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The Au(n,x γ) Reaction Cross Section for Incident Neutron Energies Between 0.2 and 20.0 MeV

G. L. Morgan E. Newman

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Neutron Physics Division

THE Au(n,xγ) REACTION CROSS SECTION FOR INCIDENT NEUTRON ENERGIES BETWEEN 0.2 AND 20.0 MeV

G. L. Morgan and E. Newman

AUGUST 1975

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OAK RIDGE NATIONAL LABORATORY
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ABSTRACT

Differential cross sections for the neutron-induced gamma-ray production from natural gold have been measured for incident neutron energies between 0.2 and 20.0 MeV. The Oak Ridge Linear Accelerator (ORELA) was used to provide the neutrons and a NaI spectrometer to detect the gamma rays at 125°. The data presented are the double differential cross section, $d^2\sigma/d\Omega dE$, for gamma-ray energies between 0.3 and 10.6 MeV for coarse intervals in incident neutron energy. The integrated yield of gamma rays of energies greater than 300 keV and higher resolution in the neutron energy is also presented. The experimental results are compared with the Evaluated Neutron Data Library (ENDL).

INTRODUCTION

As part of a continuing program[1] for determining numerical values of gamma-ray production cross sections for neutron-induced reactions, we have measured the absolute differential cross sections for gamma rays produced by neutron interactions with natural gold. The data are presented in this report in tabular and graphical form and are compared to the current evaluated data file for gold (ENDL-7047).[2]

Two methods of data analysis were employed. One gives the detailed gamma-ray spectra for a series of relatively coarse intervals in incident neutron energy while the second method uses integral quantities to illustrate the detailed behavior of the cross sections as a function of the incident neutron energy. The second approach is used to facilitate comparison of the experimental and evaluated data in the region of the thresholds for the (n,2n) and (n,3n) reactions.

EXPERIMENTAL PROCEDURE

Details of the experimental procedure are given elsewhere[3] and only a brief description will be given here. Neutrons were produced by photonuclear processes due to bremsstrahlung from the impact on a tantalum target of electrons from the Oak Ridge Electron Linear Accelerator (ORELA). The present experiment employed an electron beam energy of 135 MeV with a repetition rate of 800 pulses per second and a pulse width of 30 ns. The total electron beam power was 48 kW.

Neutrons produced at the linac target traversed a 47.35 m flight path and were incident on a thin slab of natural gold oriented 45° with

respect to the incident beam. The slab was 30 cm wide by 22 cm high with a thickness of 0.0189 atoms/barn. Gamma rays originating in the sample were detected by a heavily shielded 12.5 cm by 12.5 cm NaI detector at 125° with respect to the incident neutron beam. For each event in the detector data were recorded in a two-parameter array containing gamma-ray pulse height as a function of time-of-flight for the incident neutron.

The neutron flux at the sample position was determined using calibrated thick organic scintillators. During the course of the gamma-ray measurements the flux was monitored using a small plastic scintillator in the edge of the neutron beam 30 m from the source.

DATA REDUCTION

Two methods of data reduction were employed. In the first, the pulse height spectra were integrated over intervals of neutron time-of-flight to form pulse height spectra for specific incident neutron energy ranges. These intervals ranged in width from 0.5 MeV at energies below 5 MeV to 3 MeV in the range 14 to 20 MeV. The spectra so formed were then unfolded using the code FERD and measured response functions of the NaI detector. The results were the gamma-ray spectra defined by 146 points covering the gamma-ray energy range from 0.3 to 10.6 MeV. After correction for self-absorption and neutron self-shielding in the sample, these spectra were normalized to cross sections using the measured neutron flux and sample thickness. A further correction was then applied to the unfolded data. The contribution to the observed cross section at

E_γ = 0.511 MeV due to pair production in the sample was analytically removed. This was done by first calculating the pair production probability as a function of gamma-ray energy using a Monte Carlo technique. Implicit in the calculation are the assumptions of uniform gamma-ray production probability within the sample volume intercepted by the beam and the isotropy of emitted gamma rays. The total 0.511-MeV cross section within each neutron energy group was then calculated from the product of the observed gamma-ray cross section and the pair production probability. This cross section was then "smeared" with the detector resolution and subtracted from the original data. The magnitude of the correction ranged from on the order of 2 mb/sr for E_n = 1.0-1.5 MeV to 27 mb/sr for E_n = 17-20 MeV.

These results are presented in the first set of figures at the end of this report. Figure 1 is a three-dimensional representation of the data giving cross section versus gamma-ray and incident neutron energy. Figures 2-20 present the detailed gamma-ray spectra for each incident neutron energy interval. These are compared to cross sections generated from the evaluation (ENDL-7047) by averaging over the appropriate neutron energy interval.

The data described above provide detailed information about the secondary gamma-ray spectra, but because the unfolding technique requires good statistical accuracy the data must be binned over large neutron energy intervals. Therefore a second type of data reduction, pulse height weighting,[4,5] was also used. This technique provided only integral information about the secondary gamma spectra (e.g., total yield and average photon energy), but because the demands on statistical accuracy

are less it allowed better resolution in the incident neutron energy. In this work the pulse height weighting analysis was applied to spectra formed by integration over time-of-flight intervals corresponding to ΔE_n = 0.1 MeV at E_n = 1 MeV increasing to ΔE_n = 1.0 MeV at E_n = 20 MeV. The results of this analysis for the total yield and average secondary gamma-ray energy as a function of the incident neutron energy are presented in Figures 21-24. Two values of the lower cut-off in gamma-ray energy were used, 0.3 and 0.7 MeV. Comparisons are made for the same quantities calculated from the evaluated data.

The data shown in the graphs are given in the tables contained in the last section of the report. The values shown in the graphs and presented in the tables do not include an uncertainty of 10% in overall normalization due mainly to the determination of the incident neutron flux.

ACKNOWLEDGEMENTS

We wish to thank J. W. McConnell for help with the electronics, J. G. Craven for aid with the computers and H. A. Todd and the ORELA staff for operation of the accelerator. Special thanks are due J. K. Dickens for helpful discussions regarding this work. We appreciate the help of R. E. McDonald in fabricating the gold sample.

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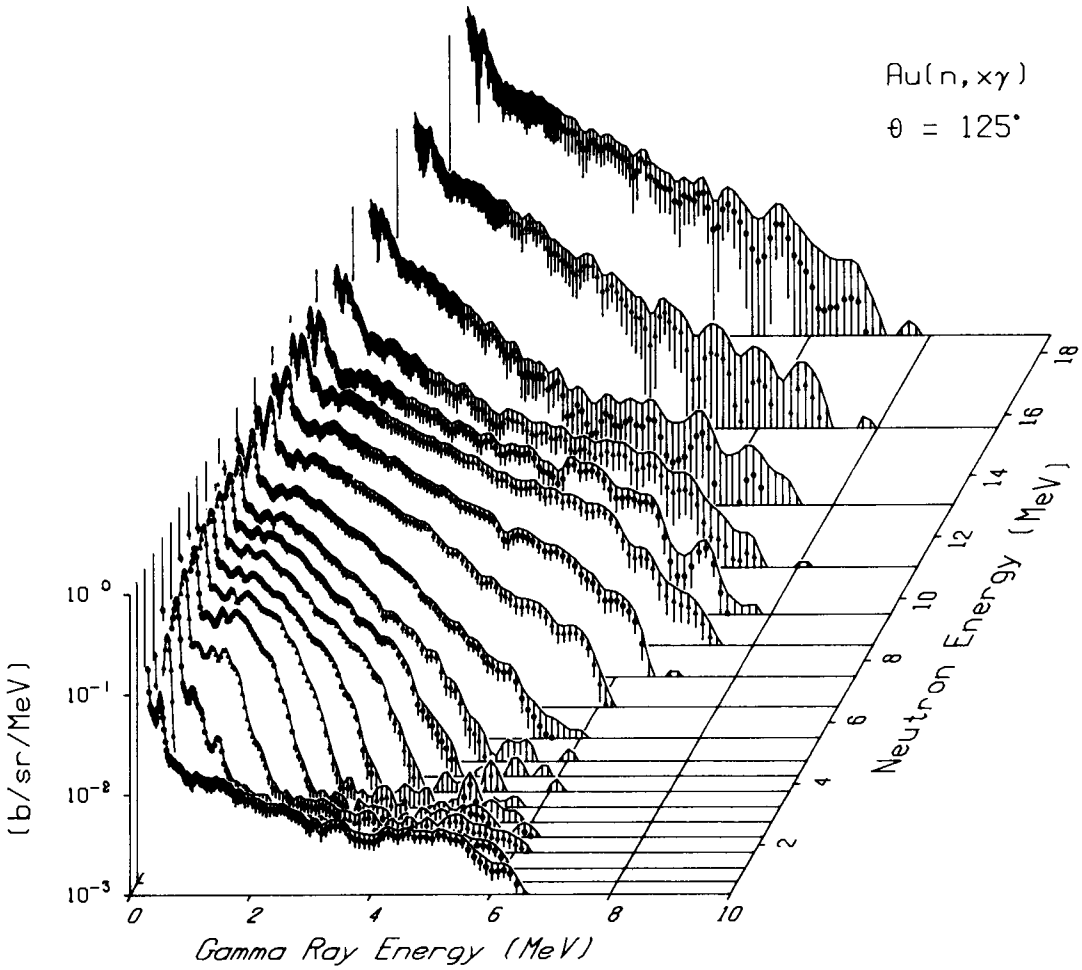
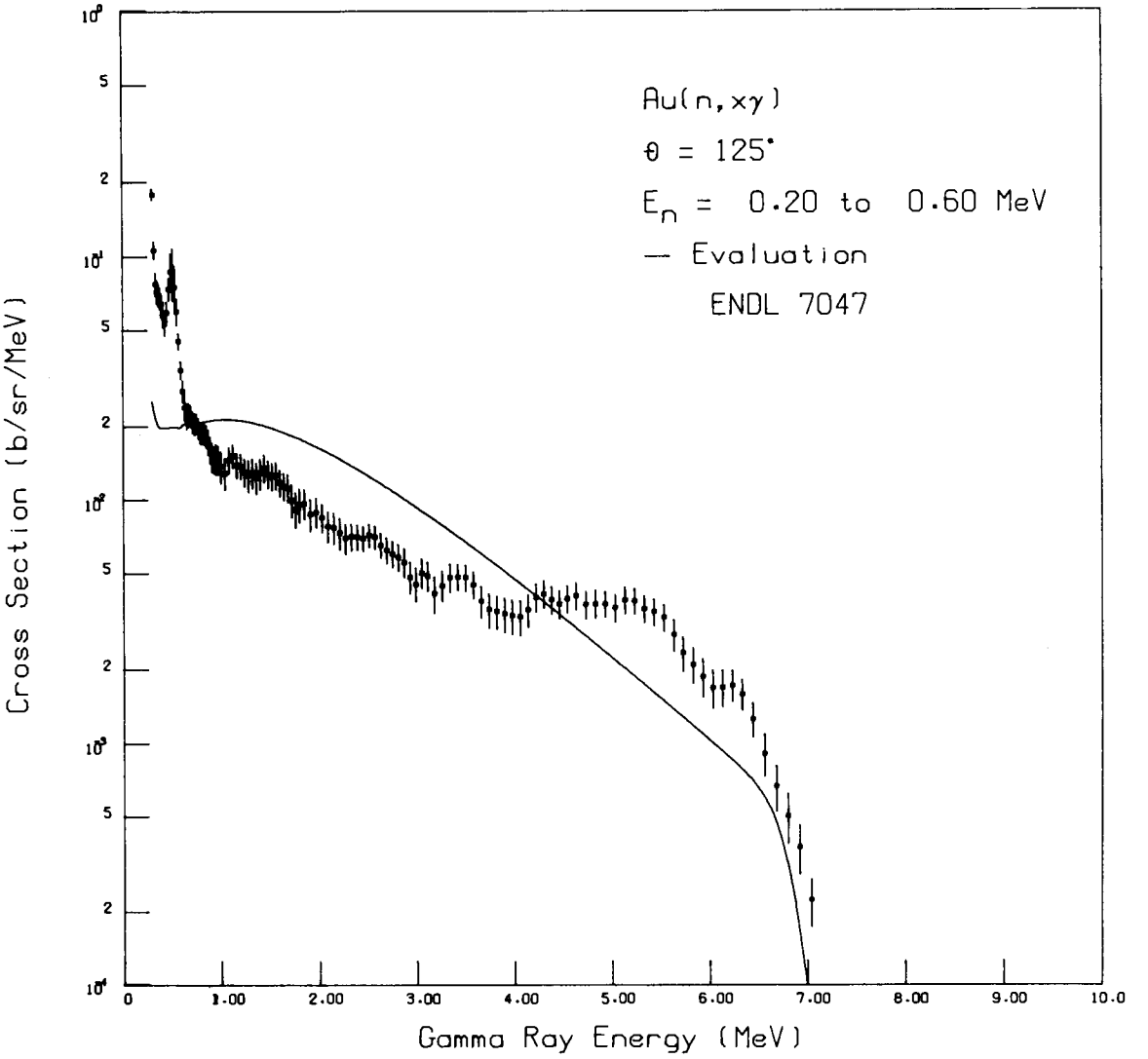

Au(n,xγ)
θ = 125°
(b/sr/MeV)
10 0
10-1
10-2
10-3
0
2
4
6
8
10
Gamma Ray Energy (MeV)
2
4
6
8
10
12
14
16
18
Neutron Energy (MeV)

Fig. 1


Au(n,xγ)
θ = 125°
E_n = 0.20 to 0.60 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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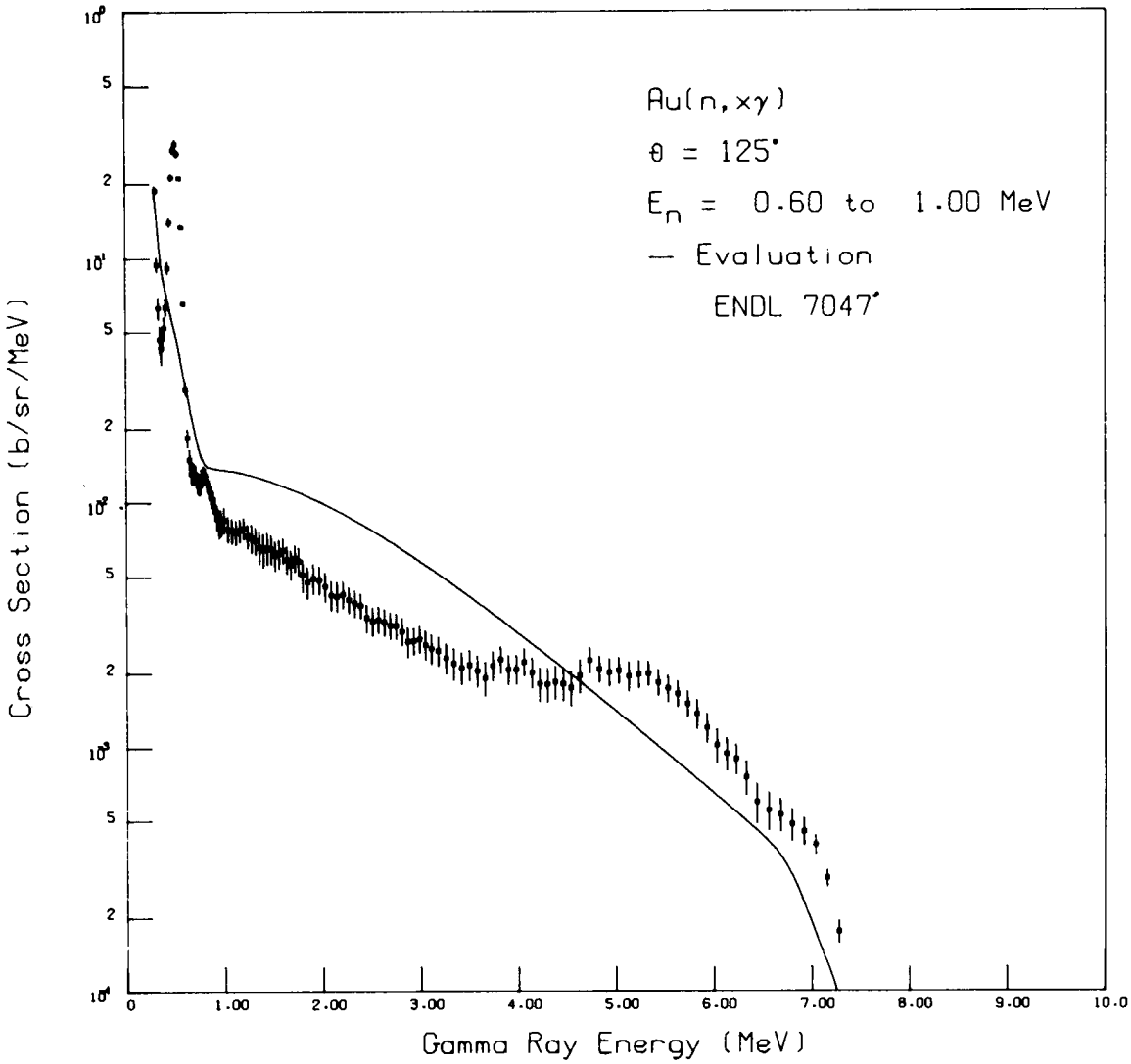
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 2


Au(n,xγ)
θ = 125°
E_n = 0.60 to 1.00 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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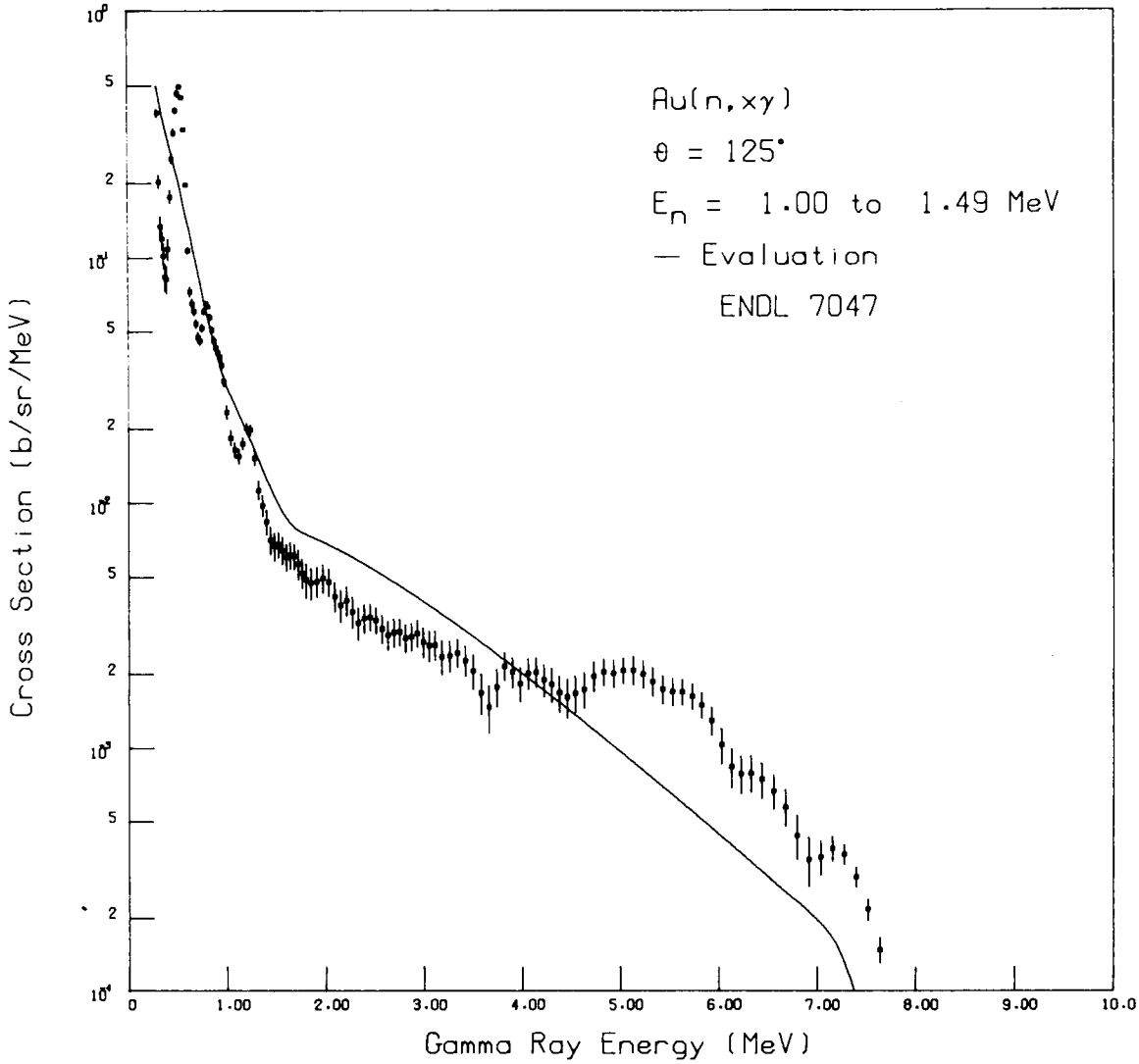
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 3


Au(n,xγ)
θ = 125°
E_n = 1.00 to 1.49 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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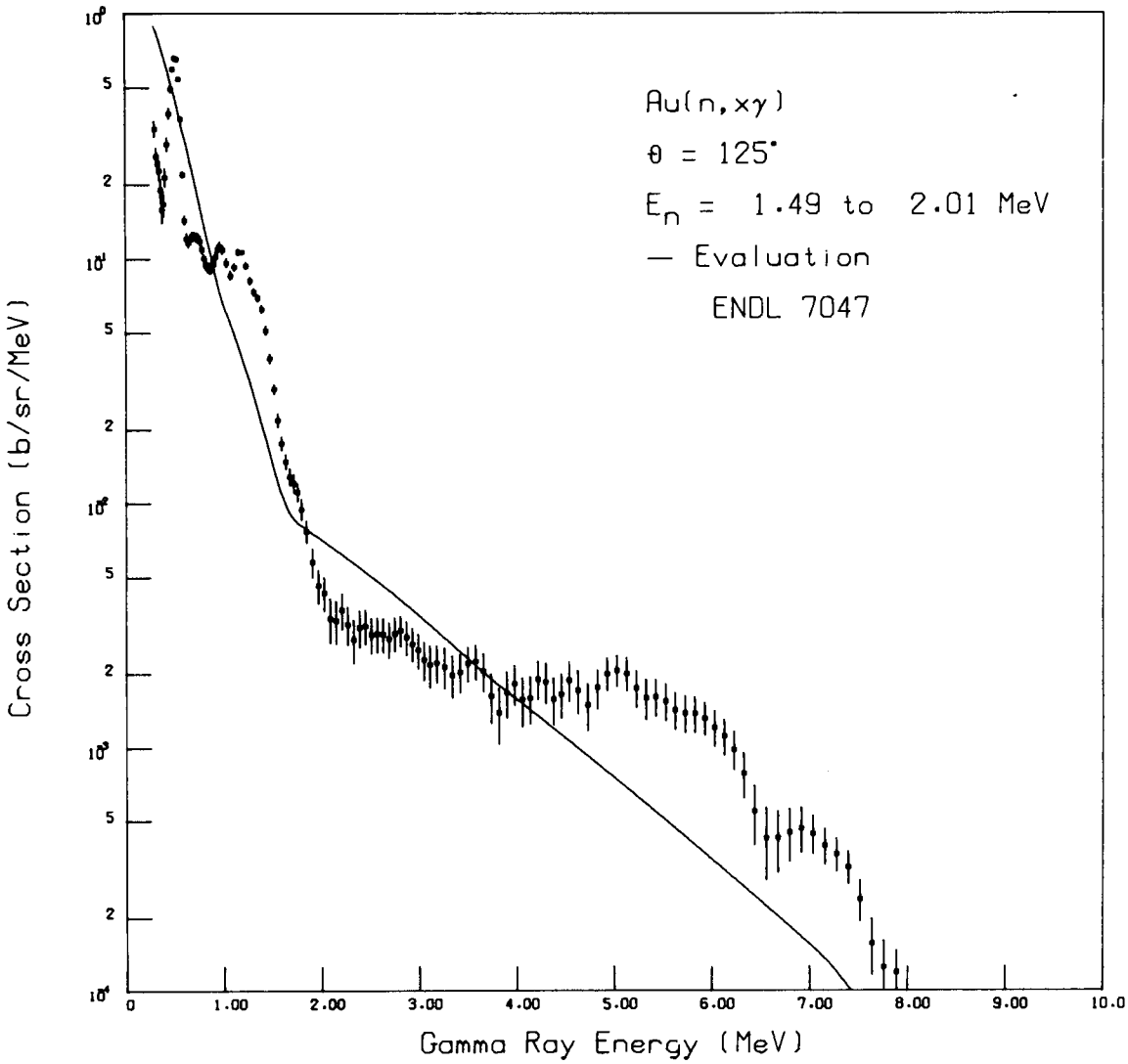
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 4


Au(n,xγ)
θ = 125°
E_n = 1.49 to 2.01 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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3.00
4.00
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6.00
7.00
8.00
9.00
10.0

Fig. 5

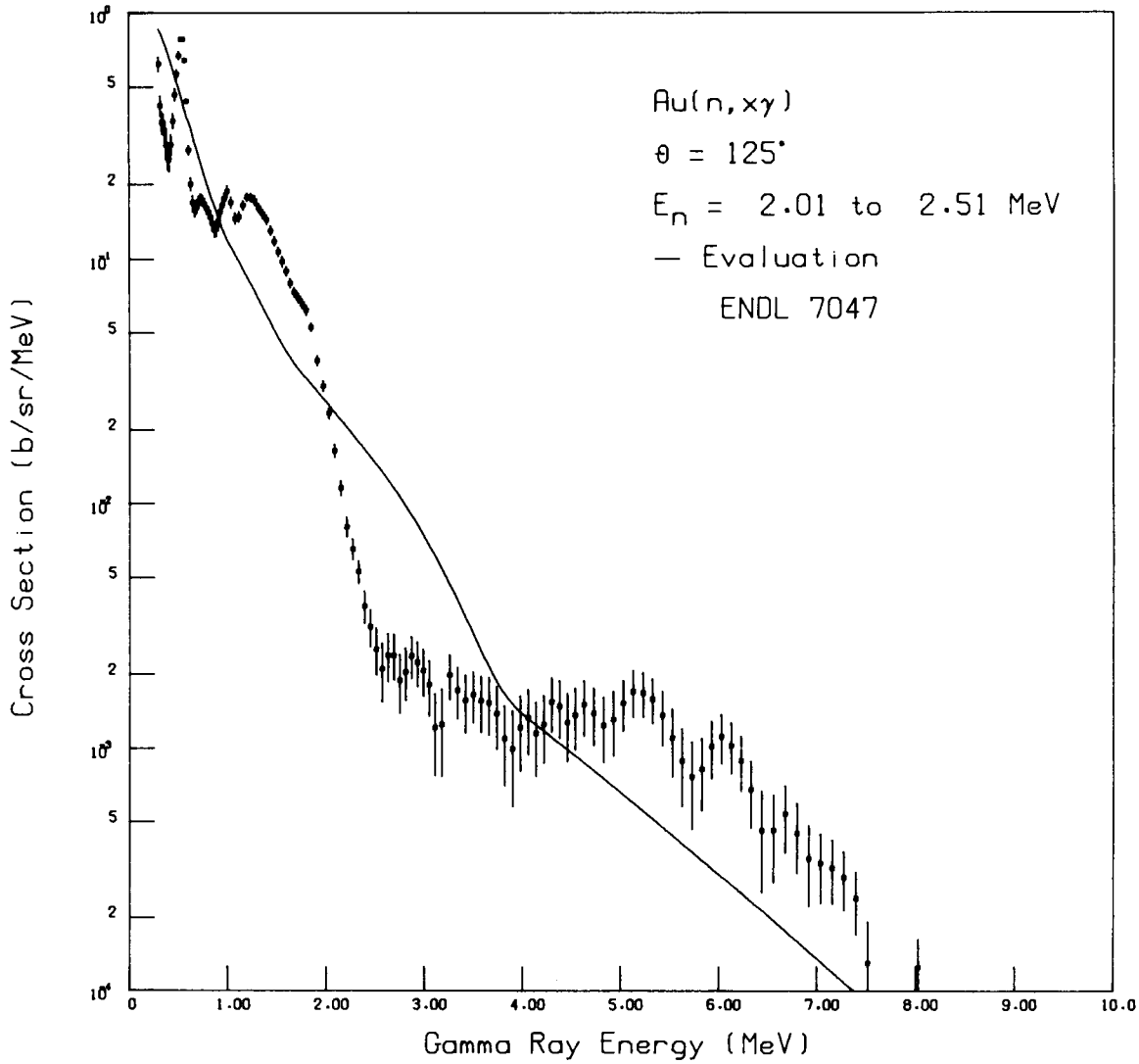

Au(n,xγ)
θ = 125°
E_n = 2.01 to 2.51 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
0
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 6

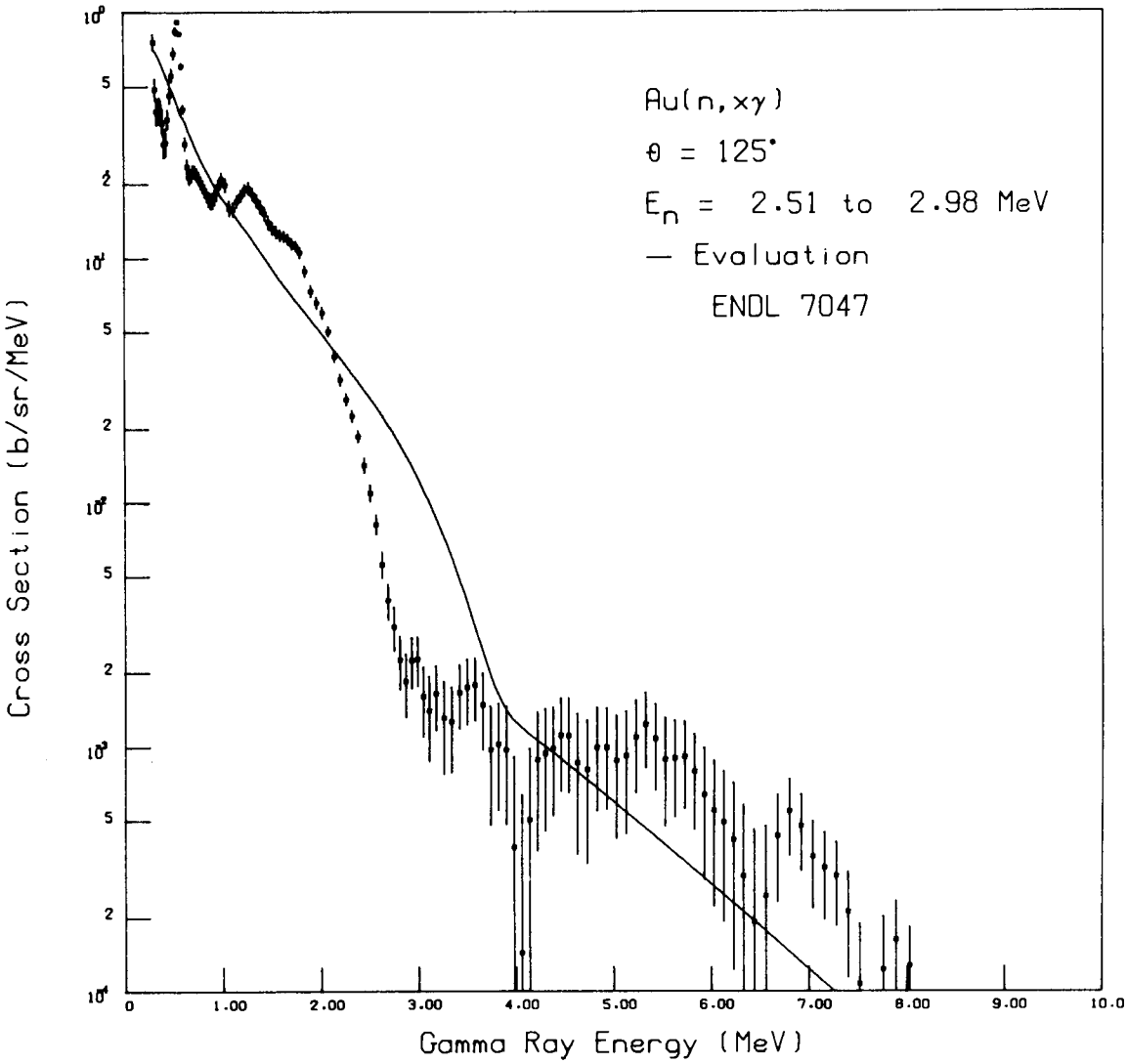

Au(n,xγ)
θ = 125°
E_n = 2.51 to 2.98 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
0
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 7

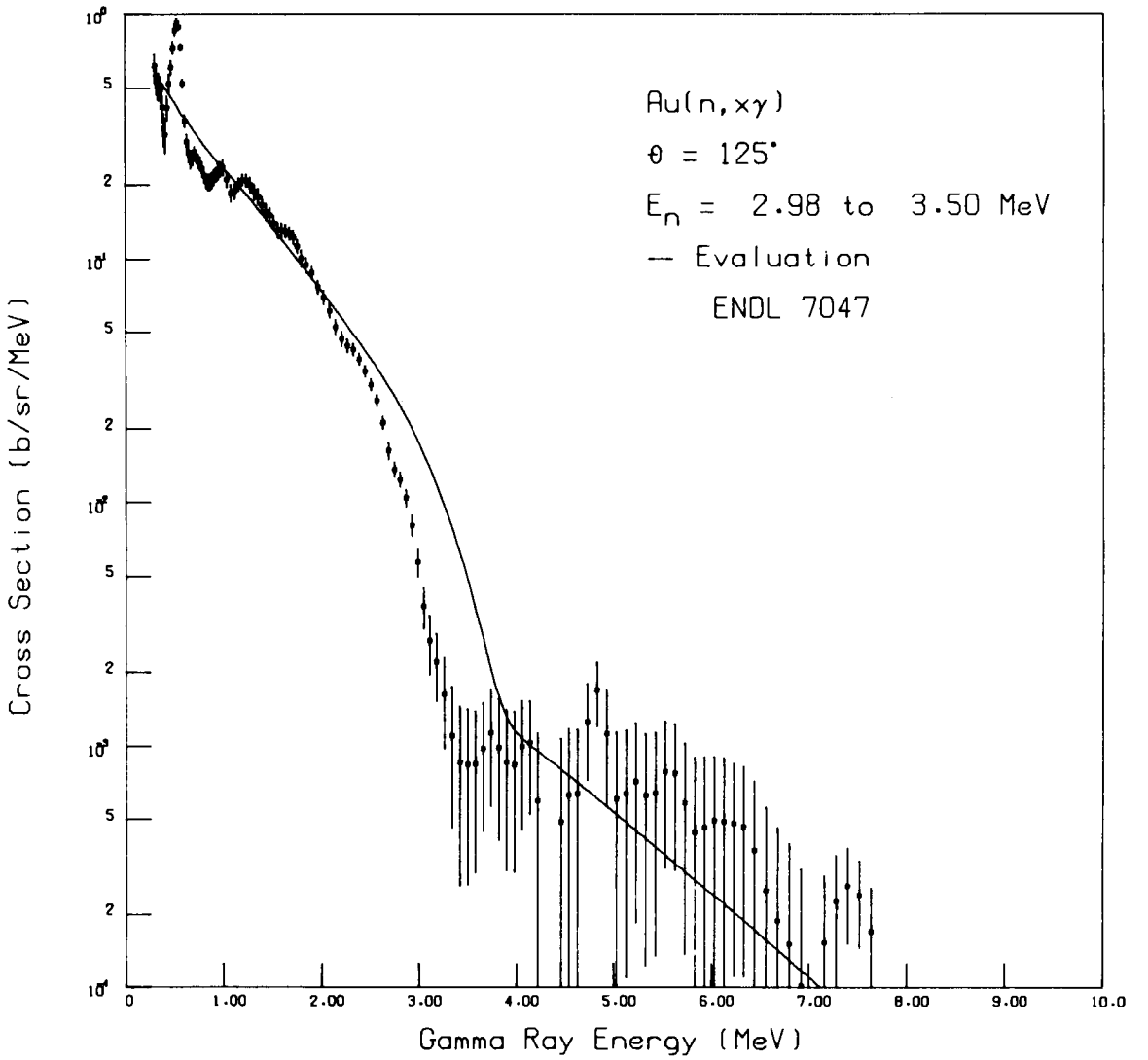

Au(n,xγ)
θ = 125°
E_n = 2.98 to 3.50 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
0
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 8

