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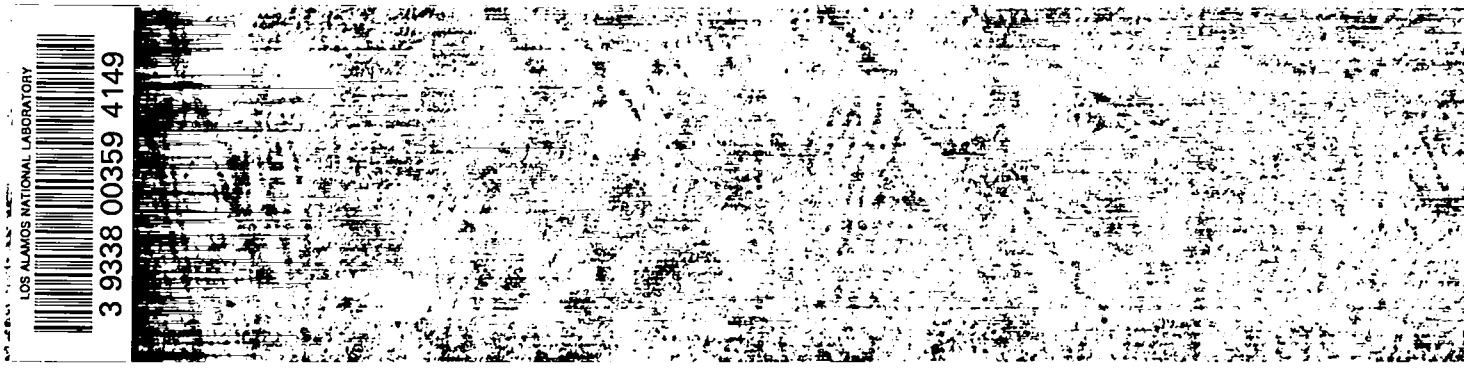
Pu^{239} CROSS SECTIONS AND THEIR TEMPERATURE DEPENDENCE



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Pu^{239} CROSS SECTIONS AND THEIR TEMPERATURE DEPENDENCE

by

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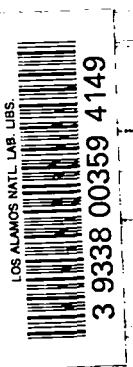

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ABSTRACT

A single level Breit-Wigner analysis of Pu^{239} is folded into a Maxwell velocity distribution to obtain total, scattering, fission, and radiative capture cross sections versus energy for neutron energies of 0.025 to 43 ev, and for Pu^{239} temperatures of 0.0253 to 50 ev.

ACKNOWLEDGMENTS

This paper could not have been published without the valuable work of D. J. Hughes, J. A. Harvey, R. Carter and associates of the Brookhaven National Laboratory Compilation Center. To them and through them to the nuclear spectroscopists, whose results they compile, we wish to express our sincere thanks. Among the latter, we wish to thank especially Dr. L. M. Bollinger, of Argonne National Laboratory, for his kindness in keeping us informed of his group's work. We wish further to acknowledge the kind help of the IBM 704 operating section of Group T-1, under the direction of Jack Mann; and of Marie Odell, and Mrs. Alice M. Snowden.

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I. INTRODUCTION

Because of the narrowness of heavy element neutron resonances and because the Doppler width[1] increases with the neutron energy as well as with the temperature, the effect of temperature may prove to be important in certain reactor designs and elsewhere.

II. METHOD

For computing the nuclear cross sections we have used the isolated level Breit-Wigner formulas.[2] Because of the narrowness of the levels with respect to their spacing it is evident that interference between levels is small and that therefore the isolated level formulas are appropriate.[3] We have, of course, accounted for interference of resonance scattering with potential scattering. Our formulas also allow linear level-level interference in scattering, but no reaction interference. We further take the orbital angular momentum to be 0. The reaction widths are presumed constant with energy, although varying from resonance to resonance.

We presume the target nuclei to have a three-dimensional Maxwellian velocity distribution. The validity of this assumption is discussed by Lamb;[4] it is apparently a good approximation for temperatures exceeding the Debye temperature of the solid. Our very preliminary studies of special models encourage the use of Maxwellian distributions even below the Debye temperature as a useful approximation.

We correct for the effect of levels not explicitly represented by the introduction of 1/V terms and of negative energy resonances. We hold such "adjusting" to a minimum and insist that the parameters of such levels be

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1. Δ Doppler = $2\sqrt{m_n E_n kT/M_{Pu}}$, H. Bethe, Rev. Mod. Phys. 9, 140 (1937)
2. Given for example in D. J. Hughes and J. A. Harvey, Brookhaven National Laboratory Report, BNL-325 (1955)
3. See, for example, T. Teichmann, Phys. Rev. 77, 506 (1950).
4. W. E. Lamb, Jr., Phys. Rev. 55, 190 (1939); see also I. I. Frenkel, Kinetic Theory of Liquids, Oxford University Press, London, 1946.

reasonable for that isotope on the basis of parameters of other levels of that isotope. Recognizing that with sufficient parameters any curve could be fit as closely as we please, we have perhaps erred on the side of making one negative energy level do the work of many. Such curve fitting is by no means wholly arbitrary, since we require that all the cross sections be matched to the limits of experimental error, spread in points, and resolution. Indeed, the senior author can testify to much tedious work as evidence of the stringency of the above requirements. Further, this fitting is effective only on the cross section at low neutron energies.

For example, in the case of thermal fissioners we require that the entire curve of σ_T vs. E_n and σ_F vs. E_n be followed for a temperature of 0.0253 ev to within experimental error, as well as that the thermal values of $\sigma(n,\gamma)$ and $\overline{\sigma_S}$ be matched. For higher energies we take our parameters direct from experiment and only match curves to the extent of introducing fission widths where the neutron width and position are the only known parameters. We determine such fission widths by insisting that the average fission cross sections match. The fission widths are usually known for the larger levels, so such fission width estimates affect the cross sections in a minor way. Where unknown, the radiation width is taken from an average of the well-known radiation widths of the isotope in question. The constancy of radiation widths has been well established. Following Hughes and Harvey,[5] we take $g = 1/2$ where unknown. For the purposes of reference, we outline our algebraic manipulations and give our final formulas.

The nuclear Maxwellian velocity was resolved into a component parallel to the neutron velocity and one perpendicular to the neutron velocity. The appropriate Breit-Wigner isolated level sum times the Maxwell distribution was then integrated first over the velocity coordinates perpendicular to the neutron velocity and then over those parallel to it.

For example, the capture cross section versus neutron energy is given by:

$$\sigma_\gamma(E_n) = \int_{-\infty}^{\infty} dV_Z \int_0^{\infty} dV_\rho \left(\frac{M}{2\pi kT}\right)^{3/2} e^{-\frac{M}{2kT}\left(V_Z^2 + V_\rho^2\right)} \cdot \left[\sigma_{\gamma ot}\sqrt{\frac{E_{ot}}{E}} + \sum_{i=1}^{N} \sigma_\gamma^i(E)\right] dV_Z \, 2\pi V_\rho dV_\rho$$

5. D. J. Hughes and J. A. Harvey, op. cit.

where the symbols have the following meanings:

σ_γ is capture cross section.

σ_γ^i is isolated level Breit-Wigner capture cross section.

$\sigma_{\gamma ot}$ is the thermal 1/V contribution to the capture cross section.

E_n is the neutron energy (lab. system).

E is the relative neutron energy $= \frac{1}{2}\left(\frac{mM}{m+M}\right)\left[V_\rho^2 + \left(\sqrt{\frac{2E_n}{m}} + V_Z\right)^2\right]$

V_Z is the laboratory nucleus velocity || neutron direction,

V_ρ, the same but $\perp$.

M is the mass of the nucleus.

$E_{ot} = 0.0253$ ev.

Changing the variables from V_Z and V_ρ to E and V_Z and inverting the order of integration will give:

$$\sigma_a(E_n) = \frac{0.564317B^2}{A} e^{-A^2} \int_0^\infty dx \left\{ \left(e^{2ABx} - e^{-2ABx}\right) e^{-B^2x^2} \cdot \right.$$

$$\left. \cdot \left[0.15906\sigma_{a\,ot} + 6.50938 \cdot 10^5 g \sum_{i=1}^{N} \frac{\left(\Gamma_n^i \Gamma_a^i / \sqrt{E_i}\right)}{\left(x^2 - E_i\right)^2 + \frac{1}{4}\left(\frac{x}{\sqrt{E_i}} \Gamma_n^i + \Gamma_a^i\right)^2} \right] \right\}$$

$$\sigma_S(E_n) = 4\pi(1-g)\left(\frac{R}{10}\right)^2 + \frac{3.5449gB^2}{A} \int_0^\infty d(x^2) \left\{ \left(e^{2ABx} - e^{-2ABx}\right) e^{-B^2x^2 - A^2} \right.$$

$$\left. \cdot \left| \sum_{i=1}^{N} \frac{227.596 \frac{\Gamma_n^i}{\sqrt{E_i}}}{\left(x^2 - E_i\right) + \frac{j}{2}\left(\sqrt{\frac{x^2}{E_i}} \Gamma_n^i + \Gamma_a^i\right)} + \frac{R}{10} \right|^2 \right\}$$

where

$j \equiv \sqrt{-1}$

$A \equiv \sqrt{\frac{ME_n}{mT}}$

$$B \equiv \sqrt{\frac{M + m}{mT}}$$

$$g = \frac{1}{2}\left(\frac{2J+1}{2I+1}\right)$$

$J = I \pm \frac{1}{2}$ for $l = 0$ neutrons

I is spin of target

N is the number of levels

with m and M the masses of the neutron and nucleus, respectively, in the same units.

a is absorption. The fission and radiation widths were obtained by replacing Γ_a by Γ_f and Γ_γ in the numerators.

S is elastic scattering.

E_n is the laboratory neutron energy in electron volts.

σ_{aot} is the appropriate 1/V contribution at 0.0253 ev.

R is the effective nuclear radius in fermis (10^{-13} cm).

T is the temperature in electron volts.

For each resonance i, E_i is its location in the relative system (i.e., compound nucleus), Γ_n^i, its neutron width, Γ_f^i, its fission width, Γ_γ^i, its radiative capture width, and $\Gamma_a^i = \Gamma_f^i + \Gamma_\gamma^i$, its absorption width.

These integrals were computed numerically on the IBM 704.

III. SOURCES

The level parameters were obtained from a private communication with D. J. Hughes[6] and are the same as those in BNL-325, Supplement 1. The thermal values and the low energy cross sections were taken from BNL-325 and the Geneva Addendum. The BNL-325 value of σ_γ, 315 barns, leads to a 10% too high value of α, the capture to fission ratio at thermal, according

6. These parameters appear in "Neutron Cross Sections," by D. J. Hughes and R. B. Schwartz, BNL-325, Supplement 1, Brookhaven (Jan., 1957). We are also indebted to Dr. L. M. Bollinger of Argonne National Laboratory for a communication of the preliminary results of Bollinger, Coté, LeBlanc, and Thomas (1956).

to Supplement 1, BNL-325. We are otherwise roughly within the scatter of points of α in BNL-325, Supplement 1, in the regions plotted.

We found it almost possible to account for negative energy level effects with only one level. However, the departure from experiment, although small, was definite and we were forced to use two levels and a 1/V part to fit the curves. Such levels enabled good agreement everywhere but at the valley between resonances, located at about 9.0 ev. There we were slightly but definitely high. This could easily be cured by postulating many small resonances in the region 1 to 6 ev in place of the one large negative energy resonance. However, the introduction of multiple resonances without experimental justification is dangerously close to the philosophy of adding parameters in order to fit data; the more parameters the more data can thus be fit. We therefore decided that this discrepancy should be represented as evidence of a failure of the isolated level approximation. We hasten to add that the failure is negligible because (1) the discrepancy is itself small and (2) it occurs in a small part of the cross section. We therefore proceeded to assume reaction destructive interference between the adjacent levels of sufficient intensity to bring the total cross section below that of experiment (below to allow for slight instrument resolution).

Our level parameters are thus (lab. system)

i	E_i (ev)	Γ_γ^i (mv)	Γ_f^i (mv)	Γ_n^i (mv)
1	-7.0	40	500	24 at +7.0 ev
2	-0.01	35	94	0.00039 at +0.01 ev
3	0.296	40	58	0.122
4	7.85	40	32	1.8
5	10.95	39	116	3.1
6	11.95	42	20	1.7
7	14.3	40	93	0.8
8	14.7	40	30	3.0
9	15.5	40	400	0.8
10	17.7	40	40	2.1
11	22.3	41	30	4.6
12	23.8	40	48	0.2
13	26.2	40	30	2.9
14	27.6	40	5	0.3
15	32.3	40	190	0.4
16	35.3	40	5	0.4
17	41.4	40	8	9

g is 1/2; R is 8.6×10^{-13} cm; the fission 1/V part is 25 barns at 0.0253 ev; the capture 1/V part is 0.

IV. RESULTS

The results for Pu^{239} are presented in Tables I – XI. The temperatures, T, range by factors of 2 roughly from 0.0253 to 50 ev. The neutron energy range is decreased for high T, since more levels can contribute to a given energy and thus end points are not meaningful.

A few graphs are plotted (Figs. 1 – 6) to give the reader a feel for the effect of temperature. Further, σ vs. E_n at T = 0.0253 ev is plotted, since, to our knowledge, that curve has not yet been given. The errors of the 0.0253 ev curves are presumably of the order of existing experiment. The capture cross section has, in addition, the assumption of constant capture widths. A more serious cause of error in the case of the capture cross section may lie at lower energies where a very poor choice of negative level parameters can lead to a possibly large even though second order error in the capture cross section. The accuracy of the isolated level approximation can be estimated from the level widths and spacings.[3] Such a calculation for Pu^{239} indicates that appreciable interference is not to be expected until a resonance has dropped to 0.1% or less, on the average, of its peak value. One finds for an even-even isotope like U^{238} a corresponding figure of 10^{-5} of peak value. It should be noted that the Doppler broadening of levels is incoherent and therefore cannot increase interference. In fact, thermal motion masks the minimum, where interference first appears, with contributions from the dominant, relatively unaffected maxima. Moreover, levels interfere only if they are from the same compound state; the average upper bound to the probability of level-level interference is therefore further reduced in the case of Pu^{239} (spin 1/2) to the order of 0.05% of peak value for compound spin 1 and to the order of 0.01% of peak value for compound spin 0.

V. FUTURE WORK

We have completed a similar study of U^{238} and U^{235} which we plan to re-do using the later data of Supplement 1, BNL-325. Studies of other isotopes can be undertaken as indicated by demand. Provided a region above, say, 1 ev only is desired, it is possible for us to give the results in a day or two. Estimating the negative energy level parameters by curve-fitting is more time-consuming.

TABLE I

Pu^{239} CROSS SECTIONS

Pu^{238} Temperature = 0.0253 ev

Neutron Energy, E_n(ev)		Radiative Capture Cross Section, σ_γ(barns)		Fission Cross Section, σ_F(barns)		Scattering Cross Section, σ_S(barns)		Total Cross Section, σ_T(barns)	
2.530	-02	3.152	02	7.126	-02	9.514	00	1.037	-03
3.000	-02	2.943	02	6.577	02	9.482	00	9.615	02
4.000	-02	2.652	02	5.777	02	9.409	00	8.524	-02
5.000	-02	2.485	02	5.276	02	9.328	00	7.855	02
6.000	-02	2.394	02	4.954	02	9.240	00	7.441	-02
7.000	-02	2.357	02	4.754	02	9.146	00	7.203	02
8.000	-02	2.360	02	4.645	02	9.046	00	7.096	-02
1.000	-01	2.468	02	4.633	02	8.827	00	7.190	02
1.299	-01	2.872	02	5.053	02	8.450	00	8.010	-02
1.500	-01	3.338	02	5.652	02	8.168	00	9.072	02
1.800	-01	4.507	02	7.259	02	7.720	00	1.184	-03
2.000	-01	5.810	02	9.103	02	7.466	00	1.498	03
2.300	-01	9.272	02	1.406	03	7.534	00	2.341	-03
2.500	-01	1.322	03	1.976	03	8.579	00	3.307	03
2.599	-01	1.573	03	2.339	03	9.763	00	3.921	-03
2.700	-01	1.835	03	2.718	03	1.156	01	4.565	03
2.799	-01	2.061	03	3.044	03	1.399	01	5.119	-03
2.900	-01	2.186	03	3.224	03	1.675	01	5.426	03
2.920	-01	2.194	03	3.235	03	1.731	01	5.446	-03
2.950	-01	2.194	03	3.235	03	1.811	01	5.447	03
3.000	-01	2.162	03	3.189	03	1.935	01	5.371	-03
3.100	-01	1.994	03	2.944	03	2.126	01	4.959	03
3.200	-01	1.733	03	2.565	03	2.225	01	4.321	-03
3.300	-01	1.446	03	2.147	03	2.243	01	3.616	03
3.500	-01	9.542	02	1.432	03	2.141	01	2.407	-03
3.700	-01	6.300	02	9.603	02	1.992	01	1.610	03
4.000	-01	3.624	02	5.701	02	1.802	01	9.505	-02
4.500	-01	1.742	02	2.941	02	1.602	01	4.844	02
5.000	-01	9.939	01	1.829	02	1.487	01	2.972	-02
5.500	-01	6.344	01	1.285	02	1.414	01	2.061	02
6.000	-01	4.379	01	9.807	01	1.364	01	1.555	-02
7.000	-01	2.444	01	6.671	01	1.298	01	1.041	02
8.000	-01	1.570	01	5.137	01	1.257	01	7.965	-01
9.000	-01	1.107	01	4.243	01	1.228	01	6.579	01
1.000	00	8.341	00	3.658	01	1.206	01	5.699	-01
1.250	00	4.957	00	2.798	01	1.166	01	4.461	01
1.500	00	3.476	00	2.311	01	1.139	01	3.796	-01
1.750	00	2.685	00	1.985	01	1.117	01	3.371	01
2.000	00	2.206	00	1.746	01	1.099	01	3.065	-01
2.200	00	1.945	00	1.594	01	1.085	01	2.875	01
2.500	00	1.670	00	1.412	01	1.068	01	2.647	-01
3.000	00	1.392	00	1.187	01	1.041	01	2.368	01
3.500	00	1.239	00	1.025	01	1.016	01	2.166	-01
4.000	00	1.164	00	9.050	00	9.929	00	2.014	01
4.500	00	1.152	00	8.140	00	9.690	00	1.898	-01
5.000	00	1.208	00	7.465	00	9.438	00	1.811	01
5.500	00	1.363	00	7.007	00	9.158	00	1.752	-01
6.000	00	1.704	00	6.805	00	8.821	00	1.733	01
6.300	00	2.097	00	6.877	00	8.570	00	1.754	-01
6.500	00	2.517	00	7.066	00	8.368	00	1.795	01
6.800	00	3.651	00	7.769	00	7.979	00	1.939	-01
7.000	00	5.151	00	8.841	00	7.622	00	2.161	01
7.200	00	8.234	00	1.118	01	7.122	00	2.654	-01
7.400	00	1.634	01	1.754	01	6.349	00	4.023	01
7.500	00	2.669	01	2.575	01	5.791	00	5.823	-01
7.599	00	5.287	01	4.661	01	5.159	00	1.046	02
7.660	00	9.523	01	8.046	01	5.097	00	1.808	-02
7.700	00	1.630	02	1.346	02	6.068	00	3.038	02
7.760	00	4.845	02	3.917	02	1.651	01	8.928	-02
7.800	00	9.618	02	7.736	02	3.907	01	1.774	03
7.830	00	1.299	03	1.043	03	6.088	01	2.404	-03

TABLE I (Continued)

T = 0.0253

E_n(ev)		σ_γ(barns)	σ_F(barns)		σ_S(barns)		σ_T(barns)	
7.850	00	1.378	03	1.106	03	7.1049	01	2.556	03
7.870	00	1.295	03	1.040	03	7.3908	01	2.410	03
7.900	00	9.558	02	7.687	02	6.5075	01	1.789	02
7.950	00	3.962	02	3.209	02	4.0282	01	7.574	02
8.000	00	1.612	02	1.328	02	2.6210	01	3.202	02
8.099	00	5.134	01	4.477	01	1.7190	01	1.133	02
8.200	00	2.542	01	2.380	01	1.4200	01	6.342	01
8.400	00	1.000	01	1.073	01	1.1793	01	3.252	01
8.599	00	4.914	00	5.497	00	1.0694	01	2.110	01
8.800	00	2.592	00	2.768	00	9.9883	00	1.534	01
9.000	00	2.056	00	3.284	00	9.4522	00	1.479	01
9.199	00	2.381	00	5.417	00	9.0246	00	1.682	01
9.400	00	2.840	00	7.443	00	8.6438	00	1.892	01
9.599	00	3.401	00	9.462	00	8.2638	00	2.112	01
9.799	00	4.225	00	1.205	01	7.8520	00	2.413	01
1.000	01	5.601	00	1.612	01	7.3746	00	2.910	01
1.020	01	8.192	00	2.365	01	6.7858	00	3.863	01
1.050	01	2.016	01	5.863	01	5.5803	00	8.438	01
1.070	01	6.110	01	1.796	02	5.3279	00	2.460	02
1.080	01	1.534	02	4.536	02	9.5558	00	6.166	02
1.085	01	2.605	02	7.718	02	1.7620	01	1.050	03
1.090	01	3.963	02	1.175	03	3.1843	01	1.603	03
1.093	01	4.524	02	1.342	03	4.0820	01	1.835	03
1.095	01	4.637	02	1.375	03	4.5321	01	1.884	03
1.097	01	4.506	02	1.336	03	4.7842	01	1.834	03
1.100	01	3.928	02	1.163	03	4.7555	01	1.604	03
1.105	01	2.572	02	7.598	02	3.9760	01	1.056	03
1.110	01	1.518	02	4.457	02	3.0620	01	6.282	02
1.120	01	6.198	01	1.764	02	2.0017	01	2.584	02
1.130	01	3.496	01	9.302	01	1.5407	01	1.433	02
1.140	01	2.525	01	5.925	01	1.2832	01	9.734	01
1.150	01	2.282	01	4.339	01	1.1011	01	7.722	01
1.160	01	2.648	01	3.671	01	9.4161	00	7.262	01
1.170	01	4.307	01	3.936	01	7.7189	00	9.015	01
1.180	01	1.363	02	8.029	01	6.8643	00	2.235	02
1.185	01	3.419	02	1.769	02	1.2106	01	5.310	02
1.190	01	7.415	02	3.660	02	3.0172	01	1.137	03
1.193	01	9.457	02	4.627	02	4.4605	01	1.455	03
1.195	01	9.902	02	4.835	02	5.1971	01	1.525	03
1.197	01	9.416	02	4.600	02	5.5481	01	1.457	03
1.200	01	7.341	02	3.608	02	5.2888	01	1.147	03
1.205	01	3.365	02	1.707	02	3.8087	01	5.454	02
1.210	01	1.327	02	7.312	01	2.6557	01	2.324	02
1.220	01	3.851	01	2.726	01	1.8217	01	8.400	01
1.230	01	1.977	01	1.760	01	1.5424	01	5.280	01
1.250	01	9.172	00	1.155	01	1.3004	01	3.373	01
1.280	01	5.199	00	8.948	00	1.1334	01	2.548	01
1.300	01	4.394	00	8.473	00	1.0602	01	2.347	01
1.320	01	4.208	00	8.601	00	9.9729	00	2.278	01
1.340	01	4.530	00	9.393	00	9.3639	00	2.328	01
1.350	01	4.924	00	1.014	01	9.0461	00	2.411	01
1.370	01	6.499	00	1.301	01	8.3342	00	2.784	01
1.390	01	1.064	01	2.076	01	7.4158	00	3.882	01
1.400	01	1.586	01	3.111	01	6.8170	00	5.379	01
1.410	01	2.972	01	6.045	01	6.1446	00	9.632	01
1.410	01	2.972	01	6.045	01	6.1446	00	9.632	01
1.415	01	4.673	01	9.783	01	5.9610	00	1.505	02
1.420	01	7.700	01	1.653	02	6.2847	00	2.485	02
1.425	01	1.152	02	2.500	02	7.4409	00	3.727	02
1.430	01	1.364	02	2.935	02	8.8659	00	4.388	02
1.435	01	1.240	02	2.559	02	9.2680	00	3.892	02
1.440	01	9.807	01	1.809	02	8.3596	00	2.873	02
1.445	01	8.734	01	1.293	02	7.0741	00	2.237	02

TABLE I (Continued)

T = 0.0253

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.450	01	1.093	02	1.223	02	6.616	00	2.383	02
1.455	01	1.998	02	1.788	02	9.867	00	3.886	02
1.460	01	4.412	02	3.542	02	2.504	01	8.205	02
1.465	01	8.322	02	6.447	02	5.881	01	1.535	03
1.470	01	1.052	03	8.087	02	9.078	01	1.952	03
1.475	01	8.308	02	6.418	02	8.887	01	1.561	03
1.480	01	4.377	02	3.473	02	6.264	01	8.477	02
1.485	01	1.913	02	1.634	02	4.047	01	3.953	02
1.490	01	9.226	01	9.065	01	2.903	01	2.119	02
1.500	01	3.751	01	5.465	01	2.032	01	1.124	02
1.510	01	2.289	01	5.267	01	1.683	01	9.240	01
1.520	01	1.779	01	6.438	01	1.490	01	9.708	01
1.530	01	1.693	01	8.902	01	1.383	01	1.197	02
1.535	01	1.745	01	1.053	02	1.359	01	1.364	02
1.540	01	1.821	01	1.216	02	1.357	01	1.534	02
1.545	01	1.873	01	1.339	02	1.376	01	1.664	02
1.550	01	1.857	01	1.380	02	1.406	01	1.706	02
1.555	01	1.753	01	1.322	02	1.436	01	1.641	02
1.560	01	1.576	01	1.185	02	1.454	01	1.488	02
1.565	01	1.367	01	1.008	02	1.456	01	1.291	02
1.570	01	1.162	01	8.323	01	1.445	01	1.093	02
1.580	01	8.398	00	5.529	01	1.400	01	7.769	01
1.590	01	6.342	00	3.791	01	1.348	01	5.774	01
1.600	01	5.066	00	2.746	01	1.302	01	4.555	01
1.620	01	3.725	00	1.672	01	1.225	01	3.271	01
1.660	01	3.085	00	9.492	00	1.107	01	2.365	01
1.680	01	3.437	00	8.485	00	1.051	01	2.244	01
1.690	01	3.855	00	8.422	00	1.021	01	2.248	01
1.700	01	4.540	00	8.715	00	9.868	00	2.312	01
1.720	01	7.669	00	1.124	01	8.971	00	2.788	01
1.730	01	1.154	01	1.489	01	8.321	00	3.476	01
1.740	01	2.076	01	2.392	01	7.424	00	5.211	01
1.750	01	5.489	01	5.787	01	6.531	00	1.193	02
1.755	01	1.124	02	1.153	02	7.503	00	2.352	02
1.760	01	2.353	02	2.381	02	1.276	01	4.862	02
1.765	01	4.034	02	4.062	02	2.447	01	8.341	02
1.770	01	4.888	02	4.915	02	3.698	01	1.017	03
1.775	01	4.006	02	4.032	02	4.027	01	8.441	02
1.780	01	2.327	02	2.353	02	3.417	01	5.022	02
1.785	01	1.111	02	1.136	02	2.651	01	2.512	02
1.790	01	5.417	01	5.665	01	2.146	01	1.323	02
1.800	01	2.024	01	2.263	01	1.701	01	5.989	01
1.820	01	7.133	00	9.368	00	1.413	01	3.063	01
1.850	01	3.103	00	5.148	00	1.261	01	2.086	01
1.870	01	2.201	00	4.143	00	1.207	01	1.841	01
1.900	01	1.564	00	3.374	00	1.151	01	1.645	01
1.950	01	1.179	00	2.807	00	1.087	01	1.485	01
1.980	01	1.125	00	2.655	00	1.054	01	1.432	01
2.000	01	1.139	00	2.603	00	1.033	01	1.408	01
2.020	01	1.193	00	2.589	00	1.012	01	1.390	01
2.050	01	1.366	00	2.648	00	9.787	00	1.380	01
2.100	01	2.113	00	3.101	00	9.076	00	1.429	01
2.120	01	2.771	00	3.552	00	8.688	00	1.501	01
2.150	01	4.892	00	5.063	00	7.872	00	1.782	01
2.170	01	8.501	00	7.679	00	7.040	00	2.322	01
2.190	01	1.954	01	1.574	01	5.824	00	4.111	01
2.200	01	3.750	01	2.887	01	5.312	00	7.169	01
2.210	01	1.114	02	8.295	01	8.541	00	2.029	02
2.220	01	4.723	02	3.470	02	4.418	01	8.636	02
2.225	01	7.656	02	5.616	02	8.286	01	1.410	03
2.230	01	9.065	02	6.647	02	1.123	02	1.683	03
2.235	01	7.628	02	5.595	02	1.097	02	1.432	03
2.240	01	4.699	02	3.452	02	8.251	01	8.976	02

TABLE I (Continued) T = 0.0253

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
2.250	01	1.109	02	8.260	01	3.733	01	2.309	02
2.260	01	3.718	01	2.859	01	2.398	01	8.976	01
2.280	01	1.209	01	1.023	01	1.714	01	3.947	01
2.300	01	6.274	00	5.984	00	1.477	01	2.703	01
2.320	01	4.103	00	4.446	00	1.350	01	2.205	01
2.330	01	3.595	00	4.136	00	1.304	01	2.077	01
2.340	01	3.406	00	4.125	00	1.263	01	2.017	01
2.350	01	3.765	00	4.716	00	1.223	01	2.072	01
2.360	01	6.303	00	7.883	00	1.178	01	2.597	01
2.370	01	1.776	01	2.172	01	1.146	01	5.095	01
2.375	01	2.627	01	3.198	01	1.168	01	6.993	01
2.380	01	3.022	01	3.674	01	1.216	01	7.914	01
2.385	01	2.612	01	3.185	01	1.261	01	7.059	01
2.390	01	1.747	01	2.150	01	1.274	01	5.172	01
2.400	01	5.708	00	7.424	00	1.235	01	2.549	01
2.410	01	2.806	00	3.969	00	1.197	01	1.874	01
2.430	01	1.707	00	2.679	00	1.150	01	1.589	01
2.450	01	1.454	00	2.371	00	1.116	01	1.498	01
2.480	01	1.451	00	2.298	00	1.070	01	1.445	01
2.500	01	1.631	00	2.405	00	1.038	01	1.442	01
2.510	01	1.793	00	2.515	00	1.020	01	1.451	01
2.530	01	2.353	00	2.916	00	9.797	00	1.506	01
2.550	01	3.556	00	3.800	00	9.246	00	1.660	01
2.570	01	6.695	00	6.137	00	8.395	00	2.122	01
2.590	01	2.077	01	1.667	01	6.884	00	4.433	01
2.600	01	6.549	01	5.021	01	6.996	00	1.227	02
2.610	01	2.617	02	1.973	02	1.889	01	4.780	02
2.615	01	4.054	02	3.051	02	3.290	01	7.434	02
2.620	01	4.721	02	3.551	02	4.534	01	8.727	02
2.625	01	4.053	02	3.050	02	4.808	01	7.585	02
2.630	01	2.619	02	1.975	02	4.126	01	5.008	02
2.640	01	6.575	01	5.035	01	2.469	01	1.408	02
2.650	01	2.071	01	1.656	01	1.829	01	5.556	01
2.660	01	1.053	01	8.901	00	1.594	01	3.537	01
2.680	01	4.671	00	4.445	00	1.394	01	2.305	01
2.700	01	2.952	00	3.030	00	1.296	01	1.894	01
2.720	01	2.689	00	2.452	00	1.227	01	1.741	01
2.730	01	3.514	00	2.386	00	1.191	01	1.781	01
2.740	01	9.577	00	3.016	00	1.141	01	2.400	01
2.750	01	4.384	01	7.198	00	1.118	01	6.222	01
2.755	01	7.091	01	1.054	01	1.174	01	9.319	01
2.760	01	8.394	01	1.213	01	1.274	01	1.088	02
2.765	01	7.067	01	1.043	01	1.355	01	9.467	01
2.770	01	4.352	01	7.012	00	1.370	01	6.424	01
2.780	01	9.134	00	2.659	00	1.299	01	2.478	01
2.790	01	2.774	00	1.819	00	1.247	01	1.707	01
2.800	01	1.625	00	1.637	00	1.221	01	1.547	01
2.830	01	7.893	-01	1.446	00	1.180	01	1.403	01
2.850	01	6.085	-01	1.384	00	1.169	01	1.362	01
2.900	01	4.058	-01	1.294	00	1.133	01	1.303	01
2.950	01	3.182	-01	1.255	00	1.112	01	1.269	01
3.000	01	2.749	-01	1.255	00	1.094	01	1.247	01
3.055	01	2.611	-01	1.322	00	1.077	01	1.235	01
3.100	01	2.855	-01	1.504	00	1.062	01	1.241	01
3.130	01	3.439	-01	1.812	00	1.051	01	1.267	01
3.150	01	4.331	-01	2.249	00	1.043	01	1.311	01
3.170	01	6.346	-01	3.217	00	1.031	01	1.416	01
3.180	01	8.425	-01	4.208	00	1.023	01	1.528	01
3.190	01	1.232	00	6.064	00	1.013	01	1.743	01
3.200	01	2.071	00	1.004	01	1.000	01	2.212	01
3.210	01	3.996	00	1.919	01	9.898	00	3.309	01
3.220	01	7.330	00	3.502	01	1.003	01	5.239	01

