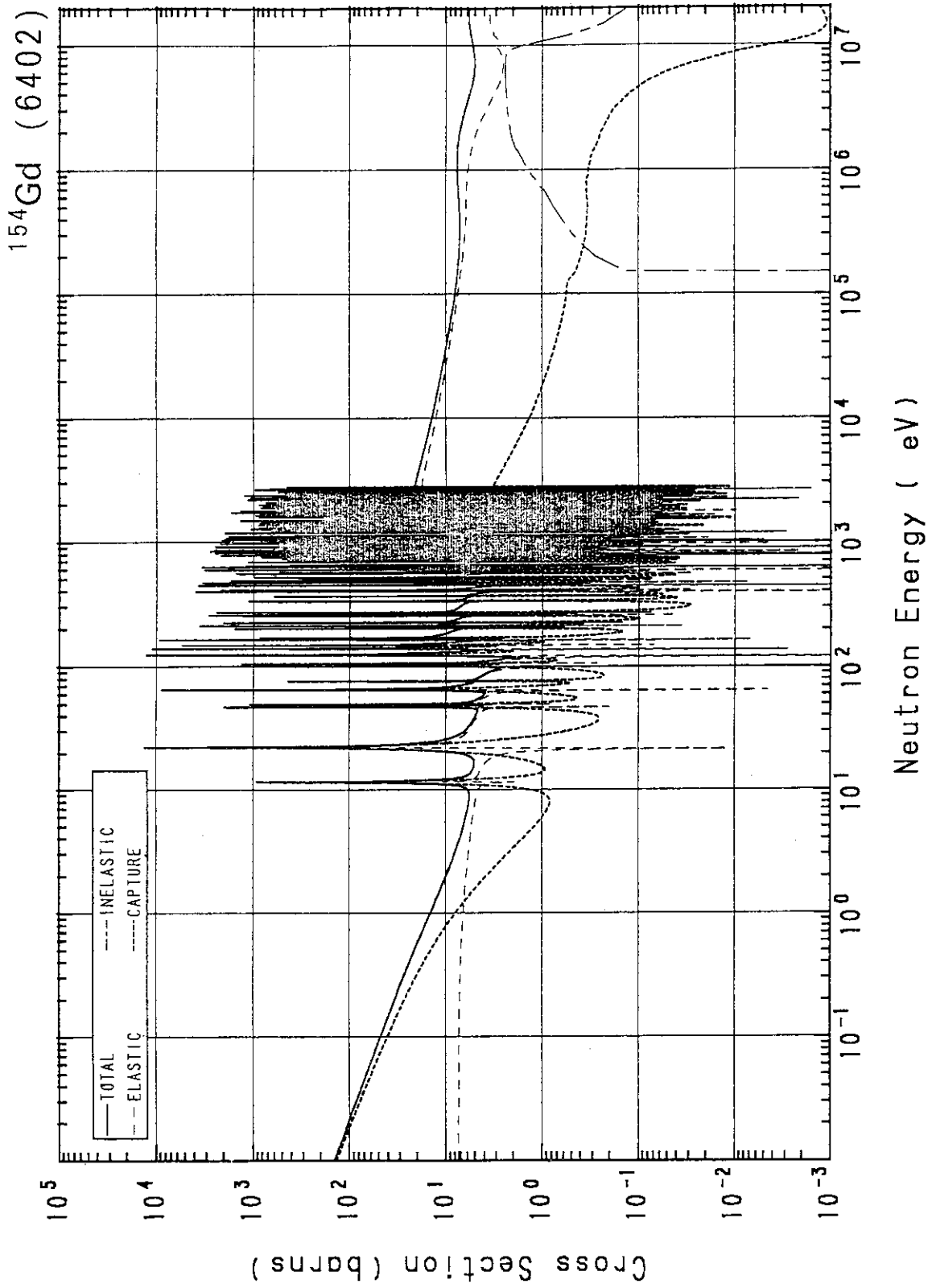
^{156}Eu (6306)



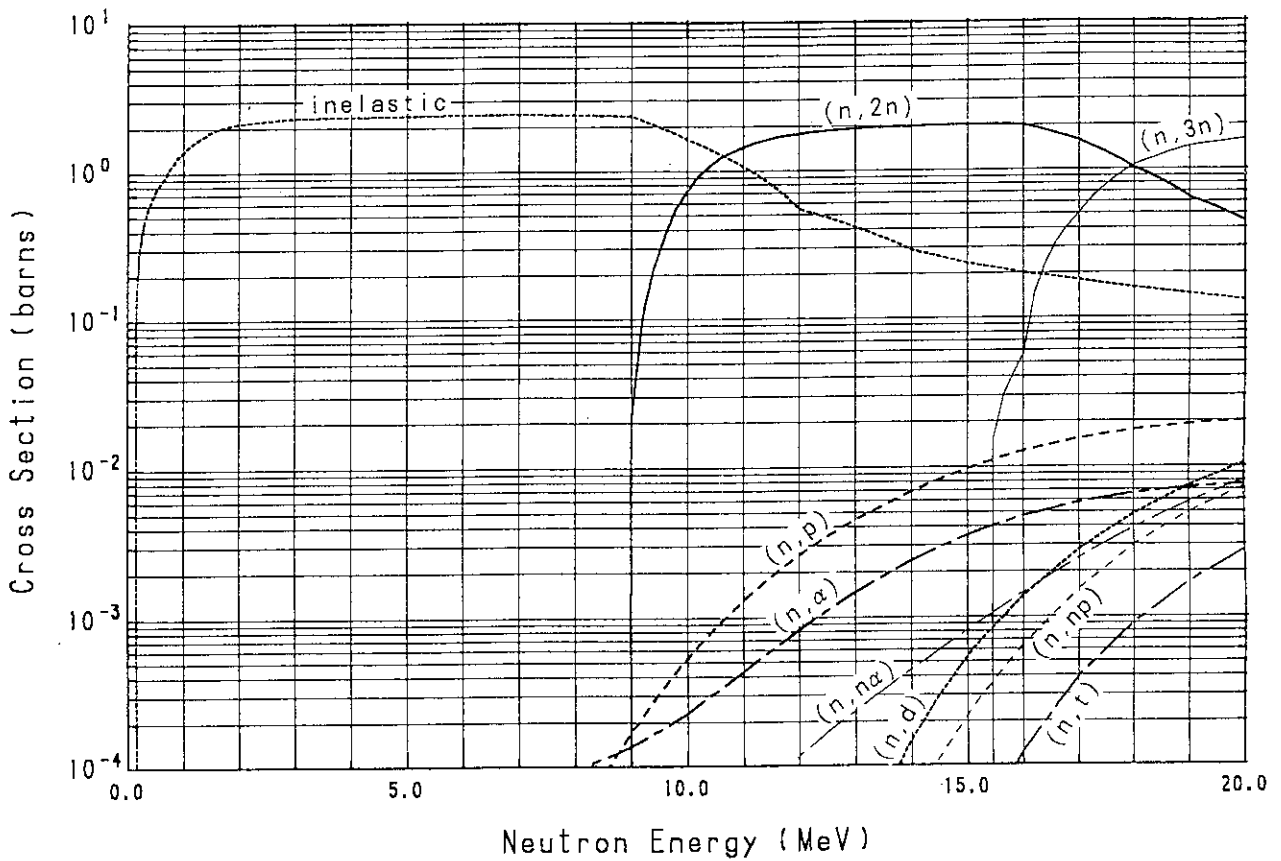
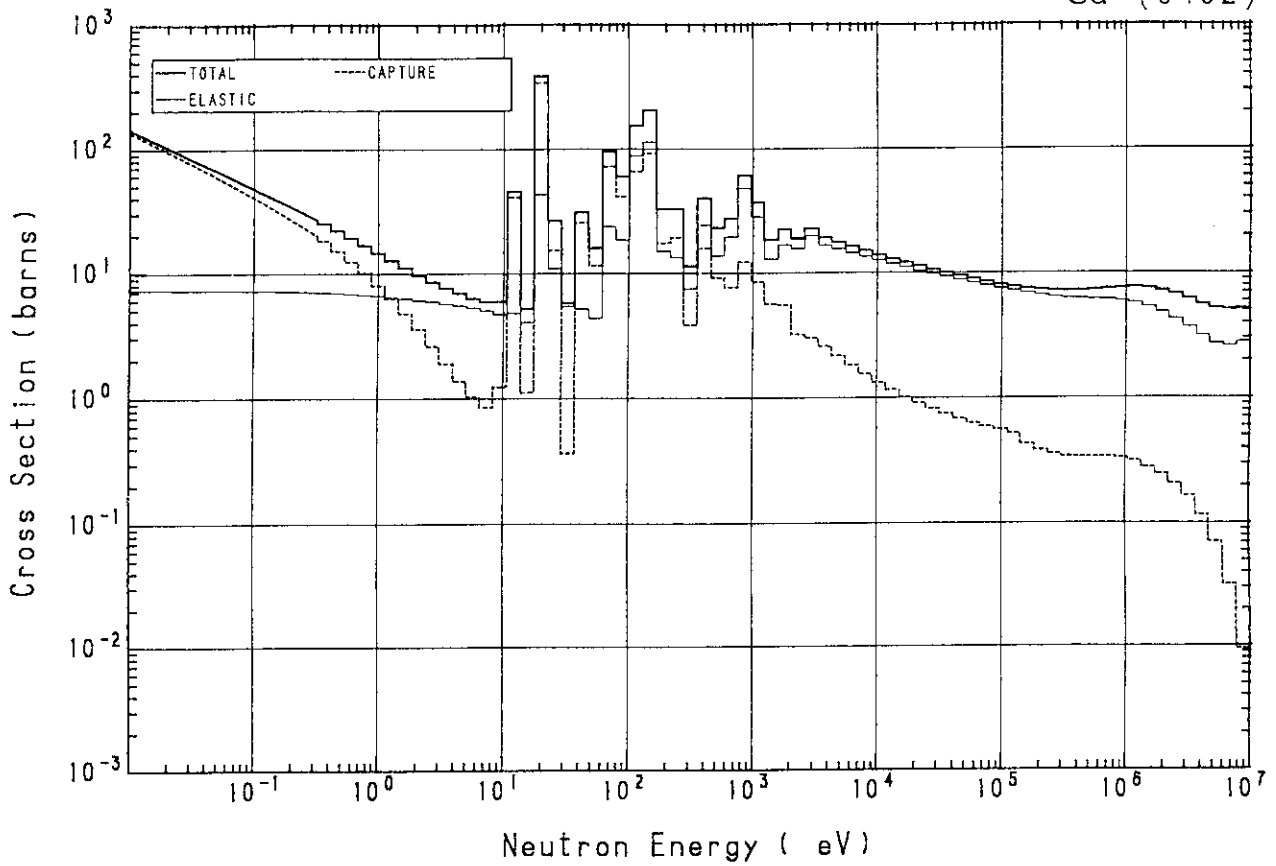


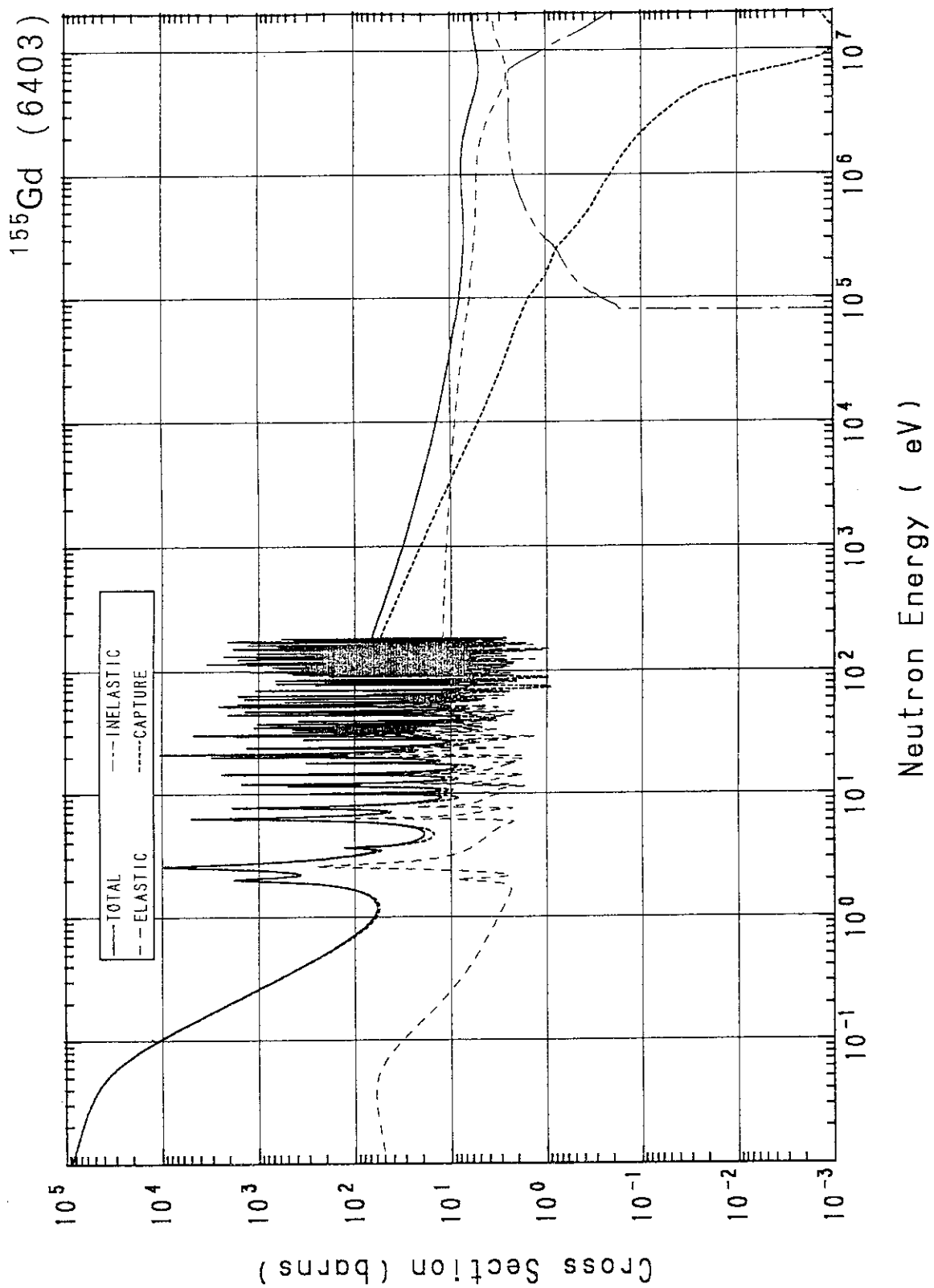
^{152}Gd (6401)



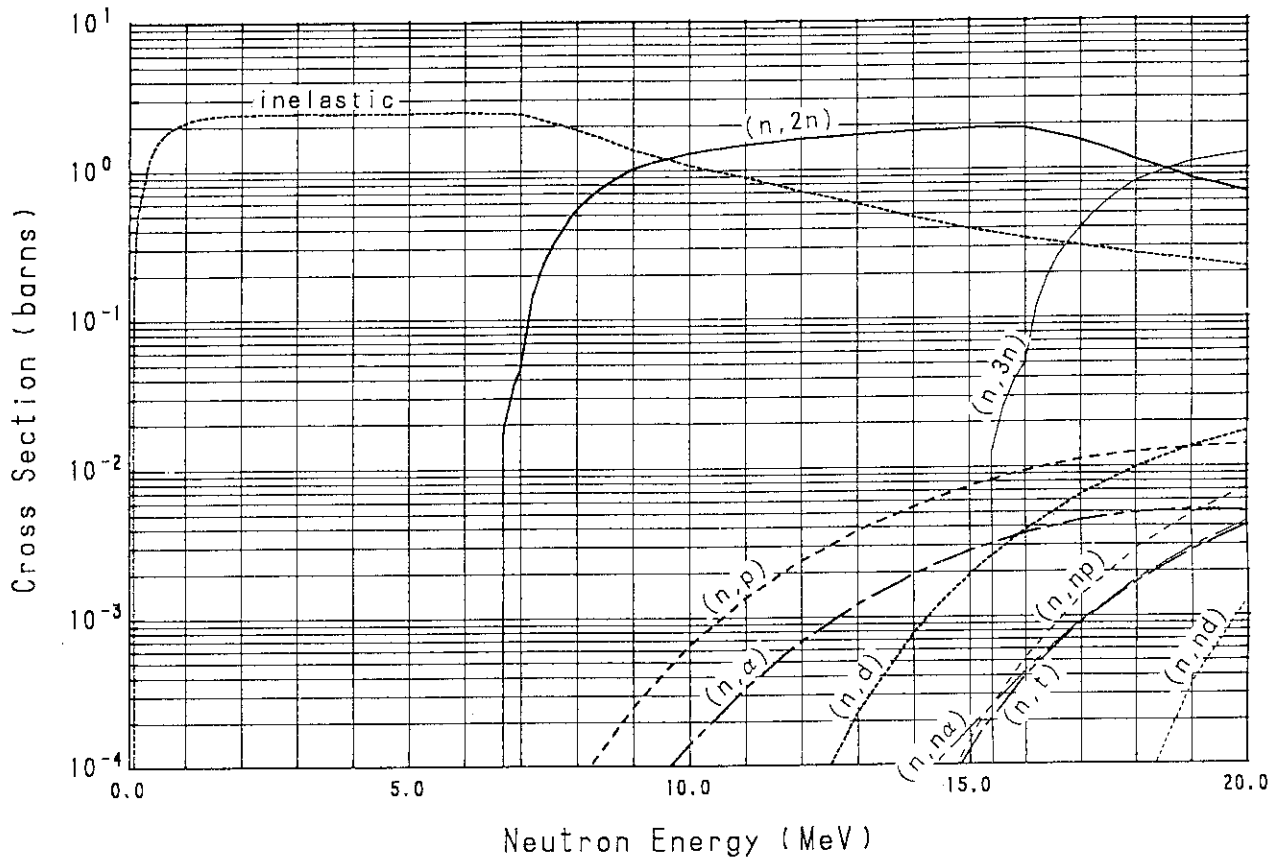
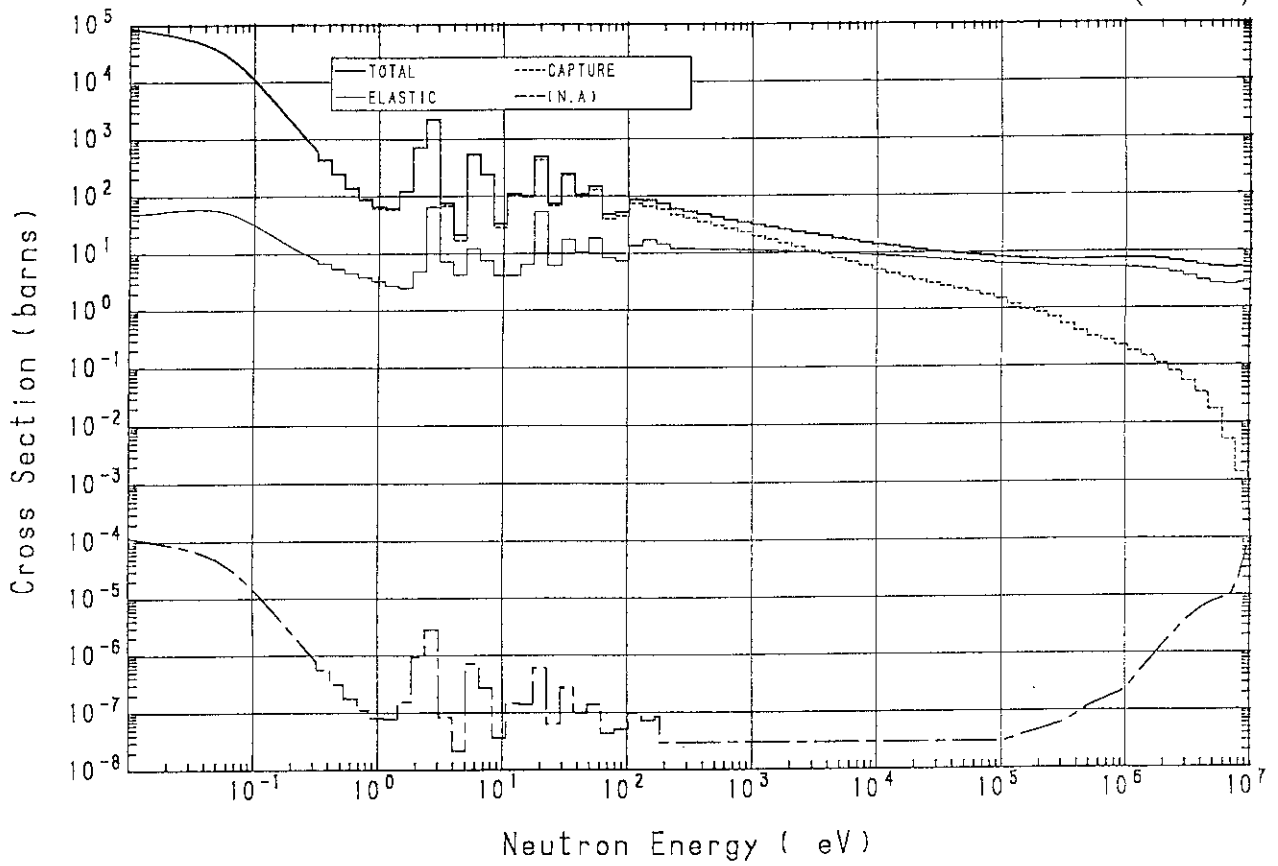


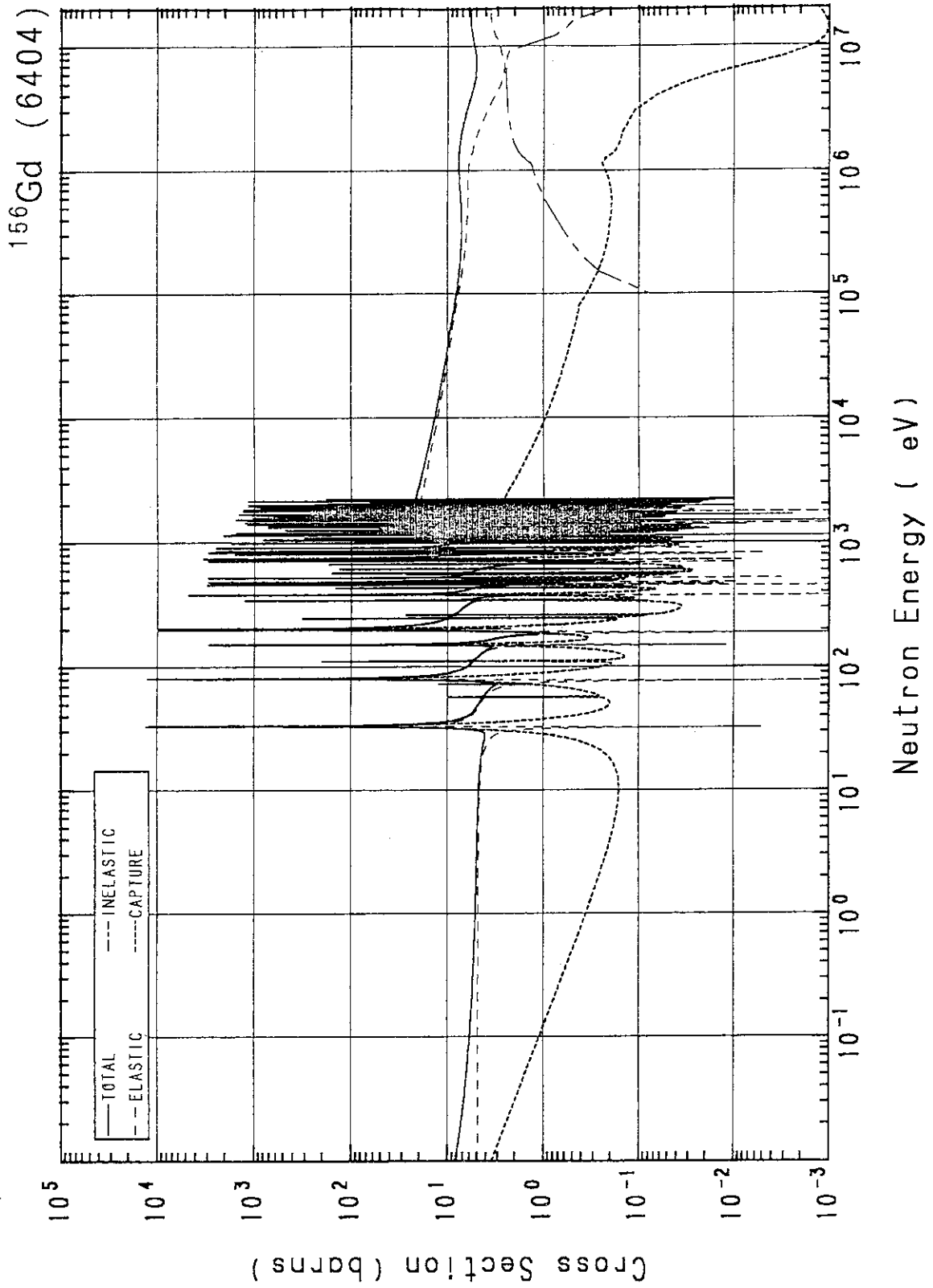
^{154}Gd (6402)



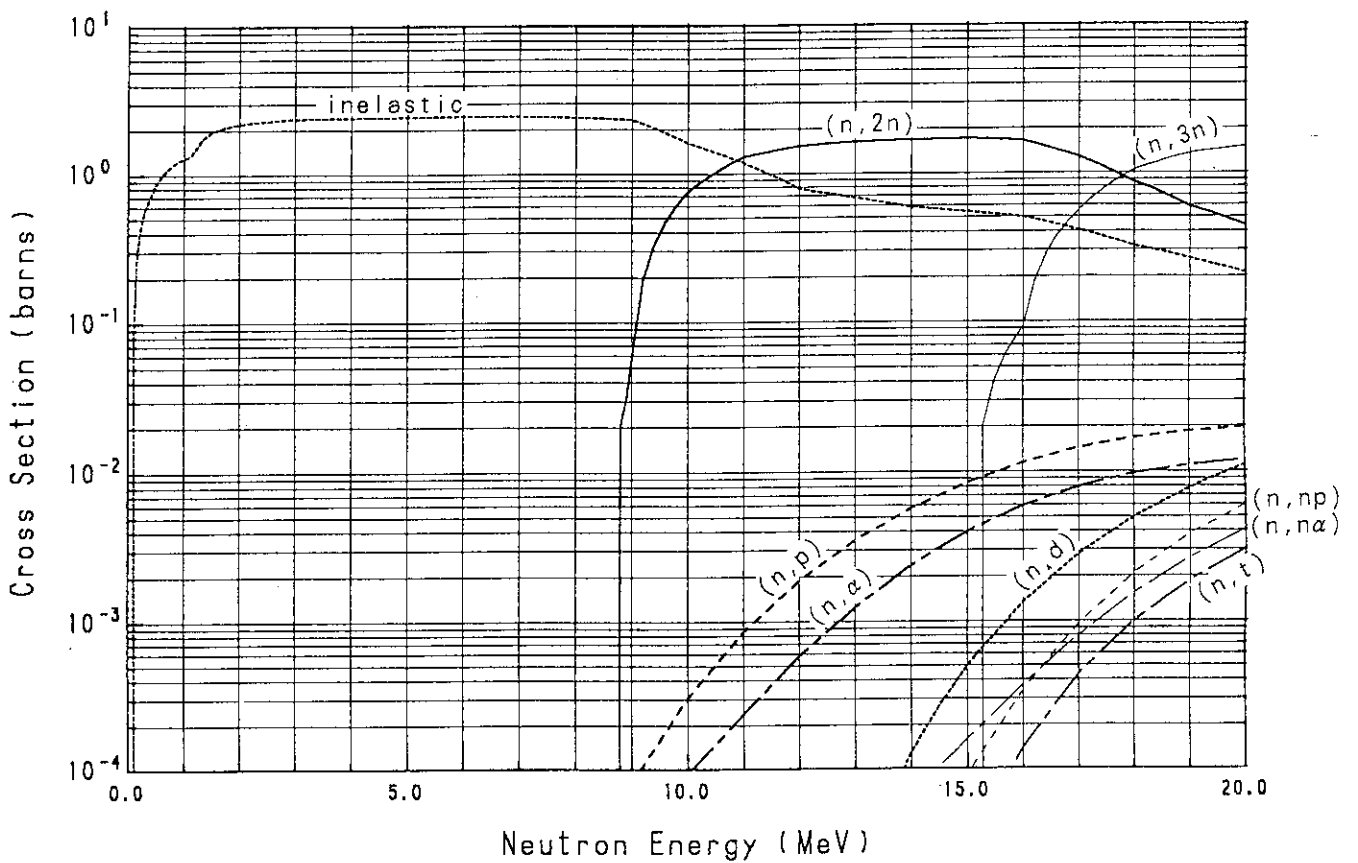
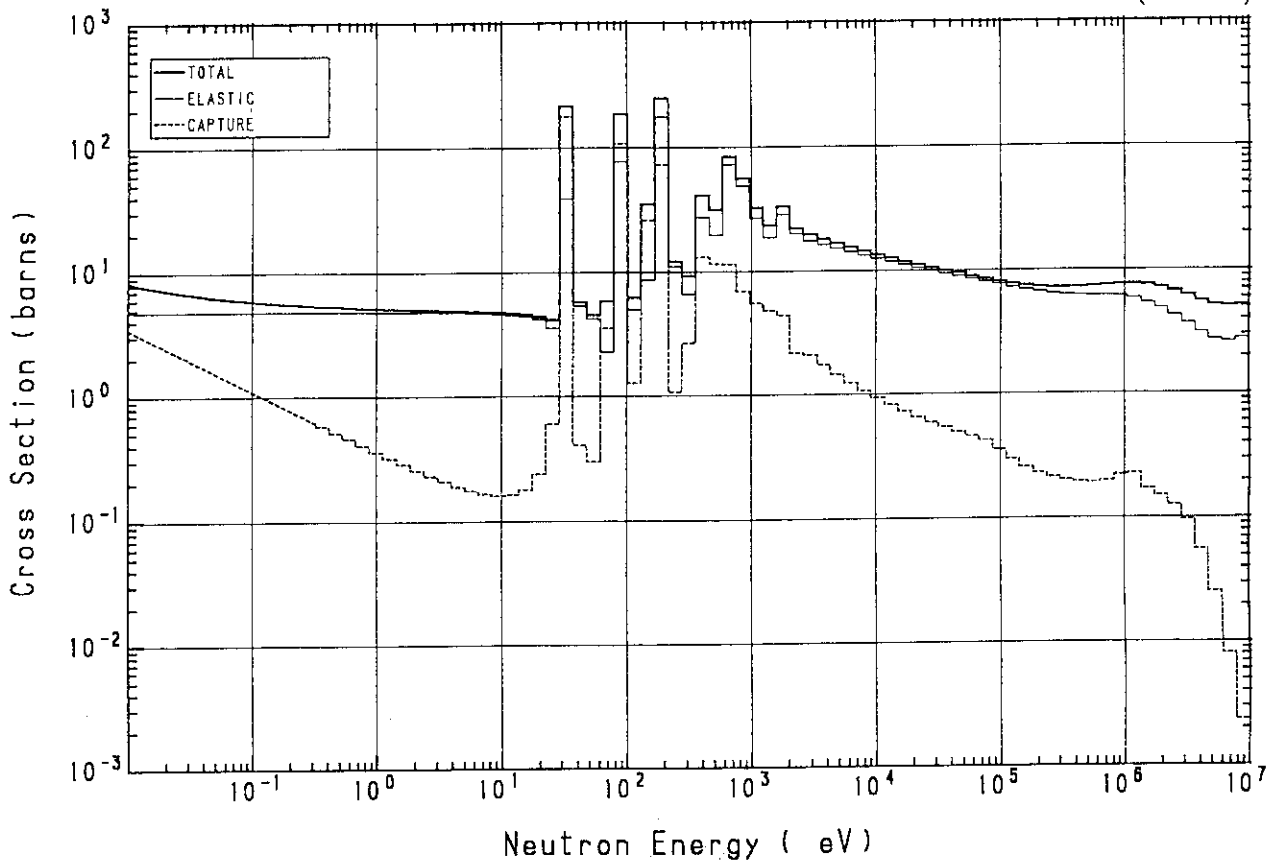


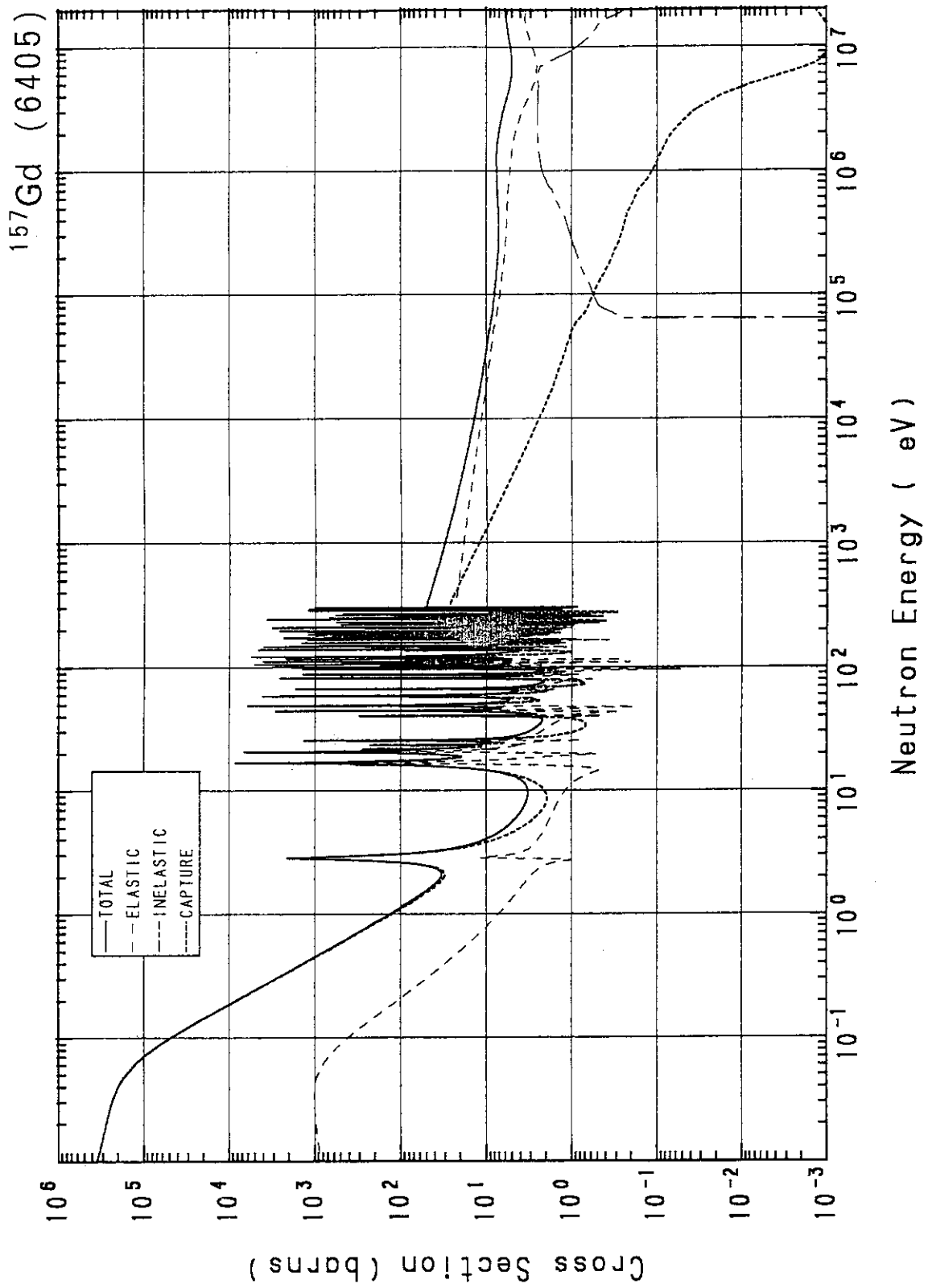
¹⁵⁵Gd (6403)



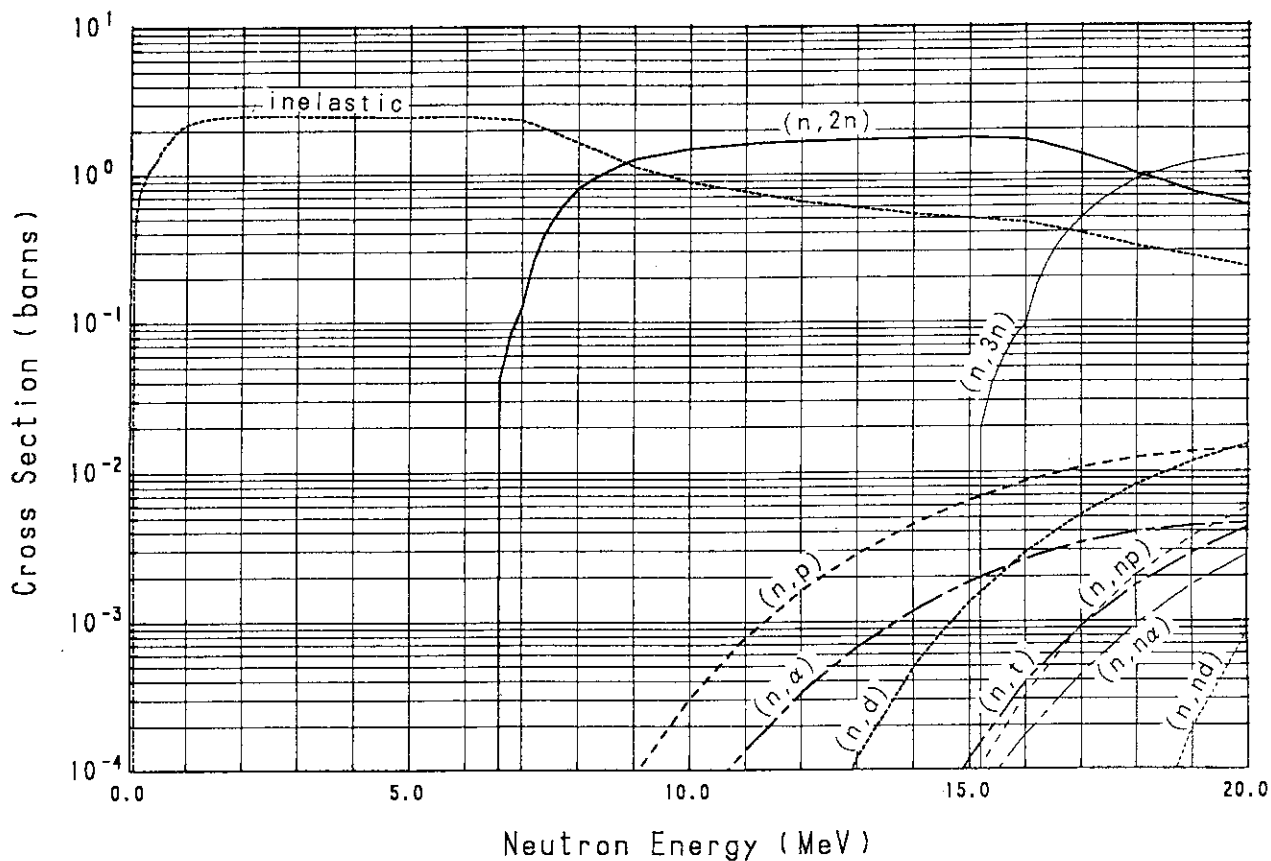
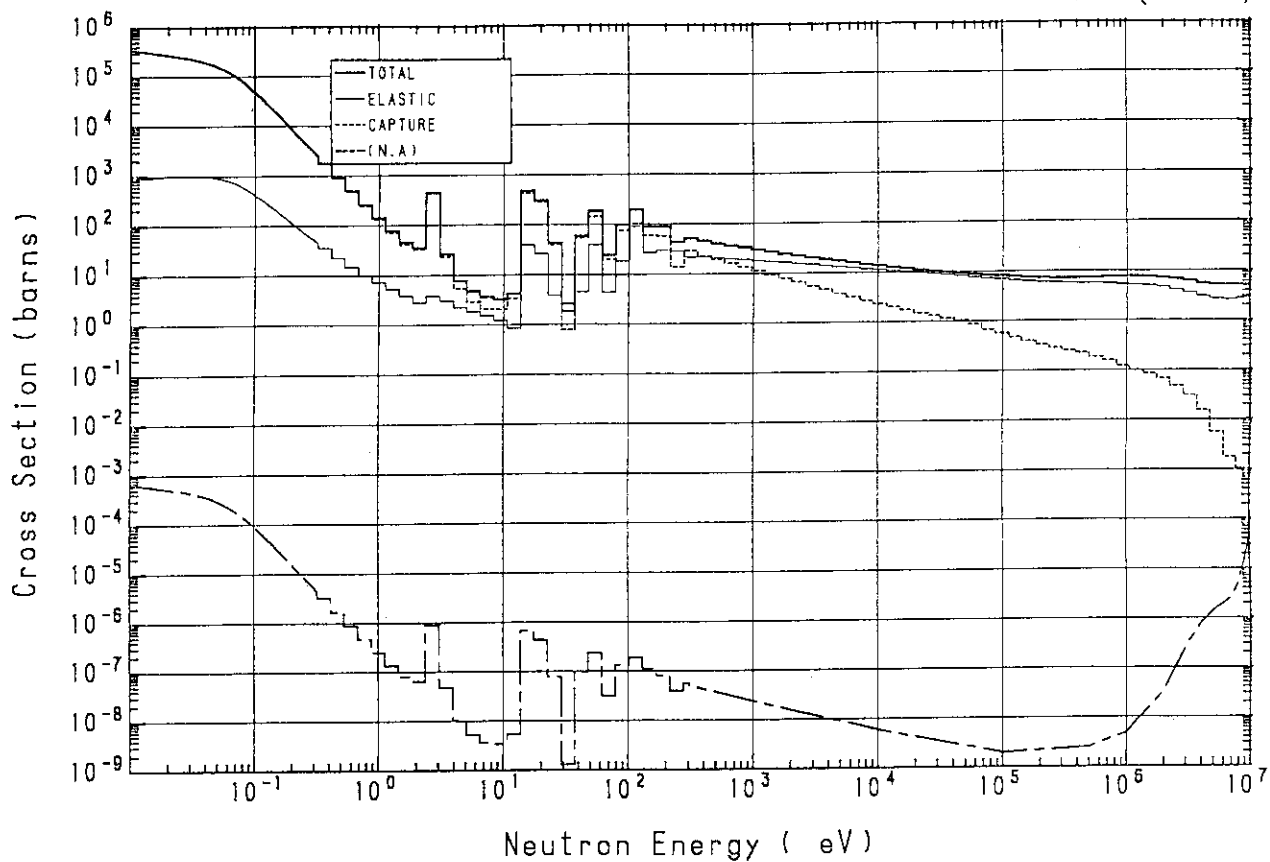


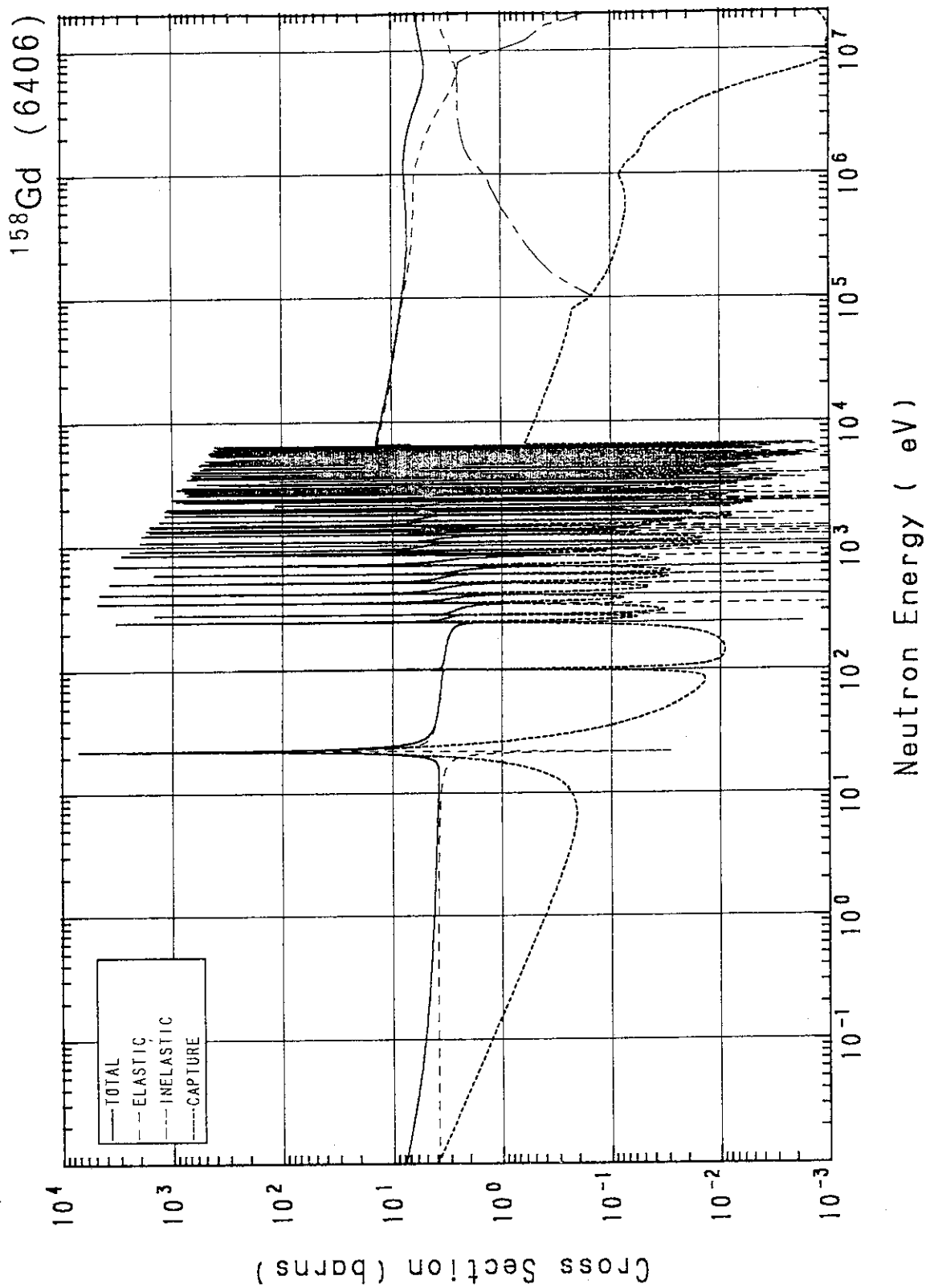
^{156}Gd (6404)



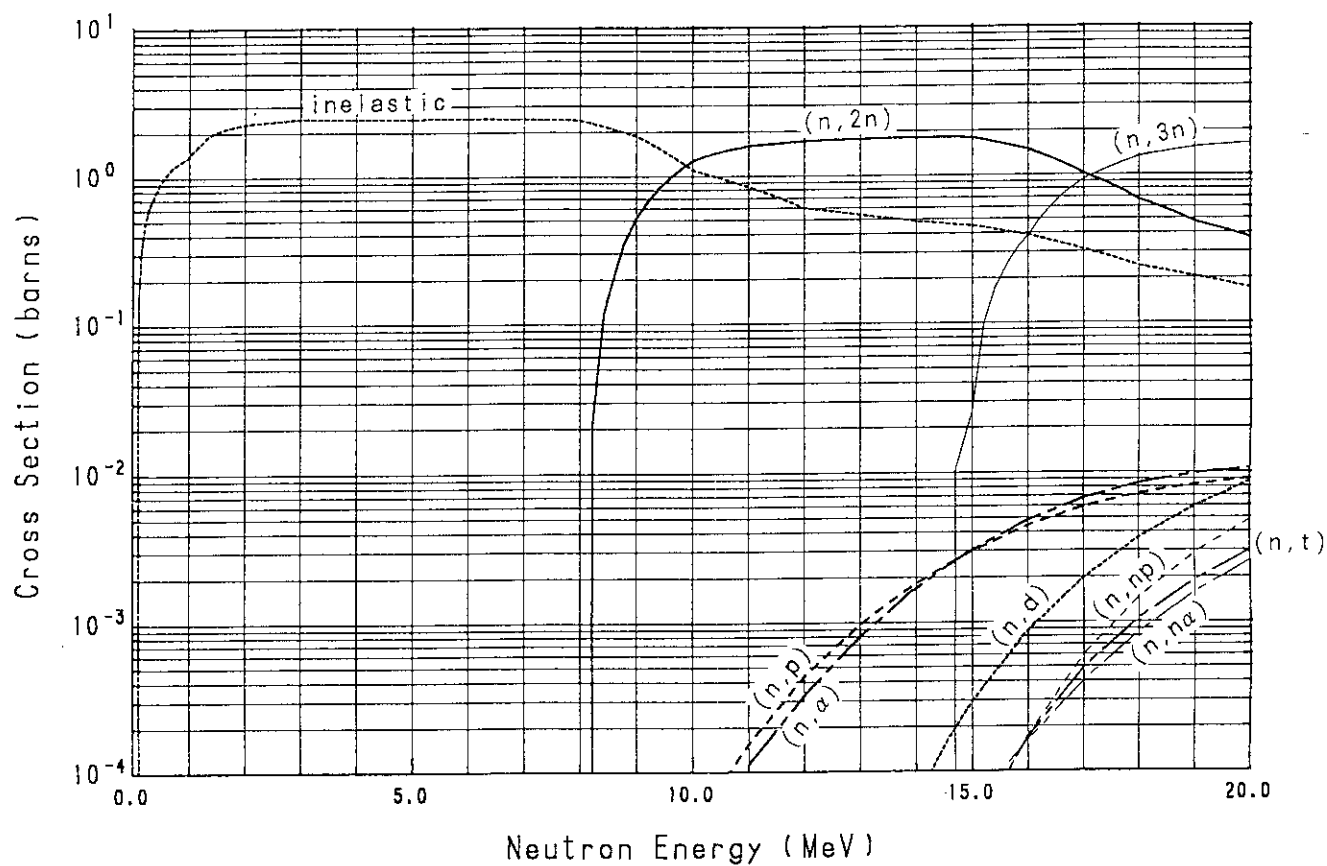
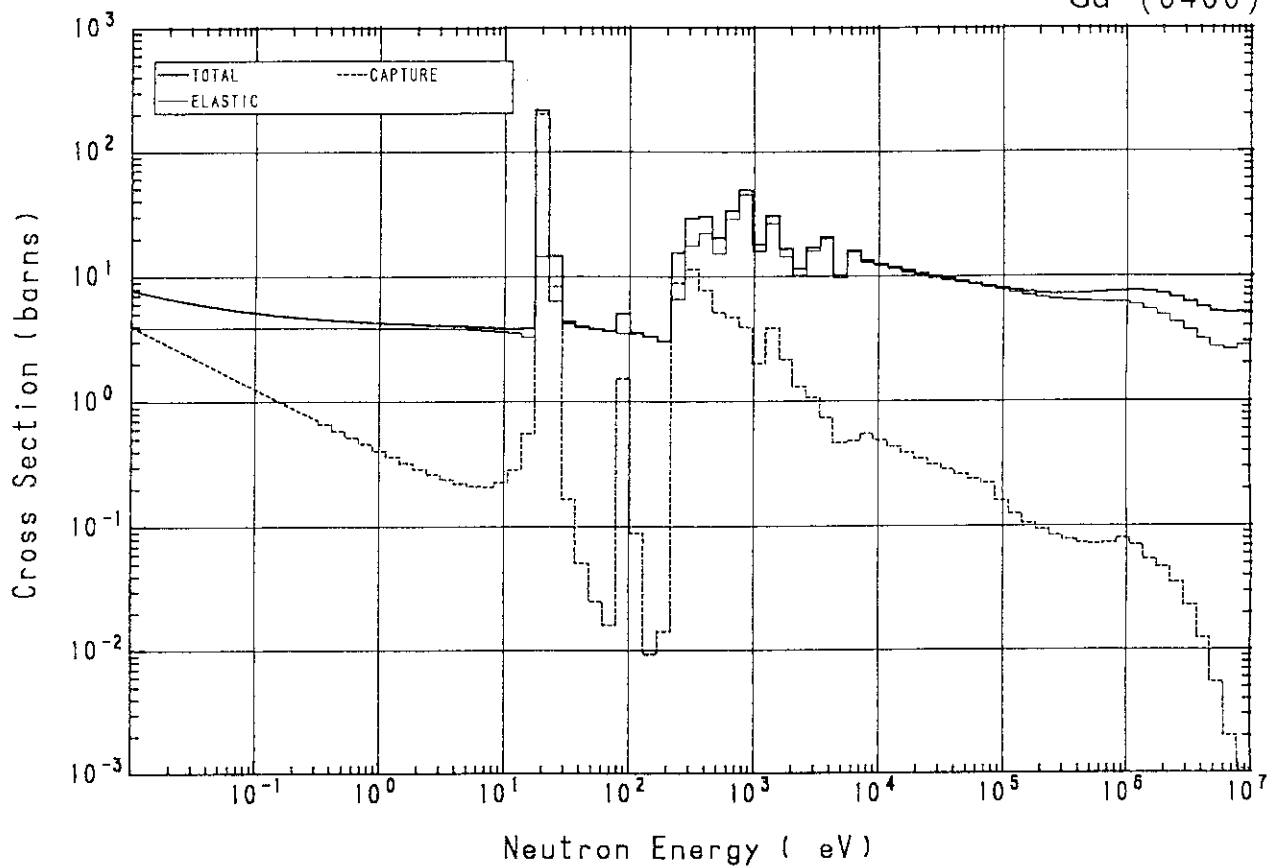


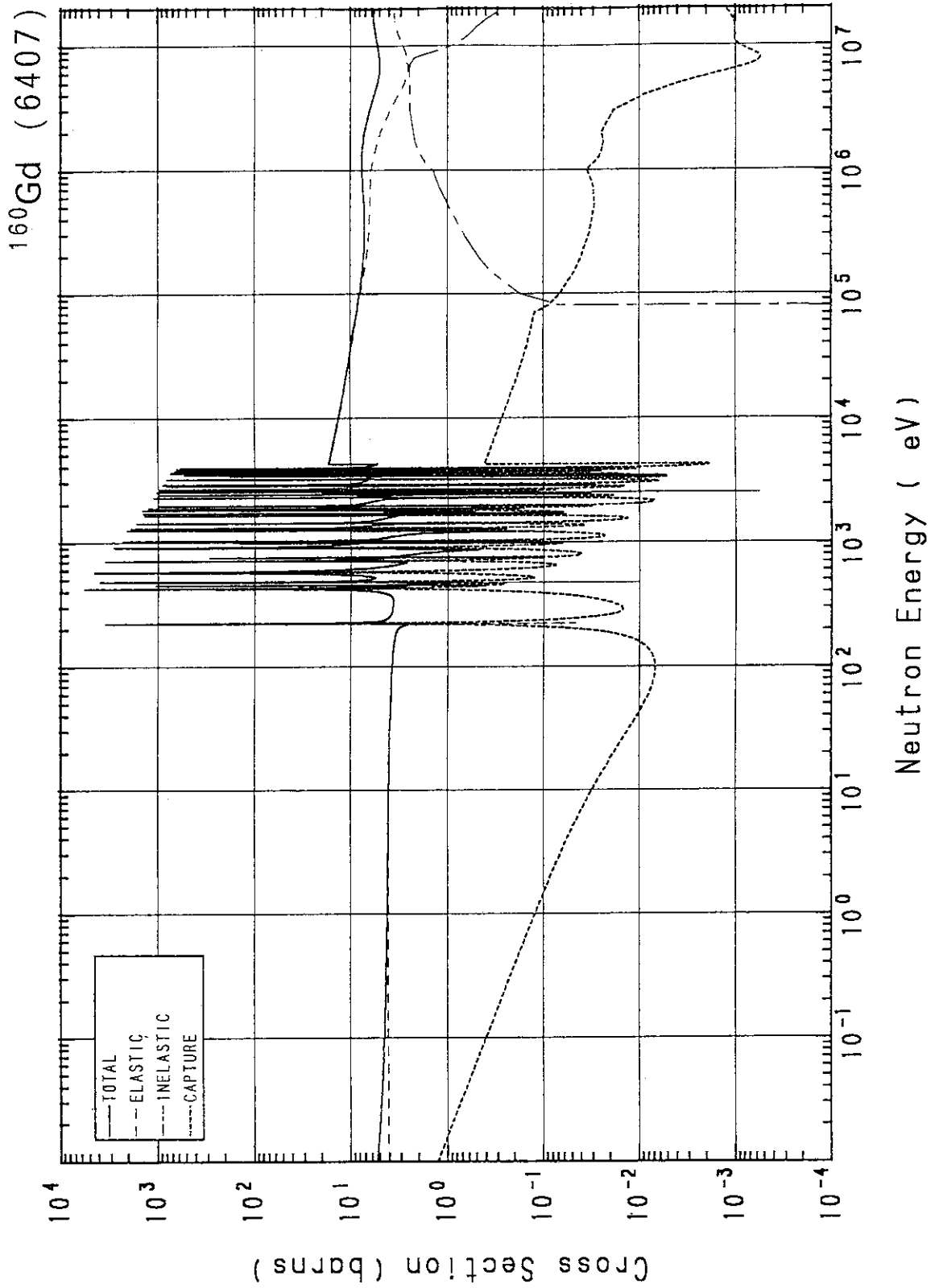
^{157}Gd (6405)



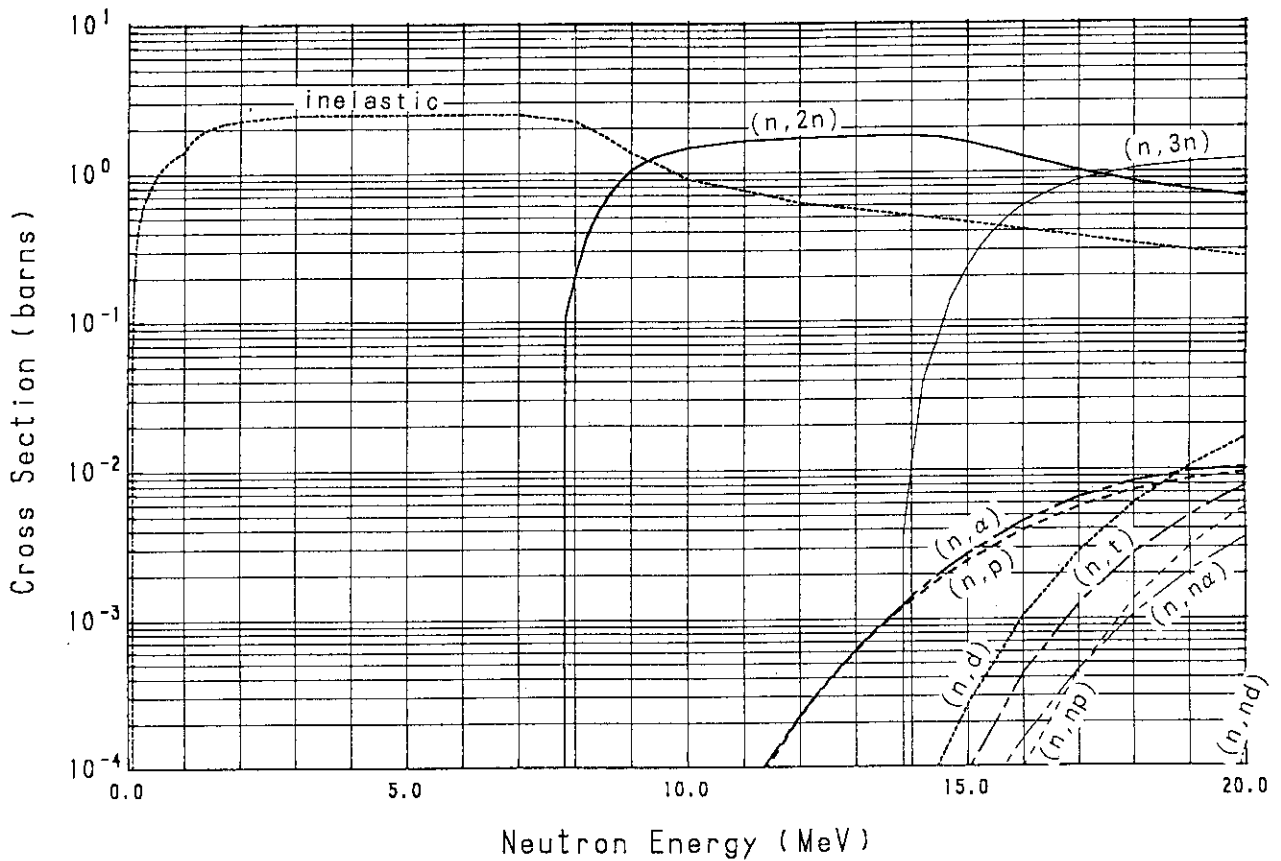
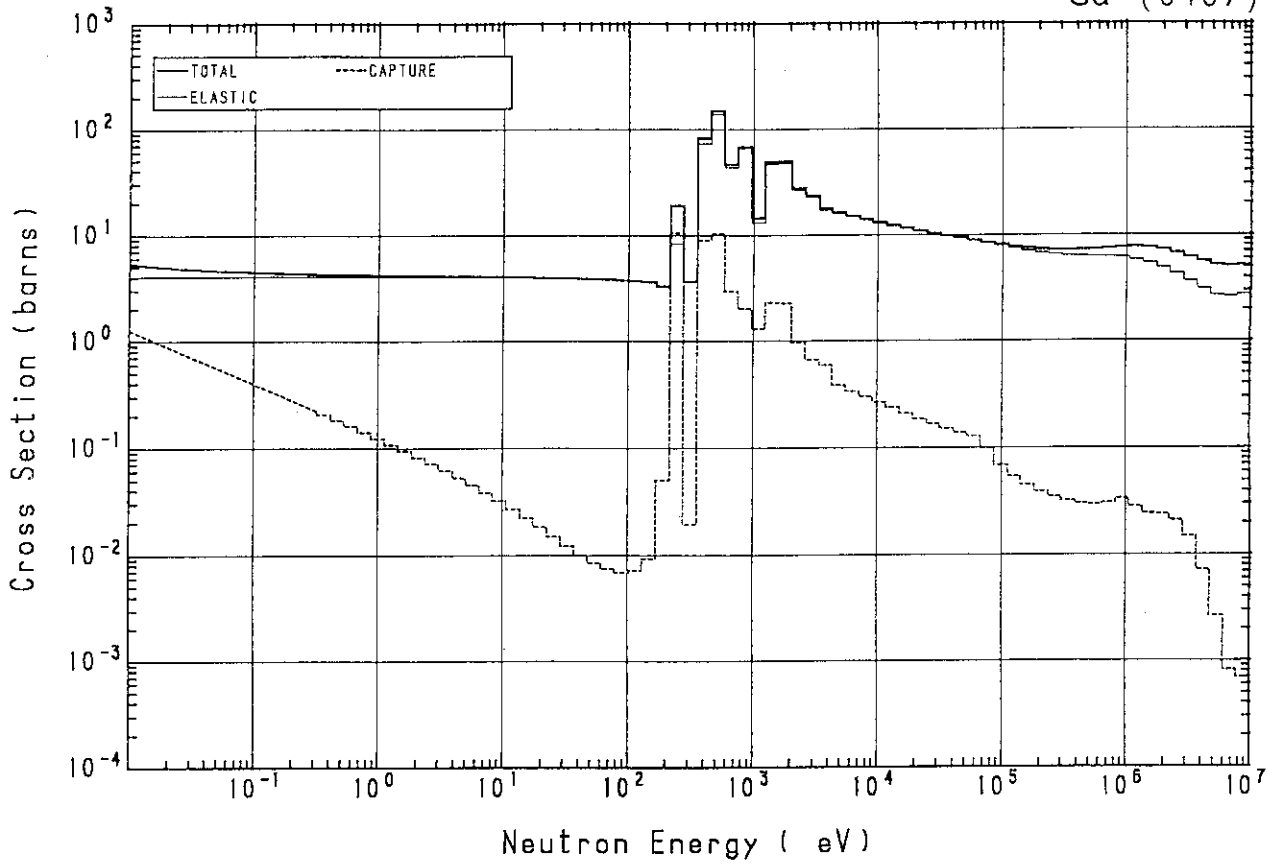


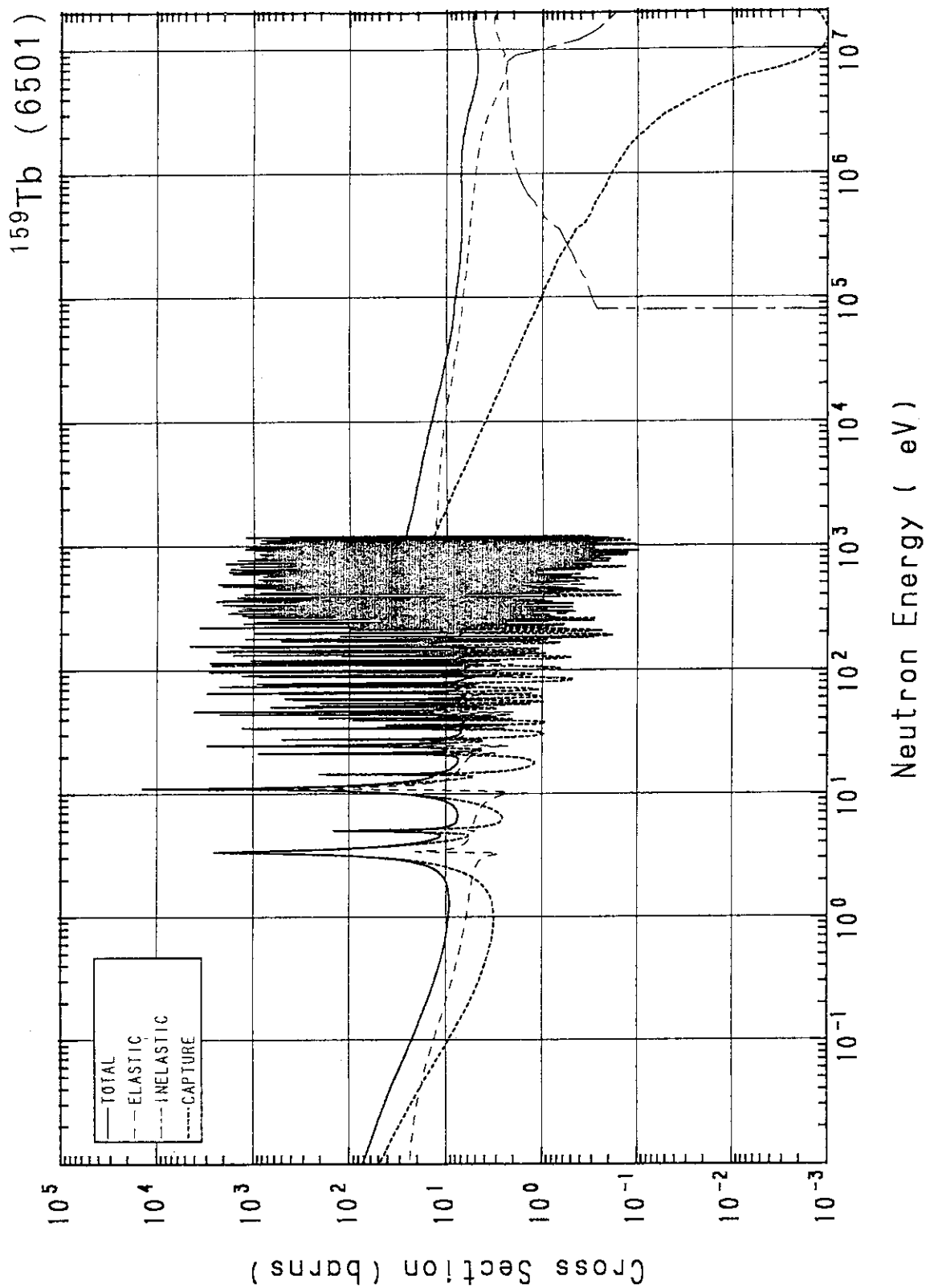
^{158}Gd (6406)



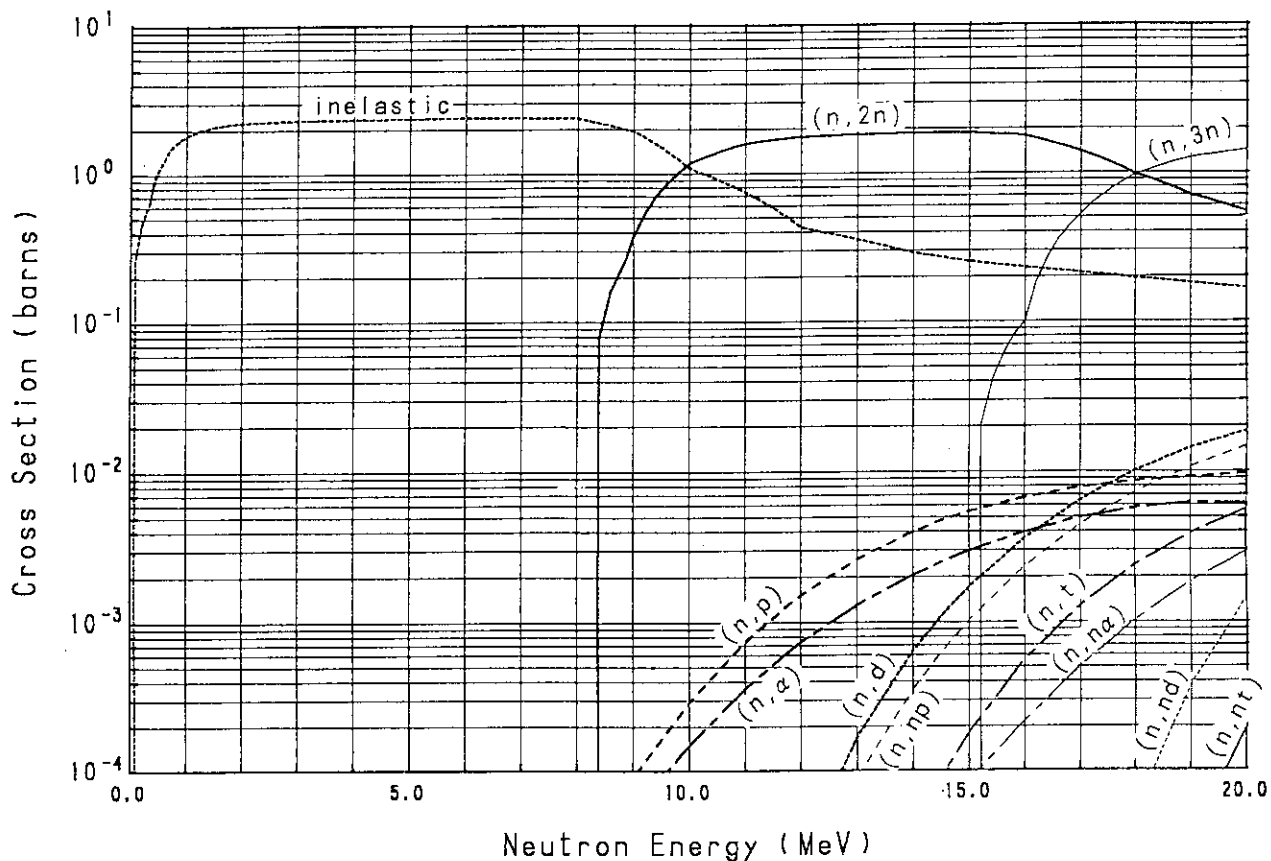
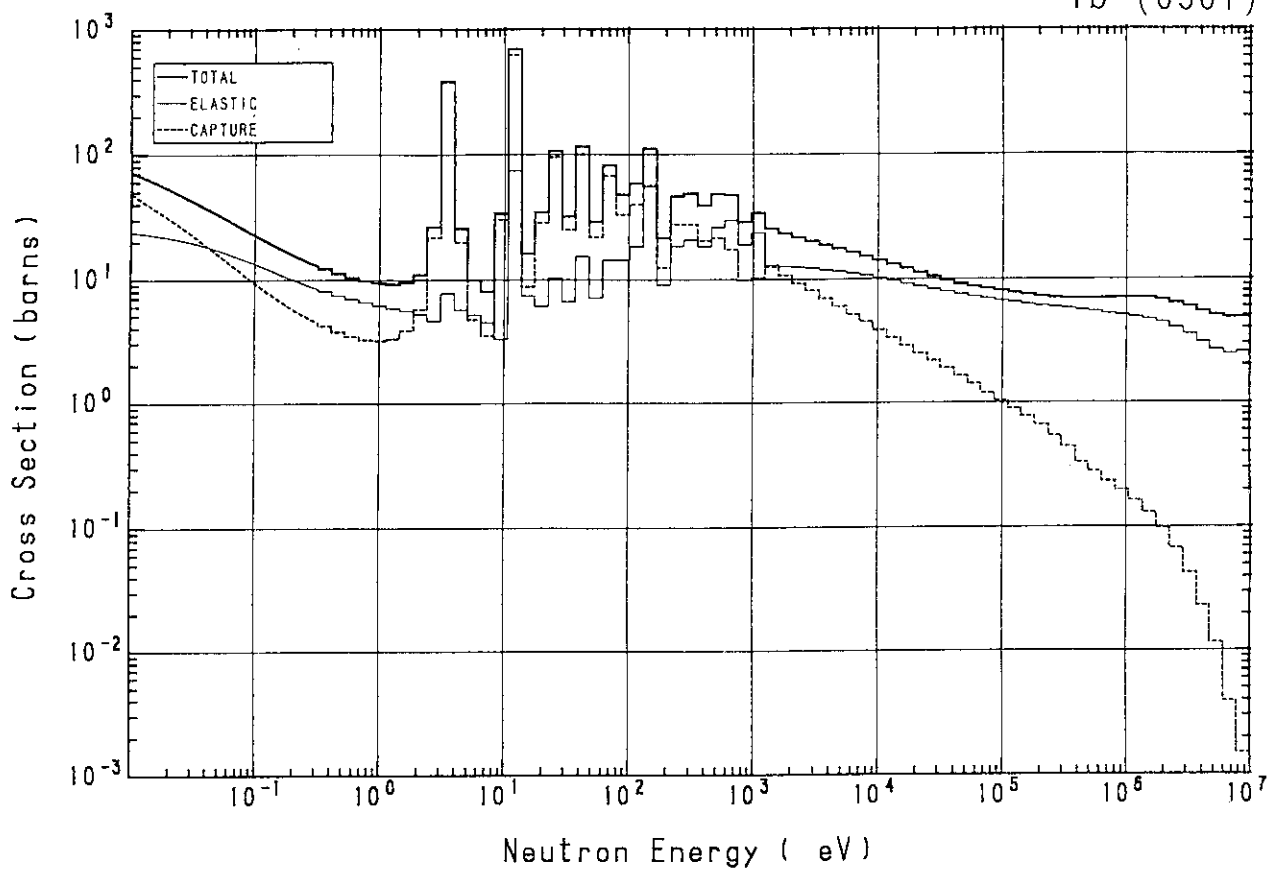


^{160}Gd (6407)





¹⁵⁹Tb (6501)



3. Tables of Cross Sections Averaged over 38 Energy Intervals

78Se (3404)

CROSS SECTION

MATERIAL =3404

Table for 78Se (3404) showing cross sections. Columns include ENERGY, TOTAL, ELASTIC, INELA, CAPTURE, (N,2N), (N,2N1), (N,3N), (N,P), (N,NP), (N,NR), (N,D), (N,T), and MU-BAR. Rows list various energy levels and their corresponding cross section values.

79Se (3405)

CROSS SECTION

MATERIAL =3405

Table for 79Se (3405) showing cross sections. Columns include ENERGY, TOTAL, ELASTIC, INELA, CAPTURE, (N,2N), (N,2N1), (N,3N), (N,P), (N,NP), (N,NR), (N,D), (N,T), and MU-BAR. Rows list various energy levels and their corresponding cross section values.

⁸⁰Se (3406)

CROSS SECTION

MATERIAL = 9408	ENERGY	TOTAL	ELASTIC	INELA	CAPTURE	[N.2N]	[N.3N]	[N.P]	[N.NP]	[N.A]	[N.NA]	[N.D]	[N.T]	NU-BAR
1.0000-6	1.0000-2	8.8778+0	6.9501+0	0	1.8876+0									8.4143-3
1.0000-2	2.0000-2	7.7557+0	6.9500+0	0	8.0664+1									8.4143-3
4.0000-2	2.0000-2	7.5203+0	6.9500+0	0	6.7031+1									8.4143-3
7.0000-2	1.0000-1	7.3689+0	6.9488+0	0	4.1901+1									8.4143-3
1.0000-1	2.0000-1	7.2045+0	6.9488+0	0	2.5499+1									8.4143-3
2.0000-1	4.0000-1	7.1285+0	6.9482+0	0	1.9224+1									8.4143-3
4.0000-1	7.0000-1	7.0636+0	6.9478+0	0	1.4659+1									8.4143-3
1.0000-0	2.0000+0	7.0293+0	6.9465+0	0	8.2085+0									8.4143-3
2.0000+0	4.0000+0	6.9792+0	6.9468+0	0	4.8200+0									8.4142-3
4.0000+0	7.0000+0	6.9456+0	6.9449+0	0	3.8801+0									8.4142-3
1.0000-1	2.0000+1	6.9373+0	6.9173+0	0	2.5821+0									8.4139-3
2.0000-1	4.0000+1	6.9007+0	6.8611+0	0	1.8209+0									8.4128-3
4.0000-1	7.0000+1	6.8708+0	6.8007+0	0	1.2575+0									8.4104-3
1.0000-2	2.0000+2	6.8129+0	6.6040+0	0	8.6932+0									8.4058-3
2.0000-2	4.0000+2	6.7720+0	6.5831+0	0	5.6771+0									8.3880-3
4.0000-2	7.0000+2	6.7120+0	6.5414+0	0	3.2851+0									8.3744-3
1.0000-3	2.0000+3	7.3548+1	7.3594+1	0	3.6057+0									8.3744-3
2.0000-3	4.0000+3	6.1196+0	6.1579+0	0	2.9126+0									8.3582-3
4.0000-3	7.0000+3	5.1255+0	5.1185+0	0	2.0926+0									8.3582-3
1.0000-4	2.0000+4	1.0820+1	1.0608+1	0	1.2463+0									9.2260-2
2.0000-4	4.0000+4	8.9806+0	8.9565+0	0	3.9622+0									9.2260-2
4.0000-4	7.0000+4	8.5308+0	8.2911+0	0	3.8422+0									9.2260-2
1.0000-5	2.0000+5	7.9890+0	7.9733+0	0	1.8938+0									8.6209-2
2.0000-5	4.0000+5	7.5228+0	7.5067+0	0	1.9324+0									8.6209-2
4.0000-5	7.0000+5	6.7950+0	6.7832+0	0	1.8441+0									9.3239-1
1.0000-6	2.0000+6	4.5702+0	4.5670+0	0	3.6678+0									9.3239-1
2.0000-6	4.0000+6	3.6900+0	3.6900+0	0	1.5760+0									4.4982-19
4.0000-6	7.0000+6	3.4422+0	3.4422+0	0	1.5768+0									4.2080-18
1.0000-7	2.0000+7	3.7518+0	2.3427+0	0	3.3448+1							2.6174-20		3.6509-1
											3.7518-14			4.3772-1
											6.9956-4			7.7777-1
											1.0846-4			7.7777-1
														8.0821-1

⁸²Se (3407)

CROSS SECTION

MATERIAL = 9407	ENERGY	TOTAL	ELASTIC	INELA	CAPTURE	[N.2N]	[N.3N]	[N.P]	[N.NP]	[N.A]	[N.NA]	[N.D]	[N.T]	NU-BAR
1.0000-6	1.0000-2	5.1388+0	5.0000+0	0	1.3678+1									8.2088-3
1.0000-2	2.0000-2	5.0565+0	5.0000+0	0	5.8448-0									8.2088-3
2.0000-2	4.0000-2	5.0304+0	5.0000+0	0	4.1396-0									8.2088-3
4.0000-2	7.0000-2	5.0244+0	5.0000+0	0	2.4277-0									8.2088-3
1.0000-1	2.0000-1	5.0184+0	5.0000+0	0	1.8483-0									8.2088-3
2.0000-1	4.0000-1	5.0035+0	5.0000+0	0	1.5084-0									8.2088-3
4.0000-1	7.0000-1	5.0070+0	4.9999+0	0	1.2687-0									8.2088-3
1.0000-0	2.0000+0	5.0045+0	4.9988+0	0	5.9333-0									8.2088-3
2.0000+0	4.0000+0	5.0017+0	4.9985+0	0	3.0088-0									8.2088-3
4.0000+0	7.0000+0	4.9955+0	4.9930+0	0	2.4099-0									8.2088-3
1.0000-1	2.0000+1	4.9783+0	4.9768+0	0	1.8157-0									8.2087-3
2.0000-1	4.0000+1	4.9666+0	4.9636+0	0	1.2719-0									8.2077-3
4.0000-1	7.0000+1	4.9566+0	4.9503+0	0	9.5540-0									8.2077-3
1.0000-2	2.0000+2	4.8707+0	4.8688+0	0	7.1111-0									8.2004-3
2.0000-2	4.0000+2	4.8544+0	4.8520+0	0	1.0308-0									8.1898-3
4.0000-2	7.0000+2	4.8469+0	4.8397+0	0	8.8814+0									8.1898-3
1.0000-3	2.0000+3	5.0343+0	4.9270+0	0	3.2731+0									8.1700-3
2.0000-3	4.0000+3	4.9318+0	4.8325+0	0	2.5676+0									8.1697-3
4.0000-3	7.0000+3	4.9311+0	4.8300+0	0	1.8568+0									8.1697-3
1.0000-4	2.0000+4	4.9205+0	4.8000+0	0	1.3741+0									9.3120-2
2.0000-4	4.0000+4	4.9000+0	4.7907+0	0	1.0670+0									9.3120-2
4.0000-4	7.0000+4	4.8824+0	4.8220+0	0	8.2208+0									9.3120-2
1.0000-5	2.0000+5	7.9908+0	7.9715+0	0	1.8093+0									8.5212-1
2.0000-5	4.0000+5	6.7505+0	6.7403+0	0	1.8200+0									1.9891-1
4.0000-5	7.0000+5	6.7505+0	6.7403+0	0	8.4578-3									2.3293-1
1.0000-6	2.0000+6	4.5728+0	4.5731+0	0	8.4578-3									3.8020-1
2.0000-6	4.0000+6	3.6900+0	3.6900+0	0	9.4311-0									4.0827-1
4.0000-6	7.0000+6	3.4412+0	2.9321+0	0	1.5685+0									7.7730-1
1.0000-7	2.0000+7	3.7518+0	2.4580+0	0	2.5807+1									8.0079-20
														8.4471-11
											3.6245-20			9.3790-1
											1.8956-4			7.7730-1
											4.2936-4			8.0820-1
											7.0656-5			4.0827-1
														9.3790-1

84Kr (3605)

CROSS SECTION

MATERIAL = 9605

Table for 84Kr (3605) showing cross sections (TOTAL, ELASTIC, INELA, CAPTURE) and reaction rates (N.2M, N.3N, N.P, N.MF, N.R, N.NR, N.D, N.T) for various energy levels and incident neutron energies.

85Kr (3606)

CROSS SECTION

MATERIAL = 9608

Table for 85Kr (3606) showing cross sections (TOTAL, ELASTIC, INELA, CAPTURE) and reaction rates (N.2M, N.3N, N.P, N.MF, N.R, N.NR, N.D, N.T) for various energy levels and incident neutron energies.

