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Photon Cross Sections ⁻from 0.001 to 100 MeV for Elements 1 through 100



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Photon Cross Sections from 0.001 to 100 MeV for Elements 1 through 100

by

Ellery Storm Harvey I. Israel

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CONTENTS

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Abstract Description of Cross Section Tables	3 3
I. Incoherent (Compton) Scatter Cross Sections A. Free Electron B. Bound Electron	8 8 8
II. Coherent (Rayleigh) Scatter Cross Sections	9
III. Pair Production Cross Sections	9
IV. Photoelectric Cross Sections A. Total B. Absorption	10 10 12
V. Total Cross Sections	13
Acknowledgments	14
References	14
Appendix. Supplementary Tables Table I. Mass Attenuation Coefficients for Air, Water, Concrete, and Sodium Iodide	18 19
Table II. Constants Used to Calculate Photoelectric Cross Sections at Energy Levels	23
Table III. X-ray Atomic Energy Levels in keV	24
Table IV. K X-ray Energies in keV	30
Table V. L X-ray Energies in keV	34
Table VI. Weighted Average L and K X-ray Energies in keV	52
Table VII. K, L Relative Intensities	54
Table VIII. K, L Fluorescence Yields	57
Tables of Cross Sections and Mass Attenuation Coefficients for Elements 1 through 100	58

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PHOTON CROSS SECTIONS FROM 0.001 TO 100 MeV

FOR ELEMENTS 1 THROUGH 100

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Ellery Storm Harvey I. Israel

ABSTRACT

The report contains tables of photon cross sections in the range 0.001 to 100 MeV for Z = 1 to 100. Supplementary tables of mass attenuation coefficients for air, water, concrete, and sodium iodide; x-ray atomic energy levels; line energies; average energies; relative intensities; and fluorescence yields are also presented.

DESCRIPTION OF CROSS SECTION TABLES

In 1952 White¹ tabulated in NBS Report 1003 photon cross sections based primarily on theoretical calculations. Her tables, which covered an energy range of 0.01 to 100 MeV and included 19 elements, were published in the Handbook of Radiology² in 1955. Grodstein (formerly White) revised the tables in 1957 and presented them in NBS Circular 583.³ She included the following cross sections in her tables: photoelectric, pair production in the field of the atomic nucleus and of the atomic electrons, incoherent plus coherent scatter of bound electrons, and the total cross section with and without coherent scatter.

In 1958 we⁴ interpolated Grodstein's values to obtain photon cross sections for all elements 1 to 100 and published the tables in LA-2237. We did not include the

incoherent plus coherent sum nor the total minus coherent cross sections, but instead gave the individual coherent and incoherent cross sections, the total pair production cross section, and a sum of the photoelectric, the incoherent absorption, and the total pair production cross sections intended to represent the true absorption or energy transferred to the medium.

McGinnies⁵ in 1959 published a supplement to NBS Circular 583 showing that the recent experimental photoelectric cross sections differed from the calculations, particularly below the K edge, by as much as 100%. Allison⁶ and Berger⁷ in 1961 pointed out that in the photoelectric and pair production interactions, as in the incoherent interaction, not all the initial photon energy was transmitted to the medium by particles (electrons, positrons), but

that a portion of it was carried off by photons (fluorescence and bremsstrahlung radiation) beyond the immediate neighborhood of interest. Allison and Berger calculated the average fraction of the energy transferred to the medium in the photoelectric, incoherent, and pair production interactions for several elements. Davisson⁸ in 1965, using experimental photoelectric cross sections and the calculated values of Hultberg et al. and Pratt et al. published a revision of the Grodstein tables in Alpha-, Beta-, and Gamma-Ray Spectroscopy (edited by K. Siegbahn). In 1966 Hubbell and Berger, ¹¹ in NBS Circular 8681, revised some of the photoelectric values of Davisson on the basis of more recent calculations by Hultberg et al., 12 Pratt and Schmickley, 13 and Rakavy and Ron.¹⁴ In addition Hubbell and Berger included double-Compton scattering and radiative corrections to incoherent scatter cross sections, added radiative and screening corrections to nuclear-field pair production, and revised the electron-field pair production cross sections using calculations of Mork.¹⁵ Grodstein had used the Thomas-Fermi model to calculate the coherent and incoherent scatter cross sections, but, recently, coherent form factors 16 and incoherent scattering functions¹⁷ derived from Hartree-Fock wave functions have been published.

In view of the changes in the photoelectric cross sections, the new information on energy transfer cross sections for the photoelectric and pair production interactions, and the availability of the more accurate Hartree-Fock coherent form factors and incoherent scattering functions, we decided that an updated version of the data described in LA-2237 would be worthwhile. The work was begun in June 1966 and completed in June 1967.

A number of major changes have been made. The energy range, which was 0.01 to 100 MeV, has been broadened to 0.001 to 100 MeV. The component and total cross sections have been increased from 9 to 17. For a given element, the 17 cross sections are given in barns/atom and in cm³/g. In LA-2237 the cross sections were obtained by interpolation of the Grodstein tables, but in the present tables many of the cross sections were calculated directly from theoretical and empirical equations. In addition to the 200 tables of cross sections, there are 8 tables in the Appendix giving: (I) the mass attenuation coefficients in cm²/g for air, water, concrete, and sodium iodide; (II) the values of the constants used to calculate the photoelectric cross sections at the energy levels or absorption edges; (III) the K,L,M,N, and 0 atomic energy levels; (IV) the K x-ray energies obtained by subtracting the appropriate energy levels; (V) the L x-ray energies; (VI) the weighted average L and K x-ray energies; (VII) the relative intensities of the L and K x rays; and (VIII) the L and K fluorescence yields.

Because notation and terminology have not yet been standardized, we have adopted the following conventions in this report. When the probability of a photon interaction is expressed in units of barns/atom, it is called a cross section and denoted by σ . In units of cm⁻¹, it is called a linear attenuation coefficient and denoted by μ , In units of cm²/g, it is called a mass attenuation coefficient and denoted by μ/ρ . The different kinds of interactions are denoted by subscripts: " τ " for photoelectric, "inc" for incoherent scatter, "coh" for coherent scatter, and " κ " for pair

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production.

After a photoelectric, incoherent, or pair production interaction, photons (scattered, fluorescence, bremsstrahlung, or annihilation) may appear together with particles (electrons or positrons). The probability that photons appear after an interaction is called the "scatter" cross section and is denoted by the subscript "s." The probability that particles appear after an interaction is called the "absorption" cross section and is denoted by the subscript "a." The subscript "t" is used to denote total cross sections for particular interactions, and the subscript "tot" denotes a sum of individual cross sections.

Although the total, scatter, and absorption incoherent cross sections for a free electron are of less interest than those for a bound electron, both are included in the tables for purposes of comparison. Superscripts have been used to distinguish the free from the bound electron cross sections. Since the free electron cross sections are calculated from the Klein-Nishina equations, they are denoted by "KN." The bound electron incoherent cross sections are denoted by the superscript "BD."

Listed below are the photon interactions and the notation used in the cross section (barns/atom) tables of this report; the notation in LA-2237 is also given for the convenience of those who have used that report. The same subscripts and superscripts have been used in the mass attenuation coefficient (μ/ρ) tables. The cross sections are given to three significant figures in both the barns/atom and cm²/g tables.

Photon Interaction	Present Notation	LA-2237 Notation
INCOHERENT FREE ELECTRON		
Total	σ ^{KN} inc,t	
Absorption	σ ^{KN} inc,a	a
Scatter	d inc.s	aI
INCOHERENT BOUND ELECTRON		
Total	σ ^{BD} inc,t	
Absorption	BD ^o inc,a	
Scatter	BD dinc.s	
COHERENT SCATTER	^o coh	٥
PAIR PRODUCTION		
Nucleus	σ _{×n}	ĸ'n
Electron	σ ×e	×.e
Total	σ _{x,t}	к _т
Absorption	а ж,а	
PHOTOELECTRIC		
Total	a _{t.t}	۲
Absorption	σ _{τ,} a	
TOTALS		
Narrow beam	^g tot,t	$\tau + \sigma_T + \kappa_T$
		$(\sigma_{\rm T} = \sigma_{\rm C} + \sigma_{\rm I} + \sigma_{\rm C})$
Narrow beam minus coherent	^d tot,t - co	h
Absorption	^o tot,a	τ + σ + K _T

In the following sections, the method of obtaining each cross section is described and an estimate of the accuracy is given.

^σtot, en

Energy Absorption

I. <u>INCOHERENT (COMPTON) SCATTER CROSS</u> <u>SECTIONS</u>

A. Free Electron

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The total incoherent cross section for free electrons, $\sigma_{\text{inc},t}^{\text{KN}}$, was calculated from the Klein-Nishina equation

$$\sigma_{\text{inc,t}}^{\text{KN}} = 2\pi r_0^2 \left\{ \frac{1+\alpha}{\alpha^3} \left[\frac{2(1+\alpha)}{1+2\alpha} - \frac{1}{\alpha} \ln (1+2\alpha) \right] + \frac{1}{2\alpha} \ln (1+\alpha) \right\} \right\}$$

where $\alpha = \frac{h\nu}{mc^2}$ is the initial photon energy in electron rest mass units. The values given in the tables include the Mork¹⁵ combined radiative and double-Compton corrections.

The incoherent absorption cross section for a free electron, $\sigma_{\text{inc},a}^{\text{KN}}$, was calculated from the Klein-Nishina equation

$$\sigma_{\text{inc,a}}^{\text{KN}} = 2_{\pi} r_{0}^{2} \left[\frac{2(1 + \alpha)}{\alpha^{2} (1 + 2\alpha)} - \frac{1 + 3\alpha}{(1 + 2\alpha)^{2}} - \frac{1}{\alpha} - \frac{1}{\alpha^{3}} - \frac{1}{2\alpha} + \frac{1}{2\alpha^{3}} \right] \ln(1 + 2\alpha) \right].$$

The incoherent scatter cross section for a free electron, $\sigma_{inc,s}^{KN}$, was calculated from the Klein-Nishina equation

 $\sigma_{\text{inc,s}}^{\text{KN}} = \pi r_0^2 \left[\frac{\ln(1+2\alpha)}{\alpha^3} + \frac{2(1+\alpha)(2\alpha^2-2\alpha-1)}{\alpha^3(1+2\alpha)^2} + \frac{8\alpha^3}{3(1+2\alpha)^3} \right].$

The cross sections are believed to be accurate within 1%.

B. Bound Electron

The total incoherent cross section for bound electrons, σ^{BD} , was calculated inc,t from the equation by numerical integration over scattering angle θ . The differential form of the Klein-Nishina equation $\frac{d_{\sigma}KN}{inc,t}$, gives the probability that the photon is deflected at a given angle and transfers some

$$(1 + 2\alpha) \left] + \frac{1}{2\alpha} \ln (1 + 2\alpha) \right\}, \qquad (1)$$

momentum to the electron as though it were free. S(q,Z) is the incoherent scattering function or probability that an atom will be raised to an excited or ionized state when the photon imparts a recoil momentum \overline{q} to any of the atomic electrons.

$$\frac{1}{2} - \frac{(1 + \alpha)(2\alpha^{2} - 2\alpha - 1)}{\alpha^{2}(1 + 2\alpha)^{2}} - \frac{4\alpha^{2}}{3(1 + 2\alpha)^{3}}$$
(2)

The incoherent scattering functions used by Grodstein were obtained from the

121

$$\begin{array}{c} \alpha^{3} \\ \text{sections are believed to be} \\ \hline \end{array} \begin{array}{c} \alpha^{2} (1 + 2\alpha)^{2} \\ \hline \end{array} \begin{array}{c} 3 (1 + 2\alpha)^{3} \\ \hline \end{array} \begin{array}{c} (3) \\ \hline \end{array} \end{array}$$

Mann¹⁷ calculated incoherent scattering functions for all 39 spherically symmetric free atoms using Hartree-Fock wave functions with exchange terms. Cromer has also calculated the matrix elements for the aspherical atoms B, C, O, F, Al, Si, Fe, and Ge from

$$\frac{d_{\sigma}_{\text{inc,t}}^{\text{BD}}}{d_{\Omega}} \approx \frac{1}{2} r_{\sigma}^{2} Z \left[\frac{1}{\left[\left(1 + \alpha \left(1 - \cos \theta \right) \right]^{2}} \right] \left[1 + \cos^{2} \theta + \frac{\alpha^{2} \left(1 - \cos \theta \right)^{2}}{1 + \alpha \left(1 - \cos \theta \right)} \right] S(q, Z) \right]}$$

$$= \frac{d_{\sigma}_{\text{inc,t}}^{\text{KN}}}{d_{\Omega}} S(q, Z)$$

$$(4)$$

.ch scattering functions were calculated using the equations of Milberg and Brailsford, ¹⁸ and Freeman, ¹⁹⁻²¹ The incoherent scattering functions for the other aspherical atoms were obtained by interpolation. Since the incoherent scattering functions are not a smooth function of Z because of the irregularities in electron shell structure, the interpolated values may be in error by as much as 5%. The incoherent scattering functions of Cromer and Mann and the values interpolated from their data were used in Eq. 4 to calculate the total incoherent cross section for a bound electron.

The incoherent absorption cross section for a bound electron, $\sigma_{\text{inc},a}^{\text{BD}}$, was calculated from the product $f_{c}\sigma_{inc,t}^{BD}$, where f_{c} is the average fraction of photon energy transferred to the medium as a result of Compton scatter. For energies less than 0.4 MeV, f_c was obtained from the ratio $\sigma_{inc,a}^{KN} / \sigma_{inc,t}^{KN}$. Berger gives values of f_c including bremsstrahlung losses in Table VII of her report⁷ for 15 elements over the range 0.4 to 10 MeV. Allison gives values of $\sigma_{\text{inc.a}}^{\text{BD}}$ both with and without bremsstrahlung losses, in Table 3 of his report,⁶ from which f_c can be obtained for six elements over the range 10 to 100 MeV. Berger's values of f from 0.4 to 10 MeV and Allison's values from 10 to 100 MeV were plotted both as a function of energy for a constant Z and as a function of Z for a constant energy. Smooth curves which gave the same value of f for a given element and energy on both plots were drawn through the points. The values of f used to calculate the incoherent absorption cross section for a bound electron from 0.4 to 100 MeV were interpolated from these curves. Since data

for only a few elements were available, particularly above 10 MeV, the interpolated values may contain errors as large as 10%. The incoherent scatter cross section for a bound electron, $\sigma_{inc,s}^{BD}$, was obtained by subtracting $\sigma_{inc,a}^{BD}$ from $\sigma_{inc,t}^{BD}$.

II. <u>COHERENT (RAYLEIGH) SCATTER CROSS</u> <u>SECTIONS</u>

The coherent scatter cross section, $\sigma_{\rm coh}$, was calculated from the equation

$$\frac{d\sigma_{\rm coh}}{d\Omega} = \frac{1}{2}r_0^3 (1 + \cos^2\theta) \left[F(q,Z)\right]^3, \quad (5)$$

by numerical integration over angle. The term $\frac{1}{2}r_0^2(1 + \cos^2\theta)$ is the cross section for Thomson scattering from a single electron. F is a form factor which represents the probability that the recoil momentum, \vec{q} , is transferred to the 2 electrons of an atom without any energy absorption.

Grodstein in her calculations used form factors obtained from the Thomas-Fermi model with modifications for low 2 materials based on the values of Nelms and Oppenheim.²² Hanson et al.¹⁶ have computed form factors for all elements 1 to 100 using Hartree-Fock-Slater wave functions. The coherent scattering cross section was calculated using the form factors of Hanson. The coherent cross sections are believed to be accurate within 3%.

III. PAIR PRODUCTION CROSS SECTIONS

Hubbell and Berger in Table 18 of NBS Report 8681¹¹ give the pair production cross sections in the field of an atomic nucleus, σ_{χ_n} , for 11 elements over a range of 1.5 to 100 MeV. Their cross sections were calculated using the Born approximation with the Bethe-Heitler high energy approximation, and include radiative and screening corrections. The cross sections for other elements were obtained by plotting Hubbell and Berger's values of σ_{χ_n} both as a function of energy for a constant Z and as a function of Z for a constant energy. Smooth curves which gave the same value of σ_{χ_n} on both log-log plots were drawn through the given points. Values of σ_{χ_n} for each element were then interpolated from the curves. The nuclear-field pair production cross sections are probably accurate within 5%.

Hubbell and Berger in Table 20 of NBS Report 8681 give values which permit one to obtain the pair production cross section in the field of the atomic electrons, $\sigma_{\textbf{X}}$, for 11 elements over a range of 3 to 100 MeV. Their cross sections were calculated using the combined Votruba-Borsellino-Ghizzetti theory, and include exchange, y-e interaction, screening, and radiative cor-The cross sections for other rections. elements were obtained by plotting Hubbell and Berger's values of $\sigma_{R_{\alpha}}$ both as a function of energy for a constant Z and as a function of Z for a constant energy. Smooth curves giving the same value of $\sigma_{R_{e}}$ on both log-log plots were drawn through the points. Cross sections for each element and energy were interpolated from the curves. The electron-field pair production cross sections are probably accurate within 10%.

The total pair production cross section, $\sigma_{x,t}$, is the sum of the nuclear-field, σ_{x_n} , and the electron-field, σ_{x_e} , pair production cross sections.

The pair production absorption cross section, $\sigma_{\chi,\alpha}$, is obtained from the product $f_{\chi,\chi,t}$, where f_{χ} is the average fraction of photon energy transferred to the medium as a result of a pair production event. Values of f which include bremsstrahlung and positron annihilation losses are given by Berger in Tables IX and X of her report for 15 elements over a range of 1.5 to 10 MeV. Allison in Table 4 of his report⁶ gives values of $\sigma_{v,t}$ and $\sigma_{v,a}$, which do not include positron annihilation corrections, for seven elements over the range 15 to 100 MeV. Berger's and Allison's values were plotted both as a function of energy for constant 2 and as a function of 2 for constant energy. Smooth curves giving the same value of f on both log-log plots were put through the points, and values for other elements were interpolated. Since data for only a few elements were available and positron annihilation losses were not included above 10 MeV, the pair production absorption cross sections may contain errors as large as 20%.

IV. PHOTOELECTRIC CROSS SECTIONS

A. Total

The total photoelectric cross section $\sigma_{\tau,t}$, was calculated by Grodstein³ using theoretical equations. McGinnies⁵ compared the theoretical to experimental values and found large differences, particularly below the K edges. Recent revisions of the Grodstein tables by Davisson⁸ and Hubbell and Berger¹¹ have been based primarily on experimental measurements and the theoretical calculations of Pratt et al.^{10,13} and Hubberg et al.^{9,12}

In the preparation of this report, we made an extensive and critical study of the experimental and calculated photoelectric cross sections. Although very few direct photoelectric cross-section measurements have been made, they can be derived from narrow beam, total cross-section measurements by subtracting the incoherent, coherent, and pair production cross sections. From the bibliographies of Glocker,²³ Stainer,²⁴ and Toms²⁵ and the references given by Hubbell and Berger,¹¹ many of the narrow beam, total cross-section measurements made prior to 1966, such as those of Laubert,²⁶ Deslattes,²⁷ Hopkins,²⁸ and Wiedenbeck,²⁹, may be found. In addition, there have been recent measurements, calculations, and tabulations by Leroux,³⁰ Henke,³¹ Cooke and Stewardson,³² Petrassi,³³ Bearden,³⁴ Heinrich,³⁵ Barlett and Donahue,³⁶ McCrary et al.,³⁷ McMaster et al.,³⁸ and Carter et al.³⁹

All the measured and calculated photoelectric cross sections were plotted on loglog paper both as a function of energy for a constant Z and as a function of Z for a constant energy. It became apparent that many of the older values and some of the more recent ones should not be included. The selected photoelectric cross sections were replotted before smooth curves were drawn through the points. The curves were extrapolated to the K, L, M, and N absorption edges. A log-log plot of the photoelectric cross sections at the upper and lower K, L_I - L_{III}, M_I - M_V, and upper N_I edge as a function of Z revealed that a smooth curve could be put through the points for each upper and lower edge. Furthermore, the smooth curves could be described by an expression of the form

$$\sigma_{\tau}(\text{edge}) = k \left[\frac{z}{\alpha(\text{edge})} \right]^n \text{ barns/atom,} \quad (6)$$

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where $\sigma_{\tau}(edge)$ is the total photoelectric cross section at an upper or lower K. L. M, or N edge; $\alpha(edge)$ is the energy of the edge in electron rest mass units; and k and n are constants. The values of k and n used for each upper and lower edge are given in Table II of the Appendix. The exponent, n, varies from 1.5 to 2.04, and the constant, k, is of the order of $\pi r_o^2/137 =$ 1.82 x 10⁻³. The total photoelectric cross sections at the absorption edges given in the tables were calculated from Eq. (6) using the constants in Table II.* The energies of the K, L, M, and N edges used in these calculations are given in Table III of the Appendix. They were obtained by smoothing the edge energies given in the literature 40-43 with particular attention given to the recent compilation of Bearden and Burr.⁴⁴

The selected narrow beam total cross sections were also plotted on log-log paper as a function of energy for a constant Z. The data indicated that between K, L, and M edges the selected cross sections could be connected by straight lines. To obtain the narrow beam total cross section at the edges, the photoelectric cross section at each edge calculated from Eq. (6) was added to the calculated coherent and incoherent edge cross sections. The narrow beam total cross sections at the edges were plotted on log-log paper as a function of energy and connected by straight lines. The narrow beam values between the edges were then read from the lines. The photoelectric cross sections between the K, L, and M, edges given in the tables were obtained by subtracting the calculated coherent and incoherent values from the narrow beam totals.

Above the K edge, log-log plots of the narrow beam total cross section as a function of energy for constant Z were not

^{*}Hubbell and Berger on p. 28 of NBS Report 8681 point out that the high energy side of an absorption edge exhibits fine structure, and that the photoelectric cross section for light elements may oscillate by as much as a factor of five.

linear. However, when the photoelectric cross section was plotted as a function of Z for a constant energy, equations of the form

$$\sigma_{\tau} (\text{const E}) = k \left[\frac{z}{\alpha} \right]^n \text{ barns/atom}, \qquad (7)$$

could be used to calculate the photoelectric cross section over a limited range of atomic numbers and energies. Equations of this form were used as a quide in drawing the smooth curves through the selected experimental and calculated points. We required that the smooth curves give the same values of the photoelectric and narrow beam total cross sections when plotted both as a function of Z for constant energy and as a function of energy for constant Z.

As experimental techniques and theoretical calculations are improved, it would not be surprising to learn that the total photoelectric cross sections contain large errors. For example, the calculated and measured cross sections for hydrogen and helium differ by an order of magnitude.

The accuracy of the total photoelectric cross section varies with energy. The values of k and n in Eq. (6) are based on very few calculated and measured points from 0.001 MeV to the L_I edge, so errors as large as 100% in this region might be expected. Between the L_I and K edges, the total photoelectric cross sections are probably accurate within 25%. Between the K edge and 0.2 MeV, the total photoelectric cross sections are probably accurate within 10%. Between 0.2 and 100 MeV, errors may be as large as 20%.

B. Absorption

The photoelectric absorption cross section, $\sigma_{\tau,a}$, is obtained from the product $\sigma_{\tau,t}f_{\tau}$, where f_{τ} is the average

fraction of photon energy transferred to the medium as a result of photoelectric absorption. If bremsstrahlung is neglected, and according to Berger⁷ it reduces f_{τ} by at most 2%, then f_{τ} is given approximately by the equations

$$f_{T_{K}} \approx 1 - \frac{\sigma_{T_{K}}}{\sigma_{T, t}} \frac{\omega_{K} \overline{E}_{K}}{hv}, \qquad (8)$$

 h_{V} above the K edge;

f

$$f_{\tau_{\rm L}} = 1 - \frac{\sigma_{\tau_{\rm L}}}{\sigma_{\tau,t}} \frac{\omega_{\rm L}}{h_{\nu}}^{\rm E}, \qquad (9)$$

 h_{V} between the K and L_{TTT} edges;

The energy of the incident photon is represented by hy.

The fluorescence K-shell yield, $\omega_{\rm K}$, and the mean L-shell yield, $\omega_{\rm L}$ are given in Table VIII of the Appendix. They were obtained by smoothing the data in the literature, ⁴³, ⁴⁵, ⁴⁶ with particular attention given to the recent compilation by Fink et al.⁴⁷

The weighted average energies of the K fluorescence photons, \overline{E}_{K} , and L fluorescence photons, \overline{E}_{L} , are given in Table VI of the Appendix. The $\overline{L}_{I,II,III}$ column gives the weighted average fluorescence energy for h_{V} between the K and L_{I} edges; the $\overline{L}_{II,III}$ column, the average energy for h_{V} between the L_{I} and L_{II} edges; and the \overline{L}_{III} column, the average energy for h_{V} between the average energy for h_{V} between the L and L edges. Table VI also

gives the weighted average energy of the K_{α} and K_{α} lines when considered separately.

The weighted average energies were calculating using the K x-ray energies given in Table IV, the L x-ray energies in Table V, and the K and L relative intensities given in Table VII of the Appendix. The K and L fluorescence x-ray energies were obtained by subtracting the appropriate edge energies given in Table III. With a few exceptions, the K and L x-ray energies given in Tables IV and V are within 10 eV of the energies given for the fluorescence lines in the recent compilation by Bearden. 48 The relative intensities given in Table VII were obtained from a smoothing of the data in the literature, 42,43,49 and should be regarded merely as rough approximations. For example, the L line intensities are all assumed to be independent of Z, although measurements have indicated the expected Zdependence for some of them.

The photoelectric cross section for the K shell, σ_{τ_K} , has been calculated for a few elements. 9,10,14,50,51 Davisson⁵² gives the ratio for $\sigma_{\tau,\tau}/\sigma_{\tau_K}$ at the K edge for 21 elements. Hubbell and Berger¹¹ represent this ratio by the empirical equation

$$\sigma_{\tau_{\rm L}} / \sigma_{\tau,t} = 1 - 2.5 \times 10^{-7} Z^3.$$
 (12)

Since $\sigma_{\tau,a}$ is the product of f_{τ} and $\sigma_{\tau,t}$, the photoelectric absorption cross section has the same uncertainties as the total photoelectric cross section plus the additional uncertainty in f_{τ} , which may be as much as 10%.

V. TOTAL CROSS SECTIONS

There are at least five total cross sections in general use. In the terminology of Hubbell and Berger, 11 these totals are the narrow beam total cross section, the narrow beam total cross section without coherent scatter, the total absorption cross section, the total energy-transfer cross section, and the total energyabsorption cross section. All of these are given in the tables except the total energytransfer cross section which allows for the escape of Compton-scattered, fluorescence, and annihilation photons, but not bremsstrahlung. The total energy-absorption cross section allows for the escape of all secondary photons, including bremsstrahlung. The total absorption cross section allows

 $\sigma_{\tau,t} / \sigma_{\tau_K} = 1 + 0.01481 \ln^2 Z - 0.000788 \ln^3 Z.$

In the calculation of f_{τ} above the K edge from Eq. (8), we assumed that the ratio $\sigma_{\tau_{\rm K}} / \sigma_{\tau,t}$ is independent of energy and is given by the reciprocal of Eq. (11).

The photoelectric cross section for the L shell, σ_{τ_L} , has been calculated for only a few elements.^{14,50,51} In calculating f_{τ} between the K and L edges from Eq. (9), we assumed that the ratio $\sigma_{\tau_L} / \sigma_{\tau,t}$ is independent of energy and is given by the following empirical equation:

ر ، از کر او او در ا از از از او او در ا only for the escape of the Comptonscattered photons. The totals do not include the cross sections for the photonuclear effect.

The narrow beam total cross section, $\sigma_{tot,t}$, was obtained by summing the boundelectron total incoherent scatter, σ_{BD} ; inc,t the coherent scatter, σ_{coh} ; the total pair production, $\sigma_{x,t}$; and the total photoelectric, $\sigma_{\tau,t}$, cross sections. This total

13

(11)

cross section is the one measured in narrow beam geometry in which both source and detector are highly collimated.

The total cross section without coherent scatter, $\sigma_{tot,t} - coh$, is often used in shielding calculations and in gamma-ray transport theory. It was obtained by subtracting the coherent scatter from the narrow beam total cross section.

The total absorption cross section, otot,a, is useful in reactor gamma-ray heating calculations. It was obtained by the customary method of adding the free-electron incoherent absorption, $\sigma_{\text{inc,a}}^{\text{KN}}$, to the toal pair production $\sigma_{x,t}$, and total photoelectric, $\sigma_{\tau,t}$ cross sections. In certain calculations, the bound-electron incoherent cross section without bremsstrahlung is added to the total pair production and photoelectric cross sections. For this purpose, one can use $\sigma_{inc,a}^{BD}$ below 0.4 MeV where bremsstrahlung is negligible, and $\sigma_{inc,a}^{KN}$ above 0.4 MeV where the total incoherent scatter for a free and bound electron is the same within 3%.

The total energy-absorption cross section, $\sigma_{tot,en}$, is useful in absorbed-dose and radiation-effect determinations. It was obtained by summing the bound electron incoherent absorption, $\sigma_{inc,a}$; the pair production absorption, $\sigma_{\chi,a}$; and the photoelectric absorption, $\sigma_{\chi,a}$, cross sections.

The accuracy of the totals varies with energy and depends upon which interaction dominates. In the region where the photoelectric interaction dominates, there may be errors as large as 100% between 0.001 MeV and the L_I edge, 25% between the L_I and K edges, and 10% between the K edge and 0.2 MeV. In the region where the incoherent interaction dominates, 0.2 to 5 MeV, the totals appear to be accurate within 5%. In the region where pair production dominates and where photonuclear cross sections are omitted, the errors may be as large as 15%. In addition, the total cross sections for hydrogen and helium below 0.01 MeV may contain order of magnitude errors.

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APPENDIX

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Supplementary Tables

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Table I

Mass Attenuatioo Coeffic)ents for Air, Water, Concrete, and Sodium lod)de

AIR (cm²/g)

	E (MeV)	(≝) ^{KN} inc,t	(声) ^{BD} inc, t	(#) ^{KN} inc, a	(声) ^{BD} inc, a	(声) ^{KN} inc, s	([#]) ^{BD} _{inc, s}	(#) _{coh}	(#) _{*n}	(片) _{×e}	(ڭ) _{×,t}	(#) _{x,a}	(^µ _p) _{r,t}	(#), a	([#] _p) _{tot,t}	([#] _p) _{tot,t.coh}	([#]) _{tot,a}	([#])tot, en
	.001	.199	.0105	.000388	.0000205	.199	.0105	1.35					3460.	3460.	3470.	3460.	3460.	3460.
	.0015	.199	.0213	.000580	.0000624	198	.0213	1.25					1090.	1090+	1100.	1090+	1090.	1090+
	-002	.198	.0336	.000769	.000130	198	.0335.	1.12					482.	482.	483.	482.	482.	482.
	.003	.198	.0571	.00115	.000331	197	.0567	+881					152.	152.	153.	152.	152.	152.
	r .003203	. 198	.0613	.00115	.000377	197	.0609	.847					127.	127.	128.	127.	127.	127.
		• • • •				• -	•						144.	143.	145.	144.	144.	143.
	.004	.197	.0775	+00152	.000596	. 195	.0771	•688					74.9	74.2	75.7	75.0	74,9	74.2
	.005	.196	.0929	.00188	.000891	.194	.0921	•545					38,5	38,2	79. <u>1</u>	38.6	38,5	38.2
	.006	.195	.105	.00224	.00120	.193	.104	.440					22+2	22.0	22.7	22.3	22.2	22+0
	.008	194	.121	.00293	.00183	.191	.119	.309					9,21	9.16	9,64	9,33	9.22	9,16
	.01	192	132	.00361	.00247	189	.129	,233					4,59	4,56	4,95	4,72	4,59	4.57
	.015	.189	+147	+00524	+00407	.184	.143	.137					1,25	1,25	1.54	1.40	1,26	1.25
	.02	186	.156	.00670	.00563	.179	.150	+0913					.497	.495	• 744	.653	.503	.401
	.03	.180	.163	•00936	+00846	.170	.154	•0483					•131	+131	.342	.293	+140	•139
	.04	.174	.163	.0116	.0109	. 162	.152	.0295					.0508	.0507	,243	•21•	.0824	• 1010
	.05	.169	.161	•0136	.0130	•155	.148	.0199					.0245	.0244	• 502	+100	0301	.031
	•06	.164	•159	+0154	+0149	.149	.144	+0143					.0135	+0134	+186	•172	+0268	+0263
	•08	. 156	.152	.0182	•0178	.137	.134	+00837					.00529	.00528	+100	+156	.0235	.023
	J	,148		+0204	.0201	<u>28</u>	.126	+00549					.00254	.00254				0261
	•15	.134	.132	•0242	.0240	.109	.108	.00250					+000694	.000644	.135	,133	• UC47	+0240
	•2	.122	.121	+0264	• 0 26 3	.0958	.0953	+00143					.000278	+000278	+123	•122	.0207	.020
	•3	.106	.106	•0286	.0286	.0777	.0773	.000650					.0000762	,0000/62	+107	+106	.0207	,0200
	.4	.0953	.0950	+0295	•0294	.0657	+0654	.000376					.0000098	,0000076	+ 0753	j <u>1</u> 073	0677	+ U 2 7
	•5	.0868	•0868	+0296	•0298	.0571	.0571	.000247					.0000031	,0000031	.0070	, , , , , , , , , , , , , , , , , , , ,	+ UZ 70	.9270
	•6	.0803	.0803	+0295	•0295	.0507	.0507	.000174					.0000031	•0000031	.0005	, 0003	0273 A289	+02**
	.8	.0705	.0705	•0289	+0287	.0417	.0419	.0000975					.0000013	.0000015		1 0105	1207	A275
	1.	.0636	.0636	0279	.0278	.0356	,0357	.0000592						0000004		AK16	A384	
	1.5	+0515	.0515	+0255	•0253	.0261	.0262	.0000014	.0000968		0000468	•0000304	0000000	0000000	0442	0447	0237	0234
	2.	.0438	•0438	+0234	•0\$35	.0207	.0207	.0000008	.000387		.00038/	+000184		•000003	0387	7 0757	0211	0204
	3.	.0346	.0346	+0200	+0197	.0140	.0148	+0000003	•00111	•0000121	.00112	+000740			.030	.030#	0194	.0187
	4 .	.0289	.0289	+0176	+0173	+0114	.0116		.00182	.0000498	+00187	+00137			027	.0275	.0182	.017
	5.	.0250	.0250	+0157	+0154	.00928	.00959		.00244	.0000970	+00253	.00202			0253	.0252	0173	016
	6.	.0221	.0221	+01+2	+0139	.00/86	+00817		•00297	.000147	+00312	.00200			0222		0162	.0157
	8.	0180	+0180	+0120	+0117	.00001	.00634		•00366	.000233	+00414	+00361			. 0203		.0155	-0146
	10.	.0154	.0124	•0105	+0102	.00480	00322		00401	00003-71 000645	004495	00443			0179	.0179	.0146	.0136
	15.	+0114	+0114	+00808	.00/63	.00330	.003/7			.000343	00030	00715			0169	0169	.0144	.0133
	20.	.00914	+00914	+00066	.00612	.00250	.00303		.00/10	0000701	000779 000EA	+00715			.0162	0162	.0145	.0129
	30.	.00000	.00000	+00+48	.00440	+00108	.00225		.00860	000930	0107	.00034			.0160	0160	.0147	.0121
	40.	.00529	.00529	+00402	+00342		00160		.0104	.00126	.0116	.00979			0160	.0160	.0150	.0126
	50.	.00442	.00442	+00340	.00280	.00102	00102		.0110	.00135	.0123	.0101			.0161	.0161	.0152	.0124
	60.	.00380	.00380	+00295	.00234	.000830	.00140		.0110	.00151	0134	.0104			.0164	.0164	.0157	.0122
-	80.	.00300	+00300	+00236	+00176	+000040	.00124		.0174	.00164	.0147	.0107			.0167	/ .0167	.0162	.0121
1	.00.	+00249	+00249	+00198	*001 38	+000215	*****		*A150	enn19#	****	+U + U /			*****		****	••••

Composition by weight: 0.755 N: 0.232 0: 0.013 Ar.

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Mass Attenuation Coefficients for Air, Water, Concrete, and Sodium Iodide

WATER (cm³/g)

E (MeV)	([#]))nc,t	([#]) ^{BD} _{inc, t}	([#]) ^{KN} _{inc, a}	(≝) ^{BD} inc,a	([#]) ^{KN} _{inc, *}	(勞) ^{BD} inc, s	(ڭ) _{coh}	(پ ٌ) _{×n}	(砦)×e	(ڭ) _{×, t}	([#] _p) _{×, a}	([#] _p) _{7,1}	(#), <u>*</u>	(#) _{tot, t}	(券) _{tot,t-coh}	([#] _p) _{tot.} a	([#]) _{tot. en}
.001	• 222	.0135	.000431	.0000263	.221	.0135	1.37				-	4020+	+020.	4020.	A020.	A020.	A020.
+0015	.221	+0271	+000644	.0000789	•221	.0270	1.27					1280.	1280.	1280.	1280.	1280.	1280.
.003	. 220	.0422	+000857	+000164	.220	.0420	1.16					566.	566.	567.	566.	566.	566.
.004	.219	.0942	.00169	.000723	.217	.0936	.712					179.	179.	180.	179.	179.	179.
.005	.218	•11Z	.00209	.00108	216	.111	.581					77.0	77.0	77.8	77.1	77.0	77.0
.006	.217	.126	+00249	.00144	.215	.125	.468					37.5	34+5	40.2	34.0	39.5	39.5
.008	.216	.144	.00327	.00219	.212	.142	.326					9.54	9.54	10.0	22.9	22.8	22.8
<u>=01</u>	.214	<u>.155</u>	.00402	.00291	.210	.153	.242					4,72	4.72	5.12	4.87	4.72	7.J4 A.72
•015	•210	.170	.00582	.00470	205	.165	+140					1+28	1.28	1.59	1.45	1.29	1.29
.03	-200	.178	+00745	+00642	.199	+171	+0924					.499	.499	.769	+676	.506	.505
.04	-194	.183	.0129	+00952	181	+174	+0489					.131	.131	.363	.314	.141	.140
.05	188	.180	.0151	.0146	.173	+1/1	.0300					.0499	.0499	•263	,233	.0628	.062
.06	.182	.177	.0171	-0166	.166	.160	.0145				•	.0238	.0238	,224	+204	.0389	.036
.08	.173	.170	.0203	.0199	.153	.150	.00847					.00602	•0131 •0131	.204	+190	.0302	.029
•1	.165	,163	.0228	+1224	,142	.148	.00556					.00240	.00240	171	+1/3	.0273	-024
•15	.148	.147	+0269	+0268	.121	+121	+00254				· · · · · · · · · · · · · · · · · · ·	000649	.000649			0276	027
•2	.136	.135	•0294	.0292	.107	.106	.00145					.000256	.000256	137	135	0297	.029
• 3	•110	+118	+0319	.0318	.0865	.0862	.000659					.0000699	.0000699	.119	.118	.0319	.031
	.100	+100	+0328	.0328	.0732	.0732	.000382					_		,106	.106	.0328	.032
.6	.0895	.0896	.0330	+0331	.0030	+0630	+000251					•		•0969	+0966	.0330	.033
.8	.0786	.0786	.0321	.0319	.0464	+0505	+000178							.0896	•0895	,0329	.032
1.	.0707	.0707	.0311	.0310	.0395	.0397	.0000622							+0787	.0786	.0321	.031
1.5	.0573	.0573	+0284	.0282	.0290	.0291	TOTOVOLL	.0000966	· · · · · · · · · · · · · · · · · · ·	.0000966	0000308					0311	,0310
2.	.0489	.0489	.0260	+0259	.0230	.0231		.000384	-	.000384	.000188			.0493	.0493	0243	.024
3.	.0385	.0385	•0222	•0220	.0163	.0165		.00111	.0000135	.00112	.000741			.0396	.0396	.0233	. 022
* •	.0322	.0322	•0195	.0193	.0127	.0129		.00183	.0000551	.00188	.00141			.0341	+0341	.0214	- 020
2.	.0278	.0278	+0174	.0172	.0103	.0106		•00242	.000108	.00253	.00202			.0303	.0303	.0200	.019
0 •	+0240	+0246	•0158	+0155	.00874	.00905		.00297	.000164	.00313	.00261			.0277	.0277	.0189	.018
10.	.0171	.0171	.0134	•0130	.00069	.00703		+00387	+000282	.00416	.00364			.0242	•0242	.0176	+016
15.	.0127	+0127	100899	.00856	.00367	.00412		00437	.000391	100497	400445				.0221		.015
20	.0102	.0102	.00740	.00689	.00278	.00329		.00711	.000797	+00060	.00004			•0193	+0193	+0156	+0146
30.	.00740	.00740	.00552	.00497	.00187	.00243		.00853	.00104	.0095A	.00851			+0101	+0101	+0153	+0141
40.	.00590	.00590	+00448	.00390	.00141	.00199		.00957	.00123	.0108	.00931			+0170	-01/0	+0151	•013
50.	.00490	.00490	.00378	.00318	.00113	.00172		.0104	.00138	.0117	.00983			•0166	*010*	+0153	-013
60.	.00422	+00422	·00328	+00268	.000946	.00154		+0109	.00150	.0124	.0101			+0166	.0166	.0157	-0121
80.	.00334	.00334	•00262	•00203	.000711	.00131		.0118	+00168	.0135	.0105			+0168	+0168	.0161	.012
100+	.00277	.00277	.00220	•00161	.000573	•00116		.0125	+00183	+0144	.0107			+0171	+0171	.0166	•0121

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Mass Attenuation Coefficients for init, Water, Concrete, and Sodium Iodide

CONCRETE (cm¹/g)

E (MeV)	(劳) ^{KN} inc,t	([#] ₅) ^{BD} _{inc,t}	([#]) ^{KN} _{inc, a}	(声) ^{BD} inc, a	([#]) ^{KN} inc,s	(声) ^{BD} inc, s	(뿔) _{coh}	(≝) _{×n}	([#] _₽)×e	(^{یل}) _{×, t}	([#] _p) _{×, a}	([#] _p) _{7,t}	(#),	(#)	(#)	(#).	(Ë).
.001 Na K .001073	•200 •199	•0112 •0125	.000384	9.0000219	.199	.0112	2.11					3550 +	3550.	3550.	3550+	3550.	3550 •
На к. •001305	.199	.0173	+000505	5 .0000436	.199	.0172	2.00					2950. 3090.	2950. 3090.	2950. 3090.	2950. 3090.	2950. 3090.	29 5 0. 3090.
+0015	.199	.0211	.000581	+0000614	.199	.0210	1.94					1760.	1760+	1750+	1740+	1740.	1740.
St K .001839	.199	.0223	+00060-	• • • • • • • • • • • • • • • • • • • •	.199	.0222	1.92					1060.	1060.	1060.	1060.	1060.	1060.
.002	.199	.0312	.000772	••••••	.198	•0278	1.81					796. 1940.	793. 1890.	798. 1940	796.	796	793.
S K .002472	.198	.0404	+000950	.000191	.197	.0403	1.61					1520.	1490. 827.	1530.	1520.	1520.	1490.
.003 K K.003607	.198 .198	.0501 .0612	.00115	.000290	.197	.0497	1.45					672. 491.	829. 483.	674. 492.	672. 491.	672.	829.
.004	.197	.0663	.00152	.000509	.196	.0659	1.19					289. 312.	287. 307.	290. 314.	289. 312.	289 312.	287.
Ca K .004037	.197	•0671	•00153	.000521	.196	.0667	1.18					234. 225.	229.	275. 226.	234. 725.	234.	229.
.005 .006	.196 .196	•0799 •0908	.00188 .00224	.000765 .00104	•195 •194	.0792 .0898	+995 -840					310.171.	296. 164.	311. 172.	310. 171.	310. 171.	296. 164.
Fe K .007112	.195	•0997	•00263	•00137	.192	.0983	.708					63,5	61.8	103.	103.	102. 63.5	98.9 61.8
•01	,194	•108 •119	+00294 +00362	•00163 •00224	.191 .189	.106 .117	•624 •481					49.0	47.0	49.8	68.4 49.1	68.3 49.0	65.2 47.0
•015 •02	.189 .186	•137 •147	•00523 •00671	.00380 .00531	.184 .180	•133 •142	• 284 • 187		·····			7.84	7,65	8,26	7,98	7,85	7,65
.03	+180	.156	.00937	.00811	.171	.148	.100					3,27	3,21	3,60	3.42	3,28	3,21
.05	.169	•158 •157	•0116 •0136	+0105	.163 .156	+147	.0626					.373	.369	.593	.531	. 384	• 360
•06	.164	.155	+0154	.0146	,149	.141	.0310					+184	+182	•384	+341	•198	•195
•08	.156	+150	+0183	+0176	.138	.133	.0184					+0418	+0415	•210	•259	.119	•117
.15	.134	.132	+0243	+0239	.109	.108	+00557									.0413	.0407
.2	.122	+121	+0265	+0262	.0960	.0950	.00320					+00363	+00581	+143	•138	•0301	+0298
.4	.0953	.0952	+0287	+0286	+0778	.0774	.00145					.000690	.000689	+108	.107	.0294	.0293
•5	.0871	.0869	+0297	.0298	.0573	.0572	+000541					+000275	+000275	• 0963	•0954	.0298	.0298
•6	•0806	.0805	+0296	+0295	.0509	.0509	.000377					+0000891	+000145	+05/8	+0871	.0298	+ 0299
1.	.0637	.0636	+0289	+0287	.0418	.0421	.000214					+0000426	+0000426	•0710	+0707	.0289	.0287
1.5	.0516	.0516	+0256	+0254	.0261	.0263	+0000458	+000154	u	.000154	.0000491			0637		.0280	
2.	+0441	+0441	.0234	.0232	.0207	.0209	.0000259	.000613		.000613	.000298	.0000048	+0000048	+0314	+0510	.0257	+0254
4.	.0290	+0290	+0200	+0197	+0147	.0150	+0000041	+00174	+0000121	.00175	.00116	+0000022	.0000022	.0364	+0364	.0218	+0208
5.	.0250	.0250	+0157	.0152	.00931	.00976	.00000023	.00381	.0000498	+00292	.00217	+0000004	+0000004	.0319	.0319	.0205	.0194
6.	.0221	.0221	+0142	•0138	.00787	.00837	.0000002	.00466	+000148	.00481	.00396	•0000003	+0000003	+0289	+0289	+0196	+0183
10.	.0154	.0154	+0121	+0115	.00603	.00656		.00604	.000254	.00630	.00543	+000002	.000002	+0244	+0244	.0184	-0170
15.	.0114	.0114	.00810	+00744	.00331	.00397		.000722	4000352	<u> </u>			+0000001	.0230	,0230	.0181	
20.	.00915	.00915	.00666	.00592	.00250	.00323		.0111	+000704	.0118	.0102			+0213	+0213	+0180	+0162
40.	.00530	+000007	+00497	+00420	.00168	.00246		.0133	.000938	.0142	.0119			.0209	.0209	.0192	+0105
50.	.00442	.00442	.00340	+00261	.00102	.00181		+0148	+00111	•0159	.0128			+0212	.0212	.0200	+ 0160
60.	.00381	.00381	+00295	.00217	.000852	.00164		.0169	.00135	+0173	.0133			.0217	+0217	+0207	+0159
80. 100.	+00301	.00301	+00236	.00160	.000641	+00141		+0182	.00151	.0197	.0138			.0227	+0221	.0212	.0157
			+00178	+00123	*****	.00127		.0193	•00163	.0210	.0139			+0235	+0235	+0230	+0151

Composition by weight: 0.0056 H. 0.4983 0, 0.0171 Na, 0.0024 Hg, 0.0456 Al, 0.3158 Si, 0.0012 S, 0.0192 K, 0.0826 Ca, 0.0122 Fa.

Mass Atteonstion Coefficients for Air, water, Concreta, and Sodium Iodide

SODIUM IODIDE (cm³/g)

E (MeV)	([#]) ^{KN} _{inc,t}	(¢) ^{BD} _{inc,t}	$\left(\frac{\mu}{\rho}\right)_{\mathrm{inc},a}^{\mathrm{KN}}$	(≝) ^{BD} inc, a	(چ) ^{KN} inc, s	(چ) ^{BD} inc, s	(#) _{coh}	(چٌ) _{×n}	([#] _p) _{×e}	(ڭ) _{×, t}	(^μ _ρ) ×, =	$\left(\frac{\mu}{\rho}\right)_{\tau,t}$	([#] _p) _{7,2}	([#]) _{tot,t}	(g) _{tot,t-coh}	([#]) _{tot.a}	([#] _p) _{tot, en}
.001	+170	.00578	.000332	.0000113	.170	.00577	7.41					9310.	9310.	9320. 7930	9310. 7930.	9310. 7920.	9310.
I MI .001072	•170	.00043	+000356	•0000135	•170	.00643	7 . 36					9890.	9890	9900	9890	9890	9890
Ma K .001073	.170	.00643	.000356	+0000135	•170	.00643	7.36				•	9890.	4890.	9900.	9890.	9890	9890
.0015	.170	.0104	+000495	.0000302	.169	.0103	7.02					4530.	4520	4540	4530.	4530	4520
.002	.170	.0151	.000660	.0000587	.169	.0151	6.60					2110.	2110.	2120.	2110.	2110.	2110.
.003	.169	.0242	.000980	.000140	.168	.0241	5.72					712.	712.	718.	712.	712.	712.
.004	.168	.0327	+00130	+000251	.167	.0324	5.01					337.	331.	337.	332.	332.	331.
1 L _{III} .004557	.168	.0369	+00147	.000323	.166	.0366	4.63					234. 766.	234. 681.	239.	234. 766.	234. 766.	234. 681.
I LTI .004852	.168	.0391	.00157	.000363	.166	.0387	4.46					625.	561.	630 863	626	625	561.
.005	.168	.0401	.00161	.000385	.166	.0398	4.38					793	712.	797	793	793	712
I L005188	.168	.0415	.00166	.000412	.166	.0410	4.29					727.	654.	731.	727.	727	654.
					145		3 86					831.	747.	836. 565.	831.	A31. 561.	747. 512.
.006	+107	+0408	+00191	+000536	163	+040J	3.00					259.	242.	262	259	259	242.
•000	145	.0676	.00251	-00127	.162	-0665	2.46					140.	132.	142,	140.	j40,	132.
1015	162	+0843	+00447	.00233	.157	.0821	1.60					45.7	44,1	47,3	45.7	45,7	44.1
.02	.159	.0950	+00573	.00343	.153	.0914	1.13					20.6	20.0	21.8	20.6	20.6	20.0
.03	.154	.107	.00800	.00557	,146	.102	+641					6,50	6,38	7,25	6.61	6,51	6,38
1 K .033170	.152	.109	+00864	.00621	.143	.103	• 550					4.87 30.3	4.79 10.7	5,53 31.0	4,98	4,88	10.7
.04	.149	.113	.00994	.00753	.139	.106	.414					18.3	8.47	18.8	18.4	18,3	8.47
• 05	.145	.116	+0116	.00938	.133	.107	•293					10.0	5,72	10.4	10+1	10.0	3.73
• 06	.140	.118	.0132	.0110	.127	.107	+218					6,07	3,90	2 08	2.85	2 75	3,72
• 08	.133	•117	.0156	.0137	+117	.103	+132					2.14	1.15	1.67	1.58	1.48	1.17
<u>•</u>		-115	.01/5		109	0991	.0409					.470	402	.620	.579	491	.422
+13	104	.100	.0226	.0217	.0820	.0786	.0237					.209	.187	, 333	,310	,232	.208
• • • • •	000	.0891	.0245	.0240	.0665	.0652	.0108					.0671	.0623	.167	.156	.0917	.0863
	.0615	.0802	+0252	.0248	.0563	.0554	.00614					.0316	.0299	.118	.112	.0568	.0547
.5	.0743	.0738	.0254	.0251	.0490	.0485	.00397					.0177	.0169	.0955	.0915	.0430	+0420
.6	.0689	.0685	.0253	.0250	.0435	.0435	.00275					.0113	.0109	.0824	.0798	.0300	.0.337
.8	.0602	.0602	+0247	+0242	.0357	.0360	.00156					.005/5	.00550	+0013	.0037	,0305 A375	.0266
1.	.0543	.0539	.0239	.0230	+0304	.0309	.00100		<u></u>			60170		. 0469	.0464	. 0242	.0231
1.5	.0441	.0440	+0218	.0212	.0223	.0228	+000+20	+000705)	+000705	+000216	.00104	00103	.0413	.0411	0235	.0213
2.	+0310	+03/6	•0200	+0172	.0175	.0136	-000112	.00635	.0000103	.00635	.00393	.000563	.000558	.0366	.0365	.0240	.0205
3.	.0270	+U290	.0150	.0138	.00971	.0109	.0000627	.0100	.0000426	.0101	.00689	.000368	.000366	,0353	.0352	0255	.0210
	-0214	.0214	.0134	.0120	.00796	.00931	.0000410	+0131	.0000835	.0132	.00948	.000274	.000273	.0348	.0348	.0269	.0218
6.	0189	.0189	.0122	.0107	.00674	.00818	.0000287	.0156	.000129	.0157	.0117	.000217	.000216	.0349	,0348	.0281	.0220
	.0154	.0154	.0103	.00873	.00514	.00671	.0000158	•0197	.000219	.0199	.0151	.000152	.000151	.0355	.0355	0304	.0240
10.	.0132	.0132	+00898	.00725	,00416	.00590	.0000098	.023)	.000300	.0234	.0179	.000117					02 32
15.	.00975	.00975	+00690	+00527	.00282	.00446	+0000045	+0299	+000471	.0304	.0224	.0000.33	,0000735	.0402	.0472	0412	.0287
20.	.00781	+00781	.00568	+00407	.00214	.00374		+0349	+000597	+0355	+0245	.0000330	.0000345	.0481	.0483	0469	0296
30.	.00568	.00568	+00425	+00268	+00144	.00299		+0410	+000780	+0720	+0209	.0000253	0000253	.0514	.0518	0507	0292
40.	.00452	+00452	+00344	+00194	.00109	+00238		.0501	+000717	.0511	. 0272	.0000201	.0000201	.0549	.0549	.0540	,0287
50.	+003/7	+003/7	+00291	+00149	.000724	.00206		.0526	.00109	.0536	.0267	.0000165	.0000165	0569	0569	0562	.0279
60.	.00254	+00325	+00202	.000828	.00054A	.00174		.0568	.00122	.0579	.0263	.0000121	.0000121	.0604	.0604	n599	+0271
100.	.00213	.00213	.00169	.000613	.000439	.00152		.0598	.00131	.0612	.0255	.000096	.0000096	.0634	.0634	,0629	+0201

22

Table II

Constants Used to Calculate Photoelectric Cross Sections at Energy Levels

Energy level	n	k
K upper	2.04	0,00865
lower	1.63	0.0220
L _I upper	1.9	0.0175
lower	2.0	0.00650
L _{II} upper	2.0	0.00670
lower	2.0	0.00485
L _{III} upper	2.0	0,00525
lower	1.5	0.115
M _I upper	1.8	0.0290
lower	1.7	0.064
M _{II} upper	1.7	0,069
lower	1.7	0.058
M _{III} upper	1.7	0.065
lower	1.7	0.0565
M _{IV} upper	1.7	0.068
lower	1.7	0.060
M _V upper	1.7	0.061
lower	1.7	0.0195
N _I upper	1.7	0.033

Table III

X-ray Atomic Energy Levels in kev

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z	K	LI	LII	LIII	MI	M _{II}	M _{III}
1	.014	<u> </u>					
2	.025	.001					
3	.055	.003	.001	.001			
4	.111	.006	.002	.002			
5	.188	.009	.004	.004			
6	.284	.013	.005	.005			
7	.400	.018	.007	.007			
8	.533	.024	.009	.009			
9	.687	.032	.012	.012			
10	.867	.045	.018	.018	.001		
11	1.073	.063	.032	.032	.002		
12	1.305	.088	.050	.050	.003		
13	1.560	.118	.073	.073	.005	001	0.01
14	1.839	.151	.099	.100	.007	.001	.001
15	2.144	.188	.130	.130	.010	.002	.002
16	2.472	.227	.165	.165	.014	.004	.004
17	2.824	.270	.203	.202	.018	.007	.007
18	3.203	.320	.247	.245	.025	.012	.012
19	3.607	.377	.296	.294	.034	.018	.018
20	4.037	.438	.350	.346	.044	.025	.025
21	4.491	.500	.406	.401	.053	.032	.032
22	4.966	.563	.462	.456	.060	.035	.035
23	5.465	.628	.521	.513	.066	.038	.038
24	5.989	.696	.584	.575	.074	.042	.042
25	6.539	.769	.651	.640	.084	.047	.047
26	7.112	.846	.721	.708	.093	.053	.053
27	7.709	.926	.794	.779	.101	.060	.060
28	8.332	1.008	.871	.854	.111	.067	.067
29	8.981	1.096	.953	.933	.122	.074	.074
30	9.659	1.193	1.043	1.020	.138	.088	.087
31	10.367	1.300	1.142	1.115	.158	.106	.103
32	11.104	1.413	1.248	1.217	.180	.126	.121
33	11.867	1.530	1.359	1.323	.204	.146	.140
34	12.658	1.652	1.475	1.434	.230	.168	.161
35	13.474	1.782	1.597	1.551	.257	.191	.184
36	14.323	1.921	1 .72 7	1.675	.288	.219	.210
37	15.200	2.065	1.863	1.805	.322	.248	.239
38	16.105	2.216	2.007	1.940	.358	.280	.269
39	17.038	2.373	2.155	2.079	.394	.312	.299
40	17.998	2.533	2.307	2.223	.430	.344	.330
41	18.986	2.698	2.464	2.370	.467	.377	.361
42	20.000	2.867	2.625	2.521	.505	.410	.392
43	21.044	3.043	2.793	2.677	.545	.445	.426
44	22.117	3.224	2.967	2.838	.585	.483	.461
45	23.220	3.412	3.146	3.004	.627	.521	.496
46	24.350	3.605	3.330	3.174	.670	.559	.532
47	25.514	3.806	3.524	3.351	./18	.602	.571
48	26.711	4.018	3.727	3.537	.770	.651	.616
49	27.940	4.238	3.938	3.730	.826	.702	.664
50	29.200	4.465	4.156	3.929	.884	.756	.714

X-ray Atomic Energy Levels in keV

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<u>z</u>	К	L _I	LII	LII	M	M _{II}	M _{III}
51	30.491	4,698	4.381	4.132	. 944	.812	.766
52	31.814	4,939	4,612	4.341	1.006	.870	.819
53	33.170	5,188	4.852	4.557	1.072	.931	.876
54	34.561	5.445	5.102	4.782	1.143	997	.936
55	35,985	5.713	5.360	5 012	1.217	1 065	.998
		01120		5.022	20027	1.005	
56	37.441	5.987	5.623	5.247	1.291	1.135	1.061
57	38.925	6.266	5.891	5.484	1.363	1.204	1.124
58	40.443	6.549	6.164	5.723	1.435	1.273	1.185
59	41.991	6.835	6.440	5.964	1.505	1.337	1.242
60	43.569	7.128	6.722	6.208	1.575	1.403	1.298
61	45.184	7.428	7.013	6.459	1.648	1.471	1.357
62	46.834	7.736	7.312	6.716	1.723	1.541	1.419
63	48.519	8.052	7.618	6.977	1.800	1.614	1.481
64	50.239	8.375	7.930	7.243	1.881	1.688	1.544
65	51.996	8.708	8.252	7.514	1.963	1.765	1.610
66	53.788	9.046	8.580	7.790	2.046	1.842	1.676
67	55.618	9.394	8.918	8.072	2.130	1.923	1.743
68	57.486	9.752	9.264	8.358	2.217	2.006	1.812
69	59.390	10.116	9.617	8.648	2.306	2.090	1.881
70	61.332	10.489	9.978	8.943	2.398	2.175	1.950
71	63.316	10.874	10.349	9.245	2.494	2.264	2.024
72	65.345	11.272	10.739	9.560	2.600	2.364	2.108
73	67.416	11.680	11.136	9.880	2.709	2.469	2.194
74	69.525	12.098	11.541	10.204	2.820	2.575	2.281
75	71.676	12.528	11.957	10.534	2.934	2.682	2.368
76	73.871	12.969	12.385	10.871	3.052	2.792	2.457
77	76.111	13.419	12.824	11.215	3.173	2.908	2.551
78	78.395	13.880	13.273	11.564	3.297	3.027	2.645
79	80.725	14.353	13.734	11.919	3.425	3.150	2.743
80	83.102	14.842	14.209	12.283	3.562	3.280	2.847
81	85.530	15.346	14.697	12.656	3.704	3.416	2.956
82	88.004	15.861	15.200	13.035	3.851	3.554	3.066
83	90.526	16.391	15.714	13.420	4.000	3.696	3.177
84	93.105	16.936	16.244	13.814	4.156	3.849	3.295
85	95.730	17.491	16.785	14.214	4.317	4.006	3.416
86	98.404	18.055	17.337	14.619	4.482	4.164	3.538
87	101.137	18.639	17.904	15.030	4.652	4.325	3.664
88	103.922	19.237	18.484	15.446	4.824	4.490	3.791
89	106.759	19.845	19.083	15.870	5.002	4.658	3.918
90	109.651	20.466	19.693	16.300	5.182	4.830	4.046
91	112.601	21.105	20.314	16.733	5.364	5.003	4.174
92	115.606	21.759	20.948	17.170	5.548	5.181	4.304
93	118.670	22.427	21.600	17.613	5.735	5.366	4.435
94	121.797	23.109	22.270	18.063	5.927	5.555	4.568
95	124.990	23.812	22.958	18.519	6.122	5.748	4.703
96	128.253	24.535	23.663	18.982	6.322	5.945	4.839
97	131.590	25.275	24.385	19.452	6.526	6.147	4.977
98	135.005	26.030	25.125	19.929	6.735	6.353	5.117
99	138.502	26.803	25.883	20.414	6.949	6.564	5.259
100	142.085	27.594	26.659	20.907	7.168	6.780	5.403

X-ray Atomic Energy Levels in keV

z	MIV	MV	NI	N _{II}	NIII	NIV	NV
1							
2							
3							
4 ·							
5							
6 7							
8							
9							
10							
11							
12							
13							
14							
15				•			
16							
17							
10							
20							
21							
22							
23							
24	.001	.001					
25	.002	.002					
26	.003	.003					
27	.004	.004					
28	.005	.005					
29	.007	010	001				
30	.010	.010	.001				
31	.017	.017	.002	0.01	001		
32	.028	.028	004	.001	.001		
33	.055	.055	.012	.002	.002		
35	.072	.071	.018	.007	.007		
36	.091	.090	.024	.010	.010		
37	.112	.110	.031	.015	.015		
38	.135	.133	.038	.020	.020		
39	.158	.156	.044	.025	.025		
40	.182	.180	.051	.029	.029		
41	.206	.204	.057	.032	.032		
42	.230	.228	.063	.035	.035		
43	· 256 284	.453 280	.075	.039	.038	001	001
44 45	.312	.307	.081	.048	.046	.002	.002
16	240	335	087	054	051	003	003
40 47	.340	.367	.096	.061	.057	.005	.003
48	.410	.404	.108	.068	.064	.009	.009
49	.451	.443	.122	.077	.073	.016	.016
50	.493	.485	.137	.089	.085	.024	.024

X-ray Atomic Energy Levels in keV

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	MIV	v	NI	NII	N _{III}		NV
51	. 537	. 528	.152	.104	.097	.031	.031
52	.583	.572	.168	.120	.110	.040	.040
53	.633	.619	186	.135	.126	.050	.050
54	.686	.672	.208	.152	.143	.063	.063
55	.740	.726	.231	.172	.162	.079	.079
56	.794	.780	.253	.192	.180	.092	.092
57	.848	.832	.271	.206	.192	.099	.099
58	.901	.883	.287	.221	.204	.105	.105
59	.951	.931	.302	.235	.216	.112	.112
60	1.001	.978	.317	.247	.227	.117	.117
61	1.052	1.027	.332	.260	.237	.122	.122
62	1.106	1.078	.347	.271	.247	.127	.127
63	1.161	1.131	.363	.284	.257	.134	.134
64	1.217	1.185	.379	.300	.269	.140	.140
65	1.274	1.240	.397	.316	.281	.148	.147
66	1.332	1.295	.416	.332	.293	.156	.154
67	1.392	1.351	.433	.349	.306	.165	.161
68	1.453	1.409	.451	.365	.320	.176	.169
69	1.515	1.468	.471	.382	.335	.187	.177
70	1.577	1.528	.492	.397	.351	.198	188
71	1.641	1.591	.515	.420	.367	.210	.199
72	1.716	1.662	.539	.439	.384	.224	.213
73	1.793	1.735	.566	.465	.404	.240	.228
74	1.871	1.809	.595	.492	.424	.256	.242
75	1.950	1.883	.625	.518	.445	.273	.258
76	2.031	1.960	.656	.546	.468	.291	.274
77	2.116	2.040	.688	.577	.493	.311	.293
78	2.202	2.122	.724	.609	.519	.331	.313
79	2.291	2.206	.762	.644	.546	.353	.334
80	2.385	2.295	.801	.682	.574	.380	.360
81	2.485	2.389	.845	.723	.608	.407	.386
82	2.586	2.484	.891	.764	.643	.435	.413
83	2.689	2.581	.939	.805	.679	.464	.440
84	2.798	2.683	.990	.851	.707	.498	.473
85	2,909	2.787	1.042	.898	.740	.533	.506
86	3.022	2.892	1.095	.948	.772	.568	.541
87	3.136	3.000	1.150	.999	.810	.603	.576
88	3.253	3.109	1.208	1.052	.858	.638	.610
89	3.371	3.219	1.269	1.110	.910	.675	.644
90	3.490	3.332	1.330	1.168	.968	.713	.676
91	3.609	3.442	1.385	1.224	1.007	.746	.708
92	3.728	3.552	1.441	1.273	1.045	.780	.740
93	3.850	3.664	1.501	1.328	1.087	.816	.772
94	3.973	3.778	1.562	1.383	1.130	.849	.801
95	4.100	3.894	1.625	1.439	1.170	.881	.828
96	4.230	4.012	1.689	1.496	1.207	.912	.853
97	4.364	4.132	1.755	1.555	1.245	.943	.877
98	4.502	4.254	1.822	1.616	1.285	.973	.902
99	4.644	4.378	1.891	1.680	1.327	1.001	.927
T00	4.790	4.304	1.961	1.747	1.370	1.027	.952

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X-ray Atomic Energy Levels in keV ov NVII o_{IV} NVI oI o_{II} o_{III}

.001	.001	.001
.004	.002	.002

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X-ray Atomic Energy Levels in keV

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Z	vi	Nvii	I	oII	° _{III}	o _{IV}	ov
51			.007	.003	.003		
5 2			.012	.005	005		
53			016	.007	007		
54			.018	.009	009		
55			.020	.011	.011		
56			001	014	010		
57			.021	.014	.013		
58			024	016	.014		
59			.024	.010	.015		
60			025	.019	.016		
61				020	.017		
62			.029	.020	.017		
63			.031	.021	.018		
64			.033	.022	.019		
65			.036	.024	.020		
05			.039	.025	.021		
66	.001	.001	.042	.026	.022		
67	.002	.002	.045	.028	.023		
68	.003	.003	.049	.029	.025		
69	.005	.005	.053	.031	.026		
70	.008	.008	.057	.033	.028		
71	.011	.011	.061	.036	.029		
72	.017	.017	.066	.039	.031		
73	.025	.025	.071	.043	.033		
74	.036	.034	.076	.047	.036	.001	.001
75	.044	.041	.082	.051	.039	.002	.002
76	.053	.050	.088	.055	.042	.003	.003
77	.063	.060	.095	.060	.046	.004	.004
78	.074	.071	.102	.065	.052	.005	.005
79	.086	.083	.110	.072	.058	.008	.008
80	.102	.098	.121	.080	.066	.012	.011
81	.123	.116	.134	.091	.075	.015	.013
82	.143	.137	.147	.104	.086	.020	.018
83	.162	.157	.161	.117	.098	.026	.024
84	.183	.178	.177	.133	.108	.034	.031
85	.209	.204	.195	.150	.120	.042	.037
86	.240	.234	.213	.165	.131	.053	.044
87	.270	.263	.233	.180	.142	.067	.054
88	.296	.288	.253	.198	.153	.077	.067
89	.320	.312	.271	.214	.164	.087	.079
90	.344	.335	.290	.230	.175	.094	.088
91	.368	.358	.310	.247	.185	.100	.092
92	.392	.381	.324	.265	.195	.105	.096
93	.415	.404	.340	.283	.206	.109	.101
94	.440	.428	.352	.300	.217	.116	.106
95	.466	454	.369	.315	.228	.123	.112
96	.493	.481	.382	.331	.239	.129	.118
97	.521	.509	.398	.347	.250	.135	.124
98	.551	.538	.413	.363	.260	.142	.130
99	.582	.568	.430	.378	.270	.149	.136
100	.614	.599	.448	.393	.280	.155	.142

Table IV

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K X-ray Energies in keV

z	$K - \Gamma^{II} = \sigma^{8}$	$K - L_{III} = \alpha_1$	$\frac{K - M_{II}}{\beta_3}$	$\frac{K - M_{III} - \beta_1}{\beta_1}$	$\frac{K - M_{IV} - \beta s/1}{2}$	K - M _V = β _{8/2}
1						
2	054	054				
3	.054	.054				
4	.109	194				
5	.104	.104				
6	.279	.279				
7	.393	.393				
8	.524	.524				
9	.675	.675				
10	.849	.849				
11	1.041	1.041				
12	1.255	1.255				
13	1.487	1.487				
14	1.740	1.739	1.838	1.838		
15	2.014	2.014	2.142	2.142		
16	2.307	2.307	2.468	2.468		
17	2.621	2.622	2.817	2.817		
18	2.956	2.958	3.191	3.191		
19	3.311	3.313	3.589	3.589		
20	3.687	3.691	4.012	4.012		
21	4.085	4.090	4.459	4.459		
22	4.504	4.510	4.931	4.931		
23	4.944	4.952	5.427	5.427	F 000	F 000
24	5.405	5.414	5.947	5.947	5.988	5.900
25	5.888	5.899	6.492	6.492	0.537	0.537
26	6.391	6.404	7.059	7.059	7.109	7.109
27	6.915	6.930	7.649	7.649	7.705	7.705
28	7.461	7.478	8.265	8.265	8.327	8.327
29	8.028	8.048	8.907	8.907	8.974	8.974
30	8.616	8.639	9.571	9.572	9.649	9.649
31	9.225	9.252	10.261	10.264	10.350	10.350
32	9.856	9.887	10.978	10.983	11.076	11.076
33	10.508	10.544	11.721	11.727	11.826	11.826
34	11.183	11.224	12.490	12.497	12.603	12.603
35	11.877	11.923	13.283	13.290	13.402	13.403
36	12.596	12.648	14.104	14.113	14.232	14.233
37	13.337	13.395	14.952	14.961	15.088	15.090
38	14.098	14.165	15.825	15.836	15.970	15.972
39	14.883	14.959	16.726	16.739	16.880	16.882
40	15.691	15.775	17.654	17.668	17.810	11.818
41	16.522	16.616	18.609	18.625	18.780	18.782
42	17.375	17.479	19.590	19.608	19.770	19.772
43	18.251	18.367	20.599	20.018	20./88	20./91
44	19.150	19.279	21.634	21.656	21.833	21.83/
45	20.074	20.216	22.699	22.724	22.908	22.913
46	21.020	21.176	23.791	23.818	24.010	24.015
47	21.990	22.163	24.912	24.943	25.141	25.147
48	22.984	23.174	26.060	26.095	26.301	26.307
49	24.002	24.210	27.238	27.276	27.489	27.497
50	25.044	25.271	28.444	28.486	28.707	28./15

K X-ray Energies in keV

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	$\frac{11}{K - r^{11}} = \sigma^{5}$	$\frac{K - L_{III} = \alpha_1}{\alpha_1}$	$\frac{K - M_{II}}{M_{II}} = \beta_3$	$\frac{K - M_{III}^{2}}{\beta_{1}} \beta_{1}$	$\frac{K - M_{IV}^{2}}{\beta_{5/1}}$	$\frac{K - M_{e} = \beta_{B/2}}{V}$
51	26.110	26.359	29.679	29.725	29.954	29.963
52	27.202	27.473	30.944	30,995	31.231	31.242
53	28.318	28.613	32.239	32.294	32.537	32,551
54	29 459	29.779	33,564	33.625	33.875	33.889
55	30.625	30.973	34.920	34.987	35.245	35,259
55						
56	31.818	32.194	36.306	36.380	36.647	36.661
57	33.034	33.441	37.721	37.801	38.077	38.093
58	34.279	34.720	39.170	39.258	39.542	39.560
59	35.551	36.027	40.654	40.749	41.040	41.060
60	36.847	37.361	42.166	42.271	42.568	42.591
61	38 171	38.725	43 713	43.827	44,132	44.157
62	30.572	40 118	45 293	45 415	45 728	45 756
62	40 901	41 542	45.205	47 038	43.720	47 388
03	40.901	41.342	40.905	47.030	40.000	47.300
64	42.309	42.990	40.551	40.095	49.022	49.034
65	43.744	44.482	50.231	50.386	50.722	50.750
66	45.208	45.998	51.946	52.112	52.456	52.493
67	46.700	47.546	53.695	53.875	54.226	54.267
68	48.222	49.128	55.480	55.674	56.033	56.077
69	49.773	50.742	57.300	57.509	57.875	57.922
70	51.354	52.389	59.157	59.382	59.755	59.804
71	52,967	54.071	61.052	61.292	61.675	61.725
72	54.606	55,785	62,981	63.237	63,629	63,683
73	56,280	57.536	64 947	65.222	65.623	65,681
73	57 984	59 321	66 950	67 244	67 654	67 716
75	59.719	61.142	68.994	69.308	69.726	69.793
	61 406	63 000	71 070	71 414	71 040	71 011
76	61.486	64.000	71.079	71.414	71.840	71.911
77	63.28/	04.890	73.203	/3.560	73.995	74.071
78	65.122	66.83I	75.368	75.750	76.193	76.273
79	66.991	68.806	77.575	77.982	78.434	78.519
80	68.893	70.819	79.822	80.255	80.717	80.807
81	70.833	72.874	82.114	82.574	83.045	83.141
82	72.804	74.969	84.450	84.938	85.418	85.520
83	74.812	77.106	86.830	87.349	87.837	87.945
84	76.861	79.291	89.256	89.810	90.307	90.422
85	78.945	81.516	91.724	92.314	92.821	92.943
86	81.067	83,785	94,240	94,866	95.382	95.512
87	83.233	86,107	96.812	97.473	98.001	98.137
88	85 438	88.476	99.432	100 131	100 669	100.813
00	97 676	90 889	102 101	102 841	103 388	103 540
90	89,958	93.351	104.821	105.605	106.161	106.319
	00.007	05 060	107 500	100 407	100,000	100 150
91	92.287	95.000	107.598	108.427	108.992	112 054
92	94.058	30.430	110.425	111.302	111.070	112.054
93	97.070	101.057	113.304	114.235	114.820	115.006
94	99.527	103./34	116.242	117.229	117.824	118.019
95	102.032	106.471	119.242	120.287	120.890	TST-080
96	104 590	109.271	122.308	123.414	124.023	124,241
07	107 205	112 138	125 442	126 613	127 225	127 458
97	100 000	115 076	108 650	120.013	130 503	130 751
98	110 610	110 000	120.032	122.000	133 050	134 134
99	TT5.01A	101 120	T3T.238	133.243	T22.020	107 501
100	115.426	121.1/8	135.305	130.682	T21.525	131.281

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K X-ray Energies in keV

к.	$-N_{II} = \beta_2/2$	<u> </u>	III ^{≖ β} 2/8	К –	^N Iv ⁼	β _{4/1} μ	< - N _V =	β∔/≈	К –	0 ₁₁ =	β _{2/3}	К –	° _{III} ≖	⁸ .a/
			•											
					•									
	11.103	11. 11	103											
	12.654	12.	654											
	13.467	13.	467											
	14.313	14.	313											
	15.185	15.	185											
	16.085	16.	085											
	17.013	17.	013											
	T1.202	±/.	202											
	18.954	18.	954											
	73.002 73.302	21 19.	202											
	22.074	22.	075	22	.116		22.1	16						
	23.172	23.	174	23	.218		23.2	18						
	24.296	24 -	299	24	.347		24.3	47						
	25.453	25.	457	25	.509		25.5	09						
	26.643	26.	647	26	.702		26.7	02						
	27.863	27.	867	27	.924		27.9	24		27.93	9	2	7.939	
	5A°TTT	29.	115	- 29	.176		29.1	16		29.19	5	2	.a.138	

K X-ray Energies in keV

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	$K - N_{II}^{-\beta_{2/1}}$	$\frac{K - N_{III} - \beta_{2/2}}{M}$	$\frac{K - N_{IV}}{N} = \frac{\beta_4}{1}$	$K - N_V = \beta_{4/B}$	$K - O_{II} = \beta_2/3$	$K - O_{III} = \beta_2/4$
51	30.387	30,394	30,460	30.460	30.488	30.488
52	31.694	31,704	31.774	31.774	31.809	31.809
53	33.035	33.044	33.120	33.120	33.163	33.163
54	34,409	34.418	34.498	34,498	34.552	34,552
55	35.813	35.823	35.906	35.906	35.974	35.974
56	37.249	37.261	37.349	37.349	37.427	37.428
57	38.719	38.733	38.826	38.826	38.910	38.911
58	40.222	40.239	40.338	40.338	40.427	40.428
59	41.756	41.775	41.879	41.879	41.973	41.975
60	43.322	43.342	43.452	43.452	43.550	43.552
61	44.924	44.947	45.062	45.062	45.164	45.167
62	46.563	46.587	46.707	46.707	46.813	46.816
63	48.235	48.262	48.385	48.385	48.497	48.500
64	49.939	49.970	50.099	50.099	50.215	50.219
65	51.680	51.715	51.848	51.849	51.971	51.975
66	53.456	53.495	53.632	53.634	53.762	53.766
67	55.269	55.312	55.453	55.457	55.590	55.595
68	57.121	57.166	57.310	57.317	57.457	57.461
69	59.008	59.055	59.203	59.213	59.359	59.364
70	60.935	60.981	61.134	61.144	61.299	61.304
71	62.896	62.949	63.106	63.117	63.280	63.287
72	64.906	64.961	65.121	65.132	65.306	65.314
73	66.951	67.012	67.176	67.188	67.373	67.383
74	69.033	69.101	69.269	69.283	69.478	69.489
75	71.158	71.231	71.403	71.418	71.625	71.637
76	73.325	73.403	73.580	73.597	73.816	73.829
77	75.534	75.618	75.800	75.818	76.051	76.065
78	77.786	77.876	78.064	78.082	78.330	78.343
79	80.081	80.179	80.372	80.391	80.653	80.667
80	82.420	82.528	82.722	82.742	83.022	83.036
81	84.807	84.922	85.123	85.144	85.439	85.455
82	87.240	87.361	87.569	87.591	87.900	87.918
83	89.721	89.847	90.062	90.086	90.409	90.428
84	92.254	92.398	92.607	92.632	92.972	92.997
85	94.832	94.990	95.197	95.224	95.580	95.610
86	97.456	97.632	97.836	97.863	98.239	98.273
87	100.138	100.327	100.534	100.561	100.957	100.995
88	102.870	103.064	103.284	103.312	103.724	103.769
89	105.649	105.849	106.084	106.115	106.545	106.595
90	108.483	108.683	108.938	108.975	109.421	109.476
91	111.377	111.594	111.855	111.893	112.354	112.416
92	114.333	114.561	114.826	114.866	115.341	115.411
93	117.342	117.583	117.854	117.898	118.387	118.464
94	120.414	120.667	120.948	120.996	121.497	121.580
95	123.551	123.820	124.109	124.162	124.675	124.762
96	126.757	127.046	127.341	127.400	127.922	128.014
97	130.035	130.345	130.647	130.713	131.243	131.340
98	133.389	133.720	134.032	134.103	134.642	134.745
99	136.822	137.175	137.501	137.575	138.124	138.232
100	140.338	140.715	141.058	141.133	141.692	141.805

Table V

L X-ray Energies in keV

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Z	$L_{I} - M_{I} = \beta_{5/1}$	$L_{I} - M_{II} = \beta_{4}$	$L_{I} - M_{III} = \beta_{3}$	$L_{I} - M_{IV} = \beta_{10}$	$L_{I} - M_{V} = \beta \gamma_{I}$	L _I -N _I =β9/2
1						
2						
3						
4 5						
5 6						
0						
7						
0 0						
10	.044					
11	.061					
12	. 085					
13	.113					
14	. 144	.150	.150			
15	.178	.186	.186			
16	. 213	.223	.223			
17	.252	. 263	. 263			
18	. 295	.308	. 308			
19	. 343	. 359	.359			
20	. 394	.413	.413			
21	.447	.468	. 468			
22	.503	. 528	. 528			
23	.562	.590	.590	105	(05	
24	. 622	. 654	.054	- 695 747	- 695	
45	. 085	. 122	. 122	. (0/	. /0/	
26	. 753	. 793	. 793	.843	.843	
27	.825	.866	.866	.922	.922	
28	• 89 (.941	.941	1.003	1.003	
30	1 055	1.022	1.022	1.089	1 183	1, 192
	1.000	1.105	1.100	1.105	1,105	
31	1.142	1.194	1.197	1.283	1.283	1.298
22	1.435	1.287	1.292	1,385	1,385	1.409
34	1 422	1.384	1.390	1.409	1.409	1,640
35	1,525	1.591	1.598	1.710	1.711	1.764
36	1 633	1 702	1 711	1 930	1 021	1 807
37	1.743	1.702	1.826	1.050	1.051	2.034
38	1.858	1.936	1.947	2.081	2,083	2,178
39	1.979	2.061	2.074	2.215	2.217	2.329
40	2.103	2.189	2.203	2.351	2,353	2.482
41	2,231	2,321	2.337	2,492	2.494	2,641
42	2.362	2.457	2.475	2.637	2.639	2.804
43	2.498	2.598	2.617	2.787	2.790	2.973
44	2.639	2.741	2.763	2.940	2.944	3.149
45	2.785	2.891	2.916	3.100	3.105	3,331
46	2.935	3.046	3.073	3.265	3.270	3.518
47	3.088	3.204	3.235	3.433	3.439	3.710
48	3.248	3.367	3.402	3.608	3.614	3.910
49	3.412	3.536	3.574	3.787	3.795	4.116
50	3,581	3.709	3.751	3.972	3.980	4.328
L X-ray Energies in keV

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Z	$L_{I} - M_{I} = \beta_{5/1}$	$L_{I} - M_{II} = \beta_{4}$	$L_{I}-M_{III}=\beta_{3}$	L _I -M _{IV} =β ₁₀	L _I -M _V =β9/1	$L_{I} - N_{I} = \beta \frac{\beta}{2}$
51	3, 754	3, 886	3 932	4,161	4 170	4,546
52	3.933	4 069	4 120	4.356	4 367	4 771
53	4,116	4.257	4.312	4.555	4 569	5,002
54	4.302	4.448	4.509	4.759	4 773	5.237
55	4.496	4.648	4.715	4.973	4.987	5.482
56	4.696	4.852	4.926	5.193	5.207	5.734
57	4.903	5.062	5.142	5.418	5.434	5.995
58	5.114	5.276	5.364	5.648	5.666	6.262
59	5.330	5.498	5.593	5.884	5.904	6.533
60	5.553 .	5.725	5.830	6.127	6.150	6.811
61	5.780	5.957	6.071	6.376	6.401	7.096
62	6.013	6.195	6.317	6.630	6.658	7.389
63	6.252	6.438	6.571	6.891	6.921	7.689
64	6.494	6.687	6.831	7.158	7.190	7.996
65	6.745	6.943	7.098	7.434	7.468	8.311
66	7.000	7.204	7.370	7.714	7.751	8.630
67	7.264	7 .47 1	7.651	8.002	8.043	8.961
68	7.535	7.746	7.940	8.299	8.343	9.301
69	7.810	8.026	8.235	8.601	8.648	9.645
70	8.091	8.314	8.539	8.912	8.961	9.997
71	8.380	8.610	8.850	9.233	9.283	10.359
72	8.672	8.908	9.164	9.556	9.610	10.733
73	8.971	9.211	9.486	9.887	9.945	11.114
74	9.278	9.523	9.817	10.227	10.289	11.503
75	9.594	9.846	10.160	10.578	10.645	11.903
76	9.917	10.177	10.512	10.938	11.009	12.313
77	10.246	10.511	10.868	11.303	11.379	12.731
78	10.583	10.853	11.235	11.678	11.758	13.156
79	10.928	11.203	11.610	12.062	12.147	13.591
80	11.280	11.562	11.995	12.457	12.547	14.041
81	11.642	11.930	12.390	12.861	12.957	14.501
82	12.010	12.307	12.795	13.275	13.377	14.970
83	12.391	12.695	13.214	13.702	13.810	15.452
84	12.780	13.087	13.641	14.138	14.253	15.946
85	13.174	13.485	14.075	14.582	14.704	16.449
86	13.573	13.891	14.517	15.033	15.163	16.960
87	13.987	14.314	14.975	15.503	15.639	17.489
88	14.413	14.747	15.446	15.984	16.128	18.029
89	14.843	15.187	15.927	16.474	16.626	18.576
90	15.284	15.636	16.420	16.976	17.134	19.136
91	15.741	16.102	16.931	17.496	17.663	19.720
92	16.211	16.578	17.455	18.031	18.207	20.318
93	16.692	17.061	17.992	18.577	18.763	20.926
94	17.182	17.554	18.541	19.136	19.331	21.547
95	17.690	18.064	19.109	19.712	19.918	22.187
96	18.213	18.590	19.696	20.305	20.523	22.846
97	18.749	19.128	20.298	20.911	21.143	23.520
98	19.295	19.677	20.913	21.528	21.776	24.208
99	19.854	20.239	21.544	22.159	22.425	24.912
100	20.426	20.814	22.191	22,804	23.090	25.633

L X-ray Energies in keV

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Z	L _I -N _{II} =γ ₂	$L_{I}-N_{III}=\gamma_{3}$	^L _I -N _{IV} =β9/3	$\underline{L_{I} - N_{V} = \gamma_{V_{I}}}$	$L_{I} N_{VI} \gamma_{1} \gamma_{2}$	$\underline{L_{I}^{-N}VII}^{+\gamma_{1}}$
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 26 27 28 29 30						
31 32 33 34 35	1.412 1.528 1.648 1.775	1.412 1.528 1.648 1.775				
36 37 38 39 40	1.911 2.050 2.196 2.348 2.504	1.911 2.050 2.196 2.348 2.504				
41 42 43 44 45	2.666 2.832 3.004 3.181 3.364	2.666 2.832 3.005 3.182 3.366	3.223 3.410	3.223 3.410		
46 47 48 49 50	3.551 3.745 3.950 4.161 4.376	3.554 3.749 3.954 4.165 4.380	3.602 3.801 4.009 4.222 4.441	3.602 3.801 4.009 4.222 4.441		

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L X-ray Energies in keV

Z	$L_{I}-N_{II}=\gamma_{2}$	L _I -N _{III} =Ŷ ₃	$L_{I}^{-N}IV^{=\beta}9/3$	$L_{I} - N_{V} = \gamma_{1\gamma_{1}}$	$L_{I} N_{VI} \gamma_{1}\gamma_{2}$	L _I -N _{VII} = ^γ 1/3
51	4.594	4.601	4.667	4.667		
52	4.819	4.829	4.899	4.899		
53	5.053	5.062	5.138	5.138		
54	5,293	5.302	5.382	5.382		
55	5.541	5,551	5.634	5.634		
56	5.795	5.807	5.895	5.895		
57	6.060	6.074	6.167	6.167		
58	6.328	6.345	6.444	6.444		
59	6.600	6.619	6.723	6.723		
60	6.881	6.901	7.011	7.011		
61	7.168	7.191	7.306	7.306		
62	7.465	7.489	7.609	7.609		
63	7.768	7.795	7.918	7.918		
64	8.075	8.106	8.235	8.235		
65	8.392	8.427	8.560	8.561		
66	8.714	8.753	8.890	8.892	9.045	9.045
67	9.045	9.088	9.229	9.233	9.392	9.392
68	9.387	9.432	9.576	9.583	9.749	9.749
69	9.734	9.781	9.929	9-939	10.111	10.111
70	10.092	10.138	10.291	10.301	10.481	10.481
71	10.454	10.507	10.664	10.675	10.863	10.863
72	10.833	10.888	11.048	11.059	11.255	11.255
73	11.215	11.276	11.440	11.452	11.655	11.655
74	11.606	11.674	11.842	11.856	12.062	12.064
75	12.010	12.083	12.255	12.270	12.484	12.487
76	12.423	12.501	12.678	12.695	12.916	12.919
77	12.842	12.926	13.108	13.126	13.356	13.359
78	13.271	13.361	13.549	13.567	13.806	13.809
79	13.709	13.807	14.000	14.019	14.267	14.270
80	14.160	14.268	14.462	14.482	14.740	14.744
81	14.623	14.738	14.939	14.960	15.223	15.230
82	15.097	15.218	15.426	15.448	15.718	15.724
83	15.586	15.712	15.927	15.951	16.229	16.234
84	16.085	16.229	16.438	16.463	16.753	16.758
85	16.593	16.751	16.958	16.985	17.282	17.287
86	17.107	17.283	17.487	17.514	17.815	17.821
87.	17.640	17.829	18.036	18.063	18.369	18.376
88	18,185	18.379	18.599	18.627	18.941	18.949
89	18.735	18.935	19.170	19.201	19.525	19.533
90	19.298	19.498	19.753	19.790	20.122	20.131
91	19.881	20.098	20.359	20.397	20.737	20.747
92	20.486	20.714	20.979	21.019	21.367	21.378
93	21.099	21.340	21.611	21.655	22.012	22.023
94	21.726	21.979	22.260	22.308	22.669	22.681
95	22.373	22.642	22.931	22.984	23.346	23.358
96	23.039	23.328	23.623	23.682	24.042	24.054
97	23.720	24.030	24.332	24.398	24.754	24.766
98	24.414	24.745	25.057	25.128	25.479	25.492
99	25,123	25.476	25.802	25.876	26.221	26.235
100	25.847	26.224	26.567	26.642	26.980	26.995

L X-ray Energies in keV

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Z	$L_{I}^{-O}I^{=\gamma_{11/4}}$	L _I -O _{II} = Y _{4/1}	$L_{I} - O_{III} = \gamma_{4/2}$	L _I -O _{IV} =Y ₁ y ₅	L _I -O _V =Y _{11/6}	
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	4.237 4.461	4.237 4.463	4.237 4.463			

L X-ray Energies in keV

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Z	$\underline{\mathbf{L}_{I}}^{O_{I}=\gamma_{1}}$	$L_{I}^{-O}_{II}^{\gamma_4}$	L _I -O _{III} =Y _{4/2}	L _I -O _{IV} = γ _{11/5}	L ₁ -O _V = Y _{11/6}
51	4.691	4.695	4.695		
52	4,927	4,934	4.934	•	
53	5.172	5, 181	5,181		
54	5.427	5,436	5,436		
55	5.693	5.702	5.702		
56	5.966	5.973	5.974		
57	6.244	6.251	6.252		
58	6.525	6.533	6.534		
59	6.810	6.817	6.819		
60	7.101	7.109	7.111		
61	7.399	7.408	7.411		
62	7.705	7.715	7.718		
63	8.019	8.030	8.033		
64	8.339	8.351	8.355		
65	8.669	8.683	8.687		
66	9.004	9.020	9.024		
67	9.349	9.366	9.371		
68	9.703	9.723	9.727		
69	10.063	10.085	10.090		
70	10.432	10.456	10.461		
71	10.813	10.838	10.845		
72	11.206	11.233	11.241		
73	11.609	11.637	11.647		
74	12.022	12.051	12.062	12.097	12.097
75	12.446	12.477	12.489	12.526	12.526
76	12.881	12.914	12.927	12.966	12.966
77	13.324	13.359	13.373	13.415	13.415
78	13.778	13.815	13.828	13,875	13.875
79	14.243	14.281	14.295	14.345	14.345
80	14.721	14.762	14.776	14.830	14.831
81	15.212	15.255	15.271	15.331	15.333
82	15.714	15.757	15.775	15.841	15.843
83	16.230	16.274	16.293	16.365	16.367
84	16.759	16.803	16.828	16,902	16.905
85	17.296	17.341	17.371	17.449	17.454
86	17.842	17.890	17.924	18.002	18.011
87	18.406	18.459	18.497	18.572	18.585
88	18.984	19.039	19.084	19.160	19.170
89	19.574	19.631	19.681	19.758	19.766
90	20,176	20.236	20.291	20.372	20.378
91	20.795	20.858	20.920	21.005	21.013
92	21.435	21.494	21.564	21.654	21.663
93	22.087	22.144	22.221	22.318	22.326
94	22.757	22.809	22.892	22.993	23.003
95	23.443	23.497	23.584	23.689	23.700
96	24.153	24.204	24.296	24.406	24.417
97	24.877	24.928	25.025	25.140	25.151
98	25.617	25.667	25.770	25.888	25.900
99	26.373	26.425	26.533	26.654	26.667
100	27.146	27.201	27.314	27.439	27.452

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L X-ray Energies in keV

<u>Z</u>	$L_{II} - M_I = \eta$	L _{II} -M _{II} = γ _{IV7}	$L_{II} - M_{III} = \beta_{17/1}$	$L_{II}^{-M}IV^{=\beta_1}$	L ^M V ^{=β} 17/2	L _{II} -N _I = ₇₅
1						
2						
3						
4 5						
,						
Б 7						
8						
9						
10	.017					
11	.030					
12	.047					
13	.068					
14	.092	.098	.098			
15	. 120	.128	.128			
16	. 151	. 161	.161			
17	. 185	. 196	. 196			
18	. 222	. 235	. 235			
20	. 202	. 270	. 270			
	. 500					
21	. 353	. 5 (4	. 3 (4			
23	455	. 483	. 483			
24	.510	,542	.542	.583	. 583	
25	.567	.604	.604	. 649	.649	
26	. 628	. 668	. 668	.718	. 718	
27	. 693	. 734	.734	. 790	. 790	
28	. 760	.804	.804	.866	.866	
29	.831	. 879	.879	.946	.946	
30	.905	.955	.956	1.033	1.033	1.042
31	.984	1.036	1.039	1,125	1,125	1.140
32	1.068	1,122	1.127	1.220	1.220	1.244
34	1.155	1.213	1.219	1.318	1.318	1.351
35	1.245	1.406	1.514	1.420	1.420	1.403
26	1.510	1.500	1.415	1.525	1,520	1.517
30	1.439	1,508	1.517	1.636	1.637	1.703
38	1.649	1.727	1.024	1.872	1.755	1.052
39	1.761	1.843	1.856	1.997	1,999	2,111
40	1.877	1.963	1.977	2.125	2.127	2.256
41	1.997	2.087	2,103	2,258	2,260	2,407
42	2.120	2,215	2,233	2.395	2.397	2:562
43	2,248	2.348	2.367	2.537	2.540	2.723
44	2.382	2.484	2.506	2.683	2.687	2.892
45	2.519	2.625	2.650	2.834	2.839	3.065
46	2,660	2.771	2.798	2.990	2.995	3.243
47	2.806	2.922	2.953	3.151	3.157	3.428
48	2.957	3.076	3.111	3.317	3.323	3.619
47 50	3.112	3.236	5.274	3,487	3.495	3.816
50	5.616	5,400	2.446	3.003	3.671	4.019

L X-ray Energies in keV

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<u>Z</u>	μ=η	L _{II} -M _{II} = γ ₁ / ₇	L _{II} -M _{III} =β _{17/1}	$L_{II} - M_{IV} = \beta_1$	L _{II} -M _V =β _{17/2}	L _{II} -N _I =γ ₅
51	3.437	3.569	3.615	3.844	3, 853	4.229
52	3.606	3.742	3,793	4,029	4 040	4.444
53	3.780	3,921	3,976	4.219	4 233	4.666
54	3.959	4.105	4.166	4.416	4,430	4.894
55	4.143	4.295	4.362	4.620	4.634	5.129
56	4.332	4.488	4.562	4.829	4.843	5.370
57	4.528	4.687	4.767	5.043	5.059	5.620
58	4.729	4.891	4.979	5.263	5.281	5.877
59	4.935	5.103	5.198	5.489	5.509	6.138
60	5.147	5.319	5.424	5.721	5.744	6.405
61	5.365	5.542	5.656	5.961	5.986	6.681
62	5.589	5.771	5.893	6.206	6.234	6.965
63	5.818	6.004	6.137	6.457	6.487	7.255
64	6.049	6.242	6.386	6.713	6,745	7.551
65	6.289	6.487	6.642	6.978	7.012	7.855
66	6.534	6, 738	6.904	7.248	7.285	8.164
67	6.788	6.995	7.175	7.526	7.567	8.485
68	7.047	7.258	7.452	7.811	7.855	8.813
69	7.311	7.527	7.736	8.102	8.149	9.146
70	7.580	7.803	8.028	8.401	8.450	9.486
71	7.855	8.085	8.325	8.708	8.758	9.834
72	8.139	8.375	8.631	9.023	9.077	10.200
73	8.427	8,667	8.942	9.343	9.401	10.570
74	8.721	8,966	9.260	9.670	9.732	10.946
75	9.023	9.275	9.589	10.007	10.074	11.332
76	9.333	9.593	9.928	10.354	10.425	11.729
77	9.651	9.916	10.273	10.708	10.784	12.136
78	9.976	10.246	10.628	11.071	11.151	12.549
79	10.309	10.584	10.991	11.443	11.528	12.972
80	10.647	10.929	11.362	11.824	11.914	13.408
81	10.993	11,281	11.741	12.212	12.308	13.852
82	11.349	11.646	12.134	12.614	12.716	14.309
83	11.714	12.018	12.537	13.025	13.133	14.775
84	12.088	12.395	12.949	13.446	13.561	15.254
85	12.468	12.779	13.369	13.876	13.998	15.743
86	12.855	13.173	13.799	14.315	14.445	16.242
87	13.252	13.579	14.240	14.768	14.904	16.754
88	13.660	13.994	14.693	15.231	15.375	17.276
89	14.081	14.425	15.165	15.712	15.864	17.814
90	14.511	14.863	15.647	16.203	16.361	18.363
91	14.950	15.311	16.140	16.705	16.872	18.929
92	15.400	15.767	16.644	17.220	17.396	19.507
93	15.865	16.234	17.165	17.750	17.936	20.099
94	16.343	16.715	17.702	18.297	18.492	20.708
95	16.836	17.210	18,255	18.858	19.064	21.333
96	17.341	17.718	18.824	19.433	19.651	21.974
97	17.859	18.238	19.408	20.021	20.253	22.630
98	18.390	18.772	20.008	20.623	20.871	23.303
99	18.934	19.319	20.624	21.239	21.505	23.992
100	19.491	19.879	21.256	21,869	22,155	24.698

L X-ray Energies in keV

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Z	^L _{II} ^{-N} _{II} ^{=β} 17/3	^L _{II} ^{-N} _{III} ^{=β} 17/4		$\frac{L_{II} N_V \beta_{17/5}}{1}$	L _{II} -N _{VI} =v _i	
1 2						
3						
5						
6 7						
8						
10						
11 12						
13 14						
15					_	
16 17						
18 19						
20						
21 22						
23 24						
25						
26 27						
28 29						
30 31						
32	1.247	1.247				
34	1.471	1.471				
35 36	1.590	1.590				
37 38	1.848 1.987	1.848 1.987				
39	2,130	2.130				
41	2.432	2.432				
42 43	2.590 2.754	2.590 2.755				
44 45	2.924 3.098	2.925 3.100	2.966 3.144	2.966 3.144		
46	3.276	3.279	3.327	3.327		
47 48	3.463 3.659	3.467 3.663	3.519 3.718	3.519 3.718		
49 50	3.861 4.067	3.865 4.071	3.922 4.132	3.922 4.132		
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L X-ray Energies in keV

	^L _{II} -N _{II} =β _{17/3}	$L_{\rm II}^{-N}_{\rm III}^{=\beta_{17/4}}$	$L_{II} N_{IV} \gamma_{1}$	^L _Π ^{-N} V ^{=β} 17/5	L _{II} -N _{VI} -vi	L _{II} -N _{VII}
51	4.277	4,284	4,350	4,350		
52	4,492	4.502	4.572	4.572		
53	4.717	4.726	4.802	4,802		
54	4.950	4,959	5.039	5.039		
55	5.188	5.198	5.281	5.281		
56	5.431	5.443	5.531	5,531		
57	5.685	5.699	5.792	5.792		
58	5.943	5.960	6.059	6.059		
59	6.205	6.224	6.328	6.328		
60	6.475	6.495	6.605	6.605		
61	6.753	6.776	6.891	6,891		
62	7.041	7.065	7.185	7.185		
63	7.334	7.361	7.484	7.484		
64	7.630	7.661	7,790	7.790		
65	7.936	7.971	8.104	8.105		
66	8.248	8.287	8.424	8.426	8.579	8.579
67	8.569	8.612	8.753	8.757	8.916	8.916
68	8.899	8.944	9.088	9.095	9.261	9.261
69	9.235	9.282	9.430	9.440	9.612	9.612
70	9.581	9.627	9.780	9.790	9.970	9.970
71	9.929	9.982	10.139	10,150	10.338	10.338
72	10.300	10.355	10.515	10.526	10.722	10.722
73	10.671	10.732	10.896	10.908	11.111	11.111
74	11.049	11.117	11.285	11.299	11.505	11.507
75	11.439	11.512	11.684	11.699	11.913	11.916
76	11.839	11.917	12.094	12.111	12,332	12.335
77	12.247	12.331	12,513	12,531	12.761	12.764
78	12.664	12.754	12.942	12.960	13.199	13.202
79	13.090	13.188	13.381	13.400	13.648	13.651
80	13.527	13.635	13.829	13.849	14.107	14.111
81	13.974	14.089	14.290	14.311	14.574	14.581
82	14.436	14.557	14.765	14.787	15.057	15.063
83	14.909	15.035	15.250	15.274	15.552	15.557
84	15.393	15.537	15.746	15.771	16.061	16.066
85	15.887	16.045	16.252	16.279	16.576	16.581
86	16.389	16.565	16.769	16.796	17.097	17.103
87	16.905	17.094	17.301	17.328	17.634	17.641
88	17.432	17.626	17.846	17.874	18,188	18.196
89	17.973	18,173	18.408	18.439	18.763	18.771
90	18.525	18.725	18.980	19.017	19.349	19.358
91	19.090	19.307	19.568	19.606	19.946	19.956
92	19.675	19.903	20.168	20.208	20.556	20.567
93	20.272	20.513	20.784	20.828	21,185	21.196
94	20.887	21.140	21.421	21.469	21.830	21.842
75	21.519	21.788	22.077	22.130	22.492	22.504
96	22.167	22.456	22.751	22,810	23.170	23.182
97	22.830	23.140	23.442	23.508	23.864	23.876
98	23.509	23.840	24.152	24.223	24.574	24.587
99	24,203	24.556	24,882	24,956	25.301	25,315
100	24.912	25,289	25.632	25.707	26.045	26.060

L X-ray Energies in keV

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Z	L _{II} -O _I =Y ₈		L _{II} -O _{III} =v ₃	L _{II} -Ο _{IV} =γ ₆	L _{II} -O _V	
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	3.937 4.152	3.937 4.154	3.937 4.154			

L X-ray Energies in keV

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	$L_{\Pi} - O_I = \gamma_8$	L _{II} -O _{II} =v ₂	$L_{II} - O_{III} = v_3$	L _{II} -O _{IV} =76	L _{II} -Ov
51	4.374	4.378	4.378		
52	4.600	4,607	4.607		
53	4.836	4.845	4.845		
54	5 084	5,093	5,093		
55	5.340	5.349	5.349		
56	5.602	5.609	5.610		
57	5.869	5.876	5.877		
58	6.140	6.148	6.149		
59	6.415	6.422	6.424		
60	6.695	6.703	6.705		
61	6.984	6.993	6.996		
62	7.281	7.291	7.294		
63	7.585	7.596	7.599		
64	7.894	7.906	7.910		
65	8.213	8.227	8.231		
66	8.538	8.554	8.558		
67	8.873	8.890	8.895		
68	9.215	9.235	9.239		
69	9.564	9.586	9.591		
70	9.921	9.945	9.950		
71	10.288	10.313	10.320		
72	10.673	10.700	10.708		
73	11.065	11.093	11,103		
74	11.465	11.494	11,505	11.540	11.540
75	11.875	11.906	11.918	11.955	11.955
76	12.297	12.330	12.343	12.382	12.382
77	12.729	12.764	12,778	12.820	12.820
78	13,171	13.208	13,221	13.268	13.267
79	13.624	13.662	13.676	13.726	13.726
80	14.088	14.129	14.143	14.197	14.198
81	14.563	14.606	14.622	14.682	14.684
82	15.053	15.096	15.114	15.180	15,182
83	15.553	15.597	15.616	15.688	15.690
84	16.067	16.111	16.136	16.210	16.213
85	16.590	16.635	16.665	16.743	16.748
86	17,124	17.172	17.206	17.284	17.293
87	17.671	17.724	17.762	17.837	17.850
88	18,231	18.286	18.331	18.407	18.417
89	18.812	18.869	18.919	18.996	19.004
90	19.403	19.463	19,518	19.599	19.605
91	20.004	20.067	20.129	20.214	20.222
92	20.624	20.683	20.753	20.843	20.852
93	21.260	21.317	21.394	21.491	21.499
94	21.918	21.970	22.053	22.154	22.164
95	22.589	22.643	22.730	22.835	22.846
96	23,281	23,332	23.424	23.534	23.545
97	23.987	24.038	24.135	24.250	24.261
98	24.712	24.762	24.865	24.983	24.995
99	25.453	25.505	25.613	25.734	25.747
100	26.211	26.266	26.379	26.504	26.517

L X-ray Energies in keV

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Z	L _{III} -M _I =ℓ	L _{III} -M _{II} =t	L _{III} -M _{III} -s ₁	L _{III} -M _{IV} =α ₂	$L_{III} - M_V = \alpha_1$	$L_{III} - N_I = \beta_6$
1						
2						
3 4						
5						
6						
7	_					
8						
9						
10	.017					
11	.030					
12	.047					
13	. 068	000	000			
14	. 093	- 099	- 099			
15	. 120	. 120	. 120			
16	. 151	. 161	_ 161			
17	. 184	. 195	. 195			
19	260	.235	. 276			
20	. 302	.321	. 321			
21	34.8	369	369			
22	. 396	.421	.421			
23	. 447	.475	.475			
24	.501	.533	.533	.574	.574	
25	.556	. 593	. 593	. 638	.638	
26	.615	. 655	.655	.705	. 705	
27	.678	.719	. 719	.775	.775	
28	. 743	.787	. 787	.849	.849	
29 30	.811	.037	.859	.926	1 010	1 019
	.002	. , , 50	.,	1.010	1.010	1,112
31	.957	1.009	1.012	1.098	1.098	1,113
33	1,037	1.071	1.183	1.107	1.282	1,315
34	1.204	1.266	1.273	1.379	1.379	1.422
35	1.294	1.360	1.367	1.479	1.480	1.533
36	1.387	1.456	1.465	1.584	1.585	1.651
37	1.483	1.557	1.566	1.693	1.695	1.774
38	1.582	1.660	1.671	1.805	1.807	1.902
39	1.685	1.767	1.780	1.921	1.923	2.035
40	1.793	1.879	1.893	2.041	2.043	2.172
41	1.903	1.993	2.009	2.164	2.166	2.313
42	2.016	2.111	2.129	2.291	2.293	2.458
43	2,132	2.232	2.251	2.421	2.424	2.607
45	2 377	2.355	2.508	2. 692	2.697	2.923
	2 5 6 4		2 442	2.074		2,097
40 47	4.504 2 622	2.015	4.044 2 780	2.834 2 079	4.839 2 984	3.087
48	2.767	2.886	2,921	3,127	3, 133	3.429
49	2.904	3.028	3.066	3.279	3.287	3.608
50	3.045	3.173	3.215	3.436	3.444	3.792

L X-ray Energies in keV

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	$\frac{L_{III} - M_{I} = \ell}{L_{III} - M_{II} = t} \frac{L_{III} - M_{III} = s_{III}}{L_{III} - M_{III} = s_{III}} \frac{L_{III}}{L_{III}}$				$III^{-M_{IV}=\alpha_2} \qquad L_{III}^{-M_{V}=\alpha_1} \qquad L_{III}^{-N_{I}=\beta_6}$				
51	3.188	3.320	3.366	3,595	3,604	3,980			
52	3,335	3.471	3,522	3.758	3.769	4.173			
53	3.485	3.626	3.681	3,924	3,938	4.371			
54	3,639	3,785	3,846	4.096	4.110	4.574			
55	3.795	3.947	4.014	4.272	4.286	4.781			
56	3.956	4.112	4.186	4.453	4.467	4.994			
57	4.121	4.280	4.360	4.636	4.652	5.213			
58	4.288	4.450	4.538	4.822	4.840	5.436			
59	4.459	4.627	4.722	5.013	5.033	5.662			
60	4.633	4.805	4.910	5.207	5.230	5.891			
61	4.811	4.988	5.102	5.407	5.432	6.127			
62	4.993	5.175	5.297	5.610	5.638	6.369			
63	5.177	5.363	5.496	5.816	5.846	6.614			
64	5.362	5.555	5.699	6.026	6.058	6.864			
65	5.551	5.749	5.904	6.240	6.274	7.117			
66	5.744	5.948	6.114	6.458	6.495	7.374			
67	5.942	6.149	6.329	6.680	6.721	7.639			
68	6.141	6.352	6.546	6.905	6.949	7.907			
69	6.342	6.558	6.767	7.133	7.180	8.177			
70	6.545	6.768	6.993	7.366	7.415	8.451			
71	6.751	6.981	7.221	7.604	7.654	8.730			
72	6.960	7.196	7.452	7.844	7.898	9.021			
73	7.171	7.411	7.686	8.087	8.145	9.314			
74	7.384	7.629	7.923	8.333	8.395	9.609			
75	7.600	7.852	8.166	8.584	8.651	9.909			
76	7.819	8.079	8.414	8.840	8.911	10.215			
77	8.042	8.307	8.664	9.099	9.175	10.527			
78	8.267	8.537	8.919	9.362	9.442	10.840			
79	8.494	8.769	9.176	9.628	9.713	11.157			
80	8,721	9.003	9.436	9.898	9.988	11.482			
81	8.952	9.240	9.700	10.171	10.267	11.811			
82	9.184	9.481	9.969	10.449	10.551	12.144			
83	9.420	9.724	10.243	10.731	10.839	12.481			
84	9.658	9.965	10.519	11.016	11,131	12.824			
85	9.897	10.208	10.798	11.305	11.427	13.172			
86	10.137	10.455	11.081	11.597	11.727	13.524			
87	10.378	10.705	11.366	11.894	12.030	13.880			
88	10.622	10.956	11.655	12.193	12.337	14.238			
89	10.868	11.212	11.952	12.499	12.651	14.601			
90	11.118	11.470	12.254	12.810	12.968	14.970			
91	11.369	11.730	12.559	13.124	13.291	15.348			
92	11.622	11.989	12.866	13.442	13.618	15.729			
93	11.878	12.247	13,178	13.763	13.949	16.112			
94	12.136	12.508	13.495	14.090	14.285	16.501			
95	12.397	12.771	13.816	14.419	14.625	16.894			
96	12.660	13.037	14.143	14.752	14.970	17.293			
97	12.926	13.305	14.475	15.088	15.320	17.697			
98	13.194	13.576	14.812	15.427	15.675	18.107			
99	13.465	13.850	15.155	15.770	10.030	18,543			
100	13.739	14.14(13.504	10.11(10.403	10.940			

L X-ray Energies in keV

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Z	^L Ш- ^{_N} П ₌ 8 ⁵	L _Ш -N _Ш ≖s ₃	$L_{\rm III}^{-N} {\rm IV}^{-\beta_{15}}$	$L_{III}^{-N}v^{=\beta_2}$	L _{III} -N _{VI} -u ₁	L _{III} -N _{VII} ^{=u} 2
1 2						
3 4						
5						
6 7						
8 9						
10 11						
12 13						
14 15						
16						
18						
19 20			•			
21 22						
23 24						
25 24						
27						
29						
31						
32 33	1.216 1.321	1.216				
34 35	1.430 1.544	1.430 1.544				
36 37	1.665 1.790	1.665 1.790				
38 39	1.920 2.054	1.920				
40	2.194	2.194				
41 42	2.338	2.338				
43 44	2.638	2.639	2.837	2.837		
45 46	2.956 3.120	2.958 3.123	3.002 3.171	3.002 3.171		
47 48	3.290	3.294	3.346	3.346		
49	3.653	3.657	3.714	3.714		
50	5,010	J. UTT	J.705	5.705		

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L X-ray Energies in keV

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		L _{III} -N _{III} =s ₃	$L_{III} - N_{IV} = \beta_{15}$	$\frac{L_{III} - N_{V} = \beta_{2}}{IIII}$	L _{III} -N _{VI} =u1	L _{III} -N _{VII} ^{=u} 2
51	4,028	4,035	4.101	4,101		
52	4.221	4.231	4.301	4.301		
53	4.422	4.431	4.507	4.507		
54	4.630	4.639	4.719	4.719		
55	4.840	4.850	4.933	4.933		
56	5.055	5.067	5.155	5.155		
57	5.278	5.292	5.385	5.385		
58	5.502	5.519	5.618	5.618		
59	5.729	5.748	5.852	5.852		
60	5.961	5.981	6.091	6.091		
61	6.199	6.222	6.337	6.337		
62	6.445	6.469	6.589	6.589		
63	6.693	6.720	6.843	6.843		
64	6.943	6.974	7.103	7.103		
65	7.198	7.233	7.366	7.367		
66	7.458	7.497	7.634	7.636	7.789	7.789
67	7.723	7.766	7.907	7.911	8.070	8.070
68	7.993	8.038	8.182	8.189	8.355	8.355
69	8.266	8.313	8.461	8.471	8.643	8.643
70	8.546	8.592	8.745	8.755	8,935	8.935
71	8.825	8.878	9.035	9.046	9.234	9.234
72	9.121	9.176	9.336	9.347	9.543	9.543
73	9.415	9.476	9.640	9.652	9.855	9.855
74	9.712	9.780	9.948	9.962	10.168	10.170
75	10.016	10.089	10.261	10.276	10.490	10.493
76	10.325	10.403	10.580	10.597	10.818	10.821
77	10.638	10.722	10.904	10.922	11,152	11.155
78	10.955	11.045	11.233	11.251	11.490	11.493
79	11.275	11.373	11.566	11.585	11.833	11.836
80	11.601	11.709	11.903	11.923	12.181	12.185
81	11.933	12.048	12.249	12.270	12.533	12.540
82	12.271	12.392	12.600	12.622	12.892	12.898
83	12.615	12.741	12.956	12.980	13.258	13.263
84	12.963	13.107	13.316	13.341	13.631	13.636
85	13.316	13.474	13.681	13.708	14.005	14.010
86	13.671	13.847	14.051	14.078	14.379	14.385
87	14.031	14.220	14.427	14.454	14.760	14.767
88	14.394	14.588	14.808	14.836	15,150	15.158
89	14.760	14.960	15.195	15.226	15.550	15.558
90	15.132	15.332	15.587	15.624	15.956	15.965
91	15.509	15.726	15.987	16.025	16.365	16.375
92	15.897	16.125	16.390	16.430	16.778	16.789
93	16.285	16.526	16.797	16.841	17.198	17.209
94	16.680	16.933	17.214	17.262	17.623	17.635
95	17.080	17.349	17.638	17.691	18.053	18.065
96	17.486	17.775	18.070	18.129	18.489	18.501
97	17.897	18.207	18.509	18.575	18.931	18.943
98	18.313	18,644	18.956	19.027	19.378	19.391
99	18.734	19.087	19.413	19.487	19.832	19.846
100	19,160	19.537	19.880	19,955	20.293	20,308

L X-ray Energies in keV

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<u>Z</u>	L _{III} -Ο _I -β ₇	L _{III} -O _{II} -u ₃	L _{III} -O _{III} =u ₄	L _{III} -Ο _{IV} =β 5/2	L _{III} -Ο _V =β 5/3	
1						
2 3						
4						
5						
7						
8 9						
10						
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46 47						
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49 50	3.729 3.925	3.729 3.927	3.729 3.927			
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L X-ray Energies in keV