TABLE I (Continued)

T = 0.0253

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
3.225	01	8.802	00	4.202	01	1.028	01	6.110	01
3.230	01	9.371	00	4.472	01	1.061	01	6.471	01
3.235	01	8.766	00	4.185	01	1.092	01	6.154	01
3.240	01	7.275	00	3.476	01	1.114	01	5.318	01
3.250	01	3.953	00	1.898	01	1.120	01	3.414	01
3.280	01	8.269	-01	4.116	00	1.080	01	1.574	01
3.300	01	4.985	-01	2.537	00	1.065	01	1.369	01
3.310	01	4.209	-01	2.156	00	1.060	01	1.317	01
3.330	01	3.335	-01	1.709	00	1.051	01	1.255	01
3.350	01	2.916	-01	1.466	00	1.043	01	1.219	01
3.370	01	2.737	-01	1.319	00	1.037	01	1.196	01
3.390	01	2.726	-01	1.223	00	1.030	01	1.180	01
3.400	01	2.781	-01	1.188	00	1.027	01	1.173	01
3.410	01	2.882	-01	1.158	00	1.023	01	1.168	01
3.430	01	3.272	-01	1.114	00	1.016	01	1.160	01
3.450	01	4.110	-01	1.087	00	1.007	01	1.157	01
3.470	01	6.093	-01	1.082	00	9.961	00	1.165	01
3.479	01	8.251	-01	1.096	00	9.878	00	1.180	01
3.490	01	1.274	00	1.141	00	9.760	00	1.217	01
3.500	01	2.713	00	1.310	00	9.566	00	1.359	01
3.510	01	1.131	01	2.376	00	9.255	00	2.294	01
3.520	01	4.618	01	6.726	00	9.392	00	6.230	01
3.525	01	6.871	01	9.538	00	1.003	01	8.829	01
3.530	01	7.865	01	1.077	01	1.093	01	1.003	02
3.535	01	6.868	01	9.526	00	1.163	01	8.984	01
3.540	01	4.618	01	6.711	00	1.182	01	6.472	01
3.550	01	1.136	01	2.351	00	1.126	01	2.498	01
3.560	01	2.721	00	1.264	00	1.078	01	1.476	01
3.580	01	8.229	-01	1.015	00	1.042	01	1.226	01
3.600	01	4.877	-01	9.630	-01	1.027	01	1.172	01
3.650	01	2.901	-01	9.166	-01	1.005	01	1.126	01
3.700	01	2.618	-01	8.961	-01	9.889	00	1.104	01
3.750	01	2.784	-01	8.849	-01	9.727	00	1.089	01
3.780	01	3.029	-01	8.817	-01	9.623	00	1.080	01
3.800	01	3.256	-01	8.810	-01	9.546	00	1.075	01
3.820	01	3.544	-01	8.818	-01	9.468	00	1.070	01
3.850	01	4.119	-01	8.860	-01	9.333	00	1.063	01
3.870	01	4.627	-01	8.916	-01	9.232	00	1.058	01
3.900	01	5.661	-01	9.055	-01	9.055	00	1.052	01
3.920	01	6.609	-01	9.202	-01	8.917	00	1.049	01
3.950	01	8.651	-01	9.548	-01	8.665	00	1.048	01
3.970	01	1.066	00	9.911	-01	8.457	00	1.051	01
4.000	01	1.550	00	1.082	00	8.056	00	1.068	01
4.030	01	2.495	00	1.265	00	7.485	00	1.124	01
4.050	01	3.738	00	1.510	00	6.951	00	1.220	01
4.070	01	6.279	00	2.014	00	6.231	00	1.452	01
4.090	01	1.303	01	3.362	00	5.343	00	2.173	01
4.100	01	2.234	01	5.223	00	5.190	00	3.276	01
4.110	01	5.401	01	1.155	01	8.196	00	7.376	01
4.120	01	2.110	02	4.296	01	3.637	01	2.904	02
4.130	01	6.905	02	1.388	02	1.431	02	9.725	02
4.135	01	9.590	02	1.925	02	2.121	02	1.363	03
4.139	01	1.070	03	2.148	02	2.514	02	1.537	03
4.145	01	9.539	02	1.915	02	2.392	02	1.384	03
4.160	01	2.081	02	4.236	01	7.866	01	3.291	02
4.170	01	5.342	01	1.142	01	3.675	01	1.016	02
4.179	01	2.208	01	5.156	00	2.561	01	5.285	01
4.190	01	1.284	01	3.308	00	2.130	01	3.745	01
4.200	01	8.570	00	2.451	00	1.892	01	2.994	01
4.250	01	2.418	00	1.213	00	1.445	01	1.809	01
4.300	01	1.050	00	8.635	-01	1.228	01	1.417	01

TABLE II

Pu^{239} CROSS SECTIONS

Pu^{239} Temperature = 0.05 ev

Neutron Energy, E_n(ev)		Radiative Capture Cross Section, σ_γ(barns)		Fission Cross Section, σ_F(barns)		Scattering Cross Section, σ_S(barns)		Total Cross Section, σ_T(barns)	
2.530	-02	3.153	02	7.127	02	9.513	00	1.037	03
3.000	-02	2.944	02	6.578	02	9.481	00	9.617	02
4.000	-02	2.653	02	5.780	02	9.407	00	8.528	02
5.000	-02	2.487	02	5.279	02	9.326	00	7.860	02
6.000	-02	2.396	02	4.958	02	9.238	00	7.447	02
7.000	-02	2.359	02	4.759	02	9.144	00	7.210	02
8.000	-02	2.363	02	4.650	02	9.044	00	7.104	02
1.000	-01	2.473	02	4.640	02	8.824	00	7.201	02
1.299	-01	2.880	02	5.065	02	8.448	00	8.030	02
1.500	-01	3.351	02	5.671	02	8.165	00	9.105	02
1.800	-01	4.536	02	7.301	02	7.720	00	1.191	03
2.000	-01	5.860	02	9.176	02	7.473	00	1.511	03
2.300	-01	9.381	02	1.422	03	7.590	00	2.368	03
2.500	-01	1.334	03	1.994	03	8.721	00	3.337	03
2.599	-01	1.579	03	2.348	03	9.952	00	3.938	03
2.700	-01	1.828	03	2.708	03	1.176	01	4.548	03
2.799	-01	2.034	03	3.005	03	1.412	01	5.054	03
2.900	-01	2.143	03	3.162	03	1.674	01	5.322	03
2.920	-01	2.149	03	3.170	03	1.726	01	5.337	03
2.950	-01	2.148	03	3.168	03	1.801	01	5.334	03
3.000	-01	2.117	03	3.123	03	1.918	01	5.260	03
3.100	-01	1.962	03	2.897	03	2.099	01	4.880	03
3.200	-01	1.720	03	2.546	03	2.199	01	4.288	03
3.300	-01	1.448	03	2.150	03	2.224	01	3.621	03
3.500	-01	9.667	02	1.450	03	2.136	01	2.438	03
3.700	-01	6.399	02	9.747	02	1.993	01	1.634	03
4.000	-01	3.673	02	5.771	02	1.804	01	9.625	02
4.500	-01	1.758	02	2.963	02	1.603	01	4.882	02
5.000	-01	9.998	01	1.837	02	1.488	01	2.986	02
5.500	-01	6.371	01	1.289	02	1.414	01	2.068	02
6.000	-01	4.393	01	9.827	01	1.364	01	1.558	02
7.000	-01	2.449	01	6.679	01	1.299	01	1.042	02
8.000	-01	1.572	01	5.140	01	1.257	01	7.971	01
9.000	-01	1.108	01	4.245	01	1.228	01	6.582	01
1.000	00	8.348	00	3.659	01	1.206	01	5.700	01
1.250	00	4.959	00	2.799	01	1.166	01	4.462	01
1.500	00	3.477	00	2.311	01	1.139	01	3.798	01
1.750	00	2.686	00	1.985	01	1.117	01	3.371	01
2.000	00	2.207	00	1.746	01	1.099	01	3.066	01
2.200	00	1.945	00	1.594	01	1.085	01	2.875	01
2.500	00	1.670	00	1.412	01	1.068	01	2.647	01
3.000	00	1.392	00	1.187	01	1.041	01	2.368	01
3.500	00	1.239	00	1.025	01	1.016	01	2.166	01
4.000	00	1.164	00	9.050	00	9.929	00	2.014	01
4.500	00	1.152	00	8.140	00	9.690	00	1.898	01
5.000	00	1.208	00	7.466	00	9.438	00	1.811	01
5.500	00	1.363	00	7.007	00	9.158	00	1.752	01
6.000	00	1.705	00	6.806	00	8.821	00	1.733	01
6.300	00	2.099	00	6.879	00	8.569	00	1.754	01
6.500	00	2.522	00	7.069	00	8.367	00	1.795	01
6.800	00	3.662	00	7.778	00	7.977	00	1.941	01
7.000	00	5.179	00	8.864	00	7.619	00	2.166	01
7.200	00	8.318	00	1.125	01	7.117	00	2.668	01
7.400	00	1.673	01	1.785	01	6.338	00	4.092	01
7.500	00	2.784	01	2.667	01	5.782	00	6.030	01
7.599	00	5.841	01	5.105	01	5.239	00	1.147	02
7.660	00	1.163	02	9.735	01	5.738	00	2.194	02
7.700	00	2.150	02	1.762	02	8.208	00	3.995	02
7.760	00	5.679	02	4.585	02	2.219	01	1.048	03
7.800	00	9.110	02	7.329	02	4.038	01	1.684	03
7.830	00	1.100	03	8.841	02	5.409	01	2.038	03

TABLE II (Continued) T = 0.05 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
7.850	00	1.139	03	9.158	02	6.028	01	2.115	03
7.870	00	1.096	03	8.813	02	6.271	01	2.040	03
7.900	00	9.049	02	7.279	02	5.919	01	1.692	03
7.950	00	4.855	02	3.924	02	4.294	01	9.209	02
8.000	00	2.137	02	1.748	02	2.876	01	4.173	02
8.099	00	5.711	01	4.938	01	1.762	01	1.241	02
8.200	00	2.662	01	2.475	01	1.431	01	6.569	01
8.400	00	1.017	01	1.086	01	1.181	01	3.284	01
8.599	00	4.966	00	5.540	00	1.070	01	2.120	01
8.800	00	2.633	00	2.849	00	9.991	00	1.547	01
9.000	00	2.075	00	3.322	00	9.454	00	1.485	01
9.199	00	2.383	00	5.413	00	9.025	00	1.682	01
9.400	00	2.843	00	7.444	00	8.643	00	1.893	01
9.599	00	3.408	00	9.478	00	8.262	00	2.114	01
9.799	00	4.239	00	1.209	01	7.850	00	2.418	01
1.000	01	5.632	00	1.621	01	7.371	00	2.921	01
1.020	01	8.272	00	2.388	01	6.780	00	3.893	01
1.050	01	2.080	01	6.051	01	5.583	00	8.690	01
1.070	01	6.782	01	1.995	02	5.739	00	2.731	02
1.080	01	1.722	02	5.096	02	1.164	01	6.936	02
1.085	01	2.691	02	7.974	02	1.992	01	1.086	03
1.090	01	3.674	02	1.089	03	3.134	01	1.488	03
1.093	01	4.028	02	1.194	03	3.773	01	1.635	03
1.095	01	4.096	02	1.214	03	4.094	01	1.664	03
1.097	01	4.015	02	1.190	03	4.294	01	1.634	03
1.100	01	3.646	02	1.080	03	4.345	01	1.488	03
1.105	01	2.660	02	7.860	02	3.886	01	1.090	03
1.110	01	1.705	02	5.013	02	3.154	01	7.034	02
1.120	01	6.879	01	1.965	02	2.067	01	2.860	02
1.130	01	3.688	01	9.851	01	1.563	01	1.510	02
1.140	01	2.608	01	6.127	01	1.291	01	1.002	02
1.150	01	2.353	01	4.444	01	1.103	01	7.901	01
1.160	01	2.799	01	3.780	01	9.401	00	7.519	01
1.170	01	5.153	01	4.359	01	7.794	00	1.029	02
1.180	01	1.996	02	1.105	02	9.597	00	3.198	02
1.185	01	4.095	02	2.091	02	1.720	01	6.358	02
1.190	01	6.685	02	3.313	02	3.100	01	1.030	03
1.193	01	7.712	02	3.796	02	3.952	01	1.190	03
1.195	01	7.917	02	3.890	02	4.378	01	1.224	03
1.197	01	7.685	02	3.776	02	4.624	01	1.192	03
1.200	01	6.629	02	3.269	02	4.613	01	1.036	03
1.205	01	4.037	02	2.027	02	3.855	01	6.450	02
1.210	01	1.956	02	1.031	02	2.901	01	3.278	02
1.220	01	4.711	01	3.139	01	1.886	01	9.736	01
1.230	01	2.119	01	1.829	01	1.558	01	5.507	01
1.250	01	9.362	00	1.165	01	1.303	01	3.405	01
1.280	01	5.235	00	8.975	00	1.134	01	2.555	01
1.300	01	4.414	00	8.493	00	1.060	01	2.351	01
1.320	01	4.224	00	8.624	00	9.973	00	2.282	01
1.340	01	4.554	00	9.430	00	9.361	00	2.334	01
1.350	01	4.956	00	1.020	01	9.042	00	2.420	01
1.370	01	6.581	00	1.316	01	8.326	00	2.807	01
1.390	01	1.102	01	2.154	01	7.400	00	3.996	01
1.400	01	1.710	01	3.384	01	6.805	00	5.775	01
1.410	01	3.452	01	7.127	01	6.253	00	1.120	02
1.415	01	5.331	01	1.126	02	6.248	00	1.722	02
1.420	01	7.971	01	1.708	02	6.676	00	2.572	02
1.425	01	1.062	02	2.281	02	7.527	00	3.420	02
1.430	01	1.205	02	2.546	02	8.372	00	3.836	02
1.435	01	1.171	02	2.359	02	8.632	00	3.617	02
1.440	01	1.062	02	1.907	02	8.196	00	3.052	02
1.445	01	1.092	02	1.556	02	7.809	00	2.727	02
1.450	01	1.548	02	1.637	02	9.419	00	3.280	02

TABLE II (Continued)

T = 0.05 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.455	01	2.791	02	2.422	02	1.667	01	5.380	02
1.460	01	4.972	02	3.981	02	3.324	01	9.286	02
1.465	01	7.371	02	5.743	02	5.666	01	1.368	03
1.470	01	8.448	02	6.534	02	7.489	01	1.573	03
1.475	01	7.337	02	5.695	02	7.635	01	1.379	03
1.480	01	4.910	02	3.877	02	6.276	01	9.416	02
1.485	01	2.683	02	2.216	02	4.549	01	5.354	02
1.490	01	1.340	02	1.223	02	3.265	01	2.890	02
1.500	01	4.372	01	5.992	01	2.111	01	1.247	02
1.510	01	2.436	01	5.482	01	1.707	01	9.625	01
1.520	01	1.845	01	6.644	01	1.503	01	9.993	01
1.530	01	1.727	01	9.035	01	1.396	01	1.215	02
1.535	01	1.758	01	1.051	02	1.373	01	1.364	02
1.540	01	1.806	01	1.191	02	1.369	01	1.508	02
1.545	01	1.833	01	1.290	02	1.383	01	1.612	02
1.550	01	1.805	01	1.322	02	1.406	01	1.643	02
1.555	01	1.709	01	1.274	02	1.430	01	1.588	02
1.560	01	1.554	01	1.159	02	1.445	01	1.459	02
1.565	01	1.367	01	1.006	02	1.448	01	1.287	02
1.570	01	1.177	01	8.440	01	1.439	01	1.105	02
1.580	01	8.585	00	5.697	01	1.399	01	7.955	01
1.590	01	6.468	00	3.903	01	1.349	01	5.899	01
1.600	01	5.141	00	2.810	01	1.303	01	4.627	01
1.620	01	3.756	00	1.695	01	1.226	01	3.297	01
1.660	01	3.103	00	9.547	00	1.107	01	2.373	01
1.680	01	3.468	00	8.536	00	1.051	01	2.261	01
1.690	01	3.902	00	8.484	00	1.020	01	2.259	01
1.700	01	4.621	00	8.807	00	9.857	00	2.328	01
1.720	01	8.013	00	1.159	01	8.942	00	2.855	01
1.730	01	1.254	01	1.590	01	8.276	00	3.672	01
1.740	01	2.548	01	2.863	01	7.440	00	6.156	01
1.750	01	8.035	01	8.333	01	7.772	00	1.714	02
1.755	01	1.500	02	1.529	02	1.037	01	3.133	02
1.760	01	2.514	02	2.542	02	1.614	01	5.218	02
1.765	01	3.508	02	3.535	02	2.443	01	7.288	02
1.770	01	3.926	02	3.953	02	3.189	01	8.198	02
1.775	01	3.488	02	3.514	02	3.479	01	7.351	02
1.780	01	2.490	02	2.516	02	3.252	01	5.332	02
1.785	01	1.484	02	1.510	02	2.761	01	3.271	02
1.790	01	7.955	01	8.204	01	2.290	01	1.844	02
1.800	01	2.504	01	2.743	01	1.749	01	6.997	01
1.820	01	7.484	00	9.720	00	1.420	01	3.140	01
1.850	01	3.149	00	5.196	00	1.262	01	2.097	01
1.870	01	2.220	00	4.163	00	1.207	01	1.846	01
1.900	01	1.571	00	3.381	00	1.151	01	1.647	01
1.950	01	1.181	00	2.810	00	1.087	01	1.486	01
1.980	01	1.127	00	2.657	00	1.054	01	1.433	01
2.000	01	1.141	00	2.605	00	1.033	01	1.408	01
2.020	01	1.195	00	2.592	00	1.012	01	1.391	01
2.050	01	1.370	00	2.651	00	9.785	00	1.380	01
2.100	01	2.127	00	3.112	00	9.072	00	1.431	01
2.120	01	2.799	00	3.572	00	8.681	00	1.505	01
2.150	01	4.996	00	5.139	00	7.858	00	1.799	01
2.170	01	8.863	00	7.943	00	7.017	00	2.382	01
2.190	01	2.226	01	1.773	01	5.882	00	4.588	01
2.200	01	5.167	01	3.923	01	6.354	00	9.726	01
2.210	01	1.732	02	1.282	02	1.565	01	3.171	02
2.220	01	4.873	02	3.579	02	5.111	01	8.964	02
2.225	01	6.494	02	4.766	02	7.483	01	1.200	03
2.230	01	7.155	02	5.249	02	9.085	01	1.331	03
2.235	01	6.474	02	4.751	02	9.177	01	1.214	03
2.240	01	4.848	02	3.561	02	7.896	01	9.199	02
2.250	01	1.727	02	1.277	02	4.407	01	3.445	02

TABLE II (Continued)

T = 0.05 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
2.260	01	5.160	01	3.914	01	2.615	01	1.169	02
2.280	01	1.296	01	1.086	01	1.736	01	4.118	01
2.300	01	6.466	00	6.127	00	1.483	01	2.742	01
2.320	01	4.184	00	4.512	00	1.353	01	2.222	01
2.330	01	3.674	00	4.210	00	1.305	01	2.094	01
2.340	01	3.552	00	4.288	00	1.264	01	2.048	01
2.350	01	4.345	00	5.403	00	1.222	01	2.197	01
2.360	01	8.333	00	1.031	01	1.182	01	3.046	01
2.370	01	1.791	01	2.189	01	1.170	01	5.151	01
2.375	01	2.259	01	2.755	01	1.186	01	6.201	01
2.380	01	2.443	01	2.980	01	1.214	01	6.637	01
2.385	01	2.242	01	2.741	01	1.240	01	6.223	01
2.390	01	1.758	01	2.163	01	1.252	01	5.175	01
2.400	01	7.730	00	9.847	00	1.235	01	2.992	01
2.410	01	3.383	00	4.659	00	1.200	01	2.004	01
2.430	01	1.749	00	2.727	00	1.151	01	1.598	01
2.450	01	1.466	00	2.385	00	1.116	01	1.501	01
2.480	01	1.460	00	2.306	00	1.070	01	1.446	01
2.500	01	1.644	00	2.416	00	1.037	01	1.444	01
2.510	01	1.811	00	2.529	00	1.020	01	1.454	01
2.530	01	2.394	00	2.946	00	9.788	00	1.512	01
2.550	01	3.673	00	3.888	00	9.227	00	1.678	01
2.570	01	7.261	00	6.561	00	8.350	00	2.217	01
2.590	01	3.127	01	2.455	01	7.278	00	6.311	01
2.600	01	1.026	02	7.807	01	1.003	01	1.907	02
2.610	01	2.624	02	1.979	02	2.224	01	4.826	02
2.615	01	3.385	02	2.549	02	3.096	01	6.244	02
2.620	01	3.694	02	2.781	02	3.790	01	6.855	02
2.625	01	3.381	02	2.546	02	4.030	01	6.331	02
2.630	01	2.622	02	1.977	02	3.798	01	4.978	02
2.640	01	1.028	02	7.820	01	2.702	01	2.081	02
2.650	01	3.144	01	2.460	01	1.943	01	7.548	01
2.660	01	1.260	01	1.045	01	1.628	01	3.934	01
2.680	01	4.917	00	4.625	00	1.400	01	2.354	01
2.700	01	3.044	00	3.083	00	1.298	01	1.911	01
2.720	01	2.980	00	2.504	00	1.226	01	1.775	01
2.730	01	5.305	00	2.622	00	1.188	01	1.981	01
2.740	01	1.658	01	3.900	00	1.150	01	3.199	01
2.750	01	4.458	01	7.297	00	1.160	01	6.348	01
2.755	01	5.730	01	8.843	00	1.206	01	7.821	01
2.760	01	6.486	01	9.750	00	1.260	01	8.722	01
2.765	01	5.707	01	8.741	00	1.302	01	7.884	01
2.770	01	4.426	01	7.109	00	1.330	01	6.468	01
2.780	01	1.611	01	3.535	00	1.301	01	3.266	01
2.790	01	4.574	00	2.046	00	1.254	01	1.916	01
2.800	01	1.901	00	1.673	00	1.224	01	1.581	01
2.830	01	8.032	01	1.449	00	1.180	01	1.406	01
2.850	01	6.136	01	1.385	00	1.163	01	1.363	01
2.900	01	4.070	01	1.295	00	1.133	01	1.303	01
2.950	01	3.187	01	1.255	00	1.112	01	1.269	01
3.000	01	2.752	01	1.256	00	1.094	01	1.247	01
3.055	01	2.616	01	1.324	00	1.077	01	1.235	01
3.100	01	2.867	01	1.510	00	1.062	01	1.242	01
3.130	01	3.474	01	1.828	00	1.051	01	1.269	01
3.150	01	4.418	01	2.290	00	1.042	01	1.316	01
3.170	01	6.642	01	3.357	00	1.030	01	1.433	01
3.180	01	9.075	01	4.516	00	1.022	01	1.565	01
3.190	01	1.391	00	6.817	00	1.012	01	1.833	01
3.200	01	2.423	00	1.172	01	1.001	01	2.416	01
3.210	01	4.387	00	2.105	01	9.978	00	3.541	01
3.220	01	6.901	00	3.299	01	1.016	01	5.005	01
3.225	01	7.813	00	3.732	01	1.036	01	5.550	01
3.230	01	8.142	00	3.988	01	1.059	01	5.762	01

TABLE II (Continued)

T = 0.05 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
3.235	01	7.787	00	3.719	01	1.082	01	5.581	01
3.240	01	6.857	00	3.278	01	1.100	01	5.064	01
3.250	01	4.343	00	2.083	01	1.113	01	3.631	01
3.280	01	8.926	-01	4.427	00	1.081	01	1.613	01
3.300	01	5.141	-01	2.610	00	1.065	01	1.378	01
3.310	01	4.299	-01	2.198	00	1.060	01	1.323	01
3.330	01	3.372	-01	1.726	00	1.051	01	1.257	01
3.350	01	2.936	-01	1.474	00	1.043	01	1.220	01
3.370	01	2.751	-01	1.324	00	1.037	01	1.196	01
3.390	01	2.741	-01	1.226	00	1.030	01	1.180	01
3.400	01	2.798	-01	1.190	00	1.027	01	1.174	01
3.410	01	2.902	-01	1.160	00	1.023	01	1.168	01
3.430	01	3.311	-01	1.115	00	1.016	01	1.161	01
3.450	01	4.208	-01	1.089	00	1.007	01	1.158	01
3.470	01	6.468	-01	1.087	00	9.954	00	1.168	01
3.479	01	9.349	-01	1.110	00	9.864	00	1.191	01
3.490	01	1.817	00	1.209	00	9.733	00	1.276	01
3.500	01	5.647	00	1.678	00	9.546	00	1.687	01
3.510	01	1.923	01	3.367	00	9.444	00	3.204	01
3.520	01	4.519	01	6.603	00	9.842	00	6.164	01
3.525	01	5.281	01	7.551	00	1.020	01	7.056	01
3.530	01	6.088	01	8.556	00	1.075	01	8.020	01
3.535	01	5.278	01	7.540	00	1.115	01	7.147	01
3.540	01	4.507	01	6.572	00	1.135	01	6.299	01
3.550	01	1.918	01	3.329	00	1.123	01	3.374	01
3.560	01	5.669	00	1.633	00	1.085	01	1.816	01
3.580	01	9.365	-01	1.029	00	1.044	01	1.241	01
3.600	01	5.058	-01	9.653	-01	1.027	01	1.175	01
3.650	01	2.920	-01	9.169	-01	1.005	01	1.126	01
3.700	01	2.625	-01	8.962	-01	9.889	00	1.104	01
3.750	01	2.789	-01	8.850	-01	9.727	00	1.089	01
3.800	01	3.262	-01	8.812	-01	9.548	00	1.075	01
3.820	01	3.552	-01	8.819	-01	9.467	00	1.070	01
3.850	01	4.129	-01	8.862	-01	9.332	00	1.063	01
3.870	01	4.641	-01	8.918	-01	9.231	00	1.058	01
3.900	01	5.684	-01	9.060	-01	9.054	00	1.052	01
3.920	01	6.641	-01	9.208	-01	8.914	00	1.050	01
3.950	01	8.709	-01	9.560	-01	8.662	00	1.048	01
3.970	01	1.075	00	9.929	-01	8.452	00	1.052	01
4.000	01	1.570	00	1.086	00	8.048	00	1.070	01
4.030	01	2.550	00	1.276	00	7.471	00	1.129	01
4.050	01	3.870	00	1.536	00	6.931	00	1.233	01
4.070	01	6.700	00	2.099	00	6.211	00	1.501	01
4.090	01	1.606	01	3.969	00	5.640	00	2.567	01
4.100	01	3.631	01	9.017	00	7.557	00	5.189	01
4.110	01	1.122	02	2.319	01	2.053	01	1.559	02
4.120	01	3.153	02	6.382	01	6.260	01	4.417	02
4.130	01	6.303	02	1.268	02	1.380	02	8.952	02
4.135	01	7.563	02	1.520	02	1.719	02	1.080	03
4.139	01	8.241	02	1.655	02	1.959	02	1.185	03
4.145	01	7.515	02	1.510	02	1.882	02	1.090	03
4.160	01	3.117	02	6.308	01	9.924	01	4.740	02
4.170	01	1.112	02	2.299	01	5.052	01	1.847	02
4.179	01	3.609	01	7.958	00	2.954	01	7.359	01
4.190	01	1.593	01	3.925	00	2.238	01	4.223	01
4.200	01	9.527	00	2.642	00	1.933	01	3.150	01
4.250	01	2.475	00	1.224	00	1.449	01	1.819	01
4.300	01	9.969	-01	7.985	-01	1.167	01	1.346	01