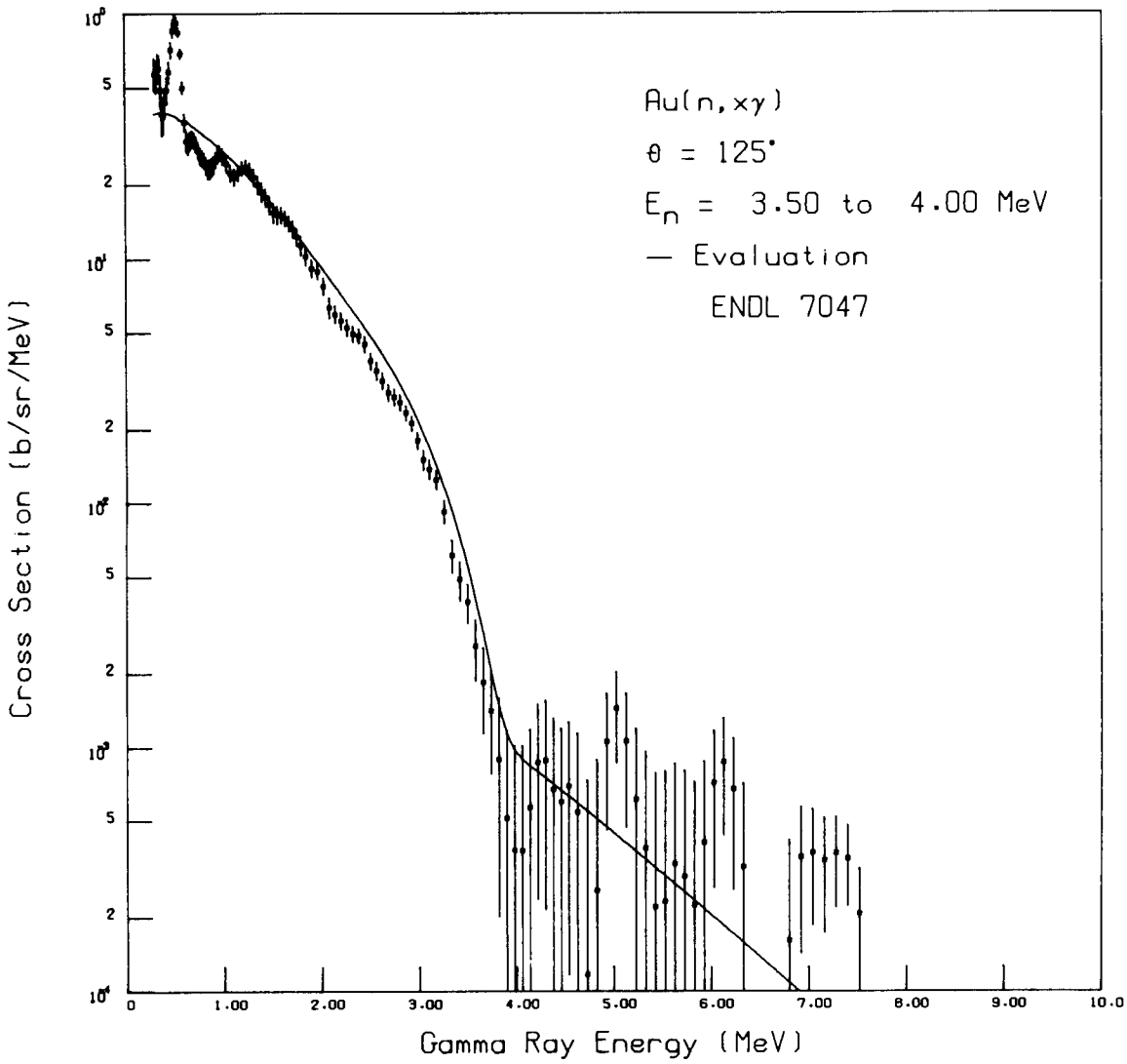
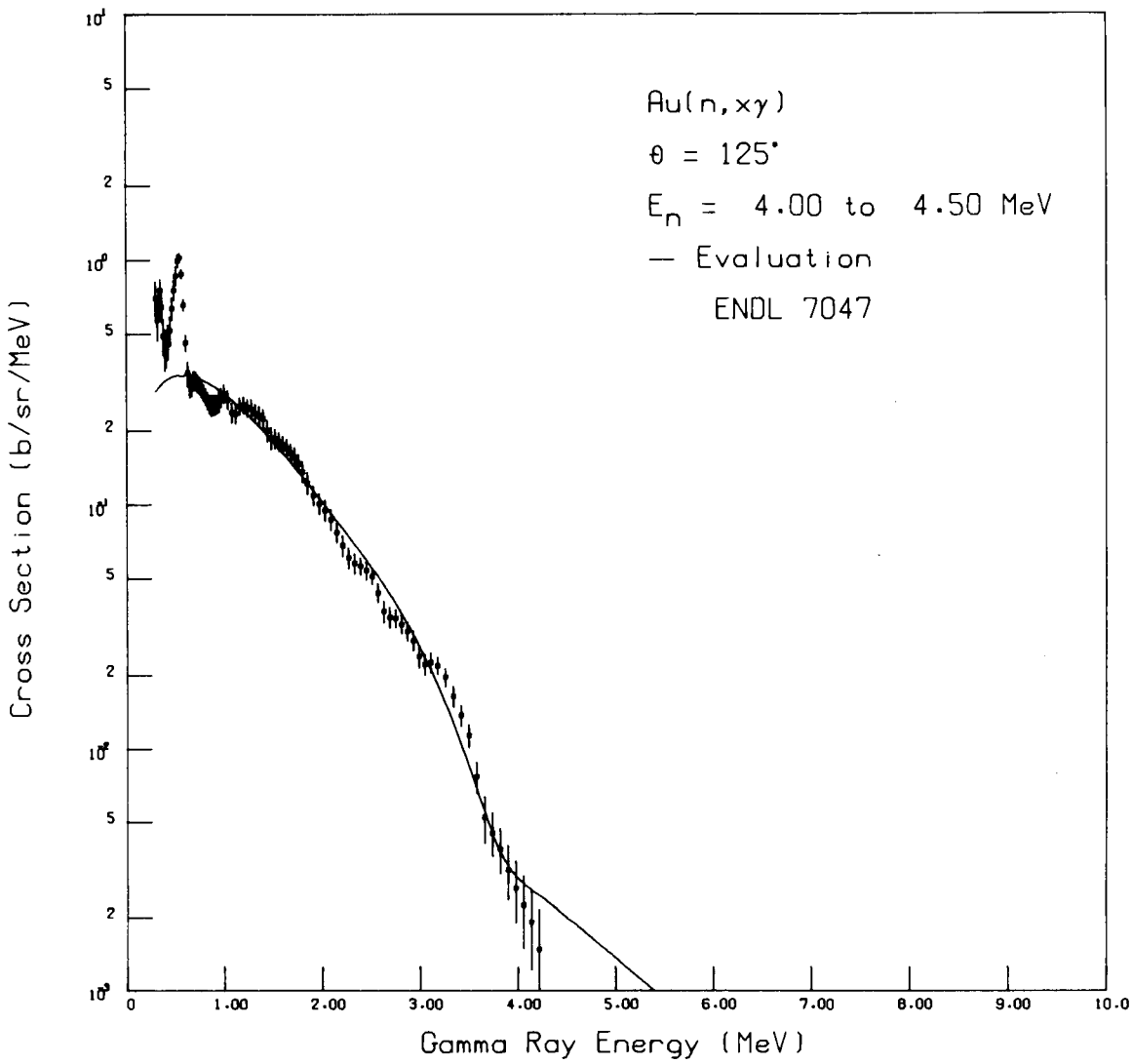

Au(n,xγ)
θ = 125°
E_n = 3.50 to 4.00 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
0
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 9


Au(n,xγ)
θ = 125°
E_n = 4.00 to 4.50 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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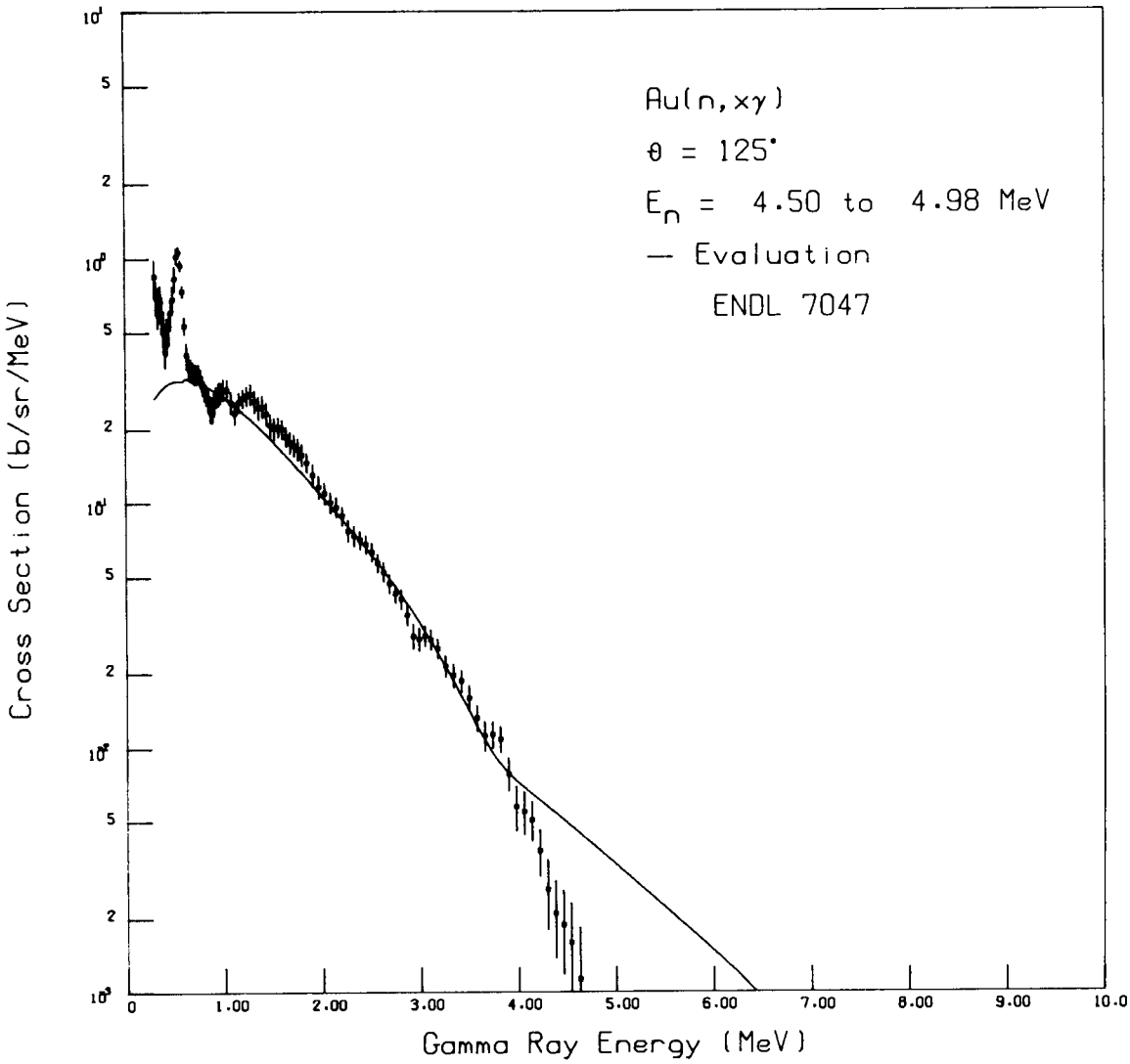
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 10


Au(n,xγ)
θ = 125°
E_n = 4.50 to 4.98 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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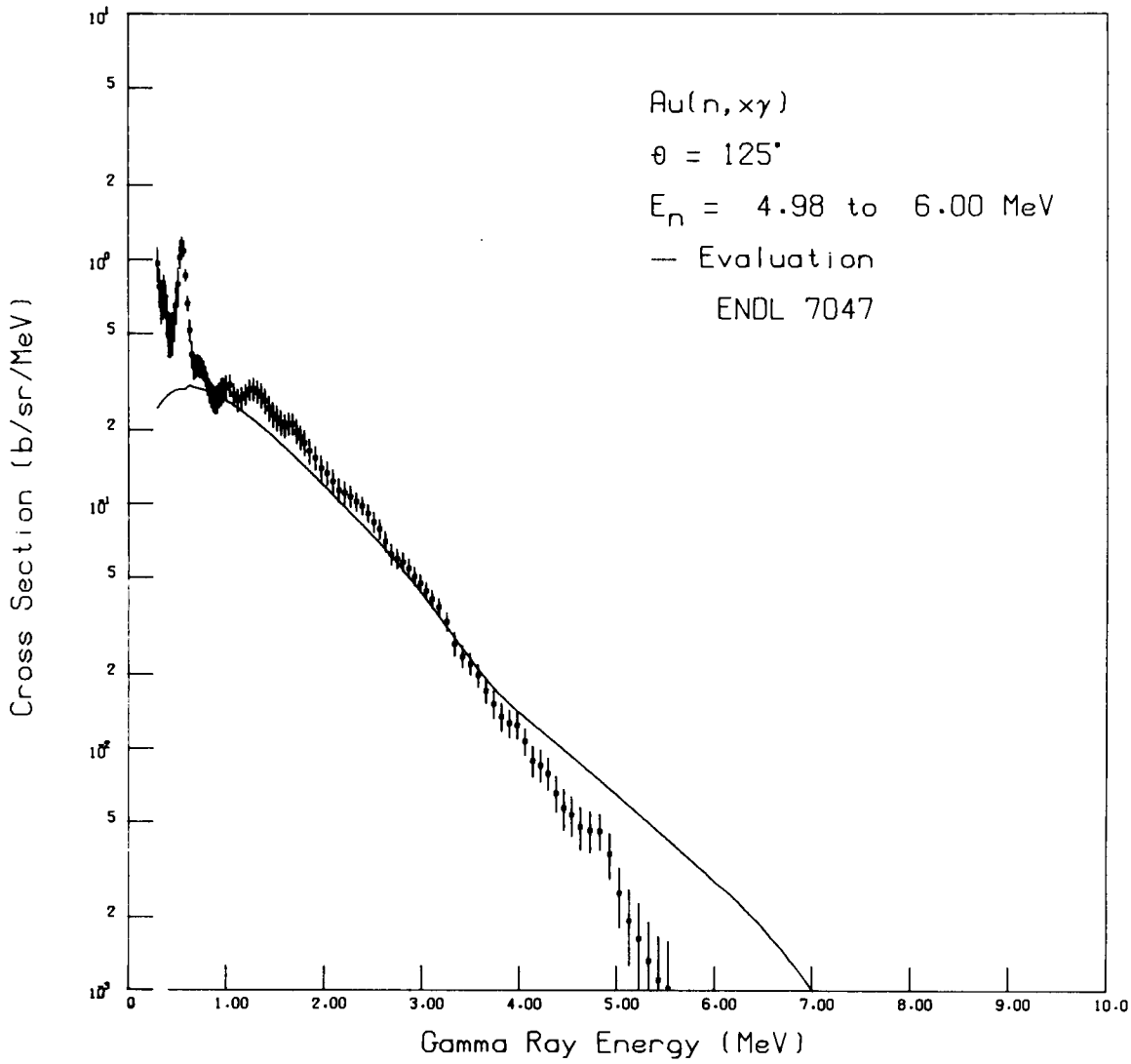
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 11


Au(n,xγ)
θ = 125°
E_n = 4.98 to 6.00 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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3.00
4.00
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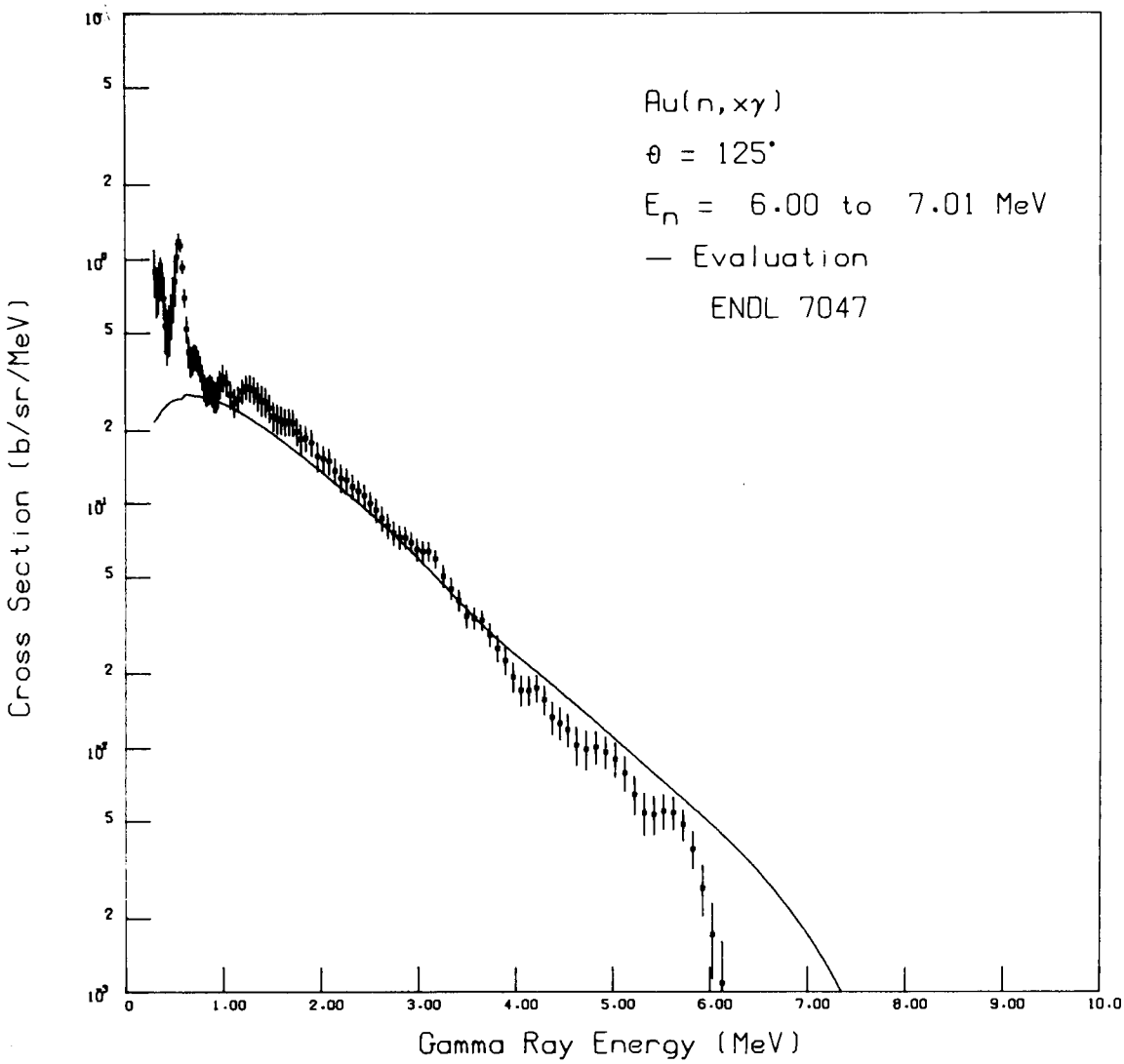
7.00
8.00
9.00
10.0

Fig. 12


Au(n,xγ)
θ = 125°
En = 6.00 to 7.01 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 13

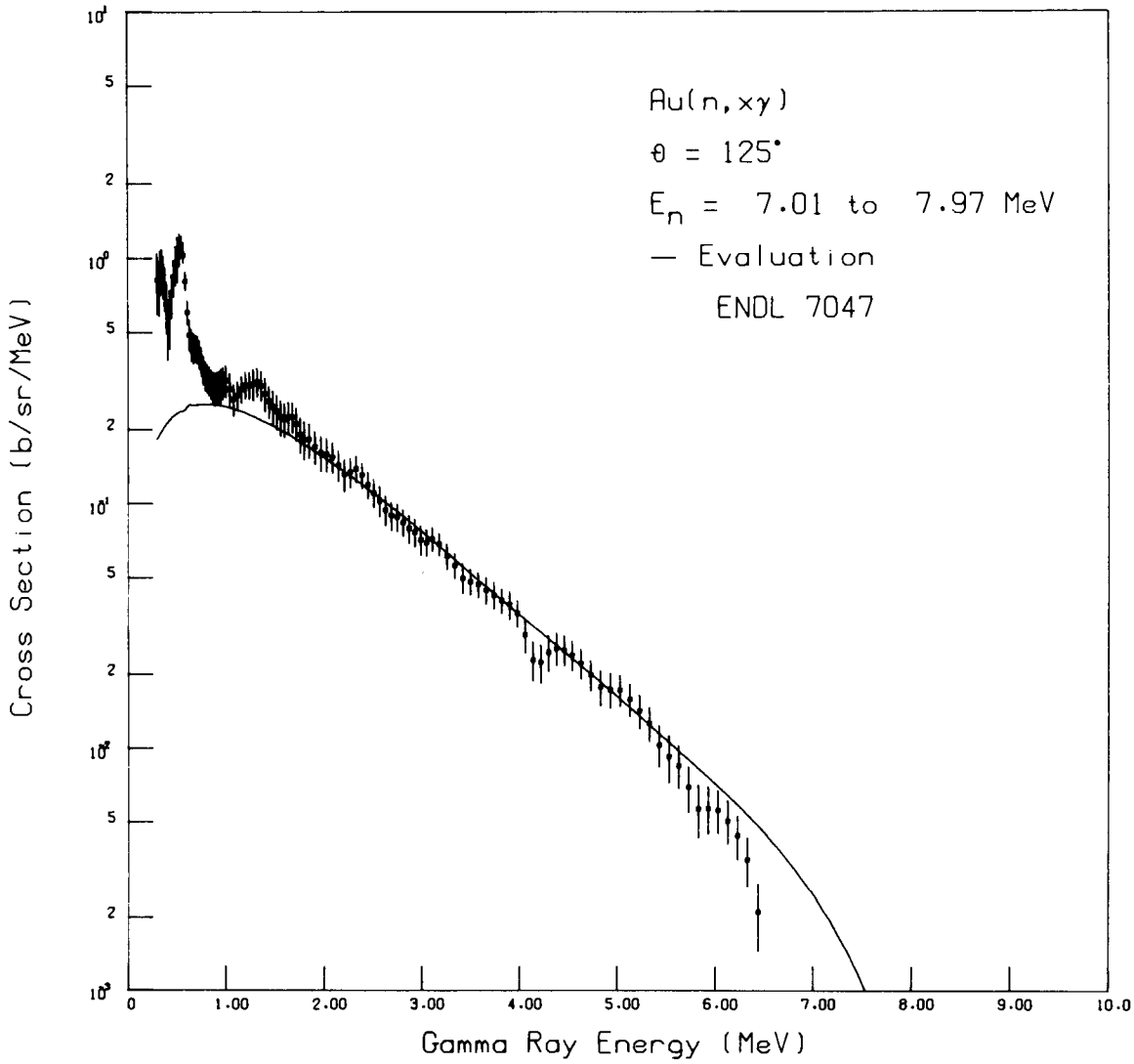
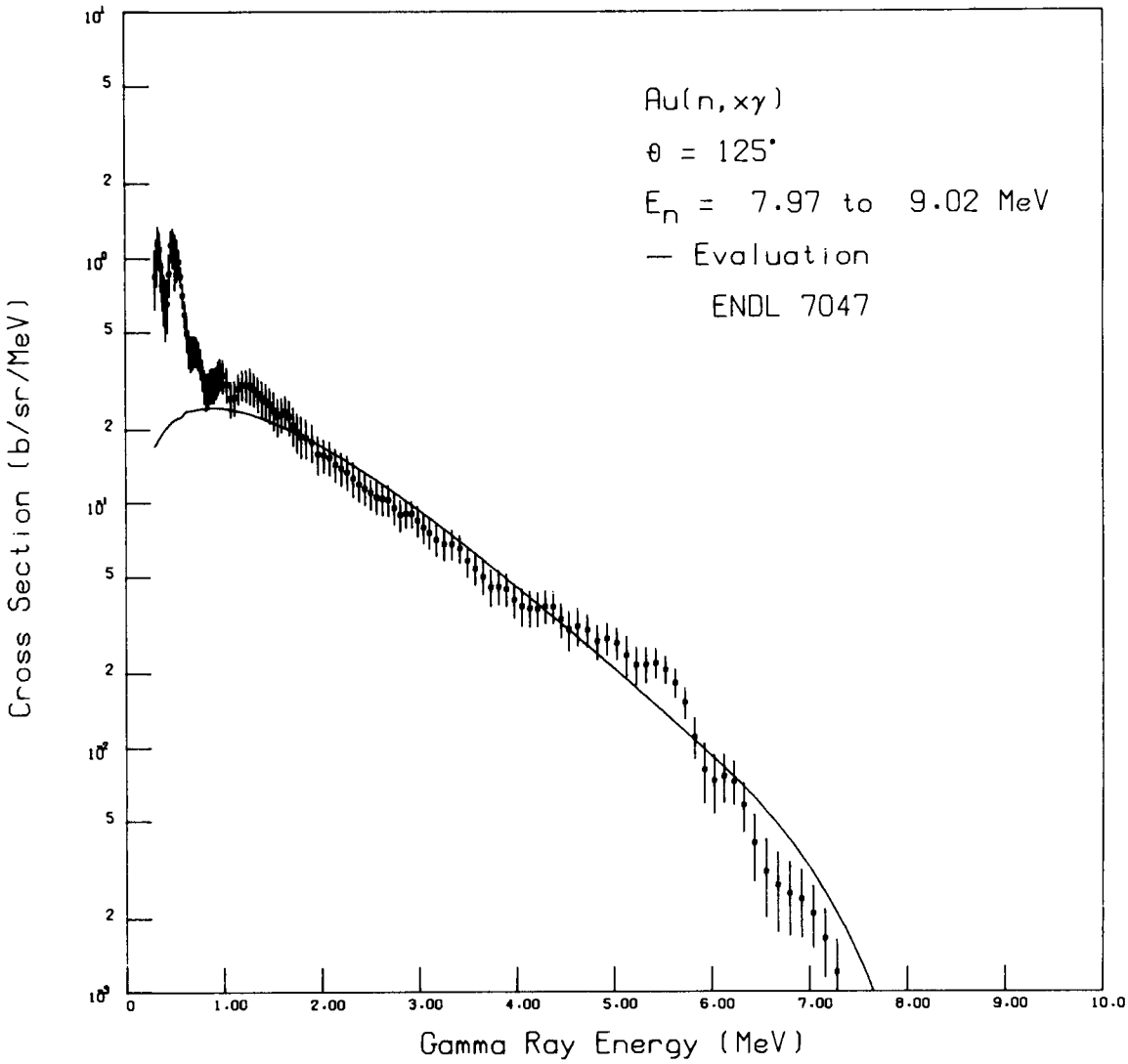

Au(n,xγ)
θ = 125°
E_n = 7.01 to 7.97 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
0
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 14


Au(n,xγ)
θ = 125°
E_n = 7.97 to 9.02 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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3.00
4.00
5.00
6.00
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8.00
9.00
10.0

Fig. 15

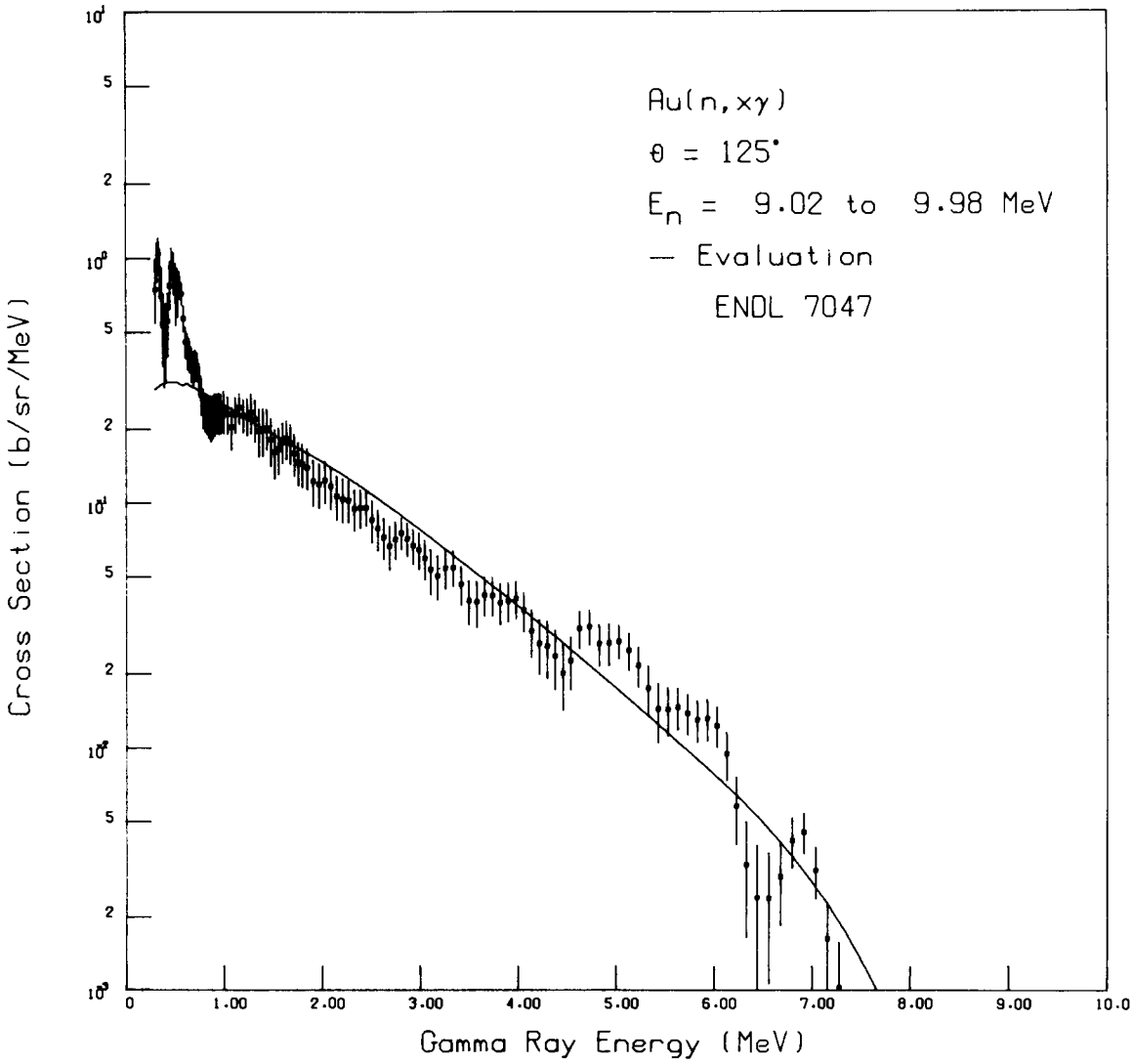
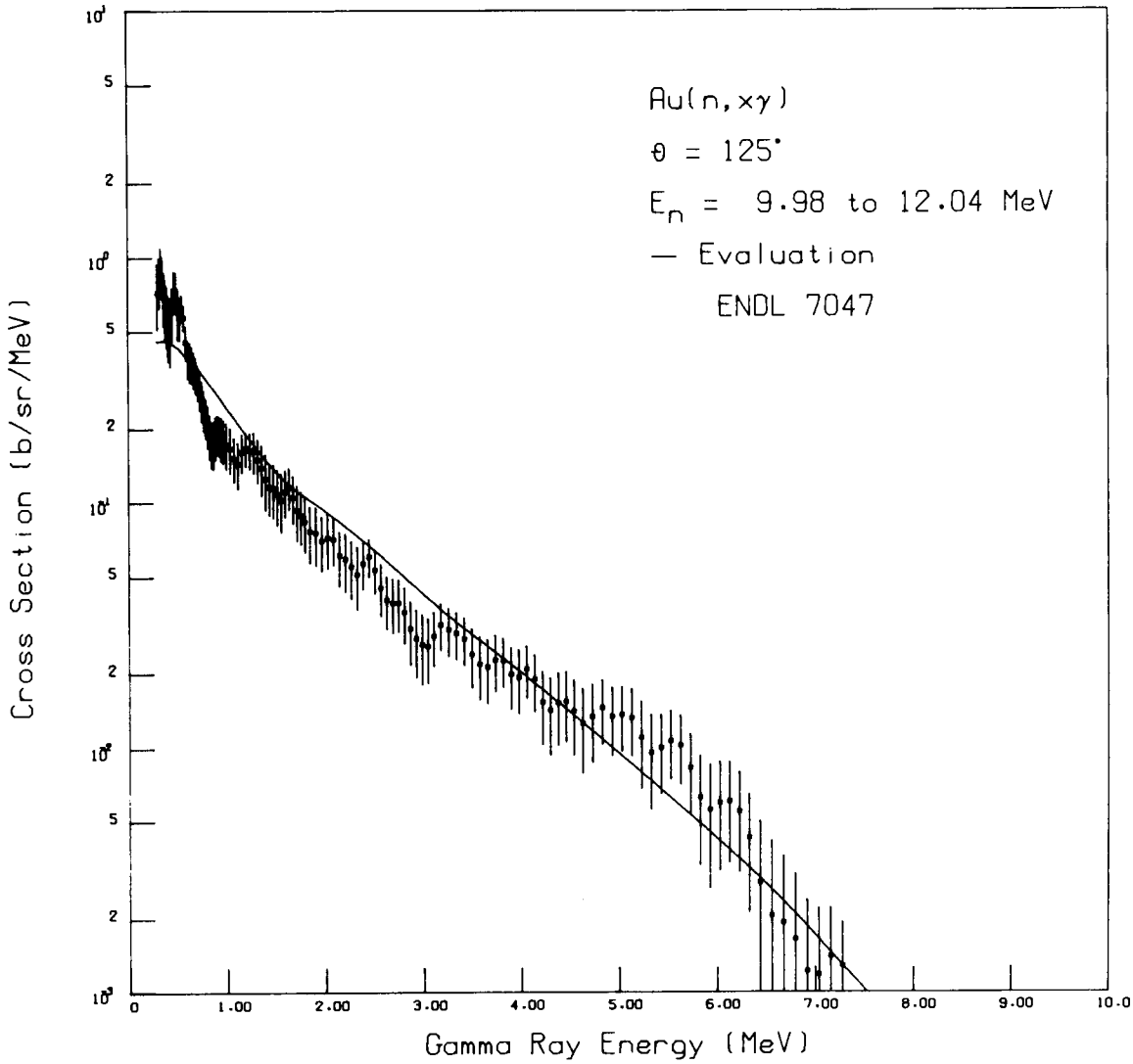