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<u>Z</u>	β ₇	L _{III} -O _{II} =u ₃	L _{III} -O _{III} ^{-u} 4	$L_{\rm III}^{-\rm O}{}_{\rm IV}^{-\beta}{}_{5/2}$	L _{III} -Ο _V =β 5/3
51	4.125	4.129	4.129		
52	4.329	4.336	4.336		
53	4.541	4.550	4.550		
54	4.764	4.773	4.773		
55	4.992	5.001	5.001		
56	5.226	5,233	5.234		
57	5.462	5.469	5.470		
58	5.699	5.707	5.708		
59	5.939	5.946	5.948		
60	6.181	6.189	6.191		
61	6.430	6.439	6.442		
62	6.685	6.695	6.698		
63	6.944	6.955	6.958		
64	7.207	7.219	7.223		
65	7.475	7.489	7.493		
66	7.748	7.764	7.768		
67	8.027	8.044	8.049		
68	8.309	8.329	8.333		
69	8.595	8.617	8.622		
70	8.886	8.910	8.915		
71	9.184	9.209	9.216		
72	9.494	9.521	9.529		
73	9.809	9.837	9.847		
74	10.128	10.157	10.168	10.203	10.203
75	10.452	10.483	10.495	10,532	10.532
76	10.783	10.816	10.829	10.868	10.868
77	11.120	11.155	11.169	11.211	11.211
78	11.462	11.499	11.512	11.559	11.559
79	11.809	11.847	11.861	11.911	11.911
80	12.162	12.203	12.217	12.271	12.272
81	12.522	12.565	12.581	12.641	12.643
82	12.888	12.931	12.949	13.015	13.017
83	13.259	13.303	13.322	13.394	13.396
84	13.037	13.681	13.706	13.780	13, 783
85	14.019	14.064	14.094	14.172	14.177
85	14.400	14.454	14.488	14.000	14.076
87	14. 191	14.850	14.000	14.903	15 370
88	15.175	15.248	15.295	15.507	15. 701
89 90	16.010	16.070	16, 125	16.206	16.212
91	16.423	16.486	16.548	16.633	16.641
92	16.846	16,905	16.975	17.065	17.074
93	17.273	17.330	17.407	17.504	17.512
94	17.711	17.763	17.846	17.947	17.957
95	18.150	18.204	18.291	18.396	18.407
96	18.600	18.651	18.743	18.853	18.864
97	19.054	19.105	19.202	19.317	19.328
98	19.516	19.566	19.669	19.787	19.799
99	19.984	20.036	20.144	20.265	20.278
100	20.459	20.514	20.627	20.752	20.765

Table VI

Weighted Average L, K X-ray Energies in kev

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Z	κ _α	κ _β	$\overline{K}_{\alpha,\beta}$		Ē _{II, III}	^L III
1						
2						
3	.054		. 054			
4	. 109		. 109			
2	.184		. 184			
6	. 279		. 279			
7	. 393		. 393			
8	.524		. 524			
9	. 675		.675			017
10	. 849		.849	.018	.017	.017
11	1.041		1.041	.031	.030	.030
12	1,255		1,255	.048	.047	.047
13	1.487		1.487	.069	.068	.068
14	1.739	1.838	1.742	.136	.093	.093
15	2.014	2.142	2.020	.169	.121	.120
16	2,307	2.468	2,317	.205	.152	.152
17	2.622	2.817	2,636	.243	.185	.185
18	2.957	3.191	2,977	.286	. 222	. 221
19	3.312	3.589	3.337	. 334	.262	.261
20	3.690	4.012	3.719	.385	. 305	. 303
21	4,088	4.459	4, 124	.438	. 351	. 349
22	4.508	4.931	4.550	.495	.400	.397
23	4.949	5.427	4.998	. 555	.452	.449
24	5.411	5.947	5.467	.582	.575	.572
25	5.895	6.492	5.959	.646	. 639	. 636
26	6.400	7.059	6.472	.714	. 707	. 702
27	6,925	7.649	7.006	. 785	. 777	.772
28	7.472	8.265	7.563	. 859	852	.846
29	8.041	8.907	8.142	.937	.929	.923
30	8.631	9.572	8.744	1.022	1.014	1.006
31	9.243	10.263	9 367	1.111	1,103	1,094
32	9.876	10.984	10.015	1.207	1, 195	1.185
33	10.532	11.729	10.687	1.302	1.290	1.278
34	11.210	12.501	11.380	1.402	1.388	1.375
35	11.907	13.296	12.096	1.504	1.490	1.475
36	12,630	14,120	12.837	1,612	1.597	1.580
37	13.375	14.971	13 602	1.724	1.708	1,690
38	14.142	15.849	14.390	1.840	1.823	1.802
39	14,933	16.754	15.204	1,960	1.942	1.918
40	15.746	17.687	16.040	2.084	2.065	2.038
41	16 584	19 647	16 000	2 212	2 101	2 160
42	17 443	19 633	10.900	2 343	2 321	2 287
43	18 327	20 647	18 606	2 4 70	2,455	2 418
44	19 235	21,687	10.632	2.654	2.635	2,594
45	20.167	22.759	20,593	2.802	2.782	2.736
44	21 22	33 050		2.050	2 0 2 2	2 002
40 47	61.163	23.859	21.581	2.953	2.933	2.882
~~ / / O	44. 10 4	24.981	22.592	5.109	5.081	3.031
-10 /0	43.109 24 120	20.143 27 202	43.630	3.420	3.641 2.413	2.185
*7 50	24,137	21.304 20 LAI	24.750	2.427	2 501	3.346
50	63.193	20.001	43.843	3.009	2.201	3.508

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Weighted Average L,K X-ray Energies in keV

Z	κ _α	κ _β	κ _{α,β}	ī.		
51	26.274	29.851	26,965	3, 783	3, 753	3,673
52	27.380	31.128	28.116	3,961	3,930	3.843
53	28,512	32,437	29,291	4.145	4.111	4 017
54	29,669	33, 777	30.491	4.333	4.298	4, 195
55	30.854	35.149	31.726	4.526	4.489	4.377
56	32.065	36.553	32.988	4.724	4.685	4.564
57	33.302	37.986	34.275	4.928	4.886	4.756
58	34.569	39.453	35.593	5.136	5.092	4.950
59	35.864	40.953	36.940	5.348	5.302	5.149
60	37.185	42.484	38.315	5.565	5.517	5.352
61	38.535	44.049	39.721	5.789	5.738	5.561
62	39.914	45.649	41.161	6.018	5.963	5.773
63	41.323	47.283	42.633	6.250	6.192	5.988
64	42.761	48.949	44.132	6.486	6.426	6.207
65	44.229	50.650	45.665	6.729	6.665	6.430
66	45.728	52.384	47.226	6.980	6.911	6.659
67	47.257	54.155	48.819	7.234	7.161	6.892
68	48.818	55.963	50.448	7.492	7.416	7.127
69	50.410	57.806	52.108	7.754	7.674	7.365
70	52.035	59.687	53.802	8.022	7.937	7.607
71	53.693	61.607	55.534	8.296	8.206	7.854
72	55.382	63.562	57.296	8.576	8.482	8.106
73	57.106	65.556	59.099	8.861	8.762	8.361
74	58.864	67.586	60.936	9.169	9.065	8.622
75	60.655	69.659	62.807	9.467	9.357	8.886
76	62.482	71.775	64.718	9.771	9.656	9.155
77	64.346	73.933	66.668	10.081	9.960	9.428
78	66.246	76.131	68.655	10.396	10.268	9.703
79	68.185	78.372	70.685	10.717	10.583	9.983
80	70.160	80.656	72.747	11.044	10.903	10.267
81	72.176	82.985	74.856	11375	11.226	10.551
82	74.228	85.357	77.002	11.719	11.563	10.849
83	76.321	87.774	79.194	12.067	11.903	11.147
84	78.460	90.243	81.426	12.421	12.249	11.448
85	80.636	92.754	83.701	12.781	12.601	11.754
86	82.855	95.315	86.024	13.147	.12.958	12.063
87	85.124	97.930	88.396	13.521	13.322	12.376
88	87.437	100.593	90.814	13,902	13.693	12.693
89	89.790	103.310	93.279	14.292	14.074	13.017
90	92.190	106.077	95.791	14.690	14.461	13.345
91	94.643	108.906	98.347	15.096	14.856	13.679
92	97.143	111.786	100.964	15.509	15.257	14.016
93	99.693	114.720	103.631	15.931	15.667	14.357
94	102.295	117.716	106.354	16.362	16.086	14.704
95	104.952	120.775	109.136	16.803	16.513	15.056
96	107.670	123.903	111.980	17,252	16.949	15.413
97	110.450	127.102	114.891	17.711	17.392	15.775
98	113.298	130.377	117.867	18.178	17.844	16.142
99	116.217	133.730	120.922	18.655	18.305	16.516
100	119.210	137.167	124.054	19,141	18.775	16.895

Table VII

K, L Relative Intensities

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X-ray Line	Relative Intensity	X-ray Line	Relative Intensity
$L_{I} - M_{I} = L\beta_{5/1}$. 1	$L_{TT} - O_{T} = L\gamma_{B}$.1
$L_{I} - M_{II} = L_{\beta_{A}}$	6.4		.1
$L_1 - M_{111} = L_{\beta_3}$	8.5	$L_{II} - O_{III} + L_{V_3}$.1
$L_{T} - M_{TV} = L_{\beta_{10}}$.5	$L_{II} - O_{IV} = L\gamma_6$	1.5
$L_{I} - M_{V} = L_{\beta} \gamma_{1}$. 2	L ^{II} -OV	. 1
$L_{T} - N_{T} = L\beta 9/2$. 2		3 7
$L_1 - N_{11} = L_{\gamma_2}$	1.5		3.2
$L_{T} - N_{TT} = L\gamma_{3}$	2.0		• 1
$L_{1} - N_{12} = L_{\beta} g_{\beta}$.2		12 0
$L_{r} N_{r} = L \gamma_{1} \mu$.1	$\lim_{M \to 1} \frac{1}{M} = \frac{1}{M} = \frac{1}{M}$	12.0
$L_r - N_{rrr} = L\gamma_{1}$. 1		100.0
$L_{r} - N_{rrr} = L\gamma_{1}$.1	L _{III} -N _I =L _{β6}	1.5
	,	L _{III} -N _{II} = L _s 2	• 1
	• 1	L _{III} -N _{III} =L _s	• 1
$L_{I} = U_{II} = L_{\gamma} 4/1$.3	$L_{III} - N_{IV} = L\beta_{15}$. 1
^L I ^{-O} III ^{-L} ^γ 4/ ₂	•3	$L_{III} - N_{V} = L_{\beta_2}$	20.0
^L I ^{-O} IV ^{=L} ^γ 11/5	.1	$L_{TT} - N_{TT} = L_{U_1}$	• 1
L ^{-O} V ^{=Lγ} 11/6	. 1	L _{III} -N _{VII} -L _{u2}	.1
$L_{II} - M_{I} = L\eta$	1.5	L _{III} -O _I =L _β	• 5
$L_{\Pi} - M_{\Pi} = L_{\gamma_{1}\gamma_{2}}$.1		• 1
$L_{II} - M_{III} = L_{\beta_{17/1}}$.1	L _{III} -O _{III} =L _{u₄}	. 1
$L_{II} - M_{IV} = L_{\beta_1}$	55.0	$L_{III} - O_{IV} = L\beta 5/2$.1
$L_{II} - M_V = L_{\beta_1 \eta_2}$. 1	$L_{\rm III}^{\rm L} O_{\rm V}^{\rm -L\beta} {}^{5/3}$. 1
L _{II} -N _I =L _{γ5}	.5		
$L_{II} - N_{II} = L\beta_{17/2}$.1		
$L_{II} - N_{III} = L_{\beta_{17}/4}$.1		
$L_{II} - N_{IV} = L_{\gamma_1}$	1.0		
$L_{II} - N_{V} = L_{\beta_{17/5}}$. 1		
	. 1	K-L _{II} =Ka ₂	52.0
^L II- ^N VII	.1	K-L _{III} =K _{a1}	100.0

K, L Relative Intensities

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7	V M -V	V) (- V	^{K-M} IV ^{=K} β 5/1	K-N _{II} ^{-K} β 2/ ₁	$K-N_{IV}=K\beta 4/1$	K-O _{II} =Kβ 2/3
<u> </u>	$-M_{II} - \beta_3$	$\underline{\mathbf{K}}_{\mathrm{III}} = \mathbf{K} \boldsymbol{\beta}_{1}$	$K^{-M}V^{=K}\beta 5/2$	$K - N_{III} = K\beta 2/2$	^{K-N} v ^{=K} β 4/2	^{K-O} _{III} ^{=K} β 2/ ₄
1						<u> </u>
2						
3						
4						
5						
6						
3 7						
8						
9						
10						
11						
12						
13						
14	1.5	3.1				
15	2.7	5.3				
16	34	6 9				
10	4.1	81				
18	4.5	9,1				
19	4.9	9.8				
20	5.2	10.3				
21	54	10.9				
22	5.6	11.2				
23	5.8	11.5				
24	5.9	11.8				
25	6.0	12.1				
26	6.2	12 5				
27	6.4	12.7				
28	6.6	13.1	. 01			
29	6.7	13.4	.015			
30	6.9	13.7	. 02			
31	7.0	14.0	03			
32	7.1	14.2	.035	. 2		.2
33	7.3	14.6	.04	.3		.3
34	7.4	14.8	.05	. 4		.4
35	7.6	15.2	.055	.5		.5
36	7.7	15.5	. 065	- 6		. 6
37	7.9	15.8	.005	.0		.7
38	8.0	16.1	.08	.8		.8
39	8.2	16.4	.085	•9		•9
40	8.3	16.6	•09	1.0		1.0
41	8.4	16.8	. 10	1.07		1.07
42	8.6	17.2	.105	1,15		1.15
43	8.7	17.4	.11	1,25		1.25
44	8.9	17.7	.115	1.27		1.27
45	9.0	17.9	.12	1.35		1.35
46	9.1	18.2	.13	1,42	. 075	1.42
47	9.2	18.4	.14	1.47	.075	1.47
48	9.4	18.6	. 145	1.52	.075	1.52
49	9.5	19.0	. 155	1.57	.075	1.57
50	9.6	19.2	.16	1.62	.075	1.62

K, L Relative Intensities

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			K-M _{IV} =Kβ \$/,	K-N _{II} =Kβ 2/,	K-N _{IV} =Kβ 4/,	K-O _{II} =Kβ 2/3
Z	К-М _{II} =К _{β3}	ĸ-M _{III} =K _β	K-M _V =Kβ 5/2	K-N _{III} -Kβ 2/2	$K - N_V = K_\beta 4/2$	K-O _{III} =K _{β 2/4}
51	9.7	19.4	.17	1,70	. 075	1.70
52	9 9	19.8	.175	1, 72	. 075	1.72
53	10.0	20.0	. 18	1.77	. 075	1.77
54	10 1	20.2	. 185	1.80	.075	1.80
55	10.3	20.5	. 195	1.85	.075	1.85
56	10.4	20.8	. 205	1.90	.075	1.90
57	10.5	21.0	.21	1.95	.075	1.95
58	10.6	21.2	. 215	1,98	.075	1.98
59	10.7	21.4	, 225	2.01	.075	2.01
60	10.8	21.6	.23	2.05	.075	2.05
61	10.9	21.8	. 235	2.07	. 075	2.07
62	11.0	22.1	. 245	2.12	.075	2.12
63	11.2	22.3	.25	2.17	.075	2.17
64	11.3	22.5	.26	2.20	.075	2,20
65	11.4	22.8	.27	2.22	.075	2.22
66	11.5	23.0	.275	2.23	.075	2.23
67	11.6	23.2	. 285	2.25	.075	2.25
68	11.7	23.4	. 29	2.27	.075	2.27
69	11.8	23.6	.295	2.29	. 075	2.29
70	11.9	23.8	. 30	2.30	.075	2.30
71	12.0	24.0	.305	2.32	.08	2.32
72	12.1	24.2	.31	2,33	.08	2.33
73	12.2	24.5	.315	2,35	.085	2.35
74	12.4	24.7	. 32	2.36	.085	2,36
75	12.5	24.9	. 33	2.38	. 09	2.38
76	12.6	25.1	.34	2.40	.09	2.40
77	12.7	25.3	. 345	2.42	.095	2.42
78	12.8	25.5	.355	2.43	.10	2.43
79	12.9	25.8	.36	2.45	.11	2.45
80	13.0	25.9	.37	2.46	.12	2.46
81	13.1	26.1	. 375	2.47	.13	2.47
82	13.2	26.3	. 38	2.47	. 15	2.47
83	13.3	26.6	.385	2.48	.16	2.48
84	13.4	26.7	. 395	2,48	.17	2.48
85	13.5	26.9	.40	2.48	.18	2.48
86	13.6	27.1	.405	2.49	. 19	2.49
87	13.7	27.3	.41	2.49	.20	2.49
88	13.8	27.5	. 42	2.49	. 20	2.49
89	13.9	27.7	. 43	2.50	.21	2.50
90	14.0	27.9	.435	2.50	.21	2.50
91	14.0	28.0	.44	2.50	. 22	2.50
92	14.1	28.2	. 45	2.50	. 23	2.50
93	14.2	28.4	.455	2.50	.23	2.50
94	14.3	28.6	.46	2.50	.24	2.50
95	14.4	28.8	.47	2.50	. 25	2.50
96	14.5	29.0	.475	2.50	. 25	2.50
97	14.6	29.2	.48	2.50	.26	2.50
98	14.7	29.3	.49	2.50	.26	2.50
99	14.8	29.5	. 495	2.50	.27	2.50
100	14.9	29.7	.50	2.50	.27	2.50

Table VIII

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K, L Fluorescence Yields

Z	K	L	Z	ĸ	L
1			51	. 852	. 123
2			52	.860	. 129
3			53	.868	. 134
4			54	.875	. 140
5			55	.882	. 146
6			56	.889	.151
7	.001		57	. 894	. 158
8	.003		58	.899	.162
9	.007		59	.903	.169
10	.010		60	.909	.173
11	.013		61	.912	.180
12	. 020		62	.916	. 185
13	.030		63	.920	. 191
14	.041		64	.922	. 197
15	.051		65	.926	. 202
16	. 069		66	.929	.209
17	.086		67	.931	.214
18	. 105		68	.934	.220
19	.129		69	.937	. 225
20	. 151		70	.939	. 230
21	.174		71	.941	.237
22	.200		72	.942	. 242
23	.227		73	.944	. 248
24	. 253		74	.946	. 293
25	. 282		75	.948	. 316
26	.312		76	.949	. 334
27	. 341		77	.950	. 349
28	.371		78	.951	.361
29	.404		79	.952	. 372
30	.435		80	.953	. 382
31	.466	.010	81	.954	. 391
32	. 499	.016	. 82	.955	. 400
33	. 531	. 021	83	.956	. 408
34	.567	.027	84	.957	.414
35	.595	.032	85	.958	.421
36	. 624	. 039	86	.958	. 427
37	. 649	. 044	87	.959	. 431
38	. 672	. 049	88	.960	.437
39	. 693	.055	89	.960	. 439
40	.711	.060	90	.960	. 444
41	. 730	. 066	91	.960	.447
42	. 747	. 072	92	.961	. 449
43	. 761	.078	93	.962	. 452
44	. 775	.083	94	.962	.454
45	. 789	.089	95	.963	.458
46	.801	. 095	96	.963	.460
47	.812	. 100	97	.964	.461
48	. 822	. 106	98	.964	.463
49	.834	.112	99	.964	. 465
50	. 843	.118	100	.965	.467

) HYDROGEN (barns/atom)

E (MeV)		BD o _{inc.t}		o BD	o ^{KN}	σ ^{BD} inc.s	σ _{coh}	σ×n	σ _{×e}	σ.,	σ.,	σ _{r,t}	or, a	$\sigma_{tot,t}$	σ _{tot,t-coh}	Utot.a	Utot, en
												15.8	15.8	16.5	15.9	15.8	15.8
.001	.663	.0861	.00129	.000168	+001	146	.493					5.40	5.40	6.06	5.57	5,40	5.40
+0015	•661	+160	.00193	.000484	.657	.247						2.43	2.43	3.09	2.68	2,43	2,43
+002	.000	.240	.00250	+000902	-654	.376	.275					.760	.760	1.41	1,14	•764	+/02
+003	.057	+3/0	-00504	.00219	.650	459	188					.799	.299	• 950	•762	+304	+303
.004	.033	40J	00625	.00493	-646	+510	•134					+140	.140	.789	+032	. [40	
+005	460	.547	.00744	.00626	.643	+541	.0998					•0727	.0727	.720	.020	.0001	
.008	645	.582	.00976	.00881	.635	.573	.0612					•0250	+0250	.008	.007	0376	.0216
-01	.640	598	.0120	.0112	.628	.587	+0412					+0104	.0104		411	0194	.0186
.015	.629	.609	.0174	.0168	+612	.592	+0194					•00200	•00200	+030	.606	.0223	.0219
.02	.618	.606	.0223	.0219	.596	.584	+0112							597	.592	.0311	.030A
.03	597	.592	.0311	.0308	.566	•561	+00507							579	576	0386	.0384
.04	.579	.576	0386	.0384	•540	•538	+00287							.561	.559	0453	+0451
.05	,561	.559	.0453	.0451	•516	+514	.00185							.545	.544	.0512	.0510
.06	.546	.544	.0512	.0510	.494	.493	+00154							.516	+516	.0606	.0604
.08	.517	•516	.0606	.0604	+457	+450								.492	,492	.0680	.0679
.1	,493	.492	.0680	.0679										.443	.443	.0805	.0804
+15	.444	.443	.0805	+0804	.303	+ 30 3								.406	.406	.0879	.0078
•2	.400	.406	.0879	.08/8	+314	•318								.353	.353	.0423	.0952
•3	.353	.353	.0953	+0952	.219	.219								+317	.317	.0701	10403
• 2	+317	+317	*070I	.0903	190	.190								.289	,287	1983	0983
• 7	+ 287	+207	1983	0983	.169	.169								+207	20/	0961	.0956
•0	.215	.235	.0961	.0956	.139	.139								.235	.211	.0929	.0928
1.	211	.211	0929	.0928	+118	.118								<u> </u>	.172	.0849	,0851
1.5	.172	.172	.0849	.0851	.0867	.0869		+000044		.000044	.000014			146	146	0779	.0775
2.	146	.146	.0777	.0774	.0687	•0686		.000181		.000181	.000089			.116	1116	0670	0668
3.	.115	.115	.0664	.0664	+0486	.0486		+000514	.000040	.000554	.000367			.0972	0972	.0594	.0589
4.	.0962	.0962	.0584	.0582	.0378	.0380		.000825	+000164	.000987	000744			0845	0845	0536	.0533
5.	.0831	.0831	.0522	+0521	.0309	+0310		+00110	+000324	00142	.00156			0752	0752	0491	.0486
6.	.0734	.0734	•0473	+0471	.0261	.0263		+00135		00104	.00233			0627	0627	,0427	,0423
8.	.0601	.0601	.0401	.0400	.0200	.0201		.00211	.00117	.00328	.00300	_		0544	0544	0383	
10.	0511	0511	.0350	.0359	0102			.00280	+00182	+00462	.00430			.0425	,0425	.0315	10311
15.	.0379	.0379	+0269	.0208	.0110	.00854		.00330	.00233	.00563	.00529			.0360	.0360	.0211	+VE'E
20.	.0304	+0304	+0221	+1214	+00031	.00597		.00399	.00311	.00710	.00669			•0245	+0292 0252	.UZJO 0215	.0207
30.	.0221	.0221	*0102	.0130	.00422	.00465		.00447	.00367	.00814	.00766			+0257	.025/	0203	.0192
40.	+01/6	+01/0	.0113	.0108	.00338	00390		.00484	+00413	.00897	.00843			,0237	.0227	.0194	0182
5 0 •	.019/	+01-7	.009=1	.00924	.00283	.00336		.00513	+00448	.00961	.00899			+UCE7	.0207	.0185	.0172
ov.	10150	.00907	.00784	.00726	.00213	.00271		.00560	.00508	.0107	.00990			.0190	.0198	0181	.0165
100.	.00829	.00824	.00657	00591	.00171	.00237		+00595	.00557	.0115	.0106			• • • • •			
2. 3. 4. 5. 6. 8. 15. 20. 30. 40. 50. 60. 80. 80.	.140 .115 .0962 .0831 .0734 .0601 .0511 .0304 .0304 .0221 .0147 .0126 .00997 .000828	*140 *115 *0962 *0831 *0734 *0601 *0379 *0304 *0221 *0176 *0147 *0126 *00828	.0664 .0584 .0522 .0473 .0401 .0359 .0269 .0221 .0165 .0134 .0113 .00981 .00784	.0664 .0582 .0521 .0471 .0400 .0350 .0268 .0219 .0162 .0130 .0108 .00924 .00726 .00591	.0486 .0378 .0309 .0261 .0200 .0162 .0110 .00831 .00559 .00422 .00338 .00283 .00283 .00283 .00213	.0486 .0380 .0263 .0201 .0161 .0111 .00854 .00592 .00465 .00390 .00366 .003271 .00237		.000514 .000825 .00110 .00135 .00177 .00211 .00280 .00330 .00399 .00447 .00484 .00513 .00560 .00595	.000040 .000164 .000324 .000495 .000848 <u>.00117</u> .00182 .00233 .00311 .00367 .00413 .00413 .00448 .00508 .00557	.000554 .000989 .00142 .00184 .00262 .00328 .00462 .00563 .00710 .00897 .00961 .0107 .0115	.000367 .000744 .00115 .00155 .00233 .00300 .00430 .00529 .00669 .00766 .00843 .00899 .00990 .0106			.116 .0972 .0845 .0757 .0544 .0425 .0360 .0292 .0257 .0237 .0227 .0227 .0207 .0198	.110 .0845 .0752 .0627 .0544 .0360 .0292 .0257 .0237 .0237 .0222 .0207 .0207 .0198	.0594 .0536 .0491 .0427 .0383 .0315 .0277 .0236 .0215 .0203 .0194 .0185 .0181	.0589 .0533 .0486 .0423 .0380 .0310 .0272 .0229 .0207 .0192 .0192 .0192 .0192 .0192 .0192 .0192 .0192

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) HYDROGEN (cm³/g = 0.5975 x barns/atom)

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E (MeV)	([#] _p) ^{KN} _{inc,t}	([#]) ^{BD} _{inc}	$t \frac{(\#)_{inc}^{KN}}{(\#)_{inc}}$	a ([#]) _{inc, a}	([#]) _{inc, s}	([#] _p) ^{BD} _{inc, s}	(#) _{coh}	$(\frac{\mu}{\rho})_{x_n}$	(분) _{×e}	(ڭ) _{×, t}	([#] _p) _{×, a}	(ل ے)	<u>t</u> ([#]) _{7, a}	([#]) _{tot, t}	(賞) _{tot,t-coh}	(#) _{tot,a}	([#]) _{tot, en}
.001	.396	+0514	.000771	.000100	.395	.0513	•341					9.44	9.	44	9.86	9.50	9.44	9.44
.0015	.395	.0992	+00115	.000289	.394	+0992	+295					3.23	3.	23	3.62	3.33	3.23	3.23
.003	.393	. 226	.00228	.00131	.391	.225	+270					1.454	1.	•3 454	1+85	1+00	1+45	1.45
.004	.391	.277	.00301	.00213	.388	.274	.112					.179	•	179	.568	.455	.182	.181
.005	.390	.308	.00373	.00295	.386	.305	.0801					.083	6	836	.471	.391	.0872	.0866
.006	.388	.327	.00445	.00374	.384	.323	.0596					.043	• •	0434	.430	.370	+0479	.0472
.008	•385	+ 348	+00583	+00526	.379	.342	•0366					.014	9	149	.399	.363	+0208	.0202
-01	.382	+35/	.00/17	+00009	.3/5	.351						.006	21	00621	.388	.363	.0134	.0129
.02	.369	.367	.0133	.0131	. 356	.354	+0110					+001	19 .0	00119	+376	+365	+0116	.0112
.03	.357	.354	.0186	.0184	.338	.335	.00303								+ 307	- 302	+0133	.0131
.04	.346	.344	+0231	.0229	. 323	.321	.00171								.346	.344	•0231	.0229
•05	.335	.334	+0271	•0568	.308	.307	+00111								.335	.334	.0271	.0269
.06	.320	• 325	+0306	+0305	•295	.295	.000771								+326	.325	+ 0306	.0305
.1	205	+ 306	+0302	+0301	-213	+2/2									.308	.308	.0362	.0361
15	.265	.265	-04H1	-0400	217	.217						· ·			+294	.794		,0408
.2	.243	.243	.0525	.0525	191	.190									• 203	.243	.0401	.0525
.3	.211	.211	+0569	.0569	.154	+154									+211	•211	.0549	10525
•	.189	.189	+0586	.0587	.131	.131									+189	•189	.0586	.0587
•5	.173	.173	+0589	•0592	+114	+114									+173	+173	+0589	.0592
•0	+160	+160	+0587	+0587	.101	.101									+160	+160	+0587	.0587
1.	.126	.126	+05/4	+05/1	.0705	.0705									•140	+140	•0574	10571
1.5	.103	.103	+0507	+0508	.0518	.0519		+0000263		.0000263	.0000084			·	.120	•120		10329
2.	.0872	.0872	+0464	+0462	.0410	.0410		.000108		.000108	.000053				.0872	.0872	.0465	-0463
3.	.0687	.0687	.0397	.0397	.0290	.0290		.000307 .	000024	.000331	.000219				+0693	.0693	.0400	10399
<u>*</u> •	.0575	+0575	+0349	.0348	.0226	.0227		.000493 .	000098	.000591	.000445				+0581	+0581	.0355	0352
5.	.0497	+0497	+0312	.0311	.0185	.0185		.000657 .	000194	.000848	.000687				+0505	+0505	+0320	10318
8.	.0359	.0359	.0203	+0281	.0136	.0130		.000807 .	000296	.00110	.000926				•0449	+0449	+0293	.0290
10.	.0305	.0305	.0209	+0209	.00968	.00962		.00126	000507	.00196	.00139				+03/7	+03/5	+0255	+0253
15.	.0226	.0226	+0161	+0160	.00657	.00663	· · · · · · · · · ·	.00167 .	00109	.00276	.00257				+0325A	.0254	-0188	
20.	.0182	.0182	·0132	.0131	.00497	.00510		.00197 .	00139	.00336	.00316				+0215	.0215	+0166	.0163
30.	.0132	.0132	+00986	+00968	.00334	+00354		.00238 .	00186	+00424	.00400				+0174	+0174	+0141	.0137
40 e	.0105	+0105	+00801	.00777	.00252	.00278		.00267	00219	+00486	.00458				.0154	.0154	.0128	.0124
60.	.00753	+000783	+00075	+00843	.00202	.00233		+00289 +	00247	.00536	+00504				+0142	+0142	+0121	+0115
80.	.00596	.00596	+00468	.00434	00127	.00162		.00335	00304	.00639	.00592				+0133	+0133	•0116	.0109
100.	.00495	.00495	.00393	.00353	.00102	.00142		.00356	00333	.00687	.00633				+0124	-0118	+0111	.0103
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2 HELIUM (barns/atom)

E (MeV)	o ^{KN} t	σ ^{BD} _{inc,t}	σ ^{KN} inc, a	σ _{inc,a}	OINC, S	σ ^{BD} inc, s	σ _{coh}	σ×n	σ _{×e}	σ _{x,t}	σ _{×, a}	σ _{r,t}	σ, <u>a</u>	otot, t	Ttot, t-coh	σ _{tot, a}	σ tot, en
.001	1.33	.0728	.00258	.000142	1.32	.0727	2.49					334.	334.	337.	734.	334.	334.
.0015	1.32	.152	.00386	.000443	1.32	.152	2.33					110.	110.	112.	110.	110.	110.
.002	1.32	.248	.00512	-00096Z	i.3ī	.247	2+14					49+1	49+1	51.5	49.3	49.1	49.1
.003	1.31	.447	.00762	.00259	1.31	.444	1.72					14+7	14+7	16.9	15+1	14+7	14+7
.004	1.31	.627	.0101	.00482	1.30	•622	1+35					6+03	6+03	6. 01	6.66	6+04	6.03
.005	1.30	.767	0125	00735	1.29	.760	1.06					3.03	3+03	4.86	3.80	3.04	3.04
.006	1.30	.873	.0149	.0100	1.29	.863	.839					1+61	1.61	3.32	2.98	1.02	1.02
.008	1.29	1.01	.0195	.0153	1+27	.995	+554					+ 574	+574	2.19	1+50	1373	. 366
.01	1,28	1.08	.0240	.0202	1.26	1.06	• 389							1.41	1,21	.0868	+0841
.015	1.26	1.16	.0348	.0321	1.22	1.13	+145					+0320	.0171	1.11	1.20	.0617	.0597
.02	1.24	1.18	+0446	+0426	1.1	1.1.	+110					.0036	.0036	1.23	1.17	.0658	.0645
•03	1.19	1.17	.0622	.0609	1+13	1.11	+0341					-00118	.00118	1.17	1.14	.0784	.0772
.04	1.10	1+14	.0772	.0760	1.03	1.03								1.13	1.11	.0906	.0896
•05	1.12	1.11	10706	101	.989	.979	.0140							1.09	1.08	,Į02	.101
• • • •	1.07	1.03	.121	121	.913	.909	.00793							1.04	1.03	.121	+121
.1	.985	.983	.136	136	850	.847	.00510							,988	.983	.136	.136
		.886	161	.161	.726	.725	+00229							.888	+ 886	+161	•161
.2	.813	.812	.176	.176	.637	.636	+00130							.813	+812	•170	+170
.3	.707	.706	.191	190	.516	+516								•706	•706	+191	.190
. 4	.633	.633	. 196	.196	.437	•437								+033	+033	197	.198
.5	.578	.578	.197	. 198	.381	.380								. 570	.515	.197	.197
.6	,535	.535	+197	+197	• 338	+338								.470	470	192	.191
8	+470	+470	+192	•191	• 278	.217								.422	.422	186	.186
1.	.422	.422	+100	-180	.237	173		+000177		.000177	.000056			.343	+343	.170	•170
1.5	141	.343	155	155	.137	.138		.000715		.000715	.00035			.294	+294	. 156	.155
<u></u>	275	.238	133	.131	.0973	.0973		.00205	.000080	.00213	.00141			•232	• 232	.135	+134
A .	.197	.192	.117	.116	.0756	.0758		.00332	+000328	.00365	.00274			+196	+196	.121	•119
5.	166	166	104	.104	.0618	+0619		.00441	+000646	.00506	.00407			+171	+171	•109	+108
6.	.147	.147	.0946	.0944	.0523	.0526		.00545	.00099	.00644	.00542			+153	+ 153	.101	.0978
8.	.120	.120	.0801	.0794	.0400	.0406		.00710	+00169	.00879	.00781			•127	1127	.0807	.0794
10.	,102	,102	.0699	.0695	.0324	+0325		.00851	.00233	.0108	•00991			. 0904	.0904	.0685	.0659
15.	.0757	•0757	.0538	.0522	.0220	.0235		.0111	60L00.	.014/	.0137			.0787	.0787	.0621	.0593
20.	.0608	+0608	.0442	.0426	+0166	.0182		+0132	+00472	.0223	.0207			.0665	.0665	.0554	.0520
30.	.0442	.0442	.0331	.0313	•0112	.0129		.0180	.00750	.0255	.0237			.0607	.0607	.0522	.0485
40.	.0352	.0352	.0267	.0248	+ UU 0 4 4 A A 4 7 4	+0104		.0192	.00836	.0276	.0256			.0570	. 0570	.0502	.0462
50.	.0294	+0294	.0226	+0206 A176	.00566	.00784		.0204	+00911	.0295	.0274			.0548	.0548	.0491	.0449
60.	.0253	.0253	.0196	A134	.00426	.00647		.0221	.0102	.0323	.0299			.0522	.0522	.0480	,0433
BU.	0177	+0179	0131	.0109	.00341	.00573		.0237	.0112	.0349	.0320			.0515	.0515	.0480	+0429
1044	**100	**100	*****			••••		-									

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2 HELIUM (cm³/g = 0.1505 x barns/atom)

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E (MeV)	(^µ _p) ^{KN} _{)nc,t}	([#]) _{)nc,t}	(∉) ^{KN})nc,a	([#] _p) ^{BD} _{inc,a}	(≝) ^{KN})nc,s	(≝) _{)nc,s}	(ي) _{coh}	(چٌ) _{* n}	([#] _p) _{×e}	(^µ _p) _{x,t}	(#) x, a	(砦) _{т,t}	([#] _p) _{r,a}	([#]) _{tot, t}	(≝) _{tot,t•coh}	(岸), ot, a	([#]) _{tot, en}
.001	.200	.0110	+000388	+0000214	•199	.0109	• 375					50.3	50.3	50+7	50.3	50	50.3
.0015	•199	.0229	+000581	+0000667	.199	.0229	.351					16+6	16.6	16.9	16.6	16+6	16.6
.002	197	.03/3	.000771	000145	+197	.0372	.322					7.39	7.39	7+75	7.42	7.19	7.39
.004	.197	.0944	+00115	+000390	196	.0036	.259					2+21	2.21	2.54	2+27	2+71	2+21
.005	.196	.115	+00188	+00111	.194	.114	.160					• 908	.908	1+21	1.00	+909	.908
.006	.196	.131	+00224	.00150	.194	.130	.126					.747	.747	+731	+5/2	+458	+458
.008	,194	.152	+00293	.00230	.191	.150	.0834					.0864	.0864	+322	.218	.0892	-0886
+ 01 • 1	<u>. ,193</u>	.163	.00361	.00304	.190	.160	.0585					+0370	.0370	.257	.200	+0406	-0400
.07	+190	.175	+00524	.00483	.184	•170	.0293					+00783	.00783	+212	.102	+0131	.0127
.03	179	.176	-00936	+000+1	.170	+172	+0175					+00257	+00257	+197	+1 <u>8</u> 1	+00929	+00898
.04	.175	.172	.0116	.0114	.163	.160	+00467					+000342	+000542	+185	+176	• 00 990	•00971
.05	.169	.167	.0136	+0135	,155	+154	.00301					******	+000118	+170	+1/2	+0118	+0118
.06	+164	.163	+0154	+0152	.149	.147	+00211							+164	.163	+0154	+0152
•08	+155	.155	+0182	•0182	.137	•137	.00119							+157	+155	+0182	.0182
. 15		-140	+0205	.0205		-127	.000768							•149	+148	+ 0205	.0205
.2	.122	.122	+0245	+0242	.0959	+107	+000345							+134	+133	+0242	+0242
•3	.106	.106	.0287	.0286	.0777	.0777								+122	+122	+0265	+0265
• 4	.0953	.0953	+0295	+0295	.0658	.0658								.0953	*100	+0207	+0200
•5	.0870	.0870	•0296	•0298	.0573	.0572								•0870	•0870	• 1296	+0295
•0	.0805	+0805	+0296	•0296	.0509	.0509								+0805	+0805	+ 0296	+0296
1.	.0635	-0635	.0269	+0287	.0418	.0420								.0707	.0707	• 0289	.0287
1.5	.0516	+0516	.0256	+0256	. 0260	.0360		. 0000744	• • • •			·····		• 0635	+0635	• 0280	+0280
2.	.0441	+0441	.0233	.0233	.0206	.0208		.000108		.000108	+00000850			+0516	+0518	+0256	+0256
3.	.0346	.0346	.0200	•0200	.0146	.0146		.000309	.0000121	.000321	.000212			.0349	.0349	•0233	.0202
21	+0289	.0289	+0176	+0175	.0114	.0114		.000500	.0000494	.000549	.000412			.0295	+0295	•0182	.0179
3 .	.0221	+0250	+0157	+0157	.00930	.00932		+000664	.0000972	.000762	.000613			+0257	+0257	+0164	+0163
8.	.0181	.0181	+0172	.0119	.00607	+00/92		.000820	.000149	.000969	.000816			+0230	+0230	+0152	+0150
10.	.0154	.0154	.0105	.0105	.00488	.00489		+00107	+000234	+00132	+00118			+0194	+0194	+0134	+0131
15.	.0114	.0114	+00810	+00786	.00331	.00354		.00167	.000546	+00221	.00206			- +01/0	+0170	• • • • • • • • • • • • • • • • • • • •	+0117
20.	+00915	.00915	.00665	+00641	.00250	+00274		.00199	.000710	.00269	+00251			+0118	+0118		+00972
30.	.00065	.00665	+00498	+00471	.00169	.00194		+00241	.000948	.00336	.00312			+0100	.0180	+00834	•007 8 1
50.	.00730	00-30	+00+02	+00373	.00127	.00157		+00271	.00113	+00384	.00357			+00914	+00914	+00786	+00730
60.	.00381	.00381	.00295	+00310	.000852	.00133		+00289	•00126	+00415	+00385			+00858	.00858	+00756	.00695
80.	.00299	.00299	.00236	.00202	.000641	.000974		.00313	.00154		+00412			+00825	+00825	• 00739	-00676
100.	.00250	.00250	.00197	.00164	.000513	.000862		.00357	00169	.00525	.00482			+00/00	+00/88	•00722	+00052
										****E3	****GE			+00//5	*****	•00/22	+00846

3 LITHIUM (barns/atom)

E (MeV)	σ _{inc,t}	$\sigma_{ioc,t}^{BD}$	σ _{inc,a}	o ^{BD} o _{inc,a}	KN 0 inc, s	σ ^{BD} inc, s	σ _{coh}	σ _{*n}	σ _{×e}	σ _{x,t}	σ.,	σ _{r,t}	σ,	o _{tot,t}	ot, t-coh	σ _{tot, a}	Uot, en
.001	1.99	• 355	.00387	.000692	1.98	.354	4.73					2100.	2100.	2110.	2100. 663.	2100. 662.	210 0. 662.
-0015	1.98	.641	.00768	.00249	1.97	.639	3.43					291.	291.	295.	292.	291.	291.
.003	1.97	.808	.0114	.00468	1.96	.803	2.73					86.0	86.0	89.5	86+8	86.0	36.0
.004	1.96	•952	.0151	.00733	1.95	. 945	2+28					35+5	39.5	30.7	19.1	18.0	18.0
.005	1.96	1.08	.0187	.0103	1.93	1.19	1.65					9.45	9.85	12.7	11.0	9.87	9.86
.008	1.94	1.38	.0293	.0209	1.91	1.36	1.21					3.63	3.63	6,22	5.01	3,66	3.65
.01	1,92	1.51	0360	.0283	1.89	1.48	.903					1.60	1.60	4.01	3.11		1:03
.015	1.89	1.66	.0522	.0459	1.83	1.61	.487					+301	+301	2.14	1.83	.192	.187
.02	1.79	1.72	.0933	.0895	1.70	1.63	•147					.0286	.0286	1.90	1.75	·122	+118
.04	1.74	1.70	.116	.113	1.62	1.59	+0858					.00998	.00998	1.80	1.71	•126	.123
.05	1.68	1.66	.136	.134	1.55	1.53	+0561					.00442	+00442	1.72	1,00	.156	.154
.06	1.64	1.62	+154	.152	1.48	1.47	+0394					+00230	+00230	1.56	1.54	.182	.180
•0a	1.55	1.54	.102	.180	1.27	1.30	+0225					_		1,48	1,47	.204	.203
-15	1.33	1.33		.241	1.09	1.09	+00652							1.34	1.33	+241	•241
•2	1.22	1.22	. 264	.264	•956	.956	+00371							1.22	1.06	.286	.286
•3	1.06	1.06	.286	.286	.775	.774	+00167							.949	.949	294	.294
•2	.950	.867	. 296	.297	.571	.570								.867	.867	.296	.297
• •	.802	.802	295	295	.508	.507								.802	.802	.295	,297
.8	.705	.705	288	287	+417	+418								.633	.633	279	277
1.	,634	.633	.279		.355	.350		.000397		+000397	.000127	<u> </u>		.515	.515	,255	,254
1.5	.515	+515	.233	.232	.206	.207		.00159		.00159	.000779			.441	.441	,235	,233
3.	.345	.345	199	.198	.146	+147		.00456	+00012	.00468	.00309			.350	.350	204	105.
4.	.289	.289	.175	+174	•113	.115		.00742	.000492	.00791	.00593			.260	.260	.168	.165
5.	.249	.249	+157	+156	.0784	.0734		-0122	+000448	.0137	.0115			.234	.234	.156	.152
₩ .	.180	.180	.120	.119	.0600	.0612		.0159	.00252	.0184	.0163			+198	+198	.138	.135
10.	.153	.153	105	.104	.0486	.0491		.0190	.00351	.0225	.0205	+	· · · · · · · · · · · · · · · · · · ·	<u></u>	•175		.124
15.	.114	•114	.0806	.0776	.0329	.0364		+0249	.00545	+0303	.0279			.127	.127	.102	.0963
20.	.0912	.0912	.0662	.0629	.0249	+0283		.0357	+00709	•0451	.0415			+111	•111	.0947	.0875
30.	.0527	.0527	.0401	.0363	+0127	.0164		.0397	+0112	.0509	.0468			+104	+104	.0910	.0831
50.	.0440	.0440	.0339	.0299	.0101	+0141		.0430	+0125	.0555	.0510			• 0995	.0995	.0894	+0809
60.	.0379	.0379	+ 0294	.0252	.00849	.0127		+0459	+0137	.0596	+0347			• 09/3	.0942	.0878	.0781
80.	.0299	.0299	•0235	.0193	+00039	•0100		.0523	+0193	.0691	.0622			.0939	.0939	.0888	.0777
100.	.0248	+0248	*0141	+0122	••••						•						

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62

3 LITHIUM (cm³/g = 0.08679 x barns/atom)

63

E (MeV)	(費) KN (費) inc, t	(費) ^{BD} inc, t	([#] _p) _{)nc,a}	([#] _p) ^{BD} _{nc, a}	([#]) ^{KN} inc, в	(声) ^{BD} inc,s	([#] _p) _{coh}	([#] _p) _{*n}	(^世)×e	(ڭ) _{×, t}	(#)×, a	(#) _{7,t}	([#] _p) _{r,a}	(勞) _{tot,t}	([#] _p) _{tot,t-coh}	([#] _p) _{tot, a}	([#]) _{tot, en}
			440336	0000401	.172	.0307	•411					182.	182.)83.)82.	182+	182+
.001	.173	.0308	.000503	.000134	.172	.0456	.346					57.5	57.5	57.9	25.3	25+3	25+3
-0015	.172	.0556	.000667	.000216	.171	.0555	.298					75.3	7.46	7.77	7.53	7+46	7.46
.003	.171	.0701	.000989	+000406	.170	.0697	.237					7.08	3.08	7.36	3+17	3+08	3.08
.004	.170	.0826	+00131	.000636	.169	.0820	+198					1.56	1.56	1+82	1+66	1+56_	1+56
.005	.170	.0937	+00162	.000894	.108	.103	-143					.855	.855	1+10	•955	+857	+ 850
.006	•169	+104	+00194	+00119	166	.118	.105					.315	.315	+540	+435	• 31 0	.141
.008	+168	•120	.00234	.00246	.164	.128	.0784					.139	<u> </u>	+ 348	175	+0.358	•0353
<u>+01</u>	164	.144	+00453	.00398	.159	.140	+0423					+0313	+0313	+210	.159	•0167	.0162
.02	161	.148	.00581	.00535	.155	•143	.0261					+0105	-00248	•165	+152	•0196	•0102
.03	.155	+149	.0081	.00777	.148	+141	+0128					.000866	.000866	• 156	•148	+0109	+0107
.04	.151	.148	.0101	+00981	+141	•138	+00745					.000384	.000384	+149	+144	+0122	•0120
.05	.146	.144	+0118	+0116	135	128	.00342					.000200	•000200	+144	+141	•0139	+0134
.06	•142	+141	+0134	+0132	.119	.118	.00195							•135	+134	+0158	-0150
•08	•135	+134	.0177	.0176	.110	.110	.00126							<u>•120</u>	.116	+0209	+0209
<u>•</u>		- 115	.0209	+0209	.0946	.0946	.000566							+110	-115	.0229	.0229
.13	.106	.106	.0229	.0229	.0830	.0830	.000322							. 1920	.0920	+0248	.0248
.1	0920	0920	+0248	+0248	.0673	.0672	+000145							.0824	+0824	• 0255	+0255
	.0825	.0824	+0255	.0255	.0569	.0568								.0752	.0752	+0257	+0255
.5	.0752	.0752	+0257	•0258	.0496	.0495								+0696	• 0696	+0256	+0250
•6	.0696	.0696	.0256	+0256	+0441	0440								+0612	.0612	+ 0250	+0249
•8	.0612	.0612	•0250	.0249	0308	.0309						·····		+0549	.0549		.0220
<u> </u>	0550			0220	.0226	.0227		.000034	5	.0000345	.0000110			+0447		+0221	.0202
1.5	.0381	.0381	-0202	.0201	.0179	.0180		.000136		.000138	.0000676			+030-		+0177	+0174
2.	.0299	.0299	.0173	.0172	.0127	.0128		.000396	.0000104	.000406	.000268			+030-	.0258	+0159	+0156
3	.0251	.0251	.0152	.0151	.00981	.00998		+000644	.0000427	.00068/	+000515			+0226	.0226	+0146	+0143
5.	.0216	.0216	.0136	.0135	.00805	.00811		.000876	.0000842	.000937	.000998			+0203	.0203	+0135	+0132
6.	.0191	.0191	.0123	.0125	.00680	.00686		.00108	.000120	.00160	+00141			•0172	+0172	+0120	+0117
8.	.0156	.0156	.0104	.0103	.00521	.00531		.00165	.000305	.00195	.00178				.0152		1 .0001
10.	.0133	.0133	+00411	.00903	00780	-00316		.00216	.000473	.00263	.00242			•012	•0125	•0090	S .0091
15.	.00484	.00969	+00100	.00013	.00216	.00246		.00253	.000615	.00315	.00290			+0110	+0110	3 .0082	2 40075
20.	.00/92	+00/72	.00430	.00399	.00146	.00177		.00310	.000820	.00391	.00360			+0070	13 .0090	3 .0079	0 .0072
30 +	.00457	.00457	.0034B	.00315	.00110	.00142		+00345	•000972	.00442	.00408			+0090	54 .0086	.0077	6 .0070
50.	.00382	.00382	.00294	.00260	.000877	.00122		.00373	.00108	+00482	+00443			+0084	.0084	6 +0077	2 +0069
60.	.00329	.00329	.00255	.00219	.000737	.00110		+00398	.00119	.00568	.00510			.008	8 .0081	8 +0076	2 +0067
80.	.00260	.00260	+00204	.00168	.000555	.000920		+00423	.00146	.00600	.00540			.008	15 +0081	5 +0077	1 +0067
100.	.00215	.00215	+00171	.00135	.000444	*000811		••••									

4 BERYLLIUM (barns/atom)

E (MeV)	σinc, t	σ ^{BD} inc, t	σ _{)nc,a}	σ ^{BD} _{inc,a}	OINC, B	o ^{BD} oinc,s	σ _{coh}	σ _{*n}	σ _{×e}	σ _{x,t}	_σ _{×, a}	σ _{r,t}	σ _{τ, a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot, a}	σ _{tot, en}
.001	2.65	.414	.00516	.000806	2.65	• • 13	8.75					7490.	7490.	7500.	7490.	7490.	7490.
.0015	2.65	.704	.00772	.00205	2.64	.702	7.41					2290.	2290.	2300.	7290.	2290.	2290.
.002	2.64	.928	.0102	.00360	2.63	.924	6.19					993.	993.	1000.	994.	993.	993.
.003	2.63	1.20	.0152	.00696	2.61	1+19	4+53					298.	298.	304.	299.	298 .	298.
.004	2,62	1.36	•020Z	.0105	2.60	1.35	3.56) 26 +	126.	131.	127+) 26.	126.
•005	2.61	1.49	.0250	.0143	2+58	1+48	2.95					63+3	63+3	67.7	64+8	63,3	63.3
.006	2,60	1.59	.0298	.018z	2.57	1+57	2.53					35+6	35.6	39.7	37.2	35.6	35+6
.008	2,58	1.78	.0391	.0269	2.54	1+75	1+93					13.3	13.3	17+0	15+1	13.3	13+3
•01	2,56	1.92	.0480	.0360	2.51	1.88	1.50					6.00	6.00	<u></u>	7.92	0.05	
.015	2,52	2.14	.0096	.0592	2.45	2+05	+800					1+42	1.42	3,30	3.74	1.497	.695
.02	2.4/	2.23	134	.0805	2.30	2+13	+571					• 713	121	2.66	2.38	.247	.241
.03	2,37	2.24	154	140	2.16	2.09	.165					.0450	.0450	2.45	2.28	199	.194
.05	2 26	2.20	1.1.91	177	2.06	2.02	.109					.0206	.0206	2.33	2.22	202	.198
.06	2.18	2.15	205	202	1.98	1.95	.0771					+0108	.0108	2.24	2.16	.216	.213
.08	2.07	2.05	.242	240	1.63	1.81	.0442					.00395	.00395	2.10	2.05	.246	• 244
•1	1.97	1.96	.272	.270	1.70	1.69	+0287					.00184	.00184	1.99	1,96	.274	.272
.15	1.77	1.77	.322	.321	1+45	1.45	+0130							1.78	1.77	+322	+321
•2	1.63	1.62	.351	.350	1.27	1.27	.00737							1.63	1+62	.351	.350
.3	1.41	1.41	.381	.380	1.03	1.03	.00336							1.41	1++1	.301	.380
•4	1.27	1.27	.392	.394	+674	.876	+00190							1.2/	1+27	+ 342	+ 374
•5	1.16	1+16	.394	.398	.762	.762	+00120							1+10	1.10	.394	+ 370
• •	1.07	1.07	.393	.394	+0/7	+0/0								1+07	1.070	- 373	. 182
,* ⁰	+940	.939	.304	+ 382	+ 220	+ 337								.845	.845	. 372	.370
1.6	686	.686	340	.318		.148		+00071		.00071	.000226			.687	•687	•341	.338
2.	.585	.585	.311	. 309	.275	.276		.00281		.00281	.00138			+588	+588	+314	•310
3.	+460	.460 -	266	.264	.195	•196		.00810	.000160	.00826	.00546			•468	•468	+274	.269
4.	.385	.385	.234	.231	.151	+154		.0131	+000658	.0138	.0103			•399	.399	•248	+241
5.	.332 .	.332	.209	.207	•124	.125		.0175	.00129	.0188	.0151			•351	+351	+228	+ 222
6.	.294	.294	.189	.188	.105	+106		.0215	+00197	.0235	.0197			+317	+317	•212	+20
8.	.240	.240	, 160	.158	.0800	.0818		.0282	.00336	.0316	.027.9			+272	•272	•192	•155
10.	.205	.205		.138	.0648	.0668	·	.0340	.00466	.0387				1244			
15.	+151	+151	.108	.103	+04.39	.0483		.0440	.00/2/	+0513	.04/2			+202	.183	. 150	.140
20.	,122	+122	.0883	.0832	.0332	.0368		•0520	+00941	+0014	+0505			.164	164	147	.130
30.	+0863	+0665	+0001	+ 0004	.0169			.0704	.0149	.0853	.0780			.156	.156	.139	.125
4U.	-0703	.0703	.0334		.0135	.0198		.0760	.0167	.0927	.0844			.151	.151	.138	.123
2 0.	.0506	.0506	.0392	.0329	.0113	.0177		.0504	.0181	.0985	.0886			.149	.149	138	•12 1
80.	.0399	.0399	.0314	. 0250	.00852	.0149		.0875	.0204	.108	.0950			+148	.148	,139	.120
100.	.0331	.0331	.0263	.0199	.00683	.0132		.0930	+0223	.115	.0992			.148	.148	.141	.119
	••••	•• •															

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64

4 BERYLLIUM (cm³/g = 0.06683 x barns/atom)

E (MeV)	(声) _{inc,t}	([#]) ^{BD} _{inc,t}	([#] _p) ^{KN} inc, a	(# BD (#) inc, a	([#] _₽) ^{KN} _{nc,s}	$\left(\frac{\mu}{p}\right)_{inc,s}^{BD}$	([#] _p) _{coh}	(^µ _p) _{×n}	(片) _{×e}	(ڭ) _{×, t}	([#] _p) _{*,a}	([#] _p) _{r,t}	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	(券) _{tot,t}	(勞) _{tot, t-coh}	([#]) _{tot,a}	([#]) _{tot, en}
.001	.177	.0277	+000345	+0000539	.177	.0276	.585					501.	501.	501.	501.	501.	501.
-0015	.176	+0470	+000516	.000137	+176	.0469	•495					153.	153.	154.	153.	153.	153.
.003	.176	.0802	+00102	.000445	.174	+0618	.303					66.4	66.4	66.8	66+4	66.4	66.4
.004	.175	.0909	+00135	.000702	.174	.0902	.238					19.9	19.9	20.3	50.0	19.9	19.9
.005	+174	.0996	.00167	+000956	.172	.0989	•197					4.23	4.23	4.52	8.49 A 33	8,42	5.42
.000	172	.106	+00199	+00122	+172	.105	+169					2.38	2.38	2.65	2.49	2.38	2.18
.01	.171	.128	+00261	+00180	.170	•117	.129					.889	.889	1+14	1.01	.889	.889
.015	.168	•143	+00465	.00396	.164	.139	+100			· · ·		.401		.630	.529		404
• 02	.165	+149	+00596	.00538	.159	.144	.0368					.0949	• 0949	.296	.738	• 0996	.0989
.03	+160	•151	.00829	•00789	.152	.143	.0184					.00822	.00822	+221	.159	+0404	• 0398
.05	+154	+150	•0103	•00996	+144	.140	.0110					.00301	.00301	.164	.152	.0133	.0130
.06	.146	.144	.0137	.0135	.132	.135	+00728					.00138	.00138	.156	148	.0135	.0132
.08	.138	.137	.016Z	.0160	122	.121	+00295					.000722	.000722	.150	.144	+0144	.0142
•1	•132	•131	.0182	.0180	.114	•113	.00192					.000204	.000264	+140	.137	-0164	.0163
•15	.118	+118	.0215	.0215	.0969	.0969	.000869		· · · ·		· · · ·			.119	118		0102
.3	+107	.108	•0235	.0234	.0849	+0849	.000493							.109	108	.0235	.0234
	.0849	.0849	+0255	+0274	.0584	+0055	.000225							.0942	.0942	.0255	.0254
.5	.0775	.0775	.0263	.0266	.0509	.0509	.0000802							.0849	.0849	+0262	.0263
•6	.0715	.0715	+0263	.0263	.0452	.0452								•0775	.0775	+0263	.0266
. •8	.0628	.0628	.0257	•0255	.0372	.0372								+0715	+0/15	+0283	.0263
1.	.0505	.0505	+0249	+0247	.0316	.0317								.0565	.0565	+0257	.0247
2.	.0391	.0391	+0227	+0220	.0232	.0233		.000047	•	+0000474	.0000151			+0459	.0459	+0228	.0226
3.	.0307	.0307	.0178	.0176	.0130	.0131		+000188	0000107	.000188	.0000922			.0393	.0393	.0210	.0207
4.	.0257	.0257	+0156	.0154	.0101	.0103		.000875	.0000440	.000992	.000498			+0313	.0313	.0183	+0180
5.	.0222	•0222	.0140	.0138	.00829	.00835		.00117	.0000862	.00126	.00101			+020/	+0287	•0166	+0161
•	+0196	+0196	+0126	+0126	.00702	+00708		+00144	•000132	.00157	.00132			.0212	.0212	+0172	.0140
10.	.0137	.0180	+0107	+0106	.00535	+00547		.00188	•000225	.00211	.00186			.0182	.0182	.0128	.0124
15.	.0101	.0101	+00722	+00922	.00293	.00323		.00227	+000311	+00259	.00235			+0163	.0163	.0120	.0116
20.	.00815	.00815	.00590	.00556	.00222	.00259		A00348	.000629	+003=3	.00378			+0135	.0135	+0106	+0100
30.	.00591	.00591	.00442	+00404	.00150	.00188		.00420	+000842	.00505	+00463			.0122	.0122	.0100	.00936
40. Ea	.00470	+00470	+00357	.00317	.00113	.00152		•00470	.000996	.00570	.00521			+0110	.0110	•00949	+00869
<u>60</u> .	.00392	.00392	+00302	.00260	.000902	.00132		.00508	.00112	.00620	.00564			.0101	.0101	.00922	.00822
80.	.00267	.00267	.00210	.00167	.000569	+00118		+00537	+00121	.00658	.00592			.00996	.00996	.00922	.00809
100.	.00221	.00221	.00176	.00133	.000456	.000882		+00622	-00130	+00722	+00635			.00989	.00989	.00929	.00802
	-							TUTUEL		***/87	+0003			•00989	.00989	.00942	.00795

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	5	BORON	
(1		'ns/atom)	

E (MeV)	KN o _{inc,t}	o ^{BD} inc.t	oKN Oinc, a	oBD oinc, a	KN Øinc, s	BD Oinc, s	σ _{coh}	σ×n	(barns/a U _{×e}	utom) σ _{x,t}	σ _{×, a}	σ _{r, t}	σ _{r,a}	σ _{tot,t}	O _{tot,t-coh}	o _{tot,a}	σ _{tot}
.001 .0015 .002 .003 .004 .005 .005 .006 .006	3,31 3,31 3,30 3,29 3,27 3,26 3,25 3,23	•354 •663 •960 1•39 1•66 1•84 1•98 2•18	.00645 .00964 .0128 .0191 .0252 .0312 .0372 .0488	.00069 .00193 .00372 .00806 .0128 .0176 .0227 .0330	3.31 3.30 3.29 3.27 3.25 3.23 3.23 3.21 3.18	• 353 • 661 • 956 1• 38 1• 65 1• 82 1• 96 2• 15	14+3 12+4 10+6 7+74 5+87 4+68 3+89 2+89			<u>_</u>		19200. 5940. 2590. 336. 168. 94.5 36.0	19200. 5940. 2590. 791. 336. 168. 94.5 36.0	19200, 5950, 2600, 344, 175, 100, 41,1	19200. 5940. 2590. 792. 338. 170. 96.5 38.2	19700. 5940. 2590. 791. 336. 168. 94.5 36.0	192 59 25 7 3
<u>•01</u> •015 •02 •03 •04 •05 •06 •06 •1	3.14 3.09 2.99 2.89 2.89 2.81 2.73 2.59 2.46	2,59 2,72 2,79 2,77 2,73 2,67 2,55 2,44	.0800 .0869 .111 .155 .193 .226 .256 .303 .348	.0439 .0716 .0982 .145 .185 .220 .251 .299 .337	3.14 3.06 2.98 2.83 2.70 2.58 2.47 2.28 2.12	2.52 2.62 2.64 2.59 2.51 2.42 2.25 2.10	2+27 1+36 +889 +455 +275 +183 +130 +0755 +0491					16.5 4.10 1.55 .385 .144 .0675 .0362 .0136 .0136	10.5 4.10 1.55 .385 .144 .0675 .0362 .0136 .00136	8,05 5,16 3,63 3,19 2,98 2,84 2,64 2,50	18,6 6,69 4,27 3,17 2,91 2,80 2,71 2,56 2,45	4.19 1.66 .540 .337 .293 .293 .293 .317 .346	
.15 .2 .3 .4 .5 .6 .8 <u>1</u> .	2.22 2.03 1.77 1.58 1.45 1.34 1.17 1.06	2.21 2.03 1.76 1.58 1.44 1.34 1.17 1.06	.402 .439 .476 .490 .493 .491 .480 .464	.401 .439 .474 .490 .494 .493 .476 .464	1 + 82 1 + 59 1 + 29 1 + 09 + 952 + 846 + 694 + 591	1.81 1.59 1.29 1.09 .946 .847 .694 .596	• 0223 • 0127 • 00579 • 00332 • 00214 • 00147					.00162	.00162	2,23 2,04 1,77 1,58 1,44 1,34 1,17 1,06	2,21 2,03 1,76 1,58 1,44 1,34 1,17 1,06	.404 .439 .476 .490 .493 .491 .480 .464	
1.5 2. 3. 4. 5. 6. 8. 10.	.858 .731 .575 .481 .415 .367 .300 .256	.858 .732 .575 .481 .415 .367 .300 <u>.256</u>	.424 .388 .332 .292 .261 .236 .200 .175	.422 .386 .329 .288 .257 .234 .197 .172	.433 .343 .243 .189 .155 .131 .0999 .0809	.436 .346 .246 .193 .158 .133 .103 .0845		.00110 .00439 .0125 .0205 .0273 .0333 .0440 .0529	.000201 .000824 .00161 .00245 .00420 .00583	.00110 .00439 .0127 .0213 .0289 .0357 .0482 .0587	.000351 .00215 .00840 .0160 .0232 .0300 .0424 .0532			.859 .736 .588 .502 .444 .403 .348 .315	.859 .736 .588 .502 .444 .403 .348 .315	.392 .392 .345 .313 .290 .272 .248 .234	
15+ 20+ 30+ 40+ 50+ 60+ 80+	.187 .152 .111 .0879 .0734 .0632 .0498 .0414	.189 .152 .111 .0879 .0734 .0632 .0498 .0414	.134 .110 .0826 .0668 .0565 .0491 .0392 .0329	.128 .103 .0751 .0585 .0479 .0403 .0305 .0242	.0347 .0415 .0279 .0211 .0169 .0141 .0106 .00853	.0810 .0489 .0359 .0294 .0255 .6229 .0193 .0172		.0883 .0807 .0980 .110 .118 .126 .136 .145	.00910 .0117 .0157 .0185 .0207 .0226 .0254 .0277	.0924 .114 .128 .139 .149 .161 .173	.0712 .0850 .104 .117 .123 .130 .137 .142			.244 .225 .216 .212 .212 .212 .212 .211	.244 .225 .216 .212 .212 .212 .211 .214	.202 .197 .195 .196 .198 .200 .206	

5 BORON (cm³/g = 0.05571 x barns/atom)

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E (MeV)	([#]) ^{KN} _{inc,t}	(第) ^{BD} inc.t	([#]) ^{KN})nc, a	([#]) _{nc,a}	([#] _p) ^{KN} _{inc, s}	(چ) ^{BD} inc,s	(片) _{coh}	([#] ₅) _{×n}	(斧) _{×e}	(ڭ) _{×, t}	$\left(\frac{\mu}{\rho}\right)_{x,a}$	([#] _p) _{r,t}	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	(券) _{tot,t}	([#] _p) _{tot,t.coh}	([#] _p) _{tot.a}	(%) _{tot.en}
.001	.184	.0197	.000359	-000384	.184	.0197	. 797										
.0015	.184	.0369	+000537	.000108	184	.0368	.691					1070.	1070.	1070.	1070.	1070.	1070.
.002	.184	.0535	.000713	.000207	.183	.0533	.591					331 •	331.	331+	371+	331.	331.
.003	.183	.0774	+00106	.000449	182	.0769	.431					177.		1424	1	197+-	144.
.004	.182	.0925	+00140	.000713	181	.0919	.327					18.7	18.7	10.7		2211	
.005	.182	.103	+00174	.000980	180	.101	.261					9 76	10.74	17.2	18.0	10+1	10.1
•006	.181	.110	+00207	.00126	.179	.109	.217					5 26	5 26	7+13	5 38	7.10	7,30
•008	.180	.121	+00272	.00184	.177	.120	.161					2.01	2.01	2.29	2,13	2.01	2.01
<u>.01</u>	,178	.130	.0.0334	+00245	.175	.128	.126					.919	.919	1.18	1.05	.025	
.015	.175	+144	+00484	.00399	.170	+140	+0758					.228	.228	. 448	.373	.213	.212
•02	•172	+152	+00618	.00547	.166	.146	+0495					.0864	.0864	.287	.238	.0925	.0919
•03	+16/	+155	+00864	.00808	.158	+147	•0253					.0214	.0214	.202	.177	.0301	. 0295
•0•	+ 161	+154	+0108	.0103	.150	+144	+0153					.00802	.00802	.178	.162	.0188	.0183
•07	+157	+152	+0126	+0123	•1••	+140	+0102					.00376	00376	.166	.156	.0163	.0160
.08	132	147	+01=3	+01+0	120	+135	.00724					.00202	.00202	158	.151	.0163	.0160
.1	.137	176	-0109	+010/	110	+125	+00421					.000758	.000758	.147	,143	.0177	.0174
-15	.124	.123	.0224	+0100	110	101	AA1 74					.000351	.000351	139		.0193	.0191
.2	.113	.113	.0245	+0223	.0886	+101	+00124					.0000903	.0000903	.124	.123	.0225	.0225
.3	.0986	.0980	.0265	.0264	.0719	.0719	.000708							+114	.113	+ 0245	.0245
	.0880	.0880	.0273	.0273	.0607	.0607	.000185							• 0986	•0980	.0265	+0264
.5	.0808	.0802	.0275	.0275	.053n	.0527	.000119							.0880	.0880	.0273	.0273
.6	.0747	.0747	.0274	.0275	.0471	.0472	.0000819	1						.0802	.0802	.0275	.0275
.8	.0652	.0652	.0267	.0265	.0387	.0387								.0747	+0/4/	+0274	.0275
1.	+0591	.0591	.0258	.0258	.0329	.0332								+0002	.0072	+0207	.0205
1.5	+0478	+0478	+0236	+0235	.0241	+0243		.0000613		.0000613	.0000196			.0479		10220	A0220
2.	•0407	+0408	+0216	+0215	.0191	.0193		+000245		.000245	.000120			.0410	.0410	+063/	.0235
3.	•0320	•0320	+0185	+0183	.0135	.0137		•000696	•0000112	+000708	+000468			.0328	.0328	.0192	.0188
<u>*</u> •	.0268	.0268	+0163	.0160	.0105	.0108		+00114	.0000459	.00119	.000891			.0280	.0280	.0174	.0169
2.	+0231	.0231	+0145	+0143	.00864	.0088		.00152	.0000897	.00161	.00129			.0247	.0247	0162	.0156
.	.0204	+0204	+01-1	•0130	.00730	+00741		+00186	.000136	.00199	.00167			.0225	0225	.0152	.0147
10.	.0107	+0167	+0111	+0110	.00557	.00574		+00245	.000234	.00269	.00236			.0194	.0194	+0138	.0133
100	0143		+009/5	•00428	.00451	.004/1		.00295	000325	.00327	.00296			0175	.0175	.0130	0125
20.	.00847	+0105	+00/4/	+00/13	.00300	+00340		+00380	.000507	+00431	.00397			+0148	.0148	+0118	.0111
30.	.00618	.00618	+00013	+005/4	00231	+00212		+00450	.000652	+00515	+00474			.0136	.0136	•0113	.0105
40.	.00490	.00490	.00372	.00324	.00118	.00164		.00540	.00103	51700	.00379			•0125	.0125	•0110	.00997
50.	.00409	.00409	.00315	.00267	.000941	.00147		*****	.00103	+00113	.00052			•0120	.0120	+0109	.00975
60.	.00352	.00352	.00274	+00225	.000786	.00128		.00702	.00126	.00876	+00085			+0118	.0118	+0109	.00953
80.	.00277	.00277	.0021A	.00170	.000591	.00108		.00758	.00142	.00897	.00763			.0118	+0118	.0110	.00947
100.	.00231	.00231	.00183	.00135	.000475	.000958		+00808	.00154	10096A	.00791			+0118	+0118	+0111	.00930
	. ,									+++++	******			+0119	,0119	.0115	.00925

6 CARBON (barns/atom)

E (MeV)	σ _{inc,t}	$\sigma_{inc,t}^{BD}$	o ^{KN} o _{inc,a}	o ^{BD}	o ^{KN} o _{inc,s}	σ ^{BD} _{lnc,s}	σ _{coh}	σ×n	σ _{×e}	σ _{x,t}	σ _{×, a}	σ _{r,t}		σ _{tot,t}	Ttot.t-coh	σ _{tot, a}	σ toi, en
.001	3.98	.299	.00775	.000582	3.97	.298	21+3					40100.	40100.	40100.	4n100+	40100.	40100.
.0015	3,97	.590	.0116	.00172	3.96	. 588	19+1					12600.	12600.	12600.	12600+	12600.	12600.
• 0 0 Z	3.96	.900	.0154	.00349	3.94	+897	16.8					5590.	5590.	5610+	5590 .	590.	5590.
.003	3,94	1.43	.0229	.00829	3,92	1+42	12+6					1750 •	1750+	1760.	1750+	1/50+	743
.004	3,93	1.82	.0302	+0140	3.90	1.81	9.54					777.	777.	7344	179.	377.	377.
.005	3,91	2 30	+03/5	.0200	3.84	2+01	6.09					208.	208.	216.	210.	208.	208.
.008	3.87	2.55	.0586	.0386	3.81	2.51	4.36					80.0	80.0	86.9	82.5	80+1	80.0
.01	3.84	2.74	.0720	.0513	3.77	2.69	3.37					38.0	38.0	44.1	40.7	38.1	38.1
.015	3,77	3.03	.104	.0838	3.67	2.95	2+03					9.75	9.75	14+8	12.8	9.85	9.83
• 02	3.71	3.19	.134	.115	3.57	3.07	1+34					3.82	3.82	8.35	7.01	3.95	3,93
•03	3,58	3.30	.187	.172	3.40	3.13	• 699					• 980	.980	4.98	9.20	1+17	1+15
•04	3.47	3.30	.232	.220	3.24	3.08	+425					• 370	.370	3.71	3.07	.449	.43
• 05	3,37	3.25	.272	.262	3.10	2.99	+285					.0960	.0960	3.49	3.29	.403	. 39
.00	3.10	3.05	. 363	.297	2.74	2.69	.119					+0357	.0357	3.20	3.09	.399	.39
-1	2.96	2.92	408	.403	2.55	2.52	.0775					.0172	.0172	3,01	2,94	.425	.42
-15	2.66	2.65	.483	.481	2.18	2.17	+0353					+00466	+00466	2.69	2+65	,488	•48
•2	2,44	2.43	.527	. 525	1.91	1.90	+0201					.00183	.00183	2,45	2.43	.529	.52
.3	2.12	2.12	.572	.572	1.55	1.55	+00917							2.13	2.12	•572	•57
•4	1.90	1.90	.589	.589	1.31	1+31	.00530							1.91	1.90	+ 787	
.5	1.73	1.73	• 592	.593	1.14	1+14	+00345							1.60	1.40		.58
•	1,60	1.60	.540	.507	1.02	1+01	+00240							1.41	3.41	576	.57
1.0	1.27	1.27	457		.710	.714	*00131							1.27	1.27	.557	.55
1.5	1.03	1.03	.509	.507	.520	.523		.00158		+00158	.000504			1.03	1.03	.511	.50
2.	.878	.878	466	.464	.412	.414		.0063		.0063	.00309			.884	+884	.472	.46
3,	.691	.690	398	.394	.292	.296		.0182	.000241	+0184	.0122			.708	•708	+416	•40
4.	.577	.577	.350	.345	.227	.232		.0296	.000986	.0306	.0228			.608	•608	• 301	.30
5.	.498	.498	.313	.308	+185	+190		.0395	.00194	+0414	.0332			+339	+537	.334	.12
••	.441	.441	.284	.279	157	+102		.0401	+00297	+0510	+0427			478	.428	.308	.29
	.360	.360	210	.234	.0971	.103		.0755	.00308	.0825				.389	.389	. 292	,27
15.		. 227	161	.151	.0659	.074		.0986	.0108	+109	.101			.336	.336	.270	.25
20.	.182	182	.132	.123	.0499	.0593		.116	+0140	.130	.120			•312	•312	•262	•24
30.	.133	.133	0992	.0891	.0335	.0439		.140	.0187	•159	.144			.292	•292	•258	•23
40.	.105	.105	.0802	.0692	.0253	.0358		.157	+0222	+179	.160			+264	+284	• 259	•22
50.	.0581	.0881	.0678	.0566	.0203	.0315		.170	+0248	•195	+169			.283	• 283	.203	+ 22
60.	.0758	.0758	.0589	.0475	.0170	.0283		+179	.0270	+206	+175			.284	.284	.271	.22
80.	.0598	.0598	.0470	.0.359	+0128	+0239		.194	.0303	+ 224	+104	•		.290	.290	279	.21
100*	+0497	+0477	+0344	+0500	+0105	+0513		+201	+0221	+2+0	+1.20						

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6 CARBON (cm³/g = 0,05014 x barns/atom)

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E (MeV)	([#]) ^{KN} inc, t	([#]) ^{BD} _{inc,t}	([#] _p) ^{KN} _{)nc,a}	(#) ^{BD} inc.a	(声) ^{KN} inc, s	(声) ^{BD} inc,s	([#]) _{coh}	(#)×n	(분)*e	([#]) _{×, t}	(#) _{*,a}	([#] _p) _{7,1}	([#] _p) _{7,a}	(#) _{tot} , t	(#) tot t-coh	([#] _p) _{tot} , a	([#])tot, en
.001	.200	.0150	.000389	•0000292	.199	.0149	1.07					2010.	2010.	2010.	2010.	2010.	2010.
.002	.199	.0451	.000772	+000175	.198	.0450	.842					632. 280.	632.	632.	632.	632.	632.
.003	.198	.0717	+00115	+000416	.197	.0712	.632					87.7	87.7	88.2	87.7	87.7	87.7
.005	.196	.105	+00151	+000702	.195	•0908 •104	+478					37.3	37.3	37.8	37.4	37.3	37.3
.006	.196	.115	.00224	.00131	.194	.113	•305					10.4	10.4	19.4	19.0	18,9	18.9
.008	+194	.128	.00294	.00194	.191	.126	.219					4.01	4+01	4.36	4.14	4.02	4.01
.015	.189	.152	+00521	+00257	-184	.148	-109					1.91		2,21	2,04	1 . <u>91</u>	1.91
.02	.186	.160	.00672	.00577	.179	+154	.0672					.192	.192	. / 42	.042	.494 198	,493 197
.03	+180	.165	.00938	+00862	+170	+157	.0350					.0491	.0491	250	.215	0587	0577
.05	.169	.163	.0136	.0131	.155	+154	+0213					.0186	.0186	.205	.184	.0302	.0296
.06	.164	.160	.0154	.0150	.149	.145	.0102					.00481	.00481	.175	.172	.9225	.0220
.08	+155	+153	+0182	•0179	+137 120	•135	.00597					.00179	.00179	.160	.155	.0200	.0197
.15	.133	.133	+0242	+0241	.109	•120	+00389			·		.000862	.000862		.147	.0213	.0211
•5	.122	+122	+0264	• 0 26 3	.0958	.0953	.00101					.0000918	.0000918	.123	.133	.0245	.0244
	.100	.100	+0287	+0287	.0777	.0777	.00046						••••••	.107	.106	.0287	.0287
•5	.0867	.0867	+0297	•0297	.0572	.0572	.000200							•0958	.0953	.0295	.0295
•6	.0802	.0802	.0296	.0294	.0511	.0506	.000120							.0802	.0802	.0296	.0297
, • •	.0707	+0707	+0289	•0288	+0418	+0419	•0000657							.0707	.0707	.0289	.0288
1.5	.0516	.0516	.0255	+0254	.0261	.0262	<u> </u>	+000079	2	.0000793			·· ·· ·· ··	0637	0637	0279	.0279
2.	.0440	.0440	.0234	.0233	.0207	.0208		.000316	-	.000316	.000155			.0443	.0510	.0230	.0235
3.	+0346	.0346	.0200	•0198	.0146	.0148		.000913	.0000121	.000923	.000612			.0355	.0355	.0209	.0204
5.	.0250	.0250	.0157	•0154	.00928	.00953		.00148	.0000973	+00193	+00114			.0305	.0305	.0191	.0185
6.	.0221	.0221	+0142	+0140	.00787	.00812		.00241	.000148	.00256	.00214			.0247	.0210	.0177	•01/ <u>1</u> •0161
10.	.0154	+0181	+0120	+0117	.00602	.00632		+00317	+000254	.00343	.00301			.0215	.0215	.0154	.0147
15.	.0114	.0114	+00807	+00767	.00330	.00371	<u> </u>	.00494	•000542	+00414	•00373 •00506			0195	.0195		,0139
20.	.00913	.00913	.00662	+00617	.00250	.00297		.00582	.000702	.00652	.00602			.0156	.0168	.0135	.0127
40.	.00526	.00526	+00497	+00447	.00168	.00220		+00702	.000938	.00797	.00722			.0146	.0146	0129	.0117
50.	.00442	.00442	.00340	.00284	.00102	.00158		.00852	.00124	+00898	.00802			+0142	.0142	.0130	.0115
60.	.00380	.00380	.00295	.00238	.000852	.00142		.00898	.00135	.0103	.00877			+0142	+0142	.0132	• 01 13
100.	+00300	.00249	+00236 +00198	+00180	.000642	.00120		.00973	.00152	.0112	.00923			.0142	.0142	.0136	.0110
			+ + + + + + + + + + + + + + + + + + + +	++++=	*****	*****		+0104	•001 99	+0150	•00953			.0145	.0145	.0140	.0109

7 NITROGEN (barns/atom)

E (MeV)	KN ⁰ inc.t	OBD	OINC. A	o ^{BD}		σ ^{BD} _{inc.s}	σ _{cob}	σ _{*n}	σ×	σ	σ.,	σ,	σ,	σ _{tot}	Tet tech	σ.	or en
								<u> </u>	_ _	<u></u>							
+001	4,64	.259	.00904	.000505	4.63	•258	29.8					73000.	73000.	73000.	73000.	73000.	73000.
+0013	4,03	+523	+0135	.00153	4.02	.521	27.3					23000.	23000.	23000.	23000.	23000.	23000.
.002	4.40	1.38	.0179	.00318	4.00	+817	24+5					10100.	10100+	10100.	10100.	10100.	10100.
-084	4.58	1.86	.0353	.0163	4.55	1.85	14.7					1370.	1370.	1390.	3180+	3100.	3180+
.005	4.57	2.21	-0437	.0212	4.52	2.19	11.6					695.	695.	789.	697.	696.	495.
.006	4,55	2.49	.0521	.0285	4.50	2.46	9.34					395.	395.	407.	397.	395	198.
.008	4,52	2.85	.0683	.0431	4.45	2.81	6.54					160.	160.	169.	163.	160.	160.
.01	4,48	3.09	,0840	.0579	4,40	3.03	4.94					77.8	77.8	85.8	80.9	77.9	77.9
.015	4.40	3.45	.122	.0954	4.28	3.35	2.93					20.4	20.4	26.8	23+8	20.5	20.5
•02	4.33	3.65	•156	.132	4+17	3.52	1.45					8.02	8.02	13.6	11+7	8.18	8.15
.03	4.18	3.80	.218	+198	3.97	3.60	1+03					2.06	2+06	6.89	5+86	2+28	2.26
•04	4.05	3.81	.2/0	+254	3.78	3.56	.626					• 790	.790	5.23	4.60	1.00	1+04
- 05	3,73	3,70	.317	.303	3.44	3.40	+421					• 377	+3//	4,30	4.14	.074	
-08	3.62	3.55	.424		3.20	3.13	.177					.0790		3.81	3.70	+ 546 EA3	+99] +99]
.1	3.45	3.40	476	.469	2.97	2.93	116					.0373	.0373	3.55	3.44	.503	.50
•15	3.11	3.08	.563	.559	2.54	2.52	+0528					+0100	.0100	3.14	3.09	.573	.569
•2	2,84	2,83	.615	.612	2.23	2+22	+0301					.00397	.00397	2.86	2.83	.619	.616
.3	2.47	2.47	.667	.666	1.81	1+80	+0137					.00106	.00106	2,48	2.47	.668	.667
••	2,22	2.21	.687	.685	1.53	1.52	+00794							2.22	2.21	.687	685
•5	2.02	2.02	.690	.693	1.33	1.33	+00521							2.03	2.02	.690	.69
••	1.87	1.87	.688	.686	1+18	1+18	.00367							1.87	1+87	.688	•686
,•°	1.04	1.04	.0/2	.00/	.972	.9/3	.00204							1.64	1.84	+672	+667
1.5	1.20	1.20	630	040	.6028	+032		00714		00314				1.98	1.20		
2.	1.02	1.02	.544	.519	481	.481		.00858		.00858	.0042			1.03	1.03	. 553	.54
3.	.806	.805	465	460	.341	.345		.0245	.000281	+0248	.0164			.830	.830	.490	.476
4.	.673	.673	409	402	.265	+271		.0402	.00116	+0414	.0308			.714	.714	. 450	.43
5.	.582	.582	.365	359	, 216	.223		.0540	.00226	.0563	.0450			,638	.638	.421	.404
6.	, 514	.514	.331	. 324	.183	.190		.0658	.00343	•0692	.0577			.583	.583	+400	.382
8.	.420	.420	.280	.273	.140	+147		.0860	.00590	.0919	.0804			,512	•512	.372	,353
10.	. 358	. 358	,245	.237	.113	<u>.121</u>		_ <u>2</u>	00817	110	.0992 '			.468	,468	.355	.336
15.	+205	+265	.108	.178	.0769	.0874		.133	.0127	+146	.134			.411	+411	, 334	.312
20.	• 213	.213	+133	•1•3	+0582	.0703		+157	.0103	•173	+160			.386	+ 300	.328	.303
40.	+177	.133	+110 +110	.103	+0391	0217		+141	+0218	+213	• 192			. 365	• 300	, 329	.295
50.	.103	.103	.0791	0655	.0237	.0376		.230	+0237	.250	.220			. 369	. 302	.332	.284
60.	0885	.0885	0687	.0549	.0198	.0336		.243	.0313	.274	.227			.362	. 342	. 347	.283
80.	.0698	.0698	.0549	.0412	.0149	0286		.264	.0352	.299	.236			.369	.369	.354	.271
100.	.0580	.0580	.0460	.0325	.0119	.0255		.280	.0383	+318	.242			.376	.376	.364	.274
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7 NITROGEN (cm³/g = 0.04300 x barns/atom)

n :: n / n ● N n

E (MeV)	(声) ^{KN} inc,t	([#] _₽) ^{BD} _{)nc,t}	(声) ^{KN} inc,a	$\left(\frac{\mu}{\rho}\right)_{inc,a}^{BD}$	(声) ^{KN} inc, s	(≝) ^{BD} inc,s	(뿔) _{coh}	(≝)×n	(片) _{×e}	([#])», t	([#]) _{*,a}	(^{یل}), (([#]),	(ی) tot t	(賞)totatasab	([#]), _{ot} ,	(ち)tot en
.001	.200	.0111	.000389	.0000217	.199	.0111	1.28					3140.	2140	3140		2540	
.002	.199	+0225	+000580	+0000658	•199	.0224	1.17					989.	999.	3140.	31404	3140.	3140.
.003	.198	+0353	+000770	+000137	+198	•0351	1.05					434.	434.	434.	434.	434.	434.
.004	.197	.0800	.00152	.000615	.196	.0705	+817					137.	137.	138.	137.	137.	137,
.005	.197	.0950	.00188	.000912	194	.0942	.490					58.9	58.9	59.8	58.9	58.9	58.9
.006	.196	.107	+00224	.00123	.193	.106	402				•	29.9	29.9	30.5	30.0	29.9	29.9
.008	+194	•123	+00294	.00185	.191	.121	281					17+0	17+0	17.5	17.1	17.0	17.0
+01	-193	-133	•00361	.00249	.189	.130	+212					1.15	3.35	7.69	7.01	0.00	3,35
-02	.186	.165	+00525	+00410	.184	.144	•126					.877		1.15	1.02		
.03	.180	163	.00937	+00368	.171	+151	.0838					.345	.345	.585	.503	. 152	.350
.04	.174	.164	.0116	.01091	.163	+155	+0443					+0886	.0886	.296	+252	.0980	.097
•05	.169	+162	+0136	.0130	.155	149	.0181					+0340	+0340	+225	+198	+0456	.044
+06	.164	•159	+0154	.0149	.149	.144	.0130					+0162	+0162	.196	.178	.0298	.029
•08	.156	•153	•018z	•0179	.138	+135	.00761					+00877	+00877	+181	+168	+ 0242	.023
<u>+</u>]	.148	.146	+0205	.0202	,128	.126	.00499					+00340	.00340	+104	+150	.0210	.021
•17	139	+132	+0242	+0240	.109	.108	.00227					+000430	.000430	125	.122		
.3	.126	+122	+0264	.0263	.0959	.0955	.00129					+000171	+000171	.123	.122	.0246	.024
• •	.0955	.100	+0287	+0286	.0778	+0774	.000589					+0000456	.0000456	.107	.106	.0287	.028
.5	.0869	.0869	+0275	+0273	.0058	+ 06 34	+000341							.0955	.0950	.0295	.029
•6	.0804	.0804	.0296	.0295	.0507	.0507	+000224							+0873	+0869	.0297	.029
.8	.0705	.0705	+0289	.0287	.0418	.0418	.0000158							+0804	+0804	.0296	.029
1.	.0636	.0636	+0279	+0279	.0356	.0358	.0000529							+0705	.0705	.0289	•028
1.5	.0516	.0516	+0255	+0254	.0261	.0262		.000092		.000092	.0000204			-0636		.0279	.027
2.	.0439	.0439	.0234	•0232	.0207	.0207		.000369		.000369	.0001A1			+0516	+0516	+0256	+025
3.	+0347	+0346	•0200	+0198	.0147	.0148		.00105	.0000121	.00107	.000705			+0443	+0443	+0238	.02.3
.	+0207	+0289	+01/6	•0173	+0114	+0117		•00173	.0000499	.00178	.00132			.0307	.0307	.0193	.018
6.	.0221	.0221	+0197	+0174	.00929	+00959		+00232	.0000972	•00242	+00193			.0274	.0274	.0181	.017
8.	.0181	.0181	.0120	.0117	.00602	.00617		+00283	+000147	.00298	.00248			.0251	+0251	.0172	:016
10,	.0154	.0154	+0105	.0102	.00486	.00520		-00370	+000234	.00395	+00346			•0220	•0220	.0160	.015;
15.	+0114	+0114	+00808	.00765	.00331	.00376		+00572	+000546	.00478	00421	·		.0201	.0201	.0153	+0144
20.	.00916	+00916	•00666	.00615	.00250	.00302		.00675	+000701	.00744	.00688			+0177	+0177	+0144	.0134
30.	.00666	.00666	+00499	+00443	.00168	.00223		.00821	.000937	.00916	.00826			+0166	+0168	.0141	.0130
40.	.00529	.00529	+00402	+00344	.00127	.00185		+00916	.00111	.0103	.00899			+0150	.0150	+01+1	+012
60.	.00443	+00443	.00340	.00282	.00102	.00161		+00989	.00124	.0111	.00946			+0156	.0156	-0145	+012
80.	.00300	.00300	+00295	•00236	.000851	.00144		.0104	.00135	.0118	.00976			+0156	.0156	-0147	.012
100.	.00249	.00249	.00230	+001/7	+000041	.00123		+0114	.00151	•0129	.0101			.0159	.0159	0152	+011
			+00176	++++++	*100215	*00110		+0120	+00165	.0137	.0104			.0162	.0162	.0157	.011

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8 OXYGEN (barns/atom)

E (MeV)	κN σ _{inc,t}	σ ^{BD} _{inc,t}	oKN oinc, a	BD 0)nc,a	KN 0)nc, s	σ ^{BD} _{inc, s}	σ _{coh}	σ×n	σ _{×e}	σ _{κ. t}	σ.,	σ _{r,t}	o _{r,a}	σ _{tot,t}	o _{tot,t-coh}	σ _{tot, a}	σ _{tot,en}
.001	5.30	. 211	.0103	.000450	5.29	•231	39.7					120000.	120000.	120000.	120000.	120000.	120000. 38100.
.0015	5,29	.477	.0154	.00139	5.28	.476	37.0					38100.	16900.	16900.	16900.	16900.	16900.
.002	5.28	.765	.0205	.00297	5.26	•762	33.7					5350.	5350	5380.	5350 .	5350 .	5350.
.003	5.26	1.35	.0305	.00782	5.23	1.34	27+1					2300.	2300.	2320.	\$300+	2300.	2300.
+004	5,24	1.89	.0403	.0145	5.17	2.31	17.1					1180+	1180.	1200.	1180.	1180.	1180+
+005	5.20	2.67	.0595	.0304	5.14	2.64	13.8					680.	680 •	676.	288.	286.	285.
.008	5.16	3.15	.0781	.0477	5.08	3.10	9.61					282+	205+	152.	144.	141.	.1414
.01	5,12	3.45	.0960	.0647	5.03	3,39	7+15					38.3	38.3	46.3	42+2	38.4	38.4
.015	5.03	3.87	.139	+107	4.89	3.76	4+13					14+9	14+9	21.7	19.0	15.1_	15-0
• 02	4,94	4.10	+178	+148	4.57	3.95	2+74					3+90	3.90	9.64	8+19	4+15	4+12
.03	4.78	4.29	309	.287	4.32	4.02	.891					1+49	1.49	8.69	5.80	1.07	1.05
.05	4.49	4.27	.362	.345	4.13	3.93	+600					•710	.710	5.02	4.59	.800	.784
.06	4.36	4.20	410	.394	3.96	3.81	+431					.150	.150	4.44	4+19	.635	.623
.08	4.14	4.04	.485	.473	3.65	3.57	.253					.0717	.0717	4+12	3.95	.616	
•1	3,94	3.88		535	3.40	3.84						+0194	+0194	3+62	3+54	• • • • • •	+075
•15	3.00	3,52	.703	. 608	2.55	2.53	.0433					+00765	+00765	3+28	3+24	.764	.762
	2.83	2.82	.762	.760	2.07	2.06	.0197					+00209	+00204	2+04	2.61	.785	.784
	2.53	2.53	.785	.784	1.75	1.75	+0114							2.32	2.31	.789	.792
•5	2.31	2.31	.789	.792	1.52	1.52	+00750							2.15	2+14	•786	•785
.6	2.14	2.14	.786	•785	1.35	1+35	+00533							1.88	1+88	•768	•763
	1.88	1.88	•768	.763	1+11	1+12	-00303							1.69	1.69_		<u>+749</u>
<u></u>	1.09	1.09	679		.694	.696		.0028)	+00280	.000893			1.37	1.37	632	.623
2.	1.17	1.17	.621	.618	.549	.552		.0111		+0111	.00543			.951	.953	.563	.544
3.	.921	.921	531	.525	.389	.396		.0320	.00032	•0323	+0214			.824	.824	.521	.500
4.	. 770	.770	.467	.460	.303	.310		.0530	.00132	+0543	+0405			,738	.738	.490	.467
5.	.665	+665	•417	.409	.247	+256		.0701	+00230	.0899	.0748			.677	.677	.465	
6.	.587	.587	.378	.369	160	170		.112	.00672	.119	.104			.599	.599		196
	.450	.480	- 321	.310	.130	.140		.133	.00934	1142	.127			497		.403	.374
10.	.303	.303	215	.202	.0878	.101		+174	+0145	+165	.172			.468	.468	.402	.346
20.	.243	.243	.177	.162	.0665	+0812		.206	+0187	+225	.204			.449	.449	.404	.357
30.	.177	•177	132	.116	+0447	.0609		.247	+0249	+272	+241			.447	.447	.413	.354
40.	.141	+141	.107	.0907	.0338	•0503		.277	+0275	.300	.277			.450	+450	•423	• 350
50.	•117	•117	.0904	.0735	.0270	+0435		.316	.0359	.352	.284			•453	•453	•431	- 10
60.	.101	+101	.0/85	.0467	.0170	.0336		.341	+0402	.381	.293	•		+401	.401	.449	.315
100.	.0662	.0662	.0526	.0363	.0137	.0299		.362	.0436	•406	•299			•••	••••		
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8 OXYGEN (cm³/g = 0.03764 x barns/atom)

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E (MeV)	(声) _{inc,t}	(声) ^{BD} inc,t	(声) _{nc,a}	(声) _{nc,a}	(≝) _{nc,s}	(چ) ^{BD} inc, s	([#] _p) _{coh}	(ğ) _{*n}	(作) _{×e}	(岸) _{×,t}	([#] _p) _{×, ±}	$\left(\frac{\mu}{\rho}\right)_{\tau,t}$	([#] _p) _{r,a}	(勞) _{tot,t}	([#] _p) _{tot,t-coh}	([#])tot, a	([#])tot, en
.001	.199	.00869	.000388	.0000169	.199	.00869	1.49					4520.	4520.	4520.	4520.	4520.	4520.
.0015	.199	.0180	.000580	.0000523	.199	•0179	1.39					1430.	1430.	1430.	1430.	1430.	436
.002	.199	.0288	+000772	.000112	. 198	.0287	1.27					636.	636.	030.	630.	301	201
.003	.198	.0508	.00115	•000294	.197	.0504	1.02					201.	201.	203.	2010	86.4	86.6
+004	.197	.0711	.00152	+000546	,196	.0708	.809					56.0	86.0	67.3	00.0	44.4	44.4
.005	.196	.0877	•00188	+000839	.195	.0869	+644					44.4	44.4	47.2	75.7	25.4	25.6
•006	.196	.100	+00224	+00115	.193	+0994	+519					25.0	25.0	20.2	10.8	10.7	10.7
•008	+194	+119	+00294	+00180	+141	+117	- 302					10.7	10.7	5.72	5.42	5.31	5.31
.01	.193	.13	.00361	+00244	-184	128	+209						2431	1.74	1.59	1.45	1.45
+015	+189	+140	.00523	•00403	180	140	.103					.561	.561	.817	.715	.568	.565
.02	+180	+154	+00070	+00557	171	.153	.0546					.147	.147	.363	.308	156	,155
•03	+180	+161	+00937	+00039	163	.151	.0315					0561	0561	.252	.218	.0678	.0670
.04	+1/*	+102	.0116	.0170	.155	.148	.0226					.0267	.0267	.210	.187	.0403	.0395
•05	+107	169	.0154	.0148	.149	.143	.0162					.0147	.0147	.189	.173	.0301	.0295
.00	156	.162	.0183	.0178	.137	.134	.00952					.00565	.00565	.167	.158	.0239	+0234
•06	148	.146	.0205	.0201	.128	.126	.00625					.00270	.00270	.155		.0232	.0220
	134	132	+0242	+0241	.109	.108	.00286					.000730	.000730	.136	.133	+0250	.0248
.2	.122	.122	.0265	.0263	.0960	.0952	.00163					.000288	.000288	.123	.122	.0268	.0208
.3	.107	.106	.0287	.0286	.0779	.0775	.000742					.0000787	+0000787	.107	+106	.0288	.0287
	0952	.0952	.0295	.0295	0659	.0659	.000429							.0956	.0952	+0295	.0275
.5	.0869	.0869	.0297	.0298	.0572	.0572	.000282						•	.0873	.0869	+029/	.0275
.6	.0805	.0805	.0296	+0295	.0508	.0508	.000201							.0804	.0805	+ U 2 70	.0273
.8	.0708	.0708	+0289	.0287	.0418	.0422	+000114							.0708	.0700	0280	.0279
1.	.0636	0636	.0280	.0279	,0356	.0358	+0000700				66669336			.0516	.0516	.0257	. 0254
1.5	.0516	.0516	.0256	+0254	.0201	.0262		.000105		.000418	.000204			.0444	.0444	.0238	.0234
2.	.0440	.0440	.0234	•0233	.0207	.0208		+000410	.0000121	.00122	.000805			.0359	.0359	.0212	.0206
3.	.0347	.0347	+0200	.0198	.0140	*0147		.00120	.0000497	.00204	.00152			.0310	.0310	0196	.0188
<u>4</u> .	.0290	.0290	+01/6	•0173	.00930	.00964		.00264	.0000971	.00274	.00219			.0278	.0278	.0184	.0176
2.	.0250	+0250	+0157	.0139	.00787	.00821		.00324	+000148	.00338	.00282			.0255	.0255	.0176	.0167
0 •	.0221		+0172	.0117	.00602	00640		.00422	.000253	.00448	.00391			.0225	.0225	.0166	.0156
10.	.0154	.0154	.0105	.0101	.00489	.00527		.00501	.000352	+00534	+00478			.0207	.0207	,0159	+0149
10.	-0114	.0114	.00809	.00760	.00330	.00380		.00655	.000546	.00708	+00647			.0185	.0185	.0152	+0141
20.	.00915	.00915	.00666	.00610	.00250	.00306		.00775	. 00070 4	.00847	.00768			+0176	•0176	.0151	.0138
30.	.00666	.00666	+00497	.00437	.00168	.00229		.00930	.000937	+0102	.00907			+0169	+0169	.0152	.0134
40.	.00531	.00531	+00403	.00341	.00127	+00189		+0104	+00111	+0115	.00990			+0168	+0168	+0155	+0133
50.	.00440	.00440	.00340	.00277	.00102	.00164		•0113	.00124	.0125	+0104			+0169	•0169	+0159	•0132
60.	.00380	.00380	.00295	.00232	.000851	.00148		+0119	.00135	.0132	.0107			+0171	•0171	.0162	+0130
80.	.00300	.00300	.00236	+00174	.000640	.00126		+0128	+00191	+0143	+0110			+0174		+0107	.0120
100.	.00249	.00249	.00198	•00137	.000516	.00113		+0136	*00J <i>0</i> #	•0123	•0113			+01/8	•01/8	+01/3	

9 FLUORINE (barns/atom)

E (MeV)	$\sigma_{inc,t}^{KN}$	o ^{BD}	σ ^{KN} σ)ος, ∎	σ ^{BD} σ _{inc,a}	KN 0)nc, 8	σ ^{BD} _{inc, s}	σ _{coh}	σ×n	σ _{×e}	σ _{×,t}	<u>σ_{×, a}</u>	σ _{r, t}	σ _{τ, a}	σ _{tot,t}	Ttot,t-coh	Utot, a	or tot, en
.001	5.96	.207	.0116	.000403	5.95	.207	50.9					189000.	188000.	189000.	189000.	189000.	188000.
.002	5.94	.707	.0230	.00127	5,93	+433	45.0					59500+	59300.	59500.	59500.	59500.	59300.
.003	5,92	1.30	.0343	.00753	5.88	1.29	36.8					8310.	8300.	8350.	26300+	26300.	26200.
.004	5.89	1.86	.0454	.0143	5.85	1+85	29+8					3640.	3640.	3670.	3640.	3640.	3640.
•005	5.85	2.76	+0562	.0225	5.82	2,33	24+1					1900.	1900.	1930.	<u>1</u> 900+	i900.	1900.
.008	5,81	3.35	.0879	.0507	5.72	3.30	13.7					1120.	1120.	1140.	1120.	1120.	1120.
<u>•01</u>	5,76	3,74	.108	.0701	5.66	3.67	10.1					238.	238.	252.	242.	238.	238.
.015	5.66	4.26	.157	•118	5.50	4+14	5+74					66.2	66+2	76.2	70.5	66.4	66.3
.03	5.38	4.76	.280	.748	5.10	4.51	3.78					25.5	25.5	33.8	30.0	25.7	25.7
.04	5.21	4.81	. 347	. 321	4.86	4.49	1.23					2.57	2.57	13.5	11+5	7.00	6.97
.05	5.05	4.77	.408	.385	4.65	4.39	.831					1.24	1+24	6.84	6.01	1.65	1.63
.08	4.65	4.53	.545	.441	4.45	4+26	+598					+687	•687	5.98	5.39	i.15	1.13
el	4,43	4,35	.612	600	3.82	3.75	•230					+205	+ 265	5+15	4.79	.810	.795
.15	3,99	3,95	.724	.717	3.27	3.23	+106	· · · ·			_	+0348	+0348	4.09	3,98		
.2	3,60	3.64	.791	.787	2.87	2.85	+0604					.0138	.0138	3.71	3.65	.805	.801
••	2.65	2.84	. 883	.880	1.97	2+32	+02/4					+00377	+00377	3+20	3+17	.862	.859
.5	2.60	2.60	.888	. 892	1.71	1.71	+0104					+00134	+00120	2.61	2.60	.054	.801
•6	2.41	2.40	.885	.881	1.52	1.52	+00744							2.41	2.40	.885	
1.	2.11	2.11	.865	.857	1.25	1.25	+00430							2.11	2.11	.865	.857
1.5	1.54	1.54	.764	.758	.780	.782	+00270	.00365		.0.755	.00117			1.90	1.90		
2.	1.32	1.32	.699	. 696	.618	+624	******	.0141		+0141	.00689			1.33	1.33	.713	.703
3.	1+04	1.04	.598	.593	+438	• 447		.0405	+000362	+0409	.0270			1.08	1.08	+639	.620
5.	.748	+800	.525	+510	.278	•350		.0670	+00149	+0685	+0510			.934	•934	.593	.567
6.	.661	.661	.426	.414	235	.247		.108	+00440	+112	.0934			.773	.773	.538	.507
	.541	.541	.361	.347	.180	.194		+142	.00759	•150	.130			.691	.691	.511	.477
10.	460		.315	.301	.146	.159	·	.170	-0105	•180	161			.640		.495	.462
20.	.274	.274	.199	.181	.0748	.0932		.220	.0103	•236	.215			• 577 EEE	.577	.478	•441
30.	.199	.199	.149	.129	.0503	.0697		.311	.0281	.339	.296			.538	.538	.488	.434
40.	.158	.158	.120	.100	.0380	.0578		.350	.0333	.383	.323			.541	.541	.503	.423
50.	+ 114	+132	+102	.0816	+0304	.0504		.379	•0369	•416	.338			• 548	•548	.518	.420
80.	0897	.0897	.0706	.0510	.0192	.0387		.430	.0452	.475	.347			, 354 , 646	.554	.528	.415
100.	.0745	+0745	.0592	.0400	.0154	.0345		.457	+0489	.506	.362			.580	.580	.565	.402

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9 FLUORINE (cm³/g = 0,03170 x barns/atom)

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E (MeV)	([#] _p) ^{KN} _{inc,t}	([#] ₅) ^{BD} _{inc,t}	([#] _p) ^{KN} _{nc,a}	(声) ^{BD} inc,a	(声) ^{KN} inc, 8	(^µ _p) ^{BD} _{inc, β}	(#) _{coh}	([#] _p) _{*n}	(件)*e	(^{يل}) _{×, t}	([#] _p) _{*,a}	$\left(\frac{\mu}{\rho}\right)_{\tau,t}$	([#] _p) _{r,a}	([#]) _{tot,t}	([#] _p) _{tot,t-coh}	([#] _p) _{tot,a}	(#) _{tot, en}
.001	.189	.00656	.000368	.0000128	.189	.00656	1.61					5990.	5960 .	5990.	5990.	5990.	5960.
.0015	.189	.0138	.000552	+0000403	.188	.0137	1.52					1890.	1880.	1890.	1890.	1890.	1880.
.002	.188	•0224	+000729	.0000869	.188	.0223	1+41					834.	831.	839.	839+	341	343
.003	.188	+0412	.00109	.000239	,186	.0409	1+17					203.	203.	116	203.	115	115.
+004	+187	.0590	+00144	+000453	.185	.0586	+945					113.	115+	61.9	60.2	60.2	60.2
.005	.186	.0745	+00178	+000713	+184	.0739	+704					35.5	35.5	36.1	35.5	35.5	35.5
.006	+185	.0875	.00212	+00100	183	.0865	+04					14.8	14.8	15.3	14.9	14.8	14.8
.008	+184	+100	+00279	+00161	170	+105	. 120					7.54	7.54	7.99	7.67	7.54	7.54
+01	. 103		-00342	.00222	174	.111	.182					2.10	2.10	2.42	2.23	2.10	2.10
+015	176	135	.00637	.00517	170	.139	.120					.808	.808	1.07	.951	.815	.815
.02	171	.151	.00888	.00786	.162	.143	.0637					•213	.213	.428	•365	.222	• 221
.04	165	.152	.0110	.0102	154	.142	.0390					.0815	.0815	.273	.234	.0926	.091
.05	.160	.151	.0129	.0122	.147	.139	.0263					.0393	.0393	.217	<u>,191</u>	.0523	+051
.06	.156	.149	+0146	+0140	,141	.135	•0190					.0218	.0218	.190	+171	.0365	.037
.08	.147	.144	.0173	+0168	,130	.127	.0111					.00540	.00840	+103	.152	.025/	.025
•1	.140	.138	.0194	•0190	.121	+119	.00729					,00406	.00406	109	196		023
•15	,126	.125	•0230	+0227	.104	.102	.00336					.00110	.00110	110	-120	0241	
•2	.116	+115	+0251	+0249	.0910	.0903	.00191					.000437	.000431	101	.100	0273	.027
.3	.101	.100	+0272	+0271	.0735	.0735	.000869					0000475	.0000475	.0907	.0900	.0280	027
•4	.0903	•0900	+0280	+0279	.0624	.0621	.000501							.0827	.0824	. 0281	.028
•5	.0824	.0824	+0281	10203	.0342	.0542	.000330							0764	.0761	.0281	.027
•0	.0764	.0761	+0281	.02/9	0402	0402	.000136							.0669	.0669	.0274	.027
.* ⁸	.0009	+0007	+02/4	+0212	0336	.0370	.0000156							0602	0602	0265	026
<u> </u>			0203	0203	0247	.0248	+0000387	.000113		.000113	.0000358			.0488	,0488	,0243	.024
1.5	.0408	.0418	+0272	.0221	0196	.0198		+000447		.000447	.000218			0422	.0422	.0226	•0223
1.	.0330	.0330	.0190	.0188	.0139	0142		.00128	.0000115	.00130	.000856			.0342	.0342	.0203	•019
	.0275	.0275	.0166	.0164	.0108	.0111		+00212	+0000472	.00217	.00162			.0296	.0296	.0165	.018
5.	.0237	.0237	+0149	+0145	.00881	.00919		·00282	+0000922	.00291	.00232			.0266	.0266	.0178	+016
6.	.0210	.0210	+0135	+0131	.00745	.00783		+00342	.000139	.00355	•00296			,0245	.0245	+01/1	.010
8.	.0171	.0171	+0114	.0110	.00571	.00615		.00450	.000241	+00476	.00412			+0219	.0219	.0102	-015
10.	.0146	+0146	•00999	.00954	,00463	.00504		+00539	.000333	.00571	.00510			.0203	0203		014
15.	.0108	+0108	.00767	•00716	.00313	.00365		+00697	+000517	.00748	.00682			.0176	.0176	.0152	.013
20.	.00869	.00869	+00631	.00574	.00237	.00295		.00824	+000666	•00841	.00802			.0171	.0171	.0155	.013
30.	.00631	.00631	+00472	+00409	.00159	.00221		+00980	+000891	.0107	.0107			.0171	.0171	0159	.013
40.	.00501	+00501	.00300	.00317	.00120	.00163		•0111	+00100	0122	.0107			.0174	.0174	.0164	.013
50.	+00+18	.00-18	+00-223	+00234	.000964	.00100		.0127	.00128	.0139	.0110			.0176	.0176	.0167	.013
60. BA	100301	+00301	+00200	+00217	000000	.00123		.0136	.00143	.0151	.0113			.0179	.0179	.0173	.012
00.	.00204	+00204	+00224	+00102	000488	.00109		.0145	.00155	.0160	.0115			.0184	.0184	.0179	.012
100+	**0520	+005 30	+00100	+ V V 1 E /	*******	******								•			

)0 NEON (barns/atom)

E (MeV)	σ _{inc,t}	$\sigma_{\text{inc,t}}^{\text{BD}}$	σ ^{KN} inc, a	$\sigma_{inc,a}^{BD}$	σ ^{KN} inc, s	σ ^{BD} _{)nc,s}	σ _{coh}	σ×n	σ _{×e}	σ	σ _{×, a}	σ _{τ, t}	σ _{τ, a}	o _{tot,t}	or tot,t-coh	σ _{tot, a}	σ lot, en
.001	6.63	.189	. 01 29	.000368	6.61	. 189	67.4					785.00		305000			
.0015	6.61	. 198	.0193	.00116	6.59	. 107	60.4					285000.	283000	285000.	285000.	285000.	283000.
-002	6.60	+654	.0256	.00254	6.57	-651	56.4					70400.	39400	90500.	90400.	90400.	89900.
.003	6.57	1.23	.0381	.00713	6.54	1.22	48.1					12600	12500	17500	39000	39800	39600.
.004	6.55	1.80	.0504	.0139	6.50	1.79	39.8					5500.	5490	5540	12500.	12500.	12300.
.005	6.52	2.32	.0625	.0222	6.46	2.30	32.7					2900	2900.	2940	3900.	3900.	3470.
.006	6.50	2.78	.0744	.0318	6.43	2.75	27.0					1710.	1710.	1740.	1710	1710	1710
.008	6,45	3.48	.0976	.0527	6.35	3.43	19.0					743.	742.	765.	746	747	747
.01	6.40	3,96	120	0742	6.28	3.89	14.0					375.	375.	393.	379.	375.	375.
.015	6.29	4.61	.174	.128	6.12	4.48	7+84					108.	108.	120.	113.	108.	108.
•02	6.18	4.93	,223	.178	5.96	4.75	5+11					42.2	42.2	52.2	47.1	42.4	42.4
•03	5,97	5,22	.311	.272	5.66	4.95	2.71					11.1	11.1	19.0	16.3	11.4	11.4
•04	5,79	5,29	. 386	, 353	5+40	4.94	1+67					4.30	4.30	11.3	9.59	4.69	4.65
•05	5.61	5.26	.453	.424	5.16	4+84	1+12					2+06	2.06	8.44	7.32	2.51	2.48
•06	5.40	5,20	+512	,488	4.94	4+71	+809					1+13	1.13	7.14	6.33	<u>1</u> ∙64	1+62
•08	5.17	5.01	+606	.587	4.57	4.42	+475					•443	•443	5.93	5+45	ĩ•05	1+03
****	***				4.25		• 312					+211	•211	5.34	5.03	.891	
• 12	***	••39	.005	. / . /	3.03	3.37	+1+3					+0580	+ 0580	4.59	4+45	.863	+855
•5	3 63	3.53	.0/9	.0/3	3+19	3.17	+0014					+0232	+0232	4+15	4.06	.902	.896
• • •	3,33	3,32	- 933		2.30	2.18	+0372					+00645	+00645	3+56	3+53	•959	.955
.5	2.89	2.89	986	. 700	1.90	1.00	+0214					+00259	+00259	3+18	3+16	+984	+983
.6	2.67	2.67	.981	.980	1.69	1.69	-0101					+00135	+00135	2.91	2+89	,987	.445
	2.35	2, 15	961	- 954	1.39	1.40	.0059							2+08	2.07	• 983	• 980
1.	2.11	2.11	929	922	1.16	1.19	.00379							2+30	2+35	*401	.934
1.5	1.72	1.71	.849	. 840	.867	.870	+00160	.00440		+00440	+00140			<u>C+11</u>			
2.	1.46	1.46	.777	.769	.687	•691		.0175		+0175	.00856			1.48		+055	* 0* 1
3.	1.15	1+15	. 664	.654	.486	.496		.0501	+000403	.0505	.0333			1.20	1.20	.715	.487
4.	,962	.962	.584	.571	.378	.391		.0830	.00165	+0846	.0630			1.05	1.05	.669	.634
5.	.831	.831	.522	.508	.309	.323		.110	.00323	+113	.0901			.944	.944	.635	.598
6.	•734	.734	.473	.458	•261	•276		.134	+00490	•139	.115			.873	.873	.612	.573
	+601	•601	.401	. 385	.200	•216		•175	•00842	+183	.160			•784	•784	.584	.545
10.	.511	.511	.350	,332	•162	•179		. 210		.222	.197 _			.733	.733	,572	
15.	.379	.379	.269	. 250	+110	+129		.272	.0182	•290	.261			+669	.669	,559	.511
20.	• 30 •	•304	•221	•199	+0831	+105		.321	• 0233	•344	.306			.648	+648	,565	.505
30.	+221	+221	+ 165	+1+1	+0559	•0796		.385	+0312	+416	.358			+637	+637	,58 1	,499
÷V.	+110	+176	+134	•110	.0422	.0660		+32	+0370	++69	.389			,645	• 645	.603	.499
50.	+14/	+147	+113	.0889	+0338	.0581		.469	+0+10	•510	++08			.657	+657	.623	.497
80	+ 120	+120	.0981	.0/43	+ 0283	+0517		. 492	+0447	+537	• • 15			•663	.663	.635	.489
100	+077/	+077/	• 0 / 04	•0321	+0213	+0++0			+0502	+ 580		•		.680	+680	.658	.480
100+	• V020	+V820	+1021	+0 +30	+01/1	+0345		*282	+0340	+019	+ 4 2]			•702	•702	.685	.475

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10 NEON (cm³/g = 0,02984 x barns/atom)