TABLE III

Pu^{238} CROSS SECTIONS

Pu^{238} Temperature = 0.1 ev

Neutron Energy, E_n(ev)		Radiative Capture Cross Section, σ_γ(barns)		Fission Cross Section, σ_F(barns)		Scattering Cross Section, σ_S(barns)		Total Cross Section, σ_T(barns)	
2.530	-02	3.155	02	7.129	02	9.510	00	1.037	03
3.000	-02	2.946	02	6.581	02	9.478	00	9.623	02
4.000	-02	2.657	02	5.784	02	9.404	00	8.535	02
5.000	-02	2.491	02	5.285	02	9.323	00	7.869	02
6.000	-02	2.401	02	4.965	02	9.234	00	7.459	02
7.000	-02	2.365	02	4.767	02	9.140	00	7.224	02
8.000	-02	2.370	02	4.660	02	9.039	00	7.120	02
1.000	-01	2.492	02	4.654	02	8.819	00	7.224	02
1.299	-01	2.897	02	5.090	02	8.442	00	8.073	02
1.500	-01	3.379	02	5.711	02	8.159	00	9.172	02
1.800	-01	4.596	02	7.388	02	7.720	00	1.206	03
2.000	-01	5.965	02	9.328	02	7.492	00	1.536	03
2.300	-01	9.598	02	1.454	03	7.714	00	2.421	03
2.500	-01	1.354	03	2.023	03	9.007	00	3.387	03
2.599	-01	1.586	03	2.358	03	1.030	01	3.955	03
2.700	-01	1.809	03	2.680	03	1.211	01	4.502	03
2.799	-01	1.983	03	2.931	03	1.432	01	4.929	03
2.900	-01	2.067	03	3.052	03	1.670	01	5.137	03
2.920	-01	2.071	03	3.057	03	1.716	01	5.146	03
2.950	-01	2.068	03	3.052	03	1.784	01	5.138	03
3.000	-01	2.039	03	3.009	03	1.888	01	5.067	03
3.100	-01	1.903	03	2.811	03	2.054	01	4.735	03
3.200	-01	1.691	03	2.504	03	2.154	01	4.217	03
3.300	-01	1.446	03	2.148	03	2.188	01	3.617	03
3.500	-01	9.886	02	1.481	03	2.124	01	2.491	03
3.700	-01	6.597	02	1.003	03	1.993	01	1.683	03
4.000	-01	3.775	02	5.919	02	1.807	01	9.875	02
4.500	-01	1.789	02	3.010	02	1.605	01	4.960	02
5.000	-01	1.012	02	1.855	02	1.489	01	3.016	02
5.500	-01	6.427	01	1.297	02	1.415	01	2.081	02
6.000	-01	4.422	01	9.870	01	1.364	01	1.565	02
7.000	-01	2.459	01	6.693	01	1.299	01	1.045	02
8.000	-01	1.577	01	5.147	01	1.257	01	7.982	01
9.000	-01	1.111	01	4.248	01	1.228	01	6.588	01
1.000	00	8.361	00	3.661	01	1.206	01	5.704	01
1.250	00	4.963	00	2.799	01	1.166	01	4.463	01
1.500	00	3.479	00	2.311	01	1.139	01	3.799	01
1.750	00	2.687	00	1.985	01	1.117	01	3.371	01
2.000	00	2.207	00	1.746	01	1.099	01	3.066	01
2.200	00	1.945	00	1.594	01	1.085	01	2.875	01
2.500	00	1.671	00	1.412	01	1.068	01	2.647	01
3.000	00	1.392	00	1.187	01	1.041	01	2.368	01
3.500	00	1.239	00	1.025	01	1.016	01	2.166	01
4.000	00	1.164	00	9.050	00	9.929	00	2.014	01
4.500	00	1.152	00	8.140	00	9.690	00	1.898	01
5.000	00	1.209	00	7.466	00	9.438	00	1.811	01
5.500	00	1.364	00	7.008	00	9.157	00	1.753	01
6.000	00	1.707	00	6.809	00	8.820	00	1.733	01
6.300	00	2.104	00	6.883	00	8.568	00	1.755	01
6.500	00	2.530	00	7.076	00	8.365	00	1.797	01
6.600	00	3.687	00	7.798	00	7.974	00	1.945	01
7.000	00	5.237	00	8.910	00	7.614	00	2.176	01
7.200	00	8.498	00	1.139	01	7.106	00	2.699	01
7.400	00	1.764	01	1.858	01	6.318	00	4.255	01
7.500	00	3.102	01	2.921	01	5.786	00	6.603	01
7.599	00	7.827	01	6.694	01	5.797	00	1.510	02
7.660	00	1.744	02	1.438	02	8.184	00	3.265	02
7.700	00	3.031	02	2.467	02	1.284	01	5.627	02
7.760	00	5.992	02	4.835	02	2.667	01	1.109	03
7.800	00	7.980	02	6.426	02	3.860	01	1.479	03
7.830	00	8.900	02	7.161	02	4.631	01	1.652	03

TABLE III (Continued) T = 0.1 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
7.850	00	9.078	02	7.303	02	4.982	01	1.687	03
7.870	00	8.872	02	7.138	02	5.159	01	1.652	03
7.900	00	7.925	02	6.380	02	5.083	01	1.481	03
7.950	00	5.395	02	4.356	02	4.268	01	1.017	03
8.000	00	3.009	02	2.446	02	3.200	01	5.776	02
8.099	00	7.786	01	6.598	01	1.889	01	1.627	02
8.200	00	3.001	01	2.745	01	1.461	01	7.208	01
8.400	00	1.055	01	1.114	01	1.186	01	3.357	01
8.599	00	5.076	00	5.637	00	1.071	01	2.143	01
8.800	00	2.715	00	3.005	00	9.998	00	1.571	01
9.000	00	2.115	00	3.398	00	9.458	00	1.497	01
9.199	00	2.389	00	5.408	00	9.026	00	1.682	01
9.400	00	2.849	00	7.446	00	8.642	00	1.893	01
9.599	00	3.422	00	9.510	00	8.260	00	2.119	01
9.799	00	4.268	00	1.217	01	7.845	00	2.428	01
1.000	01	5.697	00	1.640	01	7.364	00	2.946	01
1.020	01	8.444	00	2.438	01	6.770	00	3.960	01
1.050	01	2.237	01	6.517	01	5.605	00	9.315	01
1.070	01	8.357	01	2.463	02	6.978	00	3.369	02
1.080	01	1.913	02	5.664	02	1.460	01	7.724	02
1.085	01	2.640	02	7.821	02	2.175	01	1.067	03
1.090	01	3.244	02	9.613	02	2.970	01	1.315	03
1.093	01	3.438	02	1.018	03	3.380	01	1.396	03
1.095	01	3.474	02	1.029	03	3.590	01	1.412	03
1.097	01	3.429	02	1.015	03	3.735	01	1.396	03
1.100	01	3.223	02	9.541	02	3.918	01	1.314	03
1.105	01	2.613	02	7.719	02	3.624	01	1.069	03
1.110	01	1.895	02	5.576	02	3.164	01	7.787	02
1.120	01	8.461	01	2.433	02	2.194	01	3.499	02
1.130	01	4.208	01	1.134	02	1.618	01	1.717	02
1.140	01	2.813	01	6.630	01	1.311	01	1.075	02
1.150	01	2.535	01	4.697	01	1.109	01	8.342	01
1.160	01	3.360	01	4.128	01	9.439	00	8.432	01
1.170	01	8.302	01	5.903	01	8.756	00	1.508	02
1.180	01	2.702	02	1.444	02	1.402	01	4.287	02
1.185	01	4.217	02	2.151	02	2.096	01	6.579	02
1.190	01	5.588	02	2.792	02	2.957	01	9.676	02
1.193	01	6.040	02	3.002	02	3.412	01	9.384	02
1.195	01	6.143	02	3.047	02	3.648	01	9.555	02
1.197	01	6.023	02	2.986	02	3.792	01	9.389	02
1.200	01	5.547	02	2.755	02	3.662	01	8.689	02
1.205	01	4.161	02	2.087	02	3.586	01	6.607	02
1.210	01	2.653	02	1.363	02	3.038	01	4.321	02
1.220	01	7.881	01	4.654	01	2.052	01	1.458	02
1.230	01	2.677	01	2.100	01	1.606	01	6.383	01
1.250	01	9.814	00	1.190	01	1.310	01	3.482	01
1.280	01	5.311	00	9.030	00	1.135	01	2.569	01
1.300	01	4.454	00	8.533	00	1.061	01	2.360	01
1.320	01	4.259	00	8.670	00	9.973	00	2.290	01
1.340	01	4.603	00	9.508	00	9.357	00	2.346	01
1.350	01	5.024	00	1.031	01	9.035	00	2.437	01
1.370	01	6.767	00	1.352	01	8.310	00	2.859	01
1.390	01	1.209	01	2.383	01	7.374	00	4.329	01
1.400	01	2.061	01	4.161	01	6.330	00	6.906	01
1.410	01	4.189	01	8.764	01	6.528	00	1.360	02
1.415	01	5.901	01	1.247	02	6.647	00	1.903	02
1.420	01	7.826	01	1.655	02	6.995	00	2.508	02
1.425	01	9.552	01	1.995	02	7.481	00	3.025	02
1.430	01	1.073	02	2.164	02	7.940	00	3.317	02
1.435	01	1.150	02	2.141	02	8.321	00	3.374	02
1.440	01	1.276	02	2.028	02	8.980	00	3.394	02
1.445	01	1.615	02	2.026	02	1.094	01	3.751	02
1.450	01	2.336	02	2.336	02	1.574	01	4.830	02

TABLE III (Continued) T = 0.1 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.455	01	3.503	02	3.041	02	2.474	01	6.792	02
1.460	01	4.922	02	3.998	02	3.748	01	9.296	02
1.465	01	6.105	02	4.824	02	5.091	01	1.143	03
1.470	01	6.583	02	5.152	02	6.061	01	1.234	03
1.475	01	6.052	02	4.743	02	6.255	01	1.142	03
1.480	01	4.818	02	3.817	02	5.731	01	9.209	02
1.485	01	3.329	02	2.708	02	4.750	01	6.513	02
1.490	01	2.055	02	1.772	02	3.734	01	4.206	02
1.500	01	6.861	01	7.995	01	2.354	01	1.721	02
1.510	01	2.970	01	6.095	01	1.779	01	1.084	02
1.520	01	2.009	01	7.033	01	1.535	01	1.057	02
1.530	01	1.790	01	9.166	01	1.421	01	1.237	02
1.535	01	1.778	01	1.037	02	1.396	01	1.354	02
1.540	01	1.783	01	1.142	02	1.389	01	1.460	02
1.545	01	1.775	01	1.213	02	1.394	01	1.530	02
1.550	01	1.731	01	1.233	02	1.407	01	1.547	02
1.555	01	1.643	01	1.197	02	1.422	01	1.503	02
1.560	01	1.514	01	1.110	02	1.432	01	1.405	02
1.565	01	1.357	01	9.893	01	1.434	01	1.268	02
1.570	01	1.192	01	8.532	01	1.428	01	1.115	02
1.580	01	8.910	00	5.983	01	1.395	01	8.269	01
1.590	01	6.724	00	4.130	01	1.350	01	6.152	01
1.600	01	5.303	00	2.949	01	1.304	01	4.784	01
1.620	01	3.822	00	1.743	01	1.227	01	3.353	01
1.660	01	3.142	00	9.664	00	1.107	01	2.388	01
1.680	01	3.536	00	8.645	00	1.050	01	2.268	01
1.690	01	4.009	00	8.621	00	1.019	01	2.282	01
1.700	01	4.809	00	9.019	00	9.834	00	2.366	01
1.720	01	9.057	00	1.265	01	8.886	00	3.060	01
1.730	01	1.660	01	1.996	01	8.264	00	4.483	01
1.740	01	4.208	01	4.525	01	8.052	00	9.539	01
1.750	01	1.154	02	1.184	02	1.045	01	2.444	02
1.755	01	1.742	02	1.772	02	1.363	01	3.651	02
1.760	01	2.374	02	2.403	02	1.817	01	4.959	02
1.765	01	2.862	02	2.890	02	2.310	01	5.983	02
1.770	01	3.054	02	3.081	02	2.728	01	6.408	02
1.775	01	2.849	02	2.875	02	2.934	01	6.018	02
1.780	01	2.355	02	2.381	02	2.906	01	5.027	02
1.785	01	1.725	02	1.750	02	2.691	01	3.745	02
1.790	01	1.143	02	1.168	02	2.390	01	2.550	02
1.800	01	4.176	01	4.416	01	1.863	01	1.045	02
1.820	01	8.571	00	1.081	01	1.437	01	3.375	01
1.850	01	3.254	00	5.302	00	1.265	01	2.121	01
1.870	01	2.261	00	4.204	00	1.209	01	1.855	01
1.900	01	1.585	00	3.396	00	1.152	01	1.650	01
1.950	01	1.186	00	2.815	00	1.087	01	1.487	01
1.980	01	1.131	00	2.661	00	1.054	01	1.433	01
2.000	01	1.145	00	2.609	00	1.033	01	1.409	01
2.020	01	1.200	00	2.596	00	1.012	01	1.392	01
2.050	01	1.379	00	2.657	00	9.782	00	1.381	01
2.100	01	2.157	00	3.134	00	9.063	00	1.435	01
2.120	01	2.858	00	3.616	00	8.668	00	1.514	01
2.150	01	5.236	00	5.315	00	7.828	00	1.838	01
2.170	01	9.890	00	8.695	00	6.981	00	2.556	01
2.190	01	3.518	01	2.718	01	6.805	00	6.917	01
2.200	01	9.497	01	7.092	01	1.091	01	1.768	02
2.210	01	2.401	02	1.771	02	2.538	01	4.426	02
2.220	01	4.412	02	3.242	02	5.101	01	8.164	02
2.225	01	5.191	02	3.812	02	6.363	01	9.639	02
2.230	01	5.503	02	4.041	02	7.230	01	1.026	03
2.235	01	5.175	02	3.801	02	7.375	01	9.714	02
2.240	01	4.389	02	3.226	02	6.876	01	8.303	02
2.250	01	2.389	02	1.762	02	4.928	01	4.645	02

TABLE III (Continued) T = 0.1 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
2.260	01	9.500	01	7.089	01	3.130	01	1.972	02
2.280	01	1.632	01	1.332	01	1.802	01	4.768	01
2.300	01	6.947	00	6.483	00	1.497	01	2.840	01
2.320	01	4.376	00	4.674	00	1.357	01	2.262	01
2.330	01	3.906	00	4.446	00	1.308	01	2.143	01
2.340	01	4.128	00	4.950	00	1.264	01	2.172	01
2.350	01	5.887	00	7.233	00	1.225	01	2.537	01
2.360	01	1.033	01	1.269	01	1.196	01	3.499	01
2.370	01	1.630	01	1.995	01	1.191	01	4.817	01
2.375	01	1.851	01	2.264	01	1.199	01	5.315	01
2.380	01	1.929	01	2.362	01	1.212	01	5.504	01
2.385	01	1.833	01	2.249	01	1.224	01	5.307	01
2.390	01	1.595	01	1.966	01	1.231	01	4.793	01
2.400	01	9.685	00	1.218	01	1.225	01	3.412	01
2.410	01	4.901	00	6.475	00	1.201	01	2.339	01
2.430	01	1.904	00	2.910	00	1.152	01	1.634	01
2.450	01	1.496	00	2.416	00	1.116	01	1.508	01
2.480	01	1.479	00	2.322	00	1.069	01	1.450	01
2.500	01	1.674	00	2.439	00	1.037	01	1.448	01
2.510	01	1.851	00	2.560	00	1.019	01	1.460	01
2.530	01	2.486	00	3.016	00	9.768	00	1.527	01
2.550	01	3.981	00	4.119	00	9.184	00	1.728	01
2.570	01	9.850	00	8.503	00	8.323	00	2.667	01
2.590	01	5.896	01	4.532	01	9.244	00	1.135	02
2.600	01	1.352	02	1.025	02	1.410	01	2.519	02
2.610	01	2.314	02	1.747	02	2.290	01	4.291	02
2.615	01	2.688	02	2.027	02	2.779	01	4.993	02
2.620	01	2.832	02	2.135	02	3.164	01	5.284	02
2.625	01	2.686	02	2.025	02	3.338	01	5.045	02
2.630	01	2.310	02	1.743	02	3.283	01	4.382	02
2.640	01	1.349	02	1.022	02	2.764	01	2.647	02
2.650	01	5.929	01	4.549	01	2.147	01	1.262	02
2.660	01	2.257	01	1.792	01	1.734	01	5.784	01
2.680	01	5.733	00	5.227	00	1.417	01	2.513	01
2.700	01	3.303	00	3.217	00	1.302	01	1.954	01
2.720	01	4.696	00	2.756	00	1.225	01	1.970	01
2.730	01	1.088	01	3.343	00	1.193	01	2.616	01
2.740	01	2.191	01	4.583	00	1.179	01	3.829	01
2.750	01	3.812	01	6.501	00	1.188	01	5.651	01
2.755	01	4.711	01	7.580	00	1.213	01	6.683	01
2.760	01	5.116	01	8.047	00	1.250	01	7.172	01
2.765	01	4.693	01	7.482	00	1.281	01	6.724	01
2.770	01	3.784	01	6.312	00	1.294	01	5.710	01
2.780	01	2.126	01	4.183	00	1.283	01	3.827	01
2.790	01	1.008	01	2.738	00	1.259	01	2.541	01
2.800	01	3.652	00	1.895	00	1.230	01	1.785	01
2.830	01	8.415	-01	1.456	00	1.181	01	1.411	01
2.850	01	6.254	-01	1.388	00	1.164	01	1.365	01
2.900	01	4.094	-01	1.296	00	1.133	01	1.304	01
2.950	01	3.197	-01	1.256	00	1.112	01	1.269	01
3.000	01	2.759	-01	1.257	00	1.094	01	1.247	01
3.055	01	2.626	-01	1.328	00	1.077	01	1.236	01
3.100	01	2.894	-01	1.522	00	1.062	01	1.243	01
3.130	01	3.554	-01	1.865	00	1.051	01	1.273	01
3.150	01	4.634	-01	2.392	00	1.042	01	1.327	01
3.170	01	7.492	-01	3.760	00	1.029	01	1.480	01
3.180	01	1.093	00	5.401	00	1.021	01	1.671	01
3.190	01	1.759	00	8.567	00	1.013	01	2.045	01
3.200	01	2.927	00	1.411	01	1.007	01	2.711	01
3.210	01	4.565	00	2.189	01	1.010	01	3.657	01
3.220	01	6.142	00	2.938	01	1.028	01	4.581	01
3.225	01	6.632	00	3.171	01	1.042	01	4.877	01
3.230	01	6.799	00	3.250	01	1.058	01	4.989	01

TABLE III (Continued) T = 0.1 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
3.235	01	6.613	00	3.162	01	1.073	01	4.897	01
3.240	01	6.108	00	2.922	01	1.086	01	4.619	01
3.250	01	4.523	00	2.169	01	1.100	01	3.722	01
3.280	01	1.080	00	5.318	00	1.082	01	1.722	01
3.300	01	5.558	01	2.807	00	1.066	01	1.403	01
3.310	01	4.521	01	2.302	00	1.060	01	1.336	01
3.330	01	3.457	01	1.764	00	1.051	01	1.262	01
3.350	01	2.980	01	1.492	00	1.043	01	1.223	01
3.370	01	2.782	01	1.333	00	1.037	01	1.198	01
3.390	01	2.771	01	1.232	00	1.030	01	1.181	01
3.400	01	2.833	01	1.194	00	1.027	01	1.174	01
3.410	01	2.947	01	1.164	00	1.023	01	1.169	01
3.430	01	3.401	01	1.119	00	1.016	01	1.162	01
3.450	01	4.473	01	1.093	00	1.006	01	1.161	01
3.470	01	8.565	01	1.114	00	9.935	00	1.190	01
3.479	01	1.765	00	1.215	00	9.835	00	1.281	01
3.490	01	4.671	00	1.567	00	9.711	00	1.595	01
3.500	01	1.218	01	2.496	00	9.618	00	2.430	01
3.510	01	2.593	01	4.204	00	9.696	00	3.983	01
3.520	01	4.151	01	6.144	00	1.007	01	5.773	01
3.525	01	4.676	01	6.795	00	1.034	01	6.390	01
3.530	01	4.864	01	7.026	00	1.063	01	6.630	01
3.535	01	4.672	01	6.783	00	1.087	01	6.439	01
3.540	01	4.149	01	6.125	00	1.104	01	5.866	01
3.550	01	2.604	01	4.187	00	1.110	01	4.134	01
3.560	01	1.239	01	2.474	00	1.091	01	2.578	01
3.580	01	1.829	00	1.141	00	1.049	01	1.346	01
3.600	01	5.726	-01	9.739	-01	1.029	01	1.183	01
3.650	01	2.961	-01	9.175	-01	1.005	01	1.126	01
3.700	01	2.637	-01	8.965	-01	9.889	00	1.104	01
3.750	01	2.798	-01	8.852	-01	9.726	00	1.089	01
3.800	**01**	**3.275**	**-01**	**8.814**	**-01**	**9.546**	**00**	**1.075**	**01**
3.820	01	3.567	-01	8.822	-01	9.466	00	1.070	01
3.850	01	4.151	-01	8.867	-01	9.330	00	1.063	01
3.870	01	4.670	-01	8.924	-01	9.228	00	1.058	01
3.900	01	5.730	-01	9.069	-01	9.050	00	1.053	01
3.920	01	6.707	-01	9.222	-01	8.909	00	1.050	01
3.950	01	8.830	-01	9.584	-01	8.654	00	1.049	01
3.970	**01**	**1.095**	**00**	**9.968**	**-01**	**8.443**	**00**	**1.053**	**01**
4.000	01	1.615	00	1.094	00	8.032	00	1.074	01
4.030	01	2.679	00	1.302	00	7.443	00	1.142	01
4.050	01	4.217	00	1.606	00	6.895	00	1.271	01
4.070	01	8.534	00	2.465	00	6.327	00	1.732	01
4.090	01	3.467	01	7.689	00	9.033	00	5.139	01
4.100	01	8.394	01	1.754	01	1.776	01	1.192	02
4.110	01	1.900	02	3.876	01	3.992	01	2.687	02
4.120	01	3.649	02	7.374	01	8.026	01	5.189	02
4.130	01	5.569	02	1.121	02	1.283	02	7.973	02
4.135	01	6.217	02	1.250	02	1.465	02	8.933	02
4.139	01	6.453	02	1.298	02	1.557	02	9.309	02
4.145	01	6.220	02	1.251	02	1.544	02	9.015	02
4.160	01	3.635	02	7.345	01	1.044	02	5.414	02
4.170	01	1.884	02	3.843	01	6.602	01	2.929	02
4.175	01	8.347	01	1.743	01	4.070	01	1.416	02
4.190	01	3.481	01	7.701	00	2.742	01	6.994	01
4.200	01	1.562	01	3.861	00	2.123	01	4.071	01
4.250	01	2.607	00	1.250	00	1.458	01	1.844	01
4.300	01	9.661	-01	7.395	-01	1.111	01	1.282	01

TABLE IV

Pu^{239} CROSS SECTIONS

Pu^{239} Temperature = 0.2 ev

Neutron Energy, E_n(ev)		Radiative Capture Cross Section, σ_γ(barns)		Fission Cross Section, σ_F(barns)		Scattering Cross Section, σ_S(barns		Total Cross Section, σ_T(barns)	
2.530	-02	3.159	02	7.133	02	9.505	00	1.038	03
3.000	-02	2.951	02	6.587	02	9.473	00	9.633	02
4.000	-02	2.663	02	5.793	02	9.398	00	8.550	02
5.000	-02	2.499	02	5.297	02	9.316	00	7.889	02
6.000	-02	2.411	02	4.979	02	9.227	00	7.483	02
7.000	-02	2.376	02	4.784	02	9.132	00	7.252	02
8.000	-02	2.383	02	4.680	02	9.031	00	7.153	02
1.000	-01	2.501	02	4.682	02	8.809	00	7.272	02
1.299	-01	2.933	02	5.143	02	8.430	00	8.161	02
1.500	-01	3.436	02	5.795	02	8.148	00	9.314	02
1.800	-01	4.723	02	7.573	02	7.724	00	1.237	03
2.000	-01	6.185	02	9.648	02	7.541	00	1.590	03
2.300	-01	9.997	02	1.512	03	7.992	00	2.519	03
2.500	-01	1.380	03	2.060	03	9.538	00	3.450	03
2.599	-01	1.582	03	2.353	03	1.088	01	3.946	03
2.700	-01	1.763	03	2.613	03	1.261	01	4.389	03
2.799	-01	1.893	03	2.800	03	1.458	01	4.707	03
2.900	-01	1.947	03	2.878	03	1.659	01	4.842	03
2.920	-01	1.948	03	2.878	03	1.698	01	4.844	03
2.950	-01	1.942	03	2.870	03	1.754	01	4.830	03
3.000	-01	1.916	03	2.831	03	1.842	01	4.766	03
3.100	-01	1.805	03	2.669	03	1.986	01	4.494	03
3.200	-01	1.633	03	2.420	03	2.080	01	4.075	03
3.300	-01	1.429	03	2.123	03	2.124	01	3.574	03
3.500	-01	1.019	03	1.526	03	2.096	01	2.567	03
3.700	-01	6.959	02	1.055	03	1.988	01	1.771	03
4.000	-01	3.988	02	6.229	02	1.813	01	1.039	03
4.500	-01	1.858	02	3.108	02	1.610	01	5.128	02
5.000	-01	1.037	02	1.892	02	1.491	01	3.079	02
5.500	-01	6.542	01	1.314	02	1.416	01	2.110	02
6.000	-01	4.481	01	9.956	01	1.365	01	1.580	02
7.000	-01	2.480	01	6.723	01	1.299	01	1.050	02
8.000	-01	1.586	01	5.160	01	1.257	01	8.004	01
9.000	-01	1.115	01	4.255	01	1.228	01	6.599	01
1.000	00	8.388	00	3.665	01	1.206	01	5.710	01
1.250	00	4.972	00	2.801	01	1.166	01	4.465	01
1.500	00	3.483	00	2.312	01	1.139	01	3.800	01
1.750	00	2.689	00	1.985	01	1.117	01	3.372	01
2.000	00	2.208	00	1.746	01	1.099	01	3.066	01
2.200	00	1.946	00	1.594	01	1.085	01	2.875	01
2.500	00	1.671	00	1.412	01	1.068	01	2.647	01
3.000	00	1.393	00	1.187	01	1.041	01	2.368	01
3.500	00	1.239	00	1.025	01	1.016	01	2.166	01
4.000	00	1.164	00	9.051	00	9.928	00	2.014	01
4.500	00	1.153	00	8.141	00	9.689	00	1.898	01
5.000	00	1.210	00	7.467	00	9.437	00	1.811	01
5.500	00	1.366	00	7.010	00	9.156	00	1.753	01
6.000	00	1.712	00	6.813	00	8.818	00	1.734	01
6.300	00	2.114	00	6.891	00	8.565	00	1.757	01
6.500	00	2.548	00	7.091	00	8.361	00	1.800	01
6.800	00	3.738	00	7.838	00	7.967	00	1.954	01
7.000	00	5.363	00	9.010	00	7.602	00	2.197	01
7.200	00	8.914	00	1.172	01	7.083	00	2.772	01
7.400	00	2.056	01	2.091	01	6.304	00	4.778	01
7.500	00	4.465	01	4.011	01	6.097	00	9.086	01
7.599	00	1.342	02	1.117	02	8.176	00	2.541	02
7.660	00	2.572	02	2.100	02	1.277	01	4.801	02
7.700	00	3.713	02	3.013	02	1.790	01	6.905	02
7.760	00	5.575	02	4.501	02	2.793	01	1.035	03
7.800	00	6.549	02	5.280	02	3.463	01	1.217	03
7.830	00	6.952	02	5.602	02	3.866	01	1.294	03

TABLE IV (Continued)

T = 0.2 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
7.850	00	7.024	02	5.660	02	4.056	01	1.308	03
7.870	00	6.931	02	5.585	02	4.171	01	1.293	03
7.900	00	6.502	02	5.242	02	4.195	01	1.216	03
7.950	00	5.218	02	4.214	02	3.882	01	9.820	02
8.000	00	3.669	02	2.974	02	3.299	01	6.974	02
8.099	00	1.343	02	1.111	02	2.154	01	2.670	02
8.200	00	4.469	01	3.916	01	1.557	01	9.943	01
8.400	00	1.157	01	1.191	01	1.198	01	3.547	01
8.599	00	5.326	00	5.864	00	1.075	01	2.194	01
8.800	00	2.874	00	3.292	00	1.001	01	1.617	01
9.000	00	2.196	00	3.553	00	9.467	00	1.521	01
9.199	00	2.406	00	5.410	00	9.030	00	1.684	01
9.400	00	2.861	00	7.454	00	8.641	00	1.895	01
9.599	00	3.451	00	9.576	00	8.256	00	2.128	01
9.799	00	4.330	00	1.234	01	7.837	00	2.451	01
1.000	01	5.837	00	1.680	01	7.351	00	2.999	01
1.020	01	8.840	00	2.554	01	6.750	00	4.113	01
1.050	01	2.726	01	7.968	01	5.790	00	1.127	02
1.070	01	1.078	02	3.184	02	9.534	00	4.358	02
1.080	01	1.964	02	5.813	02	1.714	01	7.949	02
1.085	01	2.408	02	7.131	02	2.220	01	9.761	02
1.090	01	2.728	02	8.078	02	2.708	01	1.107	03
1.093	01	2.824	02	8.359	02	2.949	01	1.147	03
1.095	01	2.840	02	8.406	02	3.077	01	1.155	03
1.097	01	2.818	02	8.337	02	3.172	01	1.147	03
1.100	01	2.714	02	8.025	02	3.251	01	1.106	03
1.105	01	2.387	02	7.046	02	3.209	01	9.755	02
1.110	01	1.946	02	5.726	02	2.990	01	7.972	02
1.120	01	1.087	02	3.144	02	2.320	01	4.463	02
1.130	01	5.619	01	1.541	02	1.737	01	2.277	02
1.140	01	3.470	01	8.218	01	1.366	01	1.305	02
1.140	01	3.470	01	8.218	01	1.366	01	1.305	02
1.150	01	3.312	01	5.537	01	1.136	01	9.986	01
1.160	01	5.802	01	5.495	01	1.021	01	1.231	02
1.170	01	1.406	02	8.752	01	1.157	01	2.397	02
1.180	01	2.969	02	1.577	02	1.767	01	4.723	02
1.185	01	3.808	02	1.961	02	2.225	01	5.992	02
1.190	01	4.425	02	2.242	02	2.683	01	6.936	02
1.193	01	4.612	02	2.325	02	2.912	01	7.228	02
1.195	01	4.643	02	2.336	02	3.032	01	7.283	02
1.197	01	4.599	02	2.311	02	3.121	01	7.222	02
1.200	01	4.393	02	2.208	02	3.188	01	6.920	02
1.205	01	3.756	02	1.897	02	3.130	01	5.966	02
1.210	01	2.912	02	1.488	02	2.898	01	4.690	02
1.220	01	1.354	02	7.365	01	2.245	01	2.316	02
1.230	01	5.104	01	3.264	01	1.739	01	1.010	02
1.250	01	1.146	01	1.274	01	1.331	01	3.751	01
1.280	01	5.482	00	9.152	00	1.139	01	2.602	01
1.300	01	4.542	00	8.618	00	1.062	01	2.378	01
1.320	01	4.334	00	8.768	00	9.974	00	2.307	01
1.340	01	4.709	00	9.681	00	9.348	00	2.374	01
1.350	01	5.179	00	1.058	01	9.020	00	2.478	01
1.370	01	7.289	00	1.455	01	8.278	00	3.012	01
1.390	01	1.547	01	3.118	01	7.376	00	5.404	01
1.400	01	2.745	01	5.647	01	6.990	00	9.092	01
1.410	01	4.856	01	1.003	02	6.902	00	1.558	02
1.415	01	6.215	01	1.268	02	7.039	00	1.960	02
1.420	01	7.705	01	1.528	02	7.330	00	2.372	02
1.425	01	9.333	01	1.755	02	7.833	00	2.766	02
1.430	01	1.125	02	1.936	02	8.689	00	3.149	02
1.435	01	1.380	02	2.092	02	1.017	01	3.574	02
1.440	01	1.745	02	2.265	02	1.268	01	4.138	02
1.445	01	2.260	02	2.510	02	1.665	01	4.937	02

TABLE IV (Continued)