Au(n,xγ)
θ = 125°
E_n = 9.02 to 9.98 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
0
1.00
2.00
3.00
4.00
5.00
6.00
7.00
8.00
9.00
10.0

Fig. 16


Au(n,xγ)
θ = 125°
E_n = 9.98 to 12.04 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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1.00
2.00
3.00
4.00
5.00
6.00
7.00
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9.00
10.0

Fig. 17

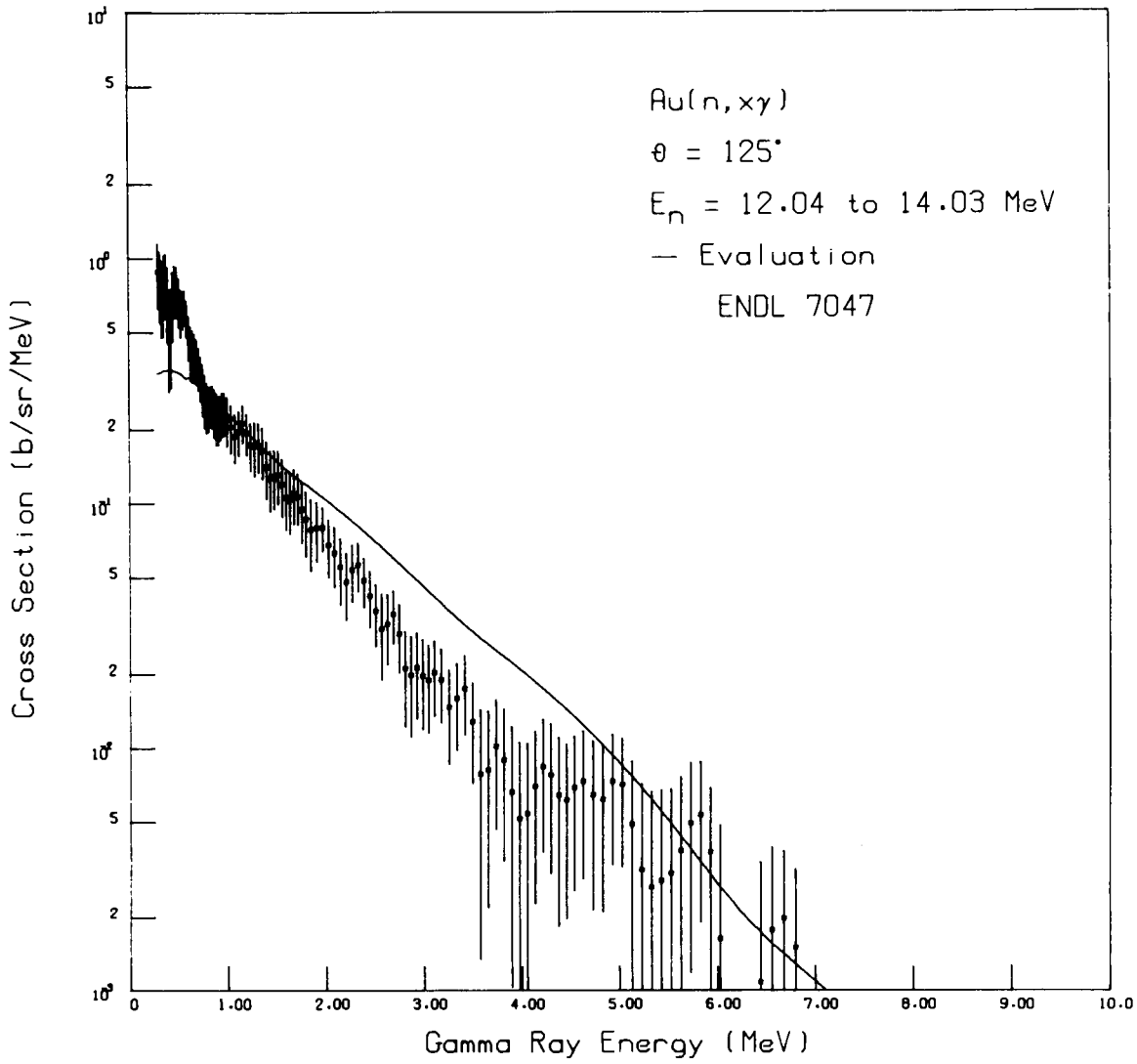
Au(n,xγ)
θ = 125°
E_n = 12.04 to 14.03 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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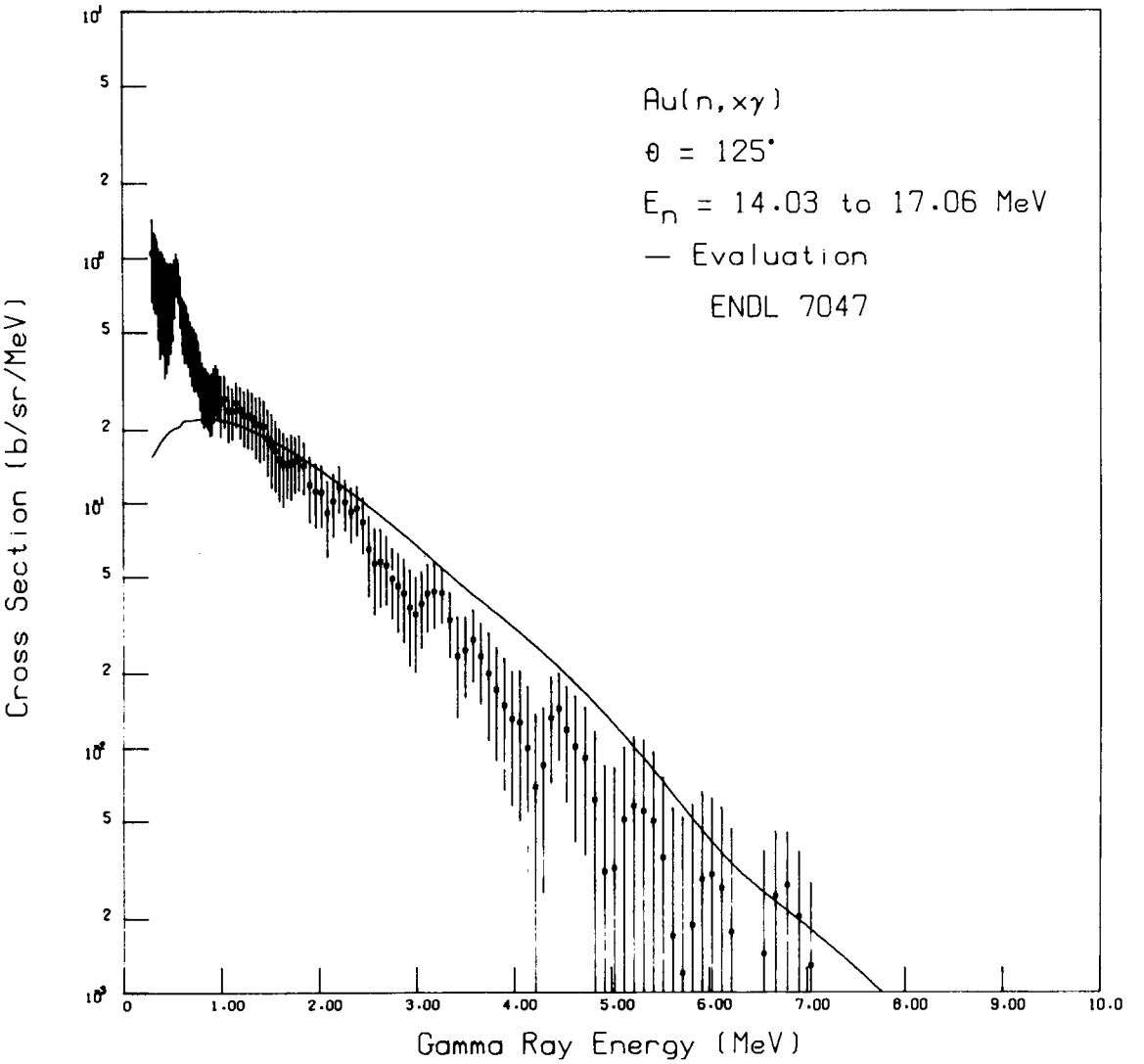
Fig. 18


Au(n,xγ)
θ = 125°
E_n = 14.03 to 17.06 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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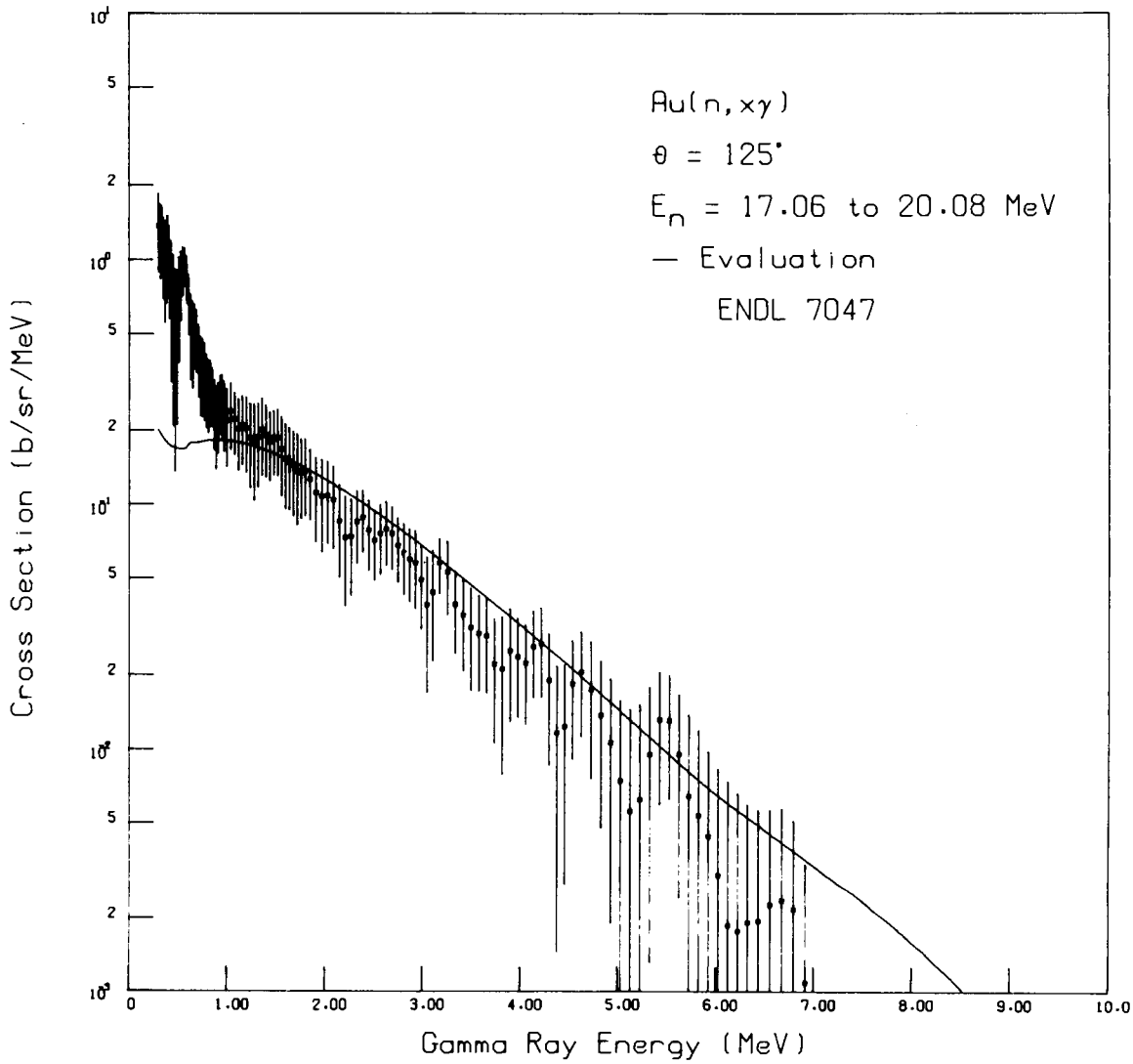
8.00
9.00
10.0

Fig. 19


Au(n,xγ)
θ = 125°
E_n = 17.06 to 20.08 MeV
— Evaluation
ENDL 7047
Cross Section (b/sr/MeV)
Gamma Ray Energy (MeV)
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7.00
8.00
9.00
10.0

Fig. 20

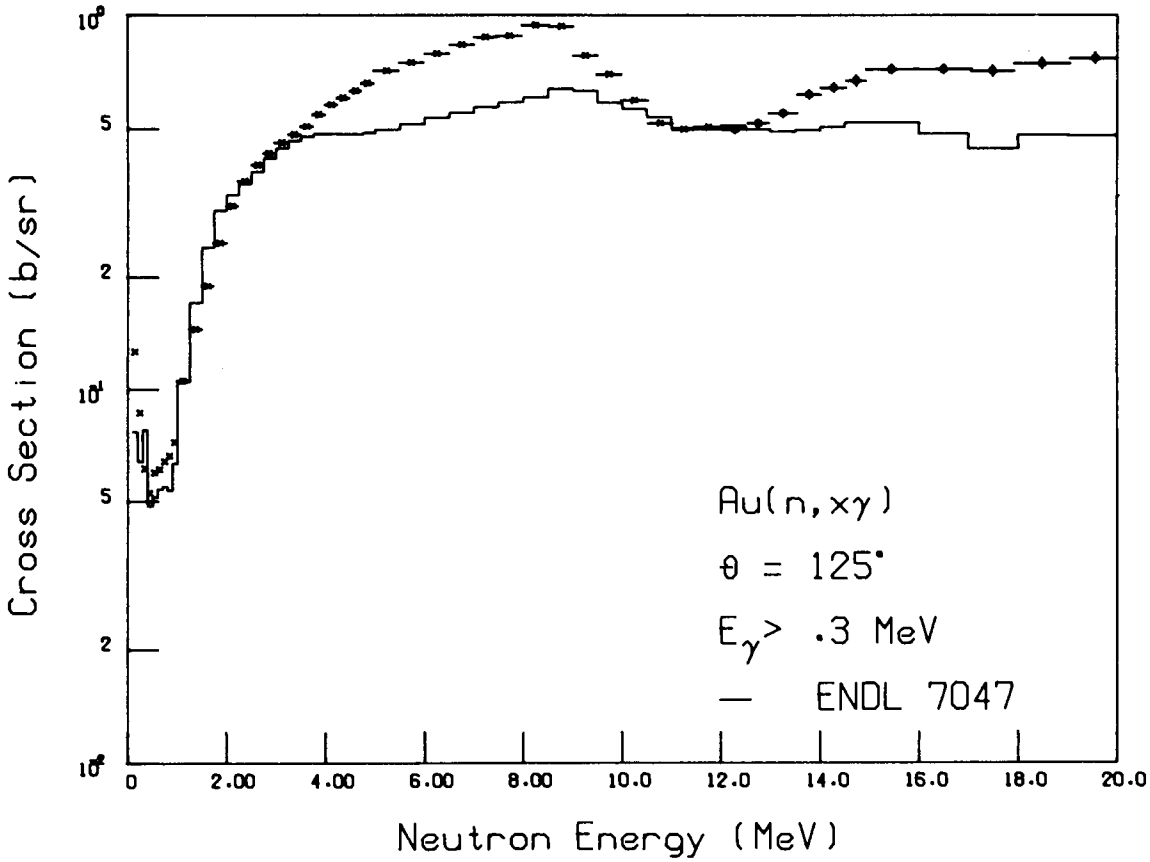
Cross Section (b/sr)
Neutron Energy (MeV)
Au(n,xγ)
θ = 125°
Eγ> .3 MeV
— ENDL 7047
0
2.00
4.00
6.00
8.00
10.0
12.0
14.0
16.0
18.0
20.0

Fig. 21

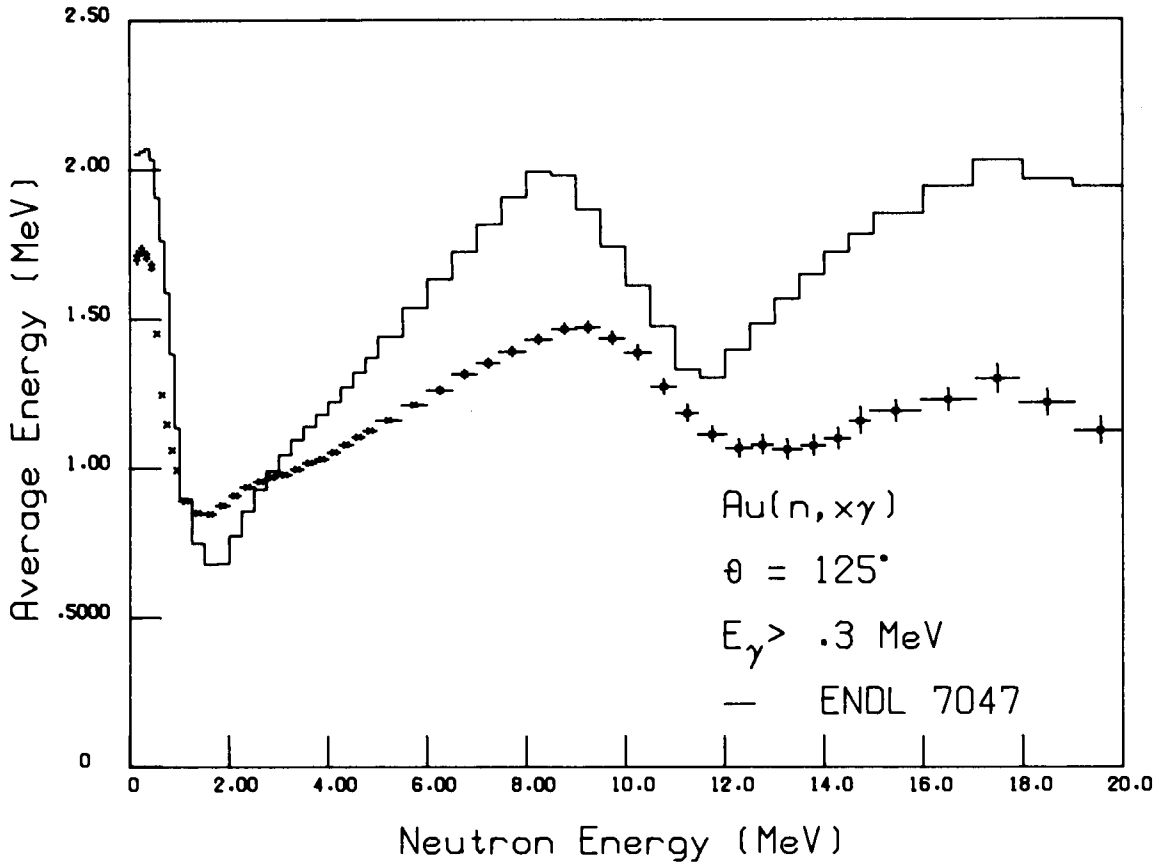
2.50
2.00
1.50
1.00
.5000
0
Average Energy (MeV)
0
2.00
4.00
6.00
8.00
10.0
12.0
14.0
16.0
18.0
20.0
Neutron Energy (MeV)
Au(n,xγ)
θ = 125°
Eγ> .3 MeV
— ENDL 7047

Fig. 22

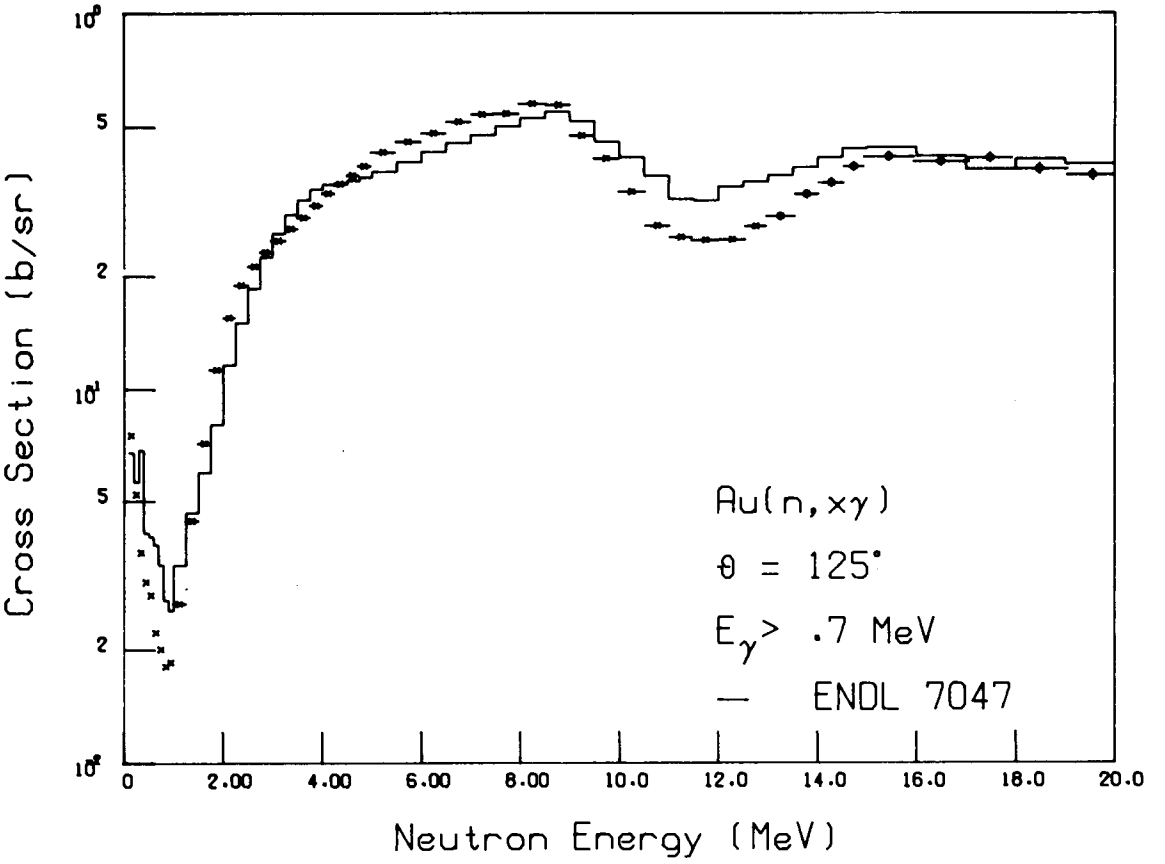
Cross Section (b/sr)
Neutron Energy (MeV)
Au(n,xγ)
θ = 125°
Eγ> .7 MeV
— ENDL 7047
0
2.00
4.00
6.00
8.00
10.0
12.0
14.0
16.0
18.0
20.0

Fig. 23

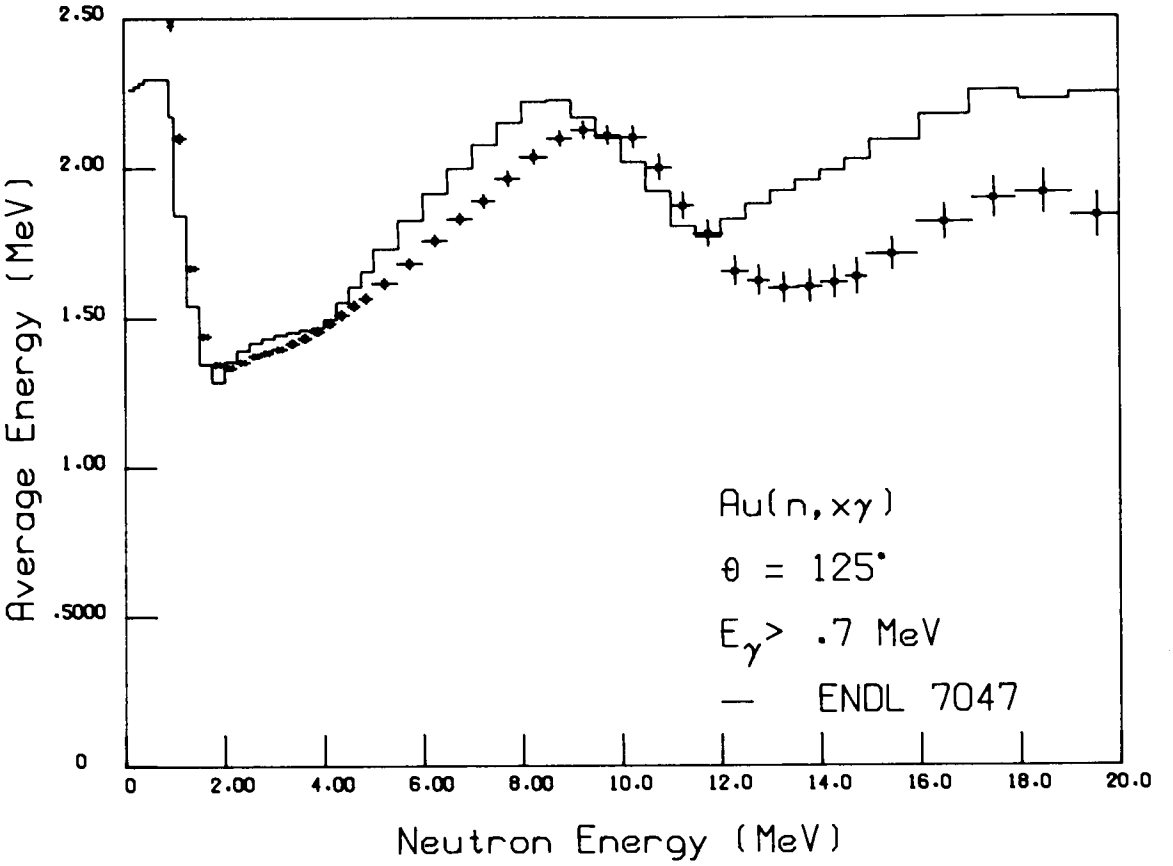
2.50
2.00
1.50
1.00
.5000
0
Average Energy (MeV)
0
2.00
4.00
6.00
8.00
10.0
12.0
14.0
16.0
18.0
20.0
Neutron Energy (MeV)
Au(n,xγ)
θ = 125°
Eγ> .7 MeV
— ENDL 7047

Fig. 24

TOTAL SECONDARY GAMMA RAY YIELD AND AVERAGE SECONDARY GAMMA RAY ENERGY FROM AU AS A FUNCTION OF THE INCIDENT NEUTRON ENERGY. THESE DATA RESULT FROM A PULSE HEIGHT WEIGHTING ANALYSIS FOR PULSE HEIGHTS GREATER THAN 0.300 MEV. UNCERTAINTIES ARE GIVEN IN PARENTHESES IN THE SAME UNITS AS THE DATA. THE UNCERTAINTIES IN TOTAL YIELD DO NOT INCLUDE A 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION. THE ANGLE IS 125 DEGREES.

INC.NT. ENERGY (MEV)	ENERGY SPREAD (MEV)	SECONDARY PHOTON YIELD (B/SR)	AVERAGE ENERGY (MEV)	INC.NT. ENERGY (MEV)	ENERGY SPREAD (MEV)	SECONDARY PHOTON YIELD (B/SR)	AVERAGE ENERGY (MEV)
0.150	0.101	0.126E 00(0.146E-02)	0.171E 01(0.244E-01)	5.232	0.505	0.713E 00(0.565E-02)	0.116E 01(0.110E-01)
0.251	0.100	0.866E-01(0.685E-03)	0.173E 01(0.169E-01)	5.743	0.516	0.750E 00(0.646E-02)	0.121E 01(0.124E-01)
0.351	0.100	0.613E-01(0.459E-03)	0.171E 01(0.159E-01)	6.258	0.514	0.790E 00(0.696E-02)	0.126E 01(0.132E-01)
0.451	0.101	0.527E-01(0.397E-03)	0.168E 01(0.158E-01)	6.763	0.495	0.835E 00(0.775E-02)	0.131E 01(0.144E-01)
0.551	0.099	0.597E-01(0.367E-03)	0.145E 01(0.114E-01)	7.240	0.458	0.873E 00(0.847E-02)	0.135E 01(0.156E-01)
0.649	0.097	0.610E-01(0.357E-03)	0.124E 01(0.956E-02)	7.720	0.504	0.882E 00(0.850E-02)	0.139E 01(0.160E-01)
0.746	0.096	0.641E-01(0.346E-03)	0.115E 01(0.811E-02)	8.251	0.557	0.939E 00(0.915E-02)	0.143E 01(0.166E-01)
0.845	0.101	0.663E-01(0.367E-03)	0.106E 01(0.763E-02)	8.774	0.489	0.934E 00(0.953E-02)	0.147E 01(0.179E-01)
0.947	0.103	0.722E-01(0.407E-03)	0.996E 00(0.715E-02)	9.250	0.463	0.783E 00(0.880E-02)	0.147E 01(0.198E-01)
1.126	0.255	0.106E 00(0.501E-03)	0.893E 00(0.522E-02)	9.732	0.500	0.697E 00(0.887E-02)	0.144E 01(0.217E-01)
1.374	0.240	0.145E 00(0.689E-03)	0.850E 00(0.489E-02)	10.253	0.541	0.596E 00(0.897E-02)	0.139E 01(0.246E-01)
1.619	0.250	0.190E 00(0.890E-03)	0.846E 00(0.477E-02)	10.774	0.500	0.518E 00(0.889E-02)	0.127E 01(0.260E-01)
1.875	0.264	0.248E 00(0.121E-02)	0.875E 00(0.507E-02)	11.246	0.445	0.497E 00(0.100E-01)	0.118E 01(0.285E-01)
2.123	0.231	0.310E 00(0.157E-02)	0.907E 00(0.546E-02)	11.753	0.570	0.505E 00(0.105E-01)	0.111E 01(0.275E-01)
2.375	0.274	0.362E 00(0.184E-02)	0.937E 00(0.570E-02)	12.293	0.508	0.498E 00(0.117E-01)	0.107E 01(0.302E-01)
2.632	0.240	0.400E 00(0.219E-02)	0.957E 00(0.631E-02)	12.762	0.430	0.516E 00(0.133E-01)	0.108E 01(0.332E-01)
2.865	0.227	0.429E 00(0.248E-02)	0.970E 00(0.681E-02)	13.262	0.570	0.549E 00(0.143E-01)	0.106E 01(0.330E-01)
3.121	0.284	0.459E 00(0.275E-02)	0.979E 00(0.712E-02)	13.789	0.484	0.616E 00(0.164E-01)	0.108E 01(0.346E-01)
3.379	0.233	0.483E 00(0.321E-02)	0.998E 00(0.805E-02)	14.286	0.510	0.644E 00(0.170E-01)	0.110E 01(0.354E-01)
3.625	0.259	0.507E 00(0.352E-02)	0.102E 01(0.856E-02)	14.742	0.401	0.670E 00(0.219E-01)	0.116E 01(0.446E-01)
3.879	0.251	0.546E 00(0.401E-02)	0.103E 01(0.913E-02)	15.445	1.004	0.719E 00(0.181E-01)	0.119E 01(0.358E-01)
4.122	0.235	0.579E 00(0.438E-02)	0.105E 01(0.967E-02)	16.503	1.110	0.719E 00(0.190E-01)	0.123E 01(0.387E-01)
4.368	0.257	0.605E 00(0.484E-02)	0.108E 01(0.104E-01)	17.491	0.866	0.711E 00(0.231E-01)	0.130E 01(0.491E-01)
4.613	0.232	0.630E 00(0.529E-02)	0.110E 01(0.111E-01)	18.489	1.131	0.746E 00(0.235E-01)	0.122E 01(0.453E-01)
4.855	0.251	0.662E 00(0.533E-02)	0.113E 01(0.109E-01)	19.568	1.027	0.769E 00(0.257E-01)	0.112E 01(0.453E-01)

TOTAL SECONDARY GAMMA RAY YIELD AND AVERAGE SECONDARY GAMMA RAY ENERGY FROM AU AS A FUNCTION OF THE INCIDENT NEUTRON ENERGY. THESE DATA RESULT FROM A PULSE HEIGHT WEIGHTING ANALYSIS FOR PULSE HEIGHTS GREATER THAN 0.700 MEV. UNCERTAINTIES ARE GIVEN IN PARENTHESES IN THE SAME UNITS AS THE DATA. THE UNCERTAINTIES IN TOTAL YIELD DO NOT INCLUDE A 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION. THE ANGLE IS 125 DEGREES.

