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October 1982

Hideki TAKANO and Yukio ISHIGURO

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Production and Benchmark Tests of Fast Reactor

Group Constant Set JFS-3-J2

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The JFS-3-J2 set is an advanced set for JENDL-2B-70, which was produced as the group constants of the JAERI-Fast set type. The JFS-3-J2 has been produced with the use of a processing code system TIMS-PGG. The characteristics of JFS-3-J2 are as follows.

The group averaged cross sections are calculated by weighting with the collision density spectrum for core composition in a typical fast reactor, to correct the overestimate of elastic removal cross sections caused by using "1/E-spectrum". The weighting method of the collision density spectrum is called "REMO-correction", and produces harder neutron spectra than those calculated from "1/E-spectrum" method, especially for low energy range below about 1 keV. Hence, the nuclear characteristics such as Doppler reactivity coefficients sensitive to the flux shape in the low energy region are considerably affected by the harder spectra.

The temperature dependent self-shielding factors for structural materials, Fe, Cr and Ni are calculated. The Doppler effect of structural materials is 0.24 % $\Delta k/k$ for temperature change from 0 to 300 °K

The work was performed under the contracts between Power Reactor and Nuclear Fuel Development Corporation and Japan Atomic Energy Research Institute.

in the ZPR-6 assembly 7.

The scheme of self-shielding factor tables is corrected to obtain high accuracy of interpolation for f-tables by using cubic spline function.

The self-shielding effect of inelastic scattering cross sections is considered.

The neutron group to group transfer matrices of elastic scattering are expanded from P_0 to P_3 .

In this report, the effects of "REMO-correction" considered in the generation of JFS-3-J2 on the nuclear characteristics are studied. The benchmark tests of JFS-3-J2 are performed and the results are discussed by being compared with those calculated with the JENDL-2B-70 set.

Keywords: Group Constant Set, JFS-3-J2, JENDL-2B-70, JAERI-Fast Set, TIMS-PGG code, Benchmark Test, Collision Density Spectrum, REMO-Correction, Structural Material Doppler Effect, Self-shielding Factor, Cubic Spline Function

高速炉用群定数セット JFS-3-J2 の作成とベンチマーク・テスト

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(1982年9月8日受理)

JFS-3-J2 セットは JAERI-Fast セット型の群定数セット JENDL-2B-70 をより改良発展させたもので、プロセスコードシステム TIMS-PGG を使用して作成したものである。

JFS-3-J2 セットの特徴は以下の如くである。

群平均断面積は、代表的な高速炉心組成での衝突密度スペクトラムを重みにして計算される。これは $1/E$ スペクトラムの使用によって生じる弾性除去散乱断面積の過大評価をさけるためである。この方法は“REMO-補正”と呼ばれ、特に 1 KeV 以下のエネルギー領域で中性子スペクトルは $1/E$ スペクトラムの結果より固くなる。従って、低エネルギー領域の中性子スペクトルに敏感なドップラー反応度係数のような核特性は、かなりの影響を受ける。

構造材核種 Fe, Cr, Ni に対する温度依存自己遮蔽因子が計算されている。構造材核種のドップラー効果は ZPR-6-7 炉心での温度変化 $0 \sim 300^\circ\text{K}$ に対して $0.24\% \Delta k/k$ 存在する。

自己遮蔽因子に対する内挿精度を 3 次スプライン関数を用いて高めるために、遮蔽因子表のスキムが改良されている。

非断性散乱断面積の自己遮蔽因子が考慮されている。

中性子の弾性散乱トランスファ・マトリックスは、 P_0 から P_3 まで拡張されている。

この報告書においては、核特性への“REMO-補正”効果が調べられる。又 JFS-3-J2 セットのベンチマーク・テストが実施されると共に、その結果は、JENDL-2B-70 セットで計算した結果と比較して検討される。

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1. Introduction

Japanese Evaluated Nuclear Data Library JENDL-1¹⁾ has been developed in JAERI in cooperation with Japanese Nuclear Data committee (JNDC), after the completion of the JAERI-Fast set version II(JFS-2)²⁾. Using the JENDL-1, the group constant set of the JFS type with the 70 group structure was produced by using the TIMS-1³⁾ and PROF-GROUCH-GII⁴⁾ codes. Various problems of JENDL-1 were revealed⁴⁾ through the benchmark tests and the reevaluation works for neutron cross sections of several nuclides were requested. As a result, the JENDL-2B was produced as the updated file of JENDL-1. Also for the JENDL-2B, the group constant set of the JFS-2 type was generated and it was called JENDL-2B-70. The benchmark tests of JENDL-2B-70 showed⁵⁾ comparable results with the ones of JFS-2, except for the considerable overestimate of ~30 % for the sodium void reactivity. This set is now used for the analyses in JUPITER (Japanese United States Program of Integral Tests and Experimental Researches) project. Furthermore, we have produced an advanced set JFS-3-J2 for JENDL-2B-70 on the basis of the results studied mainly for several problems described in the followings.

- (1) In fast reactor, neutron spectra are steeply reduced in the low energy region below about 10 keV. Hence, the assumption of "1/E-weighting spectrum" overestimates the elastic removal cross sections. The overestimate brings an inaccuracy in calculating the neutron flux. In order to correct the overestimate, the method called "REMO-correction"⁶⁾ is used, that is, in place of 1/E-spectrum, the group cross sections are weighted by using a fine-group collision density spectrum calculated for the core composition in a typical fast reactor.

- (2) In JENDL-2B-70, the cross sections were calculated for a temperature 0 °K, excepting the important heavy resonant elements ^{235}U , ^{238}U , ^{239}Pu , ^{240}Pu and ^{241}Pu processed with the TIMS-1³⁾ code. However, a strong Doppler effect has been often reported⁷⁾⁻⁸⁾ for structural materials. Hence, the temperature dependence of capture cross sections for iron, chromium and nickel is considered in the JFS-3-J2 set.
- (3) An accuracy of interpolation methods for resonance self-shielding factors has been studied⁹⁾ and as the results, the cubic spline method was recommended. The shielding factors are tabulated for 8 admixture background cross sections $\sigma_0 = 0, 1, 10, 10^2, 10^3, 10^4, 10^5$ and 10^6 barns, 4 temperatures 300, 800, 2100 and 4500 °K and 4 mutual shielding parameters for important heavy resonant materials, respectively.
- (4) The effect of self-shielding on inelastic scattering cross sections was neglected by assuming a small energy dependence of the cross sections. This assumption is generally valid. An exception is iron for which the energy dependence of both inelastic scattering and total cross sections below ~ 2 MeV is rapidly. Hence, the self-shielding factors of inelastic scattering cross sections have been calculated¹⁰⁾.
- (5) In more accurate calculations of transport theory, Legendre higher order terms of scattering are required. The neutron group to group transfer matrices of elastic scattering are expanded from P_0 to P_3 .
- (6) The fission spectrum depends on fissionable materials. In the reactor calculations for thorium, uranium or plutonium fuel core, the fission spectrum for a main fuel isotope may be used. For mixed fuels of uranium and plutonium as seen in FCA V and VI

assemblies, an averaged fission spectrum¹¹⁾ may be defined to produce an accurate spectrum. In the present group constant library, hence, the fission spectrum for each fissionable element is included.

- (7) The JAERI standard group structure established for the intended application to LMFBR, LWR and shielding problems was adopted. The 70 group structure for LMFBR is composed of 69 groups for the energy range from 0.3224 eV to 10 MeV with $\Delta u = 0.25$ and one thermal group.

The calculational methods of group constants are described in Section 2. In Section 3, the characteristics of JFS-3-J2 and their effects on integral parameters in fast reactor are described. The results of the benchmark calculations for JFS-3-J2 are discussed in Section 4. The tables of group constants are shown in Appendix.

2. Calculational Method of Group Constants

In the generation of multigroup cross sections for fast reactor calculations, two basically different methods are used to average the basic nuclear data over the energy groups using a flux weighting spectrum. One is the rigorous method that the weighting spectrum is based on a fine group fundamental mode calculation⁽¹²⁾⁻⁽¹⁴⁾. In this method, the weighting spectrum must be calculated for each different composition. Hence, this technique has the disadvantage that a costly computation is required. Another method is multigroup constant method used widely in the world⁽¹⁵⁾⁻⁽¹⁸⁾. As well-known, the principal advantage of the multigroup constant method is that reactor calculation can be made by using the same group constants set for the various reactors with different compositions, temperatures and sizes. In this advantageous method, however, some inadequacies exist. One of the serious inadequacies is concerned with the treatment of elastic removal cross section for light and medium weight nuclei^{(4), (19), (20)}. In the method, "1/E-spectrum" is usually assumed for broad energy behaviour of neutron spectrum in an energy group. In fast reactor, neutron spectra are steeply reduced in the low energy group below 10 keV. Hence, the assumption of "1/E-spectrum" overestimates the elastic removal cross sections. The overestimate brings an inaccuracy in the calculation of the neutron flux. In order to correct the overestimate, the method called "REMO-correction"^{(4) (21)} is useful, that is, in place of 1/E-spectrum, the removal cross sections are weighted by using fine-group collision density spectrum. The adequacy for the "REMO-correction" method has been studied⁽²²⁾, and it was pronounced⁽²³⁾ that the multiplication factor and Doppler reactivity coefficient calculated by the "REMO-correction"

method were in very good agreement with the results calculated with a fine group fundamental mode calculation code ESELEM-4⁽¹⁴⁾.

In KFK, the REMO-correction is considered by modifying the removal cross sections of the KFKINR⁽²¹⁾ set in which group constant are produced by assuming 1/E spectrum with the 25 group structure of ABBN. The modification is performed for each different composition using the fine-group collision density spectra calculated for the core compositions of interest. Hence, such calculations for the REMO-correction are very costly and troublesome procedure.

In the present study, the group cross sections are calculated by using a fine-group collision density spectrum for the core composition in a typical fast reactor, that is, the group constant set consists of the cross sections made the REMO-correction. Hence, it is very advantage that this set is the same scheme as conventional set, because neutronic calculation codes available for conventional set are able to be used without any modifications. However, the independence of fine-group collision density spectrum on the core compositions is assumed in this calculation. In fast reactor, the assumption may be reasonably accepted as compared with the one of 1/E spectrum, because neutron spectra for core and blankets are steeply reduced in the low energy region below 10 keV.

In the processing code system TIMS-PGG⁽²⁴⁾, the group-averaged cross sections are defined by

$$\bar{\sigma}_{x,g}^i(\sigma_0, T) = \frac{\int_{\Delta E_g} \sigma_x^i(E, T) \phi^i(E, T, \sigma_0) dE}{\int_{\Delta E_g} \phi^i(E, T, \sigma_0) dE}, \quad (1)$$

where σ_x^i is the cross section of reaction type x and of isotope i at temperature T , ΔE_g the energy interval for group g , ϕ^i the weighting function and σ_0 the background total cross section per atom of the isotope i . As for the weighting function, the following form is assumed:

$$\phi^i(E, \sigma_0, T) = \frac{\phi_0(E)}{\sigma_t^i(E, T) + \sigma_0} \quad , \quad (2)$$

where $\phi_0(E)$ represents the broad energy behavior of the neutron spectrum and σ_t^i the total cross section of isotope i .

2.1 Standard Spectrum Weighting Method (SDS)

In many codes⁽²⁵⁾⁻⁽²⁷⁾ for production of group-averaged cross sections, $\phi_0(E)$ in Eq.(2) is assumed by

$$\phi_0(E) = \begin{cases} \frac{1}{E} & (< 1 \text{ MeV}) \\ \chi(E) & (\geq 1 \text{ MeV}) \end{cases} \quad , \quad (3)$$

$$(4)$$

where $\chi(E)$ is the fission spectrum.

The assumption of the constant collision density in the neutron slowing down energy region below 1 MeV is based on the narrow resonance approximation. However, this assumption is not valid in the neighbouring energy region of large scattering resonances of light and intermediate weight nuclei and in the low energy region below 1 keV where the flux is abruptly depressed. Especially, the assumption results in the overestimate of elastic removal scattering cross section in the lower energy range.

2.2 Collision Density Spectrum Weighting Method (CDS)

The collision density spectrum $\phi_c(E)$ for the inner core composition of a prototype fast reactor MONJU was calculated by using the ESELEM-4 code⁽¹⁴⁾ in order to obtain the fine group weighting spectrum. The collision density spectrum (CDS) calculated is shown in Fig. 1, and by using the spectrum $\phi_c(E)$, the elastic removal scattering cross section is calculated by

$$\bar{\sigma}_{er,g}^i(\sigma_0, T) = \frac{\int_{E_g}^{E_g/\alpha} \sigma_s^i(E, T) \phi^i(E, T, \sigma_0) \frac{E_g - \alpha E}{(1 - \alpha)E} dE}{\int_{E_g}^{E_g^{-1}} \phi^i(E, T, \sigma_0) dE},$$

$$\phi^i(E, T, \sigma_0) = \frac{\phi_c(E)}{\sigma_t^i(E, T) + \sigma_0}. \quad (5)$$

The calculations of group-averaged cross sections were performed with the TIMS-PGG⁽²⁴⁾ code by using the nuclear data of the JENDL-2⁽²⁸⁾ file. The group constants of 27 nuclides that are necessary for usual reactor calculations were produced with the SDS- and CDS-methods, and these compilations are called the JFS-2-J2 (SDS) and JFS-3-J2 (CDS) sets^(*), respectively.

The elastic removal cross sections calculated with the SDS- and CDS-methods are compared for four typical nuclei in Figs. 2 ~ 5. It is seen from these figures that the SDS-calculation overestimates

*) The group constants for heavy resonant nuclei in the resolved and unresolved resonance regions were calculated with the TIMS-1 code⁽⁵⁾. Hence, these group constants are the same for both the SDS- and CDS-sets.

3. Characteristics of Group Constants Set JFS-3-J2

3.1 The effect of REMO-Correction on Integral Quantities

The effects of the REMO-correction on integral quantities (effective multiplication factors, central reaction rate ratios, central sample worths, Doppler reactivity coefficients, sodium void reactivity coefficients and control rod reactivity worth) are studied by performing the benchmark calculations for the critical assemblies⁽³⁾ used often for the cross section test.

3.1.1 Effective Multiplication Factor

The characteristics of the twenty-one critical assemblies, which are 18 assemblies selected by Hardie et al.⁽²⁹⁾, and MZA, MZB and FCA-V-2 cores, are given in Table 1. The effective multiplication factors (k_{eff}) were calculated for these assemblies, and the percent deviations of k_{eff} 's calculated with the CDS-set from those calculated with the SDS-set are shown in Fig. 6. The deviations are not more than 0.35 percent. The CDS-set gives larger values of k_{eff} for the plutonium-fueled cores and smaller ones for the uranium-fueled cores, except for several assemblies, because the neutron spectra calculated with the SDS-set become softer due to the overestimate of the elastic removal cross sections and $\eta(= \nu \sigma_f / \sigma_a)$ of ^{235}U is smaller than the one of ^{239}Pu in high energy region. Figure 7 shows the comparison of the neutron spectra at the core center in MZB calculated with the CSD- and SDS-sets. The spectrum calculated with the SDS-set is overestimated especially in the low energy range below 1 keV. This fact can be pronounced also for the other assembly.

evidently the elastic removal cross sections in most energy groups, especially low energy region where the scattering cross sections for scattering materials are constant.

3.1.2 Central Reaction Rate Ratio

The ratios of the calculations to the experiments for the central reaction rate ratios are shown as the function of the core volume in Figs. 8 ~ 12. From these figures, we conclude as follows:

$^{239}\sigma_f\phi/^{235}\sigma_f\phi$ (Fig. 8): The C/E-values calculated with the CDS-set becomes larger by about one percent and come slightly near the unity than the SDS-results underestimated for the assemblies with large core volume, while the dependence of the C/E-values on the core volume is seen for both the CDS- and SDS-results.

$^{238}\sigma_Y\phi/^{235}\sigma_f\phi$ and $^{238}\sigma_Y\phi/^{239}\sigma_f\phi$ (Figs. 9 and 10): The differences between the results calculated with the two sets are about one percent. As for $^{238}\sigma_Y\phi/^{239}\sigma_f\phi$, the SDS-results become larger than the CDS-results, because of the softer spectrum as seen in Fig. 2. In these figures, the dependences of the C/E-values on the core volume are obviously seen, that is, the C/E-values increase with the core volume. In these figures, the results calculated with the JAERI-Fast Set Version 2 (JFS-2)⁽⁵⁾ are also shown, and the results also depend on the core volume, though the dependence is reduced. We do not have the reasonable answer to the cause for this dependence, yet.

$^{238}\sigma_f\phi/^{235}\sigma_f\phi$ and $^{240}\sigma_f\phi/^{235}\sigma_f\phi$ (Figs. 11 and 12): The differences between the SDS and CDS-results are smaller than one percent. The calculated results are overestimated, though the dependence of C/E-values on the core volume is not observed.

3.1.3 Central Sample Worth

In order to avoid the scalling problem which is attributed to be caused by the errors in the kinematic parameters, the calculated and measured sample worths were normalized to those of ^{239}Pu respectively.

The C/E-values of the normalized sample worths calculated with the SDS and CDS sets are shown as the function of the core volume in Figs. 13 ~ 15.

Figure 13 shows the C/E-values of the normalized sample worths of ^{235}U . The calculated results show a tendency of overestimate with increase of the core volume, though the CDS-results are corrected slightly.

The sample worths of ^{10}B are compared in Fig. 14. This nuclide has a standard $\frac{1}{v}$ absorption cross sections. The worth is sensitive to the variation of neutron spectrum in the low energy region. The CDS-results calculated with a hardened spectrum increase the tendency of underestimate for the SDS-results, and also for the dependence of the C/E-values on the core volume. The dependence shows the existence of an inconsistency in the neutron spectrum at the core, when we reconsider the dependence of $^{238}\sigma_Y\phi/^{239}\sigma_F\phi$ on the core volume. That is, the results shown in Fig. 10 request that core spectrum should be hardened with the increase of the core volume, and on the other hand the results for ^{10}B worth suggest soften spectrum, inversely. The cause of this inconsistency is not clear. In Fig. 14, the C/E-values of ^{10}B worths calculated with JFS-2⁽³⁾ are also shown, and it should be noticed that their dependence on the core volume is not seen. The differences between the results for JFS-2 and JENDL-2 may be caused from the discrepancies between the other cross sections except for ^{10}B , because ^{10}B is a typical " $\frac{1}{v}$ cross section" and has a well-assigned value.

Figure 15 shows the C/E-values of the normalized worths for iron. The differences between the results calculated with the CDS and SDS-sets are small excepting the result for SNEAK-7A. Also for the scattering materials such as Na, Cr, Ni and Al etc., the differences were small.

Figure 16 shows the C/E-values of the normalized worths for Mo. The differences between the results for the CDS and SDS-sets depend on the core volume, and for ZPR-6-7 the difference is about 8 %. The sample worth of Mo is sensitive to the variation of neutron spectrum, because Mo is resonance absorber.

3.1.4 Doppler Reactivity Coefficients

Doppler coefficients are very sensitive to the shape of neutron spectrum at the core. The neutron spectra calculated with the SDS-set are softened as shown in Fig. 7. Hence the Doppler coefficients calculated with the CDS-set are reduced. The calculations of Doppler coefficients were performed by using one-dimensional perturbation theory for a whole core Doppler experiment in SEFOR and small sample Doppler experiments in FCA-V-1, V-2, V1-1, V1-2, ZPR-3-47 and ZPPR-2. The calculated results are shown in Table 2. From this table, it is seen that the SDS-results underestimate the experimental values and furthermore, the CDS-results underestimate by 8 ~ 14 % than the SDS-results. These results (C/E-values) were calculated with the homogeneous core model. Hence, the core heterogeneity effects should be considered as described in Ref.(3). Hence, the C/E-values corrected by using the heterogeneity effects in Ref.(3) are presented in the parentheses in Table 2. Though the corrected results become larger, the CDS-results still underestimate the experimental values. This underestimate for the Doppler coefficients suggests that the calculated core spectra are too hard and/or resonance capture cross sections of ^{238}U are small. However, this conclusion is inconsistent with the fact described in Section 3.1.2 as to the reaction rate ratio, $^{238}\sigma_{\gamma}\phi/^{239}\sigma_{\text{f}}\phi$, but consistent with the results suggested from ^{10}B sample worth calculations.

3.1.5 Radial Reaction Rates

The calculations of radial reaction rates were performed by using one-dimensional diffusion code in the fast critical assemblies ZPPR-2, MZB and FCA-V1-2. The results calculated were normalized to 1.0 at the core center. The differences between the reaction rates calculated with the CDS- and SDS-sets are shown in the form of the deviations of the SDS-results from the CDS-results for ZPPR-2 and FCA-V1-2 in Figs. 17 and 18, respectively. The results calculated for MZB were very similar to those for ZPPR-2. The deviations are very small in the inner core (I.C) region, and they become negative in the outer core (O.C) region for both ZPPR-2 and FCA-V1-2. That is, the SDS-results become smaller than the CDS-results in the outer core region. In the radial blanket (R.B.) region, however, the deviations become larger, and moreover, the tendencies for the deviations in ZPPR-2 and FCA-V1-2 are entirely different. The difference is caused by the existence of the radial reflector (R.R). This reason is explained as follows. Fast neutrons entered from the blanket to the reflector zone are reflected and/or moderated. Then, the calculation by the SDS-set produces more slowed down neutrons than that by the CDS-set, because of larger elastic-removal cross sections. Hence, the neutron spectrum calculated with the SDS-set becomes considerably soft in the reflector. In the FCA-6-2 assembly without the reflector, on the other hand, the leakage of fast neutrons for the CDS-set become larger than that for the SDS-set. On the relative comparison for the neutron spectrum at the core center, hence, in the blanket region the spectra calculated by the CDS-set are softer than those for the SDS-set.

3.1.6 Control Rod Reactivity Worth

The central boron control rod worth was calculated with two-dimensional diffusion theory for the NEACRF LMFBR international comparison calculational model. The boron control rod and Na-filled zones with the radius of 7.2 cm are located at the core center. The calculated results are shown in Table 3. The rod worth calculated with the CDS set becomes larger than the SDS-result though the difference between the two results is $\sim 2\%$.

3.1.7 Sodium-Void Reactivity

The sodium void effect was calculated for the cylindrical voided zone of 30.5 cm at the core center in the ZPPR-2 assembly. The calculated results are given in Table 4. The sodium void reactivity calculated with the CDS-set becomes more positive than that calculated with the SDS-set, though the difference between the total reactivities calculated is very small, because of cancellation for the reactivity-difference between Δk 's by the scattering and absorption terms.

3.2 Doppler Effect of Structural Materials

Temperature dependence of capture cross sections for structural materials is mainly due to p-wave neutron resonances and seen in the energy range from 1 to 300 keV, where is the important range of neutron spectrum in fast reactor. However, the temperature dependence of the cross sections has not been considered in the group constants library such as JFS-2³⁾ and/or JENDL-2B¹⁾, that is, the cross sections at the zero temperature ($T = 0^\circ\text{K}$) have been used in fast reactor calculations. Benchmark tests of the group constants libraries have been performed^{1), 3)} by using the cross sections of the structural materials for $T = 0^\circ\text{K}$.

The benchmark calculations for the 23 fast critical assemblies used in the benchmark tests of JFS-2 were performed with one-dimensional diffusion theory by using the JFS-3-J2 set. The calculated effective multiplication factors (k_{eff}) are shown in Table 5. The k_{eff} -values are corrected by the necessary factors such as heterogeneity and transport effects taken from Ref.(29). Table 5 shows also the structural material Doppler effect for the temperature change from 0 to 300 °K. The magnitude of the Doppler effects varies depending on the assemblies, i.e., the core sizes, compositions and geometry. Especially, the effects become larger for the assemblies with large core volume such as MZB, ZPPR-2, ZPR-6-7 and ZPR-6-6A in which the concentration of the structural materials is comparatively high. The Doppler effects on k_{eff} are more than 0.2 % for these assemblies, and the effects are comparable to the transport correction factors²⁹⁾.

From these results, we can remark that the cross sections of the structural materials should be calculated by considering the Doppler effect, especially when we consider the goal accuracies ($\pm 0.3\%$ ³⁰⁾ for k_{eff} and $\pm 7\%$ ³¹⁾ $\sim 15\%$ ³⁰⁾ for Doppler effect) required from LMFBR design study. Hence, the temperature dependent self-shielding factors for the structural materials were taken into account in the JFS-3 group constants library.

3.3 Dependence of Effective Multiplication Factors and Reaction Rates on Fission Spectra

The effects of the difference among the fission spectra of ^{235}U , ^{239}Pu and ^{238}Pu on effective multiplication factor and radial reaction rate were calculated by using a one-dimensional diffusion code with

the group constants library JFS-3-B4 which was generated by the processing code TMS-PGG from the ENDF/B-IV nuclear data. In the calculations, an average fission spectrum for an energy group (g) in the fuel region is defined by

$$\bar{\chi}_g = \frac{\sum_{i=1}^3 W_i \chi_{i,g}}{\sum_{i=1}^3 W_i}, \quad W_i = \sum_g N_i \sigma_{f,i,g} \phi_g,$$

where ϕ_g is the neutron spectrum at core center in the prototype fast reactor mockup assembly MZB, the subscript i means the nuclide of ^{235}U , ^{238}U and ^{239}Pu , and N_i the atomic number density in the core region. In the blanket region, only $^{238}\chi$ is used as it is.

The effective multiplication factors were calculated for the fifteen benchmark critical assemblies with the Pu-fueled cores^{3),15)}. The results calculated are shown in Table 6. The effective multiplication factors calculated with $^{235}\chi$ become smaller by 1.09 % for ZEBRA-3 with the high concentration of ^{238}U and about 0.6 % for MZB, ZPR-3-48 and ZPR-6-7 assemblies, that is the use of $^{235}\chi$ for the Pu-fueled cores produces considerably small effective multiplication factor as compared with the results calculated with $^{239}\chi$. In the other hand, the use of only one fission spectrum of $^{239}\chi$ produces larger effective multiplication factors than those calculated with the average fission spectrum of Eq.(1).

The difference between the results calculated with the spectra $^{235}\chi$ and $^{239}\chi$ is about 0.5 % in FCA-5-2 which contains both the fuels of ^{239}Pu and ^{235}U . Using the neutron spectrum at the core center in FCA-5-2, the average fission spectrum of Eq.(1) was recalculated. A middle value between the results calculated with $^{235}\chi$ and $^{239}\chi$ was obtained when the average fission spectrum was used.

In the FCA-6-2 assembly, the inner core is Pu-fueled zone and the outer core is the driver zone with U-fuel. Hence, the average fission spectrum method results in the use of the region dependent spectra, i.e., $^{239}\chi$ for the inner core, $^{235}\chi$ for the outer and $^{238}\chi$ for the blanket region. The use of such region dependent fission spectra affects the effective multiplication factors by about 0.4 %.

Figure 19 shows the deviations of the reaction rates calculated with $^{235}\chi$ and $^{239}\chi$ from those calculated with $\tilde{\chi}$ in the FCA-5-2 assembly. In the blanket region, the fission reaction rates calculated with $^{239}\chi$ are larger by about 4 % for ^{238}U and about 2 % for ^{235}U than those calculated with $\tilde{\chi}$, while the differences between the results calculated with $^{235}\chi$ and $\tilde{\chi}$ are very small.

Figure 20 shows the deviations of the reaction rates calculated with $^{239}\chi$ from those calculated with the region dependent fission spectra in FCA-6-2 assembly. The radial fission reaction rates of ^{238}U calculated with $^{239}\chi$ are overestimated by about 8 % in the blanket region.

For the cores with the high concentration of ^{238}U such as ZEBRA-3, with the mixed fuels of U and Pu such as FCA-5-2 and with the driver zone such as FCA-6-2, the use of one fission spectrum, for example, only $^{239}\chi$, provides non-negligible errors for the effective multiplication factors and radial fission reaction rates of ^{238}U .

3.4 Interpolation Method of Self-Shielding Factors

In reactor calculations, the effective microscopic cross sections for each material zone are calculated from the infinitely dilute cross sections and the self-shielding factors interpolated for the effective background cross section σ_0 and temperature T . As for the interpolation

schemes of $f(\sigma_0, T)$ -tables, many methods have been studied. For instance, in a one-dimensional diffusion code EXPANDA-4³²⁾ a rational function is used for both the σ_0 - and T -interpolations, and the Kidman's schemes³³⁾ used in one-dimensional diffusion code 1DX³⁴⁾ are a Lagrange three-point interpolation on the $(\ln T, f)$ tabular points and the four-parameter interpolation formula for the $f(\sigma_0)$ -table. Furthermore, there are several methods as described in Ref.(9). Among these schemes, the superiority or inferiority of the accuracy and computing cost was studied by comparing the interpolated values with the exact ones calculated by the TMS-1⁵⁾ code. The study concluded that the cubic spline method offered a very practical mean with good accuracy and short computing time, as to the interpolation for the "table book-up" method of resonance shielding factors. It was shown that the errors caused by the differences among the various interpolation methods produced the effects comparable to the goal accuracies requested from fast reactor design study on important unclear characteristics.

4. Benchmark Calculations

In Section 3, individual effect of several advanced characteristics of JFS-3-J2 on integral quantities was examined. In this section their total effect is studied by performing the benchmark calculations for the JFS-3-J2 and JENDL-2B-70 sets.

4.1 Comparison between Benchmark Tests for the JFS-3-J2 and JENDL-2B-70 sets

Benchmark calculations were performed for 21 fast critical assemblies with the one-dimensional models used in the benchmark tests of JFS-2. The 21 assemblies consist of 18 assemblies selected by Hardie et al., the MOZART cores (MZA, MZB) and FCA-V assembly 2. The results calculated with JFS-3-J2 and JENDL-2B-70 were compared in the form of C/E values.

4.1.1 Effective Multiplication Factors: Table 7

The average of C/E-values calculated with JFS-3-J2 is 0.9988 as a whole and it is better than 0.9948 of JENDL-2B-70. The standard deviation is nearly equal to that of JENDL-2B-70 for both the plutonium and uranium fuel cores. The average value for JFS-3-J2 is 0.996 for the plutonium cores and 0.9996 for the case averaged by omitting ZPR-3-54.

4.1.2 Central Reaction Rate Ratios

a) $\sigma_f(\text{U-238})/\sigma_f(\text{U-235})$: Tables 8 and 9

In the plutonium cores, the calculated values are overestimated by 7 % for JFS-3-J2 and 10 % for JENDL-2B-70 on the average, respectively,

though the overestimates are smaller for the uranium cores. The overestimates of JENDL-2B-70 reduced by 2 ~ 3 % in the results of JFS-3-J2.

b) $\sigma_f(\text{Pu-239})/\sigma_f(\text{U-235})$: Table 10

The values calculated with JFS-3-J2 are underestimated by ~3 % for the plutonium cores, though they are in good agreement with the experimental values for the U-cores. The results of JENDL-2B-70 become large by ~0.6 % on the average for the Pu cores.

c) $\sigma_c(\text{U-238})/\sigma_f(\text{Pu-239})$: Table 11

The results of JFS-3-J2 become smaller than those of JENDL-2B-70, and the average of C/E values is nearly equal to unity.

4.1.3 Central Sample Worths: Tables 12 and 13

In order to avoid the scaling problem, both calculated and measured sample worths were normalized to those of ^{239}Pu , respectively. The C/E values are compared in Tables 12 and 13.

For the sample worths of ^{235}U and ^{238}U , the discrepancies between JFS-3-J2 and JENDL-2B-70 are small and both results are in very good agreement with the experiments on the average. The worths of ^{10}B calculated with JFS-3-J2 become smaller by about 3% than those of JENDL-2B-70, and the calculated value is underestimated by ~13 % on the average. The averaged worths of carbon are overestimated by ~30 % for both JFS-3-J2 and JENDL-2B-70. As for the sodium worths, the differences between the calculated and measured values are very large and the sign is negative for some cases. The averaged worths of iron calculated with JFS-3-J2 becomes larger by 15% than that of JENDL-2B-70.

4.2 Benchmark Calculations with Two-dimensional Model

Large critical assemblies with clean core were studied in detail using one- and two-dimensional diffusion and transport theories. They were the FCA-V-1 and V1-2 assemblies, the ZPPR assemblies 2 and 9, and the ZPR-6 assemblies 7(REF), 7(H240) and 6A. The assemblies ZPPR-2 and APR-6-7(REF) are similar in composition to a large LMFBR, and especially ZPPR-2 is convenient to study the effects of two-core zones with a more realistic LMFBR height and oxide blanket. The ZPR-6 assembly 7(H240) has the high-240 plutonium zone at the center of assembly 7(REF) to assess the effect of fuel burnup on the integral parameters. The assemblies 6A and 7(REF) were designed to be as identical as possible, the only significant difference being the fuel isotope, ^{235}U in the assembly 6A and plutonium in the assembly 7(REF). The ZPPR assembly 9 is a clean physics benchmark with a core volume of 4600 litres and is the first assembly of the JUPITER program.

The integral quantities calculated in this study were k_{eff} , central reaction-rate ratios, central sample worth, ^{238}U Doppler coefficient, reaction rate distribution and sodium void reactivity. In these calculations, one- to two-dimensional, diffusion to transport and homogeneous to heterogeneous correction factors were studied by using some well-known calculational codes, EXPANDA-GS, SLAROM-3, CITATION, ANISN and TWOTRAN-II.

(1) Effective Multiplication Factors: Table 14

The effective multiplication factors calculated are underestimated by $\sim 0.9\%$ for three assemblies ZPPR-2, ZPPR-6-7(REF) and ZPR-6-7(H240) with plutonium fuel, though for ZPR-6-6A with the uranium fuel k_{eff} is about unity. In this table, the correction factors calculated by using

three different group cross section sets are compared. Though the differences in the transport effects between the two different sets or one- and two-dimensional models are very small, the heterogeneity effects are considerably different between the results calculated with JFS-3-J2 and ENDF-B-IV or B-III. To study the difference in the heterogeneity effect, we calculated the effect by using the JFS-3-B4 set produced from the ENDF/B-IV nuclear Data. The differences between the nuclear data are compared in Table 15, which shows smaller differences. On the other hand, the results calculated with JFS-3-B4 are also shown in the parenthesis of Table 14. The results are smaller by $\sim 1\%$ than those calculated by Hardie et al. And the present results agree with the those calculated with ENDF/B-4 in Ref.(35).

(2) ^{238}U Doppler Reactivity Coefficients: Table 16

The ^{238}U Doppler coefficient calculated for ZPR-6-6A with the uranium fuel underestimates the experimental value by 18 %, though the calculational results are in very good agreement with the experiments in the plutonium fuel assemblies. The heterogeneity effects are $6 \sim 12\%$.

(3) Central Reaction Rate Ratios: Table 17

The calculated central reaction rate ratios, $^{235}\sigma_f / ^{239}\sigma_f$, $^{238}\sigma_c / ^{239}\sigma_f$ and $^{238}\sigma_f / ^{239}\sigma_f$ overestimate the experimental values by $2 \sim 11\%$. The underestimate for k_{eff} and the overestimate for the reaction rate ratio ratios may be explained as the fission cross sections of ^{239}Pu are underestimated in the JENDL-2. The correction factors are very small, except for the heterogeneity effect for $^{236}\sigma_f / ^{235}\sigma_f$ and $^{240}\sigma_f / ^{235}\sigma_f$ in ZPPR-2.

(4) Central Sample Worths: Table 18

The calculational and experimental results are normalized to the Pu sample worth to avoid the scaling problem caused by the errors in the kinematic parameters. The calculated sample worths of Na and C overestimate considerably the experimental results in the plutonium fuel assemblies, and the ^{10}B worths are underestimated inversely.

(5) Sodium void reactivities: Table 19

The sodium void reactivities measured in the FCA-V-1, FCA-V1-2, ZPPR-2 and ZPPR-9 were analysed with the two dimensional models. The analyses were performed with the heterogeneity and exact perturbation calculations. The results calculated with the JFS-3-J2 were remarkably overestimated as seen in Table 19 for FCA-V1-2, ZPPR-2 and ZPPR-9, though they were underestimated for FCA-V-1 due to the negative sodium void reactivities.

(6) Reaction rate distributions: Figs. 21 ~ 28

In the ZPPR-9, the radial and axial reaction rate distributions were calculated with the two-dimensional diffusion and transport theories. The calculations were performed with the use of the three group constant sets, JFS-3-J2, JFS-2 and JFS-3-B4, where JFS-3-B4 was produced from the ENDF/B-1V using the TIMS-PGG code system. The comparisons among the results calculated with these sets show that the JFS-2 provides the best prediction than the JFS-3-J2 and JFS-3-B4, though the prediction of JFS-3-J2 is more satisfactory than the one of JFS-3-B4.

5. Concluding Remarks

The benchmark tests were performed by using the JFS-3-J2 set which is an advanced group constant set for JENDL-2B-70. The followings were pointed out by comparing the results calculated with JENDL-2B-70.

The effective multiplication factors calculated with JFS-3-J2 become $\sim 0.3\%$ larger than those with JENDL-2B-70 for the plutonium fuel cores. The averaged k_{eff} are 0.9966 for JFS-3-J2 and 0.9933 for JENDL-2B-70, respectively. The ^{238}U Doppler reactivity coefficients calculated with JFS-3-J2 become $\sim 10\%$ smaller than those with JENDL-2B-70, because the neutron spectra are hardened by the REMO-correction effect. As for the sample worths for ^{10}B and Mo, the discrepancies between the results calculated with two sets are evidently seen. The control rod worth calculated with JFS-3-J2 becomes larger than the result for JENDL-2B-70 by the REMO-correction effects.

The detailed benchmark calculations were performed with the two-dimensional models for the FCA-V-1, FCA-VI-2, ZPR-6-7, ZPR-6-6A, ZPPR-2 and ZPPR-9 assemblies. As the results, we suggest the following problems :

The heterogeneity correction factors to k_{eff} were calculated by using the collision probability method. The correction factors considerably differ from the values recommended by Hardie et al. It is not clear whether such discrepancies are caused by the differences between the analytical methods used. The reason of the difference should be investigated.

The central reaction rate ratios of ^{235}U fission, ^{238}U capture and ^{238}U fission to ^{239}Pu fission were overestimated by $2 \sim 11\%$ and the effective multiplication factors were underestimated for the plutonium cores. These causes may be explained as the fission cross sections of ^{239}Pu are underestimated in the JENDL-2. Furthermore, the remarkable overestimate for the sodium void reactivity may be caused by the underestimate of ^{239}Pu

fission cross sections, because the adjoint flux is very sensitive to this cross sections. Therefore, the cross sections of ^{239}Pu should be reevaluated in detail.

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Table 1 Characteristics of critical assemblies

Assembly	Fissile Fuel	Core Volume (ℓ)
VERA-11A	Pu	12
VERA-1B	U	30
ZPR-3-6F	U	50
ZEBRA-3	Pu	60
ZPR-3-12	U	100
SNEAK-7A	Pu	110
ZPR-3-11	U	140
FCA-5-2	Pu+U	200
ZPR-3-53	Pu	220
ZPR-3-54	Pu	220
SNEAK-7B	Pu	310
ZPR-3-50	Pu	340
ZPR-3-48	Pu	410
ZEBRA-2	U	430
ZPR-3-49	Pu	450
MZA	Pu	570
ZPR-3-56B	Pu	610
MZB	Pu	1800
ZPPR-2	Pu	2400
ZPR-6-7	Pu	3100
ZPR-6-6A	U	4000

Table 2 Doppler reactivity coefficients (C/E-values) calculated with the CDS and SDS-sets using one-dimensional diffusion code

Assembly	Temperature (°K)	C/E-value		SDS/CDS
		SDS	CDS	
SEFOR*	677 ~ 1365	1.05	0.97	1.08
FCA-V-1**	300 ~ 573	0.97 (1.06)	0.86 (0.94)	1.13
	300 ~ 823	0.99 (1.06)	0.87 (0.93)	1.14
	300 ~ 1073	0.96 (1.03)	0.85 (0.91)	1.13
FCA-V-2**	300 ~ 1073	0.82	0.72	1.14
FCA-VI-1**	300 ~ 623	0.99 (1.03)	0.88 (0.92)	1.13
	300 ~ 823	0.95 (0.99)	0.84 (0.87)	1.13
	300 ~ 1073	0.97 (1.01)	0.86 (0.89)	1.13
FCA-VI-2**	300 ~ 823	0.91 (0.96)	0.81 (0.86)	1.12
	300 ~ 1073	0.90 (0.95)	0.81 (0.86)	1.11
ZPR-3-47**	300 ~ 500	0.98	0.90	1.09
	300 ~ 800	0.95	0.86	1.10
	300 ~ 1100	0.94	0.86	1.09
ZPPR-2** (normal1)	300 ~ 500	1.00 (1.11)	0.90 (1.00)	1.11
	300 ~ 800	0.97 (1.08)	0.87 (0.97)	1.11
	300 ~ 1100	0.95 (1.05)	0.85 (0.94)	1.12
ZPPR-2** (Na-voided)	300 ~ 500	0.84 (0.94)	0.76 (0.85)	1.11
	300 ~ 800	0.81 (0.92)	0.73 (0.82)	1.11
	300 ~ 1100	0.79 (0.89)	0.71 (0.80)	1.11

* Whole core Doppler experiment

** Small sample Doppler experiments for natural UO₂

The results corrected by the heterogeneity effect taken from Ref.(3) are presented in the parentheses.

Table 3 Comparison of Boron control rod reactivities calculated with the CDS and SDS-sets in LMFBR

	Cross sections set	
	SDS	CDS
$k_{\text{Na-filled}}$	1.01463	1.01660
k_{rod}	1.01212	1.01403
$\frac{k_{\text{rod}} - k_{\text{Na-filled}}}{k_{\text{Na-filled}}}$	-0.00247	-0.00253

Table 4 Comparison of sodium void effects calculated with the CDS and SDS-sets using one-dimensional diffusion and exact perturbation theories in ZPPR-2

Set Component	SDS	CDS	Difference
Δk by $v\Sigma_f$	-0.000237	-0.000213	-0.000026
Δk by $\Sigma_{i \rightarrow j}$	0.00446	0.00497	-0.00051
Δk by Σ_a	0.00231	0.00209	0.00022
Δk by Σ_{in}	0.00385	0.00385	0.0
Δk by D	-0.00073	-0.00073	0.0
Total reactivity ($\Delta k/k$)	0.00966	0.00996	-0.0003

Table 5 Doppler effect of structural materials on effective multiplication factor for temperature change from 0 to 300°K. The calculations were performed with one-dimensional diffusion theory using the group constant library generated from JENDL-2

Assembly	Ratio*	k_{eff}		Doppler effect (% $\Delta k/k$)
		T = 0 °K	T = 300 °K	
VERA-11A	1.1	0.99452	0.99445	0.01
ZEBRA-3	0.2	0.99989	0.99988	0.0
SNEAK-7A	1.1	1.00688	1.00654	0.03
ZPR-3-54	2.3	0.95886	0.95742	0.15
ZPR-3-53	2.3	0.99651	0.99562	0.09
SNEAK-7B	0.8	1.00448	1.00410	0.04
ZPR-3-50	1.1	1.00342	1.00270	0.07
ZPR-3-48	1.5	1.00534	1.00449	0.08
ZPR-3-49	1.5	1.01011	1.00946	0.06
ZPR-3-56B	2.2	0.99174	0.98969	0.21
ZPR-6-7	2.5	0.99741	0.99506	0.24
ZPPR-2	2.5	1.00417	1.00213	0.20
SEFOR	2.3	1.00180	0.99971	0.21
MZA	2.5	0.99930	0.99774	0.16
MZB(1)	2.5	0.99630	0.99400	0.23
FCA-6-2	2.2	0.99872	0.99756	0.12
FCA-5-2	2.3	0.99178	0.99125	0.05
VERA-1B	1.1	1.00162	1.00151	0.01
ZPR-3-6F	0.7	1.01384	1.01379	0.0
ZPR-3-12	0.4	1.00767	1.00759	0.01
ZPR-3-11	0.2	1.00401	1.00402	0.0
ZEBRA-2	0.3	0.99567	0.99559	0.0
ZPR-6-6A	2.5	1.01120	1.00879	0.24

* Atomic number density ratio of structural (Fe+Cr+Ni) to fuel (U+Pu) materials in the core region

Table 6 Effect of different fission spectra on effective

multiplication factor (K_{eff}), $\Delta K = \frac{K_{eff} - K_{eff}^{(239}\chi)}{K_{eff}^{(239}\chi)} \times 100$

Assembly	Fertile to Fissile	$K_{eff}^{(239}\chi)$	$\Delta K^{(235}\chi)$	$\Delta K(\bar{\chi})$
VERA-11A	0.05	0.9852	-0.40	-0.13
ZPR-3-53	1.6	0.9837	-0.31	-0.07
ZPR-3-54	1.6	0.9401	-0.10	-0.01
FCA-5-2	2.3	0.9845	-0.48	-0.31
SNEAK-7A	3.0	0.9940	-0.59	-0.12
MZA	3.9	0.9864	-0.48	-0.08
ZPR-3-48	4.5	0.9922	-0.66	-0.12
ZPR-3-49	4.5	0.9947	-0.71	-0.13
ZPR-3-50	4.5	0.9864	-0.64	-0.11
ZPR-3-56B	4.6	0.9807	-0.44	-0.06
MZB	5.8	0.9836	-0.56	-0.11
ZPR-6-7	6.5	0.9854	-0.59	-0.11
ZPPR-2	6.5	0.9918	-0.52	-0.08
FCA-6-2	6.5	0.9837	-0.53	-0.37
SNEAK-7B	7.0	0.9914	-0.84	-0.25
ZEBRA-3	8.6	0.9922	-1.09	-0.31

Table 7 Comparison of effective multiplication factors
calculated with one-dimensional diffusion model

* PLUTONIUM FUEL ASSEMBLY	JFS-3-J2	JENDL-2B-70	* URANIUM FUEL ASSEMBLY	JFS-3-J2	JENDL-2B-70
VERA-11A	0.99487	0.99236	VERA-1B	0.99990	0.99537
ZEBRA-3	1.00153	0.99825	ZPR-3-6F	1.01377	1.01225
SNEAK-7A	1.00667	1.00135	ZPR-3-12	1.00717	1.00114
ZPR-3-54	0.95412	0.95443	ZPR-3-11	1.00475	1.00211
ZPR-3-53	0.99284	0.99116	ZEBRA-2	0.99411	0.98314
SNEAK-7B	1.00602	0.99852	ZPR-6-6A	1.00549	0.99384
ZPR-3-50	1.00134	0.99709	* AVERAGE OF C/E	1.00420	0.99881
ZPR-3-48	1.00482	1.00049	* AVERAGE (C/E)-1.0	0.00420	-0.00119
ZPR-3-49	1.01048	1.00546			
ZPR-3-56B	0.99220	0.98885	* AVERAGE OF ABS(1.0-C/E)	0.00619	0.00636
ZPR-6-7	0.99607	0.99368			
ZPPR-2	1.00302	1.00037	* STND. DEV. OF C/E	0.00609	0.00870
MZA	0.99869	0.99449			
MZB(1)	0.99537	0.99113			
FCA-5-2	0.99052	0.99118	SUMMARY OF ALL ASSEMBLIES		
* AVERAGE OF C/E	0.99657 (0.9996)	0.99325 (0.99603)	* AVERAGE OF C/E	0.99875	0.99484
* AVERAGE (C/E)-1.0	-0.00343	-0.00675	* AVERAGE (C/E)-1.0	-0.00125	-0.00516
* AVERAGE OF ABS(1.0-C/E)	0.00795	1.00777	* AVERAGE OF ABS(1.0-C/E)	0.00745	0.00737
* STUND, DEV. OF C/E	0.01271	0.01134	* STND. DEV. OF C/E	0.01174	0.01094

The values averaged by omitting ZPR-3-54
are presented in the parentheses.

Table 8 Comparison of central reaction rate ratios, ^{238}U
fission/ ^{235}U fission in the plutonium cores

* C/E OF CENTRAL REACTION RATE RATIO --- 928F/ 925F

* PLUTONIUM FUEL

NO.	ASSEMBLY	EXPERIMENT	JFS-3-J2	JENDL-2B-70
1	VERA-11A	0.07700	1.18920	1.19512
4	ZEBRA-3	0.04610	0.99966	1.01831
6	SNEAK-7A	0.04480	0.96597	0.98531
8	ZPR-3-54	0.02540	1.25663	1.28831
9	ZPR-3-53	0.02540	1.21043	1.24520
10	SNEAK-7B	0.03300	1.01234	1.03589
11	ZPR-3-50	0.02510	1.17903	1.21640
12	ZPR-3-48	0.03260	1.04852	1.07510
14	ZPR-3-49	0.03450	1.09399	1.11971
15	ZPR-3-56	0.03080	0.98962	1.00845
16	ZPR-6-7	0.02300	0.95751	1.97974
18	ZPPR-2	0.02010	1.09709	1.12270
19	MZA	0.03366	0.99901	1.02070
20	MZB	0.02256	1.02141	1.04750
21	FCA-5-2	0.03960	1.05781	1.12503
* AVERAGE OF C/E			1.07188	1.0989
* AVERAGE(C/E)-1.0			0.07188	0.0989
* AVERAGE OF ABS(1.0-C/E)			0.08364	0.10356
* STND.DEV.OF C/E			0.09242	0.09560

Table 9 Comparison of central reaction rate ratios, ^{238}U
fission/ ^{235}U fission in the uranium cores

* C/E CENTRAL REACTION RATE RATIO --- 928F/ 925F

* URANIUM FUEL

No.	ASSEMBLY	EXPERIMENT	JFS-3-J2	JENDL-28-70
2	VERA-1B	0.06600	1.15981	1.17348
3	ZPR-3-6F	0.07800	0.94354	0.95136
5	ZPR-3-12	0.04700	1.01969	1.03974
7	ZPR-3-11	0.03800	1.01329	1.03310
13	ZEBRA-2	0.02300	1.02035	1.04898
17	ZPR-6-6A	0.02450	0.94392	0.96096
* AVERAGE OF C/E			1.01677	1.03460
* AVERAGE(C/E) - 1.0			0.01677	0.0346
* AVERAGE OF ABS(1.0 - C/E)			0.05428	0.06383
* STND. DEV. OF C/E			0.07207	0.07289

SUMMARY OF ALL ASSEMBLIES

* AVERAGE OF C/E	1.05613	1.08053
* AVERAGE (C/E) - 1.0	0.05613	0.08053
* AVERAGE OF ABS (1.0 - C/E)	0.07526	0.09221
* STND. DEV. OF C/E	0.09058	0.09429

Table 10 Comparison of central reaction rate ratios, ^{239}Pu fission/ ^{235}U fission

* C/E OF CENTRAL REACTION RATE RATIO ---- 949F/925F

* PLUTONIUM FUEL

* URANIUM FUEL

NO.	ASSEMBLY	EXPERIMENT	JFS-3-J2	JENDL-2B-70	NO.	ASSEMBLY	EXPERIMENT	JFS-3-J2	JENDL-2B-70
1	VERA-11A	1.07000	1.08517	1.08303	2	VERA-1B	1.07000	1.06529	1.06721
4	ZEBRA-3	1.19000	0.98387	0.98184	3	ZPR-3-6F	1.22000	1.01435	1.01138
6	SNEAK-7A	1.01600	0.95831	0.96457	5	ZPR-3-12	1.12000	0.98564	0.98572
8	ZPR-3-54	0.92800	0.93915	0.95418	7	ZPR-3-11	1.19000	0.97803	0.97617
9	ZPR-3-53	0.92800	0.93138	0.94739	13	ZEBRA-2	0.98700	0.99606	1.00285
10	SNEAK-7B	1.01200	0.98205	0.98437	17	ZPR-6-6A	---	---	---
11	ZPR-3-50	0.90300	0.97884	0.99314	* AVERAGE OF C/E				
12	ZPR-3-48	0.97600	0.97971	0.98711	1.00788 1.00867				
14	ZPR-3-49	0.98600	1.00067	1.00565	* AVERAGE (C/E)-1.0 0.00788 0.00867				
15	ZPR-3-56	1.02800	0.93658	0.94125	* AVERAGE OF ABS (1.0-C/E) 0.02398 0.02391				
16	ZPR-6-7	0.95300	0.94911	0.95607	* STND. DEV. OF C/E 0.03118 0.03178				
18	ZPPR-2	0.93700	0.96593	0.97497	SUMMARY OF ALL ASSEMBLIES				
19	MZA	1.01338	0.96971	0.97484	* AVERAGE OF C/E 0.98147 0.9867				
20	MZB	0.94877	0.96786	0.97629	* AVERAGE (C/E)-1.0 -0.01853 -0.0133				
21	FCA-5-2	1.10400	0.96164	0.96401	* AVERAGE OF ABS (1.0-C/E) 0.03508 0.03031				
* AVERAGE OF C/E					* STND. DEV. OF C/E 0.03765 0.03468				
0.97267 0.97938									
* AVERAGE (C/E)-1.0									
-0.02733 -0.02062									
* AVERAGE OF ABS (1.0-C/E)									
0.03878 0.03244									
* STND. DEV. OF C/E									
0.03543 0.03244									

Table 11 Comparison of central reaction rate ratios, ^{238}U
capture/ ^{239}Pu fission

* C/E OF CENTRAL REACTION RATE RATIO --- 928G/ 949F

* PLUTONIUM FUEL

N.	ASSEMBLY	EXPERIMENT	JFS-3-J2	JENDL-2B-70
2	VERA-11A	---	---	---
4	ZEBRA-3	---	---	---
6	SNEAK-7A	0.13500	0.98358	1.00745
8	ZPR-3-54	---	---	---
9	ZPR3-53	---	---	---
10	SNEAK-7B	0.12900	1.01625	1.0413
11	ZPR-3-50	---	---	---
12	ZPR-3-48	0.14100	0.95773	0.97744
14	ZPR-3-49	---	---	---
15	ZPR-3-56	---	---	---
16	ZPR-6-7	0.14300	1.05865	1.07245
18	ZPPR-2	---	---	---
19	MZA	0.12970	1.03271	1.0514
20	MZB	0.1424	1.04216	1.05666
21	FCA-5-2	0.12680	0.93925	0.95332
* AVERAGE OF C/E			1.00433	1.02286
* AVERAGE(C/E) - 1.0			0.00433	0.02286
* AVERAGE OF ABS(1.0 - C/E)			0.03846	0.04264
* STND. DEV. OF C/E			0.04169	0.04122

Table 12 Comparison of sample worths of ^{235}U , ^{238}U and ^{240}Pu .

No.	ASSEMBLY	U-235		U-238		PU-240	
		JFS-3-J2	JENDL-2B-70	JES-3-J2	JENDL-2B-70	JFS-3-J2	JENDL-2B-70
1	VERA-11A	1.0699	1.0703	---	---	---	---
2	VERA-1B	0.9972	0.9985	1.9674	1.915	---	---
3	ZPR-3-6F	0.8216	0.8236	---	---	---	---
4	ZEBRA-3	0.9967	0.9996	0.9557	0.976	---	---
5	ZPR-3-12	0.9996	1.0025	1.0155	1.03	---	---
6	SNEAK-7A	0.9929	0.9828	1.0063	1.04	0.7573	0.7528
7	ZPR-3-11	1.0438	1.0465	1.0011	1.02	---	---
8	ZPR-3-54	1.0464	1.0236	0.6427	0.676	---	---
9	ZPR-3-53	1.0561	1.0316	0.7569	0.787	---	---
10	SNEAK-7B	1.0122	1.0096	1.0787	1.095	0.8283	0.8353
11	ZPR-3-50	1.0060	0.9862	0.8142	0.838	---	---
12	ZPR-3-48	1.0169	1.0051	0.8657	0.889	---	---
13	ZEBRA-2	1.0190	1.0163	0.9538	0.954	0.5878	0.5894
14	ZPR-3-49	1.0729	1.0646	0.9597	0.984	---	---
15	ZPR-3-56	0.9692	0.961	0.9724	1.0094	---	---
16	ZPR-6-7	0.9990	0.9852	0.8225	0.849	---	---
17	ZPR-6-6A	1.0421	1.0368	1.0802	1.09	---	---
18	ZPPR-2	1.1193	1.1039	---	---	---	---
19	MZA	---	---	---	---	---	---
20	MZB	---	---	---	---	---	---
AV. OF C/E		1.0156	1.0082	0.9928	1.01	0.7244	0.7251
AV. ABS(1 - C/E)		0.0405	0.0374	0.1604	0.149	0.2756	0.2749
STAND. DEV		0.0590	0.0565	0.2858	0.267	0.1009	0.1015
RMS. FROM 1.0		0.0610	0.0571	0.2859	0.267	0.2934	0.2930

Table 13 Comparison of sample worths of ^{10}B , C, Na and Fe

Assembly	^{10}B		C		Na		Fe	
	JFS-3-J2	JENDL-2B-70	JFS-3-J2	JENDL-2B-70	JFS-3-J2	JENDL-2B-70	JFS-3-J2	JENDL-2B-70
VERA-1B	1.076	1.09	1.08	1.04	4.77	4.13	—	—
ZPR-3-6F	1.045	1.05	0.838	0.821	0.499	0.414	0.877	0.828
ZEBRA-3	0.895	0.892	0.820	0.920	1.18	1.29	—	—
ZPR-3-12	—	—	0.461	0.344	—	—	1.15	1.02
SNEAK-7A	0.922	0.953	—	—	—	—	0.86	0.76
ZPR-3-11	0.975	0.970	0.885	1.18	1.51	1.67	1.13	1.10
ZPR-3-54	0.566	0.594	—	—	—	—	—	—
ZPR-3-53	0.610	0.637	—	—	0.185	0.092	2.15	1.37
SNEAK-7B	0.973	0.99	—	—	—	—	1.02	0.956
ZPR-3-50	0.780	0.813	—	—	-0.145	-0.170	1.30	1.12
ZPR-3-48	0.833	0.864	5.00	4.84	3.01	2.83	1.11	1.00
ZEBRA-2	0.776	0.775	0.607	0.435	2.43	2.25	1.22	1.02
ZPR-3-49	0.892	0.922	—	—	-2.56	-2.96	0.983	0.907
ZPR-3-56	0.802	0.835	1.54	1.53	2.36	2.27	0.877	0.80
ZPR-6-7	0.907	0.957	1.36	1.32	1.28	1.21	1.02	0.91
ZPR-6-6A	0.912	0.939	0.608	0.463	-1.39	-1.89	—	—
ZPPR-2	0.893	0.942	1.13	1.09	1.29	1.22	1.05	0.937
AV. OF C/E	0.866	0.889	1.30	1.27	1.11	0.951	1.13	0.979
AV. ABS(1-C/E)	0.149	0.129	0.63	0.64	1.40	1.42	0.195	0.118
STAND. DEV.	0.134	0.131	1.21	1.18	1.82	1.83	0.320	0.154
RMS. FROM 1.0	0.189	0.171	1.25	1.21	1.82	1.83	0.346	0.156

Table 14 Comparison of effective multiplication factors calculated with one- and two-dimensional benchmark models

Assembly	Model	Homogeneous			Heterogeneity effect			Transport effect			Corrected K _{eff}		
		ENDF/B-III	ENDF/B-IV	JFS3	B-III	B-IV	JFS3	B-III	B-IV	JFS3	B-III	B-IV	JFS3
ZPPR-2	1-D	0.9795	0.9777 (0.9679)	0.97872	0.0175		0.0104	0.0024		0.0026	0.9994	0.9976 (0.9878)	0.99292
	2-D	0.9792		0.97786			0.0114			0.0026			0.99186
	1D-2D	0.0003		0.00086			-0.0010			0.0000			0.00106
ZPR-6-7 (Ref.)	1-D	0.9744	0.9735 (0.9635)	0.97667	0.0166	0.0159	0.01221	0.0016		0.00145	0.9926	0.9917 (0.9810)	0.99033
	2-D	0.9746	(0.9686)	0.97704		0.0162	0.01214			0.00150			0.99068
	1D-2D	-0.002	-0.0004	-0.00037		-0.0003	0.00007			-0.00005			-0.00035
ZPR-6-7 (H240)	1-D			0.97757			0.01276			0.00155			0.99188
	2-D			0.97732			0.01256			0.00116			0.99104
	1D-2D			0.00025			0.0002			0.00039			0.00084
ZPR-6-6A	1-D		0.9881 (0.9801)	0.99373	0.0073	0.0081	0.00473	0.0013		0.00112	0.9988	0.9967 (0.9895)	0.99958
	2-D		(0.9770)	0.99414		0.0080	0.00470			0.00093			0.99977
	1D-2D	-0.0013	0.0004	-0.00041		0.0001	0.00003			0.00019			-0.00019

The values calculated with the JFS-3-B4 set generated from ENDF/B-IV are presented in the parentheses. The results for ENDF/B-III and B-IV were taken from Refs. (35) and (27)

Table 15 Difference of heterogeneity effect between nuclear data

	k(het.)-k(homo)		Δk
	ENDF/B-IV	JENDL-2B	
ZPPR-2	0.0103	0.0114	-0.001
ZPR-6-7 (Ref.)	0.0112	0.0121	0.001
ZPR-6-7 (H240)	0.0117	0.0126	0.002
ZPR-6-6A	0.0067	0.0047	0.002

Table 16 The C/E -values and correction factors for Doppler reactivity coefficients of ^{238}U

Assembly	T (K)	correction factor			C/E - value	
		$\frac{70\text{G}}{20\text{G}}$	$\frac{2\text{-D}}{1\text{-D}}$	$\frac{\text{Hetero}}{\text{Homo}}$	1-D(70G)	Corrected
ZPPR-2	300-500	1.04	0.79	1.06	1.16	0.97
ZPR-6-7 (Ref.)	300-500	1.02	1.02	1.06	0.89	0.96
ZPR-6-7 (H240)	300-500	1.02	1.01	1.07	0.87	0.94
ZPR-6-6A	300-514	1.03	1.03	1.12	0.71	0.82

Table 17 The C/E - values and correction factors for central reaction rate ratios

	Correction factor			C/E-value			Correction factor			C/E-value	
	$\frac{2\text{-D}}{1\text{-D}}$	$\frac{\text{Hetero}}{\text{Homo}}$	$\frac{\text{Tra.}}{\text{Dif.}}$	1-D	Corrected		$\frac{2\text{-D}}{1\text{-D}}$	$\frac{\text{Hetero}}{\text{Homo}}$	$\frac{\text{Tra.}}{\text{Dif.}}$	1-D	Corrected
ZPPR-2						ZPR-6-7(Ref.)					
$^{233}\sigma_f / ^{235}\sigma_f$	1.000	1.001	0.999	0.978	0.978	$^{238}\sigma_c / ^{239}\sigma_f$	1.00	0.974	1.00	1.09	1.06
$^{234}\sigma_f / ^{235}\sigma_f$	0.999	1.064	0.991	0.993	1.046	$^{238}\sigma_f / ^{239}\sigma_f$	1.006	1.009	1.00	1.05	1.07
$^{236}\sigma_f / ^{235}\sigma_f$	0.999	1.088	0.990	1.049	1.129	$^{235}\sigma_f / ^{239}\sigma_f$	0.999	1.008	1.00	1.04	1.05
$^{238}\sigma_f / ^{235}\sigma_f$	0.998	1.008	0.990	1.11	1.097						
$^{239}\sigma_f / ^{235}\sigma_f$	1.000	1.007	0.998	0.971	0.976						
$^{240}\sigma_f / ^{235}\sigma_f$	0.999	0.952	0.992	1.087	1.026						
ZPR-6-7 (H240)						ZPR-6-6A					
$^{238}\sigma_c / ^{239}\sigma_f$	1.00	0.974	1.00	—	—	$^{238}\sigma_c / ^{235}\sigma_f$	1.009	0.985	1.00	0.961	0.955
$^{238}\sigma_f / ^{239}\sigma_f$	1.00	1.006	1.00	1.10	1.11	$^{238}\sigma_f / ^{235}\sigma_f$	1.00	0.979	1.00	1.01	0.989
$^{235}\sigma_f / ^{239}\sigma_f$	1.00	1.006	1.00	1.05	1.06						

Table 18 The C/E - values and correction factors for central sample worth

Sample	ZPR - 2			ZPR-6-7 (Ref.)			ZPR-6-7 (H240)			ZPR-6-6A		
	$\frac{2-D}{1-D}$	$\frac{\text{Hetero}}{\text{Homo}}$	$\frac{\text{Tra}}{\text{Dif}} \frac{C/E}{C/E}$	$\frac{2-D}{1-D}$	$\frac{\text{Hetero}}{\text{Homo}}$	$\frac{\text{Tra}}{\text{Dif}} \frac{C/E}{C/E}$	$\frac{2-D}{1-D}$	$\frac{\text{Hetero}}{\text{Homo}}$	$\frac{\text{Tra}}{\text{Dif}} \frac{C/E}{C/E}$	$\frac{2-D}{1-D}$	$\frac{\text{Hetero}}{\text{Homo}}$	$\frac{\text{Tra}}{\text{Dif}} \frac{C/E}{C/E}$
Pu-239	1.00	1.02	0.99 1.00	1.00	1.02	0.98 1.00	1.00	1.02	0.98 1.00	1.00	1.05	0.98 1.00
Pu-241	1.00	1.01	0.99 1.11									
U-235	1.00	1.02	0.99 1.13	1.00	1.02	0.98 0.99	1.00	1.02	0.98 1.04	1.00	1.06	0.98 1.08
U-238	1.00			1.00	0.97	1.01 0.79	1.00	1.01	1.02 0.93	1.00	1.02	1.01 1.09
Na	1.00	1.05	1.01 1.42	1.00	1.08	1.02 1.45	1.00	1.05	1.03 1.67	1.01	2.08	1.33 -7.22
Fe	1.00	1.06	1.00 1.13	1.00	1.00	1.00 1.04						
Cr	1.00	1.04	1.00 1.00	1.00	0.95	1.00 0.97						
Ni	1.00	1.01	1.00 1.23	1.00	0.96	1.01 1.15						
Mn	1.00	1.10	1.00 1.76									
Mo	1.00	1.03	1.00 0.95	1.00	1.01	1.00 1.04						
C	1.00	1.04	1.02 1.30	1.00	0.98	1.05 1.50	1.00	1.03	1.05 1.60	1.00	0.66	0.74 0.22
Al	1.00	1.06	1.00 1.27	1.00	0.67	1.01 0.94						
B-10	1.00	1.05	1.00 0.90	1.00	1.04	1.00 0.90	1.00	1.05	1.00 0.91	1.00	0.90	1.00 0.79

Table 19 SODIUM-VOID REACTIVITY

SODIUM-VOID REACTIVITY										HHH
Table 19										
ASSEMBLY	VOIDED REGION	REACTIVITY (DK/K*10E-4) EXPERIMENTAL (ERROR)	CALCULATION	HET.	CORRECTION FACTOR EP.	TRA.	CORRECTED	C / E		
FCA-V-1	11 X 1 DRAWER	-2.3900 (+ 0.11)	-1.0060	1.347	0.895	1.000	-1.213	0.507		
	13 X 3 DRAWERS	-20.0100 (+ 0.10)	-10.1700	1.316	0.905	1.000	-12.112	0.605		
FCA-VI-2	13 X 3 X 4 PACKS	2.1300 (+ 0.05)	3.2772	0.821	1.039	1.000	2.796	1.312		
	15 X 5 X 4 PACKS	5.5100 (+ 0.08)	8.5940	0.813	1.082	1.000	7.560	1.372		
	15 X 5 X 6 PACKS	7.6500 (+ 0.08)	12.1830	0.804	1.092	1.000	10.696	1.398		
	17 X 7 X 6 PACKS	12.5300 (+ 0.11)	21.6540	0.788	1.094	1.000	18.667	1.490		
	17 X 7 X 8 PACKS	14.6500 (+ 0.11)	26.5540	0.774	1.103	1.000	22.670	1.547		
ZPPR-9	19 DRAWERS	1.0410 (+ 0.017)	1.2790	0.845	1.038	1.018	1.142	1.097		
	137 DRAWERS	3.9720 (+ 0.014)	5.2330	0.844	1.044	1.000	4.611	1.161		
	197 DRAWERS	10.0980 (+ 0.007)	13.5900	0.839	1.059	0.968	11.688	1.157		
	197 DRAWERS	12.8030 (+ 0.003)	19.4340	0.781	1.072	0.984	16.010	1.251		
	197 DRAWERS	10.8850 (+ 0.007)	18.8930	0.720	1.101	0.990	14.827	1.362		
	197 DRAWERS	8.3980 (+ 0.010)	17.8760	0.654	1.112	1.002	13.026	1.551		
ZPPR-2	11 X 1 DRAWERS	0.2470 (+ 0.079)	0.6480	0.845	1.006	1.000	0.551	2.230		
	12 X 2 DRAWERS	0.8960 (+ 0.079)	1.6540	0.845	1.052	1.000	1.470	1.641		
	13 X 3 DRAWERS	1.6700 (+ 0.079)	3.7100	0.845	1.063	1.000	3.332	1.995		
	121 DRAWERS	4.4700 (+ 0.079)	8.5930	0.844	1.097	1.000	7.956	1.780		
	145 DRAWERS	9.3700 (+ 0.079)	18.1370	0.843	1.119	1.000	17.109	1.826		
	169 DRAWERS	14.4700 (+ 0.079)	27.3910	0.842	1.135	1.000	26.177	1.809		
	193 DRAWERS	19.5000 (+ 0.079)	36.3530	0.841	1.146	1.000	35.036	1.797		

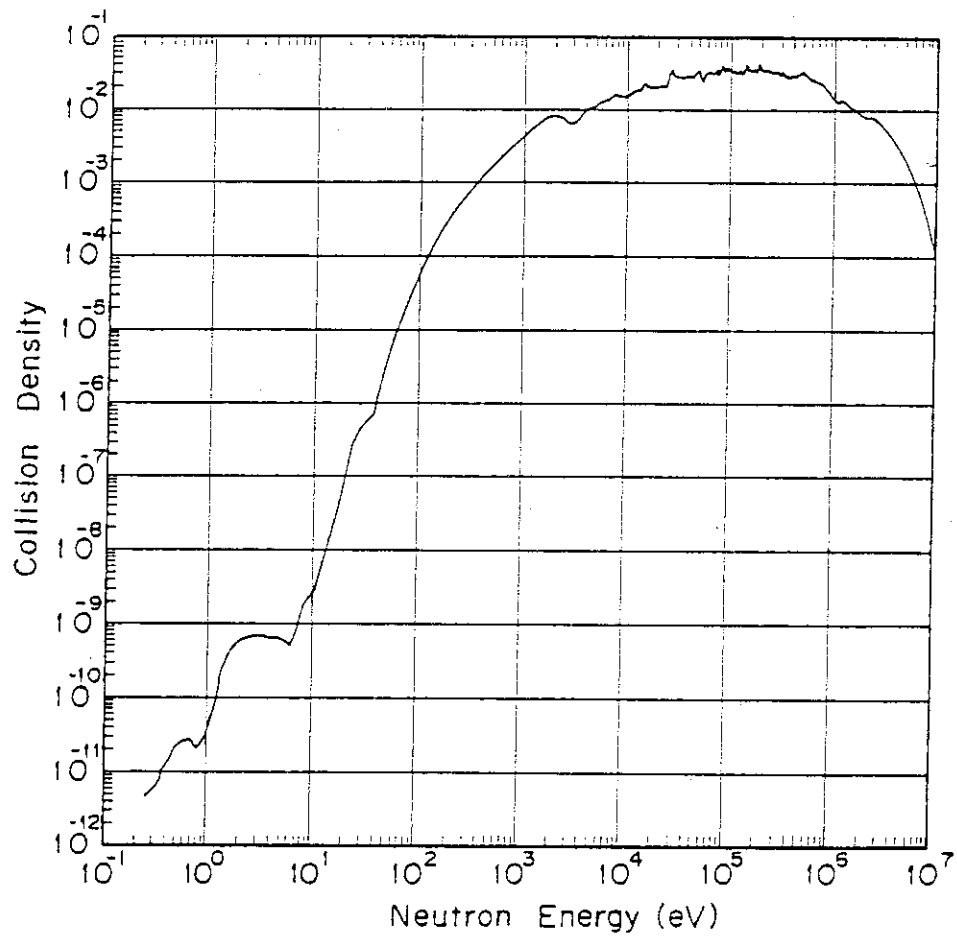


Fig.1 Collision density spectrum calculated for the inner core composition of a prototype fast reactor MONJU using the fine neutron spectrum calculation code ESELEM-4.

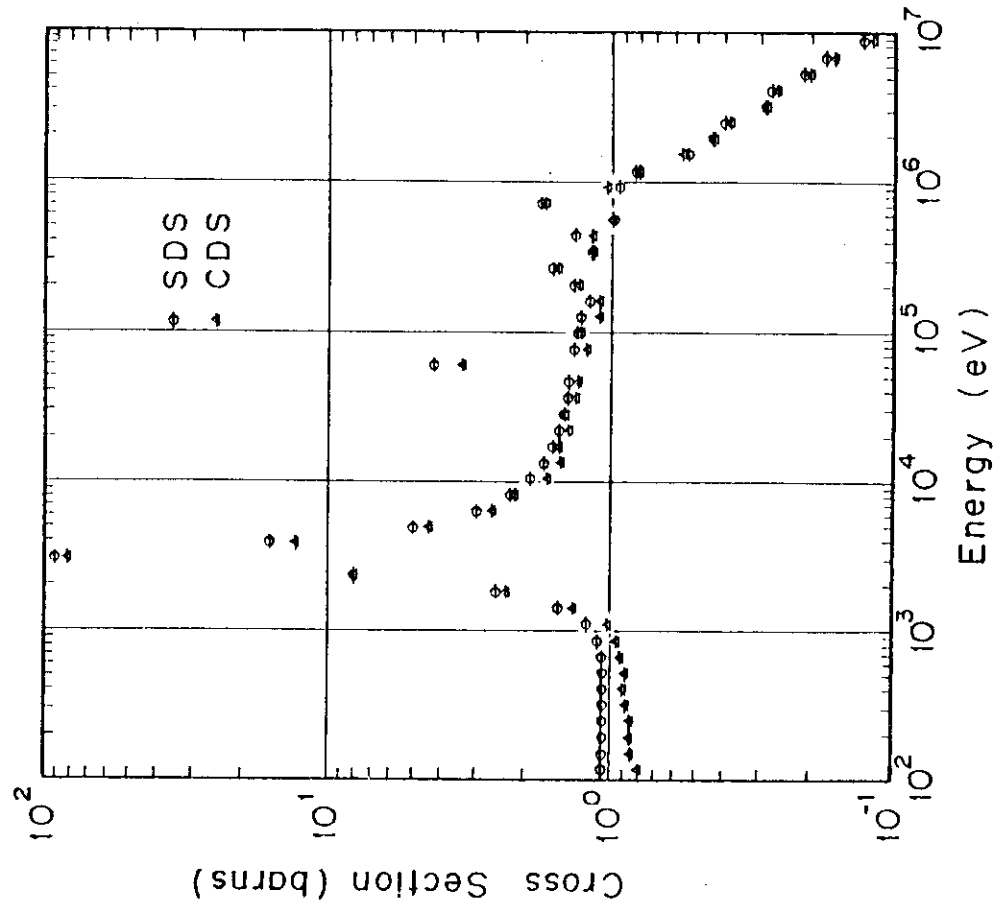


Fig.3 Comparison of sodium elastic removal cross sections calculated with the SDS- and CDS-methods.

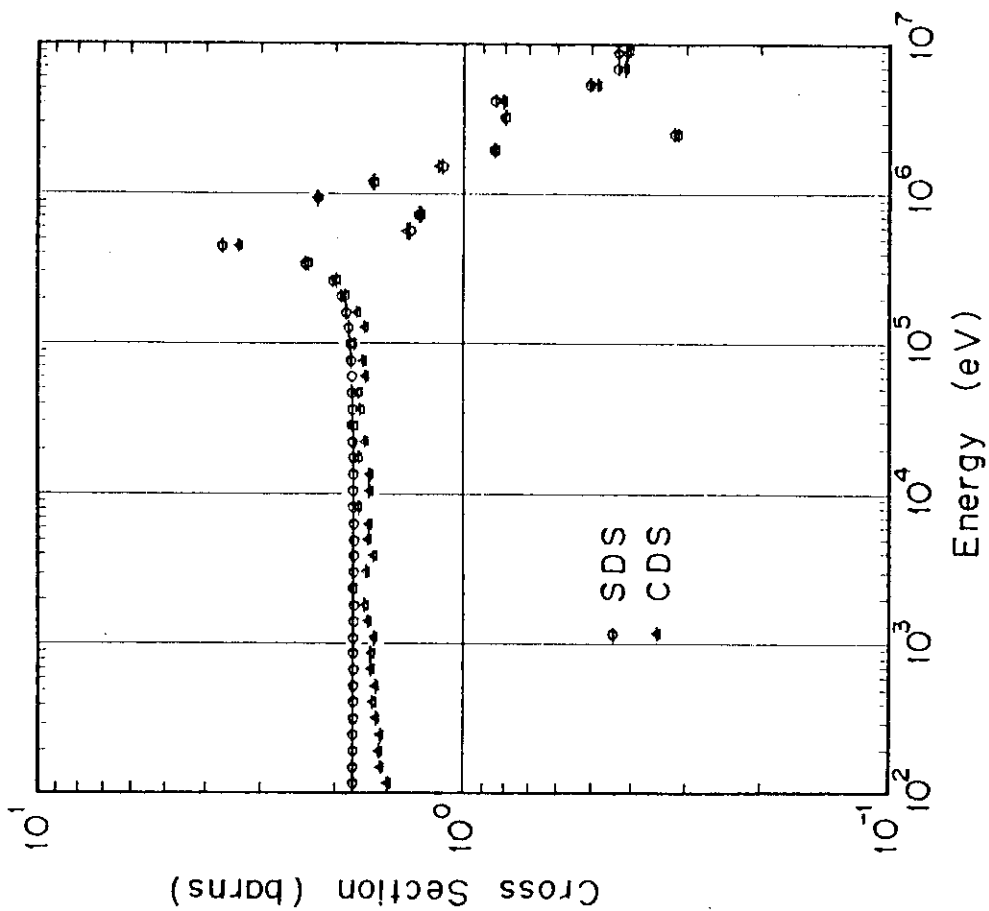


Fig.2 Comparison of oxygen elastic removal cross sections calculated with the SDS and CDS-methods.

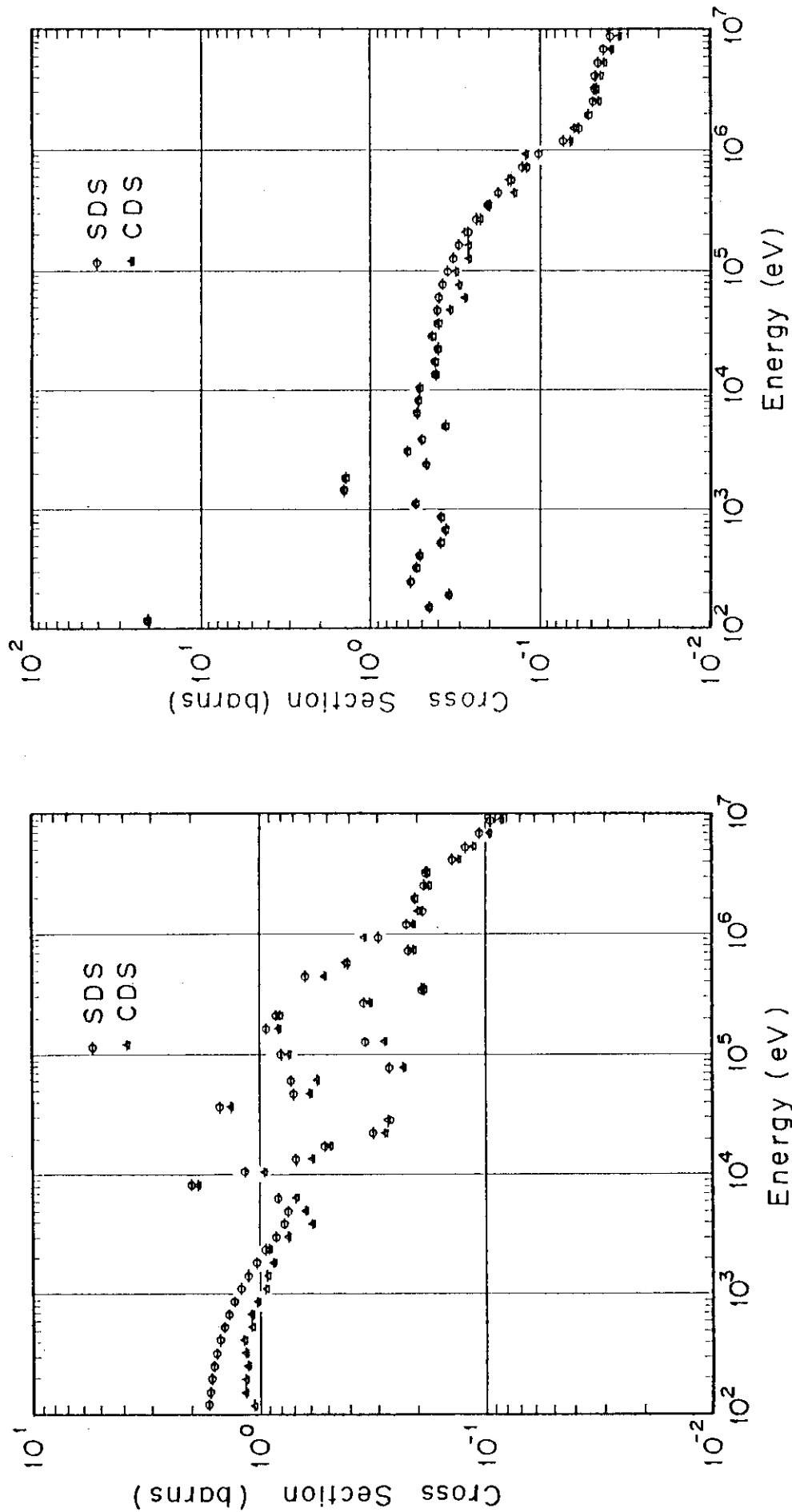


Fig.5 Comparison of ^{238}U elastic removal cross sections calculated with the SDS- and CDS-methods in the energy region from 31.8 keV to 10 MeV. For the energy groups below 31.8 keV the only results calculated with the TFMS-1 code are shown.

Fig.4 Comparison of iron elastic removal cross sections calculated with the SDS- and CDS-methods.

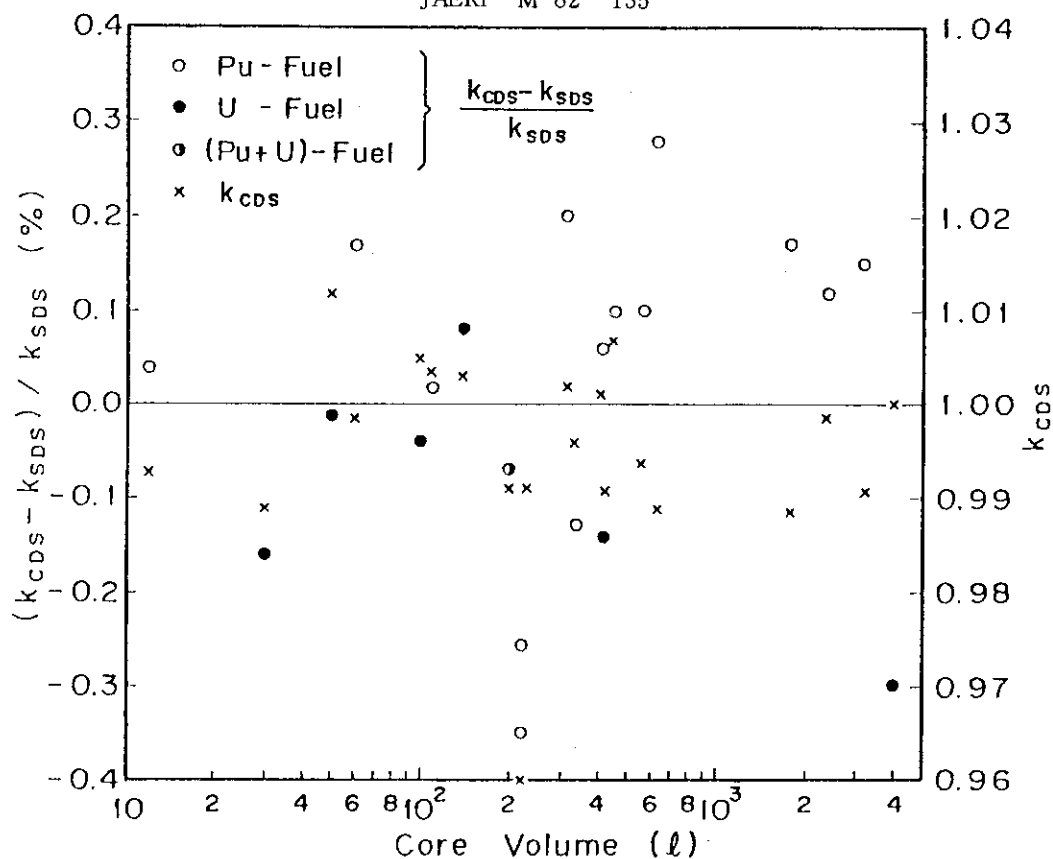


Fig.6 The effective multiplication factors (k_{CDS}) calculated with the CDS-sets and the deviations of k_{CDS} from those calculated with the SDS-set.

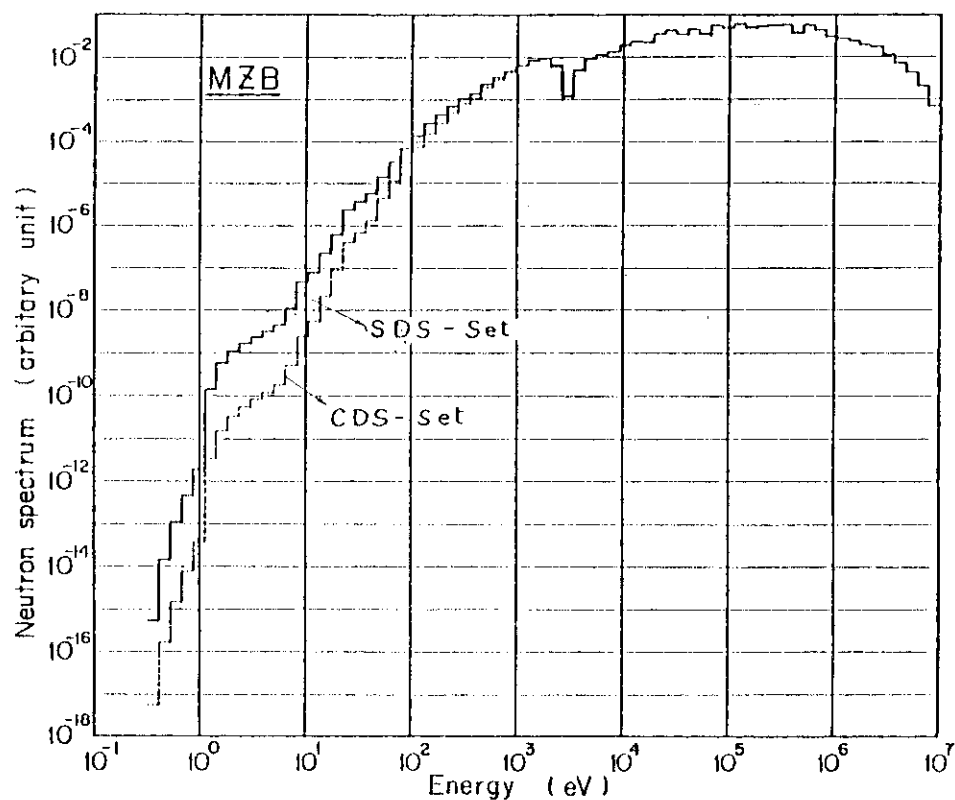


Fig. 7 Comparison of the neutron spectra calculated with the SDS- and CDS-sets at the core center in the MZB assemblies.

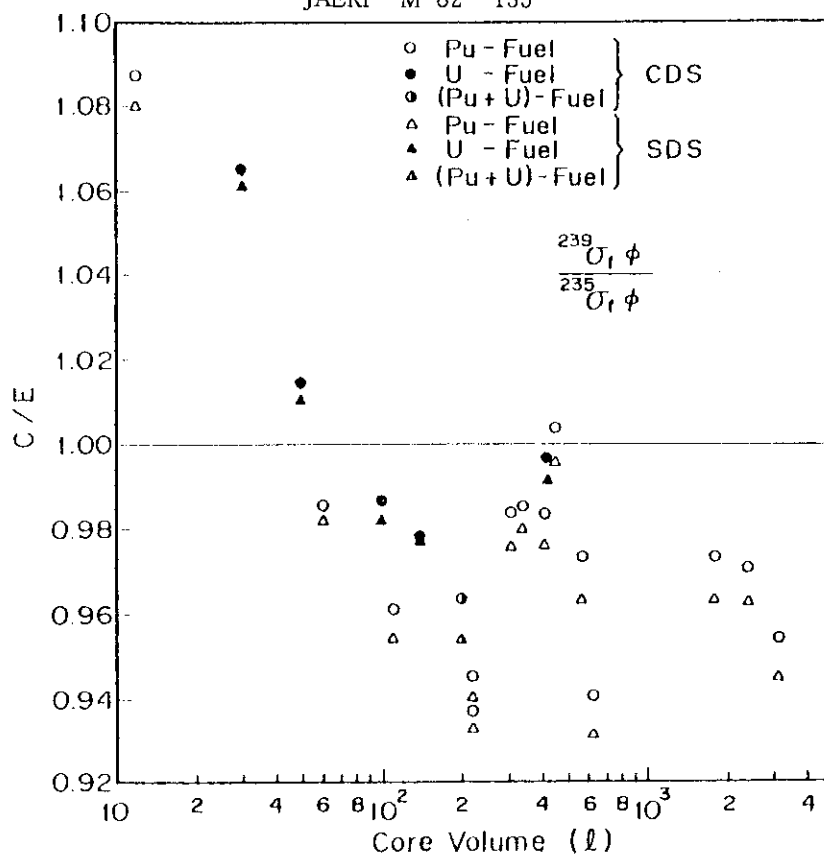


Fig. 8 Comparison of the C/E-values for the central reaction rate ratios, $\frac{^{239}\sigma_f \phi}{^{235}\sigma_f \phi}$, calculated with the SDS- and CDS-sets.

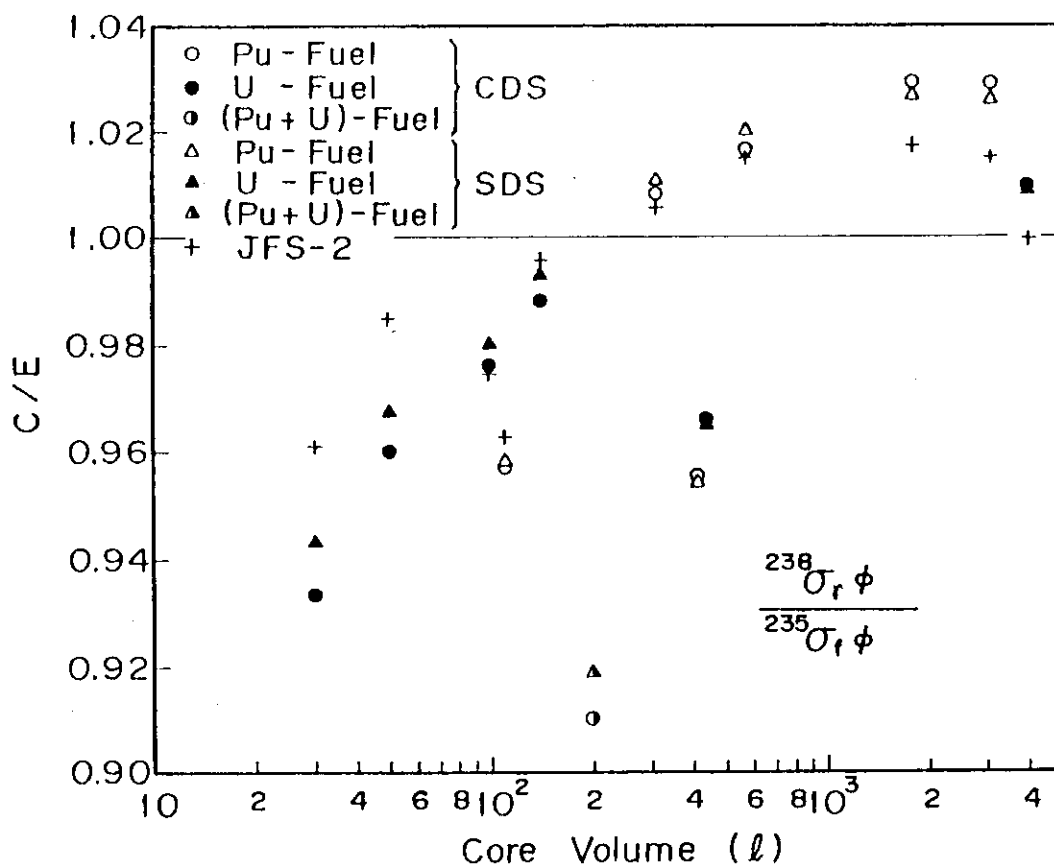


Fig. 9 Comparison of the C/E-values for the central reaction rate ratios, $\frac{^{238}\sigma_r \phi}{^{235}\sigma_f \phi}$, calculated with the SDS- and CDS-sets.

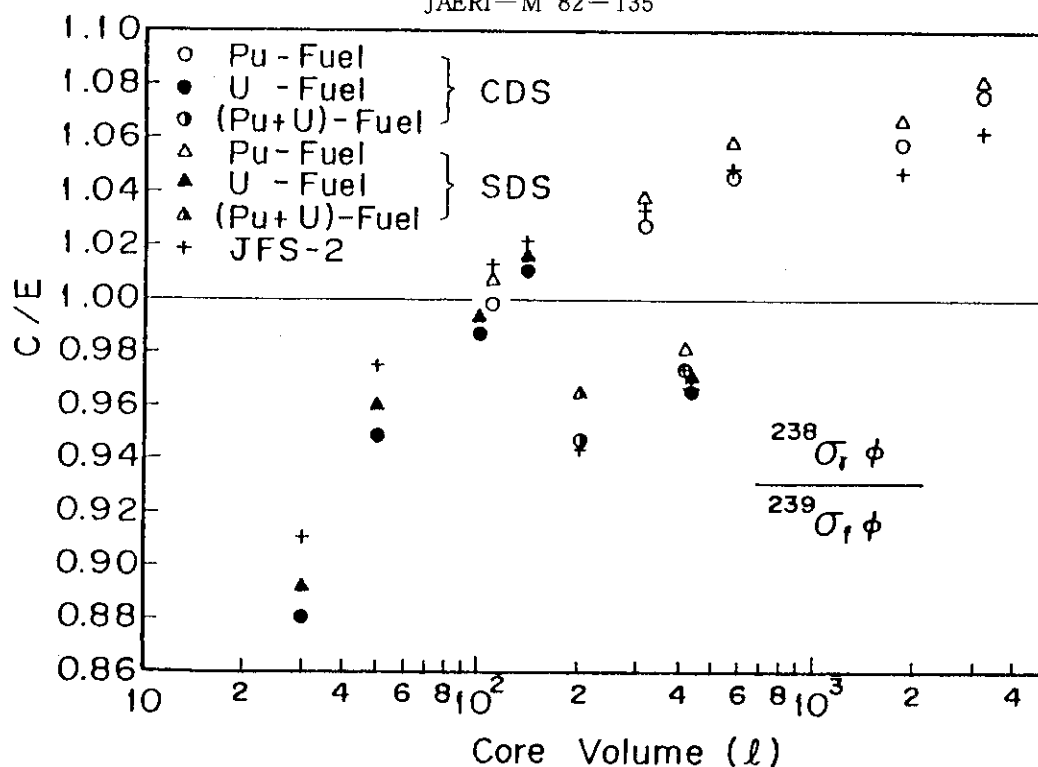


Fig.10 Comparison of the C/E-values for the central reaction rate ratios, $^{238}\sigma_f \phi / ^{239}\sigma_f \phi$, calculated with the SDS- and CDS-sets.

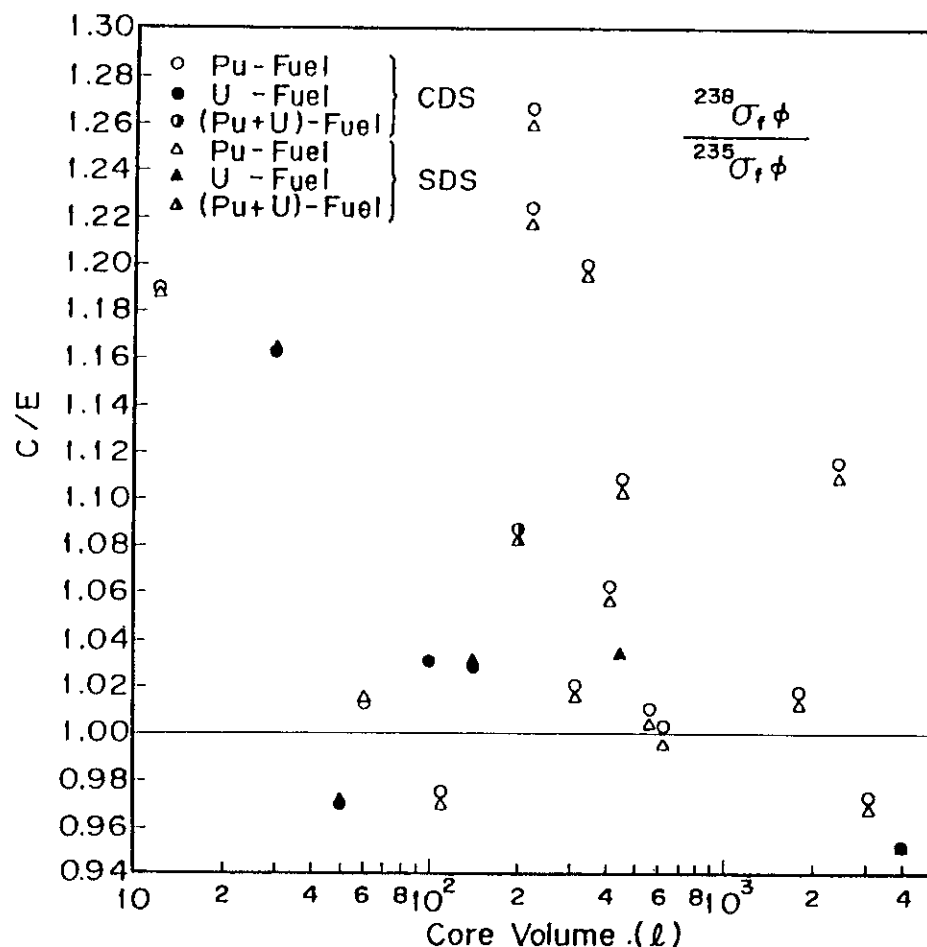


Fig.11 Comparison of the C/E-values for the central reaction rate ratios, $^{238}\sigma_f \phi / ^{235}\sigma_f \phi$, calculated with the SDS- and CDS-sets.

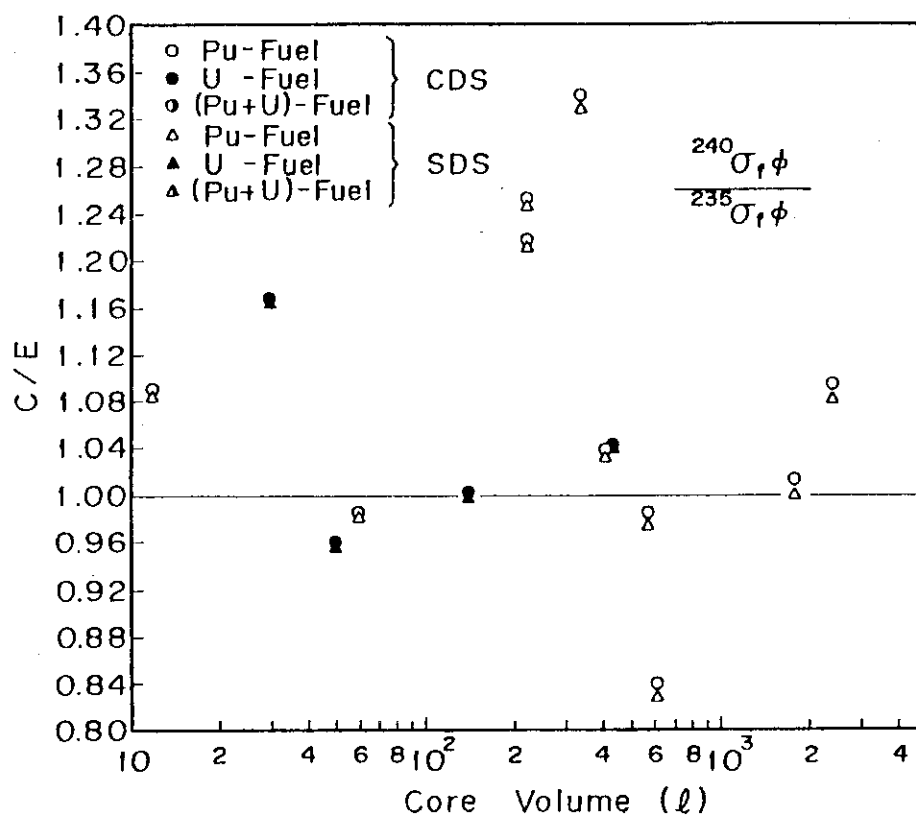


Fig. 12 Comparison of the C/E-values for the central reaction rate ratios, $\frac{^{240}\sigma_f\phi}{^{235}\sigma_f\phi}$, calculated with the SDS- and CDS-sets.

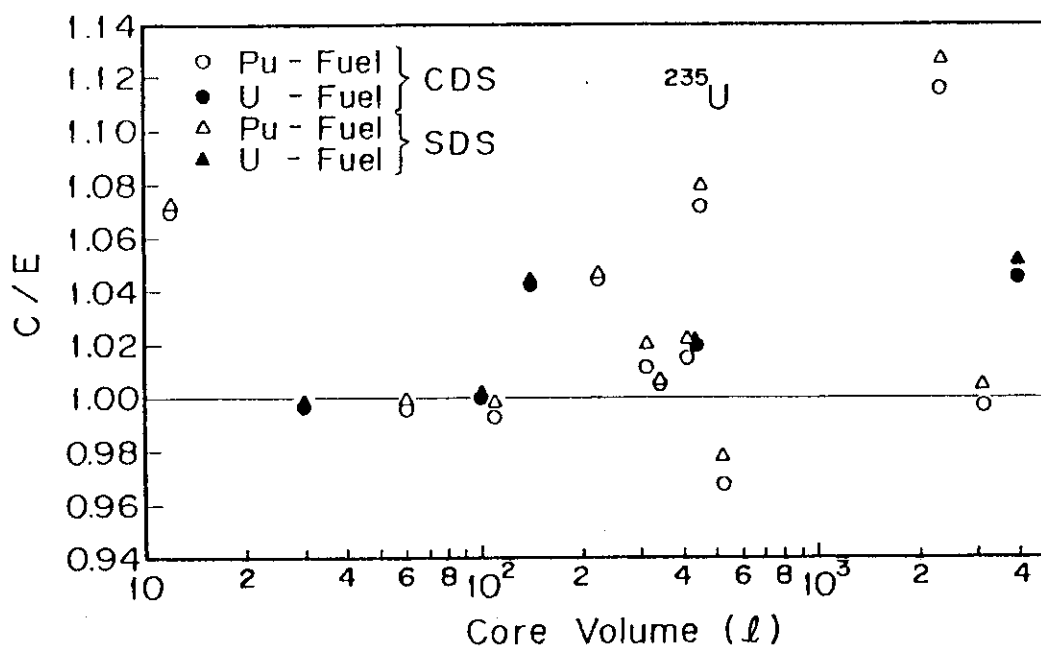


Fig. 13 Comparison of the C/E-values for the central sample worth of ^{235}U calculated with the SDS- and CDS-sets.

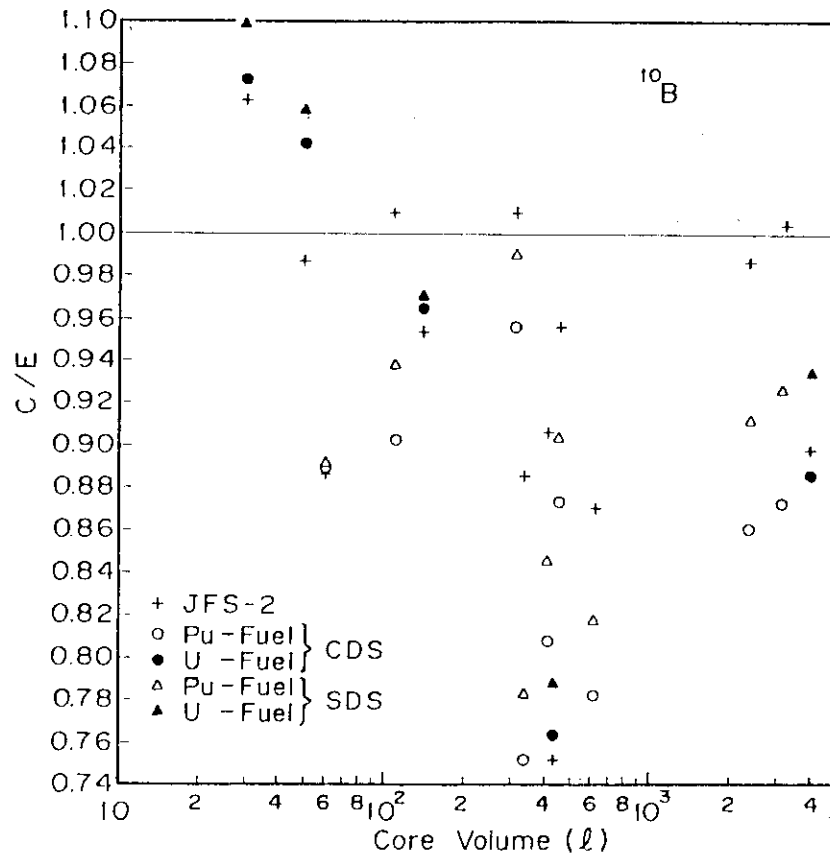


Fig. 14 Comparison of the C/E -values for the central sample worth of ^{10}B calculated with the SDS- and CDS-sets.

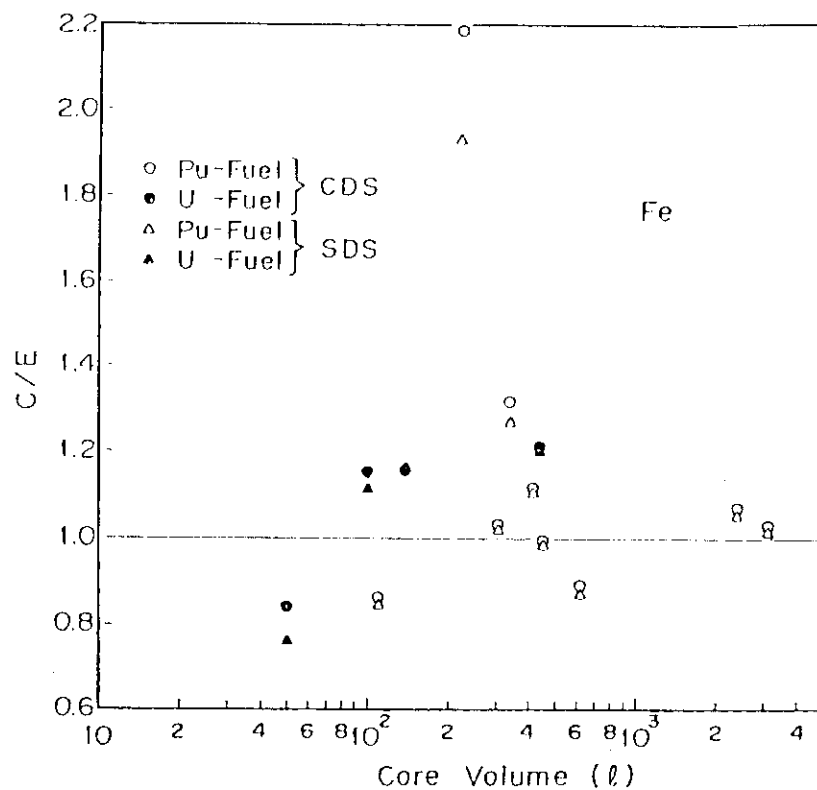


Fig. 15 Comparison of the C/E -values for the central sample worth of iron calculated with the SDS- and CDS-sets.

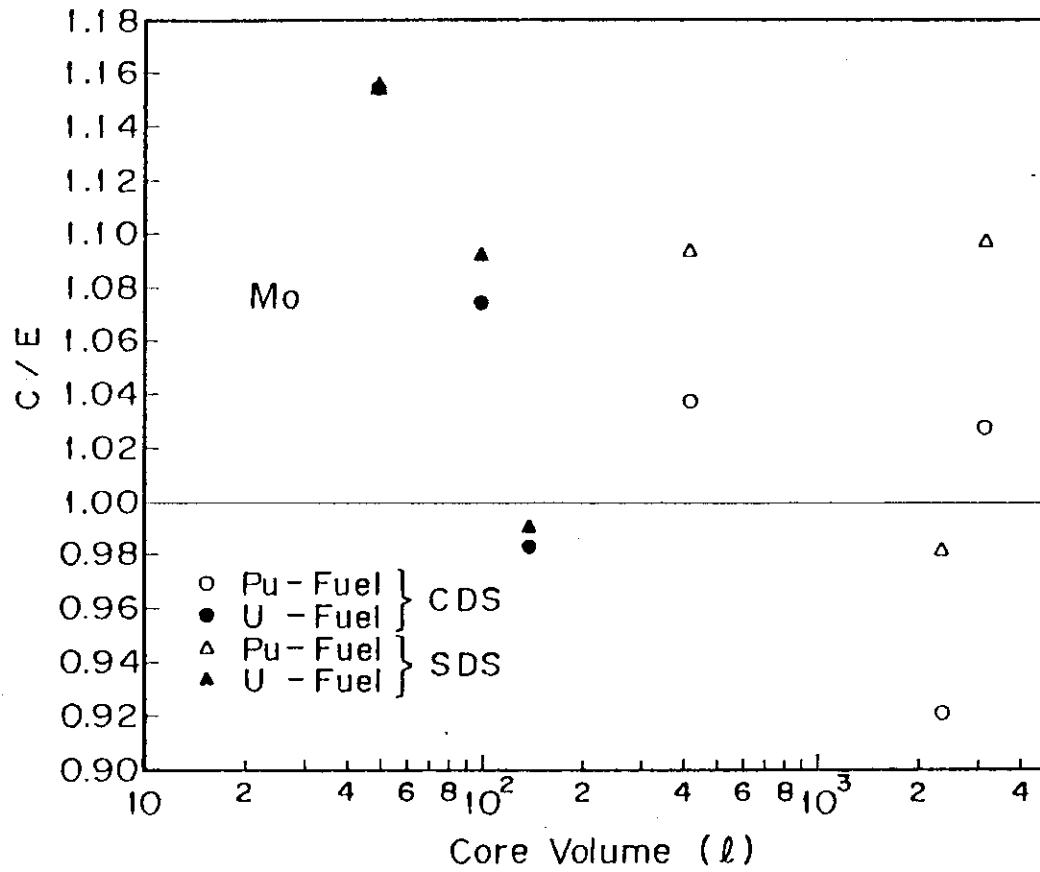


Fig. 16 Comparison of the C/E-values for the central sample worth of Mo calculated with the SDS- and CDS-sets.

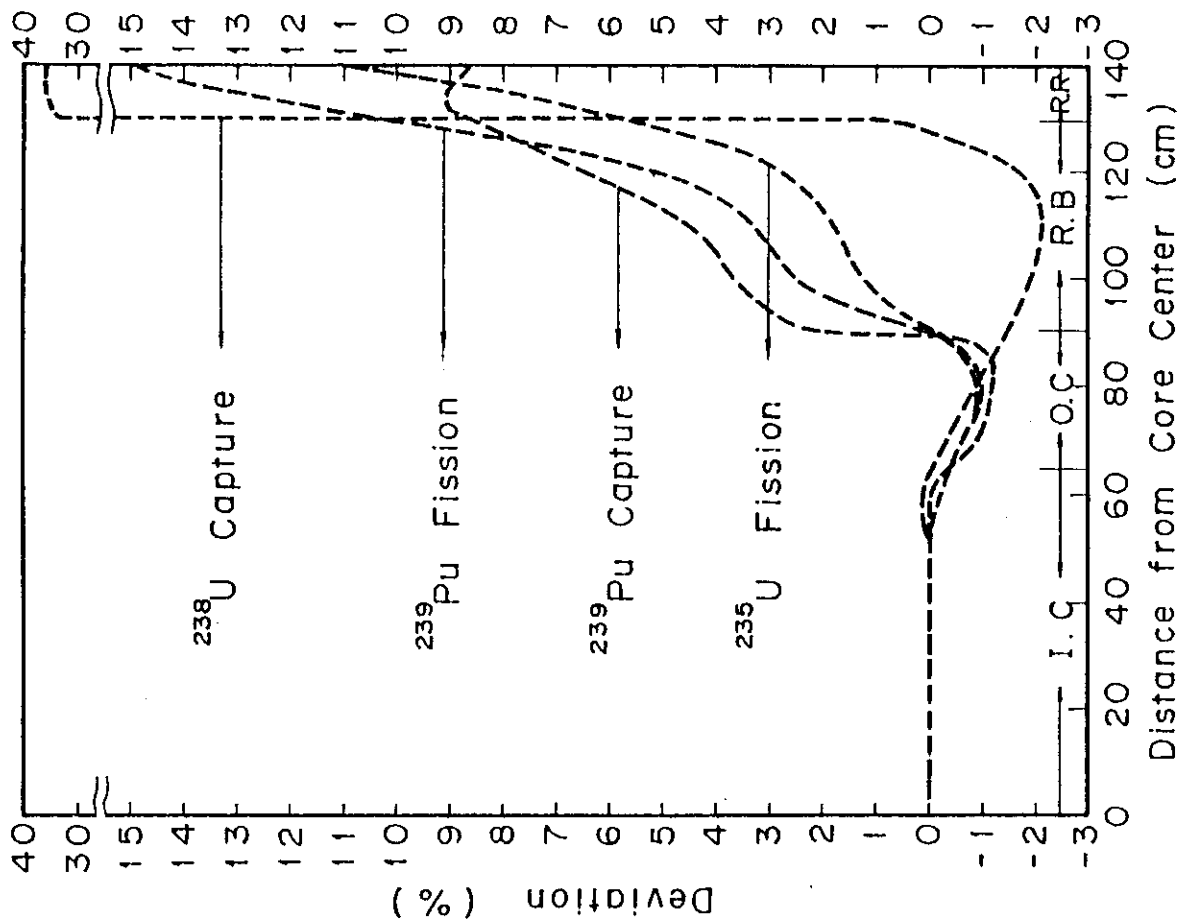


Fig.17 Deviation of the reaction rates calculated with the SDS-set from those calculated with the CDS-set in ZPPR-2.

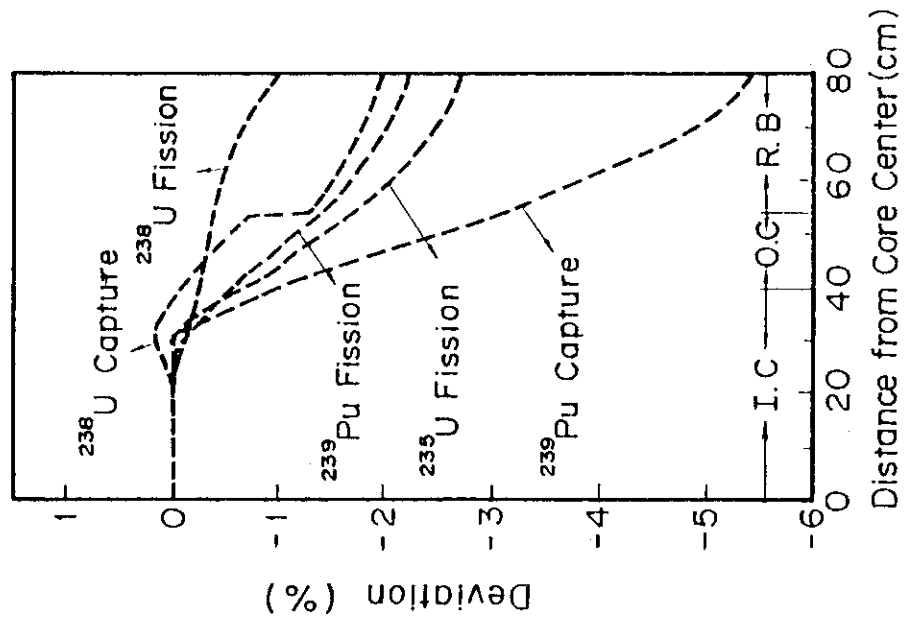


Fig.18 Deviation of the reaction rates calculated with the SDS-set from those calculated with the CDS-set in FCA-6-2.

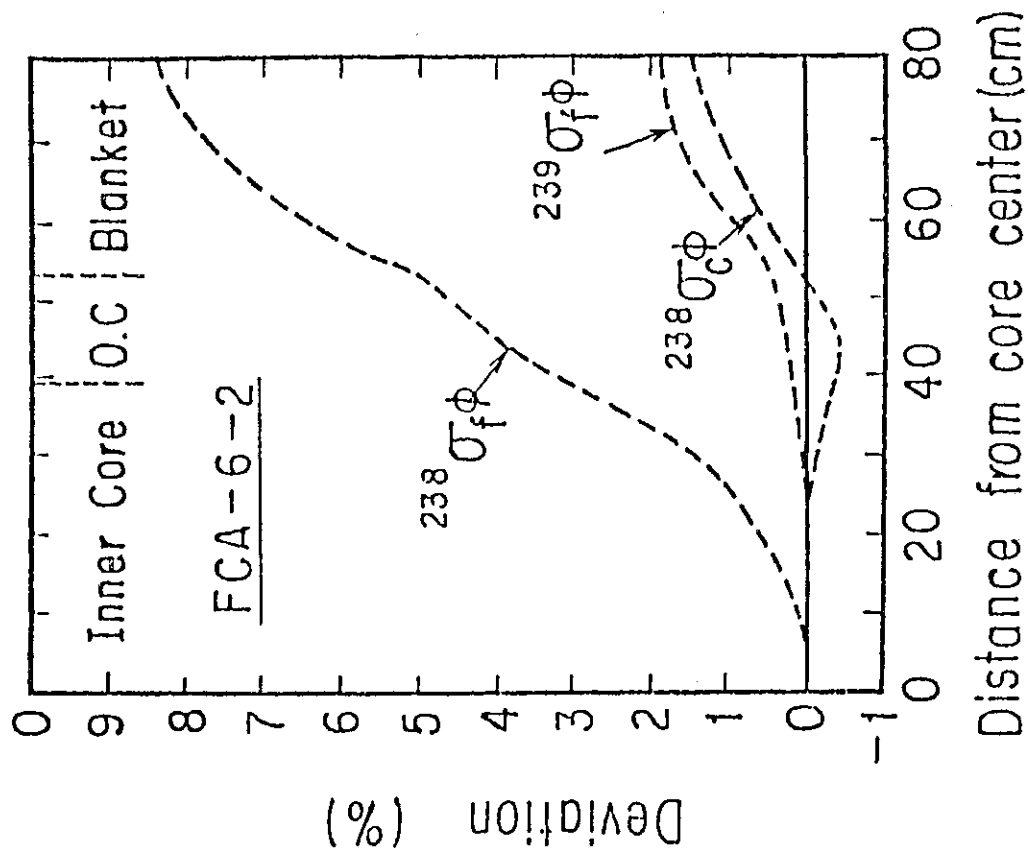


Fig.20 Deviations of the radial reaction rates calculated with the ^{239}Pu fission spectrum from those calculated with the region dependent fission spectra in FCA-6-2 assembly.

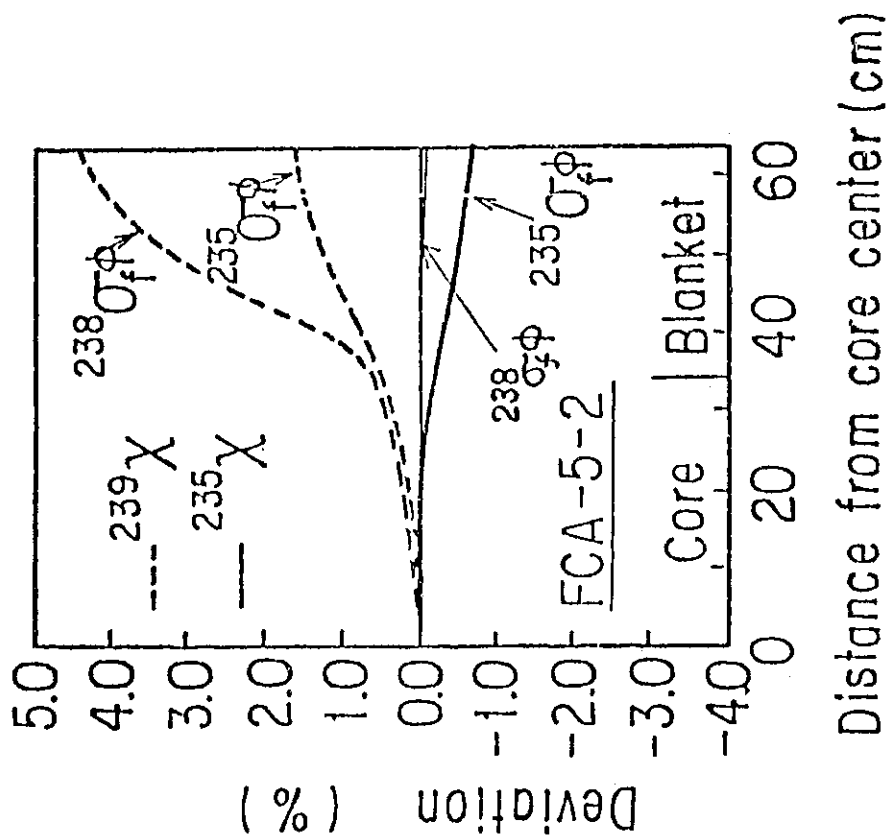


Fig.19 Deviations of the radial reaction rates calculated with the ^{235}U or ^{239}Pu fission spectrum from those calculated with the average fission spectrum in FCA-5-2 assembly.

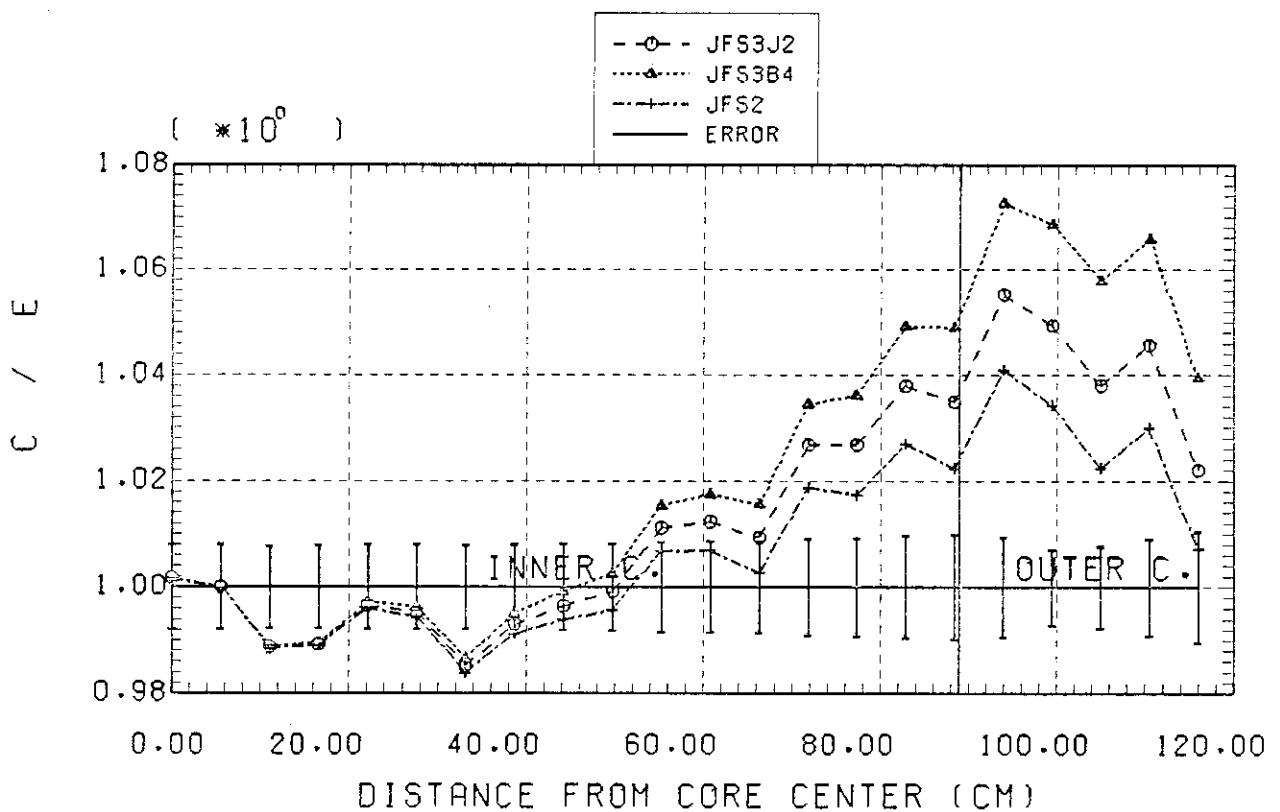
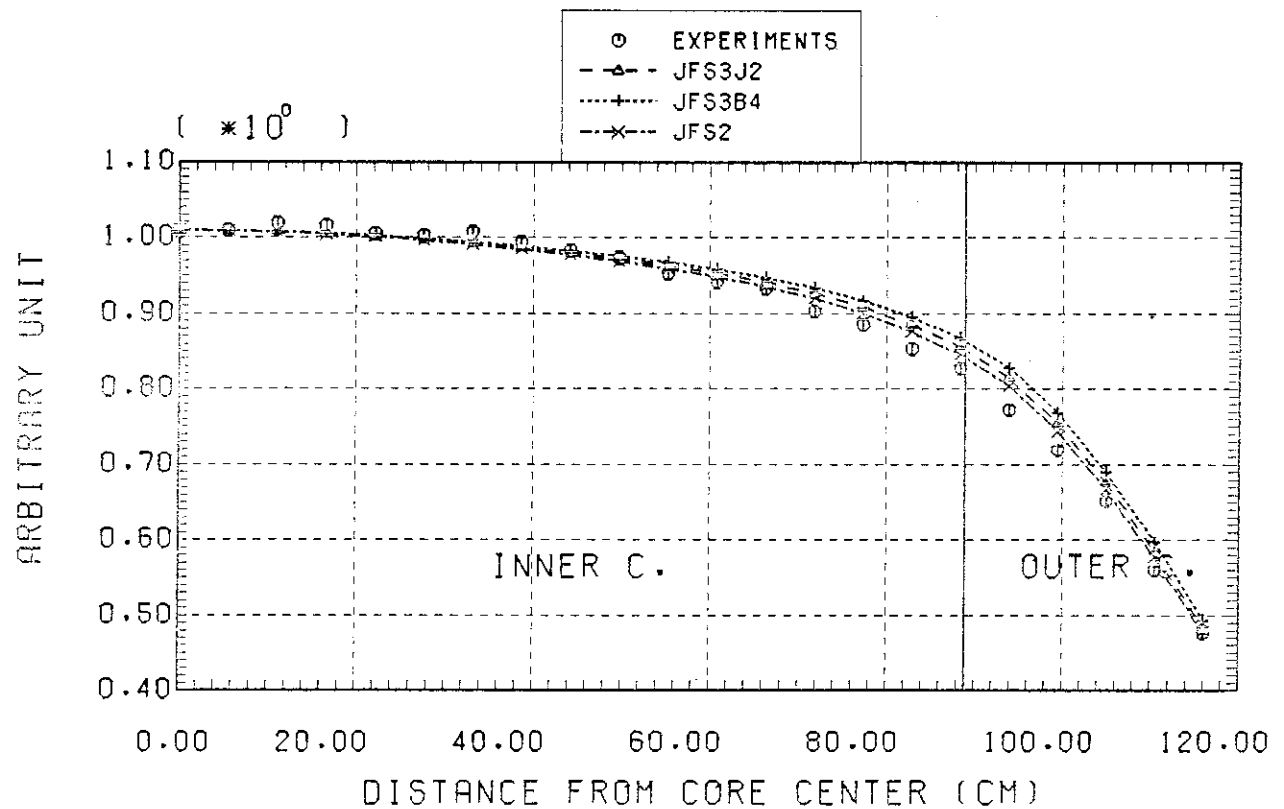


Fig.21 ZPPR-9 PU-239 FISSION RATE DISTRIBUTION (R-DIRECTION)

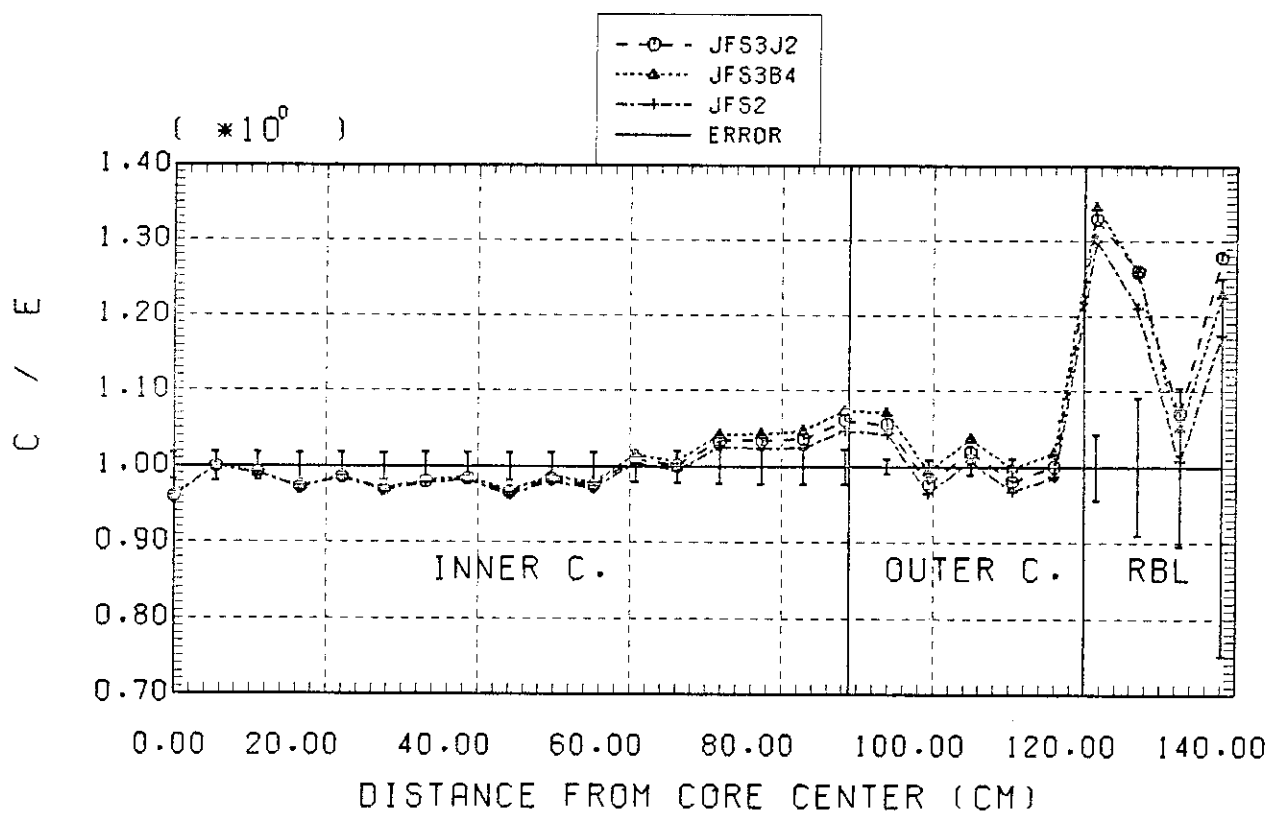
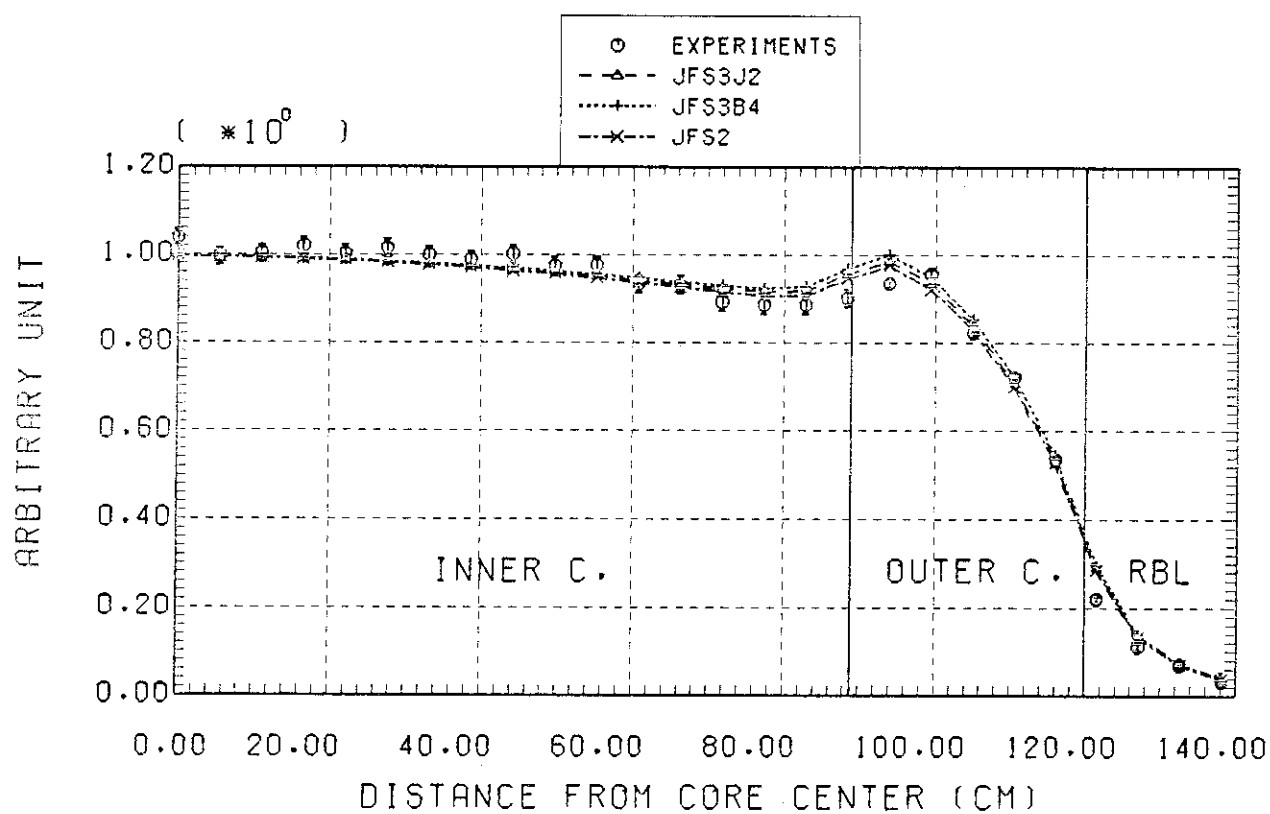


Fig.22 ZPPR-9 U-238 FISSION RATE DISTRIBUTION (R-DIRECTION)

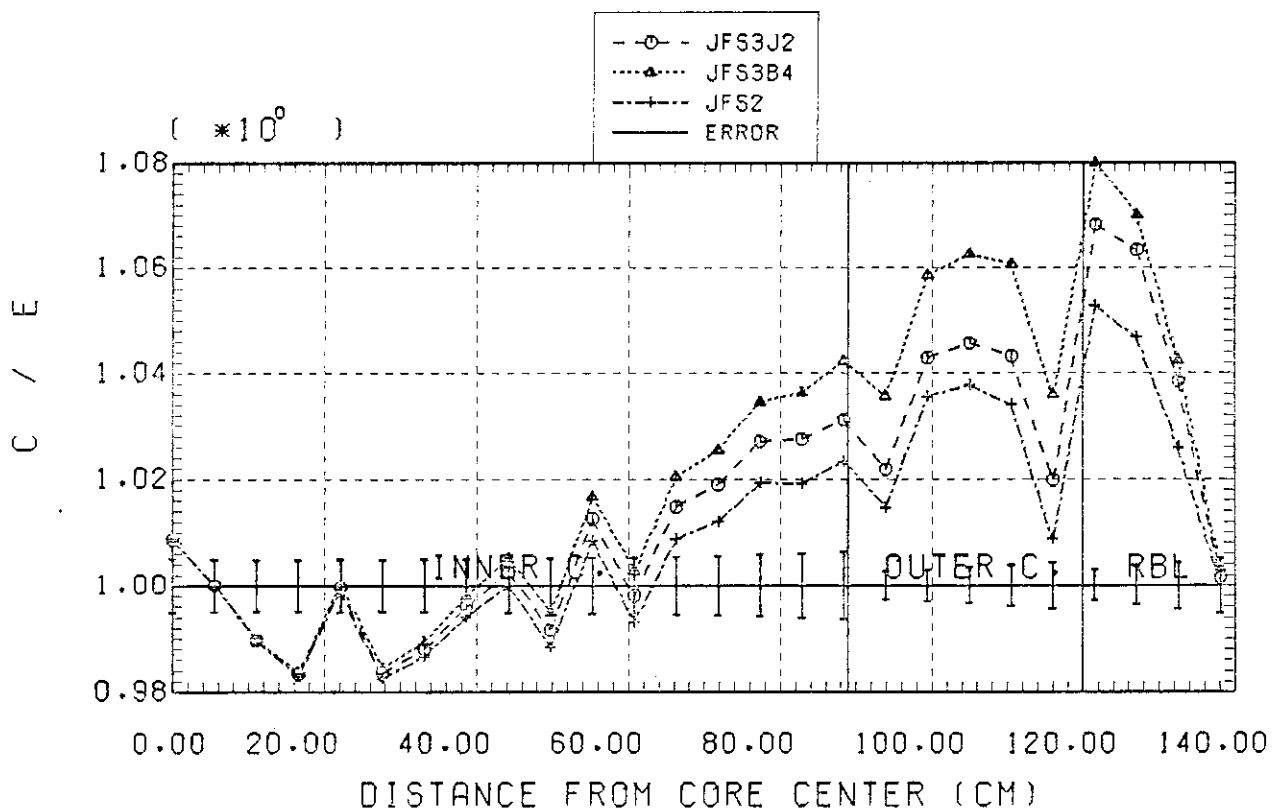
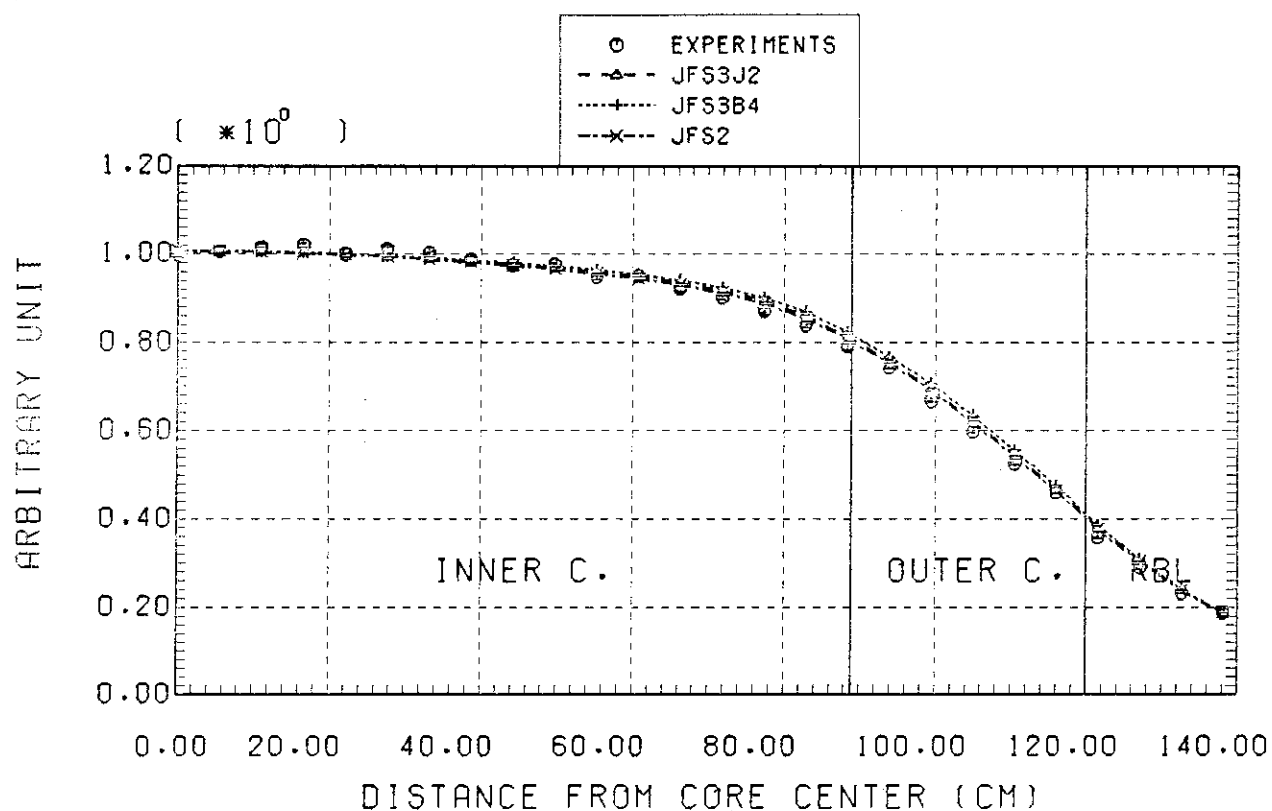


Fig.23 ZPPR-9 U-238 CAPTURE RATE DISTRIBUTION (R-DIRECTION)

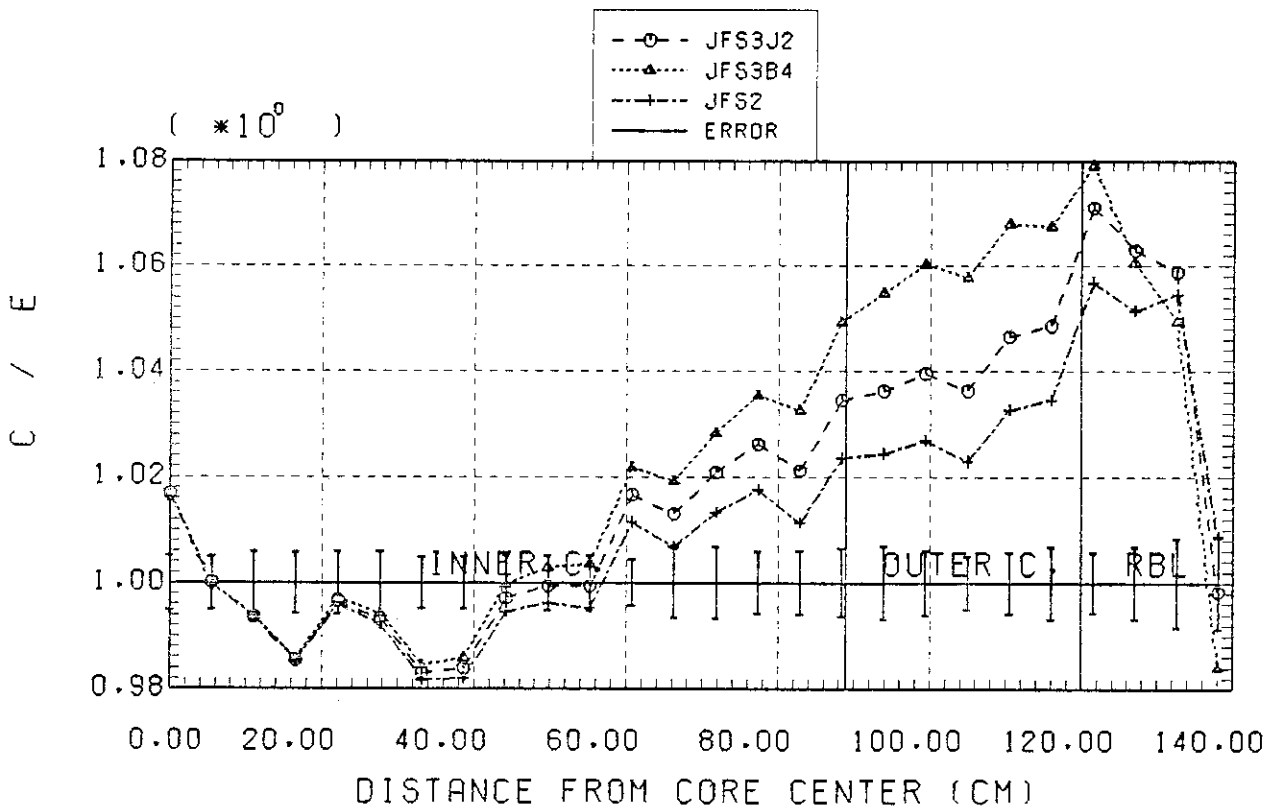
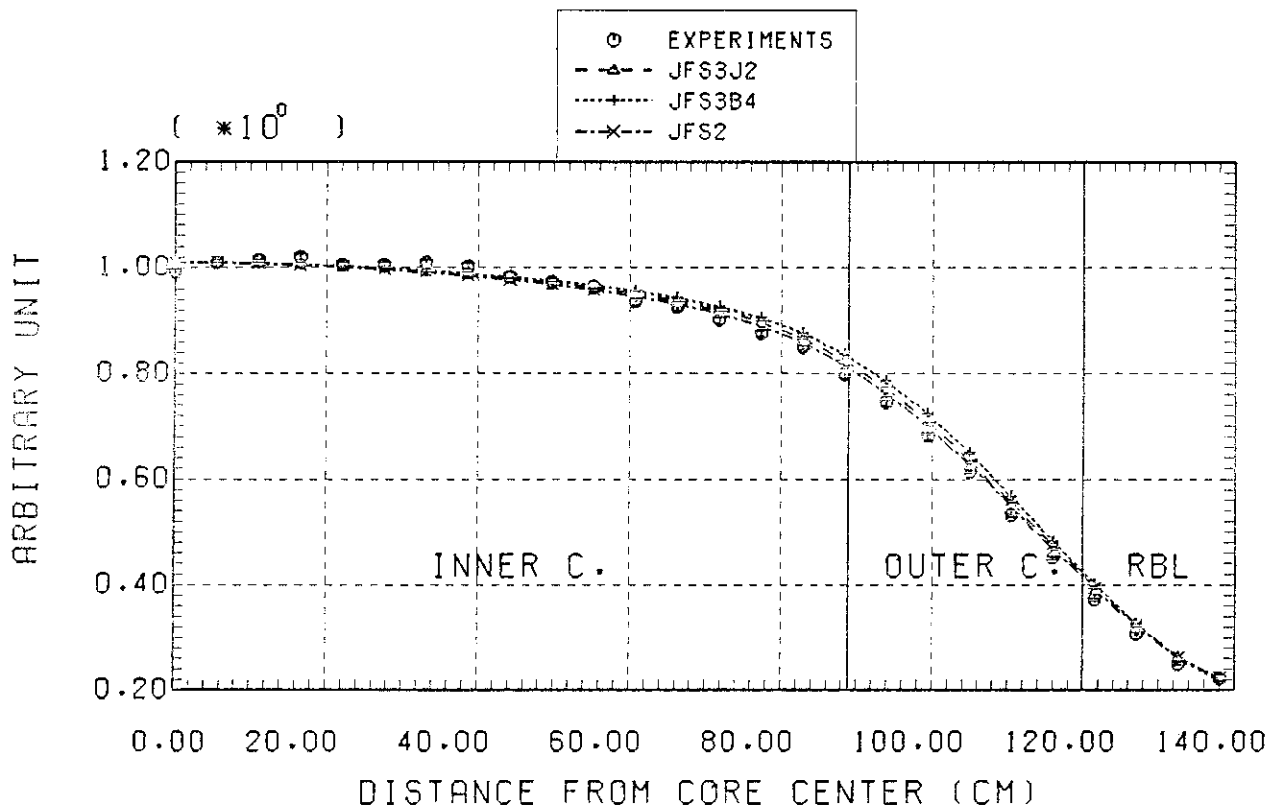


Fig.24 ZPPR-9 U-235 FISSION RATE DISTRIBUTION (R-DIRECTION)

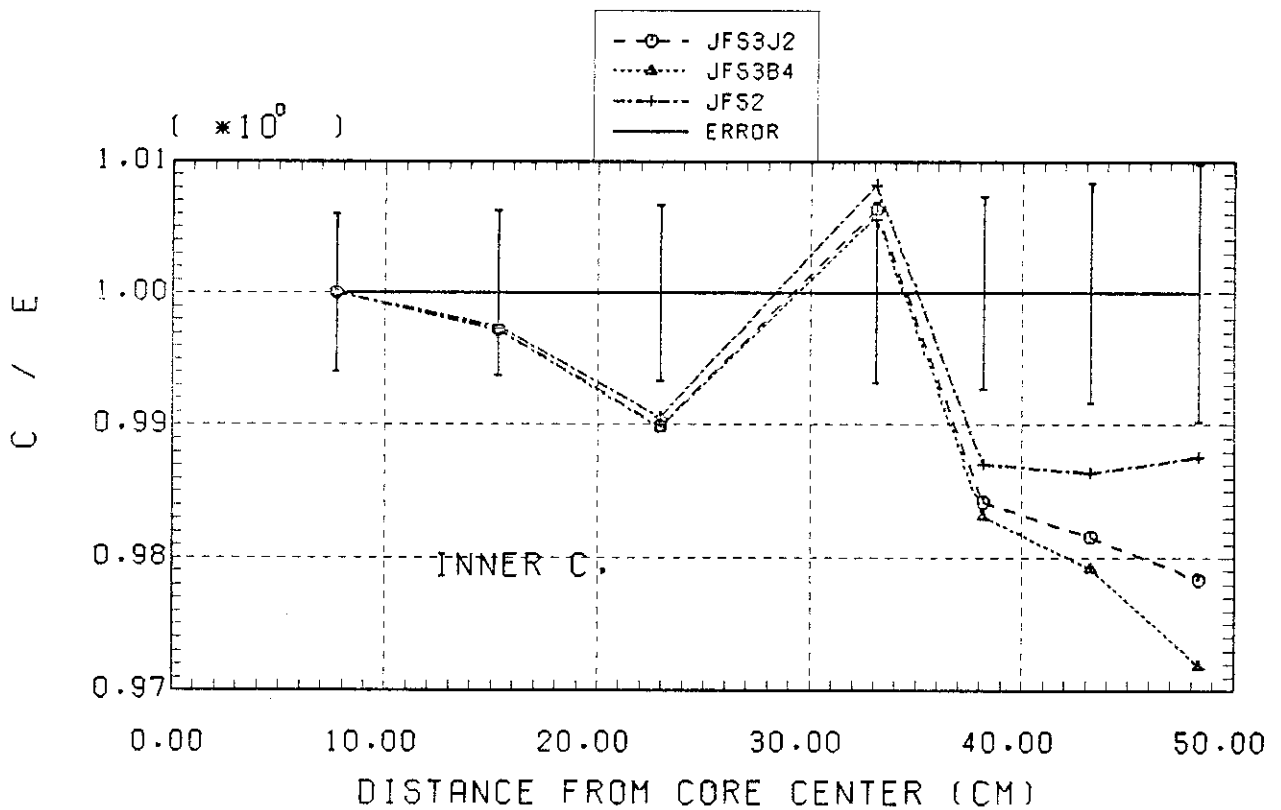
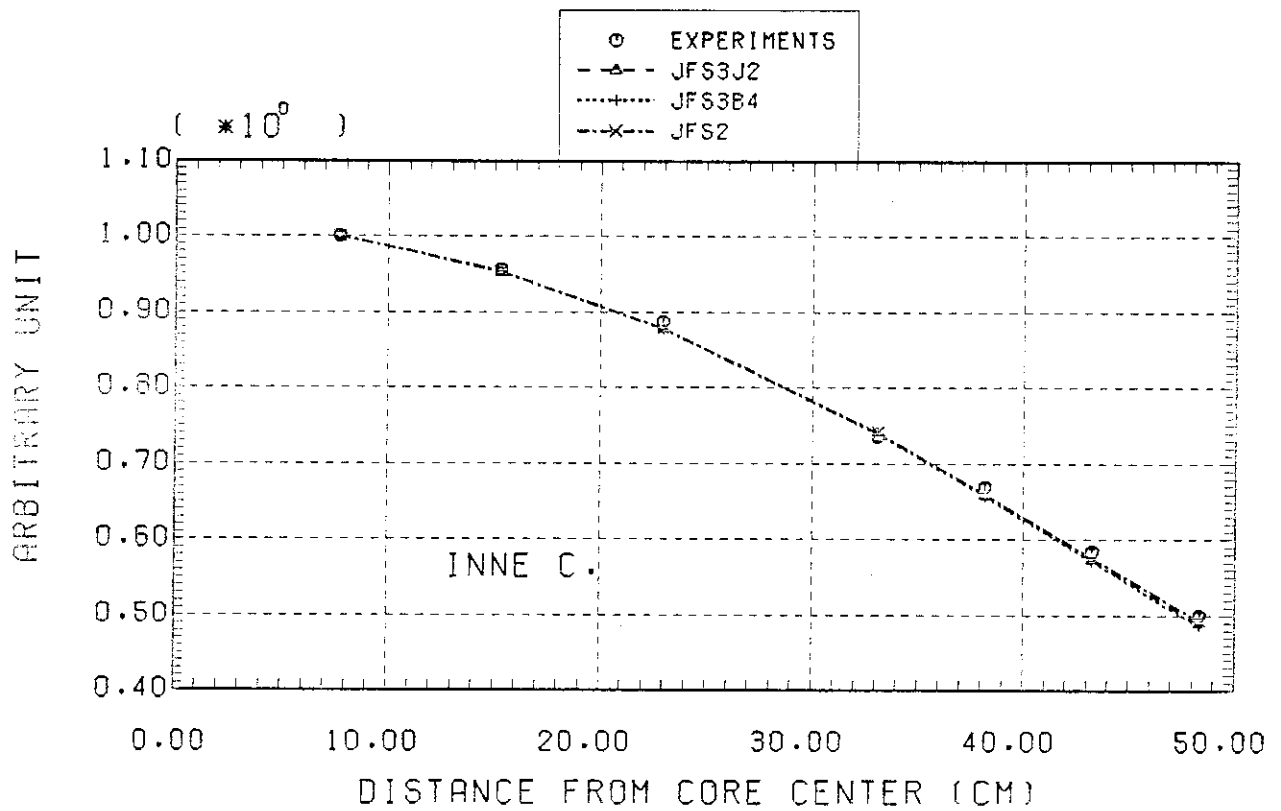


Fig.25. ZPPR-9 PU-239 FISSION RATE DISTRIBUTION (Z-DIRECTION)

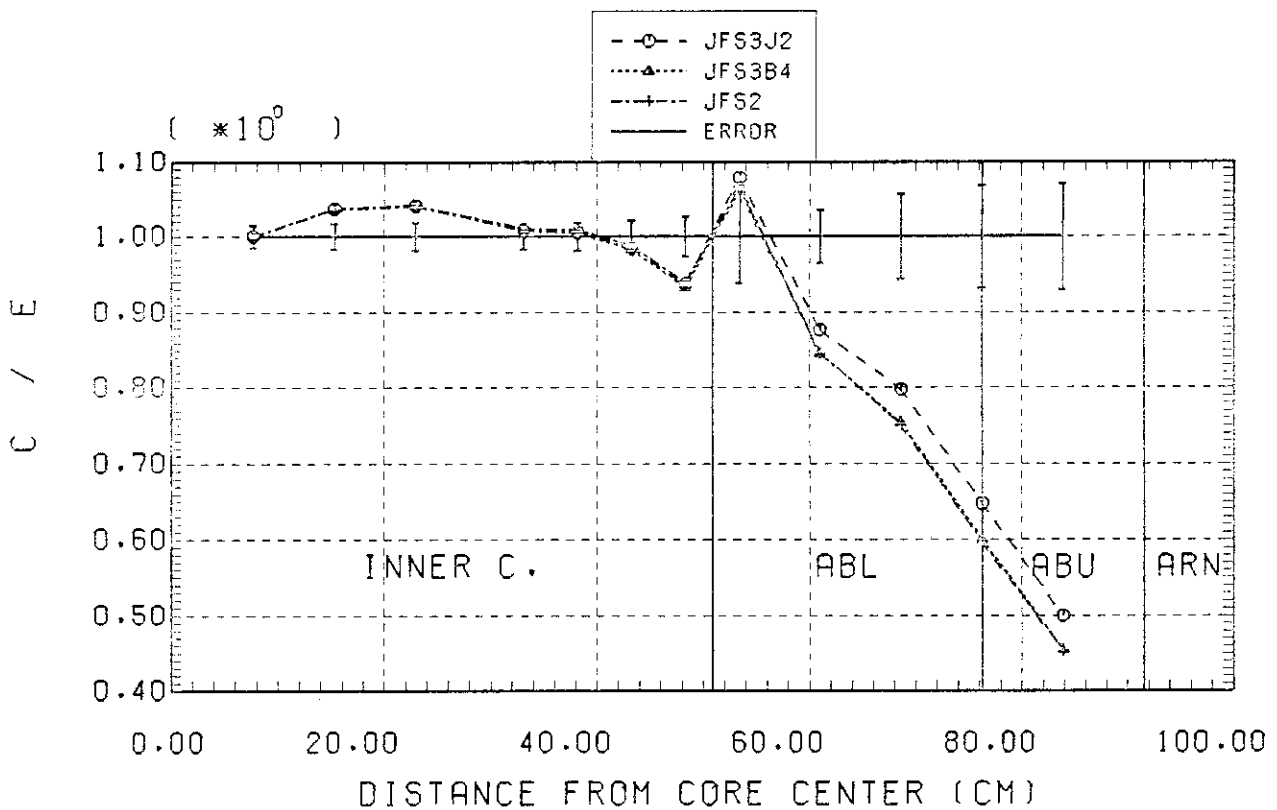
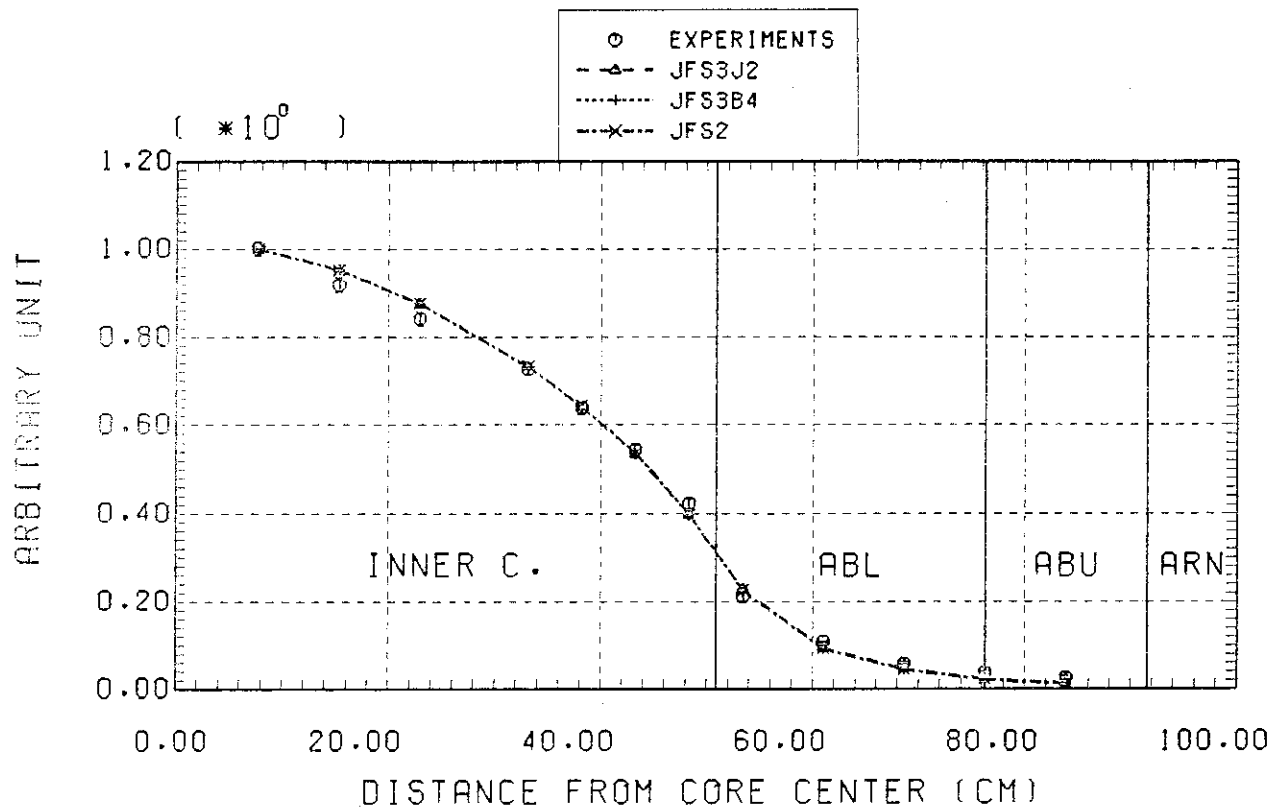


Fig.26 ZPPR-9 U-238 FISSION RATE DISTRIBUTION (Z-DIRECTION)

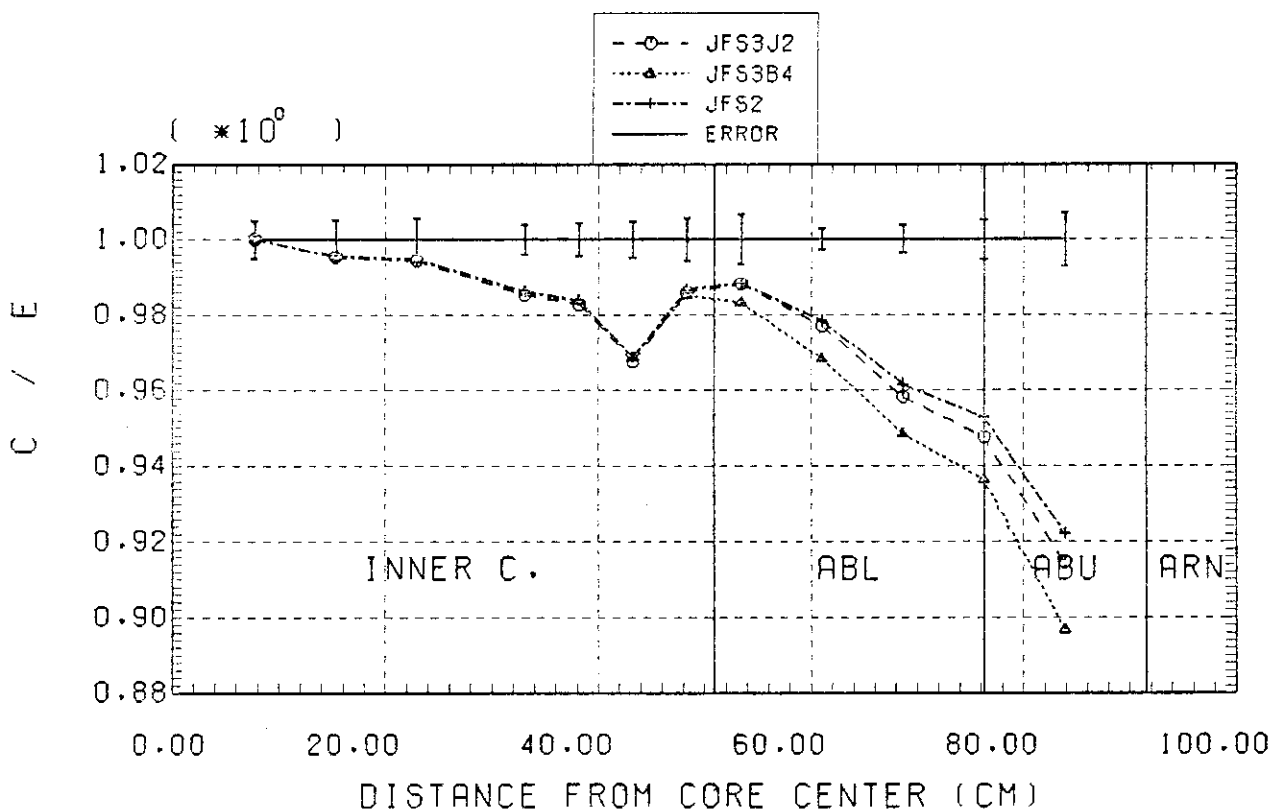
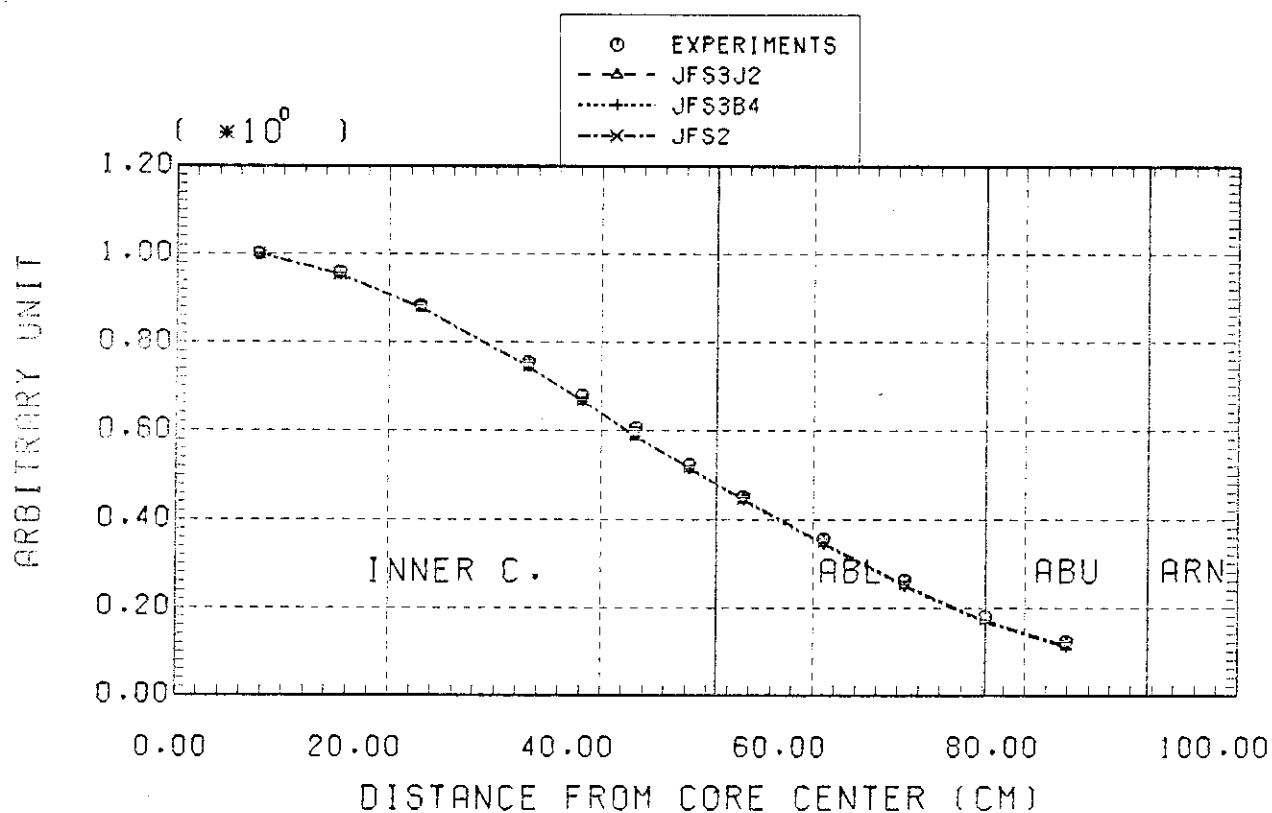


Fig.27 ZPPR-9 U-238 CAPTURE RATE DISTRIBUTION (Z-DIRECTION)

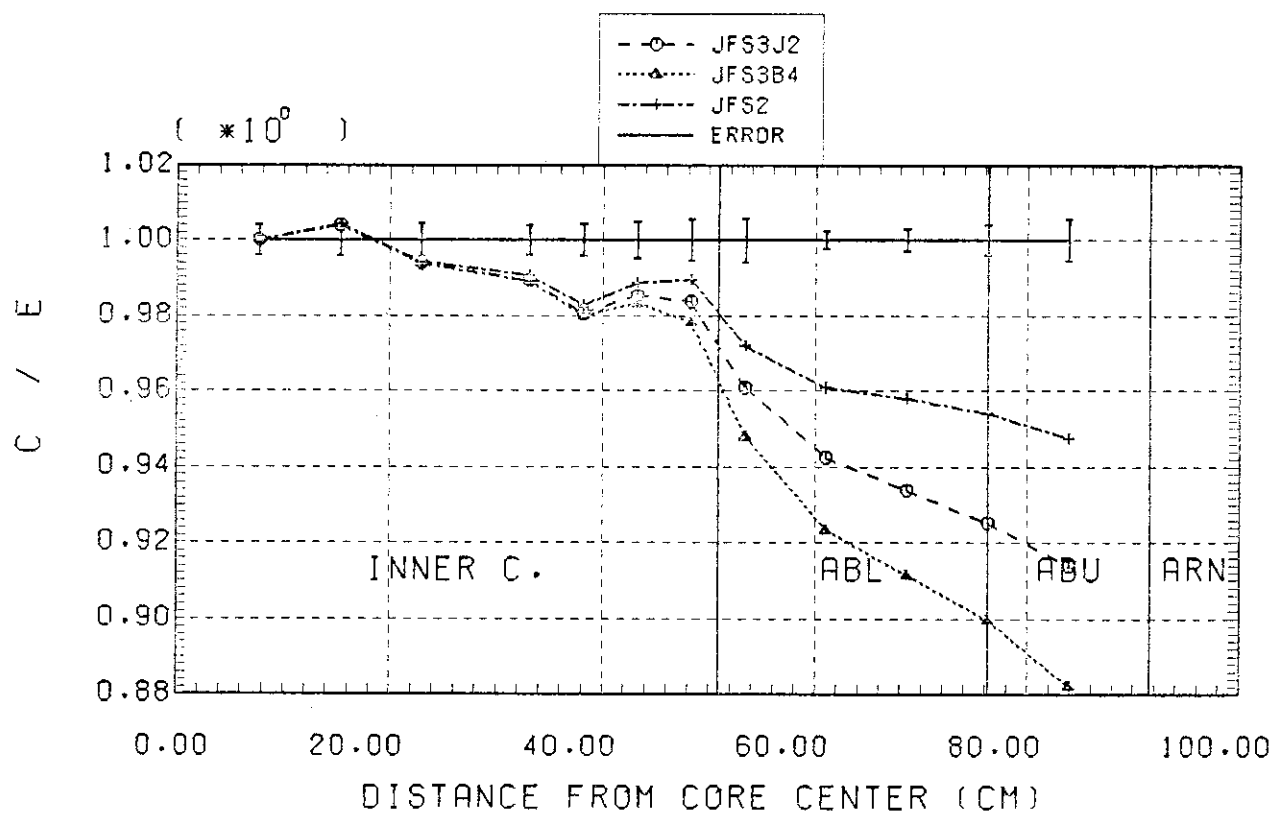
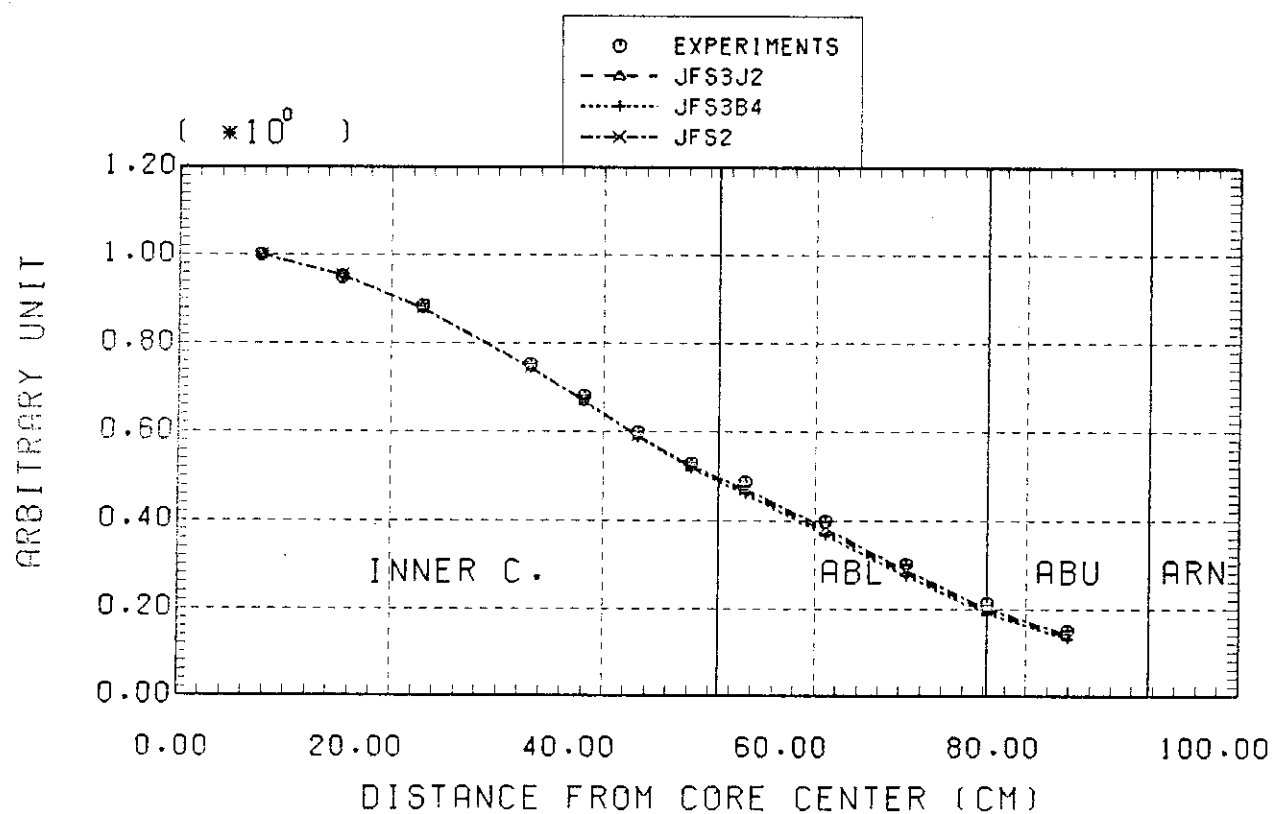


Fig.28 ZPPR-9 U-235 FISSION RATE DISTRIBUTION (Z-DIRECTION)

Appendix A. Comparison of Group Cross Sections for the JFS-3-J2 and
JFS-3-B4 Sets

The group averaged cross sections for nuclides used in fast reactor calculations are compared in Figs.A1 ~ A51. For ^{10}B , O, Na, Fe, Cr, Ni, Al, Mn and Mo the capture, elastic and inelastic scattering cross sections are shown in Figs.A1 ~ A27. Figures A28 ~ A51 show the comparisons of fission, capture, elastic and inelastic scattering cross sections for ^{235}U , ^{238}U , ^{239}Pu , ^{240}Pu , ^{241}Pu and ^{241}Am .