T = 0.2 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.450	01	2.923	02	2.854	02	2.228	01	6.000	02
1.455	01	3.670	02	3.272	02	2.933	01	7.236	02
1.460	01	4.372	02	3.684	02	3.695	01	8.426	02
1.465	01	4.868	02	3.974	02	4.382	01	9.281	02
1.470	01	5.025	02	4.038	02	4.857	01	9.549	02
1.475	01	4.789	02	3.833	02	5.021	01	9.124	02
1.480	01	4.211	02	3.390	02	4.861	01	8.087	02
1.485	01	3.425	02	2.804	02	4.442	01	6.673	02
1.490	01	2.588	02	2.192	02	3.877	01	5.168	02
1.500	01	1.234	02	1.239	02	2.753	01	2.749	02
1.510	01	5.317	01	5.237	01	2.009	01	1.556	02
1.520	01	2.732	01	7.900	01	1.638	01	1.227	02
1.530	01	1.983	01	9.225	01	1.477	01	1.268	02
1.535	01	1.853	01	1.000	02	1.440	01	1.330	02
1.540	01	1.777	01	1.066	02	1.420	01	1.386	02
1.545	01	1.717	01	1.107	02	1.413	01	1.420	02
1.550	01	1.649	01	1.116	02	1.413	01	1.422	02
1.555	01	1.562	01	1.090	02	1.416	01	1.387	02
1.560	01	1.454	01	1.030	02	1.418	01	1.318	02
1.565	01	1.330	01	9.457	01	1.417	01	1.220	02
1.570	01	1.196	01	8.446	01	1.412	01	1.105	02
1.580	01	9.341	00	6.327	01	1.386	01	8.648	01
1.590	01	7.186	00	4.530	01	1.348	01	6.597	01
1.600	01	5.646	00	3.244	01	1.306	01	5.115	01
1.620	01	3.970	00	1.856	01	1.229	01	3.482	01
1.660	01	3.228	00	9.919	00	1.107	01	2.422	01
1.680	01	3.696	00	8.892	00	1.048	01	2.307	01
1.690	01	4.286	00	8.963	00	1.015	01	2.340	01
1.700	01	5.404	00	9.663	00	9.784	00	2.485	01
1.720	01	1.442	01	1.805	01	8.929	00	4.141	01
1.730	01	3.186	01	3.525	01	8.842	00	7.595	01
1.740	01	7.084	01	7.403	01	9.937	00	1.548	02
1.750	01	1.348	02	1.378	02	1.322	01	2.858	02
1.755	01	1.705	02	1.735	02	1.571	01	3.598	02
1.760	01	2.022	02	2.050	02	1.849	01	4.257	02
1.765	01	2.239	02	2.267	02	2.118	01	4.718	02
1.770	01	2.314	02	2.341	02	2.337	01	4.889	02
1.775	01	2.230	02	2.257	02	2.471	01	4.734	02
1.780	01	2.007	02	2.033	02	2.505	01	4.290	02
1.785	01	1.689	02	1.714	02	2.446	01	3.648	02
1.790	01	1.333	02	1.358	02	2.317	01	2.924	02
1.800	01	7.024	01	7.264	01	1.976	01	1.626	02
1.820	01	1.417	01	1.642	01	1.491	01	4.551	01
1.850	01	3.538	00	5.589	00	1.272	01	2.185	01
1.870	01	2.355	00	4.301	00	1.212	01	1.877	01
1.900	01	1.616	00	3.428	00	1.153	01	1.658	01
1.950	01	1.197	00	2.826	00	1.087	01	1.489	01
1.980	01	1.139	00	2.669	00	1.054	01	1.435	01
2.000	01	1.154	00	2.617	00	1.033	01	1.410	01
2.020	01	1.211	00	2.605	00	1.012	01	1.393	01
2.050	01	1.396	00	2.671	00	9.776	00	1.384	01
2.100	01	2.221	00	3.182	00	9.046	00	1.445	01
2.120	01	2.996	00	3.717	00	8.640	00	1.535	01
2.150	01	6.000	00	5.874	00	7.779	00	1.965	01
2.170	01	1.572	01	1.296	01	7.267	00	3.595	01
2.190	01	7.402	01	5.559	01	1.096	01	1.405	02
2.200	01	1.516	02	1.124	02	1.853	01	2.826	02
2.210	01	2.619	02	1.931	02	3.141	01	4.865	02
2.220	01	3.669	02	2.699	02	4.639	01	6.833	02
2.225	01	3.994	02	2.937	02	5.254	01	7.457	02
2.230	01	4.106	02	3.018	02	5.660	01	7.691	02
2.235	01	3.984	02	2.929	02	5.803	01	7.494	02
2.240	01	3.651	02	2.686	02	5.677	01	6.905	02

TABLE IV (Continued) T = 0.2 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
2.250	01	2.601	02	1.917	02	4.810	01	5.000	02
2.260	01	1.510	02	1.119	02	3.632	01	2.993	02
2.280	01	3.371	01	2.605	01	2.046	01	8.023	01
2.300	01	9.086	00	8.064	00	1.543	01	3.258	01
2.320	01	5.019	00	5.259	00	1.369	01	2.397	01
2.330	01	4.781	00	5.389	00	1.315	01	2.332	01
2.340	01	5.618	00	6.670	00	1.271	01	2.500	01
2.350	01	7.754	00	9.428	00	1.236	01	2.955	01
2.360	01	1.090	01	1.335	01	1.215	01	3.641	01
2.370	01	1.385	01	1.699	01	1.208	01	4.294	01
2.375	01	1.473	01	1.809	01	1.209	01	4.491	01
2.380	01	1.497	01	1.842	01	1.211	01	4.551	01
2.385	01	1.454	01	1.793	01	1.214	01	4.461	01
2.390	01	1.348	01	1.669	01	1.215	01	4.233	01
2.400	01	1.018	01	1.277	01	1.211	01	3.507	01
2.410	01	6.667	00	8.585	00	1.196	01	2.721	01
2.430	01	2.586	00	3.720	00	1.155	01	1.786	01
2.450	01	1.610	00	2.543	00	1.117	01	1.533	01
2.480	01	1.523	00	2.359	00	1.069	01	1.457	01
2.500	01	1.740	00	2.490	00	1.035	01	1.458	01
2.510	01	1.946	00	2.633	00	1.017	01	1.475	01
2.530	01	2.761	00	3.223	00	9.724	00	1.570	01
2.550	01	5.651	00	5.372	00	9.139	00	2.016	01
2.570	01	2.205	01	1.765	01	8.926	00	4.863	01
2.590	01	8.776	01	6.691	01	1.235	01	1.670	02
2.600	01	1.415	02	1.072	02	1.672	01	2.654	02
2.610	01	1.895	02	1.432	02	2.201	01	3.548	02
2.615	01	2.040	02	1.541	02	2.442	01	3.826	02
2.620	01	2.092	02	1.580	02	2.628	01	3.936	02
2.625	01	2.036	02	1.538	02	2.735	01	3.848	02
2.630	01	1.889	02	1.427	02	2.762	01	3.593	02
2.640	01	1.408	02	1.066	02	2.591	01	2.734	02
2.650	01	8.764	01	6.674	01	2.250	01	1.768	02
2.660	01	4.657	01	3.591	01	1.902	01	1.015	02
2.680	01	1.082	01	8.995	00	1.478	01	3.461	01
2.700	01	4.783	00	3.818	00	1.315	01	2.175	01
2.720	01	9.171	00	3.412	00	1.234	01	2.493	01
2.730	01	1.575	01	4.011	00	1.213	01	3.190	01
2.740	01	2.376	01	4.852	00	1.207	01	4.068	01
2.750	01	3.167	01	5.722	00	1.217	01	4.956	01
2.755	01	3.367	01	5.923	00	1.230	01	5.189	01
2.760	01	3.549	01	6.107	00	1.240	01	5.400	01
2.765	01	3.347	01	5.816	00	1.248	01	5.177	01
2.770	01	3.133	01	5.513	00	1.259	01	4.944	01
2.780	01	2.308	01	4.422	00	1.261	01	4.012	01
2.790	01	1.478	01	3.335	00	1.251	01	3.063	01
2.800	01	7.985	00	2.443	00	1.234	01	2.277	01
2.830	01	1.131	00	1.496	00	1.184	01	1.447	01
2.850	01	6.647	-01	1.395	00	1.165	01	1.371	01
2.900	01	4.145	-01	1.298	00	1.134	01	1.305	01
2.950	01	3.217	-01	1.258	00	1.112	01	1.270	01
3.000	01	2.773	-01	1.260	00	1.094	01	1.248	01
3.055	01	2.647	-01	1.336	00	1.077	01	1.237	01
3.100	01	2.957	-01	1.550	00	1.062	01	1.247	01
3.130	01	3.769	-01	1.966	00	1.050	01	1.285	01
3.150	01	5.343	-01	2.728	00	1.041	01	1.367	01
3.170	01	1.004	00	4.971	00	1.028	01	1.626	01
3.180	01	1.507	00	7.362	00	1.022	01	1.909	01
3.190	01	2.270	00	1.099	01	1.018	01	2.344	01
3.200	01	3.271	00	1.574	01	1.018	01	2.920	01
3.210	01	4.340	00	2.082	01	1.025	01	3.541	01
3.220	01	5.178	00	2.480	01	1.038	01	4.037	01
3.225	01	5.413	00	2.592	01	1.047	01	4.181	01

TABLE IV (Continued) T = 0.2 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
3.230	01	5.490	00	2.626	01	1.056	01	4.234	01
3.235	01	5.400	00	2.585	01	1.065	01	4.191	01
3.240	01	5.154	00	2.468	01	1.074	01	4.058	01
3.250	01	4.303	00	2.064	01	1.085	01	3.580	01
3.280	01	1.492	00	7.273	00	1.082	01	1.958	01
3.300	01	6.966	-01	3.473	00	1.068	01	1.485	01
3.310	01	5.258	-01	2.649	00	1.062	01	1.379	01
3.330	01	3.688	-01	1.869	00	1.052	01	1.276	01
3.350	01	3.084	-01	1.534	00	1.044	01	1.228	01
3.370	01	2.851	-01	1.354	00	1.037	01	1.201	01
3.390	01	2.841	-01	1.244	00	1.030	01	1.183	01
3.400	01	2.916	-01	1.204	00	1.026	01	1.176	01
3.410	01	3.058	-01	1.172	00	1.023	01	1.171	01
3.430	01	3.724	-01	1.127	00	1.015	01	1.165	01
3.450	01	6.591	-01	1.123	00	1.005	01	1.183	01
3.470	01	2.318	00	1.299	00	9.917	00	1.353	01
3.479	01	4.760	00	1.591	00	9.848	00	1.620	01
3.490	01	9.154	00	2.129	00	9.813	00	2.109	01
3.500	01	1.571	01	2.938	00	9.853	00	2.850	01
3.510	01	2.347	01	3.898	00	9.995	00	3.737	01
3.520	01	3.005	01	4.712	00	1.022	01	4.499	01
3.525	01	3.000	01	4.701	00	1.031	01	4.502	01
3.530	01	3.264	01	5.027	00	1.047	01	4.814	01
3.535	01	2.997	01	4.690	00	1.058	01	4.525	01
3.540	01	2.994	01	4.682	00	1.067	01	4.529	01
3.550	01	2.328	01	3.843	00	1.076	01	3.789	01
3.560	01	1.555	01	2.869	00	1.075	01	2.917	01
3.580	01	4.804	00	1.513	00	1.053	01	1.685	01
3.600	01	1.205	00	1.053	00	1.032	01	1.258	01
3.650	01	3.066	-01	9.191	-01	1.005	01	1.128	01
3.700	01	2.665	-01	8.970	-01	9.889	00	1.105	01
3.750	01	2.818	-01	8.857	-01	9.725	00	1.089	01
3.800	01	3.301	-01	8.820	-01	9.544	00	1.075	01
3.820	01	3.598	-01	8.829	-01	9.462	00	1.070	01
3.850	01	4.197	-01	8.877	-01	9.326	00	1.063	01
3.870	01	4.731	-01	8.937	-01	9.222	00	1.058	01
3.900	01	5.828	-01	9.089	-01	9.042	00	1.053	01
3.920	01	6.848	-01	9.250	-01	8.900	00	1.051	01
3.950	01	9.094	-01	9.637	-01	8.639	00	1.051	01
3.970	01	1.138	00	1.005	00	8.422	00	1.056	01
4.000	01	1.721	00	1.116	00	7.998	00	1.083	01
4.030	01	3.122	00	1.390	00	7.402	00	1.191	01
4.050	01	6.543	00	2.071	00	7.111	00	1.572	01
4.070	01	2.297	01	5.353	00	8.974	00	3.730	01
4.090	01	8.744	01	1.824	01	2.086	01	1.265	02
4.100	01	1.552	02	3.179	01	3.530	01	2.223	02
4.110	01	2.477	02	5.030	01	5.614	01	3.542	02
4.120	01	3.342	02	6.760	01	7.726	01	4.791	02
4.130	01	4.074	02	8.223	01	9.768	01	5.873	02
4.135	01	4.279	02	8.632	01	1.040	02	6.182	02
4.139	01	4.459	02	8.993	01	1.108	02	6.466	02
4.145	01	4.261	02	8.596	01	1.089	02	6.210	02
4.160	01	3.317	02	6.708	01	9.341	01	4.922	02
4.170	01	2.452	02	4.979	01	7.558	01	3.706	02
4.179	01	1.542	02	3.159	01	5.513	01	2.409	02
4.190	01	8.767	01	1.827	01	3.931	01	1.452	02
4.200	01	4.606	01	9.950	00	2.865	01	8.467	01
4.250	01	3.067	00	1.337	00	1.477	01	1.917	01
4.300	01	9.876	01	7.002	-01	1.070	01	1.239	01

TABLE V

Pu^{239} CROSS SECTIONS

Pu^{239} Temperature = 0.5 ev

Neutron Energy, E_n (ev)		Radiative Capture Cross Section, σ_γ (barns)		Fission Cross Section, σ_F (barns)		Scattering Cross Section, σ_S (barns)		Total Cross Section, σ_T (barns)	
2.530	-02	3.172	02	7.147	02	9.490	00	1.041	03
3.000	-02	2.967	02	6.605	02	9.456	00	9.667	02
4.000	-02	2.683	02	5.821	02	9.379	00	8.598	02
5.000	-02	2.523	02	5.333	02	9.295	00	7.949	02
6.000	-02	2.440	02	5.024	02	9.205	00	7.556	02
7.000	-02	2.411	02	4.837	02	9.108	00	7.339	02
8.000	-02	2.425	02	4.743	02	9.005	00	7.258	02
1.000	-01	2.562	02	4.773	02	8.779	00	7.423	02
1.299	-01	3.052	02	5.317	02	8.396	00	8.453	02
1.500	-01	3.633	02	6.081	02	8.123	00	9.796	02
1.800	-01	5.159	02	8.206	02	7.786	00	1.344	03
2.000	-01	6.878	02	1.065	03	7.800	00	1.761	03
2.300	-01	1.079	03	1.627	03	8.874	00	2.716	03
2.500	-01	1.385	03	2.068	03	1.071	01	3.464	03
2.599	-01	1.521	03	2.263	03	1.197	01	3.796	03
2.700	-01	1.627	03	2.416	03	1.338	01	4.056	03
2.799	-01	1.692	03	2.509	03	1.485	01	4.217	03
2.900	-01	1.710	03	2.534	03	1.628	01	4.260	03
2.920	-01	1.707	03	2.530	03	1.655	01	4.254	03
2.950	-01	1.700	03	2.519	03	1.694	01	4.236	03
3.000	-01	1.678	03	2.486	03	1.756	01	4.182	03
3.100	-01	1.601	03	2.374	03	1.861	01	3.995	03
3.200	-01	1.488	03	2.209	03	1.939	01	3.718	03
3.300	-01	1.351	03	2.009	03	1.987	01	3.380	03
3.500	-01	1.048	03	1.568	03	2.006	01	2.636	03
3.700	-01	7.685	02	1.161	03	1.952	01	1.949	03
4.000	-01	4.620	02	7.145	02	1.819	01	1.194	03
4.500	-01	2.099	02	3.459	02	1.622	01	5.721	02
5.000	-01	1.126	02	2.022	02	1.499	01	3.298	02
5.500	-01	6.930	01	1.370	02	1.421	01	2.205	02
6.000	-01	4.676	01	1.023	02	1.368	01	1.628	02
7.000	-01	2.546	01	6.819	01	1.300	01	1.066	02
8.000	-01	1.615	01	5.201	01	1.258	01	8.075	01
9.000	-01	1.130	01	4.276	01	1.228	01	6.635	01
1.000	00	8.470	00	3.677	01	1.206	01	5.731	01
1.250	00	4.999	00	2.805	01	1.167	01	4.472	01
1.500	00	3.494	00	2.314	01	1.139	01	3.802	01
1.750	00	2.695	00	1.986	01	1.117	01	3.373	01
2.000	00	2.212	00	1.747	01	1.099	01	3.067	01
2.200	00	1.949	00	1.595	01	1.085	01	2.876	01
2.500	00	1.673	00	1.412	01	1.067	01	2.648	01
3.000	00	1.394	00	1.187	01	1.041	01	2.368	01
3.500	00	1.240	00	1.025	01	1.016	01	2.166	01
4.000	00	1.165	00	9.053	00	9.927	00	2.014	01
4.500	00	1.154	00	8.143	00	9.688	00	1.898	01
5.000	00	1.212	00	7.470	00	9.435	00	1.811	01
5.500	00	1.372	00	7.016	00	9.154	00	1.754	01
6.000	00	1.728	00	6.826	00	8.813	00	1.736	01
6.300	00	2.146	00	6.918	00	8.558	00	1.762	01
6.500	00	2.606	00	7.137	00	8.350	00	1.809	01
6.800	00	3.912	00	7.978	00	7.945	00	1.983	01
7.000	00	5.851	00	9.400	00	7.563	00	2.281	01
7.200	00	1.154	01	1.382	01	7.043	00	3.241	01
7.400	00	4.679	01	4.189	01	7.107	00	9.579	01
7.500	00	1.083	02	9.107	01	8.879	00	2.083	02
7.599	00	2.214	02	1.814	02	1.346	01	4.163	02
7.660	00	3.076	02	2.503	02	1.767	01	5.756	02
7.700	00	3.653	02	2.965	02	2.086	01	6.827	02
7.760	00	4.380	02	3.545	02	2.558	01	8.181	02
7.800	00	4.699	02	3.800	02	2.830	01	8.782	02
7.830	00	4.817	02	3.894	02	2.988	01	9.010	02

TABLE V (Continued) T = 0.5 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
7.850	00	4.836	02	3.909	02	3.068	01	9.052	02
7.870	00	4.803	02	3.882	02	3.125	01	8.998	02
7.900	00	4.665	02	3.772	02	3.167	01	8.755	02
7.950	00	4.223	02	3.417	02	3.119	01	7.953	02
8.000	00	3.593	02	2.912	02	2.945	01	6.800	02
8.099	00	2.183	02	1.782	02	2.394	01	4.205	02
8.200	00	1.087	02	9.033	01	1.849	01	2.175	02
8.400	00	2.123	01	1.957	01	1.269	01	5.350	01
8.599	00	6.589	00	6.993	00	1.089	01	2.447	01
8.800	00	3.365	00	4.055	00	1.006	01	1.748	01
9.000	00	2.446	00	4.007	00	9.493	00	1.594	01
9.199	00	2.488	00	5.503	00	9.040	00	1.703	01
9.400	00	2.911	00	7.510	00	8.639	00	1.906	01
9.599	00	3.550	00	9.806	00	8.242	00	2.159	01
9.799	00	4.549	00	1.293	01	7.812	00	2.530	01
1.000	01	6.401	00	1.842	01	7.311	00	3.213	01
1.020	01	1.099	01	3.187	01	6.739	00	4.950	01
1.050	01	4.814	01	1.416	02	7.374	00	1.971	02
1.070	01	1.278	02	3.777	02	1.322	01	5.188	02
1.080	01	1.742	02	5.150	02	1.818	01	7.075	02
1.085	01	1.922	02	5.680	02	2.067	01	7.809	02
1.090	01	2.038	02	6.019	02	2.286	01	8.286	02
1.093	01	2.070	02	6.112	02	2.394	01	8.423	02
1.095	01	2.076	02	6.125	02	2.453	01	8.447	02
1.097	01	2.068	02	6.099	02	2.501	01	8.417	02
1.100	01	2.032	02	5.986	02	2.551	01	8.274	02
1.105	01	1.913	02	5.622	02	2.574	01	7.793	02
1.110	01	1.736	02	5.080	02	2.524	01	7.069	02
1.120	01	1.301	02	3.726	02	2.258	01	5.253	02
1.130	01	9.156	01	2.435	02	1.895	01	3.540	02
1.140	01	7.240	01	1.524	02	1.572	01	2.405	02
1.150	01	8.151	01	1.064	02	1.384	01	2.017	02
1.160	01	1.227	02	9.888	01	1.386	01	2.355	02
1.170	01	1.900	02	1.170	02	1.591	01	3.229	02
1.180	01	2.618	02	1.439	02	1.939	01	4.251	02
1.185	01	2.910	02	1.554	02	2.126	01	4.677	02
1.190	01	3.075	02	1.615	02	2.290	01	4.920	02
1.193	01	3.127	02	1.631	02	2.375	01	4.996	02
1.195	01	3.153	02	1.638	02	2.427	01	5.035	02
1.197	01	3.117	02	1.616	02	2.453	01	4.979	02
1.200	01	3.051	02	1.578	02	2.490	01	4.878	02
1.205	01	2.863	02	1.479	02	2.513	01	4.593	02
1.210	01	2.552	02	1.323	02	2.458	01	4.121	02
1.220	01	1.806	02	9.559	01	2.231	01	2.986	02
1.230	01	1.096	02	6.086	01	1.925	01	1.897	02
1.250	01	2.944	01	2.149	01	1.439	01	6.533	01
1.280	01	6.566	00	9.798	00	1.153	01	2.790	01
1.300	01	4.883	00	8.926	00	1.067	01	2.447	01
1.320	01	4.603	00	9.128	00	9.978	00	2.371	01
1.340	01	5.186	00	1.051	01	9.318	00	2.502	01
1.350	01	6.024	00	1.220	01	8.974	00	2.720	01
1.370	01	1.071	01	2.159	01	8.240	00	4.055	01
1.390	01	2.616	01	5.096	01	7.653	00	8.478	01
1.400	01	4.208	01	7.752	01	7.697	00	1.273	02
1.410	01	6.672	01	1.118	02	8.337	00	1.869	02
1.415	01	8.335	01	1.313	02	9.036	00	2.237	02
1.420	01	1.033	02	1.519	02	1.006	01	2.652	02
1.425	01	1.273	02	1.736	02	1.154	01	3.125	02
1.430	01	1.544	02	1.954	02	1.342	01	3.633	02
1.435	01	1.861	02	2.183	02	1.589	01	4.203	02
1.440	01	2.187	02	2.397	02	1.872	01	4.772	02
1.445	01	2.537	02	2.611	02	2.201	01	5.369	02
1.450	01	2.858	02	2.792	02	2.545	01	5.905	02

TABLE V (Continued)

T = 0.5 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.455	01	3.143	02	2.939	02	2.882	01	6.371	02
1.460	01	3.365	02	3.041	02	3.206	01	6.727	02
1.465	01	3.472	02	3.061	02	3.448	01	6.879	02
1.470	01	3.506	02	3.037	02	3.645	01	6.908	02
1.475	01	3.388	02	2.912	02	3.720	01	6.672	02
1.480	01	3.198	02	2.748	02	3.718	01	6.319	02
1.485	01	2.906	02	2.522	02	3.622	01	5.791	02
1.490	01	2.556	02	2.265	02	3.440	01	5.165	02
1.500	01	1.806	02	1.754	02	2.954	01	3.856	02
1.510	01	1.149	02	1.353	02	2.435	01	2.746	02
1.520	01	6.817	01	1.115	02	2.007	01	1.997	02
1.530	01	4.009	01	1.013	02	1.716	01	1.586	02
1.535	01	3.150	01	9.935	01	1.619	01	1.470	02
1.540	01	2.550	01	9.820	01	1.548	01	1.391	02
1.545	01	2.135	01	9.709	01	1.498	01	1.334	02
1.550	01	1.841	01	9.538	01	1.463	01	1.284	02
1.555	01	1.628	01	9.274	01	1.438	01	1.234	02
1.560	01	1.463	01	8.897	01	1.420	01	1.178	02
1.565	01	1.325	01	8.411	01	1.406	01	1.114	02
1.570	01	1.204	01	7.832	01	1.393	01	1.043	02
1.580	01	9.898	00	6.502	01	1.368	01	8.860	01
1.590	01	8.041	00	5.140	01	1.338	01	7.283	01
1.600	01	6.513	00	3.934	01	1.304	01	5.890	01
1.620	01	4.511	00	2.272	01	1.233	01	3.957	01
1.660	01	3.623	00	1.097	01	1.106	01	2.565	01
1.680	01	5.057	00	1.056	01	1.043	01	2.606	01
1.690	01	7.374	00	1.227	01	1.013	01	2.978	01
1.700	01	1.225	01	1.668	01	9.897	00	3.883	01
1.720	01	3.805	01	4.178	01	1.018	01	9.002	01
1.730	01	6.211	01	6.558	01	1.110	01	1.388	02
1.740	01	9.288	01	9.613	01	1.278	01	2.018	02
1.750	01	1.242	02	1.273	02	1.501	01	2.666	02
1.755	01	1.377	02	1.407	02	1.627	01	2.947	02
1.760	01	1.475	02	1.504	02	1.743	01	3.153	02
1.765	01	1.542	02	1.570	02	1.849	01	3.297	02
1.770	01	1.567	02	1.595	02	1.943	01	3.357	02
1.775	01	1.536	02	1.563	02	2.006	01	3.300	02
1.780	01	1.464	02	1.491	02	2.039	01	3.160	02
1.785	01	1.364	02	1.389	02	2.049	01	2.958	02
1.790	01	1.227	02	1.253	02	2.030	01	2.684	02
1.800	01	9.150	01	9.393	01	1.921	01	2.046	02
1.820	01	3.773	01	3.999	01	1.613	01	9.387	01
1.850	01	6.882	00	8.942	00	1.310	01	2.893	01
1.870	01	3.033	00	4.986	00	1.225	01	2.027	01
1.900	01	1.739	00	3.556	00	1.157	01	1.687	01
1.950	01	1.231	00	2.861	00	1.088	01	1.497	01
1.980	01	1.166	00	2.695	00	1.054	01	1.440	01
2.000	01	1.182	00	2.642	00	1.033	01	1.415	01
2.020	01	1.245	00	2.634	00	1.011	01	1.399	01
2.050	01	1.455	00	2.717	00	9.757	00	1.393	01
2.100	01	2.524	00	3.405	00	8.990	00	1.492	01
2.120	01	4.048	00	4.489	00	8.585	00	1.712	01
2.150	01	1.645	01	1.352	01	8.506	00	3.849	01
2.170	01	5.156	01	3.919	01	1.103	01	1.017	02
2.190	01	1.279	02	9.506	01	1.878	01	2.417	02
2.200	01	1.800	02	1.331	02	2.512	01	3.382	02
2.210	01	2.254	02	1.663	02	3.148	01	4.232	02
2.220	01	2.608	02	1.922	02	3.729	01	4.904	02
2.225	01	2.724	02	2.007	02	3.977	01	5.129	02
2.230	01	2.764	02	2.037	02	4.153	01	5.217	02
2.235	01	2.717	02	2.002	02	4.230	01	5.143	02
2.240	01	2.596	02	1.913	02	4.210	01	4.931	02
2.250	01	2.234	02	1.648	02	3.983	01	4.281	02

TABLE V (Continued) T = 0.5 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
2.260	01	1.782	02	1.317	02	3.594	01	3.459	02
2.280	01	8.370	01	6.268	01	2.555	01	1.719	02
2.300	01	3.093	01	2.424	01	1.827	01	7.345	01
2.320	01	1.168	01	1.071	01	1.465	01	3.705	01
2.330	01	9.036	00	9.295	00	1.372	01	3.206	01
2.340	01	8.519	00	9.582	00	1.312	01	3.122	01
2.350	01	9.050	00	1.069	01	1.272	01	3.247	01
2.360	01	9.920	00	1.200	01	1.245	01	3.438	01
2.370	01	1.064	01	1.304	01	1.227	01	3.597	01
2.375	01	1.082	01	1.331	01	1.221	01	3.634	01
2.380	01	1.080	01	1.334	01	1.215	01	3.631	01
2.385	01	1.059	01	1.313	01	1.211	01	3.583	01
2.390	01	1.018	01	1.267	01	1.206	01	3.492	01
2.400	01	8.937	00	1.123	01	1.196	01	3.213	01
2.410	01	7.380	00	9.405	00	1.184	01	2.862	01
2.430	01	4.332	00	5.784	00	1.154	01	2.165	01
2.450	01	2.469	00	3.543	00	1.119	01	1.721	01
2.480	01	1.792	00	2.610	00	1.067	01	1.507	01
2.500	01	2.250	00	2.885	00	1.031	01	1.544	01
2.510	01	2.932	00	3.378	00	1.012	01	1.643	01
2.530	01	6.910	00	6.336	00	9.790	00	2.303	01
2.550	01	2.011	01	1.622	01	9.952	00	4.629	01
2.570	01	4.994	01	3.856	01	1.148	01	9.999	01
2.590	01	9.478	01	7.218	01	1.495	01	1.819	02
2.600	01	1.177	02	8.937	01	1.726	01	2.243	02
2.610	01	1.348	02	1.022	02	1.956	01	2.566	02
2.615	01	1.395	02	1.057	02	2.054	01	2.659	02
2.620	01	1.411	02	1.069	02	2.133	01	2.693	02
2.625	01	1.393	02	1.055	02	2.187	01	2.668	02
2.630	01	1.345	02	1.019	02	2.215	01	2.585	02
2.640	01	1.173	02	8.897	01	2.193	01	2.282	02
2.650	01	9.451	01	7.179	01	2.091	01	1.872	02
2.660	01	7.104	01	5.403	01	1.944	01	1.445	02
2.680	01	3.415	01	2.561	01	1.633	01	7.610	01
2.700	01	1.663	01	1.063	01	1.407	01	4.134	01
2.720	01	1.502	01	5.557	00	1.286	01	3.343	01
2.730	01	1.788	01	4.963	00	1.255	01	3.540	01
2.740	01	2.160	01	4.921	00	1.240	01	3.893	01
2.750	01	2.466	01	5.023	00	1.237	01	4.206	01
2.755	01	2.549	01	5.033	00	1.238	01	4.291	01
2.760	01	2.569	01	4.984	00	1.239	01	4.307	01
2.765	01	2.524	01	4.866	00	1.241	01	4.252	01
2.770	01	2.418	01	4.683	00	1.242	01	4.129	01
2.780	01	2.065	01	4.163	00	1.242	01	3.724	01
2.790	01	1.621	01	3.546	00	1.236	01	3.212	01
2.800	01	1.184	01	2.950	00	1.227	01	2.706	01
2.830	01	3.402	00	1.792	00	1.190	01	1.710	01
2.850	01	1.383	00	1.494	00	1.169	01	1.457	01
2.900	01	4.411	-01	1.307	00	1.135	01	1.310	01
2.950	01	3.286	-01	1.264	00	1.112	01	1.272	01
3.000	01	2.819	-01	1.269	00	1.094	01	1.249	01
3.055	01	2.724	-01	1.365	00	1.076	01	1.240	01
3.100	01	3.306	-01	1.711	00	1.061	01	1.265	01
3.130	01	5.283	-01	2.681	00	1.049	01	1.370	01
3.150	01	8.938	-01	4.431	00	1.040	01	1.573	01
3.170	01	1.592	00	7.760	00	1.033	01	1.968	01
3.180	01	2.071	00	1.003	01	1.031	01	2.242	01
3.190	01	2.600	00	1.255	01	1.032	01	2.547	01
3.200	01	3.123	00	1.504	01	1.035	01	2.851	01
3.210	01	3.570	00	1.716	01	1.040	01	3.113	01
3.220	01	3.869	00	1.858	01	1.047	01	3.292	01
3.225	01	3.946	00	1.895	01	1.051	01	3.341	01
3.230	01	3.970	00	1.906	01	1.055	01	3.358	01