INC.NT. ENERGY (MEV)	ENERGY SPREAD (MEV)	SECONDARY PHOTON YIELD (B/SR)	AVERAGE ENERGY (MEV)	INC.NT. ENERGY (MEV)	ENERGY SPREAD (MEV)	SECONDARY PHOTON YIELD (B/SR)	AVERAGE ENERGY (MEV)
0.150	0.101	0.754E-01(0.795E-03)	0.255E 01(0.361E-01)	5.232	0.505	0.426E 00(0.325E-02)	0.161E 01(0.162E-01)
0.251	0.100	0.522E-01(0.384E-03)	0.257E 01(0.253E-01)	5.743	0.516	0.455E 00(0.358E-02)	0.168E 01(0.175E-01)
0.351	0.100	0.366E-01(0.253E-03)	0.256E 01(0.238E-01)	6.258	0.514	0.481E 00(0.398E-02)	0.176E 01(0.189E-01)
0.451	0.101	0.304E-01(0.222E-03)	0.258E 01(0.252E-01)	6.763	0.495	0.515E 00(0.422E-02)	0.183E 01(0.196E-01)
0.551	0.099	0.281E-01(0.186E-03)	0.257E 01(0.228E-01)	7.240	0.458	0.538E 00(0.475E-02)	0.189E 01(0.217E-01)
0.649	0.097	0.223E-01(0.160E-03)	0.258E 01(0.249E-01)	7.720	0.504	0.542E 00(0.503E-02)	0.196E 01(0.233E-01)
0.746	0.096	0.201E-01(0.139E-03)	0.261E 01(0.242E-01)	8.251	0.557	0.575E 00(0.521E-02)	0.204E 01(0.238E-01)
0.845	0.101	0.180E-01(0.135E-03)	0.262E 01(0.259E-01)	8.774	0.489	0.572E 00(0.556E-02)	0.210E 01(0.262E-01)
0.947	0.103	0.185E-01(0.136E-03)	0.248E 01(0.241E-01)	9.250	0.463	0.473E 00(0.515E-02)	0.213E 01(0.296E-01)
1.126	0.255	0.266E-01(0.146E-03)	0.210E 01(0.155E-01)	9.732	0.500	0.411E 00(0.461E-02)	0.211E 01(0.310E-01)
1.374	0.240	0.443E-01(0.218E-03)	0.167E 01(0.111E-01)	10.253	0.541	0.335E 00(0.471E-02)	0.210E 01(0.376E-01)
1.619	0.250	0.717E-01(0.337E-03)	0.144E 01(0.902E-02)	10.774	0.500	0.272E 00(0.454E-02)	0.200E 01(0.426E-01)
1.875	0.264	0.113E 00(0.521E-03)	0.135E 01(0.823E-02)	11.246	0.445	0.254E 00(0.459E-02)	0.187E 01(0.449E-01)
2.123	0.231	0.155E 00(0.745E-03)	0.133E 01(0.855E-02)	11.753	0.570	0.250E 00(0.476E-02)	0.178E 01(0.443E-01)
2.375	0.274	0.189E 00(0.925E-03)	0.135E 01(0.885E-02)	12.292	0.508	0.251E 00(0.556E-02)	0.165E 01(0.489E-01)
2.632	0.240	0.212E 00(0.115E-02)	0.137E 01(0.100E-01)	12.762	0.430	0.271E 00(0.630E-02)	0.162E 01(0.502E-01)
2.865	0.227	0.231E 00(0.136E-02)	0.138E 01(0.109E-01)	13.262	0.570	0.288E 00(0.672E-02)	0.160E 01(0.495E-01)
3.121	0.284	0.248E 00(0.151E-02)	0.140E 01(0.114E-01)	13.789	0.484	0.330E 00(0.831E-02)	0.160E 01(0.539E-01)
3.379	0.233	0.267E 00(0.176E-02)	0.141E 01(0.125E-01)	14.286	0.510	0.354E 00(0.891E-02)	0.162E 01(0.543E-01)
3.625	0.259	0.287E 00(0.192E-02)	0.143E 01(0.129E-01)	14.742	0.401	0.391E 00(0.108E-01)	0.164E 01(0.603E-01)
3.879	0.251	0.308E 00(0.219E-02)	0.145E 01(0.138E-01)	15.445	1.004	0.416E 00(0.101E-01)	0.171E 01(0.534E-01)
4.122	0.235	0.332E 00(0.250E-02)	0.148E 01(0.149E-01)	16.503	1.110	0.403E 00(0.107E-01)	0.182E 01(0.611E-01)
4.368	0.257	0.351E 00(0.266E-02)	0.151E 01(0.152E-01)	17.491	0.866	0.412E 00(0.118E-01)	0.190E 01(0.686E-01)
4.613	0.232	0.370E 00(0.296E-02)	0.154E 01(0.163E-01)	18.499	1.131	0.385E 00(0.116E-01)	0.192E 01(0.734E-01)
4.855	0.251	0.392E 00(0.301E-02)	0.156E 01(0.160E-01)	19.568	1.027	0.369E 00(0.118E-01)	0.184E 01(0.767E-01)

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 0.20 TO 0.60 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	1.796E-01	1.004E-02	2.810E 00	5.813E-03	7.624E-04
3.175E-01	1.063E-01	8.832E-03	2.870E 00	5.552E-03	7.585E-04
3.325E-01	7.735E-02	8.745E-03	2.930E 00	4.818E-03	7.183E-04
3.475E-01	7.163E-02	8.039E-03	2.990E 00	4.512E-03	7.253E-04
3.625E-01	6.998E-02	7.652E-03	3.050E 00	5.016E-03	6.989E-04
3.775E-01	6.782E-02	6.977E-03	3.110E 00	4.880E-03	6.778E-04
3.925E-01	6.423E-02	6.324E-03	3.180E 00	4.126E-03	7.153E-04
4.100E-01	5.723E-02	6.228E-03	3.260E 00	4.456E-03	6.558E-04
4.300E-01	5.315E-02	5.931E-03	3.340E 00	4.806E-03	6.518E-04
4.500E-01	5.922E-02	5.973E-03	3.420E 00	4.837E-03	5.965E-04
4.700E-01	7.369E-02	8.061E-03	3.500E 00	4.806E-03	5.918E-04
4.900E-01	8.721E-02	1.573E-02	3.580E 00	4.484E-03	5.727E-04
5.100E-01	8.686E-02	2.114E-02	3.660E 00	3.836E-03	5.844E-04
5.300E-01	7.502E-02	1.641E-02	3.740E 00	3.547E-03	5.925E-04
5.500E-01	5.962E-02	7.685E-03	3.820E 00	3.482E-03	5.609E-04
5.700E-01	4.502E-02	3.453E-03	3.900E 00	3.386E-03	5.596E-04
5.900E-01	3.422E-02	2.943E-03	3.980E 00	3.343E-03	5.482E-04
6.100E-01	2.804E-02	2.889E-03	4.060E 00	3.307E-03	5.478E-04
6.300E-01	2.398E-02	3.035E-03	4.140E 00	3.529E-03	5.484E-04
6.500E-01	2.214E-02	2.742E-03	4.220E 00	3.975E-03	5.422E-04
6.700E-01	2.244E-02	2.542E-03	4.300E 00	4.112E-03	5.492E-04
6.900E-01	2.218E-02	2.334E-03	4.380E 00	3.882E-03	5.252E-04
7.100E-01	2.089E-02	2.219E-03	4.460E 00	3.726E-03	5.190E-04
7.300E-01	2.048E-02	2.136E-03	4.540E 00	3.926E-03	5.191E-04
7.500E-01	2.058E-02	1.996E-03	4.630E 00	4.042E-03	5.355E-04
7.700E-01	1.968E-02	1.943E-03	4.730E 00	3.714E-03	5.023E-04
7.900E-01	1.878E-02	1.837E-03	4.830E 00	3.739E-03	5.074E-04
8.100E-01	1.865E-02	1.832E-03	4.930E 00	3.720E-03	4.748E-04
8.300E-01	1.865E-02	1.934E-03	5.030E 00	3.594E-03	4.751E-04
8.500E-01	1.825E-02	1.990E-03	5.130E 00	3.683E-03	5.010E-04
8.700E-01	1.731E-02	2.105E-03	5.230E 00	3.839E-03	4.779E-04
8.900E-01	1.606E-02	2.081E-03	5.330E 00	3.550E-03	4.609E-04
9.100E-01	1.500E-02	2.077E-03	5.430E 00	3.463E-03	4.526E-04
9.300E-01	1.464E-02	1.901E-03	5.530E 00	3.284E-03	4.178E-04
9.500E-01	1.474E-02	2.160E-03	5.630E 00	2.789E-03	4.193E-04
9.700E-01	1.465E-02	2.022E-03	5.730E 00	2.354E-03	3.855E-04
1.000E 00	1.371E-02	2.072E-03	5.830E 00	2.110E-03	3.593E-04
1.040E 00	1.289E-02	1.982E-03	5.930E 00	1.883E-03	3.453E-04
1.080E 00	1.462E-02	1.849E-03	6.030E 00	1.697E-03	3.208E-04
1.120E 00	1.519E-02	1.709E-03	6.130E 00	1.700E-03	2.958E-04
1.160E 00	1.390E-02	1.668E-03	6.230E 00	1.734E-03	2.613E-04
1.200E 00	1.372E-02	1.668E-03	6.330E 00	1.591E-03	2.376E-04
1.240E 00	1.301E-02	1.679E-03	6.440E 00	1.259E-03	2.035E-04
1.280E 00	1.262E-02	1.963E-03	6.560E 00	9.092E-04	1.811E-04
1.320E 00	1.292E-02	1.802E-03	6.680E 00	6.667E-04	1.437E-04
1.360E 00	1.237E-02	1.829E-03	6.800E 00	5.033E-04	1.195E-04
1.400E 00	1.286E-02	1.886E-03	6.920E 00	3.750E-04	8.660E-05
1.440E 00	1.355E-02	1.787E-03	7.040E 00	2.247E-04	5.233E-05
1.480E 00	1.278E-02	1.677E-03	7.160E 00	9.181E-05	2.733E-05
1.520E 00	1.253E-02	1.662E-03	7.280E 00	2.513E-05	1.778E-05
1.560E 00	1.264E-02	1.628E-03	7.400E 00	1.015E-05	1.297E-05
1.600E 00	1.180E-02	1.502E-03	7.520E 00	1.423E-05	1.019E-05
1.640E 00	1.140E-02	1.506E-03	7.640E 00	1.512E-05	8.783E-06
1.680E 00	1.124E-02	1.482E-03	7.760E 00	1.075E-05	8.619E-06
1.720E 00	1.002E-02	1.591E-03	7.890E 00	6.244E-06	7.779E-06
1.760E 00	9.154E-03	1.537E-03	8.030E 00	2.551E-06	6.456E-06
1.800E 00	9.572E-03	1.555E-03	8.170E 00	2.392E-07	5.493E-06
1.850E 00	9.671E-03	1.381E-03	8.310E 00	-7.389E-07	5.026E-06
1.910E 00	8.746E-03	1.353E-03	8.450E 00	-7.747E-07	4.611E-06
1.970E 00	8.912E-03	1.253E-03	8.590E 00	1.494E-07	3.919E-06
2.030E 00	8.460E-03	1.165E-03	8.730E 00	1.469E-06	3.391E-06
2.090E 00	7.800E-03	1.155E-03	8.870E 00	3.147E-06	3.823E-06
2.150E 00	7.706E-03	1.152E-03	9.010E 00	3.273E-06	3.987E-06
2.210E 00	7.325E-03	1.096E-03	9.150E 00	2.115E-06	3.727E-06
2.270E 00	6.953E-03	5.999E-04	9.300E 00	-2.076E-07	2.523E-06
2.330E 00	7.069E-03	9.179E-04	9.460E 00	-1.316E-06	2.662E-06
2.390E 00	7.060E-03	8.523E-04	9.620E 00	-5.123E-07	2.722E-06
2.450E 00	6.959E-03	8.346E-04	9.780E 00	6.831E-07	1.989E-06
2.510E 00	7.171E-03	8.145E-04	9.940E 00	1.797E-06	1.980E-06
2.570E 00	7.046E-03	7.806E-04	1.010E 01	2.225E-06	1.765E-06
2.630E 00	6.521E-03	7.753E-04	1.026E 01	2.818E-06	1.543E-06
2.690E 00	6.225E-03	7.734E-04	1.042E 01	2.832E-06	1.910E-06
2.750E 00	5.999E-03	7.574E-04	1.058E 01	2.425E-06	2.048E-06

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	8.553E-03	7.974E-04
4.000E-01 - 5.000E-01	8.013E-03	5.640E-04
5.000E-01 - 6.000E-01	8.814E-03	3.660E-04
6.000E-01 - 7.000E-01	2.380E-03	2.714E-04
7.000E-01 - 8.000E-01	2.010E-03	2.029E-04
8.000E-01 - 1.000E 00	3.281E-03	4.027E-04
1.000E 00 - 1.200E 00	2.811E-03	3.628E-04
1.200E 00 - 1.400E 00	2.561E-03	3.600E-04
1.400E 00 - 1.600E 00	2.559E-03	3.380E-04
1.600E 00 - 1.800E 00	2.097E-03	3.054E-04
1.800E 00 - 2.000E 00	1.821E-03	2.707E-04
2.000E 00 - 2.500E 00	3.702E-03	5.071E-04
2.500E 00 - 3.000E 00	2.987E-03	3.808E-04
3.000E 00 - 3.500E 00	2.340E-03	3.298E-04
3.500E 00 - 4.000E 00	1.888E-03	2.862E-04
4.000E 00 - 4.500E 00	1.870E-03	2.695E-04
4.500E 00 - 5.000E 00	1.908E-03	2.534E-04
5.000E 00 - 6.000E 00	3.041E-03	4.268E-04
6.000E 00 - 7.000E 00	1.090E-03	1.945E-04
7.000E 00 - 8.000E 00	4.284E-05	1.676E-05
8.000E 00 - 9.000E 00	9.117E-07	4.544E-06
9.000E 00 - 1.000E 01	5.846E-07	2.701E-06

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 0.60 TO 1.00 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	1.889E-01	7.538E-03	2.810E 00	2.984E-03	3.815E-04
3.175E-01	9.430E-02	6.467E-03	2.870E 00	2.712E-03	3.801E-04
3.325E-01	6.282E-02	6.512E-03	2.930E 00	2.731E-03	3.501E-04
3.475E-01	4.670E-02	6.018E-03	2.990E 00	2.782E-03	3.513E-04
3.625E-01	4.279E-02	6.248E-03	3.050E 00	2.636E-03	3.534E-04
3.775E-01	4.735E-02	5.482E-03	3.110E 00	2.540E-03	3.566E-04
3.925E-01	5.225E-02	5.238E-03	3.180E 00	2.485E-03	3.456E-04
4.100E-01	6.349E-02	5.391E-03	3.260E 00	2.323E-03	3.307E-04
4.300E-01	9.181E-02	5.391E-03	3.340E 00	2.206E-03	3.298E-04
4.500E-01	1.403E-01	5.448E-03	3.420E 00	2.114E-03	3.130E-04
4.700E-01	2.136E-01	6.232E-03	3.500E 00	2.176E-03	3.128E-04
4.900E-01	2.770E-01	9.364E-03	3.580E 00	2.064E-03	2.982E-04
5.100E-01	2.924E-01	1.204E-02	3.660E 00	1.921E-03	3.065E-04
5.300E-01	2.677E-01	9.308E-03	3.740E 00	2.158E-03	2.988E-04
5.500E-01	2.120E-01	4.538E-03	3.820E 00	2.288E-03	2.903E-04
5.700E-01	1.342E-01	2.240E-03	3.900E 00	2.080E-03	2.863E-04
5.900E-01	6.552E-02	1.747E-03	3.980E 00	2.094E-03	2.888E-04
6.100E-01	2.929E-02	1.597E-03	4.060E 00	2.239E-03	2.813E-04
6.300E-01	1.841E-02	1.586E-03	4.140E 00	2.023E-03	2.871E-04
6.500E-01	1.503E-02	1.402E-03	4.220E 00	1.817E-03	2.888E-04
6.700E-01	1.320E-02	1.316E-03	4.300E 00	1.812E-03	2.906E-04
6.900E-01	1.330E-02	1.214E-03	4.380E 00	1.853E-03	2.933E-04
7.100E-01	1.313E-02	1.153E-03	4.460E 00	1.824E-03	2.847E-04
7.300E-01	1.212E-02	1.166E-03	4.540E 00	1.755E-03	2.871E-04
7.500E-01	1.200E-02	1.104E-03	4.630E 00	1.965E-03	3.061E-04
7.700E-01	1.266E-02	1.037E-03	4.730E 00	2.272E-03	2.735E-04
7.900E-01	1.303E-02	1.006E-03	4.830E 00	2.093E-03	2.567E-04
8.100E-01	1.280E-02	1.026E-03	4.930E 00	2.033E-03	2.621E-04
8.300E-01	1.214E-02	1.037E-03	5.030E 00	2.066E-03	2.479E-04
8.500E-01	1.129E-02	1.051E-03	5.130E 00	1.958E-03	2.664E-04
8.700E-01	1.058E-02	1.091E-03	5.230E 00	1.987E-03	2.568E-04
8.900E-01	1.012E-02	1.046E-03	5.330E 00	2.003E-03	2.216E-04
9.100E-01	9.510E-03	1.064E-03	5.430E 00	1.837E-03	2.234E-04
9.300E-01	8.705E-03	1.001E-03	5.530E 00	1.732E-03	2.223E-04
9.500E-01	8.216E-03	1.111E-03	5.630E 00	1.650E-03	2.001E-04
9.700E-01	8.288E-03	1.018E-03	5.730E 00	1.502E-03	1.905E-04
1.000E 00	8.520E-03	1.036E-03	5.830E 00	1.366E-03	1.791E-04
1.040E 00	7.815E-03	9.732E-04	5.930E 00	1.200E-03	1.670E-04
1.080E 00	7.713E-03	9.154E-04	6.030E 00	1.018E-03	1.626E-04
1.120E 00	7.558E-03	8.566E-04	6.130E 00	9.425E-04	1.463E-04
1.160E 00	7.720E-03	8.383E-04	6.230E 00	8.962E-04	1.298E-04
1.200E 00	7.884E-03	8.004E-04	6.330E 00	7.546E-04	1.210E-04
1.240E 00	7.310E-03	8.308E-04	6.440E 00	5.960E-04	1.135E-04
1.280E 00	7.176E-03	9.470E-04	6.560E 00	5.522E-04	9.951E-05
1.320E 00	7.002E-03	8.963E-04	6.680E 00	5.325E-04	8.147E-05
1.360E 00	6.587E-03	9.800E-04	6.800E 00	4.840E-04	7.402E-05
1.400E 00	6.436E-03	1.012E-03	6.920E 00	4.520E-04	5.730E-05
1.440E 00	6.542E-03	9.596E-04	7.040E 00	3.979E-04	3.643E-05
1.480E 00	6.479E-03	8.820E-04	7.160E 00	2.909E-04	2.459E-05
1.520E 00	6.105E-03	8.459E-04	7.280E 00	1.752E-04	1.858E-05
1.560E 00	6.210E-03	8.473E-04	7.400E 00	8.642E-05	1.410E-05
1.600E 00	6.407E-03	7.524E-04	7.520E 00	3.560E-05	1.043E-05
1.640E 00	5.853E-03	7.586E-04	7.640E 00	1.390E-05	7.509E-06
1.680E 00	5.598E-03	7.673E-04	7.760E 00	5.364E-06	5.548E-06
1.720E 00	5.955E-03	7.620E-04	7.890E 00	1.967E-06	4.229E-06
1.760E 00	5.779E-03	7.355E-04	8.030E 00	1.189E-06	3.057E-06
1.800E 00	5.076E-03	7.716E-04	8.170E 00	1.893E-06	2.679E-06
1.850E 00	4.735E-03	6.991E-04	8.310E 00	2.261E-06	2.542E-06
1.910E 00	4.915E-03	6.964E-04	8.450E 00	1.595E-06	2.124E-06
1.970E 00	4.833E-03	6.272E-04	8.590E 00	4.149E-07	1.898E-06
2.030E 00	4.555E-03	6.200E-04	8.730E 00	-1.693E-07	1.790E-06
2.090E 00	4.185E-03	5.797E-04	8.870E 00	-1.423E-07	1.482E-06
2.150E 00	4.150E-03	5.936E-04	9.010E 00	3.987E-07	1.313E-06
2.210E 00	4.227E-03	5.424E-04	9.150E 00	8.611E-07	1.155E-06
2.270E 00	4.019E-03	4.973E-04	9.300E 00	1.218E-06	1.013E-06
2.330E 00	3.892E-03	5.032E-04	9.460E 00	1.609E-06	1.013E-06
2.390E 00	3.795E-03	4.428E-04	9.620E 00	1.889E-06	1.097E-06
2.450E 00	3.381E-03	4.415E-04	9.780E 00	1.877E-06	1.084E-06
2.510E 00	3.285E-03	4.246E-04	9.940E 00	1.596E-06	1.005E-06
2.570E 00	3.332E-03	4.119E-04	1.010E 01	1.000E-06	7.713E-07
2.630E 00	3.254E-03	4.072E-04	1.026E 01	1.632E-07	9.886E-07
2.690E 00	3.154E-03	3.872E-04	1.042E 01	-5.354E-07	1.261E-06
2.750E 00	3.142E-03	3.800E-04	1.058E 01	-4.894E-07	1.096E-06

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	6.965E-03	6.131E-04
4.000E-01 - 5.000E-01	1.647E-02	5.172E-04
5.000E-01 - 6.000E-01	2.096E-02	2.670E-04
6.000E-01 - 7.000E-01	1.828E-03	1.427E-04
7.000E-01 - 8.000E-01	1.257E-03	1.095E-04
8.000E-01 - 1.000E 00	2.002E-03	2.091E-04
1.000E 00 - 1.200E 00	1.558E-03	1.800E-04
1.200E 00 - 1.400E 00	1.408E-03	1.828E-04
1.400E 00 - 1.600E 00	1.270E-03	1.769E-04
1.600E 00 - 1.800E 00	1.157E-03	1.512E-04
1.800E 00 - 2.000E 00	9.714E-04	1.373E-04
2.000E 00 - 2.500E 00	1.999E-03	2.614E-04
2.500E 00 - 3.000E 00	1.521E-03	1.928E-04
3.000E 00 - 3.500E 00	1.182E-03	1.677E-04
3.500E 00 - 4.000E 00	1.051E-03	1.482E-04
4.000E 00 - 4.500E 00	9.674E-04	1.439E-04
4.500E 00 - 5.000E 00	1.018E-03	1.378E-04
5.000E 00 - 6.000E 00	1.709E-03	2.161E-04
6.000E 00 - 7.000E 00	6.630E-04	1.046E-04
7.000E 00 - 8.000E 00	1.124E-04	1.402E-05
8.000E 00 - 9.000E 00	9.632E-07	2.137E-06
9.000E 00 - 1.000E 01	1.436E-06	1.078E-06

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 1.00 TO 1.49 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	3.864E-01	1.438E-02	2.810E 00	2.802E-03	3.733E-04
3.175E-01	2.030E-01	1.258E-02	2.870E 00	2.849E-03	3.747E-04
3.325E-01	1.345E-01	1.260E-02	2.930E 00	2.941E-03	3.661E-04
3.475E-01	1.194E-01	1.167E-02	2.990E 00	2.699E-03	3.748E-04
3.625E-01	1.021E-01	1.157E-02	3.050E 00	2.615E-03	3.715E-04
3.775E-01	8.374E-02	1.081E-02	3.110E 00	2.630E-03	3.580E-04
3.925E-01	8.189E-02	1.077E-02	3.180E 00	2.357E-03	3.801E-04
4.100E-01	1.085E-01	1.061E-02	3.260E 00	2.372E-03	3.401E-04
4.300E-01	1.772E-01	1.067E-02	3.340E 00	2.446E-03	3.170E-04
4.500E-01	2.528E-01	1.111E-02	3.420E 00	2.267E-03	3.300E-04
4.700E-01	3.213E-01	1.109E-02	3.500E 00	2.058E-03	3.388E-04
4.900E-01	3.954E-01	1.190E-02	3.580E 00	1.678E-03	3.254E-04
5.100E-01	4.637E-01	1.348E-02	3.660E 00	1.463E-03	3.206E-04
5.300E-01	4.940E-01	1.019E-02	3.740E 00	1.771E-03	3.143E-04
5.500E-01	4.472E-01	5.775E-03	3.820E 00	2.158E-03	2.864E-04
5.700E-01	3.308E-01	3.675E-03	3.900E 00	2.037E-03	2.945E-04
5.900E-01	1.978E-01	3.093E-03	3.980E 00	1.832E-03	3.008E-04
6.100E-01	1.072E-01	3.011E-03	4.060E 00	2.016E-03	2.973E-04
6.300E-01	7.265E-02	3.094E-03	4.140E 00	2.045E-03	2.868E-04
6.500E-01	6.510E-02	2.682E-03	4.220E 00	1.896E-03	2.904E-04
6.700E-01	6.059E-02	2.402E-03	4.300E 00	1.817E-03	2.879E-04
6.900E-01	5.383E-02	2.152E-03	4.380E 00	1.672E-03	2.914E-04
7.100E-01	4.746E-02	1.995E-03	4.460E 00	1.606E-03	2.943E-04
7.300E-01	4.602E-02	2.018E-03	4.540E 00	1.671E-03	2.882E-04
7.500E-01	5.172E-02	1.949E-03	4.630E 00	1.727E-03	2.914E-04
7.700E-01	6.050E-02	1.927E-03	4.730E 00	1.558E-03	2.755E-04
7.900E-01	6.544E-02	1.732E-03	4.830E 00	2.041E-03	2.654E-04
8.100E-01	6.351E-02	1.716E-03	4.930E 00	2.011E-03	2.685E-04
8.300E-01	5.725E-02	1.719E-03	5.030E 00	2.070E-03	2.554E-04
8.500E-01	5.079E-02	1.686E-03	5.130E 00	2.074E-03	2.756E-04
8.700E-01	4.610E-02	1.827E-03	5.230E 00	2.000E-03	2.570E-04
8.900E-01	4.307E-02	1.701E-03	5.330E 00	1.860E-03	2.459E-04
9.100E-01	4.111E-02	1.643E-03	5.430E 00	1.727E-03	2.296E-04
9.300E-01	3.943E-02	1.497E-03	5.530E 00	1.697E-03	2.183E-04
9.500E-01	3.646E-02	1.685E-03	5.630E 00	1.687E-03	2.065E-04
9.700E-01	3.150E-02	1.542E-03	5.730E 00	1.616E-03	1.954E-04
1.000E 00	2.345E-02	1.559E-03	5.830E 00	1.488E-03	1.827E-04
1.040E 00	1.841E-02	1.357E-03	5.930E 00	1.285E-03	1.760E-04
1.080E 00	1.643E-02	1.192E-03	6.030E 00	1.027E-03	1.702E-04
1.120E 00	1.548E-02	1.121E-03	6.130E 00	8.344E-04	1.554E-04
1.160E 00	1.745E-02	1.034E-03	6.230E 00	7.846E-04	1.439E-04
1.200E 00	2.017E-02	1.051E-03	6.330E 00	7.882E-04	1.367E-04
1.240E 00	1.982E-02	1.008E-03	6.440E 00	7.423E-04	1.249E-04
1.280E 00	1.522E-02	1.065E-03	6.560E 00	6.653E-04	1.079E-04
1.320E 00	1.129E-02	9.859E-04	6.680E 00	5.735E-04	9.905E-05
1.360E 00	9.757E-03	9.782E-04	6.800E 00	4.372E-04	9.081E-05
1.400E 00	8.406E-03	9.892E-04	6.920E 00	3.490E-04	8.007E-05
1.440E 00	7.067E-03	9.422E-04	7.040E 00	3.571E-04	5.707E-05
1.480E 00	6.661E-03	8.791E-04	7.160E 00	3.865E-04	4.513E-05
1.520E 00	6.783E-03	8.008E-04	7.280E 00	3.657E-04	3.432E-05
1.560E 00	6.431E-03	8.348E-04	7.400E 00	2.957E-04	2.768E-05
1.600E 00	6.029E-03	7.683E-04	7.520E 00	2.164E-04	2.192E-05
1.640E 00	6.139E-03	7.572E-04	7.640E 00	1.473E-04	1.780E-05
1.680E 00	6.070E-03	7.216E-04	7.760E 00	8.764E-05	1.420E-05
1.720E 00	5.636E-03	7.788E-04	7.890E 00	3.812E-05	1.009E-05
1.760E 00	5.181E-03	7.177E-04	8.030E 00	9.753E-06	7.334E-06
1.800E 00	4.866E-03	7.950E-04	8.170E 00	1.438E-07	5.400E-06
1.850E 00	4.713E-03	7.160E-04	8.310E 00	-8.720E-07	4.102E-06
1.910E 00	4.790E-03	6.837E-04	8.450E 00	8.466E-07	3.652E-06
1.970E 00	4.940E-03	6.497E-04	8.590E 00	2.794E-06	2.930E-06
2.030E 00	4.775E-03	6.227E-04	8.730E 00	3.173E-06	2.150E-06
2.090E 00	4.159E-03	5.841E-04	8.870E 00	2.171E-06	2.069E-06
2.150E 00	3.817E-03	5.878E-04	9.010E 00	6.291E-07	1.832E-06
2.210E 00	3.994E-03	5.520E-04	9.150E 00	-1.204E-08	1.319E-06
2.270E 00	3.592E-03	5.319E-04	9.300E 00	2.033E-07	9.424E-07
2.330E 00	3.237E-03	4.955E-04	9.460E 00	4.779E-07	7.614E-07
2.390E 00	3.382E-03	4.515E-04	9.620E 00	5.945E-07	7.189E-07
2.450E 00	3.423E-03	4.368E-04	9.780E 00	7.898E-07	7.337E-07
2.510E 00	3.317E-03	4.071E-04	9.940E 00	8.934E-07	8.620E-07
2.570E 00	3.067E-03	4.099E-04	1.010E 01	9.485E-07	8.116E-07
2.630E 00	2.889E-03	3.977E-04	1.026E 01	9.579E-07	6.581E-07
2.690E 00	2.964E-03	3.976E-04	1.042E 01	9.723E-07	8.193E-07
2.750E 00	2.973E-03	3.735E-04	1.058E 01	7.070E-07	8.486E-07

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	1.450E-02	1.191E-03
4.000E-01 - 5.000E-01	2.593E-02	1.031E-03
5.000E-01 - 6.000E-01	4.017E-02	4.696E-04
6.000E-01 - 7.000E-01	7.285E-03	2.673E-04
7.000E-01 - 8.000E-01	5.422E-03	1.931E-04
8.000E-01 - 1.000E 00	8.702E-03	3.309E-04
1.000E 00 - 1.200E 00	3.554E-03	2.393E-04
1.200E 00 - 1.400E 00	2.817E-03	2.023E-04
1.400E 00 - 1.600E 00	1.362E-03	1.737E-04
1.600E 00 - 1.800E 00	1.141E-03	1.496E-04
1.800E 00 - 2.000E 00	9.626E-04	1.389E-04
2.000E 00 - 2.500E 00	1.888E-03	2.639E-04
2.500E 00 - 3.000E 00	1.470E-03	1.928E-04
3.000E 00 - 3.500E 00	1.209E-03	1.739E-04
3.500E 00 - 4.000E 00	9.183E-04	1.548E-04
4.000E 00 - 4.500E 00	9.224E-04	1.457E-04
4.500E 00 - 5.000E 00	9.485E-04	1.383E-04
5.000E 00 - 6.000E 00	1.731E-03	2.229E-04
6.000E 00 - 7.000E 00	6.610E-04	1.187E-04
7.000E 00 - 8.000E 00	2.220E-04	2.677E-05
8.000E 00 - 9.000E 00	2.098E-06	3.666E-06
9.000E 00 - 1.000E 01	4.914E-07	9.485E-07

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 1.49 TO 2.01 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	3.386E-01	2.506E-02	2.810E 00	3.021E-03	4.355E-04
3.175E-01	2.613E-01	2.230E-02	2.870E 00	2.826E-03	4.490E-04
3.325E-01	2.452E-01	2.261E-02	2.930E 00	2.659E-03	4.245E-04
3.475E-01	2.295E-01	2.162E-02	2.990E 00	2.514E-03	4.140E-04
3.625E-01	1.903E-01	2.149E-02	3.050E 00	2.289E-03	4.103E-04
3.775E-01	1.588E-01	1.997E-02	3.110E 00	2.185E-03	4.286E-04
3.925E-01	1.679E-01	1.994E-02	3.180E 00	2.227E-03	3.877E-04
4.100E-01	2.150E-01	1.931E-02	3.260E 00	2.148E-03	4.071E-04
4.300E-01	2.933E-01	1.924E-02	3.340E 00	1.986E-03	3.909E-04
4.500E-01	3.915E-01	1.953E-02	3.420E 00	2.041E-03	3.675E-04
4.700E-01	4.920E-01	1.760E-02	3.500E 00	2.217E-03	3.624E-04
4.900E-01	5.903E-01	1.629E-02	3.580E 00	2.259E-03	3.744E-04
5.100E-01	6.592E-01	1.649E-02	3.660E 00	2.061E-03	3.730E-04
5.300E-01	6.485E-01	1.292E-02	3.740E 00	1.626E-03	3.748E-04
5.500E-01	5.407E-01	8.630E-03	3.820E 00	1.392E-03	3.609E-04
5.700E-01	3.717E-01	6.595E-03	3.900E 00	1.681E-03	3.612E-04
5.900E-01	2.208E-01	6.200E-03	3.980E 00	1.834E-03	3.479E-04
6.100E-01	1.433E-01	6.345E-03	4.060E 00	1.576E-03	3.600E-04
6.300E-01	1.204E-01	6.488E-03	4.140E 00	1.602E-03	3.534E-04
6.500E-01	1.166E-01	5.843E-03	4.220E 00	1.916E-03	3.441E-04
6.700E-01	1.203E-01	5.300E-03	4.300E 00	1.864E-03	3.587E-04
6.900E-01	1.242E-01	4.837E-03	4.380E 00	1.587E-03	3.494E-04
7.100E-01	1.233E-01	4.801E-03	4.460E 00	1.658E-03	3.433E-04
7.300E-01	1.224E-01	4.976E-03	4.540E 00	1.895E-03	3.508E-04
7.500E-01	1.224E-01	4.639E-03	4.630E 00	1.724E-03	3.490E-04
7.700E-01	1.180E-01	4.483E-03	4.730E 00	1.500E-03	3.305E-04
7.900E-01	1.092E-01	3.969E-03	4.830E 00	1.768E-03	3.258E-04
8.100E-01	1.003E-01	3.861E-03	4.930E 00	2.017E-03	3.142E-04
8.300E-01	9.422E-02	4.104E-03	5.030E 00	2.079E-03	3.089E-04
8.500E-01	9.195E-02	4.244E-03	5.130E 00	2.016E-03	3.212E-04
8.700E-01	9.178E-02	4.552E-03	5.230E 00	1.756E-03	3.095E-04
8.900E-01	9.222E-02	4.324E-03	5.330E 00	1.600E-03	3.036E-04
9.100E-01	9.531E-02	4.332E-03	5.430E 00	1.613E-03	2.826E-04
9.300E-01	1.024E-01	4.039E-03	5.530E 00	1.552E-03	2.680E-04
9.500E-01	1.098E-01	4.726E-03	5.630E 00	1.431E-03	2.544E-04
9.700E-01	1.129E-01	4.436E-03	5.730E 00	1.388E-03	2.383E-04
1.000E 00	1.093E-01	4.578E-03	5.830E 00	1.381E-03	2.365E-04
1.040E 00	9.638E-02	3.933E-03	5.930E 00	1.322E-03	2.151E-04
1.080E 00	8.542E-02	3.576E-03	6.030E 00	1.209E-03	2.051E-04
1.120E 00	9.282E-02	3.135E-03	6.130E 00	1.111E-03	1.924E-04
1.160E 00	1.066E-01	3.043E-03	6.230E 00	9.831E-04	1.788E-04
1.200E 00	1.067E-01	2.883E-03	6.330E 00	7.830E-04	1.674E-04
1.240E 00	9.394E-02	2.674E-03	6.440E 00	5.467E-04	1.530E-04
1.280E 00	8.161E-02	2.912E-03	6.560E 00	4.251E-04	1.409E-04
1.320E 00	7.348E-02	2.530E-03	6.680E 00	4.258E-04	1.212E-04
1.360E 00	6.948E-02	2.408E-03	6.800E 00	4.495E-04	1.111E-04
1.400E 00	6.264E-02	2.337E-03	6.920E 00	4.652E-04	9.885E-05
1.440E 00	5.100E-02	2.107E-03	7.040E 00	4.453E-04	7.971E-05
1.480E 00	3.922E-02	1.654E-03	7.160E 00	3.965E-04	6.721E-05
1.520E 00	2.932E-02	1.427E-03	7.280E 00	3.649E-04	5.787E-05
1.560E 00	2.185E-02	1.472E-03	7.400E 00	3.242E-04	4.978E-05
1.600E 00	1.762E-02	1.190E-03	7.520E 00	2.381E-04	4.657E-05
1.640E 00	1.487E-02	1.037E-03	7.640E 00	1.566E-04	4.128E-05
1.680E 00	1.290E-02	1.039E-03	7.760E 00	1.250E-04	3.539E-05
1.720E 00	1.213E-02	1.054E-03	7.890E 00	1.190E-04	2.739E-05
1.760E 00	1.115E-02	9.729E-04	8.030E 00	9.703E-05	2.159E-05
1.800E 00	9.478E-03	9.626E-04	8.170E 00	6.261E-05	1.864E-05
1.850E 00	7.685E-03	8.360E-04	8.310E 00	3.004E-05	1.209E-05
1.910E 00	5.742E-03	8.098E-04	8.450E 00	1.039E-05	7.614E-06
1.970E 00	4.607E-03	7.362E-04	8.590E 00	2.336E-06	6.562E-06
2.030E 00	4.299E-03	6.843E-04	8.730E 00	9.725E-07	5.689E-06
2.090E 00	3.374E-03	6.992E-04	8.870E 00	1.275E-06	4.738E-06
2.150E 00	3.315E-03	6.655E-04	9.010E 00	1.143E-06	3.791E-06
2.210E 00	3.660E-03	6.229E-04	9.150E 00	8.984E-07	3.751E-06
2.270E 00	3.193E-03	5.756E-04	9.300E 00	1.639E-06	3.300E-06
2.330E 00	2.769E-03	5.561E-04	9.460E 00	2.821E-06	2.796E-06
2.390E 00	3.106E-03	5.313E-04	9.620E 00	3.225E-06	2.651E-06
2.450E 00	3.154E-03	5.164E-04	9.780E 00	2.547E-06	2.259E-06
2.510E 00	2.902E-03	4.804E-04	9.940E 00	1.423E-06	1.821E-06
2.570E 00	2.919E-03	4.807E-04	1.010E 01	5.797E-07	1.215E-06
2.630E 00	2.909E-03	4.627E-04	1.026E 01	-1.778E-07	1.478E-06
2.690E 00	2.789E-03	4.631E-04	1.042E 01	-6.762E-07	1.863E-06
2.750E 00	2.934E-03	4.653E-04	1.058E 01	-6.426E-07	1.833E-06