Appendix A. Comparison of group cross sections for the JFS-3-J2 and
JFS-3-B4 sets

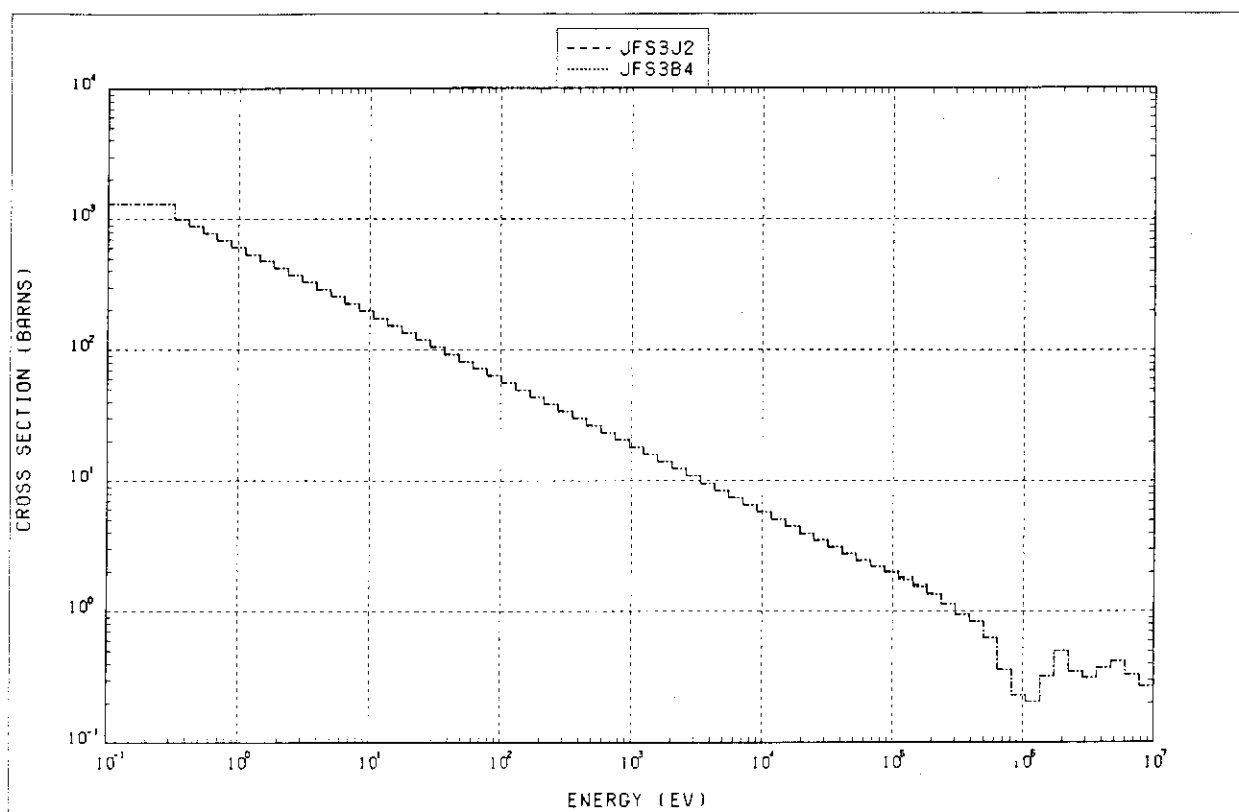


Fig. A.1 ABSORPTION CROSS SECTIONS OF BORON-10

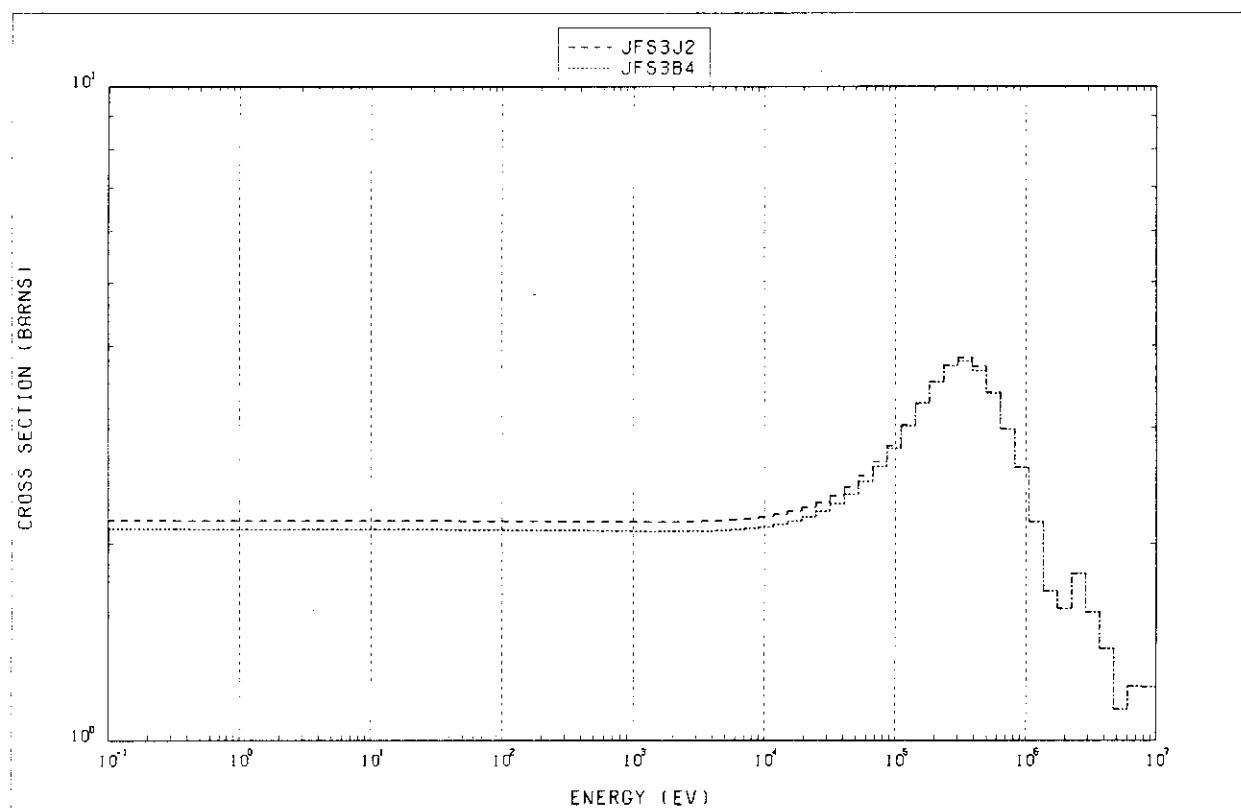


Fig. A.2 ELASTIC SCATTERING CROSS SECTIONS OF BORON-10

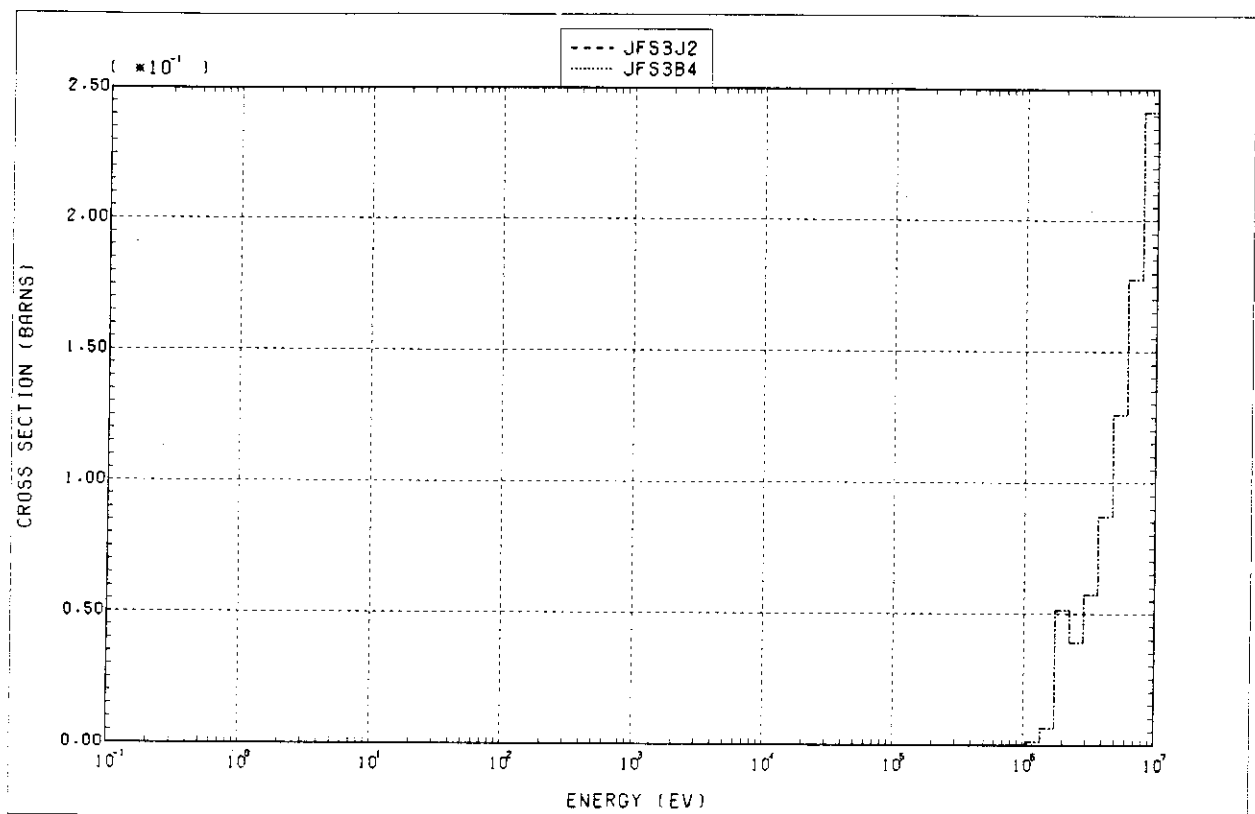


Fig. A.3 INELASTIC SCATTERING CROSS SECTIONS OF BORON-10

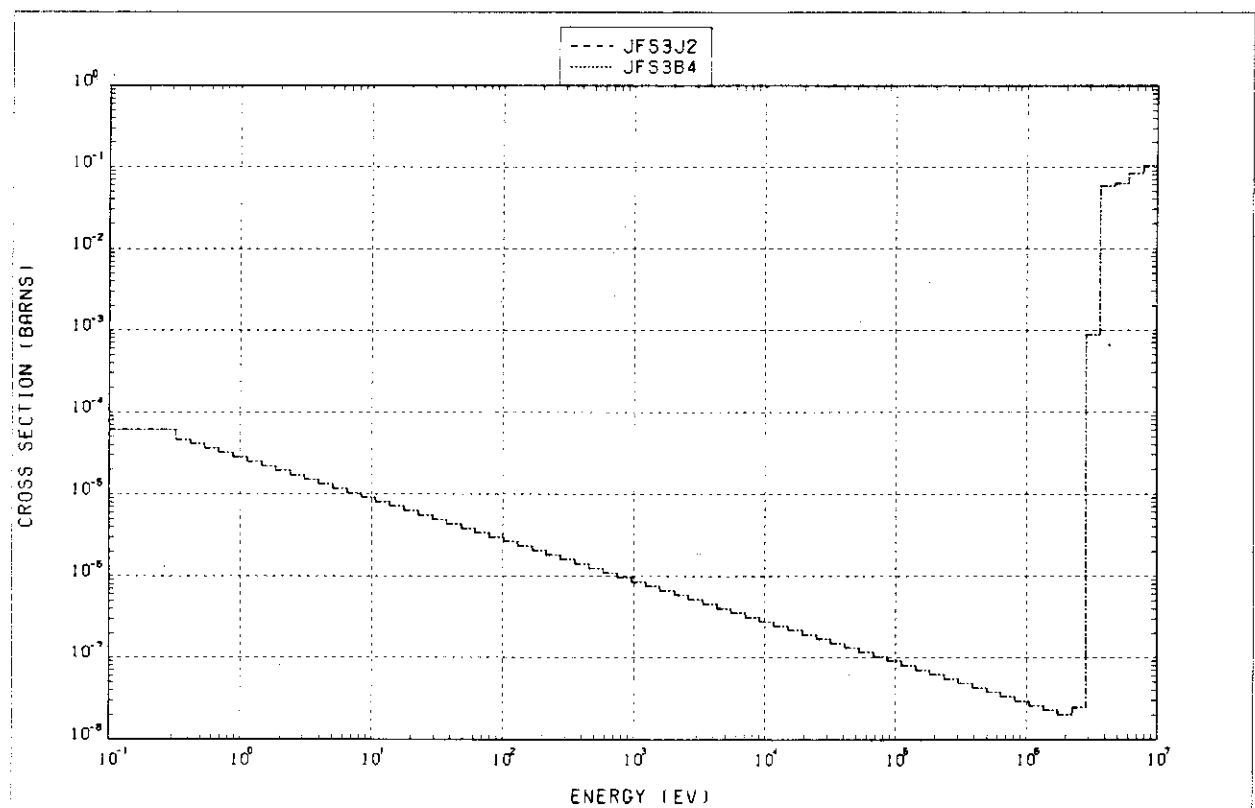


Fig.A.4 ABSORPTION CROSS SECTIONS OF OXYGEN

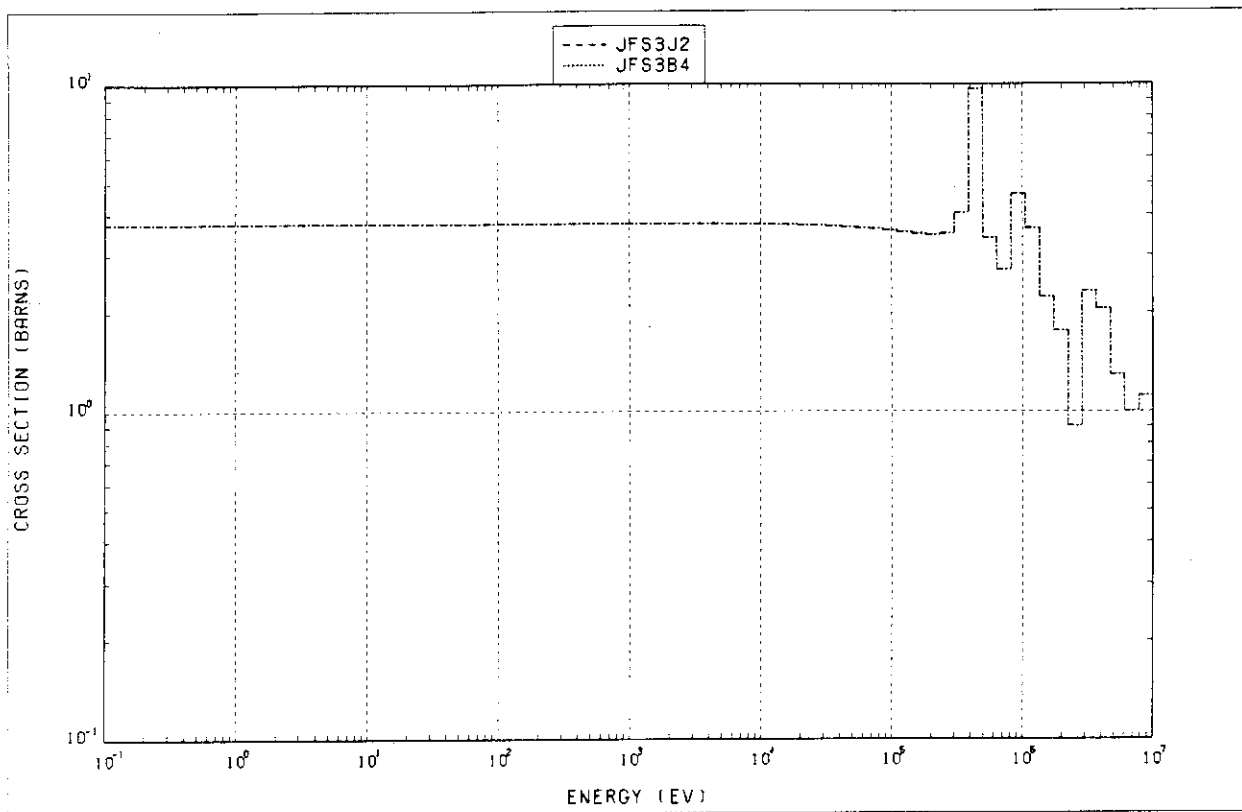


Fig. A.5 ELASTIC SCATTERING CROSS SECTIONS OF OXYGEN

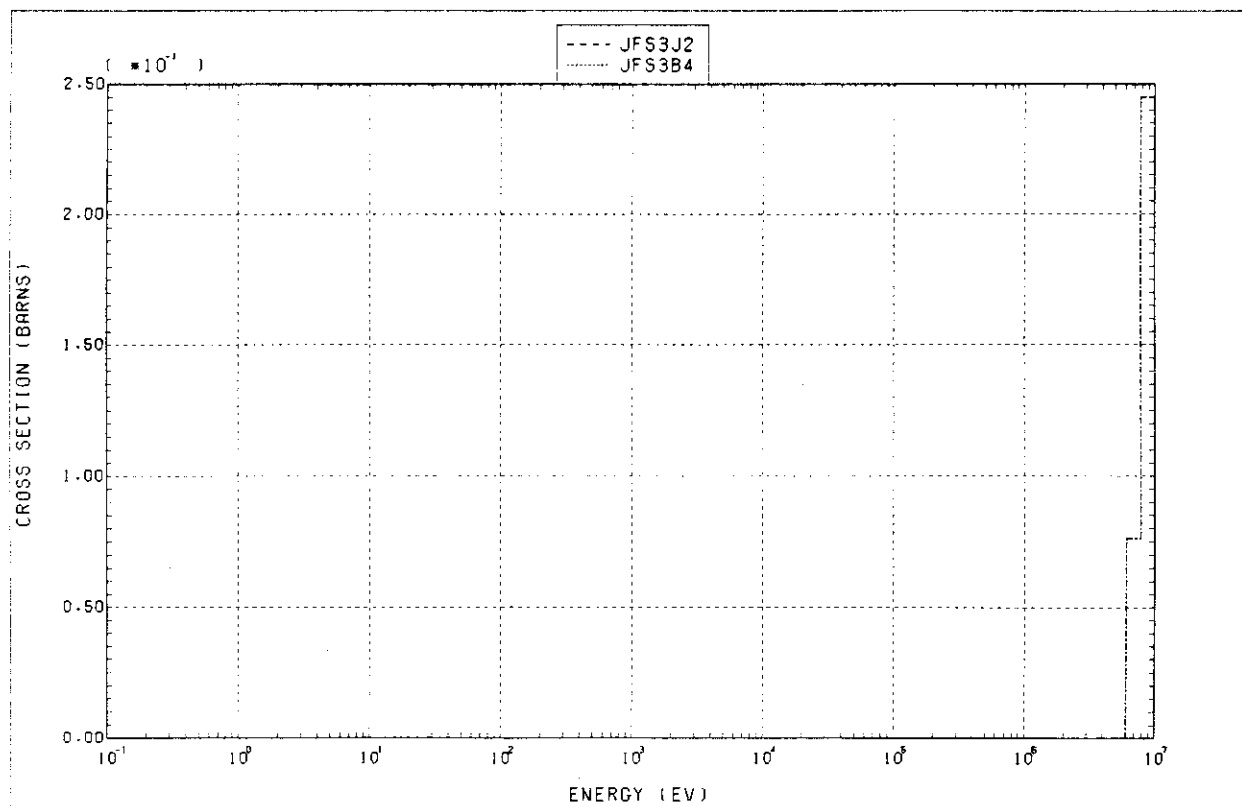


Fig. A.6 INELASTIC SCATTERING CROSS SECTIONS OF OXYGEN

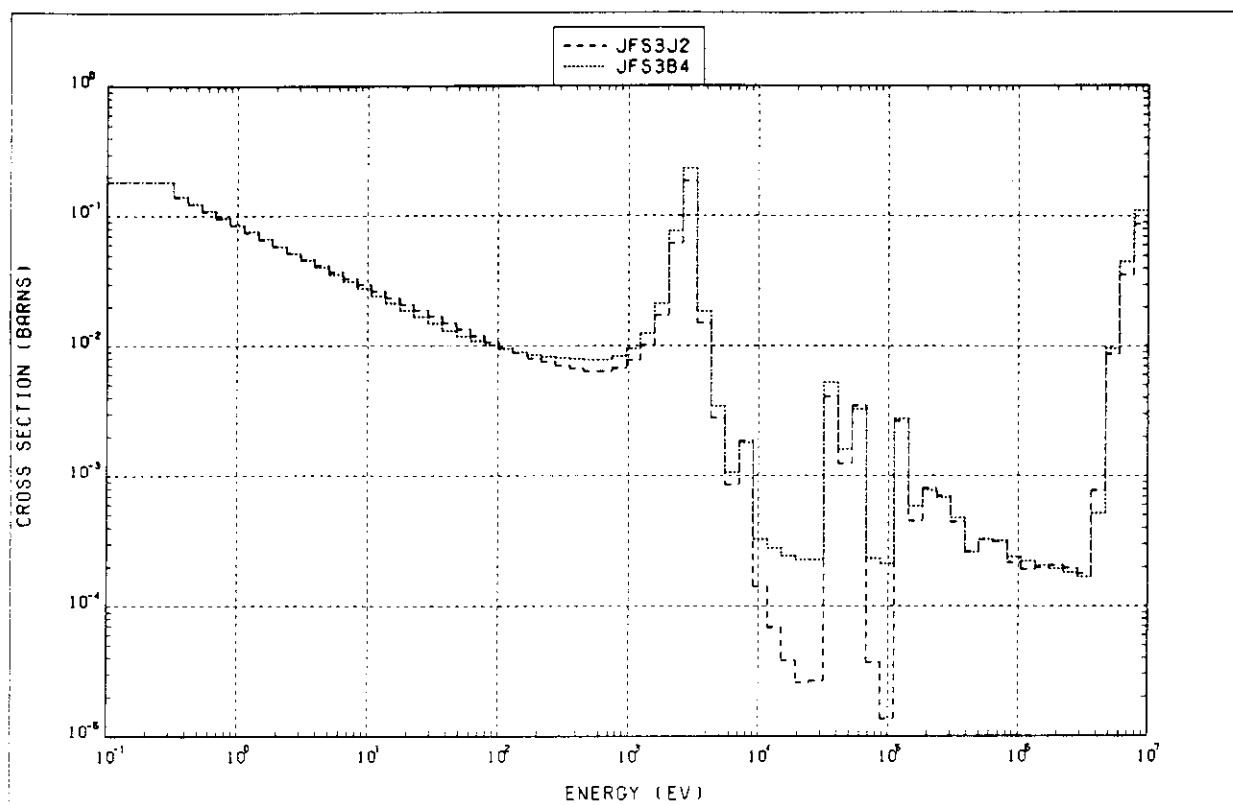


Fig. A.7 ABSORPTION CROSS SECTIONS OF SODIUM

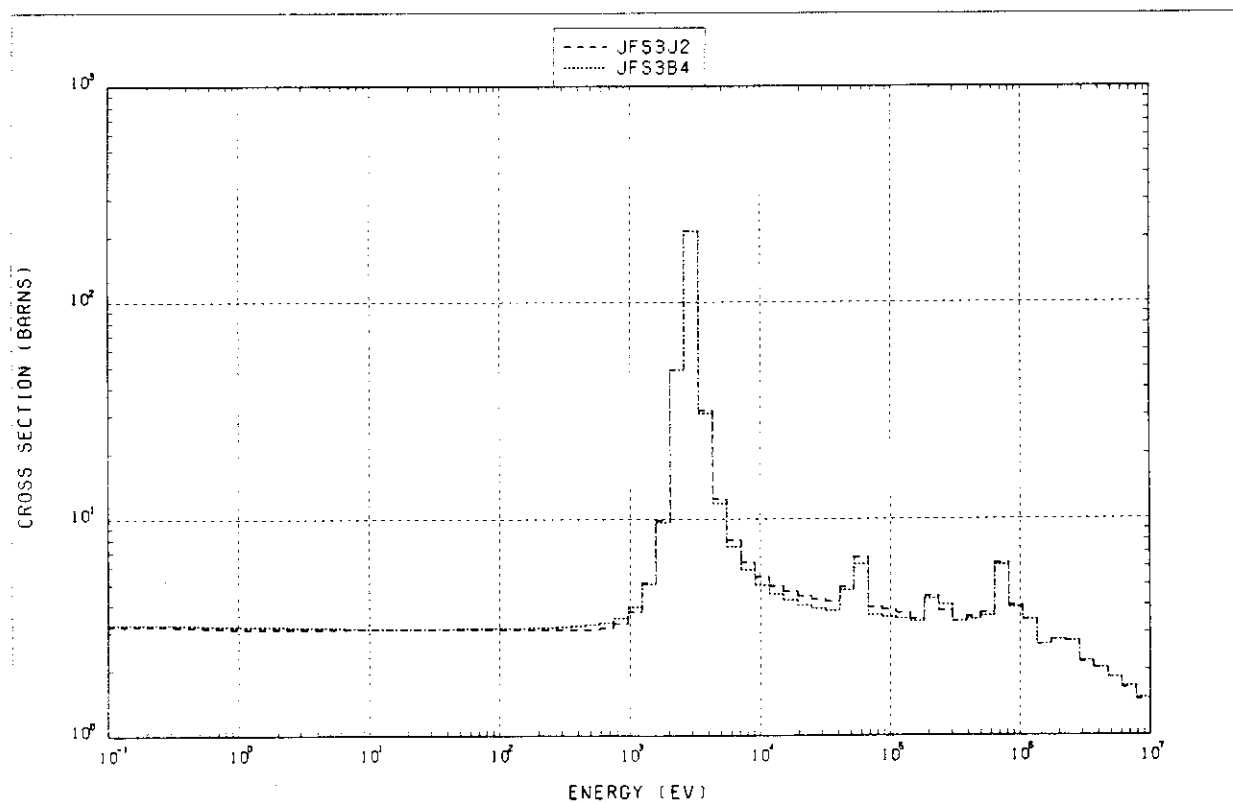


Fig. A.8 ELASTIC SCATTERING CROSS SECTIONS OF SODIUM

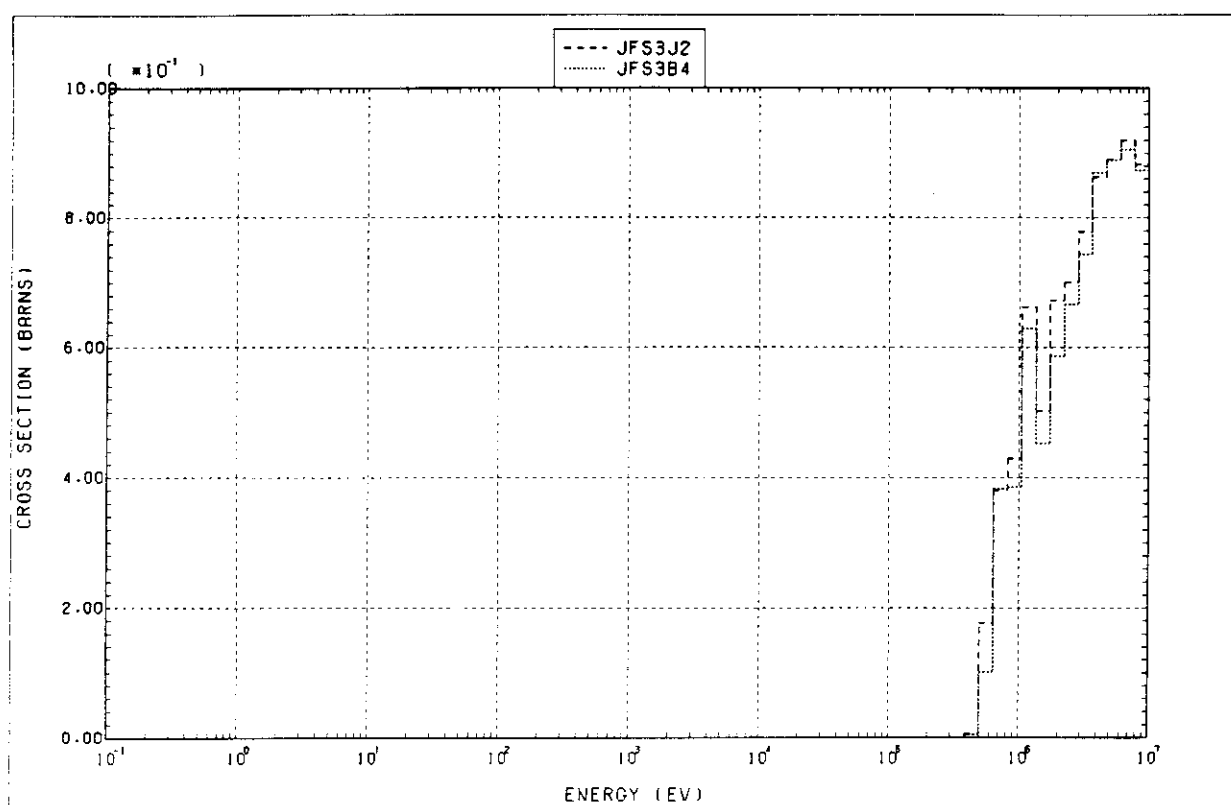


Fig. A.9 INELASTIC SCATTERING CROSS SECTIONS OF SODIUM

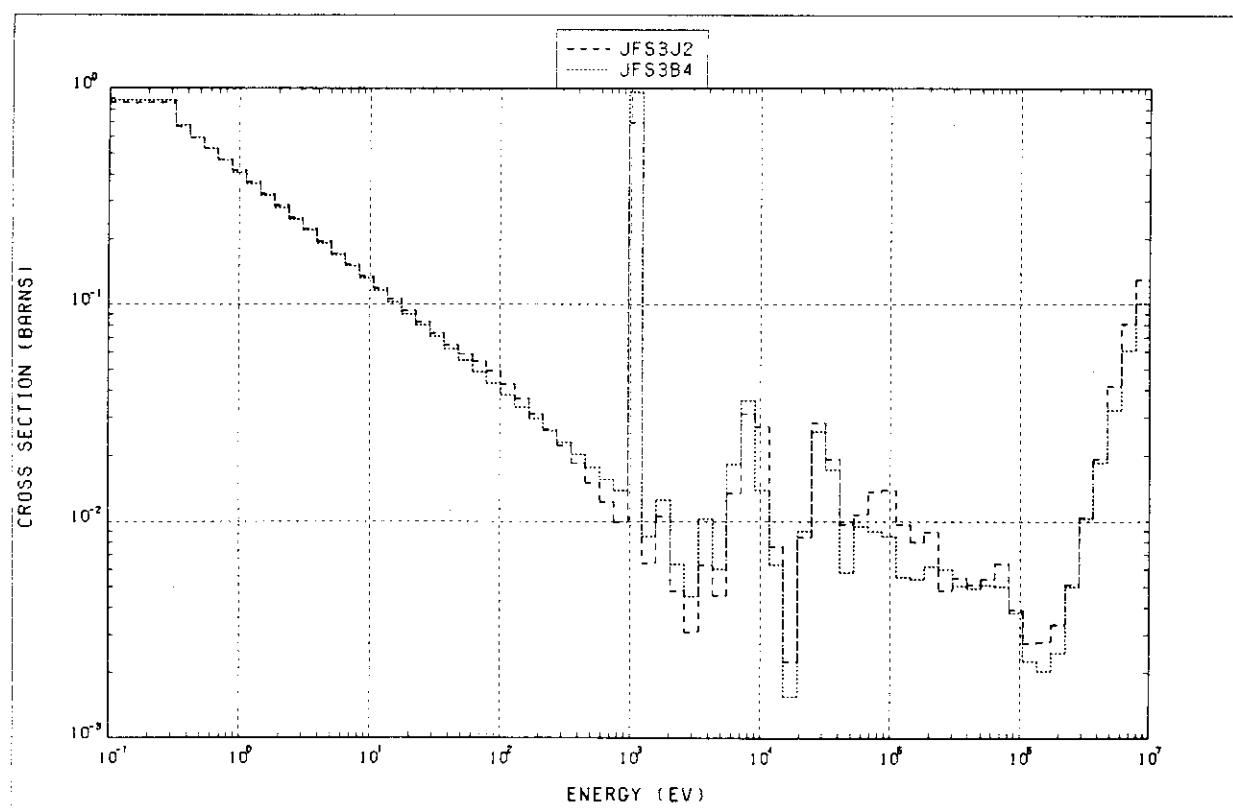


Fig. A.10 ABSORPTION CROSS SECTIONS OF IRON

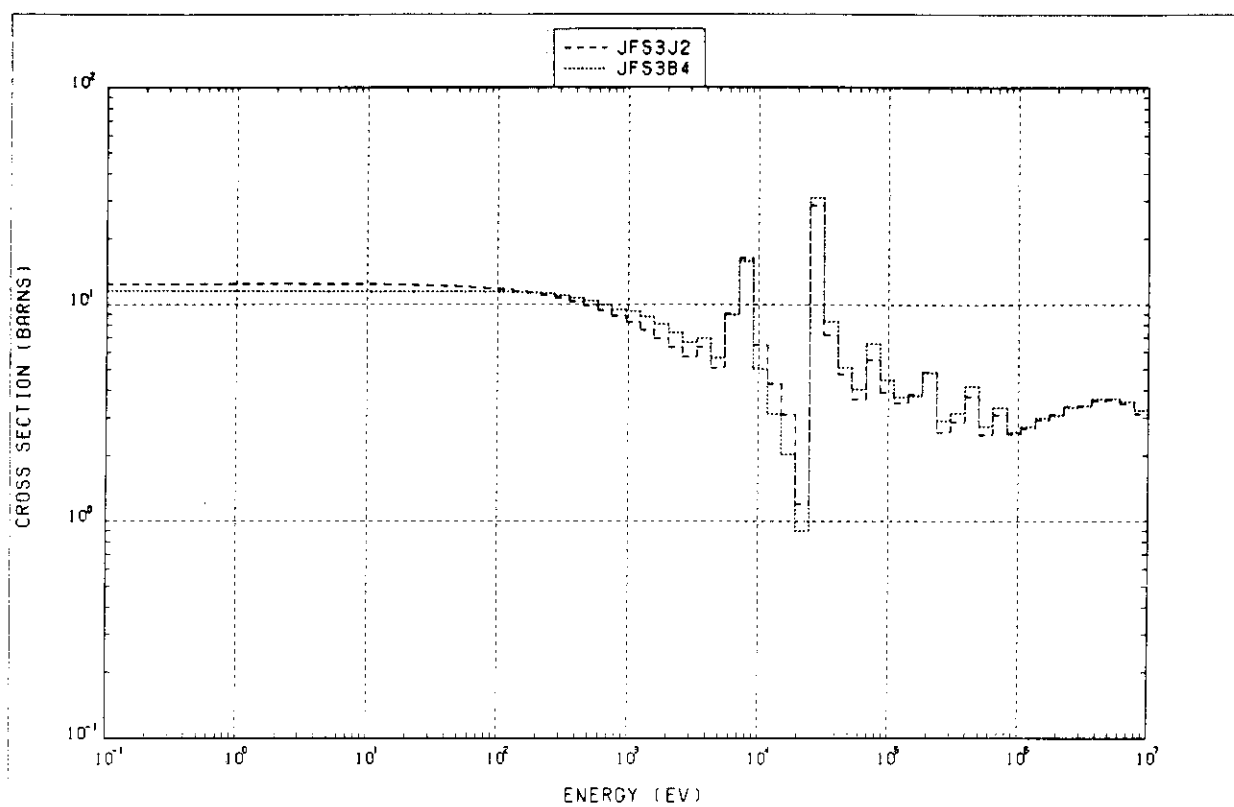


Fig. A.11 ELASTIC SCATTERING CROSS SECTIONS OF IRON

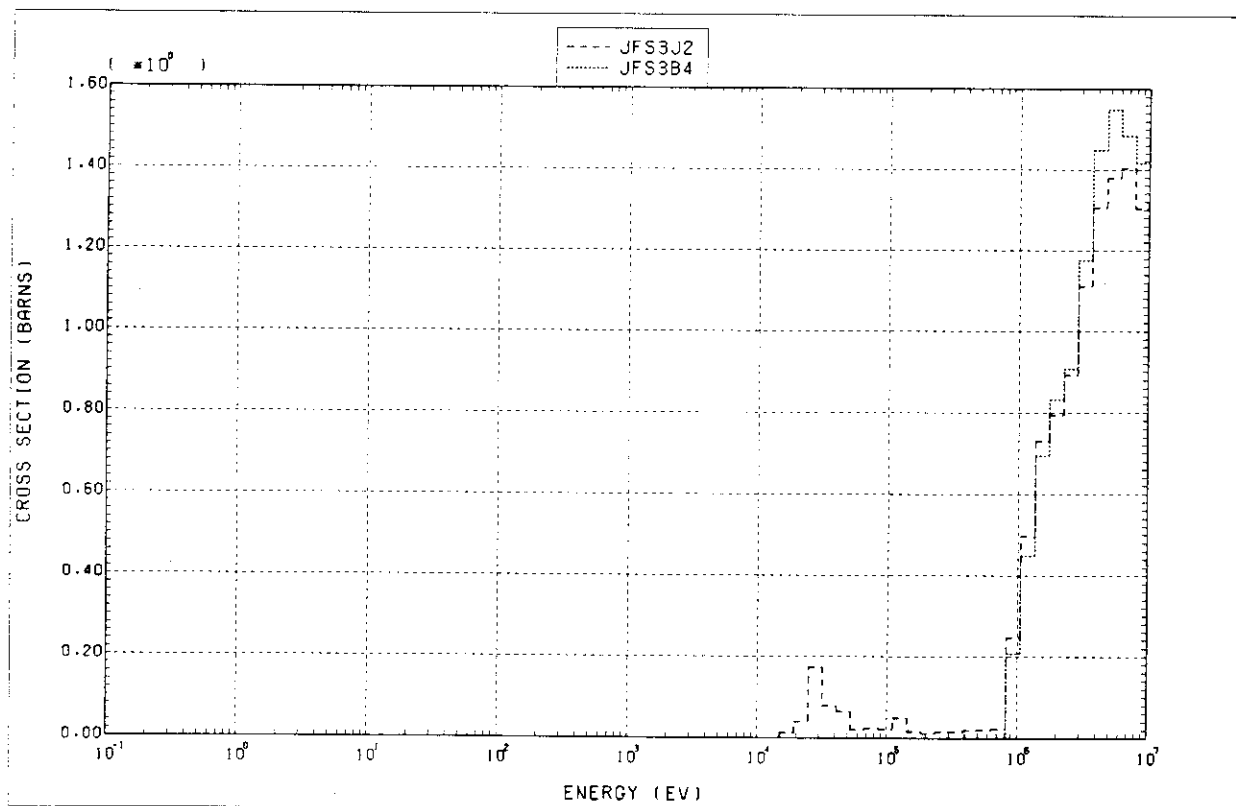


Fig. A.12 INELASTIC SCATTERING CROSS SECTIONS OF IRON

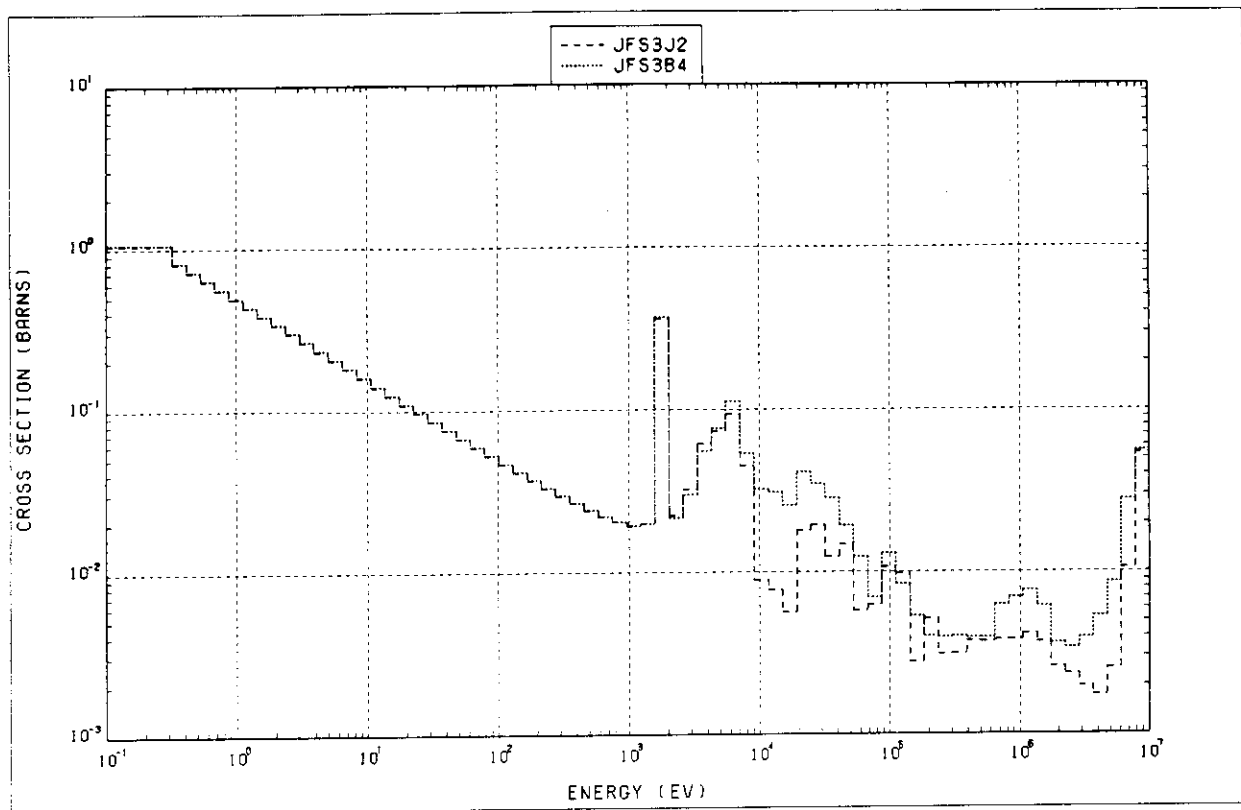


Fig. A.13 ABSORPTION CROSS SECTIONS OF CHROMIUM

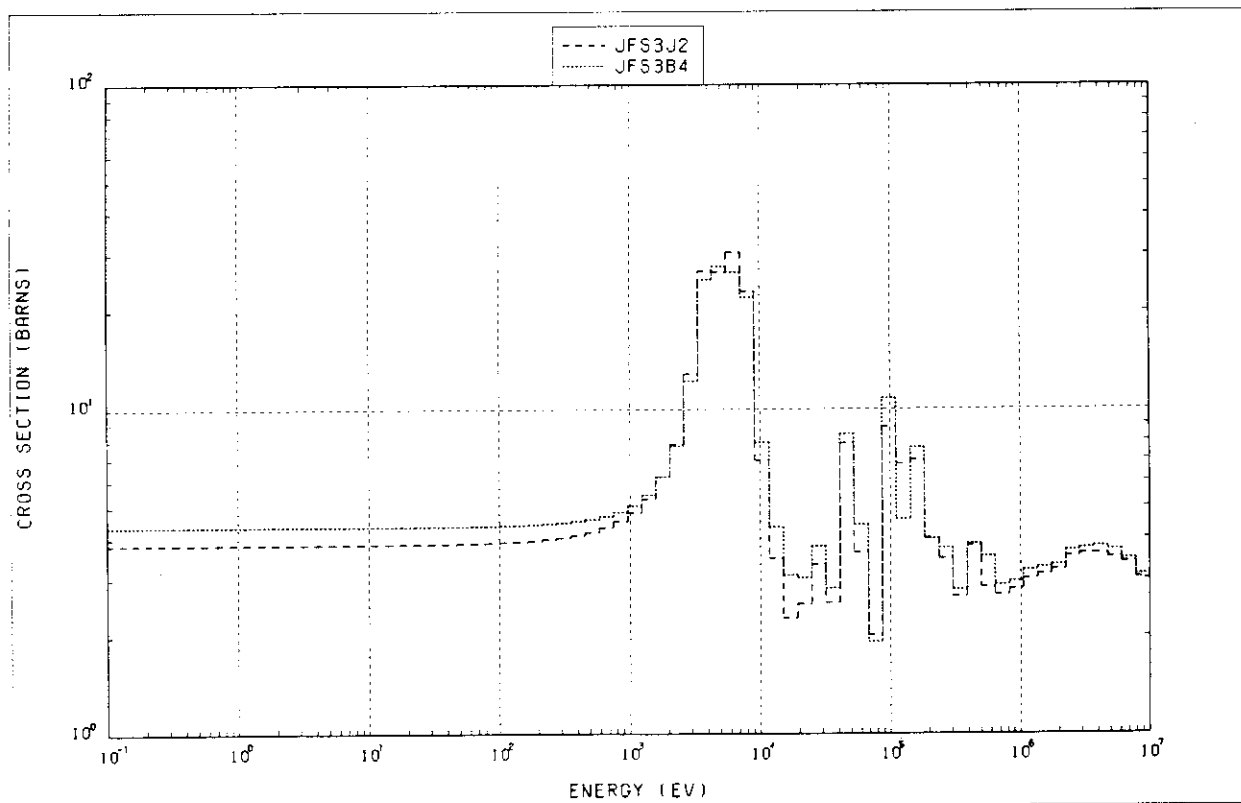


Fig. A.14 ELASTIC SCATTERING CROSS SECTIONS OF CHROMIUM

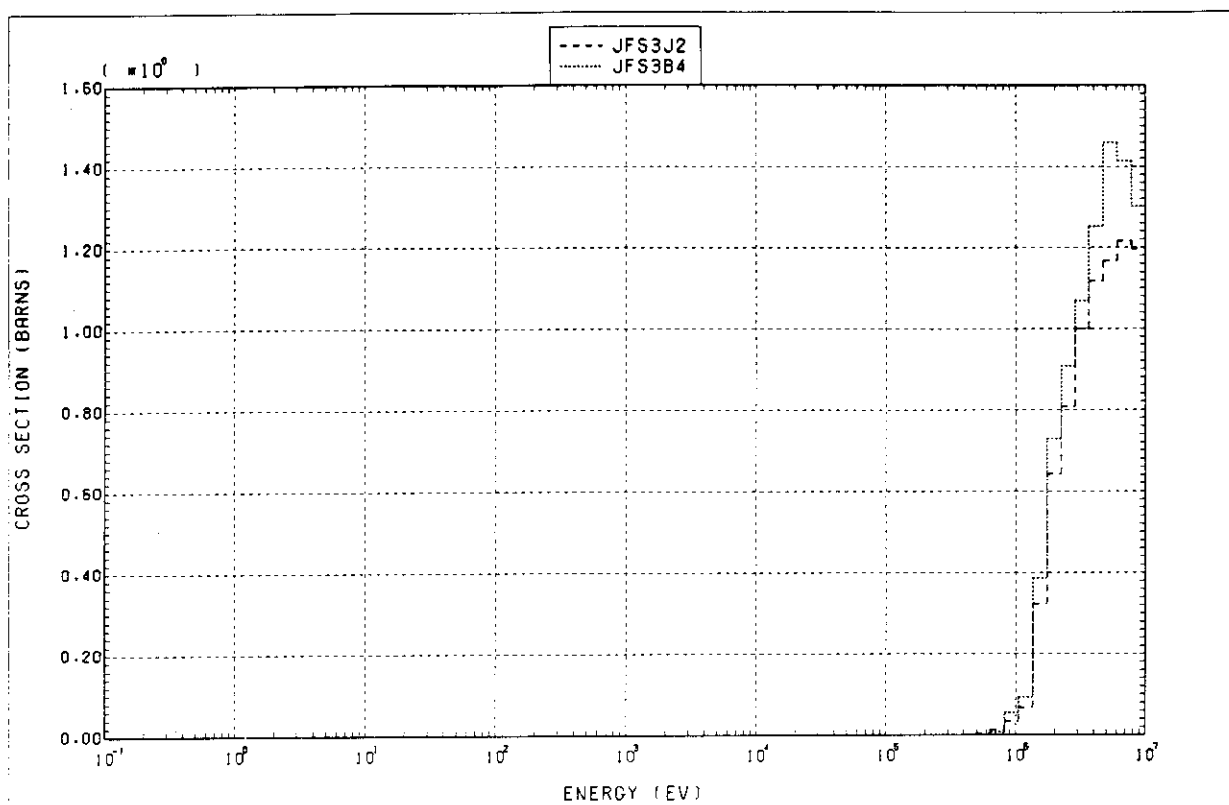


Fig. A.15 INELASTIC SCATTERING CROSS SECTIONS OF CHROMIUM

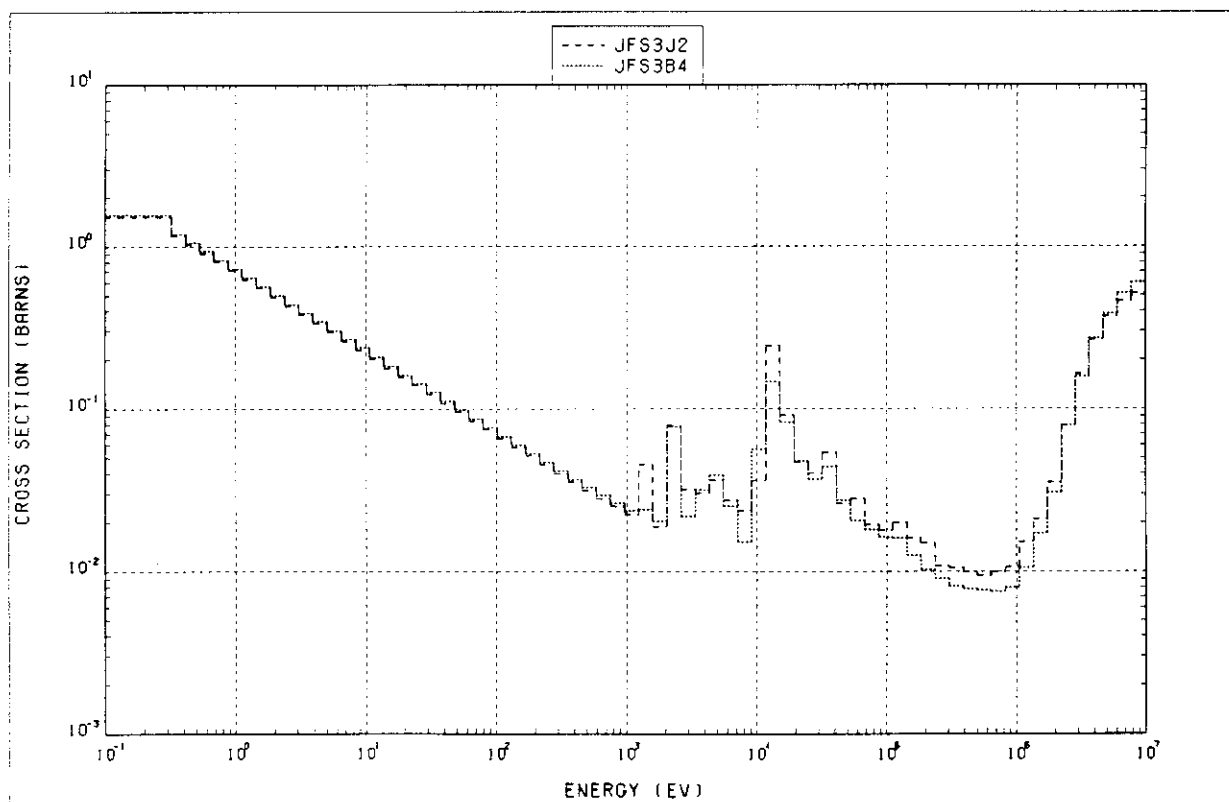


Fig. A.16 ABSORPTION CROSS SECTIONS OF NICKEL

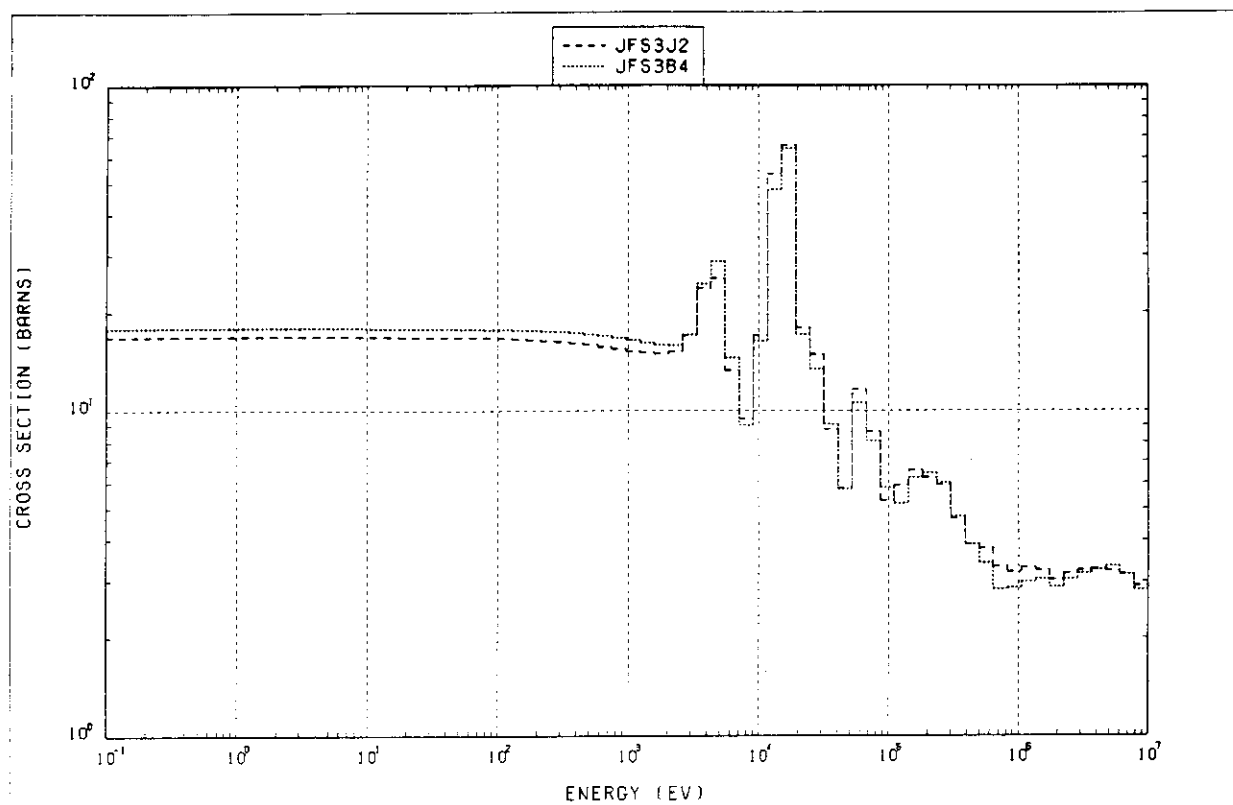


Fig. A.17 ELASTIC SCATTERING CROSS SECTIONS OF NICKEL

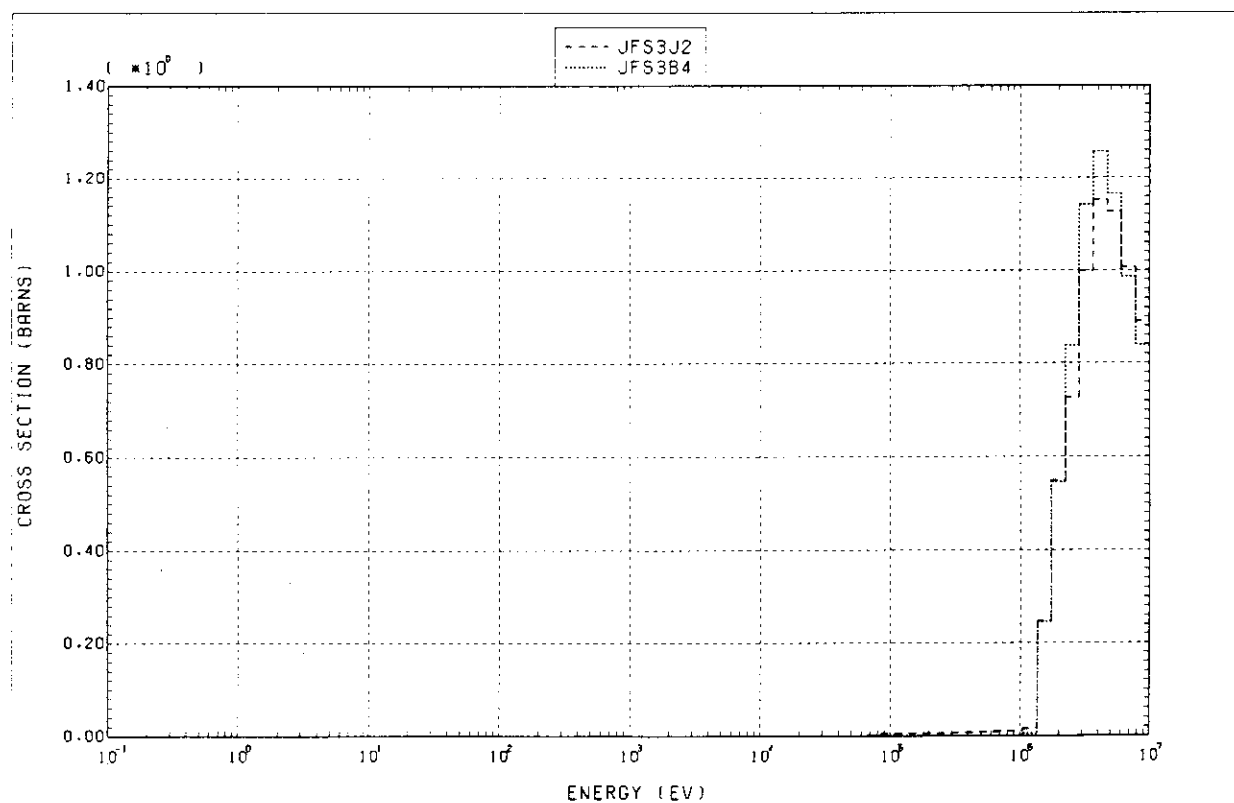


Fig. A.18 INELASTIC SCATTERING CROSS SECTIONS OF NICKEL

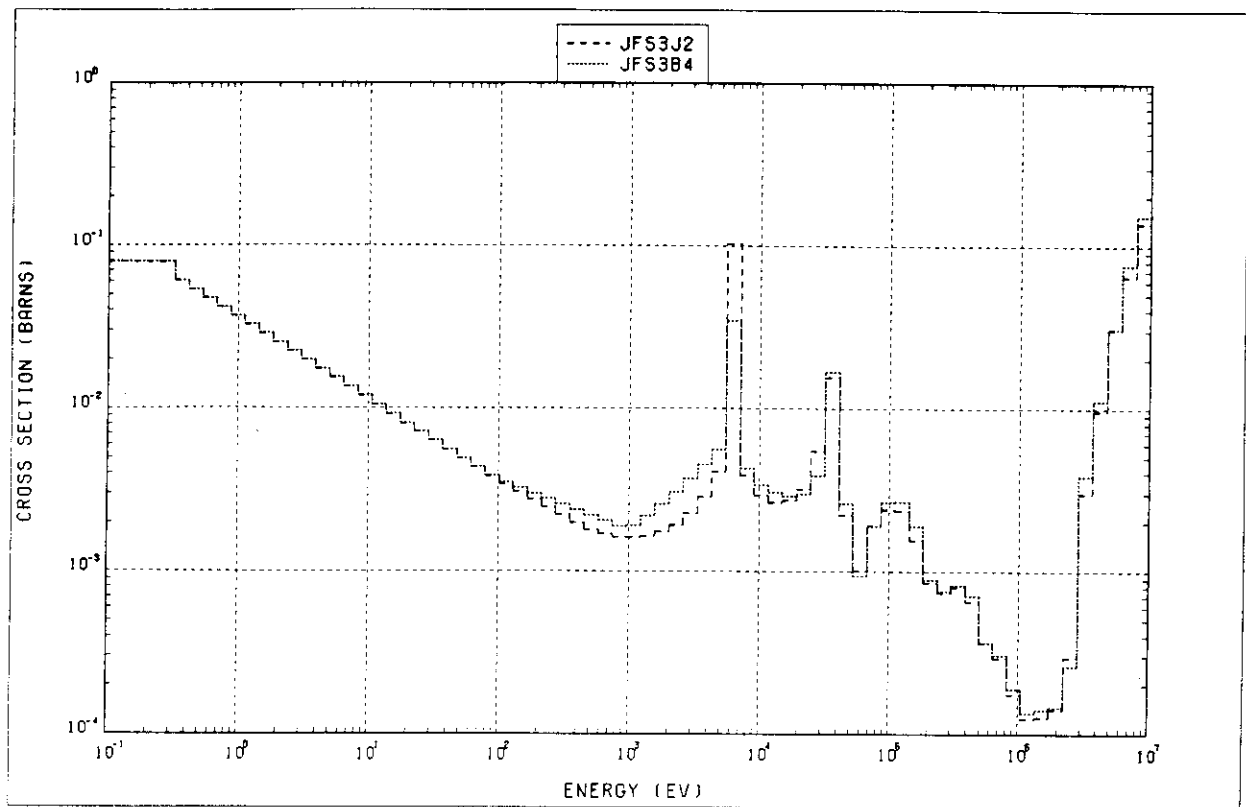


Fig. A.19 ABSORPTION CROSS SECTIONS OF ALUMINUM

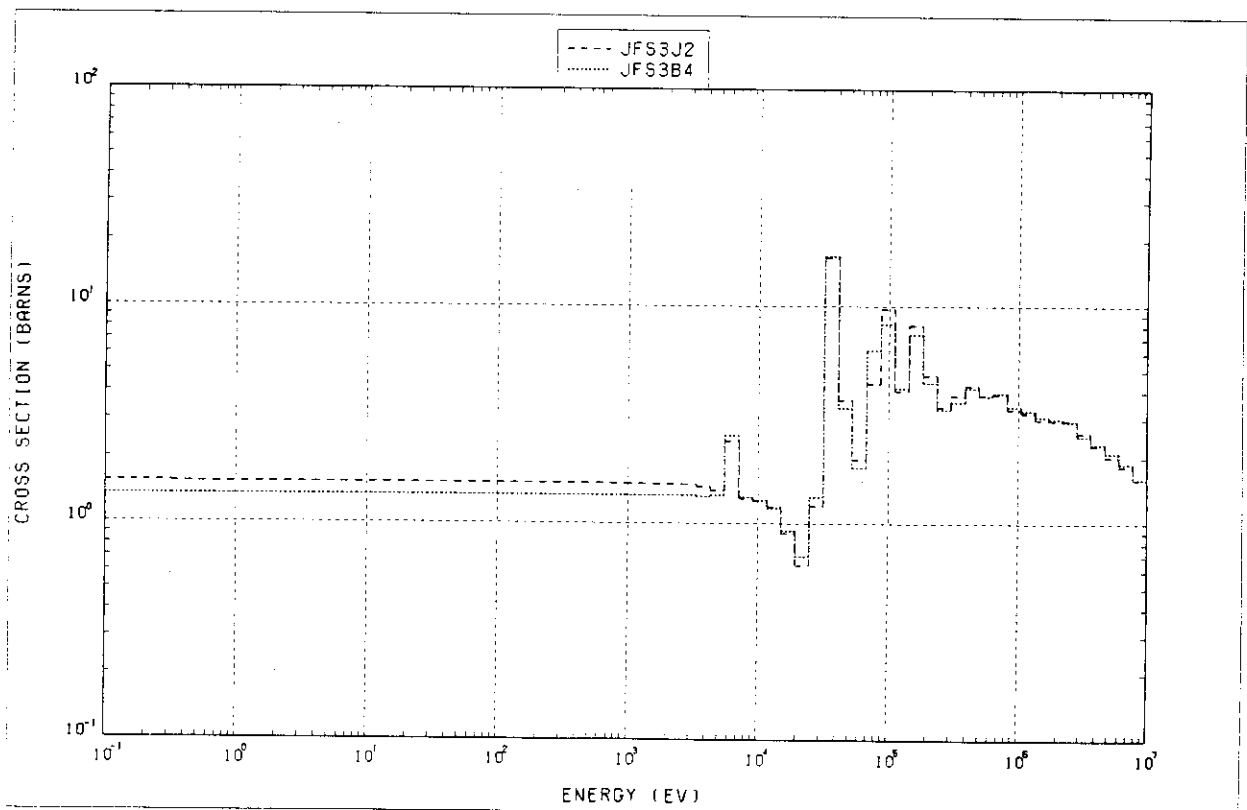


Fig. A.20 ELASTIC SCATTERING CROSS SECTIONS OF ALUMINUM

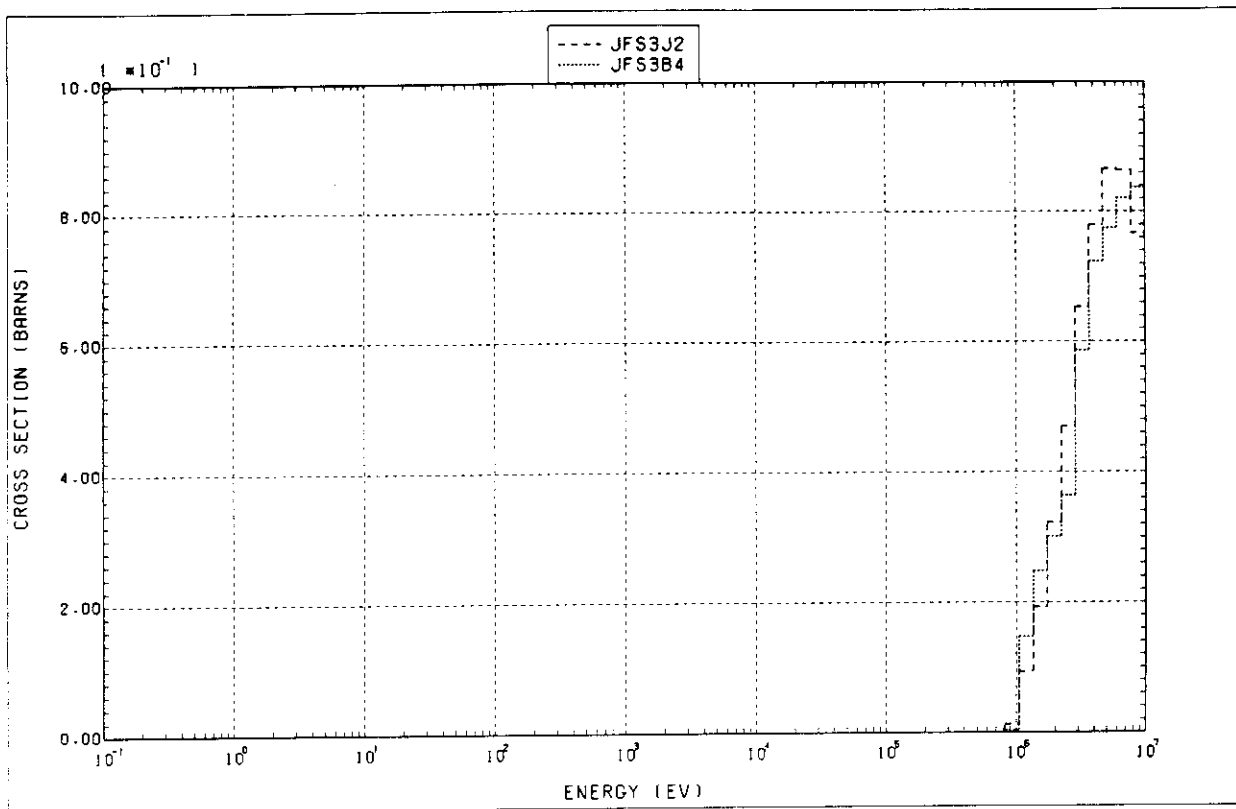


Fig. A.21 INELASTIC SCATTERING CROSS SECTIONS OF ALUMINUM

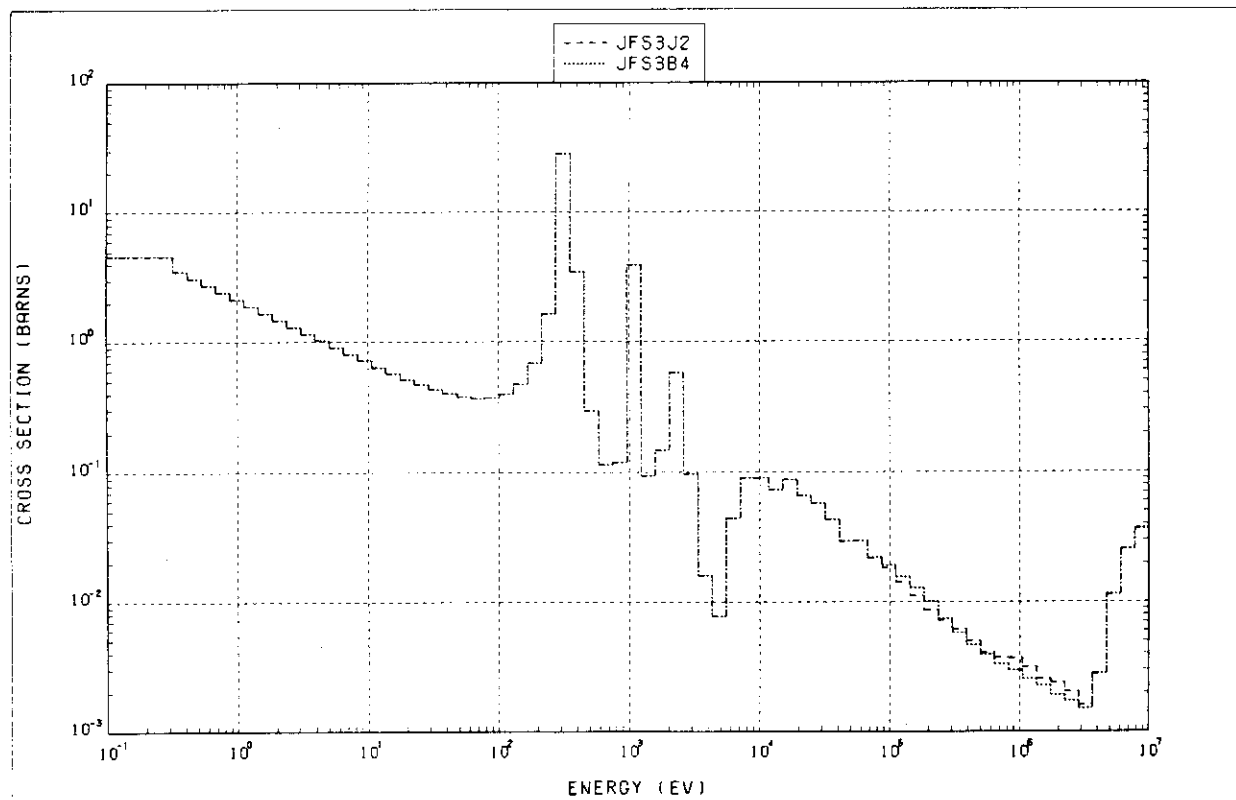


Fig. A.22 ABSORPTION CROSS SECTIONS OF MANGANESE

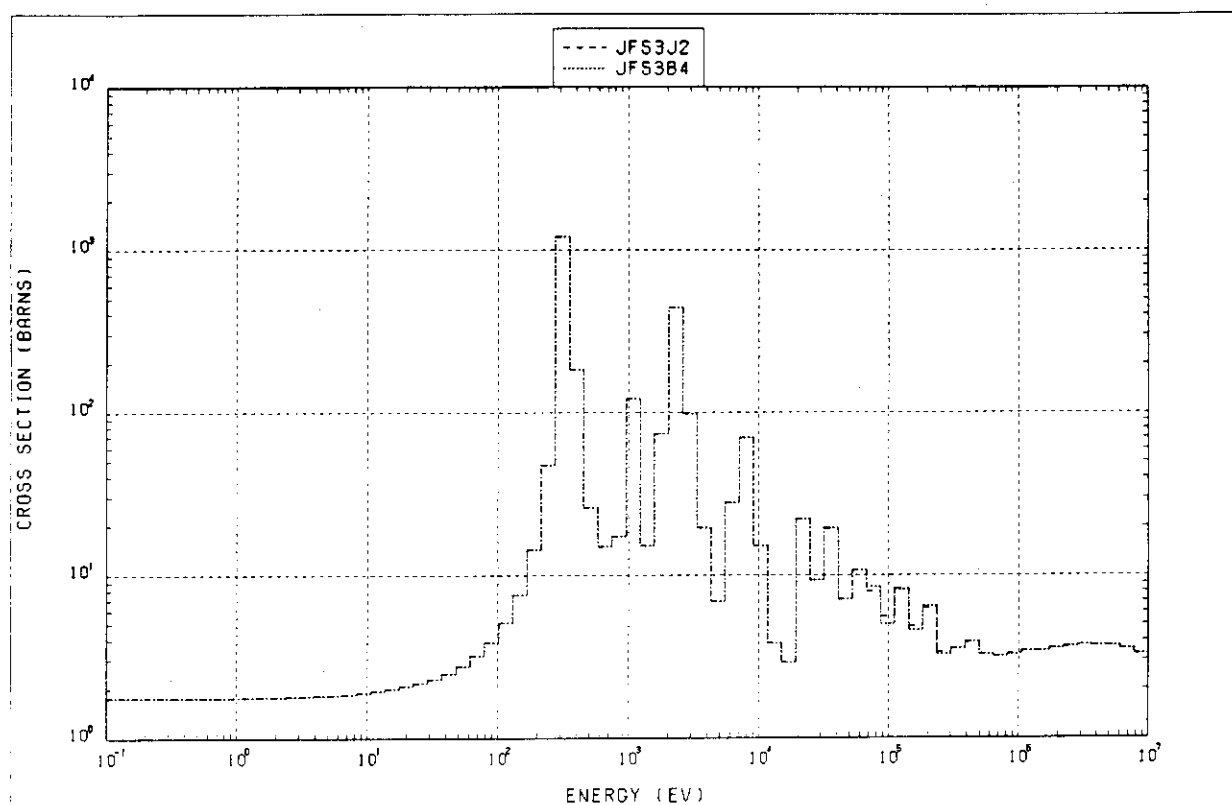


Fig. A.23 ELASTIC SCATTERING CROSS SECTIONS OF MANGANESE

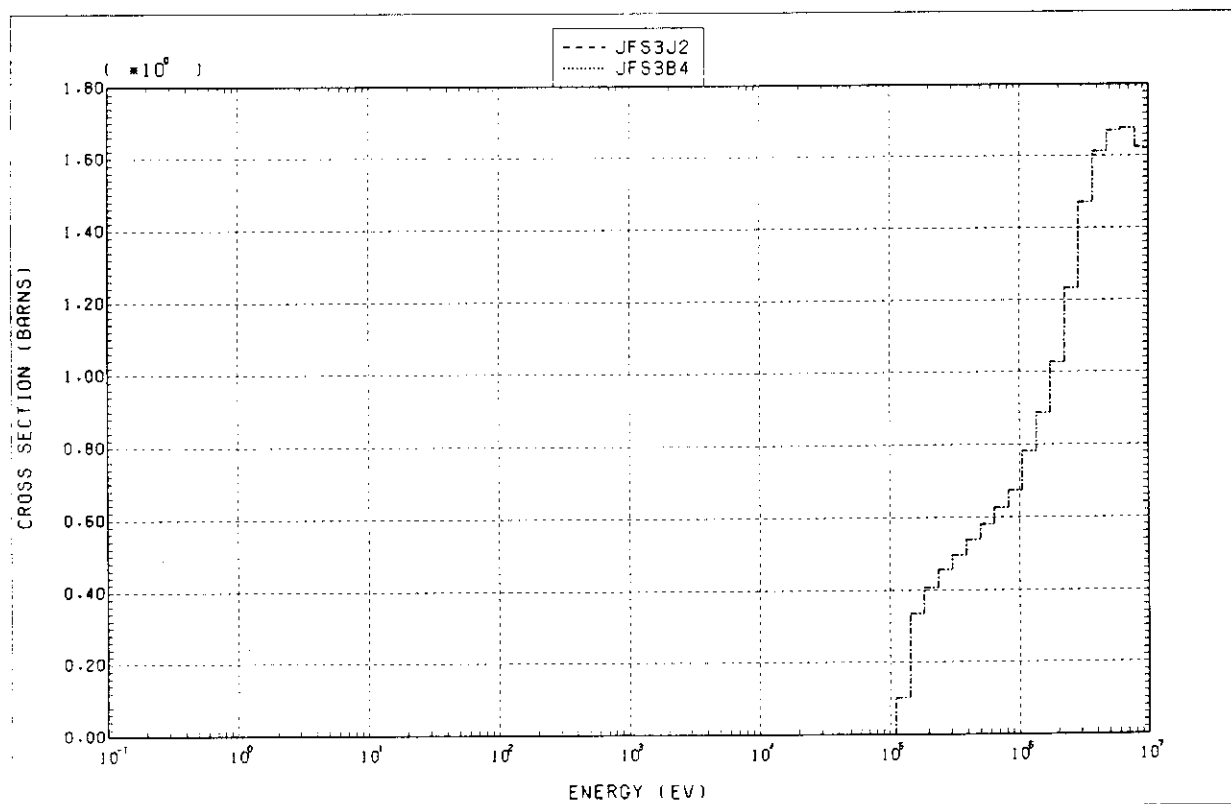


Fig. A.24 INELASTIC SCATTERING CROSS SECTIONS OF MANGANESE

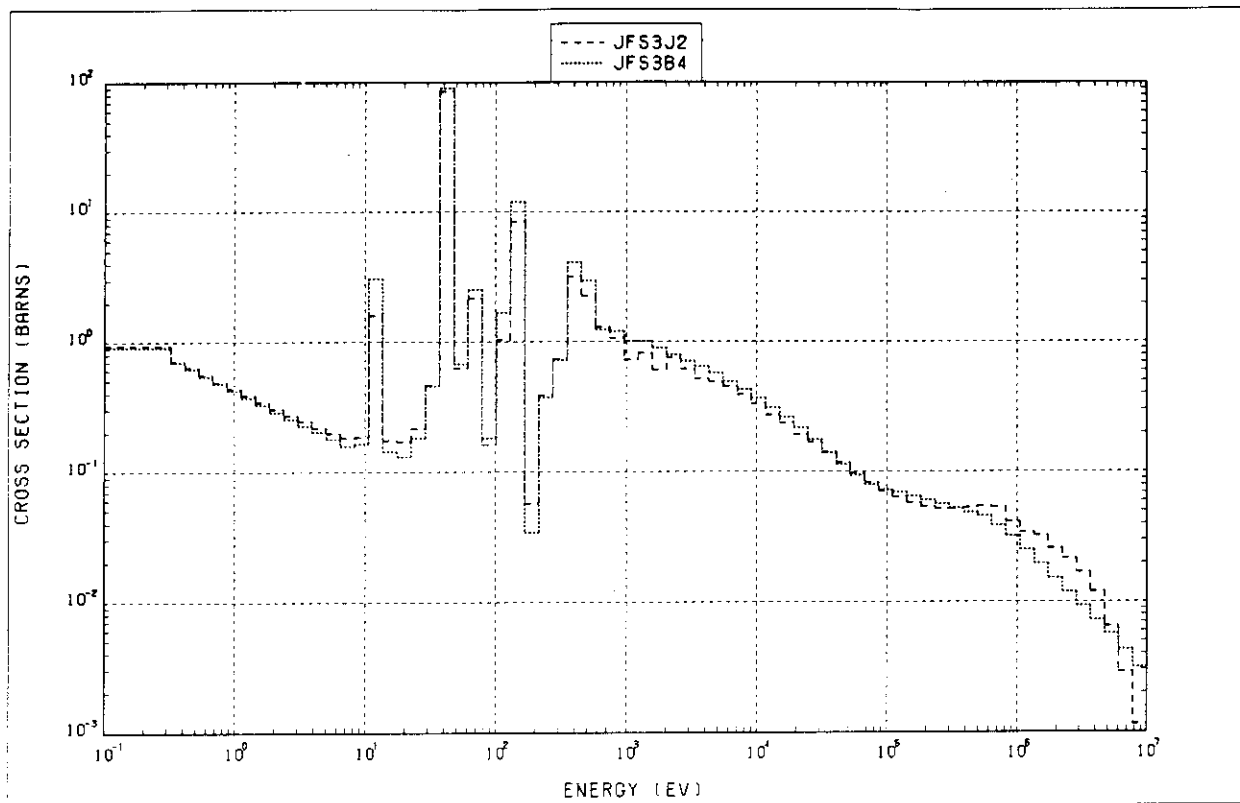


Fig. A.25 ABSORPTION CROSS SECTIONS OF MOLYBDENUM

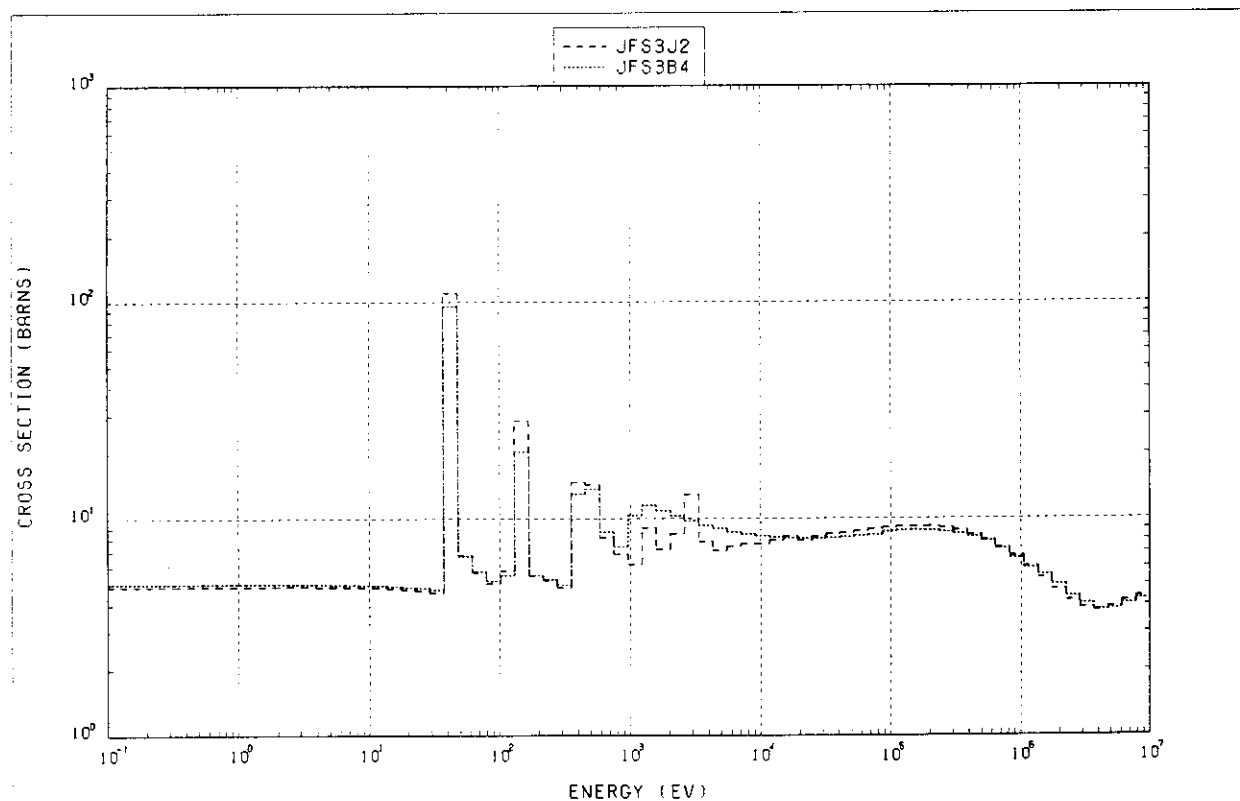


Fig. A.26 ELASTIC SCATTERING CROSS SECTIONS OF MOLYBDENUM

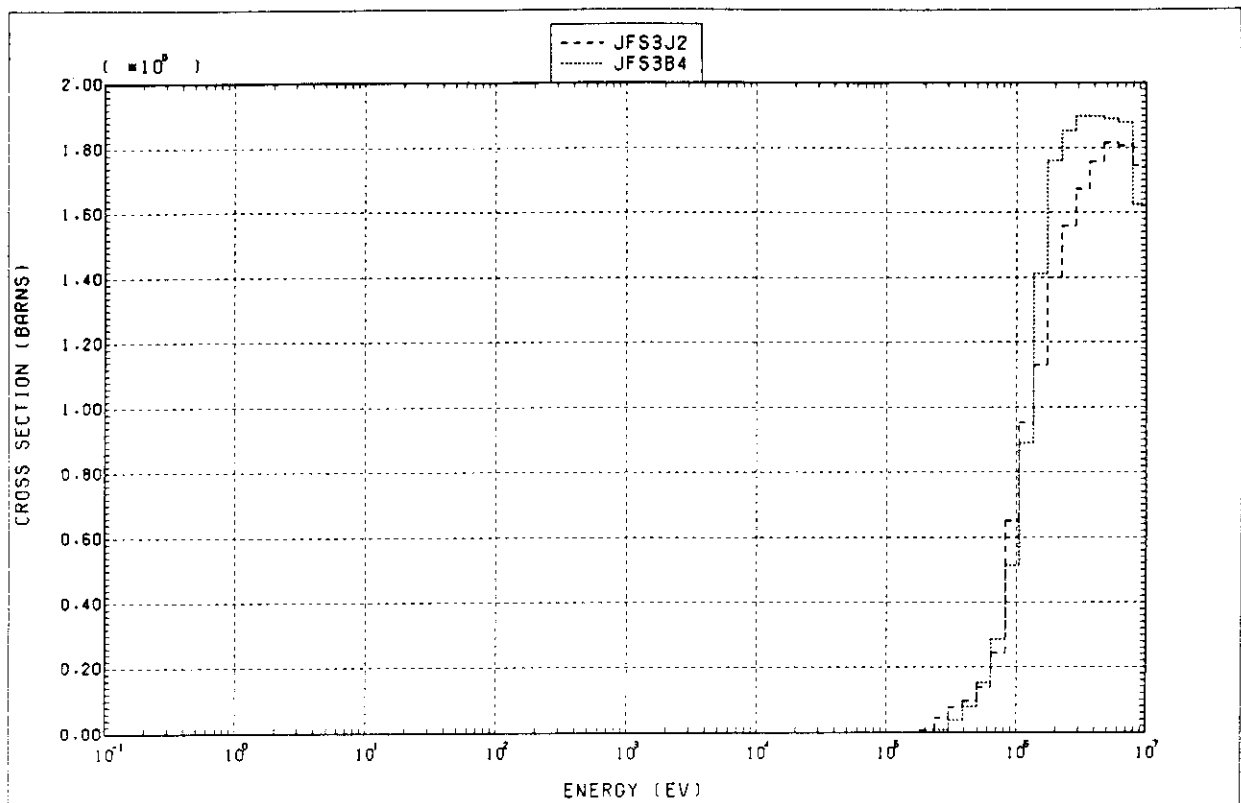


Fig. A.27 INELASTIC SCATTERING CROSS SECTIONS OF MOLYBDENUM

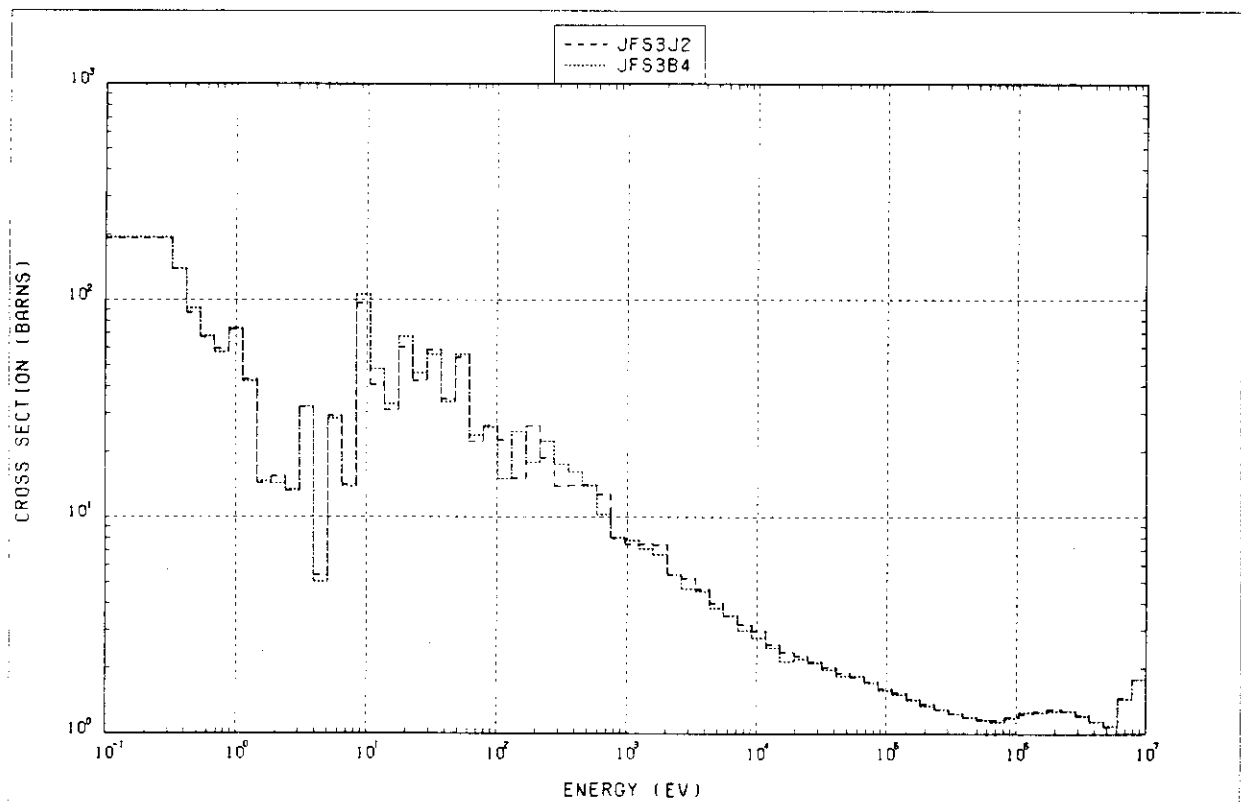


Fig. A.28 FISSION CROSS SECTIONS OF U-235

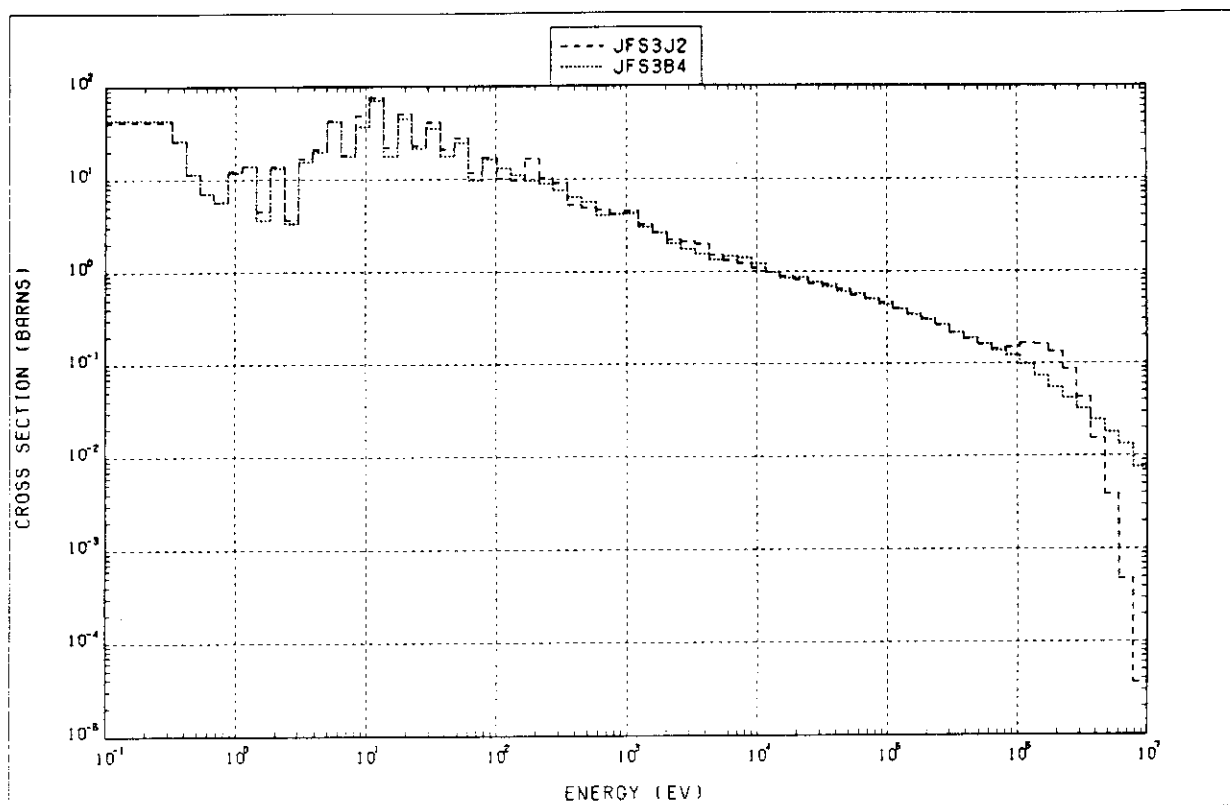


Fig. A.29 CAPTURE CROSS SECTIONS OF U-235

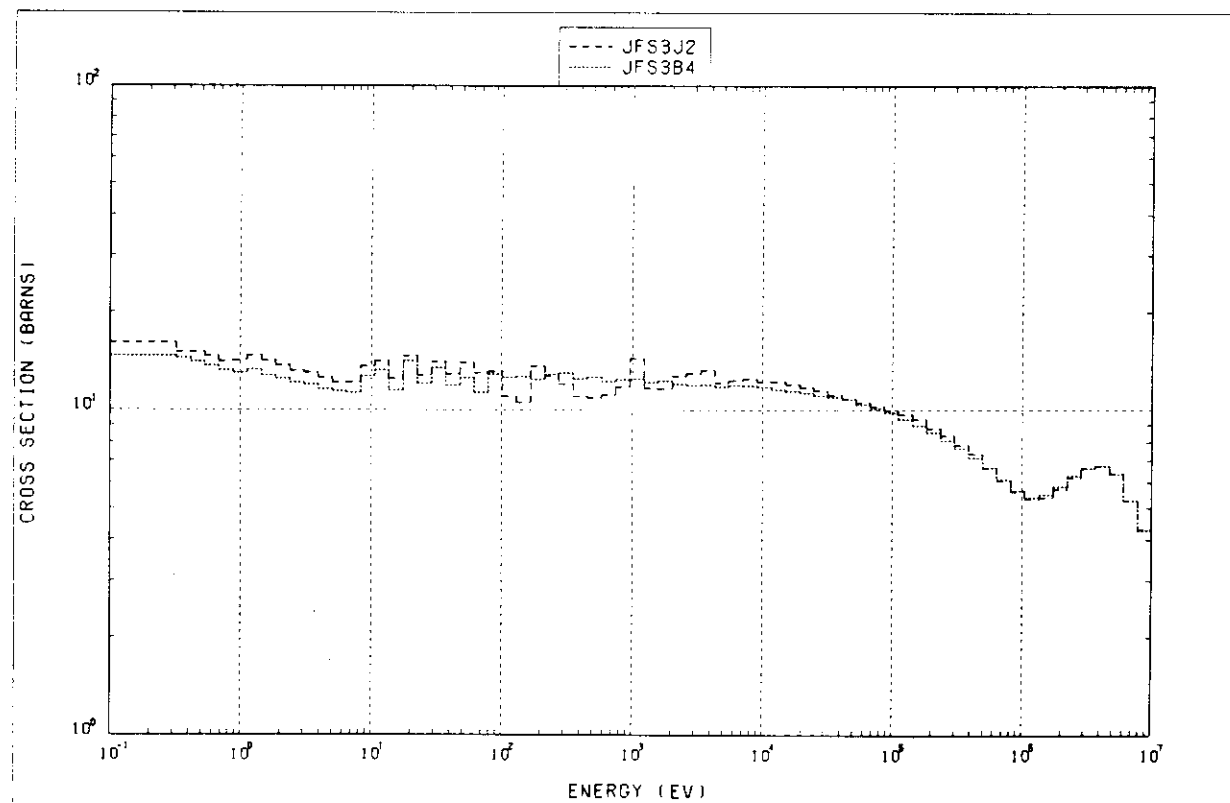


Fig. A.30 ELASTIC SCATTERING CROSS SECTIONS OF U-235

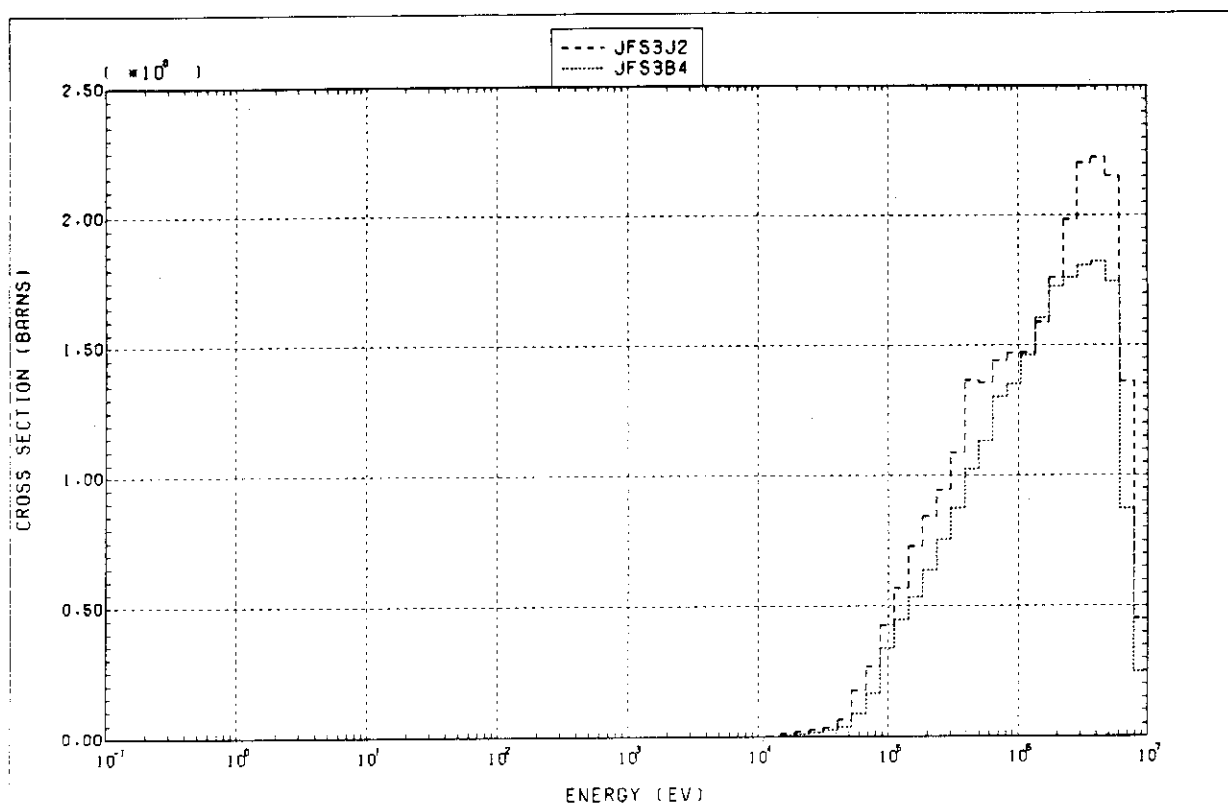


Fig. A.31 INELASTIC SCATTERING CROSS SECTIONS OF U-235

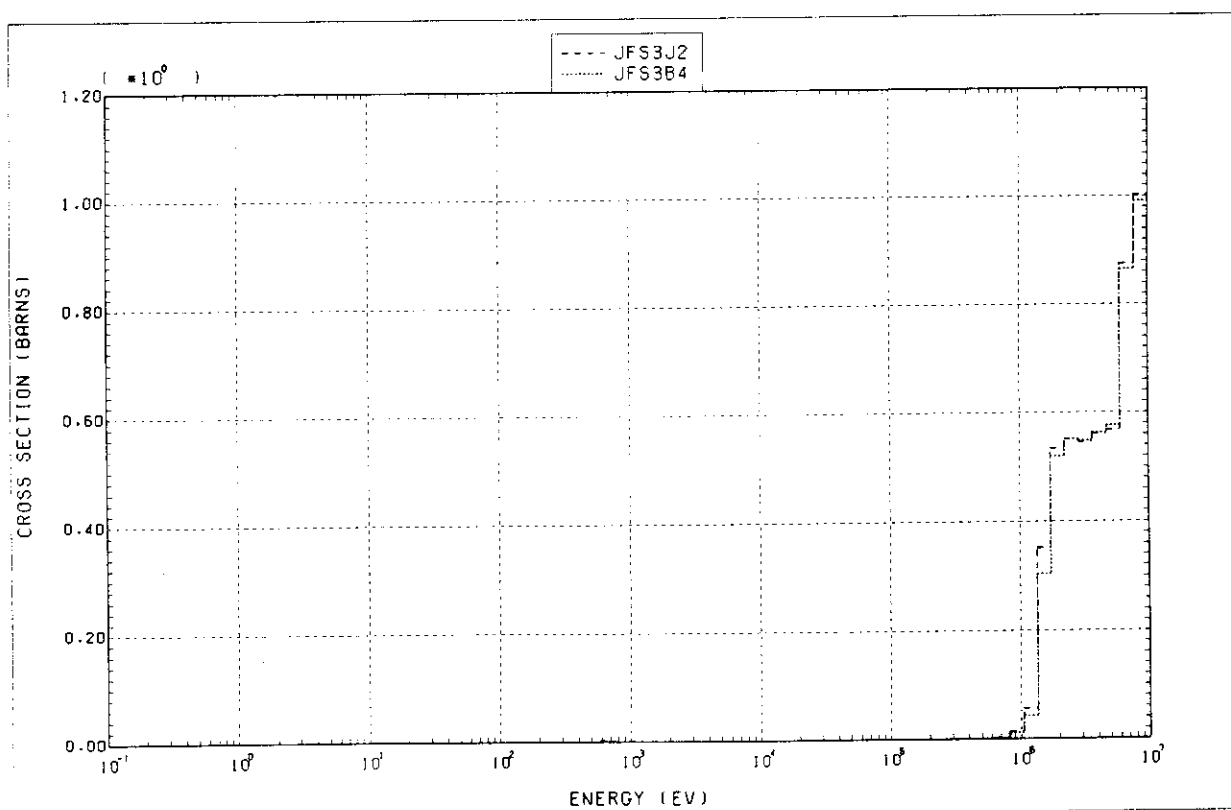


Fig. A.32 FISSION CROSS SECTIONS OF U-238

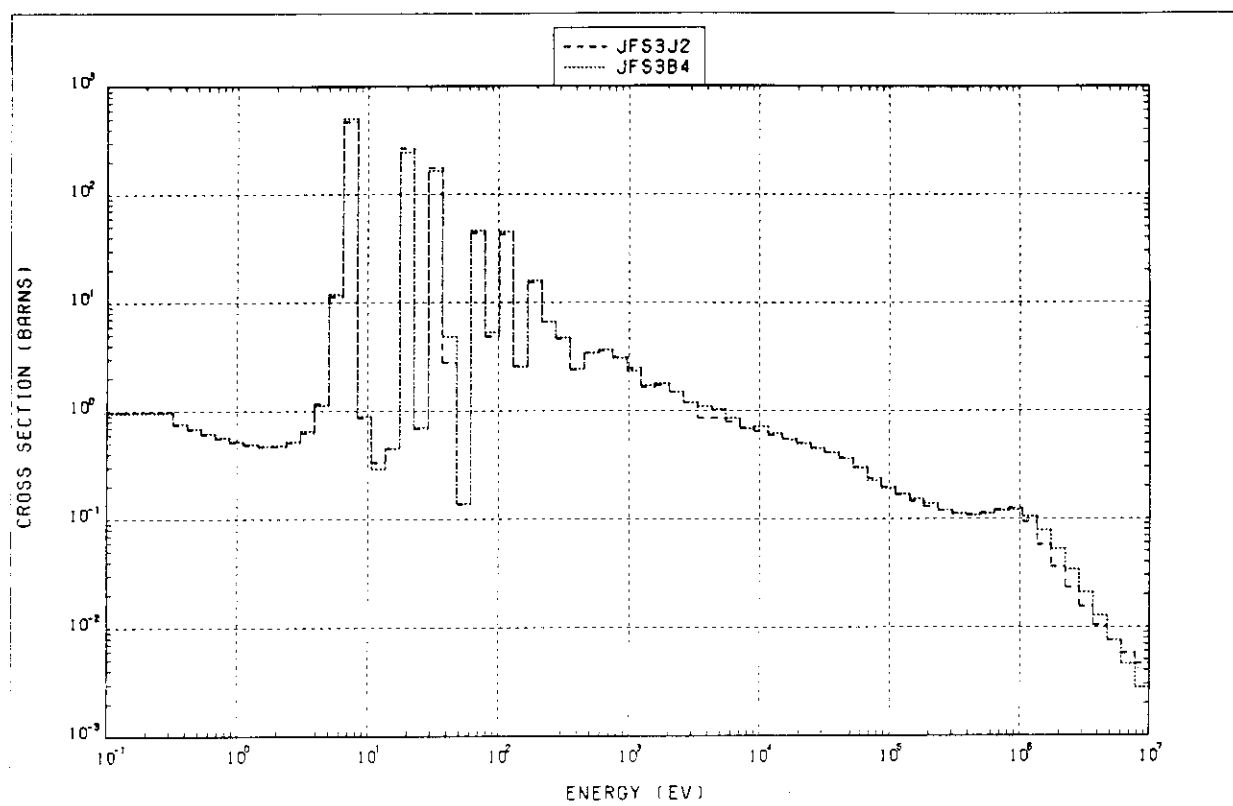


Fig. A.33 CAPTURE CROSS SECTIONS OF U-238

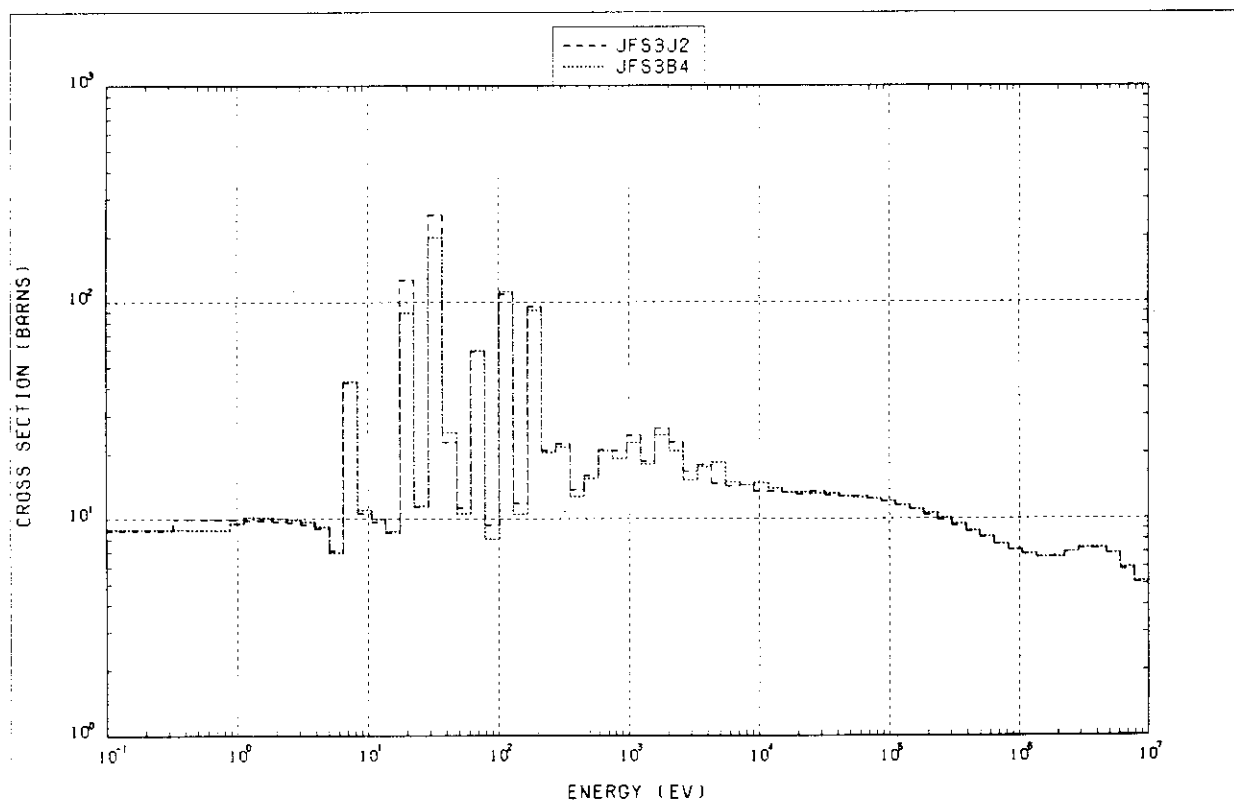


Fig. A.34 ELASTIC SCATTERING CROSS SECTIONS OF U-238

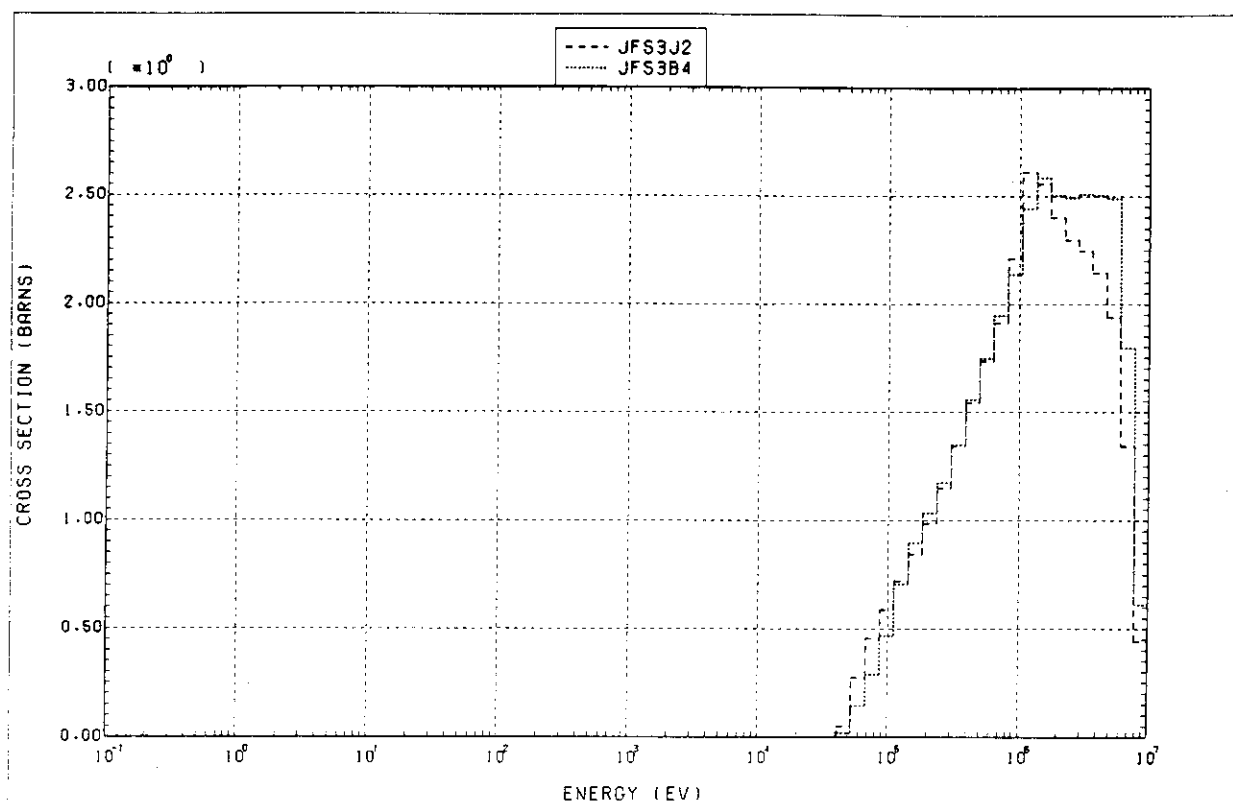


Fig. A.35 INELASTIC SCATTERING CROSS SECTIONS OF U-238

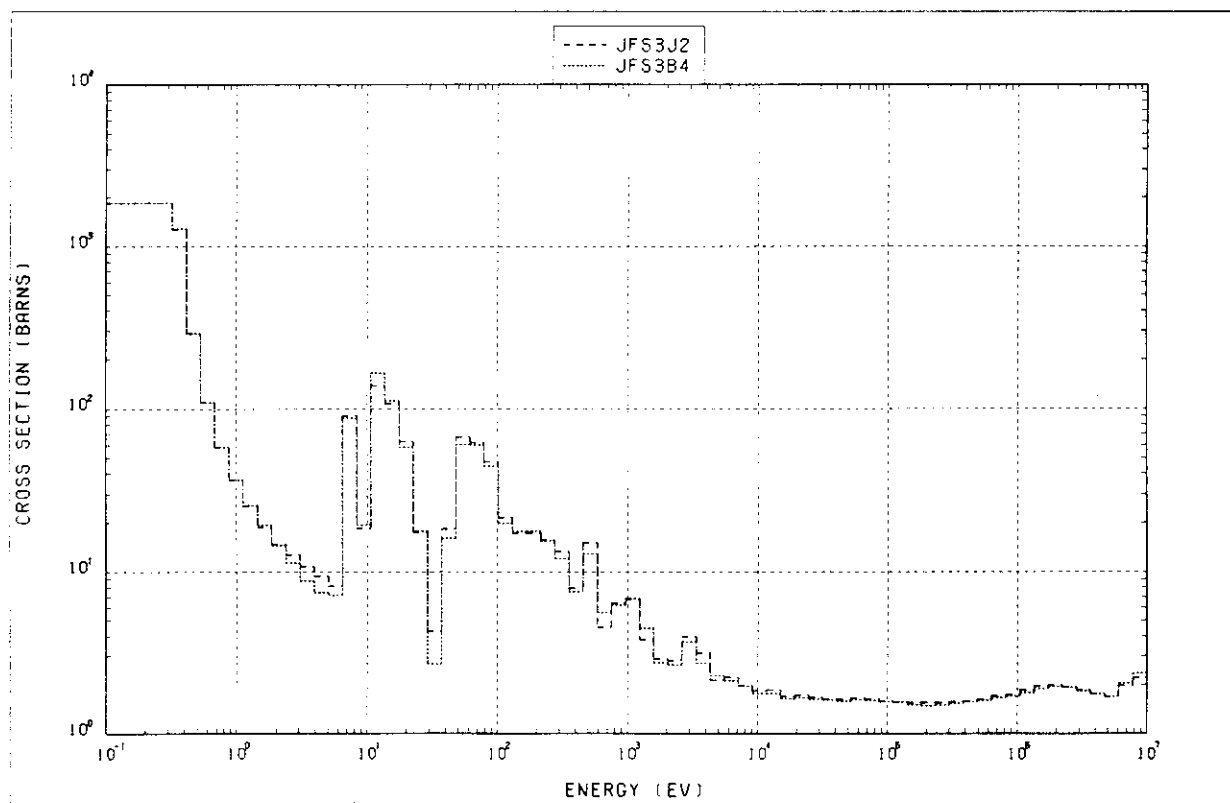


Fig. A.36 FISSION CROSS SECTIONS OF PU-239

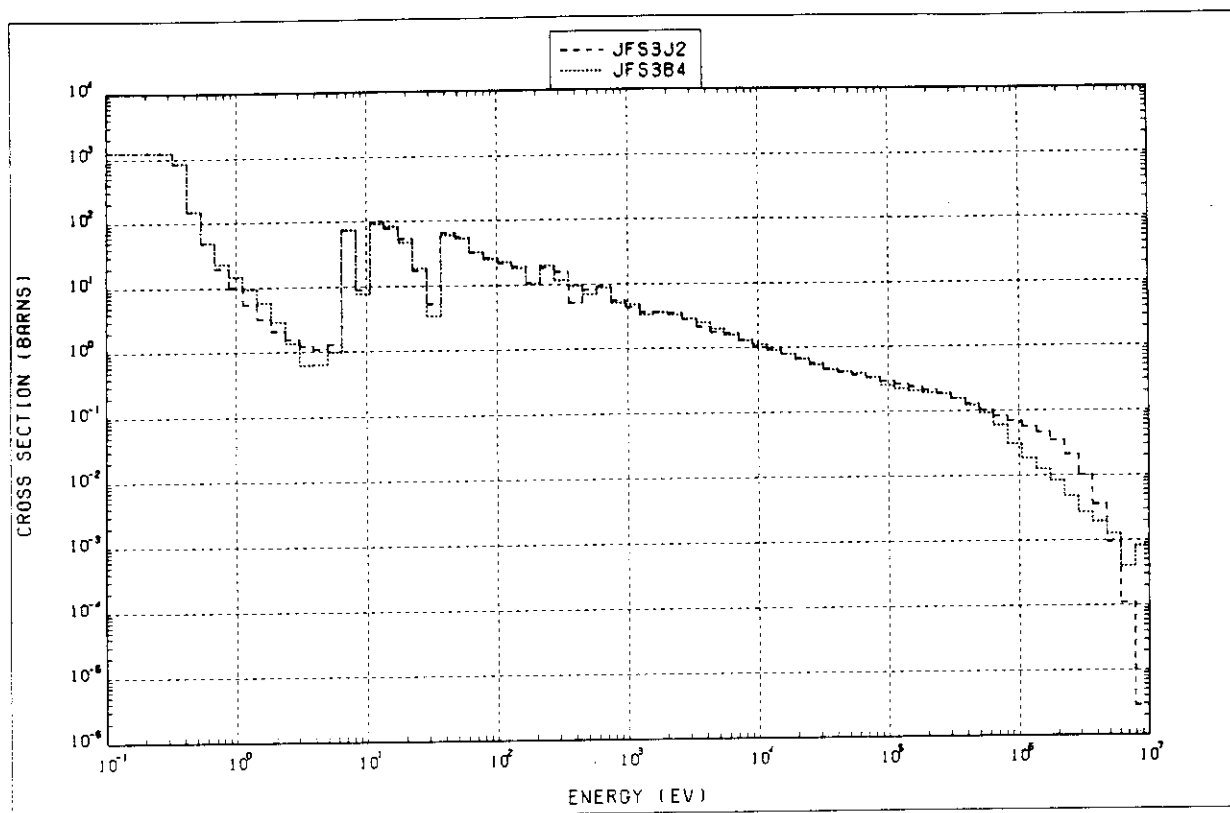


Fig. A.37 CAPTURE CROSS SECTIONS OF PU-239

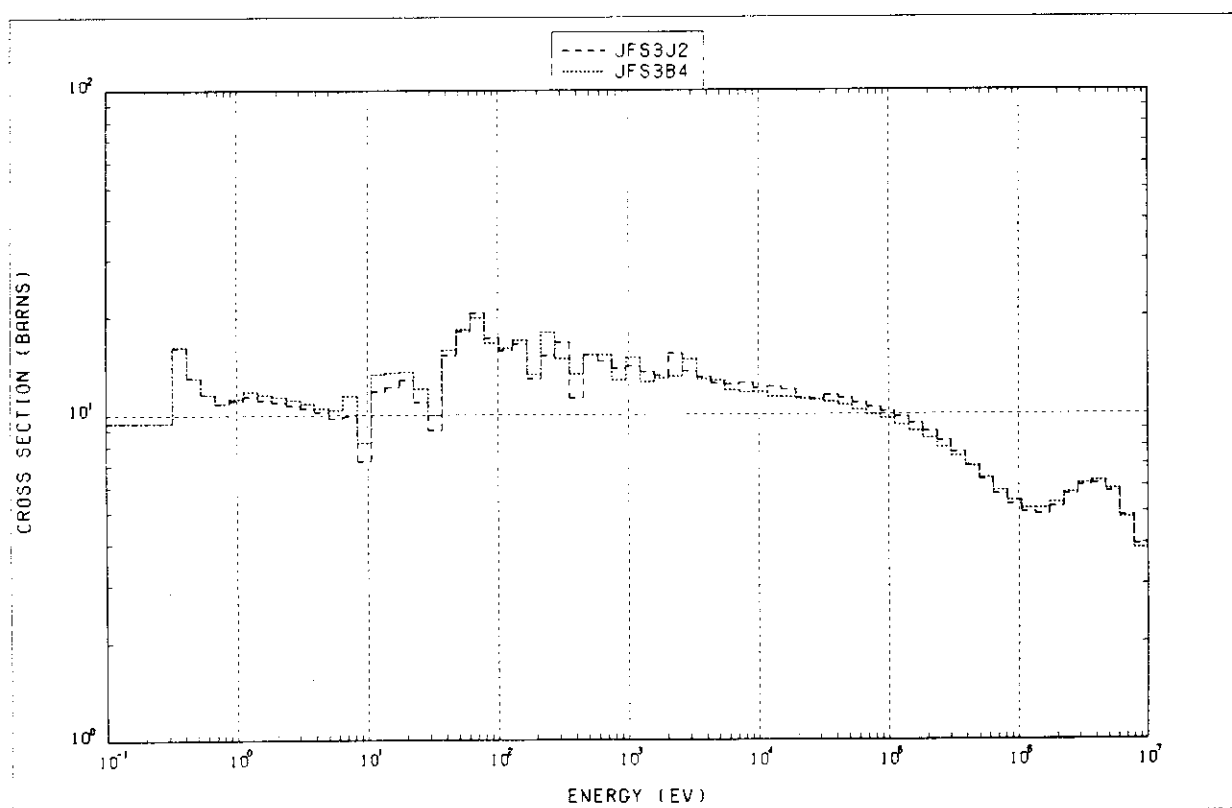


Fig. A.38 ELASTIC SCATTERING CROSS SECTIONS OF PU-239

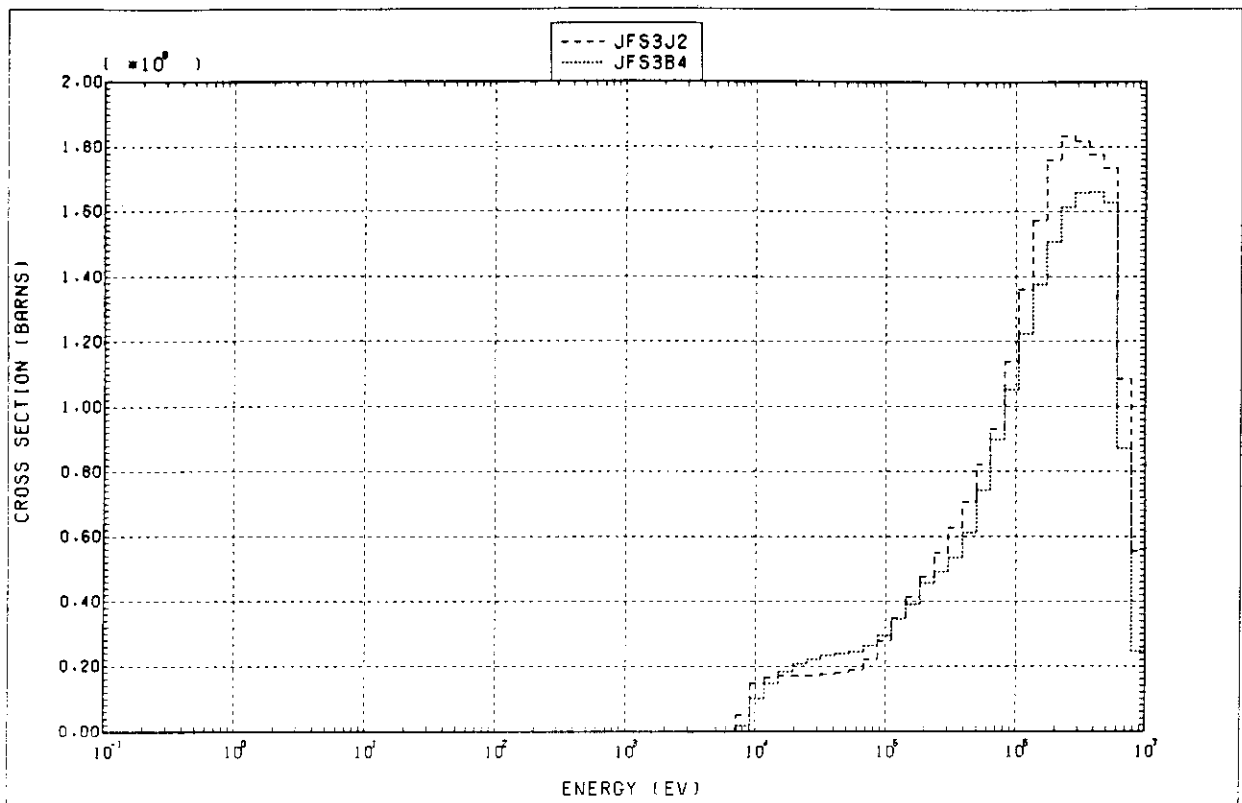


Fig. A.39 INELASTIC SCATTERING CROSS SECTIONS OF PU-239

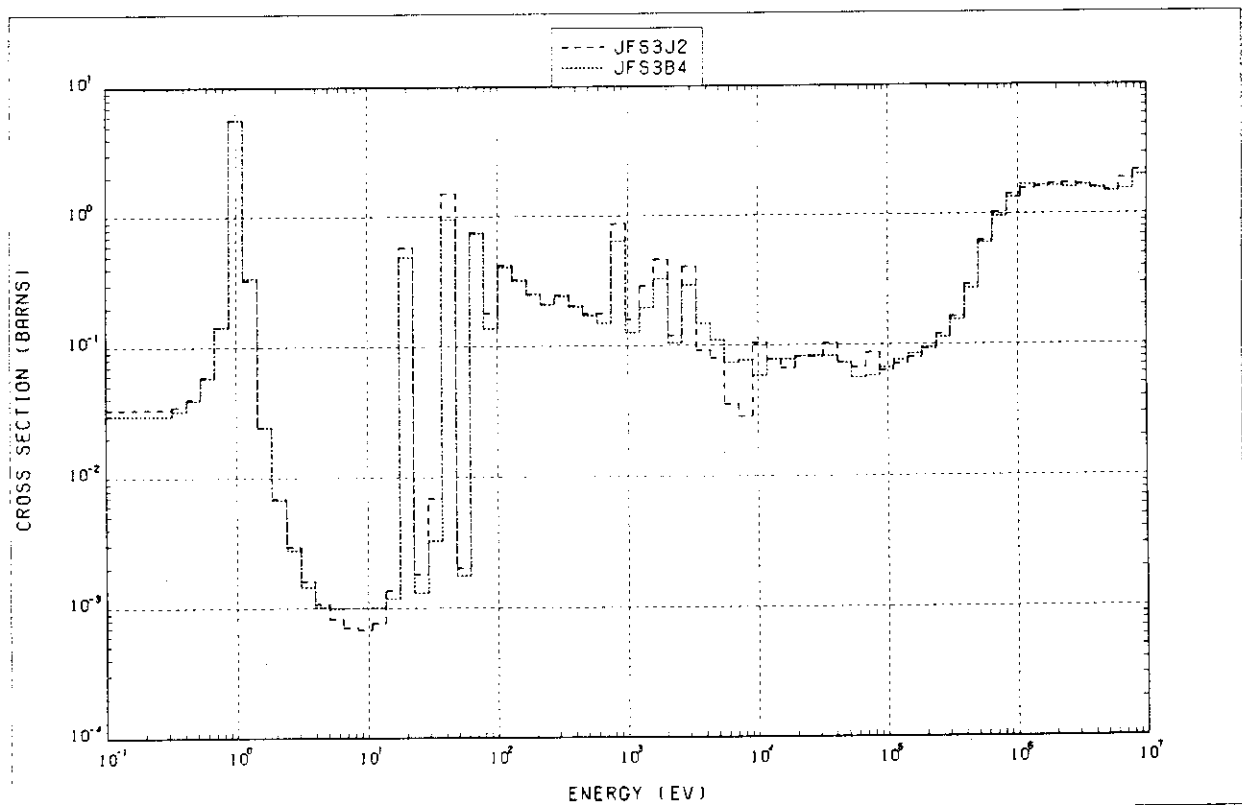


Fig. A.40 FISSION CROSS SECTIONS OF PU-240

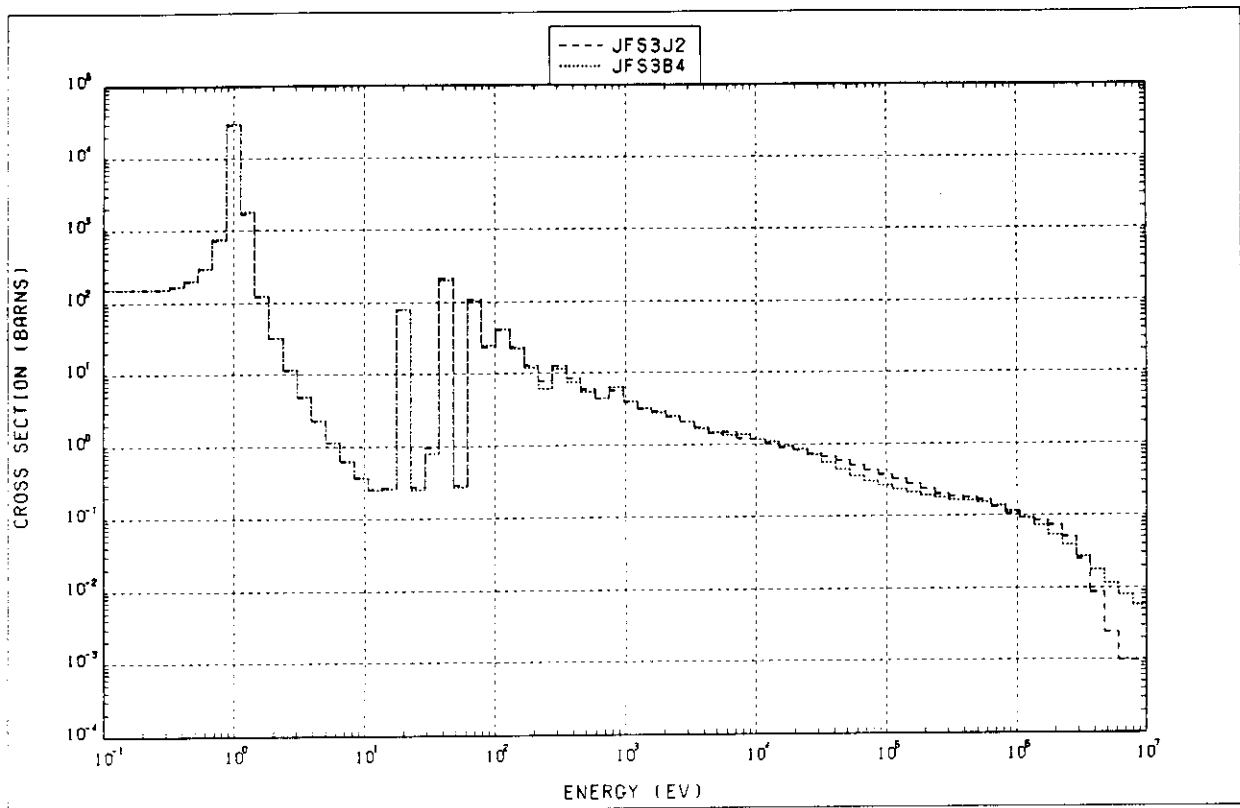


Fig. A.41 CAPTURE CROSS SECTIONS OF PU-240

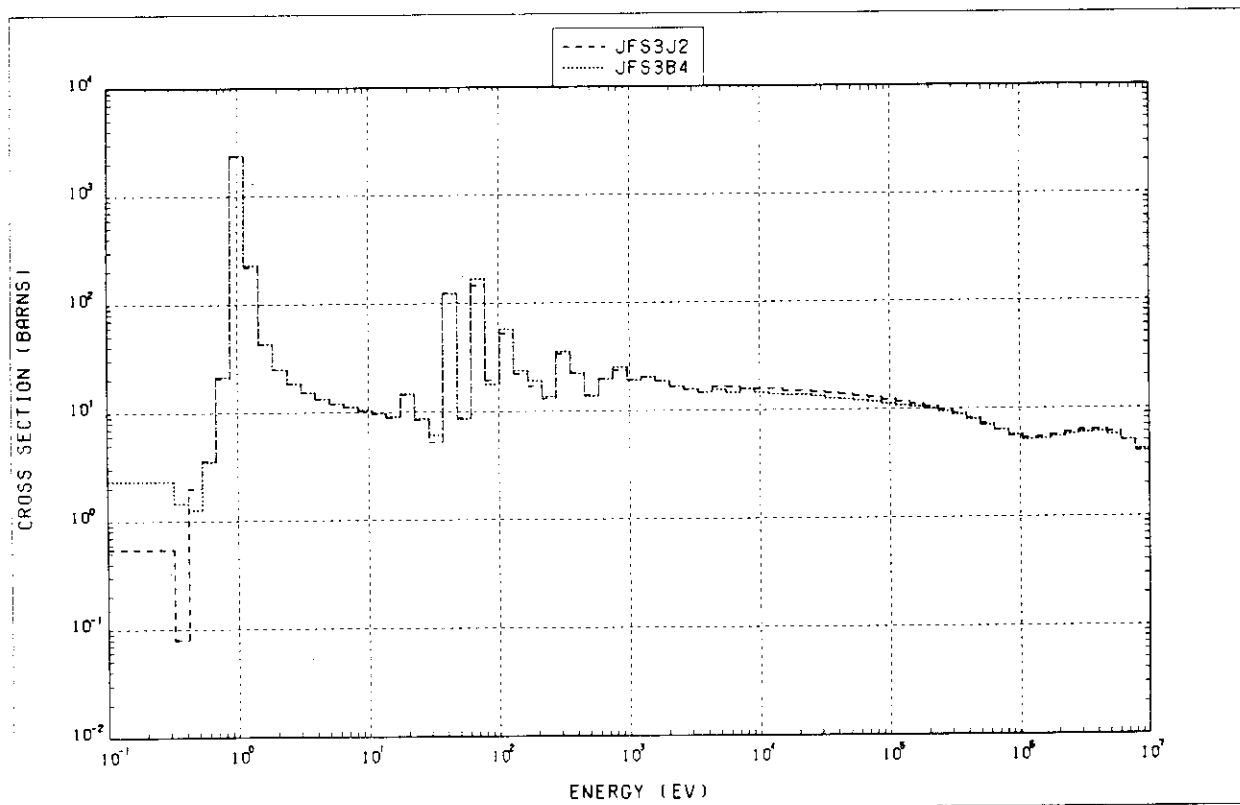


Fig. A.42 ELASTIC SCATTERING CROSS SECTIONS OF PU-240

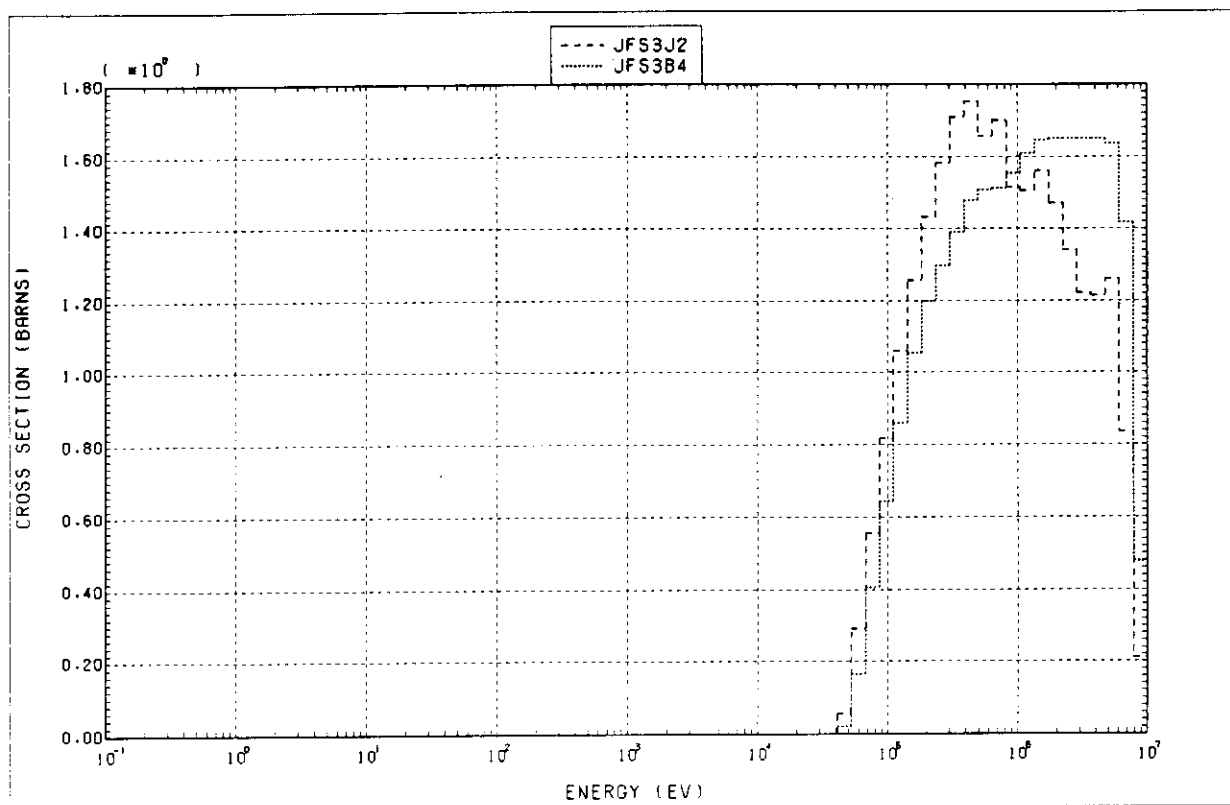


Fig. A.43 INELASTIC SCATTERING CROSS SECTIONS OF PU-240

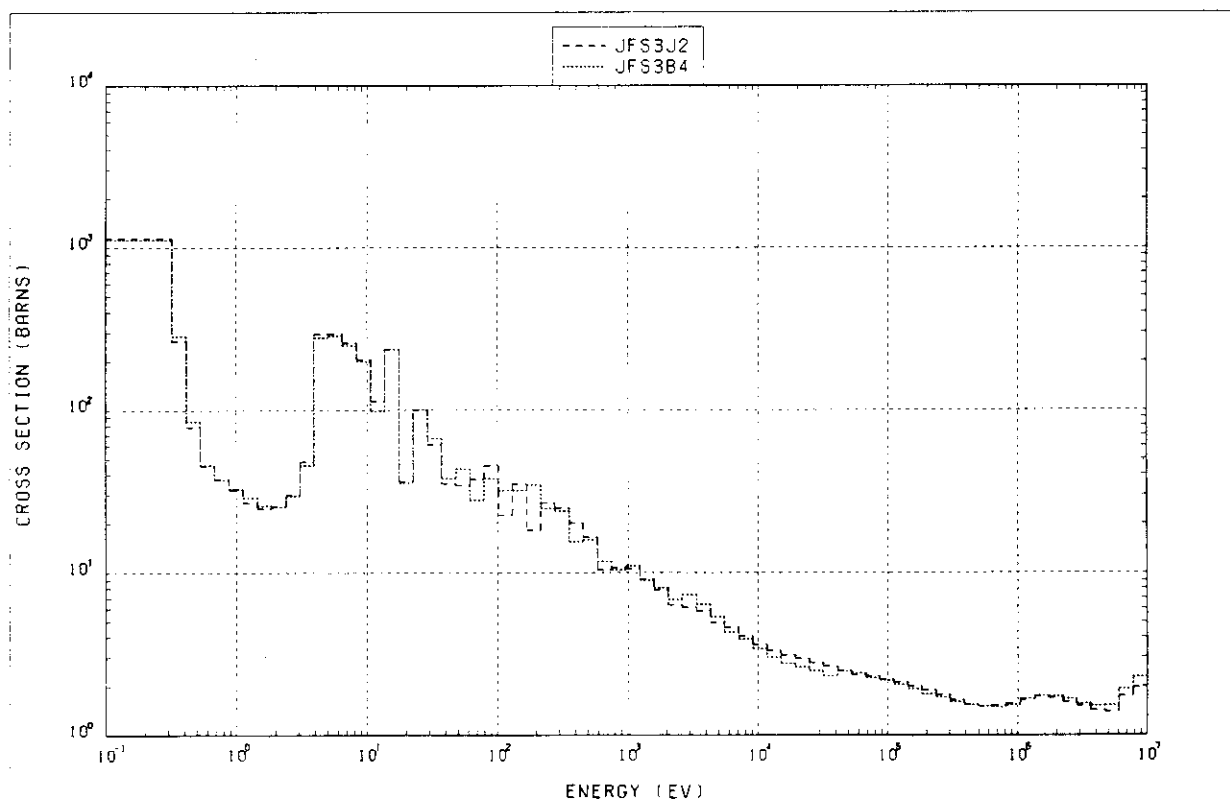


Fig. A.44 FISSION CROSS SECTIONS OF PU-241

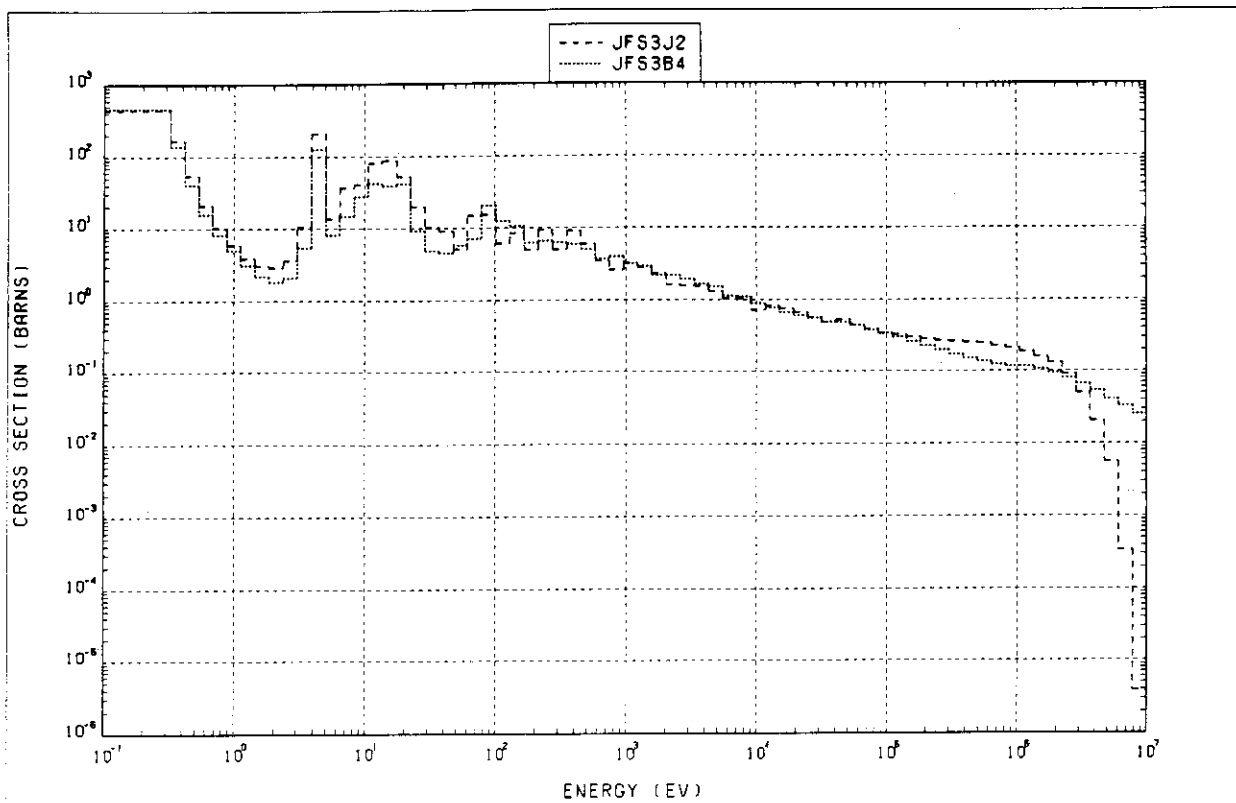


Fig. A.45 CAPTURE CROSS SECTIONS OF PU-241

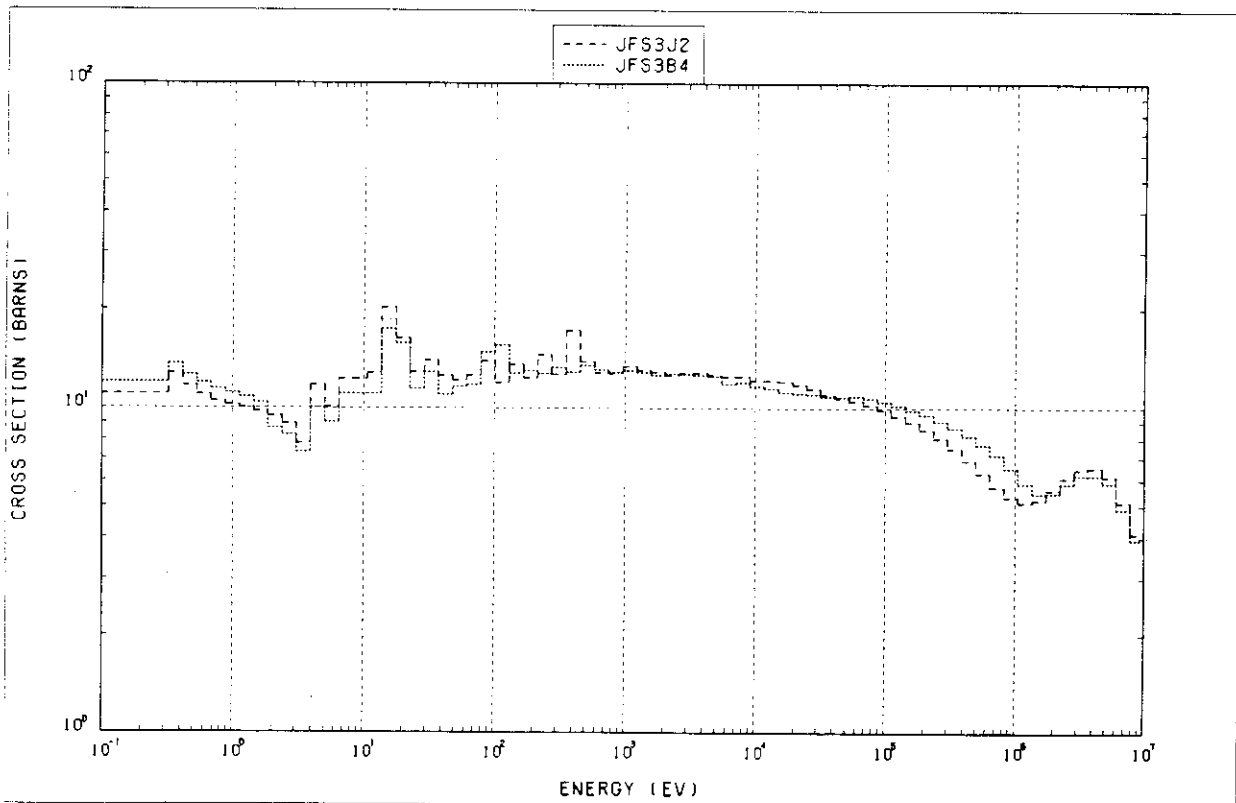


Fig. A.46 ELASTIC SCATTERING CROSS SECTIONS OF PU-241

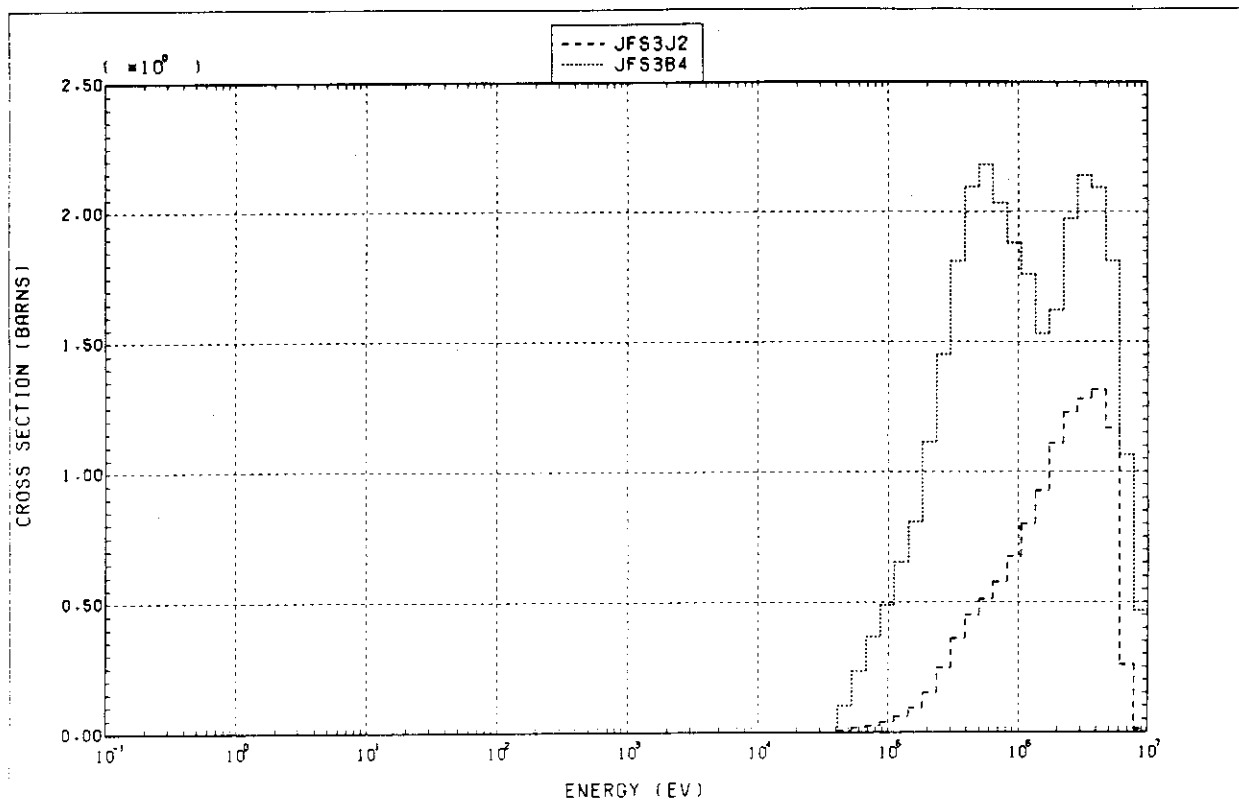


Fig. A.47 INELASTIC SCATTERING CROSS SECTIONS OF PU-241

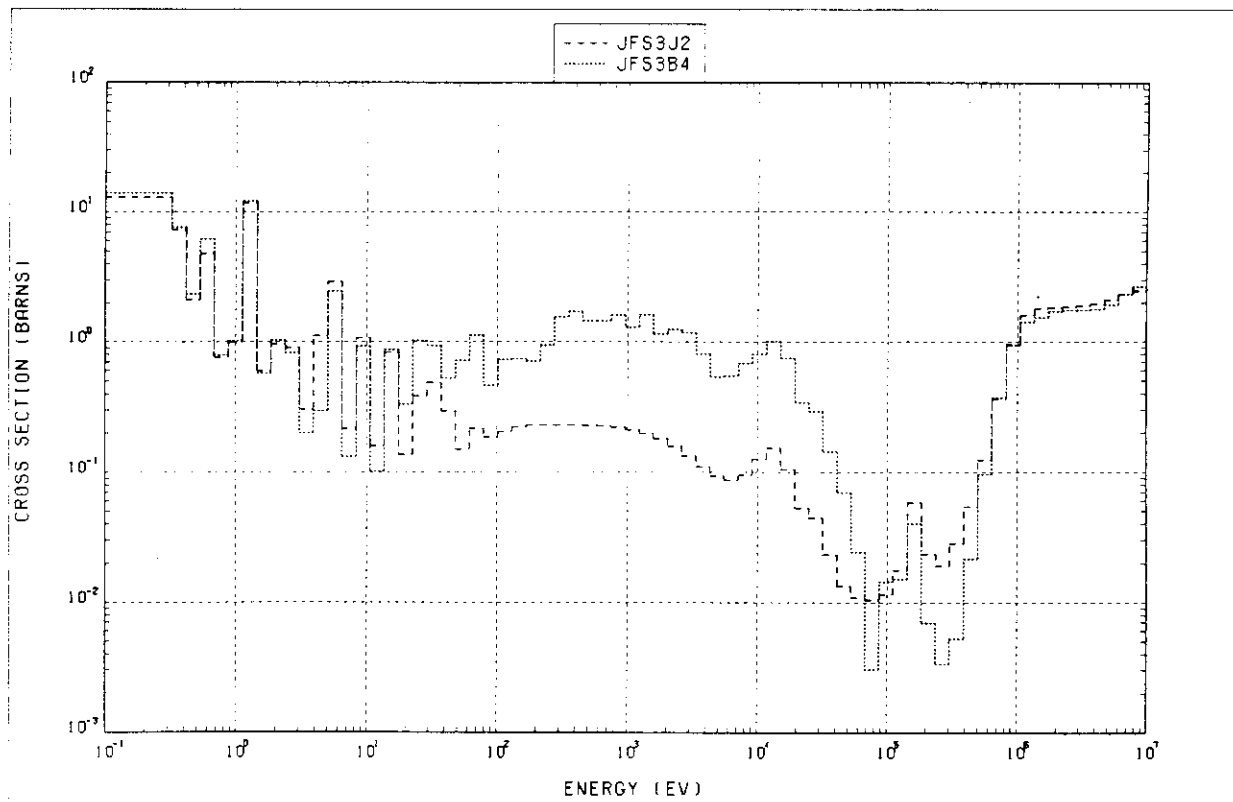


Fig. A.48 FISSION CROSS SECTIONS OF AM-241

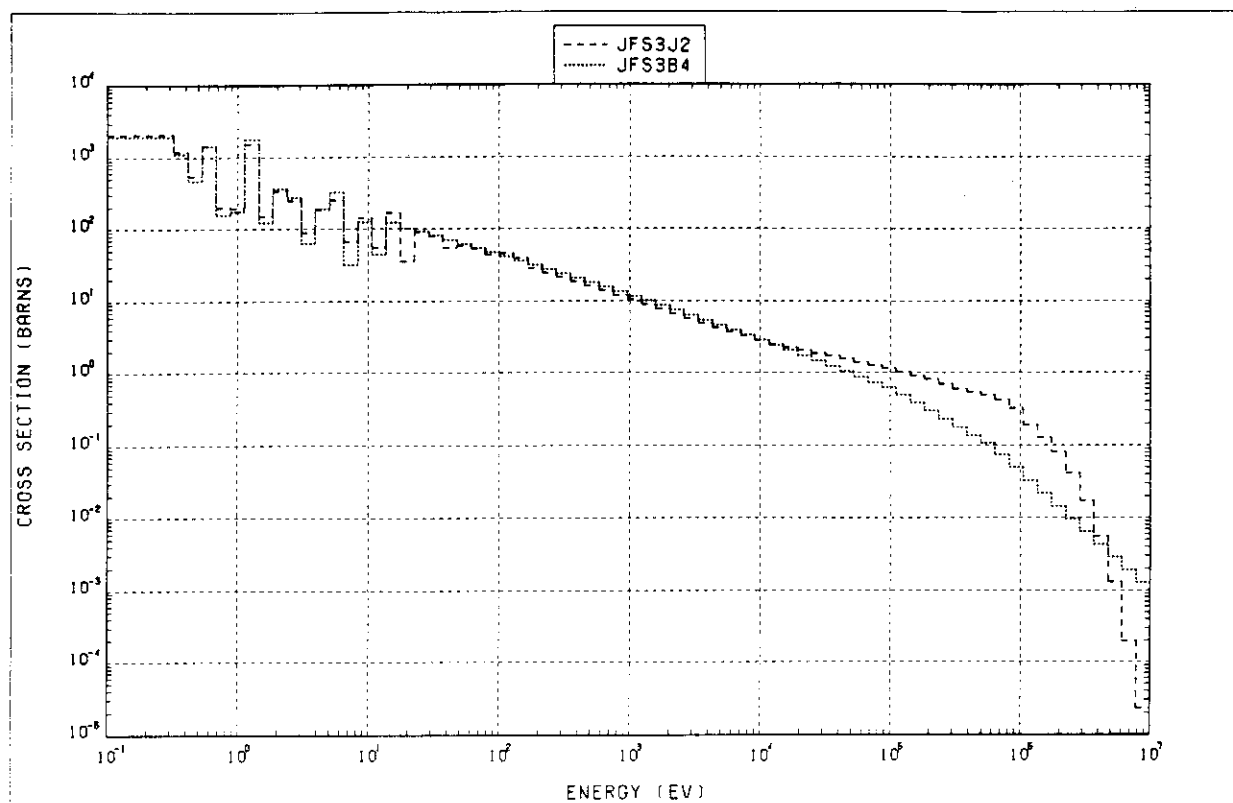


Fig. A.49 CAPTURE CROSS SECTIONS OF AM-241

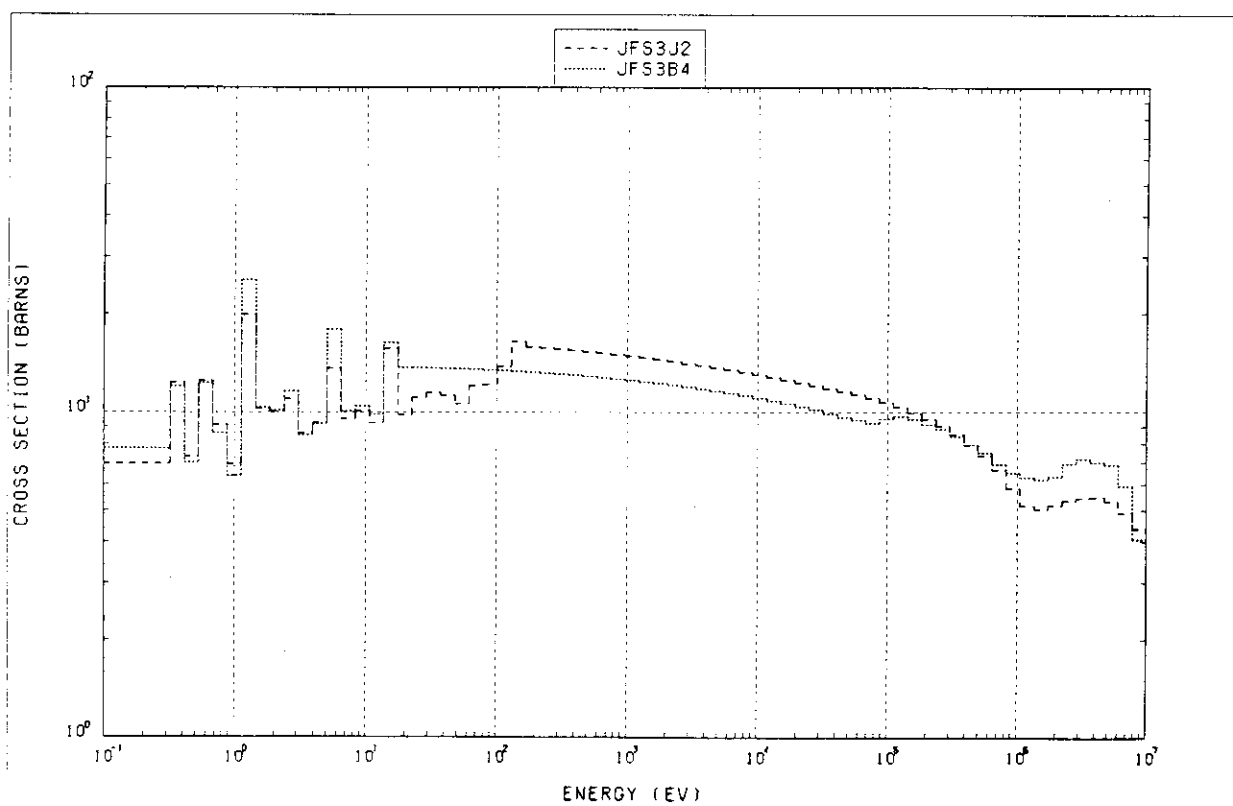


Fig. A.50 ELASTIC SCATTERING CROSS SECTIONS OF AM-241

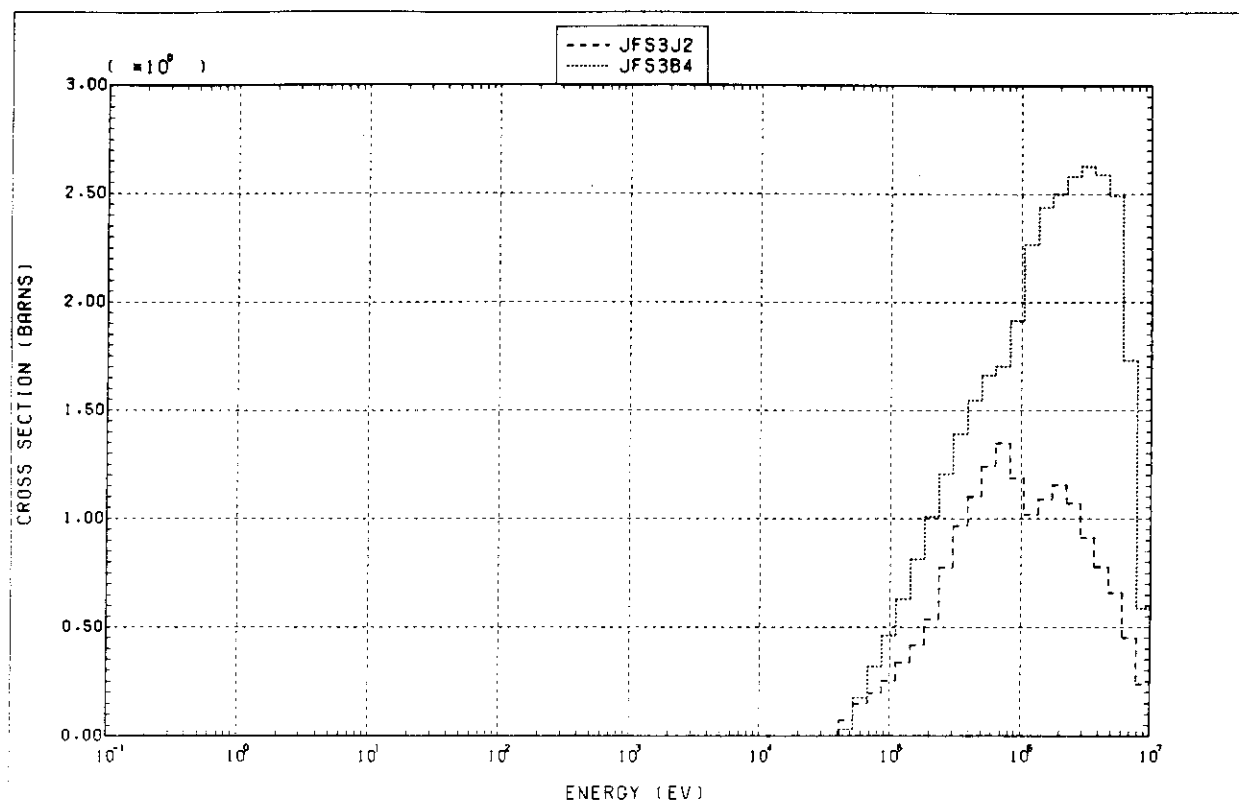


Fig. A.51 INELASTIC SCATTERING CROSS SECTIONS OF AM-241

Appendix B. Tables of Group Constant of the JFS-3-J2 Set

The infinitely dilute and effective cross sections for the thirty nuclei needed for fast reactor calculations were generated for the 70 group structure shown in Table B.1. The selected nuclei and the code number used in the standard neutronic codes in JAERI are shown in Table B.2. In near future, several nuclides of fission products and pseudo fission products will be added.

Tables of group constants for each nuclide are constructed from the infinitely dilute cross sections, resonance shielding factors and scattering matrices. For fissionable elements, furthermore, the fission spectrum is included. In the following tables, the group constants for 15 nuclides ^{10}B , C, O, Na, Cr, Ni, Fe, Al, Mn, Mo, ^{235}U , ^{238}U , ^{239}Pu , ^{240}Pu and ^{241}Pu are shown.