TABLE V (Continued) T = 0.5 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
3.235	01	3.938	00	1.891	01	1.059	01	3.344	01
3.240	01	3.853	00	1.850	01	1.062	01	3.299	01
3.250	01	3.542	00	1.702	01	1.069	01	3.126	01
3.280	01	2.046	00	9.900	00	1.074	01	2.269	01
3.300	01	1.187	00	5.796	00	1.067	01	1.766	01
3.310	01	8.897	-01	4.365	00	1.063	01	1.588	01
3.330	01	5.286	-01	2.611	00	1.053	01	1.367	01
3.350	01	3.735	-01	1.814	00	1.045	01	1.264	01
3.370	01	3.221	-01	1.465	00	1.037	01	1.216	01
3.390	01	3.455	-01	1.300	00	1.029	01	1.194	01
3.400	01	4.010	-01	1.253	00	1.026	01	1.191	01
3.410	01	5.049	-01	1.223	00	1.022	01	1.194	01
3.430	01	1.022	00	1.224	00	1.013	01	1.238	01
3.450	01	2.920	00	1.416	00	1.006	01	1.439	01
3.470	01	7.470	00	1.950	00	9.990	00	1.941	01
3.479	01	9.474	00	2.186	00	9.959	00	2.162	01
3.490	01	1.115	01	2.384	00	9.976	00	2.352	01
3.500	01	1.337	01	2.650	00	1.006	01	2.609	01
3.510	01	1.690	01	3.080	00	1.020	01	3.019	01
3.520	01	2.143	01	3.638	00	1.034	01	3.542	01
3.525	01	2.321	01	3.855	00	1.037	01	3.744	01
3.530	01	2.387	01	3.933	00	1.038	01	3.818	01
3.535	01	2.313	01	3.836	00	1.037	01	3.734	01
3.540	01	2.127	01	3.600	00	1.037	01	3.524	01
3.550	01	1.664	01	3.014	00	1.042	01	3.008	01
3.560	01	1.327	01	2.587	00	1.050	01	2.636	01
3.580	01	1.001	01	2.166	00	1.051	01	2.269	01
3.600	01	4.640	00	1.483	00	1.034	01	1.647	01
3.650	01	5.401	-01	9.491	-01	1.007	01	1.156	01
3.700	01	2.789	-01	8.992	-01	9.889	00	1.106	01
3.750	01	2.882	-01	8.871	-01	9.721	00	1.089	01
3.800	**01**	**3.383**	**-01**	**8.838**	**-01**	**9.536**	**00**	**1.075**	**01**
3.820	**01**	**3.699**	**-01**	**8.851**	**-01**	**9.453**	**00**	**1.070**	**01**
3.850	**01**	**4.345**	**-01**	**8.908**	**-01**	**9.312**	**00**	**1.063**	**01**
3.870	**01**	**4.931**	**-01**	**8.978**	**-01**	**9.205**	**00**	**1.059**	**01**
3.900	**01**	**6.166**	**-01**	**9.158**	**-01**	**9.017**	**00**	**1.055**	**01**
3.920	**01**	**7.357**	**-01**	**9.353**	**-01**	**8.867**	**00**	**1.053**	**01**
3.950	**01**	**1.022**	**00**	**9.864**	**-01**	**8.591**	**00**	**1.060**	**01**
3.970	**01**	**1.393**	**00**	**1.056**	**00**	**8.366**	**00**	**1.081**	**01**
4.000	01	3.296	00	1.431	00	8.110	00	1.283	01
4.030	01	1.284	01	3.334	00	9.114	00	2.528	01
4.050	01	3.183	01	7.129	00	1.216	01	5.113	01
4.070	01	8.275	01	1.730	01	2.280	01	1.228	02
4.090	01	1.537	02	3.149	01	3.798	01	2.231	02
4.100	01	1.714	02	3.504	01	4.270	01	2.492	02
4.110	01	2.252	02	4.579	01	5.653	01	3.275	02
4.120	01	2.755	02	5.586	01	6.848	01	3.999	02
4.130	01	2.766	02	5.608	01	6.997	01	4.027	02
4.135	01	2.957	02	5.989	01	7.651	01	4.321	02
4.139	01	2.694	02	5.464	01	7.090	01	3.950	02
4.145	01	3.000	02	6.076	01	7.881	01	4.396	02
4.160	01	2.529	02	5.134	01	7.164	01	3.759	02
4.170	01	2.249	02	4.572	01	6.662	01	3.372	02
4.179	01	1.864	02	3.803	01	5.878	01	2.832	02
4.190	01	1.448	02	2.971	01	4.978	01	2.243	02
4.200	01	1.061	02	2.195	01	4.098	01	1.690	02
4.250	01	1.323	01	3.328	00	1.710	01	3.367	01
4.300	01	1.439	00	7.485	-01	1.053	01	1.272	01

TABLE VI

Pu^{239} CROSS SECTIONS

Pu^{239} Temperature = 1.0 ev

Neutron Energy, E_n(ev)		Radiative Capture Cross Section, σ_γ(barns)		Fission Cross Section, σ_F(barns)		Scattering Cross Section, σ_S(barns)		Total Cross Section, σ_T(barns)	
2.530	-02	3.198	02	7.171	02	9.463	00	1.046	03
3.000	-02	2.994	02	6.639	02	9.428	00	9.728	02
4.000	-02	2.718	02	5.870	02	9.348	00	8.682	02
5.000	-02	2.566	02	5.396	02	9.261	00	8.056	02
6.000	-02	2.493	02	5.102	02	9.167	00	7.687	02
7.000	-02	2.475	02	4.933	02	9.067	00	7.499	02
8.000	-02	2.502	02	4.859	02	8.960	00	7.451	02
1.000	-01	2.681	02	4.949	02	8.730	00	7.718	02
1.299	-01	3.300	02	5.678	02	8.357	00	9.062	02
1.500	-01	4.046	02	6.682	02	8.135	00	1.081	03
1.800	-01	5.938	02	9.338	02	8.067	00	1.535	03
2.000	-01	7.811	02	1.200	03	8.437	00	1.990	03
2.300	-01	1.119	03	1.685	03	1.002	01	2.814	03
2.500	-01	1.324	03	1.980	03	1.177	01	3.317	03
2.599	-01	1.402	03	2.091	03	1.280	01	3.507	03
2.700	-01	1.456	03	2.169	03	1.385	01	3.639	03
2.799	-01	1.483	03	2.206	03	1.490	01	3.705	03
2.900	-01	1.482	03	2.203	03	1.588	01	3.701	03
2.920	-01	1.478	03	2.198	03	1.607	01	3.692	03
2.950	-01	1.471	03	2.186	03	1.634	01	3.674	03
3.000	-01	1.453	03	2.160	03	1.677	01	3.629	03
3.100	-01	1.398	03	2.080	03	1.751	01	3.496	03
3.200	-01	1.323	03	1.970	03	1.811	01	3.311	03
3.300	-01	1.232	03	1.836	03	1.853	01	3.087	03
3.500	-01	1.023	03	1.531	03	1.892	01	2.573	03
3.700	-01	8.097	02	1.220	03	1.878	01	2.049	03
4.000	-01	5.365	02	8.226	02	1.800	01	1.377	03
4.500	-01	2.568	02	4.138	02	1.637	01	6.871	02
5.000	-01	1.323	02	2.306	02	1.511	01	3.781	02
5.500	-01	7.755	01	1.490	02	1.428	01	2.408	02
6.000	-01	5.068	01	1.080	02	1.372	01	1.724	02
7.000	-01	2.669	01	6.997	01	1.302	01	1.097	02
8.000	-01	1.666	01	5.276	01	1.259	01	8.202	01
9.000	-01	1.155	01	4.313	01	1.229	01	6.699	01
1.000	00	8.614	00	3.698	01	1.206	01	5.766	01
1.250	00	5.045	00	2.811	01	1.167	01	4.483	01
1.500	00	3.514	00	2.316	01	1.139	01	3.807	01
1.750	00	2.705	00	1.988	01	1.117	01	3.376	01
2.000	00	2.218	00	1.747	01	1.098	01	3.068	01
2.200	00	1.952	00	1.596	01	1.085	01	2.877	01
2.500	00	1.675	00	1.413	01	1.067	01	2.648	01
3.000	00	1.395	00	1.188	01	1.041	01	2.368	01
3.500	00	1.242	00	1.026	01	1.016	01	2.166	01
4.000	00	1.167	00	9.056	00	9.926	00	2.015	01
4.500	00	1.157	00	8.147	00	9.686	00	1.899	01
5.000	00	1.217	00	7.476	00	9.433	00	1.812	01
5.500	00	1.382	00	7.026	00	9.149	00	1.755	01
6.000	00	1.755	00	6.849	00	8.805	00	1.741	01
6.300	00	2.206	00	6.967	00	8.544	00	1.771	01
6.500	00	2.719	00	7.229	00	8.331	00	1.828	01
6.800	00	4.386	00	8.357	00	7.906	00	2.065	01
7.000	00	8.291	00	1.135	01	7.541	00	2.718	01
7.200	00	2.636	01	2.567	01	7.463	00	5.950	01
7.400	00	9.499	01	8.043	01	9.443	00	1.848	02
7.500	00	1.596	02	1.321	02	1.210	01	3.038	02
7.599	00	2.376	02	1.944	02	1.593	01	4.480	02
7.660	00	2.832	02	2.308	02	1.852	01	5.326	02
7.700	00	3.099	02	2.521	02	2.023	01	5.822	02
7.760	00	3.404	02	2.764	02	2.255	01	6.395	02
7.800	00	3.527	02	2.862	02	2.383	01	6.627	02
7.830	00	3.570	02	2.896	02	2.459	01	6.712	02

TABLE VI (Continued) T = 1.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
7.850	00	3.574	02	2.899	02	2.499	01	6.724	02
7.870	00	3.560	02	2.887	02	2.531	01	6.700	02
7.900	00	3.502	02	2.841	02	2.560	01	6.599	02
7.950	00	3.318	02	2.693	02	2.564	01	6.268	02
8.000	00	3.042	02	2.471	02	2.513	01	5.765	02
8.099	00	2.322	02	1.893	02	2.285	01	4.444	02
8.200	00	1.569	02	1.288	02	1.972	01	3.055	02
8.400	00	5.267	01	4.468	01	1.423	01	1.116	02
8.599	00	1.436	01	1.342	01	1.142	01	3.921	01
8.800	00	4.969	00	5.773	00	1.020	01	2.095	01
9.000	00	2.961	00	4.777	00	9.546	00	1.728	01
9.199	00	2.704	00	5.830	00	9.059	00	1.759	01
9.400	00	3.051	00	7.751	00	8.635	00	1.943	01
9.599	00	3.784	00	1.038	01	8.219	00	2.238	01
9.799	00	5.182	00	1.472	01	7.775	00	2.768	01
1.000	01	8.653	00	2.502	01	7.323	00	4.100	01
1.020	01	1.895	01	5.544	01	7.155	00	8.156	01
1.050	01	6.806	01	2.006	02	9.686	00	2.783	02
1.070	01	1.222	02	3.604	02	1.453	01	4.972	02
1.080	01	1.453	02	4.274	02	1.734	01	5.901	02
1.085	01	1.534	02	4.506	02	1.861	01	6.227	02
1.090	01	1.588	02	4.648	02	1.971	01	6.433	02
1.093	01	1.605	02	4.685	02	2.025	01	6.493	02
1.095	01	1.610	02	4.690	02	2.056	01	6.507	02
1.097	01	1.610	02	4.679	02	2.083	01	6.499	02
1.100	01	1.602	02	4.633	02	2.114	01	6.447	02
1.105	01	1.567	02	4.481	02	2.141	01	6.263	02
1.110	01	1.511	02	4.247	02	2.139	01	5.973	02
1.120	01	1.369	02	3.608	02	2.062	01	5.184	02
1.130	01	1.252	02	2.886	02	1.926	01	4.331	02
1.140	01	1.233	02	2.239	02	1.793	01	3.651	02
1.150	01	1.348	02	1.767	02	1.714	01	3.287	02
1.160	01	1.589	02	1.493	02	1.719	01	3.255	02
1.170	01	1.894	02	1.378	02	1.804	01	3.452	02
1.180	01	2.168	02	1.346	02	1.935	01	3.707	02
1.185	01	2.262	02	1.336	02	2.002	01	3.799	02
1.190	01	2.318	02	1.321	02	2.061	01	3.845	02
1.193	01	2.329	02	1.306	02	2.091	01	3.844	02
1.195	01	2.326	02	1.293	02	2.108	01	3.830	02
1.197	01	2.316	02	1.277	02	2.121	01	3.805	02
1.200	01	2.285	02	1.249	02	2.135	01	3.748	02
1.205	01	2.197	02	1.188	02	2.142	01	3.599	02
1.210	01	2.068	02	1.112	02	2.128	01	3.393	02
1.220	01	1.718	02	9.252	01	2.041	01	2.847	02
1.230	01	1.311	02	7.185	01	1.894	01	2.219	02
1.250	01	6.096	01	3.688	01	1.553	01	1.133	02
1.280	01	1.412	01	1.365	01	1.203	01	3.981	01
1.300	01	6.854	00	1.022	01	1.082	01	2.791	01
1.320	01	5.605	00	1.048	01	1.000	01	2.609	01
1.340	01	7.239	00	1.423	01	9.305	00	3.078	01
1.350	01	9.522	00	1.848	01	8.984	00	3.699	01
1.370	01	2.005	01	3.584	01	8.535	00	6.443	01
1.390	01	4.575	01	7.099	01	8.917	00	1.256	02
1.400	01	6.748	01	9.632	01	9.794	00	1.736	02
1.410	01	9.621	01	1.260	02	1.136	01	2.336	02
1.415	01	1.130	02	1.420	02	1.244	01	2.675	02
1.420	01	1.313	02	1.583	02	1.373	01	3.034	02
1.425	01	1.506	02	1.746	02	1.522	01	3.404	02
1.430	01	1.704	02	1.904	02	1.687	01	3.777	02
1.435	01	1.901	02	2.053	02	1.865	01	4.141	02
1.440	01	2.090	02	2.188	02	2.051	01	4.483	02
1.445	01	2.262	02	2.304	02	2.239	01	4.790	02
1.450	01	2.410	02	2.396	02	2.420	01	5.049	02

TABLE VI (Continued) T = 1.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.455	01	2.528	02	2.462	02	2.589	01	5.249	02
1.460	01	2.607	02	2.499	02	2.736	01	5.380	02
1.465	01	2.645	02	2.504	02	2.857	01	5.436	02
1.470	01	2.639	02	2.479	02	2.945	01	5.413	02
1.475	01	2.589	02	2.426	02	2.997	01	5.315	02
1.480	01	2.497	02	2.347	02	3.013	01	5.146	02
1.485	01	2.369	02	2.246	02	2.993	01	4.915	02
1.490	01	2.210	02	2.129	02	2.939	01	4.634	02
1.500	01	1.832	02	1.869	02	2.751	01	3.977	02
1.510	01	1.428	02	1.610	02	2.496	01	3.288	02
1.520	01	1.053	02	1.381	02	2.224	01	2.656	02
1.530	01	7.423	01	1.196	02	1.974	01	2.136	02
1.535	01	6.155	01	1.119	02	1.866	01	1.921	02
1.540	01	5.077	01	1.052	02	1.770	01	1.736	02
1.545	01	4.177	01	9.916	01	1.687	01	1.578	02
1.550	01	3.439	01	9.362	01	1.617	01	1.442	02
1.555	01	2.842	01	8.843	01	1.558	01	1.324	02
1.560	01	2.364	01	8.342	01	1.509	01	1.221	02
1.565	01	1.983	01	7.848	01	1.468	01	1.130	02
1.570	01	1.681	01	7.354	01	1.434	01	1.047	02
1.580	01	1.250	01	6.357	01	1.380	01	8.988	01
1.590	01	9.693	00	5.366	01	1.338	01	7.674	01
1.600	01	7.780	00	4.425	01	1.302	01	6.505	01
1.620	01	5.498	00	2.869	01	1.234	01	4.654	01
1.660	01	6.116	00	1.517	01	1.110	01	3.239	01
1.680	01	1.212	01	1.844	01	1.068	01	4.125	01
1.690	01	1.824	01	2.371	01	1.063	01	5.258	01
1.700	01	2.723	01	3.206	01	1.075	01	7.005	01
1.720	01	5.433	01	5.827	01	1.176	01	1.243	02
1.730	01	7.108	01	7.471	01	1.269	01	1.585	02
1.740	01	8.776	01	9.113	01	1.384	01	1.927	02
1.750	01	1.019	02	1.051	02	1.508	01	2.222	02
1.755	01	1.074	02	1.104	02	1.569	01	2.336	02
1.760	01	1.114	02	1.144	02	1.626	01	2.421	02
1.765	01	1.138	02	1.167	02	1.678	01	2.474	02
1.770	01	1.145	02	1.174	02	1.721	01	2.491	02
1.775	01	1.134	02	1.162	02	1.755	01	2.472	02
1.780	01	1.107	02	1.133	02	1.778	01	2.418	02
1.785	01	1.063	02	1.089	02	1.790	01	2.332	02
1.790	01	1.006	02	1.032	02	1.792	01	2.218	02
1.800	01	8.627	01	8.873	01	1.765	01	1.926	02
1.820	01	5.332	01	5.561	01	1.624	01	1.251	02
1.850	01	1.789	01	1.997	01	1.378	01	5.164	01
1.870	01	7.517	00	9.483	00	1.265	01	2.965	01
1.900	01	2.509	00	4.333	00	1.170	01	1.854	01
1.950	01	1.308	00	2.940	00	1.090	01	1.515	01
1.980	01	1.218	00	2.745	00	1.055	01	1.451	01
2.000	01	1.237	00	2.691	00	1.032	01	1.425	01
2.020	01	1.317	00	2.693	00	1.009	01	1.410	01
2.050	01	1.622	00	2.844	00	9.721	00	1.418	01
2.100	01	5.114	00	5.304	00	9.079	00	1.949	01
2.120	01	1.189	01	1.023	01	9.177	00	3.130	01
2.150	01	4.196	01	3.219	01	1.137	01	8.552	01
2.170	01	8.246	01	6.180	01	1.544	01	1.597	02
2.190	01	1.349	02	1.001	02	2.169	01	2.568	02
2.200	01	1.603	02	1.187	02	2.518	01	3.043	02
2.210	01	1.810	02	1.339	02	2.842	01	3.434	02
2.220	01	1.948	02	1.440	02	3.109	01	3.699	02
2.225	01	1.982	02	1.464	02	3.210	01	3.768	02
2.230	01	1.995	02	1.474	02	3.288	01	3.798	02
2.235	01	1.977	02	1.461	02	3.331	01	3.772	02
2.240	01	1.940	02	1.433	02	3.350	01	3.709	02
2.250	01	1.796	02	1.328	02	3.298	01	3.454	02

TABLE VI (Continued)

T = 1.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
2.260	01	1.587	02	1.176	02	3.150	01	3.078	02
2.280	01	1.075	02	8.033	01	2.659	01	2.144	02
2.300	01	6.170	01	4.717	01	2.120	01	1.300	02
2.320	01	3.188	01	2.596	01	1.703	01	7.488	01
2.330	01	2.294	01	1.979	01	1.555	01	5.830	01
2.340	01	1.712	01	1.592	01	1.444	01	4.749	01
2.350	01	1.355	01	1.367	01	1.364	01	4.086	01
2.360	01	1.145	01	1.243	01	1.307	01	3.695	01
2.370	01	1.020	01	1.170	01	1.266	01	3.456	01
2.375	01	9.739	00	1.140	01	1.250	01	3.365	01
2.380	01	9.339	00	1.112	01	1.237	01	3.283	01
2.385	01	8.957	00	1.082	01	1.225	01	3.203	01
2.390	01	8.584	00	1.049	01	1.214	01	3.122	01
2.400	01	7.796	00	9.702	00	1.196	01	2.946	01
2.410	01	6.937	00	8.763	00	1.180	01	2.750	01
2.430	01	5.161	00	6.696	00	1.149	01	2.335	01
2.450	01	3.759	00	4.956	00	1.117	01	1.989	01
2.480	01	3.653	00	4.227	00	1.069	01	1.857	01
2.500	01	6.255	00	5.982	00	1.045	01	2.268	01
2.510	01	8.993	00	7.980	00	1.040	01	2.738	01
2.530	01	1.886	01	1.532	01	1.062	01	4.480	01
2.550	01	3.611	01	2.822	01	1.149	01	7.583	01
2.570	01	5.973	01	4.590	01	1.319	01	1.188	02
2.590	01	8.380	01	6.392	01	1.547	01	1.631	02
2.600	01	9.313	01	7.088	01	1.662	01	1.806	02
2.610	01	9.917	01	7.537	01	1.763	01	1.921	02
2.615	01	1.003	02	7.619	01	1.803	01	1.945	02
2.620	01	1.012	02	7.683	01	1.841	01	1.964	02
2.625	01	1.002	02	7.605	01	1.865	01	1.949	02
2.630	01	9.909	01	7.510	01	1.887	01	1.930	02
2.640	01	9.312	01	7.042	01	1.899	01	1.825	02
2.650	01	8.416	01	6.340	01	1.876	01	1.663	02
2.660	01	7.336	01	5.487	01	1.826	01	1.465	02
2.680	01	5.110	01	3.680	01	1.674	01	1.046	02
2.700	01	3.402	01	2.190	01	1.510	01	7.102	01
2.720	01	2.465	01	1.236	01	1.381	01	5.083	01
2.730	01	2.232	01	9.423	00	1.335	01	4.510	01
2.740	01	2.092	01	7.402	00	1.300	01	4.133	01
2.750	01	1.996	01	6.043	00	1.275	01	3.876	01
2.755	01	1.855	01	5.420	00	1.264	01	3.661	01
2.760	01	1.901	01	5.119	00	1.257	01	3.671	01
2.765	01	1.750	01	4.646	00	1.249	01	3.464	01
2.770	01	1.780	01	4.457	00	1.243	01	3.469	01
2.780	01	1.619	01	3.937	00	1.232	01	3.246	01
2.790	01	1.423	01	3.493	00	1.223	01	2.997	01
2.800	01	1.208	01	3.096	00	1.215	01	2.733	01
2.830	01	6.150	00	2.170	00	1.191	01	2.023	01
2.850	01	3.502	00	1.779	00	1.174	01	1.702	01
2.900	01	7.224	-01	1.352	00	1.138	01	1.345	01
2.950	01	3.524	-01	1.277	00	1.113	01	1.276	01
3.000	01	2.915	-01	1.291	00	1.095	01	1.253	01
3.055	01	2.997	-01	1.483	00	1.076	01	1.254	01
3.100	01	4.724	-01	2.376	00	1.060	01	1.345	01
3.130	01	8.472	-01	4.188	00	1.050	01	1.553	01
3.150	01	1.281	00	6.264	00	1.044	01	1.799	01
3.170	01	1.841	00	8.939	00	1.041	01	2.119	01
3.180	01	2.140	00	1.036	01	1.041	01	2.292	01
3.190	01	2.427	00	1.172	01	1.042	01	2.458	01
3.200	01	2.679	00	1.292	01	1.044	01	2.605	01
3.210	01	2.876	00	1.386	01	1.047	01	2.721	01
3.220	01	2.999	00	1.444	01	1.050	01	2.795	01
3.225	01	3.029	00	1.458	01	1.052	01	2.814	01
3.230	01	3.038	00	1.462	01	1.054	01	2.820	01

TABLE VI (Continued) T = 1.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
3.235	01	3.024	00	1.455	01	1.056	01	2.814	01
3.240	01	2.986	00	1.438	01	1.057	01	2.795	01
3.250	01	2.855	00	1.375	01	1.060	01	2.721	01
3.280	01	2.113	00	1.019	01	1.064	01	2.295	01
3.300	01	1.535	00	7.417	00	1.062	01	1.957	01
3.310	01	1.275	00	6.156	00	1.059	01	1.802	01
3.330	01	8.689	-01	4.115	00	1.053	01	1.551	01
3.350	01	6.398	-01	2.763	00	1.045	01	1.385	01
3.370	01	6.345	-01	1.985	00	1.037	01	1.299	01
3.390	01	9.093	-01	1.599	00	1.029	01	1.280	01
3.400	01	1.230	00	1.511	00	1.025	01	1.300	01
3.410	01	1.583	00	1.463	00	1.022	01	1.327	01
3.430	01	3.113	00	1.536	00	1.015	01	1.480	01
3.450	01	5.570	00	1.774	00	1.012	01	1.746	01
3.470	01	8.141	00	2.050	00	1.011	01	2.030	01
3.479	01	1.039	01	2.314	00	1.012	01	2.282	01
3.490	01	1.096	01	2.371	00	1.013	01	2.347	01
3.500	01	1.309	01	2.623	00	1.019	01	2.591	01
3.510	01	1.404	01	2.730	00	1.019	01	2.697	01
3.520	01	1.400	01	2.715	00	1.026	01	2.698	01
3.525	01	1.448	01	2.770	00	1.025	01	2.750	01
3.530	01	1.553	01	2.896	00	1.030	01	2.873	01
3.535	01	1.449	01	2.761	00	1.032	01	2.758	01
3.540	01	1.394	01	2.689	00	1.031	01	2.695	01
3.550	01	1.405	01	2.695	00	1.037	01	2.712	01
3.560	01	1.285	01	2.538	00	1.035	01	2.575	01
3.580	01	1.031	01	2.207	00	1.036	01	2.288	01
3.600	01	6.984	00	1.779	00	1.032	01	1.908	01
3.650	01	1.742	00	1.100	00	1.009	01	1.294	01
3.700	01	4.216	-01	9.182	-01	9.894	00	1.123	01
3.750	01	3.068	-01	8.905	-01	9.715	00	1.091	01
3.800	01	3.544	-01	8.872	-01	9.522	00	1.076	01
3.820	01	3.900	-01	8.893	-01	9.435	00	1.071	01
3.850	01	4.665	-01	8.974	-01	9.287	00	1.065	01
3.870	01	5.421	-01	9.078	-01	9.173	00	1.062	01
3.900	01	7.437	-01	9.414	-01	8.978	00	1.066	01
3.920	01	1.039	00	9.963	-01	8.838	00	1.087	01
3.950	01	2.333	00	1.248	00	8.711	00	1.229	01
3.970	01	4.747	00	1.727	00	8.869	00	1.534	01
4.000	01	1.450	01	3.673	00	1.030	01	2.848	01
4.030	01	3.573	01	8.513	00	1.487	01	6.212	01
4.050	01	6.800	01	1.436	01	2.096	01	1.033	02
4.070	01	1.034	02	2.144	01	2.894	01	1.538	02
4.090	01	1.466	02	3.007	01	3.928	01	2.159	02
4.100	01	1.666	02	3.408	01	4.432	01	2.450	02
4.110	01	1.835	02	3.746	01	4.884	01	2.698	02
4.120	01	1.963	02	4.002	01	5.259	01	2.889	02
4.130	01	2.042	02	4.160	01	5.536	01	3.012	02
4.135	01	2.033	02	4.140	01	5.563	01	3.003	02
4.139	01	2.302	02	4.679	01	6.249	01	3.395	02
4.145	01	1.947	02	3.970	01	5.558	01	2.900	02
4.160	01	2.046	02	4.167	01	5.916	01	3.055	02
4.170	01	1.794	02	3.661	01	5.293	01	2.689	02
4.179	01	1.537	02	3.147	01	4.893	01	2.341	02
4.190	01	1.573	02	3.220	01	4.987	01	2.394	02
4.200	01	1.196	02	2.465	01	4.132	01	1.856	02
4.250	01	3.755	01	8.138	00	2.201	01	6.771	01
4.300	01	6.929	00	1.814	00	1.175	01	2.050	01

TABLE VII

Pu^{239} CROSS SECTIONS

Pu^{239} Temperature = 2.0 ev

Neutron Energy, E_n(ev)		Radiative Capture Cross Section, σ_γ(barns)		Fission Cross Section, σ_F(barns)		Scattering Cross Section, σ_S(barns)		Total Cross Section, σ_T(barns)	
2.530	-02	3.215	02	7.149	02	9.407	00	1.045	03
3.000	-02	3.040	02	6.677	02	9.369	00	9.811	02
4.000	-02	2.795	02	5.973	02	9.282	00	8.862	02
5.000	-02	2.667	02	5.542	02	9.188	00	8.302	02
6.000	-02	2.619	02	5.290	02	9.089	00	8.000	02
7.000	-02	2.634	02	5.169	02	8.984	00	7.894	02
8.000	-02	2.704	02	5.158	02	8.876	00	7.951	02
1.000	-01	3.011	02	5.432	02	8.659	00	8.530	02
1.299	-01	3.956	02	6.635	02	8.418	00	1.067	03
1.500	-01	4.973	02	8.030	02	8.418	00	1.308	03
1.800	-01	7.054	02	1.095	03	8.889	00	1.810	03
2.000	-01	8.654	02	1.323	03	9.614	00	2.198	03
2.300	-01	1.087	03	1.640	03	1.129	01	2.739	03
2.500	-01	1.192	03	1.788	03	1.267	01	2.994	03
2.599	-01	1.225	03	1.835	03	1.339	01	3.073	03
2.700	-01	1.243	03	1.860	03	1.409	01	3.118	03
2.799	-01	1.247	03	1.863	03	1.476	01	3.125	03
2.900	-01	1.235	03	1.846	03	1.538	01	3.097	03
2.920	-01	1.232	03	1.840	03	1.549	01	3.088	03
2.950	-01	1.225	03	1.830	03	1.566	01	3.070	03
3.000	-01	1.211	03	1.809	03	1.593	01	3.036	03
3.100	-01	1.173	03	1.754	03	1.642	01	2.944	03
3.200	-01	1.125	03	1.683	03	1.682	01	2.826	03
3.300	-01	1.069	03	1.600	03	1.714	01	2.687	03
3.500	-01	9.387	02	1.409	03	1.753	01	2.365	03
3.700	-01	7.978	02	1.203	03	1.763	01	2.019	03
4.000	-01	5.947	02	9.070	02	1.736	01	1.519	03
4.500	-01	3.338	02	5.255	02	1.634	01	8.757	02
5.000	-01	1.808	02	3.010	02	1.528	01	4.971	02
5.500	-01	1.018	02	1.843	02	1.443	01	3.006	02
6.000	-01	6.235	01	1.249	02	1.383	01	2.011	02
7.000	-01	2.992	01	7.465	01	1.307	01	1.176	02
8.000	-01	1.789	01	5.454	01	1.261	01	8.505	01
9.000	-01	1.214	01	4.397	01	1.230	01	6.842	01
1.000	00	8.930	00	3.743	01	1.207	01	5.844	01
1.250	00	5.143	00	2.825	01	1.167	01	4.507	01
1.500	00	3.555	00	2.322	01	1.139	01	3.817	01
1.750	00	2.726	00	1.991	01	1.117	01	3.381	01
2.000	00	2.230	00	1.749	01	1.098	01	3.071	01
2.200	00	1.961	00	1.597	01	1.085	01	2.879	01
2.500	00	1.681	00	1.414	01	1.067	01	2.650	01
3.000	00	1.399	00	1.188	01	1.040	01	2.369	01
3.500	00	1.245	00	1.026	01	1.016	01	2.167	01
4.000	00	1.171	00	9.062	00	9.923	00	2.015	01
4.500	00	1.163	00	8.155	00	9.682	00	1.900	01
5.000	00	1.227	00	7.487	00	9.427	00	1.814	01
5.500	00	1.404	00	7.046	00	9.140	00	1.759	01
6.000	00	1.820	00	6.904	00	8.787	00	1.751	01
6.300	00	2.379	00	7.108	00	8.515	00	1.800	01
6.500	00	3.219	00	7.631	00	8.290	00	1.914	01
6.800	00	8.578	00	1.171	01	7.943	00	2.823	01
7.000	00	2.335	01	2.339	01	8.018	00	5.476	01
7.200	00	6.155	01	5.381	01	9.091	00	1.244	02
7.400	00	1.312	02	1.093	02	1.195	01	2.525	02
7.500	00	1.732	02	1.428	02	1.404	01	3.301	02
7.599	00	2.129	02	1.745	02	1.631	01	4.038	02
7.660	00	2.329	02	1.904	02	1.762	01	4.410	02
7.700	00	2.437	02	1.990	02	1.844	01	4.612	02
7.760	00	2.553	02	2.083	02	1.950	01	4.832	02
7.800	00	2.597	02	2.117	02	2.008	01	4.915	02