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E (MeV)	KN (勞) inc.t	(賞) ^{BD} inc.t	(声) ^{KN} inc,a	(声) BD (声) inc, a	(貨) ^{KN} (声) _{inc, 5}	(≝) ^{BD} inc,s	([#]) _{coh}	(貨) _{×n}	([#] _p) _{× e}	(#) _{*, t}	(#) _{x,a}	(#),,t	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	([#]) _{tot, t}	([#] _p) _{tot,t-coh}	([#] _p) _{tot, a}	([#]) _{tot, en}
.001	.198	.00564	.000385	.0000110	.197	.00564	1.89					8500.	8440.	8500. 2700.	8500. 2700.	8500. 2700.	8440. 2680.
.0015	.197	+0119	.000576	.0000346	.197	.0118	1.80					1190.	1180.	1190.	1190.	1190.	1180.
.002	.197	.0195	+000764	.0000758	195	-0364	1.44					373.	373.	373.	373.	373.	373.
.003	196	.0307	.00114	.000415	194	.0534	1.19					164.	164.	165.	164+	164.	104.
.005	.195	.0692	.00186	.000662	.193	.0686	.976					86.5	86.5	87.7	56+5	60.5 61 0	BV+3 61.0
.006	.194	.083	+00222	+000949	,192	.0821	.806					51.0	51.0	51+9	22.3	22.2	22.1
.008	.192	.104	+00291	.00157	.189	.102	.567					22+2	11.2	11.7	11.3	11.2	11.2
.01	.191	•118	.00358	.00221	.187			<u> </u>				3,22	3.22	3,58	3.37	3.22	3.22
.015	.186	.130	+00519	+00382	.178	.142	.152					1.26	1.26	1.56	1.41	1.27	1.27
-02	+ 104	.156	.00928	.00812	169	.148	.0809					.331	.331	•567	+456	.340	. 130
.04	.173	.158	+0115	.0105	.161	.147	.0498					+128	+128	+337	-200	0749	.0740
.05	.167	.157	.0135	+0127	.154	.144	+0334					.0815	+0815	.213	.169	0489	0483
.06	.163	.155	.0153	.0146	+147	+141	+0241					.0132	.0132	177	.163	.0313	.0307
•08	•154	•149	+0181	+0175	+130	+132	.00031					.00630	.00630	.159	150	.0266	.0261
<u>+</u>	<u>•147</u>		.0203	.0198	108	-107	.00427					.00173	.00173	.137	.133	.0258	.0255
.19	.121	.121	.0262	.0261	0952	.0946	.00244					.000692	.000692	+124	+121	.0209	.0207
	.105	.105	.0284	.0283	.0770	.0767	.00111					.000192	.000192	.100	.0843	.0294	.0293
	.0946	.0943	.0293	.0292	.0653	+0651	.000639					.0000773	.0000403	.0868	.0862	.0295	.0296
.5	.0862	.0862	.0294	.0296	.0567	.0567	.000421					•0000403		.08.00	.0797	.0293	.0292
.6	.0797	•0797	.0293	.0292	.0504	+0504	.000301							.0704	.0701	.0287	.0285
	.0701	.0701	+0287	+0203	0415	.0355	.000113							.0630	.0630	.0277	
<u> </u>	.0630	.0510	.0253	<u>+0279</u>	.0259	+0260	+0000477	.000131		.000131	.0000418			.0513	.0510	.0255	.0271
2.	.0436	.0436	.0232	.0229	.0205	.0206		.000522		.000522	.000255			+0442	.0442	.0237	.0205
3.	.0343	.0343	.0198	.0195	.0145	.0148		+00149	.0000120	.00151	.000994			.0313	.0313	.0200	.0189
4.	.0287	.0287	+0174	+0170	.0113	.0117		.00248	.0000492	.00252	.00269			.0282	.0282	.0189	.0178
5.	+0248	.0248	+0156	.0152	.00922	.00904		+00320	.000146	.00415	.00343			.0261	.0261	.0183	.0171
6.	.0219	.0219	+01+1	+0137	.00779	.00645		.00522	.000251	.00546	.00477			.0234	.0234	.0174	•0163
	.01/9	+01/9	+0120	.00991	.00483	.00534		.00627	.000349	.00662	.00588			.0219	.0219	0171	0198
18.	.0113	.0113	.00803	+00746	.00328	.00385		-0081Z	.000543	.00865	.00779			.0200	.0200	.0167	0152
20.	.00907	.00907	.00659	.00594	.00248	.00313		.00958	.000695	.0103	+00913			.0173	0193	0173	.0749
39.	.00659	.00659	.00492	+00421	.00167	.00238		.0115	.000931	-0124	.0107			.0192	.0192	0180	.0149
40.	.00525	.00525	+00400	.00328	.00126	.00197		.0129	+00110	.0152	.0122			.0196	.0196	.0186	.0148
58.	.00439	.00439	.00337	.00265	+00101	+00173		.0147	.00133	.0160	.0124			.0198	.0198	.0169	.0146
60.	.00376	.00376	+00293	.00222	.000844	+00131		.0158	.00150	.0173	.0127			.0203	.0203	.0196	.0143
50.	.00290	+00278	+00234	.00100	.000510	.00117		.0169	.00161	.0185	.0129			.0209	• • • • • • • • • • • • • • • • • • • •	.0204	•0142
100*	+00541	**UE#1	400190														

11 SODIUM (barns/atom)

E (MeV)	σinc, t	o ^{BD} _{inc,t}	σ ^{KN} nc, a	σ ^{BD} inc, a	σ ^{KN} inc,s	σ _{inc,s}	σ _{coh}	σ×n	σxe	σ _{x,t}	σ _{×, a}	σ _{r,t}	σ _{r, a}	σ _{tot,t}	σ _{tot,t-coh}	Utot, a	Utot, en
.001	7.29	.478	.0142	.000931	7.27	.477	73.3					26500.	26500.	26600.	26500.	26500.	26500.
K .001073	7.29	.520	.0152	.00109	7.27	•519	72+5					21900.	330000.	334000.	334000.	334000.	330000.
.0015	7.27	.758	.0212	.00221	7.25	•756	68+2					130000.	129000.	130000.	130000.	130000.	129000.
+00Z	7.26	1.01	.0282	.00392	7.23	1+01	63+3					57800.	374004	18300	10200	10200	18100.
.003	7.23	1.51	.0419	.00875	7.19	1.50	54+5					8030	8000.	8080.	8030.	8030	8000
.004	7.20	2.02	+0354	+0155	7.13	2.49	90+4					4280.	4270	4320	4280.	4280.	4270.
•005	7-15	2.95	.0818	.0240	7.07	2.92	32.9					2550.	2540.	2590.	2550.	2550.	2540.
.008	7.10	3.69	107	.0559	6.99	3.63	23.7					1120.	1120.	1150.	1120.	1120.	1120.
.01	7.04	4.22	.132	.0791	6.91	4.14	17+7					570	569	592	574.		509.
.015	6,92	4.97	.191	.137	6.73	4.83	9.91					164.	164.	1/9.	109.	104.	65.7
•02	6.80	5.34	.245	.193	6.95	5+15	6+40					03+5	17.4	26.5	23.1	17.7	17.7
.03	6.57	5.67	.342	.295	6.23	5.37	3+44					6.80	6.80	14.7	12.6	7.22	7.19
.04	0,30	5.75	+ 423	+365	5.68	5.29	1.44					3,30	3.30	10.5	9.05	3.80	3,76
.06	6.00	5.69	.563	.534	5.44	5.16	1.04					1.81	1.61	8,54	7.50	2.37	2,34
.08	5.69	5.50	.666	.644	5.02	4.86	+609					•716	+716	6+82	6.22	1.30	1.36
	5,42	5,29	,748	,730	4,67	4.56	+400					. 343	.343	6,03	5,03	1.09	
+15	4,88	4.82	.885	.875	3.99	3.95	+185					+0743	+0945	5+10	1.47	1.00	.996
•2	4.47	4.43	.967	.958	3.50	3.47	+106					+0105	+0105	3.93	3.88	1.06	1.05
•3	3,89	3.87	1.05	1.0	2.04	2.30	+0+70					+00430	.00430	3.50	3.47	1.08	1.08
	3,48	3.17	1.08	1.09	2.10	2.08	.0178					.00220	.00220	3.19	3+17	1.08	1.09
	2.94	2.94	1.08	1.08	1.86	1.86	+0126					+00128	+00128	2,95	2.94	1.08	1.08
.8	2.58	2.58	1.06	1.05	1.53	1.53	.00731							2+59	2+54	1.00	1+05
1.	2,32	2,32	1,02	1.01	1.30	1.31	+00470							2+32	2+32	1.02	
1.5	1.89	1.89	.934	.928	+954	+962	+00202	.00537		+00537	+00171			1.63	1.63	.675	.858
2.	1.61	1.61	.854	.848	•755	•762	+00115	.0214		+0214	+0104			1.33	1+33	.791	.764
<u>s</u> ,	1.21	1.21	+ / 30	. 123	.416	.431		.100	.00182	+102	.0758			1+16	1+16	.744	.705
	.914	.914	.574	.558	.340	.356		.133	.00357	•137	.109			1+05	1+05	.711	.667
6.	.808	808	.520	.503	.288	.305		.163	.00539	.168	.140			•976	•976	.885	+ 843
8.	.661	+661	.441	.422	.220	.239		•212	+00925	+221	+192			.882	+082	.002	. 598
10.	,563	,563	, 385	,365	•178	.198		252		265				. 767		.647	.587
15.	.416	.416	.296	+272	.121	+144		.331	+0200	+351	•315			.749	.749	.658	.583
20.	.334	.334	.243	+217	.0414	+11/		. 367	+0230	+=10	.427			.744	.744	.683	.580
30+	103	103	+102	118	.0464	.0749		.520	.0406	.561	.458			.754	•754	.708	.576
50.	.161	.161	124	.095	.0372	.0660		.563	+0451	+608	.479			.769	.769	•732	.574
60.	.139	.139	.108	.0795	.0311	+0 595		.595	.0490	+644	.489			.783	.783	.732	,707
80.	.110	.110	.0863	.0590	.0234	.0510		.643	+0550	+698	•499			.808	.833	.814	.549
100.	.0911	.0911	•0723	.0455	.0188	•0455		.683	• 0595	•742	.504			,,,,,	, , , , , , , , , , , , , , , , , , , ,		

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SODIUM (cm³/g = 0.02620 x barns/atom)

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E (MeV)	(E)KN	(^{#)} BD	(^{#)KN}	, BD	,"KN	,,BD	<i>,</i> µ ,			الار		. 11-	. 4				
	'P'inc,t	Winc,t	(p)nc,a	(p'inc, a	(7/inc,s	pinc, s	(p)coh	<u>מ×יק)</u>	(7)×e	(p)×,t	(⁵)×, a	(²) _{7,1}	(⁵) _{7, a}	(5) _{tot,t}	(^c) _{tot,t-coh}	(戶) _{tot, a}	(%)toi, en
.001	.191	.0125	.000372	+0000244	.190	.0125	1.92					694.	694.	697.	694.	494.	694.
K .001073	•191	.0136	+000398	+0000286	.190	.0136	1.90					574+	574 .	576.	574.	574.	574.
.0015	.190	.0199	.000555	.0000579	.190	.0198	1.79					8750 +	8650.	8750.	8750.	8750.	8650.
.002	.190	.0265	.000739	.000103	.189	.0265	1.66					1510.	3380.	3410.	3410.	3410.	3380.
.003	.189	.0396	.00110	.000229	.188	.0393	1.43					477.	474.	479.	477.	477.	474.
.004	.189	.0529	+00145	+000406	.187	.0524	1.22					210.	210.	212.	210.	210.	210.
• 007	+180	.0658	+00180	+000629	.186	+0652	1.02					112.	112.	113.	112.	112.	112.
.008	.186	.0967	+00214	+000886	.183	.0951	+802					66.8	66.5	67.9	66.8	66.8	66.5
.01	.184	.111	.00346	.00207	.181	.108	.464					29.3	29.3	30+1	29.3	29.3	29.3
.015	.181	.130	.00500	.00359	.176	.127	.260					4.30	4.30	4.69	4.43	4.30	4.30
•02	+178	+140	+00642	•00506	.172	.135	.169					1.72	1.72	2.03	1.85	1.72	1.72
.03	+1/2	.149	+00896	•00773	,163	+141	• 0901					• 456	.456	.694	.605	.464	+464
.05	.162	.151	.0130	+0101	.149	.139	+0355					+178	•178	.385	.330	.189	+188
.06	.157	.149	+0148	+0140	.143	.135	.0272					.0474	+0005	+2/5	+237	+0996	+0985
• 08	.149	+144	+0174	.0169	.132	.127	.0160					+0188	.0188	.179	.163	.0362	.0356
<u>•1</u>	+142	•139	•0196	•0191	+122	•119	.0105			-		.00899	.00899	158	.148	.0286	.0280
•17	.120	+126	+0232	•0229	+105	.103	.00485					+00248	+00248	•134	.129	.0257	.0254
.3	102	.101	•0255	+0251	.0744	.0707	+00278					+000996	• 000996	.120	+117	.0262	.0261
	.0912	.0909	.0283	.0283	.0629	.0626	.000713					+000275	.0002/5	.103	+102	.0278	+ 02 75
.5	.0833	.0831	•0283	+0286	.0550	.0545	.000466					.0000576	.0000576	.0836	.0831	.0283	.0286
••	.0770	.0770	+0283	• 0283	.0487	.0487	.000330					.0000335	.0000335	.0773	.0770	.0283	.0283
••	+0678	+06/6	+02/8	•0275	.0401	+0401	.000192							.0679	.0676	.0278	.0275
1.3	.0495	.0495	+0245	.0243	.0250	.0252	+000123	.000141		000141				.0608			.0265
2.	.0422	.0422	+0224	.0222	.0198	.0200	.0000301	.000561		.000561	.000272			.0470	.0427	.0240	.0276
3.	.0333	.0333	+0191	+0189	.0140	.0143		+00160	.0000116	.00161	.00106			.0348	.0348	0207	. 0200
2.	.0278	•0278	•0168	+0165	.0109	.0113		+00262	+0000477	.00267	.00199			.0304	.0304	.0195	.0185
7. 6.	.0212	+0239	+0130	+0140	.00891	.00933		+00346	+0000935	.00359	+00286			.0275	.0275	.0186	.0175
8.	.0173	.0173	.0116	.0111	.00576	.00626		+00555	.000747	.00440	.00563			.0256	.0250	.0100	.0108
10.	.0148	+0148	+0101	.00956	.00466	.00519		.00660	+000335	.00694	.00613			.0217	.0217	.0173	-0101
15.	.0109	.0109	.00776	.00713	.00317	.00377		+00867	+000524	.00920	.00825		- P	.0201	+0201	.0170	.0154
20.	.00875	.00875	+00637	• 00569	.00239	.00307		.0102	.000671	.0109	+00959			.0196	+0196	.0172	.0153
40.	.00504	.00504	.00385	.00-01	.00122	.00233		+0122	+000896	+0131	.0112			.0195	.0195	.0179	+0152
50.	.00422	.00422	.00325	.00249	000975	.00173		.014B	.00118	.0159	.0125			+0198	+0198	.0185	·0151
60.	.00364	.00364	.00283	.00208	.000815	.00156		.0156	.00128	.0169	.0128			*020E	-0205	+U172	+0120
80.	.00284	.00288	+00226	.00155	.000613	.00134		.0168	+00144	.0183	.0131			.0212	.0212	.0205	.0146
100.	.00239	•00239	+00189	•00119	.000493	.00119		•0179	•001 56	.0194	.0132			.0218	.0218	.0213	.0144

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79

12 MAGNESIUM (barns/atom)

E (MeV)	σ _{inc,t}	σ _{inc,t}	σ _{inc, a}	σ ^{BD} inc,a	0)nc,s	σ ^{BD} inc, s	σ _{coh}	σ×n	σ _{×e}	σ _{*.t}	<u>σ_{×, a}</u>	σ _{r,t}	σ _{7, 2}	o _{tot,t}	Otot,t-coh	o _{tot,a}	σ _{tot, en}
+001 K +001305	7.95	.610	.0155	.00119	7.94	.609	86+5					38900.	38900.	39000.	38900.	38900.	38900.
* ••••1303	· • · •	•000	+ULV2	.00220	1472	•004	02+2					268000	263000.	268000.	18500+	268000.	18900+
+0015	7.94	1.01	.0231	.00295	7.91	1.01	79.5					180000.	177000.	180000.	180000.	180000.	177000.
.002	7.92	1.33	.0307	.00516	7.89	1.32	72.7					80300.	79400.	80400.	80300 .	80300.	79400.
•00.3	7.89	1.84	.0457	.0107	7.84	1.83	61+6					25500.	25300.	25600.	25500.	25500.	25300.
.005	7.83	2.77	.0005	.01/9	7.75	2+30	52+7					11300.	11200.	11400.	11300+	11300.	11200.
.005	7.80	3.19	.0893	.0205	7.71	3.15	38.7					0020.	3990.	60/0+	6020+	6020.	5990.
.008	7.74	3.92	.117	.0593	7.62	3.86	28.5					1600.	1600.	1630.	1600.	1600.	1600.
.01	7.68	4,49	.144	.0841	7.54	4.41	21+5					822.	820.	848.	826.	822.	820.
.015	7.55	5.32	.209	.147	7.34	5.17	12.2					238.	238.	256.	243.	238.	238.
•02	7+41	5.75	• 267	.208	7+15	5.54	7.43					96+6	96.5	110.	102.	96.9	96.7
•03	7+17	6+12	.373	•318	6+80	5+80	4+23					25.7	25+7	36.0	31+8	26+1	26+0
.05	6.74	4.23	544	.410	6.19	3+82	2+03					10+1	10.1	19.0	10.3	10.0	10.5
.06	6.55	6.17	.614	.579	5.93	5.59	1.29					2.70	* •90 7 •70	12.7	8.87	7,99	3+40
.08	6.21	5.97	727	.699	5.48	5+27	•759					1.07	1.07	7.80	7.04	1.80	1.77
•1	5.91	5.75	.816	.793	5.10	4+96	+499					• 522	.522	6.77	6.27	1.34	1.31
.15	5.32	5.25	.966	.953	4.36	4.30	•231					+140	+140	5+62	5+39	1+11	1.09
•2	4.88	4.83	1.05	1.04	3.82	3.79	+132					.0580	+0580	5.02	4.89	1.11	1.10
• 3	3.80	4.22	1.1.	1.14	3+10	3+08	+0600					+0165	+0165	4,30	4+24	1+16	1+16
	3.47	3.44	1.18	1.19	2.29	2.27	+03+1					+00075	+00675	3,83	3.80	1.12	1.18
.6	3.21	3.20	1.18	1.17	2.03	2.03	.0155					.00205	+00345	3,47	3.20	1.18	1.17
.8	2.62	2.82	1.15	1.14	1.67	1.68	+00894						****	2.83	2.82	1.15	1.14
1.	2,53	2,53	1,11	1.11	1.42	1.42	.00575							2.54	2.53	i.ii	1.11
1.5	2.06	2.06	1.02	1.01	1.04	1.05	+00252	.0064		+0064	.00204			2.07	2.07	1.03	1.01
2.	1.76	1.76	.932	.928	.824	.832	+00143	+0255		+0255	.0124			1.79	1.79	•957	•940
3.	1,15	1,30	. 791	• /0 •	454	. 378		120	+000402	+0731	.0482			1.42	1+45	•870	• 5 3 2
5	997	.997	.626	.607	.371	. 190		.158	.00389	162	.128			1.16	1.16	.788	.735
6.	.881	.881	567	.546	.314	.335		.194	+00588	.200	.166			1.08	1.08	.767	.712
8.	.721	•721	.481	.459	.240	•262		.251	+0101	+261	.226			,982	.982	.742	.685
10.	.614	.614	.420	.398	+194	•216		.300	.0140	•314	.277			.928	.928	,734	.675
15.	.454	+454	•353	.295	•132	•159		•398	+0218	•412	• 367			.866	.866	.735	.662
20.	+ 393	+ 307	.205	.234	.0997	+131			+0280	+400	+ 427			.853	+853	.753	.001
40.	.211	.211	.160	.127	+0506	+0842		.619	.0443	+507	.515			.874	.874	.823	.462
50.	.176	.176	.136	.102	.0406	.0741		.670	+0492	•719	.555			.895	.895	.855	.657
60.	.152	.152	.118	.0848	.0339	.0672		.705	.0535	.758	. 564			.910	.910	.876	.649
80.	.120	.120	.0941	.0619	.0255	.0581		•761	.0600	+821	.575			.941	.941	,915	.637
100.	•0994	•0994	.0789	.0476	• 0205	+0518		.810	+0648	+875	•579			•974	•974	,954	.627

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)2 MAGNESIUM (cm³/g = 0,02477 x barns/atom)

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E (MeV)	(^µ _β) ^{KN} _{)nc,t}	(^g) ^{BD} _{inc,t}	(声) ^{KN} inc, a	(貨) ^{BD} inc,a	(≝) ^{KN} inc,s	(費) ^{BD} inc, 8	(#) _{coh}	(^µ _p) _{×n}	(券)×e	(^µ / _p) _{*,t}	([#] _p) _{x,a}	(#) , t	(#), a	([#]) _{tot,t}	([#]) _{tot,t-coh}	([#] _p) _{tot,a}	(^µ _p) _{to1, en}
•001	.197	.0151	.000384	.0000295	.197	.0151	2.14					964 •	964.	966.	964.	964.	964. 458.
x .00130	5 .197	.0215	.000500	+0000545	, 196	.0214	2+04					458+ 6640.	458. 6510.	6640.	6640.	6640.	6510.
.0015	.197	.0250	.000572	+0000731	.196	.0250	1.97					4460.	4380.	4460.	4460.	4460.	4380.
•00Z	.196	.0329	.00076	.000128	.195	.0327	1.80					1990+	1970+	1990.	632.	632.	627.
.003	.195	+0456	.00113	.000265	.193	.0570	1.31					280.	277.	282.	280.	280.	277.
+00*	.194	.0686	+00186	.000656	.192	.0679	1.12					149+	148.	150.	149.	149.	148.
.006	.193	.0790	.00221	.000904	.191	.0780	.959					89+2	88.9	90.2	89.2	89+2	38.9
.008	.192	.0971	.0029	+00147	.189	.0956	•706					39.6	39.6	21.0	20.5	20.4	20.3
<u>_01</u>			.00357	.00208	187	.109	.102			····		5.90	5,90	6,34	6.02	5,90	5.90
•015	.184	-136	.00518	.00515	177	.137	.196					2.39	2.39	2.72	2.53	2.40	2.40
.03	.178	152	.00924	.00788	.168	.144	.105					•637	.637	.892	•788	.648	+044
.04	.172	.155	.0115	.0103	.161	.144	+0651					+250	• 250	. 320	. 275	.135	.134
.05	.167	+154	.0135	•0125	+173 147	.138	.0320					•1669	.0669	.253	.220	.0820	.0812
-06	.154	103	-018	.0173	.136	.131	.0188					.0265	.0265	193	.174	.0446	+0438
•1	.146	.142	. 02 02	.0196	.126	.123	•0124					,0129	,0129		- <u></u>	0332	.0324
.15	.132	.130	.0239	.0236	.108	.107	.00572					+00347	+00347	+139	.121	.0275	.0272
•2	.121	-120	•026	.0258	.0940	.0939	.00149					.000409	.000409	.107	.105	.0287	.0287
•3	.107	+105	• 0202	+0282	.0649	.0649	.000845					.000167	.000167	+0949	.0941	.0295	.0292
.5	0860	.0857	.0292	.0295	.0567	.0562	.000547					.0000855	.0000855	.0864	.0857	•0292	.0295
.6	.0795	.0793	.0292	•0290	.0503	.0503	+000384					•0000508	.0000508	.0798	.0793	. 0292	.0282
.8	.0699	.0699	+ 0285	•0282	.0414	.0352	-000142							.0629	.0627	.0275	
	.0510	-0510	+0213	+0250	.0258	.0260	.0000624	.000159		.000159	.0000505			.0513	.0513	.0255	.0250
2.	.0436	.0436	.0231	.0230	.0204	.0206	.0000354	+000632		.000632	.000307			.0443	.0443	.0237	.0233
3.	.0342	.0342	+0197	•0194	.0145	.0148		.00180	.0000119	.00302	.00224			.0359	•0377	0217	.0191
<u>*</u> •	.0285	.0285	+0174	.0169	.0112	.00966		.00391	.0000964	.00401	.00317			.0287	.0287	.0195	.0182
2.	.0247	+0247	.014	-0135	00778	.00830		+00481	.000146	+00495	.00411			.0268	.0268	.0190	.0176
8.	0179	.0179	.0119	.0114	.00594	.00649		.00622	.000250	.00646	.00560			.0243	.0243	.0184	.0170
10.	.0152	.0152	+0104	.00986	.00481	.00535		.00743	.000347	.00778	00080			.0230	.0230		- 0107
15.	.0112	.0112	•008	•00731	.00J27	.00394		.0114	.000694	.0121	.0106			.0211	.0211	.0187	.0164
20.	.00704	-00904	+0049	.00411	00166	.00246		.0137	.000924	.0146	.0123			.0212	.0212	.0195	+0164
40.	.00523	.00523	.00396	.00315	.00125	.00209		.0153	+00110	.0164	.0133			.0216	.0216	.0204	-0164
50.	.00436	.00436	.00337	.00253	.00101	.00184		.0166	.00122	.0178	0137			.0222	• 0222	.0210	•0103
60.	.00377	.00377	• 00292	.00210	+00084	.00166		+0175	+00133	.0203	.0142			.0233	.0233	.0227	.0158
80. 100.	.00297	.00246	.00195	.00118	000508	.00128		.0201	.00161	.0217	.0143			.0241	.0241	.0236	.0155

13 ALUMINUM (barns/atom)

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E (Me	V) $\sigma_{inc,t}^{KN}$	σ ^{BD} inc, t	O)nc, a	σ ^{BD} inc, a	o ^{KN} 0 ^{inc, ♠}	BD ofinc, s	o _{coh}	σ _{*n}	σ×e	σ _{x,t}	<u>σ_{*, a}</u>	σ _{r,t}	σ _{τ, a}	⁰ tot,t	σ _{tot,t-coh}	σ _{tot, a}	^o tot, en
.001	8,61	•641	.0168	.00125	8.60	•640	101.					55200. 17600.	55200. 1 7 600.	55300. 17700.	55200+ 17600+	55200. 17600.	55200 · 17600 ·
x .0015	60 8,59	1.16	.0261	.00352	8.57	1.16	90.9					15800. 219000.	15800. 213000.	15900. 219000.	219000+	219000.	213000.
.002	8.58	1.51	.0333	.00586	8.55	1+50	83.5					108000.	106000.	108000. 34800.	108000. 34700.	108000. 34700.	106000. 34200.
.003	8.55	5.13	.0495	.0123	8.50	2.12	69.7 60.3					15400.	15200.	15500.	15400+	15400.	15200.
+004	8,51	2.61	-0812	.0201	8.40	3.02	51.2					8200 .	8130.	8250.	8200+	8200.	A890.
.005	8.45	3.46	.0967	.0396	8.35	3.42	44.3					4920.	4890+	2240	4920+	2200.	2190.
.00	8.39	4.18	127	.0633	8.26	4.12	33.5					2200+	1150.	1180.	1150+	1150.	1150.
.01	8,33	4,76	.156	.0892	8.17	4.67	25.6					337.	336.	357.	343.	337.	336.
.015	1.18	5.67	•556	.157	7.74	5.93	9.54					137.	137.	153.	143.	137.	137.
.02	8,03	6.57	.404	.342	7.36	6.23	5+10					37.	36.9	48.7	43.6	37.4	14.9
-04	7.52	6.70	502	.447	7.02	6.25	3+19					14.5	14+3	15.9	13.6	7.64	7.58
.05	7.30	6.71	.589	.541	6.71	6.17	2.17					3.92	3.92	12.1	10.6	4.58	4.54
.06	7.09	6.65	.665	.624	6.43	6.03	1+57					1.56	1.56	8.94	8+01	2.35	2.31
.08	6.72	6.45	.787	.755	5+74	5.36	.610					.763	.763	7,59	6.98	1.65	1.24
•1	5.77	5.68	1.05	1.03	4.72	4.65	+282					•210	+210	6.17	5.17	1.23	1.22
.2	5.28	5.23	1.14	1.13	4.14	4.10	+162					+0865	+00000	4.67	4.59	1.24	1.25
.3	4.59	4.57	1,24	1.23	3,36	3.34	+0736					-0102	.0102	4.15	4+11	1.29	1.28
. 4	4,12	4.10	1.28	1.27	2.84	2.83	+0+19					.00510	.00510	3.78	3.76	1.29	1.30
.5	3.76	3.75	1.28	1.29	2.20	2.20	+0271					+00301	.00301	3,49	3.47	1.20	1.27
•	3,45	3.05	1.25	1.24	1.81	1.81	.0107					+00140	+00140	3.00	2.74	1.21	1.20
1.	2.75	2.74	1.21	1.20	1.54	1.54	+00695							2,24	2.24	1.11	1.09
1.5	2.23	2.23	1.10	1.09	1.13	1.14	.00310	.0075		+00/3	.0146			1.93	1.93	1.04	1.01
2.	1.90	1.90	1.01	1,00	+893	.899	+001/5	.0852	.000523	.0857	.0566			1+59	1+59	.949	•907
3.	1,50	1,50	.803	.000	.492	.511		.140	.00216	+142	.105			1.39	1+39	.849	.807
2	1.08	1.08	678	.656	.402	.424		187	.00423	•191	+151			1.19	1.19	. 848	.783
6.	954	.954	.615	590	.340	.364		.227	.00635	•233	.193			1.09	1.09	.827	.758
i,	,781	.781	.521	.494	.260	+287		.295	.0109	+ 300	.322			1.03	1.03		
10.	.665	.665	.454	.420	.143			.460	.0236	.484	.429			.976	.976	.833	+748
15.	,492	.492	.347	.251	.108	.144		.540	.0303	.570	.496			+985	.707	.031	.752
20.	• 37 ⁵	.248	215	.178	.0727	• 1 10		.650	+0404	•690	.574			•978 1.00	1.00	.948	.753
40.	.229	.229	.174	,136	.0549	.093		•726	.0481	.774	.616			1.03	1.03	,984	.745
50.	,191	.191	.147	.109	.0439	•0821		879	.0533	.887	.648			1.05	1.05	Į•02	.737
60.	.164	.164	.128	.0594	+0368	+07=0		.891	.0650	.956	.658			1.09	1.09	1.00	.723
80.	•130 •108	-130	.0854	.0496	.0222	.0584		.950	.0700	1.02	•663			1+13	1+13	1+11	••••

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)3 ALUMINUM (cm³/g = 0.02232 x barns/atom)

E (MeV)	(ξ) ^{KN} _{inc,t}	(声) ^{BD} inc, t	$\left(\frac{\mu}{\rho}\right)_{\rm inc, a}^{\rm KN}$	(声) ^{BD} inc, a	([#]))nc, s	(چ) ^{BD} inc, s	([#] _p) _{coh}	(#)*n	$(\frac{\mu}{\rho})_{xe}$	(ڭ) _{×, t}	(#) _{x,a}	(券) T, L	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	(岸) _{tot,1}	([#] _p) _{tot,t-coh}	([#] _p) _{tot, a}	([#]) _{tot, en}
.001	.192	.0143	.000375	•0000279	.192	.0143	2.25					1230.	1230.	1230.	1230.	1230.	1230.
x .00156	.192	.02+8	+000560	.0000723	.191	.0259	2.03					353.	353.	355.	353.	353.	353.
007	107				191	. 0335	1-86					4890.	4750.	4890.	4890.	4890.	4750.
.002	.191	.0475	.00110	.000275	.190	.0473	1.56					775.	763.	777.	775.	775.	763.
.004	.190	.0583	.00146	.000449	.189	.0578	1.32					344.	339.	346.	344 .	344.	339.
.005	-189	.0681	+00181	+000652	.187	.0674	1.14					183.	181.	184.	10.	110.	189.
.008	.187	.0933	.00283	.00141	.184	.092	.748					49+1	48.9	50.0	49.1	49.1	48.9
.01	,186	.106	.00348	.00199	182	.104	.571				······	25.7	25,7	26,3	25.7	25.7	25.7
.015	.183	+127	+00504	.00350	.177	.123	• 326					7.52	7.50	7.97	7.00	3.06	3.06
.02	.173	+137 -147	.00902	.00763	.164	.139	•114					.826	.824	1.09	.973	.835	.830
.04	.168	150	+0112	.00998	.157	.139	.0712					.324	+324	.545	.473	.335	•333
.05	.163	•150	•0131	.0121	.150	•138	+0484					+157	•157 •875	•395	.308	+1/1	.107
.06	+158	+148	+01+8	•0139	.133	.127	.0207					+0348	.0348	.200	.179	.0525	.0516
.1	,143	.139	.0197	.0192	.123	.120	.0136					.0170	+0170	•169	.156	.0368	.0362
•15	.129	.127	.0234	.0230	.105	.104	.00629					+00469	+00469	.138	•131	.0281	.0217
•2	+110	+117	•0274 •0277	+0272	.0750	.0745	.00164					.000551	+000551	.104	.102	.0281	.0279
	.0920	.0915	.0266	.0283	.0634	.0632	.000935					+000228	+000228	.0926	.0917	.0288	-0286
.5	.0839	.0837	.0286	.0288	.0554	+0549	.000605					+000114	+000114	+0844	.0839	.0288	.0290
•6	.0777	.0775	+0286	•0283	.0491	.0491	.000420					+0000072	+0000072	+0779	.0661	. 0279	.0277
1.	.0614	.0612	.0270	.0268	.0344	.0344	.000155							.0614	.0612	.0270	.0268
1.5	.0498	+0498	+0246	+0243	.0252	.0254	.0000692	.000167		.000167	.0000531			.0500	.0500	.0248	.0243
2.	.0424	.0424	+0225	.0223	+0199	.0201	•0000391	+000670	.0000117	+00057	+000326			•0431 .0355	.0431	.0212	+0223
3.	.0279	.0279	.0169	.0165	.0110	.0114		.00312	.0000482	.00317	.00234			.0310	.0310	.0201	.0188
5.	.0241	+0241	.0151	+0146	.00897	.00946		.00417	.0000944	.00426	.00337			.0283	.0283	.0194	.0180
6.	.0213	.0213	.0137	.0132	.00759	.00812		+00507	.000142	.00520	+00431			.0266	+0200	-0189	•01/5
8.	.01/4	+01/4	+0116	+0110	+00980	.00533		.00786	.000339	.00819	.00719			.0230	.0230	.0183	.0167
15.	.0110	.0110	.00779	.00708	.00319	.00391		.0103	.000527	.0108	.00958			.0218	.0218	.0186	•0167
20.	.00882	.00882	+00641	.00560	.00241	.00321		.0121	.000676	+0127	.0111			-0215	.0215	.0191	•0167
30.	.00043	+00643	+00480	.00397	.00102	.00298		+0140	+000902	.0173	+0120			.0223	.0223	.0212	.0166
50.	.00426	.00426	.00328	.00243	.00098	.00183		.0175	.00119	.0187	.0142			.0230	.0230	.0220	.0166
60.	.00366	.00366	.0 0286	.00200	.000821	.00167		.0185	·00129	.0198	.0145			.0234	.0234	.0228	•0164
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)4 SILICON (barns/atom)

E (MeV)	KN _{oinc,t}	o ^{BD}	KN Oinc, a	σ ^{BD} nc,a	o ^{KN}	σ ^{BD} inc,s	0 _{coh}	σ×n	σ×e	σ _{x,t}	<u>σ_{×, a}</u>	σ _{r,t}	σ,,,	σ _{tot,t}	Otot,t-coh	σ _{tot, a}	σ _{tot, en}
.001	9.28	.613	.0181	.00119	9.26	•612	118.					76900+ 24500+	76900. 24500.	77000. 24600.	76900+ 24500+	76900. 24500.	76900+ 24500+
.0015 g.001839	9,26	1.43	.0330	.00511	9.21	1.42	100.					13700.	13700.	13800.	13700.	13700. 182000.	13700. 176000.
.002	9,24	1.57	.0359	.00609	9.20	1.56	97.0					143000.	138000.	143000.	143000+	143000.	138000.
.003	9.20	2.30	.0534	.0133	9.15	2.29	67.2					20500.	20200.	20600.	20500+	20500.	20200.
•004	9,17	2.07	+0706	.0219	9.05	3.29	57.8					10900.	10800.	11000.	10900.	10900.	10500.
.005	9,10	3.73	.104	.0427	9.00	3.69	50+3					6530 •	6460+	6580.	6530+	6530+	2900.
.008	9.03	4.45	.137	.0674	8.90	4.38	38.6					2920.	2900.	2900+	2920+	1550.	1540.
.01	8.97	5.04	.168	.0944	8.80	4.95	30.0						458+	483.	466+	460+	458.
.015	8,80	6.01	.243	+166	8.30	5.84	11.3					188+	187.	206+	195+	188+_	187+
•02	8.03	2.01	.435	- 365	7.93	6.65	6+06					51+1	51.0	64.2	58+1	51.5	51.4
+03	8,10	7.16	.540	478	7.56	6+68	3+81					20.4	20+4	31.4	27+6	20.9	20.7
.05	7.86	7.18	.634	.579	7.23	6.60	2+61					9.95	9.94	14.6	12.7	6.27	6.21
.06	7.64	7.12	.717	.668	6.92	6+45	1+89					2,21	2.21	10.2	9.13	3.06	3.02
.08	7.24	6.92	+848	.510	0+37	5.74	.734					1.09	1,09	8,50	7.77	2.04	2.01
<u></u>	6.21	6.10	1,13	1.11	5.08	4.99	•340					.299	.299	6.74	6.40	1.43	1.41
.2	5.69	5.63	1.23	1.22	4.46	4.41	•195					•123	•123	5.95	5.13	1.35	1.37
.3	4,95	4.92	1,33	1.33	3.61	3.59	+0889					02E0+	.0146	4.49	4.43	1.38	1.38
	4,43	4.42	1.37	1.37	3.06	3.05	+0507					.00743	.00743	4.08	4.05	j ₊ 39	1.39
•5	4.05	4.04	1.38	1.30	2.37	2.00	.0226					+00450	.00450	3.77	3.74	<u>3</u> .38	1.37
•6	3.74	3.74	1.36	1.33	1.94	1.95	+0128					+00210	.00210	3.29	3.28	1.34	1.33
1.0	2.96	2.95	1.30	1.29	1.66	1.66	.0083					100122	•00122	5.96	2.95	1,30	1.18
1.5	2.40	2.40	1,19	1.18	1.21	1.22	.00373	.00875		+008/5	.00278			2.09	2.08	1.13	i.io
2.	2.05	2.05	1.09	1.08	•961	.972	•00211	.0350	.008563	.0996	.0656			1.71	1.71	1.03	.977
3.	1.61	1.61	.929	.911	.529	.651		.163	.00232	.165	,123			1.52	1+52	.982	• • 1 •
<u>.</u>	1.35	1.35	.738	.702	.433	.458		,216	.00453	+221	.174			1+38	1.38	• 421	
7. 6.	1.03	1.03	.662	.636	.366	.394		.264	.00688	+271	•223			1.30	1.30	.915	.635
8.	.841	+841	561	.530	.280	.311		.342	.0118	+354	. 305			1.14	1.14	.915	
10.	,716	.716	,489	458	.227				.0254	.556	.490			1.09	1.09	.932	.629
15.	.530	.530	.376	.339	+134	.157		.626	.0327	+659	.567			1.08	1.08	***	.835
20.	.425	.425	. 231	-189	.0783	.121		752	.0436	.796	.654			1.11	1.11	1.03	.843
3Ue 40.	.246	.246	187	145	.0591	.101		.838	.0518	.890	• 698			1+14	1+1*	1.12	.839
50.	.206	.206	.158	.116	.0473	.090		.908	.0573	• 765	• 723			1.20	1.20	1.10	.826
60.	.177	.177	.137	.0954	.0396	•0816		•937 1.03	.0698	1.10	741			1.24	1+24	1.21	•811
80.	•140	.140	.110	.0697	.0239	-0635		1.09	.0751	1+17	.742			1.29	1.29	1.26	.794
100.	•11 0	+110	*0*5	* V 763	\$VE37				•••								

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14 SILICON (cm¹/g = 0.02)44 x barns/atom)

E (MeV)	(چ) ^{KN} inc, t	(≝) ^{BD})nc,t	$\left(\frac{\mu}{\rho}\right)_{inc,a}^{KN}$	(≝) ^{BD} inc,a	(紫) ^{KN} inc,s	(≝) ^{BD} inc,s	(#) coh	([#] _p) * n	([#] _p) _{x e}	(ڭ) _{×, t}	([#] _p) *, 2	(#) _{7,t}	(#),,a	(勞) _{tot,t}	([#] _p) _{tot,t-coh}	([#]) _{tot, a}	([#] _p) _{tot, en}
.001	.199	.0131	.000388	.0000255	.199	.0131	2,53					1650. 525.)650. 525.	1650. 527.	1650. 525.	1650. 525.	1650. 525.
x .0015	.198	.0307	+000708	.000110	197	.0304	2.14					294.	294 •	296.	294.	294. 3900.	3770.
-00Z	.198	.0337	.000770	.000131	.197	.0334	2.08					3070+	2960 .	3070.	3070.	3070.	2960.
.003	.197	.0493	.00114	.000285	.196	.0491	1+71					991.	969. 433.	442.	440.	440.	433.
•004	.197	+0611	.00151 .00188	+000470	.194	.0705	1.24					234.	232.	236.	234.	234.	232.
.005	.195	.0800	.00223	.000915	193	.0791	1.08					140.	139.	141.	140.	140.	139.
.008	.194	.0954	+00294	+00145	.191	.0939	.828					62.0	33.0	34.1	33,4	33.2	33,0
<u>•01</u>	.189	.129	.00521	+00356	.184	.125	.373	_				9,86	9.82	10.4	9,99	9.86	9.82
.02	.185	.140	.00669	.00506	.179	.135	•242					4.03	4+01	4.42	1.25	1.10	1.10
•03	.179	+150	+00933	.00783	.162	.143	.0817					.437	,437	.673	.592	.448	.448
.05	.169	•154	.0136	.0124	.155	.142	.0560					+213	.213	.422	.367	.227	.133
.06	.164	.153	+0154	.0143	.148	•138 •131	¢040.					•119	•0474	.219	.196	.0656	.0647
+08 -1	.157	.143	.0204	•0174	.128	.123	.0157					,0234	.0234	-182		0437	
.15	.133	.131	.0242	.0238	.109	.107	.00729					+00641	+00841	•1•⊐ •128	•137	.0289	.0287
•2	.122	+121	+0204	.0202	.0774	0770	.00191					.000763	.000763	.108	.106	.0294	.0294
.4	.0950	.0948	+0294	.0294	.0656	.0654	.00109					.000313	+000313	•0963	.0950	.0296	.0296
.5	.0868	.0866	.0296	•0296	.0572	.0570	.000703					+0000965	+0000965	.0808	.0802	.0296	.0294
•6	.0802	.0703	+0270	+0274	.0416	.0418	.000274					+0000450	+0000450	+0705	.0703	.0287	.0285
1	.0635	.0632	.0279	.0277	.0356	.0356	.000178					+0000262	.0000262	<u>.0035</u> .0517	.0932	.0257	,0253
1.5	.0515	+0515	+0255	+0253	10234	+0202	.0000452	.000750		.000750	.000364			.0448	.0446	.0242	.0236
3.	.0345	.0345	.0199	.0195	.0146	.0150		.00212	.0000121	.00214	.00141			.0367	.0367	.0221	.0209
4.	.0289	.0289	+0175	+0171	.0113	+0119		.00349	+0000497	.00474	.00373			.0296	.0296	.0204	,0186
5.	.0249	.0249	+0157	•0136	.00785	.00845		.00566	.000148	.00581	.00478			.0279	.0279	.0200	.0184
8.	.0180	.0180	.0120	.0114	.00600	.00667		.00733	.000253	.00759	.00654			.0257	.0257	.0196	.0176
10.		<u>+0154</u>	+0105	+00982	.00330	+00993		•0114	.000545	.0119	.0105			.0234	.0234	.0200	.0176
20.	.00911	.00911	.00662	.00575	.00249	.00337		.0134	.000701	.0141	.0122			.0232	.0232	.0208	.017
30.	.00665	.00665	.00495	.00405	.00168	.00259		.0161 .0180	.000935	.0191	.0140			.0238	.0244	.0232	.0181
40.	.00927	.00527	.00-01	.00249	.00101	.00193		.0195	.00123	.0207	.0155			.0251	.0251	.0240	.0180
60.	.00379	.00379	+00294	.00205	.000849	.00175		.0205	.00134	.0219	.0157			.0257	.0257	.0249	.0170
80.	.00300	.00300	.00236	+00149	.000639	.00136		.0234	.00161	.0251	.0159			.0277	.0277	.0270	:0170
100.	+00247	+ U VE 4 7	*****	******													

15 PHOSPHORUS (barns/atom)

E (MeV)	σ _{inc,t}	σ ^{BD} _{inc,t}	Olnc, a	o ^{BD}	O ^{KN} Oinc, s	o ^{BD}	σ _{coh}	σ×n	σ×e	σ _{*,t}	σ _{×, a}	σ, t	σ _{τ, a}	σ _{tot,t}	ot, t-coh	σ _{tot, a}	Utot, en
.001	9.94	.572	.0194	.00111	9.92	.571	136.					105000.	105000.	105000.	105000.	105000.	105000.
.0015	9.92	1.07	.0289	.00312	9.89	1.07	125.					33300.	33300.	33400.	33300.	33300.	33300.
.002	9.90	1.55	.0384	00601	9.86	1.54	113.					14700.	14700.	14800.	14700.	14700.	14700.
E .002144	9.89	1.68	.0411	.00698	9.85	1.67	110.					12000.	12000.	12100.	12000.	12000.	12000.
	• -			•								153000.	146000+	153000.	153000.	153000.	146000.
.003	9,86	2.37	.0572	.0137	9.81	2,36	92.0					60000+	58100.	60100.	60000.	60000.	58100.
.004	9,82	3.02	.0756	.0232	9.75	3.00	76+5					26600.	26000.	26700.	26600.	26600.	26000+
.005	9.79	3.53	.0937	.0338	9.69	3,50	65+3					14300.	14000.	14400+	14300.	14300.	14000.
.006	9,75	3.97	.112	.0455	9.64	3.92	56+7					8600.	5460.	2010	8600.	8000.	2614
.008	9,68	4.71	.146	.0713	9.53	4.04	44.0					3860.	3810.	3910+	3000.	3060	2040.
•01	9,01	5.32	,180	.0997	9.43	5.22	34+6			··· – ·· ·		2000+	409			617.	609.
.015	9.43	6+35	.201	.176	9.17	0+17	20.3					362	261.	272.	259.	252.	251
.02	9.21	8.92	.334	.250	0.74	0.0f 7 AK	13+3					69 0	49.8	81.6	76.4	69.5	69.2
•03	0,70	7.44	\$70	.30/	8.30	7-11	1+13					27.6	27.5	39.7	35.2	28.2	28.0
.04	8.43	7.45	470	- 500	7.74	7.03	3.08					13.6	13.6	24.3	21.2	14.3	14.2
•05	8.38	7.60	.768	.713	7.42	6.89	2.24					7.65	7.64	17.5	15.2	8.42	8,35
- 68	7.74	7.39	.909	865	6.85	6.52	1.32					3.06	3.06	11.8	10.4	3,97	3.92
.1	7.39	7.13	1.02	.984	6.37	6+15						1.50	1.50	9,50	8,63	2,52	2.48
15	6.65	6.53	1.21	1.19	5.45	5.34	+405					.419	.419	7.35	6.95	1.63	1,61
.2	6,10	6.02	1.32	1.30	4,78	4.72	.232					+176	•176	6.43	6.20	1.50	1.48
.3	5.30	5.27	1,43	1.42	3.87	3.85	•106					.0501	.0501	5,43	5,32	1.48	1.47
	4,75	4.73	1.47	1.47	3.28	3.26	•0604					.0207	.0207	4.81	4,75	1+49	1.47
.5	4,34	4.32	1.48	1.48	2.86	2.84	•0392					.0103	+0103	4.37	EE + #	1	1
•6	4.01	4.00	1.47	1.47	2.54	2.53	+0269					.00630	.00630	4,03	3 63	1.40	1.43
	3,52	3,52	1,44	1.43	2.08	2.09	+0152					.00300	.00176	3.17	3.16	1.39	1.38
1.	3,17	3,16	1,39	1.38	1.17	1.78	.00982	- 41.45		0103	64224			2.58	2.50	3.24	1.26
1.5	2.57	2,57	1.27	1,20	1.30	1.31	.00444	.0102		+0102	+00J24			2.23	2.23	1.20	1.17
2.	2.19	2.19	1.16	1+15	1.03	1+04	+00252	.113	. 000603	-114	.0748			1.85	1.84	1.11	1.05
3.	1.73	1+73			.567	.590	*00112	.187	.00249	189	.140			1.63	1.63	1.06	.990
21	1 26	1 25	783	754		.496		250	.00487	265	201			1.50	1.50	<u>,</u> 04	.955
70 6.	1.10	1.10	709	.675	.392	.425		.304	.00737	.311	.256			1.41	1.41	j.02	.931
8.		.901	.601	. 567	.300	.334		. 391	.0127	+404	.347			1.30	1.30	1.00	•914
10.	.767	.767	.524	489	.243	.278		.470	.0176	+488	.425			1,25	1.25	1.01	
15.	.568	.568	.403	.361	.165	.207		.610	.0273	+637	.560			1.20	1.20	1.04	,921
20.	.456	.456	.331	.285	.125	•171		.716	.0350	+751	.642			1.21	1+21	1.08	.927
30.	. 332	.332	.248	.200	.0838	•132		.859	+0467	+906	•736			1+24	1+24	1.15	.736
40.	.264	.264	.200	.154	.0633	.110		.958	.0555	1.01	•785			1.27	1.27	1.41	.739
50.	.220	•220	.169	.123	+0507	.0975		1.04	+0613	1+10	+814			1.32	1.32	1.12	. #74
60.	.199	.190	+147	.101	.0424	.0559		1.10	+0667	1+17	.425			1,30	1,30	1 37	
80.	.150	.150	.118	.0738	.0319	.0762		1.18	+0747	1+25	120			1.45	1.45	1.43	. 845
100.	•124	+124	•0986	•0556	* v 520	+0584		1+52	+ 190 I	1+33	+ 0 2 7					•••-	••

1 1 1 2 1 K 3 1 $\begin{array}{ccc} \mathbf{x}_{1} & \mathbf{y}_{2} & \mathbf{y}_{2} \\ \mathbf{x}_{1} & \mathbf{y}_{1} & \mathbf{y}_{2} \\ \mathbf{x}_{1} & \mathbf{x}_{1} & \mathbf{x}_{2} \end{array}$

86

15 PHOSPHORUS (cm³/g = 0.0)944 x barns/atom)

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E (MeV)	([#] _p) ^{KN} _{inc,t}	(^µ _p) ^{BD} _{inc,t}	$\left(\frac{\mu}{\rho}\right)_{\mathrm{inc,a}}^{\mathrm{KN}}$	([#] _p) ^{BD} inc, a	([#]) _{nc, s}	([#] _₽) _{)oc, s}	(불) _{coh}	(^µ _p) * _n	(#)×e	([#]) _{×, t}	(#) x, a	(勞) _{7,1}	([#] _p) _{7,2}	([#]) _{tot,t}	([#] _p) _{tot,t.coh}	([#] _p) _{tot,a}	([#])tot, en
.001	.193	.0111	.000377	.0000216	.193 .192	.0111	2.64					2040. 647.	2040. 647.	2040. 649.	2040 • 647 •	2040.	2040: 647:
•002	.192	.0301	.000746	.000117	192	.0299	2.20					286.	286.	288.	286.	286.	286.
K +002144	. 192	.0327	•000799	.000136	•191	•0325	2.14					233+	2840.	2970.	2970.	2970.	2840.
.003	.192	.0461	.00111	•000266	.191	.0459	1.79					1170.	1130.	1170.	1170.	1170.	1130.
.004	.191	.0587	.00147	+000451	.190	•0583	1.49					278.	272.	280.	278.	278.	272.
.005	.190	.0772	+00182	+000885	.187	.0762	1.10					167.	164.	168.	167+	167.	164.
.008	.188	.0916	.00284	.00139	.185	.0902	.855					75.0	74+1	76.0	75.0	75.0	39.7
.01	.187	.103	.00350	.00194	.183	•101	.673					40.0	11.8	12.4	12.0	11.9	11.8
.015	.183	.123	+00507	+00342	.174	.130	.259					4.90	4.88	5,29	5.03	4.90	4.88
.03	.174	.145	.00906	.00752	.165	.137	.139					1+34	1+34	1.63	1+49	1.35	1+35
.04	.169	.148	.0113	•00988	•157	.138	.0873					•537	+ 535		.004	.278	.276
• 05	+164	+149	+0132	+0120	.150	.134	.0435					.149	+149	.340	. 295	•164	.162
•00	•157	.144	.0177	.0168	133	.127	.0257					.0595	+0595	.229	.202	.0772	.0762
•1	.144	.139	.0198	+0191	.124	.120	•0170			<u> </u>		+0292	+0295	<u>•185</u>	•105	.0317	.0313
•15	.129	.127	• 0235	•0231	.106	.104	+00787					+00815	+00342	125	•121	.0292	.0288
.2	.103	+117	+0257	.0276	.0752	.0748	.00206					.000974	.000974	.106	.103	.0288	+0286
	.0923	.0920	.0286	.0286	.0638	.0634	.00117					+000402	+000402	.0935	.0923	.0290	+0290
•5	.0844	.0840	.0288	.0288	.0556	•0552	+000762					+000200	+000200	.0783	.0780	.0288	.0288
•6	.0780	.0778	+0280	+0280	.0404	.0472	.000295					+0000583	+0000583	+0688	.0684	.0280	.0278
1.	.0616	+0614	.0270	.0268	.0344	.0346	.000191					+0000342	+0000342	.0616	.0614	.0270	•0268
1.5	.05 00	.0500	.0247	+0245	.0253	.0255	.0000863	.000148		.000198	.000063			+0502	+0502	.0233	.0227
2.	.0426	.0426	•0226	•0224	.0200	.0202	+0000490	+000/80	.0000117	.00222	.00145			.0360	.0358	.0216	.0204
3.	+0330	.0280	•0170	•0165	.0110	.0115		.00364	.0000484	.00367	.00272			.0317	.0317	.0206	.0192
5.	.0243	.0243	.0152	+0147	.00902	.00964		.00486	.0000947	.00496	.00391			•029Z	.0292	.0202	.0189
6.	.0214	.0214	•0138	+0131	.00762	.00826		+00591	+000143	+00505	.00675			.0253	.0253	.0194	.0178
8.	+01/5	+01/5	+0117	+0110	.00472	.00540		,00914	.000342	.00949	.00826			,0243	,0243	0196	.0178
15.	.0110	.0110	.00783	.00702	.00321	.00402		.0119	.000531	+0124	.0109			.0233	.0233	.0202	.0179
20.	.00886	.00886	.00643	.00554	.00243	.00332		+0139	.000680	+0146	.0125			.0235	.0241	.0224	.0182
30.	.00645	+00645	•00482	•00389	.00103	.00237		.0186	.00108	.0196	.0153			.0247	.0247	.0235	.0183
50.	.00428	.00428	.00329	.00239	000986	.00190		.0202	.00119	.0214	.0158			.0257	.0257	.0247	.0182
60.	.00369	.00369	.00286	.00196	.000824	.00173		.0214	.00130	.0227	.0160			.0264	•0264 •0272	.0257	.01 80
80.	.00292	.00292	.00229	.00143	.000620	.00148		+0229	.00149	+0243	.0161			.0282	.0282	0278	.0172
100.	.00Z41	+00241	+00192	+00108	+000448	****		+v2+3	100124	+0=37	****1				••===	•••	••••

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16 SULFUR (barns/atum)

E (MeV)	$\sigma_{inc,t}^{KN}$	o ^{BD}	o KN O inc, a	σ ^{BD} inc, a	oKN ofinc, s	o ^{BD}	σ _{coh}	σ×n	σ _{*e}	σ _{x,t}	σ _{×.a}	σ _{r,t}	σ _{r.a}	σ _{tot,t}	Utot, t-coh	O _{tot, a}	Utot, eo
	10.4	.548	. 0207	.00107	10.6	.547	156.					140000.	140000.	140000.	140000.	140000.	140000.
.0015	10.6	1.04	.0309	.00303	10+6	1+04	144.					44100.	19400.	19500.	19400+	19400.	19400.
.002	10.6	1.54	.041	.00598	10.5	1.53	131.					10700.	10700.	10800.	19700.	10700.	10700.
K .002472	10,5	1.98	.0202	+00748	10+3	1.77	1174					131000.	123000+	131000.	131000.	131000+	72700.
.003	10.5	2.42	.0610	.0140	10.5	2.41	106.					76400.	72700+	34260.	34100+	34100.	32900.
.004	10.5	3.14	.0806	.0242	10.4	3.12	87.7					18200.	17700.	18300.	18200.	14200.	17700.
.005	10.4	3.73	.100	.0357	10.3	3.69	74.1					11000+	10700 .	11100.	11000.	11000.	10700 •
.006	10.4	4.21	.119	.0482	10.2	4.91	49.8					4950.	4860.	5000+	4950+	4950.	2620.
.00	10.2	5.62	192	.105	10.1	5.51	39.6					2660.	2020+	831.	808+	801+	793.
.015	10.1	6.69	.278	.185	9.79	6.50	23.6					330.	328.	353.	337.	330.	328.
.02	9.89	7,31	.357	.264	9.53	7.05	12+3					92+2	91+8	108.	100+	92.7	92.2
.03	9,56	7.88	.618	.639	8.64	7.54	5.24					37.0	36.9	50.3	45+1	18.9	18.8
-05	8.98	8.11	.725	.654	8.26	7.46	3.61					18.2	10.2	20.9	18.3	11.0	11.0
.06	8.73	8.07	.819	.757	7+91	7.31	2+63					4.13	4.12	13.5	12.0	5.10	5.04
.08	8.28	7.85	,969	.919	7.31	6.93	1.50				_	2.02	2,02	10.6	9.61		3.07
<u>, 1</u>	7.88	7.59	1.09	1,05	5.8)	5.69	•476					.570	.569	8,00	7,52	1.65	1.63
•15	6.50	6.42	1.41	1.39	5.10	5.03	.274					.236	.0690	5,80	5.68	1.59	1,58
.3	5.65	5.61	1.52	1.51	4.13	4.10	+125					.0284	.0284	5.14	5.07	1.60	1.59
	5.07	5.04	1.57	1.56	3.50	3.48	+0712					.0143	.0143	4,67	4,62	1.59	1.59
•5	4.63	4.61	1.58	1.58	3.07	2.70	.0316					.00880	.00880	4.31	4.28	1.54	1.52
••	4,28	3.75	1.54	1.52	2.22	2.23	.0179					+00420	+00420	3.19	3.38	1.49	1.48
1.	3.38	3.38	1,49	1,48	1.89	1.90	.0115				00366	+00245	+00110	2.76	2.75	1.37	1.34
1.5	2.75	2.74	1.36	1.34	1.39	1.40	•00523	+0115		+0119	.0223			2,39	2.39	1.29	1.25
2.	2.34	2.34	1.24	1.23	1.10	.802	.00131	129	.000645	.130	.0853			1.97	1.97	1+19	1.07
3.	1.84	1.54	.934	.907	.605	.633	•••••	.213	.00266	•216	.159			1.47	1.62	1.12	1.03
3.	1.33	1.33	.835	.801	.495	.529		.283	.00619	+289	+228			1.52	1.52	1.11	1.00
6.	1,17	1.17	.756	.715	+418	+455		.340	.0079	+ 354	.392			1.42	1.42	1+10	.975
۰.	• 961	•961	.641	.603	.320	+356		.536	.0187	+555	.483		<u> </u>	1.37	<u>1.37</u>		1.01
10.			430	.182	.176	.224		.690	.0291	.719	.626			1.33	1.33	1.20	1.02
19.	486	.486	.353	.301	.133	•185		.811	.0372	+848	.720			1.38	1.38	1.29	1.04
30.	.354	.354	,264	.212	.0894	•142		•977 • 00	.0498	1+03	.840			1.43	1.43	1.36	1.04
40.	.281	.281	.214	.163	.0675	•118		1.18	.0654	1+25	.908			1+48	1.48	1.43	1.04
50.	.235	.235	151 157	.129	.0453	.0957		1.25	.0711	1.32	•918			1.52	1+52	1.55	1.00
60. 80.	.160	.160	.125	0784	.0341	.0816		1.34	.0795	1+42	.924			1.64	1.64	1.61	.979
100.	.132	.132	.105	.0583	.0273	•0737		1.42	.0855	1+51	+761					-	

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)6 SULFUR (cm¹/g = 0.0)878 x barns/atom)

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a star stranger a

E (MeV)	(≝) ^{KN} inc,t	([#] _p) ^{BD} _{inc,t}	([#]) ^{KN} inc, a	(^µ _p) ^{BD} _{inc,2}	(^µ _p) ^{KN} _{nc,s}	(¢) ^{BD} inc,s	(声) _{coh}	(^µ / _₽) _{×n}	(<u>µ</u>) _{×e}	([#] _p) _{x,t}	$\left(\frac{\mu}{\rho}\right)_{x,a}$	([#] ₅) _{7,t}	(#),,a	(券) _{tot,t}	([#] _p) _{iot,i-coh}	([#] _p) _{tot,a}	(#) _{tot, en}
.001	.199	.0103	.0003A9	.0000201	.199	.0103	2.93					2630.	2630.	2630.	2630.	2630.	2630.
.0015	.199	.0195	.000580	.0000569	199	.0195	2.70					82A.	828.	830.	828.	828.	828.
.002	.199	.0289	+000770	.000112	.197	•0287	2.46					364.	364.	366.	364.	364.	304.
K .00247	. +147	.0372	+000948	+000178	. 197	•0370	2,23					201.	201.	203.	201.	201.	201.
					107		1 00					2460 .	2310.	2480.	2460.	2400.	1370.
.003	.197	.0434	.00115	.000263	197	+U+73	1.45					1430.	1370.	1440.	440.	440.	418.
.004	+197	+0590	.00151	.000454	193	.0500	1.30					240	333	344	342.	342.	332.
.005	+195	+0700	+00188	.000070	.193	.0781	1.20					207.	201	208.	207.	207	201.
.008	193	+0/71	.00223	.00147	.192	.0922	.935					93.0	91.3	93.9	93.0	93.0	91.3
.01	.192	106	.00361	.00197	190	.103	.744					50.0	49.2	50.9	50.1	50.0	49.2
.015	.190	.126	.00522	.00347	.184	.122	.443					15.0	14.9	15.6	15.2	15.0	14.9
.02	.186	.137	.00670	+00496	.179	.132	.291					6.20	6.16	6.63	6.33	6,20	6.16
.03	.180	.148	.00933	.00770	.170	.140	.156					1.73	1.72	2.03	1.66	1.74	1.73
+04	.174	.152	.0116	.0101	.162	.142	.0984					+695	.693	+945	.847	• 70 8	- 102
.05	.169	+152	•0136	+0123	.155	-140	.0675					.342	+ 340	.502		- 202	.207
• 06	+164	+152	+0174	+0142	.149	+137	.0494					+192	+192	.393	. 225	.0958	.0947
• 08	+132	147	+010Z	+01/3	128	.123	.0192					.0779	.0379	.199	.180	.0584	.0577
•••		- 193	.0203	017	109	-107	.00894		<u> </u>					.150	.141	.0349	.0344
.2	.122	.121	.0265	.0261	.0958	.0945	.00515					.00443	.00443	.130	.125	.0310	.0306
	.106	.105	.0285	.0284	.0776	.0770	.00235					.00130	.00130	.109	.107	.0299	.0297
	.0952	.0947	.0295	.0293	.0657	.0654	.00134					+000533	+000533	.0965	.0952	.0300	•0299
.5	.0870	.0866	.0297	.0297	0573	.0569	.000870					+000269	.000269	.0877	.0868	.0299	+0299
.6	.0804	.0802	• 0295	.0295	.0509	.0507	.000593					.000165	+000165	.0809	.0804	.0297	.0297
.8	.0706	.0704	.0289	.0285	.0417	+0419	.000336					+0000789	+0000789	.0708	.0704	.0289	.0203
1.	.0635	.0635	•0280	+0278	.0355	.0357	.000216					•0000460	.00000460	.0037		.0280	
1.5	.0516	.0515	.0255	.0252	.0201	.0203	.0000982	.000210		.000210	.0000007	+0000207	+000020/	+0219	+0310	.0237	.4235
2.	.0439	.0439	+0233	+0231	0207	.0141	.0000246	.00242	.0000121	.00244	.00160			.0370	.0370	.0223	.0212
3.	.0289	.0289	.0175	.0170	.0114	.0119		.00400	.0000500	.00406	.00299			.0331	.0331	.0216	.0201
5.	.0250	.0250	.0157	.0150	00930	.00993		.00531	.000116	.00543	00426			.0304	.0304	.0210	.0193
6.	0220	0220	+0142	.0134	00785	.00854		.00650	+000148	.00665	00545			.0285	0285	.0208	.0188
8,	.0180	.0180	.0120	.0113	.00601	.00672		•00836	+000254	.00860	.00736			.0267	.0267	.0207	.0187
10.	.0154	.0154	.0105	.00971	,00486	.00565		.0101	.000351	.0104	.00907			.0257	.0257	,0208	.0188
15.	.0114	.0114	.00808	.00717	.00331	.00421		.0130	.000546	.0135	.0118			.0250	.0250	.0216	.0190
20.	.00913	.00913	.00663	.00565	.00250	.00347		+0192	+000699	+0199	.0135			.0250	.0250	.0645	.0192
30.	.00665	.00665	.00496	.00398	.00168	.00207		+0183	+000935	0193	+0123			.0259	.0249	.0646 1386	.0123
40 .	.00928	.00928	•00-02	.00300	.00127	.00222		.0222	.00123	.0236	.0171			.0278	.0278	. 6269	.0195
7U.	14400	.00441	.00340	+00242	.000851	.00180		.0235	.001 34	.0248	.0172			.0284	.0285	.027R	.0192
80.	.003/7	.00300	.00235	.00147	.000640	.00153		.0252	.00149	.0267	.0174			.0297	.0297	.0291	.0188
100.	.00248	.00Z4B	.00197	.00109	.000513	.00138		.0267	.00161	.0284	.0173			.0308	.0308	.0302	.0184

17 CHLORINE (barns/atom)

E (MeV)	σ _{inc,t}	o ^{BD} inc,t	σ ^{KN} σinc, a	o BD	o ^{KN}	σ ^{BD} inc,s	o _{coh}	σ×n	σ×e	σ _{×,t}	<u>σ_{×, a}</u>	σ _{r,t}	σ _{r,a}	σ _{tot,t}	o _{tot,t-coh}	σ _{tot, a}	Ttot, en
.001	11.3	.516	.0219	.00101	11.2	•515	178.					181000.	181000.	181000.	181000.	1#1000.	181000.
.0015	11.2	1.00	.0328	.00292	11+2	•997	165.					57600.	57600.	57800.	57600.	57600.	57600.
•002	11.2	1.51	+0435	.00586	11.2	1.50	151+					25400.	25400.	25600.	25400.	25400.	25400.
K .002824	11.2	2.30	.0611	•0126	11+1	2.29	127.					9530.	9530.	9860.	9530.	9520.	9530 . 108000
	11 2	2 45		0147	11.1	2.44	123.					96000	105000. B9400.	96100.	96000.	96000.	89400.
.003	11.45	2		.0142	11.4	3.32	101.					43000.	40800.	43100.	43000.	43000.	40800.
.004	11.1	3.00	106	.0249	11.0	3.86	84.4					23100	22100	23200.	23100.	23100.	22100.
.007	11.4	3.90	.126	.0507	10.9	4.38	72.4					13900.	13400.	14000+	13900.	13900.	13400+
.008	11.0	5.26	.166	.0796	10.8	5.18	56.0					6220 .	6060.	6280.	6230.	6220 .	6060.
- 01	10.9	5.91	.204		10.7	5.80	44.8					3400+	3330.	3450.	3410.	3400+	3330.
.015	10.7	7.02	.296	.194	10.4	6.83	27.2					1030.	1020+	1060.	1040+	1030+	1020+
.02	10.5	7.69	.379	.278	10+1	7.41	17+9					428.	424.	454.	436.	428.	424.
.03	10.2	8.31	529	432	9.63	7.88	9+59					120.	119+	138.	128.	121 •	119+
.04	9,84	8,53	.656	.569	9.18	7.96	6+05					48+7	48.4	63.3	57+2	49+4	49.0
. 05	9.54	8.57	.779	.691	8.78	7.88	4+18					24+1	24.0	36.8	32.7	24.9	24.1
.06	9.28	8.53	.870	.800	8+41	7.73	3.05					13.5	13+5	25+1	22.0	14.4	14+3
÷08	8.79	8.31	1.03	.973	7+76	7.34	1+81					2+45	5+47	15+0	13.0	8.84	3.80
•1	8,34	8.04	1.16	1.11	7.22	6.93	1.19					2.70	2.07		10.1	3.00	3.11
-15	7.54	7.38	1.37	1.34	8+17	0.04	+524					.717	+/09	7.44	7,13	1.81	1.79
•2	6.41	0.01	1.47	1.47	3.39	3.34	-145					+0910	.0909	6.20	6.05	1.71	1.70
•3	6 78	5.70	1.67	1.66	3.72	3.70	.0830					.0380	.0380	5.48	5.40	- i.7i	1.70
	4.91	\$-90	1.68	1.68	3.24	3.22	+0540					.0196	.0196	4.97	4.92	1.70	1.70
	4.55	4.53	1.67	1.66	2.88	2.87	.0370					•0120	+0120	4+58	4.54	1.68	1+67
	3.99	3.99	1.63	1.62	2.36	2.37	.0210					+00580	+00580	4+02	4.00	1+64	1+63
1.	3,59	3.59	1.58	1.57	2.01	2.02	+0134					.00340	+00340	3+61	3.59	1.54	1.57
1.5	2.92	2.91	1.44	1.43	1.47	1.48	+0061	.0131		.0131	.00417	+00160	.00160	2.93	2.92	1.45	1.44
2.	2.49	2.49	1.32	1.31	1.17	1+18	•00345	.0518		+0518	.0252	+00100	•00100	2+95	2.54	1.37	1.34
3.	1.96	1.96	1.13	1.10	.827	.857	+00152	+146	.000686	+147	+0464			2•11	2+11	1.20	1.20
4.	1.64	1.64	.992	.963	+043	.077		+240	+00281	+243	+114			1.00	1.73	1.21	1.10
5.	1.41	1+41	.887	.847	• 252	.503		.320	+00550	+ 327	174			1.45	1.65	1.20	3.09
.	1.25	1.25	.804	.702		-480		.370	.0144	- 514	.419			1.51	1.63	1.20	1.07
	1.02	1.02	+001	-035	1340	- 222		- 604	199	.424	.541			1.49	1.49	1.22	1.09
-12e					.167	.240	· · · · · ·	780	.0310		.705			1.45	1.45	1.27	1.11
20	617	.617	376	318	.141	.199		.913	.0396	• 953	.801			1.47	1.47	1.33	1.12
30.	. 376	. 176	.281	.223	.0950	.153		1.10	.0529	1+15	.921			1.53	1.53	1+43	1+14
40.	299	299	227	172	.0717	.127		1.23	.0629	1.29	•980			1+59	1.59	1• 5 2	į•15
50.	250	.250	192	.136	.0575	+114		1.33	•0693	1+40	1.01			1+65	1+65	<u>1</u> +59	1.15
60.	215	.215	.167	.112	+0+81	.103		1.40	.0755	1+48	1.01			1+69	1.69	1+65	1+12
80.	.169	.169	.133	.0820	.0362	.0870		1.50	.0843	1+58	1.02			1+75	1 • 75	1+71	1-10
100.	.141	.141	, 112	.0618	.0290	•0792		1.60	.0907	1+69	1.02			1+83	1+83	1+80	1.48

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17 CHLORINE (cm³/g = 0.01699 x barns/atom)

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E (MeV)	(^g) ^{KN} _{inc,t}	(岁) ^{BD} inc,t	(≝) ^{KN} inc,a	([#] _p) ^{BD} _{nc,a}	(岁) _{inc,s}	([#]) ^{BD} _{inc,s}	(뿔) _{coh}	([#] _p) _{*n}	(⊈) _{×e}	(분) _{×,t}	([#] _p) _{×,a}	(券) _{7,1}	([#] _p) _{r,a}	([#] _p) _{tot,t}	(岸) _{tot,t-coh}	([#] _p) _{tot,a}	([#]) _{tot, en}
.001	.192	.00877	.000372	.0000172	. 190	.00875	3.02					2084	3484	3080		7.48.0	3080
.0015	.190	.0170	.000557	.0000496	.190	-0169	2.80					3000+	3080.	3080+	3000+	3050.	3080.
.002	.190	.0257	.000739	.0000996	190	.0255	2.57					479	472	435	477.	477.	432.
x .002824	190	.0391	.00104	.000214	.189	.0389	2.16					167.	167.	164.	4324	162	162.
	•••				•••	•••••						1920.	1780.	1920.	1020	1020.	1780.
.003	.190	.0416	+00110	+000241	.189	+0415	2.09					1630.	1520.	1630.	1630.	1630.	1520.
+004	.189	+0550	.00146	+000423	.187	.0547	1.72					731.	693.	732.	731.	731.	693.
.005	.189	.0663	+00180	+000635	.187	.0656	1.43					392.	375.	394.	392.	392.	375.
.006	.187	.0753	+00214	.000861	.185	.0744	1.23					236.	228.	238.	236.	236.	228.
.008	+187	+0894	+00282	.00135	.183	.0880	.951					106.	103.	107.	106.	106.	103.
.01	+185	.100	+00347	+00189	,182	•0985	.761					57.8	56.6	58.6	57.9	57.8	56.6
.015	•185	.119	.00503	.00330	.177	.116	.462					17.5	17.3	18.0	17.7	17.5	17.3
•02	+178	.131	+00644	+00472	.172	.126	.304					7.27	7.20	7.71	7+41	7.27	7,20
.03	+173	+141	+00899	+00734	+164	+134	•163					2.04	2.02	2.34	2.17	2.06	2.02
•0•	+167	+145	•0111	.00967	.156	•135	+103					.827	+822	1.08	.972	.839	.833
• 0 7	.102	+140	+0131	+0117	.1.4.7	+134	.0/10					.409	+408	•625	• 550	.423	+420
.00	+150	+1+3	e0148	+0130	133	131	*0210					+229	+229	+428	+374	•Z45	•243
+00	147	.177	+01/5	+0105	123	1119	+0308					+0931	+0454	.205	.234	•111	+109
	128	.125	.0233	.0728	105	-103	- 00041					+0459			187		.000
.2	.117	116	.0253	.0250	0921	.0907	.00540					+0131	+0131	.176	.121	.0304	.030
.3	102	.101	.0275	.0274	.0746	.0739	.00246					-00155	.00164	.105	.103	.0300	.028
.4	.0914	.0911	.0284	.0282	.0632	.0629	.00141					+000646	.000646	.0931	.0917	.0291	.028
.5	+0834	.0833	+0285	.0285	.0550	.0547	+000917					+000333	.000333	.0844	.0836	.0289	.028
•6	.0773	.0770	+0284	.0282	.0489	+0488	+000629					+000204	.000204	.0778	.0771	.0285	.028
.8	.0678	.0678	+0277	•0275	.0401	.0403	.000357					.0000985	.0000985	.0683	.0680	.0279	. 02 7
<u>1.</u>	,0610	,0610	• 0268	.0267	.0341	0343	.000228						.0000578	.0613	.0610	0268	.026
1.5	.0496	.0494	+0245	+0243	.0250	+0251	+000104	.000223		•000Z23	.0000708	+0000272	+0000272	+0498	+0496	+0246	+024
2.	.0423	.0423	+0224	+0223	.0199	.0200	.0000586	+000880		.00088	.000428	+0000170	+0000170	• 0433	•0432	.0233	+ 0221
3.	.0333	+0333	+0192	+0187	+0141	+0146	+0000258	+00248	.0000117	.00250	.00164			.0358	.0358	.0217	•020
2 •	.02/9	.02/9	.0164	+0104	.0109	.0115		.00408	.0000477	+00413	+00304			.0319	.0319	.0209	+0194
2.	+0240	.0240	+0151	+0144	.00892	+00421		.00544	+0000934	.00552	.00435			+0294	+0294	.0206	.018
.	0212	+0212	+0137	+0129	00134	.00827		.00003	+000143	.006/6	+00554			+0260	+0280	.0204	+018
10.	.0148	.01/3	+0110	+0100	00910	400034			.000243	+00073	+00740			.0260	+0260	+0204	+018
18.				00484	- 10110			-0111	000530			·····		•0493			
20.	.00878	.00878	.00637	-00560	.00240	.00338		.0155	.000673	.0162	.0136			+0246	+0240	+0218	+010
30.	.00639	.00639	+00477	.00379	.00161	.0026		.0187	.000899	.0195	.0156			10250	.0230		•0170
40.	.00508	.00508	.00386	.00292	.00122	.00216		.0209	.00107	.0219	.0167			.0200	.0270	.0258	-019
50.	.00425	.00425	.00326	.00231	000977	.00194		.0226	.00118	.0238	.0172			.0280	.0280	.0270	.019
60.	.00365	.00365	.00284	.00190	.000817	.00175		.0238	.00128	.0251	.0172			.0287	.0287	.0280	.019
80.	.00287	.00287	.00226	.00139	.000615	+00148		+ 0255	.00143	.0268	.0173			.0297	. 0297	.0291	.018
100.	•00240	.00240	.00190	.00105	.000493	.00135		.0272	.00154	.0287	+0173			.0311	.0311	.0306	.018

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18 ARGON (barns/atom)

E (MeV)	κN σ _{inc,t}	σ ^{BD} _{inc,t}	0 ^{KN} 1 ^{inc} , a	σ ^{BD} σ _{inc, a}	OKN Oinc, s	σ ^{BD} _{inc, s}	σ _{coh}	σ×n	σxe	σ _{×,t}	σ _{×, a}	σ _{r,t}	σ _{τ. a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{rot, a}	Utot, en
.001	11.9	.477	.0232	.000929	11.9	.476	201.					235000.	235000.	235000.	235000.	235000.	235000.
.0015	11.9	.949	.0347	.00277	11.9	.946	188.					73800.	73800.	74000.	73800.	73800.	73800.
-002	11.9	1.47	.0461	.00570	11.8	1.46	172.					32700.	32700.	32900.	32700.	32700.	32700.
.003	11.8	2.46	.0686	.0143	11.8	2.45	141+					10300.	10300.	10400.	10300.	10300.	10300.
E .003203	11.6	2.64	.0731	.0163	11.8	2.62	135.					8560.	8560.	8700.	8560.	8560.	8560.
•					_							98100	89400.	98200.	98100.	98100.	89400.
.004	11.8	3.33	.0907	.0256	11+7	3.30	116.					\$2900.	49200.	53000.	52900.	52900.	49200.
.005	11.7	4.04	.112	.0387	11.6	4+00	96.3					28600.	27000.	28700.	28000.	28600.	2/000.
.006	11.7	4.62	.134	.0529	11.6	4.57	82+1					17300.	16500.	17400.	17300.	17300.	10200.
.008	11.6	5.51	.176	.0834	11+4	5.43	63.0					7800.	7520.	7870.	7810.	/000.	/\$20.
.01	11.5	6.18	.216	.116	11.3	6.06	50+4					4230.	4110,	4290,	4240.	42.30	•110,
.015	11.3	7.34	,313	.203	11.0	7+14	31+1					1300.	1280.	1340.	1310.	1300.	1200.
.02	11.1	8.06	.401	•291	10+7	7.77	20+6					542.	534,	571.	770.	742.	334.
.03	10.8	8.73	.560	.454	10.2	8.28	11+0					152.	151.	172.	191.	153.	121+
. 04	10.4	8.97	.695	.598	9.72	8.37	6+96					62.0	01.0		71.0	02.1	11 7
.05	10.1	9.03	.815	.729	9.29	8+30	4+81					30.8	30.0	44,0	37.0	31.0	18.2
.06	9.82	8,99	.921	.844	8.90	8+15	3+52					1/.5	14.	30.0	20,5	10.4	1016
.05	9.31	8.77	1.09	1.03	8,22	7.74	2.04					7.20	1.60	10.1	12.1	A.83	4.77
•1	<u> </u>	8.49	1.25	1.17	7.05	7.32	1+38						1 42	9 44	8.82	2.47	2.44
+15	7.98	7.80	1.45	1.42	0.24	8+30	• 0 • 1					1.02	.419	8.00	7.63	2.00	1.98
•2	7.32	7.21	1.20	1.20	5+13	3.03	• 307					.120	.120	6.60	6.43	1.84	1.82
•3	0.30	0.31	1.72	1.70	3 03	4.01							.0502	5.82	5.72	1.82	1.01
• • •	5.70	2.0/	1.1	1.418	3.47	3.41						.0262	.0262	5.27	5.21	1.81	1.80
•2	7.20	2.10	1.477	1.74	3.05	3.04	.0427					.0160	.0160	4.86	4.82	1.79	1.78
• •	7.81		1.77	1.70	3.50	3.61						.00780	.00780	4.25	4.23	1.74	1.72
	3 80	3 64	1.47	1.11	2.13	2.14	+0156					00460	.00460	3,82	3.80	1.67	1.66
1.6	3.09	3.09	1.51	1.61	1.56	1.58	.00706	+0147		+0147	.00467	.00225	.00225	3.11	3.11	1.55	1.52
2	2.63	2.63	1.40	1.38	1.24	1.25	.00400	.0580		.0580	.0282	.00135	.00135	2.69	2.69	1.46	1+41
ī .	2.07	2.07	1.20	1.16	.876	.907	.00176	.163	.000727	+164	.107			2.24	2.23	1.36	1.27
.	1.73	1.73	1.05	1.01	.681	.718		.270	.00298	•273	.201			2,00	5.00	1.32	1+21
5.	1.50	1.50	.939	.900	.556	.600		.357	+00583	• 36 3	.284			1.86	1.86	1.30	1.18
	1.32	1.32	.651	.804	.471	.516		.440	.00892	.449	.367			1.77	1.77	1.30	1+17
8.	1.08	1.08	.721	.671	.360	+409		.561	+0153	•576	. 491			1.66	1.66	1.30	1.16
10.	.921	921	629	.577	,291	.344		,676	+0211	+697	602			1,62	1.62	1,33	1.18
15.	.681	+681	.484	.425	.198	+256		.870	.0330	.903	.779			1.58	1,58	1.39	1.20
20.	,547	.547	.397	.335	.150	•212		1.02	+0419	1.06	.890			1.01	1.01	1.40	1.43
30.	.398	.398	.298	.235	.101	•163		1.23	+0560	1+29	1.02			1.69	1.09	1,99	1.20
40.	.316	.316	.240	.180	.0760	+136		1.38	+0664	1+45	1.08			1.77	1.17	1.07	1.44
50.	.264	.264	.203	.142	.0608	+122		1.45	.0733	1+55	1+10			1.81	1.21	1.12	1.24
60.	.228	.228	.177	.118_	.0509	.110		1.57	•0799	1+65	1+12			1.00	1,00	1.03	1.20
80.	.179	.179	•141	.0841	.0383	• 0949		1+69	+0891	1+78	1.12			1.70	2 04	2.01	1 10
100.	.149	.149	.118	.0638	.0307	.0852		1.79	+0959	1+89	1+12			2,04	2,04	2.01	1.10

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)8 ARGON (cm³/g = 0,01508 x barns/atom)

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E (MeV)	(≝) ^{KN} inc,t	(劳) ^{BD} inc,t	$\left(\frac{\mu}{\rho}\right)_{\mathrm{inc},a}^{\mathrm{KN}}$	([#] _p) _{)nc,a}	(^µ _β) ^{KN} inc, s	(لا BD inc, s	(券) _{coh}	(貨)×n	([#] _p) _{×e}	([#] _p) _{x,t}	([#] _p) _{x, a}	(#) _{r,t}	(#),,a	([#]) _{tot,t}	(#) _{tot, 1-coh}	([#] _p) _{tot.a}	([#]) _{tot, en}
.001	.179	.00719	.000350	.0000140	.179	.00718	3.03					3540.	3540.	3540.	3540+	3540.	3540+
.0015	.179	.0143	.000523	.0000418	179	.0143	2.84					1110.	1110.	1120.	1110+	1110.	1110.
.002	.179	0222	.000695	.0000860	178	.0228	2.59					493.	493.	496.	493.	493.	493.
.003	,178	.0371	.00103	+000216	.178	.0369	2.13					155+	155+	157.	155.	155.	155.
K .003203	.178	.0398	.00110	+000246	.178	.0395	2+04					129.	129+	131.	129+	129.	129.
			00137	000386	176		1.75					1480.	1350+	1480.	1480+	708	742.
.004	.110	0070C	00137	+000300	176	0403	1.45					431.	407.	433.	A31.	431.	407.
.005	176	.0007	.00202	.000304	175	.0689	1.24					261.	249.	262.	261.	261.	249.
.008	.175	-0831	.00265	.00126	172	.0819	.950					118.	113.	119.	118.	118.	113.
.01	.173	.0932	.00326	.00175	.170	.0914	.760					63.8	62,0	64,7	63,9	63,8	62.0
.015	.170		+00472	.00306	.165	.108	+409					19.6	19.3	20.2	19.8	19.6	19.3
• 02	.167	.122	•00605	+00439	.161	.117	.311					8.17	8.05	8.61	8.29	8.17	8.05
.03	.163	.132	+00844	.00685	.154	.125	+166					2.29	2.28	2.59	2,43	2,31	2.28
.04	.157	.135	.0105	•00902	+147	•126	+105					• 935	,929	1.17	1.07	.940	.930
• 05	-152	.136	•0123	+0110	134	123	+0725					+ 404	• • 0 <u>1</u> 76 7	+873		277	. 274
.06	.140	+130	+0139	+U127	124	.117	.0315					.109	.108	. 273	241	.125	124
.1	.134	.128	-0184	40176	.115	.110	.0208					.0544	.0543	-204	.182	0728	.0719
	120	118	.0219	.0214	0986	.0962	.00967					.0154	.0154	.143	.133	.0372	.0368
.2	.110	.109	.0238	.0235	.0864	.0852	.00556					.00633	.00632	•121	.115	.0302	.0299
•3	.0959	.0952	.0259	.0256	.0701	.0695	.00253					.00181	.00181	.0995	.0970	.0277	.0274
.4	.0860	.0855	.0267	+0265	.0593	.0590	.00145					.000757	.000757	.0878	.0663	.0274	.0273
.5	.0784	.0781	.0268	.0267	.0517	+0514	+000944					.000395	.000395	.0795	.0788	.0273	.0271
•6	.0725	.0724	+0267	.0265	.0460	.0438	.000644					.000241	.000118	.0641	.0438	0262	.0250
.• *	.06.38	.0638	+0201	+0258	+03//	.03/9	.000235					-0000110	-0000694	0576	.0573	.0252	.0250
		.03/3	10232	10230	. 0235	.0238	.000106	.000222		.000222	.0000704	.0000339	.0000339	.0469	.0469	.0234	.0229
2.	.0397	.0397	.0211	.0208	.0187	.0188	.0000603	.000875		.000875	.000425	.0000204	.0000204	.0406	.0406	.0220	.0213
3.	.0312	.0312	.0181	.0175	.0132	.0137	.0000265	+00246	.0000110	.00247	.00161			.0338	.0336	.0205	.0192
4.	.0261	.0261	.0158	.0152	.0103	.0108		+00407	+0000449	+00412	.00303			.0302	.0302	.0199	.0182
5.	.0226	.0226	•0142	.0136	.00838	.00905		.00538	.0000879	.00547	.00428			.0280	.0280	.0196	.0178
6.	.0199	.0199	+0128	.0121	.00710	.00778		+00664	.000135	.00677	.00353			.0287	.0287	.0198	.01/6
8.	.0163	.0163	+0109	+0101	.00543	.0061/		+00840	+000231	+00007	00740			.0230	.0230	.0170	0175
10.	+0134	-0139	+00949	-008/0	00437	10017	<u> </u>	10102	-000498	-0136	.0117			0218	0238	0210	-0183
15.	+0103	.0103	.00599	-00505	.00226	.00320		.0154	.000632	.0160	.0134			. 0243	.0243	.0220	.0185
30.	.00600	-00669	.00449	+00354	.00152	.00246		.0185	.000844	.0195	.0154			.0255	.0255	.0240	.0190
40.	00477	.00477	.00362	.00271	.00115	.00205		.0208	.00100	.0219	.0163			.0267	.0267	.0255	.0190
50.	.00398	.00398	.00306	.00214	.000917	.00184		.0223	.00111	.0234	.0166			.0273	.0273	. 0264	.0187
60.	.00344	.00344	.00267	.00178	.000768	.00166		.0237	.00120	.0249	.0169			.0284	.0284	.0276	.0187
80.	.00270	.00270	.00213	+00127	.000578	.00143		.0255	.00134	.0268	.0169			.0296	.0296	.0290	+0181
100.	.00225	.00225	+00178	•000962	.000483	+00128		+0270	+00145	.0<65	+0103			• 0 3 0 8	*03 6 #	.0303	•0178

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19 POTASSIUM (barns/atom)

E (MeV) $\sigma_{inc,t}^{KN}$	σ ^{BD} _{ioc,t}	oKN oinc,a	σ ^{BD} ninc, a	σ ^{KN} σinc,∎	σ ^{BD} σ <u>inc, s</u>	σ _{coh}	σ×n	σxe	σ _{x,t}	<u>σ_{×, a}</u>	σ _{τ,t}	 	σ _{tot,t}	⁰ tot, t-coh	σ _{tot,a}	Utot, en
. 001	12.6	.786	.0245	.00153	12.6	.784	217.					298000.	298000.	298000.	298000.	298000+	298000.
-001	12.6	1.27	.0367	.00370	12.5	1.27	201+					93500.	93500.	93700.	93500.	93500.	93500.
.002	12.5	1.76	.0487	.00683	12.5	1.75	185.					41500.	41500.	41700.	41500.	41500.	41500+
.003	12.5	2.70	.0724	.0156	12.4	2,68	154.					13000.	13000.	13200+	13000.	13000.	13000.
r .0034	07 12.5	3.22	.0866	.0224	12.4	3.20	138.					7740.	7740.	7880 .	7740.	7740+	7740+
A	••••	•	••	•••								86000.	76700.	86100.	86000.	86000.	76700.
.004	12.4	3.55	.0958	.0273	12.3	3.52	128.					64200.	58000.	64300.	64200.	64200.	50000.
.005	12.4	4,27	.119	.0409	12.3	4.23	107.					34800.	32100.	34900.	34800.	34000+	32100+
.006	12.3	4.87	.141	.0558	12.2	4+81	91.0					21100.	19700.	21200.	21100.	21100+	9176.
.005	12.3	5.81	.186	.085	12+1	5.72	09.5					9600.	9130.	9900+	4010+	50000	#13V*
.01	12.2	6.50	,228	,122	11.9	6.38	55+7					5200	5000.		3620	1610.	1870.
-015	11.9	7.69	.330	,213	11.5	7.44	39+8					1010+	15/0+	710.	686.	678.	665.
•02	11.7		. 424	.305	11.3	0.17	23+3					678.	003+	217.	204.	196.	182.
.03	11.4	9.16	+571	.477	10.0	8.80	7.00) 93.	77.8	05.9	88.0	79.3	78.4
• 04	11.4	9.42	.733	.825	10+3	8.72	5.46					78+0	39.1	54.3	48.9	40.3	39.9
	10.7	7.47		. / 0 0	9.40	8.84	4.01					37.4	22.1	35.7	31.6	23.2	23.0
.06	10.4	7.45		.001	8.68	8.35	2.19					9.22	9.18	20.8	18.4	10.4	10.3
• • •	7.03	7.23	1+15	1.23	8.07	7.71	1.57					4.60	4.58	15.1	13.5	5.89	5.81
• • •	7.30	4.22	1 81	1.40	6.90	6.73	.731					1.11	1.31	10+3	9.53	2.84	2.80
.15	7.72	7.60	1.67	1.64	6.05	5.96	.421					•537	.536	8.56	8+14	2+21	2.18
•5	6.71	6.66	1.41	1.80	4.91	4.86	•191					•154	+154	7.00	6.81	1,96	1.95
• • •	6.02	6.98	1.86	1.85	4.15	4.13	.109					+0645	+0644	6+15	6.04	1.92	1+21
	5.49	5.47	1.87	1.87	3.62	3.60	.0711					.0344	+0344	5.58	5,50	1.90	1.70
	5.08	5.07	1.87	1.86	3.21	3.21	.0490					.0210	•0210	5+14	5.09	1.89	1.00
	4.46	4.45	1.83	1.80	2.64	2.65	.0278					+0103	+0103	4.49	4+46	1.444	1.1
1.	4.01	4.01	1.77	1.75	2.25	2.26	•0178					•00613	•00613	4.03	4.02	1.78	
1.5	3.26	3.26	1.61	1.59	1.65	1.67	·00810	.0165		+0165	+00525	.00300	.00300	3.29	3,20	1.03	1.49
2.	2.78	2.78	1.48	1.46	1.30	1.32	+00458	.0647		+0647	+0314	+00182	+00182	2.05	2100	1.44	1.36
3.	2.19	2.19	1.26	1.23	• 924	+961	+00204	+101	.000/6/	+182	+114			2.17	2.13	1.41	1.20
4.	1.83	1.83	1.11	1.07	•719	•761	+00115	.300	.00315	101	• 2 2 3			1.99	1.99	3.40	1.26
5.	1.58	1.58	.991	.946	•567	•634		. 4 00	+00012	++00	. 310			1.89	1.89	3.40	1.25
6.	1.39	1.39	. 898	.844	.497	+340		470	.0161	.641	.545			1.78	1.78	1.40	1.25
	1.14	1+14	.761	.707	+300			765	. 4223	.777	.670			1.75	1.75	1.44	1.28
10,	.972	,972	.864	.608	+ 308	.300		. 1 33	-0348	1.00	.863			1.72	1.72	1.51	1.31
15.	.719	•719	.511	,440	.207	974		1.13	.0442	1.17	.975			1.75	1.75	1.59	1.33
20.	.577	+377	++20	.373	.106	.176		1.37	0590	1.43	1.12			1.85	1.85	1.74	1.36
30.	.420	.420	+314	184	.0802	-148		1.53	.0700	1.60	1.19			1.93	1.93	1.85	1.38
40.	91C e	+334	215	-146	.0642	.133		1.65	.0772	1.73	1.21			2.01	2.01	1.94	1.36
50.	-217	-217	186	.119	.0538	121		1.74	.0841	1.82	1.22			2.06	2.06	2.01	1+34
	189	189	.149	.0832	.0405	.106		1.87	.0940	1.96	1.22			2.15	2.15	2+11	1.30
100.	-157	157	.125	.0612	.0324	.0958		1.99	.101	2.09	1.22			2+25	2.25	2+22	1.28
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19 POTASSIUM (cm³/g = 0.01540 x barns/atom)

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E (MeV)	([#]) _{inc,t}	(#) ^{BD} inc, t	([#] _p) ^{KN} _{inc,a}	([#] _p) ^{BD} _{inc,a}	(^µ _p) ^{KN} _{inc,s}	(声) ^{BD} inc, s	(岸) _{coh}	(پ) _{*n}	(#)×e	([#]) _{×, t}	([#] _p) _{×,a}	(#),,t	(^μ _ρ) _{τ, a}	([#]) _{tot, t}	([#]) _{tot,t-coh}	([#] _p) _{tot,a}	([#]) _{tot, en}
.001	.194	.0121	.000377	.0000ż36	.194	.0121	3.34										
.0015	+194	.0196	.000565	.0000570	.192	.0196	3.10					4370+	4370+	4390.	4590+	4540.	4590+
•002	•192	.0271	+000750	+000105	,192	.0270	2.85					619.	639.	A47.	479.	410	478.
.003	•192	+0416	+00111	+000240	.191	.0413	2.37					200.	200.	203.	200.	200.	200.
K .003607	•19Z	.0496	.00133	+000345	.191	.0493	2.13					119.	119.	121.	119.	119.	119,
.004	.191	.0547	.00148	+000420	.189	.0542	1.97					1320.	1180.	1330.	1320.	1320.	1180.
.005	.191	.0658	.00183	+000630	189	.0451	1.65					989.	893.	990.	989.	989.	893.
.006	.189	.0750	.00217	+000859	188	.0741	1.40					338.	474.	33/+	530.	536.	474.
.008	.189	.0895	.00286	.00136	.186	.0881	1.07					148.	303+	320.	327+	327.	303.
•01	.188	.100	.00351	.00188	.183	.0983	.858					80.1	77.0	81.0	80.7	80.1	77.0
.015	.183	•119	.00508	+0032B	.179	.115	.536			· · · · ·		24.8	24.2	25.4	24.9	24.8	24.2
• 02	.180	.130	.00653	+00470	.174	.125	.359					10.4	10.2	10.9	10.6	10.4	10.2
.03	+1.76	•141	.00910	.00735	.166	.134	·192					3.00	2.96	3.34	3.14	3.02	2.96
	+107 34E	+147	•0113	+00967	.159	.135	+122					1+21	1.20	1.48	1.36	1.22	1.21
- 06	140	.140	+0133	+0119	•151	•134	+0841					.607	.602	.836	•753	.621	.614
.08	.151	.142	.0177	+0137	134	136	+0618					.342	.340	.550	.487	.357	.354
.1	144	.138	-0199	-0189	.124	.119	+0360					+142	•141	• 320	.283	•160	.159
.15	.130	127	.0236	.0229	.106	-104	.0113	• • • • • • •					.0705	233	.208	.0907	.0895
•2	+119	•117	.0257	.0253	.0932	.0918	.00648					•0202	+0202	•159	+147	.0437	.0431
.3	.103	.103	.0279	.0277	0756	.074B	.00294					.00027		•132	•127	-0340	.03.30
•4	.0927	.0921	.0286	.0285	.0639	.0636	.00168					+00237	• 00237	+105 - 0947	•107	• 0302	.0300
• •	.0845	.0842	•0288	.0288	.0557	.0554	.00109					.000530	.000530	. 6659	.0847		-0293
••	.0782	.0781	•0288	.0286	.0494	.0494	.000755					.000323	.000323	.0792	.0784	.0291	.0299
,**	+000/	+0685	+0282	•0277	.0407	.0408	.000428					.000159	.000159	+0691	.0687	.0283	.0279
- <u>†*</u>	.0502	-0502	0213	0270			.000274						+0000944	.062]	.0619	.0274	.0271
2.	-0428	.0428	.0276	+0245	.0200	.0237	+000125	+000234		.000254	.0000808	+0000462	+0000462	+ 0507	+ 0505	+0251	+0246
3.	.0337	.0337	.0194	.0189	.0142	-0148	+0000705	+000976		.000996	.000484	+0000280	+0000280	.0439	.0439	.02 39	•0229
4.	.0282	.0282	+0171	.0165	.0111	.0117	.0000177	.00447	.0000485	.00280	.00183			+0365	+0365	•0222	+0208
5.	.0243	.0243	.0153	.0146	.00904	.00976		.00616	.0000947	.00625	.00490			.0328	.0328	+0217	.0179
6.	.0214	.0214	.0138	.0130	.00765	.00841		.00755	.000145	.00768	.00627			+0306	+0306	.0Z10	.0174
8.	.0176	•0176	+0117	+0109	.00585	•00667		+00962	.000248	.00987	.00839			.0274	+0271	.0216	+0172
10.		0150	.0102	.00933	.00474	.00564		.0116	.000343	.0120	.0103			.0270	.0270	.0222	-0197
13.	.0111	+0111	.00787	.00687	.00322	.00420		+0149	.000536	.0154	.0133			.0265	.0265	. 0233	.0202
20.	.00887	.00889	+00047	+00544	.00243	+00345		+0174	.000681	+0180	•0150			+0270	.0270	.0245	.0205
40.	.00514	.00814	.00784	+00376	+00183	+00271		+0211	.000909	.0220	.0172			.0285	.0285	.0268	.0209
50.	.00430	.00430	.00331	.00225	.004989	.00228		+0236	+00108	+0246	.0183			.0297	.0297	.0285	+0213
60.	.00370	.00370	.00284	.00183	.000829	.06186		+ U234	+00117	+0406	+0186			.0310	.0310	.0299	.0209
80.	.00291	.00291	.00229	.00128	.000624	.00163		+0288	.00145	.0302	-0100			.0317	.0317	.0310	.0206
100.	.00242	.00242	.00193	.000942	.000499	.0014B		.0306	.00156	.0322	.0188			+0331	•0331	.0385	.0200
									····		*****			6#LU.	.0.540	_0. 5 42	.0197

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20 CALCIUM (barns/atom)

E (MeV)	KN Ginc, t	σ ^{BD} _{ioc,t}	o ^{KN} inc, a	σ ^{BD} nc,a	o ^{KN}	σ ^{BD} _{inc,s}	σ _{coh}	σ×n	σ×e	σ _{x.t}	σ_*, a	σ _{r,t}	σ,	σ _{tot,t}	Ttot, t-coh	σ _{tot, a}	σ tot, en
.001	13.3	.984	.0258	.00192	13.2	.982	239.					375000.	375000. 118000.	375000. 118000.	375000. 118000.	375000. 118000.	375000. 118000.
.0015	13.2	1.56	.0386	00455	13.2	2.05	200.					52100.	52100.	52300.	52100.	52100.	52100.
.002	13.1	2.98	.0762	.0173	13.1	2.96	167.					16400.	16400.	16600.	16400+	16400.	10400.
.004	13.1	3.80	.101	.0292	13.0	3.77	140.					7250.	7250.	7390.	7030.	7030.	7030
K .004037	13.1	3,83	.102	.0297	13.0	3.80	139.					7030.	66300.	75900	75800	75800.	66300.
			175	AA 33	12.9	4-48	118.					42200	37900	42300.	42200.	42200.	37900.
.007	13.0	4.52 5 14	140	.05.89	12.9	5.08	100.					25500.	23400.	25600.	25500.	25500.	23400+
.000	12.0	5+14	.195	.0927	12.7	6.03	76+3					11500.	10800.	11000.	11900.	4780.	5930.
.01	12.8	6.83	.240	.128	12.6	6.70	61+0					6250.	5930	2000	1940.	1950.	1880.
.015	12.6	8.05	,348	,223	12.2	7.83	38.7					837.	816.	872.	846.	837.	816.
.02	12.4	8.82	.446	.318	11.9	8.30	14.0					244	240.	268.	254.	245.	240.
.03	11.9	9.59	.022		10.8	9.21	8.87			•		99,7	98.4	118.	110.	100.	77.1
-04	11.2	9.94	-906	.802	10.3	9.14	6+15					49.7	49.2	65.5	37.0	30.0	29.0
-04	10.9	9.91	1.02	.930	9.89	8.98	4.52					20.3	28.1	21.9	21.2	12.7	12.5
.08	10.3	9.69	1.21	1.13	9.13	8.56	2.70					5.82	5.79	17.0	15.2	7,10	7.09
•1	9,85	9,39	1.36	1.30		3.07						1,66	1.65	11.1	10.3	3,27	3.22
•15	8.87	5.64	1.01	1.71	6.37	6.26	.476					686	.684	9,15	8,65	2,45	2.41
• ?	7.07	7.00	1.01	1.89	5.16	5.11	+217					,196	.196	7.41	7,20	2.04	2.03
•3	6.33	6.30	1.96	1.95	4.37	4.35	+123					.0840	+0839 -0451	6,88	5.61	2.02	2.02
.5	5.78	5.76	1.97	1.97	3.61	3.79	+0799					+U==1 A277	.0277	5.41	5,36	2.00	1.99
.6	5.35	5.33	1.97	1.96	3.38	3.37	+ 0778					.0135	.0135	4.74	4,70	1.93	ï. ¶Ī
.8	4.70	4.69	1.92	1.90	2.17	2.18	.0203					00810	.00810	4.25	4,23	1.67	
		1.41	1.70	1.68	1.73	1.75	.00925	.0182		+0182	.00579	.00402	.00402	3,46	3,47	1.12	1.54
2.	2.93	2.93	1.55	1.54	1.37	1.39	+00522	.0720		.0720	+0349	+00244	.00244	2,50	2.50	1.53	1.42
3.	2,30	2,30	1.33	1.29	.973	1.01	.00232	•200	.000800	.335	.746	+00121	*****	2.26	2.25	1.51	1.37
4.	1,92	1.92	1.17	1.12	•756	.803	+04131	.441	.00650	+447	.349			2.11	2.11	1.49	1.34
5.	1.66	1.66	1.04	.993	.623	-582		.540	.00993	.550	.447			2.02	2.02	1.20	1.34
	1.47	1.20	.801	.742	.400	.458		.692	+0170	•709	.601			1.91	1.88	1.56	1.37
10.	1.02	1.02	699	.632	,324	.388		.835	•0235	.858	.737			1.00	1.44	1.66	1.42
15.	757	.157	.538	.469	.220	.288		1.08	+0.300	1+12	1.08			1.92	1.92	1.75	1,45
20.	.608	.608	.442	.370	+166	•236		1.51	.0622	1.57	1.22			2.01	2.01	1.90	1.47
30.	.442	•442	.331	,254	+112	-160		1.69	.0737	1.76	1.30			2,11	2,11	2.03	1. 1 .
40.	.352	.352	.226	.147	.0676	.147		1.83	.0814	1+91	1.32			2.20	2.20	2,14	1.45
70.	.263	-253	.196	.117	.0566	.136		1.93	.0882	2.02	1.33			2.37	2.37	2.33	1.41
B 0.	.199	.199	.157	.0796	.0426	•119		2.07	•0984	2+17	1.33			2.48	2.48	2,44	1,38
100.	.166	.166	.131	.0563	+0341	+110		2.20	+T0 e	2+31	10					-	

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20 CALCIUM (cm³/g = 0,01503 x barns/atom)

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E (MeV) .001 .0015 .002 .003 .004 K .004037	KN ([#] _p) _{inc,t} •200 •198 •198 •197 •197 •197	(#) BD (*) inc, t •0148 •0234 •0310 •0448 •0571 •0576	 KN (μ) inc, a 000388 000580 000770 00115 00152 00153 	(#)BD (\$)inc, a •0000289 •0000684 •000120 •000260 •000439 •000446	(^µ _p) inc, s •198 •198 •197 •197 •195 •195	(^µ _β) ^{BD} •0148 •0234 •0308 •0445 •0567 •0571	([#]) _{coh} 3.59 3.29 3.01 2.51 2.10 2.09	([#])*n_	(^µ _β) _{× e}	([#]) _{×, t}	([#] _p) _{×, a}	(券) _{7,1} 5640 + 1770 + 783 + 246 + 109 + 106 +	$\frac{\binom{\mu}{\beta}_{7,a}}{783}$ 5640. 1770. 783. 246. 109. 106.	([#] / _p) _{tot,t} 5640. 1770. 786. 249. 111. 108.	([#] _p) _{tot, t-coh} 5640. 1770. 783. 246. 109. 106.	(^{<i>μ</i>}) _{tol,2} 5640. 1770. 783. 246. 109.	([#] _b) _{tot, en} 5640. 1770. 783. 246. 109.
+005 +006 +008 +01 +015	.195 .195 .194 .192 .189	.0679 .0773 .0920 .103 .121	.00188 .00224 .00293 .00361 .00523	.000651 .000885 .00139 .00192 .00335	.194 .194 .191 .189 .183	.0673 .0764 .0906 .101 .118	1.77 1.50 1.15 .917 .582					1140. 634. 383. 173. 93.9 29.3	996. 570. 352. 162. 89.1 28.3	1140. 636. 385. 174. 95.0 30.1	1140. 634. 383. 173. 94.1 29.5	1140, 634, 383, 173, 93,9 29,3	996. 570. 352. 162. .89.1 28.3
.03 .04 .05 .06 .08 .1	.179 .174 .168 .164 .155 .148	•144 •148 •149 •149 •146 •141	.00935 .0116 .0136 .0153 .0182 .0204	.00750 .00989 .0121 .0140 .0170 .0195	.170 .162 .155 .149 .137	.120 .137 .138 .137 .135 .129 .122	.372 .210 .133 .0924 .0679 .0406					12.6 3.67 1.50 .747 .425 .173	12,3 3,61 1,48 .739 .422 .171	13,1 4,03 1,77 ,989 ,642 ,359	12.7 3.82 1.65 .696 .574 .319	12.6 3.68 1.50 .761 .440 .191	12.3 3.61 1.49 .751 .436 .188
•15 •2 •3 •4 •5 •6	.133 .122 .106 .0951 .0869 .0804	•130 •120 •105 •0947 •0866 •0801	•0242 •0265 •0287 •0295 •0296 •0296	• 0236 • 0260 • 0284 • 0293 • 0296 • 0295	.109 .0957 .0776 .0657 .0573 .0508	.106 .0941 .0768 .0654 .0570 .0507	.0124 .00715 .00326 .00185 .00120 .000839			- · · ·	<u> </u>	.0249 .0103 .00295 .00126 .000678 .0006416	.0248 .0103 .00295 .00126 .000678 .000678	.167 .138 .111 .0978 .0884	.155 .130 .108 .0959 .0873	.0491 .0368 .0317 .0307 .0304	.0484 .0362 .0314 .0305 .0304
• 1•5 2• 3• 4•	.0706 .0634 .0516 .0440 .0346 .0289 .0249	.0705 .0634 .0516 .0440 .0346 .0289 .0249	.0289 .0280 .0256 .0233 .0200 .0176	.0286 .0277 .0253 .0231 .0194 .0168	.0418 .0356 .0260 .0206 .0146 .0114	.0419 .0358 .0263 .0209 .0152 .0121	.000475 .000305 .000139 .0000785 .0000349 .0000197	•000274 •00108 •00301 •00499	.0000121 .0000497	.000274 .00108 .00302 .00504	.0000870 .000525 .00198 .00370	.000203 .000122 .0000604 .0000367 .0000182	.000203 .000122 .0000604 .0000367 .0000182	.0712 .0639 .0520 .0452 .0376 .0340	.0706 .0636 .0519 .0451 .0376 .0338	.0290 .0281 .0259 .0243 .0230 .0227	.0287 .0276 .0234 .0237 .0213 .0213 .0206
6, 8, 10, 15, 20, 30,	.0221 .0180 .0153 .0114 .00914 .00664	.0221 .0180 .0153 .0114 .00914 .00664	•0142 •0142 •0120 •0105 •00809 •00664 •00497	.0133 .0112 .00950 .00705 .00556 .00382	.00786 .00601 .00487 .00331 .00249 .00168	.00875 .00688 .00583 .00433 .00358 .00283		.00063 .00812 .0104 .0126 .0162 .0189 .0227	.0000977 .000149 .000256 .000353 .000550 .000700	.00672 .00827 .0107 .0129 .0168 .0197	.00525 .00672 .00903 .0111 .0143 .0162			.0317 .0304 .0287 .0283 .0283 .0283 .0289	.0317 .0304 .0287 .0283 .0283 .0289	.0224 .0225 .0227 .0234 .0249 .0263	.0201 .0201 .0201 .0206 .0213 .0218
40. 50. 60. 80. 100.	.00529 .00442 .00380 .00299 .00249	.00529 .00442 .00380 .00299 .00249	.00401 .00340 .00295 .00236 .00197	.00289 .00221 .00176 .00120 .000846	.00127 .00102 .000851 .000640 .000513	.00248 .00221 .00204 .00179 .00165		•0254 •0275 •0290 •0311 •0331	.00111 .00122 .00133 .00148 .00159	.0265 .0287 .0304 .0326 .0347	.0195 .0198 .0200 .0200 .0198			.0302 .0317 .0331 .0341 .0356 .0373	.0302 .0317 .0331 .0341 .0356 .0373	.0305 .0322 .0334 .0350 .0367	.0221 .0224 .0221 .0218 .0212 .0212

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21 SCANDIUM (barns/atom)

E (MeV)	KN ⁰ inc,t	o BD o inc, t	KN ⁰ inc, a	σ ^{BD} inc, a	Oinc, s	o BD	σ _{coh}	σ×n	σ _{×e}	σ _{x,t}	σ.,	σ _{τ,t}	σ _{7, a}	σ _{tot,t}	⁰ tot,t-coh	⁰ tot, a	O _{tot, eo}
.001	13.9	.922	.0271	.001 BO	13.9	.920	265.					463000.	463000.	463000.	463000.	463000+	463000.
-0015	13.9	1.52	.0405	.00443	13.8	1.52	244.					145000.	145000+	145000+	145000+	1450000	66600.
.002	13.9	2.05	.0538	.00795	13.8	2.04	224 +					64400+	20300	20500.	20300.	20300.	20300.
.003	13.8	2,99	.0800	.0173	13.7	2.97	187.					20300.	8840	9120.	8960.	8960.	8960.
.004	13.6	3,84	.106	.0295	13.6	3.81	157.					6430.	6430.	4580.	6430.	6430.	6430.
K .004491	13.7	4.21	.118	.0363	13.6	4+17	144.					67400.	57700.	67500.	67400.	67400.	57700.
.085	13.7	4.58	.131	.0439	13.6	4=54	132.					50400.	43900.	50500.	50400.	50400+	43900.
.006	13.6	5.23	.156	0599	13.5	5+17	112.					30600.	27300.	13800.	33700.	13700-	12600-
.008	13.5	6.27	.205	.0949	13.3	6+18 .	85+0					13700 •	12000+	7476.	7410.	7400.	6920.
.01	13.4	7,05	252	132	13.2	6.92	67					2370	2270.	26204	2380.	2370.	2270.
.015	13.2	8,35	. 365	,231	12+8	8+12	43+0					1010.	977.	1050.	1020.	1010.	977.
.02	13.0	9.17	.468	.331	12.5	8.84	29+2					307.	296.	328.	312.	303.	297.
.03	12.5	10.0	.653	.520	11.9	9.48	15+8					123.	121.	143.	133.	124 .	122.
.04	12.2	10.3	.811	.687	11.3	9.81	9.95					61.5	60.7	78.8	71.9	62.5	61.5
.05	11.6	10.4	.951	.839	10.0	9.50	6.91					35.0	34.6	50+5	45.4	36+1	35+6
.06	11.5	10.4	1.07		10.4	7.46	3.04					14+5	14+4	27.6	24+6	15+6	15.6_
• 08	10.9	10.1	1.27	1.10	9,39	0.76	2.00					7.30	7.25		17.1	6.73	6.03
· •	10.3	<u> </u>	1.43	1130	7.61	7.42	.912					2.09	2.08	12-1	11.1	3.7	3•72
•1>	9.32	9.00	1.85	1.4.4	6.69	6.57	.537					•860	.857	9.78	7.24	2.1	2.07
• • •	1.73	7 36	2 00	1.98	5.42	5.37	.244					.247	+246	7.84	7,00	2.23	2.23
• 3	6.65	6.61	2.06	2.05	4.59	4.56	.139					+107	+107	0+80	6+12	2.17	2.13
2	6.07	6.04	2.07	2.07	4.00	3.97	.0901					•0578	.0577	0.17		2113	2.10
	5.62	5.60	2.06	2.06	3.55	3.54	•0633					+0357	+0.557	5.10	4.94	2.04	2.01
	4.93	4.92	2.02	1.99	2.92	2.93	.0359					+01/5	•0175	4.44	4.44	1.0	7.94
1.	4.44	4.43	1.95	1.93	2.48	2.50						•0105	+0105 	1.44			1.77
1.5	3.60	3.60	1.78	1.76	1.82	1.84	+0104	.0202		-0202	.00636	.00510	.00310	3.16	3.15	i.71	1.65
2.	3.07	3.07	1.63	1.61	1.44	1.46	+00590	+0791		+0791	.0380	.00167	-00162	2.65	2.64	1.61	1.51
3.	2,42	2,42	1.39	1,36	1.02	1.00	+00261	•221	.000849	•222	1144	.00105	.00105	2.39	2.39	1.60) <u>1</u> +45
4.	2.02	2.02	1.23	1.18	.794	.844	.00148	.389	+00347	+372	383			2+24	2.24	1.60) 1+42
5.	1.74	1.74	1,10	1.04	.649	.701		.487	+00001	• • 70				2+15	2.15	1.60	1+41
6.	1.54	1.54	.993	•927	+349	+613		+ 370	A178	.778	-650			2+04	2+04	1.62	2 1+42
8.	1.26	1.26		.775		.407		. 820	.0746		.800			2.02	2.02	1.6	1.46
10.	1.07	1.07	.734		<u></u>			1.19	.0385	1.23	1.03			2+02	2.02	1.79	1.72
15.	.795	.795	.504	.490	176	- 362		1.38	.0489	1.43	1.16			2+07	2.07	1.89	1.75
20.	.035	.638		. 500	.117	. 202		1.67	.0651	1.74	1.32			2.20	2.20	2.09	1.56
30.	+465	+ 407	. 547	106	.0886	.173		1.85	.0773	1+93	1.39			2+30	2.30	2.21	1.77
40.	.367	.307	+201	148	.0710	160		2.00	.0852	2.09	1.41			2.40	2.40	2.3	5 1.70
50.	-300	+300	204	.117	0594	148		2.12	.0928	2.21	1.42			2.47	2.47	2.4	
	-697	.207	148	0784	.0447	.131		2.29	.103	2,39	1.44			2.00	2.80	2.7	7 <u>1</u> .48
100.	.174	.174	,138	0560	.0358	.118		2.42	•111	2.53	1.42			2+70	2.70	2.0	1.40

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2) SCANDIUM (cm¹/g = 0.0)340 x barns/atom)