Table B.1 Seventy group structure of JFS-3-J2 library

Group	Upper energy	Lower energy	Lethargy width
1	10.0 (MeV)	7.7880 (MeV)	0.250
2	7.7880	6.0653	0.250
3	6.0653	4.7237	0.250
4	4.7237	3.6788	0.250
5	3.6788	2.8650	0.250
6	2.8650	2.2313	0.250
7	2.2313	1.7377	0.250
8	1.7377	1.3534	0.250
9	1.3534	1.0540	0.250
10	1.0540	0.82085	0.250
11	0.82085	0.63928	0.250
12	0.63928	0.49787	0.250
13	0.49787	0.38774	0.250
14	0.38774	0.30197	0.250
15	0.30197	0.23518	0.250
16	0.23518	0.18316	0.250
17	0.18316	0.14264	0.250
18	0.14264	0.11109	0.250
19	0.11109 (MeV)	0.086517 (MeV)	0.250
20	86.517 (keV)	67.379 (keV)	0.250
21	67.379	52.475	0.250
22	52.475	40.868	0.250
23	40.868	31.828	0.250
24	31.828	24.788	0.250
25	24.788	19.305	0.250
26	19.305	15.034	0.250
27	15.034	11.709	0.250
28	11.709	9.1188	0.250
29	9.1188	7.1017	0.250
30	7.1017	5.5308	0.250
31	5.5308	4.3074	0.250
32	4.3074	3.3546	0.250
33	3.3546	2.6126	0.250
34	2.6126	2.0347	0.250
35	2.0347 (keV)	1.5846 (keV)	0.250

Table B.1 (Continued)

Group	Upper energy	Lower energy	Lethargy width
36	1.5846	1.2341	0.250
37	1.2341 (keV)	0.96112 (keV)	0.250
38	961.12 (eV)	748.52 (eV)	0.250
39	748.52	582.95	0.250
40	582.95	454.00	0.250
41	454.00	353.58	0.250
42	353.58	275.36	0.250
43	275.36	214.45	0.250
44	214.45	167.02	0.250
45	167.02	130.07	0.250
46	130.07	101.30	0.250
47	101.30	78.893	0.250
48	78.893	61.442	0.250
49	61.442	47.851	0.250
50	47.851	37.267	0.250
51	37.267	29.023	0.250
52	29.023	22.603	0.250
53	22.603	17.603	0.250
54	17.603	13.710	0.250
55	13.710	10.677	0.250
56	10.677	8.3153	0.250
57	8.3153	6.4760	0.250
58	6.4760	5.0435	0.250
59	5.0435	3.9279	0.250
60	3.9279	3.0590	0.250
61	3.0590	2.3824	0.250
62	2.3824	1.8554	0.250
63	1.8554	1.4450	0.250
64	1.4450	1.1254	0.250
65	1.1254	0.87642	0.250
66	0.87642	0.68256	0.250
67	0.68256	0.53158	0.250
68	0.53158	0.41399	0.250
69	0.41399	0.32242	0.250
70	0.32242 (eV)	10^{-5} (eV)	10.650

Table B.2 Nuclides contained in JFS-3-J2 and nuclear data file used for the production

No.	Nuclide	Nuclear data file	MATNO	Code No.	No. of σ_0	No. of T
1	U-235	JENDL-2	9235	925	8	4
2	U-238	JENDL-2	9238	928	8	4
3	Pu-239	JENDL-2	9439	949	8	4
4	Pu-240	JENDL-2	9440	940	8	4
5	Pu-241	JENDL-2	9441	941	8	4
6	U-234	JENDL-1	1921	924	8	4
7	Th-232	JENDL-1	1901	902	8	4
8	Am-241	JENDL-1	1951	951	8	1
9	Ni	JENDL-2	2800	28	8	4
10	Cr	JENDL-2	2400	24	8	4
11	Fe	JENDL-2	2600	26	8	4
12	Mo	JENDL-1	1420	42	8	1
13	Cu	JENDL-1	1290	29	8	1
14	Mn	JENDL-1	1251	25	8	1
15	Si	JENDL-1	1140	14	8	1
16	Al	JENDL-1	1131	13	8	1
17	Na	JENDL-1	1111	11	8	1
18	C	JENDL-1	1061	6	8	1
19	B-10	JENDL-1	1051	105	8	1
20	H-1	JENDL-1	1011	1	8	1
21	U-233	ENDF/B-IV	1260	923	8	4
22	U-236	ENDF/B-IV	1163	926	8	4
23	Pu-242	ENDF/B-IV	1161	942	8	4
24	Be	ENDF/B-IV	1289	4	8	1
25	B-11	ENDF/B-IV	1160	115	8	1
26	O	ENDF/B-IV	1276	8	8	1
27	Ta-181	JENDL-1	1731	731	8	4
28	Np-237	ENDF/B-IV	1236	937	8	4
29	Eu-151	ENDF/B-IV	1240	631	8	4
30	Ev-153	JENDL-1	1631	633	8	4

Appendix B. Tables of Group Constants of the JFS-3-J2 set

***** LIBRARY INFORMATION *****

```

LNMAX  (NO. OF NUCLIDE)----- 27
IMAX    (NO. OF ENERGY GROUP)----- 70
MXCHI   (NO. OF FISSION SPECTRA SET)----- 3
MXR1D   (NO. OF REACTION IN 1-D DATA)----- 8
MTXR23  (INELASTIC MATRIX DATA SEPEFICATION)----- 2
MXDNSE,MXDNSI,MXDNS2----- 6 69 70
MXDWE,MXDWNI,MXDWN2----- 70 48 7
MXREAC  (NO. OF REACTION IN F-TABLE)----- 6
MXSIGO  (NO. OF SIGMA-O)----- 8
MXTEMP  (NO. OF TEMP)----- 4
MXR      (MAX NO. OF R-PARAMETER)----- 4
ISWH    (IF ISWH=0 H NOT EXIST)----- 1

```

ENERGY BOUNDARY

```

##ENBND## 1.0000E+07 7.7880E+06 6.0653E+06 4.7237E+06 3.6788E+06 2.8650E+06 2.2313E+06 1.7377E+06 1.3534E+06 1.0540E+06
##ENBND## 8.2085E+05 6.3928E+05 4.9787E+05 3.8774E+05 3.0197E+05 2.3518E+05 1.8316E+05 1.4264E+05 1.1109E+05 8.6517E+04
##ENBND## 6.7379E+04 5.2475E+04 4.0868E+04 3.1828E+04 2.4788E+04 1.9305E+04 1.5034E+04 1.1709E+04 9.1188E+03 7.1017E+03
##ENBND## 5.5308E+03 4.3074E+03 3.3546E+03 2.6126E+03 2.0347E+03 1.5846E+03 1.2341E+03 9.6112E+02 7.4852E+02 5.8295E+02
##ENBND## 4.5400E+02 3.5358E+02 2.7536E+02 2.1445E+02 1.6702E+02 1.3007E+02 1.0130E+02 7.8893E+01 6.1442E+01 4.7851E+01
##ENBND## 3.7267E+01 2.9023E+01 2.2403E+01 1.7603E+01 1.3710E+01 1.0677E+01 8.3153E+00 6.4760E+00 5.0435E+00 3.9279E+00
##ENBND## 3.0590E+00 2.3824E+00 1.8554E+00 1.4450E+00 1.1254E+00 8.7642E-01 6.8256E-01 5.3158E-01 4.1399E-01 3.2242E-01
##ENBND## 1.0000E-05

```

FISSION SPECTRA

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NCODE = 925

```

## CHI ## 6.5563E-03 1.9089E-02 4.0680E-02 6.7806E-02 9.3169E-02 1.1002E-01 1.1538E-01 1.1028E-01 9.8025E-02 8.2333E-02
## CHI ## 6.6162E-02 5.1364E-02 3.8818E-02 2.8727E-02 2.0915E-02 1.5035E-02 1.0701E-02 7.5578E-03 5.3058E-03 3.7074E-03
## CHI ## 2.5810E-03 1.7918E-03 1.2411E-03 8.5822E-04 5.9265E-04 4.0882E-04 2.8179E-04 1.9410E-04 1.3364E-04 9.1973E-05
## CHI ## 6.3279E-05 4.3527E-05 2.9935E-05 2.0584E-05 1.4153E-05 9.7299E-06 5.7877E-06 0.0 0.0 0.0
## CHI ## 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
## CHI ## 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
## CHI ## 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

```

NCODE = 928

```

## CHI ## 6.6636E-03 1.9313E-02 4.1012E-02 6.8166E-02 9.3457E-02 1.1017E-01 1.1538E-01 1.1016E-01 9.7840E-02 8.2124E-02
## CHI ## 6.5961E-02 5.1188E-02 3.8673E-02 2.8613E-02 2.0828E-02 1.4970E-02 1.0654E-02 7.5238E-03 5.2815E-03 3.6902E-03
## CHI ## 2.5690E-03 1.7834E-03 1.2353E-03 8.5415E-04 5.8983E-04 4.0687E-04 2.8044E-04 1.9318E-04 1.3300E-04 9.1532E-05
## CHI ## 6.2975E-05 4.3318E-05 2.9791E-05 2.0485E-05 1.4085E-05 9.6831E-06 5.7598E-06 0.0 0.0 0.0
## CHI ## 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
## CHI ## 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
## CHI ## 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

```

NCODE = 949

```

## CHI ## 8.3498E-03 2.2710E-02 4.5869E-02 7.3294E-02 9.7428E-02 1.1210E-01 1.1520E-01 1.0837E-01 9.5137E-02 7.9137E-02
## CHI ## 6.3114E-02 4.8710E-02 3.6643E-02 2.7021E-02 1.9618E-02 1.4072E-02 9.9987E-03 7.0524E-03 4.9459E-03 3.4531E-03
## CHI ## 2.4025E-03 1.6671E-03 1.1543E-03 7.9794E-04 5.5089E-04 3.7995E-04 2.6185E-04 1.8035E-04 1.2416E-04 8.5444E-05
## CHI ## 5.8784E-05 4.0433E-05 2.7806E-05 1.9120E-05 1.3146E-05 9.0376E-06 5.3758E-06 0.0 0.0 0.0
## CHI ## 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
## CHI ## 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
## CHI ## 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0

```

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```
NUCLID=====      1
AW-----      1.00783
LD:EL,INEL,N2N-----      70      0      0
LA:EL,INEL,N2N-----      70      0      0
MSF-----      0      1      1      1      0      0
TAB-----      0.1      1.0      10.0      100.0      1000.0      10000.0      100000.0
FT-----      0.0      0.0      0.0      0.0
NTMP-----      71      1      1      1      71      71
NR-----      1      1      1      1      1      1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
```

```
NUCLID=====      2
AW-----      4.00000
LD:EL,INEL,NZN-----      6      0      0
LA:EL,INEL,NZN-----     70      0      0
MSF-----      0      0      1      1      0      0
TAB-----      0.1      1.0      10.0      100.0      1000.0      10000.0      100000.0      1000000.0
FT-----      0.0      0.0      0.0      0.0
NTEMP-----    71    71      1      1    71    71
NR-----      1      1      1      1      1      1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
```

```

NUCLID=====      4
AW-----          9.01222
LD:EL,INEL,NZN-----      3      0      69
LA:EL,INEL,NZN-----     70      0      7
MSF-----           0      1      1      1      0      0
TAB-----           0.1      1.0      10.0      100.0      1000.0      10000.0      100000.0      1000000.0
FT-----            0.0      0.0      0.0      0.0      .
NTEMP-----         71      1      1      1      71      71
NR-----            1      1      1      1      1      1
RPARAM-----        -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00
                        -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00
RPARAM-----        -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00
                        -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00
RPARAM-----        -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00
                        -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00    -1.00E+00

```

TO BE CONTINUED

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```

NUCLID===== 105
AW----- 10.12900
LD:EL,INEL,NZN-----
  3  68  41
LA:EL,INEL,NZN----- 70 11 1
MSF-----
  0  1  1  1  0  1
TAB-----
  0.1  1.0  10.0  100.0  1000.0  10000.0  100000.0  1000000.0
FT-----
  0.0  0.0  0.0  0.0  0.0  0.0  0.0  0.0
NTEMP-----
  71  1  1  1  71  1
NR-----
  1  1  1  1  1  1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

```

```

NUCLID===== 115
AW----- 11.00960
LD:EL,INEL,N2N----- 3 53 0
LA:EL,INEL,N2N----- 70 6 0
MSF----- 0 1 1 1 0 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 0.0 0.0 0.0 0.0 0.0
NTEMP----- 71 1 1 1 71 1
NR----- 1 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

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[illegible]

TO BE CONTINUED

INFORMATON OF NUCLID

PAGE 3 OF 9

```

NUCLID===== 8
AW----- 15.99540
LD:EL,INEL,N2N----- 3 58 0
LA:EL,INEL,N2N----- 70 2 0
MSF----- 0 1 1 1 1 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 0.0 0.0 0.0 0.0
NTEMP----- 71 1 1 1 71 1
NR----- 1 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

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```

NUCLID===== 11
AW----- 22.98981
LD:EL,INEL,N2N----- 2 65 0
LA:EL,INEL,N2N----- 70 13 0
MSF----- 0 4 4 1 4
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 800.0 2100.0 4500.0
NTEMP----- 71 1 1 1 71 1
NR----- 1 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

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```

NUCLID===== 13
AW----- 26.98180
LD:EL,INEL,N2N----- 2 64 0
LA:EL,INEL,N2N----- 70 10 0
MSF----- 0 4 4 1 4
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 800.0 2100.0 4500.0
NTEMP----- 71 1 1 1 71 1
NR----- 1 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

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TO BE CONTINUED

INFORMATON OF NUCLID

PAGE 4 OF 9

```

NUCLID===== 14
AW----- 28.08530
LD:EL,INEL,N2N----- 2 69 32
LA:EL,INEL,N2N----- 70 9 1
MSF----- 0 1 1 1 0 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 0.0 0.0 0.0 0.0
NTEMP----- 71 1 1 1 71 1
NR----- 1 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

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```

NUCLID===== 24
AW----- 51.99570
LD:EL,INEL,N2N----- 2 53 38
LA:EL,INEL,N2N----- 70 12 1
MSF----- 0 4 4 1 4
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 800.0 2100.0 4500.0
NTEMP----- 71 1 1 1 71 1
NR----- 1 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

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```

NUCLID===== 25
AW----- 54.93810
LD:EL,INEL,N2N----- 2 51 0
LA:EL,INEL,N2N----- 70 18 0
MSF----- 0 1 1 1 0 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 0.0 0.0 0.0
NTEMP----- 71 1 1 1 71 1
NR----- 1 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

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TO BE CONTINUED

INFORMATON OF NUCLID

PAGE 5 OF 9

```

NUCLID===== 26
AW----- 55.84470
LD:EL,INEL,N2N-----
LA:EL,INEL,N2N-----
MSF-----
TAB-----
FT-----
NTEMP-----
NR-----
RPARAM-----
RPARAM-----
RPARAM-----
RPARAM-----

```

```

NUCLID===== 28
AW----- 58.68680
LD:EL,INEL,N2N-----
LA:EL,INEL,N2N-----
MSF-----
TAB-----
FT-----
NTEMP-----
NR-----
RPARAM-----
RPARAM-----
RPARAM-----
RPARAM-----

```

```

NUCLID===== 29
AW----- 63.53979
LD:EL,INEL,N2N-----
LA:EL,INEL,N2N-----
MSF-----
TAB-----
FT-----
NTEMP-----
NR-----
RPARAM-----
RPARAM-----
RPARAM-----
RPARAM-----

```

TO BE CONTINUED

INFORMATON OF NUCLID

PAGE 6 OF 9

```

NUCLID===== 42
AW----- 95.94040
LD:EL,INEL,N2N-----
LA:EL,INEL,N2N-----
MSF-----
TAB-----
FT-----
NTEMP-----
NR-----
RPARAM-----
RPARAM-----
RPARAM-----
RPARAM-----

```

```

NUCLID===== 902
AW----- 232.03300
LD:EL,INEL,N2N-----
LA:EL,INEL,N2N-----
MSF-----
TAB-----
FT-----
NTEMP-----
NR-----
RPARAM-----
RPARAM-----
RPARAM-----
RPARAM-----

```

```

NUCLID===== 923
AW----- 233.04500
LD:EL,INEL,N2N-----
LA:EL,INEL,N2N-----
MSF-----
TAB-----
FT-----
NTEMP-----
NR-----
RPARAM-----
RPARAM-----
RPARAM-----
RPARAM-----

```

TO BE CONTINUED

INFORMATON OF NUCLID

PAGE 7 OF 9

```

NUCLID===== 924
AW----- 234.03000
LD:EL,INEL,N2N----- 2 36 58
LA:EL,INEL,N2N----- 70 22 2
MSF----- 4 4 4 4 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 800.0 2100.0 4500.0
NTEMP----- 48 48 48 48 1
NR----- 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

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```

NUCLID===== 925
AW----- 235.04401
LD:EL,INEL,N2N----- 2 42 49
LA:EL,INEL,N2N----- 70 48 3
MSF----- 4 4 4 4 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 800.0 2100.0 4500.0
NTEMP----- 26 26 26 26 1
NR----- 4 4 4 4 1
RPARAM----- 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
RPARAM----- 1.00E+00 1.00E+00 1.00E+00 1.00E+00 1.00E+00 1.00E+00 1.00E+00 1.00E+00
RPARAM----- 1.00E+01 1.00E+01 1.00E+01 1.00E+01 1.00E+01 1.00E+01 1.00E+01 1.00E+01
RPARAM----- 1.00E+05 1.00E+05 1.00E+05 1.00E+05 1.00E+05 1.00E+05 1.00E+05 1.00E+05

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```

NUCLID===== 926
AW----- 236.04500
LD:EL,INEL,N2N----- 2 37 36
LA:EL,INEL,N2N----- 70 22 1
MSF----- 1 4 4 4 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 800.0 2100.0 4500.0
NTEMP----- 1 38 38 38 1
NR----- 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

```

TO BE CONTINUED

INFORMATON OF NUCLID

PAGE 8 OF 9

```

NUCLID===== 928
AW----- 238.05099
LD:EL,INEL,N2N----- 2 40 40
LA:EL,INEL,N2N----- 70 22 2
MSF----- 4 4 4 4 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 800.0 2100.0 4500.0
NTEMP----- 23 23 23 23 1
NR----- 4 4 4 4 1
RPARAM----- 0.0 0.0 0.0 0.0 0.0 0.0 0.0 0.0
RPARAM----- 1.00E-01 1.00E-01 1.00E-01 1.00E-01 1.00E-01 1.00E-01 1.00E-01 1.00E-01
RPARAM----- 1.00E+00 1.00E+00 1.00E+00 1.00E+00 1.00E+00 1.00E+00 1.00E+00 1.00E+00
RPARAM----- 1.00E+05 1.00E+05 1.00E+05 1.00E+05 1.00E+05 1.00E+05 1.00E+05 1.00E+05

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NUCLID===== 940
AW----- 240.05400
LD:EL,INEL,N2N----- 2 37 39
LA:EL,INEL,N2N----- 70 22 2
MSF----- 4 4 4 4 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 800.0 2100.0 4500.0
NTEMP----- 26 26 26 26 1
NR----- 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

```

```

NUCLID===== 941
AW----- 241.04900
LD:EL,INEL,N2N----- 2 36 45
LA:EL,INEL,N2N----- 70 22 3
MSF----- 4 4 4 4 1
TAB----- 0.1 1.0 10.0 100.0 1000.0 10000.0 100000.0 1000000.0
FT----- 300.0 800.0 2100.0 4500.0
NTEMP----- 26 26 26 26 1
NR----- 1 1 1 1 1
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00
RPARAM----- -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00 -1.00E+00

```

TO BE CONTINUED

INFORMATON OF NUCLID

PAGE 9 OF 9

```

NUCLID===== 942
AW----- 242.26601
LD:EL,INEL,N2N-----
LA:EL,INEL,N2N-----
MSF-----
TAB-----
FT-----
NTEMP-----
NR-----
RPARAM-----
RPARAM-----
RPARAM-----
RPARAM-----

NUCLID===== 949
AW----- 239.05299
LD:EL,INEL,N2N-----
LA:EL,INEL,N2N-----
MSF-----
TAB-----
FT-----
NTEMP-----
NR-----
RPARAM-----
RPARAM-----
RPARAM-----
RPARAM-----