TABLE VII (Continued)

T = 2.0

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
7.830	00	2.611	02	2.127	02	2.044	01	4.943	02
7.850	00	2.611	02	2.127	02	2.064	01	4.945	02
7.870	00	2.603	02	2.121	02	2.080	01	4.933	02
7.900	00	2.579	02	2.101	02	2.098	01	4.890	02
7.950	00	2.504	02	2.040	02	2.110	01	4.755	02
8.000	00	2.390	02	1.947	02	2.101	01	4.548	02
8.099	00	2.069	02	1.689	02	2.024	01	3.961	02
8.200	00	1.678	02	1.374	02	1.889	01	3.241	02
8.400	00	9.171	01	7.600	01	1.552	01	1.832	02
8.599	00	4.036	01	3.461	01	1.264	01	8.763	01
8.800	00	1.550	01	1.479	01	1.082	01	4.112	01
9.000	00	6.339	00	8.077	00	9.780	00	2.419	01
9.199	00	3.828	00	7.276	00	9.134	00	2.023	01
9.400	00	3.767	00	9.239	00	8.644	00	2.165	01
9.599	00	5.148	00	1.411	01	8.219	00	2.748	01
9.799	00	8.875	00	2.546	01	7.892	00	4.223	01
1.000	01	1.750	01	5.108	01	7.864	00	7.645	01
1.020	01	3.443	01	1.010	02	8.521	00	1.439	02
1.050	01	7.673	01	2.239	02	1.152	01	3.122	02
1.070	01	1.075	02	3.085	02	1.451	01	4.306	02
1.080	01	1.201	02	3.383	02	1.597	01	4.745	02
1.085	01	1.253	02	3.484	02	1.662	01	4.904	02
1.090	01	1.297	02	3.548	02	1.720	01	5.018	02
1.093	01	1.319	02	3.569	02	1.751	01	5.064	02
1.095	01	1.333	02	3.575	02	1.770	01	5.086	02
1.097	01	1.346	02	3.575	02	1.788	01	5.100	02
1.100	01	1.363	02	3.565	02	1.812	01	5.109	02
1.105	01	1.386	02	3.518	02	1.845	01	5.090	02
1.110	01	1.406	02	3.440	02	1.869	01	5.033	02
1.120	01	1.441	02	3.201	02	1.894	01	4.832	02
1.130	01	1.481	02	2.891	02	1.899	01	4.562	02
1.140	01	1.535	02	2.553	02	1.893	01	4.277	02
1.150	01	1.606	02	2.225	02	1.889	01	4.020	02
1.160	01	1.685	02	1.932	02	1.892	01	3.807	02
1.170	01	1.757	02	1.684	02	1.904	01	3.632	02
1.180	01	1.802	02	1.479	02	1.918	01	3.473	02
1.185	01	1.808	02	1.389	02	1.923	01	3.390	02
1.190	01	1.801	02	1.306	02	1.927	01	3.301	02
1.193	01	1.790	02	1.259	02	1.927	01	3.242	02
1.195	01	1.780	02	1.228	02	1.926	01	3.201	02
1.197	01	1.767	02	1.198	02	1.925	01	3.158	02
1.200	01	1.744	02	1.154	02	1.921	01	3.090	02
1.205	01	1.693	02	1.081	02	1.910	01	2.966	02
1.210	01	1.628	02	1.011	02	1.894	01	2.829	02
1.220	01	1.462	02	8.730	01	1.842	01	2.519	02
1.230	01	1.261	02	7.385	01	1.769	01	2.177	02
1.250	01	8.337	01	4.939	01	1.577	01	1.485	02
1.280	01	3.485	01	2.469	01	1.285	01	7.241	01
1.300	01	1.879	01	1.791	01	1.138	01	4.809	01
1.320	01	1.362	01	1.847	01	1.035	01	4.245	01
1.340	01	1.743	01	2.680	01	9.758	00	5.400	01
1.350	01	2.279	01	3.440	01	9.662	00	6.685	01
1.370	01	4.172	01	5.755	01	1.005	01	1.093	02
1.390	01	7.294	01	9.125	01	1.154	01	1.757	02
1.400	01	9.277	01	1.110	02	1.277	01	2.165	02
1.410	01	1.144	02	1.315	02	1.432	01	2.603	02
1.415	01	1.255	02	1.417	02	1.519	01	2.824	02
1.420	01	1.365	02	1.516	02	1.611	01	3.043	02
1.425	01	1.473	02	1.610	02	1.707	01	3.255	02
1.430	01	1.576	02	1.698	02	1.805	01	3.455	02
1.435	01	1.671	02	1.778	02	1.903	01	3.640	02
1.440	01	1.756	02	1.849	02	1.999	01	3.806	02
1.445	01	1.830	02	1.909	02	2.091	01	3.948	02

TABLE VII (Continued) T = 2.0

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.450	01	1.890	02	1.956	02	2.177	01	4.065	02
1.455	01	1.935	02	1.992	02	2.254	01	4.153	02
1.460	01	1.964	02	2.014	02	2.322	01	4.210	02
1.465	01	1.975	02	2.022	02	2.379	01	4.236	02
1.470	01	1.969	02	2.018	02	2.423	01	4.230	02
1.475	01	1.946	02	2.001	02	2.454	01	4.193	02
1.480	01	1.906	02	1.972	02	2.471	01	4.126	02
1.485	01	1.852	02	1.932	02	2.475	01	4.032	02
1.490	01	1.783	02	1.883	02	2.465	01	3.913	02
1.500	01	1.611	02	1.762	02	2.411	01	3.615	02
1.510	01	1.409	02	1.619	02	2.316	01	3.260	02
1.520	01	1.193	02	1.466	02	2.194	01	2.879	02
1.530	01	9.810	01	1.312	02	2.058	01	2.499	02
1.535	01	8.800	01	1.237	02	1.988	01	2.316	02
1.540	01	7.842	01	1.164	02	1.919	01	2.140	02
1.545	01	6.945	01	1.093	02	1.852	01	1.973	02
1.550	01	6.115	01	1.025	02	1.787	01	1.815	02
1.555	01	5.358	01	9.600	01	1.726	01	1.668	02
1.560	01	4.673	01	8.978	01	1.668	01	1.532	02
1.565	01	4.061	01	8.385	01	1.615	01	1.406	02
1.570	01	3.519	01	7.821	01	1.565	01	1.290	02
1.580	01	2.632	01	6.779	01	1.478	01	1.089	02
1.590	01	1.978	01	5.947	01	1.406	01	9.232	01
1.600	01	1.519	01	5.025	01	1.346	01	7.891	01
1.620	01	1.053	01	3.727	01	1.256	01	6.037	01
1.660	01	1.542	01	2.835	01	1.158	01	5.536	01
1.680	01	2.524	01	3.406	01	1.157	01	7.087	01
1.690	01	3.204	01	3.943	01	1.173	01	8.321	01
1.700	01	3.991	01	4.617	01	1.201	01	9.809	01
1.720	01	5.728	01	6.200	01	1.289	01	1.321	02
1.730	01	6.569	01	6.989	01	1.345	01	1.490	02
1.740	01	7.305	01	7.685	01	1.405	01	1.639	02
1.750	01	7.874	01	8.222	01	1.463	01	1.756	02
1.755	01	8.080	01	8.414	01	1.490	01	1.798	02
1.760	01	8.225	01	8.547	01	1.515	01	1.828	02
1.765	01	8.308	01	8.619	01	1.538	01	1.846	02
1.770	01	8.326	01	8.626	01	1.558	01	1.851	02
1.775	01	8.278	01	8.570	01	1.574	01	1.842	02
1.780	01	8.167	01	8.451	01	1.586	01	1.820	02
1.785	01	7.995	01	8.271	01	1.594	01	1.786	02
1.790	01	7.767	01	8.035	01	1.599	01	1.740	02
1.800	01	7.162	01	7.418	01	1.596	01	1.617	02
1.820	01	5.566	01	5.801	01	1.547	01	1.291	02
1.850	01	3.079	01	3.291	01	1.413	01	7.783	01
1.870	01	1.829	01	2.028	01	1.319	01	5.176	01
1.900	01	7.367	00	9.208	00	1.207	01	2.864	01
1.950	01	1.959	00	3.592	00	1.098	01	1.653	01
1.980	01	1.470	00	2.981	00	1.056	01	1.501	01
2.000	01	1.513	00	2.921	00	1.031	01	1.475	01
2.020	01	1.855	00	3.103	00	1.008	01	1.504	01
2.050	01	3.612	00	4.311	00	9.799	00	1.772	01
2.100	01	1.764	01	1.447	01	1.030	01	4.242	01
2.120	01	3.161	01	2.466	01	1.142	01	6.770	01
2.150	01	6.456	01	4.874	01	1.474	01	1.280	02
2.170	01	9.200	01	6.879	01	1.797	01	1.787	02
2.190	01	1.184	02	8.810	01	2.152	01	2.280	02
2.200	01	1.292	02	9.604	01	2.319	01	2.484	02
2.210	01	1.375	02	1.020	02	2.465	01	2.642	02
2.220	01	1.425	02	1.058	02	2.582	01	2.742	02
2.225	01	1.438	02	1.067	02	2.627	01	2.768	02
2.230	01	1.441	02	1.070	02	2.662	01	2.778	02
2.235	01	1.436	02	1.066	02	2.687	01	2.771	02

TABLE VII (Continued)

T = 2.0

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
2.240	01	1.421	02	1.056	02	2.701	01	2.747	02
2.250	01	1.367	02	1.017	02	2.697	01	2.654	02
2.260	01	1.283	02	9.568	01	2.653	01	2.505	02
2.280	01	1.053	02	7.910	01	2.464	01	2.091	02
2.300	01	7.915	01	6.027	01	2.195	01	1.613	02
2.320	01	5.504	01	4.302	01	1.911	01	1.171	02
2.330	01	4.485	01	3.575	01	1.781	01	9.842	01
2.340	01	3.614	01	2.956	01	1.662	01	8.233	01
2.350	01	2.893	01	2.443	01	1.559	01	6.895	01
2.360	01	2.311	01	2.028	01	1.471	01	5.810	01
2.370	01	1.853	01	1.699	01	1.397	01	4.949	01
2.375	01	1.664	01	1.563	01	1.365	01	4.592	01
2.380	01	1.499	01	1.442	01	1.336	01	4.278	01
2.385	01	1.355	01	1.336	01	1.310	01	4.002	01
2.390	01	1.231	01	1.242	01	1.286	01	3.760	01
2.400	01	1.031	01	1.088	01	1.246	01	3.366	01
2.410	01	8.865	00	9.691	00	1.213	01	3.069	01
2.430	01	7.271	00	8.183	00	1.164	01	2.710	01
2.450	01	7.273	00	7.802	00	1.131	01	2.639	01
2.480	01	1.097	01	1.004	01	1.110	01	3.213	01
2.500	01	1.675	01	1.410	01	1.121	01	4.208	01
2.510	01	2.079	01	1.703	01	1.137	01	4.919	01
2.530	01	3.106	01	2.457	01	1.193	01	6.756	01
2.550	01	4.346	01	3.374	01	1.279	01	9.001	01
2.570	01	5.618	01	4.314	01	1.389	01	1.132	02
2.590	01	6.680	01	5.090	01	1.504	01	1.327	02
2.600	01	7.057	01	5.358	01	1.556	01	1.397	02
2.610	01	7.301	01	5.522	01	1.601	01	1.442	02
2.615	01	7.370	01	5.562	01	1.620	01	1.455	02
2.620	01	7.402	01	5.573	01	1.637	01	1.461	02
2.625	01	7.396	01	5.555	01	1.650	01	1.460	02
2.630	01	7.355	01	5.508	01	1.661	01	1.452	02
2.640	01	7.169	01	5.332	01	1.673	01	1.417	02
2.650	01	6.861	01	5.057	01	1.672	01	1.359	02
2.660	01	6.454	01	4.702	01	1.660	01	1.281	02
2.680	01	5.454	01	3.837	01	1.607	01	1.089	02
2.700	01	4.393	01	2.915	01	1.530	01	8.840	01
2.720	01	3.438	01	2.084	01	1.447	01	6.971	01
2.730	01	3.027	01	1.731	01	1.408	01	6.167	01
2.740	01	2.664	01	1.425	01	1.372	01	5.462	01
2.750	01	2.347	01	1.166	01	1.339	01	4.854	01
2.755	01	2.205	01	1.054	01	1.325	01	4.584	01
2.760	01	2.071	01	9.524	00	1.311	01	4.335	01
2.765	01	1.946	01	8.609	00	1.298	01	4.105	01
2.770	01	1.828	01	7.788	00	1.286	01	3.893	01
2.780	01	1.613	01	6.400	00	1.265	01	3.518	01
2.790	01	1.419	01	5.304	00	1.247	01	3.197	01
2.800	01	1.243	01	4.443	00	1.231	01	2.919	01
2.830	01	7.971	00	2.827	00	1.196	01	2.275	01
2.850	01	5.610	00	2.239	00	1.178	01	1.962	01
2.900	01	1.916	00	1.539	00	1.142	01	1.488	01
2.950	01	6.323	-01	1.347	00	1.116	01	1.314	01
3.000	01	3.593	-01	1.419	00	1.095	01	1.273	01
3.055	01	4.314	-01	2.072	00	1.076	01	1.326	01
3.100	01	7.588	-01	3.717	00	1.062	01	1.509	01
3.130	01	1.147	00	5.597	00	1.054	01	1.729	01
3.150	01	1.460	00	7.103	00	1.051	01	1.908	01
3.170	01	1.779	00	8.624	00	1.050	01	2.090	01
3.180	01	1.925	00	9.321	00	1.049	01	2.174	01
3.190	01	2.054	00	9.938	00	1.050	01	2.249	01
3.200	01	2.161	00	1.044	01	1.050	01	2.311	01
3.210	01	2.241	00	1.081	01	1.051	01	2.357	01

TABLE VII (Continued) T = 2.0

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
3.220	01	2.289	00	1.104	01	1.052	01	2.385	01
3.225	01	2.301	00	1.109	01	1.052	01	2.392	01
3.230	01	2.304	00	1.110	01	1.053	01	2.394	01
3.235	01	2.299	00	1.107	01	1.053	01	2.390	01
3.240	01	2.286	00	1.099	01	1.054	01	2.382	01
3.250	01	2.237	00	1.073	01	1.055	01	2.352	01
3.280	01	1.949	00	9.167	00	1.055	01	2.167	01
3.300	01	1.713	00	7.720	00	1.053	01	1.997	01
3.310	01	1.610	00	6.962	00	1.052	01	1.909	01
3.330	01	1.485	00	5.505	00	1.048	01	1.747	01
3.350	01	1.542	00	4.252	00	1.043	01	1.622	01
3.370	01	1.863	00	3.286	00	1.037	01	1.552	01
3.390	01	2.512	00	2.626	00	1.031	01	1.545	01
3.400	01	2.971	00	2.403	00	1.029	01	1.566	01
3.410	01	3.520	00	2.242	00	1.026	01	1.603	01
3.430	01	4.856	00	2.076	00	1.023	01	1.716	01
3.450	01	6.411	00	2.062	00	1.020	01	1.868	01
3.470	01	7.997	00	2.134	00	1.020	01	2.033	01
3.479	01	8.728	00	2.181	00	1.020	01	2.111	01
3.490	01	9.373	00	2.228	00	1.021	01	2.181	01
3.500	01	9.907	00	2.267	00	1.022	01	2.239	01
3.510	01	1.030	01	2.295	00	1.023	01	2.282	01
3.520	01	1.054	01	2.306	00	1.024	01	2.308	01
3.525	01	1.059	01	2.306	00	1.024	01	2.314	01
3.530	01	1.061	01	2.300	00	1.025	01	2.316	01
3.535	01	1.058	01	2.290	00	1.025	01	2.312	01
3.540	01	1.051	01	2.275	00	1.025	01	2.304	01
3.550	01	1.024	01	2.231	00	1.026	01	2.273	01
3.560	01	9.826	00	2.169	00	1.026	01	2.226	01
3.580	01	8.619	00	2.002	00	1.025	01	2.087	01
3.600	01	7.106	00	1.800	00	1.022	01	1.913	01
3.650	01	3.405	00	1.312	00	1.008	01	1.480	01
3.700	01	1.255	00	1.025	00	9.899	00	1.218	01
3.750	01	5.278	-01	9.209	-01	9.704	00	1.115	01
3.780	01	4.370	-01	9.046	-01	9.581	00	1.092	01
3.800	01	4.550	-01	9.057	-01	9.496	00	1.085	01
3.820	01	5.354	-01	9.180	-01	9.407	00	1.086	01
3.850	01	8.573	-01	9.758	-01	9.285	00	1.111	01
3.870	01	1.348	00	1.069	00	9.235	00	1.165	01
3.900	01	3.024	00	1.398	00	9.311	00	1.373	01
3.920	01	5.317	00	1.852	00	9.578	00	1.674	01
3.950	01	1.195	01	3.173	00	1.063	01	2.576	01
3.970	01	1.957	01	4.692	00	1.202	01	3.628	01
4.000	01	3.733	01	8.239	00	1.559	01	6.116	01
4.030	01	6.321	01	1.340	01	2.121	01	9.783	01
4.050	01	8.371	01	1.750	01	2.592	01	1.271	02
4.070	01	1.047	02	2.170	01	3.099	01	1.574	02
4.090	01	1.238	02	2.552	01	3.589	01	1.852	02
4.100	01	1.318	02	2.712	01	3.808	01	1.970	02
4.110	01	1.383	02	2.842	01	3.997	01	2.067	02
4.120	01	1.430	02	2.935	01	4.150	01	2.139	02
4.130	01	1.459	02	2.992	01	4.262	01	2.184	02
4.135	01	1.466	02	3.006	01	4.303	01	2.197	02
4.139	01	1.468	02	3.009	01	4.331	01	2.202	02
4.145	01	1.463	02	3.000	01	4.346	01	2.198	02
4.160	01	1.423	02	2.918	01	4.323	01	2.147	02
4.170	01	1.372	02	2.816	01	4.250	01	2.079	02
4.179	01	1.305	02	2.680	01	4.132	01	1.986	02
4.190	01	1.224	02	2.518	01	3.977	01	1.874	02
4.200	01	1.132	02	2.332	01	3.789	01	1.745	02
4.250	01	6.267	01	1.309	01	2.615	01	1.019	02
4.300	01	2.492	01	5.390	00	1.567	01	4.599	01

TABLE VIII

Pu^{238} CROSS SECTIONS

Pu^{238} Temperature = 5.0 ev

Neutron Energy, E_n(ev)		Radiative Capture Cross Section, σ_γ(barns)		Fission Cross Section, σ_F(barns)		Scattering Cross Section, σ_S(barns)		Total Cross Section, σ_T(barns)	
2.530	-02	3.191	02	6.797	02	9.229	00	1.008	03
3.000	-02	3.140	02	6.593	02	9.188	00	9.825	02
4.000	-02	3.100	02	6.301	02	9.104	00	9.493	02
5.000	-02	3.144	02	6.176	02	9.029	00	9.411	02
6.000	-02	3.261	02	6.195	02	8.967	00	9.546	02
7.000	-02	3.446	02	6.338	02	8.924	00	9.874	02
8.000	-02	3.692	02	6.592	02	8.905	00	1.037	03
1.000	-01	4.344	02	7.376	02	8.957	00	1.181	03
1.299	-01	5.606	02	9.038	02	9.312	00	1.473	03
1.500	-01	6.530	02	1.029	03	9.746	00	1.692	03
1.800	-01	7.842	02	1.210	03	1.065	01	2.005	03
2.000	-01	8.562	02	1.310	03	1.138	01	2.178	03
2.300	-01	9.281	02	1.408	03	1.255	01	2.349	03
2.500	-01	9.481	02	1.434	03	1.332	01	2.396	03
2.599	-01	9.495	02	1.435	03	1.368	01	2.398	03
2.700	-01	9.455	02	1.428	03	1.402	01	2.387	03
2.799	-01	9.363	02	1.413	03	1.433	01	2.364	03
2.900	-01	9.223	02	1.391	03	1.463	01	2.328	03
2.920	-01	9.189	02	1.386	03	1.468	01	2.320	03
2.950	-01	9.135	02	1.378	03	1.476	01	2.306	03
3.000	-01	9.037	02	1.363	03	1.489	01	2.282	03
3.100	-01	8.813	02	1.330	03	1.513	01	2.226	03
3.200	-01	8.553	02	1.291	03	1.533	01	2.162	03
3.300	-01	8.264	02	1.248	03	1.551	01	2.090	03
3.500	-01	7.618	02	1.153	03	1.577	01	1.930	03
3.700	-01	6.913	02	1.049	03	1.591	01	1.756	03
4.000	-01	5.823	02	8.890	02	1.595	01	1.487	03
4.500	-01	4.129	02	6.402	02	1.566	01	1.068	03
5.000	-01	2.774	02	4.411	02	1.514	01	7.336	02
5.500	-01	1.803	02	2.980	02	1.456	01	4.929	02
6.000	-01	1.158	02	2.025	02	1.403	01	3.323	02
7.000	-01	4.989	01	1.036	02	1.322	01	1.667	02
8.000	-01	2.503	01	6.488	01	1.269	01	1.026	02
9.000	-01	1.500	01	4.811	01	1.235	01	7.546	01
1.000	00	1.028	01	3.939	01	1.209	01	6.177	01
1.250	00	5.498	00	2.877	01	1.167	01	4.594	01
1.500	00	3.695	00	2.343	01	1.139	01	3.852	01
1.750	00	2.794	00	2.001	01	1.117	01	3.398	01
2.000	00	2.269	00	1.755	01	1.098	01	3.081	01
2.200	00	1.988	00	1.601	01	1.085	01	2.885	01
2.500	00	1.698	00	1.417	01	1.067	01	2.654	01
3.000	00	1.410	00	1.191	01	1.040	01	2.372	01
3.500	00	1.255	00	1.028	01	1.015	01	2.169	01
4.000	00	1.183	00	9.083	00	9.913	00	2.017	01
4.500	00	1.181	00	8.180	00	9.669	00	1.903	01
5.000	00	1.262	00	7.525	00	9.408	00	1.819	01
5.500	00	1.503	00	7.135	00	9.108	00	1.774	01
6.000	00	2.672	00	7.594	00	8.742	00	1.900	01
6.300	00	6.283	00	1.023	01	8.543	00	2.506	01
6.500	00	1.277	01	1.527	01	8.531	00	3.657	01
6.800	00	3.507	01	3.288	01	9.041	00	7.700	01
7.000	00	6.118	01	5.362	01	9.969	00	1.247	02
7.200	00	9.488	01	8.041	01	1.143	01	1.867	02
7.400	00	1.301	02	1.084	02	1.326	01	2.518	02
7.500	00	1.455	02	1.206	02	1.418	01	2.804	02
7.599	00	1.579	02	1.304	02	1.504	01	3.034	02
7.660	00	1.635	02	1.348	02	1.549	01	3.138	02
7.700	00	1.663	02	1.370	02	1.576	01	3.191	02
7.760	00	1.691	02	1.391	02	1.611	01	3.244	02
7.800	00	1.700	02	1.398	02	1.631	01	3.262	02
7.830	00	1.702	02	1.399	02	1.643	01	3.266	02

TABLE VIII (Continued)

T = 5.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
7.850	00	1.701	02	1.398	02	1.650	01	3.264	02
7.870	00	1.697	02	1.395	02	1.656	01	3.258	02
7.900	00	1.689	02	1.387	02	1.663	01	3.243	02
7.950	00	1.665	02	1.368	02	1.670	01	3.200	02
8.000	00	1.630	02	1.339	02	1.672	01	3.137	02
8.099	00	1.530	02	1.258	02	1.658	01	2.955	02
8.200	00	1.398	02	1.151	02	1.622	01	2.712	02
8.400	00	1.078	02	8.951	01	1.504	01	2.124	02
8.599	00	7.541	01	6.384	01	1.354	01	1.528	02
8.800	00	4.849	01	4.322	01	1.206	01	1.037	02
9.000	00	2.972	01	3.030	01	1.081	01	7.084	01
9.199	00	1.911	01	2.594	01	9.877	00	5.493	01
9.400	00	1.548	01	3.044	01	9.281	00	5.520	01
9.599	00	1.765	01	4.430	01	9.032	00	7.098	01
9.799	00	2.482	01	6.800	01	9.158	00	1.019	02
1.000	01	3.645	01	1.010	02	9.689	00	1.472	02
1.020	01	5.179	01	1.409	02	1.062	01	2.033	02
1.050	01	7.907	01	2.020	02	1.261	01	2.937	02
1.070	01	9.777	01	2.337	02	1.411	01	3.456	02
1.080	01	1.066	02	2.445	02	1.484	01	3.660	02
1.085	01	1.109	02	2.485	02	1.519	01	3.746	02
1.090	01	1.150	02	2.514	02	1.552	01	3.820	02
1.093	01	1.173	02	2.527	02	1.572	01	3.858	02
1.095	01	1.189	02	2.533	02	1.584	01	3.881	02
1.097	01	1.204	02	2.538	02	1.597	01	3.902	02
1.100	01	1.226	02	2.541	02	1.615	01	3.929	02
1.105	01	1.261	02	2.539	02	1.643	01	3.965	02
1.110	01	1.294	02	2.527	02	1.669	01	3.988	02
1.120	01	1.352	02	2.474	02	1.716	01	3.997	02
1.130	01	1.398	02	2.386	02	1.752	01	3.960	02
1.140	01	1.433	02	2.270	02	1.780	01	3.881	02
1.150	01	1.453	02	2.132	02	1.797	01	3.765	02
1.160	01	1.459	02	1.979	02	1.806	01	3.619	02
1.170	01	1.449	02	1.816	02	1.804	01	3.447	02
1.180	01	1.424	02	1.651	02	1.794	01	3.255	02
1.185	01	1.405	02	1.569	02	1.786	01	3.153	02
1.190	01	1.383	02	1.488	02	1.776	01	3.049	02
1.193	01	1.368	02	1.440	02	1.768	01	2.985	02
1.195	01	1.357	02	1.408	02	1.763	01	2.942	02
1.197	01	1.345	02	1.376	02	1.758	01	2.898	02
1.200	01	1.327	02	1.330	02	1.749	01	2.833	02
1.205	01	1.294	02	1.254	02	1.733	01	2.722	02
1.210	01	1.258	02	1.181	02	1.715	01	2.611	02
1.220	01	1.178	02	1.044	02	1.674	01	2.390	02
1.230	01	1.091	02	9.196	01	1.628	01	2.173	02
1.250	01	9.061	01	7.137	01	1.526	01	1.772	02
1.280	01	6.607	01	5.241	01	1.371	01	1.322	02
1.300	01	5.573	01	4.821	01	1.290	01	1.168	02
1.320	01	5.222	01	5.081	01	1.243	01	1.154	02
1.340	01	5.601	01	5.978	01	1.241	01	1.282	02
1.350	01	6.047	01	6.634	01	1.258	01	1.394	02
1.370	01	7.351	01	8.261	01	1.331	01	1.694	02
1.390	01	9.003	01	1.012	02	1.447	01	2.057	02
1.400	01	9.867	01	1.106	02	1.516	01	2.244	02
1.410	01	1.070	02	1.195	02	1.589	01	2.424	02
1.430	01	1.212	02	1.349	02	1.735	01	2.735	02
1.440	01	1.264	02	1.407	02	1.802	01	2.852	02
1.450	01	1.299	02	1.450	02	1.861	01	2.936	02
1.470	01	1.314	02	1.486	02	1.947	01	2.996	02
1.480	01	1.294	02	1.478	02	1.970	01	2.970	02
1.500	01	1.202	02	1.415	02	1.973	01	2.815	02
1.510	01	1.135	02	1.362	02	1.955	01	2.694	02
1.520	01	1.058	02	1.299	02	1.925	01	2.550	02
1.530	01	9.744	01	1.228	02	1.885	01	2.391	02

TABLE VIII (Continued)

T = 5.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.540	01	8.869	01	1.151	02	1.837	01	2.222	02
1.550	01	7.991	01	1.072	02	1.783	01	2.049	02
1.560	01	7.141	01	9.921	01	1.726	01	1.878	02
1.570	01	6.345	01	9.140	01	1.667	01	1.715	02
1.580	01	5.624	01	8.397	01	1.609	01	1.563	02
1.590	01	4.995	01	7.712	01	1.554	01	1.426	02
1.600	01	4.469	01	7.097	01	1.503	01	1.306	02
1.620	01	3.746	01	6.116	01	1.417	01	1.128	02
1.660	01	3.533	01	5.225	01	1.322	01	1.008	02
1.680	01	3.882	01	5.238	01	1.314	01	1.043	02
1.690	01	4.118	01	5.320	01	1.317	01	1.075	02
1.700	01	4.374	01	5.434	01	1.325	01	1.113	02
1.720	01	4.875	01	5.695	01	1.349	01	1.192	02
1.730	01	5.091	01	5.811	01	1.364	01	1.226	02
1.740	01	5.265	01	5.899	01	1.378	01	1.254	02
1.750	01	5.389	01	5.948	01	1.392	01	1.273	02
1.760	01	5.453	01	5.949	01	1.404	01	1.280	02
1.770	01	5.454	01	5.897	01	1.413	01	1.276	02
1.780	01	5.391	01	5.789	01	1.420	01	1.260	02
1.790	01	5.264	01	5.625	01	1.423	01	1.231	02
1.800	01	5.079	01	5.408	01	1.421	01	1.190	02
1.820	01	4.559	01	4.841	01	1.407	01	1.080	02
1.850	01	3.549	01	3.784	01	1.361	01	8.696	01
1.870	01	2.841	01	3.054	01	1.318	01	7.213	01
1.900	01	1.892	01	2.079	01	1.247	01	5.220	01
1.950	01	9.182	00	1.051	01	1.142	01	3.111	01
1.980	01	7.626	00	8.354	00	1.101	01	2.699	01
2.000	01	8.481	00	8.555	00	1.089	01	2.793	01
2.020	01	1.097	01	1.009	01	1.092	01	3.199	01
2.050	01	1.810	01	1.506	01	1.134	01	4.450	01
2.100	01	3.938	01	3.045	01	1.326	01	8.310	01
2.120	01	5.048	01	3.855	01	1.446	01	1.035	02
2.150	01	6.779	01	5.121	01	1.653	01	1.355	02
2.170	01	7.827	01	5.890	01	1.795	01	1.551	02
2.190	01	8.666	01	6.509	01	1.923	01	1.709	02
2.200	01	8.976	01	6.740	01	1.977	01	1.769	02
2.220	01	9.338	01	7.014	01	2.061	01	1.841	02
2.230	01	9.381	01	7.051	01	2.089	01	1.852	02
2.250	01	9.186	01	6.922	01	2.110	01	1.821	02
2.260	01	8.958	01	6.762	01	2.104	01	1.782	02
2.280	01	8.280	01	6.281	01	2.062	01	1.662	02
2.300	01	7.382	01	5.639	01	1.984	01	1.500	02
2.320	01	6.366	01	4.910	01	1.882	01	1.315	02
2.330	01	5.847	01	4.536	01	1.825	01	1.220	02
2.340	01	5.337	01	4.168	01	1.767	01	1.127	02
2.350	01	4.847	01	3.814	01	1.708	01	1.037	02
2.360	01	4.387	01	3.480	01	1.650	01	9.517	01
2.370	01	3.963	01	3.172	01	1.594	01	8.730	01
2.380	01	3.584	01	2.895	01	1.541	01	8.021	01
2.400	01	2.975	01	2.447	01	1.446	01	6.870	01
2.410	01	2.751	01	2.280	01	1.406	01	6.439	01
2.430	01	2.467	01	2.064	01	1.341	01	5.874	01
2.450	01	2.394	01	2.000	01	1.299	01	5.694	01
2.480	01	2.631	01	2.151	01	1.273	01	6.056	01
2.500	01	2.965	01	2.379	01	1.279	01	6.624	01
2.510	01	3.168	01	2.518	01	1.288	01	6.976	01
2.530	01	3.614	01	2.824	01	1.314	01	7.753	01
2.550	01	4.067	01	3.130	01	1.348	01	8.546	01
2.570	01	4.475	01	3.397	01	1.384	01	9.257	01
2.590	01	4.790	01	3.590	01	1.420	01	9.801	01
2.600	01	4.902	01	3.650	01	1.435	01	9.988	01
2.610	01	4.979	01	3.683	01	1.449	01	1.011	02
2.620	01	5.019	01	3.687	01	1.460	01	1.016	02