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	2.209E-02	2.164E-03
4.000E-01 - 5.000E-01	4.050E-02	1.776E-03
5.000E-01 - 6.000E-01	5.047E-02	7.933E-04
6.000E-01 - 7.000E-01	1.259E-02	5.771E-04
7.000E-01 - 8.000E-01	1.190E-02	4.585E-04
8.000E-01 - 1.000E 00	2.005E-02	8.622E-04
1.000E 00 - 1.200E 00	1.952E-02	6.954E-04
1.200E 00 - 1.400E 00	1.611E-02	5.259E-04
1.400E 00 - 1.600E 00	7.228E-03	3.373E-04
1.600E 00 - 1.800E 00	2.579E-03	2.066E-04
1.800E 00 - 2.000E 00	1.268E-03	1.624E-04
2.000E 00 - 2.500E 00	1.669E-03	3.012E-04
2.500E 00 - 3.000E 00	1.421E-03	2.267E-04
3.000E 00 - 3.500E 00	1.076E-03	1.976E-04
3.500E 00 - 4.000E 00	9.205E-04	1.831E-04
4.000E 00 - 4.500E 00	8.514E-04	1.758E-04
4.500E 00 - 5.000E 00	8.918E-04	1.662E-04
5.000E 00 - 6.000E 00	1.597E-03	2.721E-04
6.000E 00 - 7.000E 00	6.712E-04	1.469E-04
7.000E 00 - 8.000E 00	2.573E-04	4.849E-05
8.000E 00 - 9.000E 00	2.450E-05	1.015E-05
9.000E 00 - 1.000E 01	2.051E-06	2.848E-06

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 2.01 TO 2.51 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	6.185E-01	4.367E-02	2.810E 00	2.053E-03	5.003E-04
3.175E-01	4.185E-01	3.990E-02	2.870E 00	2.389E-03	4.733E-04
3.325E-01	3.577E-01	3.657E-02	2.930E 00	2.244E-03	4.679E-04
3.475E-01	3.531E-01	3.453E-02	2.990E 00	2.084E-03	4.708E-04
3.625E-01	3.329E-01	3.266E-02	3.050E 00	1.816E-03	4.695E-04
3.775E-01	2.908E-01	3.061E-02	3.110E 00	1.215E-03	4.515E-04
3.925E-01	2.574E-01	2.806E-02	3.180E 00	1.252E-03	4.914E-04
4.100E-01	2.530E-01	2.844E-02	3.260E 00	1.992E-03	4.229E-04
4.300E-01	2.916E-01	2.845E-02	3.340E 00	1.728E-03	4.177E-04
4.500E-01	3.637E-01	2.657E-02	3.420E 00	1.570E-03	4.201E-04
4.700E-01	4.644E-01	2.731E-02	3.500E 00	1.659E-03	3.961E-04
4.900E-01	5.618E-01	2.540E-02	3.580E 00	1.560E-03	4.078E-04
5.100E-01	6.696E-01	2.700E-02	3.660E 00	1.538E-03	4.114E-04
5.300E-01	7.791E-01	2.166E-02	3.740E 00	1.386E-03	4.042E-04
5.500E-01	7.782E-01	1.540E-02	3.820E 00	1.094E-03	3.967E-04
5.700E-01	6.389E-01	1.279E-02	3.900E 00	9.974E-04	4.237E-04
5.900E-01	4.358E-01	1.212E-02	3.980E 00	1.218E-03	4.212E-04
6.100E-01	2.765E-01	1.219E-02	4.060E 00	1.337E-03	3.971E-04
6.300E-01	2.014E-01	1.271E-02	4.140E 00	1.152E-03	3.903E-04
6.500E-01	1.700E-01	1.137E-02	4.220E 00	1.253E-03	3.922E-04
6.700E-01	1.577E-01	1.040E-02	4.300E 00	1.549E-03	3.929E-04
6.900E-01	1.619E-01	9.516E-03	4.380E 00	1.487E-03	3.979E-04
7.100E-01	1.712E-01	9.043E-03	4.460E 00	1.277E-03	4.002E-04
7.300E-01	1.756E-01	9.079E-03	4.540E 00	1.365E-03	3.860E-04
7.500E-01	1.732E-01	8.723E-03	4.630E 00	1.504E-03	3.882E-04
7.700E-01	1.672E-01	8.641E-03	4.730E 00	1.393E-03	3.759E-04
7.900E-01	1.616E-01	7.903E-03	4.830E 00	1.241E-03	3.727E-04
8.100E-01	1.559E-01	7.928E-03	4.930E 00	1.314E-03	3.904E-04
8.300E-01	1.482E-01	8.459E-03	5.030E 00	1.530E-03	3.665E-04
8.500E-01	1.391E-01	8.768E-03	5.130E 00	1.706E-03	3.753E-04
8.700E-01	1.320E-01	9.229E-03	5.230E 00	1.685E-03	3.540E-04
8.900E-01	1.327E-01	8.952E-03	5.330E 00	1.586E-03	3.355E-04
9.100E-01	1.427E-01	8.715E-03	5.430E 00	1.363E-03	3.423E-04
9.300E-01	1.554E-01	7.996E-03	5.530E 00	1.103E-03	3.438E-04
9.500E-01	1.655E-01	9.569E-03	5.630E 00	8.877E-04	3.151E-04
9.700E-01	1.758E-01	9.309E-03	5.730E 00	7.624E-04	2.996E-04
1.000E 00	1.884E-01	9.739E-03	5.830E 00	8.220E-04	2.727E-04
1.040E 00	1.698E-01	9.081E-03	5.930E 00	1.021E-03	2.714E-04
1.080E 00	1.459E-01	8.153E-03	6.030E 00	1.117E-03	2.582E-04
1.120E 00	1.488E-01	7.188E-03	6.130E 00	1.024E-03	2.442E-04
1.160E 00	1.649E-01	7.079E-03	6.230E 00	8.882E-04	2.278E-04
1.200E 00	1.785E-01	6.781E-03	6.330E 00	6.763E-04	2.080E-04
1.240E 00	1.784E-01	6.858E-03	6.440E 00	4.596E-04	2.073E-04
1.280E 00	1.731E-01	7.620E-03	6.560E 00	4.612E-04	1.827E-04
1.320E 00	1.611E-01	6.967E-03	6.680E 00	5.363E-04	1.659E-04
1.360E 00	1.526E-01	6.796E-03	6.800E 00	4.494E-04	1.439E-04
1.400E 00	1.444E-01	6.579E-03	6.920E 00	3.531E-04	1.310E-04
1.440E 00	1.300E-01	6.032E-03	7.040E 00	3.377E-04	1.094E-04
1.480E 00	1.180E-01	5.389E-03	7.160E 00	3.239E-04	9.652E-05
1.520E 00	1.070E-01	4.487E-03	7.280E 00	2.957E-04	8.228E-05
1.560E 00	9.775E-02	4.678E-03	7.400E 00	2.406E-04	7.063E-05
1.600E 00	8.938E-02	3.639E-03	7.520E 00	1.300E-04	6.240E-05
1.640E 00	7.963E-02	3.394E-03	7.640E 00	3.704E-05	5.727E-05
1.680E 00	7.337E-02	3.247E-03	7.760E 00	3.581E-05	5.371E-05
1.720E 00	6.952E-02	3.187E-03	7.890E 00	9.676E-05	4.791E-05
1.760E 00	6.573E-02	3.003E-03	8.030E 00	1.246E-04	3.821E-05
1.800E 00	6.181E-02	3.037E-03	8.170E 00	9.393E-05	3.426E-05
1.850E 00	5.274E-02	2.057E-03	8.310E 00	5.967E-05	3.189E-05
1.910E 00	3.857E-02	1.845E-03	8.450E 00	4.384E-05	2.317E-05
1.970E 00	3.022E-02	1.561E-03	8.590E 00	3.556E-05	1.430E-05
2.030E 00	2.339E-02	1.282E-03	8.730E 00	2.470E-05	1.090E-05
2.090E 00	1.644E-02	1.097E-03	8.870E 00	1.405E-05	9.376E-06
2.150E 00	1.157E-02	8.685E-04	9.010E 00	5.871E-06	7.444E-06
2.210E 00	8.014E-03	7.605E-04	9.150E 00	1.206E-06	5.448E-06
2.270E 00	6.519E-03	6.518E-04	9.300E 00	-1.912E-06	5.334E-06
2.330E 00	5.273E-03	5.911E-04	9.460E 00	-2.106E-06	3.736E-06
2.390E 00	3.799E-03	5.767E-04	9.620E 00	-1.387E-06	3.445E-06
2.450E 00	3.128E-03	5.516E-04	9.780E 00	1.017E-06	4.466E-06
2.510E 00	2.537E-03	5.579E-04	9.940E 00	1.807E-06	3.969E-06
2.570E 00	2.106E-03	5.682E-04	1.010E 01	2.018E-06	2.832E-06
2.630E 00	2.400E-03	5.398E-04	1.026E 01	2.428E-06	2.149E-06
2.690E 00	2.401E-03	5.161E-04	1.042E 01	1.927E-06	2.311E-06
2.750E 00	1.894E-03	5.114E-04	1.058E 01	1.526E-06	2.225E-06

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	3.606E-02	3.471E-03
4.000E-01 - 5.000E-01	4.008E-02	2.642E-03
5.000E-01 - 6.000E-01	6.852E-02	1.498E-03
6.000E-01 - 7.000E-01	1.951E-02	1.125E-03
7.000E-01 - 8.000E-01	1.696E-02	8.701E-04
8.000E-01 - 1.000E 00	3.065E-02	1.769E-03
1.000E 00 - 1.200E 00	3.237E-02	1.590E-03
1.200E 00 - 1.400E 00	3.310E-02	1.400E-03
1.400E 00 - 1.600E 00	2.276E-02	1.032E-03
1.600E 00 - 1.800E 00	1.453E-02	6.453E-04
1.800E 00 - 2.000E 00	8.470E-03	3.890E-04
2.000E 00 - 2.500E 00	4.751E-03	3.950E-04
2.500E 00 - 3.000E 00	1.111E-03	2.559E-04
3.000E 00 - 3.500E 00	8.090E-04	2.206E-04
3.500E 00 - 4.000E 00	6.632E-04	2.048E-04
4.000E 00 - 4.500E 00	6.698E-04	1.979E-04
4.500E 00 - 5.000E 00	6.837E-04	1.910E-04
5.000E 00 - 6.000E 00	1.239E-03	3.256E-04
6.000E 00 - 7.000E 00	6.263E-04	1.905E-04
7.000E 00 - 8.000E 00	1.794E-04	7.002E-05
8.000E 00 - 9.000E 00	5.055E-05	2.159E-05
9.000E 00 - 1.000E 01	1.386E-07	4.602E-06

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION..

INCIDENT NEUTRON ENERGY = 2.51 TO 2.98 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	7.567E-01	5.737E-02	2.810E 00	2.269E-03	5.661E-04
3.175E-01	4.860E-01	5.156E-02	2.870E 00	1.854E-03	5.449E-04
3.325E-01	3.948E-01	5.035E-02	2.930E 00	2.256E-03	5.368E-04
3.475E-01	3.958E-01	4.688E-02	2.990E 00	2.294E-03	5.298E-04
3.625E-01	4.041E-01	4.535E-02	3.050E 00	1.608E-03	5.147E-04
3.775E-01	3.978E-01	4.121E-02	3.110E 00	1.404E-03	5.371E-04
3.925E-01	3.530E-01	3.752E-02	3.180E 00	1.652E-03	4.946E-04
4.100E-01	2.915E-01	3.641E-02	3.260E 00	1.310E-03	5.401E-04
4.300E-01	2.954E-01	3.689E-02	3.340E 00	1.268E-03	4.878E-04
4.500E-01	3.670E-01	3.890E-02	3.420E 00	1.670E-03	4.924E-04
4.700E-01	4.582E-01	3.456E-02	3.500E 00	1.757E-03	5.346E-04
4.900E-01	5.532E-01	3.562E-02	3.580E 00	1.791E-03	5.200E-04
5.100E-01	6.794E-01	3.865E-02	3.660E 00	1.484E-03	5.178E-04
5.300E-01	8.355E-01	3.205E-02	3.740E 00	9.707E-04	4.975E-04
5.500E-01	9.134E-01	2.191E-02	3.820E 00	1.026E-03	4.797E-04
5.700E-01	8.182E-01	1.803E-02	3.900E 00	9.711E-04	4.921E-04
5.900E-01	6.012E-01	1.722E-02	3.980E 00	3.892E-04	5.247E-04
6.100E-01	4.024E-01	1.695E-02	4.060E 00	1.431E-04	4.946E-04
6.300E-01	2.906E-01	1.775E-02	4.140E 00	5.036E-04	4.833E-04
6.500E-01	2.360E-01	1.608E-02	4.220E 00	8.852E-04	5.111E-04
6.700E-01	2.135E-01	1.476E-02	4.300E 00	9.421E-04	4.924E-04
6.900E-01	2.171E-01	1.342E-02	4.380E 00	9.851E-04	4.647E-04
7.100E-01	2.253E-01	1.317E-02	4.460E 00	1.119E-03	4.647E-04
7.300E-01	2.245E-01	1.368E-02	4.540E 00	1.114E-03	4.676E-04
7.500E-01	2.185E-01	1.323E-02	4.630E 00	8.634E-04	5.022E-04
7.700E-01	2.114E-01	1.285E-02	4.730E 00	8.087E-04	4.768E-04
7.900E-01	2.036E-01	1.164E-02	4.830E 00	9.973E-04	4.544E-04
8.100E-01	1.958E-01	1.125E-02	4.930E 00	9.945E-04	4.415E-04
8.300E-01	1.881E-01	1.149E-02	5.030E 00	8.799E-04	4.604E-04
8.500E-01	1.807E-01	1.174E-02	5.130E 00	9.200E-04	4.807E-04
8.700E-01	1.738E-01	1.263E-02	5.230E 00	1.096E-03	4.540E-04
8.900E-01	1.702E-01	1.255E-02	5.330E 00	1.238E-03	4.256E-04
9.100E-01	1.718E-01	1.301E-02	5.430E 00	1.082E-03	4.208E-04
9.300E-01	1.771E-01	1.232E-02	5.530E 00	8.915E-04	4.217E-04
9.500E-01	1.853E-01	1.397E-02	5.630E 00	8.979E-04	3.848E-04
9.700E-01	1.948E-01	1.292E-02	5.730E 00	9.126E-04	3.568E-04
1.000E 00	2.094E-01	1.327E-02	5.830E 00	7.925E-04	3.373E-04
1.040E 00	1.982E-01	1.304E-02	5.930E 00	6.368E-04	3.522E-04
1.080E 00	1.595E-01	1.154E-02	6.030E 00	5.493E-04	3.287E-04
1.120E 00	1.577E-01	1.080E-02	6.130E 00	4.918E-04	3.012E-04
1.160E 00	1.705E-01	1.013E-02	6.230E 00	4.176E-04	2.964E-04
1.200E 00	1.796E-01	1.012E-02	6.330E 00	2.967E-04	2.812E-04
1.240E 00	1.905E-01	1.016E-02	6.440E 00	1.926E-04	2.671E-04
1.280E 00	1.926E-01	1.157E-02	6.560E 00	2.455E-04	2.287E-04
1.320E 00	1.823E-01	1.075E-02	6.680E 00	4.333E-04	2.034E-04
1.360E 00	1.712E-01	1.063E-02	6.800E 00	5.472E-04	1.910E-04
1.400E 00	1.616E-01	1.058E-02	6.920E 00	4.734E-04	1.663E-04
1.440E 00	1.518E-01	9.802E-03	7.040E 00	3.567E-04	1.407E-04
1.480E 00	1.397E-01	9.052E-03	7.160E 00	3.209E-04	1.258E-04
1.520E 00	1.323E-01	8.357E-03	7.280E 00	2.966E-04	1.128E-04
1.560E 00	1.277E-01	7.933E-03	7.400E 00	2.104E-04	9.770E-05
1.600E 00	1.236E-01	6.801E-03	7.520E 00	1.064E-04	8.261E-05
1.640E 00	1.224E-01	6.181E-03	7.640E 00	7.637E-05	8.417E-05
1.680E 00	1.192E-01	6.043E-03	7.760E 00	1.225E-04	7.987E-05
1.720E 00	1.140E-01	5.900E-03	7.890E 00	1.621E-04	7.201E-05
1.760E 00	1.115E-01	5.535E-03	8.030E 00	1.272E-04	5.572E-05
1.800E 00	1.052E-01	5.547E-03	8.170E 00	6.385E-05	5.032E-05
1.850E 00	8.822E-02	4.853E-03	8.310E 00	2.840E-05	4.775E-05
1.910E 00	7.338E-02	4.115E-03	8.450E 00	1.466E-05	3.540E-05
1.970E 00	6.573E-02	3.668E-03	8.590E 00	1.418E-05	2.514E-05
2.030E 00	5.990E-02	3.058E-03	8.730E 00	2.696E-05	2.042E-05
2.090E 00	5.020E-02	2.372E-03	8.870E 00	3.581E-05	1.973E-05
2.150E 00	3.955E-02	2.034E-03	9.010E 00	2.825E-05	1.565E-05
2.210E 00	3.164E-02	1.769E-03	9.150E 00	1.429E-05	1.233E-05
2.270E 00	2.632E-02	1.428E-03	9.300E 00	2.849E-06	9.171E-06
2.330E 00	2.248E-02	1.293E-03	9.460E 00	-1.216E-06	9.178E-06
2.390E 00	1.845E-02	1.095E-03	9.620E 00	-1.627E-06	8.649E-06
2.450E 00	1.417E-02	1.064E-03	9.780E 00	3.149E-07	7.192E-06
2.510E 00	1.091E-02	8.784E-04	9.940E 00	1.041E-06	5.060E-06
2.570E 00	8.106E-03	7.636E-04	1.010E 01	3.162E-06	4.638E-06
2.630E 00	5.559E-03	7.004E-04	1.026E 01	3.804E-06	4.366E-06
2.690E 00	3.957E-03	6.692E-04	1.042E 01	3.869E-06	4.164E-06
2.750E 00	3.095E-03	6.357E-04	1.058E 01	3.616E-06	4.387E-06

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	4.363E-02	4.660E-03
4.000E-01 - 5.000E-01	4.133E-02	3.442E-03
5.000E-01 - 6.000E-01	8.051E-02	2.158E-03
6.000E-01 - 7.000E-01	2.737E-02	1.583E-03
7.000E-01 - 8.000E-01	2.165E-02	1.294E-03
8.000E-01 - 1.000E 00	3.685E-02	2.497E-03
1.000E 00 - 1.200E 00	3.509E-02	2.285E-03
1.200E 00 - 1.400E 00	3.638E-02	2.142E-03
1.400E 00 - 1.600E 00	2.773E-02	1.756E-03
1.600E 00 - 1.800E 00	2.329E-02	1.191E-03
1.800E 00 - 2.000E 00	1.569E-02	8.655E-04
2.000E 00 - 2.500E 00	1.600E-02	8.651E-04
2.500E 00 - 3.000E 00	2.142E-03	3.208E-04
3.000E 00 - 3.500E 00	7.645E-04	2.561E-04
3.500E 00 - 4.000E 00	5.987E-04	2.531E-04
4.000E 00 - 4.500E 00	3.728E-04	2.431E-04
4.500E 00 - 5.000E 00	4.733E-04	2.342E-04
5.000E 00 - 6.000E 00	9.288E-04	4.069E-04
6.000E 00 - 7.000E 00	4.002E-04	2.437E-04
7.000E 00 - 8.000E 00	1.998E-04	9.649E-05
8.000E 00 - 9.000E 00	3.951E-05	3.432E-05
9.000E 00 - 1.000E 01	4.318E-06	8.986E-06

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 2.98 TO 3.50 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	6.136E-01	7.205E-02	2.810E 00	1.243E-02	9.118E-04
3.175E-01	5.287E-01	6.368E-02	2.870E 00	1.047E-02	8.601E-04
3.325E-01	5.040E-01	6.278E-02	2.930E 00	8.062E-03	8.315E-04
3.475E-01	5.135E-01	5.882E-02	2.990E 00	5.693E-03	7.676E-04
3.625E-01	4.906E-01	6.052E-02	3.050E 00	3.749E-03	7.435E-04
3.775E-01	4.150E-01	5.601E-02	3.110E 00	2.701E-03	7.522E-04
3.925E-01	3.387E-01	5.326E-02	3.180E 00	2.215E-03	6.917E-04
4.100E-01	3.206E-01	5.291E-02	3.260E 00	1.639E-03	6.714E-04
4.300E-01	4.125E-01	4.778E-02	3.340E 00	1.109E-03	6.493E-04
4.500E-01	5.191E-01	4.785E-02	3.420E 00	8.607E-04	5.961E-04
4.700E-01	6.040E-01	4.180E-02	3.500E 00	8.451E-04	5.779E-04
4.900E-01	7.272E-01	4.425E-02	3.580E 00	8.473E-04	5.476E-04
5.100E-01	8.558E-01	4.679E-02	3.660E 00	9.780E-04	5.345E-04
5.300E-01	9.155E-01	3.942E-02	3.740E 00	1.140E-03	5.776E-04
5.500E-01	8.784E-01	2.844E-02	3.820E 00	9.876E-04	5.797E-04
5.700E-01	7.317E-01	2.310E-02	3.900E 00	8.604E-04	5.551E-04
5.900E-01	5.199E-01	2.280E-02	3.980E 00	8.414E-04	5.426E-04
6.100E-01	3.640E-01	2.281E-02	4.060E 00	9.960E-04	5.487E-04
6.300E-01	3.005E-01	2.357E-02	4.140E 00	1.031E-03	5.115E-04
6.500E-01	2.701E-01	2.146E-02	4.220E 00	5.930E-04	5.419E-04
6.700E-01	2.525E-01	2.048E-02	4.300E 00	1.696E-05	6.068E-04
6.900E-01	2.591E-01	1.870E-02	4.380E 00	6.100E-05	5.917E-04
7.100E-01	2.688E-01	1.789E-02	4.460E 00	4.867E-04	5.879E-04
7.300E-01	2.617E-01	1.772E-02	4.540E 00	6.286E-04	5.523E-04
7.500E-01	2.512E-01	1.669E-02	4.630E 00	6.359E-04	5.402E-04
7.700E-01	2.445E-01	1.562E-02	4.730E 00	1.261E-03	5.427E-04
7.900E-01	2.338E-01	1.462E-02	4.830E 00	1.701E-03	5.066E-04
8.100E-01	2.186E-01	1.459E-02	4.930E 00	1.129E-03	5.696E-04
8.300E-01	2.081E-01	1.517E-02	5.030E 00	6.060E-04	5.391E-04
8.500E-01	2.052E-01	1.541E-02	5.130E 00	6.366E-04	5.279E-04
8.700E-01	2.062E-01	1.601E-02	5.230E 00	7.153E-04	5.320E-04
8.900E-01	2.099E-01	1.551E-02	5.330E 00	6.238E-04	5.017E-04
9.100E-01	2.153E-01	1.558E-02	5.430E 00	6.394E-04	5.057E-04
9.300E-01	2.209E-01	1.471E-02	5.530E 00	7.869E-04	4.750E-04
9.500E-01	2.265E-01	1.770E-02	5.630E 00	7.711E-04	4.646E-04
9.700E-01	2.332E-01	1.692E-02	5.730E 00	5.847E-04	4.491E-04
1.000E 00	2.368E-01	1.815E-02	5.830E 00	4.425E-04	4.549E-04
1.040E 00	2.107E-01	1.600E-02	5.930E 00	4.625E-04	4.416E-04
1.080E 00	1.857E-01	1.488E-02	6.030E 00	4.936E-04	4.161E-04
1.120E 00	1.877E-01	1.344E-02	6.130E 00	4.889E-04	4.048E-04
1.160E 00	2.009E-01	1.251E-02	6.230E 00	4.816E-04	3.713E-04
1.200E 00	2.103E-01	1.195E-02	6.330E 00	4.658E-04	3.564E-04
1.240E 00	2.092E-01	1.276E-02	6.440E 00	3.735E-04	3.458E-04
1.280E 00	2.006E-01	1.409E-02	6.560E 00	2.530E-04	3.102E-04
1.320E 00	1.875E-01	1.415E-02	6.680E 00	1.886E-04	2.738E-04
1.360E 00	1.799E-01	1.369E-02	6.800E 00	1.515E-04	2.466E-04
1.400E 00	1.661E-01	1.330E-02	6.920E 00	1.011E-04	2.110E-04
1.440E 00	1.559E-01	1.233E-02	7.040E 00	9.508E-05	1.760E-04
1.480E 00	1.512E-01	1.103E-02	7.160E 00	1.534E-04	1.394E-04
1.520E 00	1.403E-01	1.041E-02	7.280E 00	2.268E-04	1.278E-04
1.560E 00	1.314E-01	1.017E-02	7.400E 00	2.654E-04	1.145E-04
1.600E 00	1.315E-01	8.953E-03	7.520E 00	2.412E-04	9.689E-05
1.640E 00	1.303E-01	8.392E-03	7.640E 00	1.696E-04	8.988E-05
1.680E 00	1.272E-01	8.280E-03	7.760E 00	8.809E-05	9.140E-05
1.720E 00	1.230E-01	8.597E-03	7.890E 00	2.333E-05	8.177E-05
1.760E 00	1.127E-01	7.696E-03	8.030E 00	-1.387E-06	6.835E-05
1.800E 00	1.007E-01	8.200E-03	8.170E 00	1.783E-05	6.257E-05
1.850E 00	9.444E-02	6.841E-03	8.310E 00	5.357E-05	5.829E-05
1.910E 00	8.794E-02	5.538E-03	8.450E 00	6.426E-05	5.311E-05
1.970E 00	7.640E-02	4.992E-03	8.590E 00	5.018E-05	4.340E-05
2.030E 00	6.954E-02	4.625E-03	8.730E 00	4.302E-05	3.624E-05
2.090E 00	6.120E-02	4.190E-03	8.870E 00	4.718E-05	3.424E-05
2.150E 00	5.245E-02	3.787E-03	9.010E 00	4.530E-05	2.880E-05
2.210E 00	4.689E-02	3.269E-03	9.150E 00	3.545E-05	2.549E-05
2.270E 00	4.409E-02	3.008E-03	9.300E 00	2.212E-05	2.092E-05
2.330E 00	4.237E-02	2.520E-03	9.460E 00	1.165E-05	1.472E-05
2.390E 00	3.868E-02	2.177E-03	9.620E 00	7.116E-06	1.346E-05
2.450E 00	3.458E-02	1.944E-03	9.780E 00	6.178E-06	1.219E-05
2.510E 00	3.035E-02	1.755E-03	9.940E 00	5.040E-06	8.299E-06
2.570E 00	2.611E-02	1.573E-03	1.010E 01	5.027E-06	6.325E-06
2.630E 00	2.124E-02	1.384E-03	1.026E 01	4.240E-06	6.492E-06
2.690E 00	1.627E-02	1.333E-03	1.042E 01	3.296E-06	6.824E-06
2.750E 00	1.370E-02	1.048E-03	1.058E 01	3.980E-06	6.043E-06