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E (MeV)	([#]) ^{KN} _{inc,t}	(⁵) ^{BD} _{inc, t}	$\binom{\mu}{\rho}_{nc,a}^{KN}$	(≝) ^{BD} _{inc,a}	(^µ _p) ^{KN} _{inc, s}	(چ) ^{BD} inc,s	(^µ _p) _{coh}	(貨)*n	([#] _p) _{×e}	(ڭ) _{×, t}	([#] _p) _{*, a}	(券) _{7,1}	(#),,a	(\$) _{tot, t}	(声) _{tot,t-coh}	([#] / _p) _{tot,a}	(^µ _p) _{tot, en}
•001	.186	.0124	.000363	+0000241	.186	.0123	3.55					4700	4744	(304	(((700
+0015	.186	.0204	.000543	+0000594	.185	.0204	3.27					1940.	1940.	1940	6200.	1940	6200.
•002	+186	+0275	+000721	+000107	.185	.0273	3.00					863.	863.	866.	863.	863.	863.
.003	+185	.0401	.00107	•000232	.184	.0398	2.51					272.	272.	275.	272	272.	272.
+004 T 004491	.185	.0515	+00142	.000395	+182	.0511	2.10					120.	120.	122.	120.	120.	120.
x +004431	+104	+0504	+00158	+000486	.182	•0559	1.93					86.2	86.2	88.2	86.2	86.2	86,2
.005	.184	.0614	.00176	.000588	.182	.0608	1.77					903.	773.	905.	903.	903.	773.
.006	.182	.0701	.00209	.000803	.181	.0693	1.50					675.	588.	677.	675.	675.	588.
.008	.181	.0840	.00275	.00127	.178	.0828	1.14					•10.	300.	411.	410.	410.	308.
.01	.180	.0945	.00338	.00177	.177	.0927	.907					1044	92.7	107.	104.	104.	92 7
.015	.177	.112	+00489	.00310	.172	.109	.576			-		31.8	30.4	12.4	7713	13 8	30.4
• 02	+174	.123	.00627	+00444	.167	+118	.391					13.5	13.1	14.1	13.7	13.5	13.1
•03	•167	+134	.00875	.00697	•159	+127	+212					4.05	3.97	4.40	4.18	4.06	3.98
.04	.103	+130	.0109	+00921	.151	+129	+133					1.65	1.62	1.92	1.78	1.66	1.63
.06	.184	+137	+0127	+0112	+145	+128	.0926					.824	.613	1.06	.963	.837	.824
.08	.146	.135	.0170	.0168	.129	+120	.0081					+469	.464	.677	.608	.484	.477
•1	.138	132	.0192	-0182	.120	.114	.0248					.194	+193	.370	.330	•212	.204
.15	,125	+121	.0226	.0220	.102	.0994	.0125				· · · · · · · · · · · · · · · · · · ·	07/0	09/2				.115
•2	.114	•112	+0248	+0243	.0896	.0880	.00720					.0115	+0279	-102	.174	.050/	.047
•3	.0994	•0985	•0268	.0265	.0726	.0720	.00327					.00331	.00330	.105	.102	. 0303	.0294
• •	.0891	•0886	+0276	+0275	.0615	+0611	+00186					.00143	.00143	0919	.0900	.0291	.028
	+0813	.0809	+0277	+0277	.0536	.0532	+00121					.000775	.000773	.0829	.0817	.0265	.028
	.0661	.0130	+ 4270	+02/6	.0470	.0474	.000848					.000478	.000478	.0764	.0756	.0281	.028
1.	.0595	.0594	.0261	+0259	-0332	+0393	.000309					.000234	.000234	.0666	.0662	.0273	.026
1.5	.0482	.0482	+0239	.0236	.0244	.0247	.000139	.000271		000371	0000863				0595	0263	,026
2.	+0411	.0411	.0218	.0216	.0193	.0196	.0000791	.00106		.00106	.0006072	,00006BJ	,0000663	.0488	.0486	,0243	.023
3.	.0324	.0324	.0186	.0182	.0137	.0142	.0000350	.00296	+0000114	.00297	.00193	.00007217	.00004217	0423		0227	.022
4.	+0271	.0271	•0165	•0158	•0106	.0113	.0000198	+00494	.0000465	.00498	.00363	.0000141	.0000141	.0320	.0320	0214	
2.	.0233	.0233	+0147	+0139	.00870	.00939		.00655	.0000913	.00665	.00513			0300	.0300	.0214	.019
	.0206	+0206	+0133	.0124	.00738	.00821		•00799	+000141	.00812	.00654			0288	.0288	.0214	.018
10	-0109	•0109	+0113	+010+	.00563	.00650		•0102	.000239	+0104	+00871			.0273	.0273	.0217	.019
15.		.0107	-00764	.00657	.00310	00331		-0123	.000330		.0107				.0273	0225	,0196
20.	.00855	.00855	+00622	.00517	.00234	.00338		+0159	+000310	+0165	.0138			.0271	.0271	. 0240	.0204
30.	.00623	.00623	+00465	.00352	.00157	.00271		.0224	.000833	+0192 A233	•0155			.0277	.0277	.0253	.020
40.	.00494	+00494	.00377	.00263	.00119	.00232		.0248	.00104	.0259	.0186			.0273	.0275	.0280	.0212
50.	.00413	.00413	•00318	+00198	.000951	.00214		.0268	.00114	.0280	.0189			.0322	.0322	.0212	.0213
60.	.00355	.00355	.00276	+00157	.000796	.00198		+0284	.00124	.0296	.0190			.0331	.0331	0324	
50.	.00280	.00280	.00221	.00105	.000599	.00176		.0307	.00138	.0320	.0193			0348	.0348	.0342	.0204
100.	•00233	.00233	+00185	+000750	•000 +80	.00158		•0324	.00149	.0339	.0190			.0362	.0362	.0358	10191

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22 TITANIUM (barns/atom)

E (MeV) $\sigma_{inc,t}^{KN}$	σ ^{BD} _{inc,t}	KN Oinc, a	o ^{BD}	OKN Oinc, s	σ ^{BD} _{inc,s}	σ _{coh}	σ×n	σxe	σ _{x.t}	σ _{×, a}	σ _{7, t}	σ,	σ _{tot,t} σ _t	ot,t-coh	T _{tot,a} ⁽⁾	ot, en
.001	14.6	.852	.0284	.00166	14.5	.850	293.					562000.	562000.	562000.	\$62000.	562000.	562000.
.001	5 14.5	1.42	.0424	.00414	14.5	1+42	272.					177000.	177000.	177000.	177000.	177000.	177000.
.002	14,5	1.95	.0563	.00757	14.5	1.94	249+					78700.	78700.	79000.	78700+	78700+	70700+
.003	14.5	2.93	.0838	.0170	14+4	2.91	209.					24800+	24800.	25000+	24800 •	24000+	24000+
.004	14.4	3.81	•111	.0293	14.3	3.78	176+					10800+	10800+	11000+	5910.	5910.	5910.
K .004	966 14.4	4.57	.137	.0435	14.2	4.53	149.					5910+	50500.	60600.	60400	60400.	50500.
	14 4	4.40	137	0441	14.2	4.56	148.					59000.	49400.	59200+	59000.	59000+	49400+
.007		6.28	.164	0605	14.1	5.22	126.					35800.	30900.	35900.	35800.	35800 .	30900.
	14.2	6.40	.215	.0969	14.0	6.30	94.9					16200.	14600.	16300.	16200.	16200.	14600.
.01	14.1	7.25	.264	136	13.8	7.11	75.1					8750.	8040.	8830.	8760.	8750.	8040.
.015	13.8	8.64	.383	.239	13.5	8.40	47.6					2820.	2670.	2880.	2830.	2620.	2070.
.02	13.6	9.52	.490	. 344	13.1	9+18	32.6					1210.	1160.	1250+	1220.	1210.	368.
.03	13.1	10.4	.684	.541	12.5	9.86	17+6					307.	357.	171.	162.	152.	149.
- 64	12.7	10.7	+549	+714	11.9	9.99	11.1					75.7	74.5	94.2	86.5	76.7	75.4
.05	12.4	10.8		. 871	11.4	9.93	7+FE 8.49					43.2	42.6	59.7	54.0	44.3	43,6
.00	14.8	10.8	1.13	3.24	10.0	9.36	3.41					17.8	17.6	31.8	28,4	19. 1	18,8
	10.8	10.3	1.50	1.42	9.35	8.88	2.24					9,00	8,93	21.5	19.3	10.5	10.3
.15	9.76	9.46	1.77	1.72	7.99	7.76	1+05					2,58	2,57	13.1	12.1	4,35	4,29
.2	8.94	8.77	1.93	1.90	7.01	6.87	+602					1.06	1.06	10.4	9.63	5.99	2.76
.3	7,77	7.70	2.10	2.08	5.68	5.62	+274					.308	.307	8,28	8.91	2.41	2,34
.4	6,97	6.92	2.16	2.15	4.81	4.77	+156	•				•133	+133	7+21	6.40	2.24	2.23
.5	6,36	6,33	2.17	2.16	4+19	4+17	+101					+0/23	0124	5.98	5.91	2.21	2.20
	5,88	5.86	2.16	2+15	3.72	3.71	+0/10					A223	0223	5.22	5.18	2.13	2.11
	5.17	5.16	2.11	2.09	3.00	3.67	+0+03					.0135	.0135	4.68	4,65	2.05	2,03
1.8	1.74	1.77	1.87	1.84	1.91	1,93	•0117	.0223		+0223	.00702	.00645	.00645	3,81	3,80	1.90	1.45
2.	3.22	3.22	1.71	3.68	1.51	1.54	.00662	.0870		.0870	.0418	.00405	.00405	3,32	3,31	1.80	1.73
3.	2.53	2.53	1.46	1.42	1.07	1.11	+00295	.243	.000890	+244	.158	.00208	.0020	2.78	2.78	1.71	1.25
4.	2.12	2.12	1.28	1.23	.832	.865	•00166	.404	.00364	.408	.296	.00135	.00135	2.53	2,73	1.07	1.23
5.	1.83	1.83	1.15	1.09	•680	•743	•00107	.535	.00713	•542	+418	+00100	+00100	2.37	2,28	1.76	5.51
6.	1.62	1.62	1.04	.974	.575	+640		.052	•0110	+ 86.3	•732			2.17	2.17	1.74	1.52
	1.32	1.32	.882	.808	+ 40	+512		.01	+010f	1.04				2.17	2.17	i.81	1.57
10.	1.13		<u></u>		.242	. 122		1.30	.0404	1.34	1.13			2.17	2.17	1.93	1.64
17.		.649		.403	.183	-266		1.52	.0512	1.57	1.27			2.24	2.24	2.06	1.67
30.	.487		. 364	.273	.123	+214		1.82	.0683	1+89	1.43			2.38	2,38	2.25	1.70
40.	-367	.387	.294	.201	.0928	•186		2.04	•0 8 10	2+12	1.51			2,51	2.51	2.41	1.71
50.	.323	.323	.249	.150	.0744	•173		2.20	•0892	2+29	1.54			2.01	2.61	2.54	1.47
60.	.278	.278	.216	.118	•0622	.160		2,32	.0970	2.42	1.54			2.70	2.02	2,04	1.67
80.	.219	.219	.173	.0788	+0468	+140		2.50	.108	2+61	1.55			2,03	2.94	2.91	1.58
100.	.182	.182	.145	.0566	.0376	.125		2.64	+110	2.76	1+25			E + 74		£ • • 1	1100

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22 TITANIUM (cm³/g = 0.01257 x barns/atom)

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E (MeV)	KN (چ) _{inc.t}	(岁) ^{BD} inc,t	([#]) KN inc, a	(貨) ^{BD} inc,a	KN (声) _{inc, 6}	(^µ _p) ^{BD} _{)nc, 8}	([#]) _{coh}	(∉)×n	(片)× e	(#) _{*.t}	([#] _p) _{x,a}	(賞) _{下, t}	(#), a	([#]) _{tot,t}	([#]) _{tot,t-coh}	([#] _p) _{tot, a}	([#])tot, en
+001	.184	.0107	.000357	.0000209	.182	.0107	3.68					7060.	7060.	7060.	7060.	7060.	7060. 2220.
.0015	.182	.0178	.000533	.0000520	.182	.0178	3.42					989.	989.	993.	989.	989.	989.
.002	.182	+0245	.000708	.0000952	,182	.0244	3,13					312.	312.	314.	312.	312.	312.
.003	+182	+0.508	+00105	+000214	.180	.0475	2.21					136+	136.	138.	136.	136.	136.
E .004966	.181	.0574	.00172	.000547	178	.0569	1.87					_74+3	74.3	78.2	74.3	759.	635.
	•••						1					759+	621.	762.	742.	742.	621.
.005	.181	.0578	+00172	+000554	+176	• UD 73	1.59					450.	388.	451.	450.	450.	388.
.000	.180	.0804	+00206	.000780	.176	.0792	1.19					204.	184.	205.	204.	204.	184+
.008	.177	.0911	.00332	.00171	.173	.0894	.944					110.	101.		110		101
.015	.173	.109	+00481	.00300	.170	.106	.598					35.4	33.0	30.2	39.0	33.4	14-6
+02	.171	+120	+00616	+00432	.165	.115	+410					19+2	4.49	4.97	4.74	4.63	4.50
.03	.165	.131	.00860	.00680	.157	+124	.221					1.90	1.86	2.17	2.04	1.91	1.87
• 04	.160	+134	+0107	+00897	.143	.125	.0970					.952	.936	1.18	1.09	.964	.948
+05	.150	.136	+0123	.0127	.137	.123	.0715					.543	.535	.750	.679	.557	.548
.08	.143	.133	.0167	.0156	,126	.118	.0429					•224	+221	.400	. 243	.132	.129
•1	.136	.129	.0189	.0178	,118	.112	,0282					.013	.0123	- 165	152	.0547	.053
.15	.123	+119	+0222	+0216	.100	.0975	+0132					+0133	+0133	.131	+124	.0376	+037
•2	.112	+110 - 0968	+0243	+0239	.0714	.0706	.00344					.00387	.00386	+104	.101	.0303	+030
د .	.0876	+0900	.0272	.0270	0605	.0600	.00196					+00167	+00167	+0906	•0886	+0268	-028
.5	0799	.0796	.0273	.0272	.0527	.0524	.00127					+000911	+000910	• 0817	.0804	.0278	-0271
.6	.0739	.0737	+0272	.0270	.0468	.0466	.000892					+000368	+000367	.0656	.0651	.0268	.026
•8	.0650	+0649	.0265	.0263	.0385	.0366	.000507					.000170	+000170	.0588	.0585	. 0258	.025
	.0585	. 0583	+0250	+0239		.0243	-000147	.000260		.000280	.0000882	.0000811	.0000811	.0479	.0478	.0239	.023
2.	.0405	.0405	+0215	.0211	.0190	.0194	.0000832	+00109		.00109	.000525	.0000509	+0000509	+0417	+0416	.0226	+021
3.	.0318	.0318	.0184	+0178	.0134	.0140	.0000371	.00305	.0000112	.00307	.00199	.0000261	+0000261	+0349	.0347	.0212	.019
4.	.0266	.0266	+0161	+0155	.0105	•0112	.0000209	+00508	+0000458	.00513	.00372	+0000170	+0000170	.0298	.0298	.0212	.019
5.	.0230	• 0230	+0145	+0137	.00855	.00934	+0000134	+00672	+00000996	+00001	.00525		*****	.0287	.0287	.0214	.0190
6.	+0204	+0204	+0131	+0122	.00723	.00612		.0105	.000235	.0107	.00895			.0273	.0273	.0219	•019
10-	-0142	-0142	.80967	.00870	.00447	00551		.0127	.000324	.0131	.0110			.0273	.0273		
15.	.0105	+0105	.00743	+00642	.00304	.00405		.0163	+000508	.0168	.0142			+02/3	.0283	+ 0243	.0230
20.	.00841	.00841	•00611	.00507	.00230	.00334		+0191	+000644	.0197	.0160			.0299	.0299	.0283	.021
30.	.00612	.00612	+00458	.00343	.00155	.00269		+0229	+0000079	.0238	-0190			+0316	.0316	.0303	.021
40.	+00480	+00468	+00370	+00233	.000935	.00217		.0277	.00112	.0288	.0194			,0328	.0328	.0319	.021
50.	00+00. ₽4€00.	.00400	.00272	+00169	.000782	.00201		.0292	.00122	.0304	.0194			.0339	.0339	.0332	-020
80.	.00275	.00275	.00217	.000991	.000588	.00176		.0314	.00136	.0328	.0195			+0358	.0370	.0347	.020
100.	.00229	.00229	.00182	.000711	.000473	+00157		•0332	+00146	.0347	•0191			•03/0		-0340	

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23 VANADIUM (barns/atom)

E (MeV)	KN 0 inc. t	o ^{BD}	O _{inc.a}	o ^{BD} o _{inc, a}	KN 0)oc, s	σ ^{BD} inc,s	ocoh	σ _{*n}	σχε	σ _{x,t}	<u>σ_{*, a}</u>	σ _{r,t}	σ _{r.a}	σ _{tot,t}	Utot, t-coh	σ _{tot,a}	tot, en
.001	15.2	.761	.0297	.00148	15.2	.760	323.					675000.	675000.	675000.	675000.	675000. 212000.	675000. 212000.
.0015	15.2	1.30	.0444	.00379	15.2	1.30	300.					94100.	94100.	94400.	94100.	94100.	94100.
•002	15.2	1.63	.0589	.00710	15.1	1.82	277.					29900	29900.	30100.	29900.	29900.	29900.
.003	19.1	2.04	.116	.0289	14.9	3.73	197.					13200.	13200.	13400.	13200.	13200.	13200.
.005	15.0	4.59	.144	.0440	14.9	4.55	166.					6990.	6990.	7160.	6990.	5450.	5450.
x .00546	5 15.0	4.94	.157	.0516	14.8	4.89	154.					5450.	2430.	54600.	54400.	54400.	44300.
					14	K. 26	141.					42000.	34900	42100.	42000.	42000.	34900.
.006	14.9	5.31	•171	.0608	14.5	5+25	106.					18800.	16400.	18900.	18800.	18800.	16400.
•00•	14.0	7.43	.276	.139	14.5	7.29	83.5					10100.	9080	10200.	10100.	10100.	9080.
.015	14.5	4.93	.40.0	.247	14.1	8.68	52.7					3300.	3080.	3360.	3310.	3300+	1360.
.02	14.2	9.85	.513	.355	13.7	9.49	36.2					1430.	1300 .	472.	453.	443.	428.
.03	13.7	10.8	.715	.562	13.0	10.2	19.7					184.	179.	208.	195.	185.	180.
•04	13.3	11.2		.747	12.4	10+5	8.61					92.3	90.4	112.	104.	93.3	91-3
• 05	12.7	11.3	1.78	3.06	11.4	10.2	6.35					52.5	51.6	70.1	63.	53.7	22.7
.08	11.9	11.0	1.39	1.29	10.5	9.71	3+81					21.7	21.4	30.0	21.7	12.6	12.4
•1	11.3	10.7	1.56	1.48	9.77	9.22	2.51					11.16	3,13	14.2	13.0	5.00	4.93
.15	10.2	9.90	1.85	1.8	8.35	8.10	1+17					1.30	1.29	11.1	10,5	3, 32	3.27
•2	9.35	9.10	2.02	2.17	5.94	5.87	•306					.379	.378	8.72	8,42	2.57	Z:77
<u>د</u> ،	7 28	7.23	2.26	2.24	5.03	4.99	+174					.166	.166	7.57	7.40	2.43	2,35
.5	6.65	6.62	2.27	2.26	4.38	4.36	•113					.0915	.0913	6.27	6.19	2.32	2.31
.6	6.15	6.13	2.26	2.25	3.89	3.88	+0795					.0282	.0282	5,46	5,42	2,24	2.21
.8	5.40	5.39	2.21	2.18	3.19	3.21	+0+52					.0170	.0170	4,90	4,87	2,16	2.13
		<u> </u>	<u> </u>	1.92	1.99	2.02	.0132	.0245		.024	.00772	.00810	.00809	3.99	3,97	1.98	1.94
1.7	3,75	3, 36	1.79	1.75	1.58	1.61	+00745	.0955		+ 095	5 .0458	.00513	.00513	3,47	2,92	1.80	1.06
5.	2.65	2.65	1.53	1.48	1.12	1.17	.00330	.267	+00093	30 •268	•173	.00173	.00173	2.66	2.66	1,79	1,60
4.	2,21	2.21	1.34	1.28	.570	.928	.00185		+00300		.455	.00128	.00128	2.50	2,50	1.79	1.59
5.	1.91	1.91	1.20	1.13	. 601		+00120	.712	.0115	.723	.580	.00102	.00102	2.41	2.41	1.1	1.79
•••	1.38	1.38	.922	.842	.460	.538		.910	.0195	• 929	.773			2.31	2.31	1.07	1.67
10.	1.18	1.18	.804	.719	.372	.461		1.10	.0270	1.13				2.33	2.33	2.08	1.75
15.		.871	.618	.531	.253	.340		1.42	+0423	1.40	1.27			2.40	2.40	2.21	1.79
20.	.699	.699	.508	•419	+191	•280		2.00	.0713	2.07	1.56			2,58	2,58	2.45	1.84
30.	.509	.509	.380	.201	.0971	.199		2.22	+0845	2.30	1.63			2.70	2.70	2.01	1.84
40.		.338	.260	153	.0777	.185		2.40	.0933	2.49	1.65			2.83	2,83	2.15	1.77
60.	.291	.291	.226	.120	.0651	.171		2,52	•101	2+62	1.65			3.0	3.05	3.00	1.73
80.	.229	.229	.180	.0797	.0490	+149		Z+71	•113	2.82	1.05			3.2)	3,21	3,17	1.70
100.	.190	.190	. 151	.0576	•0393	•132		£ + 90	+121	3402	1			• •			

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23 VANADIUM (cm³/g = 0.01182 x barns/atom)

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E (MeV)	([#] _p) ^{KN} _{inc,t}	([#]) ^{BD} _{inc, t}	([#] _p) ^{KN} _{inc,a}	(声) ^{BD} inc,a	(岸) ^{KN} inc,s	(劳) ^{BD} inc, s	(뿔) _{coh}	(ڭ)× <u>n</u>	([#] ₂) _{× e}	(^{يل} ه) _{×, t}	([#] _p) _{*,a}	(岩),	(#),	(答)	(%)	(#)	(#)
.001	.180	.009.00	.000351	+0000175	.180	.00898	1.02			<u> </u>		<u> </u>			P tot, t-con		(priot, en
.0015	.180	.0154	.000525	.0000448	.180	.0154	3.55					7980.	7980.	7980.	7980.	7980.	7980.
.002	+180	.0216	.000696	+0000839	.178	.0215	3.27					1110.	1110.	1120.	2510.	2510.	2510.
.004	.178	+0336	+00104	+000195	•177	.0333	2.75					353,	353.	356.	353.	353.	358.
.005	.177	.0543	+00137	+000342	.176	.0441	2,33					156.	156.	158.	156.	156.	156.
K .005465	177	.0584	+00186	.000610	.175	.0578	1.82					82.6	82.6	84.6	82.6	82.6	82.6
.006	176											643.	524.	645.	64.4	64.4	64.4
.008	.175	+0020	+00202	.000719	.175	.0621	1+67					496.	413.	498.	496.	496.	413.
.01	-174	-0878	+00208	+00117	171	.0759	1+25					222.	194.	223.	222.	222.	194.
.015	.171	.106	+00473	.00292	.167	.103	.621					119.	107.	121.	119,	<u>. 119.</u>	107.
.02	.168	+116	•00606	+00420	.162	.112	.428					14.9	30,4	39.7	39.1	39.0	36.4
•03	.162	+128	+00845	.00664	.154	+121	.233					5.22	5.05	5.58	5,36	10.9	18,1
.05	152	+132	+0105	.00883	+147	+124	+147					2.17	2,12	2,46	2.30	2.19	2,13
.06	.148	.134	.0139	.0125	.135	+123	•102					1.09	1.07	1.32	1.23	1.10	1.08
•08	.141	.130	.0164	.0152	.124	.115	+0450					•021 •256	•610 253	.829	.754	.635	.623
		.126	.0184	.0175	115	.109	.0297					.130	.129	.431	,387	.273	.268
•15	•121	+117	+0219	.0213	.0987	.0957	.0138					.0372	.0370	.168	.154	- 0597	.0583
.3	0961	.0950	.0259	.0256	.0702	.0849	+00795					.0154	.0152	,131	.124	.0392	.0387
.4	.0860	.0855	.0267	.0265	.0595	.0590	.00206					.00448	.00447	.103	.0995	.0304	.0301
•5	.0786	.0782	.0268	.0267	.0518	.0515	.00134					.00108	.00198	.0895	.0875	.0287	.0285
.0	.0727	.0725	.0267	• 0266	.0460	.0459	.000940					.000674	.000673	.0741	.0732	.0279	.0278
1.	.0574	.0673	+0261	+0258	.0377	.0379	+000534					.000333	.000333	.0645	.0641	. 0265	.0263
1.5	.0467	+0466	+0230	10227	.0235	. 0239	+000343					.000201	.000201	0579	.0576	0255	.0252
2.	.0397	.0397	.0212	.0207	.0187	.0190	+0000881	.00113		.000290	+0000413	.0000757	+0000956	.0472	.0469	.0234	.0229
3.	.0313	.0313	+0181	.0175	.0132	.0138	+0000390	.00316	.0000110	.00317	+00204	.0000309	.0000309	.0410	.0407	.0223	-0213
5.	.0276	+0201	+0158	•0151	.0103	.0110	.0000219	+00520	+0000449	.00525	.00381	.0000204	.0000204	.0314	.0314	.0212	.0170
6.	.0200	+0220	+01+2	+0134	+00840	.00921	+0000142	.00690	+0000879	.00699	.00538	.0000151	.0000151	.0295	.0295	.0212	.0188
8.	.0163	.0163	.0109	.00995	.00544	.00636		+00842	+000136	•00855	•00686	*00001SJ	.0000121	.0285	.0285	.0214	.0188
10	.0139	.0139	.00950	.00850	.00440	.00545		.0130	.000319	.0134	.0112			.0273	.0273	.0219	.0190
17.	.0103	.0103	•00730	.00628	.00299	.00402		.0168	.000500	.0173	.0144			.0275	.0274		0197
30.	.00602	+00020	.00000	.00475	.00220	.00331		.0195	.000632	.0201	.0162			.0284	0284	0261	.0212
40.	.00478	.00478	.00363	+00242	.00115	.00235		+0236	+000843	.0245	.0184			.0305	.0305	0290	.0217
50.	.00400	.00400	.00307	.00181	000918	.00219		.0284	+000779	+0272	.0193			.0319	.0319	.0309	.0217
60. BA	.00344	.00344	.00267	.00142	.000769	.00202		.0298	.00119	.0310	.0195			.0335	.0335	,0325	.0213
100.	.00225	+00271	.00213	+000942	.000579	.00176		.0320	+00134	.0333	.0195			.0361	.0361	.0355	10209
			+001/8	+000981	******	•00120		+0343	.00143	.0357	.0194			.0379	.0379	.0375	.0201

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24 CHROMIUM (barns/atom)

E (MeV)	KN ⁰ inc,t	o ^{BD}	o ^{KN}	o ^{BD} oinc, a	o ^{KN}	o ^{BD}	σ _{coh}	σ _{*n}	σ×e	σ _{x,t}	<u>σ_{*, a}</u>	σ _{r,t}	σ _{r,a}	σ _{tot,t}	Ttot,t-coh	Utot.a	σ _{tot, en}
.001	15.9	.732	.0310	.00143	15.9	•731	354.					808000.	808000 ·	808000. 254000.	808000. 254000.	808000+ 254000+	808000+ 254000+
.0015	15.9	1.28	.0463	.00373	15+8	1.20	330.					113000.	113000.	113000.	113000+	113000+	113000.
.002	15.8	2.83	.0915	.0166	15.7	2.81	259.					35800+	35800.	36100+	35800 .	35800.	35800.
.004	15.7	3.77	.121	.0290	15.6	3.74	219+					15900.	15900.	16100.	15900.	15900+	13900.
.005	15.7	4.61	.150	.0442	15+5	4+57	186.					044U+ 5650-	5050.	5210.	5060 .	5050 .	5050 .
K .00596	9 15.6	5.35	.178	.0612	15+4	5+29	158+					49200.	39100.	49400+	49200.	49200.	39100.
.006	15.6	5.36	.179	.0614	15.4	5.30	158.					49000.	39000+	49200+	49000.	49000+	39000+
.008	15.5	6.63	.234	.100	15.2	6.53	118.					22000.	18600.	22100+	22000+	22000+	10000
.01	15.4	7.62	.288	.143	15.1	7.48	92+7						10300+	11900+	11000+	3800.	3490.
.015	15.1	9.20	.417	+254	1417	8+95	58.1					1470.	1570.	1720.	1680.	1670.	1570+
.02	14.8	10.2	.535	.368	14+3	9.83	40+1					523.	502+	556+	534+	524+	503.
•03	14.3	11.2	.746	+ 583	13.0	10.8	13.8					221+	214+	246.	233.	222+	215.
.04	13.5	11.7	1.09	944	12.4	10.8	9.55					111+	108.	132+	123.	112•	109.
.06	13.1	11.7	1.23	1.10	11.9	10+6	7.04					63+2	61+9	81.9	74+9	04++	24.9
.08	12.4	11.5	1.45	1.35	11+0	10.2	4.23					20+0	25.0	27.2	24.4	14.8	14.5
<u>el</u>	11.6	11.2	1.63	_1.55		9.65	2.78					3.80	3.77	15+4	14+1	5.73	5.64
• 15	10.6	10.3	1.93	1.87	8+F1 7.65	7.49	1.30					1.58	1.57	11.9	11+1	3.69	3.63
• 4	9.15	7.77	2.29	2.26	6.20	6.13	.340					+462	++60	9+19	8+85	2.75	2+72
• • •	7.60	7.54	2.35	2.34	5.25	5.20	•193					+204	+203	7+94	7+74	2+33	2+34
.5	6,94	6.90	2,37	2,36	4.57	4.54	+125					•113	+113	6.55	6.46	2:43	2.42
.6	6.42	6.39	2,36	2.35	4.06	4.04	•0886					+0354	.0353	5.71	5.66	2.35	2.32
	5.64	5.62	2.31	2.20	3.33	3.34	.0303					+0218	+0218	5+11	5.08	2.25	2.22
1.	5.07		2.04	2.01	2.08	2.10	+0146	.0270		.0270	.00850	+0100	+00999	4+16	4+15	2.08	2.03
2.	3.51	3.51	1.86	1.83	1.65	1.68	.00830	.104		+104	.0499	+00622	•00622	3+83	3.02	1.97	1.07
3.	2.76	2.76	1.59	1,54	1+17	1.22	•00369	.290	.000970	+291	.188	+00329	+00329	2.80	2.80	1.89	1.69
4.	2,31	2.31	1.40	1.34	•908	.970	•0206	+++++++++++++++++++++++++++++++++++++++	+00397		.496	•00162	+00162	2+64	2.64	1.90	1.68
5.	1.99	1.99	1.25	1.18	. 142	•014	+00134	.776	.0120	•788	.630	.00130	.00130	2.55	2.55	1,92	1.68
••	1.70	1.76	967	.876	.480	.564		.995	.0204	1.02	.843			2+46	2.46	1.75	1.72
10.	1.23	1.23	.839	747	.389	.483		1.20	.0282	1.23	1.03			2,46	2:00	2.07	3.88
15.	.909	.909	,645	.551	.264	.358		1.55	+0441	1+59	1.33			2.59	2.59	2.39	1.91
20.	.729	.729	.530	.435	•199	+294		1.80	.0559	1+00	1.67			2.76	2.76	2.63	1.96
30.	.531	•531	.397	.291	+134	+240		2.40	+0880	2.49	1.75			2+91	2+91	2+81	1.96
40.	.422	+422	• 361	.157	.0811	.195		2.60	.0973	2 . 70	1.77			3.05	3.05	2.97	1.93
50.	.392	.303	.235	122	.0679	.181		2.74	.105	2.84	1.78			3.14	3.14	3.08	1.90
80.	.239	.239	.188	.0813	.0511	•158		2.93	+117	3.05	1.76			3.46	3.46	3.42	1.01
100.	.199	.199	, 158	.0591	.0410	+140		3,13	•150	3.20	1+12			2040		_,,,_	••••

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24 CHROMIUM (cm¹/g = 0.01158 x barns/atom)

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E (MeV)	(≝) ^{KN} (≝) _{inc,t}	(≝) ^{BD})nc,t	(^{#) KN} inc, a	(声) ^{BD} inc, a	(≝) _{)nc,s}	(چ) ^{BD} inc,s	(貨) _{coh}	(ÿ) _{*n}	(券)×e	(^{لل} ه) _{×, t}	(^µ _p) _{x,a}	(#) _{r,t}	(#), a	([#]) _{tot, t}	(^g) _{tot,t-coh}	([#] _p) _{tot,a}	([#] _p) _{tot, en}
.001	.184	.00848	.000359	.0000166	.184	.00846	4.10					9360.	9360.	9360.	9360.	9360. 2940.	9360. 2940.
.0015	+184	.0148	.000536	.0000432	.183	.0148	3+82					1310	1310.	1310.	1310.	1310.	1310.
.002	.183	.0211	+000712	.0000818	.183	+0210	3.54					415.	415.	418.	415.	415.	415.
•003	,183	.0328	+00108	.000190	181	.0433	2.54					184.	184.	186.	184.	184 .	184.
.005	.182	.0534	.00174	.000512	.179	.0529	2.15					97.7	97.7	99.9	97.7	97.7	97.7
T .005989	.181	.0620	.00206	.000709	.178	.0613	1.83					58.5	58.5	60.3	58.6	50,5	20.7
	••••	••••										570.	453.	572.	5/0.	567	452.
.006	.181	.0621	.00207	.000711	.178	+0614	1.83					587.	432.	256	255.	255.	215.
.008	.179	.0768	.00271	.00116	.176	+0756	1.37					235.	119.	138.	137.	137	119.
-01		-0882	.00334	+00100	170	.106	.673					44.0	40.4	44.8	44.1	44.0	40.4
.02	.171	.118	.00620	.00426	.166	•114	.464					19.3	18.2	19.9	19.5	19.3	18.2
.03	.166	.130	.00864	.00675	.157	.123	.254					6.06	5.81	8,44	0,10	2 57	7,02
.04	.161	.134	.0107	.00896	.151	+125	.160					2.56	2,48	2.07	1.42	1.30	1.26
.05	.156	.135	•0126	.0109	+144	+125	•111					717	.717	. 948	.867	.746	.730
•06	.152	•135	.0142	.0127	.138	+123	.0815					.301	296	.483	.434	.317	,312
•08	•144	.133	-0108	.0150	.118	.112	.0322					153	.151	,315	,283	.171	,168
-16		-110	.0223	.0217	.101	.0976	.0151					.0440	.0437	.178	.163	.0664	.0653
.2	.113	liii	.0244	.0239	.0886	.0867	.00865					.0183	.0182	.138	.129	.0427	.0420
.3	.0982	.0972	.0265	.0262	.0718	.0710	.00394					.00535	.00533	,100	.104	0296	.0294
.4	.0880	.0873	.0272	.0271	.0608	.0605	.00223					.00230	00233	0827	.0812	0287	.0286
•5	.0804	.0799	.0274	.0273	.0529	.0528	.00145					.000824	.000823	0758	.0748	0261	.0280
•6	.0743	.0740	.0273	.0272	.0470	+0400	.000582					.000410	000409	.0661	,0655	0272	.0269
1.0	.0587	+0071	.0258	.0255	.0329	.0331	.000373					,000252	000252	.0592	.0588	0261	0257
1.5	+0477	+0476	.0236	.0233	.0241	.0243	+000169	.000313		.000313	.0000984	.000116	.000116	.0482	.0481	.0241	ecs0.
2.	.0406	.0406	.0215	.0212	.0191	.0195	+0000961	.00120		.00120	.000578	.0000720	.0000720	.0420	0353	,0260	.0200
3.	.0320	.0320	.0184	.0178	.0135	.0141	.0000427	+00336	.0000112	.00337	.00218	.0000381	.0000361	.0324	.0324	.0219	.0196
4.	,0207	.0267	.0162	+0155	.0105	-0112	+0000239	+00330	.0000400	.00360	.00574	.0000188	.0000188	.0306	.0306	.0220	.0195
5.	.0230	.0230	•0145	+0137	+00037	.00943	*0000199	.00730	.000139	.00913	.00730	.0000151	.0000151	.0295	.0295	.0222	.0195
8.	.0167	.0167	-0111	-0101	.00556	.00653		.0115	.000236	.0118	.00976			.0285	.0285	.0229	.0199
10.	-0142	.0142	.00972	.00865	.00450	.00559		.0139	.000327	.0142	.0119			.0289	.0285	10240	60%08
15.	.0105	.0105	+00747	.00638	.00306	.00415		+0179	.000511	.0184	+0154			.0289	.0289	0273 0277	.0221
20.	.00844	.00844	.00614	.00504	.00230	.00340		.0208	.000647	.0215	.0171			.0320	.0320	0305	0227
30.	.00615	.00615	.00460	.00337	.00155	.00278		+0250	.000862	.0258	+0173			.0337	.0337	0325	.0227
40.	.00489	.00489	.00372	.00243	•00117	.00295		.0301	.00113	.0313	.0205			.0353	.0353	.0344	.0223
50.	.00408	.00708	.00272	+00102	.000786	.00210		.0317	.00122	.0329	.0206			.0364	.0364	. 0357	.0220
80.	.00277	.00277	.00Z18	.000941	.000592	.00183		.0339	.00135	.0353	.0204			.0381	.0381	.0375	+0213
100.	.00230	.00230	.00183	.000684	.000475	.00162		.0362	.00146	.0378	.0203			+0401		*0346	.0210

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25 MANGANESE (baros/atom)

E (MeV)	σ ^{KN} σinc, t	o ^{BD}	o ^{KN} o _{inc, a}	σ ^{BD} _{inc, a}	OKN Oinc, s	σ ^{BD} inc,s	σ _{coh}	σ×n	σ×e	σ _{x,t}	<u>σ_{x,a}</u>	σ _{r,t}	σ _{τ.a}	σ _{tot,t}	otot.t-coh	Utot.a	tot, en
	16.6	.836	.0323	.00163	16.5	.834	386.					950000.	950000.	950000+	950000.	950000 · 301000 ·	950000. 301000.
.0015	16.5	1.44	.0482	.00420	16.5	1.44	362.					301000.	135000.	135000.	135000.	135000.	135000.
.002	16.5	1.99	.0640	.00772	16+4	1.98	336.					43000.	43000.	43300.	43000.	43000.	43000.
.003	16.4	2.99	.0953	.0173	10+3	2.97	244.					19100.	19100.	19300.	19100.	19100.	19100+
•004	10.4	3.91	+140	.0455	16-2	4.70	207.					10100.	10100.	10300.	10100.	10100.	6820.
.005	16.2	5.50	.186	.0630	16.1	5,44	177.					6020.	020+	4860.	4700.	4490.	4690.
g .00653	9 16.2	5.88	.202	.0732	16+0	5.81	163.					44708.	34500.	44900 .	44700.	44700.	34500.
			-	107	18.9	4.69	132.					25300.	20600.	25400.	25300.	25300.	20600.
.00	10.1	0./9	100	146	15.7	7.66	103.					13600,	11600.	13700.	13600.	13600.	11600.
<u>+01</u>	15.7	9.48	435	.262	15.3	9.22	64+3					4410.	3970.	4980.	1970.	1960.	1810.
.02	15.4	10.5	.557	.379	14.9	10.1	44.4					1960.	589.	656.	632.	621.	590.
.03	14.9	11.6	.777	.604	14.2	11.0	24+3					262.	252.	289.	274.	263.	253.
.04	14.5	12.0	•965	.800	13.5	11.2	12+3					132.	128.	155.	144.	133.	129.
.05	14.8	12.2	1.13	1.14	12.4	11.2	7.82					75.0	73+1	95.0	87.2	76.3	79.6
.00	12.9	11.9	1.51	1.39	11.4	10.5	4.70					31.6	31.0	40.C 30.6	27.5	17.6	17.3
	12.3	11.6	1.70	1.60	10.6	10.0	3.09					1217	4.55	16.7	15.3	6.61	6.49
.15	11.1	10.7	2.01	1,94	9.08	8.76	1+44					1.91	1.90	12.7	11.8	4.11	4.05
+2	10.2	9.94	2.20	2.15	7.70	6.38	. 378					.560	.557	9.67	9,29	2.94	2. 1
•3	8. 83	8+/3	2.45	2.43	5.46	5.43	+215					.250	+249	8.32		2.01	2.60
	7.23	7.19	2.47	2.46	4.76	4.73	•139					.139	+137	6.85	6.75	2.55	2.53
.6	6.69	6.66	2.46	2.44	4.23	4+22	+0985					.0440	.0439	5.96	5,90	2,44	2.41
.8	5.87	5.86	2.40	2.37	3.47	3.49	+0560					.0270	.0270	5,33	5,30	2.35	2,32
<u>le</u>	5,28	5.27	<u>- 2.32</u>	2.29	2,90	2,19	•0163	.0294		+0294	.00926	.0124	.0124	4.34	4,32	2,10	2111
1.5	3 66	9.20	1.94	1.90	1.72	1.76	.00925	.113		•113	.0541	.00770	.00/69	3,77	3,20	1.98	1.82
2.	2.88	2.88	1.66	1.61	1.22	1.27	+00410	.316	.00101	•317	+204	.00400	.00267	2.93	2,93	1.99	1.77
4.	2.40	2.40	1.46	1.39	.945	1.01	.00229	.920	+00+13	•724	.575	.00202	.00202	2.78	2.78	2.00	1.77
5.	2.08	2.08	1.30	1.23	.773	+ 893	+00190	.842	.0125	+854	.681	.00163	.00163	2.70	2.70	2.04	1.78
6.	1.84	1.84	1.10	1.10	.500	.592		1.08	.0213	1+10	.911	.00118	.00118	2,60	2.00	2,10	1.89
	1.28	1.28	.874	.771	.405	.509		1.30	.0293	1.33				2.68	2.68	2,40	2.00
15.	.946	.946	.672	.569	.274	.377		1.68	.0460	1.73	1.43			2.77	2.77	2.56	2.04
20.	.760	.760	,552	.449	.208	.311		1.95	+0302	2.42	1.79			2,97	2.97	2.83	2.09
30.	.553	.553	.413	.299	-140	+274		2.61	.0918	2.70	1.88			3.14	3,14	3.03	5.04
40.	•439 367	+4 39	. 334	.161	.0845	.206		2.82	.102	2+92	1.90			3.29	3,40	3.32	2.03
50.	.316	.316	.245	.126	.0707	.190		2.97	+109	3.08	1.90			3.56	3,56	3,51	1.98
80.	249	.249	.196	.0832	.0532	.166		3.19	+122	3+3]	1.88			3,74	3,74	3,69	1.94
100.	.207	.207	,164	.0604	+0427	+147		3.40	+131	7627							

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25 MANGANESE (cm¹/g = 0.01096 x barns/atom)

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E (MeV)	([#] _p) ^{KN} _{inc, t}	([#])) _{nc,t}	$\left(\frac{\mu}{\rho}\right)_{inc,a}^{KN}$	([#] _p) _{inc,a}	(≝) ^{KN} inc,s	(^ی) BD inc, s	([#] _p) _{coh}	([#] ₂)* _n	(^件)×e	(#) _{×,t}	(#) _{x,a}	(賞) _{下,1}	([#]), a	([#] _p) _{tot,t}	([#] _p) _{tot,t-coh}	(勞) _{tot, a}	([#])tot, en
.001	.182	.00916	.000354	.0000179	. 181	.00914	4.23					10400	1				
.0015	.181	.0158	.000528	.0000460	181	.0158	3.97					10400+	10400.	10400.	10400.	10400.	10400.
.002	.181	.0218	.000701	.0000846	180	.0217	3.68					1480.	3300+	3300.	3300 +	3300.	3300 +
.003	.180	.0328	+00104	.000190	.179	.0326	3.15					471.	471.	475.	471.	14504	1400+
.004	.180	+0429	+00138	.000330	.178	+0425	2.67					209.	209.	212.	209.	209.	209.
+005	.179	.0521	•00171	.000499	.178	.0515	2.27					ī 11.	1 11.	113.	111.	111.	111.
•0.00	.178	•0603	•00204	•000690	.176	.0596	1.94					66+0	66.0	68.0	66.1	66.0	66-0
K .000539	•178	+0644	•00221	•00080Z	.175	.0637	11.79					51+4	51+4	\$3.3	51+5	51.4	51.4
. 0.08	176											490.	378.	492.	490.	490.	378.
•••••	176		.00267	+00113	.1/4	.0733	1.45					277.	226.	278.	277.	277.	226.
.015	1192	+0070	00329	.00100		0440						149.	127.		149.	149.	127.
.02	.169	.115	.00610	+00207	163	*101	•705					48+3	43.5	49.1	48.4	48.3	43.5
.03	163	.127	.00852	.00662	156	121	364					21+5	19.8	22.0	21+6	21.5	19.8
.04	159	132	+0106	.00877	.148	.123	.168					0.00	0.40	/ • 19	0.73	6.81	0.47
.05	.153	.134	.0124	.0108	.141	.123	114					2+07	2.70	3.17	3.00	5.89	2.77
.06	.149	.134	+0140	.0125	.136	122	.0857					.822	801	1.70	1+20	1.40	1.441
.08	.141	.130	+0165	.0152	125	.115	.0515					.346	- 340	. 628	+730	.830	- 10-
•1	,135	,127	+0186	.0175	,116	.110	.0339					.174	-172	.335	.301	.101	- 355
•15	.122	•117	+0220	+0213	.0995	.0960	+0158					+ 0504	.0499	183	.160		0713
•2	+112	+109	+0241	•0236	.0872	.0854	.00911					+0209	+0208	•139	.129	.0450	.0444
•3	.0968	.0957	.0261	.0258	.0707	.0699	+00414					+00614	.00610	.106	.102	.0322	•031 9
•	.0867	+0861	•0269	•0266	.0598	.0595	+00236					.00274	.00273	.0912	.0889	.0296	.0294
•2	.0792	.0788	•0271	.0270	.0522	.0518	+00152					+00152	+00152	.0819	+0803	+0286	+ 0285
	.0733	.0730	.0270	.0267	.0484	.0483	+00108					+000954	+000951	.0751	+0740	.0279	+027 <u>7</u>
1.	.0579	+0042	+0203	+0260	.0380	+0383	+000614					+000482	+000481	+0653	+0647	. 0267	+ 0264
1.5	.0470		.0232	. 0229	0230	0327	000373	A.4.177				+000246	.000296			.0258	• 0254
2.	.0401	-0401	.0213	.0208	.0189	.0193	+0001/9	.001322		+000322	+000101	+000130	+000130	+04/8	E140+	+0237	•0231
3.	.0316	.0316	.0182	.0176	.0134	.0139	.0000449	.00346	.0000111	.00347	.00224	.0000445	.0000445	+0+17	00424	+0220	+120+
4.	.0263	.0263	.0160	.0152	.0104	.0111	.0000251	.00570	.0000453	.00574	.00415	.0000293	.0000293	.0321	.0321	+0217	+0179
5.	.0228	•0228	+0142	+0135	.00847	.00935	+0000164	.00756	.0000888	.00765	.00586	.0000221	.0000221	.0305	.0305	.0219	.0194
6.	.0202	•0202	.0129	•0121	.00716	.00813	.0000112	.00923	.000137	.00936	.00746	+0000179	+0000179	.0296	.0296	.0224	.0195
8.	.0164	.0164	.0110	+00994	.00548	.00649		•0118	+000233	.0121	.00998	+0000129	+0000129	.0285	.0285	.0230	.0199
10.		0140	.00958	.00845	.00444	.00558			_156000	.0146	.0123			+ 0286	.0286	.0241	.0207
15.	.0104	.0104	+00737	.00624	.00300	.00413		+0184	+000504	.0190	.0157			+0294	.0294	.0263	•0219
20.	.00835	.00833	.00005	.00492	.00228	.00341		+0214	.000638	•0220	.0174			+0304	+ 0304	.0261	.0224
30.	.00000	+00406	+00453	+00-228	.00153	.00278		+0256	.000850	•0265	•0196			•0326	.0326	.0310	.0229
50.	.00407	10000	+00300	.00233	.00113	+00248		.0268	.00101	.0296	.0206			+ 0344	.0344	.0332	•0550 •
60.	.00346	.00344	.00260	+00170	.000920	.00200		+0309	+00112	.0320	+0208			• 0361	.0361	.0351	+ 0226
80.	.00273	.00273	-00215	.000912	.000583	.00182		-0360	.00119	+0338	+0208			.0373	.0373	.0364	.0222
100.	.00227	.00227	.00180	.000662	.000468	.00161		.0370	.00144	.0303	0200 0204			.0390	.0390	.0345	•0217
		******		********	4000-20	*****		****	****	+0-301	+ VEV 0			+0410	+0410	.0404	•0213

26 IRON (barns/atom)

E (MeV)	KN o _{inc,t}	σ ^{BD} _{tnc,t}	σ ^{KN} _{inc,a}	σ ^{BD} _{inc,a}	σ ^{KN} inc,s	σ ^{BD} σ _{inc,s}	σ _{coh}	σ×n	σ _{×e}	σ _{x,t}	<u>σ, a</u>	σ _{τ,t}	σ _{r,a}	o _{tot,t}	O _{tot,t-coh}	σ _{tot, a}	O _{tot, en}
.001	17.2	.809	.0336	.00158	17.2	.807	420.					1120000.	1120000.	1120000.	1120000.	1120000.	1120000.
.0015	17.2	1.41	.050z	+00411	17+1	1+41	396.					355000.	355000.	355000+	355000+	355000+	159000+
•00Z	17.2	1.97	.0666	.00764	17.1	1.96	368.					159000+	159000.	51000+	50700.	50700.	50700.
.003	17.1	2,98	.0991	.0173	17+0	2.96	310+					22400	22400.	22700.	22400.	22400+	22400.
•00	17.0	3.93	147	.0302	16.8	4.74	230.					12000 .	12000.	12200+	12000.	12000+	12000.
.005	16.9	5.56	193	.0637	16.7	5.50	197.					7100.	7100.	7300.	7110.	7100.	7100.
T .007112	16.8	6.34	227	.0856	16.6	6.25	167.					4380.	4380.	4550+	4390.	4380.	4380+
												40800+	30500.	41000+	40800+	40000+	22700.
•005	16.8	6.90	.254	.104	16.5	6.80	1474					29200+	12000+	15800.	15700.	15700.	12900.
•01	16.7	7.98	.312	-150	16.3	7.83	70.0				~ ~ ~	5050+	4450+	5130+	5060.	5050+	4450+
.015	10.4	9.72	.432	.209	15.5	10.4	49.0					2250.	2050.	2310.	2260.	2250.	2050.
.02	15.5	12.0	.808	.624	14.7	11.4	26.9					717.	674.	756.	729.	718+	675.
.04	15.0	12.4	1.80	.827	14+8	11.6	17+0					308.	294.	337.	320.	309.	273
.05	14.6	12.6	1.18	1.02	13.4	11.6	11+7					156.	150.	180.	109.	12/+	87.6
.06	14.2	12.6	1,33	1.18	12.9	11.4	8.64					89+1	80+4 36.7	55.1	49.9	39.1	38+1
•08	13.4	12.4	1.57	1.45	11.9	10.9	5+20					18.9	18.6	34+3	30.9	20.7	20.3
<u>el</u>	<u></u>	12.0	2.09	2.01	9.44	9,09	1.59					5+48	5+41	18+2	16+6	7.57	7+42
•15	10.6	10.3	2.28	2.23	8.28	8.07	.919					2.27	2.25	13.5	12.6	4.55	4+48
.3	9.19	9.08	2.48	2.45	6.71	6.63	+418					+670	+ 666	10.2	9.75	3+15	3+12
.4	8,23	8,17	2.55	2,52	5.68	5.65	• 237					• 30 3	•302	8+/1	7.64	2.07	2.72
.5	7.52	7.47	2.56	2,55	4.95	4+92	+154					+100	.107	7.13	7.03	2.67	2.65
•6	6.95	6.92	2,56	2.54	4.40	4+38	+100					+0540	.0539	6.21	6.14	2,55	2.52
,• 8	0.11	6.09	2.50	2.28	3.08	3.10	+0395					+0328	.0327	5+55	5+51_	2+45	2+41
1.5			2.21	2,18	2.25	2.28	•0179	.0320		+0320	+00992	.0150	.0150	4.52	4.51	2+26	2+20
2.	3.80	3.80	2.02	1.98	1.79	1.82	+0102	.123		+123	.0581	+00930	•00929	3.94	3.93	2+15	2.05
3.	2,99	2.99	1.73	1.67	1.26	1.32	+0045	.343	.00105	+344	.218	+00500	+00500	3+34	3.07	2.09	1.85
4.	2,50	2.50	1,52	1.44	.983	1.05	+00254	.501	.00430	+363		•00333	+00355	2.92	2.92	2.12	1.84
5.	2.16	2.16	1.30	1.77	.004	.000	+00100	.910	.0130	.923	.722	.00200	+00200	2.84	2.83	2+15	1.86
. .	1.91	1.91	1.05	1414	-520	.616	•00114	1.17	+0221	1+19	.967	+00145	+00145	2.75	2.75	2.23	1+91
10.	1.33	1.33	.909	.798	.421	.532		1.40	.0304	1.43	1.18	.00113		2.76	2.76	2,34	1.98
15.	.984	.984	.699	.590	+285	+394		1.81	+0478	1+86	1.50			2.84	2.54	2,30	2.14
20.	.790	.790	.574	.465	.216	.325		2.10	.0606	2+16	1.08			2.75	3,17	3,03	2.10
30.	.575	.575	.430	.308	•145	•267		2.52	.0807	2.60	1.08			3.37	3.37	3.26	2.20
40.	+457	+457	.347	.215	.110	.239		2.02	.105	3.14	2.00			3.52	3.52	3.43	2.16
50.	.382	.382	-274	.129	.0736	.200		3.20	.113	3.31	1.99			3+64	3.64	3.56	2+12
80.	.329	. 327	.295	.0852	.0554	.174		3.43	.127	3.56	1.98			3.82	3.62	3+76	2.07
100.	.215	,215	.171	.0619	.0444	.153		3,65	.136	3.79	1.96			4,00	4,00	3+90	2.02

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26 IRON (cm²/g = 0,0)078 x barns/atom)

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E (MeV)	KN	([#]) ^{BD} inc.t	(^H) inc. A	(الله BD (الله inc. ع	(声) ^{KN} (声) ^{inc, s}	(≝) ^{BD} inc,s	(岸) _{coh}	(뿔)×n	(片)xe	([#]) _{×, t}	([#] _p) _{*,a}	(#) _{7,1}	([#] _p) _{r,a}	(#) _{10t,t}	(j) _{tot,t-coh}	([⊭] _p) _{tot,a}	(\$)tot, en
												12100.	12100.	12100.	12100.	12100.	12100.
.001	.185	+00872	.000362	.0000170	.105	+00870	4+52					3830+	3830.	3830.	3830.	3830.	3830.
+0015	.187	+0152	+000541	+0000443	.184	.0211	3.97					1710+	1710.	1710+	1710.	1710.	1710+
.002	.184	.0321	.00107	.000186	183	.0319	3.41					547+	547.	550.	547+	547.	341.
.004	.183	-0424	.00141	.000326	182	.0420	2.91					241+	241+	245.	241+	241+	129.
.005	.183	.0516	.00175	.000495	181	.0511	2.48					129.	129.	132+	1294	76.8	76.5
.006	.182	.0599	.00208	+000687	.180	.0593	2.12					76+5	47.7	49.0	47.3	47.2	47.2
K +007112	.181	.0683	•00245	.000923	•179	•0674	1.80					4/+C	329.	442.	440.	440.	329.
	101		AA 274	.00112	.178	.0733	1.58					315.	245.	317.	315.	315.	245.
.008	181		- 00334	.00162	.176	-0844	1.24					169.	139.		169.		
1015	.177	.105	+00487	+00290	.171	.102	.763					54+4	48.0	55.3	54.5	24.4	40.V 23.1
.02	.174	.116	.00625	.00420	.167	.112	.528					24.3	22+1	24.9	7.86	7.74	7.28
.03	.167	.129	.00871	.00673	.158	.123	.290					7.73	7.427	3.67	1.45	3.33	3.18
.04	.162	.134	+0108	.00892	.151	.125	.183					3.52	3.17	1.94	1.62	1.69	1.63
.05	.157	.136	+0127	.0110	.144	•125	•126					.960	.931	1.19	1.10	.975	.944
.06	.153	•136	+0143	.0127	.139	.123	•0931					+04	.396	•594	.538	.421	•411
• 08	+144	+134	+0169	•0156	.128	•118	• 0781					.204	.201	.370	.333	.223	.219
اد		129	+0191		107	. 0990						+0591	.0583	+196	•179	.0516	.0880
•17	+127	•120	+ 0 2 2 3	+0217	.0893	.0870	00991					+0245	+0243	+146	.130	.0440	+0403
• 2	. 6991	.0979	.0267	+0264	.0723	.0715	.00451					+00722	+00718	+110	•105	.0340	.0338
	.0887	.0881	.0275	.0272	.0612	.0609	.00255					+00327	+00320	+0739	.0824		-0293
.5	.0811	.0805	.0276	.0275	.0534	.0530	.00166					-00162	.00100	.0769	0758	.0288	.0286
.6	.0749	.0746	.0276	.0274	.0474	.0472	.00116					.000582	.000581	.0669	0662	.0275	0272
.8	.0659	.0657	+0270	.0266	.0389	.0390	.000667					.000354	.000353	0598	.0594	0264	0260
يسيع لم		0591		-0257	.0332	0334		000345		. 000345	.000107	.000162	501000.	.0487	.0486	.0244	.0237
1.5	.0481	+0481	.0238	-0235	.0243	.0196	.000110	.00133		.001 33	.000626	.000100	.000100	.0425	.0424	.0232	.0221
<u></u>	0410	.0122	.0184	.0180	.0136	.0142	.0000485	.00370	.0000113	.00371	.00235	.0000539	.0000539	+0360	.0360	.0224	0204
3.	.0270	.0270	.0164	.0155	.0106	.0113	.0000274	.00605	.0000464	.00609	.00433	.0000359	.0000359	.0331	.0331	.0223	0177
5.	.0233	.0233	+0147	.0137	.00867	.00957	.0000179	.00806	.0000906	.00815	.00614	.0000269	0000207	.0317	.0305	0232	.0201
ě.	.0206	.0206	.0133	.0123	.00733	.00830	.0000123	.00981	.000140	.00995	.00778	0000216	.0000156	.0296	.0296	0240	.0206
8.	.0168	.0168	•0112	.0102	.00561	.00664		.0126	.000238	.0128	.0104	.0000122	.0000122	0298	.0298	0252	.0213
10	0143	.0143	.00980	.00860	00454	.005/3					0167			.0306	.0306	.0276	.0225
15.	.0106	+0106	.00754	•00636	.00307	.00423		.0776	.000515	. 6233	.0181			.0318	.0318	.0294	.0231
20.	.00052	.00852	.00019	•00701	.00233	.00390		.0272	.000870	.0280	.0203			.0342	•0345	.0327	.0236
30.	.00620	.00493	-00374	.00235	.00119	.00258		.0304	.00102	.0314	.0213			.0363	.0363	.0351	.0237
50.	-00412	.00412	.00317	-00178	.000948	.00234		.0328	.00113	.0338	.0216			.0379	.0379	.0370	.0233
60.	.00355	.00355	.00275	.00139	.000793	.00216		.0345	.00122	.0357	.0215			.0392	-0.572	.0405	.0223
80.	.00279	.00279	.00220	.000918	.000597	.00188		.0370	.00137	.0384	.0213			.0412	.0431	.0427	.021 B
100.	.00232	.00232	+00184	.000667	.000479	.00165		.0393	.00147	•0409	.0211			+ + +	• • • • • •		

27 COBALT (barns/atom)

E (MeV)	$\sigma_{inc,t}^{KN}$	$\sigma_{inc,t}^{BD}$	KN Cinc, a	o ^{BD}	oKN Oinc, s	σ ^{BD} σ _{inc,s}	or _{coh}	σ×n	σ×e	σ _{x.t}	<u>σ_{*, a}</u>	σ _{r,t}	O _{T, a}	Utot, t	σ _{tot,t-coh}	σ _{tot, a}	σ tot, en
	17.9	.713	.0349	.00139	17.9	.712	455.					1300000+	1300000.	1300000.	1300000.	1300000.	1300000.
.0015	17.9	1.27	.0521	.00370	17.8	1.27	430.					413000.	413000.	413000+	413000.	413000+	413000+
.002	17.8	1.81	.0691	.00702	17.7	1.80	402+					185000+	185000+	185000+	173000+	59200+	59200+
.003	17.8	2.85	.103	.0165	17+6	2.83	347.					34200+	26300.	26600+	26300	26300.	26300.
.004	17.7	3.84	•136	.0295	17+5	3.81	298.					13900.	13900.	14200+	13900 .	13900+	13900+
•00 5	17.6	4.73	+169	.0453	17.	4.00	200+					8360.	8360.	8580.	8370 .	8360+	8360 .
.000	11.5	2.23	-201	.0033	17.7	5.41	170.					4090+	4090+	4270+	4100+	4090+	4090+
K +00//09	1/.4	0+/4	+235	• • • • •	1	0.04	1.00					37400.	27200+	37600.	37400+	37400+	27200+
-008	17.4	6.92	.264	.105	17.2	6.82	164.					33800.	24900.	34000+	33800.	33800.	24900+
.01	17.3	8.06	. 324	.151	17+0	7.91	127.					18000+	14200.	18100.	18000.	18000+	14200+
.015	17.0	9.93	.470	,275	16.5	9.66	78+1					5860.	5040+	5750+	3670+	2620.	2340.
.02	16.7	11.1	.602	.401	16.1	10+7	53.9					2020+	23404	2000+	855.	844.	785.
.03	16.1	12.3	.839	+640	15.3	11.7	29.8					260.	7844	391.	373.	361.	342+
.04	15.6	12.8	1.04		14.0	11.9	10+7					183.	175.	209.	196.	184.	176.
+05	19.2	13.0	1,22	1.07	13.7	12.00	0.63					104.	100.	127+	117.	105.	101.
.00	14.0	13.0	1.56	1.50	12.3	11.3	5.73					44.2	43+0	62.7	57+0	45.8	44.5
• • • •	13.3	12.6	1.84	1.72	11.5	10.8	3.77					22.1	21.6	38.4	34.6	23.9	23.3
-15	12.0	11.6	2.17	2.11	9.80	9.49	1.76					6.50	6+41	19+9	18.1	8.67	5.72
-2	11.0	10.7	2.37	2.31	8.60	8.39	1+01					2.73	2.70	14+4	13+4	3.37	3,33
.3	9.54	9.42	2,57	2.54	6.97	6.88	+461					•800	. 74	9.10	8.84	3.01	2.98
.4	8,55	8,48	2,65	2,62	5.90	5+86	•261					- 303	.201	8.13	7.96	2.86	2.85
.5	7.81	7.76	2.66	2,65	5+14	5-11	+1/0					.127	.127	7.44	7.32	2.78	2.77
•6	7.22	7.19	2,65	2.04	4.37	4,77	•120					.0644	.0642	6.45	6.38	2.65	2.62
.**	0.34	6.32	2.59	2.50	3.19	3.22	+0436					.0397	.0396	5.77_	5.73	2.55	2.51
10		3.61	2.29	2.26	2.34	2.37	•0199	.0347		+0347	.0108	.0182	.0182	4.70	4.68	2.34	2.29
2.	3.95	3.95	2.10	2.05	1.85	1.90	+0112	.133		.133	.0628	+0113	.0113	4+11	4.09	2.24	2.12
1.	3.11	3.11	1.79	1.73	1.31	1.38	+00497	.370	+00108	• 371	.236	•00608	•00608	3,49	3, 77	2.20	1.94
4.	2.60	2.60	1.58	1.50	1.02	1.10	+00280	.610	+00446	+614	+436	.00309	.00309	3.06	3.06	2.23	1.93
5.	2.24	2.24	1.41	1.31	.835	•925	+00184	.805	.00873	+814	+ 012	.00248	.00 24B	2.97	2.97	2.27	1.96
6.	1.98	1.98	1.28	1.18	.706	•804	+00126	.977	• 01 35	+990	1.07	.00176	+00176	2.89	2.89	2.35	2.01
8.	1.62	1.62	1.08	.974	.340	+040		1.50	+0230	1.57	1.26	.00138	.00138	2.91	2.91	2,48	2,09
10.	1.36	1.38		604				1.95	+0497	2.00	1.62			3.02	3.02	2.73	2.23
15.	1.02	1.02	.594		.274	.342		2.27	.0630	2.33	1.80			3.15	3.15	2.93	2.28
20.	.697	.597	. 446	.316	.151	.281		2.71	.0837	2.79	2.01			3.39	3.39	3.24	2,33
40.	475	475	.361	.224	.114	.251		3.03	.0988	3+13	2.11			3.60	3.00	3.47	2,33
50.	.396	.396	305	.169	.0913	+227		3,29	+109	3.40	2.14			3.80	3.00	3.83	2.25
60.	.341	.341	,265	,132	.0764	.209		3,44	.118	3.56	2.12			4.10	4.10	4.04	2+20
80.	.269	.269	.212	.0880	.0575	•181		3.70	•132	3.83	2.11			4.30	4.30	4.26	2.15
100.	.224	+224	.177	.0638	.0461	.160		3,94	+141	4+08	2.09						

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27 COBALT (cm²/g = 0,0)022 x barns/atom)

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E (MeV)	(^µ _₽) _{inc,t}	$\left(\frac{\mu}{\rho}\right)_{\rm inc,t}^{\rm BD}$	([#] _p) ^{KN} _{inc,a}	(告) ^{BD})nc,a	(^µ _p) ^{KN} _{inc, s}	(^µ) ^{BD} _{inc,s}	(뿔) _{coh}	(ل ه) _{* n}	([#] / ₇) _{× e}	([#] _p) _{×, t}	([#] _p) ×, a	(岸) _{下,t}	([#] _p) _{r,a}	(\$) _{tot,t}	([#]), ot, t-coh	([#]) _{tot.a}	([#])tot, en
.001	.183	.00729	.000357	.0000142	.183	.00728	4.65					13300.	13300.	13300.	13300.	13300.	13300.
.0015	.183	.0130	.000532	.0000378	.182	.0130	4.39					4220 .	4220.	4220.	4220.	4220.	4220.
.002	+182	.0185	.000706	.0000717	.181	+0184	4.11					1890.	1890.	1890.	1890+	1890.	1890.
.003	.152	.0291	+00105	+000189	.180	.0289	3.55					005+	843+	372	803+	369	269.
.004	+101	+0372	+00139	+000301	179	+0367	3.41					142.	142.	145.	142	142.	142.
.006	.179	.0565	.00205	+000443	.178	.0559	2.23					85.4	85.4	87.7	85.5	85.4	85.4
K .007709	.178	.0689	.00261	.00101	.176	.0679	1.74					41.8	41.8	43.6	41.9	41.8	41.8
_			-									382.	278.	384.	382.	382.	278.
.008	+178	.0707	.00270	.00107	.176	.0697	1.68					345.	254.	347.	345.	345.	254.
• 01	<u>•177</u>	<u>•0824</u>	.00331	.00154	- 174		1.30		<u> </u>			50.0	<u> </u>	182.	10%	<u> </u>	<u> </u>
-013	171	+101	+00480	+00281	.165	.10907	• / 78					26.8	21.9	27.4	26.9	26.8	23.9
.03	.165	.126	.00857	.00654	.156	.120	.305					8.62	8.01	9.04	8.74	8.63	8.02
.04	.159	.131	.0106	.00873	.149	.122	.191					3.68	3.49	4.00	3.81	3.69	3,50
.05	.155	.133	+0125	.0107	.142	.123	.132					1+87	1.79	2.14	2.00	1.88	1.80
.06	.150	•133	+0141	.0125	.137	+121	• 0974					1.06	1.02	1.30	1.20	1.07	1.03
.08	+143	•131	.0168	+0153	.126	+115	•0586					+452	+439	+641	+583		.437
15	123		10100	<u>•D1/0</u>	100	.0970	.0385						.0655	+372	.185		.087
•15	.112	.109	+0222	+0210	.0879	.0857	.0103					.0279	.0276	.147	.137	.0521	.051
.3	.0975	.0963	.0263	.0260	.0712	.0703	.00471					.00818	+00811	.109	+104	.0344	+0340
.4	.0874	.0867	.0271	.0268	.0603	.0599	.00267					+00371	+00369	•0930	•0903	• 0308	+030
•5	.0798	.0793	•0272	+0271	.0525	.0522	.00174					+00206	+00205	+0831	+0814	.0292	+0291
.6	.0738	.0735	+0271	+0270	+0467	+0465	.00123					+00130	+00130	+0/60	+0/48	+ 0204	+020
,•°	.0048	.0040	+0205	+0202	0336	.0384	+000095					+000406	+000405	.0590	.0586	.0261	-025
1.5	.0473	.0473	+0234	+0231	.0239	+0242	.000203	.000355	i	.000355	.000110	.000186	+000186	+0480	.0478	.0239	.023
2.	.0404	.0404	.0215	.0210	.0189	.0194	.000114	.00136		.00136	.000642	+000115	.000115	+0420	+0418	.0229	+0211
3.	.0318	.0318	+0183	.0177	.0134	+0141	.0000508	.00378	+0000110	.00379	+00241	+0000621	+0000621	+0357	.0357	.0222	•0501
4.	.0266	.0266	•0161	+0153	.0104	•0112	.0000286	•00623	.0000456	.00628	+00446	+0000416	.0000416	.0329	.0329	.0225	• 01 93
5.	.0229	•0229	+0144	.0134	.00853	+00945	.0000188	.00823	.0000892	.00832	.00625	+0000310	+0000310	+0313	.0313	.0220	+0171
	+0202	• 0202	+0131	+0121	.00552	.00622	+0000154	.0128	.000235	.0130	.0105	.0000180	+0000180	.0295	.0295	.0240	.020
10.	.0141	.0141	.00965	.00842	.00447	.00568		.0153	.000324	.0156	.0129	+0000141	+0000141	.0297	+0297	. 0253	+0214
15.	.0104	.0104	+00742	.00621	.00303	.00421		+0199	+000508	.0204	.0166			+0309	+0309	.0279	+0228
20.	.00839	.00839	.00609	+00490	•00229	.00350		•0232	+000644	.0238	.0184			.0322	+0322	• 0299	+0231
30.	.00610	.00610	.00456	.00323	.00154	.00287		.0277	.000855	.0285	.0205			+0346	+0346	+0331	+0238
40.	+00485	.00485	.00369	+00229	.00117	+00257		•0310	+00101	0.323	+0216			+0.305	+0300	.0357	+0238
50.	+00405	.00405	+00312	.001/3	.000933	.00232		+0330	+00121	.0364	+0217			.0399	.0399	.0.391	.0230
60. 80.	.00275	.00275	+00211	+00135	.000588	.00185		.0378	.00135	.0391	.0216			.0419	.0419	.0413	.022
100.	.00229	.00229	.00181	.000652	.000471	.00164		.0403	+00144	.0417	.0214			.0439	+0439	.0435	+0220
										-							

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28 NICKEL (baros/atom)

$ \begin{array}{c} r = 0.01 & 18.6 & .460 & .0261 & .0125 & 18.5 & .639 & 492 \\ r = 0.015 & 18.5 & 1.17 & .050 & .0027 & 18.5 & 1.17 & .46. & .460 & .4600 & .46100 & .$	E (MeV)	σ _{inc,t}	σ ^{BD} _{inc,t}	$\sigma_{inc,a}^{KN}$	σ ^{BD} _{inc,a}	σ ^{KN} σinc,•	o ^{BD}	σ _{coh}	σ _{*n}	σ _{×e}	<u>σ_{*,t}</u>	<u>σ, , a</u>	σ _{τ, t}	σ _{τ, a}	σ _{tot,t}	or tot, t-coh	σ _{tot, a}	Utot, en
$\begin{array}{c c c c c c c c c c c c c c c c c c c $.001 LI .001008	18.6 18.6	•640 •648	.0361 .0365	.00125 .00127	18.5 18.5	•639 •647	492. 491.					1320000. 1310000.	1320000. 1310000.	1320000.	1320000. 1310000.	1320000. 1310000.	1320000. 1310000.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.0015	18.5	1.17	.0540	.00341	18.5	1.17	466.					481000.	481000.	1470000+	1470000.	1470000.	1470000.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.002	18.5	1.70	.0717	.0066	18.4	1.69	437.					215000.	215000 .	215000.	215000.	215000.	215000.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $.004	18.3	3.77	.141	.0290	18.2	2.74	380+					69200+	69200+	69600+	69200+	69200.	69200.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $.005	18.3	4.68	.175	.0448	18.1	4.64	281.					16400.	16400.	16700.	16400.	30700+	30900+
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	+008	18.2	5.50	.208	.063	18.0	5+44	242.					9850.	9850.	10100+	9860.	9850+	9850 .
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	K .008332	18.0	7.16	.273	.105	17.8	6.84	182.					4330.	4330 •	4520 .	4340.	4330.	4330.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					• • • • •	1	1.03	1.44					30404	3040.	4020+	4000	3840+	3540+
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	• 01	17.9	8.13	.336	152	17.6	7.98	141.					20600.	15500.	20700.	20600.	20600.	15500+
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	•017	17.3	10.1	.487	.279	17.1	9+82	85.9					6700.	5600+	6800.	6710+	6700+	5600+
$\begin{array}{c c c c c c c c c c c c c c c c c c c $.03	16.7	12.7	.871	.661	15.9	12.0	37.8					3000+	2630.	3070.	3010.	3000.	2630.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $.04	16.2	13.2	1.08	.880	15.1	12.3	20.6					418.	392.	452+	431.	419.	393.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	+ 05	15.7	13.4	1.27	1.08	14.5	12.3	14+3					513.	202.	241+	226.	214+	203+
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	•0e	10.3	13.5	1.43	1.27	13.8	12.2	10+5					122.	117.	146.	136.	123.	118.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	•1	13.8	12.9	1.90	1.78	11.9	11.1	4.15					26.2	47+8	70+9	04+0 19.1	53+1	51+3 27.4
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.15	12.4	12.0	2,25	2.18	10.2	9.82	1.94		·······			7.67	7.54	21+6	19.7	9.92	9.72
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.2	11.4	11+1	2,46	2.40	8.92	8.70	1.11					3.21	3+17	15+4	14+3	5.67	5.57
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		8.86	8.79	2.75	2.72	6.12	7+13	+507					.940	•932	11+2	10.7	3.61	3+56
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	•5	8.09	8.05	2.76	2,75	5.33	5.30	.187					. 74 0	.239	8.48	8.29	3.00	3+15
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	•6	7.49	7.45	2.75	2.73	4.74	4.72	+131					+151	+150	7.73	7.60	2.90	2.88
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	1.	0,98 5,91	0.56 5.90	2.69	2.66	3.89	3.90	•0747					•0773	+0771	6.71	6.64	2.77	2.74
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	1.5	4.80	4.80	2.38	2.34	2,43	2.46	+0217	.0375	-	.0375	.0116		.0221	4.88	5+75	2.03	2.01
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	2.	4,10	4.09	2.17	2.12	1.92	1.97	.0123	+144		•144	.0680	+0135	+0135	4.26	4.25	2.33	2.20
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	3.	3,22	3.22	1.86	1.78	1.36	1.44	+00547	.399	.00113	•4 00	.254	+00730	.00729	3+63	3.63	2+27	2.04
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	5.	2.33	2.33	1.46	1.37	.865	.965	+00308	+655	+00461	+860	+468	+00492	+00492	3,30	3,35	2,29	2.02
8. 1.68 1.68 1.68 1.12 1.01 $.560$ $.674$ 1.35 $.0239$ 1.37 1.11 $.00214$ $.00214$ 3.05 3.05 3.05 2.48 2.48 $10.$ 1.43 1.43 $.0229$ 1.64 1.35 $.00214$ $.00214$ 3.05 3.07 2.492 2.48 $10.$ 1.43 1.43 $.0329$ 1.64 1.35 $.00167$ 3.07 3.07 2.492 2.20 $15.$ 1.06 1.06 $.753$ $.625$ 3.07 $.435$ 2.10 $.0516$ 2.15 1.73 $.00167$ 3.07 3.07 2.492 2.20 $20.$ $.851$ $.618$ $.492$ $.233$ $.359$ 2.44 $.06516$ 2.515 1.92 $.00111$ $.00111$ 3.21 3.21 3.21 2.90 2.84 $30.$ $.619$ $.663$ $.323$ $.157$ $.296$ 2.91 $.0686$ 3.00 2.14 3.62 3.62 3.62 3.62 3.62 3.62 3.62 3.65 3.73 2.46 $40.$ $.492$ $.492$ $.374$ $.230$ $.118$ $.262$ 3.26 $.102$ 3.36 2.25 3.85 3.85 3.85 3.85 3.73 2.46 $50.$ $.411$ $.411$ $.316$ $.173$ $.0946$ $.238$ 3.52 $.113$ 3.63 2.25 $.417$ $.417$ 4.04 3.95 2.44 $50.$ $.279$	6.	2.06	2.06	1.32	1.22	.732	.840	.00140	1.05	•0141	1.06	.830	.00300	+00300	3.12	3.12	2.34	2+03
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$		1.68	1.68	1.12	1.01	• 560	•674		1.35	.0239	1+37	1.11	+00214	+00214	3.05	3.05	2.49	2.12
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15.	1.06	1.06	.979	475	. 307	+ 25		1.61		1.64	1.35		.00167	3.07	3.07	2,62	2.20
30. .619 .619 .463 .323 .157 .296 2.91 .0869 3.00 2.14 3.62 3.62 3.62 3.64 2.46 40. .492 .474 .230 .118 .262 3.26 102 3.94 2.46 3.65 3.85 3.85 3.73 2.46 50. .411 .316 .173 .0946 .236 3.52 .113 3.63 2.27 3.85 3.85 3.73 2.46 60. .354 .354 .354 .157 .0946 .236 3.52 .113 3.63 2.27 4.04 4.04 3.095 2.46 60. .354 .354 .354 .157 .0792 .219 3.70 .122 3.85 3.457 4.17 4.04 3.09 2.38 80. .279 .220 .0904 .167 4.12 3.25 4.41 4.41 4.35 2.34 100. .232 .232 .167 .167 4.24 .166 .132 .225 4	20.	.851	.851	.618	.492	.233	•359		2.44	+0516	2+15	1.92	+00111	+00111	3+21	3.21	2.90	2+30
40. .492 .374 .230 .118 .262 .26 .102 .3.36 2.25 3.85 3.85 3.85 3.73 2.40 50. .411 .411 .316 .173 .0946 .238 3.52 .113 3.63 2.27 4.04 4.04 3.095 2.44 60. .354 .354 .275 .135 .0792 .219 3.70 .122 3.82 2.25 4.17 4.10 2.38 80. .279 .220 .0904 .0596 .189 3.99 .136 4.13 2.25 4.41 4.41 4.35 2.34 100. .232 .232 .165 .167 .4.24 .146 4.13 2.25 4.41 4.41 4.35 2.34	30.	.619	.619	.463	. 323	.157	.296		2.91	.0869	3.00	2.14			3.62	3.62	3.46	2.46
900 .711 .911 .10 .173 .0792 .219 .52 .113 3.63 2.27 4.04 4.04 3.05 2.44 60. .354 .354 .275 .135 .0792 .219 3.70 .122 3.62 .255 4.17 4.17 4.09 2.38 80. .279 .220 .0904 .0596 .189 .3.99 .136 4.13 2.25 4.41 4.41 4.35 2.34 100. .232 .232 .164 .167 .1.64 .13 2.25 4.41 4.43 4.35 2.34	40. Fo	.492	.492	.374	.230	.118	•262		3.26	.102	3.36	2.25			3.85	3+85	3.73	2.48
80279 .220 .0904 .0596 .189 3.99 .136 4.13 2.25 4.41 4.41 4.35 2.34 100232 .232 .184 .0654 .167 4.24 1.16 4.19 2.25	60.	.354	.354	.275	.135	.0792	.238		3,52	+113	3+63	2.27			4+04	4.04	3.95	2.44
100. 232 232 184	80.	,279	.279	.220	.0904	.0596	.189		3.99	.136	4.13	2.25			4+41	4.41	4.35	2138
	100.	•535	•232	.184	.0654	+0478	.167		4,24	.146	4.39	2.22			4+62	4+62	4.57	2+29

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28 NICKEL (cm²/g = 0.01026 x barns/atom)

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E (MeV)	(^µ _₽) ^{KN} _{tnc,t}	([#] _p) ^{BD} _{inc,t}	$\left(\frac{\mu}{\rho}\right)_{inc,a}^{KN}$	(世) ^{BD})nc, a	([#]) _{nc, 8}	([#] _p) ^{BD} _{nc,s}	([#] _p) _{coh}	(#) _{×n}	$(\frac{\mu}{\rho})_{xe}$	(^{لل} _p) _{×, t}	(#) _{*,a}	$\left(\frac{\mu}{\rho}\right)_{\tau,t}$	(^μ _ρ) _{τ, ε}	([#] _p) _{tot, t}	([#]) _{tot,t-coh}	(岸) _{tot.a}	([#] _p) _{tot, en}
.001 L _I .001008	.191 .191	•00657 •00665	.000370 .000374	•0000128 •0000130	.190 .190	.00656 .00664	5.05 5.04					13500. 13400.	13500. 13400.	13500. 13400.	13500. 13400. 15100.	13500. 13400. 15100.	13500. 13400. 15100.
.0015	.190	.0120	.000554	.0000350	.190	.0120	4.78					4940.	4940.	4940.	4940.	4940.	4940.
-002	.190	• 0174	+000736	•0000677	,189 188	.0173	4,48					710.	2210+	714.	710.	710.	710.
.004	.188	.0387	+00145	1000298	.187	.0384	3.36					317.	317.	320.	317.	317.	317.
.005	.188	+0480	.00180	.000460	.186	.0476	2.88					168.	168.	171.	168 .	16 8.	168.
+006	.187	.0564	.00213	+000646	.185	.0558	2.48					101.	101.	104.	101.	101.	101.
.008	.186	.0713	.00280	.00108	·183	.0702	1.87					39.4	39.4	41.2	39.5	39.4	39.4
r +000335	•103	• 0 / 35	+00271	+00110	•103		1					353.	248.	355,	353.	353.	248.
.01	,184	+0834	,00345	.00156	,181	.0819	1.45					211.	159.	212.	211	211	159
.015	,181	.104	•00500	.00286	.175	.101	+881					68+7	57.5	69+8	68+8	68.7	57.5
•02	•177	+117	+00640	+00422	•171	.113	.607					30+8	27+0	31+5	30.49	30.8	9.03
+03	+171	+130	+00894	+000/8	.155	+123	.211					4.29	4.02	4.64	4.42	4.30	4.03
.05	-161	.137	.0130	+00903	.149	.126	.147					2+19	2.07	2.47	2.32	2.20	2.08
.06	.157	.139	+0147	.0130	142	.125	.108					1.25	1+20	1.50	1.40	1.26	1.21
•08	.149	.135	.0174	.0159	.131	.120	.0647					•527	•511	•727	• 663	.545	.520
4	.142	132	.0195	.0183	122						· · · · · · · · · · · · · · · · · · ·	+607					
•15	.127	•123	•0231	•0224	.105	+101	.0199					+8329	.0325	•158	•202	.0582	.0571
.2	.102	+11+	+0272	.0240	0742	.0732	.00520					+00964	+ 0 0 9 5 6	+115	+110	.0370	-0345
	0909	.0902	.0282	.0279	.0628	.0623	.00295					+00441	+00438	•0976	.0946	.0326	+0323
•5	.0830	.0826	.0283	.0282	.0547	.0544	.00192					+00246	+00245	+0870	+0851	.0308	+0307
•6	.0768	.0764	.0282	.0280	.0486	.0484	.00134					+00155	+00154	+0793	.0481	.0298	• 0275
	.0675	.0673	+0276	.0273	.0399	.0400	.000/66					+000487	+000456	-0616	.0610	.0272	.0268
1		-0007	10201	.0240	.0249	.0252	.000223	.000385		.000385	.000119	+000227	+000227	10501	• 0499	. 0250	+0243
2.	.0421	.0420	.0223	.0218	.0197	.0202	.000126	.00148		.00148	.000698	+000139	.000139	+0437	.0436	.0239	. 9226
3,	.0330	.0330	+0191	.0183	.0140	+0148	.0000561	.00409	.0000116	.00410	.00261	+0000749	+0000748	.0372	•0372	.0233	.0209
<u>*</u> •	.0276	.0276	.0167	.0159	.0109	+0117	.0000316	.00672	.0000473	.00677	.00480	+0000507	+00000303	+0345	+0344	.0235	• 0207
5.	.0239	+0239	.0150	+0141	00887	.00990	.0000207	.00889	.0000929	+00848	.00074	.0000308	.0000304	.0320	.0320	.0244	.0210
	.0172	.0172	+0139	+0125	.00575	.08692	*****	.0139	.000245	-0143	.0114	.0000220	.0000220	.0313	.0313	.0255	×0218
10.	.0147	0147	.0100	.00870	.00465	.00597		.0165	.000338	0168	.0139	+0000171	+0000171	.0315	.0315	.0269	.0226
15.	.0109	.0109	.00773	.00641	.00315	.00446		.0215	.000529	.0221	.0177	+0000114	+0000114	.0329	.0329	.0298	.0242
20.	00873	.00873	.00634	.00505	.00239	.00368		+0250	.000671	.0258	.0197			+0345	•0345	.0321	- 0247
30.	.00635	.00635	+00475	.00331	.00161	.00304		+0299	+000892	.030A	.0220			103/1	.0371	.0363	.0232
40.	.00505	.00905	+00384	.00236	.00121	.00269		+0334	.00109	.0345	+0231			•0415	.0415	.0405	.0250
90. 60.	.00363	.00363	+00324 +00287	•00177	.000813	.00225		.0380	.00125	.0392	.0231			.0428	.0428	.0420	.0244
80.	00286	.00286	.00226	.00092A	.000611	.00194		.0409	.00140	.0424	.0231			+0452	.0452	.0446	.0240
100.	.00238	.00238	.00189	.000671	.000490	.00171		.0435	.00150	.0450	.0228			.0474	.0474	.0469	.0235

29 COPPER (barns/atom)

E (MeV)	Ginc.t	σ ^{BD} inc, t	KN 0)oc, a	o ^{BD}	o ^{KN}	σ ^{BD} σinc,s	σ _{coh}	σ×n	σ×e	σ _{x,t}	σ _{×,a}	σ, t	σ _{r,a}	O _{tot,t}	Utot, t-coh	Utot, a	Utor, en
						(7)	#22					1460000.	1460000.	1460000.	1460000.	1460000.	1460000.
+001	19.2	• 629	.0374	.00123	19.2	+020	7361					1190000.	1190000.	1190000.	1140000.	1190000.	1190000.
L _I .001096	19.2	•726	+0410	.00155	19.2	+ * * * *	320+					1340000.	1340000.	1340000.	1340000.	1340000.	1340000.
.0015	19.2	1.15	.0559	.00335	19.1	1+15	508.					553000.	553000.	554000+	248000.	248000.	248000.
-002	19.1	1.69	.0743	.00656	19.1	1.68	481.					E40000.	80100	80500.	80100.	80100.	80100.
.003	19.1	2.73	.111	.0158	19+0	2.71	422.					35800	35900	36200.	35800.	35800.	35800.
.0.04	19.0	3.73	.146	.0287	18.8	3.70	365.					10000	19000	19300.	19000.	19000.	19000.
.005	18.9	4.65	.181	.0445	18.7	4+61	315+					11400	11400	11700.	11400.	11400.	11400.
.006	18.8	5.49	, 216	.0629	18.6	5.43	271.					6050	5050.	5260.	5060	5050.	5050.
.008	18.7	6.97	,283	.106	18+4	6+86	203.					3610	3610.	3800 .	3620.	3610.	3610.
K .008981	18.6	7.60	.315	•129	18.3	7.47	179.					31700.	21500	31900.	31700.	31700.	21500.
-01	18.6	8.20	.348	.154	18.2	8.05	158.					23400.	16600.	23600.	23400.	23400.	10000.
-015	18.2	10.3	.504	.285	17.7	10.0	95+3					7600.	0140.	7480.	3420.	3410.	2920.
.02	17.9	11.6	.646	.419	17.3	11+2	65+4					3410.	2920.	1160.	1110.	1100.	995.
.03	17.3	13.0	902	677	16.4	12.3	36.2					1100.	774.	515.	493.	480.	445.
.04	16.8	13.6	1.12	907	15.7	12.7	22.8						220	274.	258.	245.	231.
.05	16.3	13.9	1,31	1.12	15+0	12.8	15+7					141	134.	166.	155.	142.	135.
.06	15.8	13.9	1.48	1.30	14+3	12.6	11+6					171°7	57.5	80.3	73.4	61.5	59.1
.08	15.0	13.7	1.76	1.60	13.2	12.1	6+95					10.5	29.6	48.4	43,8	32.5	31.4
.1	14.3	13.3	1,97	1,84	12.3	11.5	4.58					A. 91	8.74	23.4	21.3	11.2	11.0
15	12,9	12.4	2,33	2,25	10.5	10.1	2.13					3.77	3.72	16.5	15.3	6,32	6.21
.2	11.8	11.5	2.55	2,49	9+24	9+01	1+23					1.10	1.09	11.8	11.2	3,66	3.01
.3	10.2	10.1	2.76	2,72	7.49	7+38	+ 578					.506	.502	9,92	9,61	3.35	3.31
.4	9,18	9.1	2.84	2,81	6.34	0.29	+ 317					.282	.280	8.82	8,61	3,14	3,13
.5	8,38	8.33	2.80	2,85	2.25	2.00	.200					.180	.179	8.04	7,90	3.03	3.01
•6	7.76	7.72	2.85	2.83	4.71	4.07						.0920	.0917	6.96	6.55	2.08	2.44
.8	6,81	6,79	2.79	2.75	4.03	3.46						.0570	.0568	6.22	0,17	2,15	2.1
1	6.12	6.11	2.09	-2.02		2.55	.0237	.0406		.0406	.0126	+0267	.0266	5.06	5.04	2+23	2.00
1.5	4,98	4.97	2,40	2.90	1.99	2.04	+0134	.155		+155	.0732	+0161	.0161	4,42		5.72	2.13
2.	4.24		2,23	1 85	1.41	1.49	.00599	.430	.00117	•431	.273	.00870	.00807	3.79	3,10	2.40	2.11
3.	3.34	3.34	1.49	1.60	1.16	1.19	.00340	,703	+00480	•708	•201	.00590	.00590	3471	3,30	2.45	2.12
2.	2.17	2 41	1.51	1.41	.896	1.00	.00224	.930	.00938	•939	.705	.00450	.00450	3,30	1.27	2.51	2.16
7.	2 13	2 1 2	1.37	1.26	758	.873	.00155	1.13	+0146	1+14	.893	+00362	.00342	3,20	3, 21	2.63	2.23
	1.74	1.74	1.16	1.04	.580	.699		1.45	+0247	1+47	1.19	.00260	+00200	3,21	1.21	2.76	2.30
	1 48	1.48	1.01	.873	.470	.607		1.72	.0340	1_75		.00200		3,40	3.40	3.08	2.49
18	1.10	1.10	.780	.645	.318	.455		2.25	+0534	2.30	1.84	•00154	.00127	1.55	3.55	3.31	2.53
28.			.640	.503	.241	.378		2.60	•0677	2+67	2.03	*00100	****	3.85	3.85	3.69	2.62
30.	.641	.641	479	.332	•162	.309		3.12	•0848	3+21	2.27			4,12	4.12	4.00	2,63
A0.	.510	-510	347	236	.122	.274		3,50	.100	3+61	2.39			4.32	4.32	4,22	2.58
50.	.426	.426	328	.178	.0980	+248		3,77	+117	3.89	2,40			4,46	4,46	4,38	2.53
60.	.367	.367	.285	.139	•0820	• 228		3.96	+120	4+09	2.37			4.71	4,71	4,65	2.47
60.	.289	.289	.227	.0928	+0617	•196		4.28	+140	4+42	2.30			4.92	4,92	4,87	2.41
100.	.240	+240	•191	.0670	• 0 4 9 5	+173		4,73	+121	4+08	C+34						

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29 COPPER (cm³/g = 0.009478 x barns/atom)

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115

E (MeV)	(≝) ^{KN} inc,t	(費) ^{BD})nc, t	([#] _p) _{nc, a}	(≝ ^{BD} _{inc,a}	([#]))nc, s	([#] _₽) ^{BD} _{)oc,s}	(#) _{coh}	$\binom{\mu}{p}_{*n}$	(ڭ) _{× e}	(ڭ) _{×, t}	(#) _{x,a}	(#),,t	([#] _p) _{7,a}	([#])tot,t	(声) _{tot,t-coh}	([#] _p) _{tot, a}	([#]) _{tot, en}
.001 L _I .001096	.182 .182	.00596	.000354 .000389	+0000117 +0000147	.182 .182	.00595 .00686	5.04 5.00					13800. 11300. 12700.	13800. 11300. 12700.	13800. 11300. 12700.	13800. 11300. 12700.	13800. 11300. 12700.	13800. 11300. 12700.
.0015	.182	.0109	+000530	+0000318	.181	.0109	4.81					5240.	5240.	5250.	5240. 2350.	5240. 2350.	5240. 23 5 8.
-00Z	.181	.0160	.000704	.0000622	.181	.0159	4.50					759.	759.	763.	759.	759.	759.
.003	+181	.0259	.00105	.000150	.180	+025/	4+00					339.	339.	343.	339.	339.	339.
•00	+160	+0334	+00138	+000272	.177	.0437	2.99					180.	180.	183.	180.	180.	180.
.005	.178	.0520	.00205	.080596	176	.0515	2.57					108.	108.	111.	108.	108.	198.
.008	177	.0661	.00268	.00100	.174	.0650	1.92					47.9	47.9	49.9	48.0	47.9	34.3
E.008981	.176	.0720	+00299	+00122	.173	.0708	1.70					34+2	34+2	30.0	34+3	34.6	204.
	176		.00330	-00146	.172	.0763	1.50					222.	157.	224.	222.	222.	157.
-015	.172	.0976	+0047B	.00270	.168	.0948	.903					72.0	58.2	73.1	72-1	72.0	26.2
.02	170	.110	.00612	.00397	.164	.106	.620					32.3	27.7	33.1	32.4	36+3	9-43
.03	.164	.123	.00855	+00642	,155	. 117	•343					10.0	9.46 A. 71	A.88	4.67	4.55	4.22
.04	.159	.129	+0106	+0086	+149	.120	+216					2.31	2.18	2.60	2.45	2.32	2.19
• 05	+154	•132	+0124	.0106	+142	+121	+149					1.34	1.27	1.57	1.47	1.35	1.28
•06	• 150	+132	+0140	+0123	126	.116	.0659					.566	.545	.761	.696	.583	.560
.08	136	.126	+0187	+0174	.117	109	+0434					+289	•281	.459	.415	.306	
	122	.118	+0221	+0213	.0995	.0957	+0202		•			.0844	+0828	.222	.202	.100	-104
•2	.112	.109	+0242	.0236	.0876	.0854	+0117					+035/	•0353	113	147	.0344	-0362
• 3	.0947	.0957	+0262	+0258	.0710	.0699	.00529					+010+ -00480	•0103	-0940	.0931	.0318	.8314
•4	.0870	.0862	+0269	+0266	.0601	.0546	-00300					.00267	.00265	.0836	.0816	.0278	.0297
•5	.0794	+0790	+0271	+0270	.0723	+0519	.00136					+00171	.00170	.0762	+0749	.0287	+0265
•••	.0735	.0644	.0264	.0261	.0382	.0383	.000772					+000872	+000869	.0660	•0652	.0273	-8269
1.	.0580	.0579	.0255	.0251	.0325	.0328	.000496					+000540	+000538	.0590	+0555	- 0201	
i.5	.0472	+0471	.0233	+0229	.0238	.0242	.000225	.000385		.000385	.000119	+000233	+000252	+0480	.0418	.0270	-0217
2,	.0402	+0402	•0213	+0209	.0189	.0193	.000127	+00147		.00147	.000694	+000155	.000155	.0359	.0358	. 0225	.0202
3.	.0317	.0317	.0183	+0175	.0134	+0141	.0000568	.00408	+0000111	.00409	+00257	.0000559	.0000559	.0333	.0332	. 0227	-0200
<u>*</u> •	+0264	+0264	+0160	•0152	.0104	.00948	.0000322	.00881	.0000889	.00890	.00668	+0000427	+0000427	.0318	+0318	.0232	-0201
7.	0228	+0220	+01+3	+0134	.00718	.00827	.0000147	.0107	.000138	.0108	.00846	.0000343	+0000343	+0311	.0310	.0238	• 0205
	-0165	.0165	.0110	.00986	00550	.00663		.0137	.000234	.0139	.0113	+0000246	+0000246	+0304	+0304	+0247	-1120-
10.	.0140	.0140	.00957	.00827	.00445	.00575		.0163	.000322		.0136	+0000190	+0000190	+0300	-0300		
15.	.0104	+0104	+00739	+00611	.00301	.00431		.0213	.000506	+0218	.0174	+0000122	.0000122	-0334	.0336	. 0314	- 6240
20.	.00835	.00835	.00607	+00477	.00228	.00358		•0248	.000642	+0253	+0145	•0000093		.0365	.0365	. 0350	.0248
30.	.00608	.00608	+00454	.00315	.00154	.00293		.0332	+000892	.0342	.0227			.0390	.0390	.0379	- 0249
40.	.00483	.00483	.00367	.00224	.00110	.00235		.0357	.00111	.0369	.0227			.0409	.0409	.0406	.0245
30. 40	00000 0034ª	.00348	.00270	.00132	.000777	.00216		.0375	.00119	.0388	.0227			.0423	•0423	.0415	•0240
80.	.00274	+00274	.00215	.000880	.000585	.00186		+0406	.00133	.0419	.0226			.0446	.0446	.0441	.0234
100.	.00227	.00227	.00181	.000635	.000469	.00164		+0429	.00143	.0444	•0255			.0400	.0400	.0442	.9269

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30 ZINC (barns/atom)

E (MeV)	$\sigma_{\rm inc,t}^{\rm KN}$	o ^{BD} inc,t	O ^{KN} Oinc, a	o ^{BD}	σ ^{KN} σ _{inc, s}	σ ^{BD} _{inc,s}	σ _{coh}	σ _{*n}	σ×e	σ _{x.t}	<u>σ_{×, a}</u>	σ,,,	σ _{r,a}	σ _{tot,t}	⁰ tot,t-coh	σ _{tot, a}	σ _{tot, en}
.001	19.9	.714	.0387	.00139	19.8	.713	569.					222000.	222000.	223000.	222000.	222000.	222000.
LTIT .00102	0 19.9	.736	.0395	.00146	19.8	.735	568.					212000.	212000.	213000.	212000.	212000.	212000.
100104	3 19.9	.763	.0404	.00155	19.8	. 761	566.					1190000.	1190000.	1190000.	1190000.	1190000.	1190000.
TI						•	2001					1450000.	1450000.	1450000.	1450000.	1450000.	1450000.
Lg .00119	3 19.9	.937	.0461	.00218	19.8	•935	559.					1070000.	1070000.	1070000.	1070000.	1070000.	1070000.
												1210000.	1210000.	1210000.	1210000.	1210000.	1210000.
.0019	19.0	1.29	.05/9	.00376	19.0	1.29	3424					284000.	284000.	285080.	284000.	286000.	284000.
.002	19.7	2.87	.114	-0166	19.6	2.85	449.					92500	92500	93000	92500	92500.	92500.
.004	19.6	3.84	151	.0295	19.5	3.81	391.					41600.	41600.	42000.	41600.	41600.	41600.
.005	19.6	4.75	187	.0455	19.4	4.70	338.					22100.	22100.	22400.	22100.	22100.	22100.
.006	19.5	5.59	, 223	.0640	19.3	5.53	293.					13200.	13200.	13500.	13200.	13200.	13200.
.096	19•4	7.07	.293	+107	19+1	6.96	222.					5840.	5840.	6070.	5850.	5040.	3840+
X .00965	9 19.2	8.12	,349	+147	18.9	7.97	179.					3390.	3390.	3350+	+00+L	3390.	39200.
-01	19.2	8.12	.340	- 156	18.9	8.16	172.					26400.	17600.	26600.	26400.	26400.	17600.
.015	18.9	10.5	.522	.290	18.3	10.2	104.					8600.	6690.	8710.	8410.	8600.	6690.
.02	18.5	11.9	.669	429	17.9	11.5	71.2					3880.	3230.	3960.	3890.	3880.	3230.
.03	17.9	13.4	,933	.697	17.0	12.7	39.6					1240.	1100.	1290.	1250.	1240.	1100.
.04	17.4	14.0	1.16	.934	16.2	13.1	24.9					543,	498.	582.	557.	544.	499.
.05	16.8	14.3	1.36	1.15	15.5	13.1	17+2					282.	203.	313.	270.	203.	204.
•06	10.4	14.3	1.54	1+34	14+8	13+0	12.6					103.	154+	190+	1//• #3 1	70.8	47.7
.00	10.0	19.1	2.04	1.05	12.7	12.4	(+37 5.00					35.2	34.0	54.0	49.0	37.2	35.9
15	13.3	12.8	2.41	2.12	10.9	10.5	2.13					10.4	10.2	25.5	23.2	12.8	12.5
.2	12.2	11.9	2.64	2.57	9.56	9.33	1.34					4,37	4,30	17.6	16.3	7.01	6.87
.3	10.6	10.5	2.86	2,83	7.75	7.67	+609					1.30	1.29	12.4	11.8	4.16	4.12
.4	9.5	9.41	2.94	2.91	6.56	6.50	+345					.597	•592	10.4	10.0	3.54	3.50
•5	8,67	8.62	2,96	2.95	5.71	5+67	+225					+335	212	7.10	8,19	3.16	3,60
••	0.02	7.98	2.95	2.92	5.08	5.00	+157					.107	.107	7.23	7.14	2.99	2.96
,	6.34	A. 12	2,80	2.74	3,55	3.58	•0570					.0678	.0676	6,44	6.39	2.86	2.61
1.5	5.15	5.14	2.55	2.50	2.60	2.64	+0259	.0438		+0438	.0136	.0312	.0311	5.24	5.21	2,62	2.54
2.	4.39	4.39	2,33	2.27	2.06	2.12	+0147	.167		+167	.0788	.0188	.0188	4,59	4,58	2,52	2.37
3.	3,45	3.45	1,99	1.90	1.46	1.55	.00651	. 460	.00121	•461	.292	.0103	.0103	3.93	3,92	2,40	2,20
4.	2.89	2.89	1.75	1.66	1.13	1+23	.00370	•753	+00496	+758	.537	•00/03	+00/0¢	3.00	3,00	2.50	2.21
5.	2,49	2.49	1.57	1.45	.927	1.04	+00244	1.00	.00972	1+01	+ / 56	.00420	.00420	3.44	3.43	2.65	2.26
	2.20	2.20	1.20	1.30	.600	.727	+00170	1.54	+0151	1.57	1.26	.00301	.00301	3.37	3,37	2.77	2.33
10.	1.63	1.52	1.05			.630		1.85	.0353	1.89	1.53	.00232	.00232	3,42	3,42	2,94	2.43
15.	1.14	1.14	.806	.662	.329	.478	· · · · · · · · · · · · · · · · · · ·	2.40	.0552	2.46	1.96	.00150	.00150	3,60	3,60	3,27	2,62
20.	.912	.912	.662	.518	.249	.394		2.80	.0702	2+87	2.18	.00115	.00115	3.78	3,78	3,53	2.70
30.	. 664	.664	.496	.340	.168	.324		3,34	.0930	3.43	2.43			4.09	4.09	3, 93	2.77
40.	.527	.527	.401	.242	.127	.285		3,73	.109	3.84	2.53			4,37	4,37	4,24	2.73
50.	.440	.448	, 339	.182	+101	.250		+,02	•121	4+14	2,34			4.7K	4.75	4.66	2,47
60.	.379	.379	274	.143	.0619	+230		4.58	.145	4+37	2.53			5.02	5.02	4.95	2.63
100.	.248	.248	.197	.0687	.0512	.179		4.85	.156	5.01	2.48			5.26	5,26	5.21	2,55
<u>10.</u> 15. 20. 30. 40. 50. 60. 80. 100.	1.53 1.14 .912 .664 .527 .440 .379 .299 .248	1:53 1:14 .912 .664 .527 .448 .379 .299 .248	1.05 .806 .662 .496 .401 .339 .294 .235 .197	.900 .662 .518 .340 .242 .182 .182 .143 .0954 .0687	.486 .329 .249 .168 .127 .101 .0849 .0639 .0512	.630 .478 .394 .324 .285 .258 .236 .204 .179		1.85 2.40 2.80 3.34 3.73 4.02 4.24 4.58 4.85	+0353 +0552 +0702 +0930 +109 +121 +130 +145 +156	1+89 2+46 2+87 3+43 3+84 4+14 4+37 4+72 5+01	1,53 1,96 2,18 2,43 2,53 2,53 2,54 2,53 2,53 2,53 2,48	.00232 .00150 .00115	.00232 .00150 .00115	3,42 3,60 3,78 4,09 4,37 4,58 4,75 5,02 5,26	3.42 3.60 3.78 4.09 4.37 4.58 4.75 5.02 5.26	2,94 3,27 3,53 3,93 4,24 4,48 4,66 4,95 5,21	

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30 ZINC (cm³/g = 0.009213 x barns/atom)

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E (MeV)	(声) ^{KN}	(学) ^{BD} inc.t	([#]))nc, a	(声) ^{BD} inc, a	(^µ _p) ^{KN} _{inc,s}	(声) ^{BD} inc, s	(≝) _{coh}	([#] _p) _{*n}	(^世)*e	(ڭ) _{×, t}	([#] _p) _{x,a}	(岸) _{7,1}	([#] _p) _{7, a}	([#]) _{tot,t}	(∰) _{tot,t-coh}	([#]) _{tot,a}	([#] _p) _{tot, en}
	1.93	0.0658	. 000357	-0000128	.182	.00657	5.24					2050.	2050.	2050.	2050.	2050.	2050.
L	.183	.00678	.000364	.0000135	.182	.00677	5.23					1950+	1950.	11000.	11000.	11000.	11000.
1	.183	.00703	.000372	.0000143	.182	.00701	5.21					9670.	9670.	9670.	9670.	9670	9670.
11 ••••••••	•103				••••							13400.	13400.	13400.	13400.	13400	9860.
Lg .001193	. 183	.00863	.000425	+0000201	.182	.00861	5.15					11100.	11100.	11100.	11100.	11100.	11100.
.0015	.182	.0119	.000533	.0000346	.182	.0119	4.99					5890.	5890.	5900.	5890.	5890.	5890.
.002	.182	.0170	.000708	.0000658	.181	.0169	4.72					2620.	2620.	2630.	2020.	852.	852.
.003	.181	0264	.00105	.000153	.181	.0263	4+14					852.	382	387	383.	383.	383.
.004	.181	.0354	.00139	.000272	.180	.0351	3.60					383.	303+	206.	204	204	204.
.005	.181	.0438	.00172	+000419	.179	.0433	3.11					133.	122.	124.	122.	122	122.
.006	.180	.0515	.00205	.000590	.178	.0509	2.70					57.8	51.8	55.9	53.9	53.8	53.8
.008	.179	.0651	.00270	•000986	.176	.0641	2.05					31.2	31.2	33.0	31.3	31.2	31,2
K.009659	.177	.0748	.00322	.00135	<u>,174</u>	.0734	1.65					270.	177.	272.	270.	270	177.
-1		. 74 7		00144	174	.0752	1.58					243.	162.	245	243.	243,	162
•01		.0101	.00332	00247	160	0940	.950					79.2	61.6	80.2	79.3	79.2	61.8
+019	+1/4	+0401	.00+01	.00207	165	104	454					35.7	29.8	36,5	35.5	35.7	29.8
+02	-170	+110	.00016	+00375	157	.117	. 166					11.4	10.1	11.9	11.5	11.4	10.1
+03	.103	123	410860	.00842	.149	121	.229					5.00	4,59	5,30	5,13	5.01	9,0U 7,47
+04	+100	127	+0107	.0106	141	.121	158					2.60	2.42	2,88	2.73	2.01	2.43
+05	122	132	0143	.0123	.136	.120	.116					1,50	1,42	1,75	1,03	1,92	474
•06	• 1 • 1	132	.0146	.0152	.126	.114	.0699					.636	.609	.836	.700	.074	271
.1	136	.127	.0188	.0175	.117	.110	.0461					,324	.313				
115	123	.118	.0222	+0214	.100	.0967	.0215					.0958	.0940	,235	160		0433
.2	112	.110	.0243	.0237	.0881	0860	.0123					+0403	0398	114	109	038	.0380
.3	0977	.0967	.0263	.0261	.0714	.0707	.00561					+0120	40117 00546	0954	0921	0326	.0322
	.0875	.0867	.0271	.0268	.0604	.0599	.00318					•0055	.00343	0844	0825	030	.0302
.5	0799	0794	.0273	.0272	•0526	.0522	.00207					00307	00194	0769	.0755	.0291	.0288
.6	0739	.0735	.0272	.0269	.0468	.0466	+00145					0001755	000986	.0666	.0658	.027	.0273
.8	0650	.0648	,0265	•0263	.0384	.0385	.000820					.000625	.000623	.0593	.0589	026	.0259
1.	.0584	.0582	.0257	.0252	0327	.0330	000525			000404	000125	.0002A7	.000287	.0483	.0480	.024	.0234
1.5	+0474	+0474	.0235	.0230	.0240	+0243	.000239			.00164	.000726	.000173	.000173	.0423	.0422	.023	.0218
2.	+0404	.0404	.0215	+0209	+0190	*0142	+000135	+00134	.0000111	.00425	.00249	.0000949	.0000949	0362	.0361	.0221	.0203
3.	.0318	.0318	+0183	+0175	.0135	0113	.0000341	.00694	.0000457	.00698	.00495	.0000648	.0000647	.0337	,0337	.023	.0203
4.	.0206	+0266	+0101	•0193	.0104	+0115 AAA5P	.0000341	.00921	.0000896	.00931	.00697	.0000488	.0000488	.0323	,0323	.0239	+0204
5.	.0229	.0229	.01.55	+0134	.00039	.00933	.0000157	.0111	.000139	.0113	00881	.0000387	,0000387	.0317	.0316	.0244	.0208
.	.0203	+0203	•0131	+0120	40553	00633		.0142	.080236	.0145	.0116	.0000277	,0000277	.0310	.0310	,025	.0215
8.	.0100	.0100	+0111	.00700	00000	00590		.0170	.000325	.0174	.0141	,0000214	.0000214	,031	<u>,0315</u>	.027	10224
10	-0141		00907	-00029	00303	00440		+0221	.000509	.0227	.0181	.0000138	,0000138	.0332	.0332	.030	.0241
15.	+0102	+0102	.00610	-00477	.00229	.00363		.0258	.000647	.0264	.0201	.0000106	.0000106	.0348	.0346	.032	.0249
20.	.00840	+00040	-00457	.00313	.00155	.00299		.0308	.000857	.0316	.0224			.0371	,0377	.030	0635
30.	.00416	.00484	.00369	.00223	.00117	.00263		.0344	.00100	.0354	.0233			.0403	.0403	.037	L +0255 L ∧2≦î
50.	.0040	-00405	.00312	.00168	.000931	.00238		.0370	+00111	.0381	•0234			.0427	2 .0422	.041	.0244
48.	.00349	.00349	.00271	.00132	.000782	.00217		.0391	.00120	+0403	.0233			.04.38	0430 2440	.042	.0743
80.	00275	.00275	.00217	+000879	.000589	+00188		+0422	+00134	+0435	.0233			.0402	L	.040	.0236
100.	.00228	.00228	+00181	.000633	.000472	.00165		.0447	+00144	.0462	.0228			*****	···+03	• 3 4 0	

31 GALLIUM (barns/atom)

E	(MEV)	σ _{inc,t}	σ ^{BD} nnc,t	⁰ inc, a	σ ^{BD} inc, a	ODC, 8	o ^{BD} o _{inc,s}	ocoh	σ×n	σ _{×e}	σ _{x.t}	σ.,	σ _{r,t}	σ _{r, a}	σ _{tot,t}	ot, t-coh	σ _{tot, a}	Utot, en
	.001	20.5	.761	.0400	.00148	20.5	.760	603.					257000.	257000.	258000.	257000.	257000.	257000.
4111	+001113	20.5		+0++0	+00143	20.05		37/1					1060000.	1050000.	1060000.	1060000.	1060000.	1050000.
L11	•001142	20,5	.933	+0457	.00207	20.5	.931	595.					933000.	924000.	934000.	933000.	933000.	924000.
L	.001300	20.5	1.13	.0519	.00286	20.5	1.13	586.					965000.	957000.	966000.	965000.	965000.	957000.
7													1090000.	1080000.	1090000.	100000.	1090000.	1080000.
	.0015	20.5	1.37	.0598	.00400	20+4	1.37	573.					729000.	724000.	730000.	729000.	729000.	724000+
	.003	20.4	3.04	.118	+0076	20.3	3.02	474.					106000.	106000.	106000.	106000.	106000.	106000.
	.004	20.3	4.01	.156	.0309	20.1	3.98	414.					47600.	47500.	48000.	47600.	47600.	47500.
	.005	20.2	4.91	.194	.0470	20.0	4.86	361.					25300.	25200.	25700.	25300.	25300.	25200.
	.006	20.1	5.75	.231	.0658	19.9	5+68	314.					15200.	15200.	15500.	15200.	15200.	15200.
	.008	20.0	7.22	.303	.109	19.7	7.11	240.					3550.	3550.	3750.	3560.	3560.	3550.
	-010367	19.8		. 385	.169	14.4	8.52	179.					3200	3200.	3390.	3210.	3200.	3200.
		1700	0.07	1303	•107	1 74 1	0002						27100.	17100.	27300.	27100.	27100.	17100.
	•015	19.5	10.7	,539	.296	19.0	10+4	113.					9720.	7240.	9840.	9730.	9720.	7240.
	• 02	19.2	12.2	.691	.440	18.5	11.8	77+1					4370.	3540.	4460.	4380.	4370.	3540.
	•03	18.5	13.7	+964	.713	17.0	13.0	43.0					620	561	1400+	1410+	1400+	562
	+04	17.4	14.7	1.40	1.19	16+7	13.5	18.7					322.	297.	355.	337.	323.	298
	.06	16.9	14.7	1.59	1.38	15.3	13.3	13.7					187.	175.	215.	202.	189.	176.
	.08	16.0	14.5	1,88	1.70	14+2	12.8	8+26					79.4	75.6	102.	93.9	81.3	77+3
	<u>.1</u>	15.3	14.2	2.11	1,96	13.2	12.2	5.44					40.7	39.1	60.3	54,9	42.8	<u>41.4</u>
	•15	13.0	13.2	2.50	2.40	11.3	10.8	2.53					12.0	11.7	27.7	23+2	14+7	14+1
	•2	12.0	12.3	2.12	2.00	9.00	7.80	1+40					1.51	1.49	13.0	12.3	4.46	4.40
	• • •	9.81	9.72	3.04	3.00	6.78	6.72	. 376					.693	.686	10.8	10.4	3.73	3.69
	.5	8,96	8,90	3,06	3.04	5.91	5+86	+244					.390	.387	9,53	9.29	3,45	3.43
	•6	8,29	8.25	3.05	3,02	5+25	5.23	+171					•248	.246	8.67	8.50	3.30	3.27
		7.28	7.26	2,98	2.94	4.31	4.32	+0967					.167	0788	/ 490 4 - 67	6.61	2-96	3,90
	<u>}.</u>	<u>0,77</u>	0.53	2.88	2 60	3.69	2.72	.0288	.0470	· · · ·	+0470	.0146	.0368	.0367	5.42	5,39	2.71	2.64
	2.	4.54	4.53	2.41	2.35	2.13	2.18	.0160	.180		+180	.0850	.0221	.0221	4.75	4.73	2.61	2.46
	3.	3.57	3.57	2.06	1.97	1.51	1+60	+00710	.491	+00125	+492	.312	•0120	.0120	4+08	4+07	2.56	2.29
	4.	2.98	2.98	1.81	1.70	1+17	1.28	+00400	.804	+00512	+809	.572	.00820	.00819	3.60	3,80	2.03	2.28
1	5.	2,58	2.58	1.62	1.50	•958	1.05	+00264	1.07	•0100	1.08		.00620	+00620	3.07	3,69	2.78	2.34
	.	2.28	2+28	1.47	1.34	.620	.757	+00185	1.65	+0156	1.48	1.34	.00353	.00353	3.54	3.54	2.92	2.44
,	0.	1.59	1.59	1.08	.929	.502	.661		1.96	.0364	2.00	1.62	.00270	.00270	3.59	3,59	3.08	2,55
- 1	5.	1.17	1.17	.833	.676	+340	.494		2.57	.0570	2+63	2.09	.00172	.00172	3,80	3,80	3,46	2.77
ź	0.	.942	.942	.684	.528	.258	+14		2.99	+0724	3.06	2.32	.00131	.00131	4.00	4.00	3.75	2.85
3	0.	.686	.686	.512	.349	•173	•337		3,58	•0960	3.68	2.58			4,57	₹.44 A.44	4,19	2,93
<u></u>	0.	.545	.545	414	.246	+131	.279		4,00	+113	4+11	2.69			4.88	4,88	4.78	2.88
2	•	.707		. 304	.146	-105	.246		4.52	.135	4.66	2.67			5.05	5,05	4,96	2.82
- 1	ō.	.309	.309	243	0980	.0460	.211		4.89	.150	5+04	2.66			5,35	5,35	5.28	2.76
10	0.	.257	.257	.204	.0709	.0529	.186		5,20	+160	5+36	2.62			5,62	5,62	5,56	2.69

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3) GALLIUM (cm³/g = 0.008638 x barns/atom)