^{86}Kr (3607)

CROSS SECTION

MATERIAL = 3607		CROSS SECTION										NU-BAR			
ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,2N)	(N,SN)	(N,P)	(N,SP)	(N,SR)	(N,AR)	(N,DI)	(N,T)		
1.0000-5	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-4	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-3	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-2	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-1	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-0	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+1	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+2	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+3	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+4	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+5	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+6	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+7	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+8	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+9	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000+0	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-1	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-2	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-3	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-4	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-5	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-6	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-7	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-8	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3
1.0000-9	6.1496+0	6.1496+0	0	9.2817-3										7.8272-3	3

^{85}Rb (3701)

CROSS SECTION

MATERIAL = 3701		CROSS SECTION										NU-BAR			
ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,2N)	(N,SN)	(N,P)	(N,SP)	(N,SR)	(N,AR)	(N,DI)	(N,T)		
1.0000-5	7.5393+0	6.6541+0	0	8.4922-1										7.9193-3	3
1.0000-4	6.4998+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-3	6.3028+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-2	6.1938+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-1	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-0	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+1	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+2	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+3	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+4	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+5	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+6	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+7	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+8	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+9	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000+0	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-1	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-2	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-3	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-4	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-5	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-6	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-7	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-8	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3
1.0000-9	6.0549+0	5.6540+0	0	8.4922-1										7.9193-3	3

89Sr (3804)

CROSS SECTION

MATERIAL = 9804

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N,2N)	(N,2N)	(N,3N)	(N,P)	(N,MP)	(N,A)	(N,NA)	(N,D)	(N,T)	MU-BAR
1.0000+ 5	7.0144+ 0	5.7000+ 0	1.2952+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.6834- 3
1.0000+ 0	6.2657+ 0	5.7000+ 0	5.5744- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
4.0000+ 0	6.0305+ 0	5.7000+ 0	6.2657+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
7.0000+ 2	6.9798+ 0	5.7000+ 0	2.3004- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
1.0000+ 1	5.9185+ 0	5.7000+ 0	1.2050+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
2.0000+ 0	5.8385+ 0	5.7000+ 0	1.2374- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
7.0000+ 0	5.7844+ 0	5.7000+ 0	7.2740- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
1.0000+ 0	5.7681+ 0	5.7000+ 0	5.5338- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
2.0000+ 0	5.7478+ 0	5.7000+ 0	5.9129- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
7.0000+ 0	5.7255+ 0	5.7000+ 0	2.5001- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
3.0000+ 1	5.7254+ 0	5.7000+ 0	1.7499- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
4.0000+ 1	5.7170+ 0	5.7000+ 0	9.0580- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
7.0000+ 0	5.7149+ 0	5.7000+ 0	7.2733- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5715- 3
1.0000+ 2	5.7123+ 0	5.7000+ 0	5.5132- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
4.0000+ 2	5.7091+ 0	5.7000+ 0	9.5155- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.6111- 3
7.0000+ 2	5.7052+ 0	5.7000+ 0	2.8763- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
1.0000+ 3	5.7041+ 0	5.7000+ 0	2.2999- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.7488- 3
2.0000+ 3	5.6425+ 0	5.4475+ 0	9.4737- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.8442- 3
3.0000+ 3	5.5870+ 0	5.5584+ 0	1.0239- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								8.4099- 3
7.0000+ 3	5.5356+ 0	5.5178+ 0	4.1123- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.4099- 3
1.0000+ 4	5.5289+ 0	5.5093+ 0	2.5439- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								1.9844- 3
2.0000+ 4	5.5288+ 0	5.5093+ 0	8.6880+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								4.5899- 3
7.0000+ 4	5.5288+ 0	5.5093+ 0	6.7069+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.0287- 3
1.0000+ 5	5.2520+ 0	5.2489+ 0	5.1275- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								1.2099- 3
2.0000+ 5	5.0893+ 0	5.0826+ 0	9.7532- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								3.1893- 3
4.0000+ 5	5.0489+ 0	5.0439+ 0	2.9642- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								3.0667- 3
7.0000+ 5	5.0018+ 0	5.0000+ 0	2.8439- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								3.7990- 3
1.0000+ 6	5.5584+ 0	5.2092+ 0	2.9879- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								3.7990- 3
2.0000+ 6	5.5584+ 0	5.2092+ 0	1.5239- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								6.4099- 3
7.0000+ 6	4.4228+ 0	2.6832+ 0	6.4287- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5745- 3
1.0000+ 7	4.1228+ 0	2.5693+ 0	1.0731- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0		5.6858- 7	1.0091- 2	0.0000+ 0	0.0000+ 0	1.6967- 16		7.5745- 3

89Y (3901)

CROSS SECTION

MATERIAL = 9801

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N,2N)	(N,2N)	(N,3N)	(N,P)	(N,MP)	(N,A)	(N,NA)	(N,D)	(N,T)	MU-BAR
1.0000+ 5	1.1658+ 1	7.7128+ 0	9.8527+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.6834- 3
1.0000+ 0	5.0118+ 0	7.7128+ 0	1.6990+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
4.0000+ 0	5.0000+ 0	7.7112+ 0	6.7968+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
7.0000+ 2	5.4140+ 0	7.7112+ 0	7.0205- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
1.0000+ 1	5.2459+ 0	7.7112+ 0	5.3409+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
2.0000+ 0	5.0966+ 0	7.7084+ 0	9.7670+ 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
7.0000+ 0	7.5233+ 0	7.7050+ 0	2.7674- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
1.0000+ 0	7.8925+ 0	7.6955+ 0	1.6685- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
2.0000+ 0	7.7950+ 0	7.6793+ 0	1.1677- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
7.0000+ 0	7.6890+ 0	7.6172+ 0	8.5546- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
1.0000+ 1	7.5949+ 0	7.5494+ 0	4.7316- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
2.0000+ 1	7.5167+ 0	7.1978+ 0	1.0336- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
7.0000+ 1	7.0044+ 0	6.9940+ 0	1.1247- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.6710- 3
1.0000+ 2	6.8744+ 0	6.8611+ 0	9.8723- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
2.0000+ 2	5.8459+ 0	5.8444+ 0	2.6712- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.5694- 3
7.0000+ 2	5.8117+ 0	5.8112+ 0	4.5888- 4	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.7408- 3
1.0000+ 3	5.3622+ 0	5.3622+ 0	2.9200- 4	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.8323- 3
2.0000+ 3	5.3556+ 0	5.3556+ 0	4.5258- 4	0.0000+ 0	0.0000+ 0	0.0000+ 0								8.4065- 3
7.0000+ 3	5.3474+ 0	5.3474+ 0	3.1113- 4	0.0000+ 0	0.0000+ 0	0.0000+ 0								1.7010- 3
1.0000+ 4	7.8894+ 0	7.1500+ 0	5.5747- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.8323- 3
2.0000+ 4	6.1256+ 0	6.1199+ 0	1.2162- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								8.4065- 3
7.0000+ 4	6.0078+ 0	6.0672+ 0	1.1216- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								1.7010- 3
1.0000+ 5	9.3620+ 0	9.2412+ 0	1.0783- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0								7.8323- 3
2.0000+ 5	8.0468+ 0	8.0715+ 0	9.0787- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								8.4065- 3
7.0000+ 5	7.0013+ 0	8.5688+ 0	8.0597+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								1.7010- 3
1.0000+ 6	5.4693+ 0	5.4583+ 0	6.7734- 3	0.0000+ 0	0.0000+ 0	0.0000+ 0								2.8466- 3
2.0000+ 6	5.2802+ 0	5.2782+ 0	3.1391- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0								2.5099- 3
7.0000+ 6	4.4228+ 0	2.6865+ 0	1.6548+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0								3.5141- 3
1.0000+ 7	4.1228+ 0	2.5787+ 0	5.9105- 1	0.0000+ 0	0.0000+ 0	0.0000+ 0		1.1102- 20	1.4442- 17	0.0000+ 0	0.0000+ 0	9.8207- 11		7.8721- 3

90Sr (3805)

CROSS SECTION

MATERIAL = 8005

ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,2N)	(N,SN)	(N,P)	(N,NP)	(N,NR)	(N,D)	(N,T)	HU-BAR
1.0000-5	8.8123+0	5.8037+0	2.7763+0	0.0000+0									7.4795-3
1.0000-2	7.0195+0	5.8037+0	1.1859+0	0.0000+0									7.4795-3
2.0000-2	8.5622+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
4.0000-2	8.4800+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
1.0000-1	8.1901+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
2.0000-1	8.0669+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
7.0000-1	8.3744+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
1.0000+0	8.3744+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
2.0000+0	8.3744+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
4.0000+0	8.3744+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
7.0000+0	8.3744+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
1.0000+1	8.6414+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
2.0000+1	8.3950+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
4.0000+1	8.5325+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
7.0000+1	8.6288+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
1.0000+2	8.5178+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
2.0000+2	8.3144+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
7.0000+2	8.7690+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
1.0000+3	8.5536+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
2.0000+3	8.4555+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
4.0000+3	8.6860+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
7.0000+3	8.8222+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
1.0000+4	8.6554+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
2.0000+4	8.4820+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
4.0000+4	8.6860+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
7.0000+4	8.8222+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
1.0000+5	8.2622+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
2.0000+5	8.0907+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
7.0000+5	8.7014+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
1.0000+6	8.4693+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
2.0000+6	8.2978+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
4.0000+6	8.4223+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
7.0000+6	8.5693+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3
1.0000+7	8.1229+0	5.8037+0	0.5887+0	0.0000+0									7.4795-3

90Zr (4001)

CROSS SECTION

MATERIAL = 4001

ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,2N)	(N,SN)	(N,P)	(N,NP)	(N,NR)	(N,D)	(N,T)	HU-BAR
1.0000-5	5.6066+0	5.4648+0	1.4186+0	0.0000+0									7.4795-3
1.0000-2	5.5654+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
2.0000-2	5.5677+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
4.0000-2	5.4900+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
1.0000-1	5.4939+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
2.0000-1	5.4922+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
7.0000-1	5.4726+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
1.0000+0	5.4705+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
2.0000+0	5.4692+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
4.0000+0	5.4652+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
7.0000+0	5.4627+0	5.4648+0	0.8892+0	0.0000+0									7.4795-3
1.0000+1	5.4607+0	5.4611+0	0.8892+0	0.0000+0									7.4795-3
2.0000+1	5.4577+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
4.0000+1	5.4547+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
7.0000+1	5.4522+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
1.0000+2	5.4500+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
2.0000+2	5.4477+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
4.0000+2	5.4452+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
7.0000+2	5.4427+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
1.0000+3	5.4402+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
2.0000+3	5.4377+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
4.0000+3	5.4352+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
7.0000+3	5.4327+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
1.0000+4	5.4302+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
2.0000+4	5.4277+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
4.0000+4	5.4252+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
7.0000+4	5.4227+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
1.0000+5	5.4202+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
2.0000+5	5.4177+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
4.0000+5	5.4152+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
7.0000+5	5.4127+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
1.0000+6	5.4102+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
2.0000+6	5.4077+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
4.0000+6	5.4052+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
7.0000+6	5.4027+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3
1.0000+7	5.4002+0	5.4613+0	0.8892+0	0.0000+0									7.4795-3

91Y (3902)

CROSS SECTION

MATERIAL = 9902	ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(R,3N)	(N,P)	(N,MP)	(N,RA)	(N,D)	(N,T)	MU-BAR
1.0000	5 ~ 1.0000	1.0060+1	5.7000+0	4.3172+0	0.0000+0								7.3970-3
1.0000	2 ~ 2.0000	7.5797+0	5.7000+0	1.8448+0	0.0000+0								7.3970-3
2.0000	2 ~ 4.0000	7.0871+0	5.7000+0	1.2044+0	0.0000+0								7.3970-3
7.0000	2 ~ 7.0000	6.4760+0	5.7000+0	7.8878-1	0.0000+0								7.3970-3
1.0000	1 ~ 2.0000	8.3043+0	5.7000+0	5.1247-1	0.0000+0								7.3970-3
2.0000	1 ~ 4.0000	8.0565+0	5.7000+0	5.0512-1	0.0000+0								7.3970-3
7.0000	1 ~ 7.0000	5.5897+0	5.7000+0	2.4446-1	0.0000+0								7.3970-3
1.0000	0 ~ 2.0000	5.9182+0	5.7000+0	1.8445-1	0.0000+0								7.3970-3
2.0000	0 ~ 4.0000	5.6329+0	5.7000+0	1.3045-1	0.0000+0								7.3970-3
7.0000	0 ~ 7.0000	5.8072+0	5.7000+0	9.8850-2	0.0000+0								7.3970-3
1.0000	1 ~ 2.0000	5.7659+0	5.7000+0	5.9225-0	0.0000+0								7.3970-3
2.0000	1 ~ 4.0000	5.7723+0	5.7000+0	4.3822-0	0.0000+0								7.3970-3
7.0000	1 ~ 7.0000	5.7471+0	5.7000+0	2.4429-1	0.0000+0								7.3970-3
1.0000	2 ~ 3.0000	5.7239+0	5.7000+0	1.1472-1	0.0000+0								7.3970-3
2.0000	2 ~ 4.0000	1.2263+1	1.1848+0	1.0344+0	0.0000+0								7.3970-3
7.0000	2 ~ 7.0000	1.1417+1	1.0610+0	8.0711-1	0.0000+0								7.3970-3
1.0000	3 ~ 4.0000	1.0257+0	9.6411+0	5.1945-1	0.0000+0								7.3970-3
2.0000	3 ~ 7.0000	8.7115+0	8.8168+0	4.3011-1	0.0000+0								7.3970-3
7.0000	3 ~ 7.0000	4.4867+0	5.2881+0	2.2259-1	0.0000+0								7.3970-3
1.0000	4 ~ 2.0000	8.4057+0	8.2528+0	1.5914-1	0.0000+0								7.3970-3
2.0000	4 ~ 4.0000	8.5271+0	8.4779+0	4.2064-1	0.0000+0								7.3970-3
7.0000	4 ~ 7.0000	8.0560+0	8.0168+0	4.1123-0	0.0000+0								7.3970-3
1.0000	5 ~ 2.0000	9.2549+0	8.2528+0	3.7322-1	0.0000+0								7.3970-3
2.0000	5 ~ 4.0000	8.0809+0	8.0568+0	2.5144-1	0.0000+0								7.3970-3
7.0000	5 ~ 7.0000	8.0039+0	8.4086+0	1.1584-1	0.0000+0								7.3970-3
1.0000	6 ~ 2.0000	5.4726+0	4.2372+0	1.2260+0	0.0000+0								7.3970-3
2.0000	6 ~ 4.0000	5.9788+0	4.3506+0	1.6338+0	0.0000+0								7.3970-3
7.0000	6 ~ 7.0000	5.9277+0	5.2438+0	1.5822+0	0.0000+0								7.3970-3
1.0000	7 ~ 2.0000	4.1230+0	2.6644+0	2.4255-1	0.0000+0								7.3970-3

91Zr (4002)

CROSS SECTION

MATERIAL = 4002	ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,MP)	(N,RA)	(N,D)	(N,T)	MU-BAR
1.0000	5 ~ 1.0000	1.4448+1	1.0686+1	3.8801+0	0.0000+0								7.3972-3
1.0000	2 ~ 2.0000	1.8233+1	1.0588+1	1.6488+0	0.0000+0								7.3972-3
2.0000	2 ~ 4.0000	1.1765+1	1.0588+1	1.5984+0	0.0000+0								7.3972-3
7.0000	2 ~ 7.0000	1.1274+1	1.0586+1	8.6663-1	0.0000+0								7.3972-3
1.0000	1 ~ 2.0000	1.1108+1	1.0594+1	5.9242-1	0.0000+0								7.3972-3
2.0000	1 ~ 4.0000	1.0844+1	1.0576+1	3.2225-1	0.0000+0								7.3972-3
7.0000	1 ~ 7.0000	1.0790+1	1.0574+1	2.2.1828-1	0.0000+0								7.3972-3
1.0000	0 ~ 2.0000	1.0720+1	1.0565+1	1.6451-1	0.0000+0								7.3972-3
2.0000	0 ~ 4.0000	1.0560+1	1.0539+1	1.1601-1	0.0000+0								7.3972-3
7.0000	0 ~ 7.0000	1.0534+1	1.0509+1	6.3852-2	0.0000+0								7.3972-3
1.0000	1 ~ 2.0000	1.0428+1	1.0377+1	5.9981-2	0.0000+0								7.3972-3
2.0000	1 ~ 4.0000	1.0214+1	1.0179+1	2.1011-1	0.0000+0								7.3972-3
7.0000	1 ~ 7.0000	8.5254+0	8.5185+0	5.9924-1	0.0000+0								7.3972-3
1.0000	2 ~ 3.0000	10.0000+0	9.9598+0	1.7474+0	0.0000+0								7.3972-3
2.0000	2 ~ 4.0000	7.7982+1	7.7508+1	1.3322+0	0.0000+0								7.3972-3
7.0000	2 ~ 7.0000	7.9767+0	7.7028+0	2.3737-1	0.0000+0								7.3972-3
1.0000	3 ~ 2.0000	1.8014+1	1.8493+1	5.1700-1	0.0000+0								7.3972-3
2.0000	3 ~ 4.0000	9.8284+0	9.5721+0	4.8511-1	0.0000+0								7.3972-3
7.0000	3 ~ 7.0000	9.9527+0	9.5721+0	2.3088-1	0.0000+0								7.3972-3
1.0000	4 ~ 2.0000	8.6714+0	8.6555+0	1.1889-1	0.0000+0								7.3972-3
2.0000	4 ~ 4.0000	5.5044+0	5.5079+0	9.7926-1	0.0000+0								7.3972-3
7.0000	4 ~ 7.0000	8.0593+0	8.0119+0	2.8016-1	0.0000+0								7.3972-3
1.0000	5 ~ 2.0000	9.2649+0	9.2729+0	2.8928-1	0.0000+0								7.3972-3
2.0000	5 ~ 4.0000	7.0097+0	7.0310+0	1.3922-1	0.0000+0								7.3972-3
7.0000	5 ~ 7.0000	7.0036+0	7.0000+0	2.3522-1	0.0000+0								7.3972-3
1.0000	6 ~ 2.0000	5.4718+0	5.2613+0	2.0329-1	0.0000+0								7.3972-3
2.0000	6 ~ 4.0000	5.8699+0	5.8007+0	1.5082+0	0.0000+0								7.3972-3
7.0000	6 ~ 7.0000	5.9277+0	2.8001+0	1.8840-1	0.0000+0								7.3972-3
1.0000	7 ~ 2.0000	4.1231+0	2.6625+0	1.3696-1	0.0000+0								7.3972-3

92Zr (4003)

CROSS SECTION

MATERIAL = 4003

Table for 92Zr (4003) showing cross-section data with columns: ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,ZN), (N,SN), (N,P), (N,FP), (N,RF), (N,RR), (N,D), (N,T), and NU-BAR.

93Zr (4004)

CROSS SECTION

MATERIAL = 4004

Table for 93Zr (4004) showing cross-section data with columns: ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,ZN), (N,SN), (N,P), (N,FP), (N,RF), (N,RR), (N,D), (N,T), and NU-BAR.

94Zr (4005)

CROSS SECTION

MATERIAL = 4005

Table for 94Zr (4005) cross sections. Columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N,2N), (N,3N), (N,P), (N,FP), (N,NP), (N,R), (N,RR), (N,T), MU-BARR. Rows: 1.0000-6 to 1.0000-7.

95Zr (4006)

CROSS SECTION

MATERIAL = 4006

Table for 95Zr (4006) cross sections. Columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N,2N), (N,3N), (N,P), (N,FP), (N,NP), (N,R), (N,RR), (N,T), MU-BARR. Rows: 1.0000-5 to 1.0000-7.

⁹⁴Nb (4102)

CROSS SECTION

MATERIAL = 4102

Table for 94Nb (4102) showing cross-section data across various energy levels and reaction types. Columns include Energy, Total, Elastic, Inelastic, Capture, (N,2N), (N,2N), (N,3N), (N,4N), (N,5N), (N,6N), (N,7N), (N,8N), (N,9N), (N,10N), (N,11N), (N,12N), (N,13N), (N,14N), (N,15N), (N,16N), (N,17N), (N,18N), (N,19N), (N,20N), (N,21N), (N,22N), (N,23N), (N,24N), (N,25N), (N,26N), (N,27N), (N,28N), (N,29N), (N,30N), (N,31N), (N,32N), (N,33N), (N,34N), (N,35N), (N,36N), (N,37N), (N,38N), (N,39N), (N,40N), (N,41N), (N,42N), (N,43N), (N,44N), (N,45N), (N,46N), (N,47N), (N,48N), (N,49N), (N,50N), (N,51N), (N,52N), (N,53N), (N,54N), (N,55N), (N,56N), (N,57N), (N,58N), (N,59N), (N,60N), (N,61N), (N,62N), (N,63N), (N,64N), (N,65N), (N,66N), (N,67N), (N,68N), (N,69N), (N,70N), (N,71N), (N,72N), (N,73N), (N,74N), (N,75N), (N,76N), (N,77N), (N,78N), (N,79N), (N,80N), (N,81N), (N,82N), (N,83N), (N,84N), (N,85N), (N,86N), (N,87N), (N,88N), (N,89N), (N,90N), (N,91N), (N,92N), (N,93N), (N,94N), (N,95N), (N,96N), (N,97N), (N,98N), (N,99N), (N,100N).

⁹⁵Nb (4103)

CROSS SECTION

MATERIAL = 4103

Table for 95Nb (4103) showing cross-section data across various energy levels and reaction types. Columns include Energy, Total, Elastic, Inelastic, Capture, (N,2N), (N,2N), (N,3N), (N,4N), (N,5N), (N,6N), (N,7N), (N,8N), (N,9N), (N,10N), (N,11N), (N,12N), (N,13N), (N,14N), (N,15N), (N,16N), (N,17N), (N,18N), (N,19N), (N,20N), (N,21N), (N,22N), (N,23N), (N,24N), (N,25N), (N,26N), (N,27N), (N,28N), (N,29N), (N,30N), (N,31N), (N,32N), (N,33N), (N,34N), (N,35N), (N,36N), (N,37N), (N,38N), (N,39N), (N,40N), (N,41N), (N,42N), (N,43N), (N,44N), (N,45N), (N,46N), (N,47N), (N,48N), (N,49N), (N,50N), (N,51N), (N,52N), (N,53N), (N,54N), (N,55N), (N,56N), (N,57N), (N,58N), (N,59N), (N,60N), (N,61N), (N,62N), (N,63N), (N,64N), (N,65N), (N,66N), (N,67N), (N,68N), (N,69N), (N,70N), (N,71N), (N,72N), (N,73N), (N,74N), (N,75N), (N,76N), (N,77N), (N,78N), (N,79N), (N,80N), (N,81N), (N,82N), (N,83N), (N,84N), (N,85N), (N,86N), (N,87N), (N,88N), (N,89N), (N,90N), (N,91N), (N,92N), (N,93N), (N,94N), (N,95N), (N,96N), (N,97N), (N,98N), (N,99N), (N,100N).

95Mo (4203)

CROSS SECTION

MATERIAL = 4203

ENERGY	TOTAL	ELASTIC	INELA	CAPTURE	(N,2N)	(N,2N)	(N,F)	(N,NP)	(N,A)	(N,D)	(N,T)	MU-BRK
1.0000-5	4.8936+1	6.600+0	4.3534+1	0.0000+0								7.0864-3
1.0000-4	2.4109+1	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000-3	1.1952+1	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000-2	6.0696+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000-1	5.898+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000-0	2.3569+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000+0	2.3569+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000+1	5.898+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000+2	5.898+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000+3	5.898+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000+4	5.898+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000+5	5.898+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000+6	5.898+0	5.898+0	4.8936+1	0.0000+0								7.0864-3
1.0000+7	4.1230+0	2.6366+0	1.2961-1	1.0825-3	1.2543+0	3.8017-2	3.9879-2	6.4290-3	4.5945-3	5.2031-3	1.0115-3	8.2156-1

96Mo (4204)

CROSS SECTION

MATERIAL = 4204

ENERGY	TOTAL	ELASTIC	INELA	CAPTURE	(N,2N)	(N,2N)	(N,F)	(N,NP)	(N,A)	(N,D)	(N,T)	MU-BRK
1.0000-5	6.6588+0	4.7270+0	1.8418+0	0.0000+0								7.0116-3
1.0000-4	5.144+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000-3	4.7268+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000-2	5.898+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000-1	4.9759+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000-0	4.9759+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000+0	4.9759+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000+1	4.9759+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000+2	4.9759+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000+3	4.9759+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000+4	4.9759+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000+5	4.9759+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000+6	4.9759+0	4.7268+0	1.8418+0	0.0000+0								7.0116-3
1.0000+7	4.1230+0	2.6366+0	1.2961-1	1.0825-3	1.2543+0	3.8017-2	3.9879-2	6.4290-3	4.5945-3	5.2031-3	1.0115-3	8.2156-1

97Mo (4205)

CROSS SECTION

MATERIAL = 4205		CROSS SECTION										MU-BR										
ENERGY	NU-IRR	TOTAL	ELASTIC	INELA	CAPTURE	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)		
1.0000-5	1.0000-2	1.2373+1	5.8674+0		4.6166+0																8.931-3	
1.0000-4	1.0000-2	8.6389+0	5.8673+0		2.7717+0																	8.931-3
1.0000-3	1.0000-2	7.9233+0	5.8673+0		2.0561+0																	8.931-3
1.0000-2	1.0000-1	6.1855+0	5.8673+0		0.3182+0																	8.931-3
1.0000-1	1.0000-1	6.2248+0	5.8673+0		0.3575+0																	8.931-3
1.0000-0	1.0000-0	6.2248+0	5.8673+0		0.3575+0																	8.931-3
1.0000+0	1.0000+0	6.2248+0	5.8673+0		0.3575+0																	8.931-3
1.0000+1	1.0000+1	6.2248+0	5.8673+0		0.3575+0																	8.931-3
1.0000+2	1.0000+2	6.2248+0	5.8673+0		0.3575+0																	8.931-3
1.0000+3	1.0000+3	6.2248+0	5.8673+0		0.3575+0																	8.931-3
1.0000+4	1.0000+4	6.2248+0	5.8673+0		0.3575+0																	8.931-3
1.0000+5	1.0000+5	6.2248+0	5.8673+0		0.3575+0																	8.931-3
1.0000+6	1.0000+6	6.2248+0	5.8673+0		0.3575+0																	8.931-3
1.0000+7	1.0000+7	6.2248+0	5.8673+0		0.3575+0																	8.931-3

98Mo (4206)

CROSS SECTION

MATERIAL = 4206		CROSS SECTION										MU-BR											
ENERGY	NU-IRR	TOTAL	ELASTIC	INELA	CAPTURE	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	(N.2N)	
1.0000-5	1.0000-2	6.0438+0	5.6419+0		4.0187-1																		5.8883-3
1.0000-4	1.0000-2	6.8137+0	5.6419+0		1.1718-1																		5.8883-3
1.0000-3	1.0000-2	7.1544+0	5.6419+0		1.5125-1																		5.8883-3
1.0000-2	1.0000-1	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000-1	1.0000-1	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000-0	1.0000-0	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000+0	1.0000+0	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000+1	1.0000+1	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000+2	1.0000+2	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000+3	1.0000+3	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000+4	1.0000+4	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000+5	1.0000+5	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000+6	1.0000+6	5.8883+0	5.6419+0		0.2464+0																		5.8883-3
1.0000+7	1.0000+7	5.8883+0	5.6419+0		0.2464+0																		5.8883-3

99Tc (4301)

CROSS SECTION

MATERIAL = 4301

ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,MP)	(N,N)	(N,D)	(N,T)	MU-BAR
1.0000- 5 ~ 1.0000- 2	6.4163+ 1	9.3748+ 0	0.0000+ 0	6.0779+ 1								6.7988- 3
1.0000- 2 ~ 2.0000- 2	2.9444+ 1	3.9727+ 0	0.0000+ 0	2.9820+ 1								6.7988- 3
1.0000- 2 ~ 1.0000- 1	1.7088+ 1	1.9706+ 0	0.0000+ 0	1.5719+ 1								6.7988- 3
1.0000- 1 ~ 1.0000- 1	1.4470+ 1	1.9680+ 0	0.0000+ 0	1.1102+ 1								6.7988- 3
1.0000- 1 ~ 1.0000- 1	1.9995+ 0	3.9824+ 0	0.0000+ 0	6.6326+ 0								6.7988- 3
1.0000- 1 ~ 1.0000+ 0	9.4889+ 0	3.3580+ 0	0.0000+ 0	5.4147+ 0								6.7988- 3
1.0000+ 0 ~ 2.0000+ 0	7.8301+ 0	2.2538+ 0	0.0000+ 0	5.1528+ 0								6.7988- 3
1.0000+ 0 ~ 1.0000+ 0	1.5618+ 2	1.2433+ 0	0.0000+ 0	4.6846+ 0								6.7988- 3
1.0000+ 0 ~ 1.0000+ 0	1.0190+ 0	1.2433+ 0	0.0000+ 0	4.3208+ 0								6.7988- 3
1.0000+ 1 ~ 1.0000+ 1	1.0190+ 0	1.2433+ 0	0.0000+ 0	5.3114+ 0								6.7988- 3
1.0000+ 1 ~ 1.0000+ 1	1.0000+ 1	1.0000+ 0	0.0000+ 0	5.2624+ 0								6.7988- 3
1.0000+ 1 ~ 1.0000+ 1	1.0000+ 1	1.0000+ 0	0.0000+ 0	5.3324+ 0								6.7988- 3
1.0000+ 2 ~ 1.0000+ 2	2.6158+ 1	1.4306+ 0	0.0000+ 0	1.6786+ 1								6.6301- 3
1.0000+ 2 ~ 1.0000+ 2	1.1660+ 1	1.0000+ 0	0.0000+ 0	1.7562+ 1								6.6301- 3
1.0000+ 3 ~ 1.0000+ 3	9.0785+ 0	8.9765+ 0	0.0000+ 0	5.8753+ 0								6.9823- 3
1.0000+ 3 ~ 1.0000+ 3	8.5226+ 0	7.2108+ 0	0.0000+ 0	2.6613+ 0								7.5783- 3
1.0000+ 4 ~ 1.0000+ 4	7.6547+ 0	6.5244+ 0	0.0000+ 0	1.4492+ 0								7.8227- 3
1.0000+ 4 ~ 1.0000+ 4	7.6617+ 0	7.2401+ 0	0.0000+ 0	1.8056+ 0								3.0211- 2
1.0000+ 5 ~ 1.0000+ 5	7.7803+ 0	7.4014+ 0	0.0000+ 0	4.2766+ 1								5.2662- 2
1.0000+ 5 ~ 1.0000+ 5	7.6845+ 0	6.9401+ 0	0.0000+ 0	1.4539+ 1								9.7651- 1
1.0000+ 6 ~ 1.0000+ 6	5.7659+ 0	4.2617+ 0	0.0000+ 0	1.3239+ 2								1.8991- 1
1.0000+ 6 ~ 1.0000+ 6	4.0688+ 0	2.3507+ 0	0.0000+ 0	1.0745+ 4								3.0432- 1
1.0000+ 6 ~ 1.0000+ 6	4.0688+ 0	2.3507+ 0	0.0000+ 0	1.5980+ 0								7.6008- 1
1.0000+ 7 ~ 2.0000+ 7	4.4222+ 0	2.9137+ 0	0.0000+ 0	9.8446+ 4								6.6266- 1

96Ru (4401)

CROSS SECTION

MATERIAL = 4401

ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,MP)	(N,N)	(N,D)	(N,T)	MU-BAR
1.0000- 5 ~ 1.0000- 2	6.0293+ 0	6.1000+ 0	0.0000+ 0	6.9439- 1								7.0114- 3
1.0000- 2 ~ 2.0000- 2	5.5195+ 0	5.1000+ 0	0.0000+ 0	2.9224- 1								7.0114- 3
1.0000- 2 ~ 1.0000- 1	6.5229+ 0	6.1000+ 0	0.0000+ 0	1.5866- 1								7.0114- 3
1.0000- 1 ~ 1.0000- 1	5.2380+ 0	5.1000+ 0	0.0000+ 0	1.2084- 2								7.0114- 3
1.0000- 1 ~ 1.0000- 1	5.1170+ 0	5.1000+ 0	0.0000+ 0	6.5444- 2								7.0114- 3
1.0000+ 0 ~ 2.0000+ 0	5.1427+ 0	5.1000+ 0	0.0000+ 0	9.8215- 2								7.0117- 3
1.0000+ 0 ~ 1.0000+ 0	5.1223+ 0	5.1000+ 0	0.0000+ 0	7.0224- 2								7.0117- 3
1.0000+ 0 ~ 1.0000+ 0	5.1122+ 0	5.1000+ 0	0.0000+ 0	1.5888+ 2								7.0117- 3
1.0000+ 1 ~ 1.0000+ 1	5.1150+ 0	5.1000+ 0	0.0000+ 0	1.5084- 2								7.0117- 3
1.0000+ 1 ~ 1.0000+ 1	5.1152+ 0	5.1000+ 0	0.0000+ 0	6.5444- 2								7.0117- 3
1.0000+ 2 ~ 1.0000+ 2	5.1065+ 0	5.1000+ 0	0.0000+ 0	6.5799- 2								7.0117- 3
1.0000+ 2 ~ 1.0000+ 2	5.1051+ 0	5.1000+ 0	0.0000+ 0	9.8215- 2								7.0117- 3
1.0000+ 3 ~ 1.0000+ 3	1.9006+ 1	1.2533+ 1	0.0000+ 0	2.2686+ 0								7.2831- 3
1.0000+ 3 ~ 1.0000+ 3	1.1474+ 1	1.0880+ 1	0.0000+ 0	2.4788+ 0								7.2831- 3
1.0000+ 3 ~ 1.0000+ 3	1.0443+ 1	8.6794+ 0	0.0000+ 0	1.1642+ 0								8.5220- 3
1.0000+ 3 ~ 1.0000+ 3	7.0546+ 0	7.2346+ 0	0.0000+ 0	6.8839+ 1								1.1269- 3
1.0000+ 4 ~ 1.0000+ 4	7.4857+ 0	7.1836+ 0	0.0000+ 0	5.5633+ 0								1.8665- 3
1.0000+ 4 ~ 1.0000+ 4	7.5684+ 0	7.0607+ 0	0.0000+ 0	4.2007+ 1								2.8395- 3
1.0000+ 4 ~ 1.0000+ 4	7.7188+ 0	7.3877+ 0	0.0000+ 0	1.8765+ 1								8.3684- 3
1.0000+ 5 ~ 1.0000+ 5	7.7642+ 0	7.6714+ 0	0.0000+ 0	1.1266+ 1								1.1801- 3
1.0000+ 5 ~ 1.0000+ 5	6.5822+ 0	6.5822+ 0	0.0000+ 0	1.0371+ 1								1.8933- 3
1.0000+ 5 ~ 1.0000+ 5	5.7824+ 0	4.9042+ 0	0.0000+ 0	1.8444- 1								2.8395- 3
1.0000+ 6 ~ 1.0000+ 6	5.6942+ 0	1.6634+ 0	0.0000+ 0	1.9514+ 0								6.5009- 3
1.0000+ 6 ~ 1.0000+ 6	4.0694+ 0	2.1868+ 0	0.0000+ 0	3.7070- 3								7.6087- 3
1.0000+ 7 ~ 2.0000+ 7	4.4228+ 0	2.3798+ 0	0.0000+ 0	1.2984+ 3								8.6269- 4

98Ru (4402)

CROSS SECTION

MATERIAL = 4402	ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,R)	(N,NA)	(N,D)	(N,T)	MU-BAR
1.0000	5 ~ 1.0000-2	2.8669+1	5.1000+0		2.4670+1					0.0000+0				6.8683-3
1.0000	2 ~ 1.0000-2	1.6727+1	5.1000+0		1.0642+1					0.0000+0				6.8683-3
2.0000	4 ~ 1.0000-2	1.2664+1	5.1000+0		7.4398+0					0.0000+0				6.8683-3
7.0000	2 ~ 1.0000-1	3.0609+0	5.1000+0		5.8162+0					0.0000+0				6.8683-3
1.0000	1 ~ 1.0000-1	9.4982+0	5.1000+0		3.5833+0					0.0000+0				6.8683-3
2.0000	1 ~ 1.0000-1	7.4397+0	5.1000+0		2.7539+0					0.0000+0				6.8683-3
7.0000	1 ~ 1.0000-1	8.6126+0	5.1000+0		1.3165+0					0.0000+0				6.8683-3
1.0000	0 ~ 2.0000-0	9.6744+0	5.1000+0		7.4623+0					0.0000+0				6.8683-3
2.0000	0 ~ 2.0000-0	5.5555+0	5.1000+0		4.0806+0					0.0000+0				6.8683-3
7.0000	0 ~ 1.0000+0	5.5555+0	5.1000+0		4.5806+0					0.0000+0				6.8683-3
1.0000	1 ~ 1.0000+1	5.4639+0	5.1000+0		3.3255+0					0.0000+0				6.8683-3
2.0000	1 ~ 1.0000+1	5.2360+0	5.1000+0		2.3564+0					0.0000+0				6.8683-3
7.0000	1 ~ 1.0000+2	5.2360+0	5.1000+0		1.7317+0					0.0000+0				6.8683-3
1.0000	2 ~ 2.0000+2	1.3554+1	1.0823+1		2.7293+0					0.0000+0				6.8683-3
2.0000	2 ~ 2.0000+5	1.5781+1	1.2715+1		2.5820+0					0.0000+0				6.8683-3
7.0000	2 ~ 1.0000+3	1.1749+1	9.5842+0		1.4439+0					0.0000+0				6.8683-3
1.0000	3 ~ 2.0000+3	3.0804+0	9.5842+0		7.0718+0					0.0000+0				6.8683-3
2.0000	3 ~ 1.0000+3	8.0308+0	7.4188+0		6.1397+0					0.0000+0				6.8683-3
7.0000	3 ~ 1.0000+4	7.6947+0	7.1888+0		5.0610+0					0.0000+0				6.8683-3
1.0000	4 ~ 1.0000+4	7.6556+0	7.0886+0		2.7890+0					0.0000+0				6.8683-3
2.0000	4 ~ 1.0000+4	7.4245+0	7.1757+0		2.4891+0					0.0000+0				6.8683-3
7.0000	4 ~ 1.0000+5	7.5666+0	7.3926+0		1.5669+0					0.0000+0				6.8683-3
1.0000	5 ~ 2.0000+5	7.7792+0	7.5793+0		1.0882+0					0.0000+0				6.8683-3
2.0000	5 ~ 1.0000+5	7.6034+0	7.5008+0		9.4592+0					0.0000+0				6.8683-3
7.0000	5 ~ 1.0000+6	6.6664+0	6.0819+0		7.6300+0					0.0000+0				6.8683-3
1.0000	6 ~ 2.0000+6	5.7511+0	4.8692+0		9.6705+0					0.0000+0				6.8683-3
2.0000	6 ~ 1.0000+6	5.4043+0	4.6922+0		2.0421+0					0.0000+0				6.8683-3
7.0000	6 ~ 1.0000+7	4.0881+0	2.1234+0		1.8246+0					0.0000+0				6.8683-3
1.0000	7 ~ 2.0000+7	4.4226+0	2.5817+0		8.1193+0					0.0000+0				6.8683-3

99Ru (4403)

CROSS SECTION

MATERIAL = 4403	ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,R)	(N,NA)	(N,D)	(N,T)	MU-BAR
1.0000	5 ~ 1.0000-2	2.6197+1	3.6762+0		2.2621+1					0.0000+0				6.7886-3
1.0000	2 ~ 1.0000-2	1.8317+1	3.6762+0		9.6407+0					0.0000+0				6.7886-3
2.0000	2 ~ 1.0000-2	1.0822+1	3.6762+0		5.6478+0					0.0000+0				6.7886-3
7.0000	2 ~ 1.0000-1	9.7106+0	3.6762+0		5.0369+0					0.0000+0				6.7886-3
1.0000	1 ~ 1.0000-1	9.7870+0	3.6762+0		9.1161+0					0.0000+0				6.7886-3
2.0000	1 ~ 1.0000-1	8.3191+0	3.6762+0		7.7510+0					0.0000+0				6.7886-3
7.0000	1 ~ 1.0000-1	8.0868+0	3.6762+0		1.4498+0					0.0000+0				6.7886-3
1.0000	0 ~ 2.0000+0	4.9827+0	3.6252+0		1.2028+0					0.0000+0				6.7886-3
2.0000	0 ~ 1.0000+0	5.4088+0	3.5581+0		2.0485+0					0.0000+0				6.7886-3
7.0000	0 ~ 1.0000+1	1.0020+2	3.2752+0		8.6923+0					0.0000+0				6.7886-3
1.0000	1 ~ 1.0000+1	5.1824+1	5.6255+0		5.5932+1					0.0000+0				6.7886-3
2.0000	1 ~ 1.0000+1	3.2439+1	5.4039+0		4.5616+1					0.0000+0				6.7886-3
7.0000	1 ~ 1.0000+2	3.0011+1	5.7237+0		4.2730+0					0.0000+0				6.7886-3
1.0000	2 ~ 2.0000+2	3.8122+1	1.6880+1		2.2282+1					0.0000+0				6.7886-3
2.0000	2 ~ 1.0000+2	1.8804+1	1.6097+1		8.2738+0					0.0000+0				6.7886-3
7.0000	2 ~ 1.0000+3	1.8633+1	1.2862+1		8.0085+0					0.0000+0				6.7886-3
1.0000	3 ~ 2.0000+3	6.0052+1	7.1881+0		2.8386+0					0.0000+0				6.7886-3
2.0000	3 ~ 1.0000+3	9.0733+0	6.6111+0		1.5631+0					0.0000+0				6.7886-3
7.0000	3 ~ 1.0000+4	7.7336+0	6.4137+0		1.5169+0					0.0000+0				6.7886-3
1.0000	4 ~ 2.0000+4	7.4890+0	6.4393+0		1.0627+0					0.0000+0				6.7886-3
2.0000	4 ~ 1.0000+4	7.5701+0	6.6793+0		6.4098+0					0.0000+0				6.7886-3
7.0000	4 ~ 1.0000+5	7.7028+0	7.2681+0		4.0518+0					0.0000+0				6.7886-3
1.0000	5 ~ 2.0000+5	7.7778+0	7.2488+0		2.9415+0					0.0000+0				6.7886-3
2.0000	5 ~ 1.0000+5	7.6071+0	6.5297+0		1.0729+0					0.0000+0				6.7886-3
7.0000	5 ~ 1.0000+6	6.8600+0	6.2438+0		1.1088+0					0.0000+0				6.7886-3
1.0000	6 ~ 2.0000+6	5.2618+0	4.2937+0		1.5896+0					0.0000+0				6.7886-3
2.0000	6 ~ 1.0000+6	4.2091+0	2.5872+0		1.7376+0					0.0000+0				6.7886-3
7.0000	6 ~ 1.0000+7	3.6740+0	1.9188+0		1.9188+0					0.0000+0				6.7886-3
1.0000	7 ~ 2.0000+7	4.4223+0	2.5980+0		1.0868+0					0.0000+0				6.7886-3

100Ru (4404)

CROSS SECTION

MATERIAL = 4404

ENERGY	ELASTIC	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,P)	(N,MP)	(N,MR)	(N,D)	(N,T)	MU-BAR
1.0000+ 5	6.4858+ 0	2.2009+ 1	6.4858+ 0	1.5544+ 1	1.5544+ 1							6.7309- 3
1.0000+ 2	9.4859+ 0	1.3107+ 1	9.4859+ 0	6.6417+ 0	6.6417+ 0							6.7309- 3
1.0000+ 2	9.4859+ 0	1.3107+ 1	9.4859+ 0	6.6417+ 0	6.6417+ 0							6.7309- 3
1.0000+ 2	9.4859+ 0	1.3107+ 1	9.4859+ 0	6.6417+ 0	6.6417+ 0							6.7309- 3
1.0000+ 1	6.4832+ 0	9.5591+ 0	6.4832+ 0	2.0959+ 0	2.0959+ 0							6.7309- 3
1.0000+ 1	6.4832+ 0	9.5591+ 0	6.4832+ 0	2.0959+ 0	2.0959+ 0							6.7309- 3
1.0000+ 0	6.4421+ 0	7.0892+ 0	6.4421+ 0	6.5407+ 0	6.5407+ 0							6.7311- 3
1.0000+ 0	6.4421+ 0	7.0892+ 0	6.4421+ 0	6.5407+ 0	6.5407+ 0							6.7311- 3
1.0000+ 1	6.2894+ 0	6.4289+ 0	6.2894+ 0	1.8117+ 0	1.8117+ 0							6.7311- 3
1.0000+ 1	6.2894+ 0	6.4289+ 0	6.2894+ 0	1.8117+ 0	1.8117+ 0							6.7311- 3
1.0000+ 2	5.3440+ 0	7.6278+ 0	5.3440+ 0	2.4838+ 0	2.4838+ 0							6.7311- 3
1.0000+ 2	5.3440+ 0	7.6278+ 0	5.3440+ 0	2.4838+ 0	2.4838+ 0							6.7311- 3
1.0000+ 3	4.9452+ 0	5.0000+ 3	4.9452+ 0	4.7278+ 0	4.7278+ 0							6.8384- 3
1.0000+ 3	4.9452+ 0	5.0000+ 3	4.9452+ 0	4.7278+ 0	4.7278+ 0							6.8384- 3
1.0000+ 3	9.0574+ 0	1.0765+ 3	9.0574+ 0	1.1588+ 0	1.1588+ 0							6.8384- 3
1.0000+ 3	9.0574+ 0	1.0765+ 3	9.0574+ 0	1.1588+ 0	1.1588+ 0							6.8384- 3
1.0000+ 4	7.1356+ 0	7.0300+ 4	7.1356+ 0	2.1826+ 0	2.1826+ 0							6.8384- 3
1.0000+ 4	7.1356+ 0	7.0300+ 4	7.1356+ 0	2.1826+ 0	2.1826+ 0							6.8384- 3
1.0000+ 4	7.1356+ 0	7.0300+ 4	7.1356+ 0	2.1826+ 0	2.1826+ 0							6.8384- 3
1.0000+ 5	7.5879+ 0	7.2522+ 5	7.5879+ 0	1.1071+ 0	1.1071+ 0							6.8384- 3
1.0000+ 5	7.5879+ 0	7.2522+ 5	7.5879+ 0	1.1071+ 0	1.1071+ 0							6.8384- 3
1.0000+ 6	4.5690+ 0	6.7648+ 6	4.5690+ 0	1.0717+ 0	1.0717+ 0							6.8384- 3
1.0000+ 6	4.5690+ 0	6.7648+ 6	4.5690+ 0	1.0717+ 0	1.0717+ 0							6.8384- 3
1.0000+ 7	2.4726+ 0	4.4222+ 7	2.4726+ 0	5.2708- 1	5.2708- 1							6.8384- 3
1.0000+ 7	2.4726+ 0	4.4222+ 7	2.4726+ 0	5.2708- 1	5.2708- 1							6.8384- 3
1.0000+ 7	2.4726+ 0	4.4222+ 7	2.4726+ 0	5.2708- 1	5.2708- 1							6.8384- 3
1.0000+ 7	2.4726+ 0	4.4222+ 7	2.4726+ 0	5.2708- 1	5.2708- 1							6.8384- 3

101Ru (4405)

CROSS SECTION

MATERIAL = 4405

ENERGY	ELASTIC	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,P)	(N,MP)	(N,MR)	(N,D)	(N,T)	MU-BAR
1.0000+ 5	3.7410+ 0	1.4116+ 1	3.7410+ 0	1.0375+ 1	1.0375+ 1							6.6641- 3
1.0000+ 2	3.7409+ 0	8.1790+ 0	3.7409+ 0	4.1391+ 0	4.1391+ 0							6.6641- 3
1.0000+ 2	3.7409+ 0	8.1790+ 0	3.7409+ 0	4.1391+ 0	4.1391+ 0							6.6641- 3
1.0000+ 2	3.7409+ 0	8.1790+ 0	3.7409+ 0	4.1391+ 0	4.1391+ 0							6.6641- 3
1.0000+ 1	3.7392+ 0	5.1574+ 0	3.7392+ 0	1.0181+ 0	1.0181+ 0							6.6641- 3
1.0000+ 1	3.7392+ 0	5.1574+ 0	3.7392+ 0	1.0181+ 0	1.0181+ 0							6.6641- 3
1.0000+ 0	3.7344+ 0	4.3598+ 0	3.7344+ 0	7.6381- 1	7.6381- 1							6.6641- 3
1.0000+ 0	3.7344+ 0	4.3598+ 0	3.7344+ 0	7.6381- 1	7.6381- 1							6.6641- 3
1.0000+ 0	3.7220+ 0	4.2298+ 0	3.7220+ 0	5.0792- 1	5.0792- 1							6.6641- 3
1.0000+ 0	3.7220+ 0	4.2298+ 0	3.7220+ 0	5.0792- 1	5.0792- 1							6.6641- 3
1.0000+ 1	4.5698+ 0	4.1855+ 0	4.5698+ 0	6.1634+ 0	6.1634+ 0							6.6641- 3
1.0000+ 1	4.5698+ 0	4.1855+ 0	4.5698+ 0	6.1634+ 0	6.1634+ 0							6.6641- 3
1.0000+ 1	4.5698+ 0	4.1855+ 0	4.5698+ 0	6.1634+ 0	6.1634+ 0							6.6641- 3
1.0000+ 1	4.5698+ 0	4.1855+ 0	4.5698+ 0	6.1634+ 0	6.1634+ 0							6.6641- 3
1.0000+ 2	5.7211+ 0	1.5591+ 1	5.7211+ 0	9.8098+ 0	9.8098+ 0							6.6641- 3
1.0000+ 2	5.7211+ 0	1.5591+ 1	5.7211+ 0	9.8098+ 0	9.8098+ 0							6.6641- 3
1.0000+ 2	1.1711+ 1	2.4011+ 1	1.1711+ 1	9.4726+ 0	9.4726+ 0							6.6641- 3
1.0000+ 2	1.1711+ 1	2.4011+ 1	1.1711+ 1	9.4726+ 0	9.4726+ 0							6.6641- 3
1.0000+ 3	7.1699+ 0	1.0893+ 1	7.1699+ 0	3.6686+ 0	3.6686+ 0							6.6641- 3
1.0000+ 3	7.1699+ 0	1.0893+ 1	7.1699+ 0	3.6686+ 0	3.6686+ 0							6.6641- 3
1.0000+ 4	5.5955+ 0	7.2277+ 0	5.5955+ 0	2.0583+ 0	2.0583+ 0							6.6641- 3
1.0000+ 4	5.5955+ 0	7.2277+ 0	5.5955+ 0	2.0583+ 0	2.0583+ 0							6.6641- 3
1.0000+ 4	5.5955+ 0	7.2277+ 0	5.5955+ 0	2.0583+ 0	2.0583+ 0							6.6641- 3
1.0000+ 4	5.5955+ 0	7.2277+ 0	5.5955+ 0	2.0583+ 0	2.0583+ 0							6.6641- 3
1.0000+ 5	7.2782+ 0	7.7757+ 0	7.2782+ 0	1.0210+ 0	1.0210+ 0							6.6641- 3
1.0000+ 5	7.2782+ 0	7.7757+ 0	7.2782+ 0	1.0210+ 0	1.0210+ 0							6.6641- 3
1.0000+ 5	7.2782+ 0	7.7757+ 0	7.2782+ 0	1.0210+ 0	1.0210+ 0							6.6641- 3
1.0000+ 5	7.2782+ 0	7.7757+ 0	7.2782+ 0	1.0210+ 0	1.0210+ 0							6.6641- 3
1.0000+ 6	4.0421+ 0	5.7534+ 0	4.0421+ 0	9.1193- 2	9.1193- 2							6.6641- 3
1.0000+ 6	4.0421+ 0	5.7534+ 0	4.0421+ 0	9.1193- 2	9.1193- 2							6.6641- 3
1.0000+ 6	4.0421+ 0	5.7534+ 0	4.0421+ 0	9.1193- 2	9.1193- 2							6.6641- 3
1.0000+ 6	4.0421+ 0	5.7534+ 0	4.0421+ 0	9.1193- 2	9.1193- 2							6.6641- 3
1.0000+ 7	2.7202+ 0	4.4221+ 0	2.7202+ 0	1.0675- 5	1.0675- 5							6.6641- 3
1.0000+ 7	2.7202+ 0	4.4221+ 0	2.7202+ 0	1.0675- 5	1.0675- 5							6.6641- 3
1.0000+ 7	2.7202+ 0	4.4221+ 0	2.7202+ 0	1.0675- 5	1.0675- 5							6.6641- 3
1.0000+ 7	2.7202+ 0	4.4221+ 0	2.7202+ 0	1.0675- 5	1.0675- 5							6.6641- 3

102Pd (4601)

CROSS SECTION

MATERIAL = 4601

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,FP)	(N,NA)	(N,D)	(N,T)	MU-BRR
1.0000-5	1.6472+1	6.0249+0	1.0448+1	1.0448+1								6.5987-3
1.0000-4	9.4801+0	5.0247+0	4.4554+0	4.4554+0								8.6887-3
1.0000-3	5.9213+0	5.0249+0	3.1417+0	3.1417+0								8.8821-3
1.0000-2	7.8823+0	5.0249+0	1.6296+0	1.6296+0								6.5897-3
1.0000-1	9.8955+0	5.0249+0	1.5748+0	1.5748+0								8.9887-3
2.0000-1	5.9213+0	5.0116+0	8.6898+0	8.6898+0								8.9887-3
3.0000-1	5.9213+0	5.0037+0	6.0610+0	6.0610+0								8.9887-3
4.0000-1	5.9213+0	4.9995+0	3.4812+0	3.4812+0								8.9887-3
5.0000-1	5.9213+0	4.9967+0	1.5996+0	1.5996+0								8.9887-3
6.0000-1	5.9213+0	4.9934+0	1.0905+0	1.0905+0								8.9887-3
7.0000-1	4.8630+0	4.8993+0	8.5713+0	8.5713+0								8.9887-3
1.0000-2	4.8630+0	4.8452+0	2.4331+0	2.4331+0								8.9887-3
2.0000-2	4.8630+0	4.8589+0	1.4264+0	1.4264+0								8.9887-3
3.0000-2	9.1852+1	4.8087+1	1.8870+1	1.8870+1								8.9887-3
4.0000-2	1.9785+0	1.4209+0	9.5598+0	9.5598+0								8.9887-3
5.0000-2	1.4944+1	1.2414+1	2.5402+1	2.5402+1								8.9887-3
6.0000-2	6.3529+0	1.0517+0	1.7405+0	1.7405+0								8.9887-3
7.0000-2	7.9780+0	8.0723+0	6.6788+0	6.6788+0								7.1028-3
1.0000-3	7.9780+0	8.0711+0	5.6536+0	5.6536+0								8.1034-3
2.0000-3	7.9780+0	8.0534+0	1.8098+0	1.8098+0								1.0094-3
3.0000-3	7.9780+0	8.0679+0	1.1805+0	1.1805+0								1.0094-3
4.0000-3	7.9780+0	8.0659+0	6.6788+0	6.6788+0								1.0094-3
5.0000-3	7.9780+0	8.0659+0	2.9211+0	2.9211+0								1.0094-3
6.0000-3	7.9780+0	8.0659+0	1.7975+0	1.7975+0								1.0094-3
7.0000-3	7.9780+0	8.0659+0	6.4424+0	6.4424+0								1.0094-3
1.0000-4	7.9780+0	8.0659+0	9.7480+0	9.7480+0								1.0094-3
2.0000-4	7.9780+0	8.0659+0	6.4424+0	6.4424+0								1.0094-3
3.0000-4	7.9780+0	8.0659+0	9.7480+0	9.7480+0								1.0094-3
4.0000-4	7.9780+0	8.0659+0	6.4424+0	6.4424+0								1.0094-3
5.0000-4	7.9780+0	8.0659+0	9.7480+0	9.7480+0								1.0094-3
6.0000-4	7.9780+0	8.0659+0	6.4424+0	6.4424+0								1.0094-3
7.0000-4	7.9780+0	8.0659+0	9.7480+0	9.7480+0								1.0094-3
1.0000-5	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
2.0000-5	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
3.0000-5	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
4.0000-5	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
5.0000-5	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
6.0000-5	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
7.0000-5	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
1.0000-6	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
2.0000-6	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
3.0000-6	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
4.0000-6	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
5.0000-6	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
6.0000-6	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
7.0000-6	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
1.0000-7	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
2.0000-7	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
3.0000-7	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
4.0000-7	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
5.0000-7	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
6.0000-7	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1
7.0000-7	4.2258+0	2.3798+0	8.7117+0	8.7117+0								8.6537-1

104Pd (4602)

CROSS SECTION

MATERIAL = 4602

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,FP)	(N,NA)	(N,D)	(N,T)	MU-BRR
1.0000-5	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
1.0000-4	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
2.0000-4	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
3.0000-4	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
4.0000-4	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
5.0000-4	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
6.0000-4	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
7.0000-4	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
1.0000-5	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
2.0000-5	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
3.0000-5	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
4.0000-5	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
5.0000-5	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
6.0000-5	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
7.0000-5	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
1.0000-6	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
2.0000-6	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
3.0000-6	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
4.0000-6	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
5.0000-6	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
6.0000-6	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
7.0000-6	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
1.0000-7	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
2.0000-7	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
3.0000-7	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
4.0000-7	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
5.0000-7	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
6.0000-7	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3
7.0000-7	6.5364+0	4.9172+0	1.6182+0	1.6182+0								6.4718-3

105Pd (4603)

CROSS SECTION

MATERIAL =4603

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N.2N)	(N.3N)	(N.F)	(N.NP)	(N.NR)	(N.D)	(N.T)	MU-BRR
1.0000-5	5.7886+1	5.1172+0	0	6.2768+1	0	0	0	0	0	0	0	6.4100-3
1.0000-4	3.1914+1	5.1166+0	0	2.6798+0	0	0	0	0	0	0	0	6.4100-3
1.0000-3	2.0393+1	5.1158+0	0	1.5852+0	0	0	0	0	0	0	0	6.4100-3
1.0000-2	1.2978+1	5.1129+0	0	1.7081+0	0	0	0	0	0	0	0	6.4100-3
1.0000-1	1.2485+1	5.1095+0	0	9.5759+0	0	0	0	0	0	0	0	6.4100-3
2.0000-1	1.3068+0	5.0989+0	0	4.2168+0	0	0	0	0	0	0	0	6.4100-3
3.0000-1	9.3692+0	5.0771+0	0	3.2951+0	0	0	0	0	0	0	0	6.4100-3
4.0000-1	7.4445+0	5.0495+0	0	2.4040+0	0	0	0	0	0	0	0	6.4100-3
5.0000-1	6.3775+0	4.9874+0	0	1.5702+0	0	0	0	0	0	0	0	6.4100-3
6.0000-1	5.9655+0	4.8402+0	0	1.1234+0	0	0	0	0	0	0	0	6.4100-3
7.0000-1	4.8275+1	5.4154+0	0	9.9855+1	0	0	0	0	0	0	0	6.4100-3
8.0000-1	2.7438+1	5.2215+0	0	1.8256+0	0	0	0	0	0	0	0	6.4100-3
9.0000-1	5.0173+1	7.8885+0	0	2.5775+1	0	0	0	0	0	0	0	6.4100-3
1.0000-2	1.9591+1	7.9591+0	0	1.9898+1	0	0	0	0	0	0	0	6.4100-3
2.0000-2	1.5077+1	9.0162+0	0	7.0693+0	0	0	0	0	0	0	0	6.4100-3
3.0000-2	1.8419+1	9.2005+0	0	7.2186+0	0	0	0	0	0	0	0	6.4100-3
4.0000-2	1.7339+0	9.2974+0	0	4.0508+0	0	0	0	0	0	0	0	6.4100-3
5.0000-2	1.7243+0	4.5715+0	0	5.6021+0	0	0	0	0	0	0	0	6.4100-3
6.0000-2	6.5801+0	4.6325+0	0	2.0878+0	0	0	0	0	0	0	0	6.4100-3
7.0000-2	8.4211+0	4.7893+0	0	1.6317+0	0	0	0	0	0	0	0	6.4100-3
8.0000-2	5.4435+0	5.2122+0	0	1.2314+0	0	0	0	0	0	0	0	6.4100-3
9.0000-2	6.7424+0	5.4275+0	0	1.3214+0	0	0	0	0	0	0	0	6.4100-3
1.0000-3	7.0355+0	6.2891+0	0	7.7473+1	0	0	0	0	0	0	0	6.4100-3
2.0000-3	7.0719+0	6.5039+0	0	5.8509+1	0	1.0455-17	0	0	0	0	0	6.4100-3
3.0000-3	6.7424+0	5.5475+0	0	2.0111+0	0	5.7468-18	0	0	0	0	0	6.4100-3
4.0000-3	6.4952+0	4.9774+0	0	1.1839+0	0	6.1817-13	0	0	0	0	0	6.4100-3
5.0000-3	5.6897+0	4.0841+0	0	7.3192+0	0	7.8650-6	0	0	0	0	0	6.4100-3
6.0000-3	4.9507+0	2.6188+0	0	1.8989+0	0	6.7834-6	0	0	0	0	0	6.4100-3
7.0000-3	3.9475+0	2.0287+0	0	1.9494+0	0	1.3680-3	0	0	0	0	0	6.4100-3
8.0000-3	4.3441+0	2.5021+0	0	1.1603+0	0	3.8422-3	0	1.3345-15	0	0	0	6.4100-3
9.0000-3	4.2255+0	2.4219+0	0	2.0344-1	0	3.1281-2	0	3.8478-3	0	0	0	6.4100-3

106Pd (4604)

CROSS SECTION

MATERIAL =4604

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N.2N)	(N.3N)	(N.F)	(N.NP)	(N.NR)	(N.D)	(N.T)	MU-BRR
1.0000-5	5.9390+0	5.0011+0	0	9.3794-1	0	0	0	0	0	0	0	6.3486-3
1.0000-4	5.4018+0	6.0010+0	0	4.0074-1	0	0	0	0	0	0	0	6.3486-3
2.0000-4	5.2447+0	6.0008+0	0	4.2079-1	0	0	0	0	0	0	0	6.3486-3
3.0000-4	5.1671+0	6.0008+0	0	1.6026-1	0	0	0	0	0	0	0	6.3486-3
4.0000-4	5.1871+0	6.0008+0	0	1.2652-1	0	0	0	0	0	0	0	6.3486-3
5.0000-4	5.0893+0	6.0008+0	0	8.2455-1	0	0	0	0	0	0	0	6.3486-3
6.0000-4	5.2054+0	4.8889+0	0	6.1519-1	0	0	0	0	0	0	0	6.3486-3
7.0000-4	5.0789+0	4.8814+0	0	9.9142-1	0	0	0	0	0	0	0	6.3486-3
8.0000-4	5.0059+0	4.8664+0	0	7.0765-1	0	0	0	0	0	0	0	6.3486-3
9.0000-4	4.9807+0	4.8759+0	0	1.0222-1	0	0	0	0	0	0	0	6.3486-3
1.0000-3	4.9650+0	4.8683+0	0	1.0897-2	0	0	0	0	0	0	0	6.3486-3
2.0000-3	4.9379+0	4.8201+0	0	7.1571-1	0	0	0	0	0	0	0	6.3486-3
3.0000-3	4.9772+0	4.8722+0	0	5.5258-1	0	0	0	0	0	0	0	6.3486-3
4.0000-3	4.9122+0	4.8122+0	0	5.4376-1	0	0	0	0	0	0	0	6.3486-3
5.0000-3	4.8524+0	4.7501+0	0	4.2430-1	0	0	0	0	0	0	0	6.3486-3
6.0000-3	4.8774+0	4.8182+0	0	3.8659+0	0	0	0	0	0	0	0	6.3486-3
7.0000-3	4.8099+0	4.8227+0	0	1.9530+0	0	0	0	0	0	0	0	6.3486-3
8.0000-3	4.8399+0	4.8656+0	0	5.8991-1	0	0	0	0	0	0	0	6.3486-3
9.0000-3	4.8253+0	4.8656+0	0	5.8910-1	0	0	0	0	0	0	0	6.3486-3
1.0000-2	4.8201+0	4.8201+0	0	4.3999-1	0	0	0	0	0	0	0	6.3486-3
2.0000-2	4.8113+0	4.8113+0	0	3.0179-1	0	0	0	0	0	0	0	6.3486-3
3.0000-2	4.8014+0	4.8014+0	0	2.6577-1	0	0	0	0	0	0	0	6.3486-3
4.0000-2	4.7972+0	4.8241+0	0	1.3554-1	0	0	0	0	0	0	0	6.3486-3
5.0000-2	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
6.0000-2	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
7.0000-2	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
8.0000-2	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
9.0000-2	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
1.0000-1	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
2.0000-1	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
3.0000-1	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
4.0000-1	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
5.0000-1	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
6.0000-1	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
7.0000-1	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
8.0000-1	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3
9.0000-1	4.7979+0	4.8241+0	0	1.1415-1	0	0	0	0	0	0	0	6.3486-3

107Pd (4605)

CROSS SECTION

MATERIAL = 4605

Table with columns: ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,2N), (N,2N), (N,3N), (N,P), (N,MP), (N,RP), (N,3R), (N,D), (N,T), NU-BAR. Rows 1-10000.

108Pd (4606)

CROSS SECTION

MATERIAL = 4606

Table with columns: ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,2N), (N,2N), (N,3N), (N,P), (N,MP), (N,RP), (N,3R), (N,D), (N,T), NU-BAR. Rows 1-10000.

110Cd (4803)

CROSS SECTION

MATERIAL = 4803

Table for 110Cd cross sections. Columns include Energy, Total, Elastic, Inelastic, Capture, (N,ZN), (N,SN), (N,P), (N,NP), (N,NR), (N,O), (N,T), and MU-BAR. Data points are provided for energy levels from 1.0000 to 7.0000 MeV.

111Cd (4804)

CROSS SECTION

MATERIAL = 4804

Table for 111Cd cross sections. Columns include Energy, Total, Elastic, Inelastic, Capture, (N,ZN), (N,SN), (N,P), (N,NP), (N,NR), (N,O), (N,T), and MU-BAR. Data points are provided for energy levels from 1.0000 to 7.0000 MeV.

113In (4901)

CROSS SECTION

MATERIAL = 4901

Table with columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N,2N), (N,2N), (N,SN), (N,P), (N,NP), (N,ND), (N,T), MU-BAR. Rows 1-16.

115In (4902)

CROSS SECTION

MATERIAL = 4902

Table with columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N,2N), (N,2N), (N,SN), (N,P), (N,NP), (N,ND), (N,T), MU-BAR. Rows 1-16.

112Sn (5001)

CROSS SECTION

MATERIAL =5001

Table with columns: ENERGY, TOTAL, ELASTIC, INELA, CAPTURE, (N,2N), (N,SN), (N,P), (N,NP), (N,R), (N,NA), (N,D), (N,T), MU-SNR. Rows 1-1000.

114Sn (5002)

CROSS SECTION

MATERIAL =5002

Table with columns: ENERGY, TOTAL, ELASTIC, INELA, CAPTURE, (N,2N), (N,SN), (N,P), (N,NP), (N,R), (N,NA), (N,D), (N,T), MU-SNR. Rows 1-1000.

177Sn (5005)

CROSS SECTION

MATERIAL =5005

ENERGY	ELASTIC	INEL	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,R)	(N,D)	(N,T)	MU-SR
1.0000-6	5.1046+0	0	0	0	0	0	0	0	0	0	5.7821-3
1.0000-5	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000-4	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000-3	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000-2	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000-1	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000+0	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000+1	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000+2	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000+3	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000+4	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000+5	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000+6	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3
1.0000+7	9.1043+0	0	2.8745+0	0	0	0	0	0	0	0	5.7821-3

118Sn (5006)

CROSS SECTION

MATERIAL =5006

ENERGY	ELASTIC	INEL	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,R)	(N,D)	(N,T)	MU-SR
1.0000-6	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000-5	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000-4	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000-3	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000-2	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000-1	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000+0	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000+1	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000+2	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000+3	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000+4	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000+5	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000+6	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3
1.0000+7	4.8960+0	0	5.7422-1	0	0	0	0	0	0	0	5.7034-3

119Sn (5007)

CROSS SECTION

MATERIAL =5007

Table for 119Sn (5007) showing cross-section data across various energy levels (1.0000- to 7.0000- eV) and reaction types (TOTAL, ELASTIC, INELA, CAPTURE, etc.).

120Sn (5008)

CROSS SECTION

MATERIAL =5008

Table for 120Sn (5008) showing cross-section data across various energy levels (1.0000- to 7.0000- eV) and reaction types (TOTAL, ELASTIC, INELA, CAPTURE, etc.).

122Sn (5009)

CROSS SECTION

MATERIAL = 5009

Table for 122Sn (5009) showing cross-section data with columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N.2N), (N.SN), (N.P), (N.NP), (N.R), (N.NR), (N.D), (N.T), MU-BAR.

123Sn (5010)

CROSS SECTION

MATERIAL = 5010

Table for 123Sn (5010) showing cross-section data with columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N.2N), (N.SN), (N.P), (N.NP), (N.R), (N.NR), (N.D), (N.T), MU-BAR.

124Sb (5103)

CROSS SECTION

MATERIAL #5103		CROSS SECTION											MU-BAR		
ENERGY		TOTAL	ELASTIC	INEL	CAPTURE	(N.2N)	(N.3N)	(N.P)	(N.NP)	(N.R)	(N.NR)	(N.D)	(N.T)		
1.0000-6	1.0000-2	5.7676+1	3.7699+0		5.3666+1			0.0000+0		0.0000+0				6.4271-3	3
1.0000-3	2.0000-2	2.6788+1	3.7699+0		2.2928+1			0.0000+0		0.0000+0				5.4271-3	3
1.0000-4	4.0000-1	7.5072+0	4.7898+0		1.9315+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000-7	1.0000-1	1.3539+6	3.7699+0		8.5307+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000-1	2.0000-1	1.1014+0	3.7699+0		7.2671+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000-1	4.0000-1	6.4016+0	3.7699+0		5.7660+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000-7	1.0000-1	6.7913+0	3.7699+0		3.0140+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+0	2.0000+0	8.1050+0	3.7699+0		2.2930+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+0	4.0000+0	6.5379+0	3.7699+0		5.0660+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+0	7.0000+0	5.7275+0	3.7699+0		4.2611+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+1	1.0000+1	3.8989+0	3.7699+0		3.1806+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+1	2.0000+1	1.2271+1	3.7699+0		1.2733+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+1	4.0000+1	1.7765+0	3.7699+0		1.2733+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+2	1.0000+2	1.1545+0	3.7699+0		8.5486+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+2	2.0000+2	8.8040+0	3.7699+0		4.7653+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+3	1.0000+3	7.5389+0	3.7699+0		2.8636+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+3	2.0000+3	8.7999+0	3.7699+0		2.0907+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+3	4.0000+3	8.5056+0	3.7699+0		1.9468+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+4	1.0000+4	5.8655+0	3.7699+0		1.8716+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+4	2.0000+4	3.9227+0	3.7699+0		1.5544+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+4	4.0000+4	8.2671+0	3.7699+0		2.3038+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+5	1.0000+5	8.3094+0	3.7699+0		4.1532+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+5	2.0000+5	8.3907+0	3.7699+0		4.1532+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+5	4.0000+5	8.3722+0	3.7699+0		1.4418+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+6	1.0000+6	8.9624+0	3.7699+0		1.7406+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+6	2.0000+6	4.8566+0	3.7699+0		1.8679+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+6	4.0000+6	4.2765+0	3.7699+0		1.2008+0			0.0000+0		0.0000+0				5.4271-3	3
1.0000+7	1.0000+7	4.3746+0	3.7699+0		1.6977+0			0.0000+0		0.0000+0				5.4271-3	3

125Sb (5104)

CROSS SECTION

MATERIAL #5104		CROSS SECTION											MU-BAR		
ENERGY		TOTAL	ELASTIC	INEL	CAPTURE	(N.2N)	(N.3N)	(N.P)	(N.NP)	(N.R)	(N.NR)	(N.D)	(N.T)		
1.0000-6	1.0000-2	1.9486+1	4.0000+0		1.5418+1			0.0000+0		0.0000+0				5.3936-3	3
1.0000-3	2.0000-2	1.0650+1	4.0000+0		6.8998+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000-4	4.0000-1	7.4430+0	4.0000+0		3.2359+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000-7	1.0000-1	6.7882+0	4.0000+0		2.7397+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000-1	2.0000-1	8.1015+0	4.0000+0		2.0836+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000-1	4.0000-1	5.0839+0	4.0000+0		1.4733+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000-7	1.0000-1	4.9002+0	4.0000+0		1.8628+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+0	2.0000+0	4.7007+0	4.0000+0		8.6898+1			0.0000+0		0.0000+0				5.3936-3	3
1.0000+0	4.0000+0	4.4792+0	4.0000+0		4.8595+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+0	7.0000+0	4.2526+0	4.0000+0		2.7593+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+1	1.0000+1	2.3244+0	4.0000+0		1.5073+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+1	2.0000+1	1.1774+0	4.0000+0		2.1176+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+1	4.0000+1	1.8009+1	4.0000+0		1.1035+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+2	1.0000+2	1.4823+1	4.0000+0		8.0411+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+2	2.0000+2	1.1618+1	4.0000+0		5.3076+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+2	4.0000+2	8.8630+0	4.0000+0		3.6828+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+3	1.0000+3	7.0424+0	4.0000+0		2.0688+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+3	2.0000+3	7.0601+0	4.0000+0		1.4523+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+3	4.0000+3	6.5341+0	4.0000+0		8.4839+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+4	1.0000+4	8.1288+0	4.0000+0		5.1688+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+4	2.0000+4	6.2004+0	4.0000+0		6.6010+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+4	4.0000+4	6.2204+0	4.0000+0		6.9777+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+5	1.0000+5	6.3091+0	4.0000+0		8.0844+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+5	2.0000+5	6.5721+0	4.0000+0		5.8911+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+5	4.0000+5	5.8627+0	4.0000+0		4.8627+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+6	1.0000+6	4.8620+0	4.0000+0		1.9390+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+6	2.0000+6	4.2762+0	4.0000+0		1.7112+0			0.0000+0		0.0000+0				5.3936-3	3
1.0000+7	1.0000+7	4.3742+0	4.0000+0		3.3015+0			0.0000+0		0.0000+0				5.3936-3	3

120Te (5201)

CROSS SECTION

MATERIAL = 5201

ENERGY	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	(N.ZN)	(N.SN)	(N.P)	(N.NP)	(N.R)	(N.NR)	(N.D)	(N.T)	MU-BAR
1.0000+	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	9.5436-1	1.4527-2	2.3656-2	3.2793-2	1.1539-2	1.2511-2	5.1900-3	6.3841-4	8.2653-1
1.0000+	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	9.5436-1	1.4527-2	2.3656-2	3.2793-2	1.1539-2	1.2511-2	5.1900-3	6.3841-4	8.2653-1
1.0000+	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	9.5436-1	1.4527-2	2.3656-2	3.2793-2	1.1539-2	1.2511-2	5.1900-3	6.3841-4	8.2653-1
1.0000+	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	9.5436-1	1.4527-2	2.3656-2	3.2793-2	1.1539-2	1.2511-2	5.1900-3	6.3841-4	8.2653-1

122Te (5202)

CROSS SECTION

MATERIAL = 5202

ENERGY	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	(N.ZN)	(N.SN)	(N.P)	(N.NP)	(N.R)	(N.NR)	(N.D)	(N.T)	MU-BAR
1.0000+	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	1.0771+0	5.0402-2	1.0139-2	6.4272-3	5.4416-3	2.9186-3	4.0292-4	8.2654-1	
1.0000+	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	1.0771+0	5.0402-2	1.0139-2	6.4272-3	5.4416-3	2.9186-3	4.0292-4	8.2654-1	
1.0000+	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	1.0771+0	5.0402-2	1.0139-2	6.4272-3	5.4416-3	2.9186-3	4.0292-4	8.2654-1	
1.0000+	1.0000+	2.0000+	3.0000+	4.0000+	5.0000+	6.0000+	7.0000+	8.0000+	9.0000+	10.0000+	11.0000+	12.0000+	13.0000+	14.0000+	15.0000+	16.0000+	17.0000+	18.0000+	19.0000+	20.0000+	1.0771+0	5.0402-2	1.0139-2	6.4272-3	5.4416-3	2.9186-3	4.0292-4	8.2654-1	

123Te (5203)

CROSS SECTION

MATERIAL =5203

Table for 123Te (5203) showing cross sections for various energy levels. Columns include ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,2N), (N,2N), (N,P), (N,MP), (N,RA), (N,D), (N,T), and (N,3N).

124Te (5204)

CROSS SECTION

MATERIAL =5204

Table for 124Te (5204) showing cross sections for various energy levels. Columns include ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,2N), (N,2N), (N,P), (N,MP), (N,RA), (N,D), (N,T), and (N,3N).

125Te (5205)

CROSS SECTION

MATERIAL =5205

Table for 125Te (5205) showing cross sections for various energy levels and reaction types. Columns include ENERGY, TOTAL, ELASTIC, INELA, CAPTURE, (N,2N), (N,3N), (N,MP), (N,B), (N,NA), (N,D), (N,T), and MU-BRR. Data points are provided for energy levels from 1.0000 to 7.0000 MeV.

126Te (5206)

CROSS SECTION

MATERIAL =5206

Table for 126Te (5206) showing cross sections for various energy levels and reaction types. Columns include ENERGY, TOTAL, ELASTIC, INELA, CAPTURE, (N,2N), (N,3N), (N,MP), (N,B), (N,NA), (N,D), (N,T), and MU-BRR. Data points are provided for energy levels from 1.0000 to 7.0000 MeV.

127 I (5301)

CROSS SECTION

MATERIAL =5301

ENERGY	5	1.0000	2	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,NR)	(N,D)	(N,T)	MU-BAR
1.0000	5	1.0000	2	2.2727	3.6408	0	1.9186	0	0.0000	0	0.0000	0	0.0000	0	5.2988
1.0000	2	2.0000	2	1.7891	5.6014	0	0.1988	0	0.0000	0	0.0000	0	0.0000	0	5.2988
1.0000	2	7.0000	2	7.7753	2.9586	0	4.2866	0	0.0000	0	0.0000	0	0.0000	0	5.2988
1.0000	2	1.0000	1	8.9478	3.5378	0	3.4100	0	0.0000	0	0.0000	0	0.0000	0	5.2988
1.0000	1	2.0000	1	6.1304	0	0	2.5955	0	0.0000	0	0.0000	0	0.0000	0	5.2988
1.0000	1	7.0000	1	5.5618	0	0	1.6311	0	0.0000	0	0.0000	0	0.0000	0	5.2988
1.0000	1	1.0000	0	4.6844	0	0	1.0780	0	0.0000	0	0.0000	0	0.0000	0	5.2988
1.0000	0	2.0000	0	4.3029	0	0	0.2305	1	0.0000	0	0.0000	0	0.0000	0	5.2988
1.0000	0	7.0000	0	3.4182	0	0	5.8877	1	0.0000	0	0.0000	0	0.0000	0	5.2988
1.0000	0	1.0000	0	3.5720	0	0	5.9197	1	0.0000	0	0.0000	0	0.0000	0	5.3031
1.0000	1	2.0000	1	3.7164	0	0	9.5478	2	0.0000	0	0.0000	0	0.0000	0	5.3031
1.0000	1	7.0000	1	4.2689	0	0	7.7338	1	0.0000	0	0.0000	0	0.0000	0	5.3031
1.0000	1	1.0000	2	4.6899	1	1	5.1205	1	0.0000	0	0.0000	0	0.0000	0	5.3031
1.0000	2	2.0000	2	3.3511	1	1	6.5971	1	0.0000	0	0.0000	0	0.0000	0	5.3080
1.0000	2	7.0000	2	1.6104	1	1	6.5875	0	0.0000	0	0.0000	0	0.0000	0	5.3115
1.0000	2	1.0000	3	1.9929	1	1	6.5366	0	0.0000	0	0.0000	0	0.0000	0	5.3115
1.0000	3	2.0000	3	1.1076	0	0	9.0440	0	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	3	7.0000	3	7.7098	0	0	1.7820	0	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	4	2.0000	4	6.9570	0	0	9.0765	0	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	4	7.0000	4	6.8390	0	0	2.4167	0	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	4	1.0000	5	5.7805	0	0	3.4838	0	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	5	2.0000	5	5.5322	0	0	0.6008	0	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	5	7.0000	5	8.1275	0	0	3.3950	1	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	5	1.0000	6	6.4931	0	0	7.7838	1	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	6	2.0000	6	6.6445	0	0	1.5052	0	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	6	7.0000	6	5.4073	0	0	1.8045	0	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	6	1.0000	7	4.8529	0	0	1.7238	0	0.0000	0	0.0000	0	0.0000	0	5.3142
1.0000	7	2.0000	7	4.9252	0	0	3.2054	1	0.0000	0	0.0000	0	0.0000	0	5.3142

129 I (5302)

CROSS SECTION

MATERIAL =5302

ENERGY	6	1.0000	2	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,NR)	(N,D)	(N,T)	MU-BAR
1.0000	6	1.0000	2	9.0394	6.4765	0	8.3916	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	2	2.0000	2	4.2555	0	0	3.7801	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	2	7.0000	2	7.4624	0	0	1.4285	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	2	1.0000	1	8.4478	0	0	1.4663	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	1	2.0000	1	1.7450	0	0	1.0274	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	1	7.0000	1	1.8042	0	0	7.3738	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	1	1.0000	0	1.1894	0	0	5.3140	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	0	2.0000	0	1.0506	0	0	4.0261	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	0	7.0000	0	8.7289	0	0	2.7390	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	0	1.0000	1	7.1650	0	0	1.6344	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	0	2.0000	1	5.3058	0	0	4.3218	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	1	2.0000	1	4.8527	0	0	2.0811	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	1	7.0000	1	4.5674	0	0	1.0811	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	1	1.0000	2	1.9946	0	0	1.8948	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	2	2.0000	2	1.5880	0	0	9.6124	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	2	7.0000	2	1.2454	0	0	6.1098	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	2	1.0000	3	7.4893	0	0	2.2056	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	3	2.0000	3	6.9124	0	0	1.5017	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	3	7.0000	3	6.2529	0	0	6.7820	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	3	1.0000	4	5.8817	0	0	6.8938	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	4	2.0000	4	5.2934	0	0	2.9395	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	4	7.0000	4	5.6018	0	0	1.7470	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	4	1.0000	5	5.5188	0	0	2.8607	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	5	2.0000	5	5.2939	0	0	3.1891	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	5	7.0000	5	6.1821	0	0	1.8222	1	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	5	1.0000	6	6.4824	0	0	8.0811	2	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	6	2.0000	6	5.5825	0	0	1.3654	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	6	7.0000	6	5.4021	0	0	1.9898	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	6	1.0000	7	4.3511	0	0	7.8850	0	0.0000	0	0.0000	0	0.0000	0	6.2166
1.0000	7	2.0000	7	4.9252	0	0	1.0493	0	0.0000	0	0.0000	0	0.0000	0	6.2166

131 I (5303)

CROSS SECTION

MATERIAL =SS93

Table with columns: ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N.2N), (N.3N), (N.P.), (N.MP), (N.NR), (N.D), (N.T), NU-BAR. Rows include energy ranges and various cross-section values.

MATERIAL =5401

124Xe (5401)

CROSS SECTION

Table with columns: ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N.2N), (N.3N), (N.P.), (N.MP), (N.NR), (N.D), (N.T), NU-BAR. Rows include energy ranges and various cross-section values.

126Xe (5402)

CROSS SECTION

MATERIAL = 5402

ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,MP)	(N,MR)	(N,D)	(N,T)	MU-BAR
1.0000- 5	2.0689+ 1	7.4536+ 0		1.9216+ 1								6.3408- 3
1.0000- 4	1.9100+ 1	7.4536+ 0		5.6464+ 0								5.3408- 3
1.0000- 3	1.1448+ 1	7.4536+ 0		2.2222+ 0								5.3408- 3
1.0000- 2	1.0987+ 1	7.4536+ 0		2.2222+ 0								5.3408- 3
1.0000- 1	9.2773+ 0	7.447+ 0		1.7801+ 0								5.3408- 3
1.0000- 0	8.5671+ 0	7.440+ 0		1.2666+ 0								5.3408- 3
2.0000+ 0	8.1193+ 0	7.4184+ 0		7.3360+ 1								5.3408- 3
3.0000+ 0	7.9988+ 0	7.8971+ 0		5.247+ 1								5.3408- 3
4.0000+ 0	7.4307+ 0	7.3126+ 0		7.7138+ 1								5.3408- 3
5.0000+ 0	7.1022+ 0	7.1022+ 0		5.247+ 1								5.3408- 3
6.0000+ 1	6.0622+ 0	6.473+ 0		6.5540+ 0								5.3408- 3
7.0000+ 1	5.5515+ 0	5.9178+ 0		5.9270+ 2								5.3408- 3
8.0000+ 2	4.9008+ 0	4.997+ 0		5.1988+ 2								5.3408- 3
9.0000+ 2	3.6119+ 0	3.7420+ 0		5.9212+ 2								5.3408- 3
1.0000+ 3	1.4575+ 0	1.4575+ 0		2.1872+ 0								5.3408- 3
2.0000+ 3	1.4389+ 1	1.0971+ 1		2.1572+ 0								5.3408- 3
3.0000+ 3	1.1370+ 0	1.0971+ 1		2.1572+ 0								5.3408- 3
4.0000+ 3	8.5156+ 0	8.1524+ 0		8.9137+ 1								5.3408- 3
5.0000+ 4	7.4567+ 0	7.4567+ 0		6.7570+ 1								5.3408- 3
6.0000+ 4	6.0865+ 0	6.0865+ 0		5.2612+ 1								5.3408- 3
7.0000+ 4	6.7850+ 0	6.3634+ 0		4.4166+ 1								5.3408- 3
8.0000+ 5	5.6399+ 0	5.2965+ 0		3.7277+ 1								5.3408- 3
9.0000+ 5	5.1735+ 0	5.3935+ 0		2.8826+ 1								5.3408- 3
1.0000+ 6	5.6465+ 0	5.2715+ 0		2.9821+ 1								5.3408- 3
2.0000+ 6	4.1752+ 0	4.1752+ 0		2.9821+ 1								5.3408- 3
3.0000+ 6	4.5617+ 0	4.5617+ 0		4.6254+ 2								5.3408- 3
4.0000+ 7	4.8254+ 0	3.1657+ 0		3.3113+ 3								5.3408- 3

128Xe (5403)

CROSS SECTION

MATERIAL = 5403

ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,MP)	(N,MR)	(N,D)	(N,T)	MU-BAR
1.0000- 5	3.6222+ 1	1.1058+ 1		2.4768+ 1								5.2674- 3
1.0000- 4	2.5955+ 1	1.1058+ 1		1.0681+ 1								5.2674- 3
1.0000- 3	1.8555+ 1	1.1058+ 1		7.4954+ 0								5.2674- 3
1.0000- 2	1.1047+ 1	1.1047+ 1		5.6010+ 0								5.2674- 3
1.0000- 1	1.4377+ 1	1.1040+ 1		3.3350+ 0								5.2674- 3
2.0000+ 0	1.1023+ 1	1.1023+ 1		2.3518+ 0								5.2674- 3
3.0000+ 0	1.0982+ 1	1.0982+ 1		1.2666+ 0								5.2674- 3
4.0000+ 0	1.1921+ 1	1.0682+ 1		1.0281+ 0								5.2674- 3
5.0000+ 0	1.0474+ 1	1.0474+ 1		4.6773+ 1								5.2674- 3
6.0000+ 0	1.0572+ 1	1.0158+ 1		5.7684+ 1								5.2674- 3
7.0000+ 0	8.0654+ 0	8.6142+ 0		2.5742+ 1								5.2674- 3
8.0000+ 1	7.2655+ 0	7.3711+ 0		7.6097+ 2								5.2674- 3
9.0000+ 1	6.3744+ 0	6.5262+ 0		4.6644+ 1								5.2674- 3
1.0000+ 2	4.2222+ 0	4.6644+ 0		3.3299+ 2								5.2674- 3
2.0000+ 2	3.7444+ 0	4.5037+ 0		6.5483+ 2								5.2674- 3
3.0000+ 2	3.0322+ 0	3.5625+ 0		1.2778+ 0								5.2674- 3
4.0000+ 2	3.6603+ 0	3.7399+ 0		8.1195+ 1								5.2674- 3
5.0000+ 2	3.4399+ 0	3.7768+ 0		6.4336+ 1								5.2674- 3
6.0000+ 2	3.4699+ 0	3.7641+ 0		5.2127+ 1								5.2674- 3
7.0000+ 2	7.9988+ 0	6.9929+ 0		4.0585+ 1								5.2674- 3
8.0000+ 2	6.0511+ 0	6.9929+ 0		2.0111+ 1								5.2674- 3
9.0000+ 2	5.6782+ 0	6.6170+ 0		1.7688+ 1								5.2674- 3
1.0000+ 3	5.3779+ 0	6.4689+ 0		1.6201+ 1								5.2674- 3
2.0000+ 3	5.5922+ 0	6.5922+ 0		1.4479+ 1								5.2674- 3
3.0000+ 3	5.4628+ 0	6.4480+ 0		6.3655+ 2								5.2674- 3
4.0000+ 3	5.4188+ 0	6.4188+ 0		2.329+ 1								5.2674- 3
5.0000+ 3	5.4784+ 0	6.4784+ 0		2.879+ 1								5.2674- 3
6.0000+ 3	4.7612+ 0	6.4365+ 0		4.4355+ 3								5.2674- 3
7.0000+ 3	4.3612+ 0	6.4365+ 0		1.2080+ 3								5.2674- 3
8.0000+ 3	4.3250+ 0	3.1992+ 0		1.2080+ 3								5.2674- 3
9.0000+ 3	4.3250+ 0	3.1992+ 0		1.2080+ 3								5.2674- 3

135Xe (5410)

CROSS SECTION

MATERIAL =5410

Table with columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N,2N), (N,3N), (N,P), (N,NP), (N,A), (N,NA), (N,D), (N,T), MU-BAR. Contains cross-section data for 135Xe across various energy ranges.