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	4.791E-02	6.034E-03
4.000E-01 - 5.000E-01	5.421E-02	4.497E-03
5.000E-01 - 6.000E-01	8.259E-02	2.662E-03
6.000E-01 - 7.000E-01	2.909E-02	2.144E-03
7.000E-01 - 8.000E-01	2.517E-02	1.654E-03
8.000E-01 - 1.000E 00	4.362E-02	3.183E-03
1.000E 00 - 1.200E 00	4.019E-02	2.870E-03
1.200E 00 - 1.400E 00	3.867E-02	2.699E-03
1.400E 00 - 1.600E 00	2.906E-02	2.204E-03
1.600E 00 - 1.800E 00	2.442E-02	1.655E-03
1.800E 00 - 2.000E 00	1.756E-02	1.201E-03
2.000E 00 - 2.500E 00	2.403E-02	1.568E-03
2.500E 00 - 3.000E 00	7.932E-03	5.771E-04
3.000E 00 - 3.500E 00	9.909E-04	3.371E-04
3.500E 00 - 4.000E 00	4.692E-04	2.789E-04
4.000E 00 - 4.500E 00	2.720E-04	2.814E-04
4.500E 00 - 5.000E 00	5.389E-04	2.706E-04
5.000E 00 - 6.000E 00	6.253E-04	4.868E-04
6.000E 00 - 7.000E 00	3.134E-04	3.168E-04
7.000E 00 - 8.000E 00	1.507E-04	1.109E-04
8.000E 00 - 9.000E 00	4.133E-05	4.885E-05
9.000E 00 - 1.000E 01	1.676E-05	1.686E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 3.50 TO 4.00 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	5.683E-01	8.884E-02	2.810E 00	2.579E-02	1.966E-03
3.175E-01	5.527E-01	8.042E-02	2.870E 00	2.383E-02	1.715E-03
3.325E-01	6.032E-01	8.164E-02	2.930E 00	2.115E-02	1.576E-03
3.475E-01	5.971E-01	7.750E-02	2.990E 00	1.801E-02	1.464E-03
3.625E-01	4.863E-01	7.637E-02	3.050E 00	1.507E-02	1.473E-03
3.775E-01	3.876E-01	7.083E-02	3.110E 00	1.377E-02	1.284E-03
3.925E-01	3.869E-01	6.402E-02	3.180E 00	1.248E-02	1.127E-03
4.100E-01	4.352E-01	6.197E-02	3.260E 00	9.225E-03	1.033E-03
4.300E-01	4.879E-01	6.138E-02	3.340E 00	6.116E-03	9.650E-04
4.500E-01	5.782E-01	5.951E-02	3.420E 00	4.866E-03	9.046E-04
4.700E-01	7.113E-01	5.541E-02	3.500E 00	3.538E-03	7.307E-04
4.900E-01	8.513E-01	5.644E-02	3.580E 00	2.592E-03	7.409E-04
5.100E-01	9.274E-01	6.200E-02	3.660E 00	1.845E-03	7.133E-04
5.300E-01	9.183E-01	5.047E-02	3.740E 00	1.413E-03	6.365E-04
5.500E-01	8.375E-01	3.655E-02	3.820E 00	8.963E-04	6.955E-04
5.700E-01	6.867E-01	3.099E-02	3.900E 00	5.117E-04	6.624E-04
5.900E-01	4.966E-01	2.966E-02	3.980E 00	3.786E-04	6.414E-04
6.100E-01	3.600E-01	3.073E-02	4.060E 00	3.764E-04	6.400E-04
6.300E-01	3.027E-01	3.089E-02	4.140E 00	5.663E-04	6.186E-04
6.500E-01	2.930E-01	2.702E-02	4.220E 00	8.702E-04	6.331E-04
6.700E-01	3.032E-01	2.500E-02	4.300E 00	8.873E-04	6.720E-04
6.900E-01	3.096E-01	2.238E-02	4.380E 00	6.722E-04	6.393E-04
7.100E-01	3.043E-01	2.183E-02	4.460E 00	5.961E-04	6.001E-04
7.300E-01	2.923E-01	2.227E-02	4.540E 00	6.942E-04	5.789E-04
7.500E-01	2.771E-01	2.148E-02	4.630E 00	5.409E-04	5.998E-04
7.700E-01	2.627E-01	2.116E-02	4.730E 00	1.163E-04	6.167E-04
7.900E-01	2.568E-01	1.926E-02	4.830E 00	2.582E-04	6.324E-04
8.100E-01	2.518E-01	1.901E-02	4.930E 00	1.057E-03	6.013E-04
8.300E-01	2.402E-01	1.967E-02	5.030E 00	1.448E-03	5.875E-04
8.500E-01	2.316E-01	2.034E-02	5.130E 00	1.061E-03	5.952E-04
8.700E-01	2.322E-01	2.165E-02	5.230E 00	6.098E-04	5.819E-04
8.900E-01	2.363E-01	2.080E-02	5.330E 00	3.859E-04	5.731E-04
9.100E-01	2.415E-01	2.025E-02	5.430E 00	2.204E-04	5.673E-04
9.300E-01	2.526E-01	1.869E-02	5.530E 00	2.327E-04	5.636E-04
9.500E-01	2.658E-01	2.062E-02	5.630E 00	3.326E-04	5.268E-04
9.700E-01	2.708E-01	1.985E-02	5.730E 00	2.947E-04	5.113E-04
1.000E 00	2.619E-01	2.111E-02	5.830E 00	2.254E-04	5.001E-04
1.040E 00	2.442E-01	2.051E-02	5.930E 00	4.074E-04	4.699E-04
1.080E 00	2.232E-01	1.840E-02	6.030E 00	7.166E-04	4.540E-04
1.120E 00	2.152E-01	1.733E-02	6.130E 00	8.760E-04	4.433E-04
1.160E 00	2.238E-01	1.703E-02	6.230E 00	6.746E-04	4.164E-04
1.200E 00	2.349E-01	1.573E-02	6.330E 00	3.240E-04	3.893E-04
1.240E 00	2.369E-01	1.609E-02	6.440E 00	-1.704E-05	3.430E-04
1.280E 00	2.278E-01	1.826E-02	6.560E 00	-1.855E-04	3.292E-04
1.320E 00	2.151E-01	1.742E-02	6.680E 00	-9.703E-05	3.045E-04
1.360E 00	2.001E-01	1.721E-02	6.800E 00	1.606E-04	2.572E-04
1.400E 00	1.873E-01	1.729E-02	6.920E 00	3.552E-04	2.139E-04
1.440E 00	1.776E-01	1.510E-02	7.040E 00	3.704E-04	1.862E-04
1.480E 00	1.659E-01	1.480E-02	7.160E 00	3.443E-04	1.718E-04
1.520E 00	1.539E-01	1.454E-02	7.280E 00	3.683E-04	1.500E-04
1.560E 00	1.504E-01	1.312E-02	7.400E 00	3.504E-04	1.281E-04
1.600E 00	1.510E-01	1.137E-02	7.520E 00	2.074E-04	1.118E-04
1.640E 00	1.464E-01	1.088E-02	7.640E 00	3.173E-05	1.008E-04
1.680E 00	1.390E-01	1.030E-02	7.760E 00	-5.527E-05	9.385E-05
1.720E 00	1.320E-01	1.076E-02	7.890E 00	-3.649E-05	7.593E-05
1.760E 00	1.229E-01	1.010E-02	8.030E 00	2.312E-05	6.367E-05
1.800E 00	1.133E-01	1.044E-02	8.170E 00	5.362E-05	5.827E-05
1.850E 00	1.023E-01	9.113E-03	8.310E 00	4.943E-05	5.581E-05
1.910E 00	9.118E-02	7.765E-03	8.450E 00	4.240E-05	5.294E-05
1.970E 00	8.884E-02	6.397E-03	8.590E 00	5.380E-05	4.893E-05
2.030E 00	7.732E-02	6.156E-03	8.730E 00	8.150E-05	4.131E-05
2.090E 00	6.347E-02	6.330E-03	8.870E 00	8.734E-05	3.688E-05
2.150E 00	5.951E-02	5.081E-03	9.010E 00	5.813E-05	3.606E-05
2.210E 00	5.589E-02	4.655E-03	9.150E 00	2.084E-05	2.800E-05
2.270E 00	5.250E-02	4.148E-03	9.300E 00	5.147E-07	1.676E-05
2.330E 00	4.937E-02	3.772E-03	9.460E 00	2.986E-07	1.347E-05
2.390E 00	4.858E-02	3.450E-03	9.620E 00	4.130E-06	1.201E-05
2.450E 00	4.477E-02	3.443E-03	9.780E 00	6.661E-06	9.641E-06
2.510E 00	3.819E-02	3.172E-03	9.940E 00	9.282E-06	9.162E-06
2.570E 00	3.483E-02	3.037E-03	1.010E 01	1.248E-05	1.000E-05
2.630E 00	3.166E-02	2.586E-03	1.026E 01	1.553E-05	1.056E-05
2.690E 00	2.837E-02	2.250E-03	1.042E 01	1.552E-05	1.260E-05
2.750E 00	2.718E-02	2.134E-03	1.058E 01	1.427E-05	1.380E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	5.083E-02	7.636E-03
4.000E-01 - 5.000E-01	6.426E-02	5.664E-03
5.000E-01 - 6.000E-01	8.331E-02	3.474E-03
6.000E-01 - 7.000E-01	3.150E-02	2.724E-03
7.000E-01 - 8.000E-01	2.786E-02	2.125E-03
8.000E-01 - 1.000E 00	4.978E-02	4.028E-03
1.000E 00 - 1.200E 00	4.608E-02	3.670E-03
1.200E 00 - 1.400E 00	4.369E-02	3.425E-03
1.400E 00 - 1.600E 00	3.264E-02	2.875E-03
1.600E 00 - 1.800E 00	2.691E-02	2.112E-03
1.800E 00 - 2.000E 00	1.910E-02	1.607E-03
2.000E 00 - 2.500E 00	2.788E-02	2.293E-03
2.500E 00 - 3.000E 00	1.379E-02	1.102E-03
3.000E 00 - 3.500E 00	4.857E-03	5.480E-04
3.500E 00 - 4.000E 00	7.508E-04	3.439E-04
4.000E 00 - 4.500E 00	3.253E-04	3.169E-04
4.500E 00 - 5.000E 00	2.765E-04	3.035E-04
5.000E 00 - 6.000E 00	5.018E-04	5.454E-04
6.000E 00 - 7.000E 00	2.804E-04	3.390E-04
7.000E 00 - 8.000E 00	1.808E-04	1.228E-04
8.000E 00 - 9.000E 00	5.819E-05	4.965E-05
9.000E 00 - 1.000E 01	1.023E-05	1.634E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 4.00 TO 4.50 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	7.025E-01	1.149E-01	2.810E 00	3.225E-02	2.825E-03
3.175E-01	5.712E-01	1.026E-01	2.870E 00	3.026E-02	2.755E-03
3.325E-01	6.739E-01	5.370E-02	2.930E 00	2.772E-02	2.620E-03
3.475E-01	7.540E-01	8.573E-02	2.990E 00	2.383E-02	2.409E-03
3.625E-01	6.445E-01	8.833E-02	3.050E 00	2.217E-02	2.251E-03
3.775E-01	4.926E-01	8.323E-02	3.110E 00	2.255E-02	2.120E-03
3.925E-01	4.309E-01	7.861E-02	3.180E 00	2.192E-02	1.815E-03
4.100E-01	4.418E-01	7.750E-02	3.260E 00	1.965E-02	1.760E-03
4.300E-01	4.692E-01	7.592E-02	3.340E 00	1.637E-02	1.632E-03
4.500E-01	5.169E-01	7.187E-02	3.420E 00	1.368E-02	1.402E-03
4.700E-01	6.371E-01	6.857E-02	3.500E 00	1.130E-02	1.243E-03
4.900E-01	7.568E-01	7.145E-02	3.580E 00	7.673E-03	1.124E-03
5.100E-01	8.640E-01	7.679E-02	3.660E 00	5.219E-03	1.150E-03
5.300E-01	9.935E-01	6.383E-02	3.740E 00	4.517E-03	9.256E-04
5.500E-01	1.022E 00	4.426E-02	3.820E 00	3.880E-03	8.242E-04
5.700E-01	8.802E-01	3.621E-02	3.900E 00	3.183E-03	8.234E-04
5.900E-01	6.565E-01	3.598E-02	3.980E 00	2.674E-03	7.848E-04
6.100E-01	4.605E-01	3.679E-02	4.060E 00	2.247E-03	7.583E-04
6.300E-01	3.475E-01	3.843E-02	4.140E 00	1.910E-03	6.941E-04
6.500E-01	3.075E-01	3.499E-02	4.220E 00	1.482E-03	6.795E-04
6.700E-01	3.094E-01	3.219E-02	4.300E 00	9.059E-04	7.105E-04
6.900E-01	3.221E-01	3.031E-02	4.380E 00	3.847E-04	6.953E-04
7.100E-01	3.219E-01	2.917E-02	4.460E 00	1.495E-04	6.857E-04
7.300E-01	3.140E-01	2.869E-02	4.540E 00	2.464E-04	6.818E-04
7.500E-01	3.082E-01	2.620E-02	4.630E 00	4.917E-04	6.361E-04
7.700E-01	2.986E-01	2.452E-02	4.730E 00	5.878E-04	6.431E-04
7.900E-01	2.869E-01	2.315E-02	4.830E 00	5.743E-04	6.351E-04
8.100E-01	2.770E-01	2.277E-02	4.930E 00	3.603E-04	6.142E-04
8.300E-01	2.665E-01	2.223E-02	5.030E 00	2.309E-04	6.075E-04
8.500E-01	2.579E-01	2.296E-02	5.130E 00	4.949E-04	6.034E-04
8.700E-01	2.584E-01	2.498E-02	5.230E 00	9.106E-04	5.826E-04
8.900E-01	2.554E-01	2.416E-02	5.330E 00	9.340E-04	5.812E-04
9.100E-01	2.563E-01	2.442E-02	5.430E 00	6.450E-04	5.793E-04
9.300E-01	2.579E-01	2.284E-02	5.530E 00	4.407E-04	5.456E-04
9.500E-01	2.642E-01	2.623E-02	5.630E 00	5.161E-04	5.553E-04
9.700E-01	2.745E-01	2.460E-02	5.730E 00	7.361E-04	5.308E-04
1.000E 00	2.848E-01	2.567E-02	5.830E 00	7.455E-04	4.930E-04
1.040E 00	2.682E-01	2.382E-02	5.930E 00	4.597E-04	4.595E-04
1.080E 00	2.375E-01	2.249E-02	6.030E 00	1.374E-04	4.503E-04
1.120E 00	2.346E-01	2.193E-02	6.130E 00	4.300E-05	4.419E-04
1.160E 00	2.529E-01	2.071E-02	6.230E 00	1.078E-04	4.271E-04
1.200E 00	2.555E-01	2.034E-02	6.330E 00	1.756E-04	4.076E-04
1.240E 00	2.489E-01	2.188E-02	6.440E 00	1.740E-04	3.627E-04
1.280E 00	2.460E-01	2.319E-02	6.560E 00	1.589E-04	3.256E-04
1.320E 00	2.355E-01	2.144E-02	6.680E 00	1.861E-04	2.983E-04
1.360E 00	2.312E-01	2.105E-02	6.800E 00	2.399E-04	2.892E-04
1.400E 00	2.245E-01	2.151E-02	6.920E 00	2.629E-04	2.429E-04
1.440E 00	2.007E-01	2.059E-02	7.040E 00	2.603E-04	1.928E-04
1.480E 00	1.870E-01	1.910E-02	7.160E 00	2.836E-04	1.836E-04
1.520E 00	1.862E-01	1.709E-02	7.280E 00	3.086E-04	1.775E-04
1.560E 00	1.809E-01	1.587E-02	7.400E 00	2.650E-04	1.372E-04
1.600E 00	1.758E-01	1.491E-02	7.520E 00	1.551E-04	1.156E-04
1.640E 00	1.702E-01	1.458E-02	7.640E 00	7.010E-05	1.147E-04
1.680E 00	1.631E-01	1.407E-02	7.760E 00	2.861E-05	1.077E-04
1.720E 00	1.560E-01	1.434E-02	7.890E 00	1.013E-05	8.595E-05
1.760E 00	1.475E-01	1.302E-02	8.030E 00	3.119E-06	6.687E-05
1.800E 00	1.364E-01	1.339E-02	8.170E 00	7.504E-06	6.435E-05
1.850E 00	1.222E-01	1.252E-02	8.310E 00	4.120E-05	6.293E-05
1.910E 00	1.091E-01	9.978E-03	8.450E 00	5.288E-05	5.129E-05
1.970E 00	1.010E-01	1.000E-02	8.590E 00	4.113E-05	4.708E-05
2.030E 00	9.504E-02	9.499E-03	8.730E 00	2.244E-05	4.254E-05
2.090E 00	8.702E-02	8.652E-03	8.870E 00	9.523E-06	3.964E-05
2.150E 00	7.684E-02	7.212E-03	9.010E 00	1.480E-05	3.494E-05
2.210E 00	6.777E-02	6.596E-03	9.150E 00	2.360E-05	3.508E-05
2.270E 00	6.051E-02	6.005E-03	9.300E 00	2.828E-05	3.204E-05
2.330E 00	5.742E-02	5.756E-03	9.460E 00	2.543E-05	2.521E-05
2.390E 00	5.595E-02	4.623E-03	9.620E 00	1.452E-05	2.570E-05
2.450E 00	5.366E-02	4.614E-03	9.780E 00	1.108E-05	2.515E-05
2.510E 00	5.087E-02	3.818E-03	9.940E 00	9.275E-06	1.756E-05
2.570E 00	4.355E-02	3.858E-03	1.010E 01	1.099E-05	1.285E-05
2.630E 00	3.641E-02	3.712E-03	1.026E 01	1.152E-05	1.107E-05
2.690E 00	3.444E-02	3.352E-03	1.042E 01	9.889E-06	1.135E-05
2.750E 00	3.420E-02	2.962E-03	1.058E 01	8.875E-06	1.131E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	6.025E-02	9.120E-03
4.000E-01 - 5.000E-01	6.051E-02	6.982E-03
5.000E-01 - 6.000E-01	9.623E-02	4.142E-03
6.000E-01 - 7.000E-01	3.510E-02	3.457E-03
7.000E-01 - 8.000E-01	3.058E-02	2.638E-03
8.000E-01 - 1.000E 00	5.294E-02	4.802E-03
1.000E 00 - 1.200E 00	5.045E-02	4.471E-03
1.200E 00 - 1.400E 00	4.808E-02	4.347E-03
1.400E 00 - 1.600E 00	3.811E-02	3.635E-03
1.600E 00 - 1.800E 00	3.174E-02	2.800E-03
1.800E 00 - 2.000E 00	2.262E-02	2.199E-03
2.000E 00 - 2.500E 00	3.430E-02	3.256E-03
2.500E 00 - 3.000E 00	1.731E-02	1.576E-03
3.000E 00 - 3.500E 00	9.353E-03	8.902E-04
3.500E 00 - 4.000E 00	2.542E-03	4.849E-04
4.000E 00 - 4.500E 00	6.189E-04	3.532E-04
4.500E 00 - 5.000E 00	2.274E-04	3.195E-04
5.000E 00 - 6.000E 00	6.133E-04	5.508E-04
6.000E 00 - 7.000E 00	1.712E-04	3.502E-04
7.000E 00 - 8.000E 00	1.610E-04	1.348E-04
8.000E 00 - 9.000E 00	2.545E-05	5.193E-05
9.000E 00 - 1.000E 01	1.861E-05	2.757E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 4.50 TO 4.98 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	8.509E-01	1.344E-01	2.810E 00	4.049E-02	3.816E-03
3.175E-01	7.001E-01	1.109E-01	2.870E 00	3.478E-02	3.437E-03
3.325E-01	6.277E-01	1.111E-01	2.930E 00	2.849E-02	3.408E-03
3.475E-01	6.544E-01	1.073E-01	2.990E 00	2.768E-02	3.074E-03
3.625E-01	6.659E-01	1.095E-01	3.050E 00	2.857E-02	2.711E-03
3.775E-01	6.020E-01	9.811E-02	3.110E 00	2.756E-02	2.716E-03
3.925E-01	5.014E-01	9.240E-02	3.180E 00	2.538E-02	2.354E-03
4.100E-01	4.484E-01	9.275E-02	3.260E 00	2.143E-02	2.149E-03
4.300E-01	4.851E-01	8.392E-02	3.340E 00	1.969E-02	2.224E-03
4.500E-01	5.232E-01	8.169E-02	3.420E 00	1.867E-02	1.890E-03
4.700E-01	6.057E-01	7.739E-02	3.500E 00	1.595E-02	1.879E-03
4.900E-01	6.854E-01	8.673E-02	3.580E 00	1.324E-02	1.580E-03
5.100E-01	8.318E-01	9.561E-02	3.660E 00	1.121E-02	1.569E-03
5.300E-01	1.025E 00	7.809E-02	3.740E 00	1.138E-02	1.414E-03
5.500E-01	1.062E 00	5.420E-02	3.820E 00	1.085E-02	1.342E-03
5.700E-01	9.403E-01	4.288E-02	3.900E 00	7.849E-03	1.243E-03
5.900E-01	7.363E-01	4.163E-02	3.980E 00	5.719E-03	1.197E-03
6.100E-01	5.326E-01	4.238E-02	4.060E 00	5.478E-03	1.092E-03
6.300E-01	4.058E-01	4.403E-02	4.140E 00	5.058E-03	9.320E-04
6.500E-01	3.599E-01	4.019E-02	4.220E 00	3.787E-03	8.283E-04
6.700E-01	3.508E-01	3.685E-02	4.300E 00	2.627E-03	8.407E-04
6.900E-01	3.444E-01	3.316E-02	4.380E 00	2.102E-03	7.440E-04
7.100E-01	3.367E-01	3.249E-02	4.460E 00	1.884E-03	7.121E-04
7.300E-01	3.360E-01	3.158E-02	4.540E 00	1.592E-03	7.107E-04
7.500E-01	3.378E-01	2.973E-02	4.630E 00	1.124E-03	7.045E-04
7.700E-01	3.252E-01	2.867E-02	4.730E 00	5.433E-04	6.814E-04
7.900E-01	3.032E-01	2.742E-02	4.830E 00	4.502E-04	6.532E-04
8.100E-01	2.871E-01	2.705E-02	4.930E 00	8.082E-04	6.316E-04
8.300E-01	2.769E-01	2.732E-02	5.030E 00	9.818E-04	6.316E-04
8.500E-01	2.614E-01	2.828E-02	5.130E 00	8.370E-04	6.679E-04
8.700E-01	2.434E-01	2.992E-02	5.230E 00	8.373E-04	6.931E-04
8.900E-01	2.412E-01	2.959E-02	5.330E 00	9.537E-04	6.787E-04
9.100E-01	2.562E-01	2.886E-02	5.430E 00	7.536E-04	6.461E-04
9.300E-01	2.716E-01	2.656E-02	5.530E 00	1.681E-04	6.260E-04
9.500E-01	2.790E-01	2.964E-02	5.630E 00	-2.969E-04	5.967E-04
9.700E-01	2.834E-01	2.860E-02	5.730E 00	-2.588E-04	5.567E-04
1.000E 00	2.916E-01	3.004E-02	5.830E 00	1.471E-04	5.644E-04
1.040E 00	2.897E-01	2.889E-02	5.930E 00	5.449E-04	5.457E-04
1.080E 00	2.578E-01	2.617E-02	6.030E 00	7.831E-04	5.259E-04
1.120E 00	2.334E-01	2.464E-02	6.130E 00	7.116E-04	4.588E-04
1.160E 00	2.579E-01	2.349E-02	6.230E 00	4.393E-04	4.103E-04
1.200E 00	2.673E-01	2.316E-02	6.330E 00	1.302E-04	3.945E-04
1.240E 00	2.743E-01	2.401E-02	6.440E 00	-3.578E-05	3.856E-04
1.280E 00	2.791E-01	2.751E-02	6.560E 00	1.398E-05	3.475E-04
1.320E 00	2.601E-01	2.720E-02	6.680E 00	1.086E-04	3.136E-04
1.360E 00	2.451E-01	2.673E-02	6.800E 00	1.784E-04	2.709E-04
1.400E 00	2.481E-01	2.579E-02	6.920E 00	2.397E-04	2.400E-04
1.440E 00	2.319E-01	2.452E-02	7.040E 00	2.979E-04	2.268E-04
1.480E 00	2.077E-01	2.276E-02	7.160E 00	2.723E-04	1.917E-04
1.520E 00	2.021E-01	2.056E-02	7.280E 00	2.198E-04	1.572E-04
1.560E 00	2.047E-01	1.948E-02	7.400E 00	1.957E-04	1.385E-04
1.600E 00	2.005E-01	1.811E-02	7.520E 00	1.695E-04	1.188E-04
1.640E 00	1.869E-01	1.724E-02	7.640E 00	1.121E-04	1.055E-04
1.680E 00	1.770E-01	1.752E-02	7.760E 00	4.140E-05	8.877E-05
1.720E 00	1.723E-01	1.776E-02	7.890E 00	1.257E-05	7.291E-05
1.760E 00	1.664E-01	1.699E-02	8.030E 00	1.377E-05	6.242E-05
1.800E 00	1.580E-01	1.671E-02	8.170E 00	3.067E-05	5.685E-05
1.850E 00	1.465E-01	1.377E-02	8.310E 00	5.177E-05	5.114E-05
1.910E 00	1.299E-01	1.379E-02	8.450E 00	6.706E-05	4.468E-05
1.970E 00	1.164E-01	1.243E-02	8.590E 00	7.864E-05	4.242E-05
2.030E 00	1.094E-01	1.124E-02	8.730E 00	8.200E-05	3.559E-05
2.090E 00	1.003E-01	1.001E-02	8.870E 00	6.412E-05	3.230E-05
2.150E 00	9.599E-02	9.058E-03	9.010E 00	3.563E-05	2.658E-05
2.210E 00	8.819E-02	8.155E-03	9.150E 00	1.255E-05	1.715E-05
2.270E 00	7.669E-02	7.921E-03	9.300E 00	4.018E-06	1.342E-05
2.330E 00	7.322E-02	7.056E-03	9.460E 00	1.721E-06	1.187E-05
2.390E 00	7.035E-02	6.188E-03	9.620E 00	1.523E-06	1.121E-05
2.450E 00	6.756E-02	6.009E-03	9.780E 00	3.418E-06	1.165E-05
2.510E 00	6.292E-02	5.550E-03	9.940E 00	7.256E-06	1.124E-05
2.570E 00	5.679E-02	5.007E-03	1.010E 01	1.109E-05	9.429E-06
2.630E 00	5.229E-02	4.655E-03	1.026E 01	1.545E-05	1.096E-05
2.690E 00	4.689E-02	4.174E-03	1.042E 01	1.606E-05	1.351E-05
2.750E 00	4.261E-02	3.738E-03	1.058E 01	1.439E-05	1.466E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	6.460E-02	1.075E-02
4.000E-01 - 5.000E-01	6.032E-02	7.995E-03
5.000E-01 - 6.000E-01	1.019E-01	8.945E-03
6.000E-01 - 7.000E-01	4.003E-02	3.939E-03
7.000E-01 - 8.000E-01	3.279E-02	3.000E-03
8.000E-01 - 1.000E 00	5.380E-02	5.702E-03
1.000E 00 - 1.200E 00	5.271E-02	5.186E-03
1.200E 00 - 1.400E 00	5.268E-02	5.210E-03
1.400E 00 - 1.600E 00	4.277E-02	4.369E-03
1.600E 00 - 1.800E 00	3.525E-02	3.474E-03
1.800E 00 - 2.000E 00	2.669E-02	2.742E-03
2.000E 00 - 2.500E 00	4.218E-02	4.052E-03
2.500E 00 - 3.000E 00	2.172E-02	2.038E-03
3.000E 00 - 3.500E 00	1.141E-02	1.151E-03
3.500E 00 - 4.000E 00	5.327E-03	7.172E-04
4.000E 00 - 4.500E 00	1.789E-03	4.351E-04
4.500E 00 - 5.000E 00	4.382E-04	3.366E-04
5.000E 00 - 6.000E 00	4.596E-04	6.191E-04
6.000E 00 - 7.000E 00	2.572E-04	3.594E-04
7.000E 00 - 8.000E 00	1.529E-04	1.313E-04
8.000E 00 - 9.000E 00	5.650E-05	4.466E-05
9.000E 00 - 1.000E 01	6.972E-06	1.366E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 4.98 TO 6.00 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	9.616E-01	1.567E-01	2.810E 00	5.726E-02	5.128E-03
3.175E-01	7.733E-01	1.406E-01	2.870E 00	5.397E-02	4.818E-03
3.325E-01	6.773E-01	1.332E-01	2.930E 00	5.017E-02	4.360E-03
3.475E-01	6.916E-01	1.237E-01	2.990E 00	4.695E-02	4.140E-03
3.625E-01	7.401E-01	1.210E-01	3.050E 00	4.373E-02	3.632E-03
3.775E-01	7.019E-01	1.115E-01	3.110E 00	4.047E-02	3.482E-03
3.925E-01	5.872E-01	1.083E-01	3.180E 00	3.764E-02	3.178E-03
4.100E-01	5.019E-01	1.045E-01	3.260E 00	3.281E-02	2.910E-03
4.300E-01	4.985E-01	1.018E-01	3.340E 00	2.664E-02	3.009E-03
4.500E-01	5.038E-01	9.991E-02	3.420E 00	2.370E-02	2.424E-03
4.700E-01	5.580E-01	9.581E-02	3.500E 00	2.206E-02	2.297E-03
4.900E-01	6.524E-01	1.100E-01	3.580E 00	1.982E-02	2.173E-03
5.100E-01	7.904E-01	1.256E-01	3.660E 00	1.711E-02	2.005E-03
5.300E-01	1.019E 00	1.016E-01	3.740E 00	1.512E-02	1.913E-03
5.500E-01	1.170E 00	6.487E-02	3.820E 00	1.342E-02	1.763E-03
5.700E-01	1.080E 00	5.064E-02	3.900E 00	1.264E-02	1.629E-03
5.900E-01	8.605E-01	4.777E-02	3.980E 00	1.240E-02	1.526E-03
6.100E-01	6.613E-01	4.799E-02	4.060E 00	1.066E-02	1.366E-03
6.300E-01	5.123E-01	5.164E-02	4.140E 00	8.881E-03	1.297E-03
6.500E-01	4.099E-01	4.843E-02	4.220E 00	8.522E-03	1.281E-03
6.700E-01	3.655E-01	4.424E-02	4.300E 00	7.903E-03	1.192E-03
6.900E-01	3.654E-01	3.943E-02	4.380E 00	6.556E-03	1.115E-03
7.100E-01	3.701E-01	3.813E-02	4.460E 00	5.693E-03	1.094E-03
7.300E-01	3.652E-01	3.765E-02	4.540E 00	5.341E-03	1.003E-03
7.500E-01	3.599E-01	3.463E-02	4.630E 00	4.770E-03	9.612E-04
7.700E-01	3.507E-01	3.305E-02	4.730E 00	4.582E-03	8.868E-04
7.900E-01	3.331E-01	3.220E-02	4.830E 00	4.582E-03	7.849E-04
8.100E-01	3.094E-01	3.209E-02	4.930E 00	3.688E-03	7.826E-04
8.300E-01	2.896E-01	3.222E-02	5.030E 00	2.511E-03	7.054E-04
8.500E-01	2.786E-01	3.336E-02	5.130E 00	1.932E-03	6.739E-04
8.700E-01	2.703E-01	3.459E-02	5.230E 00	1.635E-03	6.451E-04
8.900E-01	2.649E-01	3.394E-02	5.330E 00	1.324E-03	5.802E-04
9.100E-01	2.679E-01	3.490E-02	5.430E 00	1.097E-03	5.706E-04
9.300E-01	2.786E-01	3.255E-02	5.530E 00	1.014E-03	5.763E-04
9.500E-01	2.885E-01	3.671E-02	5.630E 00	9.023E-04	5.566E-04
9.700E-01	2.922E-01	3.404E-02	5.730E 00	7.723E-04	5.447E-04
1.000E 00	2.989E-01	3.486E-02	5.830E 00	6.896E-04	5.039E-04
1.040E 00	3.062E-01	3.176E-02	5.930E 00	7.025E-04	4.987E-04
1.080E 00	2.789E-01	3.008E-02	6.030E 00	6.752E-04	4.761E-04
1.120E 00	2.646E-01	2.802E-02	6.130E 00	5.202E-04	4.806E-04
1.160E 00	2.708E-01	2.843E-02	6.230E 00	2.796E-04	4.498E-04
1.200E 00	2.787E-01	2.728E-02	6.330E 00	4.329E-05	3.911E-04
1.240E 00	2.919E-01	2.904E-02	6.440E 00	-7.234E-05	3.729E-04
1.280E 00	2.945E-01	3.280E-02	6.560E 00	7.733E-06	3.419E-04
1.320E 00	2.871E-01	3.076E-02	6.680E 00	2.497E-04	2.885E-04
1.360E 00	2.767E-01	3.183E-02	6.800E 00	3.631E-04	2.583E-04
1.400E 00	2.625E-01	3.180E-02	6.920E 00	3.345E-04	2.303E-04
1.440E 00	2.455E-01	2.921E-02	7.040E 00	2.136E-04	1.846E-04
1.480E 00	2.310E-01	2.732E-02	7.160E 00	1.285E-04	1.690E-04
1.520E 00	2.230E-01	2.658E-02	7.280E 00	9.961E-05	1.472E-04
1.560E 00	2.140E-01	2.540E-02	7.400E 00	1.213E-04	1.215E-04
1.600E 00	2.075E-01	2.280E-02	7.520E 00	1.441E-04	1.026E-04
1.640E 00	2.122E-01	2.240E-02	7.640E 00	1.094E-04	9.497E-05
1.680E 00	2.109E-01	2.145E-02	7.760E 00	3.119E-05	9.262E-05
1.720E 00	1.971E-01	2.253E-02	7.890E 00	-1.482E-05	9.261E-05
1.760E 00	1.858E-01	2.124E-02	8.030E 00	1.632E-05	7.468E-05
1.800E 00	1.765E-01	2.122E-02	8.170E 00	8.344E-05	6.707E-05
1.850E 00	1.633E-01	1.921E-02	8.310E 00	9.476E-05	6.639E-05
1.910E 00	1.535E-01	1.737E-02	8.450E 00	5.554E-05	5.622E-05
1.970E 00	1.393E-01	1.670E-02	8.590E 00	2.806E-05	5.140E-05
2.030E 00	1.331E-01	1.476E-02	8.730E 00	3.732E-05	4.652E-05
2.090E 00	1.230E-01	1.406E-02	8.870E 00	4.654E-05	4.263E-05
2.150E 00	1.135E-01	1.272E-02	9.010E 00	3.113E-05	4.074E-05
2.210E 00	1.105E-01	1.199E-02	9.150E 00	1.013E-05	3.522E-05
2.270E 00	1.066E-01	1.070E-02	9.300E 00	1.278E-06	3.321E-05
2.330E 00	1.018E-01	9.136E-03	9.460E 00	1.459E-05	3.225E-05
2.390E 00	9.772E-02	8.527E-03	9.620E 00	3.218E-05	2.712E-05
2.450E 00	9.073E-02	7.730E-03	9.780E 00	3.894E-05	2.817E-05
2.510E 00	8.358E-02	7.901E-03	9.940E 00	3.107E-05	2.470E-05
2.570E 00	7.845E-02	7.169E-03	1.010E 01	2.119E-05	1.724E-05
2.630E 00	6.956E-02	6.616E-03	1.026E 01	1.573E-05	1.221E-05
2.690E 00	6.160E-02	6.127E-03	1.042E 01	1.043E-05	1.259E-05
2.750E 00	5.904E-02	5.442E-03	1.058E 01	7.079E-06	1.203E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	7.195E-02	1.262E-02
4.000E-01 - 5.000E-01	6.152E-02	9.580E-03
5.000E-01 - 6.000E-01	1.122E-01	5.854E-03
6.000E-01 - 7.000E-01	4.643E-02	4.646E-03
7.000E-01 - 8.000E-01	3.555E-02	3.517E-03
8.000E-01 - 1.000E 00	5.675E-02	6.768E-03
1.000E 00 - 1.200E 00	5.635E-02	5.971E-03
1.200E 00 - 1.400E 00	5.695E-02	6.177E-03
1.400E 00 - 1.600E 00	4.589E-02	5.433E-03
1.600E 00 - 1.800E 00	3.998E-02	4.379E-03
1.800E 00 - 2.000E 00	3.092E-02	3.607E-03
2.000E 00 - 2.500E 00	5.433E-02	5.545E-03
2.500E 00 - 3.000E 00	3.103E-02	2.857E-03
3.000E 00 - 3.500E 00	1.653E-02	1.521E-03
3.500E 00 - 4.000E 00	7.855E-03	9.412E-04
4.000E 00 - 4.500E 00	4.092E-03	6.166E-04
4.500E 00 - 5.000E 00	2.248E-03	4.363E-04
5.000E 00 - 6.000E 00	1.219E-03	5.809E-04
6.000E 00 - 7.000E 00	2.490E-04	3.533E-04
7.000E 00 - 8.000E 00	9.526E-05	1.220E-04
8.000E 00 - 9.000E 00	5.358E-05	5.608E-05
9.000E 00 - 1.000E 01	2.199E-05	3.090E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 6.00 TO 7.01 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	8.964E-01	1.963E-01	2.810E 00	7.236E-02	8.235E-03
3.175E-01	7.506E-01	1.725E-01	2.870E 00	7.196E-02	7.435E-03
3.325E-01	7.531E-01	1.556E-01	2.930E 00	6.898E-02	6.753E-03
3.475E-01	8.231E-01	1.463E-01	2.990E 00	6.443E-02	6.905E-03
3.625E-01	8.719E-01	1.397E-01	3.050E 00	6.329E-02	6.235E-03
3.775E-01	8.311E-01	1.314E-01	3.110E 00	6.346E-02	5.860E-03
3.925E-01	6.936E-01	1.271E-01	3.180E 00	5.906E-02	5.038E-03
4.100E-01	5.380E-01	1.242E-01	3.260E 00	5.028E-02	5.229E-03
4.300E-01	4.933E-01	1.255E-01	3.340E 00	4.476E-02	4.527E-03
4.500E-01	5.231E-01	1.213E-01	3.420E 00	4.000E-02	4.011E-03
4.700E-01	5.936E-01	1.243E-01	3.500E 00	3.456E-02	3.763E-03
4.900E-01	6.976E-01	1.452E-01	3.580E 00	3.383E-02	3.417E-03
5.100E-01	8.167E-01	1.700E-01	3.660E 00	3.319E-02	3.131E-03
5.300E-01	1.022E 00	1.394E-01	3.740E 00	2.902E-02	3.142E-03
5.500E-01	1.187E 00	8.210E-02	3.820E 00	2.546E-02	3.217E-03
5.700E-01	1.139E 00	6.469E-02	3.900E 00	2.272E-02	2.923E-03
5.900E-01	9.301E-01	5.678E-02	3.980E 00	1.943E-02	2.744E-03
6.100E-01	6.968E-01	5.955E-02	4.060E 00	1.717E-02	2.447E-03
6.300E-01	5.193E-01	6.473E-02	4.140E 00	1.718E-02	2.358E-03
6.500E-01	4.192E-01	5.943E-02	4.220E 00	1.751E-02	2.203E-03
6.700E-01	3.821E-01	5.391E-02	4.300E 00	1.567E-02	2.129E-03
6.900E-01	3.869E-01	4.979E-02	4.380E 00	1.332E-02	2.045E-03
7.100E-01	4.000E-01	4.697E-02	4.460E 00	1.260E-02	1.892E-03
7.300E-01	3.961E-01	4.543E-02	4.540E 00	1.187E-02	1.829E-03
7.500E-01	3.800E-01	4.347E-02	4.630E 00	1.028E-02	1.857E-03
7.700E-01	3.582E-01	4.138E-02	4.730E 00	9.895E-03	1.804E-03
7.900E-01	3.300E-01	3.787E-02	4.830E 00	1.008E-02	1.537E-03
8.100E-01	3.006E-01	3.724E-02	4.930E 00	9.635E-03	1.451E-03
8.300E-01	2.867E-01	3.690E-02	5.030E 00	9.012E-03	1.458E-03
8.500E-01	2.922E-01	3.728E-02	5.130E 00	7.896E-03	1.312E-03
8.700E-01	2.968E-01	3.990E-02	5.230E 00	6.431E-03	1.193E-03
8.900E-01	2.897E-01	3.956E-02	5.330E 00	5.403E-03	1.077E-03
9.100E-01	2.769E-01	4.001E-02	5.430E 00	5.335E-03	9.686E-04
9.300E-01	2.736E-01	3.809E-02	5.530E 00	5.510E-03	9.302E-04
9.500E-01	2.872E-01	4.305E-02	5.630E 00	5.402E-03	8.510E-04
9.700E-01	3.093E-01	3.999E-02	5.730E 00	4.839E-03	7.189E-04
1.000E 00	3.292E-01	4.148E-02	5.830E 00	3.845E-03	6.802E-04
1.040E 00	3.131E-01	3.773E-02	5.930E 00	2.655E-03	6.330E-04
1.080E 00	2.800E-01	3.633E-02	6.030E 00	1.705E-03	5.885E-04
1.120E 00	2.593E-01	3.433E-02	6.130E 00	1.074E-03	5.227E-04
1.160E 00	2.687E-01	3.236E-02	6.230E 00	6.453E-04	5.015E-04
1.200E 00	2.893E-01	3.278E-02	6.330E 00	3.553E-04	4.798E-04
1.240E 00	3.017E-01	3.324E-02	6.440E 00	2.402E-04	4.253E-04
1.280E 00	2.982E-01	3.802E-02	6.560E 00	2.157E-04	3.536E-04
1.320E 00	2.928E-01	3.661E-02	6.680E 00	1.805E-04	3.302E-04
1.360E 00	2.765E-01	3.741E-02	6.800E 00	2.033E-04	3.059E-04
1.400E 00	2.655E-01	3.831E-02	6.920E 00	2.776E-04	2.553E-04
1.440E 00	2.619E-01	3.580E-02	7.040E 00	2.576E-04	2.216E-04
1.480E 00	2.467E-01	3.207E-02	7.160E 00	1.989E-04	1.802E-04
1.520E 00	2.290E-01	3.101E-02	7.280E 00	1.054E-04	1.561E-04
1.560E 00	2.235E-01	3.102E-02	7.400E 00	8.820E-05	1.370E-04
1.600E 00	2.208E-01	2.912E-02	7.520E 00	1.304E-04	1.276E-04
1.640E 00	2.159E-01	2.751E-02	7.640E 00	1.469E-04	1.176E-04
1.680E 00	2.174E-01	2.747E-02	7.760E 00	9.117E-05	1.206E-04
1.720E 00	2.151E-01	2.735E-02	7.890E 00	1.155E-05	1.135E-04
1.760E 00	1.990E-01	2.563E-02	8.030E 00	-3.001E-05	1.013E-04
1.800E 00	1.840E-01	2.658E-02	8.170E 00	1.545E-05	9.858E-05
1.850E 00	1.860E-01	2.340E-02	8.310E 00	9.367E-05	8.986E-05
1.910E 00	1.779E-01	2.220E-02	8.450E 00	1.399E-04	7.515E-05
1.970E 00	1.563E-01	2.172E-02	8.590E 00	1.199E-04	6.823E-05
2.030E 00	1.527E-01	1.970E-02	8.730E 00	7.255E-05	6.048E-05
2.090E 00	1.492E-01	1.863E-02	8.870E 00	2.900E-05	3.658E-05
2.150E 00	1.364E-01	1.687E-02	9.010E 00	2.423E-05	2.797E-05
2.210E 00	1.271E-01	1.679E-02	9.150E 00	2.637E-05	2.627E-05
2.270E 00	1.249E-01	1.461E-02	9.300E 00	2.679E-05	2.258E-05
2.330E 00	1.171E-01	1.335E-02	9.460E 00	1.635E-05	1.997E-05
2.390E 00	1.120E-01	1.188E-02	9.620E 00	1.173E-05	1.902E-05
2.450E 00	1.074E-01	1.100E-02	9.780E 00	1.162E-05	1.948E-05
2.510E 00	9.992E-02	1.074E-02	9.940E 00	2.098E-05	2.590E-05
2.570E 00	9.370E-02	1.073E-02	1.010E 01	1.828E-05	2.364E-05
2.630E 00	8.666E-02	1.006E-02	1.026E 01	1.984E-05	1.734E-05
2.690E 00	8.053E-02	9.259E-03	1.042E 01	1.702E-05	2.065E-05
2.750E 00	7.537E-02	8.599E-03	1.058E 01	1.648E-05	2.182E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	7.956E-02	1.502E-02
4.000E-01 - 5.000E-01	6.702E-02	1.180E-02
5.000E-01 - 6.000E-01	1.213E-01	7.322E-03
6.000E-01 - 7.000E-01	4.825E-02	5.754E-03
7.000E-01 - 8.000E-01	3.725E-02	4.309E-03
8.000E-01 - 1.000E 00	5.878E-02	7.848E-03
1.000E 00 - 1.200E 00	5.706E-02	7.099E-03
1.200E 00 - 1.400E 00	5.794E-02	7.242E-03
1.400E 00 - 1.600E 00	4.817E-02	6.541E-03
1.600E 00 - 1.800E 00	4.199E-02	5.425E-03
1.800E 00 - 2.000E 00	3.498E-02	4.568E-03
2.000E 00 - 2.500E 00	6.367E-02	7.593E-03
2.500E 00 - 3.000E 00	3.955E-02	4.369E-03
3.000E 00 - 3.500E 00	2.586E-02	2.520E-03
3.500E 00 - 4.000E 00	1.411E-02	1.579E-03
4.000E 00 - 4.500E 00	7.848E-03	1.100E-03
4.500E 00 - 5.000E 00	5.123E-03	8.404E-04
5.000E 00 - 6.000E 00	5.487E-03	9.639E-04
6.000E 00 - 7.000E 00	4.812E-04	4.023E-04
7.000E 00 - 8.000E 00	1.213E-04	1.427E-04
8.000E 00 - 9.000E 00	6.471E-05	7.208E-05
9.000E 00 - 1.000E 01	1.940E-05	2.240E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 7.01 TO 7.97 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	8.166E-01	2.261E-01	2.810E 00	8.370E-02	1.060E-02
3.175E-01	7.717E-01	1.918E-01	2.870E 00	7.905E-02	1.054E-02
3.325E-01	8.818E-01	1.781E-01	2.930E 00	7.626E-02	1.005E-02
3.475E-01	9.179E-01	1.661E-01	2.990E 00	7.100E-02	9.777E-03
3.625E-01	8.495E-01	1.668E-01	3.050E 00	6.925E-02	8.841E-03
3.775E-01	7.608E-01	1.525E-01	3.110E 00	7.166E-02	8.242E-03
3.925E-01	6.475E-01	1.520E-01	3.180E 00	6.819E-02	7.258E-03
4.100E-01	5.309E-01	1.481E-01	3.260E 00	6.085E-02	7.300E-03
4.300E-01	5.818E-01	1.551E-01	3.340E 00	5.568E-02	6.540E-03
4.500E-01	7.135E-01	1.432E-01	3.420E 00	4.954E-02	6.866E-03
4.700E-01	8.356E-01	1.417E-01	3.500E 00	4.792E-02	5.892E-03
4.900E-01	9.433E-01	1.742E-01	3.580E 00	4.653E-02	5.532E-03
5.100E-01	1.005E 00	2.088E-01	3.660E 00	4.406E-02	5.543E-03
5.300E-01	1.093E 00	1.668E-01	3.740E 00	4.214E-02	5.279E-03
5.500E-01	1.135E 00	9.679E-02	3.820E 00	4.001E-02	4.758E-03
5.700E-01	1.028E 00	7.291E-02	3.900E 00	3.850E-02	5.012E-03
5.900E-01	8.066E-01	6.755E-02	3.980E 00	3.552E-02	4.495E-03
6.100E-01	6.016E-01	6.752E-02	4.060E 00	2.898E-02	4.524E-03
6.300E-01	4.886E-01	7.188E-02	4.140E 00	2.295E-02	4.275E-03
6.500E-01	4.463E-01	6.762E-02	4.220E 00	2.235E-02	4.075E-03
6.700E-01	4.323E-01	6.248E-02	4.300E 00	2.461E-02	4.196E-03
6.900E-01	4.297E-01	5.524E-02	4.380E 00	2.564E-02	3.921E-03
7.100E-01	4.249E-01	5.524E-02	4.460E 00	2.512E-02	3.589E-03
7.300E-01	4.071E-01	5.481E-02	4.540E 00	2.395E-02	3.337E-03
7.500E-01	3.809E-01	5.106E-02	4.630E 00	2.219E-02	3.108E-03
7.700E-01	3.519E-01	4.840E-02	4.730E 00	1.984E-02	2.857E-03
7.900E-01	3.330E-01	4.608E-02	4.830E 00	1.770E-02	2.989E-03
8.100E-01	3.242E-01	4.380E-02	4.930E 00	1.727E-02	2.878E-03
8.300E-01	3.162E-01	4.320E-02	5.030E 00	1.723E-02	2.573E-03
8.500E-01	3.062E-01	4.229E-02	5.130E 00	1.578E-02	2.405E-03
8.700E-01	2.967E-01	4.510E-02	5.230E 00	1.415E-02	2.252E-03
8.900E-01	2.944E-01	4.564E-02	5.330E 00	1.259E-02	2.010E-03
9.100E-01	2.970E-01	4.517E-02	5.430E 00	1.030E-02	1.991E-03
9.300E-01	3.000E-01	4.468E-02	5.530E 00	9.200E-03	2.013E-03
9.500E-01	3.042E-01	4.936E-02	5.630E 00	8.478E-03	1.692E-03
9.700E-01	3.108E-01	4.678E-02	5.730E 00	6.903E-03	1.472E-03
1.000E 00	3.172E-01	4.759E-02	5.830E 00	5.651E-03	1.393E-03
1.040E 00	2.923E-01	4.665E-02	5.930E 00	5.677E-03	1.260E-03
1.080E 00	2.654E-01	4.002E-02	6.030E 00	5.576E-03	1.123E-03
1.120E 00	2.754E-01	3.797E-02	6.130E 00	5.044E-03	1.028E-03
1.160E 00	2.924E-01	3.745E-02	6.230E 00	4.375E-03	8.970E-04
1.200E 00	3.035E-01	3.795E-02	6.330E 00	3.487E-03	8.037E-04
1.240E 00	3.031E-01	3.922E-02	6.440E 00	2.104E-03	6.617E-04
1.280E 00	3.067E-01	4.563E-02	6.560E 00	7.796E-04	6.256E-04
1.320E 00	3.137E-01	4.296E-02	6.680E 00	2.147E-04	5.326E-04
1.360E 00	3.021E-01	4.232E-02	6.800E 00	3.544E-04	4.591E-04
1.400E 00	2.788E-01	4.457E-02	6.920E 00	6.952E-04	4.172E-04
1.440E 00	2.604E-01	3.950E-02	7.040E 00	7.707E-04	3.364E-04
1.480E 00	2.478E-01	3.883E-02	7.160E 00	5.380E-04	2.881E-04
1.520E 00	2.373E-01	3.836E-02	7.280E 00	2.542E-04	2.621E-04
1.560E 00	2.245E-01	3.698E-02	7.400E 00	2.295E-04	2.182E-04
1.600E 00	2.194E-01	3.471E-02	7.520E 00	2.766E-04	1.793E-04
1.640E 00	2.249E-01	3.389E-02	7.640E 00	3.093E-04	1.655E-04
1.680E 00	2.250E-01	3.229E-02	7.760E 00	2.486E-04	1.731E-04
1.720E 00	2.111E-01	3.355E-02	7.890E 00	1.155E-04	1.586E-04
1.760E 00	1.907E-01	3.169E-02	8.030E 00	-2.196E-05	1.193E-04
1.800E 00	1.820E-01	3.232E-02	8.170E 00	-7.389E-05	9.921E-05
1.850E 00	1.817E-01	2.961E-02	8.310E 00	-3.280E-05	1.029E-04
1.910E 00	1.695E-01	2.633E-02	8.450E 00	4.432E-05	8.947E-05
1.970E 00	1.608E-01	2.664E-02	8.590E 00	1.086E-04	7.194E-05
2.030E 00	1.588E-01	2.441E-02	8.730E 00	1.153E-04	6.753E-05
2.090E 00	1.543E-01	2.162E-02	8.870E 00	7.907E-05	6.515E-05
2.150E 00	1.432E-01	2.074E-02	9.010E 00	3.362E-05	5.932E-05
2.210E 00	1.311E-01	1.973E-02	9.150E 00	1.739E-05	5.689E-05
2.270E 00	1.345E-01	1.839E-02	9.300E 00	2.744E-05	5.255E-05
2.330E 00	1.386E-01	1.705E-02	9.460E 00	3.492E-05	5.040E-05
2.390E 00	1.305E-01	1.546E-02	9.620E 00	3.514E-05	4.503E-05
2.450E 00	1.193E-01	1.517E-02	9.780E 00	3.850E-05	4.397E-05
2.510E 00	1.106E-01	1.473E-02	9.940E 00	4.458E-05	4.811E-05
2.570E 00	1.026E-01	1.474E-02	1.010E 01	4.037E-05	4.224E-05
2.630E 00	9.418E-02	1.327E-02	1.026E 01	3.690E-05	2.909E-05
2.690E 00	8.935E-02	1.220E-02	1.042E 01	2.344E-05	2.791E-05
2.750E 00	8.821E-02	1.153E-02	1.058E 01	1.625E-05	3.178E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	8.044E-02	1.731E-02
4.000E-01 - 5.000E-01	8.494E-02	1.381E-02
5.000E-01 - 6.000E-01	1.263E-01	8.046E-03
6.000E-01 - 7.000E-01	4.816E-02	6.514E-03
7.000E-01 - 8.000E-01	3.795E-02	5.112E-03
8.000E-01 - 1.000E 00	6.132E-02	9.060E-03
1.000E 00 - 1.200E 00	5.727E-02	8.181E-03
1.200E 00 - 1.400E 00	6.076E-02	8.463E-03
1.400E 00 - 1.600E 00	4.870E-02	7.725E-03
1.600E 00 - 1.800E 00	4.215E-02	6.584E-03
1.800E 00 - 2.000E 00	3.433E-02	5.569E-03
2.000E 00 - 2.500E 00	6.890E-02	9.467E-03
2.500E 00 - 3.000E 00	4.406E-02	5.961E-03
3.000E 00 - 3.500E 00	3.054E-02	3.704E-03
3.500E 00 - 4.000E 00	2.095E-02	2.599E-03
4.000E 00 - 4.500E 00	1.264E-02	2.056E-03
4.500E 00 - 5.000E 00	9.961E-03	1.505E-03
5.000E 00 - 6.000E 00	1.035E-02	1.878E-03
6.000E 00 - 7.000E 00	2.248E-03	6.933E-04
7.000E 00 - 8.000E 00	3.197E-04	2.153E-04
8.000E 00 - 9.000E 00	3.344E-05	8.474E-05
9.000E 00 - 1.000E 01	3.266E-05	5.004E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 7.97 TO 9.02 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	8.458E-01	2.258E-01	2.810E 00	8.908E-02	1.332E-02
3.175E-01	9.818E-01	2.111E-01	2.870E 00	9.044E-02	1.221E-02
3.325E-01	1.145E 00	1.953E-01	2.930E 00	9.003E-02	1.153E-02
3.475E-01	1.090E 00	1.811E-01	2.990E 00	8.445E-02	1.236E-02
3.625E-01	9.189E-01	1.853E-01	3.050E 00	7.908E-02	1.161E-02
3.775E-01	7.851E-01	1.682E-01	3.110E 00	7.522E-02	1.095E-02
3.925E-01	6.934E-01	1.613E-01	3.180E 00	7.046E-02	1.043E-02
4.100E-01	6.367E-01	1.769E-01	3.260E 00	6.757E-02	9.901E-03
4.300E-01	6.585E-01	1.628E-01	3.340E 00	6.767E-02	9.593E-03
4.500E-01	8.667E-01	1.676E-01	3.420E 00	6.476E-02	8.338E-03
4.700E-01	1.130E 00	1.605E-01	3.500E 00	5.770E-02	8.264E-03
4.900E-01	1.116E 00	2.046E-01	3.580E 00	5.377E-02	8.148E-03
5.100E-01	9.938E-01	2.510E-01	3.660E 00	4.965E-02	7.784E-03
5.300E-01	9.981E-01	1.958E-01	3.740E 00	4.517E-02	7.850E-03
5.500E-01	9.693E-01	1.143E-01	3.820E 00	4.535E-02	7.308E-03
5.700E-01	8.416E-01	7.890E-02	3.900E 00	4.421E-02	6.904E-03
5.900E-01	7.074E-01	7.880E-02	3.980E 00	4.008E-02	6.495E-03
6.100E-01	5.926E-01	7.728E-02	4.060E 00	3.771E-02	6.623E-03
6.300E-01	4.965E-01	8.208E-02	4.140E 00	3.695E-02	6.228E-03
6.500E-01	4.326E-01	7.644E-02	4.220E 00	3.685E-02	5.932E-03
6.700E-01	4.096E-01	6.802E-02	4.300E 00	3.772E-02	6.001E-03
6.900E-01	4.148E-01	6.278E-02	4.380E 00	3.747E-02	5.692E-03
7.100E-01	4.216E-01	6.016E-02	4.460E 00	3.321E-02	5.391E-03
7.300E-01	4.178E-01	5.758E-02	4.540E 00	3.018E-02	5.656E-03
7.500E-01	4.037E-01	5.428E-02	4.630E 00	3.123E-02	5.508E-03
7.700E-01	3.738E-01	5.183E-02	4.730E 00	3.007E-02	4.571E-03
7.900E-01	3.360E-01	4.911E-02	4.830E 00	2.701E-02	4.383E-03
8.100E-01	3.023E-01	4.788E-02	4.930E 00	2.769E-02	4.159E-03
8.300E-01	2.864E-01	4.804E-02	5.030E 00	2.654E-02	3.950E-03
8.500E-01	2.920E-01	4.698E-02	5.130E 00	2.370E-02	4.445E-03
8.700E-01	3.032E-01	4.872E-02	5.230E 00	2.161E-02	3.797E-03
8.900E-01	3.069E-01	4.981E-02	5.330E 00	2.170E-02	3.612E-03
9.100E-01	3.055E-01	5.005E-02	5.430E 00	2.203E-02	3.139E-03
9.300E-01	3.132E-01	4.721E-02	5.530E 00	2.062E-02	2.685E-03
9.500E-01	3.289E-01	5.211E-02	5.630E 00	1.823E-02	2.448E-03
9.700E-01	3.386E-01	5.027E-02	5.730E 00	1.511E-02	2.240E-03
1.000E 00	3.332E-01	5.202E-02	5.830E 00	1.098E-02	2.060E-03
1.040E 00	3.066E-01	4.934E-02	5.930E 00	8.086E-03	2.238E-03
1.080E 00	2.682E-01	4.567E-02	6.030E 00	7.302E-03	1.982E-03
1.120E 00	2.709E-01	4.436E-02	6.130E 00	7.613E-03	1.726E-03
1.160E 00	2.944E-01	4.256E-02	6.230E 00	7.260E-03	1.485E-03
1.200E 00	3.053E-01	4.350E-02	6.330E 00	5.791E-03	1.328E-03
1.240E 00	3.041E-01	4.613E-02	6.440E 00	4.046E-03	1.229E-03
1.280E 00	3.039E-01	5.219E-02	6.560E 00	3.095E-03	1.090E-03
1.320E 00	2.924E-01	4.615E-02	6.680E 00	2.723E-03	9.774E-04
1.360E 00	2.809E-01	4.614E-02	6.800E 00	2.527E-03	8.406E-04
1.400E 00	2.705E-01	4.472E-02	6.920E 00	2.396E-03	7.431E-04
1.440E 00	2.622E-01	4.555E-02	7.040E 00	2.093E-03	5.943E-04
1.480E 00	2.534E-01	4.234E-02	7.160E 00	1.648E-03	5.165E-04
1.520E 00	2.401E-01	4.278E-02	7.280E 00	1.198E-03	4.274E-04
1.560E 00	2.271E-01	3.980E-02	7.400E 00	8.239E-04	3.483E-04
1.600E 00	2.311E-01	3.669E-02	7.520E 00	5.975E-04	2.922E-04
1.640E 00	2.375E-01	3.647E-02	7.640E 00	4.844E-04	2.660E-04
1.680E 00	2.255E-01	3.640E-02	7.760E 00	4.045E-04	2.480E-04
1.720E 00	2.080E-01	3.782E-02	7.890E 00	3.347E-04	2.112E-04
1.760E 00	1.961E-01	3.578E-02	8.030E 00	2.420E-04	1.748E-04
1.800E 00	1.881E-01	3.644E-02	8.170E 00	1.235E-04	1.420E-04
1.850E 00	1.858E-01	3.360E-02	8.310E 00	1.285E-05	1.371E-04
1.910E 00	1.775E-01	3.119E-02	8.450E 00	-2.151E-05	1.293E-04
1.970E 00	1.584E-01	2.823E-02	8.590E 00	-4.581E-06	1.101E-04
2.030E 00	1.572E-01	2.482E-02	8.730E 00	8.532E-06	9.565E-05
2.090E 00	1.532E-01	2.431E-02	8.870E 00	1.649E-06	8.477E-05
2.150E 00	1.442E-01	2.267E-02	9.010E 00	5.129E-05	8.357E-05
2.210E 00	1.387E-01	2.156E-02	9.150E 00	1.039E-04	8.917E-05
2.270E 00	1.339E-01	2.175E-02	9.300E 00	1.469E-04	7.799E-05
2.330E 00	1.261E-01	2.076E-02	9.460E 00	1.124E-04	6.508E-05
2.390E 00	1.192E-01	1.879E-02	9.620E 00	5.555E-05	6.436E-05
2.450E 00	1.143E-01	1.698E-02	9.780E 00	1.716E-05	5.529E-05
2.510E 00	1.099E-01	1.706E-02	9.940E 00	1.348E-05	4.073E-05
2.570E 00	1.059E-01	1.623E-02	1.010E 01	2.902E-05	2.997E-05
2.630E 00	1.042E-01	1.588E-02	1.026E 01	3.627E-05	2.542E-05
2.690E 00	1.029E-01	1.540E-02	1.042E 01	3.469E-05	2.599E-05
2.750E 00	9.501E-02	1.409E-02	1.058E 01	3.069E-05	2.591E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	9.290E-02	1.879E-02
4.000E-01 - 5.000E-01	1.036E-01	1.548E-02
5.000E-01 - 6.000E-01	1.210E-01	8.902E-03
6.000E-01 - 7.000E-01	4.700E-02	7.345E-03
7.000E-01 - 8.000E-01	3.904E-02	5.463E-03
8.000E-01 - 1.000E 00	6.231E-02	9.835E-03
1.000E 00 - 1.200E 00	5.820E-02	9.167E-03
1.200E 00 - 1.400E 00	5.881E-02	9.425E-03
1.400E 00 - 1.600E 00	4.928E-02	8.454E-03
1.600E 00 - 1.800E 00	4.312E-02	7.312E-03
1.800E 00 - 2.000E 00	3.515E-02	6.302E-03
2.000E 00 - 2.500E 00	6.743E-02	1.068E-02
2.500E 00 - 3.000E 00	4.844E-02	7.084E-03
3.000E 00 - 3.500E 00	3.494E-02	4.986E-03
3.500E 00 - 4.000E 00	2.377E-02	3.760E-03
4.000E 00 - 4.500E 00	1.839E-02	3.002E-03
4.500E 00 - 5.000E 00	1.456E-02	2.395E-03
5.000E 00 - 6.000E 00	1.846E-02	3.029E-03
6.000E 00 - 7.000E 00	4.478E-03	1.209E-03
7.000E 00 - 8.000E 00	8.934E-04	3.484E-04
8.000E 00 - 9.000E 00	4.261E-05	1.199E-04
9.000E 00 - 1.000E 01	7.412E-05	6.719E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 9.02 TO 9.98 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	7.476E-01	2.062E-01	2.810E 00	7.525E-02	1.120E-02
3.175E-01	9.785E-01	1.792E-01	2.870E 00	7.111E-02	1.114E-02
3.325E-01	1.038E 00	1.700E-01	2.930E 00	6.662E-02	1.097E-02
3.475E-01	8.987E-01	1.922E-01	2.990E 00	6.407E-02	1.108E-02
3.625E-01	7.012E-01	1.819E-01	3.050E 00	5.512E-02	1.105E-02
3.775E-01	5.389E-01	1.778E-01	3.110E 00	5.313E-02	1.125E-02
3.925E-01	4.716E-01	1.782E-01	3.180E 00	5.013E-02	1.027E-02
4.100E-01	4.827E-01	1.719E-01	3.260E 00	5.389E-02	9.932E-03
4.300E-01	5.578E-01	1.617E-01	3.340E 00	5.427E-02	9.014E-03
4.500E-01	7.768E-01	1.566E-01	3.420E 00	4.639E-02	8.494E-03
4.700E-01	9.558E-01	1.440E-01	3.500E 00	3.971E-02	8.240E-03
4.900E-01	8.847E-01	1.721E-01	3.580E 00	3.919E-02	8.378E-03
5.100E-01	7.423E-01	2.093E-01	3.660E 00	4.192E-02	7.709E-03
5.300E-01	7.413E-01	1.654E-01	3.740E 00	4.172E-02	7.683E-03
5.500E-01	7.822E-01	1.011E-01	3.820E 00	3.899E-02	7.464E-03
5.700E-01	7.183E-01	7.145E-02	3.900E 00	3.968E-02	7.278E-03
5.900E-01	5.704E-01	6.813E-02	3.980E 00	4.050E-02	7.220E-03
6.100E-01	4.567E-01	6.854E-02	4.060E 00	3.623E-02	6.718E-03
6.300E-01	4.225E-01	7.214E-02	4.140E 00	2.974E-02	6.612E-03
6.500E-01	4.067E-01	6.632E-02	4.220E 00	2.653E-02	6.793E-03
6.700E-01	3.730E-01	6.258E-02	4.300E 00	2.589E-02	6.949E-03
6.900E-01	3.567E-01	5.839E-02	4.380E 00	2.361E-02	6.427E-03
7.100E-01	3.680E-01	5.417E-02	4.460E 00	2.015E-02	6.010E-03
7.300E-01	3.630E-01	5.009E-02	4.540E 00	2.265E-02	5.574E-03
7.500E-01	3.243E-01	4.756E-02	4.630E 00	3.056E-02	5.350E-03
7.700E-01	2.755E-01	4.753E-02	4.730E 00	3.123E-02	5.148E-03
7.900E-01	2.469E-01	4.601E-02	4.830E 00	2.660E-02	5.236E-03
8.100E-01	2.376E-01	4.352E-02	4.930E 00	2.675E-02	5.238E-03
8.300E-01	2.325E-01	4.271E-02	5.030E 00	2.716E-02	4.278E-03
8.500E-01	2.263E-01	4.344E-02	5.130E 00	2.490E-02	4.274E-03
8.700E-01	2.227E-01	4.651E-02	5.230E 00	2.167E-02	4.157E-03
8.900E-01	2.277E-01	4.602E-02	5.330E 00	1.747E-02	4.146E-03
9.100E-01	2.331E-01	4.626E-02	5.430E 00	1.436E-02	3.951E-03
9.300E-01	2.357E-01	4.350E-02	5.530E 00	1.431E-02	3.258E-03
9.500E-01	2.353E-01	4.518E-02	5.630E 00	1.459E-02	2.912E-03
9.700E-01	2.342E-01	4.338E-02	5.730E 00	1.382E-02	2.589E-03
1.000E 00	2.384E-01	4.697E-02	5.830E 00	1.296E-02	2.494E-03
1.040E 00	2.311E-01	4.092E-02	5.930E 00	1.310E-02	2.558E-03
1.080E 00	2.044E-01	4.060E-02	6.030E 00	1.230E-02	2.286E-03
1.120E 00	2.307E-01	3.961E-02	6.130E 00	9.403E-03	2.087E-03
1.160E 00	2.450E-01	3.585E-02	6.230E 00	5.770E-03	1.771E-03
1.200E 00	2.285E-01	3.583E-02	6.330E 00	3.316E-03	1.673E-03
1.240E 00	2.265E-01	3.971E-02	6.440E 00	2.393E-03	1.597E-03
1.280E 00	2.348E-01	4.449E-02	6.560E 00	2.384E-03	1.329E-03
1.320E 00	2.195E-01	4.351E-02	6.680E 00	2.963E-03	1.134E-03
1.360E 00	1.973E-01	4.359E-02	6.800E 00	4.166E-03	9.774E-04
1.400E 00	1.985E-01	4.408E-02	6.920E 00	4.515E-03	8.664E-04
1.440E 00	2.025E-01	3.902E-02	7.040E 00	3.133E-03	7.740E-04
1.480E 00	1.807E-01	4.016E-02	7.160E 00	1.630E-03	6.459E-04
1.520E 00	1.616E-01	3.687E-02	7.280E 00	1.017E-03	5.637E-04
1.560E 00	1.659E-01	3.615E-02	7.400E 00	8.502E-04	4.947E-04
1.600E 00	1.780E-01	3.356E-02	7.520E 00	7.818E-04	4.065E-04
1.640E 00	1.836E-01	3.338E-02	7.640E 00	8.409E-04	3.824E-04
1.680E 00	1.762E-01	3.269E-02	7.760E 00	8.682E-04	3.453E-04
1.720E 00	1.594E-01	3.140E-02	7.890E 00	6.471E-04	2.756E-04
1.760E 00	1.466E-01	2.985E-02	8.030E 00	3.066E-04	2.001E-04
1.800E 00	1.443E-01	2.943E-02	8.170E 00	6.810E-05	1.628E-04
1.850E 00	1.395E-01	2.673E-02	8.310E 00	-1.404E-05	1.607E-04
1.910E 00	1.227E-01	2.650E-02	8.450E 00	-5.776E-05	1.432E-04
1.970E 00	1.193E-01	2.467E-02	8.590E 00	-9.744E-05	1.216E-04
2.030E 00	1.234E-01	2.451E-02	8.730E 00	-6.565E-05	9.776E-05
2.090E 00	1.168E-01	2.359E-02	8.870E 00	3.154E-05	9.540E-05
2.150E 00	1.064E-01	2.229E-02	9.010E 00	1.230E-04	8.485E-05
2.210E 00	1.039E-01	2.141E-02	9.150E 00	1.624E-04	7.090E-05
2.270E 00	1.025E-01	1.998E-02	9.300E 00	1.259E-04	7.032E-05
2.330E 00	9.466E-02	1.831E-02	9.460E 00	6.098E-05	5.786E-05
2.390E 00	9.553E-02	1.719E-02	9.620E 00	1.188E-05	4.452E-05
2.450E 00	9.539E-02	1.573E-02	9.780E 00	8.604E-07	3.727E-05
2.510E 00	8.493E-02	1.687E-02	9.940E 00	8.898E-06	2.926E-05
2.570E 00	7.826E-02	1.504E-02	1.010E 01	1.757E-05	2.331E-05
2.630E 00	7.226E-02	1.392E-02	1.026E 01	3.034E-05	2.278E-05
2.690E 00	6.646E-02	1.379E-02	1.042E 01	4.019E-05	2.705E-05
2.750E 00	7.081E-02	1.257E-02	1.058E 01	4.175E-05	2.889E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	7.723E-02	1.820E-02
4.000E-01 - 5.000E-01	8.571E-02	1.464E-02
5.000E-01 - 6.000E-01	9.635E-02	8.054E-03
6.000E-01 - 7.000E-01	4.049E-02	6.566E-03
7.000E-01 - 8.000E-01	3.155E-02	4.908E-03
8.000E-01 - 1.000E 00	4.644E-02	8.915E-03
1.000E 00 - 1.200E 00	4.578E-02	7.910E-03
1.200E 00 - 1.400E 00	4.365E-02	8.471E-03
1.400E 00 - 1.600E 00	3.592E-02	7.643E-03
1.600E 00 - 1.800E 00	3.310E-02	6.353E-03
1.800E 00 - 2.000E 00	2.571E-02	5.277E-03
2.000E 00 - 2.500E 00	5.203E-02	1.012E-02
2.500E 00 - 3.000E 00	3.598E-02	6.424E-03
3.000E 00 - 3.500E 00	2.600E-02	4.913E-03
3.500E 00 - 4.000E 00	2.013E-02	3.842E-03
4.000E 00 - 4.500E 00	1.378E-02	3.301E-03
4.500E 00 - 5.000E 00	1.386E-02	2.634E-03
5.000E 00 - 6.000E 00	1.712E-02	3.425E-03
6.000E 00 - 7.000E 00	4.858E-03	1.460E-03
7.000E 00 - 8.000E 00	1.130E-03	4.648E-04
8.000E 00 - 9.000E 00	1.495E-05	1.341E-04
9.000E 00 - 1.000E 01	6.658E-05	5.419E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 9.98 TO 12.04 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	7.249E-01	2.156E-01	2.810E 00	3.576E-02	9.230E-03
3.175E-01	8.101E-01	1.875E-01	2.870E 00	3.064E-02	8.984E-03
3.325E-01	9.274E-01	1.685E-01	2.930E 00	2.795E-02	8.756E-03
3.475E-01	8.459E-01	1.643E-01	2.990E 00	2.648E-02	8.451E-03
3.625E-01	6.990E-01	1.742E-01	3.050E 00	2.596E-02	7.725E-03
3.775E-01	6.381E-01	1.768E-01	3.110E 00	2.861E-02	7.272E-03
3.925E-01	5.984E-01	1.697E-01	3.180E 00	3.183E-02	6.951E-03
4.100E-01	5.404E-01	1.651E-01	3.260E 00	3.036E-02	6.807E-03
4.300E-01	5.220E-01	1.662E-01	3.340E 00	2.933E-02	6.372E-03
4.500E-01	6.035E-01	1.480E-01	3.420E 00	2.778E-02	6.170E-03
4.700E-01	7.415E-01	1.360E-01	3.500E 00	2.409E-02	6.594E-03
4.900E-01	7.400E-01	1.367E-01	3.580E 00	2.193E-02	6.333E-03
5.100E-01	6.030E-01	1.432E-01	3.660E 00	2.142E-02	6.308E-03
5.300E-01	5.745E-01	1.159E-01	3.740E 00	2.278E-02	5.899E-03
5.500E-01	6.276E-01	8.025E-02	3.820E 00	2.273E-02	5.162E-03
5.700E-01	5.731E-01	7.107E-02	3.900E 00	1.995E-02	5.655E-03
5.900E-01	4.520E-01	7.247E-02	3.980E 00	1.944E-02	5.698E-03
6.100E-01	3.893E-01	6.971E-02	4.060E 00	2.096E-02	5.079E-03
6.300E-01	3.798E-01	7.160E-02	4.140E 00	1.902E-02	5.005E-03
6.500E-01	3.693E-01	6.464E-02	4.220E 00	1.537E-02	5.071E-03
6.700E-01	3.511E-01	5.980E-02	4.300E 00	1.427E-02	4.959E-03
6.900E-01	3.330E-01	5.686E-02	4.380E 00	1.525E-02	5.003E-03
7.100E-01	3.116E-01	5.184E-02	4.460E 00	1.548E-02	4.899E-03
7.300E-01	2.867E-01	5.015E-02	4.540E 00	1.412E-02	4.800E-03
7.500E-01	2.628E-01	4.970E-02	4.630E 00	1.263E-02	4.758E-03
7.700E-01	2.407E-01	4.550E-02	4.730E 00	1.343E-02	4.706E-03
7.900E-01	2.237E-01	4.129E-02	4.830E 00	1.459E-02	4.289E-03
8.100E-01	2.073E-01	4.045E-02	4.930E 00	1.345E-02	4.155E-03
8.300E-01	1.886E-01	3.877E-02	5.030E 00	1.365E-02	4.023E-03
8.500E-01	1.754E-01	3.719E-02	5.130E 00	1.326E-02	4.001E-03
8.700E-01	1.751E-01	3.832E-02	5.230E 00	1.108E-02	4.331E-03
8.900E-01	1.860E-01	3.671E-02	5.330E 00	9.600E-03	4.036E-03
9.100E-01	1.922E-01	3.508E-02	5.430E 00	1.005E-02	3.589E-03
9.300E-01	1.896E-01	3.455E-02	5.530E 00	1.073E-02	3.371E-03
9.500E-01	1.845E-01	3.736E-02	5.630E 00	1.029E-02	3.228E-03
9.700E-01	1.807E-01	3.610E-02	5.730E 00	8.331E-03	3.037E-03
1.000E 00	1.739E-01	3.692E-02	5.830E 00	6.293E-03	3.013E-03
1.040E 00	1.667E-01	3.516E-02	5.930E 00	5.604E-03	2.964E-03
1.080E 00	1.520E-01	3.141E-02	6.030E 00	5.962E-03	2.848E-03
1.120E 00	1.444E-01	3.094E-02	6.130E 00	6.054E-03	2.703E-03
1.160E 00	1.613E-01	2.863E-02	6.230E 00	5.500E-03	2.430E-03
1.200E 00	1.671E-01	2.716E-02	6.330E 00	4.291E-03	2.178E-03
1.240E 00	1.646E-01	2.783E-02	6.440E 00	2.806E-03	2.193E-03
1.280E 00	1.623E-01	3.079E-02	6.560E 00	2.053E-03	2.088E-03
1.320E 00	1.506E-01	3.060E-02	6.680E 00	1.924E-03	1.667E-03
1.360E 00	1.390E-01	3.231E-02	6.800E 00	1.644E-03	1.395E-03
1.400E 00	1.255E-01	3.239E-02	6.920E 00	1.216E-03	1.157E-03
1.440E 00	1.164E-01	2.789E-02	7.040E 00	1.172E-03	1.028E-03
1.480E 00	1.147E-01	2.853E-02	7.160E 00	1.403E-03	8.069E-04
1.520E 00	1.084E-01	2.824E-02	7.280E 00	1.274E-03	6.564E-04
1.560E 00	1.031E-01	2.804E-02	7.400E 00	7.297E-04	5.666E-04
1.600E 00	1.110E-01	2.440E-02	7.520E 00	1.909E-04	4.783E-04
1.640E 00	1.159E-01	2.261E-02	7.640E 00	-7.561E-05	4.742E-04
1.680E 00	1.050E-01	2.320E-02	7.760E 00	1.481E-05	4.684E-04
1.720E 00	9.344E-02	2.403E-02	7.890E 00	3.107E-04	4.472E-04
1.760E 00	8.886E-02	2.199E-02	8.030E 00	7.064E-04	3.990E-04
1.800E 00	8.372E-02	2.159E-02	8.170E 00	7.674E-04	3.444E-04
1.850E 00	7.612E-02	1.994E-02	8.310E 00	4.704E-04	3.097E-04
1.910E 00	7.525E-02	2.010E-02	8.450E 00	1.126E-04	2.459E-04
1.970E 00	6.991E-02	1.731E-02	8.590E 00	2.913E-05	2.161E-04
2.030E 00	7.186E-02	1.814E-02	8.730E 00	1.292E-04	1.646E-04
2.090E 00	7.075E-02	1.531E-02	8.870E 00	1.506E-04	1.719E-04
2.150E 00	6.073E-02	1.515E-02	9.010E 00	1.591E-04	1.130E-04
2.210E 00	5.881E-02	1.564E-02	9.150E 00	8.974E-05	1.004E-04
2.270E 00	5.497E-02	1.458E-02	9.300E 00	3.887E-05	1.091E-04
2.330E 00	5.102E-02	1.460E-02	9.460E 00	-3.117E-05	8.549E-05
2.390E 00	5.657E-02	1.227E-02	9.620E 00	-6.663E-05	7.398E-05
2.450E 00	6.018E-02	1.058E-02	9.780E 00	-6.508E-05	8.628E-05
2.510E 00	5.325E-02	1.088E-02	9.940E 00	-2.786E-05	6.913E-05
2.570E 00	4.517E-02	1.086E-02	1.010E 01	2.401E-05	5.091E-05
2.630E 00	4.014E-02	9.848E-03	1.026E 01	8.265E-05	5.086E-05
2.690E 00	3.911E-02	9.859E-03	1.042E 01	1.173E-04	4.639E-05
2.750E 00	3.904E-02	9.462E-03	1.058E 01	1.157E-04	5.046E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	7.507E-02	1.774E-02
4.000E-01 - 5.000E-01	6.997E-02	1.453E-02
5.000E-01 - 6.000E-01	7.095E-02	7.943E-03
6.000E-01 - 7.000E-01	3.653E-02	6.458E-03
7.000E-01 - 8.000E-01	2.651E-02	4.778E-03
8.000E-01 - 1.000E 00	3.712E-02	7.418E-03
1.000E 00 - 1.200E 00	3.176E-02	6.319E-03
1.200E 00 - 1.400E 00	3.057E-02	6.063E-03
1.400E 00 - 1.600E 00	2.236E-02	5.648E-03
1.600E 00 - 1.800E 00	2.006E-02	4.585E-03
1.800E 00 - 2.000E 00	1.500E-02	3.901E-03
2.000E 00 - 2.500E 00	3.020E-02	7.173E-03
2.500E 00 - 3.000E 00	1.862E-02	4.797E-03
3.000E 00 - 3.500E 00	1.433E-02	3.429E-03
3.500E 00 - 4.000E 00	1.081E-02	2.954E-03
4.000E 00 - 4.500E 00	8.418E-03	2.513E-03
4.500E 00 - 5.000E 00	6.825E-03	2.255E-03
5.000E 00 - 6.000E 00	9.734E-03	3.535E-03
6.000E 00 - 7.000E 00	3.250E-03	2.000E-03
7.000E 00 - 8.000E 00	6.120E-04	5.945E-04
8.000E 00 - 9.000E 00	3.148E-04	2.498E-04
9.000E 00 - 1.000E 01	4.685E-07	8.946E-05