NUCLID===== 951
AW----- 241.02100
LD:EL,INEL,N2N-----
LA:EL,INEL,N2N-----
MSF-----
TAB-----
FT-----
NTEMP-----
NR-----
RPARAM-----
RPARAM-----
RPARAM-----
RPARAM-----

```

JAERI-M 82-135

NUCLID = U235-J2 CODE NO = 925
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1	1.7745E+00	3.6811E+00	3.6921E-05	4.5155E-01	3.2627E+00	8.0796E-01	3.5018E-02	5.8526E-01	6.0741E+00
2	1.4573E+00	3.4159E+00	4.8146E-04	1.3612E+00	3.5195E+00	8.1152E-01	3.3211E-02	3.8892E-01	6.7274E+00
3	1.0776E+00	3.1646E+00	3.8681E-03	2.1536E+00	4.2018E+00	8.0762E-01	3.6828E-02	3.4808E-02	7.4717E+00
4	1.1400E+00	2.9743E+00	1.5382E-02	2.2252E+00	4.5056E+00	7.8985E-01	3.8599E-02	0.0	7.8661E+00
5	1.2170E+00	2.8225E+00	4.2780E-02	2.2040E+00	4.4063E+00	7.5320E-01	4.3206E-02	0.0	7.8700E+00
6	1.2750E+00	2.7080E+00	8.6680E-02	1.9857E+00	4.2135E+00	6.9596E-01	4.5498E-02	0.0	7.5608E+00
7	1.2968E+00	2.6421E+00	1.3335E-01	1.7619E+00	3.9499E+00	6.2234E-01	5.3530E-02	0.0	7.1419E+00
8	1.2686E+00	2.5948E+00	1.6143E-01	1.5893E+00	3.7958E+00	5.5113E-01	6.2979E-02	0.0	6.8152E+00
9	1.2372E+00	2.5586E+00	1.6347E-01	1.4707E+00	3.8651E+00	4.9979E-01	5.9837E-02	0.0	6.7365E+00
10	1.1938E+00	2.5291E+00	1.4884E-01	1.4708E+00	4.1235E+00	4.6004E-01	9.7962E-02	0.0	6.9370E+00
11	1.1595E+00	2.5084E+00	1.4397E-01	1.4413E+00	4.6116E+00	4.2443E-01	9.5134E-02	0.0	7.3565E+00
12	1.1623E+00	2.4900E+00	1.6011E-01	1.3572E+00	5.2597E+00	3.8552E-01	1.2473E-01	0.0	7.9393E+00
13	1.1890E+00	2.4770E+00	1.8396E-01	1.3652E+00	5.9516E+00	3.4593E-01	1.1825E-01	0.0	8.6898E+00
14	1.2418E+00	2.4657E+00	2.1719E-01	1.0902E+00	6.7070E+00	3.0355E-01	1.6805E-01	0.0	9.2562E+00
15	1.2974E+00	2.4575E+00	2.6103E-01	9.4608E-01	7.3691E+00	2.6327E-01	1.8978E-01	0.0	9.8736E+00
16	1.3687E+00	2.4511E+00	3.0698E-01	8.4325E-01	7.8995E+00	2.2425E-01	2.3497E-01	0.0	1.0418E+01
17	1.4454E+00	2.4462E+00	3.4916E-01	7.2943E-01	8.6018E+00	1.8838E-01	2.2460E-01	0.0	1.1126E+01
18	1.5450E+00	2.4424E+00	3.9533E-01	5.6904E-01	9.0793E+00	1.5632E-01	2.2160E-01	0.0	1.1589E+01
19	1.6110E+00	2.4397E+00	4.6388E-01	4.2571E-01	9.5115E+00	1.2677E-01	2.6706E-01	0.0	1.2012E+01
20	1.7297E+00	2.4362E+00	5.1160E-01	2.6592E-01	9.9455E+00	1.0314E-01	2.5650E-01	0.0	1.2453E+01
21	1.8210E+00	2.4352E+00	5.5067E-01	1.7596E-01	1.0335E+01	8.2662E-02	2.3731E-01	0.0	1.2882E+01
22	1.8987E+00	2.4344E+00	6.4532E-01	6.4395E-02	1.0731E+01	6.5468E-02	2.9529E-01	0.0	1.3340E+01
23	2.0556E+00	2.4333E+00	7.2537E-01	3.5060E-02	1.1065E+01	5.2005E-02	3.2568E-01	0.0	1.3841E+01
24	2.1359E+00	2.4318E+00	7.4008E-01	2.7119E-02	1.1425E+01	4.1011E-02	3.0587E-01	0.0	1.4328E+01
25	2.2679E+00	2.4317E+00	8.1517E-01	1.9910E-02	1.1685E+01	3.2698E-02	3.4002E-01	0.0	1.4788E+01
26	2.3587E+00	2.4318E+00	8.8820E-01	9.8325E-01	1.2191E+01	2.0670E-02	4.2019E-01	0.0	1.5751E+01
27	2.5741E+00	2.4337E+00	9.8325E-01	2.9354E-03	1.2191E+01	2.0670E-02	4.2019E-01	0.0	1.6243E+01
28	2.9689E+00	2.4316E+00	1.0863E+00	2.6460E-05	1.2188E+01	1.6747E-02	4.2498E-01	0.0	1.6802E+01
29	3.1815E+00	2.4296E+00	1.2138E+00	1.3138E-05	1.2406E+01	1.3503E-02	4.2364E-01	0.0	1.7108E+01
30	3.4862E+00	2.4296E+00	1.3103E+00	6.7089E-06	1.2511E+01	1.1084E-02	4.2204E-01	0.0	1.7617E+01
31	4.0196E+00	2.4293E+00	1.5019E+00	2.8975E-06	1.2095E+01	9.2559E-03	4.3063E-01	0.0	1.9852E+01
32	4.6522E+00	2.4263E+00	1.9688E+00	1.0935E-06	1.3231E+01	5.3151E-03	4.7762E-01	0.0	2.0256E+01
33	5.2469E+00	2.4286E+00	2.0966E+00	3.4821E-07	1.2912E+01	2.8609E-03	4.2889E-01	0.0	2.0591E+01
34	5.4866E+00	2.4300E+00	2.1970E+00	2.1569E-07	1.2707E+01	2.8609E-03	4.7729E-01	0.0	2.1709E+01
35	7.4695E+00	2.4288E+00	2.6294E+00	1.9783E-07	1.1610E+01	2.8609E-03	3.6804E-01	0.0	2.2438E+01
36	7.5435E+00	2.4288E+00	3.2317E+00	1.8240E-07	1.1663E+01	2.8609E-03	4.3531E-01	0.0	2.6380E+01
37	7.5050E+00	2.4303E+00	4.5228E+00	1.6708E-07	1.4353E+01	2.8609E-03	5.4929E-01	0.0	2.3967E+01
38	8.0305E+00	2.4289E+00	4.1861E+00	1.5141E-07	1.1751E+01	2.8609E-03	4.1410E-01	0.0	2.8464E+01
39	1.2736E+01	2.4290E+00	4.6267E+00	1.3583E-07	1.1100E+01	2.8609E-03	3.9082E-01	0.0	2.9842E+01
40	1.4082E+01	2.4286E+00	4.8670E+00	1.2044E-07	1.0893E+01	2.8609E-03	3.5823E-01	0.0	

TO BE CONTINUED

NUCLID = U235-J2 CODE NO = 925
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41	1.4012E+01	2.4287E+00	5.2295E+00	1.0478E-07	1.1032E+01	2.8609E-03	4.4334E-01	0.0	3.0273E+01
42	1.3991E+01	2.4301E+00	9.0753E+00	8.9342E-08	1.2017E+01	2.8609E-03	5.3551E-01	0.0	3.5083E+01
43	1.8674E+01	2.4276E+00	1.0153E+01	7.3923E-08	1.2699E+01	2.8609E-03	4.3946E-01	0.0	4.1526E+01
44	2.6441E+01	2.4289E+00	1.6637E+01	5.8331E-08	1.3619E+01	2.8609E-03	7.4208E-01	0.0	5.6698E+01
45	1.5063E+01	2.4286E+00	9.5919E+00	4.2827E-08	1.0562E+01	2.8609E-03	3.5576E-01	0.0	3.5217E+01
46	2.2634E+01	2.4287E+00	1.0108E+01	2.7516E-08	1.1030E+01	2.8609E-03	4.9762E-01	0.0	4.3772E+01
47	2.6192E+01	2.4285E+00	1.6906E+01	1.2171E-08	1.3066E+01	2.8609E-03	4.2088E-01	0.0	5.6164E+01
48	2.2163E+01	2.4285E+00	1.1658E+01	4.1641E-10	1.2988E+01	2.8609E-03	4.6895E-01	0.0	4.6808E+01
49	5.4484E+01	2.4285E+00	2.7860E+01	0.0	1.3908E+01	2.8609E-03	4.2426E-01	0.0	9.6252E+01
50	3.4761E+01	2.4285E+00	2.0987E+01	0.0	1.2850E+01	2.8609E-03	4.5909E-01	0.0	6.8598E+01
51	5.7292E+01	2.4286E+00	4.0473E+01	0.0	1.3945E+01	2.8609E-03	4.1952E-01	0.0	1.1171E+02
52	4.2985E+01	2.4285E+00	2.3610E+01	0.0	1.2787E+01	2.8609E-03	3.8928E-01	0.0	7.9381E+01
53	6.0992E+01	2.4286E+00	5.1066E+01	0.0	1.4612E+01	2.8609E-03	3.8381E-01	0.0	1.2667E+02
54	3.1706E+01	2.4287E+00	2.1903E+01	0.0	1.2455E+01	2.8609E-03	4.4085E-01	0.0	6.6065E+01
55	4.0313E+01	2.4286E+00	7.6695E+01	0.0	1.4068E+01	2.8609E-03	4.2401E-01	0.0	1.3108E+02
56	9.9471E+01	2.4287E+00	5.0540E+01	0.0	1.3625E+01	2.8609E-03	3.6352E-01	0.0	1.6364E+02
57	1.4416E+01	2.4288E+00	1.8824E+01	0.0	1.2185E+01	2.8609E-03	5.2058E-01	0.0	4.5425E+01
58	2.8162E+01	2.4286E+00	4.0232E+01	0.0	1.2122E+01	2.8609E-03	4.4436E-01	0.0	8.0516E+01
59	5.2043E+00	2.4287E+00	2.0135E+01	0.0	1.2589E+01	2.8609E-03	4.5581E-01	0.0	3.7927E+01
60	3.2307E+01	2.4286E+00	1.6601E+01	0.0	1.3022E+01	2.8609E-03	4.5196E-01	0.0	6.1929E+01
61	1.2984E+01	2.4287E+00	3.5641E+00	0.0	1.3197E+01	2.8609E-03	4.7551E-01	0.0	2.9746E+01
62	1.5530E+01	2.4286E+00	1.4012E+01	0.0	1.3708E+01	2.8609E-03	4.8817E-01	0.0	4.3250E+01
63	1.4313E+01	2.4286E+00	4.4752E+00	0.0	1.4129E+01	2.8609E-03	5.0737E-01	0.0	3.2917E+01
64	4.4416E+01	2.4287E+00	1.4267E+01	0.0	1.4652E+01	2.8609E-03	5.1809E-01	0.0	7.3335E+01
65	7.2146E+01	2.4286E+00	1.2060E+01	0.0	1.4134E+01	2.8609E-03	4.7886E-01	0.0	9.8340E+01
66	5.9593E+01	2.4286E+00	5.6250E+00	0.0	1.4096E+01	2.8609E-03	5.0622E-01	0.0	7.9314E+01
67	6.7254E+01	2.4286E+00	7.1019E+00	0.0	1.4614E+01	2.8609E-03	5.2459E-01	0.0	8.8886E+01
68	8.8161E+01	2.4286E+00	1.1515E+01	0.0	1.4987E+01	2.8609E-03	5.2919E-01	0.0	1.1466E+02
69	1.3999E+02	2.4286E+00	2.5944E+01	0.0	1.5023E+01	2.8609E-03	5.4116E-01	0.0	1.8096E+02
70	1.9243E+02	2.4286E+00	4.1447E+01	0.0	1.6044E+01	2.8609E-03	0.0	0.0	2.4992E+02

NUCLID = U235-J2 CODE NUMBER = 925 IPL = 0

GROUP	TABLE OF INELASTIC MATRICES										PAGE 1 OF 6		
	J=	EXIT	GROUP	** KK **	KK = I + J - 1	3	4	5	6	7	8	9	10
1	11	12	13	14	15	16	17	18	19	20			
	21	22	23	24	25	26	27	28	29	30			
	31	32	33	34	35	36	37	38	39	40			
	41	42											
1	1.86985E-05	2.78069E-04	1.75248E-03	6.70284E-03	1.72614E-02	3.25186E-02	4.79116E-02	5.81481E-02	6.06756E-02	5.61937E-02			
	4.74232E-02	3.72183E-02	2.75970E-02	1.95764E-02	1.34136E-02	8.94832E-03	5.84584E-03	3.75554E-03	2.38283E-03	1.49683E-03			
	9.32941E-04	5.78004E-04	3.56449E-04	2.16926E-04	1.36174E-04	8.20340E-05	5.00408E-05	3.05042E-05	1.85686E-05	1.12947E-05			
	6.86585E-06	4.17169E-06	2.53357E-06	1.53841E-06	9.33921E-07	5.66751E-07	0.0	0.0	0.0	0.0			
2	2.11606E-04	2.26750E-03	1.09212E-02	3.38804E-02	7.39285E-02	1.22281E-01	1.62524E-01	1.82115E-01	1.78342E-01	1.57221E-01			
	1.27669E-01	9.72192E-02	7.04119E-02	4.90339E-02	3.31268E-02	2.18557E-02	1.41489E-02	9.03112E-03	5.69959E-03	3.56536E-03			
	2.21518E-03	1.36909E-03	8.70419E-04	5.16926E-04	3.16378E-04	1.93148E-04	1.17815E-04	7.17517E-05	4.36611E-05	2.65487E-05			
	1.61348E-05	9.80081E-06	5.95198E-06	3.61366E-06	2.19314E-06	0.0	0.0	0.0	0.0	0.0			
3	1.13063E-03	8.58392E-03	3.19734E-02	8.23185E-02	1.55124E-01	2.28440E-01	2.77431E-01	2.89372E-01	2.68007E-01	2.26191E-01			
	1.77513E-01	1.31625E-01	9.33591E-02	6.39816E-02	4.26859E-02	2.78753E-02	1.79135E-02	1.13652E-02	7.13876E-03	4.44959E-03			
	2.75694E-03	1.70001E-03	1.04456E-03	6.40055E-04	3.91110E-04	2.38737E-04	1.45477E-04	8.85615E-05	5.38693E-05	3.27472E-05			
	1.98959E-05	1.20846E-05	7.33790E-06	4.45383E-06	2.70324E-06	0.0	0.0	0.0	0.0	0.0			
4	5.05994E-02	2.03549E-02	5.52910E-02	1.20683E-01	1.99513E-01	2.65349E-01	2.97212E-01	2.91068E-01	2.56611E-01	2.08372E-01			
	1.58867E-01	1.16490E-01	8.00362E-02	5.40759E-02	3.56630E-02	2.30947E-02	1.47403E-02	9.30200E-03	5.81903E-03	3.61565E-03			
	2.23443E-03	1.37527E-03	8.45837E-04	5.16169E-04	3.15330E-04	1.92271E-04	1.17106E-04	7.12592E-05	4.33315E-05	2.63326E-05			
	1.59971E-05	9.71499E-06	5.89727E-06	3.57964E-06	0.0	0.0	0.0	0.0	0.0	0.0			
5	2.19163E-02	4.84337E-02	8.31765E-02	1.56660E-01	2.30858E-01	2.80258E-01	2.92331E-01	2.70764E-01	2.28513E-01	1.79336E-01			
	1.32961E-01	9.43254E-02	6.46489E-02	4.31142E-02	2.81639E-02	1.80979E-02	1.14813E-02	7.21196E-03	4.49554E-03	2.78513E-03			
	1.71755E-03	1.05546E-03	6.46377E-04	3.95237E-04	2.41167E-04	1.46969E-04	8.94696E						

TO BE CONTINUED

NUCLID = U235-J2 CODE NUMBER = 925 IPL = 0

TABLE OF INELASTIC MATRICES											PAGE 2 OF 6		
GROUP	J=	EXIT	GROUP	** KK	**	KK = I + J - 1	3	5	6	7	8	9	10
I		1	2			3	4						
		11	12			13	14	15	16	17	18	19	20
		21	22			23	24	25	26	27	28	29	30
		31	32			33	34	35	36	37	38	39	40
		41	42										
9		2.76844E-01	4.01411E-01	2.52601E-01	1.24362E-01	8.78522E-02	8.13686E-02	6.86628E-02	5.38900E-02	3.99655E-02	2.83435E-02		
		1.94245E-02	1.29574E-02	8.46317E-03	5.43815E-03	3.45033E-03	2.16724E-03	1.35093E-03	8.37133E-04	5.16023E-04	3.17134E-04		
		1.94276E-04	1.18758E-04	7.24693E-05	4.41646E-05	2.68850E-05	1.63545E-05	9.94241E-06	6.04022E-06	3.66873E-06	2.22758E-06		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
10		3.16820E-01	4.53154E-01	2.73471E-01	1.92213E-01	8.53969E-02	4.16664E-02	3.15399E-02	2.40215E-02	1.73938E-02	1.21151E-02		
		8.18435E-03	5.39855E-03	3.49566E-03	2.23119E-03	1.40801E-03	8.80868E-04	5.47394E-04	3.38167E-04	2.08186E-04	1.27705E-04		
		7.81454E-05	4.77251E-05	2.91033E-05	1.77252E-05	1.07866E-05	6.55947E-06	3.98594E-06	2.42143E-06	0.0	0.0		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
11		3.16753E-01	4.82593E-01	2.12107E-01	1.80162E-01	1.28831E-01	6.46250E-02	2.82466E-02	1.42113E-02	5.31657E-03	2.97373E-03		
		1.98353E-03	1.29559E-03	8.32563E-04	5.28180E-04	3.31797E-04	2.06849E-04	1.28106E-04	7.90193E-05	4.85454E-05	2.97410E-05		
		1.81802E-05	1.10944E-05	6.76075E-06	4.11603E-06	2.50387E-06	1.52189E-06	0.0	0.0	0.0	0.0		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
12		2.81312E-01	4.74100E-01	2.14127E-01	9.53898E-02	8.84215E-02	7.29644E-02	4.72708E-02	3.46632E-02	2.05602E-02	1.15433E-02		
		6.22673E-03	3.97985E-03	2.75563E-03	1.58889E-03	8.61163E-04	5.60110E-04	3.58365E-04	2.06082E-04	1.32620E-04	7.69610E-05		
		4.82489E-05	3.32497E-05	1.49508E-05	1.30079E-05	3.83484E-06	3.82676E-06	5.40259E-06	1.48461E-06	0.0	0.0		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		
13		2.71104E-01	4.74624E-01	2.85367E-01	1.04998E-01	4.61771E-02	3.66790E-02	3.12759E-02	2.58439E-02	2.3			

TO BE CONTINUED

NUCLID = U235-J2 CODE NUMBER = 925 IPL = 0										
TABLE OF INELASTIC MATRICES										
PAGE 3 OF 6										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
I	J			3	4					
	1	2		3	4	5	6	7	8	9
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42								

17	5.04905E-02	2.04335E-01	2.06000E-01	9.09980E-02	4.49507E-02	2.89484E-02	1.54352E-02	2.33460E-02	1.68755E-02	1.10714E-02
	6.03596E-03	8.55374E-03	7.25246E-03	4.94126E-03	3.41475E-03	2.38200E-03	1.67683E-03	1.06163E-03	6.48838E-04	3.94909E-04
	2.40693E-04	1.51025E-04	8.81056E-05	5.87539E-05	3.30101E-05	1.92911E-05	1.33445E-05	7.80072E-06	4.78564E-06	1.59062E-06
	1.70884E-06	1.71412E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
18	4.53147E-02	1.00867E-01	1.95317E-01	9.18140E-02	5.34831E-02	4.32386E-02	1.60306E-02	2.91482E-03	1.79132E-03	3.54747E-03
	6.00436E-03	3.61008E-03	2.00023E-03	1.21625E-03	7.40259E-04	4.54178E-04	2.73961E-04	1.66006E-04	1.01507E-04	6.15902E-05
	3.73736E-05	2.27141E-05	1.36984E-05	8.54517E-06	5.40947E-06	3.05710E-06	2.29377E-06	6.10872E-07	8.08952E-07	8.06646E-07
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
19	3.31719E-02	3.51432E-02	1.08260E-01	1.24314E-01	3.41651E-02	1.86035E-02	2.30806E-02	1.60356E-02	1.11071E-02	7.69510E-03
	5.51897E-03	4.75524E-03	2.83935E-03	4.00807E-04	2.43546E-04	1.48415E-04	9.05464E-05	5.50579E-05	3.33041E-05	2.02535E-05
	1.22020E-05	7.67923E-06	4.61596E-06	2.55682E-06	1.70827E-06	1.09897E-06	6.66978E-07	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
20	1.80824E-02	3.51887E-02	0.0	6.04240E-02	6.91148E-02	4.04992E-02	1.30164E-02	0.0	0.0	0.0
	0.0	1.09761E-03	8.94404E-03	6.28575E-03	4.21797E-03	2.83956E-03	1.92407E-03	1.33088E-03	9.33166E-04	6.65487E-04
	4.79330E-04	3.32917E-04	2.12306E-04	1.28219E-04	7.72227E-05	4.62772E-05	3.09860E-05	1.94833E-05	8.37874E-06	7.58146E-06
	2.95485E-06	2.93212E-06	2.95468E-06	6.01155E-07	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
21	6.45094E-03	3.81443E-02	5.57094E-03	0.0	9.03325E-03	2.72624E-02	3.19384E-02	2.24268E-02	1.57512E-02	9.45101E-03
	3.78048E-03	2.20931E-03	1.53486E-03	1.04563E-03	7.20578E-04	4.93081E-04	3.45565E-04	2.52518E-04	1.49519E-04	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
22	7.27312E-04	1.96635E-02	1.03568E-02	0.0	0.0	0.0	0.0	0.0	2.56829E-03	8.00342E-03
	5.64188E-03	3.91207E-03	2.68000E-03	1.86199E-03	1.31845E-03	9.42555E-04	6.30648E-04	4.15766E-04	1.84869E-03	1.49660E-03
	9.14227E-04	5.51455E-04	3.37593E-04	2.04729E-04	1.23398E-04	7.81771E-05	4.38027E-05	2.82920E-05	1.89679E-05	1.07321E-05
	5.86212E-06	3.65279E-06	2.26522E-06	1.35600E-06	8.18513E-07	6.19745E-07	2.96401E-07	3.00331E-07	9.14363E-08	7.26006E-08
	7.41678E-08	7.68819E-08								
23	5.76367E-04	1.15453E-02	2.05461E-02	2.39203E-03	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								
24	3.21327E-04	9.01786E-06	1.45897E-02	1.18903E-02	3.08979E-04	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0								

TO BE CONTINUED

NUCLID = U235-J2				CODE NUMBER = 925				IPL = 0			
TABLE OF INELASTIC MATRICES											
PAGE 4 OF 6											
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10	
1	J=	1	2	3	4	5	6	7	8	9	
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31	32	33	34	35	36	37	38	39	40	
	41	42									

25	1.78262E-04	5.38357E-06	1.89337E-05	9.93081E-03	6.94976E-03	2.82715E-03	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0									
26	9.61615E-05	3.17600E-06	0.0	0.0	2.33985E-03	4.03868E-03	2.74794E-03	1.87462E-03	1.29500E-03	1.99758E-04	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0									
27	3.34171E-05	1.21774E-06	0.0	0.0	0.0	0.0	0.0	0.0	9.29966E-04	7.64947E-04	
	4.69717E-04	2.86625E-04	1.75826E-04	1.07053E-04	6.54499E-05	3.95285E-05	2.42824E-05	1.48745E-05	8.50635E-06	5.46865E-06	
	3.50838E-06	1.92332E-06	1.19147E-06	7.95859E-07	4.22640E-07	3.12262E-07	5.76963E-08	1.80461E-07	1.28916E-07	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0									
28	2.54749E-05	9.84582E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0									
29	1.25505E-05	5.87675E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0									
30	6.38894E-06	3.17924E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0									
31	2.72936E-06	1.68144E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0									
32	1.04470E-06	4.88131E-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0									

TO BE CONTINUED

JAERI-M 82-135

NUCLID = U235-J2 CODE NUMBER = 925 IPL = 0

TABLE OF (N,2N) MATRICES										PAGE 1 OF 1	
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1							
I	J			3	4	5	6	7	8	9	10
1	1	2		3	4	5	6	7	8	9	10
11	12	13		14	15	16	17	18	19	20	
21	22	23		24	25	26	27	28	29	30	
31	32	33		34	35	36	37	38	39	40	
41	42	43		44	45	46	47	48	49		
1	0.0	0.0	0.0	0.0	5.57294E-03	2.18201E-02	5.23339E-02	9.31890E-02	1.31394E-01	1.54075E-01	
	1.56404E-01	1.41817E-01	1.17714E-01	9.11899E-02	6.69269E-02	4.71054E-02	3.20866E-02	2.12958E-02	1.38592E-02	8.87986E-03	
	5.62058E-03	3.52429E-03	2.19381E-03	1.35768E-03	8.36561E-04	5.13740E-04	3.14462E-04	1.92206E-04	1.17245E-04	7.14326E-05	
	4.34777E-05	2.64431E-05	1.60719E-05	9.76485E-06	5.93071E-06	3.60036E-06	2.18554E-06	1.32642E-06	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	0.0	0.0	0.0	0.0	0.0	0.0	1.41584E-02	4.63354E-02	7.45253E-02	9.69403E-02	
	1.06746E-01	1.03148E-01	8.99862E-02	7.24644E-02	5.48333E-02	3.95217E-02	2.74121E-02	1.84630E-02	1.21506E-02	7.85295E-03	
	5.00476E-03	3.15509E-03	1.97193E-03	1.22442E-03	7.56446E-04	4.65188E-04	2.85368E-04	1.74566E-04	1.06591E-04	6.49881E-05	
	3.95786E-05	2.40806E-05	1.46426E-05	8.89882E-06	5.40488E-06	3.28219E-06	1.99259E-06	1.20940E-06	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	2.42278E-02	1.72459E-02	1.07744E-02	6.69129E-03	4.13262E-03	2.54229E-03	1.55906E-03	9.53797E-04	
	5.82363E-04	3.55088E-04	2.16262E-04	1.31570E-04	8.00015E-05	4.86172E-05	2.95314E-05	1.79331E-05	1.08862E-05	6.60850E-06	
	4.00988E-06	2.43284E-06	1.47655E-06	8.95581E-07	5.43335E-07	3.29610E-07	1.99945E-07	1.21277E-07	7.35745E-08		

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2 REACTION = FISSION FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	300.	0.9673	0.9712	0.9843	0.9968	0.9996	1.0000	1.0000	1.0000
26	800.	0.9724	0.9762	0.9880	0.9977	0.9997	1.0000	1.0000	1.0000
	2100.	0.9746	0.9784	0.9900	0.9982	0.9998	1.0000	1.0000	1.0000
	4500.	0.9742	0.9782	0.9905	0.9984	0.9998	1.0000	1.0000	1.0000
	300.	0.9738	0.9754	0.9843	0.9964	0.9996	1.0000	1.0000	1.0000
	800.	0.9834	0.9844	0.9899	0.9977	0.9997	1.0000	1.0000	1.0000
27	2100.	0.9888	0.9894	0.9927	0.9984	0.9998	1.0000	1.0000	1.0000
	4500.	0.9911	0.9913	0.9932	0.9986	0.9998	1.0000	1.0000	1.0000
	300.	0.9607	0.9626	0.9696	0.9924	0.9990	0.9997	0.9998	0.9998
	800.	0.9722	0.9735	0.9768	0.9942	0.9992	0.9997	0.9998	0.9998
	2100.	0.9789	0.9798	0.9806	0.9952	0.9993	0.9997	0.9998	0.9998
28	4500.	0.9818	0.9824	0.9820	0.9956	0.9993	0.9997	0.9997	0.9997
	300.	0.9498	0.9522	0.9635	0.9898	0.9985	0.9996	0.9997	0.9997
	800.	0.9642	0.9658	0.9727	0.9921	0.9988	0.9996	0.9997	0.9997
	2100.	0.9738	0.9749	0.9785	0.9935	0.9990	0.9996	0.9997	0.9997
	4500.	0.9789	0.9796	0.9812	0.9943	0.9991	0.9996	0.9997	0.9997
29	300.	0.9394	0.9422	0.9576	0.9874	0.9982	0.9995	0.9996	0.9996
	800.	0.9568	0.9587	0.9691	0.9904	0.9986	0.9995	0.9996	0.9996
	2100.	0.9681	0.9695	0.9763	0.9922	0.9988	0.9995	0.9996	0.9996
	4500.	0.9743	0.9753	0.9799	0.9932	0.9989	0.9995	0.9996	0.9996
	300.	0.9310	0.9341	0.9525	0.9865	0.9982	0.9997	0.9998	0.9998
30	800.	0.9527	0.9548	0.9674	0.9906	0.9987	0.9997	0.9998	0.9998
	2100.	0.9674	0.9688	0.9774	0.9933	0.9991	0.9997	0.9998	0.9998
	4500.	0.9754	0.9765	0.9826	0.9946	0.9992	0.9997	0.9998	0.9998
	300.	0.9329	0.9359	0.9541	0.9879	0.9985	0.9998	0.9999	1.0000
	800.	0.9565	0.9584	0.9705	0.9924	0.9991	0.9999	1.0000	1.0000
31	2100.	0.9726	0.9738	0.9815	0.9954	0.9994	0.9999	1.0000	1.0000
	4500.	0.9815	0.9823	0.9874	0.9969	0.9996	0.9999	1.0000	1.0000
	300.	0.9082	0.9123	0.9367	0.9820	0.9976	0.9995	0.9997	0.9998
	800.	0.9349	0.9379	0.9558	0.9875	0.9983	0.9996	0.9997	0.9998
	2100.	0.9555	0.9576	0.9700	0.9913	0.9988	0.9997	0.9997	0.9998
32	4500.	0.9684	0.9700	0.9787	0.9936	0.9990	0.9997	0.9997	0.9998
	300.	0.8504	0.8568	0.8943	0.9595	0.9926	0.9969	0.9974	0.9974
	800.	0.8826	0.8878	0.9178	0.9667	0.9936	0.9970	0.9974	0.9974
	2100.	0.9077	0.9119	0.9355	0.9719	0.9943	0.9971	0.9974	0.9974
	4500.	0.9248	0.9282	0.9473	0.9751	0.9947	0.9971	0.9974	0.9974
33	300.	0.8862	0.8912	0.9216	0.9794	0.9977	1.0001	1.0003	1.0003
	800.	0.9195	0.9233	0.9459	0.9870	0.9987	1.0002	1.0003	1.0004
	2100.	0.9438	0.9465	0.9629	0.9921	0.9994	1.0003	1.0004	1.0004
	4500.	0.9578	0.9599	0.9726	0.9949	0.9998	1.0003	1.0004	1.0004
	300.	0.7919	0.8008	0.8538	0.9552	0.9941	0.9991	0.9996	0.9997
34	800.	0.8343	0.8418	0.8860	0.9665	0.9956	0.9992	0.9996	0.9997
	2100.	0.8745	0.8803	0.9145	0.9751	0.9967	0.9993	0.9996	0.9996
	4500.	0.9049	0.9093	0.9353	0.9809	0.9974	0.9994	0.9996	0.9996

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = FISSION				FOR 1TH R-PARAMETER		PAGE 4 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.7838	0.7912	0.8386	0.9444	0.9918	0.9984	0.9990	0.9991
	800.	0.8508	0.8563	0.8910	0.9630	0.9944	0.9986	0.9990	0.9991
	2100.	0.9055	0.9091	0.9313	0.9755	0.9960	0.9988	0.9991	0.9991
	4500.	0.9369	0.9392	0.9536	0.9820	0.9968	0.9989	0.9991	0.9991
38	300.	0.7575	0.7658	0.8171	0.9227	0.9862	0.9956	0.9965	0.9966
	800.	0.8148	0.8214	0.8618	0.9389	0.9887	0.9958	0.9965	0.9966
	2100.	0.8608	0.8660	0.8973	0.9511	0.9904	0.9960	0.9966	0.9966
	4500.	0.8882	0.8926	0.9186	0.9582	0.9915	0.9961	0.9966	0.9967
39	300.	0.7532	0.7607	0.8082	0.9158	0.9853	0.9955	0.9966	0.9967
	800.	0.8106	0.8166	0.8537	0.9325	0.9878	0.9957	0.9965	0.9966
	2100.	0.8677	0.8716	0.8958	0.9456	0.9895	0.9958	0.9965	0.9965
	4500.	0.9048	0.9071	0.9218	0.9528	0.9904	0.9959	0.9964	0.9965
40	300.	0.7157	0.7249	0.7842	0.9319	0.9917	1.0008	1.0018	1.0019
	800.	0.7655	0.7738	0.8267	0.9532	0.9953	1.0012	1.0018	1.0019
	2100.	0.8147	0.8221	0.8683	0.9721	0.9982	1.0014	1.0018	1.0018
	4500.	0.8458	0.8526	0.8945	0.9834	0.9998	1.0016	1.0018	1.0018
41	300.	0.6622	0.6718	0.7339	0.9031	0.9874	1.0002	1.0015	1.0016
	800.	0.7209	0.7299	0.7867	0.9301	0.9919	1.0006	1.0016	1.0017
	2100.	0.7891	0.7971	0.8460	0.9572	0.9962	1.0012	1.0017	1.0017
	4500.	0.8466	0.8534	0.8936	0.9772	0.9992	1.0016	1.0019	1.0019
42	300.	0.7264	0.7331	0.7789	0.8953	0.9784	0.9934	0.9950	0.9951
	800.	0.8117	0.8159	0.8453	0.9210	0.9825	0.9938	0.9949	0.9951
	2100.	0.8752	0.8774	0.8943	0.9392	0.9855	0.9941	0.9950	0.9951
	4500.	0.8978	0.8995	0.9124	0.9463	0.9867	0.9943	0.9951	0.9952
43	300.	0.6743	0.6823	0.7370	0.8974	0.9848	0.9999	1.0016	1.0018
	800.	0.7397	0.7465	0.7926	0.9248	0.9901	1.0004	1.0016	1.0017
	2100.	0.8013	0.8067	0.8436	0.9488	0.9943	1.0008	1.0015	1.0016
	4500.	0.8394	0.8439	0.8753	0.9635	0.9967	1.0009	1.0014	1.0014
44	300.	0.5847	0.5909	0.6354	0.7907	0.9459	0.9894	0.9945	0.9951
	800.	0.6511	0.6565	0.6956	0.8300	0.9580	0.9910	0.9948	0.9952
	2100.	0.7386	0.7428	0.7731	0.8746	0.9691	0.9926	0.9952	0.9954
	4500.	0.8100	0.8132	0.8362	0.9077	0.9761	0.9935	0.9954	0.9956
45	300.	0.5657	0.5757	0.6428	0.8383	0.9700	0.9955	0.9984	0.9986
	800.	0.6282	0.6383	0.7045	0.8805	0.9796	0.9969	0.9988	0.9990
	2100.	0.6952	0.7050	0.7680	0.9188	0.9876	0.9982	0.9993	0.9995
	4500.	0.7396	0.7484	0.8057	0.9374	0.9913	0.9989	0.9997	0.9998
46	300.	0.5933	0.6038	0.6729	0.8612	0.9772	0.9978	1.0001	1.0003
	800.	0.6503	0.6604	0.7259	0.8911	0.9830	0.9984	1.0001	1.0002
	2100.	0.7196	0.7285	0.7852	0.9199	0.9880	0.9989	1.0000	1.0001
	4500.	0.7722	0.7797	0.8275	0.9387	0.9910	0.9990	0.9999	1.0000
47	300.	0.6930	0.6993	0.7439	0.8893	0.9852	1.0000	1.0016	1.0018
	800.	0.7739	0.7787	0.8137	0.9263	0.9918	1.0000	1.0008	1.0009
	2100.	0.8416	0.8449	0.8693	0.9501	0.9935	0.9980	0.9985	0.9985
	4500.	0.8745	0.8770	0.8960	0.9596	0.9921	0.9950	0.9953	0.9953
48	300.	0.4699	0.4805	0.5514	0.7813	0.9710	1.0021	1.0056	1.0060
	800.	0.5168	0.5278	0.6013	0.8252	0.9839	1.0047	1.0070	1.0073
	2100.	0.5830	0.5942	0.6677	0.8736	0.9962	1.0077	1.0090	1.0091
	4500.	0.6506	0.6615	0.7319	0.9129	1.0050	1.0103	1.0108	1.0109

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = FISSION				FOR 1TH R-PARAMETER		PAGE 5 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.5640	0.5679	0.6011	0.7622	0.9432	0.9925	0.9984	0.9990
	800.	0.6348	0.6379	0.6659	0.8070	0.9558	0.9918	0.9959	0.9963
	2100.	0.7149	0.7168	0.7359	0.8466	0.9631	0.9893	0.9922	0.9924
	4500.	0.7667	0.7678	0.7810	0.8710	0.9659	0.9864	0.9886	0.9888
50	300.	0.6366	0.6420	0.6815	0.8264	0.9623	0.9965	1.0008	1.0013
	800.	0.6908	0.6960	0.7337	0.8672	0.9786	0.9969	1.0018	1.0045
	2100.	0.7580	0.7629	0.7978	0.9134	0.9949	1.0083	1.0098	1.0100
	4500.	0.8140	0.8185	0.8506	0.9485	1.0064	1.0136	1.0144	1.0145
51	300.	0.2365	0.2424	0.2884	0.5183	0.9048	1.0085	1.0227	1.0241
	800.	0.2680	0.2743	0.3233	0.5657	0.9364	1.0135	1.0234	1.0244
	2100.	0.3357	0.3420	0.3914	0.6328	0.9682	1.0183	1.0243	1.0249
	4500.	0.4041	0.4107	0.4612	0.6942	0.9918	1.0219	1.0254	1.0257
52	300.	0.6457	0.6502	0.6863	0.8337	0.9450	0.9838	0.9883	0.9888
	800.	0.7045	0.7087	0.7416	0.8701	0.9524	0.9841	0.9877	0.9881
	2100.	0.7661	0.7699	0.7979	0.9018	0.9566	0.9819	0.9848	0.9851
	4500.	0.8060	0.8089	0.8311	0.9158	0.9544	0.9761	0.9785	0.9787
53	300.	0.2411	0.2471	0.2897	0.4463	0.7368	0.9465	0.9826	0.9865
	800.	0.2613	0.2680	0.3152	0.4861	0.7778	0.9565	0.9839	0.9868
	2100.	0.3109	0.3183	0.3700	0.5527	0.8268	0.9669	0.9860	0.9880
	4500.	0.4018	0.4087	0.4576	0.6319	0.8683	0.9751	0.9885	0.9899
54	300.	0.5171	0.5255	0.5872	0.8080	0.9316	0.9754	0.9803	0.9807
	800.	0.5765	0.5855	0.6495	0.8532	0.9393	0.9741	0.9779	0.9783
	2100.	0.6753	0.6837	0.7412	0.9008	0.9419	0.9686	0.9715	0.9718
	4500.	0.7719	0.7774	0.8157	0.9263	0.9397	0.9616	0.9640	0.9643
55	300.	0.4506	0.4535	0.4765	0.5943	0.8528	0.9869	1.0093	1.0117
	800.	0.4821	0.4856	0.5132	0.6513	0.9048	0.9991	1.0128	1.0143
	2100.	0.5401	0.5446	0.5802	0.7463	0.9668	1.0149	1.0210	1.0216
	4500.	0.6086	0.6139	0.6552	0.8389	1.0167	1.0319	1.0334	1.0335
56	300.	0.3160	0.3180	0.3376	0.4739	0.7304	0.9309	0.9659	0.9697
	800.	0.3294	0.3314	0.3515	0.4952	0.7528	0.9368	0.9663	0.9694
	2100.	0.3508	0.3530	0.3739	0.5288	0.7812	0.9423	0.9658	0.9683
	4500.	0.3751	0.3773	0.3991	0.5627	0.8013	0.9424	0.9616	0.9635
57	300.	0.4776	0.4862	0.5492	0.7739	0.9217	0.9751	0.9816	0.9823
	800.	0.5012	0.5111	0.5845	0.8424	0.9742	1.0216	1.0275	1.0281
	2100.	0.5584	0.5708	0.6616	0.9568	1.0551	1.0967	1.1020	1.1025
	4500.	0.6555	0.6704	0.7773	1.0925	1.1568	1.1910	1.1955	1.1960
58	300.	0.5342	0.5374	0.5650	0.7085	0.9791	1.0310	1.0371	1.0377
	800.	0.5346	0.5373	0.5620	0.7065	0.9731	1.0089	1.0123	1.0127
	2100.	0.5431	0.5450	0.5642	0.7071	0.9552	0.9750	0.9762	0.9764
	4500.	0.5655	0.5669	0.5819	0.7186	0.9390	0.9475	0.9475	0.9475
59	300.	0.5692	0.5727	0.6079	0.7803	1.0011	1.0302	1.0326	1.0329
	800.	0.5699	0.5739	0.6148	0.8068	1.0126	1.0324	1.0336	1.0337
	2100.	0.5804	0.5852	0.6341	0.8394	1.0197	1.0316	1.0318	1.0318
	4500.	0.6246	0.6304	0.6839	0.8753	1.0237	1.0307	1.0304	1.0304
60	300.	0.4909	0.4955	0.5332	0.8091	0.9587	0.9876	0.9909	0.9912
	800.	0.5207	0.5251	0.5825	0.8287	0.9572	0.9803	0.9830	0.9832
	2100.	0.5964	0.5992	0.6476	0.8560	0.9493	0.9651	0.9669	0.9671
	4500.	0.7038	0.7029	0.7273	0.8746	0.9364	0.9466	0.9478	0.9480

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = FISSION				FOR 1TH R-PARAMETER PAGE 6 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.8897	0.8910	0.9029	0.9747	1.0210	1.0194	1.0188	1.0187
	800.	0.8977	0.8989	0.9114	0.9893	1.0425	1.0417	1.0411	1.0410
	2100.	0.9143	0.9157	0.9296	1.0192	1.0852	1.0858	1.0852	1.0851
	4500.	0.9399	0.9416	0.9573	1.0544	1.1302	1.1320	1.1313	1.1313
62	300.	0.8407	0.8417	0.8547	0.9344	0.9799	0.9895	0.9907	0.9909
	800.	0.8486	0.8497	0.8629	0.9417	0.9816	0.9897	0.9908	0.9909
	2100.	0.8643	0.8652	0.8777	0.9509	0.9832	0.9896	0.9905	0.9906
	4500.	0.8842	0.8849	0.8948	0.9570	0.9820	0.9871	0.9879	0.9880
63	300.	0.9930	0.9933	0.9954	0.9976	0.9967	0.9973	0.9974	0.9975
	800.	0.9945	0.9948	0.9970	0.9992	0.9983	0.9989	0.9990	0.9990
	2100.	0.9991	0.9994	1.0017	1.0039	1.0030	1.0035	1.0036	1.0036
	4500.	1.0111	1.0114	1.0137	1.0157	1.0149	1.0154	1.0155	1.0155
64	300.	0.6526	0.6534	0.6616	0.7593	0.9186	0.9641	0.9698	0.9704
	800.	0.6591	0.6599	0.6676	0.7629	0.9163	0.9590	0.9645	0.9651
	2100.	0.6751	0.6757	0.6822	0.7708	0.9111	0.9489	0.9538	0.9543
	4500.	0.7004	0.7007	0.7051	0.7817	0.9032	0.9352	0.9394	0.9399
65	300.	0.9801	0.9803	0.9825	1.0139	1.0181	1.0085	1.0073	1.0072
	800.	0.9823	0.9825	0.9846	1.0148	1.0186	1.0093	1.0081	1.0080
	2100.	0.9849	0.9850	0.9869	1.0141	1.0171	1.0085	1.0073	1.0072
	4500.	0.9830	0.9831	0.9847	1.0073	1.0094	1.0018	1.0008	1.0007
66	300.	0.9989	0.9989	0.9989	0.9992	0.9988	0.9994	0.9995	0.9995
	800.	0.9989	0.9989	0.9989	0.9992	0.9989	0.9994	0.9995	0.9995
	2100.	0.9989	0.9989	0.9989	0.9992	0.9989	0.9994	0.9995	0.9995
	4500.	0.9989	0.9989	0.9989	0.9992	0.9989	0.9994	0.9995	0.9995
67	300.	0.9943	0.9943	0.9943	0.9948	0.9948	0.9975	0.9978	0.9979
	800.	0.9943	0.9943	0.9943	0.9948	0.9948	0.9975	0.9978	0.9979
	2100.	0.9943	0.9943	0.9943	0.9948	0.9948	0.9975	0.9978	0.9979
	4500.	0.9943	0.9943	0.9943	0.9948	0.9948	0.9975	0.9978	0.9979
68	300.	0.9750	0.9751	0.9753	0.9772	0.9824	0.9926	0.9940	0.9942
	800.	0.9750	0.9751	0.9753	0.9772	0.9826	0.9926	0.9940	0.9942
	2100.	0.9750	0.9751	0.9753	0.9772	0.9828	0.9926	0.9940	0.9942
	4500.	0.9750	0.9751	0.9753	0.9772	0.9829	0.9926	0.9940	0.9942
69	300.	0.9706	0.9705	0.9704	0.9689	0.9733	0.9910	0.9935	0.9938
	800.	0.9706	0.9705	0.9704	0.9689	0.9735	0.9910	0.9935	0.9938
	2100.	0.9706	0.9705	0.9704	0.9689	0.9737	0.9910	0.9935	0.9938
	4500.	0.9706	0.9705	0.9704	0.9689	0.9739	0.9910	0.9935	0.9938
70	300.	0.9843	0.9844	0.9848	0.9876	0.9954	0.9993	0.9999	1.0000
	800.	0.9843	0.9844	0.9848	0.9876	0.9954	0.9993	0.9999	1.0000
	2100.	0.9843	0.9844	0.9848	0.9876	0.9954	0.9993	0.9999	1.0000
	4500.	0.9843	0.9844	0.9848	0.9876	0.9954	0.9993	0.9999	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = CAPTURE				FOR 1TH R-PARAMETER PAGE 3 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
26	300.	0.9699	0.9723	0.9836	0.9966	0.9996	1.0000	1.0000	1.0000
	800.	0.9739	0.9763	0.9869	0.9974	0.9997	1.0000	1.0000	1.0000
	2100.	0.9747	0.9772	0.9883	0.9979	0.9998	1.0000	1.0000	1.0000
	4500.	0.9732	0.9761	0.9885	0.9980	0.9998	1.0000	1.0000	1.0000
27	300.	0.9732	0.9746	0.9829	0.9961	0.9995	0.9999	1.0000	1.0000
	800.	0.9825	0.9834	0.9883	0.9974	0.9997	1.0000	1.0000	1.0000
	2100.	0.9879	0.9883	0.9909	0.9980	0.9998	0.9999	1.0000	1.0000
	4500.	0.9901	0.9902	0.9914	0.9982	0.9998	0.9999	1.0000	1.0000
28	300.	0.9599	0.9619	0.9706	0.9927	0.9990	0.9998	0.9998	0.9998
	800.	0.9723	0.9736	0.9783	0.9946	0.9992	0.9998	0.9998	0.9998
	2100.	0.9791	0.9800	0.9821	0.9956	0.9993	0.9998	0.9998	0.9998
	4500.	0.9821	0.9828	0.9836	0.9960	0.9994	0.9998	0.9998	0.9998
29	300.	0.9468	0.9495	0.9636	0.9906	0.9988	0.9997	0.9998	0.9999
	800.	0.9642	0.9660	0.9748	0.9934	0.9991	0.9998	0.9998	0.9998
	2100.	0.9751	0.9762	0.9814	0.9949	0.9993	0.9998	0.9998	0.9998
	4500.	0.9806	0.9814	0.9842	0.9956	0.9993	0.9998	0.9998	0.9998
30	300.	0.9437	0.9469	0.9659	0.9932	0.9994	1.0002	1.0003	1.0003
	800.	0.9653	0.9674	0.9801	0.9968	0.9999	1.0002	1.0003	1.0003
	2100.	0.9786	0.9800	0.9888	0.9988	1.0001	1.0002	1.0003	1.0003
	4500.	0.9860	0.9870	0.9935	0.9998	1.0002	1.0002	1.0002	1.0002
31	300.	0.9203	0.9238	0.9440	0.9827	0.9975	0.9993	0.9995	0.9995
	800.	0.9435	0.9460	0.9600	0.9872	0.9981	0.9994	0.9995	0.9995
	2100.	0.9593	0.9610	0.9706	0.9901	0.9984	0.9994	0.9995	0.9995
	4500.	0.9676	0.9689	0.9760	0.9914	0.9986	0.9994	0.9995	0.9995
32	300.	0.9279	0.9309	0.9494	0.9854	0.9980	0.9995	0.9997	0.9997
	800.	0.9546	0.9565	0.9680	0.9906	0.9986	0.9996	0.9997	0.9997
	2100.	0.9720	0.9731	0.9799	0.9938	0.9990	0.9997	0.9997	0.9997
	4500.	0.9809	0.9816	0.9858	0.9953	0.9992	0.9997	0.9997	0.9997
33	300.	0.9197	0.9233	0.9454	0.9866	0.9986	1.0001	1.0003	1.0003
	800.	0.9460	0.9486	0.9642	0.9921	0.9993	1.0002	1.0003	1.0003
	2100.	0.9653	0.9670	0.9775	0.9958	0.9998	1.0003	1.0003	1.0003
	4500.	0.9771	0.9782	0.9855	0.9979	1.0000	1.0003	1.0003	1.0003
34	300.	0.8658	0.8718	0.9079	0.9748	0.9968	0.9996	0.9999	0.9999
	800.	0.9014	0.9061	0.9341	0.9828	0.9978	0.9997	0.9999	0.9999
	2100.	0.9302	0.9337	0.9543	0.9885	0.9985	0.9998	0.9999	0.9999
	4500.	0.9488	0.9514	0.9669	0.9918	0.9989	0.9998	0.9999	0.9999
35	300.	0.8482	0.8541	0.8911	0.9666	0.9955	0.9993	0.9996	0.9997
	800.	0.8968	0.9008	0.9265	0.9777	0.9970	0.9994	0.9997	0.9997
	2100.	0.9295	0.9322	0.9496	0.9847	0.9979	0.9995	0.9997	0.9997
	4500.	0.9484	0.9503	0.9628	0.9886	0.9984	0.9996	0.9997	0.9998
36	300.	0.7446	0.7558	0.8205	0.9355	0.9897	0.9968	0.9976	0.9976
	800.	0.7933	0.8029	0.8576	0.9482	0.9915	0.9970	0.9976	0.9976
	2100.	0.8381	0.8440	0.8881	0.9574	0.9927	0.9972	0.9976	0.9977
	4500.	0.8660	0.8724	0.9084	0.9633	0.9934	0.9972	0.9976	0.9977

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.7325	0.7406	0.7937	0.9171	0.9860	0.9961	0.9972	0.9973
	800.	0.8133	0.8193	0.8578	0.9408	0.9895	0.9964	0.9972	0.9972
	2100.	0.8773	0.8811	0.9055	0.9560	0.9917	0.9966	0.9971	0.9972
	4500.	0.9131	0.9156	0.9317	0.9640	0.9927	0.9967	0.9972	0.9972
38	300.	0.7478	0.7568	0.8141	0.9365	0.9903	0.9979	0.9987	0.9988
	800.	0.8190	0.8259	0.8693	0.9561	0.9930	0.9982	0.9987	0.9987
	2100.	0.8714	0.8766	0.9089	0.9687	0.9947	0.9983	0.9987	0.9987
	4500.	0.8998	0.9041	0.9302	0.9753	0.9955	0.9984	0.9987	0.9987
39	300.	0.7502	0.7587	0.8122	0.9356	0.9911	0.9988	0.9996	0.9997
	800.	0.8250	0.8317	0.8726	0.9584	0.9942	0.9990	0.9995	0.9996
	2100.	0.8902	0.8945	0.9209	0.9729	0.9959	0.9990	0.9993	0.9994
	4500.	0.9303	0.9330	0.9490	0.9801	0.9966	0.9989	0.9992	0.9992
40	300.	0.6721	0.6821	0.7463	0.9100	0.9879	1.0001	1.0014	1.0015
	800.	0.7365	0.7455	0.8023	0.9384	0.9927	1.0005	1.0013	1.0014
	2100.	0.7988	0.8067	0.8555	0.9625	0.9963	1.0007	1.0012	1.0012
	4500.	0.8352	0.8424	0.8862	0.9755	0.9980	1.0008	1.0011	1.0011
41	300.	0.6237	0.6337	0.7004	0.8808	0.9821	0.9979	0.9996	0.9997
	800.	0.6957	0.7051	0.7656	0.9130	0.9875	0.9985	0.9996	0.9997
	2100.	0.7731	0.7814	0.8326	0.9429	0.9921	0.9990	0.9998	0.9998
	4500.	0.8349	0.8419	0.8835	0.9637	0.9952	0.9995	0.9999	1.0000
42	300.	0.6657	0.6738	0.7289	0.8821	0.9785	0.9954	0.9972	0.9974
	800.	0.7889	0.7942	0.8299	0.9250	0.9856	0.9962	0.9973	0.9974
	2100.	0.8823	0.8850	0.9038	0.9534	0.9901	0.9967	0.9973	0.9974
	4500.	0.9196	0.9213	0.9335	0.9648	0.9919	0.9969	0.9974	0.9975
43	300.	0.6920	0.6989	0.7468	0.8917	0.9829	0.9981	0.9998	1.0000
	800.	0.7756	0.7812	0.8189	0.9256	0.9888	0.9987	0.9998	0.9999
	2100.	0.8501	0.8539	0.8796	0.9505	0.9926	0.9991	0.9997	0.9998
	4500.	0.8896	0.8924	0.9113	0.9637	0.9947	0.9993	0.9998	0.9998
44	300.	0.5138	0.5194	0.5603	0.7176	0.9232	0.9853	0.9927	0.9935
	800.	0.5891	0.5943	0.6329	0.7753	0.9434	0.9880	0.9932	0.9937
	2100.	0.6893	0.6936	0.7255	0.8366	0.9600	0.9903	0.9936	0.9940
	4500.	0.7699	0.7735	0.7989	0.8798	0.9697	0.9916	0.9940	0.9942
45	300.	0.6127	0.6222	0.6859	0.8664	0.9769	0.9969	0.9991	0.9993
	800.	0.6892	0.6983	0.7579	0.9091	0.9860	0.9983	0.9996	0.9997
	2100.	0.7586	0.7670	0.8205	0.9429	0.9930	0.9996	1.0003	1.0003
	4500.	0.7918	0.7993	0.8474	0.9555	0.9958	1.0002	1.0007	1.0007
46	300.	0.5723	0.5811	0.6414	0.8278	0.9635	0.9929	0.9982	0.9985
	800.	0.6370	0.6455	0.7032	0.8668	0.9716	0.9938	0.9962	0.9964
	2100.	0.7147	0.7221	0.7712	0.9049	0.9779	0.9944	0.9962	0.9964
	4500.	0.7751	0.7810	0.8206	0.9247	0.9816	0.9947	0.9961	0.9963
47	300.	0.5210	0.5285	0.5828	0.7877	0.9704	1.0034	1.0072	1.0076
	800.	0.6218	0.6290	0.6807	0.8643	0.9904	1.0044	1.0060	1.0062
	2100.	0.7239	0.7302	0.7759	0.9270	1.0027	1.0046	1.0048	1.0048
	4500.	0.7840	0.7896	0.8307	0.9593	1.0077	1.0040	1.0036	1.0035
48	300.	0.4882	0.4956	0.5507	0.7657	0.9598	0.9977	1.0020	1.0024
	800.	0.5495	0.5578	0.6173	0.8237	0.9763	1.0012	1.0039	1.0041
	2100.	0.6350	0.6439	0.7042	0.8829	0.9906	1.0048	1.0064	1.0065
	4500.	0.7209	0.7297	0.7864	0.9293	1.0005	1.0080	1.0087	1.0088

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.5289	0.5318	0.5590	0.7150	0.9204	0.9861	0.9939	0.9947
	800.	0.6061	0.6083	0.6306	0.7669	0.9335	0.9823	0.9878	0.9884
	2100.	0.6929	0.6938	0.7072	0.8122	0.9405	0.9770	0.9810	0.9814
	4500.	0.7465	0.7466	0.7545	0.8379	0.9424	0.9727	0.9759	0.9763
50	300.	0.5276	0.5337	0.5789	0.7561	0.9424	0.9944	1.0008	1.0015
	800.	0.5830	0.5895	0.6372	0.8130	0.9686	1.0045	1.0088	1.0092
	2100.	0.6520	0.6588	0.7076	0.8731	0.9920	1.0145	1.0171	1.0174
	4500.	0.7144	0.7211	0.7689	0.9181	1.0068	1.0212	1.0227	1.0229
51	300.	0.2437	0.2493	0.2933	0.5162	0.8840	0.9965	1.0112	1.0127
	800.	0.2831	0.2894	0.3390	0.5800	0.9211	1.0021	1.0119	1.0129
	2100.	0.3617	0.3685	0.4206	0.6601	0.9533	1.0065	1.0125	1.0131
	4500.	0.4361	0.4431	0.4961	0.7201	0.9715	1.0088	1.0128	1.0132
52	300.	0.4704	0.4732	0.4979	0.6611	0.8678	0.9595	0.9707	0.9719
	800.	0.5298	0.5327	0.5569	0.7130	0.8835	0.9610	0.9702	0.9712
	2100.	0.5932	0.5958	0.6172	0.7574	0.8928	0.9588	0.9665	0.9673
	4500.	0.6390	0.6409	0.6578	0.7813	0.8924	0.9513	0.9581	0.9588
53	300.	0.2214	0.2269	0.2665	0.4305	0.7637	0.9616	0.9945	0.9980
	800.	0.2428	0.2491	0.2941	0.4784	0.8117	0.9721	0.9959	0.9984
	2100.	0.2973	0.3045	0.3560	0.5593	0.8670	0.9831	0.9985	1.0001
	4500.	0.4017	0.4089	0.4608	0.6607	0.9145	0.9930	1.0026	1.0036
54	300.	0.5112	0.5206	0.5853	0.7929	0.9672	1.0005	1.0041	1.0044
	800.	0.5781	0.5889	0.6617	0.8619	0.9857	1.0027	1.0044	1.0046
	2100.	0.6903	0.7012	0.7729	0.9341	1.0007	1.0047	1.0050	1.0050
	4500.	0.7990	0.8069	0.8596	0.9712	1.0090	1.0080	1.0077	1.0077
55	300.	0.2234	0.2263	0.2503	0.3994	0.7591	0.9636	0.9959	0.9993
	800.	0.2513	0.2549	0.2846	0.4617	0.8182	0.9754	0.9972	0.9995
	2100.	0.3086	0.3134	0.3525	0.5621	0.8811	0.9857	0.9985	0.9998
	4500.	0.3821	0.3876	0.4313	0.6516	0.9221	0.9917	0.9994	1.0002
56	300.	0.2660	0.2678	0.2857	0.4187	0.6979	0.9231	0.9626	0.9669
	800.	0.2821	0.2840	0.3025	0.4432	0.7231	0.9296	0.9629	0.9665
	2100.	0.3087	0.3107	0.3301	0.4832	0.7561	0.9359	0.9623	0.9651
	4500.	0.3383	0.3403	0.3606	0.5236	0.7800	0.9360	0.9574	0.9596
57	300.	0.4163	0.4250	0.4915	0.7469	0.9013	0.9654	0.9734	0.9742
	800.	0.4482	0.4586	0.5388	0.8500	1.0056	1.0734	1.0820	1.0829
	2100.	0.5214	0.5349	0.6380	1.0200	1.1578	1.2310	1.2406	1.2415
	4500.	0.6285	0.6451	0.7695	1.1988	1.2963	1.3671	1.3765	1.3774
58	300.	0.1909	0.1942	0.2238	0.4156	0.9104	1.0442	1.0609	1.0626
	800.	0.2006	0.2039	0.2334	0.4357	0.9057	0.9948	1.0043	1.0052
	2100.	0.2299	0.2330	0.2623	0.4737	0.8807	0.9253	0.9289	0.9293
	4500.	0.2827	0.2862	0.3178	0.5328	0.8673	0.8842	0.8847	0.8847
59	300.	0.2422	0.2490	0.3060	0.5892	0.9798	1.0421	1.0480	1.0486
	800.	0.2625	0.2707	0.3397	0.6526	1.0024	1.0430	1.0460	1.0463
	2100.	0.2997	0.3097	0.3933	0.7181	1.0060	1.0279	1.0288	1.0289
	4500.	0.3505	0.3613	0.4498	0.7460	0.9736	0.9855	0.9852	0.9852
60	300.	0.5217	0.5309	0.6056	0.8407	0.9831	1.0054	1.0076	1.0079
	800.	0.5557	0.5652	0.6429	0.8691	0.9826	0.9973	0.9986	0.9987
	2100.	0.6302	0.6395	0.7151	0.9053	0.9741	0.9795	0.9797	0.9797
	4500.	0.7194	0.7270	0.7889	0.9247	0.9572	0.9563	0.9558	0.9557

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9360	0.9354	0.9358	0.9799	1.0159	1.0151	1.0147	1.0146
	800.	0.9600	0.9596	0.9620	1.0179	1.0636	1.0632	1.0627	1.0626
	2100.	1.0101	1.0102	1.0160	1.0939	1.1593	1.1600	1.1594	1.1593
	4500.	1.0814	1.0817	1.0900	1.1833	1.2653	1.2672	1.2665	1.2665
62	300.	0.5467	0.5513	0.5959	0.8203	0.9522	0.9782	0.9814	0.9817
	800.	0.5821	0.5866	0.6312	0.8476	0.9572	0.9778	0.9805	0.9808
	2100.	0.6453	0.6491	0.6886	0.8789	0.9598	0.9746	0.9767	0.9769
	4500.	0.7112	0.7137	0.7430	0.8930	0.9493	0.9600	0.9616	0.9618
63	300.	0.9901	0.9903	0.9925	0.9961	0.9956	0.9964	0.9966	0.9966
	800.	0.9952	0.9954	0.9976	1.0012	1.0007	1.0014	1.0016	1.0016
	2100.	1.0137	1.0138	1.0156	1.0193	1.0191	1.0196	1.0197	1.0197
	4500.	1.0762	1.0760	1.0760	1.0813	1.0831	1.0831	1.0831	1.0831
64	300.	0.7254	0.7262	0.7344	0.8186	0.9392	0.9723	0.9765	0.9770
	800.	0.7304	0.7311	0.7390	0.8212	0.9363	0.9670	0.9710	0.9714
	2100.	0.7428	0.7435	0.7505	0.8268	0.9299	0.9563	0.9598	0.9601
	4500.	0.7633	0.7637	0.7690	0.8347	0.9207	0.9420	0.9448	0.9450
65	300.	0.9420	0.9425	0.9485	1.0416	1.0559	1.0264	1.0226	1.0223
	800.	0.9443	0.9468	0.9526	1.0435	1.0567	1.0280	1.0243	1.0239
	2100.	0.9516	0.9521	0.9577	1.0428	1.0536	1.0264	1.0227	1.0223
	4500.	0.9492	0.9497	0.9550	1.0306	1.0380	1.0130	1.0096	1.0092
66	300.	0.9998	0.9998	0.9997	0.9998	1.0002	1.0001	1.0000	1.0000
	800.	0.9998	0.9998	0.9997	0.9998	1.0002	1.0001	1.0000	1.0000
	2100.	0.9998	0.9998	0.9997	0.9998	1.0001	1.0001	1.0000	1.0000
	4500.	0.9998	0.9998	0.9997	0.9998	1.0001	1.0001	1.0000	1.0000
67	300.	0.9864	0.9864	0.9864	0.9875	0.9876	0.9939	0.9948	0.9949
	800.	0.9864	0.9864	0.9864	0.9875	0.9877	0.9939	0.9948	0.9949
	2100.	0.9864	0.9864	0.9864	0.9875	0.9879	0.9939	0.9948	0.9949
	4500.	0.9864	0.9864	0.9864	0.9875	0.9880	0.9939	0.9948	0.9949
68	300.	0.9681	0.9681	0.9684	0.9707	0.9774	0.9905	0.9923	0.9925
	800.	0.9681	0.9681	0.9684	0.9707	0.9776	0.9905	0.9923	0.9925
	2100.	0.9681	0.9681	0.9684	0.9707	0.9779	0.9905	0.9923	0.9925
	4500.	0.9681	0.9681	0.9684	0.9707	0.9780	0.9905	0.9923	0.9925
69	300.	0.9525	0.9524	0.9522	0.9499	0.9573	0.9858	0.9897	0.9901
	800.	0.9525	0.9524	0.9522	0.9499	0.9577	0.9858	0.9897	0.9901
	2100.	0.9525	0.9524	0.9522	0.9499	0.9581	0.9858	0.9897	0.9901
	4500.	0.9525	0.9524	0.9522	0.9499	0.9583	0.9858	0.9897	0.9901
70	300.	0.9903	0.9904	0.9906	0.9925	0.9972	0.9996	1.0000	1.0000
	800.	0.9903	0.9904	0.9906	0.9925	0.9972	0.9996	1.0000	1.0000
	2100.	0.9903	0.9904	0.9906	0.9925	0.9972	0.9996	1.0000	1.0000
	4500.	0.9903	0.9904	0.9906	0.9925	0.9972	0.9996	1.0000	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9940	0.9944	0.9967	0.9993	0.9999	1.0000	1.0000	1.0000
	800.	0.9952	0.9956	0.9975	0.9995	0.9999	1.0000	1.0000	1.0000
	2100.	0.9961	0.9963	0.9981	0.9997	1.0000	1.0000	1.0000	1.0000
	4500.	0.9965	0.9968	0.9984	0.9997	1.0000	1.0000	1.0000	1.0000
27	300.	0.9955	0.9957	0.9969	0.9993	0.9999	1.0000	1.0000	1.0000
	800.	0.9971	0.9972	0.9979	0.9995	0.9999	1.0000	1.0000	1.0000
	2100.	0.9982	0.9982	0.9986	0.9997	1.0000	1.0000	1.0000	1.0000
	4500.	0.9988	0.9988	0.9989	0.9998	1.0000	1.0000	1.0000	1.0000
28	300.	0.9945	0.9948	0.9966	0.9992	0.9999	1.0000	1.0000	1.0000
	800.	0.9966	0.9968	0.9979	0.9995	0.9999	1.0000	1.0000	1.0000
	2100.	0.9979	0.9980	0.9988	0.9997	1.0000	1.0000	1.0000	1.0000
	4500.	0.9986	0.9987	0.9992	0.9998	1.0000	1.0000	1.0000	1.0000
29	300.	0.9940	0.9944	0.9968	0.9995	1.0000	1.0000	1.0001	1.0001
	800.	0.9965	0.9967	0.9984	0.9999	1.0000	1.0001	1.0001	1.0001
	2100.	0.9982	0.9983	0.9996	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	0.9992	0.9993	1.0003	1.0003	1.0001	1.0001	1.0001	1.0001
30	300.	0.9923	0.9927	0.9951	0.9989	0.9999	1.0000	1.0000	1.0000
	800.	0.9951	0.9954	0.9969	0.9993	0.9999	1.0000	1.0000	1.0000
	2100.	0.9970	0.9971	0.9982	0.9997	1.0000	1.0000	1.0000	1.0000
	4500.	0.9980	0.9981	0.9989	0.9998	1.0000	1.0000	1.0000	1.0000
31	300.	0.9908	0.9912	0.9937	0.9983	0.9998	1.0000	1.0000	1.0000
	800.	0.9938	0.9941	0.9959	0.9990	0.9999	1.0000	1.0000	1.0000
	2100.	0.9960	0.9962	0.9974	0.9994	0.9999	1.0000	1.0000	1.0000
	4500.	0.9973	0.9974	0.9983	0.9997	1.0000	1.0000	1.0000	1.0000
32	300.	0.9882	0.9883	0.9895	0.9954	0.9990	0.9995	0.9995	0.9995
	800.	0.9913	0.9914	0.9918	0.9960	0.9991	0.9995	0.9995	0.9995
	2100.	0.9935	0.9934	0.9932	0.9964	0.9992	0.9995	0.9995	0.9995
	4500.	0.9946	0.9945	0.9939	0.9966	0.9992	0.9995	0.9995	0.9995
33	300.	0.9931	0.9935	0.9962	1.0010	1.0005	1.0005	1.0005	1.0005
	800.	0.9960	0.9963	0.9983	1.0016	1.0006	1.0005	1.0005	1.0005
	2100.	0.9982	0.9984	0.9999	1.0021	1.0006	1.0005	1.0005	1.0005
	4500.	0.9996	0.9998	1.0009	1.0023	1.0007	1.0005	1.0005	1.0005
34	300.	0.9808	0.9816	0.9861	0.9940	0.9988	0.9995	0.9995	0.9995
	800.	0.9849	0.9856	0.9892	0.9950	0.9990	0.9995	0.9995	0.9995
	2100.	0.9883	0.9888	0.9917	0.9958	0.9991	0.9995	0.9995	0.9995
	4500.	0.9905	0.9909	0.9931	0.9962	0.9991	0.9995	0.9995	0.9995
35	300.	0.9888	0.9902	0.9973	1.0065	1.0020	1.0014	1.0014	1.0014
	800.	0.9945	0.9956	1.0015	1.0079	1.0021	1.0015	1.0014	1.0014
	2100.	0.9985	0.9994	1.0043	1.0088	1.0023	1.0015	1.0014	1.0014
	4500.	1.0007	1.0015	1.0059	1.0093	1.0023	1.0015	1.0014	1.0014
36	300.	0.9595	0.9611	0.9699	0.9838	0.9968	0.9985	0.9987	0.9987
	800.	0.9658	0.9672	0.9748	0.9856	0.9971	0.9986	0.9987	0.9987
	2100.	0.9718	0.9729	0.9789	0.9869	0.9973	0.9986	0.9987	0.9987
	4500.	0.9763	0.9771	0.9819	0.9877	0.9974	0.9986	0.9987	0.9987

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = ELASTIC				FOR	1TH	R-PARAMETER	
						PAGE	4 OF 6		
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.9668	0.9675	0.9727	0.9876	0.9978	0.9994	0.9995	0.9995
	800.	0.9769	0.9774	0.9810	0.9910	0.9984	0.9994	0.9995	0.9995
	2100.	0.9849	0.9851	0.9873	0.9932	0.9987	0.9994	0.9995	0.9995
	4500.	0.9894	0.9896	0.9908	0.9943	0.9989	0.9995	0.9995	0.9995
38	300.	0.9744	0.9751	0.9799	0.9924	0.9988	0.9997	0.9998	0.9998
	800.	0.9812	0.9818	0.9854	0.9946	0.9991	0.9998	0.9998	0.9998
	2100.	0.9864	0.9868	0.9896	0.9961	0.9993	0.9998	0.9998	0.9998
	4500.	0.9892	0.9895	0.9919	0.9969	0.9994	0.9998	0.9998	0.9998
39	300.	0.9798	0.9805	0.9852	0.9977	1.0001	1.0004	1.0005	1.0005
	800.	0.9865	0.9871	0.9910	1.0000	1.0004	1.0004	1.0004	1.0004
	2100.	0.9926	0.9930	0.9958	1.0013	1.0005	1.0004	1.0004	1.0004
	4500.	0.9967	0.9970	0.9988	1.0021	1.0005	1.0003	1.0003	1.0003
40	300.	0.9608	0.9616	0.9669	0.9870	0.9983	1.0002	1.0004	1.0005
	800.	0.9682	0.9688	0.9739	0.9914	0.9992	1.0003	1.0004	1.0004
	2100.	0.9761	0.9767	0.9812	0.9934	0.9997	1.0003	1.0004	1.0004
	4500.	0.9811	0.9816	0.9858	0.9976	1.0000	1.0003	1.0003	1.0003
41	300.	0.9720	0.9724	0.9758	0.9883	0.9979	0.9996	0.9997	0.9998
	800.	0.9774	0.9778	0.9809	0.9910	0.9984	0.9996	0.9997	0.9997
	2100.	0.9839	0.9842	0.9866	0.9937	0.9988	0.9997	0.9997	0.9998
	4500.	0.9893	0.9895	0.9911	0.9957	0.9991	0.9997	0.9998	0.9998
42	300.	0.9594	0.9599	0.9644	0.9789	0.9950	0.9983	0.9986	0.9986
	800.	0.9700	0.9703	0.9733	0.9831	0.9958	0.9984	0.9986	0.9987
	2100.	0.9783	0.9785	0.9802	0.9862	0.9944	0.9984	0.9987	0.9987
	4500.	0.9819	0.9820	0.9833	0.9877	0.9967	0.9985	0.9987	0.9987
43	300.	0.9730	0.9733	0.9760	0.9874	0.9977	0.9997	0.9999	0.9999
	800.	0.9794	0.9797	0.9818	0.9907	0.9984	0.9998	0.9999	0.9999
	2100.	0.9844	0.9846	0.9864	0.9934	0.9989	0.9998	0.9999	0.9999
	4500.	0.9874	0.9877	0.9893	0.9950	0.9992	0.9999	1.0000	1.0000
44	300.	0.8872	0.8881	0.8952	0.9274	0.9790	0.9960	0.9981	0.9983
	800.	0.9015	0.9024	0.9098	0.9412	0.9845	0.9968	0.9982	0.9984
	2100.	0.9228	0.9237	0.9303	0.9569	0.9893	0.9975	0.9984	0.9985
	4500.	0.9423	0.9430	0.9486	0.9686	0.9922	0.9979	0.9986	0.9986
45	300.	0.9784	0.9788	0.9811	0.9877	0.9965	0.9991	0.9993	0.9994
	800.	0.9818	0.9823	0.9853	0.9912	0.9974	0.9993	0.9994	0.9995
	2100.	0.9844	0.9850	0.9884	0.9940	0.9983	0.9995	0.9996	0.9996
	4500.	0.9846	0.9852	0.9888	0.9949	0.9988	0.9997	0.9998	0.9998
46	300.	0.9805	0.9807	0.9825	0.9906	0.9978	0.9995	0.9997	0.9998
	800.	0.9842	0.9843	0.9859	0.9929	0.9984	0.9996	0.9998	0.9998
	2100.	0.9880	0.9882	0.9896	0.9951	0.9989	0.9997	0.9998	0.9998
	4500.	0.9905	0.9907	0.9920	0.9965	0.9991	0.9998	0.9998	0.9998
47	300.	0.9574	0.9581	0.9629	0.9806	0.9975	1.0006	1.0009	1.0010
	800.	0.9658	0.9665	0.9716	0.9888	1.0005	1.0015	1.0017	1.0017
	2100.	0.9753	0.9760	0.9809	0.9961	1.0028	1.0025	1.0025	1.0025
	4500.	0.9814	0.9821	0.9867	1.0003	1.0043	1.0034	1.0033	1.0033
48	300.	0.9800	0.9802	0.9819	0.9894	0.9980	0.9998	1.0001	1.0001
	800.	0.9814	0.9818	0.9843	0.9920	0.9987	0.9999	1.0000	1.0000
	2100.	0.9826	0.9832	0.9867	0.9946	0.9991	0.9998	0.9998	0.9998
	4500.	0.9838	0.9845	0.9887	0.9963	0.9993	0.9996	0.9996	0.9996

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = ELASTIC				FOR	1TH	R-PARAMETER	
						PAGE	5 OF 6		
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.9606	0.9617	0.9681	0.9837	0.9986	1.0011	1.0015	1.0015
	800.	0.9667	0.9678	0.9742	0.9904	1.0012	1.0012	1.0013	1.0013
	2100.	0.9731	0.9743	0.9808	0.9969	1.0031	1.0012	1.0010	1.0010
	4500.	0.9791	0.9800	0.9859	1.0012	1.0041	1.0012	1.0008	1.0008
50	300.	0.9688	0.9690	0.9707	0.9788	0.9917	0.9979	0.9987	0.9988
	800.	0.9734	0.9736	0.9752	0.9828	0.9934	0.9985	0.9990	0.9991
	2100.	0.9802	0.9803	0.9815	0.9876	0.9951	0.9991	0.9996	0.9996
	4500.	0.9855	0.9856	0.9866	0.9914	0.9964	0.9997	1.0001	1.0001
51	300.	0.8784	0.8797	0.8895	0.9333	0.9971	1.0058	1.0072	1.0073
	800.	0.8894	0.8908	0.9009	0.9458	1.0041	1.0068	1.0073	1.0073
	2100.	0.9100	0.9111	0.9196	0.9606	1.0102	1.0076	1.0073	1.0073
	4500.	0.9239	0.9249	0.9326	0.9701	1.0135	1.0079	1.0073	1.0072
52	300.	0.9791	0.9794	0.9817	0.9899	0.9967	0.9991	0.9994	0.9994
	800.	0.9818	0.9820	0.9840	0.9918	0.9973	0.9993	0.9995	0.9995
	2100.	0.9843	0.9845	0.9862	0.9933	0.9978	0.9995	0.9997	0.9998
	4500.	0.9863	0.9865	0.9878	0.9944	0.9981	0.9997	0.9998	0.9999
53	300.	0.8728	0.8734	0.8775	0.8980	0.9588	0.9947	1.0012	1.0019
	800.	0.8746	0.8753	0.8801	0.9055	0.9683	0.9968	1.0013	1.0018
	2100.	0.8795	0.8803	0.8864	0.9187	0.9791	0.9987	1.0014	1.0017
	4500.	0.8901	0.8911	0.8986	0.9355	0.9878	1.0000	1.0015	1.0017
54	300.	0.9810	0.9815	0.9851	0.9941	0.9966	0.9985	0.9988	0.9988
	800.	0.9807	0.9813	0.9852	0.9949	0.9967	0.9984	0.9986	0.9986
	2100.	0.9810	0.9817	0.9859	0.9958	0.9966	0.9982	0.9984	0.9984
	4500.	0.9834	0.9839	0.9875	0.9964	0.9961	0.9977	0.9979	0.9979
55	300.	0.8885	0.8894	0.8967	0.9290	0.9801	1.0000	1.0033	1.0036
	800.	0.8917	0.8928	0.9013	0.9386	0.9888	1.0017	1.0035	1.0037
	2100.	0.9011	0.9024	0.9124	0.9547	0.9982	1.0032	1.0038	1.0038
	4500.	0.9121	0.9135	0.9240	0.9687	1.0044	1.0042	1.0041	1.0040
56	300.	0.9239	0.9246	0.9304	0.9526	0.9800	0.9958	0.9986	0.9989
	800.	0.9257	0.9264	0.9322	0.9553	0.9828	0.9966	0.9988	0.9990
	2100.	0.9317	0.9324	0.9378	0.9610	0.9866	0.9977	0.9992	0.9994
	4500.	0.9399	0.9405	0.9454	0.9679	0.9898	0.9986	0.9997	0.9998
57	300.	0.9793	0.9803	0.9866	0.9989	0.9946	0.9969	0.9972	0.9973
	800.	0.9773	0.9783	0.9845	0.9983	0.9952	0.9980	0.9983	0.9984
	2100.	0.9731	0.9740	0.9806	0.9968	0.9947	0.9977	0.9981	0.9981
	4500.	0.9698	0.9708	0.9775	0.9951	0.9929	0.9958	0.9962	0.9963
58	300.	0.9970	0.9969	0.9958	0.9925	0.9961	0.9995	1.0000	1.0000
	800.	0.9976	0.9976	0.9968	0.9940	0.9960	0.9983	0.9986	0.9986
	2100.	0.9986	0.9986	0.9986	0.9971	0.9973	0.9984	0.9985	0.9985
	4500.	0.9991	0.9993	1.0001	1.0002	0.9995	0.9998	0.9999	0.9999
59	300.	1.0026	1.0027	1.0026	1.0012	0.9998	0.9997	0.9997	0.9997
	800.	1.0030	1.0031	1.0031	1.0014	0.9997	0.9996	0.9996	0.9996
	2100.	1.0037	1.0038	1.0037	1.0014	0.9994	0.9992	0.9992	0.9992
	4500.	1.0045	1.0046	1.0043	1.0014	0.9991	0.9990	0.9990	0.9990
60	300.	1.0020	1.0022	1.0026	1.0014	1.0004	1.0002	1.0001	1.0001
	800.	1.0019	1.0020	1.0024	1.0013	1.0004	1.0001	1.0001	1.0001
	2100.	1.0014	1.0015	1.0020	1.0010	1.0001	0.9999	0.9999	0.9999
	4500.	1.0007	1.0008	1.0011	1.0002	0.9995	0.9994	0.9994	0.9994

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = ELASTIC				FOR 1TH R-PARAMETER		PAGE 6 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	1.0024	1.0025	1.0025	1.0008	0.9994	0.9994	0.9994	0.9994
	800.	1.0025	1.0026	1.0026	1.0009	0.9994	0.9994	0.9994	0.9994
	2100.	1.0027	1.0027	1.0028	1.0011	0.9995	0.9995	0.9995	0.9995
	4500.	1.0029	1.0030	1.0030	1.0015	0.9999	0.9998	0.9999	0.9999
62	300.	0.9976	0.9976	0.9979	0.9992	0.9996	0.9998	0.9998	0.9998
	800.	0.9975	0.9975	0.9977	0.9992	0.9997	0.9998	0.9998	0.9998
	2100.	0.9973	0.9973	0.9976	0.9991	0.9997	0.9998	0.9998	0.9998
	4500.	0.9972	0.9972	0.9975	0.9991	0.9997	0.9998	0.9998	0.9998
63	300.	0.9987	0.9988	0.9992	0.9996	0.9994	0.9995	0.9995	0.9995
	800.	0.9987	0.9988	0.9992	0.9996	0.9994	0.9995	0.9995	0.9995
	2100.	0.9987	0.9987	0.9992	0.9995	0.9993	0.9994	0.9994	0.9994
	4500.	0.9987	0.9988	0.9992	0.9994	0.9992	0.9993	0.9993	0.9993
64	300.	0.9955	0.9956	0.9958	0.9974	0.9991	0.9996	0.9996	0.9996
	800.	0.9954	0.9955	0.9957	0.9973	0.9989	0.9994	0.9994	0.9994
	2100.	0.9952	0.9952	0.9954	0.9969	0.9985	0.9989	0.9989	0.9989
	4500.	0.9948	0.9948	0.9950	0.9963	0.9978	0.9981	0.9982	0.9982
65	300.	0.9973	0.9973	0.9975	1.0021	1.0031	1.0015	1.0013	1.0012
	800.	0.9974	0.9974	0.9977	1.0024	1.0033	1.0017	1.0015	1.0015
	2100.	0.9978	0.9978	0.9981	1.0031	1.0039	1.0023	1.0021	1.0021
	4500.	0.9985	0.9986	0.9989	1.0041	1.0047	1.0031	1.0029	1.0029
66	300.	0.9991	0.9991	0.9992	0.9993	0.9989	0.9994	0.9995	0.9995
	800.	0.9991	0.9991	0.9992	0.9993	0.9989	0.9994	0.9995	0.9995
	2100.	0.9991	0.9991	0.9992	0.9993	0.9989	0.9994	0.9995	0.9995
	4500.	0.9991	0.9991	0.9992	0.9993	0.9989	0.9994	0.9995	0.9995
67	300.	0.9987	0.9987	0.9987	0.9989	0.9989	0.9994	0.9995	0.9995
	800.	0.9987	0.9987	0.9987	0.9989	0.9989	0.9994	0.9995	0.9995
	2100.	0.9987	0.9987	0.9988	0.9989	0.9989	0.9994	0.9995	0.9995
	4500.	0.9987	0.9987	0.9987	0.9989	0.9989	0.9994	0.9995	0.9995
68	300.	0.9997	0.9997	0.9997	0.9998	0.9998	0.9999	0.9999	0.9999
	800.	0.9997	0.9997	0.9997	0.9998	0.9998	0.9999	0.9999	0.9999
	2100.	0.9997	0.9997	0.9997	0.9998	0.9998	0.9999	0.9999	0.9999
	4500.	0.9997	0.9997	0.9997	0.9998	0.9998	0.9999	0.9999	0.9999
69	300.	0.9995	0.9995	0.9995	0.9995	0.9995	0.9998	0.9999	0.9999
	800.	0.9995	0.9995	0.9995	0.9995	0.9995	0.9998	0.9999	0.9999
	2100.	0.9995	0.9995	0.9995	0.9995	0.9995	0.9998	0.9999	0.9999
	4500.	0.9995	0.9995	0.9995	0.9995	0.9995	0.9998	0.9999	0.9999
70	300.	0.9924	0.9924	0.9925	0.9937	0.9973	0.9996	1.0000	1.0000
	800.	0.9924	0.9924	0.9925	0.9937	0.9973	0.9996	1.0000	1.0000
	2100.	0.9924	0.9924	0.9925	0.9937	0.9973	0.9996	1.0000	1.0000
	4500.	0.9924	0.9924	0.9925	0.9937	0.9973	0.9996	1.0000	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER		PAGE 3 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9822	0.9834	0.9899	0.9978	0.9997	1.0000	1.0000	1.0000
	800.	0.9864	0.9876	0.9928	0.9985	0.9998	1.0000	1.0000	1.0000
	2100.	0.9891	0.9902	0.9947	0.9990	0.9999	1.0000	1.0000	1.0000
	4500.	0.9905	0.9916	0.9958	0.9992	0.9999	1.0000	1.0000	1.0000
27	300.	0.9816	0.9826	0.9882	0.9973	0.9997	1.0000	1.0000	1.0000
	800.	0.9883	0.9889	0.9924	0.9983	0.9998	1.0000	1.0000	1.0000
	2100.	0.9924	0.9928	0.9949	0.9989	0.9999	1.0000	1.0000	1.0000
	4500.	0.9946	0.9948	0.9961	0.9992	0.9999	1.0000	1.0000	1.0000
28	300.	0.9744	0.9757	0.9824	0.9957	0.9995	0.9999	0.9999	1.0000
	800.	0.9829	0.9837	0.9879	0.9971	0.9996	0.9999	0.9999	1.0000
	2100.	0.9882	0.9888	0.9913	0.9979	0.9997	0.9999	0.9999	0.9999
	4500.	0.9911	0.9915	0.9930	0.9984	0.9998	0.9999	0.9999	0.9999
29	300.	0.9662	0.9679	0.9776	0.9943	0.9993	0.9999	1.0000	1.0000
	800.	0.9770	0.9782	0.9848	0.9962	0.9995	0.9999	1.0000	1.0000
	2100.	0.9846	0.9854	0.9897	0.9974	0.9997	0.9999	1.0000	1.0000
	4500.	0.9890	0.9896	0.9924	0.9981	0.9997	0.9999	1.0000	1.0000
30	300.	0.9583	0.9604	0.9721	0.9927	0.9991	0.9999	0.9999	1.0000
	800.	0.9715	0.9730	0.9811	0.9951	0.9994	0.9999	1.0000	1.0000
	2100.	0.9804	0.9814	0.9870	0.9966	0.9996	0.9999	0.9999	1.0000
	4500.	0.9855	0.9863	0.9903	0.9975	0.9997	0.9999	0.9999	0.9999
31	300.	0.9484	0.9506	0.9640	0.9895	0.9986	0.9998	0.9999	0.9999
	800.	0.9642	0.9658	0.9752	0.9929	0.9991	0.9998	0.9999	0.9999
	2100.	0.9754	0.9765	0.9831	0.9952	0.9994	0.9999	0.9999	0.9999
	4500.	0.9819	0.9827	0.9876	0.9965	0.9995	0.9999	0.9999	0.9999
32	300.	0.9434	0.9455	0.9591	0.9875	0.9982	0.9995	0.9996	0.9996
	800.	0.9619	0.9633	0.9724	0.9914	0.9987	0.9995	0.9996	0.9996
	2100.	0.9750	0.9759	0.9814	0.9939	0.9990	0.9996	0.9996	0.9996
	4500.	0.9823	0.9828	0.9863	0.9952	0.9991	0.9996	0.9996	0.9996
33	300.	0.9304	0.9334	0.9520	0.9877	0.9987	1.0001	1.0002	1.0003
	800.	0.9504	0.9527	0.9669	0.9923	0.9993	1.0002	1.0003	1.0003
	2100.	0.9667	0.9684	0.9783	0.9956	0.9997	1.0002	1.0003	1.0003
	4500.	0.9773	0.9785	0.9856	0.9975	0.9999	1.0002	1.0003	1.0003
34	300.	0.8856	0.8902	0.9175	0.9713	0.9955	0.9986	0.9990	0.9990
	800.	0.9101	0.9139	0.9364	0.9779	0.9964	0.9987	0.9990	0.9990
	2100.	0.9310	0.9340	0.9518	0.9827	0.9970	0.9988	0.9990	0.9990
	4500.	0.9456	0.9480	0.9621	0.9857	0.9974	0.9988	0.9990	0.9990
35	300.	0.8780	0.8835	0.9164	0.9792	0.9980	1.0005	1.0008	1.0008
	800.	0.9124	0.9167	0.9423	0.9881	0.9992	1.0007	1.0008	1.0008
	2100.	0.9388	0.9420	0.9610	0.9939	1.0000	1.0007	1.0008	1.0008
	4500.	0.9544	0.9570	0.9720	0.9972	1.0004	1.0008	1.0008	1.0008
36	300.	0.7813	0.7896	0.8398	0.9432	0.9916	0.9981	0.9988	0.9989
	800.	0.8168	0.8243	0.8693	0.9554	0.9934	0.9983	0.9988	0.9989
	2100.	0.8547	0.8608	0.8975	0.9649	0.9947	0.9985	0.9988	0.9989
	4500.	0.8849	0.8897	0.9188	0.9713	0.9955	0.9985	0.9988	0.9989

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.7883	0.7941	0.8336	0.9357	0.9899	0.9981	0.9989	0.9990
	800.	0.8442	0.8492	0.8817	0.9564	0.9931	0.9984	0.9990	0.9990
	2100.	0.8978	0.9011	0.9228	0.9707	0.9952	0.9986	0.9990	0.9990
	4500.	0.9309	0.9331	0.9471	0.9782	0.9962	0.9987	0.9990	0.9990
38	300.	0.7776	0.7841	0.8265	0.9307	0.9887	0.9976	0.9985	0.9986
	800.	0.8291	0.8345	0.8694	0.9490	0.9916	0.9978	0.9985	0.9986
	2100.	0.8725	0.8768	0.9043	0.9622	0.9936	0.9980	0.9985	0.9986
	4500.	0.8983	0.9020	0.9250	0.9697	0.9946	0.9982	0.9985	0.9986
39	300.	0.7351	0.7428	0.7923	0.9168	0.9870	0.9974	0.9985	0.9986
	800.	0.7912	0.7982	0.8419	0.9395	0.9905	0.9977	0.9985	0.9986
	2100.	0.8553	0.8605	0.8921	0.9572	0.9929	0.9979	0.9984	0.9985
	4500.	0.9026	0.9059	0.9258	0.9671	0.9941	0.9980	0.9984	0.9984
40	300.	0.6870	0.6946	0.7462	0.8969	0.9840	0.9994	1.0011	1.0013
	800.	0.7341	0.7413	0.7898	0.9238	0.9896	1.0000	1.0011	1.0013
	2100.	0.7849	0.7915	0.8356	0.9492	0.9939	1.0004	1.0011	1.0012
	4500.	0.8184	0.8246	0.8651	0.9644	0.9963	1.0006	1.0011	1.0011
41	300.	0.6489	0.6561	0.7058	0.8692	0.9795	0.9984	1.0004	1.0006
	800.	0.6947	0.7021	0.7527	0.9010	0.9857	0.9991	1.0005	1.0006
	2100.	0.7535	0.7611	0.8103	0.9338	0.9913	0.9997	1.0006	1.0007
	4500.	0.8097	0.8168	0.8611	0.9582	0.9952	1.0002	1.0007	1.0008
42	300.	0.6638	0.6711	0.7215	0.8698	0.9750	0.9946	0.9967	0.9969
	800.	0.7637	0.7693	0.8071	0.9108	0.9824	0.9954	0.9968	0.9969
	2100.	0.8507	0.8540	0.8772	0.9399	0.9874	0.9959	0.9968	0.9969
	4500.	0.8853	0.8876	0.9049	0.9514	0.9894	0.9962	0.9969	0.9970
43	300.	0.6386	0.6454	0.6944	0.8571	0.9748	0.9979	1.0005	1.0007
	800.	0.7052	0.7119	0.7572	0.8939	0.9827	0.9988	1.0005	1.0007
	2100.	0.7785	0.7837	0.8196	0.9254	0.9888	0.9994	1.0005	1.0006
	4500.	0.8239	0.8281	0.8571	0.9442	0.9922	0.9997	1.0005	1.0006
44	300.	0.4998	0.5049	0.5430	0.7000	0.9113	0.9850	0.9944	0.9953
	800.	0.5578	0.5627	0.6000	0.7506	0.9344	0.9884	0.9948	0.9955
	2100.	0.6498	0.6541	0.6861	0.8141	0.9550	0.9912	0.9953	0.9957
	4500.	0.7320	0.7357	0.7635	0.8650	0.9679	0.9929	0.9956	0.9959
45	300.	0.5831	0.5900	0.6380	0.8106	0.9619	0.9949	0.9986	0.9990
	800.	0.6308	0.6383	0.6900	0.8563	0.9744	0.9966	0.9991	0.9993
	2100.	0.6835	0.6913	0.7449	0.8983	0.9842	0.9981	0.9996	0.9997
	4500.	0.7196	0.7271	0.7783	0.9179	0.9883	0.9988	1.0000	1.0001
46	300.	0.5396	0.5475	0.6043	0.8016	0.9610	0.9950	0.9989	0.9993
	800.	0.5835	0.5923	0.6532	0.8414	0.9708	0.9961	0.9989	0.9992
	2100.	0.6521	0.6607	0.7190	0.8815	0.9790	0.9970	0.9990	0.9992
	4500.	0.7126	0.7202	0.7713	0.9088	0.9841	0.9975	0.9989	0.9991
47	300.	0.5558	0.5621	0.6079	0.7829	0.9584	0.9981	1.0028	1.0033
	800.	0.6349	0.6409	0.6846	0.8457	0.9773	0.9999	1.0024	1.0027
	2100.	0.7250	0.7298	0.7661	0.8995	0.9885	0.9999	1.0012	1.0013
	4500.	0.7761	0.7804	0.8128	0.9280	0.9927	0.9989	0.9995	0.9996
48	300.	0.4882	0.4944	0.5391	0.7235	0.9439	0.9966	1.0028	1.0034
	800.	0.5167	0.5237	0.5743	0.7709	0.9625	0.9998	1.0040	1.0044
	2100.	0.5682	0.5763	0.6325	0.8273	0.9794	1.0030	1.0056	1.0059
	4500.	0.6264	0.6353	0.6957	0.8764	0.9912	1.0055	1.0071	1.0072

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.4395	0.4435	0.4766	0.6503	0.9017	0.9862	0.9970	0.9981
	800.	0.5043	0.5082	0.5404	0.7079	0.9245	0.9866	0.9940	0.9947
	2100.	0.6032	0.6060	0.6307	0.7675	0.9402	0.9849	0.9899	0.9905
	4500.	0.6719	0.6739	0.6924	0.8062	0.9479	0.9826	0.9865	0.9869
50	300.	0.5269	0.5318	0.5698	0.7328	0.9272	0.9913	0.9999	1.0008
	800.	0.5662	0.5717	0.6134	0.7810	0.9530	0.9987	1.0045	1.0051
	2100.	0.6175	0.6238	0.6700	0.8390	0.9774	1.0065	1.0099	1.0103
	4500.	0.6636	0.6705	0.7203	0.8862	0.9937	1.0120	1.0141	1.0144
51	300.	0.2195	0.2221	0.2437	0.3833	0.7864	0.9842	1.0145	1.0177
	800.	0.2366	0.2394	0.2632	0.4218	0.8337	0.9933	1.0156	1.0179
	2100.	0.2845	0.2874	0.3123	0.4863	0.8814	1.0012	1.0167	1.0183
	4500.	0.3298	0.3333	0.3627	0.5496	0.9146	1.0062	1.0176	1.0188
52	300.	0.5070	0.5117	0.5479	0.7066	0.8976	0.9746	0.9844	0.9854
	800.	0.5553	0.5606	0.5998	0.7572	0.9145	0.9765	0.9841	0.9849
	2100.	0.6152	0.6208	0.6606	0.8045	0.9265	0.9791	0.9857	0.9861
	4500.	0.6666	0.6715	0.7062	0.8306	0.9291	0.9708	0.9757	0.9762
53	300.	0.2204	0.2236	0.2478	0.3538	0.6384	0.9258	0.9859	0.9926
	800.	0.2252	0.2287	0.2558	0.3781	0.6927	0.9433	0.9881	0.9929
	2100.	0.2444	0.2486	0.2812	0.4306	0.7636	0.9611	0.9911	0.9943
	4500.	0.2956	0.3006	0.3391	0.5129	0.8290	0.9748	0.9946	0.9967
54	300.	0.4604	0.4660	0.5100	0.6712	0.9270	0.9848	0.9913	0.9920
	800.	0.4905	0.4978	0.5538	0.7832	0.9466	0.9861	0.9904	0.9908
	2100.	0.5624	0.5717	0.6410	0.8629	0.9614	0.9850	0.9876	0.9878
	4500.	0.6763	0.6844	0.7434	0.9114	0.9671	0.9831	0.9848	0.9850
55	300.	0.2829	0.2848	0.3002	0.3846	0.6725	0.9443	0.9974	1.0032
	800.	0.2904	0.2927	0.3116	0.4190	0.7436	0.9643	1.0004	1.0043
	2100.	0.3067	0.3099	0.3360	0.4891	0.8314	0.9836	1.0046	1.0068
	4500.	0.3352	0.3391	0.3716	0.5657	0.8976	0.9974	1.0096	1.0108
56	300.	0.2536	0.2554	0.2711	0.3705	0.6244	0.9044	0.9643	0.9709
	800.	0.2620	0.2639	0.2801	0.3825	0.6518	0.9154	0.9653	0.9707
	2100.	0.2749	0.2769	0.2932	0.4021	0.6916	0.9271	0.9656	0.9697
	4500.	0.2882	0.2901	0.3066	0.4252	0.7256	0.9319	0.9621	0.9652
57	300.	0.5137	0.5177	0.5491	0.7047	0.8946	0.9720	0.9819	0.9829
	800.	0.5185	0.5230	0.5595	0.7533	0.9564	1.0323	1.0418	1.0428
	2100.	0.5355	0.5416	0.5916	0.8498	1.0477	1.1217	1.1311	1.1321
	4500.	0.5700	0.5782	0.6467	0.9711	1.1422	1.2082	1.2167	1.2176
58	300.	0.3614	0.3629	0.3760	0.4651	0.8224	1.0124	1.0412	1.0443
	800.	0.3641	0.3655	0.3777	0.4713	0.8388	0.9853	1.0047	1.0067
	2100.	0.3760	0.3773	0.3891	0.4935	0.8480	0.9440	0.9549	0.9561
	4500.	0.3985	0.4002	0.4147	0.5359	0.8582	0.9174	0.9233	0.9239
59	300.	0.4844	0.4862	0.5036	0.6328	0.9384	1.0200	1.0292	1.0301
	800.	0.4856	0.4878	0.5091	0.6688	0.9643	1.0226	1.0284	1.0290
	2100.	0.4926	0.4954	0.5238	0.7180	0.9795	1.0160	1.0191	1.0194
	4500.	0.5137	0.5175	0.5532	0.7575	0.9715	0.9943	0.9958	0.9960
60	300.	0.4538	0.4588	0.5075	0.7506	0.9508	0.9924	0.9970	0.9975
	800.	0.4704	0.4757	0.5283	0.7783	0.9547	0.9870	0.9906	0.9909
	2100.	0.5253	0.5308	0.5874	0.8247	0.9545	0.9750	0.9772	0.9774
	4500.	0.6333	0.6369	0.6815	0.8644	0.9479	0.9595	0.9607	0.9609

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = TOTAL				FOR PAGE 6 OF 6		R-PARAMETER 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9109	0.9121	0.9224	0.9743	1.0090	1.0098	1.0097	1.0097
	800.	0.9147	0.9159	0.9264	0.9829	1.0236	1.0253	1.0251	1.0251
	2100.	0.9230	0.9242	0.9353	1.0005	1.0528	1.0561	1.0560	1.0560
	4500.	0.9378	0.9391	0.9511	1.0232	1.0847	1.0891	1.0892	1.0892
62	300.	0.7243	0.7263	0.7458	0.8662	0.9669	0.9879	0.9905	0.9907
	800.	0.7341	0.7364	0.7583	0.8838	0.9714	0.9882	0.9902	0.9904
	2100.	0.7574	0.7600	0.7842	0.9075	0.9754	0.9874	0.9889	0.9891
	4500.	0.7915	0.7940	0.8174	0.9247	0.9736	0.9820	0.9831	0.9832
63	300.	0.9934	0.9937	0.9954	0.9978	0.9977	0.9981	0.9982	0.9982
	800.	0.9948	0.9950	0.9968	0.9992	0.9990	0.9995	0.9995	0.9996
	2100.	0.9993	0.9995	1.0012	1.0037	1.0035	1.0039	1.0040	1.0040
	4500.	1.0129	1.0131	1.0146	1.0172	1.0174	1.0177	1.0177	1.0177
64	300.	0.6384	0.6399	0.6526	0.7520	0.9213	0.9707	0.9769	0.9775
	800.	0.6436	0.6450	0.6578	0.7570	0.9205	0.9668	0.9725	0.9731
	2100.	0.6569	0.6584	0.6711	0.7682	0.9183	0.9587	0.9638	0.9643
	4500.	0.6809	0.6823	0.6943	0.7846	0.9146	0.9479	0.9521	0.9525
65	300.	0.9517	0.9521	0.9557	0.9977	1.0171	1.0093	1.0083	1.0082
	800.	0.9542	0.9546	0.9582	0.9995	1.0178	1.0102	1.0091	1.0090
	2100.	0.9582	0.9586	0.9621	1.0011	1.0169	1.0095	1.0084	1.0083
	4500.	0.9596	0.9599	0.9632	0.9977	1.0100	1.0031	1.0022	1.0021
66	300.	0.9988	0.9988	0.9988	0.9991	0.9989	0.9994	0.9995	0.9995
	800.	0.9988	0.9988	0.9988	0.9991	0.9989	0.9994	0.9995	0.9995
	2100.	0.9988	0.9988	0.9988	0.9991	0.9990	0.9994	0.9995	0.9995
	4500.	0.9988	0.9988	0.9988	0.9991	0.9990	0.9994	0.9995	0.9995
67	300.	0.9923	0.9924	0.9926	0.9939	0.9947	0.9975	0.9979	0.9979
	800.	0.9923	0.9924	0.9926	0.9939	0.9948	0.9975	0.9979	0.9979
	2100.	0.9923	0.9924	0.9926	0.9939	0.9948	0.9975	0.9979	0.9979
	4500.	0.9923	0.9924	0.9926	0.9939	0.9949	0.9975	0.9979	0.9979
68	300.	0.9653	0.9655	0.9665	0.9728	0.9828	0.9932	0.9946	0.9948
	800.	0.9653	0.9655	0.9665	0.9728	0.9830	0.9932	0.9946	0.9948
	2100.	0.9653	0.9655	0.9665	0.9728	0.9832	0.9932	0.9946	0.9948
	4500.	0.9653	0.9655	0.9665	0.9728	0.9833	0.9932	0.9946	0.9948
69	300.	0.9523	0.9524	0.9531	0.9572	0.9704	0.9907	0.9935	0.9938
	800.	0.9523	0.9524	0.9531	0.9572	0.9706	0.9907	0.9935	0.9938
	2100.	0.9523	0.9524	0.9531	0.9572	0.9709	0.9907	0.9935	0.9938
	4500.	0.9523	0.9524	0.9531	0.9572	0.9710	0.9907	0.9935	0.9938
70	300.	0.9771	0.9771	0.9776	0.9814	0.9932	0.9989	0.9999	1.0000
	800.	0.9771	0.9771	0.9776	0.9814	0.9932	0.9989	0.9999	1.0000
	2100.	0.9771	0.9771	0.9776	0.9814	0.9932	0.9989	0.9999	1.0000
	4500.	0.9771	0.9771	0.9776	0.9814	0.9932	0.9989	0.9999	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2		REACTION = ELASTIC REMOVAL				FOR 1TH R-PARAMETER			
		PAGE 3 OF 6							
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.5695	0.4987	0.6615	0.9408	0.9927	0.9983	0.9988	0.9989
	800.	0.5700	0.5005	0.6650	0.9419	0.9928	0.9983	0.9988	0.9989
	2100.	0.5720	0.5064	0.6758	0.9445	0.9931	0.9983	0.9988	0.9989
	4500.	0.5749	0.5168	0.6943	0.9486	0.9936	0.9984	0.9988	0.9989
27	300.	0.8758	0.8573	0.7166	0.9329	0.9889	0.9951	0.9958	0.9958
	800.	0.8741	0.8552	0.7166	0.9334	0.9890	0.9951	0.9958	0.9958
	2100.	0.8698	0.8495	0.7187	0.9352	0.9892	0.9952	0.9958	0.9958
	4500.	0.8623	0.8395	0.7241	0.9384	0.9896	0.9952	0.9958	0.9958
28	300.	0.8046	0.8042	0.7382	0.9168	0.9850	0.9927	0.9935	0.9936
	800.	0.8024	0.8020	0.7362	0.9172	0.9851	0.9927	0.9935	0.9936
	2100.	0.7979	0.7974	0.7323	0.9184	0.9852	0.9927	0.9935	0.9936
	4500.	0.7941	0.7928	0.7281	0.9211	0.9856	0.9928	0.9935	0.9936
29	300.	0.8214	0.8223	0.7873	0.9082	0.9824	0.9909	0.9918	0.9919
	800.	0.8200	0.8208	0.7852	0.9083	0.9824	0.9909	0.9918	0.9919
	2100.	0.8170	0.8177	0.7798	0.9089	0.9825	0.9909	0.9918	0.9919
	4500.	0.8137	0.8139	0.7711	0.9105	0.9827	0.9910	0.9918	0.9919
30	300.	0.8519	0.8541	0.8385	0.9086	0.9812	0.9896	0.9904	0.9905
	800.	0.8516	0.8539	0.8380	0.9087	0.9812	0.9896	0.9904	0.9905
	2100.	0.8471	0.8498	0.8333	0.9088	0.9813	0.9896	0.9904	0.9905
	4500.	0.8393	0.8426	0.8243	0.9093	0.9814	0.9896	0.9904	0.9905
31	300.	0.7521	0.7563	0.7728	0.8777	0.9761	0.9880	0.9892	0.9893
	800.	0.7489	0.7535	0.7715	0.8786	0.9763	0.9880	0.9892	0.9893
	2100.	0.7451	0.7498	0.7683	0.8793	0.9765	0.9880	0.9892	0.9893
	4500.	0.7416	0.7464	0.7633	0.8798	0.9766	0.9880	0.9892	0.9893
32	300.	0.9124	0.8993	0.8273	0.8553	0.9608	0.9736	0.9749	0.9751
	800.	0.9189	0.9057	0.8314	0.8560	0.9609	0.9737	0.9750	0.9751
	2100.	0.9243	0.9110	0.8343	0.8567	0.9611	0.9737	0.9750	0.9751
	4500.	0.9284	0.9149	0.8349	0.8575	0.9612	0.9737	0.9750	0.9751
33	300.	0.8263	0.8284	0.8282	0.8430	0.9584	0.9729	0.9743	0.9745
	800.	0.8222	0.8246	0.8262	0.8422	0.9584	0.9728	0.9743	0.9745
	2100.	0.8182	0.8206	0.8232	0.8412	0.9583	0.9728	0.9743	0.9745
	4500.	0.8157	0.8181	0.8203	0.8404	0.9583	0.9728	0.9743	0.9745
34	300.	0.6892	0.6996	0.7564	0.8185	0.9535	0.9714	0.9733	0.9735
	800.	0.6871	0.6975	0.7555	0.8194	0.9538	0.9715	0.9733	0.9735
	2100.	0.6834	0.6940	0.7538	0.8201	0.9541	0.9715	0.9733	0.9735
	4500.	0.6825	0.6930	0.7529	0.8203	0.9543	0.9715	0.9733	0.9735
35	300.	0.9784	0.9619	0.8757	0.8152	0.9521	0.9708	0.9727	0.9729
	800.	0.9877	0.9704	0.8808	0.8161	0.9524	0.9708	0.9727	0.9729
	2100.	0.9926	0.9754	0.8855	0.8172	0.9528	0.9708	0.9727	0.9729
	4500.	0.9962	0.9794	0.8897	0.8181	0.9530	0.9709	0.9727	0.9729
36	300.	0.6937	0.7051	0.7642	0.7944	0.9482	0.9699	0.9721	0.9724
	800.	0.6995	0.7104	0.7665	0.7937	0.9483	0.9699	0.9721	0.9724
	2100.	0.7003	0.7108	0.7651	0.7924	0.9483	0.9699	0.9721	0.9724
	4500.	0.6957	0.7059	0.7598	0.7901	0.9482	0.9699	0.9721	0.9724

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2 REACTION = ELASTIC REMOVAL FOR 1TH R-PARAMETER									
PAGE 4 OF 6									
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.5762	0.5830	0.6295	0.7244	0.9347	0.9681	0.9716	0.9720
	800.	0.5535	0.5622	0.6193	0.7283	0.9366	0.9683	0.9716	0.9720
	2100.	0.5428	0.5527	0.6169	0.7319	0.9378	0.9685	0.9717	0.9720
	4500.	0.5541	0.5638	0.6265	0.7352	0.9387	0.9686	0.9717	0.9720
38	300.	0.6327	0.6407	0.6963	0.7607	0.9402	0.9687	0.9717	0.9720
	800.	0.6414	0.6485	0.7004	0.7600	0.9404	0.9688	0.9717	0.9720
	2100.	0.6220	0.6307	0.6910	0.7579	0.9405	0.9688	0.9717	0.9720
	4500.	0.5923	0.6031	0.6751	0.7555	0.9405	0.9688	0.9717	0.9720
39	300.	0.7499	0.7535	0.7675	0.7593	0.9392	0.9683	0.9713	0.9716
	800.	0.7360	0.7385	0.7472	0.7438	0.9367	0.9680	0.9712	0.9715
	2100.	0.6994	0.7018	0.7120	0.7261	0.9339	0.9676	0.9711	0.9715
	4500.	0.6736	0.6762	0.6890	0.7162	0.9326	0.9675	0.9711	0.9715
40	300.	0.9015	0.9050	0.9139	0.7804	0.9384	0.9680	0.9711	0.9714
	800.	0.9171	0.9202	0.9268	0.7801	0.9385	0.9681	0.9711	0.9714
	2100.	0.9508	0.9524	0.9494	0.7802	0.9386	0.9681	0.9711	0.9714
	4500.	0.9860	0.9858	0.9716	0.7807	0.9388	0.9681	0.9711	0.9714
41	300.	0.5264	0.5365	0.6009	0.6887	0.9118	0.9593	0.9644	0.9649
	800.	0.5194	0.5296	0.5954	0.6891	0.9129	0.9595	0.9644	0.9649
	2100.	0.5444	0.5539	0.6145	0.6950	0.9146	0.9597	0.9644	0.9649
	4500.	0.5807	0.5892	0.6431	0.7038	0.9166	0.9599	0.9644	0.9649
42	300.	0.5434	0.5461	0.5723	0.6591	0.9002	0.9574	0.9635	0.9642
	800.	0.5195	0.5228	0.5533	0.6594	0.9029	0.9577	0.9636	0.9642
	2100.	0.5039	0.5073	0.5396	0.6580	0.9041	0.9579	0.9636	0.9642
	4500.	0.5115	0.5146	0.5454	0.6590	0.9044	0.9580	0.9636	0.9642
43	300.	1.1583	1.1467	1.0639	0.8038	0.9180	0.9590	0.9633	0.9638
	800.	1.0706	1.0656	1.0210	0.8001	0.9177	0.9590	0.9633	0.9638
	2100.	0.9763	0.9771	0.9684	0.7931	0.9168	0.9589	0.9633	0.9637
	4500.	0.9497	0.9512	0.9488	0.7874	0.9159	0.9588	0.9633	0.9637
44	300.	0.2381	0.2441	0.2891	0.4454	0.8025	0.9438	0.9612	0.9629
	800.	0.2473	0.2532	0.2985	0.4671	0.8212	0.9468	0.9615	0.9630
	2100.	0.2909	0.2962	0.3378	0.4989	0.8373	0.9491	0.9618	0.9631
	4500.	0.3464	0.3508	0.3866	0.5265	0.8471	0.9505	0.9628	0.9631
45	300.	1.6804	1.6377	1.4272	1.0203	0.9316	0.9598	0.9628	0.9631
	800.	1.8079	1.7544	1.4911	1.0324	0.9315	0.9598	0.9628	0.9631
	2100.	1.9184	1.8573	1.5325	1.0441	0.9314	0.9598	0.9628	0.9631
	4500.	1.9048	1.8475	1.5557	1.0488	0.9310	0.9598	0.9628	0.9631
46	300.	0.5126	0.5218	0.5780	0.7260	0.8817	0.9537	0.9618	0.9626
	800.	0.5015	0.5111	0.5705	0.7311	0.8842	0.9542	0.9618	0.9626
	2100.	0.5086	0.5173	0.5727	0.7353	0.8855	0.9544	0.9619	0.9627
	4500.	0.5117	0.5193	0.5702	0.7352	0.8858	0.9546	0.9620	0.9627
47	300.	1.7378	1.6961	1.4463	0.9832	0.9151	0.9580	0.9626	0.9631
	800.	1.7307	1.6953	1.4700	0.9913	0.9158	0.9598	0.9645	0.9650
	2100.	1.6997	1.6714	1.4772	0.9977	0.9194	0.9651	0.9700	0.9704
	4500.	1.6515	1.6279	1.4588	0.9989	0.9242	0.9718	0.9769	0.9774
48	300.	0.8645	0.8935	1.0252	1.0165	0.9212	0.9581	0.9621	0.9625
	800.	0.9013	0.9282	1.0478	1.0197	0.9190	0.9574	0.9615	0.9619
	2100.	0.9413	0.9657	1.0699	1.0167	0.9148	0.9550	0.9592	0.9597
	4500.	0.9673	0.9893	1.0810	1.0097	0.9102	0.9517	0.9561	0.9565

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2 REACTION = ELASTIC REMOVAL FOR 1TH R-PARAMETER									
PAGE 5 OF 6									
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.4457	0.4464	0.4583	0.5856	0.8232	0.9469	0.9612	0.9626
	800.	0.5209	0.5201	0.5221	0.6128	0.8239	0.9434	0.9570	0.9584
	2100.	0.6350	0.6317	0.6162	0.6476	0.8264	0.9414	0.9545	0.9556
	4500.	0.7267	0.7216	0.6922	0.6752	0.8332	0.9463	0.9589	0.9602
50	300.	2.1172	2.0742	1.7983	1.1276	0.8681	0.9290	0.9358	0.9365
	800.	2.2697	2.2193	1.8990	1.1529	0.8675	0.9292	0.9360	0.9367
	2100.	2.4156	2.3579	1.9925	1.1724	0.8672	0.9292	0.9360	0.9375
	4500.	2.4609	2.4017	2.0237	1.1783	0.8674	0.9300	0.9368	0.9375
51	300.	2.0809	2.0627	1.9048	1.3082	0.8674	0.9216	0.9281	0.9287
	800.	2.1669	2.1447	1.9682	1.3319	0.8645	0.9212	0.9277	0.9284
	2100.	2.2743	2.2428	2.0244	1.3423	0.8606	0.9211	0.9279	0.9286
	4500.	2.2812	2.2503	2.0332	1.3401	0.8579	0.9226	0.9298	0.9305
52	300.	1.3292	1.2944	1.0976	0.9023	0.8381	0.9182	0.9274	0.9284
	800.	1.1768	1.1525	1.0109	0.8850	0.8413	0.9269	0.9366	0.9376
	2100.	0.9805	0.9691	0.8995	0.8724	0.8519	0.9439	0.9543	0.9554
	4500.	0.9283	0.9201	0.8707	0.8782	0.8653	0.9618	0.9728	0.9739
53	300.	1.2762	1.2744	1.2474	1.0373	0.8158	0.9127	0.9266	0.9280
	800.	1.2729	1.2737	1.2600	1.0450	0.8079	0.9114	0.9255	0.9270
	2100.	1.2311	1.2346	1.2365	1.0291	0.7981	0.9120	0.9268	0.9283
	4500.	1.2997	1.3004	1.2839	1.0189	0.7948	0.9187	0.9340	0.9356
54	300.	0.3812	0.3912	0.4677	0.7628	0.8295	0.9167	0.9268	0.9278
	800.	0.4176	0.4277	0.5027	0.7810	0.8300	0.9175	0.9277	0.9287
	2100.	0.4869	0.4963	0.5649	0.8164	0.8358	0.9231	0.9333	0.9344
	4500.	0.5722	0.5796	0.6354	0.8616	0.8455	0.9315	0.9415	0.9426
55	300.	1.6553	1.6491	1.5750	1.1465	0.8371	0.9156	0.9264	0.9276
	800.	1.8088	1.7987	1.6956	1.1709	0.8311	0.9153	0.9264	0.9275
	2100.	2.1139	2.0934	1.9182	1.2005	0.8222	0.9146	0.9263	0.9275
	4500.	2.4478	2.4129	2.1462	1.2286	0.8143	0.9137	0.9260	0.9272
56	300.	1.2379	1.2125	1.0562	0.8169	0.7720	0.9057	0.9251	0.9271
	800.	1.2295	1.2050	1.0546	0.8253	0.7660	0.9034	0.9230	0.9251
	2100.	1.0945	1.0760	0.9636	0.8068	0.7537	0.8991	0.9192	0.9213
	4500.	0.7531	0.7459	0.7056	0.7126	0.7430	0.9089	0.9314	0.9337
57	300.	0.2224	0.2317	0.3150	0.7157	0.8265	0.9140	0.9255	0.9267
	800.	0.1538	0.1606	0.2236	0.5929	0.7982	0.9148	0.9303	0.9319
	2100.	0.1165	0.1215	0.1683	0.4992	0.7524	0.8843	0.9020	0.9038
	4500.	0.1267	0.1314	0.1747	0.4907	0.7225	0.8468	0.8634	0.8651
58	300.	1.5916	1.5892	1.5563	1.3100	0.9318	0.9257	0.9266	0.9278
	800.	1.5489	1.5503	1.5435	1.3338	0.9331	0.9257	0.9266	0.9278
	2100.	1.2692	1.2641	1.3505	1.3194	0.9299	0.9284	0.9304	0.9306
	4500.	0.9220	0.9452	1.0971	1.2577	0.9180	0.9259	0.9292	0.9295
59	300.	1.3689	1.3872	1.4268	1.2257	0.9356	0.9260	0.9267	0.9268
	800.	1.4001	1.4233	1.4746	1.2472	0.9381	0.9261	0.9268	0.9269
	2100.	1.4297	1.4589	1.5337	1.2708	0.9406	0.9265	0.9273	0.9273
	4500.	1.3455	1.3835	1.5025	1.2688	0.9409	0.9271	0.9281	0.9282
60	300.	0.4529	0.4495	0.4547	0.6927	0.8627	0.9183	0.9260	0.9268
	800.	0.4661	0.4622	0.4654	0.6964	0.8664	0.9216	0.9294	0.9302
	2100.	0.5518	0.5445	0.5303	0.7201	0.8745	0.9268	0.9346	0.9354
	4500.	0.7148	0.7008	0.6481	0.7571	0.8828	0.9310	0.9385	0.9393

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U235-J2

REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER

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GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	1.0766	1.0905	1.1621	1.0834	0.9216	0.9246	0.9266	0.9268
	800.	1.0854	1.0990	1.1697	1.0920	0.9238	0.9246	0.9266	0.9268
	2100.	1.1019	1.1144	1.1812	1.1032	0.9263	0.9246	0.9266	0.9268
	4500.	1.1208	1.1316	1.1900	1.1093	0.9277	0.9246	0.9266	0.9268
62	300.	0.9307	0.9113	0.8055	0.8173	0.8884	0.9211	0.9263	0.9268
	800.	0.9424	0.9217	0.8090	0.8174	0.8901	0.9210	0.9261	0.9266
	2100.	0.9288	0.9088	0.7993	0.8169	0.8919	0.9206	0.9257	0.9262
	4500.	0.8566	0.8411	0.7572	0.8095	0.8924	0.9205	0.9257	0.9262
63	300.	0.7858	0.7907	0.8320	0.9111	0.9049	0.9229	0.9264	0.9268
	800.	0.7850	0.7903	0.8338	0.9138	0.9065	0.9229	0.9264	0.9268
	2100.	0.7839	0.7896	0.8363	0.9161	0.9081	0.9229	0.9265	0.9268
	4500.	0.7860	0.7921	0.8403	0.9163	0.9088	0.9229	0.9265	0.9269
64	300.	0.2818	0.2816	0.2831	0.4130	0.7815	0.9085	0.9250	0.9266
	800.	0.2945	0.2942	0.2947	0.4228	0.7865	0.9092	0.9253	0.9269
	2100.	0.3223	0.3217	0.3199	0.4422	0.7949	0.9105	0.9258	0.9273
	4500.	0.3629	0.3619	0.3570	0.4686	0.8044	0.9118	0.9262	0.9277
65	300.	1.0810	1.0813	1.0807	0.9101	0.8279	0.9124	0.9240	0.9252
	800.	1.0836	1.0838	1.0828	0.9106	0.8296	0.9124	0.9240	0.9252
	2100.	1.0866	1.0867	1.0847	0.9091	0.8312	0.9124	0.9240	0.9252
	4500.	1.0843	1.0843	1.0809	0.9026	0.8320	0.9123	0.9240	0.9252
66	300.	0.8531	0.8536	0.8580	0.8861	0.8389	0.9147	0.9256	0.9267
	800.	0.8531	0.8536	0.8581	0.8863	0.8408	0.9147	0.9256	0.9267
	2100.	0.8531	0.8536	0.8581	0.8867	0.8428	0.9147	0.9256	0.9267
	4500.	0.8531	0.8536	0.8581	0.8864	0.8441	0.9147	0.9256	0.9267
67	300.	0.8071	0.8071	0.8075	0.8194	0.8237	0.9124	0.9253	0.9266
	800.	0.8071	0.8071	0.8075	0.8194	0.8257	0.9125	0.9253	0.9266
	2100.	0.8071	0.8071	0.8075	0.8195	0.8278	0.9125	0.9253	0.9266
	4500.	0.8071	0.8071	0.8075	0.8194	0.8291	0.9125	0.9253	0.9266
68	300.	0.7009	0.7010	0.7016	0.7150	0.7780	0.9061	0.9247	0.9266
	800.	0.7009	0.7010	0.7016	0.7150	0.7801	0.9061	0.9247	0.9266
	2100.	0.7009	0.7010	0.7016	0.7150	0.7822	0.9061	0.9247	0.9266
	4500.	0.7009	0.7010	0.7016	0.7150	0.7835	0.9061	0.9247	0.9266
69	300.	0.6917	0.6915	0.6893	0.6703	0.6940	0.8928	0.9233	0.9264
	800.	0.6917	0.6915	0.6893	0.6703	0.6963	0.8928	0.9233	0.9264
	2100.	0.6917	0.6915	0.6893	0.6703	0.6987	0.8928	0.9233	0.9264
	4500.	0.6917	0.6915	0.6893	0.6703	0.7002	0.8928	0.9233	0.9264
70	300.	0.9924	0.9924	0.9925	0.9937	0.9973	0.9996	1.0000	1.0000
	800.	0.9924	0.9924	0.9925	0.9937	0.9973	0.9996	1.0000	1.0000
	2100.	0.9924	0.9924	0.9925	0.9937	0.9973	0.9996	1.0000	1.0000
	4500.	0.9924	0.9924	0.9925	0.9937	0.9973	0.9996	1.0000	1.0000

NUCLID = U238-J2 CODE NO = 928
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1	1.0023E+00	3.6478E+00	4.6013E-03	4.3948E-01	3.3796E+00	8.1204E-01	3.5033E-02	1.2532E+00	6.0792E+00
2	8.7481E-01	3.3820E+00	5.7025E-03	1.3426E+00	4.1329E+00	8.2006E-01	3.9037E-02	3.5941E-01	6.7154E+00
3	5.6758E-01	3.1412E+00	7.5648E-03	1.9377E+00	4.9621E+00	8.0847E-01	4.2698E-02	0.0	7.4749E+00
4	5.6035E-01	2.9587E+00	1.0524E-02	2.1456E+00	5.1542E+00	7.8484E-01	4.4735E-02	0.0	7.8706E+00
5	5.4579E-01	2.8188E+00	1.5610E-02	2.2443E+00	5.0444E+00	7.5276E-01	4.7383E-02	0.0	7.8501E+00
6	5.5170E-01	2.7092E+00	2.3376E-02	2.2964E+00	4.7047E+00	7.1076E-01	4.6015E-02	0.0	7.5762E+00
7	5.3417E-01	2.6248E+00	3.5950E-02	2.4012E+00	4.3012E+00	6.5435E-01	5.2422E-02	0.0	7.2724E+00
8	5.5191E-01	2.5611E+00	5.7109E-02	2.5565E+00	4.0777E+00	5.7853E-01	6.4057E-02	0.0	7.0435E+00
9	5.6828E-02	2.5118E+00	9.3570E-02	2.6121E+00	4.2342E+00	5.0907E-01	6.8061E-02	0.0	6.9966E+00
10	1.3808E-02	2.4666E+00	1.2573E-01	2.2093E+00	4.9669E+00	4.4790E-01	1.2316E-01	0.0	7.3158E+00
11	2.6361E-03	2.4360E+00	1.2090E-01	1.9103E+00	5.7333E+00	4.0170E-01	1.2181E-01	0.0	7.7671E+00
12	6.9381E-04	2.4087E+00	1.1255E-01	1.7348E+00	6.4692E+00	3.5967E-01	1.5593E-01	0.0	8.3172E+00
13	3.1842E-04	2.3892E+00	1.0888E-01	1.5420E+00	7.1846E+00	3.2246E-01	1.4395E-01	0.0	8.8357E+00
14	1.8974E-04	2.3733E+00	1.1230E-01	1.3427E+00	7.9359E+00	2.8215E-01	2.0077E-01	0.0	9.3911E+00
15	1.0995E-04	2.3617E+00	1.1934E-01	1.1485E+00	8.6926E+00	2.4313E-01	2.2738E-01	0.0	9.9605E+00
16	9.2547E-05	2.3512E+00	1.3053E-01	9.8621E-01	9.4422E+00	2.0649E-01	2.8385E-01	0.0	1.0559E+01
17	9.6781E-05	2.3445E+00	1.4571E-01	8.4377E-01	1.0167E+01	1.7045E-01	2.6790E-01	0.0	1.1157E+01
18	7.5842E-05	2.3407E+00	1.6737E-01	7.2028E-01	1.0830E+01	1.3978E-01	2.6678E-01	0.0	1.1718E+01
19	4.3706E-05	2.3358E+00	1.9748E-01	5.8746E-01	1.1405E+01	1.1386E-01	3.1701E-01	0.0	1.2190E+01
20	3.9132E-05	2.3309E+00	2.3805E-01	4.5481E-01	1.1925E+01	9.1225E-02	3.0845E-01	0.0	1.2618E+01
21	8.8504E-05	2.3287E+00	3.0066E-01	2.7244E-01	1.2460E+01	7.2029E-02	2.8376E-01	0.0	1.3034E+01
22	8.5765E-05	2.3268E+00	3.6788E-01	5.0034E-02	1.2678E+01	5.6449E-02	3.4268E-01	0.0	1.3096E+01
23	3.6085E-05	2.3255E+00	4.1222E-01	0.0	1.2801E+01	4.4565E-02	4.0406E-01	0.0	1.3214E+01
24	6.5314E-05	2.3236E+00	4.5168E-01	0.0	1.3364E+01	3.4958E-02	4.3698E-01	0.0	1.3816E+01
25	1.0050E-04	2.3226E+00	5.0660E-01	0.0	1.2933E+01	2.7687E-02	4.0196E-01	0.0	1.3439E+01
26	1.2327E-04	2.3220E+00	5.4841E-01	0.0	1.3186E+01	2.1732E-02	4.1540E-01	0.0	1.3735E+01
27	1.0719E-04	2.3216E+00	5.9206E-01	0.0	1.3367E+01	1.7274E-02	4.1231E-01	0.0	1.3959E+01
28	6.1610E-05	2.3208E+00	6.4354E-01	0.0	1.3316E+01	1.3704E-02	5.1832E-01	0.0	1.3960E+01
29	1.8645E-04	2.3203E+00	6.8856E-01	0.0	1.4302E+01	1.0936E-02	5.2648E-01	0.0	1.4990E+01
30	4.3030E-05	2.3195E+00	7.9082E-01	0.0	1.4175E+01	8.9238E-03	5.3564E-01	0.0	1.4966E+01
31	0.0	2.3206E+00	8.5029E-01	0.0	1.4570E+01	4.0689E-03	5.9988E-01	0.0	1.5420E+01
32	0.0	2.3613E+00	8.5211E-01	0.0	1.7787E+01	2.8248E-03	5.0027E-01	0.0	1.8639E+01
33	0.0	2.3492E+00	1.1888E+00	0.0	1.6551E+01	2.8248E-03	6.0823E-01	0.0	1.7740E+01
34	0.0	2.3388E+00	1.4807E+00	0.0	2.2476E+01	2.8248E-03	4.7334E-01	0.0	2.5956E+01
35	0.0	2.3306E+00	1.7102E+00	0.0	2.6175E+01	2.8248E-03	1.4087E+00	0.0	2.7885E+01
36	3.1246E-05	2.3193E+00	1.6420E+00	0.0	1.8416E+01	2.8248E-03	1.4416E+00	0.0	2.0058E+01
37	9.4644E-04	2.3196E+00	2.4443E+00	0.0	2.4322E+01	2.8248E-03	5.4249E-01	0.0	2.6768E+01
38	9.4033E-05	2.3196E+00	3.0606E+00	0.0	2.0446E+01	2.8248E-03	3.8587E-01	0.0	2.3506E+01
39	2.6888E-03	2.3170E+00	3.5520E+00	0.0	2.0812E+01	2.8248E-03	3.6288E-01	0.0	2.4367E+01
40	5.8082E-05	2.3195E+00	3.3587E+00	0.0	1.5730E+01	2.8248E-03	3.8675E-01	0.0	1.9089E+01

TO BE CONTINUED

NUCLID = U238-J2 CODE NO = 928
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41	1.0960E-05	2.3192E+00	2.3295E+00	0.0	1.3640E+01	2.8248E-03	5.1947E-01	0.0	1.5970E+01
42	3.7207E-05	2.3195E+00	4.5475E+00	0.0	2.1997E+01	2.8248E-03	5.3923E-01	0.0	2.6545E+01
43	1.8634E-05	2.3195E+00	6.5209E+00	0.0	2.0573E+01	2.8248E-03	5.8847E-01	0.0	2.7094E+01
44	4.9803E-05	2.3195E+00	1.5137E+01	0.0	9.4685E+01	2.8248E-03	3.4800E-01	0.0	1.0982E+02
45	1.0000E-05	2.3215E+00	2.4912E+00	0.0	1.1807E+01	2.8248E-03	4.5423E-01	0.0	1.4298E+01
46	2.2624E-05	2.3195E+00	4.3044E+01	0.0	1.1154E+02	2.8248E-03	2.0740E+01	0.0	1.5458E+02
47	2.118E-05	2.3195E+00	4.9506E+00	0.0	9.4147E+00	2.8248E-03	3.7068E-01	0.0	1.4365E+01
48	1.0626E-04	2.3195E+00	4.4416E+01	0.0	5.9932E+01	2.8248E-03	2.9810E+01	0.0	1.0435E+02
49	1.0000E-05	2.3196E+00	1.3672E-01	0.0	1.1248E+01	2.8248E-03	4.4079E-01	0.0	1.1385E+01
50	1.0322E-05	2.3196E+00	2.9448E+00	0.0	2.3011E+01	2.8248E-03	3.4203E+00	0.0	2.5956E+01
51	9.1743E-05	2.3194E+00	1.6476E+02	0.0	2.3649E+02	2.8248E-03	3.1577E-01	0.0	4.0125E+02
52	1.0000E-05	2.3195E+00	6.9575E-01	0.0	1.1401E+01	2.8248E-03	5.3764E-01	0.0	1.2097E+01
53	5.5212E-04	2.3195E+00	2.6329E+02	0.0	1.2374E+02	2.8248E-03	2.6090E-01	0.0	3.8702E+02
54	1.0000E-05	2.3197E+00	4.4463E-01	0.0	8.5929E+00	2.8248E-03	3.2223E-01	0.0	9.0375E+00
55	1.0000E-05	2.3196E+00	3.3624E-01	0.0	9.6787E+00	2.8248E-03	3.5049E-01	0.0	1.0015E+01
56	1.0200E-05	2.3201E+00	8.6624E-01	0.0	1.0574E+01	2.8248E-03	3.9143E-01	0.0	1.1440E+01
57	2.0125E-04	2.3195E+00	5.0516E+02	0.0	4.4552E+01	2.8248E-03	2.1954E-01	0.0	5.4972E+02
58	1.1064E-05	2.3195E+00	1.0789E+01	0.0	7.1928E+00	2.8248E-03	2.9939E-01	0.0	1.7982E+01
59	1.0000E-05	2.3199E+00	1.4746E+00	0.0	9.0134E+00	2.8248E-03	3.2259E-01	0.0	1.0161E+01
60	1.0000E-05	2.3195E+00	6.2142E-01	0.0	9.4197E+00	2.8248E-03	3.3214E-01	0.0	1.0041E+01
61	1.0000E-05	2.3195E+00	5.0387E-01	0.0	9.6172E+00	2.8248E-03	3.3737E-01	0.0	1.0121E+01
62	1.0000E-05	2.3195E+00	4.6731E-01	0.0	9.7361E+00	2.8248E-03	3.4071E-01	0.0	1.0203E+01
63	1.0000E-05	2.3195E+00	4.6475E-01	0.0	9.8150E+00	2.8248E-03	3.4301E-01	0.0	1.0280E+01
64	1.0000E-05	2.3195E+00	4.8160E-01	0.0	9.8704E+00	2.8248E-03	3.4465E-01	0.0	1.0352E+01
65	1.0000E-05	2.3195E+00	5.1229E-01	0.0	9.9107E+00	2.8248E-03	3.3908E-01	0.0	1.0423E+01
66	1.0000E-05	2.3195E+00	5.5468E-01	0.0	9.9404E+00	2.8248E-03	3.4675E-01	0.0	1.0495E+01
67	1.0000E-05	2.3195E+00	6.0742E-01	0.0	9.9625E+00	2.8248E-03	3.4742E-01	0.0	1.0570E+01
68	1.0000E-05	2.3195E+00	6.7085E-01	0.0	9.9792E+00	2.8248E-03	3.4793E-01	0.0	1.0650E+01
69	1.0000E-05	2.3195E+00	7.4553E-01	0.0	9.9919E+00	2.8248E-03	3.4832E-01	0.0	1.0737E+01
70	1.1558E-06	2.3195E+00	9.8064E-01	0.0	8.8487E+00	2.8248E-03	0.0	0.0	9.8293E+00

JAERI-M 82-135

NUCLID = U238-J2 CODE NUMBER = 928 IPL = 0										
TABLE OF INELASTIC MATRICES										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
I	J =	1	2	3	4	5	6	7	8	9
		11	12	13	14	15	16	17	18	19
		21	22	23	24	25	26	27	28	29
		31	32	33	34	35	36	37	38	39

1	0.0	2.10501E-04	1.49634E-03	5.93802E-03	1.57440E-02	3.03495E-02	4.55320E-02	5.60505E-02	5.91418E-02	5.52525E-02
	4.69478E-02	3.70418E-02	2.75805E-02	1.96283E-02	1.34832E-02	9.01252E-03	5.89684E-03	3.79284E-03	2.40875E-03	1.51421E-03
	9.44309E-04	5.85306E-04	3.61076E-04	2.21895E-04	1.35980E-04	8.31519E-05	5.07291E-05	3.09268E-05	1.88273E-05	1.14528E-05
	6.96226E-06	4.23042E-06	2.56931E-06	1.56015E-06	9.47133E-07	5.74776E-07	0.0	0.0	0.0	0.0
2	0.0	1.59368E-03	1.04136E-02	3.26351E-02	7.17834E-02	1.19484E-01	1.59596E-01	1.79531E-01	1.76348E-01	1.55834E-01
	1.26778E-01	9.66816E-02	7.01020E-02	4.88613E-02	3.30331E-02	2.18055E-02	1.41224E-02	9.01713E-03	5.69222E-03	3.56145E-03
	2.21309E-03	1.36797E-03	8.41966E-04	5.16588E-04	3.16189E-04	1.93041E-04	1.17753E-04	7.17164E-05	4.36405E-05	2.65367E-05
	1.61276E-05	9.79657E-06	5.94946E-06	3.61215E-06	2.19224E-06	0.0	0.0	0.0	0.0	0.0
3	0.0	2.34267E-03	3.17879E-02	7.94262E-02	1.46179E-01	2.11305E-01	2.52904E-01	2.60789E-01	2.39382E-01	2.00623E-01
	1.56589E-01	1.15615E-01	8.17313E-02	5.58674E-02	3.71970E-02	2.42526E-02	1.55663E-02	9.86654E-03	6.19280E-03	3.85773E-03
	2.38915E-03	1.47269E-03	9.04624E-04	5.54199E-04	3.38591E-04	2.06652E-04	1.25913E-04	7.68455E-05	4.66183E-05	2.83739E-05
	1.72163E-05	1.04568E-05	6.34933E-06	3.85373E-06	2.35898E-06	0.0	0.0	0.0	0.0	0.0
4	0.0	0.0	5.23539E-02	1.33746E-01	2.10935E-01	2.70346E-01	2.94144E-01	2.81583E-01	2.43872E-01	1.95294E-01
	1.47111E-01	1.05635E-01	7.30926E-02	4.91306E-02	3.22717E-02	2.08332E-02	1.32645E-02	8.35480E-03	5.21876E-03	3.23893E-03
	1.99982E-03	1.23001E-03	7.54298E-04	4.61203E-04	2.81657E-04	1.71695E-04	1.04553E-04	6.36108E-05	3.86759E-05	2.35011E-05
	1.42759E-05	8.66924E-06	5.26224E-06	3.19406E-06	0.0	0.0	0.0	0.0	0.0	0.0
5	2.02926E-04	7.88597E-04	7.20345E-03	1.97491E-01	2.73248E-01	3.17871E-01	3.20667E-01	2.89343E-01	2.39250E-01	1.84789E-01
	1.35306E-01	9.50600E-02	6.46600E-02	4.28673E-02	2.78738E-02	1.78473E-02	1.12907E-02	7.07676E-03	4.40377E-03	2.72467E-03
	1.67854E-03	1.03065E-03	6.30792E-04	3.85519E-04	2.35148E-04	1.43258E-04	8.71909E-05	5.30277E-05	3.22898E-05	1.95810E-05
	1.18924E-05	7.21945E-06	4.38240E-06	2.65970E-06	0.0	0.0	0.0	0.0	0.0	0.0
6	1.03924E-02	1.18170E-02	2.66708E-02	2.69124E-02	3.45596E-01	3.90106E-01	3.64197E-01	3.09675E-01	2.44458E-01	1.82072E-01
	1.29626E-01	8.90906E-02	5.95432E-02	3.89616E-02	2.50695E-02	1.59204E-02	1.00083E-02	6.24252E-03	3.86931E-03	2.38706E-03
	1.46731E-03	8.98807E-04	5.49687E-04	3.35457E-04	2.04451E-04	1.24474E-04	7.57208E-05	4.60301E-05	2.79702E-05	1.69895E-05
	1.03146E-05	6.26169E-06	3.80046E-06	2.30623E-06	0.0	0.0	0.0	0.0	0.0	0.0
7	5.18633E-02	4.41066E-02	5.74203E-02	8.58863E-02	8.49097E-02	4.08119E-02	4.35027E-01	4.81745E-01	3.57910E-01	2.55194E-01
	1.76181E-01	1.18162E-01	7.75298E-02	4.99920E-02	3.18001E-02	2.00169E-02	1.24978E-02	7.75259E-03	5.21876E-03	3.23893E-03
	1.80348E-03	1.10328E-03	6.73448E-04	4.10519E-04	2.49966E-04	1.52077E-04	9.24541E-05	5.61835E-05	3.41283E-05	2.07207E-05
	1.25793E-05	7.43503E-06	4.63325E-06	2.81146E-06	0.0	0.0	0.0	0.0	0.0	0.0
8	3.89076E-01	2.43034E-01	1.25457E-01	2.81578E-01	2.70091E-01	2.91736E-01	1.90971E-01	1.14772E-01	6.67458E-02	3.79464E-02
	1.88982E-02	1.11056E-02	6.74142E-03	4.29801E-03	2.76263E-03	1.61115E-03	7.76685E-04	1.63397E-04	1.00512E-04	6.16006E-05
	3.76887E-02	2.30118E-02	1.40232E-02	8.54228E-03	5.19251E-03	3.15990E-03	1.92514E-03	1.16725E-03	7.05710E-04	4.28435E-04
	2.60043E-04	1.57806E-04	9.57575E-05	5.80954E-05	3.52512E-05	2.13820E-05	1.29692E-05	7.86964E-06	4.77244E-06	2.89499E-06
9	7.78163E-01	4.08768E-01	3.28181E-02	2.31093E-02	2.46627E-01	2.00053E-01	1.54811E-01	1.47442E-01	1.23924E-01	1.03880E-01
	6.61677E-02	4.13103E-02	2.60459E-02	1.65446E-02	1.10877E-02	8.84599E-03	5.52678E-03	3.38688E-03	2.12191E-03	1.30671E-03
	8.04585E-04	5.28347E-04	3.34229E-04	1.91092E-04	1.02237E-04	7.24084E-05	4.22295E-05	2.99649E-05	1.68696E-05	6.93528E-06
	2.76422E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	1.00816E+00	5.13102E-01	8.01979E-03	1.42494E-02	1.30172E-01	1.71654E-01	1.21784E-01	8.28318E-02	2.32607E-02	3.49140E-02
	3.03178E-02	1.94824E-02	1.29815E-02	8.51597E-03	5.80780E-03	3.89475E-03	2.38264E-03	1.45731E-03	8.86958E-04	5.49072E-04
	3.24331E-04	1.93851E-04	1.27015E-04	7.83114E-05	4.39234E-05	1.33571E-05	3.16023E-05	1.47617E-05	2.36912E-06	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

NUCLID = U238-J2 CODE NUMBER = 928 IPL = 0										
TABLE OF INELASTIC MATRICES										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
I	J =	1	2	3	4	5	6	7	8	9
		11	12	13	14	15	16	17	18	19
		21	22	23	24	25	26	27	28	29
		31	32	33	34	35	36	37	38	39

11	1.02265E+00	6.35382E-01	1.86147E-02	1.13393E-03	0.0	0.0	0.0	5.51496E-02	4.48877E-02	4.51716E-02
	3.03178E-02	1.94824E-02	1.29815E-02	8.51597E-03	5.80780E-03	3.89475E-03	2.38264E-03	1.45731E-03	8.86958E-04	5.49072E-04
	3.24331E-04	1.93851E-04	1.27015E-04	7.83114E-05	4.39234E-05	1.33571E-05	3.16023E-05	1.47617E-05	2.36912E-06	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	1.01820E+00	6.69434E-01	4.64059E-02	6.10065E-04	1.95943E-04	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	8.32779E-01	6.56401E-01	5.26700E-02	5.48893E-06	7.88512E-05	3.41807E-05	1.07728E-05	1.80944E-06	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	6.04090E-01	6.90686E-01	3.46033E-02	1.32840E-02	0.0	0.0	1.92682E-06	2.75630E-06	1.67353E-06	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	3.57713E-01	7.69977E-01	4.05656E-03	1.07864E-02	5.84476E-03	1.07887E-04	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	1.16178E-01	7.69157E-01	9.39419E-02	2.48895E-05	3.74309E-03	1.85626E-03	9.06709E-04	4.03199E-04	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	5.63608E-01	2.78681E-01	0.0	0.0	0.0	2.11274E-04	5.00388E-04	3.03766E-04	1.83816E-04
	1.1714E-04	6.74181E-05	4.12459E-05	2.48528E-05	1.53117E-05	8.99467E-06	5.53478E-06	3.41219E-06	2.08910E-06	1.30851E-06
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	0.0	2.55765E-01	4.30655E-01	3.38610E-02	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	0.0	3.35539E-01	2.51922E-01	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	0.0	0.0	1.32468E-02	2.33740E-01	1.58933E-01	4.88874E-02	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

JAERI-M 82-135

NUCLID = U238-J2 CODE NUMBER = 928 IPL = 0

TABLE OF INELASTIC MATRICES											PAGE 3 OF 3	
GROUP	J =	EXIT	GROUP	** KK **	KK = 1 + J - 1	4	5	6	7	8	9	10
1	1	1	2	3	4	5	6	7	8	9	10	20
	11	12	13	14	15	16	17	18	19	20	30	40
	21	22	23	24	25	26	27	28	29	30	30	40
	31	32	33	34	35	36	37	38	39	40	40	40

21												
	0.0		0.0	0.0	0.0	7.33398E-02	8.82653E-02	5.65430E-02	3.63666E-02	1.79219E-02	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22												
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	5.62679E-03	1.73494E-02	1.08093E-02	0.0
	6.54612E-03	3.92642E-03	2.36254E-03	1.40627E-03	8.39197E-04	4.98516E-04	2.88740E-04	1.72362E-04	9.62662E-05	5.68285E-05	0.0	0.0
	2.97355E-05	1.59650E-05	6.59406E-06	2.43492E-06	6.42482E-07	6.12185E-08	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NUCLID = U238-J2 CODE NUMBER = 928 IPL = 0

TABLE OF (N,2N) MATRICES											PAGE 1 OF 1	
GROUP	J =	EXIT	GROUP	** KK **	KK = 1 + J - 1	4	5	6	7	8	9	10
1	1	1	2	3	4	5	6	7	8	9	10	20
	11	12	13	14	15	16	17	18	19	20	30	40
	21	22	23	24	25	26	27	28	29	30	30	40
	31	32	33	34	35	36	37	38	39	40	40	40
1		0.0	0.0	0.0	0.0	0.0	3.87921E-02	1.13344E-01	2.01593E-01	2.83981E-01	3.32762E-01	0.0
	3.37603E-01	3.05983E-01	2.53891E-01	1.96630E-01	1.44282E-01	1.01534E-01	6.91527E-02	4.58920E-02	2.98639E-02	1.91332E-02	0.0	0.0
	1.21100E-02	7.59308E-03	4.72643E-03	2.92496E-03	1.80225E-03	1.10676E-03	6.77446E-04	4.14067E-04	2.52577E-04	1.53884E-04	0.0	0.0
	9.36618E-05	5.69649E-05	3.46227E-05	2.10358E-05	1.27761E-05	7.75600E-06	4.70814E-06	2.85741E-06	0.0	0.0	0.0	0.0
2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.67996E-02	0.0
	8.44097E-02	1.02449E-01	1.06842E-01	9.89282E-02	8.34852E-02	6.55227E-02	4.85695E-02	3.44538E-02	2.36095E-02	1.57474E-02	0.0	0.0
	1.02855E-02	6.60941E-03	4.19294E-03	2.63392E-03	1.64202E-03	1.01693E-03	6.27267E-04	3.85358E-04	2.36086E-04	1.44315E-04	0.0	0.0
	8.80677E-05	5.36669E-05	3.26730E-05	1.98755E-05	1.20808E-05	7.34048E-06	4.45834E-06	2.70694E-06	1.64325E-06	9.97258E-07	0.0	0.0

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2 REACTION = FISSION FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9892	0.9901	0.9974	0.9997	0.9999	1.0000	1.0000	1.0000
	800.	0.9891	0.9898	0.9973	0.9997	0.9999	1.0000	1.0000	1.0000
	2100.	0.9891	0.9897	0.9972	0.9997	0.9999	1.0000	1.0000	1.0000
	4500.	0.9891	0.9896	0.9972	0.9997	0.9999	1.0000	1.0000	1.0000
26	300.	0.9926	0.9941	0.9980	0.9997	1.0000	1.0000	1.0000	1.0000
	800.	0.9928	0.9941	0.9980	0.9997	1.0000	1.0000	1.0000	1.0000
	2100.	0.9929	0.9942	0.9980	0.9997	1.0000	1.0000	1.0000	1.0000
	4500.	0.9930	0.9942	0.9980	0.9997	1.0000	1.0000	1.0000	1.0000
27	300.	1.0137	1.0143	1.0082	1.0015	1.0004	1.0003	1.0003	1.0003
	800.	1.0138	1.0146	1.0085	1.0015	1.0004	1.0003	1.0003	1.0003
	2100.	1.0136	1.0145	1.0086	1.0015	1.0004	1.0003	1.0003	1.0003
	4500.	1.0134	1.0145	1.0087	1.0015	1.0004	1.0003	1.0003	1.0003
28	300.	1.0184	1.0188	1.0145	1.0033	1.0011	1.0008	1.0008	1.0008
	800.	1.0191	1.0195	1.0152	1.0034	1.0011	1.0008	1.0008	1.0008
	2100.	1.0199	1.0201	1.0157	1.0034	1.0011	1.0008	1.0008	1.0008
	4500.	1.0204	1.0206	1.0160	1.0034	1.0011	1.0008	1.0008	1.0008
29	300.	0.9610	0.9542	0.9517	0.9872	0.9955	0.9965	0.9966	0.9966
	800.	0.9594	0.9524	0.9490	0.9870	0.9955	0.9965	0.9966	0.9966
	2100.	0.9555	0.9489	0.9465	0.9868	0.9956	0.9965	0.9966	0.9966
	4500.	0.9526	0.9461	0.9448	0.9868	0.9956	0.9965	0.9966	0.9966
30	300.	1.1338	1.1255	1.1082	1.0293	1.0100	1.0077	1.0074	1.0074
	800.	1.1463	1.1375	1.1168	1.0301	1.0100	1.0077	1.0074	1.0074
	2100.	1.1629	1.1530	1.1252	1.0306	1.0100	1.0077	1.0074	1.0074
	4500.	1.1762	1.1654	1.1312	1.0308	1.0099	1.0077	1.0074	1.0074
31	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
32	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
33	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
34	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
35	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
36	300.	0.4497	0.4337	0.5145	0.7746	0.9506	0.9792	0.9822	0.9825
	800.	0.4721	0.4886	0.5849	0.8330	0.9621	0.9804	0.9823	0.9825
	2100.	0.5368	0.5550	0.6608	0.8777	0.9695	0.9812	0.9824	0.9825
	4500.	0.5841	0.6024	0.7077	0.8984	0.9726	0.9816	0.9825	0.9826

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2		REACTION = FISSION		FOR 1TH R-PARAMETER		PAGE 4 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.4946	0.5207	0.6512	0.9015	1.0034	1.0216	1.0236	1.0238
	800.	0.6456	0.6742	0.7907	0.9665	1.0154	1.0230	1.0238	1.0239
	2100.	0.8299	0.8585	0.9389	1.0214	1.0238	1.0239	1.0239	1.0239
	4500.	1.0019	1.0279	1.0626	1.0589	1.0286	1.0244	1.0239	1.0239
38	300.	0.2958	0.3116	0.3974	0.6708	0.9185	0.9796	0.9869	0.9877
	800.	0.3620	0.3798	0.4760	0.7431	0.9431	0.9828	0.9873	0.9877
	2100.	0.4474	0.4653	0.5627	0.8092	0.9605	0.9849	0.9875	0.9877
	4500.	0.5257	0.5413	0.6284	0.8469	0.9684	0.9858	0.9876	0.9877
39	300.	0.6545	0.6855	0.8014	0.9606	1.0103	1.0188	1.0198	1.0199
	800.	0.7801	0.8067	0.8978	1.0037	1.0181	1.0197	1.0199	1.0199
	2100.	0.9281	0.9429	0.9904	1.0401	1.0234	1.0203	1.0199	1.0199
	4500.	1.0676	1.0685	1.0669	1.0650	1.0264	1.0206	1.0199	1.0199
40	300.	0.3001	0.3099	0.3726	0.6131	0.8953	0.9806	0.9914	0.9925
	800.	0.3469	0.3593	0.4360	0.6875	0.9278	0.9852	0.9919	0.9926
	2100.	0.4105	0.4250	0.5131	0.7610	0.9517	0.9882	0.9922	0.9926
	4500.	0.4733	0.4886	0.5827	0.8162	0.9654	0.9898	0.9924	0.9927
41	300.	0.9561	0.9565	0.9651	0.9879	0.9971	0.9983	0.9985	0.9985
	800.	0.9695	0.9693	0.9755	0.9916	0.9977	0.9985	0.9986	0.9986
	2100.	0.9824	0.9815	0.9845	0.9942	0.9982	0.9987	0.9988	0.9988
	4500.	0.9911	0.9898	0.9904	0.9959	0.9986	0.9989	0.9990	0.9990
42	300.	0.3019	0.3042	0.3234	0.4242	0.7334	0.9744	1.0190	1.0238
	800.	0.3053	0.3084	0.3349	0.4738	0.8074	0.9925	1.0210	1.0240
	2100.	0.3177	0.3218	0.3597	0.5503	0.8782	1.0054	1.0224	1.0241
	4500.	0.3349	0.3404	0.3922	0.6324	0.9271	1.0127	1.0251	1.0242
43	300.	0.5556	0.5571	0.5696	0.6463	0.8562	0.9759	0.9945	0.9964
	800.	0.5652	0.5673	0.5850	0.6869	0.8980	0.9838	0.9953	0.9965
	2100.	0.5805	0.5835	0.6092	0.7398	0.9326	0.9891	0.9959	0.9966
	4500.	0.5971	0.6011	0.6357	0.7885	0.9540	0.9919	0.9963	0.9967
44	300.	0.2163	0.2195	0.2376	0.3145	0.5751	0.8989	0.9992	1.0121
	800.	0.2188	0.2225	0.2454	0.3492	0.6507	0.9338	1.0042	1.0126
	2100.	0.2249	0.2299	0.2617	0.4097	0.7413	0.9641	1.0081	1.0130
	4500.	0.2331	0.2397	0.2838	0.4834	0.8184	0.9833	1.0103	1.0132
45	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
46	300.	0.4454	0.4457	0.4491	0.4738	0.5941	0.8467	0.9622	0.9785
	800.	0.4471	0.4475	0.4518	0.4835	0.6370	0.8852	0.9687	0.9793
	2100.	0.4518	0.4523	0.4581	0.5025	0.6988	0.9199	0.9736	0.9799
	4500.	0.4603	0.4610	0.4681	0.5249	0.7543	0.9411	0.9765	0.9804
47	300.	0.5042	0.5100	0.5389	0.6726	0.9030	0.9734	0.9823	0.9832
	800.	0.5116	0.5193	0.5596	0.7169	0.9203	0.9696	0.9756	0.9762
	2100.	0.5175	0.5278	0.5831	0.7522	0.9227	0.9582	0.9623	0.9627
	4500.	0.5229	0.5362	0.6087	0.7755	0.9186	0.9466	0.9497	0.9501
48	300.	0.1030	0.1045	0.1155	0.1700	0.3996	0.8084	0.9623	0.9826
	800.	0.1037	0.1054	0.1183	0.1903	0.4842	0.8654	0.9706	0.9832
	2100.	0.1056	0.1078	0.1250	0.2270	0.5902	0.9102	0.9758	0.9831
	4500.	0.1087	0.1117	0.1350	0.2696	0.6750	0.9336	0.9767	0.9813

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2		REACTION = FISSION		FOR 1TH R-PARAMETER		PAGE 5 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
50	300.	0.9708	0.9708	0.9723	0.9824	0.9948	0.9976	0.9979	0.9980
	800.	0.9713	0.9714	0.9734	0.9872	1.0072	1.0125	1.0132	1.0132
	2100.	0.9738	0.9740	0.9785	1.0147	1.1122	1.1669	1.1756	1.1766
	4500.	0.9779	0.9782	0.9872	1.0622	1.3309	1.5441	1.5854	1.5899
51	300.	0.1115	0.1120	0.1186	0.1696	0.3266	0.7262	1.0061	1.0564
	800.	0.1117	0.1122	0.1193	0.1811	0.3911	0.8194	1.0259	1.0565
	2100.	0.1119	0.1125	0.1205	0.2064	0.4833	0.8874	1.0188	1.0355
	4500.	0.1124	0.1130	0.1225	0.2479	0.5604	0.8885	0.9693	0.9787
52	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
53	300.	0.0265	0.0277	0.0390	0.0930	0.2754	0.7161	0.9797	1.0226
	800.	0.0268	0.0281	0.0404	0.1072	0.3502	0.8069	0.9981	1.0246
	2100.	0.0277	0.0293	0.0445	0.1429	0.4672	0.8882	1.0108	1.0258
	4500.	0.0297	0.0317	0.0529	0.2088	0.5941	0.9407	1.0176	1.0264
54	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
55	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
56	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
57	300.	0.0547	0.0547	0.0563	0.0841	0.2494	0.6680	0.9036	0.9401
	800.	0.0551	0.0551	0.0569	0.0889	0.2904	0.7265	0.9131	0.9387
	2100.	0.0559	0.0560	0.0582	0.0962	0.3359	0.7599	0.8980	0.9151
	4500.	0.0574	0.0575	0.0601	0.1018	0.3631	0.7433	0.8446	0.8565
58	300.	0.9178	0.9186	0.9281	1.0164	1.0228	1.0114	1.0078	1.0073
	800.	0.9204	0.9214	0.9329	1.0599	1.0860	1.0645	1.0588	1.0581
	2100.	0.9310	0.9326	0.9523	1.3158	1.6158	1.5762	1.5611	1.5593
	4500.	0.9509	0.9537	0.9831	2.0540	2.7853	2.7744	2.7643	2.7630
59	300.	1.0005	1.0005	1.0013	0.9997	1.0000	1.0000	1.0000	1.0000
	800.	1.0005	1.0005	1.0013	0.9997	1.0000	1.0000	1.0000	1.0000
	2100.	1.0005	1.0005	1.0013	0.9997	1.0000	1.0000	1.0000	1.0000
	4500.	1.0005	1.0005	1.0013	0.9997	1.0000	1.0000	1.0000	1.0000
60	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 2 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
14	300.	0.9987	0.9988	0.9989	0.9990	0.9990	0.9990	1.0000	1.0000
	800.	0.9987	0.9988	0.9989	0.9990	0.9990	0.9990	1.0000	1.0000
	2100.	0.9987	0.9988	0.9989	0.9990	0.9990	0.9990	1.0000	1.0000
	4500.	0.9987	0.9988	0.9989	0.9990	0.9990	0.9990	1.0000	1.0000
15	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
16	300.	0.9995	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
17	300.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
18	300.	0.9995	0.9996	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9996	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9996	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9996	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
20	300.	0.9994	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9994	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9994	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
21	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
23	300.	0.9089	0.9178	0.9495	0.9885	0.9987	0.9999	1.0000	1.0000
	800.	0.9403	0.9474	0.9688	0.9932	0.9992	0.9999	1.0000	1.0000
	2100.	0.9592	0.9654	0.9804	0.9959	0.9995	0.9999	1.0000	1.0000
	4500.	0.9685	0.9742	0.9860	0.9977	0.9997	1.0000	1.0000	1.0000
24	300.	0.9065	0.9123	0.9435	0.9867	0.9984	0.9998	1.0000	1.0000
	800.	0.9481	0.9511	0.9687	0.9930	0.9992	0.9999	1.0000	1.0000
	2100.	0.9709	0.9723	0.9822	0.9962	0.9996	1.0000	1.0000	1.0000
	4500.	0.9813	0.9820	0.9883	0.9975	0.9997	1.0000	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.8811	0.8890	0.9292	0.9834	0.9980	0.9998	1.0000	1.0000
	800.	0.9295	0.9344	0.9598	0.9912	0.9990	0.9999	1.0000	1.0000
	2100.	0.9601	0.9650	0.9781	0.9955	0.9995	0.9999	1.0000	1.0000
	4500.	0.9748	0.9766	0.9867	0.9974	0.9997	1.0000	1.0000	1.0000
26	300.	0.8440	0.8512	0.9005	0.9749	0.9970	0.9997	1.0000	1.0000
	800.	0.8935	0.9008	0.9349	0.9845	0.9982	0.9998	1.0000	1.0000
	2100.	0.9309	0.9360	0.9585	0.9905	0.9989	0.9999	1.0000	1.0000
	4500.	0.9513	0.9552	0.9712	0.9936	0.9993	0.9999	1.0000	1.0000
27	300.	0.8072	0.8187	0.8792	0.9693	0.9962	0.9995	0.9999	0.9999
	800.	0.8696	0.8777	0.9214	0.9817	0.9978	0.9997	0.9999	0.9999
	2100.	0.9155	0.9207	0.9503	0.9892	0.9987	0.9998	0.9999	0.9999
	4500.	0.9427	0.9460	0.9666	0.9930	0.9991	0.9998	0.9999	0.9999
28	300.	0.7710	0.7825	0.8467	0.9567	0.9943	0.9992	0.9997	0.9998
	800.	0.8407	0.8494	0.8974	0.9737	0.9966	0.9995	0.9997	0.9998
	2100.	0.8964	0.9023	0.9353	0.9846	0.9980	0.9996	0.9998	0.9998
	4500.	0.9282	0.9325	0.9562	0.9901	0.9987	0.9997	0.9998	0.9998
29	300.	0.7096	0.7239	0.7995	0.9365	0.9913	0.9991	0.9999	1.0000
	800.	0.7802	0.7920	0.8539	0.9576	0.9945	0.9995	1.0000	1.0000
	2100.	0.8456	0.8544	0.9006	0.9731	0.9967	0.9997	1.0000	1.0000
	4500.	0.8923	0.8987	0.9320	0.9826	0.9979	0.9998	1.0000	1.0000
30	300.	0.6917	0.7035	0.7745	0.9237	0.9889	0.9985	0.9995	0.9996
	800.	0.7705	0.7807	0.8403	0.9520	0.9934	0.9989	0.9995	0.9996
	2100.	0.8423	0.8504	0.8959	0.9722	0.9962	0.9992	0.9995	0.9996
	4500.	0.8898	0.8960	0.9301	0.9829	0.9976	0.9993	0.9995	0.9995
31	300.	0.5899	0.6039	0.6893	0.8825	0.9816	0.9980	0.9997	0.9999
	800.	0.6708	0.6843	0.7628	0.9205	0.9886	0.9987	0.9998	0.9999
	2100.	0.7538	0.7653	0.8301	0.9491	0.9932	0.9992	0.9998	0.9998
	4500.	0.8151	0.8247	0.8765	0.9656	0.9955	0.9994	0.9998	0.9998
32	300.	0.4855	0.4947	0.5680	0.7881	0.9555	0.9904	0.9943	0.9947
	800.	0.5511	0.5607	0.6365	0.8435	0.9696	0.9921	0.9945	0.9948
	2100.	0.6195	0.6300	0.7078	0.8924	0.9798	0.9933	0.9947	0.9948
	4500.	0.6701	0.6817	0.7605	0.9229	0.9852	0.9939	0.9948	0.9949
33	300.	0.5320	0.5437	0.6221	0.8295	0.9703	0.9979	1.0010	1.0013
	800.	0.6196	0.6312	0.7070	0.8830	0.9822	0.9992	1.0011	1.0013
	2100.	0.7096	0.7206	0.7902	0.9269	0.9904	1.0001	1.0011	1.0012
	4500.	0.7830	0.7926	0.8517	0.9538	0.9948	1.0006	1.0012	1.0013
34	300.	0.3633	0.3774	0.4609	0.7102	0.9363	0.9967	1.0011	1.0016
	800.	0.4280	0.4430	0.5323	0.7776	0.9582	0.9939	1.0013	1.0016
	2100.	0.5116	0.5264	0.6175	0.8435	0.9751	0.9987	1.0013	1.0016
	4500.	0.5886	0.6021	0.6897	0.8890	0.9847	0.9998	1.0014	1.0015
35	300.	0.2675	0.2781	0.3477	0.6000	0.8926	0.9848	0.9968	0.9981
	800.	0.3174	0.3296	0.4092	0.6727	0.9235	0.9892	0.9973	0.9981
	2100.	0.3854	0.3993	0.4866	0.7461	0.9483	0.9925	0.9976	0.9981
	4500.	0.4584	0.4727	0.5604	0.8008	0.9627	0.9942	0.9978	0.9981
36	300.	0.2953	0.3070	0.3825	0.6303	0.9021	0.9850	0.9956	0.9967
	800.	0.3483	0.3614	0.4469	0.7012	0.9320	0.9892	0.9960	0.9967
	2100.	0.4145	0.4284	0.5217	0.7723	0.9551	0.9922	0.9963	0.9967
	4500.	0.4735	0.4877	0.5854	0.8249	0.9687	0.9938	0.9965	0.9968

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.2687	0.2777	0.3391	0.5672	0.8672	0.9827	0.9995	1.0013
	800.	0.3211	0.3317	0.4023	0.6431	0.9055	0.9891	1.0002	1.0013
	2100.	0.3930	0.4049	0.4831	0.7246	0.9378	0.9937	1.0005	1.0012
	4500.	0.4634	0.4764	0.5584	0.7885	0.9582	0.9961	1.0005	1.0010
38	300.	0.1998	0.2089	0.2749	0.5333	0.8749	0.9897	1.0046	1.0062
	800.	0.2479	0.2592	0.3393	0.6246	0.9190	0.9961	1.0053	1.0063
	2100.	0.3159	0.3288	0.4227	0.7222	0.9527	1.0003	1.0057	1.0062
	4500.	0.3844	0.3981	0.4991	0.7933	0.9713	1.0024	1.0057	1.0061
39	300.	0.1858	0.1932	0.2460	0.4755	0.8327	0.9734	0.9931	0.9952
	800.	0.2237	0.2326	0.2982	0.5592	0.8825	0.9815	0.9940	0.9953
	2100.	0.2796	0.2899	0.3687	0.6513	0.9222	0.9870	0.9945	0.9953
	4500.	0.3411	0.3527	0.4421	0.7275	0.9464	0.9899	0.9947	0.9952
40	300.	0.1707	0.1791	0.2384	0.4949	0.8652	0.9878	1.0035	1.0051
	800.	0.2138	0.2243	0.2987	0.5906	0.9132	0.9947	1.0042	1.0052
	2100.	0.2765	0.2891	0.3804	0.6948	0.9489	0.9991	1.0047	1.0053
	4500.	0.3394	0.3540	0.4603	0.7762	0.9692	1.0014	1.0048	1.0052
41	300.	0.2144	0.2249	0.2990	0.6051	0.9226	0.9991	1.0080	1.0089
	800.	0.2792	0.2926	0.3837	0.7062	0.9549	1.0031	1.0084	1.0089
	2100.	0.3605	0.3773	0.4850	0.7996	0.9769	1.0056	1.0087	1.0090
	4500.	0.4340	0.4545	0.5747	0.8640	0.9889	1.0069	1.0088	1.0090
42	300.	0.1157	0.1209	0.1572	0.3357	0.7341	0.9651	1.0042	1.0084
	800.	0.1326	0.1395	0.1877	0.4126	0.8095	0.9811	1.0060	1.0086
	2100.	0.1615	0.1711	0.2370	0.5138	0.8768	0.9922	1.0069	1.0085
	4500.	0.1941	0.2068	0.2935	0.6110	0.9211	0.9975	1.0065	1.0074
43	300.	0.0987	0.1035	0.1378	0.3164	0.7469	0.9730	1.0070	1.0106
	800.	0.1147	0.1214	0.1692	0.4058	0.8288	0.9877	1.0086	1.0107
	2100.	0.1391	0.1487	0.2172	0.5199	0.8952	0.9973	1.0095	1.0108
	4500.	0.1636	0.1765	0.2687	0.6214	0.9347	1.0020	1.0096	1.0103
44	300.	0.0529	0.0584	0.0859	0.1768	0.4646	0.8579	0.9922	1.0099
	800.	0.0535	0.0594	0.0910	0.2087	0.5457	0.9022	0.9989	1.0106
	2100.	0.0566	0.0636	0.1037	0.2676	0.6502	0.9425	1.0041	1.0111
	4500.	0.0629	0.0717	0.1245	0.3443	0.7447	0.9687	1.0072	1.0114
45	300.	0.2220	0.2272	0.3048	0.6649	0.9627	1.0191	1.0239	1.0243
	800.	0.2841	0.2898	0.3854	0.7721	0.9929	1.0225	1.0242	1.0244
	2100.	0.3545	0.3617	0.4772	0.8683	1.0130	1.0244	1.0244	1.0244
	4500.	0.4041	0.4147	0.5478	0.9280	1.0219	1.0248	1.0243	1.0242
46	300.	0.0295	0.0315	0.0466	0.1187	0.3821	0.7959	0.9546	0.9763
	800.	0.0301	0.0325	0.0503	0.1436	0.4660	0.8511	0.9633	0.9772
	2100.	0.0326	0.0356	0.0587	0.1882	0.5737	0.8987	0.9698	0.9779
	4500.	0.0374	0.0413	0.0712	0.2380	0.6624	0.9269	0.9734	0.9784
47	300.	0.1724	0.1861	0.2558	0.4844	0.8494	0.9592	0.9726	0.9740
	800.	0.1909	0.2081	0.2987	0.5698	0.8914	0.9666	0.9752	0.9761
	2100.	0.2109	0.2339	0.3598	0.6698	0.9339	0.9826	0.9877	0.9882
	4500.	0.2285	0.2592	0.4352	0.8325	1.0639	1.0819	1.0822	1.0822
48	300.	0.0233	0.0255	0.0407	0.1034	0.3529	0.7933	0.9591	0.9809
	800.	0.0240	0.0263	0.0431	0.1245	0.4437	0.8548	0.9683	0.9818
	2100.	0.0253	0.0281	0.0492	0.1628	0.5578	0.9038	0.9746	0.9825
	4500.	0.0278	0.0314	0.0591	0.2085	0.6507	0.9311	0.9779	0.9829

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.9994	0.9935	0.9930	1.0051	1.0033	1.0035	1.0033	1.0033
	800.	1.0002	0.9941	0.9923	1.0055	1.0040	1.0040	1.0040	1.0040
	2100.	1.0021	0.9952	0.9913	1.0080	1.0060	1.0060	1.0060	1.0060
	4500.	1.0053	0.9974	0.9907	1.0128	1.0100	1.0098	1.0098	1.0098
50	300.	0.2518	0.2549	0.3400	0.6462	0.8946	0.9424	0.9476	0.9482
	800.	0.2546	0.2579	0.3474	0.6795	0.9866	1.0554	1.0633	1.0641
	2100.	0.2664	0.2702	0.3758	0.7702	1.1506	3.2430	5.1068	5.1398
	4500.	0.2863	0.2914	0.4267	0.8450	1.7118	2.1433	2.2106	2.2178
51	300.	0.0124	0.0130	0.0234	0.0902	0.2643	0.7020	1.0080	1.0630
	800.	0.0124	0.0130	0.0237	0.1018	0.3341	0.8037	1.0298	1.0633
	2100.	0.0123	0.0130	0.0242	0.1286	0.4345	0.8786	1.0227	1.0410
	4500.	0.0123	0.0130	0.0253	0.1750	0.5203	0.8816	0.9705	0.9809
52	300.	0.8490	0.8558	0.9271	0.9517	0.9715	0.9743	0.9746	0.9746
	800.	0.8506	0.8576	0.9299	0.9559	0.9743	0.9771	0.9774	0.9774
	2100.	0.8550	0.8621	0.9373	0.9602	0.9814	0.9845	0.9848	0.9848
	4500.	0.8635	0.8711	0.9517	0.9635	0.9947	0.9992	0.9995	0.9996
53	300.	0.0180	0.0195	0.0327	0.0891	0.2722	0.7150	0.9798	1.0229
	800.	0.0182	0.0198	0.0340	0.1034	0.3475	0.8063	0.9984	1.0249
	2100.	0.0191	0.0209	0.0380	0.1395	0.4651	0.8880	1.0112	1.0263
	4500.	0.0208	0.0231	0.0461	0.2063	0.5930	0.9410	1.0182	1.0270
54	300.	1.0217	1.0143	0.9834	1.0125	1.0142	1.0137	1.0137	1.0137
	800.	1.0225	1.0150	0.9835	1.0107	1.0149	1.0145	1.0145	1.0145
	2100.	1.0247	1.0170	0.9836	1.0124	1.0171	1.0167	1.0167	1.0167
	4500.	1.0287	1.0205	0.9842	1.0285	1.0222	1.0208	1.0208	1.0208
55	300.	0.9732	0.9746	0.9864	0.9911	0.9919	0.9923	0.9924	0.9924
	800.	0.9758	0.9771	0.9881	0.9927	0.9923	0.9927	0.9927	0.9927
	2100.	0.9791	0.9802	0.9906	0.9944	0.9935	0.9939	0.9939	0.9939
	4500.	0.9875	0.9884	0.9989	0.9966	1.0006	1.0014	1.0014	1.0014
56	300.	0.9231	0.9316	0.9659	0.9961	1.0017	1.0022	1.0022	1.0022
	800.	0.9430	0.9510	0.9795	0.9993	1.0028	1.0031	1.0031	1.0031
	2100.	0.9657	0.9724	0.9925	1.0033	1.0052	1.0053	1.0053	1.0053
	4500.	0.9829	0.9878	1.0005	1.0071	1.0071	1.0071	1.0071	1.0071
57	300.	0.0139	0.0141	0.0169	0.0504	0.2247	0.6573	0.9000	0.9376
	800.	0.0141	0.0143	0.0173	0.0548	0.2663	0.7174	0.9100	0.9364
	2100.	0.0147	0.0149	0.0182	0.0616	0.3127	0.7522	0.9550	0.9528
	4500.	0.0160	0.0162	0.0200	0.0671	0.3417	0.7367	0.8418	0.8542
58	300.	0.4754	0.4795	0.5391	1.0915	1.1283	1.0688	1.0510	1.0487
	800.	0.4807	0.4850	0.5465	1.2025	1.3152	1.2202	1.1960	1.1930
	2100.	0.4970	0.5024	0.5752	1.8358	2.7446	2.6007	2.5525	2.5468
	4500.	0.5328	0.5408	0.6337	3.8023	5.8928	5.8371	5.8054	5.8014
59	300.	0.9996	0.9991	0.9910	0.9978	1.0090	1.0089	1.0089	1.0089
	800.	1.0029	1.0022	0.9930	0.9959	1.0100	1.0101	1.0102	1.0102
	2100.	1.0080	1.0070	0.9963	0.9989	1.0131	1.0131	1.0133	1.0134
	4500.	1.0151	1.0138	1.0016	0.9986	1.0198	1.0194	1.0194	1.0194
60	300.	1.0057	1.0054	1.0028	1.0008	1.0041	1.0041	1.0041	1.0041
	800.	1.0062	1.0059	1.0032	1.0004	1.0045	1.0045	1.0045	1.0045
	2100.	1.0074	1.0071	1.0043	1.0004	1.0056	1.0057	1.0057	1.0057
	4500.	1.0096	1.0093	1.0065	1.0024	1.0081	1.0080	1.0080	1.0080

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2		REACTION = ELASTIC				FOR	1TH	R-PARAMETER	
						PAGE	2 OF	6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
14	300.	0.9995	0.9996	0.9998	1.0000	0.9990	0.9990	1.0000	1.0000
	800.	0.9995	0.9996	0.9998	1.0000	0.9990	0.9990	1.0000	1.0000
	2100.	0.9995	0.9996	0.9998	1.0000	0.9990	0.9990	1.0000	1.0000
	4500.	0.9995	0.9996	0.9998	1.0000	0.9990	0.9990	1.0000	1.0000
15	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
16	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
17	300.	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
18	300.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
23	300.	0.9130	0.9175	0.9436	0.9851	0.9982	0.9998	1.0000	1.0000
	800.	0.9367	0.9400	0.9597	0.9885	0.9988	0.9999	1.0000	1.0000
	2100.	0.9548	0.9573	0.9719	0.9934	0.9992	0.9999	1.0000	1.0000
	4500.	0.9660	0.9680	0.9793	0.9953	0.9995	0.9999	1.0000	1.0000
24	300.	0.8860	0.8918	0.9240	0.9787	0.9973	0.9997	1.0000	1.0000
	800.	0.9187	0.9227	0.9465	0.9861	0.9983	0.9998	1.0000	1.0000
	2100.	0.9437	0.9465	0.9637	0.9912	0.9990	0.9999	1.0000	1.0000
	4500.	0.9588	0.9608	0.9738	0.9939	0.9993	0.9999	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2		REACTION = ELASTIC				FOR	1TH	R-PARAMETER	
						PAGE	3 OF	6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9074	0.9122	0.9378	0.9822	0.9977	0.9998	1.0000	1.0000
	800.	0.9338	0.9374	0.9566	0.9886	0.9986	0.9999	1.0000	1.0000
	2100.	0.9554	0.9579	0.9713	0.9929	0.9992	0.9999	1.0000	1.0000
	4500.	0.9684	0.9702	0.9798	0.9952	0.9994	0.9999	1.0000	1.0000
26	300.	0.8916	0.8966	0.9247	0.9772	0.9970	0.9997	1.0000	1.0000
	800.	0.9212	0.9248	0.9460	0.9849	0.9981	0.9998	1.0000	1.0000
	2100.	0.9460	0.9486	0.9634	0.9904	0.9989	0.9999	1.0000	1.0000
	4500.	0.9613	0.9632	0.9739	0.9935	0.9992	0.9999	1.0000	1.0000
27	300.	0.8707	0.8770	0.9094	0.9703	0.9959	0.9996	1.0000	1.0000
	800.	0.8990	0.9039	0.9308	0.9791	0.9972	0.9997	1.0000	1.0000
	2100.	0.9244	0.9281	0.9493	0.9858	0.9982	0.9998	1.0000	1.0000
	4500.	0.9423	0.9452	0.9621	0.9900	0.9988	0.9999	1.0000	1.0000
28	300.	0.8655	0.8707	0.9012	0.9662	0.9952	0.9994	0.9999	0.9999
	800.	0.8937	0.8981	0.9246	0.9770	0.9970	0.9996	0.9999	0.9999
	2100.	0.9208	0.9244	0.9460	0.9852	0.9981	0.9998	0.9999	0.9999
	4500.	0.9396	0.9425	0.9603	0.9899	0.9987	0.9998	0.9999	0.9999
29	300.	0.8026	0.8101	0.8498	0.9387	0.9899	0.9989	0.9998	0.9999
	800.	0.8346	0.8408	0.8763	0.9541	0.9931	0.9992	0.9999	0.9999
	2100.	0.8677	0.8728	0.9032	0.9674	0.9954	0.9995	0.9999	0.9999
	4500.	0.8940	0.8983	0.9241	0.9765	0.9969	0.9996	0.9999	0.9999
30	300.	0.8224	0.8278	0.8610	0.9446	0.9912	0.9988	0.9996	0.9997
	800.	0.8526	0.8576	0.8884	0.9606	0.9942	0.9991	0.9996	0.9997
	2100.	0.8848	0.8891	0.9160	0.9737	0.9963	0.9993	0.9996	0.9996
	4500.	0.9098	0.9135	0.9362	0.9817	0.9974	0.9994	0.9996	0.9996
31	300.	0.7835	0.7893	0.8239	0.9183	0.9854	0.9982	0.9996	0.9997
	800.	0.8138	0.8192	0.8524	0.9395	0.9903	0.9987	0.9996	0.9997
	2100.	0.8459	0.8509	0.8823	0.9581	0.9938	0.9991	0.9996	0.9997
	4500.	0.8720	0.8769	0.9061	0.9702	0.9958	0.9993	0.9996	0.9997
32	300.	0.6462	0.6544	0.6988	0.8337	0.9626	0.9931	0.9966	0.9970
	800.	0.6791	0.6860	0.7305	0.8675	0.9734	0.9944	0.9968	0.9970
	2100.	0.7168	0.7236	0.7699	0.9020	0.9819	0.9954	0.9968	0.9970
	4500.	0.7499	0.7571	0.8049	0.9270	0.9869	0.9959	0.9968	0.9970
33	300.	0.7187	0.7251	0.7624	0.8746	0.9731	0.9964	0.9991	0.9994
	800.	0.7508	0.7567	0.7939	0.9027	0.9816	0.9974	0.9992	0.9994
	2100.	0.7875	0.7935	0.8308	0.9296	0.9881	0.9982	0.9993	0.9994
	4500.	0.8202	0.8259	0.8619	0.9485	0.9918	0.9986	0.9993	0.9994
34	300.	0.4787	0.4924	0.5535	0.7224	0.9285	0.9944	1.0028	1.0037
	800.	0.5112	0.5244	0.5883	0.7687	0.9502	0.9975	1.0031	1.0037
	2100.	0.5546	0.5673	0.6367	0.8228	0.9689	0.9999	1.0034	1.0037
	4500.	0.5961	0.6087	0.6839	0.8669	0.9806	1.0012	1.0035	1.0037
35	300.	0.4075	0.4205	0.4793	0.6422	0.8859	0.9853	0.9992	1.0007
	800.	0.4286	0.4416	0.5037	0.6839	0.9143	0.9900	0.9997	1.0007
	2100.	0.4607	0.4736	0.5390	0.7330	0.9394	0.9936	1.0001	1.0007
	4500.	0.4976	0.5099	0.5771	0.7746	0.9548	0.9956	1.0003	1.0008
36	300.	0.5997	0.6064	0.6422	0.7572	0.9267	0.9885	0.9967	0.9976
	800.	0.6197	0.6257	0.6636	0.7919	0.9473	0.9916	0.9970	0.9976
	2100.	0.6447	0.6508	0.6929	0.8324	0.9643	0.9939	0.9973	0.9976
	4500.	0.6682	0.6749	0.7222	0.8664	0.9747	0.9952	0.9974	0.9976

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.4892	0.4969	0.5354	0.6595	0.8726	0.9786	0.9952	0.9970
	800.	0.5104	0.5178	0.5581	0.6967	0.9025	0.9843	0.9958	0.9970
	2100.	0.5410	0.5479	0.5905	0.7429	0.9303	0.9888	0.9962	0.9970
	4500.	0.5709	0.5778	0.6231	0.7838	0.9490	0.9912	0.9962	0.9968
38	300.	0.5090	0.5155	0.5496	0.6831	0.9055	0.9939	1.0059	1.0072
	800.	0.5334	0.5394	0.5771	0.7325	0.9367	0.9987	1.0064	1.0072
	2100.	0.5686	0.5745	0.6180	0.7917	0.9620	1.0020	1.0067	1.0071
	4500.	0.6070	0.6130	0.6618	0.8414	0.9771	1.0037	1.0066	1.0069
39	300.	0.5734	0.5784	0.6051	0.7047	0.8941	0.9824	0.9952	0.9966
	800.	0.5906	0.5955	0.6248	0.7415	0.9235	0.9875	0.9958	0.9966
	2100.	0.6141	0.6194	0.6533	0.7866	0.9480	0.9910	0.9962	0.9967
	4500.	0.6382	0.6443	0.6840	0.8269	0.9635	0.9930	0.9963	0.9967
40	300.	0.7118	0.7143	0.7330	0.8153	0.9491	0.9961	1.0022	1.0028
	800.	0.7270	0.7296	0.7514	0.8482	0.9673	0.9987	1.0024	1.0028
	2100.	0.7468	0.7498	0.7768	0.8854	0.9809	1.0004	1.0026	1.0028
	4500.	0.7667	0.7703	0.8030	0.9155	0.9887	1.0013	1.0027	1.0028
41	300.	0.9146	0.9148	0.9210	0.9524	0.9893	0.9989	1.0000	1.0001
	800.	0.9228	0.9229	0.9295	0.9630	0.9932	0.9994	1.0001	1.0001
	2100.	0.9327	0.9326	0.9399	0.9732	0.9959	0.9997	1.0001	1.0001
	4500.	0.9413	0.9413	0.9493	0.9805	0.9973	0.9998	1.0001	1.0001
42	300.	0.5608	0.5645	0.5841	0.6618	0.8509	0.9837	1.0076	1.0102
	800.	0.5706	0.5745	0.5967	0.6932	0.8917	0.9933	1.0087	1.0103
	2100.	0.5850	0.5891	0.6162	0.7386	0.9302	1.0001	1.0094	1.0103
	4500.	0.5972	0.6020	0.6372	0.7854	0.9564	1.0038	1.0095	1.0101
43	300.	0.6739	0.6748	0.6860	0.7539	0.9089	0.9892	1.0012	1.0025
	800.	0.6866	0.6876	0.7007	0.7854	0.9376	0.9943	1.0018	1.0025
	2100.	0.7026	0.7041	0.7217	0.8259	0.9610	0.9977	1.0020	1.0025
	4500.	0.7190	0.7213	0.7451	0.8631	0.9752	0.9993	1.0020	1.0023
44	300.	0.1193	0.1270	0.1597	0.2416	0.4746	0.8426	0.9842	1.0033
	800.	0.1213	0.1292	0.1639	0.2607	0.5367	0.8862	0.9911	1.0041
	2100.	0.1243	0.1330	0.1726	0.2990	0.6260	0.9279	0.9968	1.0046
	4500.	0.1284	0.1383	0.1859	0.3317	0.7134	0.9560	1.0002	1.0050
45	300.	0.9798	0.9792	0.9816	0.9879	0.9971	0.9987	0.9989	0.9989
	800.	0.9848	0.9834	0.9849	0.9908	0.9979	0.9988	0.9989	0.9989
	2100.	0.9903	0.9882	0.9890	0.9934	0.9984	0.9989	0.9989	0.9989
	4500.	0.9941	0.9918	0.9925	0.9950	0.9985	0.9989	0.9989	0.9989
46	300.	0.1488	0.1498	0.1602	0.2168	0.4274	0.7966	0.9515	0.9730
	800.	0.1513	0.1525	0.1645	0.2341	0.4642	0.8486	0.9600	0.9740
	2100.	0.1556	0.1571	0.1724	0.2665	0.5859	0.8948	0.9664	0.9746
	4500.	0.1607	0.1626	0.1814	0.3008	0.6642	0.9225	0.9699	0.9751
47	300.	0.9472	0.9541	0.9490	0.9546	0.9839	0.9923	0.9936	0.9937
	800.	0.9431	0.9505	0.9485	0.9557	0.9858	0.9937	0.9949	0.9950
	2100.	0.9425	0.9512	0.9566	0.9704	1.0006	1.0066	1.0072	1.0073
	4500.	0.9582	0.9707	1.0071	1.1214	1.1606	1.1398	1.1357	1.1352
48	300.	0.2149	0.2165	0.2271	0.2756	0.4762	0.8331	0.9676	0.9853
	800.	0.2161	0.2177	0.2303	0.2945	0.5500	0.8829	0.9751	0.9861
	2100.	0.2185	0.2206	0.2374	0.3280	0.6432	0.9228	0.9802	0.9866
	4500.	0.2225	0.2252	0.2477	0.3674	0.7194	0.9451	0.9829	0.9869

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.9934	0.9977	1.0020	0.9966	0.9979	0.9980	0.9980	0.9980
	800.	0.9934	0.9979	1.0028	0.9968	0.9979	0.9979	0.9979	0.9979
	2100.	0.9933	0.9982	1.0042	0.9964	0.9978	0.9979	0.9979	0.9979
	4500.	0.9934	0.9986	1.0063	0.9957	0.9975	0.9977	0.9977	0.9977
50	300.	0.7037	0.7059	0.7501	0.8740	0.9619	0.9779	0.9797	0.9799
	800.	0.7038	0.7061	0.7515	0.8801	0.9813	1.0024	1.0048	1.0050
	2100.	0.7039	0.7063	0.7544	0.9028	1.1148	1.2102	1.2248	1.2263
	4500.	0.7037	0.7063	0.7590	0.9457	1.3887	1.7016	1.7609	1.7674
51	300.	0.0316	0.0324	0.0397	0.0944	0.2670	0.7022	1.0068	1.0616
	800.	0.0318	0.0325	0.0402	0.1056	0.3353	0.8025	1.0280	1.0614
	2100.	0.0322	0.0330	0.0418	0.1325	0.4339	0.8758	1.0198	1.0380
	4500.	0.0331	0.0340	0.0446	0.1792	0.5192	0.8782	0.9670	0.9774
52	300.	0.9646	0.9664	0.9846	0.9884	0.9930	0.9937	0.9937	0.9937
	800.	0.9647	0.9665	0.9849	0.9890	0.9932	0.9939	0.9940	0.9940
	2100.	0.9649	0.9668	0.9858	0.9889	0.9938	0.9945	0.9946	0.9946
	4500.	0.9654	0.9673	0.9873	0.9875	0.9946	0.9957	0.9957	0.9957
53	300.	0.0726	0.0761	0.1015	0.1626	0.3262	0.7363	0.9831	1.0232
	800.	0.0728	0.0765	0.1031	0.1781	0.3985	0.8222	1.0004	1.0251
	2100.	0.0735	0.0773	0.1075	0.2167	0.5110	0.8990	1.0125	1.0264
	4500.	0.0748	0.0790	0.1154	0.2876	0.6327	0.9485	1.0189	1.0269
54	300.	0.9961	0.9973	1.0027	0.9978	0.9975	0.9976	0.9976	0.9976
	800.	0.9960	0.9973	1.0028	0.9982	0.9975	0.9975	0.9975	0.9975
	2100.	0.9959	0.9972	1.0030	0.9982	0.9973	0.9974	0.9974	0.9974
	4500.	0.9956	0.9970	1.0033	0.9958	0.9969	0.9971	0.9971	0.9971
55	300.	0.9974	0.9975	0.9987	0.9989	0.9989	0.9989	0.9989	0.9989
	800.	0.9974	0.9975	0.9987	0.9990	0.9989	0.9989	0.9989	0.9989
	2100.	0.9974	0.9975	0.9987	0.9990	0.9989	0.9989	0.9989	0.9989
	4500.	0.9974	0.9974	0.9987	0.9983	0.9988	0.9989	0.9989	0.9989
56	300.	0.9968	0.9967	0.9969	0.9981	0.9985	0.9986	0.9986	0.9986
	800.	0.9969	0.9968	0.9970	0.9983	0.9985	0.9986	0.9986	0.9986
	2100.	0.9971	0.9970	0.9971	0.9985	0.9986	0.9987	0.9987	0.9987
	4500.	0.9973	0.9972	0.9975	0.9978	0.9987	0.9989	0.9989	0.9989
57	300.	0.2860	0.2866	0.2926	0.3298	0.4578	0.7644	0.9300	0.9563
	800.	0.2862	0.2867	0.2928	0.3334	0.4899	0.8048	0.9307	0.9429
	2100.	0.2856	0.2861	0.2920	0.3360	0.5247	0.8323	0.8947	0.9032
	4500.	0.2845	0.2850	0.2908	0.3358	0.5639	0.8223	0.8947	0.9032
58	300.	1.0835	1.0832	1.0751	0.9895	0.9824	0.9895	0.9915	0.9918
	800.	1.0851	1.0850	1.0784	0.9886	0.9860	0.9944	0.9964	0.9967
	2100.	1.0939	1.0942	1.0934	1.0783	1.0989	1.1019	1.1013	1.1012
	4500.	1.1094	1.1102	1.1147	1.2687	1.3893	1.3933	1.3923	1.3921
59	300.	0.9994	0.9995	1.0007	1.0002	0.9991	0.9991	0.9991	0.9991
	800.	0.9993	0.9993	1.0007	1.0005	0.9990	0.9990	0.9990	0.9990
	2100.	0.9992	0.9993	1.0006	1.0008	0.9989	0.9989	0.9989	0.9989
	4500.	0.9989	0.9991	1.0004	1.0007	0.9985	0.9986	0.9986	0.9986
60	300.	0.9995	0.9995	0.9998	0.9999	0.9996	0.9996	0.9996	0.9996
	800.	0.9995	0.9995	0.9997	1.0000	0.9996	0.9996	0.9996	0.9996
	2100.	0.9994	0.9994	0.9997	1.0000	0.9996	0.9996	0.9996	0.9996
	4500.	0.9993	0.9994	0.9996	1.0000	0.9995	0.9995	0.9995	0.9995

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 2 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.9994	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9994	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9994	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
14	300.	0.9994	0.9995	0.9987	0.9989	0.9990	0.9990	1.0000	1.0000
	800.	0.9994	0.9995	0.9987	0.9989	0.9990	0.9990	1.0000	1.0000
	2100.	0.9994	0.9995	0.9987	0.9989	0.9990	0.9990	1.0000	1.0000
	4500.	0.9994	0.9995	0.9987	0.9989	0.9990	0.9990	1.0000	1.0000
15	300.	0.9994	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9994	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9994	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
16	300.	0.9994	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9994	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9994	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
17	300.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
18	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
23	300.	0.8508	0.8591	0.9019	0.9718	0.9964	0.9997	1.0000	1.0000
	800.	0.8893	0.8953	0.9280	0.9809	0.9977	0.9997	1.0000	1.0000
	2100.	0.9189	0.9235	0.9485	0.9872	0.9985	0.9999	1.0000	1.0000
	4500.	0.9379	0.9415	0.9613	0.9908	0.9989	0.9999	1.0000	1.0000
24	300.	0.8105	0.8208	0.8718	0.9603	0.9948	0.9994	1.0000	1.0000
	800.	0.8627	0.8692	0.9071	0.9737	0.9967	0.9997	1.0000	1.0000
	2100.	0.9021	0.9067	0.9350	0.9831	0.9979	0.9993	1.0000	1.0000
	4500.	0.9264	0.9300	0.9521	0.9882	0.9986	0.9999	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.8450	0.8532	0.8942	0.9667	0.9955	0.9995	1.0000	1.0000
	800.	0.8859	0.8919	0.9237	0.9783	0.9973	0.9999	1.0000	1.0000
	2100.	0.9210	0.9252	0.9480	0.9864	0.9983	0.9998	1.0000	1.0000
	4500.	0.9425	0.9456	0.9626	0.9907	0.9989	0.9997	1.0000	1.0000
26	300.	0.8203	0.8289	0.8733	0.9573	0.9941	0.9994	1.0000	1.0000
	800.	0.8651	0.8710	0.9053	0.9711	0.9963	0.9996	1.0000	1.0000
	2100.	0.9029	0.9072	0.9329	0.9812	0.9977	0.9998	1.0000	1.0000
	4500.	0.9268	0.9301	0.9502	0.9869	0.9984	0.9999	1.0000	1.0000
27	300.	0.7940	0.8053	0.8543	0.9462	0.9920	0.9993	1.0000	1.0001
	800.	0.8341	0.8430	0.8850	0.9614	0.9945	0.9995	1.0000	1.0000
	2100.	0.8744	0.8803	0.9131	0.9732	0.9964	0.9996	1.0000	1.0000
	4500.	0.9029	0.9073	0.9336	0.9808	0.9975	0.9997	1.0000	1.0000
28	300.	0.7948	0.8024	0.8438	0.9385	0.9906	0.9989	0.9998	0.9999
	800.	0.8334	0.8394	0.8758	0.9570	0.9940	0.9993	0.9999	0.9999
	2100.	0.8707	0.8759	0.9074	0.9717	0.9963	0.9996	0.9999	0.9999
	4500.	0.8978	0.9023	0.9296	0.9805	0.9975	0.9997	0.9999	0.9999
29	300.	0.7106	0.7234	0.7783	0.8963	0.9808	0.9979	0.9998	1.0000
	800.	0.7528	0.7625	0.8110	0.9199	0.9866	0.9985	0.9998	0.9999
	2100.	0.7984	0.8056	0.8469	0.9416	0.9912	0.9990	0.9999	0.9999
	4500.	0.8345	0.8404	0.8763	0.9570	0.9939	0.9993	0.9999	0.9999
30	300.	0.7471	0.7540	0.7935	0.9031	0.9829	0.9978	0.9995	0.9996
	800.	0.7837	0.7896	0.8271	0.9291	0.9888	0.9985	0.9995	0.9996
	2100.	0.8239	0.8293	0.8645	0.9517	0.9929	0.9989	0.9996	0.9996
	4500.	0.8571	0.8621	0.8941	0.9661	0.9952	0.9992	0.9996	0.9996
31	300.	0.6983	0.7070	0.7499	0.8637	0.9716	0.9966	0.9994	0.9997
	800.	0.7359	0.7427	0.7822	0.8944	0.9810	0.9977	0.9995	0.9997
	2100.	0.7747	0.7806	0.8180	0.9235	0.9879	0.9984	0.9996	0.9997
	4500.	0.8071	0.8126	0.8486	0.9438	0.9918	0.9988	0.9996	0.9997
32	300.	0.5489	0.5627	0.6144	0.7465	0.9317	0.9891	0.9962	0.9969
	800.	0.5905	0.5991	0.6428	0.7873	0.9514	0.9917	0.9964	0.9969
	2100.	0.6292	0.6357	0.6790	0.8342	0.9673	0.9937	0.9966	0.9969
	4500.	0.6590	0.6657	0.7132	0.8714	0.9768	0.9948	0.9967	0.9969
33	300.	0.6238	0.6333	0.6774	0.8021	0.9493	0.9934	0.9989	0.9995
	800.	0.6628	0.6697	0.7099	0.8397	0.9650	0.9955	0.9991	0.9995
	2100.	0.7017	0.7081	0.7500	0.8790	0.9772	0.9971	0.9993	0.9995
	4500.	0.7378	0.7443	0.7872	0.9085	0.9845	0.9979	0.9994	0.9995
34	300.	0.3658	0.3830	0.4480	0.6012	0.8664	1.0022	1.0040	1.0038
	800.	0.3934	0.4092	0.4727	0.6455	0.9021	1.0026	1.0038	1.0036
	2100.	0.4285	0.4425	0.5071	0.7060	0.9343	0.9956	1.0029	1.0036
	4500.	0.4648	0.4765	0.5429	0.7594	0.9553	0.9982	1.0031	1.0036
35	300.	0.3020	0.3175	0.3793	0.5165	0.8000	0.9707	0.9981	1.0011
	800.	0.3159	0.3311	0.3933	0.5517	0.8435	0.9795	0.9989	1.0009
	2100.	0.3405	0.3547	0.4171	0.5987	0.8845	0.9863	0.9994	1.0007
	4500.	0.3710	0.3837	0.4467	0.6449	0.9109	0.9900	0.9996	1.0006
36	300.	0.4494	0.5098	0.5529	0.6565	0.8674	0.9791	0.9957	0.9974
	800.	0.5258	0.5326	0.5699	0.6894	0.9018	0.9853	0.9963	0.9975
	2100.	0.5525	0.5576	0.5932	0.7334	0.9318	0.9898	0.9968	0.9975
	4500.	0.5731	0.5779	0.6165	0.7750	0.9511	0.9923	0.9970	0.9975

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER			
		PAGE 4 OF 6							
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.3833	0.3959	0.4435	0.5485	0.7860	0.9610	0.9937	0.9973
	800.	0.4043	0.4152	0.4601	0.5814	0.8299	0.9720	0.9949	0.9973
	2100.	0.4374	0.4450	0.4851	0.6271	0.8739	0.9807	0.9957	0.9973
	4500.	0.4655	0.4716	0.5109	0.6715	0.9055	0.9857	0.9960	0.9971
38	300.	0.4006	0.4096	0.4429	0.5459	0.8181	0.9792	1.0043	1.0069
	800.	0.4242	0.4309	0.4616	0.5899	0.8699	0.9891	1.0053	1.0070
	2100.	0.4541	0.4591	0.4905	0.6519	0.9147	0.9960	1.0059	1.0070
	4500.	0.4854	0.4898	0.5247	0.7110	0.9428	0.9995	1.0061	1.0068
39	300.	0.4574	0.4641	0.4932	0.5755	0.8045	0.9659	0.9933	0.9962
	800.	0.4752	0.4804	0.5071	0.6090	0.8530	0.9766	0.9945	0.9963
	2100.	0.4968	0.5009	0.5281	0.6564	0.8967	0.9841	0.9953	0.9964
	4500.	0.5167	0.5209	0.5525	0.7047	0.9259	0.9882	0.9957	0.9964
40	300.	0.5729	0.5756	0.5927	0.6691	0.8772	0.9859	1.0015	1.0031
	800.	0.5863	0.5886	0.6067	0.7059	0.9156	0.9924	1.0022	1.0032
	2100.	0.6029	0.6053	0.6275	0.7556	0.9463	0.9967	1.0026	1.0032
	4500.	0.6204	0.6231	0.6516	0.8025	0.9648	0.9990	1.0028	1.0032
41	300.	0.7817	0.7825	0.7924	0.8519	0.9599	0.9963	1.0009	1.0014
	800.	0.7917	0.7925	0.8050	0.8782	0.9741	0.9983	1.0011	1.0014
	2100.	0.8050	0.8062	0.8230	0.9070	0.9843	0.9996	1.0012	1.0014
	4500.	0.8192	0.8211	0.8424	0.9297	0.9901	1.0002	1.0013	1.0014
42	300.	0.4384	0.4432	0.4631	0.5192	0.7185	0.9510	1.0036	1.0096
	800.	0.4475	0.4516	0.4700	0.5394	0.7768	0.9709	1.0060	1.0098
	2100.	0.4598	0.4630	0.4809	0.5746	0.8383	0.9855	1.0075	1.0099
	4500.	0.4665	0.4696	0.4908	0.6160	0.8843	0.9935	1.0080	1.0095
43	300.	0.4997	0.5006	0.5098	0.5587	0.7724	0.9657	1.0005	1.0042
	800.	0.5086	0.5090	0.5173	0.5844	0.8317	0.9799	1.0020	1.0044
	2100.	0.5196	0.5199	0.5294	0.6269	0.8856	0.9895	1.0030	1.0044
	4500.	0.5328	0.5335	0.5469	0.6755	0.9208	0.9944	1.0032	1.0041
44	300.	0.0747	0.0794	0.1017	0.1493	0.2908	0.7078	0.9622	1.0018
	800.	0.0749	0.0797	0.1019	0.1527	0.3329	0.7739	0.9754	1.0032
	2100.	0.0751	0.0799	0.1027	0.1635	0.4051	0.8414	0.9863	1.0044
	4500.	0.0759	0.0807	0.1050	0.1833	0.4874	0.8897	0.9930	1.0050
45	300.	0.8186	0.8190	0.8295	0.8874	0.9772	1.0006	1.0031	1.0033
	800.	0.8279	0.8278	0.8411	0.9126	0.9878	1.0019	1.0032	1.0033
	2100.	0.8410	0.8406	0.8582	0.9390	0.9951	1.0027	1.0033	1.0033
	4500.	0.8533	0.8533	0.8753	0.9581	0.9987	1.0029	1.0032	1.0033
46	300.	0.0979	0.0983	0.1030	0.1275	0.2448	0.6523	0.9267	0.9712
	800.	0.0985	0.0989	0.1034	0.1301	0.2901	0.7310	0.9432	0.9730
	2100.	0.0999	0.1002	0.1046	0.1386	0.3659	0.8067	0.9557	0.9743
	4500.	0.1020	0.1025	0.1071	0.1504	0.4419	0.8562	0.9628	0.9752
47	300.	0.6254	0.6348	0.6573	0.7214	0.8987	0.9754	0.9858	0.9869
	800.	0.6253	0.6352	0.6627	0.7483	0.9251	0.9808	0.9877	0.9885
	2100.	0.6273	0.6385	0.6758	0.7945	0.9582	0.9960	1.0003	1.0007
	4500.	0.6345	0.6473	0.6998	0.9011	1.1010	1.1172	1.1170	1.1169
48	300.	0.1166	0.1176	0.1237	0.1452	0.2495	0.6742	0.9408	0.9810
	800.	0.1166	0.1175	0.1234	0.1468	0.2987	0.7594	0.9567	0.9827
	2100.	0.1170	0.1179	0.1240	0.1541	0.3802	0.8339	0.9679	0.9839
	4500.	0.1185	0.1194	0.1260	0.1668	0.4654	0.8801	0.9740	0.9845

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER			
						FOR PAGE 5 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.9860	0.9908	0.9979	0.9959	0.9979	0.9980	0.9980	0.9980
	800.	0.9860	0.9909	0.9986	0.9961	0.9979	0.9980	0.9980	0.9980
	2100.	0.9860	0.9912	1.0001	0.9958	0.9978	0.9980	0.9980	0.9980
	4500.	0.9860	0.9917	1.0021	0.9952	0.9975	0.9978	0.9979	0.9979
50	300.	0.5974	0.6008	0.6394	0.7772	0.9331	0.9713	0.9758	0.9762
	800.	0.5973	0.6006	0.6397	0.7785	0.9540	1.0048	1.0110	1.0117
	2100.	0.5965	0.5998	0.6389	0.7743	1.0699	1.2924	1.3340	1.3385
	4500.	0.5949	0.5982	0.6370	0.7692	1.2686	1.9544	2.1287	2.1488
51	300.	0.0202	0.0204	0.0217	0.0339	0.0977	0.4401	0.9341	1.0536
	800.	0.0202	0.0204	0.0216	0.0325	0.1124	0.5506	0.9762	1.0564
	2100.	0.0202	0.0204	0.0215	0.0328	0.1442	0.6599	0.9858	1.0355
	4500.	0.0203	0.0205	0.0215	0.0374	0.1885	0.7071	0.9443	0.9763
52	300.	0.9366	0.9399	0.9672	0.9831	0.9914	0.9925	0.9926	0.9926
	800.	0.9367	0.9401	0.9676	0.9839	0.9918	0.9929	0.9930	0.9930
	2100.	0.9370	0.9404	0.9686	0.9840	0.9927	0.9939	0.9940	0.9940
	4500.	0.9375	0.9409	0.9704	0.9828	0.9942	0.9958	0.9960	0.9960
53	300.	0.0252	0.0260	0.0340	0.0601	0.1284	0.4965	0.9278	1.0170
	800.	0.0251	0.0259	0.0338	0.0603	0.1547	0.6103	0.9627	1.0211
	2100.	0.0249	0.0257	0.0334	0.0654	0.2153	0.7318	0.9883	1.0259
	4500.	0.0246	0.0254	0.0333	0.0812	0.3037	0.8217	1.0028	1.0254
54	300.	0.9960	0.9969	1.0012	0.9984	0.9983	0.9984	0.9984	0.9984
	800.	0.9960	0.9969	1.0012	0.9987	0.9983	0.9984	0.9984	0.9984
	2100.	0.9959	0.9969	1.0014	0.9987	0.9983	0.9983	0.9983	0.9983
	4500.	0.9959	0.9969	1.0017	0.9973	0.9981	0.9982	0.9983	0.9983
55	300.	0.9957	0.9959	0.9978	0.9985	0.9986	0.9987	0.9987	0.9987
	800.	0.9958	0.9960	0.9979	0.9987	0.9987	0.9987	0.9987	0.9987
	2100.	0.9959	0.9961	0.9980	0.9988	0.9987	0.9987	0.9987	0.9987
	4500.	0.9962	0.9964	0.9983	0.9981	0.9988	0.9988	0.9988	0.9988
56	300.	0.9869	0.9876	0.9918	0.9974	0.9986	0.9986	0.9986	0.9986
	800.	0.9895	0.9902	0.9937	0.9980	0.9988	0.9989	0.9989	0.9989
	2100.	0.9924	0.9929	0.9954	0.9986	0.9991	0.9992	0.9992	0.9992
	4500.	0.9945	0.9949	0.9966	0.9984	0.9994	0.9995	0.9995	0.9995
57	300.	0.0285	0.0287	0.0305	0.0429	0.1139	0.4914	0.8657	0.9351
	800.	0.0284	0.0286	0.0303	0.0420	0.1300	0.5769	0.8873	0.9354
	2100.	0.0283	0.0284	0.0301	0.0415	0.1575	0.6473	0.8821	0.9136
	4500.	0.0281	0.0282	0.0298	0.0425	0.1884	0.6632	0.8358	0.8571
58	300.	0.6598	0.6622	0.6879	0.9623	1.0560	1.0357	1.0271	1.0259
	800.	0.6575	0.6595	0.6867	0.9898	1.1573	1.1273	1.1159	1.1145
	2100.	0.6541	0.6585	0.6800	1.0629	1.8281	1.9676	1.9686	1.9686
	4500.	0.6541	0.6560	0.6743	1.2875	3.1123	3.9056	4.0238	4.0360
59	300.	0.9989	0.9991	0.9994	0.9999	1.0002	1.0002	1.0002	1.0002
	800.	0.9994	0.9995	0.9996	0.9999	1.0003	1.0003	1.0003	1.0003
	2100.	1.0000	1.0000	1.0000	1.0000	1.0005	1.0005	1.0005	1.0005
	4500.	1.0006	1.0006	1.0005	1.0004	1.0009	1.0009	1.0009	1.0009
60	300.	0.9999	0.9999	0.9999	1.0000	0.9999	0.9999	0.9999	0.9999
	800.	0.9999	0.9999	0.9999	1.0000	0.9999	0.9999	0.9999	0.9999
	2100.	0.9999	0.9999	1.0000	1.0001	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0001	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER
PAGE 2 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
14	300.	0.9995	0.9996	0.9998	0.9990	0.9990	0.9990	1.0000	1.0000
	800.	0.9995	0.9996	0.9998	0.9990	0.9990	0.9990	1.0000	1.0000
	2100.	0.9995	0.9996	0.9998	0.9990	0.9990	0.9990	1.0000	1.0000
	4500.	0.9995	0.9996	0.9998	0.9990	0.9990	0.9990	1.0000	1.0000
15	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
16	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
17	300.	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
18	300.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
23	300.	0.6437	0.7804	0.9400	0.9906	0.9988	0.9997	0.9998	0.9998
	800.	0.6577	0.7964	0.9525	0.9937	0.9992	0.9998	0.9998	0.9998
	2100.	0.6699	0.8098	0.9618	0.9956	0.9994	0.9998	0.9998	0.9998
	4500.	0.6781	0.8183	0.9667	0.9965	0.9995	0.9998	0.9998	0.9998
24	300.	0.6794	0.7410	0.9019	0.9812	0.9975	0.9994	0.9996	0.9996
	800.	0.7037	0.7648	0.9257	0.9884	0.9984	0.9995	0.9996	0.9996
	2100.	0.7243	0.7846	0.9439	0.9930	0.9989	0.9995	0.9996	0.9996
	4500.	0.7369	0.7966	0.9534	0.9951	0.9992	0.9995	0.9996	0.9996

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.7750	0.7893	0.9405	0.9921	0.9987	0.9994	0.9994	0.9994
	800.	0.7933	0.8039	0.9542	0.9951	0.9990	0.9994	0.9994	0.9994
	2100.	0.8094	0.8173	0.9644	0.9969	0.9992	0.9994	0.9994	0.9994
	4500.	0.8195	0.8260	0.9702	0.9978	0.9993	0.9994	0.9994	0.9994
26	300.	0.7611	0.7706	0.8826	0.9773	0.9965	0.9987	0.9989	0.9989
	800.	0.7809	0.7842	0.8909	0.9807	0.9969	0.9987	0.9989	0.9989
	2100.	0.7972	0.7959	0.8981	0.9831	0.9972	0.9987	0.9989	0.9989
	4500.	0.8066	0.8029	0.9025	0.9843	0.9974	0.9987	0.9989	0.9989
27	300.	0.8342	0.8223	0.8827	0.9754	0.9936	0.9956	0.9958	0.9958
	800.	0.8590	0.8432	0.8920	0.9778	0.9939	0.9956	0.9958	0.9958
	2100.	0.8814	0.8621	0.8996	0.9793	0.9940	0.9956	0.9958	0.9958
	4500.	0.8956	0.8739	0.9037	0.9798	0.9941	0.9957	0.9958	0.9958
28	300.	0.6566	0.6645	0.7331	0.9123	0.9825	0.9924	0.9935	0.9936
	800.	0.6768	0.6850	0.7542	0.9288	0.9855	0.9927	0.9935	0.9936
	2100.	0.6980	0.7071	0.7774	0.9430	0.9876	0.9930	0.9935	0.9936