136Xe (5411)

CROSS SECTION

MATERIAL =5411

Table with columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N,2N), (N,3N), (N,P), (N,NP), (N,A), (N,NA), (N,D), (N,T), MU-BAR. Contains cross-section data for 136Xe across various energy ranges.

133Cs (5501)

CROSS SECTION

MATERIAL = 5501

ENERGY	ELASTIC	TOTAL	INELA	CAPTURE	(N.2N)	(N.3N)	(N.P)	(N.NP)	(N.A)	(N.NA)	(N.D)	(N.T)	MU-BAR
1.0000-6	1.0000-2	9.3709+1	4.2977+0	8.9411+1			0.0000+0		0.0000+0				5.0596-9
2.0000-6	2.0000-2	4.2528+1	4.2990+0	2.7322+1			0.0000+0		0.0000+0				5.0596-9
3.0000-6	3.0000-2	2.2893+0	4.2990+0	2.0023+1			0.0000+0		0.0000+0				5.0596-9
4.0000-6	4.0000-2	1.4312+0	4.2843+0	1.6116+1			0.0000+0		0.0000+0				5.0596-9
5.0000-6	5.0000-2	1.0400+0	4.2744+0	1.2410+1			0.0000+0		0.0000+0				5.0596-9
6.0000-6	6.0000-2	8.6884+1	4.2478+0	9.0001+0			0.0000+0		0.0000+0				5.0596-9
7.0000-6	7.0000-2	1.1168+0	4.2045+0	8.5614+0			0.0000+0		0.0000+0				5.0596-9
8.0000-6	8.0000-2	1.0111+0	4.1606+0	8.5680+0			0.0000+0		0.0000+0				5.0596-9
9.0000-6	9.0000-2	9.4681+0	4.0241+0	5.420+0			0.0000+0		0.0000+0				5.0596-9
1.0000-5	1.0000-1	1.1682+0	3.9473+0	5.0442+0			0.0000+0		0.0000+0				5.0596-9
2.0000-5	2.0000-1	1.6597+0	3.8618+0	5.7855+0			0.0000+0		0.0000+0				5.0596-9
3.0000-5	3.0000-1	3.2513+0	3.7950+0	7.4655+0			0.0000+0		0.0000+0				5.0596-9
4.0000-5	4.0000-1	3.1902+0	3.7624+0	7.5200+0			0.0000+0		0.0000+0				5.0596-9
5.0000-5	5.0000-1	2.5462+0	3.7238+0	7.5200+0			0.0000+0		0.0000+0				5.0596-9
6.0000-5	6.0000-1	3.1970+1	3.6828+1	1.6273+1			0.0000+0		0.0000+0				5.0596-9
7.0000-5	7.0000-1	1.4440+1	3.6501+0	1.5815+1			0.0000+0		0.0000+0				5.0596-9
8.0000-5	8.0000-1	1.1356+0	3.6193+0	1.5847+0			0.0000+0		0.0000+0				5.0596-9
9.0000-5	9.0000-1	9.1291+0	3.5866+0	2.5189+0			0.0000+0		0.0000+0				5.0596-9
1.0000-4	1.0000-0	9.5132+0	3.5566+0	1.5282+0			0.0000+0		0.0000+0				5.0596-9
2.0000-4	2.0000-0	7.7280+0	3.5268+0	1.5081+0			0.0000+0		0.0000+0				5.0596-9
3.0000-4	3.0000-0	7.0397+0	3.4978+0	7.7592+0			0.0000+0		0.0000+0				5.0596-9
4.0000-4	4.0000-0	6.0879+0	3.4674+0	7.5590+0			0.0000+0		0.0000+0				5.0596-9
5.0000-4	5.0000-0	6.8080+0	3.4371+0	7.2654+0			0.0000+0		0.0000+0				5.0596-9
6.0000-4	6.0000-0	5.6709+0	3.4068+0	2.8601+0			0.0000+0		0.0000+0				5.0596-9
7.0000-4	7.0000-0	6.0884+0	3.3765+0	1.9647+1			0.0000+0		0.0000+0				5.0596-9
8.0000-4	8.0000-0	6.6602+0	3.3462+0	1.5357+1			0.0000+0		0.0000+0				5.0596-9
9.0000-4	9.0000-0	5.5472+0	3.3159+0	1.0475+1			0.0000+0		0.0000+0				5.0596-9
1.0000-3	1.0000-0	6.6602+0	3.2856+0	8.2707+2			0.0000+0		0.0000+0				5.0596-9
2.0000-3	2.0000-0	5.5472+0	3.2553+0	6.2707+2			0.0000+0		0.0000+0				5.0596-9
3.0000-3	3.0000-0	4.4341+0	3.2250+0	4.2707+2			0.0000+0		0.0000+0				5.0596-9
4.0000-3	4.0000-0	4.4771+0	3.1947+0	2.1732+2			0.0000+0		0.0000+0				5.0596-9
5.0000-3	5.0000-0	4.8166+0	3.1644+0	1.0669+3			0.0000+0		0.0000+0				5.0596-9

134Cs (5502)

CROSS SECTION

MATERIAL = 5502

ENERGY	ELASTIC	TOTAL	INELA	CAPTURE	(N.2N)	(N.3N)	(N.P)	(N.NP)	(N.A)	(N.NA)	(N.D)	(N.T)	MU-BAR
1.0000-6	1.0000-2	4.6623+2	2.2865+1	4.3364+2			0.0000+0		0.0000+0				5.0217-9
2.0000-6	2.0000-2	2.0765+1	2.2865+1	3.0011+2			0.0000+0		0.0000+0				5.0217-9
3.0000-6	3.0000-2	1.6106+0	2.2865+1	2.0181+2			0.0000+0		0.0000+0				5.0217-9
4.0000-6	4.0000-2	1.2728+0	2.2865+1	1.5018+2			0.0000+0		0.0000+0				5.0217-9
5.0000-6	5.0000-2	9.7285+1	2.2865+1	9.7285+1			0.0000+0		0.0000+0				5.0217-9
6.0000-6	6.0000-2	4.8944+1	2.2865+1	2.6277+2			0.0000+0		0.0000+0				5.0217-9
7.0000-6	7.0000-2	4.2736+1	2.2865+1	2.1688+2			0.0000+0		0.0000+0				5.0217-9
8.0000-6	8.0000-2	3.5185+1	2.2865+1	1.9944+2			0.0000+0		0.0000+0				5.0217-9
9.0000-6	9.0000-2	2.8855+1	2.2865+1	1.8240+2			0.0000+0		0.0000+0				5.0217-9
1.0000-5	1.0000-1	2.0323+1	2.2865+1	1.5222+2			0.0000+0		0.0000+0				5.0217-9
2.0000-5	2.0000-1	2.0323+1	2.2865+1	1.2975+2			0.0000+0		0.0000+0				5.0217-9
3.0000-5	3.0000-1	2.0323+1	2.2865+1	1.0390+2			0.0000+0		0.0000+0				5.0217-9
4.0000-5	4.0000-1	2.0323+1	2.2865+1	7.4229+2			0.0000+0		0.0000+0				5.0217-9
5.0000-5	5.0000-1	2.0323+1	2.2865+1	6.8935+2			0.0000+0		0.0000+0				5.0217-9
6.0000-5	6.0000-1	2.0323+1	2.2865+1	5.9274+2			0.0000+0		0.0000+0				5.0217-9
7.0000-5	7.0000-1	2.0323+1	2.2865+1	4.2195+2			0.0000+0		0.0000+0				5.0217-9
8.0000-5	8.0000-1	2.0323+1	2.2865+1	3.2688+2			0.0000+0		0.0000+0				5.0217-9
9.0000-5	9.0000-1	2.0323+1	2.2865+1	2.4151+2			0.0000+0		0.0000+0				5.0217-9
1.0000-4	1.0000-0	1.1645+1	2.2865+1	2.2219+2			0.0000+0		0.0000+0				5.0217-9
2.0000-4	2.0000-0	1.0093+0	2.2865+1	1.7538+2			0.0000+0		0.0000+0				5.0217-9
3.0000-4	3.0000-0	8.9855+0	2.2865+1	1.7538+2			0.0000+0		0.0000+0				5.0217-9
4.0000-4	4.0000-0	8.9855+0	2.2865+1	1.5000+2			0.0000+0		0.0000+0				5.0217-9
5.0000-4	5.0000-0	8.9855+0	2.2865+1	1.2615+2			0.0000+0		0.0000+0				5.0217-9
6.0000-4	6.0000-0	8.9855+0	2.2865+1	1.0224+2			0.0000+0		0.0000+0				5.0217-9
7.0000-4	7.0000-0	8.9855+0	2.2865+1	8.5664+2			0.0000+0		0.0000+0				5.0217-9
8.0000-4	8.0000-0	8.9855+0	2.2865+1	6.5664+2			0.0000+0		0.0000+0				5.0217-9
9.0000-4	9.0000-0	8.9855+0	2.2865+1	5.0690+2			0.0000+0		0.0000+0				5.0217-9
1.0000-3	1.0000-0	6.5905+0	2.2865+1	3.6632+2			0.0000+0		0.0000+0				5.0217-9
2.0000-3	2.0000-0	5.5974+0	2.2865+1	2.4881+2			0.0000+0		0.0000+0				5.0217-9
3.0000-3	3.0000-0	4.5943+0	2.2865+1	1.1036+2			0.0000+0		0.0000+0				5.0217-9
4.0000-3	4.0000-0	4.5943+0	2.2865+1	1.0634+2			0.0000+0		0.0000+0				5.0217-9
5.0000-3	5.0000-0	4.5943+0	2.2865+1	1.0634+2			0.0000+0		0.0000+0				5.0217-9
6.0000-3	6.0000-0	4.5943+0	2.2865+1	1.0634+2			0.0000+0		0.0000+0				5.0217-9
7.0000-3	7.0000-0	4.5943+0	2.2865+1	1.0634+2			0.0000+0		0.0000+0				5.0217-9
8.0000-3	8.0000-0	4.5943+0	2.2865+1	1.0634+2			0.0000+0		0.0000+0				5.0217-9
9.0000-3	9.0000-0	4.5943+0	2.2865+1	1.0634+2			0.0000+0		0.0000+0				5.0217-9

135Cs (5503)

CROSS SECTION

MATERIAL =5503

1.0000-5	2.0000-2	3.1782+1	TOTAL	ELASTIC	INELR	CAPTURE	(N.2N)	(N.SN)	(N.F)	(N.NR)	(N.D)	(N.T)	MU-BAR
1.0000-5	~ 1.0000-2	3.1782+1	4.8506+0	4.8506+0	2.6941+1	2.6941+1							1.9845-3
1.0000-2	1.0000-2	1.6980+1	4.8506+0	4.8506+0	1.510+0	1.510+0							1.9845-3
2.0000-2	~ 1.0000-2	1.2980+1	4.8506+0	4.8506+0	1.143+0	1.143+0							1.9845-3
3.0000-2	~ 1.0000-1	9.6286+0	4.8506+0	4.8506+0	9.6286+0	9.6286+0							1.9845-3
4.0000-1	~ 1.0000-1	9.4783+0	4.8506+0	4.8506+0	9.4783+0	9.4783+0							1.9845-3
5.0000-1	~ 1.0000-1	7.3993+0	4.8506+0	4.8506+0	7.3993+0	7.3993+0							1.9845-3
6.0000-1	~ 1.0000-1	8.2374+0	4.8506+0	4.8506+0	8.2374+0	8.2374+0							1.9845-3
7.0000-0	~ 1.0000-0	5.9522+0	4.8506+0	4.8506+0	5.9522+0	5.9522+0							1.9845-3
8.0000-0	~ 1.0000-0	9.1806+0	4.8506+0	4.8506+0	9.1806+0	9.1806+0							1.9845-3
9.0000-0	~ 1.0000-0	4.6396+0	4.8506+0	4.8506+0	4.6396+0	4.6396+0							1.9845-3
1.0000-1	~ 1.0000-1	4.8267+0	4.8506+0	4.8506+0	4.8267+0	4.8267+0							1.9845-3
2.0000-1	~ 1.0000-1	6.1706+0	4.8506+0	4.8506+0	6.1706+0	6.1706+0							1.9845-3
3.0000-1	~ 1.0000-1	7.6748+1	4.8506+0	4.8506+0	7.6748+1	7.6748+1							1.9845-3
4.0000-2	~ 1.0000-2	5.5182+0	4.8506+0	4.8506+0	5.5182+0	5.5182+0							1.9845-3
5.0000-2	~ 1.0000-2	4.0100+0	4.8506+0	4.8506+0	4.0100+0	4.0100+0							1.9845-3
6.0000-2	~ 1.0000-2	3.2670+0	4.8506+0	4.8506+0	3.2670+0	3.2670+0							1.9845-3
7.0000-3	~ 1.0000-3	1.9937+0	4.8506+0	4.8506+0	1.9937+0	1.9937+0							1.9845-3
8.0000-3	~ 1.0000-3	1.2143+0	4.8506+0	4.8506+0	1.2143+0	1.2143+0							1.9845-3
9.0000-3	~ 1.0000-3	1.0478+0	4.8506+0	4.8506+0	1.0478+0	1.0478+0							1.9845-3
1.0000-4	~ 1.0000-4	9.8843+0	4.8506+0	4.8506+0	9.8843+0	9.8843+0							1.9845-3
2.0000-4	~ 1.0000-4	5.6973+0	4.8506+0	4.8506+0	5.6973+0	5.6973+0							1.9845-3
3.0000-4	~ 1.0000-4	5.6142+0	4.8506+0	4.8506+0	5.6142+0	5.6142+0							1.9845-3
4.0000-5	~ 1.0000-5	5.6673+0	4.8506+0	4.8506+0	5.6673+0	5.6673+0							1.9845-3
5.0000-5	~ 1.0000-5	8.4871+0	4.8506+0	4.8506+0	8.4871+0	8.4871+0							1.9845-3
6.0000-6	~ 1.0000-6	5.7303+0	4.8506+0	4.8506+0	5.7303+0	5.7303+0							1.9845-3
7.0000-6	~ 1.0000-6	4.4178+0	4.8506+0	4.8506+0	4.4178+0	4.4178+0							1.9845-3
8.0000-6	~ 1.0000-6	4.4748+0	4.8506+0	4.8506+0	4.4748+0	4.4748+0							1.9845-3
9.0000-7	~ 1.0000-7	4.8476+0	4.8506+0	4.8506+0	4.8476+0	4.8476+0							1.9845-3

136Cs (5504)

CROSS SECTION

MATERIAL =5504

1.0000-5	2.0000-2	4.3737+1	TOTAL	ELASTIC	INELR	CAPTURE	(N.2N)	(N.SN)	(N.F)	(N.NR)	(N.D)	(N.T)	MU-BAR
1.0000-5	~ 1.0000-2	4.3737+1	3.5000+0	3.5000+0	4.0088+1	4.0088+1							1.9478-3
2.0000-2	~ 1.0000-2	2.0723+1	3.5000+0	3.5000+0	1.7130+1	1.7130+1							1.9478-3
3.0000-2	~ 1.0000-2	1.6656+1	3.5000+0	3.5000+0	1.2113+1	1.2113+1							1.9478-3
4.0000-2	~ 1.0000-1	1.2493+1	3.5000+0	3.5000+0	9.5018+0	9.5018+0							1.9478-3
5.0000-1	~ 1.0000-1	9.9495+0	3.5000+0	3.5000+0	5.4171+0	5.4171+0							1.9478-3
6.0000-1	~ 1.0000-1	7.8972+0	3.5000+0	3.5000+0	3.8306+0	3.8306+0							1.9478-3
7.0000-0	~ 1.0000-0	6.7833+0	3.5000+0	3.5000+0	2.2657+0	2.2657+0							1.9478-3
8.0000-0	~ 1.0000-0	5.2323+0	3.5000+0	3.5000+0	1.7154+0	1.7154+0							1.9478-3
9.0000-0	~ 1.0000-0	4.2391+0	3.5000+0	3.5000+0	1.6032+0	1.6032+0							1.9478-3
1.0000-1	~ 1.0000-1	4.2255+0	3.5000+0	3.5000+0	7.1208+1	7.1208+1							1.9478-3
2.0000-1	~ 1.0000-1	4.0450+0	3.5000+0	3.5000+0	5.4173+0	5.4173+0							1.9478-3
3.0000-1	~ 1.0000-1	9.3448+1	3.5000+0	3.5000+0	2.0330+1	2.0330+1							1.9478-3
4.0000-1	~ 1.0000-1	9.7888+1	3.5000+0	3.5000+0	1.8070+1	1.8070+1							1.9478-3
5.0000-2	~ 1.0000-2	5.6497+1	3.5000+0	3.5000+0	1.1807+1	1.1807+1							1.9478-3
6.0000-2	~ 1.0000-2	2.2322+1	3.5000+0	3.5000+0	5.4951+0	5.4951+0							1.9478-3
7.0000-2	~ 1.0000-2	2.2322+1	3.5000+0	3.5000+0	6.8118+0	6.8118+0							1.9478-3
8.0000-3	~ 1.0000-3	2.9925+1	3.5000+0	3.5000+0	0.8957+0	0.8957+0							1.9478-3
9.0000-3	~ 1.0000-3	1.1843+1	3.5000+0	3.5000+0	6.6100+0	6.6100+0							1.9478-3
1.0000-4	~ 1.0000-4	1.0808+1	3.5000+0	3.5000+0	4.5228+1	4.5228+1							1.9478-3
2.0000-4	~ 1.0000-4	9.7552+0	3.5000+0	3.5000+0	3.6102+1	3.6102+1							1.9478-3
3.0000-4	~ 1.0000-4	8.0344+0	3.5000+0	3.5000+0	1.5416+1	1.5416+1							1.9478-3
4.0000-4	~ 1.0000-4	5.9995+0	3.5000+0	3.5000+0	2.2000+1	2.2000+1							1.9478-3
5.0000-5	~ 1.0000-5	5.9995+0	3.5000+0	3.5000+0	5.1196+2	5.1196+2							1.9478-3
6.0000-5	~ 1.0000-5	6.7805+0	3.5000+0	3.5000+0	3.5930+2	3.5930+2							1.9478-3
7.0000-5	~ 1.0000-5	6.7805+0	3.5000+0	3.5000+0	7.7872+1	7.7872+1							1.9478-3
8.0000-6	~ 1.0000-6	5.7214+0	3.5000+0	3.5000+0	1.2644+0	1.2644+0							1.9478-3
9.0000-6	~ 1.0000-6	4.7398+0	3.5000+0	3.5000+0	3.2372+0	3.2372+0							1.9478-3
1.0000-7	~ 1.0000-7	4.4756+0	3.5000+0	3.5000+0	1.1911+0	1.1911+0							1.9478-3
2.0000-7	~ 1.0000-7	4.8631+0	3.5000+0	3.5000+0	2.6161+1	2.6161+1							1.9478-3

139La (5702)

CROSS SECTION

MATERIAL =5702

ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,2N) D	(N,PN)	(N,NP)	(N,NA)	(N,NR)	(N,D)	(N,T)	MU-BRR
1.0000-0	9.8123+1	1.0492+1		2.7690+1									4.8410-3
1.0000-1	2.2297+1	1.0492+1		1.1805+0									4.8410-3
1.0000-2	1.5817+1	1.0489+1		6.1218+0									4.8410-3
1.0000-3	1.1639+1	1.0488+1		3.5068+0									4.8410-3
1.0000-4	1.3109+1	1.0482+1		3.7248+0									4.8410-3
1.0000-5	1.2472+1	1.0470+1		2.6934+0									4.8410-3
1.0000-6	1.2828+1	1.0450+1		2.0240+0									4.8410-3
1.0000-7	1.1543+1	1.0393+1		1.1600+0									4.8410-3
2.0000+0	1.1076+1	1.0276+1		4.5624+0									4.8425-3
3.0000+0	1.5343+1	1.5807+1		6.5348+0									4.8435-3
4.0000+0	9.8159+0	9.5246+0		3.0445+0									4.8471-3
5.0000+0	3.2477+0	2.7857+0		1.8970+0									4.8573-3
6.0000+0	3.6373+1	1.3805+1		1.1718+0									4.8624-3
7.0000+0	5.3201+0	6.2922+0		2.6348+0									4.8995-3
8.0000+0	5.0755+0	5.0550+0		2.5214+0									4.9226-3
9.0000+0	4.0778+0	5.7888+0		1.7325+0									4.9226-3
1.0000+1	6.7737+0	6.6094+0		1.0229+0									4.9226-3
2.0000+1	1.6466+0	1.6259+0		1.0229+0									4.9226-3
3.0000+1	1.6259+0	1.6259+0		1.0229+0									4.9226-3
4.0000+1	6.5206+0	6.4311+0		1.8608+0									4.9226-3
5.0000+1	5.8508+0	5.9329+0		1.8608+0									4.9226-3
6.0000+1	5.0575+0	5.0717+0		2.0893+0									4.9226-3
7.0000+1	4.7779+0	4.7691+0		2.0893+0									4.9226-3
8.0000+1	4.7942+0	4.7678+0		1.8622+0									4.9226-3
9.0000+1	6.0449+0	5.9296+0		1.8622+0									4.9226-3
1.0000+2	5.7068+0	5.4121+0		1.8622+0									4.9226-3
2.0000+2	7.1872+0	6.9915+0		1.8622+0									4.9226-3
3.0000+2	5.8954+0	5.8954+0		1.8622+0									4.9226-3
4.0000+2	5.8954+0	5.8954+0		1.8622+0									4.9226-3
5.0000+2	4.5104+0	4.4478+0		1.8622+0									4.9226-3
6.0000+2	4.5104+0	4.4478+0		1.8622+0									4.9226-3
7.0000+2	4.5104+0	4.4478+0		1.8622+0									4.9226-3
8.0000+2	4.5104+0	4.4478+0		1.8622+0									4.9226-3
9.0000+2	4.5104+0	4.4478+0		1.8622+0									4.9226-3
1.0000+3	4.5104+0	4.4478+0		1.8622+0									4.9226-3
2.0000+3	4.5104+0	4.4478+0		1.8622+0									4.9226-3
3.0000+3	4.5104+0	4.4478+0		1.8622+0									4.9226-3
4.0000+3	4.5104+0	4.4478+0		1.8622+0									4.9226-3
5.0000+3	4.5104+0	4.4478+0		1.8622+0									4.9226-3
6.0000+3	4.5104+0	4.4478+0		1.8622+0									4.9226-3
7.0000+3	4.5104+0	4.4478+0		1.8622+0									4.9226-3
8.0000+3	4.5104+0	4.4478+0		1.8622+0									4.9226-3
9.0000+3	4.5104+0	4.4478+0		1.8622+0									4.9226-3

140Ce (5801)

CROSS SECTION

MATERIAL =5801

ENERGY	TOTAL	ELASTIC	INELR	CAPTURE	(N,2N)	(N,2N) D	(N,PN)	(N,NP)	(N,NA)	(N,NR)	(N,D)	(N,T)	MU-BRR
1.0000-0	4.5739+0	2.8171+0		1.7568+0									4.8064-3
1.0000-1	3.5875+0	2.8171+0		7.4048-1									4.8084-3
2.0000-1	2.2685+0	2.8171+0		5.3145-1									4.8084-3
3.0000-1	2.0865+0	2.8171+0		3.1139-1									4.8084-3
4.0000-1	2.8268+0	2.8171+0		2.9859-1									4.8084-3
5.0000-1	2.2222+0	2.8171+0		1.6693-1									4.8084-3
6.0000-1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
7.0000-1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
8.0000-1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
9.0000-1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
1.0000+0	2.2222+0	2.8171+0		0.8025-1									4.8084-3
2.0000+0	2.2222+0	2.8171+0		0.8025-1									4.8084-3
3.0000+0	2.2222+0	2.8171+0		0.8025-1									4.8084-3
4.0000+0	2.2222+0	2.8171+0		0.8025-1									4.8084-3
5.0000+0	2.2222+0	2.8171+0		0.8025-1									4.8084-3
6.0000+0	2.2222+0	2.8171+0		0.8025-1									4.8084-3
7.0000+0	2.2222+0	2.8171+0		0.8025-1									4.8084-3
8.0000+0	2.2222+0	2.8171+0		0.8025-1									4.8084-3
9.0000+0	2.2222+0	2.8171+0		0.8025-1									4.8084-3
1.0000+1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
2.0000+1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
3.0000+1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
4.0000+1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
5.0000+1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
6.0000+1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
7.0000+1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
8.0000+1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
9.0000+1	2.2222+0	2.8171+0		0.8025-1									4.8084-3
1.0000+2	2.2222+0	2.8171+0		0.8025-1									4.8084-3
2.0000+2	2.2222+0	2.8171+0		0.8025-1									4.8084-3
3.0000+2	2.2222+0	2.8171+0		0.8025-1									4.8084-3
4.0000+2	2.2222+0	2.8171+0		0.8025-1									4.8084-3
5.0000+2	2.2222+0	2.8171+0		0.8025-1									4.8084-3
6.0000+2	2.2222+0	2.8171+0		0.8025-1									4.8084-3
7.0000+2	2.2222+0	2.8171+0		0.8025-1									4.8084-3
8.0000+2	2.2222+0	2.8171+0		0.8025-1									4.8084-3
9.0000+2	2.2222+0	2.8171+0		0.8025-1									4.8084-3
1.0000+3	2.2222+0	2.8171+0		0.8025-1									4.8084-3
2.0000+3	2.2222+0	2.8171+0		0.8025-1									4.8084-3
3.0000+3	2.2222+0	2.8171+0		0.8025-1									4.8084-3
4.0000+3	2.2222+0	2.8171+0		0.8025-1									4.8084-3
5.0000+3	2.2222+0	2.8171+0		0.8025-1									4.8084-3
6.0000+3	2.2222+0	2.8171+0		0.8025-1									4.8084-3
7.0000+3	2.2222+0	2.8171+0		0.8025-1									4.8084-3
8.0000+3	2.2222+0	2.8171+0		0.8025-1									4.8084-3
9.0000+3	2.2222+0	2.8171+0		0.8025-1									4.8084-3

141Ce (5802)

CROSS SECTION

MATERIAL	ENERGY	1.0000-6	1.0000-2	TOTAL	ELASTIC	INELA	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,MP)	(N,B)	(N,NR)	(N,D)	(N,T)	MU-BRR
1.0000-	6	1.0000-	2	9.2286+1	2.3624+0		8.9333+1					0.0000+0				4.7722-3
1.0000-	2	2.0000-	2	4.0819+1	2.3508+0		9.8489+1					0.0000+0				4.7722-3
1.0000-	2	4.0000-	2	2.5644+0	2.3508+0		2.0611+1					0.0000+0				4.7722-3
1.0000-	2	7.0000-	1	1.6440+0	2.3508+0		1.6102+1					0.0000+0				4.7722-3
1.0000-	1	2.0000-	1	1.4925+0	2.3508+0		1.6302+1					0.0000+0				4.7722-3
1.0000-	1	7.0000-	0	7.7665+0	2.3508+0		6.6821+0					0.0000+0				4.7722-3
1.0000-	0	2.0000+	0	8.8201+0	2.3508+0		4.7581+0					0.0000+0				4.7722-3
1.0000+	0	7.0000+	0	4.3597+0	2.3508+0		6.5898+2					0.0000+0				4.7722-3
1.0000+	1	2.0000+	1	5.1188+0	2.3508+0		4.5822+1					0.0000+0				4.7722-3
1.0000+	1	7.0000+	2	2.2599+0	2.3508+0		2.3377+1					0.0000+0				4.7722-3
1.0000+	2	2.0000+	2	1.2751+0	2.3508+0		5.4884+1					0.0000+0				4.7722-3
1.0000+	2	7.0000+	3	9.6182+0	2.3508+0		6.9347+0					0.0000+0				4.7844-3
1.0000+	3	2.0000+	3	1.1483+0	2.3508+0		2.6709+0					0.0000+0				4.8316-3
1.0000+	3	7.0000+	3	8.6785+0	2.3508+0		1.7815+0					0.0000+0				4.8588-3
1.0000+	4	2.0000+	4	5.6255+0	2.3508+0		1.0713+0					0.0000+0				5.2005-3
1.0000+	4	7.0000+	4	4.5070+0	2.3508+0		1.0713+0					0.0000+0				5.2721-3
1.0000+	5	2.0000+	5	4.5288+0	2.3508+0		1.6850+1					0.0000+0				6.2413-3
1.0000+	5	7.0000+	5	5.0377+0	2.3508+0		1.2078+1					0.0000+0				6.4747-3
1.0000+	6	2.0000+	6	4.5537+0	2.3508+0		9.9581+2					0.0000+0				8.9858-3
1.0000+	6	7.0000+	6	6.5827+0	2.3508+0		4.8027+2					0.0000+0				9.2005-3
1.0000+	7	2.0000+	7	7.3905+0	2.3508+0		4.0120+1					0.0000+0				7.6471-3
1.0000+	7	7.0000+	7	4.2643+0	2.3508+0		4.8387+1					0.0000+0				1.6073-13
1.0000+	7	2.0000+	7	5.0130+0	2.3508+0		1.3667+1					0.0000+0				2.3743-3

142Ce (5803)

CROSS SECTION

MATERIAL	ENERGY	1.0000-6	1.0000-2	TOTAL	ELASTIC	INELA	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,MP)	(N,B)	(N,NR)	(N,D)	(N,T)	MU-BRR
1.0000-	6	1.0000-	2	3.7208+0	6.1480+1		3.1082+0					0.0000+0				4.7388-3
1.0000-	2	2.0000-	2	1.2418+0	6.1480+1		3.9274+0					0.0000+0				4.7388-3
1.0000-	2	4.0000-	2	1.3039+0	6.1480+1		6.6908+1					0.0000+0				4.7388-3
1.0000-	2	7.0000-	1	1.1661+0	6.1480+1		6.6181+1					0.0000+0				4.7388-3
1.0000-	1	2.0000-	1	1.0344+0	6.1480+1		4.2007+1					0.0000+0				4.7388-3
1.0000-	1	7.0000-	0	9.3065+1	6.1480+1		2.1781+1					0.0000+0				4.7388-3
1.0000+	0	2.0000+	0	7.4192+1	6.1480+1		1.9242+1					0.0000+0				4.7388-3
1.0000+	0	7.0000+	0	6.5786+1	6.1480+1		9.3427+2					0.0000+0				4.7388-3
1.0000+	1	2.0000+	1	6.4056+1	6.1480+1		5.4515+2					0.0000+0				4.7388-3
1.0000+	1	7.0000+	1	9.0991+1	6.1480+1		4.0793+1					0.0000+0				4.7411-3
1.0000+	2	2.0000+	2	5.8371+1	6.1480+1		2.0380+2					0.0000+0				4.7662-3
1.0000+	2	7.0000+	2	2.4118+2	6.1480+1		1.1882+2					0.0000+0				4.8490-3
1.0000+	3	2.0000+	3	4.5070+0	6.1480+1		1.0043+2					0.0000+0				5.0102-3
1.0000+	3	7.0000+	3	6.3070+0	6.1480+1		2.2928+2					0.0000+0				5.4426-3
1.0000+	4	2.0000+	4	2.2407+2	6.1480+1		4.0308+1					0.0000+0				6.9468-3
1.0000+	4	7.0000+	4	7.3178+0	6.1480+1		1.5018+2					0.0000+0				7.0032-3
1.0000+	5	2.0000+	5	7.9903+0	6.1480+1		2.8907+2					0.0000+0				8.0599-3
1.0000+	5	7.0000+	5	4.6011+0	6.1480+1		1.4386+2					0.0000+0				1.4920-1
1.0000+	6	2.0000+	6	4.4625+0	6.1480+1		1.2183+2					0.0000+0				2.0412-1
1.0000+	6	7.0000+	6	5.6863+0	6.1480+1		1.3161+2					0.0000+0				2.9511-1
1.0000+	7	2.0000+	7	7.4891+0	6.1480+1		8.5940+3					0.0000+0				3.9370-1
1.0000+	7	7.0000+	7	4.2653+0	6.1480+1		1.6701+2					0.0000+0				4.6931-1
1.0000+	7	2.0000+	7	4.9513+0	6.1480+1		1.2886+2					0.0000+0				6.1966-1
1.0000+	7	7.0000+	7	5.0245+0	6.1480+1		2.7672+2					0.0000+0				7.1267-1

¹⁴⁴Ce (5804)

CROSS SECTION

Table for ¹⁴⁴Ce (5804) showing cross sections (TOTAL, ELASTIC, INELA, CAPTURE) and reaction rates (N.2N1, N.2N2, N.3N1, N.3N2, N.P, N.MP, N.NR1, N.NR2, N.D, N.T) across energy levels from 1.0000 to 1.0000+7.

¹⁴¹Pr (5901)

CROSS SECTION

Table for ¹⁴¹Pr (5901) showing cross sections (TOTAL, ELASTIC, INELA, CAPTURE) and reaction rates (N.2N1, N.2N2, N.3N1, N.3N2, N.P, N.MP, N.NR1, N.NR2, N.D, N.T) across energy levels from 1.0000 to 1.0000+7.

143Pr (5902)

CROSS SECTION

MATERIAL =5902

Table for 143Pr (5902) showing cross-section data across various energy levels and reaction types like ELASTIC, INEL, CAPTURE, and FISSION.

142Nd (6001)

CROSS SECTION

MATERIAL =6001

Table for 142Nd (6001) showing cross-section data across various energy levels and reaction types like ELASTIC, INEL, CAPTURE, and FISSION.

¹⁴⁵Nd (6004)

CROSS SECTION

MATERIAL = 8004

ENERGY	ELASTIC	INEL	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,A)	(N,NA)	(N,T)	NU-BAR
1.0000-6	1.7408+1		1.3688+2					2.7410-4	0.0000+0		4.6403-3
1.0000-5	1.7398+1		5.7973+1					1.1711-4	0.0000+0		4.6403-3
1.0000-4	1.7393+1		4.1046+0					8.2510-5	0.0000+0		4.6403-3
1.0000-3	1.7327+1		2.4084+0					4.8692-5	0.0000+0		4.6403-3
1.0000-2	1.7292+1		1.8322+0					2.8908-5	0.0000+0		4.6403-3
1.0000-1	1.6670+0		9.5703+0					1.9160-5	0.0000+0		4.6403-3
1.0000-0	1.6688+1		7.6740+0					1.1528+5	0.0000+0		4.6403-3
2.0000-0	1.6013+1		6.0348+0					1.2182-5	0.0000+0		4.6403-3
3.0000-0	1.4872+1		9.6328+0					1.9796+5	0.0000+0		4.6403-3
4.0000-0	1.4844+1		1.4834+2					3.3763+4	0.0000+0		4.6403-3
5.0000-0	1.1313+1		1.8003+0					3.7584+4	0.0000+0		4.6403-3
6.0000-0	9.1862+0		1.0521+0					2.3937+5	0.0000+0		4.6403-3
7.0000-0	8.7056+0		9.0841+0					2.3836+5	0.0000+0		4.6403-3
8.0000-0	8.0755+0		1.1078+1					5.1479-5	0.0000+0		4.6542-3
9.0000-0	7.3756+0		5.5939+0					3.7432-5	0.0000+0		4.6542-3
1.0000-1	6.3164+0		7.6634+0					2.1108-5	0.0000+0		4.6542-3
2.0000-1	5.4903+1		5.5858+0					1.1327+1	0.0000+0		4.9400-3
3.0000-1	4.8071+1		3.9324+0					7.4803-5	0.0000+0		5.2693-3
4.0000-1	3.8711+1		2.1891+0					3.8864-5	0.0000+0		6.0669-3
5.0000-1	3.2007+1		1.1532+0					2.5712-5	0.0000+0		1.0457-3
6.0000-1	1.8080+1		7.8900+1					2.8912-5	0.0000+0		1.6587-3
7.0000-1	1.6034+1	2.3451-1	2.8212+1					2.2477-5	0.0000+0		1.9292-3
8.0000-1	1.5049+1	9.9413-1	2.5849+1					4.4102-5	0.0000+0		2.7882-3
9.0000-1	8.3219+0	7.4742+0	1.0511+1					1.4570-5	0.0000+0		2.8771-3
1.0000-2	5.8620+0	1.1844+0	1.1861+1					6.8964-11	0.0000+0		3.7486-3
2.0000-2	5.2713+0	1.8937+0	8.8063-2					2.3418-10	0.0000+0		5.6080-3
3.0000-2	4.8029+0	2.4230+0	2.2085+0					5.8788-10	0.0000+0		6.5080-3
4.0000-2	4.0777+0	2.2385+0	5.5719+0					2.4286-7	0.0000+0		7.5734-3
5.0000-2	2.4280+0	8.1373+0	8.6878+4	1.8708-1	2.2375-15	8.1757-6	6.4813-19	1.5986-6	5.6766-12	4.8830-13	7.9784-3
6.0000-2	2.7269+0	1.6869+1	1.0800+9	1.6942+0	9.3373-3		1.9710-3	2.1932-3	3.1978-3	1.1936-3	8.6020-3
7.0000-2	2.5660+0										

¹⁴⁶Nd (6005)

CROSS SECTION

MATERIAL = 8005

ENERGY	ELASTIC	INEL	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,A)	(N,NA)	(N,T)	NU-BAR
1.0000-6	9.4983+0		4.3311+0					0.0000+0	0.0000+0		4.6086-3
1.0000-5	9.4959+0		1.8506+0					0.0000+0	0.0000+0		4.6086-3
1.0000-4	9.4854+0		1.3097+0					0.0000+0	0.0000+0		4.6086-3
1.0000-3	9.4598+0		7.6956-1					0.0000+0	0.0000+0		4.6086-3
1.0000-2	9.4943+0		5.9438-1					0.0000+0	0.0000+0		4.6086-3
1.0000-1	9.4779+0		3.0278-1					0.0000+0	0.0000+0		4.6086-3
2.0000-1	9.4579+0		2.4126-1					0.0000+0	0.0000+0		4.6086-3
3.0000-1	9.483+0		1.8270-1					0.0000+0	0.0000+0		4.6086-3
4.0000-1	9.3195+0		1.2756-1					0.0000+0	0.0000+0		4.6086-3
5.0000-1	9.2227+0		9.1786-2					0.0000+0	0.0000+0		4.6086-3
6.0000-1	9.0911+0		5.1730-2					0.0000+0	0.0000+0		4.6086-3
7.0000-1	8.6522+0		3.2650-2					0.0000+0	0.0000+0		4.6086-3
8.0000-1	7.6517+0		1.9585-2					0.0000+0	0.0000+0		4.6086-3
9.0000-1	6.5547+0		7.9744-2					0.0000+0	0.0000+0		4.6086-3
1.0000-2	5.5696+0		1.0650-1					0.0000+0	0.0000+0		4.6086-3
2.0000-2	4.8034+0		1.0884+0					0.0000+0	0.0000+0		4.6086-3
3.0000-2	4.2478+0		4.3159-1					0.0000+0	0.0000+0		4.6086-3
4.0000-2	3.7785+1		2.6776-1					0.0000+0	0.0000+0		4.6086-3
5.0000-2	3.4788+1		1.9860-1					0.0000+0	0.0000+0		4.6086-3
6.0000-2	3.1684+1		1.5680-1					0.0000+0	0.0000+0		4.6086-3
7.0000-2	2.8847+1		1.6040-1					0.0000+0	0.0000+0		4.6086-3
8.0000-2	2.6257+1		1.5374-1					0.0000+0	0.0000+0		4.6086-3
9.0000-2	2.3870+1		1.4878-1					0.0000+0	0.0000+0		4.6086-3
1.0000-3	2.1500+1		1.4110-1					0.0000+0	0.0000+0		4.6086-3
2.0000-3	1.8770+1		1.3276-1					0.0000+0	0.0000+0		4.6086-3
3.0000-3	1.6187+1		1.2419-1					0.0000+0	0.0000+0		4.6086-3
4.0000-3	1.3770+1		1.1519-1					0.0000+0	0.0000+0		4.6086-3
5.0000-3	1.1493+1		1.0578-1					0.0000+0	0.0000+0		4.6086-3
6.0000-3	9.4593+0	4.9807-1	7.9928-2					3.4831-10	9.6882-17		1.3910-1
7.0000-3	8.2254+0	5.7078+0	6.6819+0					2.1215-9	4.8118-15		2.7071-1
8.0000-3	6.8619+0	4.4110-1	5.9884+0					7.5083-9	7.6083-13		3.5208-1
9.0000-3	5.1967+0	1.6526+0	3.9428+0					4.5175-8	6.3455-12		5.0309-1
1.0000-4	4.0740+0	1.65326+0	1.8905+0					8.4839-7	1.2382-10		7.1610-1
2.0000-4	2.9007+0	2.2788+0	5.9007+0					9.2782-6	2.7693-7		7.8893-1
3.0000-4	2.2788+0	2.0174+0	1.7988+0					6.5137-6	1.9870-6		7.7782-1
4.0000-4	2.5660+0		1.2673+0					2.8125-21	3.1428-16	1.8377-17	7.7782-1
5.0000-4	2.5660+0		1.3636+0					3.2220-3	7.6947-3	2.2830-3	8.6020-1

150Nd (6008)

CROSS SECTION

MATERIAL = 6008

Table for 150Nd (6008) cross sections. Columns include ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,2N), (N,3N), (N,P), (N,MP), (N,R), (N,NR), (N,O), (N,T), and MU-BRA.

147Pm (6101)

CROSS SECTION

MATERIAL = 6101

Table for 147Pm (6101) cross sections. Columns include ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,2N), (N,3N), (N,P), (N,MP), (N,R), (N,NR), (N,O), (N,T), and MU-BRA.

149Pm (6104)

CROSS SECTION

MATERIAL =6104

ENERGY	ELASTIC	INELA	CAPTURE	(N.ZN)	(N.SN)	(N.P)	(N.NP)	(N.R)	(N.NR)	(N.D)	(N.T)	MU-BAR
1.0000-5	3.2000+0	4.3172+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000-4	3.2000+0	1.8497+3	1.9449+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000-3	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000-2	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000-1	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000-0	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000+0	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000+1	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000+2	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000+3	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000+4	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000+5	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000+6	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3
1.0000+7	3.2000+0	1.8497+3	1.8497+3	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8155-3	3

144Sm (6201)

CROSS SECTION

MATERIAL =6201

ENERGY	ELASTIC	INELA	CAPTURE	(N.ZN)	(N.SN)	(N.P)	(N.NP)	(N.R)	(N.NR)	(N.D)	(N.T)	MU-BAR
1.0000-5	6.1000+0	5.0572+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000-4	6.1000+0	2.1510+0	2.1510+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000-3	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000-2	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000-1	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000-0	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000+0	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000+1	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000+2	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000+3	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000+4	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000+5	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000+6	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3
1.0000+7	6.1000+0	1.5291+0	1.5291+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	0.0000+0	4.8726-3	3

147Sm (6202)

CROSS SECTION

MATERIAL = 8202

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N,ZN)	(N,SN)	(N,P)	(N,MP)	(N,A)	(N,NA)	(N,D)	(N,T)	MU-BR
1.0000-5	1.8245+2	1.0633+0	1.8138+2	7.7098+1	1.0633+0	0.0000+0	0.0000+0	1.8138+2	7.7098+1	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000-4	7.8159+1	1.0600+0	7.7098+1	9.3133+0	1.0600+0	0.0000+0	0.0000+0	9.3133+0	7.7098+1	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000-3	3.2332+1	1.0392+0	3.1089+1	3.1089+1	1.0392+0	0.0000+0	0.0000+0	3.1089+1	3.1089+1	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000-2	1.5116+0	1.0118+0	1.0118+0	1.0118+0	1.0118+0	0.0000+0	0.0000+0	1.0118+0	1.0118+0	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000-1	9.7511+0	8.944+0	7.3544+0	7.3544+0	8.944+0	0.0000+0	0.0000+0	7.3544+0	7.3544+0	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000-0	5.9844+0	1.3094+0	2.8778+0	2.8778+0	1.3094+0	0.0000+0	0.0000+0	2.8778+0	2.8778+0	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+1	9.0071+0	4.4855+2	2.8288+1	2.8288+1	4.4855+2	0.0000+0	0.0000+0	2.8288+1	2.8288+1	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+2	4.7422+0	1.5900+2	1.5900+2	1.5900+2	1.5900+2	0.0000+0	0.0000+0	1.5900+2	1.5900+2	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+3	8.7722+0	7.5608+1	7.5608+1	7.5608+1	7.5608+1	0.0000+0	0.0000+0	7.5608+1	7.5608+1	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+4	5.7256+1	5.0908+1	2.0044+1	2.0044+1	5.0908+1	0.0000+0	0.0000+0	2.0044+1	2.0044+1	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+5	2.2586+1	2.8671+1	1.9238+1	1.9238+1	2.8671+1	0.0000+0	0.0000+0	1.9238+1	1.9238+1	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+6	1.0782+1	1.4239+1	1.4239+1	1.4239+1	1.4239+1	0.0000+0	0.0000+0	1.4239+1	1.4239+1	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+7	8.7114+0	8.9811+0	2.4180+0	2.4180+0	8.9811+0	0.0000+0	0.0000+0	2.4180+0	2.4180+0	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+8	6.8883+0	6.8811+0	1.8848+0	1.8848+0	6.8811+0	0.0000+0	0.0000+0	1.8848+0	1.8848+0	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+9	7.2637+0	5.0378+0	2.1494+0	2.1494+0	5.0378+0	0.0000+0	0.0000+0	2.1494+0	2.1494+0	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+10	5.2154+0	2.6950+0	2.5085+0	2.5085+0	2.6950+0	0.0000+0	0.0000+0	2.5085+0	2.5085+0	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+11	4.5889+0	2.6728+0	1.5085+0	1.5085+0	2.6728+0	0.0000+0	0.0000+0	1.5085+0	1.5085+0	0.0000+0	0.0000+0	4.5771-3	4.5771-3
1.0000+12	5.2928+0	3.4697+0	3.8778+1	3.8778+1	3.4697+0	0.0000+0	0.0000+0	3.8778+1	3.8778+1	0.0000+0	0.0000+0	4.5771-3	4.5771-3

148Sm (6203)

CROSS SECTION

MATERIAL = 8203

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N,ZN)	(N,SN)	(N,P)	(N,MP)	(N,A)	(N,NA)	(N,D)	(N,T)	MU-BR
1.0000-5	8.4781+0	9.9691-1	7.4782+0	7.4782+0	9.9691-1	0.0000+0	0.0000+0	7.4782+0	7.4782+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000-4	4.1901+0	8.9876+1	3.1933+0	3.1933+0	8.9876+1	0.0000+0	0.0000+0	3.1933+0	3.1933+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000-3	2.2510+0	8.9876+1	1.3523+0	1.3523+0	8.9876+1	0.0000+0	0.0000+0	1.3523+0	1.3523+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000-2	1.9985+0	8.8484+1	1.0089+0	1.0089+0	8.8484+1	0.0000+0	0.0000+0	1.0089+0	1.0089+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000-1	1.2691+0	8.8484+1	1.0089+0	1.0089+0	8.8484+1	0.0000+0	0.0000+0	1.0089+0	1.0089+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000-0	1.0745+0	8.7325+1	0.9211+0	0.9211+0	8.7325+1	0.0000+0	0.0000+0	0.9211+0	0.9211+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+1	1.0044+0	8.7325+1	0.9211+0	0.9211+0	8.7325+1	0.0000+0	0.0000+0	0.9211+0	0.9211+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+2	8.6711+0	7.7882+1	1.148+0	1.148+0	7.7882+1	0.0000+0	0.0000+0	1.148+0	1.148+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+3	5.3531+0	5.2469+0	1.1042+0	1.1042+0	5.2469+0	0.0000+0	0.0000+0	1.1042+0	1.1042+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+4	2.0222+0	5.8818+0	1.8888+1	1.8888+1	5.8818+0	0.0000+0	0.0000+0	1.8888+1	1.8888+1	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+5	6.0288+0	4.9286+0	3.0286+0	3.0286+0	4.9286+0	0.0000+0	0.0000+0	3.0286+0	3.0286+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+6	4.5054+0	4.5054+0	3.0286+0	3.0286+0	4.5054+0	0.0000+0	0.0000+0	3.0286+0	3.0286+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+7	2.2878+0	2.2878+0	3.7830+1	3.7830+1	2.2878+0	0.0000+0	0.0000+0	3.7830+1	3.7830+1	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+8	1.6833+0	1.6833+0	1.2286+0	1.2286+0	1.6833+0	0.0000+0	0.0000+0	1.2286+0	1.2286+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+9	7.9199+0	7.9199+0	1.4692+1	1.4692+1	7.9199+0	0.0000+0	0.0000+0	1.4692+1	1.4692+1	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+10	7.5332+0	6.6184+0	1.0636+0	1.0636+0	6.6184+0	0.0000+0	0.0000+0	1.0636+0	1.0636+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+11	9.0776+0	7.8447+0	1.3778+1	1.3778+1	7.8447+0	0.0000+0	0.0000+0	1.3778+1	1.3778+1	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+12	7.9199+0	7.9199+0	1.0636+0	1.0636+0	7.9199+0	0.0000+0	0.0000+0	1.0636+0	1.0636+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+13	5.1098+0	5.1098+0	2.2496+0	2.2496+0	5.1098+0	0.0000+0	0.0000+0	2.2496+0	2.2496+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+14	4.9650+0	2.6100+0	2.1718+0	2.1718+0	4.9650+0	0.0000+0	0.0000+0	2.1718+0	2.1718+0	0.0000+0	0.0000+0	4.5482-3	4.5482-3
1.0000+15	5.3235+0	3.0348+0	6.0076+1	6.0076+1	5.3235+0	0.0000+0	0.0000+0	6.0076+1	6.0076+1	0.0000+0	0.0000+0	4.5482-3	4.5482-3

149Sm (6204)

CROSS SECTION

MATERIAL = 6204

Table with columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N,ZN), (N,SN), (N,P), (N,NP), (N,NA), (N,NA), (N,NA), (N,NA), (N,NA), (N,NA), (N,NA). Rows include energy levels from 1.0000 to 7.0000 and various cross-section values.

150Sm (6205)

CROSS SECTION

MATERIAL = 6205

Table with columns: ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N,ZN), (N,SN), (N,P), (N,NP), (N,NA), (N,NA), (N,NA), (N,NA), (N,NA), (N,NA), (N,NA), (N,NA). Rows include energy levels from 1.0000 to 7.0000 and various cross-section values.

151Sm (6206)

CROSS SECTION

Table for 151Sm (6206) showing cross sections (TOTAL, ELASTIC, INEL, CAPTURE) and ratios (N.A., N.MA., N.D., N.I., N.BR) across various energy ranges from 1.0000 to 7.0000 eV.

152Sm (6207)

CROSS SECTION

Table for 152Sm (6207) showing cross sections (TOTAL, ELASTIC, INEL, CAPTURE) and ratios (N.A., N.MA., N.D., N.I., N.BR) across various energy ranges from 1.0000 to 7.0000 eV.

153Sm (6208)

CROSS SECTION

MATERIAL =6208

ENERGY	TOTAL	ELASTIC	INFLR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,A)	(N,NA)	(N,D)	(N,T)	MU-DIR
1.0000- 5	1.5089+ 5	0.7000+ 0		1.2862+ 5					0.0000+ 0				4.3973- 5
1.0000- 2	5.1614+ 2	0.7000+ 0		5.5344+ 2					0.0000+ 0				4.3973- 5
1.0000- 2	2.9889+ 2	0.7000+ 0		2.9889+ 2					0.0000+ 0				4.3973- 5
1.0000- 1	2.9889+ 1	0.7000+ 0		2.9889+ 1					0.0000+ 0				4.3973- 5
1.0000- 1	1.6273+ 1	0.7000+ 0		1.7501+ 1					0.0000+ 0				4.3973- 5
1.0000- 1	1.7937+ 1	0.7000+ 0		1.7937+ 1					0.0000+ 0				4.3973- 5
1.0000- 1	1.7937+ 1	0.7000+ 0		1.7937+ 1					0.0000+ 0				4.3973- 5
1.0000- 0	4.2623+ 1	0.7000+ 0		5.5488+ 1					0.0000+ 0				4.3973- 5
1.0000- 0	5.6000+ 2	0.7000+ 0		5.6000+ 2					0.0000+ 0				4.3973- 5
1.0000- 0	5.3471+ 2	0.7000+ 0		5.3471+ 2					0.0000+ 0				4.3973- 5
1.0000+ 1	2.5244+ 2	0.7000+ 0		1.8115+ 2					0.0000+ 0				4.3973- 5
1.0000+ 1	1.7759+ 1	0.7000+ 0		1.7759+ 1					0.0000+ 0				4.3973- 5
1.0000+ 1	1.7759+ 1	0.7000+ 0		1.7759+ 1					0.0000+ 0				4.3973- 5
1.0000+ 1	1.7759+ 1	0.7000+ 0		1.7759+ 1					0.0000+ 0				4.3973- 5
1.0000+ 2	5.5891+ 1	0.7000+ 0		5.5891+ 1					0.0000+ 0				4.3973- 5
1.0000+ 2	5.5891+ 1	0.7000+ 0		5.5891+ 1					0.0000+ 0				4.3973- 5
1.0000+ 3	2.4498+ 1	0.7000+ 0		2.4498+ 1					0.0000+ 0				4.3973- 5
1.0000+ 3	1.8937+ 1	0.7000+ 0		1.8937+ 1					0.0000+ 0				4.3973- 5
1.0000+ 4	1.4096+ 1	0.7000+ 0		1.4096+ 1					0.0000+ 0				4.3973- 5
1.0000+ 4	1.1613+ 1	0.7000+ 0		1.1613+ 1					0.0000+ 0				4.3973- 5
1.0000+ 4	1.1613+ 1	0.7000+ 0		1.1613+ 1					0.0000+ 0				4.3973- 5
1.0000+ 5	1.1613+ 1	0.7000+ 0		1.1613+ 1					0.0000+ 0				4.3973- 5
1.0000+ 5	1.1613+ 1	0.7000+ 0		1.1613+ 1					0.0000+ 0				4.3973- 5
1.0000+ 6	2.2689+ 0	0.7000+ 0		2.2689+ 0					0.0000+ 0				4.3973- 5
1.0000+ 6	2.2689+ 0	0.7000+ 0		2.2689+ 0					0.0000+ 0				4.3973- 5
1.0000+ 7	2.2689+ 0	0.7000+ 0		2.2689+ 0					0.0000+ 0				4.3973- 5
1.0000+ 7	2.2689+ 0	0.7000+ 0		2.2689+ 0					0.0000+ 0				4.3973- 5

154Sm (6209)

CROSS SECTION

MATERIAL =6209

ENERGY	TOTAL	ELASTIC	INFLR	CAPTURE	(N,2N)	(N,3N)	(N,P)	(N,NP)	(N,A)	(N,NA)	(N,D)	(N,T)	MU-DIR
1.0000- 5	3.6997+ 1	1.0997+ 1		2.6000+ 1					0.0000+ 0				4.3687- 5
1.0000- 2	2.1014+ 1	1.0997+ 1		1.1014+ 1					0.0000+ 0				4.3687- 5
1.0000- 2	1.8440+ 1	1.0997+ 1		1.8440+ 1					0.0000+ 0				4.3687- 5
1.0000- 1	1.8440+ 1	1.0997+ 1		1.8440+ 1					0.0000+ 0				4.3687- 5
1.0000- 1	1.2231+ 1	1.0997+ 1		1.2231+ 1					0.0000+ 0				4.3687- 5
1.0000- 1	1.2231+ 1	1.0997+ 1		1.2231+ 1					0.0000+ 0				4.3687- 5
1.0000- 1	1.2231+ 1	1.0997+ 1		1.2231+ 1					0.0000+ 0				4.3687- 5
1.0000- 0	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000- 0	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000- 0	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 1	1.0560+ 1	1.0997+ 1		1.0560+ 1					0.0000+ 0				4.3687- 5
1.0000+ 1	1.0560+ 1	1.0997+ 1		1.0560+ 1					0.0000+ 0				4.3687- 5
1.0000+ 1	1.0560+ 1	1.0997+ 1		1.0560+ 1					0.0000+ 0				4.3687- 5
1.0000+ 2	2.1186+ 2	1.0997+ 1		2.1186+ 2					0.0000+ 0				4.3687- 5
1.0000+ 2	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 2	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 3	2.2002+ 1	1.0997+ 1		2.2002+ 1					0.0000+ 0				4.3687- 5
1.0000+ 3	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 3	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 4	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 4	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 4	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 5	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 5	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 5	1.1228+ 1	1.0997+ 1		1.1228+ 1					0.0000+ 0				4.3687- 5
1.0000+ 6	2.2684+ 0	1.0997+ 1		2.2684+ 0					0.0000+ 0				4.3687- 5
1.0000+ 6	2.2684+ 0	1.0997+ 1		2.2684+ 0					0.0000+ 0				4.3687- 5
1.0000+ 6	2.2684+ 0	1.0997+ 1		2.2684+ 0					0.0000+ 0				4.3687- 5
1.0000+ 7	2.2684+ 0	1.0997+ 1		2.2684+ 0					0.0000+ 0				4.3687- 5
1.0000+ 7	2.2684+ 0	1.0997+ 1		2.2684+ 0					0.0000+ 0				4.3687- 5

151Eu (6301)

CROSS SECTION

MATERIAL = 6301

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N,ZN)	(N,SN)	(N,FP)	(N,R)	(N,MR)	(N,D)	(N,T)	MU-BAR
1.0000-5	3.6019+4	3.7660+0		5.8000+4				3.4171-6	0.0000+0			4.4866-3
1.0000-4	1.4817+3	0.0000+0		1.4013+4				1.3908-6	0.0000+0			4.4866-3
1.0000-3	4.0000+2	0.0000+0		6.0000+3				7.7308-6	0.0000+0			4.4866-3
4.0000-2	2.4217+3	2.2421+3		2.4198+3				2.9107-6	0.0000+0			4.4866-3
1.0000-1	1.9803+3	1.9803+0		1.7146+3				1.7826-6	0.0000+0			4.7708-3
4.0000-1	8.7281+2	8.7281+0		6.4783+2				6.7185-6	0.0000+0			2.0041-3
1.0000+0	4.0778+2	4.0778+0		3.8874+2				6.0914-7	0.0000+0			5.0833-3
4.0000+0	6.0000+0	6.0000+0		4.3188+0				1.9844-7	0.0000+0			5.3663-3
7.0000+0	4.4868+0	4.4868+0		4.3188+0				1.9844-7	0.0000+0			5.4860-3
1.0000+1	2.0000+1	2.0000+0		1.8270+1				2.0340-7	0.0000+0			5.9411-3
4.0000+1	2.9142+2	2.9142+0		1.8270+1				2.0340-7	0.0000+0			5.7180-3
7.0000+1	1.6874+2	1.6874+0		1.5768+1				1.9949-7	0.0000+0			5.9686-3
1.0000+2	1.3397+2	1.3397+0		9.8222+1				1.9844-7	0.0000+0			6.0956-3
4.0000+2	9.5834+1	9.5834+0		6.3200+1				6.5000+6	0.0000+0			6.3183-3
7.0000+2	7.2028+1	7.2028+0		4.9222+1				6.5000+6	0.0000+0			6.3183-3
1.0000+3	4.5822+1	4.5822+0		2.4633+1				4.3881-6	0.0000+0			1.4521-2
4.0000+3	2.4827+1	2.4827+0		1.9745+0				3.0000+6	0.0000+0			1.9943-2
7.0000+3	2.2098+1	2.2098+0		1.5842+0				3.1556-6	0.0000+0			2.3800-2
1.0000+4	1.7307+1	1.7307+0		6.8883-2				3.1493-6	0.0000+0			9.7041-2
4.0000+4	1.0562+1	1.0562+0		5.9291+0				3.7070-6	0.0000+0			1.1840-1
7.0000+4	6.8066+0	6.8066+0		1.8600+0				3.9174-6	0.0000+0			1.6840-1
1.0000+5	7.7458+0	7.7458+0		1.9612-1				9.1411-6	0.0000+0			2.8801-1
4.0000+5	7.0884+0	7.0884+0		4.4328-1				7.4757-7	0.0000+0			4.8517-1
7.0000+5	7.2723+0	7.2723+0		9.1216-1				1.1826-6	0.0000+0			6.2710-1
1.0000+6	6.2618+0	6.2618+0		1.6012+0				1.9000-6	0.0000+0			7.2000-1
4.0000+6	6.3378+0	6.3378+0		2.1653+0				5.9011-6	0.0000+0			7.3346-1
7.0000+6	4.8247+0	4.8247+0		1.1125-2		5.4516-8		1.8827-3	0.0000+0			7.7878-1
1.0000+7	5.2249+0	5.0144+0	4.9423-1	1.0881-3	2.4339-1	8.1776-3	6.0940-3	7.9485-3	3.1972-3			8.7372-1

152Eu (6302)

CROSS SECTION

MATERIAL = 6302

ENERGY	TOTAL	ELASTIC	INEL	CAPTURE	(N,ZN)	(N,SN)	(N,FP)	(N,R)	(N,MR)	(N,D)	(N,T)	MU-BAR
1.0000-5	5.0884+4	3.3040+1		5.0861+4				0.0000+0	0.0000+0			4.4262-3
1.0000-4	1.9109+4	2.0878+1		1.9078+4				0.0000+0	0.0000+0			4.4262-3
4.0000-4	6.5125+3	2.4682+1		4.4682+3				0.0000+0	0.0000+0			4.4262-3
7.0000-4	3.9388+3	2.1361+1		3.9176+3				0.0000+0	0.0000+0			4.4262-3
1.0000-1	1.8939+3	1.8939+0		1.6804+3				0.0000+0	0.0000+0			4.4262-3
4.0000-1	6.6030+2	6.6030+0		5.6844+2				0.0000+0	0.0000+0			4.4262-3
7.0000-1	1.4040+2	1.4040+0		1.3544+2				0.0000+0	0.0000+0			4.4262-3
1.0000+0	8.7099+2	8.7099+0		6.8180+2				0.0000+0	0.0000+0			4.4262-3
4.0000+0	5.2007+2	4.9587+2		2.6778+2				0.0000+0	0.0000+0			4.4262-3
7.0000+0	2.8007+2	1.9587+2		5.2886+1				0.0000+0	0.0000+0			4.4262-3
1.0000+1	2.7748+2	1.4523+2	2	1.7495+2				0.0000+0	0.0000+0			4.4262-3
4.0000+1	1.2206+2	8.6806+1		1.2700+2				0.0000+0	0.0000+0			4.4262-3
7.0000+1	1.8783+2	8.6806+1		1.2700+2				0.0000+0	0.0000+0			4.4262-3
1.0000+2	1.2606+2	1.5811+1		7.7274+1				0.0000+0	0.0000+0			4.4262-3
4.0000+2	6.8300+1	5.9561+1		5.9383+1				0.0000+0	0.0000+0			4.4262-3
7.0000+2	6.8300+1	2.8523+1		3.9383+1				0.0000+0	0.0000+0			4.4262-3
1.0000+3	4.9227+1	2.0651+1		2.3977+1				0.0000+0	0.0000+0			4.4262-3
4.0000+3	2.9375+1	1.8371+1		1.6543+1				0.0000+0	0.0000+0			4.4262-3
7.0000+3	2.0770+1	1.1130+1		0.6597+0				0.0000+0	0.0000+0			4.4262-3
1.0000+4	1.7656+1	0.9627+0		4.7028+0				0.0000+0	0.0000+0			4.4262-3
4.0000+4	6.8300+0	6.8300+0	1.6211-2	4.7028+0				0.0000+0	0.0000+0			4.4262-3
7.0000+4	6.8300+0	5.9744+0		3.8693+0				0.0000+0	0.0000+0			4.4262-3
1.0000+5	7.7668+0	5.4889+0		2.4988+0				0.0000+0	0.0000+0			4.4262-3
4.0000+5	8.8058+0	4.8883+0		1.4398+0				0.0000+0	0.0000+0			4.4262-3
7.0000+5	8.8058+0	4.5144+0		8.6971-1				0.0000+0	0.0000+0			4.4262-3
1.0000+6	8.9477+0	4.6887+0		3.6722-1				0.0000+0	0.0000+0			4.4262-3
4.0000+6	9.2086+0	5.9450+0		1.8998+0				0.0000+0	0.0000+0			4.4262-3
7.0000+6	4.8942+0	2.6270+0		2.2778+0				0.0000+0	0.0000+0			4.4262-3
1.0000+7	5.1140+0	3.3311+0	2.8767-1	1.0918-3	1.1856+0	6.0896-3	4.1883-3	2.4428-3	1.8181-3	6.4366-3		8.3048-3

155Eu (6305)

CROSS SECTION

MATERIAL = 6305		TOTAL	ELASTIC	INEL	CAPTURE	(N,2N)	(N,SN)	(N,P)	(N,MP)	(N,A)	(N,MR)	(N,D)	(N,T)	MU,BRN
1.0000-5	1.0000-2	1.2212+4	8.7986+0		1.2203+4					0.0000+0				4.3408-3
1.0000-4	1.0000-2	9.2683+3	0.2683+0		9.2786+3					0.0000+0				4.3408-3
1.0000-3	1.0000-1	9.9211+3	1.0118+0		9.6112+3					0.0000+0				4.3408-3
1.0000-2	1.0000-1	2.4353+5	1.1672+1		2.2481+5					0.0000+0				4.3408-3
1.0000-1	1.0000-1	2.9009+3	2.2919+1		2.2774+3					0.0000+0				4.3408-3
1.0000-1	1.0000-0	3.4612+4	3.4600+2		3.4239+4					0.0000+0				4.3408-3
1.0000+0	1.0000+0	5.1795+2	4.9321+1		5.0260+2					0.0000+0				4.3408-3
1.0000+0	1.0000+0	7.0000+0	1.0000+0		6.0000+0					0.0000+0				4.3408-3
1.0000+0	1.0000+1	2.6288+1	1.0608+1		2.0147+1					0.0000+0				4.3408-3
1.0000+1	1.0000+1	8.2608+2	3.4210+1		7.7801+2					0.0000+0				4.3408-3
1.0000+1	1.0000+2	1.0854+2	3.9658+1		1.5835+2					0.0000+0				4.3408-3
1.0000+2	1.0000+2	8.5149+1	3.4038+1		5.1105+1					0.0000+0				4.3408-3
1.0000+2	1.0000+3	9.2080+1	9.0278+1		9.1834+1					0.0000+0				4.3408-3
1.0000+3	1.0000+3	3.5626+1	2.9278+1		1.4801+1					0.0000+0				4.3408-3
1.0000+3	1.0000+3	3.112+1	2.5276+1		8.9728+0					0.0000+0				4.3408-3
1.0000+4	1.0000+4	1.6322+1	1.6414+1		3.5645+0					0.0000+0				4.3408-3
1.0000+4	1.0000+4	1.3705+1	1.1893+1		2.5728+0					0.0000+0				4.3408-3
1.0000+4	1.0000+4	1.1198+1	1.0093+1		1.7220+0					0.0000+0				4.3408-3
1.0000+5	1.0000+5	8.4715+0	8.6789+0		7.9767-1					0.0000+0				4.3408-3
1.0000+5	1.0000+5	7.4041+0	6.9389+0		4.2085-1					0.0000+0				4.3408-3
1.0000+5	1.0000+5	6.6582+0	6.5432+0		6.7349-1					0.0000+0				4.3408-3
1.0000+5	1.0000+5	6.8185+0	4.9686+0		1.3306-1					0.0000+0				4.3408-3
1.0000+6	1.0000+6	7.0914+0	4.8426+0		2.0423+0					0.0000+0				4.3408-3
1.0000+6	1.0000+6	5.0695+0	4.8107+0		9.4411-2					0.0000+0				4.3408-3
1.0000+6	1.0000+7	4.5284+0	2.6381+0		1.2090-3					0.0000+0				4.3408-3
1.0000+7	1.0000+7	5.1341+0	3.3175+0		1.0840-3					0.0000+0				4.3408-3

156Eu (6306)

CROSS SECTION

MATERIAL = 6306		TOTAL	ELASTIC	INEL	CAPTURE	(N,2N)	(N,SN)	(N,P)	(N,MP)	(N,A)	(N,MR)	(N,D)	(N,T)	MU,BRN
1.0000-5	1.0000-2	3.1581+2	6.6000+0		9.0837+2					0.0000+0				4.3126-3
1.0000-4	1.0000-2	1.2889+2	8.8000+0		1.3177+2					0.0000+0				4.3126-3
1.0000-3	1.0000-1	7.5708+1	8.8000+0		6.8475+1					0.0000+0				4.3126-3
1.0000-2	1.0000-1	6.1893+1	6.6000+0		6.4772+1					0.0000+0				4.3126-3
1.0000-1	1.0000-1	4.6418+1	6.6000+0		4.1889+1					0.0000+0				4.3126-3
1.0000-1	1.0000-0	3.6183+1	6.6000+0		2.8465+1					0.0000+0				4.3126-3
1.0000-0	1.0000-0	2.5988+1	6.6000+0		2.7954+1					0.0000+0				4.3126-3
1.0000+0	1.0000+0	7.6882+0	8.294+1		7.0862+2					0.0000+0				4.3126-3
1.0000+0	1.0000+0	5.4832+0	8.3244+1		4.2403+2					0.0000+0				4.3126-3
1.0000+0	1.0000+0	3.5215+0	8.6244+1		2.4691+2					0.0000+0				4.3126-3
1.0000+1	1.0000+1	2.5788+0	7.0226+1		1.7117+2					0.0000+0				4.3126-3
1.0000+1	1.0000+2	1.3222+0	6.8693+1		1.0464+2					0.0000+0				4.3126-3
1.0000+1	1.0000+2	8.6213+1	5.1805+1		9.3827+1					0.0000+0				4.3126-3
1.0000+2	1.0000+2	4.7387+1	5.5223+1		1.2714+2					0.0000+0				4.3126-3
1.0000+3	1.0000+3	9.2502+0	2.6779+1		1.9279+2					0.0000+0				4.3126-3
1.0000+3	1.0000+4	1.6395+0	2.0748+1		7.5280+2					0.0000+0				4.3126-3
1.0000+4	1.0000+4	1.6395+0	1.5089+1		1.5224+2					0.0000+0				4.3126-3
1.0000+4	1.0000+4	1.9595+0	1.2608+1		8.6941+1					0.0000+0				4.3126-3
1.0000+4	1.0000+5	9.0395+0	9.0395+0		9.0395+0					0.0000+0				4.3126-3
1.0000+5	1.0000+5	7.4647+0	6.0289+0		1.8614+1					0.0000+0				4.3126-3
1.0000+5	1.0000+5	6.8150+0	4.5373+0		1.4448+1					0.0000+0				4.3126-3
1.0000+5	1.0000+6	7.0189+0	4.7183+0		1.7568+0					0.0000+0				4.3126-3
1.0000+6	1.0000+6	4.8655+0	2.8090+0		1.4448+0					0.0000+0				4.3126-3
1.0000+6	1.0000+7	4.8444+0	2.6326+0		1.0611+0					0.0000+0				4.3126-3
1.0000+7	1.0000+7	5.1407+0	3.3297+0		2.1450-1					0.0000+0				4.3126-3

152Gd (6401)

CROSS SECTION

MATERIAL = 6401

ENERGY	ELASTIC	INEL	CAPTURE	(N.2N)	(N.3N)	(N.P)	(N.NF)	(N.A)	(N.NR)	(N.D)	(N.T)	MU-BAR
1.0000-5	1.966+ 1	0.000+ 0	3.2612+ 3	0.0000+ 0	2.1696- 2	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.4263- 9	4.4263- 9
1.0000-4	1.4131+ 3	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000-3	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000-2	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000-1	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000-0	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000+ 1	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000+ 2	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000+ 3	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000+ 4	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000+ 5	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000+ 6	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9
1.0000+ 7	1.3940+ 1	0.000+ 0	1.3940+ 1	0.000+ 0	9.2138- 3	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	0.000+ 0	4.4263- 9	4.4263- 9

154Gd (6402)

CROSS SECTION

MATERIAL = 6402

ENERGY	ELASTIC	INEL	CAPTURE	(N.2N)	(N.3N)	(N.P)	(N.NF)	(N.A)	(N.NR)	(N.D)	(N.T)	MU-BAR
1.0000-5	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000-4	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000-3	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000-2	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000-1	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000-0	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000+ 1	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000+ 2	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000+ 3	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000+ 4	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000+ 5	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000+ 6	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9
1.0000+ 7	1.3768+ 0	0.000+ 0	2.6659+ 2	0.000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	0.0000+ 0	4.3688- 9

155Gd (6403)

CROSS SECTION

MATERIAL = 6403

Table for 155Gd (6403) showing cross sections for various energy levels. Columns include ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N.2N), (N.3N), (N.P), (N.MP), (N.A), (N.NA), (N.D), (N.T), and MU-BR.

156Gd (6404)

CROSS SECTION

MATERIAL = 6404

Table for 156Gd (6404) showing cross sections for various energy levels. Columns include ENERGY, TOTAL, ELASTIC, INELR, CAPTURE, (N.2N), (N.3N), (N.P), (N.MP), (N.A), (N.NA), (N.D), (N.T), and MU-BR.

157Gd (6405)

CROSS SECTION

MATERIAL = 8405

Table with columns: ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,2N), (N,SN), (N,P), (N,MP), (N,A), (N,NR), (N,D), (N,T), MU-RAR. Rows represent various energy levels for 157Gd.

158Gd (6406)

CROSS SECTION

MATERIAL = 8406

Table with columns: ENERGY, TOTAL, ELASTIC, INEL, CAPTURE, (N,2N), (N,SN), (N,P), (N,MP), (N,A), (N,NR), (N,D), (N,T), MU-RAR. Rows represent various energy levels for 158Gd.

160Gd (6407)

CROSS SECTION

MATERIAL =6407

Table of cross sections for 160Gd (6407) showing energy ranges, elastic, inelastic, and capture cross sections across various reaction channels.

159Tb (6501)

CROSS SECTION

MATERIAL =6501

Table of cross sections for 159Tb (6501) showing energy ranges, elastic, inelastic, and capture cross sections across various reaction channels.

**4. Table of 2200-m/s and 14-MeV Cross Sections, Resonance Integrals,
Maxwellian and Fission Spectrum Average Cross Sections**

The cross sections are given in the unit of barns. For the values less than 1.0 barn, they are listed with an exponential part. For example, the value of 361.2 μb is listed as 361.2 -6 which should be read as 361.2×10^{-6} barn.