E (MeV)	(些) ^{KN} 前c, t	([#] _p) ^{BD} _{inc,t}	([#] _p) ^{KN} inc, a	(#) ^{BD} inc,a	(声) ^{KN} inc,s	(چ) ^{BD} inc, 6	([#]) _{coh}	(چ) _{*n}	([#] _p) _{*e}	([#] / _p) _{x,t}	(#)*,a	(#) _{7,t}	([#] _p) _{7,2}	([#]) _{tot, t}	(費) _{tot,t-coh}	([#]) _{tot,a}	(%) _{tot, en}
.001	.177	.00657	.000340	6 .0000128	.177	.00656	5.21					2220.	2220.	2230.	2220.	2220 .	2220 .
LAII +00111	15 .177	•00777	+00038	5 .0000168	+177	.00776	5.16					1680.	1680.	1690.	1680.	1680.	1680.
L _{II} .00114	42 .177	+00806	.00039	5 .0000179	.177	.00804	5.14					9160+ 8060+	9070. 7980.	916 0. 8070.	9160. 8060.	9160. 8060.	9070. 7980.
L _I .00130	•177	• 00 976	.00044	8 .0000247	.177	.00976	5.06					11100+ 8340+	11100. 8270.	11100. 8340.	11100. 8340.	11100. 8340.	11100. 8270.
.0015	.177	.0118	.000517	7 .0000346	.176	.0118	4.95					9420.	9330.	9420.	9420.	9420.	9330.
+002	.177	.0169	.000686	6 .0000456	.176	.0168	4.66					2820.	2800.	2820.	2820.	2820.	2880.
.003	.176	.0263	.00102	+000152	.175	.0261	4.09					916.	916.	918.	916.	916.	916.
•004	.175	•0346	+00135	+000267	.174	.0344	3.58					411.	410.	415.	411.	<u></u>	410.
.005	•174	+0424	+00168	+000406	.173	+0420	3+12					219.	218.	222.	219.	219.	218.
+006	+174	.0497	.00200	.000568	+172	.0491	2.71					131+	131.	134.	131.	131.	131.
.00.	+173	.0624	.00262	.000942	.170	.0614	2.07					58.3	58.2	60.5	58.4	58.3	58.2
	.172	.0733	+00321	.00137	.168	+0719	1.62				·····	30.7	30.7	32.4	30.6	30.7	30.7
K * 01036	•/ •1/1	+0751	,00333	+00146	•108	.0736	1+55					27+6	27+6	29.3	27.7	27.6	27.6
.015	.168	.0924	.00466	-00256	.164	. 0898	. 974					234+	148.	230.	234+	234.	148.
.02	.166	.105	.00597	.00380	.160	.102	. 666					37.7	30.4	33.5	84.0		0Z/5
.03	.160	.118	.00833	.00616	.152	.112	. 371					12.1	10.5	12.4	37.0	37.7	30.0
.04	.155	.124	.0104	.00829	.144	.116	-234					5.36	4.85	5.71	5.48	5.76	10.5
.05	.150	.127	.0121	.0103	.138	.117	.162					2.78	2.57	3.07	2.81	2.78	7.67
.06	.146	.127	.0137	.0119	.132	.115	+118					1.62	1.51	1.86	1.74	1.63	1.62
.05	.138	.125	•0162	+0147	.123	•111	+0713					.686	+653	.881		.702	-448
•1	,132	.123	.0182	.0169	,114	,105	.0470					.352	.338	.521	.474	. 370	.355
•15	•119	+114	.0216	.0207	.0976	.0933	.0219					.104	+101	.234	.218	.125	.122
•2	.109	.106	.0235	.0230	.0853	.0833	·0126					+0440	+0431	•162	.150	.0675	•0661
	.0950	.0933	•0255	+0251	0041	.0682	.00573					.0130	+0129	+112	+106	+0385	• 0380
12	0774	+0840	.0203	+0259	.0300	.0580	.00325					•00377	+00593	• 093	3 .0898	•0322	•0319
.6	0716	.0713	.0263	.0263	0453	0452	.00211					+00337	+00334	+082	3 +0802	.024	10276
.8	0629	.0627	.0257	.0254	.0372	.0373	.000835					.00108	+00412	.044	× •0/3	.0205	• 020Z
1.	.0566	.0564	.0249	+0244	.0317	0320	.000536					.000683	+000681	.057	6 .0571	.0201	
1,3	.0460	.0459	.0227	.0224	.0232	.0235	.000242	.000406		.000406	.000126	.000318	+000317	.046	0 .046		.027
2.	.0392	.0391	.0208	.0203	.0184	.0188	.000138	.00155		.00155	.000734	+000191	+000191	+041	0 .0409	.0225	.0212
3.	.0308	.0308	•017 8	+0170	.0130	.0138	•0000613	+00424	.0000108	.00425	.00270	+000104	+000104	.035	2 +0352	.0221	.0198
<u>*</u> •	.0257	.0257	•0156	+0147	.0101	.0111	+0000346	•00694	•0000442	.00699	.00494	•000070B	+00007 07	.032	8 .0328	. 0227	.0197
5.	.0223	.0223	.0140	.0130	.00828	.00933	.0000228	.00924	.0000864	.00933	.00698	+0000536	.0000536	.031	7 .0317	.0234	.0200
2.	.0197	+0197	+0127	+0116	.00700	.00811	.0000160	.0111	.000135	.0113	.00881	+0000428	+0000428	.031	1 .0310	.0240	.0204
	.0101	+0101	+0107	.00950	.00930	.00654	•0000087	.0143	.000229	.0145	+0116	•0000305	+0000305	.030	6 .0306	.0252	•0211
			+00933	100802	00434	.005/1		.0169	.000314	-0173		.0000233	•0000233	.031	0 031	. 0266	.0220
20.	.00814	.00814	.00591	.00564	00279	+ UU - E/		+ 4266	+000492	.0627	+0101	+000014	+0000147	•032	• • • • • • • • • • • • • • • • • • • •	.0299	•0510
30.	.00501	-00563	-00442	-00301	.00149	. 60291		0230	+000043	+0504	.0200	10004113	*0000113	.034	U .0340 777	.0324	.8246
40.	.00471	.00471	.00354	.00212	.00113	.0025F		.0344	.080974	-0355	.0223			•031 .048	r +03// T .0401	• 0392	• 0253
50.	0039	.00393	.00302	.00162	000907	.00231		.0371	.00108	.0383	.0232			- 042	2 .0493		• 7274
60.	.00339	.00339	.00263	.00126	.000758	.00212		.0390	.00117	.0403	.0231			.043	6 .0436	.0428	.0244
80.	.00267	.00267	.00210	.000847	,000570	.00182		.0422	.00130	.0435	.0230			.046	2 .0462	.0456	
100.	.00222	•00555	.00176	.000612	.000457	.00161		.0449	.00138	.0463	.0226			+048	5 .0485	.0480	.0212

. جانب ^{الر}اد مخال

32 GERMANIUM (barns/atom)

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E (MeV)	KN ⁰ inc, t	σ ^{BD} σ _{inc,t}	o KN	o ^{BD}	oKN oinc, s	σ ^{BD} inc,s	σ _{coh}	σ _{*n} _	σ _{×e}	σ _{×.t}	<u>σ_{*, a}</u>	σ _{r,t}	σ _{r,a}	σ _{tot,t} (tot,t-coh	σ _{tot, a}	tot, en
						757	647.					296000.	296000.	297000.	296000.	296000.	296000.
.001	21.2	•758	.0413	+00148	21.2	1.03	628.					179000.	179000.	180000.	179000.	179000+	179000+
LIII •00121/	e1e	1.03	*030E			••••						948000+	933000.	449000+	9480004	833000.	820000+
LII .001248	21.2	1.07	.0515	•00260	21.1	1.07	626.					1150000+	1130000+	1150000.	1150000.	1150000.	1130000+
L _I .001413	21.2	1.28	.0582	.00352	21.1	1.28	615.					871000+ 983000+	859000+ 970000+	872000+ 984000+	983000+	983000.	970000 •
.0015	21.2	1.39	.0617	.00405	21+1	1.39	609+					829000.	818000.	830000.	829000.	370000+	366000.
.002	21.1	2.01	.0820	.00780	21.0	2.00	572.					370000.	366000+	120000	119000	119000.	118000.
.083	21.0	3.14	122	.0182	20.9	3.12	501+					119000 .	53700.	544004	54000 .	54000 .	53700.
.004	21.0	4.13	.161	.0318	20.8	4+10	438+					28000.	28800	29300 .	28900.	28900.	28800.
.005	20.9	5.04	200	.0483	20.7	4.99	383.					17400.	17300	17700.	17400.	17400.	17300.
.006	20.8	5.88	.238	.0673	20.6	5.81	335.					7750.	7730	8020.	7760.	7750.	7730.
.008	20.6	7.37	.312	.112	20.3	7.26	258+					4090	4080.	4300.	4100.	4090.	4080.
.01	20.5	8.64	, 384	.162	20.1	8.48	2020					3020.	3010.	3210.	3030.	3020.	3010.
r .011104	20.4	9.36	.423	+194	20+0	9+17	1/4+					25100.	15200 .	25300.	25100+	25100+	15200+
					10.6	10.7	122.					10900.	7730.	11000.	ï0900.	10900.	7730+
.015	20.1	11+0	+220	.304	1440	10.1	87.7					4900.	3830.	5000.	4910.	4900+	3030+
.02	19.8	12.5	.713	+451	19+1	12.0	03+2					1580.	1350.	1640.	1590.	1580+	1350.
.03	19.1	14.1	.995	.734	10.1	13+4	20.4					700.	624+	744+	715.	701.	•23.
.04	18.5	14.8	1.24	.987	1/+2	13.0	20.3					370.	338.	405.	385.	371+	337.
•05	18.0	15.1	1.45	1.22	10.3	13.7	14.0					214.	198.	244.	229.	<10+	197.
.06	17.5	15.2	1.64	1.43	15+0	13.2	8.96					91.0	86+0	115+_	106.	-2.9	07+0
.05	16.6	15.0	1.94	1.10	17.6	12.6	5.90					47.0	44.9	67.5	01.0		14.1
•1	15.8	14.8	2.10	2.01	-13.0	12.00	2.75					14.0	13+6	30.4	27.0	10.0	8.54
.15	14.2	13.0	2,50	2.447	10.2	0.05	1.58					5.92	5+79	20+2	10+0	4.80	4.71
•2	13.0	12.1	2.01	2 99	8.26	8.11	.720					1+75	1+72	13+0	10.8	3.94	3.88
•3	11.3	11+1	3,05	3 09	7.00	6.91	.408					+802	• 793	11+4	0.64	3.61	1.59
• • • •	10.1	10.0	3.16	3.14	6.10	6.05	. 265					• 453	+447	7.71	8.80	3.44	3.39
• ?	7.67	7.17	3.15	1.11	5-41	5.40	•185					•287	•207	7.74	7.63	3.21	3.17
	7 89	7.49	3.07	3.03	4.44	4.46	+104					•1•3		6.90	6.83	3.06	3.00
,*°	6.74	6.74	2.97	2.91	3.79	3,83	.0670					+0421	.0430	5.60	5.57	2.01	2.72
+ <u>+</u>	5.49	5.48	2.72	2.66	2.77	2+82	.0302	.0502		+0502	.0120	•0+J1	.0260	4.92	4.90	2.71	2.54
2.	4.68	4.68	2.49	2.42	\$.20	2.26	+0173	+192		•192	.0904	.0161	.0141	4.23	4,22	2.66	2.38
3.	3.68	3.68	2,12	2.03	1.56	1.65	.00770	.528	+00129	+327	616	.00946	.00945	3.96	3,95	2.74	2.38
4.	3.08	3.08	1.87	1,76	1.21	1.32	.00432		.00527	1.15	.850	.00717	.00716	3.82	3,82	2.83	2.41
5.	2.66	2.66	1.67	1.54	. 989	1+12	+00285	1.12	-0103	1.19	1.08	.00570	.00570	3.75	3.75	2+91	2.47
6.	2.35	2.35	1.51	1.38	.836	•971	+00201	1.37	.0273	1.78	1.42	.00407	+00407	3.71	3.70	3.06	2.55
8.	1.92	1.92	1,28	1.13	+640	.787	+00112	1.10	\$374	2.14	1.71	.00312	.00312	3.78	3,78	3.20	
10.	1.64	1.64	1,12	.951	.518	.689	<u> </u>	2.77	- 0590	2.79	2.21	+00199	+00199	4.00	4.00	3.07	2.70
15.	1.21	1.21	.860	.693	•351	+517		2.18	.0748	3.25	2.45	+00151	+00151	4+22	4.22	3.90	2179
20.	.972	.972	.707	.542	.200	+4.30		3.80	.0990	3.90	2.73	+00101	+00101	4+61	4+61	4.43	3+07
30.	.708	•708	.529	.355	+179	• 353		4.75	.117	4.37	2.84			4+93	4.93	4.89	3+07
40.	.563	.563	.428	.253	•135	• 310		4.57	128	4.70	2.84			5+17	5.17	5.00	3.03
50.	.470	•470	.362	+191	+108	+217		4.80	.139	4.94	2.81			5+34	5.34	2,52	2.70
60.	.404	.404	+314	.149	+0905	.219		5.19	155	5.34	2.81			5+66	2+80	5+71	
80.	.319	.319	•291	.0449	+ 4001	192		5.50	.165	5.66	2.76			5.92	5.72	3+81	2.03
100.	.265	• 265	•210	+0159	*1240	+17E			••								

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32 GERMANIUM (cm²/g = 0.008297 x barns/atom)

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E (MeV)	(声) ^{KN} ioc,t	([#]) _{)nc,t}	(분) KN inc, a	(声) BD (声) inc, a	(≝) ^{KN} inc, s	([#]) _{inc,s}	([#] _p) _{coh}	([#] _₽) _{*n}	([#] _p) _{* e}	([#] _p) _{x,t}	(#) _{×,a}	(券) _{7,1}	([#] _p) _{7, a}	([#]) _{tot, t}	(岸) _{tot,t-coh}	([#] _p) _{tot,a}	([#]) _{tot, en}
.001 L _{III} .001217	•176 •176	.00629 .00855	.000343 .000417	•0000123 •0000202	.176 .175	.00628 .00855	5.33 5.21					2460 • 1490 •	2460. 1490.	2460. 1490.	2460. 1490.	2460. 1490.	2460. 1490.
L _{II} .001248	•176	•00888	.000427	.0000216	.175	.00888	5.19					7870. 6910.	7740. 6800.	7870. 6920.	7870. 6910.	7870. 6910.	7740. 6800.
L _I .001413	.176	+0106	.000483	.0000292	.175	.0106	5.10					9540. 7230.	9380. 7130.	9540. 7230.	9540. 7230.	9540. 7230.	9380. 7130.
.0015	.176	.0115	+000512	.0000336	.175	.0115	5.05					6580.	8050. 6790.	8160 .	8180. 6880.	8180. 6880.	6798.
-002	.175	.0167	.000680	.0000647	.174	.0166	4.75					3070.	3040.	3080.	3070.	3070.	3040.
+003	•174	•0261	+00101	•0001 5 1	.173	.0259	4.16					987.	979.	996.	987.	987.	979.
.004	+174	.0343	.00134	+000264	.173	.0340	3.63					448.	446.	451.	48,	448	446,
•007	.173	+0418	+00166	+000401	.172	+0414	3.18					240.	239.	243.	240.	240.	239.
•00•	.173	.0485	.00197	.000558	+171	•0482	2.78					144.	144.	147.	ī44.	144.	144.
	•171	.0811	•0259	•000929	.168	• 0602	2.14					64.3	64+1	66.5	64.4	64.3	64.1
*	- 170	.0717	+00319	.00134			1.65				<u> </u>	33.9		35.7	34.0		
~			*00331	+00101	•100	*****	1					208.	124	20.0	25.1	27,1	27,0
.015	.167	.0913	.00461	.00252	.163	.0888	1.01					90.4	64.1	67.3	200.	200.	64.1
.02	-164	.104	.00592	.00374	.158	.0996	.690					40.7	31.6	A1.5	40.7	A0 7	31.6
.03	158	.117	.00826	. 80609	.156	.111	. 386					13.1	11.2	13.6	11.2	13.1	11.2
.04	.153	.123	.0103	.00819	.144	•114	.244					5.81	5.18	6.17	5.93	5.82	5.19
.05	.149	.125	•0120	•0101	.137	.115	.168					3.07	2.80	3.36	3.19	3.08	2.81
•06	-145	.126	•0136	.0119	.131	+114	.124					1.78	1,64	2.02	1.90	1.79	1.65
.08	.136	+124	.0161	+0146	•151	•110	+0743					.755	.714	.954	.879	.771	728
•	<u> </u>	. 121	+0181	+0187	<u>,113</u>	+105	.0490						.373				
•15	•115	•113	.0214	.0205	.0962	.0921	.0228					.116	,113	. 252	.229	,136	•134
• 2	.0038	+105	+0233	• 0228	.0840	.0820	+0131					•04 9 1	.0480	•168	• 154	.0724	.070
• •	.0838	.0830	10255	• • • • • •	+0005		+00577					-0143	.0143	.113	.100	,037	.037
	.0767	.0762	.0262	.0261	.0506	-0502	.00339					00376	+VUC78	+072	· · · · · · · · · · · · · · · · · · ·	.034	.0327
	.0710	.0706	.0261	.0258	.0449	.0448	.00153					.00238	00236	074	E ,0008	.0300	
.8	.0624	.0621	.0255	.0251	.0368	.0370	.000863					.00120	.00119	. 064	2 .0633	126/	6 0261
1.	.0561	0559	.0246	.0241	.0314	.0318	.000556					000764	000761	.057	2 .0567	. 6254	
1.5	+0456	+0455	+0226	.0221	.0230	.0234	.000251	+000417		.000417	.000129	.000358	.000357	.046	5 .0462	.0231	.022/
2.	.0388	.0388	.0207	•0201	.0183	.0188	+000144	.00159		.00159	.00075	.000217	.000216	.040	8 .0407	.0221	5 .021
3.	.0305	.0305	+0176	.0168	.0129	.0137	+0000639	.00438	.0000107	.00439	.00278	.000117	.000117	.035	1 .0350	. 0221	0191
4.	.0256	.0256	.0155	+0146	.0100	•0110	+0000358	•00713	+0000439	+00717	•00506	.0000785	.0000784	.032	9 .0328	. 0221	7 .0191
2.	.0221	•0221	•0139	.0128	.00821	.00929	.0000236	+00946	+0000855	.00954	.00713	.0000595	.0000594	.031	7.0317	0235	5 .0200
••	.0195	+0195	•0125	+0114	.00694	.00808	.0000167	+0114	+000134	•0115	.00896	.0000473	.0000473	.031	1 .0311	.0241	L .020
	0134	+0177	+0108	•00438	.00531	+00873	•0000043	+0145	+000227	+0148	+0118	.0000338	.0000358	.030	8 .0307	.0254	.021
15.	.0100	.01.90	-00729	.00709	00430	-00372		-01/4	1000312			0000259	.0000239	031			
20.	.00806	.00806	+00714	.00450	.00271	.00357		+ 0221	.000470	.0231	+0183	.0000125	.0000105	.035	C +033C	.0301	-024
30.	.00587	+00587	.00439	-00295	.00149	.00293		.0315	.000821	.0324	.0227	.00000840	00000	.035	2 .0350	.0361	
40.	.00467	.00467	.00355	.00210	.00112	.00257		.0353	+000971	.0363	.0236					.0394	.0254
50.	.00390	.00390	.00300	.00158	.000896	.00231		.0379	.00106	.0390	.0236			.042	9 .0429	0420	
60.	.00335	.00335	.00261	+00124	.000751	.00212		.0398	.00115	.0410	.0233			.044	3 .0443	.0436	.0244
80.	.00265	+00265	•00Z08	+000828	+000565	.00182		+0431	.00129	.0443	.0233			.047	0 .0470	.0464	.0241
100.	.00220	•00220	+00174	•00060Z	+000453	.00159		+0456	.00137	•0470	.0229			.049	1 .0491	.0487	.023

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33 ARSENIC (barns/atom)

E (MeV)	$\sigma_{\rm inc,t}^{\rm KN}$	σ ^{BD} _{inc,t}	0 ^{KN} 0)nc, a	o ^{BD}	OKN Oinc, s	o ^{BD}	σ _{coh}	σ×n	σ×e	σ _{×.t}	<u>σ_{×, a}</u>	σ _{r,t}	σ _{r, a}	σ _{tot,t}	⁰ tot,t-coh	σ _{tot, a}	σ _{tot, en}
.001	21.9	.722	.0426	.00141	21.8	.721	684 .					338000.	338000.	330000	338000	338000	338000
LTTT .001323	3 21.8	1.13	.0562	.00291	21.8	1+13	662.					165000.	165000.	166000.	165000.	165000.	165000.
1 001269	21 8						(Fo					853000.	836000.	854000.	853000.	853000.	836000.
"II •001399	21.0	1+17	+03//	+00304	21.0	1+17	924+					747000.	732000.	748000.	747000.	747000.	732000.
.0015	21.8	1.36	.0637	.00397	21.8	1.36	648.					825000	810000	826000	825000.	825000.	810000.
L, .001538	21.8	1.39	.0649	.00414	21.8	1.39	646.					790000.	776000.	791000.	790000.	790000.	776000.
.002	21.8	3				1 00	4.0.0					892000.	876000.	893000.	892000.	892000.	876000.
.003	21.7	3,18	.126	.0184	21.6	3.16	530.					421000.	415000.	422000.	+21000.	421000.	415000.
.004	21.6	4.24	.166	.0326	21.4	4.21	463.					61800.	61400.	62300.	41800.	A1800.	63480
.005	21.5	5.17	.206	.0495	21.3	5.12	405.					33100	32900	33500.	33100.	33100.	32900
• 006	21.4	6.03	.246	•0690	21.2	5+96	356 •					19900.	19800.	20300.	19900.	19900.	19800.
.008	21.3	7.53	.322	•114	21.0	7+42	276.					8910.	8880.	9190.	8920.	8910.	8880.
K -011867	21.1	9.61		.105	20.7	8.04	217.					4710.	4700.	. 4940.	4720.	4710.	4700.
	2110				2000	,,,,,	2114					23400.	13600.	23600	20/0.	2860.	2850+
.015	20.8	11.2	.574	.310	20.2	10.9	131.					12200.	8180	12300	12200	12200	\$180.
•02	20.4	12.7	.736	.458	19.7	12+2	89+5					5480	4120.	5580.	5490	5480.	4120.
•03	19.7	14.4	1.03	•749	18.7	13.7	50.2					1770.	1480.	1830.	1780.	1770.	1480.
.05	19.1	12.2	1.49	1.25	17.8	14+2	31+8					790.	692.	837.	805.	791.	693.
.06	18.0	15.6	1.69	1.46	16.3	14.1	16.1					744.	274.	43 8. 276.	434. 260.	+20.	246
.08	17.1	15.4	2.00	1.80	15.1	13.6	9.69					103.	- 96.6	128.	118.	105.	98.4
•1	16,3	15.0	2.24	2.07	14.0	12.9	6.39					54,0	51,3	75.4	69.0	56,2	53.4
-15	14.6	14.0	2,66	2.54	12.0	11.5	2.98					16.0	15.5	33.0	30.0	18.7	18.0
	13.4	11.6	2.90	2.81	10.57	10.2	1+71					2.02	0,50	21.4	19.7	9.03	9.37
	10.4	10.3	3.24	3.18	7.21	7.12						.920	1.77	11.7	11.2	5.10	5.07
.5	9,54	9.47	3,25	3,23	6.29	6.24	.287					.520	.515	10.3	9,99	3.77	3.75
.6	8,83	8,78	3.24	3,21	5.58	5.57	.200					.330	.327	9,31	9.11	3,57	3,54
	7.75	7.73	3.17	3.13	4.58	4.60	•113					.168	•167	8.01	7.90	3.34	3.30
<u>†*</u>		5.65	2.80	2.75	2.86	2,90				.0540	0167		.0492			3+17	3.10
2.	4.83	4.82	2.56	2.49	2.27	2.33	-0186	.205		.205	.0966	.0301	.03.00	5.07	5.06	2.80	2.62
3.	3,80	3.80	2,19	2.09	1.61	1.71	.0083	.560	.00133	+561	.355	.0165	.0165	4.39	4,38	2.77	2.44
4.	3,17	3.17	1.93	1.81	1.25	1.36	+00465	.912	+00545	.917	+647	.0110	.0110	4.10	4,10	2,86	2.47
5.	2.74	2.74	1.72	1+59	1.02	1+15	•00306	1.22	+0107	1.23	.917	.00828	.00827	3.98	3.98	2.96	2.52
.	1.98	2.42	1.32	1.16	.660	-816	+00210	1.85	+0100	1.80	1.50	.00000	.00037	3,90	3,90	3,04	Z. 97
10.	1.69	1.69	1.15	.977	.534	.713		2.22	.0387	2.26	1.82	.00358	.00358	3.95	3,95	3.41	2.60
15.	1,25	1.25	.887	.712	.362	.537		2,90	+0609	2.96	2.34	.00228	.00228	4.21	4.21	3,85	3.05
20.	1.00	1.00	.729	.553	•274	•447		3.37	.0770	3.45	2,59	.00172	.00172	4.45	4,45	4,18	3,14
30.	.730	.730	+545	.365	+184	+365		4.01	·102	4+11	2.85	.00115	.00115	4.84	4.84	4.66	3.22
4V. 50.	. 38 0	+ 150 . A 8A	. 171	.195	+139	+ 321		₹ ,50	+120	4+62	2.98			5.20	5,20	5,00	3,24
60.	417	.417	.324	.153	.0934	.264		5.10	.143	5.24	2.96			5,66	5,66	5,56	3.11
	.329	.329	.259	.102	.0703	.227		5.50	.159	5.66	2.95			5.99	5.99	5.92	3.05
100.	.273	.273	.217	.0743	.0563	+199		5.83	•170	6+00	2.89			6.27	6,27	6.22	2.96

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33 ARSENIC (cm³/g = 0.008038 x barns/atom)

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E (MeV)	([#]) ^{KN} _{inc,t}	(%) ^{BD} _{inc,t}	(声) _{nc,a}	(声) _{nc,a}	(≝) ^{KN} inc,s	([#] _p) ^{BD} _{inc,s}	([#]) _{coh}	(ل ه)» _n	(≝) _{×e}	(چ) _{×, t}	(변) x, a	(岸) _{千, t}	([#]),, <u>a</u>	(券) _{tot,t}	([#]) _{tot,t-coh}	([#]) _{tot, a}	(%) _{tot. en}
.001	.176	.00580	.000342	.0000113	.175	.00580	5.50					2720.	3724	3730	3736		3734
L ₁₁₁ .00132	3 .175	.00908	+000452	• • • • • • • • • • • • • • • • • • • •	.175	.00908	5.32					1330.	1330.	1330.	1330.	1330.	1330.
LTT .00135	9 .175	.00940	.000464	.0000248	.175	.00940	5.30					6860.	6720.	6860.	6860.	6860.	6720.
					•••		5430					6000+	5880.	6010.	6000.	6000.	5880.
.0015	.175	.0109	.000512	.0000319	.175	.0109	5.21					6630.	6120.	5650.	8280+	8280.	B120+
T +00123	• • 1 / 5	.0112	•000522	• • • • • • • • • • • • • • • • • • • •	. 175	.0112	5.19					6350.	6240.	6360.	6350.	6350.	6240.
•002	.175	.0161	.000679	.0000624	.174	.0160	4.89					7170.	7040+	7180.	7170.	7170.	7040.
.003	.174	.0256	+00101	+000148	.174	.0254	4.26					3380+	3340+	3390.	3380.	3380.	3340.
•004	+174	.0341	+00133	.000262	.172	.0338	3.72					497.	494.	501.	497.	497.	494.
.005	.173	-0418	+00166	.000398	+171	+0412	3.26					266.	264.	269.	266.	266.	264.
.008	.171	.0605	.00259	.000935	.169	.0596	2.22					160.	159.	163,	160.	160.	159.
.01	.170	.0708	.00318	.00133	.166	.0694	1.74					71+0	71.4	73.9	71.7	71.6	71.4
K .01186	,169	.0790	.00373	•00174	,165	.0772	1.42					23.0	22.9	24.5	23.1	23.8	22.9
.015	.167	. 090 0	.00461	.00249	.162	. 88.76	1.05					188.	109.	190.	166.	166 ,	109.
.02	.164	.102	.00592	.00368	.158	.0981	.719					98+1	65.8	98.9	98-1	98.1	65+8
.03	.158	.116	.00828	.00602	.150	.110	.404					44.0	33.1	44.9	44+1		33.1
•04	+154	.122	.0102	.00812	+143	.114	.256					6+35	5.56	6.73	6.47	4.14	5.57
-05	.145	+ 127	.0120	+0100	.137	+114	•176					3.37	3.04	3.67	3.49	3.38	3.05
.08	.137	•124	+0161	-0145	.121	.109	+129				•	· 1•96	1.80	2.22	5.08	1.90	1+81
•1	.131	• 121	.0180	.0166	,113	.104	+0514					+ 828 - 4 3 A	.776	1.03	. 748	- 644	•791
•15	-117	.113	+0214	+0204	.0965	.0924	.0240					+129	+125	.285	.241	4156	
.3	.0940	.0974	+0233	.0220	.0844	.0820	.0137					+0541	.0527	.172	.158	.0774	.0753
.4	.0836	.0828	.0260	.0256	.0580	.0572	+00820					+0162	+0160	+115	•109	.0415	.0409
.5	.0767	.0761	.0261	.0260	.0506	.0502	.00231					+00739	+00731	.094	•0900	• 0334	+0329
• 6	.0710	•0706	.0260	• 0258	.0449	.0448	.00161					.00265	.00263	.0741	.0732		.0301
1.	-06560	-0621	+0277	+0252	.0368	.0370	+000908					.00135	+00134	.064	.0635	.0268	.0265
1.5	.0455	.0454	+0225	.0221	.0230	.0233	+000264	.000434		000474	0001 74	+000844	+000836	.057	.0567	.0295	+0249
2.	.0388	.0387	+0206	.0200	.0182	.0187	.000150	.00165		.00165	.000776	.000397	+000395	.040	.0402	.0233	.0227
3.	.0305	.0305	+0176	.0168	.0129	.0137	.0000667	.00450	.0000107	.00451	.00285	+000133	+000133	.0353	.0352	.0223	.0798
5.	-0233	• 0275	•0175	+0145	.0100	•0109	.0000374	.00733	.0000438	.00737	.00520	.0000884	.0000884	.033	.0330	. 6230	•0199
6,	.0195	0195	.0125	.0114	.00694	.00884	+0000240	+00981	+0000880	.00989	.00737	+0000866	+0000665	•0320	-0320	.0238	+0203
8.	.0159	.0159	.0106	.00932	.00531	.00656	.000098	+0149	.000227	.0151	•0121	.0000378	.0000330	+031	•0313	.0244	+0207
10.	-0136	.0136	•00924	.00785	,00429	.00573		.0178	.000311	.0182		.0000288	.0000288	.0316	.0318	.0274	.0225
20.	.00804	-0100	+00/13	+00572	.00291	•00432		•0233	.000490	.0238	.0168	.0000183	+0000183	.0331	.0336	.0309	+0245
30.	.00587	.00587	+0043A	.00293	.0014B	.00293		.01271	+000619	.0277	+0208	+0000138	+0000138	• 0 356	+0356	.0336	.0252
40.	.00466	.00466	.00354	.00208	.00112	.00258		.0362	.000965	.0371	.0240	+UUUQ0920	+00000920	• 030 1	.0389	.8375	+0259
70.	.00389	.00389	.00300	.00157	.000900	•0023z		•0390	.00106	.0400	.0240			.0439	.0439	.0430	+0260
80.	.00335	.00264	.00260	+00123	.000751	.00212		.0410	.00115	.0421	.0238			.045	.0455	.0447	+0250
100.	.00219	.00219	-00174	.000597	.000453	-00162		+0442	.00128	+0455	.0237			.048]	.0481	.0476	.0245
								*****	*****	* U- 95	+U#32			• 0584	• • • • • • • • • • • • • • • • • • • •	.0500	+0238

34 SELENIUM (barns/atom)

E (MeV)	σ _{inc,t}	σ ^{BD} _{inc,t}	o ^{KN} inc,a	σ ^{BD} inc, a	o ^{KN}	σ ^{BD} _{inc,s}	σ _{coh}	σ×n	σ _{×e}	σ _{x_t}	σ.,	σ _{r,t}	σ _{r,a}	σ _{tot,t}	ot,t-coh	σ _{tot,a}	σ tot, en
.001	22.5	.700	.0439	.00136	22.5	.699	727.					389000.	389000.	390000.	389000.	389000+	389000+
LIII .001434	22.5	1.24	.0627	.00346	22+4	1.24	695.					153000.	153000+	174000+	771000.	771000.	751000.
1 .001475	22.5	1.30	.0645	-00373	22.4	1.30	691.					673000.	656000.	674000+	673000.	673000.	656000 .
TI		1.724										930000.	907000+	931000.	930000.	930000+	907000.
.0015	22.5	1.33	.0656	.00388	22.4	1.33	689.					894000+	872000.	895000+	894000.	594000 .	872000+ 783000+
L _I .001652	22,5	1.53	•0721	.00491	22+4	1.53	677.					719000+	705000+	814000+	B1 3000.	813000.	795000.
.082	22.4	1.99	.0871	.00772	22.4	1.98	647.					476000.	467000.	477000.	476000.	476000+	447000-
.083	22.4	3.23	.130	.0187	22.2	3.21	562.					154000.	152000.	155000.	154000.	154000+	152000.
.004	22.3	4.34	171	.0334	22.1	4.31	489.					69500.	68800.	70000+	69500.	93200+	37000
.005	22.2	5.32	212	.0510	22+0	5.27	428.					37300.	37000.	37700.	37300.	37300+	377000
.006	22.1	6.20	253	.0710	21.8	6+13	377.					22400.	22300.	22800.	22+00.	22400+	GBKA.
.008	21.9	7.72	332	.117	21.6	7.60	295.					10000+	9950.	10300+	10000.	E310.	5280.
.01	21.8	9.01	408	.169	21.4	8.84	233.					5310.		2220+	2720.	2710.	2700.
x .012658	21.4	10.4	.507	. 244	21.1	10.2	176.					2710.	2700+	22000	21800.	23800.	12200.
		•• •				ī	141.					21800+	B460.	13700.	13500.	13500.	8460.
*012	21.4	11.4	.591	+315	20.0	11+1	1414					6100.	A390.	6210.	6110.	6100+	4390+
• 02	21.0	13.0	•758	.409	20.3	12.0	70+2					1990.	1620.	2060 .	2000.	1990.	1620.
•03	20.3	14.7	1.00	/05	19.3	13.2	24+1					890.	745.	940 .	905.	89j.	766 •
•04	19.7	12.3	1.31	1.03	10.7	14.5	21.7					A70.	417.	510.	486.	472+	418.
• 95	19.1	19.9	1.74	1.20	17.0	14.0	17.4					276.	250.	309.	292.	278.	2521
•06	1	16.0	1.74	1.50	16.6	13.9	10.5					118.	110.	144.	134.	120 +	112.
• 0 8	11.0	12.0	2,00	2 14	14.4	13.4	6.90					61.3	57,9	83.7	76.8	63.6	60.0
	15.1	14.4	2.74	2.61	12.3	11.8	3.22					18.3	17.6	35.9	32.7	21.0	20.5
.13	13.4	13.4	2.99	2.90	10.8	10.5	1.85					7.75	7.53	23.0	21+1	10.7	10.4
.3	12.0	11.8	3.24	3,18	8.78	8.62	• 842					2.32	2.28	15+0	14+1	5.50	2.40
	10.8	10.7	3,34	3.31	7.43	7.39	•478					1.06	1.05	12.2	11+0	3.95	3.92
.5	9,83	9.76	3,35	3,33	6.48	6.43	• 310					•600	+593	10+7	9.42	3.72	3.69
.6	9,09	9.04	3,34	3,31	5.75	5.73	•217					• 360	+370	8.28	8.15	3.46	3.41
	7.99	7.96	3.27	3.22	4.72	4.74	+122					• [7 7	-120	7.36	7.28	3.28	3.21
1.	7,18	7.16	3,16	3.09	4.02	4.07		AE7.		AE 78	.0179	+153	.0570	5.97	5.93	3.00	2.90
1.5	5.83	5.82	2.89	2.83	2.73	2.477	.0201	.220		.220	104	.0349	.0348	5.24	5.22	2.89	5.10
2.	4.97	4.97	2.04	2.30	1.65	1.76	.00896		.00137	.601	.380	.0190	.0190	4.54	4.53	2.66	2,55
3.	3,71	3,71	1.98	1.86	1.29	1.41	.00500	.970	.00561	.976	.687	.0126	+0126	4.26	4.26	2.97	2,30
	2.82	2.82	1.77	1.63	1.05	1.19	.00328	1.29	.0110	1.30	.968	•00950	+00949	4+13	4+13	3.00	2.01
5	2.50	2.50	1.41	1.46	.889	1.04	+00231	1.55	.0172	1+57	1.21	+00755	+00754	4+08	4.00	3.17	2100
	2.04	2.04	1.36	1.20	.680	.843	+00133	1.97	.0291	2.00	1.59	•00932	+00532	4.05	4+03	3.58	2.92
10.	1.74	1.74	1.19	1.00	.550	.739		2.35		2,39			100407			4.07	3.21
15.	1.29	1.29	.914	.731	.373	.559		3.09	+0626	3+15	2.48	+00260	.00198	4.68	4.68	4.48	3.29
20.	1.03	1.03	•751	.566	.283	•463		3.57	+0794	3+05	2+72	+00175	.00170	5,11	5.13	4.94	3-39
30.	.752	•752	.562	.373	.190	•379		.27	+105	9+35	3.15	•00130	100120	5.50	5.50	5-35	3.41
40.	.598	.598	.454	• 264	.143	•334		4.75	+ 123	5,20	3+15			5.79	5.79	5-67	3.35
50.	•499	.499	.384	.200	+115	•544		2+12	+130	3+27 6.66	3.11			5.98	5.98	5.86	3.27
60.	.430	.430	.334	+150	.0902	.274		7.70	.163	5.07	3.08			6.31	6.31	6.24	3.18
80.	.339	.339	.207	.105	-0724	+237		6.20	.175	6.37	3.04			6+65	6.65	6.59	3+12
100.	•295	•282	.263	*0.41	+0390	1200											

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34 SELENIUM (cm³/g = 0.007627 x barns/atom)

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E (MeV)	(≝) ^{KN} inc,t	([#] _p) ^{BD} _{)nc,t}	([#]) ^{KN} inc,a	([#] _p) _{nc,a}	(♯) ^{KN} (☞) _{nc, s}	(♯) ^{BD} inc,s	(#) _{coh}	([#] _p) _{*n}	(<u>∦</u>) _{×e}	(^{یل}) _{×,1}	(#) _{*, a}	(岸) _{て,t}	(변), a	(紫), o, ,	(변)	(#)	(5)
+001 Leve +00143	.172	.00534	.000335	5 .0000104	.172	.00533	5.54					2970.	2970.	2970.	2070.		2070.
1				••••••20+	•1/1	+00448	5,30					1170.	1170.	1170.	1170.	1170.	1170.
LII +00147	·5 •172	•00992	+000492	•0000284	.171	.00992	5.27					5880+ 5130-	5730+ 5000-	5890.	5880 +	5880.	5730 -
.0015	.172	+0101	.000500	.0000296	.171	.0101	5.26					7090.	6920.	7100.	7090.	7090.	5000+
L ₁ .00165	iz .172	+0117	+000550	.0000374	.171	.0117	5.16					6820.	6650.	6830.	6820.	6820.	6650.
.002	.171	.0152	.000664		171	A1 E1	4 63					6200+	5300.	5490.	5480.	5480.	5360.
.003	.171	+0246	+000992	.000143	.169	.0245	4,93					3630.	3560.	3640.	3630.	3630.	3560.
•004	.170	.0331	.00130	+000255	.169	.0329	3.73					1170.	1160.	1180.	1170.	1170.	1160.
•005	.169	+0406	+00162	.000389	.168	.0402	3.26					284.	282.	534.	530.	530.	525.
.008	.167	+0473	+00193	.000942	+166	+0468	2.88					171.	170.	174.	171.	171.	2020
.01	.166	.0687	.00311	+00129	.163	.0674	2.25					76.3	75.9	78.6	76.3	76.3	75.9
K +01265	8 ,165	+0793	.00387	+00186	.161	.0778	1.34		· ·· ·· ··			40.5	40.3	42.3	40,6	40.5	40.3
.015	.163	.0869	+00451	.00240	.159	0947						166.	93.0	168.	20.7	20.7	20.6
.02	.160	.0992	.00578	.00358	.155	.0953	1.08					103.	64.5	104.	103.	103.	54.5
.03	.155	.112	.00808	.00583	.147	.106	.413					46.5	33.5	47+4	46.6	46.5	33.5
-04	+150	+118	+00999	•00786	.140	•111	.262					13+2	12.4	15.7	15.3	15.2	12.4
.06	.142	.122	+0117	+00976	.134	•111	.181					3+58	3.18	3.89	3.71	8.80	5+84
•08	+134	·121	.0157	•0141	.118	.106	+133					2+11	1+91	2.36	2.23	2.12	1,92
<u>•1</u>	.128	.118	+0176	.0163	.110	.102	.0526					+900	•839	1.10	1.02	.915	+854
•15	+115	.110	+0209	+0199	.0938	.0900	.0246					•140			•586	.485	.458
.3	.0915	•0900	+0247	+0221	.0824	+0801	+0141					+0591	.0574	.175	•247	• 169	+154
• •	.0824	.0816	+0255	+0252	.0567	+0564	+00042					+0177	+0174	+114	.108	.0424	.0416
•5	+0750	+0744	•0256	.0254	.0494	.0490	.00236					+00808	+00801	+0930	+0900	•0336	+0333
.8	.0609	+0689	+0255	+0252	.0439	+0437	.00166					+00290	+00287	+0010	+0793	+0301	+0299
1.	.0548	.0546	+0241	.0236	.0307	+0362	+000930					.00149	+00148	.0632	.0622	• 0204	+0201
1.5	+0445	+0444	+0220	+0216	.0225	.0228	+000268	.000441		000441	000177	.000923	.000915	+0561	.0555		
3.	.0379	+0379	.0201	•0195	.0178	.0184	.000153	+00168		.00168	+000137	+000436	+000435	+0455	+0452	.0229	+0221
Ā.	.0249	.0249	+0172	+0104	+0126	.0134	.0000683	.00458	+0000104	.00458	.00290	+000145	+000145	.0346	.0346	.0220	.0206
5.	.0215	.0215	.0135	.0124	.00801	.00908	.0000381	+00740	+0000428	.00744	.00524	+0000961	+0000961	.0325	.0325	.0227	•01 74
6.	.0191	.0191	.0123	.0111	.00678	.00793	.0000176	.0118	.000131	.0120	+00736	+0000725	+0000724	•0315	+0315	.0235	.0199
10.	.0133	.0156	+0104	.00915	.00519	.00643	.0000101	.0150	.000222	.0153	.0121	+0000406	+0000575	•0311	.0311	+0243	+0204
15.	.00984	.00984	.00697	+00/03	.00284	.00584		-0179	.000305	-0182	.0146	.0000312	.0000312		.0315	.0273	·0214
20.	.00786	.00786	.00573	.00432	.00216	.00353		+0236	+000477	+0240	.0189	+0000198	.0000198	.0339	.0339	.0310	.0245
30.	+00574	+00574	+00429	.00284	.00145	.00289		.0326	.000801	.0334	.0230	*0000144	+0000149	.0357	.0357	.0336	.0251
50.	.00381	+00456	.00293	+00201	.00109	.00255		.0365	.000938	.0374	.0240		••••••	.0419	+0391	.0377	.0259
60.	.00328	.00328	+00255	.00119	.000734	.00209		.0393	.00104	.0403	.0240			.0442	.0442	.0432	+0200
80.	.00259	.00259	+00204	.000801	.000552	.00178		.0443	+00112	.0423	.0237			+0456	+0456	+0448	.0249
100*	.00215	•00215	.00170	•000580	.000442	.00157		.0473	.001 33	.0486	.0232			+0481	+0481	.0476	.0243
									-					+0507	+0507	•0503	+0238

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35 BROMINE (barns/atom)

1	E (MeV)	σ _{inc,t}	$\sigma_{inc,t}^{BD}$	σ)nc,a	o ^{BD}	KN Øinc,s	σ ^{BD} σinc,∎	σ _{coh}	σ×n	σ×e	σ _{×.t}	<u>σ_{*, a}</u>	σ _{τ,t}	σ _{τ, a}	σ _{tot,t}	tot, t-coh	σ _{iot, a}	o _{tot, en}
		21.2	. 479	.0452	.00132	23.1	.678	772.					445000.	445000.	446000.	445000.	445000+	445000+
	.0015	23.1	1.31	.0675	.00382	23.1	1.31	733.					155000.	155000.	156000+	155000.	155000+	155000+
LTT	.001551	23.1	1,38	.0698	.00416	23.1	1.38	728 .					142000+	142000+	143000+	698000+	698000	677000.
							• • • •						698000.	677000+	609000+	605000.	608000+	590000+
_ _L 11	.001597	23.1	1.44	.0718	+00447	23+1	1+44	724.						815000	841000.	840000+	840000+	815000+
-						33.0	1.60	707.					655000+	638000.	656000.	655000.	655000+	638000+
- 41	+001/02	23+1	1.02	.0000	+00385	23+0	1.00						741000+	721000+	742000+	741000+	741000+	721000+
	-002	23.1	1.98	.0896	.00768	23.0	1.97	687.					537000.	524000.	538000.	537000.	537000.	171000.
	.003	23.0	3.28	.133	.0190	22.9	3.26	596.					174000.	171000.	175000.	174000+	78600.	77700.
	.004	22.9	4.44	.176	.0342	22.7	4.41	518.					78600.	77700.	/9100.	/0000+	42200.	41800 .
	.005	22.8	5.46	.219	.0523	22.6	5+41	453.					42200.	+1800 ·	25800.	25400.	25400.	25200.
	.006	22.7	6.37	.260	.0729	22.5	6.30	399.					25400.	11200	11700.	11400.	11400.	11300.
	.008	22.6	7.92	.342	+120	22.2	7.80	314.					6040	6610.	6300	6050	6040.	6010.
	•01	22.4	9.22		<u>173</u>		9.05	250.					2570.	2560.	2760.	2580.	2570.	2560.
x	+013474	22.1	11.0	*205	.2/4	51.0	10+1	T					20300	10900.	20500.	20300.	20300.	10900.
	.015	22.0	11.6	.609	. 32 1	21.4	j1.3	152.					15100.	8810.	15300.	15100.	15100.	8810.
	.02	21.6	13.2	.780	.476	20.8	12.7	103.					6800.	4680.	6920.	6810.	6800.	1750.
	.03	20.9	15.1	1.09	.786	19.8	14.3	58.0					2210.	1750.	2280.	2230.	2210+	836.
	.04	20.3	15.9	1.35	1.06	18.9	14+8	37.0					990.	835.	1040+	543.	529.	462.
	.05	19.6	16.3	1,59	1,32	18.1	15.0	25+5					527.	401.	345	126.	312.	280.
	.06	19.1	16.4	1.79	1,54	17.3	14+9	18.7					310.	123.	160.	149.	135.	125.
	.08	18.1	16.2	2,12	1,90	16+0	14.3	11+3					133,	65.2	92.8	85.4	71.9	67.4
	<u>•1</u>	17.2	15.9	2,36	3.19	14.9	13.7						20.9	20.0	39,2	35.7	23.7	22.7
	-15	15.5	14.8	2.82	2.69	12.1	12.1	3+47					8.85	8,57	24.6	22.6	11.9	11.5
	•2	14.2	13.8	3,08	2,98	11+5	8.91	.907					2,66	2,60	15.8	14.9	5,99	5.89
	• 3	12.4	12+2	3,33	3.40	7.65	7.60	-515					1.20	1.18	12.7	12.2	4,03	4,70
	15	10.1	10.0	3.45	3.41	6.67	6.59	.334					.682	1673	11.0	10.75	3.85	3.84
	.6	9.36	9.31	3.44	3.41	5.92	5.90	.233					,439	,434	9,70	8.41	1.58	3.54
		8.22	8.19	3.36	3, 32	4.86	4.87	.132					.222	128	7.59	7.51	3.39	3.32
	1.	7.39	7,37	3.25	3.18	4.14	4.19	+0547_							6.17	6.13	3.10	2,99
	1.5	6.01	6.00	2,97	2.91	3.03	3.09	.0380	•0617		+0011	. 110	.0400	.0399	5.41	5,39	2.99	2.79
	2.	5,12	5.12	2.72	2.64	2.40	2.40	+0210	.636	.00141	.637	.402	.0218	.0218	4.70	4,69	2.98	2.63
	3.	4.03	4.03	2.32	2.21	1.12	1.45	.00538	1.03	.00579	1.04	.728	.0145	.0145	4,43	4,42	3.09	2.00
	<u>.</u>	3,37	3.3/	1 83	1.48	1.08	1.23	-00351	1.37	.0113	1.38	1.03	.0109	.0109	4,30	4.30	3.22	2.72
	7.	2.57	2.57	1.65	1.49	.915	1.08	.00247	1.64	.0177	1.66	1.28	.00865	.00864	4.24	4,24	3,34	2,91
	A.	2.10	2.10	1.40	1.23	.700	+874	+00143	2.10	.0300	2.13	1.69	+00612	+00612	4.24	4.11	3.70	3.06
1	0.	1.79	1.79	1.22	1.02	• 567	.766		2.50	0411	2.54	2.04			4 4 5	4,65	4.20	3.35
Ť	5.	1.33	1.33	.941	.749	+384	.581		3,26	.0643	3.32	2.60	,00300	.00300	4.91	4.91	4.6	3,44
ź	0.	1,06	1.06	.773	.579	•291	•481		3.77	.0819	3+85	2+86	.0V222	.00145	5.40	5.40	5.2	3,55
3	0.	.774	.774	.579	.380	•196	• 394		4.51	•105	4+62	3+17	.00143	00108	5.79	5,79	5.6	3.55
4	0.	.615	.615	.468	.270	.148	+345		5.04	+12/	3+17	3,29	•00100		6.08	6,08	5,9	3,50
5	0.	.514	+514	.395	.205	+118	+ 307		7+73 5.70	.151	5.45	3.25			6.29	6,29	6,1	3.41
6	0.	.442	+442	+ 343	.100	.0745	.242		6.18	168	6.35	3.24			6.70	6.70	6.6	3,35
	•	+ 347	+ 347	.230	.0777	.0597	.212		6.52	.180	6.70	3.16			6.91) 6,9 9	6.9	3.24
10	V .	+ 270	+ 270	.534														

1 4 1 4 5 5 7 1

35 BROMINE (cm³/g = 0.007537 x barns/atom)

1 1 4 1 2 1 5 1

E (MeV)	(声) ^{KN} inc,t	([#] _≠) ^{BD} _{)nc,t}	(^µ _p) ^{KN} _{inc,a}	(声) _{nc, a}	(^µ _p) ^{KN} _{inc,s}	(^µ _p) ^{BD} _{)nc,s}	([#] _p) _{coh}	([#] / ₂)*n	(<u>µ</u>), e	(声) _{*,t}	([#] _p) _{×,a}	(#),,t	([#] _p) _{7,2}	([#]) _{tot, t}	([#]) _{tot,t.con}	([#] _p) _{tot.a}	([#] _p) _{toi, en}
.001	,175	.00512	.000341	0000100	.174	.00511	5.82					3350.	3350.	3360.	3350.	3350.	3350.
.0015	+174	.00987	+000509	9.0000288	. 174	.00987	5.52					1170.	1170.	1180.	1170.	1170.	1170.
L _{III} +001551	+174	+0104	+000526	5 .0000314	• •174	.0104	5.49					1070.	1070.	1080.	1070.	1070.	1070.
												5260.	5100.	5270.	5260.	5260.	5100.
TI +00124/	+1/4	•0109	+00054	1 .0000337	•174	+0104	5+40					4580.	4450.	4590.	4580.	4580.	4450.
L001782	174		00040		172	A1 37	E 11					6330 +	6140.	6340.	6330.	6330.	6140.
-II	+114	*V1E1		3 *0000441	• • • • •	• VIZ/	3+33						4810.	4940.	4940.	4940.	4810.
-002	-174	.0149	.00067	5 .0000579	.173	.0148	5.18					3360 •	3930.	5390.	3500.	3500.	3430.
.003	.173	.0247	.00100	.000143	.173	0746	4.49			•		1310.	1290	1320.	1210.	1310	1290
.004	.173	.0335	.00133	.000258	.171	.0332	3.90					592.	586.	596.	197.	892.	586.
.005	172	+0412	.00165	.000394	170	.0408	3.41					318.	315.	322.	318.	118.	315.
+006	•171	.0480	.00196	+000549	.170	.0475	3.01					191.	190.	194.	191.	191.	190.
+008	.170	+0597	.00258	.000904	.167	.0588	2.37					85.9	85.2	88.2	85.9	85.9	85.2
.01	.169	+0695	.00317	.00130	.166	.0682	1.68					45.5	45.3	47.5	45,6	45.5	45,3
K +013474	.167	+0829	+00416	+00207	.163	+0806	1+31					19.4	19+3	20.8	19.4	19.4	19+3
-) F												153.	82+2	155.	<u> </u> 153.	153.	82+2
+015	+100	.08/*	+00+59	+00242	+101	+0852	1+15					114.	66+4	115.	114.	114.	66.4
• 02	.163	+0995	+00588	.00359	.157	.0957	+776					51+3	35.3	52+2	51+3	51.3	35.3
•03	+150	+114	+00822	+00592	+149	.108	+437					16+7	13+2	17+2	16.8	16.7	13.2
• 04 AE	• 1 3 3	120	+0102	+00/99	174	•112	.2/9					7.40	6+29	7.84	7.61	7.47	6.30
.03	144	123	+0120	+00975	130	113	+172					3.9/	3+47	4.29	4.09	3.97	3+48
.08	.136	127	.0160	.0143	121	108	.0862					2.34	2.10	2.00	2.40	2,35	2+11
.1	.130	.120	.0179	.0165	.112	.103	.0560					.524	+727	1.21	1012	1.02	- 518
•15	.117	.112	.0213	+0203	.0957	.0912	+0262					.158	.151	.295	.269	.179	.171
•2	.107	.104	.0232	.0225	.0844	.0814	.0151					.0667	.0646	185	.170	0897	0867
.3	.0935	+0920	+0251	+0248	.0681	.0672	.00684					.0200	.0196	.119	+112	.0451	.0444
•4	.0837	.0829	•0259	+0256	.0577	.0573	.00388					.00904	•00889	.0951	1 .0920	.0349	.0345
,5	.0761	.0754	•0260	•0257	.0503	.0497	.00252					+00514	+00507	+0829	.0806	.0311	+ 0308
•6	.0705	.0702	•0259	•0257	.0446	.0445	.00176					•00331	+00327	•075	2 .0735	.02 9 2	• 026 9
•8	.0620	+0617	.0253	+0250	.0366	.0367	.000995					.00167	+00166	+064	.0634	+0278	• 0267
1.	+0557	+0555	.0245	+0240	.0312	•0316	,000638					+00105	+00104	.057	,0566	. 0256	• 6250
1	.0473	.0452	.0224	•0219	.0228	.0233	.000286	.000405		.000465	.000144	•000496	.000494	+040	5 •0462	.0234	+ 0225
1	0300	+113 00	+0205	.0199	+010I	0137	+000103	+00176	0000106	+00176	.000829	•000301	+000301	+0=00		+0263	+ 0210
.	.0254	.0254	.0154	A145	.00005	.0109	.00000121	.00776	.0000108	00784	.00303	.000104	.000104	.035	+0333	+0223	· • 0178
5.	.0219	.0219	.0138	.0127	.00814	.00927	.0000265	.0103	.0000450	.0104	.00776	.0000822	.0000822	.032	.0324		+ 0200
6.	.0194	.0194	.0124	.0112	.00690	.00814	.0000186	.0124	.000133	.0125	.00965	.0000652	+0000651	.0320	.0320	.0250	+0205
8.	.0158	.0158	.0106	.00927	.00528	.00659	.0000108	0158	.000226	.0161	.0127	+0000461	.0000461	.032	.0320	.0267	. 0221
10.	.0135	.0135	.00920	.00769	.00427	.00577		.0188	.000310	.0191	.0154	.0000353	.0000353	.0326	.0326	.0283	.0231
15.	.0106	.0100	.00709	.00565	.00289	.00438		+0246	.000485	.0250	.0196	+0000226	+0000226	+0350	+0350	.0321	+0252
20.	.00799	.00799	•00583	+00436	.00219	.00363		.0284	.000617	.0290	.0216	+0000167	+0000167	+0370	.0370	.0349	.0259
30.	.00583	.00583	+00436	•00286	.00148	.00297		+0340	.000814	.034A	.0239	+0000109	.0000109	+0401	7 +0407	.0392	• 0268
40.	.00464	+00464	.00353	•00203	.00112	.00260		.0380	.000957	•0390	+0247	+00000810	+00000810	.0436	.0436	.0425	• 0268
50.	.00387	.00387	.00298	.00155	.000889	.00233		+0409	.00106	•0420	+024A			+0458	s +0458	.0449	.0264
60.	.00333	.00333	.00259	.00121	.000746	.00213		•0430	+00114	.0441	.0245			+0474	•0474	+0467	+ 0257
00.	.00263	.00203	.00207	+000806	+000502	.00182		+0466	.00127	+0+79	+0244			+ 050	0505	.0499	+ 0252
100+	+10512	+U0219	•001/3	•0000 386	.000430	*****			•00130	.0705	•0238			+072	•0521	.0722	+0244

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36 KRYPTON (barns/atom)

E (MeV)	$\sigma_{inc,t}^{KN}$	σ ^{BD} _{inc,t}	σ ^{KN} σ)nc, a	σ ^{BD} _{inc,a}	0 ^{KN} 0 ^{inc, s}	σ ^{BD} inc,s	σ _{coh}	σ _{×n}	σ _{*e}	<u></u>	σ _{*, a}	σ _{r,t}	Ur,a	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot, a}	or tot, en
.001	23.9	.670	.0465	.00131	23.8	.669	818.					506000.	506000.	507000.	506000.	506000.	506000.
.0015	23.8	1.31	.0694	.00382	23.7	1.31	778.					176000	176000	177000.	176000.	176000 .	176000.
Leve .001675	23.8	1.55	.0774	.00505	23.7	1.54	762.					132000.	132000.	133000.	132000.	132000.	132000.
111			••••	•••••								633000 .	610000.	634000.	633000.	633000 .	610000.
L _{II} .001727	23.8	1.62	.0798	.00544	23.7	1+61	757.					550000 .	531000.	551000.	550000+	550000+	531000+
					_							760000.	733000.	761000.	760000.	760000+	733000+
L ₁ .001921	23.8	1.89	•0886	.00705	23.7	1+86	738.					596000+	577000+	597000.	596000+	596000+	577000+
		— .										676000+	654000+	677000+	676000+	676000+	654000+
•002	23.8	2.00	+0455	.00776	23.7	1+99	730+					599000 +	580000+	600000+	599000+	599000+	580000+
.003	23.7	3,34	+137	.0194	23.5	3.32	633.					194000+	190000.	195000+	194000.	194000+	190000+
•004	23.6	4+55	+181	.0350	23.4	4+51	548+					88300.	86900 .	88900+	88300+	88300+	86900+
.005	23.5	5+62	.225	.0538	23.3	5+5/	478+					47500+	46900+	48000+	47500+	4/500+	46900+
.008	23.4	0.33	+208	+0/5	23+1	0.40	421+					28700.	28400+	29100+	28700.	28700+	28400+
•008	23.2	0+11	+352	+123	22+7	1.99	333+					12900 •	12800+	13200+	12700+	12700+	6784.
	- 12.1	7.72			-22+0	<u></u>	200+					08.10 •	0/90+	7110+	- 6040+	2444	74704
× •••••				.300	42.11	1143	1134					19000.	9790.	19200.	19000	190000	9780-
.015	22.6	11.9	.626	.329	22.0	11.6	163.					16700	8970.	14900.	16700	16700.	8970.
.02	22.2	13.5	.802	487	21.4	13.0	110.					7626	49104	7640.	7530.	7520+	4910.
.03	21.5	15.4	1.12	.801	20.4	14.6	67.2					7460	1890.	25404	2480.	2460 .	1890 .
.04	20.8	16.3	1.39	1.09	19.4	15.2	39.7					1100.	909.	1160.	1120.	1100.	910.
.05	20.2	16.7	1.63	1.35	18.6	15.4	27.5					587.	506.	631.	604.	589.	507.
.06	19.6	16.8	1.84	1.58	17.8	15.2	20+1					349.	309.	386.	366.	351.	311.
.08	18.6	16.7	2,18	1.96	16+4	14.7	12+1					150.	137.	179.	167.	152.	139.
•1	17.7	16.3	2,45	2,25	15.3	14+1	8.00					78 • 2	72+8	102+	94.5	80.6	75.1
•15	16.0	15.2	2.90	2.76	13+1	12+4	3.73					23.4	22,3	42+3	38.6	26.3	25+1
•5	14.6	14.2	3.16	3.07	11.5	11+1	2+15					9.95	9.60	26.3	24+1	13+1	12.7
.3	12.7	12+5	3,43	3.37	9.30	9.13	•976					3.01	2.94	16+5	15.5	6.44	6.31
••	11.4	11.3	3,53	3.49	7.87	7+81	• 555					1+37	1+35	13.2	12.7	4.90	4.04
• •	10.4	10.3	3,55	3.51	6.86	6.79	+ 360					•776	+765	11.4	11.1	4.33	4.28
••	9.63	9.57	3,54	3.50	6.09	6.07	• 250					.477	+493	10+3	10.1	9.09	3.77
	0.40	8.43	3.40	3.41	5+00	5+02	+1+1					• 252	+250	7.83	7.74	3+1	3.43
+• <u>_</u>	4.14	<u> (+ 28</u>	3.30	-3,21			+0710				0304	.0742		6.35	6.31	1.20	3.08
1.00	6 37	6 76	3.00	2.77	3.47	3.55		+0000		.349	117		.0487	E. 58	5.56	3.09	2.67
2.	4.14	4.14	2.19	2.27	1.75	1.87	.0103	.672	.00145	• 2 • 7	+117	.0250	.0249	4.85	4.84	3.09	5.72
Å .	3.46	3.46	2.10	1.97	1.36	1.49	-00579	1.10	.00595	1.11	.776	.0165	+0165	4.59	4.59	1.23	2.76
5.	2.99	2.99	1.88	1.72	1.11	1.27	.00375	1.45	.0117	1.46	1.08	.0123	.0123	4.47	4.46	3.35	2.61
6.	2.64	2.64	1.70	1.53	.941	i.īi	.00263	1.74	0182	1.76	1.35	.00977	.00976	4.41	4.41	3.47	2.89
	2.16	2.16	1.44	1.26	.720	.903	.00153	2.20	+0308	2.23	1.76	.00693	+00692	4.40	4.40	3.68	3.03
10.	1.84	1.84	1.26	1.05	.583	.791		2.62	.0423	2.66	2,13	+00530	+00530	4+51	4.51	3.93	3.19
15.	1.36	1.36	.968	.762	.395	+598		3,44	+0661	3.51	2.73	+00339	+00339	4+87	4.87	4+45	3.50
20.	1.09	1.09	,795	.590	•299	•500		3.99	+0841	4+07	3.01	+00250	+00250	5+16	5.16	4+87	3.60
30.	,796	.796	•595	.389	.201	+407		4,78	•111	4+89	3.34	+00165	+00165	5.69	5.69	5+49	3.73
40.	.633	•633	.481	.275	+152	• 358		5.31	.130	5+44	3.44	+00122	+00122	6+07	6.07	5+92	3+72
50.	.528	+528	.407	.208	.122	•320		5,74	+143	5+88	3.44			6+41	6.41	6+29	3.65
60.	.455	+455	.353	.163	+102	•292		6.01	•155	6+16	3.40			0+01	6.01	6+51	3+56
80.	.359	+ 359	.282	.109	.0766	•250		0.50	+1/2	8+67	3,38			7.03	7.38	7, 33	3.47
100.	•298	• 298	•237	+0796	+0615	+218		6.90	+]85	7+05	25.6			1 + 30	1+30	1+35	3.40

н – С С н – Х – С П – Х •

128

36 KRYPTON (cm³/g = 0.007187 x baros/atom)

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E (MeV)	([#] _p) ^{KN} _{nc,t}	(声) ^{BD} inc, t	([#] _p) ^{KN} _{inc,2}	(些) ^{BD} inc, a	([#] _p) ^{KN} inc, s	(≝) ^{BD} inc;s	([#]) _{coh}	([#] _p) _{×n}	(%)×e	(ڭ) _{×, t}	([#] _p) _{×, 2}	(芳) r. t	([#] _p) _{7, a}	([#])tot. /	([#])tot, t-coh	([#] _p) _{tot, a}	([#])tot, en
.001	, 172	.00482	.000334	+0000094	.171	.00481	5.88					3640+	3640.	3640.	3640.	3640.	3640.
.0015	.171	+00941	+000499	+0000275	.170	+00941	5.59					1260+	1260+	1270+	1260.	1260.	1260.
L _{III} .00167	5 .171	.0111	+000556	.0000363	170	.0111	5.48					949+	949+	956.	949.	949.	949.
T 00172	7 171				170	. 0114	E . 44					4550+	4380.	4560.	4550.	4550.	4380.
-11 .001/E	••••	*0110	1004314	••••••	•110		3.44					3950.	5270.	3900.	3950.	5460	5270.
L00192	1 .171	.0136	.000637	.0000507	.170	.0135	5.30					4280.	4150.	4290	4280.	4280	4150.
	- •				•- •	• • • • • •						4860.	4700.	4870.	4860	4860	4700.
• 002	.171	+0144	+000663	.0000558	.170	.0143	5.25					4310.	4170.	4310.	4310.	4310,	4170.
.003	.170	.0240	+000985	.000139	.169	.0239	4.55					1390.	1370.	1400.	1390.	1390.	1378.
.004	.170	.0327	.00130	.000252	.168	.0324	3.94					635.	625.	639.	635.	635	625.
.007	.109	.0404	+00162	.000387	.167	.0400	3.44					341.	337.	345.	341.	341.	337.
.00	.105	.04/1	+00193	.000534	108	.0466	3.03					²⁰⁰ • 7	204.	209.	200.	208.	204.
- 03	166	.0303	.00273	-000084	163	.0464	2+37					49.1	72.00	81.1	49.2	40.1	48.8
r .01432	163	.0834	.00431	A00220	.159	.0812	1.24					17.5	17.5	18.8	17.6	17.5	17.5
			•••••		••••							137.	70.4	136.	137.	ī37 .	70.4
.015	.162	.0855	+00450	.00236	.158	.0834	1.17					120.	64,5	121.	120.	128,	64.5
.02	.160	.0970	+00576	.00350	.154	.0934	.791					54.0	35,3	54.9	54.1	54.4	35.3
.03	.155	•111	.00805	.00576	+147	.105	.447					17.7	13.6	18.3	17.8	17.7	13.6
+04	+149	•117	•00999	+00783	.139	.109	+285					7.91	6.53	8,34	8.05	7.91	0,54
•05	+147	•120	+0117	.00979	134	•111	+198					4.22	3,04	4.73	4,34	4,23	3,64
.08	.334	.120	+0132	-0114	.110	.105						1.08	6.26	1.26	1.20	6,7C	2.24
.1	.127	.117	.0176	.0162	.110	.101	.0575					.562	.523	.733	.679	1.579	.544
-15		.109	.0208	.0198	.0941	.0891	.0268					.168	.160	. 304	.277	.189	.188
•2	.105	.102	.0227	.0221	.0827	.0798	.0155					.0715	.0690	.189	.173	.0941	.0913
•3	.0913	.0898	+0247	+0242	.0668	.0656	.00701					.0216	.0211	•119	•111	.0463	.0453
• •	.0819	.0812	+0254	•0251	.0566	+0561	.00399					.00985	.00970	.0949	.0913	.0352	.0348
.5	.0747	+0740	•0255	+0252	.0493	+0488	.00259					.00558	.00550	.0819	.0798	.0311	.0366
••	.0072	.0608	+0254	+0252	.0438	+0430	+00180					+00359	+ U0 374	.0740	.0/20	.0275	.0207
1.	.0546	.0545	+0247	.0293	.0306	.0310	.004464					.00114	00113	0561	0556	1252	A247
1.5	.0444	+0443	.0220	+0215	.0224	.0229	.000294	.000473		.000473	-000147	.000533	.000531	.0436	.0453	. 0230	.0221
2.	.0379	.0378	.0201	.0195	.0178	.0183	.000167	.00179		.00179	.000841	.000326	.000325	.0401	.0399	0222	.0206
3.	0298	.0298	.0172	.0163	.0126	.0134	.0000748	+00483	.0000104	.00484	.00305	.000180	.000179	.0349	.0348	,0222	.0195
4.	.0249	.0249	.0151	•0142	.00977	.0107	.0000416	.00791	•0000428	.00798	.00558	.000119	.000119	.03 30	.0330	. 0232	.0198
5.	.0215	.0215	.0135	.0124	.00798	.00913	.0000270	.0104	.0000841	.0105	.00776	.0000884	.0000884	.0321	.0321	-0241	-0205
2.	.0190	.0190	.0122	.0110	.00676	.00798	.0000189	.0125	.000131	.0126	.00978	.0000702	.0000701	.0317	.0317	.0247	.0208
	.0133	•0177	.0103	.00906	.00517	.00049	.0000110	•0178	.000221	-0100	.0128	+0000490	.000047/	•U310	+0310	.0209	.0218
18.	.00977			.00549	00284	.00430	·	.0747	.000475	0252		.0000266	.0000244	.0356	.0360	.0122	
20.	.00783	.00783	.00571	.00424	.00215	.00359		.0287	.000604	.0293	.0216	.0000180	.00001 80	.0371	-0371	. 0350	.0259
30.	.00572	.00572	+00428	.00280	.00144	.00293		.0344	.000798	.0351	.0240	.0000119	.0000119	.0409	.0409	.0395	.0268
40.	.00455	.00455	.00346	+00198	.00109	.00257		.0382	.000934	.0391	.0247	.00000880	.00000680	.0436	.0436	.0425	.0267
50.	.00379	.00379	.00293	+00149	.000877	.00230		+0413	.00103	.0423	.0247			.0461	.0461	.0452	.0262
60.	.00327	.00327	.00254	.00117	.000733	.00210		•0432	.00111	+0443	+0244			.0475	.0475	.0468	.0256
80.	.00258	.00258	.00203	+000783	.000551	.00180		.0467	.00124	.0479	.0243			.0505	.0505	.0499	.0251
100.	+00214	•00Z14	.00170	.000572	.000442	.00157		•0496	+00133	.0509	.0239			.0530	.0530	.0526	.0244

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.001 24,5 .990 .0478 .00193 24.5 .988 850. 574000. 574000. 575000. 57600 .0015 24.5 1.64 .0714 .00478 24.4 1.64 805. 199000. 199000. 200000. 19900 .0015 24.5 2.04 .0857 .00715 24.4 2.03 776. 575000. 575000. 577000. 57600	000. 574000. 574000. 000. 199000. 199000. 000. 123000. 123000. 000. 576000. \$53000. 000. 50000. 480000. 000. 690000. 663000. 000. 587000. 565000. 000. 545000. 525000.
.0015 24.5 1.64 .0714 .00478 24.4 1.64 805. 199000 1230000 1230000 1230000 1230000 1230000 1230000000000	000. 123000. 123000. 000. 576000. 553000. 000. 500000. 480000. 000. 690000. 663000. 000. 587000. 565000. 000. 587000. 565000.
1001805 24.4 2.04 .0857 .00715 24.4 2.03 776. Stanon 57000. 57000. 57600	000, 576000, 553000, 000, 500600, 480000, 000, 690000, 663000, 000, 587000, 565000, 000, 545000, 525000,
	000. 50000. 48000. 000. 690000. 663000. 000. 587000. 565000.
Lin L _{TT •} 001863 24.4 2.12 •0884 •00767 24.3 2.11 770. 690000 • 663000 • 691000 • 69000	000. 587000. 505000. 000. 545000. 525000.
-002 244 24 25000 578 00957 243 238 750 545000 596000 61800 61800 6180	000. 618000. 596000.
	000. 219000. 214000.
.003 24.3 3.59 .141 .0208 24.2 3.57 8000 98800. 96900. 99400. 988	800. 48800. 99700.
-004 24,2 4,78 ,186 ,0408 24,9 4,78 501, 53300, 52500, 53600, 530	200. 32200. 31800.
007 24.1 32200, 31500, 5200, 3200, 3200, 3200, 3200, 3200, 3200, 3200, 3200, 3200, 3400, 1410, 1400, 1410, 1400, 1410, 1	400. 14400. 14300.
1006 23,9 8,37 ,361 ,127 23,5 8,24 350 777 7710, 7550, 6000, 777	720. 7710. 7650.
<u>01 2347 9.67 444 181 23.3 9.49 282.</u> 2400, 2390, 2500, 240	410. 2400. 2390. 270 2310.
-015 23.3 12.1 .053 .333 26.0 11.9 170. 2320, 2310, 2300, 23	17800. 8860.
	360. 8350. 5160.
.02 22.9 13.8 .825 .498 22.0 13.3 118. 0350, 2710, 2020, 27 90, 27	730. 2710. 2020.
•03 22•1 15•7 1•15 •817 21•0 14•9 60•3 1220, 987, 1280, 12	240, 1220, 765,
•04 21.4 16.7 1.43 1.11 20.0 1500 **** 653, 553, 699, 6	A05. 390. 341.
	184. 169. 153.
	104, 90.0 83.1
1 18,2 16,7 2,52 2,30 15,7 14,4 6,57 26,2 24,9 45,9 45,9	41.9 29.2 27.7
$\frac{15}{10}$ 16.6 15.7 2.98 2.85 13.6 11.4 12.9 10.8 11.2 10.8 28.1	16.3 6.93 6.7
-2 15.0 14.0 3.65 3.66 9.55 9.42 1.05 3.60 3.51 17.5	13.1 5.18 5.10
4 11.7 11.6 3.63 3.58 8.09 8.02 .594	11.5 4.53 4.4
•5 10.7 10.6 3.65 3.61 7.05 6.99 •386 •567 •560 10.7	
6 9,90 9,84 3,66 3,60 6,60 6,60 6,60 5,60 5,60 7,80 7,889 2,866 9,10	7.97 3.62 3.5
.8 8.69 8.66 3.77 3.46 3.136 4.38 4.43 .0075	6.49 3.29 3.1
1.5 6.35 6.34 3.14 3.07 3.21 3.27 •0439 •0700 •0710 •0617 •06517 •0515 5.75	5.72 3.18 2.93
2, 5,41 5,41 2,87 2,79 2,54 2,62 ,0250 ,263 ,60149 ,713 ,449 ,0282 ,0281 5,01	5,00 3,20 2,0) , 75 7,35 7,6
3, 4,26 4,26 2,46 2,33 1,00 1,54 0,0623 1,16 0,0611 1,17 ,817 ,0185 ,0185 4,79	4.63 3.49 2.9
4. 3.50 3.50 2.10 2.00 1.15 .0138 .0138 .0138 .0130 4.58	4.58 3.61 3.00
6. 2.72 2.72 1.75 1.57 .967 1.15 .00281 1.83 .0187 1.85 1.42 .00782 .00781 4.58	4.58 3.84 3.1
8. 2,22 2,22 1,4 8 1,29 ,740 ,932 ,00105 2,32 ,001 2,32 ,0010 2,00 ,00597 ,00597 ,00597 ,4,73	
10. 1.69 1.69 1.29 1.67	5.41 5.11 3.7
15. 1.40 1.40 .775 .100 .101	5,94 5,73 3.8
	6.39 6.24 3.8
40, •650 •650 •494 •280 •156 •370 5•01 •133 5•70 3•61 •00109 •00109 6•74	6,74 6,82 3,8 4 08 4.87 3.7
50, ,543 ,543 ,418 ,212 ,125 ,331 6,35 160 6,51 3,55 6,98	7.40 7.32 3.0
60, .468 .469 .303 .107 .107 .256 .6.5 .177 7.03 3.52 7.78	7.78 7.71 3.5
108 306 243 0808 0632 225 7.28 190 7.47 3.45	

37 RUBIDIUM (barns/atom)

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37 RUBIDIUM (cm³/g = 0.007046 x barns/atom)

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E (MeV)	([#] s) ^{KN} inc,t	([#]) ^{BD} _{inc, t}	([#] _p) ^{KN} _{inc,a}	(声) BD (声) inc, a	(声) ^{KN} inc, s	([#] _b) ^{BD} _{inc,s}	(뿔) _{coh}	(ل م)»n	(<u>#</u>) _{*e}	([#] _p) _{x,t}	([#] _p) _{×,a}	$\left(\frac{\mu}{\rho}\right)_{\tau,t}$	(^µ _β) _{τ, a}	(賞) _{tot,t}	(声) _{tot,t-coh}	([#]) _{tot, a}	([#]) _{tot, en}
.001	.173	.00698	.000337	.0000136	.173	.00696	5.99					4040	4040	4.050			
.0015	.173	+0116	.000503	.0000337	.172	.0116	5+67					1400.	1400.	1410.	1400.	1400.	1400.
LIII •00180	•1/2	+0144	+000804	+0000504	+172	.0143	5.47					867.	867.	874.	867.	867	867.
LTT .00186	.172	.0149	.000623	.0000540	. 171	.0149	5.43					4060.	3900.	4070.	4060.	4060.	3900.
					•••		3.43					3520.	3380.	3530.	3520.	3520.	3380.
•002	.172	.0162	.000668	+0000629	. 171	.0161	5.33					4140.	3980.	4140.	4140.	4140.	40/0+ 388A.
LI .00500	•172	.0168	•000689	+0000674	•171	.0168	5.28					3840.	3700.	3850.	3840.	3840.	3700.
.003	.171	.0253	.000993	.000147	.171	.0252	4.65					4350.	4200.	4360.	4350.	4350.	4200.
+004	.171	.0337	.00131	.000259	.169	.0334	4.04					1940.	1510.	1550.	1540.	1540.	1510.
• 005	.170	+0411	.00163	.000394	.168	.0407	3.53					376.	370.	379	870.	878,	683.
.006	.169	.0478	+00194	+000547	.168	.0473	3.11					227.	224.	230	227	227.	224.
•008	.165	.0590	+00254	+000895	.166	.0581	2.47					101.	101.	104.	101.	101.	101.
-015	.164	.0853	.00453	-00234	.169	+0009	1.99					54.3	53.9	56,4	54.4	54.3	53.9
K .015200	.164	.0860	.00457	.00240	.159	.0838	1.20					16.9	16.8	19.2	17.0	16.9	16.8
	• • •				• • • •							125.	62.4	127	10.4	10,3	10.3
.02	.161	.0972	.00581	.00351	.155	.0937	.831					58.8	36.4	59.8	58.9	58.8	36.4
.03	.150	•111	.00810	•00576	.148	.105	.467					19.1	14,2	19.7	19.2	19.1	14.2
- 05	.147	.120	-0118	+00782	136	•110	•299					8,60	6,95	9.02	8,74	8,60	6.96
06	.142	.121	.0133	-0113	.129	.110	.157					4,60	3,90	4,93	4.72	4.42	3,90
• 08	.135	.120	0158	.0141	. 119	.106	.0916					1.18	1.06	3,01	2.87	2.75	2.40
_ <u>_</u>	128	.118	.0178	.0162	111 .	.101	.0604						.569	.796	.733	.634	
•17	+110	•111	.0210	•0201	.0944	.0909	.0282					,185	.175	. 323	.295	.286	.195
.3	.0923	. 1909	+0229	+0223	.0831	.0803	+0162					.0789	.0761	.198	182	.101	.0986
•4	.0824	.0817	.0256	.0252	.0570	.0565	.00/40					.0240	.0233	.122	.115	.0488	.0478
+5	.0754	+0747	.0257	+0254	.0497	.0493	+00272					.00621	.00612	.0703	.0723	.0305	.0359
•6	.0698	.0693	.0256	+0254	.0441	.0440	+00190					.00400	.00395	. 0754	.0733	0.297	. 0262
1.5	.0812	• 0610	• 0250	+0247	.0362	.0364	.00106			•		.00204	.00202	.0641	.0631	.0271	0267
1.5	+0447		+0221	+0237 +0216	.0226	.0312	.000587	000407				.00127	.00126	0569	,0567	.0255	,0249
2.	.0381	.0381	.0202	.0197	.0179	.0185	.000176	.00185		+000493	+000153	.000594	.000591	.0461	.0457	.0232	.0224
3.	.0300	.0300	+0173	.0164	.0127	.0136	.0000789	.00502	.0000105	.00502	.00316	.000199	.000196	.0405	.0403	,0264	.0204
2.	.0251	.0251	+0152	•0142	.00986	.0109	.0000439	.00817	.0000431	+00824	.00576	.000130	.000130	.0335	.0335	.0236	.0202
7. 6.	+0210	+0216	+0136	.0125	.00803	.00916	.0000283	.0109	.0000846	.0109	.00810	.0000972	.0000972	.0327	.0326	.0246	.0206
i.	.0156	.0156	.0104	.00909	.00521	.00657	+0000198	+0129	.000132	.0130	.0100	.0000775	.0000775	.0323	.0323	. 9254	.0211
10.	0133	.0133	+00909	.00754	.00422	.00575	.0000074	.0197	.000306	.0199	+0131	.0000331	.0000550	.0323	.0323	.0271	.0223
15.	.00986	.00986	.00701	.00550	.00286	+00437		.0255	.000479	.0260	.0202	.0000268	.0000268	.0359	.0359		
20.	.00789	+00789	•00976	+00426	.00216	.00364		• 0 2 9 6	•000609	.0302	.0222	.0000199	.0000199	.0381	.0381	.0360	.0265
40.	+00776	+007/6	+004J] .00348	.00279	.00148	.00297		•0353	•000796	.0361	.0245	.0000130	.0000130	.0419	.0419	.0404	.0273
50.	.00383	.00383	.00295	.00149	.000881	.00233		+0395	+000937	+0404	.0254	.00000970	.00000970	.0450	.0450	.0440	.0273
60.	.00330	.00330	.00256	.0011B	.000740	.00212		.0447	.00113	.0459	+ 1234	•00000770	•00000770	.0475	.0475	.0466	.0269
80.	.00260	.00260	+00204	.000782	.000555	.00182		+0483	.00125	.0495	.0248			.0521	.0521	.0404	.0202
100*	•00216	.00216	+00171	.000569	.000445	.00159		•0513	.00134	.0526	.0243			.0548	.0548	.0543	.0248
																••••	

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38 STRONTIUM (barns/atom)

E (MeV)	σ _{inc,t}	σ ^{BD} _{)nc,t}	o ^{KN} inc, a	σ ^{BD} _{inc,a}	σ ^{KN} o _{inc,s}	σ ^{BD} σ _{inc,s}	σ _{coh}	σ×n	σ _{*e}	<u> </u>	σ*, a	σ, t	Or,a	o, t	σ _{iot,i-coh}	⁰ tot,a	Utot, en
. 00 1	25.2	1.21	.0491	.00236	25.1	1.21	890.					65) 000 .	651000.	652000.	651000.	651000.	651000.
.0015	25.1	1.94	.0733	.00566	25+1	1.93	838.					226000.	226000.	227000.	116000.	115000.	115000.
La.y .001940	25.1	2,53	.0945	00953	25.0	2.52	791.					115000.	110000	527000.	526000.	526000	502000
							745					459000.	439000.	460000	459000.	459000.	439000.
.002	25.1	2+61	.0973	.0101	25+0	2.00	703+					454000	434000.	455000.	454000.	454000.	434000.
L _{II} .002007	25+1	2.65	.0977	.0102	25+0	2.01	/04+					627000.	599000.	628000.	627000.	627000.	599000.
r ¹ .005516	25.1	2.89	.108	.0124	25.0	2.88	763.					499000.567000.	479000. 544000.	568000.	499000. 567000.	499000. 567000.	479000.
.003	25.0	3.87	.145	.0224	24.8	3.85	687.					245000	238000.	246000.	245000.	245000.	230000.
.004	24.9	5.03	.192	.0387	24.7	4.99	599.					110000.	108000.	111000.	110000.	59500	88400.
.005	24.8	6.10	237	.0584	24.6	6.04	524 •					59500.	35400.	36400	35900	35900.	35400
.006	24.7	7.04	.283	.0806	24.4	6.96	463.					35400.	15900.	16500.	16100.	16100.	15900.
.008	24.5	8.64	.371	.131	24+1	8+51	368.					8680.	8600.	8990.	8690.	8680	8600.
.01	24.3	9,94	456	.186	23.9	9.75	297.					2720.	2700.	2920.	2730.	2720.	2700.
.015	23.9	12.4	.601	.343	23.2	12+1	1044					2210.	2200.	2390.	2220.	2210.	2200.
K .010105	5 23.8	12.8	•10Z	•3//	23+1	15.44	1980					16700.	8040.	16900.	16700.	16700.	8040.
62	23.6	14.1	.847	.509	22.6	13.6	125.					9150.	5330.	9290.	9160.	9150.	5330.
.02	72 7	14.1	1.18		21.5	15.3	70.5					3000.	2160.	3090.	3020.	3000.	2100.
- 04	22.0	17.0	1.47	1,13	20.5	15.9	45.4					1350.	1070.	1410.	1370.	1350.	605.
-05	21.3	17.5	1.72	1.41	19.6	16.1	31+4					725.	604.		F42.	497	172.
-06	20.7	17.6	1.95	1.65	18.8	15.9	23+1					430.	3/0.	217	203	388.	169.
.08	19.7	17.5	2,30	2,05	17•4	15.5	13.9					190.	10/+ 10/+	124	115.	101.	92.2
	18.7	17.2	_2,58	2.37	16.1	14.8	9.17					29.4	27.8	49.8	45.5	32.5	30.7
.15	16.9	16.1	3.06	2.92	13.8	13.2	4+28					12.6	12.1	30.1	27.6	15.9	15.3
•2	15.4	15.0	3,34	3.24	12+1	11.8	2+47	-				3.85	3.74	18.2	17.0	7.47	7,30
•3	13.4	13.2	3.02	3,50	9.01	8.22	.635					1,75	1.71	14.3	13.6	5.48	5.39
• •	12.0	11.9	3,75	3,00	7.24	7.18	.412					1.00	.983	12+3	11+9	4.75	4.70
•2	11.0	10.1	3.74	3.69	6.43	6.41	.287					+640	•631	11.0	10.7	4,30	2.01
	8.93	8.89	3.65	3.59	5.28	5.30	+162					.327	+324	9.38	7,22	3.70	3.64
1.	8.03	8.00	3.53	3,44	4.50	4.56	+104		<u> </u>						6.68	3.40	3.27
1.5	6.52	6.51	3,23	3.15	3.29	3.36	+0470	+0745		+0745	.0231	4590	.0588	5,92	5.89	3.29	3.04
2.	5.56	5.55	2,95	2.85	2+61	2.7	+0267	+280		.280	+132	.0322	.0321	5.17	5.16	3.31	2.90
3.	4.37	4.37	2.52	2.39	1.85	1.98	+0119	1,34	+00173	1,22	.858	.0210	.0210	4,92	4,91	3,47	2.95
4.	3,66	3.66	2.22	2.07	1	1+37	+00000	1.67	.0123	1.63	1.21	.0155	.0155	4.81	4,81	3,63	3.04
5.	3.16	3.16	1.98	1.81	1+17	1.18	+00431	1.93	.0192	1.95	1.50	.0123	.0123	4.76	4,75	3,76	3.12
.	2.79	2.79	1.67	1.12	.760	.962	.00173	2.46	.0325	2.49	1.96	.00880	.00879	4.78	4,78	4.02	3.29
	1 94	1.04	1.33	1.09	•615	.846	+00113	2.92	.0446	2.96	2.36	.00670	.00609		8 12	4,30	3.41
	1.44	1.44	1.02	.798	.417	+642		3,81	.0699	3.88	3.01	.00426	.00420	5,32	5.52	5.33	1.90
20.	1.15	1.15	.839	.614	•316	•536		4.40	.0887	4.49	3.28	.00310	.00207	6.26	6.26	6.05	4.07
30.	.841	.841	.628	.404	•212	.437		5.30	+117	5+42	3.66	.00153	.00153	6.71	6.71	6.55	4.06
40.	.668	.668	.508	.287	.160	•381		5.90	•137	8+04	3.74	00122	00122	7.07	7.07	6,94	3,98
50.	.558	.558	.429	.217	•128	+341		0.30	+152	0+51	3.73	.00101	.00101	7.34	7,34	7.23	3,90
60.	.480	.480	.373	.169	.108	•311		0.70	.103	7.38	3.47		•••••	7.76	7,76	7.68	3.78
80.	.379	.379	.298	+114	+0809	+265		7.63	.195	7.89	3.58			8,13	8,13	8.07	3,66
100.	,315	.315	.220	•0=28	+0649	• 232			•1.42		2						

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E (MeV)	(岁) _{nc,t}	(5) ^{BD} _{)nc,t}	([#] _p) ^{KN} _{inc,a}	(声) ^{BD} inc, a	(学) ^{KN} inc,s	([#]) ^{BD} _{inc, s}	(声) _{coh}	(<u>#</u>)× _n	(^μ / _β) _{×e}	(ڭ) _{×, t}	(#) _{x,a}	(岸) _{千,1}	(#), a	(\$)tot.t	(声)	(ی)	(答)tot.en
.001	.173	.00832	.000337	.0000162	.173	.00832	6.12										Piotien
.0015	.173	.0133	.000504	+0000389	.173	.0133	5.76					4470.	4470.	4480.	4470.	4470.	4470.
L _{III} +001940	. 173	.0174	.000649	+0000655	.172	.0173	5.44					790.	1930.	1500.	1550.	1550.	1550.
.002	1 73						- · ·					3620.	3450	3620.	740.	7420	740.
I002007	173	.01/9	+000669	+0000694	.172	.0179	5.40					3150.	3020.	3160.	3150.	3150.	3626.
-II tooroot	• 1 • -		+0008/1	+0000701	+1/2	+0179	5.39					3120.	2980.	3130.	3120.	3120.	2980.
L1 .002216	•173	•0199	•000742	.0000852	.172	.0198	5.24					4310. 3430.	4120. 3290.	4320. 3440.	4310. 3430.	4310. 3430.	4120.
•003	.172	.0266	.000997	.000154	.170	.0265	4.72				•	3900.	3740.	3900.	3900.	3900	3740
.004	.171	.0346	.00132	.000266	.170	.0343	4.12					1000.	1040.	1690.	1680.	1680.	1640.
.005	.178	.0419	.00163	+000401	.169	.0415	3.60					A08.	401	103.	750.	750.	742.
.000	-176	.0484	.00195	.000554	.168	.0478	3.18					247.	241.	250	407.	- 487.	401.
.008	.100	.0574	.00255	.000900	.166	.0585	2.53					111.	109.	113.	112.	515	148.
-015			+00313	-00126		0670	2.04							61.8	59.7	59.7	59.1
K .016105	.164	.0880	.00454	+00230	139	.0532	1.20					18.7	18.6	20.1	18.8	10.7	18.6
	••••		*****	****	+134	• VO 72	1+12					15.2	15.1	16.4	15.3	_15,2	15.1
• 02	.162	.0969	.00582	•00350	.155	.0935	.859					115.	55.3	116.	115.	ī 15.	55,3
.03	.156	•111	.00811	.00576	.148	.105	.485					82.9	38.8	63.9	63.6	62,9	36.6
.04	.151	+117	.0101	.00777	.141	+109	.312					8.28	14.0	21.2	20.6	28.6	14.8
.05	+146	•120	·0118	.00969	.135	•111	.216					4.98	4-15	5 12	V.42	7.2	7.75
.08	+142	+121	•0134	.0113	.129	.109	+159					2.96	2.54	3.24	3.08	2 87	2.10
.1	-129	•120	•0158	+0141	.120	.107	.0955					1.28	1.15	1.49	1.48	1.29	1.36
15			.0210	0103		-102	.0030				·	.674	.617	.852	,790	. 674	.634
.2	.100	.103	.0230	-0223	.0832	-0907	•0 694					.202	.191	, 342	.313	,223	.211
•3	.0921	.0907	.0249	.0245	.0674	.0663	.00770					.0860	.0832	.207	.190	.109	.105
•4	.0825	.0818	.0256	.0253	.0571	.0565	.00436					.0207	.0237	.125	.117	.0513	. 0592
.5	.0756	.0749	.0258	.0256	.0498	.0493	.00283					.00687	.0118	.0983	.0935	.0377	•0370
	.0701	.0694	,0257	.0254	.0442	.0441	.00197					.08440	.00474	0 Q B 4 3		.0320	·0353
, ••	.0814	.0611	.0251	+0247	.0363	.0364	.00111					.00225	.00223	- 0645	0634	.0301	
1.5				.0236		0313	.000715					00138	.00137	.0570	.0564	.0254	
2.	0362	.0381	-0203	+0210	A170	.0231	.000323	.000912		.000512	.000159	.000646	.000643	.0463	.0459	.0234	.0225
3,	.03 🐽	.0300	.0173	.0164	.0127	.0136	-000184	-00192	0000105	.0019Z	.000907	.000406	.000404	.0407	.0405	.0224	.0299
4.	.0252	.0252	.0153	•014Z	00999	.0109	.0000459	.00839	.0000103	.00320	.00320	.000221	.000221	.0355	.0355	, 6227	.0199
5.	.0217	.0217	.0136	.0124	.00804	.00928	.0000296	.0111	.0000845	.0312	.00390	.000144	.000144	.0338	.0337	.0238	.0203
••	.0192	.0192	•0124	•0111	00682	.00811	.0000206	.0133	.000132	.0134	.0103	.0000845	.000107	,0.331	.0331	. 5249	.0299
	.0157	.0157	.0104	.00907	.00522	.00661	.0000119	.0169	.000223	.0171	.0135	.0000605	.0000604	.0320	.0320		-0214
10.	•01.53	.0133	+00914	.00749	.00423	.00581	.0000078	.0201	.000307	.0203	.0162	.0000440	.0000460	-0337	.0317		
20.	00790	.00790	.00/01	+00548	.00287	+00441		.0262	+000480	.0267	.0207	.0000293	.0000293	.0366	.0366	.0337	
30.	.00578	.06574	.00432	.00722	+00217	.00308		.0302	.000610	.0309	.0225	.0000217	.0000217	.0388	.0386	.0344	. 0244
40.	.00459	.00459	.00349	-00197	.00118	.00262		+0304	.000804	.0373	.0252	.0000142	.0000142	.0430	.0430	.0416	.0280
50	.00384	.00384	.00295	.00149	000880	.00234		.0437	+00094Z	+0415	.0259	.0000105	.0000105	.0401	.0461	.0450	.0279
60.	.00330	.00330	.00256	.00116	.000742	.00214		-0460	-00312	.0471	+ 0438	.00000840	.00000840	.0486	.0486	.0477	.0274
80.	.00260	•00260	.00205	.000784	.000556	.00182		.0495	-00125	.0507	.0262	*******	* 00000940	.0504	.0504	.0497	.0268
100.	•0 0 216	•00216	•00172	• 00 0 569	.000446	.00159		.0524	.00134	.0537	.0246			.0333	.0533	.0328	.0260
											*****			•0328	• 0224	. 0555	.0252

38 STRONTIUM (cm³/g = 0.006873 x barns/atom)

39 YTTRIUM (barns/atom)

	E (MeV)	$\sigma_{inc,t}^{KN}$	$\sigma_{inc,t}^{BD}$	σ ^{KN} σinc,a	o ^{BD} o _{inc,a}	O'hc, s	σ ^{BD} inc,s	σ _{coh}	σ×n	σxe	σ _{×,t}	<u>σ_{*, a}</u>	σ _{r,t}	σ _{r,a}	σ _{tot,t}	ot, t-coh	σ _{tot, a}	or tot, en
	.001	25.8	1.24	.0503	.00242	25.8	1.24	93 9.					739000.	739000.	740000.	739000.	739000	739040-
	.0015	25.8	1.99	0752	.00580	25.7	1.98	884 .					252000.	252000.	253000.	252000.	252000.	252000.
	-002	25.7	2.69	.0999	.0104	25.6	2.68	827.					119000.	119000.	120000.	119000.	119000.	119000.
1	III *002079	25.7	2+80	+104	.0113	25.6	2.79	816.					108000.	108000.	109000.	108000.	108000.	108000.
	L002155	25.7	2.90	.107	.0121	25.6	2.89	810.					482000.	458000.	483000.	482000.	482000.	458000.
	-11 +1			••••		2000							573000.	545000.	\$74000.	573000.	573000.	545000.
	L1 .002373	25.7	3.20	.118	.0147	25.6	3.19	786.					458000.	438000.	459000.	458000.	458000.	438000.
	.003	25.6	3.99	.149	.0231	25.5	3.97	721.					521000. 271000.	498000. 261000.	272000.	521000. 271000.	521000. 271000.	498000.
	.004	25.5	5.17	.197	.0398	25.3	5+13	628.					122000.	119000.	123000.	122000.	122000.	119000.
-	.005	25.4	6.23	.244	.0597	25.2	6+17	550.					66300.	64900.	66900.	66300.	66300.	64900.
	.006	25,3	7+19	. 290	.0823	25.1	7+11	485.					40000.	39300.	40500.	40000.	40000.	39300.
	.00	23.2	8.83	. 301	.134	24+8	8.70	386.					18000.	17800.	18400.	18000.	18000.	17800.
	-015	24.5	12.7	.478		21.9	12.1	196.					7630	3040	7750.		7030.	304.0
	T 017038	24.3	13.4	.757	416	23.6	13.0	166.					2110	2100	2290	2120.	2110.	2100.
		- ••		•	••••								15700.	7330.	15900.	15700.	15700 .	7330.
	• 02	24.1	14.4	.869	.520	23.2	j3.9	133.					10100.	5510.	10200.	10100.	10100.	5510.
	.03	23.3	16.4	1.21	.853	22+1	15.5	75.0					3320.	2310.	3410.	3340.	3320.	2310.
	- 04	22.6	17.4	1.51	1.16	21.1	16+2	48+3					1500.	1160.	1570.	1520.	1500.	1160.
	.05	21.9	17.9	1.7/	1.44	20.1	16.5	33.5					800.	655.	851 .	818 .	B02.	656+
	.08	20.2	17.0	2.36	2.10	17.8	10.4	14.8					208.	407.	241	973+	210	407.
	.1	19.2	17.6	2.65	2.43	16.6	15.2	9.79					109.	99.1	136.	127.	112.	302.
	.15	17.3	16.5	3.14	2.99	14.2	13.5	4.57					33.0	31.0	54.1	49.5	36.1	34.0
	•2	15.8	15.3	3,43	3,31	12.4	12.0	2.63					14.1	13.5	32.0	29,4	17.5	16.8
	.3	13.8	13.5	3,72	3.64	10.1	9.86	1.20					4.32	4.19	19.0	17.8	8.04	7+83
	• •	12.3	12.2	3,83	3.77	8.53	8.43	•679					1.99	1.94	14.9	14.2	5.82	5.71
	• 5	11.3	11.2	3,85	3.81	7.43	7.39	•440					1,13	1.11	12.8	12.3	4,98	4,72
	• •	10.4	10.4	3,83	3.80	6.60	8.00	• 307					. 167	.363	9.66	9.49	4,00	4.04
	1.	8.24	8.21	3.42	3.60	5.42 A.A1	3.44	112					.228	.226	8.55	8.44	3.85	3.76
	1.5	6.69	6.68	3.31	3.23	3.38	3.45	.0502	.0791		.0791	.0244	.105	.104	6.91	6.86	3.49	3.36
	2.	5.71	5.70	3.03	2.92	2.68	2.78	.0286	.296		.296	.139	.0660	.0657	6.09	6.06	3, 39	3,12
	з.	4.49	4.49	2.59	2.45	1.90	2.04	+0127	.799	.00157	.801	.504	.0358	•0357	5.34	5.33	3.43	2.99
	4.	3,75	3.75	2,28	2.12	1.47	1.63	.00713	1.29	.00645	1.30	.906	.0237	.0236	5,08	5.07	3,60	3.05
	5.	3.24	3.24	2.03	1.86	1.21	1+38	+00461	1.70	+0127	1+71	1.27	.0175	+0175	4,97	4,97	3.76	3,15
		2.00	2.80	1.04	1.64	1.02	1+22	+00319	2.04	+0197	2.06	1.58	.0138	.0130	4,74	4,93	3,91	3.23
		1 00	2.34	1.70	1.12	.631		+00104	2.00	+0333	2+03	2.40	.00750	.00787	5 .14	5.14	4.51	3.42
	18.		1.44	1.05	.815		.665		4.00	.0718		3.14	.00478	.00478	5,55	5.55	5,12	3.96
	20.	1.19	1.19	.861	.632	.324	.558		4.65	0910	4.74	3.46	.00352	.00352	5.93	5,93	5.60	4.10
	30.	.863	.863	.645	.413	.218	.450		5.59	.120	5.71	3.84	.00232	.00232	6,58	6.58	6.36	4.26
	40.	.686	.686	.521	. 292	.165	.394		6,20	.140	6.34	3.92	.00171	.00171	7.03	7,03	6,86	4,21
	50.	.573	.573	.441	.221	.132	.352		6.70	.155	6.85	3.92	.00136	.00136	7,42	7,42	7.29	4.14
	60.	.493	.493	.383	.173	.110	.320		7.02	.168	7+19	3.87	.00113	.00113	7.68	7,68	7.57	4.04
	80.	.389	.389	.306	.116	.0830	.273		7.60	•187	7+79	3.84			8,18	5,15	8,10	3,76
	100.	, 323	.323	,256	,0 5 46	.0600	.230		8,01	• 200	8+21	3,73			8,93	8,73	8.4/	3,81

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39 YTTRIUM (cm³/g = 0.006774 x barns/atom)

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117 117 <th>E</th> <th>(MeV)</th> <th>(^k) inc, t</th> <th>([#]_p)^{BD}_{inc,t}</th> <th>([#]_p)_{)nc, a}</th> <th>(뿔)_{nc, a}</th> <th>(⊈)^{KN} inc, s</th> <th>([#]₅)^{BD}_{inc,s}</th> <th>([#])_{coh}</th> <th>([#]_p)_{*n}</th> <th>(砦)× e</th> <th>(^µ_p)_{x,t}</th> <th>([#]₂) × , a</th> <th>(芳)_{7,1}</th> <th>([#]_p)_{r,a}</th> <th>(%)_{tot,t}</th> <th>(^µ_p)_{tot,t-coh}</th> <th>([#]_p)_{tot,a}</th> <th>([#])_{tot, en}</th>	E	(MeV)	(^k) inc, t	([#] _p) ^{BD} _{inc,t}	([#] _p) _{)nc, a}	(뿔) _{nc, a}	(⊈) ^{KN} inc, s	([#] ₅) ^{BD} _{inc,s}	([#]) _{coh}	([#] _p) _{*n}	(砦)× e	(^µ _p) _{x,t}	([#] ₂) × , a	(芳) _{7,1}	([#] _p) _{r,a}	(%) _{tot,t}	(^µ _p) _{tot,t-coh}	([#] _p) _{tot,a}	([#]) _{tot, en}
code code <thcod< th=""> code code c</thcod<>		.001	.175	.0084	.000341	.0000164	.175	.0084	6.36					5010.	5010.	5010.	5010.	5010.	5610.
Ling Control Control <thcontrol< th=""> <thcontrol< th=""> <thcont< td=""><td></td><td>.002</td><td>.174</td><td>.0182</td><td>.000677</td><td>+0800704</td><td>.173</td><td>.0182</td><td>5.60</td><td></td><td></td><td></td><td></td><td>804.</td><td>804-</td><td>833.</td><td>1710.</td><td>1710.</td><td>1/10.</td></thcont<></thcontrol<></thcontrol<>		.002	.174	.0182	.000677	+0800704	.173	.0182	5.60					804.	804-	833.	1710.	1710.	1/10.
$ \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $	LTTT	.002079	.174	.0190	.000704	.0000765	.173	.0189	5.54					732.	732.	738.	732.	732.	732.
$ \begin{array}{c} r_1 \ 0.021 \ 0.010 \ 0.00072 \ 0.000020 \ 0.173 \ 0.010 \ 5.49 \ 0.010 \ 5.49 \ 0.010 \ 0.00020 \ 0.173 \ 0.010 \ 5.49 \ 0.010 \ 0.00020 \ 0.173 \ 0.010 \ 5.49 \ 0.010 \ 0.00020 \ 0.173 \ 0.010 \ 5.49 \ 0.010 \ 0.00020 \ 0.00000 \ 0.00000 \ 0.0000 \ 0.0000 \ 0.0000 \ 0.00000 \ 0.0000 \ 0.0000 \ 0.0000 \ 0.0000 \ 0.0000 \ 0.0000 \ 0.00000 \ 0.00000 \ 0.0000 \ 0.0000 \ 0.0000 \ 0.0000 \ 0.0000 \ 0.0000 \ 0.$	111													3270.	3100.	3270.	3270.	3270.	3100.
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	L 11	.002155	+174	•0196	.000725	• 000 082 0	.173	.0196	5.49					2810.	2680.	2820.	2810.	2810.	2680,
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		AA2373	174	0717			177	0714	e 12					3880.	3690.	3890.	3680.	3880.	3690.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	-1	.004313	+114	+0217	+000/99	•0000990	+1/3	+ 1210	2135					3100.	2970.	3110.	3100.	3100.	2970.
		.003	.173	.0270	.08101	-000156	.173	. 0269	4-88					3030+	3370.	3340.	3530.	3530.	33/8,
		-004	.173	.0350	.00133	.080278	.171	.0348	4.25					826.	806.	633.	824.	8.24	886.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $.005	.172	.0422	.00165	.000404	.171	.0418	3.73					449.	440.	453.	449.	447.	448.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.0.06	.171	.0487	.00196	.000558	.170	.0482	3.29					271.	266.	274.	271.	271.	266.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $.008	4171	.0598	.00258	.000908	.168	. 0589	2.61					122.	121.	125.	122.	122.	121.
r.0173 115 .0054 .0023 .1.12 20.7 20.4 20.7 20.7 20.4 20.7		•01	+169	.0891	.00317	.00129	<u>_106</u>	.0677	2.12						64.6	67.4	65.3	63.2	
.02 .143 .0075 .00052 .1005 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .1007 .1017 .		013	-165	-0	.00439	•00238	.102	.0833	1.33					20.7	20.0	22.2	20.8	20.7	28.6
.02 .163 .0975 .00549 .00359 .157 .0042 .901	•	101.030	• 1 • •		*00413				1.14					106-	1946	17.3	1949	14.3	14.2
•03 .156 .111 .0022 .00276 .150 .112 .22.5 .75.6 .27.1 .22.6 .22.5 .75.6 .05 .144 .121 .0122 .00775 .136 .112 .22.7 .10.2 .74.6 .00.7 .5.5.8		.02	.163	. 0975	.00589	.00352	.157	.0942	.901					48.4	37.3	49-1	48.4	68-Å	17.1
·b* .153 .118 .0102 .00764 .143 .119 .327 io-2 7.66 io-6 io-5 io-5 io-5 io-5 io-6		.03	.158	.111	.00828	.00578	.150	.105	.508					22.5	15.6	23.1	22.6	22.5	15.6
.05 .144 .121 .012* .0075 .136 .112 .227 5.42 4.44 5.76 5.53 5.43 4.44 .06 .117 .123 .0135 .0112 .107 .100 1.41 1.25 1.43 1.53 1.44 1.25 1.43 1.53 1.44 1.25 1.43 1.53 1.44 1.25 1.41 1.25 1.41 1.25 1.43 1.53 1.44 1.25 1.43 1.53 1.44 1.25 1.43 1.53 1.44 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.41 1.25 1.24 1.25 1.24 1.25 1.24 1.25 1.24 1.25 1.24 1.25 1.24 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25 1.25		. 84	.153	.118	.0102	.00786	.143	-119	.327					10.2	7,86	10.6	10.3	14.2	7.86
•144 •123 •0135 •0115 •131 •111 •167 3.23 2.74 3.32 3.55 3.42 2.76 •14 •126 •1010 •0142 ·121 ±017 ·100 ·141 1.25 1.42 ·112 ·143 ·143 ·112 ·112 ·114 ·112 ·112 ·114 ·112 ·114 ·114 ·114 ·114 ·114 ·112 ·112 ·114 ·114 ·114 ·112 ·112 ·114 ·112 ·114 ·112 ·114 ·112 ·112		.05	-148	.121	.0120	.00975	.136	-112	.227					5+42	4.44	5.76	5.54	5.43	4=44
**** 113 **** ****** ************************************		.06	+144	.123	.0135	+0115	•131	.111	.167					3.23	2.74	3.52	3.35	3,24	2.76
11 112 112 1212 <td< td=""><td></td><td></td><td>. 1 30</td><td></td><td>-0100</td><td>-01-2</td><td>1121</td><td>107</td><td>-100</td><td></td><td></td><td></td><td></td><td>1.41</td><td>1.25</td><td>1.63</td><td>1.53</td><td>1.42</td><td>1.20</td></td<>			. 1 30		-0100	-01-2	1121	107	-100					1.41	1.25	1.63	1.53	1.42	1.20
.2 .101 .1024 .0227 .0247 .0043 .0013 .0014 .0277 .205 .1175 .0014 .0277 .0265 .0277 .0265 .0277 .0265 .0277 .0265 .0277 .0265 .0277 .0255 .0274 .0255 .0274 .0255 .0274 .0255 .0274 .0255 .0274 .0255 .0274 .0255 .0274 .0255 .0274 .0255 .0274 .0267 .0267 .0267 .0267 .0267 .0267 .0267 .0267 .0267 .0267 .0267 .0267 .0267 .0267 .0277 .0278 .0277 .0278 .0277 .0278 .0277 .0278 .0277 .0278 .0277 .0278 .0277 .0278 .0277 .0278 .0278 .0277 .0278 .0278 .0277 .0278 .027		.15	.117	112	.0213	.0203	.0962	.0914	.0318		·····		·····						
.3 .0935 .0914 .0252 .0247 .0644 .0683 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0293 .0237 .0		.2	.107	.104	.0232	.0224	.0840	.0813	.0178					+ 0955	.0914	.217	.199	119	.114
.4 .6833 .6826 .0259 .0259 .0578 .0571 .00460 .0135 .6135 .6137 .181 .0662 .6333 .6337 .6		•3	.0935	.0914	.0252	.0247	0684	.0668	.00813					• 0293	.0284	.129	.121	.0545	. 6520
.5 .6775 .0251 .0251 .0251 .0251 .00298 .00755 .00472 .00467 .0033 .337 .833 .6 .6 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0254 .0255 .0279 .0572 .0251 .0251 .0276 .0276 .00154 .00154 .00171 .000704 .0466 .0465 .0264 .0264 .0264 .0264 .0264 .0264 .0264 .00154 .00171 .000704 .0466 .0465 .0276 .0276 .0276 .0276 .0276 .000711 .000704 .0466 .0465 .0276 .0276 .000745 .00057		.4	.0833	.0826	.0259	. 0255	.0578	.0571	.00460					+0135	·0131	.101	.0962	• ģ394	. 1387
		.5	.0765	.0759	.0261	.0258	.0503	.0501	.00298					+00765	.00752	-0867	•0833	.0337	. 6333
1. .052 .0242 .0243 .0243 .0243 .0244 .0245 .0244 .0245 .0244 .0245 .0245 .0245 .0245 .0245 .0245 .0245 .0245 .0245 .02		•	.0704	.0704	.0279	.0257	.0447	.0447	.00208					+00485	.00455	-9772	·0752	.0306	- 4264
1.5 0.0133 0.0203 0.0203 0.0213 0.00136 0.00141 0.00142 0.00143 0.00143 0.00141 0.00142 0.00142 0.00142 0.00143 0.00141 0.00142 0.00142 0.00142 0.00143 0.00141 0.00142 0.00143 0.00141 0.00141 0.00142 0.00141 0.00142 0.00141 0.00141 0.00140 0.00141 0.00141 0.00140 0.00141 <td< td=""><td>•</td><td>• 0</td><td></td><td>.0010</td><td>.0274</td><td>.0249</td><td>.0312</td><td>.0317</td><td>-004750</td><td></td><td></td><td></td><td></td><td>•002•9</td><td>.00240</td><td>• 0034</td><td>10043</td><td>120.</td><td>• • • • • •</td></td<>	•	• 0		.0010	.0274	.0249	.0312	.0317	-004750					•002•9	.00240	• 0034	10043	120.	• • • • • •
2. .0367 .0366 .0205 .0192 .0182 .00194 .00201 .000942 .000445 .0413 .0411 .0220 .0213 3. .0304 .0175 .0144 .00294 .000445 .00145 .0413 .0411 .0220 .0221 .000942 .000445 .0413 .0411 .0220 .0213 .000445 .00145 .0413 .0411 .0220 .0213 .000445 .00145 .0413 .0411 .0220 .0213 .000445 .00145 .00145 .0413 .0411 .0220 .0213 .000445 .000445 .00145 .00145 .00145 .00145 .00145 .00145 .00145 .00124 .000453 .00047 .000445 .00024 .00024 .00024 .00024 .000151 .00024 .000151 .000145 .0015 .00144 .000151 .000151 .000151 .000151 .000151 .000155 .00337 .0337 .0337 .0337 .0337 .0337 .0337 .0337 .0255 .00252 .000052 .0000252 .000052	1	.5	.0433	.0453	+0224	.0219	.0229	.0234	+000340	.000336		.000536	+000165	+000711	+088704	.0446			
3. .0304 .0207 .0207 .0004 .0	2		.0387	.0386	.0205	.0196	.0182	.0188	.000194	.00201		.00201	-000942	+000447	.000445	+0413	.0411		.4211
4. .0234 .0234 .0144 .00964 .000403 .0004037 .0004017 .0004017 .0004017 .0004017 .000101 .0000001 .000101 .00000001 .00000001 .00000001	1	i.	.0304	.0304	.0175	+0366	.0129	.0138	+0000860	+00\$41	.0000106	.00543	.00341	+000243	+000242	+0362	+0361	1832	- 1293
50219 .0219 .0136 .0126 .00879 .00935 .0000312 .0115 .0000569 .0116 .00869 .00019 .00519 .0337 .0337 .0337 .0275 .0213 60139 .0159 .0104 .0125 .0111 .0061 .00826 .000016 .0133 .0140 .0107 .0000935 .0000935 .0333 .0337 .0337 .0337 .0275 .0239 100135 .0135 .00921 .00914 .00528 .00672 .00800128 .0176 .00126 .0176 .0140 .0000935 .0000935 .0337 .0337 .0337 .0337 .0275 .0239 100135 .0100 .0100 .00711 .00552 .00220 .00402 .0209 .00210 .0213 .0140 .000058 .000058 .000037 .0340 .0346 .1346 .1345 .1245 150100 .0100 .00711 .00552 .00220 .00456 .0271 .000464 .0274 .0213 .000058 .0000324 .0376 .0376 .0376 .0376 .0376 .0376 .0376 .0376 .0376 .0376 .0376 .0276 .0213 .0000224 .0000228 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0402 .0277 .0286 .000157 .0000157 .0446 .0476 .0476 .0276 .0276 .0276 .000033 .0387 .0260 .0000157 .0446 .0476 .0476 .0476 .0229 .0229 .000092 .0200 .000092 .0260 .0000157 .0446 .0476 .0476 .0476 .0229 .0209 .000092 .0200 .00000000 .000016 .0000157 .0446 .0476 .0476 .0476 .0209 .0209 .0000000 .000016 .0000157 .0446 .0476 .0476 .0476 .0209 .0209 .000000 .0000000 .0000016 .000016 .000016 .0476 .0446 .0446 .0446 .0209 .0209 .00000000000000000000000000		•	.0254	.0254	.0154	.0144	.00996	.0110	.0000483	.00874	.0000437	.00881	<u>,00414</u>	.000161	.040160	. 8344	.0343	. 1244	= 0207
0.000 0.010 0.010 0.00000 0.00000 0.00000 0.00000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.000000 0.0000000 0.0000000 0.0000000 0.00000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.0000000 0.00000000 0.00000000 0.00000000 0.00000000 0.00000000 0.00000000 0.00000000 0.000000000 0.00000000000 0.0000000000 0.00000000000000 0.00000000000000000000000000000000000		•	.0219	.0219	.0138	.0128	.00520	.00935	.0000312	-0115	.0000000	.0116	.00865	+000117	+008119	+0337	.0337	- 6205	=0213
10. 0.135 0.0352 0.0025 0.00012 0.000012 0.000012 0.000012			.0149	-0174	.0125	-0111 -00974	.00575	-00620	-00000210	.0138	.000133	.0140	.0107	• 0000933	• 00000433	.0335	.03.34		
15. 0100 00071 00552 0026 0075 00045 0076 0376 <	10		.0135	.0135	.08921	.00750	-00427	.00592	.0060082	-0209	.000310	- 0211	-0148	-000505	- 6000567		.0348		• 02 32
20. 00805 00553 00425 00219 00376 00375 00375 00315 000616 0321 0234 0060236 0402 0402 0402 0377 0278 38. 00385 00585 00437 00288 00148 00145 00305 0379 00813 0387 0260 0000157 004057 0446 0444 0431 0289 40. 00465 00455 00333 00198 00112 00287 0420 00098 0429 0266 0000116 000116 0476 0476 0476 0278 0289 50. 00385 00385 00299 00156 000994 00238 0454 00108 0446 0266 00000920 0503 0520 0523 0494 0289 50. 00385 00299 00156 000994 00238 0454 00108 0446 0266 00000920 0503 0520 0520 0520 0520 0520 0520 05	- fi		.01 00	0100	.00711	.00552	.00290	.00450		.0271	.000486	.0276	.0213	.0000324	.0000324	.0376	.0376	.0347	
38. .00585 .00585 .00285 .00148 .00305 .0379 .000813 .0387 .0260 .0000157 .0446	20	•	.00806	.00806	.00583	.00428	.00219	.00378		.0315	.000616	.0321	.0234	.0000236	.0000238	.0402	.0402	.0379	.0278
4000065 .00353 .00198 .0012 .00267 .0420 .000948 .0429 .0266 .0000116 .0000116 .0476 .0476 .0465 .0285 5000386 .00386 .00299 .00156 .000894 .00238 .0454 .00105 .0464 .0266 .00000920 .0000920 .0503 .0593 .0694 .0220 6000334 .00334 .00259 .00117 .00745 .00217 .0476 .00114 .0487 .0262 .00000769 .0000760 .05520 .05520 .0513 .0287 8000264 .00224 .00277 .000765 .000852 .00185 .0515 .00127 .0528 .0260 .0550 .0000769 .0000769 .05554 .0554 .0549 .0268	38	•	.00385	.00585	+00437	.00288	.00148	.00305		.0379	.000813	.0387	.0260	.0000157	.0000157	-0446	.0446	.0431	.0289
70, .00999, .00998, .00079, .00179, .000794, .00238, .0494, .00108, .0484, .0266, .00000920, .00000760, .0503, .0553, .0694, .0280, 60, .0034, .00334, .00259, .00117, .00745, .00217, .0476, .00114, .0487, .0262, .00000760, .00000760, .0520, .0520, .0254 80, .00264, .00264, .0027, .001764, .00185, .0515, .00127, .0528, .0260, .00000760, .0556, .0556, .0554, .0249, .0268 100, .00219, .0218, .0127, .00151, .00185, .0151, .00127, .0528, .0250, .0250, .0556, .0556, .0556, .0549, .0268	40	•	.00465	.00465	.00353	.00198	.00112	.00267		.0420	.000948	.0429	.0266	+0000116	.0000116	.0476	.0476	. 0465	-0205
00. 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 00000000 000000000 000000000 000000000 000000000 000000000 000000000 000000000 000000000 000000000 000000000 000000000 000000000 0000000000 0000000000 00000000000 0000000000000 000000000000000000000000000000000000		•	.00344	80L00.	+00299	.00150	.000594	.00238		+0494	+00105	.0464	.0266	• 00000920	.00000920	• 0503	• 05 03	-0494	-0280
	80	•	.00264	.00334	+00439	.00117	.000562	+00417 .00186		+04/6	+00114	.0487	.0282	•00000760	•00000780	• 0520	.0520	.0513	.0274
	100	•	.00219	.00219	.00173	.000573	.000451	.00161		.0543	.00135	.0556	.0253			+ U734	•U734 .8678	• UB47	• UZUU