	4500.	0.7136	0.7234	0.7952	0.9521	0.9889	0.9931	0.9935	0.9936
29	300.	0.6734	0.6724	0.7154	0.9029	0.9798	0.9907	0.9918	0.9919
	800.	0.7035	0.7035	0.7464	0.9252	0.9837	0.9911	0.9918	0.9919
	2100.	0.7350	0.7361	0.7767	0.9413	0.9861	0.9913	0.9919	0.9919
	4500.	0.7602	0.7620	0.8000	0.9513	0.9874	0.9915	0.9919	0.9919
30	300.	0.6330	0.6476	0.7249	0.9117	0.9799	0.9894	0.9904	0.9905
	800.	0.6340	0.6471	0.7170	0.9068	0.9791	0.9893	0.9903	0.9904
	2100.	0.6366	0.6504	0.7179	0.9089	0.9797	0.9893	0.9903	0.9904
	4500.	0.6449	0.6598	0.7269	0.9159	0.9810	0.9895	0.9904	0.9904
31	300.	0.7419	0.7866	0.8791	0.9718	0.9877	0.9892	0.9893	0.9893
	800.	0.7695	0.8138	0.8923	0.9740	0.9879	0.9892	0.9893	0.9893
	2100.	0.8019	0.8441	0.9059	0.9764	0.9881	0.9892	0.9893	0.9893
	4500.	0.8275	0.8681	0.9166	0.9780	0.9883	0.9892	0.9893	0.9893
32	300.	0.6404	0.6163	0.6428	0.8620	0.9591	0.9732	0.9747	0.9749
	800.	0.6679	0.6448	0.6696	0.8837	0.9632	0.9737	0.9748	0.9749
	2100.	0.6960	0.6763	0.7009	0.9010	0.9659	0.9740	0.9748	0.9749
	4500.	0.7257	0.7094	0.7314	0.9123	0.9674	0.9741	0.9748	0.9749
33	300.	0.6232	0.6392	0.6853	0.8946	0.9648	0.9734	0.9742	0.9743
	800.	0.6525	0.6683	0.7016	0.9011	0.9658	0.9735	0.9742	0.9743
	2100.	0.6826	0.6991	0.7194	0.9059	0.9665	0.9735	0.9743	0.9743
	4500.	0.7081	0.7249	0.7342	0.9084	0.9668	0.9736	0.9743	0.9743
34	300.	0.6998	0.7311	0.7692	0.9254	0.9677	0.9728	0.9734	0.9734
	800.	0.7115	0.7498	0.8041	0.9245	0.9677	0.9728	0.9734	0.9734
	2100.	0.8115	0.8198	0.8170	0.9232	0.9676	0.9728	0.9733	0.9734
	4500.	0.8655	0.8615	0.8253	0.9205	0.9673	0.9728	0.9733	0.9734
35	300.	0.2317	0.2357	0.2479	0.4181	0.7872	0.9484	0.9708	0.9731
	800.	0.2443	0.2512	0.2715	0.4712	0.8338	0.9561	0.9716	0.9732
	2100.	0.2610	0.2722	0.3083	0.5439	0.8759	0.9621	0.9722	0.9733
	4500.	0.2796	0.2942	0.3487	0.6130	0.9039	0.9657	0.9726	0.9733
36	300.	0.2201	0.2275	0.2599	0.4238	0.7859	0.9476	0.9704	0.9727
	800.	0.2256	0.2361	0.2816	0.4789	0.8350	0.9559	0.9712	0.9728
	2100.	0.2318	0.2469	0.3137	0.5520	0.8778	0.9620	0.9718	0.9728
	4500.	0.2397	0.2591	0.3483	0.6199	0.9055	0.9655	0.9722	0.9728

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = ELASTIC REMOVAL

FOR

1TH R-PARAMETER

PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.7108	0.6987	0.7272	0.8918	0.9613	0.9706	0.9716	0.9717
	800.	0.7513	0.7302	0.7333	0.8860	0.9604	0.9705	0.9715	0.9717
	2100.	0.7115	0.6860	0.6673	0.8391	0.9528	0.9696	0.9713	0.9715
	4500.	0.5976	0.5763	0.5577	0.7628	0.9388	0.9679	0.9710	0.9713
38	300.	0.8313	0.8631	0.9116	0.9396	0.9681	0.9715	0.9718	0.9719
	800.	0.8599	0.8859	0.9231	0.9379	0.9680	0.9715	0.9718	0.9719
	2100.	0.9113	0.9292	0.9420	0.9357	0.9678	0.9715	0.9718	0.9719
	4500.	0.9695	0.9805	0.9857	0.9346	0.9676	0.9714	0.9718	0.9719
39	300.	1.0171	1.0079	0.9603	0.9629	0.9756	0.9722	0.9717	0.9716
	800.	1.0620	1.0570	1.0016	0.9722	0.9766	0.9723	0.9717	0.9716
	2100.	1.0886	1.0926	1.0510	0.9840	0.9773	0.9723	0.9717	0.9716
	4500.	1.0083	1.0247	1.0378	0.9819	0.9763	0.9721	0.9717	0.9716
40	300.	0.7701	0.8048	0.8817	0.9335	0.9667	0.9709	0.9713	0.9714
	800.	0.7638	0.8043	0.8951	0.9330	0.9666	0.9709	0.9713	0.9714
	2100.	0.7724	0.8172	0.9161	0.9325	0.9666	0.9709	0.9713	0.9714
	4500.	0.7897	0.8366	0.9362	0.9319	0.9666	0.9709	0.9713	0.9714
41	300.	0.8467	0.8240	0.8305	0.9146	0.9590	0.9643	0.9648	0.9649
	800.	0.8976	0.8649	0.8478	0.9139	0.9589	0.9643	0.9648	0.9649
	2100.	0.9603	0.9161	0.8708	0.9132	0.9588	0.9643	0.9648	0.9649
	4500.	1.0128	0.9595	0.8911	0.9127	0.9587	0.9643	0.9648	0.9649
42	300.	0.6922	0.7224	0.7963	0.9026	0.9568	0.9634	0.9640	0.9641
	800.	0.6924	0.7271	0.8082	0.9012	0.9568	0.9634	0.9640	0.9641
	2100.	0.6500	0.6887	0.7826	0.8857	0.9547	0.9631	0.9639	0.9640
	4500.	0.5137	0.5512	0.6598	0.8283	0.9459	0.9620	0.9637	0.9638
43	300.	0.8170	0.8152	0.8196	0.8992	0.9539	0.9626	0.9636	0.9637
	800.	0.8554	0.8503	0.8394	0.8962	0.9534	0.9626	0.9636	0.9637
	2100.	0.9107	0.9010	0.8657	0.8916	0.9529	0.9626	0.9636	0.9637
	4500.	0.9629	0.9496	0.8898	0.8862	0.9524	0.9625	0.9636	0.9637
44	300.	1.2155	1.2259	1.0222	0.9094	0.9471	0.9597	0.9629	0.9633
	800.	1.2317	1.2476	1.0508	0.9072	0.9447	0.9595	0.9629	0.9633
	2100.	1.2666	1.2892	1.0925	0.9006	0.9414	0.9594	0.9629	0.9633
	4500.	1.2557	1.2851	1.1084	0.8869	0.9386	0.9596	0.9630	0.9633
45	300.	0.9405	0.9233	0.9498	0.9259	0.9584	0.9626	0.9630	0.9631
	800.	0.9929	0.9617	0.9682	0.9273	0.9584	0.9625	0.9630	0.9631
	2100.	1.0531	1.0082	0.9958	0.9293	0.9582	0.9625	0.9630	0.9631
	4500.	1.0997	1.0468	1.0247	0.9316	0.9582	0.9625	0.9631	0.9631
46	300.	0.0116	0.0127	0.0232	0.0798	0.2998	0.7369	0.9337	0.9615
	800.	0.0124	0.0136	0.0261	0.1005	0.3901	0.8100	0.9455	0.9625
	2100.	0.0134	0.0149	0.0307	0.1409	0.5278	0.8783	0.9545	0.9631
	4500.	0.0134	0.0149	0.0314	0.1636	0.6269	0.9136	0.9584	0.9631
47	300.	0.4906	0.5960	0.8511	0.8949	0.9516	0.9614	0.9629	0.9631
	800.	0.4153	0.5199	0.8149	0.8848	0.9484	0.9601	0.9618	0.9619
	2100.	0.3366	0.4320	0.7505	0.8574	0.9470	0.9641	0.9663	0.9665
	4500.	0.2615	0.3444	0.6797	0.8329	0.9567	0.9831	0.9861	0.9864
48	300.	1.1365	1.0363	0.8715	0.8522	0.9293	0.9554	0.9616	0.9624
	800.	1.1602	1.0599	0.8796	0.8358	0.9213	0.9546	0.9613	0.9621
	2100.	1.1968	1.0932	0.8831	0.7960	0.9096	0.9532	0.9604	0.9612
	4500.	1.2460	1.1354	0.8849	0.7456	0.8965	0.9510	0.9587	0.9595

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = U238-J2

REACTION = ELASTIC REMOVAL

FOR

1TH R-PARAMETER

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GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.8217	0.8901	1.0013	0.9329	0.9594	0.9624	0.9627	0.9627
	800.	0.8218	0.8917	1.0137	0.9352	0.9595	0.9625	0.9627	0.9627
	2100.	0.8221	0.8957	1.0371	0.9290	0.9587	0.9624	0.9627	0.9628
	4500.	0.8232	0.9028	1.0703	0.9171	0.9555	0.9622	0.9628	0.9628
50	300.	0.0774	0.0793	0.1369	0.4769	0.8466	0.9260	0.9349	0.9358
	800.	0.0759	0.0778	0.1364	0.4947	0.9410	1.0520	1.0851	1.0864
	2100.	0.0684	0.0705	0.1294	0.5618	1.6145	2.1820	2.2717	2.2812
	4500.	0.0587	0.0608	0.1198	0.6417	2.6762	4.3955	4.7366	4.7744
51	300.	1.1695	1.2594	1.3757	0.9458	0.9472	0.9354	0.9298	0.9289
	800.	1.1737	1.2648	1.3910	0.9586	0.9537	0.9365	0.9288	0.9287
	2100.	1.1847	1.2786	1.4277	0.9582	0.9583	0.9365	0.9292	0.9285
	4500.	1.2068	1.3064	1.4929	0.9340	0.9536	0.9350	0.9292	0.9285
52	300.	0.5303	0.5489	0.7401	0.8538	0.9186	0.9275	0.9283	0.9284
	800.	0.5297	0.5484	0.7414	0.8593	0.9199	0.9287	0.9295	0.9296
	2100.	0.5282	0.5471	0.7447	0.8546	0.9222	0.9318	0.9326	0.9327
	4500.	0.5250	0.5445	0.7502	0.8329	0.9248	0.9378	0.9389	0.9390
53	300.	1.9402	1.9144	1.4724	0.8394	0.8938	0.9197	0.9270	0.9280
	800.	1.9602	1.9359	1.4983	0.8386	0.8857	0.9185	0.9268	0.9278
	2100.	2.0166	1.9970	1.5713	0.8037	0.8722	0.9172	0.9263	0.9274
	4500.	2.1371	2.1232	1.7069	0.6839	0.8534	0.9155	0.9254	0.9265
54	300.	0.8727	0.8936	1.0393	0.9322	0.9249	0.9278	0.9279	0.9279
	800.	0.8728	0.8938	1.0423	0.9452	0.9256	0.9279	0.9279	0.9279
	2100.	0.8729	0.8944	1.0501	0.9482	0.9254	0.9278	0.9278	0.9278
	4500.	0.8731	0.8956	1.0630	0.8929	0.9210	0.9276	0.9277	0.9278
55	300.	0.8488	0.8479	0.9033	0.9205	0.9237	0.9274	0.9276	0.9276
	800.	0.8484	0.8477	0.9040	0.9303	0.9243	0.9275	0.9276	0.9276
	2100.	0.8470	0.8466	0.9054	0.9326	0.9242	0.9275	0.9276	0.9277
	4500.	0.8397	0.8404	0.9056	0.8870	0.9202	0.9274	0.9276	0.9277
56	300.	0.7793	0.7872	0.8223	0.9001	0.9214	0.9269	0.9273	0.9273
	800.	0.7822	0.7900	0.8234	0.9082	0.9220	0.9271	0.9274	0.9275
	2100.	0.7836	0.7910	0.8239	0.9102	0.9222	0.9274	0.9278	0.9278
	4500.	0.7830	0.7900	0.8238	0.8716	0.9192	0.9279	0.9284	0.9284
57	300.	0.0660	0.0452	0.0480	0.1970	0.6201	0.8643	0.9205	0.9277
	800.	0.0667	0.0656	0.0710	0.3446	1.6188	2.8700	3.1813	3.2188
	2100.	0.0889	0.0872	0.0925	0.4757	3.2796	7.3915	8.5011	8.6328
	4500.	0.1017	0.0991	0.0983	0.4309	3.8266	9.6620	11.2514	11.4381
58	300.	1.5053	1.5295	1.5731	1.0184	0.9100	0.9231	0.9262	0.9265
	800.	1.5152	1.5402	1.5922	1.0684	0.9076	0.9227	0.9260	0.9264
	2100.	1.5489	1.5763	1.6498	1.1926	0.9096	0.9228	0.9257	0.9261
	4500.	1.6218	1.6536	1.7484	1.2356	0.9116	0.9237	0.9253	0.9255
59	300.	0.9598	0.9630	1.0361	1.0107	0.9255	0.9269	0.9268	0.9267
	800.	0.9604	0.9636	1.0375	1.0362	0.9275	0.9269	0.9267	0.9267
	2100.	0.9611	0.9646	1.0411	1.0768	0.9293	0.9269	0.9267	0.9266
	4500.	0.9615	0.9658	1.0470	1.0844	0.9239	0.9267	0.9265	0.9265
60	300.	0.8955	0.8986	0.9391	0.9812	0.9255	0.9270	0.9269	0.9269
	800.	0.8956	0.8987	0.9394	0.9852	0.9273	0.9270	0.9269	0.9268
	2100.	0.8956	0.8988	0.9401	1.0151	0.9290	0.9270	0.9268	0.9268
	4500.	0.8957	0.8990	0.9413	1.0185	0.9242	0.9269	0.9268	0.9267

TO BE CONTINUED

JAERI-M 82-135

NUCLID = PU239-J2 CODE NO = 949
INFINITE DILUTION CROSS SECTION

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GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1	2.2151E+00	4.1969E+00	2.9790E-06	5.5417E-01	2.8826E+00	8.1698E-01	3.0147E-02	5.2862E-01	6.1805E+00
2	1.9666E+00	3.9300E+00	1.1140E-04	1.0844E+00	3.4411E+00	8.1759E-01	3.1427E-02	3.4480E-01	6.8371E+00
3	1.7001E+00	3.7049E+00	9.5228E-04	1.7354E+00	4.0141E+00	8.1057E-01	3.4143E-02	1.1916E-02	7.4625E+00
4	1.7653E+00	3.5294E+00	3.6057E-03	1.7763E+00	4.3189E+00	7.9109E-01	3.6387E-02	0.0	7.8641E+00
5	1.8531E+00	3.3853E+00	1.0193E-02	1.8183E+00	4.2123E+00	7.5621E-01	3.9216E-02	0.0	7.8939E+00
6	1.9374E+00	3.2718E+00	2.1004E-02	1.8346E+00	3.8126E+00	7.0314E-01	3.8149E-02	0.0	7.6056E+00
7	1.9818E+00	3.1868E+00	3.4602E-02	1.7609E+00	3.4159E+00	6.3305E-01	4.4328E-02	0.0	7.1933E+00
8	1.9594E+00	3.1164E+00	4.6700E-02	1.5728E+00	3.3325E+00	5.6290E-01	5.4314E-02	0.0	6.9114E+00
9	1.8484E+00	3.0555E+00	5.7427E-02	1.3601E+00	3.6284E+00	5.1073E-01	5.6032E-02	0.0	6.8943E+00
10	1.7343E+00	3.0063E+00	6.9175E-02	1.1371E+00	4.1337E+00	4.7053E-01	9.6643E-02	0.0	7.0742E+00
11	1.7120E+00	2.9734E+00	8.2798E-02	9.3053E-01	4.7440E+00	4.3599E-01	9.4930E-02	0.0	7.4693E+00
12	1.6319E+00	2.9506E+00	1.0277E-01	8.2069E-01	5.4769E+00	3.9579E-01	1.2653E-01	0.0	8.0323E+00
13	1.5928E+00	2.9329E+00	1.2904E-01	7.0563E-01	6.2358E+00	3.5482E-01	1.2011E-01	0.0	8.6633E+00
14	1.5685E+00	2.9217E+00	1.5805E-01	6.2677E-01	7.0088E+00	3.1139E-01	1.7072E-01	0.0	9.3621E+00
15	1.5550E+00	2.9115E+00	1.8884E-01	5.4868E-01	7.7165E+00	2.6969E-01	1.9433E-01	0.0	1.0009E+01
16	1.5489E+00	2.9036E+00	2.1679E-01	4.7665E-01	8.3646E+00	2.2958E-01	2.4262E-01	0.0	1.0607E+01
17	1.5520E+00	2.9010E+00	2.4179E-01	4.1327E-01	8.9277E+00	1.9285E-01	2.2612E-01	0.0	1.1135E+01
18	1.5605E+00	2.8946E+00	2.6405E-01	3.4925E-01	9.4311E+00	1.5934E-01	2.2661E-01	0.0	1.1605E+01
19	1.5837E+00	2.8909E+00	2.9517E-01	2.7905E-01	9.8961E+00	1.2890E-01	2.6882E-01	0.0	1.2054E+01
20	1.6362E+00	2.8879E+00	3.3587E-01	2.2167E-01	1.0267E+01	1.0452E-01	2.5946E-01	0.0	1.2460E+01
21	1.6537E+00	2.8851E+00	3.7456E-01	1.8893E-01	1.0626E+01	8.3440E-02	2.3854E-01	0.0	1.2843E+01
22	1.6249E+00	2.8857E+00	4.0848E-01	1.7966E-01	1.1001E+01	6.5802E-02	2.9623E-01	0.0	1.3214E+01
23	1.6308E+00	2.8848E+00	4.6661E-01	1.7513E-01	1.1223E+01	5.1993E-02	3.1953E-01	0.0	1.3496E+01
24	1.6776E+00	2.8834E+00	5.7294E-01	1.7074E-01	1.0898E+01	4.0867E-02	2.8350E-01	0.0	1.3319E+01
25	1.7277E+00	2.8829E+00	6.8220E-01	1.6947E-01	1.1052E+01	3.2410E-02	3.1595E-01	0.0	1.3631E+01
26	1.6963E+00	2.8820E+00	7.9133E-01	1.6976E-01	1.1723E+01	2.5538E-02	4.2116E-01	0.0	1.4381E+01
27	1.8512E+00	2.8816E+00	9.5306E-01	1.6424E-01	1.1985E+01	2.0386E-02	3.9810E-01	0.0	1.4953E+01
28	1.8282E+00	2.8822E+00	1.0318E+00	1.4754E-01	1.1899E+01	1.6246E-02	4.0978E-01	0.0	1.4906E+01
29	1.9776E+00	2.8816E+00	1.3424E+00	4.9505E-02	1.2447E+01	1.3048E-02	4.1621E-01	0.0	1.5817E+01
30	2.2172E+00	2.8814E+00	1.6809E+00	0.0	1.2318E+01	1.0588E-02	3.9269E-01	0.0	1.6216E+01
31	2.1322E+00	2.8812E+00	1.7684E+00	0.0	1.2403E+01	8.7943E-03	3.8791E-01	0.0	1.6304E+01
32	3.1514E+00	2.8811E+00	2.1455E+00	0.0	1.3009E+01	5.5355E-03	3.7342E-01	0.0	1.8306E+01
33	3.9643E+00	2.8809E+00	2.7855E+00	0.0	1.3572E+01	2.8130E-03	6.6391E-01	0.0	2.0322E+01
34	2.8195E+00	2.8805E+00	3.6190E+00	0.0	1.5361E+01	2.8130E-03	4.9415E-01	0.0	2.1800E+01
35	2.8722E+00	2.8808E+00	3.6317E+00	0.0	1.3132E+01	2.8130E-03	4.8619E-01	0.0	1.9636E+01
36	3.7772E+00	2.8808E+00	3.6978E+00	0.0	1.3485E+01	2.8130E-03	4.2170E-01	0.0	2.0960E+01
37	6.7473E+00	2.8808E+00	4.3763E+00	0.0	1.4105E+01	2.8130E-03	3.5273E-01	0.0	2.5228E+01
38	6.4089E+00	2.8807E+00	5.6097E+00	0.0	1.3840E+01	2.8130E-03	4.0005E-01	0.0	2.5859E+01
39	4.5678E+00	2.8807E+00	9.2051E+00	0.0	1.4578E+01	2.8130E-03	4.2015E-01	0.0	2.8351E+01
40	1.5001E+01	2.8800E+00	8.2489E+00	0.0	1.5182E+01	2.8130E-03	4.9047E-01	0.0	3.8432E+01

TO BE CONTINUED

NUCLID = PU239-J2 CODE NO = 949
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41	7.9088E+00	2.8801E+00	5.2188E+00	0.0	1.1234E+01	2.8130E-03	4.3630E-01	0.0	2.4362E+01
42	1.3398E+01	2.8798E+00	1.5759E+01	0.0	1.6686E+01	2.8130E-03	9.9130E-01	0.0	4.5843E+01
43	1.5454E+01	2.8798E+00	1.8347E+01	0.0	1.5129E+01	2.8130E-03	3.7844E-01	0.0	4.8931E+01
44	1.7137E+01	2.8813E+00	1.0517E+01	0.0	1.2845E+01	2.8130E-03	5.9958E-01	0.0	4.0500E+01
45	1.7193E+01	2.8803E+00	1.9354E+01	0.0	1.6393E+01	2.8130E-03	3.3763E-01	0.0	5.2941E+01
46	2.1460E+01	2.8801E+00	2.2504E+01	0.0	1.5797E+01	2.8130E-03	3.7621E-01	0.0	5.9761E+01
47	4.7901E+01	2.8803E+00	2.6484E+01	0.0	1.7223E+01	2.8130E-03	3.8638E-01	0.0	9.1607E+01
48	6.2336E+01	2.8805E+00	3.1602E+01	0.0	2.0470E+01	2.8130E-03	3.6796E-01	0.0	1.1441E+02
49	6.6361E+01	2.8805E+00	5.5496E+01	0.0	1.8067E+01	2.8130E-03	3.4798E-01	0.0	1.3992E+02
50	1.7852E+01	2.8803E+00	6.4668E+01	0.0	1.5013E+01	2.8130E-03	2.7699E-01	0.0	9.7533E+01
51	4.3054E+00	2.8807E+00	5.1743E+00	0.0	8.9563E+00	2.8130E-03	3.3635E-01	0.0	1.8436E+01
52	1.7422E+01	2.8803E+00	7.7230E+01	0.0	1.0931E+01	2.8130E-03	5.5546E-01	0.0	4.5583E+01
53	6.2610E+01	2.8806E+00	5.4213E+01	0.0	1.2840E+01	2.8130E-03	1.2088E+00	0.0	1.2966E+02
54	1.0980E+02	2.8804E+00	7.9236E+01	0.0	1.2205E+01	2.8130E-03	2.3755E-01	0.0	2.0125E+02
55	1.4562E+02	2.8806E+00	1.0158E+02	0.0	1.1840E+01	2.8130E-03	1.7219E-01	0.0	2.5904E+02
56	1.7716E+01	2.8806E+00	8.5973E+00	0.0	7.2504E+00	2.8130E-03	3.2256E-01	0.0	3.3564E+01
57	8.7740E+01	2.8806E+00	7.0769E+01	0.0	9.8088E+00	2.8130E-03	3.2113E-01	0.0	1.6832E+02
58	8.1333E+00	2.8809E+00	1.2773E+00	0.0	9.7406E+00	2.8130E-03	3.4728E-01	0.0	1.9151E+01
59	9.4004E+00	2.8806E+00	1.0846E+00	0.0	1.0219E+01	2.8130E-03	3.5973E-01	0.0	2.0704E+01
60	1.0829E+01	2.8813E+00	1.2314E+00	0.0	1.0481E+01	2.8130E-03	3.6704E-01	0.0	2.2542E+01
61	1.2725E+01	2.8805E+00	1.5613E+00	0.0	1.0689E+01	2.8130E-03	3.7468E-01	0.0	2.4975E+01
62	1.4709E+01	2.8806E+00	2.1247E+00	0.0	1.0903E+01	2.8130E-03	3.8173E-01	0.0	2.7736E+01
63	1.8834E+01	2.8806E+00	3.2768E+00	0.0	1.1101E+01	2.8130E-03	3.8904E-01	0.0	3.3212E+01
64	2.5415E+01	2.8800E+00	5.4857E+00	0.0	1.1365E+01	2.8130E-03	3.9981E-01	0.0	4.2266E+01
65	3.7045E+01	2.8815E+00	1.0269E+01	0.0	1.1025E+01	2.8130E-03	3.6085E-01	0.0	5.8339E+01
66	5.8909E+01	2.8812E+00	2.0040E+01	0.0	1.0843E+01	2.8130E-03	3.8546E-01	0.0	8.9793E+01
67	1.1057E+02	2.8807E+00	4.9233E+01	0.0	1.1541E+01	2.8130E-03	4.1810E-01	0.0	1.7135E+02
68	2.9354E+02	2.8806E+00	1.5247E+02	0.0	1.2997E+01	2.8130E-03	4.9211E-01	0.0	4.5902E+02
69	1.2940E+03	2.8810E+00	8.5625E+02	0.0	1.6175E+01	2.8130E-03	6.0465E-01	0.0	2.1665E+03
70	1.8436E+03	2.8807E+00	1.2449E+03	0.0	9.4600E+00	2.8130E-03	0.0	0.0	3.0980E+03

JAERI-M 82-135

NUCLID = PU239-J2 CODE NUMBER = 949 IPL = 0										
PAGE 3 OF 3										
TABLE OF INELASTIC MATRICES										
GROUP	J=	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9
I		1	2	3	4	5	6	7	8	9
		11	12	13	14	15	16	17	18	19
		21	22	23	24	25	26	27	28	29
		31	32	33	34	35				30
21		8.29735E-02	1.01326E-01	0.0	0.0	0.0	0.0	0.0	6.52174E-04	1.60704E-03
		5.76659E-04	3.38480E-04	1.96197E-04	1.14572E-04	6.90470E-05	4.21737E-05	2.53008E-05	1.54398E-05	9.47196E-06
		3.54500E-06	2.22948E-06	1.23217E-06	6.12123E-07	7.68247E-07	0.0	2.02504E-07	2.71139E-07	0.0
		0.0	0.0	0.0	0.0	0.0				0.0
22		5.32728E-02	1.26387E-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0				0.0
23		1.78940E-02	1.37575E-01	1.96591E-02	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0				0.0
24		0.0	1.09276E-01	6.14676E-02	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0				0.0
25		0.0	5.42459E-02	1.03631E-01	1.15970E-02	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0				0.0
26		0.0	0.0	8.86559E-02	8.01434E-02	9.59222E-04	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0				0.0
27		0.0	0.0	9.19466E-04	7.85134E-02	6.02076E-02	2.46037E-02	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0				0.0
28		0.0	0.0	0.0	0.0	2.67814E-02	4.45148E-02	3.38517E-02	2.46553E-02	1.71612E-02
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	0.0	0.0				0.0
29		0.0	0.0	0.0	0.0	0.0	0.0	0.0	9.02959E-05	1.42540E-02
		7.55459E-03	5.22831E-03	3.58861E-03	2.48162E-03	1.75070E-03	1.24216E-03	8.94648E-04	6.50758E-04	4.50978E-04
		1.57055E-04	9.58505E-05	5.74848E-05	3.36264E-05	2.68387E-05	1.15658E-05	4.40698E-06	9.84233E-06	4.96931E-06
		0.0	0.0	0.0	0.0	0.0				0.0

NUCLID = PU239-J2 CODE NUMBER = 949 IPL = 0										
PAGE 1 OF 1										
TABLE OF (N,2N) MATRICES										
GROUP	J=	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9
I		1	2	3	4	5	6	7	8	9
		11	12	13	14	15	16	17	18	19
		21	22	23	24	25	26	27	28	29
		31	32	33	34	35	36	37	38	39
		41								40
1		0.0	0.0	0.0	0.0	5.41264E-03	2.86302E-02	6.08821E-02	9.86041E-02	1.29042E-01
		1.38388E-01	1.21063E-01	9.77105E-02	7.40553E-02	5.34309E-02	3.71087E-02	2.50160E-02	1.64691E-02	1.06505E-02
		4.28167E-03	2.67674E-03	1.66236E-03	1.02691E-03	6.31861E-04	3.87606E-04	2.37052E-04	1.44795E-04	8.82783E-05
		3.27125E-05	1.98908E-05	1.20872E-05	7.34274E-06	4.45911E-06	2.70676E-06	1.64297E-06	0.0	0.0
		0.0								0.0
2		0.0	0.0	0.0	0.0	0.0	0.0	0.0	3.61306E-02	8.64129E-02
		1.02534E-01	9.28653E-02	7.70150E-02	5.96132E-02	4.37370E-02	3.07732E-02	2.09466E-02	1.39030E-02	9.04572E-03
		3.66732E-03	2.29948E-03	1.43114E-03	8.85721E-04	5.45799E-04	3.34980E-04	2.05174E-04	1.25358E-04	7.64722E-05
		2.83582E-05	1.72462E-05	1.04832E-05	6.36929E-06	3.86771E-06	2.34834E-06	1.42547E-06	8.65103E-07	0.0
		0.0								0.0
3		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		0.0	0.0	0.0	2.22600E-03	6.66569E-03	4.88494E-03	3.43451E-03	2.33722E-03	1.55049E-03
		6.45893E-04	4.08699E-04	2.56225E-04	1.59485E-04	9.86522E-05	6.07936E-05	3.73208E-05	2.28511E-05	1.39623E-05
		5.18898E-06	3.15844E-06	1.92102E-06	1.16749E-06	7.09313E-07	4.30778E-07	2.61536E-07	1.58758E-07	9.63441E-08
		3.54731E-08								5.84724E-08

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2		REACTION = FISSION				FOR	1TH	R-PARAMETER	
						PAGE	3 OF	6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9744	0.9745	0.9789	0.9946	0.9994	0.9999	1.0000	1.0000
	800.	0.9902	0.9891	0.9883	0.9968	0.9996	1.0000	1.0000	1.0000
	2100.	1.0026	1.0006	0.9956	0.9984	0.9998	1.0000	1.0000	1.0000
	4500.	1.0083	1.0059	0.9991	0.9992	0.9999	1.0000	1.0000	1.0000
27	300.	0.9177	0.9218	0.9458	0.9869	0.9984	0.9998	0.9999	0.9999
	800.	0.9377	0.9405	0.9583	0.9902	0.9988	0.9998	0.9999	0.9999
	2100.	0.9547	0.9565	0.9688	0.9930	0.9992	0.9999	0.9999	0.9999
	4500.	0.9651	0.9662	0.9750	0.9946	0.9993	0.9999	0.9999	0.9999
28	300.	0.9236	0.9280	0.9521	0.9890	0.9987	0.9999	1.0000	1.0000
	800.	0.9454	0.9486	0.9661	0.9925	0.9991	0.9999	1.0000	1.0000
	2100.	0.9620	0.9642	0.9763	0.9949	0.9994	0.9999	1.0000	1.0000
	4500.	0.9711	0.9728	0.9818	0.9961	0.9995	0.9999	1.0000	1.0000
29	300.	0.8784	0.8847	0.9194	0.9788	0.9973	0.9996	0.9999	0.9999
	800.	0.9101	0.9150	0.9410	0.9852	0.9981	0.9997	0.9999	0.9999
	2100.	0.9393	0.9427	0.9603	0.9905	0.9988	0.9998	0.9999	0.9999
	4500.	0.9589	0.9612	0.9729	0.9937	0.9992	0.9998	0.9999	0.9999
30	300.	0.8372	0.8456	0.8903	0.9699	0.9960	0.9992	0.9995	0.9995
	800.	0.8659	0.8730	0.9101	0.9757	0.9967	0.9992	0.9995	0.9995
	2100.	0.8913	0.8973	0.9275	0.9806	0.9973	0.9993	0.9995	0.9995
	4500.	0.9115	0.9165	0.9410	0.9842	0.9977	0.9993	0.9995	0.9995
31	300.	0.8287	0.8374	0.8850	0.9678	0.9956	0.9991	0.9994	0.9994
	800.	0.8665	0.8737	0.9125	0.9765	0.9968	0.9992	0.9994	0.9994
	2100.	0.8970	0.9030	0.9338	0.9825	0.9975	0.9992	0.9994	0.9994
	4500.	0.9146	0.9198	0.9456	0.9855	0.9979	0.9993	0.9994	0.9994
32	300.	0.7504	0.7598	0.8176	0.9406	0.9903	0.9967	0.9974	0.9974
	800.	0.8000	0.8077	0.8546	0.9532	0.9920	0.9969	0.9974	0.9974
	2100.	0.8461	0.8517	0.8870	0.9631	0.9933	0.9970	0.9974	0.9974
	4500.	0.8792	0.8833	0.9095	0.9697	0.9942	0.9971	0.9974	0.9974
33	300.	0.7519	0.7622	0.8210	0.9412	0.9914	0.9981	0.9988	0.9988
	800.	0.8006	0.8094	0.8588	0.9560	0.9936	0.9983	0.9988	0.9988
	2100.	0.8470	0.8542	0.8938	0.9681	0.9953	0.9985	0.9988	0.9988
	4500.	0.8798	0.8858	0.9177	0.9755	0.9962	0.9986	0.9988	0.9988
34	300.	0.7431	0.7551	0.8273	0.9586	0.9969	1.0025	1.0031	1.0032
	800.	0.7973	0.8073	0.8676	0.9737	0.9992	1.0027	1.0031	1.0031
	2100.	0.8460	0.8537	0.9014	0.9855	1.0009	1.0029	1.0031	1.0031
	4500.	0.8741	0.8806	0.9215	0.9924	1.0018	1.0029	1.0031	1.0031
35	300.	0.7223	0.7341	0.8018	0.9329	0.9901	0.9979	0.9987	0.9988
	800.	0.7798	0.7902	0.8477	0.9503	0.9924	0.9982	0.9987	0.9988
	2100.	0.8353	0.8473	0.8908	0.9639	0.9944	0.9983	0.9987	0.9988
	4500.	0.8830	0.8889	0.9206	0.9725	0.9955	0.9984	0.9987	0.9988
36	300.	0.6251	0.6381	0.7181	0.8974	0.9946	1.0012	1.0013	1.0013
	800.	0.6910	0.7034	0.7777	0.9297	0.9910	1.0002	1.0012	1.0013
	2100.	0.7657	0.7765	0.8392	0.9559	0.9952	1.0005	1.0011	1.0012
	4500.	0.8212	0.8303	0.8816	0.9706	0.9972	1.0006	1.0010	1.0010

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2		REACTION = FISSION				FOR	1TH	R-PARAMETER	
						PAGE	4 OF	6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.5594	0.5728	0.6525	0.8479	0.9721	0.9973	1.0002	1.0005
	800.	0.6145	0.6279	0.7063	0.8846	0.9810	0.9984	1.0003	1.0005
	2100.	0.6838	0.6959	0.7660	0.9152	0.9869	0.9990	1.0003	1.0004
	4500.	0.7416	0.7522	0.8127	0.9355	0.9903	0.9993	1.0002	1.0003
38	300.	0.5223	0.5382	0.6345	0.8593	0.9784	0.9986	1.0007	1.0010
	800.	0.5915	0.6073	0.7006	0.8990	0.9863	0.9995	1.0008	1.0010
	2100.	0.6844	0.6988	0.7798	0.9349	0.9921	1.0001	1.0009	1.0010
	4500.	0.7691	0.7809	0.8449	0.9586	0.9954	1.0004	1.0010	1.0010
39	300.	0.4377	0.4550	0.5566	0.7837	0.9544	0.9909	0.9951	0.9955
	800.	0.4776	0.4959	0.6030	0.8229	0.9661	0.9924	0.9953	0.9956
	2100.	0.5235	0.5423	0.6501	0.8542	0.9738	0.9933	0.9954	0.9956
	4500.	0.5653	0.5838	0.6883	0.8747	0.9781	0.9937	0.9954	0.9956
40	300.	0.5318	0.5423	0.6134	0.8169	0.9646	0.9976	1.0014	1.0018
	800.	0.5779	0.5886	0.6603	0.8380	0.9763	0.9990	1.0016	1.0018
	2100.	0.6285	0.6393	0.7115	0.8988	0.9855	1.0001	1.0017	1.0019
	4500.	0.6715	0.6821	0.7527	0.9278	0.9913	1.0008	1.0019	1.0020
41	300.	0.6459	0.6552	0.7141	0.8556	0.9723	0.9954	0.9980	0.9982
	800.	0.7082	0.7164	0.7699	0.8923	0.9812	0.9964	0.9980	0.9982
	2100.	0.7725	0.7792	0.8240	0.9223	0.9872	0.9971	0.9981	0.9982
	4500.	0.8177	0.8230	0.8593	0.9385	0.9899	0.9975	0.9983	0.9984
42	300.	0.4362	0.4445	0.4991	0.6797	0.9166	0.9832	0.9913	0.9921
	800.	0.5198	0.5276	0.5802	0.7481	0.9402	0.9865	0.9918	0.9924
	2100.	0.6298	0.6362	0.6797	0.8144	0.9582	0.9889	0.9923	0.9926
	4500.	0.7184	0.7232	0.7558	0.8563	0.9678	0.9901	0.9926	0.9928
43	300.	0.5728	0.5822	0.6491	0.8737	0.9794	1.0059	1.0093	1.0097
	800.	0.6409	0.6498	0.7129	0.9283	0.9968	1.0084	1.0098	1.0099
	2100.	0.7358	0.7430	0.7948	0.9834	1.0097	1.0100	1.0101	1.0101
	4500.	0.8169	0.8218	0.8583	1.0151	1.0156	1.0107	1.0102	1.0102
44	300.	0.3585	0.3664	0.4243	0.6666	0.9313	0.9979	1.0059	1.0067
	800.	0.3966	0.4052	0.4671	0.7172	0.9512	1.0008	1.0065	1.0070
	2100.	0.4535	0.4627	0.5283	0.7798	0.9708	1.0033	1.0069	1.0073
	4500.	0.5139	0.5232	0.5904	0.8360	0.9851	1.0051	1.0073	1.0075
45	300.	0.3907	0.4003	0.4697	0.7026	0.9268	0.9880	0.9958	0.9966
	800.	0.4215	0.4318	0.5057	0.7456	0.9447	0.9910	0.9964	0.9969
	2100.	0.4744	0.4859	0.5661	0.8035	0.9621	0.9934	0.9969	0.9972
	4500.	0.5344	0.5466	0.6301	0.8524	0.9736	0.9950	0.9972	0.9975
46	300.	0.3853	0.3951	0.4532	0.6206	0.8627	0.9807	0.9990	1.0010
	800.	0.4108	0.4217	0.4871	0.6722	0.9012	0.9879	0.9998	1.0011
	2100.	0.4470	0.4593	0.5342	0.7359	0.9359	0.9933	1.0004	1.0012
	4500.	0.4809	0.4941	0.5747	0.7842	0.9567	0.9962	1.0008	1.0012
47	300.	0.5217	0.5258	0.5565	0.6918	0.8941	0.9795	0.9919	0.9932
	800.	0.5336	0.5375	0.5679	0.7028	0.9024	0.9814	0.9920	0.9931
	2100.	0.5544	0.5581	0.5871	0.7191	0.9116	0.9829	0.9919	0.9928
	4500.	0.5798	0.5831	0.6103	0.7374	0.9197	0.9838	0.9915	0.9923
48	300.	0.2429	0.2476	0.2817	0.4097	0.7057	0.9467	0.9961	1.0016
	800.	0.2482	0.2532	0.2898	0.4353	0.7546	0.9621	0.9981	1.0020
	2100.	0.2597	0.2653	0.3064	0.4757	0.8097	0.9755	0.9999	1.0025
	4500.	0.2790	0.2853	0.3324	0.5260	0.8553	0.9844	1.0015	1.0032

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2		REACTION = FISSION				FOR 1TH R-PARAMETER		PAGE 5 OF 6	
GROUP	TEMP. (SIG0)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.3230	0.3311	0.3932	0.6514	0.9284	0.9984	1.0098	1.0110
	800.	0.3435	0.3522	0.4188	0.6872	0.9583	1.0072	1.0140	1.0147
	2100.	0.4029	0.4123	0.4833	0.7520	0.9937	1.0169	1.0196	1.0198
	4500.	0.5249	0.5332	0.5953	0.8281	1.0220	1.0239	1.0239	1.0239
50	300.	0.2051	0.2109	0.2542	0.4681	0.8697	0.9997	1.0215	1.0239
	800.	0.2091	0.2154	0.2625	0.4932	0.8935	0.9928	1.0075	1.0090
	2100.	0.2217	0.2292	0.2850	0.5432	0.9204	0.9794	0.9872	0.9880
	4500.	0.2481	0.2576	0.3270	0.6099	0.9423	0.9673	0.9704	0.9707
51	300.	0.5885	0.5986	0.6691	0.8694	0.9779	0.9961	0.9980	0.9982
	800.	0.6069	0.6181	0.6957	0.8952	0.9831	0.9967	0.9981	0.9982
	2100.	0.6407	0.6534	0.7387	0.9254	0.9880	0.9973	0.9983	0.9984
	4500.	0.6849	0.6984	0.7861	0.9495	0.9914	0.9978	0.9985	0.9986
52	300.	0.2048	0.2123	0.2639	0.4748	0.8248	0.9798	1.0017	1.0040
	800.	0.2204	0.2289	0.2883	0.5359	0.8928	1.0169	1.0328	1.0345
	2100.	0.2542	0.2645	0.3385	0.6498	1.0177	1.1214	1.1338	1.1350
	4500.	0.3079	0.3203	0.4098	0.7819	1.1528	1.2501	1.2615	1.2627
53	300.	0.0932	0.0968	0.1242	0.2704	0.6683	0.9501	1.0027	1.0085
	800.	0.0946	0.0984	0.1275	0.2920	0.7028	0.9270	0.9633	0.9672
	2100.	0.0983	0.1025	0.1355	0.3280	0.7230	0.8787	0.9007	0.9030
	4500.	0.1059	0.1108	0.1502	0.3719	0.7234	0.8260	0.8393	0.8407
54	300.	0.3387	0.3398	0.3503	0.4631	0.7290	0.9325	0.9735	0.9780
	800.	0.3523	0.3537	0.3665	0.4902	0.7734	0.9626	0.9955	0.9991
	2100.	0.3861	0.3881	0.4045	0.5384	0.8252	0.9910	1.0171	1.0198
	4500.	0.4456	0.4481	0.4675	0.6001	0.8644	1.0093	1.0303	1.0325
55	300.	0.1292	0.1310	0.1470	0.2535	0.5400	0.8764	0.9451	0.9527
	800.	0.1345	0.1365	0.1542	0.2718	0.5615	0.8793	0.9397	0.9463
	2100.	0.1467	0.1492	0.1706	0.3076	0.5886	0.8713	0.9206	0.9259
	4500.	0.1649	0.1679	0.1937	0.3511	0.6082	0.8490	0.8877	0.8918
56	300.	0.5256	0.5275	0.5463	0.6912	1.0535	1.0451	1.0415	1.0411
	800.	0.5313	0.5332	0.5521	0.6984	1.1124	1.1100	1.1066	1.1063
	2100.	0.5474	0.5495	0.5698	0.7300	1.2973	1.3146	1.3127	1.3125
	4500.	0.5835	0.5864	0.6133	0.8112	1.6239	1.6692	1.6699	1.6699
57	300.	0.1740	0.1773	0.2062	0.3582	0.7592	0.9883	1.0304	1.0350
	800.	0.1779	0.1815	0.2130	0.3850	0.8132	1.0019	1.0317	1.0349
	2100.	0.1886	0.1928	0.2306	0.4446	0.8908	1.0162	1.0323	1.0340
	4500.	0.2078	0.2130	0.2602	0.5271	0.9587	1.0233	1.0296	1.0303
58	300.	0.9970	0.9971	0.9986	1.0020	0.9984	0.9984	0.9984	0.9984
	800.	0.9972	0.9974	0.9989	1.0024	0.9988	0.9986	0.9987	0.9987
	2100.	0.9979	0.9981	0.9996	1.0034	0.9996	0.9993	0.9993	0.9993
	4500.	0.9992	0.9994	1.0010	1.0049	1.0010	1.0006	1.0006	1.0006
59	300.	0.9961	0.9961	0.9962	0.9994	0.9981	0.9982	0.9982	0.9983
	800.	0.9962	0.9962	0.9963	0.9995	0.9983	0.9982	0.9983	0.9983
	2100.	0.9963	0.9963	0.9964	0.9997	0.9985	0.9983	0.9984	0.9984
	4500.	0.9965	0.9965	0.9966	1.0001	0.9988	0.9985	0.9986	0.9986
60	300.	0.9938	0.9939	0.9940	0.9970	0.9972	0.9975	0.9975	0.9976
	800.	0.9939	0.9939	0.9940	0.9971	0.9974	0.9975	0.9976	0.9976
	2100.	0.9939	0.9939	0.9941	0.9972	0.9976	0.9976	0.9976	0.9976
	4500.	0.9940	0.9941	0.9942	0.9974	0.9979	0.9977	0.9977	0.9977

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2		REACTION = FISSION				FOR 1TH R-PARAMETER		PAGE 6 OF 6	
GROUP	TEMP. (SIG0)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9971	0.9971	0.9969	0.9977	0.9984	0.9986	0.9987	0.9987
	800.	0.9971	0.9971	0.9970	0.9978	0.9985	0.9986	0.9987	0.9987
	2100.	0.9972	0.9971	0.9970	0.9978	0.9986	0.9987	0.9988	0.9988
	4500.	0.9973	0.9973	0.9971	0.9980	0.9988	0.9988	0.9989	0.9989
62	300.	0.9904	0.9904	0.9908	0.9929	0.9958	0.9966	0.9967	0.9968
	800.	0.9904	0.9905	0.9908	0.9929	0.9960	0.9966	0.9968	0.9968
	2100.	0.9905	0.9906	0.9909	0.9931	0.9963	0.9968	0.9969	0.9969
	4500.	0.9908	0.9908	0.9911	0.9933	0.9966	0.9970	0.9971	0.9971
63	300.	0.9893	0.9893	0.9892	0.9904	0.9951	0.9964	0.9966	0.9966
	800.	0.9894	0.9894	0.9893	0.9905	0.9953	0.9965	0.9967	0.9967
	2100.	0.9896	0.9896	0.9895	0.9907	0.9957	0.9967	0.9969	0.9969
	4500.	0.9900	0.9899	0.9899	0.9912	0.9962	0.9971	0.9973	0.9973
64	300.	0.9849	0.9849	0.9847	0.9850	0.9930	0.9954	0.9958	0.9958
	800.	0.9851	0.9851	0.9849	0.9852	0.9933	0.9956	0.9960	0.9960
	2100.	0.9855	0.9855	0.9853	0.9857	0.9940	0.9961	0.9964	0.9965
	4500.	0.9863	0.9863	0.9861	0.9865	0.9950	0.9969	0.9973	0.9973
65	300.	0.9729	0.9729	0.9728	0.9721	0.9872	0.9930	0.9938	0.9939
	800.	0.9730	0.9730	0.9729	0.9722	0.9875	0.9932	0.9939	0.9943
	2100.	0.9735	0.9735	0.9734	0.9727	0.9882	0.9935	0.9943	0.9950
	4500.	0.9743	0.9743	0.9742	0.9735	0.9891	0.9942	0.9949	0.9950
66	300.	0.9693	0.9692	0.9690	0.9656	0.9818	0.9922	0.9934	0.9936
	800.	0.9693	0.9692	0.9690	0.9656	0.9820	0.9922	0.9934	0.9936
	2100.	0.9693	0.9692	0.9690	0.9656	0.9823	0.9922	0.9934	0.9936
	4500.	0.9693	0.9692	0.9690	0.9656	0.9826	0.9922	0.9934	0.9936
67	300.	0.9367	0.9366	0.9362	0.9312	0.9537	0.9856	0.9896	0.9900
	800.	0.9367	0.9366	0.9362	0.9312	0.9541	0.9856	0.9896	0.9900
	2100.	0.9367	0.9366	0.9362	0.9312	0.9547	0.9856	0.9896	0.9900
	4500.	0.9367	0.9366	0.9362	0.9312	0.9551	0.9856	0.9896	0.9900
68	300.	0.8704	0.8703	0.8699	0.8641	0.8594	0.9653	0.9828	0.9847
	800.	0.8704	0.8703	0.8699	0.8641	0.8604	0.9653	0.9828	0.9847
	2100.	0.8704	0.8703	0.8699	0.8641	0.8617	0.9653	0.9828	0.9847
	4500.	0.8704	0.8703	0.8699	0.8641	0.8628	0.9653	0.9828	0.9847
69	300.	0.7762	0.7762	0.7757	0.7705	0.6500	0.8716	0.9663	0.9785
	800.	0.7762	0.7762	0.7757	0.7705	0.6532	0.8716	0.9663	0.9785
	2100.	0.7762	0.7762	0.7757	0.7705	0.6574	0.8716	0.9663	0.9785
	4500.	0.7762	0.7762	0.7757	0.7705	0.6605	0.8717	0.9663	0.9785
70	300.	0.6419	0.6420	0.6437	0.6591	0.7571	0.9320	0.9920	0.9992
	800.	0.6419	0.6420	0.6437	0.6591	0.7571	0.9320	0.9920	0.9992
	2100.	0.6419	0.6420	0.6437	0.6591	0.7571	0.9320	0.9920	0.9992
	4500.	0.6419	0.6420	0.6437	0.6591	0.7571	0.9320	0.9920	0.9992

TABLE OF SELF-SHIELDING FACTORS

		MATERIAL NAME = PU239-J2		REACTION = CAPTURE		FOR 1TH R-PARAMETER		PAGE 3 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9995	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
26	300.	0.9109	0.9179	0.9496	0.9888	0.9987	0.9999	1.0000	1.0000
	800.	0.9367	0.9422	0.9661	0.9929	0.9992	0.9999	1.0000	1.0000
	2100.	0.9527	0.9573	0.9761	0.9952	0.9995	0.9999	1.0000	1.0000
	4500.	0.9606	0.9648	0.9811	0.9963	0.9996	0.9999	1.0000	1.0000
27	300.	0.8919	0.8976	0.9292	0.9834	0.9980	0.9997	0.9999	0.9999
	800.	0.9276	0.9313	0.9520	0.9893	0.9987	0.9998	0.9999	0.9999
	2100.	0.9530	0.9552	0.9679	0.9931	0.9991	0.9998	0.9999	0.9999
	4500.	0.9672	0.9686	0.9767	0.9952	0.9994	0.9999	0.9999	0.9999
28	300.	0.8695	0.8768	0.9142	0.9791	0.9974	0.9996	0.9998	0.9999
	800.	0.9116	0.9169	0.9422	0.9866	0.9983	0.9997	0.9998	0.9999
	2100.	0.9422	0.9458	0.9616	0.9914	0.9989	0.9998	0.9998	0.9999
	4500.	0.9582	0.9608	0.9715	0.9938	0.9992	0.9998	0.9999	0.9999
29	300.	0.8301	0.8389	0.8870	0.9697	0.9961	0.9994	0.9997	0.9998
	800.	0.8868	0.8929	0.9256	0.9809	0.9975	0.9995	0.9997	0.9998
	2100.	0.9267	0.9308	0.9518	0.9880	0.9984	0.9996	0.9997	0.9998
	4500.	0.9504	0.9532	0.9669	0.9918	0.9989	0.9997	0.9997	0.9998
30	300.	0.8090	0.8192	0.8748	0.9664	0.9957	0.9994	0.9997	0.9998
	800.	0.8685	0.8762	0.9167	0.9787	0.9973	0.9995	0.9998	0.9998
	2100.	0.9071	0.9130	0.9427	0.9859	0.9982	0.9996	0.9998	0.9998
	4500.	0.9291	0.9338	0.9567	0.9894	0.9986	0.9996	0.9998	0.9998
31	300.	0.7511	0.7625	0.8295	0.9509	0.9937	0.9993	0.9998	0.9999
	800.	0.8250	0.8337	0.8840	0.9688	0.9961	0.9995	0.9999	0.9999
	2100.	0.8752	0.8818	0.9194	0.9795	0.9975	0.9996	0.9999	0.9999
	4500.	0.9020	0.9072	0.9375	0.9845	0.9981	0.9997	0.9999	0.9999
32	300.	0.7007	0.7136	0.7906	0.9394	0.9927	0.9997	1.0004	1.0005
	800.	0.7894	0.7996	0.8591	0.9633	0.9960	1.0000	1.0005	1.0005
	2100.	0.8584	0.8657	0.9083	0.9781	0.9978	1.0002	1.0005	1.0005
	4500.	0.9012	0.9065	0.9373	0.9860	0.9988	1.0003	1.0005	1.0005
33	300.	0.6624	0.6738	0.7435	0.9060	0.9851	0.9964	0.9976	0.9977
	800.	0.7596	0.7687	0.8224	0.9383	0.9901	0.9969	0.9977	0.9977
	2100.	0.8323	0.8392	0.8782	0.9583	0.9929	0.9972	0.9977	0.9977
	4500.	0.8738	0.8791	0.9086	0.9680	0.9942	0.9974	0.9977	0.9977
34	300.	0.5599	0.5740	0.6609	0.8665	0.9729	0.9922	0.9992	0.9994
	800.	0.6742	0.6863	0.7584	0.9132	0.9871	0.9982	0.9993	0.9994
	2100.	0.7789	0.7879	0.8410	0.9475	0.9926	0.9988	0.9994	0.9995
	4500.	0.8389	0.8459	0.8865	0.9645	0.9951	0.9991	0.9995	0.9995
35	300.	0.5666	0.5821	0.6769	0.8950	0.9872	1.0005	1.0019	1.0020
	800.	0.6829	0.6972	0.7795	0.9417	0.9944	1.0013	1.0020	1.0021
	2100.	0.7864	0.7978	0.8609	0.9718	0.9985	1.0019	1.0022	1.0022
	4500.	0.8506	0.8593	0.9065	0.9860	1.0004	1.0021	1.0023	1.0023
36	300.	0.4850	0.5007	0.5989	0.8391	0.9740	0.9949	0.9994	0.9996
	800.	0.5886	0.6035	0.6941	0.8913	0.9841	0.9980	0.9995	0.9996
	2100.	0.6965	0.7091	0.7835	0.9307	0.9906	0.9988	0.9996	0.9997
	4500.	0.7759	0.7859	0.8449	0.9536	0.9939	0.9991	0.9997	0.9997

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

		MATERIAL NAME = PU239-J2		REACTION = CAPTURE		FOR 1TH R-PARAMETER		PAGE 4 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.4375	0.4524	0.5453	0.7964	0.9627	0.9955	0.9992	0.9996
	800.	0.5380	0.5531	0.6428	0.8560	0.9760	0.9971	0.9994	0.9996
	2100.	0.6427	0.6563	0.7347	0.9017	0.9845	0.9980	0.9995	0.9996
	4500.	0.7207	0.7326	0.7992	0.9300	0.9893	0.9985	0.9995	0.9996
38	300.	0.3539	0.3687	0.4635	0.7481	0.9546	0.9936	0.9979	0.9983
	800.	0.4559	0.4725	0.5734	0.8258	0.9717	0.9955	0.9981	0.9983
	2100.	0.5837	0.6000	0.6940	0.8899	0.9832	0.9968	0.9982	0.9984
	4500.	0.6919	0.7058	0.7837	0.9265	0.9887	0.9974	0.9983	0.9984
39	300.	0.3320	0.3483	0.4506	0.7233	0.9428	0.9883	0.9935	0.9940
	800.	0.4136	0.4312	0.5389	0.7860	0.9590	0.9903	0.9937	0.9940
	2100.	0.5000	0.5172	0.6193	0.8288	0.9685	0.9914	0.9938	0.9940
	4500.	0.5702	0.5866	0.6810	0.8571	0.9740	0.9919	0.9938	0.9940
40	300.	0.5068	0.5197	0.6075	0.8549	0.9782	1.0052	1.0083	1.0086
	800.	0.5803	0.5937	0.6858	0.9260	0.9944	1.0071	1.0085	1.0086
	2100.	0.6554	0.6688	0.7623	0.9857	1.0052	1.0083	1.0086	1.0087
	4500.	0.7079	0.7210	0.8121	1.0200	1.0107	1.0088	1.0086	1.0086
41	300.	0.6115	0.6197	0.6758	0.8553	0.9775	1.0006	1.0032	1.0034
	800.	0.6810	0.6894	0.7450	0.9045	0.9883	1.0017	1.0031	1.0032
	2100.	0.7565	0.7643	0.8140	0.9438	0.9952	1.0022	1.0030	1.0030
	4500.	0.8106	0.8172	0.8590	0.9635	0.9981	1.0023	1.0028	1.0028
42	300.	0.3416	0.3490	0.4047	0.6423	0.9135	0.9884	0.9975	0.9985
	800.	0.4304	0.4392	0.5033	0.7397	0.9458	0.9927	0.9982	0.9987
	2100.	0.5503	0.5596	0.6251	0.8304	0.9690	0.9957	0.9986	0.9989
	4500.	0.6571	0.6658	0.7246	0.8878	0.9810	0.9972	0.9989	0.9991
43	300.	0.3301	0.3369	0.3877	0.6044	0.8995	0.9865	0.9973	0.9985
	800.	0.4201	0.4283	0.4872	0.7038	0.9372	0.9918	0.9981	0.9987
	2100.	0.5543	0.5628	0.6213	0.8054	0.9651	0.9954	0.9987	0.9990
	4500.	0.6707	0.6777	0.7248	0.8645	0.9779	0.9970	0.9990	0.9992
44	300.	0.4405	0.4478	0.5022	0.7243	0.9474	0.9960	1.0016	1.0021
	800.	0.5065	0.5146	0.5746	0.7930	0.9668	0.9986	1.0021	1.0024
	2100.	0.5918	0.6002	0.6609	0.8589	0.9819	1.0005	1.0024	1.0026
	4500.	0.6668	0.6751	0.7331	0.9063	0.9911	1.0016	1.0027	1.0028
45	300.	0.2879	0.2931	0.3328	0.5235	0.8635	0.9828	1.0039	1.0061
	800.	0.3224	0.3293	0.3808	0.6013	0.8952	0.9921	1.0049	1.0063
	2100.	0.3799	0.3893	0.4566	0.6999	0.9406	0.9987	1.0057	1.0064
	4500.	0.4448	0.4561	0.5346	0.7822	0.9688	1.0023	1.0061	1.0065
46	300.	0.2626	0.2695	0.3147	0.4884	0.8093	0.9670	0.9907	0.9932
	800.	0.2979	0.3065	0.3621	0.5585	0.8579	0.9758	0.9916	0.9933
	2100.	0.3451	0.3557	0.4228	0.6360	0.8986	0.9821	0.9923	0.9933
	4500.	0.3885	0.4004	0.4744	0.6910	0.9211	0.9852	0.9926	0.9934
47	300.	0.2494	0.2514	0.2724	0.4093	0.7470	0.9589	0.9944	0.9982
	800.	0.2809	0.2835	0.3093	0.4715	0.8101	0.9722	0.9957	0.9982
	2100.	0.3313	0.3344	0.3664	0.5559	0.8690	0.9821	0.9968	0.9983
	4500.	0.3884	0.3921	0.4295	0.6370	0.9093	0.9880	0.9975	0.9984
48	300.	0.1235	0.1268	0.1532	0.2955	0.6619	0.9404	0.9966	1.0028
	800.	0.1304	0.1341	0.1640	0.3273	0.7202	0.9579	0.9987	1.0031
	2100.	0.1441	0.1486	0.1843	0.3747	0.7824	0.9725	1.0005	1.0034
	4500.	0.1658	0.1713	0.2147	0.4331	0.8328	0.9818	1.0016	1.0036

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.1778	0.1813	0.2068	0.3300	0.6531	0.9291	0.9860	0.9924
	800.	0.2051	0.2094	0.2412	0.3892	0.7219	0.9501	0.9894	0.9937
	2100.	0.2728	0.2783	0.3178	0.4852	0.7957	0.9675	0.9927	0.9953
	4500.	0.4034	0.4085	0.4449	0.5952	0.8512	0.9782	0.9949	0.9967
50	300.	0.0853	0.0884	0.1127	0.2520	0.6637	0.9552	1.0096	1.0155
	800.	0.0901	0.0938	0.1229	0.2945	0.7405	0.9742	1.0109	1.0148
	2100.	0.1028	0.1078	0.1474	0.3697	0.8249	0.9890	1.0113	1.0136
	4500.	0.1267	0.1338	0.1884	0.4618	0.8897	0.9977	1.0110	1.0124
51	300.	0.5242	0.5364	0.6070	0.8082	0.9998	1.0195	1.0215	1.0217
	800.	0.5532	0.5683	0.6522	0.8479	1.0099	1.0206	1.0216	1.0217
	2100.	0.6021	0.6206	0.7162	0.8838	1.0178	1.0215	1.0218	1.0218
	4500.	0.6616	0.6823	0.7783	0.9052	1.0222	1.0221	1.0220	1.0220
52	300.	0.2570	0.2660	0.3261	0.5387	0.8551	0.9873	1.0060	1.0080
	800.	0.2783	0.2889	0.3599	0.6009	0.9123	1.0152	1.0285	1.0298
	2100.	0.3185	0.3317	0.4194	0.7061	1.0106	1.0914	1.1010	1.1020
	4500.	0.3711	0.3864	0.4879	0.8175	1.1128	1.1844	1.1927	1.1936
53	300.	0.0649	0.0684	0.0951	0.2375	0.6303	0.9296	0.9866	0.9929
	800.	0.0665	0.0701	0.0988	0.2592	0.6614	0.8995	0.9389	0.9431
	2100.	0.0705	0.0747	0.1077	0.2961	0.6804	0.8477	0.8718	0.8744
	4500.	0.0785	0.0835	0.1236	0.3413	0.6821	0.7958	0.8108	0.8123
54	300.	0.1694	0.1709	0.1817	0.2734	0.6010	0.9023	0.9665	0.9738
	800.	0.1821	0.1840	0.1981	0.3091	0.6721	0.9509	1.0019	1.0074
	2100.	0.2148	0.2176	0.2382	0.3767	0.7559	0.9980	1.0368	1.0410
	4500.	0.2751	0.2791	0.3076	0.4665	0.8270	1.0295	1.0595	1.0627
55	300.	0.1337	0.1371	0.1643	0.3048	0.6069	0.9047	0.9613	0.9675
	800.	0.1384	0.1420	0.1722	0.3331	0.6450	0.9131	0.9592	0.9641
	2100.	0.1501	0.1544	0.1905	0.3867	0.6916	0.9149	0.9494	0.9530
	4500.	0.1716	0.1768	0.2196	0.4499	0.7266	0.9065	0.9318	0.9345
56	300.	0.6032	0.6056	0.6264	0.7536	1.0440	1.0360	1.0329	1.0326
	800.	0.6088	0.6112	0.6323	0.7611	1.0922	1.0890	1.0861	1.0858
	2100.	0.6244	0.6271	0.6504	0.7922	1.2436	1.2560	1.2543	1.2541
	4500.	0.6609	0.6648	0.6970	0.8773	1.5186	1.5534	1.5538	1.5539
57	300.	0.1273	0.1310	0.1635	0.3278	0.7505	0.9887	1.0325	1.0373
	800.	0.1309	0.1348	0.1699	0.3554	0.8067	1.0029	1.0338	1.0371
	2100.	0.1406	0.1452	0.1866	0.4165	0.8875	1.0178	1.0344	1.0362
	4500.	0.1585	0.1641	0.2152	0.5012	0.9582	1.0251	1.0316	1.0323
58	300.	1.0116	1.0107	1.0028	0.9889	1.0069	1.0072	1.0071	1.0071
	800.	1.0128	1.0119	1.0038	0.9892	1.0077	1.0084	1.0083	1.0083
	2100.	1.0160	1.0150	1.0065	0.9905	1.0102	1.0117	1.0115	1.0115
	4500.	1.0221	1.0210	1.0117	0.9941	1.0158	1.0179	1.0177	1.0177
59	300.	0.9983	0.9983	0.9983	0.9997	0.9992	0.9992	0.9992	0.9992
	800.	0.9985	0.9985	0.9985	0.9999	0.9994	0.9994	0.9994	0.9994
	2100.	0.9990	0.9990	0.9991	1.0005	1.0000	0.9999	1.0000	1.0000
	4500.	1.0000	1.0000	1.0001	1.0016	1.0011	1.0009	1.0010	1.0010
60	300.	0.9935	0.9935	0.9937	0.9969	0.9971	0.9973	0.9974	0.9974
	800.	0.9936	0.9936	0.9938	0.9970	0.9973	0.9974	0.9975	0.9975
	2100.	0.9939	0.9939	0.9941	0.9974	0.9977	0.9977	0.9978	0.9978
	4500.	0.9944	0.9944	0.9946	0.9980	0.9984	0.9982	0.9983	0.9983

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9924	0.9924	0.9921	0.9941	0.9959	0.9964	0.9966	0.9966
	800.	0.9925	0.9925	0.9922	0.9942	0.9961	0.9965	0.9967	0.9967
	2100.	0.9928	0.9927	0.9924	0.9945	0.9966	0.9968	0.9969	0.9969
	4500.	0.9932	0.9932	0.9929	0.9951	0.9972	0.9972	0.9974	0.9974
62	300.	0.9859	0.9860	0.9864	0.9895	0.9938	0.9950	0.9952	0.9952
	800.	0.9860	0.9861	0.9866	0.9896	0.9941	0.9951	0.9953	0.9954
	2100.	0.9864	0.9865	0.9869	0.9901	0.9947	0.9955	0.9957	0.9957
	4500.	0.9871	0.9871	0.9876	0.9908	0.9957	0.9962	0.9964	0.9964
63	300.	0.9807	0.9807	0.9806	0.9827	0.9912	0.9935	0.9938	0.9939
	800.	0.9809	0.9809	0.9808	0.9830	0.9916	0.9937	0.9941	0.9941
	2100.	0.9815	0.9815	0.9814	0.9836	0.9926	0.9944	0.9947	0.9947
	4500.	0.9826	0.9826	0.9825	0.9848	0.9940	0.9955	0.9959	0.9959
64	300.	0.9751	0.9751	0.9748	0.9753	0.9884	0.9925	0.9930	0.9931
	800.	0.9755	0.9755	0.9753	0.9757	0.9891	0.9929	0.9935	0.9935
	2100.	0.9767	0.9766	0.9764	0.9769	0.9906	0.9941	0.9947	0.9947
	4500.	0.9787	0.9787	0.9785	0.9790	0.9930	0.9963	0.9969	0.9969
65	300.	0.9594	0.9594	0.9592	0.9582	0.9808	0.9896	0.9907	0.9908
	800.	0.9597	0.9597	0.9596	0.9585	0.9814	0.9898	0.9910	0.9911
	2100.	0.9606	0.9606	0.9605	0.9594	0.9825	0.9906	0.9917	0.9918
	4500.	0.9623	0.9623	0.9622	0.9610	0.9843	0.9920	0.9931	0.9932
66	300.	0.9570	0.9570	0.9566	0.9519	0.9744	0.9890	0.9908	0.9910
	800.	0.9570	0.9570	0.9566	0.9519	0.9748	0.9890	0.9908	0.9910
	2100.	0.9570	0.9570	0.9566	0.9519	0.9752	0.9890	0.9908	0.9910
	4500.	0.9570	0.9570	0.9566	0.9520	0.9756	0.9890	0.9908	0.9910
67	300.	0.9245	0.9245	0.9240	0.9180	0.9449	0.9828	0.9876	0.9881
	800.	0.9245	0.9245	0.9240	0.9180	0.9454	0.9828	0.9876	0.9881
	2100.	0.9245	0.9245	0.9240	0.9180	0.9460	0.9828	0.9876	0.9881
	4500.	0.9245	0.9245	0.9240	0.9181	0.9466	0.9828	0.9876	0.9881
68	300.	0.8537	0.8536	0.8531	0.8467	0.8411	0.9607	0.9805	0.9826
	800.	0.8537	0.8536	0.8531	0.8467	0.8422	0.9607	0.9805	0.9826
	2100.	0.8537	0.8536	0.8531	0.8467	0.8437	0.9607	0.9805	0.9826
	4500.	0.8537	0.8536	0.8531	0.8467	0.8449	0.9607	0.9805	0.9826
69	300.	0.7514	0.7513	0.7508	0.7450	0.6103	0.8580	0.9628	0.9762
	800.	0.7514	0.7513	0.7508	0.7450	0.6139	0.8580	0.9628	0.9762
	2100.	0.7514	0.7513	0.7508	0.7450	0.6185	0.8580	0.9628	0.9762
	4500.	0.7514	0.7513	0.7508	0.7450	0.6220	0.8581	0.9628	0.9762
70	300.	0.6197	0.6198	0.6216	0.6381	0.7429	0.9284	0.9916	0.9991
	800.	0.6197	0.6198	0.6216	0.6381	0.7429	0.9284	0.9916	0.9991
	2100.	0.6197	0.6198	0.6216	0.6381	0.7429	0.9284	0.9916	0.9991
	4500.	0.6197	0.6198	0.6216	0.6381	0.7429	0.9284	0.9916	0.9991

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9611	0.9630	0.9748	0.9939	0.9993	0.9999	1.0000	1.0000
	800.	0.9734	0.9747	0.9830	0.9961	0.9995	0.9999	1.0000	1.0000
	2100.	0.9818	0.9826	0.9883	0.9974	0.9997	1.0000	1.0000	1.0000
	4500.	0.9864	0.9869	0.9912	0.9980	0.9998	1.0000	1.0000	1.0000
27	300.	0.9505	0.9533	0.9684	0.9920	0.9990	0.9999	1.0000	1.0000
	800.	0.9655	0.9676	0.9786	0.9948	0.9994	0.9999	1.0000	1.0000
	2100.	0.9772	0.9787	0.9862	0.9968	0.9996	1.0000	1.0000	1.0000
	4500.	0.9843	0.9854	0.9908	0.9979	0.9998	1.0000	1.0000	1.0000
28	300.	0.9478	0.9504	0.9648	0.9907	0.9988	0.9999	1.0000	1.0000
	800.	0.9633	0.9653	0.9757	0.9940	0.9993	0.9999	1.0000	1.0000
	2100.	0.9753	0.9767	0.9838	0.9962	0.9995	0.9999	1.0000	1.0000
	4500.	0.9820	0.9830	0.9881	0.9973	0.9997	0.9999	1.0000	1.0000
29	300.	0.9199	0.9234	0.9441	0.9835	0.9979	0.9998	1.0000	1.0000
	800.	0.9422	0.9449	0.9608	0.9893	0.9987	0.9999	1.0000	1.0000
	2100.	0.9607	0.9627	0.9741	0.9935	0.9992	0.9999	1.0000	1.0000
	4500.	0.9730	0.9745	0.9826	0.9958	0.9995	0.9999	1.0000	1.0000
30	300.	0.9289	0.9321	0.9512	0.9859	0.9982	0.9999	1.0000	1.0000
	800.	0.9491	0.9516	0.9665	0.9911	0.9989	0.9999	1.0000	1.0000
	2100.	0.9643	0.9663	0.9775	0.9945	0.9994	1.0000	1.0000	1.0000
	4500.	0.9738	0.9753	0.9839	0.9963	0.9996	1.0000	1.0000	1.0000
31	300.	0.9061	0.9096	0.9313	0.9776	0.9969	0.9996	0.9999	0.9999
	800.	0.9281	0.9311	0.9490	0.9847	0.9980	0.9997	0.9999	0.9999
	2100.	0.9452	0.9476	0.9622	0.9894	0.9986	0.9998	0.9999	0.9999
	4500.	0.9540	0.9580	0.9701	0.9919	0.9990	0.9998	0.9999	0.9999
32	300.	0.8874	0.8920	0.9193	0.9758	0.9973	1.0003	1.0006	1.0006
	800.	0.9165	0.9203	0.9432	0.9853	0.9987	1.0004	1.0006	1.0006
	2100.	0.9414	0.9445	0.9623	0.9916	0.9995	1.0005	1.0006	1.0006
	4500.	0.9581	0.9605	0.9743	0.9951	0.9999	1.0005	1.0006	1.0006
33	300.	0.8592	0.8630	0.8881	0.9556	0.9930	0.9987	0.9993	0.9993
	800.	0.8920	0.8954	0.9170	0.9702	0.9954	0.9990	0.9993	0.9994
	2100.	0.9211	0.9239	0.9414	0.9804	0.9970	0.9991	0.9994	0.9994
	4500.	0.9404	0.9427	0.9566	0.9858	0.9977	0.9992	0.9994	0.9994
34	300.	0.7593	0.7649	0.8017	0.9090	0.9842	0.9986	1.0002	1.0003
	800.	0.8022	0.8074	0.8416	0.9353	0.9901	0.9993	1.0003	1.0004
	2100.	0.8479	0.8525	0.8823	0.9581	0.9944	0.9998	1.0004	1.0004
	4500.	0.8801	0.8842	0.9104	0.9718	0.9966	1.0000	1.0004	1.0004
35	300.	0.8581	0.8622	0.8888	0.9607	0.9952	1.0005	1.0011	1.0011
	800.	0.8910	0.8949	0.9195	0.9773	0.9980	1.0008	1.0011	1.0011
	2100.	0.9233	0.9267	0.9469	0.9891	0.9997	1.0010	1.0012	1.0012
	4500.	0.9439	0.9467	0.9627	0.9947	1.0004	1.0011	1.0012	1.0012
36	300.	0.8205	0.8244	0.8508	0.9306	0.9877	0.9990	1.0002	1.0003
	800.	0.8485	0.8524	0.8786	0.9509	0.9925	0.9995	1.0003	1.0003
	2100.	0.8798	0.8835	0.9077	0.9677	0.9956	0.9998	1.0003	1.0003
	4500.	0.9058	0.9091	0.9304	0.9783	0.9973	1.0000	1.0003	1.0003

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.7831	0.7875	0.8147	0.9000	0.9781	0.9964	0.9985	0.9987
	800.	0.8087	0.8133	0.8413	0.9219	0.9847	0.9972	0.9986	0.9987
	2100.	0.8398	0.8442	0.8712	0.9412	0.9892	0.9977	0.9986	0.9987
	4500.	0.8670	0.8711	0.8956	0.9543	0.9918	0.9979	0.9986	0.9987
38	300.	0.7900	0.7941	0.8213	0.9097	0.9825	0.9978	0.9995	0.9997
	800.	0.8224	0.8265	0.8542	0.9358	0.9891	0.9986	0.9996	0.9997
	2100.	0.8617	0.8657	0.8915	0.9581	0.9935	0.9990	0.9996	0.9997
	4500.	0.8958	0.8992	0.9205	0.9713	0.9957	0.9993	0.9996	0.9997
39	300.	0.7467	0.7505	0.7771	0.8689	0.9685	0.9950	0.9982	0.9985
	800.	0.7702	0.7745	0.8042	0.8950	0.9781	0.9962	0.9983	0.9985
	2100.	0.7965	0.8013	0.8324	0.9170	0.9844	0.9970	0.9983	0.9985
	4500.	0.8209	0.8260	0.8574	0.9332	0.9882	0.9974	0.9984	0.9985
40	300.	0.7675	0.7728	0.8073	0.9131	0.9840	1.0023	1.0044	1.0047
	800.	0.7907	0.7961	0.8336	0.9453	0.9929	1.0034	1.0046	1.0047
	2100.	0.8191	0.8247	0.8650	0.9761	0.9994	1.0041	1.0048	1.0047
	4500.	0.8430	0.8488	0.8900	0.9976	1.0033	1.0045	1.0048	1.0047
41	300.	0.9440	0.9451	0.9527	0.9750	0.9954	0.9995	0.9999	1.0000
	800.	0.9529	0.9539	0.9612	0.9818	0.9970	0.9996	0.9999	1.0000
	2100.	0.9624	0.9633	0.9700	0.9875	0.9981	0.9998	0.9999	1.0000
	4500.	0.9693	0.9701	0.9758	0.9903	0.9986	0.9998	0.9999	1.0000
42	300.	0.7179	0.7211	0.7442	0.8388	0.9591	0.9937	0.9980	0.9984
	800.	0.7540	0.7574	0.7820	0.8770	0.9729	0.9956	0.9983	0.9985
	2100.	0.8030	0.8064	0.8310	0.9153	0.9833	0.9970	0.9986	0.9987
	4500.	0.8475	0.8507	0.8730	0.9411	0.9889	0.9978	0.9987	0.9988
43	300.	0.6946	0.6972	0.7165	0.8112	0.9494	0.9960	1.0021	1.0029
	800.	0.7263	0.7294	0.7521	0.8572	0.9705	0.9991	1.0025	1.0029
	2100.	0.7706	0.7742	0.7999	0.9073	0.9865	1.0012	1.0029	1.0031
	4500.	0.8096	0.8129	0.8370	0.9273	0.9939	1.0022	1.0031	1.0032
44	300.	0.8618	0.8630	0.8728	0.9249	0.9848	0.9997	1.0015	1.0017
	800.	0.8701	0.8714	0.8826	0.9377	0.9896	1.0004	1.0016	1.0017
	2100.	0.8815	0.8832	0.8965	0.9534	0.9943	1.0010	1.0017	1.0018
	4500.	0.8939	0.8958	0.9106	0.9670	0.9976	1.0014	1.0018	1.0018
45	300.	0.6769	0.6787	0.6928	0.7663	0.9150	0.9934	1.0061	1.0075
	800.	0.6881	0.6904	0.7087	0.7985	0.9443	0.9991	1.0068	1.0076
	2100.	0.7074	0.7107	0.7353	0.8433	0.9711	1.0032	1.0072	1.0077
	4500.	0.7328	0.7369	0.7670	0.8845	0.9883	1.0055	1.0075	1.0077
46	300.	0.7419	0.7430	0.7513	0.8010	0.9214	0.9878	0.9982	0.9993
	800.	0.7506	0.7523	0.7642	0.8239	0.9417	0.9917	0.9986	0.9993
	2100.	0.7618	0.7643	0.7809	0.8521	0.9598	0.9946	0.9989	0.9994
	4500.	0.7721	0.7752	0.7957	0.8743	0.9707	0.9961	0.9991	0.9994
47	300.	0.7382	0.7392	0.7480	0.7949	0.9101	0.9864	0.9995	1.0009
	800.	0.7476	0.7488	0.7593	0.8169	0.9351	0.9917	1.0000	1.0009
	2100.	0.7623	0.7637	0.7771	0.8483	0.9586	0.9957	1.0005	1.0010
	4500.	0.7803	0.7821	0.7983	0.8796	0.9746	0.9981	1.0008	1.0011
48	300.	0.5572	0.5578	0.5648	0.6269	0.8132	0.9689	1.0023	1.0061
	800.	0.5613	0.5621	0.5707	0.6425	0.8480	0.9799	1.0037	1.0063
	2100.	0.5678	0.5689	0.5802	0.6663	0.8878	0.9894	1.0048	1.0064
	4500.	0.5777	0.5793	0.5945	0.6973	0.9204	0.9954	1.0055	1.0065

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2		REACTION = ELASTIC				FOR 1TH R-PARAMETER		PAGE 5 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.5976	0.5975	0.6017	0.6560	0.8127	0.9613	0.9941	0.9978
	800.	0.6097	0.6100	0.6171	0.6824	0.8501	0.9733	0.9957	0.9981
	2100.	0.6407	0.6417	0.6525	0.7273	0.8909	0.9828	0.9968	0.9983
	4500.	0.7002	0.7014	0.7121	0.7804	0.9217	0.9881	0.9972	0.9981
50	300.	0.5437	0.5455	0.5588	0.6302	0.8401	0.9809	1.0077	1.0106
	800.	0.5467	0.5489	0.5653	0.6539	0.8820	0.9913	1.0086	1.0105
	2100.	0.5530	0.5560	0.5784	0.6935	0.9272	0.9996	1.0094	1.0104
	4500.	0.5625	0.5668	0.5976	0.7404	0.9615	1.0047	1.0099	1.0104
51	300.	0.9978	0.9975	0.9984	1.0017	0.9977	0.9981	0.9982	0.9982
	800.	0.9985	0.9983	0.9991	1.0023	0.9978	0.9981	0.9982	0.9982
	2100.	0.9996	0.9993	1.0000	1.0032	0.9978	0.9981	0.9982	0.9982
	4500.	1.0007	1.0004	1.0009	1.0039	0.9978	0.9981	0.9981	0.9981
52	300.	0.9384	0.9399	0.9473	0.9680	0.9878	0.9967	0.9979	0.9980
	800.	0.9376	0.9392	0.9476	0.9716	0.9928	1.0006	1.0015	1.0016
	2100.	0.9365	0.9383	0.9480	0.9763	1.0009	1.0088	1.0097	1.0098
	4500.	0.9372	0.9390	0.9495	0.9809	1.0075	1.0159	1.0169	1.0170
53	300.	0.7612	0.7638	0.7771	0.8134	0.9062	0.9790	0.9923	0.9938
	800.	0.7611	0.7637	0.7775	0.8158	0.9089	0.9686	0.9781	0.9791
	2100.	0.7618	0.7646	0.7796	0.8221	0.9071	0.9501	0.9562	0.9568
	4500.	0.7640	0.7669	0.7836	0.8314	0.9036	0.9334	0.9373	0.9377
54	300.	0.7628	0.7632	0.7690	0.8174	0.9017	0.9755	0.9920	0.9939
	800.	0.7726	0.7732	0.7803	0.8339	0.9284	0.9942	1.0064	1.0078
	2100.	0.7934	0.7943	0.8027	0.8610	0.9620	1.0164	1.0249	1.0258
	4500.	0.8265	0.8275	0.8365	0.8950	0.9920	1.0348	1.0408	1.0414
55	300.	0.7934	0.7957	0.8111	0.8573	0.9208	0.9808	0.9918	0.9930
	800.	0.7934	0.7957	0.8119	0.8637	0.9292	0.9829	0.9918	0.9927
	2100.	0.7919	0.7943	0.8117	0.8735	0.9380	0.9831	0.9896	0.9903
	4500.	0.7895	0.7919	0.8102	0.8819	0.9417	0.9784	0.9831	0.9836
56	300.	1.0501	1.0516	1.0583	1.0481	0.9888	0.9915	0.9921	0.9922
	800.	1.0509	1.0524	1.0594	1.0513	0.9900	0.9922	0.9928	0.9929
	2100.	1.0532	1.0547	1.0626	1.0588	0.9956	0.9970	0.9975	0.9976
	4500.	1.0569	1.0585	1.0673	1.0696	1.0096	1.0104	1.0108	1.0108
57	300.	0.9022	0.9034	0.9117	0.9324	0.9802	1.0018	1.0058	1.0062
	800.	0.9031	0.9044	0.9130	0.9374	0.9881	1.0034	1.0057	1.0059
	2100.	0.9053	0.9065	0.9158	0.9470	0.9982	1.0044	1.0050	1.0050
	4500.	0.9089	0.9101	0.9195	0.9577	1.0047	1.0034	1.0029	1.0028
58	300.	0.9983	0.9984	0.9995	1.0014	0.9990	0.9990	0.9990	0.9990
	800.	0.9983	0.9984	0.9995	1.0015	0.9991	0.9990	0.9990	0.9990
	2100.	0.9982	0.9983	0.9994	1.0016	0.9991	0.9989	0.9987	0.9987
	4500.	0.9980	0.9981	0.9993	1.0017	0.9989	0.9987	0.9987	0.9987
59	300.	0.9990	0.9990	0.9991	0.9999	0.9995	0.9995	0.9996	0.9996
	800.	0.9990	0.9990	0.9990	0.9999	0.9995	0.9995	0.9995	0.9995
	2100.	0.9990	0.9990	0.9990	0.9999	0.9995	0.9995	0.9995	0.9995
	4500.	0.9989	0.9989	0.9990	0.9999	0.9995	0.9995	0.9995	0.9995
60	300.	0.9994	0.9994	0.9994	0.9997	0.9997	0.9997	0.9997	0.9997
	800.	0.9994	0.9994	0.9994	0.9997	0.9997	0.9997	0.9997	0.9997
	2100.	0.9993	0.9994	0.9994	0.9997	0.9997	0.9997	0.9997	0.9997
	4500.	0.9993	0.9993	0.9993	0.9997	0.9997	0.9997	0.9997	0.9997

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2		REACTION = ELASTIC				FOR 1TH R-PARAMETER		PAGE 6 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9994	0.9994	0.9994	0.9995	0.9997	0.9997	0.9997	0.9997
	800.	0.9994	0.9994	0.9994	0.9995	0.9997	0.9997	0.9997	0.9997
	2100.	0.9994	0.9994	0.9994	0.9995	0.9997	0.9997	0.9997	0.9997
	4500.	0.9994	0.9994	0.9993	0.9995	0.9997	0.9997	0.9997	0.9997
62	300.	0.9993	0.9993	0.9993	0.9995	0.9997	0.9997	0.9998	0.9998
	800.	0.9993	0.9993	0.9993	0.9995	0.9997	0.9997	0.9998	0.9998
	2100.	0.9993	0.9993	0.9993	0.9995	0.9997	0.9997	0.9998	0.9998
	4500.	0.9993	0.9993	0.9993	0.9995	0.9997	0.9997	0.9997	0.9997
63	300.	0.9992	0.9992	0.9992	0.9993	0.9996	0.9997	0.9998	0.9998
	800.	0.9992	0.9992	0.9992	0.9993	0.9997	0.9997	0.9998	0.9998
	2100.	0.9992	0.9992	0.9992	0.9993	0.9997	0.9998	0.9998	0.9998
	4500.	0.9993	0.9993	0.9992	0.9993	0.9997	0.9998	0.9998	0.9998
64	300.	0.9987	0.9987	0.9987	0.9987	0.9994	0.9996	0.9996	0.9996
	800.	0.9987	0.9987	0.9987	0.9987	0.9994	0.9996	0.9996	0.9997
	2100.	0.9987	0.9987	0.9987	0.9988	0.9995	0.9996	0.9997	0.9997
	4500.	0.9988	0.9988	0.9988	0.9988	0.9995	0.9997	0.9997	0.9997
65	300.	1.0084	1.0084	1.0084	1.0086	1.0039	1.0021	1.0019	1.0019
	800.	1.0084	1.0084	1.0084	1.0086	1.0039	1.0021	1.0019	1.0019
	2100.	1.0084	1.0084	1.0084	1.0086	1.0038	1.0022	1.0019	1.0019
	4500.	1.0084	1.0084	1.0085	1.0087	1.0038	1.0022	1.0020	1.0020
66	300.	0.9971	0.9971	0.9971	0.9967	0.9983	0.9993	0.9994	0.9994
	800.	0.9971	0.9971	0.9971	0.9967	0.9983	0.9993	0.9994	0.9994
	2100.	0.9971	0.9971	0.9971	0.9967	0.9983	0.9993	0.9994	0.9994
	4500.	0.9971	0.9971	0.9971	0.9967	0.9983	0.9993	0.9994	0.9994
67	300.	0.9932	0.9932	0.9931	0.9926	0.9950	0.9984	0.9989	0.9989
	800.	0.9932	0.9932	0.9931	0.9926	0.9951	0.9984	0.9989	0.9989
	2100.	0.9932	0.9932	0.9931	0.9926	0.9952	0.9985	0.9989	0.9989
	4500.	0.9932	0.9932	0.9931	0.9926	0.9952	0.9985	0.9989	0.9989
68	300.	0.9814	0.9814	0.9813	0.9805	0.9799	0.9951	0.9976	0.9978
	800.	0.9814	0.9814	0.9813	0.9805	0.9800	0.9951	0.9976	0.9978
	2100.	0.9814	0.9814	0.9813	0.9805	0.9802	0.9951	0.9976	0.9978
	4500.	0.9814	0.9814	0.9813	0.9805	0.9804	0.9951	0.9976	0.9978
69	300.	0.9642	0.9642	0.9641	0.9632	0.9419	0.9811	0.9951	0.9968
	800.	0.9642	0.9642	0.9641	0.9632	0.9425	0.9811	0.9951	0.9968
	2100.	0.9642	0.9642	0.9641	0.9632	0.9432	0.9811	0.9951	0.9968
	4500.	0.9642	0.9642	0.9641	0.9632	0.9438	0.9811	0.9951	0.9968
70	300.	0.8359	0.8360	0.8365	0.8415	0.8786	0.9628	0.9956	0.9996
	800.	0.8359	0.8360	0.8365	0.8415	0.8786	0.9628	0.9956	0.9996
	2100.	0.8359	0.8360	0.8365	0.8415	0.8786	0.9628	0.9956	0.9996
	4500.	0.8359	0.8360	0.8365	0.8415	0.8786	0.9628	0.9956	0.9996

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9245	0.9285	0.9507	0.9875	0.9985	0.9998	1.0000	1.0000
	800.	0.9476	0.9503	0.9663	0.9919	0.9991	0.9999	1.0000	1.0000
	2100.	0.9642	0.9660	0.9771	0.9947	0.9994	0.9999	1.0000	1.0000
	4500.	0.9737	0.9750	0.9830	0.9961	0.9995	1.0000	1.0000	1.0000
27	300.	0.8982	0.9034	0.9327	0.9822	0.9978	0.9998	1.0000	1.0000
	800.	0.9263	0.9303	0.9523	0.9881	0.9986	0.9998	1.0000	1.0000
	2100.	0.9494	0.9523	0.9678	0.9923	0.9991	0.9999	1.0000	1.0000
	4500.	0.9639	0.9660	0.9772	0.9947	0.9994	0.9999	1.0000	1.0000
28	300.	0.8947	0.8997	0.9283	0.9803	0.9975	0.9997	0.9999	1.0000
	800.	0.9232	0.9272	0.9493	0.9872	0.9984	0.9998	0.9999	1.0000
	2100.	0.9467	0.9497	0.9655	0.9918	0.9990	0.9999	1.0000	1.0000
	4500.	0.9603	0.9626	0.9744	0.9941	0.9993	0.9999	1.0000	1.0000
29	300.	0.8453	0.8519	0.8900	0.9655	0.9954	0.9995	0.9999	1.0000
	800.	0.8842	0.8895	0.9202	0.9772	0.9971	0.9997	0.9999	1.0000
	2100.	0.9187	0.9227	0.9455	0.9857	0.9982	0.9998	0.9999	1.0000
	4500.	0.9428	0.9457	0.9624	0.9907	0.9989	0.9998	0.9999	1.0000
30	300.	0.8389	0.8457	0.8860	0.9651	0.9954	0.9995	0.9999	0.9999
	800.	0.8755	0.8814	0.9154	0.9763	0.9970	0.9996	0.9999	0.9999
	2100.	0.9052	0.9101	0.9379	0.9838	0.9980	0.9997	0.9999	0.9999
	4500.	0.9259	0.9300	0.9525	0.9881	0.9985	0.9998	0.9999	0.9999
31	300.	0.8089	0.8157	0.8575	0.9510	0.9931	0.9992	0.9998	0.9998
	800.	0.8485	0.8545	0.8913	0.9662	0.9955	0.9994	0.9998	0.9998
	2100.	0.8806	0.8859	0.9174	0.9765	0.9970	0.9996	0.9998	0.9998
	4500.	0.9016	0.9062	0.9333	0.9819	0.9977	0.9996	0.9998	0.9998
32	300.	0.7486	0.7568	0.8090	0.9344	0.9911	0.9991	0.9999	1.0000
	800.	0.7983	0.8059	0.8538	0.9554	0.9943	0.9995	1.0000	1.0000
	2100.	0.8471	0.8536	0.8934	0.9703	0.9964	0.9997	1.0000	1.0000
	4500.	0.8833	0.8886	0.9206	0.9791	0.9975	0.9998	1.0000	1.0000
33	300.	0.7168	0.7244	0.7733	0.9060	0.9848	0.9975	0.9989	0.9990
	800.	0.7698	0.7771	0.8226	0.9347	0.9901	0.9981	0.9990	0.9990
	2100.	0.8195	0.8262	0.8670	0.9561	0.9936	0.9985	0.9990	0.9990
	4500.	0.8555	0.8615	0.8969	0.9681	0.9953	0.9987	0.9990	0.9990
34	300.	0.6135	0.6225	0.6793	0.8426	0.9699	0.9971	1.0002	1.0005
	800.	0.6734	0.6821	0.7374	0.8852	0.9810	0.9985	1.0004	1.0006
	2100.	0.7408	0.7485	0.7978	0.9227	0.9889	0.9994	1.0005	1.0006
	4500.	0.7880	0.7950	0.8392	0.9453	0.9930	0.9998	1.0005	1.0006
35	300.	0.6836	0.6915	0.7438	0.8952	0.9846	0.9992	1.0008	1.0009
	800.	0.7372	0.7458	0.8000	0.9322	0.9915	1.0000	1.0009	1.0010
	2100.	0.7993	0.8074	0.8565	0.9595	0.9957	1.0005	1.0010	1.0010
	4500.	0.8475	0.8544	0.8945	0.9737	0.9977	1.0007	1.0010	1.0011
36	300.	0.6219	0.6298	0.6826	0.8436	0.9699	0.9970	1.0001	1.0004
	800.	0.6666	0.6751	0.7312	0.8852	0.9811	0.9983	1.0002	1.0004
	2100.	0.7243	0.7329	0.7879	0.9217	0.9887	0.9991	1.0002	1.0004
	4500.	0.7761	0.7842	0.8345	0.9453	0.9927	0.9995	1.0003	1.0003

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.5438	0.5535	0.6113	0.7854	0.9507	0.9936	0.9988	0.9993
	800.	0.5811	0.5919	0.6561	0.8306	0.9661	0.9956	0.9990	0.9993
	2100.	0.6356	0.6470	0.7131	0.8724	0.9767	0.9969	0.9991	0.9993
	4500.	0.6881	0.6993	0.7627	0.9018	0.9830	0.9975	0.9991	0.9993
38	300.	0.5139	0.5218	0.5762	0.7693	0.9526	0.9944	0.9992	0.9997
	800.	0.5576	0.5669	0.6298	0.8275	0.9699	0.9965	0.9994	0.9997
	2100.	0.6261	0.6368	0.7052	0.8834	0.9820	0.9979	0.9995	0.9997
	4500.	0.7015	0.7122	0.7769	0.9203	0.9883	0.9985	0.9996	0.9997
39	300.	0.4566	0.4635	0.5137	0.7060	0.9256	0.9879	0.9957	0.9965
	800.	0.4873	0.4954	0.5552	0.7591	0.9474	0.9909	0.9960	0.9965
	2100.	0.5305	0.5398	0.6052	0.8026	0.9615	0.9927	0.9962	0.9966
	4500.	0.5735	0.5836	0.6516	0.8349	0.9698	0.9937	0.9963	0.9966
40	300.	0.4884	0.4961	0.5502	0.7447	0.9407	0.9968	1.0036	1.0043
	800.	0.5190	0.5276	0.5887	0.7990	0.9616	0.9996	1.0039	1.0044
	2100.	0.5567	0.5662	0.6345	0.8558	0.9775	1.0015	1.0041	1.0044
	4500.	0.5925	0.6023	0.6736	0.8964	0.9870	1.0026	1.0043	1.0044
41	300.	0.6881	0.6944	0.7357	0.8530	0.9689	0.9966	0.9998	1.0001
	800.	0.7265	0.7330	0.7755	0.8892	0.9801	0.9979	0.9999	1.0001
	2100.	0.7758	0.7820	0.8217	0.9217	0.9877	0.9988	0.9999	1.0001
	4500.	0.8190	0.8242	0.8577	0.9403	0.9911	0.9991	1.0000	1.0000
42	300.	0.3939	0.3988	0.4337	0.5933	0.8773	0.9815	0.9951	0.9965
	800.	0.4372	0.4431	0.4864	0.6736	0.9182	0.9875	0.9959	0.9968
	2100.	0.5103	0.5173	0.5685	0.7636	0.9497	0.9917	0.9965	0.9970
	4500.	0.5897	0.5973	0.6513	0.8291	0.9667	0.9938	0.9968	0.9971
43	300.	0.4033	0.4081	0.4441	0.6179	0.8813	0.9871	1.0017	1.0032
	800.	0.4422	0.4483	0.4939	0.6932	0.9255	0.9941	1.0026	1.0035
	2100.	0.5188	0.5266	0.5809	0.7849	0.9604	0.9989	1.0033	1.0037
	4500.	0.6163	0.6234	0.6723	0.8470	0.9771	1.0010	1.0036	1.0039
44	300.	0.4399	0.4439	0.4738	0.6290	0.9008	0.9913	1.0027	1.0038
	800.	0.4640	0.4686	0.5039	0.6789	0.9272	0.9951	1.0033	1.0041
	2100.	0.5053	0.5107	0.5517	0.7419	0.9519	0.9984	1.0038	1.0043
	4500.	0.5525	0.5582	0.6025	0.7988	0.9695	1.0006	1.0041	1.0044
45	300.	0.3484	0.3518	0.3794	0.5214	0.8082	0.9716	1.0002	1.0032
	800.	0.3578	0.3619	0.3950	0.5660	0.8578	0.9831	1.0016	1.0035
	2100.	0.3799	0.3853	0.4290	0.6371	0.9072	0.9917	1.0026	1.0037
	4500.	0.4097	0.4167	0.4720	0.7070	0.9408	0.9966	1.0032	1.0039
46	300.	0.3467	0.3521	0.3859	0.5005	0.7622	0.9580	0.9935	0.9974
	800.	0.3554	0.3616	0.4017	0.5424	0.8176	0.9714	0.9950	0.9975
	2100.	0.3705	0.3779	0.4272	0.5987	0.8701	0.9812	0.9961	0.9977
	4500.	0.3874	0.3957	0.4522	0.6451	0.9025	0.9864	0.9967	0.9977
47	300.	0.3795	0.3828	0.4068	0.5164	0.7624	0.9548	0.9918	0.9959
	800.	0.3881	0.3915	0.4165	0.5348	0.7990	0.9659	0.9930	0.9959
	2100.	0.4052	0.4087	0.4358	0.5666	0.8394	0.9746	0.9938	0.9958
	4500.	0.4259	0.4298	0.4598	0.6047	0.8716	0.9800	0.9942	0.9957
48	300.	0.2049	0.2070	0.2237	0.2999	0.5483	0.8962	0.9909	1.0021
	800.	0.2055	0.2076	0.2247	0.3082	0.5998	0.9237	0.9946	1.0026
	2100.	0.2078	0.2101	0.2285	0.3263	0.6665	0.9481	0.9978	1.0031
	4500.	0.2129	0.2154	0.2362	0.3560	0.7305	0.9644	1.0000	1.0037

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2 REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SICO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.1900	0.1931	0.2189	0.3628	0.6754	0.9312	0.9941	1.0015
	800.	0.1948	0.1983	0.2271	0.3904	0.7335	0.9553	0.9991	1.0039
	2100.	0.2175	0.2220	0.2589	0.4546	0.8080	0.9770	1.0043	1.0072
	4500.	0.2941	0.2999	0.3448	0.5524	0.8726	0.9912	1.0079	1.0096
50	300.	0.1375	0.1392	0.1511	0.2218	0.5428	0.9163	1.0055	1.0157
	800.	0.1369	0.1386	0.1511	0.2353	0.6160	0.9433	1.0058	1.0127
	2100.	0.1368	0.1387	0.1541	0.2702	0.7124	0.9646	1.0040	1.0081
	4500.	0.1384	0.1410	0.1629	0.3274	0.7976	0.9772	1.0017	1.0043
51	300.	0.7244	0.7275	0.7513	0.8608	0.9810	1.0023	1.0045	1.0048
	800.	0.7313	0.7353	0.7653	0.8859	0.9887	1.0031	1.0046	1.0048
	2100.	0.7465	0.7521	0.7916	0.9146	0.9952	1.0039	1.0047	1.0048
	4500.	0.7698	0.7770	0.8239	0.9364	0.9993	1.0044	1.0049	1.0049
52	300.	0.3423	0.3459	0.3717	0.4933	0.7751	0.9684	1.0005	1.0039
	800.	0.3474	0.3515	0.3815	0.5242	0.8369	0.9989	1.0223	1.0247
	2100.	0.3590	0.3639	0.4006	0.5825	0.9360	1.0730	1.0906	1.0924
	4500.	0.3784	0.3841	0.4273	0.6553	1.0361	1.1607	1.1760	1.1776
53	300.	0.1210	0.1223	0.1312	0.1831	0.4728	0.8881	0.9884	0.9998
	800.	0.1208	0.1220	0.1308	0.1869	0.5185	0.8785	0.9500	0.9578
	2100.	0.1207	0.1219	0.1310	0.2010	0.5691	0.8460	0.8913	0.8961
	4500.	0.1214	0.1227	0.1335	0.2273	0.6053	0.8064	0.8352	0.8382
54	300.	0.2011	0.2022	0.2118	0.2929	0.5538	0.8792	0.9665	0.9768
	800.	0.2039	0.2051	0.2153	0.3029	0.6037	0.9245	0.9946	1.0025
	2100.	0.2165	0.2179	0.2302	0.3319	0.6724	0.9682	1.0224	1.0282
	4500.	0.2484	0.2502	0.2656	0.3828	0.7412	0.9983	1.0403	1.0447
55	300.	0.1093	0.1102	0.1183	0.1727	0.4174	0.8434	0.9479	0.9598
	800.	0.1089	0.1098	0.1180	0.1789	0.4521	0.8572	0.9452	0.9549
	2100.	0.1088	0.1098	0.1184	0.1964	0.5057	0.8643	0.9318	0.9391
	4500.	0.1116	0.1126	0.1223	0.2227	0.5562	0.8571	0.9072	0.9125
56	300.	0.5855	0.5878	0.6061	0.7102	1.0007	1.0270	1.0282	1.0283
	800.	0.5872	0.5896	0.6079	0.7114	1.0360	1.0739	1.0763	1.0765
	2100.	0.5917	0.5942	0.6132	0.7195	1.1438	1.2215	1.2287	1.2294
	4500.	0.6015	0.6044	0.6269	0.7519	1.3394	1.4806	1.4961	1.4976
57	300.	0.1446	0.1459	0.1574	0.2315	0.5517	0.9297	1.0229	1.0336
	800.	0.1442	0.1455	0.1569	0.2370	0.6063	0.9542	1.0257	1.0336
	2100.	0.1437	0.1450	0.1568	0.2566	0.7002	0.9813	1.0279	1.0328
	4500.	0.1440	0.1453	0.1584	0.2946	0.7985	0.9987	1.0264	1.0293
58	300.	0.9984	0.9984	0.9991	1.0008	0.9993	0.9993	0.9993	0.9993
	800.	0.9985	0.9986	0.9993	1.0010	0.9995	0.9995	0.9995	0.9995
	2100.	0.9990	0.9991	0.9998	1.0016	1.0000	0.9999	0.9999	0.9999
	4500.	0.9999	0.9999	1.0006	1.0025	1.0009	1.0008	1.0008	1.0008
59	300.	0.9971	0.9972	0.9974	0.9995	0.9989	0.9989	0.9989	0.9989
	800.	0.9972	0.9972	0.9974	0.9996	0.9989	0.9989	0.9990	0.9990
	2100.	0.9972	0.9972	0.9975	0.9997	0.9991	0.9990	0.9990	0.9990
	4500.	0.9973	0.9974	0.9976	0.9999	0.9993	0.9991	0.9991	0.9991
60	300.	0.9954	0.9955	0.9958	0.9981	0.9983	0.9985	0.9986	0.9986
	800.	0.9954	0.9955	0.9958	0.9981	0.9984	0.9985	0.9986	0.9986
	2100.	0.9955	0.9955	0.9959	0.9982	0.9986	0.9986	0.9986	0.9986
	4500.	0.9955	0.9956	0.9959	0.9983	0.9987	0.9986	0.9987	0.9987

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2 REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SICO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9973	0.9973	0.9973	0.9982	0.9988	0.9990	0.9990	0.9990
	800.	0.9973	0.9973	0.9973	0.9982	0.9988	0.9990	0.9990	0.9990
	2100.	0.9973	0.9974	0.9974	0.9983	0.9989	0.9990	0.9991	0.9991
	4500.	0.9974	0.9974	0.9975	0.9984	0.9991	0.9991	0.9991	0.9991
62	300.	0.9913	0.9914	0.9921	0.9947	0.9971	0.9977	0.9978	0.9978
	800.	0.9913	0.9914	0.9922	0.9947	0.9972	0.9977	0.9978	0.9978
	2100.	0.9914	0.9915	0.9923	0.9949	0.9974	0.9978	0.9979	0.9979
	4500.	0.9916	0.9917	0.9924	0.9950	0.9977	0.9980	0.9981	0.9981
63	300.	0.9886	0.9886	0.9892	0.9918	0.9961	0.9972	0.9974	0.9974
	800.	0.9886	0.9887	0.9893	0.9919	0.9963	0.9973	0.9974	0.9975
	2100.	0.9888	0.9889	0.9895	0.9921	0.9966	0.9975	0.9976	0.9976
	4500.	0.9891	0.9892	0.9898	0.9925	0.9971	0.9978	0.9980	0.9980
64	300.	0.9815	0.9817	0.9825	0.9857	0.9939	0.9962	0.9965	0.9965
	800.	0.9817	0.9818	0.9827	0.9859	0.9942	0.9963	0.9966	0.9967
	2100.	0.9821	0.9822	0.9831	0.9863	0.9948	0.9968	0.9971	0.9971
	4500.	0.9828	0.9829	0.9838	0.9871	0.9957	0.9976	0.9979	0.9979
65	300.	0.9655	0.9657	0.9671	0.9722	0.9885	0.9941	0.9948	0.9948
	800.	0.9657	0.9659	0.9673	0.9724	0.9889	0.9942	0.9949	0.9950
	2100.	0.9662	0.9664	0.9678	0.9728	0.9895	0.9946	0.9953	0.9953
	4500.	0.9671	0.9673	0.9687	0.9737	0.9904	0.9953	0.9959	0.9960
66	300.	0.9524	0.9526	0.9539	0.9580	0.9806	0.9921	0.9935	0.9937
	800.	0.9524	0.9526	0.9539	0.9580	0.9808	0.9921	0.9935	0.9937
	2100.	0.9524	0.9526	0.9539	0.9580	0.9811	0.9921	0.9935	0.9937
	4500.	0.9524	0.9526	0.9539	0.9581	0.9814	0.9921	0.9935	0.9937
67	300.	0.8966	0.8968	0.8984	0.9063	0.9476	0.9848	0.9896	0.9901
	800.	0.8966	0.8968	0.8984	0.9063	0.9480	0.9848	0.9896	0.9901
	2100.	0.8966	0.8968	0.8984	0.9063	0.9485	0.9848	0.9896	0.9901
	4500.	0.8966	0.8968	0.8984	0.9063	0.9490	0.9848	0.9896	0.9901
68	300.	0.7864	0.7865	0.7877	0.7955	0.8313	0.9596	0.9819	0.9843
	800.	0.7864	0.7865	0.7877	0.7955	0.8322	0.9596	0.9819	0.9843
	2100.	0.7864	0.7865	0.7877	0.7955	0.8334	0.9596	0.9819	0.9843
	4500.	0.7864	0.7865	0.7877	0.7955	0.8344	0.9596	0.9819	0.9843
69	300.	0.6310	0.6310	0.6313	0.6334	0.5835	0.8361	0.9606	0.9772
	800.	0.6310	0.6310	0.6313	0.6334	0.5857	0.8361	0.9606	0.9772
	2100.	0.6310	0.6310	0.6313	0.6334	0.5885	0.8361	0.9606	0.9772
	4500.	0.6310	0.6310	0.6313	0.6334	0.5907	0.8362	0.9606	0.9772
70	300.	0.3998	0.3999	0.4016	0.4182	0.5455	0.8611	0.9836	0.9983
	800.	0.3998	0.3999	0.4016	0.4182	0.5455	0.8611	0.9836	0.9983
	2100.	0.3998	0.3999	0.4016	0.4182	0.5455	0.8611	0.9836	0.9983
	4500.	0.3998	0.3999	0.4016	0.4182	0.5455	0.8611	0.9836	0.9983

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.5778	0.5230	0.6923	0.9431	0.9928	0.9983	0.9988	0.9989
	800.	0.5852	0.5287	0.6984	0.9468	0.9933	0.9983	0.9988	0.9989
	2100.	0.5907	0.5329	0.7022	0.9486	0.9935	0.9984	0.9988	0.9989
	4500.	0.5938	0.5360	0.7056	0.9498	0.9937	0.9984	0.9989	0.9989
27	300.	0.8704	0.8434	0.7380	0.9383	0.9894	0.9952	0.9958	0.9958
	800.	0.8841	0.8561	0.7439	0.9410	0.9898	0.9952	0.9958	0.9958
	2100.	0.8951	0.8664	0.7491	0.9433	0.9901	0.9952	0.9958	0.9958
	4500.	0.9006	0.8713	0.7522	0.9448	0.9902	0.9953	0.9958	0.9958
28	300.	0.8046	0.8070	0.7518	0.9272	0.9861	0.9928	0.9935	0.9936
	800.	0.8165	0.8186	0.7602	0.9309	0.9866	0.9929	0.9935	0.9936
	2100.	0.8267	0.8280	0.7654	0.9328	0.9868	0.9929	0.9935	0.9936
	4500.	0.8324	0.8330	0.7672	0.9334	0.9869	0.9929	0.9935	0.9936
29	300.	0.8369	0.8356	0.7935	0.9256	0.9844	0.9911	0.9918	0.9919
	800.	0.8533	0.8503	0.8033	0.9298	0.9850	0.9912	0.9918	0.9919
	2100.	0.8645	0.8600	0.8090	0.9318	0.9853	0.9912	0.9918	0.9919
	4500.	0.8708	0.8655	0.8120	0.9329	0.9854	0.9913	0.9918	0.9919
30	300.	0.7743	0.7854	0.7886	0.9122	0.9815	0.9896	0.9904	0.9905
	800.	0.7831	0.7933	0.7928	0.9136	0.9817	0.9896	0.9904	0.9905
	2100.	0.7854	0.7953	0.7937	0.9141	0.9819	0.9896	0.9904	0.9905
	4500.	0.7865	0.7959	0.7931	0.9141	0.9819	0.9897	0.9904	0.9905
31	300.	0.7056	0.7260	0.8002	0.9150	0.9811	0.9885	0.9893	0.9894
	800.	0.7181	0.7381	0.8075	0.9173	0.9815	0.9886	0.9893	0.9894
	2100.	0.7300	0.7487	0.8107	0.9180	0.9816	0.9886	0.9893	0.9894
	4500.	0.7371	0.7549	0.8107	0.9180	0.9816	0.9886	0.9893	0.9894
32	300.	0.8135	0.8055	0.7696	0.8684	0.9623	0.9738	0.9750	0.9751
	800.	0.8367	0.8266	0.7793	0.8699	0.9627	0.9739	0.9750	0.9751
	2100.	0.8448	0.8341	0.7831	0.8711	0.9630	0.9739	0.9750	0.9751
	4500.	0.8461	0.8350	0.7832	0.8719	0.9632	0.9739	0.9750	0.9751
33	300.	0.5027	0.5081	0.5409	0.7334	0.9379	0.9704	0.9738	0.9742
	800.	0.5391	0.5440	0.5745	0.7606	0.9447	0.9712	0.9739	0.9742
	2100.	0.5683	0.5731	0.6017	0.7798	0.9489	0.9717	0.9740	0.9742
	4500.	0.5844	0.5897	0.6194	0.7915	0.9512	0.9719	0.9741	0.9743
34	300.	0.7971	0.8056	0.8097	0.8257	0.9531	0.9711	0.9730	0.9732
	800.	0.8406	0.8471	0.8429	0.8374	0.9556	0.9714	0.9731	0.9732
	2100.	0.8982	0.9015	0.8816	0.8469	0.9573	0.9716	0.9731	0.9732
	4500.	0.9362	0.9373	0.9058	0.8511	0.9580	0.9717	0.9731	0.9733
35	300.	0.7585	0.7494	0.7531	0.8173	0.9518	0.9706	0.9726	0.9728
	800.	0.7882	0.7794	0.7806	0.8298	0.9544	0.9709	0.9726	0.9728
	2100.	0.8261	0.8178	0.8131	0.8392	0.9560	0.9711	0.9727	0.9728
	4500.	0.8509	0.8431	0.8351	0.8447	0.9569	0.9712	0.9727	0.9728
36	300.	0.8225	0.8231	0.8402	0.8546	0.9567	0.9707	0.9721	0.9723
	800.	0.8283	0.8272	0.8409	0.8517	0.9567	0.9707	0.9721	0.9722
	2100.	0.8071	0.8054	0.8208	0.8436	0.9559	0.9706	0.9721	0.9722
	4500.	0.7935	0.7903	0.8014	0.8351	0.9549	0.9704	0.9720	0.9722

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.9846	0.9533	0.8581	0.8353	0.9531	0.9700	0.9717	0.9719
	800.	1.0477	1.0126	0.8908	0.8329	0.9530	0.9700	0.9717	0.9719
	2100.	1.1166	1.0777	0.9256	0.8312	0.9530	0.9700	0.9717	0.9719
	4500.	1.1661	1.1249	0.9513	0.8304	0.9530	0.9700	0.9717	0.9719
38	300.	0.8844	0.8709	0.8199	0.7872	0.9430	0.9689	0.9717	0.9720
	800.	0.8858	0.8764	0.8358	0.7917	0.9451	0.9692	0.9717	0.9720
	2100.	0.8795	0.8747	0.8484	0.7953	0.9466	0.9694	0.9717	0.9720
	4500.	0.8576	0.8580	0.8514	0.7988	0.9479	0.9695	0.9717	0.9720
39	300.	0.6837	0.7033	0.7872	0.8031	0.9450	0.9689	0.9714	0.9717
	800.	0.7364	0.7500	0.8099	0.8003	0.9456	0.9690	0.9714	0.9717
	2100.	0.7815	0.7901	0.8315	0.7984	0.9461	0.9690	0.9714	0.9717
	4500.	0.8128	0.8175	0.8443	0.7967	0.9463	0.9691	0.9714	0.9717
40	300.	0.5364	0.5468	0.5764	0.6353	0.9118	0.9651	0.9709	0.9714
	800.	0.5385	0.5519	0.5993	0.6392	0.9144	0.9654	0.9709	0.9714
	2100.	0.5431	0.5588	0.6223	0.6453	0.9171	0.9657	0.9709	0.9714
	4500.	0.5518	0.5687	0.6412	0.6515	0.9194	0.9660	0.9709	0.9714
41	300.	0.8591	0.8667	0.9187	0.8275	0.9416	0.9624	0.9648	0.9648
	800.	0.8906	0.8931	0.9241	0.8214	0.9404	0.9623	0.9646	0.9648
	2100.	0.9221	0.9200	0.9305	0.8166	0.9394	0.9622	0.9646	0.9648
	4500.	0.9374	0.9329	0.9326	0.8143	0.9388	0.9622	0.9646	0.9648
42	300.	0.2082	0.2168	0.2733	0.4262	0.8082	0.9443	0.9617	0.9634
	800.	0.2395	0.2472	0.2983	0.4466	0.8296	0.9478	0.9621	0.9635
	2100.	0.2745	0.2811	0.3259	0.4736	0.8502	0.9509	0.9625	0.9637
	4500.	0.3009	0.3067	0.3471	0.4957	0.8636	0.9528	0.9628	0.9638
43	300.	1.0443	1.0409	0.9883	0.7379	0.9077	0.9578	0.9634	0.9639
	800.	1.0560	1.0525	1.0068	0.7491	0.9116	0.9584	0.9634	0.9639
	2100.	1.0284	1.0290	1.0115	0.7607	0.9144	0.9587	0.9634	0.9639
	4500.	0.9933	0.9972	1.0048	0.7689	0.9158	0.9589	0.9634	0.9638
44	300.	0.6335	0.6419	0.6877	0.6985	0.8894	0.9549	0.9623	0.9631
	800.	0.6466	0.6554	0.7072	0.7298	0.8977	0.9560	0.9625	0.9631
	2100.	0.6489	0.6605	0.7307	0.7670	0.9051	0.9570	0.9626	0.9632
	4500.	0.6432	0.6585	0.7514	0.7964	0.9097	0.9576	0.9627	0.9632
45	300.	0.3238	0.3390	0.4510	0.7174	0.9034	0.9568	0.9625	0.9631
	800.	0.3542	0.3691	0.4784	0.7354	0.9034	0.9568	0.9625	0.9631
	2100.	0.4053	0.4195	0.5224	0.7569	0.9036	0.9568	0.9625	0.9631
	4500.	0.4644	0.4775	0.5709	0.7749	0.9041	0.9569	0.9625	0.9631
46	300.	0.6834	0.7187	0.8657	0.8737	0.9157	0.9574	0.9623	0.9628
	800.	0.6980	0.7338	0.8841	0.8861	0.9133	0.9573	0.9623	0.9628
	2100.	0.7113	0.7475	0.9030	0.8961	0.9105	0.9571	0.9623	0.9628
	4500.	0.7115	0.7469	0.9039	0.8991	0.9081	0.9569	0.9623	0.9628
47	300.	2.0234	1.9396	1.4789	0.8487	0.8848	0.9537	0.9621	0.9630
	800.	2.0992	2.0151	1.5501	0.8809	0.8811	0.9521	0.9606	0.9614
	2100.	2.2220	2.1342	1.6465	0.9105	0.8770	0.9507	0.9593	0.9602
	4500.	2.3452	2.2528	1.7343	0.9262	0.8741	0.9505	0.9592	0.9601
48	300.	0.4572	0.4727	0.5956	0.8539	0.8788	0.9519	0.9614	0.9624
	800.	0.4675	0.4834	0.6084	0.8788	0.8759	0.9518	0.9613	0.9623
	2100.	0.4876	0.5039	0.6310	0.9049	0.8723	0.9516	0.9612	0.9622
	4500.	0.5159	0.5329	0.6615	0.9269	0.8698	0.9522	0.9620	0.9630

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.7225	0.7475	0.8866	0.9402	0.8525	0.9477	0.9610	0.9624
	800.	0.7076	0.7317	0.8661	0.9296	0.8428	0.9490	0.9631	0.9646
	2100.	0.7148	0.7356	0.8527	0.9073	0.8208	0.9364	0.9510	0.9525
	4500.	0.8277	0.8405	0.9093	0.8936	0.7915	0.9098	0.9242	0.9257
50	300.	1.7139	1.7102	1.6178	1.2382	0.8781	0.9280	0.9356	0.9364
	800.	1.7718	1.7693	1.6776	1.2722	0.8733	0.9278	0.9356	0.9364
	2100.	1.9272	1.9258	1.8219	1.3300	0.8678	0.9276	0.9355	0.9363
	4500.	2.2201	2.2164	2.0685	1.4045	0.8635	0.9273	0.9353	0.9361
51	300.	1.0697	1.0548	1.0388	1.0965	0.9159	0.9273	0.9286	0.9287
	800.	1.0992	1.0834	1.0606	1.1134	0.9165	0.9274	0.9287	0.9288
	2100.	1.1500	1.1316	1.0953	1.1390	0.9174	0.9275	0.9288	0.9289
	4500.	1.2130	1.1900	1.1348	1.1655	0.9182	0.9278	0.9291	0.9292
52	300.	0.2383	0.2542	0.3524	0.7087	0.8620	0.9207	0.9274	0.9281
	800.	0.2112	0.2254	0.3149	0.6727	0.8861	0.9660	0.9753	0.9763
	2100.	0.1413	0.1513	0.2191	0.5617	0.9090	1.0450	1.0616	1.0633
	4500.	0.0958	0.1026	0.1522	0.4612	0.8848	1.0594	1.0812	1.0835
53	300.	0.0144	0.0161	0.0305	0.1298	0.4797	0.8445	0.9191	0.9274
	800.	0.0137	0.0153	0.0294	0.1285	0.4575	0.7515	0.8048	0.8105
	2100.	0.0148	0.0165	0.0320	0.1360	0.4210	0.6309	0.6645	0.6681
	4500.	0.0175	0.0195	0.0377	0.1491	0.3886	0.5401	0.5623	0.5646
54	300.	1.6738	1.6190	1.2543	0.6854	0.7541	0.9022	0.9251	0.9275
	800.	1.7041	1.6505	1.2917	0.7097	0.7463	0.8995	0.9223	0.9247
	2100.	1.6973	1.6503	1.3284	0.7462	0.7336	0.8923	0.9150	0.9174
	4500.	1.4671	1.4382	1.2272	0.7520	0.7170	0.8869	0.9105	0.9129
55	300.	0.0784	0.0801	0.0960	0.2226	0.5198	0.8596	0.9208	0.9274
	800.	0.0822	0.0840	0.1007	0.2365	0.5806	1.0055	1.0823	1.0906
	2100.	0.0986	0.1008	0.1206	0.2793	0.7112	1.2873	1.3906	1.4018
	4500.	0.1294	0.1324	0.1581	0.3491	0.8404	1.5269	1.6467	1.6595
56	300.	0.6984	0.7329	0.9591	1.2929	0.9063	0.9232	0.9269	0.9273
	800.	0.6910	0.7256	0.9542	1.3119	0.9115	0.9252	0.9290	0.9293
	2100.	0.6650	0.6997	0.9336	1.3446	0.9228	0.9317	0.9354	0.9358
	4500.	0.5579	0.5908	0.8238	1.3430	0.9409	0.9493	0.9533	0.9537
57	300.	1.8302	1.8300	1.7631	1.3439	0.8975	0.9208	0.9263	0.9268
	800.	1.8685	1.8696	1.8108	1.3832	0.9004	0.9207	0.9261	0.9267
	2100.	1.9720	1.9760	1.9344	1.4705	0.9036	0.9205	0.9259	0.9264
	4500.	2.1593	2.1655	2.1370	1.5896	0.9100	0.9199	0.9253	0.9259
58	300.	0.8513	0.8562	0.9131	1.0796	0.9252	0.9246	0.9264	0.9266
	800.	0.8515	0.8565	0.9142	1.0871	0.9295	0.9246	0.9264	0.9265
	2100.	0.8520	0.8571	0.9168	1.1017	0.9363	0.9246	0.9263	0.9265
	4500.	0.8529	0.8583	0.9216	1.1190	0.9427	0.9246	0.9263	0.9264
59	300.	0.8407	0.8405	0.8436	0.9625	0.9207	0.9244	0.9265	0.9267
	800.	0.8407	0.8405	0.8437	0.9652	0.9245	0.9244	0.9265	0.9267
	2100.	0.8407	0.8405	0.8439	0.9702	0.9302	0.9245	0.9265	0.9267
	4500.	0.8407	0.8406	0.8443	0.9759	0.9356	0.9245	0.9264	0.9266
60	300.	0.8146	0.8152	0.8196	0.9035	0.9159	0.9241	0.9266	0.9268
	800.	0.8146	0.8152	0.8196	0.9048	0.9192	0.9241	0.9266	0.9268
	2100.	0.8146	0.8152	0.8196	0.9072	0.9242	0.9242	0.9266	0.9268
	4500.	0.8146	0.8152	0.8196	0.9099	0.9288	0.9243	0.9265	0.9268

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU239-J2

REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.8436	0.8431	0.8382	0.8724	0.9113	0.9237	0.9265	0.9268
	800.	0.8436	0.8431	0.8382	0.8731	0.9142	0.9237	0.9265	0.9268
	2100.	0.8436	0.8431	0.8382	0.8744	0.9186	0.9238	0.9265	0.9268
	4500.	0.8435	0.8430	0.8382	0.8759	0.9225	0.9239	0.9265	0.9268
62	300.	0.7902	0.7906	0.7946	0.8364	0.9043	0.9231	0.9264	0.9268
	800.	0.7902	0.7906	0.7946	0.8368	0.9070	0.9231	0.9264	0.9268
	2100.	0.7902	0.7905	0.7946	0.8376	0.9109	0.9231	0.9264	0.9268
	4500.	0.7901	0.7905	0.7945	0.8385	0.9143	0.9232	0.9264	0.9268
63	300.	0.7742	0.7742	0.7736	0.7950	0.8936	0.9220	0.9263	0.9267
	800.	0.7742	0.7742	0.7736	0.7953	0.8960	0.9220	0.9263	0.9267
	2100.	0.7742	0.7741	0.7735	0.7957	0.8995	0.9220	0.9263	0.9267
	4500.	0.7740	0.7740	0.7734	0.7962	0.9026	0.9221	0.9263	0.9268
64	300.	0.7533	0.7529	0.7497	0.7477	0.8765	0.9201	0.9261	0.9267
	800.	0.7532	0.7528	0.7496	0.7478	0.8788	0.9201	0.9261	0.9267
	2100.	0.7530	0.7527	0.7494	0.7480	0.8821	0.9202	0.9261	0.9267
	4500.	0.7527	0.7524	0.7491	0.7480	0.8849	0.9204	0.9262	0.9268
65	300.	0.6928	0.6926	0.6905	0.6771	0.8415	0.9148	0.9242	0.9251
	800.	0.6930	0.6927	0.6906	0.6772	0.8438	0.9148	0.9242	0.9251
	2100.	0.6933	0.6931	0.6910	0.6776	0.8470	0.9148	0.9242	0.9251
	4500.	0.6940	0.6938	0.6917	0.6781	0.8497	0.9149	0.9242	0.9251
66	300.	0.6621	0.6620	0.6606	0.6323	0.7893	0.9097	0.9250	0.9266
	800.	0.6621	0.6620	0.6606	0.6324	0.7917	0.9097	0.9250	0.9266
	2100.	0.6621	0.6620	0.6606	0.6325	0.7949	0.9097	0.9250	0.9266
	4500.	0.6621	0.6620	0.6606	0.6328	0.7976	0.9098	0.9250	0.9266
67	300.	0.5715	0.5712	0.5690	0.5408	0.6585	0.8906	0.9230	0.9263
	800.	0.5715	0.5712	0.5690	0.5408	0.6612	0.8906	0.9230	0.9263
	2100.	0.5715	0.5712	0.5690	0.5408	0.6648	0.8906	0.9230	0.9263
	4500.	0.5715	0.5712	0.5690	0.5408	0.6678	0.8907	0.9230	0.9263
68	300.	0.4331	0.4330	0.4317	0.4147	0.3690	0.8196	0.9151	0.9255
	800.	0.4331	0.4330	0.4317	0.4147	0.3724	0.8196	0.9151	0.9255
	2100.	0.4331	0.4330	0.4317	0.4147	0.3770	0.8197	0.9151	0.9255
	4500.	0.4331	0.4330	0.4317	0.4147	0.3807	0.8197	0.9151	0.9255
69	300.	0.3492	0.3491	0.3481	0.3380	0.0996	0.5249	0.8689	0.9207
	800.	0.3492	0.3491	0.3481	0.3380	0.1052	0.5249	0.8689	0.9207
	2100.	0.3492	0.3491	0.3481	0.3380	0.1123	0.5249	0.8689	0.9207
	4500.	0.3492	0.3491	0.3481	0.3380	0.1177	0.5250	0.8689	0.9207
70	300.	0.8359	0.8360	0.8365	0.8415	0.8786	0.9628	0.9956	0.9996
	800.	0.8359	0.8360	0.8365	0.8415	0.8786	0.9628	0.9956	0.9996
	2100.	0.8359	0.8360	0.8365	0.8415	0.8786	0.9628	0.9956	0.9996
	4500.	0.8359	0.8360	0.8365	0.8415	0.8786	0.9628	0.9956	0.9996

NUCLID = PU240-J2 CODE NO = 940
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1	2.1776E+00	4.0790E+00	9.7472E-04	2.0984E-01	3.4553E+00	8.1005E-01	3.6665E-02	3.7051E-01	6.2142E+00
2	1.8874E+00	3.8075E+00	9.9256E-04	8.3556E-01	4.1559E+00	8.1045E-01	4.1352E-02	6.2911E-02	6.9427E+00
3	1.5116E+00	3.5799E+00	2.4311E-03	1.2605E+00	4.7937E+00	7.7274E-01	5.1366E-02	0.0	7.5683E+00
4	1.5924E+00	3.4056E+00	8.6004E-03	1.2144E+00	5.1295E+00	7.1869E-01	5.8865E-02	0.0	7.9450E+00
5	1.6895E+00	3.2687E+00	2.4877E-02	1.2219E+00	5.0573E+00	6.7459E-01	6.1525E-02	0.0	7.9935E+00
6	1.7198E+00	3.1636E+00	5.0624E-02	1.3396E+00	4.6646E+00	6.2428E-01	5.7815E-02	0.0	7.7746E+00
7	1.7135E+00	3.0802E+00	7.2968E-02	1.4711E+00	4.1819E+00	5.5759E-01	6.3022E-02	0.0	7.4394E+00
8	1.6237E+00	3.0144E+00	8.4685E-02	1.5625E+00	3.8482E+00	4.9086E-01	6.8726E-02	0.0	7.1190E+00
9	1.5735E+00	2.9639E+00	9.1558E-02	1.5052E+00	3.8110E+00	4.4391E-01	6.3781E-02	0.0	6.9812E+00
10	1.4311E+00	2.9232E+00	1.0563E-01	1.5152E+00	4.0525E+00	4.0616E-01	1.0335E-01	0.0	7.1044E+00
11	1.0376E+00	2.8937E+00	1.3134E-01	1.7006E+00	4.6090E+00	3.8000E-01	1.0129E-01	0.0	7.4786E+00
12	6.2903E-01	2.8697E+00	1.6534E-01	1.6563E+00	5.5971E+00	3.5812E-01	1.3557E-01	0.0	8.0477E+00
13	2.9097E-01	2.8516E+00	1.7933E-01	1.7524E+00	6.4608E+00	3.3107E-01	1.2865E-01	0.0	8.6834E+00
14	1.6467E-01	2.8357E+00	1.8573E-01	1.7094E+00	7.3405E+00	2.9346E-01	1.8241E-01	0.0	9.4003E+00
15	1.2068E-01	2.8242E+00	1.9908E-01	1.5825E+00	8.1714E+00	2.5632E-01	2.0955E-01	0.0	1.0074E+01
16	9.2633E-02	2.8152E+00	2.3521E-01	1.4313E+00	8.9815E+00	2.1851E-01	2.6606E-01	0.0	1.0741E+01
17	7.9479E-02	2.8083E+00	2.7887E-01	1.2561E+00	9.8475E+00	1.8045E-01	2.5565E-01	0.0	1.1462E+01
18	7.1488E-02	2.8030E+00	3.2646E-01	1.0590E+00	1.0675E+01	1.4796E-01	2.6192E-01	0.0	1.2132E+01
19	6.3732E-02	2.7984E+00	3.7989E-01	8.1709E-01	1.1513E+01	1.2069E-01	3.1807E-01	0.0	1.2773E+01
20	8.7019E-02	2.7954E+00	4.3429E-01	5.5608E-01	1.2275E+01	9.6835E-02	3.1488E-01	0.0	1.3352E+01
21	6.7274E-02	2.7929E+00	5.1188E-01	2.9094E-01	1.3001E+01	7.6723E-02	2.9594E-01	0.0	1.3871E+01
22	7.3907E-02	2.7907E+00	6.0115E-01	5.5027E-02	1.3675E+01	6.0479E-02	3.6941E-01	0.0	1.4405E+01
23	1.0240E-01	2.7892E+00	6.7135E-01	0.0	1.4113E+01	4.8083E-02	4.0798E-01	0.0	1.4887E+01
24	8.1360E-02	2.7880E+00	7.4128E-01	0.0	1.4544E+01	3.8082E-02	3.8276E-01	0.0	1.5366E+01
25	8.0860E-02	2.7871E+00	8.3099E-01	0.0	1.4929E+01	3.0310E-02	4.2512E-01	0.0	1.5841E+01
26	6.6512E-02	2.7864E+00	9.0352E-01	0.0	1.4954E+01	2.3977E-02	5.9982E-01	0.0	1.5924E+01
27	7.7732E-02	2.7858E+00	1.0299E+00	0.0	1.5706E+01	1.9226E-02	5.0096E-01	0.0	1.6813E+01
28	1.0462E-01	2.7854E+00	1.1922E+00	0.0	1.5653E+01	1.5395E-02	5.4798E-01	0.0	1.6950E+01
29	2.8693E-02	2.7850E+00	1.2244E+00	0.0	1.5649E+01	1.2434E-02	4.4928E-01	0.0	1.6902E+01
30	3.5455E-02	2.7847E+00	1.5046E+00	0.0	1.6257E+01	1.0241E-02	7.1599E-01	0.0	1.7797E+01
31	7.9879E-02	2.7845E+00	1.4381E+00	0.0	1.6394E+01	6.0971E-03	5.6229E-01	0.0	1.7912E+01
32	9.1965E-02	2.7844E+00	1.7313E+00	0.0	1.4545E+01	2.8012E-03	3.4719E-01	0.0	1.6368E+01
33	4.0845E-01	2.7842E+00	2.0869E+00	0.0	1.5471E+01	2.8012E-03	6.6372E-01	0.0	1.7966E+01
34	1.1984E-01	2.7841E+00	2.4271E+00	0.0	1.6417E+01	2.8012E-03	4.9939E-01	0.0	1.8964E+01
35	4.6446E-01	2.7841E+00	2.9297E+00	0.0	1.8538E+01	2.8012E-03	3.9778E-01	0.0	2.1932E+01
36	2.8997E-01	2.7840E+00	3.2103E+00	0.0	2.0409E+01	2.8012E-03	3.6909E-01	0.0	2.3910E+01
37	1.6088E-01	2.7840E+00	3.9390E+00	0.0	1.9319E+01	2.8012E-03	7.8098E-01	0.0	2.3419E+01
38	8.7515E-01	2.7839E+00	5.6739E+00	0.0	2.3467E+01	2.8012E-03	1.5099E+00	0.0	3.0016E+01
39	1.7930E-01	2.7839E+00	4.4581E+00	0.0	1.9758E+01	2.8012E-03	3.1933E-01	0.0	2.4395E+01
40	1.7819E-01	2.7839E+00	5.9792E+00	0.0	1.4015E+01	2.8012E-03	3.8734E-01	0.0	2.0172E+01

TO BE CONTINUED

NUCLID = PU240-J2 CODE NO = 940
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41	2.0613E-01	2.7839E+00	8.5454E+00	0.0	2.2474E+01	2.8012E-03	3.4101E-01	0.0	3.1225E+01
42	2.5037E-01	2.7838E+00	1.2777E+01	0.0	3.3352E+01	2.8012E-03	2.5165E-01	0.0	4.6379E+01
43	2.1151E-01	2.7838E+00	7.7388E+00	0.0	1.2991E+01	2.8012E-03	3.5246E-01	0.0	2.0941E+01
44	2.5258E-01	2.7838E+00	1.2995E+01	0.0	1.6989E+01	2.8012E-03	3.2556E-01	0.0	3.0237E+01
45	3.2803E-01	2.7838E+00	2.3115E+01	0.0	2.2138E+01	2.8012E-03	3.6930E-01	0.0	4.5581E+01
46	4.2741E-01	2.7838E+00	4.1279E+01	0.0	5.2309E+01	2.8012E-03	2.3635E-01	0.0	9.4015E+01
47	1.8048E-01	2.7838E+00	2.3386E+01	0.0	1.9362E+01	2.8012E-03	4.6839E-01	0.0	4.2929E+01
48	7.5844E-01	2.7838E+00	1.0808E+02	0.0	1.4798E+02	2.8012E-03	1.6253E-01	0.0	2.5682E+02
49	2.0189E-03	2.7838E+00	2.9182E-01	0.0	8.6924E+00	2.8012E-03	3.8641E-01	0.0	8.9862E+00
50	1.5213E+00	2.7838E+00	2.1637E+02	0.0	1.2440E+02	2.8012E-03	3.4254E-07	0.0	3.4229E+02
51	6.8683E-03	2.7838E+00	9.6427E-01	0.0	5.1854E+00	2.8012E-03	2.5483E-01	0.0	6.1565E+00
52	1.8078E-03	2.7838E+00	2.7489E-01	0.0	8.3657E+00	2.8012E-03	3.2584E-01	0.0	8.6424E+00
53	5.8284E-01	2.7838E+00	7.9525E+01	0.0	1.4277E+01	2.8012E-03	2.8368E-01	0.0	9.4385E+01
54	1.3612E-03	2.7838E+00	2.6848E-01	0.0	8.8236E+00	2.8012E-03	3.1970E-01	0.0	9.0934E+00
55	7.6880E-04	2.7838E+00	2.5619E-01	0.0	9.5990E+00	2.8012E-03	3.4305E-01	0.0	9.8560E+00
56	6.8043E-04	2.7838E+00	3.7457E-01	0.0	1.0271E+01	2.8012E-03	3.6625E-01	0.0	1.0647E+01
57	7.0557E-04	2.7838E+00	6.3204E-01	0.0	1.1025E+01	2.8012E-03	3.9445E-01	0.0	1.1658E+01
58	8.1945E-04	2.7838E+00	1.1599E+00	0.0	1.1970E+01	2.8012E-03	4.3159E-01	0.0	1.3131E+01
59	1.0708E-03	2.7838E+00	2.2816E+00	0.0	1.3257E+01	2.8012E-03	4.8470E-01	0.0	1.5540E+01
60	1.6178E-03	2.7838E+00	4.8430E+00	0.0	1.5170E+01	2.8012E-03	5.6669E-01	0.0	2.0014E+01
61	2.9499E-03	2.7838E+00	1.1393E+01	0.0	1.8361E+01	2.8012E-03	7.1181E-01	0.0	2.9757E+01
62	6.9216E-03	2.7838E+00	3.1562E+01	0.0	2.4738E+01	2.8012E-03	1.0331E+00	0.0	5.6307E+01
63	2.4316E-02	2.7838E+00	1.2134E+02	0.0	4.2770E+01	2.8012E-03	2.1557E+00	0.0	1.6414E+02
64	3.3012E-01	2.7838E+00	1.7087E+03	0.0	2.2339E+02	2.8012E-03	2.9327E+01	0.0	1.9324E+03
65	5.6648E+00	2.7838E+00	2.9411E+04	0.0	2.3760E+03	2.8012E-03	2.1561E+00	0.0	3.1793E+04
66	1.4222E-01	2.7838E+00	7.3135E+02	0.0	2.0672E+01	2.8012E-03	2.2425E-01	0.0	7.5217E+02
67	5.8459E-02	2.7838E+00	2.9539E+02	0.0	3.6011E+00	2.8012E-03	7.9157E-02	0.0	2.9905E+02
68	3.9997E-02	2.7838E+00	1.9839E+02	0.0	1.9808E+00	2.8012E-03	6.5275E-02	0.0	2.0042E+02
69	3.5060E-02	2.7838E+00	1.6586E+02	0.0	8.0043E-02	2.8012E-03	4.6704E-03	0.0	1.6598E+02
70	3.3441E-02	2.7838E+00	1.5222E+02	0.0	5.4780E-01	2.8012E-03	0.0	0.0	1.5280E+02

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NUCLID = PUZ40-J2 CODE NUMBER = 940 IPL = 0										
PAGE 1 OF 3										
TABLE OF INELASTIC MATRICES										
GROUP	EXIT	GROUP	KK	KK	1	2	3	4	5	6
1	J=	1	2	3	4	5	6	7	8	9
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37			
1	0.0	2.59753E-05	2.47553E-04	1.31337E-03	4.38152E-03	1.01254E-02	1.75225E-02	2.41320E-02	2.78057E-02	2.78312E-02
	2.49581E-02	2.05394E-02	1.58048E-02	1.15403E-02	8.08776E-03	5.49115E-03	3.63685E-03	2.36152E-03	1.51088E-03	9.55267E-04
	5.98416E-04	3.72212E-04	2.30244E-04	1.41794E-04	8.70372E-05	5.32918E-05	3.25448E-05	1.98563E-05	1.20953E-05	7.36111E-06
	4.47655E-06	2.72083E-06	1.65284E-06	1.00382E-06	6.09481E-07	3.69908E-07	2.24504E-07			
2	0.0	7.69313E-04	4.53635E-03	1.57694E-02	3.76458E-02	6.68388E-02	9.39235E-02	1.09947E-01	1.11419E-01	1.00891E-01
	8.36604E-02	6.47575E-02	4.75036E-02	3.34119E-02	2.27487E-02	1.50998E-02	9.82152E-03	6.29207E-03	3.98236E-03	2.49672E-03
	1.55392E-03	9.61705E-04	5.92486E-04	3.63792E-04	2.22797E-04	1.36084E-04	8.30398E-05	5.05884E-05	3.07904E-05	1.87260E-05
	1.13822E-05	6.91470E-06	4.19963E-06	2.54992E-06	1.54763E-06	9.39299E-07	0.0			
3	0.0	4.13791E-03	1.91698E-02	4.90074E-02	9.18384E-02	1.34653E-01	1.62969E-01	1.69525E-01	1.56678E-01	1.32014E-01
	1.03470E-01	7.66453E-02	5.43205E-02	3.72045E-02	2.48095E-02	1.61954E-02	1.04046E-02	6.59971E-03	4.14471E-03	2.58305E-03
	1.60027E-03	9.86688E-04	6.06216E-04	3.71447E-04	2.26966E-04	1.38538E-04	8.44176E-05	5.13896E-05	3.12583E-05	1.90017E-05
	1.15446E-05	7.01204E-06	4.25777E-06	2.58429E-06	1.56832E-06	0.0	0.0			
4	2.24752E-03	2.02965E-02	5.40294E-02	7.88018E-02	1.20546E-01	1.50840E-01	1.61062E-01	1.51931E-01	1.30078E-01	1.03235E-01
	7.72205E-02	5.51462E-02	3.79949E-02	2.54541E-02	1.66763E-02	1.07437E-02	6.82973E-03	4.29650E-03	2.68120E-03	1.66280E-03
	1.02607E-03	6.30809E-04	3.86705E-04	2.36380E-04	1.44326E-04	8.79653E-05	5.35590E-05	3.25824E-05	1.98088E-05	1.20360E-05
	7.31098E-06	4.43951E-06	2.69471E-06	1.63559E-06	0.0	0.0	0.0			
5	2.34299E-02	4.37392E-02	1.12808E-01	1.16474E-01	1.40837E-01	1.54403E-01	1.48692E-01	1.29379E-01	1.03985E-01	7.85523E-02
	5.65307E-02	3.91832E-02	2.63733E-02	1.73417E-02	1.12042E-02	7.13826E-03	4.49835E-03	2.81095E-03	1.74509E-03	1.07773E-03
	6.62989E-04	4.06633E-04	2.48657E-04	1.51868E-04	9.25838E-05	5.63812E-05	3.43041E-05	2.08579E-05	1.26745E-05	7.69934E-06
	4.67559E-06	2.83812E-06	1.72269E-06	0.0	0.0	0.0	0.0			
6	9.76513E-02	1.18465E-01	1.81136E-01	2.20155E-01	1.47642E-01	1.31888E-01	1.16612E-01	9.49046E-02	7.23978E-02	5.25007E-02
	3.66073E-02	2.47542E-02	1.63360E-02	1.05843E-02	6.75815E-03	4.26611E-03	2.66918E-03	1.65893E-03	1.02535E-03	6.31146E-04
	3.87304E-04	2.36928E-04	1.44748E-04	8.82632E-05	5.37599E-05	3.27139E-05	1.98931E-05	1.20892E-05	7.34433E-06	4.46023E-06
	2.70751E-06	1.64346E-06	0.0	0.0	0.0	0.0	0.0			
7	2.28678E-01	2.15384E-01	1.57223E-01	2.70510E-01	2.26383E-01	1.37789E-01	7.09746E-02	5.08910E-02	3.71623E-02	2.60533E-02
	1.76922E-02	1.17142E-02	7.40932E-03	4.86835E-03	3.07797E-03	1.92829E-03	1.19950E-03	7.41933E-04	4.56967E-04	2.80537E-04
	1.71674E-04	1.04910E-04	6.39851E-05	3.89788E-05	2.37224E-05	1.44269E-05	8.76804E-06	5.32699E-06	3.23525E-06	1.96398E-06
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
8	3.49489E-01	2.95779E-01	1.39465E-01	1.66534E-01	1.76028E-01	1.87763E-01	1.07887E-01	6.15817E-02	3.68925E-02	1.94124E-02
	1.05707E-02	4.92586E-03	2.58806E-03	1.35961E-03	8.40056E-04	5.17598E-04	3.19907E-04	1.97141E-04	1.21077E-04	7.41170E-05
	4.53045E-05	2.76367E-05	1.68385E-05	1.02491E-05	6.23361E-06	3.78879E-06	2.30200E-06	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
9	4.23954E-01	3.18070E-01	1.14273E-01	1.60727E-01	1.07854E-01	7.95191E-02	7.93995E-02	6.48131E-02	4.91524E-02	3.37520E-02
	2.46203E-02	1.68653E-02	1.22472E-02	7.54441E-03	4.71353E-03	2.98446E-03	1.86012E-03	1.12550E-03	6.90019E-04	4.12352E-04
	2.50311E-04	1.51636E-04	9.30045E-05	5.97926E-05	3.11498E-05	2.11882E-05	1.45397E-05	8.31253E-06	4.70336E-06	3.08018E-06
	2.02277E-06	0.0	0.0	0.0	0.0	0.0	0.0			
10	5.33526E-01	3.84880E-01	2.42341E-02	9.33630E-02	1.65949E-01	1.43282E-01	4.51860E-02	1.54758E-02	1.71636E-02	2.11256E-02
	1.92775E-02	1.35089E-02	1.14353E-02	8.56240E-03	5.71863E-03	3.77915E-03	3.01710E-03	1.94076E-03	1.46536E-03	9.12820E-04
	5.35064E-04	3.27840E-04	1.93939E-04	1.27755E-04	7.54353E-05	4.53458E-05	3.22301E-05	1.79095E-05	1.25950E-05	7.97955E-06
	3.75354E-06	1.97993E-06	0.0	0.0	0.0	0.0	0.0			

TO BE CONTINUED

NUCLID = PUZ40-J2 CODE NUMBER = 940 IPL = 0										
PAGE 2 OF 3										
TABLE OF INELASTIC MATRICES										
GROUP	EXIT	GROUP	KK	KK	1	2	3	4	5	6
1	J=	1	2	3	4	5	6	7	8	9
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37			
11	6.98601E-01	5.39300E-01	2.24449E-02	3.75782E-03	0.0	9.18138E-02	1.10726E-01	8.48604E-02	5.95405E-02	4.02620E-02
	2.70939E-02	1.79046E-02	2.54084E-03	6.89257E-04	4.20562E-04	2.65038E-04	1.54287E-04	9.50238E-05	5.62375E-05	3.48265E-05
	2.04768E-05	1.69834E-05	6.05303E-06	6.11942E-06	0.0	3.91723E-06	2.22477E-06	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
12	8.18327E-01	6.53054E-01	5.76570E-02	2.76629E-03	7.63645E-04	0.0	0.0	0.0	0.0	0.0
	0.0	3.71884E-02	3.05858E-02	2.04143E-02	1.31136E-02	8.11728E-03	5.10309E-03	3.20932E-03	2.03229E-03	1.30153E-03
	8.51546E-04	5.62688E-04	3.70221E-04	2.62885E-04	1.70316E-04	1.23603E-04	8.20852E-05	6.01079E-05	4.96240E-05	2.66931E-05
	3.17405E-05	3.18703E-05	7.51289E-06	0.0	0.0	0.0	0.0			
13	9.04510E-01	7.65740E-01	8.11269E-02	3.49472E-04	4.63878E-04	1.37832E-04	3.28858E-05	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
14	7.70589E-01	8.59717E-01	5.95816E-02	1.94676E-02	0.0	5.67270E-06	1.16677E-05	2.54184E-06	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
15	5.20406E-01	1.02291E+00	1.28268E-02	1.87650E-02	7.56276E-03	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
16	2.18392E-01	1.11005E+00	8.95155E-02	2.39335E-03	6.11546E-03	3.10519E-03	1.64676E-03	3.11158E-05	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
17	0.0	8.95829E-01	3.57781E-01	0.0	0.0	1.42445E-05	1.12324E-03	6.35317E-04	3.44774E-04	1.82656E-04
	9.76977E-05	5.09643E-05	2.41242E-05	1.32665E-05	7.95814E-06	4.92734E-06	3.04993E-06	1.76188E-06	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
18	0.0	4.46374E-01	6.10648E-01	2.01459E-03	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	2.61831E-06	2.35442E-06	1.42755E-06	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
19	0.0	1.26340E-02	5.25695E-01	2.78761E-01	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			
20	0.0	0.0	8.41720E-02	2.83812E-01	1.76692E-01	1.14022E-02	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0			

TO BE CONTINUED

NUCLID = PU240-J2 CODE NUMBER = 940 IPL = 0

PAGE 3 OF 3

TABLE OF INELASTIC MATRICES

[illegible]

NUCLID = PU240-J2 CODE NUMBER = 940 IPL = 0

PAGE 1 OF 1

TABLE OF $(N, 2N)$ MATRICES

GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
I	J									
	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	
1	0.0	0.0	0.0	0.0	0.0	6.53174E-03	4.54847E-02	7.25805E-02	9.38830E-02	1.02887E-01
	9.90520E-02	8.61666E-02	6.92413E-02	5.22990E-02	3.76331E-02	2.60825E-02	1.75543E-02	1.15422E-02	7.45693E-03	4.75070E-03
	2.99369E-03	1.87067E-03	1.16134E-03	7.17206E-04	4.41201E-04	2.70601E-04	1.65472E-04	1.01062E-04	6.16105E-05	3.75192E-05
	2.28279E-05	1.38800E-05	8.43426E-06	5.12355E-06	3.11138E-06	1.88863E-06	1.14637E-06	0.0	0.0	
2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	1.38087E-03	3.82889E-02	2.81130E-02	1.97933E-02	1.34860E-02	8.95241E-03	5.82707E-03	3.73397E-03	2.36367E-03
	1.48221E-03	9.22702E-04	5.71054E-04	3.51879E-04	2.16098E-04	1.32277E-04	8.08522E-05	4.93201E-05	3.00490E-05	1.82896E-05
	1.11238E-05	6.76097E-06	4.10780E-06	2.49487E-06	1.51458E-06	9.19400E-07	5.57993E-07	3.38595E-07	2.05451E-07	

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2

REACTION = FISSION

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9993	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9993	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9993	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9993	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
26	300.	0.9027	0.8981	0.9223	0.9789	0.9974	0.9997	1.0000	1.0000
	800.	0.9377	0.9314	0.9476	0.9868	0.9984	0.9998	1.0000	1.0000
	2100.	0.9722	0.9628	0.9680	0.9921	0.9991	0.9999	1.0000	1.0000
	4500.	0.9907	0.9796	0.9785	0.9947	0.9994	0.9999	1.0000	1.0000
27	300.	0.7993	0.8048	0.8694	0.9654	0.9957	0.9995	0.9999	0.9999
	800.	0.8474	0.8476	0.9066	0.9786	0.9974	0.9997	0.9999	0.9999
	2100.	0.8924	0.8887	0.9353	0.9861	0.9983	0.9998	0.9999	0.9999
	4500.	0.9185	0.9125	0.9516	0.9901	0.9988	0.9998	0.9999	0.9999
28	300.	0.8140	0.8428	0.8752	0.9598	0.9947	0.9996	1.0001	1.0001
	800.	0.8588	0.8965	0.9207	0.9764	0.9971	0.9998	1.0001	1.0002
	2100.	0.9152	0.9533	0.9610	0.9880	0.9987	1.0000	1.0001	1.0002
	4500.	0.9504	0.9886	0.9846	0.9939	0.9994	1.0001	1.0001	1.0002
29	300.	0.7803	0.8050	0.8494	0.9483	0.9930	0.9994	1.0001	1.0002
	800.	0.8286	0.8527	0.8969	0.9689	0.9962	0.9998	1.0001	1.0002
	2100.	0.8979	0.9210	0.9485	0.9848	0.9983	1.0000	1.0002	1.0002
	4500.	0.9326	0.9554	0.9724	0.9910	0.9991	1.0001	1.0002	1.0002
30	300.	0.6925	0.6894	0.7618	0.9291	0.9903	0.9987	0.9996	0.9997
	800.	0.7542	0.7534	0.8158	0.9549	0.9942	0.9991	0.9996	0.9997
	2100.	0.8226	0.8191	0.8656	0.9727	0.9966	0.9994	0.9996	0.9997
	4500.	0.8620	0.8563	0.8912	0.9803	0.9975	0.9995	0.9997	0.9997
31	300.	0.6223	0.6392	0.7248	0.8957	0.9845	0.9985	1.0000	1.0002
	800.	0.6416	0.6613	0.7605	0.9218	0.9895	0.9991	1.0001	1.0002
	2100.	0.7168	0.7358	0.8264	0.9491	0.9937	0.9996	1.0002	1.0002
	4500.	0.7796	0.7980	0.8774	0.9660	0.9960	0.9998	1.0002	1.0002
32	300.	0.8768	0.8918	0.9242	0.9794	0.9968	0.9994	0.9997	0.9997
	800.	0.8793	0.8964	0.9275	0.9834	0.9976	0.9995	0.9997	0.9997
	2100.	0.9048	0.9172	0.9370	0.9875	0.9983	0.9996	0.9997	0.9997
	4500.	0.9224	0.9313	0.9423	0.9894	0.9985	0.9996	0.9997	0.9997
33	300.	0.3990	0.4008	0.4396	0.6693	0.9255	0.9904	0.9980	0.9988
	800.	0.4242	0.4277	0.4740	0.7255	0.9468	0.9931	0.9983	0.9988
	2100.	0.4643	0.4696	0.5236	0.7872	0.9641	0.9951	0.9985	0.9988
	4500.	0.5067	0.5130	0.5718	0.8347	0.9746	0.9963	0.9986	0.9988
34	300.	0.8270	0.8301	0.8507	0.9341	0.9887	0.9985	0.9996	0.9997
	800.	0.8423	0.8457	0.8675	0.9514	0.9926	0.9989	0.9996	0.9996
	21								

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2

REACTION = FISSION

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.7307	0.7338	0.7572	0.8517	0.9639	0.9956	0.9994	0.9998
	800.	0.7527	0.7563	0.7834	0.8833	0.9764	0.9972	0.9996	0.9998
	2100.	0.7831	0.7871	0.8162	0.9148	0.9854	0.9983	0.9997	0.9998
	4500.	0.8131	0.8170	0.8455	0.9368	0.9903	0.9988	0.9998	0.9998
38	300.	0.2731	0.2760	0.3107	0.5294	0.8471	0.9773	0.9962	0.9982
	800.	0.3047	0.3078	0.3472	0.5935	0.8889	0.9845	0.9970	0.9983
	2100.	0.3610	0.3632	0.4031	0.6650	0.9234	0.9896	0.9975	0.9983
	4500.	0.4285	0.4293	0.4653	0.7267	0.9456	0.9925	0.9979	0.9984
39	300.	0.7822	0.7816	0.7876	0.8561	0.9522	0.9928	0.9991	0.9997
	800.	0.7905	0.7919	0.8076	0.8818	0.9660	0.9954	0.9994	0.9998
	2100.	0.7688	0.7740	0.8146	0.9105	0.9793	0.9976	0.9998	1.0001
	4500.	0.7365	0.7447	0.8076	0.9276	0.9868	0.9988	1.0002	1.0004
40	300.	0.8245	0.8266	0.8420	0.9072	0.9796	0.9977	0.9999	1.0001
	800.	0.8382	0.8408	0.8600	0.9299	0.9873	0.9987	1.0000	1.0001
	2100.	0.8586	0.8617	0.8842	0.9521	0.9927	0.9993	1.0000	1.0001
	4500.	0.8795	0.8831	0.9075	0.9681	0.9957	0.9996	1.0001	1.0001
41	300.	0.7709	0.7739	0.7879	0.8463	0.9439	0.9912	0.9989	0.9997
	800.	0.7815	0.7842	0.8001	0.8669	0.9591	0.9942	0.9992	0.9997
	2100.	0.7969	0.7999	0.8186	0.8915	0.9725	0.9964	0.9994	0.9997
	4500.	0.8116	0.8153	0.8374	0.9128	0.9812	0.9976	0.9995	0.9997
42	300.	0.7184	0.7202	0.7338	0.7979	0.9091	0.9818	0.9979	0.9997
	800.	0.7313	0.7340	0.7526	0.8256	0.9300	0.9878	0.9986	0.9998
	2100.	0.7441	0.7480	0.7726	0.8537	0.9496	0.9924	0.9991	0.9998
	4500.	0.7579	0.7628	0.7924	0.8773	0.9640	0.9951	0.9994	0.9998
43	300.	0.8210	0.8219	0.8295	0.8715	0.9583	0.9946	0.9996	1.0001
	800.	0.8245	0.8258	0.8364	0.8904	0.9718	0.9969	1.0000	1.0003
	2100.	0.8310	0.8330	0.8478	0.9134	0.9823	0.9983	1.0001	1.0003
	4500.	0.8380	0.8407	0.8604	0.9335	0.9886	0.9990	1.0002	1.0003
44	300.	0.7016	0.7032	0.7134	0.7704	0.9116	0.9868	0.9981	0.9993
	800.	0.7078	0.7098	0.7237	0.7960	0.9367	0.9910	0.9982	0.9990
	2100.	0.7168	0.7196	0.7392	0.8285	0.9577	0.9942	0.9985	0.9990
	4500.	0.7258	0.7297	0.7558	0.8580	0.9706	0.9959	0.9987	0.9990
45	300.	0.5563	0.5579	0.5705	0.6461	0.8485	0.9758	0.9973	0.9996
	800.	0.5637	0.5661	0.5844	0.6848	0.8911	0.9847	0.9982	0.9996
	2100.	0.5773	0.5810	0.6080	0.7371	0.9281	0.9909	0.9989	0.9997
	4500.	0.5938	0.5991	0.6368	0.7874	0.9520	0.9942	0.9992	0.9997
46	300.	0.4277	0.4290	0.4382	0.4918	0.6819	0.9187	0.9895	0.9982
	800.	0.4298	0.4314	0.4435	0.5140	0.7358	0.9437	0.9923	0.9979
	2100.	0.4344	0.4366	0.4537	0.5509	0.7986	0.9643	0.9949	0.9982
	4500.	0.4413	0.4443	0.4681	0.5929	0.8492	0.9765	0.9962	0.9983
47	300.	0.0673	0.0725	0.1141	0.2695	0.6472	0.9365	0.9936	0.9999
	800.	0.0602	0.0652	0.1099	0.3164	0.7284	0.9590	0.9968	1.0009
	2100.	0.0644	0.0707	0.1276	0.3992	0.8107	0.9754	0.9986	1.0010
	4500.	0.0696	0.0772	0.1441	0.4596	0.8601	0.9838	0.9995	1.0011
48	300.	0.0302	0.0353	0.0554	0.1195	0.3469	0.7721	0.9676	0.9963
	800.	0.0311	0.0362	0.0582	0.1394	0.4263	0.8382	0.9790	0.9974
	2100.	0.0327	0.0385	0.0660	0.1809	0.5394	0.8986	0.9878	0.9983
	4500.	0.0354	0.0427	0.0797	0.2388	0.6449	0.9361	0.9925	0.9987

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2

REACTION = FISSION

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.9462	0.9522	0.9759	1.0023	1.0007	1.0005	1.0004	1.0004
	800.	0.9601	0.9616	0.9762	1.0020	1.0010	1.0008	1.0008	1.0008
	2100.	0.9599	0.9608	0.9735	1.0021	1.0011	1.0008	1.0008	1.0008
	4500.	0.9595	0.9595	0.9695	1.0020	1.0012	1.0008	1.0008	1.0008
50	300.	0.0125	0.0156	0.0325	0.0918	0.3130	0.7597	0.9650	0.9943
	800.	0.0156	0.0181	0.0348	0.1053	0.3867	0.8271	0.9751	0.9940
	2100.	0.0162	0.0189	0.0384	0.1331	0.4894	0.8861	0.9835	0.9948
	4500.	0.0173	0.0204	0.0448	0.1701	0.5828	0.9215	0.9880	0.9953
51	300.	0.6197	0.6507	0.8276	1.0265	1.0120	1.0053	1.0032	1.0030
	800.	0.6113	0.6200	0.7111	0.8679	0.8643	0.8592	0.8578	0.8576
	2100.	0.6161	0.6242	0.7071	0.8824	0.8822	0.8749	0.8732	0.8730
	4500.	0.6278	0.6359	0.7117	0.9236	0.9269	0.9154	0.9133	0.9131
52	300.	0.9739	0.9911	1.0137	0.9981	0.9990	0.9991	0.9991	0.9991
	800.	0.9886	0.9825	1.0118	1.0012	1.0010	1.0010	1.0010	1.0010
	2100.	0.9714	0.9856	1.0166	1.0063	1.0044	1.0044	1.0044	1.0044
	4500.	0.9767	0.9915	1.0254	1.0161	1.0110	1.0109	1.0109	1.0109
53	300.	0.0242	0.0303	0.0566	0.1600	0.5040	0.8934	0.9891	1.0002
	800.	0.0255	0.0313	0.0611	0.1943	0.5968	0.9247	0.9882	0.9952
	2100.	0.0272	0.0340	0.0735	0.2599	0.7047	0.9525	0.9914	0.9956
	4500.	0.0306	0.0396	0.0952	0.3429	0.7893	0.9687	0.9933	0.9958
54	300.	0.9734	0.9679	0.9799	1.0020	1.0014	1.0013	1.0012	1.0012
	800.	0.9997	0.9870	0.9875	1.0057	1.0064	1.0062	1.0061	1.0061
	2100.	1.0013	0.9875	0.9852	1.0053	1.0082	1.0081	1.0081	1.0081
	4500.	1.0041	0.9885	0.9818	1.0044	1.0118	1.0119	1.0118	1.0118
55	300.	1.0052	1.0022	0.9988	1.0005	1.0003	1.0003	1.0003	1.0003
	800.	1.3007	1.3007	1.3007	1.3007	1.3007	1.3007	1.3007	1.3007
	2100.	1.3007	1.3007	1.3007	1.3007	1.3007	1.3007	1.3007	1.3007
	4500.	1.3007	1.3007	1.3007	1.3007	1.3007	1.3007	1.3007	1.3007
56	300.	1.0010	1.0007	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000
	800.	1.4697	1.4697	1.4697	1.4697	1.4697	1.4697	1.4697	1.4697
	2100.	1.4697	1.4697	1.4697	1.4697	1.4697	1.4697	1.4697	1.4697
	4500.	1.4697	1.4697	1.4697	1.4697	1.4697	1.4697	1.4697	1.4697
57	300.	0.9954	0.9958	0.9987	0.9996	0.9999	0.9999	0.9999	0.9999
	800.	1.4173	1.4173	1.4173	1.4173	1.4173	1.4173	1.4173	1.4173
	2100.	1.4173	1.4173	1.4173	1.4173	1.4173	1.4173	1.4173	1.4173
	4500.	1.4173	1.4173	1.4173	1.4173	1.4173	1.4173	1.4173	1.4173
58	300.	0.9877	0.9876	0.9944	0.9988	0.9996	0.9997	0.9997	0.9997
	800.	1.2203	1.2203	1.2203	1.2203	1.2203	1.2203	1.2203	1.2203
	2100.	1.2203	1.2203	1.2203	1.2203	1.2203	1.2203	1.2203	1.2203
	4500.	1.2203	1.2203	1.2203	1.2203	1.2203	1.2203	1.2203	1.2203
59	300.	0.9765	0.9751	0.9837	0.9949	0.9993	0.9996	0.9996	0.9996
	800.	1.0199	1.0171	1.0116	1.0170	1.0184	1.0185	1.0185	1.0185
	2100.	1.0201	1.0173	1.0119	1.0174	1.0186	1.0187	1.0188	1.0188
	4500.	1.0205	1.0177	1.0124	1.0181	1.0190	1.0192	1.0192	1.0192
60	300.	0.9608	0.9586	0.9590	0.9916	0.9986	0.9993	0.9994	0.9994
	800.	0.9603	0.9637	0.9751	0.9985	1.0034	1.0039	1.0040	1.0040
	2100.	0.9608	0.9643	0.9758	0.9994	1.0040	1.0046	1.0046	1.0046
	4500.	0.9618	0.9653	0.9771	1.0009	1.0052	1.0058	1.0058	1.0058

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2

REACTION = FISSION

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9368	0.9351	0.9131	0.9753	0.9965	0.9989	0.9991	0.9991
	800.	0.9293	0.9252	0.9167	0.9850	1.0051	1.0074	1.0076	1.0076
	2100.	0.9306	0.9264	0.9182	0.9868	1.0066	1.0089	1.0091	1.0092
	4500.	0.9329	0.9287	0.9208	0.9900	1.0095	1.0118	1.0120	1.0121
62	300.	0.8970	0.8958	0.8647	0.9213	0.9885	0.9977	0.9987	0.9988
	800.	0.9286	0.9264	0.8784	0.9648	1.0395	1.0500	1.0511	1.0512
	2100.	0.9318	0.9296	0.8818	0.9689	1.0438	1.0544	1.0555	1.0556
	4500.	0.9378	0.9355	0.8880	0.9763	1.0520	1.0629	1.0640	1.0641
63	300.	0.8068	0.8060	0.7950	0.7433	0.9414	0.9917	0.9975	0.9981
	800.	0.8642	0.8634	0.8473	0.8033	1.0027	1.0544	1.0605	1.0611
	2100.	0.8735	0.8727	0.8545	0.8125	1.0164	1.0703	1.0767	1.0773
	4500.	0.8917	0.8909	0.8743	0.8295	1.0437	1.1026	1.1096	1.1103
64	300.	0.3822	0.3820	0.3795	0.2444	0.4130	0.7772	0.9636	0.9926
	800.	0.4251	0.4248	0.4215	0.2745	0.4543	1.0291	1.5686	1.6969
	2100.	0.4540	0.4537	0.4500	0.2928	0.4853	1.2642	2.2465	2.5319
	4500.	0.5223	0.5219	0.5171	0.3316	0.5509	1.6026	3.0336	3.4562
65	300.	0.1949	0.1950	0.1955	0.2130	0.8231	0.8125	0.9034	0.9875
	800.	0.2077	0.2077	0.2082	0.2170	0.9858	1.0784	1.0062	1.0240
	2100.	0.2640	0.2641	0.2646	0.2729	1.0324	1.1871	1.0022	0.9740
	4500.	0.4171	0.4171	0.4176	0.4239	0.9934	1.1406	0.9505	0.9107
66	300.	0.8949	0.8949	0.8950	0.8958	0.9816	1.0250	1.0050	1.0020
	800.	0.8924	0.8924	0.8925	0.8935	0.9057	1.0193	1.0154	1.0133
	2100.	0.9242	0.9242	0.9243	0.9254	0.9361	1.0624	1.0681	1.0666
	4500.	1.0031	1.0031	1.0033	1.0055	1.0243	1.2176	1.2396	1.2377
67	300.	0.9874	0.9874	0.9873	0.9866	0.9883	1.0042	1.0010	1.0007
	800.	0.9849	0.9849	0.9848	0.9842	0.9827	0.9969	0.9984	0.9983
	2100.	0.9962	0.9962	0.9961	0.9955	0.9938	1.0073	1.0105	1.0104
	4500.	1.0184	1.0184	1.0183	1.0176	1.0155	1.0286	1.0343	1.0342
68	300.	0.9995	0.9995	0.9995	0.9995	0.9974	1.0015	1.0004	1.0003
	800.	1.0006	1.0006	1.0006	1.0001	0.9981	1.0015	1.0023	1.0023
	2100.	1.0067	1.0067	1.0067	1.0062	1.0041	1.0070	1.0085	1.0085
	4500.	1.0183	1.0183	1.0183	1.0177	1.0155	1.0180	1.0203	1.0203
69	300.	0.9988	0.9988	0.9989	0.9992	0.9998	1.0000	1.0000	1.0000
	800.	0.9988	0.9988	0.9989	0.9992	0.9998	1.0000	1.0000	1.0000
	2100.	0.9988	0.9988	0.9989	0.9992	0.9998	1.0000	1.0000	1.0000
	4500.	0.9988	0.9988	0.9989	0.9992	0.9998	1.0000	1.0000	1.0000
70	300.	0.9954	0.9955	0.9956	0.9969	0.9992	0.9999	1.0000	1.0000
	800.	0.9954	0.9955	0.9956	0.9969	0.9992	0.9999	1.0000	1.0000
	2100.	0.9954	0.9955	0.9956	0.9969	0.9992	0.9999	1.0000	1.0000
	4500.	0.9954	0.9955	0.9956	0.9969	0.9992	0.9999	1.0000	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.8573	0.8658	0.9092	0.9770	0.9972	0.9997	1.0000	1.0000
	800.	0.9091	0.9137	0.9442	0.9873	0.9985	0.9998	1.0000	1.0000
	2100.	0.9443	0.9456	0.9646	0.9923	0.9991	0.9999	1.0000	1.0000
	4500.	0.9625	0.9619	0.9748	0.9946	0.9994	0.9999	1.0000	1.0000
27	300.	0.8414	0.8481	0.8904	0.9696	0.9962	0.9996	1.0000	1.0000
	800.	0.8949	0.9011	0.9312	0.9828	0.9979	0.9998	1.0000	1.0000
	2100.	0.9394	0.9429	0.9597	0.9902	0.9988	0.9999	1.0000	1.0000
	4500.	0.9616	0.9638	0.9741	0.9939	0.9993	0.9999	1.0000	1.0000
28	300.	0.8246	0.8276	0.8747	0.9636	0.9953	0.9995	1.0000	1.0000
	800.	0.8707	0.8846	0.9203	0.9794	0.9975	0.9998	1.0000	1.0000
	2100.	0.9204	0.9327	0.9540	0.9889	0.9987	0.9999	1.0000	1.0000
	4500.	0.9465	0.9576	0.9705	0.9930	0.9992	0.9999	1.0000	1.0000
29	300.	0.7498	0.7570	0.8221	0.9456	0.9927	0.9992	0.9999	1.0000
	800.	0.8159	0.8223	0.8781	0.9681	0.9960	0.9996	0.9999	1.0000
	2100.	0.8810	0.8847	0.9237	0.9821	0.9979	0.9998	1.0000	1.0000
	4500.	0.9158	0.9179	0.9466	0.9882	0.9986	0.9998	1.0000	1.0000
30	300.	0.7147	0.7267	0.7948	0.9324	0.9907	0.9990	0.9999	1.0000
	800.	0.7930	0.8035	0.8614	0.9608	0.9950	0.9995	0.9999	1.0000
	2100.	0.8753	0.8821	0.9197	0.9796	0.9975	0.9997	1.0000	1.0000
	4500.	0.9195	0.9239	0.9492	0.9880	0.9986	0.9999	1.0000	1.0000
31	300.	0.6281	0.6425	0.7231	0.8967	0.9845	0.9984	0.9999	1.0000
	800.	0.6846	0.6996	0.7810	0.9292	0.9903	0.9990	1.0000	1.0000
	2100.	0.7660	0.7788	0.8464	0.9555	0.9943	0.9995	1.0000	1.0000
	4500.	0.8320	0.8426	0.8953	0.9715	0.9965	0.9997	1.0000	1.0000
32	300.	0.6798	0.6923	0.7532	0.9017	0.9843	0.9983	0.9998	1.0000
	800.	0.7284	0.7414	0.8031	0.9328	0.9904	0.9990	0.9999	1.0000
	2100.	0.7932	0.8038	0.8569	0.9578	0.9945	0.9994	0.9999	1.0000
	4500.	0.8436	0.8518	0.8953	0.9719	0.9965	0.9996	1.0000	1.0000
33	300.	0.6685	0.6760	0.7266	0.8760	0.9780	0.9976	0.9997	0.9999
	800.	0.7148	0.7234	0.7781	0.9127	0.9862	0.9985	0.9998	1.0000
	2100.	0.7725	0.7815	0.8346	0.9436	0.9919	0.9991	0.9999	1.0000
	4500.	0.8198	0.8284	0.8762	0.9623	0.9949	0.9995	0.9999	1.0000
34	300.	0.5928	0.6015	0.6594	0.8330	0.9681	0.9965	0.9997	1.0000
	800.	0.6430	0.6532	0.7175	0.8799	0.9801	0.9979	0.9999	1.0000
	2100.	0.7103	0.7210	0.7853	0.9220	0.9886	0.9988	0.9999	1.0001
	4500.	0.7739	0.7840	0.8423	0.9498	0.9933	0.9994	1.0000	1.0000
35	300.	0.5342	0.5426	0.6023	0.7944	0.9577	0.9952	0.9997	1.0001
	800.	0.5934	0.6032	0.6714	0.8521	0.9733	0.9971	0.9998	1.0001
	2100.	0.6711	0.6814	0.7525	0.9039	0.9846	0.9985	1.0000	1.0001
	4500.	0.7349	0.7449	0.8134	0.9360	0.9907	0.9991	1.0000	1.0001
36	300.	0.4837	0.4919	0.5473	0.7387	0.9358	0.9921	0.9993	1.0000
	800.	0.5251	0.5350	0.6010	0.7965	0.9570	0.9950	0.9996	1.0000
	2100.	0.5838	0.5947	0.6689	0.8534	0.9732	0.9971	0.9998	1.0001
	4500.	0.6425	0.6538	0.7320	0.8956	0.9829	0.9982	0.9999	1.0001

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2		REACTION = CAPTURE				FOR 1TH R-PARAMETER			
						PAGE 4 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.4369	0.4442	0.4956	0.6958	0.9272	0.9914	0.9991	0.9999
	800.	0.4820	0.4906	0.5514	0.7627	0.9529	0.9947	0.9995	1.0000
	2100.	0.5645	0.5539	0.6216	0.8290	0.9714	0.9969	0.9997	1.0000
	4500.	0.6064	0.6160	0.6846	0.8748	0.9813	0.9980	0.9998	1.0000
38	300.	0.4093	0.4159	0.4636	0.6591	0.9067	0.9881	0.9990	1.0001
	800.	0.4497	0.4585	0.5195	0.7303	0.9379	0.9927	0.9995	1.0001
	2100.	0.5136	0.5245	0.5973	0.8048	0.9619	0.9959	0.9998	1.0002
	4500.	0.5811	0.5930	0.6700	0.8598	0.9759	0.9976	1.0000	1.0002
39	300.	0.3506	0.3575	0.4004	0.5929	0.8716	0.9812	0.9974	0.9991
	800.	0.3834	0.3918	0.4443	0.6588	0.9083	0.9875	0.9981	0.9991
	2100.	0.4323	0.4420	0.5042	0.7304	0.9390	0.9921	0.9986	0.9992
	4500.	0.4805	0.4916	0.5611	0.7876	0.9583	0.9947	0.9988	0.9993
40	300.	0.2895	0.2980	0.3598	0.6222	0.9162	0.9907	0.9994	1.0003
	800.	0.3644	0.3550	0.4321	0.7138	0.9478	0.9946	0.9998	1.0004
	2100.	0.4265	0.4392	0.5297	0.8042	0.9699	0.9972	1.0001	1.0004
	4500.	0.5110	0.5254	0.6237	0.8691	0.9821	0.9985	1.0002	1.0004
41	300.	0.2520	0.2584	0.2978	0.4821	0.8107	0.9707	0.9965	0.9993
	800.	0.2800	0.2875	0.3373	0.5526	0.8626	0.9808	0.9975	0.9993
	2100.	0.3219	0.3314	0.3950	0.6357	0.9078	0.9881	0.9983	0.9993
	4500.	0.3643	0.3759	0.4534	0.7075	0.9372	0.9922	0.9987	0.9994
42	300.	0.2543	0.2591	0.2949	0.4638	0.7579	0.9514	0.9943	0.9992
	800.	0.2815	0.2886	0.3379	0.5323	0.8116	0.9672	0.9961	0.9993
	2100.	0.3155	0.3257	0.3912	0.6073	0.8642	0.9795	0.9976	0.9995
	4500.	0.3521	0.3651	0.4439	0.6702	0.9030	0.9868	0.9983	0.9995
43	300.	0.3139	0.3175	0.3464	0.5068	0.8392	0.9792	0.9985	1.0005
	800.	0.3278	0.3328	0.3732	0.5795	0.8913	0.9880	0.9999	1.0012
	2100.	0.3528	0.3600	0.4166	0.6677	0.9318	0.9934	1.0005	1.0012
	4500.	0.3796	0.3896	0.4646	0.7446	0.9561	0.9964	1.0008	1.0012
44	300.	0.2222	0.2263	0.2531	0.4017	0.7695	0.9655	0.9951	0.9982
	800.	0.2392	0.2444	0.2807	0.4688	0.8352	0.9766	0.9954	0.9973
	2100.	0.2626	0.2700	0.3209	0.5535	0.8898	0.9848	0.9962	0.9974
	4500.	0.2862	0.2962	0.3642	0.6303	0.9235	0.9892	0.9967	0.9974
45	300.	0.1556	0.1587	0.1827	0.3266	0.7118	0.9539	0.9948	0.9992
	800.	0.1703	0.1749	0.2096	0.4006	0.7928	0.9709	0.9966	0.9993
	2100.	0.1962	0.2031	0.2546	0.5000	0.8634	0.9826	0.9978	0.9994
	4500.	0.2274	0.2375	0.3093	0.5956	0.9088	0.9890	0.9985	0.9995
46	300.	0.0928	0.0947	0.1089	0.1912	0.4872	0.8671	0.9826	0.9970
	800.	0.0964	0.0988	0.1173	0.2250	0.5721	0.9077	0.9872	0.9964
	2100.	0.1032	0.1045	0.1325	0.2807	0.6719	0.9413	0.9913	0.9968
	4500.	0.1136	0.1182	0.1543	0.3448	0.7531	0.9612	0.9936	0.9970
47	300.	0.0512	0.0540	0.0843	0.2384	0.6331	0.9339	0.9932	0.9998
	800.	0.0518	0.0558	0.0951	0.3009	0.7226	0.9580	0.9966	1.0007
	2100.	0.0554	0.0606	0.1124	0.3841	0.8061	0.9747	0.9985	1.0009
	4500.	0.0599	0.0644	0.1284	0.4444	0.8563	0.9833	0.9994	1.0010
48	300.	0.0304	0.0355	0.0556	0.1199	0.3480	0.7731	0.9678	0.9964
	800.	0.0314	0.0365	0.0584	0.1400	0.4277	0.8390	0.9792	0.9974
	2100.	0.0329	0.0388	0.0663	0.1819	0.5411	0.8992	0.9879	0.9983
	4500.	0.0357	0.0430	0.0802	0.2402	0.6466	0.9365	0.9926	0.9988

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2		REACTION = CAPTURE				FOR 1TH R-PARAMETER			
						PAGE 5 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.9486	0.9546	0.9773	1.0022	1.0007	1.0004	1.0004	1.0004
	800.	0.9616	0.9634	0.9777	1.0019	1.0010	1.0007	1.0007	1.0007
	2100.	0.9613	0.9627	0.9752	1.0020	1.0010	1.0007	1.0007	1.0007
	4500.	0.9610	0.9614	0.9714	1.0020	1.0011	1.0008	1.0007	1.0007
50	300.	0.0128	0.0160	0.0331	0.0927	0.3146	0.7610	0.9653	0.9944
	800.	0.0159	0.0184	0.0354	0.1064	0.3889	0.8283	0.9754	0.9941
	2100.	0.0165	0.0193	0.0391	0.1348	0.4923	0.8872	0.9838	0.9950
	4500.	0.0176	0.0208	0.0457	0.1726	0.5864	0.9226	0.9882	0.9954
51	300.	0.6283	0.6587	0.8315	1.0258	1.0118	1.0052	1.0032	1.0029
	800.	0.6203	0.6288	0.7179	0.8712	0.8677	0.8627	0.8613	0.8611
	2100.	0.6249	0.6329	0.7138	0.8853	0.8851	0.8779	0.8763	0.8761
	4500.	0.6363	0.6442	0.7183	0.9253	0.9285	0.9173	0.9153	0.9151
52	300.	0.9757	0.9919	1.0130	0.9982	0.9990	0.9991	0.9991	0.9991
	800.	0.9710	0.9841	1.0116	1.0015	1.0013	1.0013	1.0013	1.0013
	2100.	0.9735	0.9869	1.0160	1.0062	1.0044	1.0044	1.0044	1.0044
	4500.	0.9783	0.9922	1.0240	1.0151	1.0104	1.0102	1.0102	1.0102
53	300.	0.0247	0.0309	0.0572	0.1605	0.5043	0.8935	0.9891	1.0002
	800.	0.0261	0.0319	0.0617	0.1948	0.5971	0.9248	0.9882	0.9952
	2100.	0.0277	0.0346	0.0740	0.2603	0.7049	0.9525	0.9915	0.9956
	4500.	0.0312	0.0401	0.0957	0.3433	0.7894	0.9687	0.9933	0.9958
54	300.	0.9855	0.9829	0.9894	1.0010	1.0007	1.0006	1.0006	1.0006
	800.	0.9940	0.9872	0.9876	0.9976	0.9980	0.9979	0.9979	0.9979
	2100.	0.9952	0.9878	0.9867	0.9977	0.9994	0.9994	0.9993	0.9993
	4500.	0.9974	0.9890	0.9856	0.9980	1.0021	1.0021	1.0021	1.0021
55	300.	0.9941	0.9973	1.0012	0.9994	0.9996	0.9997	0.9997	0.9997
	800.	0.9967	0.9987	1.0040	1.0034	1.0034	1.0035	1.0035	1.0035
	2100.	0.9969	0.9990	1.0047	1.0041	1.0037	1.0037	1.0037	1.0037
	4500.	0.9973	0.9995	1.0057	1.0052	1.0041	1.0041	1.0041	1.0041
56	300.	0.9826	0.9867	0.9980	0.9987	0.9994	0.9994	0.9994	0.9994
	800.	0.9916	0.9928	1.0027	1.0058	1.0064	1.0065	1.0065	1.0065
	2100.	0.9917	0.9930	1.0034	1.0066	1.0066	1.0066	1.0066	1.0066
	4500.	0.9920	0.9933	1.0043	1.0079	1.0069	1.0070	1.0070	1.0070
57	300.	0.9723	0.9749	0.9920	0.9978	0.9992	0.9993	0.9993	0.9993
	800.	0.9835	0.9837	0.9949	1.0032	1.0047	1.0049	1.0049	1.0049
	2100.	0.9837	0.9840	0.9955	1.0041	1.0049	1.0051	1.0051	1.0051
	4500.	0.9841	0.9844	0.9964	1.0054	1.0054	1.0055	1.0055	1.0055
58	300.	0.9617	0.9613	0.9824	0.9963	0.9989	0.9991	0.9992	0.9992
	800.	0.9718	0.9715	0.9823	0.9980	1.0008	1.0012	1.0012	1.0012
	2100.	0.9721	0.9719	0.9829	0.9989	1.0012	1.0015	1.0016	1.0016
	4500.	0.9728	0.9725	0.9840	1.0003	1.0019	1.0022	1.0022	1.0022
59	300.	0.9501	0.9470	0.9653	0.9934	0.9985	0.9991	0.9991	0.9991
	800.	1.0149	1.0079	0.9942	1.0085	1.0119	1.0123	1.0124	1.0124
	2100.	1.0155	1.0085	0.9951	1.0096	1.0126	1.0130	1.0130	1.0130
	4500.	1.0166	1.0096	0.9965	1.0115	1.0138	1.0141	1.0142	1.0142
60	300.	0.9373	0.9338	0.9345	0.9866	0.9977	0.9989	0.9990	0.9991
	800.	0.9364	0.9419	0.9601	0.9975	1.0053	1.0062	1.0063	1.0063
	2100.	0.9373	0.9428	0.9613	0.9989	1.0064	1.0073	1.0074	1.0074
	4500.	0.9390	0.9445	0.9634	1.0014	1.0084	1.0093	1.0093	1.0093

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9184	0.9161	0.8878	0.9681	0.9954	0.9986	0.9989	0.9989
	800.	0.9088	0.9035	0.8925	0.9807	1.0067	1.0096	1.0099	1.0100
	2100.	0.9105	0.9051	0.8945	0.9831	1.0087	1.0117	1.0120	1.0120
	4500.	0.9135	0.9081	0.8978	0.9874	1.0126	1.0156	1.0159	1.0159
62	300.	0.8844	0.8831	0.8482	0.9116	0.9871	0.9975	0.9985	0.9986
	800.	0.9199	0.9174	0.8636	0.9605	1.0445	1.0562	1.0575	1.0576
	2100.	0.9235	0.9210	0.8675	0.9652	1.0494	1.0613	1.0625	1.0627
	4500.	0.9304	0.9279	0.8745	0.9736	1.0587	1.0709	1.0722	1.0723
63	300.	0.7996	0.7988	0.7874	0.7338	0.9392	0.9914	0.9974	0.9981
	800.	0.8591	0.8583	0.8416	0.7960	1.0028	1.0564	1.0627	1.0634
	2100.	0.8688	0.8679	0.8511	0.8055	1.0170	1.0730	1.0796	1.0803
	4500.	0.8878	0.8869	0.8697	0.8233	1.0454	1.1066	1.1138	1.1145
64	300.	0.3803	0.3801	0.3775	0.2421	0.4111	0.7765	0.9635	0.9925
	800.	0.4233	0.4230	0.4197	0.2723	0.4526	1.0292	1.5704	1.6992
	2100.	0.4524	0.4520	0.4483	0.2907	0.4837	1.2651	2.2505	2.5368
	4500.	0.5209	0.5204	0.5156	0.3295	0.5495	1.6046	3.0403	3.4642
65	300.	0.1948	0.1948	0.1953	0.2128	0.8231	0.8124	0.9034	0.9875
	800.	0.2075	0.2075	0.2080	0.2168	0.9858	1.0784	1.0062	1.0240
	2100.	0.2639	0.2639	0.2644	0.2728	1.0324	1.1871	1.0022	0.9740
	4500.	0.4169	0.4170	0.4174	0.4238	0.9934	1.1406	0.9505	0.9107
66	300.	0.8937	0.8937	0.8938	0.8946	0.9814	1.0253	1.0051	1.0020
	800.	0.8912	0.8913	0.8914	0.8923	0.9047	1.0194	1.0155	1.0134
	2100.	0.9233	0.9234	0.9235	0.9245	0.9354	1.0630	1.0688	1.0672
	4500.	1.0030	1.0030	1.0032	1.0054	1.0244	1.2197	1.2419	1.2401
67	300.	0.9870	0.9869	0.9869	0.9861	0.9879	1.0043	1.0011	1.0007
	800.	0.9844	0.9844	0.9843	0.9837	0.9821	0.9968	0.9983	0.9982
	2100.	0.9960	0.9960	0.9959	0.9953	0.9935	1.0074	1.0107	1.0106
	4500.	1.0187	1.0187	1.0187	1.0180	1.0158	1.0294	1.0352	1.0351
68	300.	0.9995	0.9995	0.9995	0.9989	0.9972	1.0016	1.0005	1.0004
	800.	1.0006	1.0006	1.0005	1.0000	0.9979	1.0016	1.0024	1.0024
	2100.	1.0070	1.0070	1.0069	1.0064	1.0042	1.0073	1.0089	1.0089
	4500.	1.0191	1.0191	1.0190	1.0185	1.0161	1.0188	1.0212	1.0212
69	300.	0.9985	0.9985	0.9986	0.9991	0.9998	1.0000	1.0000	1.0000
	800.	0.9985	0.9985	0.9986	0.9991	0.9998	1.0000	1.0000	1.0000
	2100.	0.9985	0.9985	0.9986	0.9991	0.9998	1.0000	1.0000	1.0000
	4500.	0.9985	0.9985	0.9986	0.9991	0.9998	1.0000	1.0000	1.0000
70	300.	0.9961	0.9962	0.9963	0.9974	0.9993	0.9999	1.0000	1.0000
	800.	0.9961	0.9962	0.9963	0.9974	0.9993	0.9999	1.0000	1.0000
	2100.	0.9961	0.9962	0.9963	0.9974	0.9993	0.9999	1.0000	1.0000
	4500.	0.9961	0.9962	0.9963	0.9974	0.9993	0.9999	1.0000	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.8940	0.8975	0.9243	0.9771	0.9970	0.9997	1.0000	1.0000
	800.	0.9113	0.9135	0.9388	0.9835	0.9980	0.9998	1.0000	1.0000
	2100.	0.9393	0.9398	0.9581	0.9895	0.9988	0.9999	1.0000	1.0000
	4500.	0.9566	0.9560	0.9696	0.9928	0.9992	0.9999	1.0000	1.0000
27	300.	0.8529	0.8587	0.8915	0.9634	0.9950	0.9995	1.0000	1.0000
	800.	0.8705	0.8770	0.9093	0.9730	0.9965	0.9996	1.0000	1.0000
	2100.	0.9067	0.9118	0.9359	0.9821	0.9978	0.9998	1.0000	1.0000
	4500.	0.9293	0.9335	0.9524	0.9873	0.9985	0.9998	1.0000	1.0000
28	300.	0.8496	0.8561	0.8869	0.9583	0.9938	0.9994	0.9999	1.0000
	800.	0.8634	0.8711	0.9028	0.9681	0.9956	0.9996	1.0000	1.0000
	2100.	0.9003	0.9073	0.9316	0.9795	0.9974	0.9997	1.0000	1.0000
	4500.	0.9247	0.9311	0.9500	0.9860	0.9983	0.9998	1.0000	1.0000
29	300.	0.8312	0.8377	0.8729	0.9530	0.9932	0.9993	1.0000	1.0000
	800.	0.8477	0.8551	0.8926	0.9656	0.9954	0.9996	1.0000	1.0000
	2100.	0.8867	0.8937	0.9249	0.9785	0.9973	0.9998	1.0000	1.0000
	4500.	0.9131	0.9198	0.9455	0.9854	0.9982	0.9998	1.0000	1.0000
30	300.	0.8075	0.8136	0.8498	0.9405	0.9909	0.9990	0.9999	1.0000
	800.	0.8255	0.8319	0.8707	0.9559	0.9939	0.9994	0.9999	1.0000
	2100.	0.8712	0.8764	0.9085	0.9725	0.9965	0.9996	1.0000	1.0000
	4500.	0.9027	0.9071	0.9336	0.9819	0.9978	0.9998	1.0000	1.0000
31	300.	0.7527	0.7603	0.8039	0.9134	0.9854	0.9985	0.9999	1.0000
	800.	0.7651	0.7736	0.8225	0.9321	0.9898	0.9990	0.9999	1.0000
	2100.	0.8116	0.8194	0.8641	0.9540	0.9937	0.9994	1.0000	1.0000
	4500.	0.8516	0.8588	0.8979	0.9682	0.9959	0.9996	1.0000	1.0000
32	300.	0.7720	0.7771	0.8130	0.9108	0.9842	0.9984	1.0000	1.0001
	800.	0.7926	0.7984	0.8378	0.9334	0.9897	0.9990	1.0000	1.0001
	2100.	0.8335	0.8385	0.8762	0.9558	0.9939	0.9995	1.0000	1.0001
	4500.	0.8675	0.8717	0.9068	0.9699	0.9961	0.9997	1.0001	1.0001
33	300.	0.7227	0.7291	0.7657	0.8775	0.9749	0.9970	0.9996	0.9999
	800.	0.7539	0.7598	0.7969	0.9054	0.9831	0.9980	0.9997	0.9999
	2100.	0.7918	0.7974	0.8338	0.9321	0.9892	0.9988	0.9998	0.9999
	4500.	0.8243	0.8297	0.8641	0.9505	0.9928	0.9991	0.9998	0.9999
34	300.	0.6651	0.6726	0.7150	0.8408	0.9650	0.9960	0.9997	1.0000
	800.	0.6985	0.7052	0.7483	0.8755	0.9767	0.9975	0.9998	1.0000
	2100.	0.7389	0.7457	0.7901	0.9105	0.9855	0.9985	0.9999	1.0000
	4500.	0.7778	0.7845	0.8282	0.9358	0.9907	0.9991	1.0000	1.0000
35	300.	0.6000	0.6072	0.6509	0.7869	0.9443	0.9932	0.9995	1.0001
	800.	0.6358	0.6430	0.6898	0.8270	0.9608	0.9955	0.9997	1.0002
	2100.	0.6844	0.6915	0.7402	0.8691	0.9743	0.9973	0.9999	1.0002
	4500.	0.7260	0.7333	0.7829	0.9000	0.9825	0.9983	1.0000	1.0002
36	300.	0.5239	0.5324	0.5784	0.7178	0.9144	0.9885	0.9987	0.9998
	800.	0.5508	0.5587	0.6081	0.7602	0.9383	0.9923	0.9991	0.9998
	2100.	0.5883	0.5966	0.6519	0.8100	0.9588	0.9952	0.9994	0.9999
	4500.	0.6248	0.6340	0.6956	0.8517	0.9718	0.9968	0.9996	0.9999

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2 REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.5622	0.5702	0.6114	0.7518	0.9370	0.9925	0.9993	1.0000
	800.	0.5971	0.6036	0.6464	0.8004	0.9585	0.9954	0.9996	1.0000
	2100.	0.6346	0.6416	0.6907	0.8518	0.9744	0.9973	0.9998	1.0000
	4500.	0.6712	0.6787	0.7316	0.8878	0.9828	0.9982	0.9999	1.0000
38	300.	0.4568	0.4635	0.5040	0.6496	0.8855	0.9843	0.9985	1.0000
	800.	0.4859	0.4929	0.5387	0.7029	0.9188	0.9898	0.9991	1.0001
	2100.	0.5284	0.5365	0.5905	0.7660	0.9468	0.9939	0.9995	1.0001
	4500.	0.5739	0.5829	0.6435	0.8186	0.9642	0.9961	0.9998	1.0001
39	300.	0.5202	0.5267	0.5567	0.6594	0.8609	0.9779	0.9975	0.9996
	800.	0.5358	0.5418	0.5732	0.6919	0.8944	0.9851	0.9983	0.9997
	2100.	0.5604	0.5660	0.6000	0.7367	0.9264	0.9906	0.9989	0.9997
	4500.	0.5843	0.5899	0.6287	0.7800	0.9486	0.9938	0.9992	0.9998
40	300.	0.7557	0.7584	0.7785	0.8637	0.9687	0.9966	0.9999	1.0002
	800.	0.7761	0.7790	0.8023	0.8952	0.9803	0.9980	1.0000	1.0002
	2100.	0.8041	0.8075	0.8347	0.9275	0.9886	0.9990	1.0001	1.0002
	4500.	0.8320	0.8362	0.8665	0.9513	0.9933	0.9995	1.0002	1.0002
41	300.	0.4917	0.4956	0.5188	0.6111	0.8265	0.9708	0.9968	0.9997
	800.	0.5018	0.5063	0.5335	0.6454	0.8682	0.9807	0.9980	0.9998
	2100.	0.5237	0.5282	0.5599	0.6944	0.9084	0.9881	0.9988	0.9999
	4500.	0.5463	0.5512	0.5897	0.7436	0.9365	0.9924	0.9992	0.9999
42	300.	0.3316	0.3364	0.3594	0.4452	0.6813	0.9291	0.9908	0.9980
	800.	0.3417	0.3472	0.3737	0.4749	0.7368	0.9502	0.9930	0.9978
	2100.	0.3554	0.3618	0.3936	0.5185	0.8007	0.9677	0.9951	0.9980
	4500.	0.3741	0.3809	0.4179	0.5675	0.8526	0.9784	0.9962	0.9981
43	300.	0.7456	0.7469	0.7563	0.8167	0.9394	0.9921	0.9994	1.0002
	800.	0.7570	0.7583	0.7699	0.8435	0.9589	0.9954	1.0000	1.0004
	2100.	0.7704	0.7720	0.7878	0.8757	0.9741	0.9975	1.0002	1.0005
	4500.	0.7824	0.7848	0.8064	0.9041	0.9833	0.9986	1.0003	1.0005
44	300.	0.6830	0.6849	0.6949	0.7543	0.9053	0.9858	0.9980	0.9992
	800.	0.6917	0.6938	0.7068	0.7810	0.9319	0.9903	0.9981	0.9989
	2100.	0.7021	0.7052	0.7237	0.8153	0.9542	0.9937	0.9984	0.9989
	4500.	0.7103	0.7147	0.7408	0.8466	0.9681	0.9955	0.9986	0.9989
45	300.	0.5481	0.5482	0.5562	0.6290	0.8361	0.9732	0.9968	0.9993
	800.	0.5605	0.5609	0.5720	0.6659	0.8800	0.9826	0.9976	0.9992
	2100.	0.5807	0.5815	0.5979	0.7171	0.9193	0.9893	0.9983	0.9993
	4500.	0.5999	0.6019	0.6268	0.7666	0.9450	0.9930	0.9987	0.9993
46	300.	0.2680	0.2680	0.2739	0.3313	0.5568	0.8799	0.9839	0.9970
	800.	0.2691	0.2696	0.2785	0.3522	0.6221	0.9151	0.9877	0.9961
	2100.	0.2775	0.2784	0.2916	0.3915	0.7046	0.9452	0.9914	0.9965
	4500.	0.2883	0.2898	0.3091	0.4377	0.7741	0.9633	0.9935	0.9967
47	300.	0.6092	0.6041	0.5956	0.6475	0.8200	0.9666	0.9964	0.9998
	800.	0.6063	0.6019	0.5984	0.6693	0.8609	0.9783	0.9980	1.0001
	2100.	0.6074	0.6038	0.6052	0.7023	0.9011	0.9867	0.9989	1.0002
	4500.	0.6098	0.6071	0.6139	0.7311	0.9270	0.9911	0.9994	1.0002
48	300.	0.1051	0.1086	0.1207	0.1710	0.3660	0.7655	0.9657	0.9959
	800.	0.1010	0.1048	0.1193	0.1840	0.4315	0.8297	0.9771	0.9966
	2100.	0.1022	0.1070	0.1267	0.2184	0.5332	0.8913	0.9863	0.9976
	4500.	0.1034	0.1098	0.1389	0.2664	0.6313	0.9301	0.9913	0.9981

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2 REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	1.0334	1.0347	1.0218	0.9986	0.9996	0.9996	0.9996	0.9996
	800.	1.0183	1.0245	1.0213	0.9988	0.9993	0.9992	0.9992	0.9992
	2100.	1.0184	1.0250	1.0239	0.9994	0.9993	0.9992	0.9992	0.9992
	4500.	1.0185	1.0258	1.0274	1.0003	0.9994	0.9992	0.9992	0.9992
50	300.	0.1187	0.1220	0.1344	0.1789	0.3736	0.7798	0.9679	0.9949
	800.	0.1184	0.1211	0.1327	0.1880	0.4381	0.8406	0.9772	0.9944
	2100.	0.1198	0.1228	0.1382	0.2169	0.5337	0.8953	0.9849	0.9954
	4500.	0.1224	0.1259	0.1471	0.2542	0.6207	0.9282	0.9891	0.9958
51	300.	1.1428	1.1329	1.0688	0.9918	0.9962	0.9982	0.9987	0.9988
	800.	1.2227	1.2231	1.1966	1.1418	1.1425	1.1438	1.1442	1.1442
	2100.	1.2229	1.2237	1.2016	1.1422	1.1413	1.1432	1.1436	1.1436
	4500.	1.2236	1.2252	1.2092	1.1439	1.1403	1.1428	1.1432	1.1433
52	300.	0.9953	0.9996	1.0043	0.9996	0.9998	0.9998	0.9998	0.9998
	800.	1.0026	1.0058	1.0116	1.0087	1.0086	1.0086	1.0086	1.0086
	2100.	1.0026	1.0058	1.0120	1.0092	1.0087	1.0087	1.0087	1.0087
	4500.	1.0027	1.0060	1.0126	1.0100	1.0089	1.0088	1.0088	1.0088
53	300.	0.6518	0.6552	0.6464	0.6737	0.8036	0.9579	0.9992	1.0019
	800.	0.6348	0.6429	0.6482	0.6917	0.8455	0.9741	0.9992	1.0019
	2100.	0.6343	0.6436	0.6560	0.7223	0.8904	0.9855	1.0004	1.0020
	4500.	0.6341	0.6454	0.6686	0.7595	0.9253	0.9920	1.0011	1.0021
54	300.	1.0026	1.0033	1.0021	0.9998	0.9998	0.9999	0.9999	0.9999
	800.	1.0030	1.0043	1.0044	1.0026	1.0025	1.0026	1.0026	1.0026
	2100.	1.0029	1.0044	1.0048	1.0028	1.0025	1.0025	1.0025	1.0025
	4500.	1.0029	1.0045	1.0053	1.0031	1.0024	1.0024	1.0024	1.0024
55	300.	0.9984	0.9993	1.0003	0.9998	0.9999	0.9999	0.9999	0.9999
	800.	0.9947	0.9952	0.9964	0.9963	0.9963	0.9963	0.9963	0.9963
	2100.	0.9946	0.9952	0.9966	0.9964	0.9963	0.9963	0.9963	0.9963
	4500.	0.9946	0.9952	0.9967	0.9966	0.9963	0.9963	0.9963	0.9963
56	300.	0.9975	0.9981	0.9997	0.9998	0.9999	0.9999	0.9999	0.9999
	800.	0.9905	0.9906	0.9920	0.9924	0.9925	0.9925	0.9925	0.9925
	2100.	0.9905	0.9906	0.9921	0.9925	0.9925	0.9925	0.9925	0.9925
	4500.	0.9905	0.9906	0.9921	0.9926	0.9925	0.9925	0.9925	0.9925
57	300.	0.9963	0.9967	0.9989	0.9997	0.9999	0.9999	0.9999	0.9999
	800.	0.9866	0.9866	0.9880	0.9891	0.9892	0.9893	0.9893	0.9893
	2100.	0.9866	0.9866	0.9881	0.9893	0.9892	0.9893	0.9893	0.9893
	4500.	0.9866	0.9866	0.9881	0.9893	0.9893	0.9893	0.9893	0.9893
58	300.	0.9945	0.9945	0.9975	0.9995	0.9998	0.9999	0.9999	0.9999
	800.	0.9825	0.9824	0.9839	0.9861	0.9865	0.9865	0.9865	0.9865
	2100.	0.9825	0.9825	0.9840	0.9862	0.9865	0.9865	0.9865	0.9865
	4500.	0.9825	0.9825	0.9841	0.9863	0.9865	0.9866	0.9866	0.9866
59	300.	0.9918	0.9913	0.9943	0.9989	0.9998	0.9998	0.9999	0.9999
	800.	0.9870	0.9859	0.9837	0.9859	0.9866	0.9866	0.9866	0.9866
	2100.	0.9870	0.9859	0.9838	0.9861	0.9866	0.9866	0.9866	0.9866
	4500.	0.9871	0.9860	0.9839	0.9863	0.9867	0.9867	0.9867	0.9867
60	300.	0.9874	0.9867	0.9869	0.9873	0.9895	0.9908	0.9908	0.9908
	800.	0.9718	0.9729	0.9765	0.9840	0.9854	0.9855	0.9855	0.9855
	2100.	0.9719	0.9730	0.9767	0.9840	0.9855	0.9857	0.9857	0.9857
	4500.	0.9722	0.9733	0.9770	0.9844	0.9858	0.9859	0.9859	0.9859

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2 REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9791	0.9785	0.9712	0.9919	0.9988	0.9996	0.9997	0.9997
	800.	0.9613	0.9599	0.9572	0.9796	0.9861	0.9868	0.9869	0.9869
	2100.	0.9616	0.9602	0.9576	0.9801	0.9864	0.9872	0.9873	0.9873
	4500.	0.9621	0.9608	0.9583	0.9809	0.9871	0.9879	0.9880	0.9880
62	300.	0.9601	0.9596	0.9473	0.9697	0.9956	0.9991	0.9995	0.9995
	800.	0.9592	0.9583	0.9398	0.9731	1.0012	1.0051	1.0055	1.0055
	2100.	0.9601	0.9593	0.9409	0.9744	1.0025	1.0064	1.0068	1.0069
	4500.	0.9620	0.9611	0.9429	0.9767	1.0049	1.0089	1.0093	1.0094
63	300.	0.9005	0.9001	0.8942	0.8676	0.9703	0.9958	0.9987	0.9990
	800.	0.9228	0.9223	0.9140	0.8919	0.9931	1.0188	1.0218	1.0221
	2100.	0.9268	0.9264	0.9180	0.8961	0.9989	1.0254	1.0287	1.0290
	4500.	0.9346	0.9341	0.9257	0.9037	1.0103	1.0390	1.0424	1.0428
64	300.	0.4996	0.4994	0.4972	0.3795	0.5279	0.8250	0.9716	0.9941
	800.	0.5306	0.5304	0.5277	0.4043	0.5578	1.0013	1.3955	1.4877
	2100.	0.5486	0.5483	0.5454	0.4187	0.5776	1.1522	1.8404	2.0373
	4500.	0.5932	0.5928	0.5892	0.4476	0.6207	1.3719	2.3521	2.6378
65	300.	0.1661	0.1662	0.1667	0.1881	0.9084	0.8465	0.9108	0.9887
	800.	0.1743	0.1744	0.1748	0.1843	1.0184	1.0942	1.0032	1.0170
	2100.	0.2306	0.2306	0.2312	0.2400	1.0619	1.2069	0.9966	0.9633
	4500.	0.3836	0.3837	0.3842	0.3909	1.0179	1.1603	0.9423	0.8969
66	300.	0.8246	0.8246	0.8248	0.8262	0.9714	1.0427	1.0086	1.0034
	800.	0.8116	0.8116	0.8118	0.8135	0.8342	1.0259	1.0188	1.0152
	2100.	0.8739	0.8739	0.8741	0.8759	0.8948	1.1144	1.1242	1.1215
	4500.	1.0459	1.0459	1.0464	1.0507	1.0875	1.4602	1.5019	1.4983
67	300.	0.9748	0.9748	0.9746	0.9732	0.9768	1.0083	1.0020	1.0014
	800.	0.8717	0.8717	0.8716	0.8704	0.8675	0.8958	0.8987	0.8985
	2100.	0.9011	0.9011	0.9010	0.8998	0.8963	0.9239	0.9304	0.9302
	4500.	0.9605	0.9605	0.9603	0.9589	0.9545	0.9827	0.9947	0.9945
68	300.	0.9996	0.9996	0.9996	0.9992	0.9982	1.0010	1.0003	1.0002
	800.	0.8128	0.8128	0.8128	0.8124	0.8110	0.8136	0.8142	0.8141
	2100.	0.8231	0.8231	0.8231	0.8227	0.8211	0.8235	0.8246	0.8246
	4500.	0.8433	0.8433	0.8433	0.8428	0.8409	0.8431	0.8452	0.8452
69	300.	1.0262	1.0261	1.0247	1.0163	1.0037	1.0004	1.0000	1.0000
	800.	1.0262	1.0261	1.0247	1.0163	1.0037	1.0004	1.0000	1.0000
	2100.	1.0262	1.0261	1.0247	1.0163	1.0037	1.0004	1.0000	1.0000
	4500.	1.0262	1.0261	1.0247	1.0163	1.0037	1.0004	1.0000	1.0000
70	300.	0.9867	0.9868	0.9873	0.9910	0.9977	0.9997	1.0000	1.0000
	800.	0.9867	0.9868	0.9873	0.9910	0.9977	0.9997	1.0000	1.0000
	2100.	0.9867	0.9868	0.9873	0.9910	0.9977	0.9997	1.0000	1.0000
	4500.	0.9867	0.9868	0.9873	0.9910	0.9977	0.9997	1.0000	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2 REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.8200	0.8284	0.8714	0.9570	0.9941	0.9994	1.0000	1.0000
	800.	0.8442	0.8514	0.8936	0.9689	0.9960	0.9998	1.0000	1.0000
	2100.	0.8893	0.8930	0.9247	0.9799	0.9975	0.9998	1.0000	1.0000
	4500.	0.9183	0.9199	0.9441	0.9859	0.9983	0.9999	1.0000	1.0000
27	300.	0.7670	0.7757	0.8242	0.9338	0.9902	0.9988	1.0000	1.0000
	800.	0.7922	0.8013	0.8497	0.9505	0.9933	0.9993	1.0000	1.0000
	2100.	0.8458	0.8529	0.8906	0.9668	0.9957	0.9995	1.0000	1.0000
	4500.	0.8790	0.8850	0.9166	0.9763	0.9970	0.9999	1.0000	1.0000
28	300.	0.7660	0.7752	0.8205	0.9262	0.9881	0.9988	0.9999	1.0000
	800.	0.7862	0.7965	0.8428	0.9430	0.9917	0.9992	1.0000	1.0000
	2100.	0.8371	0.8467	0.8846	0.9625	0.9949	0.9997	1.0000	1.0000
	4500.	0.8721	0.8813	0.9125	0.9738	0.9967	0.9995	1.0000	1.0000
29	300.	0.7420	0.7494	0.7975	0.9147	0.9863	0.9986	0.9988	1.0000
	800.	0.7625	0.7705	0.8222	0.9360	0.9908	0.9990	0.9998	1.0000
	2100.	0.8133	0.8212	0.8676	0.9585	0.9945	0.9994	1.0000	1.0000
	4500.	0.8501	0.8578	0.8986	0.9710	0.9964	0.9997	1.0000	1.0000
30	300.	0.7121	0.7206	0.7685	0.8947	0.9821	0.9981	0.9999	1.0000
	800.	0.7347	0.7434	0.7950	0.9205	0.9881	0.9988	0.9999	1.0000
	2100.	0.7962	0.8034	0.8483	0.9492	0.9931	0.9995	1.0000	1.0000
	4500.	0.8399	0.8463	0.8856	0.9658	0.9956	0.9996	1.0000	1.0000
31	300.	0.6436	0.6550	0.7105	0.8515	0.9713	0.9967	0.9989	1.0000
	800.	0.6567	0.6675	0.7274	0.8790	0.9799	0.9978	0.9998	1.0000
	2100.	0.7124	0.7217	0.7786	0.9147	0.9874	0.9987	0.9995	1.0000
	4500.	0.7632	0.7721	0.8252	0.9394	0.9916	0.9990	1.0000	1.0000
32	300.	0.6826	0.6909	0.7326	0.8512	0.9692	0.9966	0.9999	1.0001
	800.	0.7028	0.7114	0.7568	0.8836	0.9796	0.9978	0.9987	1.0001
	2100.	0.7472	0.7542	0.7995	0.9181	0.9875	0.9987	0.9997	1.0001
	4500.	0.7856	0.7920	0.8371	0.9413	0.9918	0.9992	0.9992	1.0001
33	300.	0.6314	0.6406	0.6806	0.8025	0.9515	0.9943	0.9996	0.9998
	800.	0.6636	0.6707	0.7105	0.8406	0.9668	0.9962	0.9997	0.9999
	2100.	0.7015	0.7083	0.7505	0.8806	0.9787	0.9975	0.9995	0.9999
	4500.	0.7360	0.7429	0.7867	0.9100	0.9856	0.9983	0.9999	0.9999
34	300.	0.5666	0.5782	0.6266	0.7569	0.9349	0.9922	0.9995	1.0000
	800.	0.6058	0.6132	0.6569	0.7997	0.9555	0.9949	0.9984	1.0000
	2100.	0.6457	0.6524	0.6982	0.8476	0.9718	0.9969	0.9981	1.0000
	4500.	0.6867	0.6935	0.7410	0.8856	0.9814	0.9980	0.9997	1.0000
35	300.	0.5009	0.5096	0.5518	0.6879	0.9016	0.9867	0.9985	1.0002
	800.	0.5337	0.5416	0.5858	0.7372	0.9294	0.9915	0.9996	1.0002
	2100.	0.5810	0.5876	0.6353	0.7933	0.9528	0.9945	0.9999	1.0002
	4500.	0.6191	0.6266	0.6808	0.8364	0.9672	0.9964	1.0000	1.0002
36	300.	0.4279	0.4405	0.4910	0.6162	0.8542	0.9784	0.9977	0.9998
	800.	0.4578	0.4662	0.5128	0.6584	0.8916	0.9855	0.9982	0.9998
	2100.	0.4918	0.4987	0.5473	0.7138	0.9252	0.9908	0.9990	0.9999
	4500.	0.5218	0.5289	0.5840	0.7645	0.9474	0.9938	0.9997	0.9999

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER		PAGE 4 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.4470	0.4627	0.5106	0.6336	0.8807	0.9847	0.9983	1.0000
	800.	0.4945	0.5007	0.5369	0.6841	0.9187	0.9904	0.9993	1.0000
	2100.	0.5234	0.5292	0.5696	0.7463	0.9483	0.9942	0.9995	1.0000
	4500.	0.5529	0.5591	0.6057	0.7971	0.9646	0.9962	0.9997	1.0000
38	300.	0.3632	0.3704	0.4053	0.5238	0.8040	0.9696	0.9966	1.0000
	800.	0.3851	0.3913	0.4270	0.5735	0.8556	0.9801	0.9983	1.0000
	2100.	0.4151	0.4213	0.4631	0.6412	0.9015	0.9877	0.9996	0.9999
	4500.	0.4496	0.4563	0.5053	0.7042	0.9313	0.9920	0.9998	1.0001
39	300.	0.4149	0.4268	0.4673	0.5546	0.7741	0.9583	0.9949	0.9995
	800.	0.4306	0.4405	0.4788	0.5839	0.8205	0.9714	0.9973	0.9996
	2100.	0.4560	0.4630	0.4988	0.6266	0.8682	0.9815	0.9983	0.9985
	4500.	0.4778	0.4835	0.5201	0.6698	0.9029	0.9875	0.9993	0.9997
40	300.	0.5628	0.5655	0.5846	0.6925	0.9108	0.9893	0.9985	1.0002
	800.	0.5796	0.5826	0.6068	0.7442	0.9417	0.9936	0.9991	1.0003
	2100.	0.6063	0.6102	0.6435	0.8064	0.9647	0.9965	1.0000	1.0003
	4500.	0.6372	0.6425	0.6862	0.8583	0.9779	0.9979	1.0002	1.0003
41	300.	0.3683	0.3743	0.3996	0.4753	0.7121	0.9429	0.9942	0.9996
	800.	0.3746	0.3805	0.4079	0.5047	0.7701	0.9616	0.9956	0.9993
	2100.	0.3953	0.3996	0.4270	0.5509	0.8303	0.9755	0.9974	0.9983
	4500.	0.4152	0.4189	0.4491	0.6005	0.8750	0.9836	0.9986	0.9998
42	300.	0.2493	0.2563	0.2828	0.3540	0.5639	0.8772	0.9842	0.9965
	800.	0.2552	0.2624	0.2929	0.3815	0.6199	0.9118	0.9886	0.9984
	2100.	0.2615	0.2693	0.3056	0.4178	0.6892	0.9409	0.9923	0.9946
	4500.	0.2741	0.2821	0.3235	0.4562	0.7512	0.9590	0.9942	0.9943
43	300.	0.5555	0.5566	0.5636	0.6141	0.8268	0.9742	0.9992	1.0003
	800.	0.5618	0.5628	0.5708	0.6435	0.8751	0.9841	0.9984	1.0007
	2100.	0.5688	0.5701	0.5821	0.6886	0.9163	0.9906	1.0003	1.0007
	4500.	0.5761	0.5782	0.5969	0.7363	0.9425	0.9942	1.0005	1.0008
44	300.	0.4535	0.4549	0.4632	0.5118	0.7422	0.9558	0.9933	0.9988
	800.	0.4578	0.4594	0.4695	0.5371	0.8049	0.9707	0.9951	0.9982
	2100.	0.4649	0.4671	0.4811	0.5792	0.8631	0.9811	0.9959	0.9982
	4500.	0.4720	0.4751	0.4953	0.6265	0.9019	0.9869	0.9967	0.9983
45	300.	0.3104	0.3110	0.3170	0.3657	0.6290	0.9284	0.9915	0.9993
	800.	0.3131	0.3137	0.3216	0.3940	0.7120	0.9536	0.9944	0.9965
	2100.	0.3216	0.3226	0.3343	0.4463	0.7952	0.9714	0.9967	0.9989
	4500.	0.3318	0.3337	0.3530	0.5101	0.8546	0.9814	0.9978	0.9994
46	300.	0.1631	0.1634	0.1676	0.1958	0.3502	0.7682	0.9675	0.9972
	800.	0.1597	0.1602	0.1656	0.2009	0.4098	0.8308	0.9767	0.9955
	2100.	0.1616	0.1621	0.1683	0.2182	0.4982	0.8861	0.9846	0.9958
	4500.	0.1657	0.1662	0.1740	0.2447	0.5847	0.9210	0.9888	0.9962
47	300.	0.2790	0.2774	0.2780	0.3226	0.5602	0.8999	0.9890	0.9998
	800.	0.2751	0.2737	0.2758	0.3404	0.6387	0.9338	0.9931	1.0004
	2100.	0.2758	0.2745	0.2780	0.3731	0.7252	0.9583	0.9961	1.0006
	4500.	0.2776	0.2767	0.2825	0.4010	0.7839	0.9712	0.9976	1.0007
48	300.	0.0436	0.0463	0.0572	0.0843	0.1853	0.5929	0.9312	0.9923
	800.	0.0417	0.0446	0.0553	0.0839	0.2221	0.6839	0.9535	0.9943
	2100.	0.0412	0.0441	0.0554	0.0911	0.2956	0.7787	0.9709	0.9954
	4500.	0.0405	0.0435	0.0568	0.1064	0.3844	0.8453	0.9810	0.9971

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER		PAGE 5 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	1.0018	1.0056	1.0059	0.9961	0.9993	0.9996	0.9996	0.9996
	800.	0.9901	0.9984	1.0068	0.9968	0.9991	0.9993	0.9993	0.9993