Nuclide	Reaction	2200-m/s (barns)	Max.W.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)	
33-As- 75	total	9.930	9.432		3.840	4.947	
	elastic	5.430	5.430		2.458	3.407	
	inelastic		(E-thr = 0.201 MeV)		225.5 -3	1.504	
	(n,2n)		(E-thr = 10.390 MeV)		1.024	361.2 -6	
	(n,3n)		(E-thr = 18.480 MeV)			10.70 -9	
	(n,na)		(E-thr = 5.386 MeV)		8.866 -3	1.927 -6	
	(n,np)		(E-thr = 6.998 MeV)		75.80 -3	98.96 -6	
	(n,nd)		(E-thr = 15.000 MeV)			403.0 -12	
	(n,nt)		(E-thr = 15.610 MeV)			20.55 -12	
	capture	4.500	4.003	63.94	1.035 -3	31.25 -3	
	(n,p)		(E-thr = 0.401 MeV)		33.93 -3	2.580 -3	
	(n,d)		(E-thr = 4.657 MeV)		1.032 -3	471.8 -9	
	(n,t)		(E-thr = 8.731 MeV)		17.98 -6	13.74 -9	
	(n,He-3)		(E-thr = 10.300 MeV)		27.15 -15	3.082 -12	
(n,a)	0.0	0.0	8.483 -3	11.62 -3	86.84 -6		
34-Se- 74	total	59.07	53.38		3.840	4.940	
	elastic	7.274	7.268		2.391	3.877	
	inelastic		(E-thr = 0.644 MeV)		498.4 -3	1.002	
	(n,2n)		(E-thr = 12.240 MeV)		271.8 -3	34.44 -6	
	(n,3n)		(E-thr = 4.129 MeV)		174.3 -3	50.20 -6	
	(n,na)		(E-thr = 8.674 MeV)		310.1 -3	59.24 -6	
	(n,np)		(E-thr = 580.1)		1.042 -3	38.55 -3	
	capture	51.80	46.11	580.1	1.042 -3	38.55 -3	
	(n,p)		(E-thr = 0.578 MeV)		151.4 -3	17.48 -3	
	(n,d)		(E-thr = 6.332 MeV)		1.240 -3	387.4 -9	
	(n,t)		(E-thr = 11.000 MeV)		179.3 -9	3.278 -9	
	(n,He-3)		(E-thr = 6.574 MeV)		279.6 -9	337.2 -12	
	(n,a)	0.0	0.0	79.72 -3	41.42 -3	4.225 -3	
	(n,2p)		(E-thr = 7.532 MeV)		12.38 -6	5.474 -9	
34-Se- 76	total	103.4	93.98		3.841	4.941	
	elastic	18.40	18.40		2.550	3.902	
	inelastic		(E-thr = 0.567 MeV)		349.9 -3	1.020	
	(n,2n)		(E-thr = 11.310 MeV)		824.9 -3	154.6 -6	
	(n,3n)		(E-thr = 19.450 MeV)			226.3 -12	
	(n,na)		(E-thr = 5.166 MeV)		12.87 -3	3.775 -6	
	(n,np)		(E-thr = 9.645 MeV)		11.20 -3	1.982 -6	
	capture	85.00	75.59	41.13	1.023 -3	17.46 -3	
	(n,p)		(E-thr = 2.215 MeV)		73.36 -3	606.4 -6	
	(n,d)		(E-thr = 7.305 MeV)		146.2 -6	57.84 -9	
	(n,t)		(E-thr = 11.420 MeV)		13.03 -9	1.541 -9	
	(n,He-3)		(E-thr = 8.808 MeV)		480.7 -12	3.999 -12	
	(n,a)	0.0	0.0	15.71 -3	17.19 -3	253.0 -6	
	(n,2p)		(E-thr = 10.050 MeV)		822.1 -12	175.8 -12	
34-Se- 77	total	50.43	45.77		3.841	4.945	
	elastic	8.430	8.427		2.502	3.387	
	inelastic		(E-thr = 0.164 MeV)		136.3 -3	1.525	
	(n,2n)		(E-thr = 7.520 MeV)		1.156	3.973 -3	
	(n,3n)		(E-thr = 18.830 MeV)			5.166 -9	
	(n,na)		(E-thr = 5.810 MeV)		901.2 -6	249.9 -9	
	(n,np)		(E-thr = 9.735 MeV)		1.476 -3	369.3 -9	
	(n,nd)		(E-thr = 14.820 MeV)			293.3 -12	
	capture	42.00	37.34	32.11	1.001 -3	26.28 -3	
	(n,p)	0.0	0.0	29.40 -3	32.57 -3	878.8 -6	
	(n,d)		(E-thr = 7.395 MeV)		1.207 -3	251.6 -9	
	(n,t)		(E-thr = 8.557 MeV)		1.758 -6	5.593 -9	
	(n,He-3)		(E-thr = 9.732 MeV)		1.976 -12	19.37 -12	
	(n,a)	0.0	0.0	10.98 -3	9.336 -3	700.4 -6	
(n,2p)		(E-thr = 8.007 MeV)		146.5 -9	89.82 -12		
34-Se- 78	total	8.830	8.782		3.841	4.940	
	elastic	8.400	8.400		2.570	3.948	
	inelastic		(E-thr = 0.622 MeV)		250.2 -3	972.0 -3	
	(n,2n)		(E-thr = 10.640 MeV)		997.8 -3	296.6 -6	
	(n,3n)		(E-thr = 18.160 MeV)			36.65 -9	
	(n,na)		(E-thr = 6.109 MeV)		441.6 -6	132.2 -9	
	(n,np)		(E-thr = 10.540 MeV)		208.8 -6	89.91 -9	
	capture	430.0 -3	382.4 -3	4.743	1.015 -3	19.43 -3	
	(n,p)		(E-thr = 3.554 MeV)		16.00 -3	21.17 -6	
	(n,d)		(E-thr = 8.204 MeV)		47.32 -6	29.98 -9	
	(n,t)		(E-thr = 11.770 MeV)		1.272 -9	1.488 -9	
	(n,a)	0.0	0.0	3.678 -3	5.159 -3	16.81 -6	
	34-Se- 79	total	56.30	50.78		3.841	4.938

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)	
34-Se- 79	elastic	6.300	6.300		2.514	3.564	
	inelastic			(E-thr = 0.097 MeV)	94.99 -3	1.335	
	(n,2n)			(E-thr = 7.054 MeV)	1.213	6.730 -3	
	(n,3n)			(E-thr = 17.690 MeV)		66.91 -9	
	(n,na)			(E-thr = 6.569 MeV)	57.12 -6	32.58 -9	
	(n,np)			(E-thr = 10.610 MeV)	63.23 -6	48.01 -9	
	(n,nd)			(E-thr = 15.260 MeV)		75.92 -12	
	capture	50.00	44.31	60.87	1.001 -3	29.98 -3	
	(n,p)			(E-thr = 1.436 MeV)	8.637 -3	26.08 -6	
	(n,d)			(E-thr = 8.268 MeV)	317.9 -6	78.70 -9	
	(n,t)			(E-thr = 8.993 MeV)	1.535 -6	5.890 -9	
	(n,He-3)			(E-thr = 11.710 MeV)	0.0	275.0 -15	
	(n,a)	0.0	0.0	7.567 -3	8.553 -3	77.05 -6	
	34-Se- 80	total	7.560	7.492		3.842	4.947
elastic		6.950	6.950		2.498	4.012	
inelastic				(E-thr = 0.675 MeV)	182.9 -3	925.0 -3	
(n,2n)				(E-thr = 10.040 MeV)	1.133	575.5 -6	
(n,3n)				(E-thr = 17.100 MeV)		226.0 -9	
(n,na)				(E-thr = 7.058 MeV)	12.33 -6	11.75 -9	
(n,np)				(E-thr = 11.480 MeV)	2.853 -6	13.08 -9	
capture		610.0 -3	542.5 -3	925.4 -3	1.002 -3	7.724 -3	
(n,p)				(E-thr = 4.981 MeV)	12.85 -3	5.247 -6	
(n,d)				(E-thr = 9.139 MeV)	2.755 -6	9.918 -9	
(n,t)				(E-thr = 12.050 MeV)	90.24 -12	912.1 -12	
(n,a)				(E-thr = 0.904 MeV)	13.50 -3	10.25 -6	
34-Se- 82		total	5.044	5.039		3.841	4.945
		elastic	5.000	5.000		2.625	4.075
	inelastic			(E-thr = 0.663 MeV)	134.4 -3	857.4 -3	
	(n,2n)			(E-thr = 9.385 MeV)	1.079	885.4 -6	
	(n,3n)			(E-thr = 16.170 MeV)		775.3 -9	
	(n,na)			(E-thr = 8.349 MeV)	128.1 -9	1.793 -9	
	(n,np)			(E-thr = 12.390 MeV)	5.754 -9	4.600 -9	
	capture	44.20 -3	39.32 -3	799.1 -3	1.006 -3	10.45 -3	
	(n,p)			(E-thr = 6.695 MeV)	1.711 -3	411.5 -9	
	(n,d)			(E-thr = 10.050 MeV)	269.6 -9	4.249 -9	
	(n,t)			(E-thr = 12.550 MeV)	40.35 -15	514.2 -12	
	(n,a)			(E-thr = 2.391 MeV)	169.3 -6	49.39 -9	
	35-Br- 79	total	14.27	13.05		3.841	4.940
		elastic	3.269	3.268		2.474	3.363
inelastic				(E-thr = 0.210 MeV)	291.2 -3	1.529	
(n,2n)				(E-thr = 10.820 MeV)	883.3 -3	217.9 -6	
(n,3n)				(E-thr = 19.220 MeV)		1.340 -9	
(n,na)				(E-thr = 5.528 MeV)	1.554 -3	371.2 -9	
(n,np)				(E-thr = 6.413 MeV)	144.8 -3	194.6 -6	
(n,nd)				(E-thr = 14.710 MeV)		360.8 -12	
(n,nt)				(E-thr = 15.960 MeV)		3.057 -12	
capture		11.00	9.784	128.7	1.023 -3	42.61 -3	
(n,p)		0.0	0.0	61.83 -3	31.43 -3	4.452 -3	
(n,d)				(E-thr = 4.073 MeV)	1.645 -3	548.7 -9	
(n,t)				(E-thr = 8.445 MeV)	10.21 -6	12.18 -9	
(n,He-3)				(E-thr = 9.125 MeV)	31.46 -12	27.91 -12	
(n,a)	0.0	0.0	7.955 -3	11.87 -3	54.10 -6		
(n,2p)			(E-thr = 9.967 MeV)	45.86 -12	12.03 -12		
35-Br- 81	total	6.307	6.009		3.841	4.938	
	elastic	3.616	3.616		2.508	3.560	
	inelastic			(E-thr = 0.279 MeV)	267.9 -3	1.343	
	(n,2n)			(E-thr = 10.290 MeV)	1.029	401.7 -6	
	(n,3n)			(E-thr = 18.280 MeV)		24.54 -9	
	(n,na)			(E-thr = 6.563 MeV)	28.42 -6	17.85 -9	
	(n,np)			(E-thr = 7.602 MeV)	9.470 -3	3.059 -6	
	(n,nd)			(E-thr = 15.300 MeV)		94.29 -12	
	(n,nt)			(E-thr = 16.090 MeV)		2.060 -12	
	capture	2.690	2.393	46.92	1.010 -3	32.42 -3	
	(n,p)			(E-thr = 0.813 MeV)	20.73 -3	225.5 -6	
	(n,d)			(E-thr = 5.263 MeV)	425.1 -6	127.5 -9	
	(n,t)			(E-thr = 9.041 MeV)	1.897 -6	7.111 -9	
	(n,a)	0.0	0.0	3.370 -3	4.259 -3	3.500 -6	
36-Kr- 78	total	14.03	13.34		3.841	4.931	
	elastic	7.829	7.828		2.644	3.791	
	inelastic			(E-thr = 0.461 MeV)	409.8 -3	1.057	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
36-Kr- 78	(n,2n)		(E-thr = 12.150 MeV)		192.4 -3	24.50 -6
	(n,na)		(E-thr = 4.416 MeV)		30.79 -3	6.986 -6
	(n,np)		(E-thr = 8.308 MeV)		361.0 -3	73.94 -6
	capture	6.200	5.514	25.76	1.117 -3	67.31 -3
	(n,p)	0.0	0.0	225.8 -3	156.5 -3	11.48 -3
	(n,d)		(E-thr = 5.968 MeV)		847.7 -6	282.2 -9
	(n,t)		(E-thr = 10.860 MeV)		192.0 -9	3.563 -9
	(n,He-3)		(E-thr = 5.821 MeV)		151.2 -9	236.0 -12
	(n,a)	0.0	0.0	55.88 -3	43.15 -3	2.396 -3
	(n,2p)		(E-thr = 6.133 MeV)		1.402 -3	312.3 -9
	36-Kr- 80	total	18.79	17.52		3.842
elastic		7.290	7.288		2.543	3.946
inelastic			(E-thr = 0.624 MeV)		441.4 -3	899.4 -3
(n,2n)			(E-thr = 11.680 MeV)		735.2 -3	112.4 -6
(n,na)			(E-thr = 5.124 MeV)		7.418 -3	1.960 -6
(n,np)			(E-thr = 9.236 MeV)		33.77 -3	6.209 -6
capture		11.50	10.23	60.25	2.361 -3	82.86 -3
(n,p)			(E-thr = 1.239 MeV)		59.51 -3	1.186 -3
(n,d)			(E-thr = 6.896 MeV)		315.6 -6	95.47 -9
(n,t)			(E-thr = 11.460 MeV)		4.774 -9	1.335 -9
(n,He-3)			(E-thr = 7.819 MeV)		3.849 -9	17.68 -12
(n,a)	0.0	0.0	13.42 -3	18.76 -3	185.5 -6	
(n,2p)		(E-thr = 8.595 MeV)		449.0 -9	1.955 -9	
36-Kr- 82	total	46.46	43.38		3.841	4.933
	elastic	18.46	18.46		2.508	4.045
	inelastic		(E-thr = 0.786 MeV)		339.4 -3	857.9 -3
	(n,2n)		(E-thr = 11.100 MeV)		961.8 -3	202.8 -6
	(n,3n)		(E-thr = 19.080 MeV)			2.473 -9
	(n,na)		(E-thr = 6.055 MeV)		217.3 -6	78.87 -9
	(n,np)		(E-thr = 10.030 MeV)		1.196 -3	309.6 -9
	capture	28.00	24.92	228.0	1.037 -3	29.26 -3
	(n,p)		(E-thr = 2.339 MeV)		21.86 -3	88.85 -6
	(n,d)		(E-thr = 7.692 MeV)		54.54 -6	29.02 -9
	(n,t)		(E-thr = 11.720 MeV)		597.6 -12	936.6 -12
(n,a)	0.0	0.0	5.512 -3	7.324 -3	22.57 -6	
36-Kr- 83	total	188.9	168.1		3.841	4.938
	elastic	9.080	9.051		1.522	3.713
	inelastic		(E-thr = 0.010 MeV)		1.319	1.195
	(n,2n)		(E-thr = 7.561 MeV)		981.1 -3	2.803 -3
	(n,3n)		(E-thr = 18.650 MeV)			2.609 -9
	(n,na)		(E-thr = 6.565 MeV)		11.13 -6	15.00 -9
	(n,np)		(E-thr = 9.899 MeV)		323.4 -6	157.2 -9
	(n,nd)		(E-thr = 15.250 MeV)			105.7 -12
	capture	179.9	159.1	147.7	1.001 -3	24.29 -3
	(n,p)		(E-thr = 0.179 MeV)		12.49 -3	78.13 -6
	(n,d)		(E-thr = 7.561 MeV)		1.251 -3	270.6 -9
(n,t)		(E-thr = 8.991 MeV)		965.7 -9	6.696 -9	
(n,He-3)		(E-thr = 10.580 MeV)		3.813 -18	2.906 -12	
(n,a)	0.0	0.0	3.846 -3	4.395 -3	12.70 -6	
(n,2p)		(E-thr = 9.018 MeV)		129.0 -12	2.326 -12	
36-Kr- 84	total	6.269	6.257		3.842	4.932
	elastic	6.159	6.159		2.541	4.161
	inelastic		(E-thr = 0.893 MeV)		334.7 -3	758.8 -3
	(n,2n)		(E-thr = 10.650 MeV)		953.1 -3	275.5 -6
	(n,3n)		(E-thr = 18.210 MeV)			25.41 -9
	(n,na)		(E-thr = 7.178 MeV)		38.03 -6	70.65 -9
	(n,np)		(E-thr = 10.830 MeV)		592.4 -6	548.1 -9
	capture	110.0 -3	97.90 -3	2.420	1.019 -3	10.01 -3
	(n,p)		(E-thr = 3.937 MeV)		8.014 -3	7.975 -6
	(n,d)		(E-thr = 8.491 MeV)		55.21 -6	46.43 -9
	(n,t)		(E-thr = 11.950 MeV)		209.3 -12	1.951 -9
(n,a)		(E-thr = 0.391 MeV)		2.611 -3	1.461 -6	
36-Kr- 85	total	7.916	7.762		3.842	4.936
	elastic	6.256	6.256		2.531	4.455
	inelastic		(E-thr = 0.309 MeV)		136.9 -3	463.1 -3
	(n,2n)		(E-thr = 7.201 MeV)		1.166	5.259 -3
	(n,3n)		(E-thr = 17.850 MeV)			29.36 -9
	(n,na)		(E-thr = 7.592 MeV)		3.456 -6	14.84 -9
	(n,np)		(E-thr = 11.140 MeV)		39.25 -6	86.19 -9
	(n,nd)		(E-thr = 15.690 MeV)			67.37 -12

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
36-Kr- 85	capture	1.660	1.471	1.824	1.001 -3	10.16 -3
	(n,p)		(E-thr =	2.043 MeV)	5.101 -3	5.925 -6
	(n,d)		(E-thr =	8.800 MeV)	348.5 -6	130.7 -9
	(n,t)		(E-thr =	9.432 MeV)	930.1 -9	8.018 -9
	(n,a)	0.0	0.0	1.832 -3	1.613 -3	1.695 -6
36-Kr- 86	total	6.153	6.152		3.842	5.070
	elastic	6.150	6.150		2.516	4.561
	inelastic		(E-thr =	1.583 MeV)	334.0 -3	506.0 -3
	(n,2n)		(E-thr =	9.983 MeV)	984.1 -3	468.3 -6
	(n,3n)		(E-thr =	17.180 MeV)		105.8 -9
	(n,na)		(E-thr =	8.194 MeV)	440.4 -9	9.529 -9
	(n,np)		(E-thr =	12.030 MeV)	84.57 -9	9.324 -9
	capture	3.000 -3	2.667 -3	23.25 -3	1.002 -3	1.616 -3
	(n,p)		(E-thr =	6.597 MeV)	5.603 -3	1.243 -6
	(n,d)		(E-thr =	9.689 MeV)	3.697 -6	21.11 -9
	(n,t)		(E-thr =	12.520 MeV)	91.73 -15	1.508 -9
	(n,a)		(E-thr =	2.225 MeV)	830.6 -6	236.8 -9
37-Rb- 85	total	6.334	6.281		3.842	4.945
	elastic	5.854	5.854		2.400	3.732
	inelastic		(E-thr =	0.153 MeV)	408.2 -3	1.184
	(n,2n)		(E-thr =	10.610 MeV)	986.5 -3	276.8 -6
	(n,3n)		(E-thr =	19.550 MeV)		67.52 -12
	(n,na)		(E-thr =	6.683 MeV)	41.87 -6	40.07 -9
	(n,np)		(E-thr =	7.104 MeV)	23.02 -3	17.69 -6
	(n,nd)		(E-thr =	15.410 MeV)		51.53 -12
	capture	480.0 -3	426.8 -3	8.733	1.009 -3	26.35 -3
	(n,p)	0.0	0.0	15.47 -3	16.91 -3	410.1 -6
	(n,d)		(E-thr =	4.766 MeV)	959.9 -6	240.0 -9
	(n,t)		(E-thr =	9.156 MeV)	1.940 -6	11.54 -9
(n,He-3)		(E-thr =	10.110 MeV)	19.99 -15	4.688 -12	
(n,a)	0.0	0.0	4.520 -3	5.623 -3	4.835 -6	
37-Rb- 87	total	4.479	4.466		3.842	4.951
	elastic	4.359	4.359		2.243	4.057
	inelastic		(E-thr =	0.408 MeV)	347.5 -3	889.1 -3
	(n,2n)		(E-thr =	10.050 MeV)	1.237	535.6 -6
	(n,3n)		(E-thr =	18.800 MeV)		4.564 -9
	(n,na)		(E-thr =	8.085 MeV)	1.804 -6	35.51 -9
	(n,np)		(E-thr =	8.726 MeV)	881.5 -6	198.4 -9
	(n,nd)		(E-thr =	16.370 MeV)		3.066 -12
	capture	120.0 -3	106.7 -3	2.716	1.012 -3	3.046 -3
	(n,p)		(E-thr =	3.142 MeV)	10.36 -3	8.029 -6
	(n,d)		(E-thr =	6.390 MeV)	307.9 -6	101.7 -9
	(n,t)		(E-thr =	10.110 MeV)	172.4 -9	3.380 -9
(n,a)		(E-thr =	1.196 MeV)	2.867 -3	924.7 -9	
38-Sr- 86	total	5.173	5.058		4.334	5.664
	elastic	4.133	4.133		2.831	4.919
	inelastic		(E-thr =	1.091 MeV)	591.4 -3	719.8 -3
	(n,2n)		(E-thr =	11.630 MeV)	856.2 -3	134.9 -6
	(n,na)		(E-thr =	6.417 MeV)	254.7 -6	237.8 -9
	(n,np)		(E-thr =	9.760 MeV)	3.331 -3	798.3 -9
	capture	1.040	925.3 -3	4.818	1.026 -3	23.16 -3
	(n,p)		(E-thr =	1.004 MeV)	43.03 -3	571.6 -6
	(n,d)		(E-thr =	7.423 MeV)	196.1 -6	80.55 -9
	(n,t)		(E-thr =	11.770 MeV)	208.4 -12	1.231 -9
	(n,a)	0.0	0.0	6.653 -3	8.312 -3	6.580 -6
	(n,2p)		(E-thr =	9.664 MeV)	49.94 -12	8.421 -12
38-Sr- 87	total	22.90	21.21		4.334	5.667
	elastic	6.897	6.895		2.837	5.049
	inelastic		(E-thr =	0.393 MeV)	219.4 -3	602.9 -3
	(n,2n)		(E-thr =	8.531 MeV)	1.249	1.781 -3
	(n,na)		(E-thr =	7.391 MeV)	1.737 -6	7.058 -9
	(n,np)		(E-thr =	9.534 MeV)	1.413 -3	353.7 -9
	(n,nd)		(E-thr =	15.950 MeV)		11.24 -12
	capture	16.00	14.32	121.1	1.002 -3	10.87 -3
	(n,p)	0.0	0.0	17.32 -3	19.52 -3	601.6 -6
	(n,d)		(E-thr =	7.197 MeV)	1.455 -3	300.7 -9
	(n,t)		(E-thr =	9.696 MeV)	252.8 -9	3.306 -9
	(n,He-3)		(E-thr =	10.370 MeV)	1.897 -15	2.881 -12
(n,a)	0.0	0.0	5.325 -3	5.761 -3	28.33 -6	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
38-Sr- 88	total	5.436	5.436		4.335	5.592
	elastic	5.431	5.431		2.827	5.179
	inelastic			(E-thr = 1.857 MeV)	610.8 -3	408.3 -3
	(n,2n)			(E-thr = 11.250 MeV)	881.2 -3	171.9 -6
	(n,3n)			(E-thr = 19.770 MeV)		1.865 -12
	(n,na)			(E-thr = 7.991 MeV)	210.5 -9	3.518 -9
	(n,np)			(E-thr = 10.730 MeV)	64.64 -6	78.91 -9
	capture	5.789 -3	5.148 -3	70.06 -3	1.004 -3	2.333 -3
	(n,p)			(E-thr = 4.578 MeV)	12.21 -3	4.941 -6
	(n,d)			(E-thr = 8.394 MeV)	72.35 -6	45.97 -9
	(n,t)			(E-thr = 12.190 MeV)	4.607 -12	1.060 -9
	(n,a)			(E-thr = 0.794 MeV)	3.282 -3	1.079 -6
	38-Sr- 89	total	6.120	6.103		4.336
elastic		5.700	5.700		2.835	5.060
inelastic				(E-thr = 1.044 MeV)	101.3 -3	586.7 -3
(n,2n)				(E-thr = 6.441 MeV)	1.388	10.98 -3
(n,3n)				(E-thr = 17.680 MeV)		67.62 -9
(n,na)				(E-thr = 7.234 MeV)	2.736 -6	9.207 -9
(n,np)				(E-thr = 11.020 MeV)	18.58 -6	47.17 -9
(n,nd)				(E-thr = 14.830 MeV)		176.5 -12
capture		420.0 -3	372.2 -3	414.0 -3	1.001 -3	2.448 -3
(n,p)				(E-thr = 3.746 MeV)	7.100 -3	2.805 -6
(n,d)				(E-thr = 8.682 MeV)	222.0 -6	80.13 -9
(n,t)				(E-thr = 8.578 MeV)	21.01 -6	17.48 -9
(n,a)		0.0	0.0	2.034 -3	2.407 -3	4.254 -6
38-Sr- 90	total	6.704	6.628		4.336	5.659
	elastic	5.804	5.804		2.834	4.818
	inelastic			(E-thr = 0.841 MeV)	140.2 -3	832.7 -3
	(n,2n)			(E-thr = 7.895 MeV)	1.356	3.344 -3
	(n,3n)			(E-thr = 14.340 MeV)		4.040 -6
	(n,na)			(E-thr = 5.151 MeV)	75.33 -6	29.49 -9
	(n,np)			(E-thr = 11.640 MeV)	1.029 -6	19.84 -9
	(n,nd)			(E-thr = 16.580 MeV)		946.3 -15
	capture	900.0 -3	797.6 -3	484.7 -3	1.003 -3	4.211 -3
	(n,p)			(E-thr = 5.645 MeV)	4.321 -3	1.079 -6
	(n,d)			(E-thr = 9.304 MeV)	10.73 -6	22.06 -9
	(n,t)			(E-thr = 10.320 MeV)	1.450 -6	7.726 -9
	(n,a)	0.0	0.0	1.158 -3	1.481 -3	752.6 -9
39-Y - 89	total	8.990	8.848		4.336	5.651
	elastic	7.713	7.712		2.725	5.035
	inelastic			(E-thr = 0.919 MeV)	577.5 -3	608.3 -3
	(n,2n)			(E-thr = 11.600 MeV)	847.5 -3	133.5 -6
	(n,na)			(E-thr = 8.049 MeV)	1.018 -6	29.88 -9
	(n,np)			(E-thr = 7.159 MeV)	152.3 -3	88.26 -6
	(n,nd)			(E-thr = 16.070 MeV)		15.75 -12
	capture	1.277	1.136	860.0 -3	1.058 -3	6.253 -3
	(n,p)			(E-thr = 0.718 MeV)	25.93 -3	204.4 -6
	(n,d)			(E-thr = 4.822 MeV)	1.871 -3	445.9 -9
	(n,t)			(E-thr = 9.811 MeV)	610.0 -9	3.241 -9
	(n,He-3)			(E-thr = 10.070 MeV)	137.6 -15	6.034 -12
	(n,a)	0.0	0.0	4.366 -3	4.482 -3	2.756 -6
39-Y - 91	total	7.100	6.967		4.337	5.660
	elastic	5.700	5.700		2.835	4.566
	inelastic			(E-thr = 0.562 MeV)	220.7 -3	1.078
	(n,2n)			(E-thr = 8.033 MeV)	1.264	2.763 -3
	(n,3n)			(E-thr = 14.970 MeV)		2.208 -6
	(n,na)			(E-thr = 4.222 MeV)	408.9 -6	102.8 -9
	(n,np)			(E-thr = 7.794 MeV)	2.226 -3	438.0 -9
	(n,nd)			(E-thr = 13.350 MeV)	0.0	2.022 -9
	(n,nt)			(E-thr = 13.540 MeV)	0.0	504.8 -12
	capture	1.400	1.241	2.848	1.006 -3	12.24 -3
	(n,p)			(E-thr = 1.922 MeV)	9.747 -3	10.44 -6
	(n,d)			(E-thr = 5.458 MeV)	1.096 -3	243.5 -9
	(n,t)			(E-thr = 7.099 MeV)	160.2 -6	49.83 -9
(n,a)	0.0	0.0	1.908 -3	2.984 -3	3.300 -6	
40-Zr- 90	total	5.511	5.506		4.336	5.640
	elastic	5.465	5.465		2.835	5.232
	inelastic			(E-thr = 1.780 MeV)	763.4 -3	398.2 -3
	(n,2n)			(E-thr = 12.120 MeV)	611.3 -3	83.00 -6
	(n,na)			(E-thr = 6.749 MeV)	21.13 -6	36.70 -9

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
40-Zr- 90	(n,np)		(E-thr = 8.457 MeV)		74.46 -3	16.94 -6
	capture	45.84 -3	40.79 -3	196.1 -3	1.030 -3	7.935 -3
	(n,p)		(E-thr = 1.518 MeV)		41.04 -3	174.5 -6
	(n,d)		(E-thr = 6.121 MeV)		1.120 -3	243.3 -9
	(n,t)		(E-thr = 11.470 MeV)		1.548 -9	1.729 -9
	(n,He-3)		(E-thr = 7.796 MeV)		377.1 -12	28.18 -12
	(n,a)	0.0	0.0	6.976 -3	8.385 -3	11.51 -6
	(n,2p)		(E-thr = 9.175 MeV)		251.5 -12	28.61 -12
40-Zr- 91	total	11.83	11.70		4.337	5.663
	elastic	10.59	10.59		2.830	5.053
	inelastic		(E-thr = 1.218 MeV)		121.8 -3	590.8 -3
	(n,2n)		(E-thr = 7.284 MeV)		1.343	5.457 -3
	(n,3n)		(E-thr = 19.400 MeV)			392.2 -12
	(n,na)		(E-thr = 5.506 MeV)		144.5 -6	65.62 -9
	(n,np)		(E-thr = 8.802 MeV)		2.968 -3	601.1 -9
	(n,nd)		(E-thr = 13.400 MeV)		0.0	1.820 -9
	capture	1.247	1.110	6.951	1.002 -3	11.65 -3
	(n,p)		(E-thr = 0.769 MeV)		27.38 -3	100.2 -6
	(n,d)		(E-thr = 6.466 MeV)		2.316 -3	470.6 -9
	(n,t)		(E-thr = 7.150 MeV)		128.0 -6	35.06 -9
	(n,He-3)		(E-thr = 8.640 MeV)		14.29 -12	24.24 -12
	(n,a)	0.0	0.0	6.016 -3	7.865 -3	136.1 -6
40-Zr- 92	total	5.087	5.063		4.337	5.674
	elastic	4.869	4.869		2.815	4.813
	inelastic		(E-thr = 0.945 MeV)		138.3 -3	838.3 -3
	(n,2n)		(E-thr = 8.735 MeV)		1.351	1.688 -3
	(n,3n)		(E-thr = 16.020 MeV)			887.8 -9
	(n,na)		(E-thr = 3.000 MeV)		1.561 -3	350.9 -9
	(n,np)		(E-thr = 9.503 MeV)		676.1 -6	196.8 -9
	(n,nd)		(E-thr = 15.200 MeV)			35.63 -12
	(n,nt)		(E-thr = 15.880 MeV)			1.031 -12
	capture	217.5 -3	193.6 -3	702.3 -3	1.020 -3	19.32 -3
	(n,p)		(E-thr = 2.883 MeV)		19.58 -3	21.02 -6
	(n,d)		(E-thr = 7.168 MeV)		692.2 -6	180.7 -9
	(n,t)		(E-thr = 8.947 MeV)		27.46 -6	16.57 -9
	(n,a)	0.0	0.0	6.205 -3	9.217 -3	55.62 -6
40-Zr- 93	total	7.892	7.644		4.338	5.662
	elastic	5.653	5.653		2.829	4.712
	inelastic		(E-thr = 0.270 MeV)		112.1 -3	925.0 -3
	(n,2n)		(E-thr = 6.810 MeV)		1.380	8.597 -3
	(n,3n)		(E-thr = 15.540 MeV)			1.269 -6
	(n,na)		(E-thr = 3.372 MeV)		415.6 -6	91.64 -9
	(n,np)		(E-thr = 9.692 MeV)		87.95 -6	44.59 -9
	(n,nd)		(E-thr = 13.980 MeV)		0.0	323.6 -12
	(n,nt)		(E-thr = 15.760 MeV)			1.482 -12
	capture	2.239	1.991	18.22	1.000 -3	14.79 -3
	(n,p)		(E-thr = 2.130 MeV)		10.75 -3	7.671 -6
	(n,d)		(E-thr = 7.357 MeV)		570.6 -6	123.7 -9
	(n,t)		(E-thr = 7.725 MeV)		73.61 -6	26.58 -9
	(n,a)	0.0	0.0	2.379 -3	3.450 -3	24.28 -6
40-Zr- 94	total	6.202	6.196		4.338	5.675
	elastic	6.152	6.152		2.827	4.793
	inelastic		(E-thr = 0.928 MeV)		119.4 -3	865.3 -3
	(n,2n)		(E-thr = 8.312 MeV)		1.378	2.718 -3
	(n,3n)		(E-thr = 15.120 MeV)			2.597 -6
	(n,na)		(E-thr = 3.791 MeV)		245.8 -6	58.27 -9
	(n,np)		(E-thr = 10.440 MeV)		6.552 -6	9.436 -9
	(n,nd)		(E-thr = 15.670 MeV)			7.433 -12
	capture	49.81 -3	44.31 -3	321.0 -3	1.002 -3	12.34 -3
	(n,p)		(E-thr = 4.143 MeV)		8.114 -3	3.021 -6
	(n,d)		(E-thr = 8.107 MeV)		29.82 -6	23.85 -9
	(n,t)		(E-thr = 9.416 MeV)		8.044 -6	9.113 -9
	(n,a)	0.0	0.0	2.868 -3	4.171 -3	5.698 -6
	40-Zr- 95	total	6.903	6.786		4.338
elastic		5.703	5.704		2.833	4.937
inelastic			(E-thr = 0.963 MeV)		104.6 -3	683.3 -3
(n,2n)			(E-thr = 6.544 MeV)		1.394	10.88 -3
(n,3n)			(E-thr = 14.860 MeV)			2.838 -6
(n,na)			(E-thr = 4.466 MeV)		79.07 -6	28.87 -9
(n,np)			(E-thr = 10.690 MeV)		2.484 -6	7.793 -9

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
40-Zr- 95	(n,nd)		(E-thr = 14.650 MeV)			59.46 -12
	capture	1.200	1.063	7.794	1.001 -3	27.22 -3
	(n,p)		(E-thr = 3.687 MeV)		4.358 -3	1.178 -6
	(n,d)		(E-thr = 8.353 MeV)		106.7 -6	35.48 -9
	(n,t)		(E-thr = 8.399 MeV)		7.278 -6	9.613 -9
	(n,a)	0.0	0.0	1.025 -3	1.344 -3	829.7 -9
40-Zr- 96	total	6.154	6.151		4.339	5.709
	elastic	6.131	6.131		2.714	5.158
	inelastic		(E-thr = 1.611 MeV)		133.0 -3	537.3 -3
	(n,2n)		(E-thr = 7.940 MeV)		1.485	3.967 -3
	(n,3n)		(E-thr = 14.480 MeV)			5.040 -6
	(n,na)		(E-thr = 5.027 MeV)		39.19 -6	21.09 -9
	(n,np)		(E-thr = 11.630 MeV)		261.1 -9	10.99 -9
	capture	22.80 -3	20.29 -3	5.872	1.001 -3	7.868 -3
	(n,p)		(E-thr = 6.298 MeV)		2.602 -3	563.4 -9
	(n,d)		(E-thr = 9.292 MeV)		397.1 -9	5.558 -9
	(n,t)		(E-thr = 10.040 MeV)		1.220 -6	4.885 -9
	(n,a)	0.0	0.0	2.253 -3	2.276 -3	751.1 -9
	41-Nb- 93	total	7.474	7.347		3.971
elastic		6.323	6.323		2.257	4.680
inelastic			(E-thr = 0.031 MeV)		404.7 -3	1.141
(n,2n)			(E-thr = 8.922 MeV)		1.244	1.076 -3
(n,3n)			(E-thr = 16.900 MeV)			213.7 -9
(n,na)			(E-thr = 1.968 MeV)		2.262 -3	1.474 -6
(n,np)			(E-thr = 6.105 MeV)		11.19 -3	4.516 -6
capture		1.152	1.024	9.488	1.002 -3	28.41 -3
(n,p)		0.0	0.0	27.16 -3	37.37 -3	284.0 -6
(n,d)			(E-thr = 3.856 MeV)		5.913 -3	3.195 -6
(n,t)						
(n,a)		0.0	0.0	5.665 -3	7.169 -3	121.1 -6
41-Nb- 94		total	22.22	20.45		4.338
	elastic	6.453	6.450		2.827	4.076
	inelastic		(E-thr = 0.041 MeV)		157.3 -3	1.570
	(n,2n)		(E-thr = 7.312 MeV)		1.311	5.230 -3
	(n,3n)		(E-thr = 16.240 MeV)			607.6 -9
	(n,na)		(E-thr = 2.333 MeV)		2.104 -3	481.5 -9
	(n,np)		(E-thr = 6.614 MeV)		6.941 -3	1.607 -6
	(n,nd)		(E-thr = 11.090 MeV)		494.9 -9	24.11 -9
	(n,nt)		(E-thr = 13.570 MeV)		0.0	276.5 -12
	capture	15.77	14.00	125.5	1.001 -3	17.42 -3
	(n,p)	0.0	0.0	15.67 -3	21.41 -3	362.7 -6
	(n,d)		(E-thr = 4.279 MeV)		4.537 -3	1.010 -6
	(n,t)		(E-thr = 4.837 MeV)		610.3 -6	122.2 -9
(n,He-3)		(E-thr = 8.491 MeV)		1.337 -9	91.57 -12	
(n,a)	0.0	0.0	4.664 -3	6.260 -3	95.69 -6	
41-Nb- 95	total	12.70	11.95		4.338	5.661
	elastic	5.700	5.700		2.830	4.770
	inelastic		(E-thr = 0.238 MeV)		157.9 -3	820.2 -3
	(n,2n)		(E-thr = 8.586 MeV)		1.321	1.966 -3
	(n,3n)		(E-thr = 15.900 MeV)			1.075 -6
	(n,na)		(E-thr = 2.889 MeV)		897.3 -6	208.8 -9
	(n,np)		(E-thr = 6.889 MeV)		6.670 -3	1.496 -6
	(n,nd)		(E-thr = 12.860 MeV)		48.27 -18	2.586 -9
	(n,nt)		(E-thr = 13.420 MeV)		0.0	433.8 -12
	capture	7.000	6.204	41.79	1.007 -3	67.68 -3
	(n,p)		(E-thr = 0.344 MeV)		15.14 -3	55.16 -6
	(n,d)		(E-thr = 4.554 MeV)		1.223 -3	264.2 -9
	(n,t)		(E-thr = 6.614 MeV)		210.3 -6	56.94 -9
(n,He-3)		(E-thr = 9.515 MeV)		29.88 -15	3.748 -12	
(n,a)	0.0	0.0	2.812 -3	4.123 -3	21.74 -6	
42-Mo- 92	total	5.566	5.564		4.337	5.661
	elastic	5.545	5.545		2.762	5.096
	inelastic		(E-thr = 1.526 MeV)		774.7 -3	524.7 -3
	(n,2n)		(E-thr = 12.820 MeV)		160.0 -3	24.51 -6
	(n,na)		(E-thr = 5.669 MeV)		367.5 -6	145.6 -9
	(n,np)		(E-thr = 7.546 MeV)		487.3 -3	89.37 -6
	capture	20.75 -3	18.46 -3	968.1 -3	1.045 -3	28.00 -3
	(n,p)	0.0	0.0	180.2 -3	128.1 -3	11.06 -3
	(n,d)		(E-thr = 5.210 MeV)		2.352 -3	508.6 -9
	(n,t)		(E-thr = 11.150 MeV)		4.766 -9	2.117 -9
	(n,He-3)		(E-thr = 4.952 MeV)		259.7 -9	755.7 -12

Nuclide	Reaction	2200-m/s (barns)	Max.W.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)	
42-Mo- 92	(n,a)	0.0	0.0	16.16 -3	21.40 -3	147.5 -6	
	(n,2p)		(E-thr =	5.485 MeV)	103.2 -6	24.79 -9	
42-Mo- 94	total	6.011	6.010		4.338	5.662	
	elastic	5.998	5.998		2.788	4.778	
	inelastic		(E-thr =	0.880 MeV)	261.3 -3	845.9 -3	
	(n,2n)		(E-thr =	9.789 MeV)	1.202	632.2 -6	
	(n,3n)		(E-thr =	17.950 MeV)		62.66 -9	
	(n,na)		(E-thr =	2.092 MeV)	7.498 -3	3.829 -6	
	(n,np)		(E-thr =	8.588 MeV)	6.383 -3	1.136 -6	
	(n,nd)		(E-thr =	15.190 MeV)		31.51 -12	
	capture	13.11 -3	11.66 -3	1.401	1.008 -3	35.39 -3	
	(n,p)		(E-thr =	1.276 MeV)	53.40 -3	325.1 -6	
	(n,d)		(E-thr =	6.253 MeV)	1.024 -3	219.0 -9	
	(n,t)		(E-thr =	8.934 MeV)	15.22 -6	10.76 -9	
	(n,He-3)		(E-thr =	6.885 MeV)	643.1 -12	59.72 -12	
	(n,a)	0.0	0.0	18.04 -3	17.51 -3	924.1 -6	
	(n,2p)		(E-thr =	7.891 MeV)	6.306 -9	25.95 -12	
	42-Mo- 95	total	19.59	18.03		4.338	5.665
elastic		5.599	5.597		2.804	4.382	
inelastic			(E-thr =	0.206 MeV)	113.2 -3	1.229	
(n,2n)			(E-thr =	7.454 MeV)	1.365	4.685 -3	
(n,3n)			(E-thr =	17.240 MeV)		222.8 -9	
(n,na)			(E-thr =	2.265 MeV)	2.947 -3	723.8 -9	
(n,np)			(E-thr =	8.730 MeV)	1.560 -3	305.1 -9	
(n,nd)			(E-thr =	13.710 MeV)	0.0	571.4 -12	
capture		13.99	12.43	118.7	1.002 -3	45.47 -3	
(n,p)			(E-thr =	0.145 MeV)	35.23 -3	241.1 -6	
(n,d)			(E-thr =	6.396 MeV)	1.538 -3	313.9 -9	
(n,t)			(E-thr =	7.456 MeV)	80.32 -6	26.90 -9	
(n,He-3)			(E-thr =	7.530 MeV)	433.9 -12	72.91 -12	
(n,a)		0.0	0.0	15.91 -3	13.33 -3	1.504 -3	
42-Mo- 96		total	5.322	5.257		4.339	5.664
		elastic	4.727	4.727		2.818	4.670
	inelastic		(E-thr =	0.787 MeV)	149.3 -3	963.3 -3	
	(n,2n)		(E-thr =	9.255 MeV)	1.337	1.151 -3	
	(n,3n)		(E-thr =	16.710 MeV)		506.3 -9	
	(n,na)		(E-thr =	2.790 MeV)	2.931 -3	779.1 -9	
	(n,np)		(E-thr =	9.400 MeV)	495.3 -6	130.5 -9	
	(n,nd)		(E-thr =	15.650 MeV)		5.213 -12	
	capture	595.4 -3	529.8 -3	17.55	1.006 -3	27.42 -3	
	(n,p)		(E-thr =	2.430 MeV)	20.65 -3	24.14 -6	
	(n,d)		(E-thr =	7.065 MeV)	150.8 -6	52.03 -9	
	(n,t)		(E-thr =	9.400 MeV)	4.706 -6	7.493 -9	
	(n,a)	0.0	0.0	6.935 -3	9.742 -3	85.63 -6	
	42-Mo- 97	total	7.959	7.725		4.340	5.667
		elastic	5.857	5.857		2.822	4.367
		inelastic		(E-thr =	0.486 MeV)	90.00 -3	1.247
(n,2n)			(E-thr =	6.897 MeV)	1.403	8.428 -3	
(n,3n)			(E-thr =	16.150 MeV)		887.3 -9	
(n,na)			(E-thr =	2.879 MeV)	689.6 -6	149.0 -9	
(n,np)			(E-thr =	9.326 MeV)	129.8 -6	50.40 -9	
(n,nd)			(E-thr =	13.960 MeV)	0.0	244.5 -12	
capture		2.102	1.868	17.16	1.001 -3	41.43 -3	
(n,p)			(E-thr =	1.162 MeV)	14.80 -3	15.43 -6	
(n,d)			(E-thr =	6.992 MeV)	658.5 -6	139.4 -9	
(n,t)			(E-thr =	7.712 MeV)	15.09 -6	10.52 -9	
(n,He-3)			(E-thr =	8.828 MeV)	154.6 -15	6.935 -12	
(n,a)		0.0	0.0	4.921 -3	6.881 -3	91.48 -6	
42-Mo- 98		total	5.772	5.757		4.340	5.662
		elastic	5.642	5.642		2.830	4.611
	inelastic		(E-thr =	0.743 MeV)	104.9 -3	1.021	
	(n,2n)		(E-thr =	8.736 MeV)	1.393	1.923 -3	
	(n,3n)		(E-thr =	15.630 MeV)		1.894 -6	
	(n,na)		(E-thr =	3.307 MeV)	341.3 -6	77.10 -9	
	(n,np)		(E-thr =	9.898 MeV)	27.67 -6	19.09 -9	
	(n,nd)		(E-thr =	15.730 MeV)		2.387 -12	
	capture	130.0 -3	115.6 -3	6.555	1.012 -3	26.52 -3	
	(n,p)		(E-thr =	3.842 MeV)	4.786 -3	1.874 -6	
	(n,d)		(E-thr =	7.564 MeV)	31.67 -6	20.18 -9	
	(n,t)		(E-thr =	9.479 MeV)	2.762 -6	5.375 -9	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
42-Mo- 98	(n,γ)	0.0	0.0	3.405 -3	5.081 -3	8.919 -6
42-Mo- 99	total	13.70	12.84		4.340	5.670
	elastic	5.700	5.700		2.832	3.949
	inelastic		(E-thr = 0.099 MeV)		69.42 -3	1.665
	(n,2n)		(E-thr = 5.991 MeV)		1.429	19.54 -3
	(n,3n)		(E-thr = 14.730 MeV)			4.293 -6
	(n,na)		(E-thr = 2.756 MeV)		187.6 -6	45.16 -9
	(n,np)		(E-thr = 9.832 MeV)		23.39 -6	23.04 -9
	(n,nd)		(E-thr = 13.550 MeV)		0.0	315.3 -12
	(n,nt)		(E-thr = 15.470 MeV)			1.128 -12
	capture	8.000	7.090	41.57	1.001 -3	34.38 -3
	(n,p)		(E-thr = 2.870 MeV)		6.708 -3	2.657 -6
	(n,d)		(E-thr = 7.499 MeV)		267.8 -6	64.34 -9
	(n,t)		(E-thr = 7.306 MeV)		20.41 -6	10.83 -9
	(n,α)	0.0	0.0	1.279 -3	1.950 -3	6.850 -6
42-Mo-100	total	5.499	5.477		4.340	5.665
	elastic	5.300	5.300		2.714	4.481
	inelastic		(E-thr = 0.541 MeV)		95.34 -3	1.158
	(n,2n)		(E-thr = 8.379 MeV)		1.526	2.840 -3
	(n,3n)		(E-thr = 14.370 MeV)			7.505 -6
	(n,na)		(E-thr = 3.198 MeV)		64.50 -6	17.24 -9
	(n,np)		(E-thr = 11.250 MeV)		271.2 -9	4.406 -9
	(n,nd)		(E-thr = 15.880 MeV)			1.061 -12
	capture	199.0 -3	177.0 -3	3.909	1.008 -3	20.96 -3
	(n,p)		(E-thr = 5.502 MeV)		1.838 -3	424.8 -9
	(n,d)		(E-thr = 8.916 MeV)		2.235 -6	7.352 -9
	(n,t)		(E-thr = 9.630 MeV)		1.259 -6	3.269 -9
	(n,α)	0.0	0.0	1.629 -3	2.385 -3	1.159 -6
43-Tc- 99	total	23.16	21.04		4.537	5.612
	elastic	3.373	3.371		3.060	4.195
	inelastic		(E-thr = 0.142 MeV)		214.8 -3	1.324
	(n,2n)		(E-thr = 9.060 MeV)		1.233	1.336 -3
	(n,3n)		(E-thr = 16.420 MeV)			792.2 -9
	(n,na)		(E-thr = 2.992 MeV)		550.7 -6	131.8 -9
	(n,np)		(E-thr = 6.571 MeV)		6.887 -3	1.792 -6
	(n,nd)		(E-thr = 12.970 MeV)		2.497 -18	1.605 -9
	(n,nt)		(E-thr = 13.620 MeV)		0.0	156.0 -12
	capture	19.79	17.67	319.5	1.007 -3	87.11 -3
	(n,p)		(E-thr = 0.580 MeV)		13.41 -3	58.07 -6
	(n,d)		(E-thr = 4.237 MeV)		1.050 -3	228.4 -9
	(n,t)		(E-thr = 6.724 MeV)		94.79 -6	31.23 -9
	(n,He-3)		(E-thr = 8.658 MeV)		107.8 -15	5.943 -12
	(n,α)	0.0	0.0	4.528 -3	6.605 -3	24.12 -6
44-Ru- 96	total	5.390	5.379		4.539	5.613
	elastic	5.100	5.100		2.506	4.647
	inelastic		(E-thr = 0.841 MeV)		868.6 -3	853.7 -3
	(n,2n)		(E-thr = 10.810 MeV)		770.0 -3	176.6 -6
	(n,na)		(E-thr = 1.708 MeV)		19.06 -3	10.77 -6
	(n,np)		(E-thr = 7.433 MeV)		179.9 -3	33.59 -6
	(n,nd)		(E-thr = 15.140 MeV)			12.50 -12
	capture	290.0 -3	257.0 -3	7.297	1.171 -3	97.81 -3
	(n,p)	0.0	0.0	127.4 -3	156.8 -3	3.277 -3
	(n,d)		(E-thr = 5.099 MeV)		1.770 -3	381.6 -9
	(n,t)		(E-thr = 8.886 MeV)		8.094 -6	6.967 -9
	(n,He-3)		(E-thr = 4.566 MeV)		257.2 -9	743.6 -12
	(n,α)	0.0	0.0	77.09 -3	34.04 -3	9.707 -3
	(n,2p)		(E-thr = 4.925 MeV)		1.412 -3	310.2 -9
44-Ru- 98	total	13.10	12.25		4.538	5.613
	elastic	5.100	5.100		2.653	4.490
	inelastic		(E-thr = 0.659 MeV)		702.3 -3	1.043
	(n,2n)		(E-thr = 10.340 MeV)		1.027	363.9 -6
	(n,3n)		(E-thr = 18.490 MeV)			23.84 -9
	(n,na)		(E-thr = 2.259 MeV)		13.72 -3	5.488 -6
	(n,np)		(E-thr = 8.381 MeV)		44.60 -3	7.519 -6
	(n,nd)		(E-thr = 15.620 MeV)			8.942 -12
	capture	8.000	7.090	11.51	1.389 -3	76.79 -3
	(n,p)		(E-thr = 1.020 MeV)		76.29 -3	466.7 -6
	(n,d)		(E-thr = 6.047 MeV)		706.0 -6	170.0 -9
	(n,t)		(E-thr = 9.375 MeV)		3.897 -6	8.598 -9
	(n,He-3)		(E-thr = 6.352 MeV)		1.254 -9	38.45 -12

Nuclide	Reaction	2200-m/s (barns)	Max.w.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)	
44-Ru- 98	(n, α)	0.0	0.0	18.16 -3	18.75 -3	648.9 -6	
	(n, α 2p)		(E-thr =	7.267 MeV)	431.3 -9	706.5 -12	
44-Ru- 99	total	10.98	10.19		4.537	5.614	
	elastic	3.676	3.675		2.798	4.099	
	inelastic		(E-thr =	0.090 MeV)	265.1 -3	1.440	
	(n, α 2n)		(E-thr =	7.546 MeV)	1.408	4.020 -3	
	(n, α 3n)		(E-thr =	17.880 MeV)		72.33 -9	
	(n, α na)		(E-thr =	2.353 MeV)	2.441 -3	556.8 -9	
	(n, α np)		(E-thr =	8.566 MeV)	2.901 -3	599.1 -9	
	(n, α nd)		(E-thr =	13.590 MeV)	0.0	565.5 -12	
	capture	7.303	6.511	168.9	1.001 -3	67.87 -3	
	(n,p)	0.0	0.0	33.81 -3	46.45 -3	361.5 -6	
	(n,d)		(E-thr =	6.232 MeV)	1.987 -3	411.3 -9	
	(n,t)		(E-thr =	7.344 MeV)	36.19 -6	19.72 -9	
	(n,He-3)		(E-thr =	7.002 MeV)	1.034 -9	81.63 -12	
	(n, α)	0.0	0.0	11.64 -3	11.75 -3	895.1 -6	
44-Ru-100	total	11.49	10.93		4.537	5.610	
	elastic	6.465	6.465		2.567	4.385	
	inelastic		(E-thr =	0.545 MeV)	471.0 -3	1.166	
	(n, α 2n)		(E-thr =	9.776 MeV)	1.472	871.4 -6	
	(n, α 3n)		(E-thr =	17.320 MeV)		266.5 -9	
	(n, α na)		(E-thr =	2.877 MeV)	2.303 -3	594.3 -9	
	(n, α np)		(E-thr =	9.282 MeV)	1.159 -3	285.5 -9	
	(n, α nd)		(E-thr =	16.010 MeV)		1.065 -12	
	capture	5.022	4.468	11.20	1.053 -3	55.92 -3	
	(n,p)		(E-thr =	2.445 MeV)	13.88 -3	18.43 -6	
	(n,d)		(E-thr =	6.948 MeV)	120.0 -6	48.43 -9	
	(n,t)		(E-thr =	9.760 MeV)	941.9 -9	4.826 -9	
	(n, α)	0.0	0.0	6.174 -3	8.501 -3	69.80 -6	
	44-Ru-101	total	7.100	6.732		4.537	5.610
elastic		3.741	3.740		2.818	3.996	
inelastic			(E-thr =	0.128 MeV)	161.7 -3	1.504	
(n, α 2n)			(E-thr =	6.874 MeV)	1.527	8.553 -3	
(n, α 3n)			(E-thr =	16.650 MeV)		517.8 -9	
(n, α na)			(E-thr =	2.857 MeV)	623.6 -6	141.8 -9	
(n, α np)			(E-thr =	9.319 MeV)	231.0 -6	86.51 -9	
(n, α nd)			(E-thr =	13.820 MeV)	0.0	248.5 -12	
capture		3.359	2.992	101.0	1.002 -3	97.81 -3	
(n,p)			(E-thr =	0.851 MeV)	21.31 -3	35.61 -6	
(n,d)			(E-thr =	6.985 MeV)	680.2 -6	150.8 -9	
(n,t)			(E-thr =	7.575 MeV)	11.42 -6	10.64 -9	
(n,He-3)			(E-thr =	8.926 MeV)	15.91 -15	3.879 -12	
(n, α)		0.0	0.0	4.073 -3	5.513 -3	58.77 -6	
44-Ru-102	total	6.791	6.655		4.536	5.610	
	elastic	5.561	5.561		2.485	4.283	
	inelastic		(E-thr =	0.480 MeV)	515.9 -3	1.284	
	(n, α 2n)		(E-thr =	9.316 MeV)	1.515	1.305 -3	
	(n, α 3n)		(E-thr =	16.190 MeV)		1.114 -6	
	(n, α na)		(E-thr =	3.441 MeV)	283.8 -6	70.83 -9	
	(n, α np)		(E-thr =	10.170 MeV)	36.35 -6	30.78 -9	
	capture	1.229	1.094	4.315	1.019 -3	39.66 -3	
	(n,p)		(E-thr =	3.755 MeV)	13.81 -3	5.623 -6	
	(n,d)		(E-thr =	7.834 MeV)	35.39 -6	24.23 -9	
	(n,t)		(E-thr =	10.050 MeV)	250.6 -9	2.781 -9	
	(n, α)	0.0	0.0	4.076 -3	5.269 -3	5.680 -6	
	44-Ru-103	total	13.10	12.23		4.536	5.609
		elastic	5.100	5.100		2.829	3.798
inelastic			(E-thr =	0.003 MeV)	153.5 -3	1.762	
(n, α 2n)			(E-thr =	6.298 MeV)	1.540	14.13 -3	
(n, α 3n)			(E-thr =	15.610 MeV)		1.527 -6	
(n, α na)			(E-thr =	3.750 MeV)	76.73 -6	28.30 -9	
(n, α np)			(E-thr =	10.050 MeV)	17.31 -6	27.25 -9	
(n, α nd)			(E-thr =	14.130 MeV)		163.6 -12	
capture		8.000	7.090	91.33	1.000 -3	32.58 -3	
(n,p)			(E-thr =	1.584 MeV)	9.826 -3	6.167 -6	
(n,d)			(E-thr =	7.720 MeV)	292.0 -6	83.63 -9	
(n,t)			(E-thr =	7.885 MeV)	13.59 -6	12.36 -9	
(n, α)		0.0	0.0	1.870 -3	2.443 -3	2.383 -6	
44-Ru-104		total	5.558	5.523		4.535	5.611

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)	
44-Ru-104	elastic	5.236	5.236		2.533	4.207	
	inelastic			(E-thr = 0.362 MeV)	404.3 -3	1.366	
	(n,2n)			(E-thr = 9.000 MeV)	1.589	2.001 -3	
	(n,3n)			(E-thr = 15.300 MeV)		3.061 -6	
	(n,na)			(E-thr = 4.374 MeV)	71.85 -6	27.87 -9	
	(n,np)			(E-thr = 10.580 MeV)	3.100 -6	7.621 -9	
	capture	322.6 -3	286.9 -3	6.566	1.093 -3	31.99 -3	
	(n,p)			(E-thr = 4.661 MeV)	5.496 -3	1.560 -6	
	(n,d)			(E-thr = 8.252 MeV)	5.564 -6	11.20 -9	
	(n,t)			(E-thr = 10.470 MeV)	32.42 -9	1.676 -9	
	(n,a)	0.0	0.0	2.180 -3	1.988 -3	820.9 -9	
	44-Ru-106	total	3.488	3.483		4.534	5.604
		elastic	3.342	3.342		2.829	4.303
inelastic				(E-thr = 0.273 MeV)	123.9 -3	1.279	
(n,2n)				(E-thr = 8.552 MeV)	1.577	2.712 -3	
(n,3n)				(E-thr = 14.520 MeV)		6.762 -6	
(n,na)				(E-thr = 5.242 MeV)	2.298 -6	3.053 -9	
(n,np)				(E-thr = 11.190 MeV)	158.0 -9	3.786 -9	
capture		146.0 -3	129.4 -3	2.005	1.003 -3	14.31 -3	
(n,p)				(E-thr = 5.573 MeV)	2.830 -3	641.2 -9	
(n,d)				(E-thr = 8.860 MeV)	676.0 -9	5.830 -9	
(n,t)				(E-thr = 10.610 MeV)	14.86 -9	1.244 -9	
(n,a)			(E-thr = 0.069 MeV)	559.1 -6	127.3 -9		
45-Rh-103	total	149.8	136.6		4.536	5.613	
	elastic	3.244	3.227		2.987	4.071	
	inelastic			(E-thr = 0.040 MeV)	219.2 -3	1.432	
	(n,2n)			(E-thr = 9.414 MeV)	1.285	802.1 -6	
	(n,3n)			(E-thr = 16.930 MeV)		414.0 -9	
	(n,na)			(E-thr = 3.150 MeV)	782.3 -6	175.6 -9	
	(n,np)			(E-thr = 6.278 MeV)	14.57 -3	4.409 -6	
	(n,nd)			(E-thr = 13.260 MeV)	0.0	806.7 -12	
	(n,nt)			(E-thr = 13.890 MeV)	0.0	56.51 -12	
	capture	146.6	133.4	1045.	1.047 -3	105.7 -3	
	(n,p)	0.0	0.0	13.43 -3	16.51 -3	200.5 -6	
	(n,d)			(E-thr = 3.945 MeV)	1.559 -3	331.9 -9	
	(n,t)			(E-thr = 7.015 MeV)	40.55 -6	19.99 -9	
	(n,He-3)			(E-thr = 8.637 MeV)	304.6 -15	7.356 -12	
(n,a)	0.0	0.0	6.685 -3	10.16 -3	19.52 -6		
45-Rh-105	total	2482.	2295.		4.535	5.611	
	elastic	8991.	8910.		2.827	4.035	
	inelastic			(E-thr = 0.131 MeV)	213.3 -3	1.493	
	(n,2n)			(E-thr = 9.065 MeV)	1.473	1.551 -3	
	(n,3n)			(E-thr = 16.140 MeV)		1.155 -6	
	(n,na)			(E-thr = 3.988 MeV)	146.8 -6	43.73 -9	
	(n,np)			(E-thr = 7.117 MeV)	4.405 -3	935.6 -9	
	(n,nd)			(E-thr = 13.780 MeV)	0.0	315.0 -12	
	(n,nt)			(E-thr = 13.840 MeV)	0.0	78.13 -12	
	capture	1583.	1404.	1702.	1.012 -3	78.03 -3	
	(n,p)			(E-thr = 1.145 MeV)	12.56 -3	23.03 -6	
	(n,d)			(E-thr = 4.785 MeV)	423.5 -6	109.6 -9	
	(n,t)			(E-thr = 7.540 MeV)	13.49 -6	14.23 -9	
	(n,a)	0.0	0.0	2.122 -3	2.761 -3	1.644 -6	
46-Pd-102	total	8.387	8.007		4.480	5.580	
	elastic	5.024	5.024		2.582	4.487	
	inelastic			(E-thr = 0.562 MeV)	898.0 -3	980.2 -3	
	(n,2n)			(E-thr = 10.680 MeV)	871.9 -3	192.2 -6	
	(n,3n)			(E-thr = 19.030 MeV)		8.030 -9	
	(n,na)			(E-thr = 2.142 MeV)	4.778 -3	1.254 -6	
	(n,np)			(E-thr = 7.886 MeV)	11.17 -3	1.900 -6	
	(n,nd)			(E-thr = 15.540 MeV)		1.794 -12	
	capture	3.363	2.984	19.54	1.019 -3	108.9 -3	
	(n,p)			(E-thr = 0.369 MeV)	92.05 -3	2.098 -3	
	(n,d)			(E-thr = 5.553 MeV)	679.5 -6	154.4 -9	
	(n,t)			(E-thr = 9.299 MeV)	1.984 -6	4.878 -9	
	(n,He-3)			(E-thr = 5.614 MeV)	517.6 -12	51.59 -12	
	(n,a)	0.0	0.0	18.05 -3	18.74 -3	672.0 -6	
(n,2p)			(E-thr = 6.549 MeV)	613.2 -9	393.0 -12		
46-Pd-104	total	5.440	5.382		4.480	5.576	
	elastic	4.917	4.917		2.437	4.386	
	inelastic			(E-thr = 0.561 MeV)	523.8 -3	1.109	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
46-Pd-104	(n,2n)		(E-thr = 10.100 MeV)		1.450	591.7 -6
	(n,3n)		(E-thr = 17.800 MeV)			131.4 -9
	(n,na)		(E-thr = 2.626 MeV)		1.978 -3	504.6 -9
	(n,np)		(E-thr = 8.754 MeV)		2.222 -3	443.6 -9
	(n,nd)		(E-thr = 15.830 MeV)			918.5 -15
	capture	523.1 -3	465.2 -3	21.92	1.038 -3	77.24 -3
	(n,p)		(E-thr = 1.682 MeV)		54.30 -3	126.4 -6
	(n,d)		(E-thr = 6.421 MeV)		328.7 -6	87.87 -9
	(n,t)		(E-thr = 9.590 MeV)		869.9 -9	4.475 -9
	(n,He-3)		(E-thr = 7.225 MeV)		8.095 -12	7.857 -12
	(n,a)	0.0	0.0	7.344 -3	9.709 -3	81.04 -6
46-Pd-105	total	25.36	23.10		4.480	5.571
	elastic	5.116	5.115		2.642	3.928
	inelastic		(E-thr = 0.283 MeV)		194.6 -3	1.519
	(n,2n)		(E-thr = 7.166 MeV)		1.605	6.262 -3
	(n,3n)		(E-thr = 17.260 MeV)			259.9 -9
	(n,na)		(E-thr = 2.920 MeV)		589.1 -6	131.2 -9
	(n,np)		(E-thr = 8.848 MeV)		465.3 -6	123.0 -9
	(n,nd)		(E-thr = 13.590 MeV)		0.0	284.7 -12
	capture	20.25	17.99	96.83	1.003 -3	114.8 -3
	(n,p)	0.0	0.0	21.91 -3	28.82 -3	174.1 -6
	(n,d)		(E-thr = 6.516 MeV)		978.8 -6	209.0 -9
	(n,t)		(E-thr = 7.342 MeV)		28.45 -6	14.89 -9
	(n,He-3)		(E-thr = 8.094 MeV)		1.002 -12	9.535 -12
(n,a)	0.0	0.0	5.062 -3	6.704 -3	79.52 -6	
46-Pd-106	total	5.304	5.270		4.480	5.573
	elastic	5.001	5.001		2.508	4.361
	inelastic		(E-thr = 0.517 MeV)		349.2 -3	1.137
	(n,2n)		(E-thr = 9.658 MeV)		1.597	989.4 -6
	(n,3n)		(E-thr = 16.820 MeV)			579.5 -9
	(n,na)		(E-thr = 3.265 MeV)		401.9 -6	99.69 -9
	(n,np)		(E-thr = 9.441 MeV)		211.3 -6	70.48 -9
	capture	303.0 -3	269.5 -3	9.311	1.123 -3	72.70 -3
	(n,p)		(E-thr = 2.785 MeV)		19.90 -3	13.56 -6
	(n,d)		(E-thr = 7.109 MeV)		57.23 -6	30.23 -9
	(n,t)		(E-thr = 9.929 MeV)		236.0 -9	2.750 -9
	(n,a)	0.0	0.0	3.865 -3	4.826 -3	11.67 -6
	46-Pd-107	total	5.326	5.106		4.480
elastic		3.318	3.318		2.657	3.897
inelastic			(E-thr = 0.117 MeV)		183.6 -3	1.547
(n,2n)			(E-thr = 6.596 MeV)		1.621	10.78 -3
(n,3n)			(E-thr = 16.250 MeV)			912.4 -9
(n,na)			(E-thr = 3.565 MeV)		68.51 -6	21.22 -9
(n,np)			(E-thr = 9.380 MeV)		94.77 -6	52.96 -9
(n,nd)			(E-thr = 13.700 MeV)		0.0	224.5 -12
capture		2.008	1.788	108.9	1.002 -3	121.3 -3
(n,p)			(E-thr = 0.735 MeV)		13.68 -3	13.13 -6
(n,d)			(E-thr = 7.048 MeV)		458.9 -6	108.5 -9
(n,t)			(E-thr = 7.460 MeV)		9.925 -6	9.258 -9
(n,a)		0.0	0.0	2.446 -3	3.091 -3	8.855 -6
46-Pd-108	total	10.42	9.489		4.480	5.577
	elastic	1.920	1.919		2.364	4.218
	inelastic		(E-thr = 0.438 MeV)		467.3 -3	1.302
	(n,2n)		(E-thr = 9.314 MeV)		1.637	1.348 -3
	(n,3n)		(E-thr = 15.910 MeV)			1.795 -6
	(n,na)		(E-thr = 3.882 MeV)		71.64 -6	23.06 -9
	(n,np)		(E-thr = 10.050 MeV)		21.48 -6	20.34 -9
	capture	8.504	7.569	252.4	1.097 -3	54.27 -3
	(n,p)		(E-thr = 3.755 MeV)		9.123 -3	4.314 -6
	(n,d)		(E-thr = 7.718 MeV)		16.18 -6	18.53 -9
	(n,t)		(E-thr = 10.120 MeV)		81.58 -9	1.835 -9
	(n,a)	0.0	0.0	2.082 -3	2.045 -3	1.492 -6
	46-Pd-110	total	5.222	5.196		4.480
elastic		4.995	4.994		2.387	4.132
inelastic			(E-thr = 0.377 MeV)		412.7 -3	1.406
(n,2n)			(E-thr = 8.886 MeV)		1.675	2.096 -3
(n,3n)			(E-thr = 15.100 MeV)			4.281 -6
(n,na)			(E-thr = 4.464 MeV)		5.884 -6	4.092 -9
(n,np)			(E-thr = 10.620 MeV)		984.4 -9	5.233 -9
capture		227.0 -3	201.6 -3	2.816	1.031 -3	27.78 -3

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
46-Pd-110	(n,p)		(E-thr = 4.665 MeV)		4.267 -3	1.159 -6
	(n,d)		(E-thr = 8.284 MeV)		3.000 -6	7.102 -9
	(n,t)		(E-thr = 10.280 MeV)		44.76 -9	1.699 -9
	(n,a)	0.0	0.0	1.300 -3	812.0 -6	238.1 -9
47-Ag-107	total	46.29	41.94		4.258	5.658
	elastic	7.668	7.660		2.514	3.990
	inelastic		(E-thr = 0.094 MeV)		367.8 -3	1.559
	(n,2n)		(E-thr = 9.637 MeV)		1.351	787.8 -6
	(n,3n)		(E-thr = 17.640 MeV)			42.75 -9
	(n,na)		(E-thr = 2.831 MeV)		623.8 -6	211.9 -9
	(n,np)		(E-thr = 5.835 MeV)		6.100 -3	4.466 -6
	capture	38.62	34.28	103.2	78.43 -6	107.6 -3
	(n,p)	0.0	0.0	13.36 -3	14.74 -3	490.1 -6
	(n,a)	0.0	0.0	2.914 -3	4.215 -3	16.83 -6
47-Ag-109	total	93.04	83.40		4.335	5.775
	elastic	2.512	2.504		2.578	4.064
	inelastic		(E-thr = 0.089 MeV)		351.5 -3	1.612
	(n,2n)		(E-thr = 9.277 MeV)		1.382	1.107 -3
	(n,3n)		(E-thr = 16.610 MeV)			314.9 -9
	(n,na)		(E-thr = 3.322 MeV)		495.4 -6	206.1 -9
	(n,np)		(E-thr = 6.548 MeV)		5.243 -3	1.306 -6
	capture	90.53	80.89	1472.	53.80 -6	97.12 -3
	(n,p)		(E-thr = 0.337 MeV)		13.92 -3	100.0 -6
	(n,a)	35.56 -18	71.12 -18	2.851 -3	3.955 -3	3.598 -6
47-Ag-110M	total	88.47	78.55		4.480	5.576
	elastic	6.468	6.454		2.659	3.807
	inelastic	0.0	0.0	4.132	165.0 -3	1.195
	(n,2n)		(E-thr = 6.873 MeV)		1.638	7.517 -3
	(n,3n)		(E-thr = 16.150 MeV)			1.171 -6
	(n,na)		(E-thr = 3.538 MeV)		118.1 -6	36.24 -9
	(n,np)		(E-thr = 7.209 MeV)		1.998 -3	402.3 -9
	(n,nd)		(E-thr = 11.090 MeV)		14.55 -9	6.872 -9
	(n,nt)		(E-thr = 14.160 MeV)			16.98 -12
	capture	82.00	72.09	94.12	1.043 -3	564.0 -3
	(n,p)	0.0	0.0	8.493 -3	12.11 -3	72.78 -6
	(n,d)		(E-thr = 4.878 MeV)		1.140 -3	235.9 -9
	(n,t)		(E-thr = 4.852 MeV)		87.68 -6	27.38 -9
	(n,He-3)		(E-thr = 9.377 MeV)		177.5 -15	4.186 -12
(n,a)	0.0	0.0	1.895 -3	2.447 -3	2.896 -6	
48-Cd-106	total	6.492	6.385		4.480	5.578
	elastic	5.522	5.522		2.371	4.476
	inelastic		(E-thr = 0.639 MeV)		838.3 -3	916.4 -3
	(n,2n)		(E-thr = 10.970 MeV)		841.4 -3	172.9 -6
	(n,3n)		(E-thr = 19.620 MeV)			48.81 -12
	(n,na)		(E-thr = 1.643 MeV)		19.97 -3	6.078 -6
	(n,np)		(E-thr = 7.420 MeV)		216.3 -3	41.54 -6
	(n,nd)		(E-thr = 15.180 MeV)			10.72 -12
	capture	969.5 -3	862.4 -3	10.74	1.701 -3	175.4 -3
	(n,p)	0.0	0.0	80.92 -3	87.00 -3	1.646 -3
	(n,d)		(E-thr = 5.088 MeV)		2.316 -3	505.7 -9
	(n,t)		(E-thr = 8.940 MeV)		5.068 -6	8.703 -9
	(n,He-3)		(E-thr = 4.631 MeV)		23.94 -9	257.7 -12
	(n,a)	0.0	0.0	106.7 -3	102.0 -3	6.070 -3
(n,2p)		(E-thr = 5.270 MeV)		48.03 -6	12.08 -9	
48-Cd-108	total	6.619	6.499		4.480	5.578
	elastic	5.533	5.532		2.446	4.461
	inelastic		(E-thr = 0.639 MeV)		970.6 -3	982.2 -3
	(n,2n)		(E-thr = 10.440 MeV)		966.9 -3	322.1 -6
	(n,3n)		(E-thr = 18.440 MeV)			33.00 -9
	(n,na)		(E-thr = 2.294 MeV)		8.694 -3	2.411 -6
	(n,np)		(E-thr = 8.217 MeV)		13.01 -3	2.252 -6
	(n,nd)		(E-thr = 15.530 MeV)			2.814 -12
	capture	1.087	966.6 -3	27.19	3.151 -3	132.7 -3
	(n,p)		(E-thr = 0.875 MeV)		59.38 -3	380.8 -6
	(n,d)		(E-thr = 5.885 MeV)		392.5 -6	105.9 -9
	(n,t)		(E-thr = 9.282 MeV)		1.563 -6	5.746 -9
	(n,He-3)		(E-thr = 6.252 MeV)		199.5 -12	14.55 -12
	(n,a)	0.0	0.0	9.726 -3	12.08 -3	188.3 -6
(n,2p)		(E-thr = 7.460 MeV)		38.94 -9	147.4 -12	

Nuclide	Reaction	2200-m/s (barns)	Max.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
48-Cd-110	total	29.66	28.43		4.480	5.575
	elastic	18.64	18.64		2.474	4.469
	inelastic		(E-thr = 0.664 MeV)		832.1 -3	1.029
	(n,2n)		(E-thr = 9.976 MeV)		1.139	503.3 -6
	(n,3n)		(E-thr = 17.410 MeV)			274.3 -9
	(n,na)		(E-thr = 2.884 MeV)		658.7 -6	159.1 -9
	(n,np)		(E-thr = 9.003 MeV)		607.0 -6	149.0 -9
	capture	11.02	9.796	40.06	1.096 -3	74.70 -3
	(n,p)		(E-thr = 2.130 MeV)		26.42 -3	40.31 -6
	(n,d)		(E-thr = 6.671 MeV)		104.0 -6	42.20 -9
	(n,t)		(E-thr = 9.710 MeV)		296.0 -9	2.714 -9
	(n,a)	0.0	0.0	4.371 -3	5.478 -3	15.48 -6
	48-Cd-111	total	28.97	26.20		4.480
elastic		5.048	5.046		2.629	4.046
inelastic			(E-thr = 0.248 MeV)		227.2 -3	1.404
(n,2n)			(E-thr = 7.045 MeV)		1.575	6.184 -3
(n,3n)			(E-thr = 17.020 MeV)			407.4 -9
(n,na)			(E-thr = 3.335 MeV)		108.9 -6	30.42 -9
(n,np)			(E-thr = 9.174 MeV)		311.3 -6	106.5 -9
(n,nd)			(E-thr = 13.720 MeV)		0.0	132.0 -12
capture		23.92	21.16	48.42	1.003 -3	112.2 -3
(n,p)			(E-thr = 0.248 MeV)		43.82 -3	93.54 -6
(n,d)			(E-thr = 6.843 MeV)		538.1 -6	126.9 -9
(n,t)			(E-thr = 7.474 MeV)		5.914 -6	7.298 -9
(n,a)		0.0	0.0	3.159 -3	3.853 -3	21.23 -6
48-Cd-112	total	9.211	8.968		4.480	5.571
	elastic	7.019	7.018		2.453	4.397
	inelastic		(E-thr = 0.623 MeV)		450.4 -3	1.108
	(n,2n)		(E-thr = 9.485 MeV)		1.560	984.3 -6
	(n,3n)		(E-thr = 16.530 MeV)			925.3 -9
	(n,na)		(E-thr = 3.508 MeV)		112.6 -6	33.48 -9
	(n,np)		(E-thr = 9.732 MeV)		62.53 -6	34.71 -9
	capture	2.192	1.950	13.37	1.046 -3	62.60 -3
	(n,p)		(E-thr = 3.204 MeV)		13.26 -3	7.919 -6
	(n,d)		(E-thr = 7.402 MeV)		36.59 -6	27.67 -9
	(n,t)		(E-thr = 10.090 MeV)		61.90 -9	1.796 -9
	(n,a)	0.0	0.0	2.495 -3	2.460 -3	2.378 -6
	48-Cd-113	total	2067.	2449.		4.480
elastic		25.47	50.83		2.658	4.070
inelastic			(E-thr = 0.266 MeV)		182.7 -3	1.414
(n,2n)			(E-thr = 6.607 MeV)		1.628	9.860 -3
(n,3n)			(E-thr = 16.090 MeV)			1.261 -6
(n,na)			(E-thr = 3.901 MeV)		19.46 -6	8.960 -9
(n,np)			(E-thr = 9.811 MeV)		17.94 -6	19.32 -9
(n,nd)			(E-thr = 14.010 MeV)			79.17 -12
capture		2065.	2444.	393.7	1.001 -3	75.53 -3
(n,p)			(E-thr = 1.239 MeV)		9.096 -3	5.921 -6
(n,d)			(E-thr = 7.480 MeV)		208.2 -6	63.13 -9
(n,t)			(E-thr = 7.768 MeV)		4.299 -6	7.304 -9
(n,a)		0.0	0.0	1.673 -3	1.809 -3	2.269 -6
48-Cd-114	total	6.240	6.203		4.480	5.573
	elastic	5.900	5.900		2.506	4.363
	inelastic		(E-thr = 0.563 MeV)		346.9 -3	1.166
	(n,2n)		(E-thr = 9.126 MeV)		1.618	1.540 -3
	(n,3n)		(E-thr = 15.730 MeV)			2.293 -6
	(n,na)		(E-thr = 4.143 MeV)		12.77 -6	6.496 -9
	(n,np)		(E-thr = 10.360 MeV)		2.764 -6	7.398 -9
	capture	340.4 -3	302.9 -3	16.96	1.020 -3	39.18 -3
	(n,p)		(E-thr = 4.113 MeV)		7.816 -3	2.512 -6
	(n,d)		(E-thr = 8.034 MeV)		3.255 -6	9.028 -9
	(n,t)		(E-thr = 10.360 MeV)		13.79 -9	1.255 -9
	(n,a)	0.0	0.0	748.9 -6	495.6 -6	162.7 -9
	48-Cd-116	total	6.058	6.049		4.480
elastic		5.983	5.983		2.512	4.362
inelastic			(E-thr = 0.518 MeV)		343.0 -3	1.181
(n,2n)			(E-thr = 8.776 MeV)		1.623	1.975 -3
(n,3n)			(E-thr = 14.980 MeV)			5.146 -6
(n,na)			(E-thr = 4.855 MeV)		375.3 -9	932.3 -12
(n,np)			(E-thr = 11.200 MeV)		29.08 -9	1.905 -9
capture		74.84 -3	66.59 -3	1.745	1.002 -3	21.49 -3

Nuclide	Reaction	2200-m/s (barns)	Max.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
48-Cd-116	(n,p)		(E-thr = 5.361 MeV)		1.788 -3	404.2 -9
	(n,d)		(E-thr = 8.868 MeV)		314.2 -9	3.915 -9
	(n,t)		(E-thr = 10.520 MeV)		5.894 -9	986.8 -12
	(n,a)	0.0	0.0	183.8 -6	67.82 -6	16.52 -9
49-In-113	total	15.75	14.54		4.640	5.526
	elastic	3.679	3.676		2.511	4.423
	inelastic		(E-thr = 0.395 MeV)		565.3 -3	900.9 -3
	(n,2n)		(E-thr = 9.533 MeV)		1.530	695.1 -6
	(n,3n)		(E-thr = 17.270 MeV)			248.4 -9
	(n,na)		(E-thr = 3.099 MeV)		70.93 -6	22.90 -9
	(n,np)		(E-thr = 6.142 MeV)		4.319 -3	802.4 -9
	(n,nd)		(E-thr = 13.300 MeV)		0.0	229.2 -12
	(n,nt)		(E-thr = 14.100 MeV)			3.313 -12
	capture	12.07	10.87	325.5	1.001 -3	198.2 -3
	(n,p)	0.0	0.0	15.80 -3	22.60 -3	45.81 -6
	(n,d)		(E-thr = 3.811 MeV)		1.135 -3	241.7 -9
	(n,t)		(E-thr = 7.055 MeV)		10.09 -6	13.85 -9
	(n,He-3)		(E-thr = 8.073 MeV)		283.6 -18	5.830 -12
(n,a)	0.0	0.0	3.440 -3	4.270 -3	3.723 -6	
49-In-115	total	203.5	184.6		4.639	5.525
	elastic	2.526	2.504		2.946	4.439
	inelastic		(E-thr = 0.339 MeV)		218.0 -3	952.4 -3
	(n,2n)		(E-thr = 9.120 MeV)		1.460	960.7 -6
	(n,3n)		(E-thr = 16.460 MeV)			815.0 -9
	(n,na)		(E-thr = 3.770 MeV)		134.3 -6	45.51 -9
	(n,np)		(E-thr = 6.875 MeV)		4.652 -3	850.3 -9
	(n,nd)		(E-thr = 13.670 MeV)		0.0	104.0 -12
	(n,nt)		(E-thr = 14.040 MeV)			5.347 -12
	capture	201.0	182.1	3210.	1.013 -3	129.3 -3
	(n,p)		(E-thr = 0.671 MeV)		7.280 -3	7.893 -6
	(n,d)		(E-thr = 4.544 MeV)		350.6 -6	108.1 -9
	(n,t)		(E-thr = 7.430 MeV)		2.515 -6	10.25 -9
	(n,a)	0.0	0.0	1.674 -3	1.999 -3	1.441 -6
50-Sn-112	total	5.597	5.485		4.640	5.522
	elastic	4.588	4.588		2.930	4.758
	inelastic		(E-thr = 1.268 MeV)		418.4 -3	652.7 -3
	(n,2n)		(E-thr = 10.890 MeV)		1.143	262.9 -6
	(n,3n)		(E-thr = 19.150 MeV)			1.922 -9
	(n,na)		(E-thr = 1.845 MeV)		17.91 -3	4.523 -6
	(n,np)		(E-thr = 7.615 MeV)		80.86 -3	11.38 -6
	capture	1.009	896.8 -3	30.51	1.115 -3	109.5 -3
	(n,p)	0.0	0.0	20.22 -3	33.71 -3	182.0 -6
	(n,d)		(E-thr = 5.284 MeV)		1.223 -3	289.5 -9
	(n,t)		(E-thr = 9.206 MeV)		57.09 -9	6.497 -9
	(n,He-3)		(E-thr = 5.211 MeV)		735.8 -12	50.84 -12
	(n,a)	0.0	0.0	9.474 -3	13.44 -3	138.8 -6
	(n,2p)		(E-thr = 5.968 MeV)		105.1 -15	167.4 -12
50-Sn-114	total	4.671	4.657		4.639	5.521
	elastic	4.546	4.546		2.914	4.766
	inelastic		(E-thr = 1.311 MeV)		456.8 -3	663.3 -3
	(n,2n)		(E-thr = 10.400 MeV)		1.223	370.9 -6
	(n,3n)		(E-thr = 18.210 MeV)			50.55 -9
	(n,na)		(E-thr = 2.656 MeV)		1.993 -3	476.4 -9
	(n,np)		(E-thr = 8.557 MeV)		526.9 -6	310.3 -9
	capture	125.3 -3	111.5 -3	6.673	1.025 -3	89.86 -3
	(n,p)		(E-thr = 1.212 MeV)		35.71 -3	44.57 -6
	(n,d)		(E-thr = 6.226 MeV)		330.3 -6	113.8 -9
	(n,t)		(E-thr = 9.518 MeV)		1.753 -9	4.114 -9
	(n,He-3)		(E-thr = 6.898 MeV)		143.4 -15	3.950 -12
	(n,a)	0.0	0.0	4.927 -3	6.619 -3	18.10 -6
	50-Sn-115	total	38.22	34.85		4.639
elastic		8.370	8.360		2.918	4.328
inelastic			(E-thr = 0.502 MeV)		232.0 -3	1.109
(n,2n)			(E-thr = 7.617 MeV)		1.458	3.409 -3
(n,3n)			(E-thr = 18.010 MeV)			67.43 -9
(n,na)			(E-thr = 3.231 MeV)		414.2 -6	114.4 -9
(n,np)			(E-thr = 8.830 MeV)		52.57 -6	95.63 -9
(n,nd)			(E-thr = 13.840 MeV)		0.0	38.64 -12
capture		29.85	26.49	13.85	1.003 -3	79.55 -3
(n,p)		0.0	0.0	18.54 -3	24.91 -3	49.66 -6

Nuclide	Reaction	2200-m/s (barns)	Max.W.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
50-Sn-115	(n,d)		(E-thr = 6.499 MeV)	6.499	816.2 -6	180.8 -9
	(n,t)		(E-thr = 7.604 MeV)	7.604	2.678 -6	10.72 -9
	(n,He-3)		(E-thr = 7.909 MeV)	7.909	736.4 -18	5.495 -12
	(n,a)	0.0	0.0	3.747 -3	4.739 -3	29.81 -6
50-Sn-116	total	4.439	4.425		4.639	5.527
	elastic	4.312	4.312		2.921	4.779
	inelastic			(E-thr = 1.305 MeV)	304.8 -3	689.2 -3
	(n,2n)			(E-thr = 9.650 MeV)	1.392	737.1 -6
	(n,3n)			(E-thr = 17.270 MeV)		288.2 -9
	(n,na)			(E-thr = 3.399 MeV)	371.5 -6	118.3 -9
	(n,np)			(E-thr = 9.359 MeV)	873.2 -9	83.43 -9
	capture	127.7 -3	113.6 -3	12.40	1.014 -3	56.18 -3
	(n,p)			(E-thr = 2.512 MeV)	16.94 -3	8.956 -6
	(n,d)			(E-thr = 7.029 MeV)	25.07 -6	30.06 -9
	(n,t)			(E-thr = 9.910 MeV)	34.80 -12	2.423 -9
	(n,a)	0.0	0.0	3.011 -3	3.186 -3	2.746 -6
	50-Sn-117	total	7.277	7.037		4.639
elastic		5.104	5.103		2.925	4.195
inelastic				(E-thr = 0.160 MeV)	134.0 -3	1.253
(n,2n)				(E-thr = 7.009 MeV)	1.565	7.324 -3
(n,3n)				(E-thr = 16.660 MeV)		525.2 -9
(n,na)				(E-thr = 3.803 MeV)	97.30 -6	38.23 -9
(n,np)				(E-thr = 9.521 MeV)	102.6 -9	37.26 -9
(n,nd)				(E-thr = 14.040 MeV)		17.95 -12
capture		2.173	1.933	18.70	1.003 -3	67.64 -3
(n,p)				(E-thr = 0.678 MeV)	11.80 -3	9.011 -6
(n,d)				(E-thr = 7.191 MeV)	553.2 -6	163.3 -9
(n,t)				(E-thr = 7.799 MeV)	76.12 -9	4.433 -9
(n,a)		0.0	0.0	2.155 -3	2.289 -3	3.635 -6
50-Sn-118	total	4.440	4.415		4.639	5.523
	elastic	4.222	4.222		2.928	4.773
	inelastic			(E-thr = 1.240 MeV)	306.7 -3	713.3 -3
	(n,2n)			(E-thr = 9.411 MeV)	1.397	903.2 -6
	(n,3n)			(E-thr = 16.420 MeV)		773.5 -9
	(n,na)			(E-thr = 4.091 MeV)	22.92 -6	13.02 -9
	(n,np)			(E-thr = 10.090 MeV)	198.4 -12	16.68 -9
	capture	217.8 -3	193.7 -3	5.347	1.002 -3	31.90 -3
	(n,p)			(E-thr = 3.450 MeV)	5.531 -3	1.867 -6
	(n,d)			(E-thr = 7.759 MeV)	1.634 -6	16.89 -9
	(n,t)			(E-thr = 10.360 MeV)	297.1 -15	1.428 -9
	(n,a)	0.0	0.0	1.053 -3	660.7 -6	222.0 -9
	50-Sn-119	total	6.852	6.606		4.639
elastic		4.676	4.675		2.931	4.106
inelastic				(E-thr = 0.024 MeV)	121.8 -3	1.367
(n,2n)				(E-thr = 6.544 MeV)	1.579	11.22 -3
(n,3n)				(E-thr = 15.950 MeV)		1.198 -6
(n,na)				(E-thr = 4.433 MeV)	13.83 -6	10.05 -9
(n,np)				(E-thr = 9.994 MeV)	1.442 -9	29.17 -9
(n,nd)				(E-thr = 14.300 MeV)		6.182 -12
capture		2.176	1.931	5.334	1.001 -3	34.05 -3
(n,p)				(E-thr = 1.567 MeV)	4.424 -3	1.763 -6
(n,d)				(E-thr = 7.665 MeV)	140.5 -6	60.36 -9
(n,t)				(E-thr = 8.065 MeV)	33.53 -9	4.708 -9
(n,a)		0.0	0.0	1.306 -3	1.070 -3	526.7 -9
50-Sn-120	total	5.479	5.464		4.639	5.518
	elastic	5.340	5.340		2.928	4.763
	inelastic			(E-thr = 1.181 MeV)	230.0 -3	734.7 -3
	(n,2n)			(E-thr = 9.188 MeV)	1.476	1.318 -3
	(n,3n)			(E-thr = 15.730 MeV)		1.699 -6
	(n,na)			(E-thr = 4.847 MeV)	2.767 -6	3.877 -9
	(n,np)			(E-thr = 10.760 MeV)	326.1 -15	5.566 -9
	capture	139.2 -3	123.8 -3	1.222	1.001 -3	17.85 -3
	(n,p)			(E-thr = 4.658 MeV)	3.309 -3	777.1 -9
	(n,d)			(E-thr = 8.426 MeV)	19.57 -9	9.912 -9
	(n,t)			(E-thr = 10.610 MeV)	27.46 -15	1.200 -9
	(n,a)	0.0	0.0	721.1 -6	254.0 -6	71.84 -9
	50-Sn-122	total	3.979	3.958		4.639
elastic		3.795	3.795		2.930	4.791
inelastic				(E-thr = 1.150 MeV)	172.3 -3	715.2 -3