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40 ZIRCONIUM (barns/atom)

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E (MeV)	σ _{inc,t}	o ^{BD}	o ^{KN} inc, a	σ ^{BD} _{inc,a}	Unc,s	σ ^{BD} inc,s	o _{coh}	σ _{*n}	σ _{×e}	σ _{*,1}	σ _{×,a}	σ _{τ,t}	Or.a	σ _{tot,t}	σ,t.coh	σ _{tot, a}	Ttor, en
•	001	26.5	1.08	.0516	.00210	26.5	1.08	991.					829000.	829000.	830000.	829000.	829000.	829000.
•	0015	26.5	1.61	.0772	.00528	26.4	1.80	933.					285000.	285000.	286000.	245000 ·	285000.	285000.
•	.002	20.4	2.54	.102	.00986	26.3	2.53	872.					133000.	133000.	134000.	133000.	133000+	133000.
^L III *	002223	20.4	2,85	•11 •	•0123	26 • 3	2.84	846.					101000.	101000+	102000+	101000.	101000.	101000+
L	002307	26.4	2.97	. 118	. 01 33	26.3	2.96	836.					444000.	420000+	445000+	444000.	444000+	420000+
-11 •		•			••••-3	LUU	2.70						361000.	361000.	382000.	361000.	381000.	361000+
Lq.	002533	26.3	3.29	.129	.0161	26.2	3.27	810.					423000.	403000.	\$24000+	520000+	\$23000.	403000.
-	-												481000	A58000	482000.	481000.	481000.	458000
•	003	26.3	3.90	•152	•0559	26.1	3.68	758.					302000.	290000.	303000.	302000.	302000.	290000.
•	004	26.2	5.12	.202	.0394	26.0	5.08	660.					136000.	132000.	137000.	136000+	136000+	132000+
•	005	20.1	0.22	.250	•0596	25.8	6+16	577.					73600.	71800+	74200+	73600+	73600+	71800.
•	008	20.0	8.06	.278	.0828	25+7	7+15	509.					44300.	43400.	44800.	44300.	44300.	43400.
:	01	25.6	10.4	.480	.195	25.1	10.2	330.					20000+	19700.	20400+	20000.	20000+	19700-
<u> </u>	015	25.2	12.9	696	.357	24.5	12.5	208.					3390.	3360.	3610.	3400.	3390.	3360.
π.	017998	24.9	14.0	.814	.458	24.1	13.5	163.					2010.	2000.	2190.	2020.	2010.	2000.
													14800.	6730.	15000.	14800.	14800.	6730.
•	02	24.7	14.7	.892	.531	23.0	14+2	141+					11000.	5600.	11200+	ī1000 .	11000+	5600.
•	03	23.9	10.7	1.24	.869	22.7	15+8	79+6					3620 +	2440.	3720.	3640.	3620+	2440+
•	85	22.5	14.3	1.74	1.19	21.0	10.0	51+4					1630.	1230+	1700+	1650+	1030.	1230+
	06	21.8	18.5	2.05	1.74	19.8	10.0	37+1					880+	707+	934+	578+	82.	708+
	08	20.7	18.3	2.42	2.14	18.3	16.2	15.8					230.	437. 202.	264.	248.	212.	204.
	1	19.7	18.0	2.72	2.48	17.0	15.5	10.4					120.	108.	148.	138.	123.	110.
•	15 -	17.7	16.9	3,22	3.07	14.5	13.8	4+88					36.6	34.2	58.4	\$3.5	39.8	37.3
•	2	10.3	15.7	3,51	3,39	12.7	12.3	2+81					15.8	15.0	34,3	31.5	19.3	18.4
٠	3	14.1	13.9	3.81	3,75	10.3	10.2	1+28					4,85	4.69	20.0	18.7	8,66	8,44
•	5	11.6	16+7	3,72	3,00	7.67	0+04	+724					2,23	2,18	15+5	14+7	6+1	6.04
	6	10.7	10.6	3.93	3.87	6.77	6.73	.128						.797	13.2	11.4	5.2	4.67
	8	9.4	9.36	3.84	3.77	5.56	5.59	.185						405	9.95	9.77	4.2	4.17
1.		8,45	8,42	3,72	3.62	4.73	4.80	.119					.253	.251		8.67	3.91	3.87
1.	5	6.86	6.85	3,40	3,32	3.47	3.53	+0537	.0840		+0840	•0260	.118	+117	7.11	7.05	3,60	3,46
2.		5.85	5.85	3.11	3.00	2.75	2.85	+0304	.313		•313	+147	.0745	+0741	6.27	6.24	3,50	3.22
3.		3.86	3.86	2.80	2.51	1.51	2.09	+0135	.842	+00161		+530	+0402	+0401	5.90	5,40	3.54	3.08
		3.32	1.12	2.09	1.90	1.24	1.42	-00491	1.50	.00001	1+37	+734	.0203	.0195	5+25	5,23	3. 1	1.76
á.		2.94	2.94	1.89	1.68	1.05	1.26	.00339	2.15	.0202	2.17	1.66	.0155	.0155	5.13	5.13	4.0	1.36
8.		2.40	2.40	1.68	1.38	.800	1.02	+00194	2.72	.0341	2.75	2.15	.0110	.0110	5.10	5.16	4,36	3.54
10.		2.05	2.05	1.40	1.15	,648	.904	.00128	3.22	.0470	3.27	2.59	100842	.00841	5,33	5,33	4,60	3,75
15.		1.51	1.51	1.08	.829	.439	.681		4.20	.0735	4+27	3.29	.00534	.00534	5.79	5,79	5,30	4.12
20.		1.22	1.22	.883	+644	.332	•576		4,90	.0933	4.99	3.63	.00392	.00392	6.21	6.21	5,80	4.28
30.		.885	.885	.00] E 1	+419	+224	+486		7,86	•122 •122	5+98	4.00	.00258	+00258	6.87	6,87	6,64	4.42
50.		.587	.587	.452	.226	.135	. 362		7.01	.159	0+04 7.17	₩ +07	-00191	.00152	7.74	7.74	7.62	4.30
60.		506	.506	.392	176	.113	.330		7.40	.172	7.57	4.05	.00126	.00126	8.08	8.08	7.96	4.23
80.		.399	.399	.314	.119	.0852	.280		7.94	.191	8.13	3.98		•••••	8.53	8.53	8.44	4.10
100.		.331	.331	,263	.0861	.0683	.245		8,42	.205	8.63	3,88			8.96	8,96	8.81	3.97

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40 ZIRCONIUM (cm³/g = 0.006602 x barns/atom)

E (MeV) (#	KN inc, t	([#] _p) ^{BD} _{)nc,t} ((^{#)} inc, a	(≝) _{nc, a}	(声) ^{KN} inc, s	(^µ _p) ^{BD} _{inc,s}	([#] _₽) _{coh}	([#] _p) _{*n}	(ي) _{× e}	(^μ / _β) _{x, t}	(芳) ×, a	(岸) _{下, t}	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	([#])tot, t	([#]) _{tot,t-coh}	([#] _p) _{tot,a}	(\$)tot, en
.001	.175	.00713	.000341	.0000139	.175	.00713	6.54					5470.	5470.	5480.	5470.	5470.	5470.
.0015	.175	.0119	.000510	.0000349	.174	.0119	6.16					1880.	1880.	1890.	1880.	1880.	1880.
.002	.174	.0168	+000673	.0000451	.174	.0167	5.76					878.	878.	885.	878.	878.	878.
L _{III} .002223	.174	.0188	.000753	3 .0000812	.174	.0187	5.59					667.	667.	673.	667.	667.	667.
												2930.	2770.	2940.	2930.	2930.	2770.
L _{II} .002307	+174	+0196	•000779	.0000878	+174	+0195	5.52					2520.	2380.	2520.	2520.	2520.	2380.
1002633	174	4217	000862		177	. 4216	E 35					3470.	3290.	3480.	3470.	3470.	3270.
-1	•••		********		•••		3,35					3180.	3020.	3180.	3180.	3180.	3020.
.003	.174	.0257	.00100	.000149	.172	.0256	5.00					1990.	1910.	2000.	1990.	1990.	1918.
.004	.173	.0338	.00133	.000268	.172	.0335	4.36					898.	871.	904.	898.	898.	871.
.005	.172	.0411	.00165	.000393	.170	.0407	3.61					486.	474.	490.	486.	486,	474.
.006	.172	.0477	.00197	.000547	.170	.0472	3.36					292.	287.	296,	292.	<u>2</u> 92.	267.
.008	+178	• 05 92	.00258	.000898	.168	.0582	2.67					132.	130.	135.	ī3 2.	132.	130.
.01	.169	.0687	.00317	.00129	,166	.0673	2,18					70.6	70.0	0.57	70.6	70.6	70,0
.015	.166	.0852	+00459	.00236	+162	.0825	1.37					22.4	22.2	23.8	22.4	22,4	22.2
K +017998	.184	.0924	.00\$37	•00302	159	•0891	1.08					13.3	13.2	14-5	13.3	13.3	13,2
. 67	143			00765	167	0077	.031					97.7	****	44.0	97.7	21.7	****
+UE	100		+00267	*00391	150	10431						72.0	37.0	73.9	72.0	12.0	31.4
- 03	163		*000IA	.00374	143	1110	. 260			•		23.7	10.1	11 2		10 8	
- 05	149	.121			136	. 111	. 334					E 81	0,12	4 17	6 91	6 42	4 47
-06	.144	.122	.0136	-0115	.131		.173					3.47	2.90	3.76	3.54	1.44	2.91
.08	137	121	.0160	.0741	121	107	.104					1.52	1.33	1.74	1.64	1.53	1.35
•1	.130	.119	.0180	.0164	112	102	.0687					.792	.713		.911	.812	.726
115	.117	112	+0213	.0203	.0957	.0911	+0322			••••••		.242	.226	.386	.353	.263	.246
.2	.108	.104	.0232	.0224	.0838	.0812	.0186					104	.0990	226	.208	.127	.121
.3	.0931	.0918	.0252	.0248	.0680	.0673	.00845					.0320	.0310	,132	.123	.0572	.0557
.4	.0838	.0825	.0259	.0255	0577	.0570	.00478					.0147	.0144	.102	.0978	.0406	. 0398
.5	.0766	.0759	.0260	.0258	.0503	.0501	.00310					.00838	.00625	.087	1 .0845	.0344	,0341
•6	.0706	.070 0	.0259	•0255	.0447	.0444	.00217					.00535	.00526	.077	2 .0753	.0313	.0308
.8	.0621	.0618	.0254	+0249	.0367	.0369	.00122					.00271	.00267	.065	7 .0645	.0261	. 0275
1	0558		10246			0317	000786_					00107		.050	5/50	.0202	
1.5	.0403	.0472	.0224	.0219	.0229	.0233	•000355	.000355		.000555	+000172	.000//9	.000/72	.040	• • • • • • • •	.0238	.0248
2. 3.	.0304	+0300	+0203	+0190	-0102	.0138	.000201	.00207	0000186	.00207	.000970	000472 000745	000407	636	7 0767	10671	+UELJ
A .	.0254	0254	.0154	.0143	.00997	.0111	-0000507	.00898	.0000434	00000A	00430	.000374	.000173	.034	7 .0347	0247	. 8766
5.	0219	.0219	.0138	.0125	00819	.00937	.0000324	.0119	.0000858	.0110	00886	.000129	.000129	.034	0 .0340	.0259	. 0215
6.	0194	.0194	.0125	.0111	00693	.00832	.0000224	-0142	.000133	.0143	.0110	000102	.000102	.033	.0339	.0269	.0222
8.	0158	.0156	.0106	.00911	00528	.00673	.0000128	-0160	.000225	.0182	.0142	.0000726	.0000726	.034	1 .0341	.0296	. 6234
10.	0135	.0135	.00924	.00759	.00428	.00597	.0000085	.0213	.000310	.0216	.0171	.0000556	0000555	.035	2 .0352	.0309	.0248
15.	.00997	.00997	.00713	+00547	.00290	.00450		.0277	+000485	.0282	.0217	.0000353	,0000353	.038	2 .0362	,0354	.0272
20.	.00805	.00805	.00583	+00425	.00219	.00380		.0323	.000616	.0329	.0240	.0000259	.0000259	.041	0 .0418	,0366	•0283
30.	.00584	.00584	.00436	+00277	.00148	.00308		.0387	+000805	.0395	.0264	.0000170	.0000170	.045	4 .0454	.0438	.0292
40.	+00464	.00464	.00353	+00195	.00112	.00269		.0429	+000944	+0438	.0270	.0000126	.0000126	.048	5 .0485	.0474	.0290
50.	.00388	.00388	•00298	+00149	.000891	.00239		+0463	•00105	+0473	.0269	.0000100	.0000100	.051	2 .0512	.0563	.0284
60.	.00334	+00334	.00259	.00116	.000746	.00218		+0489	.00114	.0500	.0267	.00000830	.00000830	.053	3 .0533	,0526	.0279
	+00Z63	.00263	.00207	+000786	.000562	.00185		+0524	.00126	.0537	.0263			.056	3 .0563	.0557	.0271
100.	.00219	.00219	+00174	+000568	.000451	.00162		•0556	.00135	•0570	.0256			.059	2 .0572	,0587	, 02 0 2

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41 NIOBIUM (barns/atom)

E (MeV)	σ ^{KN} inc,t	σ ^{BD} _{inc,t}	σ ^{KN} σ _{inc,a}	o ^{BD}	0 ^{KN} 0 ^{inc, s}	σ ^{BD} _{inc,s}	σ _{coh}	σ _{×n}	σ×e	σ _{x,t}	σ _{×,a}	σ _{τ,t}	σ _{τ, a}	σ _{tot,t}	Ttot.t-coh	O _{tot,a}	tot, en
	001	27.2	.966	.0529	.00188	27.1	.964	1050.					929000.	929000.	930000.	929000.	929000.	929000.
	0015	27.1	1.70	.0791	.00496	27.0	1.70	992.					318000.	318000.	319000.	318000.	318000.	318000.
· ·	002	27.1	2.43	.105	+00943	27.0	2.42	930.					149000.	149000.	150000.	149000.	95600.	95600
LUI .	002370	27.0	2.95	.124	.0135	26.9	2.94	883+					A10000.	386000.	A11000.	410000.	410000	386000.
Ler .	002464	27.0	3.09	.129	.0147	26.9	3.08	872.					351000.	331000.	352000.	351000.	351000.	331000.
	•••			••••									484000.	456000.	485000+	484000+	484000+	456000.
L _I .	002698	27.0	3.41	+141	.0178	26.8	3.39	843.					392000.	371000.	393000.	392000.	392000.	371000.
	603	27 0	1.87	.154	4221	76.8	3.8.	807.					332000.	316000.	333000.	332000.	332000.	316000+
•	005	26.0	5.10	.207	1392	20.0	3.00	607.					149000.	144000.	150000.	149000.	149000+	144000.
	005	26.8	6.27	.256	.0601	26.5	6.21	610.					81400.	79100.	82000.	81400.	81400.	79100.
	006	26.6	7.32	.305	.0838	26.3	7.24	536.					49000.	47800 .	49500.	49000.	49000.	47800+
	008	26.4	9.12	.400	.138	26.1	8.98	427.					22100.	21700.	22500+	22100.	22100.	21700.
•	01	26,3	10.6	.492	,199	25.8	10.4	348.					11800.	11600.	12200+	11800.	1100.	11600.
•	015	25.8	13.2	.713	.365	25.1	12.8	221.					3770.	3730.	4 000+	3780.	3/70.	3/30.
κ.	018986	25.4	14.6	.874	.502	24.6	14+1	161.					1930.	1920+	2110+	1740.	1730+	6140.
	A-2	25.3	15.0	014	541	24.4	14.E	164.					12100	5690.	12300.	12100.	12100.	5690
•	A2	20,3	17.1	, 27	. 341	27.7	14.3	84.4					3950.	2550.	4050 .	3970.	3950.	2550.
•	AA	27.7	18.1	1.58	1.21	22.1	10.0	54.6					1800.	1320+	1870.	1820.	1800.	1320.
	05	23.0	18.7	1.86	1.51	21.2	17.2	38.0					970.	764.	1030.	989.	972.	766.
	06	22.4	18.9	2.10	1.77	20.3	17+1	27.9					577+	475.	624.	596.	579.	477.
•	08	21.2	18.8	2,48	2,20	18.7	16.6	16.8					252.	219.	288.	271.	254.	221.
	1	20.2	18.4	2.79	2.54	17.4	15.9	<u> </u>					132.		101.	<u>170.</u>	135.	1210
•	15	18.2	17.3	3,30	3.14	14+9	14.2	5+20					17.6	37.63	36.6	33.6	+3+/ 21+1	20.1
•	2	10.7	16+1	3.60	3,48	13.1	12.6	3+00					5.40	5.21	21.0	19.6	- 9.31	9.04
•	5	17.7	14.2	3.41	3.03	10.04	10.4	1+30					2.48	2.41	16+1	15.3	6.50	6.37
•	č –	11.9	11.8	4.04	4.01	7.81	7.79	-501					1+42	1.39	13.7	13.2	5.46	5+40
:	6	11.0	10.9	4.03	3.98	6.94	6.92	+350					• 900	+884	12+1	11+8	4.93	4.86
	8	9.63	9.59	3,94	3.86	5.69	5.73	+196					•459	•453	10.2	10.0	4.40	4.31
1.		8,66	8.63	3.81	3.71	4,85	4,92						+282	-219	9.04	7.74		1.55
1.	5	7.04	7.02	3.48	3.39	3.55	3.63	•0570	• 0900		+0900	.0275	+132	+131	7 • 3 ·	, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	3.59	3.35
z .		6,00	5.99	3,18	3.07	2.82	2.92	+0324	.330	44) 4E	+330	•153	.0450	.0448	5.6	5.64	3.65	3.15
3.		3 94	4+71	2.12	2.30	1.55	2.13	+0145	1.43	.00677	1.44	.991	.0293	.0292	5.4	5,41	3.86	3.23
		3.41	3.41	2.14	1.94	1.27	1.47	.00523	1.88	.0133	1.89	1.34	.0218	+0218	5.3	5.32	4.05	3.34
		3.01	3.01	1.94	1.72	1.07	1.29	.00360	2.26	.0207	2.28	1.72	•0171	.0171	5.3)	5,31	4.24	3.46
i.		2.46	2.46	1.64	1.41	.820	1.05	+00205	2,86	.0350	2.89	2.23	+0121_	+0121	5.34	5.36	4.54	3.65
10.		2.10	2.10	1.43	1.17	.664	.930		3.40		3.45		+00927	•00926		5.56	4+89	3.00
15.		1,55	1.55	1.10	.846	.450	.704		4,40	.0751	4+48	3,40	+00592	+00572	6+04		3+37	4.23
20.		1,25	1.25	.905	.656	•341	•594		5.11	.0955	5+21	3.72	+00437	+00437	7.1	7.17	6.94	4.55
30.		.907	.907	.678	.427	+229	++50		0,14	• 125	0+20	4+12	+00214	.00214	7.6	7.67	7.50	4+53
40.		. 721	+721	.748	+ 303	.139	. 173		7. 16	.163	7.51	4.21	+00169	.00169	8+1	8.11	7.97	4.44
50.		518	.518	.402	.179	.116	.339		7.77	176	7.95	4.17	+00139	+00139	8.4	7 8.47	8+35	4+35
80.		409	409	.321	.izi	.0873	.288		8.30	.195	8.50	4.09	+00104	+00104	8.9	8.91	8.62	4+21
100.		, 339	.339	.269	.0875	.0700	.252		8.80	.209	9.01	3,99			9+3	5 9+35	9.20	4+08

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41 NIOBIUM (cm³/g = 0.006482 x barns/atom)

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E (MeV)	([#] s) ^{KN} _{inc,t}	([#]) ^{BD} _{inc,t}	([#] _p) _{)nc, a}	(≝) ^{BD} inc,a	([#] _p) ^{KN} inc,∎	(声) ^{BD} inc,s	([#] _p) _{coh}	([#] _p) _{*n}	([#] _p) _{*e}	([#] _p) _{x,t}	([#] _p) _{*,a}	(貨) _{下,1}	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	([#]) _{tot,t}	(声) _{tot,t-coh}	([#] _p) _{tot,a}	([#] _p) _{tot, en}
+001	.176	.00626	.000343	.0000122	.176	.00625	6.81					6020.	6020.	6030. 2070.	6020. 2060.	6020. 2060.	6020. 2060.
.0015	.176	.0110	.000513	•0000322	.175	.0110	6.43					966.	966.	972.	966.	966.	966.
•002	+176	+0158	+000681	+0000611	.175	.0157	8.03					620.	620.	626.	620 .	620.	620.
L ₁₁₁ •002370	• 175	+0141	•00080•	+00008/5	+11+	10141	3.12					2660.	2500.	2660.	2660.	2660.	2500-
1002464	. 175	.0200	.000836	.0000953	.174	.0200	5.65					2280 .	2150.	\$280.	5580.	2280.	5120.
II WOLLOG	• • • •	***		••••	•••							3140.	2960.	3140.	3140.	3140.	2980.
L _I .002698	•175	.0221	.000914	.000115	.174	.0220	5.46					2540. 2890.	2400.	2900.	2890.	2890.	2748.
.003	.175	+0248	.00101	.000143	.174	•0246	5.23					2150+	2050.	972.	2130.	966.	933.
.004	+174	.0331	+00134	+000254	,172	.0328	4,53					528.	5 13.	532.	528.	528.	513.
.005	.174	.0406	.00166	.000390	.172	.0403	3.95					318.	310.	321.	318.	318.	310.
.006	.172	.0474	.00198	+000543	.170	.0469	3+47					143.	141.	146.	143.	143.	141+.
.008	+171	.0591	.00259	.000895	,169	.0582	2.77					76.5	75,2	79.1	76.5	76.5	75.2
.01	.170	.0687	-00319	.00129			1 41		··			24.4	24.2	25.9	24.5	24.4	24.2
.015	.107	.0870	.00402	+00237	160	.0914	1.04					12.5	12.4	13.7	12.6	12.5	12.4
K *010AGC	9 • 18 2	•09+8	*00301	+00323	.1.37	••••	1004					90+1	39.8	91.4	90.1	70.1	37.8
-02	-164	.0972	.00592	•003 5 1	.158	.0940	•972					78.4	36.9	79.7	78.4		30.7
.03	.159	.111	.00823	.00577	150	.105	.547					25+0	10.5	20.3	23.1	×3.0	8.86
.04	.154	.117	.0102	.00784	,143	.110	.354					11.1	8.30	16+1	6.41	6.70	4.97
.05	.149	+121	.0121	+00979	137	•111	•246					0.29	4.70	4.04	3.86	3.75	3.09
.06	-145	.123	+0136	.0115	.132	•111	.181					3.4	3+00	1.87	1.74	1.45	1.43
.08	•137	.122	.0161	.0143	121	.108	+109						.765	1.04	.972	.875	, 784
•1	,131	.119	+0181	.0165	113	.103	.0720					+262	+243	.408	.374	.243	.263
.15	.118	.112	+0214	+0204	.0966	.0920	.033/					.113	.108	.237	.218	•i37	.[36
•2	.108	+104	.0233	.0226	.0849	.0674	+0194					.0350	.0338	-136	.127	.060	3 .058(
<u>د</u> ،	.0940	+0920	+0293	+0240	0581	.0573	.00601					.0161	.0156	+104	.099	2 .042	041
	.0843	+0830	.0201	40257	.0506	.0505	.00325					.00920	.00901	+088	.085	.035	039
.7	.0713	.0707	.0261	.0256	.0450	.0449	.00227					.00583	.00573	.078	.076	.032	031
	.0674	.0622	.0255	.0250	.0369	.0371	.00127					•00298	.00294	.000			
1.	.0561	.0559	.0247	.0249	0314		.000823					.00183					-023
1.5	.0456	.0455	+0226	+0220	.0230	.0235	.000369	.000583		.000583	.000178	+000876	+ UUUD47		.041	6 .023	1 .021
2.	0389	.0388	•0206	•0199	.0183	.0189	•00 ₀ 21●	+00214		+00214	.000992	.000392	.000280	.036	.036	.023	7 .029
3.	.0306	.0305	•0176	.0166	.0129	.0139	.0000940	.00574	.0000107	.00575	+00357	.000190	.000189	.035	.035	.025	.020
4.	.0255	•0255	.0155	+0143	.0100	.0112	.0000926	.00927	.0000439	.00933	.00044	+000141	.000141	.034	5 .034	.026	3 .0210
5.	.0221	.0221	.0139	.0126	.00823	.00423	.0000339	.0122	.0000002	.0123	100070	+000111	.000111	.034	.034	.027	5 .022
6.	0195	-0195	-0126	-0111	.00094	+00836	.0000433	.0185	.000227	.0187	-0145	.0000784	+0000784	. 034	7 •034	7 .029	• • • • • • • • • • • • • • • • • • • •
	+0159	•0107	.0100	+00714	00430	.00603	.0000088	.0226	.000312	.0224	.0175	.0000601	.0000600	.036	0,036	.031	7 .025
10.	+0130 +0130	.0130	1007213	.00548	.00292	.00456		+0285	+000487	.0290	.0220	+0000384	.0000384	.039	.039	2 .036	2 .0279
17+	.00810	.00816	.00587	.00425	00221	.00385		.0331	.000619	.0338	.0241	.0000283	.0000283	+041	.041	,039	7 .024
30.	.00585	.0058A	.00439	.00277	.00148	.00311		.0398	.000810	.0406	.0267	•0000187	.0000187	+046	.040	-047	4
40.	.00467	.00467	.00355	.00196	.00112	.00271		+0441	.000953	+0450	.0274	•0000139	+0000139	• 049	/ .049		UZT •UZT
50 .	.00390	.00390	.00300	.00148	.000901	.00242		.0476	.00106	.0487	.0273	.0000110	+0000110	•052	.052	071	r •0200
60.	.00336	.00336	.00261	.00116	.000752	.00220		.0504	.00114	.0515	.0270	+0000090		· •034'		7 +034 R	2 .0207
80.	.00265	.00265	.00208	.000784	.000566	.00187		.0538	.00126	.0551	.0265	• 00 00 06 /	•000006/	.051	6 .0071 6 .0071	6 .050	2 .036
100.	.00220	.00220	+00174	•000567	.000454	.00163		.0570	.00135	.0>84	•02 5 9						

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42 MOLYBDENUM (barns/atom)

E (MeV)	σ _{inc,t}	σ ^{BD} ioc,t	o ^{KN} inc, a	σ ^{BD} inc, a	CKN Cioc, 8	σ ^{BD} inc,s	σ _{coh}	σ•n	σ _{×e}	σ _{×,t}	σ _{×, 2}	σ,,,	σ _{τ, a}	ottot,	Otot,1-coh	Otot.a	σ _{tot, en}
	27.8	1.02	.0542	.00199	27.8	1.02	1100.					1030000.	1030000.	1030000.	1030000.	1030000.	1030000.
.0015	27.8	1.78	.0810	.00519	27.7	1.77	1050+					352000.	352000+	144000.	145000.	165000.	165000.
-002	27.7	2.52	108	.00978	27.6	2.51	981.					105000.	102000+	91200.	90300	90300.	90300.
.002521	27.7	3.26	.135	.0159	27.5	3.24	912.					360000	356000	381000.	380000 .	380000.	356000.
						2 20						324000	304000	325000.	374000.	324000.	304000.
.002625	27.7	3.41	.140	•0173	21.93	3.37	077.					448000.	420000.	449000+	448000.	4480.00+	420000.
	-7 4		167	0207	27.5	3.71	868.					364000.	343000.	365000.	364000.	364000.	343000.
.00280/	2/+0	3+13	• 1 = 2	+0207	2100	2412						415000.	391000.	416000.	415000.	415000.	391000.
.003	27.6	3.91	.160	.0227	27.5	3.89	852.					367000.	347000.	364000.	367000.	367000.	157000.
.004	27.5	5.19	.212	.0399	27.3	5.15	737.					164000.	157000.	165000+	10+000+	#97nn.	86700.
.005	27.4	6.36	.262	0609	27.1	6.30	642.					89700.	50700+	54400	53800	53860.	52300.
.006	27.3	7.44	.312	.0852	27.0	7.35	564+					53800.	23000	24900.	24400	24400.	23900.
.008	27.1	9,29	.410	•141	26.7	9+15	448.					13100.	12900.	13500.	13100.	13100.	12900.
.01	26,9	10.8	.504	.202	26.4	10.6	366+					A180.	4130	4430.	4190.	4180.	4130.
.015	26.4	13.4	.730	.371	25+7	13-0	233+					1840.	1820.	2010.	1860.	1840.	1820.
.02	26.0	15.2	.936	•549	25.0	14.7	159.					1840.	1820.	2010.	1860.	1840.	1820.
•02	20.0	12*5	• • • • • •	• = • •	23+0	1441	1344					13200.	5680.	13400.	13200.	13200.	2630.
	25.1	17.4	1.31	. 905	23.8	16.5	89.4					4310.	2670.	4420.	4330.	4310.	1390.
.04	24.3	18.5	1.62	1.23	22.7	17.3	57.9					1950.	1390.	2030.	1070	1050.	823.
.05	23.6	19.0	1.90	1.53	21.7	17.5	40+4					1050.	821.	679.	649.	612.	512.
.06	22.9	19.3	2.15	1.81	20.8	17+5	29.7					030.	218.	315.	297.	281.	240.
.08	21.7	19.2	2,54	2.25	19.2	17+0	17+9					146.	129.	177.	165.	149.	132
•1	20.7	18.8	2.86	2.59	17.8	16.2	11.8					44.6	41.2	67.8	62,3	48.0	44.4
+15	18.6	17.7	3,38	3.21	15.3	14.5	5+53					19.4	18.3	39.1	35.9	23.1	21.9
•2	17.1	16.5	3.69	3.5/	13.4	10.7	1.45					6,00	5,77	22.0	20.6)0+0	9.71
•3	14.8	14+0	4,00	3.74	9.18	9.05	.823					2.80	2.72	16.7	15.9	0.92	5.61
•2	13.3	13.1	4.14	4.08	8.00	7.92	.534					1.57	1.53	14.1	13.0	5.13	5.07
.5	11.2	11.2	4.13	4.09	7.11	7.11	• 370					1,00	• 4 41	10.5	10.3	4.54	4.46
	9.87	9.82	4.03	3.96	5.83	5.86	.208					.510	.305	9.28	9.15	4.21	4,10
1.	8.87	8.84	3,90	3,79	4.97	5.05	.135			ADEL				7.49	7.43	3.80	3.65
1.5	7.21	7,19	3,56	3,47	3.64	3.72	• 0005	.0735		.350	.162	.093	.0925	6.62	6,58	3.70	3.39
2.	6,14	6.14	3.26	3.14	2.86	3.00	.0344	.930	.00169	.932	.578	. 1500	.0498	5.83	5.81	3.77	3+25
3.	4,83	4,83	2.19	2.82	1 59	1.77	.00864	1.50	.00695	1.51	1.04	.0327	•0326	5,59	5,58	3.99	3+34
<u>*</u> •	4,04	4.04	2.45	1 08	1.30	1.51	.00557	1.97	.0136	1.98	1,45	+0241	+0240	5.50	5.44	4+19	3.47
5.	3,49	3.49	1 99	1.76	1.10	1.32	.00382	2,35	.0212	2.37	1.79	•0190	+0190	5.47	3.4/	4,30	3.79
.	2 62	2.52	1.68	1.44	.840	1.08	.00216	3.00	.0359	3.04	2,34	+0135	+0135	5.74	5.74	5.06	3.99
10-	2,15	2.15	1.47	1.19	.680	,957	.00143	3,53	.0491	3.58	2.79	+010+	.00660	6.28	6.28	5,82	4+41
15.	1.59	1.59	1.13	,863	.461	.727		4.60	.0770	4+65	3,74	.00486	+00486	6.76	6.76	6+41	4+58
20.	1.28	1.28	927	•668	.349	.612		5,38	.0978	3445	4.31	•00318	.00316	7.51	7.51	7.28	4.75
30.	.929	.929	.694	.436	.235	.493		0.45	.120	7.30	4.39	+00235	.00735	8.04	8.04	7.86	4.70
40.	.738	.738	•561	.308	•177	00.00		7.70	.166	7.87	4.39	.00165	+00185	8.49	8.49	8+35	4+02
50.	.617	.617	+475	.233	.142	. 364		8.10	.180	8.28	4.31	+00153	+00153	8+81	8.81	8.69	4+49
60.	•531	.531	.412	+102	.0894	.296		8.75	+20.0	8.95	4.27	+00113	•00113	9.37	9.37	9,28	4.34
80.	+419	••17	276		.0717	259		9.25	+214	9.46	4.15			A+01	4001	7014	
100*	+ 340	+ 340	+210														

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42 MOLYBDENUM (cm¹/g = 0.0062**77** x barns/atom)

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E (MeV)	(学) ^{KN} inc,t	$\left(\frac{\mu}{p}\right)_{inc, t}^{BD}$	([#] _p) ^{KN} inc, a	(費) ^{BD} inc,a	([#] _p) ^{KN} inc,s	(学) ^{BD} inc,s	([#] _p) _{coh}	(ی)»n	(声) _{× e}	(声) _{×,t}	([#] _p) _{×, a}	(岁) _{下, t}	(분),, a	(賞) _{tot,t}	([#] _p) _{tot,t-coh}	([#] _p) _{tot,a} (چ) _{tot, en}
.001	.175	.00640	.000340	.0000125	.175	.0064	6.90					6470				6170 -	64.78
.0015	.175	.0112	.000508	.0000326	.174	.0111	6.59					2210.	2210.	2228	2210.	2210.	2218.
• 0 0 2	+174	.0158	.000678	.0000614	.173	.0158	6.16					1040.	1040.	1040.	1040.	1040	1040.
L _{III} +00252	1 .174	.0205	+000847	•0000998	.173	.0203	5.72					567.	567.	572.	567.	567.	567.
1 00243												2390.	2230.	2390.	2390.	2390.	2230.
TI +00202	5 +1/ 4	+0214	•000879	•000109	•173	+0213	5+64					2030.	1910.	2040.	2030.	2030.	1910.
L00286	7 .173	.0234			173	4223	E 48					2810.	2640.	2820.	2810.	2410.	2640.
-1	••••			.000130		•0233	3443					2600	2150.	2290.	2280.	2280.	2150.
.003	.173	.0245	.00100	.000142	.173	.0244	5.35					2300.	2180.	2318.	2308.	2308	2186.
+004	.173	.0326	.00133	.000250	.171	.0323	4.63					1030.	985	1040.	1030	1030	985.
.005	.172	.0399	.00164	.000382	.170	.0395	4.03					563.	544.	567.	563.	563.	544.
.006	.171	.0467	•00196	+000535	.169	.0461	3.54					338.	328.	341.	338.	338.	328.
.008	.170	.0583	•00257	.000885	.168	.0574	2.81					153.	150.	156.	ī 53.	151.	150.
+01					166	0665	2,30								82.2		81.0
.02	.163	.0954	.00568	.00233	167	+0910	1.40					20+2	27.7	27.0	20.3	20.2	23.7
K .020000	.163	.0954	.00588	.00344	157	.0923	.998					11.5	11.4	12.6	11.7	11 6	13 4
	• • •				••••		••••					82.9	35.7	84.1	82.9	82.9	35.7
.03	,158	.109	.00822	.00568	.149	.104	.561					27.1	16.8	27.7	27.2	27.1	16.8
• 04	•153	•116	.0102	+00772	.142	.109	.363					12.2	8,73	12,7	12,4	12.2	8.73
.05	+148	+119	+0119	.00960	.136	.110	.254					6,59	5,15	6,97	6,72	6,59	5,17
.00	+144	+121	.0135	+0114	•131	.110	.186					3,95	3,20	4,26	4.07	3,97	3.21
•00	.130	+121	+0159	+01+1	•121	+107	+112					1,75	1,47	1,98	1,86	1,76	1,51
.15	.117		+0212	.0201	. 0960	.0910	.0347			-		288	260				
•2	.107	.104	.0232	.0224	.0841	.0810	.0200					.122	.115	.245	225	145	137
•3	.0929	•0916	+0251	+0247	.0678	.0672	.00910					.0377	.0362	.136	.129	0 628	.0609
•4	.0835	.0822	.0259	.0254	.0576	.0568	+00517					.0176	.0171	.105	.0998	.0434	.0425
•7	.0700	•0753	+0260	+0256	.0502	+0497	.00335					.00985	.00960	.088	5 .0854	0350	.0352
•0	.0/03	+0/03	.0259	+0257	+0448	+0446	.00232					.00628	.00616	.079	1 .0766	.0322	.0318
1.0	-0557	-0010	+ 0 2 7 3	+0249	.0300	+0368	.00131					.00320	.00310	.085	.0647	. 0265	.0280
1.5	.0453	.0451	• 0223	10218	.0228	.0234		.0.059	<u> </u>			.000936	000192	.030	3 .03/4		7 620.
2,	.0385	.0385	.0205	.0197	.0181	.0188	.000216	.00220	,	.00220	.00102	.000584	.000581	.041	L .0413	.0232	- 0213
3.	.0303	.0303	.0175	+0164	.0128	.0139	.000096	.00584	.0000106	.00585	.00363	.000314	.000313	.036	.0365	.0237	.0204
<u>.</u> .	.0254	.0254	+0154	.0142	.00998	.0111	.000054	2 .00942	+0000436	.00948	.00653	.000205	.000205	.035	.0350	. 0250	.0210
2.	.0219	.0219	.0137	.0124	.00816	.00948	.000035	0.0124	.0000854	.0124	•009 <u>1</u>	.000151	.000151	.034	5 .0345	. 0263	.0217
. .	+0173	.0173	+0125	•0110	.00090	.00829	.0000240	•0148	.000133	+0149	.0112	.000119	.000119	.034	.0343	.0275	.0224
10.	.0135	.0135	-00923	-00747	.00727	-00078	.000013	•0188	+000245	•0191	+0147	.0000047	+0000847	+037 034	0350	.0297	.0238
15.	.00998	.00998	.00709	+00542	.00249			.0289	.000308	10225	A222	.0000415	.0000414	.039	0.360		
20.	.00803	.00803	.00582	.00419	.00219	.00364		.0338	.000616	.0344	.0745	.0000305	.0000305	.042	.0424		.0287
30.	.00583	.00583	.00436	.00274	.00148	.00309		.0405	.000803	.0413	.0271	,0000200	.0000200	.0471	.0471	0457	0298
40.	.00463	+00463	.00352	•00193	.00111	.00270		.0449	.000942	.0458	.0276	.0000148	.0000148	.050	5 .0505	.0493	.0295
50.	.00387	.00387	.00298	.00146	.000891	.00241		+0483	.00104	.0494	.0276	.0000116	.0000116	.053	.0533	. 0524	.0290
80.	•00333	+00333	• 00259	+00114	.000747	.00219		.0508	.00113	.0520	+0271	.00000960	.00000960	.055	.0553	.0545	.0262
100.	.00203	.00203	+00207	+000772	.000301	-00186		+0549	+00126	.0562	.0268	*0000010	.00000710	.058/	.0544	.0563	.0276
1000	***** TO	+00218	+001/3	encoael	+000420	+00To3		+0201	+00134	+0>94	•02 60			+0610	•0618	.0011	.0266

43 TECHNETIUM (baros/atom)

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E	(MeV)	Ginc.t	o ^{BD} inc,t	o ^{KN} o)nc, a	σ ^{BD} inc,a	OInc, s	σ ^{BD} inc, s	σ _{coh}	σ×n	0xe	σ _{x,t}	σ.,	σ _{τ, t}		o _{tot,t}	Ttot, t-coh	^o tot.a	σ tot, en
	.001	28,5	1.14	,0555	.00222	28.4	1.14	1160.					1150000.	1150000.	1150000.	1150000.	1150000.	1150000.
	.0015	28.4	1.96	.0829	.00572	28+4	1.95	1090.					394000.	394000.	395000+	194000	184000.	184000.
	.002	28.4	2.72	.110	.0106	28.3	2.71	1020.					184000.	184000.	86400.	85500.	85500.	85500
	.002677	28.3	3.87	•1•7	•0190	28.2	3+92	731 •					354000.	330000	355000	354000.	354000.	330000.
T	.002793	28.3	3.83	.153	.0207	28.1	3.81	916.					300000	280000	301000.	300000.	300000.	280000+
-11		20.2	2.02	•••		2011							415000.	387000.	416000+	415000 .	415000+	367000.
	.003	28.3	4.10	.164	.0238	28.1	4.08	889.					351000.	329000.	352000+	351000.	351000.	329000.
La	.003043	28.3	4.16	.166	.0245	28.1	4.14	884 •					339000.	318000.	340000+	339000.	339000.	318000.
-,				• -	-	_							386000.	362000.	387000.	386000.	386000.	302000+
	.004	28.2	5.37	.217	+0413	27.9	5.33	771.					181000.	172000.	182000+	181000.	08400.	94700.
	.005	28.1	6,53	.269	.0626	27.8	6+47	672.					98400+	94700+ 57500	99100+ 60000-	59400+	594004	57500.
	.000	27.9	7.61	.320	+0871	27.0	7+52	590 +					34800.	26200.	27300.	26800.	26800 .	26200.
	.008	27.7	9.48	.420	+144	27.3	9.34	408.					14400.	14100.	14800.	14400.	14400,	14100+
	.01	27.0	11.7	.748	.179	26.3	11.1	246.					4610.	4550+	4870.	4620+	4610+	4550+
	.02	26.4	15.6	958	.559	25.6	14.9	168.					2030.	2010.	2210.	2050.	2030 •	2010+
	021044	26.5	15.8	1.00	.597	25.5	15.2	157.					1770.	1750+	1940+	1790.	1770 •	1750+
-					•••		-						12500.	5260.	12700.	12500.	12500.	7280+
	.03	25.7	17.7	1.34	, 921	24.4	16.8	94.4					4680.	2780.	4/90.	4700+	4080.	1480.
	•04	24.9	18.9	1.66	1.26	23.2	17+6	61+3					2130.	1480.	1220.	1180.	1160.	879.
	.05	24.1	19.4	1.95	1.57	22.2	17.8	42.8					1100+	551.	743.	712.	694.	553.
	.06	23.5	19.7	2.20	1.85	21.3	17.9	31+5					304.	258.	343.	324 .	307.	260+
	.08	22+2	19.6	2.60	2.30	19.3	16.6	12.6					160.	141.	192	179.	163.	144.
		10 1	1945	1.46	1.29	15.6	1448	5.87					49.6	45+6	73.6	67.7	53+1	48+9
	•13	17.5	16.9	3.78	3.65	13.7	13.2	3.39					21.5	20.2	41+8	38+4	25.3	23.9
	.3	15.2	14.9	4.10	4.02	11+1	10.9	1.54					6.66	6.39	23+1	21.0	10.	10.4
	.4	13.6	13.4	4,22	4.14	9.40	9.26	+873					3.10	3.01	17.4	10+3	1+JE 8-99	F. 89
	•5	12.4	12.3	4.24	4.18	8+19	8+12	. 566	•				1.75	1+71	14+0	12.5	5.33	5.24
	•6	11.5	11.4	4.23	4.16	7.28	7+24	• 393						.659	10.9	10.7	4.70	4+63
		10.1	10.1	4.13	4.07	5.97	6.03	• 221					. 149	+345	9.54	9,40	4.34	4,22
	1	9.08	<u> </u>	3.99	3,80	3.77	3+1/		.101		+101	.0309	.163	.162	7.69	7.62	3.91	3+74
	1+7	6 29	6.28	3.34	3,33	2,95	3.07	.0366	.367		+ 367	.170	.102	.101	6.79	6.75	3.61	3.48
	£.	4.95	4.94	2.85	2.68	2.09	2.26	.0163	.980	.00173	• 982	.609	.0556	• 0554	5.99	5.98	3.04	3,34
	<u>.</u>	4.14	4.14	2.51	2.32	1.63	1.82	.00918	1.57	.0071	1.58	1.09	•0365	.0364	5.77	5.10	4+13	3490
	5.	3.57	3.57	2.24	2.02	1.33	1.55	•00593	2,07	+0140	2.08	1,52	.0269	•026	5+05	5.00	4+33	3.69
	6.	3,16	3,16	2.03	1.79	1.12	1.37	+00407	2.48	+0217	2.50	1.08	+0214	+0214	5.77	8.76	4.90	3.91
	8.	2.58	2.58	1.72	1.46	.860	1+12	•00228	3.13	+0367	3.17	2.44	.0150	-0115	5.94	5.96	5.26	4.13
1	0.	2.20	2.20	1.50	1.21	,696	.986	•00151	3.70		<u></u>	2171		+00733	6.53	6.53	6.06	4.58
1	5.	1.63	1.63	1.16	.860	.472	•750		4. 5	+0/90	6.70	3.05	.00536	+00536	7.02	7.02	6.65	4.74
2	0.	1.31	1.31	.949	.680	+ 357	+8.30		6.70	.111	6.83	4.45	.00352	.00352	7.78	7.78	7.54	4.90
3	o.	, 951	+951	• 711		.181			7.45	153	7.60	4.55	.00260	.00260	8.36	8,36	8+18	4.87
	0.	+/30	+ /50		-313	.145	.194		8.05	.170	8.22	4.54	+00206	.00206	8.85	8.85	8.71	4.78
7	Q.	.544	.544	.422	186	.122	.358		8.47	.183	8+65	4.49	+00170	•00170	9.20	9.20	9.07	4.05
	0.	.429	429	.337	125	.0915	+304		9.10	.204	9+30	4.40	+00126	+00126	9.73	9.73	7+04	4473
10	0.	356	.356	.283	.0911	.0734	•265		9,65	.219	9487	4,28			10+2	10+2	10.5	

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43 TECHNETIUM (cm³/g = 0.006083 x barns/atom)

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E (MeV)	(勞) _{nc.t}	([#] _₽) ^{BD} _{inc,t}	([#] _p) ^{KN} _{inc,a}	。BD (声) _{inc,a}	([#]))nc, s	(声) ^{BD} inc,s	(声) _{coh}	(ي ّ)×n	(片)×e	(ڭ) _{×, t}	([#] _p) _{*,a}	(芳) r, t	([#] ₆) _{7,2}	([#]) _{tot,t}	([#] _p) _{tot,t-coh}	([#] _p) _{tot, a}	([#]) _{tot, en}
.001	.173	.00693	.000338	.0000135	.173	.00693	7.06					7000.	7000.	7000.	7000.	7000.	7000.
.0015	.173	.0119	.000504	.0000348	.173	.0119	6.63					2400+	2400.	2400.	1120	1120.	1120.
.002	.173	.0165	.000669	+0000645	.172	.0165	6.20					1120.	520.	526.	\$20.	\$20.	520,
LTIT .002677	.172	•0223	+000894	.000116	•172	•0222	5.66					2150.	2010.	2160.	2150.	2150	2010.
	1.22				171	4932	6.57					1820.	1700.	1830.	1820.	1820.	1700.
LII .002143	+1/2	.0233	*000A31	+000120	+1/1	* VEJE	2.21					2520 .	2350 .	2530.	2520 .	2520.	2350.
.003	.172	.0249	.000998	+000145	.171	.0248	5.41					2140.	2000.	2140.	2140.	2060	1930.
LT .003043	.172	.0253	.00101	.000149	.171	.0252	5.38					2060.	1930+	2350.	2350.	2350.	2200.
- 0.04	.172	.0327	.00132	.000251	.170	.0324	4.69					1100.	1050.	1110.	1100.	1100.	1050.
.005	.171	.0397	.00164	+0003A1	.169	.0394	4.09					599.	576.	603.	599 .	599.	5/8+
.006	.170	.0463	.00195	.000530	168	.0457	3.59					361.	350.	365.	301.	301.	370.
008	168	.0577	-00256	.000876	.166	.0568	2.85					163+	159.	180.	103+	103.	1344
-01	.167	0669	.00314	.00125	164	.0657	2.33					87.6	85.8	90.0			27.7
-015	.164	.0833	+00455	.00231	.160	.0809	1+50					28.0	27.7	54.0	28.1	28.0	19.7
.02	.162	.0943	.00583	.00340	.156	.0906	1.02					12.3	12+2	13.4	12.7	10.8	10.4
K.021044	.161	.0961	.00608	.00363	.155	.0925	•955					10.8	10+0	11+0	74.0	76.0	32.0
	•••											76.0	32.0	77+3	70.0	28.5	16.9
.03	.156	.108	.00815	.00560	.148	.102	+574					28.5	10+7	13.4	13-1	13.0	.00
.04	.151	.115	.0101	•00766	.141	+107	.373					13.0	5.00	7.47	7.18	7.06	5.15
.05	+147	.118	•0119	.00955	.135	+108	.260					F+U6	3,35	4.62	4.11	4.22	3.36
.06	.143	.120	•0134	•0113	,130	.109	.192					4.21 1.8P	3,37	2.09	1.97	1.87	1.58
.08	.135	•119	+0158	+0140	.119	.105	+116					1.02		1.17	1.09	.992	.876
•1	.129	.117	.0178	•0161	<u></u>	.101	.0760								.412	.323	.297
715	.116	.110	+0210	.0200	+0949	.0900	+0357					.131	.123	.254	.234	.154	.145
•2	.106	.103	+0230	•0222	.0833	.0803	.0206					.0405	.0389	.141	.131	.065	7 .0633
.3	+0925	.0906	+0249	+0245	.00/5	+0603	+00937					.0189	.0183	.106	.100	.044	5 .0435
• •	.0827	.0815	.0257	.0252	+05/2	+0563	+00531					.0106	.0104	.088	8 .085	2 .036	4 ,0356
•5	.0774	+0748	+0275	• 0254	.0470	0474	.00319					.00669	.00657	.078	5 .076	0 .032	4 .0319
••	.0/00	+0073	+027/	+0233	0743	.0367	.00134					.00346	.00340	.066	3 .065	1 .026	6 .02 52
.•°	.0014	+0014	0231	+0240	.0310	.0314	.000876					.00212	.00210		0057	2 1020	,0257
			<u>0243</u>	0230	0227	.0232	.000389	.000614	<u> </u>	+000614	.000188	.000992	.000985	.046	8 .046	4 .023	1220.
1.5	0383	0182	.0203	.0195	.0179	.0187	.000223	.00223		.00223	.00103	.000620	.000614	+041	3 .041	1 ,023	¢ ,0212
	.0301	.0301	.0173	.0163	.0127	.0137	.0000992	.00596	.0000105	.00597	.00370	.000338	.000337	.030	. 0.30	.023	/ .06V
A .	.0252	.0252	.0153	+0141	.00992	.0111	.0000558	.00955	+0000432	.00961	•00663	.000222	.000221	+035		i0 ,0€⊅ ∧ ∧26i	L .UELU
5.	.0217	.0217	-0136	.0123	.00809	.00943	.0000361	.0126	.0000852	.0127	.00925	.000164	.000183	.034	4 034	A 027	7 .0224
6.	.0192	.0192	.0123	.0109	.00681	.00833	+0000248	3 .0151	.000132	.0152	+0114	.000130	.000130	.034		0 029	a
8.	.0157	.0157	.0105	.00888	.00523	.00681	.0000139	9 .0190	•000223	.0193	+0148	.0000912	.0000912			1 12	0 .0251
10.	.0134	.0134	.00912	.00736	.00423	.00600	.0000092	2 .0225	.000306		0177	.0000700	0000100		2 .039	7 .036	0276
15.	.00992	.00992	+00706	+00535	.00287	.00456		•0293	+000481	+0297	+0224	00000000	0000446	047	7 .047	7 .040	5 .0281
20.	.00797	.00797	.00577	+00414	.00217	.00383		+0341	.000608	+0347	+0246	.0000320	.0000320		.047	3 .045	9 .0291
30.	.00578	.00578	+00433	•00269	.00146	.00309		+0408	.000797	.0415	.0271	.0000158	.0000158	.050	.050	9 .049	.0296
40.	+00460	+00460	.00349	+00190	.00110	.00269		+0453	.000931	+0+62	+0277	.0000136	.0000125	.043	.053	8 .053	0 .0291
50.	.00384	.00384	.00296	+00144	.000882	.00240		+0490	.00103	+0>00	+0276	.0000103	.0000103	.056	0 .056	0 .055	2 .028
60.	.00331	•00331	+00257	.00113	+00074	.00218		.0515	+00111	+0326	+0273	.0000077	0 .00000770	059	2 .059	2 .058	6 .0276
80.	.00261	+00261	.00205	.00076	.00055	.00185		+0334	+0012-	.0200	+0200			.062	.062	0 .062	0 .0266
100.	.00217	•00217	+00172	+000554	+000440	+00101		+0587	+00133	*ne00	+0260			••••	• •	• · · · ·	••

44 RUTHENIUM (barns/atom)

E (MeV)	σ _{inc,t}	$\sigma_{inc,t}^{BD}$	o ^{KN}	σ ^{BD} _{inc,a}	o ^{KN}	σ ^{BD} _{)nc,s}	σ _{coh}	σ×n	σ _{×e}	σ _{*.t}	<u>σ_{×, a}</u>	σ _{r,t}	σ,,,	σ _{tot,} ,	σ _{tot,t-coh}	σ _{tot, a}	or tot, en
.001	29.2	1.19	.0568	.00232	29.1	1.19	1220.					1270 000 .	1270000.	1270000.	1270000.	1270000.	1270000.
.0015	29.1	2.03	.0849	.00592	29.0	2.02	1160.					435000.	435000.	436000.	435000.	435000+	435000.
.002	29.0	2.81	.113	+0109	28.9	2.80	1090.					81100.	81100.	82100	A1100.	A1100.	81100.
-111 •00583	0 20.7	4.01	•134	.0220	28+0	3.77						330000.	306000.	331000.	330000.	330000.	306000.
LII .00296	7 28.9	4.18	.166	.0240	28.8	* •16	953.					279000.	259000.	280000.	279000.	279000.	259000.
_					•							385000.	357000.	366000.	385000.	385000.	357000.
.003	28.9	4.22	.108	.0245	28.8	4+20	9484					316000	295000	317000.	316000.	316000.	295000
1 .00322	. 20.7	4421	+190	*0501	20.1	***0	4104					361000.	337000.	362000.	361000.	361000.	337000.
• 0 0 4	28.8	5.47	+222	.0421	28.6	5.43	820 •					198000.	187000.	199000.	198000.	198000.	187000.
.005	28.7	6.62	.275	.0634	28.4	6.56	712.					107000.	102000.	108000.	107000.	107000.	102000.
.006	28.6	7.68	.327	.0879	28.3	7.59	623.					05100 . 29600.	28800.	30100.	29600.	29600	26800.
•000	28.2	9.59	.528	.208	28.0	10.9	403.					15800.	15500.	16200,	15800	15800.	15500.
.015	27.7	13.9	,765	.384	26.9	13.5	260.					5110.	5040.	5380.	5120.	5110.	5040.
.02	27.2	15.8	.981	.570	26.2	15.2	178.					2250.	2230.	2940.	2270.	1690.	2230.
K .02211	7 27.0	16.4	1.07	.645	25.9	15+8	155.					11800.	4860.	12000.	11800	11800.	4860.
.03	26.3	18.1	1.37	.942	24.9	17.2	99.9					5160.	2920.	5240.	5180	5160.	2920.
.04	25.5	19.2	1.70	1.28	23.8	17.9	64.9					2340.	1580.	2420.	2360.	2340.	1560.
.05	24.7	19.8	1.99	1.60	22.7	18.2	45.4					1260.	932.	1330.	1240.	750.	594.
•06	24.0	20.1	2.25	1.89	21.8	18.2	33.4					333.	279	373.	353.	336.	281.
•08	21.7	19-6	2,99	2.70	18.7	16.9	13.3					175.	152	208.	195.	178.	155.
•15	19.5	18.5	3,54	3.36	16.0	15.1	6+24					54,6	49,9	79.3	73.1	58.1	53.3
.2	17.9	17.2	3.87	3,72	14+0	13.5	3+60					23,9	22.3	44.7	41.1	27.8	26.0
•3	15.5	15.2	4.19	4.10	11.4	11.1	1+63					3.43	1,12	18.2	17.2	7.75	7.58
	12.7	12.6	4.34	4.28	8.38	8.32	+602					1,95	1,90	15.2	14.5	6.29	6.18
.6	11.8	11.7	4.32	4.27	7.44	7.43	+417					1.23	1.20	13.3	12.9	5,55	5.47
. 8	10.3	10.3	4.23	4.14	6.11	6+16	+235					.630	.620	11.2		4,00	4,76
<u> </u>		<u> 9.26</u>	4.09	3.97	<u>5.21</u>	5,29		107		.107	0127		.180	7.84	7.02	4.02	3.84
2.	6.44	6.43	3.42	3,03	3.02	3.15	+0388	.387		•387	.180	+114	•113	6,97	6,93	3.92	3.57
3.	5.06	5.06	2,92	2.74	2.14	2.32	.0173	1.03	.00177	1+03	.640	.0614	.0611	6.17	6.15	4.01	3.44
4.	4.23	4.23	2,57	2,37	1.66	1.86	+00977	1.65	.00729	1.66	1.14	+0405	+0404	5+94	5 87	4+21	3.59
5.	3.66	3.66	2,30	2.07	1.36	1.59	.00630	2.17	+01+3	2+18	1.59	.0238	.0237	5.88	5.87	4.72	3.82
8.	2.64	2.64	1.76	1.49	.880	1.15	.00240	3.26	.0376	3.30	2.53	.0166	.0166	5.96	5.96	5.08	4.04
10.	2.25	2.25	1.54	1.24	.712	1.01	00158	3,86	0516	1.91	3.03	.0128	.0128	6,11	6.17	5,46	4,28
15.	1.67	1.67	1+18	.898	.483	.772		5,05	.0808	5+13	3.86	+00815	00714	7.3	7.33	6.96	4.92
20.	1.34	1.34	.972	.693	• 366	•647		5.88	.102	5.98	4.22	.00388	.00388	8.12	8.12	7.87	5.08
30.	.973	. 774	.588	.450	.186	.923		7.80	.157	7.96	4.73	.00287	.00287	8.74	8,74	8,55	5.05
50.	646	.646	497	.240	.149	.406		8.40	.174	8.57	4.71	.00228	.00228	9,22	9,22	9.07	4,95
60.	.556	. 556	.432	.189	.124	• 367		8.89	+188	9.08	4.66	.00147	.00187	9.64	10.2	- 9,51 10.1	4,05 4,71
80.	.439	.439	.345	.127	.0937	•312		9,54	.205	9+75	4.56	.00130	.00109	10.2	10.7	10.6	4.54
100*	•364	• 364	*588	+0925	+0.21	+212		14+1	+263	10+3		••••••				••••	

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44 RUTHENIUM (cm¹/g = 0.005959 x barns/atom)

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E (MeV)	(声) ^{KN} (声) _{inc,t}	([#] ₆)) _{nc,t}	([#] _p) ^{KN} _{inc,a}	(쁜) BD (声) _{nc,a}	([#]))nc, s	([#]) ^{BD} inc,s	(声) _{coh}	(")*n	(声) _{×e}	(^µ _ρ) _{x,t}	([#] _p) _{*,a}	(^µ _p) _{r,t}	(^µ _p) _{7,2}	([#] _p) _{tot,t}	([#] _p) _{tot,t-coh}	(^k _p) _{tot, a}	([#]) _{tot, en}
.001	.174	.00709	.000338	.0000138	.173	.00709	7.27					7570. 2590.	7570. 2590.	7570. 2600.	7570. 2590.	7570. 2590.	2590.
.0015	.173	.0121	.000506	.0000353	•173	.0120	6.91					1220.	1220.	1230.	1220.	1220.	1220.
-002	+173	+0167	+000673	.0000650	172	.0238	5.78					483.	483.	489.	483.	483.	403.
FIII .005838	+1/2	+0239	*000441	*000131	•1 / 2	*0230	5.10					1970.	1820.	1970.	1970.	1660.	1540.
L _{II} .002967	•172	+0249	.000989	.000143	.172	.0248	5.68					2290.	2130.	2300.	2290.	2290.	2130.
.003	.172	+0251	.00100	+000146	.172	.0250	5.65					1880.	1760.	1890.	1450.	1A80.	1760.
Ly .003224	,172	.0269	.00107	•000167	.171	.0267	5.47					2150.	2010	2160	2150.	2150.	2010.
-					170	. 0374	4.89					1180.	1110.	1190.	1180.	1180.	1110.
.004	.1/2	+0320	+00132	+000251	149	0391	4.74					638.	608.	644.	638.	638.	174
.007	•1/1	+0374	+00104	+000376	.169	.0452	3.71					388.	374 .	392.	300.	300.	172
.008	.169	-0571	+00256	+000864	.167	.0563	2.94					176.	1/2.	1/7.	94.2	94.2	92.4
.01	.168	.0661	.00315	.00124	.165	.0650	2.40			_,			30.0	12.1	30.5	30.5	30.0
.015	.165	+0828	+00456	.00229	.160	•0804	1.55					11.4	13.3	14.5	13.5	13.4	13.3
+02	.162	+0942	+00585	+00340	.156	.0906	1.06					10.1	9.95	11.1	10.2	10.1	9,95
K .022111	7 .161	•0977	+00638	•00386	+154	•0942	.924					70.3	29.0	71.5	70.3	70.3	29.0
	157	.108	.00816	.00561	.148	.102	.595					30.7	17+4	31.5	30.9	30.7	11+4
.03	152	.116	.0101	.00763	.142	.107	.387					13,9	9,42	14.4	7 67	7.51	5.57
.05	.147	.118	.0119	.00953	.135	.108	.271					7.51	2,77	A 82	A 62	4.52	3.54
.06	.143	.120	.0134	+0113	.130	.108	.199					4,31	1.66	2.22	2.10	2.00	1.67
.08	÷136	+119	•0159	.0139	.120	.105	.120					1.04	.906	1.24	1.16	1,06	924
•1	,129	.117	.0178		<u>111</u>		.0793					.325	.297	.473	,436	,346	•318
• 15	.116	+110	+0211	.0200	•0993	.0900	.0372					,142	,133	,266	,245	,166	.157
•2	+107	.102	+0231	+0222	.0679	.0661	.00971					.0441	.0422	+144	+135	.0091	.000
• • •	.0924	.0970	+0250	.0254	.0573	.0568	.00553					.0204	.0198	.108	.102		.036
	.0757	.0751	.0259	+0255	.0499	.0496	.00359					,0116	.0113	.079	1 .0769	.0331	.0326
.6	.0703	.0697	.0257	.0254	.0443	.0443	. 00248					.00733	.00369	.066	7 .065	.0290	. 0284
.8	.0614	.0614	+0252	+0247	.0364	.0367	.00140					.00232	.00229	.058	4 .057	0267	,0259
1	.0554	.0552	+0244		0310		000906	000630		000638	000196	.00108	.00107	.047	0 .0466	.0240	. 0229
1.5	.0450	+0449	•0222	+0216	.0227	+0232	+000403	.00231	•	.00231	.00107	.000679	.000673	.041	5 .0413	.0234	.021
2.	.0384	5050	+0204	+0195	.0128	.0138	.000103	.00614	.0000105	.00614	.00381	.000366	.000364	.036	8 .036	0239	.020
3.	0302	.0302	.0153	-0141	00989	.0111	.0000582	.00983	.0000434	.00989	.00679	.000241	.000241	.035	a .035. A .A36	0 .0269	.022
.	.0218	.0218	.0137	.0123	.00810	.00947	.0000375	.0129	.0000852	.0130	.00947	.0001/9	.000170	.035	0.035	.0281	.0220
6.	.0192	.0192	.0124	.0109	.00685	.00834	.000025	.0155	.000132	.0156	•0117	.000142	.0000989	.035	5 .035	.0303	.024
8,	.0157	.0157	.0105	.00888	.00524	.00685	.000014	.0194	.000224	.0197	.0151	.0000763	.0000763	.036	8 .036	,0325	. 025
10.	.0134	.0134	.00918	.00739	.00424	.00602	000009	02.30	0000307	0306	. 0230	.0000486	.0000485	+040	6 .040	.0377	• 0284
15.	.00995	.00995	.00703	.00535	00288	00400		.0350	.000608	.0356	.0251	.0000354	.0000354	+043	7 .043	.0415	.029
20.	.00799	•00/99 •00/99	+005/9	+00-13	.00147	.00312		.0418	+000799	+0425	.0276	.0000231	.0000231	.048	4 .048	0409	.030
30.	.0058	00580	.00350	.00189	.00111	.00272		.0465	.000936	.0474	.0282	.0000171	.0000171	.052	1 .054	0301	
50.	.00385	5 .00385	.00296	.00143	.000888	.00242		.0501	.00104	.0511	.0281	.0000136	.0000130	+034 AE7			.028
60.	.00331	.00331	.00257	.00113	.000739	.00219		.0530	.00112	.0541	.0278	.0000111	.0000111	060	8 .060	8 .0602	.028
80.	.00262	.00262	.00206	.000757	.000558	.00186		.0568	+00124	.0581	.0273	.0000042	.0000065	. 063	8 .063	.0632	.027
100.	.00217	.00217	+00172	+000551	+00044B	.00162		.0602	•00133	.0014	*0<02	*********				• • • •	

145

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45 RHODIUM (barns/atom)

E	MeV)	σ _{inc,t}	o BD	σ _{inc,a}	σ ^{BD} _{inc,a}	o ^{KN} o)nc.s	o ^{BD} inc,s	0coh	σ _{*n}	σ _{×e}	σ _{x,t}	$\sigma_{x,a}$	σ _{7, t}	σ _{r,a}	σ _{tot,t}	ot, t-coh	⁰ tot, a	σ _{tot, en}
	.001	29.8	1.22	.0581	.00238	29.8	1.22	1280.					1400000.	1400000.	1400000.	1400000.	1400000.	1400000.
	.0015	29.8	2.06	.0868	.00601	29.7	2.05	1220.					478000.	478000.	479000.	478000.	478000.	478000.
	.002	29.7	2.85	.115	.0111	29.6	2.84	1150.					226000.	226000.	227000.	226000.	226000.	226000.
	.003	29.6	4,27	.171	.0247	29.4	4.25	999.					77100+	77100.	78100.	77100.	77100.	77100 -
L	.003004	29.6	4,28	.172	.0248	29.4	4.26	999.					77000.	77000.	78000.	77000.	77000+	77000.
***	-	-		•				_					308000 .	284000+	309000.	308000.	308000.	2840.00+
LII	.003146	29.6	4,46	.180	.0271	29.4	4.43	978.					259000 .	239000+	260000.	259000+	259000.	234000.
													358000.	330000.	359000.	358000.	358000.	330000.
	.003412	29.5	4.80	+194	.0316	29.3	4.77	942.					295000.	274000.	298000.	295000.	295000.	274000+
													337000.	313000.	338000.	337000.	337000.	313000.
	+004	29.5	5,52	.227	•0425	29.2	5.48	805.					216000+	203000.	217000.	519000+	210000+	203000.
	.005	29.4	6.69	.281	+0641	29+1	6.63	750.					117000.	111000.	118000.	117000.	117000+	111000+
	•006	29.2	7.77	,335	.0890	28.9	7.68	656.					71300+	60400.	72000+	/1300+	/1300+	
	.005	29.0	9.71	,439	.147	28.6	9.56	517.					32400+	31400.	32900+	32+00+	32+00+	31400+
	•01	28,8	11.3	540	212	28.3	. 11.1	422.					1/400.		1/0004			11000+
	•015	28.3	14+2	.783	.393	27.5	13+8	274.					5600+	2510+	3090+	3610+	2480.	2450
_	•02	27.8	10.1	1.00	+581	26.8	15+5	188.					2480.	24504	20001	25000	1670.	1610.
K	023250	27.5	17.0	1+14	.703	20.4	10+3	153+					1030+	1010+	11400.	1200.	11200.	4510.
		-						184					11200.	3000	5700.	112000	5540.	3000.
	•03	20.7	10.4	1.40	+ 930	27.3	17.0	100.					3500+	1450	3630.	2580.	2530.	1650.
	•0•	20.0	19.0	1+/4	1+31	24.3	10+3	08+6					1370.	1050+	1440.	1390.	1370.	992.
	• 97	52.2	20.2	2.04	1.03	23.2	10.0	70+1					837.	417.	879.	843.	8.28.	A16.
	•00	29.0	20.5	2.30	1.92	22.5	10.0	33.4					364.	301.	406.	384.	367.	303.
	• • • •	22+3	20.4	2.13	2.37	20.0	10.0	14.1					192.	165.	226.	212.	195.	168.
	•	20.0	20.0	3,00	2.10	1711	16.8	4.41					60.0	54.5	85.5	78.9	63.6	57.9
	•15	18.3	17.4	3.05	3.43	14.3	13.8	3.81					26.2	24.4	47.6	43.8	30.1	28.2
	.1	15.9	15.6	4.29	4.21	11.6	11.4	1.73					8.15	7.77	25.5	23.7	12.4	12.0
	• •	14.2	14.1	4.41	4.24	9.84	9.76	- 984					3.80	3.67	18.9	17.9	8.2	1 8.0
		13.0	12.9		4.39	8.57	8.51	+638					2+14	2.08	15.7	15.0	6.5	8 6+4
		12.0	11.9	4.42	4.34	7.61	7.56	.441					1+36	1.33	13.7	13.3	5.7	6 5.6
		10.6	10.5	4.32	4.22	6.25	6.28	. 249					+698	.686	11.4	11.2	5.0	2 4.9
1		9.50	9.47	4.18	4.06	5.32	5.41	•161					.430	.424	10+1	9,90	4.6	1 4.4
ĩ	.5	7.72	7.71	3.82	3.72	3,90	3,99	+0723	.113		+113	+0346	+200	+198	8.1	0 8.02	4•1	3 3.9
2	•	6.58	6.58	3.49	3.36	3.09	3.22	+0411	.406		•406	.188	+125	+124	7+1	5 7.11	4.0	2 3.0
3	•	5.18	5.17	2,99	2.79	2.19	2.38	+0183	1.08	.00181	1.08	.670	•0682	.0679	6.3	4 6.32	4+14	4 3.5
4	•	4.33	4.33	2,63	2,42	1.70	1.91	.0104	1.72	.00744	1.73	1.19	+0448	+0440	6+1	2 6.10	4.4	0 3.0
5	•	3,74	3.74	2,35	2.11	1.39	1.63	•00669	2.27	+0146	2.28	1,66	•0331	+0330	6+0	6 6+05	4.0	6 3,0
6	•	3,38	3,30	2,13	1.86	1.18	1.44	+00458	2.71	+0227	2.73	2.05	+0261	•0260	6+0	6 0.00	4.8	3.7
	•	2.70	2,70	1.80	1.52	•900	1.18	+00253	3,41	+0384	3+45	2,63	+0184	+0184	6+1	. 0.1	5.2	7 4 •1
10	•	2.30	2.30	1.57	1.26	.729	1.04	.00166	4.05	.0527	4.10	.3.17	+0143		<u></u>	2 0.0	3.0	
15	•	1.70	1.70	1,21	.909	.494	.790		5.25	.0826	5.33	4.00	•00707	+00409	<u>/•</u> 0		8.7	3 4.7
20	•	1.37	1.37	.994	.703	.374	.667		6.11	.104	6+21	4.37	+00668	+00668	7+3	17 / 431 6 B.A		1 3.6
30	•	.995	.995	.744	.458	.252	.537		7.31	+137	7+45	4.62	+00430	+00430	B+4		0.01	7 7.3
40	•	.791	•791	.601	.324	+190	•467		8,11	+161	8+27	4.89	+00317	+0031/	9.0	0.45	8.4	7 2.1
50	•	.661	.661	.508	.245	+152	+416		8.78	+178	8.96	4,88	+00250	••••25•	10.0	10.0		· 5•1
60	•	.569	.569	.441	.192	+127	.377		9.26	+192	9+45	4.53	+00200	+00200 -00162	10.0	10.0	10.6	7 51U A.A
80	•	.449	.449	, 353	.130	.0958	•319		9.95	+213	10.2	4.74	+00156	.001192	11.1	11.1	11.0	4.4
100	•	.373	.373	•296	• 0944	•0768	+279		10.5	+ 228	10+7	4.38	+00114	•0011*	11+1	11+1	11.44	

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45 RHODIUM (cm³/g = 0.005853 x barns/atom)

E (MeV)	([#]) ^{KN} _{inc,t}	([#] _p) ^{BD} _{)nc,t}	([#] _p) ^{KN} _{nc,a}	([#]) ^{BD} inc, a	(貨) ^{KN} inc,s	(声) ^{BD} inc,s	([#]) _{coh}	(^µ _p) _{*n}	([#] _p) _{×e}	([#] _p) _{*,t}	([#] _p) _{*.a}	(券) _{7,1}	([#] _p) _{7, a}	([#]) _{tot,t}	([#] _p) _{tot,t/coh}	([#] _p) _{tot.a}	([#] _p) _{tot, en}
.001	+174	+00714	+000340	.0000139	+174	.00714	7.49					8190.	8190.	8190.	8190.	8190.	8190.
.0015	+174	.0121	.000508	.0000352	+174	.0120	7+14					2800+	2800+	1330.	1930.	1220	1320.
.002	+174	.0167	.000673	.0000650	+173	+0166	6.73					1320.	1320+	457.	13200	451.	451.
.003	+1/3	.0250	.00100	+000145	.172	+0249	5.65					451.	451.	457.	451.	451.	451
LII .003004	•1/3	*0521	+00101	+000145	+1/2		3+83					1800.	1660+	1810.	1800.	1800.	1660.
LII .003146	.173	.0261	.00105	+000159	•172	•0259	5.72					1520. 2100.	1400. 1930.	1520. 2100.	1520+ 2100+	1520. 2100.	1400. 1930.
L1 .003412	.173	.0281	•00114	.000185	•171	.0279	5,51					1730. 1970.	1600. 1830.	1730. 1980.	1730. 1970.	1730. 1970.	1600. 1830.
+004	.173	.0323	.00133	.000249	.171	.0321	5.06					1260.	1190.	1270.	1260.	1260.	1190.
.005	.172	.0392	.00164	.000375	.170	.0388	4.39					685.	650+	691.	685.	685.	650.
.006	.171	.0455	+00196	.000521	.169	.0450	3.84					417.	400.	421.	417+	417+	400.
.008	.170	.0568	.00257	.000860	. 167	•0560	3.03					190.	184.	193.	190+	190.	104.
.01	169	10661	.00316		166	.0650	2.47					102,	99.5	104.	102.	102.	77.7
.015	.168	.0831	+00458	.00230	.161	.0808	1.60					32.0	32+3	34.3	32+0	32.00	36.3
•02	.163	.0942	.00585	•00340	+157	.0907	1.10					14.7	10.43	10.6	9.64	9.64	1913
r +023550	•161	+0995	+00667	+00411	·155	.0954	•846					46.4	7446	66.7	65.6	65.6	26.4
63	167	.108			.149	.102	. 620					32.7	17.6	33.4	12.8	32.7	17.6
.03	+17'	1100	*00014	+00901	147	102	.020					14.8	9.66	15.3	14.9	14.5	9.66
.05	132	112	.0112		136	.109	283					8.02	5.79	8.43	8.14	8.02	5-81
.05	144	120	1 35	.0112	131	109	207					4.82	1.70	5.14	4.93	4.83	3.72
.08	.136	.119	.0160	-0140	121	.105	.125					2.13	1.76	2.38	2.25	2.15	1.77
.1	.130	.117	.0179	.0162	.112	.101	0825					1+12	.966	1.32	1.24	1.14	,983
.15	.117	- 111	+0212	+0201	+0954	.0907	.0387	· · · ·				• 351	+319	• 500	•462	•372	+ 339
.2	107	.103	.0231	.0223	.0837	.0808	0223					• 153	+143	.279	+ 256	+176	+165
.3	.0931	.0913	.0251	.0246	.0679	.0667	.0101					•0477	+0455	+149	+139	.072	6 .070
.4	.0831	.0825	.0258	.0254	.0576	.0571	.00576					+022 <u>2</u>	+0215	+111	+105	+048	1 •040
.5	.0761	.0755	•0260	+0257	.0502	•0498	.00373					+0125	+0122	+091	9 +0876	+0.30	•03/
•6	.0702	•0697	+0259	+0254	+0445	+0442	.00258					+00796	.00778	•080	2 .0771	.033	6 +035
	.0020	+0615	+0253	+0247	.0366	.0368	.00146					• 00 • 0 9	+00402	+000	7 + 0070	+027	a +02∎ 0 +02∎
1.	.0556	.0554	,0245	.0238	.0311	.0317	.000942					.00252	+ 00245	0037		0021	2
1.5	.0452	.0451	+0224	+0218	.0228	+0234	.000+23	+000661		.000661	.000203	+00117	+00110	. 041	L .0414	.023	5 .021
<u> </u>	.0365	.0385	.0204	+0147	.0181	.0188	.0002-1	+00238		.00238	.00110	.000399	.000397	.037	.0370	.024	2 .020
3.	+0303	.0303	+01/3	+0103	.0128	•0137	+000107	•00032	+0000106	.00032	+00392	.000262	.000261	.035	.0351	.025	8 .0214
2.	.0255	.0293	.0134	+0146	00995	.0.054	.0000000	+0101	+0000435	.0101	+00077	.000194	.000193	.035	5 .0354	.027	3 .022
5. 6.	0217	.0193	+0138	+0123	.00691	.00843	.0000268	.0159	.000133	.0160	.0120	.000153	.000152	.035	5 .035	.028	6 .023
	.0158	-0158	.0105	+0107	.00527	.00691	.0000148	.0200	.000225	.0202	.0154	.000108	.000108	.036	.036		6 .024
10.	.0135	.0135	.00919	.00737	.00427	.00609	-0000097	.0237	.00030B	.0240	.0184	.0000837	.0000837	,037	6 ,037	.033	2 .024
15.	.00995	.00995	+0070A	+00532	.00289	+00462		+0307	+000483	.0312	.0234	.0000532	.0000531	+041	2 .0412	.038	3 .020:
20.	.00802	.00802	.00582	+00411	00219	.00390		.0358	.000609	.0363	.0256	.0000391	+0000391	.044	4 .0444	.042	2 .029
30.	.00582	.00582	+00435	.00268	.00147	.00314		+0428	.000802	.0436	-0282	.0000252	.0000252	• 049	5 .0495	.048	0 +030
40.	.00463	.00463	.00352	.00190	.00111	.00273		+0475	.000942	.0484	.0286	+0000186	+0000186	.053	0 +0530	•051	• 030
50.	.00387	.00387	.00297	.00143	000890	.00243		+0514	.00104	.0524	.0286	+0000146	+0000146	.056	3 • 056:	.055	4 .030
60.	.00333	.00333	.00256	.00112	.000743	.00221		.0542	.00112	.0553	.0283	.0000121	.0000121	+058	5 .0585	+057	9 .029
80.	.00263	.00263	.00207	.000761	.000561	.00187		.0582	.00125	.0597	.0277	+00000890	+0000089	•062	6 .0620	.062	0 .028
100.	.00218	.00218	.00173	.000553	.000450	.00163		.0615	.00133	.0626	.0268	+00000700	+00000700	•065	0 +0650	•064	4 • 027

46 PALLADIUM (barns/atom)

E (MeV)	σ _{inc,t}	σ ^{BD} inc, t	o ^{KN} o _{inc, a}	σ ^{BD} inc, a	O ^{KN})nc,s	σ _{)nc,s}	σ _{coh}	σ×ο	σ _{xe}	σ _{x,t}	σ _{x.a}	σ _{r.t}	σ _{r,a}	σ _{sot,t}	σ _{tot,t-coh}	σ _{tot,a}	or, en
.001	30.5	. 75.7			30.4	764	1364.					1550000.	1550000.	1550000.	1650000.	1550000.	1650000.
.0015	30.4	1.50	.0887	.00438	30.3	1.50	1290.					528000.	528000	529000	528000	528000+	528000
-002	30.4	2.30	.118	.00892	30.2	2.29	1220.					249000	249000.	250000.	249000.	249000+	249000.
.003	30.2	3.81	.175	.0221	30.1	3.79	1060.					84600.	84600.	85700.	84600.	84600.	84600.
L003174	30.2	4.05	.185	.0248	30.0	4.03	1040.					73300.	73300.	74300.	73300+	73300.	73300 .
111				•••			••••					288000.	264000+	289000.	288000 ·	288000+	264000+
LTT .003330	30.2	4.27	.194	.0274	30.0	4.24	1010.					242000.	223000.	243000+	242000 .	242000.	223000+
												334000.	307000.	335000.	334000.	334000+	307000.
L ₁ .003605	30,2	4.64	.210	•0322	30+0	4.61	974.					276000.	255000.	277000.	276000.	276000.	255000.
-			-		-							316000.	292000.	317000.	316000.	316000.	292000.
+00+	30.1	5+16	.232	.0397	29.9	5+12	919.					236000.	220000.	237000.	236000.	236000.	220000.
.005	30.0	6.42	.287	.0615	29.7	6.36	795.					128000.	121000.	129000.	128000.	128000.	121000.
.000	29.9	7.58	• 342	.0868	29.6	7.49	693.					78000.	74400.	78700.	78000.	78000.	74400.
.008	29.7	9.66	.449	+146	29.2	9+51	545+					35400.	34200.	36000.	35400.	33400+	34200.
2 <u>01</u>	29.5			.214	-28.9	11.2	444.					18900.	10400	19400.	10700.		10400.
•015	20.9	14.3	.800	.396	28+1	13.9	289.					2720	2696	2954	2750	2720	2690
+UC F 034380	28.4	10.3	1.03	. 360	2/+•	12+7	199+					1560	1540	1730	1580.	1560.	1540.
* *******	24.4	1, 40	1+61	• 190	20+0	14+0	121+					10600.	41.80	10800.	10600	10600.	4180.
.03	27.5	18.7	1.43	.973	26.1	17.7	111.					6000	3050.	6130.	6020.	6000.	3050.
.04	26.6	19.9	1.78	1.33	24.8	18.6	77.4					2750	1740.	2840	2770.	2750.	1740.
.05	25.8	20.6	2.08	1.66	21.7	18.9	50.8					1490.	1050.	1560.	1510.	1490.	1050.
.06	25.1	20.8	2.35	1.95	22.7	18.8	37.5					896	676.	954.	917.	898.	678.
.08	23.8	20.8	2.79	2.44	21.0	18.4	22.6					397.	324.	440.	418,	400.	326.
.1	22.7	20.4	3,13	2.82	19.5	17.6	14.9					210.	179.	245.	230.	Z13.	182.
.15	20.4	19.3	3,70	3.50	16+7	15.8	7.00					66.0	59+5	92.3	85.3	69.7	63.0
•2	18.7	18.0	4.04	3.89	14+7	14+1	4+04					28.7	26.6	50.7	46.7	32.7	30.5
•3	16.3	15.9	4.38	4.29	11.9	11+6	1+84					9.00	8.56	26.7	24.9	13+4	12.8
• 4	14.6	14.4	4.51	4.44	10+1	9.96	1+04					4.20	4.05	19+6	18.0	8.71	8.49
•5	13.3	13.2	4.54	4.49	8.76	8+71	+677					2.37	2.30	10.2	13.5	0,71	0. / Y
• •	12.3	12.2	4.52	4,45	7.78	7.75	+467					1.30	1,90	17.4	13.1	5,VZ	5.10
	10.8	10.8	4.42	4.34	6+39	6.46	• 263					. 7 6	+130	11.0	10.2	3.17	5.10
Å.	- 7 80	<u> </u>		9,12	2.99	2+24		120		1 20	0367	.221	.219	8.30	8.22	4.24	4.05
2	A 73	4.77	3.57	3.47	3.16	3.39	• • • • • • • • • • • • • • • • • • • •	427		• 120	108	.139	.138	7.31	7.29	4.14	3.77
1.	5.29	5.29	3.05	2.86	2.24	2.43	.0193	1.13	.00185	1.13	. 701	0750	.0746	6.51	6.49	4.25	3.64
	4.43	4.43	2.69	2.47	1.74	1.96	.0110	1.80	.00760	1.81	1.24	.0493	.0491	6.30	6.29	4.55	3.76
5.	3.82	3.82	2.40	2.15	1.42	1.67	+00710	2.38	.0150	2.19	1.74	.0368	.0367	6,21	6,25	4,83	3.93
6.	3.38	3.38	2.17	1.90	1.20	1.48	.00485	2.83	.0232	2.85	2.14	.0290	.0289	6.24	6,26	5.05	4.07
8.	2.76	2.76	1.84	1.55	.920	1+21	+00266	3.56	.0393	3+60	2.75	.0201	.0201	6.38	6,38	5,46	4,32
10.	2,35	2,35	1.61	1.28	.745	1,07	.00173	4.20	.0539	4.25	3.28	.0157	0157	6.62	6.62	5,88	4,58
15.	1.74	1.74	1,24	.927	.505	+813		5,50	+0844	5+58	4.16	.00997	.00996	7.33	7,33	6.03	5.10
20.	1.40	1.40	1.02	.715	.382	.685		6+40	•107	6.51	4.57	.00729	.00728	7.92	7,92	7,54	5.24
30.	1.02	1.02	.760	.467	.257	+553		7.61	+140	7.75	4.98	.00474	+00474	8,77	8,77	8.91	2.45
40.	.809	.809	+615	.329	+194	+480		8.50	.164	8+66	5.09	.00349	.00349	9,47	9,4/	9,28	5.42
50.	.675	.675	.520	.250	+155	.425		9,15	.182	9.33	5.05	.002/5	+002/3	10.0	10.0		5,30
60.	•581	.581	•451	.195	+130	•386		9.65	•196	9+85	5+00	00220 AR147	.00220	10.7	11.0	10.9	8,00
80.	.459	.459	.361	.132	.0979	+327		10.3	+217	10.5	4.87	.01130	.00130	11.6	11.6	1.5	4.87
100+	+381	• 381	• 305	0960	+0/85	+283		11+0	•522	11+5	4.17	.00130	100130	11.0	11.00	11.4	4.07

148

46 PALLADIUM (cm¹/g = 0.005660 x barns/atom)

$ \begin{array}{cccccccccccccccccccccccccccccccccccc$		E (MeV)	$\binom{\mu}{p}_{inc,t}^{KN}$	(岁) _{nc,t}	(声) ^{KN})nc,a	(∉) ^{BD} inc, ∎	(声) _{nc,s}	(学) ^{BD} inc, s	(費) _{coh}	(#)*n	(#)×e	(ڭ) _{×, t}	([#] _p) _{×, a}	(岸) _{下, t}	(^µ _p), 2	([#]) _{tot, t}	([#] _p) _{tot,t-coh}	([#] _p) _{tot, a}	(⁵)tot, en
		.001	.173	.00428	.000336	.0000083	.172	.00428	7.64					8770.	8770.	8770.	8770.	8770.	8770.
- 0.03 .172 .013 .00000 .00015 .170 .0120 5.00 .00015 .170 .220 .00015 .170 .220 5.72 .200 .00015 .200 .120 .120 .120 .120 .120 .120 .120		.0015	.172	.00849	.000502	.0000248	.171	.00849	7.30					2990 .	2990.	2990.	2990.	2990.	2990 .
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$.002	.172	.0130	.000668	.0000505	.171	.0130	6.91					1410+	1410+	1410.	1410.	1410.	1410.
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $.003	.171	•0216	.000990	+000125	.170	.0215	6.00					479.	479.	485.	479.	479.	479.
$ \begin{array}{c} 1 \\ T_1 & 00338 & 171 & .2242 & .00110 & .000155 & .170 & .2240 & 5.72 \\ T_2 & .00346 & .171 & .2242 & .00110 & .000155 & .170 & .2241 & 5.51 \\ T_2 & .00346 & .171 & .2242 & .00110 & .000155 & .170 & .2241 & 5.51 \\ T_2 & .00346 & .177 & .2242 & .00110 & .000152 & .170 & .2241 & 5.51 \\ .004 & .170 & .0233 & .00162 & .00324 & .146 & .0240 & .550 \\ .005 & .140 & .0234 & .00162 & .00324 & .146 & .0240 & .550 \\ .005 & .140 & .0242 & .00152 & .00324 & .146 & .0240 & .550 \\ .005 & .140 & .0242 & .00124 & .00324 & .146 & .0240 & .550 \\ .005 & .140 & .0242 & .00242 & .146 & .0244 & .146 & .0240 & .550 \\ .005 & .140 & .0242 & .00124 & .00326 & .146 & .0244 & .146 & .0240 & .550 \\ .005 & .140 & .0242 & .00324 & .00326 & .146 & .0244 & .146 & .0240 & .550 \\ .005 & .140 & .0242 & .00324 & .00326 & .146 & .0244 & .146 & .0240 & .146 \\ .005 & .140 & .0047 & .00334 & .00326 & .0034 & .148 & .0240 & .146 & .024 & .146 & .024 & .$		LTTT +003174	.171	.0229	.00105	+000140	.170	.0228	5.89					415.	415.	421.	415.	415.	415.
$ \begin{array}{c} \mu_1, 003.00 & 111 & 0072 & 00110 & 000155 & 110 & 0280 & 5.72 \\ L_0, 00305 & 117 & 0.262 & 0.0131 & 0.0025 & 110 & 0.261 & 5.51 \\ 0.04 & 177 & 0.262 & 0.0131 & 0.0025 & 1.60 & 0.070 & 5.20 \\ 0.05 & 1.07 & 0.262 & 0.0131 & 0.0025 & 1.60 & 0.070 & 5.20 \\ 0.06 & 1.07 & 0.262 & 0.0131 & 0.0025 & 1.60 & 0.070 & 5.20 \\ 0.06 & 1.07 & 0.262 & 0.0131 & 0.0025 & 1.60 & 0.070 & 5.20 \\ 0.06 & 1.07 & 0.022 & 0.0131 & 0.0025 & 1.60 & 0.070 & 5.20 \\ 0.06 & 1.07 & 0.022 & 0.0131 & 0.0025 & 1.60 & 0.070 & 5.20 \\ 0.06 & 1.07 & 0.022 & 0.0154 & 0.0450 & 1.65 & 0.0250 & 5.20 \\ 0.06 & 1.06 & 0.027 & 0.0131 & 0.0025 & 1.00 & 0.025 & 1.00 \\ 0.06 & 1.06 & 0.027 & 0.0131 & 0.0025 & 1.00 & 0.025 & 1.00 \\ 0.06 & 1.06 & 0.027 & 0.0154 & 0.025 & 0.0056 & 1.13 \\ 0.05 & 1.01 & 0.022 & 0.0154 & 0.021 & 0.0131 & 0.025 & 0.015 & 0.015 \\ 0.05 & 1.01 & 0.022 & 0.0154 & 0.021 & 0.0131 & 0.025 & 0.015 & 0.015 \\ 0.05 & 1.01 & 0.022 & 0.0155 & 0.0055 & 0.0155 & 0.015 & 0.015 \\ 0.05 & 1.01 & 0.022 & 0.0155 & 0.0055 & 0.0155 & 0.015 & 0.015 & 0.015 \\ 0.05 & 1.01 & 0.022 & 0.0155 & 0.0155 & 0.015 & 0.005 & 0.005 & 0.005 & 0.005 & 0.005 & 0.005 & 0.005 & 0.005 & 0.005$														1630.	1490+	1640.	1630.	1630.	1490.
$ \begin{array}{c} 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 \\ 1 $		1I +003338	•171	+0242	•00110	+000155	+1/0	+0240	5.72					1370+	1260.	1380.	1370.	1370.	1200.
- 100 111 10012 100 10012 100 10012 100 1001 10012 100 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 1001 10012 <th1012< th=""> <th1012< th=""> <th1012< th=""></th1012<></th1012<></th1012<>		1	171	4767	00110		170	0761	E 51					1890+	1740+	1900.	1890+	1890.	1740.
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		1 .002002		+0203	*00114	+000182	•1/0	*****	2+21					1500+	1440+	1570.	1560+	1500.	1440+
$\begin{array}{cccccccccccccccccccccccccccccccccccc$.004	. 170	. 0292	.00131		.149	0290	E. 20					1790+	1050+	1790.	1790.	1790.	1050.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	•	005	170	0242	.00167	******	149	0360	5+20 A 80					724	1230+	730	724.	724	486.
-008 .108 .00587 .00282 .1053 .105 .201. .104. .200. .201. .104. .201. .104. .201. .104. .201. .104. .201. .104. .201. .104. .201. .104. .201. .104. .201. .104. .201. .104. .201. .104. .201. .104.		.006	169	.0429	.00102	.000348	168	.0424	1.92					441.	421.	445.	441.	441	421.
$\begin{array}{c c c c c c c c c c c c c c c c c c c $.008	.168	.0547	.00254	.000491	165	.0519	3.08					200.	194.	204	200.	200.	194.
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$.01	.167	-0645	-00312	-00121	.164	-0634	2.51					107-	104.	110.	107.	107.	104.
161 .0023 .00330 .155 .0089 1.13 15.5 15.2 16.7 15.6 15.7 15.1 15.6 15.6 15.7 11.0 00.0 22.7 01.1 00.0 00.0 22.7 01.1 00.0 00.0 22.7 01.1 00.0 00.0 22.7 01.1 00.0 00.0 22.7 01.1 00.0 00.0 22.7 01.1 00.0 00.0 22.7 01.1 00.0 00.0 22.7 00.0 00.0 22.7 00.0		.015	.164	.0809	.00453	.00224	.159	.0787	1.64					34.9	34.2	16.6	34.9	34.9	34.2
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$.02	.161	.0923	.00583	.00333	155	.0889	1.13					15.5	15.2	16.7	15.6	15.5	15.2
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		K .024350	.158	.0996	.00685	.00430	.152	.0951	.855					A.83	8.72	9.79	8.94	8,83	8.72
$\begin{array}{cccccccccccccccccccccccccccccccccccc$														60.0	23.7	61+1	60.0	60.0	23.7
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		• 03	.156	+106	.00809	•0055i	.148	•100	•628					34.0	17.3	34.7	34.1	34.0	17.3
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		+ 04	.151	•113	.0101	.00753	.140	.105	•410					15.6	9.85	16+1	15.7	15.6	9.85
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		+05	.146	•117	.0118	•00940	.134	.107	• 288					A.43	5.94	8.83	8.55	8.43	5.94
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		•06	+142	+118	.0133	•0110	.128	+106	+212					5+07	3.83	5.40	5+19	5.08	3.84
$\begin{array}{c c c c c c c c c c c c c c c c c c c $		+08	.135	+118	•0158	.0138	•119	.104	+128					2+25	1.83	2.49	2.37	2.26	1.85
$\begin{array}{cccccccccccccccccccccccccccccccccccc$		•1		-115		.0160	.110	,0996	.0843					1.19	1.01	1.39	1_30		
+2 +102 +0229 +0229 +102 +102 +111 +207 +207 +114 +175 +174 +4 +00226 +00151 +0225 +0225 +0225 +0225 +0226 +111 +105 +0433 +0044 +5 +0753 +0757 +0226 +0446 +0134 +0134 +0134 +0130 +0111 +105 +0493 +0044 +6 +0696 +0611 +0225 +0226 +0346 +00194 +00264 +00849 +00826 +0804 +0775 +0244 +02249 +02269 +02269 +02269 +02269 +02269 +02269 +02269 +02269 +02269 +02269 +02269 +02269 +02269 +02269 +02269 +0126 +00124 +00214 +0214 +0214 +0214 +0214 +0214 +0214 +0214 +0214 +0214 +0224 +0224 +00265 +0124 +0214 +0214 +0214 +0214 +0214 +0214 +0214 +0214 +0214 +0214 +0214 +021		+15	+115	.109	.0209	+0198	+0945	•0894	+0396					+374	+337	+522	.483	.395	• 357
+3 +00225 +00037 +00245 +00037 +00038 +00037 +00038 +0013 +0012 +0013 +0012 +0013 +0012		• 5	+104	+102	+0229	+0220	+0632	+0/98	+0229					+162	+151	+28/	+284	+107	• 173
1 0.0253 0.0254 0.0254 0.0264 0.0265 0.0263 0.0263 0.0264 0.014 0.0117 0.0825 0.0341 0.0341 0.0341 0.0344 0.0117 0.0853 0.0344 0.0117 0.0853 0.0341 0.0344 0.0117 0.0853 0.0344 0.0117 0.0853 0.0341 0.0344 0.0117 0.0853 0.0344 0.0117 0.0853 0.0344 0.0117 0.0853 0.0344 0.0117 0.0853 0.0344 0.0124 0.00668 0.00264 0.00428 0.00668 0.00264 0.00276 0.00276 0.00276 0.00781 0.0171 0.0470 0.00674 0.00264 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276 0.00276		• • •	+0723	.0900	+UZ+0	+ 42+3	40074	+0657	+0104					.0309	+0+04	+191	+141 145	.0/38	0.UF 2.4
			.0753	.0747	+0255	+0231	.0496	+0304	.00383					+0230	+ 1/2 24	• • • • • • • • • • • • • • • • • • • •	•105	+0473	.0384
.8 .0611 .0216 .0362 .0362 .0362 .0362 .0362 .0364 .0244 .00245 .00245 .00245 .00245 .00244 .00244 .00244 .00244 .00244 .00125 .00124 .0415 .0413 .0244 .0224 .00245 .00242 .00124 .000781 .0415 .0413 .0234 .02213 3 .0251 .0251 .0152 .0144 .00019 .00640 .00015 .00640 .00397 .000279 .000278 .0356 .0357 .0254 .0266 .0213 .0216 .0216 .0136 .0125 .000279 .000278 .0357 .0354 .0273 .02273 .0228 .0216 .0216 .0216 .0216 .0216 <t< td=""><td></td><td>.6</td><td>.0696</td><td>.0691</td><td>.0256</td><td>.0252</td><td>.0440</td><td>.0439</td><td>.00264</td><td></td><td></td><td></td><td></td><td>.00849</td><td>.00826</td><td>. 0804</td><td>.0775</td><td>.0341</td><td>. 02 38</td></t<>		.6	.0696	.0691	.0256	.0252	.0440	.0439	.00264					.00849	.00826	. 0804	.0775	.0341	. 02 38
1. 10550 10548 10222 10235 10543 1000433 1000422 100124 100124 100124 100124 100124 100124 100124 100123 100124 100123 100123 1000422 100136 100121 1000422 100364 100121 1000422 100364 100216 1000276 10035 100356 102256 102256 10236 100236 100236 100237 100356 100357 10236 100266 100121 1000276 100356 100356 10236 100266 100136 100356 100235 1002656 1000		.8	.0611	.0611	+0250	.0246	.0362	.0366	.00149					.00436	+00428	.0668	.0657	.0294	. 02 89
1.5 .0447 .0446 .0221 .0215 .0226 .0231 .000433 .000679 .000208 .00125 .00124 .0470 .04455 .0240 .0226 2. .0381 .0380 .0202 .0194 .0179 .0186 .000242 .00125 .000781 .000771 .0415 .0413 .0224 .0214 .0224 .00125 .000781 .000771 .0415 .0413 .0224 .0214 .0224 .0214 .02241 .02241 .02241 .02241 .02241 .000772 .000779 <		1.	0550	.0548	.0242	.0235	.0308	0313	000962					.00269	.00265	.0583	.0577	.0269	.0261
2		1.5	.0447	.0446	+0221	+0215	.0226	.0231	.000433	.000679		.000679	.000208	.00125	.00124	.0470	.0465	.0240	.0229
3. .0299 .0299 .0173 .0162 .0177 .0138 .000199 .00640 .00397 .00024 .000422 .0368 .0367 .0216 .0216 .015 .00995 .010276 .000276 .00276 .00276 .00276 .00276 .00276 .00276 .00276 .00276 .00276 .00276 .00375 .0356 .0228 .0226 .		2.	.0381	.0380	.0202	+0194	.0179	.0186	+000246	+00242		.00242	.00112	+000787	+000781	+0415	.0413	.0234	.0213
4. .0251 .0251 .0152 .0140 .00965 .0111 .0000623 .0102 .00702 .000276 .00576 .0357 .0356 .0253 .0223 5. .0216 .0133 .0103 .000430 .0135 .00085 .000208 .00354 .0354 .0273 .0222 6. .0191 .0191 .0123 .0108 .00075 .0164 .000164 .00164 .00354 .0273 .0228 8. .0156 .0156 .0104 .00877 .00521 .00655 .0000151 .0201 .000222 .0204 .0156 .00114 .00114 .0351 .0331 .0333 .0259 10. .00985 .00722 .00506 .000198 .000184 .000144 .000144 .00354 .00354 .0264 .0259 15. .00985 .00702 .00525 .00286 .000098 .00145 .00145 .0185 .00145 .0185 .000154 .0000564 .00114 .0015 .0185 .00289 .00000413 .000412 .04		3.	.0299	.0299	•0173	•0162	.0127	•0138	.000109	+00640	.0000105	+00640	.00397	+000424	+000422	•0368	+0367	+0241	• 020 •
5. .0216 .0216 .0136 .00245 .000049 .0135 .00085 .000208 .00208 .00354 .0354 .0273 .0228 6. .0191 .0126 .0156 .0156 .0156 .0156 .0354 .0354 .0273 .0228 8. .0156 .0156 .0104 .00877 .00521 .00685 .000151 .021 .000222 .0204 .0156 .00014 .00314 .0351 .0354 .0228 .0230 10. .0133 .0131 .00911 .00724 .00422 .000099 .0238 .000355 .00014 .00114 .0351 .0351 .0239 15. .00792 .00722 .00265 .00286 .000099 .0238 .000355 .000544 .000354 .0015 .037		4.	.0251	.0251	+0152	+0140	.00985	•0111	.0000623	.0102	+0000430	.0102	.00702	+000279	•000278	+0357	•0356	.0258	+ 0213
6. .0191 .0191 .0123 .0108 .00679 .00838 .0000275 .0104 .00114 .000164 .00354 .0354 .0354 .0236 .0236 8. .0156 .0104 .00114 .00014 .00014 .00115 .0115 .0128		5.	.0216	+0216	.0136	•0122	.00804	.00945	+0000402	.0135	+0000849	.0135	.00985	+000208	.000208	.0354	+0354	.0273	• 0222
8. .0156 .0156 .0104 .00877 .00221 .000055 .000151 .021 .000222 .0204 .0156 .000114 .00114 .0361 .0361 .0309 .0249 10. .0133 .0091 .0072 .00622 .00005 .0216 .000156 .000114 .00114 .0361 .0361 .0309 .0249 15. .00985 .00702 .00525 .00226 .000098 .0231 .00476 .0314 .0219 .0000564 .0415 .0415 .0415 .0387 .0289 20. .00792 .00797 .00405 .00145 .00145 .00145 .00269 .0000413 .000412 .0448 .0445 .0427 .0289 30. .00577 .00577 .00405 .00145 .00145 .00145 .00145 .00456 .00456 .00456 .00456 .00456 .00456 .00456 .00456 .00456 .00456 .00456 .00566 .0556 .0556 .0555 .0308 50. .00382 .00284 .000		6.	.0191	.0191	.0123	.0108	.00679	.00838	.0000275	.0160	.000131	•0161	.0121	+000164	.000164	.0354	+0354	.0286	• 0230
10, 0133 0133 0071 00724 00422 0040 000098 0238 000305 0241 0186 0000564 0000564 00155 0375 0375 0387 0289 15. 00792 00792 00792 00577 00456 00216 00388 0362 00406 0311 000478 0316 0235 0000564 0000564 00155 0448 0445 0427 0289 30. 00577 00577 00577 0045 00145 00313 0431 000792 0439 000068 0000268 0000268 00496 0448 0445 0427 0299 40. 00458 00458 00458 00146 00116 00272 0481 040928 0490 0288 0000188 0000188 0536 0536 0536 0555 0307 50. 00382 00382 00141 000877 00241 0518 00103 0528 0490 0288 0000156 0566 0556 0356 0355 0307 50. 00382 00382 00294 00141 00074 00272 0481 0518 00113 0528 0283 0000156 000156 0566 0566 0568 0358 032 60. 00382 00382 00329 00255 00110 00077 00241 0518 00113 0528 0283 0000156 0000156 0566 0569 0583 0329 60. 00382 00382 00329 00255 00110 00077 00241 0518 00113 0528 0283 0000156 0000156 0566 0569 0583 0329 60. 00362 00362 00329 00255 00110 00074 000554 00185 0583 00123 0554 0276 0000075 00623 0663 0667 0651 0289 100. 00260 00260 00260 000204 00074 000554 00165 0563 00128 0554 00276 0000075 00623 0667 0651 0289 100. 00260 00260 00260 00020 000554 00165 0563 00123 0594 0276 0000075 00623 0667 06651 0289 100. 00260 00260 00554 0016 00174 000554 00165 0563 00123 0554 0076 0000075 00623 0667 0651 0289			+0156	+0156	+0104	+00877	.00521	.00685	+0000151	•0201	+000222	.0204	+0156	+000114	+000114	+0361	+0361	.0309	+0245
15. .007555 .00755 .00755		10.	0133		.00911	.00724	.00422	.00600	.0000048	10230	.000305		0186	.0000689	.0000489		.0375	,0333	.0359
20, 00072 00072 00077 00577 00577 00505 00218 00308 043 00074 00074 00518 0029 000013 000013 000012 0448 0446 0446 0446 0446 0446 0446 0446		12.	+00703	+00765	+00702	+00525	.00280	.00460		+0311	+000478	+0316	.0235	.0000564	+0000564	+0+1	•0419	.0387	.0289
40, .00456 .00458 .00456 .00156 .00157 .00272 .0481 .000928 .0490 .0285 .000198 .0000198 .0500198 .0556 .0556 .0555 .0307 50, .00382 .00382 .00294 .00141 .000877 .00241 .0518 .00103 .0528 .0286 .0000156 .0000156 .0566 .0566 .0558 .030 60, .00329 .00329 .00255 .00110 .000736 .00218 .0546 .00111 .0558 .0283 .0000128 .0000128 .0589 .0589 .0589 .0583 .0284 80, .00260 .00260 .00274 .000554 .00185 .0583 .00123 .0594 .0276 .0000156 .000095 .0623 .0623 .0657 .0651 .0283 100, .00261 .00216 .00171 .000544 .00141 .00044 .0051 .0623 .00132 .0594 .0276 .0000074 .0000074 .00557 .0657 .0651 .0276		20.	00172	00.72		*****	-00210	100300		+0302	+000600	+0368	.0239	.0000268	.0000412				0UZ79
50, 00322 00322 00255 00110 000877 00241 0518 00103 0528 00266 0000156 0000156 0566 0556 0558 0300 60, 00329 00329 00255 00110 000736 00218 0546 00111 0558 0283 0000128 0050128 0589 0589 0583 0294 80, 00260 00260 00204 000747 000554 00185 0583 00123 0594 0276 0000095 00623 0623 0623 0617 0284 100, 00216 00216 00171 00054 00141 0583 00123 0594 0276		A0.	.00456	.00456	.00348	+00204	.00110	.00272		+0+31	.000/92	.0-39	+0482	.0000198	.0000198	.0534	.0470	.0402	- 0308
60. 00329 00329 00255 00110 000747 000754 00218 0546 00111 0558 0283 0000128 0000128 0549 0549 0543 0294 80. 00260 00264 000747 000554 00185 0583 00123 0554 0276 0000075 00203 0623 0623 0617 0283 100. 00261 00216 00171 00054 00161 0563 00123 0554 0276		50.	.00382	.00382	-0029A	-00100	.000877	.00241		.0518	.00103	+0470	.0286	.0000156	.0000156	.0566	, 0550	.0458	.0307
8000260 .00264 .000747 .000554 .00185 .0583 .00123 .0554 .0276 .0000095 .0023 .0623 .0623 .0617 .0283 10000216 .00216 .00171 .000543 .00044 .00161 .0623 .00132 .0634 .0270 .0000074 .0000074 .0657 .0657 .0651 .0276		60.	.00329	.00329	.00255	.00110	.000734	.00218		-0546	.00111	.0558	.0283	+000012A	+000012B	.0584	.0589	.0581	.0284
10000216 .00216 .00171 .000543 .000444 .00161 .0623 .00132 .0634 .0270 .0000074 .0057 .0657 .0651 .0276		80.	.00260	.00260	+00204	+000747	.000554	.00185		.0583	.00123	.0594	.0276	.0000095	.0000095	.0623	.0623	.0617	.0283
		100.	.00216	.00216	+00171	.000543	.000444	.00161		.0623	+00132	.0634	.0270	.0000074	+0000074	.0657	.0657	.0651	.0276

47 SILVER (barns/atom)

E	(MeV)	σ _{inc,t}	o BD	σ _{inc,a}	$\sigma_{\rm inc,a}^{\rm BD}$	o ^{KN} o _{inc, s}	σ ^{BD} inc,s	σ _{coh}	σ×n	σ×e	σ _{x,t}	σ _{*, a}	σ _{r,t}	σ _{τ, a}	σ _{tot,t}	Ttot,t-coh	σ _{tot, a}	⁰ tot, en
	.001	31.1	.893	.0607	.00174	31.1	.891	1400.					1700000.	1700000.	1700000.	1700000.	1700000.	1700000.
	.0015	31.1	1.64	.0907	.00478	31+0	1+64	1340.		•			585000+	585000.	500000.	585000.	575000+	355000+
	•00Z	31.0	2.42	.120	.00939	30.9	2+41	1260 +					275000.	275000+	2/6000+	275000+	2/5000+	2/5000+
	.003	30.9	3.89	.179	.0225	30.7	3.87	1110.					93900.	93900+	70900.	493700.	48800.	498000
LIII	.003351	30,9	4.38	•199	.0283	30.7	4.35	1050.					270000	246000	271000.	270000.	270000.	246000+
L.	.003524	30.8	4.62	.209	.0314	30.6	4.59	1030.					225000.	206000.	226000.	225000 .	225000.	206000.
	443844	10	F 00	774		70.6	4.04						311000.	284000.	312000.	311000.	311000+	239800+
"1	• 00 3000	2000	3.00	****	+0300	30.00	4 6 90	700+					296000.	272000.	297000.	296000.	296000 .	272000.
	.004	30.8	5.26	.237	.0405	30.5	5.22	961.					256000+	237000+	257000.	256000+	256000.	237000.
	.005	30.7	6.51	.294	.0624	30.4	6+45	833.					139000.	131000+	140000+	139000.	139000+	131000.
	.006	30.5	7.67	.350	.0878	30.2	7+58	727.					85300 .	81000+	86000.	85300+	N9300.	81000+
	.00B	30.3	9.77	+459	.148	29.9	9+62	570.					38700.	37200.	39300.	38700.	38/00+	3/200+
	.01	30.1			216	29.5		464.					20700+		7050	<u>20100.</u>	6736.	
	.015	29.6	14+6	+817	+ + 0 4	28.7	14+2	303+					2080.	2930.	1210.	3008.	2980.	2930.
-	+02	29.0	16.6	1.05	.599	28.0	10.0	210.					1500.	1480.	1670.	1520.	1500.	1480.
K	*052214	20.7	10+1	1.20	*012	21.02	14+2	1424					10100.	3920 .	10300.	10100.	10100.	3920 .
	- 03	28.1	19.0	1.46	. 989	26.6	18.0	117.	•				6500.	3120.	6640.	6520 .	6500.	3120.
	.04	27.2	20.3	1.81	1.35	25.4	18-9	76.3					2960 .	1800.	3060 .	2980.	2960.	1800.
	.05	26.4	20.9	2.13	1.69	24.3	19.2	53.6					1600.	1100.	1670.	1620.	1600+	1100.
	.06	25.6	21.2	2.41	1.99	23.2	19.2	39.6					970.	718.	1030.	991.	972+	720.
	.08	24.3	21.2	2.85	2.48	21.5	18.7	23+8					431+	347.	476.	452+	434+	349+
	•1	23.2	20,9	3.20	2.88	20.0	18.0	15+8				· · · · · · · · · · · · · · · · · · ·	229,		266		232.	198+
	15	20.8	19.7	3,78	3.58	17+1	16+1	7+40					72+)	04+0	99.2	41.8	75.9	0016
	•2	19.1	18.4	4.13	3,98	15+0	14+4	4+27					31+5	29+0	24+2	9717	35.0	17.8
	•3	16.6	16.3	4,48	4.39	12+1	11+9	1+94					4.61	4.43	20.4	19.3	9.22	8.96
	• •	14.9	14.7	4.61	4.53	10.3	10.2	1+10					7.60	2.62	16.8	16.1	7.24	7.11
	•5	13.6	13.5	4,04	4.59	8.75	8+91	+715					1.65	1.61	14.6	i4.1	6.27	6.17
	••	12.0	12+5	9,02	4,30	4.53	4.58						.850	.833	12.1	11.8	5.36	5+25
	••	11.0	0.80	4,51	4,92	5.56	5.46	-180					.525	.517	10.6	10.4	4.89	4.75
1		8.07	A.05	3.00	1.87	4.07	4.18	+0806	.126		+126	.0386	+245	+242	8.50	8.42	4.36	4+15
2		6.88	6.87	3.65	3.50	3.23	3.37	+0459	.449		.449	.208	+153	+152	7.52	7.47	4.25	3.86
	i.	5.41	5.40	3.12	2.91	2.29	2.49	+0204	1.18	.00189	1+18	.730	•0828	+0824	6.68	6+66	4.38	3.15
6		4,52	4,52	2,74	2,52	1.78	2.00	+0116	1.88	.00778	1.89	1.30	+0545	+0543	6+48	6.40	4.08	3.87
	5.	3,90	3.90	2,45	2.19	1+45	1.71	+00754	2.48	.0153	2.50	1.81	•0400	•0399	0+45	0.44	4.99	4.04
	•	3,45	3,45	2,22	1.94	1.23	1.51	+00516	2,94	.0237	2+96	2.21	+0321	+0320	0.43		2.61	4.10
. (3.	2,82	2.82	1,88	1,58	•940	1+24	+00281	3.71	+0401	3.75	2.80	•0223	+0223	6.87	4.87	5403	4.74
- 19		2,40	2,40	1.64	1.31		1.09		<u></u>		4:45	3.43		+0109	7.58	7.58	7.06	5.26
1	•	1.70	1.78	1.20	. 442	+210			5.10	1001	4.77	4.50	.00798	.00797	8.17	8.17	7.78	5.43
- 20	•	1.43	1.45 -	1+0-	. / 20	267			7.96	.143	8.09	5.17	.00519	+00519	9.14	9.14	8.87	5.65
30	•	1.04	1,04	478	174	.198	.492		8.82	.168	8.99	5.24	.00382	+00382	9.82	9.82	9.42	5.58
	•	.020	490	611	254	.159	. 436		9.55	.185	9.73	5.24	.00300	+00300	10.4	10.4	ĵ0.3	5+50
6	•	594	.594	.461	198	.133	. 396		10.1	200	10.3	5.19	+00248	+00248	10+9	10.9	<u>10.8</u>	5.39
	•	469	469	369	135	100	. 334		10.0	.222	11.0	5.06	+00183	+00183	11.5	11+5	11.4	5+20
100		.389	.389	.309	.0976	.0802	.291		11.4	.238	11.6	4.91	+00144	+00144	12.0	12.0	11.9	5+01