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 12.04 TO 14.03 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	8.836E-01	2.609E-01	2.810E 00	2.114E-02	8.945E-03
3.175E-01	8.040E-01	2.550E-01	2.870E 00	1.983E-02	8.740E-03
3.325E-01	7.275E-01	2.526E-01	2.930E 00	2.136E-02	8.227E-03
3.475E-01	7.224E-01	2.453E-01	2.990E 00	1.981E-02	7.978E-03
3.625E-01	7.947E-01	2.300E-01	3.050E 00	1.897E-02	7.497E-03
3.775E-01	8.082E-01	2.303E-01	3.110E 00	2.044E-02	7.020E-03
3.925E-01	6.840E-01	2.318E-01	3.180E 00	1.908E-02	6.426E-03
4.100E-01	5.129E-01	2.301E-01	3.260E 00	1.471E-02	6.148E-03
4.300E-01	5.212E-01	2.281E-01	3.340E 00	1.596E-02	6.231E-03
4.500E-01	6.694E-01	2.116E-01	3.420E 00	1.757E-02	6.279E-03
4.700E-01	7.491E-01	1.801E-01	3.500E 00	1.280E-02	5.644E-03
4.900E-01	7.462E-01	1.726E-01	3.580E 00	7.827E-03	6.486E-03
5.100E-01	6.749E-01	1.534E-01	3.660E 00	8.156E-03	5.964E-03
5.300E-01	6.092E-01	1.347E-01	3.740E 00	1.019E-02	5.546E-03
5.500E-01	6.235E-01	1.115E-01	3.820E 00	8.938E-03	5.525E-03
5.700E-01	6.357E-01	1.020E-01	3.900E 00	6.607E-03	5.585E-03
5.900E-01	5.735E-01	5.549E-02	3.980E 00	5.157E-03	5.341E-03
6.100E-01	4.819E-01	9.972E-02	4.060E 00	5.394E-03	5.023E-03
6.300E-01	4.221E-01	1.063E-01	4.140E 00	6.968E-03	4.713E-03
6.500E-01	4.096E-01	9.885E-02	4.220E 00	8.396E-03	4.670E-03
6.700E-01	4.081E-01	8.483E-02	4.300E 00	7.776E-03	4.738E-03
6.900E-01	3.907E-01	7.773E-02	4.380E 00	6.420E-03	4.598E-03
7.100E-01	3.598E-01	7.172E-02	4.460E 00	6.144E-03	4.187E-03
7.300E-01	3.282E-01	6.874E-02	4.540E 00	6.881E-03	4.305E-03
7.500E-01	2.982E-01	7.164E-02	4.630E 00	7.305E-03	4.407E-03
7.700E-01	2.693E-01	6.660E-02	4.730E 00	6.412E-03	4.270E-03
7.900E-01	2.513E-01	5.927E-02	4.830E 00	6.175E-03	4.072E-03
8.100E-01	2.480E-01	5.293E-02	4.930E 00	7.299E-03	4.008E-03
8.300E-01	2.521E-01	4.766E-02	5.030E 00	7.086E-03	3.852E-03
8.500E-01	2.513E-01	5.023E-02	5.130E 00	4.873E-03	3.923E-03
8.700E-01	2.388E-01	5.412E-02	5.230E 00	3.169E-03	3.943E-03
8.900E-01	2.271E-01	5.482E-02	5.330E 00	2.681E-03	3.926E-03
9.100E-01	2.224E-01	5.030E-02	5.430E 00	2.863E-03	3.826E-03
9.300E-01	2.272E-01	4.694E-02	5.530E 00	3.067E-03	3.740E-03
9.500E-01	2.344E-01	4.826E-02	5.630E 00	3.800E-03	3.791E-03
9.700E-01	2.355E-01	4.749E-02	5.730E 00	4.922E-03	3.745E-03
1.000E 00	2.206E-01	5.042E-02	5.830E 00	5.314E-03	3.418E-03
1.040E 00	2.052E-01	4.619E-02	5.930E 00	3.746E-03	3.098E-03
1.080E 00	1.880E-01	4.204E-02	6.030E 00	1.634E-03	3.188E-03
1.120E 00	1.961E-01	4.010E-02	6.130E 00	2.170E-04	3.246E-03
1.160E 00	2.131E-01	3.784E-02	6.230E 00	2.417E-04	2.839E-03
1.200E 00	1.939E-01	3.756E-02	6.330E 00	6.477E-04	2.521E-03
1.240E 00	1.739E-01	3.820E-02	6.440E 00	1.076E-03	2.331E-03
1.280E 00	1.713E-01	4.238E-02	6.560E 00	1.770E-03	2.162E-03
1.320E 00	1.726E-01	3.902E-02	6.680E 00	1.986E-03	1.820E-03
1.360E 00	1.645E-01	3.900E-02	6.800E 00	1.505E-03	1.665E-03
1.400E 00	1.415E-01	3.710E-02	6.920E 00	9.589E-04	1.505E-03
1.440E 00	1.278E-01	3.553E-02	7.040E 00	8.216E-04	1.264E-03
1.480E 00	1.295E-01	3.504E-02	7.160E 00	9.160E-04	1.029E-03
1.520E 00	1.314E-01	3.250E-02	7.280E 00	8.373E-04	8.626E-04
1.560E 00	1.200E-01	3.228E-02	7.400E 00	4.966E-04	7.192E-04
1.600E 00	1.061E-01	2.851E-02	7.520E 00	2.115E-04	6.013E-04
1.640E 00	1.047E-01	3.002E-02	7.640E 00	1.596E-04	4.913E-04
1.680E 00	1.106E-01	2.838E-02	7.760E 00	3.416E-04	4.326E-04
1.720E 00	1.071E-01	2.559E-02	7.890E 00	4.347E-04	3.638E-04
1.760E 00	9.527E-02	2.662E-02	8.030E 00	2.411E-04	3.491E-04
1.800E 00	8.626E-02	2.610E-02	8.170E 00	1.617E-04	2.658E-04
1.850E 00	7.844E-02	2.564E-02	8.310E 00	2.670E-04	2.571E-04
1.910E 00	7.964E-02	2.198E-02	8.450E 00	4.222E-04	3.237E-04
1.970E 00	7.977E-02	1.641E-02	8.590E 00	3.429E-04	2.782E-04
2.030E 00	6.772E-02	1.802E-02	8.730E 00	1.522E-04	2.226E-04
2.090E 00	6.274E-02	1.756E-02	8.870E 00	2.233E-05	1.989E-04
2.150E 00	5.514E-02	1.669E-02	9.010E 00	-2.932E-05	1.813E-04
2.210E 00	4.786E-02	1.466E-02	9.150E 00	-6.986E-05	1.662E-04
2.270E 00	5.363E-02	1.425E-02	9.300E 00	-7.112E-05	1.481E-04
2.330E 00	5.623E-02	1.278E-02	9.460E 00	-1.166E-05	1.222E-04
2.390E 00	4.854E-02	1.122E-02	9.620E 00	1.342E-04	1.327E-04
2.450E 00	4.182E-02	1.084E-02	9.780E 00	2.431E-04	1.467E-04
2.510E 00	3.625E-02	1.033E-02	9.940E 00	2.444E-04	1.143E-04
2.570E 00	3.082E-02	1.189E-02	1.010E 01	1.633E-04	6.876E-05
2.630E 00	3.215E-02	1.032E-02	1.026E 01	1.094E-04	5.512E-05
2.690E 00	3.532E-02	8.598E-03	1.042E 01	3.990E-05	8.137E-05
2.750E 00	2.940E-02	9.158E-03	1.058E 01	1.789E-05	7.462E-05