	2100.	0.9901	0.9988	1.0092	0.9971	0.9991	0.9992	0.9993	0.9993
	4500.	0.9900	0.9995	1.0126	0.9980	0.9992	0.9993	0.9993	0.9993
50	300.	0.0436	0.0449	0.0508	0.0712	0.1661	0.5953	0.9344	0.9914
	800.	0.0436	0.0446	0.0496	0.0694	0.2018	0.6923	0.9548	0.9923
	2100.	0.0435	0.0445	0.0494	0.0736	0.2752	0.7881	0.9709	0.9940
	4500.	0.0437	0.0447	0.0501	0.0838	0.3646	0.8525	0.9799	0.9947
51	300.	1.0369	1.0360	1.0204	0.9954	0.9985	0.9992	0.9994	0.9995
	800.	1.1169	1.1198	1.1164	1.0984	1.0990	1.0995	1.0996	1.0996
	2100.	1.1180	1.1212	1.1201	1.1010	1.1008	1.1012	1.1014	1.1014
	4500.	1.1206	1.1244	1.1273	1.1086	1.1068	1.1072	1.1073	1.1073
52	300.	0.9988	0.9949	1.0021	0.9997	0.9997	0.9997	0.9997	0.9997
	800.	0.9978	1.0017	1.0097	1.0082	1.0084	1.0084	1.0084	1.0084
	2100.	0.9979	1.0018	1.0102	1.0088	1.0085	1.0085	1.0086	1.0086
	4500.	0.9981	1.0020	1.0110	1.0098	1.0089	1.0089	1.0089	1.0089
53	300.	0.1086	0.1110	0.1175	0.1500	0.3411	0.8110	0.9782	1.0003
	800.	0.1065	0.1093	0.1172	0.1559	0.4192	0.8660	0.9820	0.9962
	2100.	0.1062	0.1090	0.1179	0.1758	0.5305	0.9131	0.9879	0.9966
	4500.	0.1061	0.1093	0.1214	0.2109	0.6346	0.9418	0.9911	0.9968
54	300.	1.0014	1.0020	1.0013	0.9997	0.9999	0.9999	0.9999	0.9999
	800.	1.0021	1.0033	1.0036	1.0024	1.0024	1.0024	1.0024	1.0024
	2100.	1.0022	1.0034	1.0040	1.0026	1.0024	1.0024	1.0024	1.0024
	4500.	1.0022	1.0036	1.0045	1.0029	1.0024	1.0024	1.0024	1.0024
55	300.	0.9979	0.9989	1.0001	0.9998	0.9999	1.0000	0.9999	0.9999
	800.	0.9943	0.9949	0.9965	0.9965	0.9965	0.9965	0.9965	0.9965
	2100.	0.9943	0.9949	0.9966	0.9966	0.9965	0.9965	0.9965	0.9965
	4500.	0.9943	0.9949	0.9968	0.9968	0.9965	0.9965	0.9965	0.9965
56	300.	0.9964	0.9972	0.9994	0.9997	0.9999	0.9999	0.9999	0.9999
	800.	0.9900	0.9903	0.9921	0.9929	0.9930	0.9930	0.9930	0.9930
	2100.	0.9901	0.9903	0.9922	0.9930	0.9930	0.9930	0.9930	0.9930
	4500.	0.9901	0.9903	0.9923	0.9931	0.9930	0.9931	0.9930	0.9930
57	300.	0.9942	0.9947	0.9981	0.9995	0.9999	1.0000	0.9999	0.9999
	800.	0.9856	0.9857	0.9880	0.9898	0.9901	0.9901	0.9901	0.9901
	2100.	0.9856	0.9858	0.9881	0.9899	0.9901	0.9902	0.9902	0.9902
	4500.	0.9857	0.9858	0.9882	0.9901	0.9902	0.9902	0.9902	0.9902
58	300.	0.9901	0.9902	0.9953	0.9990	0.9997	0.9998	0.9998	0.9998
	800.	0.9801	0.9801	0.9829	0.9870	0.9877	0.9878	0.9878	0.9878
	2100.	0.9801	0.9802	0.9831	0.9871	0.9878	0.9879	0.9879	0.9879
	4500.	0.9802	0.9803	0.9832	0.9874	0.9879	0.9880	0.9880	0.9880
59	300.	0.9826	0.9819	0.9881	0.9977	0.9995	0.9998	0.9997	0.9997
	800.	0.9875	0.9857	0.9831	0.9888	0.9902	0.9904	0.9904	0.9904
	2100.	0.9876	0.9858	0.9833	0.9890	0.9903	0.9905	0.9905	0.9905
	4500.	0.9878	0.9861	0.9836	0.9895	0.9906	0.9907	0.9908	0.9908
60	300.	0.9682	0.9672	0.9695	0.9934	0.9990	0.9996	0.9996	0.9996
	800.	0.9569	0.9594	0.9681	0.9859	0.9901	0.9905	0.9907	0.9906
	2100.	0.9572	0.9596	0.9685	0.9864	0.9904	0.9909	0.9914	0.9909
	4500.	0.9578	0.9602	0.9692	0.9873	0.9911	0.9916	0.9916	0.9923

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2 REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9390	0.9384	0.9278	0.9784	0.9970	0.9992	0.9997	0.9994
	800.	0.9236	0.9215	0.9202	0.9752	0.9933	0.9955	0.9959	0.9957
	2100.	0.9243	0.9223	0.9211	0.9764	0.9943	0.9965	0.9967	0.9968
	4500.	0.9257	0.9236	0.9227	0.9785	0.9962	0.9985	0.9990	0.9997
62	300.	0.8781	0.8780	0.8613	0.9217	0.9881	0.9979	0.9987	0.9987
	800.	0.8924	0.8917	0.8648	0.9477	1.0221	1.0334	1.0345	1.0347
	2100.	0.8945	0.8937	0.8671	0.9506	1.0254	1.0368	1.0378	1.0384
	4500.	0.8982	0.8975	0.8712	0.9559	1.0316	1.0433	1.0446	1.0446
63	300.	0.7367	0.7368	0.7336	0.7262	0.9285	0.9901	0.9976	0.9986
	800.	0.7831	0.7831	0.7763	0.7748	0.9800	1.0440	1.0518	1.0526
	2100.	0.7886	0.7886	0.7819	0.7812	0.9909	1.0579	1.0661	1.0661
	4500.	0.7993	0.7993	0.7926	0.7929	1.0128	1.0859	1.0949	1.0957
64	300.	0.2669	0.2669	0.2668	0.2261	0.3354	0.6794	0.9426	0.9902
	800.	0.2795	0.2795	0.2794	0.2415	0.3504	0.7852	1.4499	1.6617
	2100.	0.2841	0.2841	0.2840	0.2490	0.3563	0.8611	1.9858	2.4485
	4500.	0.2959	0.2959	0.2958	0.2639	0.3750	1.0224	2.6530	3.3258
65	300.	0.0847	0.0847	0.0848	0.0881	0.4529	0.8150	0.9040	0.9876
	800.	0.0865	0.0865	0.0866	0.0880	0.2244	0.4915	0.7895	0.9903
	2100.	0.1012	0.1012	0.1014	0.1031	0.2666	0.6629	0.8528	0.9536
	4500.	0.1771	0.1771	0.1774	0.1801	0.4225	0.8428	0.8681	0.9097
66	300.	0.7901	0.7902	0.7914	0.8017	0.9189	1.0258	1.0052	1.0021
	800.	0.7805	0.7807	0.7819	0.7928	0.8492	1.0069	1.0156	1.0134
	2100.	0.8001	0.8003	0.8016	0.8131	0.8723	1.0488	1.0703	1.0687
	4500.	0.8389	0.8391	0.8405	0.8540	0.9293	1.1944	1.2491	1.2472
67	300.	0.9635	0.9635	0.9641	0.9684	0.9821	1.0044	1.0011	1.0007
	800.	0.9617	0.9618	0.9623	0.9663	0.9757	0.9956	0.9971	0.9970
	2100.	0.9726	0.9726	0.9732	0.9773	0.9870	1.0057	1.0098	1.0097
	4500.	0.9937	0.9937	0.9943	0.9987	1.0091	1.0280	1.0347	1.0346
68	300.	0.9936	0.9936	0.9938	0.9949	0.9963	1.0016	1.0005	1.0003
	800.	0.9923	0.9923	0.9926	0.9939	0.9950	0.9997	1.0005	1.0005
	2100.	0.9985	0.9986	0.9988	1.0001	1.0012	1.0054	1.0071	1.0070
	4500.	1.0104	1.0104	1.0106	1.0120	1.0132	1.0169	1.0195	1.0195
69	300.	0.9971	0.9971	0.9973	0.9982	0.9996	1.0000	1.0000	1.0000
	800.	0.9971	0.9971	0.9973	0.9982	0.9996	1.0000	1.0000	1.0000
	2100.	0.9971	0.9971	0.9973	0.9982	0.9996	1.0000	1.0000	1.0000
	4500.	0.9971	0.9971	0.9973	0.9982	0.9996	1.0000	1.0000	1.0000
70	300.	0.9932	0.9932	0.9935	0.9952	0.9986	0.9998	1.0000	1.0000
	800.	0.9932	0.9932	0.9935	0.9952	0.9986	0.9998	1.0000	1.0000
	2100.	0.9932	0.9932	0.9935	0.9952	0.9986	0.9998	1.0000	1.0000
	4500.	0.9932	0.9932	0.9935	0.9952	0.9986	0.9998	1.0000	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2 REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.3360	0.4781	0.7423	0.9352	0.9915	0.9989	0.9997	0.9998
	800.	0.2882	0.4493	0.7529	0.9485	0.9937	0.9991	0.9997	0.9998
	2100.	0.2982	0.4628	0.7779	0.9609	0.9955	0.9993	0.9997	0.9998
	4500.	0.3047	0.4709	0.7909	0.9666	0.9962	0.9994	0.9997	0.9998
27	300.	0.5760	0.5677	0.8017	0.9600	0.9948	0.9989	0.9994	0.9994
	800.	0.6082	0.5580	0.8103	0.9676	0.9959	0.9991	0.9994	0.9994
	2100.	0.6292	0.5718	0.8267	0.9733	0.9966	0.9991	0.9994	0.9994
	4500.	0.6415	0.5805	0.8357	0.9762	0.9970	0.9992	0.9994	0.9994
28	300.	0.6825	0.5865	0.7624	0.9397	0.9915	0.9984	0.9991	0.9992
	800.	0.7255	0.6047	0.7717	0.9504	0.9934	0.9986	0.9991	0.9992
	2100.	0.7567	0.6278	0.7931	0.9618	0.9950	0.9988	0.9992	0.9992
	4500.	0.7736	0.6414	0.8064	0.9679	0.9958	0.9989	0.9992	0.9992
29	300.	0.8272	0.7503	0.8349	0.9697	0.9958	0.9988	0.9991	0.9991
	800.	0.8469	0.7776	0.8379	0.9729	0.9963	0.9989	0.9991	0.9991
	2100.	0.8761	0.8025	0.8468	0.9764	0.9967	0.9989	0.9991	0.9991
	4500.	0.8979	0.8201	0.8527	0.9783	0.9970	0.9989	0.9991	0.9991
30	300.	0.5286	0.5104	0.5868	0.8362	0.9725	0.9962	0.9987	0.9990
	800.	0.5303	0.5187	0.5976	0.8671	0.9803	0.9971	0.9988	0.9990
	2100.	0.5591	0.5478	0.6350	0.9037	0.9869	0.9978	0.9989	0.9990
	4500.	0.5841	0.5739	0.6679	0.9269	0.9905	0.9982	0.9989	0.9990
31	300.	0.7180	0.6937	0.6999	0.8824	0.9791	0.9967	0.9986	0.9988
	800.	0.7331	0.7111	0.7037	0.8999	0.9842	0.9972	0.9986	0.9988
	2100.	0.7716	0.7446	0.7233	0.9226	0.9887	0.9977	0.9987	0.9988
	4500.	0.8037	0.7705	0.7394	0.9378	0.9913	0.9980	0.9987	0.9988
32	300.	0.7420	0.7854	0.8434	0.9757	0.9959	0.9981	0.9984	0.9984
	800.	0.7935	0.8248	0.8468	0.9756	0.9959	0.9981	0.9984	0.9984
	2100.	0.8536	0.8730	0.8549	0.9760	0.9959	0.9981	0.9984	0.9984
	4500.	0.9014	0.9108	0.8613	0.9763	0.9960	0.9981	0.9984	0.9984
33	300.	0.4776	0.4563	0.4478	0.6606	0.9125	0.9878	0.9970	0.9979
	800.	0.5039	0.4840	0.4698	0.7079	0.9365	0.9910	0.9973	0.9979
	2100.	0.5316	0.5146	0.5033	0.7646	0.9564	0.9935	0.9975	0.9980
	4500.	0.5522	0.5393	0.5373	0.8116	0.9687	0.9949	0.9977	0.9980
34	300.	0.7103	0.7156	0.7204	0.9233	0.9874	0.9965	0.9975	0.9976
	800.	0.7087	0.7097	0.7061	0.9263	0.9887	0.9967	0.9975	0.9976
	2100.	0.7029	0.6989	0.6888	0.9238	0.9887	0.9967	0.9975	0.9976
	4500.	0.7074	0.6988	0.6822	0.9254	0.9891	0.9967	0.9975	0.9976
35	300.	0.8715	0.8719	0.8302	0.9713	0.9947	0.9971	0.9973	0.9973
	800.	0.9136	0.9095	0.8407	0.9735	0.9949	0.9971	0.9973	0.9973
	2100.	0.9687	0.9581	0.8573	0.9752	0.9951	0.9971	0.9973	0.9973
	4500.	1.0067	0.9941	0.8692	0.9756	0.9951	0.9971	0.9973	0.9973
36	300.	0.8133	0.8065	0.7799	0.9623	0.9954	0.9970	0.9971	0.9971
	800.	0.8507	0.8390	0.7915	0.9698	0.9961	0.9970	0.9971	0.9971
	2100.	0.9059	0.8887	0.8136	0.9759	0.9964	0.9971	0.9971	0.9971
	4500.	0.9648	0.9428	0.8376	0.9799	0.9965	0.9971	0.9971	0.9971

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2 REACTION = ELASTIC REMOVAL FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.4009	0.4182	0.4638	0.6920	0.9221	0.9881	0.9961	0.9969
	800.	0.4234	0.4409	0.4880	0.7419	0.9462	0.9913	0.9965	0.9970
	2100.	0.4380	0.4567	0.5166	0.7970	0.9646	0.9935	0.9967	0.9970
	4500.	0.4317	0.4519	0.5282	0.8335	0.9744	0.9947	0.9968	0.9970
38	300.	0.1800	0.1855	0.2227	0.4835	0.8569	0.9797	0.9952	0.9968
	800.	0.1905	0.1962	0.2389	0.5460	0.8972	0.9855	0.9958	0.9968
	2100.	0.2136	0.2185	0.2644	0.6094	0.9257	0.9891	0.9962	0.9969
	4500.	0.2465	0.2507	0.2987	0.6642	0.9429	0.9912	0.9964	0.9969
39	300.	0.9616	0.9811	0.8779	0.9671	0.9955	0.9969	0.9969	0.9970
	800.	0.9520	0.9873	0.9035	0.9715	0.9958	0.9969	0.9969	0.9970
	2100.	0.9497	1.0019	0.9477	0.9792	0.9964	0.9969	0.9970	0.9970
	4500.	0.9519	1.0176	0.9942	0.9879	0.9972	0.9970	0.9970	0.9970
40	300.	0.9263	0.9238	0.8851	0.9596	0.9921	0.9964	0.9968	0.9969
	800.	0.9249	0.9183	0.8876	0.9571	0.9918	0.9961	0.9966	0.9966
	2100.	1.0067	0.9810	0.9131	0.9549	0.9918	0.9961	0.9966	0.9966
	4500.	1.1040	1.0583	0.9398	0.9531	0.9917	0.9961	0.9966	0.9966
41	300.	0.6732	0.7282	0.8236	0.9485	0.9902	0.9962	0.9969	0.9970
	800.	0.7380	0.7813	0.8492	0.9481	0.9894	0.9953	0.9959	0.9960
	2100.	0.7775	0.8272	0.8934	0.9490	0.9895	0.9953	0.9959	0.9960
	4500.	0.8063	0.8610	0.9335	0.9509	0.9899	0.9954	0.9960	0.9960
42	300.	1.0547	0.9785	0.8137	0.9275	0.9862	0.9955	0.9967	0.9968
	800.	1.1949	1.1040	0.8615	0.9202	0.9834	0.9936	0.9948	0.9949
	2100.	1.3901	1.2648	0.9229	0.9156	0.9831	0.9936	0.9948	0.9949
	4500.	1.6196	1.4568	0.9951	0.9124	0.9828	0.9936	0.9948	0.9949
43	300.	1.0707	1.0521	0.9335	0.9535	0.9912	0.9961	0.9967	0.9967
	800.	1.0814	1.0658	0.9744	0.9500	0.9887	0.9937	0.9943	0.9943
	2100.	1.1385	1.1165	1.0224	0.9495	0.9888	0.9938	0.9943	0.9943
	4500.	1.1979	1.1705	1.0680	0.9495	0.9889	0.9938	0.9943	0.9943
44	300.	0.7361	0.7540	0.8448	0.9758	1.0044	0.9980	0.9968	0.9966
	800.	0.7311	0.7460	0.8531	0.9572	0.9938	0.9939	0.9937	0.9937
	2100.	0.6590	0.6828	0.8419	0.9591	0.9947	0.9940	0.9938	0.9937
	4500.	0.5367	0.5656	0.7615	0.9347	0.9919	0.9937	0.9938	0.9938
45	300.	0.7566	0.7708	0.7822	0.8970	0.9786	0.9942	0.9963	0.9965
	800.	0.8162	0.8349	0.8388	0.8938	0.9754	0.9911	0.9931	0.9933
	2100.	0.8640	0.8896	0.8829	0.8837	0.9745	0.9912	0.9931	0.9933
	4500.	0.9275	0.9622	0.9435	0.8767	0.9744	0.9912	0.9931	0.9933
46	300.	0.7884	0.8116	0.8487	0.9155	0.9817	0.9940	0.9962	0.9964
	800.	0.8706	0.8880	0.9080	0.9097	0.9760	0.9902	0.9926	0.9929
	2100.	0.9790	0.9947	0.9961	0.9102	0.9744	0.9902	0.9926	0.9929
	4500.	1.1116	1.1334	1.1302	0.9250	0.9756	0.9905	0.9927	0.9929
47	300.	1.6414	1.4973	1.1007	0.9184	0.9758	0.9935	0.9964	0.9967
	800.	1.5282	1.4154	1.1116	0.9040	0.9706	0.9902	0.9930	0.9933
	2100.	1.5740	1.4534	1.1417	0.8846	0.9680	0.9902	0.9930	0.9933
	4500.	1.6264	1.4990	1.1807	0.8723	0.9665	0.9902	0.9930	0.9933
48	300.	1.3129	1.1718	0.9709	0.9121	0.9778	0.9921	0.9959	0.9964
	800.	1.5857	1.3791	1.0518	0.9087	0.9700	0.9879	0.9923	0.9929
	2100.	1.6567	1.4458	1.0976	0.8913	0.9620	0.9872	0.9923	0.9929
	4500.	1.7839	1.5604	1.1496	0.8599	0.9522	0.9865	0.9922	0.9929

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2 REACTION = ELASTIC REMOVAL FOR 1TH R-PARAMETER
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GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	1.1230	1.1896	1.1657	0.9887	0.9968	0.9967	0.9964	0.9964
	800.	0.9966	1.1004	1.1619	0.9894	0.9934	0.9930	0.9927	0.9926
	2100.	0.9967	1.1032	1.1839	0.9963	0.9943	0.9930	0.9927	0.9926
	4500.	0.9965	1.1079	1.2136	1.0068	0.9951	0.9931	0.9927	0.9926
50	300.	0.2324	0.2525	0.4472	0.7636	0.9350	0.9819	0.9936	0.9951
	800.	0.4731	0.4534	0.5472	0.7424	0.9050	0.9731	0.9891	0.9911
	2100.	0.4417	0.4268	0.5305	0.7214	0.9003	0.9748	0.9895	0.9912
	4500.	0.1757	0.1766	0.2705	0.5700	0.8941	0.9782	0.9902	0.9914
51	300.	1.4659	1.4908	1.3030	0.9789	0.9892	0.9932	0.9944	0.9945
	800.	1.3246	1.4092	1.3655	1.0415	1.0391	1.0431	1.0442	1.0443
	2100.	1.3273	1.4154	1.4002	1.0524	1.0378	1.0430	1.0441	1.0442
	4500.	1.3325	1.4268	1.4556	1.0752	1.0364	1.0428	1.0440	1.0441
52	300.	0.7938	0.9069	1.0737	0.9863	0.9933	0.9939	0.9939	0.9939
	800.	0.8060	0.8955	1.1038	1.0478	1.0478	1.0482	1.0482	1.0482
	2100.	0.8051	0.8953	1.1121	1.0594	1.0488	1.0487	1.0487	1.0487
	4500.	0.8034	0.8948	1.1243	1.0801	1.0502	1.0496	1.0495	1.0495
53	300.	1.3697	1.0793	0.8854	0.8620	0.9449	0.9846	0.9924	0.9933
	800.	1.5705	1.2438	0.9165	0.8750	0.9655	1.0130	1.0211	1.0220
	2100.	1.6268	1.2851	0.9124	0.8526	0.9608	1.0132	1.0210	1.0218
	4500.	1.7434	1.3721	0.9212	0.8446	0.9599	1.0135	1.0207	1.0214
54	300.	1.0595	1.1169	1.0897	0.9868	0.9917	0.9929	0.9930	0.9930
	800.	0.9762	1.0559	1.0954	1.0108	1.0090	1.0103	1.0105	1.0105
	2100.	0.9773	1.0616	1.1166	1.0233	1.0094	1.0104	1.0105	1.0105
	4500.	0.9798	1.0719	1.1510	1.0467	1.0100	1.0104	1.0105	1.0105
55	300.	0.8619	0.9269	1.0192	0.9866	0.9922	0.9927	0.9927	0.9927
	800.	0.8595	0.8954	1.0089	1.0032	1.0051	1.0057	1.0057	1.0057
	2100.	0.8596	0.8963	1.0181	1.0130	1.0055	1.0057	1.0057	1.0057
	4500.	0.8596	0.8979	1.0316	1.0292	1.0059	1.0057	1.0057	1.0057
56	300.	0.7896	0.8324	0.9681	0.9831	0.9922	0.9931	0.9931	0.9931
	800.	0.8323	0.8433	0.9583	1.0022	1.0103	1.0115	1.0116	1.0116
	2100.	0.8322	0.8435	0.9635	1.0096	1.0106	1.0115	1.0116	1.0116
	4500.	0.8322	0.8438	0.9708	1.0214	1.0110	1.0115	1.0116	1.0116
57	300.	0.7338	0.7520	0.9125	0.9766	0.9912	0.9927	0.9929	0.9929
	800.	0.7985	0.8003	0.9027	0.9923	1.0084	1.0103	1.0105	1.0105
	2100.	0.7985	0.8004	0.9060	0.9981	1.0086	1.0103	1.0105	1.0105
	4500.	0.7984	0.8004	0.9106	1.0068	1.0089	1.0104	1.0105	1.0105
58	300.	0.6809	0.6748	0.8360	0.9650	0.9897	0.9923	0.9925	0.9925
	800.	0.7511	0.7485	0.8310	0.9754	1.0032	1.0064	1.0067	1.0068
	2100.	0.7510	0.7485	0.8334	0.9799	1.0035	1.0065	1.0068	1.0068
	4500.	0.7510	0.7484	0.8365	0.9867	1.0037	1.0065	1.0068	1.0068
59	300.	0.6337	0.6124	0.7197	0.9432	0.9878	0.9925	0.9930	0.9930
	800.	0.6601	0.6238	0.8626	0.9893	1.0199	1.0233	1.0237	1.0237
	2100.	0.9598	0.9236	0.8646	0.9933	1.0201	1.0234	1.0238	1.0238
	4500.	0.9594	0.9232	0.8671	0.9991	1.0204	1.0236	1.0239	1.0240
60	300.	0.5932	0.5752	0.5576	0.8957	0.9824	0.9920	0.9930	0.9931
	800.	0.5819	0.6047	0.7170	1.0196	1.0915	1.0996	1.1004	1.1005
	2100.	0.5818	0.6045	0.7185	1.0229	1.0919	1.0998	1.1006	1.1007
	4500.	0.5815	0.6042	0.7203	1.0277	1.0924	1.1002	1.1010	1.1011

TO BE CONTINUED

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TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU240-J2 REACTION = ELASTIC REMOVAL FOR 1TH R-PARAMETER
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GROUP	TEMP. (SIG0)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.5454	0.5359	0.4022	0.7876	0.9683	0.9905	0.9928	0.9930
	800.	0.4950	0.4735	0.3936	0.8274	1.0001	1.0213	1.0235	1.0237
	2100.	0.4949	0.4733	0.3950	0.8303	1.0007	1.0219	1.0241	1.0243
	4500.	0.4947	0.4731	0.3966	0.8345	1.0019	1.0231	1.0252	1.0255
62	300.	0.4780	0.4737	0.3703	0.5489	0.9243	0.9857	0.9923	0.9929
	800.	0.4692	0.4624	0.3122	0.5734	0.9762	1.0436	1.0508	1.0515
	2100.	0.4689	0.4621	0.3137	0.5760	0.9781	1.0460	1.0532	1.0540
	4500.	0.4685	0.4617	0.3156	0.5793	0.9816	1.0505	1.0578	1.0586
63	300.	0.3561	0.3545	0.3331	0.1780	0.7417	0.9617	0.9897	0.9926
	800.	0.4183	0.4164	0.3833	0.2246	0.8563	1.1047	1.1365	1.1397
	2100.	0.4181	0.4162	0.3834	0.2271	0.8624	1.1183	1.1513	1.1546
	4500.	0.4172	0.4153	0.3830	0.2292	0.8747	1.1467	1.1821	1.1857
64	300.	0.0714	0.0713	0.0699	0.0056	0.0651	0.4993	0.9076	0.9837
	800.	0.0743	0.0741	0.0725	0.0106	0.0586	0.6673	1.8616	2.2332
	2100.	0.0756	0.0755	0.0738	0.0129	0.0529	0.6887	2.3659	3.0296
	4500.	0.0852	0.0850	0.0829	0.0169	0.0438	0.6418	2.4050	3.1428
65	300.	3.2386	3.2380	3.2334	3.1088	0.1391	0.6235	0.9361	0.9867
	800.	4.1102	4.1097	4.1048	4.0449	1.6002	0.9283	1.1772	1.2136
	2100.	5.5446	5.5438	5.5365	5.4527	2.1342	0.9493	1.3624	1.4436
	4500.	10.5200	10.5185	10.5055	10.3560	3.8377	1.3988	2.3979	2.6202
66	300.	1.4367	1.4367	1.4367	1.4357	1.1500	0.9227	0.9842	0.9919
	800.	1.3961	1.3961	1.3960	1.3945	1.3568	0.9354	0.9347	0.9391
	2100.	1.4861	1.4861	1.4861	1.4850	1.4551	1.0089	0.9788	0.9826
	4500.	1.7006	1.7006	1.7007	1.7004	1.6683	1.1435	1.0695	1.0732
67	300.	1.1131	1.1132	1.1143	1.1239	1.1198	0.9582	0.9891	0.9925
	800.	1.0767	1.0768	1.0778	1.0856	1.1095	0.9651	0.9485	0.9495
	2100.	1.1044	1.1045	1.1054	1.1136	1.1398	1.0044	0.9699	0.9707
	4500.	1.1596	1.1597	1.1607	1.1695	1.2000	1.0709	1.0118	1.0125
68	300.	0.9966	0.9967	0.9979	1.0091	1.0499	0.9674	0.9901	0.9926
	800.	0.8343	0.8344	0.8354	0.8443	0.8838	0.8296	0.8158	0.8163
	2100.	0.8401	0.8402	0.8412	0.8503	0.8906	0.8455	0.8206	0.8209
	4500.	0.8516	0.8517	0.8527	0.8620	0.9039	0.8683	0.8298	0.8300
69	300.	1.0262	1.0261	1.0247	1.0163	1.0037	1.0004	1.0000	1.0000
	800.	1.0262	1.0261	1.0247	1.0163	1.0037	1.0004	1.0000	1.0000
	2100.	1.0262	1.0261	1.0247	1.0163	1.0037	1.0004	1.0000	1.0000
	4500.	1.0262	1.0261	1.0247	1.0163	1.0037	1.0004	1.0000	1.0000
70	300.	0.9867	0.9868	0.9873	0.9910	0.9977	0.9997	1.0000	1.0000
	800.	0.9867	0.9868	0.9873	0.9910	0.9977	0.9997	1.0000	1.0000
	2100.	0.9867	0.9868	0.9873	0.9910	0.9977	0.9997	1.0000	1.0000
	4500.	0.9867	0.9868	0.9873	0.9910	0.9977	0.9997	1.0000	1.0000

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NUCLID = PU241-J2 CODE NO = 941
INFINITE DILUTION CROSS SECTION

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GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1	1.9561E+00	4.1696E+00	4.0636E-06	1.2663E-02	3.4524E+00	7.7951E-01	4.1923E-02	6.4430E-01	6.0654E+00
2	1.7388E+00	3.9098E+00	3.3657E-04	2.5779E-01	4.1774E+00	7.9785E-01	4.0685E-02	6.9886E-01	6.8731E+00
3	1.3915E+00	3.6932E+00	5.5854E-03	1.1668E+00	4.8639E+00	8.0387E-01	4.1578E-02	1.2997E-01	7.5577E+00
4	1.4250E+00	3.5255E+00	2.0631E-02	1.3136E+00	5.2324E+00	7.8961E-01	4.4169E-02	0.0	7.9917E+00
5	1.5132E+00	3.3948E+00	5.0258E-02	1.2810E+00	5.1917E+00	7.5371E-01	4.9294E-02	0.0	8.0361E+00
6	1.6030E+00	3.2944E+00	9.1065E-02	1.2295E+00	4.8766E+00	6.9770E-01	5.0333E-02	0.0	7.8002E+00
7	1.6983E+00	3.2145E+00	1.3182E-01	1.1100E+00	4.5003E+00	6.2498E-01	5.9054E-02	0.0	7.4405E+00
8	1.7445E+00	3.1522E+00	1.5977E-01	9.2668E-01	4.2818E+00	5.5497E-01	6.8215E-02	0.0	7.1128E+00
9	1.6520E+00	3.1045E+00	1.8732E-01	7.9854E-01	4.3321E+00	5.0486E-01	6.4816E-02	0.0	6.9701E+00
10	1.5638E+00	3.0649E+00	2.0928E-01	6.7349E-01	4.6550E+00	4.6791E-01	1.0568E-01	0.0	7.1016E+00
11	1.5267E+00	3.0364E+00	2.2654E-01	5.7669E-01	5.1503E+00	4.3543E-01	1.0091E-01	0.0	7.4802E+00
12	1.5085E+00	3.0131E+00	2.4507E-01	5.1180E-01	5.7941E+00	3.9916E-01	1.2971E-01	0.0	8.0595E+00
13	1.5478E+00	2.9958E+00	2.5247E-01	4.5076E-01	6.4512E+00	3.6224E-01	1.2082E-01	0.0	8.7022E+00
14	1.6419E+00	2.9813E+00	2.6013E-01	3.6101E-01	7.1591E+00	3.2124E-01	1.6927E-01	0.0	9.4221E+00
15	1.7774E+00	2.9705E+00	2.6592E-01	2.4551E-01	7.8104E+00	2.8095E-01	1.9156E-01	0.0	1.0099E+01
16	1.8825E+00	2.9621E+00	2.8342E-01	1.4957E-01	8.4203E+00	2.4094E-01	2.3819E-01	0.0	1.0736E+01
17	1.9926E+00	2.9556E+00	3.0370E-01	9.2145E-02	8.9400E+00	2.0429E-01	2.2083E-01	0.0	1.1328E+01
18	2.1145E+00	2.9505E+00	3.2438E-01	5.9730E-02	9.3897E+00	1.7032E-01	2.2049E-01	0.0	1.1888E+01
19	2.1913E+00	2.9464E+00	3.3749E-01	3.9262E-02	9.8174E+00	1.3872E-01	2.6123E-01	0.0	1.2385E+01
20	2.2896E+00	2.9433E+00	3.9158E-01	2.5901E-02	1.0161E+01	1.1301E-01	2.5134E-01	0.0	1.2868E+01
21	2.3401E+00	2.9409E+00	4.4302E-01	1.8224E-02	1.0486E+01	9.0538E-02	2.3099E-01	0.0	1.3287E+01
22	2.4841E+00	2.9390E+00	5.2286E-01	7.7016E-03	1.0748E+01	7.1925E-02	2.8399E-01	0.0	1.3763E+01
23	2.6371E+00	2.9375E+00	4.8424E-01	0.0	1.0990E+01	5.7124E-02	3.1460E-01	0.0	1.4112E+01
24	2.7725E+00	2.9363E+00	5.6848E-01	0.0	1.1442E+01	4.4990E-02	2.9971E-01	0.0	1.4783E+01
25	2.9535E+00	2.9354E+00	6.6987E-01	0.0	1.1783E+01	3.5896E-02	3.3153E-01	0.0	1.5406E+01
26	3.0912E+00	2.9347E+00	7.5154E-01	0.0	1.2041E+01	2.8425E-02	4.0014E-01	0.0	1.5884E+01
27	3.2831E+00	2.9342E+00	8.1916E-01	0.0	1.2109E+01	2.2780E-02	4.0687E-01	0.0	1.6211E+01
28	3.5934E+00	2.9338E+00	7.2305E-01	0.0	1.2118E+01	1.8206E-02	4.0269E-01	0.0	1.6435E+01
29	4.0369E+00	2.9335E+00	1.0441E+00	0.0	1.2484E+01	1.4670E-02	4.2659E-01	0.0	1.7565E+01
30	4.5806E+00	2.9332E+00	1.0314E+00	0.0	1.2444E+01	1.2041E-02	4.1852E-01	0.0	1.8056E+01
31	4.9553E+00	2.9330E+00	1.3102E+00	0.0	1.2621E+01	9.9460E-03	4.2806E-01	0.0	1.8887E+01
32	5.7831E+00	2.9328E+00	1.5383E+00	0.0	1.2805E+01	8.0598E-03	4.5361E-01	0.0	2.0126E+01
33	6.0854E+00	2.9327E+00	1.5693E+00	0.0	1.2755E+01	2.7896E-03	4.4105E-01	0.0	2.0410E+01
34	6.3290E+00	2.9326E+00	1.6390E+00	0.0	1.2625E+01	2.7896E-03	4.2053E-01	0.0	2.0593E+01
35	7.8060E+00	2.9326E+00	2.3311E+00	0.0	1.2881E+01	2.7896E-03	4.5219E-01	0.0	2.3019E+01
36	9.1288E+00	2.9325E+00	2.8149E+00	0.0	1.3054E+01	2.7896E-03	4.4355E-01	0.0	2.4998E+01
37	1.0550E+01	2.9325E+00	3.1975E+00	0.0	1.3446E+01	2.7896E-03	5.4608E-01	0.0	2.7194E+01
38	1.0723E+01	2.9324E+00	2.6179E+00	0.0	1.2749E+01	2.7896E-03	4.8859E-01	0.0	2.6090E+01
39	1.0361E+01	2.9324E+00	3.4627E+00	0.0	1.2814E+01	2.7896E-03	4.4955E-01	0.0	2.6638E+01
40	1.6423E+01	2.9324E+00	5.8997E+00	0.0	1.3873E+01	2.7896E-03	5.9821E-01	0.0	3.6195E+01

TO BE CONTINUED

NUCLID = PU241-J2 CODE NO = 941
INFINITE DILUTION CROSS SECTION

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GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41	2.0114E+01	2.9324E+00	9.0556E+00	0.0	1.7267E+01	2.7896E-03	1.3373E+00	0.0	4.6437E+01
42	2.4888E+01	2.9323E+00	5.0113E+00	0.0	1.2654E+01	2.7896E-03	3.8625E-01	0.0	4.2553E+01
43	2.6797E+01	2.9323E+00	9.2821E+00	0.0	1.4520E+01	2.7896E-03	4.1810E-01	0.0	5.0600E+01
44	1.8188E+01	2.9323E+00	4.9764E+00	0.0	1.2325E+01	2.7896E-03	4.0755E-01	0.0	3.5489E+01
45	3.4889E+01	2.9323E+00	8.4202E+00	0.0	1.3612E+01	2.7896E-03	5.4326E-01	0.0	5.6922E+01
46	2.2513E+01	2.9323E+00	6.0793E+00	0.0	1.1909E+01	2.7896E-03	5.2413E-01	0.0	4.0501E+01
47	4.5582E+01	2.9323E+00	1.5227E+01	0.0	1.3904E+01	2.7896E-03	3.4713E-01	0.0	7.4713E+01
48	3.7584E+01	2.9323E+00	1.4876E+01	0.0	1.2580E+01	2.7896E-03	3.7733E-01	0.0	6.5040E+01
49	3.4248E+01	2.9323E+00	5.1075E+00	0.0	1.2143E+01	2.7896E-03	4.7367E-01	0.0	5.1498E+01
50	3.5177E+01	2.9323E+00	9.0822E+00	0.0	1.2520E+01	2.7896E-03	4.2240E-01	0.0	5.6779E+01
51	6.1392E+01	2.9323E+00	1.0361E+01	0.0	1.3978E+01	2.7896E-03	5.5569E-01	0.0	8.5731E+01
52	9.9094E+01	2.9323E+00	1.9758E+01	0.0	1.2853E+01	2.7896E-03	3.6579E-01	0.0	1.3170E+02
53	3.6333E+01	2.9323E+00	5.2562E+01	0.0	1.6343E+01	2.7896E-03	6.9987E-01	0.0	1.0524E+02
54	2.3536E+02	2.9323E+00	8.8395E+01	0.0	2.0360E+01	2.7896E-03	5.6321E-01	0.0	3.4412E+02
55	1.1183E+02	2.9323E+00	8.0574E+01	0.0	1.2746E+01	2.7896E-03	4.0505E-01	0.0	2.0515E+02
56	2.0495E+02	2.9323E+00	4.1023E+01	0.0	1.2207E+01	2.7896E-03	2.9473E-01	0.0	2.5818E+02
57	2.5818E+02	2.9323E+00	3.6604E+01	0.0	1.2251E+01	2.7896E-03	3.8159E-01	0.0	3.0704E+02
58	2.9467E+02	2.9323E+00	1.3395E+01	0.0	1.0051E+01	2.7896E-03	3.5397E-01	0.0	3.1812E+02
59	2.9325E+02	2.9323E+00	2.1110E+02	0.0	1.1704E+01	2.7896E-03	2.1009E-01	0.0	5.1605E+02
60	4.8133E+01	2.9323E+00	1.0353E+01	0.0	7.8013E+00	2.7896E-03	2.9521E-01	0.0	6.6287E+01
61	3.0107E+01	2.9323E+00	3.5939E+00	0.0	8.9538E+00	2.7896E-03	3.1757E-01	0.0	4.2655E+01
62	2.5582E+01	2.9323E+00	2.8660E+00	0.0	9.4321E+00	2.7896E-03	3.3047E-01	0.0	3.7880E+01
63	2.4935E+01	2.9323E+00	3.0238E+00	0.0	9.7522E+00	2.7896E-03	3.4029E-01	0.0	3.7711E+01
64	2.7054E+01	2.9323E+00	3.8566E+00	0.0	1.0021E+01	2.7896E-03	3.4931E-01	0.0	4.0932E+01
65	3.2366E+01	2.9323E+00	5.8421E+00	0.0	1.0200E+01	2.7896E-03	3.4680E-01	0.0	4.8409E+01
66	3.7694E+01	2.9323E+00	1.0251E+01	0.0	1.0481E+01	2.7896E-03	3.6790E-01	0.0	5.8426E+01
67	4.5885E+01	2.9323E+00	2.0867E+01	0.0	1.0968E+01	2.7896E-03	3.8775E-01	0.0	7.7721E+01
68	7.8597E+01	2.9323E+00	5.4772E+01	0.0	1.1699E+01	2.7896E-03	4.1898E-01	0.0	1.4507E+02
69	2.6490E+02	2.9323E+00	1.6803E+02	0.0	1.2733E+01	2.7896E-03	3.1395E-01	0.0	4.4567E+02
70	1.1372E+03	2.9323E+00	4.4437E+02	0.0	1.1018E+01	2.7896E-03	0.0	0.0	1.5925E+03

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NUCLID = PU241-J2 CODE NUMBER = 941 IPL = 0										
TABLE OF INELASTIC MATRICES										
PAGE 1 OF 3										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
I	J			3	4	5	6	7	8	9
1	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31
31	32	33	34	35	36					
1	1.32543E-07	3.28832E-06	2.59235E-05	1.18447E-04	3.51089E-04	7.39024E-04	1.18823E-03	1.54451E-03	1.70073E-03	1.64286E-03
2	1.43288E-03	1.15386E-03	8.72941E-04	6.29021E-04	4.36304E-04	2.93851E-04	1.93402E-04	1.24969E-04	7.96496E-05	5.02099E-05
3	1.13807E-05	1.94835E-05	1.20352E-05	7.40372E-06	4.54073E-06	2.77839E-06	1.69586E-06	1.03426E-06	6.29814E-07	3.83207E-07
4	2.32997E-07	1.41594E-07	8.60053E-08	5.22288E-08	3.17091E-08	1.92440E-08				
5	1.02431E-05	2.04661E-04	1.19861E-03	4.35564E-03	1.07691E-02	1.96559E-02	2.82279E-02	3.36121E-02	3.45209E-02	3.15877E-02
6	2.64082E-02	2.05723E-02	1.51666E-02	1.07091E-02	7.31350E-03	4.86593E-03	3.17085E-03	2.03430E-03	1.28899E-03	8.08827E-04
7	5.03746E-04	3.11927E-04	1.92251E-04	1.18082E-04	7.23350E-05	4.41908E-05	2.69697E-05	1.64321E-05	1.00022E-05	6.08354E-06
8	3.69795E-06	2.24661E-06	1.36452E-06	8.28528E-07	5.02873E-07	3.05212E-07				
9	1.49489E-04	2.46231E-03	1.09162E-02	3.23482E-02	6.81115E-02	1.09457E-01	1.42372E-01	1.56708E-01	1.51382E-01	1.32041E-01
10	1.04326E-01	8.04409E-02	5.79569E-02	4.02082E-02	2.70823E-02	1.78176E-02	1.15167E-02	7.33978E-03	4.62635E-03	2.89164E-03
11	1.79547E-03	1.10898E-03	6.82278E-04	4.18495E-04	2.55926E-04	1.56315E-04	9.52976E-05	5.80355E-05	3.53115E-05	2.14707E-05
12	1.30470E-05	7.92574E-06	4.81311E-06	2.92162E-06	1.77338E-06	0.0				
13	1.01326E-03	6.88551E-03	2.21798E-02	5.48549E-02	1.00070E-01	1.43807E-01	1.71169E-01	1.75803E-01	1.60875E-01	1.34493E-01
14	1.04772E-01	7.72320E-02	5.45440E-02	3.72524E-02	2.47756E-02	1.61499E-02	1.03606E-02	6.58426E-03	4.11915E-03	2.56563E-03
15	1.58852E-03	9.79152E-04	6.01476E-04	3.68247E-04	2.25119E-04	1.37340E-04	8.36842E-05	5.09388E-05	3.09829E-05	1.88321E-05
16	1.14423E-05	6.94970E-06	4.21906E-06	2.56115E-06	1.55441E-06	0.0				
17	6.46893E-03	1.62748E-02	3.52969E-02	7.42811E-02	1.19454E-01	1.55315E-01	1.70960E-01	1.65160E-01	1.44056E-01	1.16002E-01
18	8.77505E-02	6.32358E-02	4.38740E-02	2.95399E-02	1.94405E-02	1.25650E-02	8.00729E-03	5.04747E-03	3.15494E-03	1.95877E-03
19	1.20996E-03	7.44496E-04	4.56401E-04	2.79292E-04	1.70524E-04	1.03968E-04	6.33157E-05	3.85253E-05	2.34233E-05	1.42351E-05
20	8.64751E-06	5.25049E-06	3.18762E-06	1.93478E-06	0.0	0.0				
21	2.30357E-02	3.76071E-02	4.99326E-02	9.11539E-02	1.30946E-01	1.55866E-01	1.60095E-01	1.46498E-01	1.22474E-01	9.53985E-02
22	7.03359E-02	4.96778E-02	3.39157E-02	2.25635E-02	1.47071E-02	9.43431E-03	5.97758E-03	3.75127E-03	2.33626E-03	1.46664E-03
23	8.91814E-04	5.47517E-04	3.35434E-04	2.04985E-04	1.25065E-04	7.62051E-05	4.63877E-05	2.82128E-05	1.71503E-05	1.04205E-05
24	6.32796E-06	3.84222E-06	2.33233E-06	1.15458E-06	0.0	0.0				
25	5.37452E-02	7.21498E-02	6.06249E-02	9.60312E-02	1.24863E-01	1.37449E-01	1.32783E-01	1.15817E-01	9.32513E-02	7.05541E-02
26	5.08479E-02	3.52653E-02	2.37510E-02	1.56300E-02	1.01013E-02	6.43751E-03	4.05823E-03	2.53636E-03	1.57487E-03	9.72941E-04
27	5.98320E-04	3.67035E-04	2.24523E-04	1.37094E-04	8.35857E-05	5.09047E-05	3.09716E-05	1.88327E-05	1.14453E-05	6.95153E-06
28	4.22142E-06	2.56278E-06	1.55548E-06	0.0	0.0	0.0				
29	8.10958E-02	1.12354E-01	6.55035E-02	8.50753E-02	1.01271E-01	1.04017E-01	9.51825E-02	7.95640E-02	6.19862E-02	4.57054E-02
30	3.22688E-02	2.20371E-02	1.46601E-02	9.55487E-03	6.12945E-03	3.88390E-03	2.43712E-03	1.51797E-03	9.40063E-04	5.79194E-04
31	3.55826E-04	2.17915E-04	1.33178E-04	8.12547E-05	4.95118E-05	3.01369E-05	1.83312E-05	1.11436E-05	6.76948E-06	4.11151E-06
32	2.49635E-06	1.51530E-06	0.0	0.0	0.0	0.0				
33	9.63732E-02	1.78422E-01	5.21144E-02	7.22547E-02	7.81356E-02	7.54831E-02	6.58296E-02	5.30133E-02	4.01134E-02	2.88980E-02
34	2.00482E-02	1.35016E-02	8.88442E-03	5.74201E-03	3.65959E-03	2.30679E-03	1.44186E-03	8.95390E-04	5.52852E-04	3.40209E-04
35	2.08622E-04	1.27627E-04	7.79294E-05	4.75148E-05	2.89351E-05	1.76068E-05	1.07061E-05	6.50531E-06	3.95175E-06	2.39969E-06
36	1.45678E-06	8.84233E-07	0.0	0.0	0.0	0.0				
37	9.24551E-02	2.16534E-01	7.46373E-02	3.40865E-02	5.57804E-02	5.04409E-02	4.21720E-02	3.28581E-02	2.42184E-02	1.71038E-02
38	1.16800E-02	7.76947E-03	5.06400E-03	3.24879E-03	2.05837E-03	1.29174E-03	8.04665E-04	4.98041E-04	3.07059E-04	1.88571E-04
39	1.15493E-04	7.05834E-05	4.30657E-05	2.62399E-05	1.59735E-05	9.71614E-06	5.90531E-06	3.58798E-06	2.17913E-06	1.32304E-06
40	8.03135E-07	0.0	0.0	0.0	0.0	0.0				

TO BE CONTINUED

NUCLID = PU241-J2 CODE NUMBER = 941 IPL = 0										
TABLE OF INELASTIC MATRICES										
PAGE 2 OF 3										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
1	J=	2	3	4	5	6	7	8	9	10
11	11	12	13	14	15	16	17	18	19	20
21	22	23	24	25	26	27	28	29	30	31
31	32	33	34	35	36					

11	8.68306E-02	2.04061E-01	1.39951E-01	2.57497E-02	3.99605E-03	3.16083E-02	2.48988E-02	1.88328E-02	1.35714E-02	9.41477E-03
	6.34000E-03	4.17202E-03	2.69657E-03	1.71845E-03	1.08332E-03	6.77216E-04	4.20310E-04	2.59690E-04	1.59747E-04	9.79669E-05
	5.99326E-05	3.65961E-05	2.23117E-05	1.35887E-05	8.26861E-06	5.02698E-06	3.05501E-06	1.85576E-06	1.12687E-06	6.84121E-07
	0.0	0.0	0.0	0.0	0.0	0.0				
12	8.37513E-02	1.50190E-01	1.61812E-01	7.15677E-02	1.48477E-02	6.14012E-03	1.21911E-03	6.61464E-04	2.75530E-03	6.79040E-03
	4.36889E-03	2.83532E-03	1.81880E-03	1.15247E-03	7.23331E-04	4.50331E-04	2.78914E-04	1.71897E-04	1.05573E-04	6.46599E-05
	3.95179E-05	2.41098E-05	1.46917E-05	8.94358E-06	5.43912E-06	3.30633E-06	2.00882E-06	1.22000E-06	7.40751E-07	0.0
	0.0	0.0	0.0	0.0	0.0	0.0				
13	6.94278E-02	1.09945E-01	1.09439E-01	9.57302E-02	4.74368E-02	8.27907E-03	5.28736E-03	2.44931E-03	1.50462E-03	4.91044E-04
	2.85091E-04	1.77306E-04	1.10890E-04	6.74044E-05	4.24209E-05	2.74362E-05	1.79394E-05	1.18008E-05	7.86114E-06	5.44330E-06
	4.89681E-06	4.75378E-06	2.76016E-06	1.70448E-06	1.03683E-06	6.42966E-07	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0				
14	5.23385E-02	8.78997E-02	5.04712E-02	5.62841E-02	5.65551E-02	3.18701E-02	1.60745E-02	3.67886E-03	2.05915E-03	1.42159E-03
	8.78668E-04	5.47137E-04	3.56317E-04	2.25136E-04	1.37319E-04	8.31276E-05	4.99135E-05	3.01077E-05	1.89779E-05	1.09609E-05
	6.94861E-06	3.97451E-06	2.74990E-06	1.34538E-06	8.75162E-07	4.64133E-07	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0				
15	3.49158E-02	7.90821E-02	2.40842E-02	2.16858E-02	2.03245E-02	1.92750E-02	1.50726E-02	1.14055E-02	7.33684E-03	4.73469E-03
	3.07148E-03	1.99649E-03	1.32069E-03	4.85773E-04	2.65491E-04	1.84728E-04	1.05319E-04	5.63921E-05	3.26594E-05	2.04892E-05
	1.22317E-05	8.25324E-06	2.48801E-06	5.48189E-06	6.88788E-06	8.03149E-06	5.68835E-06	2.46332E-06	1.50668E-06	9.22655E-07
	5.66834E-07	3.49195E-07	0.0	0.0	0.0	0.0				
16	1.53165E-02	6.70742E-02	2.12870E-02	1.12744E-02	1.15788E-03	8.41518E-03	6.85336E-03	4.35698E-03	2.76232E-03	1.63973E-03
	8.88544E-04	5.56930E-04	1.99443E-03	1.80849E-03	1.22530E-03	8.12677E-04	6.97732E-04	4.79309E-04	3.21366E-04	2.17407E-04
	1.49889E-04	1.03268E-04	7.01798E-05	4.16257E-05	2.51406E-05	1.62653E-05	9.48352E-06	4.99846E-06	3.58164E-06	2.29888E-06
	1.15469E-06	8.18258E-07	7.75703E-07	4.23952E-07	0.0	0.0				
17	0.0	5.16064E-02	1.79832E-02	9.17341E-03	5.35419E-03	1.31110E-03	0.0	0.0	2.53427E-04	5.77997E-04
	3.73731E-04	1.79085E-03	1.26225E-03	8.44393E-04	5.72847E-04	3.93440E-04	2.54534E-04	1.54182E-04	9.39287E-05	5.75266E-05
	3.45793E-05	2.06887E-05	1.28866E-05	7.95629E-06	4.50810E-06	3.04925E-06	1.75241E-06	9.31366E-07	7.69133E-07	2.83459E-07
	2.94848E-07	2.96710E-07	0.0	0.0	0.0	0.0				
18	0.0	2.47283E-02	2.77239E-02	0.0	2.43139E-03	2.38245E-03	1.33463E-03	8.13283E-04	3.16327E-04	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	0.0	2.21692E-03	2.41469E-02	1.12872E-02	0.0	0.0	0.0	3.05794E-04	5.33705E-04	3.12906E-04
	1.79620E-04	1.00460E-04	5.80542E-05	3.64884E-05	2.27692E-05	2.44000E-05	9.43272E-06	5.72843E-06	3.96245E-06	2.45252E-06
	1.75760E-06	1.07357E-06	6.77167E-07	2.81823E-07	3.84311E-07	0.0	1.23666E-07	1.45326E-07	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0				
20	0.0	0.0	5.43848E-03	1.31429E-02	7.31958E-03	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

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NUCLID = PU241-J2 CODE NUMBER = 941 IPL = 0

TABLE OF INELASTIC MATRICES

PAGE 3 OF 3

GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
1	J=	1	2	3	4	5	6	7	8	9
11	11	12	13	14	15	16	17	18	19	20
21	21	22	23	24	25	26	27	28	29	30
31	31	32	33	34	35	36				

21	0.0	0.0	0.0	5.72483E-04	7.36842E-03	5.49945E-03	3.59179E-03	1.19182E-03	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
22	0.0	0.0	0.0	0.0	0.0	0.0	1.52094E-03	2.08607E-03	1.39586E-03	9.39346E-04
	6.36708E-04	4.33770E-04	2.70468E-04	1.63436E-04	1.01115E-04	5.89087E-05	3.80249E-05	2.21622E-05	1.40983E-05	7.40081E-06
	5.13803E-06	4.06642E-06	1.04677E-06	1.66685E-06	0.0	7.56317E-07	6.01857E-07	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0				

NUCLID = PU241-J2 CODE NUMBER = 941 IPL = 0

TABLE OF (N,2N) MATRICES

PAGE 1 OF 1

GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
1	J=	1	2	3	4	5	6	7	8	9
11	11	12	13	14	15	16	17	18	19	20
21	21	22	23	24	25	26	27	28	29	30
31	31	32	33	34	35	36	37	38	39	40
41	41	42	43	44	45					

1	0.0	0.0	0.0	0.0	1.23870E-02	3.11463E-02	5.46313E-02	8.03667E-02	1.05825E-01	1.28246E-01
	1.43219E-01	1.46536E-01	1.37382E-01	1.18861E-01	9.59076E-02	7.30277E-02	5.30322E-02	3.70541E-02	2.51220E-02	1.66261E-02
	1.07958E-02	6.90657E-03	4.36741E-03	2.73634E-03	1.70237E-03	1.05334E-03	6.48551E-04	3.98230E-04	2.43788E-04	1.48945E-04
	9.08528E-05	5.53502E-05	3.36858E-05	2.04876E-05	1.24532E-05	7.56468E-06	4.59424E-06	2.78934E-06	1.69309E-06	0.0
	0.0	0.0	0.0	0.0	0.0					
2	0.0	0.0	0.0	0.0	0.0	0.0	1.76998E-04	1.78494E-03	9.27015E-03	3.04055E-02
	6.93484E-02	1.18743E-01	1.62247E-01	1.85655E-01	1.84911E-01	1.45201E-01	1.35500E-01	1.04021E-01	7.58123E-02	5.30563E-02
	3.59773E-02	2.38043E-02	1.54489E-02	9.87839E-03	6.24404E-03	3.90889E-03	2.43140E-03	1.50351E-03	9.25813E-04	5.68181E-04
	3.47801E-04	2.12454E-04	1.29587E-04	7.89450E-05	4.80390E-05	2.92151E-05	1.77565E-05	1.07868E-05	6.55088E-06	3.97691E-06
	2.41432E-06	1.46500E-06	0.0	0.0	0.0					
3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	1.56336E-02	6.50001E-02	5.25672E-02	3.99036E-02
	2.88313E-02	2.00408E-02	1.35188E-02	8.90895E-03	5.76138E-03	3.67556E-03	2.31814E-03	1.44954E-03	9.00305E-04	5.56267E-04
	3.42272E-04	2.09953E-04	1.28469E-04	7.84438E-05	4.78336E-05	2.91330E-05	1.77266E-05	1.07790E-05	6.55019E-06	3.97956E-06
	2.41623E-06	1.46668E-06	8.90504E-07	5.40285E-07	3.27859E-07					

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2 REACTION = FISSION

FOR 1TH R-PARAMETER

PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9687	0.9711	0.9805	0.9955	0.9995	0.9999	1.0000	1.0000
	800.	0.9773	0.9794	0.9861	0.9968	0.9996	1.0000	1.0000	1.0000
	2100.	0.9813	0.9841	0.9902	0.9979	0.9998	1.0000	1.0000	1.0000
	4500.	0.9819	0.9853	0.9920	0.9983	0.9998	1.0000	1.0000	1.0000
27	300.	0.9603	0.9628	0.9740	0.9938	0.9993	0.9999	1.0000	1.0000
	800.	0.9705	0.9715	0.9789	0.9952	0.9994	0.9999	1.0000	1.0000
	2100.	0.9792	0.9794	0.9839	0.9965	0.9996	1.0000	1.0000	1.0000
	4500.	0.9840	0.9832	0.9861	0.9971	0.9997	1.0000	1.0000	1.0000
28	300.	0.9508	0.9535	0.9675	0.9924	0.9991	0.9999	1.0000	1.0000
	800.	0.9648	0.9666	0.9752	0.9945	0.9994	0.9999	1.0000	1.0000
	2100.	0.9766	0.9777	0.9821	0.9962	0.9996	0.9999	1.0000	1.0000
	4500.	0.9831	0.9838	0.9855	0.9971	0.9997	1.0000	1.0000	1.0000
29	300.	0.9371	0.9405	0.9617	0.9901	0.9988	0.9999	1.0000	1.0000
	800.	0.9547	0.9572	0.9731	0.9931	0.9992	0.9999	1.0000	1.0000
	2100.	0.9682	0.9700	0.9816	0.9953	0.9995	0.9999	1.0000	1.0000
	4500.	0.9768	0.9781	0.9867	0.9966	0.9996	1.0000	1.0000	1.0000
30	300.	0.9253	0.9289	0.9496	0.9869	0.9984	0.9998	1.0000	1.0000
	800.	0.9468	0.9494	0.9642	0.9908	0.9989	0.9999	1.0000	1.0000
	2100.	0.9636	0.9654	0.9755	0.9938	0.9993	0.9999	1.0000	1.0000
	4500.	0.9740	0.9753	0.9822	0.9956	0.9995	0.9999	1.0000	1.0000
31	300.	0.9086	0.9125	0.9346	0.9806	0.9976	0.9997	0.9999	0.9999
	800.	0.9320	0.9349	0.9504	0.9850	0.9982	0.9998	0.9999	0.9999
	2100.	0.9515	0.9535	0.9632	0.9886	0.9986	0.9998	0.9999	0.9999
	4500.	0.9639	0.9653	0.9713	0.9908	0.9989	0.9998	0.9999	0.9999
32	300.	0.8698	0.8752	0.9077	0.9727	0.9966	0.9996	0.9999	0.9999
	800.	0.9057	0.9098	0.9334	0.9804	0.9976	0.9997	0.9999	0.9999
	2100.	0.9346	0.9374	0.9534	0.9860	0.9983	0.9998	0.9999	0.9999
	4500.	0.9528	0.9547	0.9658	0.9894	0.9987	0.9998	0.9999	1.0000
33	300.	0.8798	0.8849	0.9165	0.9779	0.9973	0.9998	1.0000	1.0000
	800.	0.9094	0.9132	0.9375	0.9842	0.9981	0.9998	1.0000	1.0000
	2100.	0.9333	0.9361	0.9542	0.9890	0.9987	0.9999	1.0000	1.0000
	4500.	0.9486	0.9507	0.9649	0.9921	0.9991	0.9999	1.0000	1.0000
34	300.	0.8508	0.8573	0.8967	0.9709	0.9964	0.9996	1.0000	1.0000
	800.	0.8871	0.8924	0.9235	0.9793	0.9975	0.9997	1.0000	1.0000
	2100.	0.9149	0.9191	0.9433	0.9850	0.9982	0.9998	1.0000	1.0000
	4500.	0.9307	0.9342	0.9543	0.9881	0.9986	0.9998	1.0000	1.0000
35	300.	0.8171	0.8240	0.8695	0.9657	0.9956	0.9997	1.0001	1.0002
	800.	0.8570	0.8627	0.9001	0.9765	0.9971	0.9998	1.0001	1.0002
	2100.	0.8931	0.8976	0.9270	0.9852	0.9982	1.0000	1.0001	1.0002
	4500.	0.9189	0.9224	0.9456	0.9909	0.9989	1.0000	1.0002	1.0002
36	300.	0.7553	0.7648	0.8235	0.9497	0.9931	0.9995	1.0001	1.0002
	800.	0.8032	0.8117	0.8633	0.9664	0.9956	0.9997	1.0002	1.0002
	2100.	0.8495	0.8570	0.9010	0.9807	0.9976	0.9999	1.0002	1.0002
	4500.	0.8829	0.8896	0.9279	0.9901	0.9988	1.0001	1.0002	1.0002

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2		REACTION = FISSION				FOR 1TH R-PARAMETER			
						PAGE 4 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.7805	0.7879	0.8349	0.9418	0.9914	0.9991	0.9999	1.0000
	800.	0.8332	0.8390	0.8763	0.9583	0.9942	0.9994	0.9999	1.0000
	2100.	0.8808	0.8850	0.9125	0.9715	0.9962	0.9996	0.9999	1.0000
	4500.	0.9089	0.9122	0.9335	0.9787	0.9972	0.9997	0.9999	1.0000
38	300.	0.7522	0.7624	0.8225	0.9659	0.9927	0.9993	1.0000	1.0001
	800.	0.8011	0.8101	0.8622	0.9623	0.9951	0.9996	1.0000	1.0001
	2100.	0.8482	0.8557	0.8964	0.9755	0.9969	0.9997	1.0000	1.0001
	4500.	0.8818	0.8880	0.9230	0.9835	0.9980	0.9999	1.0001	1.0001
39	300.	0.7445	0.7542	0.8124	0.9341	0.9907	0.9989	0.9998	0.9999
	800.	0.7915	0.8006	0.8524	0.9508	0.9932	0.9992	0.9998	0.9999
	2100.	0.8331	0.8410	0.8857	0.9636	0.9951	0.9994	0.9998	0.9999
	4500.	0.8616	0.8683	0.9067	0.9711	0.9961	0.9995	0.9999	0.9999
40	300.	0.5907	0.6049	0.6854	0.8638	0.9769	0.9973	0.9996	0.9998
	800.	0.6436	0.6575	0.7347	0.8919	0.9827	0.9980	0.9996	0.9998
	2100.	0.7058	0.7186	0.7881	0.9177	0.9875	0.9985	0.9997	0.9998
	4500.	0.7517	0.7633	0.8258	0.9345	0.9904	0.9989	0.9997	0.9998
41	300.	0.5565	0.5679	0.6381	0.8081	0.9654	0.9958	0.9992	0.9995
	800.	0.6157	0.6274	0.6972	0.8455	0.9745	0.9968	0.9992	0.9994
	2100.	0.6761	0.6884	0.7575	0.8793	0.9812	0.9975	0.9992	0.9994
	4500.	0.7219	0.7339	0.8003	0.8997	0.9848	0.9979	0.9993	0.9994
42	300.	0.6222	0.6311	0.6904	0.8591	0.9774	0.9976	0.9997	1.0000
	800.	0.6844	0.6923	0.7455	0.8939	0.9841	0.9983	0.9998	1.0000
	2100.	0.7563	0.7630	0.8068	0.9243	0.9889	0.9988	0.9999	1.0000
	4500.	0.8145	0.8198	0.8550	0.9467	0.9922	0.9992	0.9999	1.0000
43	300.	0.5825	0.5916	0.6542	0.8372	0.9736	0.9972	0.9997	1.0000
	800.	0.6187	0.6277	0.6902	0.8672	0.9808	0.9981	0.9999	1.0001
	2100.	0.6632	0.6720	0.7333	0.8957	0.9865	0.9987	1.0000	1.0001
	4500.	0.6947	0.7035	0.7639	0.9146	0.9899	0.9991	1.0000	1.0001
44	300.	0.6707	0.6795	0.7382	0.9292	0.9924	0.9999	1.0007	1.0008
	800.	0.7034	0.7111	0.7631	0.9414	0.9953	1.0006	1.0011	1.0012
	2100.	0.7430	0.7495	0.7935	0.9513	0.9976	1.0008	1.0012	1.0012
	4500.	0.7763	0.7818	0.8193	0.9612	0.9994	1.0010	1.0012	1.0012
45	300.	0.4637	0.4714	0.5289	0.7237	0.9373	0.9923	0.9988	0.9995
	800.	0.4956	0.5036	0.5624	0.7586	0.9501	0.9938	0.9988	0.9993
	2100.	0.5401	0.5480	0.6071	0.8005	0.9624	0.9954	0.9990	0.9993
	4500.	0.5881	0.5956	0.6529	0.8371	0.9715	0.9965	0.9991	0.9994
46	300.	0.7276	0.7353	0.7793	0.9307	0.9940	1.0002	1.0009	1.0009
	800.	0.7747	0.7806	0.8198	0.9458	0.9970	1.0007	1.0011	1.0012
	2100.	0.8133	0.8184	0.8519	0.9590	0.9999	1.0010	1.0012	1.0012
	4500.	0.8431	0.8473	0.8751	0.9683	1.0018	1.0013	1.0012	1.0012
47	300.	0.4055	0.4163	0.4858	0.6875	0.9185	0.9894	0.9980	0.9989
	800.	0.4296	0.4411	0.5153	0.7255	0.9308	0.9861	0.9925	0.9932
	2100.	0.4643	0.4766	0.5559	0.7694	0.9453	0.9883	0.9931	0.9935
	4500.	0.4965	0.5088	0.5890	0.7963	0.9517	0.9887	0.9928	0.9932
48	300.	0.4186	0.4292	0.5022	0.7196	0.9302	0.9911	0.9981	0.9988
	800.	0.4546	0.4653	0.5399	0.7596	0.9424	0.9923	0.9979	0.9984
	2100.	0.5056	0.5161	0.5900	0.8011	0.9533	0.9947	0.9993	0.9997
	4500.	0.5581	0.5682	0.6396	0.8356	0.9630	0.9991	1.0031	1.0035

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2		REACTION = FISSION				FOR 1TH R-PARAMETER			
						PAGE 5 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.2330	0.2496	0.3565	0.6760	0.9312	0.9917	0.9989	0.9996
	800.	0.2427	0.2599	0.3717	0.7113	0.9628	1.0171	1.0235	1.0242
	2100.	0.2481	0.2658	0.3813	0.7276	0.9591	1.0029	1.0080	1.0085
	4500.	0.2558	0.2740	0.3923	0.7384	0.9469	0.9817	0.9856	0.9860
50	300.	0.4081	0.4267	0.5352	0.7947	0.9598	0.9952	0.9991	0.9995
	800.	0.4092	0.4265	0.5304	0.7802	0.9269	0.9561	0.9593	0.9597
	2100.	0.4357	0.4536	0.5601	0.8096	0.9447	0.9696	0.9723	0.9726
	4500.	0.4727	0.4903	0.5953	0.8389	0.9653	0.9870	0.9893	0.9896
51	300.	0.4278	0.4401	0.5136	0.6993	0.9080	0.9871	0.9966	0.9976
	800.	0.5153	0.5261	0.5911	0.7771	1.0157	1.1217	1.1217	1.1228
	2100.	0.5361	0.5468	0.6123	0.7973	1.0178	1.1025	1.1127	1.1137
	4500.	0.5701	0.5802	0.6433	0.8206	1.0185	1.0928	1.1016	1.1025
52	300.	0.4749	0.4789	0.5114	0.6819	0.9195	0.9903	0.9996	1.0006
	800.	0.4791	0.4828	0.5127	0.6612	0.8713	0.9363	0.9446	0.9454
	2100.	0.5237	0.5275	0.5582	0.7065	0.8944	0.9425	0.9482	0.9488
	4500.	0.6006	0.6040	0.6316	0.7650	0.9169	0.9475	0.9509	0.9513
53	300.	0.3294	0.3322	0.3564	0.4921	0.7377	0.9507	0.9911	0.9956
	800.	0.3512	0.3543	0.3802	0.5248	0.7758	0.9573	0.9875	0.9907
	2100.	0.3798	0.3831	0.4105	0.5612	0.8040	0.9525	0.9745	0.9768
	4500.	0.4197	0.4231	0.4510	0.6014	0.8183	0.9347	0.9508	0.9525
54	300.	0.3861	0.3857	0.3856	0.4556	0.6901	0.9316	0.9908	0.9977
	800.	0.4135	0.4131	0.4133	0.4800	0.7135	0.9400	0.9903	0.9961
	2100.	0.4917	0.4911	0.4886	0.5393	0.7605	0.9654	1.0050	1.0094
	4500.	0.6216	0.6203	0.6129	0.6311	0.8190	0.9964	1.0267	1.0299
55	300.	0.3907	0.3922	0.4044	0.4957	0.8940	0.9830	1.0019	1.0040
	800.	0.3983	0.3998	0.4123	0.5042	0.9107	0.9882	1.0007	1.0021
	2100.	0.4093	0.4108	0.4234	0.5147	0.9301	0.9772	0.9830	0.9836
	4500.	0.4258	0.4272	0.4394	0.5259	0.9317	0.9557	0.9574	0.9576
56	300.	0.7433	0.7434	0.7457	0.7890	0.8915	0.9818	0.9969	0.9986
	800.	0.7776	0.7777	0.7801	0.8187	0.9161	0.9928	1.0055	1.0068
	2100.	0.8113	0.8112	0.8114	0.8416	0.9263	0.9913	1.0014	1.0024
	4500.	0.8468	0.8463	0.8436	0.8621	0.9292	0.9820	0.9898	0.9906
57	300.	0.6618	0.6625	0.6682	0.7130	0.8095	0.9692	0.9946	0.9973
	800.	0.6736	0.6743	0.6804	0.7275	0.8332	0.9772	1.0009	1.0034
	2100.	0.6908	0.6915	0.6981	0.7479	0.8491	0.9835	1.0052	1.0075
	4500.	0.7237	0.7245	0.7314	0.7817	0.8726	0.9952	1.0148	1.0168
58	300.	0.8287	0.8294	0.8349	0.8787	1.0656	1.0105	1.0028	1.0020
	800.	0.8208	0.8215	0.8271	0.8708	1.0418	1.0070	0.9992	0.9984
	2100.	0.8254	0.8260	0.8313	0.8725	1.0365	1.0051	0.9974	0.9966
	4500.	0.8349	0.8354	0.8401	0.8775	1.0314	1.0026	0.9951	0.9943
59	300.	0.4242	0.4254	0.4365	0.5249	0.7481	0.9537	0.9938	0.9983
	800.	0.4286	0.4299	0.4411	0.5307	0.7701	0.9423	0.9743	0.9777
	2100.	0.4694	0.4706	0.4812	0.5672	0.7971	0.9493	0.9750	0.9777
	4500.	0.5342	0.5352	0.5441	0.6186	0.8221	0.9534	0.9745	0.9767
60	300.	0.9559	0.9556	0.9532	0.9455	0.9957	1.0020	1.0012	1.0011
	800.	0.9453	0.9450	0.9431	0.9367	0.9662	0.9862	0.9862	0.9862
	2100.	0.9497	0.9494	0.9473	0.9407	0.9714	0.9938	0.9936	0.9936
	4500.	0.9592	0.9589	0.9567	0.9506	0.9866	1.0124	1.0121	1.0120

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = FISSION

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9995	0.9995	0.9991	0.9960	0.9991	1.0006	1.0004	1.0004
	800.	0.9981	0.9980	0.9976	0.9949	0.9958	1.0002	1.0002	1.0002
	2100.	0.9992	0.9992	0.9988	0.9959	0.9967	1.0014	1.0014	1.0014
	4500.	1.0014	1.0014	1.0010	0.9980	0.9986	1.0037	1.0036	1.0036
62	300.	1.0012	1.0011	1.0010	1.0001	0.9999	1.0002	1.0001	1.0001
	800.	0.9980	0.9980	0.9979	0.9971	0.9966	0.9974	0.9973	0.9973
	2100.	0.9987	0.9987	0.9986	0.9978	0.9972	0.9981	0.9981	0.9981
	4500.	1.0000	1.0000	0.9999	0.9991	0.9985	0.9994	0.9994	0.9994
63	300.	0.9993	0.9993	0.9993	0.9996	1.0000	0.9999	1.0000	1.0000
	800.	1.0005	1.0005	1.0005	1.0008	1.0012	1.0010	1.0010	1.0010
	2100.	1.0011	1.0011	1.0011	1.0014	1.0018	1.0016	1.0016	1.0016
	4500.	1.0021	1.0021	1.0022	1.0024	1.0029	1.0027	1.0027	1.0027
64	300.	0.9956	0.9956	0.9956	0.9968	0.9994	0.9997	0.9998	0.9998
	800.	1.0011	1.0011	1.0012	1.0025	1.0053	1.0051	1.0051	1.0052
	2100.	1.0017	1.0018	1.0018	1.0031	1.0060	1.0057	1.0058	1.0058
	4500.	1.0029	1.0030	1.0030	1.0043	1.0073	1.0070	1.0070	1.0070
65	300.	0.9920	0.9920	0.9919	0.9929	0.9985	0.9995	0.9997	0.9997
	800.	0.9990	0.9989	0.9989	0.9998	1.0044	1.0047	1.0049	1.0049
	2100.	0.9987	0.9987	0.9987	0.9996	1.0042	1.0045	1.0046	1.0047
	4500.	1.0002	1.0002	1.0001	1.0010	1.0055	1.0058	1.0059	1.0059
66	300.	0.9943	0.9943	0.9942	0.9940	0.9983	0.9996	0.9998	0.9998
	800.	0.9970	0.9970	0.9970	0.9969	1.0012	1.0020	1.0022	1.0022
	2100.	0.9964	0.9964	0.9964	0.9963	1.0006	1.0014	1.0016	1.0016
	4500.	0.9970	0.9970	0.9970	0.9969	1.0012	1.0020	1.0022	1.0022
67	300.	0.9859	0.9859	0.9859	0.9856	0.9952	0.9991	0.9996	0.9997
	800.	0.9901	0.9901	0.9901	0.9902	0.9983	1.0011	1.0015	1.0015
	2100.	0.9812	0.9812	0.9812	0.9812	0.9883	0.9907	0.9911	0.9911
	4500.	0.9901	0.9901	0.9901	0.9902	0.9983	1.0011	1.0015	1.0015
68	300.	0.9207	0.9207	0.9204	0.9180	0.9651	0.9946	0.9984	0.9988
	800.	0.9293	0.9293	0.9290	0.9278	0.9770	1.0064	1.0104	1.0108
	2100.	0.9096	0.9096	0.9094	0.9092	0.9610	0.9909	0.9949	0.9953
	4500.	0.9293	0.9293	0.9290	0.9278	0.9772	1.0064	1.0104	1.0108
69	300.	0.8379	0.8382	0.8412	0.8653	0.9443	0.9917	0.9991	0.9999
	800.	0.8379	0.8382	0.8412	0.8653	0.9443	0.9917	0.9991	0.9999
	2100.	0.8379	0.8382	0.8412	0.8653	0.9443	0.9917	0.9991	0.9999
	4500.	0.8379	0.8382	0.8412	0.8653	0.9443	0.9917	0.9991	0.9999
70	300.	0.8923	0.8924	0.8931	0.8987	0.9355	0.9854	0.9983	0.9998
	800.	0.8923	0.8924	0.8931	0.8987	0.9355	0.9854	0.9983	0.9998
	2100.	0.8923	0.8924	0.8931	0.8987	0.9355	0.9854	0.9983	0.9998
	4500.	0.8923	0.8924	0.8931	0.8987	0.9355	0.9854	0.9983	0.9998

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9996	0.9996	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9996	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9996	0.9996	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9996	0.9996	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000
26	300.	0.9469	0.9542	0.9758	0.9949	0.9994	0.9999	1.0000	1.0000
	800.	0.9532	0.9608	0.9811	0.9963	0.9996	1.0000	1.0000	1.0000
	2100.	0.9547	0.9634	0.9844	0.9972	0.9997	1.0000	1.0000	1.0000
	4500.	0.9530	0.9630	0.9857	0.9977	0.9997	1.0000	1.0000	1.0000
27	300.	0.9676	0.9727	0.9869	0.9963	0.9996	1.0000	1.0000	1.0000
	800.	0.9789	0.9824	0.9921	0.9978	0.9997	1.0000	1.0000	1.0000
	2100.	0.9872	0.9899	0.9966	0.9989	0.9999	1.0000	1.0000	1.0000
	4500.	0.9913	0.9933	0.9982	0.9993	0.9999	1.0000	1.0000	1.0000
28	300.	0.9557	0.9583	0.9758	0.9940	0.9993	0.9999	1.0000	1.0000
	800.	0.9709	0.9727	0.9840	0.9962	0.9996	1.0000	1.0000	1.0000
	2100.	0.9816	0.9828	0.9901	0.9978	0.9997	1.0000	1.0000	1.0000
	4500.	0.9874	0.9882	0.9930	0.9985	0.9998	1.0000	1.0000	1.0000
29	300.	0.9258	0.9287	0.9333	0.9841	0.9981	0.9998	0.9999	0.9999
	800.	0.9465	0.9484	0.9454	0.9879	0.9986	0.9998	0.9999	0.9999
	2100.	0.9610	0.9622	0.9555	0.9904	0.9989	0.9998	0.9999	0.9999
	4500.	0.9693	0.9701	0.9604	0.9918	0.9991	0.9998	0.9999	0.9999
30	300.	0.9153	0.9194	0.9430	0.9850	0.9982	0.9998	1.0000	1.0000
	800.	0.9439	0.9466	0.9629	0.9903	0.9988	0.9999	1.0000	1.0000
	2100.	0.9639	0.9657	0.9766	0.9938	0.9993	0.9999	1.0000	1.0000
	4500.	0.9749	0.9761	0.9839	0.9956	0.9995	0.9999	1.0000	1.0000
31	300.	0.8925	0.8975	0.9259	0.9790	0.9974	0.9997	1.0000	1.0000
	800.	0.9232	0.9269	0.9474	0.9854	0.9982	0.9998	1.0000	1.0000
	2100.	0.9465	0.9491	0.9632	0.9899	0.9988	0.9999	1.0000	1.0000
	4500.	0.9607	0.9627	0.9728	0.9926	0.9991	0.9999	1.0000	1.0000
32	300.	0.8574	0.8635	0.8999	0.9711	0.9964	0.9996	0.9999	1.0000
	800.	0.9022	0.9065	0.9318	0.9805	0.9976	0.9997	0.9999	1.0000
	2100.	0.9370	0.9397	0.9558	0.9872	0.9984	0.9998	1.0000	1.0000
	4500.	0.9577	0.9595	0.9700	0.9911	0.9989	0.9999	1.0000	1.0000
33	300.	0.8341	0.8408	0.8813	0.9636	0.9954	0.9995	0.9999	0.9999
	800.	0.8808	0.8860	0.9167	0.9751	0.9969	0.9996	0.9999	0.9999
	2100.	0.9177	0.9214	0.9434	0.9829	0.9979	0.9997	0.9999	0.9999
	4500.	0.9411	0.9439	0.9600	0.9876	0.9985	0.9998	0.9999	0.9999
34	300.	0.8225	0.8303	0.8771	0.9683	0.9961	0.9997	1.0001	1.0001
	800.	0.8805	0.8866	0.9216	0.9830	0.9981	0.9999	1.0001	1.0001
	2100.	0.9195	0.9242	0.9499	0.9915	0.9991	1.0000	1.0001	1.0001
	4500.	0.9406	0.9443	0.9647	0.9956	0.9996	1.0001	1.0001	1.0001
35	300.	0.7923	0.8002	0.8497	0.9527	0.9939	0.9993	0.9999	0.9999
	800.	0.8532	0.8592	0.8961	0.9683	0.9960	0.9995	0.9999	0.9999
	2100.	0.9024	0.9068	0.9325	0.9797	0.9975	0.9997	0.9999	0.9999
	4500.	0.9327	0.9360	0.9542	0.9860	0.9983	0.9998	0.9999	0.9999
36	300.	0.7322	0.7402	0.7934	0.9227	0.9894	0.9987	0.9997	0.9998
	800.	0.8063	0.8126	0.8533	0.9462	0.9930	0.9991	0.9997	0.9998
	2100.	0.8697	0.8741	0.9022	0.9630	0.9953	0.9993	0.9998	0.9998
	4500.	0.9082	0.9114	0.9311	0.9721	0.9965	0.9995	0.9998	0.9998

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2			REACTION = CAPTURE			FOR PAGE		1TH R-PARAMETER 4 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.7205	0.7285	0.7820	0.9175	0.9877	0.9987	0.9998	0.9999
	800.	0.7997	0.8058	0.8467	0.9452	0.9924	0.9992	0.9999	0.9999
	2100.	0.8650	0.8692	0.8979	0.9649	0.9954	0.9995	0.9999	0.9999
	4500.	0.9026	0.9057	0.9267	0.9751	0.9968	0.9996	0.9999	1.0000
38	300.	0.6807	0.6904	0.7506	0.8845	0.9833	0.9977	0.9992	0.9994
	800.	0.7664	0.7748	0.8248	0.9176	0.9887	0.9983	0.9993	0.9994
	2100.	0.8374	0.8440	0.8818	0.9396	0.9920	0.9987	0.9994	0.9994
	4500.	0.8825	0.8877	0.9159	0.9515	0.9936	0.9989	0.9994	0.9995
39	300.	0.6283	0.6415	0.7205	0.8859	0.9840	0.9980	0.9994	0.9996
	800.	0.6951	0.7078	0.7808	0.9135	0.9883	0.9984	0.9995	0.9996
	2100.	0.7503	0.7620	0.8272	0.9327	0.9912	0.9987	0.9995	0.9996
	4500.	0.7867	0.7972	0.8552	0.9435	0.9927	0.9989	0.9996	0.9996
40	300.	0.5415	0.5538	0.6285	0.8176	0.9683	0.9961	0.9992	0.9995
	800.	0.6338	0.6454	0.7134	0.8653	0.9787	0.9973	0.9993	0.9995
	2100.	0.7309	0.7404	0.7948	0.9021	0.9854	0.9980	0.9993	0.9995
	4500.	0.7938	0.8016	0.8455	0.9228	0.9888	0.9984	0.9994	0.9995
41	300.	0.3859	0.3957	0.4613	0.6813	0.9243	0.9907	0.9988	0.9996
	800.	0.4727	0.4837	0.5544	0.7651	0.9521	0.9944	0.9992	0.9997
	2100.	0.5622	0.5745	0.6497	0.8375	0.9711	0.9967	0.9995	0.9998
	4500.	0.6300	0.6428	0.7186	0.8829	0.9811	0.9978	0.9996	0.9998
42	300.	0.5927	0.6007	0.6567	0.8497	0.9752	0.9976	1.0000	1.0003
	800.	0.6697	0.6765	0.7251	0.9034	0.9859	0.9991	1.0005	1.0007
	2100.	0.7563	0.7617	0.8003	0.9480	0.9934	1.0000	1.0007	1.0008
	4500.	0.8129	0.8174	0.8494	0.9793	0.9983	1.0005	1.0008	1.0008
43	300.	0.3993	0.4067	0.4593	0.6474	0.9195	0.9903	0.9987	0.9996
	800.	0.4897	0.4974	0.5519	0.7254	0.9465	0.9937	0.9990	0.9996
	2100.	0.5786	0.5868	0.6428	0.7968	0.9655	0.9960	0.9993	0.9996
	4500.	0.6361	0.6447	0.7022	0.8414	0.9759	0.9972	0.9994	0.9996
44	300.	0.5120	0.5211	0.5875	0.8644	0.9824	0.9992	1.0010	1.0012
	800.	0.5748	0.5836	0.6462	0.8968	0.9896	1.0004	1.0015	1.0016
	2100.	0.6456	0.6529	0.7053	0.9232	0.9950	1.0010	1.0016	1.0017
	4500.	0.6964	0.7025	0.7460	0.9394	0.9979	1.0013	1.0016	1.0017
45	300.	0.3976	0.4064	0.4736	0.7175	0.9395	0.9930	0.9993	0.9999
	800.	0.4700	0.4796	0.5512	0.7868	0.9596	0.9955	0.9996	1.0000
	2100.	0.5445	0.5539	0.6244	0.8411	0.9735	0.9972	0.9998	1.0000
	4500.	0.6049	0.6136	0.6789	0.8755	0.9815	0.9981	0.9999	1.0001
46	300.	0.6180	0.6244	0.6725	0.8030	0.9544	0.9931	0.9973	0.9978
	800.	0.6459	0.6526	0.7023	0.8201	0.9539	0.9918	0.9959	0.9963
	2100.	0.7098	0.7160	0.7627	0.8635	0.9616	0.9927	0.9961	0.9964
	4500.	0.7499	0.7555	0.7982	0.8853	0.9657	0.9933	0.9963	0.9966
47	300.	0.3580	0.3675	0.4323	0.6516	0.9102	0.9886	0.9981	0.9991
	800.	0.3697	0.3796	0.4471	0.6619	0.8828	0.9423	0.9492	0.9499
	2100.	0.4097	0.4210	0.4972	0.7218	0.9089	0.9532	0.9581	0.9586
	4500.	0.4483	0.4603	0.5408	0.7613	0.9222	0.9587	0.9627	0.9631
48	300.	0.3978	0.4088	0.4831	0.7168	0.9440	0.9942	1.0000	1.0006
	800.	0.4559	0.4668	0.5419	0.7844	0.9776	1.0090	1.0124	1.0127
	2100.	0.5194	0.5293	0.6002	0.8364	0.9933	1.0113	1.0132	1.0134
	4500.	0.5765	0.5855	0.6508	0.8720	1.0022	1.0136	1.0148	1.0150

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2		REACTION = CAPTURE				FOR 1TH R-PARAMETER			
						PAGE 5 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.4216	0.4382	0.5389	0.7924	0.9624	0.9958	0.9998	1.0002
	800.	0.4213	0.4376	0.5377	0.7965	0.9660	0.9968	1.0004	1.0007
	2100.	0.4215	0.4379	0.5394	0.8037	0.9645	0.9894	0.9923	0.9926
	4500.	0.4242	0.4407	0.5432	0.8085	0.9575	0.9777	0.9799	0.9802
50	300.	0.5888	0.5958	0.6436	0.8054	0.9560	0.9946	0.9990	0.9995
	800.	0.5793	0.5873	0.6406	0.8040	0.9384	0.9692	0.9727	0.9731
	2100.	0.6095	0.6178	0.6723	0.8308	0.9478	0.9731	0.9759	0.9762
	4500.	0.6440	0.6521	0.7051	0.8550	0.9567	0.9776	0.9800	0.9802
51	300.	0.3469	0.3586	0.4321	0.6538	0.9053	0.9874	0.9971	0.9981
	800.	0.4193	0.4305	0.5014	0.7186	0.9556	1.0305	1.0393	1.0402
	2100.	0.4593	0.4710	0.5448	0.7576	0.9649	1.0285	1.0358	1.0365
	4500.	0.5139	0.5254	0.5977	0.7960	0.9710	1.0240	1.0300	1.0306
52	300.	0.4679	0.4720	0.5037	0.6395	0.8744	0.9831	0.9973	0.9988
	800.	0.4902	0.4944	0.5274	0.6669	0.8929	0.9713	1.0037	1.0049
	2100.	0.5427	0.5472	0.5817	0.7193	0.9160	0.9953	1.0048	1.0057
	4500.	0.6327	0.6368	0.6679	0.7832	0.9378	0.9995	1.0066	1.0073
53	300.	0.2735	0.2765	0.3009	0.4342	0.6943	0.9421	0.9894	0.9946
	800.	0.2911	0.2942	0.3198	0.4634	0.7319	0.9446	0.9801	0.9839
	2100.	0.3131	0.3163	0.3430	0.4947	0.7545	0.9293	0.9552	0.9580
	4500.	0.3390	0.3423	0.3692	0.5226	0.7517	0.8902	0.9093	0.9113
54	300.	0.4744	0.4738	0.4698	0.4913	0.6733	0.9272	0.9898	0.9971
	800.	0.5032	0.5026	0.4992	0.5196	0.7027	0.9465	1.0012	1.0074
	2100.	0.5833	0.5829	0.5803	0.5968	0.7728	1.0001	1.0449	1.0498
	4500.	0.7218	0.7215	0.7194	0.7218	0.8726	1.0773	1.1135	1.1174
55	300.	0.2818	0.2826	0.2904	0.3725	0.8496	0.9750	1.0021	1.0052
	800.	0.2768	0.2776	0.2850	0.3644	0.8531	0.9659	0.9847	0.9867
	2100.	0.2834	0.2842	0.2917	0.3714	0.8764	0.9475	0.9567	0.9577
	4500.	0.2940	0.2948	0.3020	0.3780	0.8757	0.9117	0.9147	0.9150
56	300.	0.5339	0.5331	0.5281	0.5499	0.7228	0.9528	0.9916	0.9957
	800.	0.5658	0.5649	0.5593	0.5775	0.7548	0.9570	0.9907	0.9943
	2100.	0.6072	0.6060	0.5979	0.6099	0.7765	0.9561	0.9844	0.9874
	4500.	0.6517	0.6501	0.6388	0.6407	0.7871	0.9416	0.9650	0.9675
57	300.	0.4829	0.4838	0.4920	0.5585	0.7252	0.9550	0.9926	0.9966
	800.	0.4979	0.4989	0.5077	0.5783	0.7549	0.9598	0.9938	0.9974
	2100.	0.5355	0.5366	0.5463	0.6212	0.7877	0.9717	1.0010	1.0041
	4500.	0.6049	0.6060	0.6161	0.6921	0.8389	0.9962	1.0207	1.0232
58	300.	0.9711	0.9712	0.9720	0.9796	1.0291	1.0042	1.0010	1.0006
	800.	0.9735	0.9736	0.9742	0.9812	1.0227	1.0054	1.0023	1.0020
	2100.	0.9856	0.9856	0.9861	0.9919	1.0301	1.0135	1.0104	1.0101
	4500.	1.0137	1.0138	1.0141	1.0181	1.0521	1.0346	1.0314	1.0311
59	300.	0.3216	0.3227	0.3324	0.4116	0.6383	0.9273	0.9902	0.9972
	800.	0.3262	0.3273	0.3370	0.4174	0.6661	0.9099	0.9610	0.9666
	2100.	0.3659	0.3670	0.3766	0.4568	0.7030	0.9197	0.9610	0.9654
	4500.	0.4332	0.4341	0.4425	0.5152	0.7389	0.9250	0.9585	0.9620
60	300.	0.8929	0.8922	0.8870	0.8706	0.9901	1.0047	1.0028	1.0026
	800.	0.8629	0.8623	0.8580	0.8445	0.9125	0.9585	0.9584	0.9584
	2100.	0.8806	0.8800	0.8753	0.8610	0.9343	0.9872	0.9868	0.9867
	4500.	0.9231	0.9224	0.9174	0.9042	0.9979	1.0638	1.0629	1.0628

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9992	0.9991	0.9984	0.9932	0.9985	1.0010	1.0006	1.0006
	800.	0.9976	0.9975	0.9968	0.9922	0.9938	1.0013	1.0012	1.0012
	2100.	1.0003	1.0002	0.9995	0.9947	0.9960	1.0040	1.0039	1.0039
	4500.	1.0053	1.0052	1.0045	0.9994	1.0005	1.0092	1.0091	1.0091
62	300.	1.0008	1.0008	1.0007	1.0001	0.9999	1.0001	1.0001	1.0001
	800.	0.9993	0.9993	0.9992	0.9988	0.9985	0.9990	0.9990	0.9990
	2100.	1.0004	1.0004	1.0004	0.9999	0.9995	1.0001	1.0001	1.0001
	4500.	1.0025	1.0025	1.0024	1.0019	1.0016	1.0022	1.0021	1.0021
63	300.	0.9963	0.9963	0.9964	0.9979	0.9998	0.9997	0.9998	0.9998
	800.	1.0029	1.0029	1.0030	1.0044	1.0063	1.0056	1.0056	1.0056
	2100.	1.0037	1.0038	1.0039	1.0053	1.0072	1.0064	1.0065	1.0065
	4500.	1.0053	1.0053	1.0055	1.0068	1.0089	1.0080	1.0080	1.0080
64	300.	0.9892	0.9892	0.9894	0.9922	0.9986	0.9992	0.9995	0.9996
	800.	1.0024	1.0024	1.0026	1.0057	1.0126	1.0120	1.0122	1.0122
	2100.	1.0035	1.0035	1.0037	1.0068	1.0138	1.0131	1.0133	1.0133
	4500.	1.0054	1.0054	1.0057	1.0088	1.0159	1.0151	1.0153	1.0153
65	300.	0.9797	0.9797	0.9795	0.9818	0.9960	0.9987	0.9993	0.9993
	800.	0.9951	0.9950	0.9949	0.9972	1.0091	1.0101	1.0104	1.0105
	2100.	0.9933	0.9932	0.9931	0.9953	1.0071	1.0079	1.0083	1.0083
	4500.	0.9970	0.9970	0.9969	0.9990	1.0109	1.0117	1.0121	1.0121
66	300.	0.9750	0.9750	0.9749	0.9739	0.9928	0.9982	0.9991	0.9992
	800.	0.9866	0.9866	0.9865	0.9861	1.0046	1.0084	1.0092	1.0092
	2100.	0.9805	0.9805	0.9804	0.9800	0.9981	1.0018	1.0025	1.0025
	4500.	0.9866	0.9866	0.9865	0.9861	1.0048	1.0084	1.0092	1.0092
67	300.	0.9573	0.9573	0.9572	0.9564	0.9855	0.9972	0.9988	0.9989
	800.	0.9704	0.9704	0.9704	0.9707	0.9952	1.0036	1.0049	1.0050
	2100.	0.9492	0.9492	0.9491	0.9488	0.9699	0.9770	0.9781	0.9782
	4500.	0.9704	0.9704	0.9704	0.9707	0.9954	1.0036	1.0049	1.0050
68	300.	0.8998	0.8997	0.8993	0.8964	0.9565	0.9933	0.9981	0.9985
	800.	0.9084	0.9084	0.9081	0.9068	0.9685	1.0045	1.0094	1.0098
	2100.	0.9005	0.9004	0.9002	0.9002	0.9645	1.0006	1.0055	1.0060
	4500.	0.9084	0.9084	0.9081	0.9068	0.9688	1.0045	1.0094	1.0098
69	300.	0.8674	0.8674	0.8701	0.8904	0.9554	0.9934	0.9993	0.9999
	800.	0.8674	0.8674	0.8701	0.8904	0.9554	0.9934	0.9993	0.9999
	2100.	0.8674	0.8674	0.8701	0.8904	0.9554	0.9934	0.9993	0.9999
	4500.	0.8674	0.8674	0.8701	0.8904	0.9554	0.9934	0.9993	0.9999
70	300.	0.8833	0.8834	0.8842	0.8905	0.9309	0.9845	0.9982	0.9998
	800.	0.8833	0.8834	0.8842	0.8905	0.9309	0.9845	0.9982	0.9998
	2100.	0.8833	0.8834	0.8842	0.8905	0.9309	0.9845	0.9982	0.9998
	4500.	0.8833	0.8834	0.8842	0.8905	0.9309	0.9845	0.9982	0.9998

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9926	0.9927	0.9950	0.9988	0.9999	1.0000	1.0000	1.0000
	800.	0.9952	0.9951	0.9967	0.9992	0.9999	1.0000	1.0000	1.0000
	2100.	0.9970	0.9969	0.9979	0.9995	0.9999	1.0000	1.0000	1.0000
	4500.	0.9981	0.9979	0.9986	0.9997	1.0000	1.0000	1.0000	1.0000
27	300.	0.9916	0.9923	0.9948	0.9987	0.9999	1.0000	1.0000	1.0000
	800.	0.9945	0.9951	0.9967	0.9992	0.9999	1.0000	1.0000	1.0000
	2100.	0.9966	0.9970	0.9980	0.9997	1.0000	1.0000	1.0000	1.0000
	4500.	0.9977	0.9980	0.9986	0.9997	1.0000	1.0000	1.0000	1.0000
28	300.	0.9924	0.9929	0.9958	0.9990	0.9999	1.0000	1.0000	1.0000
	800.	0.9951	0.9954	0.9976	0.9994	0.9999	1.0000	1.0000	1.0000
	2100.	0.9971	0.9973	0.9988	0.9997	1.0000	1.0000	1.0000	1.0000
	4500.	0.9982	0.9983	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000
29	300.	0.9849	0.9856	0.9891	0.9972	0.9997	1.0000	1.0000	1.0000
	800.	0.9894	0.9899	0.9922	0.9981	0.9998	1.0000	1.0000	1.0000
	2100.	0.9928	0.9932	0.9945	0.9987	0.9998	1.0000	1.0000	1.0000
	4500.	0.9949	0.9951	0.9958	0.9991	0.9999	1.0000	1.0000	1.0000
30	300.	0.9856	0.9863	0.9907	0.9975	0.9997	1.0000	1.0000	1.0000
	800.	0.9902	0.9907	0.9940	0.9984	0.9998	1.0000	1.0000	1.0000
	2100.	0.9936	0.9939	0.9964	0.9991	0.9999	1.0000	1.0000	1.0000
	4500.	0.9956	0.9958	0.9978	0.9994	0.9999	1.0000	1.0000	1.0000
31	300.	0.9795	0.9803	0.9850	0.9954	0.9994	0.9999	1.0000	1.0000
	800.	0.9849	0.9855	0.9889	0.9967	0.9996	0.9999	1.0000	1.0000
	2100.	0.9892	0.9897	0.9920	0.9976	0.9997	1.0000	1.0000	1.0000
	4500.	0.9920	0.9924	0.9939	0.9982	0.9998	1.0000	1.0000	1.0000
32	300.	0.9741	0.9751	0.9814	0.9945	0.9993	0.9999	1.0000	1.0000
	800.	0.9817	0.9824	0.9870	0.9962	0.9995	1.0000	1.0000	1.0000
	2100.	0.9876	0.9881	0.9912	0.9975	0.9997	1.0000	1.0000	1.0000
	4500.	0.9914	0.9917	0.9939	0.9983	0.9998	1.0000	1.0000	1.0000
33	300.	0.9754	0.9763	0.9821	0.9948	0.9993	0.9999	1.0000	1.0000
	800.	0.9827	0.9834	0.9878	0.9968	0.9996	1.0000	1.0000	1.0000
	2100.	0.9885	0.9890	0.9923	0.9982	0.9998	1.0000	1.0000	1.0000
	4500.	0.9922	0.9926	0.9950	0.9990	0.9999	1.0000	1.0000	1.0000
34	300.	0.9790	0.9798	0.9848	0.9957	0.9995	1.0000	1.0000	1.0000
	800.	0.9854	0.9860	0.9899	0.9975	0.9997	1.0000	1.0000	1.0000
	2100.	0.9900	0.9905	0.9934	0.9986	0.9998	1.0000	1.0000	1.0000
	4500.	0.9927	0.9931	0.9953	0.9991	0.9999	1.0000	1.0000	1.0000
35	300.	0.9736	0.9745	0.9803	0.9941	0.9992	0.9999	1.0000	1.0000
	800.	0.9809	0.9816	0.9861	0.9962	0.9995	1.0000	1.0000	1.0000
	2100.	0.9873	0.9878	0.9910	0.9978	0.9997	1.0000	1.0000	1.0000
	4500.	0.9915	0.9918	0.9942	0.9988	0.9999	1.0000	1.0000	1.0000
36	300.	0.9625	0.9633	0.9696	0.9883	0.9983	0.9998	1.0000	1.0000
	800.	0.9723	0.9729	0.9779	0.9920	0.9989	0.9999	1.0000	1.0000
	2100.	0.9811	0.9816	0.9851	0.9948	0.9993	0.9999	1.0000	1.0000
	4500.	0.9867	0.9870	0.9896	0.9964	0.9995	0.9999	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.9461	0.9471	0.9548	0.9794	0.9965	0.9996	0.9999	1.0000
	800.	0.9582	0.9591	0.9655	0.9853	0.9977	0.9997	1.0000	1.0000
	2100.	0.9694	0.9701	0.9751	0.9899	0.9986	0.9998	1.0000	1.0000
	4500.	0.9763	0.9769	0.9809	0.9924	0.9989	0.9999	1.0000	1.0000
38	300.	0.9691	0.9698	0.9749	0.9894	0.9985	0.9998	1.0000	1.0000
	800.	0.9771	0.9777	0.9820	0.9930	0.9990	0.9999	1.0000	1.0000
	2100.	0.9843	0.9849	0.9882	0.9956	0.9994	0.9999	1.0000	1.0000
	4500.	0.9893	0.9897	0.9921	0.9970	0.9996	1.0000	1.0000	1.0000
39	300.	0.9696	0.9705	0.9763	0.9901	0.9986	0.9998	1.0000	1.0000
	800.	0.9751	0.9760	0.9815	0.9927	0.9990	0.9999	1.0000	1.0000
	2100.	0.9797	0.9806	0.9856	0.9945	0.9993	0.9999	1.0000	1.0000
	4500.	0.9824	0.9832	0.9878	0.9934	0.9994	0.9999	1.0000	1.0000
40	300.	0.9163	0.9175	0.9263	0.9561	0.9921	0.9990	0.9997	0.9998
	800.	0.9295	0.9307	0.9392	0.9647	0.9942	0.9992	0.9998	0.9998
	2100.	0.9438	0.9449	0.9522	0.9717	0.9957	0.9994	0.9998	0.9998
	4500.	0.9541	0.9550	0.9614	0.9761	0.9965	0.9995	0.9998	0.9998
41	300.	0.7735	0.7759	0.7929	0.8602	0.9645	0.9955	0.9994	0.9997
	800.	0.8026	0.8054	0.8244	0.8922	0.9769	0.9972	0.9995	0.9998
	2100.	0.8347	0.8379	0.8591	0.9220	0.9856	0.9983	0.9997	0.9998
	4500.	0.8636	0.8670	0.8886	0.9429	0.9905	0.9988	0.9997	0.9998
42	300.	0.9625	0.9626	0.9646	0.9810	0.9969	0.9997	1.0000	1.0000
	800.	0.9613	0.9615	0.9640	0.9858	0.9979	0.9999	1.0001	1.0002
	2100.	0.9675	0.9677	0.9702	0.9925	0.9991	1.0001	1.0002	1.0002
	4500.	0.9738	0.9741	0.9770	0.9997	1.0002	1.0002	1.0002	1.0002
43	300.	0.8868	0.8878	0.8954	0.9359	0.9831	0.9981	1.0000	1.0001
	800.	0.8996	0.9009	0.9103	0.9534	0.9899	0.9991	1.0001	1.0002
	2100.	0.9141	0.9157	0.9269	0.9695	0.9947	0.9996	1.0002	1.0003
	4500.	0.9249	0.9268	0.9394	0.9809	0.9976	1.0000	1.0002	1.0003
44	300.	0.9861	0.9862	0.9875	0.9952	0.9993	1.0000	1.0000	1.0000
	800.	0.9881	0.9883	0.9896	0.9964	0.9995	1.0000	1.0000	1.0000
	2100.	0.9896	0.9898	0.9911	0.9974	0.9997	1.0000	1.0000	1.0000
	4500.	0.9905	0.9907	0.9920	0.9980	0.9999	1.0000	1.0000	1.0000
45	300.	0.9412	0.9427	0.9511	0.9739	0.9933	0.9993	1.0000	1.0001
	800.	0.9473	0.9490	0.9587	0.9819	0.9962	0.9997	1.0002	1.0002
	2100.	0.9537	0.9556	0.9664	0.9889	0.9984	1.0000	1.0002	1.0002
	4500.	0.9610	0.9629	0.9739	0.9949	0.9999	1.0002	1.0002	1.0002
46	300.	0.9956	0.9953	0.9940	0.9884	0.9966	0.9994	0.9997	0.9997
	800.	0.9922	0.9921	0.9922	0.9892	0.9965	0.9993	0.9996	0.9996
	2100.	0.9929	0.9929	0.9936	0.9916	0.9968	0.9993	0.9996	0.9996
	4500.	0.9934	0.9935	0.9945	0.9928	0.9971	0.9994	0.9996	0.9996
47	300.	0.9196	0.9202	0.9258	0.9503	0.9867	0.9983	0.9997	0.9999
	800.	0.9214	0.9225	0.9293	0.9559	0.9872	0.9957	0.9967	0.9967
	2100.	0.9281	0.9292	0.9375	0.9654	0.9910	0.9970	0.9977	0.9977
	4500.	0.9346	0.9359	0.9449	0.9720	0.9936	0.9984	0.9989	0.9989
48	300.	0.9463	0.9474	0.9541	0.9751	0.9943	0.9994	1.0000	1.0000
	800.	0.9510	0.9520	0.9591	0.9799	0.9977	1.0010	1.0014	1.0014
	2100.	0.9561	0.9571	0.9643	0.9854	0.9996	1.0016	1.0018	1.0019
	4500.	0.9610	0.9620	0.9690	0.9890	1.0006	1.0021	1.0023	1.0023

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.9758	0.9775	0.9868	0.9938	0.9953	0.9992	0.9997	0.9997
	800.	0.9751	0.9769	0.9865	0.9944	0.9941	0.9976	0.9980	0.9981
	2100.	0.9751	0.9768	0.9865	0.9950	0.9932	0.9964	0.9968	0.9968
	4500.	0.9749	0.9766	0.9859	0.9944	0.9914	0.9943	0.9947	0.9947
50	300.	0.9891	0.9891	0.9900	0.9949	0.9980	0.9997	0.9999	0.9999
	800.	0.9903	0.9903	0.9915	0.9969	0.9998	1.0013	1.0015	1.0015
	2100.	0.9915	0.9916	0.9929	0.9982	1.0005	1.0019	1.0021	1.0021
	4500.	0.9931	0.9933	0.9946	0.9998	1.0019	1.0032	1.0033	1.0033
51	300.	0.9609	0.9619	0.9673	0.9796	0.9934	0.9990	0.9997	0.9998
	800.	0.9688	0.9695	0.9733	0.9833	0.9961	1.0012	1.0018	1.0019
	2100.	0.9686	0.9693	0.9731	0.9832	0.9952	0.9999	1.0004	1.0005
	4500.	0.9684	0.9691	0.9727	0.9828	0.9939	0.9981	0.9985	0.9986
52	300.	0.9764	0.9762	0.9758	0.9826	0.9967	0.9997	1.0001	1.0002
	800.	0.9756	0.9755	0.9753	0.9819	0.9954	0.9978	0.9981	0.9982
	2100.	0.9781	0.9781	0.9784	0.9865	0.9991	0.9998	0.9999	0.9999
	4500.	0.9820	0.9821	0.9829	0.9924	1.0032	1.0024	1.0023	1.0023
53	300.	0.8238	0.8250	0.8334	0.8670	0.9219	0.9852	0.9971	0.9984
	800.	0.8264	0.8275	0.8358	0.8719	0.9296	0.9844	0.9934	0.9943
	2100.	0.8304	0.8314	0.8396	0.8788	0.9360	0.9821	0.9888	0.9896
	4500.	0.8334	0.8344	0.8425	0.8834	0.9349	0.9728	0.9780	0.9785
54	300.	0.7396	0.7395	0.7403	0.7661	0.8607	0.9690	0.9958	0.9990
	800.	0.7511	0.7511	0.7519	0.7767	0.8737	0.9775	1.0006	1.0032
	2100.	0.7834	0.7834	0.7836	0.8040	0.8993	0.9950	1.0134	1.0154
	4500.	0.8421	0.8420	0.8411	0.8517	0.9357	1.0189	1.0330	1.0345
55	300.	0.7930	0.7935	0.7977	0.8212	0.9466	0.9907	1.0004	1.0014
	800.	0.7926	0.7932	0.7975	0.8204	0.9425	0.9834	0.9904	0.9911
	2100.	0.7966	0.7972	0.8016	0.8252	0.9480	0.9739	0.9774	0.9778
	4500.	0.8020	0.8025	0.8069	0.8305	0.9477	0.9604	0.9617	0.9619
56	300.	0.9880	0.9881	0.9886	0.9889	0.9934	0.9988	0.9999	1.0000
	800.	0.9866	0.9867	0.9874	0.9882	0.9925	0.9962	0.9969	0.9970
	2100.	0.9897	0.9898	0.9903	0.9906	0.9942	0.9971	0.9975	0.9976
	4500.	0.9919	0.9919	0.9921	0.9919	0.9948	0.9973	0.9976	0.9976
57	300.	0.9523	0.9525	0.9546	0.9668	0.9794	0.9974	0.9995	0.9997
	800.	0.9568	0.9570	0.9591	0.9716	0.9857	1.0003	1.0020	1.0022
	2100.	0.9574	0.9576	0.9598	0.9724	0.9856	0.9996	1.0013	1.0015
	4500.	0.9612	0.9614	0.9634	0.9753	0.9863	0.9995	1.0010	1.0012
58	300.	0.9934	0.9934	0.9936	0.9957	1.0137	1.0019	1.0004	1.0003
	800.	0.9931	0.9931	0.9933	0.9951	1.0098	1.0014	1.0000	0.9999
	2100.	0.9943	0.9943	0.9944	0.9959	1.0095	1.0019	1.0005	1.0004
	4500.	0.9965	0.9965	0.9965	0.9977	1.0095	1.0028	1.0015	1.0014
59	300.	0.8961	0.8966	0.9013	0.9310	1.0053	1.0014	1.0008	1.0008
	800.	0.8825	0.8830	0.8880	0.9205	0.9927	0.9909	0.9877	0.9874
	2100.	0.8952	0.8958	0.9008	0.9340	1.0012	0.9933	0.9883	0.9878
	4500.	0.9197	0.9202	0.9246	0.9534	1.0079	0.9951	0.9891	0.9885
60	300.	1.0149	1.0150	1.0158	1.0185	1.0015	0.9993	0.9996	0.9996
	800.	1.0182	1.0183	1.0190	1.0213	1.0111	1.0042	1.0042	1.0042
	2100.	1.0175	1.0175	1.0183	1.0206	1.0102	1.0026	1.0027	1.0027
	4500.	1.0165	1.0166	1.0173	1.0195	1.0081	0.9998	0.9999	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SISO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	1.0001	1.0001	1.0002	1.0011	1.0002	0.9998	0.9999	0.9999
	800.	1.0007	1.0007	1.0008	1.0016	1.0013	1.0001	1.0001	1.0001
	2100.	1.0005	1.0005	1.0006	1.0014	1.0012	0.9999	0.9999	0.9999
	4500.	1.0002	1.0002	1.0003	1.0012	1.0010	0.9996	0.9996	0.9996
62	300.	0.9995	0.9995	0.9995	0.9999	1.0000	0.9999	0.9999	0.9999
	800.	1.0012	1.0012	1.0012	1.0016	1.0019	1.0015	1.0015	1.0015
	2100.	1.0011	1.0011	1.0012	1.0015	1.0019	1.0014	1.0014	1.0014
	4500.	1.0010	1.0010	1.0010	1.0014	1.0017	1.0013	1.0013	1.0013
63	300.	0.9993	0.9993	0.9993	0.9996	1.0000	0.9999	1.0000	1.0000
	800.	1.0006	1.0006	1.0006	1.0009	1.0012	1.0011	1.0011	1.0011
	2100.	1.0006	1.0006	1.0006	1.0009	1.0012	1.0011	1.0011	1.0011
	4500.	1.0005	1.0005	1.0005	1.0008	1.0011	1.0010	1.0010	1.0010
64	300.	0.9991	0.9991	0.9991	0.9994	0.9999	0.9999	1.0000	1.0000
	800.	1.0001	1.0001	1.0001	1.0004	1.0009	1.0008	1.0009	1.0009
	2100.	1.0001	1.0001	1.0001	1.0003	1.0009	1.0008	1.0008	1.0008
	4500.	1.0000	1.0000	1.0001	1.0003	1.0008	1.0008	1.0008	1.0008
65	300.	0.9999	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
66	300.	0.9984	0.9984	0.9984	0.9983	0.9995	0.9999	0.9999	0.9999
	800.	0.9991	0.9991	0.9991	0.9990	1.0002	1.0005	1.0005	1.0005
	2100.	0.9988	0.9988	0.9988	0.9988	1.0000	1.0002	1.0002	1.0002
	4500.	0.9991	0.9991	0.9991	0.9991	1.0002	1.0005	1.0005	1.0005
67	300.	0.9971	0.9971	0.9971	0.9971	0.9990	0.9998	0.9999	0.9999
	800.	0.9981	0.9981	0.9981	0.9981	0.9998	1.0003	1.0004	1.0004
	2100.	0.9978	0.9978	0.9978	0.9978	0.9993	0.9999	1.0000	1.0000
	4500.	0.9981	0.9981	0.9981	0.9981	0.9998	1.0003	1.0004	1.0004
68	300.	0.9926	0.9926	0.9926	0.9924	0.9968	0.9995	0.9999	0.9999
	800.	0.9931	0.9931	0.9931	0.9930	0.9976	1.0001	1.0005	1.0005
	2100.	0.9926	0.9926	0.9926	0.9926	0.9972	0.9998	1.0001	1.0002
	4500.	0.9931	0.9931	0.9931	0.9930	0.9976	1.0001	1.0005	1.0005
69	300.	0.9898	0.9898	0.9900	0.9917	0.9967	0.9995	0.9999	1.0000
	800.	0.9898	0.9898	0.9900	0.9917	0.9967	0.9995	0.9999	1.0000
	2100.	0.9898	0.9898	0.9900	0.9917	0.9967	0.9995	0.9999	1.0000
	4500.	0.9898	0.9898	0.9900	0.9917	0.9967	0.9995	0.9999	1.0000
70	300.	0.9900	0.9900	0.9902	0.9903	0.9947	0.9988	0.9998	1.0000
	800.	0.9900	0.9900	0.9902	0.9903	0.9947	0.9988	0.9998	1.0000
	2100.	0.9900	0.9900	0.9902	0.9903	0.9947	0.9988	0.9998	1.0000
	4500.	0.9900	0.9900	0.9902	0.9903	0.9947	0.9988	0.9998	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SISO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9728	0.9745	0.9831	0.9960	0.9995	0.9999	1.0000	1.0000
	800.	0.9806	0.9820	0.9883	0.9973	0.9997	1.0000	1.0000	1.0000
	2100.	0.9859	0.9872	0.9922	0.9983	0.9998	0.9999	1.0000	1.0000
	4500.	0.9889	0.9902	0.9943	0.9988	0.9998	0.9999	1.0000	1.0000
27	300.	0.9695	0.9716	0.9808	0.9953	0.9994	0.9999	1.0000	1.0000
	800.	0.9788	0.9803	0.9866	0.9968	0.9996	1.0000	1.0000	1.0000
	2100.	0.9859	0.9870	0.9910	0.9979	0.9997	1.0000	1.0000	1.0000
	4500.	0.9900	0.9906	0.9933	0.9985	0.9998	1.0000	1.0000	1.0000
28	300.	0.9647	0.9666	0.9777	0.9946	0.9994	0.9999	1.0000	1.0000
	800.	0.9754	0.9768	0.9844	0.9963	0.9996	0.9999	1.0000	1.0000
	2100.	0.9841	0.9859	0.9898	0.9977	0.9997	1.0000	1.0000	1.0000
	4500.	0.9891	0.9897	0.9928	0.9984	0.9998	0.9999	1.0000	1.0000
29	300.	0.9448	0.9474	0.9625	0.9900	0.9988	0.9998	0.9998	1.0000
	800.	0.9599	0.9618	0.9728	0.9931	0.9992	0.9999	1.0000	1.0000
	2100.	0.9718	0.9732	0.9806	0.9952	0.9994	1.0000	1.0000	1.0000
	4500.	0.9795	0.9805	0.9855	0.9965	0.9996	1.0000	1.0000	1.0000
30	300.	0.9373	0.9402	0.9574	0.9884	0.9986	0.9998	1.0000	1.0000
	800.	0.9555	0.9576	0.9703	0.9921	0.9990	0.9999	1.0000	1.0000
	2100.	0.9697	0.9712	0.9802	0.9948	0.9994	0.9998	1.0000	1.0000
	4500.	0.9785	0.9795	0.9862	0.9964	0.9996	0.9997	1.0000	1.0000
31	300.	0.9194	0.9228	0.9428	0.9827	0.9978	0.9995	0.9996	1.0000
	800.	0.9401	0.9427	0.9576	0.9874	0.9984	0.9998	1.0000	1.0000
	2100.	0.9576	0.9595	0.9697	0.9910	0.9989	0.9998	1.0000	1.0000
	4500.	0.9691	0.9704	0.9775	0.9933	0.9992	0.9998	1.0000	1.0000
32	300.	0.8835	0.8881	0.9160	0.9744	0.9967	0.9994	1.0000	1.0000
	800.	0.9144	0.9179	0.9393	0.9821	0.9978	0.9997	1.0000	1.0000
	2100.	0.9406	0.9431	0.9581	0.9878	0.9985	0.9999	0.9999	1.0000
	4500.	0.9576	0.9594	0.9701	0.9913	0.9989	0.9999	1.0000	1.0000
33	300.	0.8857	0.8900	0.9171	0.9749	0.9968	0.9996	1.0000	1.0000
	800.	0.9130	0.9165	0.9384	0.9825	0.9978	0.9998	1.0000	1.0000
	2100.	0.9369	0.9395	0.9560	0.9881	0.9985	1.0000	1.0000	1.0000
	4500.	0.9526	0.9546	0.9674	0.9915	0.9990	1.0000	1.0000	1.0000
34	300.	0.8700	0.8749	0.9061	0.9718	0.9964	0.9996	1.0000	1.0000
	800.	0.9008	0.9051	0.9309	0.9810	0.9977	0.9996	1.0000	1.0000
	2100.	0.9261	0.9295	0.9498	0.9870	0.9985	0.9998	1.0000	1.0000
	4500.	0.9411	0.9439	0.9606	0.9901	0.9988	0.9999	1.0000	1.0000
35	300.	0.8268	0.8326	0.8705	0.9592	0.9946	0.9994	1.0000	1.0000
	800.	0.8630	0.8680	0.9004	0.9711	0.9963	0.9998	0.9998	1.0001
	2100.	0.8977	0.9018	0.9274	0.9806	0.9976	0.9998	1.0000	1.0001
	4500.	0.9234	0.9265	0.9464	0.9866	0.9983	0.9999	1.0001	1.0001
36	300.	0.7719	0.7784	0.8214	0.9344	0.9904	0.9991	0.9994	1.0000
	800.	0.8134	0.8194	0.8585	0.9533	0.9936	0.9993	0.9998	1.0000
	2100.	0.8562	0.8616	0.8953	0.9690	0.9959	0.9996	1.0000	1.0000
	4500.	0.8872	0.8921	0.9214	0.9790	0.9973	0.9999	0.9999	1.0000

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER			
		PAGE 4 OF 6							
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.7644	0.7706	0.8121	0.9231	0.9873	0.9986	1.0000	1.0000
	800.	0.8145	0.8199	0.8554	0.9447	0.9916	0.9991	0.9999	1.0000
	2100.	0.8641	0.8682	0.8955	0.9622	0.9946	0.9994	0.9999	1.0000
	4500.	0.8960	0.8992	0.9204	0.9718	0.9961	0.9997	0.9998	1.0000
38	300.	0.7547	0.7622	0.8105	0.9282	0.9895	0.9988	0.9999	1.0000
	800.	0.7952	0.8026	0.8488	0.9489	0.9931	0.9992	0.9994	1.0000
	2100.	0.8388	0.8455	0.8863	0.9652	0.9955	0.9996	0.9999	1.0000
	4500.	0.8738	0.8796	0.9137	0.9750	0.9968	0.9997	1.0000	1.0000
39	300.	0.7445	0.7519	0.7992	0.9194	0.9879	0.9987	0.9997	0.9999
	800.	0.7826	0.7899	0.8359	0.9393	0.9914	0.9990	0.9998	0.9999
	2100.	0.8197	0.8265	0.8685	0.9544	0.9938	0.9992	0.9999	0.9999
	4500.	0.8476	0.8536	0.8904	0.9630	0.9950	0.9993	0.9997	0.9999
40	300.	0.5807	0.5897	0.6475	0.8195	0.9654	0.9960	0.9993	0.9998
	800.	0.6259	0.6354	0.6955	0.8568	0.9754	0.9971	0.9990	0.9998
	2100.	0.6867	0.6961	0.7537	0.8915	0.9828	0.9980	0.9999	1.0000
	4500.	0.7351	0.7439	0.7971	0.9140	0.9870	0.9985	0.9997	0.9998
41	300.	0.4679	0.4758	0.5286	0.7001	0.9225	0.9903	0.9991	0.9996
	800.	0.5100	0.5194	0.5801	0.7577	0.9477	0.9937	0.9993	0.9996
	2100.	0.5540	0.5655	0.6375	0.8156	0.9660	0.9959	0.9991	0.9997
	4500.	0.5925	0.6055	0.6851	0.8559	0.9761	0.9971	0.9994	0.9996
42	300.	0.5784	0.5852	0.6345	0.8084	0.9656	0.9962	0.9996	1.0000
	800.	0.6286	0.6353	0.6831	0.8476	0.9751	0.9974	1.0000	1.0001
	2100.	0.6963	0.7027	0.7473	0.8893	0.9829	0.9983	1.0001	1.0001
	4500.	0.7577	0.7634	0.8024	0.9217	0.9883	0.9989	1.0001	1.0001
43	300.	0.5047	0.5109	0.5555	0.7249	0.9342	0.9921	0.9983	1.0000
	800.	0.5370	0.5434	0.5908	0.7668	0.9528	0.9947	0.9998	1.0001
	2100.	0.5802	0.5869	0.6371	0.8133	0.9676	0.9965	0.9996	1.0001
	4500.	0.6102	0.6173	0.6702	0.8458	0.9764	0.9975	0.9998	1.0001
44	300.	0.6424	0.6491	0.6967	0.8743	0.9807	0.9984	0.9997	1.0006
	800.	0.6756	0.6820	0.7271	0.8939	0.9854	0.9992	1.0008	1.0008
	2100.	0.7184	0.7240	0.7635	0.9118	0.9893	0.9997	1.0008	1.0009
	4500.	0.7569	0.7616	0.7950	0.9263	0.9920	0.9999	1.0008	1.0009
45	300.	0.4424	0.4479	0.4898	0.6625	0.9088	0.9887	0.9985	0.9997
	800.	0.4605	0.4666	0.5131	0.7003	0.9291	0.9914	0.9988	0.9996
	2100.	0.4924	0.4989	0.5493	0.7468	0.9478	0.9939	0.9993	0.9997
	4500.	0.5295	0.5362	0.5885	0.7887	0.9612	0.9955	0.9991	0.9997
46	300.	0.6724	0.6781	0.7197	0.8665	0.9762	0.9974	1.0000	1.0001
	800.	0.7060	0.7117	0.7532	0.8864	0.9799	0.9977	0.9999	0.9999
	2100.	0.7487	0.7541	0.7929	0.9116	0.9856	0.9984	0.9999	0.9999
	4500.	0.7842	0.7890	0.8229	0.9269	0.9887	0.9988	0.9995	1.0000
47	300.	0.3592	0.3658	0.4131	0.5966	0.8786	0.9841	0.9977	0.9991
	800.	0.3670	0.3738	0.4242	0.6267	0.8930	0.9743	0.9840	0.9850
	2100.	0.3826	0.3901	0.4466	0.6746	0.9186	0.9796	0.9865	0.9872
	4500.	0.4017	0.4096	0.4707	0.7106	0.9316	0.9820	0.9875	0.9881
48	300.	0.3771	0.3842	0.4357	0.6335	0.9021	0.9880	0.9982	0.9999
	800.	0.4014	0.4086	0.4627	0.6774	0.9266	0.9937	1.0014	1.0023
	2100.	0.4424	0.4494	0.5037	0.7254	0.9451	0.9969	1.0029	1.0035
	4500.	0.4863	0.4931	0.5473	0.7674	0.9582	1.0007	1.0053	1.0059

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2			REACTION = TOTAL			FOR PAGE		1TH 5 OF 6	R-PARAMETER	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06	
49	300.	0.3534	0.3597	0.4075	0.6205	0.9007	0.9877	0.9991	0.9997	
	800.	0.3543	0.3607	0.4097	0.6393	0.9255	1.0049	1.0150	1.0157	
	2100.	0.3555	0.3620	0.4126	0.6540	0.9294	0.9955	1.0033	1.0040	
	4500.	0.3582	0.3649	0.4174	0.6681	0.9263	0.9806	0.9869	0.9876	
50	300.	0.4326	0.4414	0.5036	0.7279	0.9389	0.9925	0.9988	0.9996	
	800.	0.4304	0.4390	0.5013	0.7256	0.9204	0.9653	0.9703	0.9710	
	2100.	0.4452	0.4543	0.5202	0.7524	0.9360	0.9748	0.9794	0.9797	
	4500.	0.4699	0.4792	0.5462	0.7783	0.9525	0.9869	0.9909	0.9911	
51	300.	0.3499	0.3597	0.4271	0.6256	0.8786	0.9832	0.9966	0.9968	
	800.	0.4137	0.4231	0.4858	0.6784	0.9577	1.0763	1.0915	1.0937	
	2100.	0.4248	0.4345	0.4997	0.7028	0.9674	1.0716	1.0847	1.0868	
	4500.	0.4468	0.4566	0.5237	0.7334	0.9761	1.0649	1.0757	1.0777	
52	300.	0.3859	0.3885	0.4098	0.5454	0.8430	0.9785	0.9982	1.0003	
	800.	0.3931	0.3956	0.4172	0.5492	0.8218	0.9412	0.9578	0.9595	
	2100.	0.4194	0.4223	0.4467	0.5930	0.8553	0.9491	0.9610	0.9623	
	4500.	0.4809	0.4841	0.5106	0.6611	0.8896	0.9559	0.9640	0.9647	
53	300.	0.3226	0.3240	0.3352	0.4088	0.6218	0.9151	0.9867	0.9951	
	800.	0.3330	0.3344	0.3465	0.4247	0.6624	0.9279	0.9817	0.9878	
	2100.	0.3493	0.3509	0.3636	0.4455	0.6998	0.9264	0.9651	0.9697	
	4500.	0.3718	0.3734	0.3867	0.4739	0.7228	0.9050	0.9330	0.9355	
54	300.	0.2909	0.2912	0.2951	0.3645	0.5807	0.8816	0.9841	0.9967	
	800.	0.3084	0.3088	0.3135	0.3845	0.6054	0.9000	0.9882	0.9995	
	2100.	0.3741	0.3743	0.3785	0.4449	0.6645	0.9424	1.0117	1.0196	
	4500.	0.5165	0.5162	0.5158	0.5535	0.7481	0.9948	1.0466	1.0524	
55	300.	0.2781	0.2788	0.2855	0.3414	0.6964	0.9356	0.9966	1.0043	
	800.	0.2781	0.2789	0.2855	0.3406	0.7110	0.9416	0.9938	0.9954	
	2100.	0.2809	0.2817	0.2886	0.3451	0.7452	0.9368	0.9723	0.9730	
	4500.	0.2881	0.2889	0.2962	0.3546	0.7674	0.9172	0.9409	0.9411	
56	300.	0.5993	0.5997	0.6051	0.6678	0.8174	0.9655	0.9948	0.9978	
	800.	0.6349	0.6354	0.6406	0.6982	0.8459	0.9772	1.0017	1.0037	
	2100.	0.6711	0.6714	0.6751	0.7280	0.8673	0.9790	0.9978	0.9996	
	4500.	0.7194	0.7193	0.7201	0.7625	0.8822	0.9718	0.9858	0.9871	
57	300.	0.5366	0.5372	0.5425	0.5869	0.7328	0.9526	0.9929	0.9972	
	800.	0.5415	0.5421	0.5478	0.5954	0.7566	0.9616	0.9986	1.0028	
	2100.	0.5533	0.5540	0.5602	0.6125	0.7792	0.9709	1.0033	1.0066	
	4500.	0.5818	0.5826	0.5896	0.6474	0.8131	0.9860	1.0139	1.0169	
58	300.	0.6606	0.6619	0.6729	0.7562	1.0306	1.0099	1.0026	1.0019	
	800.	0.6524	0.6537	0.6647	0.7479	1.0066	1.0067	0.9994	0.9986	
	2100.	0.6618	0.6630	0.6736	0.7538	1.0031	1.0053	0.9980	0.9973	
	4500.	0.6809	0.6820	0.6919	0.7666	1.0011	1.0040	0.9968	0.9961	
59	300.	0.2462	0.2469	0.2528	0.3092	0.5614	0.9002	0.9872	0.9966	
	800.	0.2466	0.2473	0.2532	0.3105	0.5851	0.8933	0.9648	0.9729	
	2100.	0.2698	0.2705	0.2770	0.3383	0.6248	0.9097	0.9664	0.9724	
	4500.	0.3163	0.3171	0.3241	0.3888	0.6706	0.9214	0.9660	0.9706	
60	300.	0.9102	0.9105	0.9128	0.9242	0.9916	1.0021	1.0013	1.0012	
	800.	0.9043	0.9046	0.9067	0.9170	0.9601	0.9840	0.9840	0.9839	
	2100.	0.9079	0.9082	0.9104	0.9212	0.9669	0.9938	0.9936	0.9936	
	4500.	0.9151	0.9154	0.9179	0.9314	0.9866	1.0190	1.0186	1.0185	

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 6 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9964	0.9964	0.9966	0.9959	0.9992	1.0005	1.0003	1.0003
	800.	0.9951	0.9952	0.9954	0.9950	0.9966	1.0003	1.0002	1.0002
	2100.	0.9961	0.9961	0.9964	0.9959	0.9974	1.0013	1.0013	1.0013
	4500.	0.9979	0.9980	0.9982	0.9977	0.9991	1.0033	1.0033	1.0032
62	300.	1.0005	1.0005	1.0004	1.0000	0.9999	1.0001	1.0001	1.0001
	800.	0.9987	0.9987	0.9987	0.9983	0.9980	0.9985	0.9985	0.9985
	2100.	0.9992	0.9992	0.9992	0.9988	0.9985	0.9991	0.9991	0.9991
	4500.	1.0002	1.0002	1.0002	0.9998	0.9995	1.0001	1.0001	1.0001
63	300.	0.9989	0.9989	0.9990	0.9994	0.9999	0.9999	0.9999	0.9999
	800.	1.0006	1.0006	1.0006	1.0011	1.0016	1.0014	1.0014	1.0014
	2100.	1.0010	1.0010	1.0011	1.0015	1.0021	1.0019	1.0019	1.0019
	4500.	1.0018	1.0018	1.0019	1.0023	1.0029	1.0027	1.0027	1.0027
64	300.	0.9946	0.9946	0.9949	0.9966	0.9994	0.9997	0.9998	0.9998
	800.	0.9995	0.9996	0.9999	1.0018	1.0049	1.0047	1.0048	1.0048
	2100.	1.0001	1.0001	1.0004	1.0024	1.0054	1.0052	1.0053	1.0053
	4500.	1.0010	1.0011	1.0014	1.0033	1.0064	1.0062	1.0063	1.0063
65	300.	0.9892	0.9892	0.9896	0.9921	0.9983	0.9995	0.9997	0.9997
	800.	0.9960	0.9961	0.9964	0.9987	1.0039	1.0044	1.0046	1.0046
	2100.	0.9957	0.9957	0.9961	0.9983	1.0035	1.0040	1.0042	1.0041
	4500.	0.9972	0.9972	0.9976	0.9997	1.0049	1.0053	1.0054	1.0054
66	300.	0.9882	0.9883	0.9887	0.9900	0.9974	0.9994	0.9996	0.9997
	800.	0.9918	0.9918	0.9923	0.9940	1.0014	1.0029	1.0033	1.0031
	2100.	0.9904	0.9904	0.9909	0.9925	0.9998	1.0012	1.0016	1.0015
	4500.	0.9918	0.9918	0.9923	0.9940	1.0014	1.0028	1.0031	1.0045
67	300.	0.9694	0.9695	0.9705	0.9748	0.9923	0.9985	0.9994	0.9994
	800.	0.9761	0.9763	0.9772	0.9817	0.9969	1.0016	1.0024	1.0023
	2100.	0.9667	0.9668	0.9677	0.9712	0.9843	0.9883	0.9890	0.9889
	4500.	0.9761	0.9763	0.9772	0.9817	0.9970	1.0016	1.0022	1.0022
68	300.	0.8696	0.8699	0.8724	0.8866	0.9569	0.9936	0.9983	0.9996
	800.	0.8731	0.8734	0.8762	0.8928	0.9669	1.0041	1.0091	1.0091
	2100.	0.8569	0.8573	0.8603	0.8790	0.9564	0.9942	0.9993	0.9997
	4500.	0.8731	0.8734	0.8762	0.8928	0.9671	1.0041	1.0091	1.0096
69	300.	0.7505	0.7508	0.7547	0.7869	0.9051	0.9852	0.9984	0.9998
	800.	0.7505	0.7508	0.7547	0.7869	0.9051	0.9852	0.9984	0.9998
	2100.	0.7505	0.7508	0.7547	0.7869	0.9051	0.9852	0.9984	0.9998
	4500.	0.7505	0.7508	0.7547	0.7869	0.9051	0.9852	0.9984	0.9998
70	300.	0.7916	0.7917	0.7928	0.8048	0.8729	0.9713	0.9966	0.9996
	800.	0.7916	0.7917	0.7928	0.8048	0.8729	0.9713	0.9966	0.9996
	2100.	0.7916	0.7917	0.7928	0.8048	0.8729	0.9713	0.9966	0.9996
	4500.	0.7916	0.7917	0.7928	0.8048	0.8729	0.9713	0.9966	0.9996

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2

REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.1754	0.1928	0.5831	0.9318	0.9924	0.9989	0.9996	0.9997
	800.	0.1768	0.1994	0.5953	0.9348	0.9928	0.9990	0.9996	0.9997
	2100.	0.1764	0.2016	0.6003	0.9362	0.9929	0.9990	0.9996	0.9997
	4500.	0.1762	0.2072	0.6105	0.9386	0.9932	0.9990	0.9996	0.9997
27	300.	0.8640	0.7407	0.5875	0.9290	0.9917	0.9985	0.9992	0.9992
	800.	0.8529	0.7225	0.5909	0.9305	0.9919	0.9985	0.9992	0.9992
	2100.	0.8480	0.7146	0.5922	0.9313	0.9920	0.9985	0.9992	0.9992
	4500.	0.8396	0.6990	0.5973	0.9330	0.9922	0.9985	0.9992	0.9992
28	300.	0.8654	0.8604	0.6121	0.9227	0.9907	0.9981	0.9989	0.9990
	800.	0.8593	0.8527	0.6063	0.9228	0.9907	0.9981	0.9989	0.9990
	2100.	0.8581	0.8507	0.6043	0.9230	0.9908	0.9981	0.9989	0.9990
	4500.	0.8547	0.8460	0.6038	0.9240	0.9909	0.9981	0.9989	0.9990
29	300.	0.8514	0.8447	0.6369	0.9095	0.9890	0.9979	0.9988	0.9989
	800.	0.8545	0.8476	0.6314	0.9105	0.9892	0.9979	0.9988	0.9989
	2100.	0.8573	0.8503	0.6301	0.9116	0.9894	0.9979	0.9988	0.9989
	4500.	0.8572	0.8499	0.6259	0.9130	0.9896	0.9979	0.9988	0.9989
30	300.	0.8473	0.8441	0.7076	0.8982	0.9875	0.9976	0.9986	0.9987
	800.	0.8512	0.8480	0.7035	0.8986	0.9876	0.9976	0.9986	0.9987
	2100.	0.8532	0.8502	0.7022	0.8994	0.9878	0.9976	0.9986	0.9987
	4500.	0.8542	0.8511	0.6956	0.9003	0.9879	0.9976	0.9986	0.9987
31	300.	0.8259	0.8226	0.7521	0.8771	0.9843	0.9970	0.9983	0.9984
	800.	0.8269	0.8233	0.7492	0.8768	0.9844	0.9970	0.9983	0.9984
	2100.	0.8274	0.8234	0.7473	0.8769	0.9845	0.9970	0.9983	0.9984
	4500.	0.8287	0.8243	0.7427	0.8776	0.9846	0.9970	0.9983	0.9984
32	300.	0.7531	0.7598	0.7677	0.8682	0.9830	0.9963	0.9977	0.9978
	800.	0.7615	0.7668	0.7680	0.8672	0.9830	0.9963	0.9977	0.9978
	2100.	0.7735	0.7775	0.7720	0.8678	0.9831	0.9964	0.9977	0.9978
	4500.	0.7837	0.7869	0.7754	0.8696	0.9834	0.9964	0.9977	0.9978
33	300.	0.8390	0.8381	0.8256	0.8645	0.9820	0.9959	0.9973	0.9974
	800.	0.8423	0.8423	0.8305	0.8653	0.9822	0.9959	0.9973	0.9974
	2100.	0.8455	0.8462	0.8353	0.8660	0.9824	0.9959	0.9973	0.9974
	4500.	0.8472	0.8486	0.8383	0.8670	0.9826	0.9959	0.9973	0.9974
34	300.	1.0619	1.0424	0.9600	0.8887	0.9848	0.9958	0.9970	0.9971
	800.	1.0828	1.0612	0.9686	0.8891	0.9850	0.9959	0.9970	0.9971
	2100.	1.1042	1.0802	0.9770	0.8895	0.9851	0.9959	0.9970	0.9971
	4500.	1.1148	1.0895	0.9806	0.8894	0.9851	0.9959	0.9970	0.9971
35	300.	0.9355	0.9238	0.8686	0.8436	0.9781	0.9949	0.9966	0.9968
	800.	0.9550	0.9423	0.8806	0.8457	0.9786	0.9950	0.9966	0.9968
	2100.	0.9775	0.9631	0.8927	0.8480	0.9791	0.9950	0.9966	0.9968
	4500.	0.9909	0.9757	0.9006	0.8499	0.9795	0.9951	0.9966	0.9968
36	300.	0.8902	0.8948	0.8844	0.8345	0.9768	0.9946	0.9964	0.9966
	800.	0.8701	0.8769	0.8782	0.8333	0.9771	0.9946	0.9964	0.9966
	2100.	0.8613	0.8700	0.8780	0.8324	0.9772	0.9946	0.9964	0.9966
	4500.	0.8677	0.8767	0.8833	0.8320	0.9772	0.9946	0.9964	0.9966

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PUZ41-J2 REACTION = ELASTIC REMOVAL FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.6075	0.6103	0.6311	0.7028	0.9498	0.9915	0.9960	0.9964
	800.	0.6038	0.6083	0.6374	0.7169	0.9559	0.9922	0.9960	0.9964
	2100.	0.6123	0.6178	0.6513	0.7299	0.9602	0.9927	0.9961	0.9964
	4500.	0.6268	0.6325	0.6665	0.7381	0.9623	0.9929	0.9961	0.9964
38	300.	0.7690	0.7692	0.7752	0.7655	0.9649	0.9931	0.9961	0.9964
	800.	0.7707	0.7718	0.7832	0.7698	0.9665	0.9933	0.9961	0.9964
	2100.	0.7914	0.7928	0.8034	0.7752	0.9677	0.9935	0.9961	0.9964
	4500.	0.8119	0.8131	0.8215	0.7799	0.9687	0.9936	0.9961	0.9964
39	300.	0.4341	0.4555	0.5693	0.7157	0.9569	0.9924	0.9961	0.9965
	800.	0.4275	0.4486	0.5631	0.7128	0.9572	0.9924	0.9961	0.9965
	2100.	0.4236	0.4443	0.5599	0.7130	0.9579	0.9925	0.9961	0.9965
	4500.	0.4292	0.4496	0.5653	0.7163	0.9588	0.9926	0.9961	0.9965
40	300.	0.5609	0.5673	0.5970	0.6418	0.9368	0.9901	0.9959	0.9965
	800.	0.5401	0.5479	0.5885	0.6483	0.9419	0.9905	0.9957	0.9962
	2100.	0.5382	0.5457	0.5884	0.6522	0.9446	0.9908	0.9957	0.9962
	4500.	0.5502	0.5567	0.5959	0.6571	0.9468	0.9911	0.9957	0.9962
41	300.	0.2134	0.2250	0.2927	0.4116	0.8455	0.9781	0.9944	0.9961
	800.	0.2651	0.2783	0.3530	0.4573	0.8753	0.9816	0.9940	0.9953
	2100.	0.3047	0.3198	0.4037	0.5016	0.8986	0.9847	0.9943	0.9953
	4500.	0.3354	0.3514	0.4408	0.5293	0.9110	0.9863	0.9945	0.9953
42	300.	0.6407	0.6563	0.7405	0.6836	0.9467	0.9907	0.9954	0.9958
	800.	0.8157	0.8270	0.8797	0.7021	0.9485	0.9897	0.9940	0.9944
	2100.	0.8888	0.8971	0.9325	0.7123	0.9493	0.9898	0.9940	0.9944
	4500.	0.9493	0.9549	0.9744	0.7173	0.9499	0.9898	0.9940	0.9944
43	300.	1.7665	1.7053	1.3794	0.7533	0.9512	0.9908	0.9950	0.9955
	800.	1.4700	1.4312	1.2177	0.7224	0.9440	0.9886	0.9933	0.9938
	2100.	1.4247	1.3955	1.2207	0.7379	0.9452	0.9888	0.9933	0.9938
	4500.	1.3873	1.3658	1.2223	0.7434	0.9457	0.9888	0.9933	0.9938
44	300.	0.5942	0.6216	0.7808	0.8075	0.9573	0.9913	0.9948	0.9952
	800.	0.7876	0.8132	0.9518	0.8695	0.9627	0.9901	0.9930	0.9933
	2100.	0.8020	0.8261	0.9595	0.8931	0.9630	0.9902	0.9930	0.9933
	4500.	0.8029	0.8262	0.9578	0.9024	0.9629	0.9901	0.9930	0.9933
45	300.	0.3771	0.3817	0.4101	0.5061	0.8645	0.9798	0.9934	0.9948
	800.	0.3010	0.3066	0.3438	0.4866	0.8645	0.9783	0.9914	0.9927
	2100.	0.2913	0.2971	0.3362	0.4979	0.8692	0.9790	0.9915	0.9927
	4500.	0.3084	0.3142	0.3533	0.5179	0.8768	0.9801	0.9916	0.9927
46	300.	0.5625	0.5706	0.6280	0.7113	0.9201	0.9867	0.9940	0.9947
	800.	0.3906	0.4015	0.4811	0.6676	0.9091	0.9834	0.9916	0.9924
	2100.	0.3935	0.4049	0.4899	0.7001	0.9148	0.9841	0.9916	0.9924
	4500.	0.4149	0.4264	0.5128	0.7236	0.9186	0.9846	0.9917	0.9924
47	300.	1.0134	1.0051	0.9426	0.7701	0.9129	0.9859	0.9942	0.9950
	800.	1.2251	1.2118	1.1109	0.8489	0.9573	1.0248	1.0322	1.0329
	2100.	1.1273	1.1190	1.0466	0.8434	0.9715	1.0457	1.0538	1.0546
	4500.	0.9489	0.9483	0.9263	0.8294	0.9980	1.0817	1.0907	1.0917
48	300.	0.5330	0.5481	0.6487	0.7838	0.9095	0.9855	0.9939	0.9948
	800.	0.6067	0.6224	0.7292	0.8699	0.9535	1.0265	1.0344	1.0352
	2100.	0.5523	0.5674	0.6760	0.8715	0.9712	1.0517	1.0605	1.0613
	4500.	0.4942	0.5081	0.6124	0.8513	0.9923	1.0840	1.0941	1.0951

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PUZ41-J2 REACTION = ELASTIC REMOVAL FOR 1TH R-PARAMETER
PAGE 5 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
49	300.	0.0521	0.0628	0.1424	0.4572	0.8205	0.9740	0.9926	0.9946
	800.	0.0549	0.0654	0.1449	0.4649	0.7843	0.9179	0.9339	0.9355
	2100.	0.0601	0.0715	0.1581	0.5025	0.8056	0.9323	0.9472	0.9487
	4500.	0.0688	0.0816	0.1786	0.5484	0.8268	0.9436	0.9571	0.9585
50	300.	1.4159	1.3929	1.2405	1.0033	0.9432	0.9884	0.9933	0.9938
	800.	2.0033	1.9354	1.5492	1.0700	0.9672	1.0111	1.0159	1.0163
	2100.	2.0296	1.9621	1.5724	1.0797	0.9675	1.0113	1.0160	1.0165
	4500.	2.0127	1.9488	1.5727	1.0823	0.9673	1.0115	1.0162	1.0167
51	300.	0.1126	0.1172	0.1506	0.3329	0.7563	0.9639	0.9903	0.9930
	800.	0.1097	0.1130	0.1374	0.2846	0.6768	0.8822	0.9089	0.9117
	2100.	0.1216	0.1250	0.1501	0.2975	0.6785	0.8736	0.8986	0.9012
	4500.	0.1412	0.1446	0.1695	0.3150	0.6832	0.8667	0.8898	0.8922
52	300.	0.9683	0.9747	1.0163	0.9589	0.8783	0.9798	0.9915	0.9927
	800.	0.9358	0.9433	0.9951	0.9965	0.9353	1.0433	1.0559	1.0572
	2100.	0.9328	0.9408	0.9964	1.0095	0.9474	1.0619	1.0752	1.0766
	4500.	1.0460	1.0526	1.0969	1.0563	0.9651	1.0847	1.0985	1.0999
53	300.	0.0977	0.1021	0.1395	0.3516	0.6628	0.9384	0.9868	0.9921
	800.	0.1013	0.1057	0.1433	0.3760	0.7488	1.0252	1.0683	1.0728
	2100.	0.1019	0.1064	0.1446	0.4023	0.8777	1.2026	1.2499	1.2548
	4500.	0.1183	0.1231	0.1637	0.4373	0.9239	1.2422	1.2867	1.2913
54	300.	1.0436	1.0327	0.9509	0.7004	0.6891	0.9457	0.9872	0.9917
	800.	0.9716	0.9640	0.9068	0.7266	0.7668	1.0923	1.1464	1.1523
	2100.	0.8719	0.8662	0.8231	0.6842	0.7907	1.2177	1.2888	1.2964
	4500.	0.8410	0.8359	0.7962	0.6477	0.7734	1.2793	1.3636	1.3726
55	300.	0.9604	0.9749	1.0846	1.3992	0.9250	0.9850	0.9913	0.9919
	800.	0.9153	0.9299	1.0427	1.4086	0.9755	1.0074	1.0130	1.0135
	2100.	0.9122	0.9270	1.0420	1.4291	0.9769	1.0072	1.0133	1.0140
	4500.	0.8966	0.9113	1.0262	1.4324	0.9724	1.0061	1.0133	1.0141
56	300.	0.8443	0.8392	0.7996	0.6888	0.7015	0.9532	0.9882	0.9919
	800.	0.9706	0.9646	0.9172	0.7664	0.7688	0.9996	1.0350	1.0387
	2100.	0.8660	0.8608	0.8195	0.7022	0.7638	1.0176	1.0570	1.0611
	4500.	0.7822	0.7775	0.7419	0.6555	0.7881	1.0842	1.1310	1.1359
57	300.	0.4762	0.4765	0.4801	0.5185	0.5712	0.9279	0.9851	0.9911
	800.	0.4980	0.4983	0.5021	0.5413	0.6189	0.9519	1.0109	1.0171
	2100.	0.5031	0.5036	0.5076	0.5467	0.6161	0.9454	1.0044	1.0107
	4500.	0.5068	0.5072	0.5113	0.5486	0.6092	0.9375	0.9972	1.0035
58	300.	2.2036	2.1978	2.1479	1.8067	0.7744	0.9607	0.9883	0.9911
	800.	2.2784	2.2724	2.2216	1.8742	0.8903	0.9878	1.0160	1.0189
	2100.	2.2477	2.2421	2.1941	1.8638	0.9049	0.9902	1.0187	1.0216
	4500.	2.1803	2.1754	2.1332	1.8354	0.9175	0.9949	1.0241	1.0272
59	300.	1.4252	1.4206	1.3822	1.1523	0.6149	0.9207	0.9840	0.9908
	800.	1.7083	1.7023	1.6521	1.3487	0.7743	0.9889	1.0584	1.0659
	2100.	1.7718	1.7649	1.7063	1.3590	0.7703	0.9807	1.0502	1.0576
	4500.	1.7165	1.7097	1.6526	1.3138	0.7659	0.9756	1.0452	1.0526
60	300.	1.2293	1.2317	1.2518	1.3395	1.0267	0.9846	0.9911	0.9918
	800.	1.3915	1.3938	1.4135	1.4970	1.2749	1.1084	1.1104	1.1106
	2100.	1.3984	1.4009	1.4219	1.5101	1.2896	1.1079	1.1100	1.1102
	4500.	1.4154	1.4181	1.4410	1.5327	1.3019	1.1069	1.1093	1.1095

TO BE CONTINUED

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TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = PU241-J2		REACTION = ELASTIC REMOVAL				FOR 1TH R-PARAMETER		PAGE 6 OF 6	
GROUP	TEMP. (SIGD)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
61	300.	0.9906	0.9916	1.0004	1.0699	1.0182	0.9865	0.9915	0.9920
	800.	1.0465	1.0475	1.0560	1.1204	1.1140	1.0190	1.0200	1.0201
	2100.	1.0469	1.0478	1.0564	1.1221	1.1204	1.0188	1.0199	1.0200
	4500.	1.0475	1.0485	1.0572	1.1251	1.1260	1.0186	1.0197	1.0198
62	300.	0.9125	0.9131	0.9192	0.9783	1.0043	0.9871	0.9916	0.9921
	800.	0.9571	0.9578	0.9641	1.0202	1.0698	1.0152	1.0164	1.0165
	2100.	0.9571	0.9578	0.9642	1.0207	1.0731	1.0152	1.0163	1.0165
	4500.	0.9573	0.9580	0.9644	1.0215	1.0760	1.0151	1.0162	1.0164
63	300.	0.8602	0.8607	0.8648	0.9177	0.9897	0.9871	0.9917	0.9922
	800.	0.9853	0.9858	0.9906	1.0436	1.1263	1.0975	1.0992	1.0994
	2100.	0.9852	0.9857	0.9906	1.0438	1.1283	1.0974	1.0992	1.0994
	4500.	0.9852	0.9857	0.9906	1.0440	1.1300	1.0973	1.0991	1.0993
64	300.	0.8123	0.8125	0.8147	0.8594	0.9732	0.9864	0.9917	0.9923
	800.	0.8438	0.8441	0.8471	0.8945	1.0133	1.0066	1.0095	1.0099
	2100.	0.8437	0.8440	0.8470	0.8944	1.0146	1.0066	1.0095	1.0098
	4500.	0.8434	0.8437	0.8468	0.8944	1.0158	1.0065	1.0095	1.0098
65	300.	0.7867	0.7863	0.7830	0.7973	0.9515	0.9846	0.9915	0.9922
	800.	0.9260	0.9255	0.9222	0.9402	1.0947	1.1105	1.1153	1.1158
	2100.	0.9246	0.9242	0.9213	0.9400	1.0952	1.1099	1.1147	1.1152
	4500.	0.9272	0.9268	0.9236	0.9410	1.0967	1.1105	1.1153	1.1158
66	300.	0.7742	0.7742	0.7739	0.7678	0.9304	0.9830	0.9915	0.9923
	800.	0.8028	0.8029	0.8031	0.8023	0.9607	0.9984	1.0052	1.0059
	2100.	0.8017	0.8018	0.8025	0.8026	0.9615	0.9982	1.0050	1.0057
	4500.	0.8028	0.8029	0.8032	0.8027	0.9622	0.9984	1.0052	1.0059
67	300.	0.6952	0.6952	0.6954	0.6928	0.8890	0.9785	0.9911	0.9923
	800.	0.8019	0.8020	0.8028	0.8075	1.0019	1.0777	1.0889	1.0900
	2100.	0.8264	0.8264	0.8260	0.8230	1.0058	1.0771	1.0878	1.0889
	4500.	0.8019	0.8020	0.8028	0.8077	1.0032	1.0777	1.0889	1.0900
68	300.	0.5131	0.5129	0.5106	0.4920	0.7510	0.9602	0.9892	0.9922
	800.	0.5187	0.5185	0.5165	0.5040	0.7672	0.9716	1.0011	1.0041
	2100.	0.5085	0.5083	0.5065	0.4970	0.7677	0.9712	1.0005	1.0035
	4500.	0.5187	0.5185	0.5165	0.5040	0.7683	0.9716	1.0011	1.0041
69	300.	0.9898	0.9898	0.9900	0.9917	0.9967	0.9995	0.9999	1.0000
	800.	0.9898	0.9898	0.9900	0.9917	0.9967	0.9995	0.9999	1.0000
	2100.	0.9898	0.9898	0.9900	0.9917	0.9967	0.9995	0.9999	1.0000
	4500.	0.9898	0.9898	0.9900	0.9917	0.9967	0.9995	0.9999	1.0000
70	300.	0.9900	0.9900	0.9902	0.9903	0.9947	0.9988	0.9998	1.0000
	800.	0.9900	0.9900	0.9902	0.9903	0.9947	0.9988	0.9998	1.0000
	2100.	0.9900	0.9900	0.9902	0.9903	0.9947	0.9988	0.9998	1.0000
	4500.	0.9900	0.9900	0.9902	0.9903	0.9947	0.9988	0.9998	1.0000

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GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1	2.4676E+00	4.5173E+00	2.3090E-05	2.3761E-01	4.0637E+00	8.5067E-01	3.4311E-02	8.5752E-02	6.8547E+00
2	2.3179E+00	4.2392E+00	1.9803E-04	4.5025E-01	4.4283E+00	8.3684E-01	3.6441E-02	1.0580E-02	7.2072E+00
3	2.1087E+00	4.0181E+00	1.2917E-03	6.5964E-01	4.6536E+00	8.0602E-01	4.0581E-02	0.0	7.4232E+00
4	1.9624E+00	3.8436E+00	5.5471E-03	7.7881E-01	4.6962E+00	7.7115E-01	4.2516E-02	0.0	7.4430E+00
5	1.8897E+00	3.7055E+00	1.7438E-02	9.1249E-01	4.5417E+00	7.3847E-01	4.4374E-02	0.0	7.3614E+00
6	1.8569E+00	3.5995E+00	4.1938E-02	1.0698E+00	4.2683E+00	6.9848E-01	4.3108E-02	0.0	7.2369E+00
7	1.8401E+00	3.5155E+00	8.0966E-02	1.1542E+00	4.0177E+00	6.4185E-01	5.0632E-02	0.0	7.0930E+00
8	1.8095E+00	3.4499E+00	1.2731E-01	1.0875E+00	3.9470E+00	5.7838E-01	6.0767E-02	0.0	6.9713E+00
9	1.5969E+00	3.4013E+00	1.9149E-01	1.0190E+00	4.1373E+00	5.2313E-01	6.1790E-02	0.0	6.9446E+00
10	9.4686E-01	3.3612E+00	3.2265E-01	1.1854E+00	4.6416E+00	4.6765E-01	1.0919E-01	0.0	7.0965E+00
11	3.6402E-01	3.3308E+00	4.2383E-01	1.3479E+00	5.3098E+00	4.1803E-01	1.0971E-01	0.0	7.4456E+00
12	1.2430E-01	3.3056E+00	4.9681E-01	1.2411E+00	6.0980E+00	3.7032E-01	1.4448E-01	0.0	7.9603E+00
13	5.4236E-02	3.2871E+00	5.4849E-01	1.0995E+00	6.8298E+00	3.2918E-01	1.3434E-01	0.0	8.5320E+00
14	2.8532E-02	3.2715E+00	6.0768E-01	9.6592E-01	7.5757E+00	2.8772E-01	1.8802E-01	0.0	9.1779E+00
15	1.9251E-02	3.2594E+00	7.0220E-01	7.7437E-01	8.2876E+00	2.4807E-01	2.1272E-01	0.0	9.7834E+00
16	2.3715E-02	3.2496E+00	8.2720E-01	5.3600E-01	8.9736E+00	2.0987E-01	2.6331E-01	0.0	1.0361E+01
17	5.8091E-02	3.2438E+00	9.1684E-01	4.1595E-01	9.5155E+00	1.7689E-01	2.4274E-01	0.0	1.0906E+01
18	1.7748E-02	3.2385E+00	1.0344E+00	3.3513E-01	1.0013E+01	1.4653E-01	2.4131E-01	0.0	1.1401E+01
19	1.1612E-02	3.2339E+00	1.1622E+00	2.5259E-01	1.0455E+01	1.1902E-01	2.8390E-01	0.0	1.1882E+01
20	1.0531E-02	3.2306E+00	1.2838E+00	1.9679E-01	1.0816E+01	9.6791E-02	2.7262E-01	0.0	1.2307E+01
21	1.0901E-02	3.2280E+00	1.4162E+00	1.4666E-01	1.1146E+01	7.7577E-02	2.4890E-01	0.0	1.2719E+01
22	1.3366E-02	3.2259E+00	1.5735E+00	7.1694E-02	1.1467E+01	6.1417E-02	3.0732E-01	0.0	1.3126E+01
23	2.3480E-02	3.2243E+00	1.7419E+00	0.0	1.1768E+01	4.8589E-02	3.3742E-01	0.0	1.3534E+01
24	4.4461E-02	3.2232E+00	1.8865E+00	0.0	1.2023E+01	3.8281E-02	3.1389E-01	0.0	1.3954E+01
25	5.3097E-02	3.2223E+00	2.0589E+00	0.0	1.2266E+01	3.0462E-02	3.4719E-01	0.0	1.4378E+01
26	1.0487E-01	3.2215E+00	2.2515E+00	0.0	1.2494E+01	2.4095E-02	3.9464E-01	0.0	1.4850E+01
27	1.5352E-01	3.2210E+00	2.4839E+00	0.0	1.2710E+01	1.9310E-02	3.4991E-01	0.0	1.5347E+01
28	1.2569E-01	3.2206E+00	2.8228E+00	0.0	1.2958E+01	1.5437E-02	3.4821E-01	0.0	1.5907E+01
29	9.4489E-02	3.2202E+00	3.2391E+00	0.0	1.3207E+01	1.2415E-02	3.9647E-01	0.0	1.6540E+01
30	8.6720E-02	3.2200E+00	3.7013E+00	0.0	1.3428E+01	1.0201E-02	3.6240E-01	0.0	1.7216E+01
31	9.3413E-02	3.2197E+00	4.2605E+00	0.0	1.3644E+01	8.1029E-03	3.7493E-01	0.0	1.7998E+01
32	1.0963E-01	3.2196E+00	4.9082E+00	0.0	1.3848E+01	2.7902E-03	3.3264E-01	0.0	1.8866E+01
33	1.3260E-01	3.2194E+00	5.6911E+00	0.0	1.4050E+01	2.7902E-03	4.1646E-01	0.0	1.9874E+01
34	1.5814E-01	3.2193E+00	6.6246E+00	0.0	1.4249E+01	2.7902E-03	4.6182E-01	0.0	2.1032E+01
35	1.8048E-01	3.2193E+00	7.6604E+00	0.0	1.4432E+01	2.7902E-03	3.9699E-01	0.0	2.2272E+01
36	1.9883E-01	3.2192E+00	8.8945E+00	0.0	1.4613E+01	2.7902E-03	3.9300E-01	0.0	2.3707E+01
37	2.1193E-01	3.2192E+00	1.0314E+01	0.0	1.4789E+01	2.7902E-03	3.7056E-01	0.0	2.5315E+01
38	2.2074E-01	3.2191E+00	1.1974E+01	0.0	1.4961E+01	2.7902E-03	3.8111E-01	0.0	2.7156E+01
39	2.2600E-01	3.2191E+00	1.3888E+01	0.0	1.5127E+01	2.7902E-03	3.8527E-01	0.0	2.9241E+01
40	2.2891E-01	3.2191E+00	1.6074E+01	0.0	1.5283E+01	2.7902E-03	3.7297E-01	0.0	3.1587E+01

TO BE CONTINUED

NUCLID = AM241-J2 CODE NO = 951
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GRP.	FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41	2.3043E-01	3.2191E+00	1.8626E+01	0.0	1.5435E+01	2.7902E-03	3.9565E-01	0.0	3.4291E+01
42	2.3110E-01	3.2190E+00	2.1501E+01	0.0	1.5576E+01	2.7902E-03	3.6946E-01	0.0	3.7308E+01
43	2.3132E-01	3.2190E+00	2.4756E+01	0.0	1.5709E+01	2.7902E-03	3.5428E-01	0.0	4.0696E+01
44	2.3130E-01	3.2190E+00	2.8543E+01	0.0	1.5834E+01	2.7902E-03	3.5557E-01	0.0	4.4609E+01
45	2.2383E-01	3.2190E+00	3.9141E+01	0.0	1.6431E+01	2.7902E-03	2.5393E-01	0.0	5.5796E+01
46	2.0435E-01	3.2190E+00	4.5983E+01	0.0	1.3781E+01	2.7902E-03	2.4286E-01	0.0	5.9968E+01
47	1.8619E-01	3.2190E+00	4.3093E+01	0.0	1.2138E+01	2.7902E-03	1.9286E-01	0.0	5.5417E+01
48	2.1646E-01	3.2190E+00	5.3112E+01	0.0	1.2032E+01	2.7902E-03	1.8385E-01	0.0	6.5361E+01
49	1.4920E-01	3.2190E+00	5.8504E+01	0.0	1.0618E+01	2.7902E-03	1.5984E-01	0.0	6.9271E+01
50	2.9347E-01	3.2190E+00	5.4161E+01	0.0	1.1249E+01	2.7902E-03	1.7248E-01	0.0	6.5704E+01
51	4.8597E-01	3.2190E+00	7.9073E+01	0.0	1.1478E+01	2.7902E-03	2.3455E-01	0.0	9.1037E+01
52	3.8469E-01	3.2190E+00	9.0439E+01	0.0	1.1069E+01	2.7902E-03	1.6081E-01	0.0	1.0189E+02
53	1.3592E-01	3.2190E+00	3.5712E+01	0.0	9.8009E+00	2.7902E-03	1.4490E-01	0.0	4.5649E+01
54	8.3221E-01	3.2190E+00	1.6624E+02	0.0	1.5646E+01	2.7902E-03	1.1038E-01	0.0	1.8272E+02
55	1.5941E-01	3.2190E+00	5.4565E+01	0.0	9.2758E+00	2.7902E-03	1.3310E-01	0.0	6.4001E+01
56	1.0754E+00	3.2190E+00	1.3947E+02	0.0	1.0061E+01	2.7902E-03	2.1605E-01	0.0	1.5060E+02
57	2.1696E-01	3.2190E+00	6.6080E+01	0.0	9.5412E+00	2.7902E-03	2.4356E-01	0.0	7.5838E+01
58	2.9287E+00	3.2190E+00	2.5173E+02	0.0	1.3589E+01	2.7902E-03	2.2467E-01	0.0	2.6824E+02
59	1.1216E+00	3.2190E+00	1.8422E+02	0.0	9.2801E+00	2.7902E-03	2.5123E-01	0.0	1.9462E+02
60	3.0561E-01	3.2190E+00	8.8180E+01	0.0	8.6278E+00	2.7902E-03	2.3171E-01	0.0	9.7113E+01
61	9.0663E-01	3.2190E+00	2.4759E+02	0.0	1.0997E+01	2.7902E-03	2.6752E-01	0.0	2.5949E+02
62	9.6110E-01	3.2190E+00	3.3948E+02	0.0	1.0028E+01	2.7902E-03	1.7538E-01	0.0	3.5047E+02
63	5.9560E-01	3.2190E+00	1.4920E+02	0.0	1.0260E+01	2.7902E-03	3.2090E-01	0.0	1.6006E+02
64	1.1726E+01	3.2190E+00	1.5336E+03	0.0	1.9880E+01	2.7902E-03	1.2523E-01	0.0	1.5652E+03
65	9.9889E-01	3.2190E+00	1.9535E+02	0.0	6.9358E+00	2.7902E-03	1.9221E-01	0.0	2.0329E+02
66	7.5927E-01	3.2190E+00	1.9763E+02	0.0	9.1592E+00	2.7902E-03	2.5219E-01	0.0	2.0755E+02
67	4.7792E+00	3.2190E+00	1.4510E+03	0.0	1.2456E+01	2.7902E-03	1.3590E-01	0.0	1.4683E+03
68	2.1104E+00	3.2190E+00	5.4851E+02	0.0	7.3263E+00	2.7902E-03	2.1668E-01	0.0	5.5795E+02
69	7.2580E+00	3.2190E+00	1.2141E+03	0.0	1.2280E+01	2.7902E-03	4.0916E-01	0.0	1.2336E+03
70	1.2970E+01	3.2190E+00	2.0883E+03	0.0	6.9663E+00	2.7902E-03	0.0	0.0	2.1082E+03

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AM241-J2

REACTION = FISSION

FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	1.0002	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	1.0003	1.0003	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	1.0001	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
7	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
9	300.	1.0002	1.0002	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
10	300.	1.0021	1.0019	1.0009	1.0001	1.0000	1.0000	1.0000	1.0000
11	300.	1.0052	1.0046	1.0022	1.0004	1.0000	1.0000	1.0000	1.0000
12	300.	1.0057	1.0051	1.0026	1.0004	1.0000	1.0000	1.0000	1.0000
13	300.	1.0043	1.0039	1.0020	1.0003	1.0000	1.0000	1.0000	1.0000
14	300.	1.0029	1.0026	1.0014	1.0002	1.0000	1.0000	1.0000	1.0000
15	300.	1.0012	1.0011	1.0006	1.0001	1.0000	1.0000	1.0000	1.0000
16	300.	0.9954	0.9958	0.9976	0.9996	1.0000	1.0000	1.0000	1.0000
17	300.	1.0019	1.0017	1.0010	1.0002	1.0000	1.0000	1.0000	1.0000
18	300.	1.0024	1.0022	1.0013	1.0002	1.0000	1.0000	1.0000	1.0000
19	300.	1.0006	1.0006	1.0003	1.0001	1.0000	1.0000	1.0000	1.0000
20	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	0.9997	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	0.9993	0.9993	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
23	300.	0.9979	0.9981	0.9988	0.9998	1.0000	1.0000	1.0000	1.0000
24	300.	0.9995	0.9995	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000
25	300.	0.9986	0.9987	0.9992	0.9998	1.0000	1.0000	1.0000	1.0000
26	300.	0.9981	0.9982	0.9989	0.9998	1.0000	1.0000	1.0000	1.0000
27	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
28	300.	1.0010	1.0009	1.0006	1.0001	1.0000	1.0000	1.0000	1.0000
29	300.	1.0006	1.0006	1.0004	1.0001	1.0000	1.0000	1.0000	1.0000
30	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31	300.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
32	300.	0.9993	0.9993	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
33	300.	0.9992	0.9992	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
34	300.	0.9993	0.9993	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
35	300.	0.9994	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
36	300.	0.9996	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
37	300.	0.9997	0.9997	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000
38	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
39	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
40	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
41	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
42	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
43	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
44	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
45	300.	0.7495	0.7528	0.7796	0.8748	0.9712	0.9966	0.9996	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AM241-J2

REACTION = FISSION

FOR 1TH R-PARAMETER
PAGE 2 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
46	300.	0.5214	0.5265	0.5701	0.7527	0.9442	0.9934	0.9993	0.9999
47	300.	0.5102	0.5152	0.5573	0.7416	0.9433	0.9934	0.9993	0.9999
48	300.	0.5276	0.5328	0.5773	0.7688	0.9537	0.9948	0.9995	0.9999
49	300.	0.6633	0.6662	0.6917	0.8120	0.9563	0.9948	0.9995	0.9999
50	300.	0.5395	0.5437	0.5801	0.7491	0.9418	0.9930	0.9993	0.9999
51	300.	0.4071	0.4101	0.4374	0.5859	0.8609	0.9809	0.9980	0.9998
52	300.	0.5048	0.5079	0.5356	0.6852	0.9117	0.9888	0.9988	0.9999
53	300.	0.7923	0.7941	0.8098	0.8831	0.9725	0.9968	0.9997	1.0000
54	300.	0.3241	0.3259	0.3423	0.4510	0.7372	0.9503	0.9945	0.9994
55	300.	0.7762	0.7772	0.7868	0.8435	0.9507	0.9935	0.9993	0.9999
56	300.	0.4174	0.4194	0.4393	0.5704	0.8573	0.9809	0.9980	0.9998
57	300.	0.8513	0.8523	0.8624	0.9160	0.9818	0.9979	0.9998	1.0000
58	300.	0.2685	0.2697	0.2807	0.3598	0.6321	0.9206	0.9909	0.9991
59	300.	0.4204	0.4219	0.4366	0.5450	0.8322	0.9763	0.9975	0.9998
60	300.	0.8232	0.8238	0.8298	0.8703	0.9583	0.9945	0.9994	0.9999
61	300.	0.4753	0.4765	0.4880	0.5731	0.8174	0.9709	0.9969	0.9997
62	300.	0.6067	0.6075	0.6154	0.6767	0.8648	0.9790	0.9978	0.9998
63	300.	0.9629	0.9631	0.9648	0.9759	0.9942	0.9993	0.9999	1.0000
64	300.	0.3711	0.3715	0.3749	0.4052	0.5726	0.8699	0.9831	0.9983
65	300.	0.9559	0.9561	0.9577	0.9692	0.9916	0.9990	0.9999	1.0000
66	300.	0.9808	0.9808	0.9815	0.9863	0.9961	0.9995	1.0000	1.0000
67	300.	0.5543	0.5546	0.5579	0.5870	0.7380	0.9378	0.9927	0.9993
68	300.	0.9524	0.9524	0.9530	0.9579	0.9792	0.9965	0.9996	1.0000
69	300.	0.6452	0.6454	0.6473	0.6653	0.7702	0.9387	0.9925	0.9992
70	300.	0.4207	0.4210	0.4233	0.4455	0.5879	0.8730	0.9836	0.9983

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AM241-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9920	0.9929	0.9967	0.9995	0.9999	1.0000	1.0000	1.0000
2	300.	0.9934	0.9942	0.9972	0.9996	1.0000	1.0000	1.0000	1.0000
3	300.	0.9981	0.9983	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
4	300.	1.0007	1.0006	1.0003	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	1.0012	1.0011	1.0005	1.0001	1.0000	1.0000	1.0000	1.0000
6	300.	1.0013	1.0011	1.0005	1.0001	1.0000	1.0000	1.0000	1.0000
7	300.	1.0009	1.0008	1.0004	1.0001	1.0000	1.0000	1.0000	1.0000
8	300.	1.0004	1.0004	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000
9	300.	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
10	300.	0.9989	0.9991	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
11	300.	0.9991	0.9992	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
12	300.	0.9992	0.9993	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
13	300.	1.0006	1.0006	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
14	300.	0.9993	0.9994	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
15	300.	0.9992	0.9992	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
16	300.	0.9993	0.9994	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
17	300.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
18	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
23	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
24	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
25	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
27	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
28	300.	0.9996	0.9996	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000
29	300.	0.9995	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
30	300.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
31	300.	0.9995	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
32	300.	0.9994	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
33	300.	0.9994	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
34	300.	0.9993	0.9993	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
35	300.	0.9993	0.9993	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
36	300.	0.9992	0.9992	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000
37	300.	0.9992	0.9992	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000
38	300.	0.9991	0.9992	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000
39	300.	0.9991	0.9991	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000
40	300.	0.9990	0.9991	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000
41	300.	0.9990	0.9990	0.9992	0.9997	1.0000	1.0000	1.0000	1.0000
42	300.	0.9990	0.9990	0.9992	0.9997	1.0000	1.0000	1.0000	1.0000
43	300.	0.9989	0.9990	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000
44	300.	0.9989	0.9990	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000
45	300.	0.7299	0.7329	0.7578	0.8566	0.9667	0.9961	0.9996	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AM241-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 2 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
46	300.	0.5545	0.5593	0.6002	0.7718	0.9493	0.9941	0.9994	0.9999
47	300.	0.5460	0.5505	0.5886	0.7572	0.9459	0.9937	0.9994	0.9999
48	300.	0.5317	0.5363	0.5755	0.7503	0.9434	0.9934	0.9993	0.9999
49	300.	0.6152	0.6184	0.6470	0.7836	0.9497	0.9941	0.9994	0.9999
50	300.	0.6092	0.6127	0.6436	0.7868	0.9504	0.9941	0.9994	0.9999
51	300.	0.5295	0.5323	0.5582	0.6909	0.9037	0.9871	0.9987	0.9999
52	300.	0.5527	0.5557	0.5827	0.7252	0.9264	0.9908	0.9990	0.9999
53	300.	0.8449	0.8463	0.8591	0.9176	0.9820	0.9979	0.9998	1.0000
54	300.	0.3694	0.3711	0.3870	0.4919	0.7643	0.9570	0.9953	0.9995
55	300.	0.7266	0.7280	0.7409	0.8156	0.9447	0.9928	0.9993	0.9999
56	300.	0.5322	0.5339	0.5507	0.6601	0.8905	0.9855	0.9985	0.9999
57	300.	0.8326	0.8338	0.8448	0.9041	0.9789	0.9976	0.9998	1.0000
58	300.	0.3832	0.3843	0.3944	0.4656	0.6978	0.9352	0.9926	0.9992
59	300.	0.4852	0.4865	0.4984	0.5873	0.8372	0.9759	0.9975	0.9997
60	300.	0.8312	0.8318	0.8374	0.8760	0.9601	0.9947	0.9995	1.0000
61	300.	0.4904	0.4915	0.5026	0.5846	0.8214	0.9715	0.9970	0.9997
62	300.	0.5492	0.5501	0.5582	0.6228	0.8323	0.9727	0.9971	0.9997
63	300.	0.9626	0.9628	0.9644	0.9751	0.9936	0.9993	0.9999	1.0000
64	300.	0.3955	0.3958	0.3991	0.4284	0.5893	0.8749	0.9838	0.9983
65	300.	0.9744	0.9745	0.9755	0.9821	0.9951	0.9994	0.9999	1.0000
66	300.	0.9747	0.9748	0.9757	0.9821	0.9950	0.9995	0.9999	1.0000
67	300.	0.5435	0.5438	0.5472	0.5769	0.7315	0.9363	0.9925	0.9992
68	300.	0.9296	0.9297	0.9306	0.9381	0.9697	0.9950	0.9995	0.9999
69	300.	0.6811	0.6813	0.6830	0.6992	0.7934	0.9449	0.9932	0.9993
70	300.	0.4623	0.4625	0.4647	0.4852	0.6169	0.8818	0.9847	0.9984

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AM241-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER

PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9997	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
7	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
9	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10	300.	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
11	300.	0.9993	0.9994	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
12	300.	0.9992	0.9993	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
13	300.	0.9994	0.9994	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
14	300.	0.9995	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
15	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
16	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
17	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
18	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
23	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
24	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
27	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
28	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
29	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
32	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
33	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
34	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
35	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
36	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
37	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
38	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
39	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
40	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
41	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
42	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
43	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
44	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
45	300.	0.8996	0.9007	0.9093	0.9429	0.9854	0.9982	0.9998	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AM241-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER

PAGE 2 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
46	300.	0.8734	0.8745	0.8843	0.9283	0.9823	0.9979	0.9998	1.0000
47	300.	0.8855	0.8865	0.8949	0.9339	0.9841	0.9981	0.9998	1.0000
48	300.	0.9215	0.9223	0.9287	0.9581	0.9907	0.9989	0.9999	1.0000
49	300.	0.9557	0.9560	0.9586	0.9725	0.9930	0.9991	0.9999	1.0000
50	300.	0.9386	0.9391	0.9439	0.9652	0.9912	0.9989	0.9999	1.0000
51	300.	0.8673	0.8678	0.8722	0.9011	0.9655	0.9952	0.9995	1.0000
52	300.	0.9169	0.9173	0.9212	0.9439	0.9831	0.9978	0.9998	1.0000
53	300.	0.9892	0.9893	0.9904	0.9947	0.9989	0.9999	1.0000	1.0000
54	300.	0.7199	0.7204	0.7259	0.7634	0.8782	0.9762	0.9973	0.9997
55	300.	0.9791	0.9793	0.9807	0.9873	0.9963	0.9995	0.9999	1.0000
56	300.	0.9354	0.9356	0.9383	0.9549	0.9860	0.9982	0.9998	1.0000
57	300.	0.9999	0.9999	1.0000	1.0001	1.0000	1.0000	1.0000	1.0000
58	300.	0.8318	0.8320	0.8337	0.8478	0.9085	0.9799	0.9977	0.9998
59	300.	0.9551	0.9552	0.9563	0.9641	0.9857	0.9979	0.9998	1.0000
60	300.	1.0215	1.0214	1.0204	1.0139	1.0037	1.0005	1.0000	1.0000
61	300.	0.9658	0.9659	0.9669	0.9735	0.9888	0.9982	0.9998	1.0000
62	300.	0.9751	0.9752	0.9755	0.9783	0.9889	0.9980	0.9998	1.0000
63	300.	0.9975	0.9975	0.9976	0.9986	0.9998	1.0000	1.0000	1.0000
64	300.	0.7092	0.7094	0.7106	0.7221	0.7953	0.9368	0.9918	0.9992
65	300.	1.0157	1.0156	1.0150	1.0108	1.0029	1.0003	1.0000	1.0000
66	300.	0.9890	0.9890	0.9895	0.9923	0.9979	0.9997	1.0000	1.0000
67	300.	0.9659	0.9659	0.9665	0.9698	0.9828	0.9958	0.9995	0.9999
68	300.	1.0278	1.0278	1.0274	1.0242	1.0113	1.0018	1.0002	1.0000
69	300.	0.9040	0.9041	0.9047	0.9105	0.9417	0.9855	0.9983	0.9998
70	300.	0.8051	0.8052	0.8054	0.8080	0.8376	0.9414	0.9921	0.9992

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AM241-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9994	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9997	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
7	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
9	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
10	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
11	300.	0.9994	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
12	300.	0.9992	0.9992	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
13	300.	0.9991	0.9991	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
14	300.	0.9992	0.9993	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
15	300.	0.9994	0.9994	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
16	300.	0.9995	0.9995	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
17	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
18	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
23	300.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
24	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
25	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
27	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
28	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
29	300.	0.9997	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
30	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
31	300.	0.9996	0.9997	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000
32	300.	0.9996	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
33	300.	0.9995	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
34	300.	0.9995	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
35	300.	0.9994	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
36	300.	0.9993	0.9993	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
37	300.	0.9992	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000
38	300.	0.9992	0.9992	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000
39	300.	0.9991	0.9991	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000
40	300.	0.9990	0.9990	0.9992	0.9997	1.0000	1.0000	1.0000	1.0000
41	300.	0.9989	0.9989	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000
42	300.	0.9988	0.9988	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000
43	300.	0.9987	0.9987	0.9990	0.9996	0.9999	1.0000	1.0000	1.0000
44	300.	0.9986	0.9986	0.9989	0.9996	0.9999	1.0000	1.0000	1.0000
45	300.	0.6749	0.6788	0.7089	0.8137	0.9479	0.9935	0.9993	0.9999

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AM241-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 2 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
46	300.	0.4944	0.4979	0.5290	0.6908	0.9186	0.9899	0.9990	0.9999
47	300.	0.5039	0.5068	0.5335	0.6785	0.9136	0.9894	0.9989	0.9999
48	300.	0.4703	0.4733	0.5012	0.6612	0.9096	0.9889	0.9988	0.9999
49	300.	0.5478	0.5504	0.5733	0.7018	0.9175	0.9898	0.9990	0.9999
50	300.	0.5435	0.5461	0.5703	0.7073	0.9200	0.9899	0.9990	0.9999
51	300.	0.4510	0.4533	0.4735	0.5902	0.8417	0.9765	0.9975	0.9998
52	300.	0.4522	0.4542	0.4741	0.6076	0.8749	0.9832	0.9983	0.9998
53	300.	0.8260	0.8272	0.8381	0.8941	0.9728	0.9967	0.9997	1.0000
54	300.	0.3005	0.3014	0.3103	0.3783	0.6393	0.9209	0.9909	0.9991
55	300.	0.7015	0.7025	0.7113	0.7704	0.9140	0.9878	0.9987	0.9999
56	300.	0.4343	0.4356	0.4467	0.5317	0.8112	0.9730	0.9972	0.9997
57	300.	0.7834	0.7845	0.7949	0.8594	0.9646	0.9958	0.9996	1.0000
58	300.	0.3097	0.3104	0.3174	0.3672	0.5623	0.8818	0.9858	0.9985
59	300.	0.4033	0.4039	0.4098	0.4636	0.7285	0.9548	0.9952	0.9995
60	300.	0.8020	0.8024	0.8063	0.8372	0.9350	0.9906	0.9990	0.9999
61	300.	0.3862	0.3869	0.3938	0.4523	0.7066	0.9465	0.9942	0.9994
62	300.	0.4257	0.4262	0.4316	0.4798	0.7165	0.9480	0.9943	0.9994
63	300.	0.9378	0.9380	0.9404	0.9569	0.9884	0.9986	0.9999	1.0000
64	300.	0.2546	0.2549	0.2569	0.2757	0.4025	0.7709	0.9681	0.9967
65	300.	0.9555	0.9556	0.9571	0.9679	0.9909	0.9989	0.9999	1.0000
66	300.	0.9551	0.9553	0.9567	0.9673	0.9904	0.9989	0.9999	1.0000
67	300.	0.3553	0.3555	0.3580	0.3825	0.5496	0.8772	0.9851	0.9985
68	300.	0.8843	0.8844	0.8855	0.8958	0.9448	0.9903	0.9989	0.9999
69	300.	0.5512	0.5513	0.5530	0.5682	0.6712	0.8965	0.9867	0.9986
70	300.	0.3060	0.3061	0.3074	0.3198	0.4229	0.7783	0.9697	0.9969

JAERI-M 82-135

NUCLID = B-10-J2 CODE NO = 105
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1 0.0	0.0	2.7029E-01	2.4137E-01	9.6805E-01	5.2626E-01	3.7907E-01	3.4333E-07	1.4797E+00
2 0.0	0.0	3.2944E-01	1.7750E-01	1.0345E+00	4.9254E-01	4.0874E-01	0.0	1.5415E+00
3 0.0	0.0	4.1913E-01	1.2595E-01	9.8968E-01	4.4394E-01	4.3555E-01	0.0	1.5348E+00
4 0.0	0.0	3.7232E-01	8.7029E-02	1.2956E+00	3.6187E-01	5.8204E-01	0.0	1.7550E+00
5 0.0	0.0	3.1215E-01	5.7438E-02	1.5135E+00	2.4547E-01	7.7517E-01	0.0	1.8831E+00
6 0.0	0.0	3.4995E-01	3.9121E-02	1.7624E+00	1.5790E-01	9.6923E-01	0.0	2.1515E+00
7 0.0	0.0	4.9959E-01	5.1357E-02	1.5367E+00	2.2523E-01	8.3191E-01	0.0	2.0877E+00
8 0.0	0.0	3.2052E-01	6.2932E-03	1.6845E+00	1.7507E-01	1.0055E+00	0.0	2.0113E+00
9 0.0	0.0	2.0470E-01	1.1893E-03	2.1590E+00	1.2792E-01	1.3287E+00	0.0	2.3649E+00
10 0.0	0.0	2.2967E-01	1.4411E-04	2.6093E+00	1.1096E-01	1.7023E+00	0.0	2.8391E+00
11 0.0	0.0	3.6015E-01	2.3541E-06	2.9848E+00	1.0970E-01	1.8860E+00	0.0	3.3449E+00
12 0.0	0.0	6.2903E-01	0.0	3.3974E+00	1.1808E-01	2.1510E+00	0.0	4.0264E+00
13 0.0	0.0	8.3493E-01	0.0	3.7243E+00	1.0760E-01	2.2601E+00	0.0	4.5592E+00
14 0.0	0.0	9.4908E-01	0.0	3.8351E+00	7.8945E-02	2.4566E+00	0.0	4.7842E+00
15 0.0	0.0	1.1375E+00	0.0	3.7429E+00	6.7158E-02	2.4114E+00	0.0	4.8804E+00
16 0.0	0.0	1.3637E+00	0.0	3.5239E+00	6.3439E-02	2.2708E+00	0.0	4.8876E+00
17 0.0	0.0	1.5990E+00	0.0	3.2692E+00	5.8491E-02	2.0754E+00	0.0	4.8682E+00
18 0.0	0.0	1.8132E+00	0.0	3.0298E+00	5.8930E-02	1.8944E+00	0.0	4.8430E+00
19 0.0	0.0	2.0105E+00	0.0	2.8201E+00	6.0846E-02	1.8249E+00	0.0	4.8305E+00
20 0.0	0.0	2.2074E+00	0.0	2.6623E+00	6.4312E-02	1.6850E+00	0.0	4.8697E+00
21 0.0	0.0	2.4472E+00	0.0	2.5384E+00	6.7158E-02	1.5931E+00	0.0	4.9856E+00
22 0.0	0.0	2.7417E+00	0.0	2.4406E+00	6.7158E-02	1.5632E+00	0.0	5.1823E+00
23 0.0	0.0	3.0834E+00	0.0	2.3686E+00	6.7158E-02	1.5144E+00	0.0	5.4520E+00
24 0.0	0.0	3.4898E+00	0.0	2.3132E+00	6.7158E-02	1.5047E+00	0.0	5.8030E+00
25 0.0	0.0	3.9398E+00	0.0	2.2733E+00	6.7158E-02	1.4416E+00	0.0	6.2130E+00
26 0.0	0.0	4.4760E+00	0.0	2.2423E+00	6.7158E-02	1.4406E+00	0.0	6.7183E+00
27 0.0	0.0	5.0650E+00	0.0	2.2201E+00	6.7158E-02	1.3884E+00	0.0	7.2851E+00
28 0.0	0.0	5.7547E+00	0.0	2.2025E+00	6.7158E-02	1.3791E+00	0.0	7.9572E+00
29 0.0	0.0	6.5636E+00	0.0	2.1890E+00	6.7158E-02	1.4134E+00	0.0	8.7526E+00
30 0.0	0.0	7.4345E+00	0.0	2.1802E+00	6.7158E-02	1.3706E+00	0.0	9.6147E+00
31 0.0	0.0	8.4504E+00	0.0	2.1738E+00	6.7158E-02	1.3692E+00	0.0	1.0624E+01
32 0.0	0.0	9.5836E+00	0.0	2.1694E+00	6.7158E-02	1.3450E+00	0.0	1.1753E+01
33 0.0	0.0	1.0912E+01	0.0	2.1664E+00	6.7158E-02	1.3683E+00	0.0	1.3078E+01
34 0.0	0.0	1.2446E+01	0.0	2.1645E+00	6.7158E-02	1.4141E+00	0.0	1.4611E+01
35 0.0	0.0	1.4085E+01	0.0	2.1633E+00	6.7158E-02	1.3739E+00	0.0	1.6249E+01
36 0.0	0.0	1.5975E+01	0.0	2.1628E+00	6.7158E-02	1.3615E+00	0.0	1.8137E+01
37 0.0	0.0	1.8102E+01	0.0	2.1628E+00	6.7158E-02	1.3402E+00	0.0	2.0265E+01
38 0.0	0.0	2.0563E+01	0.0	2.1628E+00	6.7158E-02	1.3496E+00	0.0	2.2726E+01
39 0.0	0.0	2.3342E+01	0.0	2.1632E+00	6.7158E-02	1.3514E+00	0.0	2.5506E+01
40 0.0	0.0	2.6453E+01	0.0	2.1638E+00	6.7158E-02	1.3368E+00	0.0	2.8616E+01

TO BE CONTINUED

NUCLID = B-10-J2 CODE NO = 105
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41 0.0	0.0	3.0034E+01	0.0	2.1644E+00	6.7158E-02	1.3457E+00	0.0	3.2198E+01
42 0.0	0.0	3.4036E+01	0.0	2.1650E+00	6.7158E-02	1.3346E+00	0.0	3.6201E+01
43 0.0	0.0	3.8559E+01	0.0	2.1656E+00	6.7158E-02	1.3217E+00	0.0	4.0725E+01
44 0.0	0.0	4.3745E+01	0.0	2.1662E+00	6.7158E-02	1.3255E+00	0.0	4.5911E+01
45 0.0	0.0	4.9580E+01	0.0	2.1668E+00	6.7158E-02	1.3198E+00	0.0	5.1747E+01
46 0.0	0.0	5.6108E+01	0.0	2.1674E+00	6.7158E-02	1.2973E+00	0.0	5.8275E+01
47 0.0	0.0	6.3505E+01	0.0	2.1679E+00	6.7158E-02	1.2771E+00	0.0	6.5673E+01
48 0.0	0.0	7.1997E+01	0.0	2.1684E+00	6.7158E-02	1.2767E+00	0.0	7.4165E+01
49 0.0	0.0	8.1476E+01	0.0	2.1689E+00	6.7158E-02	1.2567E+00	0.0	8.3645E+01
50 0.0	0.0	9.2296E+01	0.0	2.1693E+00	6.7158E-02	1.2485E+00	0.0	9.4465E+01
51 0.0	0.0	1.0525E+02	0.0	2.1696E+00	6.7158E-02	1.3168E+00	0.0	1.0742E+02
52 0.0	0.0	1.1922E+02	0.0	2.1699E+00	6.7158E-02	1.3078E+00	0.0	1.2139E+02
53 0.0	0.0	1.3389E+02	0.0	2.1702E+00	6.7158E-02	1.2037E+00	0.0	1.3606E+02
54 0.0	0.0	1.5214E+02	0.0	2.1705E+00	6.7158E-02	1.2332E+00	0.0	1.5431E+02
55 0.0	0.0	1.7252E+02	0.0	2.1708E+00	6.7158E-02	1.2382E+00	0.0	1.7469E+02
56 0.0	0.0	1.9699E+02	0.0	2.1711E+00	6.7158E-02	1.3228E+00	0.0	1.9916E+02
57 0.0	0.0	2.2355E+02	0.0	2.1713E+00	6.7158E-02	1.3372E+00	0.0	2.2572E+02
58 0.0	0.0	2.5335E+02	0.0	2.1714E+00	6.7158E-02	1.3372E+00	0.0	2.5552E+02
59 0.0	0.0	2.8713E+02	0.0	2.1715E+00	6.7158E-02	1.3373E+00	0.0	2.8930E+02
60 0.0	0.0	3.2540E+02	0.0	2.1717E+00	6.7158E-02	1.3373E+00	0.0	3.2757E+02
61 0.0	0.0	3.6877E+02	0.0	2.1718E+00	6.7158E-02	1.3375E+00	0.0	3.7094E+02
62 0.0	0.0	4.1791E+02	0.0	2.1719E+00	6.7158E-02	1.3375E+00	0.0	4.2008E+02
63 0.0	0.0	4.7359E+02	0.0	2.1721E+00	6.7158E-02	1.3377E+00	0.0	4.7576E+02
64 0.0	0.0	5.3668E+02	0.0	2.1722E+00	6.7158E-02	1.3378E+00	0.0	5.3885E+02
65 0.0	0.0	6.0818E+02	0.0	2.1723E+00	6.7158E-02	1.3376E+00	0.0	6.1036E+02
66 0.0	0.0	6.8920E+02	0.0	2.1724E+00	6.7158E-02	1.3378E+00	0.0	6.9137E+02
67 0.0	0.0	7.8098E+02	0.0	2.1724E+00	6.7158E-02	1.3379E+00	0.0	7.8315E+02
68 0.0	0.0	8.8500E+02	0.0	2.1725E+00	6.7158E-02	1.3378E+00	0.0	8.8717E+02
69 0.0	0.0	1.0029E+03	0.0	2.1725E+00	6.7158E-02	1.3379E+00	0.0	1.0050E+03
70 0.0	0.0	1.3126E+03	0.0	2.1726E+00	6.7158E-02	0.0	0.0	1.3148E+03

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NUCLID = B-10-J2 CODE NUMBER = 105 IPL = 0

PAGE 1 OF 2

TABLE OF ELASTIC MATRICES
 GROUP EXIT GROUP ** KK ** KK = I + J - 1
 I J= 1 2 3

1	5.88972E-01	3.19071E-01	6.00032E-02
2	6.25799E-01	3.51557E-01	5.71847E-02
3	5.54126E-01	3.75712E-01	5.98428E-02
4	7.13598E-01	4.58565E-01	1.23476E-01
5	7.38289E-01	5.51614E-01	2.23561E-01
6	7.93213E-01	7.76797E-01	1.92429E-01
7	7.04805E-01	6.97857E-01	1.34057E-01
8	6.79048E-01	8.42677E-01	1.62791E-01
9	8.30282E-01	1.13464E+00	1.94058E-01
10	9.07007E-01	1.42705E+00	2.75212E-01
11	1.09881E+00	1.61205E+00	2.73919E-01
12	1.24638E+00	1.83381E+00	3.17207E-01
13	1.46418E+00	1.95217E+00	3.07945E-01
14	1.37846E+00	2.08199E+00	3.74654E-01
15	1.33146E+00	2.05671E+00	3.54709E-01
16	1.25312E+00	1.92954E+00	3.41216E-01
17	1.19383E+00	1.77682E+00	2.98552E-01
18	1.13536E+00	1.63565E+00	2.58754E-01
19	9.95189E-01	1.55272E+00	2.72155E-01
20	9.77289E-01	1.44798E+00	2.37001E-01
21	9.45327E-01	1.37685E+00	2.16250E-01
22	8.77411E-01	1.34273E+00	2.20435E-01
23	8.54149E-01	1.29433E+00	2.20093E-01
24	8.08467E-01	1.27646E+00	2.28272E-01
25	8.31632E-01	1.23366E+00	2.07989E-01
26	8.01703E-01	1.22675E+00	2.13859E-01
27	8.31719E-01	1.19573E+00	1.92683E-01
28	8.23444E-01	1.18855E+00	1.90509E-01
29	7.75630E-01	1.20213E+00	2.11232E-01
30	8.09605E-01	1.17884E+00	1.91768E-01
31	8.04552E-01	1.17717E+00	1.92077E-01
32	8.24365E-01	1.16630E+00	1.78726E-01
33	7.98015E-01	1.17330E+00	1.95041E-01
34	7.50370E-01	1.19767E+00	2.16453E-01
35	7.89377E-01	1.17834E+00	1.95581E-01
36	8.01338E-01	1.17151E+00	1.89938E-01
37	8.22497E-01	1.15974E+00	1.80469E-01
38	8.13277E-01	1.16571E+00	1.83863E-01
39	8.11893E-01	1.16678E+00	1.84569E-01
40	8.26963E-01	1.15951E+00	1.77286E-01

TO BE CONTINUED

NUCLID = B-10-J2 CODE NUMBER = 105 IPL = 0

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TABLE OF ELASTIC MATRICES
 GROUP EXIT GROUP ** KK ** KK = I + J - 1
 I J= 1 2 3

41	8.18709E-01	1.16389E+00	1.81757E-01
42	8.30390E-01	1.15867E+00	1.75923E-01
43	8.43961E-01	1.15244E+00	1.69215E-01
44	8.40742E-01	1.15500E+00	1.70494E-01
45	8.46977E-01	1.15161E+00	1.68230E-01
46	8.70053E-01	1.14077E+00	1.56570E-01
47	8.90827E-01	1.12914E+00	1.47959E-01
48	8.91737E-01	1.13141E+00	1.45262E-01
49	9.12217E-01	1.11911E+00	1.37549E-01
50	9.20808E-01	1.11831E+00	1.30150E-01
51	8.52808E-01	1.14699E+00	1.69796E-01
52	8.62083E-01	1.14854E+00	1.59279E-01
53	9.66472E-01	1.09355E+00	1.10167E-01
54	9.37303E-01	1.10609E+00	1.27120E-01
55	9.32656E-01	1.11137E+00	1.26792E-01
56	8.48321E-01	1.15207E+00	1.70720E-01
57	8.34106E-01	1.16157E+00	1.75581E-01
58	8.34184E-01	1.16161E+00	1.75603E-01
59	8.34215E-01	1.16175E+00	1.75567E-01
60	8.34335E-01	1.16168E+00	1.75650E-01
61	8.34265E-01	1.16191E+00	1.75626E-01
62	8.34409E-01	1.16187E+00	1.75652E-01
63	8.34407E-01	1.16193E+00	1.75731E-01
64	8.34385E-01	1.16225E+00	1.75566E-01
65	8.34705E-01	1.16199E+00	1.75633E-01
66	8.34543E-01	1.16216E+00	1.75685E-01
67	8.34570E-01	1.16221E+00	1.75649E-01
68	8.34635E-01	1.16214E+00	1.75701E-01
69	8.34571E-01	1.13379E+00	0.0
70	2.17261E+00	0.0	0.0

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NUCLID = B-10-J2 CODE NUMBER = 105 IPL = 0

TABLE OF INELASTIC MATRICES										PAGE 1 OF 3	
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10	
I	J=	1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20		
21	22	23	24	25	26	27	28	29	30		
31	32	33	34	35	36	37	38	39	40		
41	42	43	44	45	46	47	48	49	50		
51	52	53	54	55	56	57	58	59	60		
61	62	63	64	65	66	67	68				

1	1.65009E-03	1.22241E-02	2.20458E-02	2.54064E-02	3.20063E-02	3.58781E-02	3.17261E-02	2.85254E-02	1.93139E-02	1.26716E-02	
	7.86975E-03	4.32296E-03	2.64658E-03	1.79557E-03	1.19070E-03	7.74325E-04	4.95900E-04	3.13682E-04	1.96639E-04	1.22366E-04	
	7.57118E-05	4.66404E-05	2.86351E-05	1.75318E-05	1.07126E-05	6.53593E-06	3.98040E-06	2.42331E-06	1.47366E-06	8.95690E-07	
	5.44146E-07	3.30468E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	1.78913E-03	1.32950E-02	2.17895E-02	1.89550E-02	1.56737E-02	1.48458E-02	1.44105E-02	1.46093E-02	1.34864E-02	1.18681E-02	
	1.03232E-02	7.52998E-03	5.12388E-03	4.07082E-03	2.81632E-03	1.93236E-03	1.31932E-03	9.24642E-04	6.62296E-04	4.74352E-04	
	3.44229E-04	2.52932E-04	1.91091E-04	1.45151E-04	1.13011E-04	9.04758E-05	7.25759E-05	5.97455E-05	4.73871E-05	4.04227E-05	
	3.30474E-05	2.86185E-05	2.55630E-05	1.95355E-05	1.98410E-05	1.36030E-05	1.44270E-05	1.34139E-05	1.15137E-05	5.63182E-06	
	5.84163E-06	6.62963E-06	7.36301E-06	7.60388E-06	8.61654E-06	9.76592E-06	5.05754E-06	5.38518E-06	1.98997E-06	5.46884E-07	
	6.17509E-07	4.89842E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	1.87473E-03	1.41481E-02	2.55857E-02	2.05262E-02	1.40443E-02	7.53069E-03	6.46726E-03	5.51928E-03	4.46331E-03	3.86453E-03	
	3.61519E-03	3.30460E-03	2.66841E-03	2.15064E-03	1.79077E-03	1.52014E-03	1.19741E-03	8.74113E-04	6.39253E-04	4.68893E-04	
	3.45968E-04	2.59946E-04	1.98662E-04	1.53542E-04	1.21677E-04	9.69603E-05	7.89209E-05	6.38254E-05	5.40846E-05	4.44605E-05	
	3.79956E-05	3.14673E-05	2.76852E-05	2.34869E-05	2.00775E-05	1.78958E-05	1.40362E-05	1.42170E-05	1.22973E-05	9.49615E-06	
	7.56621E-06	7.29647E-06	6.31050E-06	6.24624E-06	6.00188E-06	5.97751E-06	6.50733E-06	5.16756E-06	2.01134E-06	1.78393E-06	
	2.02100E-06	1.59548E-06	7.32713E-07	8.26434E-07	9.23190E-07	1.05459E-06	1.19241E-06	1.34905E-06	6.24794E-07	2.62806E-07	
	2.97269E-07	2.52944E-07	1.74111E-07	1.97008E-07	2.30204E-07	2.52544E-07	2.85972E-07	1.00682E-06			
4	1.39224E-03	1.56137E-02	1.96934E-02	1.41877E-02	1.44229E-02	8.06149E-03	2.96079E-03	1.39903E-03	1.68152E-03	1.91200E-03	
	1.80389E-03	1.22454E-03	8.20982E-04	5.52961E-04	3.75363E-04	2.58245E-04	1.79395E-04	1.25446E-04	8.88005E-05	6.29754E-05	
	4.53136E-05	3.32168E-05	2.47611E-05	1.91588E-05	1.44471E-05	1.19082E-05	9.38363E-06	7.74330E-06	6.60540E-06	5.39479E-06	
	4.33476E-06	4.41215E-06	2.68995E-06	3.03106E-06	2.64039E-06	2.35504E-06	1.49610E-06	1.68275E-06	1.48328E-06	9.00130E-07	
	1.02220E-06	1.16078E-06	1.31693E-06	1.19546E-06	5.17068E-07	5.80790E-07	6.53545E-07	7.36674E-07	8.31194E-07	2.94503E-07	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	1.15033E-04	9.52849E-03	1.75999E-02	8.41878E-03	4.97069E-03	6.09623E-03	5.36300E-03	2.98821E-03	1.49783E-03	6.80344E-04	
	1.79387E-04	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

TO BE CONTINUED

NUCLID = B-10-J2 CODE NUMBER = 105 IPL = 0

TABLE OF INELASTIC MATRICES										PAGE 2 OF 3	
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10	
I	J=	1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20		
21	22	23	24	25	26	27	28	29	30		
31	32	33	34	35	36	37	38	39	40		
41	42	43	44	45	46	47	48	49	50		
51	52	53	54	55	56	57	58	59	60		
61	62	63	64	65	66	67	68				

6	0.0	4.02777E-03	1.36005E-02	1.06404E-02	2.01119E-03	7.82038E-04	1.27460E-03	1.46823E-03	1.37491E-03	1.27335E-03	
	9.78893E-04	5.92757E-04	3.62792E-04	2.36407E-04	1.54360E-04	1.01918E-04	6.84038E-05	4.66022E-05	3.21430E-05	2.25396E-05	
	1.58844E-05	1.14892E-05	8.49341E-06	6.46042E-06	4.86544E-06	3.87421E-06	3.10386E-06	2.49901E-06	2.23645E-06	1.57281E-06	
	1.46244E-06	1.20186E-06	1.23181E-06	6.24297E-07	7.09281E-07	8.05287E-07	6.80995E-07	4.55368E-07	2.58559E-07	2.93437E-07	
	3.32756E-07	3.77352E-07	4.27851E-07	2.23667E-07	1.66793E-07	1.90997E-07	2.18154E-07	2.48741E-07	2.83131E-07	2.48634E-07	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	0.0	1.47719E-03	1.65721E-02	2.25729E-02	8.93591E-03	2.64421E-04	8.93943E-06	1.14674E-04	1.95556E-04	2.36397E-04	
	2.57398E-04	2.24573E-04	1.52315E-04	1.03143E-04	7.04097E-05	4.85272E-05	3.37165E-05	2.35771E-05	1.65767E-05	1.16792E-05	
	8.25351E-06	5.99813E-06	4.47319E-06	3.36406E-06	2.60291E-06	2.07324E-06	1.63479E-06	1.32886E-06	1.10925E-06	9.63564E-07	
	7.10899E-07	7.02226E-07	5.40632E-07	4.79144E-07	3.95334E-07	4.44476E-07	2.73592E-07	1.82498E-07	2.05554E-07	2.31719E-07	
	2.61559E-07	2.65960E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	5.94771E-08	6.73064E-08	7.61774E-08	3.41802E-07	0.0	0.0	0.0	0.0	0.0	5.25823E-08	
8	0.0	0.0	9.93483E-04	2.40848E-03	2.17486E-03	6.46857E-04	6.95444E-05	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
9	0.0	0.0	0.0	1.44840E-04	3.50037E-04	3.99923E-04	2.03485E-04	7.37729E-05	1.71610E-05	4.99585E-08	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10	0.0	0.0	0.0	0.0	5.69796E-07	1.63136E-05	2.74478E-05	3.28104E-05	2.66505E-05	1.53980E-05	
	9.60242E-06	6.00377E-06	3.70025E-06	2.28410E-06	1.41107E-06	8.69025E-07	5.25682E-07	3.02846E-07	1.57963E-07	5.89606E-08	
	3.08641E-09	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

TO BE CONTINUED

JAERI-M 82-135

NUCLID = B-10-J2 CODE NUMBER = 105 IPL = 0										
TABLE OF INELASTIC MATRICES										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
I	J									
1	1	2	3	4	5	6	7	8	9	10
11	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66	67	68		

11	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	2.54254E-08	1.35215E-07	1.82752E-07	1.94133E-07	1.95725E-07	1.95437E-07	1.93650E-07	1.92145E-07	1.92018E-07	1.86538E-07
	1.41172E-07	1.03479E-07	7.75366E-08	5.93587E-08	4.63782E-08	3.68100E-08	2.97769E-08	2.43869E-08	2.02416E-08	1.69061E-08
	1.42754E-08	1.21143E-08	1.04295E-08	8.90484E-09	7.58263E-09	6.61806E-09	5.75836E-09	4.87754E-09	4.29470E-09	3.98250E-09