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47 SILVER (cm²/g = 0,005583 x baros/atom)

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E (MeV)	(声) (声) hnc. t	(声) BD (声) inc.t	([#] _p) ^{KN} _{inc.a}	(声) ^{BD} inc, a	KN (勞) _{inc, s}	([#] 5) ^{BD})nc,s	(岸) _{coh}	([#] ¢)∗ _n	(분) _{×e}	([#] / _p) _{*,t}	([#] _p) *, a	(岸) _{て、1}	(#), a	([#]) _{tot,t}	([#]) _{tot,t-coh}	([#] _p) _{tot, a}	(\$) _{tot, en}
			<u> </u>									9490.	9490.	9490.	9490.	9490.	9490.
+001	+174	.00499	.000339	.0000097	+174	+00497	7+82					3270.	3270.	3270 .	3270.	3270.	3270.
.0015	+174	+00916	+000506	+0000267	173	.0135	7.03					1540+	1540.	1540.	1540.	1540.	1540.
+002	173	.0217	.000870	.000126	.171	.0216	6.20					524.	524.	530.	524.	524 .	524.
1	173	.0245	.00111	.000158	171	.0243	5.86					390.	390.	396.	390+	390.	390.
-111	•••				•							1510.	1370.	1210+	1310+	1310.	1150.
L _{II} .00352	• <u>172</u>	.0258	.00117	+000175	•171	.0256	5.75					1740+	1590+	1740.	1740.	1740.	1590.
L ₁ .00380	s .172	.0279	.00126	+000204	.171	.0277	5.52					1450.	1330.	1450. 1660.	1450. 1650.	1450.	1330.
	.172	.0294	.00132	.000226	.170	.0291	5.37					1430.	1320.	1430.	1430.	1430.	1320.
004	171	.0363	-00164	.000348	.170	.0360	4.65					776.	731.	782.	776 -	776.	731.
.005	170	.0428	.00195	.000490	169	.0423	4.06					476.	452.	480.	470.	4 r u +	472.
.008	.169	.0545	.00256	.000826	167	.0537	3.18					210.	208.	217.	210.	2100	112.
.01	,168	.0642	.00315	.00121	,165	.0631	2,59		·			110.	112.	19.4	37.6	37.6	36.6
.015	.165	.0815	.00456	.00226	.160	.0793	1.69					16.6	16.4	17.9	16.7	16.6	16.4
•02	,162	.0927	.00586	.00334	.156	•0893	1.17					8.37	8.26	9.32	8,49	8,37	8,26
K +02551	• •194	•101	.00/15	+00+35	•15E	•0900	*0 JZ					56.4	21.9	57.5	56.4	56.4	21.9
64	157	106	00815	.00552	.149	.100	.651					36.3	17+4	37.1	36.4	36.3	17.4
.04	152	.113	.0101	.00754	.142	.106	.426					16+5	10.0	17+1	16+6	18.5	10.0
.05	.147	.117	.0119	.00944	136	.107	•299					8+93	6.14	9.32	9.04	6 47	4.02
.06	,143	.118	.0135	.0111	.130	.107	.221					2445	4+01	3.44	7.53	2.42	1.45
.08	.136	.118	.0159	.0138	.120	+104	.133					2++1	1.08	1.49	1.40	1.30	1.49
•1	,130	.117	.0179	.0161	,112	. 100	0882					.403	•361	.554	.513	.424	.381
+15	•110	•110	•0211	•0200	.0955	.0899	+0+13					.176	.162	. 303	.279	,199	•184
• 4	107	. 0910	.0250	.0245	.0676	.0664	.0108					.0553	.0524	.157	.146	.0804	.0770
	.0832	.0821	.0257	.0253	0575	.0569	.00614					.0257	.0247	.114	.108	,0515	.0500
.5	.0759	0754	.0259	.0256	.0500	.0497	.00399					+0145	+0141	.093	.0895	0909	.0377
.6	.0703	.0698	.0258	.0255	.0444	.0443	.00275					,00921	.00899	+001	0.659	0350 0 299	.0293
.8	.0614	.0614	.0252	.0247	.0365	+0367	.00155					00293	.00289	.059	.0581	0273	.0265
<u>}.</u>	.0554	.0552	+0244	.0236	.0310		00100	A		10100	000216	.00137	.00135	.047	.0470	.0243	.0232
1,5	+0451	+0449	.0223	.0216	.0227	.0233	.000430	.00211		.000703	.00116	.000854	.000849	.0420	.0417	.0237	.0216
5.	.0304	.0304	.0204	+0195	.0128	.0139	.000114	.00659	.0000106	.00659	00408	.000462	.000460	.037	.0372	.0245	.0208
3 .	.0252	.0252	.0153	.0141	.00994	.0112	.0000648	.0105	.0000434	.0106	.00726	.000304	.000303	.036	.0301	,0201	.0210
5.	.0216	.0218	.0137	.0122	.00810	.00955	.0000421	.0138	.0000854	.0140	.010í	.000223	.000223	.0360	0380	0291	.0233
6.	.0193	.0193	+0124	.0108	.00687	.00843	.0000288	.0164	.000132	.0165	+0123	+000179 00e1 79	+00017 #	.036	.0365	.0316	.0240
8.	.0157	.0157	.0105	.00882	.00525	.00692	.0000157	.0207	+000224	.0209	+0160	.000165	-000125	.038/	.0384	.0341	.0266
10	.0134	.0134	.00916	.00731	00425	.00609	.0000101	10246	-000307		<u>+0191</u>	.0000009	.0000609	.042	1240.	.0394	.0294
15.	.00994	.00994	.00703	.00528	.00288	+00406		+0318	+000481	.0323	+ 02 40	.0000446	.0000445	.045	.0456	.0434	.0303
20.	+00/98	-00/98	+00581	+00406	.00147	.00317		.0444	.000798	+0452	.0289	.0000290	.0000290	.051	.0510	.0495	.0315
30.	.00761	.00961	.00351	.00186	.00111	.00275		.0492	.000938	.0502	.0293	.0000213	.0000513	.054	B .054E	.0537	-0315
50.	.003A	5 .00385	.00296	.00142	000888	.00243		.0533	.00103	.0543	.0293	.0000167	.0000167	.058	.0581	.0575	.0307
60.	.0033	.00332	.00257	.00111	.000743	.00221		.0564	.00112	.0575	.0290	.0000138	.0000138	•060	.0605	.0003	.0301
80.	.0026	.00262	.00206	.000754	.000558	.00186		•0603	.00124	.0614	.0282	.0000102	.0000102	.084	c .0042		.0240
100.	.0021	00217	.00173	+000545	.000448	,00162		•0636	.00133	+0648	.0274	*00000 HO	+0000080	•0eri			• • • • • • • • •

151

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48 CADMIUM (barns/atom)

E (MeV)	σ ^{KN} inc.t	o BD	o ^{KN} inc, a	o ^{BD} inc, a	0)nc,s	σ ^{BD} inc,s	σ _{coh}	σ×n	σ _{×e}	σ _{x.t}	σ.,	σ _{τ.t}	σ _{τ. ±}	σ _{tot,t}	tot,t-coh	⁰ tot, a	Utot, en
		1.00	0620	.00105	31.7	.998	1460.					1870000+	1870000.	1870000.	1870000.	1870000.	1870000.
.0015	31.7	1.80	.0926	.00525	31.7	1.79	1390.					642000.	642000.	643000.	647000+	342000+	302000+
.002	31.7	2.59	.123	.0100	31.6	2.58	1310.					302000.	302000+	303000+	103000.	103000.	103000.
.003	31.6	4.05	,183	.0235	31.4	4.03	1150.					103000+	66400.	67500.	66400.	66400.	66400.
LTTT .003537	31.5	4.79	.215	.0327	31.3	4.76	1070.					2624004	229000	253 000 .	252000.	252000+	229000+
	E	E	324	4342	31.2	5.00	1040.					210000 +	192000+	211000+	210000.	210000.	192000 .
LII .003/2/	31*3	3+04	*254	*034E	2145	2000						290000+	264000.	291000.	290000.	290000+	264000+
.004	31.4	5.41	.242	.0416	31.2	5.37	1000.					244000.	224000+	245000+	244000+	244000+	229000+
L004018	31.4	5.43	.243	.0420	31.2	5.39	999.					242000+	222000+	278000	277000.	277000.	254000.
1												161000.	141000.	152000.	151000.	151000.	141000+
.005	31.3	6+66	.380	.0638	31.0	8+60	764					92600	87400.	93400.	92600.	92400+	87400.
.006	31.2	7.82	.357	.0895	30.0	0.76	F04.					42100+	40300+	42700+	42100.	42100+	40300+
.008	31.0	9,91	676	.150	30.2	11.5	485.					22600.	21800.	23100+	22600.	22000.	21000.
+01 -015	30.2	14.8	.835	.409	29.4	14.4	317.					7370.	7200.	7700.	7380+	3270.	3210.
.02	29.7	16.9	1.07	.610	28.6	16.3	220.					3270 +	3210+	1610.	1470.	1450.	1430.
K .026711	29.0	18.7	1,36	.877	27.6	17.8	146.					9530.	3660.	9740.	9600 .	9580.	3660 .
					-7 2	10.7	123.	•				7000.	3150.	7140+	7020 .	7000 +	3150+
•03	28.7	19.3	1.49	1.00	2/+2	10.3	80.2					3200.	1880.	3300.	3220 .	3200.	1880.
• 04	27.8	20.0	1.00	1.72	2347	19.6	56.4					1740+	1170+	1820+	1760+	1740+	1170+
•07	20.7	21.6	2.46	2.03	23.7	39.6	41.7					1050.	761+	1110.	10/0+	1050+	374.
.08	24.8	21.6	2.91	2.53	21.9	19+1	25+1					467.	371.	286.	269.	251	210.
.1	23,6	21.3	3.26	2,94	20.4	18.4	16+6					78.5	69.9	106.	98.6	82.4	73.5
.15	21.3	20.1	3.86	3.65	17.4	16+5	7+81					34.3	31+5	57.6	53+1	38.5	35.6
•2	12.5	18.8	4.22	4.06	15+3	14+7	2.05					10.4	10.2	29+4	27+4	15.4	14+7
•3	11.0	10.0	4.71	4.62	10.5	10.4	1.16					5+10	4.89	21.3	20 • 1	9.01	9.01
	13.0	13.7	4.73	4.66	9.14	9.04	.754					2+84	2.75	17+3	10+5	6.5	6.19
.6	12.8	12.7	4,72	4.64	8.12	8.06	• 520					1.80	4911	12.4	12.1	5.5	5.41
.8	11.3	11.2	4.61	4.50	6+67	6.70	+ 293					.575	.568	10.9	10.7	5.04	4,89
1.	10,1	10.1	4.46	4,32	5.08	5.78	.190	.177		.111	.0407	.269	.266	8.71	6.62	4.4	4.26
1.5	8,24	8.22	4.0/	3.93	3,30	3.44		.470		.470	.218	.168	•167	7.70	7.65	4.3	3.75
5	5.52	5.52	3,19	2.97	2.34	2.55	.0216	1.23	.00193	1.23	.761	•0903	.0595	0.00	6.65	4.3	1 1.98
4.	4.62	4.62	2.80	2.57	1.82	2.05	•ó123	1.96	•00793	1.97	1.35	.0394	+0572	Á- 64	6.63	5.1	4-15
5.	3,99	3.99	2,50	2.23	1+48	1.76	.00797	2.58	+0156	2.60	1.88	+0441	+0349	6.65	6.64	5.3	9 4.31
6.	3.52	3.52	2.27	1,97	1+25	1.55	+00548	3.07	+0272	3.91	2.98	•0243	+0242	6.82	6.81	5.8	5 4+61
	2,88	2.88	1.92	1.61	.777	1.13	-00190	4.59	.0561	4.65	3.56	.0189	10189	<u>tel</u> 3	7.13	6.3	<u> </u>
10	2.40	2.40	1.00	.963	.527	.857		5.95	.0880	6+04	4.48	+0119	+0119	7.87	7.67	703	6 7+47 6 6.67
10.	1.44	1.46	1.06	.737	. 399	.723		6.90	•111	7.01	4.87	•00870	•00867	0.41	0,51	9.2	5.86
30.	1.06	1.06	.793	.479	•268	.581		8,30	•145	8.44	5.38	+00000		10.2	30.2	30.0	5.77
40.	.844	.844	.641	.338	.203	•506		9.20	•171	9+37	5.43	.00330	.00330	10.8	10.8	10.4	5.65
50 .	.705	.705	.542	.257	+162	•448		7.89	.204	10+1	5.31	+00270	.00270	11.2	11+2	11-1	5.51
60.	.607	.607	+471	.201	.107	+400		11.2	.226	11.4	5.20	.00200	•00500	11.9	11-9	11.6	5.34
	+479	. 107	.316	.0992	.0819	.298		11.8	.242	12.0	5.03	+0015	•00157	12+4	12+4	. 12.3	2+13
100+	+ 371	• 3 • 1					•										

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48 CADMIUM (cm³/g = 0.005358 x barns/atom)

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E (MeV)	(≝) ^{KN} inc,t	(声) ^{BD} inc,t (KN inc,a	(約) _{nc,a} (約	KN (inc,s)	, BD binc,s	(#) _{coh}	([#] _p) _{*n}	(^µ _p) _{×e}	([#] _p) _{×, t}	([#] _p) _{*,a}	(#),,t	(^μ _ρ) _{τ, a}	([#]) _{tot,t} (() tot, t-coh	([#]) _{tot, a} (5	tot, en
	.170	.00536	.000332	.0000104	.170	.00535	7.82					10000.	10000.	10000.	10000.	10000.	3440.
.001	5 .170	.00964	.000496	.0000281	.170	.00959	7.45					3440+	3440+	1620.	1620.	1620.	1620.
.002	.170	.0139	.000659	.0000536	.169	.0138	7.02					552.	552.	557.	552.	552.	552.
.003	•169	.0217	+000981	.000126	•168	+0216	6.10					356.	356.	362.	356.	356.	356.
L _{III} .003	537 .169	+0257	+00115	+000175	•108	+0255	5.13					1350.	1230.	1360.	1350.	1350.	1230.
L _{II} .003	727 .169	•0270	.00121	.000194	.167	.0268	5.57					1130. 1550.	1030.	1130. 1560.	1130. 1550.	1130.	1410.
.004	.168	.02%	.00130	.000223	.167	.0288	5.36					1310.	1200+	1310.	1310.	3300.	1190.
1 004	018 .168	.0291	.00130	.000225	.167	•0289	5.35					1480.	1360.	1490.	1480.	1480.	1360.
1					144		4.66					809.	755.	814.	809.	809.	755.
.005	.168	+0357	+00181	+000342	+100	.0334	4.00					496.	468.	500.	496.	496.	468.
.000	+107	+0+14	+00191	.0004804	.163	.0523	3.19					226.	216.	229.	220.	220.	210.
.00	.164	.0627	.00309	-00117	.162	.0616	2.60					121.		124.	121.	1614	38.6
.01	.162	.0793	+00447	.00219	,158	.0772	1.70					39.5	17.2	18.8	17.6	17.5	17.2
.02	.159	.0906	.00573	.00327	.153	.0873	1.18					7.77	7.66	8.63	7.88	7.77	7.66
K .056	711 .155	•100	.00729	•00470	.148	•0954	.782					51.3	19+6	52.2	51+4	51.3	19.6
	1 64	. 103	-00798	-00536	.146	.0981	.659					37.5	16.9	38.3	37.6	37.5	16.9
• 0 3	149	.110	.00991	-00734	.139	.103	.430					17+1	10.1	17.7	17.3	17.1	10+1
.05	.144	114	.0116	.00922	.133	.105	.302					9.32	6.27	7.73	7.43	5.43	4.69
.06	.140	.116	.0132	.0109	.127	.105	.223					5+03	4+015	2.75	2.62	2.52	2.00
.08	.133	.116	.0156	.0136	.117	.102	+134					1.33	1.11	1.53	1.44	1.34	1.13
<u>.</u>	,126	•114	.0175	<u>•0158</u>	09	.0988	0089					+421	.375	.568	.528	•441	.394
-15	•114	+108	•0207	.0196	.0732	.0788	-0742					+184	.169	.309	.285	.206	•171
.2	+10+	1 .0889	.0245	.0240	.0664	.0648	.0110					+0579	+0547	+158	+147	.0023	+0/88
	.081	4 .0804	.0252	.0248	.0563	.0557	.00622					•0273	+0262	+114	-105		.0397
	.074	5 .0734	.0253	.0250	.0490	.0484	.00404					30100	.00978	-0864	.077	.0349	.0342
.6	.068	6 .0680	.0253	.0249	.0435	.0432	.00279					-0049B	+0048B	.0664	.064	.0297	.0290
8	•060	5 .0600	+0247	.0241	.0357	.0359	+00157					.00310	.00304	+ 0584	.0573	.0270	. 0262
<u>}.</u>	.054	1 .0541	.0239	.0231	.0223	.0929	-000456	+000713		.000713	.000218	.00144	+00143	.046	.0462	•0240	.0228
1+5	.037	6 .0376	.0200	.0191	.0177	0184	.000259	.00252		.00252	.00117	.000900	+000895	+041	3 •0410	0234 6454	+0412
3.	.029	6 .0296	.0171	.0159	.0125	.0137	.000116	.00659	.0000103	.00659	.00408	+0000404	+000481	+0.36	7 .035	.0259	.0213
4.	. 024	8 +0248	+0150	.0138	.00975	.0110	+0000659	+0105	.0000425	.0106	.00723	-000316	.000236	.035	.035	.0275	.0222
5.	.021	4 .0214	.0134	.0119	.00793	.00943	.0000427	.0138	.0000836	+0139	.0101	.000188	.000187	.035	.0356	.0289	.0231
6.	.018	9 .0189	.0122	+0106	.00870	.00830	+0000294	+0104	+000130	.0209	.0160	.000130	.000130	.036	5 .036	.0313	.0247
	+015	• •0174 3 •177	.0103	.00063	.00514	-00605	-0000155	.0246	.000301	.0249	.0191	.000101	.000101	.038	.036	.0340	
10.		78 .00976	.00691	.00516	.00282	.00459		.0319	.000472	.0324	.0240	.0000638	.0000638	•042	-042	.0373	+0272
20.	.007	82 .00782	.00568	.00395	.00214	.00387		.0370	.000595	.0376	.0261	.0000466	.0000466	.043			-0314
30.	.005	68 .00568	.00425	.00257	+00144	.00311		.0445	+000777	.0452	+0280	+0000304	.0000304	.054	7 .0541	.0536	.0309
40.	.004	52 .00452	.00343	.00181	.00109	.00271		•0493	.000916	.0502	.0291	.0000177	.0000177	.057	9 .0579	. 0568	.0383
50.	.003	78 .00378	•00290	.00138	.000868	.00240		.0930	+00101	+0341	.0289	.0000145	+0000145	.060	.060	.0595	+ 0295
60.	•003	25 .00325	-00252	.00108	+000729	+00218		+0337	-00121	.0611	.0279	+0000107	.0000107	+ 06 3(s .063i	.0632	•028•
80. 100.	.002	13 .00257	+00201	.000532	+000439	.00160		.0632	.00130	.0643	.0270	.0000084	+0000084	•066	• •0664	.0659	•0275

49 INDIUM (barns/atom)

E ()	MeV)	KN _{(inc.t}	$\sigma_{inc,t}^{BD}$	CINC, a	o ^{BD} oinc, a	(KN O)nc, s	o ^{BD}	σ _{coh}	σ×ο	σ _{×e}	σ _{x,t}	<u>σ, a</u>	σ _{rat}	σ _{r.a}	σ _{tot,t}	σ _{tot} t-coh	σ _{tot,a}	or tot, en
	001	12.5	1.05	.0633	.00205	32.4	1.05	1510.					2040000.	2040000.	2040000.	2040000.	2040000+	2040000+
	0015	12.4	1.92	.0945	.00560	32.3	1.91	1440.					699000.	699000+	700000+	336000.	3280000	328000
	002	32.3	2.75	.125	.0107	32.2	2.74	1360.					328000.	12000	113000.	112000.	112000.	112000.
	003	32.2	4.22	187	.0245	32+0	4.20	1190.					63300+	63200.	64300.	63200	63200.	63200+
L ₁₁₁	003730	32.1	5.22	.231	.0375	31.9	5.18	1080.					237000.	214000.	238000+	237000+	237000.	214000+
L ₁₁	.003938	32.1	5.50	.243	.0417	31.9	5+46	1050.					271000+	245000.	272000.	271000.	271000.	245000+
	.004	32.1	5.58	.247	.0429	31.8	5+54	1040.					261000+	23/000.	202000+	201000+	297000.	207000.
1	.004238	32.1	5.88	.261	.0479	31.8	5.83	1010.					227000.	20/000.	2610000	260.000	240000	237000.
-1				-		_	_						200000+	152000.	165000.	164000.	164000.	152000+
	.005	32.0	6.82	,306	.0653	31+7	6.75	906.					100000	93800.	101000.	100000.	100000.	93800.
	.006	31.8	7.96	,365	.0911	31.5	7+87	793.					45800.	A3700.	46400.	45800.	45800+	43700+
	800	31.6	10.1	.478	•153	31+1	9.95	622+					24600.	23700.	25100+	24600 .	24600.	23700.
	.01	31.4	11.8			30.8	_11.0						8030.	7830.	8380.	8050.	8030+	7830 •
	015	30.8	15.0	.852	.415	30.0	14+0	331+					3600+	3530.	3850 •	3620 •	3600+	3530+
- '	• 0Z	30.3	17.2	1.09	.021	29.2	10+0	144.					1390+	1370+	1550+	1410.	1390+	1370 •
к,	021940	24.2	14+3	1	.743	20+0	10.4	7-44					9120.	3400.	9280+	9140+	9120+	3400+
	. 63	29.3	19.7	1.52	1.03	27.8	18•7	130.					7500.	3120.	7850+	7520 •	7500+	1920+
	••• • •	28.4	21.0	1.89	1.40	26.5	19.6	84.2					3420+	1920+	3730+	1880.	1870.	1210.
	.05	27.5	21.7	2.22	1.75	25.3	19.9	59.3					1870.	1210.	1700.	1150.	1130.	802.
	.06	26.7	22.0	2.51	2.06	24.2	19.9	43.9					1130 •	195.	555.	528.	509.	398.
	.08	25.3	22.0	2.97	2.58	22.4	19+4	26+5					300.	221.	307.	290.	271.	224.
	•1	24.1	21.7	3.33	2,99	20.	18.7	17.5					85.0	75.1	114.	106.	88.9	78.6
	.15	21.7	20.5	3,94	3.72	17+8	16+8	8+23					37+3	34+0	61+1	56+4	41+6	38+1
	•2	19.9	19.1	4.31	4.13	15+0	15+0	4+73					11+8	11+1	30+9	28.7	16.5	15.7
	.3	17.3	16.9	4.87	4,50	12.7	12+3	2+10					5.55	5.31	22+1	20.8	10.4	10.0
	• •	15.5	15.3	4.81	4.71	10.7	10+0	1.23					3.12	3.01	17.2	17-1	7.75	7+16
	•3	14.2	14.0	4.03	4.73	8.29	8.27	.549					1.99	1.93	15.7	19.0	6 To	5.60
	•••	13.1	11.6	4.71	4.61	6.81	6.89	.310					1+01	.988	12.0	12+5	5.18	5.09
,	••	10.3	10.3	4.55	4.40	5.80	5.90	•209					•632	+021		8.83	A.60	4.37
÷	· <u>··</u> ···	- B. 41	8.39	4,16	4.03	4.25	4.36	+0895	+140		+140	.0428	•270	187	7.89	7.84	4.49	4.05
ż	•	7.17	7.16	3,81	3,64	3.36	3.52	+0510	.495		• 4 9 5	+229		.0984	7.04	7.02	4.64	3.93
3	•	5,64	5.63	3.25	3.03	2.38	2.60	+0228	1.29	+00197	1+29	•/98	.0659	+0647	6.85	6.84	4.98	4.08
4	•	4.71	4.71	2.86	2.61	1.85	2.10	+0129	2.05	.00819	2.00	1.00	+0482	+0480	6.84	6.83	5.32	4.28
5	•	4.07	4.07	2,56	2.28	1.51	1.79	+00542	2.09	+0134	3.22	2.40	.0385	+0384	6.86	6.86	5.58	4+45
6	•	3.60	3.60	2,32	2.01	1.20	1.39	+00300	3.20	.0419	4.05	3.08	.0268	.0267	7.02	7.02	6.04	4.75
8	•	2,94	2.94	1.90	1.04	.700	1.30	.003199	A.77	.0572	A.83	3.68	.0207	.0207	7.36	7,36	0.70	3000
- 19	e	- 2.31			078	.518			6.18	.0898	6.27	4.63	•0131	.0131	8 •1•	8.1	7,00	5. SA
15	•	1.00	1 40	1.08	.749	407	.741		7.20	.113	7.31	5.08	+00956	+00955	5+91 	0.84	0.47	6.84
20	•	1.447	1.447			. 274	594		8.60	+148	8.75	5.55	+00621	+00021	9+04 10 E	10.5	50.3	6.91
0C	•	.841	.841	.655	.344	207	.517		9.50	+174	9.67	5.58	+0045	+00407	11.3	11.2	11.1	5.83
50	•	.719	.719	.554	.261	.166	+458		10.3	•193	10.5	5.57	+0036	.00360	11.4	11-6	11.5	5.69
50	•		.619	481	.204	+139	.415		10.8	+208	11.0	5.48	+00273	-00218	12.3	12.3	32.2	5,50
84		.489	.489	.384	.138	+104	•351		11.6	•230	11+8	5.36	+00210	•00172	12.9	12.9	12.0	5.31
100	•	.406	.406	. 322	.101	.0836	.305		12,3	.247	12+5	5.21						

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and Angele Brief

49 INDIUM (cm³/g = 0.005245 x barns/atom)

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E (MeV)	(⊈))nc,t	(♯) ^{BD} _{inc,t}	([#] _p) ^{KN} inc.a	([#] _{\$}) ^{BD} _{inc,a} ("KN ["] inc,s	(^µ _p) ^{BD} _{inc,s}	([#]) _{coh}	(#)*n	([#] _₽) _{× e}	([#] _p) _{x,t}	(#) _{*.a}	(芽) _{7,1}	$\left(\frac{\mu}{\rho}\right)_{\tau, \mathbf{a}}$	([#]) _{tot, t}	([#] _p) _{tot,t-coh}	([#] _p) _{tot, a}	([#])tot, en
.001	.170	.00551	.000332	.0000108	.170	.00551	7.92					10700.	10700.	10700.	10700.	10700.	10700. 3470.
.0015	.170	.0101	.000496	+0000294	.169	.0100	7.55					30/0+	1720.	1730.	1720.	1720.	1720.
-002	•169 169	+0144	+000656	+0000301	.168	.0220	6.24					587.	587.	593.	587.	587.	587.
Los . 00373	30 .168	.0274	+00121	.000197	.167	.0272	5.66					331.	331.	337.	331.	331.	331.
-111 0000												1240.	934.	1030.	1030.	1030	934.
LI .0039	38 .168	.0288	+00127	.000219	+101	+ 1 5 9 6	2+21					1420.	1290.	1430.	1420.	1420.	1290.
.004	.168	.0293	.00130	.000225	.167	.0291	5.45					1370.	1240.	1370.	1370.	1370.	1240.
L1 .0042	38 .168	.0308	.00137	.000251	. 167	.0306	5.30					1190.	1090.	1370.	1360.	1340.	1240.
.005	168	.0358	-0.0160	.000342	.166	.0354	4.75					860.	797.	865.	860.	#60 .	797.
.006	.167	-0418	-00191	+00047B	.165	.0413	4.16					524.	492.	530.	524.	524.	472.
.008	,166	.0530	.00251	.000802	.163	.0522	3.26					240.	229.	243.	128	129.	124.
• 01	.165	.0619	.00308	.00116	,162	.0608	2.65					42.1		44.0	42.2	42.1	41.1
•017	.162	+0787	+00447	+00218	.153	.0871	1.21					18.9	18.5	20.2	19.0	18,9	18.5
K .0279	40 .155	.101	.00755	.00495	.147	.0965	.755					7.29	7.19	8.13	7.40	7.29	7 .1 7
							48-3					4/.0	16.4	40.1	39.4	39.3	16.4
•03	,134	.103	+00797	+00540	.139	.103	.447					17.9	10,1	18.5	18.0	17,9	18,1
.05	.144	.110	-0116	.00918	.133	.104	.311					9.81	6.35	10.2	9.91	2.61	6.35
.06	.140	.115	.0132	.0108	,127	.104	.230					5,93	4,20	0.29	0,03 3 77	2,43	7.89
.08	.133	.115	+0156	.0135	.117	.102	•139					1.41	1.16	1.61	1.52	1.42	1.17
•	.120		.0207	.0197	.0934	.0481	.0412					,446	, 394	.598	. 556	.466	.413
•13	.104	.100	.0226	.0217	.0818	.0787	.0249					.196	.178	.320	.240	.210	,200
.3	.0907	.0886	.0245	.0239	.0666	.0645	.0113					• 0291	.0279	.116	.109		.0524
• •	.0813	.0802	+0252	+0247	.0561	.0550	.00645					.0164	0158	.093	9 .0891	.041	.8487
•7	.0687	.0682	.0253	.0248	.0435	.0434	.00288					.0104	.0101	.081	3 .076	.035	
.8	.0603	.0603	.0247	.0242	.0357	.0361	.00163					.00530	.00518	.007		.0300	.0263
1	.0540	.0540	.0239	.0231	,0304	.0309	.00105			000774	000274	.00155	.00154	.046	8 .046	.0241	. 1224
1,5	.0441	.0440	+0218	.0211	.0223	.0185	.000267	.000734		.00260	.00120	000965	.000955	.041	4 .0411	.023	. 6212
3.	0296	.0295	.0170	.0159	.0125	.0136	.000120	.00677	.0000103	.00677	.00419	.000519	.000516	.036	9 .036	.024	
4.	.0247	.0247	.0150	.0137	.00970	.0110	.000067	.0108	.0000425	.0108	.00740	.000253	.000337	.035	.035	.027	.4224
5.	.0213	.0213	.0134	.0120	.00792	.00939	.0000442	* +0141	.0000834	+0142	.0102	.000202	000201	.036	0 .036		, 6233
0. 8.	.0154	-0154	.0103	*0102	.00514	.00682	.000016	.0210	.000220	.0212	.0162	.000141	.000140	,036	8 .0361	.631	7 .0249
10.	.0132	.0132	.00897	.00713	.00416	.00603	.0000104	.0250	.000300	.0253	.0193	.000109	000109	,038	030	039	
15.	.0097	6 .00976	+00692	.00513	.00282	.00463		.0324	+000471	.0329	.0243	.0000501	.0000501	- 046	2 .046	.044	.4366
20.	.0078	2 .00782	.00566	.00393	.00213	.00389		+0374	+000373	.0459	.0200	.0000326	.0000326	.051	6 .051	.050	2 .0317
	.0045	2 .00760	-00344	+00233	.00109	.00271		.0498	.000913	.0507	.0293	.0000240	.0000240	.055	1 .055	.054	,0311
50.	.0037	7 .00371	.00291	.00137	.000871	.00240		.0540	.00101	.0551	.0292	.0000189	.0000189	.055	7 .050	.058	c .0300 t .0298
60.	.0032	5 .00325	.00252	.00107	.000729	.00218		+0566	.00109	.0577	.0287	.0000114	.0000135	.064	5 .064	.064	.0288
80.	.0025	• •00256	.00201	+000724	.000545	00184		0608	.00121	-0614	.0271	.0000090	.0000090	.067	7 .067	.067	1 .0279
100.	•00Z1	s ,00212	a +untea	*000230	******	• • • • • • • • • • • • • • • • • • •		100-1	100130	90000							

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(bas	-ns,	/ato:	m)

E (Me	V)	σ _{inc,t}	o ^{BD} ioc,t	O _{inc, a}	σ ^{BD} σ _{inc, a}	o ^{KN}	o ^{BD}	o _{coh}	σ×n	σ _{×e}	σ _{×,t}	σ.,	σ _{τ,t}	$\sigma_{r,a}$	σ _{tot,t}	Utot, t-coh	⁰ tot, a	or tot, en
.00	1	33.1	1.05	.0645	.00205	33.1	1.05	1570.					2250000.	2250000.	2250000.	2250000.	2250000.	2250000.
.00	15	33.1	1.91	.0964	.00557	33.8	1.90	1490.					771000.	771000.	772000.	771000.	7/1000+	340000
.00	2	33.0	2.77	.128	.0107	32.9	2.76	1410.					360000.	360000.	361000.	390000	123000.	123000.
.00	3	32,9	4.35	.191	.0252	32.7	4.32	1230.					123000.	123000.	124000. 61400.	60300.	60300.	60300.
LTTT .00	3929	32.8	5.64	•248	.0426	32.5	5.60	1090.					333440	109444	223000	222000.	222000	199000.
						E	E 70						209000.	188000	210000.	209000.	209000.	188000.
•00	•	32.7	5.74	.252	.0442	32+5	5+70	1000+					183000.	165000.	184000.	183000.	183000.	165000.
L _{II} .00	4156	32.7	5.94	• 262	+0475	32+3	5+67	1000+					253000	228000.	254000.	253000.	253000.	228000.
T		12 7	6.76	280	.0544	32.4	6.29	1010.					213000.	193000.	214000.	2j3000.	2130n0 .	193000.
-1 +00	4405	36.1	0.34	.200									244000.	221000.	245000.	244000.	244000.	221000.
. 00	5	32.6	7.00	.312	a0671	32.3	6.93	942.					178000.	163000.	179000.	178000.	178000.	163000.
.00	6	32.5	8.16	.372	.0934	32.1	8.07	826.					109000.	102000.	110000.	109000.	109000+	102000+
.00		32.3	10.2	488	.154	31.8	10.0	649.					49600.	47000.	50300.	49600.	49800+	25800.
.01	-	32.0	12.0	.600	.225	31.4	11.8	526.			<u> </u>		26900	25800.	2/ 00.			250000
.01	5	31.4	15.3	.869	.423	30.6	14+9	345.					8760.	8520.	4210.	3970.	3950.	3870.
.02		30.9	17.4	1.11	. 628	29.8	16+8	242.					3420.	1330	1500.	1360.	1340.	1320.
K .02	9200	29.9	19.9	1.52	1.01	28.4	18.9	141+					1340.	3190.	8840.	8700	8680.	3190.
	_					1		174					8090.	3110.	8250.	8110.	8090.	3110.
•03		24.9	20.0	1.55	1.04	28.3	14.0	130.					3680.	1980.	3790.	3700.	3680.	1980.
+04		28.9	21.4	1.93	1.43	27.0	20.00	66+3					2000	1260.	2080.	2020.	2000.	1260.
.05	5	25.1	22.1	2.20	1.78	25.0	20+3	46.1					1220.	844 .	1290.	1240.	1220+	846.
•00		21.3	22.4	2,50	2.42	22.8	20.5	27.8					545.	419.	595.	567.	548.	422.
.00	•	27.7	22.1	3.40	3.05	21.2	19.1	18.4					290.	236.	330.	312.	293	239
-	. ~~~	22.2	20.9	4.02	3.79	18.2	17.1	8.66					92.0	80.7	122.	113.	46.0	41.2
.2	,	20.3	19.5	4.39	4.22	15.9	15.3	5.00					40.8	37.0	07.3	20.3	17.7	16.8
.3		17.7	17.3	4.76	4.66	12.9	12+6	2.27					12.9	12.1	32+3	21.7	11.0	10.6
		15.8	15.6	4,90	4.80	10.9	10.8	1+29					0.00	3,00	18.5	17.7	8.33	8.12
.5		14.5	14.3	4.93	4.85	9.52	9+45	• 836					2.18	2.11	16.1	15.5	7.09	6,95
•6		13.4	13.3	4.91	4.84	8+46	8.46	+581					1.10	1.07	13.1	12.8	5.90	5.76
•8		11.7	11.7	4.80	4.69	6+94	7.01	• 328					. 690	.677	11.4	11,2	5,33	5.16
1.		10.6	10.5	4,64	4.48	5.91		+216	147		.147	.045	.325	.321	9.13	9.03	4.71	4.48
1+5		8,58	8.56	4,24	4.11	4.33	3.60	. 4537	.516		-516	.238	.201	.199	8.0A	8.03	4.60	4+15
2.		r.31	1.31	3,80	3.11	2.41	2.66	.0244	1.35	.00201	1.35	.834	.108	.107	7,23	7.21	4+78	4.03
3.		7.75 A R1	5.75	2,92	2.66	1.89	2.15	•0136	2.13	.00828	2+14	1.46	.0712	.0709	7.03	7.02	5,13	4.14
2.		4.15	4.15	2.61	2.32	1.55	1.83	.00887	2.80	+0162	2+82	2.03	.0530	.0528	7.03	7.02	5.40 E 74	4.58
Å.		3.67	3.67	2.36	2.05	1.31	1.62	+00614	3,33	+0252	3.36	2.49	+0421	+0420	7.04	7 27	6.27	4.90
8.		3.00	3.00	2.00	1.66	999	1.34	.00332	4,20	•0427	4.24	3.21	.0294	+0293	7 80	7.69	6.78	5.21
10.		2,56	2.56	1.75	1,37	,809	1.19	.00208	4,95	.0583	5.01		1350	0/142	8.41	8.41	7.84	5.79
15.		1.89	1.89	1,34	.990	.549	.900		6,42	.0916	6+51	4,79	0142	.0104	9.15	9,15	8.73	6.02
20.		1,52	1.52	1.10	.762	+415	•758		7.50	+110	7.62	5.25	.00670	00670	10.2	10.2	9,93	6.23
30.		1.11	1.11	.826	.497	•279	•613		8,95	+152	9+10	3 +73	00493	.00492	11.0	11.0	10.8	6.14
40.		.879	.879	.668	.350	•211	•529		9.92	+1/5	10+1	3+17	.0038	.00388	11.5	11.5	11.4	5.98
50.		•734	•734	•565	+265	+109	+407		10.0	.212	11.5	5.69	.0032	00320	12.1	12.1	12.0	5.90
60.		.632	+632	+471	.208	•1 •1	++2+ .35#		12.1	.234	12.3	5.54	.0023	.00235	12.8	12.6	12.7	5,05
80.		.498	• • 49	+ 372	+1+0	.0853	.312		12.8	.252	13.1	5.38	+0018	.00185	13.5	13.5	13.4	5.48
100.		+414	+414	* 75 4	+105	*0023	*315											

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50 TIN (cm²/g = 0.005074 x barns/atom)

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E	(MeV)	(貨) ^{KN} inc.t	([#]) _{)nc,t}	([#] _p) ^{KN} inc.a	(#) ^{BD} (#) _{nc,a}	(^µ _p) ^{KN} _{inc, s}	([#]) ^{BD} inc, s	(#) _{coh}	(پ ٌ) _{× r}	<u>(μ</u>) _{×e}	(ڭ) _{×, t}	$\binom{\mu}{\rho}_{x,a}$	(#) _{7,t}	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	([#]) _{tot,t}	([#]) _{tot,t-coh}	([#] _p) _{tot, a}	(\$) _{tot, en}
	.001	.168	.00533	.000327	.0000104	.168	.00533	7.97					11400.	11400.	11400.	11400.	11400.	11400.
	.0015	.168	.00969	+000489	.0000283	.167	.00964	7.56					3910.	3910.	3920.	3910.	3010.	3910.
	•00Z	.167	+0141	.000649	.0000543	.167	.0140	7+15					1830.	1830.	1830.	1830.	1830.	1830.
•	.003	+167	+0221	.000969	•000128	+166	+0219	6+24					024.	029,	313	706	727.	306.
-111	.003454	+100	+0200	+00159	.000216	+102	•0584	2+23					1130.	1010.	1130.	1130.	1130	1010.
	+004	.166	.0291	.00128	+000224	.165	.0289	5.48					1060.	954.	1070.	1060.	1060.	954.
LII	•00 4156	.166	.0301	.00133	+000241	.165	•0299	5.38					929.	837.	934.	929.	929.	837.
1-	.004465	-146	. 0322	.00142	000276	164	.0319	6.12					1280.	1100.	1290.	1280.	1200.	979.
-1			* UJEE	+ UV 14E	.000270	•104	.0314	2115					1240.	1120.	1240.	1240.	1240.	1120.
	.005	.165	.0355	.00158	.000340	.164	.0352	4.78					903.	827.	908.	903.	903.	827.
	.006	.165	.0414	.00189	.000474	.163	.0409	4.19					553.	518.	558.	553.	553.	518.
	.008	+164	.0518	.00248	.0007B1	.161	.0507	3.29					252 •	238.	255.	252.	252.	230.
	•01	•162	.0609	.00304	+00114	159		2.67			••		130.	131.		130.	A	
	•013	137	.0776	+00441	.00215	.175	.0758	1.77					20.0	19.6	21.4	20.1	28.0	19.6
T	.029208	.152	.101	.00771	+00319	144	-0959	1.23					6.80	6.70	7.61	6.90	6.80	6.78
-		••••	••••			•••							44.0	16.2	44.9	44+1	44.0	16.2
	•03	.152	.101	.00786	.00528	.144	.0964	. 690					41+0	15.8	41.9	41.2	41.0	15.8
	• 04	•147	.109	.00979	.00726	.137	.101	.448					18+7	10+0	19-2	18.8	18.7	10.
	.05	+143	•112	+0115	.00903	•131	.103	.316					10+1	6+39	10+6	10.2	10+1	0.37
	•08	.139	•114	+0130	•0107	+125	.103	•234					8+19	4+25	3.02	2.88	2.78	2.14
	••••	.125	.112	.0173	+0133	-108	9490	4141					1.47	1.20	1.67	1.58	1.49	1.21
	.15	.113	.106	.0204	+0192	.0923	.0868	+0419					•467	+409	.619	•573	.487	+429
	•2	.103	.0989	.0223	.0214	.0807	.0776	.0254					.207	.188	.331	.306	.229	•209
	•3	.0898	.0878	+0242	.0236	.0655	•0639	•0115					.0655	+0614	.165	•153	.0575	.052
	•2	.0802	•0792	+0249	+0244	.0553	.0548	+00655					.0308	+0294	•117	•110	• 0755	+0538
	.5	.0730	+0720	+0250	+0248	.0483	+0479	+00424					-01/3	+0100	.0817	.0076	.0340	.0412
	.8	.0594	.0594	• 02 47	.0240	.0362	.0756	+00275					.00558	.00543	.0665	.0649	.0299	.0292
1		.0538	.0533	.0235	.0227	.0300	.0305	.00108					.00350	+00344	.0578	.0568	.0270	10262
ī	•5	.0435	+0434	.0215	.0209	.0220	.0226	+000478	.000746		.000746	.000228	.00165	.00163	+0463	.0458	.0239	·6227
2	•	.0371	.0371	+0197	+0188	.0174	.0183	.000272	+00262		.00262	.00121	.00102	+00101	+0410	+0407	.0233	-0211
3	•	.0292	•0292	.0168	.0157	.0123	.0135	.000122	.00685	.0000102	.00685	.00423	•000548	+000543	.0307	.0306	.0243	+0204
- 1	•	.0244	+0244	+0148	•0135	.00959	.0109	.0000690	+0108	.0000420	.0109	+00741	.000301	+000360	.0357	.0370	.0200	+0213
6	•	-0186	-0211	+0132	+0118	.00665	.00929	.0000450	+0142 .0149	+0000822	+0143 -017b	.0103	.000214	.000213	.0359	.0359	.0292	.0237
		.0152	.0152	.0101	.00842	.00507	.00680	.0000168	.0213	.000217	.0215	.0163	.000149	.000149	.0369	.0369	.0318	.1249
10		.0130	.0130	.00888	.00695	.00410	.00604	.0000106	.0251	.000296	.0254	.0194	.000115	.000115	.0365	.0385	.0344	10264
15	•	.00959	.00959	+00680	.00502	.00279	.00457		.0326	+000465	.0330	.0243	.0000721	.0000721	.0427	.0427	.0399	.0294
20	•	.00771	.00771	•00558	.00387	.00211	.00385		.0381	.000589	.0387	.0266	+0000528	.0000528	.0464	.0464	.0443	.0385
30	•	.00563	•00763	+00419	.00252	.0014Z	.00311		.0454	.000771	+0462	.0291	.0000340	+0000340	.0918	.0518	.0394	.0J16
40 8A	•	.00	+00440	+00339	+00178	*00101	.00208		+0503	.000878	+0712	.0294	+0000230	+0000250	+0320	•0338 •0338	.0340	·0312
60	•	.00321	.00372	.00267	+00134	.000715	-00215		+0538	+000973	.0348	.0290	+0000162	+0000162	.0614	.0614	.0609	•0383
80	•	.00253	.00253	.00199	.000710	.000538	.00182		.0614	.00119	.0624	.0281	.0000119	.0000119	.0649	.0649	.0644	.0284
100	•	.00210	.00210	+00167	.000518	.000433	.00158		.0649	.00128	.0665	.0273	.0000094	.0000094	.0685	.0685	.0680	-0278

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51 ANTEMONY (barns/atom)

E	(MeV)	σ _{inc,t}	o ^{BD} _{inc,t}	O ^{KN} inc, a	σ ^{BD} _{ioc,a}	o ^{KN} inc,s	o ^{BD} inc,s		σ×n	σ _{×e}	σ _{x,t}	σ _{×,a}	σ _{ret}	σ _{τ. a}	O _{tot,t}	otot.t-coh	ort.a	Utot, en
	.001	33.8	1.02	.0658	.00199	33.7	1.02	1640.					2460000.	2460000.	2460000.	2460000.	2460000.	2460000.
	.0015	33.7	1.89	.0984	.00551	33.6	1.88	1550.					843000+	843000.	845000.	843000+	304000+	394000+
	• 002	33.7	2.77	•131	.0107	33.5	2.76	1460.					394000.	134000.	1350000+	134000.	134000.	134000.
	.003	33.5	4.41	+194	•0526	33.3	4.38	1280.					42000.	62900.	64000.	62900.	62900	62900.
-	.004	33.4	5.80	.257	+0451	33.1	5+81	1120+					67600.	\$7600.	58700.	\$7600.	57600.	57600.
ч ш	.004132	33.4	0.04	.205	.0450	1 • 5 5	2+34	1100+					209000	187000.	210000.	209000.	209000.	187000.
LII	.004361	33.4	6.37	.281	.0536	33+1	6.32	1060.					172000.	155000.	173000.	172000.	172000.	155000.
L	.004698	33.3	6.77	.300	. 06 100	33.0	6.71	1020.					200000.	181000.	201000.	200000.	200000.	181000.
				•••	- /								229000.	207000.	230000+	229000.	184000.	177000.
	.005	33.3	7+15	.319	+0685	33.0	7.04	9/8.					144000+	1//000+	110000	138000.	118800.	109000
	.000	33.1	8.32	.379	.0953	32.8	8.22	800+					530+0	E0000.	E4600.	53900.	\$3900.	50900.
	.004	32.9	10.4	.498	+157	32.4	10.2	676+					29100.	27800	29700.	29100.	29100.	27800.
	+01	32.1	12.2			- 32.1	12.00	740+			· · · · ·		9520.	9230	9900.	9540.	9520 .	9230.
	.019	32+1	13.3	1.14	.639	30.4	17.1	253.					4280.	4180.	4550 .	4300.	4280.	4180+
	.03	30.5	20.3	1.59	1.06	28.9	19.2	143.			•		1350.	1330+	1510.	1370.	1350.	1330.
T	-030491	30.4	20.4	1.41	1.08	28.8	19.3	139.			•		1290+	1270.	1450+	1310.	1290+	1270+
	•••••						• • • =	-					8280+	3000.	8440+	8300+	8280+	3000+
	.04	29.5	21.7	1.97	1.45	27.5	20.3	92+5					3940+	2020 .	4050+	3960 .	3940+	2020 •
	.05	28.6	22.4	2,31	1.81	26.3	20.6	65.3					2160.	1320+	2250+	2180.	2100+	1320+
	.06	27.8	22.8	2.61	2.14	25.2	20.7	48+5					1310.	885.	1380.	1330.	1310.	450.
	• 08	26.4	22.8	3.09	2.67	23.3	20+1	29+2					570+	44/+ 361	354.	314.	118.	254.
	•1	25.1	22.5	3.47	3.10	21.7	19.4	19.4						<u></u>	130.	121.	1044	90.4
	+15	22.0	21.3	4.11	3.87	18.7	17+4	9+11					44.7	19.9	69.4	64.1	48.7	44.2
	•2	20.7	17.6	4,40	2. <u>2</u> .	10.2	12.9	2.19					14+1	13.2	34+1	31.7	19.0	17.9
	• 3	14.1	17.0	# 00	4.04	13.1	11.0	1.96					6.62	6.30	23.9	22.5	ï1••	11+2
	12	10.1	19.9	5.03	4.96	19.72	9.64	.879					3.7Ŏ	3.56	19.2	18.3	8.73	8.52
		13.6	13.5	5.01	4.91	8.63	8.59	+607					2.37	2+29	16.5	15.9	7.38	7.20
		12.0	11.9	4.98	4.77	7.08	7.13	• 343					1.20	1+17	13+4	13+1	6-10	5-74
	1.	10.8	10.7	4,74	4.56	6.03	6.14	.222					•755		<u> </u>	11.5		
	1.5	8,75	8,73	4.33	4.19	4.42	4.54	+0993	.155		+155	+0474	• 372	+347	7.34	9.21	4.72	4.25
;	2.	7.46	7.45	3,96	3.78	3.50	3.67	+0562			• 54 0	.249	•220	.116	7.40	7.38	4.91	4.13
	3.	5.87	5.86	3.39	3,15	2.48	2.71	+0251	1.46	.00203	1.40	. 607	•117	.0769	7.23	7.22	5.29	4.32
	.	4.91	4.91	2.98	2.72	1.58	2.19	+01+2	2.90	.0165	2.03	2.10	.0574	.0572	7.23	7.22	5.64	4,53
	? •	3 74	4.24	2.00	2.31	1.33	1.65	.00647	3.46	.0267	1.49	2.59	.0456	+0455	7.28	7.28	5.95	4.73
		3.06	3.06	2.04	1.69	1.02	1.37	+00352	4.35	.0435	4.39	3.32	.0320	+0319	7.49	7.48	6.46	5.04
1		2-61	2.61	1.78	1.40	.826	1.21	.00219	5.12	.0594	5.18	3.94	+0249	. 0249	7.82	7,81	6,98	5.34
1		1.93	1.93	1.37	1.01	.560	.923	+00103	6,64	+0934	6.73	4.94	+0155	+0155	8.68	8.68	8+12	5.97
2		1.55	1.55	1.13	.773	.424	• 777	• • •	7.75	+118	7+87	5.40	+0113	+0113	9.43	9.43	-9.01	0+18
3	0.	1.13	1.13	.843	.503	.285	.627		9.28	+154	9+43	5.92	+00735	+00735	10.0	10+6	10+3	6,33
	0.	.897	.897	.681	. 356	.215	+541		10.3	. 181	10+5	5.97	+00538	+00538	11.4	11.4	11.2	6.33
5	0.	.749	.749	.576	.27	.172	•479		11.1	.200	11+3	5.93	+00+26	+00426	12+1	12+1	11.4	6.84
6	٥.	.645	.645	.500	.211	+144	•434		11.7	.216	11.2	5.85	.00350	+00350	12.7	13.3	12.1	5.81
8	0.	.508	.508	4 00	,143	.109	.305		15.2	+240	12.7	3,05	+00437	.00201	13.9	13.9	11.4	5.60
10	0.	. 422	•422	, 335	.104	•0871	.315		13*5	• 526	13+2	3.43	+++++	•~~EV1	1344	1200		÷

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5) ANTIMONY (cm³/g ≈ 0.004947 x barns/atom)

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								(cm	'/g ≈ 0.004	47 x barns	s/atom)						
E (MeV)	(≝) ^{KN} inc,t	([#]))nc, t	([#] _p) _{)nc,a}	(#) ^{BD} _{inc.a}	(≝) ^{KN} inc,s	([#] ₂) ^{BD} _{inc,s}	(#) _{coh}	([#] _p) _* ,	<u>(پٌ)</u> ×e	([#]) _{×, t}	([#] _p) _{x,a}	(券) _{7,1}	([#] _p) _{7,2}	([#]) _{tot, t}	([#]) _{tot,t-coh}	([#] _p) _{tot, a}	(#) _{tot, en}
.001	.167	.00505	.000326	.00000980	.167	.00505	8.11					12200.	12200	12200.	12200.	12200	12200.
+0015	.167	.00935	+000487	+0000273	.166	.00930	7.67					4170.	4170.	4180.	4170.	A170-	A170.
.002	.167	.0137	+000648	+0000529	.166	.0137	7.22					1950.	1950.	1950.	1950.	1950.	1950.
.003	,100 14E	+0218	+000960	+000127	.165	• 0217	6.33					663.	663.	668.	663.	663,	663.
In004132	.165	+0290	+00127	.000223	.164	.0287	5.54					311.	311.	317.	311.	311.	311.
-111	•1•3		+00131	.000237	•104	+0296	3.44					285.	285.	290.	285.	285.	285.
L _{II} .004381	.165	.0315	.00139	•000265	+164	.0313	5.24					851.	767.	856	851.	851.	767.
L ₁ .004698	.165	.0335	.00148	•000302	.163	•0332	5.05					1170. 989.	1050.	1180. 994.	1170. 989.	1170 989	1050.
.005	.165	.0354	.00158	.000339	.163	0750	A . DA					1130.	1020.	1140.	1130.	1130.	1028.
.006	.164	.0412	.00187	.000471	.162	-0407	4+84					960.	876.	765,	960.	968.	876.
.008	.163	.0514	.00246	.000777	.160	.0505	4,27					267	739. 252	787. 770	584.	584 .	539.
•01	+162	.0604	.00303	.00113	.159	.0594	2.71					144	138.	147	E A	2	246.
.015	.159	.0767	+00439	.00212	+154	+0747	1.78		· · · · ·			47.1	45.7	49.8	47.2	47.3	A5.7
•02	.156	+0876	.00564	.00316	.150	.0846	1.25					21.2	20.7	22.5	21.3	21.2	28.7
.03	+151	.100	.00787	.00524	.143	.0950	.707					6.68	6.58	7.47	6.76	6.68	6.58
K +030491	•150	.101	.00796	.00534	•142	.0955	•688					6.38	6.28	7.17	6.48	6,38	6.28
+04	.146	.107	.00975	.00717	.136	. 180	.458					41.0	14.8	41.8	41.1	41.0	14.8
.05	.141	•111	.0114	.00895	.130	.102	.323					10.7	A. 51	11 1	17.0	17.3	7.77
+06	.138	•113	.0129	.0106	125	.102	.240					6.48	4.38	6.83	6.58	14.1	4 79
•08	•131	.113	.0153	.0132	.115	.0994	.144					2.92	2.21	3.18	3.03	2.93	2.23
•1	.124	•111	.0172	•0153	,107	,0960	.096					1,54	1.24	1.75	1.65	1.56	1.26
.2	.102	.105	+0203	+0191	+0915	.0661	+0451					.494	.430	. 643	, 599	.514	,449
.3	.0890	.0871	.0240	1213	.0601	.0/72	.0260					.219	.197	.343	.317	.241	.219
	.0796	0787	.0247	. 0242	0549	.05.44	+0110					.0078	.0675	+169	+157	.0940	.0886
5	.0727	.0722	.0249	.0245	0481	.0477 .	.00435					.0183	.0312	.115	+111	.0574	.0774
.6	.0673	.0668	.0248	.0243	.0427	.0425	.00300					.0117	.0113	0,0,0,0	A787	.0432	.0421
.8	.0594	.0589	+0242	.0236	.0350	.0353	.00170					.00594	.00579	.0663	.0648	.0302	-0370 A294
1.	,0534	.0529	•0234	.0550	.0298	.0304	.00110					.00373	.00366	.0579	0569	.0272	.0262
1.7	.0433	.0432	+0214	.0207	.0219	.0225	+000491	.000767		.000767	.000234	.00174	,00172	.0462	.0457	.0239	.0227
1	0309	+0309	•0170	+0187	.01/3	.0182	.000278	.00267	_	.00267	.00123	.00109	.00108	.0409	.0406	.0233	.0210
.	.0243	.0243	.0167	.0135	0123	+U134	+000124	.00693	.0000101	.00693	.00428	.0005/9	.000574	.0306	.0365	.0243	.0284
5.	.0210	.0210	.0132	.0117	.00782	. 00025	0000FUZ	.0110	.000041/	.0110	.00752	.000384	.000380	.0358	.0357	.0202	.0214
6.	.0185	.0185	.0119	.0103	.00658	.00816	.0000320	.0171	+0000010	•0144	+0104	.000226	.000203	.0378	.0357	.0274	,0224
8.	.0151	.0151	.0101	.00836	.00505	.00678	.0000174	.0215	.000215	.0217	0120	.000158	.000155	.0371	.0370	1120	.0234
10.	.0129	.0129	.00881	.00693	0.0409	00599	.0000108	0253	.000294	.0256	.0195	.000123	.000123	.0387	.0386		
15.	.00955	.00955	.00678	.00500	.00277	.00457	.0000051	+0328	+000462	.0333	.0244	.0000767	.0000767	.0429	.0429	.0482	
20.	.00767	.00767	.00559	.00382	.00210	.00384		.0383	.000584	.0389	.0267	.0000559	.0000559	.0467	.0467	.0446	.0386
40.	.00559	.00559	+00417	+00249	+00141	.00310		+0459	.000762	.0467	.0293	.0000364	.0000364	.0524	.0524	.0510	.0318
50.	.00371	.00371	.00285	+00178	+00106	+00268		+0510	.000895	.0519	.0295	.0000266	.0000266	.0564	.0564	.0554	.0313
60.	.00319	.00319	.00247	.00104	.000712	.00237		+0349	+000989	.0359	.0293	.0000211	.0000211	.0599	.0599	.0589	.0307
80.	.00251	.00251	.00198	.000707	.000539	.00181		.0418	+00107	+0789	.0289	0000327	.0000173	•U@18	.0018	.0013	.0300
100.	.00209	.00209	.00166	.000514	.000431	.00157		.0653	.00127	.0668	.0272	.0000099	.00000	.068a	.0653 .0688	.0048	.0268
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52 TELLURIUM (barns/atom)

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E	(MeV)	KN _{(inc,t}	o ^{BD}	o ^{KN} o ^{inc, a}	σ ^{BD} _{inc,a}	o ^{KN}	σ ^{BD} _{inc,s}	σ _{coh}	σ×n	σ _{×e}	σ _{×,t}	<u>σ_{*, a}</u>	σ _{r,t}	σ _{τ. a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{rot.a}	o _{tot, en}
	0.01	74.5		.0671	. 00191	34.4	.981	1700.					2130000.	2130000.	2130000.	2130000.	2130000.	2130000+
м.	.001006	34.5	.993	.0676	.00195	34.4	•991	1700.					2110000.	2110000+	2110000+	2640000+	2640000+	2640000+
		-		100	00537	74.3	1.83	1610.					920000+	920000+	922000 .	920000 .	920000+	920000+
	.0015	34.4	1.04	133	.00937	34.2	2.73	1520.					430000.	430000.	432000+	430000+	430000+	430000+
	.002	34.3	4.45	.198	.0258	34.0	4.42	1320.					147000.	147000.	148000.	147000.	14/000+	48600+
	.004	34.1	5.97	262	.0459	33.8	5.92	1160.					68600+	65600+	54200.	66000+	5100.	55100.
L	.004341	34.0	6.45	.284	.0538	33.7	6.40	1110.					55100+	35100+	198000+	197000.	197000 .	175000.
111							4 . 7E	1070.					161000	144000.	162000.	161000.	161000+	144000+
_ <u>r</u> 1	+004612	34.0	6.81	• 30 1	+0403	33+1	0.75	10/04					222000.	198000.	223000+	222000+	222000.	198000.
		77 0	7.23	. 121	.0684	33.6	7.16	1020.					188000.	169000.	189000+	188000+	180000+	169000+
-1		33.4											216000.	194000.	217000.	216000+	210000+	189000+
	.005	33.9	7.31	.325	.0700	33.6	7.24	1010.					210000+	187000+	129000+	128000.	128000+	117000.
	.006	33.8	8.50	.387	.0973	33.4	8.40	893.					58600.	55000.	59300+	58600 .	58600.	55000+
	•008	33.5	10.6	.508	.160	33.0	10+4	704.					31700.	30100.	32300.	31700.	31700.	30100+
	<u>.01</u>	33.3	12.4	624		32.1	15.4	374.					10300.	9960 .	10700.	10300.	10300.	9960+
	•01>	32.7	12.8	1.16	.450	31.0	17.4	265.					4650 •	4540 .	4930.	4070.	1470.	14504
	.02	31.1	20.6	1.62	1.07	29.5	19.5	149.					1470+	1450+	1410.	1270.	1250 .	1230.
1	031814	30.9	21.8	1.69	1,15	29.2	19.8	137.					1250+	2820 .	8060	7920 .	7900.	2820.
	•••••						.	0 4 0					4220.	2060.	4340.	4240.	4220+	2060.
	+ 04	30.1	22.1	2.01	1.47	28+1	20.6	40.9					2310+	1370.	2400+	2330.	2310.	1370+
	+05	29.2	22.8	2.30	1.04	20.0	21.8	50.8					1410.	930.	1480.	1430.	1410+	479.
	•06	20.0	23.2	2,00	2.72	23.7	20.5	30.7					630.	469 •	381.	361.	342.	272.
	• • • •	25.6	22.9	3.54	3.16	22.1	19.7	20.3					330+	97.4	138.	129.	111.	96.3
	.15	23.1	21.7	4,19	3,94	18.9	17+8	9.56					47.9	43.0	73.7	68.2	52.5	47.4
	.2	21.1	20.3	4.57	4.39	16+6	15.9	5+52					15.3	14+3	35.8	33.3	20.3	19+1
	•3	18.4	18.0	4,95	4,85	11.4	13.1	1.43					7.18	6+81	24+8	23.4	12+3	8.92
	••	10.5	10.2	5.13	5.05	9.91	9.85	.924					4+04	3.87	19.7	16.4	7.71	7.53
	.5	13.9	13.8	5.11	5.02	8.80	8.78	+641					2+60	2.071	13.9	13.5	6.31	6.17
		12.2	12.2	5.00	4.89	7.22	7.31	•361					.825	.808	12.0	11.7	5,66	5.45
	1.	11.0	10,9	4,83	4,64	6.15	6+26	.233	147		.161	.0499	.387	• 382	9+55	9.45	4+96	4.70
	1.5	8,92	8.90	4.41	4.27	4.51	4,03	+105	.566		.566	.261	.239	.237	8.46	8.40	4.84	4,35
	2.	7.61 5.00	/ • 60	3 45	3,05	2.53	2.77	.0266	1.46	.00209	1+46	.902	.128	+127	7.59	7.30	5.43	4.41
	3.	5.00	5.00	3.04	2.75	1.97	2.24	+0149	2.30	.00860	2.31	1.58	+0045	+0041	7.42	7.41	5.80	4.64
	5.	4.32	4.32	2,71	2.40	1.61	1.92	.00977	3.01	+0169	3.03	2.18	.0500	.0498	7.50	7.49	6.13	4.85
	6.	3.82	3.82	2.46	2.12	1.36	1.70	+00681	3.59	+0262	3+62	2.65	+0347	+ 0346	7.71	7.70	6+66	5.18
	8.	3.12	3.12	2.08	1.72	1.04	1+40	+00372	5.31	.0606	5.37	4.08	• 0268	+0267	8.06	8.06	7.22	5.23
1	0.	2.66	2,66	1.82	1.42	.571	. 946	.00108	6.90	.0953	7.00	5.12	+0169	+0169	8.99	8.99	8.42	A. 38
	5.	1.97	1.97	1.15	.785	.432	.795		8.03	.120	8+15	5.58	+0123	+0123	10.9	10.9	10.7	6+45
	10.	1,15	1.15	660	508	.291	.642		9,63	.157	9.79	6.13	+008UU	00/777	11.8	11.6	11.6	6.54
		.914	•914	.695	.359	•219	.555		10.7	+184	10.9	0.18	.00462	.00462	12.5	12.5	12.3	6.38
	50.	.763	.763	,588	.273	•176	•490		11.5	.203	12.3	6.01	+0038	.00360	13.0	13.0	<u>]</u> 2.8	6.23
	50.	.657	•657	.510	+214	+147	.443		13.0	.243	13.2	5.87	+00280	•00760	13+7	13.7	13.0	5.74
		.518	+518	.342	+145	.08AA	.325		13.7	.261	14.0	5.65	+0022	•00220	14+4	14+4	14+2	5410
- 10	/ V +	++31	**31	*345						-								

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52 TELLURIUM (cm²/g = 0.004720 x barns/atom)

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E (MeV)	(≝) ^{KN} inc, t	(学) ^{BD} inc.t	$\binom{\mu}{\rho}_{inc,a}^{KN}$	(世) ^{BD} (世) _{)nc, a}	([#] _p) ^{KN} _{inc,s}	([#] _p) ^{BD} _{)nc,s}	(岸) _{coh}	(貨)×1	n([#])×e	([#] _{\$}) _{x,t}	(#) _{×,a}	(岸) _{下, t}	([#] _p) _{7,2}	(声) _{tot,t}	([#] _p) _{tot,t-coh}	([#]) _{tot, a}	([#]) _{tot, en}
.001	.163	.00464	.000317	.0000090	.162	.00463	8.02					10100.	10100.	10100.	10100.	10100.	10100.
HI .001006	.163	.00469	.000319	.0000092	.162	.00468	8.02					9960.	9960.	9960.	9960.	9960.	9960.
.0015	.162	.00868	.000472	.0000253	. 162	.00864	7.60					12500.	12500.	12500.	12500.	12500.	12500.
.002	.162	.0129	.000478	.0000500	.161	.0129	7.17					4340+	4340+	4350.	4340.	4340.	4340+
.003	.161	.0210	.000935	+000122	.160	.0209	6.23					694.	694.	699.	2030+	2030.	2030+
+004	.161	.0282	+00124	+000217	.160	.0279	5.48					324.	324.	329.	324 .	324	324.
L _{III} +004341	.160	.0304	+00134	+000254	. 159	•0302	5.24					260.	260.	265.	260.	260.	260.
L004612	.160	.0321	.00142	.000285	.159	.0319	B. 45					930.	826.	935.	430.	930.	826.
-11	••••				••••		3.03					1050.	680.	765.	760.	760.	680.
L ₁ .004939	.160	+0341	+00152	·000323	.159	.0338	4.61					887.	798.	892.	887.	1070.	798.
							_					1020.	916.	1020.	1020.	1020.	916.
.005	.160	.0345	.00153	.000330	+159	+0342	4.77					991.	892.	996.	991.	991.	892.
.008	.168	+0401	+00183	•000459	+128	•0396	4.21					604+	552.	609.	604.	604.	552.
.01	.157	-0585	.00295	-00110	.154	.0576	3,32					150.	200+	280.	377.	277.	260.
.015	.154	.0746	+00427	+00206	.150	.0727	1.77					48.6	47.0	50.5	1700	1704	47.0
•02	.152	.0850	•00548	.00307	.146	.0821	1.25					21.9	21.4	23.3	22.0	21.9	21.4
• 03	•147	.0972	.00765	.00505	.139	.0920	.703					6.94	6.84	7.74	7.03	6.94	6.84
x +031014	+140	•0441	.00/98	+00543	•138	•0935	+647					5.90	5+81	6.66	5.99	5.90	5.81
.04	.142	.104	.00949	.00694	.133	.0972	-457					37+3	13+3	38.0	37.4	37.3	13.3
.05	.138	.108	.0111	.00868	.126	.0991	.323					10.9	6.47	11.3	11.0	10.0	4.12
.06	.134	.110	.0126	.0103	.121	.0991	.240					6.66	4.39	6.99	6.75	6.66	4.48
•08	.127	-110	.0149	.0128	.112	.0968	.145	•				2.97	5.51	3.23	3.08	2.99	2.23
-15	109	108	.0167		104	10930	.0958					1.60	1.27	1.80	1.70	1.61	1.28
.2	.0996	.0958	.0216	.0207	.0784	.0750	+0751					+ 305	+4.50	+051	+ 609	• 524	+455
.3	.0868	.0850	.0234	+0229	.0632	.0618	.0118					+0722	.0675	.169	157	-0958	+224
•4	.0779	•0765	+0241	+0236	.0538	+0529	.00675					+0339	.0321	•117	.110	.0581	.055
•5	+070B	.0703	+0242	.0238	.046B	.0465	+00436					•0191	.0183	.0939	.0892	.0433	.042
	.0676	+0651	+0241	+0237	+0415	+0414	.00303					.0123	+0118	+0802	.0774	.0364	.035
1.	.0519	+0514	.0228	.0219	.0290	.0295	.00110					+00010	+00004	• 0076	.0037	.0298	+029
1.5	.0421	.0420	+0208	+0202	.0213	.0219	.000496	.000769)	.000769	.000236	+00183	+00180	+0451	.0446	.0234	
2.	.0359	.0359	•0191	+0182	.0169	.0177	.000279	+00267		.00267	.00123	.00113	.00112	.0399	.0396	.0228	.020
3.	.0203	.0282	.0163	.0152	.0119	.0131	.000126	+00689	+00000986	.00689	.00426	.000604	.000599	.0358	.0357	. 0238	.020
5.	.0204	+0236	.0143	+0130	.00930	.0108	.0000703	.0109	+0000406	+0109	+00746	+000399	+000397	•0350	.0349	.0256	+020
6.	.0180	.0180	.0116	.0100	.00642	.00802	.0000321	-0169	.0001740	+0143	+0103	.000236	.000276	.0354	.0350	.0214	•120•
	+0147	+0147	.00982	.00812	.00491	.00661	.0000176	.0213	.000210	.0215	.0162	.000164	.000163	.0364	.0363	.0314	.024
10.	.0126	.0126	.00859	+00670	.00397	.00585	.0000109	.0251	.000286		E	.000126	.000126	.0380	.0380	.0341	
15.	+00930	.00930	+00661	.00481	.00270	.00447	.0000051	.0326	+000450	.0330	.0242	.0000798	.0000798	.0424	.0424	.0397	.029
30.	.00543	.00543	.000043	+00371	.00204	.00375		.0379	.000566	.0385	.0263	+0000581	+0000561	+0480	.0460	•0439	+030
40.	.00431	.00431	.00328	.00169	.00103	.00262		*0437	+000741	+0+62	+0289	+0000278	+00003//	+0714	•0514	.0505	+0314
50.	.00360	.00360	.00278	.00129	.000831	.00231		.0543	.000958	.0552	.0288	.0000218	.0000218	.0590	.0590	.0541	0200
60.	.00310	.00310	.00241	.00101	.000694	.00209		.0571	+00104	.0581	.0284	.0000179	.0000179	.0614	.0614	.0604	.0294
50.	.00244	+00244	•00193	.000684	.000524	.00176		+0614	.00115	.0623	.0277	.0000132	.0000132	+0647	.0647	.0642	+028
100+	.00203	•00<03	+00161	•000500	+000419	.00153		+0647	.00123	•0661	.0267	+0000104	+0000104	•0680	.0680	.0675	+027

53 IODINE (barns/atom)

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E (MeV)	KN ₀ inc, t	o ^{BD} _{inc,t}	o ^{KN}	σ ^{BD} nc,a	KN Oinc,s	σ ^{BD} σ <u>inc,s</u>	σ _{coh}	σ×n	σxe	σ _{x,t}	<u>σ_{×, a}</u>	σ _{r,t}	σ _{r, a}	σ _{tot,t}	o _{tot,t-coh}	O _{tot.a}	or tot.en
.001	35.1	•960	.0684	.00187	35.0	.958	1770.					2290000.	2290000. 1950000.	2290000. 1950000.	2290000. 1950000.	2290000+ 1950000+	2290000+ 1950000+
H ₁ .001072	35,1	1.08	.0733	.00226	35.0	1.00	1/60+					2440000.	2440000+	2440000+	2440000.	2440000.	2440000+
.0015	35.0	1.82	.102	.00531	34.9	1.81	1680+				•	468000.	468000.	470000.	468000.	468000.	468000+
.002	39.0	2.75	.202	.0262	34.6	4.49	1370.					159000.	159000.	160000.	159000.	159000+	157000.
.004	34.7	6.11	.267	.0470	34+4	6.06	1200+					74500.	74500.	53800.	52700.	\$2700.	52700
LTII .004557	34.6	6.89	.303	.0603	34.3	6.83	1110.					185000	164000.	186000.	185000.	185000.	164000-
1 004867	74 4	7.29	. 322	.0678	34.3	7.22	1070.					151000.	135000.	152000.	151000.	151000.	135000.
LII +00+035	34.0				3440		•••••					209000.	186000.	210000.	209000.	207000.	188000.
.005	34,6	7.48	.331	.0717	34.2	7.41	1050.					193000.	159000.	178000.	177000.	177000.	159000.
L ₁ .005188	34,6	7,72	,343	.0767	34,2	7.64	1030+					203000	182000.	204000.	203000.	203000.	182800.
- 006	34.4	8.69	. 394	.0995	34.1	8.59	927.					137000.	125000.	138000.	137000.	137000.	127990.
.008	34.2	10.8	.517	.164	33.7	10.6	733.					63400.	59200.	64100. 34800.	34200.	34208.	32400
.01	33.9	12.6	,636	.236		12.4						11200.	10800.	11600.	11200.	11200.	10800.
.015	33.3	16.0	.922	.443	32.4	12.0	276.					5050.	4910.	5340.	5070.	5050.	4910.
.02	32.7	21.8	1.65	1.09	30.0	19.9	156.					1600.	1570.	1780.	1020.	1200.	1180.
K .033176	31.3	21.5	1.78	1.22	29.6	20.3	134.					1200.	2660.	7700.	7560.	7540.	2440.
-	74.7	33 A	3 45	1 40	78.6	20.9	101.					4540.	2100.	4660 .	4560 .	4540.	2100.
.04	30.0	21.2	2.40	1.87	27.4	21.3	71.6					2490.	1420.	2580.	2510.	2490.	972.
.06	28.9	23.6	2.71	2.21	26.2	21.4	53.3					1510	497.	736.	704.	683.	500.
.08	27.4	23.6	3.21	2.76	24.2	20.8	32+2					364.	286	409.	387.	368.	289,
<u>•</u>	20.1	23,3	3,80	3.22	19.2	<u></u>	10.0					117.	100.	149.	139.	121.	104.
•19	21.5	20.6	4.66	4,45	16.9	16.1	5.80					52.0	40.4	70.4 37.6	35.0	21.8	20,4
.3	18.7	18.3	5.05	4.93	13.7	13.4	2.64	•				7.86	7.44	25.9	24.4	13.1	12.5
• •	16.8	16.5	5.20	5.08	11.0	11.4	1+50					4,40	4,21	20.6	19.6	9,03	7,36
•5	17.3	17+2	5.21	5.13	8.97	8.97	.673					2,82	2.72	17.0	13.8	6.52	6.36
	12.4	12.4	5.09	4,97	7.36	7.43	.380					.900	.881	12.2	12.0	5,82	5.60
1.	11.2	11.1	4.92	4.72	6.27	6,38	•2•5	.170		+170	.0520	.422	.416	9.77	9.66	5.09	4.42
1.5	7.75	7.74	4.12	3.92	3.64	3.82	.0620	.590		.590	.273	.260	.257	8.05	7.75	5-18	4.34
3.	6.10	6.09	3,52	3,26	2.58	2.83	.0279	1.52	.00213	1.52	.938	.140	-0911	7.62	7.60	5.59	4.53
4.	5.10	5.10	3.09	2.80	2.00	2.29	+0150	3.12	.0172	3.14	2.25	.0682	.0679	7.62	7.61	5.90	4.76
5.	4.40	4,40	2.51	2.16	1.39	1.73	.00714	3.72	.0267	3.75	2.77	+0540	.0538	7.70	7.89	6,31	4.75
8.	3.18	3.18	2.12	1.75	1.06	1.43	.00394	4.69	.0452	4.74	3.56	•03/8 •290	.0289	8.30	8.30	7.44	5,68
10,	2.71	2.71	1,85	1.44	.858	1.27	+00243		0619	7.22	6.27	.0183	.0183	9.25	9,25	8,66	6,33
15.	2.01	2.01	1.42	1.04	.082	.813	+04115	8.30	.123	8.42	5.74	.0132	.0132	10.9	10.9	.9.60	6,55
20.	1.17	1.17	.876	.515	.296	.655		9.93	.160	10+1	6.27	.00860	00859	12,1	12.1	11.9	6.46
40.	.932	.932	708	.364	.224	.568		11.0	•18 8	11+2	6.31	00500	00500	12.9	12.9	12.7	6.56
58.	.778	•778	.599	.277	+179	+501		12.5	.223	12+1	6.16	.00410	.00410	13.4	13.4	13.2	6.36
60.	.870	.670	.520	.147	.113	.381		13,5	.248	13.7	6.04	.00302	50000	14.2	14.2	14.9	5.94
100.	.439	.439	. 348	.107	.0905	.332		14.2	.266	14.5	5.83	•00539	• • • • • • • • •	1-07			

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53 10DINE (cm¹/g = 0.004746 x barns/atom)

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E (MeV)	(∰) _{ioc,t}	(^g) _{)nc,t}	$\left(\frac{\mu}{\rho}\right)_{inc,a}^{KN}$	([#] _p) ^{BD} _{)nc, a}	(^µ _p) ^{KN} _{inc,s}	(声) ^{BD} inc.s	([#] _p) _{coh}	(#)*n	([#] _p) _{× e}	([#] _p) _{x,t}	([#] _p) x, a	(岸) _{7, t}	(#), a	([#] _p) _{tot,t}	(#) tot, t-coh	([#] _p) _{tot,a}	(^g) _{tot} , en
.001	.167	.00456	.000325	.0000089	,166	.00455	8.40					10900.	10900.	10900. 9250.	10900. 9250.	10900. 9250.	10900. 9250.
HI .001072	.167	.00513	.000348	.0000107	.166	.00513	8.35					11600.	11600.	11600.	11600.	11600.	11600.
.0015	.166	.00864	+000484	.0000252	.166	.00859	7.97					4/30.	2220.	2230.	2220.	2220	2220.
.002	.166	.0131	.000645	.0000508	+165 164	.0130	7.50					755.	755.	759.	755.	755.	75 5. 154.
.003	.165	+0217	.00127	1000223	163	.0288	5.70					354.	354.	255.	334.	250	250.
L111 .004557	.164	.0327	.00144	.000286	163	.0324	5.27					878.	778.	883.	878 .	878.	778.
L ₁₁ .004852	.164	.0346	.00153	•0003\$2	.163	.0343	5.08					717. 992.	641. \$83.	721. 997.	717. 992.	992.	883,
-085	.164	.0355	.00157	.000340	,162	.0352	4.98					916.	821. 765	9 21.	910. 840.	848.	755.
In .005188	.164	.0366	.00163	.000364	.162	.0363	4.89					963.	864.	968.	963.	963.	864 .
-	163	- 8412	.00187	.000472	. 162	.0408	4.40					650.	593.	655.	450.	6 58. 301.	593. 281.
.008	.162	.0513	.00245	.000778	.160	.0503	3.48					301.	251.	165.	162.	162.	154.
.01	.161	.0598	.00302	.00112			2.82					53.2	51.3	55.1	53.2	53.2	51,3
•015	.158	.0759	.00540	.00210	.150	.0835	1.31					24.0	23.3	25.3	24.1	24.0 7.59	7.45
.03	.150	.0997	.00783	.00517	.142	.0944	.740					7.59	7.47	6.45	5.79	5,79	5,60
K .03317	.149	.102	.00845	.00579	.140	.0963	•636					35.8	12.6	36.5	35.9	35.8	12.6
.04	.146	.106	.00973	.00707	.136	.0992	.479					21.9	6.74	12.2	11.9	11.0	6,74
.05	.141	•110	+0114	.00888	130	.101	.253					7.17	4,60	7.55	7.26	7.17	9,01
.06	.137	.112	.0152	.0131	.115	.0987	.153					3.23	2,30	3.49	1.84	1.55_	1.37
•1	.124		.0171	.0153	.107	.0954						.555	.475	.707	.660	.574	.494
-15	.112	.105	.0203	.0190	.0802	.0764	.0275					.247	.220	.372	.345	.207	.0946
	.0888	.0869	.0240	.0234	.0650	.0636	.0125					0793	.0750	.123	.116	.0422	.0593
	.0797	.0783	.0247	.0241	.0551	+0541	.00712					0209	0200	.0971	.0930	0457	
•5	.0726	.0721	+0248	.0244	.0479	.0475	.00319					.0134	.0129	.083	.0802	.0341	.0302
••	.0589	.0589	+0242	.0236	.0349	.0353	.00180					.00679	.00000	.0579	.0570	.0276	.0266
1.	,0532	.0527	.0234	.0224	.0298	.0303	00116		,		.000247	.00200	.00197	.046	.0458	.0242	.0229
1.5	.0431	•0430	•0214	.0206	.0218	+0224	•000322	+000807		.00288	.00130	.00123	.00122	.041	.0408	,02,90	.0411
2.	.0398	.0289	.0167	.0155	.0122	.0134	.000132	.00721	.0000101	.00721	.00445	.000664	.000860	.038	.0361	.0265	.0215
4.	.0242	.0242	+0147	.0133	00949	.0109	.0000740	+0114	.0000416	.0114	.00778	.000324	.000322	.036	.0361	.0284	.0226
5.	.0209	.0209	.0131	.0116	.00778	.00930	.0000339	.0177	.000127	.0178	.0131	.000256	.000255	.036	.0365	.0244	.0236
ð. 8.	.0155	-0151	-0101	.00831	.00503	.00679	.0000187	.0223	.000215	.0225	.0169	.000179	.000179	.037	.0394	.0353	.5270
10.	.0129	.0129	.00878	.00683	.00407	.00603	.0000115	+0261				.0000869	0000369	.043	.0439	.0411	.030 0
15.	.00954	.00954	.00674	.00494	.00276	.00439	•0000023	.0396	.000401	.0400	.0272	.0000626	.0000626	.047	5 .0479	.0450	.0311
20.	.00764	+00104	+000005	.003/8	00140	.00311		.0471	.000759	.0479	.0298	.000040	.0000408	.053	.0530	.0549	.0322
40.	.00445	+00442	.00336	.00173	.00106	.00270		.0522	.000892	.0532	.0299	.0000297	0000237	.061	.0612	.0601	.0311
50.	.00369	.00369	+00284	.00131	.000850	.00238		.0505	.000982	•07/4 •0603	+0278	.000019	0000195	.063	.0636	.0420	.0303
60.	.00318	.00318	+00247	.00103	.000712	+00512		•0641	.00118	.0650	.0287	.000014	.0000143	.067	.0674	.0661	.0294
80. 100.	.00208	.00291	.00165	.000508	.000430	.00158		.0674	.00126	.0688	.0277	.0000113	• • • • • • • • • • • • • • • • • • • •	.070			••••

54 XENON (barns/atom)

E	(MeV)	KN ₀ inc,t	o ^{BD} _{inc,t}	σ ^{KN} inc, a	$\sigma_{inc,a}^{BD}$	o ^{KN} o _{inc,} ∎	σ _{inc, s}	σ _{coh}	σ×n	σxe	σ _{×,t}	σ _{κ, a}	σ _{r,t}	σ _{r, a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot} , a	Utot, en
	.001	35.8	.980	.0697	.00191	35.7	.978	1840.					2090000.	2090000.	2090000.	2090000.	2090000.	2090000.
	001143	35.8	1.23	.0796	.00274	35.7	1.23	1810.					2250000.	2250000	2250000	2250000.	2250000.	2250000.
•				104	00545	35.6	1.86	1740.					1090000.	1090000.	1090000.	1090000.	1090000.	1090000.
	0015	30.7	1.07	.104	.00345	35.5	2.80	1640.					510000.	510000.	\$12000.	510000.	510000.	510000.
•	002	35.8	2+01	.206	.0268	35.3	4.60	1420.					174000.	174000.	175000.	174000.	174000.	174000.
	004	35.4	6.26	272	.0482	35.1	6.21	1240.					80900.	80900.	82100 +	N0900.	50400.	50400+
L	084782	35.3	7.38	.323	.0677	34.9	7.31	1120.					50400+	50400+	31700+	176000.	175800.	154000.
-111													151000+	134000	152000.	151000.	151000.	134000.
	005	35.2	7.67	.337	•0735	34.9	7.60	1090+					142000.	126000.	143000.	142000.	142000+	126000.
L11 4	005102	35,2	7.80	.344	+0762	34.9	1.12	10/0+					196000+	174000+	197000+	196000+	196000+	174000+
		15 2	8.23	. 366	.0857	34.8	8.14	1030.					167000.	149000.	168000.	167000+	167000+	149000.
-1	1009443	33.5	0.67										192000.	171000+	193000.	192000.	192000+	133000.
		35.1	8.90	.402	.102	34.7	8.80	961.					147000.	133000+	148000+	48200.	682000	632004
		34.8	11.0	.527	.167	34.3	10.8	762.					68200+	63200+	37400.	36800.	36800.	34708.
	.01	34.6	12,8	,648	.240	33.9	12.6	618.					12000+	11500+	12400+	12000+	12000+	11500-
	015	34.0	16.3	,939	.451	33.0	15.8	404.					5420+	5260.	\$730.	5440+	5420+	5260 .
	.02	33.4	18.6	1.20	.671	32.2	17.9	200+					1730.	1700.	1910.	1750.	1730.	1700-
_ '	•03	32.3	21.3	1.00	1.11	30.0	20.8	132.					1160.	1140.	1310.	1180.	1160+	1140+
K.	034201	31.0	ee+1	1.0,	1.30	2747	2000	1-24					7200+	2510.	7350.	7220.	/200+	2120.
	.04	31.2	22.8	2.08	1.52	29.2	21+3	106+					4850.	2120 •	4780+	40/0+	2660.	1460-
	.05	30.3	23.6	2.45	1.90	27.9	21.7	74+9					2660+	1460+	1700.	1640.	1620.	1010.
	.06	29.5	23,9	2,76	2.24	26.7	21.7	55+7					730	525.	788.	754 .	733.	528.
	.08	27.9	24.0	3.27	2.81	24.7	21.2	33.7					390.	302.	436+	414.	394+	305.
_	•1	26.6	_23,7	3,67	3.27	22.9	20.4			~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~			126+	107.	159.	149+	130.	111.
	•15	24.0	22.5	4.37	4.00	17.2	16.5	6.08					56.1	49.8	83.2	77+1	60.0	29+2
	.2	21.7	18.6	5.15	5.01	13.9	13.6	2.77					18+1	16.7	39+5	36.7	23.3	13.2
	- 4	17.1	16-8	5.30	5.17	11.8	11+6	1.57					8,50	8.02	20.7	20.2	10.1	9.76
	5	15.6	15.4	5,33	5.22	10.3	10.2	1.02					4+78	9,05	18.1	17.4	18.38	8-16
	•6	14.4	14.3	5.31	5.21	9+14	9+09	.706	•				1.56	1.52	14.6	14.2	6.75	6.56
		12.7	12.6	5.19	5.04	7.50	7.56	•400					.980	.958	12.6	12.4	6.00	5,80
1	•	11.4	11.4	5.02	4,84	6+39	0.077		.179		.179	.0548	.460	•453	9.99	9.88	5.22	4,94
1	•5	9.27	7 89	4,50	3.98	3.71	3.91	.0651	.620		+620	.286	.280	•277	8.86	7,79	5.07	4.24
2	•	6.22	6.21	3.59	3.31	2.63	2.90	+0291	1.58	.00217	1 • 58	.975	+151	+150	7.87	7.80	5.76	4.66
1	•	5.19	5.19	3.15	2.85	2.04	2.34	.0164	2,50	.00893	2+51	1.71	• 0 9 9 3	•0*07	7.82	7.51	6+14	4.89
ŝ		4,49	4.49	2.82	2.49	1.67	2.00	•0107	3.23	+0175	3+25	2.33	+0/+1	+0734	7.91	7.90	6.49	5.10
6	•	3.96	3.96	2.55	2.19	1+41	1.77	+00747	3.85	.02/2	50+C	2.00	+0410	.0409	8+18	8,17	7.09	5.49
	•	3,24	3.24	2.16	1.78	1.08	1.0	•00417	5.70	.0430	5.76	4.35	• 0317	.0316	8.55	8.55	7.68	
<u> 91</u>		2.76	2.76	1.89		.593	.085	+00116	7.40	.0990	7.50	5.44	+0199	+0199	9+56	9.56	8.97	6.71
15	•	2.04	2.04	1.19	.807	.449	.833		8.60	.125	8.73	5.91	+0145	+0145	10.4	10.4	11.4	7.00
20	•	1.19	1.19	.893	.521	.302	.669		10.3	•162	10+5	6.47	•00939	.00938	11.1	12.6	12.3	6+88
40 64	•	.949	.949	.721	.370	.228	.579		11.4	•191	11.6	6.50	+ 00670	+00840	12.0	13-3	13.1	6.73
50	•	.793	.793	.610	.281	.183	.512		12.3	•211	12.5	0,44	+CUU+	.00445	13.9	13.9	13.7	6.60
60	•	.683	.683	.530	.220	•153	.463		13+0	+221	14.3	6.21	.00321	+00328	14+8	14+8	14.7	6+36
80	•	.538	.538	.423	+149	+115	•389		14.8	.270	15.1	6.03	+00251	+00257	15.5	15.5	<u>1</u> 5+5	6+14
100	•	.447	.447	.355	*10A	+0455	+339											

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54 XENON (cm³/g = 0.004587 x barns/atom)

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E (MeV)	(5) ^{KN} inc, t	(ç) ^{BD} inc,t	([#] _p) ^{KN} _{inc, a}	([#] _p) ^{BD} _{)nc.a}	([#] _₽) ^{KN} _{inc,s}	(⊈) _{nc,s}	(岸) _{coh}	(ڭ) _{*n}	(片)×e	([#] _p) _{×, t}	([#] _p) _{x,a}	(#) _{7,1}	([#] _p), a	([#]) _{tot,t}	(≝) _{tot.t-coh}	(#) _{tot, a}	(岁) _{tot, en}
.001	.164	.00450	.000320	.00000880	.164	.00449	8.44					9590 • 8300 •	9590 • 8300 •	9590. 8300.	9590 · 8300 ·	9590. 8300.	9590. 8300.
HI +001143	+10+	+00204	+000367	*0000150	*104	•00304	H+30					10300.	10300.	10300.	10300.	10300.	10300+
.0015	.164	.00858	+000477	.0000250	.163	.00853	7.98					5000+	3000. 2340.	2350.	2340.	2340.	2340.
.002	.163	.0129	+000633	.0000500	.163	.0128	7.52					798.	798.	803.	798.	798.	798 •
.005	.162	+0212	.00125	.000221	.161	.0285	5.69					371.	371.	377.	371.	371.	371+
LIII .004782	.162	.0339	.00148	.000311	.160	.0335	5+14					231. 803.	231. 706.	23 6 . 807.	231. A03.	803.	706.
.005	.161	.0352	.00155	.000337	.160	.0349	5.00					693.	615+	697.	693.	693.	615.
LII .005102	.161	.0358	.00158	.000350	.160	•0354	4.91					651.	578. 798.	904.	899.	899.	798.
T 005445	141		00148		-160	.0373	4-72					766.	683.	771.	766.	766.	683.
HI +003443	+101	+0.210	100100		••••							881.	784 .	885.	A81.	881.	784.
.006	.161	.0408	.00184	.000468	.159	.0404	4.41					674 .	610.	679.	674+	674.	810.
.008	.160	.0505	+00242	.000766	.157	.0495	3.50					313.	290 •	172.	169.	169.	159
•01	<u>•159</u>	.0587	.00297	.00110	.155	0578	2.83					55.0	52.8	56.9	55.0	55.0	52.8
+013	.153	.0853	+00431	.00308	.148	.0821	1.32					24.9	24+1	26.3	25.0	24.9	24.1
.03	.148	.0977	.00771	.00509	.140	.0927	•748					7.94	7.80	8.76	8.03	7,94	5.33
K .034561	.146	.101	.00858	.00596	.137	•0954	+605					74.0	3+23	13.7	31.1	33.0	11.5
	147	105	A6964		-134	. 6977						22+2	9.72	22.8	22.3	22.2	9.72
.05	.139	.105	.0112	.00872	.128	.0995	.344					12.2	6.70	12.7	12.3	12.2	6.70
.06	.135	.110	.0127	.0103	.122	.0995	.255					7.43	4.63	7.80	7.52	7.43	4.03
.08	.128	.110	.0150	.0129	.113	.0972	+155					3.35	2+41	3.61	3+40	3,30	1.40
<u>•1</u>	.122	.109	.0168	.0150			.102					•578	•491	.729	.683	.596	.509
•15	•110	.103	.0200	+0187	.0789	.0757	+0+82					+257	+228	.382	.354	.279	1249
.3	.0876	.0853	.0236	.0230	.0638	.0624	.0127					.0830	.0766	+161	•168	.107	.0995
	.0784	.0771	.0243	.0237	.0541	.0532	.00720					.0390	.0308	.123	.0927	.0453	.0445
.5	.0716	.0706	+0244	.0239	.0472	•046B	.00468					+0217	+0135	.0830	.0798	.0384	.0374
•6	.0601	+0656	+0244	.0239	.0419	+0417	+00324					.00716	.00697	.0670	.0651	.0310	.0301
,	.0523	.0578	.0230	.0222	.0293	.0300	.00118					.00450	+00439	.0578	•0569	.0275	.0266
1.5	.0425	+0424	.0210	.0203	.0215	.0221	.000528	.000821		,000821	.000251	+00211	+00208	+0458	.0453	.0239	-0227
2.	.0362	.0362	+0192	.0183	.0170	.0179	.000299	.00284		.00284	.00131	+00120	+00127	.0366	.0364	.0244	.0204
3.	.0285	.0285	+0165	.0152	.0121	.0133	.000133	.00725	.00000995	.00725	.00447	.000455	.000453	.0359	.0358	.0264	.0214
* •	.0238	-023B	.0144	.0131	.00766	.00917	+0000752	+0115	.0000803	.0149	.0107	.000340	.000339	.0359	.0358	.0282	.0224
5. 6.	.0182	.0182	.0117	.0100	00647	.00812	.0000343	.0177	.000125	.0178	.0131	.000269	.000268	.0363	-0362	+0276	+0234
8.	.0149	.0149	.00991	.00816	.00495	.00670	.0000190	.0222	.000211	.0224	.0168	+000188	+000188	*0319 *0379	.0313	.0352	.0252
10.	,0127	.0127	.00867	.00670	00401	.00596	0000117						.0000913	.0439	.0439	.0411	.0299
15.	.00936	.00936	+00665	+00452	.00272	.00452	•000000	+0339	+000434	.0344	.0230	.0000665	.0000665	.0477	.0477	.0455	.030
20.	+00752	+00/92	+00246	.00370	.00139	.00307		.0472	.000743	.0482	.0297	.0000431	.0000430	.0537	.0537	.0523	10351
40.	.00436	.00435	.00331	.00170	.00105	.00266		.0523	.000876	.0532	.0298	.0000317	.0000317	.0578	.0578	.0564	.0310
50.	.00364	.00364	.00280	.00129	.000839	.00235		.0564	.000968	.0573	.0295	.0000248	+0000248	+0610	.0610	.0801	+0301
60.	.00313	.00313	.00243	.00101	.000702	.00212		.0596	.00104	.0605	.0293	+0000204	+0000204	• UOJB • 0670	.0679	.0674	.0293
80.	.00247	.00247	.00194	.000683	.000528	.00178		+0642	+00116	.0656	+0285	.0000118	+0000118	.0711	.0711	.0711	.0282
100.	•00≤0 5	•00≤05	00193	+000300	+000+23	•00133		+ 1017	+101E4	•0043							

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55 CESIUM (barns/atom)

E (MeV)	σ _{inc,t}	σ ^{BD} _{inc,t}	o ^{KN} inc, a	o ^{BD} _{inc,a}	O _{inc,s}	σ ^{BD} _{inc,s}		σ _{×n}	σxe	σ _{x,t}	σ.,	σ _{r,t}		σ _{tot,t}	ottot.t-coh	σ _{tot, a}	Utot, en
.001	36.4	1.31	.0710	.00255	36+4	1.31	1880.					2070000.	2070000.	2070000.	2070000.	2070000.	2070000.
HII .001065	36.4	1+43	•0756	.00297	36.4	1.43	1870+					2270000	2270000	2270000.	2270000.	2270000.	2270000.
HI .001217	36.4	1.69	.0863	.00400	36.3	1.69	1840.					1680000+	1680000+	1680000.	1680000.	1680000. 2070000.	1680000.
.0015	36.4	2.19	.106	. 00639	36.3	2.18	1790.					1190000.	1190000.	1190000.	1190000.	1190000.	1190000.
.002	36.3	3.10	.141	.0120	36.2	3.09	1680.					554000 .	554000 +	556000+	554000.	554000+	554000.
.003	36.2	4.87	.210	0282	36.0	4.84	1470.					189000.	189000.	190000 •	149000.	149000+	189000.
.004	36.0	6.49	277	.0499	35.7	6.44	1280.					88200.	88200.	89500+	88200+	88200.	86200.
.005	35,9	7.91	,344	0758	35.5	7.83	1120.					48600+	48600.	49/00+	45000+	40000+	40000+
LIII .005012	35.9	7.93	.345	.0761	35.5	7.85	1120.					45300.	45000 +	166000+	165000+	165000+	145000.
L _{II} .005360	35.8	8.38	.367	.0859	35.5	8.29	1070.					133000.	118000+	134000+	133000+	133000+	118000+ 162000+
	36.0		201	0061	38'. A	8.71	1030-					157000.	140000.	158000.	157000.	157000.	140000.
rI +002113	3240	0.81	• 3 • 1	*0401	3344	0	10300					181000.	161000+	182000+	141000+	181000+	161000.
- 006	35.7	9,15	.409	.105	35.3	9.05	992.					158000.	141000+	159000+	158000.	1580 00+	141000+
.008	35.5	11.3	.537	.171	34.9	11.1	789.					72900.	67100.	73700.	72900.	72900+	67100+
.01	35.2	13.1	.660	245	34.6	12.9	641.					39400,	36900.	40100,	39400.	39400.	30900.
.015	34.6	16.5	.956	.456	33.6	16.0	419.	-				13000.	12500.	13900+	13000.	13000.	5660
.02	34.0	18.9	1.23	682	32.8	18.2	299.					1000	1840	2070	1900.	1800.	1840.
.03	32,9	21.6	1.71	1.12	31.2	20.5	170.					1120	1100.	1270.	1140.	1120.	1100.
K .035985	32.2	22.6	1.97	1.38	30.3	21+2	130.					6890.	2380	7040.	6910.	6890.	2380.
+ 04	31.8	23.1	2.12	1.54	29+7	21.6	110.					5190.	2130.	5320+	3210+	2860	1510
.05	30.9	23.9	2,49	1.93	28+4	22+0	78+2					2850.	1050	1810.	1750.	1730.	1050.
•06	30.0	24.3	2.82	2.28	27.2	22.0	58+2					780.	550	840.	804.	783.	553.
•08	28.4	24.4	3,33	2.86	25+1	21.5	35+3					419.	320.	466.	443.	423.	323,
•1	27.1	24.1	3,74	3,33	23.4	20.8	23.4					135.	114.	169.	158.	1 19.	118.
+15	24.4	22.9		4,10	17.5	16.8	6.76					60.0	52.9	87.8	81.4	64.8	57.5
•5	10 4	19.0	6.24	5.12	14.2	13.9	2.89					19,5	18.0	41.4	38,5	24.7	23.1
• • •	17.4	17.1	5.40	5.27	12.0	11.8	1+64					9.20	8,66	27.9	26.3	14.2	13.7
.5	15.9	15.7	5.42	5.32	10.5	10.4	1.06					5,17	4,93	21.	20.7	10.0	10.3
.6	14.7	14.6	5.41	5.31	9.31	9.29	•740					3,33	3,20	18.7	11.7	0. F4	4.77
.8	12.9	12.8	5,28	5.12	7.64	7.68	+419					1.70	1.05	17.0	17.7	4.17	8.97
1.	11.6	11.6	5,11	4,93	6.51	6+67	+270							10.2	10.1	5.36	5.06
1.5	9,44	9.41	4.67	4+51	4.77	4.90	+121	+187		+187	+0572	.306	.302	9.06	8,99	5.22	4.45
2.	8,05	8.04	4.21	4.03	3+78	3.97	- 0306	1.64	. 00777	1.64	1.01	.165	.164	8.16	8,12	5,45	4,54
3.	E 30	5 30	3.00	3.31	2.08	2.19	-0171	2.59	.00910	2.60	1.76	.108	.107	8,02	8.00	5,92	4.77
	3+27	3+27	2.87	2.53	1.70	2.04	.0111	3.36	.0178	3.38	2.42	.0810	.0806	8.04	8.03	6,33	5.03
7	4.04	4.04	2.60	2.23	1.44	1.81	.00779	4.00	.0277	4+03	2.96	.0638	.0635	8,14	8,13	6.67	2.57
Ă.	3.30	3.30	2.20	1.81	1.10	1.49	.00436	5.01	.0470	5.06	3.79	.0444	.0443	8.41		7,30	A A1
10.	2.81	2.81	1.92	1,49	.890	1,32	•00270	5.90	<u>*0641</u>	5.96	4.49			0.85	0,00 0,85	9.25	6.70
15.	2.08	2.08	1.48	1.07	+604	1.01	+00120	7,65	•10 <u>0</u>	7.75	5.61	00214 0166	0155	10.7	10.7	io.3	6.92
20.	1.67	1.67	1,21	.818	+457	+852		8,90	+127	9+03	6.09	.0101	.0101	12.1	1 2. 1	ii	7.22
30.	1.22	1+22	.909	.532	.307	+688		10.7	+185	10+4	0.07	.00741	.00741	13.0	13.0	12.7	7.08
40.	.967	.967	•735	.376	• 232	+571		11.0	+177	12.0	44.6	.00587	.00587	13.8	13,8	<u>1</u> 3.6	6,95
50.	.807	.807	+621	.285	+180	+524		12.0	.211	13.6	6.51	.00482	.00482	14,3	14.3	ī4 . 1	6.76
e0.	+695	.675	+ 340	.223	.117	.197		14.5	.257	14.8	6.40	.00354	.00354	15.4	15.4	15,2	6,55
50.	.340	4790 . 455	. 362	.111	.0939	.344		15.3	.275	15.6	6.18	•0027 8	.00278	16.1	16.1	16+0	6,29
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55 CESIUM (cm³/g = 0,00453) x barns/atom)

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E (MeV)	(≝) ^{KN} inc,t	(券) _{inc,t}	([#]) _{)nc, a}	(費) BD (声) inc, a	(^µ _p) ^{KN} inc,s	([#] _p) ^{BD} inc, s	(岸) _{coh}	([#] _p) _{×1}	n (#)*e	(ڭ) _{×, t}	([#] _p) _{×,a}	(#),,t	([#] _p) _{7,a}	(勞) _{tot,t}	([#]) _{tot,t-coh}	([#] _p) _{tot, a}	([#]) _{tot, en}
.001	.165	.00594	.000322	.0000116	.165	.00594	8.52					9380.	9380.	9380.	9380 .	9380.	9380.
"II +001005	*103	+00048	.000343	+0000135	.105	•00848	8.47					8610+	8610+	8610.	8610+	8610.	8610+
M001217	.165	.00766	.000391	+0000181	.164	.00766	8.34					7610.	7610.	7610.	7610.	7410	7610.
• .					• -	•						9380.	9380.	9380.	9380.	9380	9380.
.0015	.165	•00992	+000480	•0000290	.164	.00988	8.11					5390.	5390.	\$390.	5390.	5390.	5390.
200.	+164	.0140	.000639	+0000544	.164	+0140	7.61					2510.	2510.	2520 .	2510.	2510.	2510.
.003	.184	+0221	+000952	.000128	.163	.0219	6.66					856.	856.	661.	856.	856.	856.
.004	143	+0274	+00126	+000226	+102	.0292	5.80					400+	400.	400.	400.	400.	400.
L005012	.163	.0359	.00156	.000345	.161	.0355	5.07					219.	210.	227.	220.	220.	220.
111	•••											748.	657.	762.	748.	748	457.
L _{II} .005360	.162	.0380	.00166	.000389	.161	.0376	4.85					603.	535.	607.	603.	603.	535.
						_						834.	734 .	838.	834.	834 .	734.
L1 +005713	•162	•0399	•00177	+000435	. 160	.0395	4.67					711+	634.	716.	711.	711.	634.
. 006	142	0415		A A A A A A	140							820.	729.	825.	820.	Ą20.	729.
-008	141	0413	.00243	.000470	160	.0410	4447					/16.	639.	720.	716.	718.	639.
.01	.159	.0594	.00243	-00111	.157	-0584	2.90					330+	304+	334.	330.	330.	304.
.015	157	+0748	+00433	.00207	.152	.0725	1.90	· · ·				5849	56.6	40.7	58.9		<u> </u>
.02	.154	.0856	.00557	.00309	.149	.0825	1.35					26.5	25.6	28.0	26.6	26.5	25.6
.03	.149	.0979	.00775	•00 5 07	.141	.0929	.770					8.52	8.34	9.38	8.61	8.52	8.34
K .035985	,146	.102	.00893	.00625	. 137	.0961	.589					5+07	4+98	5+75	5+17	5.07	4+98
. 54	.144	.105	.00961	. 0.0698	136	. 4979						31 • 2	10.8	31.9	31+3	31.2	10.8
.05	140	-108	.0113	.00874	.129	.0997	. 764					23+3	9.03	24+1	23.0	23.5	9.65
.06	.136	.110	.0128	.0103	.123	.0997	.264					7.84	4.76	8.20	7.97	7.84	0.04
.08	.129	.111	+0151	.0130	.114	.0974	.160					3.53	2.49	3.11	3.64	3.55	2.51
<u> </u>	.123	.109	.0169	.0151	106	.0942						1.90	1+45	2.11	2.01	1.92	1.46
.15	.111	.104	.0201	.0188	.0906	.0847	+0498					+612	+517	.766	.716	. 630	.535
•2	.101	.0970	+0219	.0210	.0793	.0761	+0288					+272	+240	•398	.369	+294	+261
• 3	.0788	+ 0001	+0237	.0232	.0043	+0630 AE3E	+0131					+0554	+0516	•188	+174	+112	.105
.5	.0720	.0711	.0246	.0241	.0476	.0471	.00480					.0734	.0372	+150	+119	.0002	+0836
•6	.0666	.0662	.0245	.0241	.0422	.0421	.00335					.0151	+0145	.0847	.0811	.0396	-040
.8	.0584	.0580	.0239	.0232	.0346	.0348	.00190					+00770	.00748	.0675	.0657	- 0316	.0303
1.	.0526	.0526	.0232		.0295	.0302	.00122					.00480	.00471	.0584	.0575	.0200	.027
1.5	.0428	.0426	+0212	.0204	.0216	•0222	.000548	+000847	1	+000847	.000259	+00227	+00223	.0462	+ 0458	.0243	.0224
2.	0305	+0304	•0193	+0184	+0171	+0181	.000309	.00292		.00292	.00135	+00139	.00137	+0411	.0407	.0237	·0211
	.0240	+0200	+0105	+0193	+0121	.01.34	.000139	.00/43	.0000101	.00743	.00458	+000748	.000743	.0370	.0308	.0247	.0200
5.	0207	.0207	.0130	.0115	.00770	.00924	.0000503	.0152	-0000412	+0118	.00/9/	+000367	.000365	.0364	.0302	.0200	+0210
6.	.0183	.0183	.0118	.0101	.00652	00820	.0000353	.0181	.000126	.0183	.0134	+000289	.000288	.0369	.0368	.0303	.023
8.	.0150	.0150	+00997	.00820	.00498	.00675	.0000198	.0227	.000213	.0229	.0172	+000201	+000201	.0381	.0361	.0331	.0256
10.	_0127	.0127	.0.0870	.00675	.00403	.00598	.0000122	.0267	.000290	.0270	.0203	+000155	+000155	,0399	,0399	.0358	.027
15.	.00942	.00942	.00671	.00485	.00274	.00458	.0000054	+0347	+000453	.0351	.0254	.0000970	.0000970	+0446	.0446	.0419	.0304
20.	+00/5/	+00/5/	+00348	.00371	.00207	.00386		.0403	.000575	.0409	.0276	+0000/02	+000070Z	.0485	.0485	.0467	-0314
4 0.	.00438	.00553	.00332	.00241	.00105	-UUJ12		+0483	.000748	.0494	.0303	+0000458	+0000456	+0548	.0548	+ 0535	•032]
50.	.00366	.00366	.00281	.00129	.000843	.00237		.0580	.000974	.0589	.0304	+0000266	.0000244	.067E	+U387 +8625	.0373	+0321
60.	.00315	.00315	.00245	.00101	.000707	.00214		.0607	.00105	.0616	.0296	+0000218	.0000218	.0648	.0645	.0439	+0313
80.	.00248	.00248	.00195	.000684	.000530	.00180		.0657	.00116	.0671	.0290	.0000160	.0000160	+0698	+0698	.0689	.0291
100.	•00206	•00206	.00164	.000503	.000425	.00156		.0693	.00125	.0707	.0280	•0000126	+0000126	.0729	.0729	.0725	+0285

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56 BARIUM (baros/atom)

E	(MeV)	κn σ _{inc,t}	o ^{BD} _{inc,t}	o ^{KN} o _{inc, a}	o ^{BD}	0)nc,s	σ ^{BD} inc,s	σ _{coh}	σ _{*n}	σ _{×e}	σ _{s,t}		σ _{τ, t}	σ,	o _{tot,t}	Otot.t-coh	σ _{tot,a}	σ _{tot, en}
••	.001	37.1	1.56	.0723	.00304	37.0	1.56	1940.					2220000.	2220000.	2220000.	2220000.	2220000.	2220000.
M111	.001061	37,1	1.67	•0767	.00345	37.0	1.67	1930.					1930000.	1930000.	1930000.	1930000.	1930000.	1930000.
MII	.001135	37.1	1.81	.0820	.00400	37+0	1.81	1910.					1760000.	1760000.	1760000.	2220000.	1760000.	2220000.
MI	.001291	37.1	2.11	.0931	.00530	37.0	2.10	1880.					1560000.	1560000.	1560000.	1560000.	1560000.	1560000 +
	.0015	37.0	2.50	.108	.00729	36.9	2.49	1830.					1930000+	1930000+	1930000+	1930000+	1930000.	1930000+
	.002	37.0	3.40	.143	.0132	36.8	3.39	1720.					603000	603000	605000.	603000	603060.	603000
	.003	36.8	5.14	.213	.0298	36.6	5.11	1510.					203000+	203000.	205000.	203000.	203000.	203000 +
	.004	36.7	6.75	.282	•0519	36.4	6+70	1320.					95200.	95200.	96500.	95200.	95200.	95200 .
	.205	36.5	8.17	.350	.0783	36.2	8.09	1160.					52400.	52400.	53600.	52400.	52400+	52400+
L'III	.005247	36,5	8.50	.367	.0853	36.1	8.41	1120.					46300.	46300.	47400.	46300.	463n0.	46300+
1		76.6		107		34.3							156000+	136000+	157000+	156000.	156000+	136000+
-11		30.00	0.7/	• 372	+0403	30+1		10/0+					126000+	111000+	127000+	126000+	1200000	111000+
L	.005987	36.4	9.41	- 414	.107	36.0	9.30	1020.					174000+	153000.	1/5000+	174000.	174000+	153000+
-1		2004	***1		•1•1	3010	4.30	10200					148000+	131000+	199000+	148000+	148000+	131000+
	.006	36.4	9.42	.417	.108	36.0	9.31	1020.					168000.	150000+	170000	169080.	149000+	154000+
	.008	36.1	11.5	.547	.174	35.6	11.3	816.					78100.	71400	78900.	781004	781004	71400+
	.01	35,9	13.3	.672	.249	35.2	13.1	664.					42400.	39500.	43100+	42400.	42400	39500.
	.015	35.2	16.8	.974	.465	34.2	16.3	434.					13900.	13300+	14400+	13900.	13900+	13300.
	•02	34.6	19.2	1.25	•693	33.4	18.5	311.					6330.	6110.	6660 .	6350.	6330.	6110.
_	•03	33.5	22.0	1.74	1.14	31.7	20.9	178.					2040.	1990+	2240.	2060.	2040+	1990 •
K	*03/441	32.1	23.2	2.00	1.47	30.0	21.7	127.					1090.	1070.	1240.	1110.	1090.	1070.
	.04	32.4	23.5	2.16	1.57	30.2	21.8	115.					6590.	2250+	6740+	8010.	0390.	2250.
	.05	31.4	24.3	2.54	1.96	28.9	22.3	81.5					3300+	2110+	3040+	3040	2200+	2110+
	.06	30.6	24.7	2.87	2.12	27.7	22.4	60.8					1850.	1090.	1940.	1870.	1850.	1930+
	.08	29.0	24.8	3.39	2.90	25.6	21.9	36.8					839.	580.	901.	864.	642.	583.
	•1	27.6	24.5	3.81	3.38	23.8	21.1	24.4					450.	339.	499.	474.	454.	342.
•	.15	24.8	23.2	4.51	4.21	20.3	19+0	11+5					145.	121+	180 +	168.	150+	125.
	•5	22.8	21.8	4.92	4.71	17.8	17.1	6+65					65.0	57.0	93.4	86.8	69.9	61.7
	•3	19-8	19.3	5.34	5.20	14.5	14+1	3.02					21+1	19+4	43.4	40.4	20.4	24.6
	·2	17.7	17.4	5.49	5.36	12+2	12+0	1+71					9.93	9.32	29+0	27.3	15.4	14+7
	•7	10.2	16.0	3.52	5,42	10.7	10.6	1.11					5.58	5.30	22.7	21.0	11-1	10.7
	•••	1240	14+0	7.70	3.39	7.40	9+41	•774					3.01	3.48	19.2	10.4		0.05
1	•••	11.8	11.8	5.30	5.00	4.62	6.80	-439					1.15	1.17	13.3	17.9	1 + E] 6 - 36	4.17
î	.5	9.61	9.58	4.75	4.59	4.86	4.99	127	.197		.197	-0601	• 540	.511	10.4	10.3	5.49	5.15
2	•	8.19	8.18	4.35	4.12	3.85	4.06	.0713	.673		.673	.310	• 330	.326	9.25	9.18	5.35	4.76
3	•	6.45	6.44	3,72	3,43	2.72	3.01	.0320	1.71	.00226	1.71	1.05	•)80	•179	8.36	8.33	5+61	4.66
4	•	5.39	5.39	3.27	2.95	2.12	2.44	+0179	2.68	.00927	2+69	1.82	• <u>i</u> 18	+117	8+22	8.20	6+08	4.89
5	•	4.65	4.65	2.92	2.57	1.73	2.08	+0116	3.49	+0182	3+51	2.50	+0877	+0873	8.26	8.25	6+52	5+16
	•	4.11	4+11	2.65	2.26	1+46	1.85	+00812	4+13	.0282	4+16	3.05	• 1690	+0687	8+35	8.34	6.00	5+38
	•	3.30	3.36	2.24	1.83	1.12	1.53	+00458	5.20	+0478	5+25	3.92	+0403	+0482	0.00	0.00	7424	5.00
-	<u>•</u>	2.12	<u>6.00</u>	1.81	1.00	- 415	-1437	.00284			<u></u>		+0372	+0371	<u> </u>	<u> </u>	<u></u>	<u>6.</u>
20		1.70	1.70	1.24		.465	.869	+0+152	9.26	+102	8.00	3+78	04100	+0149	11.1	11.1	50.6	7.18
30		1.24	1.24	.926	.538	.313	.702		11.0	•168	11.2	6.86	•0109.	•0109	12.5	12.5	12.1	7.41
40	•	.984	.984	.748	.381	.236	.603		12.2	.197	12.4	6.88	+00800	+00B00	13.4	13.4	13.2	7.27
50	•	.822	+822	.633	.289	+189	.533		13.2	218	13.4	6.84	+00632	•00632	14.2	14.2	14.0	7.14
60	•	.708	.708	.549	.226	.158	. 482		13.9	.236	14+1	6.73	+00520	+00520	14.8	14.8	14.7	6.96
80	•	.558	.558	. 439	.153	+119	+405		15.0	.262	15+3	6.58	+00383	+00383	15+9	15.9	ĩ 5 •7	6+74
100	•	.464	.464	.368	•112	.0956	•352		15.8	.280	16+1	6.35	•00300	•00300	16+6	16.6	16+5	6+46

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168

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56 BARIUM (cm³/g = 0.004385 x barns/atom)