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
50-Sn-122	(n,2n)		(E-thr = 8.893 MeV)		1.535	1.818 -3
	(n,3n)		(E-thr = 15.120 MeV)			3.054 -6
	(n,na)		(E-thr = 5.708 MeV)		97.86 -9	727.1 -12
	(n,np)		(E-thr = 11.490 MeV)		357.0 -18	2.647 -9
	capture	183.7 -3	163.0 -3	932.7 -3	1.001 -3	10.33 -3
	(n,p)		(E-thr = 5.610 MeV)		714.5 -6	153.0 -9
	(n,d)		(E-thr = 9.163 MeV)		345.7 -12	2.748 -9
	(n,t)		(E-thr = 11.210 MeV)		124.6 -18	644.3 -12
	(n,a)		(E-thr = 0.062 MeV)		44.19 -6	14.83 -9
50-Sn-123	total	7.000	6.684		4.638	5.522
	elastic	4.000	4.000		2.929	4.509
	inelastic			(E-thr = 0.025 MeV)	79.63 -3	930.5 -3
	(n,2n)			(E-thr = 6.000 MeV)	-1.627	19.56 -3
	(n,3n)			(E-thr = 14.890 MeV)		3.280 -6
	(n,na)			(E-thr = 6.062 MeV)	7.614 -9	275.3 -12
	(n,np)			(E-thr = 11.610 MeV)	29.58 -18	1.149 -9
	capture	3.000	2.659	62.64	1.002 -3	59.42 -3
	(n,p)			(E-thr = 3.628 MeV)	1.570 -3	361.3 -9
	(n,d)			(E-thr = 9.280 MeV)	33.38 -9	9.862 -9
	(n,t)			(E-thr = 8.926 MeV)	258.4 -12	1.184 -9
(n,a)	0.0	0.0	229.1 -6	48.65 -6	14.23 -9	
50-Sn-124	total	4.535	4.520		4.638	5.518
	elastic	4.400	4.400		2.929	4.754
	inelastic			(E-thr = 1.141 MeV)	192.0 -3	749.9 -3
	(n,2n)			(E-thr = 8.564 MeV)	1.515	2.352 -3
	(n,3n)			(E-thr = 14.560 MeV)		4.699 -6
	(n,na)			(E-thr = 6.735 MeV)	101.6 -12	72.76 -12
	(n,np)			(E-thr = 12.190 MeV)	68.32 -21	524.0 -12
	capture	135.5 -3	120.4 -3	7.905	1.000 -3	11.03 -3
	(n,p)			(E-thr = 6.409 MeV)	951.7 -6	218.9 -9
	(n,d)			(E-thr = 9.863 MeV)	55.41 -15	1.220 -9
	(n,t)			(E-thr = 11.610 MeV)	1.093 -18	292.0 -12
(n,a)			(E-thr = 1.268 MeV)	4.269 -6	2.819 -9	
50-Sn-126	total	4.090	4.098		4.638	5.521
	elastic	4.000	4.000		2.930	4.772
	inelastic			(E-thr = 1.150 MeV)	178.7 -3	740.7 -3
	(n,2n)			(E-thr = 8.264 MeV)	1.529	3.124 -3
	(n,3n)			(E-thr = 14.050 MeV)		7.990 -6
	(n,na)			(E-thr = 7.758 MeV)	319.9 -15	10.58 -12
	(n,np)			(E-thr = 12.920 MeV)	0.0	140.3 -12
	capture	90.00 -3	79.76 -3	150.0 -3	1.000 -3	4.386 -3
	(n,p)			(E-thr = 7.400 MeV)	46.82 -6	16.63 -9
	(n,d)			(E-thr = 10.590 MeV)	33.98 -18	450.6 -12
	(n,t)			(E-thr = 11.890 MeV)	67.84 -21	183.8 -12
(n,a)			(E-thr = 2.809 MeV)	147.1 -9	442.3 -12	
51-Sb-121	total	9.582	8.936		4.639	5.519
	elastic	3.590	3.589		2.782	4.132
	inelastic			(E-thr = 0.037 MeV)	237.1 -3	1.275
	(n,2n)			(E-thr = 9.321 MeV)	1.605	1.135 -3
	(n,3n)			(E-thr = 16.390 MeV)		836.0 -9
	(n,na)			(E-thr = 3.092 MeV)	74.86 -6	23.41 -9
	(n,np)			(E-thr = 5.828 MeV)	2.551 -3	520.9 -9
	(n,nd)			(E-thr = 12.690 MeV)	0.0	533.2 -12
	(n,nt)			(E-thr = 12.990 MeV)	0.0	77.66 -12
	capture	5.991	5.347	215.3	1.007 -3	108.9 -3
	(n,p)	0.0	0.0	3.834 -3	5.587 -3	13.64 -6
(n,d)			(E-thr = 3.499 MeV)	1.071 -3	222.1 -9	
(n,t)			(E-thr = 6.450 MeV)	37.85 -6	18.65 -9	
(n,a)	0.0	0.0	3.216 -3	3.793 -3	3.053 -6	
51-Sb-123	total	8.086	7.621		4.638	5.517
	elastic	3.899	3.898		2.928	4.341
	inelastic			(E-thr = 0.162 MeV)	193.2 -3	1.093
	(n,2n)			(E-thr = 9.044 MeV)	1.508	1.599 -3
	(n,3n)			(E-thr = 15.910 MeV)		1.555 -6
	(n,na)			(E-thr = 3.941 MeV)	16.46 -6	8.518 -9
	(n,np)			(E-thr = 6.619 MeV)	1.023 -3	193.5 -9
	(n,nd)			(E-thr = 13.180 MeV)	0.0	211.9 -12
	(n,nt)			(E-thr = 13.170 MeV)	0.0	68.24 -12
	capture	4.187	3.724	123.2	1.009 -3	77.31 -3
	(n,p)			(E-thr = 0.619 MeV)	4.240 -3	5.356 -6

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
51-Sb-123	(n,d)		(E-thr = 4.290 MeV)		294.1 -6	79.64 -9
	(n,t)		(E-thr = 6.947 MeV)		13.69 -6	13.15 -9
	(n,a)	0.0	0.0	2.178 -3	1.966 -3	693.5 -9
51-Sb-124	total	21.16	19.26		4.638	5.515
	elastic	3.760	3.760		2.932	3.793
	inelastic			(E-thr = 0.011 MeV)	158.4 -3	1.628
	(n,2n)			(E-thr = 6.525 MeV)	1.541	9.826 -3
	(n,3n)			(E-thr = 15.570 MeV)		1.766 -6
	(n,na)			(E-thr = 4.371 MeV)	1.144 -6	1.705 -9
	(n,np)			(E-thr = 7.144 MeV)	628.3 -6	127.2 -9
	(n,nd)			(E-thr = 10.810 MeV)	60.28 -15	5.571 -9
	(n,nt)			(E-thr = 13.470 MeV)	0.0	30.41 -12
	capture	17.40	15.42	156.1	1.001 -3	80.41 -3
	(n,p)	0.0	0.0	2.237 -3	3.182 -3	4.027 -6
	(n,d)			(E-thr = 4.815 MeV)	804.0 -6	161.1 -9
	(n,t)			(E-thr = 4.579 MeV)	67.63 -6	22.84 -9
	(n,a)	0.0	0.0	1.677 -3	1.498 -3	489.1 -9
51-Sb-125	total	9.000	8.462		4.638	5.520
	elastic	4.000	4.000		2.929	4.404
	inelastic			(E-thr = 0.335 MeV)	241.9 -3	992.9 -3
	(n,2n)			(E-thr = 8.785 MeV)	1.462	1.716 -3
	(n,3n)			(E-thr = 15.310 MeV)		2.614 -6
	(n,na)			(E-thr = 4.871 MeV)	256.3 -9	827.1 -12
	(n,np)			(E-thr = 7.365 MeV)	312.8 -6	73.10 -9
	(n,nd)			(E-thr = 13.600 MeV)	0.0	98.31 -12
	(n,nt)			(E-thr = 13.360 MeV)	0.0	37.95 -12
	capture	5.000	4.431	55.72	1.003 -3	119.9 -3
	(n,p)			(E-thr = 1.580 MeV)	2.213 -3	943.3 -9
	(n,d)			(E-thr = 5.036 MeV)	180.7 -6	63.76 -9
	(n,t)			(E-thr = 7.364 MeV)	3.533 -6	7.233 -9
	(n,a)	0.0	0.0	1.786 -3	1.019 -3	241.5 -9
52-Te-120	total	5.980	5.739		4.975	5.889
	elastic	3.640	3.640		3.449	4.785
	inelastic			(E-thr = 0.565 MeV)	372.3 -3	997.3 -3
	(n,2n)			(E-thr = 10.380 MeV)	1.090	327.1 -6
	(n,3n)			(E-thr = 18.040 MeV)		68.16 -9
	(n,na)			(E-thr = 0.302 MeV)	10.02 -3	7.086 -6
	(n,np)			(E-thr = 7.275 MeV)	12.55 -3	1.905 -6
	(n,nd)			(E-thr = 14.620 MeV)		2.198 -12
	capture	2.340	2.074	22.52	1.054 -3	101.5 -3
	(n,p)			(E-thr = 0.202 MeV)	26.46 -3	188.5 -6
	(n,d)			(E-thr = 4.946 MeV)	1.148 -3	256.4 -9
	(n,t)			(E-thr = 8.381 MeV)	5.147 -6	9.909 -9
	(n,He-3)			(E-thr = 4.645 MeV)	244.8 -12	88.12 -12
	(n,a)	0.0	0.0	13.25 -3	12.11 -3	690.3 -6
52-Te-122	total	6.092	5.717		4.975	5.883
	elastic	2.691	2.691		3.454	4.762
	inelastic			(E-thr = 0.569 MeV)	252.8 -3	972.1 -3
	(n,2n)			(E-thr = 9.954 MeV)	1.249	551.9 -6
	(n,3n)			(E-thr = 17.190 MeV)		297.0 -9
	(n,na)			(E-thr = 1.081 MeV)	1.736 -3	685.2 -9
	(n,np)			(E-thr = 8.076 MeV)	728.5 -6	200.3 -9
	capture	3.401	3.026	81.32	1.271 -3	141.0 -3
	(n,p)			(E-thr = 1.208 MeV)	9.513 -3	12.87 -6
	(n,d)			(E-thr = 5.746 MeV)	273.3 -6	81.84 -9
	(n,t)			(E-thr = 8.830 MeV)	667.9 -9	5.339 -9
	(n,He-3)			(E-thr = 6.108 MeV)	1.615 -12	6.643 -12
	(n,a)	0.0	0.0	4.834 -3	6.164 -3	51.02 -6
	52-Te-123	total	418.7	376.8		4.976
elastic		589.4 -3	613.0 -3		3.453	4.283
inelastic				(E-thr = 0.160 MeV)	191.7 -3	1.449
(n,2n)				(E-thr = 6.995 MeV)	1.315	5.691 -3
(n,3n)				(E-thr = 16.950 MeV)		354.9 -9
(n,na)				(E-thr = 1.533 MeV)	296.7 -6	77.81 -9
(n,np)				(E-thr = 8.203 MeV)	129.0 -6	56.23 -9
(n,nd)				(E-thr = 12.740 MeV)	0.0	337.2 -12
capture		418.1	376.2	5648.	1.003 -3	140.2 -3
(n,p)		0.0	0.0	7.187 -3	9.255 -3	15.50 -6
(n,d)				(E-thr = 5.874 MeV)	1.072 -3	228.3 -9
(n,t)				(E-thr = 6.505 MeV)	22.83 -6	14.65 -9

Nuclide	Reaction	2200-m/s (barns)	Max.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
52-Te-123	(n,He-3)		(E-thr =	6.876 MeV)	121.9 -15	13.33 -12
	(n,a)	46.21 -6	41.58 -6	4.329 -3	4.451 -3	100.4 -6
52-Te-124	total	10.55	9.782		4.976	5.886
	elastic	3.746	3.745		3.450	4.791
	inelastic			(E-thr = 0.608 MeV)	176.1 -3	1.032
	(n,2n)			(E-thr = 9.506 MeV)	1.337	850.3 -6
	(n,3n)			(E-thr = 16.500 MeV)		832.7 -9
	(n,na)			(E-thr = 1.853 MeV)	219.1 -6	60.52 -9
	(n,np)			(E-thr = 8.664 MeV)	31.82 -6	32.43 -9
	capture	6.802	6.037	5.986	1.043 -3	58.43 -3
	(n,p)			(E-thr = 2.140 MeV)	7.568 -3	4.566 -6
	(n,d)			(E-thr = 6.335 MeV)	48.44 -6	27.29 -9
	(n,t)			(E-thr = 9.143 MeV)	26.15 -9	3.139 -9
	(n,a)	0.0	0.0	2.622 -3	3.173 -3	5.213 -6
	52-Te-125	total	5.397	5.225		4.976
elastic		3.849	3.849		3.457	4.321
inelastic				(E-thr = 0.036 MeV)	182.0 -3	1.496
(n,2n)				(E-thr = 6.630 MeV)	1.328	8.808 -3
(n,3n)				(E-thr = 16.130 MeV)		770.8 -9
(n,na)				(E-thr = 2.257 MeV)	29.89 -6	12.50 -9
(n,np)				(E-thr = 8.769 MeV)	13.87 -6	31.49 -9
(n,nd)				(E-thr = 12.960 MeV)	0.0	234.1 -12
capture		1.548	1.376	22.58	1.000 -3	52.52 -3
(n,p)		0.0	0.0	4.013 -3	4.846 -3	3.959 -6
(n,d)				(E-thr = 6.441 MeV)	547.0 -6	129.8 -9
(n,t)				(E-thr = 6.730 MeV)	7.672 -6	8.861 -9
(n,a)		0.0	0.0	1.969 -3	2.392 -3	6.063 -6
52-Te-126	total	4.662	4.547		4.976	5.883
	elastic	3.629	3.629		3.453	4.890
	inelastic			(E-thr = 0.672 MeV)	137.6 -3	957.7 -3
	(n,2n)			(E-thr = 9.196 MeV)	1.378	1.152 -3
	(n,3n)			(E-thr = 15.830 MeV)		1.814 -6
	(n,na)			(E-thr = 2.562 MeV)	23.80 -6	8.577 -9
	(n,np)			(E-thr = 9.181 MeV)	284.4 -9	14.35 -9
	capture	1.034	918.7 -3	8.085	1.017 -3	31.53 -3
	(n,p)			(E-thr = 2.905 MeV)	3.974 -3	1.479 -6
	(n,d)			(E-thr = 6.852 MeV)	37.65 -6	26.29 -9
	(n,t)			(E-thr = 9.402 MeV)	2.015 -9	2.187 -9
	(n,a)	0.0	0.0	1.815 -3	1.786 -3	1.366 -6
	52-Te-127M	total	3384.	3001.		4.976
elastic		3.630	3.630		3.457	4.579
inelastic		0.0	0.0	3.966	175.1 -3	1.147
(n,2n)				(E-thr = 6.345 MeV)	1.339	9.898 -3
(n,3n)				(E-thr = 15.540 MeV)		1.751 -6
(n,na)				(E-thr = 2.909 MeV)	9.936 -6	6.472 -9
(n,np)				(E-thr = 9.250 MeV)	139.9 -9	14.19 -9
(n,nd)				(E-thr = 13.200 MeV)	0.0	113.8 -12
capture		3380.	2995.	1336.	1.000 -3	146.0 -3
(n,p)				(E-thr = 0.805 MeV)	2.517 -3	1.276 -6
(n,d)				(E-thr = 6.921 MeV)	259.6 -6	74.03 -9
(n,t)				(E-thr = 6.962 MeV)	11.26 -6	10.43 -9
(n,a)		0.0	0.0	1.235 -3	1.336 -3	934.9 -9
52-Te-128	total	4.313	4.289		4.976	5.880
	elastic	4.099	4.099		3.455	4.927
	inelastic			(E-thr = 0.749 MeV)	127.0 -3	932.7 -3
	(n,2n)			(E-thr = 8.853 MeV)	1.391	1.523 -3
	(n,3n)			(E-thr = 15.200 MeV)		3.474 -6
	(n,na)			(E-thr = 3.199 MeV)	4.810 -6	3.182 -9
	(n,np)			(E-thr = 9.657 MeV)	1.629 -9	4.447 -9
	capture	214.0 -3	190.3 -3	1.307	1.001 -3	14.66 -3
	(n,p)			(E-thr = 3.507 MeV)	1.842 -3	541.6 -9
	(n,d)			(E-thr = 7.329 MeV)	6.249 -6	14.07 -9
	(n,t)			(E-thr = 9.539 MeV)	563.5 -12	1.879 -9
	(n,a)	0.0	0.0	925.9 -6	683.6 -6	208.1 -9
	52-Te-129M	total	1603.	1424.		4.976
elastic		3.400	3.400		3.457	4.710
inelastic		0.0	0.0	3.446	138.6 -3	992.2 -3
(n,2n)				(E-thr = 6.138 MeV)	1.378	14.02 -3
(n,3n)				(E-thr = 14.990 MeV)		2.981 -6

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
52-Te-129M	(n,n α)		(E-thr = 3.554 MeV)		2.073 -6	2.769 -9
	(n,np)		(E-thr = 9.646 MeV)		2.373 -9	7.142 -9
	(n,nd)		(E-thr = 13.470 MeV)		0.0	62.96 -12
	capture	1600.	1418.	752.4	1.000 -3	164.5 -3
	(n,p)		(E-thr = 1.607 MeV)		1.324 -3	512.0 -9
	(n,d)		(E-thr = 7.317 MeV)		105.9 -6	38.12 -9
	(n,t)		(E-thr = 7.234 MeV)		3.578 -6	7.086 -9
	(n,a)	0.0	0.0	855.2 -6	733.6 -6	256.2 -9
52-Te-130	total	4.106	4.076		4.976	5.876
	elastic	3.836	3.836		3.455	4.994
	inelastic		(E-thr = 0.846 MeV)		137.8 -3	870.0 -3
	(n,2n)		(E-thr = 8.482 MeV)		1.380	2.160 -3
	(n,3n)		(E-thr = 14.620 MeV)			5.516 -6
	(n,na)		(E-thr = 3.775 MeV)		1.236 -6	1.805 -9
	(n,np)		(E-thr = 10.090 MeV)		18.75 -12	3.659 -9
	capture	270.0 -3	240.1 -3	285.0 -3	1.000 -3	5.517 -3
	(n,p)		(E-thr = 4.218 MeV)		1.316 -3	321.5 -9
	(n,d)		(E-thr = 7.761 MeV)		1.941 -6	11.74 -9
	(n,t)		(E-thr = 9.566 MeV)		517.1 -12	1.803 -9
	(n,a)	0.0	0.0	310.7 -6	164.9 -6	40.65 -9
53-I -127	total	9.740	9.052		4.976	5.881
	elastic	3.540	3.539		3.050	4.352
	inelastic		(E-thr = 0.058 MeV)		117.6 -3	1.455
	(n,2n)		(E-thr = 9.218 MeV)		1.787	1.465 -3
	(n,3n)		(E-thr = 16.420 MeV)			742.3 -9
	(n,na)		(E-thr = 2.202 MeV)		97.57 -6	28.58 -9
	(n,np)		(E-thr = 6.257 MeV)		3.188 -3	607.7 -9
	(n,nd)		(E-thr = 13.120 MeV)		0.0	234.8 -12
	(n,nt)		(E-thr = 13.520 MeV)		0.0	22.84 -12
	capture	6.200	5.513	147.7	1.002 -3	70.62 -3
	(n,p)	0.0	0.0	10.07 -3	14.45 -3	16.64 -6
	(n,d)		(E-thr = 3.928 MeV)		812.2 -6	179.7 -9
	(n,t)		(E-thr = 6.890 MeV)		15.36 -6	15.20 -9
	(n,He-3)		(E-thr = 7.644 MeV)		1.703 -15	3.752 -12
(n,a)	0.0	0.0	1.005 -3	1.279 -3	979.9 -9	
53-I -129	total	33.47	30.42		4.976	5.877
	elastic	6.471	6.461		3.291	4.478
	inelastic		(E-thr = 0.028 MeV)		213.3 -3	1.331
	(n,2n)		(E-thr = 8.916 MeV)		1.464	1.620 -3
	(n,3n)		(E-thr = 15.800 MeV)			1.302 -6
	(n,na)		(E-thr = 2.696 MeV)		29.07 -6	12.45 -9
	(n,np)		(E-thr = 6.860 MeV)		1.294 -3	279.3 -9
	(n,nd)		(E-thr = 13.380 MeV)		0.0	142.6 -12
	(n,nt)		(E-thr = 13.490 MeV)		0.0	19.43 -12
	capture	27.00	23.96	29.40	1.001 -3	62.98 -3
	(n,p)		(E-thr = 0.721 MeV)		3.117 -3	2.077 -6
	(n,d)		(E-thr = 4.531 MeV)		369.9 -6	113.4 -9
	(n,t)		(E-thr = 7.150 MeV)		8.229 -6	14.01 -9
	(n,a)	0.0	0.0	1.438 -3	1.497 -3	719.9 -9
53-I -131	total	83.60	74.84		4.976	5.884
	elastic	3.600	3.600		3.091	4.582
	inelastic		(E-thr = 0.151 MeV)		211.4 -3	1.264
	(n,2n)		(E-thr = 8.697 MeV)		1.670	2.105 -3
	(n,3n)		(E-thr = 15.210 MeV)			2.323 -6
	(n,na)		(E-thr = 3.193 MeV)		6.376 -6	4.801 -9
	(n,np)		(E-thr = 7.454 MeV)		396.4 -6	114.0 -9
	(n,nd)		(E-thr = 13.610 MeV)		0.0	102.9 -12
	(n,nt)		(E-thr = 13.510 MeV)		0.0	27.81 -12
	capture	80.00	70.90	77.81	1.001 -3	31.48 -3
	(n,p)		(E-thr = 1.479 MeV)		1.638 -3	674.0 -9
	(n,d)		(E-thr = 5.126 MeV)		211.9 -6	86.33 -9
	(n,t)		(E-thr = 7.375 MeV)		4.455 -6	13.26 -9
	(n,a)	0.0	0.0	925.6 -6	858.1 -6	301.6 -9
54-Xe-124	total	266.0	247.9		4.976	5.890
	elastic	101.0	100.8		3.332	4.459
	inelastic		(E-thr = 0.357 MeV)		698.3 -3	856.1 -3
	(n,2n)		(E-thr = 10.320 MeV)		882.5 -3	219.2 -6
	(n,3n)		(E-thr = 18.590 MeV)			26.05 -9
	(n,np)		(E-thr = 0.472 MeV)		2.387 -3	816.3 -9
		(E-thr = 6.829 MeV)		9.462 -3	1.392 -6	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)	
54-Xe-124	(n,nd)		(E-thr = 14.470 MeV)			1.269 -12	
	capture	165.0	147.2	2970.	2.741 -3	571.0 -3	
	(n,p)	0.0	0.0	28.54 -3	33.58 -3	412.8 -6	
	(n,d)			(E-thr = 4.500 MeV)	834.6 -6	182.3 -9	
	(n,t)			(E-thr = 8.231 MeV)	3.327 -6	5.849 -9	
	(n,He-3)			(E-thr = 4.034 MeV)	604.9 -12	76.98 -12	
	(n,a)	0.0	0.0	14.57 -3	13.76 -3	619.6 -6	
	(n,2p)			(E-thr = 4.835 MeV)	181.8 -12	99.73 -12	
54-Xe-126	total	11.72	11.25		4.976	5.890	
	elastic	7.453	7.452		3.245	4.594	
	inelastic			(E-thr = 0.392 MeV)	404.1 -3	985.8 -3	
	(n,2n)			(E-thr = 10.210 MeV)	1.299	404.0 -6	
	(n,3n)			(E-thr = 18.010 MeV)		101.3 -9	
	(n,na)			(E-thr = 1.290 MeV)	932.0 -6	274.3 -9	
	(n,np)			(E-thr = 7.676 MeV)	754.9 -6	146.5 -9	
	capture	4.269	3.798	23.38	1.797 -3	307.9 -3	
	(n,p)			(E-thr = 0.472 MeV)	17.21 -3	57.44 -6	
	(n,d)			(E-thr = 5.347 MeV)	244.9 -6	72.11 -9	
	(n,t)			(E-thr = 8.745 MeV)	539.9 -9	4.278 -9	
	(n,He-3)			(E-thr = 5.544 MeV)	9.565 -12	7.605 -12	
	(n,a)	0.0	0.0	6.265 -3	7.359 -3	64.05 -6	
	54-Xe-128	total	19.05	18.17		4.976	5.890
elastic		11.05	11.05		3.292	4.709	
inelastic				(E-thr = 0.446 MeV)	278.4 -3	1.081	
(n,2n)				(E-thr = 9.697 MeV)	1.376	647.5 -6	
(n,3n)				(E-thr = 16.980 MeV)		472.4 -9	
(n,na)				(E-thr = 1.779 MeV)	568.9 -6	149.4 -9	
(n,np)				(E-thr = 8.239 MeV)	187.2 -6	61.46 -9	
capture		8.000	7.116	12.48	1.050 -3	97.01 -3	
(n,p)				(E-thr = 1.355 MeV)	23.29 -3	26.50 -6	
(n,d)				(E-thr = 5.911 MeV)	177.6 -6	58.88 -9	
(n,t)				(E-thr = 8.894 MeV)	202.6 -9	3.387 -9	
(n,a)		0.0	0.0	3.425 -3	4.000 -3	9.928 -6	
54-Xe-129		total	42.04	39.72		4.976	5.882
		elastic	21.04	21.02		3.457	4.254
	inelastic			(E-thr = 0.040 MeV)	239.4 -3	1.580	
	(n,2n)			(E-thr = 6.966 MeV)	1.268	4.721 -3	
	(n,3n)			(E-thr = 16.660 MeV)		458.7 -9	
	(n,na)			(E-thr = 2.117 MeV)	66.07 -6	22.87 -9	
	(n,np)			(E-thr = 8.322 MeV)	93.00 -6	54.42 -9	
	(n,nd)			(E-thr = 12.880 MeV)	0.0	297.3 -12	
	capture	21.00	18.70	255.5	1.000 -3	40.17 -3	
	(n,p)	0.0	0.0	5.389 -3	6.696 -3	8.906 -6	
	(n,d)			(E-thr = 5.994 MeV)	813.8 -6	182.2 -9	
	(n,t)			(E-thr = 6.644 MeV)	18.47 -6	13.90 -9	
	(n,He-3)			(E-thr = 7.325 MeV)	7.366 -15	6.290 -12	
	(n,a)	0.0	0.0	2.564 -3	3.034 -3	10.18 -6	
54-Xe-130	total	40.48	37.61		4.976	5.884	
	elastic	14.48	14.48		3.242	4.763	
	inelastic			(E-thr = 0.540 MeV)	174.8 -3	1.015	
	(n,2n)			(E-thr = 9.332 MeV)	1.547	1.169 -3	
	(n,3n)			(E-thr = 16.300 MeV)		936.0 -9	
	(n,na)			(E-thr = 2.254 MeV)	282.0 -6	81.27 -9	
	(n,np)			(E-thr = 8.737 MeV)	34.72 -6	36.34 -9	
	capture	26.00	23.13	17.80	1.053 -3	100.5 -3	
	(n,p)			(E-thr = 2.219 MeV)	8.258 -3	4.355 -6	
	(n,d)			(E-thr = 6.409 MeV)	80.24 -6	44.56 -9	
	(n,t)			(E-thr = 9.092 MeV)	31.52 -9	3.634 -9	
	(n,a)	0.0	0.0	2.170 -3	2.185 -3	1.827 -6	
	54-Xe-131	total	109.1	99.78		4.976	5.879
		elastic	24.03	24.03		3.458	4.482
inelastic				(E-thr = 0.081 MeV)	128.3 -3	1.345	
(n,2n)				(E-thr = 6.667 MeV)	1.382	9.428 -3	
(n,3n)				(E-thr = 16.000 MeV)		915.2 -9	
(n,na)				(E-thr = 2.578 MeV)	57.04 -6	21.72 -9	
(n,np)				(E-thr = 8.886 MeV)	10.20 -6	31.09 -9	
(n,nd)				(E-thr = 13.080 MeV)	0.0	228.6 -12	
capture		85.03	75.75	900.1	1.000 -3	40.98 -3	
(n,p)				(E-thr = 0.189 MeV)	5.040 -3	4.163 -6	
(n,d)				(E-thr = 6.558 MeV)	452.3 -6	118.8 -9	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
54-Xe-131	(n,t)		(E-thr =	6.843 MeV)	11.30 -6	12.72 -9
	(n,a)	0.0	0.0	1.609 -3	1.703 -3	2.859 -6
54-Xe-132	total	3.600	3.550		4.976	5.888
	elastic	3.150	3.150		3.456	4.902
	inelastic			(E-thr = 0.673 MeV)	171.9 -3	970.6 -3
	(n,2n)			(E-thr = 9.009 MeV)	1.343	1.348 -3
	(n,3n)			(E-thr = 15.680 MeV)		1.656 -6
	(n,na)			(E-thr = 2.736 MeV)	152.2 -6	54.24 -9
	(n,np)			(E-thr = 9.198 MeV)	643.8 -9	21.02 -9
	capture	450.0 -3	400.2 -3	4.509	1.001 -3	13.34 -3
	(n,p)			(E-thr = 2.819 MeV)	2.523 -3	939.1 -9
	(n,d)			(E-thr = 6.871 MeV)	46.26 -6	36.01 -9
	(n,t)			(E-thr = 9.334 MeV)	5.982 -9	3.226 -9
	(n,a)	0.0	0.0	1.443 -3	1.216 -3	574.9 -9
	54-Xe-133	total	193.6	172.5		4.976
elastic		3.600	3.600		3.461	4.590
inelastic				(E-thr = 0.235 MeV)	125.0 -3	1.265
(n,2n)				(E-thr = 6.501 MeV)	1.386	11.00 -3
(n,3n)				(E-thr = 15.510 MeV)		1.364 -6
(n,na)				(E-thr = 3.100 MeV)	33.87 -6	16.76 -9
(n,np)				(E-thr = 9.320 MeV)	193.6 -9	25.81 -9
(n,nd)				(E-thr = 13.370 MeV)	0.0	159.1 -12
capture		190.0	168.4	90.06	1.000 -3	13.92 -3
(n,p)				(E-thr = 0.985 MeV)	1.945 -3	1.076 -6
(n,d)				(E-thr = 6.992 MeV)	286.6 -6	93.74 -9
(n,t)				(E-thr = 7.139 MeV)	9.202 -6	13.17 -9
(n,a)		0.0	0.0	1.062 -3	973.9 -6	492.8 -9
54-Xe-134	total	3.985	3.956		4.976	5.885
	elastic	3.720	3.720		3.456	5.017
	inelastic			(E-thr = 0.853 MeV)	142.3 -3	854.6 -3
	(n,2n)			(E-thr = 8.603 MeV)	1.375	1.907 -3
	(n,3n)			(E-thr = 15.100 MeV)		2.720 -6
	(n,na)			(E-thr = 3.223 MeV)	41.92 -6	21.60 -9
	(n,np)			(E-thr = 9.588 MeV)	11.02 -9	13.57 -9
	capture	265.0 -3	235.8 -3	617.1 -3	1.001 -3	9.466 -3
	(n,p)			(E-thr = 3.398 MeV)	1.518 -3	449.9 -9
	(n,d)			(E-thr = 7.261 MeV)	42.21 -6	35.71 -9
	(n,t)			(E-thr = 9.363 MeV)	3.013 -9	3.151 -9
	(n,a)	0.0	0.0	1.006 -3	657.6 -6	208.1 -9
	54-Xe-135	total	2943.	3117.		4.976
elastic		2955.	3822.		3.457	4.873
inelastic				(E-thr = 0.291 MeV)	131.7 -3	988.8 -3
(n,2n)				(E-thr = 6.505 MeV)	1.384	10.63 -3
(n,3n)				(E-thr = 15.110 MeV)		2.107 -6
(n,na)				(E-thr = 3.755 MeV)	6.775 -6	6.050 -9
(n,np)				(E-thr = 9.903 MeV)	437.7 -12	7.597 -9
(n,nd)				(E-thr = 13.770 MeV)	0.0	46.13 -12
capture		2648.	2735.	7614.	1.000 -3	10.47 -3
(n,p)				(E-thr = 1.942 MeV)	1.028 -3	362.9 -9
(n,d)				(E-thr = 7.576 MeV)	103.3 -6	52.87 -9
(n,t)				(E-thr = 7.534 MeV)	8.034 -6	13.02 -9
(n,a)		0.0	0.0	1.622 -3	1.227 -3	382.7 -9
54-Xe-136	total	6.348	6.319		4.976	5.770
	elastic	6.088	6.088		3.102	5.071
	inelastic			(E-thr = 1.323 MeV)	160.0 -3	693.8 -3
	(n,2n)			(E-thr = 8.054 MeV)	1.713	3.896 -3
	(n,3n)			(E-thr = 14.560 MeV)		4.472 -6
	(n,na)			(E-thr = 3.661 MeV)	3.353 -6	3.776 -9
	(n,np)			(E-thr = 9.996 MeV)	84.59 -12	4.201 -9
	capture	260.0 -3	231.2 -3	141.5 -3	1.000 -3	537.2 -6
	(n,p)			(E-thr = 6.259 MeV)	157.0 -6	36.93 -9
	(n,d)			(E-thr = 7.669 MeV)	8.870 -6	21.70 -9
	(n,t)			(E-thr = 9.399 MeV)	3.544 -9	4.225 -9
	(n,a)	0.0	0.0	667.0 -6	341.0 -6	85.47 -9
	55-Cs-133	total	33.30	30.14		4.914
elastic		4.294	4.290		2.913	4.323
inelastic				(E-thr = 0.082 MeV)	403.9 -3	1.587
(n,2n)				(E-thr = 9.058 MeV)	1.582	1.339 -3
(n,3n)				(E-thr = 16.300 MeV)		915.6 -9

Nuclide	Reaction	2200-m/s (barns)	Max.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)	
55-Cs-133	(n,na)		(E-thr = 2.021 MeV)		73.31 -6	26.15 -9	
	(n,np)		(E-thr = 6.143 MeV)		1.595 -3	328.0 -9	
	(n,nd)		(E-thr = 12.820 MeV)		0.0	443.5 -12	
	(n,nt)		(E-thr = 13.260 MeV)		0.0	42.07 -12	
	capture	29.00	25.85	396.4	1.001 -3	51.84 -3	
	(n,p)	0.0	0.0	6.498 -3	9.409 -3	11.11 -6	
	(n,d)		(E-thr = 3.815 MeV)		1.032 -3	233.8 -9	
	(n,t)		(E-thr = 6.592 MeV)		25.51 -6	20.68 -9	
	(n,He-3)		(E-thr = 7.551 MeV)		2.719 -15	3.907 -12	
	(n,a)	0.0	0.0	1.135 -3	1.329 -3	890.6 -9	
	55-Cs-134	total	162.3	146.6		4.921	5.991
		elastic	22.64	22.59		2.921	3.977
inelastic			(E-thr = 0.011 MeV)		301.9 -3	1.941	
(n,2n)			(E-thr = 6.948 MeV)		1.689	8.007 -3	
(n,3n)			(E-thr = 16.010 MeV)			843.4 -9	
(n,na)			(E-thr = 2.452 MeV)		56.63 -6	24.84 -9	
(n,np)			(E-thr = 6.590 MeV)		1.272 -3	272.6 -9	
(n,nd)			(E-thr = 10.760 MeV)		160.8 -15	11.72 -9	
(n,nt)			(E-thr = 13.540 MeV)		0.0	32.14 -12	
capture		139.7	124.0	105.6	1.001 -3	64.57 -3	
(n,p)		0.0	0.0	2.371 -3	3.399 -3	5.915 -6	
(n,d)			(E-thr = 4.262 MeV)		2.596 -3	535.4 -9	
(n,t)			(E-thr = 4.531 MeV)		203.2 -6	64.47 -9	
(n,He-3)			(E-thr = 8.120 MeV)		51.68 -15	10.47 -12	
(n,a)	0.0	0.0	1.287 -3	1.541 -3	1.639 -6		
55-Cs-135	total	13.55	12.58		4.951	6.017	
	elastic	4.850	4.849		2.933	4.684	
	inelastic		(E-thr = 0.252 MeV)		328.5 -3	1.301	
	(n,2n)		(E-thr = 8.898 MeV)		1.683	1.764 -3	
	(n,3n)		(E-thr = 15.850 MeV)			1.344 -6	
	(n,na)		(E-thr = 2.656 MeV)		105.5 -6	38.90 -9	
	(n,np)		(E-thr = 6.885 MeV)		1.646 -3	342.3 -9	
	(n,nd)		(E-thr = 13.160 MeV)		0.0	306.3 -12	
	(n,nt)		(E-thr = 13.430 MeV)		0.0	40.45 -12	
	capture	8.702	7.735	62.54	1.003 -3	27.60 -3	
	(n,p)		(E-thr = 0.379 MeV)		2.454 -3	1.685 -6	
	(n,d)		(E-thr = 4.557 MeV)		762.7 -6	193.3 -9	
	(n,t)		(E-thr = 6.929 MeV)		15.93 -6	19.31 -9	
	(n,a)	0.0	0.0	1.056 -3	1.136 -3	536.2 -9	
55-Cs-136	total	16.50	15.07		4.971	6.043	
	elastic	3.500	3.500		2.940	4.525	
	inelastic		(E-thr = 0.050 MeV)		252.6 -3	1.486	
	(n,2n)		(E-thr = 6.819 MeV)		1.772	9.197 -3	
	(n,3n)		(E-thr = 15.720 MeV)			1.281 -6	
	(n,na)		(E-thr = 3.097 MeV)		48.08 -6	22.77 -9	
	(n,np)		(E-thr = 7.199 MeV)		601.0 -6	152.4 -9	
	(n,nd)		(E-thr = 11.380 MeV)		367.8 -18	5.580 -9	
	(n,nt)		(E-thr = 13.750 MeV)		0.0	18.17 -12	
	capture	13.00	11.52	57.38	1.000 -3	19.08 -3	
	(n,p)	0.0	0.0	1.334 -3	1.825 -3	1.457 -6	
	(n,d)		(E-thr = 4.871 MeV)		1.462 -3	326.1 -9	
	(n,t)		(E-thr = 5.145 MeV)		126.9 -6	46.98 -9	
	(n,a)	0.0	0.0	809.0 -6	900.4 -6	513.9 -9	
55-Cs-137	total	3.782	3.770		4.990	6.075	
	elastic	3.672	3.672		2.937	5.125	
	inelastic		(E-thr = 0.459 MeV)		327.5 -3	939.1 -3	
	(n,2n)		(E-thr = 8.339 MeV)		1.722	2.724 -3	
	(n,3n)		(E-thr = 15.160 MeV)			2.817 -6	
	(n,na)		(E-thr = 3.103 MeV)		25.37 -6	14.46 -9	
	(n,np)		(E-thr = 7.483 MeV)		191.8 -6	63.38 -9	
	(n,nd)		(E-thr = 13.210 MeV)		0.0	277.7 -12	
	(n,nt)		(E-thr = 13.480 MeV)		0.0	40.73 -12	
	capture	109.9 -3	97.80 -3	680.1 -3	1.001 -3	4.987 -3	
	(n,p)		(E-thr = 3.589 MeV)		1.175 -3	240.1 -9	
	(n,d)		(E-thr = 5.156 MeV)		310.1 -6	113.6 -9	
	(n,t)		(E-thr = 6.980 MeV)		15.00 -6	21.68 -9	
	(n,a)	0.0	0.0	720.1 -6	663.4 -6	218.4 -9	
56-Ba-130	total	14.42	13.17		5.079	6.263	
	elastic	3.126	3.124		2.678	4.644	
	inelastic		(E-thr = 0.360 MeV)		1.034	1.084	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)	
56-Ba-130	(n,2n)		(E-thr = 10.340 MeV)		1.301	348.7 -6	
	(n,3n)		(E-thr = 18.110 MeV)			66.97 -9	
	(n,na)		(E-thr = 0.567 MeV)		8.754 -3	2.812 -6	
	(n,np)		(E-thr = 7.088 MeV)		5.775 -3	877.8 -9	
	(n,nd)		(E-thr = 14.540 MeV)			761.1 -15	
	capture	11.29	10.04	177.4	16.40 -3	528.2 -3	
	(n,p)	0.0	0.0	19.18 -3	24.34 -3	221.8 -6	
	(n,d)		(E-thr = 4.760 MeV)		990.3 -6	218.1 -9	
	(n,t)		(E-thr = 8.306 MeV)		2.937 -6	6.750 -9	
	(n,He-3)		(E-thr = 4.331 MeV)		444.3 -12	74.76 -12	
	(n,a)	0.0	0.0	7.423 -3	9.691 -3	126.5 -6	
	(n,2p)		(E-thr = 5.156 MeV)		13.84 -12	57.22 -12	
	56-Ba-132	total	10.30	9.545		5.078	6.260
		elastic	3.300	3.300		2.745	4.867
inelastic			(E-thr = 0.468 MeV)		767.3 -3	1.111	
(n,2n)			(E-thr = 9.878 MeV)		1.542	601.5 -6	
(n,3n)			(E-thr = 17.430 MeV)			246.1 -9	
(n,na)			(E-thr = 1.021 MeV)		2.140 -3	576.5 -9	
(n,np)			(E-thr = 7.739 MeV)		759.2 -6	160.8 -9	
capture		7.000	6.204	31.29	3.813 -3	274.1 -3	
(n,p)			(E-thr = 0.499 MeV)		12.75 -3	32.13 -6	
(n,d)			(E-thr = 5.412 MeV)		375.3 -6	104.5 -9	
(n,t)			(E-thr = 8.529 MeV)		1.370 -6	5.586 -9	
(n,He-3)			(E-thr = 5.469 MeV)		12.81 -12	10.82 -12	
(n,a)		0.0	0.0	3.458 -3	4.415 -3	32.99 -6	
56-Ba-134		total	5.428	5.206		5.078	6.272
	elastic	3.426	3.426		2.775	5.066	
	inelastic		(E-thr = 0.609 MeV)		747.7 -3	1.065	
	(n,2n)		(E-thr = 9.546 MeV)		1.543	741.2 -6	
	(n,3n)		(E-thr = 16.790 MeV)			627.8 -9	
	(n,na)		(E-thr = 1.520 MeV)		410.9 -6	109.9 -9	
	(n,np)		(E-thr = 8.234 MeV)		184.5 -6	64.71 -9	
	capture	2.002	1.780	24.79	1.506 -3	138.2 -3	
	(n,p)		(E-thr = 1.286 MeV)		6.837 -3	8.305 -6	
	(n,d)		(E-thr = 5.907 MeV)		253.0 -6	84.65 -9	
	(n,t)		(E-thr = 8.733 MeV)		517.9 -9	4.517 -9	
	(n,a)	0.0	0.0	2.452 -3	2.904 -3	8.150 -6	
	56-Ba-135	total	7.667	7.020		5.078	6.264
		elastic	1.827	1.827		2.909	4.970
inelastic			(E-thr = 0.223 MeV)		548.4 -3	1.187	
(n,2n)			(E-thr = 7.030 MeV)		1.611	4.928 -3	
(n,3n)			(E-thr = 16.580 MeV)			545.1 -9	
(n,na)			(E-thr = 1.885 MeV)		71.94 -6	23.92 -9	
(n,np)			(E-thr = 8.316 MeV)		62.71 -6	39.24 -9	
(n,nd)			(E-thr = 12.940 MeV)		0.0	265.3 -12	
capture		5.839	5.194	131.1	1.002 -3	95.86 -3	
(n,p)		0.0	0.0	3.965 -3	5.180 -3	7.751 -6	
(n,d)			(E-thr = 5.989 MeV)		963.2 -6	214.8 -9	
(n,t)			(E-thr = 6.705 MeV)		20.57 -6	17.99 -9	
(n,He-3)			(E-thr = 7.117 MeV)		21.80 -15	6.181 -12	
(n,a)		0.0	0.0	1.876 -3	2.236 -3	9.317 -6	
56-Ba-136	total	2.964	2.920		5.078	6.273	
	elastic	2.564	2.564		2.840	5.300	
	inelastic		(E-thr = 0.825 MeV)		590.2 -3	929.6 -3	
	(n,2n)		(E-thr = 9.180 MeV)		1.640	1.120 -3	
	(n,3n)		(E-thr = 16.210 MeV)			1.092 -6	
	(n,na)		(E-thr = 2.057 MeV)		106.4 -6	31.45 -9	
	(n,np)		(E-thr = 8.598 MeV)		41.39 -6	34.21 -9	
	capture	400.1 -3	355.9 -3	2.058	1.016 -3	36.77 -3	
	(n,p)		(E-thr = 1.779 MeV)		5.062 -3	2.843 -6	
	(n,d)		(E-thr = 6.271 MeV)		222.9 -6	73.74 -9	
	(n,t)		(E-thr = 8.937 MeV)		214.6 -9	4.973 -9	
	(n,a)	0.0	0.0	1.585 -3	1.637 -3	1.399 -6	
	56-Ba-137	total	8.984	8.415		5.078	6.267
		elastic	3.862	3.860		2.909	5.386
inelastic			(E-thr = 0.281 MeV)		462.1 -3	855.9 -3	
(n,2n)			(E-thr = 6.954 MeV)		1.701	7.103 -3	
(n,3n)			(E-thr = 16.130 MeV)			720.0 -9	
(n,na)			(E-thr = 2.511 MeV)		25.31 -6	12.63 -9	
(n,np)			(E-thr = 8.733 MeV)		21.63 -6	34.90 -9	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
56-Ba-137	(n,nd)		(E-thr = 13.220 MeV)		0.0	199.8 -12
	capture	5.123	4.554	4.831	1.000 -3	14.73 -3
	(n,p)		(E-thr = 0.393 MeV)		2.828 -3	1.926 -6
	(n,d)		(E-thr = 6.405 MeV)		719.2 -6	178.7 -9
	(n,t)		(E-thr = 6.994 MeV)		26.12 -6	19.10 -9
	(n,a)	0.0	0.0	1.188 -3	1.309 -3	1.535 -6
56-Ba-138	total	5.801	5.761		5.078	6.259
	elastic	5.442	5.442		2.889	5.589
	inelastic		(E-thr = 1.446 MeV)		452.6 -3	663.2 -3
	(n,2n)		(E-thr = 8.679 MeV)		1.731	1.762 -3
	(n,3n)		(E-thr = 15.630 MeV)			2.356 -6
	(n,na)		(E-thr = 2.589 MeV)		132.0 -6	41.84 -9
	(n,np)		(E-thr = 9.073 MeV)		969.1 -9	9.944 -9
	capture	359.1 -3	319.4 -3	188.0 -3	1.559 -3	3.376 -3
	(n,p)		(E-thr = 4.755 MeV)		1.981 -3	412.7 -9
	(n,d)		(E-thr = 6.745 MeV)		57.63 -6	31.96 -9
	(n,t)		(E-thr = 8.854 MeV)		240.3 -9	3.652 -9
	(n,a)	0.0	0.0	1.570 -3	1.679 -3	976.0 -9
	56-Ba-140	total	4.900	4.734		5.078
elastic		3.300	3.300		2.910	5.280
inelastic			(E-thr = 0.607 MeV)		115.7 -3	958.5 -3
(n,2n)			(E-thr = 6.483 MeV)		1.175	13.32 -3
(n,3n)			(E-thr = 11.240 MeV)		873.7 -3	129.0 -6
(n,na)		0.0	0.0	2.430 -3	1.313 -3	516.8 -9
(n,np)			(E-thr = 10.020 MeV)		118.5 -12	5.430 -9
(n,nd)			(E-thr = 13.670 MeV)		0.0	102.1 -12
(n,nt)			(E-thr = 11.760 MeV)		4.336 -18	956.9 -12
capture		1.600	1.418	727.6 -3	1.000 -3	784.0 -6
(n,p)			(E-thr = 5.300 MeV)		913.3 -6	196.3 -9
(n,d)			(E-thr = 7.694 MeV)		15.08 -6	34.72 -9
(n,t)			(E-thr = 7.443 MeV)		63.02 -6	34.43 -9
(n,a)	0.0	0.0	436.9 -6	666.9 -6	585.2 -9	
57-La-138	total	70.06	63.81		5.055	6.192
	elastic	12.98	12.95		2.914	4.860
	inelastic		(E-thr = 0.073 MeV)		319.4 -3	1.290
	(n,2n)		(E-thr = 7.525 MeV)		1.810	4.289 -3
	(n,3n)		(E-thr = 16.760 MeV)			344.4 -9
	(n,na)		(E-thr = 2.052 MeV)		105.8 -6	33.33 -9
	(n,np)		(E-thr = 6.129 MeV)		1.939 -3	397.2 -9
	(n,nd)		(E-thr = 10.760 MeV)		136.3 -15	10.89 -9
	(n,nt)		(E-thr = 13.700 MeV)		0.0	10.61 -12
	capture	57.08	50.85	364.7	1.001 -3	33.46 -3
	(n,p)	0.0	0.0	3.291 -3	4.708 -3	21.86 -6
	(n,d)		(E-thr = 3.802 MeV)		2.569 -3	537.0 -9
	(n,t)		(E-thr = 4.525 MeV)		148.9 -6	53.77 -9
(n,He-3)		(E-thr = 7.073 MeV)		12.05 -12	31.55 -12	
(n,a)	0.0	0.0	1.565 -3	2.003 -3	4.341 -6	
57-La-139	total	19.42	18.43		5.067	6.228
	elastic	10.49	10.49		2.907	5.242
	inelastic		(E-thr = 0.167 MeV)		349.0 -3	973.8 -3
	(n,2n)		(E-thr = 8.847 MeV)		1.800	1.591 -3
	(n,3n)		(E-thr = 16.370 MeV)			669.2 -9
	(n,na)		(E-thr = 2.002 MeV)		146.9 -6	44.49 -9
	(n,np)		(E-thr = 6.297 MeV)		2.434 -3	561.6 -9
	(n,nd)		(E-thr = 12.650 MeV)		0.0	518.5 -12
	(n,nt)		(E-thr = 13.370 MeV)		0.0	30.12 -12
	capture	8.927	7.937	11.61	1.002 -3	6.972 -3
	(n,p)		(E-thr = 1.535 MeV)		4.196 -3	1.381 -6
	(n,d)		(E-thr = 3.970 MeV)		632.8 -6	168.5 -9
	(n,t)		(E-thr = 6.419 MeV)		12.58 -6	17.98 -9
(n,He-3)		(E-thr = 7.581 MeV)		7.524 -15	3.631 -12	
(n,a)	0.0	0.0	1.715 -3	2.116 -3	1.653 -6	
58-Ce-140	total	3.384	3.321		5.078	6.281
	elastic	2.817	2.817		2.818	5.650
	inelastic		(E-thr = 1.608 MeV)		414.4 -3	623.3 -3
	(n,2n)		(E-thr = 9.257 MeV)		1.833	1.104 -3
	(n,3n)		(E-thr = 16.790 MeV)			485.3 -9
	(n,na)		(E-thr = 1.608 MeV)		476.1 -6	128.7 -9
	(n,np)		(E-thr = 8.202 MeV)		139.7 -6	62.59 -9
	(n,nd)		(E-thr = 14.720 MeV)			651.9 -15

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
58-Ce-140	capture	567.3 -3	504.6 -3	277.2 -3	1.004 -3	6.031 -3
	(n,p)		(E-thr = 3.000 MeV)		5.999 -3	1.880 -6
	(n,d)		(E-thr = 5.876 MeV)		292.3 -6	91.98 -9
	(n,t)		(E-thr = 8.492 MeV)		1.383 -6	6.217 -9
	(n,a)	0.0	0.0	3.308 -3	3.815 -3	3.681 -6
58-Ce-141	total	31.47	28.28		5.088	6.308
	elastic	2.349	2.344		2.917	5.424
	inelastic		(E-thr = 0.667 MeV)		141.6 -3	776.6 -3
	(n,2n)		(E-thr = 5.472 MeV)		2.022	29.10 -3
	(n,3n)		(E-thr = 14.730 MeV)			3.734 -6
	(n,na)		(E-thr = 0.128 MeV)		279.0 -6	84.25 -9
	(n,np)		(E-thr = 8.472 MeV)		53.13 -6	52.78 -9
	(n,nd)		(E-thr = 11.350 MeV)		361.2 -18	3.490 -9
	(n,nt)		(E-thr = 13.960 MeV)		0.0	3.460 -12
	capture	29.12	25.94	503.1	1.001 -3	72.89 -3
	(n,p)		(E-thr = 1.659 MeV)		3.650 -3	1.242 -6
	(n,d)		(E-thr = 6.145 MeV)		779.3 -6	186.1 -9
	(n,t)		(E-thr = 5.118 MeV)		345.3 -6	83.42 -9
	(n,a)	0.0	0.0	1.435 -3	1.762 -3	60.51 -6
58-Ce-142	total	1.618	1.508		5.098	6.369
	elastic	614.5 -3	614.4 -3		2.808	5.280
	inelastic		(E-thr = 0.646 MeV)		231.8 -3	1.072
	(n,2n)		(E-thr = 7.224 MeV)		1.990	7.373 -3
	(n,3n)		(E-thr = 12.700 MeV)		54.17 -3	13.98 -6
	(n,na)	0.0	0.0	10.20 -3	6.125 -3	4.338 -6
	(n,np)		(E-thr = 8.883 MeV)		8.297 -6	32.39 -9
	(n,nd)		(E-thr = 13.370 MeV)		0.0	114.7 -12
	(n,nt)		(E-thr = 12.340 MeV)		10.27 -21	180.3 -12
	capture	1.004	893.1 -3	940.9 -3	1.004 -3	8.245 -3
	(n,p)		(E-thr = 3.761 MeV)		3.569 -3	842.0 -9
	(n,d)		(E-thr = 6.557 MeV)		141.6 -6	69.75 -9
	(n,t)		(E-thr = 7.140 MeV)		49.42 -6	24.71 -9
	(n,a)	0.0	0.0	1.911 -3	2.700 -3	6.899 -6
58-Ce-144	total	3.780	3.679		5.115	6.421
	elastic	2.780	2.780		2.918	5.269
	inelastic		(E-thr = 0.400 MeV)		93.03 -3	1.128
	(n,2n)		(E-thr = 6.945 MeV)		1.662	10.38 -3
	(n,3n)		(E-thr = 12.130 MeV)		439.7 -3	65.04 -6
	(n,na)	0.0	0.0	671.0 -6	248.4 -6	94.19 -9
	(n,np)		(E-thr = 9.481 MeV)		10.28 -9	5.951 -9
	(n,nd)		(E-thr = 13.570 MeV)		0.0	56.76 -12
	(n,nt)		(E-thr = 12.460 MeV)		0.0	181.3 -12
	capture	1.000	886.2 -3	2.546	1.007 -3	6.255 -3
	(n,p)		(E-thr = 4.752 MeV)		1.339 -3	288.3 -9
	(n,d)		(E-thr = 7.154 MeV)		22.27 -6	28.84 -9
	(n,t)		(E-thr = 7.339 MeV)		40.72 -6	26.36 -9
	(n,a)	0.0	0.0	586.3 -6	760.9 -6	1.624 -6
59-Pr-141	total	16.22	14.73		4.890	6.191
	elastic	2.868	2.865		2.953	4.797
	inelastic		(E-thr = 0.146 MeV)		196.0 -3	1.373
	(n,2n)		(E-thr = 9.468 MeV)		1.720	1.054 -3
	(n,3n)		(E-thr = 17.440 MeV)			168.1 -9
	(n,na)		(E-thr = 1.319 MeV)		457.5 -6	123.9 -9
	(n,np)		(E-thr = 5.268 MeV)		5.756 -3	1.299 -6
	(n,nd)		(E-thr = 12.200 MeV)		131.3 -21	791.6 -12
	(n,nt)		(E-thr = 13.500 MeV)		0.0	8.237 -12
	capture	13.35	11.86	18.97	1.002 -3	18.39 -3
	(n,p)	0.0	0.0	5.575 -3	8.766 -3	9.118 -6
	(n,d)		(E-thr = 2.941 MeV)		2.074 -3	433.9 -9
	(n,t)		(E-thr = 5.969 MeV)		34.46 -6	18.11 -9
	(n,He-3)		(E-thr = 5.683 MeV)		109.3 -12	32.09 -12
(n,a)	0.0	0.0	1.903 -3	2.673 -3	6.337 -6	
59-Pr-143	total	92.90	82.86		4.787	6.248
	elastic	2.900	2.900		2.960	4.707
	inelastic		(E-thr = 0.058 MeV)		165.6 -3	1.517
	(n,2n)		(E-thr = 7.403 MeV)		1.626	6.327 -3
	(n,3n)		(E-thr = 13.290 MeV)		19.77 -3	15.62 -6
	(n,na)	0.0	0.0	4.915 -3	4.288 -3	9.751 -6
	(n,np)		(E-thr = 5.865 MeV)		2.054 -3	434.9 -9
(n,nd)		(E-thr = 10.760 MeV)		127.9 -15	6.703 -9	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
59-Pr-143	(n,nt)		(E-thr = 10.000 MeV)		48.83 -12	6.126 -9
	capture	90.00	79.76	185.4	1.000 -3	14.39 -3
	(n,p)		(E-thr = 0.677 MeV)		4.663 -3	2.508 -6
	(n,d)		(E-thr = 3.538 MeV)		1.494 -3	311.9 -9
	(n,t)		(E-thr = 4.533 MeV)		541.8 -6	118.8 -9
	(n,He-3)		(E-thr = 6.962 MeV)		199.9 -15	8.109 -12
	(n,a)	0.0	0.0	1.438 -3	2.135 -3	14.45 -6
60-Nd-142	total	24.34	22.25		4.781	6.376
	elastic	5.412	5.411		2.842	5.567
	inelastic		(E-thr = 1.587 MeV)		356.9 -3	753.7 -3
	(n,2n)		(E-thr = 9.892 MeV)		1.556	755.8 -6
	(n,3n)		(E-thr = 18.010 MeV)			87.18 -9
	(n,na)		(E-thr = 0.812 MeV)		-1.079 -3	342.2 -9
	(n,np)		(E-thr = 7.276 MeV)		3.479 -3	629.0 -9
	(n,nd)		(E-thr = 14.420 MeV)			2.571 -12
	capture	18.92	16.83	8.783	2.525 -3	55.06 -3
	(n,p)		(E-thr = 1.386 MeV)		12.90 -3	13.55 -6
	(n,d)		(E-thr = 4.949 MeV)		570.2 -6	132.1 -9
	(n,t)		(E-thr = 8.188 MeV)		1.792 -6	4.366 -9
	(n,He-3)		(E-thr = 4.757 MeV)		162.9 -12	14.70 -12
	(n,a)	0.0	0.0	4.211 -3	6.223 -3	33.33 -6
60-Nd-143	total	408.2	369.9		4.778	6.434
	elastic	78.29	77.64		2.969	5.387
	inelastic		(E-thr = 0.747 MeV)		155.3 -3	963.0 -3
	(n,2n)		(E-thr = 6.170 MeV)		1.638	16.15 -3
	(n,3n)		(E-thr = 16.060 MeV)			1.071 -6
	(n,na)	5.545 -24	11.09 -24	986.1 -6	450.3 -6	149.4 -9
	(n,np)		(E-thr = 7.557 MeV)		132.2 -6	44.88 -9
	(n,nd)		(E-thr = 11.120 MeV)		1.933 -15	2.519 -9
	capture	329.9	292.3	130.2	1.000 -3	67.42 -3
	(n,p)		(E-thr = 0.154 MeV)		9.483 -3	6.344 -6
	(n,d)		(E-thr = 5.230 MeV)		1.119 -3	232.4 -9
	(n,t)		(E-thr = 4.891 MeV)		213.3 -6	49.79 -9
	(n,He-3)		(E-thr = 5.456 MeV)		30.67 -12	20.83 -12
	(n,a)	17.38 -3	15.40 -3	11.39 -3	3.708 -3	596.4 -6
60-Nd-144	total	4.805	4.384		4.931	6.716
	elastic	1.001	1.002		2.501	5.357
	inelastic		(E-thr = 0.701 MeV)		777.0 -3	1.327
	(n,2n)		(E-thr = 7.877 MeV)		1.632	3.683 -3
	(n,3n)		(E-thr = 14.050 MeV)			7.084 -6
	(n,na)	0.0	0.0	5.646 -3	3.845 -3	8.377 -6
	(n,np)		(E-thr = 8.031 MeV)		111.9 -6	63.44 -9
	(n,nd)		(E-thr = 13.110 MeV)		0.0	255.8 -12
	(n,nt)		(E-thr = 12.770 MeV)		0.0	142.9 -12
	capture	3.804	3.383	4.311	1.028 -3	27.68 -3
	(n,p)		(E-thr = 2.229 MeV)		9.914 -3	3.873 -6
	(n,d)		(E-thr = 5.704 MeV)		836.2 -6	235.3 -9
	(n,t)		(E-thr = 6.878 MeV)		172.1 -6	72.80 -9
	(n,He-3)		(E-thr = 6.109 MeV)		82.30 -15	6.680 -12
(n,a)	0.0	0.0	3.182 -3	5.038 -3	14.81 -6	
60-Nd-145	total	61.22	56.35		4.931	6.713
	elastic	17.39	17.36		2.645	4.865
	inelastic		(E-thr = 0.068 MeV)		159.2 -3	1.746
	(n,2n)		(E-thr = 5.800 MeV)		2.114	29.06 -3
	(n,3n)		(E-thr = 13.680 MeV)		3.017 -3	16.57 -6
	(n,na)	0.0	0.0	1.229 -3	663.2 -6	294.5 -9
	(n,np)		(E-thr = 8.029 MeV)		56.73 -6	35.22 -9
	(n,nd)		(E-thr = 11.500 MeV)		39.11 -18	1.269 -9
	(n,nt)		(E-thr = 12.680 MeV)		0.0	52.52 -12
	capture	43.84	38.99	204.0	1.000 -3	72.99 -3
	(n,p)		(E-thr = 1.030 MeV)		6.131 -3	2.474 -6
	(n,d)		(E-thr = 5.703 MeV)		581.2 -6	132.4 -9
	(n,t)		(E-thr = 5.276 MeV)		145.5 -6	38.31 -9
	(n,a)	88.55 -6	78.75 -6	2.029 -3	2.275 -3	30.84 -6
60-Nd-146	total	10.89	10.74		4.931	6.713
	elastic	9.496	9.495		2.474	5.102
	inelastic		(E-thr = 0.457 MeV)		752.6 -3	1.569
	(n,2n)		(E-thr = 7.621 MeV)		1.682	5.233 -3
	(n,3n)		(E-thr = 13.420 MeV)		13.38 -3	12.25 -6
	(n,na)	0.0	0.0	2.799 -3	1.144 -3	496.4 -9

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
60-Nd-146	(n,np)		(E-thr = 8.651 MeV)		23.81 -6	46.63 -9
	(n,nd)		(E-thr = 13.320 MeV)		0.0	174.0 -12
	(n,nt)		(E-thr = 12.900 MeV)		0.0	87.69 -12
	capture	1.399	1.244	2.911	1.206 -3	35.59 -3
	(n,p)		(E-thr = 3.323 MeV)		3.469 -3	936.6 -9
	(n,d)		(E-thr = 6.325 MeV)		335.4 -6	162.4 -9
	(n,t)		(E-thr = 7.096 MeV)		94.41 -6	48.51 -9
	(n,α)	0.0	0.0	1.801 -3	2.747 -3	2.541 -6
60-Nd-147	total	510.3	460.3		4.931	6.709
	elastic	79.28	78.64		2.645	4.513
	inelastic			(E-thr = 0.050 MeV)	140.8 -3	2.047
	(n,2n)			(E-thr = 5.333 MeV)	2.001	45.31 -3
	(n,3n)			(E-thr = 12.950 MeV)	138.8 -3	36.37 -6
	(n,na)	0.0	0.0	519.1 -6	185.5 -6	59.87 -9
	(n,np)			(E-thr = 8.657 MeV)	7.524 -6	14.81 -9
	(n,nd)			(E-thr = 11.660 MeV)	8.070 -18	1.107 -9
	(n,nt)			(E-thr = 12.430 MeV)	0.0	82.52 -12
	capture	431.0	381.6	631.1	1.001 -3	101.9 -3
	(n,p)			(E-thr = 1.935 MeV)	2.772 -3	791.3 -9
	(n,d)			(E-thr = 6.331 MeV)	320.3 -6	90.18 -9
	(n,t)			(E-thr = 5.430 MeV)	102.7 -6	33.28 -9
(n,α)	0.0	0.0	928.8 -6	1.364 -3	2.909 -6	
60-Nd-148	total	6.997	6.721		4.931	6.714
	elastic	4.505	4.504		2.400	4.876
	inelastic			(E-thr = 0.304 MeV)	798.7 -3	1.803
	(n,2n)			(E-thr = 7.389 MeV)	1.578	6.539 -3
	(n,3n)			(E-thr = 12.720 MeV)	147.7 -3	25.72 -6
	(n,na)	0.0	0.0	1.520 -3	383.8 -6	111.1 -9
	(n,np)			(E-thr = 9.324 MeV)	49.65 -9	10.86 -9
	(n,nd)			(E-thr = 13.720 MeV)	0.0	68.00 -12
	(n,nt)			(E-thr = 12.820 MeV)	0.0	116.6 -12
	capture	2.493	2.217	14.74	1.027 -3	27.17 -3
	(n,p)			(E-thr = 4.143 MeV)	1.981 -3	455.9 -9
	(n,d)			(E-thr = 6.998 MeV)	57.24 -6	71.12 -9
	(n,t)			(E-thr = 7.492 MeV)	52.39 -6	43.91 -9
(n,α)	0.0	0.0	1.499 -3	1.995 -3	854.1 -9	
60-Nd-150	total	5.981	5.847		4.927	6.743
	elastic	4.780	4.779		2.192	4.586
	inelastic			(E-thr = 0.131 MeV)	726.0 -3	2.124
	(n,2n)			(E-thr = 7.434 MeV)	1.800	5.533 -3
	(n,3n)			(E-thr = 12.510 MeV)	204.3 -3	29.83 -6
	(n,na)			(E-thr = 0.346 MeV)	129.9 -6	49.70 -9
	(n,np)			(E-thr = 9.670 MeV)	2.939 -9	11.35 -9
	(n,nd)			(E-thr = 14.330 MeV)		2.569 -12
	(n,nt)			(E-thr = 13.280 MeV)	0.0	31.70 -12
	capture	1.202	1.068	15.91	1.010 -3	27.84 -3
	(n,p)			(E-thr = 4.248 MeV)	1.145 -3	262.7 -9
	(n,d)			(E-thr = 7.345 MeV)	13.01 -6	43.37 -9
	(n,t)			(E-thr = 8.101 MeV)	8.147 -6	17.64 -9
(n,α)	0.0	0.0	1.731 -3	1.638 -3	447.1 -9	
61-Pm-147	total	188.6	169.2		5.380	6.416
	elastic	20.91	20.56		3.536	4.460
	inelastic			(E-thr = 0.092 MeV)	179.7 -3	1.798
	(n,2n)			(E-thr = 7.727 MeV)	1.651	4.547 -3
	(n,3n)			(E-thr = 14.020 MeV)		11.37 -6
	(n,na)	0.0	0.0	656.6 -6	348.8 -6	376.0 -9
	(n,np)			(E-thr = 5.448 MeV)	1.105 -3	237.4 -9
	(n,nd)			(E-thr = 10.740 MeV)	44.87 -15	3.162 -9
	(n,nt)			(E-thr = 10.310 MeV)	444.4 -15	1.458 -9
	capture	167.7	148.6	2207.	1.001 -3	153.2 -3
	(n,p)			(E-thr = 0.114 MeV)	6.286 -3	3.570 -6
	(n,d)			(E-thr = 3.122 MeV)	998.1 -6	209.1 -9
	(n,t)			(E-thr = 4.515 MeV)	221.3 -6	53.00 -9
(n,He-3)			(E-thr = 6.314 MeV)	703.1 -15	5.253 -12	
(n,α)	0.0	0.0	1.635 -3	2.529 -3	10.81 -6	
61-Pm-148	total	2003.	1777.		4.777	6.445
	elastic	3.100	3.100		2.935	4.086
	inelastic			(E-thr = 0.076 MeV)	118.2 -3	2.175
	(n,2n)			(E-thr = 5.946 MeV)	1.709	19.17 -3
(n,3n)			(E-thr = 13.670 MeV)	3.592 -3	16.39 -6	

Nuclide	Reaction	2200-m/s (barns)	Max.W.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
61-Pm-148	(n,na)	0.0	0.0	939.9 -6	458.0 -6	184.7 -9
	(n,np)			(E-thr = 6.061 MeV)	485.5 -6	114.3 -9
	(n,nd)			(E-thr = 9.068 MeV)	330.8 -9	19.31 -9
	(n,nt)			(E-thr = 10.460 MeV)	117.6 -15	1.197 -9
	capture	2000.	1772.	2506.	1.001 -3	164.8 -3
	(n,p)	0.0	0.0	3.312 -3	4.789 -3	3.084 -6
	(n,d)			(E-thr = 3.735 MeV)	1.444 -3	284.7 -9
	(n,t)			(E-thr = 2.841 MeV)	423.9 -6	88.07 -9
	(n,He-3)			(E-thr = 6.933 MeV)	3.030 -12	7.026 -12
	(n,a)	0.0	0.0	1.335 -3	1.989 -3	15.35 -6
	61-Pm-148M	total	1062.	1394.		4.777
elastic		19.14	42.88		2.935	4.171
inelastic		0.0	0.0	6.140	118.2 -3	1.920
(n,2n)				(E-thr = 5.946 MeV)	1.709	19.17 -3
(n,3n)				(E-thr = 13.670 MeV)	3.592 -3	16.39 -6
(n,na)		0.0	0.0	939.9 -6	458.0 -6	184.7 -9
(n,np)				(E-thr = 6.061 MeV)	485.5 -6	114.3 -9
(n,nd)				(E-thr = 9.068 MeV)	330.8 -9	19.31 -9
(n,nt)				(E-thr = 10.460 MeV)	117.6 -15	1.197 -9
capture		1060.	1390.	3589.	1.002 -3	336.2 -3
(n,p)		0.0	0.0	3.312 -3	4.789 -3	3.084 -6
(n,d)			(E-thr = 3.735 MeV)	1.444 -3	284.7 -9	
(n,t)			(E-thr = 2.841 MeV)	423.9 -6	88.07 -9	
(n,He-3)			(E-thr = 6.933 MeV)	3.030 -12	7.026 -12	
(n,a)	0.0	0.0	1.335 -3	1.989 -3	15.35 -6	
61-Pm-149	total	1403.	1246.		4.773	6.481
	elastic	3.200	3.200		2.931	4.257
	inelastic			(E-thr = 0.115 MeV)	182.6 -3	2.123
	(n,2n)			(E-thr = 7.318 MeV)	1.591	5.999 -3
	(n,3n)			(E-thr = 13.260 MeV)	60.16 -3	25.62 -6
	(n,na)	0.0	0.0	1.006 -3	386.3 -6	191.7 -9
	(n,np)			(E-thr = 5.990 MeV)	594.0 -6	140.1 -9
	(n,nd)			(E-thr = 11.050 MeV)	2.491 -15	2.499 -9
	(n,nt)			(E-thr = 10.160 MeV)	3.090 -12	2.324 -9
	capture	1400.	1241.	1566.	1.000 -3	94.65 -3
	(n,p)			(E-thr = 0.913 MeV)	3.550 -3	1.339 -6
(n,d)			(E-thr = 3.664 MeV)	625.8 -6	148.4 -9	
(n,t)			(E-thr = 4.826 MeV)	186.6 -6	50.04 -9	
(n,a)	0.0	0.0	1.031 -3	1.526 -3	2.787 -6	
62-Sm-144	total	7.740	7.574		5.235	6.686
	elastic	6.100	6.100		3.009	5.884
	inelastic			(E-thr = 1.672 MeV)	776.7 -3	712.1 -3
	(n,2n)			(E-thr = 10.600 MeV)	1.386	315.0 -6
	(n,3n)			(E-thr = 19.270 MeV)		3.685 -9
	(n,na)			(E-thr = 0.167 MeV)	2.755 -3	845.5 -9
	(n,np)			(E-thr = 6.343 MeV)	23.71 -3	3.996 -6
	(n,nd)			(E-thr = 14.060 MeV)		5.215 -12
	capture	1.640	1.453	15.05	1.880 -3	88.95 -3
	(n,p)	0.0	0.0	15.01 -3	23.63 -3	76.16 -6
	(n,d)			(E-thr = 4.016 MeV)	1.188 -3	257.2 -9
(n,t)			(E-thr = 7.833 MeV)	2.830 -6	5.462 -9	
(n,He-3)			(E-thr = 2.891 MeV)	19.86 -9	106.4 -12	
(n,a)	0.0	0.0	7.804 -3	9.481 -3	195.2 -6	
(n,2p)			(E-thr = 4.507 MeV)	206.3 -12	40.26 -12	
62-Sm-147	total	59.07	52.37		5.313	6.954
	elastic	1.057	1.048		3.558	4.938
	inelastic			(E-thr = 0.122 MeV)	363.9 -3	1.889
	(n,2n)			(E-thr = 6.401 MeV)	1.364	6.878 -3
	(n,3n)			(E-thr = 14.860 MeV)		1.836 -6
	(n,na)	0.0	0.0	3.887 -3	2.551 -3	1.302 -6
	(n,np)			(E-thr = 7.166 MeV)	540.9 -6	187.6 -9
	(n,nd)			(E-thr = 11.130 MeV)	3.072 -15	5.366 -9
	(n,nt)			(E-thr = 12.890 MeV)	0.0	58.44 -12
	capture	58.01	51.32	777.9	1.000 -3	117.6 -3
	(n,p)	0.0	0.0	8.633 -3	12.08 -3	10.78 -6
(n,d)			(E-thr = 4.840 MeV)	5.335 -3	1.100 -6	
(n,t)			(E-thr = 4.903 MeV)	663.0 -6	156.6 -9	
(n,He-3)			(E-thr = 4.723 MeV)	2.772 -9	124.8 -12	
(n,a)	578.3 -6	511.7 -6	10.59 -3	4.653 -3	60.32 -6	
62-Sm-148	total	3.410	3.141		5.308	6.762

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)	
62-Sm-148	elastic	996.6 -3	996.2 -3		3.040	5.299	
	inelastic		(E-thr = 0.555 MeV)		582.7 -3	1.364	
	(n,2n)		(E-thr = 8.202 MeV)		1.669	3.043 -3	
	(n,3n)		(E-thr = 14.600 MeV)			5.624 -6	
	(n,na)	0.0	0.0	4.564 -3	2.860 -3	4.191 -6	
	(n,np)		(E-thr = 7.640 MeV)		210.2 -6	105.9 -9	
	(n,nd)		(E-thr = 13.040 MeV)		0.0	227.6 -12	
	(n,nt)		(E-thr = 13.100 MeV)		0.0	28.30 -12	
	capture	2.413	2.144	45.24	1.144 -3	90.59 -3	
	(n,p)		(E-thr = 1.694 MeV)		6.643 -3	2.931 -6	
	(n,d)		(E-thr = 5.315 MeV)		1.287 -3	356.5 -9	
	(n,t)		(E-thr = 6.814 MeV)		118.7 -6	57.08 -9	
	(n,He-3)		(E-thr = 5.304 MeV)		1.060 -12	12.77 -12	
	(n,a)	0.0	0.0	2.329 -3	3.475 -3	18.01 -6	
	62-Sm-149	total	4033.	6067.		5.322	6.989
		elastic	175.8	373.2		3.080	4.554
inelastic			(E-thr = 0.023 MeV)		379.5 -3	2.192	
(n,2n)			(E-thr = 5.916 MeV)		1.846	23.45 -3	
(n,3n)			(E-thr = 14.120 MeV)			6.647 -6	
(n,na)		0.0	0.0	2.872 -3	1.468 -3	576.1 -9	
(n,np)			(E-thr = 7.610 MeV)		163.9 -6	88.97 -9	
(n,nd)			(E-thr = 11.230 MeV)		693.6 -18	4.170 -9	
(n,nt)			(E-thr = 12.730 MeV)		0.0	81.96 -12	
capture		4015.	6030.	3495.	1.006 -3	217.0 -3	
(n,p)			(E-thr = 0.292 MeV)		6.871 -3	3.577 -6	
(n,d)			(E-thr = 5.284 MeV)		3.061 -3	650.9 -9	
(n,t)			(E-thr = 5.003 MeV)		475.7 -6	128.7 -9	
(n,He-3)			(E-thr = 5.886 MeV)		6.249 -12	19.50 -12	
(n,a)		30.77 -3	46.20 -3	4.660 -3	2.801 -3	34.29 -6	
62-Sm-150		total	116.9	104.2		5.345	6.796
	elastic	8.341	8.291		3.031	5.081	
	inelastic		(E-thr = 0.337 MeV)		532.3 -3	1.572	
	(n,2n)		(E-thr = 8.044 MeV)		1.770	2.950 -3	
	(n,3n)		(E-thr = 13.960 MeV)		0.0	14.05 -6	
	(n,na)	0.0	0.0	2.183 -3	1.014 -3	776.3 -9	
	(n,np)		(E-thr = 8.335 MeV)		17.94 -6	26.14 -9	
	(n,nd)		(E-thr = 13.330 MeV)		0.0	52.73 -12	
	(n,nt)		(E-thr = 13.050 MeV)		0.0	19.63 -12	
	capture	108.6	95.93	325.8	1.433 -3	137.8 -3	
	(n,p)		(E-thr = 2.735 MeV)		5.379 -3	1.559 -6	
	(n,d)		(E-thr = 6.010 MeV)		225.7 -6	102.9 -9	
	(n,t)		(E-thr = 7.101 MeV)		44.43 -6	30.21 -9	
	(n,a)	0.0	0.0	2.089 -3	2.928 -3	4.697 -6	
	62-Sm-151	total	1521.	1254.		5.363	6.816
		elastic	50.40	42.59		3.052	4.418
inelastic			(E-thr = 0.005 MeV)		590.4 -3	2.254	
(n,2n)			(E-thr = 5.639 MeV)		1.711	21.55 -3	
(n,3n)			(E-thr = 13.680 MeV)		1.371 -3	7.054 -6	
(n,na)		0.0	0.0	1.851 -3	562.4 -6	163.0 -9	
(n,np)			(E-thr = 8.373 MeV)		1.418 -6	8.696 -9	
(n,nd)			(E-thr = 11.650 MeV)		14.69 -18	1.857 -9	
(n,nt)			(E-thr = 12.740 MeV)		0.0	50.58 -12	
capture		1516.	1250.	3410.	1.000 -3	119.6 -3	
(n,p)			(E-thr = 0.408 MeV)		3.985 -3	1.840 -6	
(n,d)			(E-thr = 6.048 MeV)		1.065 -3	269.3 -9	
(n,t)			(E-thr = 5.421 MeV)		221.2 -6	79.34 -9	
(n,a)		0.0	0.0	1.136 -3	1.668 -3	2.252 -6	
62-Sm-152		total	207.2	185.0		5.382	6.820
		elastic	946.6 -3	980.5 -3		3.039	4.949
	inelastic		(E-thr = 0.124 MeV)		566.9 -3	1.767	
	(n,2n)		(E-thr = 8.318 MeV)		1.770	2.766 -3	
	(n,3n)		(E-thr = 13.960 MeV)		0.0	12.53 -6	
	(n,na)	0.0	0.0	1.147 -3	198.9 -6	76.27 -9	
	(n,np)		(E-thr = 8.726 MeV)		3.508 -6	20.17 -9	
	(n,nt)		(E-thr = 13.740 MeV)		0.0	3.730 -12	
	capture	206.2	184.0	2766.	1.148 -3	98.40 -3	
	(n,p)		(E-thr = 2.706 MeV)		2.902 -3	858.5 -9	
	(n,d)		(E-thr = 6.401 MeV)		136.5 -6	103.3 -9	
	(n,t)		(E-thr = 8.139 MeV)		3.584 -6	11.35 -9	
	(n,a)	0.0	0.0	1.576 -3	1.626 -3	639.4 -9	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
62-Sm-153	total	426.7	380.3		5.400	6.834
	elastic	6.700	6.700		3.047	4.479
	inelastic		(E-thr = 0.008 MeV)		698.2 -3	2.308
	(n,2n)		(E-thr = 5.911 MeV)		1.649	15.42 -3
	(n,3n)		(E-thr = 14.230 MeV)			2.596 -6
	(n,na)		(E-thr = 0.609 MeV)		57.26 -6	27.47 -9
	(n,np)		(E-thr = 8.617 MeV)		16.39 -6	34.19 -9
	(n,nd)		(E-thr = 12.310 MeV)		11.78 -21	576.0 -12
	capture	420.0	372.2	716.6	1.000 -3	31.07 -3
	(n,p)		(E-thr = 1.021 MeV)		2.363 -3	934.9 -9
	(n,d)		(E-thr = 6.292 MeV)		1.177 -3	323.4 -9
	(n,t)		(E-thr = 6.085 MeV)		90.29 -6	63.62 -9
	(n,a)	0.0	0.0	709.3 -6	768.8 -6	281.0 -9
62-Sm-154	total	19.39	18.45		5.419	6.852
	elastic	11.00	10.99		3.042	5.032
	inelastic		(E-thr = 0.083 MeV)		488.5 -3	1.769
	(n,2n)		(E-thr = 8.025 MeV)		1.885	3.680 -3
	(n,3n)		(E-thr = 13.940 MeV)		0.0	9.992 -6
	(n,na)		(E-thr = 1.202 MeV)		26.43 -6	15.91 -9
	(n,np)		(E-thr = 9.047 MeV)		366.9 -9	17.40 -9
	(n,nd)		(E-thr = 14.320 MeV)			4.132 -12
	(n,nt)		(E-thr = 14.110 MeV)			688.8 -15
	capture	8.393	7.459	36.16	1.069 -3	44.15 -3
	(n,p)		(E-thr = 3.243 MeV)		1.680 -3	427.7 -9
	(n,d)		(E-thr = 6.721 MeV)		90.97 -6	77.72 -9
	(n,t)		(E-thr = 8.091 MeV)		6.578 -6	19.11 -9
(n,a)	0.0	0.0	928.0 -6	600.6 -6	155.0 -9	
63-Eu-151	total	9201.	7358.		5.200	6.839
	elastic	3.207	2.677		2.876	4.847
	inelastic		(E-thr = 0.022 MeV)		592.3 -3	1.616
	(n,2n)		(E-thr = 8.035 MeV)		1.710	2.593 -3
	(n,3n)		(E-thr = 14.510 MeV)			3.314 -6
	(n,na)	0.0	0.0	1.856 -3	1.423 -3	381.3 -9
	(n,np)		(E-thr = 4.918 MeV)		2.854 -3	1.140 -6
	capture	9198.	7355.	3072.	1.013 -3	370.3 -3
	(n,p)	0.0	0.0	5.750 -3	7.479 -3	34.39 -6
	(n,a)	8.806 -6	7.044 -6	6.241 -3	8.881 -3	72.71 -6
	63-Eu-152	total	1280.	1053.		5.064
elastic		29.06	25.97		3.295	4.235
inelastic			(E-thr = 0.049 MeV)		257.5 -3	1.786
(n,2n)			(E-thr = 6.352 MeV)		1.498	8.350 -3
(n,3n)			(E-thr = 14.380 MeV)			6.669 -6
(n,na)		0.0	0.0	1.021 -3	400.7 -6	157.1 -9
(n,np)			(E-thr = 5.641 MeV)		829.7 -6	187.3 -9
(n,nd)			(E-thr = 8.954 MeV)		306.4 -9	16.85 -9
(n,nt)			(E-thr = 10.770 MeV)		2.856 -15	571.5 -12
capture		1277.	1051.	2173.	1.001 -3	511.8 -3
(n,p)		0.0	0.0	4.533 -3	6.593 -3	9.687 -6
(n,d)			(E-thr = 3.315 MeV)		2.213 -3	463.1 -9
(n,t)			(E-thr = 2.727 MeV)		440.1 -6	95.85 -9
(n,He-3)		(E-thr = 6.231 MeV)		931.3 -15	11.67 -12	
(n,a)	0.0	0.0	1.663 -3	2.418 -3	8.662 -6	
63-Eu-153	total	323.0	284.7		5.200	6.868
	elastic	10.33	10.20		2.865	4.566
	inelastic		(E-thr = 0.084 MeV)		509.2 -3	2.043
	(n,2n)		(E-thr = 8.612 MeV)		1.815	1.639 -3
	(n,3n)		(E-thr = 14.960 MeV)			1.045 -6
	(n,na)	0.0	0.0	427.8 -6	163.7 -6	28.25 -9
	(n,np)		(E-thr = 5.926 MeV)		1.807 -3	536.3 -9
	capture	312.7	274.5	1412.	1.000 -3	257.0 -3
	(n,p)		(E-thr = 0.021 MeV)		5.709 -3	12.28 -6
	(n,a)	710.6 -9	623.6 -9	1.316 -3	1.865 -3	1.857 -6
	63-Eu-154	total	1355.	1478.		5.028
elastic		6.058	5.995		3.267	4.389
inelastic			(E-thr = 0.069 MeV)		213.4 -3	1.655
(n,2n)			(E-thr = 6.481 MeV)		1.541	10.94 -3
(n,3n)			(E-thr = 15.090 MeV)			2.990 -6
(n,na)			(E-thr = 0.602 MeV)		55.25 -6	20.18 -9
(n,np)			(E-thr = 6.505 MeV)		279.1 -6	77.72 -9
(n,nd)		(E-thr = 10.090 MeV)		7.643 -12	5.531 -9	