	3.05784E-09	3.03801E-09	2.31331E-09	2.30507E-09	1.83640E-09	1.66708E-09	1.50639E-09	1.39385E-09	9.76824E-10	9.52640E-10
	1.07781E-09	6.12826E-10	6.36633E-10	7.21502E-10	8.17974E-10	2.30210E-10	2.39037E-10	2.70171E-10	3.05487E-10	2.20357E-09
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		

NUCLID = B-10-J2 CODE NUMBER = 105 IPL = 0										
TABLE OF (N,2N) MATRICES										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
I	J									
1	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41									

1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	1.39070E-07	1.69788E-07	1.24007E-07	8.69427E-08	5.90171E-08	3.90877E-08	2.53890E-08
	1.62423E-08	1.02694E-08	6.43399E-09	4.00188E-09	2.47554E-09	1.52491E-09	9.35628E-10	5.72938E-10	3.49995E-10	2.13478E-10
	1.30048E-10	7.91490E-11	4.81316E-11	2.92556E-11	1.77742E-11	1.07929E-11	6.55292E-12	3.97764E-12	2.41395E-12	1.46485E-12
	8.88745E-13									

JAERI-M 82-135

NUCLID = O-8-J2 CODE NO = 8
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1 0.0	0.0	1.0516E-01	2.4519E-01	8.6976E-01	2.3524E-01	4.1742E-01	0.0	1.2201E+00
2 0.0	0.0	8.3541E-02	7.6275E-02	9.2612E-01	1.6446E-01	4.2087E-01	0.0	1.0859E+00
3 0.0	0.0	6.2278E-02	0.0	1.2937E+00	2.8107E-01	4.9163E-01	0.0	1.3560E+00
4 0.0	0.0	5.7857E-02	0.0	2.0575E+00	3.4178E-01	8.1200E-01	0.0	2.1153E+00
5 0.0	0.0	8.6986E-04	0.0	2.3355E+00	2.5223E-01	8.0163E-01	0.0	2.3364E+00
6 0.0	0.0	2.4618E-08	0.0	9.0120E-01	1.4143E-01	3.1410E-01	0.0	9.0120E-01
7 0.0	0.0	2.0176E-08	0.0	1.7609E+00	7.3980E-02	8.4361E-01	0.0	1.7609E+00
8 0.0	0.0	2.2878E-08	0.0	2.2361E+00	5.2164E-02	1.1527E+00	0.0	2.2361E+00
9 0.0	0.0	2.5870E-08	0.0	3.6247E+00	7.1838E-02	1.6242E+00	0.0	3.6247E+00
10 0.0	0.0	2.9464E-08	0.0	4.6028E+00	1.6929E-02	2.2221E+00	0.0	4.6028E+00
11 0.0	0.0	3.3257E-08	0.0	2.7098E+00	7.3573E-02	1.2582E+00	0.0	2.7098E+00
12 0.0	0.0	3.7727E-08	0.0	3.3807E+00	2.9024E-01	1.3629E+00	0.0	3.3807E+00
13 0.0	0.0	4.2539E-08	0.0	9.6784E+00	2.2835E-01	3.3840E+00	0.0	9.6784E+00
14 0.0	0.0	4.8382E-08	0.0	4.0411E+00	2.0534E-01	2.3259E+00	0.0	4.0411E+00
15 0.0	0.0	5.4803E-08	0.0	3.4921E+00	1.5319E-01	1.9913E+00	0.0	3.4921E+00
16 0.0	0.0	6.2099E-08	0.0	3.4622E+00	1.0658E-01	1.8983E+00	0.0	3.4622E+00
17 0.0	0.0	7.0204E-08	0.0	3.4951E+00	7.0991E-02	1.7894E+00	0.0	3.4951E+00
18 0.0	0.0	7.9401E-08	0.0	3.5360E+00	4.3065E-02	1.7096E+00	0.0	3.5360E+00
19 0.0	0.0	9.0359E-08	0.0	3.5758E+00	2.0889E-02	1.8109E+00	0.0	3.5758E+00
20 0.0	0.0	1.0214E-07	0.0	3.6102E+00	6.9573E-03	1.7316E+00	0.0	3.6102E+00
21 0.0	0.0	1.1565E-07	0.0	3.6380E+00	3.8206E-03	1.7033E+00	0.0	3.6380E+00
22 0.0	0.0	1.3136E-07	0.0	3.6609E+00	1.2371E-02	1.7667E+00	0.0	3.6609E+00
23 0.0	0.0	1.4881E-07	0.0	3.6799E+00	1.8881E-02	1.7542E+00	0.0	3.6799E+00
24 0.0	0.0	1.6896E-07	0.0	3.6950E+00	2.4071E-02	1.8112E+00	0.0	3.6950E+00
25 0.0	0.0	1.9086E-07	0.0	3.7062E+00	2.7916E-02	1.7174E+00	0.0	3.7062E+00
26 0.0	0.0	2.1661E-07	0.0	3.7154E+00	3.1030E-02	1.7607E+00	0.0	3.7154E+00
27 0.0	0.0	2.4464E-07	0.0	3.7222E+00	3.3402E-02	1.6632E+00	0.0	3.7222E+00
28 0.0	0.0	2.7726E-07	0.0	3.7277E+00	3.5294E-02	1.6662E+00	0.0	3.7277E+00
29 0.0	0.0	3.1534E-07	0.0	3.7322E+00	3.9077E-02	1.7689E+00	0.0	3.7322E+00
30 0.0	0.0	3.5617E-07	0.0	3.7357E+00	4.2040E-02	1.6704E+00	0.0	3.7357E+00
31 0.0	0.0	4.0368E-07	0.0	3.7384E+00	4.2040E-02	1.6781E+00	0.0	3.7384E+00
32 0.0	0.0	4.5658E-07	0.0	3.7405E+00	4.2040E-02	1.6236E+00	0.0	3.7405E+00
33 0.0	0.0	5.1850E-07	0.0	3.7422E+00	4.2040E-02	1.6892E+00	0.0	3.7422E+00
34 0.0	0.0	5.8995E-07	0.0	3.7435E+00	4.2040E-02	1.8107E+00	0.0	3.7435E+00
35 0.0	0.0	6.6622E-07	0.0	3.7445E+00	4.2040E-02	1.7093E+00	0.0	3.7445E+00
36 0.0	0.0	7.5411E-07	0.0	3.7453E+00	4.2040E-02	1.6782E+00	0.0	3.7453E+00
37 0.0	0.0	8.5292E-07	0.0	3.7459E+00	4.2040E-02	1.6236E+00	0.0	3.7459E+00
38 0.0	0.0	9.6729E-07	0.0	3.7464E+00	4.2040E-02	1.6478E+00	0.0	3.7464E+00
39 0.0	0.0	1.0962E-06	0.0	3.7468E+00	4.2040E-02	1.6519E+00	0.0	3.7468E+00
40 0.0	0.0	1.2406E-06	0.0	3.7471E+00	4.2040E-02	1.6136E+00	0.0	3.7471E+00

TO BE CONTINUED

NUCLID = O-8-J2 CODE NO = 8
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41 0.0	0.0	1.4068E-06	0.0	3.7473E+00	4.2040E-02	1.6356E+00	0.0	3.7473E+00
42 0.0	0.0	1.5925E-06	0.0	3.7475E+00	4.2040E-02	1.6062E+00	0.0	3.7475E+00
43 0.0	0.0	1.8025E-06	0.0	3.7476E+00	4.2040E-02	1.5718E+00	0.0	3.7476E+00
44 0.0	0.0	2.0431E-06	0.0	3.7477E+00	4.2040E-02	1.5808E+00	0.0	3.7477E+00
45 0.0	0.0	2.3139E-06	0.0	3.7478E+00	4.2040E-02	1.5654E+00	0.0	3.7478E+00
46 0.0	0.0	2.6167E-06	0.0	3.7479E+00	4.2040E-02	1.5064E+00	0.0	3.7479E+00
47 0.0	0.0	2.9598E-06	0.0	3.7479E+00	4.2040E-02	1.4537E+00	0.0	3.7479E+00
48 0.0	0.0	3.3537E-06	0.0	3.7480E+00	4.2040E-02	1.4517E+00	0.0	3.7480E+00
49 0.0	0.0	3.7934E-06	0.0	3.7480E+00	4.2040E-02	1.3997E+00	0.0	3.7480E+00
50 0.0	0.0	4.2954E-06	0.0	3.7480E+00	4.2040E-02	1.3778E+00	0.0	3.7480E+00
51 0.0	0.0	4.8964E-06	0.0	3.7480E+00	4.2040E-02	1.5532E+00	0.0	3.7481E+00
52 0.0	0.0	5.5442E-06	0.0	3.7481E+00	4.2040E-02	1.5297E+00	0.0	3.7481E+00
53 0.0	0.0	6.2248E-06	0.0	3.7481E+00	4.2040E-02	1.2614E+00	0.0	3.7481E+00
54 0.0	0.0	7.0716E-06	0.0	3.7481E+00	4.2040E-02	1.3367E+00	0.0	3.7481E+00
55 0.0	0.0	8.0169E-06	0.0	3.7481E+00	4.2040E-02	1.3490E+00	0.0	3.7481E+00
56 0.0	0.0	9.1520E-06	0.0	3.7481E+00	4.2040E-02	1.5664E+00	0.0	3.7481E+00
57 0.0	0.0	1.0384E-05	0.0	3.7481E+00	4.2040E-02	1.6031E+00	0.0	3.7481E+00
58 0.0	0.0	1.1766E-05	0.0	3.7481E+00	4.2040E-02	1.6030E+00	0.0	3.7481E+00
59 0.0	0.0	1.3333E-05	0.0	3.7481E+00	4.2040E-02	1.6031E+00	0.0	3.7481E+00
60 0.0	0.0	1.5108E-05	0.0	3.7481E+00	4.2040E-02	1.6029E+00	0.0	3.7481E+00
61 0.0	0.0	1.7120E-05	0.0	3.7481E+00	4.2040E-02	1.6032E+00	0.0	3.7481E+00
62 0.0	0.0	1.9399E-05	0.0	3.7481E+00	4.2040E-02	1.6030E+00	0.0	3.7481E+00
63 0.0	0.0	2.1982E-05	0.0	3.7481E+00	4.2040E-02	1.6031E+00	0.0	3.7481E+00
64 0.0	0.0	2.4909E-05	0.0	3.7481E+00	4.2040E-02	1.6033E+00	0.0	3.7481E+00
65 0.0	0.0	2.8226E-05	0.0	3.7481E+00	4.2040E-02	1.6026E+00	0.0	3.7481E+00
66 0.0	0.0	3.1985E-05	0.0	3.7481E+00	4.2040E-02	1.6031E+00	0.0	3.7481E+00
67 0.0	0.0	3.6243E-05	0.0	3.7481E+00	4.2040E-02	1.6031E+00	0.0	3.7481E+00
68 0.0	0.0	4.1069E-05	0.0	3.7481E+00	4.2040E-02	1.6030E+00	0.0	3.7481E+00
69 0.0	0.0	4.6537E-05	0.0	3.7481E+00	4.2040E-02	1.6028E+00	0.0	3.7481E+00
70 0.0	0.0	6.0906E-05	0.0	3.7481E+00	4.2040E-02	0.0	0.0	3.7482E+00

JAERI-M 82-135

NUCLID = O-8-J2

CODE NUMBER = 8

IPL = 0

TABLE OF ELASTIC MATRICES

PAGE 1 OF 2

GROUP EXIT GROUP ** KK ** KK = I + J - 1
 I J= 1 2 3

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1 4.52335E-01 4.17329E-01 9.19501E-05
2 5.05252E-01 4.20830E-01 4.17928E-05
3 8.02087E-01 4.91605E-01 2.58882E-05
4 1.24547E+00 8.11943E-01 5.18732E-05
5 1.53388E+00 8.01595E-01 3.13960E-05
6 5.87096E-01 3.14013E-01 8.89786E-05
7 9.17308E-01 8.43490E-01 1.17709E-04
8 1.08344E+00 1.15265E+00 3.92807E-05
9 2.00054E+00 1.62352E+00 6.36334E-04
10 2.38070E+00 2.22198E+00 1.22082E-04
11 1.45155E+00 1.25816E+00 7.75170E-05
12 2.01776E+00 1.36289E+00 2.48703E-05
13 6.29432E+00 3.38364E+00 4.05653E-04
14 1.71522E+00 2.32557E+00 2.81184E-04
15 1.50072E+00 1.99109E+00 2.38397E-04
16 1.56392E+00 1.89809E+00 2.34987E-04
17 1.70571E+00 1.78920E+00 1.89553E-04
18 1.82632E+00 1.70949E+00 1.62891E-04
19 1.76488E+00 1.81078E+00 1.70014E-04
20 1.87857E+00 1.73146E+00 1.51954E-04
21 1.93466E+00 1.70320E+00 1.30727E-04
22 1.89424E+00 1.76652E+00 1.51807E-04
23 1.92569E+00 1.75403E+00 1.60856E-04
24 1.88379E+00 1.81104E+00 1.37201E-04
25 1.98888E+00 1.71721E+00 1.46404E-04
26 1.95472E+00 1.76048E+00 1.75098E-04
27 2.05902E+00 1.66307E+00 1.42524E-04
28 2.06156E+00 1.66604E+00 1.39899E-04
29 1.96336E+00 1.76873E+00 1.52900E-04
30 2.06523E+00 1.67029E+00 1.38921E-04
31 2.06029E+00 1.67799E+00 1.39677E-04
32 2.11690E+00 1.62350E+00 1.22988E-04
33 2.05304E+00 1.68902E+00 1.52653E-04
34 1.93284E+00 1.81053E+00 1.64043E-04
35 2.03522E+00 1.70915E+00 1.41686E-04
36 2.06709E+00 1.67807E+00 1.37193E-04
37 2.12227E+00 1.62349E+00 1.27480E-04
38 2.09855E+00 1.64770E+00 1.30118E-04
39 2.09485E+00 1.65178E+00 1.29114E-04
40 2.13342E+00 1.61350E+00 1.25609E-04

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TO BE CONTINUED

NUCLID = O-8-J2

CODE NUMBER = 8

IPL = 0

TABLE OF ELASTIC MATRICES

PAGE 2 OF 2

GROUP EXIT GROUP ** KK ** KK = I + J - 1
 I J= 1 2 3

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41 2.11168E+00 1.63548E+00 1.27913E-04
42 2.14130E+00 1.60605E+00 1.20270E-04
43 2.17577E+00 1.57171E+00 1.18963E-04
44 2.16694E+00 1.58066E+00 1.09343E-04
45 2.18245E+00 1.56524E+00 1.15094E-04
46 2.24151E+00 1.50626E+00 1.00780E-04
47 2.29421E+00 1.45362E+00 9.25519E-05
48 2.29624E+00 1.45163E+00 8.82184E-05
49 2.34833E+00 1.39958E+00 8.29999E-05
50 2.37021E+00 1.37774E+00 7.26514E-05
51 2.19483E+00 1.55310E+00 1.16892E-04
52 2.21841E+00 1.52955E+00 1.00642E-04
53 2.48668E+00 1.26134E+00 5.97441E-05
54 2.41137E+00 1.33664E+00 7.12911E-05
55 2.39906E+00 1.34896E+00 7.25765E-05
56 2.18169E+00 1.56629E+00 1.17635E-04
57 2.14499E+00 1.60299E+00 1.20162E-04
58 2.14507E+00 1.60291E+00 1.20874E-04
59 2.14501E+00 1.60297E+00 1.18852E-04
60 2.14519E+00 1.60279E+00 1.22324E-04
61 2.14487E+00 1.60311E+00 1.19704E-04
62 2.14511E+00 1.60287E+00 1.21251E-04
63 2.14497E+00 1.60301E+00 1.23200E-04
64 2.14480E+00 1.60319E+00 1.15943E-04
65 2.14547E+00 1.60251E+00 1.20899E-04
66 2.14500E+00 1.60298E+00 1.20749E-04
67 2.14502E+00 1.60296E+00 1.19331E-04
68 2.14515E+00 1.60283E+00 1.21687E-04
69 2.14532E+00 1.60278E+00 0.0
70 3.74810E+00 0.0 0.0

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JAERI-M 82-135

NUCLID = O-8-J2

CODE NUMBER = 8

IPL = 0

TABLE OF INELASTIC MATRICES										
GROUP	EXIT	GROUP	** KK **	KK	= I + J - 1					
I	J				4	5	6	7	8	9
1	1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
41	42	43	44	45	46	47	48	49	50	
51	52	53	54	55	56	57	58			

1	0.0	0.0	0.0	4.96726E-04	2.27614E-02	5.54323E-02	6.40374E-02	4.98468E-02	2.51553E-02	1.09019E-02
	4.48604E-03	3.76325E-03	2.93981E-03	2.19421E-03	1.46166E-03	7.36519E-04	4.20291E-04	2.40511E-04	1.29639E-04	6.47789E-05
	4.01841E-05	2.55211E-05	1.63663E-05	1.06874E-05	7.14204E-06	4.94819E-06	3.45076E-06	2.52841E-06	1.85508E-06	1.44534E-06
	1.09518E-06	9.44636E-07	7.58045E-07	6.38716E-07	5.33555E-07	4.68651E-07	3.88533E-07	3.61285E-07	2.79583E-07	0.0
	2.51828E-07	2.85369E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	0.0	0.0	0.0	0.0	0.0	0.0	1.15093E-03	1.12153E-02	1.75189E-02	1.67864E-02
	9.30249E-03	6.24684E-03	4.42071E-03	2.99430E-03	2.38655E-03	1.49098E-03	8.57244E-04	5.58579E-04	4.29107E-04	2.79587E-04
	1.78749E-04	1.17752E-04	8.02106E-05	5.57504E-05	4.03217E-05	2.99399E-05	2.30096E-05	1.78152E-05	1.43513E-05	1.16481E-05
	9.74576E-06	7.87563E-06	6.70186E-06	5.80533E-06	4.95892E-06	4.07262E-06	3.68379E-06	3.11393E-06	2.78555E-06	2.58205E-06
	2.11896E-06	1.83883E-06	1.64734E-06	1.46619E-06	1.09370E-06	9.43142E-07	1.06988E-06	8.98797E-07	5.74424E-07	3.73596E-07
	4.22718E-07	4.79195E-07	5.42997E-07	6.14618E-07	6.78651E-07	5.74359E-07	3.45674E-07	3.90930E-07		

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = O-8-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGD)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	0.	0.9775	0.9871	0.9975	0.9997	1.0000	1.0000	1.0000	1.0000
2	0.	0.9547	0.9743	0.9950	0.9994	0.9999	1.0000	1.0000	1.0000
3	0.	0.9327	0.9537	0.9880	0.9985	0.9998	1.0000	1.0000	1.0000
4	0.	0.8838	0.9166	0.9764	0.9972	0.9997	1.0000	1.0000	1.0000
5	0.	0.8440	0.8913	0.9725	0.9967	0.9997	1.0000	1.0000	1.0000
6	0.	0.7783	0.9255	0.9897	0.9989	0.9999	1.0000	1.0000	1.0000
7	0.	0.9391	0.9554	0.9872	0.9984	0.9998	1.0000	1.0000	1.0000
8	0.	0.9609	0.9682	0.9878	0.9982	0.9998	1.0000	1.0000	1.0000
9	0.	0.9368	0.9472	0.9795	0.9971	0.9997	1.0000	1.0000	1.0000
10	0.	0.8613	0.8814	0.9505	0.9926	0.9992	0.9999	1.0000	1.0000
11	0.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
12	0.	0.9786	0.9826	0.9939	0.9992	0.9999	1.0000	1.0000	1.0000
13	0.	0.8698	0.8807	0.9339	0.9876	0.9986	0.9999	1.0000	1.0000
14	0.	0.9893	0.9911	0.9966	0.9995	1.0000	1.0000	1.0000	1.0000
15	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
16	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
17	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
18	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
19	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
20	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
21	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
22	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
23	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
24	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
27	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
28	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
29	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
32	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
33	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
34	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
35	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
36	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
37	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
38	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
39	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
40	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
41	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
42	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
43	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
44	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
45	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

		MATERIAL NAME = D-8-J2		REACTION = TOTAL		FOR 1TH R-PARAMETER PAGE 1 OF 2			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	0.	0.9569	0.9764	0.9956	0.9993	1.0000	1.0000	1.0000	1.0000
2	0.	0.9043	0.9457	0.9892	0.9988	0.9999	1.0000	1.0000	1.0000
3	0.	0.8844	0.9171	0.9766	0.9971	0.9997	1.0000	1.0000	1.0000
4	0.	0.7969	0.8519	0.9562	0.9943	0.9994	0.9999	1.0000	1.0000
5	0.	0.7097	0.7882	0.9402	0.9935	0.9993	0.9999	1.0000	1.0000
6	0.	0.4867	0.8329	0.9799	0.9979	0.9998	1.0000	1.0000	1.0000
7	0.	0.8962	0.9215	0.9755	0.9968	0.9997	1.0000	1.0000	1.0000
8	0.	0.9375	0.9485	0.9781	0.9945	0.9996	1.0000	1.0000	1.0000
9	0.	0.8906	0.9063	0.9609	0.9942	0.9994	0.9999	1.0000	1.0000
10	0.	0.7658	0.7933	0.9056	0.9854	0.9985	0.9998	1.0000	1.0000
11	0.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
12	0.	0.9604	0.9673	0.9880	0.9984	0.9998	1.0000	1.0000	1.0000
13	0.	0.7691	0.7857	0.8745	0.9754	0.9973	0.9997	1.0000	1.0000
14	0.	0.9796	0.9829	0.9934	0.9991	0.9999	1.0000	1.0000	1.0000
15	0.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
16	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
17	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
18	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
19	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
20	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
21	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
22	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
23	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
24	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
25	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
27	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
28	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
29	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
32	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
33	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
34	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
35	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
36	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
37	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
38	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
39	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
40	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
41	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
42	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
43	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
44	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
45	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

		MATERIAL NAME = D-8-J2		REACTION = ELASTIC REMOVAL		FOR 1TH R-PARAMETER PAGE 1 OF 2			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	0.	0.9823	0.9881	0.9973	0.9997	0.9999	0.9999	1.0000	1.0000
2	0.	1.0055	1.0041	1.0009	1.0000	1.0001	1.0000	1.0000	1.0000
3	0.	0.9265	0.9497	0.9862	0.9980	0.9996	1.0000	1.0000	1.0000
4	0.	0.7767	0.8386	0.9534	0.9944	0.9994	0.9999	1.0000	1.0000
5	0.	1.0407	1.0287	1.0072	1.0009	1.0002	1.0000	1.0000	1.0000
6	0.	0.8741	0.9712	0.9973	0.9997	1.0000	1.0000	1.0000	1.0000
7	0.	0.8603	0.9015	0.9735	0.9968	0.9998	1.0000	1.0000	1.0000
8	0.	0.9139	0.9369	0.9824	0.9980	0.9999	1.0001	1.0001	1.0000
9	0.	0.9746	0.9811	0.9956	0.9996	0.9999	1.0000	1.0000	1.0000
10	0.	1.0833	1.0698	1.0271	1.0039	1.0004	1.0000	1.0000	1.0000
11	0.	0.9921	0.9940	0.9982	0.9998	1.0000	1.0000	1.0000	1.0000
12	0.	0.9007	0.9195	0.9720	0.9963	0.9996	1.0000	1.0000	1.0000
13	0.	0.8762	0.8870	0.9381	0.9885	0.9987	0.9999	1.0000	1.0000
14	0.	1.0535	1.0443	1.0164	1.0022	1.0002	1.0000	1.0000	1.0000
15	0.	1.0050	1.0040	1.0013	1.0002	1.0000	1.0000	1.0000	1.0000
16	0.	0.9989	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
17	0.	0.9981	0.9985	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
18	0.	0.9978	0.9982	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
19	0.	0.9982	0.9986	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
20	0.	0.9984	0.9988	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
21	0.	0.9988	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
22	0.	0.9991	0.9992	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
23	0.	0.9992	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
24	0.	0.9994	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
25	0.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	0.	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
27	0.	0.9996	0.9996	0.9999	1.0000	0.9999	0.9999	1.0000	1.0000
28	0.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
29	0.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
30	0.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
31	0.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
32	0.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
33	0.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
34	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
35	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
36	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
37	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
38	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
39	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
40	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
41	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
42	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
43	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
44	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
45	0.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

		MATERIAL NAME = D-8-J2		REACTION = INELASTIC		FOR 1TH R-PARAMETER PAGE 1 OF 1			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	0.	0.9842	0.9917	0.9985	0.9999	1.0000	1.0000	1.0000	1.0000
2	0.	0.8790	0.9341	0.9880	0.9987	0.9999	1.0000	1.0000	1.0000

JAERI-M 82-135

NUCLID = NA-11-J2 CODE NO = 11
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1 0.0	0.0	8.6798E-02	8.8287E-01	5.7641E-01	5.7709E-01	1.2062E-01	0.0	1.5461E+00
2 0.0	0.0	3.5787E-02	9.1952E-01	7.4026E-01	5.5712E-01	1.6487E-01	0.0	1.6956E+00
3 0.0	0.0	8.6663E-03	8.9016E-01	9.6480E-01	5.1463E-01	2.0027E-01	0.0	1.8636E+00
4 0.0	0.0	7.7571E-04	8.6297E-01	1.1741E+00	4.7796E-01	2.6132E-01	0.0	2.0379E+00
5 0.0	0.0	1.7871E-04	7.7869E-01	1.3960E+00	4.8698E-01	2.8393E-01	0.0	2.1749E+00
6 0.0	0.0	1.9664E-04	7.0092E-01	2.0197E+00	4.8093E-01	3.8237E-01	0.0	2.7208E+00
7 0.0	0.0	2.0682E-04	6.7326E-01	2.0922E+00	3.8386E-01	4.4000E-01	0.0	2.7656E+00
8 0.0	0.0	1.9929E-04	5.0265E-01	2.1331E+00	2.8778E-01	5.6215E-01	0.0	2.6359E+00
9 0.0	0.0	1.9290E-04	6.6296E-01	2.7749E+00	2.3841E-01	7.9963E-01	0.0	3.4381E+00
10 0.0	0.0	2.1583E-04	4.2980E-01	3.5440E+00	2.8318E-01	1.0399E+00	0.0	3.9740E+00
11 0.0	0.0	3.1400E-04	3.8119E-01	5.8482E+00	1.9113E-01	1.7188E+00	0.0	6.2297E+00
12 0.0	0.0	3.2504E-04	1.7706E-01	3.5235E+00	7.1695E-03	9.9430E-01	0.0	3.7009E+00
13 0.0	0.0	2.6403E-04	5.4631E-03	3.5244E+00	9.1217E-02	1.1755E+00	0.0	3.5322E+00
14 0.0	0.0	4.4329E-04	0.0	3.3620E+00	1.4553E-02	1.1540E+00	0.0	3.3624E+00
15 0.0	0.0	7.0537E-04	0.0	3.7682E+00	1.0554E-01	1.5377E+00	0.0	3.7689E+00
16 0.0	0.0	8.0317E-04	0.0	4.4076E+00	5.4630E-02	1.2971E+00	0.0	4.4084E+00
17 0.0	0.0	4.5062E-04	0.0	3.4635E+00	4.1319E-02	1.0984E+00	0.0	3.4640E+00
18 0.0	0.0	2.6595E-03	0.0	3.6909E+00	2.9250E-02	1.1006E+00	0.0	3.6936E+00
19 0.0	0.0	1.3610E-05	0.0	3.8088E+00	2.9250E-02	1.2666E+00	0.0	3.8088E+00
20 0.0	0.0	3.6964E-05	0.0	3.9327E+00	2.9250E-02	1.2220E+00	0.0	3.9327E+00
21 0.0	0.0	3.4620E-03	0.0	6.6926E+00	2.9250E-02	3.3710E+00	0.0	6.6961E+00
22 0.0	0.0	1.2491E-03	0.0	4.8777E+00	2.9250E-02	1.3051E+00	0.0	4.8790E+00
23 0.0	0.0	4.0580E-03	0.0	4.1503E+00	2.9250E-02	1.3340E+00	0.0	4.1544E+00
24 0.0	0.0	2.6462E-05	0.0	4.2608E+00	2.9250E-02	1.4479E+00	0.0	4.2608E+00
25 0.0	0.0	2.5990E-05	0.0	4.4106E+00	2.9250E-02	1.3994E+00	0.0	4.4106E+00
26 0.0	0.0	3.8078E-05	0.0	4.6267E+00	2.9250E-02	1.5261E+00	0.0	4.6267E+00
27 0.0	0.0	6.8446E-05	0.0	4.9316E+00	2.9250E-02	1.5011E+00	0.0	4.9316E+00
28 0.0	0.0	1.4173E-04	0.0	5.4212E+00	2.9250E-02	1.6671E+00	0.0	5.4214E+00
29 0.0	0.0	1.8548E-03	0.0	6.3020E+00	2.9250E-02	2.1736E+00	0.0	6.3039E+00
30 0.0	0.0	8.5701E-04	0.0	7.9702E+00	2.9250E-02	2.6252E+00	0.0	7.9711E+00
31 0.0	0.0	2.7869E-03	0.0	1.2334E+01	2.9250E-02	4.3982E+00	0.0	1.2336E+01
32 0.0	0.0	1.4964E-02	0.0	3.1536E+01	2.9250E-02	1.2968E+01	0.0	3.1551E+01
33 0.0	0.0	1.8724E-01	0.0	2.1334E+02	2.9250E-02	8.2931E+01	0.0	2.1333E+02
34 0.0	0.0	6.1731E-02	0.0	4.8538E+01	2.9250E-02	8.0295E+00	0.0	4.8600E+01
35 0.0	0.0	1.7241E-02	0.0	9.8424E+00	2.9250E-02	2.3229E+00	0.0	9.8597E+00
36 0.0	0.0	1.0098E-02	0.0	5.0838E+00	2.9250E-02	1.3542E+00	0.0	5.0939E+00
37 0.0	0.0	7.7171E-03	0.0	3.7537E+00	2.9250E-02	1.0186E+00	0.0	3.7614E+00
38 0.0	0.0	6.7176E-03	0.0	3.3036E+00	2.9250E-02	9.4649E-01	0.0	3.3103E+00
39 0.0	0.0	6.3510E-03	0.0	3.1492E+00	2.9250E-02	9.1760E-01	0.0	3.1555E+00
40 0.0	0.0	6.3319E-03	0.0	3.1056E+00	2.9250E-02	8.7649E-01	0.0	3.1120E+00

TO BE CONTINUED

NUCLID = NA-11-J2 CODE NO = 11
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41 0.0	0.0	6.6580E-03	0.0	3.1003E+00	2.9250E-02	8.9652E-01	0.0	3.1070E+00
42 0.0	0.0	7.0318E-03	0.0	3.1012E+00	2.9250E-02	8.7048E-01	0.0	3.1082E+00
43 0.0	0.0	7.4710E-03	0.0	3.1018E+00	2.9250E-02	8.3982E-01	0.0	3.1093E+00
44 0.0	0.0	7.9552E-03	0.0	3.1030E+00	2.9250E-02	8.4710E-01	0.0	3.1109E+00
45 0.0	0.0	8.7551E-03	0.0	3.1060E+00	2.9250E-02	8.3646E-01	0.0	3.1148E+00
46 0.0	0.0	9.6633E-03	0.0	3.1085E+00	2.9250E-02	7.8446E-01	0.0	3.1182E+00
47 0.0	0.0	1.0679E-02	0.0	3.1109E+00	2.9250E-02	7.4466E-01	0.0	3.1216E+00
48 0.0	0.0	1.1945E-02	0.0	3.1135E+00	2.9250E-02	7.3456E-01	0.0	3.1254E+00
49 0.0	0.0	1.3363E-02	0.0	3.1154E+00	2.9250E-02	6.9786E-01	0.0	3.1288E+00
50 0.0	0.0	1.4916E-02	0.0	3.1170E+00	2.9250E-02	6.6698E-01	0.0	3.1319E+00
51 0.0	0.0	1.6841E-02	0.0	3.1183E+00	2.9250E-02	6.4315E-01	0.0	3.1351E+00
52 0.0	0.0	1.8746E-02	0.0	3.1192E+00	2.9250E-02	6.0024E-01	0.0	3.1380E+00
53 0.0	0.0	2.0842E-02	0.0	3.1199E+00	2.9250E-02	5.7254E-01	0.0	3.1408E+00
54 0.0	0.0	2.3424E-02	0.0	3.1205E+00	2.9250E-02	6.4940E-01	0.0	3.1439E+00
55 0.0	0.0	2.6297E-02	0.0	3.1210E+00	2.9250E-02	6.5010E-01	0.0	3.1473E+00
56 0.0	0.0	2.9550E-02	0.0	3.1206E+00	2.9250E-02	8.4779E-01	0.0	3.1502E+00
57 0.0	0.0	3.3121E-02	0.0	3.1182E+00	2.9250E-02	8.7131E-01	0.0	3.1513E+00
58 0.0	0.0	3.7109E-02	0.0	3.1162E+00	2.9250E-02	8.7075E-01	0.0	3.1533E+00
59 0.0	0.0	4.1439E-02	0.0	3.1146E+00	2.9250E-02	8.7038E-01	0.0	3.1561E+00
60 0.0	0.0	4.6539E-02	0.0	3.1134E+00	2.9250E-02	8.6996E-01	0.0	3.1600E+00
61 0.0	0.0	5.1848E-02	0.0	3.1125E+00	2.9250E-02	8.6990E-01	0.0	3.1643E+00
62 0.0	0.0	5.8174E-02	0.0	3.1119E+00	2.9250E-02	8.6969E-01	0.0	3.1701E+00
63 0.0	0.0	6.5757E-02	0.0	3.1142E+00	2.9250E-02	8.7067E-01	0.0	3.1800E+00
64 0.0	0.0	7.4491E-02	0.0	3.1171E+00	2.9250E-02	8.7153E-01	0.0	3.1916E+00
65 0.0	0.0	8.4389E-02	0.0	3.1224E+00	2.9250E-02	8.7383E-01	0.0	3.2068E+00
66 0.0	0.0	9.5917E-02	0.0	3.1454E+00	2.9250E-02	8.8106E-01	0.0	3.2413E+00
67 0.0	0.0	1.0886E-01	0.0	3.1665E+00	2.9250E-02	8.8651E-01	0.0	3.2753E+00
68 0.0	0.0	1.2285E-01	0.0	3.1829E+00	2.9250E-02	8.9069E-01	0.0	3.3057E+00
69 0.0	0.0	1.3976E-01	0.0	3.1957E+00	2.9250E-02	8.9413E-01	0.0	3.3355E+00
70 0.0	0.0	1.8215E-01	0.0	3.2122E+00	2.9250E-02	0.0	0.0	3.3943E+00

JAERI-M 82-135

NUCLID = NA-11-J2 CODE NUMBER = 11 IPL = 0

TABLE OF INELASTIC MATRICES											PAGE	1	OF	3
GROUP	EXIT	GROUP	**	KK	**	KK	= I + J - 1	5	6	7	8	9	10	
I	J =	1	2	3	4	5	6	7	8	9	10	11	12	
1	11	12	13	14	15	16	17	18	19	20	21	22	23	
	21	22	23	24	25	26	27	28	29	30	31	32	33	
	31	32	33	34	35	36	37	38	39	40	41	42	43	
	41	42	43	44	45	46	47	48	49	50	51	52	53	
	51	52	53	54	55	56	57	58	59	60	61	62	63	
	61	62	63	64	65	66	67	68	69	70	71	72	73	
	71	72	73	74	75	76	77	78	79	80	81	82	83	
2	0.0	0.0	9.85069E-03	1.20759E-01	1.38477E-01	1.38105E-01	1.23528E-01	1.01406E-01	7.79263E-02	5.68193E-02	3.97823E-02	2.69867E-02	1.78594E-02	
	3.97823E-02	2.69867E-02	1.78594E-02	1.15937E-02	7.41330E-03	4.68605E-03	2.93545E-03	1.82511E-03	1.12886E-03	6.95173E-04	4.26636E-04	2.61157E-04	1.59548E-04	
	4.26636E-04	2.61157E-04	1.59548E-04	9.73082E-05	5.92808E-05	3.60839E-05	2.19353E-05	1.33356E-05	8.10067E-06	4.91935E-06	2.98659E-06	1.81286E-06	1.10015E-06	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	0.0	0.0	0.0	5.87010E-03	1.87546E-01	1.76568E-01	1.50869E-01	1.19621E-01	8.93772E-02	6.37816E-02	4.39145E-02	2.94007E-02	1.92591E-02	
	4.39145E-02	2.94007E-02	1.92591E-02	1.24017E-02	7.88240E-03	4.95886E-03	3.09344E-03	1.91830E-03	1.18372E-03	7.27605E-04	4.45935E-04	2.72695E-04	1.66440E-04	
	4.45935E-04	2.72695E-04	1.66440E-04	1.01455E-04	6.17831E-05	3.75709E-05	2.28475E-05	1.38816E-05	8.43139E-06	5.11945E-06	3.10781E-06	1.88614E-06	1.14467E-06	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	0.0	3.76258E-02	1.89285E-03	2.48260E-02	2.36617E-02	1.53456E-02	2.20926E-01	1.78006E-01	1.28317E-01	8.90159E-02	6.03831E-02	3.99610E-02	2.59384E-02	
	6.03831E-02	3.99610E-02	2.59384E-02	1.65889E-02	1.04868E-02	6.56662E-03	4.08407E-03	2.52591E-03	1.55539E-03	9.54594E-04	4.5935E-04	2.72695E-04	1.66440E-04	
	4.5935E-04	2.72695E-04	1.66440E-04	1.01455E-04	6.17831E-05	3.75709E-05	2.28475E-05	1.38816E-05	8.43139E-06	5.11945E-06	3.10781E-06	1.88614E-06	1.14467E-06	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	6.01034E-02	2.11532E-01	3.16574E-02	1.07070E-01	1.42554E-01	9.13574E-02	5.39969E-02	3.03487E-02	1.78460E-02	6.37513E-03	2.74949E-03	2.10670E-03	1.61735E-03	
	2.74949E-03	2.10670E-03	1.61735E-03	2.78174E-02	2.85970E-02	1.79227E-02	1.11633E-02	6.92603E-03	4.28737E-03	2.64829E-03	1.63391E-03	1.00721E-03	6.20236E-04	
	1.63391E-03	1.00721E-03	6.20236E-04	3.83216E-04	2.38367E-04	1.45427E-04	9.35670E-05	5.64712E-05	3.82618E-05	2.34801E-05	1.42363E-05	1.01846E-05	7.81565E-06	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

TO BE CONTINUED

NUCLID = NA-11-J2 CODE NUMBER = 11 IPL = 0

TABLE OF INELASTIC MATRICES											PAGE 2 OF 3		
GROUP	EXIT	GROUP	**	KK	**	KK	I + J - 1	5	6	7	8	9	10
I	J =	1	2	3	4	5	6	7	8	9	10	11	12
	11	12	13	14	15	16	17	18	19	20	21	22	23
	21	22	23	24	25	26	27	28	29	30	31	32	33
	31	32	33	34	35	36	37	38	39	40	41	42	43
	41	42	43	44	45	46	47	48	49	50	51	52	53
	51	52	53	54	55	56	57	58	59	60	61	62	63
	61	62	63	64	65	66	67	68	69	70	71	72	73

6	3.76118E-02	4.15645E-01	1.41054E-01	0.0	0.0	4.91560E-03	2.14842E-02	1.79670E-02	1.32350E-02	1.35138E-02	1.04653E-02	6.78111E-03	4.28585E-03
	1.04653E-02	6.78111E-03	4.28585E-03	2.85017E-03	1.97316E-03	1.67249E-03	1.38942E-03	1.08579E-03	9.36827E-04	8.76256E-04	8.38046E-04	6.67140E-04	4.58718E-04
	4.58718E-04	6.67140E-04	4.58718E-04	3.16907E-04	2.21116E-04	1.55788E-04	1.11727E-04	8.10756E-05	6.07296E-05	4.61315E-05	3.64890E-05	2.82180E-05	2.31103E-05
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	7.13640E-03	4.00079E-01	2.49016E-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	6.13141E-05	1.59853E-03	2.99732E-03	3.39282E-03	3.38570E-03	2.79699E-03	1.64565E-03	8.52251E-04	2.93040E-04	6.03550E-06	0.0
	2.93040E-04	6.03550E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	1.92961E-01	2.87402E-01	2.22859E-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	2.96235E-02	3.92722E-01	2.38916E-01	1.69854E-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	1.32748E-01	2.12900E-01	8.27933E-02	1.36370E-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

JAERI-M 82-135

NUCLID = NA-11-J2 CODE NUMBER = 11 IPL = 0

TABLE OF INELASTIC MATRICES

PAGE 3 OF 3

GROUP	J =	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
1	1	1	2	3	4	5	6	7	8	9	10
11	11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30		
31	32	33	34	35	36	37	38	39	40		
41	42	43	44	45	46	47	48	49	50		
51	52	53	54	55	56	57	58	59	60		
61	62	63	64	65							

11	0.0	0.0	0.0	7.20190E-02	1.55714E-01	1.13709E-01	3.96330E-02	1.16731E-04	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	2.56206E-03	5.04639E-02	6.28331E-02	3.22107E-02	1.53655E-02	8.00459E-03
	3.95714E-03	1.43848E-03	2.28053E-04	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.63561E-04
	1.00046E-03	1.37685E-03	1.06187E-03	6.54638E-04	4.05109E-04	2.52157E-04	1.57963E-04	9.95866E-05	6.34469E-05	4.08261E-05
	2.66128E-05	1.76712E-05	1.18736E-05	8.13117E-06	5.60420E-06	4.02127E-06	2.74857E-06	2.01250E-06	1.52747E-06	1.11991E-06
	8.47918E-07	8.01802E-07	5.31393E-07	4.34025E-07	4.03665E-07	2.32720E-07	2.59789E-07	2.90898E-07	3.26625E-07	2.17422E-07
	5.90753E-08	3.11492E-08	3.31538E-08	3.56606E-08	3.87302E-08	4.24072E-08	4.67451E-08	5.18201E-08	5.76932E-08	6.44837E-08
	7.22718E-08	8.11877E-08	9.14092E-08	1.03014E-07	1.16250E-07	3.12504E-08	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0					

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NA-11-J2 REACTION = CAPTURE FOR 1TH R-PARAMETER
PAGE 2 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	1.0002	0.9998	0.9993	0.9995	1.0000	1.0000	1.0000	1.0000
	800.	1.0002	0.9998	0.9993	0.9996	1.0000	1.0000	1.0000	1.0000
	2100.	1.0003	0.9999	0.9993	0.9989	1.0000	1.0001	1.0001	1.0001
	4500.	1.0004	1.0000	0.9994	0.9990	1.0001	1.0002	1.0002	1.0002
14	300.	0.9974	0.9977	0.9989	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9974	0.9977	0.9989	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9975	0.9977	0.9990	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9975	0.9978	0.9990	1.0000	1.0001	1.0001	1.0001	1.0001
15	300.	0.9964	0.9970	0.9987	1.0002	0.9999	1.0000	1.0000	1.0000
	800.	0.9964	0.9969	0.9987	1.0001	0.9998	1.0000	1.0000	1.0000
	2100.	0.9963	0.9969	0.9987	1.0001	0.9998	1.0000	1.0000	1.0000
	4500.	0.9963	0.9968	0.9986	1.0001	0.9998	0.9999	0.9999	0.9999
16	300.	0.9928	0.9940	0.9976	0.9996	1.0000	1.0000	1.0000	1.0000
	800.	0.9928	0.9940	0.9975	0.9996	0.9999	1.0000	1.0000	1.0000
	2100.	0.9927	0.9940	0.9975	0.9995	0.9999	0.9999	0.9999	0.9999
	4500.	0.9927	0.9939	0.9975	0.9995	0.9999	0.9999	0.9999	0.9999
17	300.	1.0090	1.0072	1.0024	1.0003	1.0000	1.0000	1.0000	1.0000
	800.	1.0090	1.0072	1.0024	1.0003	1.0001	1.0000	1.0000	1.0000
	2100.	1.0091	1.0073	1.0025	1.0004	1.0001	1.0001	1.0001	1.0001
	4500.	1.0091	1.0073	1.0025	1.0004	1.0001	1.0001	1.0001	1.0001
18	300.	0.7651	0.7902	0.9011	0.9842	0.9983	0.9998	1.0000	1.0000
	800.	0.8054	0.8295	0.9252	0.9885	0.9986	0.9997	0.9998	0.9998
	2100.	0.8484	0.8693	0.9464	0.9921	0.9991	0.9998	0.9999	0.9999
	4500.	0.8803	0.8978	0.9600	0.9945	0.9995	1.0000	1.0000	1.0000
19	300.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9993	0.9995	0.9999	1.0001	1.0001	1.0001	1.0001	1.0001
	2100.	0.9995	0.9996	1.0000	1.0002	1.0002	1.0002	1.0002	1.0002
	4500.	0.9996	0.9998	1.0002	1.0004	1.0004	1.0004	1.0004	1.0004
20	300.	0.9953	0.9962	0.9986	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9954	0.9963	0.9987	0.9999	1.0001	1.0001	1.0001	1.0001
	2100.	0.9955	0.9964	0.9988	1.0000	1.0002	1.0002	1.0002	1.0002
	4500.	0.9957	0.9965	0.9990	1.0002	1.0003	1.0003	1.0003	1.0003
21	300.	0.3234	0.3523	0.5332	0.8676	0.9835	0.9983	0.9998	1.0000
	800.	0.3234	0.3523	0.5333	0.8677	0.9836	0.9984	0.9999	1.0000
	2100.	0.3236	0.3525	0.5336	0.8679	0.9836	0.9984	0.9999	1.0001
	4500.	0.3237	0.3526	0.5338	0.8680	0.9836	0.9983	0.9998	1.0000
22	300.	0.6430	0.6731	0.8173	0.9647	0.9961	0.9996	1.0000	1.0000
	800.	0.6433	0.6733	0.8177	0.9654	0.9969	1.0004	1.0007	1.0008
	2100.	0.6436	0.6737	0.8184	0.9665	0.9981	1.0016	1.0020	1.0020
	4500.	0.6441	0.6742	0.8192	0.9679	0.9996	1.0032	1.0035	1.0036
23	300.	0.7233	0.7582	0.8929	0.9837	0.9983	0.9998	1.0000	1.0000
	800.	0.8010	0.8289	0.9285	0.9892	0.9986	0.9995	0.9996	0.9996
	2100.	0.8624	0.8831	0.9534	0.9931	0.9990	0.9996	0.9997	0.9997
	4500.	0.9015	0.9171	0.9678	0.9954	0.9995	0.9999	1.0000	1.0000
24	300.	1.0007	1.0006	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0007	1.0006	1.0003	1.0001	1.0001	1.0000	1.0000	1.0000
	2100.	1.0008	1.0007	1.0003	1.0002	1.0001	1.0001	1.0001	1.0001
	4500.	1.0009	1.0008	1.0004	1.0002	1.0002	1.0002	1.0002	1.0002

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NA-11-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0001	1.0001	1.0001
	2100.	0.9994	0.9995	0.9999	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	0.9995	0.9996	1.0000	1.0002	1.0002	1.0002	1.0002	1.0002
26	300.	0.9977	0.9980	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9977	0.9981	0.9993	0.9999	1.0000	1.0001	1.0001	1.0001
	2100.	0.9978	0.9982	0.9994	1.0000	1.0001	1.0001	1.0001	1.0001
	4500.	0.9979	0.9983	0.9995	1.0001	1.0002	1.0002	1.0002	1.0002
27	300.	0.9956	0.9962	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9956	0.9963	0.9986	0.9999	1.0001	1.0001	1.0001	1.0001
	2100.	0.9958	0.9964	0.9987	1.0000	1.0002	1.0002	1.0002	1.0002
	4500.	0.9959	0.9966	0.9989	1.0001	1.0003	1.0004	1.0004	1.0004
28	300.	0.9925	0.9936	0.9973	0.9996	1.0000	1.0000	1.0000	1.0000
	800.	0.9926	0.9937	0.9974	0.9997	1.0000	1.0001	1.0001	1.0001
	2100.	0.9927	0.9938	0.9975	0.9998	1.0002	1.0002	1.0002	1.0002
	4500.	0.9929	0.9939	0.9976	0.9999	1.0003	1.0003	1.0003	1.0003
29	300.	0.9228	0.9318	0.9687	0.9951	0.9995	0.9999	1.0000	1.0000
	800.	0.9296	0.9379	0.9717	0.9957	0.9997	1.0001	1.0001	1.0001
	2100.	0.9347	0.9425	0.9742	0.9966	1.0003	1.0007	1.0007	1.0007
	4500.	0.9378	0.9454	0.9758	0.9973	1.0009	1.0013	1.0013	1.0013
30	300.	0.9738	0.9763	0.9880	0.9980	0.9998	1.0000	1.0000	1.0000
	800.	0.9739	0.9765	0.9882	0.9982	1.0000	1.0002	1.0002	1.0002
	2100.	0.9742	0.9768	0.9885	0.9985	1.0003	1.0005	1.0005	1.0005
	4500.	0.9746	0.9771	0.9888	0.9988	1.0006	1.0008	1.0009	1.0009
31	300.	0.9374	0.9414	0.9640	0.9925	0.9992	0.9999	1.0000	1.0000
	800.	0.9376	0.9416	0.9642	0.9927	0.9994	1.0001	1.0002	1.0002
	2100.	0.9379	0.9419	0.9645	0.9931	0.9997	1.0005	1.0006	1.0006
	4500.	0.9383	0.9422	0.9649	0.9935	1.0002	1.0009	1.0010	1.0010
32	300.	0.7979	0.8026	0.8393	0.9411	0.9918	0.9991	0.9999	1.0000
	800.	0.7982	0.8029	0.8396	0.9415	0.9922	0.9996	1.0003	1.0004
	2100.	0.7986	0.8033	0.8401	0.9420	0.9928	1.0002	1.0010	1.0011
	4500.	0.7991	0.8038	0.8406	0.9427	0.9936	1.0010	1.0018	1.0018
33	300.	0.7365	0.7379	0.7513	0.8319	0.9574	0.9949	0.9995	0.9999
	800.	0.7367	0.7381	0.7515	0.8320	0.9574	0.9948	0.9995	0.9998
	2100.	0.7370	0.7384	0.7518	0.8322	0.9572	0.9945	0.9990	0.9995
	4500.	0.7373	0.7388	0.7521	0.8323	0.9571	0.9942	0.9987	0.9992
34	300.	0.7270	0.7318	0.7696	0.8952	0.9825	0.9980	0.9998	1.0000
	800.	0.7273	0.7320	0.7699	0.8955	0.9829	0.9985	1.0002	1.0004
	2100.	0.7277	0.7324	0.7703	0.8960	0.9836	0.9992	1.0010	1.0011
	4500.	0.7282	0.7330	0.7708	0.8967	0.9844	1.0001	1.0019	1.0020
35	300.	0.9486	0.9528	0.9738	0.9952	0.9995	0.9999	1.0000	1.0000
	800.	0.9488	0.9530	0.9740	0.9954	0.9997	1.0001	1.0002	1.0002
	2100.	0.9490	0.9532	0.9742	0.9957	1.0000	1.0005	1.0005	1.0005
	4500.	0.9493	0.9536	0.9746	0.9961	1.0004	1.0009	1.0009	1.0009
36	300.	0.9880	0.9898	0.9959	0.9994	0.9999	1.0000	1.0000	1.0000
	800.	0.9881	0.9899	0.9961	0.9995	1.0001	1.0001	1.0001	1.0001
	2100.	0.9884	0.9901	0.9963	0.9998	1.0003	1.0003	1.0004	1.0004
	4500.	0.9886	0.9904	0.9966	1.0000	1.0006	1.0006	1.0006	1.0006

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NA-11-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 1 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9981	0.9987	0.9998	1.0001	1.0000	1.0000	1.0000	1.0000
	800.	0.9981	0.9987	0.9998	1.0001	1.0000	1.0000	1.0000	1.0000
	2100.	0.9981	0.9987	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9981	0.9987	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9908	0.9938	0.9986	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9908	0.9938	0.9986	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9908	0.9938	0.9986	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9908	0.9938	0.9986	0.9999	1.0000	1.0000	1.0000	1.0000
3	300.	0.9943	0.9961	0.9990	0.9999	0.9998	1.0000	1.0000	1.0000
	800.	0.9943	0.9961	0.9990	0.9999	0.9998	1.0000	1.0000	1.0000
	2100.	0.9943	0.9961	0.9991	0.9999	0.9998	1.0000	1.0000	1.0000
	4500.	0.9943	0.9961	0.9991	0.9999	0.9998	1.0000	1.0000	1.0000
4	300.	0.9864	0.9905	0.9977	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9867	0.9905	0.9977	0.9998	1.0000	1.0000	1.0000	1.0000
	2100.	0.9867	0.9905	0.9977	0.9998	1.0000	1.0000	1.0000	1.0000
	4500.	0.9870	0.9905	0.9977	0.9998	1.0000	1.0000	1.0000	1.0000
5	300.	0.9835	0.9885	0.9971	0.9997	1.0002	1.0000	1.0000	1.0000
	800.	0.9835	0.9885	0.9971	0.9997	1.0001	1.0000	1.0000	1.0000
	2100.	0.9835	0.9885	0.9971	0.9997	1.0001	1.0000	1.0000	1.0000
	4500.	0.9835	0.9885	0.9971	0.9997	1.0001	1.0000	1.0000	1.0000
6	300.	0.9848	0.9904	0.9972	0.9996	0.9999	1.0000	1.0000	1.0000
	800.	0.9849	0.9905	0.9972	0.9996	0.9999	1.0000	1.0000	1.0000
	2100.	0.9849	0.9905	0.9972	0.9996	0.9999	1.0000	1.0000	1.0000
	4500.	0.9850	0.9905	0.9972	0.9996	0.9999	1.0000	1.0000	1.0000
7	300.	0.9632	0.9730	0.9926	0.9991	0.9999	1.0000	1.0000	1.0000
	800.	0.9633	0.9731	0.9926	0.9991	0.9999	1.0000	1.0000	1.0000
	2100.	0.9634	0.9728	0.9927	0.9992	1.0000	1.0001	1.0001	1.0001
	4500.	0.9636	0.9730	0.9927	0.9992	1.0000	1.0001	1.0001	1.0001
8	300.	0.9701	0.9767	0.9926	0.9990	0.9999	1.0000	1.0000	1.0000
	800.	0.9701	0.9767	0.9926	0.9990	0.9999	1.0000	1.0000	1.0000
	2100.	0.9701	0.9767	0.9926	0.9990	0.9999	1.0000	1.0000	1.0000
	4500.	0.9701	0.9767	0.9925	0.9989	0.9998	0.9999	0.9999	0.9999
9	300.	0.9754	0.9804	0.9933	0.9992	0.9999	1.0000	1.0000	1.0000
	800.	0.9754	0.9804	0.9933	0.9992	0.9999	1.0000	1.0000	1.0000
	2100.	0.9754	0.9804	0.9933	0.9992	0.9999	1.0000	1.0000	1.0000
	4500.	0.9754	0.9804	0.9933	0.9992	0.9999	1.0000	1.0000	1.0000
10	300.	0.9708	0.9761	0.9910	0.9986	0.9999	1.0000	1.0000	1.0000
	800.	0.9708	0.9761	0.9910	0.9986	0.9999	1.0000	1.0000	1.0000
	2100.	0.9708	0.9761	0.9910	0.9986	0.9999	1.0000	1.0000	1.0000
	4500.	0.9708	0.9758	0.9910	0.9986	0.9998	1.0000	1.0000	1.0000
11	300.	0.9611	0.9661	0.9848	0.9977	0.9998	1.0000	1.0000	1.0000
	800.	0.9612	0.9661	0.9848	0.9977	0.9998	1.0000	1.0000	1.0000
	2100.	0.9612	0.9664	0.9848	0.9977	0.9998	1.0000	1.0000	1.0000
	4500.	0.9613	0.9664	0.9848	0.9977	0.9998	1.0000	1.0000	1.0000
12	300.	0.9043	0.9261	0.9771	0.9972	0.9996	1.0000	1.0000	1.0000
	800.	0.9044	0.9261	0.9771	0.9972	0.9996	1.0001	1.0001	1.0001
	2100.	0.9044	0.9263	0.9772	0.9972	0.9997	1.0001	1.0001	1.0001
	4500.	0.9045	0.9263	0.9772	0.9973	0.9998	1.0001	1.0001	1.0002

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NA-11-J2		REACTION = ELASTIC				FOR	1TH	R-PARAMETER	
						PAGE	2 OF	6	
GROUP	TEMP. (°SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.9472	0.9575	0.9855	0.9980	0.9998	1.0000	1.0000	1.0000
	800.	0.9472	0.9575	0.9855	0.9980	0.9998	0.9999	1.0000	1.0000
	2100.	0.9471	0.9575	0.9854	0.9972	0.9997	0.9999	0.9999	0.9999
	4500.	0.9471	0.9575	0.9854	0.9971	0.9996	0.9998	0.9998	0.9998
14	300.	0.9861	0.9886	0.9960	0.9971	0.9999	1.0000	1.0000	1.0000
	800.	0.9861	0.9886	0.9960	0.9994	0.9999	1.0000	1.0000	1.0000
	2100.	0.9861	0.9886	0.9960	0.9993	0.9999	0.9999	0.9999	0.9999
	4500.	0.9861	0.9886	0.9959	0.9993	0.9998	0.9998	0.9999	0.9999
15	300.	0.8546	0.8810	0.9543	0.9934	0.9993	0.9999	1.0000	1.0000
	800.	0.8550	0.8813	0.9544	0.9935	0.9994	1.0000	1.0001	1.0001
	2100.	0.8555	0.8830	0.9547	0.9937	0.9995	1.0002	1.0003	1.0003
	4500.	0.8562	0.8823	0.9550	0.9939	0.9997	1.0004	1.0005	1.0005
16	300.	0.9659	0.9713	0.9883	0.9982	0.9998	1.0000	1.0000	1.0000
	800.	0.9660	0.9714	0.9883	0.9983	0.9999	1.0000	1.0001	1.0001
	2100.	0.9662	0.9715	0.9884	0.9984	1.0000	1.0001	1.0001	1.0001
	4500.	0.9663	0.9717	0.9886	0.9985	1.0001	1.0002	1.0002	1.0002
17	300.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9996	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
18	300.	0.9992	0.9983	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9983	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9996	0.9984	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9997	0.9983	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	0.7318	0.7435	0.8156	0.9477	0.9935	0.9993	0.9999	1.0000
	800.	0.7319	0.7435	0.8156	0.9478	0.9935	0.9994	0.9999	1.0000
	2100.	0.7319	0.7435	0.8157	0.9480	0.9935	0.9994	1.0000	1.0000
	4500.	0.7320	0.7436	0.8158	0.9481	0.9935	0.9993	0.9999	1.0000
22	300.	0.9346	0.9400	0.9662	0.9936	0.9993	0.9999	1.0000	1.0000
	800.	0.9346	0.9400	0.9663	0.9937	0.9994	1.0001	1.0001	1.0001
	2100.	0.9347	0.9401	0.9664	0.9939	0.9997	1.0003	1.0004	1.0004
	4500.	0.9348	0.9402	0.9666	0.9942	1.0000	1.0006	1.0007	1.0007
23	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
24	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NA-11-J2		REACTION = ELASTIC				FOR	1TH	R-PARAMETER	
						PAGE	3 OF	6	
GROUP	TEMP. (°SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
27	300.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
28	300.	0.9989	0.9991	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9989	0.9991	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9989	0.9991	0.9994	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9989	0.9991	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000
29	300.	0.9973	0.9976	0.9992	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9973	0.9976	0.9989	0.9998	1.0000	1.0000	1.0000	1.0000
	2100.	0.9973	0.9976	0.9989	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9973	0.9976	0.9990	0.9999	1.0000	1.0000	1.0000	1.0000
30	300.	0.9921	0.9929	0.9964	0.9994	0.9999	1.0000	1.0000	1.0000
	800.	0.9921	0.9929	0.9964	0.9994	0.9999	1.0000	1.0000	1.0000
	2100.	0.9922	0.9930	0.9965	0.9995	1.0000	1.0001	1.0001	1.0001
	4500.	0.9923	0.9930	0.9966	0.9996	1.0001	1.0002	1.0002	1.0002
31	300.	0.9717	0.9735	0.9837	0.9966	0.9996	1.0000	1.0000	1.0000
	800.	0.9717	0.9735	0.9838	0.9967	0.9997	1.0000	1.0001	1.0001
	2100.	0.9718	0.9736	0.9839	0.9968	0.9998	1.0002	1.0002	1.0002
	4500.	0.9720	0.9737	0.9840	0.9970	0.9998	1.0003	1.0004	1.0004
32	300.	0.8633	0.8665	0.8916	0.9604	0.9945	0.9994	0.9999	1.0000
	800.	0.8634	0.8667	0.8917	0.9607	0.9945	0.9997	1.0002	1.0002
	2100.	0.8637	0.8669	0.8920	0.9610	0.9951	1.0005	1.0006	1.0006
	4500.	0.8640	0.8672	0.8923	0.9614	0.9956	1.0005	1.0010	1.0011
33	300.	0.7726	0.7738	0.7853	0.8544	0.9629	0.9956	0.9995	1.0000
	800.	0.7728	0.7740	0.7855	0.8545	0.9629	0.9956	0.9994	0.9998
	2100.	0.7731	0.7743	0.7857	0.8546	0.9627	0.9952	0.9991	0.9995
	4500.	0.7734	0.7746	0.7860	0.8547	0.9626	0.9949	0.9988	0.9992
34	300.	0.6782	0.6837	0.7275	0.8749	0.9791	0.9977	0.9998	1.0000
	800.	0.6786	0.6841	0.7279	0.8754	0.9797	0.9982	1.0004	1.0006
	2100.	0.6791	0.6846	0.7284	0.8761	0.9806	0.9992	1.0013	1.0015
	4500.	0.6797	0.6852	0.7291	0.8769	0.9817	1.0004	1.0025	1.0027
35	300.	0.9360	0.9412	0.9673	0.9939	0.9993	0.9999	1.0000	1.0000
	800.	0.9362	0.9414	0.9675	0.9942	0.9996	1.0002	1.0003	1.0003
	2100.	0.9366	0.9418	0.9679	0.9946	1.0001	1.0007	1.0007	1.0008
	4500.	0.9371	0.9423	0.9685	0.9952	1.0007	1.0013	1.0013	1.0013
36	300.	0.9860	0.9880	0.9952	0.9993	0.9999	1.0000	1.0000	1.0000
	800.	0.9861	0.9882	0.9954	0.9995	1.0001	1.0002	1.0002	1.0002
	2100.	0.9864	0.9885	0.9957	0.9998	1.0004	1.0005	1.0005	1.0005
	4500.	0.9868	0.9889	0.9961	1.0002	1.0008	1.0009	1.0009	1.0009

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NA-11-J2		REACTION = TOTAL				FOR	1TH	R-PARAMETER	
						PAGE	1 OF 6		
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9984	0.9990	0.9998	1.0001	1.0000	1.0000	1.0000	1.0000
	800.	0.9984	0.9990	0.9998	1.0001	1.0000	1.0000	1.0000	1.0000
	2100.	0.9984	0.9990	0.9998	1.0001	1.0000	1.0000	1.0000	1.0000
	4500.	0.9984	0.9990	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9928	0.9951	0.9989	1.0001	1.0000	1.0000	1.0000	1.0000
	800.	0.9928	0.9951	0.9989	1.0001	1.0000	1.0000	1.0000	1.0000
	2100.	0.9928	0.9951	0.9989	1.0001	1.0000	1.0000	1.0000	1.0000
	4500.	0.9929	0.9951	0.9989	1.0001	1.0000	1.0000	1.0000	1.0000
3	300.	0.9944	0.9962	0.9991	0.9999	0.9998	1.0000	1.0000	1.0000
	800.	0.9944	0.9962	0.9991	0.9999	0.9998	1.0000	1.0000	1.0000
	2100.	0.9944	0.9962	0.9991	0.9999	0.9998	1.0000	1.0000	1.0000
	4500.	0.9944	0.9962	0.9991	0.9999	0.9998	1.0000	1.0000	1.0000
4	300.	0.9855	0.9878	0.9973	0.9997	0.9999	1.0000	1.0000	1.0000
	800.	0.9855	0.9878	0.9973	0.9997	0.9999	1.0000	1.0000	1.0000
	2100.	0.9855	0.9878	0.9973	0.9998	0.9999	1.0000	1.0000	1.0000
	4500.	0.9855	0.9878	0.9973	0.9998	0.9999	1.0000	1.0000	1.0000
5	300.	0.9750	0.9837	0.9961	0.9996	1.0003	1.0000	1.0000	1.0000
	800.	0.9751	0.9838	0.9961	0.9996	1.0002	1.0000	1.0000	1.0000
	2100.	0.9764	0.9838	0.9961	0.9996	1.0002	1.0000	1.0000	1.0000
	4500.	0.9765	0.9838	0.9961	0.9996	1.0002	1.0000	1.0000	1.0000
6	300.	0.9803	0.9849	0.9954	0.9993	0.9999	1.0000	1.0000	1.0000
	800.	0.9803	0.9849	0.9955	0.9993	0.9999	1.0000	1.0000	1.0000
	2100.	0.9804	0.9849	0.9955	0.9994	0.9999	1.0000	1.0000	1.0000
	4500.	0.9804	0.9850	0.9955	0.9994	0.9999	1.0000	1.0000	1.0000
7	300.	0.9355	0.9541	0.9878	0.9985	0.9999	1.0000	1.0000	1.0000
	800.	0.9356	0.9542	0.9878	0.9986	0.9999	1.0000	1.0000	1.0000
	2100.	0.9357	0.9543	0.9879	0.9986	0.9999	1.0000	1.0000	1.0000
	4500.	0.9359	0.9545	0.9880	0.9987	1.0000	1.0001	1.0001	1.0001
8	300.	0.9563	0.9650	0.9880	0.9985	0.9998	1.0000	1.0000	1.0000
	800.	0.9563	0.9651	0.9880	0.9985	0.9998	1.0000	1.0000	1.0000
	2100.	0.9564	0.9651	0.9880	0.9985	0.9998	1.0000	1.0000	1.0000
	4500.	0.9564	0.9651	0.9880	0.9985	0.9998	1.0000	1.0000	1.0000
9	300.	0.9592	0.9672	0.9890	0.9986	0.9998	1.0000	1.0000	1.0000
	800.	0.9592	0.9672	0.9890	0.9986	0.9998	1.0000	1.0000	1.0000
	2100.	0.9592	0.9673	0.9890	0.9986	0.9998	1.0000	1.0000	1.0000
	4500.	0.9593	0.9673	0.9890	0.9986	0.9998	1.0000	1.0000	1.0000
10	300.	0.9554	0.9626	0.9859	0.9978	0.9998	1.0000	1.0000	1.0000
	800.	0.9555	0.9626	0.9860	0.9978	0.9998	1.0000	1.0000	1.0000
	2100.	0.9555	0.9626	0.9859	0.9978	0.9998	1.0000	1.0000	1.0000
	4500.	0.9556	0.9627	0.9859	0.9978	0.9998	1.0000	1.0000	1.0000
11	300.	0.9290	0.9372	0.9715	0.9957	0.9995	1.0000	1.0000	1.0000
	800.	0.9290	0.9372	0.9715	0.9957	0.9996	1.0000	1.0000	1.0000
	2100.	0.9291	0.9376	0.9717	0.9957	0.9996	1.0000	1.0000	1.0000
	4500.	0.9291	0.9377	0.9717	0.9957	0.9996	1.0000	1.0000	1.0000
12	300.	0.8007	0.8440	0.9517	0.9938	0.9993	0.9998	1.0000	1.0000
	800.	0.8007	0.8441	0.9517	0.9938	0.9993	0.9999	1.0000	1.0000
	2100.	0.8007	0.8441	0.9518	0.9939	0.9994	1.0001	1.0001	1.0001
	4500.	0.8007	0.8442	0.9518	0.9939	0.9994	1.0000	1.0002	1.0002

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NA-11-J2		REACTION = TOTAL				FOR	1TH	R-PARAMETER	
						PAGE	2 OF 6		
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.9004	0.9192	0.9716	0.9959	0.9996	1.0000	1.0000	1.0000
	800.	0.9004	0.9193	0.9716	0.9959	0.9996	0.9999	1.0000	1.0000
	2100.	0.9005	0.9193	0.9717	0.9958	0.9996	0.9999	1.0000	1.0000
	4500.	0.9005	0.9194	0.9717	0.9958	0.9995	0.9999	0.9999	0.9999
14	300.	0.9740	0.9785	0.9923	0.9967	0.9998	1.0000	1.0000	1.0000
	800.	0.9741	0.9785	0.9923	0.9967	0.9998	1.0000	1.0000	1.0000
	2100.	0.9741	0.9785	0.9923	0.9967	0.9998	0.9999	0.9999	0.9999
	4500.	0.9742	0.9786	0.9923	0.9967	0.9997	0.9999	0.9999	0.9999
15	300.	0.7456	0.7889	0.9135	0.9869	0.9986	0.9999	1.0000	1.0000
	800.	0.7462	0.7893	0.9136	0.9870	0.9986	0.9999	1.0001	1.0001
	2100.	0.7472	0.7900	0.9139	0.9872	0.9988	1.0001	1.0002	1.0002
	4500.	0.7484	0.7908	0.9142	0.9873	0.9989	1.0002	1.0003	1.0004
16	300.	0.9380	0.9466	0.9775	0.9964	0.9996	1.0000	1.0000	1.0000
	800.	0.9381	0.9467	0.9776	0.9965	0.9997	1.0000	1.0000	1.0001
	2100.	0.9382	0.9468	0.9777	0.9966	0.9998	1.0001	1.0001	1.0001
	4500.	0.9384	0.9470	0.9778	0.9967	0.9999	1.0002	1.0002	1.0002
17	300.	0.9990	0.9992	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9991	0.9992	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9991	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9991	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
18	300.	0.9973	0.9976	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9978	0.9981	0.9991	0.9998	0.9999	0.9999	0.9999	0.9999
	2100.	0.9981	0.9985	0.9994	0.9998	0.9999	0.9999	0.9999	0.9999
	4500.	0.9984	0.9987	0.9984	0.9998	0.9999	0.9999	0.9999	0.9999
19	300.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	0.6685	0.6760	0.7334	0.9041	0.9872	0.9987	0.9999	1.0000
	800.	0.6685	0.6760	0.7334	0.9042	0.9873	0.9987	0.9999	1.0000
	2100.	0.6685	0.6760	0.7334	0.9043	0.9873	0.9987	0.9999	1.0000
	4500.	0.6685	0.6760	0.7335	0.9044	0.9873	0.9987	0.9999	1.0000
22	300.	0.9043	0.9101	0.9428	0.9872	0.9986	0.9999	1.0000	1.0000
	800.	0.9044	0.9101	0.9429	0.9874	0.9987	1.0000	1.0001	1.0001
	2100.	0.9044	0.9101	0.9430	0.9876	0.9989	1.0002	1.0004	1.0004
	4500.	0.9044	0.9102	0.9431	0.9878	0.9992	1.0005	1.0007	1.0007
23	300.	1.0000	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0023	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0026	1.0023	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0012	1.0014	1.0010	1.0000	1.0000	1.0000	1.0000	1.0000
24	300.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NA-11-J2		REACTION = TOTAL				FOR	1TH	R-PARAMETER	
						PAGE	3 OF	6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
26	300.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
27	300.	0.9990	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9990	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9990	0.9992	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9990	0.9992	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
28	300.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9979	0.9982	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
29	300.	0.9946	0.9953	0.9980	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9946	0.9953	0.9980	0.9998	1.0001	1.0001	1.0001	1.0001
	2100.	0.9947	0.9953	0.9979	0.9998	1.0001	1.0002	1.0002	1.0002
	4500.	0.9946	0.9953	0.9981	0.9998	1.0001	1.0001	1.0001	1.0001
30	300.	0.9846	0.9860	0.9929	0.9988	0.9999	1.0000	1.0000	1.0000
	800.	0.9846	0.9861	0.9929	0.9988	0.9999	1.0000	1.0000	1.0000
	2100.	0.9846	0.9861	0.9930	0.9989	1.0000	1.0001	1.0001	1.0001
	4500.	0.9847	0.9862	0.9930	0.9990	1.0000	1.0002	1.0002	1.0002
31	300.	0.9467	0.9500	0.9685	0.9934	0.9992	0.9999	1.0000	1.0000
	800.	0.9468	0.9501	0.9685	0.9934	0.9993	1.0000	1.0001	1.0001
	2100.	0.9469	0.9502	0.9686	0.9935	0.9995	1.0001	1.0002	1.0002
	4500.	0.9470	0.9503	0.9688	0.9937	0.9996	1.0003	1.0004	1.0004
32	300.	0.7722	0.7766	0.8124	0.9252	0.9891	0.9989	0.9999	1.0000
	800.	0.7723	0.7767	0.8125	0.9254	0.9893	0.9991	1.0001	1.0002
	2100.	0.7725	0.7769	0.8127	0.9257	0.9897	0.9995	1.0005	1.0006
	4500.	0.7727	0.7771	0.8130	0.9260	0.9902	0.9999	1.0010	1.0011
33	300.	0.5978	0.5996	0.6162	0.7262	0.9268	0.9912	0.9991	0.9999
	800.	0.5981	0.5998	0.6164	0.7265	0.9268	0.9910	0.9989	0.9998
	2100.	0.5985	0.6002	0.6168	0.7268	0.9268	0.9908	0.9987	0.9995
	4500.	0.5989	0.6007	0.6173	0.7272	0.9268	0.9905	0.9984	0.9992
34	300.	0.5200	0.5258	0.5748	0.7765	0.9590	0.9954	0.9995	1.0000
	800.	0.5202	0.5260	0.5750	0.7768	0.9595	0.9960	1.0001	1.0005
	2100.	0.5206	0.5264	0.5754	0.7773	0.9604	0.9969	1.0011	1.0015
	4500.	0.5211	0.5269	0.5758	0.7780	0.9615	0.9981	1.0023	1.0027
35	300.	0.8804	0.8894	0.9365	0.9878	0.9987	0.9999	1.0000	1.0000
	800.	0.8806	0.8896	0.9368	0.9881	0.9989	1.0001	1.0003	1.0003
	2100.	0.8809	0.8899	0.9371	0.9885	0.9994	1.0006	1.0007	1.0007
	4500.	0.8813	0.8903	0.9376	0.9891	1.0000	1.0012	1.0013	1.0013
36	300.	0.9722	0.9762	0.9903	0.9986	0.9999	1.0000	1.0000	1.0000
	800.	0.9724	0.9764	0.9905	0.9988	1.0000	1.0002	1.0002	1.0002
	2100.	0.9727	0.9767	0.9908	0.9991	1.0003	1.0005	1.0005	1.0005
	4500.	0.9731	0.9771	0.9912	0.9995	1.0007	1.0008	1.0009	1.0009

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NA-11-J2		REACTION = ELASTIC REMOVAL				FOR	1TH	R-PARAMETER	
						PAGE	1 OF	2	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9847	0.9900	0.9978	0.9998	1.0000	1.0000	1.0000	1.0000
2	300.	0.9532	0.9684	0.9925	0.9992	0.9999	1.0000	1.0000	1.0000
3	300.	0.9870	0.9912	0.9979	0.9998	0.9998	1.0000	1.0000	1.0000
4	300.	0.9557	0.9685	0.9918	0.9991	0.9999	1.0000	1.0000	1.0000
5	300.	0.9984	0.9984	0.9995	1.0000	1.0002	1.0000	1.0000	1.0000
6	300.	0.9367	0.9522	0.9861	0.9982	0.9997	1.0000	1.0000	1.0000
7	300.	1.0275	1.0212	1.0063	1.0008	1.0001	1.0000	1.0000	1.0000
8	300.	0.9936	0.9973	1.0009	1.0002	1.0000	1.0000	1.0000	1.0000
9	300.	0.8793	0.9026	0.9704	0.9956	0.9996	1.0000	1.0000	1.0000
10	300.	0.9232	0.9376	0.9783	0.9969	0.9997	1.0000	1.0000	1.0000
11	300.	0.9602	0.9649	0.9838	0.9975	0.9997	1.0000	1.0000	1.0000
12	300.	1.2164	1.1701	1.0548	1.0072	1.0006	1.0001	1.0000	1.0000
13	300.	0.8173	0.8537	0.9504	0.9934	0.9993	0.9999	1.0000	1.0000
14	300.	0.9666	0.9720	0.9892	0.9984	0.9998	1.0000	1.0000	1.0000
15	300.	0.6256	0.6886	0.8770	0.9821	0.9981	0.9998	1.0000	1.0000
16	300.	1.0494	1.0392	1.0121	1.0013	1.0001	1.0000	1.0000	1.0000
17	300.	0.9777	0.9822	0.9941	0.9992	0.9999	1.0000	1.0000	1.0000
18	300.	0.9860	0.9874	0.9952	0.9993	0.9999	1.0000	1.0000	1.0000
19	300.	0.9914	0.9930	0.9976	0.9997	1.0000	1.0000	1.0000	1.0000
20	300.	0.9889	0.9909	0.9968	0.9996	1.0000	1.0000	1.0000	1.0000
21	300.	0.4248	0.4524	0.6138	0.8925	0.9867	0.9986	0.9999	1.0000
22	300.	1.0987	1.0865	1.0405	1.0068	1.0007	1.0001	1.0000	1.0000
23	300.	0.9941	0.9951	0.9982	0.9998	1.0000	1.0000	1.0000	1.0000
24	300.	0.9919	0.9933	0.9975	0.9997	1.0000	1.0000	1.0000	1.0000
25	300.	0.9883	0.9902	0.9963	0.9995	0.9999	1.0000	1.0000	1.0000
26	300.	0.9845	0.9869	0.9950	0.9993	0.9999	1.0000	1.0000	1.0000
27	300.	0.9762	0.9798	0.9919	0.9988	0.9999	1.0000	1.0000	1.0000
28	300.	0.9651	0.9699	0.9874	0.9981	0.9998	1.0000	1.0000	1.0000
29	300.	0.9488	0.9550	0.9798	0.9969	0.9997	1.0000	1.0000	1.0000
30	300.	0.9064	0.9155	0.9569	0.9927	0.9992	0.9999	1.0000	1.0000
31	300.	0.8211	0.8322	0.8963	0.9784	0.9976	0.9998	1.0000	1.0000
32	300.	0.5905	0.5996	0.6707	0.8768	0.9827	0.9982	0.9998	1.0000
33	300.	0.6153	0.6174	0.6368	0.7545	0.9385	0.9927	0.9993	0.9999
34	300.	1.4117	1.4032	1.3374	1.1389	1.0213	1.0022	1.0002	1.0000
35	300.	1.2327	1.2123	1.1142	1.0206	1.0022	1.0002	1.0000	1.0000
36	300.	1.1158	1.0982	1.0391	1.0056	1.0006	1.0001	1.0000	1.0000
37	300.	1.0541	1.0438	1.0150	1.0020	1.0002	1.0000	1.0000	1.0000
38	300.	1.0203	1.0160	1.0052	1.0007	1.0001	1.0000	1.0000	1.0000
39	300.	1.0072	1.0057	1.0018	1.0002	1.0000	1.0000	1.0000	1.0000
40	300.	1.0016	1.0013	1.0004	1.0000	1.0000	1.0000	1.0000	1.0000
41	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
42	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
43	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
44	300.	0.9996	0.9997	0.9999	1.0000	1.0000	0.9999	1.0000	1.0000
45	300.	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

JAERI-M 82-135

NUCLID = AL-13-J2 CODE NO = 13
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1 0.0	0.0	1.3723E-01	7.6702E-01	8.2461E-01	4.5100E-01	1.9646E-01	0.0	1.7289E+00
2 0.0	0.0	6.5048E-02	8.6431E-01	9.6476E-01	4.1073E-01	2.2064E-01	0.0	1.8941E+00
3 0.0	0.0	3.0764E-02	8.6642E-01	1.1503E+00	3.9489E-01	2.5380E-01	0.0	2.0475E+00
4 0.0	0.0	9.6945E-03	7.7939E-01	1.5041E+00	3.9255E-01	3.3125E-01	0.0	2.2952E+00
5 0.0	0.0	3.0050E-03	6.5314E-01	1.9447E+00	3.9480E-01	3.9300E-01	0.0	2.6009E+00
6 0.0	0.0	2.9451E-04	4.6998E-01	2.4841E+00	3.6257E-01	4.8720E-01	0.0	2.9544E+00
7 0.0	0.0	1.4104E-04	3.2200E-01	2.6459E+00	3.2561E-01	5.1734E-01	0.0	2.9680E+00
8 0.0	0.0	1.2711E-04	1.9268E-01	2.8093E+00	2.7189E-01	6.4388E-01	0.0	3.0021E+00
9 0.0	0.0	1.2496E-04	9.2600E-02	3.1319E+00	2.1427E-01	6.8849E-01	0.0	3.2246E+00
10 0.0	0.0	1.7547E-04	1.2495E-02	3.3298E+00	1.6367E-01	1.0843E+00	0.0	3.3424E+00
11 0.0	0.0	2.9375E-04	0.0	3.9317E+00	1.2257E-01	9.9926E-01	0.0	3.9320E+00
12 0.0	0.0	3.6361E-04	0.0	3.8720E+00	8.3218E-02	1.0874E+00	0.0	3.8724E+00
13 0.0	0.0	6.5688E-04	0.0	4.2737E+00	5.6255E-02	1.0010E+00	0.0	4.2743E+00
14 0.0	0.0	8.0933E-04	0.0	3.8447E+00	3.6846E-02	1.1918E+00	0.0	3.8455E+00
15 0.0	0.0	7.4203E-04	0.0	3.4258E+00	2.5586E-02	7.8485E-01	0.0	3.4265E+00
16 0.0	0.0	8.5235E-04	0.0	4.7820E+00	1.9562E-02	1.1581E+00	0.0	4.7828E+00
17 0.0	0.0	1.5488E-03	0.0	8.1339E+00	1.4069E-02	2.8767E+00	0.0	8.1354E+00
18 0.0	0.0	2.3546E-03	0.0	4.0508E+00	1.3430E-02	1.2687E+00	0.0	4.0532E+00
19 0.0	0.0	2.3885E-03	0.0	9.7006E+00	1.4563E-02	4.3807E+00	0.0	9.7030E+00
20 0.0	0.0	1.9186E-03	0.0	4.3812E+00	1.5393E-02	4.7919E-01	0.0	4.3832E+00
21 0.0	0.0	1.0099E-03	0.0	1.9603E+00	1.7203E-02	5.5590E-01	0.0	1.9613E+00
22 0.0	0.0	2.2216E-03	0.0	3.6965E+00	1.8882E-02	1.2874E+00	0.0	3.6987E+00
23 0.0	0.0	1.5481E-02	0.0	1.6656E+01	2.0426E-02	4.8085E+00	0.0	1.6672E+01
24 0.0	0.0	5.4682E-03	0.0	1.1982E+00	2.4905E-02	1.5897E-01	0.0	1.2037E+00
25 0.0	0.0	3.1913E-03	0.0	6.4197E-01	2.4905E-02	1.9358E-01	0.0	6.4516E-01
26 0.0	0.0	2.7351E-03	0.0	8.9737E-01	2.4905E-02	2.6895E-01	0.0	9.0011E-01
27 0.0	0.0	2.6533E-03	0.0	1.1874E+00	2.4905E-02	2.9882E-01	0.0	1.1900E+00
28 0.0	0.0	2.9337E-03	0.0	1.2755E+00	2.4905E-02	3.1396E-01	0.0	1.2784E+00
29 0.0	0.0	3.8925E-03	0.0	1.3028E+00	2.4905E-02	3.6808E-01	0.0	1.3067E+00
30 0.0	0.0	1.0301E-01	0.0	2.3808E+00	2.4905E-02	8.9495E-01	0.0	2.4838E+00
31 0.0	0.0	4.0838E-03	0.0	1.4174E+00	2.4905E-02	3.6639E-01	0.0	1.4215E+00
32 0.0	0.0	2.8610E-03	0.0	1.4690E+00	2.4905E-02	3.5245E-01	0.0	1.4719E+00
33 0.0	0.0	2.2688E-03	0.0	1.5048E+00	2.4905E-02	3.9314E-01	0.0	1.5071E+00
34 0.0	0.0	1.9260E-03	0.0	1.5128E+00	2.4905E-02	4.3825E-01	0.0	1.5148E+00
35 0.0	0.0	1.7440E-03	0.0	1.5162E+00	2.4905E-02	3.9604E-01	0.0	1.5180E+00
36 0.0	0.0	1.6438E-03	0.0	1.5190E+00	2.4905E-02	3.8529E-01	0.0	1.5206E+00
37 0.0	0.0	1.6112E-03	0.0	1.5211E+00	2.4905E-02	3.6639E-01	0.0	1.5227E+00
38 0.0	0.0	1.6170E-03	0.0	1.5228E+00	2.4905E-02	3.7352E-01	0.0	1.5244E+00
39 0.0	0.0	1.6987E-03	0.0	1.5241E+00	2.4905E-02	3.7523E-01	0.0	1.5258E+00
40 0.0	0.0	1.7965E-03	0.0	1.5251E+00	2.4905E-02	3.6021E-01	0.0	1.5269E+00

TO BE CONTINUED

NUCLID = AL-13-J2 CODE NO = 13
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41 0.0	0.0	1.9859E-03	0.0	1.5259E+00	2.4905E-02	3.6982E-01	0.0	1.5278E+00
42 0.0	0.0	2.2187E-03	0.0	1.5265E+00	2.4905E-02	3.5754E-01	0.0	1.5287E+00
43 0.0	0.0	2.4643E-03	0.0	1.5269E+00	2.4905E-02	3.4343E-01	0.0	1.5294E+00
44 0.0	0.0	2.7596E-03	0.0	1.5273E+00	2.4905E-02	3.4642E-01	0.0	1.5301E+00
45 0.0	0.0	3.0718E-03	0.0	1.5276E+00	2.4905E-02	3.4145E-01	0.0	1.5307E+00
46 0.0	0.0	3.4223E-03	0.0	1.5278E+00	2.4905E-02	3.1728E-01	0.0	1.5312E+00
47 0.0	0.0	3.8477E-03	0.0	1.5280E+00	2.4905E-02	2.9956E-01	0.0	1.5318E+00
48 0.0	0.0	4.3580E-03	0.0	1.5281E+00	2.4905E-02	2.9381E-01	0.0	1.5325E+00
49 0.0	0.0	4.9296E-03	0.0	1.5282E+00	2.4905E-02	2.7789E-01	0.0	1.5332E+00
50 0.0	0.0	5.5759E-03	0.0	1.5283E+00	2.4905E-02	2.6264E-01	0.0	1.5339E+00
51 0.0	0.0	6.3645E-03	0.0	1.5284E+00	2.4905E-02	3.4480E-01	0.0	1.5348E+00
52 0.0	0.0	7.1873E-03	0.0	1.5285E+00	2.4905E-02	3.2261E-01	0.0	1.5356E+00
53 0.0	0.0	8.0756E-03	0.0	1.5285E+00	2.4905E-02	2.2120E-01	0.0	1.5366E+00
54 0.0	0.0	9.1872E-03	0.0	1.5285E+00	2.4905E-02	2.5655E-01	0.0	1.5377E+00
55 0.0	0.0	1.0421E-02	0.0	1.5285E+00	2.4905E-02	2.5550E-01	0.0	1.5390E+00
56 0.0	0.0	1.1893E-02	0.0	1.5286E+00	2.4905E-02	3.4637E-01	0.0	1.5405E+00
57 0.0	0.0	1.3508E-02	0.0	1.5286E+00	2.4905E-02	3.5626E-01	0.0	1.5421E+00
58 0.0	0.0	1.5319E-02	0.0	1.5286E+00	2.4905E-02	3.5624E-01	0.0	1.5439E+00
59 0.0	0.0	1.7320E-02	0.0	1.5286E+00	2.4905E-02	3.5626E-01	0.0	1.5459E+00
60 0.0	0.0	1.9679E-02	0.0	1.5286E+00	2.4905E-02	3.5622E-01	0.0	1.5483E+00
61 0.0	0.0	2.2209E-02	0.0	1.5286E+00	2.4905E-02	3.5629E-01	0.0	1.5508E+00
62 0.0	0.0	2.5205E-02	0.0	1.5286E+00	2.4905E-02	3.5624E-01	0.0	1.5538E+00
63 0.0	0.0	2.8606E-02	0.0	1.5286E+00	2.4905E-02	3.5627E-01	0.0	1.5572E+00
64 0.0	0.0	3.2451E-02	0.0	1.5286E+00	2.4905E-02	3.5631E-01	0.0	1.5611E+00
65 0.0	0.0	3.6699E-02	0.0	1.5286E+00	2.4905E-02	3.5616E-01	0.0	1.5653E+00
66 0.0	0.0	4.1714E-02	0.0	1.5286E+00	2.4905E-02	3.5627E-01	0.0	1.5703E+00
67 0.0	0.0	4.7342E-02	0.0	1.5286E+00	2.4905E-02	3.5626E-01	0.0	1.5760E+00
68 0.0	0.0	5.3426E-02	0.0	1.5286E+00	2.4905E-02	3.5623E-01	0.0	1.5821E+00
69 0.0	0.0	6.0782E-02	0.0	1.5286E+00	2.4905E-02	3.5628E-01	0.0	1.5894E+00
70 0.0	0.0	7.9216E-02	0.0	1.5391E+00	2.4905E-02	0.0	0.0	1.6183E+00

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NUCLID = AL-13-J2 CODE NUMBER = 13 IPL = 0

TABLE OF INELASTIC MATRICES										PAGE 1 OF 2	
GROUP	EXIT	GROUP	** KK **	KK	= I + J - 1						
I	J				1	2	3	4	5	6	7
1	1	2	3	4	5	6	7	8	9	10	
11	12	13	14	15	16	17	18	19	20		
21	22	23	24	25	26	27	28	29	30		
31	32	33	34	35	36	37	38	39	40		
41	42	43	44	45	46	47	48	49	50		
51	52	53	54	55	56	57	58	59	60		
61	62	63	64								
1	3.91262E-03	4.79440E-02	6.90524E-02	9.84226E-02	1.01245E-01	1.00753E-01	8.99652E-02	7.37548E-02	5.66187E-02	4.12495E-02	
	2.88627E-02	1.95696E-02	1.29459E-02	8.40151E-03	5.37086E-03	3.39438E-03	2.12601E-03	1.32170E-03	8.17419E-04	5.03349E-04	
	3.08895E-04	1.89076E-04	1.15508E-04	7.04467E-05	4.29158E-05	2.61222E-05	1.58795E-05	9.65381E-06	5.86415E-06	3.56115E-06	
	2.16200E-06	1.31233E-06	7.96393E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
2	5.56096E-03	8.14992E-02	1.25225E-01	8.71393E-02	1.23295E-01	1.07655E-01	9.18473E-02	7.27382E-02	5.42977E-02	3.87203E-02	
	2.66445E-02	1.78307E-02	1.16761E-02	7.51671E-03	4.77656E-03	3.00448E-03	1.87402E-03	1.16200E-03	7.16977E-04	4.40684E-04	
	2.70074E-04	1.65148E-04	1.00795E-04	6.14394E-05	3.74141E-05	2.27516E-05	1.38355E-05	8.40606E-06	5.10563E-06	3.10007E-06	
	1.88192E-06	1.14214E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
3	5.36736E-03	9.97717E-02	1.72214E-01	1.38503E-01	7.61292E-02	7.57034E-02	8.63194E-02	6.60850E-02	4.81490E-02	3.36925E-02	
	2.28437E-02	1.51119E-02	9.80610E-03	6.27002E-03	3.96292E-03	2.48114E-03	1.54296E-03	9.54207E-04	5.87536E-04	3.60571E-04	
	2.20723E-04	1.34828E-04	8.22376E-05	5.01049E-05	3.04810E-05	1.85415E-05	1.12680E-05	6.84519E-06	4.15691E-06	2.52377E-06	
	1.53182E-06	9.29695E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
4	1.45338E-03	8.69979E-02	1.72199E-01	1.71222E-01	1.13848E-01	8.11196E-02	5.16322E-02	2.84072E-02	1.8616E-02	1.24121E-03	
	8.50477E-03	1.86687E-02	1.20139E-02	7.63145E-03	4.79668E-03	2.99203E-03	1.85474E-03	1.14414E-03	7.03168E-04	4.30926E-04	
	2.63460E-04	1.60805E-04	9.80255E-05	5.96578E-05	3.63013E-05	2.20665E-05	1.34078E-05	8.16434E-06	4.94468E-06	3.00148E-06	
	1.82180E-06	1.10561E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
5	0.0	5.38734E-02	1.18051E-01	1.28023E-01	1.37530E-01	7.07575E-02	4.02495E-02	3.32600E-02	2.51462E-02	1.72303E-02	
	1.09203E-02	6.83821E-03	4.28278E-03	2.66700E-03	1.65145E-03	1.02387E-03	6.36542E-04	3.87360E-04	2.37289E-04	1.45345E-04	
	8.63303E-05	4.97945E-05	3.07743E-05	2.02482E-05	1.33087E-05	9.16306E-06	7.12036E-06	3.90925E-06	3.65416E-06	2.50291E-06	
	1.27695E-06	1.32408E-06	1.39209E-06	1.30332E-06	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

TO BE CONTINUED

NUCLID = AL-13-J2 CODE NUMBER = 13 IPL = 0

TABLE OF INELASTIC MATRICES										PAGE 2 OF 2	
GROUP	EXIT	GROUP	** KK **	KK	= I + J - 1						
I	J				1	2	3	4	5	6	7
1	1	2	3	4	5	6	7	8	9	10	
11	12	13	14	15	16	17	18	19	20		
21	22	23	24	25	26	27	28	29	30		
31	32	33	34	35	36	37	38	39	40		
41	42	43	44	45	46	47	48	49	50		
51	52	53	54	55	56	57	58	59	60		
61	62	63	64								
6	0.0	1.53195E-02	1.09328E-01	7.86490E-02	6.60647E-02	7.06999E-02	5.41203E-02	3.57149E-02	1.88039E-02	8.05012E-03	
	4.18571E-03	2.58190E-03	1.59267E-03	9.81997E-04	6.07563E-04	3.83331E-04	3.81308E-04	3.89040E-04	3.72017E-04	3.51286E-04	
	3.34559E-04	3.14365E-04	2.22828E-04	1.50241E-04	1.03385E-04	7.03040E-05	5.05307E-05	3.49484E-05	2.56253E-05	1.94733E-05	
	1.47870E-05	1.08194E-05	8.56372E-06	6.99184E-06	5.73231E-06	4.77541E-06	4.13051E-06	3.46877E-06	3.03188E-06	2.75135E-06	
	2.40988E-06	1.75899E-06	1.37371E-06	1.40086E-06	9.16388E-07	9.96522E-07	9.38517E-07	5.40676E-07	6.13210E-07	6.95740E-07	
	5.36040E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
7	0.0	2.90943E-04	4.56423E-02	1.03376E-01	5.56989E-02	8.67618E-03	1.80325E-02	2.11709E-02	2.23276E-02	1.64702E-02	
	1.07757E-02	7.11053E-03	4.67207E-03	3.00046E-03	1.87304E-03	1.15968E-03	7.01655E-04	4.20018E-04	2.44454E-04	1.37170E-04	
	7.39024E-05	4.54796E-05	2.96193E-05	1.98593E-05	1.33377E-05	9.50606E-06	6.31869E-06	4.45390E-06	3.13677E-06	3.10880E-06	
	1.08794E-06	1.11711E-06	1.16373E-06	1.22861E-06	7.73798E-07	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	3.58924E-07	4.07556E-07	5.64838E-07							
8	0.0	0.0	2.46054E-03	3.50344E-02	7.12358E-02	4.77142E-02	2.50886E-02	6.66947E-03	0.0	0.0	
	0.0	0.0	0.0	0.0	6.96232E-07	2.49783E-04	5.12111E-04	6.20430E-04	6.63842E-04	6.83958E-04	
	5.56615E-04	3.63222E-04	2.41223E-04	1.62769E-04	1.11446E-04	7.72940E-05	5.42127E-05	3.85588E-05	2.80065E-05	2.07878E-05	
	1.58378E-05	1.22645E-05	9.62244E-06	7.83379E-06	6.28189E-06	5.19546E-06	4.42467E-06	3.62462E-06	3.05300E-06	2.63282E-06	
	2.43423E-06	1.74610E-06	1.96744E-06	1.24495E-06	1.23105E-06	1.27736E-06	1.00819E-06	6.68159E-07	6.84224E-07	7.72469E-07	
	5.49334E-07	4.51608E-07	5.12303E-07	5.80886E-07	0.0	0.0	0.0	2.09796E-07	2.36600E-07	2.67149E-07	
	3.01896E-07	3.41315E-07	4.02660E-07	0.0							
9	0.0	0.0	0.0	3.68456E-05	1.10557E-02	1.59667E-02	2.23328E-02	1.96168E-02	1.02918E-02	5.08839E-03	
	3.13860E-03	1.93603E-03	1.19383E-03	7.36462E-04	4.55002E-04	2.81695E-04	1.75471E-04	1.07927E-04	6.86266E-05	4.37857E-05	
	2.69531E-05	1.72076E-05	1.08887E-05	7.32998E-06	4.38806E-06	2.91239E-06	1.61454E-06	1.69799E-06	2.75137E-07	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
10	0.0	0.0	0.0	0.0	0.0	0.0	2.26329E-04	2.57540E-03	3.28854E-03	2.16345E-03	
	1.38027E-03	8.83319E-04	5.69915E-04	3.70448E-04	2.42083E-04	1.56333E-04	9.96249E-05	6.27414E-05	3.95635E-05	2.94808E-05	
	3.37758E-05	3.22927E-05	3.10192E-05	2.86216E-05	2.58015E-05	2.28369E-05	1.99527E-05	1.82972E-05	1.75092E-05	1.72019E-05	
	1.76657E-05	1.83935E-05	1.88932E-05	1.60034E-05	1.30647E-05	1.08025E-05	9.01522E-06	7.60659E-06	6.46373E-06	5.52155E-06	
	4.73675E-06	4.08879E-06	3.55829E-06	3.08659E-06	2.69774E-06	2.34598E-06	2.08807E-06	1.85576E-06	1.50508E-06	1.29833E-06	
	1.15206E-06	9.66646E-07	9.08986E-07	7.24936E-07	7.23909E-07	5.19167E-07	5.74851E-07	4.61389E-07	3.21638E-07	3.64513E-07	
	2.51246E-06	0.0	0.0	0.0							

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AL-13-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	1.0071	1.0033	1.0005	1.0001	1.0000	1.0000	1.0000	1.0000
	800.	1.0071	1.0034	1.0005	1.0001	1.0000	1.0000	1.0000	1.0000
	2100.	1.0071	1.0034	1.0005	1.0001	1.0000	1.0000	1.0000	1.0000
	4500.	1.0071	1.0034	1.0006	1.0001	1.0001	1.0001	1.0001	1.0001
26	300.	1.0018	1.0009	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0018	1.0010	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0018	1.0010	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0019	1.0010	1.0002	1.0001	1.0001	1.0001	1.0001	1.0001
27	300.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9999	1.0000	1.0001	1.0001	1.0001	1.0001	1.0001
28	300.	1.0001	1.0001	1.0001	1.0001	1.0001	1.0000	1.0000	1.0000
	800.	1.0001	1.0002	1.0001	1.0001	1.0001	1.0000	1.0000	1.0000
	2100.	1.0002	1.0003	1.0002	1.0001	1.0001	1.0000	1.0001	1.0001
	4500.	1.0003	1.0003	1.0002	1.0002	1.0002	1.0001	1.0001	1.0001
29	300.	0.9987	0.9992	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9988	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9988	0.9993	1.0000	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	0.9989	0.9994	1.0000	1.0002	1.0002	1.0002	1.0002	1.0002
30	300.	0.1611	0.1913	0.3527	0.7330	0.9582	0.9956	0.9996	1.0000
	800.	0.1623	0.1935	0.3630	0.7540	0.9635	0.9962	0.9997	1.0000
	2100.	0.1653	0.1987	0.3849	0.7839	0.9705	0.9971	0.9999	1.0002
	4500.	0.1706	0.2075	0.4147	0.8189	0.9766	0.9979	1.0001	1.0004
31	300.	1.0014	1.0009	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0015	1.0010	1.0003	1.0001	1.0001	1.0001	1.0001	1.0001
	2100.	1.0017	1.0012	1.0005	1.0003	1.0003	1.0003	1.0003	1.0003
	4500.	1.0019	1.0014	1.0007	1.0005	1.0006	1.0005	1.0005	1.0005
32	300.	1.0006	1.0004	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0006	1.0004	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0007	1.0004	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	1.0007	1.0005	1.0002	1.0001	1.0001	1.0001	1.0001	1.0001
33	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0001	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0002	1.0002	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	1.0003	1.0003	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002
34	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
35	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002
36	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AL-13-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 1 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9983	0.9989	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9983	0.9989	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9983	0.9989	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9983	0.9989	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9987	0.9991	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9987	0.9991	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9987	0.9991	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9987	0.9991	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9990	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9990	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9990	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9990	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	0.9937	0.9954	0.9988	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9937	0.9954	0.9988	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9937	0.9954	0.9988	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9937	0.9954	0.9988	0.9999	1.0000	1.0000	1.0000	1.0000
5	300.	0.9995	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9994	0.9993	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999
	4500.	0.9994	0.9993	0.9998	0.9999	0.9999	0.9999	0.9999	0.9999
6	300.	0.9729	0.9789	0.9934	0.9992	0.9999	1.0000	1.0000	1.0000
	800.	0.9730	0.9789	0.9934	0.9992	0.9999	1.0000	1.0000	1.0000
	2100.	0.9731	0.9790	0.9935	0.9992	1.0000	1.0001	1.0001	1.0001
	4500.	0.9732	0.9791	0.9936	0.9993	1.0000	1.0001	1.0001	1.0001
7	300.	0.9773	0.9898	0.9948	0.9994	1.0000	1.0000	1.0000	1.0000
	800.	0.9775	0.9899	0.9949	0.9995	1.0001	1.0001	1.0001	1.0001
	2100.	0.9777	0.9830	0.9950	0.9996	1.0002	1.0002	1.0002	1.0002
	4500.	0.9780	0.9832	0.9952	0.9997	1.0003	1.0003	1.0003	1.0003
8	300.	0.9870	0.9897	0.9968	0.9995	1.0000	1.0000	1.0000	1.0000
	800.	0.9872	0.9899	0.9970	0.9997	1.0001	1.0002	1.0002	1.0002
	2100.	0.9875	0.9902	0.9972	1.0001	1.0004	1.0004	1.0004	1.0004
	4500.	0.9879	0.9906	0.9976	1.0004	1.0007	1.0007	1.0007	1.0007
9	300.	0.9683	0.9746	0.9913	0.9989	0.9999	1.0000	1.0000	1.0000
	800.	0.9683	0.9747	0.9914	0.9989	0.9999	1.0001	1.0001	1.0001
	2100.	0.9685	0.9748	0.9915	0.9991	1.0000	1.0002	1.0002	1.0002
	4500.	0.9687	0.9750	0.9916	0.9992	1.0002	1.0003	1.0003	1.0003
10	300.	0.9645	0.9720	0.9907	0.9987	0.9999	1.0000	1.0000	1.0000
	800.	0.9646	0.9721	0.9907	0.9988	0.9999	1.0000	1.0000	1.0000
	2100.	0.9647	0.9722	0.9908	0.9988	0.9999	1.0000	1.0000	1.0000
	4500.	0.9649	0.9723	0.9909	0.9988	1.0000	1.0001	1.0001	1.0001
11	300.	0.9426	0.9516	0.9806	0.9973	0.9997	1.0000	1.0000	1.0000
	800.	0.9429	0.9519	0.9808	0.9975	0.9998	1.0001	1.0002	1.0002
	2100.	0.9433	0.9523	0.9811	0.9978	1.0001	1.0004	1.0005	1.0005
	4500.	0.9439	0.9528	0.9816	0.9982	1.0005	1.0008	1.0008	1.0008
12	300.	0.9669	0.9728	0.9901	0.9985	0.9997	1.0000	1.0000	1.0000
	800.	0.9671	0.9730	0.9902	0.9986	0.9998	1.0000	1.0001	1.0001
	2100.	0.9677	0.9734	0.9904	0.9988	1.0000	1.0001	1.0003	1.0003
	4500.	0.9681	0.9739	0.9907	0.9990	1.0002	1.0003	1.0005	1.0005

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AL-13-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 2 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.9615	0.9686	0.9887	0.9984	0.9998	1.0000	1.0000	1.0000
	800.	0.9616	0.9687	0.9887	0.9984	0.9998	1.0000	1.0000	1.0000
	2100.	0.9617	0.9688	0.9887	0.9984	0.9998	1.0000	1.0000	1.0000
	4500.	0.9618	0.9689	0.9888	0.9984	0.9998	1.0000	1.0000	1.0000
14	300.	0.8820	0.9052	0.9642	0.9948	0.9994	1.0000	1.0000	1.0000
	800.	0.8829	0.9059	0.9645	0.9950	0.9996	1.0001	1.0002	1.0002
	2100.	0.8844	0.9070	0.9651	0.9953	0.9999	1.0004	1.0005	1.0005
	4500.	0.8841	0.9082	0.9657	0.9957	1.0002	1.0008	1.0008	1.0008
15	300.	0.8091	0.8522	0.9513	0.9931	0.9993	1.0000	1.0000	1.0000
	800.	0.8100	0.8530	0.9518	0.9935	0.9997	1.0003	1.0004	1.0004
	2100.	0.8114	0.8542	0.9526	0.9941	1.0003	1.0009	1.0009	1.0009
	4500.	0.8132	0.8556	0.9535	0.9948	1.0010	1.0016	1.0016	1.0016
16	300.	0.9263	0.9369	0.9741	0.9961	0.9996	1.0000	1.0000	1.0000
	800.	0.9245	0.9371	0.9742	0.9961	0.9997	1.0000	1.0000	1.0001
	2100.	0.9268	0.9374	0.9744	0.9962	0.9997	1.0001	1.0001	1.0001
	4500.	0.9271	0.9377	0.9746	0.9964	0.9999	1.0002	1.0002	1.0002
17	300.	0.8312	0.8502	0.9276	0.9878	0.9987	0.9999	1.0000	1.0000
	800.	0.8313	0.8503	0.9277	0.9878	0.9987	0.9999	1.0000	1.0000
	2100.	0.8316	0.8505	0.9279	0.9878	0.9988	0.9999	1.0000	1.0001
	4500.	0.8318	0.8508	0.9280	0.9879	0.9988	1.0000	1.0001	1.0001
18	300.	0.7443	0.7844	0.9081	0.9855	0.9984	0.9998	1.0000	1.0000
	800.	0.7444	0.7845	0.9081	0.9855	0.9985	0.9999	1.0000	1.0000
	2100.	0.7445	0.7846	0.9082	0.9855	0.9985	0.9999	1.0000	1.0001
	4500.	0.7447	0.7848	0.9083	0.9856	0.9986	1.0000	1.0001	1.0001
19	300.	0.7457	0.7677	0.8714	0.9754	0.9973	0.9997	1.0000	1.0000
	800.	0.7457	0.7677	0.8714	0.9754	0.9972	0.9997	0.9999	1.0000
	2100.	0.7457	0.7678	0.8714	0.9754	0.9972	0.9996	0.9999	0.9999
	4500.	0.7458	0.7678	0.8714	0.9753	0.9971	0.9996	0.9998	0.9998
20	300.	0.6563	0.7002	0.8576	0.9758	0.9974	0.9997	1.0000	1.0000
	800.	0.6564	0.7003	0.8577	0.9758	0.9975	0.9998	1.0001	1.0001
	2100.	0.6564	0.7003	0.8578	0.9760	0.9976	0.9999	1.0002	1.0002
	4500.	0.6565	0.7004	0.8580	0.9761	0.9977	1.0001	1.0003	1.0004
21	300.	0.9893	0.9925	0.9981	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9894	0.9925	0.9981	0.9998	1.0000	1.0000	1.0000	1.0000
	2100.	0.9894	0.9925	0.9981	0.9998	1.0000	1.0000	1.0000	1.0000
	4500.	0.9894	0.9925	0.9981	0.9998	1.0001	1.0001	1.0001	1.0001
22	300.	0.9385	0.9492	0.9811	0.9974	0.9997	1.0000	1.0000	1.0000
	800.	0.9385	0.9493	0.9812	0.9974	0.9998	1.0000	1.0000	1.0000
	2100.	0.9386	0.9493	0.9812	0.9975	0.9998	1.0001	1.0001	1.0001
	4500.	0.9386	0.9494	0.9813	0.9976	0.9999	1.0002	1.0002	1.0002
23	300.	0.7391	0.7534	0.8358	0.9596	0.9952	0.9995	1.0000	1.0000
	800.	0.7392	0.7535	0.8359	0.9596	0.9952	0.9995	0.9999	1.0000
	2100.	0.7393	0.7536	0.8360	0.9596	0.9952	0.9995	0.9999	1.0000
	4500.	0.7395	0.7538	0.8361	0.9597	0.9952	0.9995	0.9999	1.0000
24	300.	0.6774	0.7707	0.9351	0.9922	0.9992	0.9999	1.0000	1.0000
	800.	0.6775	0.7709	0.9352	0.9924	0.9994	1.0001	1.0002	1.0002
	2100.	0.6776	0.7711	0.9355	0.9928	0.9997	1.0005	1.0005	1.0005
	4500.	0.6778	0.7713	0.9359	0.9932	1.0001	1.0009	1.0010	1.0010

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AL-13-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9878	0.9945	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9878	0.9945	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9878	0.9945	0.9992	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9879	0.9946	0.9992	1.0000	1.0001	1.0001	1.0001	1.0001
26	300.	0.9948	0.9973	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9948	0.9973	0.9995	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9948	0.9973	0.9995	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9948	0.9973	0.9995	1.0000	1.0000	1.0000	1.0000	1.0000
27	300.	0.9803	0.9870	0.9971	0.9997	1.0000	1.0000	1.0000	1.0000
	800.	0.9806	0.9873	0.9974	1.0000	1.0003	1.0003	1.0003	1.0003
	2100.	0.9811	0.9878	0.9979	1.0004	1.0007	1.0008	1.0008	1.0008
	4500.	0.9817	0.9884	0.9985	1.0010	1.0013	1.0013	1.0013	1.0013
28	300.	0.9887	0.9923	0.9982	0.9998	1.0001	1.0000	1.0000	1.0000
	800.	0.9895	0.9930	0.9989	1.0004	1.0007	1.0006	1.0006	1.0006
	2100.	0.9906	0.9943	0.9997	1.0012	1.0014	1.0014	1.0014	1.0014
	4500.	0.9920	0.9955	1.0006	1.0020	1.0022	1.0021	1.0021	1.0021
29	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	300.	0.6171	0.6310	0.7049	0.8782	0.9806	0.9979	0.9998	1.0000
	800.	0.6176	0.6320	0.7095	0.8879	0.9830	0.9983	0.9999	1.0000
	2100.	0.6190	0.6344	0.7195	0.8995	0.9863	0.9987	1.0000	1.0001
	4500.	0.6213	0.6384	0.7331	0.9174	0.9891	0.9990	1.0000	1.0001
31	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
32	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
33	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0010	1.0010	1.0010	1.0010	1.0010	1.0010	1.0010	1.0010
	2100.	1.0037	1.0037	1.0037	1.0037	1.0037	1.0037	1.0037	1.0037
	4500.	1.0084	1.0084	1.0085	1.0085	1.0085	1.0085	1.0085	1.0085
34	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0072	1.0072	1.0072	1.0072	1.0072	1.0072	1.0072	1.0072
	2100.	1.0260	1.0260	1.0260	1.0260	1.0260	1.0260	1.0260	1.0260
	4500.	1.0597	1.0597	1.0597	1.0597	1.0597	1.0597	1.0597	1.0597
35	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0124	1.0124	1.0124	1.0124	1.0124	1.0124	1.0124	1.0124
	2100.	1.0448	1.0448	1.0448	1.0448	1.0448	1.0448	1.0448	1.0448
	4500.	1.1027	1.1027	1.1027	1.1027	1.1027	1.1027	1.1027	1.1027
36	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0166	1.0166	1.0166	1.0166	1.0166	1.0166	1.0166	1.0166
	2100.	1.0597	1.0597	1.0597	1.0597	1.0597	1.0597	1.0597	1.0597
	4500.	1.1369	1.1369	1.1369	1.1369	1.1369	1.1369	1.1369	1.1369

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AL-13-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER		PAGE 1 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9978	0.9986	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9978	0.9986	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9978	0.9986	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9978	0.9986	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
2	300.	0.9986	0.9990	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9986	0.9990	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9986	0.9990	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9986	0.9990	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9991	0.9994	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9991	0.9994	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9991	0.9994	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9991	0.9994	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	0.9934	0.9952	0.9987	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9934	0.9952	0.9987	0.9998	1.0000	1.0000	1.0000	1.0000
	2100.	0.9934	0.9952	0.9987	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9934	0.9952	0.9987	0.9999	1.0000	1.0000	1.0000	1.0000
5	300.	0.9997	1.0001	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9997	1.0000	0.9995	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9997	1.0000	0.9995	0.9999	0.9999	0.9999	0.9999	0.9999
	4500.	0.9996	1.0000	0.9995	0.9999	0.9999	0.9999	0.9999	0.9999
6	300.	0.9555	0.9656	0.9890	0.9986	0.9999	1.0000	1.0000	1.0000
	800.	0.9556	0.9657	0.9890	0.9986	0.9999	1.0000	1.0000	1.0000
	2100.	0.9558	0.9658	0.9890	0.9987	0.9999	1.0000	1.0001	1.0001
	4500.	0.9559	0.9659	0.9891	0.9987	1.0000	1.0001	1.0001	1.0001
7	300.	0.9566	0.9649	0.9901	0.9988	1.0000	1.0000	1.0000	1.0000
	800.	0.9568	0.9671	0.9902	0.9989	1.0000	1.0000	1.0001	1.0001
	2100.	0.9571	0.9673	0.9904	0.9990	1.0001	1.0001	1.0001	1.0001
	4500.	0.9575	0.9677	0.9905	0.9991	1.0002	1.0002	1.0003	1.0003
8	300.	0.9742	0.9811	0.9939	0.9991	0.9999	1.0000	1.0000	1.0000
	800.	0.9764	0.9813	0.9942	0.9993	1.0001	1.0001	1.0001	1.0001
	2100.	0.9768	0.9817	0.9945	0.9995	1.0003	1.0004	1.0004	1.0004
	4500.	0.9772	0.9820	0.9948	0.9998	1.0006	1.0006	1.0007	1.0007
9	300.	0.9422	0.9537	0.9838	0.9978	0.9998	1.0000	1.0000	1.0000
	800.	0.9423	0.9538	0.9839	0.9979	0.9998	1.0000	1.0001	1.0001
	2100.	0.9425	0.9539	0.9840	0.9980	0.9999	1.0001	1.0002	1.0002
	4500.	0.9427	0.9541	0.9841	0.9981	1.0000	1.0003	1.0005	1.0005
10	300.	0.9333	0.9466	0.9820	0.9975	0.9998	1.0000	1.0000	1.0000
	800.	0.9334	0.9468	0.9821	0.9976	0.9998	1.0000	1.0000	1.0000
	2100.	0.9337	0.9470	0.9821	0.9976	0.9998	1.0000	1.0000	1.0000
	4500.	0.9340	0.9472	0.9822	0.9977	0.9999	1.0001	1.0001	1.0001
11	300.	0.8998	0.9135	0.9630	0.9943	0.9995	0.9999	1.0000	1.0000
	800.	0.9001	0.9138	0.9633	0.9945	0.9997	1.0001	1.0002	1.0002
	2100.	0.9006	0.9143	0.9636	0.9948	0.9999	1.0004	1.0005	1.0005
	4500.	0.9013	0.9149	0.9641	0.9951	1.0003	1.0007	1.0008	1.0008
12	300.	0.9369	0.9481	0.9806	0.9972	0.9996	0.9999	1.0000	1.0000
	800.	0.9372	0.9483	0.9807	0.9973	0.9997	1.0000	1.0001	1.0001
	2100.	0.9375	0.9488	0.9810	0.9975	0.9999	1.0001	1.0003	1.0003
	4500.	0.9381	0.9493	0.9813	0.9977	1.0000	1.0003	1.0005	1.0005

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AL-13-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER		PAGE 2 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.9221	0.9366	0.9775	0.9969	0.9997	1.0000	1.0000	1.0000
	800.	0.9223	0.9368	0.9776	0.9969	0.9997	1.0000	1.0000	1.0000
	2100.	0.9225	0.9369	0.9776	0.9969	0.9996	0.9999	1.0000	1.0000
	4500.	0.9227	0.9371	0.9777	0.9970	0.9996	0.9999	0.9999	0.9999
14	300.	0.7818	0.8260	0.9318	0.9895	0.9988	0.9999	1.0000	1.0000
	800.	0.7836	0.8272	0.9323	0.9898	0.9990	1.0001	1.0002	1.0002
	2100.	0.7865	0.8291	0.9331	0.9901	0.9993	1.0004	1.0005	1.0005
	4500.	0.7899	0.8313	0.9340	0.9906	0.9997	1.0007	1.0008	1.0008
15	300.	0.6576	0.7267	0.9050	0.9868	0.9987	0.9999	1.0000	1.0000
	800.	0.6589	0.7278	0.9056	0.9872	0.9990	1.0002	1.0003	1.0004
	2100.	0.6608	0.7294	0.9063	0.9878	0.9994	1.0008	1.0009	1.0009
	4500.	0.6632	0.7314	0.9077	0.9885	1.0003	1.0015	1.0016	1.0016
16	300.	0.8470	0.8843	0.9492	0.9923	0.9992	0.9999	1.0000	1.0000
	800.	0.8473	0.8846	0.9493	0.9923	0.9993	1.0000	1.0000	1.0001
	2100.	0.8477	0.8850	0.9495	0.9925	0.9993	1.0001	1.0001	1.0001
	4500.	0.8482	0.8854	0.9498	0.9926	0.9995	1.0002	1.0002	1.0002
17	300.	0.6923	0.7222	0.8586	0.9757	0.9974	0.9997	1.0000	1.0000
	800.	0.6924	0.7224	0.8587	0.9757	0.9974	0.9998	1.0000	1.0000
	2100.	0.6927	0.7226	0.8589	0.9758	0.9975	0.9998	1.0000	1.0001
	4500.	0.6930	0.7229	0.8591	0.9759	0.9975	0.9998	1.0001	1.0001
18	300.	0.6034	0.6526	0.8331	0.9714	0.9969	0.9997	1.0000	1.0000
	800.	0.6035	0.6527	0.8332	0.9714	0.9969	0.9997	1.0000	1.0000
	2100.	0.6036	0.6528	0.8333	0.9715	0.9970	0.9998	1.0000	1.0001
	4500.	0.6038	0.6530	0.8335	0.9716	0.9970	0.9998	1.0001	1.0001
19	300.	0.5876	0.6141	0.7635	0.9514	0.9950	0.9995	0.9999	1.0000
	800.	0.5876	0.6142	0.7635	0.9514	0.9950	0.9994	0.9999	1.0000
	2100.	0.5877	0.6142	0.7636	0.9514	0.9949	0.9994	0.9999	0.9999
	4500.	0.5877	0.6143	0.7636	0.9513	0.9948	0.9993	0.9998	0.9998
20	300.	0.5181	0.5584	0.7522	0.9526	0.9948	0.9995	0.9999	1.0000
	800.	0.5181	0.5585	0.7522	0.9527	0.9948	0.9995	1.0000	1.0001
	2100.	0.5181	0.5585	0.7523	0.9528	0.9950	0.9997	1.0001	1.0002
	4500.	0.5182	0.5586	0.7524	0.9529	0.9951	0.9998	1.0003	1.0003
21	300.	0.9794	0.9853	0.9962	0.9995	1.0000	1.0000	1.0000	1.0000
	800.	0.9794	0.9853	0.9962	0.9996	1.0000	1.0000	1.0000	1.0000
	2100.	0.9795	0.9853	0.9962	0.9996	1.0000	1.0000	1.0000	1.0000
	4500.	0.9795	0.9854	0.9962	0.9996	1.0000	1.0001	1.0001	1.0001
22	300.	0.8890	0.9067	0.9634	0.9948	0.9995	0.9999	1.0000	1.0000
	800.	0.8890	0.9067	0.9634	0.9948	0.9995	1.0000	1.0000	1.0000
	2100.	0.8890	0.9068	0.9635	0.9949	0.9995	1.0000	1.0001	1.0001
	4500.	0.8890	0.9068	0.9635	0.9949	0.9996	1.0001	1.0001	1.0001
23	300.	0.5738	0.5921	0.7078	0.9209	0.9904	0.9990	0.9999	1.0000
	800.	0.5739	0.5922	0.7079	0.9209	0.9904	0.9990	0.9999	1.0000
	2100.	0.5740	0.5924	0.7080	0.9210	0.9904	0.9990	0.9999	1.0000
	4500.	0.5742	0.5926	0.7082	0.9211	0.9904	0.9990	0.9999	1.0000
24	300.	0.5565	0.6470	0.8794	0.9842	0.9988	0.9998	1.0000	1.0000
	800.	0.5566	0.6471	0.8795	0.9844	0.9990	1.0000	1.0002	1.0002
	2100.	0.5567	0.6472	0.8798	0.9847	0.9990	1.0004	1.0005	1.0005
	4500.	0.5568	0.6474	0.8801	0.9851	0.9993	1.0008	1.0009	1.0009

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AL-13-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9759	0.9890	0.9983	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9760	0.9890	0.9983	0.9998	1.0000	1.0000	1.0000	1.0000
	2100.	0.9760	0.9891	0.9983	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9761	0.9891	0.9984	0.9999	1.0001	1.0001	1.0001	1.0001
26	300.	0.9897	0.9945	0.9990	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9897	0.9945	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9897	0.9946	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9897	0.9946	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
27	300.	0.9653	0.9764	0.9943	0.9993	0.9999	1.0000	1.0000	1.0000
	800.	0.9656	0.9767	0.9947	0.9996	1.0002	1.0003	1.0003	1.0003
	2100.	0.9661	0.9772	0.9951	1.0001	1.0007	1.0008	1.0008	1.0008
	4500.	0.9667	0.9778	0.9957	1.0007	1.0013	1.0013	1.0013	1.0013
28	300.	0.9805	0.9861	0.9964	0.9995	1.0001	1.0000	1.0000	1.0000
	800.	0.9813	0.9869	0.9971	1.0002	1.0007	1.0006	1.0006	1.0006
	2100.	0.9828	0.9881	0.9981	1.0010	1.0014	1.0014	1.0014	1.0014
	4500.	0.9843	0.9897	0.9991	1.0018	1.0022	1.0021	1.0021	1.0021
29	300.	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
30	300.	0.5698	0.5776	0.6222	0.7913	0.9605	0.9957	0.9996	1.0000
	800.	0.5697	0.5774	0.6231	0.8034	0.9653	0.9963	0.9996	0.9999
	2100.	0.5694	0.5773	0.6264	0.8240	0.9719	0.9971	0.9998	1.0001
	4500.	0.5690	0.5770	0.6330	0.8464	0.9781	0.9977	0.9999	1.0001
31	300.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
32	300.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
33	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999	0.9999
34	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
35	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
36	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = AL-13-J2

REACTION = ELASTIC REMOVAL

FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9723	0.9815	0.9957	0.9995	0.9999	1.0000	1.0000	1.0000
2	300.	0.9778	0.9847	0.9963	0.9996	1.0000	1.0000	1.0000	1.0000
3	300.	0.9802	0.9861	0.9965	0.9996	1.0000	1.0000	1.0000	1.0000
4	300.	0.9447	0.9598	0.9892	0.9987	0.9999	1.0000	1.0000	1.0000
5	300.	0.9910	0.9932	0.9981	0.9998	1.0000	1.0000	1.0000	1.0000
6	300.	0.9865	0.9904	0.9978	0.9998	1.0001	1.0001	1.0001	1.0000
7	300.	1.0426	1.0316	1.0086	1.0011	1.0002	1.0000	1.0000	1.0000
8	300.	0.9674	0.9735	0.9910	0.9988	0.9999	1.0000	1.0000	1.0000
9	300.	0.9681	0.9725	0.9892	0.9985	0.9998	1.0000	1.0000	1.0000
10	300.	0.8407	0.8718	0.9569	0.9942	0.9994	0.9999	1.0000	1.0000
11	300.	0.9591	0.9659	0.9875	0.9985	0.9998	1.0000	1.0000	1.0000
12	300.	0.9668	0.9721	0.9883	0.9982	0.9997	0.9999	1.0000	1.0000
13	300.	1.0145	1.0084	0.9990	0.9995	0.9999	1.0000	1.0000	1.0000
14	300.	0.8103	0.8541	0.9565	0.9949	0.9994	1.0000	1.0000	1.0000
15	300.	0.9682	1.0055	1.0235	1.0042	1.0004	1.0000	1.0000	1.0000
16	300.	1.1037	1.0853	1.0306	1.0040	1.0004	1.0000	1.0000	1.0000
17	300.	0.6390	0.6797	0.8473	0.9752	0.9974	0.9997	1.0000	1.0000
18	300.	0.5988	0.6685	0.8640	0.9787	0.9977	0.9998	1.0000	1.0000
19	300.	0.4721	0.5127	0.7183	0.9442	0.9938	0.9994	0.9999	1.0000
20	300.	1.5302	1.4274	1.1600	1.0237	1.0026	1.0003	1.0000	1.0000
21	300.	0.8783	0.9134	0.9776	0.9973	0.9997	1.0000	1.0000	1.0000
22	300.	0.7147	0.7622	0.9091	0.9872	0.9987	0.9999	1.0000	1.0000
23	300.	0.7117	0.7235	0.8043	0.9488	0.9938	0.9994	0.9999	1.0000
24	300.	1.5964	1.2380	1.0537	1.0063	1.0006	1.0001	1.0000	1.0000
25	300.	0.8849	0.9467	0.9916	0.9991	0.9999	1.0000	1.0000	1.0000
26	300.	0.9250	0.9600	0.9929	0.9992	0.9999	1.0000	1.0000	1.0000
27	300.	0.9837	0.9912	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000
28	300.	1.0058	1.0052	1.0017	1.0002	1.0001	1.0000	1.0000	1.0000
29	300.	0.9895	0.9936	0.9987	0.9999	1.0000	1.0000	1.0000	1.0000
30	300.	0.4060	0.4355	0.5595	0.8153	0.9718	0.9970	0.9997	1.0000
31	300.	0.9890	0.9931	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000
32	300.	0.9902	0.9938	0.9987	0.9998	1.0000	1.0000	1.0000	1.0000
33	300.	0.9992	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
34	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
35	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
36	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
37	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
38	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
39	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
40	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
41	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
42	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
43	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
44	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
45	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

JAERI-M 82-135

NUCLID = CR-24-J2 CODE NO = 24
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1 0.0	0.0	5.3524E-02	1.1962E+00	1.8284E+00	8.0001E-01	9.6814E-02	3.4804E-03	3.0816E+00
2 0.0	0.0	1.0570E-02	1.2156E+00	2.1632E+00	7.6482E-01	1.1541E-01	0.0	3.3894E+00
3 0.0	0.0	2.5358E-03	1.1664E+00	2.3290E+00	7.0986E-01	1.4033E-01	0.0	3.4979E+00
4 0.0	0.0	1.7260E-03	1.1180E+00	2.4688E+00	6.4018E-01	1.7408E-01	0.0	3.5885E+00
5 0.0	0.0	1.9612E-03	1.0001E+00	2.5895E+00	5.4129E-01	2.2483E-01	0.0	3.5915E+00
6 0.0	0.0	2.3429E-03	8.0757E-01	2.7069E+00	4.3371E-01	2.4710E-01	0.0	3.5168E+00
7 0.0	0.0	2.5856E-03	6.4194E-01	2.5583E+00	3.4154E-01	2.8124E-01	0.0	3.2029E+00
8 0.0	0.0	3.6730E-03	3.2327E-01	2.7773E+00	2.5519E-01	3.2809E-01	0.0	3.1043E+00
9 0.0	0.0	4.1472E-03	6.6356E-02	2.9413E+00	1.9906E-01	3.2579E-01	0.0	3.0118E+00
10 0.0	0.0	3.8246E-03	3.3694E-02	2.7649E+00	1.7099E-01	3.9214E-01	0.0	2.8024E+00
11 0.0	0.0	3.7819E-03	1.2296E-02	2.6715E+00	1.5002E-01	3.6208E-01	0.0	2.6875E+00
12 0.0	0.0	3.6965E-03	2.9108E-03	2.8312E+00	1.3643E-01	3.7704E-01	0.0	2.8378E+00
13 0.0	0.0	3.7469E-03	0.0	3.7963E+00	1.2127E-01	3.2168E-01	0.0	3.8001E+00
14 0.0	0.0	3.1295E-03	0.0	2.6540E+00	1.0174E-01	2.4235E-01	0.0	2.6572E+00
15 0.0	0.0	3.1023E-03	0.0	3.4790E+00	8.5662E-02	6.5174E-01	0.0	3.4821E+00
16 0.0	0.0	5.1327E-03	0.0	3.9965E+00	8.0423E-02	7.0037E-01	0.0	4.0016E+00
17 0.0	0.0	2.7645E-03	0.0	6.9533E+00	5.5976E-02	1.8047E+00	0.0	6.9561E+00
18 0.0	0.0	9.7360E-03	0.0	6.7732E+00	4.9505E-02	4.7537E-01	0.0	6.7830E+00
19 0.0	0.0	1.0703E-02	0.0	8.8147E+00	3.9695E-02	2.9428E-01	0.0	8.8254E+00
20 0.0	0.0	6.2548E-03	0.0	2.0080E+00	3.3157E-02	3.9398E-01	0.0	2.0143E+00
21 0.0	0.0	5.7755E-03	0.0	3.6263E+00	2.8177E-02	7.5372E-01	0.0	3.6321E+00
22 0.0	0.0	1.4653E-02	0.0	7.8489E+00	2.4919E-02	1.6343E-01	0.0	7.8636E+00
23 0.0	0.0	1.2402E-02	0.0	2.5386E+00	1.6223E-02	2.8360E-01	0.0	2.5510E+00
24 0.0	0.0	1.9391E-02	0.0	3.3271E+00	1.1069E-02	3.4440E-01	0.0	3.3465E+00
25 0.0	0.0	1.7980E-02	0.0	2.5130E+00	1.2933E-02	4.9131E-01	0.0	2.5310E+00
26 0.0	0.0	5.6502E-03	0.0	2.2717E+00	1.2933E-02	3.7773E-01	0.0	2.2773E+00
27 0.0	0.0	7.7524E-03	0.0	3.4838E+00	1.2933E-02	5.4569E-01	0.0	3.4916E+00
28 0.0	0.0	8.9484E-03	0.0	6.9594E+00	1.2933E-02	1.3711E+00	0.0	6.9684E+00
29 0.0	0.0	4.4928E-02	0.0	2.3027E+01	1.2933E-02	3.4214E+00	0.0	2.3072E+01
30 0.0	0.0	9.3105E-02	0.0	3.0273E+01	1.2933E-02	5.6352E+00	0.0	3.0366E+01
31 0.0	0.0	7.3473E-02	0.0	2.6382E+01	1.2933E-02	3.5784E+00	0.0	2.6455E+01
32 0.0	0.0	6.0987E-02	0.0	2.6557E+01	1.2933E-02	2.2629E+00	0.0	2.6618E+01
33 0.0	0.0	3.2209E-02	0.0	1.2809E+01	1.2933E-02	1.3134E+00	0.0	1.2841E+01
34 0.0	0.0	2.2215E-02	0.0	7.8036E+00	1.2933E-02	1.0478E+00	0.0	7.8258E+00
35 0.0	0.0	3.6115E-01	0.0	6.1986E+00	1.2933E-02	7.6314E-01	0.0	6.5598E+00
36 0.0	0.0	1.9790E-02	0.0	5.2888E+00	1.2933E-02	6.4292E-01	0.0	5.3086E+00
37 0.0	0.0	1.9212E-02	0.0	4.8072E+00	1.2933E-02	5.5774E-01	0.0	4.8265E+00
38 0.0	0.0	2.0296E-02	0.0	4.5084E+00	1.2933E-02	5.3791E-01	0.0	4.5287E+00
39 0.0	0.0	2.1925E-02	0.0	4.3164E+00	1.2933E-02	5.2071E-01	0.0	4.3383E+00
40 0.0	0.0	2.3900E-02	0.0	4.1858E+00	1.2933E-02	4.8229E-01	0.0	4.2097E+00

TO BE CONTINUED

NUCLID = CR-24-J2 CODE NO = 24
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41 0.0	0.0	2.6437E-02	0.0	4.0941E+00	1.2933E-02	4.9108E-01	0.0	4.1205E+00
42 0.0	0.0	2.9363E-02	0.0	4.0289E+00	1.2933E-02	4.6073E-01	0.0	4.0583E+00
43 0.0	0.0	3.2715E-02	0.0	3.9810E+00	1.2933E-02	4.3316E-01	0.0	4.0137E+00
44 0.0	0.0	3.6735E-02	0.0	3.9452E+00	1.2933E-02	4.3332E-01	0.0	3.9819E+00
45 0.0	0.0	4.1195E-02	0.0	3.9183E+00	1.2933E-02	4.2294E-01	0.0	3.9595E+00
46 0.0	0.0	4.6281E-02	0.0	3.8982E+00	1.2933E-02	3.8288E-01	0.0	3.9445E+00
47 0.0	0.0	5.2228E-02	0.0	3.8829E+00	1.2933E-02	3.5607E-01	0.0	3.9351E+00
48 0.0	0.0	5.8749E-02	0.0	3.8709E+00	1.2933E-02	3.4381E-01	0.0	3.9296E+00
49 0.0	0.0	6.6362E-02	0.0	3.8618E+00	1.2933E-02	3.2116E-01	0.0	3.9281E+00
50 0.0	0.0	7.5162E-02	0.0	3.8547E+00	1.2933E-02	2.9574E-01	0.0	3.9299E+00
51 0.0	0.0	8.5216E-02	0.0	3.8490E+00	1.2933E-02	4.2700E-01	0.0	3.9342E+00
52 0.0	0.0	9.6497E-02	0.0	3.8448E+00	1.2933E-02	3.8435E-01	0.0	3.9413E+00
53 0.0	0.0	1.0842E-01	0.0	3.8417E+00	1.2933E-02	2.3770E-01	0.0	3.9502E+00
54 0.0	0.0	1.2272E-01	0.0	3.8391E+00	1.2933E-02	2.8956E-01	0.0	3.9618E+00
55 0.0	0.0	1.3922E-01	0.0	3.8371E+00	1.2933E-02	2.8658E-01	0.0	3.9764E+00
56 0.0	0.0	1.5879E-01	0.0	3.8355E+00	1.2933E-02	4.2648E-01	0.0	3.9943E+00
57 0.0	0.0	1.7999E-01	0.0	3.8344E+00	1.2933E-02	4.3854E-01	0.0	4.0143E+00
58 0.0	0.0	2.0438E-01	0.0	3.8335E+00	1.2933E-02	4.3843E-01	0.0	4.0379E+00
59 0.0	0.0	2.3087E-01	0.0	3.8328E+00	1.2933E-02	4.3838E-01	0.0	4.0637E+00
60 0.0	0.0	2.6186E-01	0.0	3.8323E+00	1.2933E-02	4.3828E-01	0.0	4.0942E+00
61 0.0	0.0	2.9752E-01	0.0	3.8320E+00	1.2933E-02	4.3833E-01	0.0	4.1295E+00
62 0.0	0.0	3.3586E-01	0.0	3.8317E+00	1.2933E-02	4.3824E-01	0.0	4.1676E+00
63 0.0	0.0	3.8125E-01	0.0	3.8316E+00	1.2933E-02	4.3827E-01	0.0	4.2128E+00
64 0.0	0.0	4.3266E-01	0.0	3.8315E+00	1.2933E-02	4.3832E-01	0.0	4.2642E+00
65 0.0	0.0	4.8894E-01	0.0	3.8316E+00	1.2933E-02	4.3815E-01	0.0	4.3205E+00
66 0.0	0.0	5.5524E-01	0.0	3.8317E+00	1.2933E-02	4.3830E-01	0.0	4.3870E+00
67 0.0	0.0	6.2901E-01	0.0	3.8320E+00	1.2933E-02	4.3833E-01	0.0	4.4610E+00
68 0.0	0.0	7.1206E-01	0.0	3.8324E+00	1.2933E-02	4.3834E-01	0.0	4.5444E+00
69 0.0	0.0	8.0889E-01	0.0	3.8329E+00	1.2933E-02	4.3847E-01	0.0	4.6418E+00
70 0.0	0.0	1.0570E+00	0.0	3.8349E+00	1.2933E-02	0.0	0.0	4.8919E+00

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NUCLID = CR-24-J2 CODE NUMBER = 24 IPL = 0										
PAGE 1 OF 2										
GROUP	EXIT	GROUP	KK	KK	TABLE OF INELASTIC MATRICES					
I	J				KK = I + J - 1					
1	1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
41	42	43	44	45	46	47	48	49	50	
51	52	53								

1	3.04698E-02	4.35606E-01	6.21193E-01	8.88852E-02	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	1.27940E-02	2.72184E-01	5.11010E-01	3.89699E-01	2.98818E-02	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	4.51279E-03	1.75079E-01	3.02648E-01	3.57189E-01	2.49663E-01	7.72447E-02	3.90649E-05	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	2.90557E-03	1.11547E-01	2.66993E-01	1.56146E-01	1.99599E-01	1.78496E-01	1.07406E-01	6.18717E-02	2.48060E-02	8.19584E-03
	1.96280E-05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	1.09372E-03	3.41720E-02	2.50115E-01	2.77197E-01	5.29023E-02	5.39393E-02	5.50601E-02	6.32706E-02	5.68627E-02	4.89687E-02
	3.63863E-02	2.60058E-02	1.69108E-02	1.02752E-02	6.40257E-03	3.98364E-03	2.49731E-03	1.53508E-03	9.45702E-04	5.74207E-04
	3.68374E-04	2.26742E-04	1.44302E-04	8.68115E-05	6.02720E-05	3.51811E-05	2.94698E-05	1.11694E-05	1.06892E-05	7.78176E-06
	6.10767E-06	4.06009E-06	1.68794E-06	1.58946E-06	1.35775E-06	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	2.36977E-04	2.86665E-02	6.68906E-02	3.05787E-01	2.41588E-01	8.25645E-02	4.25453E-03	9.64262E-03	1.24215E-02	8.13592E-03
	5.21575E-03	8.15133E-03	1.04989E-02	7.50835E-03	5.01581E-03	3.21290E-03	2.27603E-03	1.76073E-03	1.34193E-03	8.74470E-04
	5.52046E-04	3.48713E-04	2.23166E-04	1.43206E-04	9.29869E-05	6.00085E-05	3.97725E-05	2.67431E-05	1.80902E-05	1.25695E-05
	8.62517E-06	6.66659E-06	4.60740E-06	3.03775E-06	2.45679E-06	2.09461E-06	1.28939E-06	8.10067E-07	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

NUCLID = CR-24-J2 CODE NUMBER = 24 IPL = 0										
PAGE 2 OF 2										
GROUP	EXIT	GROUP	KK	KK	TABLE OF INELASTIC MATRICES					
I	J				KK = I + J - 1					
1	1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38	39	40	
41	42	43	44	45	46	47	48	49	50	
51	52	53								

7	0.0	1.20185E-02	4.43998E-02	3.26138E-02	1.38313E-01	1.70709E-01	1.21432E-01	8.32866E-02	3.30001E-02	2.09736E-03
	1.71227E-03	9.04158E-04	5.52129E-04	3.37696E-04	2.06655E-04	1.26846E-04	7.77958E-05	4.80231E-05	3.12928E-05	2.25541E-05
	1.68633E-05	1.30568E-05	8.77863E-06	5.71074E-06	3.65907E-06	2.38637E-06	1.60475E-06	1.09905E-06	7.18493E-07	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	0.0	2.71879E-03	1.52989E-02	2.07025E-02	1.70581E-02	7.25857E-03	7.02438E-03	3.74754E-02	5.84386E-02	4.30298E-02
	3.17296E-02	2.33786E-02	1.73582E-02	1.30288E-02	9.78689E-03	7.03276E-03	4.57895E-03	2.81282E-03	1.72629E-03	1.06394E-03
	6.60997E-04	3.98600E-04	2.56175E-04	1.62698E-04	1.03005E-04	6.06251E-05	4.26324E-05	3.32571E-05	1.02860E-05	1.03817E-05
	1.06875E-05	1.10795E-05	6.49637E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	0.0	0.0	7.02502E-03	1.13383E-02	1.38794E-02	1.02102E-02	1.12414E-02	5.09759E-03	2.22812E-03	1.37066E-03
	8.44451E-04	5.18434E-04	3.18168E-04	2.66700E-04	5.33068E-04	5.76522E-04	3.44591E-04	2.10240E-04	1.30111E-04	8.08543E-05
	5.05371E-05	3.18349E-05	2.02105E-05	1.29495E-05	8.39015E-06	5.50945E-06	3.70413E-06	2.50806E-06	1.72043E-06	1.22247E-06
	8.67174E-07	6.15231E-07	4.55586E-07	3.60858E-07	2.17841E-07	2.05083E-07	1.39599E-07	1.08368E-07	1.21545E-07	1.36624E-07
	6.73883E-08	7.32053E-08	8.45992E-08	9.73014E-08	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	0.0	0.0	0.0	4.96075E-03	5.31719E-03	4.24678E-03	3.86043E-03	4.16539E-03	3.03440E-03	2.19670E-03
	1.54845E-03	1.09483E-03	7.66350E-04	5.20697E-04	5.50278E-04	5.39009E-04	3.39278E-04	2.06199E-04	1.27667E-04	7.97632E-05
	4.96490E-05	3.14658E-05	1.99180E-05	1.29535E-05	8.14201E-06	5.58054E-06	3.67230E-06	2.33118E-06	1.70615E-06	1.31997E-06
	1.00849E-06	5.04865E-07	3.70249E-07	2.50466E-07	2.15023E-07	1.31939E-07	1.44338E-07	8.87031E-08	8.20881E-08	9.26667E-08
	1.04686E-07	7.06557E-08	6.59278E-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	3.47294E-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	0.0	0.0	0.0	0.0	3.00243E-04	2.77373E-03	2.17671E-03	1.60323E-03	1.15977E-03	8.27742E-04
	2.22562E-04	0.0	0.0	3.23245E-05	4.05074E-04	6.78157E-04	5.49459E-04	4.04056E-04	2.99970E-04	2.24729E-04
	1.69468E-04	1.28730E-04	9.81276E-05	7.33719E-05	5.29137E-05	3.78068E-05	2.67173E-05	1.86979E-05	1.28942E-05	8.19188E-06
	4.99423E-06	2.96061E-06	1.78757E-06	7.29918E-07	5.25613E-07	1.53434E-07	1.59832E-07	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.19978E-05	5.78451E-04
	6.98436E-04	5.19854E-04	3.88063E-04	2.70855E-04	1.69804E-04	1.04036E-04	6.41305E-05	3.93331E-05	2.43986E-05	1.51472E-05
	9.44898E-06	5.96187E-06	3.68929E-06	2.47345E-06	1.53733E-06	9.83620E-07	6.64652E-07	4.98979E-07	2.59626E-07	1.23416E-07
	2.14511E-07	5.32192E-08	5.40426E-08	5.57374E-08	5.82749E-08	6.17378E-08	6.61663E-08	2.02955E-08	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NUCLID = CR-24-J2 CODE NUMBER = 24 IPL = 0										
PAGE 1 OF 1										
GROUP	EXIT	GROUP	KK	KK	TABLE OF (N,2N) MATRICES					
I	J				KK = I + J - 1					
1	1	2	3	4	5	6	7	8	9	10
11	12	13	14	15	16	17	18	19	20	
21	22	23	24	25	26	27	28	29	30	
31	32	33	34	35	36	37	38			

1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.13612E-03	1.76570E-03	1.31006E-03	9.29764E-04	6.17307E-04	4.25278E-04	2.77893E-04	1.78559E-04	1.13308E-04	7.11848E-05
	4.43717E-05	2.76924E-05	1.69551E-05	1.04172E-05	6.38266E-06	3.90246E-06	2.38055E-06	1.45117E-06	8.83371E-07	5.37332E-07
	3.26637E-07	1.98466E-07	1.20534E-07	7.31894E-08	4.44312E-08	2.69632E-08	1.63629E-08	9.92863E-09		

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = CAPTURE				FOR	1TH	R-PARAMETER	
						PAGE	2 OF	6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.9994	0.9996	0.9999	1.0000	0.9986	1.0000	1.0000	1.0000
	800.	0.9994	0.9996	0.9999	1.0000	0.9986	1.0000	1.0000	1.0000
	2100.	0.9994	0.9996	0.9999	1.0000	0.9986	1.0000	1.0000	1.0000
	4500.	0.9994	0.9996	0.9999	1.0000	0.9986	1.0000	1.0000	1.0000
14	300.	0.9942	0.9971	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9942	0.9971	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9941	0.9970	0.9996	0.9999	0.9999	0.9999	0.9999	0.9999
	4500.	0.9941	0.9974	0.9995	0.9998	0.9998	0.9998	0.9998	0.9998
15	300.	0.6673	0.6988	0.8381	0.9682	0.9965	0.9997	1.0000	1.0000
	800.	0.6692	0.7007	0.8401	0.9697	0.9965	0.9997	1.0000	1.0000
	2100.	0.6725	0.7046	0.8438	0.9708	0.9966	0.9996	0.9999	0.9999
	4500.	0.6773	0.7096	0.8488	0.9722	0.9967	0.9995	0.9998	0.9998
16	300.	0.5297	0.5610	0.7229	0.9337	0.9923	0.9992	0.9999	1.0000
	800.	0.5362	0.5682	0.7320	0.9373	0.9926	0.9991	0.9997	0.9998
	2100.	0.5481	0.5814	0.7474	0.9433	0.9935	0.9993	1.0000	1.0000
	4500.	0.5636	0.5980	0.7657	0.9521	0.9944	0.9995	1.0000	1.0001
17	300.	0.8218	0.8363	0.9068	0.9813	0.9980	0.9998	1.0000	1.0000
	800.	0.8432	0.8571	0.9206	0.9845	0.9985	1.0001	1.0002	1.0002
	2100.	0.8662	0.8788	0.9342	0.9889	0.9990	1.0003	1.0004	1.0004
	4500.	0.8847	0.8960	0.9445	0.9897	0.9994	1.0005	1.0006	1.0006
18	300.	0.4722	0.5186	0.7056	0.9259	0.9909	0.9991	0.9999	1.0000
	800.	0.4802	0.5284	0.7170	0.9302	0.9917	0.9993	1.0001	1.0002
	2100.	0.4900	0.5399	0.7305	0.9353	0.9925	0.9996	1.0003	1.0004
	4500.	0.4990	0.5507	0.7427	0.9402	0.9933	0.9999	1.0005	1.0006
19	300.	0.6560	0.6888	0.8131	0.9552	0.9945	0.9994	0.9999	1.0000
	800.	0.6575	0.6907	0.8155	0.9568	0.9949	0.9997	1.0000	1.0001
	2100.	0.6613	0.6945	0.8199	0.9594	0.9954	1.0000	1.0005	1.0005
	4500.	0.6664	0.6998	0.8257	0.9625	0.9961	1.0001	1.0006	1.0006
20	300.	0.5716	0.6152	0.7657	0.9402	0.9928	0.9993	0.9999	1.0000
	800.	0.5794	0.6251	0.7832	0.9507	0.9944	0.9995	1.0000	1.0001
	2100.	0.5931	0.6422	0.8083	0.9617	0.9960	0.9997	1.0001	1.0001
	4500.	0.6090	0.6613	0.8323	0.9701	0.9971	0.9999	1.0002	1.0003
21	300.	0.6658	0.6924	0.8031	0.9464	0.9958	0.9995	0.9999	1.0000
	800.	0.6711	0.6973	0.8066	0.9482	0.9961	1.0000	1.0005	1.0005
	2100.	0.6782	0.7039	0.8120	0.9512	0.9961	1.0006	1.0011	1.0011
	4500.	0.6855	0.7111	0.8188	0.9550	0.9961	1.0012	1.0017	1.0017
22	300.	0.3354	0.4073	0.6771	0.9316	0.9921	0.9992	0.9999	1.0000
	800.	0.3564	0.4364	0.7157	0.9424	0.9935	0.9996	1.0002	1.0003
	2100.	0.3807	0.4689	0.7504	0.9504	0.9950	1.0004	1.0009	1.0010
	4500.	0.4017	0.4956	0.7736	0.9553	0.9960	1.0010	1.0015	1.0015
23	300.	0.5036	0.5413	0.6882	0.9010	0.9864	0.9986	0.9999	1.0000
	800.	0.5202	0.5607	0.7177	0.9209	0.9904	0.9993	1.0002	1.0003
	2100.	0.5490	0.5931	0.7586	0.9438	0.9938	0.9999	1.0006	1.0009
	4500.	0.5831	0.6295	0.7972	0.9588	0.9962	1.0004	1.0008	1.0009
24	300.	0.4604	0.5047	0.6944	0.9230	0.9904	0.9991	0.9999	1.0000
	800.	0.4902	0.5394	0.7359	0.9386	0.9928	0.9996	1.0002	1.0002
	2100.	0.5284	0.5828	0.7794	0.9530	0.9948	0.9999	1.0003	1.0003
	4500.	0.5643	0.6222	0.8139	0.9636	0.9961	1.0000	1.0003	1.0003

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = CAPTURE				FOR	1TH	R-PARAMETER	
						PAGE	3 OF	6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.3246	0.3648	0.5498	0.8583	0.9814	0.9981	0.9998	1.0000
	800.	0.3355	0.3782	0.5810	0.8850	0.9860	0.9989	1.0001	1.0003
	2100.	0.3548	0.4028	0.6254	0.9116	0.9900	0.9995	1.0003	1.0004
	4500.	0.3778	0.4311	0.6880	0.9307	0.9928	1.0001	1.0007	1.0008
26	300.	0.7558	0.7861	0.9015	0.9841	0.9982	0.9998	1.0000	1.0000
	800.	0.7693	0.8010	0.9142	0.9869	0.9986	0.9999	1.0001	1.0001
	2100.	0.7910	0.8234	0.9297	0.9900	0.9991	1.0001	1.0002	1.0002
	4500.	0.8165	0.8480	0.9437	0.9926	0.9995	1.0003	1.0004	1.0004
27	300.	0.7581	0.7861	0.8979	0.9832	0.9982	0.9998	1.0000	1.0000
	800.	0.7837	0.8115	0.9158	0.9876	0.9995	1.0008	1.0009	1.0009
	2100.	0.8158	0.8423	0.9347	0.9919	1.0010	1.0018	1.0019	1.0019
	4500.	0.8439	0.8660	0.9490	0.9948	1.0019	1.0025	1.0026	1.0026
28	300.	0.8691	0.8817	0.9372	0.9889	0.9988	0.9999	1.0000	1.0000
	800.	0.8724	0.8849	0.9397	0.9898	0.9992	1.0002	1.0003	1.0003
	2100.	0.8764	0.8887	0.9423	0.9907	0.9997	1.0007	1.0008	1.0008
	4500.	0.8799	0.8922	0.9463	0.9922	1.0009	1.0019	1.0020	1.0020
29	300.	0.9388	0.9417	0.9603	0.9903	0.9989	0.9999	1.0000	1.0000
	800.	0.9389	0.9418	0.9604	0.9904	0.9989	0.9999	1.0000	1.0001
	2100.	0.9391	0.9420	0.9605	0.9905	0.9990	1.0000	1.0001	1.0001
	4500.	0.9393	0.9421	0.9606	0.9906	0.9991	1.0001	1.0002	1.0002
30	300.	0.9452	0.9463	0.9553	0.9831	0.9977	0.9997	1.0000	1.0000
	800.	0.9453	0.9464	0.9553	0.9832	0.9977	0.9998	1.0000	1.0000
	2100.	0.9454	0.9465	0.9555	0.9833	0.9978	0.9999	1.0001	1.0001
	4500.	0.9456	0.9467	0.9556	0.9834	0.9979	0.9999	1.0002	1.0002
31	300.	0.9864	0.9868	0.9897	0.9967	0.9996	1.0000	1.0000	1.0000
	800.	0.9866	0.9870	0.9899	0.9969	0.9998	1.0002	1.0002	1.0002
	2100.	0.9868	0.9872	0.9898	0.9972	1.0001	1.0005	1.0005	1.0005
	4500.	0.9871	0.9875	0.9904	0.9974	1.0003	1.0007	1.0008	1.0008
32	300.	0.9742	0.9751	0.9819	0.9951	0.9994	0.9999	1.0000	1.0000
	800.	0.9741	0.9751	0.9818	0.9950	0.9993	0.9999	0.9999	0.9999
	2100.	0.9740	0.9750	0.9817	0.9949	0.9992	0.9997	0.9998	0.9998
	4500.	0.9739	0.9749	0.9816	0.9948	0.9991	0.9996	0.9996	0.9996
33	300.	0.9717	0.9736	0.9839	0.9967	0.9996	1.0000	1.0000	1.0000
	800.	0.9718	0.9736	0.9839	0.9968	0.9997	1.0000	1.0001	1.0001
	2100.	0.9719	0.9737	0.9841	0.9969	0.9998	1.0002	1.0002	1.0002
	4500.	0.9720	0.9739	0.9842	0.9971	1.0000	1.0003	1.0003	1.0003
34	300.	0.9951	0.9957	0.9978	0.9996	1.0000	1.0000	1.0000	1.0000
	800.	0.9952	0.9957	0.9979	0.9997	1.0000	1.0000	1.0001	1.0001
	2100.	0.9952	0.9958	0.9980	0.9998	1.0001	1.0001	1.0001	1.0001
	4500.	0.9954	0.9959	0.9981	0.9999	1.0002	1.0002	1.0002	1.0002
35	300.	0.2922	0.3067	0.4468	0.8043	0.9733	0.9974	0.9997	1.0000
	800.	0.3452	0.3619	0.5243	0.8581	0.9823	0.9985	1.0000	1.0001
	2100.	0.4126	0.4388	0.6161	0.9030	0.9887	0.9991	1.0001	1.0002
	4500.	0.4974	0.5254	0.6926	0.9312	0.9924	0.9996	1.0003	1.0003
36	300.	0.9981	0.9984	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9984	0.9987	0.9996	1.0002	1.0003	1.0003	1.0003	1.0003
	2100.	0.9989	0.9992	1.0001	1.0007	1.0008	1.0008	1.0008	1.0008
	4500.	0.9996	0.9999	1.0008	1.0014	1.0015	1.0015	1.0015	1.0015

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = ELASTIC				FOR 1TH R-PARAMETER		PAGE 1 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9976	0.9981	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9976	0.9981	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9976	0.9981	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9976	0.9981	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
2	300.	0.9995	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9986	0.9987	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9986	0.9987	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9986	0.9987	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9986	0.9987	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
4	300.	0.9971	0.9977	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9971	0.9977	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9971	0.9977	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9971	0.9977	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
5	300.	0.9904	0.9924	0.9974	0.9997	1.0000	1.0000	1.0000	1.0000
	800.	0.9904	0.9924	0.9974	0.9997	1.0000	1.0000	1.0000	1.0000
	2100.	0.9904	0.9924	0.9974	0.9997	1.0000	1.0000	1.0000	1.0000
	4500.	0.9905	0.9924	0.9974	0.9997	0.9999	1.0000	1.0000	1.0000
6	300.	0.9788	0.9831	0.9943	0.9992	0.9999	1.0000	1.0000	1.0000
	800.	0.9789	0.9831	0.9943	0.9992	1.0000	1.0000	1.0000	1.0000
	2100.	0.9790	0.9832	0.9943	0.9993	1.0000	1.0000	1.0000	1.0000
	4500.	0.9791	0.9833	0.9944	0.9993	1.0000	1.0001	1.0001	1.0001
7	300.	0.9649	0.9726	0.9912	0.9999	0.9999	1.0000	1.0000	1.0000
	800.	0.9650	0.9726	0.9912	0.9999	0.9999	1.0000	1.0000	1.0000
	2100.	0.9651	0.9727	0.9912	0.9999	0.9998	0.9999	1.0000	1.0000
	4500.	0.9652	0.9728	0.9912	0.9998	0.9998	0.9999	0.9999	0.9999
8	300.	0.9208	0.9392	0.9809	0.9976	0.9997	1.0000	1.0000	1.0000
	800.	0.9210	0.9393	0.9810	0.9976	0.9998	1.0000	1.0000	1.0000
	2100.	0.9213	0.9395	0.9810	0.9977	0.9998	1.0000	1.0000	1.0000
	4500.	0.9216	0.9398	0.9812	0.9977	0.9998	1.0000	1.0000	1.0000
9	300.	0.9016	0.9248	0.9757	0.9968	0.9998	1.0000	1.0000	1.0000
	800.	0.9018	0.9249	0.9757	0.9967	0.9997	0.9999	1.0000	1.0000
	2100.	0.9021	0.9251	0.9758	0.9967	0.9997	0.9999	0.9999	0.9999
	4500.	0.9024	0.9254	0.9758	0.9966	0.9996	0.9998	0.9998	0.9998
10	300.	0.8956	0.9207	0.9750	0.9968	0.9997	1.0000	1.0000	1.0000
	800.	0.8959	0.9209	0.9751	0.9969	0.9997	1.0000	1.0001	1.0001
	2100.	0.8963	0.9212	0.9753	0.9970	0.9998	1.0001	1.0002	1.0002
	4500.	0.8969	0.9217	0.9755	0.9971	0.9999	1.0003	1.0003	1.0003
11	300.	0.8312	0.8768	0.9629	0.9952	0.9996	1.0000	1.0000	1.0000
	800.	0.8316	0.8771	0.9631	0.9953	0.9997	1.0001	1.0001	1.0001
	2100.	0.8322	0.8775	0.9633	0.9955	0.9999	1.0003	1.0003	1.0003
	4500.	0.8330	0.8781	0.9636	0.9957	1.0001	1.0005	1.0005	1.0005
12	300.	0.8014	0.8610	0.9616	0.9962	0.9994	0.9999	1.0000	1.0000
	800.	0.8017	0.8614	0.9618	0.9964	0.9996	1.0005	1.0006	1.0006
	2100.	0.8027	0.8620	0.9622	0.9968	1.0001	1.0005	1.0006	1.0006
	4500.	0.8036	0.8628	0.9627	0.9972	1.0005	1.0010	1.0011	1.0011

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = ELASTIC				FOR 1TH R-PARAMETER		PAGE 2 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.7455	0.8173	0.9483	0.9934	0.9979	0.9999	1.0000	1.0000
	800.	0.7459	0.8176	0.9484	0.9934	0.9979	1.0000	1.0000	1.0000
	2100.	0.7466	0.8181	0.9483	0.9934	0.9979	1.0000	1.0000	1.0000
	4500.	0.7475	0.8187	0.9485	0.9935	0.9980	1.0000	1.0000	1.0000
14	300.	0.7528	0.8086	0.9366	0.9910	0.9991	0.9999	1.0000	1.0000
	800.	0.7535	0.8091	0.9368	0.9911	0.9991	0.9999	1.0000	1.0000
	2100.	0.7546	0.8100	0.9353	0.9912	0.9992	1.0000	1.0001	1.0001
	4500.	0.7559	0.8114	0.9356	0.9914	0.9994	1.0002	1.0003	1.0003
15	300.	0.8252	0.8453	0.9198	0.9841	0.9982	0.9999	1.0000	1.0000
	800.	0.8256	0.8456	0.9202	0.9851	0.9983	0.9999	1.0000	1.0000
	2100.	0.8261	0.8462	0.9210	0.9853	0.9983	0.9998	1.0000	1.0000
	4500.	0.8271	0.8474	0.9220	0.9856	0.9983	0.9998	0.9999	0.9999
16	300.	0.9153	0.9232	0.9551	0.9878	0.9971	0.9999	1.0000	1.0000
	800.	0.9161	0.9241	0.9566	0.9882	0.9987	0.9999	1.0000	1.0000
	2100.	0.9174	0.9258	0.9586	0.9891	0.9988	0.9999	1.0000	1.0000
	4500.	0.9197	0.9278	0.9609	0.9924	0.9990	1.0000	1.0001	1.0001
17	300.	0.8391	0.8517	0.9131	0.9818	0.9980	0.9998	1.0000	1.0000
	800.	0.8399	0.8524	0.9129	0.9819	0.9981	0.9999	1.0001	1.0001
	2100.	0.8400	0.8525	0.9136	0.9834	0.9981	1.0000	1.0001	1.0002
	4500.	0.8403	0.8528	0.9139	0.9820	0.9981	0.9999	1.0001	1.0001
18	300.	0.3977	0.4488	0.6418	0.8979	0.9868	0.9986	0.9999	1.0000
	800.	0.3979	0.4487	0.6424	0.8983	0.9870	0.9987	0.9999	1.0001
	2100.	0.3985	0.4495	0.6436	0.8989	0.9871	0.9988	1.0000	1.0001
	4500.	0.3994	0.4509	0.6451	0.9001	0.9873	0.9988	1.0000	1.0001
19	300.	0.5418	0.5971	0.7891	0.9577	0.9951	0.9995	1.0000	1.0000
	800.	0.5420	0.5974	0.7893	0.9579	0.9952	0.9996	1.0000	1.0001
	2100.	0.5425	0.5978	0.7898	0.9582	0.9951	0.9995	1.0000	1.0000
	4500.	0.5430	0.5983	0.7905	0.9585	0.9952	0.9995	1.0000	1.0000
20	300.	0.8246	0.8645	0.9467	0.9898	0.9989	0.9999	1.0000	1.0000
	800.	0.8254	0.8655	0.9487	0.9910	0.9992	1.0000	1.0001	1.0001
	2100.	0.8270	0.8676	0.9517	0.9924	0.9995	1.0000	1.0001	1.0001
	4500.	0.8290	0.8700	0.9548	0.9936	0.9997	1.0001	1.0002	1.0002
21	300.	0.8940	0.9179	1.0002	1.0687	0.9998	1.0002	1.0000	1.0000
	800.	0.8945	0.9183	1.0008	1.0691	1.0858	1.0879	1.0879	1.0879
	2100.	0.8954	0.9192	1.0018	1.0695	1.0860	1.0879	1.0880	1.0880
	4500.	0.8964	0.9202	1.0030	1.0704	1.0861	1.0880	1.0881	1.0881
22	300.	0.2089	0.2573	0.4972	0.8633	0.9831	0.9983	0.9998	1.0000
	800.	0.2092	0.2576	0.4976	0.8635	0.9832	0.9984	0.9999	1.0001
	2100.	0.2096	0.2580	0.4979	0.8637	0.9833	0.9984	1.0000	1.0002
	4500.	0.2101	0.2585	0.4982	0.8641	0.9835	0.9986	1.0002	1.0003
23	300.	0.8320	0.8583	0.9277	0.9807	0.9972	0.9997	1.0000	1.0000
	800.	0.8348	0.8613	0.9325	0.9826	0.9980	0.9998	1.0000	1.0001
	2100.	0.8400	0.8671	0.9395	0.9881	0.9986	1.0000	1.0001	1.0001
	4500.	0.8464	0.8737	0.9463	0.9906	0.9992	1.0000	1.0001	1.0001
24	300.	0.7718	0.8136	0.9164	0.9811	0.9976	0.9999	1.0000	1.0000
	800.	0.7730	0.8153	0.9186	0.9828	0.9979	0.9999	1.0000	1.0000
	2100.	0.7758	0.8184	0.9224	0.9849	0.9982	0.9999	1.0000	1.0000
	4500.	0.7796	0.8224	0.9266	0.9870	0.9986	1.0000	1.0001	1.0001

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = ELASTIC				FOR 1TH R-PARAMETER				
						PAGE 3 OF 6				
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06	
25	300.	0.8291	0.8555	0.9261	0.9618	0.9979	0.9998	1.0000	1.0000	
	800.	0.8303	0.8548	0.9288	0.9850	0.9983	1.0000	1.0000	1.0000	
	2100.	0.8321	0.8572	0.9327	0.9873	0.9986	1.0000	1.0000	1.0000	
	4500.	0.8343	0.8600	0.9365	0.9890	0.9989	1.0001	1.0001	1.0001	
26	300.	0.9675	0.9744	0.9906	0.9986	0.9998	1.0000	1.0000	1.0000	
	800.	0.9688	0.9756	0.9916	0.9987	0.9998	1.0000	1.0000	1.0000	
	2100.	0.9709	0.9775	0.9927	0.9991	0.9999	1.0001	1.0001	1.0001	
	4500.	0.9733	0.9797	0.9937	0.9993	0.9999	1.0001	1.0001	1.0001	
27	300.	0.9695	0.9744	0.9896	0.9984	0.9998	1.0000	1.0000	1.0000	
	800.	0.9707	0.9757	0.9904	0.9988	0.9999	1.0000	1.0001	1.0001	
	2100.	0.9726	0.9775	0.9916	0.9990	1.0002	1.0001	1.0001	1.0001	
	4500.	0.9745	0.9792	0.9926	0.9991	1.0002	1.0002	1.0002	1.0002	
28	300.	0.9175	0.9257	0.9611	0.9933	0.9993	0.9999	1.0000	1.0000	
	800.	0.9177	0.9258	0.9612	0.9933	0.9993	1.0000	1.0000	1.0000	
	2100.	0.9181	0.9263	0.9614	0.9935	0.9994	1.0000	1.0001	1.0001	
	4500.	0.9183	0.9265	0.9630	0.9936	0.9995	1.0002	1.0002	1.0002	
29	300.	0.9569	0.9589	0.9717	0.9931	0.9992	0.9999	1.0000	1.0000	
	800.	0.9569	0.9589	0.9717	0.9931	0.9992	0.9999	1.0000	1.0000	
	2100.	0.9570	0.9590	0.9718	0.9931	0.9992	1.0000	1.0001	1.0001	
	4500.	0.9571	0.9591	0.9719	0.9931	0.9993	1.0000	1.0001	1.0001	
30	300.	0.9525	0.9534	0.9616	0.9859	0.9981	0.9998	1.0000	1.0000	
	800.	0.9525	0.9535	0.9617	0.9859	0.9981	0.9998	1.0000	1.0000	
	2100.	0.9527	0.9536	0.9618	0.9860	0.9981	0.9999	1.0001	1.0001	
	4500.	0.9528	0.9538	0.9619	0.9860	0.9982	0.9999	1.0001	1.0001	
31	300.	0.9886	0.9889	0.9915	0.9974	0.9997	1.0000	1.0000	1.0000	
	800.	0.9887	0.9890	0.9916	0.9975	0.9998	1.0001	1.0001	1.0001	
	2100.	0.9889	0.9892	0.9919	0.9977	1.0000	1.0003	1.0003	1.0003	
	4500.	0.9892	0.9895	0.9922	0.9980	1.0003	1.0006	1.0006	1.0006	
32	300.	0.9734	0.9744	0.9814	0.9950	0.9994	0.9999	1.0000	1.0000	
	800.	0.9734	0.9744	0.9813	0.9949	0.9993	0.9998	0.9999	0.9999	
	2100.	0.9733	0.9743	0.9812	0.9948	0.9991	0.9997	0.9997	0.9997	
	4500.	0.9731	0.9741	0.9810	0.9946	0.9990	0.9995	0.9996	0.9996	
33	300.	0.9645	0.9668	0.9798	0.9959	0.9995	1.0000	1.0000	1.0000	
	800.	0.9646	0.9669	0.9799	0.9960	0.9996	1.0000	1.0001	1.0001	
	2100.	0.9648	0.9671	0.9800	0.9961	0.9998	1.0002	1.0002	1.0002	
	4500.	0.9649	0.9672	0.9802	0.9963	1.0000	1.0004	1.0004	1.0004	
34	300.	0.9927	0.9935	0.9967	0.9995	0.9999	1.0000	1.0000	1.0000	
	800.	0.9928	0.9936	0.9968	0.9995	1.0000	1.0000	1.0000	1.0000	
	2100.	0.9928	0.9936	0.9968	0.9996	1.0001	1.0001	1.0001	1.0001	
	4500.	0.9929	0.9937	0.9969	0.9997	1.0002	1.0002	1.0002	1.0002	
35	300.	1.0065	0.9937	0.9971	0.9991	0.9992	1.0002	1.0000	1.0000	
	800.	1.0098	0.9937	0.9977	0.9994	0.9999	1.0002	1.0000	1.0000	
	2100.	0.9756	0.9772	0.9983	0.9997	1.0000	1.0001	1.0000	1.0000	
	4500.	0.9970	0.9973	0.9987	0.9998	1.0000	1.0000	1.0000	1.0000	
36	300.	0.9989	0.9991	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	
	800.	0.9989	0.9991	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000	
	2100.	0.9989	0.9991	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000	
	4500.	0.9989	0.9991	0.9997	1.0000	1.0000	1.0000	1.0001	1.0001	

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = TOTAL		FOR		1TH R-PARAMETER			
				PAGE		1 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9970	0.9977	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9970	0.9977	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9970	0.9977	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9970	0.9977	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
2	300.	0.9991	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9991	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9991	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9991	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9984	0.9987	0.9994	1.0000	0.9999	1.0000	1.0000	1.0000
	800.	0.9984	0.9987	0.9994	0.9998	0.9999	1.0000	1.0000	1.0000
	2100.	0.9984	0.9987	0.9994	0.9998	0.9999	1.0000	1.0000	1.0000
	4500.	0.9984	0.9987	0.9994	0.9998	0.9999	1.0000	1.0000	1.0000
4	300.	0.9961	0.9969	0.9989	0.9999	1.0001	1.0000	1.0000	1.0000
	800.	0.9961	0.9969	0.9989	0.9999	1.0001	1.0000	1.0000	1.0000
	2100.	0.9961	0.9969	0.9990	0.9999	1.0001	1.0000	1.0000	1.0000
	4500.	0.9961	0.9969	0.9990	0.9999	1.0001	1.0000	1.0000	1.0000
5	300.	0.9856	0.9886	0.9960	0.9995	0.9999	1.0000	1.0000	1.0000
	800.	0.9857	0.9886	0.9960	0.9995	0.9999	1.0000	1.0000	1.0000
	2100.	0.9857	0.9887	0.9960	0.9995	0.9999	1.0000	1.0000	1.0000
	4500.	0.9857	0.9887	0.9960	0.9995	0.9999	1.0000	1.0000	1.0000
6	300.	0.9671	0.9738	0.9911	0.9988	0.9999	1.0000	1.0000	1.0000
	800.	0.9672	0.9738	0.9911	0.9988	0.9999	1.0000	1.0000	1.0000
	2100.	0.9674	0.9740	0.9912	0.9989	0.9999	1.0000	1.0000	1.0000
	4500.	0.9676	0.9741	0.9913	0.9989	1.0000	1.0001	1.0001	1.0001
7	300.	0.9436	0.9558	0.9859	0.9984	0.9998	1.0000	1.0000	1.0000
	800.	0.9437	0.9559	0.9859	0.9981	0.9998	1.0000	1.0000	1.0000
	2100.	0.9440	0.9561	0.9859	0.9980	0.9998	0.9999	1.0000	1.0000
	4500.	0.9442	0.9563	0.9860	0.9980	0.9997	0.9999	0.9999	0.9999
8	300.	0.8572	0.8912	0.9660	0.9957	0.9995	1.0000	1.0000	1.0000
	800.	0.8575	0.8914	0.9661	0.9957	0.9996	1.0000	1.0000	1.0000
	2100.	0.8580	0.8920	0.9662	0.9957	0.9996	1.0000	1.0000	1.0000
	4500.	0.8585	0.8924	0.9664	0.9957	0.9996	1.0000	1.0000	1.0000
9	300.	0.8154	0.8594	0.9538	0.9937	0.9996	1.0000	1.0000	1.0000
	800.	0.8157	0.8596	0.9538	0.9937	0.9995	0.9999	1.0000	1.0000
	2100.	0.8162	0.8600	0.9540	0.9936	0.9995	0.9999	0.9999	0.9999
	4500.	0.8168	0.8605	0.9541	0.9936	0.9994	0.9998	0.9998	0.9998
10	300.	0.8083	0.8531	0.9518	0.9935	0.9995	0.9999	1.0000	1.0000
	800.	0.8088	0.8535	0.9520	0.9936	0.9996	1.0000	1.0001	1.0001
	2100.	0.8094	0.8540	0.9522	0.9937	0.9997	1.0001	1.0002	1.0002
	4500.	0.8103	0.8547	0.9526	0.9939	0.9998	1.0002	1.0003	1.0003
11	300.	0.6877	0.7712	0.9282	0.9906	0.9990	0.9999	1.0000	1.0000
	800.	0.6883	0.7716	0.9284	0.9907	0.9991	1.0000	1.0001	1.0001
	2100.	0.6893	0.7723	0.9287	0.9909	0.9993	1.0002	1.0003	1.0003
	4500.	0.6904	0.7731	0.9292	0.9912	0.9995	1.0004	1.0005	1.0005
12	300.	0.6157	0.7277	0.9233	0.9906	0.9990	0.9998	1.0000	1.0000
	800.	0.6165	0.7282	0.9236	0.9906	0.9991	1.0004	1.0006	1.0006
	2100.	0.6177	0.7290	0.9241	0.9908	0.9996	1.0004	1.0006	1.0006
	4500.	0.6193	0.7301	0.9249	0.9914	1.0000	1.0009	1.0011	1.0011

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER PAGE 2 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.5100	0.6307	0.8945	0.9869	0.9970	0.9999	1.0000	1.0000
	800.	0.5106	0.6313	0.8946	0.9869	0.9970	0.9999	1.0000	1.0000
	2100.	0.5116	0.6321	0.8948	0.9870	0.9971	0.9999	1.0000	1.0000
	4500.	0.5129	0.6331	0.8952	0.9870	0.9971	0.9999	1.0000	1.0000
14	300.	0.6060	0.6802	0.8775	0.9822	0.9981	0.9998	1.0000	1.0000
	800.	0.6069	0.6810	0.8779	0.9823	0.9981	0.9998	1.0000	1.0000
	2100.	0.6083	0.6821	0.8785	0.9824	0.9982	0.9999	1.0001	1.0001
	4500.	0.6100	0.6836	0.8795	0.9827	0.9984	1.0001	1.0003	1.0003
15	300.	0.7529	0.7768	0.8670	0.9710	0.9965	0.9997	1.0000	1.0000
	800.	0.7533	0.7770	0.8676	0.9711	0.9966	0.9998	1.0000	1.0000
	2100.	0.7538	0.7774	0.8684	0.9716	0.9966	0.9997	0.9999	1.0000
	4500.	0.7542	0.7781	0.8697	0.9722	0.9966	0.9997	0.9999	0.9999
16	300.	0.8801	0.8892	0.9289	0.9768	0.9958	0.9997	1.0000	1.0000
	800.	0.8802	0.8897	0.9298	0.9776	0.9973	0.9997	1.0000	1.0000
	2100.	0.8808	0.8904	0.9320	0.9836	0.9976	0.9998	1.0000	1.0000
	4500.	0.8817	0.8916	0.9349	0.9852	0.9978	0.9999	1.0001	1.0001
17	300.	0.7577	0.7725	0.8523	0.9649	0.9959	0.9996	1.0000	1.0000
	800.	0.7573	0.7722	0.8526	0.9650	0.9960	0.9997	1.0000	1.0001
	2100.	0.7576	0.7725	0.8529	0.9651	0.9961	0.9998	1.0001	1.0002
	4500.	0.7577	0.7727	0.8538	0.9653	0.9961	0.9997	1.0001	1.0001
18	300.	0.2620	0.3067	0.4844	0.8159	0.9742	0.9973	0.9997	1.0000
	800.	0.2621	0.3068	0.4850	0.8161	0.9743	0.9974	0.9998	1.0001
	2100.	0.2624	0.3071	0.4858	0.8177	0.9745	0.9975	0.9999	1.0001
	4500.	0.2628	0.3075	0.4872	0.8190	0.9748	0.9975	0.9999	1.0001
19	300.	0.3202	0.3776	0.6319	0.9178	0.9903	0.9990	0.9999	1.0000
	800.	0.3204	0.3777	0.6321	0.9180	0.9904	0.9991	1.0000	1.0001
	2100.	0.3206	0.3780	0.6324	0.9184	0.9904	0.9991	0.9999	1.0000
	4500.	0.3210	0.3784	0.6330	0.9189	0.9905	0.9991	0.9999	1.0000
20	300.	0.7257	0.7825	0.9102	0.9806	0.9976	0.9997	1.0000	1.0000
	800.	0.7259	0.7829	0.9093	0.9826	0.9980	0.9999	1.0001	1.0001
	2100.	0.7265	0.7838	0.9148	0.9849	0.9985	0.9999	1.0001	1.0001
	4500.	0.7274	0.7852	0.9183	0.9868	0.9988	1.0001	1.0002	1.0002
21	300.	0.7980	0.8292	0.9450	1.0526	0.9993	1.0001	1.0000	1.0000
	800.	0.7985	0.8296	0.9455	1.0531	1.0841	1.0883	1.0885	1.0885
	2100.	0.7993	0.8304	0.9463	0.9905	1.0844	1.0884	1.0886	1.0886
	4500.	0.8002	0.8313	0.9474	1.0551	1.0847	1.0885	1.0887	1.0887
22	300.	0.1360	0.1532	0.2940	0.7494	0.9665	0.9965	0.9997	1.0000
	800.	0.1361	0.1534	0.2944	0.7498	0.9665	0.9967	0.9997	1.0000
	2100.	0.1363	0.1538	0.2949	0.7500	0.9667	0.9967	0.9998	1.0001
	4500.	0.1366	0.1541	0.2954	0.7503	0.9668	0.9968	0.9999	1.0002
23	300.	0.7035	0.7355	0.8293	0.9003	0.9277	0.9323	0.9999	1.0000
	800.	0.7050	0.7375	0.8329	0.9056	0.9289	0.9324	0.9328	0.9329
	2100.	0.7083	0.7413	0.8393	0.9113	0.9305	0.9326	0.9329	0.9330
	4500.	0.7130	0.7468	0.8464	0.9156	0.9311	0.9327	0.9329	0.9330
24	300.	0.6295	0.6954	0.8601	0.9649	0.9952	0.9996	1.0000	1.0000
	800.	0.6302	0.6964	0.8624	0.9677	0.9959	0.9996	1.0000	1.0000
	2100.	0.6321	0.6983	0.8661	0.9713	0.9964	0.9997	1.0000	1.0000
	4500.	0.6345	0.7016	0.8707	0.9747	0.9970	0.9999	1.0001	1.0001

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER PAGE 3 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.7561	0.7855	0.8807	0.9672	0.9955	0.9995	1.0000	1.0000
	800.	0.7520	0.7860	0.8827	0.9708	0.9965	0.9998	1.0000	1.0000
	2100.	0.7569	0.7870	0.8862	0.9746	0.9970	0.9998	1.0000	1.0000
	4500.	0.7577	0.7885	0.8902	0.9778	0.9976	1.0000	1.0001	1.0001
26	300.	0.9440	0.9555	0.9825	0.9972	0.9996	1.0000	1.0000	1.0000
	800.	0.9451	0.9568	0.9840	0.9976	0.9998	1.0000	1.0000	1.0000
	2100.	0.9473	0.9592	0.9859	0.9980	0.9999	1.0001	1.0001	1.0001
	4500.	0.9502	0.9621	0.9877	0.9984	0.9999	1.0000	1.0001	1.0001
27	300.	0.9461	0.9542	0.9803	0.9968	0.9996	1.0000	1.0000	1.0000
	800.	0.9474	0.9557	0.9817	0.9973	0.9998	1.0001	1.0002	1.0002
	2100.	0.9496	0.9579	0.9835	0.9978	0.9999	1.0001	1.0001	1.0001
	4500.	0.9519	0.9603	0.9853	0.9981	1.0001	1.0002	1.0002	1.0002
28	300.	0.8547	0.8676	0.9288	0.9867	0.9985	0.9999	1.0000	1.0000
	800.	0.8549	0.8678	0.9290	0.9868	0.9986	0.9999	1.0000	1.0000
	2100.	0.8551	0.8681	0.9294	0.9870	0.9987	1.0000	1.0001	1.0001
	4500.	0.8555	0.8684	0.9296	0.9871	0.9988	1.0001	1.0002	1.0002
29	300.	0.9079	0.9124	0.9409	0.9859	0.9983	0.9998	1.0000	1.0000
	800.	0.9080	0.9125	0.9410	0.9858	0.9984	0.9999	1.0000	1.0000
	2100.	0.9082	0.9127	0.9411	0.9859	0.9984	0.9999	1.0001	1.0001
	4500.	0.9083	0.9128	0.9413	0.9860	0.9985	1.0000	1.0001	1.0001
30	300.	0.9196	0.9211	0.9329	0.9729	0.9961	0.9996	1.0000	1.0000
	800.	0.9197	0.9212	0.9330	0.9730	0.9962	0.9996	1.0000	1.0000
	2100.	0.9199	0.9213	0.9332	0.9731	0.9962	0.9997	1.0001	1.0001
	4500.	0.9201	0.9215	0.9334	0.9732	0.9963	0.9997	1.0001	1.0001
31	300.	0.9786	0.9792	0.9837	0.9950	0.9993	0.9999	1.0000	1.0000
	800.	0.9787	0.9794	0.9838	0.9951	0.9995	1.0001	1.0001	1.0001
	2100.	0.9790	0.9796	0.9841	0.9953	0.9997	1.0003	1.0003	1.0004
	4500.	0.9793	0.9799	0.9843	0.9956	0.9999	1.0006	1.0006	1.0006
32	300.	0.9442	0.9463	0.9614	0.9900	0.9988	0.9999	1.0000	1.0000
	800.	0.9441	0.9463	0.9614	0.9899	0.9987	0.9998	0.9999	0.9999
	2100.	0.9441	0.9462	0.9613	0.9897	0.9985	0.9996	0.9997	0.9998
	4500.	0.9440	0.9462	0.9612	0.9896	0.9984	0.9994	0.9996	0.9996
33	300.	0.9316	0.9358	0.9603	0.9918	0.9991	0.9999	1.0000	1.0000
	800.	0.9316	0.9359	0.9604	0.9919	0.9992	1.0000	1.0001	1.0001
	2100.	0.9318	0.9360	0.9605	0.9920	0.9993	1.0001	1.0002	1.0002
	4500.	0.9319	0.9362	0.9607	0.9922	0.9995	1.0003	1.0004	1.0004
34	300.	0.9860	0.9873	0.9936	0.9989	0.9999	1.0000	1.0000	1.0000
	800.	0.9861	0.9873	0.9936	0.9990	0.9999	1.0000	1.0000	1.0000
	2100.	0.9861	0.9874	0.9937	0.9990	1.0000	1.0001	1.0001	1.0001
	4500.	0.9861	0.9875	0.9938	0.9991	1.0001	1.0002	1.0002	1.0002
35	300.	0.9462	0.9585	0.9425	0.9798	0.9968	0.9997	1.0000	1.0000
	800.	0.9478	0.9631	0.9431	0.9848	0.9979	0.9999	1.0000	1.0000
	2100.	0.9712	0.9529	0.9448	0.9893	0.9987	1.0001	1.0000	1.0001
	4500.	0.9555	0.9574	0.9699	0.9924	0.9991	1.0000	1.0001	1.0001
36	300.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9978	0.9982	0.9993	0.9999	1.0000	1.0001	1.0001	1.0001

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = TOTAL				FOR	1TH	R-PARAMETER		
						PAGE	2 OF	6		
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06	
13	300.	0.5100	0.6307	0.8945	0.9869	0.9970	0.9999	1.0000	1.0000	
	800.	0.5106	0.6313	0.8946	0.9869	0.9970	0.9999	1.0000	1.0000	
	2100.	0.5116	0.6321	0.8948	0.9870	0.9971	0.9999	1.0000	1.0000	
	4500.	0.5129	0.6331	0.8952	0.9870	0.9971	0.9999	1.0000	1.0000	
14	300.	0.6060	0.6802	0.8775	0.9822	0.9981	0.9998	1.0000	1.0000	
	800.	0.6069	0.6810	0.8779	0.9823	0.9981	0.9998	1.0000	1.0000	
	2100.	0.6083	0.6821	0.8785	0.9824	0.9982	0.9999	1.0001	1.0001	
	4500.	0.6100	0.6836	0.8795	0.9827	0.9984	0.9999	1.0001	1.0001	
15	300.	0.7529	0.7768	0.8670	0.9710	0.9965	0.9997	1.0000	1.0000	
	800.	0.7533	0.7770	0.8676	0.9711	0.9966	0.9997	1.0000	1.0000	
	2100.	0.7538	0.7774	0.8684	0.9716	0.9966	0.9997	0.9999	1.0000	
	4500.	0.7542	0.7781	0.8697	0.9722	0.9966	0.9997	0.9999	0.9999	
16	300.	0.8801	0.8892	0.9289	0.9768	0.9958	0.9997	1.0000	1.0000	
	800.	0.8802	0.8897	0.9298	0.9776	0.9958	0.9997	1.0000	1.0000	
	2100.	0.8808	0.8904	0.9320	0.9836	0.9973	0.9997	1.0000	1.0000	
	4500.	0.8817	0.8916	0.9349	0.9852	0.9978	0.9999	1.0001	1.0001	
17	300.	0.7577	0.7725	0.8523	0.9649	0.9959	0.9996	1.0000	1.0000	
	800.	0.7573	0.7722	0.8526	0.9650	0.9960	0.9997	1.0000	1.0001	
	2100.	0.7576	0.7725	0.8529	0.9651	0.9961	0.9998	1.0001	1.0002	
	4500.	0.7577	0.7727	0.8538	0.9653	0.9961	0.9997	1.0001	1.0001	
18	300.	0.2620	0.3067	0.4844	0.8159	0.9742	0.9973	0.9997	1.0000	
	800.	0.2621	0.3068	0.4850	0.8161	0.9743	0.9974	0.9998	1.0001	
	2100.	0.2624	0.3071	0.4858	0.8177	0.9745	0.9975	0.9999	1.0001	
	4500.	0.2628	0.3075	0.4872	0.8190	0.9748	0.9975	0.9999	1.0001	
19	300.	0.3202	0.3776	0.6319	0.9178	0.9903	0.9990	0.9999	1.0000	
	800.	0.3204	0.3777	0.6321	0.9180	0.9904	0.9991	1.0000	1.0001	
	2100.	0.3206	0.3780	0.6324	0.9184	0.9904	0.9991	0.9999	1.0000	
	4500.	0.3210	0.3784	0.6330	0.9189	0.9905	0.9991	0.9999	1.0000	
20	300.	0.7257	0.7825	0.9102	0.9806	0.9976	0.9997	1.0000	1.0000	
	800.	0.7259	0.7829	0.9093	0.9826	0.9980	0.9999	1.0001	1.0001	
	2100.	0.7265	0.7838	0.9148	0.9849	0.9985	0.9999	1.0001	1.0001	
	4500.	0.7274	0.7852	0.9183	0.9868	0.9988	1.0001	1.0002	1.0002	
21	300.	0.7980	0.8292	0.9450	1.0526	0.9993	1.0001	1.0000	1.0000	
	800.	0.7985	0.8296	0.9455	1.0531	1.0841	1.0883	1.0885	1.0885	
	2100.	0.7993	0.8304	0.9463	0.9905	1.0844	1.0884	1.0886	1.0886	
	4500.	0.8002	0.8313	0.9474	1.0551	1.0847	1.0885	1.0887	1.0887	
22	300.	0.1360	0.1532	0.2940	0.7494	0.9665	0.9965	0.9997	1.0000	
	800.	0.1361	0.1534	0.2944	0.7498	0.9665	0.9967	0.9997	1.0000	
	2100.	0.1363	0.1538	0.2949	0.7500	0.9667	0.9967	0.9998	1.0001	
	4500.	0.1366	0.1541	0.2954	0.7503	0.9668	0.9968	0.9999	1.0002	
23	300.	0.7035	0.7355	0.8293	0.9003	0.9277	0.9323	0.9999	1.0000	
	800.	0.7050	0.7375	0.8329	0.9056	0.9289	0.9324	0.9328	0.9329	
	2100.	0.7083	0.7413	0.8393	0.9113	0.9305	0.9326	0.9329	0.9330	
	4500.	0.7130	0.7468	0.8464	0.9156	0.9311	0.9327	0.9329	0.9330	
24	300.	0.6295	0.6954	0.8601	0.9649	0.9952	0.9996	1.0000	1.0000	
	800.	0.6302	0.6964	0.8624	0.9677	0.9959	0.9996	1.0000	1.0000	
	2100.	0.6321	0.6983	0.8661	0.9713	0.9964	0.9997	1.0000	1.0000	
	4500.	0.6345	0.7016	0.8707	0.9747	0.9970	0.9999	1.0001	1.0001	

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2		REACTION = TOTAL				FOR	1TH	R-PARAMETER		
						PAGE	3 OF	6		
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06	
25	300.	0.7561	0.7855	0.8807	0.9672	0.9955	0.9995	1.0000	1.0000	
	800.	0.7520	0.7860	0.8827	0.9708	0.9965	0.9998	1.0000	1.0000	
	2100.	0.7569	0.7870	0.8862	0.9746	0.9970	0.9998	1.0000	1.0000	
	4500.	0.7577	0.7885	0.8902	0.9778	0.9976	1.0000	1.0001	1.0001	
26	300.	0.9440	0.9555	0.9825	0.9972	0.9996	1.0000	1.0000	1.0000	
	800.	0.9451	0.9568	0.9840	0.9976	0.9998	1.0000	1.0000	1.0000	
	2100.	0.9473	0.9592	0.9859	0.9980	0.9999	1.0001	1.0001	1.0001	
	4500.	0.9502	0.9621	0.9877	0.9984	0.9999	1.0000	1.0001	1.0001	
27	300.	0.9461	0.9542	0.9803	0.9968	0.9996	1.0000	1.0000	1.0000	
	800.	0.9474	0.9557	0.9817	0.9973	0.9998	1.0001	1.0002	1.0002	
	2100.	0.9496	0.9579	0.9835	0.9978	0.9999	1.0001	1.0001	1.0001	
	4500.	0.9519	0.9603	0.9853	0.9981	1.0001	1.0002	1.0002	1.0002	
28	300.	0.8547	0.8676	0.9288	0.9867	0.9985	0.9999	1.0000	1.0000	
	800.	0.8549	0.8678	0.9290	0.9868	0.9986	0.9999	1.0000	1.0000	
	2100.	0.8551	0.8681	0.9294	0.9870	0.9987	1.0000	1.0001	1.0001	
	4500.	0.8555	0.8684	0.9296	0.9871	0.9988	1.0001	1.0002	1.0002	
29	300.	0.9079	0.9124	0.9409	0.9859	0.9983	0.9998	1.0000	1.0000	
	800.	0.9080	0.9125	0.9410	0.9858	0.9984	0.9999	1.0000	1.0000	
	2100.	0.9082	0.9127	0.9411	0.9859	0.9984	0.9999	1.0001	1.0001	
	4500.	0.9083	0.9128	0.9413	0.9860	0.9985	1.0000	1.0001	1.0001	
30	300.	0.9196	0.9211	0.9329	0.9729	0.9961	0.9996	1.0000	1.0000	
	800.	0.9197	0.9212	0.9330	0.9730	0.9962	0.9996	1.0000	1.0000	
	2100.	0.9199	0.9213	0.9332	0.9731	0.9962	0.9997	1.0001	1.0001	
	4500.	0.9201	0.9215	0.9334	0.9732	0.9963	0.9997	1.0001	1.0001	
31	300.	0.9786	0.9792	0.9837	0.9950	0.9993	0.9999	1.0000	1.0000	
	800.	0.9787	0.9794	0.9838	0.9951	0.9995	1.0001	1.0001	1.0001	
	2100.	0.9790	0.9796	0.9841	0.9953	0.9997	1.0003	1.0003	1.0004	
	4500.	0.9793	0.9799	0.9843	0.9956	0.9999	1.0006	1.0006	1.0006	
32	300.	0.9442	0.9463	0.9614	0.9900	0.9988	0.9999	1.0000	1.0000	
	800.	0.9441	0.9463	0.9614	0.9899	0.9987	0.9998	0.9999	0.9999	
	2100.	0.9441	0.9462	0.9613	0.9897	0.9985	0.9996	0.9997	0.9998	
	4500.	0.9440	0.9462	0.9612	0.9896	0.9984	0.9994	0.9996	0.9996	
33	300.	0.9316	0.9358	0.9603	0.9918	0.9991	0.9999	1.0000	1.0000	
	800.	0.9316	0.9359	0.9604	0.9919	0.9992	1.0000	1.0001	1.0001	
	2100.	0.9318	0.9360	0.9605	0.9920	0.9993	1.0001	1.0002	1.0002	
	4500.	0.9319	0.9362	0.9607	0.9922	0.9995	1.0003	1.0004	1.0004	
34	300.	0.9860	0.9873	0.9936	0.9989	0.9999	1.0000	1.0000	1.0000	
	800.	0.9861	0.9873	0.9936	0.9990	0.9999	1.0000	1.0000	1.0000	
	2100.	0.9861	0.9874	0.9937	0.9990	1.0000	1.0001	1.0001	1.0001	
	4500.	0.9861	0.9875	0.9938	0.9991	1.0001	1.0002	1.0002	1.0002	
35	300.	0.9462	0.9585	0.9425	0.9798	0.9968	0.9997	1.0000	1.0000	
	800.	0.9478	0.9631	0.9431	0.9848	0.9979	0.9999	1.0000	1.0000	
	2100.	0.9712	0.9529	0.9448	0.9893	0.9987	1.0001	1.0000	1.0001	
	4500.	0.9555	0.9574	0.9699	0.9924	0.9991	1.0000	1.0001	1.0001	
36	300.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000	
	800.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000	
	2100.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000	
	4500.	0.9978	0.9982	0.9993	0.9999	1.0000	1.0001	1.0001	1.0001	

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = CR-24-J2 REACTION = ELASTIC REMOVAL FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9589	0.9679	0.9899	0.9987	0.9999	1.0000	1.0000	1.0000
2	300.	0.9873	0.9900	0.9967	0.9996	1.0000	1.0000	1.0000	1.0000
3	300.	0.9774	0.9820	0.9942	0.9994	0.9999	1.0000	1.0000	1.0000
4	300.	0.9796	0.9832	0.9938	0.9992	0.9997	1.0000	1.0000	1.0000