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	7.685E-02	2.434E-02
4.000E-01 - 5.000E-01	6.858E-02	2.026E-02
5.000E-01 - 6.000E-01	7.107E-02	1.146E-02
6.000E-01 - 7.000E-01	4.229E-02	9.349E-03
7.000E-01 - 8.000E-01	3.016E-02	6.760E-03
8.000E-01 - 1.000E 00	4.729E-02	1.004E-02
1.000E 00 - 1.200E 00	4.042E-02	8.386E-03
1.200E 00 - 1.400E 00	3.403E-02	7.861E-03
1.400E 00 - 1.600E 00	2.530E-02	6.743E-03
1.600E 00 - 1.800E 00	2.059E-02	5.528E-03
1.800E 00 - 2.000E 00	1.595E-02	4.389E-03
2.000E 00 - 2.500E 00	2.682E-02	7.159E-03
2.500E 00 - 3.000E 00	1.362E-02	4.700E-03
3.000E 00 - 3.500E 00	8.718E-03	3.269E-03
3.500E 00 - 4.000E 00	4.125E-03	2.882E-03
4.000E 00 - 4.500E 00	3.396E-03	2.342E-03
4.500E 00 - 5.000E 00	3.403E-03	2.097E-03
5.000E 00 - 6.000E 00	4.042E-03	3.714E-03
6.000E 00 - 7.000E 00	1.125E-03	2.282E-03
7.000E 00 - 8.000E 00	5.121E-04	6.869E-04
8.000E 00 - 9.000E 00	2.126E-04	2.610E-04
9.000E 00 - 1.000E 01	6.868E-05	1.419E-04

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 14.03 TO 17.06 MEV. ANGLE = 125 DEGREES.

PROTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	1.047E 00	3.848E-01	2.810E 00	4.579E-02	1.638E-02
3.175E-01	9.403E-01	3.217E-01	2.870E 00	4.273E-02	1.604E-02
3.325E-01	9.195E-01	3.234E-01	2.930E 00	3.733E-02	1.592E-02
3.475E-01	8.913E-01	3.000E-01	2.990E 00	3.495E-02	1.479E-02
3.625E-01	7.763E-01	3.134E-01	3.050E 00	3.877E-02	1.355E-02
3.775E-01	7.141E-01	3.271E-01	3.110E 00	4.271E-02	1.323E-02
3.925E-01	7.381E-01	3.269E-01	3.180E 00	4.346E-02	1.293E-02
4.100E-01	7.220E-01	3.159E-01	3.260E 00	4.285E-02	1.073E-02
4.300E-01	6.588E-01	3.351E-01	3.340E 00	3.311E-02	9.932E-03
4.500E-01	6.490E-01	3.078E-01	3.420E 00	2.360E-02	1.040E-02
4.700E-01	6.570E-01	2.866E-01	3.500E 00	2.494E-02	9.032E-03
4.900E-01	6.778E-01	2.711E-01	3.580E 00	2.748E-02	9.029E-03
5.100E-01	7.008E-01	2.392E-01	3.660E 00	2.355E-02	8.561E-03
5.300E-01	7.764E-01	2.067E-01	3.740E 00	2.001E-02	9.338E-03
5.500E-01	8.731E-01	1.673E-01	3.820E 00	1.720E-02	8.357E-03
5.700E-01	8.326E-01	1.547E-01	3.900E 00	1.489E-02	8.206E-03
5.900E-01	6.704E-01	1.479E-01	3.980E 00	1.311E-02	7.341E-03
6.100E-01	5.496E-01	1.396E-01	4.060E 00	1.273E-02	7.750E-03
6.300E-01	5.198E-01	1.471E-01	4.140E 00	9.995E-03	7.743E-03
6.500E-01	5.113E-01	1.358E-01	4.220E 00	6.905E-03	6.754E-03
6.700E-01	4.787E-01	1.188E-01	4.300E 00	8.497E-03	5.955E-03
6.900E-01	4.407E-01	1.103E-01	4.380E 00	1.324E-02	6.093E-03
7.100E-01	4.140E-01	1.122E-01	4.460E 00	1.448E-02	5.601E-03
7.300E-01	4.007E-01	1.155E-01	4.540E 00	1.183E-02	5.861E-03
7.500E-01	3.929E-01	1.034E-01	4.630E 00	1.013E-02	6.020E-03
7.700E-01	3.683E-01	9.349E-02	4.730E 00	9.110E-03	5.482E-03
7.900E-01	3.284E-01	8.771E-02	4.830E 00	6.119E-03	5.518E-03
8.100E-01	2.939E-01	8.115E-02	4.930E 00	3.116E-03	5.322E-03
8.300E-01	2.813E-01	7.736E-02	5.030E 00	3.228E-03	5.037E-03
8.500E-01	2.821E-01	7.339E-02	5.130E 00	5.077E-03	4.984E-03
8.700E-01	2.722E-01	7.045E-02	5.230E 00	5.783E-03	5.292E-03
8.900E-01	2.601E-01	7.225E-02	5.330E 00	5.500E-03	5.197E-03
9.100E-01	2.644E-01	7.410E-02	5.430E 00	5.005E-03	4.576E-03
9.300E-01	2.854E-01	7.099E-02	5.530E 00	3.550E-03	4.001E-03
9.500E-01	2.989E-01	6.867E-02	5.630E 00	1.698E-03	3.961E-03
9.700E-01	2.875E-01	6.701E-02	5.730E 00	1.193E-03	3.986E-03
1.000E 00	2.586E-01	7.271E-02	5.830E 00	1.882E-03	3.955E-03
1.040E 00	2.683E-01	6.374E-02	5.930E 00	2.892E-03	3.682E-03
1.080E 00	2.405E-01	6.238E-02	6.030E 00	3.030E-03	3.155E-03
1.120E 00	2.386E-01	5.640E-02	6.130E 00	2.662E-03	3.004E-03
1.160E 00	2.586E-01	5.345E-02	6.230E 00	1.766E-03	2.882E-03
1.200E 00	2.417E-01	5.770E-02	6.330E 00	7.852E-04	2.530E-03
1.240E 00	2.286E-01	5.903E-02	6.440E 00	4.760E-04	2.439E-03
1.280E 00	2.307E-01	6.290E-02	6.560E 00	1.431E-03	2.339E-03
1.320E 00	2.244E-01	5.840E-02	6.680E 00	2.482E-03	2.048E-03
1.360E 00	2.115E-01	5.918E-02	6.800E 00	2.745E-03	1.733E-03
1.400E 00	2.095E-01	6.267E-02	6.920E 00	2.043E-03	1.710E-03
1.440E 00	2.063E-01	5.663E-02	7.040E 00	1.280E-03	1.513E-03
1.480E 00	1.851E-01	5.645E-02	7.160E 00	3.851E-04	1.239E-03
1.520E 00	1.734E-01	5.839E-02	7.280E 00	-5.057E-04	1.108E-03
1.560E 00	1.644E-01	5.340E-02	7.400E 00	-8.846E-04	8.361E-04
1.600E 00	1.520E-01	5.038E-02	7.520E 00	-6.494E-04	7.125E-04
1.640E 00	1.451E-01	4.899E-02	7.640E 00	8.469E-06	7.846E-04
1.680E 00	1.448E-01	4.068E-02	7.760E 00	5.792E-04	7.189E-04
1.720E 00	1.465E-01	4.426E-02	7.890E 00	6.670E-04	5.097E-04
1.760E 00	1.485E-01	3.884E-02	8.030E 00	3.925E-04	4.897E-04
1.800E 00	1.514E-01	3.919E-02	8.170E 00	1.753E-04	5.509E-04
1.850E 00	1.427E-01	3.496E-02	8.310E 00	2.380E-05	4.676E-04
1.910E 00	1.187E-01	3.625E-02	8.450E 00	-5.691E-05	4.029E-04
1.970E 00	1.115E-01	3.284E-02	8.590E 00	1.795E-05	3.391E-04
2.030E 00	1.108E-01	3.178E-02	8.730E 00	2.238E-04	3.261E-04
2.090E 00	9.120E-02	3.142E-02	8.870E 00	3.906E-04	3.138E-04
2.150E 00	1.019E-01	2.992E-02	9.010E 00	4.306E-04	2.628E-04
2.210E 00	1.163E-01	2.539E-02	9.150E 00	3.487E-04	2.363E-04
2.270E 00	1.002E-01	2.392E-02	9.300E 00	2.332E-04	2.314E-04
2.330E 00	9.179E-02	2.357E-02	9.460E 00	6.654E-05	1.698E-04
2.390E 00	9.494E-02	2.218E-02	9.620E 00	-2.618E-05	1.600E-04
2.450E 00	8.315E-02	2.139E-02	9.780E 00	-6.824E-05	1.703E-04
2.510E 00	6.467E-02	2.330E-02	9.940E 00	-2.913E-05	1.400E-04
2.570E 00	5.643E-02	2.173E-02	1.010E 01	2.706E-05	1.242E-04
2.630E 00	5.765E-02	2.037E-02	1.026E 01	9.377E-05	1.172E-04
2.690E 00	5.547E-02	1.727E-02	1.042E 01	1.543E-04	1.137E-04
2.750E 00	4.909E-02	1.568E-02	1.058E 01	1.619E-04	1.219E-04

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	8.490E-02	3.243E-02
4.000E-01 - 5.000E-01	7.440E-02	3.010E-02
5.000E-01 - 6.000E-01	9.137E-02	1.745E-02
6.000E-01 - 7.000E-01	5.016E-02	1.307E-02
7.000E-01 - 8.000E-01	3.910E-02	1.025E-02
8.000E-01 - 1.000E 00	5.593E-02	1.452E-02
1.000E 00 - 1.200E 00	5.036E-02	1.200E-02
1.200E 00 - 1.400E 00	4.479E-02	1.199E-02
1.400E 00 - 1.600E 00	3.642E-02	1.124E-02
1.600E 00 - 1.800E 00	2.943E-02	8.667E-03
1.800E 00 - 2.000E 00	2.530E-02	7.061E-03
2.000E 00 - 2.500E 00	4.871E-02	1.304E-02
2.500E 00 - 3.000E 00	2.461E-02	8.926E-03
3.000E 00 - 3.500E 00	1.801E-02	5.794E-03
3.500E 00 - 4.000E 00	1.006E-02	4.285E-03
4.000E 00 - 4.500E 00	5.517E-03	3.349E-03
4.500E 00 - 5.000E 00	3.877E-03	2.806E-03
5.000E 00 - 6.000E 00	3.590E-03	4.431E-03
6.000E 00 - 7.000E 00	1.898E-03	2.355E-03
7.000E 00 - 8.000E 00	1.107E-04	8.898E-04
8.000E 00 - 9.000E 00	1.712E-04	4.029E-04
9.000E 00 - 1.000E 01	1.109E-04	1.907E-04

DIFFERENTIAL CROSS SECTIONS FOR GAMMA RAY PRODUCTION IN AU. THE FIRST SET OF NUMBERS IS THE DOUBLY DIFFERENTIAL CROSS SECTION, WHILE THE SECOND SET IS THE GAMMA RAY PRODUCTION CROSS SECTION FOR THE DESIGNATED GAMMA RAY ENERGY INTERVALS. THIS SECOND SET RESULTS FROM INTEGRATION OF THE DOUBLY DIFFERENTIAL DATA. THE UNCERTAINTIES ARE GIVEN IN THE SAME UNITS AS THE DATA AND DO NOT INCLUDE AN ESTIMATED 10 PERCENT ERROR IN ABSOLUTE NORMALIZATION.

INCIDENT NEUTRON ENERGY = 17.06 TO 20.08 MEV. ANGLE = 125 DEGREES.

PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)	PHOTON ENERGY (MEV)	X-SECTION (B/SR/MEV)	ERROR (B/SR/MEV)
3.025E-01	1.377E 00	4.893E-01	2.810E 00	6.305E-02	2.065E-02
3.175E-01	1.254E 00	4.277E-01	2.870E 00	5.941E-02	1.957E-02
3.325E-01	1.259E 00	3.958E-01	2.930E 00	5.760E-02	2.026E-02
3.475E-01	1.088E 00	3.956E-01	2.990E 00	4.900E-02	1.840E-02
3.625E-01	9.555E-01	4.021E-01	3.050E 00	3.868E-02	2.176E-02
3.775E-01	1.051E 00	3.877E-01	3.110E 00	4.357E-02	2.089E-02
3.925E-01	1.127E 00	3.848E-01	3.180E 00	5.742E-02	1.455E-02
4.100E-01	9.748E-01	4.003E-01	3.260E 00	5.270E-02	1.761E-02
4.300E-01	7.543E-01	4.393E-01	3.340E 00	3.888E-02	1.441E-02
4.500E-01	6.266E-01	4.183E-01	3.420E 00	3.523E-02	1.452E-02
4.700E-01	5.238E-01	3.882E-01	3.500E 00	3.128E-02	1.409E-02
4.900E-01	5.582E-01	3.481E-01	3.580E 00	2.968E-02	1.250E-02
5.100E-01	6.983E-01	3.182E-01	3.660E 00	2.893E-02	1.211E-02
5.300E-01	8.207E-01	2.571E-01	3.740E 00	2.223E-02	1.173E-02
5.500E-01	9.163E-01	2.065E-01	3.820E 00	2.122E-02	1.338E-02
5.700E-01	9.458E-01	1.710E-01	3.900E 00	2.517E-02	1.226E-02
5.900E-01	8.564E-01	1.742E-01	3.980E 00	2.380E-02	1.039E-02
6.100E-01	6.745E-01	1.791E-01	4.060E 00	2.238E-02	9.776E-03
6.300E-01	5.238E-01	2.037E-01	4.140E 00	2.624E-02	1.018E-02
6.500E-01	4.889E-01	1.925E-01	4.220E 00	2.687E-02	1.074E-02
6.700E-01	5.088E-01	1.530E-01	4.300E 00	1.902E-02	1.048E-02
6.900E-01	4.848E-01	1.391E-01	4.380E 00	1.162E-02	1.017E-02
7.100E-01	4.089E-01	1.361E-01	4.460E 00	1.237E-02	9.588E-03
7.300E-01	3.583E-01	1.300E-01	4.540E 00	1.842E-02	9.400E-03
7.500E-01	3.528E-01	1.258E-01	4.630E 00	2.064E-02	9.468E-03
7.700E-01	3.386E-01	1.203E-01	4.730E 00	1.746E-02	9.960E-03
7.900E-01	3.079E-01	1.037E-01	4.830E 00	1.376E-02	9.042E-03
8.100E-01	2.926E-01	5.755E-02	4.930E 00	1.061E-02	8.719E-03
8.300E-01	2.963E-01	9.039E-02	5.030E 00	7.402E-03	8.315E-03
8.500E-01	2.839E-01	7.824E-02	5.130E 00	5.561E-03	8.956E-03
8.700E-01	2.439E-01	7.767E-02	5.230E 00	6.216E-03	8.941E-03
8.900E-01	2.205E-01	8.211E-02	5.330E 00	9.528E-03	8.217E-03
9.100E-01	2.379E-01	7.609E-02	5.430E 00	1.320E-02	7.299E-03
9.300E-01	2.636E-01	7.157E-02	5.530E 00	1.307E-02	6.845E-03
9.500E-01	2.615E-01	7.750E-02	5.630E 00	9.495E-03	7.084E-03
9.700E-01	2.411E-01	7.729E-02	5.730E 00	6.426E-03	7.304E-03
1.000E 00	2.196E-01	7.744E-02	5.830E 00	5.349E-03	6.551E-03
1.040E 00	2.399E-01	7.290E-02	5.930E 00	4.401E-03	5.340E-03
1.080E 00	2.226E-01	6.354E-02	6.030E 00	3.052E-03	5.211E-03
1.120E 00	2.028E-01	6.576E-02	6.130E 00	1.865E-03	5.476E-03
1.160E 00	2.103E-01	6.611E-02	6.230E 00	1.772E-03	4.805E-03
1.200E 00	2.042E-01	6.944E-02	6.330E 00	1.917E-03	4.006E-03
1.240E 00	1.874E-01	7.098E-02	6.440E 00	1.941E-03	3.674E-03
1.280E 00	1.802E-01	7.707E-02	6.560E 00	2.284E-03	3.349E-03
1.320E 00	1.880E-01	7.055E-02	6.680E 00	2.363E-03	3.326E-03
1.360E 00	2.013E-01	7.029E-02	6.800E 00	2.183E-03	2.895E-03
1.400E 00	1.917E-01	6.284E-02	6.920E 00	1.083E-03	2.286E-03
1.440E 00	1.811E-01	5.631E-02	7.040E 00	2.506E-04	2.081E-03
1.480E 00	1.865E-01	5.481E-02	7.160E 00	-5.719E-04	2.029E-03
1.520E 00	1.873E-01	5.648E-02	7.280E 00	-8.240E-04	1.729E-03
1.560E 00	1.684E-01	6.010E-02	7.400E 00	-6.489E-04	1.265E-03
1.600E 00	1.543E-01	5.887E-02	7.520E 00	-8.358E-05	1.247E-03
1.640E 00	1.498E-01	5.528E-02	7.640E 00	3.354E-04	1.033E-03
1.680E 00	1.443E-01	5.462E-02	7.760E 00	2.907E-04	9.092E-04
1.720E 00	1.376E-01	5.556E-02	7.890E 00	-5.150E-05	5.558E-04
1.760E 00	1.356E-01	4.865E-02	8.030E 00	-1.113E-04	7.173E-04
1.800E 00	1.367E-01	4.736E-02	8.170E 00	1.957E-04	7.073E-04
1.850E 00	1.268E-01	4.078E-02	8.310E 00	3.755E-04	5.813E-04
1.910E 00	1.123E-01	4.246E-02	8.450E 00	3.469E-04	4.567E-04
1.970E 00	1.081E-01	4.479E-02	8.590E 00	-2.056E-05	5.175E-04
2.030E 00	1.094E-01	4.059E-02	8.730E 00	2.623E-05	5.904E-04
2.090E 00	1.045E-01	3.899E-02	8.870E 00	2.339E-04	4.506E-04
2.150E 00	8.548E-02	3.550E-02	9.010E 00	4.564E-04	4.782E-04
2.210E 00	7.326E-02	3.498E-02	9.150E 00	5.477E-04	4.268E-04
2.270E 00	7.364E-02	3.146E-02	9.300E 00	3.160E-04	2.707E-04
2.330E 00	8.529E-02	2.827E-02	9.460E 00	2.019E-04	3.530E-04
2.390E 00	8.880E-02	2.545E-02	9.620E 00	1.284E-04	3.180E-04
2.450E 00	7.847E-02	2.512E-02	9.780E 00	8.788E-05	2.057E-04
2.510E 00	7.120E-02	2.267E-02	9.940E 00	9.320E-05	1.278E-04
2.570E 00	7.568E-02	2.448E-02	1.010E 01	8.297E-05	1.059E-04
2.630E 00	7.941E-02	2.387E-02	1.026E 01	6.121E-05	1.096E-04
2.690E 00	7.576E-02	2.205E-02	1.042E 01	5.273E-05	1.228E-04
2.750E 00	6.767E-02	2.005E-02	1.058E 01	6.117E-05	1.285E-04

INTEGRATED DATA

PHOTON ENERGY INTERVAL (MEV)	X-SECTION (B/SR)	ERROR (B/SR)
3.000E-01 - 4.000E-01	1.144E-01	4.073E-02
4.000E-01 - 5.000E-01	7.785E-02	3.961E-02
5.000E-01 - 6.000E-01	1.024E-01	2.142E-02
6.000E-01 - 7.000E-01	5.363E-02	1.738E-02
7.000E-01 - 8.000E-01	3.539E-02	1.233E-02
8.000E-01 - 1.000E 00	5.137E-02	1.613E-02
1.000E 00 - 1.200E 00	4.362E-02	1.362E-02
1.200E 00 - 1.400E 00	3.818E-02	1.426E-02
1.400E 00 - 1.600E 00	3.586E-02	1.153E-02
1.600E 00 - 1.800E 00	2.849E-02	1.067E-02
1.800E 00 - 2.000E 00	2.352E-02	8.610E-03
2.000E 00 - 2.500E 00	4.344E-02	1.610E-02
2.500E 00 - 3.000E 00	3.360E-02	1.071E-02
3.000E 00 - 3.500E 00	2.183E-02	8.429E-03
3.500E 00 - 4.000E 00	1.289E-02	6.148E-03
4.000E 00 - 4.500E 00	9.977E-03	5.083E-03
4.500E 00 - 5.000E 00	7.854E-03	4.636E-03
5.000E 00 - 6.000E 00	7.968E-03	7.435E-03
6.000E 00 - 7.000E 00	1.987E-03	3.760E-03
7.000E 00 - 8.000E 00	-1.692E-04	1.303E-03
8.000E 00 - 9.000E 00	1.789E-04	5.642E-04
9.000E 00 - 1.000E 01	2.468E-04	3.003E-04

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