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
63-Eu-154	(n,nt)		(E-thr = 12.180 MeV)		0.0	79.64 -12
	capture	1348.	1472.	1310.	1.001 -3	516.0 -3
	(n,p)	0.0	0.0	2.792 -3	3.793 -3	2.704 -6
	(n,d)			(E-thr = 4.180 MeV)	939.6 -6	211.3 -9
	(n,t)			(E-thr = 3.865 MeV)	89.26 -6	31.50 -9
	(n,α)	0.0	0.0	1.446 -3	1.394 -3	1.040 -6
63-Eu-155	total	4056.	3715.		5.017	6.597
	elastic	9.853	11.95		3.251	4.585
	inelastic			(E-thr = 0.079 MeV)	217.7 -3	1.890
	(n,2n)			(E-thr = 8.228 MeV)	1.543	2.666 -3
	(n,3n)			(E-thr = 14.710 MeV)		6.195 -6
	(n,na)			(E-thr = 0.867 MeV)	60.28 -6	18.74 -9
	(n,np)			(E-thr = 6.708 MeV)	195.7 -6	62.30 -9
	(n,nd)			(E-thr = 12.410 MeV)	0.0	252.7 -12
	(n,nt)			(E-thr = 12.090 MeV)	12.25 -21	75.12 -12
	capture	4046.	3703.	1863.	1.003 -3	119.5 -3
	(n,p)			(E-thr = 0.852 MeV)	2.763 -3	1.031 -6
	(n,d)			(E-thr = 4.383 MeV)	171.3 -6	60.41 -9
	(n,t)			(E-thr = 6.182 MeV)	10.61 -6	11.94 -9
	(n,α)	0.0	0.0	1.130 -3	1.079 -3	584.6 -9
63-Eu-156	total	106.6	95.69		5.008	6.621
	elastic	6.600	6.600		3.240	4.480
	inelastic			(E-thr = 0.023 MeV)	197.4 -3	2.065
	(n,2n)			(E-thr = 6.375 MeV)	1.566	11.92 -3
	(n,3n)			(E-thr = 14.600 MeV)		5.089 -6
	(n,na)			(E-thr = 1.223 MeV)	20.69 -6	9.315 -9
	(n,np)			(E-thr = 7.227 MeV)	97.90 -6	42.37 -9
	(n,nd)			(E-thr = 10.760 MeV)	24.69 -15	2.829 -9
	(n,nt)			(E-thr = 12.560 MeV)	0.0	45.77 -12
	capture	100.0	88.62	1425.	1.000 -3	63.51 -3
	(n,p)	0.0	0.0	1.870 -3	2.139 -3	821.5 -9
	(n,d)			(E-thr = 4.902 MeV)	391.6 -6	110.5 -9
	(n,t)			(E-thr = 4.533 MeV)	42.22 -6	20.92 -9
	(n,α)	0.0	0.0	877.5 -6	876.3 -6	404.8 -9
64-Gd-152	total	1070.	950.8		5.699	7.004
	elastic	13.92	13.86		3.416	5.117
	inelastic			(E-thr = 0.347 MeV)	508.0 -3	1.589
	(n,2n)			(E-thr = 8.668 MeV)	1.757	1.711 -3
	(n,3n)			(E-thr = 15.190 MeV)		5.364 -6
	(n,na)	0.0	0.0	1.677 -3	1.287 -3	1.313 -6
	(n,np)			(E-thr = 7.395 MeV)	71.11 -6	33.10 -9
	(n,nd)			(E-thr = 13.090 MeV)	0.0	45.10 -12
	(n,nt)			(E-thr = 13.300 MeV)	0.0	2.228 -12
	capture	1056.	936.9	990.6	1.026 -3	292.0 -3
	(n,p)			(E-thr = 1.043 MeV)	11.35 -3	6.185 -6
	(n,d)			(E-thr = 5.070 MeV)	370.9 -6	107.2 -9
	(n,t)			(E-thr = 6.867 MeV)	21.06 -6	13.88 -9
	(n,He-3)			(E-thr = 4.540 MeV)	120.2 -15	6.734 -12
(n,α)	6.957 -3	6.178 -3	65.24 -3	4.104 -3	90.74 -6	
64-Gd-154	total	92.35	82.34		5.699	6.982
	elastic	7.356	7.330		3.420	5.004
	inelastic			(E-thr = 0.124 MeV)	287.8 -3	1.711
	(n,2n)			(E-thr = 8.718 MeV)	1.980	2.200 -3
	(n,3n)			(E-thr = 15.250 MeV)		5.378 -6
	(n,na)	0.0	0.0	1.067 -3	444.2 -6	165.3 -9
	(n,np)			(E-thr = 7.685 MeV)	53.06 -6	26.09 -9
	(n,nd)			(E-thr = 13.970 MeV)	0.0	2.855 -12
	capture	84.99	75.01	215.1	1.123 -3	262.2 -3
	(n,p)			(E-thr = 1.203 MeV)	6.854 -3	3.393 -6
	(n,d)			(E-thr = 5.359 MeV)	149.4 -6	53.60 -9
	(n,t)			(E-thr = 7.745 MeV)	2.744 -6	5.901 -9
	(n,α)	0.0	0.0	2.253 -3	2.370 -3	5.130 -6
	64-Gd-155	total	6095.	4562.		5.699
elastic		58.82	50.60		3.423	4.631
inelastic				(E-thr = 0.060 MeV)	472.0 -3	2.118
(n,2n)				(E-thr = 6.485 MeV)	1.795	8.039 -3
(n,3n)				(E-thr = 15.200 MeV)		4.261 -6
(n,na)		0.0	0.0	452.4 -6	72.00 -6	25.63 -9
(n,np)				(E-thr = 7.688 MeV)	27.01 -6	21.68 -9
(n,nd)				(E-thr = 11.840 MeV)	409.2 -21	475.3 -12

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
64-Gd-155	capture	6089.	4557.	1536.	1.004 -3	222.4 -3
	(n,p)	0.0	0.0	4.570 -3	5.458 -3	3.762 -6
	(n,d)		(E-thr =	5.363 MeV)	773.1 -6	178.6 -9
	(n,t)		(E-thr =	5.619 MeV)	26.75 -6	15.31 -9
	(n,a)	81.75 -6	61.18 -6	1.680 -3	1.922 -3	2.864 -6
64-Gd-156	total	6.991	6.750		5.699	6.984
	elastic	4.804	4.803		3.423	5.067
	inelastic		(E-thr =	0.090 MeV)	583.8 -3	1.751
	(n,2n)		(E-thr =	8.596 MeV)	1.682	2.134 -3
	(n,3n)		(E-thr =	15.080 MeV)		5.844 -6
	(n,na)		(E-thr =	0.198 MeV)	68.50 -6	22.19 -9
	(n,np)		(E-thr =	8.056 MeV)	13.62 -6	14.98 -9
	(n,nd)		(E-thr =	13.960 MeV)	0.0	2.051 -12
	capture	2.188	1.946	120.6	1.035 -3	160.5 -3
	(n,p)		(E-thr =	1.681 MeV)	5.682 -3	2.233 -6
	(n,d)		(E-thr =	5.731 MeV)	128.8 -6	51.42 -9
	(n,t)		(E-thr =	7.734 MeV)	3.150 -6	6.547 -9
	(n,a)	0.0	0.0	2.851 -3	2.358 -3	1.423 -6
	64-Gd-157	total	2551.	1931.		5.699
elastic		1007.	817.4		3.423	4.699
inelastic			(E-thr =	0.055 MeV)	531.9 -3	2.153
(n,2n)			(E-thr =	6.406 MeV)	1.736	10.69 -3
(n,3n)			(E-thr =	15.000 MeV)		5.361 -6
(n,na)			(E-thr =	0.694 MeV)	18.38 -6	8.865 -9
(n,np)			(E-thr =	8.087 MeV)	11.20 -6	14.13 -9
(n,nd)			(E-thr =	12.140 MeV)	25.93 -21	259.5 -12
capture		2541.	1923.	762.8	1.002 -3	112.7 -3
(n,p)			(E-thr =	0.581 MeV)	4.450 -3	2.006 -6
(n,d)			(E-thr =	5.762 MeV)	483.5 -6	123.4 -9
(n,t)			(E-thr =	5.912 MeV)	23.35 -6	15.04 -9
(n,a)		477.5 -6	361.5 -6	1.221 -3	1.173 -3	652.1 -9
64-Gd-158		total	6.354	6.078		5.699
	elastic	3.858	3.858		3.423	5.082
	inelastic		(E-thr =	0.080 MeV)	482.4 -3	1.837
	(n,2n)		(E-thr =	7.993 MeV)	1.789	3.781 -3
	(n,3n)		(E-thr =	14.400 MeV)		10.81 -6
	(n,na)		(E-thr =	0.663 MeV)	19.73 -6	8.533 -9
	(n,np)		(E-thr =	8.574 MeV)	2.630 -6	9.141 -9
	(n,nd)		(E-thr =	13.750 MeV)	0.0	5.055 -12
	capture	2.496	2.220	63.98	1.019 -3	54.34 -3
	(n,p)		(E-thr =	2.686 MeV)	1.813 -3	512.8 -9
	(n,d)		(E-thr =	6.249 MeV)	65.43 -6	33.52 -9
	(n,t)		(E-thr =	7.530 MeV)	5.061 -6	7.371 -9
	(n,a)	0.0	0.0	2.348 -3	1.683 -3	549.8 -9
	64-Gd-160	total	4.901	4.813		5.699
elastic		4.105	4.105		3.423	5.109
inelastic			(E-thr =	0.076 MeV)	508.0 -3	1.841
(n,2n)			(E-thr =	7.504 MeV)	1.753	6.014 -3
(n,3n)			(E-thr =	13.490 MeV)	10.99 -3	15.55 -6
(n,na)			(E-thr =	1.003 MeV)	10.53 -6	7.984 -9
(n,np)			(E-thr =	9.365 MeV)	12.98 -9	7.437 -9
(n,nd)			(E-thr =	13.850 MeV)	0.0	15.76 -12
(n,nt)			(E-thr =	13.510 MeV)	0.0	4.672 -12
capture		796.1 -3	708.0 -3	12.03	1.007 -3	24.91 -3
(n,p)			(E-thr =	3.643 MeV)	1.330 -3	310.5 -9
(n,d)			(E-thr =	7.041 MeV)	37.08 -6	43.12 -9
(n,t)			(E-thr =	7.625 MeV)	11.52 -6	18.73 -9
(n,a)		0.0	0.0	2.232 -3	1.409 -3	354.5 -9
65-Tb-159	total	47.39	41.11		5.263	6.582
	elastic	20.87	18.34		3.116	4.509
	inelastic		(E-thr =	0.058 MeV)	287.3 -3	1.886
	(n,2n)		(E-thr =	8.189 MeV)	1.852	3.428 -3
	(n,3n)		(E-thr =	15.020 MeV)		5.638 -6
	(n,na)		(E-thr =	0.134 MeV)	32.11 -6	12.16 -9
	(n,np)		(E-thr =	6.178 MeV)	353.4 -6	99.47 -9
	(n,nd)		(E-thr =	11.850 MeV)	541.2 -21	518.4 -12
	(n,nt)		(E-thr =	12.030 MeV)	14.46 -21	48.06 -12
	capture	26.52	22.76	471.1	1.012 -3	182.7 -3
	(n,p)		(E-thr =	0.193 MeV)	3.978 -3	1.910 -6
	(n,d)		(E-thr =	3.853 MeV)	639.5 -6	158.8 -9

Nuclide	Reaction	2200-m/s (barns)	Maxw.Avg. (barns)	Res.Integ (barns)	14-MeV (barns)	Fiss.Avg. (barns)
65-Tb-159	(n,t)		(E-thr =	5.621 MeV)	38.72 -6	21.58 -9
	(n,a)	0.0	0.0	1.886 -3	2.057 -3	1.093 -6

5. Table of One-Group Cross Sections

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
33-As- 75	total	1.043E+01	1.106E+01	1.140E+01	1.164E+01	9.245E+00	
	elastic	7.512E+00	8.156E+00	8.575E+00	9.113E+00	8.376E+00	
	inelastic	4.803E-01	5.662E-01	6.634E-01	6.270E-01	4.515E-01	
	(n,2n)	1.113E-04	1.211E-04	1.657E-04	1.458E-04	6.180E-05	
	(n,3n)	3.181E-09	3.459E-09	4.736E-09	6.030E-09	2.829E-09	
	(n,na)	5.817E-07	6.325E-07	8.660E-07	8.615E-07	3.766E-07	
	(n,np)	3.086E-05	3.355E-05	4.594E-05	3.777E-05	1.576E-05	
	(n,nd)	1.196E-10	1.301E-10	1.781E-10	2.238E-10	1.041E-10	
	(n,nt)	6.102E-12	6.635E-12	9.084E-12	1.156E-11	5.399E-12	
	capture	2.436E+00	2.332E+00	2.154E+00	1.890E+00	4.171E-01	
	(n,p)	6.904E-04	8.022E-04	1.025E-03	7.808E-04	3.221E-04	
	(n,d)	1.454E-07	1.584E-07	2.167E-07	1.915E-07	8.149E-08	
	(n,t)	4.098E-09	4.456E-09	6.102E-09	6.729E-09	3.019E-09	
	(n,He-3)	9.151E-13	9.950E-13	1.362E-12	1.706E-12	7.928E-13	
(n,a)	2.575E-05	2.914E-05	3.899E-05	-2.932E-05	1.182E-05		
34-Se- 74	total	4.806E+01	4.838E+01	4.737E+01	4.029E+01	9.605E+00	
	elastic	2.492E+01	2.825E+01	2.973E+01	2.707E+01	9.190E+00	
	inelastic	2.774E-01	3.214E-01	3.779E-01	3.288E-01	1.828E-01	
	(n,2n)	1.041E-05	1.132E-05	1.550E-05	1.521E-05	6.619E-06	
	(n,na)	1.541E-05	1.676E-05	2.295E-05	2.041E-05	8.676E-06	
	(n,np)	1.806E-05	1.964E-05	2.689E-05	2.482E-05	1.064E-05	
	capture	2.286E+01	1.980E+01	1.725E+01	1.288E+01	2.297E-01	
	(n,p)	4.643E-03	5.414E-03	6.900E-03	5.252E-03	2.163E-03	
	(n,d)	1.183E-07	1.286E-07	1.761E-07	1.648E-07	7.105E-08	
	(n,t)	9.746E-10	1.060E-09	1.451E-09	1.678E-09	7.623E-10	
	(n,He-3)	1.004E-10	1.092E-10	1.495E-10	1.742E-10	7.944E-11	
	(n,a)	1.134E-03	1.319E-03	1.686E-03	1.284E-03	5.305E-04	
	(n,2p)	1.636E-09	1.778E-09	2.435E-09	2.628E-09	1.172E-09	
	34-Se- 76	total	2.757E+01	1.805E+01	1.186E+01	1.079E+01	8.937E+00
elastic		1.239E+01	1.115E+01	9.890E+00	9.743E+00	8.635E+00	
inelastic		2.862E-01	3.321E-01	3.907E-01	3.424E-01	1.943E-01	
(n,2n)		4.714E-05	5.126E-05	7.018E-05	6.491E-05	2.784E-05	
(n,3n)		6.719E-11	7.306E-11	1.000E-10	1.292E-10	6.057E-11	
(n,na)		1.152E-06	1.253E-06	1.716E-06	1.589E-06	6.827E-07	
(n,np)		5.963E-07	6.484E-07	8.877E-07	8.976E-07	3.936E-07	
capture		1.489E+01	6.574E+00	1.581E+00	7.029E-01	1.071E-01	
(n,p)		1.769E-04	2.021E-04	2.687E-04	2.019E-04	8.121E-05	
(n,d)		1.744E-08	1.896E-08	2.596E-08	2.644E-08	1.164E-08	
(n,t)		4.581E-10	4.981E-10	6.820E-10	7.984E-10	3.640E-10	
(n,He-3)		1.188E-12	1.292E-12	1.769E-12	2.177E-12	1.007E-12	
(n,a)		7.349E-05	8.398E-05	1.115E-04	8.351E-05	3.360E-05	
(n,2p)		5.224E-11	5.680E-11	7.777E-11	9.284E-11	4.258E-11	
34-Se- 77	total	1.638E+01	1.255E+01	1.022E+01	1.010E+01	8.668E+00	
	elastic	8.205E+00	8.285E+00	8.235E+00	8.531E+00	7.848E+00	
	inelastic	4.851E-01	5.717E-01	6.694E-01	6.318E-01	4.529E-01	
	(n,2n)	1.253E-03	1.371E-03	1.872E-03	1.430E-03	5.845E-04	
	(n,3n)	1.533E-09	1.667E-09	2.282E-09	2.913E-09	1.361E-09	
	(n,na)	7.492E-08	8.146E-08	1.115E-07	1.167E-07	5.161E-08	
	(n,np)	1.107E-07	1.203E-07	1.647E-07	1.725E-07	7.632E-08	
	(n,nd)	8.709E-11	9.470E-11	1.296E-10	1.630E-10	7.584E-11	
	capture	7.687E+00	3.685E+00	1.309E+00	9.320E-01	3.651E-01	
	(n,p)	2.299E-04	2.667E-04	3.351E-04	2.597E-04	1.102E-04	
	(n,d)	7.588E-08	8.250E-08	1.130E-07	1.131E-07	4.953E-08	
	(n,t)	1.665E-09	1.810E-09	2.479E-09	2.811E-09	1.271E-09	
	(n,He-3)	5.752E-12	6.254E-12	8.563E-12	1.059E-11	4.904E-12	
	(n,a)	1.836E-04	2.132E-04	2.631E-04	2.093E-04	9.561E-05	
(n,2p)	2.680E-11	2.914E-11	3.990E-11	4.400E-11	1.974E-11		
34-Se- 78	total	8.114E+00	8.085E+00	7.998E+00	8.231E+00	8.432E+00	
	elastic	7.635E+00	7.571E+00	7.429E+00	7.710E+00	8.177E+00	
	inelastic	2.697E-01	3.127E-01	3.682E-01	3.202E-01	1.778E-01	
	(n,2n)	9.100E-05	9.895E-05	1.355E-04	1.209E-04	5.142E-05	
	(n,3n)	1.092E-08	1.188E-08	1.626E-08	2.054E-08	9.825E-09	
	(n,na)	3.961E-08	4.307E-08	5.897E-08	6.190E-08	2.741E-08	
	(n,np)	2.686E-08	2.920E-08	3.998E-08	4.304E-08	1.917E-08	
	capture	2.092E-01	2.010E-01	2.006E-01	2.008E-01	7.693E-02	
	(n,p)	6.507E-06	7.195E-06	9.773E-06	7.637E-06	3.129E-06	
	(n,d)	8.953E-09	9.736E-09	1.333E-08	1.457E-08	6.521E-09	
	(n,t)	4.420E-10	4.806E-10	6.580E-10	7.793E-10	3.566E-10	
	(n,a)	5.106E-06	5.700E-06	7.699E-06	5.854E-06	2.374E-06	
	34-Se- 79	total	1.702E+01	1.262E+01	9.877E+00	9.409E+00	7.877E+00
		elastic	6.846E+00	7.048E+00	7.089E+00	7.287E+00	7.127E+00

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
34-Se- 79	inelastic	4.222E-01	4.979E-01	5.841E-01	5.492E-01	4.044E-01	
	(n,2n)	2.091E-03	2.313E-03	3.142E-03	2.366E-03	9.591E-04	
	(n,3n)	1.986E-08	2.160E-08	2.957E-08	3.705E-08	1.722E-08	
	(n,na)	9.727E-09	1.058E-08	1.448E-08	1.581E-08	7.073E-09	
	(n,np)	1.432E-08	1.557E-08	2.131E-08	2.349E-08	1.053E-08	
	(n,nd)	2.254E-11	2.451E-11	3.356E-11	4.244E-11	1.978E-11	
	capture	9.719E+00	5.050E+00	2.194E+00	1.568E+00	3.449E-01	
	(n,p)	7.410E-06	8.494E-06	1.117E-05	8.568E-06	3.483E-06	
	(n,d)	2.361E-08	2.567E-08	3.515E-08	3.661E-08	1.618E-08	
	(n,t)	1.753E-09	1.906E-09	2.609E-09	2.964E-09	1.340E-09	
	(n,He-3)	8.166E-14	8.879E-14	1.216E-13	1.539E-13	7.176E-14	
	(n,a)	2.101E-05	2.437E-05	3.142E-05	2.396E-05	9.829E-06	
	34-Se- 80	total	8.955E+00	9.521E+00	9.947E+00	1.070E+01	1.049E+01
		elastic	8.572E+00	9.152E+00	9.556E+00	1.035E+01	1.029E+01
inelastic		2.545E-01	2.948E-01	3.474E-01	3.003E-01	1.642E-01	
(n,2n)		1.781E-04	1.937E-04	2.651E-04	2.281E-04	9.609E-05	
(n,3n)		6.716E-08	7.303E-08	9.999E-08	1.232E-07	5.704E-08	
(n,na)		3.503E-09	3.809E-09	5.215E-09	5.813E-09	2.615E-09	
(n,np)		3.893E-09	4.233E-09	5.796E-09	6.591E-09	2.981E-09	
capture		1.281E-01	7.417E-02	4.312E-02	4.181E-02	3.535E-02	
(n,p)		1.623E-06	1.767E-06	2.418E-06	2.075E-06	8.754E-07	
(n,d)		2.951E-09	3.209E-09	4.393E-09	5.025E-09	2.277E-09	
(n,t)		2.710E-10	2.947E-10	4.034E-10	4.811E-10	2.205E-10	
(n,a)		3.180E-06	3.482E-06	4.752E-06	3.851E-06	1.599E-06	
34-Se- 82		total	6.560E+00	7.017E+00	7.381E+00	7.850E+00	8.574E+00
		elastic	6.289E+00	6.706E+00	7.018E+00	7.528E+00	8.393E+00
	inelastic	2.372E-01	2.750E-01	3.242E-01	2.810E-01	1.550E-01	
	(n,2n)	2.756E-04	2.997E-04	4.103E-04	3.408E-04	1.425E-04	
	(n,3n)	2.305E-07	2.506E-07	3.431E-07	4.107E-07	1.885E-07	
	(n,na)	5.331E-10	5.797E-10	7.936E-10	9.335E-10	4.263E-10	
	(n,np)	1.367E-09	1.487E-09	2.035E-09	2.393E-09	1.093E-09	
	capture	3.328E-02	3.543E-02	3.793E-02	4.047E-02	2.605E-02	
	(n,p)	1.252E-07	1.362E-07	1.864E-07	1.765E-07	7.625E-08	
	(n,d)	1.263E-09	1.373E-09	1.880E-09	2.206E-09	1.006E-09	
	(n,t)	1.527E-10	1.661E-10	2.274E-10	2.747E-10	1.264E-10	
	(n,a)	1.504E-08	1.635E-08	2.239E-08	2.128E-08	9.209E-09	
	35-Br- 79	total	1.163E+01	1.194E+01	1.212E+01	1.185E+01	8.349E+00
		elastic	6.035E+00	6.775E+00	7.299E+00	7.740E+00	7.303E+00
inelastic		4.918E-01	5.803E-01	6.799E-01	6.449E-01	4.690E-01	
(n,2n)		6.669E-05	7.252E-05	9.928E-05	8.979E-05	3.831E-05	
(n,3n)		4.529E-10	4.924E-10	6.742E-10	8.499E-10	4.495E-10	
(n,na)		1.116E-07	1.214E-07	1.662E-07	1.696E-07	7.460E-08	
(n,np)		6.069E-05	6.599E-05	9.035E-05	7.418E-05	3.094E-05	
(n,nd)		1.071E-10	1.165E-10	1.595E-10	2.003E-10	9.321E-11	
(n,nt)		9.075E-13	9.868E-13	1.351E-12	1.731E-12	8.092E-13	
capture		5.083E+00	4.576E+00	4.131E+00	3.459E+00	5.793E-01	
(n,p)		1.163E-03	1.348E-03	1.682E-03	1.313E-03	5.671E-04	
(n,d)		1.679E-07	1.833E-07	2.505E-07	2.254E-07	9.624E-08	
(n,t)		3.631E-09	3.948E-09	5.405E-09	6.027E-09	2.711E-09	
(n,He-3)		8.288E-12	9.012E-12	1.234E-11	1.517E-11	7.017E-12	
(n,a)	1.586E-05	1.802E-05	2.400E-05	1.817E-05	7.342E-06		
(n,2p)	3.574E-12	3.886E-12	5.320E-12	6.369E-12	2.923E-12		
35-Br- 81	total	8.278E+00	9.105E+00	9.639E+00	9.842E+00	8.142E+00	
	elastic	6.197E+00	6.929E+00	7.413E+00	7.809E+00	7.530E+00	
	inelastic	4.050E-01	4.740E-01	5.553E-01	5.091E-01	3.321E-01	
	(n,2n)	1.240E-04	1.349E-04	1.847E-04	1.614E-04	6.831E-05	
	(n,3n)	7.315E-09	7.954E-09	1.089E-08	1.380E-08	6.536E-09	
	(n,na)	5.326E-09	5.791E-09	7.929E-09	8.696E-09	3.895E-09	
	(n,np)	9.396E-07	1.022E-06	1.399E-06	1.252E-06	5.335E-07	
	(n,nd)	2.799E-11	3.044E-11	4.168E-11	5.280E-11	2.462E-11	
	(n,nt)	6.115E-13	6.649E-13	9.104E-13	1.168E-12	5.463E-13	
	capture	1.676E+00	1.693E+00	1.661E+00	1.514E+00	2.797E-01	
	(n,p)	6.231E-05	7.198E-05	9.347E-05	7.098E-05	2.893E-05	
	(n,d)	3.841E-08	4.177E-08	5.718E-08	5.844E-08	2.574E-08	
	(n,t)	2.116E-09	2.301E-09	3.150E-09	3.590E-09	1.625E-09	
	(n,a)	1.077E-06	1.185E-06	1.613E-06	1.297E-06	5.363E-07	
36-Kr- 78	total	9.255E+00	8.835E+00	8.516E+00	8.639E+00	7.967E+00	
	elastic	7.246E+00	7.219E+00	7.113E+00	7.368E+00	7.426E+00	
	inelastic	3.030E-01	3.524E-01	4.138E-01	3.684E-01	2.189E-01	
	(n,2n)	7.421E-06	8.069E-06	1.105E-05	1.072E-05	4.652E-06	
	(n,na)	2.130E-06	2.316E-06	3.171E-06	2.947E-06	1.266E-06	

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
36-Kr- 78	(n,np)	2.257E-05	2.454E-05	3.359E-05	3.090E-05	1.324E-05
	capture	1.701E+00	1.259E+00	9.830E-01	8.973E-01	3.201E-01
	(n,p)	3.045E-03	3.536E-03	4.490E-03	3.441E-03	1.435E-03
	(n,d)	8.605E-08	9.357E-08	1.281E-07	1.213E-07	5.249E-08
	(n,t)	1.059E-09	1.152E-09	1.577E-09	1.827E-09	8.307E-10
	(n,He-3)	7.027E-11	7.640E-11	1.046E-10	1.226E-10	5.599E-11
	(n,a)	6.458E-04	7.504E-04	9.607E-04	7.317E-04	3.023E-04
	(n,2p)	9.421E-08	1.024E-07	1.402E-07	1.403E-07	6.139E-08
	36-Kr- 80	total	1.339E+01	1.340E+01	1.312E+01	1.258E+01
elastic		9.722E+00	1.046E+01	1.066E+01	1.047E+01	7.546E+00
inelastic		2.505E-01	2.904E-01	3.416E-01	2.979E-01	1.668E-01
(n,2n)		3.415E-05	3.713E-05	5.084E-05	4.794E-05	2.066E-05
(n,3n)		5.930E-07	6.448E-07	8.827E-07	8.693E-07	3.792E-07
(n,np)		1.876E-06	2.040E-06	2.793E-06	2.749E-06	1.198E-06
capture		3.419E+00	2.649E+00	2.114E+00	1.808E+00	2.628E-01
(n,p)		3.315E-04	3.840E-04	5.014E-04	3.774E-04	1.523E-04
(n,d)		2.884E-08	3.136E-08	4.294E-08	4.295E-08	1.882E-08
(n,t)		3.967E-10	4.313E-10	5.905E-10	6.971E-10	3.186E-10
(n,He-3)		5.255E-12	5.714E-12	7.823E-12	9.511E-12	4.386E-12
(n,a)		5.315E-05	6.099E-05	8.048E-05	6.054E-05	2.442E-05
(n,2p)		5.816E-10	6.324E-10	8.658E-10	9.980E-10	4.531E-10
36-Kr- 82	total	2.487E+01	2.200E+01	1.878E+01	1.578E+01	7.803E+00
	elastic	1.439E+01	1.337E+01	1.185E+01	1.070E+01	7.563E+00
	inelastic	2.324E-01	2.688E-01	3.172E-01	2.713E-01	1.447E-01
	(n,2n)	6.196E-05	6.738E-05	9.225E-05	8.448E-05	3.615E-05
	(n,3n)	7.735E-10	8.410E-10	1.152E-09	1.467E-09	7.262E-10
	(n,na)	2.361E-08	2.567E-08	3.515E-08	3.734E-08	1.659E-08
	(n,np)	9.272E-08	1.008E-07	1.380E-07	1.448E-07	6.405E-08
	capture	1.024E+01	8.367E+00	6.616E+00	4.807E+00	9.451E-02
	(n,p)	2.622E-05	2.976E-05	3.977E-05	3.010E-05	1.214E-05
	(n,d)	8.674E-09	9.431E-09	1.291E-08	1.399E-08	6.248E-09
	(n,t)	2.783E-10	3.026E-10	4.143E-10	4.929E-10	2.258E-10
	(n,a)	6.773E-06	7.613E-06	1.024E-05	7.780E-06	3.150E-06
	36-Kr- 83	total	4.038E+01	2.325E+01	1.319E+01	1.105E+01
elastic		7.727E+00	7.502E+00	7.235E+00	7.292E+00	6.919E+00
inelastic		4.107E-01	4.890E-01	5.766E-01	5.581E-01	5.232E-01
(n,2n)		8.845E-04	9.658E-04	1.320E-03	1.015E-03	4.155E-04
(n,3n)		7.751E-10	8.429E-10	1.154E-09	1.477E-09	6.918E-10
(n,na)		4.467E-09	4.857E-09	6.650E-09	7.505E-09	3.388E-09
(n,np)		4.693E-08	5.103E-08	6.987E-08	7.579E-08	3.384E-08
(n,nd)		3.137E-11	3.411E-11	4.670E-11	5.919E-11	2.760E-11
capture		3.224E+01	1.526E+01	5.373E+00	3.197E+00	2.516E-01
(n,p)		2.095E-05	2.411E-05	3.075E-05	2.384E-05	1.001E-05
(n,d)		8.142E-08	8.853E-08	1.212E-07	1.233E-07	5.421E-08
(n,t)		1.992E-09	2.166E-09	2.965E-09	3.406E-09	1.544E-09
(n,He-3)		8.627E-13	9.381E-13	1.284E-12	1.612E-12	7.498E-13
(n,a)	3.434E-06	3.955E-06	5.063E-06	3.965E-06	1.665E-06	
(n,2p)	6.914E-13	7.518E-13	1.029E-12	1.214E-12	5.546E-13	
36-Kr- 84	total	6.505E+00	6.635E+00	6.713E+00	6.968E+00	7.468E+00
	elastic	6.211E+00	6.303E+00	6.331E+00	6.623E+00	7.301E+00
	inelastic	2.037E-01	2.354E-01	2.785E-01	2.362E-01	1.234E-01
	(n,2n)	8.450E-05	9.188E-05	1.258E-04	1.124E-04	4.783E-05
	(n,3n)	7.578E-09	8.240E-09	1.128E-08	1.425E-08	6.802E-09
	(n,na)	2.103E-08	2.287E-08	3.131E-08	3.552E-08	1.605E-08
	(n,np)	1.634E-07	1.777E-07	2.433E-07	2.674E-07	1.198E-07
	capture	8.931E-02	9.631E-02	1.029E-01	1.082E-01	4.382E-02
	(n,p)	2.472E-06	2.715E-06	3.700E-06	2.930E-06	1.207E-06
	(n,d)	1.385E-08	1.506E-08	2.062E-08	2.287E-08	1.028E-08
	(n,t)	5.797E-10	6.303E-10	8.630E-10	1.032E-09	4.737E-10
	(n,a)	4.522E-07	4.942E-07	6.750E-07	5.610E-07	2.345E-07
	36-Kr- 85	total	6.822E+00	6.787E+00	6.763E+00	7.014E+00
elastic		6.363E+00	6.465E+00	6.506E+00	6.798E+00	7.464E+00
inelastic		1.208E-01	1.397E-01	1.678E-01	1.381E-01	6.729E-02
(n,2n)		1.642E-03	1.805E-03	2.459E-03	1.861E-03	7.569E-04
(n,3n)		8.717E-09	9.478E-09	1.298E-08	1.627E-08	7.567E-09
(n,na)		4.414E-09	4.800E-09	6.572E-09	7.587E-09	3.447E-09
(n,np)		2.566E-08	2.790E-08	3.820E-08	4.292E-08	1.934E-08
(n,nd)		2.000E-11	2.175E-11	2.978E-11	3.794E-11	1.772E-11
capture		3.235E-01	1.708E-01	8.103E-02	7.156E-02	5.818E-02
(n,p)		1.788E-06	1.993E-06	2.690E-06	2.119E-06	8.693E-07
(n,d)		3.908E-08	4.249E-08	5.817E-08	6.252E-08	2.786E-08

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
36-Kr- 85	(n,t)	2.384E-09	2.592E-09	3.549E-09	4.111E-09	1.869E-09	
	(n,a)	5.047E-07	5.665E-07	7.610E-07	6.016E-07	2.468E-07	
36-Kr- 86	total	6.031E+00	6.052E+00	6.040E+00	6.192E+00	6.608E+00	
	elastic	5.897E+00	5.898E+00	5.856E+00	6.040E+00	6.533E+00	
	inelastic	1.317E-01	1.520E-01	1.826E-01	1.499E-01	7.142E-02	
	(n,2n)	1.447E-04	1.574E-04	2.155E-04	1.853E-04	7.813E-05	
	(n,3n)	3.141E-08	3.415E-08	4.676E-08	5.794E-08	2.686E-08	
	(n,na)	2.832E-09	3.079E-09	4.216E-09	4.988E-09	2.282E-09	
	(n,np)	2.771E-09	3.013E-09	4.125E-09	4.833E-09	2.204E-09	
	capture	1.675E-03	1.669E-03	1.753E-03	1.943E-03	2.887E-03	
	(n,p)	3.771E-07	4.100E-07	5.614E-07	5.396E-07	2.339E-07	
	(n,d)	6.279E-09	6.828E-09	9.348E-09	1.074E-08	4.869E-09	
	(n,t)	4.480E-10	4.871E-10	6.669E-10	8.088E-10	3.726E-10	
	(n,a)	7.195E-08	7.824E-08	1.071E-07	1.030E-07	4.470E-08	
37-Rb- 85	total	7.116E+00	7.443E+00	7.680E+00	8.063E+00	8.123E+00	
	elastic	6.415E+00	6.659E+00	6.799E+00	7.190E+00	7.550E+00	
	inelastic	3.620E-01	4.251E-01	4.996E-01	4.609E-01	3.197E-01	
	(n,2n)	8.490E-05	9.232E-05	1.264E-04	1.132E-04	4.821E-05	
	(n,3n)	2.241E-11	2.437E-11	3.336E-11	4.243E-11	2.180E-11	
	(n,na)	1.194E-08	1.299E-08	1.778E-08	1.981E-08	8.908E-09	
	(n,np)	5.488E-06	5.967E-06	8.170E-06	6.887E-06	2.890E-06	
	(n,nd)	1.530E-11	1.663E-11	2.277E-11	2.896E-11	1.351E-11	
	capture	3.371E-01	3.575E-01	3.799E-01	4.101E-01	2.525E-01	
	(n,p)	1.090E-04	1.264E-04	1.606E-04	1.233E-04	5.150E-05	
	(n,d)	7.266E-08	7.903E-08	1.082E-07	1.067E-07	4.657E-08	
	(n,t)	3.432E-09	3.732E-09	5.109E-09	5.847E-09	2.649E-09	
	(n,He-3)	1.392E-12	1.514E-12	2.072E-12	2.593E-12	1.205E-12	
	(n,a)	1.483E-06	1.636E-06	2.224E-06	1.782E-06	7.360E-07	
37-Rb- 87	total	6.231E+00	6.736E+00	7.145E+00	7.571E+00	8.283E+00	
	elastic	5.876E+00	6.332E+00	6.682E+00	7.147E+00	8.068E+00	
	inelastic	2.581E-01	3.009E-01	3.547E-01	3.168E-01	1.924E-01	
	(n,2n)	1.653E-04	1.798E-04	2.461E-04	2.131E-04	8.999E-05	
	(n,3n)	1.355E-09	1.473E-09	2.017E-09	2.574E-09	1.202E-09	
	(n,na)	1.055E-08	1.148E-08	1.571E-08	1.852E-08	8.463E-09	
	(n,np)	5.962E-08	6.482E-08	8.875E-08	9.123E-08	4.019E-08	
	(n,nd)	9.103E-13	9.898E-13	1.355E-12	1.740E-12	8.142E-13	
	capture	9.561E-02	1.020E-01	1.076E-01	1.062E-01	2.134E-02	
	(n,p)	2.464E-06	2.717E-06	3.694E-06	2.967E-06	1.226E-06	
	(n,d)	3.049E-08	3.316E-08	4.540E-08	4.779E-08	2.119E-08	
	(n,t)	1.005E-09	1.093E-09	1.496E-09	1.753E-09	7.994E-10	
	(n,a)	2.839E-07	3.089E-07	4.228E-07	3.797E-07	1.620E-07	
	38-Sr- 86	total	8.076E+00	8.963E+00	9.683E+00	1.027E+01	9.062E+00
elastic		7.574E+00	8.500E+00	9.215E+00	9.840E+00	8.865E+00	
inelastic		1.910E-01	2.205E-01	2.616E-01	2.199E-01	1.123E-01	
(n,2n)		4.102E-05	4.460E-05	6.107E-05	5.736E-05	2.469E-05	
(n,na)		7.090E-08	7.709E-08	1.055E-07	1.167E-07	5.236E-08	
(n,np)		2.394E-07	2.604E-07	3.565E-07	3.697E-07	1.632E-07	
capture		3.105E-01	2.419E-01	2.055E-01	2.081E-01	8.453E-02	
(n,p)		1.597E-04	1.848E-04	2.414E-04	1.820E-04	7.355E-05	
(n,d)		2.411E-08	2.622E-08	3.589E-08	3.832E-08	1.705E-08	
(n,t)		3.657E-10	3.976E-10	5.444E-10	6.501E-10	2.982E-10	
(n,a)		2.010E-06	2.223E-06	3.017E-06	2.418E-06	9.982E-07	
(n,2p)		2.502E-12	2.721E-12	3.725E-12	4.457E-12	2.046E-12	
38-Sr- 87		total	1.260E+01	1.141E+01	1.016E+01	9.219E+00	8.493E+00
		elastic	6.953E+00	7.064E+00	7.105E+00	7.436E+00	8.331E+00
	inelastic	1.584E-01	1.829E-01	2.187E-01	1.813E-01	8.891E-02	
	(n,2n)	5.608E-04	6.100E-04	8.350E-04	6.648E-04	2.753E-04	
	(n,na)	2.099E-09	2.283E-09	3.125E-09	3.611E-09	1.641E-09	
	(n,np)	1.060E-07	1.153E-07	1.578E-07	1.650E-07	7.297E-08	
	(n,nd)	3.337E-12	3.629E-12	4.968E-12	6.355E-12	2.971E-12	
	capture	5.478E+00	4.154E+00	2.826E+00	1.597E+00	7.314E-02	
	(n,p)	1.574E-04	1.827E-04	2.294E-04	1.779E-04	7.561E-05	
	(n,d)	9.063E-08	9.855E-08	1.349E-07	1.358E-07	5.950E-08	
	(n,t)	9.825E-10	1.068E-09	1.463E-09	1.713E-09	7.811E-10	
	(n,He-3)	8.555E-13	9.302E-13	1.274E-12	1.594E-12	7.408E-13	
	(n,a)	7.925E-06	9.134E-06	1.193E-05	9.087E-06	3.700E-06	
	38-Sr- 88	total	6.028E+00	6.219E+00	6.365E+00	6.617E+00	7.440E+00
elastic		5.918E+00	6.092E+00	6.211E+00	6.492E+00	7.380E+00	
inelastic		1.058E-01	1.223E-01	1.482E-01	1.201E-01	5.546E-02	
(n,2n)		5.244E-05	5.702E-05	7.807E-05	7.204E-05	3.089E-05	

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
38-Sr- 88	(n,3n)	5.963E-13	6.484E-13	8.877E-13	1.140E-12	5.674E-13
	(n,na)	1.046E-09	1.137E-09	1.557E-09	1.837E-09	8.397E-10
	(n,np)	2.351E-08	2.557E-08	3.501E-08	3.886E-08	1.746E-08
	capture	3.660E-03	3.796E-03	4.042E-03	4.510E-03	4.278E-03
	(n,p)	1.529E-06	1.665E-06	2.278E-06	1.944E-06	8.187E-07
	(n,d)	1.372E-08	1.492E-08	2.043E-08	2.239E-08	1.003E-08
	(n,t)	3.148E-10	3.423E-10	4.687E-10	5.654E-10	2.601E-10
	(n,a)	3.316E-07	3.612E-07	4.941E-07	4.401E-07	1.874E-07
	38-Sr- 89	total	6.587E+00	6.791E+00	6.958E+00	7.290E+00
elastic		6.339E+00	6.564E+00	6.722E+00	7.095E+00	8.145E+00
inelastic		1.533E-01	1.770E-01	2.112E-01	1.752E-01	8.555E-02
(n,2n)		3.320E-03	3.733E-03	5.033E-03	3.764E-03	1.514E-03
(n,3n)		2.007E-08	2.183E-08	2.989E-08	3.745E-08	1.742E-08
(n,na)		2.739E-09	2.978E-09	4.078E-09	4.689E-09	2.127E-09
(n,np)		1.404E-08	1.527E-08	2.090E-08	2.358E-08	1.064E-08
(n,nd)		5.241E-11	5.698E-11	7.802E-11	9.836E-11	4.581E-11
capture		8.039E-02	4.137E-02	1.834E-02	1.569E-02	1.246E-02
(n,p)		8.648E-07	9.440E-07	1.290E-06	1.104E-06	4.648E-07
(n,d)		2.396E-08	2.605E-08	3.567E-08	3.822E-08	1.702E-08
(n,t)		5.213E-09	5.668E-09	7.760E-09	8.563E-09	3.841E-09
(n,a)		1.236E-06	1.403E-06	1.864E-06	1.444E-06	5.896E-07
38-Sr- 90		total	6.535E+00	6.630E+00	6.716E+00	6.993E+00
	elastic	6.140E+00	6.289E+00	6.383E+00	6.714E+00	7.881E+00
	inelastic	2.255E-01	2.610E-01	3.079E-01	2.632E-01	1.405E-01
	(n,2n)	1.056E-03	1.152E-03	1.575E-03	1.215E-03	4.983E-04
	(n,3n)	1.202E-06	1.307E-06	1.789E-06	2.002E-06	9.005E-07
	(n,na)	8.821E-09	9.591E-09	1.313E-08	1.406E-08	6.260E-09
	(n,np)	5.899E-09	6.414E-09	8.782E-09	1.014E-08	4.607E-09
	(n,nd)	2.810E-13	3.055E-13	4.183E-13	5.383E-13	2.520E-13
	capture	1.602E-01	7.310E-02	2.101E-02	1.243E-02	1.026E-02
	(n,p)	3.299E-07	3.587E-07	4.911E-07	4.526E-07	1.942E-07
	(n,d)	6.568E-09	7.142E-09	9.778E-09	1.103E-08	4.980E-09
	(n,t)	2.299E-09	2.499E-09	3.422E-09	3.902E-09	1.766E-09
	(n,a)	2.316E-07	2.540E-07	3.463E-07	2.871E-07	1.198E-07
	39-Y - 89	total	7.283E+00	7.065E+00	6.872E+00	7.020E+00
elastic		6.890E+00	6.769E+00	6.614E+00	6.810E+00	7.673E+00
inelastic		1.596E-01	1.842E-01	2.200E-01	1.826E-01	8.977E-02
(n,2n)		4.056E-05	4.410E-05	6.038E-05	5.694E-05	2.454E-05
(n,na)		8.879E-09	9.654E-09	1.322E-08	1.566E-08	7.164E-09
(n,np)		2.726E-05	2.965E-05	4.059E-05	3.488E-05	1.470E-05
(n,nd)		4.677E-12	5.086E-12	6.963E-12	8.914E-12	4.168E-12
capture		2.327E-01	1.105E-01	3.778E-02	2.708E-02	1.611E-02
(n,p)		5.783E-05	6.637E-05	8.708E-05	6.607E-05	2.682E-05
(n,d)		1.353E-07	1.471E-07	2.014E-07	1.955E-07	8.500E-08
(n,t)		9.636E-10	1.048E-09	1.435E-09	1.669E-09	7.596E-10
(n,He-3)		1.792E-12	1.949E-12	2.668E-12	3.314E-12	1.537E-12
(n,a)		8.508E-07	9.322E-07	1.271E-06	1.049E-06	4.371E-07
39-Y - 91		total	6.946E+00	7.105E+00	7.250E+00	7.579E+00
	elastic	6.323E+00	6.555E+00	6.709E+00	7.095E+00	7.993E+00
	inelastic	3.005E-01	3.486E-01	4.093E-01	3.577E-01	2.013E-01
	(n,2n)	8.850E-04	9.668E-04	1.321E-03	1.024E-03	4.202E-04
	(n,3n)	6.565E-07	7.138E-07	9.773E-07	1.114E-06	5.039E-07
	(n,na)	3.089E-08	3.359E-08	4.599E-08	4.727E-08	2.082E-08
	(n,np)	1.322E-07	1.438E-07	1.968E-07	1.955E-07	8.541E-08
	(n,nd)	6.005E-10	6.529E-10	8.940E-10	1.100E-09	5.089E-10
	(n,nt)	1.499E-10	1.630E-10	2.231E-10	2.768E-10	1.283E-10
	capture	3.119E-01	1.935E-01	1.257E-01	1.226E-01	8.336E-02
	(n,p)	3.140E-06	3.503E-06	4.722E-06	3.733E-06	1.533E-06
	(n,d)	7.330E-08	7.971E-08	1.091E-07	1.108E-07	4.867E-08
	(n,t)	1.492E-08	1.622E-08	2.221E-08	2.351E-08	1.043E-08
	(n,a)	1.002E-06	1.113E-06	1.505E-06	1.187E-06	4.874E-07
40-Zr- 90	total	6.204E+00	6.433E+00	6.614E+00	6.911E+00	7.884E+00
	elastic	6.085E+00	6.301E+00	6.457E+00	6.781E+00	7.816E+00
	inelastic	1.031E-01	1.192E-01	1.447E-01	1.169E-01	5.341E-02
	(n,2n)	2.517E-05	2.737E-05	3.747E-05	3.612E-05	1.565E-05
	(n,na)	1.093E-08	1.188E-08	1.627E-08	1.846E-08	8.344E-09
	(n,np)	5.170E-06	5.622E-06	7.697E-06	7.075E-06	3.031E-06
	capture	1.549E-02	1.297E-02	1.197E-02	1.292E-02	1.488E-02
	(n,p)	5.106E-05	5.804E-05	7.728E-05	5.864E-05	2.371E-05
	(n,d)	7.347E-08	7.989E-08	1.094E-07	1.087E-07	4.750E-08
	(n,t)	5.137E-10	5.586E-10	7.648E-10	9.103E-10	4.171E-10

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
40-Zr- 90	(n,He-3)	8.370E-12	9.101E-12	1.246E-11	1.527E-11	7.056E-12
	(n,a)	3.475E-06	3.878E-06	5.233E-06	4.083E-06	1.670E-06
	(n,2p)	8.499E-12	9.241E-12	1.265E-11	1.517E-11	6.965E-12
40-Zr- 91	total	9.778E+00	9.525E+00	9.221E+00	9.359E+00	8.702E+00
	elastic	9.223E+00	9.024E+00	8.728E+00	8.908E+00	8.539E+00
	inelastic	1.541E-01	1.779E-01	2.128E-01	1.757E-01	8.470E-02
	(n,2n)	1.710E-03	1.883E-03	2.563E-03	1.942E-03	7.895E-04
	(n,3n)	1.319E-10	1.434E-10	1.963E-10	2.485E-10	1.297E-10
	(n,na)	1.961E-08	2.132E-08	2.919E-08	3.153E-08	1.406E-08
	(n,np)	1.807E-07	1.965E-07	2.691E-07	2.747E-07	1.208E-07
	(n,nd)	5.406E-10	5.879E-10	8.049E-10	9.918E-10	4.590E-10
	capture	3.969E-01	3.193E-01	2.760E-01	2.723E-01	7.733E-02
	(n,p)	2.863E-05	3.271E-05	4.310E-05	3.294E-05	1.340E-05
	(n,d)	1.423E-07	1.548E-07	2.119E-07	2.078E-07	9.053E-08
	(n,t)	1.051E-08	1.143E-08	1.564E-08	1.643E-08	7.278E-09
	(n,He-3)	7.200E-12	7.829E-12	1.072E-11	1.314E-11	6.072E-12
	(n,a)	3.638E-05	4.208E-05	5.253E-05	4.158E-05	1.873E-05
40-Zr- 92	total	6.694E+00	7.192E+00	7.603E+00	8.132E+00	8.943E+00
	elastic	6.406E+00	6.884E+00	7.255E+00	7.827E+00	8.763E+00
	inelastic	2.246E-01	2.595E-01	3.065E-01	2.603E-01	1.365E-01
	(n,2n)	5.296E-04	5.758E-04	7.884E-04	6.339E-04	2.631E-04
	(n,3n)	2.638E-07	2.868E-07	3.927E-07	4.665E-07	2.136E-07
	(n,na)	1.070E-07	1.163E-07	1.593E-07	1.496E-07	6.453E-08
	(n,np)	5.891E-08	6.406E-08	8.770E-08	9.273E-08	4.113E-08
	(n,nd)	1.058E-11	1.150E-11	1.575E-11	2.000E-11	9.328E-12
	(n,nt)	3.060E-13	3.327E-13	4.556E-13	5.844E-13	2.734E-13
	capture	6.208E-02	4.723E-02	3.994E-02	4.298E-02	4.197E-02
	(n,p)	6.429E-06	7.121E-06	9.661E-06	7.611E-06	3.125E-06
	(n,d)	5.420E-08	5.893E-08	8.069E-08	8.432E-08	3.730E-08
	(n,t)	4.945E-09	5.377E-09	7.361E-09	8.044E-09	3.599E-09
	(n,a)	1.574E-05	1.807E-05	2.371E-05	1.800E-05	7.320E-06
40-Zr- 93	total	8.121E+00	8.515E+00	8.721E+00	8.836E+00	8.210E+00
	elastic	7.025E+00	7.471E+00	7.697E+00	7.920E+00	7.897E+00
	inelastic	2.721E-01	3.184E-01	3.757E-01	3.386E-01	2.166E-01
	(n,2n)	2.634E-03	2.928E-03	3.970E-03	2.977E-03	1.203E-03
	(n,3n)	3.770E-07	4.099E-07	5.612E-07	6.566E-07	2.993E-07
	(n,na)	2.766E-08	3.008E-08	4.118E-08	4.103E-08	1.794E-08
	(n,np)	1.331E-08	1.448E-08	1.982E-08	2.156E-08	9.635E-09
	(n,nd)	9.609E-11	1.045E-10	1.431E-10	1.786E-10	8.294E-11
	(n,nt)	4.401E-13	4.785E-13	6.551E-13	8.398E-13	3.928E-13
	capture	8.211E-01	7.221E-01	6.432E-01	5.734E-01	9.476E-02
	(n,p)	2.321E-06	2.576E-06	3.485E-06	2.820E-06	1.166E-06
	(n,d)	3.720E-08	4.045E-08	5.538E-08	5.660E-08	2.490E-08
	(n,t)	7.948E-09	8.642E-09	1.183E-08	1.267E-08	5.638E-09
	(n,a)	6.518E-06	7.524E-06	9.551E-06	7.435E-06	3.164E-06
40-Zr- 94	total	6.790E+00	7.008E+00	7.170E+00	7.512E+00	8.783E+00
	elastic	6.535E+00	6.718E+00	6.831E+00	7.219E+00	8.615E+00
	inelastic	2.322E-01	2.683E-01	3.166E-01	2.694E-01	1.420E-01
	(n,2n)	8.642E-04	9.413E-04	1.288E-03	1.006E-03	4.145E-04
	(n,3n)	7.719E-07	8.393E-07	1.149E-06	1.322E-06	5.995E-07
	(n,na)	1.756E-08	1.910E-08	2.615E-08	2.637E-08	1.156E-08
	(n,np)	2.810E-09	3.056E-09	4.184E-09	4.691E-09	2.113E-09
	(n,nd)	2.207E-12	2.399E-12	3.285E-12	4.197E-12	1.961E-12
	capture	2.162E-02	2.016E-02	2.017E-02	2.234E-02	2.595E-02
	(n,p)	9.326E-07	1.016E-06	1.390E-06	1.200E-06	5.067E-07
	(n,d)	7.112E-09	7.734E-09	1.059E-08	1.169E-08	5.248E-09
	(n,t)	2.716E-09	2.953E-09	4.043E-09	4.492E-09	2.019E-09
	(n,a)	1.692E-06	1.904E-06	2.552E-06	1.987E-06	8.110E-07
	40-Zr- 95	total	7.231E+00	7.483E+00	7.683E+00	7.996E+00
elastic		6.622E+00	6.913E+00	7.109E+00	7.465E+00	8.054E+00
inelastic		1.795E-01	2.073E-01	2.461E-01	2.059E-01	1.032E-01
(n,2n)		3.300E-03	3.700E-03	4.995E-03	3.734E-03	1.503E-03
(n,3n)		8.438E-07	9.175E-07	1.256E-06	1.427E-06	6.448E-07
(n,na)		8.643E-09	9.398E-09	1.287E-08	1.369E-08	6.087E-09
(n,np)		2.319E-09	2.522E-09	3.453E-09	3.929E-09	1.777E-09
(n,nd)		1.765E-11	1.920E-11	2.628E-11	3.316E-11	1.545E-11
capture		4.187E-01	3.541E-01	3.200E-01	3.193E-01	1.355E-01
(n,p)		3.606E-07	3.927E-07	5.373E-07	4.855E-07	2.073E-07
(n,d)		1.061E-08	1.154E-08	1.580E-08	1.683E-08	7.484E-09
(n,t)		2.864E-09	3.114E-09	4.263E-09	4.760E-09	2.142E-09
(n,a)		2.447E-07	2.735E-07	3.664E-07	2.999E-07	1.248E-07

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
40-Zr- 96	total	7.226E+00	7.560E+00	7.808E+00	8.213E+00	9.151E+00
	elastic	6.918E+00	7.194E+00	7.385E+00	7.823E+00	9.048E+00
	inelastic	1.398E-01	1.614E-01	1.937E-01	1.591E-01	7.570E-02
	(n,2n)	1.254E-03	1.367E-03	1.869E-03	1.438E-03	5.894E-04
	(n,3n)	1.500E-06	1.631E-06	2.233E-06	2.488E-06	1.118E-06
	(n,na)	6.298E-09	6.848E-09	9.376E-09	1.023E-08	4.576E-09
	(n,np)	3.268E-09	3.553E-09	4.864E-09	5.690E-09	2.594E-09
	capture	1.662E-01	2.027E-01	2.265E-01	2.291E-01	2.691E-02
	(n,p)	1.708E-07	1.857E-07	2.542E-07	2.462E-07	1.069E-07
	(n,d)	1.652E-09	1.797E-09	2.460E-09	2.850E-09	1.296E-09
	(n,t)	1.454E-09	1.581E-09	2.164E-09	2.458E-09	1.111E-09
	(n,a)	2.298E-07	2.515E-07	3.432E-07	2.994E-07	1.266E-07
	41-Nb- 93	total	7.340E+00	7.511E+00	7.639E+00	7.965E+00
elastic		6.564E+00	6.728E+00	6.812E+00	7.184E+00	8.164E+00
nonelastic		7.763E-01	7.820E-01	8.260E-01	7.816E-01	4.426E-01
inelastic		3.144E-01	3.640E-01	4.270E-01	3.708E-01	2.065E-01
(n,2n)		3.358E-04	3.651E-04	4.999E-04	4.111E-04	1.716E-04
(n,3n)		6.347E-08	6.901E-08	9.449E-08	1.152E-07	5.314E-08
(n,na)		4.593E-07	5.016E-07	6.854E-07	5.593E-07	2.328E-07
(n,np)		1.398E-06	1.522E-06	2.083E-06	1.792E-06	7.568E-07
capture		4.614E-01	4.175E-01	3.982E-01	4.102E-01	2.358E-01
(n,p)		7.869E-05	9.011E-05	1.160E-04	8.975E-05	3.788E-05
(n,d)		9.922E-07	1.081E-06	1.479E-06	1.234E-06	5.165E-07
(n,a)		3.318E-05	3.824E-05	4.871E-05	3.786E-05	1.645E-05
41-Nb- 94		total	1.302E+01	1.214E+01	1.111E+01	1.022E+01
	elastic	6.783E+00	6.914E+00	6.906E+00	7.061E+00	7.249E+00
	inelastic	5.877E-01	7.074E-01	8.328E-01	8.404E-01	8.195E-01
	(n,2n)	1.640E-03	1.805E-03	2.458E-03	1.863E-03	7.577E-04
	(n,3n)	1.806E-07	1.964E-07	2.689E-07	3.218E-07	1.477E-07
	(n,na)	1.468E-07	1.597E-07	2.186E-07	2.037E-07	8.766E-08
	(n,np)	4.904E-07	5.333E-07	7.301E-07	6.779E-07	2.914E-07
	(n,nd)	7.167E-09	7.793E-09	1.067E-08	1.240E-08	5.641E-09
	(n,nt)	8.211E-11	8.928E-11	1.222E-10	1.523E-10	7.068E-11
	capture	5.648E+00	4.513E+00	3.364E+00	2.321E+00	2.585E-01
	(n,p)	9.716E-05	1.119E-04	1.378E-04	1.115E-04	5.255E-05
	(n,d)	3.076E-07	3.345E-07	4.579E-07	4.290E-07	1.848E-07
	(n,t)	3.688E-08	4.010E-08	5.490E-08	5.471E-08	2.392E-08
	(n,He-3)	2.721E-11	2.958E-11	4.050E-11	4.851E-11	2.227E-11
	(n,a)	2.605E-05	3.009E-05	3.775E-05	2.997E-05	1.381E-05
41-Nb- 95	total	9.088E+00	8.912E+00	8.783E+00	8.818E+00	8.284E+00
	elastic	6.597E+00	6.864E+00	7.015E+00	7.291E+00	7.803E+00
	inelastic	2.239E-01	2.594E-01	3.066E-01	2.630E-01	1.419E-01
	(n,2n)	6.191E-04	6.733E-04	9.218E-04	7.327E-04	3.033E-04
	(n,3n)	3.192E-07	3.471E-07	4.752E-07	5.610E-07	2.564E-07
	(n,na)	6.362E-08	6.919E-08	9.472E-08	8.923E-08	3.851E-08
	(n,np)	4.561E-07	4.959E-07	6.790E-07	6.337E-07	2.727E-07
	(n,nd)	7.680E-10	8.351E-10	1.143E-09	1.396E-09	6.444E-10
	(n,nt)	1.288E-10	1.401E-10	1.918E-10	2.381E-10	1.104E-10
	capture	2.256E+00	1.782E+00	1.458E+00	1.262E+00	3.388E-01
	(n,p)	1.581E-05	1.798E-05	2.371E-05	1.819E-05	7.431E-06
	(n,d)	7.974E-08	8.671E-08	1.187E-07	1.183E-07	5.176E-08
	(n,t)	1.707E-08	1.856E-08	2.541E-08	2.661E-08	1.178E-08
	(n,He-3)	1.113E-12	1.210E-12	1.657E-12	2.060E-12	9.555E-13
	(n,a)	6.147E-06	7.041E-06	9.227E-06	7.036E-06	2.873E-06
42-Mo- 92	total	6.331E+00	6.580E+00	6.772E+00	7.095E+00	8.088E+00
	elastic	6.152E+00	6.371E+00	6.524E+00	6.877E+00	7.959E+00
	inelastic	1.366E-01	1.577E-01	1.890E-01	1.556E-01	7.487E-02
	(n,2n)	7.365E-06	8.008E-06	1.096E-05	1.115E-05	4.896E-06
	(n,na)	4.353E-08	4.734E-08	6.481E-08	6.986E-08	3.116E-08
	(n,np)	2.728E-05	2.966E-05	4.062E-05	3.726E-05	1.595E-05
	capture	3.973E-02	4.701E-02	5.347E-02	5.876E-02	5.233E-02
	(n,p)	2.895E-03	3.370E-03	4.249E-03	3.269E-03	1.371E-03
	(n,d)	1.543E-07	1.678E-07	2.298E-07	2.214E-07	9.605E-08
	(n,t)	6.289E-10	6.838E-10	9.363E-10	1.111E-09	5.084E-10
	(n,He-3)	2.248E-10	2.445E-10	3.347E-10	3.874E-10	1.762E-10
	(n,a)	4.125E-05	4.753E-05	6.203E-05	4.711E-05	1.919E-05
	(n,2p)	7.454E-09	8.106E-09	1.110E-08	1.134E-08	4.988E-09
42-Mo- 94	total	6.696E+00	6.932E+00	7.106E+00	7.446E+00	8.387E+00
	elastic	6.412E+00	6.600E+00	6.715E+00	7.091E+00	8.153E+00
	inelastic	2.279E-01	2.635E-01	3.112E-01	2.650E-01	1.399E-01

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
42-Mo- 94	(n,2n)	1.957E-04	2.127E-04	2.913E-04	2.486E-04	1.046E-04	
	(n,3n)	1.860E-08	2.023E-08	2.769E-08	3.471E-08	1.614E-08	
	(n,na)	1.191E-06	1.295E-06	1.773E-06	1.489E-06	6.249E-07	
	(n,np)	3.422E-07	3.721E-07	5.095E-07	5.124E-07	2.244E-07	
	(n,nd)	9.355E-12	1.017E-11	1.393E-11	1.771E-11	8.267E-12	
	capture	5.484E-02	6.772E-02	7.866E-02	8.945E-02	9.376E-02	
	(n,p)	9.238E-05	1.063E-04	1.398E-04	1.059E-04	4.277E-05	
	(n,d)	6.596E-08	7.172E-08	9.819E-08	9.934E-08	4.360E-08	
	(n,t)	3.211E-09	3.491E-09	4.780E-09	5.254E-09	2.355E-09	
	(n,He-3)	1.774E-11	1.929E-11	2.641E-11	3.193E-11	1.470E-11	
	(n,a)	2.423E-04	2.813E-04	3.507E-04	2.746E-04	1.197E-04	
	(n,2p)	7.719E-12	8.393E-12	1.149E-11	1.326E-11	6.022E-12	
	42-Mo- 95	total	1.509E+01	1.515E+01	1.441E+01	1.302E+01	8.368E+00
		elastic	9.396E+00	1.022E+01	1.026E+01	9.751E+00	7.739E+00
inelastic		3.696E-01	4.333E-01	5.084E-01	4.655E-01	3.135E-01	
(n,2n)		1.471E-03	1.611E-03	2.199E-03	1.675E-03	6.835E-04	
(n,3n)		6.625E-08	7.203E-08	9.862E-08	1.216E-07	5.639E-08	
(n,na)		2.216E-07	2.410E-07	3.300E-07	3.001E-07	1.283E-07	
(n,np)		9.176E-08	9.978E-08	1.366E-07	1.391E-07	6.112E-08	
(n,nd)		1.697E-10	1.845E-10	2.526E-10	3.144E-10	1.459E-10	
capture		5.313E+00	4.494E+00	3.634E+00	2.797E+00	3.137E-01	
(n,p)		6.567E-05	7.584E-05	9.773E-05	7.489E-05	3.085E-05	
(n,d)		9.487E-08	1.032E-07	1.412E-07	1.393E-07	6.078E-08	
(n,t)		8.045E-09	8.748E-09	1.198E-08	1.279E-08	5.691E-09	
(n,He-3)		2.166E-11	2.355E-11	3.224E-11	3.891E-11	1.790E-11	
(n,a)		4.233E-04	4.944E-04	5.965E-04	5.111E-04	3.096E-04	
42-Mo- 96	total	8.311E+00	9.204E+00	9.746E+00	9.913E+00	8.365E+00	
	elastic	7.496E+00	8.288E+00	8.757E+00	9.026E+00	8.117E+00	
	inelastic	2.623E-01	3.035E-01	3.573E-01	3.072E-01	1.661E-01	
	(n,2n)	3.587E-04	3.900E-04	5.340E-04	4.412E-04	1.843E-04	
	(n,3n)	1.504E-07	1.635E-07	2.239E-07	2.716E-07	1.251E-07	
	(n,na)	2.392E-07	2.601E-07	3.561E-07	3.217E-07	1.374E-07	
	(n,np)	3.911E-08	4.252E-08	5.822E-08	6.113E-08	2.706E-08	
	(n,nd)	1.548E-12	1.683E-12	2.304E-12	2.946E-12	1.377E-12	
	capture	5.512E-01	6.110E-01	6.307E-01	5.786E-01	8.128E-02	
	(n,p)	7.356E-06	8.168E-06	1.106E-05	8.686E-06	3.561E-06	
	(n,d)	1.557E-08	1.693E-08	2.318E-08	2.472E-08	1.099E-08	
	(n,t)	2.232E-09	2.427E-09	3.323E-09	3.723E-09	1.677E-09	
	(n,a)	2.374E-05	2.738E-05	3.555E-05	2.706E-05	1.108E-05	
	42-Mo- 97	total	7.452E+00	7.601E+00	7.722E+00	8.012E+00	8.327E+00
elastic		6.264E+00	6.447E+00	6.555E+00	6.912E+00	7.747E+00	
inelastic		3.566E-01	4.147E-01	4.855E-01	4.322E-01	2.551E-01	
(n,2n)		2.590E-03	2.874E-03	3.899E-03	2.926E-03	1.183E-03	
(n,3n)		2.636E-07	2.866E-07	3.924E-07	4.683E-07	2.147E-07	
(n,na)		4.518E-08	4.913E-08	6.726E-08	6.511E-08	2.828E-08	
(n,np)		1.507E-08	1.638E-08	2.243E-08	2.406E-08	1.071E-08	
(n,nd)		7.260E-11	7.894E-11	1.081E-10	1.352E-10	6.284E-11	
capture		8.305E-01	7.346E-01	6.764E-01	6.637E-01	3.237E-01	
(n,p)		4.600E-06	5.142E-06	6.905E-06	5.476E-06	2.253E-06	
(n,d)		4.197E-08	4.563E-08	6.248E-08	6.338E-08	2.784E-08	
(n,t)		3.139E-09	3.414E-09	4.674E-09	5.134E-09	2.300E-09	
(n,He-3)		2.060E-12	2.240E-12	3.066E-12	3.777E-12	1.748E-12	
(n,a)		2.434E-05	2.817E-05	3.503E-05	2.788E-05	1.271E-05	
42-Mo- 98	total	6.970E+00	7.345E+00	7.612E+00	7.940E+00	8.302E+00	
	elastic	6.481E+00	6.782E+00	6.977E+00	7.362E+00	8.018E+00	
	inelastic	2.801E-01	3.244E-01	3.815E-01	3.298E-01	1.807E-01	
	(n,2n)	6.036E-04	6.563E-04	8.986E-04	7.196E-04	2.984E-04	
	(n,3n)	5.626E-07	6.117E-07	8.375E-07	9.816E-07	4.476E-07	
	(n,na)	2.335E-08	2.539E-08	3.477E-08	3.395E-08	1.478E-08	
	(n,np)	5.694E-09	6.191E-09	8.477E-09	9.315E-09	4.174E-09	
	(n,nd)	7.087E-13	7.706E-13	1.055E-12	1.350E-12	6.314E-13	
	capture	2.073E-01	2.369E-01	2.510E-01	2.469E-01	1.030E-01	
	(n,p)	5.792E-07	6.309E-07	8.631E-07	7.401E-07	3.120E-07	
	(n,d)	6.020E-09	6.546E-09	8.962E-09	9.831E-09	4.403E-09	
	(n,t)	1.600E-09	1.740E-09	2.382E-09	2.679E-09	1.208E-09	
	(n,a)	4.362E-06	4.912E-06	6.572E-06	5.028E-06	2.045E-06	
	42-Mo- 99	total	9.295E+00	9.025E+00	8.837E+00	8.854E+00	8.292E+00
elastic		6.287E+00	6.486E+00	6.566E+00	6.798E+00	7.233E+00	
inelastic		5.859E-01	6.996E-01	8.204E-01	8.107E-01	7.045E-01	
(n,2n)		5.746E-03	6.573E-03	8.780E-03	6.538E-03	2.615E-03	
(n,3n)		1.277E-06	1.388E-06	1.900E-06	2.148E-06	9.687E-07	

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
42-Mo- 99	(n,na)	1.363E-08	1.482E-08	2.030E-08	2.027E-08	8.871E-09
	(n,np)	6.868E-09	7.468E-09	1.023E-08	1.133E-08	5.090E-09
	(n,nd)	9.362E-11	1.018E-10	1.394E-10	1.731E-10	8.029E-11
	(n,nt)	3.350E-13	3.643E-13	4.988E-13	6.385E-13	2.985E-13
	capture	2.403E+00	1.826E+00	1.440E+00	1.237E+00	3.513E-01
	(n,p)	8.169E-07	8.928E-07	1.219E-06	1.044E-06	4.394E-07
	(n,d)	1.931E-08	2.100E-08	2.875E-08	2.979E-08	1.315E-08
	(n,t)	3.233E-09	3.515E-09	4.813E-09	5.234E-09	2.339E-09
(n,a)	1.862E-06	2.134E-06	2.694E-06	2.152E-06	9.606E-07	
42-Mo-100	total	6.893E+00	7.324E+00	7.653E+00	8.005E+00	8.379E+00
	elastic	6.409E+00	6.776E+00	7.027E+00	7.422E+00	8.050E+00
	inelastic	3.326E-01	3.870E-01	4.540E-01	4.042E-01	2.385E-01
	(n,2n)	8.997E-04	9.793E-04	1.340E-03	1.051E-03	4.336E-04
	(n,3n)	2.234E-06	2.429E-06	3.326E-06	3.689E-06	1.655E-06
	(n,na)	5.194E-09	5.648E-09	7.733E-09	7.831E-09	3.440E-09
	(n,np)	1.310E-09	1.424E-09	1.950E-09	2.264E-09	1.030E-09
	(n,nd)	3.151E-13	3.426E-13	4.690E-13	6.014E-13	2.813E-13
	capture	1.494E-01	1.588E-01	1.687E-01	1.759E-01	8.915E-02
	(n,p)	1.295E-07	1.408E-07	1.927E-07	1.806E-07	7.781E-08
	(n,d)	2.188E-09	2.379E-09	3.257E-09	3.707E-09	1.677E-09
	(n,t)	9.732E-10	1.058E-09	1.449E-09	1.638E-09	7.395E-10
	(n,a)	3.528E-07	3.883E-07	5.274E-07	4.400E-07	1.839E-07
	43-Tc- 99	total	1.567E+01	1.482E+01	1.332E+01	1.087E+01
elastic		4.893E+00	5.265E+00	5.548E+00	5.821E+00	6.430E+00
inelastic		4.094E-01	4.819E-01	5.667E-01	5.254E-01	3.758E-01
(n,2n)		4.178E-04	4.543E-04	6.220E-04	5.067E-04	2.110E-04
(n,3n)		2.354E-07	2.560E-07	3.505E-07	4.218E-07	1.939E-07
(n,na)		4.008E-08	4.359E-08	5.967E-08	5.696E-08	2.466E-08
(n,np)		5.483E-07	5.963E-07	8.163E-07	7.479E-07	3.205E-07
(n,nd)		4.768E-10	5.185E-10	7.098E-10	8.735E-10	4.041E-10
(n,nt)		4.632E-11	5.036E-11	6.895E-11	8.633E-11	4.013E-11
capture		1.038E+01	9.062E+00	7.192E+00	5.821E+00	5.821E-01
(n,p)		1.639E-05	1.876E-05	2.458E-05	1.883E-05	7.690E-06
(n,d)		6.887E-08	7.489E-08	1.025E-07	1.031E-07	4.517E-08
(n,t)		9.344E-09	1.016E-08	1.391E-08	1.483E-08	6.594E-09
(n,He-3)		1.765E-12	1.919E-12	2.627E-12	3.249E-12	1.505E-12
(n,a)	6.878E-06	7.835E-06	1.030E-05	7.910E-06	3.241E-06	
44-Ru- 96	total	6.419E+00	6.728E+00	6.974E+00	7.238E+00	7.367E+00
	elastic	5.897E+00	6.142E+00	6.311E+00	6.603E+00	6.990E+00
	inelastic	2.294E-01	2.653E-01	3.145E-01	2.664E-01	1.392E-01
	(n,2n)	5.402E-05	5.874E-05	8.042E-05	7.311E-05	3.123E-05
	(n,na)	3.340E-06	3.633E-06	4.973E-06	4.202E-06	1.765E-06
	(n,np)	1.021E-05	1.110E-05	1.520E-05	1.442E-05	6.229E-06
	(n,nd)	3.712E-12	4.036E-12	5.526E-12	7.042E-12	3.288E-12
	capture	2.835E-01	3.141E-01	3.426E-01	3.647E-01	2.362E-01
	(n,p)	8.793E-04	1.018E-03	1.299E-03	9.960E-04	4.143E-04
	(n,d)	1.158E-07	1.259E-07	1.724E-07	1.658E-07	7.187E-08
	(n,t)	2.077E-09	2.259E-09	3.093E-09	3.426E-09	1.539E-09
	(n,He-3)	2.212E-10	2.405E-10	3.293E-10	3.814E-10	1.735E-10
	(n,a)	2.539E-03	2.945E-03	3.591E-03	2.901E-03	1.371E-03
	(n,2p)	9.334E-08	1.015E-07	1.389E-07	1.414E-07	6.212E-08
44-Ru- 98	total	7.893E+00	7.469E+00	7.271E+00	7.440E+00	7.362E+00
	elastic	5.953E+00	6.213E+00	6.387E+00	6.676E+00	6.965E+00
	inelastic	2.872E-01	3.329E-01	3.931E-01	3.393E-01	1.855E-01
	(n,2n)	1.122E-04	1.220E-04	1.670E-04	1.467E-04	6.216E-05
	(n,3n)	7.093E-09	7.713E-09	1.056E-08	1.344E-08	6.309E-09
	(n,na)	1.696E-06	1.844E-06	2.524E-06	2.186E-06	9.241E-07
	(n,np)	2.269E-06	2.468E-06	3.378E-06	3.348E-06	1.461E-06
	(n,nd)	2.655E-12	2.887E-12	3.952E-12	5.050E-12	2.360E-12
	capture	1.635E+00	9.132E-01	4.870E-01	4.219E-01	2.113E-01
	(n,p)	1.340E-04	1.535E-04	2.028E-04	1.535E-04	6.205E-05
	(n,d)	5.119E-08	5.566E-08	7.621E-08	7.764E-08	3.415E-08
	(n,t)	2.560E-09	2.783E-09	3.810E-09	4.314E-09	1.949E-09
	(n,He-3)	1.142E-11	1.242E-11	1.700E-11	2.063E-11	9.503E-12
	(n,a)	1.739E-04	2.018E-04	2.566E-04	1.973E-04	8.289E-05
(n,2p)	2.104E-10	2.287E-10	3.132E-10	3.545E-10	1.601E-10	
44-Ru- 99	total	1.106E+01	1.144E+01	1.138E+01	1.045E+01	7.446E+00
	elastic	5.183E+00	5.580E+00	5.864E+00	6.134E+00	6.396E+00
	inelastic	4.704E-01	5.569E-01	6.546E-01	6.238E-01	4.845E-01
	(n,2n)	1.268E-03	1.385E-03	1.893E-03	1.456E-03	5.961E-04
	(n,3n)	2.147E-08	2.335E-08	3.197E-08	4.004E-08	1.861E-08

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
44-Ru-99	(n,na)	1.698E-07	1.846E-07	2.527E-07	2.363E-07	1.018E-07	
	(n,np)	1.801E-07	1.958E-07	2.681E-07	2.741E-07	1.206E-07	
	(n,nd)	1.679E-10	1.826E-10	2.500E-10	3.120E-10	1.449E-10	
	capture	5.404E+00	5.296E+00	4.855E+00	3.690E+00	5.642E-01	
	(n,p)	9.707E-05	1.119E-04	1.427E-04	1.104E-04	4.633E-05	
	(n,d)	1.243E-07	1.352E-07	1.851E-07	1.825E-07	7.963E-08	
	(n,t)	5.886E-09	6.400E-09	8.762E-09	9.574E-09	4.284E-09	
	(n,He-3)	2.425E-11	2.637E-11	3.610E-11	4.349E-11	2.000E-11	
	(n,a)	2.523E-04	2.943E-04	3.534E-04	3.047E-04	1.795E-04	
44-Ru-100	total	7.726E+00	7.393E+00	7.187E+00	7.326E+00	7.373E+00	
	elastic	6.262E+00	6.299E+00	6.274E+00	6.510E+00	6.961E+00	
	inelastic	3.277E-01	3.806E-01	4.489E-01	3.929E-01	2.228E-01	
	(n,2n)	2.699E-04	2.935E-04	4.018E-04	3.412E-04	1.435E-04	
	(n,3n)	7.919E-08	8.611E-08	1.179E-07	1.459E-07	6.769E-08	
	(n,na)	1.817E-07	1.976E-07	2.705E-07	2.498E-07	1.073E-07	
	(n,np)	8.556E-08	9.303E-08	1.274E-07	1.333E-07	5.897E-08	
	(n,nd)	3.163E-13	3.439E-13	4.708E-13	6.045E-13	2.829E-13	
	capture	1.135E+00	7.116E-01	4.619E-01	4.218E-01	1.892E-01	
	(n,p)	5.605E-06	6.235E-06	8.437E-06	6.588E-06	2.695E-06	
	(n,d)	1.448E-08	1.574E-08	2.155E-08	2.332E-08	1.036E-08	
	(n,t)	1.436E-09	1.561E-09	2.137E-09	2.452E-09	1.112E-09	
	(n,a)	1.950E-05	2.246E-05	2.929E-05	2.225E-05	9.076E-06	
	44-Ru-101	total	8.613E+00	9.194E+00	9.359E+00	9.086E+00	7.318E+00
elastic		4.943E+00	5.269E+00	5.507E+00	5.771E+00	6.105E+00	
inelastic		4.902E-01	5.800E-01	6.804E-01	6.487E-01	4.892E-01	
(n,2n)		2.641E-03	2.921E-03	3.969E-03	2.988E-03	1.211E-03	
(n,3n)		1.538E-07	1.672E-07	2.290E-07	2.777E-07	1.280E-07	
(n,na)		4.296E-08	4.672E-08	6.396E-08	6.246E-08	2.719E-08	
(n,np)		2.586E-08	2.812E-08	3.850E-08	4.136E-08	1.842E-08	
(n,nd)		7.379E-11	8.024E-11	1.099E-10	1.378E-10	6.407E-11	
capture		3.180E+00	3.339E+00	3.165E+00	2.661E+00	7.217E-01	
(n,p)		1.040E-05	1.175E-05	1.564E-05	1.218E-05	4.987E-06	
(n,d)		4.536E-08	4.932E-08	6.752E-08	6.902E-08	3.037E-08	
(n,t)		3.172E-09	3.449E-09	4.723E-09	5.245E-09	2.357E-09	
(n,He-3)		1.152E-12	1.253E-12	1.715E-12	2.132E-12	9.891E-13	
(n,a)		1.575E-05	1.823E-05	2.267E-05	1.815E-05	8.440E-06	
44-Ru-102	total	6.316E+00	6.381E+00	6.444E+00	6.663E+00	7.242E+00	
	elastic	5.621E+00	5.711E+00	5.749E+00	6.026E+00	6.825E+00	
	inelastic	3.658E-01	4.254E-01	5.012E-01	4.429E-01	2.593E-01	
	(n,2n)	4.064E-04	4.419E-04	6.050E-04	5.012E-04	2.095E-04	
	(n,3n)	3.308E-07	3.597E-07	4.924E-07	5.893E-07	2.704E-07	
	(n,na)	2.137E-08	2.323E-08	3.181E-08	3.200E-08	1.403E-08	
	(n,np)	9.177E-09	9.979E-09	1.366E-08	1.514E-08	6.798E-09	
	capture	3.327E-01	2.430E-01	1.921E-01	1.930E-01	1.573E-01	
	(n,p)	1.737E-06	1.893E-06	2.589E-06	2.215E-06	9.333E-07	
	(n,d)	7.227E-09	7.858E-09	1.076E-08	1.187E-08	5.324E-09	
	(n,t)	8.268E-10	8.990E-10	1.231E-09	1.424E-09	6.473E-10	
	(n,a)	1.686E-06	1.893E-06	2.539E-06	2.002E-06	8.210E-07	
	44-Ru-103	total	9.711E+00	9.545E+00	9.261E+00	8.842E+00	7.231E+00
		elastic	5.385E+00	5.479E+00	5.481E+00	5.585E+00	5.763E+00
inelastic		6.842E-01	8.246E-01	9.700E-01	9.845E-01	1.004E+00	
(n,2n)		4.267E-03	4.809E-03	6.474E-03	4.837E-03	1.945E-03	
(n,3n)		4.536E-07	4.932E-07	6.753E-07	7.922E-07	3.613E-07	
(n,na)		8.479E-09	9.220E-09	1.262E-08	1.339E-08	5.952E-09	
(n,np)		8.115E-09	8.824E-09	1.208E-08	1.361E-08	6.138E-09	
(n,nd)		4.859E-11	5.283E-11	7.233E-11	9.103E-11	4.237E-11	
capture		3.628E+00	3.232E+00	2.801E+00	2.267E+00	4.622E-01	
(n,p)		1.883E-06	2.074E-06	2.817E-06	2.317E-06	9.643E-07	
(n,d)		2.505E-08	2.724E-08	3.730E-08	3.939E-08	1.748E-08	
(n,t)		3.683E-09	4.005E-09	5.483E-09	6.081E-09	2.732E-09	
(n,a)		6.901E-07	7.749E-07	1.026E-06	8.254E-07	3.452E-07	
44-Ru-104		total	6.669E+00	7.036E+00	7.326E+00	7.676E+00	7.878E+00
	elastic	6.023E+00	6.305E+00	6.499E+00	6.893E+00	7.413E+00	
	inelastic	4.002E-01	4.672E-01	5.496E-01	4.945E-01	3.079E-01	
	(n,2n)	6.270E-04	6.818E-04	9.335E-04	7.539E-04	3.133E-04	
	(n,3n)	9.102E-07	9.897E-07	1.355E-06	1.569E-06	7.127E-07	
	(n,na)	8.340E-09	9.069E-09	1.242E-08	1.335E-08	5.953E-09	
	(n,np)	2.268E-09	2.467E-09	3.377E-09	3.834E-09	1.733E-09	
	capture	2.458E-01	2.619E-01	2.756E-01	2.854E-01	1.561E-01	
	(n,p)	4.787E-07	5.207E-07	7.128E-07	6.414E-07	2.737E-07	
	(n,d)	3.335E-09	3.626E-09	4.964E-09	5.623E-09	2.541E-09	