5	300.	0.9971	0.9970	0.9982	0.9997	1.0000	1.0000	1.0000	1.0000
6	300.	0.9964	0.9970	0.9992	1.0001	0.9999	1.0000	1.0000	1.0000
7	300.	0.9293	0.9404	0.9771	0.9978	0.9995	1.0000	1.0000	1.0000
8	300.	1.0474	1.0289	1.0046	1.0000	1.0000	1.0000	0.9999	1.0000
9	300.	0.9007	0.9332	0.9850	0.9987	1.0000	1.0000	1.0000	1.0000
10	300.	0.9512	0.9721	0.9969	1.0001	1.0004	1.0000	1.0000	1.0000
11	300.	0.7697	0.8452	0.9638	0.9958	0.9997	1.0000	1.0000	1.0000
12	300.	0.8220	0.8929	0.9812	0.9990	0.9998	1.0000	1.0000	1.0000
13	300.	1.0054	0.9858	0.9857	0.9985	0.9995	1.0000	1.0000	1.0000
14	300.	1.1376	1.1085	1.0400	1.0056	1.0006	1.0001	1.0000	1.0000
15	300.	0.5833	0.6369	0.8252	0.9693	0.9967	0.9997	1.0000	1.0000
16	300.	0.7512	0.7861	0.9018	0.9797	0.9977	0.9998	1.0000	1.0000
17	300.	0.4191	0.4567	0.6618	0.9250	0.9916	0.9990	0.9998	1.0000
18	300.	0.6445	0.7260	0.8915	0.9792	0.9978	0.9997	1.0000	1.0000
19	300.	2.2818	2.0302	1.3884	1.0603	1.0064	1.0006	1.0001	1.0000
20	300.	0.5678	0.6666	0.8702	0.9726	0.9970	0.9997	0.9999	1.0000
21	300.	0.4852	0.5522	0.8001	0.9692	0.9970	1.0001	1.0001	1.0000
22	300.	1.2534	1.3130	1.2282	1.0535	1.0063	1.0006	1.0001	1.0000
23	300.	1.0398	1.0165	0.9701	0.9808	0.9971	0.9997	1.0000	1.0000
24	300.	1.0698	1.0239	0.9900	0.9979	0.9997	0.9999	1.0000	1.0000
25	300.	0.5858	0.6510	0.8522	0.9762	0.9975	0.9997	1.0000	1.0000
26	300.	0.8485	0.8905	0.9716	0.9965	0.9996	1.0000	1.0000	1.0000
27	300.	0.7940	0.8317	0.9399	0.9924	0.9991	0.9999	1.0000	1.0000
28	300.	0.5873	0.6213	0.7937	0.9623	0.9959	0.9996	1.0000	1.0000
29	300.	0.9186	0.9232	0.9514	0.9902	0.9989	0.9999	1.0000	1.0000
30	300.	0.6547	0.6619	0.7198	0.8957	0.9854	0.9985	0.9998	1.0000
31	300.	0.9417	0.9437	0.9586	0.9890	0.9985	0.9999	1.0000	1.0000
32	300.	1.3302	1.3167	1.2252	1.0582	1.0069	1.0007	1.0001	1.0000
33	300.	1.2730	1.2527	1.1455	1.0280	1.0031	1.0003	1.0000	1.0000
34	300.	1.1070	1.0956	1.0464	1.0076	1.0008	1.0001	1.0000	1.0000
35	300.	0.9873	0.9824	0.9713	0.9888	0.9985	1.0000	1.0000	1.0000
36	300.	1.0478	1.0408	1.0166	1.0024	1.0002	1.0000	1.0000	1.0000
37	300.	1.0322	1.0271	1.0106	1.0015	1.0002	1.0000	1.0000	1.0000
38	300.	1.0211	1.0174	1.0067	1.0009	1.0001	1.0000	1.0000	1.0000
39	300.	1.0150	1.0125	1.0046	1.0006	1.0001	1.0000	1.0000	1.0000
40	300.	1.0104	1.0086	1.0032	1.0004	1.0000	1.0000	1.0000	1.0000
41	300.	1.0073	1.0061	1.0022	1.0003	1.0000	1.0000	1.0000	1.0000
42	300.	1.0055	1.0045	1.0016	1.0002	1.0000	1.0000	1.0000	1.0000
43	300.	1.0039	1.0032	1.0011	1.0002	1.0000	1.0000	1.0000	1.0000
44	300.	1.0028	1.0023	1.0008	1.0001	1.0000	1.0000	1.0000	1.0000
45	300.	1.0021	1.0017	1.0006	1.0001	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

JAERI-M 82-135

NUCLID = MN-25-J2 CODE NO = 25
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1 0.0	0.0	3.6501E-02	1.6252E+00	1.6364E+00	8.4246E-01	7.3726E-02	0.0	3.2981E+00
2 0.0	0.0	2.5541E-02	1.6792E+00	1.8296E+00	7.7044E-01	9.3353E-02	0.0	3.5344E+00
3 0.0	0.0	1.1473E-02	1.6711E+00	1.9946E+00	7.0964E-01	1.1130E-01	0.0	3.6772E+00
4 0.0	0.0	2.7787E-03	1.6121E+00	2.0984E+00	6.3572E-01	1.3687E-01	0.0	3.7133E+00
5 0.0	0.0	1.6093E-03	1.4710E+00	2.2439E+00	5.5274E-01	1.7354E-01	0.0	3.7165E+00
6 0.0	0.0	2.0371E-03	1.2328E+00	2.3998E+00	4.7656E-01	1.9967E-01	0.0	3.6346E+00
7 0.0	0.0	2.3920E-03	1.0263E+00	2.5283E+00	3.4577E-01	2.5786E-01	0.0	3.5570E+00
8 0.0	0.0	2.5565E-03	8.8682E-01	2.5192E+00	2.2700E-01	3.0674E-01	0.0	3.4086E+00
9 0.0	0.0	3.1492E-03	7.8172E-01	2.6223E+00	1.7628E-01	2.6743E-01	0.0	3.4071E+00
10 0.0	0.0	3.6931E-03	6.7324E-01	2.5812E+00	1.6021E-01	3.7326E-01	0.0	3.2581E+00
11 0.0	0.0	3.7063E-03	6.2585E-01	2.5348E+00	1.7838E-01	3.3703E-01	0.0	3.1644E+00
12 0.0	0.0	4.0392E-03	5.8008E-01	2.6761E+00	1.6134E-01	3.7346E-01	0.0	3.2602E+00
13 0.0	0.0	5.0066E-03	5.3825E-01	3.3202E+00	1.2872E-01	3.5284E-01	0.0	3.8635E+00
14 0.0	0.0	6.1590E-03	4.9570E-01	3.0210E+00	1.0131E-01	4.4564E-01	0.0	3.5228E+00
15 0.0	0.0	7.2028E-03	4.5604E-01	2.8847E+00	8.0933E-02	5.2076E-01	0.0	3.3480E+00
16 0.0	0.0	8.6493E-03	4.0644E-01	5.9116E+00	6.4903E-02	8.6963E-01	0.0	6.3267E+00
17 0.0	0.0	1.1141E-02	3.3446E-01	4.5155E+00	5.3647E-02	5.3473E-01	0.0	4.8611E+00
18 0.0	0.0	1.4395E-02	1.0250E-01	8.1481E+00	4.3562E-02	8.9407E-01	0.0	8.2650E+00
19 0.0	0.0	1.8320E-02	0.0	5.5556E+00	3.6586E-02	7.5521E-01	0.0	5.5739E+00
20 0.0	0.0	2.1808E-02	0.0	7.9462E+00	2.1971E-02	9.8155E-01	0.0	7.9680E+00
21 0.0	0.0	2.9638E-02	0.0	1.0726E+01	2.9978E-02	3.2198E-01	0.0	1.0755E+01
22 0.0	0.0	2.9448E-02	0.0	7.0976E+00	2.1302E-02	2.2527E+00	0.0	7.1271E+00
23 0.0	0.0	4.3275E-02	0.0	1.9369E+01	1.6403E-02	1.7514E-01	0.0	1.9412E+01
24 0.0	0.0	5.7752E-02	0.0	9.3135E+00	2.6811E-02	4.7732E-01	0.0	9.3712E+00
25 0.0	0.0	6.5502E-02	0.0	2.2100E+01	1.2240E-02	9.6848E-01	0.0	2.2165E+01
26 0.0	0.0	8.7884E-02	0.0	2.8928E+00	1.2240E-02	2.6649E-01	0.0	2.9807E+00
27 0.0	0.0	7.2882E-02	0.0	3.8288E+00	1.2240E-02	6.9336E-01	0.0	3.9017E+00
28 0.0	0.0	9.0546E-02	0.0	1.5165E+01	1.2240E-02	4.3214E+00	0.0	1.5255E+01
29 0.0	0.0	9.0427E-02	0.0	6.9602E+01	1.2240E-02	1.4466E+01	0.0	6.9692E+01
30 0.0	0.0	4.4101E-02	0.0	2.7810E+01	1.2240E-02	5.0683E-01	0.0	2.7854E+01
31 0.0	0.0	7.7309E-03	0.0	6.8955E+00	1.2240E-02	1.2395E+00	0.0	6.9033E+00
32 0.0	0.0	1.5990E-02	0.0	1.9429E+01	1.2240E-02	3.4152E+00	0.0	1.9445E+01
33 0.0	0.0	9.7099E-02	0.0	9.7697E+01	1.2240E-02	2.6711E+01	0.0	9.7794E+01
34 0.0	0.0	5.7974E-01	0.0	4.4119E+02	1.2240E-02	3.2520E+01	0.0	4.4177E+02
35 0.0	0.0	1.4698E-01	0.0	7.3599E+01	1.2240E-02	3.9029E+00	0.0	7.3746E+01
36 0.0	0.0	9.3984E-02	0.0	1.5105E+01	1.2240E-02	8.0387E-01	0.0	1.5199E+01
37 0.0	0.0	3.9173E+00	0.0	1.2064E+02	1.2240E-02	3.4493E+00	0.0	1.2455E+02
38 0.0	0.0	1.1913E-01	0.0	1.7299E+01	1.2240E-02	1.6430E+00	0.0	1.7418E+01
39 0.0	0.0	1.1408E-01	0.0	1.4984E+01	1.2240E-02	1.9588E+00	0.0	1.5098E+01
40 0.0	0.0	2.9589E-01	0.0	2.5964E+01	1.2240E-02	4.3200E+00	0.0	2.6260E+01

TO BE CONTINUED

NUCLID = MN-25-J2 CODE NO = 25
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41 0.0	0.0	3.4409E+00	0.0	1.8250E+02	1.2240E-02	6.4389E+01	0.0	1.8594E+02
42 0.0	0.0	2.8315E+01	0.0	1.2062E+03	1.2240E-02	1.3979E+01	0.0	1.2345E+03
43 0.0	0.0	1.6472E+00	0.0	4.7636E+01	1.2240E-02	2.3506E+00	0.0	4.9284E+01
44 0.0	0.0	6.8530E-01	0.0	1.4305E+01	1.2240E-02	1.0390E+00	0.0	1.4990E+01
45 0.0	0.0	4.7460E-01	0.0	7.5709E+00	1.2240E-02	6.2483E-01	0.0	8.0455E+00
46 0.0	0.0	4.0062E-01	0.0	5.0867E+00	1.2240E-02	4.0393E-01	0.0	5.4873E+00
47 0.0	0.0	3.7379E-01	0.0	3.8661E+00	1.2240E-02	2.9960E-01	0.0	4.2399E+00
48 0.0	0.0	3.7041E-01	0.0	3.1778E+00	1.2240E-02	2.4477E-01	0.0	3.5482E+00
49 0.0	0.0	3.7966E-01	0.0	2.7443E+00	1.2240E-02	2.0282E-01	0.0	3.1239E+00
50 0.0	0.0	4.0122E-01	0.0	2.4804E+00	1.2240E-02	1.7149E-01	0.0	2.8816E+00
51 0.0	0.0	4.3355E-01	0.0	2.2934E+00	1.2240E-02	2.3320E-01	0.0	2.7270E+00
52 0.0	0.0	4.7159E-01	0.0	2.1645E+00	1.2240E-02	1.9915E-01	0.0	2.6361E+00
53 0.0	0.0	5.1567E-01	0.0	2.0735E+00	1.2240E-02	1.1761E-01	0.0	2.5892E+00
54 0.0	0.0	5.7252E-01	0.0	1.9952E+00	1.2240E-02	1.3893E-01	0.0	2.5677E+00
55 0.0	0.0	6.3717E-01	0.0	1.9355E+00	1.2240E-02	1.3366E-01	0.0	2.5707E+00
56 0.0	0.0	7.1914E-01	0.0	1.8836E+00	1.2240E-02	1.9605E-01	0.0	2.6028E+00
57 0.0	0.0	8.0544E-01	0.0	1.8539E+00	1.2240E-02	1.9885E-01	0.0	2.6593E+00
58 0.0	0.0	9.0665E-01	0.0	1.8311E+00	1.2240E-02	1.9667E-01	0.0	2.7577E+00
59 0.0	0.0	1.0240E+00	0.0	1.8148E+00	1.2240E-02	1.9519E-01	0.0	2.8388E+00
60 0.0	0.0	1.1508E+00	0.0	1.8026E+00	1.2240E-02	1.9397E-01	0.0	2.9534E+00
61 0.0	0.0	1.3018E+00	0.0	1.7927E+00	1.2240E-02	1.9305E-01	0.0	3.0945E+00
62 0.0	0.0	1.4730E+00	0.0	1.7847E+00	1.2240E-02	1.9224E-01	0.0	3.2578E+00
63 0.0	0.0	1.6617E+00	0.0	1.7782E+00	1.2240E-02	1.9161E-01	0.0	3.4399E+00
64 0.0	0.0	1.8829E+00	0.0	1.7727E+00	1.2240E-02	1.9108E-01	0.0	3.6556E+00
65 0.0	0.0	2.1296E+00	0.0	1.7683E+00	1.2240E-02	1.9060E-01	0.0	3.8979E+00
66 0.0	0.0	2.4096E+00	0.0	1.7655E+00	1.2240E-02	1.9040E-01	0.0	4.1750E+00
67 0.0	0.0	2.7349E+00	0.0	1.7634E+00	1.2240E-02	1.9020E-01	0.0	4.4983E+00
68 0.0	0.0	3.0900E+00	0.0	1.7619E+00	1.2240E-02	1.9005E-01	0.0	4.8519E+00
69 0.0	0.0	3.5017E+00	0.0	1.7609E+00	1.2240E-02	1.8999E-01	0.0	5.2626E+00
70 0.0	0.0	4.5882E+00	0.0	1.7601E+00	1.2240E-02	0.0	0.0	6.3483E+00

JAERI-M 82-135

NUCLID = MN-25-J2 CODE NUMBER = 25 IPL = 0

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TABLE OF INELASTIC MATRICES										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
1	J= 1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51									
1	5.70152E-03	4.19265E-02	6.89425E-02	1.19636E-01	1.73697E-01	2.08443E-01	2.15514E-01	1.98149E-01	1.66370E-01	1.29994E-01
	9.60623E-02	6.80679E-02	4.65813E-02	3.10340E-02	2.02500E-02	1.30044E-02	8.24744E-03	5.17745E-03	3.22646E-03	1.99858E-03
	1.23216E-03	7.56932E-04	4.63715E-04	2.83430E-04	1.72958E-04	1.05417E-04	6.41481E-05	3.90298E-05	2.37233E-05	1.44136E-05
	8.75392E-06	5.31517E-06	3.22628E-06	1.95820E-06	5.14130E-09	3.12116E-09	1.89466E-09	1.14989E-09	6.97767E-10	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	6.20351E-02	1.63977E-01	1.38673E-01	1.51574E-01	1.88540E-01	2.00498E-01	1.88446E-01	1.60970E-01	1.27478E-01	9.51977E-02
	6.79088E-02	4.67384E-02	3.12829E-02	2.04853E-02	1.31917E-02	8.38401E-03	5.27182E-03	3.28945E-03	2.03961E-03	1.25842E-03
	7.73520E-04	4.74095E-04	2.89879E-04	1.76943E-04	1.07869E-04	6.56512E-05	3.99495E-05	2.42848E-05	1.47559E-05	8.96239E-06
	5.44201E-06	3.30340E-06	2.00507E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	1.20684E-01	2.84232E-01	2.22506E-01	1.78880E-01	1.77052E-01	1.66863E-01	1.42839E-01	1.13307E-01	8.47254E-02	6.04997E-02
	4.16721E-02	2.79091E-02	1.82848E-02	1.17791E-02	7.48839E-03	4.70974E-03	2.93925E-03	1.82272E-03	1.12472E-03	6.91396E-04
	4.23789E-04	2.59133E-04	1.58181E-04	9.64345E-05	5.86934E-05	3.57163E-05	2.17118E-05	1.31927E-05	8.01298E-06	4.86556E-06
	2.95350E-06	1.79269E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	1.77697E-01	3.02163E-01	2.82628E-01	2.08864E-01	1.60666E-01	1.31657E-01	1.04437E-01	7.80930E-02	5.57637E-02	3.84099E-02
	2.57245E-02	1.68534E-02	1.08570E-02	6.90219E-03	4.34105E-03	2.70916E-03	1.68004E-03	1.03668E-03	6.37273E-04	3.90614E-04
	2.38848E-04	1.45799E-04	8.88855E-05	5.40988E-05	3.29204E-05	2.00122E-05	1.21599E-05	7.38571E-06	4.48468E-06	2.72229E-06
	1.65236E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	2.32974E-01	2.23310E-01	2.91029E-01	1.83678E-01	1.24270E-01	1.44041E-01	8.69580E-02	6.20939E-02	4.27702E-02	2.86445E-02
	1.87666E-02	1.20895E-02	7.68572E-03	4.83384E-03	3.01670E-03	1.87075E-03	1.15436E-03	7.09615E-04	4.34956E-04	2.65961E-04
	1.62350E-04	9.89756E-05	6.02401E-05	3.66575E-05	2.22839E-05	1.35403E-05	8.22413E-06	4.99377E-06	3.03132E-06	1.83993E-06
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
6	2.62405E-01	1.70769E-01	1.93995E-01	1.86048E-01	1.10805E-01	7.78993E-02	3.15535E-02	4.79709E-02	6.27404E-02	3.31331E-02
	2.06418E-02	1.31228E-02	8.25342E-03	5.15079E-03	3.19417E-03	1.97098E-03	1.21161E-03	7.42655E-04	4.54109E-04	2.77200E-04
	1.68993E-04	1.02855E-04	6.25899E-05	3.80482E-05	2.31190E-05	1.40421E-05	8.52649E-06	5.17576E-06	3.14155E-06	1.90656E-06
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

NUCLID = MN-25-J2 CODE NUMBER = 25 IPL = 0

PAGE 2 OF 3

TABLE OF INELASTIC MATRICES										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
1	J= 1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51									
7	2.94432E-01	2.09089E-01	6.87501E-02	1.33587E-01	9.82420E-02	6.16167E-02	4.08575E-02	2.18039E-02	3.23222E-02	2.36160E-02
	1.16032E-02	7.05350E-03	5.03991E-03	3.60596E-03	4.71945E-03	3.30891E-03	2.18713E-03	1.46774E-03	9.76786E-04	6.57454E-04
	4.44221E-04	3.03621E-04	2.05549E-04	1.28962E-04	8.81357E-05	6.55580E-05	3.42944E-05	3.20989E-05	1.56331E-05	9.80960E-06
	9.42501E-06	9.39600E-06	9.64012E-06	1.84577E-06	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	3.07404E-01	2.78561E-01	0.0	4.13833E-02	7.73461E-02	5.80863E-02	3.66952E-02	1.01221E-02	7.75606E-03	1.79858E-02
	1.57599E-02	1.10023E-02	7.74136E-03	5.47243E-03	3.82367E-03	2.43839E-03	1.53829E-03	1.08036E-03	7.68434E-04	5.50375E-04
	3.89939E-04	2.71373E-04	1.88696E-04	1.29066E-04	8.84030E-05	6.83934E-05	4.13942E-05	3.44120E-05	2.05303E-05	2.08791E-05
	1.12826E-05	6.74332E-06	6.90816E-06	7.18039E-06	7.56674E-06	8.06937E-06	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	2.79673E-01	3.54544E-01	0.0	0.0	0.0	2.11904E-02	3.56638E-02	2.48262E-02	1.73724E-02	1.21494E-02
	2.52951E-03	6.04318E-03	3.92905E-03	1.07594E-03	2.57074E-03	3.93765E-03	2.97436E-03	2.11932E-03	1.51001E-03	1.07197E-03
	7.50670E-04	5.21218E-04	3.59364E-04	2.50599E-04	1.77303E-04	1.26496E-04	9.15166E-05	6.64270E-05	4.80147E-05	3.63852E-05
	2.70042E-05	1.98542E-05	1.49706E-05	1.24736E-05	8.15678E-06	8.17476E-06	3.83736E-06	4.11419E-06	4.49803E-06	2.58422E-06
	1.50227E-06	1.70265E-06	1.93005E-06	2.18730E-06	2.47895E-06	2.43243E-06	1.69960E-06	0.0	0.0	0.0
10	1.99586E-01	4.19873E-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	1.50581E-03	1.13052E-02	1.19858E-02	8.58355E-03	6.14629E-03	4.39682E-03	3.14059E-03	2.24282E-03	1.56540E-03	1.05717E-03
	1.05717E-03	6.82041E-04	4.23440E-04	2.66209E-04	1.67958E-04	1.06307E-04	6.92278E-05	4.52223E-05	2.89652E-05	1.94508E-05
	1.50622E-05	7.61986E-06	7.86805E-06	3.78041E-06	2.83293E-06	2.95344E-06	3.11861E-06	7.22327E-07	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
11	8.76644E-07									
	1.06479E-01	4.92953E-01	2.64197E-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	1.31671E-02	4.39172E-01	1.27738E-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

NUCLID = MN-25-J2 CODE NUMBER = 25 IPL = 0

TABLE OF INELASTIC MATRICES

PAGE 3 OF 3

GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	4	5	6	7	8	9	10
I	J	1	2	3	4	5	6	7	8	9	10
11	11	12	13	14	15	16	17	18	19	20	
21	21	22	23	24	25	26	27	28	29	30	
31	31	32	33	34	35	36	37	38	39	40	
41	41	42	43	44	45	46	47	48	49	50	
51	51										

13	0.0	2.82839E-01	2.55415E-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	0.0	9.46611E-02	3.11999E-01	8.90437E-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	0.0	0.0	1.82880E-01	2.21009E-01	5.21507E-02	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
16	0.0	0.0	0.0	1.41992E-01	1.55013E-01	1.05243E-01	4.19030E-03	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	0.0	0.0	0.0	0.0	1.21663E-02	1.03658E-01	8.02704E-02	5.86952E-02	4.23332E-02	3.03150E-02	
	7.01749E-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
18	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	6.20057E-04	2.13628E-02	
	2.31254E-02	1.61793E-02	1.14534E-02	8.21909E-03	5.98553E-03	4.39572E-03	3.26966E-03	2.40698E-03	1.75776E-03	1.24991E-03	
	8.58087E-04	5.83787E-04	3.80591E-04	2.32730E-04	1.46083E-04	9.59436E-05	5.41159E-05	4.46540E-05	1.98690E-05	2.02849E-05	
	1.27324E-05	4.48544E-06	4.58268E-06	4.75262E-06	4.99600E-06	5.31796E-06	2.05976E-06	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = MN-25-J2 REACTION = CAPTURE

FOR 1TH R-PARAMETER

PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	1.0021	1.0016	1.0005	1.0001	1.0000	1.0000	1.0000	1.0000
2	300.	1.0022	1.0017	1.0006	1.0001	1.0000	1.0000	1.0000	1.0000
3	300.	1.0023	1.0019	1.0006	1.0001	1.0000	1.0000	1.0000	1.0000
4	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	1.0002	1.0002	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
6	300.	1.0005	1.0004	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
7	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8	300.	1.0002	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
9	300.	1.0023	1.0018	1.0006	1.0001	1.0000	1.0000	1.0000	1.0000
10	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
11	300.	0.9996	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
12	300.	1.0005	1.0004	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
13	300.	1.0009	1.0008	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000
14	300.	0.9982	0.9985	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
15	300.	0.9970	0.9975	0.9990	0.9999	1.0000	1.0000	1.0000	1.0000
16	300.	0.9929	0.9939	0.9974	0.9996	1.0000	1.0000	1.0000	1.0000
17	300.	1.0044	1.0038	1.0016	1.0002	1.0000	1.0000	1.0000	1.0000
18	300.	1.0005	1.0005	1.0004	1.0001	1.0000	1.0000	1.0000	1.0000
19	300.	1.0153	1.0132	1.0057	1.0009	1.0001	1.0000	1.0000	1.0000
20	300.	0.9753	0.9747	0.9799	0.9947	0.9994	0.9999	1.0000	1.0000
21	300.	0.8985	0.9079	0.9425	0.9860	0.9983	0.9998	1.0000	1.0000
22	300.	0.9311	0.9350	0.9545	0.9860	0.9982	0.9998	1.0000	1.0000
23	300.	0.8912	0.8942	0.9136	0.9694	0.9958	0.9996	1.0000	1.0000
24	300.	0.8167	0.8119	0.8626	0.9586	0.9946	0.9994	0.9999	1.0000
25	300.	0.8922	0.8952	0.9185	0.9723	0.9962	0.9996	1.0000	1.0000
26	300.	0.7556	0.7554	0.8126	0.9336	0.9907	0.9990	0.9999	1.0000
27	300.	0.9835	0.9865	0.9951	0.9993	0.9999	1.0000	1.0000	1.0000
28	300.	0.9797	0.9813	0.9897	0.9986	0.9999	1.0000	1.0000	1.0000
29	300.	0.5738	0.5796	0.6277	0.8107	0.9652	0.9962	0.9996	1.0000
30	300.	0.3633	0.3789	0.4810	0.7587	0.9579	0.9954	0.9995	1.0000
31	300.	0.9843	0.9858	0.9926	0.9987	0.9999	1.0000	1.0000	1.0000
32	300.	0.9006	0.9046	0.9318	0.9817	0.9978	0.9998	1.0000	1.0000
33	300.	0.6888	0.6913	0.7141	0.8278	0.9625	0.9957	0.9996	1.0000
34	300.	0.8772	0.8775	0.8806	0.9041	0.9661	0.9954	0.9995	1.0000
35	300.	0.8386	0.8406	0.8579	0.9280	0.9872	0.9986	0.9999	1.0000
36	300.	1.1151	1.1044	1.0556	1.0103	1.0011	1.0001	1.0000	1.0000
37	300.	0.1343	0.1404	0.1824	0.3381	0.6895	0.9455	0.9941	0.9994
38	300.	0.9644	0.9659	0.9764	0.9941	0.9993	0.9999	1.0000	1.0000
39	300.	0.9892	0.9898	0.9933	0.9985	0.9998	1.0000	1.0000	1.0000
40	300.	0.9052	0.9080	0.9286	0.9775	0.9971	0.9997	1.0000	1.0000
41	300.	0.4706	0.4725	0.4903	0.6031	0.8522	0.9783	0.9977	0.9998
42	300.	0.3696	0.3504	0.3586	0.4236	0.6711	0.9276	0.9916	0.9991
43	300.	0.8612	0.8638	0.8851	0.9529	0.9930	0.9993	0.9999	1.0000
44	300.	0.9698	0.9715	0.9819	0.9960	0.9995	1.0000	1.0000	1.0000
45	300.	0.9917	0.9925	0.9963	0.9994	0.9999	1.0000	1.0000	1.0000

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = MN-25-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9991	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9996	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
7	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
8	300.	1.0000	1.0000	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000
9	300.	0.9989	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
10	300.	0.9992	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
11	300.	0.9947	0.9958	0.9986	0.9998	1.0000	1.0000	1.0000	1.0000
12	300.	0.9935	0.9949	0.9984	0.9998	1.0000	1.0000	1.0000	1.0000
13	300.	0.9972	0.9977	0.9992	0.9998	1.0000	1.0000	1.0000	1.0000
14	300.	0.9966	0.9972	0.9990	0.9999	1.0000	1.0000	1.0000	1.0000
15	300.	0.9560	0.9645	0.9877	0.9984	0.9998	1.0000	1.0000	1.0000
16	300.	0.9710	0.9749	0.9892	0.9984	0.9998	1.0000	1.0000	1.0000
17	300.	0.9910	0.9922	0.9968	0.9995	1.0000	1.0000	1.0000	1.0000
18	300.	0.9570	0.9613	0.9804	0.9967	0.9996	1.0000	1.0000	1.0000
19	300.	0.8376	0.8620	0.9425	0.9914	0.9991	0.9999	1.0000	1.0000
20	300.	0.8450	0.8591	0.9177	0.9818	0.9979	0.9998	1.0000	1.0000
21	300.	0.3266	0.4242	0.6931	0.9333	0.9923	0.9992	0.9999	1.0000
22	300.	0.7300	0.7488	0.8348	0.9532	0.9940	0.9994	0.9999	1.0000
23	300.	0.1434	0.2454	0.5274	0.8564	0.9809	0.9980	0.9998	1.0000
24	300.	0.2249	0.3113	0.5392	0.8564	0.9808	0.9980	0.9998	1.0000
25	300.	0.4364	0.4736	0.6290	0.8771	0.9831	0.9982	0.9998	1.0000
26	300.	0.3684	0.4713	0.6327	0.8753	0.9827	0.9982	0.9998	1.0000
27	300.	0.9218	0.9360	0.9768	0.9968	0.9997	1.0000	1.0000	1.0000
28	300.	0.7270	0.7382	0.8087	0.9419	0.9925	0.9992	0.9999	1.0000
29	300.	0.5372	0.5436	0.5966	0.7967	0.9630	0.9959	0.9996	1.0000
30	300.	0.2784	0.2934	0.3979	0.7103	0.9487	0.9944	0.9994	0.9999
31	300.	0.9282	0.9361	0.9691	0.9949	0.9995	0.9999	1.0000	1.0000
32	300.	0.9007	0.9048	0.9322	0.9819	0.9978	0.9998	1.0000	1.0000
33	300.	0.7213	0.7237	0.7444	0.8470	0.9669	0.9962	0.9996	1.0000
34	300.	0.8592	0.8596	0.8632	0.8906	0.9619	0.9948	0.9995	0.9999
35	300.	0.7673	0.7702	0.7952	0.8964	0.9815	0.9980	0.9998	1.0000
36	300.	0.8208	0.8334	0.8990	0.9782	0.9975	0.9997	1.0000	1.0000
37	300.	0.0865	0.0945	0.1513	0.3409	0.6983	0.9473	0.9943	0.9994
38	300.	0.9754	0.9765	0.9838	0.9960	0.9995	1.0000	1.0000	1.0000
39	300.	0.9954	0.9957	0.9972	0.9994	0.9999	1.0000	1.0000	1.0000
40	300.	0.9355	0.9374	0.9514	0.9847	0.9980	0.9998	1.0000	1.0000
41	300.	0.5226	0.5244	0.5409	0.6442	0.8686	0.9808	0.9980	0.9998
42	300.	0.3241	0.3250	0.3334	0.4001	0.6569	0.9245	0.9913	0.9992
43	300.	0.8282	0.8314	0.8577	0.9415	0.9912	0.9991	0.9999	1.0000
44	300.	0.9534	0.9561	0.9721	0.9939	0.9993	0.9999	1.0000	1.0000
45	300.	0.9832	0.9849	0.9925	0.9987	0.9999	1.0000	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = MN-25-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9989	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
6	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
7	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
8	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
9	300.	0.9979	0.9983	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
10	300.	0.9985	0.9989	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
11	300.	0.9923	0.9938	0.9979	0.9997	1.0000	1.0000	1.0000	1.0000
12	300.	0.9894	0.9916	0.9973	0.9997	1.0000	1.0000	1.0000	1.0000
13	300.	0.9951	0.9960	0.9986	0.9998	1.0000	1.0000	1.0000	1.0000
14	300.	0.9944	0.9955	0.9984	0.9998	1.0000	1.0000	1.0000	1.0000
15	300.	0.9300	0.9426	0.9794	0.9972	0.9997	1.0000	1.0000	1.0000
16	300.	0.9452	0.9526	0.9799	0.9970	0.9997	1.0000	1.0000	1.0000
17	300.	0.9834	0.9857	0.9939	0.9991	0.9999	1.0000	1.0000	1.0000
18	300.	0.9179	0.9258	0.9619	0.9934	0.9993	0.9999	1.0000	1.0000
19	300.	0.7076	0.7463	0.8884	0.9828	0.9982	0.9998	1.0000	1.0000
20	300.	0.7353	0.7640	0.8595	0.9651	0.9958	0.9996	1.0000	1.0000
21	300.	0.1167	0.1870	0.4852	0.8715	0.9846	0.9984	0.9998	1.0000
22	300.	0.6231	0.6467	0.7515	0.9152	0.9882	0.9988	0.9999	1.0000
23	300.	0.0312	0.0627	0.2912	0.7366	0.9622	0.9960	0.9996	1.0000
24	300.	0.0803	0.1592	0.3591	0.7454	0.9623	0.9960	0.9996	1.0000
25	300.	0.2068	0.2484	0.4324	0.7757	0.9666	0.9965	0.9996	1.0000
26	300.	0.1707	0.3725	0.5290	0.7884	0.9667	0.9965	0.9996	1.0000
27	300.	0.8567	0.8810	0.9551	0.9937	0.9993	0.9999	1.0000	1.0000
28	300.	0.6063	0.6180	0.6990	0.8929	0.9851	0.9985	0.9998	1.0000
29	300.	0.3563	0.3612	0.4052	0.6433	0.9275	0.9920	0.9992	0.9999
30	300.	0.1858	0.1923	0.2477	0.5320	0.9009	0.9888	0.9989	0.9999
31	300.	0.8679	0.8812	0.9402	0.9899	0.9989	0.9999	1.0000	1.0000
32	300.	0.8233	0.8298	0.8746	0.9645	0.9956	0.9996	1.0000	1.0000
33	300.	0.5746	0.5772	0.6009	0.7354	0.9357	0.9924	0.9992	0.9999
34	300.	0.7253	0.7260	0.7327	0.7842	0.9236	0.9896	0.9989	0.9999
35	300.	0.6174	0.6211	0.6545	0.8091	0.9636	0.9960	0.9996	1.0000
36	300.	0.6686	0.6897	0.8061	0.9571	0.9951	0.9995	0.9999	1.0000
37	300.	0.0403	0.0425	0.0651	0.1921	0.5219	0.8986	0.9886	0.9991
38	300.	0.9537	0.9557	0.9688	0.9921	0.9991	0.9999	1.0000	1.0000
39	300.	0.9911	0.9916	0.9945	0.9987	0.9999	1.0000	1.0000	1.0000
40	300.	0.8842	0.8872	0.9103	0.9701	0.9961	0.9996	1.0000	1.0000
41	300.	0.3811	0.3825	0.3958	0.4893	0.7683	0.9621	0.9959	0.9996
42	300.	0.1487	0.1492	0.1535	0.1920	0.4309	0.8535	0.9825	0.9982
43	300.	0.7019	0.7067	0.7465	0.8885	0.9827	0.9982	0.9998	1.0000
44	300.	0.9109	0.9159	0.9459	0.9880	0.9986	0.9999	1.0000	1.0000
45	300.	0.9677	0.9709	0.9854	0.9976	0.9997	1.0000	1.0000	1.0000

TO BE CONTINUED

JAERI-M 82-135

NUCLID = FE-26-J2 CODE NO = 26
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1 0.0	0.0	1.3028E-01	1.3034E+00	1.8086E+00	8.0052E-01	8.6880E-02	3.5305E-03	3.2458E+00
2 0.0	0.0	8.0696E-02	1.4036E+00	2.0549E+00	7.7448E-01	9.8059E-02	3.5173E-08	3.5392E+00
3 0.0	0.0	4.1570E-02	1.3783E+00	2.2241E+00	7.2657E-01	1.1501E-01	0.0	3.6439E+00
4 0.0	0.0	1.9371E-02	1.3060E+00	2.2603E+00	6.5247E-01	1.3336E-01	0.0	3.5857E+00
5 0.0	0.0	1.0404E-02	1.1106E+00	2.2711E+00	5.3797E-01	1.8235E-01	0.0	3.3921E+00
6 0.0	0.0	5.1414E-03	8.9157E-01	2.4902E+00	4.3327E-01	1.8013E-01	0.0	3.3869E+00
7 0.0	0.0	3.3417E-03	7.9419E-01	2.3075E+00	3.5467E-01	2.0667E-01	0.0	3.1051E+00
8 0.0	0.0	2.7852E-03	7.3032E-01	2.1792E+00	2.9203E-01	2.0099E-01	0.0	2.9123E+00
9 0.0	0.0	2.7396E-03	4.9586E-01	2.1861E+00	2.6168E-01	2.1166E-01	0.0	2.6847E+00
10 0.0	0.0	3.9022E-03	2.4702E-01	2.2724E+00	2.2809E-01	3.4710E-01	0.0	2.5233E+00
11 0.0	0.0	6.3977E-03	2.2591E-02	3.0586E+00	1.9959E-01	2.1025E-01	0.0	3.0876E+00
12 0.0	0.0	5.3999E-03	2.0788E-02	2.4777E+00	1.8842E-01	4.1826E-01	0.0	2.5039E+00
13 0.0	0.0	5.1111E-03	1.9202E-02	3.7318E+00	1.6539E-01	5.2114E-01	0.0	3.7561E+00
14 0.0	0.0	5.4813E-03	1.6256E-02	2.8458E+00	1.3726E-01	1.8870E-01	0.0	2.8675E+00
15 0.0	0.0	4.8015E-03	1.6231E-02	2.5511E+00	1.1747E-01	3.2782E-01	0.0	2.5721E+00
16 0.0	0.0	8.9320E-03	1.1966E-02	4.8636E+00	9.3874E-02	8.1349E-01	0.0	4.8845E+00
17 0.0	0.0	8.0229E-03	1.6475E-02	3.8100E+00	8.0051E-02	8.2438E-01	0.0	3.8345E+00
18 0.0	0.0	9.6752E-03	4.9552E-02	3.4603E+00	6.0540E-02	2.8134E-01	0.0	3.5195E+00
19 0.0	0.0	1.3912E-02	2.1404E-02	3.8752E+00	4.9750E-02	7.4174E-01	0.0	3.9105E+00
20 0.0	0.0	1.3713E-02	2.5011E-02	5.5130E+00	3.6785E-02	2.3265E-01	0.0	5.5517E+00
21 0.0	0.0	1.0751E-02	2.0788E-02	3.6093E+00	2.8269E-02	5.5967E-01	0.0	3.6409E+00
22 0.0	0.0	9.7206E-03	6.4040E-02	4.7053E+00	1.8658E-02	6.0339E-01	0.0	4.7790E+00
23 0.0	0.0	1.9229E-02	7.8654E-02	7.1379E+00	2.2944E-02	1.3459E+00	0.0	7.2358E+00
24 0.0	0.0	2.8256E-02	1.7253E-01	2.8408E+01	1.9758E-02	2.7193E-01	0.0	2.8608E+01
25 0.0	0.0	8.4472E-03	4.0935E-02	1.1619E+00	1.4660E-02	2.7983E-01	0.0	1.2113E+00
26 0.0	0.0	2.2532E-03	1.3211E-02	3.0873E+00	1.2041E-02	4.8949E-01	0.0	3.1027E+00
27 0.0	0.0	7.6213E-03	1.2998E-04	4.2899E+00	1.2041E-02	5.8596E-01	0.0	4.2977E+00
28 0.0	0.0	2.7218E-02	0.0	6.4571E+00	1.2041E-02	9.5675E-01	0.0	6.4843E+00
29 0.0	0.0	3.1075E-02	0.0	1.6322E+01	1.2041E-02	1.8712E+00	0.0	1.6354E+01
30 0.0	0.0	1.3436E-02	0.0	9.0370E+00	1.2041E-02	6.9301E-01	0.0	9.0504E+00
31 0.0	0.0	4.5604E-03	0.0	5.0749E+00	1.2041E-02	6.3159E-01	0.0	5.0795E+00
32 0.0	0.0	6.3112E-03	0.0	6.3608E+00	1.2041E-02	5.8705E-01	0.0	6.3671E+00
33 0.0	0.0	3.1051E-03	0.0	5.7079E+00	1.2041E-02	7.4887E-01	0.0	5.7110E+00
34 0.0	0.0	4.7982E-03	0.0	6.3177E+00	1.2041E-02	9.1518E-01	0.0	6.3225E+00
35 0.0	0.0	1.0591E-02	0.0	6.9408E+00	1.2041E-02	8.7639E-01	0.0	6.9514E+00
36 0.0	0.0	6.4442E-03	0.0	7.5835E+00	1.2041E-02	9.3141E-01	0.0	7.5899E+00
37 0.0	0.0	6.9681E-01	0.0	8.2720E+00	1.2041E-02	9.4420E-01	0.0	8.9688E+00
38 0.0	0.0	9.9316E-03	0.0	8.8250E+00	1.2041E-02	1.0275E+00	0.0	8.8349E+00
39 0.0	0.0	1.2282E-02	0.0	9.3891E+00	1.2041E-02	1.0936E+00	0.0	9.4014E+00
40 0.0	0.0	1.5086E-02	0.0	9.8868E+00	1.2041E-02	1.0910E+00	0.0	9.9019E+00

TO BE CONTINUED

NUCLID = FE-26-J2 CODE NO = 26
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41 0.0	0.0	1.8443E-02	0.0	1.0334E+01	1.2041E-02	1.1802E+00	0.0	1.0353E+01
42 0.0	0.0	2.2228E-02	0.0	1.0714E+01	1.2041E-02	1.1591E+00	0.0	1.0737E+01
43 0.0	0.0	2.6383E-02	0.0	1.1034E+01	1.2041E-02	1.1308E+00	0.0	1.1060E+01
44 0.0	0.0	3.1184E-02	0.0	1.1304E+01	1.2041E-02	1.1652E+00	0.0	1.1335E+01
45 0.0	0.0	3.6555E-02	0.0	1.1524E+01	1.2041E-02	1.1639E+00	0.0	1.1561E+01
46 0.0	0.0	4.2481E-02	0.0	1.1701E+01	1.2041E-02	1.0718E+00	0.0	1.1744E+01
47 0.0	0.0	4.8886E-02	0.0	1.1844E+01	1.2041E-02	1.0106E+00	0.0	1.1893E+01
48 0.0	0.0	5.4263E-02	0.0	1.1960E+01	1.2041E-02	9.8605E-01	0.0	1.2015E+01
49 0.0	0.0	5.8653E-02	0.0	1.2052E+01	1.2041E-02	9.2868E-01	0.0	1.2110E+01
50 0.0	0.0	6.4792E-02	0.0	1.2125E+01	1.2041E-02	8.5966E-01	0.0	1.2190E+01
51 0.0	0.0	7.3548E-02	0.0	1.2185E+01	1.2041E-02	1.2568E+00	0.0	1.2259E+01
52 0.0	0.0	8.3248E-02	0.0	1.2230E+01	1.2041E-02	1.1329E+00	0.0	1.2314E+01
53 0.0	0.0	9.3399E-02	0.0	1.2264E+01	1.2041E-02	6.9794E-01	0.0	1.2357E+01
54 0.0	0.0	1.0602E-01	0.0	1.2292E+01	1.2041E-02	8.5546E-01	0.0	1.2398E+01
55 0.0	0.0	1.1903E-01	0.0	1.2315E+01	1.2041E-02	8.4816E-01	0.0	1.2434E+01
56 0.0	0.0	1.3518E-01	0.0	1.2333E+01	1.2041E-02	1.2724E+00	0.0	1.2468E+01
57 0.0	0.0	1.5245E-01	0.0	1.2346E+01	1.2041E-02	1.3099E+00	0.0	1.2499E+01
58 0.0	0.0	1.7172E-01	0.0	1.2357E+01	1.2041E-02	1.3109E+00	0.0	1.2528E+01
59 0.0	0.0	1.9560E-01	0.0	1.2365E+01	1.2041E-02	1.3117E+00	0.0	1.2561E+01
60 0.0	0.0	2.2227E-01	0.0	1.2371E+01	1.2041E-02	1.3121E+00	0.0	1.2594E+01
61 0.0	0.0	2.5205E-01	0.0	1.2377E+01	1.2041E-02	1.3129E+00	0.0	1.2629E+01
62 0.0	0.0	2.8683E-01	0.0	1.2381E+01	1.2041E-02	1.3131E+00	0.0	1.2667E+01
63 0.0	0.0	3.2520E-01	0.0	1.2384E+01	1.2041E-02	1.3136E+00	0.0	1.2709E+01
64 0.0	0.0	3.6917E-01	0.0	1.2387E+01	1.2041E-02	1.3140E+00	0.0	1.2756E+01
65 0.0	0.0	4.1907E-01	0.0	1.2389E+01	1.2041E-02	1.3137E+00	0.0	1.2808E+01
66 0.0	0.0	4.6963E-01	0.0	1.2392E+01	1.2041E-02	1.3143E+00	0.0	1.2861E+01
67 0.0	0.0	5.2833E-01	0.0	1.2394E+01	1.2041E-02	1.3145E+00	0.0	1.2922E+01
68 0.0	0.0	5.9471E-01	0.0	1.2396E+01	1.2041E-02	1.3146E+00	0.0	1.2991E+01
69 0.0	0.0	6.6532E-01	0.0	1.2398E+01	1.2041E-02	1.3151E+00	0.0	1.3064E+01
70 0.0	0.0	8.5887E-01	0.0	1.2405E+01	1.2041E-02	0.0	0.0	1.3264E+01

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NUCLID = FE-26-J2 CODE NUMBER = 26 IPL = 0

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TABLE OF INELASTIC MATRICES										
GROUP	J=	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9
1	1	1	2	3	4	5	6	7	8	9
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66				
1	3.23537E-03	3.46995E-02	1.41270E-01	1.78009E-01	1.63343E-01	1.59970E-01	1.50982E-01	1.29258E-01	1.02642E-01	7.67820E-02
	5.48441E-02	3.77883E-02	2.53134E-02	1.65890E-02	1.06860E-02	6.79370E-03	4.27484E-03	2.66717E-03	1.65417E-03	1.02083E-03
	6.27531E-04	3.84624E-04	2.35213E-04	1.43568E-04	8.75158E-05	5.32957E-05	3.24102E-05	1.97094E-05	1.19751E-05	7.27349E-06
	4.41641E-06	2.68104E-06	1.62714E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
2	1.00708E-02	4.59453E-02	1.77525E-01	3.01863E-01	2.74194E-01	1.83915E-01	1.24332E-01	8.56293E-02	6.40211E-02	4.57292E-02
	3.15080E-02	2.11064E-02	1.38320E-02	8.90999E-03	5.66461E-03	3.56438E-03	2.22389E-03	1.37925E-03	8.51173E-04	5.23237E-04
	3.20701E-04	1.96122E-04	1.19708E-04	7.29709E-05	4.44381E-05	2.70237E-05	1.64338E-05	9.98490E-06	6.06466E-06	3.68242E-06
	2.23546E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
3	2.06993E-02	1.17951E-01	8.36058E-02	2.35114E-01	3.02404E-01	2.44120E-01	1.64814E-01	8.83336E-02	4.77249E-02	2.92407E-02
	1.75264E-02	1.11617E-02	7.01896E-03	3.81050E-03	2.16563E-03	1.12908E-03	5.56854E-04	3.42444E-04	2.10509E-04	1.29024E-04
	7.89036E-05	4.81608E-05	2.93577E-05	1.78783E-05	1.08722E-05	6.61163E-06	4.01713E-06	2.45993E-06	1.48151E-06	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
4	1.49849E-02	2.22760E-01	9.67246E-02	8.24852E-02	1.41919E-01	1.57336E-01	1.50198E-01	1.22037E-01	8.22657E-02	5.93417E-02
	4.47090E-02	3.27043E-02	2.64921E-02	1.96578E-02	1.54349E-02	1.24166E-02	8.54073E-03	5.62897E-03	3.65896E-03	2.39368E-03
	1.57946E-03	9.99061E-04	6.37913E-04	4.15085E-04	2.26334E-04	1.53682E-04	9.83271E-05	5.88054E-05	4.58885E-05	3.53067E-05
	2.28845E-05	1.10078E-05	7.30174E-06	5.22547E-06	4.52635E-06	3.04322E-06	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
5	3.72422E-03	3.07032E-01	2.51878E-01	4.15075E-02	4.05895E-02	5.11477E-02	5.35952E-02	6.06265E-02	6.12595E-02	4.81779E-02
	4.11302E-02	3.51290E-02	3.04090E-02	2.39499E-02	1.56048E-02	1.00856E-02	6.51917E-03	4.17187E-03	2.60278E-03	1.57400E-03
	1.06918E-03	1.68877E-03	2.22177E-03	2.47423E-03	2.54796E-03	2.52891E-03	1.95669E-03	1.42760E-03	1.03942E-03	7.55737E-04
	5.45167E-04	3.82759E-04	2.76658E-04	1.99705E-04	1.48399E-04	1.13400E-04	9.07342E-05	7.19821E-05	5.65883E-05	4.64558E-05
	3.93461E-05	3.36871E-05	2.73950E-05	2.49072E-05	1.94955E-05	1.89038E-05	1.53156E-05	1.32987E-05	1.32633E-05	8.92140E-06
	9.82235E-06	1.10977E-05	5.03645E-06	4.08863E-06	4.61464E-06	5.21344E-06	5.89251E-06	3.66606E-06	1.33237E-06	0.0
	0.0	0.0	0.0	0.0	0.0	1.69253E-05				

TO BE CONTINUED

NUCLID = FE-26-J2 CODE NUMBER = 26 IPL = 0

PAGE 2 OF 6

TABLE OF INELASTIC MATRICES										
GROUP	J=	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9
1	1	1	2	3	4	5	6	7	8	9
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66				
6	6.08971E-03	2.43280E-01	4.66164E-01	6.71981E-02	2.08634E-02	1.32843E-02	1.30378E-02	7.26632E-03	4.13890E-03	3.03286E-03
	2.51887E-03	7.98126E-03	1.39967E-02	8.85999E-03	5.35018E-03	3.27040E-03	2.00404E-03	1.23159E-03	7.56916E-04	4.65270E-04
	2.89305E-04	1.78772E-04	1.12267E-04	6.96180E-05	4.47347E-05	2.77126E-05	1.84299E-05	1.19772E-05	7.90605E-06	5.86059E-06
	3.10461E-06	3.11202E-06	1.26059E-06	1.21091E-06	1.25672E-06	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
7	7.89550E-03	1.35315E-02	4.36608E-01	2.80254E-01	1.69446E-02	1.41704E-02	1.03406E-02	6.97816E-03	1.19491E-03	4.01460E-04
	3.39925E-04	3.80215E-04	1.40491E-03	1.37474E-03	8.95208E-04	5.57674E-04	3.44446E-04	2.13179E-04	1.32636E-04	8.30737E-05
	5.18936E-05	3.26276E-05	2.04521E-05	1.29582E-05	8.24555E-06	5.29776E-06	3.43363E-06	2.34659E-06	1.47453E-06	1.04855E-06
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
8	8.97412E-03	8.45763E-03	4.23816E-02	3.31279E-01	2.65695E-01	4.43053E-02	1.20203E-03	6.82089E-03	5.90411E-03	4.32281E-03
	3.19224E-03	2.37704E-03	1.88013E-03	1.36687E-03	8.45770E-04	5.13197E-04	3.14378E-04	1.89219E-04	1.17612E-04	6.91898E-05
	4.40415E-05	2.55279E-05	1.63931E-05	8.58882E-06	6.15937E-06	3.53707E-06	2.77275E-06	8.63771E-07	7.87975E-07	7.52810E-07
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
9	9.55505E-03	8.39506E-03	3.41522E-03	2.40447E-03	1.30709E-01	1.37206E-01	1.16700E-01	8.22108E-02	4.48893E-03	1.06280E-04
	6.78289E-05	5.52555E-05	1.58049E-04	1.51879E-04	9.30307E-05	5.51494E-05	3.20566E-05	1.95858E-05	1.21003E-05	7.51880E-06
	4.68450E-06	2.93796E-06	1.86556E-06	1.18079E-06	7.68074E-07	5.02694E-07	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
10	6.88405E-03	5.60402E-03	2.84176E-03	1.29020E-03	2.62868E-04	7.94241E-04	9.61920E-05	5.32673E-05	6.61799E-05	2.63749E-05
	2.07856E-02	1.35589E-02	7.02754E-03	4.52384E-03	4.23300E-03	3.28422E-03	2.46195E-03	4.41703E-03	5.27331E-03	4.08658E-03
	1.97495E-03	9.30351E-04	4.87641E-04	2.86251E-04	1.82764E-04	1.33991E-04	9.00561E-05	4.03736E-05	4.08439E-05	4.19599E-05
	3.97410E-05	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

JAERI-M 82-135

NUCLID = FE-26-J2 CODE NUMBER = 26 IPL = 0

TABLE OF INELASTIC MATRICES										
PAGE 3 OF 6										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
I	J =									
11	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66				

11	7.61221E-03	7.39732E-03	1.97733E-03	2.72563E-03	1.40416E-03	0.0	0.0	0.0	2.86457E-04	4.50212E-04
	2.84964E-04	1.74987E-04	1.07190E-04	6.57670E-05	4.02363E-05	2.47313E-05	1.52054E-05	9.35176E-06	5.75367E-06	3.54217E-06
	2.22569E-06	1.42993E-06	8.51284E-07	5.59627E-07	3.76758E-07	2.16792E-07	1.61688E-07	9.35201E-08	5.53503E-08	2.72375E-08
	2.47723E-08	2.54235E-08	2.64652E-08	2.79193E-08	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
12	7.16024E-03	6.54627E-03	1.71617E-03	8.80860E-04	2.07224E-03	1.57130E-03	8.41407E-04	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
13	7.27058E-03	4.90071E-03	2.67197E-03	3.12417E-05	0.0	4.43544E-04	1.12337E-03	8.21701E-04	6.05730E-04	4.50107E-04
	3.37383E-04	2.52089E-04	1.69906E-04	9.85358E-05	2.53063E-05	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
14	8.02158E-03	3.83193E-03	2.36918E-03	1.02522E-03	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	2.90842E-05	2.43092E-04	2.81396E-04	1.73273E-04	1.06519E-04	6.56256E-05	4.05394E-05	2.51703E-05
	1.57275E-05	9.86087E-06	6.24747E-06	4.00298E-06	2.57027E-06	1.69084E-06	1.11212E-06	7.74537E-07	5.21557E-07	3.63668E-07
	2.43407E-07	1.76448E-07	1.50309E-07	8.13001E-08	7.92714E-08	6.43624E-08	2.98442E-08	3.02797E-08	3.11831E-08	3.25769E-08
	2.05576E-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	4.65479E-08	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
15	8.62742E-03	4.80867E-03	7.13815E-04	1.38552E-03	6.95983E-04	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

NUCLID = FE-26-J2 CODE NUMBER = 26 IPL = 0

TABLE OF INELASTIC MATRICES										
PAGE 4 OF 6										
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	5	6	7	8	9	10
I	J =									
16	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20
	21	22	23	24	25	26	27	28	29	30
	31	32	33	34	35	36	37	38	39	40
	41	42	43	44	45	46	47	48	49	50
	51	52	53	54	55	56	57	58	59	60
	61	62	63	64	65	66				

16	8.38966E-03	1.73163E-03	0.0	2.77687E-04	7.63955E-04	5.06489E-04	2.92760E-04	3.72814E-06	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
17	1.10780E-02	4.32704E-03	0.0	0.0	0.0	6.82997E-05	3.03491E-04	2.16978E-04	1.54251E-04	1.10902E-04
	8.05496E-05	5.71864E-05	3.60925E-05	2.21086E-05	1.35728E-05	6.07509E-06	9.12125E-07	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
18	1.67022E-02	3.26952E-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	1.82655E-05	4.23889E-05	3.55714E-05	2.19276E-05	1.35547E-05	8.41404E-06
	5.25636E-06	3.30105E-06	2.09203E-06	1.33784E-06	8.64357E-07	5.64402E-07	3.75605E-07	2.54900E-07	1.75169E-07	1.24923E-07
	8.58556E-08	6.28448E-08	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
19	1.28707E-02	8.52179E-03	1.11803E-05	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
20	7.23212E-04	2.38011E-02	4.86613E-04	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

NUCLID = FE-26-J2 CODE NUMBER = 26 IPL = 0

TABLE OF INELASTIC MATRICES

PAGE 5 OF 6

GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	4	5	6	7	8	9	10
I	J=	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31	32	33	34	35	36	37	38	39	40	
	41	42	43	44	45	46	47	48	49	50	
	51	52	53	54	55	56	57	58	59	60	
	61	62	63	64	65	66					

21

2.01372E-05	1.80202E-02	2.74739E-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

22

0.0	6.22429E-03	5.60370E-02	1.77855E-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

23

0.0	1.30193E-02	4.55755E-02	2.00588E-02	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

24

0.0	0.0	3.38608E-02	1.09281E-01	2.93928E-02	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

25

0.0	0.0	0.0	7.71883E-03	1.73545E-02	1.03999E-02	5.39532E-03	6.68872E-05	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

TO BE CONTINUED

NUCLID = FE-26-J2 CODE NUMBER = 26 IPL = 0

TABLE OF INELASTIC MATRICES

PAGE 6 OF 6

GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	4	5	6	7	8	9	10
I	J=	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31	32	33	34	35	36	37	38	39	40	
	41	42	43	44	45	46	47	48	49	50	
	51	52	53	54	55	56	57	58	59	60	
	61	62	63	64	65	66					

26

0.0	0.0	0.0	0.0	0.0	0.0	1.12854E-03	4.72515E-03	2.92220E-03	1.77502E-03	1.07872E-03
6.55192E-04	3.98610E-04	2.42526E-04	1.47062E-04	9.03518E-05	4.07310E-05	6.53144E-06	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

27

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	1.46328E-05	3.53317E-05	3.03105E-05	1.86383E-05	1.15075E-05	7.13470E-06
4.44407E-06	2.79117E-06	1.76629E-06	1.12863E-06	7.28609E-07	4.77204E-07	3.14526E-07	2.13806E-07	1.47453E-07	1.05348E-07	0.0
7.16446E-08	5.25468E-08	3.87248E-08	2.61127E-08	2.18568E-08	1.42072E-08	1.43833E-08	7.23443E-09	8.12487E-09	9.13829E-09	0.0
8.27993E-09	4.96575E-09	5.76215E-09	2.77912E-09	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NUCLID = FE-26-J2 CODE NUMBER = 26 IPL = 0

TABLE OF (N,2N) MATRICES

PAGE 1 OF 1

GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	4	5	6	7	8	9	10
I	J=	1	2	3	4	5	6	7	8	9	10
	11	12	13	14	15	16	17	18	19	20	
	21	22	23	24	25	26	27	28	29	30	
	31	32	33	34	35	36	37	38	39	40	
	41	42	43	44	45	46	47	48	49	50	
	51	52	53	54	55	56	57	58	59	60	
	61	62	63	64	65	66	67	68	69	70	

1

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	3.43742E-04	3.52190E-04	1.59409E-04	1.24133E-04	5.71939E-04	1.21886E-03	9.49038E-04	7.39167E-04	5.75679E-04	0.0
4.48319E-04	3.49144E-04	2.71927E-04	2.11766E-04	1.64931E-04	1.28474E-04	1.00017E-04	7.79144E-05	6.06753E-05	4.72534E-05	0.0
3.68004E-05	2.86607E-05	2.23197E-05	1.73835E-05	1.35392E-05	1.05432E-05	8.21136E-06	6.39510E-06	4.98042E-06	3.87887E-06	0.0
3.02068E-06	2.35289E-06	1.83220E-06	1.42672E-06	1.11147E-06	8.65414E-07	6.74012E-07	5.24934E-07	4.08823E-07	3.18371E-07	0.0
2.47983E-07	1.93116E-07	1.50402E-07	1.17103E-07	9.12340E-08	7.10410E-08	5.53270E-08	4.30902E-08	3.35577E-08	2.61369E-08	0.0
2.03524E-08	1.58524E-08	1.23450E-08	9.61371E-09	7.48943E-09	0.0	0.0	0.0	0.0	9.69823E-09	0.0

2

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	5.92312E-09	1.42521E-08	1.10971E-08	8.64304E-09	6.73139E-09	5.24217E-09
4.08252E-09	3.17963E-09	2.47617E-09	1.92853E-09	1.50224E-09	1.16950E-09	9.11049E-10	7.09473E-10	5.52531E-10	4.30305E-10	0.0
3.35127E-10	2.60983E-10	2.03264E-10	1.58313E-10	1.23281E-10	9.60150E-11	7.47776E-11	5.82358E-11	4.53555E-11	3.53206E-11	0.0
2.75122E-11	2.14238E-11	1.66825E-11	1.29964E-11	1.01192E-11	7.88119E-12	6.13802E-12	4.78035E-12	3.72270E-12	2.89965E-12	0.0
2.25810E-12	1.75865E-12	1.36928E-12	1.06679E-12	8.30679E-13	6.46935E-13	5.03852E-13	3.92389E-13	3.05617E-13	2.37980E-13	0.0
1.85361E-13	1.44350E-13	1.12413E-13	8.75735E-14	0.0	0.0	0.0	0.0	1.13401E-13	0.0	0.0

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2		REACTION = CAPTURE		FOR 1TH R-PARAMETER		PAGE 2 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.9985	0.9989	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9985	0.9989	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9985	0.9989	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9986	0.9989	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
14	300.	1.0049	1.0032	1.0008	1.0001	1.0000	1.0000	1.0000	1.0000
	800.	1.0049	1.0032	1.0008	1.0001	1.0000	1.0000	1.0000	1.0000
	2100.	1.0049	1.0032	1.0008	1.0001	1.0000	1.0000	1.0000	1.0000
	4500.	1.0049	1.0032	1.0008	1.0001	1.0000	1.0000	1.0000	1.0000
15	300.	0.8932	0.8953	0.9395	0.9889	0.9988	0.9999	1.0000	1.0000
	800.	0.9037	0.9086	0.9530	0.9926	0.9995	1.0003	1.0004	1.0004
	2100.	0.9178	0.9255	0.9666	0.9959	1.0006	1.0011	1.0011	1.0011
	4500.	0.9316	0.9411	0.9769	0.9984	1.0017	1.0021	1.0021	1.0021
16	300.	0.5595	0.6113	0.7952	0.9598	0.9954	0.9996	1.0000	1.0000
	800.	0.5869	0.6441	0.8255	0.9690	0.9979	1.0009	1.0012	1.0012
	2100.	0.6193	0.6822	0.8575	0.9776	0.9995	1.0019	1.0022	1.0022
	4500.	0.6479	0.7152	0.8820	0.9832	1.0006	1.0026	1.0028	1.0028
17	300.	0.5270	0.5851	0.7739	0.9521	0.9945	0.9995	0.9999	1.0000
	800.	0.5633	0.6247	0.8084	0.9629	0.9967	1.0007	1.0010	1.0010
	2100.	0.6096	0.6730	0.8446	0.9725	0.9984	1.0014	1.0016	1.0017
	4500.	0.6553	0.7183	0.8736	0.9795	1.0001	1.0024	1.0026	1.0026
18	300.	0.4351	0.4847	0.7045	0.9394	0.9931	0.9993	0.9999	1.0000
	800.	0.4523	0.5054	0.7287	0.9484	0.9961	1.0016	1.0021	1.0022
	2100.	0.4758	0.5324	0.7549	0.9581	1.0006	1.0054	1.0059	1.0060
	4500.	0.4978	0.5567	0.7752	0.9651	1.0042	1.0086	1.0091	1.0091
19	300.	0.5609	0.6049	0.7842	0.9532	0.9945	0.9994	0.9999	1.0000
	800.	0.6346	0.6761	0.8318	0.9654	0.9961	0.9996	1.0001	1.0001
	2100.	0.7080	0.7449	0.8742	0.9761	0.9978	1.0002	1.0005	1.0005
	4500.	0.7623	0.7948	0.9033	0.9830	0.9988	1.0004	1.0007	1.0007
20	300.	0.3643	0.4130	0.6216	0.9054	0.9885	0.9988	0.9999	1.0000
	800.	0.3770	0.4339	0.6626	0.9268	0.9926	1.0004	1.0012	1.0013
	2100.	0.4005	0.4699	0.7167	0.9464	0.9956	1.0011	1.0017	1.0018
	4500.	0.4306	0.5124	0.7658	0.9598	0.9974	1.0015	1.0019	1.0020
21	300.	0.4501	0.4920	0.7026	0.9353	0.9925	0.9992	0.9999	1.0000
	800.	0.5100	0.5567	0.7593	0.9536	0.9954	1.0000	1.0005	1.0006
	2100.	0.5772	0.6242	0.8132	0.9679	0.9970	1.0001	1.0004	1.0005
	4500.	0.6329	0.6787	0.8514	0.9764	0.9981	1.0003	1.0005	1.0006
22	300.	0.3650	0.3881	0.5350	0.8463	0.9793	0.9979	0.9998	1.0000
	800.	0.3845	0.4098	0.5685	0.8731	0.9864	1.0014	1.0030	1.0031
	2100.	0.4185	0.4470	0.6184	0.9028	0.9926	1.0037	1.0049	1.0050
	4500.	0.4584	0.4895	0.6679	0.9252	0.9962	1.0046	1.0056	1.0056
23	300.	0.6909	0.7130	0.8267	0.9625	0.9957	0.9996	1.0000	1.0000
	800.	0.7641	0.7835	0.8778	0.9759	0.9975	1.0000	1.0002	1.0002
	2100.	0.8290	0.8449	0.9180	0.9852	0.9988	1.0003	1.0005	1.0005
	4500.	0.8720	0.8852	0.9424	0.9903	0.9997	1.0007	1.0008	1.0008
24	300.	0.4127	0.4716	0.6443	0.8726	0.9813	0.9980	0.9998	1.0000
	800.	0.4138	0.4724	0.6452	0.8731	0.9816	0.9983	1.0000	1.0002
	2100.	0.4143	0.4732	0.6460	0.8734	0.9817	0.9984	1.0001	1.0003
	4500.	0.4147	0.4737	0.6465	0.8735	0.9816	0.9983	1.0000	1.0002

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2		REACTION = CAPTURE		FOR 1TH R-PARAMETER		PAGE 3 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.6056	0.6963	0.9001	0.9869	0.9986	0.9999	1.0000	1.0000
	800.	0.6684	0.7703	0.9388	0.9929	0.9995	1.0002	1.0002	1.0002
	2100.	0.7415	0.8455	0.9678	0.9971	1.0003	1.0007	1.0007	1.0007
	4500.	0.8027	0.9008	0.9850	0.9997	1.0011	1.0013	1.0013	1.0013
26	300.	0.9585	0.9679	0.9901	0.9988	0.9999	1.0000	1.0000	1.0000
	800.	0.9823	0.9873	0.9972	1.0002	1.0006	1.0006	1.0006	1.0006
	2100.	1.0027	1.0034	1.0030	1.0015	1.0013	1.0012	1.0012	1.0012
	4500.	1.0156	1.0142	1.0071	1.0028	1.0023	1.0022	1.0022	1.0022
27	300.	0.8857	0.9026	0.9606	0.9943	0.9994	0.9999	1.0000	1.0000
	800.	0.9232	0.9354	0.9751	0.9985	0.9997	1.0000	1.0002	1.0002
	2100.	0.9587	0.9660	0.9878	0.9985	1.0000	1.0002	1.0002	1.0002
	4500.	0.9855	0.9870	0.9964	1.0004	1.0008	1.0009	1.0009	1.0009
28	300.	0.7135	0.7365	0.8518	0.9714	0.9968	0.9997	1.0000	1.0000
	800.	0.7380	0.7604	0.8697	0.9757	0.9972	0.9996	0.9999	0.9999
	2100.	0.7756	0.7948	0.8932	0.9809	0.9980	0.9999	1.0000	1.0001
	4500.	0.8087	0.8282	0.9114	0.9853	0.9987	1.0001	1.0003	1.0003
29	300.	0.8530	0.8613	0.9100	0.9792	0.9976	0.9998	1.0000	1.0000
	800.	0.8572	0.8652	0.9129	0.9804	0.9983	1.0004	1.0006	1.0006
	2100.	0.8607	0.8686	0.9154	0.9820	0.9995	1.0016	1.0018	1.0018
	4500.	0.8637	0.8715	0.9178	0.9838	1.0013	1.0034	1.0036	1.0036
30	300.	0.9239	0.9320	0.9667	0.9945	0.9994	0.9999	1.0000	1.0000
	800.	0.9240	0.9322	0.9669	0.9946	0.9996	1.0001	1.0001	1.0002
	2100.	0.9244	0.9325	0.9672	0.9949	0.9998	1.0003	1.0004	1.0004
	4500.	0.9248	0.9329	0.9675	0.9952	1.0001	1.0007	1.0007	1.0007
31	300.	0.9974	0.9977	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9997	1.0003	1.0006	1.0007	1.0007	1.0007	1.0007
	2100.	1.0013	1.0014	1.0014	1.0015	1.0015	1.0015	1.0015	1.0015
	4500.	1.0042	1.0041	1.0039	1.0037	1.0037	1.0037	1.0037	1.0037
32	300.	0.9296	0.9373	0.9699	0.9952	0.9995	0.9999	1.0000	1.0000
	800.	0.9298	0.9374	0.9700	0.9953	0.9995	1.0000	1.0001	1.0001
	2100.	0.9301	0.9377	0.9702	0.9954	0.9996	1.0001	1.0002	1.0002
	4500.	0.9304	0.9380	0.9705	0.9954	0.9998	1.0002	1.0003	1.0003
33	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9997	0.9999	1.0000	1.0001	1.0001	1.0001	1.0001
	2100.	0.9998	0.9998	1.0000	1.0002	1.0002	1.0002	1.0002	1.0002
	4500.	0.9999	1.0000	1.0002	1.0003	1.0003	1.0003	1.0003	1.0003
34	300.	0.9967	0.9971	0.9987	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9982	0.9985	0.9996	1.0003	1.0004	1.0004	1.0004	1.0004
	2100.	0.9996	0.9997	1.0004	1.0008	1.0009	1.0009	1.0009	1.0009
	4500.	1.0009	1.0010	1.0014	1.0017	1.0017	1.0017	1.0017	1.0017
35	300.	0.9378	0.9441	0.9722	0.9954	0.9995	1.0000	1.0000	1.0000
	800.	0.9511	0.9564	0.9791	0.9970	1.0001	1.0005	1.0005	1.0005
	2100.	0.9612	0.9655	0.9839	0.9984	1.0008	1.0011	1.0011	1.0011
	4500.	0.9681	0.9715	0.9874	0.9988	1.0019	1.0022	1.0022	1.0022
36	300.	0.9967	0.9970	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9969	0.9973	0.9988	1.0000	1.0002	1.0002	1.0003	1.0003
	2100.	0.9973	0.9977	0.9992	1.0004	1.0006	1.0006	1.0007	1.0007
	4500.	0.9978	0.9982	0.9997	1.0009	1.0011	1.0011	1.0011	1.0011

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 4 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
37	300.	0.2647	0.2793	0.3940	0.7528	0.9635	0.9961	0.9996	1.0000
	800.	0.3124	0.3300	0.4627	0.8113	0.9747	0.9974	0.9998	1.0000
	2100.	0.3843	0.4049	0.5511	0.8671	0.9841	0.9991	1.0007	1.0008
	4500.	0.4584	0.4808	0.6304	0.9046	0.9910	1.0016	1.0027	1.0028
38	300.	0.9989	0.9990	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9990	0.9991	0.9996	1.0000	1.0001	1.0001	1.0001	1.0001
	2100.	0.9992	0.9993	0.9998	1.0002	1.0003	1.0003	1.0003	1.0003
	4500.	0.9994	0.9995	1.0000	1.0004	1.0005	1.0005	1.0005	1.0005
39	300.	0.9990	0.9990	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9990	0.9991	0.9996	1.0000	1.0001	1.0001	1.0001	1.0001
	2100.	0.9992	0.9993	0.9997	1.0001	1.0002	1.0002	1.0002	1.0002
	4500.	0.9993	0.9994	0.9999	1.0003	1.0004	1.0004	1.0004	1.0004
40	300.	0.9992	0.9993	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9993	0.9993	0.9997	1.0000	1.0001	1.0001	1.0001	1.0001
	2100.	0.9994	0.9994	0.9998	1.0001	1.0002	1.0002	1.0002	1.0002
	4500.	0.9995	0.9996	0.9999	1.0002	1.0003	1.0003	1.0003	1.0003
41	300.	0.9994	0.9994	0.9997	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9995	0.9998	1.0000	1.0001	1.0001	1.0001	1.0001
	2100.	0.9996	0.9996	0.9999	1.0001	1.0002	1.0002	1.0002	1.0002
	4500.	0.9997	0.9998	1.0000	1.0003	1.0004	1.0004	1.0004	1.0004
42	300.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9996	0.9996	0.9998	1.0000	1.0001	1.0001	1.0001	1.0001
	2100.	0.9997	0.9998	0.9999	1.0001	1.0002	1.0002	1.0002	1.0002
	4500.	0.9999	1.0000	1.0001	1.0003	1.0004	1.0004	1.0004	1.0004
43	300.	0.9996	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9997	0.9997	0.9999	1.0000	1.0001	1.0001	1.0001	1.0001
	2100.	0.9998	0.9998	1.0000	1.0001	1.0002	1.0002	1.0002	1.0002
	4500.	0.9999	1.0000	1.0001	1.0003	1.0003	1.0003	1.0003	1.0003
44	300.	0.9997	0.9997	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	1.0001	1.0001	1.0001	1.0001	1.0001
	2100.	1.0000	1.0000	1.0001	1.0002	1.0002	1.0002	1.0002	1.0002
	4500.	1.0001	1.0002	1.0003	1.0004	1.0004	1.0004	1.0004	1.0004
45	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0001	1.0001	1.0001	1.0001	1.0001
	2100.	0.9999	1.0001	1.0002	1.0003	1.0003	1.0003	1.0003	1.0003
	4500.	1.0004	1.0004	1.0005	1.0006	1.0006	1.0006	1.0006	1.0006
46	300.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	2100.	1.0002	1.0002	1.0003	1.0003	1.0004	1.0004	1.0004	1.0004
	4500.	1.0005	1.0005	1.0005	1.0006	1.0006	1.0006	1.0006	1.0006
47	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	1.0000	1.0000	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
48	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	2100.	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002
	4500.	1.0003	1.0003	1.0003	1.0004	1.0004	1.0004	1.0004	1.0004

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 1 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9984	0.9987	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9984	0.9987	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9984	0.9987	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9984	0.9987	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
2	300.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	0.9977	0.9981	0.9994	0.9999	0.9999	1.0000	1.0000	1.0000
	800.	0.9977	0.9981	0.9994	0.9999	0.9999	1.0000	1.0000	1.0000
	2100.	0.9977	0.9981	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9978	0.9981	0.9995	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	0.9889	0.9913	0.9969	0.9996	1.0001	1.0000	1.0000	1.0000
	800.	0.9890	0.9913	0.9969	0.9997	1.0001	1.0000	1.0000	1.0000
	2100.	0.9891	0.9914	0.9970	0.9997	1.0001	1.0001	1.0001	1.0001
	4500.	0.9893	0.9916	0.9972	0.9998	1.0002	1.0001	1.0001	1.0001
6	300.	0.9692	0.9759	0.9920	0.9990	0.9998	1.0000	1.0000	1.0000
	800.	0.9693	0.9761	0.9920	0.9990	0.9998	1.0000	1.0000	1.0000
	2100.	0.9696	0.9763	0.9921	0.9990	0.9998	1.0000	1.0000	1.0000
	4500.	0.9699	0.9765	0.9921	0.9990	0.9998	1.0000	1.0000	1.0000
7	300.	0.9472	0.9596	0.9873	0.9986	0.9998	1.0000	1.0000	1.0000
	800.	0.9474	0.9598	0.9874	0.9986	0.9998	1.0000	1.0000	1.0000
	2100.	0.9478	0.9601	0.9875	0.9986	0.9998	1.0000	1.0000	1.0000
	4500.	0.9483	0.9604	0.9876	0.9986	0.9997	1.0000	1.0000	1.0000
8	300.	0.9064	0.9289	0.9782	0.9971	0.9996	0.9999	0.9999	0.9999
	800.	0.9068	0.9292	0.9782	0.9971	0.9995	0.9999	0.9999	0.9999
	2100.	0.9074	0.9296	0.9783	0.9970	0.9995	0.9998	0.9998	0.9998
	4500.	0.9081	0.9302	0.9784	0.9970	0.9995	0.9998	0.9998	0.9998
9	300.	0.8591	0.8969	0.9699	0.9962	0.9996	1.0000	1.0000	1.0000
	800.	0.8599	0.8975	0.9701	0.9962	0.9997	1.0000	1.0000	1.0000
	2100.	0.8612	0.8984	0.9704	0.9964	0.9997	1.0001	1.0001	1.0001
	4500.	0.8628	0.8996	0.9708	0.9965	0.9999	1.0002	1.0003	1.0003
10	300.	0.8544	0.8953	0.9695	0.9962	0.9996	1.0000	1.0000	1.0000
	800.	0.8551	0.8958	0.9697	0.9962	0.9996	1.0000	1.0000	1.0000
	2100.	0.8561	0.8967	0.9701	0.9963	0.9997	1.0001	1.0001	1.0001
	4500.	0.8575	0.8976	0.9704	0.9964	0.9997	1.0001	1.0001	1.0001
11	300.	0.7365	0.8175	0.9472	0.9930	0.9994	0.9999	1.0000	1.0000
	800.	0.7378	0.8184	0.9476	0.9931	0.9994	0.9999	1.0000	1.0000
	2100.	0.7399	0.8198	0.9481	0.9932	0.9995	1.0000	1.0001	1.0001
	4500.	0.7423	0.8215	0.9487	0.9933	0.9995	1.0000	1.0001	1.0001
12	300.	0.8084	0.8599	0.9548	0.9933	0.9993	0.9999	1.0000	1.0000
	800.	0.8097	0.8608	0.9551	0.9935	0.9994	1.0000	1.0001	1.0001
	2100.	0.8117	0.8621	0.9518	0.9938	0.9996	1.0002	1.0003	1.0003
	4500.	0.8140	0.8637	0.9564	0.9941	0.9999	1.0005	1.0005	1.0006

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 2 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.8619	0.8978	0.9675	0.9952	0.9985	1.0000	1.0000	1.0000
	800.	0.8625	0.8982	0.9677	0.9952	0.9985	1.0000	1.0001	1.0001
	2100.	0.8633	0.8987	0.9679	0.9953	0.9982	0.9997	0.9998	0.9998
	4500.	0.8640	0.8995	0.9682	0.9960	0.9983	0.9998	0.9998	0.9999
14	300.	0.5731	0.6865	0.8992	0.9865	0.9985	0.9998	1.0000	1.0000
	800.	0.5741	0.6871	0.8994	0.9865	0.9986	1.0000	1.0001	1.0001
	2100.	0.5755	0.6880	0.8997	0.9865	0.9986	1.0000	1.0001	1.0001
	4500.	0.5773	0.6891	0.8999	0.9866	0.9986	1.0000	1.0001	1.0001
15	300.	0.6923	0.7906	0.9307	0.9900	0.9990	0.9999	1.0000	1.0000
	800.	0.6934	0.7916	0.9313	0.9904	0.9992	1.0002	1.0003	1.0003
	2100.	0.6953	0.7931	0.9322	0.9909	0.9995	1.0005	1.0006	1.0006
	4500.	0.6977	0.7949	0.9330	0.9913	1.0000	1.0010	1.0010	1.0010
16	300.	0.5944	0.7086	0.8849	0.9809	0.9978	0.9998	1.0000	1.0000
	800.	0.5952	0.7095	0.8862	0.9813	0.9982	0.9998	1.0000	1.0000
	2100.	0.5967	0.7108	0.8875	0.9818	0.9981	0.9998	1.0000	1.0000
	4500.	0.5986	0.7124	0.8886	0.9819	0.9981	0.9999	1.0001	1.0001
17	300.	0.6624	0.7356	0.8953	0.9831	0.9981	0.9999	1.0000	1.0000
	800.	0.6638	0.7369	0.8964	0.9834	0.9983	1.0000	1.0001	1.0001
	2100.	0.6658	0.7389	0.8978	0.9840	0.9984	1.0000	1.0002	1.0002
	4500.	0.6682	0.7410	0.8992	0.9845	0.9985	1.0001	1.0002	1.0002
18	300.	0.5621	0.6120	0.7855	0.9570	0.9951	0.9995	1.0000	1.0000
	800.	0.5627	0.6128	0.7866	0.9574	0.9951	0.9995	0.9999	1.0000
	2100.	0.5639	0.6141	0.7881	0.9581	0.9952	0.9995	0.9999	0.9999
	4500.	0.5652	0.6157	0.7898	0.9585	0.9952	0.9994	0.9998	0.9998
19	300.	0.9199	0.9304	0.9657	0.9929	0.9991	0.9999	1.0000	1.0000
	800.	0.9211	0.9316	0.9673	0.9936	0.9992	0.9998	0.9999	0.9999
	2100.	0.9225	0.9332	0.9691	0.9944	0.9995	1.0000	1.0001	1.0001
	4500.	0.9242	0.9348	0.9710	0.9951	0.9996	0.9999	1.0001	1.0001
20	300.	0.3346	0.4253	0.6664	0.9238	0.9909	0.9991	0.9999	1.0000
	800.	0.3355	0.4264	0.6679	0.9244	0.9910	0.9991	0.9999	1.0000
	2100.	0.3370	0.4285	0.6701	0.9251	0.9912	0.9991	0.9999	0.9999
	4500.	0.3391	0.4265	0.6724	0.9256	0.9913	0.9991	0.9999	0.9999
21	300.	0.9503	0.9528	0.9825	0.9971	0.9996	1.0000	1.0000	1.0000
	800.	0.9512	0.9594	0.9835	0.9975	0.9996	1.0000	1.0000	1.0000
	2100.	0.9523	0.9605	0.9846	0.9977	0.9998	0.9999	0.9999	0.9999
	4500.	0.9534	0.9615	0.9853	0.9980	0.9999	0.9999	0.9999	0.9999
22	300.	0.9604	0.9627	0.9738	0.9915	0.9988	0.9999	1.0000	1.0000
	800.	0.9612	0.9636	0.9754	0.9928	0.9991	1.0000	1.0001	1.0001
	2100.	0.9627	0.9652	0.9776	0.9945	0.9996	1.0002	1.0003	1.0004
	4500.	0.9645	0.9671	0.9801	0.9956	0.9998	1.0002	1.0004	1.0004
23	300.	0.9431	0.9483	0.9717	0.9949	0.9994	0.9999	1.0000	1.0000
	800.	0.9435	0.9474	0.9729	0.9957	0.9995	1.0000	1.0000	1.0000
	2100.	0.9439	0.9476	0.9731	0.9953	0.9997	1.0002	1.0003	1.0003
	4500.	0.9441	0.9479	0.9733	0.9952	0.9996	1.0001	1.0001	1.0001
24	300.	0.1901	0.2671	0.5222	0.8416	0.9773	0.9976	0.9998	1.0000
	800.	0.1902	0.2672	0.5223	0.8417	0.9774	0.9977	0.9998	1.0001
	2100.	0.1903	0.2674	0.5224	0.8416	0.9774	0.9969	0.9998	1.0000
	4500.	0.1904	0.2675	0.5225	0.8417	0.9773	0.9969	0.9997	0.9999

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.7151	0.8345	0.9655	0.9962	0.9996	1.0000	1.0000	1.0000
	800.	0.7164	0.8350	0.9624	0.9963	0.9997	1.0000	1.0001	1.0001
	2100.	0.7160	0.8356	0.9658	0.9964	0.9998	1.0002	1.0002	1.0002
	4500.	0.7165	0.8359	0.9658	0.9964	0.9998	1.0002	1.0002	1.0002
26	300.	0.9848	0.9884	0.9964	0.9996	1.0000	1.0000	1.0000	1.0000
	800.	0.9851	0.9884	0.9970	1.0003	1.0008	1.0008	1.0008	1.0008
	2100.	0.9859	0.9893	0.9969	1.0000	1.0005	1.0005	1.0005	1.0005
	4500.	0.9857	0.9890	0.9972	1.0002	1.0007	1.0008	1.0008	1.0008
27	300.	0.9947	0.9959	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9948	0.9960	0.9988	0.9998	1.0000	1.0000	1.0001	1.0001
	2100.	0.9948	0.9960	0.9990	1.0003	1.0004	1.0004	1.0004	1.0004
	4500.	0.9949	0.9960	0.9995	1.0014	1.0016	1.0016	1.0016	1.0016
28	300.	0.9775	0.9795	0.9897	0.9978	0.9998	1.0000	1.0000	1.0000
	800.	0.9778	0.9797	0.9899	0.9978	0.9997	0.9999	0.9999	0.9999
	2100.	0.9783	0.9803	0.9902	0.9980	0.9998	1.0000	1.0000	1.0000
	4500.	0.9785	0.9805	0.9875	0.9980	0.9998	1.0000	1.0000	1.0000
29	300.	0.9031	0.9084	0.9400	0.9855	0.9984	0.9998	1.0000	1.0000
	800.	0.9038	0.9090	0.9405	0.9863	0.9984	0.9998	1.0000	1.0000
	2100.	0.9038	0.9091	0.9405	0.9862	0.9983	0.9997	0.9999	0.9999
	4500.	0.9039	0.9091	0.9406	0.9863	0.9984	0.9998	0.9999	0.9999
30	300.	0.9461	0.9516	0.9760	0.9959	0.9996	1.0000	1.0000	1.0000
	800.	0.9462	0.9518	0.9761	0.9960	0.9997	1.0000	1.0001	1.0001
	2100.	0.9464	0.9519	0.9763	0.9961	0.9998	1.0002	1.0002	1.0002
	4500.	0.9466	0.9522	0.9764	0.9963	0.9999	1.0003	1.0003	1.0003
31	300.	0.9994	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9995	0.9995	0.9999	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	0.9996	0.9997	1.0000	1.0002	1.0002	1.0002	1.0002	1.0002
32	300.	0.9769	0.9794	0.9902	0.9985	0.9998	1.0000	1.0000	1.0000
	800.	0.9770	0.9794	0.9902	0.9985	0.9998	1.0000	1.0000	1.0000
	2100.	0.9771	0.9795	0.9903	0.9985	0.9999	1.0000	1.0001	1.0001
	4500.	0.9772	0.9796	0.9904	0.9986	0.9999	1.0001	1.0001	1.0001
33	300.	0.9993	0.9994	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9993	0.9994	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0001	1.0001
34	300.	0.9992	0.9993	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9992	0.9993	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9992	0.9993	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9992	0.9993	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
35	300.	0.9993	0.9998	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9993	0.9994	0.9998	1.0000	1.0001	1.0001	1.0001	1.0001
	2100.	0.9993	0.9994	0.9998	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	0.9997	0.9994	0.9997	1.0001	1.0001	1.0001	1.0001	1.0001
36	300.	0.9994	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9994	0.9995	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9994	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 1 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9980	0.9984	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9980	0.9984	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9980	0.9984	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9980	0.9984	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
2	300.	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9994	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	0.9967	0.9972	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9967	0.9973	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9966	0.9973	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9967	0.9973	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
5	300.	0.9843	0.9877	0.9961	0.9995	1.0000	1.0000	1.0000	1.0000
	800.	0.9844	0.9878	0.9962	0.9995	1.0000	1.0000	1.0000	1.0000
	2100.	0.9846	0.9879	0.9962	0.9995	1.0001	1.0000	1.0000	1.0001
	4500.	0.9848	0.9881	0.9963	0.9996	1.0001	1.0001	1.0001	1.0001
6	300.	0.9525	0.9635	0.9886	0.9984	0.9998	1.0000	1.0000	1.0000
	800.	0.9527	0.9637	0.9887	0.9984	0.9998	1.0000	1.0000	1.0000
	2100.	0.9531	0.9645	0.9888	0.9985	0.9998	1.0000	1.0000	1.0000
	4500.	0.9535	0.9648	0.9889	0.9985	0.9998	1.0000	1.0000	1.0000
7	300.	0.9083	0.9307	0.9785	0.9973	0.9998	1.0000	1.0000	1.0000
	800.	0.9087	0.9310	0.9786	0.9973	0.9998	1.0000	1.0000	1.0000
	2100.	0.9092	0.9314	0.9787	0.9974	0.9998	1.0000	1.0000	1.0000
	4500.	0.9099	0.9319	0.9789	0.9974	0.9998	1.0000	1.0000	1.0000
8	300.	0.8541	0.8890	0.9653	0.9956	0.9996	1.0000	1.0000	1.0000
	800.	0.8547	0.8895	0.9654	0.9956	0.9996	0.9999	1.0000	1.0000
	2100.	0.8557	0.8902	0.9656	0.9956	0.9995	0.9999	0.9999	0.9999
	4500.	0.8568	0.8910	0.9659	0.9955	0.9995	0.9998	0.9999	0.9999
9	300.	0.7632	0.8268	0.9484	0.9933	0.9993	0.9999	1.0000	1.0000
	800.	0.7644	0.8277	0.9487	0.9934	0.9993	1.0000	1.0000	1.0000
	2100.	0.7663	0.8291	0.9492	0.9935	0.9994	1.0000	1.0001	1.0002
	4500.	0.7686	0.8308	0.9498	0.9937	0.9995	1.0001	1.0002	1.0002
10	300.	0.7336	0.8093	0.9436	0.9928	0.9993	1.0000	1.0000	1.0000
	800.	0.7347	0.8101	0.9440	0.9929	0.9993	1.0000	1.0001	1.0001
	2100.	0.7364	0.8114	0.9445	0.9930	0.9993	1.0001	1.0001	1.0001
	4500.	0.7385	0.8130	0.9451	0.9931	0.9992	0.9999	1.0000	1.0000
11	300.	0.5051	0.6483	0.8974	0.9863	0.9987	0.9998	1.0000	1.0000
	800.	0.5075	0.6497	0.8979	0.9865	0.9988	0.9999	1.0000	1.0000
	2100.	0.5099	0.6518	0.8989	0.9867	0.9988	0.9999	1.0000	1.0001
	4500.	0.5133	0.6544	0.8999	0.9868	0.9988	0.9999	1.0000	1.0000
12	300.	0.6577	0.7526	0.9154	0.9877	0.9986	0.9999	1.0000	1.0001
	800.	0.6599	0.7539	0.9160	0.9880	0.9988	1.0000	1.0001	1.0001
	2100.	0.6633	0.7561	0.9169	0.9883	0.9990	1.0002	1.0003	1.0003
	4500.	0.6675	0.7586	0.9180	0.9887	0.9992	1.0004	1.0005	1.0005

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2

REACTION = TOTAL

FOR 1TH R-PARAMETER
PAGE 2 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.7073	0.7916	0.9360	0.9908	0.9991	0.9987	1.0000	1.0000
	800.	0.7084	0.7923	0.9363	0.9909	0.9992	0.9988	1.0001	1.0001
	2100.	0.7102	0.7933	0.9367	0.9915	0.9988	0.9985	0.9998	0.9999
	4500.	0.7123	0.7946	0.9371	0.9917	0.9989	0.9986	0.9998	0.9999
14	300.	0.3597	0.4887	0.8105	0.9734	0.9973	0.9997	1.0000	1.0000
	800.	0.3608	0.4895	0.8108	0.9734	0.9973	0.9998	1.0001	1.0001
	2100.	0.3621	0.4908	0.8113	0.9735	0.9973	0.9998	1.0001	1.0001
	4500.	0.3648	0.4934	0.8118	0.9736	0.9973	0.9998	1.0000	1.0000
15	300.	0.4358	0.6326	0.8731	0.9805	0.9980	1.0001	1.0002	1.0003
	800.	0.4370	0.6335	0.8735	0.9809	0.9982	1.0004	1.0006	1.0006
	2100.	0.4389	0.6354	0.8752	0.9814	0.9987	1.0009	1.0010	1.0010
	4500.	0.4414	0.6377	0.8764	0.9822	0.9991	0.9994	1.0000	1.0000
16	300.	0.2513	0.4723	0.7905	0.9627	0.9957	0.9997	1.0000	1.0000
	800.	0.2518	0.4728	0.7922	0.9634	0.9964	0.9997	1.0000	1.0000
	2100.	0.2531	0.4735	0.7939	0.9644	0.9960	0.9997	1.0001	1.0001
	4500.	0.2554	0.4747	0.7956	0.9645	0.9962	0.9997	1.0001	1.0001
17	300.	0.4478	0.5601	0.8115	0.9669	0.9963	0.9997	1.0001	1.0001
	800.	0.4487	0.5614	0.8130	0.9677	0.9965	0.9999	1.0002	1.0002
	2100.	0.4500	0.5633	0.8151	0.9685	0.9967	0.9999	1.0002	1.0002
	4500.	0.4520	0.5657	0.8171	0.9695	0.9969	0.9999	1.0002	1.0000
18	300.	0.4467	0.4987	0.6680	0.9191	0.9906	0.9990	0.9999	1.0000
	800.	0.4469	0.4991	0.6692	0.9198	0.9906	0.9991	0.9999	0.9999
	2100.	0.4474	0.4999	0.6709	0.9209	0.9908	0.9990	0.9998	0.9999
	4500.	0.4482	0.5008	0.6729	0.9219	0.9908	0.9999	1.0000	1.0000
19	300.	0.8716	0.8869	0.9417	0.9866	0.9983	0.9998	0.9999	0.9999
	800.	0.8725	0.8880	0.9421	0.9879	0.9985	0.9998	1.0001	1.0001
	2100.	0.8740	0.8895	0.9455	0.9894	0.9988	1.0000	1.0001	1.0001
	4500.	0.8753	0.8910	0.9478	0.9905	0.9989	1.0000	1.0001	1.0001
20	300.	0.1632	0.2625	0.4945	0.8594	0.9821	0.9981	0.9998	1.0000
	800.	0.1633	0.2628	0.4961	0.8581	0.9824	0.9983	0.9999	1.0001
	2100.	0.1636	0.2638	0.4987	0.8596	0.9828	0.9983	0.9999	1.0000
	4500.	0.1640	0.2653	0.5017	0.8607	0.9829	0.9983	0.9999	1.0000
21	300.	0.9104	0.9252	0.9673	0.9940	0.9993	0.9999	1.0000	1.0000
	800.	0.9110	0.9260	0.9714	0.9948	0.9995	0.9999	1.0000	1.0000
	2100.	0.9121	0.9271	0.9703	0.9954	0.9996	0.9999	1.0000	1.0000
	4500.	0.9131	0.9283	0.9714	0.9957	0.9996	0.9999	1.0000	1.0000
22	300.	0.9443	0.9477	0.9616	0.9849	0.9981	1.0000	1.0001	1.0001
	800.	0.9446	0.9480	0.9604	0.9867	0.9981	1.0003	1.0003	1.0004
	2100.	0.9452	0.9488	0.9647	0.9893	0.9992	1.0002	1.0003	1.0004
	4500.	0.9463	0.9500	0.9670	0.9913	0.9998	1.0000	1.0000	1.0000
23	300.	0.8974	0.9061	0.9481	0.9898	0.9990	1.0000	1.0000	1.0001
	800.	0.8979	0.9066	0.9484	0.9909	0.9989	0.9999	1.0000	1.0000
	2100.	0.8985	0.9072	0.9495	0.9910	0.9991	1.0000	1.0001	1.0001
	4500.	0.8989	0.9075	0.9497	0.9912	0.9555	0.9944	0.9995	1.0000
24	300.	0.0427	0.0696	0.2690	0.7123	0.9555	0.9944	0.9987	0.9992
	800.	0.0427	0.0696	0.2690	0.7123	0.9555	0.9944	0.9987	0.9992
	2100.	0.0427	0.0697	0.2691	0.7124	0.9555	0.9952	0.9986	0.9990
	4500.	0.0428	0.0697	0.2692	0.7124	0.9555	0.9952	0.9994	0.9998

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER			
		PAGE 3 OF 6							
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.5509	0.7112	0.9353	0.9926	0.9992	0.9999	1.0000	1.0000
	800.	0.5516	0.7108	0.9361	0.9926	0.9992	0.9999	1.0000	1.0000
	2100.	0.5518	0.7126	0.9368	0.9927	0.9992	0.9999	1.0000	1.0000
	4500.	0.5524	0.7136	0.9372	0.9928	0.9993	1.0000	1.0001	1.0001
26	300.	0.9723	0.9769	0.9928	0.9991	0.9999	1.0000	1.0000	1.0000
	800.	0.9721	0.9773	0.9932	0.9994	1.0003	1.0004	1.0004	1.0004
	2100.	0.9714	0.9784	0.9937	0.9999	1.0007	1.0008	1.0008	1.0008
	4500.	0.9716	0.9782	0.9941	1.0002	1.0011	1.0012	1.0012	1.0012
27	300.	0.9889	0.9912	0.9985	0.9997	0.9999	1.0000	1.0000	1.0000
	800.	0.9891	0.9915	0.9975	0.9996	1.0000	1.0001	1.0001	1.0001
	2100.	0.9894	0.9918	0.9978	1.0025	1.0030	1.0031	1.0031	1.0031
	4500.	0.9896	0.9919	0.9980	1.0025	1.0030	1.0031	1.0031	1.0031
28	300.	0.9521	0.9571	0.9790	0.9953	0.9995	0.9999	1.0000	1.0000
	800.	0.9526	0.9576	0.9794	0.9954	0.9995	0.9999	1.0000	1.0000
	2100.	0.9532	0.9583	0.9800	0.9956	0.9996	1.0000	1.0001	1.0001
	4500.	0.9542	0.9592	0.9805	0.9959	0.9996	1.0000	1.0000	1.0000
29	300.	0.8189	0.8279	0.8844	0.9727	0.9968	0.9997	1.0000	1.0000
	800.	0.8195	0.8285	0.8851	0.9727	0.9968	0.9997	1.0000	1.0000
	2100.	0.8197	0.8288	0.8853	0.9728	0.9967	0.9996	0.9999	0.9999
	4500.	0.8199	0.8289	0.8854	0.9729	0.9968	0.9996	0.9999	0.9999
30	300.	0.8891	0.9008	0.9513	0.9918	0.9991	0.9999	1.0000	1.0000
	800.	0.8892	0.9009	0.9514	0.9919	0.9992	1.0000	1.0001	1.0001
	2100.	0.8894	0.9012	0.9516	0.9921	0.9993	1.0001	1.0002	1.0002
	4500.	0.8897	0.9014	0.9518	0.9922	0.9995	1.0003	1.0003	1.0003
31	300.	0.9988	0.9990	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9989	0.9991	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9986	0.9990	0.9997	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	0.9990	0.9992	0.9997	1.0002	1.0002	1.0002	1.0002	1.0002
32	300.	0.9572	0.9615	0.9808	0.9969	0.9996	1.0000	1.0000	1.0000
	800.	0.9573	0.9616	0.9809	0.9969	0.9997	1.0000	1.0000	1.0000
	2100.	0.9574	0.9617	0.9810	0.9969	0.9997	1.0000	1.0001	1.0001
	4500.	0.9576	0.9618	0.9811	0.9970	0.9997	1.0001	1.0001	1.0001
33	300.	0.9986	0.9987	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9986	0.9988	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9986	0.9988	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9986	0.9988	0.9995	1.0000	1.0000	1.0000	1.0001	1.0001
34	300.	0.9986	0.9988	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9984	0.9986	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9985	0.9987	0.9994	1.0002	1.0003	1.0003	1.0003	1.0003
	4500.	0.9987	0.9990	0.9994	1.0001	1.0002	1.0002	1.0002	1.0002
35	300.	0.9984	0.9990	0.9993	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9985	0.9987	0.9994	1.0001	1.0001	1.0001	1.0001	1.0001
	2100.	0.9986	0.9988	0.9994	1.0000	1.0001	1.0001	1.0001	1.0001
	4500.	0.9985	0.9990	0.9991	1.0001	1.0000	1.0001	1.0001	1.0001
36	300.	0.9987	0.9989	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	800.	0.9987	0.9989	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	2100.	0.9987	0.9989	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9987	0.9990	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2		REACTION = ELASTIC REMOVAL				FOR 1TH R-PARAMETER			
		PAGE 1 OF 2							
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9648	0.9722	0.9910	0.9988	0.9999	1.0000	1.0000	1.0000
2	300.	0.9830	0.9863	0.9954	0.9994	0.9999	1.0000	1.0000	1.0000
3	300.	0.9991	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	1.0220	1.0170	1.0049	1.0002	1.0000	1.0000	1.0000	1.0000
5	300.	1.0119	1.0091	1.0024	1.0003	1.0001	1.0001	1.0000	1.0000
6	300.	1.0892	1.0684	1.0202	1.0027	1.0003	1.0000	1.0000	1.0000
7	300.	1.0382	1.0292	1.0073	1.0009	0.9999	1.0000	1.0000	1.0000
8	300.	1.0063	1.0040	1.0008	1.0002	1.0001	1.0000	1.0000	1.0000
9	300.	0.8629	0.9027	0.9732	0.9967	0.9996	1.0004	1.0004	1.0000
10	300.	0.7993	0.8517	0.9531	0.9939	0.9995	0.9999	1.0000	1.0000
11	300.	1.1473	1.0838	1.0290	1.0042	1.0005	1.0000	1.0000	1.0000
12	300.	0.6036	0.7006	0.8984	0.9865	0.9986	0.9999	1.0000	1.0000
13	300.	0.6448	0.7156	0.8982	0.9869	0.9986	0.9999	1.0000	1.0000
14	300.	1.0313	0.9900	0.9716	0.9947	0.9993	0.9999	1.0000	1.0000
15	300.	0.6658	0.7946	0.9442	0.9923	0.9992	0.9999	1.0000	1.0000
16	300.	0.4707	0.5331	0.7442	0.9523	0.9945	0.9995	1.0000	1.0000
17	300.	0.3772	0.4791	0.7803	0.9660	0.9964	0.9997	1.0000	1.0000
18	300.	0.7867	0.8834	1.0076	1.0049	1.0009	1.0001	1.0000	1.0000
19	300.	0.6228	0.6739	0.8577	0.9769	0.9977	0.9998	1.0000	1.0000
20	300.	0.9758	1.1499	1.1480	1.0303	1.0036	1.0004	1.0000	1.0000
21	300.	0.6770	0.7226	0.8877	0.9835	0.9983	0.9998	1.0000	1.0000
22	300.	0.8751	0.8947	0.9602	0.9949	0.9996	1.0002	1.0000	1.0000
23	300.	0.6415	0.6720	0.8204	0.9675	0.9965	0.9996	1.0000	1.0000
24	300.	2.5195	2.4666	1.8654	1.1945	1.0239	1.0025	1.0002	1.0000
25	300.	0.4196	0.6208	0.9114	0.9897	0.9990	0.9999	1.0000	1.0000
26	300.	0.8455	0.8777	0.9602	0.9949	0.9995	0.9999	1.0000	1.0000
27	300.	0.8762	0.8959	0.9599	0.9944	0.9994	0.9999	1.0000	1.0000
28	300.	0.7739	0.7978	0.8987	0.9832	0.9982	0.9998	1.0000	1.0000
29	300.	1.0666	1.0666	1.0565	1.0167	1.0020	1.0002	1.0000	1.0000
30	300.	1.4661	1.4111	1.1900	1.0302	1.0032	1.0003	1.0000	1.0000
31	300.	0.9658	0.9707	0.9879	0.9981	0.9996	0.9998	0.9998	1.0000
32	300.	1.1346	1.1184	1.0540	1.0083	1.0009	1.0001	1.0000	1.0000
33	300.	0.9591	0.9644	0.9846	0.9977	0.9998	1.0000	1.0000	1.0000
34	300.	0.9607	0.9655	0.9844	0.9976	0.9997	1.0000	1.0000	1.0000
35	300.	0.9574	0.9621	0.9826	0.9974	0.9997	1.0000	1.0000	1.0000
36	300.	0.9638	0.9675	0.9840	0.9974	0.9997	1.0000	1.0000	1.0000
37	300.	0.9894	0.9872	1.0006	1.0028	1.0006	1.0001	1.0000	1.0000
38	300.	0.9712	0.9738	0.9863	0.9976	0.9997	1.0000	1.0000	1.0002
39	300.	0.9755	0.9776	0.9879	0.9978	0.9998	1.0000	1.0000	1.0000
40	300.	0.9787	0.9805	0.9892	0.9980	0.9998	1.0000	1.0000	1.0000
41	300.	0.9826	0.9840	0.9910	0.9983	0.9998	1.0000	1.0000	1.0000
42	300.	0.9856	0.9867	0.9924	0.9986	0.9998	1.0000	1.0000	1.0000
43	300.	0.9879	0.9888	0.9936	0.9988	0.9999	1.0000	1.0000	1.0000
44	300.	0.9902	0.9909	0.9947	0.9990	0.9999	1.0000	1.0000	1.0000
45	300.	0.9920	0.9926	0.9957	0.9992	0.9999	1.0000	1.0000	1.0000

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = FE-26-J2		REACTION = INELASTIC				FOR	1TH	R-PARAMETER	
						PAGE	1 OF 3		
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9998	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9998	0.9998	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9998	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000
4	300.	0.9996	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000
	800.	0.9996	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000
	2100.	0.9996	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000
	4500.	0.9996	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000
	800.	0.9996	0.9996	0.9997	1.0000	0.9999	1.0000	1.0000	1.0000
5	300.	0.9996	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000
	800.	0.9996	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000
	2100.	0.9996	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000
	4500.	0.9996	0.9997	0.9999	1.0000	0.9999	1.0000	1.0000	1.0000
	800.	0.9996	0.9996	0.9997	1.0000	0.9999	1.0000	1.0000	1.0000
6	300.	0.9979	0.9984	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9979	0.9984	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9979	0.9984	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9979	0.9984	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9979	0.9984	0.9996	1.0000	1.0000	1.0000	1.0000	1.0000
7	300.	0.9756	0.9815	0.9943	0.9995	0.9999	1.0000	1.0000	1.0000
	800.	0.9756	0.9815	0.9943	0.9995	0.9999	1.0000	1.0000	1.0000
	2100.	0.9756	0.9815	0.9943	0.9995	0.9999	1.0000	1.0000	1.0000
	4500.	0.9756	0.9815	0.9943	0.9995	0.9999	1.0000	1.0000	1.0000
	800.	0.9788	0.9841	0.9953	0.9994	0.9999	1.0000	1.0000	1.0000
8	300.	0.9788	0.9841	0.9953	0.9994	0.9999	1.0000	1.0000	1.0000
	800.	0.9788	0.9841	0.9953	0.9994	0.9999	1.0000	1.0000	1.0000
	2100.	0.9788	0.9841	0.9953	0.9994	0.9999	1.0000	1.0000	1.0000
	4500.	0.9788	0.9841	0.9953	0.9994	0.9999	1.0000	1.0000	1.0000
	800.	0.9553	0.9683	0.9913	0.9989	0.9999	1.0000	1.0000	1.0000
9	300.	0.9553	0.9683	0.9913	0.9989	0.9999	1.0000	1.0000	1.0000
	800.	0.9553	0.9683	0.9913	0.9989	0.9999	1.0000	1.0000	1.0000
	2100.	0.9553	0.9683	0.9913	0.9989	0.9999	1.0000	1.0000	1.0000
	4500.	0.9553	0.9683	0.9913	0.9989	0.9999	1.0000	1.0000	1.0000
	800.	0.9192	0.9441	0.9852	0.9982	0.9998	1.0000	1.0000	1.0000
10	300.	0.9192	0.9441	0.9852	0.9982	0.9998	1.0000	1.0000	1.0000
	800.	0.9192	0.9441	0.9852	0.9982	0.9998	1.0000	1.0000	1.0000
	2100.	0.9192	0.9441	0.9852	0.9982	0.9998	1.0000	1.0000	1.0000
	4500.	0.9192	0.9441	0.9852	0.9982	0.9998	1.0000	1.0000	1.0000
	800.	0.9905	0.9939	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000
11	300.	0.9905	0.9939	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9905	0.9939	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000
	2100.	0.9905	0.9939	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000
	4500.	0.9905	0.9939	0.9985	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	1.0058	1.0039	1.0009	1.0002	1.0000	1.0000	1.0000	1.0000
12	300.	1.0058	1.0039	1.0009	1.0002	1.0000	1.0000	1.0000	1.0000
	800.	1.0058	1.0039	1.0009	1.0002	1.0000	1.0000	1.0000	1.0000
	2100.	1.0058	1.0039	1.0009	1.0002	1.0000	1.0000	1.0000	1.0000
	4500.	1.0058	1.0039	1.0009	1.0002	1.0000	1.0000	1.0000	1.0000
	800.	1.0058	1.0039	1.0010	1.0002	1.0000	1.0000	1.0000	1.0000

TABLE OF SELF-SHIELDING FACTORS

TO BE CONTINUED

MATERIAL NAME = FE-26-J2		REACTION = INELASTIC				FOR	1TH	R-PARAMETER	
						PAGE	2 OF 3		
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	1.0061	1.0049	1.0017	1.0002	0.9990	1.0000	1.0000	1.0000
	800.	1.0062	1.0049	1.0017	1.0002	0.9990	1.0000	1.0000	1.0000
	2100.	1.0062	1.0049	1.0017	1.0002	0.9990	1.0000	1.0000	1.0000
	4500.	1.0062	1.0049	1.0017	1.0002	0.9989	1.0000	1.0000	1.0000
14	300.	0.9957	0.9968	0.9989	0.9998	1.0000	1.0000	1.0000	1.0000
	800.	0.9957	0.9968	0.9989	0.9998	1.0000	1.0000	1.0000	1.0000
	2100.	0.9957	0.9968	0.9990	0.9998	1.0000	1.0000	1.0000	1.0000
	4500.	0.9957	0.9968	0.9989	0.9998	1.0000	1.0000	1.0000	1.0000
15	300.	0.9989	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9989	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9989	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9989	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
16	300.	1.0511	1.0561	1.0395	1.0070	1.0005	1.0001	1.0000	1.0000
	800.	1.0509	1.0561	1.0397	1.0071	1.0009	1.0001	1.0000	1.0000
	2100.	1.0504	1.0558	1.0396	1.0072	1.0008	1.0001	1.0000	1.0000
	4500.	1.0498	1.0555	1.0395	1.0070	1.0007	1.0001	1.0000	1.0000
17	300.	1.2974	1.1420	1.0031	0.9974	0.9996	1.0000	1.0000	1.0000
	800.	1.2993	1.1429	1.0033	0.9974	0.9996	1.0000	1.0000	1.0000
	2100.	1.3014	1.1443	1.0035	0.9975	0.9996	1.0000	1.0000	1.0000
	4500.	1.3033	1.1453	1.0037	0.9977	0.9996	1.0000	1.0000	1.0000
18	300.	1.0211	1.0294	1.0226	1.0046	1.0005	1.0001	1.0000	1.0000
	800.	1.0203	1.0288	1.0224	1.0047	1.0005	1.0001	1.0000	1.0000
	2100.	1.0193	1.0279	1.0221	1.0048	1.0005	1.0001	1.0000	1.0000
	4500.	1.0181	1.0270	1.0218	1.0047	1.0005	1.0001	1.0000	1.0000
19	300.	1.0970	1.0810	1.0516	1.0048	1.0005	1.0001	1.0000	1.0000
	800.	1.0979	1.0816	1.0519	1.0046	1.0005	1.0000	1.0000	1.0000
	2100.	1.0991	1.0826	1.0522	1.0045	1.0005	1.0000	1.0000	1.0000
	4500.	1.1005	1.0838	1.0526	1.0046	1.0005	1.0000	1.0000	1.0000
20	300.	0.7838	0.8855	1.0077	1.0077	1.0009	1.0001	1.0000	1.0000
	800.	0.7838	0.8854	1.0077	1.0078	1.0009	1.0001	1.0000	1.0000
	2100.	0.7841	0.8859	1.0079	1.0077	1.0010	1.0001	1.0000	1.0000
	4500.	0.7848	0.8868	1.0083	1.0077	1.0011	1.0001	1.0000	1.0000
21	300.	0.9980	0.9964	1.0037	1.0009	1.0001	1.0000	1.0000	1.0000
	800.	0.9981	1.0018	1.0037	1.0008	1.0002	1.0000	1.0000	1.0000
	2100.	0.9981	1.0018	1.0037	1.0008	1.0002	1.0000	1.0000	1.0000
	4500.	0.9982	1.0018	1.0038	1.0009	1.0002	1.0000	1.0000	1.0000
22	300.	0.9279	0.9396	0.9779	0.9974	0.9997	1.0000	1.0000	1.0000
	800.	0.9284	0.9401	0.9782	0.9973	0.9996	0.9999	1.0000	1.0000
	2100.	0.9292	0.9409	0.9787	0.9974	0.9997	0.9999	1.0000	1.0000
	4500.	0.9305	0.9421	0.9793	0.9976	0.9997	0.9999	1.0000	1.0000
23	300.	1.0594	1.0515	1.0221	1.0030	1.0003	0.9999	1.0000	1.0000
	800.	1.0595	1.0516	1.0221	1.0029	1.0003	0.9999	1.0000	1.0000
	2100.	1.0596	1.0517	1.0222	1.0029	1.0003	1.0000	1.0000	1.0000
	4500.	1.0596	1.0517	1.0222	1.0030	1.0003	1.0000	1.0000	1.0000
24	300.	0.5846	0.6400	0.7996	0.9488	0.9934	0.9993	0.9999	1.0000
	800.	0.5847	0.6400	0.7996	0.9489	0.9934	0.9993	0.9999	1.0000
	2100.	0.5847	0.6401	0.7996	0.9488	0.9934	0.9993	0.9999	1.0000
	4500.	0.5847	0.6401	0.7997	0.9488	0.9934	0.9993	0.9999	1.0000

JAERI-M 82-135

NUCLID = NI-28-J2 CODE NO = 28
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1 0.0	0.0	5.1321E-01	8.8982E-01	2.0109E+00	8.2037E-01	8.3269E-02	1.4529E-03	3.4153E+00
2 0.0	0.0	4.5910E-01	1.0069E+00	2.1334E+00	7.8210E-01	9.2637E-02	0.0	3.5994E+00
3 0.0	0.0	3.6605E-01	1.1260E+00	2.0909E+00	7.1608E-01	1.0719E-01	0.0	3.5829E+00
4 0.0	0.0	2.6417E-01	1.1519E+00	2.1078E+00	6.2708E-01	1.3245E-01	0.0	3.5239E+00
5 0.0	0.0	1.6342E-01	9.9912E-01	2.2338E+00	5.1223E-01	1.9006E-01	0.0	3.3963E+00
6 0.0	0.0	7.9184E-02	7.2660E-01	2.4376E+00	4.0394E-01	2.1267E-01	0.0	3.2434E+00
7 0.0	0.0	3.5455E-02	5.4987E-01	2.4768E+00	3.1699E-01	2.5264E-01	0.0	3.0621E+00
8 0.0	0.0	2.0938E-02	2.4739E-01	2.9843E+00	2.4275E-01	3.3722E-01	0.0	3.2526E+00
9 0.0	0.0	1.5222E-02	1.5338E-02	3.2821E+00	1.9825E-01	2.8201E-01	0.0	3.3127E+00
10 0.0	0.0	1.0693E-02	1.0562E-02	3.1837E+00	1.6944E-01	4.5848E-01	0.0	3.2050E+00
11 0.0	0.0	9.9372E-03	9.3396E-03	3.3058E+00	1.5073E-01	4.4627E-01	0.0	3.3251E+00
12 0.0	0.0	9.4208E-03	8.1597E-03	3.7670E+00	1.3748E-01	5.2129E-01	0.0	3.7845E+00
13 0.0	0.0	9.9536E-03	7.6895E-03	3.8800E+00	1.1871E-01	3.3210E-01	0.0	3.8976E+00
14 0.0	0.0	1.0542E-02	7.0249E-03	4.6522E+00	1.0268E-01	5.6425E-01	0.0	4.6698E+00
15 0.0	0.0	1.0838E-02	5.7823E-03	5.9092E+00	8.5330E-02	9.3524E-01	0.0	5.9258E+00
16 0.0	0.0	1.4967E-02	5.5914E-03	6.2228E+00	7.1907E-02	5.5046E-01	0.0	6.2433E+00
17 0.0	0.0	1.6018E-02	5.5004E-03	6.5537E+00	5.9719E-02	8.8958E-01	0.0	6.5752E+00
18 0.0	0.0	1.9960E-02	5.4079E-03	5.9041E+00	5.2016E-02	5.1871E-01	0.0	5.9295E+00
19 0.0	0.0	1.7919E-02	4.7582E-03	5.2906E+00	3.9171E-02	7.5806E-01	0.0	5.3133E+00
20 0.0	0.0	1.9374E-02	1.6336E-03	8.6243E+00	3.3534E-02	1.6094E+00	0.0	8.6453E+00
21 0.0	0.0	2.8045E-02	0.0	1.1582E+01	2.8871E-02	3.7309E-01	0.0	1.1610E+01
22 0.0	0.0	2.6145E-02	0.0	5.7860E+00	2.4898E-02	7.6210E-01	0.0	5.8121E+00
23 0.0	0.0	5.3825E-02	0.0	8.7468E+00	2.1455E-02	1.3882E+00	0.0	8.8006E+00
24 0.0	0.0	4.0446E-02	0.0	1.4868E+01	1.8224E-02	1.5677E+00	0.0	1.4908E+01
25 0.0	0.0	4.6958E-02	0.0	1.7998E+01	1.3997E-02	2.8409E+00	0.0	1.8045E+01
26 0.0	0.0	9.1308E-02	0.0	6.5804E+01	1.1455E-02	1.7170E+01	0.0	6.5895E+01
27 0.0	0.0	2.4287E-01	0.0	5.3494E+01	1.1455E-02	5.3043E+00	0.0	5.3737E+01
28 0.0	0.0	3.6379E-02	0.0	1.6978E+01	1.1455E-02	1.0212E+00	0.0	1.7015E+01
29 0.0	0.0	2.3591E-02	0.0	9.4180E+00	1.1455E-02	1.3359E+00	0.0	9.4416E+00
30 0.0	0.0	2.7397E-02	0.0	1.3205E+01	1.1455E-02	1.9341E+00	0.0	1.3232E+01
31 0.0	0.0	3.6531E-02	0.0	2.5481E+01	1.1455E-02	3.3663E+00	0.0	2.5517E+01
32 0.0	0.0	3.0419E-02	0.0	2.3756E+01	1.1455E-02	1.9432E+00	0.0	2.3786E+01
33 0.0	0.0	3.1931E-02	0.0	1.6925E+01	1.1455E-02	1.8699E+00	0.0	1.6957E+01
34 0.0	0.0	7.9335E-02	0.0	1.5111E+01	1.1455E-02	1.9788E+00	0.0	1.5190E+01
35 0.0	0.0	1.8905E-02	0.0	1.4906E+01	1.1455E-02	1.7195E+00	0.0	1.4925E+01
36 0.0	0.0	4.5550E-02	0.0	1.5018E+01	1.1455E-02	1.6945E+00	0.0	1.5064E+01
37 0.0	0.0	2.2339E-02	0.0	1.5154E+01	1.1455E-02	1.6090E+00	0.0	1.5177E+01
38 0.0	0.0	2.5115E-02	0.0	1.5412E+01	1.1455E-02	1.6686E+00	0.0	1.5437E+01
39 0.0	0.0	2.8035E-02	0.0	1.5677E+01	1.1455E-02	1.7028E+00	0.0	1.5706E+01
40 0.0	0.0	3.1486E-02	0.0	1.5892E+01	1.1455E-02	1.6384E+00	0.0	1.5923E+01

TO BE CONTINUED

NUCLID = NI-28-J2 CODE NO = 28
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41 0.0	0.0	3.5830E-02	0.0	1.6068E+01	1.1455E-02	1.7204E+00	0.0	1.6104E+01
42 0.0	0.0	4.0131E-02	0.0	1.6206E+01	1.1455E-02	1.6453E+00	0.0	1.6244E+01
43 0.0	0.0	4.5363E-02	0.0	1.6315E+01	1.1455E-02	1.5711E+00	0.0	1.6360E+01
44 0.0	0.0	5.1705E-02	0.0	1.6418E+01	1.1455E-02	1.5955E+00	0.0	1.6469E+01
45 0.0	0.0	5.8050E-02	0.0	1.6547E+01	1.1455E-02	1.5772E+00	0.0	1.6605E+01
46 0.0	0.0	6.5728E-02	0.0	1.6650E+01	1.1455E-02	1.4392E+00	0.0	1.6716E+01
47 0.0	0.0	7.4608E-02	0.0	1.6711E+01	1.1455E-02	1.3435E+00	0.0	1.6786E+01
48 0.0	0.0	8.4083E-02	0.0	1.6725E+01	1.1455E-02	1.2996E+00	0.0	1.6809E+01
49 0.0	0.0	9.5382E-02	0.0	1.6736E+01	1.1455E-02	1.2159E+00	0.0	1.6831E+01
50 0.0	0.0	1.0794E-01	0.0	1.6744E+01	1.1455E-02	1.1187E+00	0.0	1.6852E+01
51 0.0	0.0	1.2268E-01	0.0	1.6751E+01	1.1455E-02	1.6365E+00	0.0	1.6873E+01
52 0.0	0.0	1.3989E-01	0.0	1.6756E+01	1.1455E-02	1.4681E+00	0.0	1.6896E+01
53 0.0	0.0	1.5604E-01	0.0	1.6760E+01	1.1455E-02	8.9816E-01	0.0	1.6916E+01
54 0.0	0.0	1.7720E-01	0.0	1.6763E+01	1.1455E-02	1.1013E+00	0.0	1.6940E+01
55 0.0	0.0	2.0246E-01	0.0	1.6765E+01	1.1455E-02	1.0902E+00	0.0	1.6968E+01
56 0.0	0.0	2.2916E-01	0.0	1.6768E+01	1.1455E-02	1.6404E+00	0.0	1.6997E+01
57 0.0	0.0	2.6046E-01	0.0	1.6769E+01	1.1455E-02	1.6874E+00	0.0	1.7030E+01
58 0.0	0.0	2.9657E-01	0.0	1.6770E+01	1.1455E-02	1.6874E+00	0.0	1.7067E+01
59 0.0	0.0	3.3414E-01	0.0	1.6771E+01	1.1455E-02	1.6876E+00	0.0	1.7106E+01
60 0.0	0.0	3.7992E-01	0.0	1.6772E+01	1.1455E-02	1.6874E+00	0.0	1.7152E+01
61 0.0	0.0	4.3056E-01	0.0	1.6773E+01	1.1455E-02	1.6879E+00	0.0	1.7204E+01
62 0.0	0.0	4.8653E-01	0.0	1.6774E+01	1.1455E-02	1.6877E+00	0.0	1.7261E+01
63 0.0	0.0	5.5492E-01	0.0	1.6775E+01	1.1455E-02	1.6880E+00	0.0	1.7330E+01
64 0.0	0.0	6.2547E-01	0.0	1.6776E+01	1.1455E-02	1.6882E+00	0.0	1.7401E+01
65 0.0	0.0	7.0847E-01	0.0	1.6777E+01	1.1455E-02	1.6876E+00	0.0	1.7485E+01
66 0.0	0.0	8.0926E-01	0.0	1.6778E+01	1.1455E-02	1.6883E+00	0.0	1.7587E+01
67 0.0	0.0	9.0972E-01	0.0	1.6780E+01	1.1455E-02	1.6884E+00	0.0	1.7689E+01
68 0.0	0.0	1.0324E+00	0.0	1.6782E+01	1.1455E-02	1.6885E+00	0.0	1.7814E+01
69 0.0	0.0	1.1775E+00	0.0	1.6784E+01	1.1455E-02	1.6890E+00	0.0	1.7962E+01
70 0.0	0.0	1.5345E+00	0.0	1.6792E+01	1.1455E-02	0.0	0.0	1.8327E+01

NUCLID = NI-28-J2 CODE NUMBER = 26 IPL = 0

TABLE OF INELASTIC MATRICES

PAGE 1 OF 3

[illegible]

TO BE CONTINUED

NUCLID = NI-28-J2 CODE NUMBER = 28 IPL = 0

TABLE OF INELASTIC MATRICES

PAGE 2 OF 3

[illegible]

TO BE CONTINUED

NUCLID = NI-28-J2 CODE NUMBER = 28 IPL = 0

TABLE OF INELASTIC MATRICES

PAGE 3 OF 3

GROUP	EXIT	GROUP	KK	KK	KK	KK	KK	KK	KK	KK	KK
I	J	2	3	4	5	6	7	8	9	10	11
11	12	13	14	15	16	17	18	19	20	21	22
21	22	23	24	25	26	27	28	29	30	31	32
31	32	33	34	35	36	37	38	39	40	41	42
41	42	43	44	45	46	47	48	49	50	51	52

17

0.0	1.53524E-04	3.27575E-03	2.07129E-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

18

0.0	0.0	7.65650E-04	2.65021E-03	1.91811E-03	7.39555E-05	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

19

0.0	0.0	0.0	1.62280E-04	1.92331E-03	1.46823E-03	9.29934E-04	2.74435E-04	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

20

0.0	0.0	0.0	0.0	0.0	0.0	3.97555E-04	4.72928E-04	2.93216E-04	1.80872E-04	1.11467E-04	6.84287E-05
1.11467E-04	6.84287E-05	4.19848E-05	2.57989E-05	1.58565E-05	9.68696E-06	5.96061E-06	3.71525E-06	2.26122E-06	1.46456E-06	8.69401E-07	5.81367E-07
8.69401E-07	5.81367E-07	3.06472E-07	2.27817E-07	1.54340E-07	1.06760E-07	4.22263E-08	4.25858E-08	4.36111E-08	2.96848E-08	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

NUCLID = NI-28-J2 CODE NUMBER = 28 IPL = 0

TABLE OF (N,2N) MATRICES

PAGE 1 OF 1

GROUP	EXIT	GROUP	KK	KK	KK	KK	KK	KK	KK	KK	KK
I	J	2	3	4	5	6	7	8	9	10	11
11	12	13	14	15	16	17	18	19	20	21	22
21	22	23	24	25	26	27	28	29	30	31	32
31	32	33	34	35	36	37	38	39	40	41	42

1

0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.43144E-04	7.58051E-04
7.58051E-04	5.86835E-04	4.30505E-04	3.02849E-04	2.06164E-04	1.36838E-04	8.90423E-05	5.70274E-05	3.60962E-05	2.26322E-05	1.40857E-05	8.71689E-06
1.40857E-05	8.71689E-06	5.37087E-06	3.29745E-06	2.01921E-06	1.23403E-06	7.52516E-07	4.58607E-07	2.79110E-07	1.69748E-07	1.03174E-07	6.26829E-08
1.03174E-07	6.26829E-08	3.80661E-08	2.31128E-08	1.40305E-08	8.51410E-09	5.16674E-09	3.13499E-09	0.0	0.0	0.0	0.0

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NI-28-J2 REACTION = CAPTURE FOR 1TH R-PARAMETER

PAGE 2 OF 6

GROUP	TEMP. (SIGD)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	1.0034	0.9994	0.9972	0.9994	0.9999	0.9989	1.0000	1.0000
	800.	1.0042	0.9995	0.9970	0.9994	1.0000	0.9989	1.0001	1.0001
	2100.	1.0047	1.0001	0.9981	0.9991	0.9998	0.9987	0.9999	0.9999
	4500.	1.0053	1.0010	0.9982	0.9996	1.0001	0.9990	1.0002	1.0002
14	300.	0.9903	0.9837	0.9872	0.9976	0.9998	1.0000	1.0000	1.0000
	800.	0.9904	0.9840	0.9876	0.9977	0.9998	1.0000	1.0000	1.0000
	2100.	0.9904	0.9845	0.9881	0.9979	0.9998	1.0000	1.0000	1.0000
	4500.	0.9907	0.9853	0.9890	0.9981	1.0000	1.0001	1.0002	1.0002
15	300.	0.9171	0.9316	0.9681	0.9945	0.9992	0.9999	1.0000	1.0000
	800.	0.9214	0.9367	0.9718	0.9953	0.9993	1.0000	1.0000	1.0000
	2100.	0.9285	0.9443	0.9766	0.9963	0.9996	1.0001	1.0001	1.0001
	4500.	0.9371	0.9525	0.9812	0.9974	1.0000	1.0005	1.0005	1.0005
16	300.	0.7501	0.7702	0.8675	0.9715	0.9966	0.9997	1.0000	1.0000
	800.	0.7575	0.7787	0.8737	0.9734	0.9970	0.9999	1.0002	1.0002
	2100.	0.7680	0.7894	0.8822	0.9752	0.9977	1.0003	1.0006	1.0006
	4500.	0.7788	0.8005	0.8908	0.9779	0.9983	1.0008	1.0010	1.0010
17	300.	0.6322	0.6688	0.8084	0.9577	0.9951	0.9995	1.0000	1.0000
	800.	0.6502	0.6875	0.8229	0.9619	0.9959	0.9999	1.0002	1.0003
	2100.	0.6751	0.7126	0.8413	0.9672	0.9968	1.0003	1.0006	1.0007
	4500.	0.6992	0.7365	0.8583	0.9720	0.9978	1.0008	1.0011	1.0011
18	300.	0.5981	0.6517	0.8405	0.9739	0.9972	0.9997	1.0000	1.0000
	800.	0.6319	0.6880	0.8698	0.9812	0.9987	1.0006	1.0008	1.0008
	2100.	0.6764	0.7338	0.9011	0.9880	1.0002	1.0015	1.0016	1.0016
	4500.	0.7186	0.7755	0.9255	0.9930	1.0013	1.0021	1.0022	1.0022
19	300.	0.6944	0.7190	0.8517	0.9733	0.9972	0.9997	1.0000	1.0000
	800.	0.7284	0.7529	0.8756	0.9793	0.9986	1.0007	1.0009	1.0010
	2100.	0.7669	0.7908	0.8997	0.9847	1.0004	1.0020	1.0021	1.0021
	4500.	0.7993	0.8219	0.9175	0.9884	1.0014	1.0027	1.0028	1.0028
20	300.	0.7740	0.7893	0.8685	0.9701	0.9965	0.9996	1.0000	1.0000
	800.	0.8017	0.8155	0.8858	0.9748	0.9976	1.0002	1.0005	1.0005
	2100.	0.8301	0.8423	0.9041	0.9803	0.9990	1.0012	1.0014	1.0015
	4500.	0.8543	0.8655	0.9210	0.9857	1.0010	1.0028	1.0030	1.0030
21	300.	0.5908	0.6298	0.7908	0.9559	0.9951	0.9995	0.9999	1.0000
	800.	0.6155	0.6535	0.8070	0.9613	0.9962	1.0001	1.0005	1.0006
	2100.	0.6445	0.6804	0.8252	0.9670	0.9976	1.0010	1.0013	1.0014
	4500.	0.6702	0.7037	0.8411	0.9716	0.9986	1.0015	1.0018	1.0018
22	300.	0.6981	0.7191	0.8287	0.9626	0.9957	0.9996	1.0000	1.0000
	800.	0.7542	0.7730	0.8668	0.9728	0.9973	1.0001	1.0004	1.0004
	2100.	0.8143	0.8295	0.9034	0.9820	0.9988	1.0008	1.0010	1.0010
	4500.	0.8622	0.8737	0.9300	0.9878	1.0002	1.0016	1.0017	1.0017
23	300.	0.6572	0.6646	0.7466	0.9253	0.9906	0.9990	0.9999	1.0000
	800.	0.6776	0.6882	0.7737	0.9382	0.9939	1.0009	1.0016	1.0017
	2100.	0.7051	0.7181	0.8050	0.9517	0.9965	1.0021	1.0027	1.0027
	4500.	0.7327	0.7466	0.8317	0.9618	0.9984	1.0027	1.0032	1.0032
24	300.	0.8543	0.8612	0.9058	0.9773	0.9973	0.9997	1.0000	1.0000
	800.	0.8936	0.8996	0.9360	0.9875	0.9998	1.0012	1.0014	1.0014
	2100.	0.9329	0.9376	0.9640	0.9956	1.0019	1.0026	1.0027	1.0027
	4500.	0.9618	0.9651	0.9830	1.0008	1.0033	1.0036	1.0036	1.0036

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NI-28-J2		REACTION = CAPTURE				FOR 1TH R-PARAMETER		PAGE 3 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.7466	0.7527	0.7992	0.9271	0.9899	0.9989	0.9999	1.0000
	800.	0.7789	0.7848	0.8295	0.9425	0.9939	1.0008	1.0015	1.0016
	2100.	0.8139	0.8195	0.8611	0.9577	0.9999	1.0020	1.0025	1.0026
	4500.	0.8417	0.8470	0.8853	0.9680	0.9991	1.0030	1.0034	1.0034
26	300.	0.7219	0.7253	0.7552	0.8772	0.9784	0.9977	0.9998	1.0000
	800.	0.7228	0.7263	0.7559	0.8266	0.9789	0.9981	1.0002	1.0004
	2100.	0.7244	0.7278	0.7574	0.8789	0.9799	0.9990	1.0011	1.0013
	4500.	0.7252	0.7286	0.7581	0.8795	0.9805	0.9996	1.0017	1.0019
27	300.	0.8922	0.8934	0.9039	0.9501	0.9907	0.9990	0.9999	1.0000
	800.	0.9137	0.9148	0.9240	0.9623	0.9939	1.0002	1.0009	1.0010
	2100.	0.9384	0.9393	0.9465	0.9726	0.9976	1.0014	1.0018	1.0019
	4500.	0.9599	0.9605	0.9658	0.9859	1.0004	1.0027	1.0030	1.0031
28	300.	0.9047	0.9091	0.9366	0.9833	0.9980	0.9998	1.0000	1.0000
	800.	0.9088	0.9129	0.9391	0.9842	0.9987	1.0004	1.0006	1.0006
	2100.	0.9138	0.9177	0.9421	0.9854	0.9996	1.0012	1.0014	1.0014
	4500.	0.9178	0.9212	0.9443	0.9862	1.0001	1.0018	1.0019	1.0020
29	300.	0.9679	0.9705	0.9835	0.9949	0.9996	1.0000	1.0000	1.0000
	800.	0.9697	0.9721	0.9846	0.9975	1.0000	1.0004	1.0004	1.0004
	2100.	0.9724	0.9746	0.9864	0.9985	1.0009	1.0012	1.0012	1.0012
	4500.	0.9746	0.9767	0.9876	0.9991	1.0014	1.0017	1.0017	1.0017
30	300.	0.9880	0.9885	0.9915	0.9976	0.9997	1.0000	1.0000	1.0000
	800.	1.0014	1.0016	1.0032	1.0079	1.0097	1.0099	1.0100	1.0100
	2100.	1.0129	1.0128	1.0129	1.0162	1.0178	1.0180	1.0180	1.0180
	4500.	1.0229	1.0225	1.0218	1.0237	1.0249	1.0251	1.0251	1.0251
31	300.	1.0197	1.0188	1.0132	1.0033	1.0004	1.0000	1.0000	1.0000
	800.	1.0094	1.0085	1.0022	0.9918	0.9886	0.9883	0.9882	0.9882
	2100.	0.9999	0.9989	0.9924	0.9820	0.9790	0.9787	0.9786	0.9786
	4500.	0.9973	0.9963	0.9896	0.9788	0.9759	0.9756	0.9755	0.9755
32	300.	0.9844	0.9850	0.9890	0.9970	0.9996	1.0000	1.0000	1.0000
	800.	0.9845	0.9851	0.9891	0.9971	0.9997	1.0001	1.0001	1.0001
	2100.	0.9847	0.9853	0.9893	0.9972	0.9997	1.0002	1.0002	1.0002
	4500.	0.9850	0.9856	0.9896	0.9975	1.0001	1.0004	1.0004	1.0004
33	300.	0.9387	0.9413	0.9585	0.9894	0.9986	0.9999	1.0000	1.0000
	800.	0.9401	0.9425	0.9597	0.9902	0.9994	1.0006	1.0007	1.0007
	2100.	0.9425	0.9450	0.9620	0.9919	1.0008	1.0020	1.0021	1.0021
	4500.	0.9455	0.9480	0.9648	0.9935	1.0023	1.0034	1.0035	1.0036
34	300.	0.8286	0.8356	0.8835	0.9700	0.9964	0.9996	1.0000	1.0000
	800.	0.8696	0.8754	0.9140	0.9792	0.9977	1.0001	1.0003	1.0003
	2100.	0.9071	0.9124	0.9411	0.9869	0.9993	1.0009	1.0011	1.0011
	4500.	0.9331	0.9365	0.9581	0.9912	0.9999	1.0011	1.0012	1.0012
35	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001	1.0001
	4500.	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002	1.0002
36	300.	0.9336	0.9368	0.9571	0.9897	0.9988	0.9999	1.0000	1.0000
	800.	0.9463	0.9490	0.9661	0.9927	0.9998	1.0007	1.0008	1.0008
	2100.	0.9601	0.9622	0.9755	0.9955	1.0008	1.0015	1.0016	1.0016
	4500.	0.9703	0.9720	0.9823	0.9977	1.0017	1.0022	1.0022	1.0022

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NI-28-J2		REACTION = ELASTIC				FOR 1TH R-PARAMETER		PAGE 1 OF 6	
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9993	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9993	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9993	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	1.0002	1.0002	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000
	800.	1.0002	1.0002	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000
	2100.	1.0002	1.0002	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000
	4500.	1.0002	1.0002	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000
5	300.	0.9990	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9990	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9990	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9991	0.9992	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
6	300.	0.9937	0.9951	0.9984	0.9998	0.9999	1.0000	1.0000	1.0000
	800.	0.9937	0.9951	0.9984	0.9998	0.9999	1.0000	1.0000	1.0000
	2100.	0.9937	0.9951	0.9984	0.9997	0.9999	1.0000	0.9999	0.9999
	4500.	0.9937	0.9951	0.9984	0.9997	0.9999	0.9999	0.9999	0.9999
7	300.	0.9823	0.9862	0.9956	0.9995	1.0000	1.0000	1.0000	1.0000
	800.	0.9824	0.9862	0.9957	0.9995	1.0000	1.0000	1.0000	1.0000
	2100.	0.9825	0.9863	0.9957	0.9995	1.0000	1.0000	1.0000	1.0000
	4500.	0.9825	0.9863	0.9957	0.9995	1.0000	1.0000	1.0000	1.0000
8	300.	0.9794	0.9841	0.9950	0.9994	0.9999	1.0000	1.0000	1.0000
	800.	0.9795	0.9841	0.9950	0.9994	0.9999	1.0000	1.0000	1.0000
	2100.	0.9796	0.9842	0.9950	0.9996	0.9999	1.0000	1.0000	1.0000
	4500.	0.9798	0.9843	0.9951	0.9996	1.0001	1.0002	1.0002	1.0002
9	300.	0.9570	0.9670	0.9898	0.9987	0.9999	1.0000	1.0000	1.0000
	800.	0.9572	0.9671	0.9898	0.9987	0.9999	1.0000	1.0000	1.0000
	2100.	0.9574	0.9673	0.9898	0.9987	0.9999	1.0000	1.0000	1.0000
	4500.	0.9577	0.9675	0.9899	0.9987	0.9999	1.0000	1.0000	1.0000
10	300.	0.9592	0.9689	0.9904	0.9988	0.9998	1.0000	1.0000	1.0000
	800.	0.9594	0.9690	0.9904	0.9988	0.9998	1.0000	1.0000	1.0000
	2100.	0.9596	0.9692	0.9905	0.9988	0.9998	1.0000	1.0000	1.0000
	4500.	0.9599	0.9695	0.9906	0.9988	0.9998	1.0000	1.0000	1.0000
11	300.	0.9070	0.9310	0.9795	0.9974	0.9998	1.0000	1.0000	1.0000
	800.	0.9072	0.9312	0.9796	0.9974	0.9998	1.0000	1.0000	1.0000
	2100.	0.9077	0.9315	0.9797	0.9974	0.9998	1.0000	1.0000	1.0000
	4500.	0.9083	0.9319	0.9797	0.9975	0.9999	1.0001	1.0001	1.0001
12	300.	0.8852	0.9131	0.9720	0.9970	0.9995	0.9999	1.0000	1.0000
	800.	0.8856	0.9135	0.9723	0.9972	0.9996	1.0000	1.0000	1.0001
	2100.	0.8863	0.9140	0.9725	0.9973	0.9997	1.0000	1.0002	1.0002
	4500.	0.8872	0.9146	0.9727	0.9973	0.9998	1.0001	1.0002	1.0002

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NI-28-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 2 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.7580	0.8311	0.9470	0.9927	0.9992	0.9998	1.0000	1.0000
	800.	0.7591	0.8321	0.9471	0.9927	0.9992	0.9998	1.0000	1.0000
	2100.	0.7604	0.8328	0.9474	0.9926	0.9992	0.9997	0.9999	0.9999
	4500.	0.7622	0.8332	0.9475	0.9926	0.9990	0.9986	0.9998	0.9998
14	300.	0.8494	0.8879	0.9614	0.9945	0.9994	0.9999	1.0000	1.0000
	800.	0.8499	0.8883	0.9616	0.9945	0.9995	1.0000	1.0000	1.0000
	2100.	0.8510	0.8892	0.9619	0.9946	0.9995	1.0000	1.0001	1.0001
	4500.	0.8528	0.8904	0.9623	0.9947	0.9995	1.0000	1.0000	1.0000
15	300.	0.7185	0.7907	0.9261	0.9891	0.9987	0.9999	1.0000	1.0000
	800.	0.7202	0.7919	0.9266	0.9891	0.9988	1.0000	1.0001	1.0001
	2100.	0.7227	0.7939	0.9273	0.9891	0.9988	0.9999	1.0000	1.0000
	4500.	0.7263	0.7962	0.9281	0.9893	0.9988	0.9999	1.0000	1.0000
16	300.	0.6749	0.7369	0.8887	0.9813	0.9978	0.9998	1.0000	1.0000
	800.	0.6758	0.7376	0.8890	0.9813	0.9977	0.9997	0.9999	0.9999
	2100.	0.6771	0.7389	0.8897	0.9813	0.9979	0.9998	1.0000	1.0000
	4500.	0.6791	0.7404	0.8905	0.9810	0.9979	0.9998	1.0000	1.0000
17	300.	0.6663	0.7179	0.8698	0.9769	0.9974	0.9998	1.0000	1.0000
	800.	0.6677	0.7196	0.8708	0.9771	0.9975	0.9998	1.0000	1.0000
	2100.	0.6706	0.7218	0.8725	0.9777	0.9974	0.9997	0.9999	0.9999
	4500.	0.6730	0.7245	0.8743	0.9782	0.9977	0.9998	1.0000	1.0000
18	300.	0.5889	0.6359	0.8044	0.9607	0.9956	0.9996	1.0000	1.0000
	800.	0.5904	0.6374	0.8056	0.9611	0.9956	0.9996	1.0000	1.0000
	2100.	0.5928	0.6399	0.8070	0.9615	0.9957	0.9997	1.0001	1.0001
	4500.	0.5955	0.6424	0.8085	0.9622	1.0035	1.0073	1.0077	1.0077
19	300.	0.7828	0.8166	0.9145	0.9848	0.9984	0.9998	1.0000	1.0000
	800.	0.7837	0.8176	0.9152	0.9849	0.9983	0.9998	0.9999	0.9999
	2100.	0.7853	0.8190	0.9159	0.9849	0.9983	0.9997	0.9998	0.9999
	4500.	0.7871	0.8204	0.9167	0.9850	0.9982	0.9996	0.9997	0.9997
20	300.	0.8965	0.9053	0.9474	0.9902	0.9989	0.9999	1.0000	1.0000
	800.	0.8971	0.9061	0.9477	0.9903	0.9990	0.9999	1.0000	1.0000
	2100.	0.8978	0.9069	0.9482	0.9904	0.9990	0.9999	1.0000	1.0000
	4500.	0.8988	0.9075	0.9491	0.9904	0.9989	0.9998	1.0000	1.0000
21	300.	0.3496	0.3931	0.6107	0.9077	0.9893	0.9989	0.9999	1.0000
	800.	0.3502	0.3938	0.6111	0.9078	0.9893	0.9989	0.9999	1.0000
	2100.	0.3511	0.3945	0.6118	0.9080	0.9892	0.9988	0.9998	0.9999
	4500.	0.3521	0.3955	0.6126	0.9083	0.9893	0.9988	0.9998	0.9999
22	300.	0.9548	0.9589	0.9773	0.9953	0.9941	0.9999	1.0000	1.0000
	800.	0.9555	0.9597	0.9779	0.9955	0.9941	0.9941	0.9941	0.9941
	2100.	0.9563	0.9605	0.9787	0.9957	0.9944	0.9999	0.9999	0.9999
	4500.	0.9573	0.9615	0.9793	0.9959	0.9929	1.0000	1.0001	1.0001
23	300.	0.9483	0.9528	0.9713	0.9932	0.9992	0.9999	1.0000	1.0000
	800.	0.9509	0.9548	0.9728	0.9937	0.9995	1.0001	1.0002	1.0002
	2100.	0.9541	0.9576	0.9752	0.9946	0.9994	1.0001	1.0002	1.0002
	4500.	0.9570	0.9603	0.9767	0.9952	0.9997	1.0001	1.0002	1.0002
24	300.	0.9052	0.9096	0.9329	0.9807	0.9976	0.9998	1.0000	1.0000
	800.	0.9053	0.9099	0.9331	0.9810	0.9976	0.9998	1.0000	1.0000
	2100.	0.9057	0.9102	0.9332	0.9810	0.9976	0.9998	1.0000	1.0000
	4500.	0.9069	0.9104	0.9334	0.9809	0.9975	0.9996	0.9998	0.9999

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NI-28-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 3 OF 6

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
25	300.	0.9683	0.9699	0.9799	0.9988	0.9994	0.9999	1.0000	1.0000
	800.	0.9693	0.9708	0.9807	0.9979	1.0045	1.0052	1.0053	1.0053
	2100.	0.9690	0.9706	0.9810	0.9983	1.0044	1.0052	1.0052	1.0052
	4500.	0.9693	0.9708	0.9814	0.9986	1.0047	1.0052	1.0053	1.0053
26	300.	0.7288	0.7321	0.7604	0.8783	0.9783	0.9977	0.9998	1.0000
	800.	0.7288	0.7321	0.7603	0.8783	0.9783	0.9976	0.9997	1.0000
	2100.	0.7288	0.7321	0.7604	0.8783	0.9784	0.9976	0.9997	0.9999
	4500.	0.7288	0.7321	0.7604	0.8783	0.9783	0.9974	0.9995	0.9997
27	300.	0.9219	0.9228	0.9314	0.9662	0.9939	0.9993	0.9999	1.0000
	800.	0.9224	0.9233	0.9318	0.9665	0.9940	0.9994	1.0000	1.0001
	2100.	0.9232	0.9242	0.9321	0.9662	0.9949	0.9992	0.9997	0.9998
	4500.	0.9247	0.9256	0.9331	0.9675	0.9946	0.9994	1.0000	1.0001
28	300.	0.8253	0.8329	0.8818	0.9688	0.9963	0.9996	1.0000	1.0000
	800.	0.8253	0.8329	0.8818	0.9690	0.9964	0.9998	1.0001	1.0002
	2100.	0.8253	0.8330	0.8821	0.9692	0.9968	1.0001	1.0004	1.0005
	4500.	0.8255	0.8332	0.8822	0.9694	0.9970	1.0003	1.0006	1.0006
29	300.	0.9908	0.9914	0.9953	0.9992	0.9999	1.0000	1.0000	1.0000
	800.	0.9908	0.9905	0.9953	0.9991	0.9999	1.0000	1.0000	1.0000
	2100.	0.9908	0.9905	0.9953	0.9993	0.9999	1.0000	1.0000	1.0000
	4500.	0.9909	0.9916	0.9953	0.9992	0.9999	1.0000	1.0000	1.0000
30	300.	0.9720	0.9735	0.9833	0.9964	0.9996	1.0000	1.0000	1.0000
	800.	0.9720	0.9736	0.9835	0.9964	0.9996	1.0000	1.0000	1.0000
	2100.	0.9720	0.9738	0.9835	0.9965	0.9996	1.0000	1.0001	1.0001
	4500.	0.9721	0.9738	0.9836	0.9944	0.9997	1.0001	1.0001	1.0001
31	300.	0.9775	0.9783	0.9841	0.9956	0.9995	0.9999	1.0000	1.0000
	800.	0.9775	0.9783	0.9841	0.9958	0.9994	0.9999	0.9999	0.9999
	2100.	0.9773	0.9782	0.9840	0.9955	0.9993	0.9998	0.9998	0.9998
	4500.	0.9773	0.9781	0.9836	0.9954	0.9992	0.9996	0.9997	0.9997
32	300.	0.9817	0.9823	0.9872	0.9965	0.9996	1.0000	1.0000	1.0000
	800.	0.9817	0.9824	0.9872	0.9965	0.9996	1.0000	1.0000	1.0000
	2100.	0.9817	0.9824	0.9872	0.9965	0.9996	1.0000	1.0000	1.0000
	4500.	0.9817	0.9824	0.9873	0.9965	0.9996	1.0000	1.0000	1.0000
33	300.	0.9936	0.9940	0.9956	0.9989	0.9998	1.0000	1.0000	1.0000
	800.	0.9936	0.9939	0.9957	0.9989	0.9998	1.0000	1.0000	1.0000
	2100.	0.9934	0.9940	0.9958	0.9990	0.9998	1.0000	1.0000	1.0000
	4500.	0.9936	0.9942	0.9958	0.9990	0.9998	1.0000	1.0000	1.0000
34	300.	1.0001	1.0001	1.0001	1.0004	1.0000	1.0000	1.0000	1.0000
	800.	1.0001	1.0001	1.0002	1.0003	0.9999	1.0001	1.0001	1.0001
	2100.	1.0001	1.0002	1.0002	1.0003	1.0001	1.0002	1.0002	1.0002
	4500.	1.0002	1.0002	1.0002	1.0004	1.0001	1.0002	1.0002	1.0002
35	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
36	300.	0.9998	0.9998	0.9999	0.9998	0.9999	1.0000	1.0000	1.0000
	800.	0.9998	0.9998	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000
	2100.	0.9998	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	0.9997	0.9999	0.9999	0.9999	0.9999	0.9999

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NI-28-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER			
						PAGE 1 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9988	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9988	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9988	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9988	0.9991	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	0.9999	0.9999	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
	800.	0.9999	0.9999	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
	2100.	0.9999	0.9999	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
	4500.	0.9999	0.9999	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	0.9980	0.9983	0.9995	1.0000	1.0001	1.0000	1.0000	1.0000
	800.	0.9981	0.9983	0.9995	1.0000	1.0001	1.0000	1.0000	1.0000
	2100.	0.9981	0.9983	0.9995	1.0000	1.0001	1.0000	1.0000	1.0000
	4500.	0.9981	0.9983	0.9995	1.0000	1.0001	1.0000	1.0000	1.0000
6	300.	0.9901	0.9921	0.9975	1.0014	1.0000	0.9999	1.0000	1.0000
	800.	0.9901	0.9921	0.9975	1.0014	0.9999	0.9999	1.0000	1.0000
	2100.	0.9902	0.9921	0.9975	1.0013	0.9999	0.9999	1.0000	1.0000
	4500.	0.9902	0.9922	0.9975	1.0013	0.9999	0.9999	1.0000	1.0000
7	300.	0.9716	0.9778	0.9928	0.9991	0.9999	1.0000	1.0000	1.0000
	800.	0.9716	0.9779	0.9928	0.9991	0.9999	1.0000	1.0000	1.0000
	2100.	0.9717	0.9780	0.9928	0.9991	0.9999	1.0000	1.0000	1.0000
	4500.	0.9718	0.9781	0.9929	0.9991	0.9999	1.0000	1.0000	1.0000
8	300.	0.9622	0.9706	0.9908	0.9988	0.9999	1.0000	1.0000	1.0000
	800.	0.9624	0.9707	0.9908	0.9988	0.9999	1.0000	1.0000	1.0000
	2100.	0.9626	0.9708	0.9909	0.9990	0.9999	1.0000	1.0000	1.0000
	4500.	0.9627	0.9710	0.9910	0.9990	0.9999	1.0000	1.0001	1.0001
9	300.	0.9113	0.9330	0.9797	0.9973	0.9998	1.0000	1.0000	1.0000
	800.	0.9116	0.9332	0.9798	0.9973	0.9998	1.0000	1.0000	1.0000
	2100.	0.9121	0.9336	0.9799	0.9973	0.9998	1.0000	1.0000	1.0000
	4500.	0.9126	0.9340	0.9800	0.9974	0.9998	1.0000	1.0000	1.0000
10	300.	0.9168	0.9372	0.9810	0.9976	0.9996	1.0000	1.0000	1.0000
	800.	0.9171	0.9375	0.9811	0.9976	0.9996	1.0000	1.0000	1.0000
	2100.	0.9177	0.9378	0.9812	0.9976	0.9996	1.0000	1.0000	1.0000
	4500.	0.9183	0.9383	0.9813	0.9976	0.9996	1.0000	1.0000	1.0000
11	300.	0.8044	0.8583	0.9589	0.9949	0.9996	1.0000	1.0000	1.0000
	800.	0.8051	0.8587	0.9590	0.9949	0.9996	1.0000	1.0000	1.0000
	2100.	0.8062	0.8594	0.9592	0.9950	0.9996	1.0000	1.0000	1.0000
	4500.	0.8075	0.8603	0.9594	0.9951	0.9997	1.0001	1.0001	1.0001
12	300.	0.7558	0.8221	0.9446	0.9926	0.9992	0.9998	0.9999	1.0000
	800.	0.7568	0.8228	0.9448	0.9927	0.9993	0.9999	1.0000	1.0001
	2100.	0.7584	0.8237	0.9450	0.9928	0.9994	1.0000	1.0001	1.0002
	4500.	0.7604	0.8250	0.9455	0.9929	0.9994	1.0001	1.0001	1.0002

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NI-28-J2		REACTION = TOTAL				FOR 1TH R-PARAMETER			
						PAGE 2 OF 6			
GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
13	300.	0.4788	0.6564	0.8957	0.9856	0.9985	0.9988	1.0000	1.0000
	800.	0.4809	0.6573	0.8958	0.9856	0.9985	0.9988	1.0000	1.0000
	2100.	0.4839	0.6587	0.8963	0.9856	0.9984	0.9987	0.9999	0.9999
	4500.	0.4883	0.6705	0.8979	0.9857	0.9982	0.9986	0.9998	0.9998
14	300.	0.6423	0.7577	0.9238	0.9890	0.9988	0.9999	1.0000	1.0000
	800.	0.6437	0.7584	0.9241	0.9891	0.9988	0.9999	1.0000	1.0000
	2100.	0.6463	0.7601	0.9247	0.9893	0.9989	1.0000	1.0001	1.0001
	4500.	0.6501	0.7625	0.9256	0.9894	0.9989	0.9999	1.0000	1.0000
15	300.	0.4092	0.5594	0.8532	0.9780	0.9977	0.9998	1.0000	1.0000
	800.	0.4111	0.5613	0.8540	0.9782	0.9978	0.9999	1.0001	1.0001
	2100.	0.4148	0.5648	0.8553	0.9784	0.9978	0.9998	1.0000	1.0000
	4500.	0.4199	0.5691	0.8547	0.9787	0.9978	0.9998	1.0000	1.0000
16	300.	0.4139	0.5227	0.7916	0.9632	0.9957	0.9996	1.0000	1.0000
	800.	0.4151	0.5258	0.7921	0.9634	0.9956	0.9994	0.9998	0.9999
	2100.	0.4174	0.5254	0.7932	0.9636	0.9958	0.9996	1.0000	1.0000
	4500.	0.4205	0.5276	0.7944	0.9629	0.9958	0.9996	1.0000	1.0000
17	300.	0.4409	0.5200	0.7624	0.9547	0.9949	0.9994	1.0000	1.0000
	800.	0.4420	0.5214	0.7638	0.9553	0.9949	0.9994	0.9999	1.0000
	2100.	0.4440	0.5237	0.7660	0.9562	0.9950	0.9994	0.9999	0.9999
	4500.	0.4466	0.5265	0.7686	0.9572	0.9952	0.9994	1.0000	1.0000
18	300.	0.4216	0.4729	0.6754	0.9249	0.9912	0.9991	0.9999	1.0000
	800.	0.4224	0.4743	0.6772	0.9253	0.9913	0.9991	0.9999	1.0000
	2100.	0.4241	0.4765	0.6797	0.9260	0.9914	0.9993	1.0000	1.0001
	4500.	0.4265	0.4793	0.6822	0.9272	0.9995	0.9993	1.0001	1.0002
19	300.	0.6139	0.6825	0.8467	0.9702	0.9966	0.9997	1.0000	1.0000
	800.	0.6153	0.6836	0.8478	0.9698	0.9967	0.9996	0.9999	0.9999
	2100.	0.6176	0.6854	0.8493	0.9709	0.9967	0.9996	0.9998	0.9999
	4500.	0.6212	0.6879	0.8506	0.9711	0.9965	0.9994	0.9997	0.9997
20	300.	0.8187	0.8326	0.9022	0.9800	0.9979	0.9997	1.0000	1.0000
	800.	0.8139	0.8333	0.9028	0.9808	0.9979	0.9998	1.0000	1.0000
	2100.	0.8203	0.8343	0.9037	0.9824	0.9980	0.9999	1.0001	1.0001
	4500.	0.8202	0.8354	0.9048	0.9810	0.9981	0.9999	1.0001	1.0001
21	300.	0.2104	0.2342	0.3963	0.8242	0.9785	0.9977	0.9998	1.0000
	800.	0.2107	0.2346	0.3969	0.8246	0.9786	0.9978	0.9999	0.9999
	2100.	0.2113	0.2353	0.3978	0.8249	0.9786	0.9977	0.9997	0.9999
	4500.	0.2121	0.2360	0.3988	0.8255	0.9787	0.9977	0.9997	0.9999
22	300.	0.9238	0.9306	0.9596	0.9908	0.9989	0.9999	1.0000	1.0000
	800.	0.9249	0.9318	0.9609	0.9912	0.9978	0.9988	0.9989	0.9989
	2100.	0.9265	0.9332	0.9621	0.9917	0.9989	0.9998	0.9999	0.9999
	4500.	0.9279	0.9346	0.9632	0.9922	0.9992	1.0000	1.0001	1.0001
23	300.	0.9030	0.9132	0.9485	0.9862	0.9982	0.9998	1.0000	1.0000
	800.	0.9093	0.9176	0.9505	0.9851	0.9986	1.0000	1.0002	1.0002
	2100.	0.9167	0.9234	0.9533	0.9888	0.9984	1.0000	1.0002	1.0002
	4500.	0.9222	0.9279	0.9563	0.9910	0.9991	1.0001	1.0002	1.0002
24	300.	0.8522	0.8565	0.8877	0.9635	0.9951	0.9995	0.9999	1.0000
	800.	0.8526	0.8569	0.8880	0.9638	0.9951	0.9994	0.9999	0.9999
	2100.	0.8531	0.8573	0.8885	0.9638	0.9952	0.9995	0.9999	0.9999
	4500.	0.8536	0.8579	0.8888	0.9638	0.9952	0.9994	0.9998	0.9999

TO BE CONTINUED

JAERI-M 82-135

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NI-28-J2			REACTION = TOTAL				FOR 1TH R-PARAMETER			
			PAGE 3 OF 6							
GROUP	TEMP. (SIGD)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06	
25	300.	0.9311	0.9339	0.9525	0.9849	0.9982	0.9998	1.0000	1.0000	
	800.	0.9314	0.9341	0.9529	0.9863	0.9983	0.9998	1.0000	1.0000	
	2100.	0.9318	0.9347	0.9551	0.9861	0.9984	0.9997	0.9999	0.9999	
	4500.	0.9322	0.9351	0.9558	0.9867	0.9987	0.9998	1.0000	1.0000	
26	300.	0.5852	0.5887	0.6200	0.7804	0.9574	0.9953	0.9995	1.0000	
	800.	0.5853	0.5887	0.6201	0.7804	0.9574	0.9953	0.9995	0.9999	
	2100.	0.5854	0.5888	0.6201	0.7805	0.9574	0.9953	0.9995	0.9999	
	4500.	0.5853	0.5888	0.6201	0.7805	0.9574	0.9952	0.9994	0.9998	
27	300.	0.8697	0.8712	0.8835	0.9375	0.9877	0.9987	0.9999	1.0000	
	800.	0.8705	0.8719	0.8843	0.9386	0.9880	0.9988	1.0000	1.0001	
	2100.	0.8715	0.8730	0.8853	0.9396	0.9891	0.9988	1.0000	1.0001	
	4500.	0.8729	0.8743	0.8866	0.9404	0.9893	0.9989	1.0000	1.0001	
28	300.	0.7147	0.7245	0.7935	0.9396	0.9925	0.9992	0.9999	1.0000	
	800.	0.7149	0.7247	0.7936	0.9395	0.9925	0.9992	0.9999	1.0000	
	2100.	0.7151	0.7248	0.7938	0.9398	0.9929	0.9996	1.0003	1.0004	
	4500.	0.7153	0.7251	0.7940	0.9401	0.9931	0.9998	1.0005	1.0006	
29	300.	0.9819	0.9832	0.9903	0.9982	0.9998	1.0000	1.0000	1.0000	
	800.	0.9819	0.9833	0.9904	0.9982	0.9996	0.9999	0.9999	0.9999	
	2100.	0.9818	0.9834	0.9904	0.9981	0.9997	0.9999	0.9999	0.9999	
	4500.	0.9820	0.9834	0.9906	0.9982	0.9998	1.0000	1.0000	1.0000	
30	300.	0.9468	0.9498	0.9680	0.9930	0.9993	0.9999	1.0000	1.0000	
	800.	0.9470	0.9500	0.9681	0.9931	0.9994	1.0000	1.0001	1.0001	
	2100.	0.9471	0.9501	0.9683	0.9932	0.9994	1.0001	1.0002	1.0002	
	4500.	0.9473	0.9503	0.9684	0.9933	0.9995	1.0002	1.0003	1.0003	
31	300.	0.9545	0.9561	0.9677	0.9913	0.9989	0.9999	1.0000	1.0000	
	800.	0.9543	0.9560	0.9678	0.9914	0.9990	0.9999	1.0000	1.0000	
	2100.	0.9543	0.9560	0.9678	0.9912	0.9988	0.9997	0.9998	0.9998	
	4500.	0.9542	0.9559	0.9675	0.9911	0.9988	0.9997	0.9998	0.9998	
32	300.	0.9632	0.9646	0.9741	0.9930	0.9992	0.9999	1.0000	1.0000	
	800.	0.9633	0.9646	0.9741	0.9930	0.9992	0.9999	1.0000	1.0000	
	2100.	0.9633	0.9647	0.9741	0.9930	0.9992	0.9999	1.0000	1.0000	
	4500.	0.9634	0.9647	0.9743	0.9931	0.9992	0.9999	1.0000	1.0000	
33	300.	0.9874	0.9879	0.9915	0.9979	0.9997	1.0000	1.0000	1.0000	
	800.	0.9875	0.9881	0.9914	0.9978	0.9997	1.0000	1.0000	1.0000	
	2100.	0.9876	0.9881	0.9915	0.9978	0.9996	1.0000	1.0000	1.0000	
	4500.	0.9877	0.9883	0.9917	0.9979	0.9996	1.0000	1.0000	1.0000	
34	300.	1.0018	1.0019	1.0023	1.0007	1.0000	1.0000	1.0000	1.0000	
	800.	1.0022	1.0022	1.0027	1.0034	1.0035	1.0037	1.0037	1.0038	
	2100.	1.0025	1.0026	1.0029	1.0036	1.0036	1.0038	1.0038	1.0038	
	4500.	1.0028	1.0028	1.0031	1.0036	1.0036	1.0038	1.0038	1.0038	
35	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	800.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	2100.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
	4500.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	
36	300.	0.9944	0.9944	0.9943	0.9998	0.9999	1.0000	1.0000	1.0000	
	800.	0.9944	0.9944	0.9943	0.9998	0.9999	1.0000	1.0000	1.0000	
	2100.	0.9945	0.9948	0.9996	0.9999	0.9999	1.0000	1.0000	1.0000	
	4500.	0.9958	0.9960	0.9973	0.9999	0.9999	1.0000	1.0000	1.0000	

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = NI-28-J2		REACTION = ELASTIC REMOVAL				FOR PAGE 1 OF 2		1TH R-PARAMETER	
GROUP	TEMP. (SIG0)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	0.9730	0.9785	0.9929	0.9991	0.9999	1.0000	1.0000	1.0000
2	300.	0.9940	0.9951	0.9984	0.9998	1.0000	1.0000	1.0000	1.0000
3	300.	1.0090	1.0072	1.0024	1.0003	1.0000	1.0000	1.0000	1.0000
4	300.	1.0093	1.0074	1.0025	1.0003	1.0000	1.0000	1.0000	1.0000
5	300.	1.0008	1.0003	0.9996	1.0006	1.0001	1.0000	1.0000	1.0000
6	300.	0.9999	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
7	300.	0.9611	0.9686	0.9890	0.9987	0.9998	1.0000	1.0000	1.0000
8	300.	1.0046	1.0028	1.0002	0.9995	0.9995	0.9996	1.0000	1.0000
9	300.	1.0959	1.0735	1.0226	1.0028	1.0003	1.0000	1.0000	1.0000
10	300.	0.8854	0.9099	0.9707	0.9966	0.9996	1.0000	1.0000	1.0000
11	300.	0.7843	0.8382	0.9677	1.0263	0.9992	0.9999	1.0000	1.0000
12	300.	0.7803	0.8285	0.9427	0.9931	0.9990	0.9999	1.0000	1.0000
13	300.	0.8873	0.9596	1.0077	1.0027	1.0013	1.0001	1.0000	1.0000
14	300.	0.8543	0.8907	0.9600	0.9933	0.9992	0.9999	1.0000	1.0000
15	300.	0.5469	0.6372	0.8575	0.9779	0.9976	0.9998	1.0000	1.0000
16	300.	0.9620	0.9991	1.0122	0.9994	0.9998	1.0000	1.0000	1.0000
17	300.	0.5517	0.6183	0.8190	0.9654	0.9961	0.9996	1.0000	1.0000
18	300.	0.7149	0.8006	0.9775	0.9983	0.9930	0.9922	0.9921	1.0000
19	300.	0.6615	0.7218	0.8947	0.9813	0.9987	0.9998	1.0000	1.0000
20	300.	0.5553	0.5863	0.7526	0.9509	0.9945	0.9994	0.9999	1.0000
21	300.	1.1099	1.1950	1.2504	1.0654	1.0077	1.0008	1.0001	1.0000
22	300.	0.8420	0.8607	0.9333	0.9855	0.9987	0.9999	1.0000	1.0000
23	300.	0.7249	0.7440	0.8494	0.9686	0.9963	0.9993	0.9996	1.0000
24	300.	1.0619	1.0590	1.0512	1.0164	1.0019	1.0002	1.0000	1.0000
25	300.	0.7346	0.7453	0.8182	0.9517	0.9943	0.9994	0.9999	1.0000
26	300.	0.3602	0.3661	0.4187	0.6751	0.9385	0.9932	0.9993	0.9999
27	300.	1.0813	1.0806	1.0737	1.0384	1.0061	1.0007	1.0001	1.0000
28	300.	1.5327	1.4982	1.3070	1.0671	1.0077	1.0008	1.0001	1.0000
29	300.	0.8840	0.8937	0.9412	0.9893	0.9988	0.9999	1.0000	1.0000
30	300.	0.7449	0.7586	0.8425	0.9639	0.9959	0.9996	1.0000	1.0000
31	300.	0.8480	0.8532	0.8906	0.9693	0.9960	0.9996	1.0000	1.0000
32	300.	1.2238	1.2145	1.1520	1.0391	1.0046	1.0005	1.0000	1.0000
33	300.	1.0784	1.0744	1.0496	1.0115	1.0012	1.0001	1.0000	1.0000
34	300.	1.0120	1.0114	1.0073	1.0016	1.0002	1.0000	1.0000	1.0000
35	300.	0.9990	0.9991	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
36	300.	0.9959	0.9961	0.9975	0.9995	0.9999	1.0000	1.0000	1.0000
37	300.	0.9941	0.9945	0.9964	0.9992	0.9999	1.0000	1.0000	1.0000
38	300.	0.9918	0.9920	0.9948	0.9989	0.9999	1.0000	1.0000	1.0002
39	300.	0.9933	0.9937	0.9959	0.9991	0.9999	1.0000	1.0000	1.0000
40	300.	0.9945	0.9948	0.9966	0.9992	0.9999	1.0000	1.0000	1.0000
41	300.	0.9957	0.9959	0.9973	0.9994	0.9999	1.0000	1.0000	1.0000
42	300.	0.9965	0.9967	0.9978	0.9995	0.9999	1.0000	1.0000	1.0000
43	300.	0.9971	0.9973	0.9982	0.9996	1.0000	1.0000	1.0000	1.0000
44	300.	0.9960	0.9962	0.9975	0.9994	0.9999	1.0000	1.0000	1.0000
45	300.	0.9966	0.9967	0.9978	0.9995	0.9999	1.0000	1.0000	1.0000

TO BE CONTINUED

NUCLID = MO-42-J2 CODE NO = 42
INFINITE DILUTION CROSS SECTION

PAGE 1 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
1 0.0	0.0	1.1414E-03	1.7452E+00	2.6260E+00	8.0268E-01	7.4234E-02	0.0	4.3723E+00
2 0.0	0.0	2.8749E-03	1.8064E+00	2.3626E+00	7.2024E-01	8.0315E-02	0.0	4.1719E+00
3 0.0	0.0	6.4951E-03	1.8164E+00	2.0982E+00	6.2896E-01	8.3575E-02	0.0	3.9211E+00
4 0.0	0.0	1.2010E-02	1.7577E+00	2.0146E+00	5.5524E-01	8.9849E-02	0.0	3.7844E+00
5 0.0	0.0	1.6985E-02	1.6724E+00	2.1938E+00	5.0592E-01	1.0730E-01	0.0	3.8832E+00
6 0.0	0.0	2.1686E-02	1.5587E+00	2.6282E+00	4.8492E-01	1.2341E-01	0.0	4.2086E+00
7 0.0	0.0	2.5749E-02	1.3994E+00	3.3173E+00	4.7700E-01	1.6025E-01	0.0	4.7424E+00
8 0.0	0.0	3.2205E-02	1.1285E+00	4.2132E+00	4.6316E-01	2.1381E-01	0.0	5.3739E+00
9 0.0	0.0	3.4137E-02	9.5179E-01	5.0607E+00	4.4802E-01	2.2310E-01	0.0	6.0467E+00
10 0.0	0.0	4.1211E-02	6.5062E-01	6.0672E+00	4.1572E-01	3.9233E-01	0.0	6.7590E+00
11 0.0	0.0	5.3430E-02	2.4347E-01	7.0810E+00	3.7229E-01	3.8364E-01	0.0	7.3779E+00
12 0.0	0.0	5.4320E-02	1.3829E-01	7.7947E+00	3.3544E-01	4.7257E-01	0.0	7.9873E+00
13 0.0	0.0	5.3166E-02	9.6202E-02	8.3103E+00	2.9809E-01	4.2326E-01	0.0	8.4596E+00
14 0.0	0.0	5.1597E-02	7.6997E-02	8.7182E+00	2.5532E-01	5.6407E-01	0.0	8.8468E+00
15 0.0	0.0	5.1696E-02	4.4113E-02	8.9987E+00	2.1370E-01	5.8566E-01	0.0	9.0945E+00
16 0.0	0.0	5.3719E-02	6.2647E-03	9.1742E+00	1.7478E-01	6.6561E-01	0.0	9.2341E+00
17 0.0	0.0	5.7826E-02	0.0	9.1963E+00	1.4050E-01	5.9566E-01	0.0	9.2541E+00
18 0.0	0.0	6.4228E-02	0.0	9.1415E+00	1.1135E-01	5.6027E-01	0.0	9.2057E+00
19 0.0	0.0	7.1690E-02	0.0	9.0621E+00	8.7205E-02	6.3644E-01	0.0	9.1338E+00
20 0.0	0.0	8.2932E-02	0.0	8.9291E+00	6.8867E-02	5.8447E-01	0.0	9.0121E+00
21 0.0	0.0	9.8151E-02	0.0	8.7702E+00	5.3667E-02	5.1660E-01	0.0	8.8683E+00
22 0.0	0.0	1.1776E-01	0.0	8.6057E+00	4.1716E-02	5.8231E-01	0.0	8.7235E+00
23 0.0	0.0	1.4185E-01	0.0	8.4543E+00	3.2857E-02	6.1201E-01	0.0	8.5962E+00
24 0.0	0.0	1.6808E-01	0.0	8.2223E+00	2.6065E-02	5.7133E-01	0.0	8.3904E+00
25 0.0	0.0	1.9241E-01	0.0	7.8806E+00	2.1974E-02	5.4749E-01	0.0	8.0730E+00
26 0.0	0.0	2.3776E-01	0.0	8.2791E+00	1.8099E-02	5.8522E-01	0.0	8.5169E+00
27 0.0	0.0	2.7324E-01	0.0	7.9473E+00	1.4823E-02	5.2199E-01	0.0	8.2205E+00
28 0.0	0.0	3.3378E-01	0.0	7.6346E+00	1.1105E-02	5.2055E-01	0.0	7.9683E+00
29 0.0	0.0	3.9099E-01	0.0	7.6373E+00	7.0127E-03	5.8277E-01	0.0	8.0282E+00
30 0.0	0.0	4.5233E-01	0.0	7.4414E+00	7.0127E-03	4.8651E-01	0.0	7.8937E+00
31 0.0	0.0	4.9158E-01	0.0	7.1280E+00	7.0127E-03	4.8847E-01	0.0	7.6196E+00
32 0.0	0.0	5.1673E-01	0.0	7.8305E+00	7.0127E-03	4.8999E-01	0.0	8.3472E+00
33 0.0	0.0	6.1624E-01	0.0	1.2956E+01	7.0127E-03	4.6498E-01	0.0	8.3472E+00
34 0.0	0.0	7.5557E-01	0.0	8.5315E+00	7.0127E-03	4.9751E-01	0.0	1.3572E+01
35 0.0	0.0	6.0405E-01	0.0	7.2247E+00	7.0127E-03	5.1779E-01	0.0	9.2871E+00
36 0.0	0.0	8.1855E-01	0.0	9.0511E+00	7.0127E-03	5.6192E-01	0.0	7.8287E+00
37 0.0	0.0	7.2553E-01	0.0	6.1711E+00	7.0127E-03	3.4748E-01	0.0	9.8696E+00
38 0.0	0.0	1.0707E+00	0.0	6.8512E+00	7.0127E-03	4.4648E-01	0.0	6.8967E+00
39 0.0	0.0	1.3018E+00	0.0	8.1623E+00	7.0127E-03	3.6378E-01	0.0	7.9219E+00
40 0.0	0.0	2.2676E+00	0.0	1.4398E+01	7.0127E-03	2.1851E+00	0.0	9.4641E+00
								1.6665E+01

TO BE CONTINUED

NUCLID = MO-42-J2 CODE NO = 42
INFINITE DILUTION CROSS SECTION

PAGE 2 OF 2

GRP. FISSION	NU	CAPTURE	INELA.	ELASTIC	MU	EL REMOVAL	N2N	TOTAL
41 0.0	0.0	3.1878E+00	0.0	1.4739E+01	7.0127E-03	3.4779E+00	0.0	1.7927E+01
42 0.0	0.0	7.3577E-01	0.0	4.8323E+00	7.0127E-03	3.1069E-01	0.0	5.5680E+00
43 0.0	0.0	3.8839E-01	0.0	5.2019E+00	7.0127E-03	3.0429E-01	0.0	5.5902E+00
44 0.0	0.0	5.7449E-02	0.0	5.4381E+00	7.0127E-03	3.2675E-01	0.0	5.4956E+00
45 0.0	0.0	8.4655E+00	0.0	2.8328E+01	7.0127E-03	1.5907E+01	0.0	3.6793E+01
46 0.0	0.0	1.0375E+00	0.0	5.7612E+00	7.0127E-03	2.4950E-01	0.0	6.7987E+00
47 0.0	0.0	1.6224E-01	0.0	5.0458E+00	7.0127E-03	2.4743E-01	0.0	5.2081E+00
48 0.0	0.0	2.1799E+00	0.0	5.6608E+00	7.0127E-03	2.5655E-01	0.0	7.8406E+00
49 0.0	0.0	6.2472E-01	0.0	6.7764E+00	7.0127E-03	4.8633E-01	0.0	7.4011E+00
50 0.0	0.0	8.4839E+01	0.0	1.0978E+02	7.0127E-03	1.7848E-01	0.0	1.9462E+02
51 0.0	0.0	4.6418E-01	0.0	4.5687E+00	7.0127E-03	2.7157E-01	0.0	5.0328E+00
52 0.0	0.0	2.1456E-01	0.0	4.6817E+00	7.0127E-03	2.4533E-01	0.0	4.8963E+00
53 0.0	0.0	1.7103E-01	0.0	4.7524E+00	7.0127E-03	1.4664E-01	0.0	4.9235E+00
54 0.0	0.0	1.7434E-01	0.0	4.7975E+00	7.0127E-03	1.8414E-01	0.0	4.9718E+00
55 0.0	0.0	1.4017E+00	0.0	4.8242E+00	7.0127E-03	1.8281E-01	0.0	6.4259E+00
56 0.0	0.0	1.8467E-01	0.0	4.8416E+00	7.0127E-03	2.8446E-01	0.0	5.0262E+00
57 0.0	0.0	1.8332E-01	0.0	4.8528E+00	7.0127E-03	2.9314E-01	0.0	5.0362E+00
58 0.0	0.0	1.9839E-01	0.0	4.8607E+00	7.0127E-03	2.9352E-01	0.0	5.0591E+00
59 0.0	0.0	2.1890E-01	0.0	4.8663E+00	7.0127E-03	2.9383E-01	0.0	5.0852E+00
60 0.0	0.0	2.4449E-01	0.0	4.8705E+00	7.0127E-03	2.9401E-01	0.0	5.1150E+00
61 0.0	0.0	2.7144E-01	0.0	4.8736E+00	7.0127E-03	2.9423E-01	0.0	5.1450E+00
62 0.0	0.0	3.0526E-01	0.0	4.8759E+00	7.0127E-03	2.9431E-01	0.0	5.1812E+00
63 0.0	0.0	3.4355E-01	0.0	4.8778E+00	7.0127E-03	2.9443E-01	0.0	5.2213E+00
64 0.0	0.0	3.8563E-01	0.0	4.8792E+00	7.0127E-03	2.9454E-01	0.0	5.2648E+00
65 0.0	0.0	4.3484E-01	0.0	4.8803E+00	7.0127E-03	2.9468E-01	0.0	5.3152E+00
66 0.0	0.0	4.9128E-01	0.0	4.8813E+00	7.0127E-03	2.9462E-01	0.0	5.3726E+00
67 0.0	0.0	5.5565E-01	0.0	4.8821E+00	7.0127E-03	2.9466E-01	0.0	5.4378E+00
68 0.0	0.0	6.3338E-01	0.0	4.8829E+00	7.0127E-03	2.9468E-01	0.0	5.5163E+00
69 0.0	0.0	7.1113E-01	0.0	4.8837E+00	7.0127E-03	2.9477E-01	0.0	5.5948E+00
70 0.0	0.0	9.3151E-01	0.0	4.8856E+00	7.0127E-03	0.0	0.0	5.8171E+00

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NUCLID =				MO-42-J2		CODE NUMBER =		42		IPL =		0		PAGE 1 OF 2	
TABLE OF INELASTIC MATRICES															
GROUP	EXIT	GROUP	** KK **	KK = I + J - 1	4	5	6	7	8	9	10				
I	J =	1	2	3	4	5	6	7	8	9	10				
	11	12	13	14	15	16	17	18	19	20					
	21	22	23	24	25	26	27	28	29	30					
	31	32	33	34	35	36	37	38	39	40					
	41	42													

1															
	3.54405E-01	1.38524E+00	5.52662E-03	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0													
2															
	2.87655E-01	1.34467E+00	1.74054E-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0													
3															
	1.52165E-01	1.04921E+00	6.14989E-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0													
4															
	8.91235E-02	8.11909E-01	7.39410E-01	1.17289E-01	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0													
5															
	3.43160E-02	5.10700E-01	6.76107E-01	4.20129E-01	3.11925E-02	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0													
6															
	1.94971E-02	2.98882E-01	4.80769E-01	3.85772E-01	2.61556E-01	1.12197E-01	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0													
7															
	1.30967E-02	1.17751E-01	3.93129E-01	2.84698E-01	1.78602E-01	1.66482E-01	1.13507E-01	7.93034E-02	4.17780E-02	1.10441E-02					
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0													
8															
	1.07670E-02	4.26149E-02	2.06921E-01	3.20506E-01	2.09983E-01	8.16131E-02	5.25189E-02	4.49094E-02	5.04170E-02	4.16541E-02					
	2.57964E-02	1.56592E-02	9.73642E-03	5.97628E-03	3.67632E-03	2.24785E-03	1.37268E-03	8.25250E-04	5.08870E-04	3.09293E-04					
	1.87257E-04	1.15570E-04	6.96713E-05	4.42125E-05	2.61263E-05	1.58353E-05	1.07943E-05	5.86861E-06	4.91815E-06	2.47783E-06					
	1.55488E-06	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
	0.0	0.0													

TO BE CONTINUED

NUCLID =			MO-42-J2		CODE NUMBER =		42		IPL =		0		PAGE 2 OF 2		
GROUP		EXIT		GROUP		** KK **		KK = I + J - 1		TABLE OF INELASTIC MATRICES					
I	J =	1	2	3	4	5	6	7	8	9	10				
	11	12	13	14	15	16	17	18	19	20					
	21	22	23	24	25	26	27	28	29	30					
	31	32	33	34	35	36	37	38	39	40					
	41	42													

9		9.72614E-03	4.00696E-02	5.22441E-02	1.89783E-01	2.53620E-01	1.89974E-01	9.76467E-02	4.13461E-02	2.81519E-02	1.69766E-02				
		1.17983E-02	6.95023E-03	4.88956E-03	3.23582E-03	1.99253E-03	1.29579E-03	8.29636E-04	4.93070E-04	3.00254E-04	1.82669E-04				
		1.12393E-04	6.74228E-05	4.31780E-05	2.45684E-05	1.59810E-05	9.77494E-06	6.44489E-06	4.70444E-06	2.28441E-06	1.26189E-06				
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0												
10		2.94646E-03	5.50775E-02	2.16684E-02	5.00533E-02	6.25415E-02	1.02725E-01	1.19112E-01	8.91872E-02	5.85739E-02	3.69920E-02				
		2.21471E-02	1.28831E-02	7.69209E-03	4.25683E-03	1.94881E-03	8.17826E-04	6.78790E-04	4.89559E-04	2.98880E-04	1.82485E-04				
		1.11203E-04	7.20002E-05	5.24656E-05	4.09516E-05	2.67358E-05	1.73098E-05	1.01663E-05	6.73874E-06	4.54199E-06	2.21260E-06				
		1.32536E-06	9.24397E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0												
11		0.0	4.44325E-02	3.21791E-02	3.97073E-03	2.35505E-02	2.40853E-02	1.71867E-02	1.36384E-02	1.08177E-02	1.20669E-02				
		1.09860E-02	8.42204E-03	7.88633E-03	8.88417E-03	8.82411E-03	6.02387E-03	3.82806E-03	2.42470E-03	1.53831E-03	9.86838E-04				
		6.39564E-04	4.07680E-04	2.57877E-04	1.57344E-04	9.92854E-05	6.13584E-05	3.93181E-05	2.59414E-05	1.59587E-05	1.02896E-05				
		7.28568E-06	4.29589E-06	3.45779E-06	1.61936E-06	1.33689E-06	1.19856E-06	4.89724E-07	4.84745E-07	4.91287E-07	3.19733E-07				
		3.39561E-07	3.63422E-07												
12		0.0	2.49027E-02	5.80075E-02	1.06294E-02	0.0	1.68883E-03	6.23132E-03	8.31791E-03	1.02622E-02	7.00442E-03				
		4.41956E-03	2.70549E-03	1.65212E-03	1.01122E-03	6.16043E-04	3.62915E-04	1.86576E-04	1.11783E-04	6.97363E-05	4.24138E-05				
		2.59456E-05	1.60861E-05	9.98050E-06	7.40645E-06	2.70502E-06	3.69879E-06	1.05050E-06	1.04529E-06	1.05649E-06	6.64955E-07				
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0												
13		0.0	0.0	4.59140E-02	4.47540E-02	4.05845E-03	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0	0.0	0.0	8.87433E-05	4.70780E-04	3.54926E-04	2.16763E-04	1.32448E-04	8.10588E-05				
		4.97008E-05	3.05984E-05	1.88249E-05	1.16714E-05	7.27398E-06	4.54142E-06	2.86122E-06	1.84025E-06	1.15226E-06	7.66070E-07				
		5.08222E-07	3.32606E-07	2.40429E-07	1.48669E-07	1.20656E-07	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0												
14		0.0	0.0	1.49011E-05	3.55132E-02	2.79809E-02	1.34877E-02	0.0	0.0	0.0	0.0				
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0												
15		0.0	0.0	0.0	0.0	7.18026E-03	1.58472E-02	9.93482E-03	6.19033E-03	3.83972E-03	1.12110E-03				
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0												
16		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.51753E-03	1.84289E-03				
		1.13033E-03	6.90870E-04	4.23068E-04	2.58125E-04	1.57295E-04	9.56829E-05	5.82226E-05	3.57251E-05	2.14186E-05	1.32123E-05				
		7.86220E-06	4.79700E-06	2.98665E-06	1.83485E-06	1.19187E-06	5.19718E-07	5.53750E-07	1.81156E-07	1.34534E-07	1.36104E-07				
		1.25522E-07	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0				
		0.0	0.0												

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = MO-42-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	1.0011	1.0009	1.0003	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	1.0042	1.0035	1.0013	1.0002	1.0000	1.0000	1.0000	1.0000
3	300.	1.0036	1.0030	1.0011	1.0001	1.0000	1.0000	1.0000	1.0000
4	300.	1.0009	1.0007	1.0002	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	0.9986	0.9989	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
6	300.	0.9984	0.9987	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
7	300.	0.9985	0.9988	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
8	300.	0.9979	0.9982	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
9	300.	0.9994	0.9995	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
10	300.	0.9972	0.9975	0.9989	0.9998	1.0000	1.0000	1.0000	1.0000
11	300.	0.9993	0.9994	0.9997	1.0000	1.0000	1.0000	1.0000	1.0000
12	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
13	300.	1.0002	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
14	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
15	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
16	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
17	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
18	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	1.0001	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	1.0002	1.0002	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	1.0002	1.0002	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	1.0002	1.0002	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
23	300.	1.0002	1.0002	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000
24	300.	1.0006	1.0005	1.0003	1.0000	1.0000	1.0000	1.0000	1.0000
25	300.	0.9970	0.9971	0.9981	0.9996	1.0000	1.0000	1.0000	1.0000
26	300.	0.9783	0.9794	0.9864	0.9968	0.9996	1.0000	1.0000	1.0000
27	300.	0.9917	0.9921	0.9945	0.9985	0.9998	1.0000	1.0000	1.0000
28	300.	0.9783	0.9795	0.9865	0.9967	0.9996	0.9999	1.0000	1.0000
29	300.	0.9663	0.9676	0.9764	0.9934	0.9992	0.9999	1.0000	1.0000
30	300.	0.9438	0.9468	0.9648	0.9918	0.9991	0.9999	1.0000	1.0000
31	300.	0.8621	0.8679	0.9054	0.9730	0.9965	0.9996	1.0000	1.0000
32	300.	0.8021	0.8095	0.8592	0.9571	0.9943	0.9994	0.9999	1.0000
33	300.	0.7482	0.7560	0.8030	0.9095	0.9837	0.9982	0.9998	1.0000
34	300.	0.6647	0.6765	0.7515	0.9073	0.9854	0.9984	0.9998	1.0000
35	300.	0.6252	0.6424	0.7450	0.9230	0.9899	0.9989	0.9999	1.0000
36	300.	0.4020	0.4220	0.5451	0.8168	0.9703	0.9968	0.9997	1.0000
37	300.	0.4960	0.5217	0.6711	0.9093	0.9886	0.9988	0.9999	1.0000
38	300.	0.2396	0.2565	0.3792	0.7345	0.9579	0.9955	0.9996	1.0000
39	300.	0.2826	0.2990	0.4134	0.7374	0.9552	0.9951	0.9995	1.0000
40	300.	0.2209	0.2319	0.3087	0.5453	0.8507	0.9794	0.9978	0.9998
41	300.	0.1952	0.2091	0.3068	0.6213	0.9175	0.9903	0.9990	0.9999
42	300.	0.5323	0.5613	0.7194	0.9336	0.9922	0.9992	0.9999	1.0000
43	300.	0.6511	0.6762	0.8079	0.9609	0.9956	0.9996	0.9999	1.0000
44	300.	0.9607	0.9657	0.9849	0.9977	0.9998	1.0000	1.0000	1.0000
45	300.	0.0824	0.0876	0.1262	0.2743	0.6347	0.9332	0.9927	0.9993

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = MO-42-J2

REACTION = CAPTURE

FOR 1TH R-PARAMETER
PAGE 2 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
46	300.	0.5666	0.5882	0.7118	0.9176	0.9894	0.9989	0.9999	1.0000
47	300.	0.8846	0.8979	0.9525	0.9925	0.9992	0.9999	1.0000	1.0000
48	300.	0.2515	0.2687	0.3966	0.7626	0.9655	0.9964	0.9996	1.0000
49	300.	0.7884	0.8039	0.8849	0.9769	0.9974	0.9997	1.0000	1.0000
50	300.	0.0716	0.0759	0.1071	0.2355	0.5773	0.9122	0.9901	0.9990
51	300.	0.9910	0.9923	0.9969	0.9996	1.0000	1.0000	1.0000	1.0000
52	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
53	300.	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
54	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
55	300.	0.5546	0.5824	0.7390	0.9435	0.9936	0.9993	0.9999	1.0000
56	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
57	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
58	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
59	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
60	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
61	300.	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
62	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
63	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
64	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
65	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
66	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
67	300.	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
68	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
69	300.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
70	300.	0.9928	0.9937	0.9971	0.9995	1.0000	1.0000	1.0000	1.0000

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = MO-42-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 1 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
1	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
2	300.	0.9993	0.9994	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
3	300.	0.9995	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
4	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
5	300.	0.9995	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
6	300.	0.9983	0.9986	0.9995	0.9999	1.0000	1.0000	1.0000	1.0000
7	300.	0.9973	0.9978	0.9991	0.9999	1.0000	1.0000	1.0000	1.0000
8	300.	0.9978	0.9981	0.9992	0.9999	1.0000	1.0000	1.0000	1.0000
9	300.	0.9985	0.9987	0.9994	0.9999	1.0000	1.0000	1.0000	1.0000
10	300.	0.9984	0.9986	0.9993	0.9999	1.0000	1.0000	1.0000	1.0000
11	300.	0.9992	0.9993	0.9996	0.9999	1.0000	1.0000	1.0000	1.0000
12	300.	0.9996	0.9996	0.9998	1.0000	1.0000	1.0000	1.0000	1.0000
13	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
14	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
15	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
16	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
17	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
18	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
19	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
20	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
21	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
22	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
23	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
24	300.	0.9998	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
25	300.	0.9889	0.9895	0.9929	0.9982	0.9998	1.0000	1.0000	1.0000
26	300.	0.9564	0.9586	0.9710	0.9923	0.9991	0.9999	1.0000	1.0000
27	300.	0.9628	0.9643	0.9742	0.9927	0.9991	0.9999	1.0000	1.0000
28	300.	0.9768	0.9777	0.9837	0.9953	0.9994	0.9999	1.0000	1.0000
29	300.	0.9845	0.9845	0.9885	0.9967	0.9996	1.0000	1.0000	1.0000
30	300.	0.9901	0.9906	0.9938	0.9985	0.9998	1.0000	1.0000	1.0000
31	300.	0.9701	0.9713	0.9788	0.9935	0.9934	0.9999	1.0000	1.0000
32	300.	0.9065	0.9093	0.9279	0.9719	0.9957	0.9995	1.0000	1.0000
33	300.	0.5117	0.5209	0.5861	0.7906	0.9610	0.9957	0.9996	1.0000
34	300.	0.7178	0.7237	0.7641	0.8839	0.9789	0.9977	0.9998	1.0000
35	300.	0.8411	0.8459	0.8785	0.9557	0.9937	0.9993	0.9999	1.0000
36	300.	0.6478	0.6565	0.7145	0.8709	0.9776	0.9976	0.9997	1.0000
37	300.	0.9063	0.9098	0.9324	0.9785	0.9971	0.9997	1.0000	1.0000
38	300.	0.8465	0.8503	0.8770	0.9499	0.9923	0.9992	0.9999	1.0000
39	300.	0.7181	0.7229	0.7581	0.8750	0.9762	0.9974	0.9997	1.0000
40	300.	0.4558	0.4611	0.4986	0.6397	0.8755	0.9826	0.9982	0.9998
41	300.	0.4131	0.4197	0.4669	0.6470	0.9011	0.9875	0.9987	0.9999
42	300.	0.9865	0.9873	0.9914	0.9978	0.9997	1.0000	1.0000	1.0000
43	300.	0.9980	0.9982	0.9989	0.9998	0.9999	1.0000	1.0000	1.0000
44	300.	0.9997	0.9998	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
45	300.	0.2468	0.2496	0.2713	0.3774	0.6836	0.9421	0.9937	0.9994

TO BE CONTINUED

TABLE OF SELF-SHIELDING FACTORS

MATERIAL NAME = MO-42-J2

REACTION = ELASTIC

FOR 1TH R-PARAMETER
PAGE 2 OF 2

GROUP	TEMP. (SIGO)	1.0E-01	1.0E+00	1.0E+01	1.0E+02	1.0E+03	1.0E+04	1.0E+05	1.0E+06
46	300.	0.8634	0.8688	0.9033	0.9704	0.9962	0.9996	1.0000	1.0000
47	300.	0.9998	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
48	300.	0.9598	0.9608	0.9678	0.9874	0.9982	0.9998	1.0000	1.0000
49	300.	0.9583	0.9614	0.9777	0.9956	0.9995	1.0000	1.0000	1.0000
50	300.	0.0999	0.1044	0.1368	0.2652	0.5953	0.9160	0.9905	0.9990
51	300.	1.0001	1.0001	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
52	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
53	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
54	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
55	300.	0.9999	0.9999	0.9999	1.0000	1.0000	1.0000	1.0000	1.0000
56	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
57	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
58	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
59	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
60	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
61	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
62	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
63	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
64	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
65	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
66	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
67	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
68	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
69	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000
70	300.	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000