TABLE VIII (Continued)

T = 5.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
2.630	01	5.021	01	3.662	01	1.468	01	1.015	02
2.640	01	4.987	01	3.609	01	1.474	01	1.007	02
2.650	01	4.915	01	3.528	01	1.477	01	9.921	01
2.660	01	4.810	01	3.422	01	1.477	01	9.710	01
2.680	01	4.508	01	3.145	01	1.467	01	9.121	01
2.700	01	4.112	01	2.802	01	1.448	01	8.363	01
2.720	01	3.655	01	2.425	01	1.420	01	7.501	01
2.730	01	3.415	01	2.232	01	1.404	01	7.051	01
2.740	01	3.170	01	2.040	01	1.387	01	6.598	01
2.750	01	2.928	01	1.853	01	1.370	01	6.152	01
2.760	01	2.690	01	1.673	01	1.352	01	5.716	01
2.770	01	2.458	01	1.501	01	1.334	01	5.293	01
2.780	01	2.234	01	1.340	01	1.316	01	4.890	01
2.800	01	1.821	01	1.053	01	1.282	01	4.157	01
2.830	01	1.295	01	7.162	00	1.236	01	3.248	01
2.850	01	1.012	01	5.511	00	1.210	01	2.774	01
2.900	01	5.131	00	3.055	00	1.160	01	1.979	01
2.950	01	2.461	00	2.239	00	1.126	01	1.596	01
3.000	01	1.282	00	2.438	00	1.101	01	1.473	01
3.055	01	9.615	-01	3.516	00	1.081	01	1.529	01
3.100	01	1.091	00	4.873	00	1.069	01	1.666	01
3.130	01	1.264	00	5.853	00	1.063	01	1.775	01
3.150	01	1.394	00	6.463	00	1.060	01	1.846	01
3.170	01	1.523	00	6.987	00	1.058	01	1.909	01
3.180	01	1.585	00	7.205	00	1.056	01	1.936	01
3.190	01	1.646	00	7.387	00	1.055	01	1.959	01
3.200	01	1.706	00	7.531	00	1.055	01	1.978	01
3.220	01	1.823	00	7.691	00	1.053	01	2.004	01
3.230	01	1.882	00	7.706	00	1.052	01	2.011	01
3.250	01	2.008	00	7.604	00	1.050	01	2.012	01
3.280	01	2.238	00	7.152	00	1.048	01	1.987	01
3.300	01	2.450	00	6.694	00	1.046	01	1.960	01
3.310	01	2.578	00	6.431	00	1.045	01	1.946	01
3.330	01	2.875	00	5.862	00	1.042	01	1.916	01
3.350	01	3.263	00	5.273	00	1.040	01	1.893	01
3.370	01	3.706	00	4.695	00	1.037	01	1.877	01
3.360	01	3.480	00	4.981	00	1.038	01	1.885	01
3.400	01	4.504	00	3.915	00	1.033	01	1.875	01
3.410	01	4.768	00	3.684	00	1.032	01	1.877	01
3.430	01	5.342	00	3.281	00	1.030	01	1.892	01
3.450	01	5.846	00	2.943	00	1.028	01	1.907	01
3.470	01	6.329	00	2.675	00	1.026	01	1.926	01
3.480	01	6.492	00	2.557	00	1.025	01	1.930	01
3.490	01	6.652	00	2.455	00	1.024	01	1.935	01
3.500	01	6.797	00	2.365	00	1.023	01	1.939	01
3.510	01	6.854	00	2.278	00	1.022	01	1.935	01
3.520	01	6.896	00	2.201	00	1.021	01	1.931	01
3.530	01	6.923	00	2.134	00	1.020	01	1.926	01
3.540	01	6.854	00	2.064	00	1.019	01	1.911	01
3.550	01	6.779	00	2.003	00	1.018	01	1.896	01
3.560	01	6.675	00	1.945	00	1.017	01	1.879	01
3.580	01	6.316	00	1.830	00	1.014	01	1.829	01
3.600	01	5.830	00	1.719	00	1.011	01	1.766	01
3.650	01	4.378	00	1.469	00	1.000	01	1.585	01
3.700	01	3.100	00	1.291	00	9.890	00	1.428	01
3.750	01	2.722	00	1.281	00	9.840	00	1.384	01
3.800	01	4.159	00	1.606	00	1.003	01	1.580	01
3.820	01	5.531	00	1.889	00	1.025	01	1.767	01
3.850	01	8.786	00	2.545	00	1.081	01	2.214	01
3.870	01	1.191	01	3.173	00	1.139	01	2.648	01
3.900	01	1.832	01	4.453	00	1.264	01	3.542	01
3.920	01	2.382	01	5.549	00	1.376	01	4.313	01
3.950	01	3.388	01	7.556	00	1.590	01	5.734	01
3.970	01	4.164	01	9.104	00	1.760	01	6.836	01

TABLE VIII (Continued) T = 5.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
4.000	01	5.431	01	1.162	01	2.049	01	8.643	01
4.030	01	6.719	01	1.419	01	2.354	01	1.049	02
4.050	01	7.521	01	1.578	01	2.551	01	1.165	02
4.070	01	8.223	01	1.718	01	2.731	01	1.267	02
4.090	01	8.785	01	1.829	01	2.882	01	1.349	02
4.100	01	9.002	01	1.871	01	2.944	01	1.381	02
4.120	01	9.291	01	1.927	01	3.036	01	1.425	02
4.130	01	9.358	01	1.940	01	3.063	01	1.436	02
4.140	01	9.372	01	1.942	01	3.079	01	1.439	02
4.150	01	9.333	01	1.933	01	3.081	01	1.434	02
4.160	01	9.241	01	1.913	01	3.070	01	1.422	02
4.170	01	9.100	01	1.883	01	3.046	01	1.403	02
4.180	01	8.910	01	1.844	01	3.010	01	1.376	02
4.200	01	8.400	01	1.739	01	2.902	01	1.304	02
4.250	01	6.568	01	1.363	01	2.470	01	1.040	02
4.300	01	4.499	01	9.391	00	1.929	01	7.368	01

TABLE IX

Pu^{239} CROSS SECTIONS

Pu^{239} Temperature = 10.0 ev

Neutron Energy, E_n(ev)		Radiative Capture Cross Section, σ_γ(barns)		Fission Cross Section, σ_F(barns)		Scattering Cross Section, σ_S(barns)		Total Cross Section, σ_T(barns)	
2.530	-02	3.707	02	7.107	02	9.178	00	1.090	03
3.000	-02	3.796	02	7.171	02	9.189	00	1.105	03
4.000	-02	4.009	02	7.356	02	9.231	00	1.145	03
5.000	-02	4.252	02	7.598	02	9.298	00	1.194	03
8.000	-02	5.079	02	8.543	02	9.648	00	1.371	03
1.000	-01	5.653	02	9.248	02	9.989	00	1.500	03
1.300	-01	6.444	02	1.025	03	1.062	01	1.680	03
1.500	-01	6.882	02	1.081	03	1.109	01	1.780	03
1.800	-01	7.360	02	1.141	03	1.183	01	1.889	03
2.000	-01	7.546	02	1.165	03	1.232	01	1.930	03
2.300	-01	7.626	02	1.169	03	1.300	01	1.945	03
2.500	-01	7.555	02	1.155	03	1.341	01	1.924	03
2.700	-01	7.396	02	1.130	03	1.377	01	1.883	03
2.900	-01	7.162	02	1.093	03	1.408	01	1.823	03
2.950	-01	7.093	02	1.082	03	1.415	01	1.806	03
3.000	-01	7.021	02	1.071	03	1.421	01	1.788	03
3.200	-01	6.698	02	1.022	03	1.444	01	1.707	03
3.500	-01	6.141	02	9.391	02	1.468	01	1.567	03
3.700	-01	5.737	02	8.790	02	1.478	01	1.467	03
4.000	-01	5.112	02	7.861	02	1.485	01	1.312	03
4.500	-01	4.088	02	6.344	02	1.479	01	1.058	03
5.000	-01	3.165	02	4.978	02	1.457	01	8.288	02
5.500	-01	2.387	02	3.828	02	1.428	01	6.359	02
6.000	-01	1.766	02	2.907	02	1.395	01	4.814	02
7.000	-01	9.346	01	1.667	02	1.333	01	2.735	02
8.000	-01	4.914	01	9.983	01	1.282	01	1.617	02
9.000	-01	2.693	01	6.541	01	1.244	01	1.047	02
1.000	00	1.599	01	4.767	01	1.215	01	7.582	01
1.250	00	6.577	00	3.033	01	1.169	01	4.860	01
1.500	00	4.023	00	2.391	01	1.139	01	3.932	01
1.750	00	2.937	00	2.022	01	1.116	01	3.433	01
2.000	00	2.345	00	1.767	01	1.097	01	3.100	01
2.500	00	1.730	00	1.423	01	1.066	01	2.662	01
3.000	00	1.429	00	1.194	01	1.039	01	2.377	01
3.500	00	1.272	00	1.032	01	1.014	01	2.173	01
4.000	00	1.205	00	9.119	00	9.896	00	2.022	01
4.500	00	1.221	00	8.230	00	9.646	00	1.909	01
5.000	00	1.425	00	7.672	00	9.374	00	1.847	01
5.500	00	2.728	00	8.130	00	9.084	00	1.994	01
6.000	00	9.630	00	1.316	01	8.930	00	3.172	01
6.300	00	2.065	01	2.172	01	9.109	00	5.149	01
6.500	00	3.228	01	3.085	01	9.439	00	7.258	01
6.800	00	5.604	01	4.960	01	1.032	01	1.159	02
7.000	00	7.453	01	6.422	01	1.113	01	1.498	02
7.200	00	9.280	01	7.866	01	1.205	01	1.835	02
7.400	00	1.083	02	9.091	01	1.295	01	2.122	02
7.500	00	1.143	02	9.563	01	1.336	01	2.233	02
7.700	00	1.215	02	1.013	02	1.400	01	2.369	02
7.800	00	1.226	02	1.022	02	1.421	01	2.390	02
7.900	00	1.218	02	1.017	02	1.433	01	2.379	02
8.000	00	1.194	02	9.999	01	1.437	01	2.338	02
8.200	00	1.102	02	9.332	01	1.420	01	2.178	02
8.400	00	9.690	01	8.400	01	1.374	01	1.946	02
8.600	00	8.168	01	7.427	01	1.309	01	1.690	02
8.800	00	6.697	01	6.642	01	1.236	01	1.457	02
9.000	00	5.467	01	6.240	01	1.168	01	1.287	02
9.200	00	4.608	01	6.359	01	1.113	01	1.208	02
9.400	00	4.185	01	7.061	01	1.079	01	1.232	02
9.600	00	4.203	01	8.329	01	1.070	01	1.360	02
9.800	00	4.624	01	1.006	02	1.088	01	1.578	02
1.000	01	5.379	01	1.210	02	1.130	01	1.861	02
1.020	01	6.340	01	1.424	02	1.192	01	2.177	02

TABLE IX (Continued)

T = 10.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.050	01	8.100	01	1.711	02	1.310	01	2.652	02
1.070	01	9.247	01	1.850	02	1.394	01	2.914	02
1.080	01	9.781	01	1.897	02	1.435	01	3.019	02
1.090	01	1.027	02	1.929	02	1.474	01	3.104	02
1.100	01	1.071	02	1.944	02	1.509	01	3.166	02
1.130	01	1.164	02	1.892	02	1.592	01	3.216	02
1.150	01	1.188	02	1.787	02	1.623	01	3.138	02
1.180	01	1.169	02	1.561	02	1.631	01	2.893	02
1.200	01	1.124	02	1.390	02	1.613	01	2.675	02
1.220	01	1.062	02	1.223	02	1.582	01	2.444	02
1.230	01	1.027	02	1.146	02	1.564	01	2.330	02
1.250	01	9.583	01	1.013	02	1.525	01	2.124	02
1.280	01	8.711	01	8.775	01	1.473	01	1.896	02
1.300	01	8.349	01	8.354	01	1.452	01	1.815	02
1.320	01	8.210	01	8.302	01	1.446	01	1.796	02
1.340	01	8.293	01	8.566	01	1.458	01	1.831	02
1.350	01	8.407	01	8.791	01	1.470	01	1.866	02
1.370	01	8.742	01	9.370	01	1.505	01	1.961	02
1.390	01	9.153	01	1.003	02	1.550	01	2.073	02
1.400	01	9.359	01	1.036	02	1.576	01	2.129	02
1.430	01	9.858	01	1.120	02	1.650	01	2.271	02
1.450	01	1.000	02	1.156	02	1.692	01	2.325	02
1.470	01	9.948	01	1.169	02	1.720	01	2.335	02
1.500	01	9.480	01	1.144	02	1.733	01	2.265	02
1.520	01	8.949	01	1.101	02	1.721	01	2.168	02
1.530	01	8.636	01	1.074	02	1.709	01	2.108	02
1.540	01	8.302	01	1.043	02	1.694	01	2.043	02
1.550	01	7.954	01	1.010	02	1.676	01	1.973	02
1.560	01	7.601	01	9.750	01	1.656	01	1.900	02
1.570	01	7.250	01	9.391	01	1.635	01	1.827	02
1.580	01	6.908	01	9.028	01	1.612	01	1.754	02
1.600	01	6.276	01	8.320	01	1.565	01	1.616	02
1.620	01	5.741	01	7.669	01	1.520	01	1.493	02
1.660	01	5.012	01	6.620	01	1.447	01	1.308	02
1.680	01	4.802	01	6.227	01	1.421	01	1.245	02
1.690	01	4.725	01	6.057	01	1.411	01	1.219	02
1.700	01	4.662	01	5.902	01	1.402	01	1.196	02
1.720	01	4.558	01	5.621	01	1.388	01	1.156	02
1.730	01	4.511	01	5.489	01	1.382	01	1.138	02
1.750	01	4.405	01	5.227	01	1.373	01	1.100	02
1.770	01	4.267	01	4.953	01	1.363	01	1.058	02
1.800	01	3.976	01	4.491	01	1.347	01	9.815	01
1.820	01	3.723	01	4.147	01	1.333	01	9.204	01
1.850	01	3.285	01	3.597	01	1.307	01	8.190	01
1.870	01	2.982	01	3.229	01	1.287	01	7.499	01
1.900	01	2.568	01	2.724	01	1.257	01	6.550	01
1.950	01	2.178	01	2.162	01	1.224	01	5.565	01
1.980	01	2.220	01	2.068	01	1.225	01	5.514	01
2.000	01	2.382	01	2.120	01	1.238	01	5.742	01
2.020	01	2.651	01	2.264	01	1.262	01	6.178	01
2.050	01	3.233	01	2.630	01	1.319	01	7.183	01
2.100	01	4.520	01	3.517	01	1.458	01	9.497	01
2.120	01	5.067	01	3.907	01	1.524	01	1.049	02
2.150	01	5.825	01	4.454	01	1.621	01	1.190	02
2.170	01	6.244	01	4.760	01	1.681	01	1.268	02
2.190	01	6.565	01	4.997	01	1.732	1	1.329	02
2.200	01	6.684	01	5.086	01	1.754	01	1.352	02
2.220	01	6.828	01	5.196	01	1.787	01	1.381	02
2.230	01	6.854	01	5.218	01	1.798	01	1.387	02
2.250	01	6.812	01	5.194	01	1.810	01	1.381	02
2.260	01	6.748	01	5.150	01	1.810	01	1.370	02
2.280	01	6.542	01	5.005	01	1.799	01	1.334	02
2.300	01	6.251	01	4.798	01	1.776	01	1.282	02

TABLE IX (Continued) T = 10.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
2.320	01	5.901	01	4.546	01	1.742	01	1.219	02
2.330	01	5.712	01	4.410	01	1.722	01	1.184	02
2.340	01	5.519	01	4.270	01	1.701	01	1.149	02
2.350	01	5.325	01	4.129	01	1.678	01	1.113	02
2.360	01	5.133	01	3.989	01	1.654	01	1.077	02
2.370	01	4.947	01	3.852	01	1.630	01	1.043	02
2.380	01	4.770	01	3.721	01	1.606	01	1.009	02
2.400	01	4.449	01	3.482	01	1.559	01	9.492	01
2.430	01	4.077	01	3.199	01	1.497	01	8.774	01
2.450	01	3.911	01	3.066	01	1.463	01	8.441	01
2.480	01	3.782	01	2.948	01	1.425	01	8.155	01
2.500	01	3.762	01	2.913	01	1.408	01	8.085	01
2.530	01	3.799	01	2.904	01	1.394	01	8.098	01
2.550	01	3.843	01	2.910	01	1.391	01	8.145	01
2.570	01	3.885	01	2.912	01	1.390	01	8.188	01
2.600	01	3.913	01	2.885	01	1.392	01	8.191	01
2.620	01	3.892	01	2.838	01	1.393	01	8.123	01
2.630	01	3.866	01	2.803	01	1.392	01	8.063	01
2.650	01	3.783	01	2.712	01	1.390	01	7.886	01
2.680	01	3.576	01	2.520	01	1.381	01	7.479	01
2.700	01	3.389	01	2.360	01	1.372	01	7.122	01
2.720	01	3.168	01	2.181	01	1.359	01	6.709	01
2.730	01	3.047	01	2.086	01	1.352	01	6.485	01
2.750	01	2.791	01	1.889	01	1.335	01	6.016	01
2.770	01	2.522	01	1.689	01	1.317	01	5.529	01
2.780	01	2.386	01	1.590	01	1.307	01	5.284	01
2.800	01	2.114	01	1.398	01	1.287	01	4.799	01
2.830	01	1.722	01	1.133	01	1.255	01	4.111	01
2.850	01	1.480	01	9.772	00	1.235	01	3.692	01
2.900	01	9.668	00	6.759	00	1.188	01	2.831	01
2.950	01	6.010	00	5.030	00	1.149	01	2.253	01
3.000	01	3.702	00	4.386	00	1.118	01	1.927	01
3.055	01	2.360	00	4.534	00	1.094	01	1.783	01
3.100	01	1.903	00	4.995	00	1.079	01	1.769	01
3.130	01	1.816	00	5.342	00	1.072	01	1.788	01
3.150	01	1.830	00	5.553	00	1.067	01	1.806	01
3.170	01	1.890	00	5.732	00	1.063	01	1.826	01
3.190	01	1.990	00	5.866	00	1.060	01	1.846	01
3.200	01	2.053	00	5.913	00	1.058	01	1.855	01
3.230	01	2.290	00	5.970	00	1.054	01	1.880	01
3.250	01	2.481	00	5.934	00	1.051	01	1.893	01
3.300	01	3.059	00	5.598	00	1.045	01	1.911	01
3.330	01	3.452	00	5.260	00	1.041	01	1.913	01
3.350	01	3.725	00	4.994	00	1.039	01	1.911	01
3.370	01	3.995	00	4.708	00	1.037	01	1.907	01
3.400	01	4.386	00	4.259	00	1.033	01	1.898	01
3.430	01	4.733	00	3.813	00	1.030	01	1.885	01
3.450	01	4.929	00	3.527	00	1.028	01	1.873	01
3.470	01	5.091	00	3.258	00	1.025	01	1.860	01
3.500	01	5.263	00	2.893	00	1.022	01	1.838	01
3.530	01	5.355	00	2.581	00	1.019	01	1.813	01
3.550	01	5.384	00	2.406	00	1.018	01	1.797	01
3.580	01	5.411	00	2.195	00	1.017	01	1.777	01
3.600	01	5.445	00	2.093	00	1.017	01	1.771	01
3.650	01	5.787	00	1.985	00	1.026	01	1.803	01
3.700	01	6.925	00	2.138	00	1.052	01	1.958	01
3.750	01	9.485	00	2.631	00	1.107	01	2.318	01
3.800	01	1.405	01	3.550	00	1.204	01	2.964	01
3.820	01	1.653	01	4.051	00	1.257	01	3.316	01
3.850	01	2.095	01	4.940	00	1.352	01	3.942	01
3.870	01	2.436	01	5.625	00	1.426	01	4.425	01
3.900	01	3.010	01	6.773	00	1.553	01	5.240	01
3.920	01	3.420	01	7.593	00	1.645	01	5.824	01
3.950	01	4.064	01	8.877	00	1.790	01	6.743	01

TABLE IX (Continued)

T = 10.0 ev

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
3.970	01	4.497	01	9.737	00	1.889	01	7.361	01
4.000	01	5.119	01	1.096	01	2.034	01	8.251	01
4.030	01	5.679	01	1.207	01	2.167	01	9.054	01
4.050	01	6.002	01	1.270	01	2.245	01	9.518	01
4.070	01	6.268	01	1.322	01	2.310	01	9.900	01
4.090	01	6.467	01	1.360	01	2.359	01	1.018	02
4.100	01	6.544	01	1.374	01	2.379	01	1.029	02
4.130	01	6.658	01	1.394	01	2.408	01	1.046	02
4.150	01	6.639	01	1.388	01	2.405	01	1.043	02

TABLE X

Pu^{239} CROSS SECTIONS

Pu^{239} Temperature = 20.0 ev

Neutron Energy, E_n(ev)		Radiative Capture Cross Section, σ_γ(barns)		Fission Cross Section, σ_F(barns)		Scattering Cross Section, σ_S(barns)		Total Cross Section, σ_T(barns)	
2.530	-02	5.116	02	8.686	02	1.006	01	1.390	03
5.000	-02	5.520	02	9.142	02	1.048	01	1.476	03
8.000	-02	5.893	02	9.552	02	1.100	01	1.555	03
1.000	-01	6.068	02	9.733	02	1.134	01	1.591	03
1.500	-01	6.263	02	9.871	02	1.213	01	1.625	03
2.000	-01	6.159	02	9.613	02	1.279	01	1.590	03
2.500	-01	5.829	02	9.054	02	1.329	01	1.501	03
3.000	-01	5.347	02	8.294	02	1.364	01	1.377	03
3.500	-01	4.782	02	7.425	02	1.384	01	1.234	03
4.000	-01	4.187	02	6.522	02	1.392	01	1.084	03
4.500	-01	3.600	02	5.638	02	1.391	01	9.378	02
5.000	-01	3.049	02	4.811	02	1.383	01	7.999	02
5.500	-01	2.549	02	4.063	02	1.370	01	6.749	02
6.000	-01	2.107	02	3.402	02	1.354	01	5.645	02
7.000	-01	1.403	02	2.348	02	1.318	01	3.884	02
8.000	-01	9.123	01	1.608	02	1.283	01	2.649	02
9.000	-01	5.852	01	1.112	02	1.251	01	1.822	02
1.000	00	3.749	01	7.883	01	1.223	01	1.285	02
1.250	00	1.327	01	4.004	01	1.173	01	6.504	01
1.500	00	5.974	00	2.674	01	1.140	01	4.412	01
1.750	00	3.574	00	2.116	01	1.116	01	3.589	01
2.000	00	2.604	00	1.806	01	1.096	01	3.163	01
2.500	00	1.811	00	1.436	01	1.064	01	2.682	01
3.000	00	1.476	00	1.203	01	1.036	01	2.388	01
3.500	00	1.319	00	1.040	01	1.011	01	2.183	01
4.000	00	1.324	00	9.250	00	9.860	00	2.043	01
4.500	00	1.791	00	8.720	00	9.609	00	2.012	01
5.000	00	3.923	00	9.699	00	9.390	00	2.301	01
5.500	00	1.043	01	1.431	01	9.324	00	3.407	01
6.000	00	2.458	01	2.513	01	9.610	00	5.932	01
6.500	00	4.655	01	4.235	01	1.037	01	9.928	01
6.800	00	6.127	01	5.408	01	1.100	01	1.263	02
7.000	00	7.047	01	6.156	01	1.144	01	1.434	02
7.500	00	8.687	01	7.599	01	1.239	01	1.752	02
7.800	00	9.032	01	8.075	01	1.272	01	1.838	02
8.000	00	8.989	01	8.250	01	1.281	01	1.852	02
8.400	00	8.412	01	8.443	01	1.273	01	1.813	02
8.600	00	7.992	01	8.567	01	1.261	01	1.782	02
8.800	00	7.569	01	8.777	01	1.247	01	1.759	02
9.000	00	7.201	01	9.110	01	1.234	01	1.754	02
9.400	00	6.796	01	1.019	02	1.224	01	1.821	02
9.800	00	6.950	01	1.173	02	1.245	01	1.992	02
1.000	01	7.219	01	1.256	02	1.267	01	2.104	02
1.020	01	7.582	01	1.335	02	1.295	01	2.222	02
1.050	01	8.223	01	1.434	02	1.345	01	2.391	02
1.080	01	8.869	01	1.497	02	1.397	01	2.524	02
1.100	01	9.250	01	1.515	02	1.430	01	2.583	02
1.150	01	9.875	01	1.475	02	1.493	01	2.612	02
1.200	01	9.990	01	1.350	02	1.524	01	2.501	02
1.250	01	9.764	01	1.206	02	1.535	01	2.336	02
1.300	01	9.452	01	1.096	02	1.543	01	2.196	02
1.350	01	9.198	01	1.039	02	1.560	01	2.115	02
1.400	01	8.976	01	1.019	02	1.584	01	2.075	02
1.450	01	8.659	01	1.004	02	1.603	01	2.031	02
1.500	01	8.146	01	9.702	01	1.604	01	1.945	02
1.530	01	7.739	01	9.354	01	1.594	01	1.868	02
1.550	01	7.435	01	9.066	01	1.582	01	1.808	02
1.600	01	6.615	01	8.194	01	1.541	01	1.635	02
1.650	01	5.641	01	7.014	01	1.479	01	1.413	02
1.700	01	5.059	01	6.237	01	1.438	01	1.273	02
1.750	01	4.434	01	5.339	01	1.391	01	1.116	02

TABLE X (Continued) T = 20.0

E_n(ev)		σ_γ(barns)		σ_F(barns)		σ_S(barns)		σ_T(barns)	
1.800	01	3.930	01	4.560	01	1.354	01	9.846	01
1.850	01	3.567	01	3.930	01	1.330	01	8.828	01
1.870	01	3.468	01	3.727	01	1.325	01	8.521	01
1.900	01	3.376	01	3.483	01	1.323	01	8.185	01
1.950	01	3.398	01	3.248	01	1.336	01	7.983	01
2.000	01	3.632	01	3.226	01	1.372	01	8.231	01
2.050	01	4.035	01	3.381	01	1.426	01	8.843	01
2.100	01	4.515	01	3.638	01	1.490	01	9.644	01
2.150	01	4.959	01	3.904	01	1.552	01	1.041	02
2.200	01	5.268	01	4.095	01	1.600	01	1.096	02
2.250	01	5.387	01	4.162	01	1.625	01	1.117	02
2.300	01	5.314	01	4.095	01	1.623	01	1.103	02
2.350	01	5.094	01	3.919	01	1.600	01	1.061	02
2.400	01	4.793	01	3.679	01	1.562	01	1.003	02
2.450	01	4.468	01	3.413	01	1.518	01	9.400	01
2.480	01	4.277	01	3.253	01	1.491	01	9.023	01
2.500	01	4.154	01	3.148	01	1.474	01	8.777	01
2.550	01	3.855	01	2.890	01	1.434	01	8.181	01
2.600	01	3.557	01	2.633	01	1.399	01	7.590	01
2.650	01	3.238	01	2.366	01	1.367	01	6.973	01
2.700	01	2.887	01	2.087	01	1.336	01	6.311	01
2.750	01	2.503	01	1.799	01	1.304	01	5.608	01
2.800	01	2.103	01	1.517	01	1.270	01	4.891	01
2.850	01	1.708	01	1.257	01	1.236	01	4.201	01
2.900	01	1.343	01	1.033	01	1.203	01	3.579	01
2.950	01	1.028	01	8.553	00	1.172	01	3.056	01
3.000	01	7.759	00	7.251	00	1.144	01	2.645	01
3.055	01	5.720	00	6.303	00	1.117	01	2.320	01
3.100	01	4.593	00	5.817	00	1.099	01	2.140	01
3.130	01	4.079	00	5.592	00	1.089	01	2.056	01
3.150	01	3.832	00	5.472	00	1.083	01	2.013	01
3.170	01	3.648	00	5.367	00	1.077	01	1.979	01
3.190	01	3.523	00	5.272	00	1.072	01	1.952	01
3.200	01	3.484	00	5.227	00	1.070	01	1.941	01
3.230	01	3.431	00	5.092	00	1.063	01	1.915	01
3.250	01	3.444	00	5.000	00	1.059	01	1.904	01
3.300	01	3.634	00	4.743	00	1.051	01	1.889	01
3.330	01	3.827	00	4.569	00	1.048	01	1.888	01
3.350	01	3.987	00	4.444	00	1.046	01	1.889	01
3.370	01	4.171	00	4.316	00	1.045	01	1.894	01
3.400	01	4.483	00	4.119	00	1.044	01	1.905	01
3.450	01	5.143	00	3.803	00	1.047	01	1.942	01
3.500	01	6.035	00	3.546	00	1.057	01	2.015	01
3.550	01	7.269	00	3.396	00	1.076	01	2.142	01
3.600	01	8.981	00	3.402	00	1.107	01	2.346	01
3.650	01	1.131	01	3.598	00	1.154	01	2.645	01
3.700	01	1.437	01	4.006	00	1.219	01	3.057	01
3.750	01	1.821	01	4.623	00	1.302	01	3.585	01
3.800	01	2.274	01	5.426	00	1.401	01	4.218	01
3.850	01	2.777	01	6.361	00	1.513	01	4.927	01
3.900	01	3.299	01	7.352	00	1.629	01	5.663	01
3.950	01	3.797	01	8.307	00	1.738	01	6.366	01
4.000	01	4.226	01	9.127	00	1.831	01	6.971	01
4.050	01	4.543	01	9.723	00	1.897	01	7.413	01
4.100	01	4.717	01	1.002	01	1.927	01	7.646	01
4.150	01	4.727	01	1.000	01	1.915	01	7.643	01