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
44-Ru-104	(n,t)	4.981E-10	5.416E-10	7.415E-10	8.696E-10	3.967E-10	
	(n,a)	2.514E-07	2.757E-07	3.758E-07	3.204E-07	1.347E-07	
44-Ru-106	total	5.206E+00	5.655E+00	6.054E+00	6.394E+00	7.071E+00	
	elastic	4.729E+00	5.110E+00	5.425E+00	5.802E+00	6.663E+00	
	inelastic	3.849E-01	4.510E-01	5.301E-01	4.844E-01	3.198E-01	
	(n,2n)	8.545E-04	9.293E-04	1.272E-03	1.008E-03	4.170E-04	
	(n,3n)	2.012E-06	2.188E-06	2.995E-06	3.350E-06	1.507E-06	
	(n,na)	9.090E-10	9.884E-10	1.353E-09	1.542E-09	6.984E-10	
	(n,np)	1.125E-09	1.224E-09	1.675E-09	1.959E-09	8.929E-10	
	capture	8.714E-02	8.974E-02	9.464E-02	1.053E-01	8.723E-02	
	(n,p)	1.951E-07	2.122E-07	2.905E-07	2.748E-07	1.187E-07	
	(n,d)	1.734E-09	1.885E-09	2.581E-09	2.986E-09	1.357E-09	
	(n,t)	3.698E-10	4.021E-10	5.505E-10	6.477E-10	2.958E-10	
	(n,a)	3.852E-08	4.191E-08	5.736E-08	5.624E-08	2.450E-08	
45-Rh-103	total	5.711E+01	4.352E+01	2.236E+01	1.332E+01	7.551E+00	
	elastic	4.987E+00	5.430E+00	5.746E+00	6.037E+00	6.463E+00	
	inelastic	4.406E-01	5.172E-01	6.071E-01	5.620E-01	3.833E-01	
	(n,2n)	2.490E-04	2.707E-04	3.706E-04	3.122E-04	1.310E-04	
	(n,3n)	1.229E-07	1.337E-07	1.830E-07	2.234E-07	1.031E-07	
	(n,na)	5.306E-08	5.769E-08	7.899E-08	7.837E-08	3.424E-08	
	(n,np)	1.355E-06	1.473E-06	2.016E-06	1.808E-06	7.708E-07	
	(n,nd)	2.395E-10	2.605E-10	3.566E-10	4.426E-10	2.052E-10	
	(n,nt)	1.678E-11	1.824E-11	2.498E-11	3.149E-11	1.467E-11	
	capture	5.184E+01	3.763E+01	1.613E+01	6.714E+00	7.029E-01	
	(n,p)	5.438E-05	6.287E-05	8.085E-05	6.181E-05	2.547E-05	
	(n,d)	1.004E-07	1.091E-07	1.494E-07	1.471E-07	6.417E-08	
	(n,t)	5.970E-09	6.491E-09	8.888E-09	9.676E-09	4.326E-09	
	(n,He-3)	2.185E-12	2.375E-12	3.252E-12	4.017E-12	1.860E-12	
	(n,a)	5.712E-06	6.444E-06	8.579E-06	6.654E-06	2.724E-06	
	45-Rh-105	total	6.224E+03	3.430E+03	1.355E+03	6.129E+02	7.366E+00
elastic		3.290E+03	2.020E+03	9.005E+02	4.203E+02	6.312E+00	
inelastic		4.709E-01	5.549E-01	6.516E-01	6.111E-01	4.427E-01	
(n,2n)		4.849E-04	5.273E-04	7.219E-04	5.892E-04	2.454E-04	
(n,3n)		3.433E-07	3.733E-07	5.111E-07	6.083E-07	2.787E-07	
(n,na)		1.312E-08	1.427E-08	1.954E-08	2.045E-08	9.054E-09	
(n,np)		2.836E-07	3.083E-07	4.222E-07	4.094E-07	1.779E-07	
(n,nd)		9.354E-11	1.017E-10	1.393E-10	1.744E-10	8.104E-11	
(n,nt)		2.320E-11	2.522E-11	3.453E-11	4.351E-11	2.026E-11	
capture		2.934E+03	1.409E+03	4.540E+02	1.921E+02	6.094E-01	
(n,p)		6.777E-06	7.650E-06	1.021E-05	7.925E-06	3.233E-06	
(n,d)		3.289E-08	3.576E-08	4.897E-08	5.096E-08	2.253E-08	
(n,t)		4.241E-09	4.612E-09	6.315E-09	7.033E-09	3.163E-09	
(n,a)		5.039E-07	5.541E-07	7.538E-07	6.201E-07	2.582E-07	
46-Pd-102		total	7.781E+00	7.999E+00	8.206E+00	8.379E+00	7.104E+00
		elastic	6.389E+00	6.759E+00	7.007E+00	7.237E+00	6.577E+00
	inelastic	2.739E-01	3.179E-01	3.756E-01	3.270E-01	1.829E-01	
	(n,2n)	5.874E-05	6.387E-05	8.745E-05	7.987E-05	3.416E-05	
	(n,3n)	2.705E-09	2.941E-09	4.027E-09	5.057E-09	2.706E-09	
	(n,na)	3.844E-07	4.180E-07	5.723E-07	5.171E-07	2.208E-07	
	(n,np)	5.752E-07	6.255E-07	8.564E-07	8.294E-07	3.599E-07	
	(n,nd)	5.327E-13	5.793E-13	7.931E-13	1.016E-12	4.750E-13	
	capture	1.117E+00	9.209E-01	8.218E-01	8.141E-01	3.434E-01	
	(n,p)	5.677E-04	6.608E-04	8.501E-04	6.451E-04	2.633E-04	
	(n,d)	4.642E-08	5.047E-08	6.910E-08	7.075E-08	3.115E-08	
	(n,t)	1.452E-09	1.579E-09	2.162E-09	2.449E-09	1.106E-09	
	(n,He-3)	1.533E-11	1.667E-11	2.282E-11	2.758E-11	1.269E-11	
	(n,a)	1.771E-04	2.057E-04	2.581E-04	2.009E-04	8.642E-05	
	(n,2p)	1.173E-10	1.275E-10	1.746E-10	1.918E-10	8.595E-11	
	46-Pd-104	total	7.256E+00	7.762E+00	8.137E+00	8.328E+00	7.064E+00
elastic		6.234E+00	6.595E+00	6.837E+00	7.084E+00	6.585E+00	
inelastic		3.097E-01	3.594E-01	4.244E-01	3.695E-01	2.070E-01	
(n,2n)		1.827E-04	1.987E-04	2.720E-04	2.367E-04	1.000E-04	
(n,3n)		3.900E-08	4.241E-08	5.806E-08	7.260E-08	3.373E-08	
(n,na)		1.539E-07	1.673E-07	2.291E-07	2.146E-07	9.249E-08	
(n,np)		1.333E-07	1.449E-07	1.984E-07	2.032E-07	8.939E-08	
(n,nd)		2.727E-13	2.965E-13	4.060E-13	5.210E-13	2.438E-13	
capture		7.114E-01	8.060E-01	8.743E-01	8.727E-01	2.713E-01	
(n,p)		3.740E-05	4.229E-05	5.658E-05	4.338E-05	1.759E-05	
(n,d)		2.635E-08	2.865E-08	3.923E-08	4.108E-08	1.819E-08	
(n,t)		1.331E-09	1.447E-09	1.982E-09	2.271E-09	1.030E-09	
(n,He-3)		2.333E-12	2.537E-12	3.474E-12	4.285E-12	1.984E-12	

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
46-Pd-104	(n, α)	2.239E-05	2.586E-05	3.355E-05	2.554E-05	1.046E-05
46-Pd-105	total	1.148E+01	1.009E+01	9.076E+00	8.612E+00	6.867E+00
	elastic	5.179E+00	5.228E+00	5.237E+00	5.382E+00	5.562E+00
	inelastic	4.684E-01	5.500E-01	6.447E-01	5.981E-01	4.054E-01
	(n,2n)	1.956E-03	2.148E-03	2.928E-03	2.224E-03	9.056E-04
	(n,3n)	7.727E-08	8.402E-08	1.150E-07	1.421E-07	6.588E-08
	(n, α)	3.969E-08	4.316E-08	5.909E-08	5.802E-08	2.529E-08
	(n,np)	3.686E-08	4.008E-08	5.488E-08	5.758E-08	2.550E-08
	(n,nd)	8.454E-11	9.192E-11	1.258E-10	1.574E-10	7.317E-11
	capture	5.826E+00	4.295E+00	3.183E+00	2.623E+00	8.977E-01
	(n,p)	4.712E-05	5.439E-05	6.983E-05	5.377E-05	2.229E-05
	(n,d)	6.296E-08	6.846E-08	9.373E-08	9.459E-08	4.149E-08
	(n,t)	4.446E-09	4.835E-09	6.619E-09	7.218E-09	3.228E-09
	(n,He-3)	2.832E-12	3.079E-12	4.216E-12	5.195E-12	2.404E-12
	(n, α)	2.148E-05	2.486E-05	3.085E-05	2.486E-05	1.185E-05
46-Pd-106	total	6.523E+00	6.864E+00	7.118E+00	7.298E+00	6.676E+00
	elastic	5.866E+00	6.113E+00	6.264E+00	6.471E+00	6.199E+00
	inelastic	3.197E-01	3.713E-01	4.378E-01	4.358E-01	2.186E-01
	(n,2n)	3.067E-04	3.335E-04	4.567E-04	3.863E-04	1.623E-04
	(n,3n)	1.721E-07	1.871E-07	2.562E-07	3.119E-07	1.439E-07
	(n, α)	3.008E-08	3.271E-08	4.478E-08	4.495E-08	1.970E-08
	(n,np)	2.108E-08	2.292E-08	3.138E-08	3.349E-08	1.489E-08
	capture	3.363E-01	3.788E-01	4.147E-01	4.420E-01	2.571E-01
	(n,p)	4.179E-06	4.591E-06	6.254E-06	5.084E-06	2.110E-06
	(n,d)	9.026E-09	9.815E-09	1.344E-08	1.466E-08	6.557E-09
	(n,t)	8.177E-10	8.892E-10	1.217E-09	1.410E-09	6.409E-10
	(n, α)	3.402E-06	3.865E-06	5.138E-06	3.937E-06	1.599E-06
46-Pd-107	total	9.448E+00	1.054E+01	1.105E+01	1.084E+01	7.555E+00
	elastic	5.732E+00	6.342E+00	6.731E+00	6.994E+00	6.217E+00
	inelastic	4.873E-01	5.738E-01	6.725E-01	6.311E-01	4.464E-01
	(n,2n)	3.296E-03	3.671E-03	4.971E-03	3.728E-03	1.505E-03
	(n,3n)	2.710E-07	2.947E-07	4.035E-07	4.836E-07	2.220E-07
	(n, α)	6.370E-09	6.926E-09	9.482E-09	9.912E-09	4.389E-09
	(n,np)	1.580E-08	1.718E-08	2.353E-08	2.576E-08	1.154E-08
	(n,nd)	6.666E-11	7.248E-11	9.924E-11	1.243E-10	5.779E-11
	capture	3.224E+00	3.610E+00	3.636E+00	3.207E+00	8.896E-01
	(n,p)	3.931E-06	4.378E-06	5.889E-06	4.703E-06	1.942E-06
	(n,d)	3.260E-08	3.545E-08	4.854E-08	5.012E-08	2.211E-08
	(n,t)	2.760E-09	3.001E-09	4.109E-09	4.560E-09	2.049E-09
	(n, α)	2.396E-06	2.752E-06	3.487E-06	2.774E-06	1.214E-06
46-Pd-108	total	2.083E+01	2.245E+01	2.323E+01	1.988E+01	7.246E+00
	elastic	1.280E+01	1.453E+01	1.549E+01	1.383E+01	6.764E+00
	inelastic	3.727E-01	4.338E-01	5.108E-01	4.530E-01	2.691E-01
	(n,2n)	4.196E-04	4.563E-04	6.247E-04	5.181E-04	2.166E-04
	(n,3n)	5.331E-07	5.797E-07	7.937E-07	9.405E-07	4.303E-07
	(n, α)	6.917E-09	7.521E-09	1.030E-08	1.085E-08	4.813E-09
	(n,np)	6.062E-09	6.592E-09	9.025E-09	1.003E-08	4.511E-09
	capture	7.648E+00	7.573E+00	7.315E+00	5.594E+00	2.128E-01
	(n,p)	1.332E-06	1.456E-06	1.989E-06	1.672E-06	7.009E-07
	(n,d)	5.521E-09	6.003E-09	8.219E-09	9.193E-09	4.139E-09
	(n,t)	5.453E-10	5.930E-10	8.119E-10	9.459E-10	4.307E-10
	(n, α)	4.497E-07	5.007E-07	6.763E-07	5.455E-07	2.253E-07
46-Pd-110	total	5.793E+00	5.978E+00	6.136E+00	6.339E+00	6.748E+00
	elastic	5.260E+00	5.372E+00	5.442E+00	5.691E+00	6.317E+00
	inelastic	4.076E-01	4.751E-01	5.587E-01	4.998E-01	3.052E-01
	(n,2n)	6.566E-04	7.139E-04	9.775E-04	7.890E-04	3.278E-04
	(n,3n)	1.273E-06	1.385E-06	1.896E-06	2.170E-06	9.824E-07
	(n, α)	1.221E-09	1.328E-09	1.818E-09	2.021E-09	9.093E-10
	(n,np)	1.557E-09	1.692E-09	2.317E-09	2.668E-09	1.211E-09
	capture	1.284E-01	1.291E-01	1.338E-01	1.459E-01	1.249E-01
	(n,p)	3.549E-07	3.860E-07	5.285E-07	4.806E-07	2.056E-07
	(n,d)	2.114E-09	2.299E-09	3.147E-09	3.573E-09	1.616E-09
	(n,t)	5.049E-10	5.490E-10	7.516E-10	8.801E-10	4.013E-10
	(n, α)	7.249E-08	7.920E-08	1.082E-07	9.863E-08	4.221E-08
47-Ag-107	total	1.581E+01	1.235E+01	9.918E+00	9.087E+00	7.502E+00
	elastic	6.456E+00	6.289E+00	6.052E+00	6.172E+00	6.518E+00
	nonelastic	9.323E+00	6.045E+00	3.850E+00	2.898E+00	9.830E-01
	inelastic	4.748E-01	5.566E-01	6.531E-01	6.016E-01	4.034E-01
	(n,2n)	2.441E-04	2.654E-04	3.634E-04	3.085E-04	1.297E-04
	(n,3n)	1.269E-08	1.380E-08	1.890E-08	2.361E-08	1.098E-08

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
47-Ag-107	(n,n _a)	6.196E-08	6.828E-08	9.195E-08	8.863E-08	3.864E-08
	(n,n _p)	1.372E-06	1.511E-06	2.055E-06	1.683E-06	6.998E-07
	capture	8.848E+00	5.488E+00	3.196E+00	2.296E+00	5.794E-01
	(n,p)	1.275E-04	1.480E-04	1.853E-04	1.440E-04	6.133E-05
	(n, α)	4.812E-06	5.504E-06	7.257E-06	5.528E-06	2.245E-06
47-Ag-109	total	5.559E+01	5.039E+01	4.076E+01	2.630E+01	7.862E+00
	elastic	7.859E+00	8.772E+00	8.867E+00	8.065E+00	6.828E+00
	nonelastic	4.798E+01	4.175E+01	3.202E+01	1.836E+01	1.033E+00
	inelastic	4.927E-01	5.778E-01	6.777E-01	6.253E-01	4.211E-01
	(n,2n)	3.446E-04	3.747E-04	5.130E-04	4.261E-04	1.782E-04
	(n,3n)	9.354E-08	1.017E-07	1.393E-07	1.694E-07	7.810E-08
	(n,n _a)	6.047E-08	6.655E-08	8.997E-08	8.978E-08	3.940E-08
	(n,np)	3.976E-07	4.323E-07	5.919E-07	5.592E-07	2.415E-07
	capture	4.749E+01	4.117E+01	3.134E+01	1.774E+01	6.117E-01
	(n,p)	2.752E-05	3.180E-05	4.122E-05	3.144E-05	1.285E-05
	(n, α)	1.090E-06	1.212E-06	1.639E-06	1.303E-06	5.364E-07
	47-Ag-110m	total	2.099E+01	1.359E+01	9.393E+00	8.808E+00
elastic		5.230E+00	4.991E+00	4.767E+00	4.809E+00	4.976E+00
inelastic		3.406E-01	3.963E-01	4.658E-01	4.125E-01	2.496E-01
(n,2n)		2.330E-03	2.571E-03	3.497E-03	2.642E-03	1.073E-03
(n,3n)		3.482E-07	3.786E-07	5.184E-07	6.181E-07	2.833E-07
(n,n _a)		1.087E-08	1.182E-08	1.618E-08	1.702E-08	7.547E-09
(n,np)		1.218E-07	1.324E-07	1.813E-07	1.769E-07	7.699E-08
(n,nd)		2.042E-09	2.220E-09	3.040E-09	3.610E-09	1.653E-09
(n,nt)		5.042E-12	5.482E-12	7.506E-12	9.512E-12	4.435E-12
capture		1.542E+01	8.193E+00	4.156E+00	3.583E+00	2.132E+00
(n,p)		1.959E-05	2.244E-05	2.807E-05	2.243E-05	1.005E-05
(n,d)		7.117E-08	7.738E-08	1.059E-07	1.057E-07	4.624E-08
(n,t)		8.195E-09	8.911E-09	1.220E-08	1.296E-08	5.757E-09
(n,He-3)		1.243E-12	1.352E-12	1.851E-12	2.285E-12	1.058E-12
(n, α)		8.422E-07	9.454E-07	1.252E-06	9.977E-07	4.168E-07
48-Cd-106	total	6.788E+00	7.000E+00	7.181E+00	7.437E+00	7.266E+00
	elastic	6.011E+00	6.186E+00	6.293E+00	6.551E+00	6.622E+00
	inelastic	2.528E-01	2.932E-01	3.472E-01	2.991E-01	1.632E-01
	(n,2n)	5.282E-05	5.744E-05	7.864E-05	7.179E-05	3.070E-05
	(n,3n)	1.607E-11	1.747E-11	2.392E-11	3.049E-11	1.554E-11
	(n,n _a)	1.867E-06	2.030E-06	2.780E-06	2.485E-06	1.058E-06
	(n,np)	1.265E-05	1.375E-05	1.883E-05	1.762E-05	7.586E-06
	(n,nd)	3.184E-12	3.462E-12	4.740E-12	6.050E-12	2.827E-12
	capture	5.210E-01	5.185E-01	5.368E-01	5.839E-01	4.801E-01
	(n,p)	4.380E-04	5.066E-04	6.418E-04	4.959E-04	2.093E-04
	(n,d)	1.529E-07	1.663E-07	2.277E-07	2.243E-07	9.786E-08
	(n,t)	2.591E-09	2.818E-09	3.858E-09	4.350E-09	1.963E-09
	(n,He-3)	7.661E-11	8.330E-11	1.141E-10	1.350E-10	6.175E-11
	(n, α)	1.591E-03	1.847E-03	2.296E-03	1.805E-03	7.961E-04
	(n,2p)	3.627E-09	3.944E-09	5.400E-09	5.586E-09	2.464E-09
48-Cd-108	total	7.815E+00	8.255E+00	8.582E+00	8.846E+00	7.511E+00
	elastic	6.575E+00	6.890E+00	7.094E+00	7.388E+00	6.938E+00
	inelastic	2.710E-01	3.142E-01	3.717E-01	3.205E-01	1.747E-01
	(n,2n)	9.916E-05	1.078E-04	1.476E-04	1.304E-04	5.533E-05
	(n,3n)	9.825E-09	1.068E-08	1.463E-08	1.859E-08	8.747E-09
	(n,n _a)	7.365E-07	8.008E-07	1.096E-06	1.019E-06	4.384E-07
	(n,np)	6.794E-07	7.387E-07	1.011E-06	1.006E-06	4.392E-07
	(n,nd)	8.355E-13	9.084E-13	1.244E-12	1.592E-12	7.441E-13
	capture	9.679E-01	1.050E+00	1.115E+00	1.137E+00	3.981E-01
	(n,p)	1.094E-04	1.253E-04	1.656E-04	1.253E-04	5.061E-05
	(n,d)	3.179E-08	3.457E-08	4.733E-08	4.929E-08	2.179E-08
	(n,t)	1.710E-09	1.859E-09	2.545E-09	2.909E-09	1.318E-09
	(n,He-3)	4.322E-12	4.700E-12	6.435E-12	7.896E-12	3.650E-12
	(n, α)	5.173E-05	5.985E-05	7.735E-05	5.881E-05	2.414E-05
	(n,2p)	4.384E-11	4.768E-11	6.527E-11	7.511E-11	3.409E-11
48-Cd-110	total	1.515E+01	1.271E+01	1.061E+01	9.688E+00	7.031E+00
	elastic	1.193E+01	1.037E+01	8.810E+00	8.194E+00	6.645E+00
	inelastic	2.824E-01	3.273E-01	3.869E-01	3.329E-01	1.805E-01
	(n,2n)	1.554E-04	1.690E-04	2.314E-04	1.997E-04	8.430E-05
	(n,3n)	8.150E-08	8.862E-08	1.213E-07	1.504E-07	6.981E-08
	(n,n _a)	4.819E-08	5.240E-08	7.174E-08	7.016E-08	3.056E-08
	(n,np)	4.465E-08	4.855E-08	6.647E-08	6.955E-08	3.077E-08
	capture	2.927E+00	2.006E+00	1.407E+00	1.156E+00	2.055E-01
	(n,p)	1.209E-05	1.356E-05	1.826E-05	1.416E-05	5.771E-06
	(n,d)	1.261E-08	1.371E-08	1.878E-08	2.026E-08	9.037E-09

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
48-Cd-110	(n,t)	8.069E-10	8.774E-10	1.201E-09	1.390E-09	6.318E-10
	(n,a)	4.417E-06	5.052E-06	6.657E-06	5.103E-06	2.077E-06
48-Cd-111	total	1.093E+01	9.079E+00	8.037E+00	7.886E+00	6.945E+00
	elastic	5.401E+00	5.530E+00	5.607E+00	5.809E+00	5.990E+00
	inelastic	4.268E-01	5.006E-01	5.873E-01	5.405E-01	3.610E-01
	(n,2n)	1.929E-03	2.121E-03	2.889E-03	2.193E-03	8.925E-04
	(n,3n)	1.210E-07	1.316E-07	1.802E-07	2.204E-07	1.018E-07
	(n,na)	9.145E-09	9.944E-09	1.362E-08	1.407E-08	6.214E-09
	(n,np)	3.186E-08	3.465E-08	4.744E-08	5.072E-08	2.257E-08
	(n,nd)	3.921E-11	4.263E-11	5.837E-11	7.334E-11	3.413E-11
	capture	5.102E+00	3.039E+00	1.834E+00	1.530E+00	5.922E-01
	(n,p)	2.652E-05	3.019E-05	3.965E-05	3.081E-05	1.267E-05
	(n,d)	3.813E-08	4.146E-08	5.677E-08	5.853E-08	2.581E-08
	(n,t)	2.174E-09	2.364E-09	3.237E-09	3.620E-09	1.630E-09
	(n,a)	5.679E-06	6.556E-06	8.177E-06	6.547E-06	2.991E-06
48-Cd-112	total	7.398E+00	7.229E+00	7.073E+00	7.137E+00	6.914E+00
	elastic	6.354E+00	6.271E+00	6.143E+00	6.304E+00	6.519E+00
	inelastic	3.061E-01	3.548E-01	4.188E-01	3.623E-01	1.992E-01
	(n,2n)	3.053E-04	3.320E-04	4.545E-04	3.836E-04	1.610E-04
	(n,3n)	2.749E-07	2.989E-07	4.092E-07	4.937E-07	2.271E-07
	(n,na)	1.005E-08	1.093E-08	1.497E-08	1.561E-08	6.907E-09
	(n,np)	1.036E-08	1.126E-08	1.542E-08	1.686E-08	7.547E-09
	capture	7.379E-01	6.014E-01	5.101E-01	4.703E-01	1.959E-01
	(n,p)	2.437E-06	2.677E-06	3.648E-06	2.995E-06	1.246E-06
	(n,d)	8.253E-09	8.974E-09	1.229E-08	1.359E-08	6.102E-09
	(n,t)	5.338E-10	5.804E-10	7.947E-10	9.302E-10	4.242E-10
	(n,a)	7.059E-07	7.928E-07	1.064E-06	8.436E-07	3.464E-07
	48-Cd-113	total	8.206E+03	3.582E+03	4.650E+02	7.748E+01
elastic		3.726E+01	2.144E+01	8.005E+00	6.336E+00	6.139E+00
inelastic		4.244E-01	4.969E-01	5.826E-01	5.329E-01	3.476E-01
(n,2n)		3.022E-03	3.361E-03	4.554E-03	3.421E-03	1.383E-03
(n,3n)		3.747E-07	4.074E-07	5.579E-07	6.645E-07	3.045E-07
(n,na)		2.679E-09	2.913E-09	3.988E-09	4.333E-09	1.938E-09
(n,np)		5.757E-09	6.260E-09	8.571E-09	9.577E-09	4.311E-09
(n,nd)		2.350E-11	2.556E-11	3.499E-11	4.412E-11	2.054E-11
capture		8.169E+03	3.560E+03	4.566E+02	7.061E+01	4.662E-01
(n,p)		1.789E-06	1.981E-06	2.679E-06	2.195E-06	9.124E-07
(n,d)		1.890E-08	2.055E-08	2.814E-08	2.983E-08	1.325E-08
(n,t)		2.175E-09	2.365E-09	3.238E-09	3.649E-09	1.646E-09
(n,a)		6.292E-07	7.166E-07	9.277E-07	7.445E-07	3.153E-07
48-Cd-114	total	7.643E+00	8.095E+00	8.384E+00	8.528E+00	7.257E+00
	elastic	6.814E+00	7.123E+00	7.297E+00	7.523E+00	6.874E+00
	inelastic	3.255E-01	3.777E-01	4.452E-01	3.884E-01	2.183E-01
	(n,2n)	4.808E-04	5.227E-04	7.157E-04	5.872E-04	2.449E-04
	(n,3n)	6.812E-07	7.407E-07	1.014E-06	1.192E-06	5.438E-07
	(n,na)	1.941E-09	2.111E-09	2.890E-09	3.166E-09	1.419E-09
	(n,np)	2.202E-09	2.394E-09	3.278E-09	3.734E-09	1.690E-09
	capture	5.022E-01	5.928E-01	6.402E-01	6.160E-01	1.635E-01
	(n,p)	7.724E-07	8.409E-07	1.151E-06	1.019E-06	4.331E-07
	(n,d)	2.687E-09	2.922E-09	4.000E-09	4.555E-09	2.061E-09
	(n,t)	3.730E-10	4.056E-10	5.552E-10	6.551E-10	2.994E-10
	(n,a)	4.942E-08	5.421E-08	7.387E-08	6.575E-08	2.795E-08
	48-Cd-116	total	6.149E+00	6.212E+00	6.246E+00	6.376E+00
elastic		5.746E+00	5.748E+00	5.706E+00	5.885E+00	6.388E+00
inelastic		3.322E-01	3.858E-01	4.548E-01	3.987E-01	2.276E-01
(n,2n)		6.188E-04	6.728E-04	9.211E-04	7.435E-04	3.089E-04
(n,3n)		1.530E-06	1.664E-06	2.278E-06	2.584E-06	1.167E-06
(n,na)		2.774E-10	3.016E-10	4.129E-10	4.778E-10	2.172E-10
(n,np)		5.663E-10	6.158E-10	8.431E-10	9.940E-10	4.542E-10
capture		6.928E-02	7.626E-02	8.305E-02	9.017E-02	7.883E-02
(n,p)		1.228E-07	1.335E-07	1.828E-07	1.747E-07	7.564E-08
(n,d)		1.164E-09	1.266E-09	1.733E-09	2.015E-09	9.171E-10
(n,t)		2.932E-10	3.188E-10	4.365E-10	5.173E-10	2.367E-10
(n,a)		4.987E-09	5.425E-09	7.426E-09	7.387E-09	3.230E-09
49-In-113		total	1.552E+01	1.553E+01	1.415E+01	1.151E+01
	elastic	5.254E+00	5.621E+00	5.844E+00	5.967E+00	5.871E+00
	inelastic	2.385E-01	2.753E-01	3.269E-01	2.746E-01	1.395E-01
	(n,2n)	2.149E-04	2.336E-04	3.198E-04	2.751E-04	1.160E-04
	(n,3n)	7.386E-08	8.031E-08	1.100E-07	1.356E-07	6.287E-08
	(n,na)	6.868E-09	7.468E-09	1.023E-08	1.078E-08	4.783E-09

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
49-In-113	(n,np)	2.427E-07	2.640E-07	3.614E-07	3.531E-07	1.536E-07	
	(n,nd)	6.803E-11	7.397E-11	1.013E-10	1.286E-10	5.999E-11	
	(n,nt)	9.837E-13	1.070E-12	1.464E-12	1.888E-12	8.847E-13	
	capture	1.003E+01	9.629E+00	7.980E+00	5.268E+00	7.409E-01	
	(n,p)	1.343E-05	1.517E-05	2.020E-05	1.566E-05	6.389E-06	
	(n,d)	7.267E-08	7.902E-08	1.082E-07	1.107E-07	4.872E-08	
	(n,t)	4.127E-09	4.487E-09	6.144E-09	6.873E-09	3.094E-09	
	(n,He-3)	1.731E-12	1.882E-12	2.577E-12	3.212E-12	1.491E-12	
	(n,a)	1.115E-06	1.242E-06	1.671E-06	1.342E-06	5.547E-07	
	49-In-115	total	1.200E+02	1.049E+02	6.892E+01	3.572E+01	6.559E+00
elastic		7.557E+00	8.281E+00	7.820E+00	6.816E+00	5.902E+00	
inelastic		2.538E-01	2.931E-01	3.471E-01	2.933E-01	1.517E-01	
(n,2n)		2.986E-04	3.246E-04	4.445E-04	3.723E-04	1.560E-04	
(n,3n)		2.421E-07	2.633E-07	3.604E-07	4.341E-07	1.996E-07	
(n,na)		1.362E-08	1.481E-08	2.028E-08	2.166E-08	9.643E-09	
(n,np)		2.558E-07	2.781E-07	3.808E-07	3.874E-07	1.702E-07	
(n,nd)		3.087E-11	3.357E-11	4.596E-11	5.866E-11	2.740E-11	
(n,nt)		1.588E-12	1.726E-12	2.364E-12	3.045E-12	1.426E-12	
capture		1.124E+02	9.642E+01	6.082E+01	2.868E+01	5.047E-01	
(n,p)		2.396E-06	2.665E-06	3.606E-06	2.854E-06	1.172E-06	
(n,d)		3.237E-08	3.519E-08	4.818E-08	5.130E-08	2.280E-08	
(n,t)		3.050E-09	3.317E-09	4.541E-09	5.147E-09	2.326E-09	
(n,a)		4.380E-07	4.852E-07	6.576E-07	5.318E-07	2.200E-07	
50-Sn-112		total	6.806E+00	7.142E+00	7.323E+00	7.271E+00	6.271E+00
	elastic	5.619E+00	5.863E+00	6.005E+00	6.116E+00	5.991E+00	
	inelastic	1.704E-01	1.966E-01	2.357E-01	1.942E-01	9.405E-02	
	(n,2n)	8.044E-05	8.747E-05	1.198E-04	1.084E-04	4.625E-05	
	(n,3n)	6.493E-10	7.060E-10	9.666E-10	1.217E-09	6.466E-10	
	(n,na)	1.378E-06	1.498E-06	2.052E-06	1.926E-06	8.303E-07	
	(n,np)	3.422E-06	3.721E-06	5.094E-06	5.166E-06	2.266E-06	
	capture	1.018E+00	1.081E+00	1.081E+00	9.610E-01	1.854E-01	
	(n,p)	5.312E-05	6.055E-05	8.050E-05	6.098E-05	2.461E-05	
	(n,d)	8.709E-08	9.470E-08	1.297E-07	1.326E-07	5.837E-08	
	(n,t)	1.932E-09	2.101E-09	2.876E-09	3.315E-09	1.505E-09	
	(n,He-3)	1.510E-11	1.642E-11	2.248E-11	2.739E-11	1.263E-11	
	(n,a)	3.774E-05	4.362E-05	5.611E-05	4.293E-05	1.773E-05	
	(n,2p)	4.973E-11	5.408E-11	7.404E-11	8.793E-11	4.026E-11	
	50-Sn-114	total	5.973E+00	6.307E+00	6.567E+00	6.729E+00	6.245E+00
elastic		5.569E+00	5.837E+00	6.027E+00	6.219E+00	6.000E+00	
inelastic		1.730E-01	1.997E-01	2.394E-01	1.972E-01	9.519E-02	
(n,2n)		1.140E-04	1.240E-04	1.698E-04	1.508E-04	6.409E-05	
(n,3n)		1.508E-08	1.639E-08	2.244E-08	2.835E-08	1.352E-08	
(n,na)		1.436E-07	1.561E-07	2.138E-07	2.160E-07	9.482E-08	
(n,np)		9.266E-08	1.008E-07	1.379E-07	1.486E-07	6.623E-08	
capture		2.315E-01	2.700E-01	3.000E-01	3.123E-01	1.488E-01	
(n,p)		1.363E-05	1.512E-05	2.051E-05	1.604E-05	6.567E-06	
(n,d)		3.402E-08	3.699E-08	5.064E-08	5.441E-08	2.424E-08	
(n,t)		1.223E-09	1.330E-09	1.820E-09	2.119E-09	9.643E-10	
(n,He-3)		1.173E-12	1.275E-12	1.746E-12	2.182E-12	1.014E-12	
(n,a)		5.149E-06	5.888E-06	7.748E-06	5.953E-06	2.427E-06	
50-Sn-115		total	1.179E+01	8.540E+00	6.542E+00	6.283E+00	6.236E+00
		elastic	6.260E+00	5.832E+00	5.446E+00	5.473E+00	5.709E+00
	inelastic	3.122E-01	3.626E-01	4.275E-01	3.750E-01	2.146E-01	
	(n,2n)	1.075E-03	1.172E-03	1.603E-03	1.242E-03	5.101E-04	
	(n,3n)	2.003E-08	2.178E-08	2.981E-08	3.743E-08	1.811E-08	
	(n,na)	3.432E-08	3.731E-08	5.109E-08	5.341E-08	2.364E-08	
	(n,np)	2.852E-08	3.101E-08	4.245E-08	4.656E-08	2.084E-08	
	(n,nd)	1.147E-11	1.247E-11	1.708E-11	2.189E-11	1.024E-11	
	capture	5.211E+00	2.343E+00	6.662E-01	4.329E-01	3.119E-01	
	(n,p)	1.440E-05	1.638E-05	2.173E-05	1.681E-05	6.838E-06	
	(n,d)	5.429E-08	5.903E-08	8.082E-08	8.346E-08	3.681E-08	
	(n,t)	3.191E-09	3.470E-09	4.751E-09	5.390E-09	2.436E-09	
	(n,He-3)	1.632E-12	1.774E-12	2.429E-12	3.031E-12	1.408E-12	
	(n,a)	7.895E-06	9.097E-06	1.138E-05	9.011E-06	3.950E-06	
	50-Sn-116	total	6.070E+00	6.524E+00	6.837E+00	6.980E+00	6.610E+00
elastic		5.545E+00	5.894E+00	6.132E+00	6.353E+00	6.408E+00	
inelastic		1.800E-01	2.077E-01	2.487E-01	2.052E-01	9.940E-02	
(n,2n)		2.281E-04	2.480E-04	3.396E-04	2.899E-04	1.220E-04	
(n,3n)		8.568E-08	9.316E-08	1.275E-07	1.574E-07	7.301E-08	
(n,na)		3.545E-08	3.854E-08	5.277E-08	5.604E-08	2.491E-08	
(n,np)		2.484E-08	2.701E-08	3.698E-08	4.134E-08	1.860E-08	

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
50-Sn-116	capture	3.438E-01	4.208E-01	4.543E-01	4.211E-01	1.018E-01
	(n,p)	2.784E-06	3.034E-06	4.150E-06	3.447E-06	1.442E-06
	(n,d)	8.958E-09	9.740E-09	1.334E-08	1.487E-08	6.690E-09
	(n,t)	7.200E-10	7.829E-10	1.072E-09	1.262E-09	5.765E-10
	(n,a)	8.236E-07	9.202E-07	1.240E-06	9.898E-07	4.073E-07
	50-Sn-117	total	6.503E+00	6.552E+00	6.592E+00	6.682E+00
	elastic	5.254E+00	5.333E+00	5.376E+00	5.570E+00	5.908E+00
	inelastic	3.872E-01	4.560E-01	5.370E-01	4.978E-01	3.576E-01
	(n,2n)	2.276E-03	2.508E-03	3.413E-03	2.580E-03	1.048E-03
	(n,3n)	1.560E-07	1.696E-07	2.322E-07	2.819E-07	1.299E-07
	(n,na)	1.143E-08	1.243E-08	1.702E-08	1.841E-08	8.223E-09
	(n,np)	1.109E-08	1.206E-08	1.650E-08	1.865E-08	8.417E-09
	(n,nd)	5.331E-12	5.794E-12	7.936E-12	1.022E-11	4.784E-12
	capture	8.661E-01	7.588E-01	6.757E-01	6.125E-01	2.737E-01
	(n,p)	2.752E-06	3.042E-06	4.130E-06	3.334E-06	1.379E-06
	(n,d)	4.885E-08	5.312E-08	7.272E-08	7.749E-08	3.445E-08
	(n,t)	1.318E-09	1.433E-09	1.963E-09	2.254E-09	1.022E-09
	(n,a)	1.008E-06	1.151E-06	1.495E-06	1.181E-06	4.927E-07
50-Sn-118	total	5.687E+00	6.021E+00	6.298E+00	6.488E+00	6.379E+00
	elastic	5.309E+00	5.599E+00	5.825E+00	6.065E+00	6.197E+00
	inelastic	1.865E-01	2.153E-01	2.574E-01	2.129E-01	1.039E-01
	(n,2n)	2.803E-04	3.048E-04	4.173E-04	3.515E-04	1.475E-04
	(n,3n)	2.298E-07	2.498E-07	3.420E-07	4.127E-07	1.899E-07
	(n,na)	3.885E-09	4.225E-09	5.784E-09	6.413E-09	2.883E-09
	(n,np)	4.957E-09	5.390E-09	7.379E-09	8.577E-09	3.902E-09
	capture	1.906E-01	2.051E-01	2.129E-01	2.086E-01	7.720E-02
	(n,p)	5.753E-07	6.255E-07	8.564E-07	7.562E-07	3.213E-07
	(n,d)	5.025E-09	5.464E-09	7.481E-09	8.514E-09	3.851E-09
	(n,t)	4.242E-10	4.613E-10	6.315E-10	7.528E-10	3.450E-10
	(n,a)	6.764E-08	7.408E-08	1.010E-07	8.995E-08	3.825E-08
	50-Sn-119	total	5.941E+00	5.962E+00	6.035E+00	6.207E+00
elastic		4.946E+00	5.050E+00	5.116E+00	5.304E+00	5.590E+00
inelastic		4.787E-01	5.717E-01	6.740E-01	6.589E-01	6.383E-01
(n,2n)		3.421E-03	3.819E-03	5.166E-03	3.872E-03	1.562E-03
(n,3n)		3.560E-07	3.871E-07	5.299E-07	6.279E-07	2.873E-07
(n,na)		2.997E-09	3.259E-09	4.462E-09	4.999E-09	2.253E-09
(n,np)		8.669E-09	9.427E-09	1.291E-08	1.491E-08	6.773E-09
(n,nd)		1.836E-12	1.996E-12	2.733E-12	3.533E-12	1.656E-12
capture		5.116E-01	3.369E-01	2.395E-01	2.390E-01	1.790E-01
(n,p)		5.441E-07	5.930E-07	8.111E-07	6.988E-07	2.949E-07
(n,d)		1.802E-08	1.960E-08	2.683E-08	2.915E-08	1.302E-08
(n,t)		1.400E-09	1.522E-09	2.084E-09	2.401E-09	1.090E-09
(n,a)		1.554E-07	1.732E-07	2.325E-07	1.961E-07	8.223E-08
50-Sn-120	total	5.534E+00	5.589E+00	5.622E+00	5.700E+00	5.950E+00
	elastic	5.280E+00	5.307E+00	5.297E+00	5.417E+00	5.799E+00
	inelastic	1.926E-01	2.224E-01	2.656E-01	2.203E-01	1.084E-01
	(n,2n)	4.110E-04	4.469E-04	6.118E-04	5.045E-04	2.106E-04
	(n,3n)	5.047E-07	5.488E-07	7.514E-07	8.842E-07	4.037E-07
	(n,na)	1.154E-09	1.255E-09	1.718E-09	1.971E-09	8.940E-10
	(n,np)	1.654E-09	1.798E-09	2.462E-09	2.921E-09	1.337E-09
	capture	6.263E-02	5.893E-02	5.847E-02	6.167E-02	4.277E-02
	(n,p)	2.365E-07	2.571E-07	3.520E-07	3.328E-07	1.437E-07
	(n,d)	2.946E-09	3.203E-09	4.386E-09	5.119E-09	2.332E-09
	(n,t)	3.564E-10	3.876E-10	5.306E-10	6.369E-10	2.925E-10
	(n,a)	2.180E-08	2.372E-08	3.247E-08	3.138E-08	1.364E-08
	50-Sn-122	total	4.971E+00	5.232E+00	5.474E+00	5.667E+00
elastic		4.724E+00	4.967E+00	5.171E+00	5.408E+00	5.999E+00
inelastic		1.877E-01	2.168E-01	2.588E-01	2.148E-01	1.062E-01
(n,2n)		5.689E-04	6.185E-04	8.469E-04	6.862E-04	2.853E-04
(n,3n)		9.076E-07	9.868E-07	1.351E-06	1.554E-06	7.048E-07
(n,na)		2.161E-10	2.350E-10	3.218E-10	3.805E-10	1.741E-10
(n,np)		7.862E-10	8.549E-10	1.170E-09	1.417E-09	6.527E-10
capture		5.834E-02	4.756E-02	4.192E-02	4.271E-02	2.750E-02
(n,p)		4.622E-08	5.025E-08	6.880E-08	6.827E-08	2.982E-08
(n,d)		8.165E-10	8.878E-10	1.215E-09	1.457E-09	6.687E-10
(n,t)		1.914E-10	2.081E-10	2.849E-10	3.472E-10	1.602E-10
(n,a)		4.460E-09	4.850E-09	6.640E-09	6.859E-09	3.029E-09
50-Sn-123		total	8.713E+00	9.298E+00	9.589E+00	9.302E+00
	elastic	6.318E+00	6.850E+00	7.157E+00	7.209E+00	6.215E+00
	inelastic	2.523E-01	2.922E-01	3.452E-01	2.959E-01	1.597E-01

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
50-Sn-123	(n,2n)	5.799E-03	6.599E-03	8.839E-03	6.591E-03	2.641E-03
	(n,3n)	9.750E-07	1.060E-06	1.451E-06	1.660E-06	7.513E-07
	(n,na)	8.180E-11	8.895E-11	1.218E-10	1.460E-10	6.707E-11
	(n,np)	3.412E-10	3.710E-10	5.079E-10	6.161E-10	2.839E-10
	capture	2.130E+00	2.144E+00	2.075E+00	1.788E+00	3.310E-01
	(n,p)	1.098E-07	1.194E-07	1.635E-07	1.558E-07	6.742E-08
	(n,d)	2.933E-09	3.189E-09	4.366E-09	5.031E-09	2.284E-09
	(n,t)	3.517E-10	3.824E-10	5.236E-10	6.245E-10	2.863E-10
	(n,a)	4.279E-09	4.656E-09	6.372E-09	6.537E-09	2.881E-09
	50-Sn-124	total	5.375E+00	5.583E+00	5.739E+00	5.834E+00
elastic		4.945E+00	5.097E+00	5.214E+00	5.401E+00	5.880E+00
inelastic		1.969E-01	2.274E-01	2.713E-01	2.254E-01	1.115E-01
(n,2n)		7.404E-04	8.052E-04	1.102E-03	8.771E-04	3.631E-04
(n,3n)		1.398E-06	1.520E-06	2.081E-06	2.341E-06	1.055E-06
(n,na)		2.161E-11	2.350E-11	3.218E-11	3.924E-11	1.811E-11
(n,np)		1.557E-10	1.693E-10	2.317E-10	2.858E-10	1.323E-10
capture		2.316E-01	2.569E-01	2.521E-01	2.061E-01	2.077E-02
(n,p)		6.574E-08	7.148E-08	9.786E-08	1.010E-07	4.457E-08
(n,d)		3.625E-10	3.942E-10	5.397E-10	6.527E-10	3.005E-10
(n,t)		8.673E-11	9.431E-11	1.291E-10	1.586E-10	7.333E-11
(n,a)		8.414E-10	9.149E-10	1.253E-09	1.383E-09	6.212E-10
50-Sn-126		total	5.188E+00	5.468E+00	5.716E+00	5.935E+00
	elastic	4.959E+00	5.220E+00	5.433E+00	5.699E+00	6.269E+00
	inelastic	1.943E-01	2.243E-01	2.677E-01	2.223E-01	1.098E-01
	(n,2n)	9.929E-04	1.082E-03	1.480E-03	1.157E-03	4.766E-04
	(n,3n)	2.380E-06	2.588E-06	3.543E-06	3.897E-06	1.745E-06
	(n,na)	3.142E-12	3.416E-12	4.677E-12	5.787E-12	2.681E-12
	(n,np)	4.166E-11	4.530E-11	6.202E-11	7.779E-11	3.618E-11
	capture	2.026E-02	1.267E-02	8.406E-03	8.402E-03	8.504E-03
	(n,p)	4.970E-09	5.404E-09	7.399E-09	7.979E-09	3.558E-09
	(n,d)	1.338E-10	1.455E-10	1.992E-10	2.455E-10	1.136E-10
	(n,t)	5.457E-11	5.934E-11	8.124E-11	1.004E-10	4.653E-11
	(n,a)	1.316E-10	1.431E-10	1.959E-10	2.276E-10	1.036E-10
	51-Sb-121	total	1.099E+01	1.127E+01	1.067E+01	9.092E+00
elastic		4.626E+00	4.864E+00	5.009E+00	5.118E+00	5.273E+00
inelastic		4.198E-01	4.979E-01	5.875E-01	5.597E-01	4.821E-01
(n,2n)		3.530E-04	3.838E-04	5.255E-04	4.388E-04	1.838E-04
(n,3n)		2.485E-07	2.702E-07	3.699E-07	4.449E-07	2.045E-07
(n,na)		7.020E-09	7.633E-09	1.045E-08	1.103E-08	4.897E-09
(n,np)		1.581E-07	1.719E-07	2.354E-07	2.253E-07	9.756E-08
(n,nd)		1.583E-10	1.722E-10	2.357E-10	2.953E-10	1.373E-10
(n,nt)		2.305E-11	2.507E-11	3.432E-11	4.340E-11	2.023E-11
capture		5.945E+00	5.896E+00	5.071E+00	3.412E+00	5.104E-01
(n,p)		3.983E-06	4.515E-06	6.004E-06	4.628E-06	1.883E-06
(n,d)		6.693E-08	7.277E-08	9.963E-08	1.004E-07	4.404E-08
(n,t)		5.569E-09	6.055E-09	8.290E-09	9.035E-09	4.040E-09
(n,a)	9.157E-07	1.020E-06	1.375E-06	1.107E-06	4.573E-07	
51-Sb-123	total	9.396E+00	9.692E+00	9.633E+00	8.638E+00	6.190E+00
	elastic	5.460E+00	5.751E+00	5.885E+00	5.800E+00	5.589E+00
	inelastic	3.220E-01	3.770E-01	4.452E-01	4.011E-01	2.640E-01
	(n,2n)	5.000E-04	5.437E-04	7.443E-04	6.065E-04	2.525E-04
	(n,3n)	4.620E-07	5.024E-07	6.878E-07	8.120E-07	3.711E-07
	(n,na)	2.543E-09	2.765E-09	3.786E-09	4.170E-09	1.872E-09
	(n,np)	5.834E-08	6.344E-08	8.685E-08	8.683E-08	3.799E-08
	(n,nd)	6.291E-11	6.840E-11	9.365E-11	1.185E-10	5.524E-11
	(n,nt)	2.026E-11	2.203E-11	3.016E-11	3.823E-11	1.783E-11
	capture	3.608E+00	3.557E+00	3.295E+00	2.429E+00	3.367E-01
	(n,p)	1.610E-06	1.803E-06	2.430E-06	1.906E-06	7.795E-07
	(n,d)	2.386E-08	2.595E-08	3.553E-08	3.739E-08	1.657E-08
	(n,t)	3.918E-09	4.260E-09	5.832E-09	6.482E-09	2.913E-09
(n,a)	2.126E-07	2.323E-07	3.173E-07	2.769E-07	1.172E-07	
51-Sb-124	total	1.148E+01	1.048E+01	9.419E+00	8.312E+00	6.193E+00
	elastic	4.300E+00	4.439E+00	4.521E+00	4.635E+00	4.907E+00
	inelastic	5.497E-01	6.532E-01	7.673E-01	7.422E-01	6.276E-01
	(n,2n)	3.006E-03	3.349E-03	4.534E-03	3.404E-03	1.375E-03
	(n,3n)	5.246E-07	5.704E-07	7.809E-07	9.137E-07	4.164E-07
	(n,na)	5.075E-10	5.519E-10	7.556E-10	8.687E-10	3.944E-10
	(n,np)	3.817E-08	4.151E-08	5.683E-08	5.873E-08	2.590E-08
	(n,nd)	1.655E-09	1.800E-09	2.464E-09	2.945E-09	1.351E-09
	(n,nt)	9.028E-12	9.817E-12	1.344E-11	1.710E-11	7.981E-12
	capture	6.604E+00	5.370E+00	4.123E+00	2.928E+00	6.550E-01

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
51-Sb-124	(n,p)	1.194E-06	1.331E-06	1.782E-06	1.408E-06	5.816E-07
	(n,d)	4.852E-08	5.276E-08	7.223E-08	7.271E-08	3.186E-08
	(n,t)	6.831E-09	7.428E-09	1.017E-08	1.088E-08	4.843E-09
	(n,a)	1.497E-07	1.634E-07	2.232E-07	1.973E-07	8.382E-08
51-Sb-125	total	7.479E+00	7.519E+00	7.504E+00	7.321E+00	6.262E+00
	elastic	4.915E+00	5.145E+00	5.299E+00	5.451E+00	5.647E+00
	inelastic	2.785E-01	3.237E-01	3.827E-01	3.343E-01	1.931E-01
	(n,2n)	5.375E-04	5.844E-04	8.001E-04	6.474E-04	2.691E-04
	(n,3n)	7.772E-07	8.451E-07	1.157E-06	1.338E-06	6.077E-07
	(n,na)	2.460E-10	2.674E-10	3.662E-10	4.292E-10	1.959E-10
	(n,np)	2.191E-08	2.382E-08	3.261E-08	3.419E-08	1.514E-08
	(n,nd)	2.919E-11	3.173E-11	4.345E-11	5.531E-11	2.582E-11
	(n,nt)	1.127E-11	1.225E-11	1.677E-11	2.131E-11	9.944E-12
	capture	2.278E+00	2.045E+00	1.819E+00	1.534E+00	4.207E-01
	(n,p)	2.917E-07	3.179E-07	4.348E-07	3.702E-07	1.557E-07
	(n,d)	1.906E-08	2.073E-08	2.838E-08	3.046E-08	1.356E-08
	(n,t)	2.154E-09	2.342E-09	3.206E-09	3.609E-09	1.628E-09
	(n,a)	7.343E-08	7.986E-08	1.093E-07	1.042E-07	4.508E-08
52-Te-120	total	7.638E+00	8.243E+00	8.684E+00	8.752E+00	6.652E+00
	elastic	6.333E+00	6.986E+00	7.429E+00	7.594E+00	6.194E+00
	inelastic	2.765E-01	3.206E-01	3.784E-01	3.284E-01	1.821E-01
	(n,2n)	1.005E-04	1.093E-04	1.497E-04	1.332E-04	5.664E-05
	(n,3n)	2.026E-08	2.203E-08	3.016E-08	3.790E-08	1.830E-08
	(n,na)	2.206E-06	2.399E-06	3.284E-06	2.734E-06	1.145E-06
	(n,np)	5.730E-07	6.230E-07	8.530E-07	8.625E-07	3.781E-07
	(n,nd)	6.529E-13	7.099E-13	9.720E-13	1.259E-12	5.904E-13
	capture	1.021E+00	9.320E-01	8.732E-01	8.276E-01	2.748E-01
	(n,p)	5.435E-05	6.254E-05	8.286E-05	6.237E-05	2.503E-05
	(n,d)	7.714E-08	8.388E-08	1.148E-07	1.172E-07	5.153E-08
	(n,t)	2.950E-09	3.208E-09	4.392E-09	4.944E-09	2.230E-09
	(n,He-3)	2.618E-11	2.846E-11	3.897E-11	4.679E-11	2.149E-11
	(n,a)	1.806E-04	2.092E-04	2.598E-04	2.044E-04	8.990E-05
52-Te-122	total	8.981E+00	9.824E+00	1.026E+01	9.928E+00	6.485E+00
	elastic	5.949E+00	6.689E+00	7.181E+00	7.297E+00	5.967E+00
	inelastic	2.689E-01	3.118E-01	3.683E-01	3.189E-01	1.759E-01
	(n,2n)	1.704E-04	1.853E-04	2.537E-04	2.192E-04	9.254E-05
	(n,3n)	8.829E-08	9.600E-08	1.314E-07	1.620E-07	7.509E-08
	(n,na)	2.113E-07	2.298E-07	3.146E-07	2.764E-07	1.173E-07
	(n,np)	5.990E-08	6.514E-08	8.918E-08	9.484E-08	4.211E-08
	capture	2.762E+00	2.818E+00	2.705E+00	2.307E+00	3.403E-01
	(n,p)	3.929E-06	4.364E-06	5.916E-06	4.611E-06	1.885E-06
	(n,d)	2.450E-08	2.663E-08	3.647E-08	3.874E-08	1.721E-08
	(n,t)	1.588E-09	1.727E-09	2.365E-09	2.702E-09	1.224E-09
	(n,He-3)	1.973E-12	2.145E-12	2.937E-12	3.627E-12	1.679E-12
	(n,a)	1.392E-05	1.607E-05	2.071E-05	1.586E-05	6.553E-06
	52-Te-123	total	2.230E+02	1.910E+02	1.328E+02	7.237E+01
elastic		1.820E+01	2.008E+01	1.788E+01	1.273E+01	5.399E+00
inelastic		4.434E-01	5.206E-01	6.110E-01	5.645E-01	3.884E-01
(n,2n)		1.765E-03	1.947E-03	2.649E-03	2.006E-03	8.152E-04
(n,3n)		1.054E-07	1.146E-07	1.569E-07	1.918E-07	8.856E-08
(n,na)		2.358E-08	2.564E-08	3.510E-08	3.429E-08	1.494E-08
(n,np)		1.679E-08	1.825E-08	2.499E-08	2.715E-08	1.213E-08
(n,nd)		1.001E-10	1.088E-10	1.490E-10	1.873E-10	8.716E-11
capture		2.044E+02	1.704E+02	1.143E+02	5.907E+01	7.303E-01
(n,p)		4.545E-06	5.123E-06	6.825E-06	5.321E-06	2.178E-06
(n,d)		6.875E-08	7.475E-08	1.023E-07	1.035E-07	4.540E-08
(n,t)		4.372E-09	4.753E-09	6.508E-09	7.152E-09	3.205E-09
(n,He-3)		3.960E-12	4.306E-12	5.895E-12	7.226E-12	3.339E-12
(n,a)		5.098E-05	5.168E-05	5.225E-05	4.007E-05	1.846E-05
52-Te-124	total	6.494E+00	6.229E+00	6.191E+00	6.377E+00	6.420E+00
	elastic	4.933E+00	5.248E+00	5.517E+00	5.799E+00	6.074E+00
	inelastic	2.839E-01	3.289E-01	3.884E-01	3.354E-01	1.832E-01
	(n,2n)	2.638E-04	2.869E-04	3.928E-04	3.313E-04	1.391E-04
	(n,3n)	2.474E-07	2.690E-07	3.683E-07	4.444E-07	2.045E-07
	(n,na)	1.841E-08	2.002E-08	2.741E-08	2.616E-08	1.133E-08
	(n,np)	9.670E-09	1.051E-08	1.440E-08	1.580E-08	7.078E-09
	capture	1.282E+00	6.504E-01	2.844E-01	2.417E-01	1.621E-01
	(n,p)	1.416E-06	1.547E-06	2.114E-06	1.739E-06	7.250E-07
	(n,d)	8.142E-09	8.853E-09	1.212E-08	1.327E-08	5.940E-09
	(n,t)	9.334E-10	1.015E-09	1.390E-09	1.603E-09	7.277E-10
	(n,a)	1.512E-06	1.715E-06	2.276E-06	1.769E-06	7.231E-07

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
52-Te-125	total	6.349E+00	6.734E+00	7.067E+00	7.203E+00	6.226E+00
	elastic	4.968E+00	5.257E+00	5.479E+00	5.651E+00	5.300E+00
	inelastic	4.969E-01	5.893E-01	6.927E-01	6.645E-01	5.701E-01
	(n,2n)	2.702E-03	3.003E-03	4.071E-03	3.053E-03	1.234E-03
	(n,3n)	2.292E-07	2.492E-07	3.412E-07	4.070E-07	1.866E-07
	(n,na)	3.744E-09	4.071E-09	5.574E-09	5.953E-09	2.650E-09
	(n,np)	9.379E-09	1.020E-08	1.396E-08	1.559E-08	7.017E-09
	(n,nd)	6.949E-11	7.556E-11	1.034E-10	1.306E-10	6.085E-11
	capture	8.871E-01	8.843E-01	8.904E-01	8.846E-01	3.539E-01
	(n,p)	1.220E-06	1.341E-06	1.826E-06	1.471E-06	6.089E-07
	(n,d)	3.897E-08	4.237E-08	5.802E-08	6.014E-08	2.655E-08
	(n,t)	2.640E-09	2.871E-09	3.930E-09	4.383E-09	1.972E-09
	(n,a)	1.643E-06	1.877E-06	2.350E-06	1.912E-06	8.700E-07
52-Te-126	total	5.750E+00	6.094E+00	6.393E+00	6.473E+00	5.743E+00
	elastic	5.097E+00	5.444E+00	5.714E+00	5.857E+00	5.501E+00
	inelastic	2.615E-01	3.028E-01	3.580E-01	3.072E-01	1.651E-01
	(n,2n)	3.587E-04	3.900E-04	5.340E-04	4.423E-04	1.849E-04
	(n,3n)	5.389E-07	5.860E-07	8.023E-07	9.448E-07	4.315E-07
	(n,na)	2.574E-09	2.799E-09	3.832E-09	4.030E-09	1.788E-09
	(n,np)	4.270E-09	4.643E-09	6.357E-09	7.177E-09	3.239E-09
	capture	3.968E-01	3.464E-01	3.195E-01	3.072E-01	7.604E-02
	(n,p)	4.570E-07	4.971E-07	6.805E-07	5.915E-07	2.503E-07
	(n,d)	7.841E-09	8.526E-09	1.167E-08	1.288E-08	5.775E-09
	(n,t)	6.501E-10	7.068E-10	9.677E-10	1.125E-09	5.122E-10
	(n,a)	4.047E-07	4.542E-07	6.095E-07	4.910E-07	2.025E-07
	52-Te-127m	total	5.894E+02	2.580E+02	5.884E+01	2.403E+01
elastic		5.938E+00	6.415E+00	6.653E+00	6.583E+00	5.616E+00
inelastic		3.275E-01	3.816E-01	4.492E-01	3.987E-01	2.428E-01
(n,2n)		3.014E-03	3.372E-03	4.556E-03	3.412E-03	1.375E-03
(n,3n)		5.203E-07	5.658E-07	7.746E-07	9.047E-07	4.121E-07
(n,na)		1.932E-09	2.101E-09	2.876E-09	3.169E-09	1.422E-09
(n,np)		4.222E-09	4.591E-09	6.285E-09	7.148E-09	3.233E-09
(n,nd)		3.377E-11	3.672E-11	5.028E-11	6.380E-11	2.976E-11
capture		5.824E+02	2.508E+02	5.165E+01	1.703E+01	7.973E-01
(n,p)		3.955E-07	4.313E-07	5.897E-07	4.953E-07	2.077E-07
(n,d)		2.217E-08	2.410E-08	3.300E-08	3.491E-08	1.549E-08
(n,t)		3.110E-09	3.382E-09	4.630E-09	5.140E-09	2.309E-09
(n,a)		2.707E-07	3.021E-07	3.999E-07	3.309E-07	1.402E-07
52-Te-128	total	5.056E+00	5.242E+00	5.423E+00	5.517E+00	5.711E+00
	elastic	4.727E+00	4.884E+00	5.016E+00	5.160E+00	5.518E+00
	inelastic	2.518E-01	2.913E-01	3.447E-01	2.935E-01	1.547E-01
	(n,2n)	4.762E-04	5.178E-04	7.089E-04	5.765E-04	2.399E-04
	(n,3n)	1.033E-06	1.123E-06	1.537E-06	1.771E-06	8.035E-07
	(n,na)	9.498E-10	1.033E-09	1.414E-09	1.566E-09	7.036E-10
	(n,np)	1.322E-09	1.438E-09	1.969E-09	2.267E-09	1.029E-09
	capture	7.645E-02	6.543E-02	6.053E-02	6.175E-02	3.720E-02
	(n,p)	1.662E-07	1.807E-07	2.474E-07	2.232E-07	9.532E-08
	(n,d)	4.189E-09	4.555E-09	6.237E-09	7.021E-09	3.166E-09
	(n,t)	5.585E-10	6.073E-10	8.314E-10	9.709E-10	4.424E-10
	(n,a)	6.324E-08	6.927E-08	9.447E-08	8.475E-08	3.610E-08
	52-Te-129m	total	2.863E+02	1.298E+02	3.530E+01	1.789E+01
elastic		6.182E+00	6.764E+00	7.066E+00	6.981E+00	5.777E+00
inelastic		2.790E-01	3.244E-01	3.832E-01	3.359E-01	1.965E-01
(n,2n)		4.222E-03	4.773E-03	6.413E-03	4.786E-03	1.922E-03
(n,3n)		8.859E-07	9.633E-07	1.319E-06	1.510E-06	6.839E-07
(n,na)		8.245E-10	8.966E-10	1.228E-09	1.395E-09	6.314E-10
(n,np)		2.124E-09	2.309E-09	3.161E-09	3.645E-09	1.655E-09
(n,nd)		1.869E-11	2.032E-11	2.783E-11	3.537E-11	1.651E-11
capture		2.786E+02	1.221E+02	2.771E+01	1.052E+01	6.941E-01
(n,p)		1.582E-07	1.721E-07	2.356E-07	2.044E-07	8.648E-08
(n,d)		1.140E-08	1.239E-08	1.697E-08	1.822E-08	8.115E-09
(n,t)		2.110E-09	2.294E-09	3.141E-09	3.537E-09	1.595E-09
(n,a)		7.701E-08	8.461E-08	1.147E-07	1.010E-07	4.292E-08
52-Te-130	total	4.760E+00	4.922E+00	5.091E+00	5.165E+00	5.429E+00
	elastic	4.472E+00	4.622E+00	4.755E+00	4.881E+00	5.275E+00
	inelastic	2.326E-01	2.689E-01	3.187E-01	2.694E-01	1.396E-01
	(n,2n)	6.804E-04	7.400E-04	1.013E-03	8.051E-04	3.332E-04
	(n,3n)	1.641E-06	1.784E-06	2.442E-06	2.750E-06	1.239E-06
	(n,na)	5.375E-10	5.844E-10	8.001E-10	9.138E-10	4.140E-10
	(n,np)	1.087E-09	1.182E-09	1.619E-09	1.895E-09	8.642E-10

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
52-Te-130	capture	5.364E-02	2.896E-02	1.463E-02	1.332E-02	1.278E-02
	(n,p)	9.795E-08	1.065E-07	1.458E-07	1.368E-07	5.898E-08
	(n,d)	3.495E-09	3.800E-09	5.203E-09	5.909E-09	2.671E-09
	(n,t)	5.359E-10	5.827E-10	7.977E-10	9.313E-10	4.243E-10
	(n,a)	1.233E-08	1.343E-08	1.837E-08	1.757E-08	7.610E-09
53-I -127	total	1.153E+01	1.221E+01	1.241E+01	1.135E+01	6.440E+00
	elastic	6.280E+00	6.868E+00	7.161E+00	6.972E+00	5.418E+00
	inelastic	4.680E-01	5.531E-01	6.505E-01	6.151E-01	4.856E-01
	(n,2n)	4.565E-04	4.963E-04	6.796E-04	5.630E-04	2.353E-04
	(n,3n)	2.206E-07	2.399E-07	3.284E-07	3.953E-07	1.817E-07
	(n,na)	8.599E-09	9.350E-09	1.280E-08	1.318E-08	5.813E-09
	(n,np)	1.835E-07	1.995E-07	2.731E-07	2.710E-07	1.184E-07
	(n,nd)	6.970E-11	7.578E-11	1.038E-10	1.313E-10	6.122E-11
	(n,nt)	6.781E-12	7.374E-12	1.010E-11	1.287E-11	6.010E-12
	capture	4.753E+00	4.774E+00	4.578E+00	3.745E+00	5.351E-01
	(n,p)	5.022E-06	5.596E-06	7.551E-06	5.965E-06	2.449E-06
	(n,d)	5.403E-08	5.875E-08	8.043E-08	8.249E-08	3.633E-08
	(n,t)	4.531E-09	4.927E-09	6.745E-09	7.507E-09	3.375E-09
	(n,He-3)	1.114E-12	1.211E-12	1.658E-12	2.057E-12	9.537E-13
	(n,a)	2.947E-07	3.272E-07	4.413E-07	3.571E-07	1.480E-07
53-I -129	total	1.100E+01	8.392E+00	6.835E+00	6.595E+00	5.983E+00
	elastic	5.420E+00	5.227E+00	5.057E+00	5.114E+00	5.194E+00
	inelastic	4.200E-01	4.951E-01	5.829E-01	5.444E-01	4.323E-01
	(n,2n)	5.068E-04	5.511E-04	7.545E-04	6.129E-04	2.550E-04
	(n,3n)	3.868E-07	4.206E-07	5.759E-07	6.787E-07	3.100E-07
	(n,na)	3.725E-09	4.050E-09	5.545E-09	5.977E-09	2.668E-09
	(n,np)	8.387E-08	9.119E-08	1.248E-07	1.288E-07	5.682E-08
	(n,nd)	4.233E-11	4.603E-11	6.302E-11	8.009E-11	3.737E-11
	(n,nt)	5.768E-12	6.272E-12	8.588E-12	1.095E-11	5.116E-12
	capture	5.151E+00	2.662E+00	1.191E+00	9.375E-01	3.556E-01
	(n,p)	6.390E-07	7.022E-07	9.564E-07	7.812E-07	3.246E-07
	(n,d)	3.395E-08	3.692E-08	5.054E-08	5.366E-08	2.384E-08
	(n,t)	4.173E-09	4.538E-09	6.213E-09	6.986E-09	3.150E-09
	(n,a)	2.203E-07	2.418E-07	3.293E-07	2.775E-07	1.163E-07
	53-I -131	total	2.232E+01	1.548E+01	1.132E+01	1.024E+01
elastic		6.888E+00	7.633E+00	8.059E+00	8.040E+00	6.118E+00
inelastic		3.705E-01	4.329E-01	5.094E-01	4.588E-01	2.970E-01
(n,2n)		6.602E-04	7.178E-04	9.828E-04	7.915E-04	3.286E-04
(n,3n)		6.908E-07	7.512E-07	1.028E-06	1.188E-06	5.391E-07
(n,na)		1.432E-09	1.557E-09	2.132E-09	2.379E-09	1.071E-09
(n,np)		3.413E-08	3.711E-08	5.081E-08	5.407E-08	2.403E-08
(n,nd)		3.054E-11	3.321E-11	4.547E-11	5.794E-11	2.706E-11
(n,nt)		8.256E-12	8.977E-12	1.229E-11	1.567E-11	7.320E-12
capture		1.500E+01	7.385E+00	2.748E+00	1.743E+00	2.492E-01
(n,p)		2.083E-07	2.270E-07	3.104E-07	2.656E-07	1.119E-07
(n,d)		2.579E-08	2.805E-08	3.840E-08	4.149E-08	1.851E-08
(n,t)		3.945E-09	4.290E-09	5.874E-09	6.658E-09	3.009E-09
(n,a)		9.260E-08	1.010E-07	1.381E-07	1.209E-07	5.125E-08
54-Xe-124		total	1.564E+02	1.344E+02	1.034E+02	6.344E+01
	elastic	6.148E+01	5.010E+01	3.650E+01	2.440E+01	5.426E+00
	inelastic	2.447E-01	2.850E-01	3.364E-01	2.973E-01	1.769E-01
	(n,2n)	6.715E-05	7.301E-05	9.996E-05	9.060E-05	3.868E-05
	(n,3n)	7.742E-09	8.418E-09	1.152E-08	1.469E-08	6.878E-09
	(n,na)	2.514E-07	2.735E-07	3.744E-07	3.302E-07	1.402E-07
	(n,np)	4.197E-07	4.563E-07	6.248E-07	6.211E-07	2.712E-07
	(n,nd)	3.768E-13	4.097E-13	5.610E-13	7.261E-13	3.405E-13
	capture	9.467E+01	8.401E+01	6.653E+01	3.874E+01	1.085E+00
	(n,p)	1.154E-04	1.335E-04	1.743E-04	1.316E-04	5.318E-05
	(n,d)	5.489E-08	5.968E-08	8.171E-08	8.268E-08	3.629E-08
	(n,t)	1.742E-09	1.894E-09	2.593E-09	2.920E-09	1.317E-09
	(n,He-3)	2.287E-11	2.487E-11	3.405E-11	4.061E-11	1.862E-11
	(n,a)	1.621E-04	1.882E-04	2.345E-04	1.837E-04	8.010E-05
	(n,2p)	2.965E-11	3.224E-11	4.414E-11	5.050E-11	2.287E-11
54-Xe-126	total	8.351E+00	8.010E+00	7.783E+00	7.814E+00	6.693E+00
	elastic	6.626E+00	6.481E+00	6.307E+00	6.356E+00	5.824E+00
	inelastic	2.816E-01	3.277E-01	3.863E-01	3.418E-01	2.029E-01
	(n,2n)	1.243E-04	1.351E-04	1.850E-04	1.642E-04	6.976E-05
	(n,3n)	3.008E-08	3.271E-08	4.478E-08	5.617E-08	2.722E-08
	(n,na)	8.394E-08	9.127E-08	1.250E-07	1.145E-07	4.911E-08
	(n,np)	4.390E-08	4.774E-08	6.536E-08	6.817E-08	3.013E-08
	capture	1.442E+00	1.201E+00	1.089E+00	1.116E+00	6.663E-01

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
54-Xe-126	(n,p)	1.687E-05	1.922E-05	2.565E-05	1.948E-05	7.857E-06
	(n,d)	2.159E-08	2.348E-08	3.215E-08	3.404E-08	1.511E-08
	(n,t)	1.273E-09	1.384E-09	1.894E-09	2.170E-09	9.833E-10
	(n,He-3)	2.259E-12	2.456E-12	3.363E-12	4.135E-12	1.913E-12
	(n,a)	1.737E-05	2.009E-05	2.578E-05	1.978E-05	8.205E-06
54-Xe-128	total	1.097E+01	9.896E+00	9.089E+00	8.923E+00	6.804E+00
	elastic	8.991E+00	8.581E+00	8.128E+00	8.072E+00	6.344E+00
	inelastic	3.063E-01	3.561E-01	4.198E-01	3.697E-01	2.154E-01
	(n,2n)	2.001E-04	2.176E-04	2.979E-04	2.562E-04	1.080E-04
	(n,3n)	1.403E-07	1.525E-07	2.088E-07	2.551E-07	1.178E-07
	(n,na)	4.535E-08	4.931E-08	6.751E-08	6.526E-08	2.835E-08
	(n,np)	1.836E-08	1.997E-08	2.734E-08	2.939E-08	1.309E-08
	capture	1.674E+00	9.586E-01	5.395E-01	4.802E-01	2.447E-01
	(n,p)	8.088E-06	8.980E-06	1.218E-05	9.569E-06	3.922E-06
	(n,d)	1.761E-08	1.915E-08	2.622E-08	2.802E-08	1.247E-08
	(n,t)	1.007E-09	1.095E-09	1.500E-09	1.724E-09	7.823E-10
	(n,a)	2.793E-06	3.197E-06	4.185E-06	3.235E-06	1.327E-06
	54-Xe-129	total	2.262E+01	1.944E+01	1.633E+01	1.345E+01
elastic		1.242E+01	1.049E+01	8.642E+00	7.873E+00	5.649E+00
inelastic		5.280E-01	6.264E-01	7.360E-01	7.081E-01	6.023E-01
(n,2n)		1.472E-03	1.618E-03	2.205E-03	1.676E-03	6.825E-04
(n,3n)		1.362E-07	1.481E-07	2.028E-07	2.459E-07	1.133E-07
(n,na)		6.870E-09	7.471E-09	1.023E-08	1.067E-08	4.725E-09
(n,np)		1.623E-08	1.765E-08	2.417E-08	2.652E-08	1.188E-08
(n,nd)		8.828E-11	9.599E-11	1.314E-10	1.655E-10	7.704E-11
capture		9.660E+00	8.314E+00	6.942E+00	4.862E+00	4.186E+01
(n,p)		2.644E-06	2.965E-06	3.973E-06	3.121E-06	1.280E-06
(n,d)		5.478E-08	5.957E-08	8.155E-08	8.344E-08	3.672E-08
(n,t)		4.145E-09	4.507E-09	6.170E-09	6.816E-09	3.058E-09
(n,He-3)		1.868E-12	2.031E-12	2.781E-12	3.436E-12	1.592E-12
(n,a)	2.777E-06	3.182E-06	3.974E-06	3.234E-06	1.508E-06	
54-Xe-130	total	1.469E+01	1.117E+01	8.705E+00	8.093E+00	6.580E+00
	elastic	9.669E+00	8.603E+00	7.568E+00	7.248E+00	6.137E+00
	inelastic	2.822E-01	3.274E-01	3.865E-01	3.360E-01	1.873E-01
	(n,2n)	3.634E-04	3.951E-04	5.410E-04	4.513E-04	1.890E-04
	(n,3n)	2.783E-07	3.026E-07	4.142E-07	4.966E-07	2.280E-07
	(n,na)	2.444E-08	2.657E-08	3.638E-08	3.755E-08	1.658E-08
	(n,np)	1.083E-08	1.178E-08	1.613E-08	1.778E-08	7.974E-09
	capture	4.734E+00	2.237E+00	7.483E-01	5.077E-01	2.552E-01
	(n,p)	1.351E-06	1.474E-06	2.014E-06	1.678E-06	7.020E-07
	(n,d)	1.330E-08	1.446E-08	1.980E-08	2.166E-08	9.698E-09
	(n,t)	1.080E-09	1.175E-09	1.608E-09	1.860E-09	8.454E-10
	(n,a)	5.432E-07	6.080E-07	8.167E-07	6.553E-07	2.703E-07
	54-Xe-131	total	9.398E+01	9.173E+01	7.472E+01	4.886E+01
elastic		5.782E+01	6.116E+01	5.210E+01	3.467E+01	5.682E+00
inelastic		4.112E-01	4.830E-01	5.675E-01	5.238E-01	3.712E-01
(n,2n)		2.890E-03	3.213E-03	4.355E-03	3.265E-03	1.319E-03
(n,3n)		2.719E-07	2.956E-07	4.047E-07	4.804E-07	2.199E-07
(n,na)		6.508E-09	7.076E-09	9.688E-09	1.034E-08	4.601E-09
(n,np)		9.260E-09	1.007E-08	1.379E-08	1.543E-08	6.946E-09
(n,nd)		6.785E-11	7.378E-11	1.010E-10	1.278E-10	5.958E-11
capture		3.574E+01	3.006E+01	2.201E+01	1.365E+01	3.148E-01
(n,p)		1.269E-06	1.404E-06	1.904E-06	1.532E-06	6.328E-07
(n,d)		3.560E-08	3.871E-08	5.300E-08	5.554E-08	2.459E-08
(n,t)		3.790E-09	4.121E-09	5.643E-09	6.299E-09	2.834E-09
(n,a)		7.870E-07	8.972E-07	1.152E-06	9.224E-07	3.962E-07
54-Xe-132	total	5.416E+00	5.898E+00	6.335E+00	6.591E+00	6.382E+00
	elastic	4.946E+00	5.397E+00	5.780E+00	6.077E+00	6.132E+00
	inelastic	2.652E-01	3.070E-01	3.628E-01	3.116E-01	1.680E-01
	(n,2n)	4.209E-04	4.576E-04	6.265E-04	5.128E-04	2.138E-04
	(n,3n)	4.919E-07	5.348E-07	7.322E-07	8.596E-07	3.922E-07
	(n,na)	1.625E-08	1.767E-08	2.419E-08	2.575E-08	1.146E-08
	(n,np)	6.258E-09	6.804E-09	9.316E-09	1.051E-08	4.739E-09
	capture	2.043E-01	1.927E-01	1.915E-01	2.019E-01	8.211E-02
	(n,p)	2.902E-07	3.157E-07	4.321E-07	3.755E-07	1.589E-07
	(n,d)	1.074E-08	1.167E-08	1.598E-08	1.769E-08	7.939E-09
	(n,t)	9.589E-10	1.043E-09	1.428E-09	1.664E-09	7.576E-10
	(n,a)	1.740E-07	1.923E-07	2.608E-07	2.199E-07	9.209E-08
	54-Xe-133	total	4.007E+01	2.222E+01	1.157E+01	9.699E+00
elastic		6.472E+00	7.183E+00	7.670E+00	7.874E+00	6.317E+00

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
54-Xe-133	inelastic	3.653E-01	4.257E-01	4.998E-01	4.470E-01	2.729E-01	
	(n,2n)	3.350E-03	3.747E-03	5.064E-03	3.788E-03	1.527E-03	
	(n,3n)	4.052E-07	4.406E-07	6.033E-07	7.056E-07	3.216E-07	
	(n,na)	5.009E-09	5.446E-09	7.457E-09	8.151E-09	3.651E-09	
	(n,np)	7.679E-09	8.350E-09	1.143E-08	1.300E-08	5.879E-09	
	(n,nd)	4.723E-11	5.135E-11	7.030E-11	8.926E-11	4.165E-11	
	capture	3.312E+01	1.455E+01	3.375E+00	1.368E+00	1.225E-01	
	(n,p)	3.333E-07	3.640E-07	4.973E-07	4.139E-07	1.731E-07	
	(n,d)	2.804E-08	3.049E-08	4.175E-08	4.455E-08	1.981E-08	
	(n,t)	3.923E-09	4.266E-09	5.840E-09	6.547E-09	2.949E-09	
	(n,a)	1.463E-07	1.622E-07	2.181E-07	1.839E-07	7.736E-08	
	54-Xe-134	total	4.836E+00	5.052E+00	5.268E+00	5.391E+00	5.869E+00
		elastic	4.542E+00	4.744E+00	4.923E+00	5.093E+00	5.704E+00
inelastic		2.285E-01	2.641E-01	3.131E-01	2.645E-01	1.370E-01	
(n,2n)		5.991E-04	6.515E-04	8.919E-04	7.139E-04	2.960E-04	
(n,3n)		8.085E-07	8.791E-07	1.204E-06	1.389E-06	6.305E-07	
(n,na)		6.453E-09	7.017E-09	9.607E-09	1.054E-08	4.723E-09	
(n,np)		4.035E-09	4.388E-09	6.007E-09	6.875E-09	3.114E-09	
capture		6.370E-02	4.243E-02	3.071E-02	3.129E-02	2.700E-02	
(n,p)		1.381E-07	1.502E-07	2.056E-07	1.853E-07	7.913E-08	
(n,d)		1.064E-08	1.158E-08	1.585E-08	1.758E-08	7.896E-09	
(n,t)		9.365E-10	1.018E-09	1.394E-09	1.626E-09	7.406E-10	
(n,a)		6.341E-08	6.933E-08	9.464E-08	8.515E-08	3.631E-08	
54-Xe-135		total	6.080E+05	2.228E+05	2.646E+04	3.566E+03	6.696E+00
	elastic	9.214E+04	3.524E+04	4.306E+03	6.161E+02	6.441E+00	
	inelastic	2.754E-01	3.199E-01	3.777E-01	3.295E-01	1.888E-01	
	(n,2n)	3.237E-03	3.619E-03	4.893E-03	3.662E-03	1.476E-03	
	(n,3n)	6.263E-07	6.810E-07	9.324E-07	1.075E-06	4.876E-07	
	(n,na)	1.803E-09	1.960E-09	2.684E-09	3.033E-09	1.370E-09	
	(n,np)	2.258E-09	2.455E-09	3.362E-09	3.906E-09	1.777E-09	
	(n,nd)	1.370E-11	1.489E-11	2.039E-11	2.604E-11	1.217E-11	
	capture	5.159E+05	1.875E+05	2.215E+04	2.949E+03	6.444E-02	
	(n,p)	1.119E-07	1.217E-07	1.666E-07	1.665E-07	6.215E-08	
	(n,d)	1.578E-08	1.716E-08	2.350E-08	2.564E-08	1.147E-08	
	(n,t)	3.876E-09	4.215E-09	5.770E-09	6.485E-09	2.923E-09	
	(n,a)	1.166E-07	1.274E-07	1.738E-07	1.559E-07	6.645E-08	
54-Xe-136	total	5.777E+00	5.658E+00	5.554E+00	5.486E+00	5.278E+00	
	elastic	5.548E+00	5.427E+00	5.297E+00	5.275E+00	5.176E+00	
	inelastic	1.810E-01	2.089E-01	2.498E-01	2.065E-01	1.003E-01	
	(n,2n)	1.245E-03	1.359E-03	1.858E-03	1.442E-03	5.925E-04	
	(n,3n)	1.330E-06	1.446E-06	1.980E-06	2.235E-06	1.008E-06	
	(n,na)	1.125E-09	1.223E-09	1.674E-09	1.904E-09	8.615E-10	
	(n,np)	1.248E-09	1.357E-09	1.859E-09	2.169E-09	9.881E-10	
	capture	4.614E-02	2.084E-02	5.672E-03	3.122E-03	1.253E-03	
	(n,p)	1.109E-08	1.206E-08	1.651E-08	1.700E-08	7.492E-09	
	(n,d)	6.461E-09	7.025E-09	9.619E-09	1.085E-08	4.899E-09	
	(n,t)	1.256E-09	1.365E-09	1.870E-09	2.181E-09	9.932E-10	
	(n,a)	2.594E-08	2.824E-08	3.865E-08	3.694E-08	1.600E-08	
	55-Cs-133	total	2.000E+01	1.841E+01	1.614E+01	1.274E+01	6.460E+00
elastic		5.944E+00	6.344E+00	6.528E+00	6.514E+00	5.564E+00	
inelastic		4.920E-01	5.788E-01	6.800E-01	6.315E-01	4.601E-01	
(n,2n)		4.177E-04	4.542E-04	6.218E-04	5.129E-04	2.142E-04	
(n,3n)		2.722E-07	2.959E-07	4.052E-07	4.861E-07	2.233E-07	
(n,na)		7.860E-09	8.546E-09	1.170E-08	1.220E-08	5.402E-09	
(n,np)		9.893E-08	1.076E-07	1.473E-07	1.472E-07	6.444E-08	
(n,nd)		1.317E-10	1.432E-10	1.960E-10	2.467E-10	1.148E-10	
(n,nt)		1.249E-11	1.358E-11	1.859E-11	2.363E-11	1.103E-11	
capture		1.354E+01	1.148E+01	8.919E+00	5.576E+00	4.339E-01	
(n,p)		3.341E-06	3.725E-06	5.018E-06	3.959E-06	1.625E-06	
(n,d)		7.030E-08	7.644E-08	1.046E-07	1.073E-07	4.723E-08	
(n,t)		6.167E-09	6.706E-09	9.181E-09	1.017E-08	4.566E-09	
(n,He-3)	1.160E-12	1.262E-12	1.727E-12	2.143E-12	9.936E-13		
(n,a)	2.686E-07	2.974E-07	4.019E-07	3.287E-07	1.367E-07		
55-Cs-134	total	3.731E+01	2.170E+01	1.188E+01	1.005E+01	7.158E+00	
	elastic	1.121E+01	8.742E+00	6.640E+00	6.112E+00	5.205E+00	
	inelastic	6.957E-01	8.319E-01	9.777E-01	9.671E-01	8.986E-01	
	(n,2n)	2.480E-03	2.739E-03	3.724E-03	2.812E-03	1.141E-03	
	(n,3n)	2.506E-07	2.724E-07	3.730E-07	4.431E-07	2.029E-07	
	(n,na)	7.435E-09	8.084E-09	1.107E-08	1.194E-08	5.332E-09	
	(n,np)	8.197E-08	8.913E-08	1.220E-07	1.246E-07	5.482E-08	
	(n,nd)	3.482E-09	3.786E-09	5.184E-09	6.213E-09	2.853E-09	

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
55-Cs-134	(n,nt)	9.543E-12	1.038E-11	1.421E-11	1.811E-11	8.458E-12
	capture	2.540E+01	1.213E+01	4.260E+00	2.971E+00	1.053E+00
	(n,p)	1.737E-06	1.947E-06	2.594E-06	2.025E-06	8.341E-07
	(n,d)	1.616E-07	1.757E-07	2.406E-07	2.391E-07	1.045E-07
	(n,t)	1.930E-08	2.098E-08	2.873E-08	3.054E-08	1.357E-08
	(n,He-3)	3.110E-12	3.382E-12	4.631E-12	5.703E-12	2.639E-12
	(n,a)	4.793E-07	5.363E-07	7.120E-07	5.711E-07	2.392E-07
55-Cs-135	total	1.137E+01	1.166E+01	1.172E+01	1.138E+01	7.283E+00
	elastic	7.968E+00	8.749E+00	9.204E+00	9.316E+00	6.805E+00
	inelastic	3.739E-01	4.356E-01	5.130E-01	4.560E-01	2.771E-01
	(n,2n)	5.516E-04	5.998E-04	8.212E-04	6.682E-04	2.782E-04
	(n,3n)	3.993E-07	4.342E-07	5.945E-07	7.038E-07	3.219E-07
	(n,na)	1.165E-08	1.267E-08	1.734E-08	1.851E-08	8.237E-09
	(n,np)	1.028E-07	1.118E-07	1.531E-07	1.573E-07	6.930E-08
	(n,nd)	9.094E-11	9.888E-11	1.354E-10	1.714E-10	7.991E-11
	(n,nt)	1.201E-11	1.306E-11	1.788E-11	2.276E-11	1.063E-11
	capture	3.029E+00	2.480E+00	1.997E+00	1.610E+00	2.008E-01
	(n,p)	5.186E-07	5.699E-07	7.761E-07	6.318E-07	2.623E-07
	(n,d)	5.799E-08	6.306E-08	8.633E-08	8.999E-08	3.979E-08
	(n,t)	5.752E-09	6.254E-09	8.563E-09	9.583E-09	4.315E-09
	(n,a)	1.639E-07	1.800E-07	2.450E-07	2.062E-07	8.640E-08
	55-Cs-136	total	1.321E+01	1.352E+01	1.358E+01	1.294E+01
elastic		9.148E+00	1.040E+01	1.106E+01	1.083E+01	6.812E+00
inelastic		4.372E-01	5.108E-01	5.997E-01	5.422E-01	3.497E-01
(n,2n)		2.839E-03	3.141E-03	4.267E-03	3.215E-03	1.303E-03
(n,3n)		3.806E-07	4.138E-07	5.666E-07	6.682E-07	3.053E-07
(n,na)		6.804E-09	7.399E-09	1.013E-08	1.105E-08	4.946E-09
(n,np)		4.566E-08	4.965E-08	6.797E-08	7.148E-08	3.167E-08
(n,nd)		1.657E-09	1.802E-09	2.467E-09	3.006E-09	1.387E-09
(n,nt)		5.394E-12	5.865E-12	8.030E-12	1.026E-11	4.794E-12
capture		3.607E+00	2.598E+00	1.918E+00	1.567E+00	2.213E-01
(n,p)		4.421E-07	4.889E-07	6.616E-07	5.336E-07	2.209E-07
(n,d)		9.805E-08	1.066E-07	1.460E-07	1.492E-07	6.566E-08
(n,t)		1.404E-08	1.527E-08	2.091E-08	2.246E-08	1.001E-08
(n,a)		1.569E-07	1.725E-07	2.344E-07	1.943E-07	8.115E-08
55-Cs-137		total	5.620E+00	6.090E+00	6.509E+00	6.814E+00
	elastic	5.321E+00	5.755E+00	6.120E+00	6.472E+00	6.797E+00
	inelastic	2.584E-01	2.998E-01	3.558E-01	3.059E-01	1.678E-01
	(n,2n)	8.613E-04	9.375E-04	1.283E-03	1.015E-03	4.193E-04
	(n,3n)	8.377E-07	9.109E-07	1.247E-06	1.440E-06	6.537E-07
	(n,na)	4.319E-09	4.696E-09	6.430E-09	7.093E-09	3.185E-09
	(n,np)	1.896E-08	2.061E-08	2.822E-08	3.024E-08	1.346E-08
	(n,nd)	8.244E-11	8.964E-11	1.227E-10	1.556E-10	7.255E-11
	(n,nt)	1.209E-11	1.315E-11	1.800E-11	2.293E-11	1.071E-11
	capture	3.890E-02	3.340E-02	3.110E-02	3.331E-02	2.290E-02
	(n,p)	7.305E-08	7.943E-08	1.087E-07	1.026E-07	4.425E-08
	(n,d)	3.398E-08	3.694E-08	5.058E-08	5.433E-08	2.420E-08
	(n,t)	6.456E-09	7.020E-09	9.611E-09	1.078E-08	4.858E-09
	(n,a)	6.698E-08	7.307E-08	9.987E-08	8.804E-08	3.736E-08
	56-Ba-130	total	1.782E+01	1.938E+01	1.963E+01	1.775E+01
elastic		1.093E+01	1.264E+01	1.335E+01	1.253E+01	5.567E+00
inelastic		3.040E-01	3.530E-01	4.164E-01	3.643E-01	2.091E-01
(n,2n)		1.070E-04	1.164E-04	1.593E-04	1.427E-04	6.076E-05
(n,3n)		1.994E-08	2.168E-08	2.968E-08	3.745E-08	1.791E-08
(n,na)		8.634E-07	9.388E-07	1.285E-06	1.157E-06	4.941E-07
(n,np)		2.642E-07	2.873E-07	3.933E-07	3.968E-07	1.739E-07
(n,nd)		2.260E-13	2.458E-13	3.365E-13	4.357E-13	2.043E-13
capture		6.580E+00	6.387E+00	5.862E+00	4.849E+00	7.050E-01
(n,p)		6.298E-05	7.268E-05	9.556E-05	7.206E-05	2.900E-05
(n,d)		6.561E-08	7.135E-08	9.768E-08	9.963E-08	4.382E-08
(n,t)		2.009E-09	2.185E-09	2.991E-09	3.933E-09	1.533E-09
(n,He-3)		2.221E-11	2.415E-11	3.306E-11	3.973E-11	1.826E-11
(n,a)		3.418E-05	3.947E-05	5.029E-05	3.885E-05	1.642E-05
(n,2p)		1.700E-11	1.849E-11	2.532E-11	2.940E-11	1.337E-11
56-Ba-132	total	7.054E+00	6.927E+00	6.944E+00	6.906E+00	5.628E+00
	elastic	4.678E+00	4.999E+00	5.250E+00	5.360E+00	4.974E+00
	inelastic	3.073E-01	3.563E-01	4.209E-01	3.646E-01	2.027E-01
	(n,2n)	1.855E-04	2.017E-04	2.761E-04	2.402E-04	1.016E-04
	(n,3n)	7.311E-08	7.950E-08	1.088E-07	1.355E-07	6.291E-08
	(n,na)	1.759E-07	1.913E-07	2.619E-07	2.448E-07	1.055E-07
	(n,np)	4.816E-08	5.237E-08	7.170E-08	7.530E-08	3.334E-08

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
56-Ba-132	capture	2.056E+00	1.564E+00	1.269E+00	1.178E+00	4.497E-01
	(n,p)	9.543E-06	1.079E-05	1.447E-05	1.106E-05	4.474E-06
	(n,d)	3.130E-08	3.404E-08	4.660E-08	4.917E-08	2.181E-08
	(n,t)	1.662E-09	1.807E-09	2.474E-09	2.827E-09	1.280E-09
	(n,He-3)	3.214E-12	3.495E-12	4.785E-12	5.872E-12	2.714E-12
	(n,a)	9.056E-06	1.044E-05	1.347E-05	1.033E-05	4.273E-06
56-Ba-134	total	6.698E+00	7.168E+00	7.457E+00	7.281E+00	5.553E+00
	elastic	5.404E+00	5.870E+00	6.151E+00	6.133E+00	5.172E+00
	inelastic	2.899E-01	3.355E-01	3.970E-01	3.399E-01	1.818E-01
	(n,2n)	2.292E-04	2.492E-04	3.412E-04	2.926E-04	1.233E-04
	(n,3n)	1.864E-07	2.027E-07	2.775E-07	3.390E-07	1.565E-07
	(n,na)	3.344E-08	3.636E-08	4.979E-08	4.736E-08	2.050E-08
	(n,np)	1.933E-08	2.102E-08	2.878E-08	3.107E-08	1.385E-08
	capture	1.008E+00	9.620E-01	9.066E-01	8.070E-01	1.990E-01
	(n,p)	2.524E-06	2.812E-06	3.806E-06	2.977E-06	1.217E-06
	(n,d)	2.532E-08	2.753E-08	3.769E-08	4.034E-08	1.795E-08
	(n,t)	1.343E-09	1.461E-09	2.000E-09	2.301E-09	1.044E-09
	(n,a)	2.285E-06	2.620E-06	3.423E-06	2.639E-06	1.082E-06
	56-Ba-135	total	1.144E+01	1.254E+01	1.308E+01	1.222E+01
elastic		6.723E+00	7.774E+00	8.429E+00	8.335E+00	5.731E+00
inelastic		3.353E-01	3.898E-01	4.593E-01	4.043E-01	2.372E-01
(n,2n)		1.538E-03	1.689E-03	2.302E-03	1.761E-03	7.190E-04
(n,3n)		1.619E-07	1.760E-07	2.410E-07	2.928E-07	1.350E-07
(n,na)		7.192E-09	7.820E-09	1.071E-08	1.114E-08	4.930E-09
(n,np)		1.170E-08	1.272E-08	1.742E-08	1.918E-08	8.601E-09
(n,nd)		7.875E-11	8.563E-11	1.172E-10	1.481E-10	6.899E-11
capture		4.360E+00	4.365E+00	4.180E+00	3.471E+00	4.845E-01
(n,p)		2.293E-06	2.579E-06	3.450E-06	2.695E-06	1.103E-06
(n,d)		6.456E-08	7.020E-08	9.612E-08	9.862E-08	4.344E-08
(n,t)		5.362E-09	5.830E-09	7.982E-09	8.867E-09	3.986E-09
(n,He-3)		1.836E-12	1.996E-12	2.733E-12	3.374E-12	1.562E-12
(n,a)	2.503E-06	2.879E-06	3.581E-06	2.896E-06	1.333E-06	
56-Ba-136	total	4.845E+00	5.320E+00	5.776E+00	6.009E+00	6.092E+00
	elastic	4.461E+00	4.921E+00	5.334E+00	5.618E+00	5.880E+00
	inelastic	2.477E-01	2.862E-01	3.399E-01	2.860E-01	1.463E-01
	(n,2n)	3.483E-04	3.787E-04	5.185E-04	4.337E-04	1.817E-04
	(n,3n)	3.246E-07	3.529E-07	4.832E-07	5.805E-07	2.668E-07
	(n,na)	9.467E-09	1.029E-08	1.409E-08	1.449E-08	6.392E-09
	(n,np)	1.020E-08	1.109E-08	1.519E-08	1.680E-08	7.541E-09
	capture	1.340E-01	1.107E-01	9.979E-02	1.029E-01	6.584E-02
	(n,p)	8.795E-07	9.618E-07	1.313E-06	1.086E-06	4.532E-07
	(n,d)	2.206E-08	2.398E-08	3.283E-08	3.513E-08	1.563E-08
	(n,t)	1.479E-09	1.608E-09	2.202E-09	2.546E-09	1.157E-09
	(n,a)	4.115E-07	4.626E-07	6.185E-07	4.955E-07	2.044E-07
	56-Ba-137	total	6.291E+00	6.163E+00	6.197E+00	6.274E+00
elastic		5.100E+00	5.400E+00	5.663E+00	5.828E+00	5.504E+00
inelastic		2.342E-01	2.717E-01	3.228E-01	2.766E-01	1.515E-01
(n,2n)		2.205E-03	2.431E-03	3.308E-03	2.506E-03	1.019E-03
(n,3n)		2.140E-07	2.327E-07	3.186E-07	3.822E-07	1.755E-07
(n,na)		3.775E-09	4.105E-09	5.620E-09	6.132E-09	2.746E-09
(n,np)		1.040E-08	1.130E-08	1.548E-08	1.733E-08	7.805E-09
(n,nd)		5.932E-11	6.450E-11	8.831E-11	1.120E-10	5.225E-11
capture		9.670E-01	4.880E-01	2.064E-01	1.657E-01	7.362E-02
(n,p)		5.906E-07	6.504E-07	8.846E-07	7.208E-07	2.991E-07
(n,d)		5.361E-08	5.829E-08	7.981E-08	8.324E-08	3.681E-08
(n,t)		5.696E-09	6.193E-09	8.479E-09	9.374E-09	4.208E-09
(n,a)		4.307E-07	4.875E-07	6.338E-07	5.113E-07	2.170E-07
56-Ba-138	total	5.495E+00	5.429E+00	5.386E+00	5.284E+00	4.891E+00
	elastic	5.258E+00	5.199E+00	5.137E+00	5.083E+00	4.795E+00
	inelastic	1.724E-01	1.990E-01	2.395E-01	1.959E-01	9.263E-02
	(n,2n)	5.509E-04	5.990E-04	8.202E-04	6.681E-04	2.782E-04
	(n,3n)	7.000E-07	7.611E-07	1.042E-06	1.229E-06	5.614E-07
	(n,na)	1.255E-08	1.364E-08	1.868E-08	1.968E-08	8.731E-09
	(n,np)	2.960E-09	3.219E-09	4.407E-09	4.982E-09	2.249E-09
	capture	6.423E-02	2.934E-02	8.466E-03	4.865E-03	3.317E-03
	(n,p)	1.252E-07	1.361E-07	1.864E-07	1.793E-07	7.771E-08
	(n,d)	9.538E-09	1.037E-08	1.420E-08	1.556E-08	6.967E-09
	(n,t)	1.086E-09	1.181E-09	1.617E-09	1.864E-09	8.464E-10
	(n,a)	2.955E-07	3.272E-07	4.431E-07	3.642E-07	1.514E-07
	56-Ba-140	total	4.762E+00	4.846E+00	4.992E+00	5.017E+00

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
56-Ba-140	elastic	4.211E+00	4.411E+00	4.597E+00	4.691E+00	4.943E+00
	inelastic	2.606E-01	3.018E-01	3.567E-01	3.058E-01	1.639E-01
	(n,2n)	4.066E-03	4.539E-03	6.140E-03	4.595E-03	1.853E-03
	(n,3n)	3.912E-05	4.253E-05	5.823E-05	5.575E-05	2.412E-05
	(n,na)	1.569E-07	1.725E-07	2.349E-07	2.064E-07	8.743E-08
	(n,np)	1.614E-09	1.754E-09	2.402E-09	2.821E-09	1.288E-09
	(n,nd)	3.032E-11	3.297E-11	4.514E-11	5.754E-11	2.687E-11
	(n,nt)	2.842E-10	3.090E-10	4.231E-10	5.222E-10	2.418E-10
	capture	2.783E-01	1.219E-01	2.777E-02	1.109E-02	2.345E-03
	(n,p)	5.926E-08	6.443E-08	8.822E-08	8.774E-08	3.835E-08
	(n,d)	1.034E-08	1.124E-08	1.539E-08	1.741E-08	7.865E-09
	(n,t)	1.028E-08	1.117E-08	1.530E-08	1.670E-08	7.467E-09
	(n,a)	1.742E-07	1.948E-07	2.616E-07	2.086E-07	8.599E-08
	57-La-138	total	2.723E+01	2.152E+01	1.581E+01	1.198E+01
elastic		8.876E+00	7.980E+00	7.128E+00	6.821E+00	5.202E+00
inelastic		3.741E-01	4.365E-01	5.138E-01	4.597E-01	2.907E-01
(n,2n)		1.351E-03	1.476E-03	2.017E-03	1.560E-03	6.401E-04
(n,3n)		1.023E-07	1.112E-07	1.522E-07	1.861E-07	8.596E-08
(n,na)		1.001E-08	1.088E-08	1.490E-08	1.559E-08	6.905E-09
(n,np)		1.198E-07	1.302E-07	1.783E-07	1.786E-07	7.818E-08
(n,nd)		3.235E-09	3.517E-09	4.815E-09	5.793E-09	2.662E-09
(n,nt)		3.151E-12	3.426E-12	4.691E-12	6.004E-12	2.807E-12
capture		1.798E+01	1.310E+01	8.169E+00	4.694E+00	2.827E-01
(n,p)		5.839E-06	6.681E-06	8.466E-06	6.654E-06	2.847E-06
(n,d)		1.620E-07	1.761E-07	2.411E-07	2.411E-07	1.055E-07
(n,t)		1.608E-08	1.748E-08	2.393E-08	2.572E-08	1.146E-08
(n,He-3)		9.372E-12	1.019E-11	1.395E-11	1.695E-11	7.815E-12
(n,a)	1.227E-06	1.391E-06	1.807E-06	1.428E-06	6.096E-07	
57-La-139	total	9.689E+00	8.276E+00	7.201E+00	6.824E+00	5.780E+00
	elastic	7.657E+00	7.038E+00	6.427E+00	6.230E+00	5.552E+00
	inelastic	2.740E-01	3.190E-01	3.783E-01	3.305E-01	1.963E-01
	(n,2n)	4.966E-04	5.400E-04	7.393E-04	6.071E-04	2.533E-04
	(n,3n)	1.988E-07	2.162E-07	2.960E-07	3.583E-07	1.650E-07
	(n,na)	1.337E-08	1.454E-08	1.990E-08	2.068E-08	9.147E-09
	(n,np)	1.689E-07	1.837E-07	2.514E-07	2.577E-07	1.135E-07
	(n,nd)	1.539E-10	1.674E-10	2.292E-10	2.874E-10	1.337E-10
	(n,nt)	8.942E-12	9.723E-12	1.331E-11	1.695E-11	7.916E-12
	capture	1.757E+00	9.169E-01	3.928E-01	2.613E-01	3.062E-02
	(n,p)	4.255E-07	4.632E-07	6.338E-07	5.535E-07	2.344E-07
	(n,d)	5.054E-08	5.496E-08	7.524E-08	7.857E-08	3.476E-08
	(n,t)	5.353E-09	5.821E-09	7.970E-09	8.963E-09	4.042E-09
	(n,He-3)	1.078E-12	1.172E-12	1.605E-12	1.990E-12	9.223E-13
(n,a)	4.967E-07	5.518E-07	7.441E-07	6.008E-07	2.488E-07	
58-Ce-140	total	4.504E+00	4.793E+00	5.104E+00	5.239E+00	5.866E+00
	elastic	4.241E+00	4.560E+00	4.864E+00	5.047E+00	5.774E+00
	inelastic	1.615E-01	1.864E-01	2.251E-01	1.831E-01	8.523E-02
	(n,2n)	3.425E-04	3.724E-04	5.099E-04	4.304E-04	1.807E-04
	(n,3n)	1.441E-07	1.567E-07	2.145E-07	2.626E-07	1.213E-07
	(n,na)	3.884E-08	4.223E-08	5.782E-08	5.835E-08	2.562E-08
	(n,np)	1.868E-08	2.031E-08	2.781E-08	3.033E-08	1.356E-08
	(n,nd)	1.936E-13	2.105E-13	2.883E-13	3.735E-13	1.752E-13
	capture	1.011E-01	4.613E-02	1.345E-02	8.137E-03	6.104E-03
	(n,p)	5.791E-07	6.299E-07	8.623E-07	7.610E-07	3.232E-07
	(n,d)	2.753E-08	2.993E-08	4.099E-08	4.363E-08	1.939E-08
	(n,t)	1.850E-09	2.011E-09	2.754E-09	3.155E-09	1.430E-09
	(n,a)	1.074E-06	1.209E-06	1.609E-06	1.283E-06	5.303E-07
	58-Ce-141	total	2.250E+01	2.088E+01	1.802E+01	1.344E+01
elastic		6.610E+00	7.310E+00	7.596E+00	7.179E+00	5.242E+00
inelastic		2.038E-01	2.352E-01	2.795E-01	2.338E-01	1.165E-01
(n,2n)		8.492E-03	9.743E-03	1.297E-02	9.676E-03	3.871E-03
(n,3n)		1.110E-06	1.207E-06	1.653E-06	1.884E-06	8.522E-07
(n,na)		2.552E-08	2.775E-08	3.799E-08	3.745E-08	1.635E-08
(n,np)		1.573E-08	1.710E-08	2.341E-08	2.614E-08	1.176E-08
(n,nd)		1.037E-09	1.127E-09	1.543E-09	1.883E-09	8.692E-10
(n,nt)		1.027E-12	1.117E-12	1.529E-12	1.966E-12	9.201E-13
capture		1.567E+01	1.332E+01	1.013E+01	6.012E+00	2.678E-01
(n,p)		3.828E-07	4.167E-07	5.702E-07	4.992E-07	2.116E-07
(n,d)		5.587E-08	6.075E-08	8.318E-08	8.609E-08	3.800E-08
(n,t)		2.504E-08	2.723E-08	3.728E-08	3.866E-08	1.707E-08
(n,a)		1.713E-05	1.991E-05	2.359E-05	2.071E-05	1.234E-05
58-Ce-142	total	9.200E+00	1.129E+01	1.303E+01	1.428E+01	1.143E+01

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
58-Ce-142	elastic	8.714E+00	1.085E+01	1.258E+01	1.390E+01	1.122E+01
	inelastic	2.917E-01	3.378E-01	3.990E-01	3.421E-01	1.836E-01
	(n,2n)	2.314E-03	2.541E-03	3.464E-03	2.636E-03	1.074E-03
	(n,3n)	4.188E-06	4.554E-06	6.235E-06	6.548E-06	2.899E-06
	(n,na)	1.322E-06	1.462E-06	1.986E-06	1.620E-06	6.717E-07
	(n,np)	9.643E-09	1.048E-08	1.436E-08	1.620E-08	7.310E-09
	(n,nd)	3.407E-11	3.704E-11	5.072E-11	6.448E-11	3.009E-11
	(n,nt)	5.353E-11	5.821E-11	7.969E-11	9.975E-11	4.637E-11
	capture	1.915E-01	9.757E-02	4.208E-02	3.489E-02	2.549E-02
	(n,p)	2.568E-07	2.792E-07	3.823E-07	3.565E-07	1.535E-07
	(n,d)	2.082E-08	2.264E-08	3.100E-08	3.383E-08	1.514E-08
	(n,t)	7.379E-09	8.023E-09	1.099E-08	1.196E-08	5.347E-09
	(n,a)	1.948E-06	2.220E-06	2.903E-06	2.253E-06	9.326E-07
	58-Ce-144	total	6.502E+00	7.178E+00	7.662E+00	7.592E+00
elastic		5.942E+00	6.653E+00	7.123E+00	7.123E+00	5.288E+00
inelastic		3.181E-01	3.698E-01	4.357E-01	3.831E-01	2.225E-01
(n,2n)		3.219E-03	3.552E-03	4.830E-03	3.638E-03	1.475E-03
(n,3n)		1.957E-05	2.128E-05	2.913E-05	2.931E-05	1.283E-05
(n,na)		2.857E-08	3.133E-08	4.272E-08	3.877E-08	1.657E-08
(n,np)		1.769E-09	1.924E-09	2.634E-09	3.050E-09	1.386E-09
(n,nd)		1.685E-11	1.832E-11	2.509E-11	3.197E-11	1.493E-11
(n,nt)		5.383E-11	5.853E-11	8.014E-11	1.006E-10	4.680E-11
capture		2.321E-01	1.470E-01	9.401E-02	7.906E-02	2.214E-02
(n,p)		8.726E-08	9.489E-08	1.299E-07	1.270E-07	5.529E-08
(n,d)		8.589E-09	9.340E-09	1.279E-08	1.437E-08	6.479E-09
(n,t)		7.864E-09	8.551E-09	1.171E-08	1.288E-08	5.774E-09
(n,a)		4.528E-07	5.194E-07	6.768E-07	5.255E-07	2.166E-07
59-Pr-141	total	1.337E+01	1.413E+01	1.492E+01	1.555E+01	9.542E+00
	elastic	1.026E+01	1.217E+01	1.360E+01	1.441E+01	9.040E+00
	inelastic	4.181E-01	4.911E-01	5.786E-01	5.320E-01	3.733E-01
	(n,2n)	3.270E-04	3.556E-04	4.868E-04	4.107E-04	1.724E-04
	(n,3n)	4.993E-08	5.430E-08	7.434E-08	6.246E-08	4.294E-08
	(n,na)	3.757E-08	4.085E-08	5.593E-08	5.469E-08	2.383E-08
	(n,np)	3.949E-07	4.294E-07	5.880E-07	5.569E-07	2.405E-07
	(n,nd)	2.351E-10	2.556E-10	3.500E-10	4.354E-10	2.020E-10
	(n,nt)	2.445E-12	2.659E-12	3.641E-12	4.643E-12	2.169E-12
	capture	2.684E+00	1.458E+00	7.394E-01	6.054E-01	1.289E-01
	(n,p)	2.782E-06	3.079E-06	4.173E-06	3.312E-06	1.364E-06
	(n,d)	1.312E-07	1.427E-07	1.954E-07	1.921E-07	8.376E-08
	(n,t)	5.405E-09	5.877E-09	8.046E-09	8.787E-09	3.932E-09
	(n,He-3)	9.533E-12	1.036E-11	1.419E-11	1.711E-11	7.869E-12
(n,a)	1.797E-06	2.043E-06	2.674E-06	2.082E-06	8.655E-07	
59-Pr-143	total	4.219E+01	3.672E+01	3.093E+01	2.412E+01	8.013E+00
	elastic	2.269E+01	2.563E+01	2.537E+01	2.073E+01	7.418E+00
	inelastic	4.794E-01	5.653E-01	6.648E-01	6.233E-01	4.836E-01
	(n,2n)	1.991E-03	2.185E-03	2.979E-03	2.263E-03	9.218E-04
	(n,3n)	4.668E-06	5.076E-06	6.950E-06	7.386E-06	3.278E-06
	(n,na)	2.907E-06	3.282E-06	4.415E-06	3.353E-06	1.354E-06
	(n,np)	1.312E-07	1.427E-07	1.954E-07	1.951E-07	8.535E-08
	(n,nd)	1.991E-09	2.165E-09	2.964E-09	3.569E-09	1.641E-09
	(n,nt)	1.820E-09	1.979E-09	2.710E-09	3.223E-09	1.476E-09
	capture	1.897E+01	1.051E+01	4.890E+00	2.766E+00	1.100E-01
	(n,p)	7.738E-07	8.471E-07	1.156E-06	9.579E-07	3.998E-07
	(n,d)	9.401E-08	1.022E-07	1.399E-07	1.407E-07	6.166E-08
	(n,t)	3.571E-08	3.883E-08	5.316E-08	5.430E-08	2.388E-08
	(n,He-3)	2.408E-12	2.619E-12	3.585E-12	4.415E-12	2.043E-12
(n,a)	3.975E-06	4.561E-06	5.830E-06	4.551E-06	1.966E-06	
60-Nd-142	total	9.096E+00	7.331E+00	6.295E+00	6.132E+00	6.057E+00
	elastic	5.584E+00	5.639E+00	5.671E+00	5.752E+00	5.900E+00
	inelastic	1.962E-01	2.264E-01	2.717E-01	2.232E-01	1.061E-01
	(n,2n)	2.336E-04	2.540E-04	3.478E-04	2.985E-04	1.258E-04
	(n,3n)	2.589E-08	2.815E-08	3.854E-08	4.845E-08	2.337E-08
	(n,na)	1.047E-07	1.138E-07	1.558E-07	1.444E-07	6.215E-08
	(n,np)	1.889E-07	2.054E-07	2.813E-07	2.891E-07	1.273E-07
	(n,nd)	7.636E-13	8.303E-13	1.137E-12	1.469E-12	6.888E-13
	capture	3.316E+00	1.463E+00	3.523E-01	1.554E-01	5.024E-02
	(n,p)	4.169E-06	4.600E-06	6.256E-06	4.938E-06	2.030E-06
	(n,d)	3.973E-08	4.320E-08	5.915E-08	6.054E-08	2.665E-08
	(n,t)	1.299E-09	1.413E-09	1.934E-09	2.204E-09	9.971E-10
	(n,He-3)	4.368E-12	4.750E-12	6.503E-12	7.889E-12	3.635E-12
	(n,a)	9.142E-06	1.051E-05	1.353E-05	1.045E-05	4.372E-06
60-Nd-143	total	9.402E+01	5.424E+01	2.895E+01	2.385E+01	8.885E+00

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
60-Nd-143	elastic	3.779E+01	2.958E+01	2.283E+01	2.085E+01	8.427E+00
	inelastic	2.545E-01	2.938E-01	3.479E-01	2.929E-01	1.489E-01
	(n,2n)	4.866E-03	5.497E-03	7.388E-03	5.516E-03	2.216E-03
	(n,3n)	3.182E-07	3.460E-07	4.738E-07	5.643E-07	2.587E-07
	(n,na)	4.574E-08	4.978E-08	6.812E-08	6.240E-08	2.677E-08
	(n,np)	1.342E-08	1.459E-08	1.997E-08	2.151E-08	9.593E-09
	(n,nd)	7.483E-10	8.137E-10	1.114E-09	1.356E-09	6.254E-10
	capture	5.607E+01	2.430E+01	5.768E+00	2.752E+00	3.061E-01
	(n,p)	1.948E-06	2.143E-06	2.915E-06	2.377E-06	9.871E-07
	(n,d)	7.011E-08	7.623E-08	1.044E-07	1.043E-07	4.565E-08
	(n,t)	1.496E-08	1.626E-08	2.227E-08	2.298E-08	1.014E-08
	(n,He-3)	6.187E-12	6.727E-12	9.210E-12	1.118E-11	5.149E-12
	(n,a)	3.158E-03	1.523E-03	5.871E-04	4.248E-04	2.872E-04
	60-Nd-144	total	2.205E+01	2.674E+01	3.032E+01	3.124E+01
elastic		2.094E+01	2.593E+01	2.964E+01	3.066E+01	1.432E+01
inelastic		3.625E-01	4.198E-01	4.958E-01	4.258E-01	2.297E-01
(n,2n)		1.163E-03	1.267E-03	1.733E-03	1.346E-03	5.531E-04
(n,3n)		2.111E-06	2.295E-06	3.143E-06	3.443E-06	1.540E-06
(n,na)		2.559E-06	2.846E-06	3.854E-06	2.949E-06	1.199E-06
(n,np)		1.892E-08	2.058E-08	2.817E-08	3.104E-08	1.392E-08
(n,nd)		7.593E-11	8.256E-11	1.130E-10	1.432E-10	6.677E-11
(n,nt)		4.244E-11	4.615E-11	6.318E-11	7.968E-11	3.711E-11
capture		7.444E-01	3.927E-01	1.850E-01	1.532E-01	7.538E-02
(n,p)		1.198E-06	1.303E-06	1.784E-06	1.536E-06	6.482E-07
(n,d)		7.051E-08	7.667E-08	1.050E-07	1.106E-07	4.904E-08
(n,t)		2.175E-08	2.365E-08	3.238E-08	3.501E-08	1.562E-08
(n,He-3)		1.984E-12	2.157E-12	2.953E-12	3.649E-12	1.690E-12
(n,a)	4.119E-06	4.689E-06	6.008E-06	4.769E-06	2.081E-06	
60-Nd-145	total	3.416E+01	3.134E+01	2.765E+01	2.399E+01	1.150E+01
	elastic	2.148E+01	2.225E+01	2.137E+01	1.943E+01	1.045E+01
	inelastic	5.480E-01	6.459E-01	7.582E-01	7.101E-01	5.433E-01
	(n,2n)	8.557E-03	9.778E-03	1.307E-02	9.736E-03	3.896E-03
	(n,3n)	4.945E-06	5.377E-06	7.362E-06	7.937E-06	3.535E-06
	(n,na)	9.010E-08	9.869E-08	1.346E-07	1.167E-07	4.935E-08
	(n,np)	1.050E-08	1.142E-08	1.563E-08	1.729E-08	7.764E-09
	(n,nd)	3.769E-10	4.099E-10	5.612E-10	6.884E-10	3.182E-10
	(n,nt)	1.559E-11	1.695E-11	2.321E-11	2.922E-11	1.360E-11
	capture	1.210E+01	8.477E+00	5.606E+00	3.857E+00	5.047E-01
	(n,p)	7.639E-07	8.326E-07	1.139E-06	9.776E-07	4.123E-07
	(n,d)	3.982E-08	4.330E-08	5.928E-08	6.051E-08	2.662E-08
	(n,t)	1.149E-08	1.249E-08	1.710E-08	1.788E-08	7.912E-09
	(n,a)	3.496E-05	2.952E-05	2.623E-05	2.158E-05	1.007E-05
60-Nd-146	total	1.129E+01	1.170E+01	1.200E+01	1.262E+01	1.154E+01
	elastic	1.051E+01	1.097E+01	1.124E+01	1.194E+01	1.112E+01
	inelastic	4.493E-01	5.229E-01	6.158E-01	5.465E-01	3.248E-01
	(n,2n)	1.652E-03	1.805E-03	2.466E-03	1.887E-03	7.718E-04
	(n,3n)	3.661E-06	3.981E-06	5.450E-06	5.797E-06	2.573E-06
	(n,na)	1.508E-07	1.658E-07	2.259E-07	1.980E-07	8.386E-08
	(n,np)	1.388E-08	1.510E-08	2.067E-08	2.336E-08	1.055E-08
	(n,nd)	5.166E-11	5.617E-11	7.691E-11	9.779E-11	4.564E-11
	(n,nt)	2.603E-11	2.831E-11	3.876E-11	4.899E-11	2.283E-11
	capture	3.207E-01	2.041E-01	1.378E-01	1.343E-01	1.011E-01
	(n,p)	2.870E-07	3.120E-07	4.272E-07	3.886E-07	1.663E-07
	(n,d)	4.850E-08	5.274E-08	7.221E-08	7.868E-08	3.519E-08
	(n,t)	1.448E-08	1.575E-08	2.156E-08	2.350E-08	1.051E-08
	(n,a)	7.413E-07	8.286E-07	1.099E-06	8.882E-07	3.736E-07
60-Nd-147	total	1.200E+02	7.093E+01	3.879E+01	2.916E+01	1.145E+01
	elastic	3.507E+01	2.582E+01	1.808E+01	1.569E+01	9.548E+00
	inelastic	7.019E-01	8.354E-01	9.800E-01	9.569E-01	8.300E-01
	(n,2n)	1.300E-02	1.504E-02	1.990E-02	1.484E-02	5.926E-03
	(n,3n)	1.091E-05	1.186E-05	1.624E-05	1.676E-05	7.386E-06
	(n,na)	1.824E-08	1.986E-08	2.717E-08	2.552E-08	1.102E-08
	(n,np)	4.410E-09	4.796E-09	6.566E-09	7.437E-09	3.360E-09
	(n,nd)	3.287E-10	3.574E-10	4.893E-10	6.030E-10	2.791E-10
	(n,nt)	2.450E-11	2.664E-11	3.648E-11	4.582E-11	2.132E-11
	capture	8.424E+01	4.426E+01	1.971E+01	1.251E+01	1.069E+00
	(n,p)	2.428E-07	2.640E-07	3.614E-07	3.265E-07	1.395E-07
	(n,d)	2.703E-08	2.939E-08	4.024E-08	4.233E-08	1.876E-08
	(n,t)	9.961E-09	1.083E-08	1.483E-08	1.578E-08	7.013E-09
	(n,a)	8.558E-07	9.797E-07	1.218E-06	1.048E-06	5.821E-07
60-Nd-148	total	2.223E+01	2.604E+01	2.853E+01	2.860E+01	1.212E+01

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
60-Nd-148	elastic	2.088E+01	2.476E+01	2.724E+01	2.741E+01	1.158E+01
	inelastic	5.309E-01	6.201E-01	7.287E-01	6.582E-01	4.154E-01
	(n,2n)	2.050E-03	2.248E-03	3.066E-03	2.327E-03	9.483E-04
	(n,3n)	7.719E-06	8.393E-06	1.149E-05	1.176E-05	5.169E-06
	(n,na)	3.352E-08	3.649E-08	4.993E-08	5.000E-08	2.191E-08
	(n,np)	3.228E-09	3.510E-09	4.806E-09	5.563E-09	2.529E-09
	(n,nd)	2.019E-11	2.195E-11	3.005E-11	3.838E-11	1.793E-11
	(n,nt)	3.462E-11	3.765E-11	5.155E-11	6.514E-11	3.035E-11
	capture	8.150E-01	6.602E-01	5.676E-01	5.335E-01	1.265E-01
	(n,p)	1.387E-07	1.508E-07	2.064E-07	1.958E-07	8.460E-08
	(n,d)	2.118E-08	2.303E-08	3.154E-08	3.540E-08	1.596E-08
	(n,t)	1.309E-08	1.423E-08	1.949E-08	2.162E-08	9.714E-09
	(n,a)	2.586E-07	2.842E-07	3.852E-07	3.272E-07	1.378E-07
	60-Nd-150	total	9.230E+00	1.021E+01	1.098E+01	1.157E+01
elastic		7.926E+00	8.817E+00	9.485E+00	1.018E+01	1.007E+01
inelastic		6.626E-01	7.802E-01	9.171E-01	8.545E-01	6.143E-01
(n,2n)		1.742E-03	1.909E-03	2.604E-03	1.989E-03	8.120E-04
(n,3n)		8.968E-06	9.751E-06	1.335E-05	1.353E-05	5.933E-06
(n,na)		1.490E-08	1.620E-08	2.218E-08	2.350E-08	1.044E-08
(n,np)		3.374E-09	3.668E-09	5.022E-09	5.875E-09	2.678E-09
(n,nd)		7.629E-13	8.295E-13	1.136E-12	1.468E-12	6.884E-13
(n,nt)		9.411E-12	1.023E-11	1.401E-11	1.782E-11	8.319E-12
capture		6.404E-01	6.094E-01	5.786E-01	5.349E-01	1.452E-01
(n,p)		7.982E-08	8.679E-08	1.188E-07	1.135E-07	4.914E-08
(n,d)		1.291E-08	1.403E-08	1.921E-08	2.193E-08	9.930E-09
(n,t)		5.251E-09	5.710E-09	7.818E-09	8.867E-09	4.008E-09
(n,a)		1.360E-07	1.486E-07	2.028E-07	1.829E-07	7.806E-08
61-Pm-147	total	1.090E+02	9.703E+01	7.786E+01	4.983E+01	9.066E+00
	elastic	3.292E+01	3.318E+01	2.945E+01	2.129E+01	7.443E+00
	inelastic	5.529E-01	6.493E-01	7.605E-01	7.054E-01	5.049E-01
	(n,2n)	1.436E-03	1.566E-03	2.141E-03	1.649E-03	6.757E-04
	(n,3n)	3.387E-06	3.683E-06	5.042E-06	5.509E-06	2.462E-06
	(n,na)	1.149E-07	1.273E-07	1.727E-07	1.369E-07	5.631E-08
	(n,np)	7.169E-08	7.795E-08	1.067E-07	1.062E-07	4.644E-08
	(n,nd)	9.395E-10	1.021E-09	1.399E-09	1.691E-09	7.783E-10
	(n,nt)	4.331E-10	4.709E-10	6.448E-10	7.789E-10	3.584E-10
	capture	7.549E+01	6.318E+01	4.764E+01	2.783E+01	1.118E+00
	(n,p)	1.103E-06	1.207E-06	1.647E-06	1.361E-06	5.680E-07
	(n,d)	6.304E-08	6.854E-08	9.385E-08	9.409E-08	4.120E-08
	(n,t)	1.591E-08	1.730E-08	2.369E-08	2.448E-08	1.080E-08
	(n,He-3)	1.560E-12	1.696E-12	2.323E-12	2.849E-12	1.317E-12
(n,a)	3.057E-06	3.505E-06	4.391E-06	3.610E-06	1.846E-06	
61-Pm-148	total	3.970E+02	2.060E+02	8.141E+01	4.581E+01	9.278E+00
	elastic	1.081E+01	1.219E+01	1.239E+01	1.137E+01	6.733E+00
	inelastic	7.291E-01	8.647E-01	1.012E+00	9.794E-01	7.922E-01
	(n,2n)	5.698E-03	6.471E-03	8.678E-03	6.470E-03	2.594E-03
	(n,3n)	4.893E-06	5.320E-06	7.284E-06	7.820E-06	3.479E-06
	(n,na)	5.658E-08	6.185E-08	8.445E-08	7.449E-08	3.163E-08
	(n,np)	3.435E-08	3.735E-08	5.114E-08	5.251E-08	2.313E-08
	(n,nd)	5.743E-09	6.245E-09	8.550E-09	9.867E-09	4.481E-09
	(n,nt)	3.555E-10	3.866E-10	5.292E-10	6.407E-10	2.950E-10
	capture	3.851E+02	1.927E+02	6.797E+01	3.345E+01	1.751E+00
	(n,p)	9.480E-07	1.040E-06	1.415E-06	1.158E-06	4.823E-07
	(n,d)	8.610E-08	9.362E-08	1.282E-07	1.257E-07	5.475E-08
	(n,t)	2.657E-08	2.889E-08	3.955E-08	3.954E-08	1.730E-08
	(n,He-3)	2.087E-12	2.269E-12	3.107E-12	3.796E-12	1.752E-12
	(n,a)	4.757E-06	5.548E-06	6.696E-06	6.036E-06	4.017E-06
	total	5.565E+03	2.519E+03	3.886E+02	9.825E+01	9.784E+00
	elastic	4.064E+01	2.743E+01	1.511E+01	1.187E+01	6.387E+00
	inelastic	5.921E-01	6.951E-01	8.122E-01	7.559E-01	5.222E-01
	(n,2n)	5.698E-03	6.471E-03	8.678E-03	6.470E-03	2.594E-03
	(n,3n)	4.893E-06	5.320E-06	7.284E-06	7.820E-06	3.479E-06
	(n,na)	5.658E-08	6.185E-08	8.445E-08	7.449E-08	3.163E-08
	(n,np)	3.435E-08	3.735E-08	5.114E-08	5.251E-08	2.313E-08
	(n,nd)	5.743E-09	6.245E-09	8.550E-09	9.867E-09	4.481E-09
	(n,nt)	3.555E-10	3.866E-10	5.292E-10	6.407E-10	2.950E-10
capture	5.524E+03	2.491E+03	3.727E+02	8.563E+01	2.872E+00	
(n,p)	9.480E-07	1.040E-06	1.415E-06	1.158E-06	4.823E-07	
(n,d)	8.610E-08	9.362E-08	1.282E-07	1.257E-07	5.475E-08	
(n,t)	2.657E-08	2.889E-08	3.955E-08	3.954E-08	1.730E-08	
(n,He-3)	2.087E-12	2.269E-12	3.107E-12	3.796E-12	1.752E-12	
(n,a)	4.757E-06	5.548E-06	6.696E-06	6.036E-06	4.017E-06	
61-Pm-149	total	2.824E+02	1.497E+02	6.505E+01	4.035E+01	9.592E+00

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
61-Pm-149	elastic	1.619E+01	1.843E+01	1.874E+01	1.654E+01	7.802E+00	
	inelastic	6.985E-01	8.269E-01	9.680E-01	9.287E-01	7.142E-01	
	(n,2n)	1.884E-03	2.063E-03	2.816E-03	2.142E-03	8.736E-04	
	(n,3n)	7.678E-06	8.348E-06	1.143E-05	1.194E-05	5.275E-06	
	(n,na)	5.860E-08	6.428E-08	8.763E-08	7.600E-08	3.212E-08	
	(n,np)	4.212E-08	4.580E-08	6.270E-08	6.438E-08	2.836E-08	
	(n,nd)	7.423E-10	8.071E-10	1.105E-09	1.347E-09	6.218E-10	
	(n,nt)	6.905E-10	7.508E-10	1.028E-09	1.236E-09	5.678E-10	
	capture	2.649E+02	1.302E+02	4.529E+01	2.287E+01	1.074E+00	
	(n,p)	4.138E-07	4.505E-07	6.165E-07	5.300E-07	2.236E-07	
	(n,d)	4.456E-08	4.845E-08	6.634E-08	6.846E-08	3.019E-08	
	(n,t)	1.500E-08	1.631E-08	2.234E-08	2.336E-08	1.034E-08	
	(n,a)	7.848E-07	8.890E-07	1.150E-06	9.178E-07	3.979E-07	
	62-Sm-144	total	1.906E+01	2.162E+01	2.277E+01	2.175E+01	1.103E+01
		elastic	1.819E+01	2.080E+01	2.198E+01	2.108E+01	1.082E+01
inelastic		1.856E-01	2.143E-01	2.584E-01	2.109E-01	9.911E-02	
(n,2n)		9.632E-05	1.047E-04	1.434E-04	1.305E-04	5.578E-05	
(n,3n)		1.245E-09	1.353E-09	1.853E-09	2.339E-09	1.233E-09	
(n,na)		2.596E-07	2.823E-07	3.865E-07	3.469E-07	1.479E-07	
(n,np)		1.207E-06	1.313E-06	1.798E-06	1.767E-06	7.695E-07	
(n,nd)		1.548E-12	1.684E-12	2.305E-12	2.959E-12	1.384E-12	
capture		6.819E-01	5.990E-01	5.318E-01	4.575E-01	1.084E-01	
(n,p)		2.239E-05	2.539E-05	3.387E-05	2.586E-05	1.047E-05	
(n,d)		7.769E-08	8.448E-08	1.157E-07	1.146E-07	5.005E-08	
(n,t)		1.626E-09	1.768E-09	2.421E-09	2.743E-09	1.240E-09	
(n,He-3)		3.163E-11	3.439E-11	4.709E-11	5.544E-11	2.533E-11	
(n,a)		5.171E-05	5.985E-05	7.468E-05	5.888E-05	2.625E-05	
(n,2p)		1.197E-11	1.301E-11	1.781E-11	2.095E-11	9.566E-12	
62-Sm-147	total	5.022E+01	5.103E+01	4.882E+01	4.060E+01	1.372E+01	
	elastic	2.166E+01	2.554E+01	2.713E+01	2.501E+01	1.219E+01	
	inelastic	5.855E-01	6.890E-01	8.087E-01	7.523E-01	5.445E-01	
	(n,2n)	2.104E-03	2.345E-03	3.174E-03	2.390E-03	9.666E-04	
	(n,3n)	5.459E-07	5.935E-07	8.126E-07	9.223E-07	4.166E-07	
	(n,na)	3.970E-07	4.373E-07	5.946E-07	5.008E-07	2.099E-07	
	(n,np)	5.611E-08	6.101E-08	8.353E-08	8.958E-08	3.989E-08	
	(n,nd)	1.594E-09	1.733E-09	2.373E-09	2.896E-09	1.337E-09	
	(n,nt)	1.735E-11	1.887E-11	2.583E-11	3.269E-11	1.524E-11	
	capture	2.795E+01	2.470E+01	2.079E+01	1.493E+01	9.758E-01	
	(n,p)	3.323E-06	3.655E-06	4.974E-06	3.984E-06	1.646E-06	
	(n,d)	3.328E-07	3.618E-07	4.954E-07	4.855E-07	2.114E-07	
	(n,t)	4.704E-08	5.115E-08	7.004E-08	7.223E-08	3.185E-08	
	(n,He-3)	3.709E-11	4.033E-11	5.522E-11	6.619E-11	3.040E-11	
	(n,a)	2.898E-04	2.607E-04	2.269E-04	1.671E-04	2.446E-05	
62-Sm-148	total	1.744E+01	2.075E+01	2.282E+01	2.270E+01	1.157E+01	
	elastic	1.540E+01	1.864E+01	2.068E+01	2.075E+01	1.105E+01	
	inelastic	3.807E-01	4.419E-01	5.211E-01	4.544E-01	2.551E-01	
	(n,2n)	9.664E-04	1.053E-03	1.440E-03	1.131E-03	4.662E-04	
	(n,3n)	1.674E-06	1.820E-06	2.492E-06	2.780E-06	1.249E-06	
	(n,na)	1.287E-06	1.425E-06	1.934E-06	1.508E-06	6.174E-07	
	(n,np)	3.161E-08	3.437E-08	4.705E-08	5.152E-08	2.307E-08	
	(n,nd)	6.757E-11	7.348E-11	1.006E-10	1.275E-10	5.946E-11	
	(n,nt)	8.403E-12	9.136E-12	1.251E-11	1.590E-11	7.421E-12	
	capture	1.648E+00	1.659E+00	1.634E+00	1.494E+00	2.661E-01	
	(n,p)	9.072E-07	9.885E-07	1.352E-06	1.148E-06	4.826E-07	
	(n,d)	1.069E-07	1.162E-07	1.591E-07	1.672E-07	7.406E-08	
	(n,t)	1.705E-08	1.854E-08	2.538E-08	2.758E-08	1.233E-08	
	(n,He-3)	3.794E-12	4.126E-12	5.648E-12	6.938E-12	3.208E-12	
	(n,a)	4.915E-06	5.649E-06	7.091E-06	5.686E-06	2.615E-06	
62-Sm-149	total	1.524E+04	5.827E+03	7.614E+02	1.454E+02	1.396E+01	
	elastic	1.299E+02	6.466E+01	2.738E+01	2.161E+01	1.099E+01	
	inelastic	7.616E-01	9.067E-01	1.064E+00	1.039E+00	9.372E-01	
	(n,2n)	6.925E-03	7.901E-03	1.057E-02	7.877E-03	3.153E-03	
	(n,3n)	1.980E-06	2.153E-06	2.948E-06	3.234E-06	1.447E-06	
	(n,na)	1.753E-07	1.923E-07	2.620E-07	2.310E-07	9.801E-08	
	(n,np)	2.655E-08	2.887E-08	3.952E-08	4.340E-08	1.945E-08	
	(n,nd)	1.239E-09	1.347E-09	1.844E-09	2.257E-09	1.043E-09	
	(n,nt)	2.433E-11	2.646E-11	3.623E-11	4.576E-11	2.132E-11	
	capture	1.512E+04	5.764E+03	7.331E+02	1.227E+02	2.028E+00	
	(n,p)	1.108E-06	1.209E-06	1.652E-06	1.380E-06	5.778E-07	
	(n,d)	1.963E-07	2.134E-07	2.921E-07	2.932E-07	1.284E-07	
	(n,t)	3.859E-08	4.196E-08	5.745E-08	6.016E-08	2.663E-08	
	(n,He-3)	5.791E-12	6.296E-12	8.620E-12	1.056E-11	4.878E-12	

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
62-Sm-149	(n,a)	1.159E-02	4.432E-03	5.831E-04	1.148E-04	2.278E-05
62-Sm-150	total	4.203E+01	3.392E+01	2.842E+01	2.434E+01	1.172E+01
	elastic	1.673E+01	1.828E+01	1.890E+01	1.798E+01	1.092E+01
	inelastic	4.577E-01	5.339E-01	6.280E-01	5.629E-01	3.471E-01
	(n,2n)	9.313E-04	1.014E-03	1.387E-03	1.088E-03	4.487E-04
	(n,3n)	4.188E-06	4.553E-06	6.234E-06	6.767E-06	3.019E-06
	(n,na)	2.388E-07	2.626E-07	3.576E-07	2.933E-07	1.220E-07
	(n,np)	7.785E-09	8.465E-09	1.159E-08	1.305E-08	5.887E-09
	(n,nd)	1.566E-11	1.702E-11	2.331E-11	2.968E-11	1.386E-11
	(n,nt)	5.827E-12	6.336E-12	8.674E-12	1.102E-11	5.145E-12
	capture	2.484E+01	1.512E+01	8.902E+00	5.800E+00	4.495E-01
	(n,p)	4.789E-07	5.208E-07	7.130E-07	6.397E-07	2.728E-07
	(n,d)	3.074E-08	3.342E-08	4.576E-08	4.969E-08	2.220E-08
	(n,t)	9.012E-09	9.799E-09	1.342E-08	1.478E-08	6.626E-09
	(n,a)	1.312E-06	1.491E-06	1.928E-06	1.538E-06	6.582E-07
62-Sm-151	total	1.780E+03	6.917E+02	1.445E+02	5.814E+01	1.217E+01
	elastic	1.921E+01	1.644E+01	1.461E+01	1.393E+01	9.089E+00
	inelastic	8.589E-01	1.033E+00	1.215E+00	1.226E+00	1.217E+00
	(n,2n)	6.320E-03	7.238E-03	9.657E-03	7.200E-03	2.880E-03
	(n,3n)	2.105E-06	2.289E-06	3.133E-06	3.382E-06	1.507E-06
	(n,na)	4.935E-08	5.372E-08	7.350E-08	7.197E-08	3.140E-08
	(n,np)	2.586E-09	2.812E-09	3.850E-09	4.472E-09	2.035E-09
	(n,nd)	5.514E-10	5.996E-10	8.209E-10	1.012E-09	4.686E-10
	(n,nt)	1.502E-11	1.633E-11	2.235E-11	2.827E-11	1.318E-11
	capture	1.761E+03	6.742E+02	1.287E+02	4.297E+01	1.859E+00
	(n,p)	5.694E-07	6.207E-07	8.489E-07	7.199E-07	3.026E-07
	(n,d)	8.082E-08	8.788E-08	1.203E-07	1.250E-07	5.520E-08
	(n,t)	2.373E-08	2.581E-08	3.533E-08	3.777E-08	1.681E-08
	(n,a)	6.819E-07	7.717E-07	9.921E-07	8.373E-07	4.409E-07
62-Sm-152	total	2.288E+02	2.192E+02	1.822E+02	1.089E+02	1.042E+01
	elastic	1.338E+02	1.416E+02	1.252E+02	7.665E+01	9.485E+00
	inelastic	5.493E-01	6.466E-01	7.603E-01	7.068E-01	5.082E-01
	(n,2n)	8.722E-04	9.488E-04	1.299E-03	1.025E-03	4.235E-04
	(n,3n)	3.735E-06	4.061E-06	5.560E-06	6.035E-06	2.692E-06
	(n,na)	2.309E-08	2.513E-08	3.439E-08	3.408E-08	1.491E-08
	(n,np)	6.000E-09	6.524E-09	8.932E-09	1.024E-08	4.641E-09
	(n,nd)	1.107E-12	1.204E-12	1.648E-12	2.110E-12	9.866E-13
	capture	9.445E+01	7.686E+01	5.623E+01	3.146E+01	4.261E-01
	(n,p)	2.637E-07	2.868E-07	3.927E-07	3.521E-07	1.501E-07
	(n,d)	3.081E-08	3.351E-08	4.588E-08	5.080E-08	2.281E-08
	(n,t)	3.378E-09	3.673E-09	5.029E-09	5.744E-09	2.601E-09
	(n,a)	1.919E-07	2.118E-07	2.865E-07	2.461E-07	1.038E-07
62-Sm-153	total	1.001E+02	6.168E+01	3.632E+01	2.680E+01	1.039E+01
	elastic	1.354E+01	1.475E+01	1.485E+01	1.369E+01	8.290E+00
	inelastic	9.117E-01	1.100E+00	1.295E+00	1.319E+00	1.385E+00
	(n,2n)	4.584E-03	5.209E-03	6.985E-03	5.215E-03	2.091E-03
	(n,3n)	7.726E-07	8.400E-07	1.150E-06	1.282E-06	5.763E-07
	(n,na)	8.216E-09	8.933E-09	1.223E-08	1.324E-08	5.912E-09
	(n,np)	1.018E-08	1.107E-08	1.515E-08	1.714E-08	7.743E-09
	(n,nd)	1.710E-10	1.860E-10	2.546E-10	3.190E-10	1.483E-10
	capture	8.534E+01	4.570E+01	2.014E+01	1.178E+01	7.124E-01
	(n,p)	2.891E-07	3.147E-07	4.307E-07	3.703E-07	1.562E-07
	(n,d)	9.694E-08	1.054E-07	1.443E-07	1.515E-07	6.711E-08
	(n,t)	1.897E-08	2.063E-08	2.825E-08	3.118E-08	1.399E-08
	(n,a)	8.567E-08	9.370E-08	1.274E-07	1.107E-07	4.704E-08
62-Sm-154	total	1.440E+01	1.403E+01	1.364E+01	1.352E+01	1.025E+01
	elastic	1.147E+01	1.164E+01	1.156E+01	1.167E+01	9.476E+00
	inelastic	5.611E-01	6.623E-01	7.794E-01	7.317E-01	5.555E-01
	(n,2n)	1.162E-03	1.265E-03	1.732E-03	1.350E-03	5.555E-04
	(n,3n)	2.979E-06	3.239E-06	4.434E-06	4.821E-06	2.152E-06
	(n,na)	4.754E-09	5.170E-09	7.078E-09	7.768E-09	3.484E-09
	(n,np)	5.175E-09	5.627E-09	7.704E-09	8.904E-09	4.045E-09
	(n,nd)	1.227E-12	1.334E-12	1.827E-12	2.360E-12	1.106E-12
	(n,nt)	2.045E-13	2.224E-13	3.045E-13	3.927E-13	1.840E-13
	capture	2.370E+00	1.715E+00	1.295E+00	1.116E+00	2.173E-01
	(n,p)	1.308E-07	1.422E-07	1.947E-07	1.793E-07	7.692E-08
	(n,d)	2.317E-08	2.519E-08	3.449E-08	3.832E-08	1.722E-08
	(n,t)	5.687E-09	6.184E-09	8.466E-09	9.656E-09	4.371E-09
	(n,a)	4.710E-08	5.135E-08	7.018E-08	6.539E-08	2.814E-08
63-Eu-151	total	1.324E+03	6.693E+02	1.722E+02	6.422E+01	1.177E+01

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
63-Eu-151	elastic	1.001E+01	1.145E+01	1.118E+01	1.074E+01	7.908E+00
	inelastic	5.126E-01	6.047E-01	7.121E-01	6.671E-01	5.093E-01
	(n,2n)	8.222E-04	8.965E-04	1.226E-03	9.703E-04	4.007E-04
	(n,3n)	9.853E-07	1.071E-06	1.467E-06	1.679E-06	7.607E-07
	(n,na)	1.163E-07	1.264E-07	1.731E-07	1.609E-07	6.917E-08
	(n,np)	3.512E-07	3.824E-07	5.232E-07	4.592E-07	1.949E-07
	capture	1.314E+03	6.572E+02	1.603E+02	5.281E+01	3.358E+00
	(n,p)	9.516E-06	1.087E-05	1.411E-05	1.087E-05	4.502E-06
	(n,a)	2.127E-05	2.354E-05	2.918E-05	2.292E-05	1.010E-05
	63-Eu-152	total	1.493E+03	5.713E+02	1.195E+02	5.021E+01
elastic		2.005E+01	1.910E+01	1.749E+01	1.488E+01	6.852E+00
inelastic		5.686E-01	6.708E-01	7.869E-01	7.420E-01	5.512E-01
(n,2n)		2.561E-03	2.849E-03	3.859E-03	2.907E-03	1.176E-03
(n,3n)		1.985E-06	2.159E-06	2.956E-06	3.275E-06	1.469E-06
(n,na)		4.822E-08	5.249E-08	7.182E-08	6.497E-08	2.779E-08
(n,np)		5.644E-08	6.136E-08	8.402E-08	8.471E-08	3.715E-08
(n,nd)		5.009E-09	5.447E-09	7.457E-09	8.657E-09	3.938E-09
(n,nt)		1.697E-10	1.846E-10	2.527E-10	3.101E-10	1.433E-10
capture		1.473E+03	5.515E+02	1.012E+02	3.459E+01	3.807E+00
(n,p)		2.843E-06	3.171E-06	4.206E-06	3.338E-06	1.398E-06
(n,d)		1.403E-07	1.526E-07	2.089E-07	2.027E-07	8.809E-08
(n,t)		2.889E-08	3.141E-08	4.300E-08	4.334E-08	1.901E-08
(n,He-3)		3.467E-12	3.770E-12	5.162E-12	6.313E-12	2.916E-12
(n,a)		2.478E-06	2.831E-06	3.557E-06	2.934E-06	1.468E-06
63-Eu-153	total	9.231E+01	6.669E+01	4.629E+01	3.322E+01	1.080E+01
	elastic	9.928E+00	9.969E+00	9.809E+00	9.706E+00	7.665E+00
	inelastic	6.966E-01	8.290E-01	9.748E-01	9.472E-01	7.980E-01
	(n,2n)	5.123E-04	5.570E-04	7.626E-04	6.239E-04	2.601E-04
	(n,3n)	3.103E-07	3.374E-07	4.620E-07	5.404E-07	2.463E-07
	(n,na)	8.473E-09	9.212E-09	1.261E-08	1.310E-08	5.786E-09
	(n,np)	1.637E-07	1.780E-07	2.437E-07	2.278E-07	9.816E-08
	capture	8.168E+01	5.589E+01	3.550E+01	2.257E+01	2.331E+00
	(n,p)	3.552E-06	4.011E-06	5.309E-06	4.125E-06	1.698E-06
	(n,a)	7.270E-07	7.294E-07	8.978E-07	7.003E-07	2.744E-07
63-Eu-154	total	4.812E+02	2.351E+02	6.087E+01	3.032E+01	9.719E+00
	elastic	6.674E+00	6.734E+00	6.578E+00	6.503E+00	6.078E+00
	inelastic	5.137E-01	6.043E-01	7.094E-01	6.601E-01	4.743E-01
	(n,2n)	3.343E-03	3.726E-03	5.045E-03	3.784E-03	1.528E-03
	(n,3n)	8.892E-07	9.669E-07	1.324E-06	1.517E-06	6.871E-07
	(n,na)	6.046E-09	6.575E-09	9.001E-09	9.605E-09	4.277E-09
	(n,np)	2.330E-08	2.534E-08	3.469E-08	3.641E-08	1.613E-08
	(n,nd)	1.643E-09	1.787E-09	2.446E-09	2.930E-09	1.345E-09
	(n,nt)	2.365E-11	2.571E-11	3.520E-11	4.420E-11	2.056E-11
	capture	4.741E+02	2.278E+02	5.357E+01	2.315E+01	3.165E+00
	(n,p)	8.270E-07	9.086E-07	1.234E-06	1.007E-06	4.191E-07
	(n,d)	6.361E-08	6.917E-08	9.470E-08	9.616E-08	4.224E-08
	(n,t)	9.424E-09	1.025E-08	1.403E-08	1.501E-08	6.682E-09
(n,a)	3.101E-07	3.439E-07	4.607E-07	3.785E-07	1.598E-07	
63-Eu-155	total	1.329E+03	9.442E+02	3.493E+02	1.190E+02	9.875E+00
	elastic	4.225E+01	4.495E+01	2.676E+01	1.591E+01	8.026E+00
	inelastic	6.279E-01	7.447E-01	8.747E-01	8.407E-01	6.806E-01
	(n,2n)	8.430E-04	9.179E-04	1.256E-03	9.935E-04	4.105E-04
	(n,3n)	1.843E-06	2.004E-06	2.743E-06	3.079E-06	1.386E-06
	(n,na)	5.633E-09	6.125E-09	8.386E-09	8.726E-09	3.862E-09
	(n,np)	1.865E-08	2.028E-08	2.777E-08	2.956E-08	1.314E-08
	(n,nd)	7.504E-11	8.159E-11	1.117E-10	1.400E-10	6.507E-11
	(n,nt)	2.231E-11	2.425E-11	3.321E-11	4.167E-11	1.938E-11
	capture	1.286E+03	8.986E+02	3.217E+02	1.022E+02	1.168E+00
	(n,p)	3.179E-07	3.464E-07	4.737E-07	4.100E-07	1.732E-07
	(n,d)	1.807E-08	1.965E-08	2.690E-08	2.882E-08	1.283E-08
	(n,t)	3.556E-09	3.867E-09	5.294E-09	5.940E-09	2.677E-09
(n,a)	1.764E-07	1.951E-07	2.640E-07	2.203E-07	9.204E-08	
63-Eu-156	total	6.765E+01	6.224E+01	4.854E+01	3.367E+01	9.868E+00
	elastic	1.699E+01	1.852E+01	1.786E+01	1.544E+01	8.110E+00
	inelastic	7.756E-01	9.314E-01	1.095E+00	1.101E+00	1.137E+00
	(n,2n)	3.637E-03	4.064E-03	5.494E-03	4.117E-03	1.661E-03
	(n,3n)	1.514E-06	1.646E-06	2.254E-06	2.530E-06	1.139E-06
	(n,na)	2.788E-09	3.032E-09	4.151E-09	4.493E-09	2.009E-09
	(n,np)	1.266E-08	1.376E-08	1.884E-08	2.048E-08	9.154E-09
	(n,nd)	8.402E-10	9.136E-10	1.251E-09	1.520E-09	7.007E-10
	(n,nt)	1.359E-11	1.478E-11	2.023E-11	2.551E-11	1.188E-11

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR	
63-Eu-156	capture	4.978E+01	4.275E+01	2.957E+01	1.712E+01	6.202E-01	
	(n,p)	2.536E-07	2.762E-07	3.779E-07	3.262E-07	1.378E-07	
	(n,d)	3.314E-08	3.603E-08	4.933E-08	5.183E-08	2.296E-08	
	(n,t)	6.246E-09	6.792E-09	9.299E-09	1.014E-08	4.537E-09	
	(n,a)	1.236E-07	1.355E-07	1.844E-07	1.565E-07	6.590E-08	
	total						
64-Gd-152	total	2.159E+02	1.161E+02	5.417E+01	3.766E+01	1.165E+01	
	elastic	2.161E+01	2.296E+01	2.306E+01	2.143E+01	1.031E+01	
	inelastic	4.603E-01	5.364E-01	6.304E-01	5.638E-01	3.438E-01	
	(n,2n)	5.349E-04	5.816E-04	7.963E-04	6.490E-04	2.703E-04	
	(n,3n)	1.596E-06	1.735E-06	2.375E-06	2.723E-06	1.233E-06	
	(n,na)	4.088E-07	4.472E-07	6.104E-07	4.892E-07	2.026E-07	
	(n,np)	9.882E-09	1.075E-08	1.471E-08	1.610E-08	7.209E-09	
	(n,nd)	1.339E-11	1.456E-11	1.993E-11	2.532E-11	1.181E-11	
	(n,nt)	6.615E-13	7.193E-13	9.847E-13	1.257E-12	5.872E-13	
	capture	1.939E+02	9.249E+01	3.045E+01	1.577E+01	9.934E-01	
	(n,p)	1.908E-06	2.089E-06	2.850E-06	2.372E-06	9.911E-07	
	(n,d)	3.213E-08	3.494E-08	4.783E-08	5.041E-08	2.235E-08	
	(n,t)	4.140E-09	4.502E-09	6.164E-09	6.791E-09	3.046E-09	
	(n,He-3)	2.000E-12	2.175E-12	2.977E-12	3.673E-12	1.700E-12	
	(n,a)	2.601E-03	2.073E-03	1.574E-03	1.071E-03	8.745E-05	
	64-Gd-154	total	2.877E+01	2.213E+01	1.820E+01	1.661E+01	9.609E+00
elastic		9.385E+00	1.000E+01	1.032E+01	1.046E+01	8.264E+00	
inelastic		5.270E-01	6.195E-01	7.282E-01	6.740E-01	4.751E-01	
(n,2n)		6.882E-04	7.484E-04	1.025E-03	8.325E-04	3.464E-04	
(n,3n)		1.600E-06	1.739E-06	2.381E-06	2.737E-06	1.241E-06	
(n,na)		5.074E-08	5.521E-08	7.556E-08	6.844E-08	2.929E-08	
(n,np)		7.786E-09	8.466E-09	1.159E-08	1.273E-08	5.704E-09	
(n,nd)		8.476E-13	9.217E-13	1.262E-12	1.622E-12	7.595E-13	
capture		1.883E+01	1.158E+01	7.135E+00	5.470E+00	8.711E-01	
(n,p)		1.050E-06	1.146E-06	1.566E-06	1.316E-06	5.516E-07	
(n,d)		1.603E-08	1.743E-08	2.387E-08	2.557E-08	1.139E-08	
(n,t)		1.756E-09	1.910E-09	2.615E-09	2.975E-09	1.346E-09	
(n,a)		1.417E-06	1.626E-06	2.108E-06	1.647E-06	6.837E-07	
64-Gd-155		total	6.047E+03	2.070E+03	2.718E+02	5.818E+01	9.701E+00
		elastic	1.514E+01	1.027E+01	7.721E+00	7.322E+00	6.519E+00
		inelastic	7.119E-01	8.454E-01	9.924E-01	9.595E-01	7.871E-01
	(n,2n)	2.474E-03	2.744E-03	3.723E-03	2.812E-03	1.139E-03	
	(n,3n)	1.267E-06	1.378E-06	1.887E-06	2.165E-06	9.813E-07	
	(n,na)	7.735E-09	8.411E-09	1.152E-08	1.167E-08	5.136E-09	
	(n,np)	6.462E-09	7.027E-09	9.620E-09	1.071E-08	4.820E-09	
	(n,nd)	1.412E-10	1.535E-10	2.101E-10	2.612E-10	1.212E-10	
	capture	6.032E+03	2.059E+03	2.632E+02	4.990E+01	2.394E+00	
	(n,p)	1.159E-06	1.272E-06	1.733E-06	1.415E-06	5.881E-07	
	(n,d)	5.374E-08	5.843E-08	8.000E-08	8.171E-08	3.595E-08	
	(n,t)	4.569E-09	4.968E-09	6.803E-09	7.455E-09	3.339E-09	
	(n,a)	8.888E-06	3.672E-06	1.504E-06	1.024E-06	4.635E-07	
	64-Gd-156	total	1.343E+01	1.496E+01	1.596E+01	1.575E+01	9.862E+00
		elastic	9.308E+00	1.040E+01	1.114E+01	1.146E+01	8.712E+00
		inelastic	5.489E-01	6.467E-01	7.606E-01	7.103E-01	5.247E-01
(n,2n)		6.692E-04	7.276E-04	9.962E-04	8.018E-04	3.329E-04	
(n,3n)		1.738E-06	1.890E-06	2.588E-06	2.951E-06	1.335E-06	
(n,na)		6.694E-09	7.279E-09	9.966E-09	1.015E-08	4.471E-09	
(n,np)		4.463E-09	4.853E-09	6.644E-09	7.475E-09	3.372E-09	
(n,nd)		6.089E-13	6.621E-13	9.065E-13	1.167E-12	5.462E-13	
capture		3.560E+00	3.907E+00	4.052E+00	3.577E+00	6.245E-01	
(n,p)		6.898E-07	7.512E-07	1.028E-06	8.864E-07	3.743E-07	
(n,d)		1.537E-08	1.671E-08	2.288E-08	2.470E-08	1.102E-08	
(n,t)		1.949E-09	2.119E-09	2.901E-09	3.298E-09	1.492E-09	
(n,a)		4.154E-07	4.659E-07	6.216E-07	5.153E-07	2.153E-07	
64-Gd-157		total	2.602E+04	8.812E+03	1.028E+03	1.451E+02	9.599E+00
		elastic	1.461E+02	5.817E+01	1.507E+01	1.013E+01	7.552E+00
		inelastic	7.314E-01	8.696E-01	1.021E+00	9.910E-01	8.486E-01
	(n,2n)	3.268E-03	3.644E-03	4.932E-03	3.704E-03	1.496E-03	
	(n,3n)	1.594E-06	1.733E-06	2.373E-06	2.697E-06	1.219E-06	
	(n,na)	2.655E-09	2.887E-09	3.952E-09	4.261E-09	1.903E-09	
	(n,np)	4.208E-09	4.576E-09	6.265E-09	7.069E-09	3.191E-09	
	(n,nd)	7.704E-11	8.377E-11	1.147E-10	1.434E-10	6.664E-11	
	capture	2.587E+04	8.753E+03	1.012E+03	1.340E+02	1.198E+00	
	(n,p)	6.202E-07	6.764E-07	9.247E-07	7.852E-07	3.301E-07	
	(n,d)	3.703E-08	4.026E-08	5.512E-08	5.729E-08	2.532E-08	
	(n,t)	4.488E-09	4.881E-09	6.682E-09	7.357E-09	3.299E-09	

(unit: barns)

Nuclide	Reaction	BWR	PWR	HCLWR(1.4)	HCLWR(0.5)	FBR
64-Gd-157	(n, α)	4.878E-05	1.664E-05	2.181E-06	4.874E-07	1.041E-07
64-Gd-158	total	9.137E+00	9.956E+00	1.056E+01	1.064E+01	9.120E+00
	elastic	6.565E+00	7.288E+00	7.863E+00	8.364E+00	8.249E+00
	inelastic	5.812E-01	6.856E-01	8.058E-01	7.565E-01	5.707E-01
	(n,2n)	1.194E-03	1.300E-03	1.779E-03	1.388E-03	5.717E-04
	(n,3n)	3.218E-06	3.499E-06	4.791E-06	5.320E-06	2.388E-06
	(n,na)	2.557E-09	2.781E-09	3.807E-09	4.075E-09	1.817E-09
	(n,np)	2.720E-09	2.958E-09	4.049E-09	4.637E-09	2.102E-09
	(n,nd)	1.501E-12	1.632E-12	2.234E-12	2.861E-12	1.338E-12
	capture	1.993E+00	1.976E+00	1.884E+00	1.516E+00	3.004E-01
	(n,p)	1.573E-07	1.710E-07	2.341E-07	2.120E-07	9.061E-08
	(n,d)	1.001E-08	1.088E-08	1.490E-08	1.628E-08	7.288E-09
	(n,t)	2.195E-09	2.387E-09	3.268E-09	3.687E-09	1.664E-09
	(n, α)	1.661E-07	1.825E-07	2.481E-07	2.209E-07	9.393E-08
64-Gd-160	total	9.596E+00	1.089E+01	1.195E+01	1.263E+01	1.022E+01
	elastic	8.534E+00	9.718E+00	1.064E+01	1.135E+01	9.445E+00
	inelastic	5.864E-01	6.924E-01	8.137E-01	7.665E-01	5.865E-01
	(n,2n)	1.893E-03	2.070E-03	2.827E-03	2.157E-03	8.807E-04
	(n,3n)	4.645E-06	5.051E-06	6.915E-06	7.385E-06	3.281E-06
	(n,na)	2.382E-09	2.590E-09	3.546E-09	3.959E-09	1.784E-09
	(n,np)	2.211E-09	2.404E-09	3.291E-09	3.852E-09	1.756E-09
	(n,nd)	4.679E-12	5.088E-12	6.966E-12	8.920E-12	4.171E-12
	(n,nt)	1.387E-12	1.508E-12	2.065E-12	2.639E-12	1.233E-12
	capture	4.733E-01	4.798E-01	4.940E-01	5.077E-01	1.913E-01
	(n,p)	9.450E-08	1.028E-07	1.407E-07	1.331E-07	5.748E-08
	(n,d)	1.285E-08	1.397E-08	1.912E-08	2.146E-08	9.672E-09
	(n,t)	5.577E-09	6.064E-09	8.302E-09	9.384E-09	4.238E-09
(n, α)	1.079E-07	1.174E-07	1.607E-07	1.507E-07	6.496E-08	
65-Tb-159	total	2.606E+01	2.460E+01	2.252E+01	1.905E+01	9.458E+00
	elastic	1.023E+01	9.296E+00	8.703E+00	8.622E+00	7.114E+00
	inelastic	6.127E-01	7.244E-01	8.508E-01	8.087E-01	6.351E-01
	(n,2n)	1.087E-03	1.184E-03	1.620E-03	1.274E-03	5.252E-04
	(n,3n)	1.676E-06	1.823E-06	2.496E-06	2.839E-06	1.283E-06
	(n,na)	3.657E-09	3.977E-09	5.445E-09	5.686E-09	2.520E-09
	(n,np)	2.983E-08	3.244E-08	4.441E-08	4.653E-08	2.061E-08
	(n,nd)	1.539E-10	1.674E-10	2.292E-10	2.850E-10	1.323E-10
	(n,nt)	1.427E-11	1.552E-11	2.124E-11	2.669E-11	1.242E-11
	capture	1.519E+01	1.468E+01	1.296E+01	9.614E+00	1.708E+00
	(n,p)	5.893E-07	6.440E-07	8.795E-07	7.389E-07	3.097E-07
	(n,d)	4.769E-08	5.185E-08	7.099E-08	7.343E-08	3.241E-08
	(n,t)	6.442E-09	7.004E-09	9.590E-09	1.050E-08	4.704E-09
(n, α)	3.339E-07	3.669E-07	4.988E-07	4.160E-07	1.740E-07	

6. Table of 30-keV Maxwellian Spectrum Average Capture Cross Sections

Nuclide	JENDL-3 (mb)	Bao and Kaeppler ¹¹⁾ (mb)
33-As- 75	4.532E+02	5.760E+02 +- 3.500E+01
34-Se- 74	2.097E+02	2.380E+02
34-Se- 76	9.662E+01	1.460E+02
34-Se- 77	4.487E+02	4.410E+02
34-Se- 78	9.136E+01	8.950E+01
34-Se- 79	4.180E+02	2.180E+02 +- 5.000E+01
34-Se- 80	2.849E+01	4.400E+01 +- 3.000E+00
34-Se- 82	3.042E+01	1.900E+01
35-Br- 79	6.163E+02	6.360E+02 +- 4.200E+01
35-Br- 81	3.259E+02	3.170E+02 +- 1.700E+01
36-Kr- 78	3.830E+02	3.370E+02 +- 4.100E+01
36-Kr- 80	2.965E+02	2.420E+02 +- 1.400E+01
36-Kr- 82	1.031E+02	7.900E+01 +- 6.000E+00
36-Kr- 83	2.685E+02	2.370E+02 +- 1.500E+01
36-Kr- 84	4.080E+01	3.500E+01 +- 4.000E+00
36-Kr- 85	6.923E+01	6.700E+01 +- 1.700E+01
36-Kr- 86	5.129E+00	4.000E+00 +- 3.000E-01
37-Rb- 85	2.841E+02	3.600E+02 +- 2.000E+01
37-Rb- 87	2.344E+01	1.100E+01 +- 2.000E+00
38-Sr- 86	6.890E+01	7.000E+01 +- 4.000E+00
38-Sr- 87	8.127E+01	9.400E+01 +- 7.000E+00
38-Sr- 88	6.122E+00	6.200E+00 +- 5.000E-01
38-Sr- 89	1.463E+01	
38-Sr- 90	1.477E+01	
39-Y - 89	2.032E+01	2.100E+01 +- 3.000E+00
39-Y - 91	8.866E+01	
40-Zr- 90	2.245E+01	1.640E+01 +- 1.000E+00
40-Zr- 91	6.748E+01	6.000E+01 +- 8.000E+00
40-Zr- 92	4.599E+01	5.000E+01 +- 6.000E+00
40-Zr- 93	1.001E+02	9.500E+01 +- 1.000E+01
40-Zr- 94	3.019E+01	3.300E+01 +- 5.000E+00
40-Zr- 95	1.406E+02	7.230E+01
40-Zr- 96	1.243E+01	2.500E+01 +- 1.500E+01
41-Nb- 93	2.671E+02	2.710E+02 +- 1.500E+01
41-Nb- 94	3.201E+02	5.340E+02
41-Nb- 95	4.058E+02	
42-Mo- 92	6.708E+01	7.000E+01 +- 1.000E+01
42-Mo- 94	1.155E+02	1.040E+02 +- 2.000E+01
42-Mo- 95	3.920E+02	3.740E+02 +- 5.000E+01
42-Mo- 96	1.045E+02	1.030E+02 +- 1.600E+01
42-Mo- 97	3.915E+02	3.840E+02 +- 5.000E+01
42-Mo- 98	9.585E+01	1.020E+02 +- 1.500E+01
42-Mo- 99	4.829E+02	
42-Mo-100	8.769E+01	9.700E+01 +- 2.000E+01
43-Tc- 99	7.849E+02	7.990E+02 +- 4.000E+01
44-Ru- 96	2.670E+02	2.700E+02 +- 6.000E+01
44-Ru- 98	2.383E+02	2.220E+02
44-Ru- 99	7.166E+02	9.310E+02
44-Ru-100	2.077E+02	2.060E+02 +- 1.300E+01
44-Ru-101	9.525E+02	9.960E+02 +- 4.000E+01

Nuclide	JENDL-3 (mb)	Bao and Kaeppler ¹¹⁾ (mb)
44-Ru-102	1.907E+02	1.860E+02 +- 1.100E+01
44-Ru-103	5.799E+02	5.690E+02
44-Ru-104	1.665E+02	1.610E+02 +- 1.000E+01
44-Ru-106	1.011E+02	
45-Rh-103	9.797E+02	8.750E+02 +- 3.500E+01
45-Rh-105	8.260E+02	
46-Pd-102	3.862E+02	3.100E+02
46-Pd-104	2.961E+02	2.890E+02 +- 2.900E+01
46-Pd-105	1.202E+03	1.199E+03 +- 6.000E+01
46-Pd-106	2.927E+02	2.520E+02 +- 2.500E+01
46-Pd-107	1.289E+03	1.340E+03 +- 6.000E+01
46-Pd-108	2.441E+02	2.030E+02 +- 2.000E+01
46-Pd-110	1.568E+02	1.460E+02 +- 2.000E+01
47-Ag-107	8.341E+02	7.990E+02 +- 2.400E+01
47-Ag-109	8.478E+02	7.790E+02 +- 2.300E+01
47-Ag-110 _m	2.717E+03	
48-Cd-106	5.692E+02	5.550E+02 +- 5.500E+01
48-Cd-108	4.237E+02	4.070E+02 +- 7.000E+01
48-Cd-110	2.337E+02	2.530E+02 +- 3.000E+01
48-Cd-111	8.721E+02	1.063E+03 +- 1.250E+02
48-Cd-112	2.152E+02	2.220E+02 +- 3.000E+01
48-Cd-113	6.737E+02	
48-Cd-114	1.507E+02	1.500E+02 +- 2.500E+01
48-Cd-116	9.141E+01	9.400E+01 +- 1.200E+01
49-In-113	9.264E+02	7.870E+02 +- 7.000E+01
49-In-115	6.603E+02	
50-Sn-112	1.964E+02	2.020E+02 +- 4.800E+01
50-Sn-114	1.533E+02	1.840E+02
50-Sn-115	3.929E+02	4.300E+02
50-Sn-116	1.063E+02	1.000E+02 +- 1.900E+01
50-Sn-117	3.936E+02	4.020E+02 +- 7.700E+01
50-Sn-118	6.719E+01	6.300E+01 +- 1.200E+01
50-Sn-119	2.266E+02	2.470E+02 +- 4.700E+01
50-Sn-120	4.157E+01	3.900E+01 +- 7.000E+00
50-Sn-122	2.401E+01	2.300E+01 +- 5.000E+00
50-Sn-123	3.623E+02	
50-Sn-124	2.480E+01	2.300E+01 +- 4.000E+00
50-Sn-126	1.088E+01	
51-Sb-121	6.902E+02	7.400E+02 +- 1.000E+02
51-Sb-123	4.390E+02	4.400E+02 +- 5.000E+01
51-Sb-124	9.721E+02	
51-Sb-125	5.285E+02	
52-Te-120	2.927E+02	4.840E+02
52-Te-122	3.605E+02	2.950E+02 +- 6.000E+01
52-Te-123	9.405E+02	8.220E+02 +- 5.000E+01
52-Te-124	1.647E+02	1.620E+02 +- 2.100E+01
52-Te-125	4.225E+02	4.440E+02 +- 4.400E+01
52-Te-126	8.137E+01	8.000E+01 +- 1.200E+01
52-Te-127 _m	8.916E+02	
52-Te-128	4.013E+01	3.900E+01 +- 5.000E+00

Nuclide	JENDL-3 (mb)	Bao and Kaeppler ¹¹⁾ (mb)
52-Te-129m	7.523E+02	
52-Te-130	1.433E+01	1.550E+01 +- 2.300E+00
53-I -127	6.619E+02	6.350E+02 +- 3.000E+01
53-I -129	4.420E+02	4.410E+02 +- 2.200E+01
53-I -131	2.644E+02	
54-Xe-124	1.157E+03	9.930E+02 +- 1.040E+02
54-Xe-126	6.867E+02	3.240E+02
54-Xe-128	2.883E+02	2.490E+02
54-Xe-129	4.359E+02	4.700E+02
54-Xe-130	2.834E+02	1.530E+02
54-Xe-131	3.655E+02	3.480E+02
54-Xe-132	5.242E+01	5.750E+01 +- 3.800E+00
54-Xe-133	1.281E+02	1.340E+02
54-Xe-134	2.632E+01	2.730E+01 +- 2.000E+00
54-Xe-135	6.572E+01	
54-Xe-136	8.797E-01	2.900E+00
55-Cs-133	5.129E+02	5.090E+02 +- 2.100E+01
55-Cs-134	1.162E+03	9.580E+02
55-Cs-135	2.020E+02	2.010E+02
55-Cs-136	2.251E+02	
55-Cs-137	2.215E+01	
56-Ba-130	7.403E+02	7.150E+02 +- 1.160E+02
56-Ba-132	4.574E+02	4.470E+02
56-Ba-134	2.329E+02	2.210E+02 +- 3.500E+01
56-Ba-135	5.017E+02	4.570E+02 +- 8.000E+01
56-Ba-136	6.691E+01	6.900E+01 +- 1.000E+01
56-Ba-137	6.469E+01	5.700E+01 +- 1.000E+01
56-Ba-138	4.053E+00	3.900E+00 +- 3.000E-01
56-Ba-140	3.259E+00	
57-La-138	3.148E+02	
57-La-139	3.346E+01	3.840E+01 +- 2.700E+00
58-Ce-140	7.431E+00	1.060E+01 +- 6.000E-01
58-Ce-141	2.768E+02	1.670E+02
58-Ce-142	2.192E+01	1.810E+01 +- 1.100E+00
58-Ce-144	2.434E+01	
59-Pr-141	1.170E+02	1.190E+02 +- 1.500E+01
59-Pr-143	1.080E+02	
60-Nd-142	5.558E+01	4.600E+01 +- 4.000E+00
60-Nd-143	2.894E+02	2.420E+02 +- 1.000E+01
60-Nd-144	7.361E+01	1.100E+02 +- 6.000E+00
60-Nd-145	5.316E+02	4.850E+02 +- 1.000E+02
60-Nd-146	1.217E+02	1.570E+02 +- 4.000E+01
60-Nd-147	1.009E+03	6.250E+02
60-Nd-148	1.270E+02	1.920E+02 +- 4.000E+01
60-Nd-150	1.657E+02	1.870E+02 +- 1.900E+01
61-Pm-147	1.053E+03	1.163E+03
61-Pm-148	1.711E+03	
61-Pm-148m	2.874E+03	
61-Pm-149	1.026E+03	
62-Sm-144	1.023E+02	9.200E+01 +- 9.000E+00

Nuclide	JENDL-3 (mb)	Bao and Kaepeler ¹¹⁾ (mb)
62-Sm-147	9.102E+02	1.005E+03 +- 1.000E+02
62-Sm-148	2.700E+02	2.670E+02 +- 1.200E+01
62-Sm-149	1.836E+03	1.454E+03 +- 6.600E+01
62-Sm-150	4.913E+02	4.470E+02 +- 2.600E+01
62-Sm-151	2.007E+03	1.932E+03
62-Sm-152	4.797E+02	3.780E+02 +- 2.300E+01
62-Sm-153	6.529E+02	
62-Sm-154	2.521E+02	2.930E+02 +- 1.900E+01
63-Eu-151	3.587E+03	4.367E+03 +- 1.750E+02
63-Eu-152	4.580E+03	4.816E+03
63-Eu-153	2.542E+03	3.170E+03 +- 3.170E+02
63-Eu-154	3.581E+03	3.720E+03
63-Eu-155	1.144E+03	1.909E+03
63-Eu-156	5.434E+02	
64-Gd-152	1.000E+03	9.850E+02 +- 6.100E+01
64-Gd-154	8.701E+02	1.278E+03 +- 1.020E+02
64-Gd-155	2.842E+03	2.800E+03 +- 2.800E+02
64-Gd-156	6.091E+02	6.390E+02 +- 6.400E+01
64-Gd-157	1.271E+03	1.538E+03 +- 1.540E+02
64-Gd-158	3.092E+02	2.080E+02 +- 1.900E+01
64-Gd-160	1.653E+02	1.360E+02 +- 1.300E+01
65-Tb-159	2.086E+03	1.800E+03 +- 1.000E+02