TABLE XI

Pu^{239} CROSS SECTIONS

Pu^{239} Temperature = 50.0 ev

Neutron Energy, E_n (ev)		Radiative Capture Cross Section, σ_γ (barns)		Fission Cross Section, σ_F (barns)		Scattering Cross Section, σ_S (barns)		Total Cross Section, σ_T (barns)	
2.530	-02	5.338	02	8.514	02	1.223	01	1.397	03
5.000	-02	5.201	02	8.279	02	1.237	01	1.360	03
8.000	-02	5.023	02	7.982	02	1.252	01	1.313	03
1.000	-01	4.899	02	7.778	02	1.261	01	1.280	03
1.500	-01	4.578	02	7.257	02	1.278	01	1.196	03
2.000	-01	4.248	02	6.730	02	1.290	01	1.110	03
2.500	-01	3.918	02	6.209	02	1.298	01	1.025	03
3.000	-01	3.594	02	5.703	02	1.302	01	9.428	02
3.500	-01	3.282	02	5.218	02	1.303	01	8.630	02
4.000	-01	2.984	02	4.757	02	1.302	01	7.872	02
4.500	-01	2.703	02	4.324	02	1.298	01	7.157	02
5.000	-01	2.440	02	3.920	02	1.293	01	6.490	02
5.500	-01	2.196	02	3.546	02	1.287	01	5.871	02
6.000	-01	1.971	02	3.201	02	1.280	01	5.300	02
7.000	-01	1.576	02	2.597	02	1.263	01	4.300	02
8.000	-01	1.250	02	2.098	02	1.246	01	3.474	02
9.000	-01	9.854	01	1.692	02	1.228	01	2.800	02
1.000	00	7.726	01	1.365	02	1.211	01	2.259	02
1.250	00	4.147	01	8.095	01	1.173	01	1.341	02
1.500	00	2.220	01	5.030	01	1.141	01	8.391	01
1.750	00	1.213	01	3.360	01	1.115	01	5.690	01
2.000	00	6.973	00	2.443	01	1.094	01	4.235	01
2.500	00	3.035	00	1.613	01	1.059	01	2.976	01
3.000	00	2.237	00	1.292	01	1.030	01	2.547	01
3.500	00	2.858	00	1.178	01	1.006	01	2.471	01
4.000	00	5.064	00	1.238	01	9.891	00	2.733	01
4.500	00	9.513	00	1.508	01	9.816	00	3.441	01
5.000	00	1.668	01	2.030	01	9.879	00	4.686	01
5.500	00	2.640	01	2.803	01	1.009	01	6.454	01
6.000	00	3.772	01	3.779	01	1.045	01	8.597	01
6.500	00	4.914	01	4.874	01	1.089	01	1.087	02
6.800	00	5.542	01	5.554	01	1.116	01	1.221	02
7.000	00	5.921	01	6.008	01	1.135	01	1.306	02
7.500	00	6.703	01	7.124	01	1.177	01	1.500	02
7.800	00	7.055	01	7.774	01	1.200	01	1.603	02
8.000	00	7.246	01	8.197	01	1.214	01	1.665	02
8.400	00	7.542	01	9.019	01	1.241	01	1.780	02
8.600	00	7.657	01	9.415	01	1.253	01	1.832	02
8.800	00	7.759	01	9.798	01	1.266	01	1.882	02
9.000	00	7.851	01	1.016	02	1.278	01	1.929	02
9.400	00	8.023	01	1.084	02	1.303	01	2.017	02
9.800	00	8.194	01	1.143	02	1.330	01	2.095	02
1.000	01	8.282	01	1.168	02	1.344	01	2.130	02
1.020	01	8.372	01	1.189	02	1.358	01	2.162	02
1.050	01	8.505	01	1.214	02	1.379	01	2.203	02
1.080	01	8.633	01	1.230	02	1.401	01	2.234	02
1.100	01	8.711	01	1.237	02	1.415	01	2.249	02
1.150	01	8.865	01	1.235	02	1.448	01	2.267	02
1.200	01	8.938	01	1.214	02	1.478	01	2.255	02
1.250	01	8.913	01	1.176	02	1.502	01	2.218	02
1.300	01	8.783	01	1.128	02	1.520	01	2.158	02
1.350	01	8.551	01	1.072	02	1.531	01	2.081	02
1.400	01	8.230	01	1.013	02	1.535	01	1.990	02
1.450	01	7.835	01	9.518	01	1.532	01	1.888	02
1.500	01	7.388	01	8.886	01	1.523	01	1.779	02
1.530	01	7.104	01	8.503	01	1.515	01	1.712	02
1.550	01	6.911	01	8.247	01	1.510	01	1.666	02
1.600	01	6.427	01	7.608	01	1.493	01	1.552	02
1.660	01	5.873	01	6.861	01	1.472	01	1.420	02
1.700	01	5.537	01	6.388	01	1.459	01	1.338	02
1.750	01	5.169	01	5.838	01	1.445	01	1.245	02

TABLE XI (Continued)

T = 50.0 ev

E_n (ev)		σ_γ (barns)		σ_F (barns)		σ_S (barns)		σ_T (barns)	
1.800	01	4.873	01	5.349	01	1.436	01	1.165	02
1.850	01	4.652	01	4.930	01	1.432	01	1.101	02
1.870	01	4.586	01	4.784	01	1.432	01	1.080	02
1.900	01	4.507	01	4.587	01	1.434	01	1.052	02
1.950	01	4.427	01	4.316	01	1.440	01	1.018	02
2.000	01	4.401	01	4.111	01	1.451	01	9.963	01
2.050	01	4.409	01	3.959	01	1.463	01	9.832	01
2.100	01	4.435	01	3.844	01	1.476	01	9.756	01
2.150	01	4.459	01	3.753	01	1.487	01	9.700	01
2.200	01	4.467	01	3.669	01	1.495	01	9.632	01
2.250	01	4.446	01	3.581	01	1.498	01	9.526	01
2.300	01	4.388	01	3.480	01	1.496	01	9.365	01
2.350	01	4.289	01	3.360	01	1.489	01	9.140	01
2.400	01	4.150	01	3.220	01	1.477	01	8.847	01
2.450	01	3.972	01	3.059	01	1.459	01	8.491	01
2.480	01	3.849	01	2.954	01	1.447	01	8.250	01
2.500	01	3.761	01	2.880	01	1.438	01	8.080	01
2.600	01	3.265	01	2.485	01	1.387	01	7.137	01
2.700	01	2.719	01	2.072	01	1.330	01	6.122	01
2.800	01	2.180	01	1.679	01	1.273	01	5.134	01
2.900	01	1.696	01	1.334	01	1.222	01	4.253	01
3.000	01	1.305	01	1.052	01	1.179	01	3.536	01
3.055	01	1.139	01	9.252	00	1.160	01	3.225	01
3.100	01	1.032	01	8.362	00	1.148	01	3.016	01
3.200	01	8.906	00	6.828	00	1.132	01	2.706	01
3.300	01	8.851	00	5.838	00	1.136	01	2.605	01
3.400	01	1.012	01	5.306	00	1.160	01	2.703	01
3.450	01	1.121	01	5.187	00	1.181	01	2.821	01
3.500	01	1.258	01	5.154	00	1.207	01	2.981	01
3.550	01	1.420	01	5.195	00	1.237	01	3.177	01
3.600	01	1.600	01	5.301	00	1.271	01	3.402	01
3.650	01	1.797	01	5.464	00	1.309	01	3.653	01
3.700	01	2.002	01	5.666	00	1.348	01	3.917	01
3.800	01	2.403	01	6.117	00	1.422	01	4.437	01
3.820	01	2.479	01	6.207	00	1.435	01	4.536	01
3.850	01	2.589	01	6.341	00	1.454	01	4.678	01
3.870	01	2.656	01	6.421	00	1.465	01	4.764	01
3.900	01	2.750	01	6.533	00	1.480	01	4.884	01

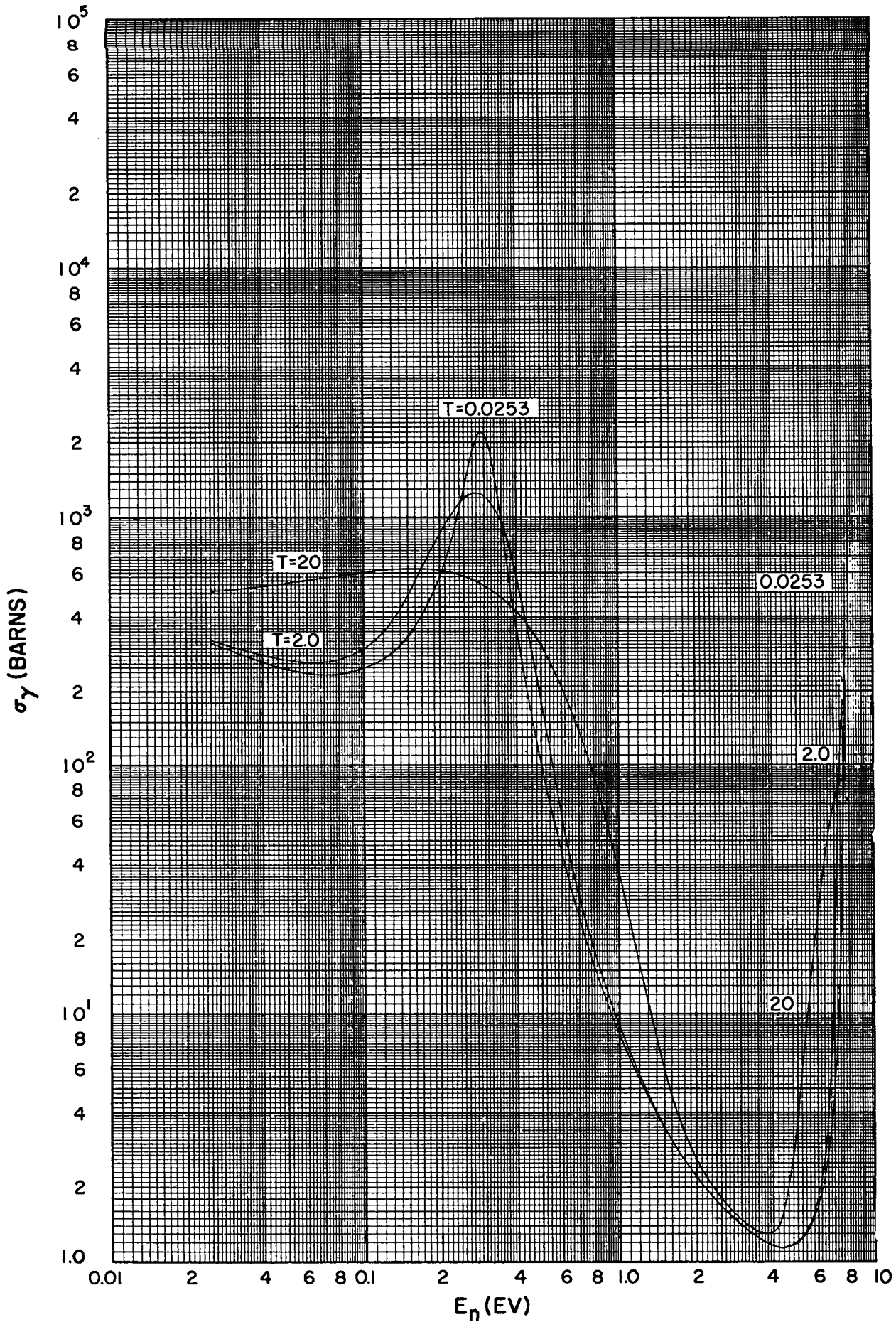

Fig. 1 Radiative capture cross section, σ_γ, versus neutron energy, E_n, from 0.025 to 10 ev, as a function of temperature, T.

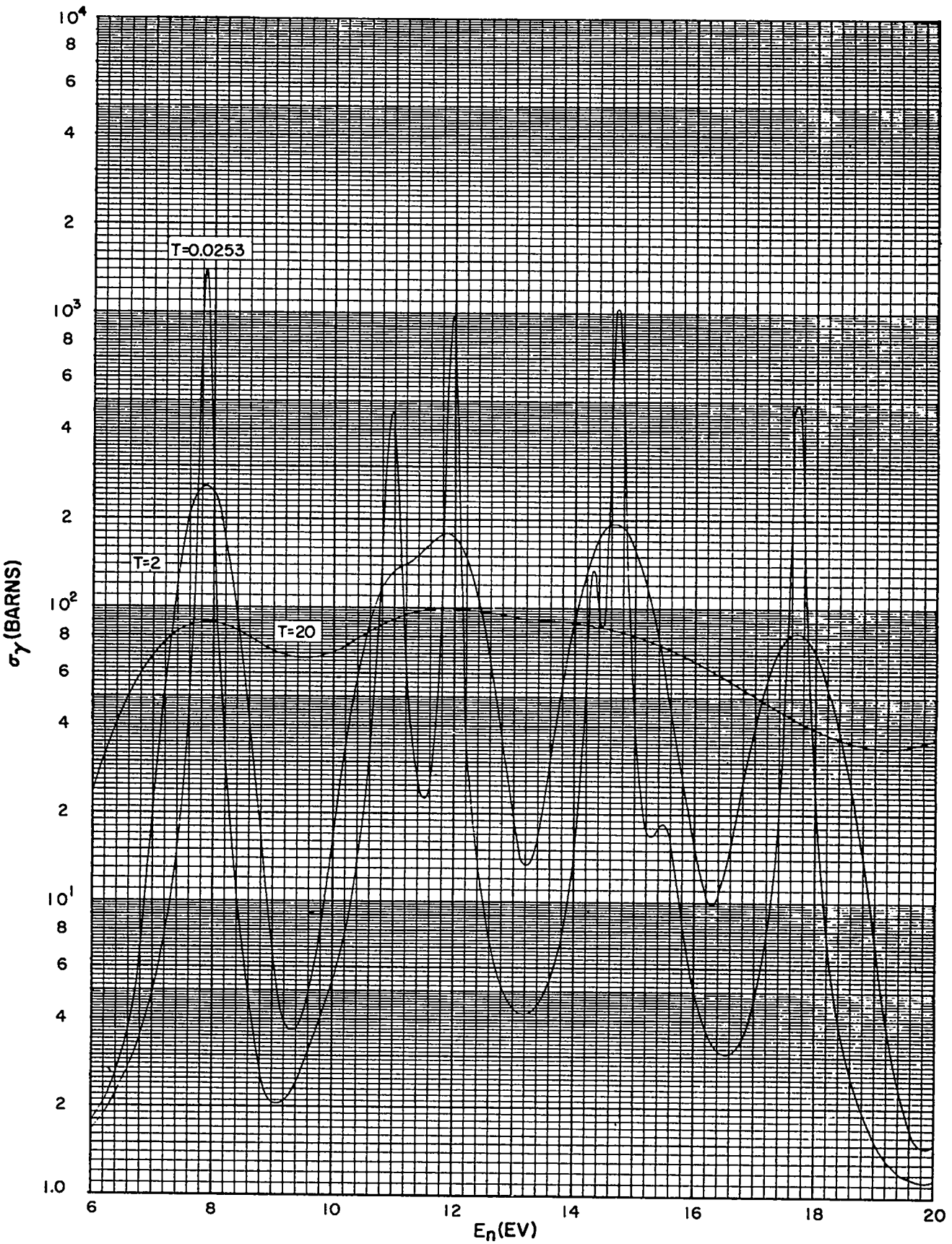

Fig. 2 Radiative capture cross section, σ_γ, versus neutron energy, E_n, from 6 to 20 ev, as a function of temperature, T.

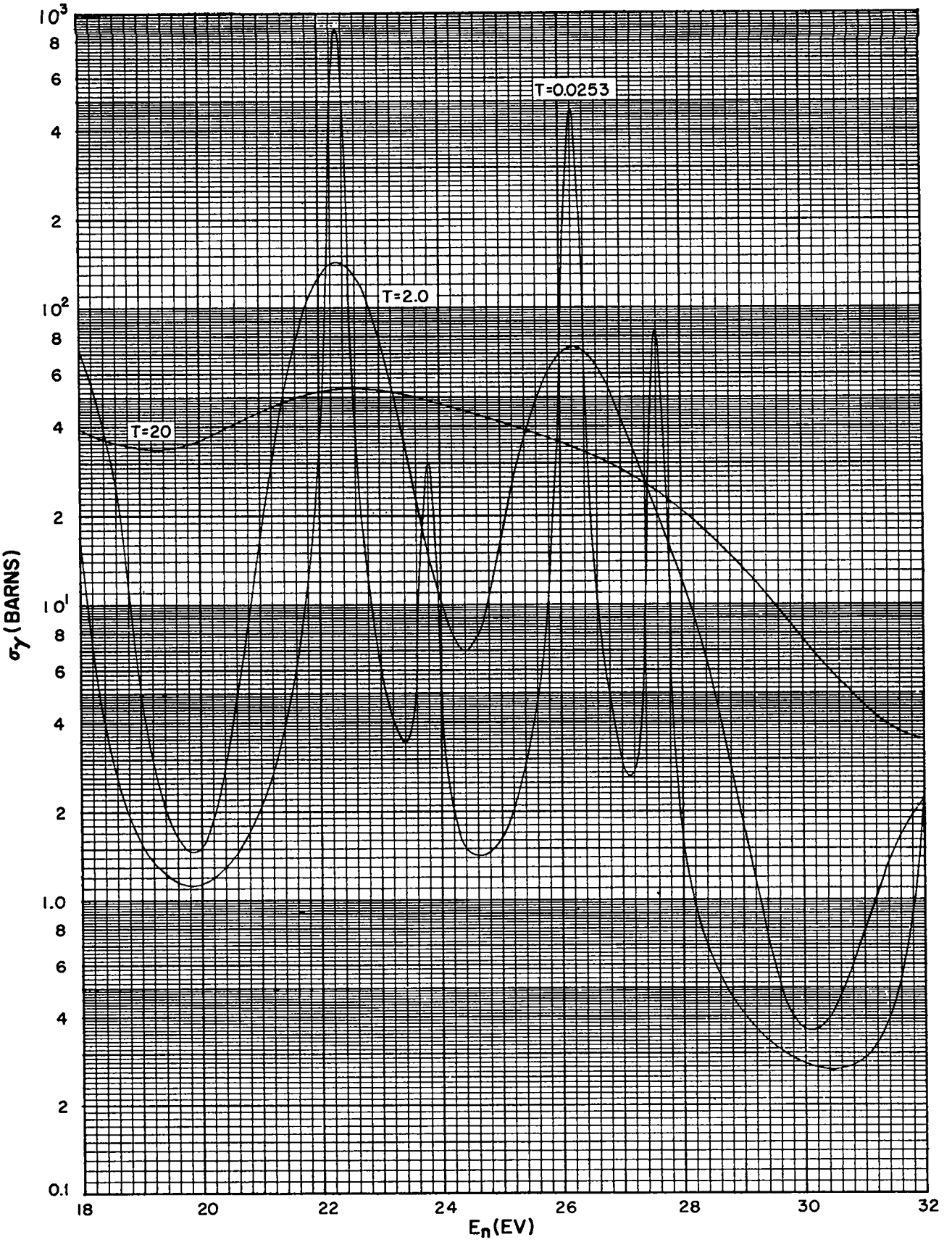

Fig. 3 Radiative capture cross section, σ_γ, versus neutron energy, E_n, from 18 to 32 ev, as a function of temperature, T.

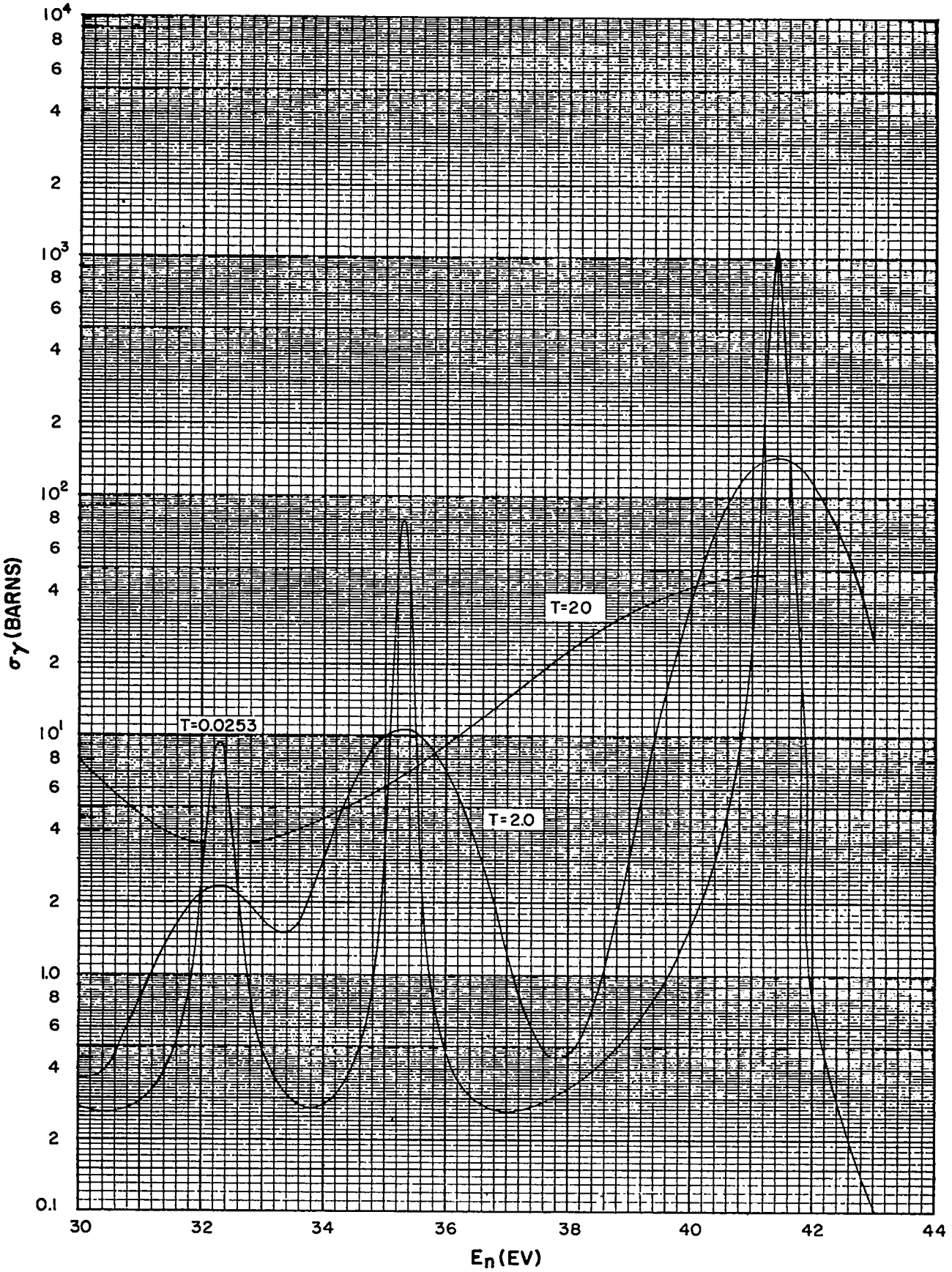

Fig. 4 Radiative capture cross section, σ_γ, versus neutron energy, E_n, from 30 to 43 ev, as a function of temperature, T.

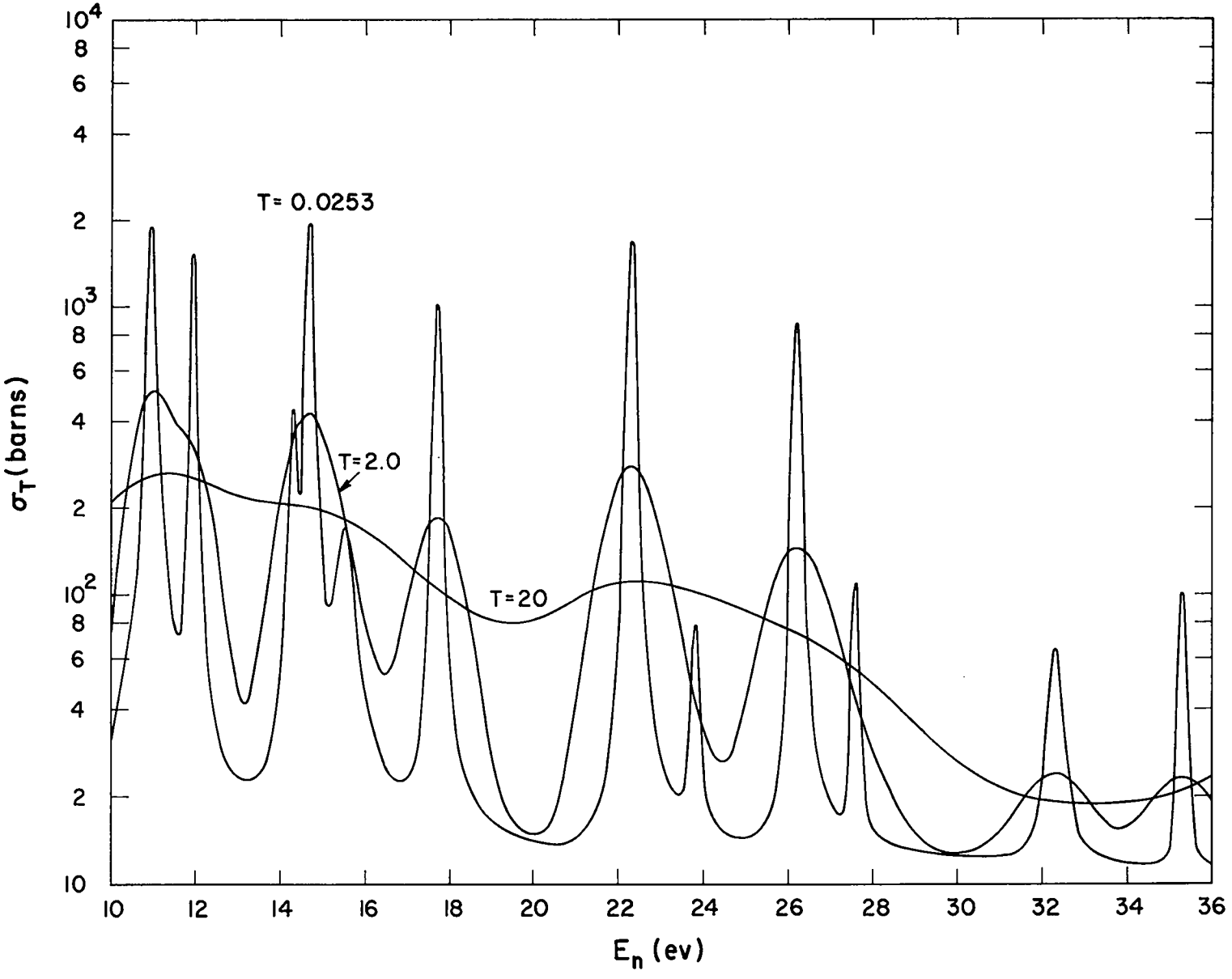

Fig. 5 Total cross section, σ_T, versus neutron energy, E_n, as a function of temperature, T.

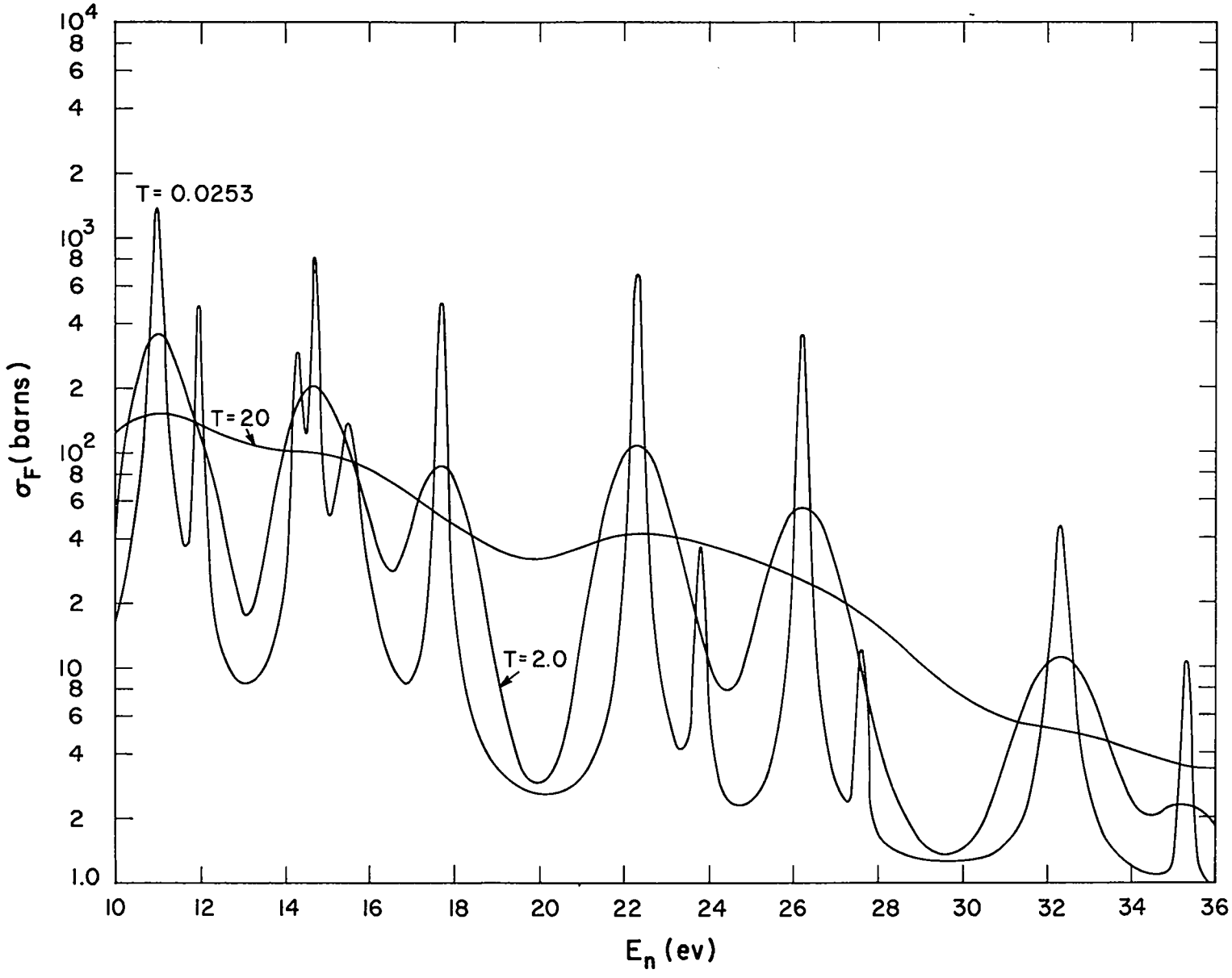

Fig. 6 Fission cross section, σ_F, versus neutron energy, E_n, as a function of temperature, T.