1 1 1 **4** 1 1

E (MeV)	(声) ^{KN} inc, t	([#]) _{)nc,t}	([#] _p) ^{KN} _{nc,a}	(声) ^{BD} inc, a	(≝) ^{KN} inc,s	([#]) ^{BD} _{inc,s}	(뿔) _{coh}	([#] _p) _{*n}	(<u>ل</u>) _{×e}	(岸) _{×, t}	([#] _p) _{x,a}	([#] _p) _{7,t}	([#] _p) _{7,a}	(賞) _{tot,t}	([#]) _{tot,t-coh}	([#] _p) _{tot,a}	(#) _{tot, en}
.001 MIII .001061	•163 •163	.006 <i>8</i> 4 .00732	.000317 .000336	.0000133 .0000151	.162 .162	.00684 .00732	8•51 8•46					9730. 8460.	9730. 8460.	9730. 8460.	9730. 8460.	9730. 8460.	9730. 8460.
HII .001135	.163	.00794	.000360	.0000175	.162	.00794	8.38					9730. 7720.	4730. 7720.	9730.	4730. 7720.	9730.	9730.
M _I .001291	.163	.00925	.000408	.0000232	.162	.00921	8.24					9210. 6840.	9210. 6840.	9210. 6840.	9210. 6840.	9210. 6840. 8460	9210. 6840.
.0015	.162	.0110	.000474	.0000320	.162	.0109	8.02					5660.	5660.	5660.	5660.	5660	5660.
.002	.102	+0144	+000627	.0000579	+101	.0149	7.5*					804	2040.	2030.	2040.	2044,	20444
+003	141	.0227	+000434	+000131	100	+V224	6 70					417.	A17	421	417.	517*	417
.004	160	+0290	+00124	000220	160	A358	5.49					230.	230	215	230.	230	230
Lawn . 005247	.160	.0373	.00161	.000343	.158	. 0369	5+07 A.91					203.	203.	208.	203.	503.	203.
-III COOPER				*****	••••	•••••						684.	596.	688.	684 .	684	576.
L _{II} .005623	.160	.0393	.00172	•000422	.158	.0389	4.69					553. 763.	487. 671.	557. 767.	553. 763.	553 763	A87. 671.
L1 .005987	.160	.0413	.00182	.000469	.158	.0406	4.47					649. 750.	574. 667.	653. 754.	649. 750.	649. 750.	574.
.006	.160	.0413	.00183	+000474	.158	.0408	4.47					741.	658.	745.	741.	741.	658.
.008	+158	.0504	+00240	.000763	.156	.0496	3,58					342.	313.	346,	342.	342,	313.
.01	.157	.0583	.00295	.00109	.154	.0574	2.91						173.	189.	186,	186.	173.
-012	.154	.0737	+00427	+00204	.150	.0715	1,90					61.0	58,3	63.1	61.0	61.0	58.3
• 02	+152	.0842	.00548	.00304	+146	.0811	1.36					27.8	20,0	29.2	27.8	27.8	20.8
•03	+147	.0965	.00763	.00500	.139	+0916	+781					8.75	8,73	9.82	9.03	.95	8.73
K .037441	•143	.102	.00903	+00645	,134	.0952	•557					28.9	9,87	29.6	29.0	28,9	9.87
+04	+142	.103	.00947	•00688	.132	.0960	.504					24.1	9,25	24.7	24.2	24.1	9,25
•05	.138	.107	.0111	.00859	.127	.0978	.357					13.2	6.71	13.7	13.3	13.2	8.71
+06	.134	.108	.0126	.0102	.121	.0982	.267					8+11	4.78	8,51	8,20	8,11	4.78
.08	.127	.109	+0149	.0127	+112	.0960	. 161					3.68	2,54	3,95	3.79	3,69	2.56
<u>•1</u>	<u>, 121</u>	.107	.0167	.0148	104	.0925	.107							2.19	2.00		
+15	+109	.102	.0198	+0185	.0890	.0833	+0504					-030	.731	+10	- 737	.870	.340
•5	. 100	+0736	.0210	.0207	+0/81	.0/50	.0292					.0925	0861	190	1,77	116	100
	.0808	.0840	+0234	•0228	.00.30	+0018	+0132					.0435	.0409	127	120	0475	
16	-0710	0703	.0241	+0233	0935	.0445	-00/50					.0245	.0732	0995	.0947	0487	-0469
. 6	. 0658	.0649	.0241	.0236	.0416	.0413	.00339					.0158	.0152	.0842	0807	0399	.0388
	.0579	-0574	-0236	.0230	.0341	.0345	.00193					.00802	.00776	.0675	.0653	.0316	.0307
1.	.0517	.0517	.0228	.0219	0290	0298	.00123					.00504	.00491	.0579	,0566	.0278	.0268
1.5	.0421	.0420	.0208	.0201	.0213	.0219	.000557	.000864		.000864	.000264	.00237	.00233	,0456	.0452	.0241	.0227
2.	.0359	.0359	.0191	.0181	.0169	.0178	.000313	.00295		.00295	.00136	+00145	+00143	.0406	.0403	.0235	•0209
3.	.0283	.0282	.0163	.0150	.0119	.0132	.000140	.00750	.00000991	.00750	.00460	.000789	.000785	.0367	,0365	.0246	.0204
4.	•0236	.0236	.0143	•0159	.00930	.0107	.0000785	.0118	.0000406	.0118	.00798	+000517	.000513	.0360	.0360	.0267	+0214
5.	.0204	.0204	.0128	.0113	.00759	.00912	.0000509	.0153	.0000798	.0154	.0110	.000385	.000383	.0362	.0362	.0286	•0226
••	.0180	+0180	+0116	.00991	.00840	.00811	.0000356	.0181	.000124	.0182	.0134	.000303	.000.301	.0300	.0300	.0302	.0236
8.	+0147	+0147	.00982	.00802	+00491	.00671	.0000201	.0228	.000210	.0230	.0172	+000212	.000211	.0380	0.860	0331	+0254
10.			400899	.00662	00398	.00592	0000125					.000103	000103	.0378	0398	0378_	
12+	.00745	.00730	+00002	+004/8	+00210	.00432	+0000033	.0398	.000566	.0.351	.0233	.0000741	.000102	.0487	0743	0~10	50500
20+	AUU/47	00145	.00344	+00304	.00204	+00301		+0=08	.000506	.0-11	+UZ /18	.0000478	-0000478	.0548	0548	0407	+0315
JU .	.00544	.00431	.00328	.00167	.00103	00264		10402	+000737	+0491 0544	+0.501	.0000351	.0000351	.0588	.0588	.0576	.0319
58.	.00367	.00360	.00278	.00127	.000829	.00234		.0579	.000956		.0302	.0000277	0000277	.0621	.0623	.0614	.0317
60.	.00310	.00310	.00241	.000991	.000693	.00211		.0610	.00103	.0618	.0295	.0000228	.0000228	.0649	.0649	.0645	.0304
80.	.00245	.00245	.00193	.000671	000522	00178		.0658	.00115	.0671	.0289	.0000168	.0000168	.0697	0697	.0688	.0294
100.	.00203	.00203	.00161	.000491	.000419	.00154		.0693	.00123	0706	0278	.0000132	.0000132	072A	.0728	0724	.0283
	••••													••	• • • • •	•	

57 LANTHANUM (barns/atom)

E	(MeV)	σ _{inc,t}	$\sigma_{inc,t}^{BD}$	o ^{KN} inc,a	σ ^{BD} inc, a	O _{inc} , s	σ ^{BD} o _{inc,s}	σ _{coh}	σ _{*n}	σ×e	σ _{×,t}	<u>σ_{*, a}</u>	σ _{r,t}	Or.a	σ _{tot,t}	σ _{tot} , t-coh	⁰⁷ tot, a	σ _{tot, en}
	001	37.8	1.60	.0736	.00312	37.7	1.60	2010.					2330000.	2330000.	2330000.	2330000.	2330000.	2330000.
			-			31.01	1.04	1460.					2070000.	2070000.	2070000.	2070000.	2070000+	2070000.
NII .	001204	37.7	2.00	.0885	+00469	37+6	2.06	1970.					1640000.	1640000+	1640000+	1640000.	1640000.	1640000.
× _I .	001363	37.7	2.31	.100	.00613	37+6	2.30	1930.					1470000+	1470000+	1470000.	1470000.	1470000+	1470000.
	0015	37.7	2.57	.110	.0075	17.6	2.86	1900.					1800000.	1800000.	1800000.	1800000.	1800000.	1800000.
	002	37.6	3.50	.146	.0136	37.5	3.49	1780.					650000.	650000.	652000+	650000	650000.	656000.
	003	37.5	5.24	.217	.0304	37.3	5.21	1550.					219000.	219000.	221000.	219000.	219000.	219000.
•	004	37.3	6.87	.287	.0529	37+0	6+82	1360.					102000.	102000.	103000.	102000.	102000.	102000.
. •	005	37,2	8.31	.356	.0796	36+8	8.23	1190+					56800.	56500.	58000.	56800.	56800.	54800.
· 111 •	007484	37.1	8.94	•389	.0937	36 • 7	8+85	1120.					44500.	44500.	45000.	44500.	44700.	44500.
LTT .	005891	37.1	9.43	.417	.106	36.6	9.32	1070.					119000.	105000.	120000	119000.	119000.	105000.
		- •••		••••	••••			10.00				•	164000.	144000.	165000.	164000.	144000.	144000.
	006	37.0	9.55	.424	.109	36.6	9.44	1060.					156000.	137000.	157000.	156000.	156000.	137000.
ել.	006266	37.0	9.86	.442	.118	36.6	9.74	1020.					140000.	124000.	141000.	140000.	140000.	124000.
		34 .				-/ -		.					162000.	143000.	163000.	162000.	162000.	143880.
•	A1	34.6	11.1	484	+1//	30.2	11.5	644.					93600.	/ 3000 .	84700.	83000.	830ng.	/3000.
	015	38.A	17.0	.001	• <u>2</u> 33	35+6	12.00	450.				•••	15000.	14300.	15500.	15000	19000.	14300-
	02	35.2	19.4	1.27	700	34.0	18.7	322.					6780.	6530.	7120.	6800.	6780.	6530.
	03	34.1	22.3	1.77	1.16	32.3	21+1	185.					2200,	2150.	2410.	2220.	2200.	2150.
κ.	038925	33.1	23.7	2.16	1.55	30.9	22.2	125.					1050.	1030.	1200.	1070.	1050.	1030.
			33 .										6310.	2140.	6460.	6330.	6310.	2140.
•	04	33.0	23.8	2.20	1+24	30+0	22+2	120+					3589.	2090.	3324	3700.	3880.	2090.
•	84	32.0	25.1	2,02	2 36	28.2	22+1	61.4					1960.	1120.	2050.	1990.	1960.	1120.
:	08	29.5	25.2	3.45	2.95	26.0	22.2	38.5					894 .	606.	958.	919.	897.	609.
	1	28.1	24.9	3,80	3.44	24+2	21.5	25+5					480.	356.	530.	505,	484.	359.
	15	25,3	23.6	4.59	4.28	20+7	19.3	12+0					155.	128.	191.	179.	160.	132.
•	2	23.2	22.1	5.01	4.78	18.2	17+3	6.95					70.0	61.0	99.0	92.1	75.8	65.8
•	3	20,1	19.0	5,43	5.20	14.7	14.3	3.10					22.1	20.8	47.7	• 2 . 3	28.1	20.1
•	5	14.5	16.3	5.67	5.61	10.9	10-8	1.16					6.03	5.72	23.5	22.3	11.6	13.2
:	6	15.2	15.1	5.60	5.48	9.64	9.62	.810					3.90	3.73	19.8	19.0	9.50	9.21
	8	13.4	13.3	5.48	5.32	7.92	7.98	.459					1,99	1.93	15.7	15.3	7.47	7.25
1.		12.0	12.0	5,30	5,09	6.74	6.91	•296					1.25	1.22	13.5	13,2	6,55	6.31
1.	5	9.78	9.76	4.84	4.68	4.94	5.08	•133	.205		+205	.0625	,587	,577	10.7	10.0	5.63	5.32
		6.54	8.33 4.86	4,43	4.19	3.77	4.14	•0/50	1 78		.702	. 324	.194	.192	8.56	8.52	5.75	4.76
		5.48	5.48	3.33	3.00	2.16	2.48	.0187	2.78	.00943	2.79	1.89	.128	.127	8.42	8.40	6.25	5.02
5.		4.74	4.74	2.97	2.61	1.76	2.13	.0121	3.60	+0185	3.62	2.58	.0950	.0945	8,47	8,45	6.69	5,28
- é.		4.18	4.18	2.69	2.29	1.49	1.89	.00847	4.28	.0287	4.31	3,16	.0752	.0749	8,57	8,57	7,08	5.52
		3.42	3.42	2.28	1.86	1+14	1.56	•00480	5,37	•0486	5.42	4.04	.0523	.0521	8,90	8,89	7.75	5,95
<u>10.</u>		2.92	2.92	1.99	1.53		1.39	+00299	<u></u>		<u></u>	<u>A.77</u>		.0401		<u>y, 3</u> 3		<u>Qada</u>
13.		2.10	2.10	1.26	1+10	+020	1+00	•00129	8+17	+104	8.45	5.94	.0182	.0182	11.4	10.7	10.9	7.34
30.		1.26	1.26	.942	.543	.319	.717		11.3	.172	11.5	7.00	.0118	.0118	12.8	12.8	12.5	7.55
40.		1.00	1.00	762	.385	.241	.615		12.6	.200	12.8	7.07	.00868	.00867	13.8	13.8	13.6	7.46
50.		.837	.837	.644	.293	.193	. 544		13.7	.222	13.9	7.06	.00681	.00681	14.7	14.7	14.6	7.36
60.		.720	.720	.559	.228	•161	•492		14.3	.239	14.5	6.88	.00557	.00557	15.2	15.2	15.1	7.11
80.		.568	+568	.447	.155	+121	+413		15.5	•265	15+8	6.75	+00410	+00410	10.4	10.4	16.3	6.91
100.		• 4 72	•472	.375	+114	•0973	• 350		10.3	•207	10+8	6,50	+00353	+00323	14+1	17+1	17.0	0+02

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57 LANTHANUM (cm²/g = 0.004336 x barns/atom)

E (MeV)	([#]) ^{KN} _{inc,t}	(چ) ^{BD} inc, t	([#] _p) ^{KN} _{)nc,a}	(些) ^{BD} inc, a	(^µ _p) ^{KN} _{nc,s}	(چ) ^{BD} inc, s	(岸) _{coh}	(^{لل} م)×	n (분) _{× e}	(^ی (^ی) _{×, t}	([#] _p) _{*,a}	(#),,t	(#), a	(券) _{tot,t}	([#] _P) _{tot,t-coh}	([#] _p) _{tot, a}	([#]) _{tot, en}
.001	.164	.00694	.000319	.0000135	.163	.00694	8.72					10100.	10100.	10100.	10100.	10100.	10100.
TII +001124	•103	•00/98	+000358	•0000115	,103	•00798	8.59					7800+ 8980+	7800+ 8980+	7800. 8980.	7800+ 8980-	780 0. 8950.	7800. 8980.
HII +001204	.163	.00867	•000384	.0000203	.163	.00867	8.54					7110.	7110.	7110.	7110.	7110.	7110.
M ₁ .001363	.163	•0100	.000434	.0000266	.163	.00997	8.37					6370+	6370 ·	8460. 6370.	8460 <i>•</i> 6370•	8460. 6370.	8460+ 6370+
.0015	163			******	167		0.74					7800.	7800.	7800.	7800.	7800.	7800.
.002	.163	.0152	.000633	.0000325	.163	.0151	7.72					2820.	8030+ 2820-	6030. 2830.	6030 ·	6030.	6030+
.003	.163	.0227	+000941	.000132	162	.0226	6.72					950.	950.	958.	950	950.	950.
.004	. 162	• 0298	.00124	.000229	,160	.0296	5.90					442.	442.	447.	442.	442.	442.
.005	.161	.0360	+00154	.000345	.160	•0357	5.16					246+	246+	251.	246.	246.	246.
JII •002484	.101	.0388	+00169	+000406	159	•0384	4.86					193+	193.	198.	193.	193.	193.
LTT .005891	.161	.0409	.00181	.000460	.159	.0404	4.64					516.	377.	540.	642	642.	557.
•••	• -			••••	• • •	•••••						711.	624.	715.	711.	711	674.
.006	.160	+0414	.00184	.000473	. 159	.0409	4.60					676.	594.	651.	676.	676.	594.
L ₁ .000266	. 160	•0428	•001 9 2	•00 05 12	. 159	•0422	4.42					607.	538.	611.	607.	607.	538.
.008	-140	.0507		000747	157	04.00	7 44					702.	620.	707.	702.	702.	620.
.01	.158	.0585	.00297	.00110	-155	.0572	2.98					302+	329.	360.	362.	362.	329.
.015	.155	.0737	.00430	.00204	151	.0715	1.95				~ <u>~</u>	65.0	62.0	67.2	65.0		62.6
.02	.153	.0841	.00551	.00304	.147	.0811	1.40					29+4	28.3	30.9	29.5	29.4	28.3
.03	.148	.0967	.00767	.00503	.140	.0915	.802					9+54	9+32	10.4	9.63	9.54	9.32
r •039459	.144	+103	+00937	+00672	,134	•0963	•542					4+55	4.47	5.20	4.64	4.55	4.47
.04	.143	.103	.00954	.00689	.134	.0963	- 520					21.4	9+25	28.0	27.4	27.4	7.28
.05	,139	.107	.0112	.00863	.127	.0984	.368					13.9	6.76	14.4	14.0	13.9	5.74
.06	.135	.109	.0127	.0102	122	.0984	.275					8.50	4.86	8.89	8.63	8.50	4.86
.08	.128	+109	.0150	.0128	.113	.0963	.167					3.68	2.63	4+15	3.98	3.89	2.64
+1	.122	•108	.0168	.0149	.105	.0932	<u>.111</u>					2+08	1.54	2,30	2,19	2.10	1.56_
•19	.101	+102 +09 58	+0199	•0100	.0789	+983/	.0520					•072	•337	• 828	.776	.694	•572
.3	.0872	.0850	.0235	.0229	.0637	+9620	.0137					.0984	.0902	.197	-183	.122	+203
•4	.0780	.0772	.0242	.0238	0542	.0533	.00776					+0464	.0434	•131	.124	. 6707	.067
.5	.0715	.0707	.0244	.0239	.0473	.0468	.00503					•0261	+0248	+102	.0967	.0503	.048
•••	.0079	.0877	+0243	.0238	+0418	.0417	.00351					0189	+0162	•0859	.0824	.0412	.039
1.	.0520	10520	.0230	.0231	.0292	.0300	.00199					+00562	.00037	•0601	.0683	• 0324	.031
1.5	.0424	.0423	+0210	+0203	.0214	+0220	.000577	.000889		.000889	.000271	+00255	+00250	.0464	.0460	. 0244	.023
2.	.0362	.0361	.0192	.0182	.0170	.0180	.000325	.00304		.00304	.00140	+00156	.00153	.0411	.0407	.0238	.021
3.	.0284	+0284	+0164	.0151	.0120	.0133	+000145	.00772	.0000099	.00772	.00473	+000841	.000833	.0371	.0369	.0249	.020
4 .	.0238	.0238	+0144	.0130	.00937	.0108	.0000811	+0121	.0000409	.0121	.00820	+000555	+000551	.0365	•0364	.0271	.021
6.	.0181	+0200	+0127	.0113	-00646	.00924	+0000925	+0156	.0000802	.0157	.0112	+000412	+000+10	+0387	.0300	• 02 90	-055
8.	.0148	.0148	.00989	.00806	.00494	.00676	.0000208	.0233	.000211	.0236	+0137	.000227	•000226	.0386	+0372	.0336	1023
10.	,0127	.0127	.00863	.00663	.00400	.00603	.0000130	.0273	.000289	.0276	.0207	+000174	+000174	+0405	.0405	.0364	.027
15.	.00937	.00937	.00663	.00477	.00271	.00460	.0000056	.0354	.000451	.0359	.0258	.00010B	+000108	+0455	.0455	.0426	.030
20.	.00750 00546	+00750	.00746	.00366	.00206	.00385		+0413	.000568	.0418	.0282	+0000789	+0000789	.0494	.0494	.0473	.031
40.	.00434	+00346 .00434	+00408	+00235	.00136	.00311		.0490	.000746	.0499	.0304	+0000512	+0000512	+0555	.0555	.0542	.032
50.	.00363	.00363	.00279	.00127	.000837	.00236		.0594	-000963	+U735 -0603	+0307	.0000295	+0000295	+0375	+0377	0900	+032
60.	.00312	.00312	+00242	.000989	.000698	.00213		.0620	.00104	.0629	.0298	+0000242	+0000742	+0659	.0659	.0655	+031
80.	•00546	+00246	.00194	.000672	.000525	.00179		+0672	.00115	.0685	.0293	+0000178	+0000178	+0711	•0711	.0707	•030
100.	.00205	•00205	.00163	+000494	•000 4 22	.00155		•0707	.00124	.0720	.0282	+0000140	+0000140	+0741	+0741	.0737	.0281

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58 CERIUM (barns/atom)

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E	(MeV)	KN ⁰ inc.t	o ^{BD}	σ ^{KN} σinc, a	o ^{BD}	oKN oinc, s	σ _{inc,s}	σ _{coh}	σ _{*n}	σ _{×e}	σ _{x,t}	<u>σ_{*, a}</u>	σ _{τ, t}	σ _{r.a}	o _{tot,t}	Otot.t-coh	σ _{tot, a}	σ _{tot, en}
					AA 31 2	28.4	1.60	2090.					2540000.	2540000.	2540000.	2540000.	2540000.	2540000.
H	001185	38.4	1.97	.0886	.00454	38.3	1.97	2050.					1690000.	1090000.	1950000	1950000	1950000.	1950000.
.111						10 1	3.13	2030.					1540000.	1540000.	1540000.	1540000.	1540000.	1540000.
MII	001273	38.4	2,14	+0951	+00930	38+3	2013	2030+					1830000.	1830000.	1830000.	1830000.	1830000.	1830000.
н.	081435	38.4	2.46	.107	.00687	38.3	2.45	1990.					1390000.	1390000.	1390000.	1700000	1700000.	1700000.
•			-•										1510000	1510000.	1510000.	1510000.	1510000.	1510000.
	0015	38.4	2.58	.112	.00753	38.2	2.57	1980.					702000.	702000.	704000.	702000.	702000.	702000.
	002	38.3	3.53	.149	.0137	30.1	5.26	1640.					238000.	238000.	240000.	238000.	131000.	111000.
	.003	30,1	7.27	.292	.0533	37.7	6.88	1430.					111000.	111000.	62700.	67400-	61400.	61400.
	004 005	30.0	8.37	. 362	.0802	37.5	8.29	1260.						43040	AA100.	42900.	42900.	42900.
• _ '	007 00 572 3	37.7	9.29	.413	.102	37.3	9+19	1150.					42900.	122000.	142000.	141000.	141000.	122000.
-111				•	• - ·	-							122000.	106000.	123000.	122000.	122000.	106000.
	.006	37.7	9.61	.432	.110	37.3	9+50	1120.					112000.	98100.	113000.	112000.	112000.	98100.
Lerr	006164	37.7	9.80	.443	.115	37.2	9.68	1090.					155000.	135000.	156000.	155000.	155000.	135000.
								1.050					133000.	117000.	134000.	133000.	133000.	117000.
ել	.006549	37.6	10.2	.469	+127	3/+6	10+1	1030+					153000.	135000.	154000.	153000.	153000.	135000.
						76.9	51.5	REG.					89100.	80300.	90000.	89100.	NV100.	803904 ·
	.005	37.4	11.7	.200	-111	36.5	13.3	723.		_			48600.	44800.	49300	4000	16000	15200
	•01	3/ 1	13.0	1 01	4233	35.5	16.6	471.					16000.	15200.	7630	7290.	7270.	6980.
	.015	30.7	19.6	1.29	.707	34.6	18.9	337.					7270.	2300	2580.	2380.	2360.	2300.
	.02	33.6	22.6	1.80	1.18	32.9	21.4	194.					2300.	1030.	1200.	1070.	1050.	1030.
	.04	33.6	24.2	2.24	1.61	31.3	22+6	125+					1020.	1000.	1170.	1040.	1020.	1000.
T	.040443	33.5	24.2	2.26	1.63	31.3	22.6	123.					6050.	2030.	6200.	6070.	6050+	2030.
							-1 -						3400.	1570.	3510.	3420.	3400+	1570.
	•05	32,6	25.0	2,63	2.02	29.9	23.0	44.3					2080.	1150.	2170.	2110.	2080.	1150.
	.06	31.6	25.5	2.97	2.39	28./	23+1	40.3					953.	633.	1020.	979.	75/+	377.
	.08	30.0	25.6	3,51	3.00	20.7	21.8	26.7					512+	374 •	764+	7374		144
	•	20.0	25.3	3.94	3.47	21.1	19.6	12.6					166.	130+	203+	97.5	80.1	49.8
	•19	25.7	22.6	5.10	4.86	18.5	17.6	7.27					75+0	22.1	47.6	44.3	29.8	27.5
	•	20.5	20.0	5.53	5.39	15.0	14.6	3.31					11.4	10.6	31.4	29.5	17+1	16.5
	• • •	18.4	18.1	5.69	5.57	12.7	12.5	1.87					6.50	6.15	24.3	23.1	12.2	11.6
	.5	16.8	16.6	5.72	5.61	11.0	11.0	1.22					4.18	3.99	20.4	19+6	9.88	9.58
		15.5	15.4	5.70	5.59	9.81	9.81	+850					2.14	2.07	16+1	15.6	7.71	7.47
		13.6	13.5	5.57	5.40	8+06	8.10	+450					1.35	1.31	13.9	13.5_		<u></u>
1	•	12.2	12.2	5,39	5.17	<u> </u>		.119	.215		.215	.0656	+635	•624	10.9	10.0	5+11	4.98
г	•2	9,95	9.93	4,92	4,75	3,03	3+10	0780	.730		.730	.337	.368	• 38 3	7.0/	1.72	5.00	A. 80
2	•	8,49	8.47	1 15	3 64	2.82	3.13	.0351	1.84	.00234	1.84	1.13	•209	• 20 /	8.63	8.61	6.42	5+13
2	•	0,00	5 58	1 10	3.04	2.19	2.54	.0196	2.88	.00960	2.89	1.95	107	.101	5.68	8.67	6.88	5.42
	•	3,30	4.82	3.03	2.65	1.79	2.17	.0127	3,73	.0166	3.75	2.67	.0808	.0504	8.80	8.79	7.27	5.66
2	•	4.26	4.26	2.74	2.33	1.52	1,93	.00888	4,42	.0292	4.45	3,25	•0563	•0561	9+14	9.14	7.98	6-10
	•	3.48	3.40	2.32	1.88	1.16	1,60	.00502	5,55	.0474	5.60	4,10	. 0433	.0432	9.59	9,58	8164	<u>6.48</u>
10	•	2.97	2,97	2,03	1.55	,939	1.42	.00312		06/8		<u> </u>	+0273	.0273	10.8	10+8	10+1	7+25
Ť		2,20	2.20	1,56	1.12	.637	1.05	+00134	0.43	.133	9.98	6.67	+0197	+0197	11+8	11.0	11.3	7+54
20	•	1,76	1.76	1,28	.852	.482	.908		11.7	.174	11.9	7.21	.0127	+0127	13.2	13.2	12.9	7.6%
30	•	1.28	1.28	,959	+549	. 324	. 131		13.0	203	13.2	7.25	+00930	.00429	14+2	19+2	15-0	7.51
40	•	1.02	1.02	4775	- 391	.194	.555		14.1	.225	14.3	7.21	.00/3	2 •00133 2 •0000	15-2	15.7	15.0	7.33
50	•	.091	100	.560	.212	.164	.501		14.8	.243	15.0	7.09	•0000	-00442	16.9	16.9	16.8	7+07
60	•	.578	.578	.455	157	.123	+421		16.0	.270	16.3	6.91	.0034	.00348	17+6	17.6	ĵ7 . 5	6.77
100	•			.381	.115	.099	.365		16.8	+289	17+1	6.65						
100	•																	

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58 CERIUM (cm³/g = 0,004298 x barns/atom)

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E (MeV)	([#]) ^{KN} _{inc,t}	(چ) ^{BD} _{inc,t}	([#] _p) ^{KN} _{nc,a}	(声) ^{BD} inc, a	([#]) _{nc, 8}	(貨) ^{BD} inc,s	([#]) _{coh}	([#])*n	([#] _/) _{*e}	(ڭ) _{×, t}	(#)x,a	(#),,t	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	([#]) _{tot,t}	([#] _p) _{tot,t-coh}	$\left(\frac{\mu}{p}\right)_{tot,a}$	(\$)tot, en
.001 M _{TTT} .001185	.165 .165	•00688 •00847	.000322 .000381	.0000134 .0000195	.165 .165	•00688 •00847	8.98 8.81					10900. 7260.	10900. 7260.	10900.	10900 • 7260 •	10900. 7260.	10900. 7260. 8380.
MII +001273	.165	•00920	.000409	•0000228	.165	.00915	8.72					6620. 7970	620.	6620 . 7870	6620.	6620.	6620 . 7870 .
H1 .001435	.165	.0106	.000460	.0000295	.165	.0105	8.55					5970.	5970.	5970.	5970.	5970	5970.
.0015	.165	.0111	.000481	.0000324	.164	.0110	8.51					6490.	6490.	6490.	6490.	6490	6490.
500	165	.0152	.000640	.0000589	.164	.0151	7.99					3020.	3020.	10 90 .	3020 +	3020.	3020.
.003	164	.0227	-000950	.000132	163	0226	7.05					1020.	1020.)030.	1020.	1020.	1020.
.004	163	. 0298	.00126	.000229	162	.0296	6.15					477.	477.	451.	477.	477.	47/ 4
005	162	0260	.00156	0000146	.161	.0356	5.42					264.	264.	269.	264.	264.	264.
	147			.000343	160	.0395	4.94					184.	184.	190.	184.	184.	184.
LIII +005/23	+105	+0377	+001+8	•••••								606.	524.	610.	606.	606.	524.
.006	.162	-0413	-00186	.000473	.160	.0408	4.81					524.	456.	529.	524.	524.	456.
L - 006164	167	10421	.00190	.000494	.160	-0416	4.68					481.	422.	486.	481.	481.	422.
TI *000104	*10E	••••		****	••••							666.	580.	670.	666.	666.	580.
1	162	. 0438	. 00202	.000546	.160	.0434	4.51					572.	503.	576.	572.	572.	503.
-1:00-241					••••							658.	580.	662.	658.	658.	580.
	141	4543	00243		159	.0494	3.82					383.	345.	387.	383.	363.	345.
.008	.101	.0505	+00243		157	05 72	3.11					209.	193.	212.	209.	209	193.
• 01	-157	+0507	+00299	.00110	187	0312	3.02					64.8	65.3	70.9	68.8	68.8	65.3
•019	+12/	.0735	+00+34	+00203	1103	*****						31.2	30.0	32.8	31.3	31,2	30.0
-02	1154	+08+2	+00754	.00.304	•1•9	+0812	1++2					10.1	9.89	11.1	10.2	10.1	9.89
•03	+149	+09/1	+00774	.00507	+1+1	+0920	.834					4.51	4.43	5.16	4.60	4.51	4.43
•04	+144	+104	+00963	+00692	.135	+0971	.937					4.38	4.30	5.03	4.47	4.38	4.30
K .040443	.144	+104	+00971	•00701	,135	•0971	•529					26.0	8.72	26.6	26.1	26.0	8.72
					130	40.00	18-					14.6	6.75	15.1	14.7	14.6	6.75
•05	•140	+107	+0113	.00868	.129	+0989	.305					8.94	A . 9A	9.13	9.07	8.94	4.94
•06	.136	+110	+0128	.0103	.123	.0993	.285					A. 10	2.72	4.38	4.21	4.11	2.73
•08	+129	+110	+0151	•0129	+114	+0971	+173					2.20	1.61	2.42	2.31	2.22	1.62
•1	.123	.109	.0169	•0150	.106	.0937							586			. 734	.602
•15	.110	.103	+0201	.0187	.0907	·0842	.0542					122	. 279	.451		. 344	-30.0
•2	.101	.0967	.0219	.0209	.0795	+0756	.0312					104		205	.190	128	.118
.3	.0881	•0860	•0238	•0232	.0645	.0628	+0142					.0490	0456	1 35	.127	.0735	.069/
•4	.0791	•0778	+0245	.0239	+0546	.0537	+00804					0779	0764	104		0524	.0501
.5	.0722	.0713	+0246	•0241	.0473	+0473	+00524					.02/7	-0204	0877	0942	0425	.0412
•6	.0666	.0662	+0245	+0240	.0422	.0422	.00365					.0140	.0171	.00//	+V072		
.8	.0585	.0580	.0239	.0232	.0346	+0348	.00206					.00920	.00870	.0072	-0870	.0331	+0321
1.	.0524	+0524	.0232	.0222	.0295	.0302	.00133					.00500			0.900		027
1.5	.0428	+0427	+0211	+0204	.0216	•0223	.000597	+000924		.000924	•000585	00213		040H	0417	1747	
2.	.0365	.0364	.0193	+0183	.0171	.0181	.000335	.00314		.00314	+00145	+00167	+00105	0410	0412	.0242	.0210
3.	.0287	.0287	+0165	+0152	.0121	.0135	.000151	•00791	+0000101	•00791	+00486	.000398	.000890	+0370	0370	40234	
4.	.0240	.0240	.0146	.0131	.00941	.0109	.0000842	+0124	+0000413	.0124	.00838	.000389	.000545	+0371	.0370	.0270	10220
5.	.0207	.0207	.0130	.0114	.00769	.00933	.00.00546	.0160	+0000808	.0161	+0115	.000438	.000434	-0373	.0373	.0270	.023
6.	.0183	.0183	.0118	.0100	.00653	.00830	.0000382	.0190	.000126	.0191	+0140	.000347	.000346	.0376	.0378	+0315	•024
Ă.	.0150	0150	.00997	.00808	.00499	.00688	.0000216	.0239	+000212	.0241	+0179	+000242	+000241	+0393	+0343	+0343	-0287
10.	.0128	.0128	.00872	-00666	.00404	.00610	.0000134	.0279	+000291	.0282	.0210	+000186	+000146	+0412	+0412	.0371	+027*
18.	.00946	.00946	.0.0670	+00481	.00274	.00464	.0000058	.0362	.000456	.0367	.0262	+000117	-000117	+0464	+0464	+0434	•0312
20.	.00764	.00754	.00550	.00366	.00207	.00390	••••	.0423	.000572	.0429	.0287	+0000847	+0000847	+0507	+0507	• 0 4 8 6	+0324
20.	.00550	.00550	.00413	.00236	.00139	.00314		.0503	+00074A	.0511	.0310	+0000546	+0000546	•0567	.0567	+0554	+0334
30.0	00478	.00410	.00333	.00168	.00105	.00270		.0559	.000872	.0567	.0312	+0000400	+0000399	.0610	+0610	• 0602	•0329
ΦV.	01	-00-36	.00292	.00127	.000847	.00239		-0606	.000967	0615	.0310	+0000315	.0000315	.0653	•0653	+0645	+0323
50.	.00300	+00-30	+00202		00007E	.00215		.0416	.00104	.0645	.0305	+0000259	+0000259	.0675	+0675	• 1670	+0319
60.	+00-12	+00-15	+00245	•00077/	+000703	00213		.0499	.00116	.0701	.0297	+0000190	+0000190	.0726	+0726	+0722	+0304
80.	.00248	+00248	+00146	.000675	.000529	+00101			400110	0736	0204	.0000150	.0000150	.0756	.0756	.0752	.0291
100.	.00206	•00509	+00164	+000494	+000459	+00121			****	*0.32	+VE70				•••••		

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59 PRASEODYMIUM (barns/atom)

E	(MeV)	σ _{inc.t}	o BD	O _{inc, a}	o ^{BD}	0)nc, s	σ ^{BD} _{inc,s}	o _{coh}	σ _{*n}	σ×e	σ _{x,t}	<u>σ, a</u>	σ _{τ,t}		σ _{tot,t}	ot,t-coh	σ _{tot} , a	Utot, en
	.001	39.1	1.59	.0762	.00310	39.0	1.59	2170.					2700000.	2700000.	2700000.	2700000.	2700000.	2700000.
MIII	•001242	39.1	2.06	+0944	.00498	39.0	2+06	2110+					1850000.	1850000.	1450000.	1850000.	1850000.	1850000.
MII	.001337	39.0	2.25	.102	.00585	38.9	2.24	2090.					1460000.	1460000.	1460000. 1730000.	1460000. 1730000.	1460000. 1730000.	1460000. 1730000.
	.0015	39.0	2.56	.114	.00747	38.9	2.55	2060.					1330000.	1330000.	1330000.	1330000.	1330000.	1330000.
н.	.001505	39.0	2.57	.114	.00752	38.9	2.56	2050.					1320000.	1320000.	1320000.	1320000.	1320000.	1320000.
T	•••••	- ••		-	••••								1610000.	1610000.	1610000.	1610000.	1610000.	753000
	•002	38.9	3.51	.151	.0136	38.8	3.50	1940.					753000	257000	259000.	257000.	257000.	257000
	.003	38.8	5+27	+225	.0305	38.0	5+24	1710+					118000	118000	120000	118000.	118000.	118000.
	+004	30.0	0.91	.297	.0532	38+3	8.28	1320.					65700.	65700.	67000.	65700.	65700.	65700.
L	.005964	38.4	9.58	.436	.109	37.9	9.47	1170.					41 300.	41300.	42500.	41300.	41300.	41300.
-111		2-44		••=•	••••			•••					134000.	115000.	135000.	134000.	134000.	115000.
	•006	38.3	9.62	.439	.110	37.9	9+51	1160.					131000.	113000.	132000.	131000.	131000+	113000.
LII	.006440	38,3	10.1	.470	.124	37.8	9.98	1110.					147000.	128000	148000	147000	147000.	128000.
	*****	1	10.4	407	1 7 8	37.7	10.5	1060.					126000	110000	127000.	126000.	126000.	110000.
-1	+000833	30+5	10.0	•••	+130	3.4.	1003	10000					146000.	128000.	147000.	146000.	146000.	128000.
	.008	38.1	11.8	.576	.179	37.5	11+6	928.					95100.	84900.	96000.	95100.	95100.	84900.
	.01	37.8	13.6	.708	255	37.1	13.3	754.					51900.	47500.	52700,	51900	51900.	4/500
	.015	37.1	17.3	1.03	.479	36.1	16.8	490.					1/200.	7490	8200.	7850.	7830.	7490.
	•02	36.5	19.8	1.32	.715	35+1	19+1	350.					2550	2480.	2770	2570.	2550.	2480.
	.03	35.2	22.9	1.83	1.19	33.4	22.9	131.					1130.	1110.	1290.	1150.	1130.	1110.
	.041001	37.1	24.7	2.17	1.72	31.6	23.0	121.					985.	965.	1130.	1010.	987.	967.
•	******	3347				2	2-00						5800.	1940.	5950.	5820.	5600.	1940.
	.05	33.1	25.4	2.67	2.05	30.5	23.4	92.5					3630.	1600.	3/50.	3000.	2210.	1180.
	.06	32.2	25.8	3.02	2.42	29.2	23.4	69+1					1010.	657.	1080.	1040.	1010.	660 .
	.08	30.5	26.0	3.57	3.04	28.9	23+0	42+0					547	394.	600.	573.	551.	398.
	<u>•1</u>	29.1	23.0	4.01	3,53	23.4	20.0	13.1					178.	145.	215.	202.	183.	149.
	+15	20.2	22.9	5.18	4.95	18.8	37.9	7.59					80.0	68.8	110.	103.	A5+2	73.8
	.3	20.9	20.3	5.62	5.47	15.2	14+8	3.45					26.2	23.8	49.9	40.5	71.0	24.3
	.4	18.7	18.4	5.79	5.67	12.9	Ĩ2•7	1.96					7.00	11.4	25.2	23.9	12.8	12.3
	•5	17.1	16.9	5.82	5.71	11+2	11+2	1+27					4.50	4.29	21.0	20.1	10.3	9.95
	•6	15.8	15+6	5.80	5.60	9.78	9.94	+870					2.30	2.22	16.6	16.1	7.97	7.74
,	• 8	13.9	13+8	5.48	5.25	6.98	7.15	.322					1.45	1.41	14.2	13.8	6,93	6,66
-1	.5	10.1	10.1	5.01	4,83	5.12	5.27	+145	+225		+225	.0686	.689	.676	11.2	11.0	5,92	5.57
ż		8,63	8.62	4,58	4.33	4.05	4.29	+0815	•760		•760	•350	.227	.225	9.00	8.92	6.06	4.98
3	l.	6.79	6.78	3.92	3.59	2.87	3+19	+0368	1.91	.00237	1+91	1.17	.150	149	8.84	8.82	6.58	5.26
4	•	5.68	5.68	3.44	3.09	2+23	2+54	+0205	2,98	+007/5	2.99	2.75	.110	.109	8,89	8,88	7,06	5,55
-	•	4,90	4,90	3.08	2.09	1.54	1.97	+0133	4.58	.0297	4.61	3.37	.0872	.0868	9,04	9,03	7,49	5,82
	•	3.54	3.54	2.36	1.91	1.18	1.63	.00524	5.71	.0503	5.76	4.28	.0607	.0605	9,37	9,36	8,18	6,25
10		3.02	3.02	2.06	1.57	,955	1.45	100327	6.70		6.77	5.03		,0400	11.1	11.1	10.4	7.45
1	•	2.23	2.23	1.59	1.13	.648	1.10	•00139	8.70	+108	8+8)	6.29	.0213	.0213	12.1	12.1	11.6	7.76
20	•	1.79	1.79	1.30	.863	•490	•927		10.2	.130	10.3	0,00	.0137	.0137	13.6	13.6	į3,3	8.00
30	•	1.31	1.31	.975	.561	.330	. 749		12+1	+1//	13.7	7.47	.0100	.00999	14.7	14.7	14.5	7,88
40	•	1.04	1+04	.667	. 301	.199	.565		14.5	.229	14.7	7,39	.00787	.00787	15+6	15.6	15.4	7,70
30 6 A	•	.746	.746	.579	.235	.167	.511		15.3	.247	15.5	7.26	.00645	.00645	10,3	10,3	10.1	7,30
80		.588	.588	.463	.159	+126	.429		16.5	.273	16+8	7+11	+004/3	.00373	18.1	18.1	18.0	6.91
100	•	.489	.489	.388	.117	+101	• 372		17.3	+294	17+6	8,79		,	••			

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59 PRASEODYMIUM (cm³/g = 0,004274 x barns/atom)

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E (MeV)	([#] _p) ^{KN} _{inc,t}	(声) ^{BD} inc,t	(声) ^{KN} inc, a	(些) ^{BD} inc,a	(^µ _₽) ^{KN} _{inc, s}	(^µ _p) ^{BD} _{)nc, s}	(분) _{coh}	([#])*n	(^μ / _β) _{× e}	(声) _{×, t}	([#] _p) _{×, a}	(券) _{r,t}	([#] _p) _{7,8}	([#]) _{tot, t}	(\$) _{tist} , t-cis;	([#] _p) _{ti.t.a}	(^g) _{V,t,es} .
.001 H _{T11} .001242	•167 •167	•00680 •00880	•000326 •000403	•0000132 •0000213	•167 •167	.00680 .00880	9.27 9.02					11500+ 6880+ 7910+	11500. 6880. 7910.	11500. 6880. 7910.	11500. 6880. 79)0.	11500. 6880. 7910.	11500. 6880. 7910.
H _{II} .001337	.167	.00962	.000436	.0000250	.166	•00957	8.93					6240. 739n.	6240. 7390.	6240. 7390.	6240. 7390.	6240. 7390.	6240 • 7390 •
.0015	.167	.0109	.000487	.0000319	•166	.0109	8+80					5680. 5640.	5680. 5640.	5680. 5640.	5640. 5640.	5680. 5640.	5680. 5640.
M1.001505	.16/	.0110	.000487	.0000321	•100	.0109	8 30					6881. 3220.	6880. 3220.	6880. 3270.	AR BO. 3220.	6880. 3720.	6880. 3220.
.002	.160	.0150	.000645	.0000581	.100	**130	7.21					1100.	1100.	1110.	1)00.	1100.	1100.
.003	.100	+0225	+000962	.000130	.164	.0293	6.41					504.	504.	513.	504.	504.	504.
.004	.165	.0357	.00158	.000342	.163	.0354	5.64					28).	201.	286.	527+	201.	281.
L005964	.164	.0409	.00186	.000466	.162	.0405	5.00			•		177.	177.	172.	573	#73	492.
	••••	•••										560.	483.	564.	560.	560	483.
.006	.164	+0411	.00188	.000470	.162	.0406	4+96					453.	395.	457.	453.	453.	395.
L _{II} .006440	.164	•0432	•00201	.000530	.162	+0427	4,74					628.	547.	613	628.	628	547.
1 006035	163	.0453	.00212	.000590	.161	.0449	4.53					539,	470.	543.	539.	439.	470.
-1 +000813	*10-				••••	•••						624.	547.	628.	624.	624.	547.
.008	.163	.0504	.00246	.000765	.160	.0496	3.97					406.	363.	410.	400.	400.	303.
.01	.162	.0581	.00303	.00109	,159	,0568	3,22					222.	203.		73.6	73.5	69.2
.015	.159	.0739	+00440	.00205	.154	.0718	2.09					33.5	32.0	35.0	33.6	33.5	32.0
•02	.156	.0846	+00564	.00306	.150	.0816	1.50					10.9	10.6	11.8	11.0	10.9	10.6
.03	.150	.0979	+00782	.00509	.143	.0927	+863					4,83	4.74	5,51	4,92	4,83	4.74
.04	+146	+105	.00974	.00697	130	+09/9	+500					4,21	4,12	4,83	4,32	4,22	4.13
K *041AA1	•14 D	•100	+0101	•00/35	*132	.0763	•317					24,8	8,29	25.4	24.9	24.8	8.29
.05	.141	.109	.011+	.00876	.130	.100	.395					15.5	6,84	10.0	15.6	15.5	0,04
.06	.138	.110	.0129	.0103	.125	.100	+295					4,45	5,04	7,83	7.57	4.12	2.82
.08	.130	.111	.0153	-0130	.115	.0983	.180					7 34	1 68	2.56	2.45	2.35	1.70
•1	.124	.109	+0171	.0151	.107	.0945	119					.761	.620	.919	.863	,782	.637
.15	•112	+104	•0203	+0189	.0915	.0855	+0560					.342	294	470	.440	364	, 315
•2	.103	.0979	.0221	+0212	.0804	.0765	+0324					.112	,102	.213	,199	.136	.)25
•3	.0893	.0808	.0240	+0234	.0050	.0643	.00838					,0576	.0487	.140	.131	.0774	.0731
•2	0731	.0722	.0249	+0272	.0479	.0479	.00543					.0299	.0283	.108	,102	+0547	,0526
	.0675	.0667	.0248	.0242	.0427	.0425	.00380					.0192	.0183	.0898	.0859	.0440	.0423
.8	.0594	.0590	.0242	.0236	.0350	.0354	.00214					.00483	.00949	.0709	.0590	0296	.0285
1.	.0534	.0530	.0234	,0224	.0298	.0306	.00138					.00720	.00289	.0479	.0470	.0253	.023A
1.5	.0432	+0432	+0214	.0206	.0219	.0225	.000620	.000962	2	.000962	.000293	.00178	.00176	.0422	.0419	.0246	.0218
2.	.0369	.0368	+0196	.0185	.0173	.0183	+000348	.00325		.00325	.00150	.000970	.000962	.0383	.0381.	.0259	.0213
3.	.0290	.0290	+0108	+0173	.0125	.0111	.0000157	.0127	.0000417	.0128	.00863	.00n641	.000637	.0378	.0377	.0281	•0225
21	+0243	+0243	.0132	.0115	.00778	.00945	.0000568	.0165	.0000821	.0165	.0118	.000470	.000466	.0380	.0380	.0302	.0237
5.	.0185	-0185	.0119	.0101	.00658	.00842	.0000396	.0196	.000127	.0197	+0144	.000373	.000371	•0386	.0386	.0320	•0249 •767
8.	.0151	.0151	.0101	.00816	.00504	.00697	.0000224	.0244	.000215	.0246	.0183	.000259	+000279	.0400	.0400	.0350	+0207
10.	.0129	.0129	.00860	+00671	.00408	+00620	+0000140	.0286	.000294	0289			000125	0474		0444	.0318
15.	.00953	.00953	.00680	+00483	.00277	.00470	.0000059	.0372	.000462	.0377	.0269	.0000910	.0000910	.0517	.0517	0496	.0332
20.	.00765	.00765	.00556	.00369	.00209	.00396		•0436	.000581	+0440	+0294	.0000586	.0000586	0581	.0581	0568	+0347
30.	.00560	.00560	.00417	.00240	+00141	.00320		+ 0517	+000736	+0726	+0-318	.0000427	.0000427	.0628	.0628	.0620	.0337
40.	.00444	+00444	.00337	+00169	+00100	+002/5		+05//	.000979	.0628	.0316	,0000336	.0000336	.0667	0667	.0658	.0329
50+	+00370	+00370	+00283	+00127	.000714	.00218		+0654	.00106	.0662	.0310	.0000276	.0000276	.0697	.0697	.0688	•032)
80.	.00251	.00251	.00198	.000680	.000539	.00183		.0705	.00117	.0718	.0304	.0000202	.0000202	.0744	.0744	.0739	.0311
100.	.00209	.00209	.00166	.000500	.000432	.00159		•0739	.00126	•0752	.0290	.0000159	•0000159	• 0 / / 4	+0//4	.0104	+ 11242

60 NEODYMIUM (barns/atom)

E	(MeV)	$\sigma_{inc,t}^{KN}$	σ ^{BD} _{inc,t}	O ^{KN}	$\sigma_{\rm inc,a}^{\rm BD}$	Oloc, s	σ ^{BD} _{)nc, s}	σ _{coh}	σ _{*n}	σ _{×e}	σ _{*,t}	σ _{κ, a}	σ _{r,t}	or,a	σ _{tot,t}	o _{tot,t-coh}	σ _{tot,a}	o tot, en
HIV	.001 .001001	39.8 39.8	1.56 1.57	.0775 .0776	.00304 .00306	39.7 39.7	1.56 1.57	2250 • 2 25 0 •					2540000. 2540000.	2540000 • 2540000 •	2540000 • 2540000 •	25400n0+ 25400n0+	2540000+ 2540000+	2540000.
^H ITI	•001298	39,7	2.14	.100	.00541	39.6	2.13	2180.					2880000 +	1540000.	2880000+	2440000+	1540000+	1540000.
HII	.001403	39.7	2.34	.108	.00639	39+6	2.33	2160+					1340000+	1380000•	1380000+	1270000.	1340000+	1380000+
	.0015	39.7	2.53	.116	.00738	39.6	2+52	2130 •					1400000.	1400000.	1400000.	1400000+	1400000+	1400000+
'nI	•001575	37.1	2.07	•121	.00818	37.5	2.00	2120+					1520000.	1520000+	1520000.	1520000+	1520000+	1520000.
	•00Z	39.0	3.4/	+124	.0135	34.4	3+40	2010+					374000	776000	376000	374040	376000.	376844
	•003	37.4	5+23	. 229	.0303	39+2	5.20	1780+					128000.	128000	130000.	128000.	128000.	128000.
	•004	37.3	0.88	.302	.0529	39+0	0+03	1500+					71300.	71300	72700.	71300.	71300.	71300.
	+003	37+1	0.41	.3/5	.0/99	38.6	0.52	1370+					43600.	43600.	44800.	43600.	43600.	43600 .
L	.006208	39.0	9.88	461	.117	38.5	9.76	1190.					39900 .	39900.	41100.	39900.	39900.	39900.
-111		3780	7.00	1401	• • • •	30 + 5		11700					128000.	110000+	129000 .	128000.	128000.	110000+
LTT	.006722	38.9	10.5	.497	.134	38.4	10.4	1120.					101000.	87800+	102000 .	101000.	101000+	87800+
				•	•••		•••	•••					139000.	120000+	140000+	139000.	139000+	120000.
ել	.007128	38.8	10.9	.526	.147	38.3	10.8	1070.					120000+	105000+	121000.	120000.	120000+	105000.
-													139000.	121000.	140000+	139000.	139000.	121000+
	•008	38.7	11.8	•586	.179	38.1	11+6	969.					101000.	89500+	102000.	101000+	101000.	89500+
	.01	38.4	13.7	,720	.257 .	37.7	13.4	787.					55400+	50400.	56200.	55400.	.55400+	50400+
_	•015	37.7	17.4	1.04	.481	36.7	16+9	510.					18300.	17200.	18800.	18300.	18300+)7200+
	.02	37.1	20.0	1.34	.722	35,7	19+3	365.					8390.	8010+	H780.	M410+	8390.	M010+
	•03	35.8	23.1	1.87	1.20	34+0	21.9	211+					2740+	2000+	27/0+	2760+	2140+	2000+
-	•04	34.7	24.8	2,32	1.67	32.4	23+1) 36+					054	074.	1100.	970	954.	936.
×.	+043204	s++2	22+5	2.47	1.01	31+4	53+4	120+					5570.	1840.	5720.	5600.	5570.	1840.
	.05	33.7	25.7	2.72	2.07	31.0	23.6	96.5					3840.	1600.	3960 .	3870.	3840 .	1600 .
	. 06	12.7	26.2	3.07	2.46	29.7	23.7	72.1					2330.	1200.	2430.	2360.	2330 .	1200.
	.08	31.0	26.1	3.43	3.09	27.4	23.2	A3.8					1070.	680 .	1140.	1100.	1070.	683.
	.1	29.6	26.0	4.08	1.69	25.5	22.4	29.1					580.	411+	635.	606.	5R4.	415.
•	.15	26.6	24.8	4.83	4.50	21.8	20.3	13.7					190.	153.	228.	215.	195.	158.
	•2	24.4	23.3	5.27	5.04	19+1	18.3	7+92					86+0	73.5	117.	109.	91+3	78+5
	.3	21.2	20.7	5.72	5.58	15.5	15+1	3+61					28.7	25.5	52.5	48.9	13.9	31.1
	• 4	19.0	18.7	5.89	5.74	13.1	13+0	2+04					13+3	12+3	34.0	32.0	19+2	18+0
	.5	17.3	17.1	5,92	5.79	11+4	11.3	1+33					7.57	7+)3	26+0	24.7	13.5	12+9
	•6	16.0	15.9	5.90	5.77	10.2	10.1	•925					4+87	4.63	21.7	20+8	10.8	10+4
	•8	14+1	14.0	5,76	5.60	8,33	8+40	-522					2.47	2.40	17.00	10+3	7.13	4.84
- 1	•	12.7	15.0	-2.57	5.33	7.10	7.27	<u>•337</u>	225		2.75	A717		.726	11.4	11.3	6.06	5.72
	• 3	10.3	10+3	3.07	• • • • 2	3+20	5+30	•151	+235		-235	90717		.441	10.1	10.0	5.90	5.21
5	•	6 01	6.00	1 09	3 45	7,97	3.25	+0050	1.98	.00242	1.98	1.21	.742	+240	9.16	9.12	6.20	5.10
1	•	5.77	5.77	3 50	3.13	2.27	2.64	.0214	3.08	.00995	3.09	2.09	.160	.159	9.04	9.02	6.75	5+38
5	•	4.98	4.98	3,13	2.72	1.85	2.26	.0139	3.98	.0195	4.00	2.85	.118	+117	9+11	9.10	7.25	5+69
6		4.41	4.41	2.84	2.40	1.57	2.01	.00968	4.72	.0302	4.75	3.47	•0940	+0935	9.26	9.25	7.68	5.96
8		3.60	3.60	2.40	1.94	1.20	1.66	+00548	5.90	.0511	5.95	4.47	+0653	+0651	9.67	9.67	8+42	6+43
10	•	3.07	3.07	2.10	1.59	.971	1.48	,00342	6.92	.07.00	6.99	5.19	<u>+0500</u>	• 0499	10.1	10+1		6+83
15	•	2.27	2.27	1.61	1.)5	.659	1+12	+00144	8,98	.109	9.09	6.47	+0313	+0312	11+4	11+4	10+7	7+65
20	•	1.82	1.82	1.32	.874	. 4 9 9	+946		10.5	.138	10+6	7.07	+5228	+0220	12+4	12+4	11.9	7.97
30	•	1.33	1.33	.992	.568	.335	•762		12.5	.180	12+7	7.63	+0147	+014/	14+0	14.0	13+/	8.04
40	•	1.05	1.05	.802	.398	+253	•652		12.9	+210	14+1	7+65			14.1	1746	14.7	7.00
50	•	.881	.581	+678	.304	.203	+577		12+0	.232	15+2	1+59	+0000+ 2010	+00444	16.9	10.1	15.7	7.70
60.	•	.758	• 758	.589	.238	+170	•520		12.8	+751	10+1	7.440	.00410	+00510	17.9	17.9	17.A	7.43
100	•	.497	+590	. 194	+101	102	.179		17.9	.299	18.2	6.97	.00400	100400	14.7	18.7	14.6	7.09

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60 NEODYM)UM (cm³/g = 0.004)75 x barns/atom)

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E (MeV)	([#] _p) _{nc,t}	([#]) ^{BD} _{inc,t}	$\left(\frac{\mu}{\rho}\right)_{inc,a}^{KN}$	([#] _p) ^{BD} _{nc,a}	(^µ _β) ^{KN})nc, s	([#] _p) ^{BD} _{inc, s}	(声) _{coh}	(ڭ) _{* 1}	(作) _{× e}	(ل م) _{×, 1}	(^µ _p) _{s,n}	(芳),, t	([#]), a	(岸) _{10t,t}	(岸), u, t-coh	(勞) _{tot, 当}	([#])tot, er.
.001	.166	.00651	.000324	.0000127	.166	.00651	9.39					10601.	10600.	10600.	10600.	10600.	10600.
.IA *001001	+100	+00000	+000324	+0000128	+100	.00655	9.39					10600.	10600.	10600.	10600.	10600.	10600.
H _{III} +001298	.166	•00893	+000418	+0000226	.165	.00889	9.10					6430.	6430.	6430.	6430.	12000.	12000.
MTT .001403	.166	.00977	.000451	.0000267	.165	.00973	0.03					7390.	7390.	7390.	7390.	7390.	7390.
					••••		7.02					5760 .	5760 +	5760.	5760.	5760.	5760+
+0015	.166	.0106	.000484	+0000308	.165	.0105	8.89					5850 .	5850.	5850.	5850.	5850.	5850.
1,001212	*100	+0111	+000505	.0000342	. 165	.0111	8.85					5220 .	5220.	5220.	5220.	5720.	5220.
.002	.165	+0145	.000643	+0000564	.164	.0144	8.39					6350.	6350.	6350.	6350.	6350.	6350.
.003	.164	.0218	+000956	.000127	.164	.0217	7.43					1150.	1150.	1160.	1150.	1150.	3350.
1004	+164	+0287	.00126	.000221	.163	.0285	6.51					534 .	534.	543.	534.	534.	534+
+005	+103	+0348	+00157	•000334	.162	.0345	5.72					294.	298.	304.	298.	298.	298.
LTTT .006208	.163	.0412	.00192	+000439	.161	+0397	5.09					182.	182 •	187.	182.	382.	182.
111	•			1000488	••••		***					534.	107.	172.	167.)67.	167.
LII .006722	.162	•0438	•00207	•000559	.160	•0434	4.68					422.	367.	426	422.	422.	4374
1007128	162											580.	501.	585.	580 .	580.	501.
"I too tro	*10L	*****	+00220	*00081*	+100	+0451	4.47					501.	438.	505.	501.	501.	438.
.008	.162	.0493	.00245	+000747	.159	.0484	4.05					580 +	505.	585.	580.	580.	505.
•01	•160	.0572	+00301	+00107	.157	.0559	3.29					231.	210.	235.	422+	422.	374.
.015	.157	+0726	.00434	.0020)	.153	.0706	2.13					76.4	7) +8	78.5	76.4	76.4	71.8
+02	+155	+0835	+00559	•00301	+149	.0806	1.52					35+0	33.4	36.7	75.1	35.0	33.4
.04	145	.104	.00969	+00701	+1=2	.0914	.881					11+4	11.1)2.4	11.5	11+4	11+1
K .043569	.143	.105	.0103	.00756	.133	.0977	+508					3.98	4.97	5+76	5+18	5.09	4.97
												23.3	7.68	23.9	23.4	23.3	7.68
•05	+1+1	+107	+0114	.00864	.129	.0985	•403					16.0	6.68	16.5	16.2	16.0	6.68
.08	129	.109	.0128	.0103	.124	.0989	.301					9.73	5+01	10.1	9.85	9.73	5.01
.1	124	.109	.0170	.0129	.106	.0935	.121					4.47	2.84	4,76	4.59	4.47	2.85
.15	.111	+104	.0202	.0188	.0910	.0848	.0572					.793	.639	2+07	2+53	<u> </u>	1.73
•2	.102	.0973	.0220	.0210	.0797	.0764	.0331					. 359	.307	. 488	.455	.381	.328
• 3	.0885	.0864	•0239	.0233	.0647	.0630	.0151					+116	+106	•219	+204	+142	.130
.5	.0722	.0714	.0240	+0240	.0347	.0543	.00852					+0555	.0514	+142	+134	+0802	.0751
.6	.0668	.0664	.0246	.0241	.0426	.0422	.00386					.0203	+0298	+109	+103	+0564	-0539
.8	.0589	+0585	+0240	.0234	.0348	.0351	.00218					.0104	.0100	.0710	.0689	.0344	.0334
1.	,0530	•0526	+0233	10223	.0296	.0.304	+00141					+00651	.00630	+0605	.0593	.0298	10286
2.	.0367	.0366	+0213	+0205	.0217	+0225	+000630	+000981		+000981	•000299	+00309	+00303	.0476	.0472	+0253	•0239
3.	.0288	.0288	.0166	.0152	.0122	.0136	+000355	100331		.00331	+00152	+00187	+00184	+0422	+0417	+0246	+0218
4.	.0241	+0241	+0146	•0131	.00948	.0110	+0000893	.0129	+0000415	.0129	+00505	.000668	.000664	.0377	.0377	.0259	+0213
5.	.0208	.0208	+0131	.0114	.00772	+00944	.0000580	.0166	+0000814	.0167	+0119	.000493	.000488	.0380	.0380	.0303	.0238
0. A.	+0184	+0184	+0119	+0100	.00655	.00839	+0000404	.0197	•000126	.0198	+0145	•000392	.000390	.0387	.0386	.0321	+0249
10.	.0128	.0128	+0100	+00810	.00501	+00693	+0000229	+0246	.000213	.0248	.0185	+000273	.000272	+0407	+0402	•0352	.0268
15.	+00948	+00948	.00672	+00480	.00275	+00468	+0000060	.0289	.000292	.0292	.0217	+000209	+000208	+ 0422	+0422	+0382	•0285
20.	.00760	.00760	+00551	.00365	.00208	.00395	111000000	.0438	.000576	+0-80	+0295	.0000952	.0000452	+0478	+04/0	+0447	.0319
30.	.00555	+00555	+00414	.00237	.00140	.00318		.0522	.000751	.0530	.0319	+0000614	+0000614	+0585	+0585	.0572	10337
	.00360	+00938	+00335	+00166	.00106	•00272		•0580	+000877	.0589	.0319	.0000447	+0000447	.0635	.0635	.0622	.0337
60.	.00316	.00316	+00263	+00127	.000710	+00241		+0626	.000969	+0635	.0317	+0000352	+0001352	.0672	.0672	+1664	.0330
80.	.00250	.00250	+00196	+000672	.000534	.00182		.0710	+00105	+0072	.0303	.0000213	+0000289	+0706	+0706	. 1697	•0321
100.	.00207	.00207	+00164	.000493	.000426	.00158		.0747	.00125	.0760	.029)	+0000167	+0000167	• 0781	.0781	+0743	+0310
											•						•V276

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61 PROMETHIUM (barns/atom)

E	(MeV)		o ^{BD} _{)nc,t}	O)nc, a	o ^{BD}	KN 0 ^{inc, 8}	σ ^{BD} inc, s	0 _{coh}	σ×n	σ _{×e}	σ _{×,t}	<u>σ_{*, a}</u>	σ _{r,t}	Or,a	σ _{tot.t}	Utot,t-coh	or tot.a	⁰ tot, en
								9730.					867000.	867000.	869000.	867000.	867000 .	867000 .
ν.	+001	40.4	1+53	+0788	.00290	40.3	1.58	2320.					812000.	A12000+	814000+	812000+	E)2000+	812000+ 2540000+
N V			1.30										2540000+	2340000+	2400000+	2400000+	2400000+	2400000 .
HIA	.001052	40.4	1.63	•0858	.00334	40.3	1.63	2320+					2720000.	2720000+	2720000.	2720000.	2720000+	2720000+
				.107	.00586	40.3	2.21	2250 .					1470000+	1470000+	1470000.	1470000+	1470000+	1470000+
7111	+001351	4 0.4	E + E E										1690000.	1690000.	1690000+	1690000+	1310000.	1310000+
MTT	.001471	40.3	2.43	.115	.00695	40.2	2.42	2220.					1310000+	1560000+	1560000.	1560000+	1560000+	1560000.
							7.48	2210.					1480000.	1480000.	1480000.	1480000.	1480000+	1480000.
	.0015	40.3	2.49	,118	+00720	40.2	2.76	2180.					1190000.	1190000.	1190000.	1140000.	1190000.	1190000.
"I	+0010+8	40.3	2.11	.129	.0008/	40.0	2010	L1					1450000.	1450000.	1450000+	1450000+	868000+	868000+
	.002	40.3	3,42	.156	.0133	40.1	3.41	2090.					2960000	296000+	298000.	296000+	296000.	296000.
	.003	40.1	5.19	.232	.0301	39.9	5.16	1850.					137000.	137000.	139000.	137000+	137000+	137000+
	.004	40.0	6.84	.307	.0526	39.6	6.79	1630+					76500 .	76500.	77900+	76500.	76500+	76500+
	.005	39.8	8.32	,381	.0797	39.4	0.52	1270.					46700+	46700.	44000+	46700+	46700+	48/00+
	.000	39.6	9.63	.487	.125	39.1	10.1	1200.					38600.	38600.	39800+	122000+	122000+	104000.
-111		37.0		•	••••								95800.	82900.	96900.	95800+	95800 .	82900+
LII	.007013	39.5	10.8	•526	.144	39.0	10+7	1130.					132000.	114000.	133000+	132000.	132000+	114000+
				854	150	30.9	11.1	1080.					114000+	99000+	115000+	114000+	114000.	99000+
-1	+007428	39.4	11+3	+ 326	•134	3847	11.44						132000.	115000.	133000.	132000.	132000.	93900.
	.008	39.4	11.9	.596	.180	38.8	11.7	1010.					107000.	93900.	59800.	59000.	59000.	53200.
	.01	39.1	13.8	.732	.259	38.3	13.5	821+					19600	18300.	20100.	19600.	19600+	18300.
	.015	38,4	17.5	1.06	.484	37.3	17+0	532.					8950 .	8510.	9350 .	8970.	8950+	8510.
	•02	37.7	20.2	1.30	•729	30+3	17+5	220.					2950.	2850 .	3190.	2970.	2950.	2850 +
	•03	30.4	23+4	2.35	1.67	32.9	23.4	142+					1300.	1270+	1470+	951.	928.	907.
r	+04	34.7	25.7	2.58	1.91	32.2	23.8	118.					925+	1760.	5490.	5380.	5350+	1760 •
-	1042104	2.4											4100.	1620.	4230.	4130.	4100+	1620 .
	.05	34,2	26+1	2.76	2.11	31+5	24+0	75.5					2480.	1230 .	2580+	2510.	2480+	1230.
	•06	33.3	26.6	3,12	2,50	30+2	23.6	45.7					1140.	708.	1210.	1170.	1140+	436.
	•08	31.5	20.4	4.15	3.64	25.9	22.8	30.3					620.	432.	242	228.	208.	167.
	.15	27.1	25.2	4.91	4.57	22.1	20.6	14+3					92.0	78.1	124.	116.	97.4	83.2
	•2	24.8	23.6	5,36	5.10	19+4	18.5	8+27					30 • 1	27.1	54.9	51+1	35+9	32.8
	•3	21.6	21.0	5.81	5,66	15.8	15+3	3.13					14+3	13+2	35+4	73.3	20.3	19+0
	• <u>*</u>	19.3	19.0	5,90	5.88	11.6	11.5	1.38					2+12	7.63	20+9	25+5	11.2	10.8
	• 5	16.3	16.2	6.00	5.88	10.3	10.3	+965					2.68	2.58	17+4	16.9	8+54	8+26
		14.3	14.2	5,86	5.68	8.47	8.52	.547					1+68	1+63	<u>14.8</u>	14.5	7+35	7.03
1		12.9	12.8	5.67	5.40	7.22	<u> </u>	+ 350	. 245		.245	.0745	• A00	•784	11+6	11+4	6+22	5.37
1	.5	10.5	10.4	5.18	4.90	4.19	4.44	.0889	.825		.825	.380	+485	• 478	10+3	10+2	6.36	5.22
	2.	7.02	7.01	4.05	3.71	2.97	3.30	+0400	2.05	+00246	2.05	1,25	+757	+270	9.26	9.24	6.93	5.51
-	5. 5.	5.87	5.87	3.56	3,18	2.31	2.69	+0224	3,19	.0101	3.20	2.16	.127	•126	9.34	9.33	7.44	5.83
	5.	5,07	5.07	3,18	2.76	1.89	2.31	+0145	.11	+0175	4.90	2.58	•101	+100	9.49	9+48	7+88	6+11
	5.	4.48	4.48	2.88	2,43	1.59	2.05	+0101	6.07	.0520	6.12	4.54	+0702	+0699	9.86	9.85	8+63	N+3/ 7.03
	8.	3.66	3.66	2.44	1.90	.988	1.51	.00356	7.17	10711	7.24	5.37	+0538	+0510	10.4	10.4	11+0	7.82
- H	<u>.</u>	-2.11	- 2,11	1.64	1.16	.670	1.15	+00149	9.25	+111	9.36	6.63	+0335	.0246	12.8	12.8	12.3	8+13
2	0.	1.85	1.85	1.35	.886	.507	.964		10.8	+140	10.9	7.22	.0158	+0158	14+5	14.5	14+1	8+43
3	0.	1.35	1,35	1.01	.572	.341	•778		14.3	.213	14.5	7.82	+0115	+0115	15+6	15+6	15.3	5+24
4	0+	1.07	1.07	.815	.404	+257	+000		15.5	.236	15.7	7.79	+00906	+00905	16+6	16+6	16+4	7.90
5	0.	.895	+895	.598	.241	.173	.530		16.3	.254	16+6	7.65	+00742	C +00742	18.4	18.4	18.3	7.59
61 2	0 • 0 •	.60A	608	478	.163	.130	.445		17+5	•282	17+8	7.42	.00430	.00430	19.3	19.3	19.2	7.27
10	0.	.505	.505	.401	.120	.104	•385		18.5	• 30 3	19+9	(+12						
o) PROMETHIUM (cm¹/g = 0.004153 x barns/atom)

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E (MeV)	(賞) ^{KN} inc.t	(⊊) ^{BD} (⊊) _{nc,t}	([#] _p) ^{KN} _{inc, a}	([#] _p) _{nc, a}	([#] _p) ^{KN} _{inc,s}	(چ) ^{BD})nc, s	(불) _{coh}	(۾) _× ,	n(片)*e	(ڭ) _{×, t}	([#] _p) _{x, a}	(岸) _{7, t}	([#] / _p) _{7,4}	(%) _{tot,t}	(#),10t, t+cok	([#]) _{tot, a}	([#] _p) _{tot, en}
•001	.168	.00635	.000327	+0000124	.167	.00635	9.68					3600.	3600.	3610.	3600+	3600.	3600.
NY COLUET	*100	*00030	+000330	+0000131	+101	+00636	9.63					3370.	3370+	3380.	3370.	3370.	3370.
M _{IV} +001052	•168	+00677	+000344	+0000139	•167	.00677	9.63					9970+	9970.	9970.	9970+	9970.	9970.
H _{III} +001357	.168	.00922	.000444	.0000243	.167	.00918	9.34					11300+	11300.	1)300.	11300.	11300.	11300+
												7020.	7020.	7020.	6100. 7020.	6)00. 7020.	6100. 7020.
HI +0014/1	+101	+0101	+000478	+0000289	. 167	.0101	9.22					5440.	5440.	5440.	5440.	5440.	5440.
.0015	.167	.0103	.000490	•0000302	.167	.0103	9.18					6150+	6150.	480+ 6150-	6480.	6480. 4160	6480.
HI .001648	. 167	+0115	•000536	+0000368	.167	.0115	9.05					4940.	4940.	4940.	4940.	4940.	4940.
.002	.167	.0142	+000648	+0000552	.167	.0142	8.68					6020. 3600.	6020.	6020. 3610.	6020.	6020.	6020.
.003	.167	.0216	.000963	.000125	.166	.0214	7.68					1230.)230.	1240.	1230.	1230.	1230.
+004	+160	.0284	.00127	.000218	•164	.0282	6.77					569 •	569 .	577.	569.	569.	569.
.005	+105	+0.3+0	+00158	+000331	+164	+0342	5.94					314.	318.	324.	718+	718.	318.
L006459	.164	-0400	+00189	+000457	.103	.0395	5.27					194.	194.	199.	194.	j94.	194.
-111 0000000	••••			*000314	+105	•0414	4,98					160.	160.	165.	160+	160.	160.
LTT .007013	.164	.0449	.00218	.000598	.162		4.69					507+	432.	511+	507.	507.	432.
					•••=	•••••						548.	399.	402.	198.	198.	344.
L _{I +} 007428	. 164	+0469	.00231	+000660	. 162	.0461	4.49					473.	411.	372.	540+	548.	473+
_												548 .	78.	562	548.	6/3. 648.	411+ 478
+008	+164	.0494	.00248	+00074B	.161	.0486	4.19					444.	390.	449.	444.	444.	290.
+01	•162	+0573	.00304	<u>+00108</u>	<u>,159</u>	.0561	3.41					245+	221.	248.	245.	245.	221.
•015	+159	.0727	+00440	.00201	•155	•0706	2.21					81+4	76+0	83.5	81+4	81.4	76.0
.02	15/	+0839	.00565	.00303	+151	.0810	1.57					37.2	35.3	38.8	37.3	37.2	35.3
.04	+151	+07/2	+00/89	+00507	+1 + 4	•0922	+914					12+3	11.8	13.2)2+3	12.3	11.8
K .045184	144	.107	-0107	+00074	.134	.09/2	.590					5.+40	5.27	6.)0	5+52	5.40	5.27
	••••	•10 /		•00/93	•134	+ 0988						3+84	3.70	4.44	3.95	3.85	3.77
•05	.142	.108	+0115	.00876	.131	.0997	.419					17.0	4.73	22+5	22+3	22.2	7.71
.06	.138	.110	.0130	.0104	.125	.100	.312					10.3	5.11	10.7	17.2	17.0	6.73
•08	.131	•111	.0153	.0130	,116	.0980	.190					4.73	2.94	5.03	4.86	4 73	3.05
- <u>+j</u>	.125	.110	+0172	.0151	108	,0947	.126		-			2.57	1.79	2.81	2.68	2.59	1.81
•15	.113	.105	+0204	.0190	.0918	.0856	.0594					.843	.673	1.01	.947	.864	.694
• 5	.103	.0980	.0223	+0212	.0806	.0768	.0343					+387	•324	+515	.482	.405	.346
	.0802	.0789	+0241	+0235	.0050	.0635	+0156					+125	+113	•228	+212	+149	.136
.5	.0731	.0723	.0250	+0242	.0552	+ 0540	+00885					+0594	+0548	+147	.138	.0843	.0789
.6	0677	.0673	.0249	.0244	.0428	.0478	+00573					+0337	+0317	+112	•106	.0586	+0561
.8	.0594	.0590	.0243	.0236	.0352	.0354	.00227					+0217	+0205	• 1930	.0889	.0405	+0449
1.	.0536	.0532	.0235	.0224	.0300	.0307	.00145					.00698	.00677	-0615	-0602	.0305	+0343
1.5	.0436	.0432	+0215	+0206	.0220	.0226	.000656	.00102		.00102	.000309	.00332	+00326	+0482	.0473	.0258	-0242
2.	.0370	.0370	+0197	+0186	.0174	.0184	.000369	.00343		.00343	.00158	+00201	+00199	.0428	.0424	.0 251	.0221
3. A.	+0272	*USAT	.0168	+0154	.0123	.0137	.000166	.00851	.0000102	.00851	.00519	.00108	.00106	.0389	.0387	.0264	.0217
5.	.0211	.0244	+01=8	+0132	.00959	.0112	+0000930	+0132	.0000419	.0133	.00897	+000714	+000710	+0385	+0384	+0288	+0229
6.	.0186	.0186	.0120	+0115	+00785	+00939	+0000602	+0171	.0000822	.0172	.0122	+000527	+000523	+038A	+0387	.0309	+0242
8.	.0152	.0152	.0101	.00814	.00507	.00706	+0000414	+0202	.00012/	.0203	+0149	+000414	+0004)5	.0394	+0394	.0327	+0254
10.	.0130	.0130	.00885	.00669	00410	.00627	.0000149	+0292	+000210	•0274	•0189	+000272	.000290	•0409	+0409	.0358	.0273
15.	.00959	.00959	+00681	.00482	.00278	.00478	.0000062	+0384	+000461	.0389	.0275	.000140			+0+32	.0391	.0292
20.	.00768	+00768	.00561	.00368	.00211	.00400		.0449	.000581	.0451	.0300	.000102	.000102	+0400	+0+80	+0+57	+0325
30.	.00561	+00561	.00419	.0023R	.00142	.00323		.0536	.000756	.0544	.0326	+0000656	.0000656	.0602	.0602	+U211 .6584	+0338
40. Ea	.00444	.00444	.00338	+00168	.00107	.00277		.0594	+000885	.0602	.0325	+0000478	.0000478	+0648	+0648	.0635	0250
50.	.00372	.00372	.00286	+00127	.000856	.00244		•0644	.000980	.0652	.0324	+0000376	+0000376	+0689	+0689	.0681	.6377
80.	.00263	.00320	+00<48	+00100	.000718	.00220		.0677	+00105	•0689	.0318	·0000308	+0000308	.0723	+0723	+0714	+0328
100.	.00210	.00210	+00199	+000677	+000340	+00185		•0727	+00117	.0739	.0308	+0000226	.0000 226	+0764	.0764	.0760	.0315
	100270	400E 10	*****	•••••	••••••==2	*****		+0768	•0012e	+0781	.0297	+0000179	+0000)79	•0802	.0A02	•0797	.0302

62	SAMARIUM
()	parns/atom)

E (MsV)	σ _{tnc,t}	σ ^{BD} _{inc,t}	σ ^{KN} _{)nc, a}	o ^{BD}	o ^{KN}	$\sigma_{inc,s}^{BD}$		σ _{*n}	σ _{×e}	σ _{x.t}	<u> </u>	σ _{r,t}	σ _{r.a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot, a}	σ _{tot, en}
.001 Hy .001078	41.1 3 41.1	1.50 1.65	.0800 .0863	•00292 •00346	41.0 41.0	1.50 1.65	2410. 2390.					914000. 769000.	914000. 769000+	916000. 771000.	914000. 769000.	914000. 769000.	914000. 769000.
MIN .001106	s 41.1	1.70	.0885	•00366	41.0	1.70	2380.					2410000+ 2270000+	2410000+ 2270000+	241n000+ 2270000+	2410000+ 2270000+	24100n0+ 2270000+	24100nn+ 2270000+
M _{lll} +001419	•1.0	2.29	•113	•00632	40.9	2+28	2310.					2570000.	2570000.	2570000.	2570000.	2570000. 14000n0.	2570000. 1400000.
+0015 M _{TT} +001541	41.0 41.0	2.45 2.52	.120 .123	.00715 .00755	40.9	2.44 2.51	2290 • 2280 •					1350000.	1350000.	1350000.	1350000.	1350000.	1350000.
HI .001723	41.0	2.86	.137	.00957	40.8	2.85	2240+					1480000. 1140000.	1480000. 1140000.	1480000.	1480000. 1140000.	14800n0. 11400nn.	1480000.
.002	40.9	3.37	.159	.0131	40.8	3.36	2170.					1380000. 923n00.	1380000.	138n000. 925000.	1380000.	13800n0. 9230nn.	1380000. 92300n.
.003	40.0	5.14	,230	.0298	40.5	5+11	1920.					317000.	317000.	319000.	317000.	317000.	317000.
.005	40.5	8.29	.387	.0794	40.1	8.21	1490.					82000	82000	150000.	148000.	147000.	148000.
.006	40.3	9.62	461	.110	39.8	9.51	1320.					50300.	50300	51600	50300.	60300	50360
LTTT .006716	40.2	10.5	.513	.134	39.7	10.4	1220.					37300.	37300	38500.	37300.	37300.	37300.
			•	••		••••						117000.	99500	118000.	117000.	117000.	99500.
L _{II} .007312	2 40.1	11.2	• 556	. 155	39.5	11.0	1140.					91100.	78600.	92300.	91100.	91100.	78600.
1				. =-								126000.	108000.	127000.	126000.	126000.	108000+
-I +001135	• 0 +0	11+0	.587	•170	39.5	11+4	1090+					109000.	94400.	110000.	109000.	109000.	94400.
.008	40.0	11.0	405	180	10.4							126000.	109000.	127000.	126000.	126000.	109000.
.01	39.7	12.0		*100	37.4	11.1	1000+					114000.	99100.	11-000.	114000.	114000.	99100.
-015	39.0	17.6	1.08	.487	17.9	12.2	65/+					20900	19400.	21500	20900	<u> </u>	19400
.02	38.3	20.4	1.38	.736	36.9	19.7	195.					9590	9090	10000	9610.	9500.	9090.
.03	37.0	23.7	1.93	1.23	35.1	22.5	229.					3150	3040	3400.	3170.	3150.	3040.
+04	35.9	25.4	2.39	1.69	33.5	23.7	148.					1410.	1370.	1580.	1440.	1410.	1370.
K .046834	35.1	26.2	2.69	2.00	32.5	24.2	116.					897.	877.	1040.	923.	900.	879.
		.					-					5140.	1680.	5280.	5170.	5140.	1680.
•05	34.8	20.4	2.81	2.13	32.0	24+3	105.					4300.	1590.	4430.	4330.	4300.	1590.
.00	33.8	20.9	3.17	2,52	30./	24.4	78+3					2620.	1240.	2730.	2650.	2620.	1240.
•08	32.1	27.1	3.76	3.17	28.3	23.9	47.7					1200.	727.	1270.	1230.	1200.	730.
	30.5	20,0	A 09	3.70	22.5	_23.1							171		082		<u></u>
.2	25.2	24.0	5.45	5,19	19.8	18.8	8.47					98.6	#3.0	131.	132.	104	1/0.
.3	21.9	21.3	5.91	5.74	16.0	15.6	3.92					32.6	29.2	57.8	51.9	38.5	34.9
	19.6	19.3	6.08	5 93	13.6	13.4	2.22					15.3	14.1	36.8	34.6	21.4	20.0
•5	17.9	17.7	6,11	5,98	11.8	11.7	1.44					8,75	8.20	27.9	76.4)4.9	14.2
•6	16.6	16.4	6.09	5.95	10.5	10.4	1.00					5,59	5,30	23.0	22.0	11.7	11.3
•8	14.6	14.5	5,96	5.80	8+61	8.70	+571					2.87	2.76	17.9)7+4	8.83	8.56
1.	13.1	13.0	5,76	5.49	7.33	7,51	.367			· · · · · · · · · · · · · · · · · · ·		1,80	1.74	15.2		7.56	7.23
1.5	10.6	10.6	5.20	5.06	5+38	5+54	+165	•256		+256	.0778		.042	11.2	11.1	6, 38	2.78
2.	7 14	9.00	4.01	4,54	4.20	4.52	.0925			+855	• 393	. 279	.276	0.58	10.44	6.17	7,99
3.	5.96	5.96	3.62	3,70	3.34	2.74	.0734	3.30	.00250	2.13	1.30	185	.184	9.48	9.45	7.11	5.61
5.	5.15	5.15	3.23	2.80	1.92	2.15	.0152	4.25	+0102	3+3)	2.03	.137	.136	9.57	9.56	7.64	5.97
6.	4,55	4.55	2.93	2.46	1.62	2.09	.0105	5.00	.0312	5.03	3.66	.108	.107	9.70	9.69	8.07	6.23
8.	3.72	3.72	2.48	1.99	1.24	1.73	.00597	6.27	.0528	6.32	4.67	.0759	.0756	10.1	10.1	8.58	6.74
10.	3,17	3,17	2.17	1.64	1.00	1.53	.00375	7.40	.0723	7.47	5.52	+0579	.0577	10.7	10.7	9,70	7,22
15.	2,35	2.35	1.67	1.18	+681	1.17	+00155	9.53	•113	9.64	6.80	.0364	.0763	12.0	12.0	11.3	A.02
20.	1.88	1.88	1.37	.899	.515	•981		11.1	.142	11+2	7.39	+0262	.0762	13.1)3.1	12+6	A.37
30.	1.37	1+37	1.02	.578	- 347	.792		13.3	.185	13.5	8.05	+0169	+0169	14.9	14.9	14+5	8.64
40.	1,09	1+09	.828	+411	.262	.679		14.8	•217	15.0	5.08	•0154	+0124	10.1	10.1	12.0	7+50
50.	.910	•910	701	•311	.210	•599		15.9	•240	16+1	7.94	.00971	.00700	17.0	17.0	10.0	H.26
80.	./84 418	.418	+000 494	•244 146	+1/5	+540		10.0	.259	17+1	7.85	.00587	.00547	18.9	18.9	18.8	7,74
100.	.513	.613		.122	.106	. 791		10.0	+207	10.3	7 39	.00460	00460	19.8	19.A	19.7	7.41
1000	****	+212	****	+1cc		+ 371		1 7 4 V	+ 30 -	14+3	r + C O			• • • • •	1	1.001	

62 SAMAR1UM (cm¹/g = 0.004006 x barns/atom)

E (MeV)	(費) ^{KN})nc,t	(چ) ^{BD} inc.t	(≝) ^{KN} inc,a	(#) ^{BD})nc, a	([#]) ^{KN} inc, s	(声) ^{BD} inc,s	(ی) coh	(#)*n	(片)*e	([#]) _{*.t}	([#] _p) _{*.*}	(#) _{7,t}	$\left(\frac{\mu}{\bar{\rho}}\right)_{\tau,a}$	(\$) _{tot,t}	(\$) _{tot, c+con}	(^µ _p) _{tot.a}	([#])toi.er.
•001 Hg •001078	.165 .165	•00 6 01 •00661	.000320 .000346	•0000117 •0000139	.164 .164	.00601 .00661	9.65 9.57					3660. 3080.	3660. 3080. 9650	3670. 3090. 9650.	3660. 3080. 9650.	3660. 3080. 9650.	3660. 3080. 9650.
н _{IV} .001106	.165	•01681	.000355	.0000147	.164	.00681	9.53					9090	9090	9090	9090.	9090	9090.
HIII +001419	.164	.00917	.000453	.0000253	.164	.00913	9+25					5610. 6450.	5610. 6450.	5610.	5610. 6450.	5610.	5610. 6450.
.0015	.164	.00981	+000481	.0000286	.164	.00977	9.17					5410.	5410.	5410. 5010.	5410.	5410. 5010.	5410. 5010.
HII +001941	+164	.0101	+000493	.0000302	+104	+0101	9.13					5930.	5930.	5930.	5930.	5930. 4570	5930.
H _I .001723	.164	+0115	+000549	.0000383	.163	.0114	8.97					5530.	5530	5530.	5530.	5530	5530.
•002	.164	.0135	.000637	.0000525	. 163	.0135	8+69					3700.	3700.	1760	1270.	1270.	1270.
.003	.163	•0206	+000945	.000119	. 162	+0205	7.69					503	603	601	803.	693.	591.
+004	.163	+0272	.00125	•000209	.161	+0270	6+81					120	129	315.	328.	128.	328.
+005	. 162	.0332	+00155	.000318	•161	.0329	5.97					202.	202.	207.	20.2	202.	202.
.006	.161	•0385	.00185	+000441	159	.0381	5+29					149.	149.	154.	149.	149.	149.
L _{III} .006716	•161	+0421	•00206	.000537	•159	+0417	4+89					460	100	473.	469.	A69.	199.
LTT +007312	.161	.0449	.00223	.000621	. 158	.0441	4.57					365.	315.	370.	365.	365.	315.
LT .007736	.160	.0465	.00235	.000681	.158	.0457	4.37					437.	378.	441.	437.	437.	378.
												505.	437.	509.	505 ·	505.	437.
.008	.160 .159	.0477	.00242 .00298	.000721 .00104	•158 •156	+0409	4.25					252	225	255	252	2 5 2	225.
.015	.156	.0705	.00433	.00195	.152	.0685	2.22					83.7	11.1	80.1	83.7	83.7	
.02	.153	.0817	.00553	.00295	+148	.0789	1.58					38.4	36+4	40.1	38.5	38,4	30.4
.03	.148	.0949	.00773	.00493	.141	.0901	•917					17.6	12.2	13.0	12.7	12+0	12.2
.04	.144	.102	.00957	.00677	.134	.0949	•593					7,05	5.47	0.33	3,70	7.07	7,47
K.046834	+141	•105	.0108	•00801	.130	•0969	•465				•	20.6	6.73	21.2	20.7	20.6	6.73
.05	.139	.106	.0113	.00853	.128	.0973	•421					17.2	6.37	17.7	17.3	17.2	6.37
.06	.135	.108	•0127	.0101	.123	.0977	.314					10,5	* , y /	10.4	10.0	10.5	2.02
.08	.129	.109	.0151	+0127	.113	.0957	•191					4.01	2.71	3,07	****	7.01	1 41
-1	.122	.107	.0169	+0148		.0925						2.02	686	1.03	.971		.705
•15	.110	.103	.0200	•0186	.0901	+0841	.0597					305	, 373	.525	.489		.153
•2	. 101	.0961	•0218	.0208	.0793	.0753	+0345					.131	.117	.212	.216	154	-140
•3	.0877	.0853	.0237	.0230	+0641	+0625	+0157					.0613	.0565	.147	.139	.0857	.0801
• 4	.0785	.0773	+0244	.0238	+0545	.0537	.00889					.0351	.0328	.112	.106	.0597	.0569
•5	.0717	.0709	.0245	.0240	.0473	+0469	.005//					.0224	.0212	.0921	.0881	0469	+0453
•6	+0665	+0657	.0244	•0238	+0421	+0417	+00401					.0115	.0111	.0717	.0697	.0354	.0343
.*8	+0585	.0581	•0234	.0232	0305	+0347	.00227					.00721	.00697	.0609	.0593	.0303	.0290
<u>+-</u>	.0525	.0321	-0231	.0220	1216	0301	000147	00103		00107	000313	.00345	.00337	.0477	.0469	+0256	+0240
1+3	+0423	+0423	+0211	+0203	0210	.0161	.000371	.00343		.00343	.00157	.00208	.00205	.042)	.0417	.0248	+021#
1.	.0385	.0386	.0165	.0151	.0121	.0135	.000167	.00853	.0000100	.00853	.00521	.00)12	.00111	.0384	.0382	.0262	+0214
	0239	1220	.0145	.0129	.00937	.0110	.0000937	.0132	.0000409	.0133	.00893	.000741	.000737	,0380	.0379	.0285	.6226
.	.0206	.0206	.0129	.0112	.00769	.00941	.0000609	.0170	.0000805	.0171	.0121	.000549	.000545	•0383	.0383	.0306	+0239
<u>.</u>	.0182	.0182	.0117	.00985	00649	.00837	.0000421	.0200	.000125	.0202	+0147	.000433	.000429	.0389	.0388	.0323	.0250
A.	.0149	.0149	.00993	.00797	00497	.00693	.0000239	.0251	.000212	.0253	.0187	.000304	.0003n3	+0405	+0405	.0356	+0270
10.	.0127	0127	10869	100657	.00403	.00613	0000150	0296	000290	0299		.000232	.000231	0429	.0429	.0389	.0289
15.	.00941	.00941	.00669	+00473	.00273	.00469	.0000062	.0382	.000453	.0386	.0272	.000146	.000)45	+0481	+0481	.0453	+0321
20.	.00753	.00753	.00549	.00360	.00206	.00393		.0445	.000569	.0449	.0296	.000105_	.00010 <u>5</u>	.0525	.0525	+0505	.0333
30.	.00549	.00549	.00409	.00232	.00139	.00317		.0533	+000741	.0541	.0322	.0000677	.0000677	.0597	.0597	•058 <u>1</u>	.0346
40.	.00437	.00437	.00332	.00165	.00105	.00272		.0593	.000869	.0601	.0324	.0000497	+0000497	+0645	+0645	.0633	+0341
50.	.00365	.00365	.00281	.00125	.000841	.00240		.0637	.000961	.0645	.0318	.0000389	.0000389	+0651	.0681	.0673	•0331
60.	.00314	.00314	.00244	.000977	.000701	.00216		+0673	.00104	.0685	.0314	.0000 320	.0000320	.0717	+0717	.0709	+0324
80.	.00248	.00248	.00195	.000661	.000529	.00181		•0721	+00115	+0733	+0304	.0000235	.0000235	+0757	.0757	.0753	+0311
100.	.00206	.00206	.00163	+000489	.000425	.00157		•0761	+00123	.0773	•0292	.0000184	*000u1me	.0791	+0793	/ 89	+0297

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63 EUROPIUM (barns/atom)

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E (MeV)	κN σ _{inc,t}	σ ^{BD} _{)nc,t}	σ _{inc, a}	σ ^{BD} nc, a	KN 0inc,s	σ ^{BD} _{inc, s}	σ _{coh}	σ _{*n}	σ×e	σ _{×,t}	σ _{×,a}	σ _{ret}	σ _{τ, a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot, a}	Utot, sn
.001 Hy .001131	41.7	1.46	.0813 .0919	.00284	41.7 41.6	1+46 1+71	2490+ 2460+					955000. 728000.	955000. 728000.	957000. 730000. 2280000.	955000+ 728000+ 2280000+	955000+ 728000+ 2280000+	955000+ 728000+ 2280000+
н _{IV} .001161	41.7	1.76	.0943	.00398	41.6	1.76	2450.					2140000.	2140000.	2140000+	2140000+2430000+	2140000+ 2430000+	2140000+ 2430000+
MIII .001+81	41.7	2.36	.120	.00680	41.5	2.35	2380.					1330000.	1330000+	1330000.	1330000+	1330000.	1330000. 1540000.
.0015	41.7	2.40	.122	.00700	41.5	2.39	2370.					1480000+	1480000.	1480000.	1480000+	1480000.	1480000+
HTT .001614	41.6	2.61	.131	.00819	41.5	2.60	2350.					1180000.	1180000+	1180000+	1180000+	1410000+	1410000.
HT .001800	41.6	2.95	.145	.0103	41.5	2.94	2300.					1080000.	1080000.	108n000. 1310000.	100000. 1310000.	1080000. 1310000.	1080000.
.00Z	41.6	3.32	.161	.0129	41.4	3.31	2250.					997000.	997000.	999000.	997000.	997000.	997000.
.003	41.4	5.09	.240	.0295	41.2	5.06	2000.					340000.	340000.	342000+	340000+	158000.	158000
.004	41.3	6.74	,318	.0519	40+9	6+69	1770.					156000+	87600.	89100.	87500	87500.	87500.
.005	41.1	8,25	.394	.0790	40.7	8.17	1560.					53900.	53900.	55300+	53900.	53900+	53900+
+006	40.9	9.61	•469	.110	40.5	9.50	1380 •					36000.	36000 .	37200.	36000+	36000+	36000 +
L _{III} +006977	40.8	10.8	.541	•1•3	40+3	10+7	1530+					112000.	94800+	113000+	112000+	112000.	94800+
1	40.7	11.5	.588	.166	40.1	11.3	1150.					86600+	74400+	878	866 00 +	86600+	74400+
HI				••••		••••						120000.	103000.	121000+	120000+	120000+	01300.
.008	40.6	11.9	.615	.180	40+0	j1.7	1100.					106000+	91300.	107000+	106000+	104000+	89700
L008052	40.6	12.0	.619	.183	40.0	11+8	1090.					104000+	103000.	121000	120000	120000.	103000.
												66800.	59300.	67700.	66800.	66800+	59300.
•01	40.3	13.9	•756	•260	34+0	13+6	8744				•	22100	20500.	22700+	22100.	22100+	20500+
.015	39.6	17.7	1.10	.490	38.2	17+2	5//+					10200.	9630 .	10600+	ī 0200•	10200+	9630+
•02	38,9	20.6	1.40	193	37+2	22.8	239.					3370.	3240.	3630.	3390.	3370.	3240.
•03	3/+0	24+0	1.90	1+25	34.0	24.1	155.					1510.	1470.	1690+	1540+	1510+	14/0+
T 048510	30,5	26.6	2.80	2.09	32.7	24.5	114+					871+	851 +	1010.	898.	874+	1610.
* * * * * * * * * *	3343	2010	2000	2007		-	• -					4940+	1610+	5000+	4560.	4530.	1560.
+05	35.4	26.8	2,85	2.16	32.5	24.6	109.					4730+	1260.	2890.	2810.	2780.	1260.
•06	34.4	27.3	3.22	2.56	31.2	24+7	81+5					1780.	756.	1360	1310.	1280.	759.
•08	32.6	27.5	3,82	3.22	28+8	24+3	49.7					A99.	470.	759.	726.	703.	474.
•1	31.0	27.2	4,28	3.75	26.8	23.4	32.09					230.	180.	272.	256.	235+	185.
+15	27.9	26.0	2.0/	4,72	22.47	21+3	8.98					104.	87.0	137+	128.	110+	92.3
•2	27.0	29.9	5,54	5.95	16.3	15.8	4.09					34.5	30.7	60+3	56.2	40+2	36+5
• 3	19.9	19.6	6.18	6.02	13.8	13.6	2+31					16.3	15.0	38.2	32.7	22.5	14.8
.5	18.2	18.0	6.21	6.08	12.0	11.9	1+50					2.30	8.69	28.0	22.7	12.2	11.7
.6	16.9	16.7	6.19	6.06	10.7	10.6	1+05					3.48	2.95	18.4	17.8	9.13	8.83
.8	14.8	14.7	6,05	5.88	8.75	8.82	•593					1.94	1.88	15+5	15+1	7.79	7.44
1.	13.3	13.2	5,85	5,56	7.45			747		. 74.7	.0812	•923	+903	12+2	12+0	6.54	6+12
1,5	10.8	10.8	5,35	5.14	3.40	2+00	.0963	.890		.890	409	•558	+549	10+7	10+6	6.34	5+57
2.	9.22	9.20	4.67	3,82	3.06	3.42	.0434	2.20	.00253	2.20	1.34	• 300	+297	9+78	9.74	6+00	5.77
3.	6.06	6.06	3.68	3.27	2.38	2.79	.0244	3.40	.0104	3.41	2.30	•) 99	•197	9+09	9.80	7.86	6.12
2	5.23	5.23	3.29	2.84	1.95	2.39	+0158	4.40	.0205	4.42	3,13	+148	•1•7	9.01	9,97	8.32	6+41
6.	4.63	4.63	2.98	2.50	1.65	2.13	+0110	5,19	-0317	5.22	3.79	+117	-0817	10.4	10.4	9.11	6.88
8.	3,78	3.78	2,52	2.01	1.26	1.77	+00623	6.46	.0537	6.51	4.79	+0622	+0620	11.0	11.0	9.93	7.35
10.	3.22	3,22	2.20	1.65	1.02	1.57	.00392		0130	9,91	6.98	+0388	+0387	12.3	12.3	11+6	8.22
15.	2.39	2.39	1.69	1.20	.092	1+19	+00100	7,00	.145	11.5	7.57	+0279	.0779	13.4	13+4	12.9	8+51
20.	1.91	1.41	1.39	.909	.352	4806		13.7	.188	13.9	8.24	.0180	+0180	15.3	15.3	15+0	7.54
30.	1.39	1+39	1.04		.264	. 694		15.2	.220	15.4	8.23	+0132	+0132	16+5	16.5	10.3	7+06 8,47
40.	1+11	1+11	.712	.315	.213	.610		16.4	.243	16+6	8.14	+0104	+0104	17.5	17+5	10.7	8,27
50.	.796	.796	.618	.247	.178	.549		17.3	.263	17+6	8.01	.00851	+00851	18+4	19.5	19.4	7.95
80.	62B	628	494	.167	.134	+461		18.6	.291	18+9	7.78	•00076		20.4	20.4	20.3	7.60
100.	. 522	.572	.414	.123	.108	•399		19.6	•312	19+9	7.47	•00472		2004			

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63 EUROP1UM (cm¹/g = 0.003963 x barns/atom)

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E (MeV)	(声) ^{KN} inc, t	(背) _{)nc.t}	(岸) _{nc.a}	(学) ^{BD} inc, a	(声) ^{KN} inc, s	([#] ₅) ^{BD} Inc,s	([#]) _{coh}	([#] _p) _×	n (^µ / _ħ) _{* e}	(^{لل} _P) _{×, t}	<u>(چ) x, a</u>	(岸) _{т, 1}	(#), a	(岩I _{tot,t}	([#]) _{tot,t-coh}	([#] _p) _{tot, 4}	([#]) _{tot, en}
.001	.165	.00579	.000322	.0000113	.165	.00579	9.87					3780 .	3780.	3790.	3780.	3780.	3780.
M TOTTOT	*102	.00018	•000364	.0000149	.102	.006/8	9.75					2890.	2890+	2890.	2490.	2890.	2890+
HTY +001161	.165	.00697	.000374	.0000158	.165	.00697	9.71					9040.	9040+	9040.	9040+	9040.	9040+
	· · _ ·											9630.	9630.	9630.	9430.	9470	0400+
M _{III} .001481	•165	.00935	+000476	+0000269	.164	.00931	9.43					5270 .	5270.	5270.	5270.	5270.	5270.
												6100+	6100.	6100.	6100.	6100.	6100+
+0015	+165	+00951	+000483	+0000277	.164	.00947	9.39					5870.	5870.	5870.	5870.	5A70.	5870.
VII *001014	*102	.0103	•000214	•0000325	,164	•0103	9.31					4680.	4680.	4680.	4680.	4680.	4680.
M _I .001800	.165	.0117	.000575	.0000408	.164	.0117	9.11					5590. 4280.	5590 • 4280 •	5590. 4280.	5590. 4780.	5590. 4280.	5590. 4280.
.002	.165	.0132	.000638	.0000511	.164	.0131	8.92					3950	3950.	3960.	3050.	3050	5190.
.003	.164	.0202	.000951	.000117	.163	.0201	7.93					1350.	1350.	1360.	1350.	1350	1350.
+004	.164	•0267	.00126	.000206	.162	.0265	7.01					626.	626.	634.	626	626	626.
+005	.163	.0327	+00156	.000313	•161	.0324	6,18					347.	347.	353.	347.	347.	347.
+000	+162	.0381	.00186	.000436	.161	.0376	5.47					214.	214.	219.	214.	714.	214.
TII +0009/7	•16Z	+0428	+00214	•000567	. 160	+0424	4.87					143+	143.	147.)43.)43.	143.
Les .007618	.161	. 0454			169		A E4					444.	376.	448.	444.	444.	376.
-11		***>0	.00233	*000038	•137	****	4,30					343.	295.	348.	343.	343.	295.
.008	.161	.0472	++500	.000713	.159	.0464	4.36					470+	408.	480.	476.	476.	405.
L7 .008052	.161	.0476	.00245	.000725	.159	.0468	4.32					412.	355.	A1 A.	4204	420.	302.
-					•	•••••						476.	408.	480.	476.	476.	408.
+01	.160	+0551	•00300	+00103	<u>.157</u>	.0539	3,54					265.	235.	268.	265.	265.	235.
.015	+157	+0701	+00436	+00194	.153	.0682	2.29					87.6	81+2	90.0	-87.6	87.6	81.2
.02	.154	.0816	+00555	+00294	+149	.0789	1.62					40.4	38.2	42.0	40.4	40.4	38.2
.04	+147	1032	+00///	+00495	+1+1	+0904	.947					13.4	12.0	14+4	13.4	13.4	12.8
E .048519	141	105	.0111	+00002	130	.0933	+014					3+70	5+83	6.70	8.10	5,98	5.83
	••••	••••	•••••	+00020	.140		**35					19.6	3+31	9.00	3,50	3,40	3.38
.05	.140	.106	.0113	+00856	.129	.0975	.432					18.0	6.18	18.6	18.1	18.0	6.18
•06	.136	.108	•0128	.0101	.124	.0979	.323					11.0	4.99	11.5	11.1	11.0	4.99
•08	.129	+109	+0151	.0128	.114	.0963	+197					5+07	3.00	5.39	5.19	5.07	3.01
<u>. • 1</u>	.123	.108	+01.70	+0149	.106	.0927	.130					2+77	1.86	3.01	2,88	2.79	1.68
•15	•111	.103	+0201	+0187	.0908	+0844	+0614					+911	+713	1+08	1.01	•931	.733
	+101	+0967	+0220	+0209	.0797	.0757	+0356					• • 12	+345	•543	.507	.436	. 766
	.0789	+0800	+0238	+0232	+0040	+0620	+0162					+137	+122	•536	•223	+161	+145
.5	.0721	.0713	+0246	.0241	.0476	.0472	+00915					.0369	.0344	+151	•) 42	.0892	.0832
.6	.0670	.0662	+0245	.0240	.0474	.0420	+00416					.0237	.0224		• 100	.0014	.0587
.8	.0587	.0583	+0240	.0233	.0347	.0350	.00235					.0122	.0117	.0729	.0705	. 0362	.0350
1.	.0527	.0523	+0232	+0220	,0295	.0303	.00151					.00769	.00745	.0614	.0598	.0309	.0295
1.5	.0428	+0428	·0212	+0204	.0216	+0224	+000682	.00106		.00106	.000322	+00366	.00358	+0483	.0476	.0259	.0243
2.	.0305	+0365	+0194	+0183	+0172	.0182	·000382	.00353		.00353	.00162	+00721	+00218	+0424	+0420	.0251	+0221
3	+0207	+0207	+0100	+0151	+0121	.0136	+000172	.00872	.0000100	.00872	+00531	+00119	+00118	.038A	.0386	.0265	.0216
5	.0207	+02+0	.0130	.0113	.00773	+0111	+0000967	.0135	+0000412	.0135	+00911	+000789	+000781	+0384	.0383	.0289	•0229
6.	.0183	.0183	.0118	.00991	.00654	.00944	.0000020	+01/4	+0000812	+01/5	+0124	•000387	+000583	.0389	•0388	.0311	+0243
8.	.0150	.0150	.00999	.00797	.00499	.00701	.0000747	.0256	.000213	.0269	+0120	.000325	.000480	+0376	+0345	.0330	+0254
10.	.0128	.0128	+00872	+00654	.00404	.00622	.0000155	.0303	.000292	.0304	.0224	+000246	+000324	.0436	-0412	+0.301	•02/3
-15.	+00947	.00947	+00670	+00476	.00274	+00472	+0000063	.0388	+000456	+0393	.0277	+000154	+000153	+0487	.0487	*0374	
20.	.00757	.00757	.00551	.00360	.00208	.00396		.0452	.000575	.0456	.0300	+000111	+000111	.0531	+0531	.0511	.0320
30.	+00551	.00>51	.00412	.00231	.00139	.00319		+0543	+000745	.0551	.0327	+0000713	+0000713	.0606	+0606	.0594	.0350
40. KA	.00440	+00=+0	+00334	.00165	.00105	.00275		+0602	+000872	.0610	.0326	+0000523	+0000523	.0654	+0654	.0646	.0343
50.	.0036/	+00367	+00282	+00125	+000844	+00242		+0650	.000963	.0658	.0323	+00004)2	+0000412	+0694	+0694	.0686	.0336
80.	.00249	.00249	+004+3	+ 0 0 0 7 7 7	.000705	00218		+0686	.00104	.0697	+0317	+0000337	+0000337	•0729	+0729	+0721	+032A
100.	.00207	.00207	+00170	.000687	.000429	.00159		+0737	+00115	+0749	+0308	+0000249	+0000749	+0773	.0773	.0769	.0315
	/		******	+++++++	********	*****		•0 * * *	+U012=	+0197	+0246	+ v v v v 1 4 2	+0000142	*090%	.0808	.0704	.0301

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64 GADOLINIUM (barns/atom)

E (MeV)	σ _{inc,t}	$\sigma_{ioc,t}^{BD}$	KN 0)nc, a	o ^{BD} _{)nc,a}	o ^{KN}	σ ^{BD} _{inc,8}	σ _{coh}	σ×n	σ _{×e}	σ _{x,t}	σ _{x,a}	σ _{τ,t}	σ,	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot, a}	σ _{tot, en}
.001 My .001185	42.4 42.4	1.45 1.80	.0826 .0978	.00282 .00415	42.3 42.3	1.45 1.80	2570. 2530.					1000000. 691000.	1000000+ 691000+	1000000.	1000000. 691000.	1000000+ 691000+	1000000 • 691000 • 2160000 •
HIV .001217	42.4	1.86	.100	+00441	42.3	1.86	2520+					2030000.	2030000	2030000.	2030000.	2030000+	2030000.
.0015	42.3	2.39 2.47	.123	.00697	42.2 42.2	2+38 2+46	2450. 2440.					1360000+	1360000+	1360000.	1360000.	1360000+ 1280000+	1360000. 1280000.
HTT .001688	42,3	2.73	.139	.00895	42.2	2.72	2400+					1470000. 1130n00.	1470000. 1130000.	1470000. 1130000.	1470000. 1130000.	1470000. 11300no.	1470000.
H1 .001881	42,3	3.08	.154	.0112	42.1	3.07	2350•					1340000. 1030n00.	1340000+ 1030000+	1340000. 1030000.	1340000.	1340000.	1340000.
.002	42.2	3.30	.164	.0128	42.1	3.29	2320.					1240000.	1240000+	1240000.	1240000.	1060000.	1060000+
.003	42.1	5.08	.244	•0294	41.8	5.05	2060.					360000.	360000.	302000.	300000	360000.	360000.
.004	41.9	6.74	.323	.0519	41.6	6.69	1820.					100000.	100000.	1/0000+	100000	100000.	100000+
.005	41.8	8.25	400	0790	41.4	8.17	1610.					93700.	93700.	95300.	93700.	93/00.	93700.
.006	41.6	9.62	476	.110	41.1	9.51	1430.					57900.	57900.	59300+	57900.	21400+	5/900+
1007243	A1.A	11.1	569	.153	40.8	10.9	1240.					34900.	34900+	36200.	34900.	34900+	34900+
III			,	•1								107000.	90100+	108000+	107000.	107000.	90100+
1 007030	43 3	11 0	430	170	40.7	11.7	1150.					82500.	70600 .	83700.	82500.	82500+	70600.
HII +001430	41+3	11.44	*05 V	+11.4	4047	11+1	11-04					114000+	97000+	115000+	124000.	114000+	97000.
			4.75		40 7		1140					111000.	94600	112000.	111000.	111000.	94600.
+008	41+3	12.0	.025	+10Z		11+6	11404					99100	85100.	100000	99100.	99100.	85100+
L ₁ +008375	41.2	12.4	• 652	. 196	40.0	12.2	1100.					134000	97700.	115000.	114000.	114000.	97700.
												70800.	62300 .	71700.	70800.	70800.	62300.
+01	41.0	14.0	,768	.202	40+2	13+7	921.					224.00	31 600	24000	23400	23400.	21500.
+015	40.2	17.9	1+11	•495	39.1	17+4	598.					10000	10300	11200.	10800.	10800.	10200.
•0 2	39.5	20.7	1.43	•747	38+1	20+0	425.					10400+	10200+		7600	3584	2440
.03	38.2	24.2	1.99	1.26	36.3	22+9	248+					3980+	3440+	3050+	3000.	3560+	39900
.04	37.0	26.1	2,47	1.74	34.6	24.4	161+					1610.	1900+	1000.	10404	1010.	1500+
.05	35.9	27.1	2,90	2.19	33+0	24.9	113.					857.	030+	777.	870	0.2.	8-7.
K +050239	35.9	27.1	2,91	2.20	33.0	24+9	112.					542+	823+	784.	.700	.7	1540
_		-										4750+	1540+	4090 +	4/80.	4/50+	1340+
.06	34.9	27.6	3,28	2.59	31.6	25+0	84+7					2920 •	12/0+	30 30 +	2420 *	2770+	1270.
.08	33.1	27.9	3.88	3.27	29.2	24.6	51.7					1360.	783.	1440+	1340.	1360.	106+
.1	31.5	27.6	4.35	3.81	27.2	23.8	34.2					740.	489.	802.	768.	744.	
.15	28.4	26.4	5.15	4.79	23.2	21.6	16+1					744.	189.	286 •	270.	249.	194.
	26.0	24.8	5.62	5.36	20.4	19.4	9.34					110.	91.3	144.	175.	116+	96+7
	22.6	22.0	6.10	5.93	16.5	16.1	4.25					37.0	32+8	63.3	59.0	43 • <u>1</u>	38.7
	20.3	19.9	A. 28	6.11	14.0	13.8	2.41					17+4	15+9	39.7	37.3	23.7	S5+0
	19.5	19.3	6.31	6.19	12.2	12.1	1.56					9,90	9.23	29.8	28.2)6+2	15+4
• 5	10.1	10.3	4 30	A 15	10.8	10.9	1.09					6+41	6+05	24+5	23.4	12+7	12+2
• 8	16.0	11.0	4 15	6 04	8.80	9.94	.420					3.30	3.16	18.8)8+2	9,45	9+12
, •°	13.6	1447	6 05	5,70	7.57	7.92	. 396					2+08	2.01	16.0	15.6	8+03	7+69
		13.3		5,00	6.55	5.76	.179	. 279		.279	.0848	.990	+968	12.4	15+3	6+70	6+29
1.02	11.0	11.0	3,43	3.27	4.30	4.47	.100	925		.975	.425	+A00	•590	11.0	10.9	6+49	5.69
2.	7.30	7.35	4.71	3 00 1	3.11	3.48		2.28	.00257	2.28	1.39	• 323	•3)9	10.0	9.96	6+85	5.59
3.	1.31	1.30		3,00	3.11	3.46	-767	3 60	-106	2.61	2.37	•214	•212	9.91	9.88	7.46	5.90
<u>*</u> •	0+10	0+10	3.74	3,32	2.42	2.04	+0233	3,50	.0708	3.51 A.53	2.21	•158	+157	10.0	10.0	8+03	6+25
5.	5.32	5+32	3.34	2.88	1+78	2	+0105	2.21	+0208	5.36	3.80	174	.121	10.2	10.2	8.50	6.51
٥,	4,70	4.70	3.03	2.53	1.0/	2.11	+0114	3.32	+0322	3.37	3.00		+0865	10.7	10.6	9.37	7.07
8.	3,84	3.54	2.50	2.04	1+28	1.80	+00048	0.01	.0344			.0666	+0664	11.2	11.2	10.2	7.51
10.	3.27	3.27	2.24	1.67	1.04	1.00	+00410	<u></u>		10.3	7.17		.0416	12.7	12.7	12.0	8.42
15.	2.42	2++2	1+72	1.21	+/03	1+21	+0016/	10+1	*111	10+2	7 4 1 7	.0300	+0299	13.9	13.9	13.3	8.74
20.	1.94	1.94	1+41	,918	+232	1.02		11+8	•1•/	11+7	1+01	.0197	.0193	15.7	15.7	15.4	9.06
30.	1.42	1.42	1.00	.575	+358	+825		12-1	•141	10.3		.0141	+0141	17.0	17.0	16.8	R. 9n
40.	1.13	1+13	.855	•4Z1	+270	.709		19+7	.223	12+2	8+70	.0111	.0111	18.0	18.0	17.7	8.61
50.	.940	.940	,723	.320	+216	•620		10+0	• 24 7	17+0	0.28	.00914	.00913	18.9	18.9	18.7	8.46
60.	.809	.809	.628	.749	+181	+560		17+8	.200	10+1	0+20	00670	00670	20.0	20.0	19.9	8,13
80.	.638	•638	•205	.169	+136	+467		14+1	· 542	1.4+4	(• 77)	. 00537	.00527	20,9	20.9	20.8	7.75
100.	.530	•530	+421	•125	+109	+405		20.1	•310	20+4	/.79						

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64 GADOLINIUM (cm.³/g = 0,003830 x barns/atom)

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								(crr.)	/g = 0,0038	0 x barns	/atom)			:			
E (MeV)	(^µ _p) ^{KN} _{inc,t}	(%) ^{BD} inc, t	(#) ^{KN} inc, a	BD ([#] _p) _{inc, a}	([#]) ^{KN} _{inc, s}	(چ) ^{BD} _{inc,s}	([#] _p) _{coh}	(پ ٌ) _× ,	n(片)*e	(^{ير}) _{×,1}	([#] _p) _{*,a}	(#) _{7,1}	([#] _p) _{7, 4}	(賞) _{tot,t}	(#) _{tot,t-coh}	$\left(\frac{\mu}{\rho}\right)_{tot,a}$	(岁) _{tot, en}
.001 My .001185	•162 •162	•00555 •00689	.000316	.0000108 .0000159	.162 .162	.00555 .00689	9.84 9.69					3830+ 2650+ 8270+	3830. 7650. 8770.	3830. 2660.	3830 • 2650 • 8370 •	3A30. 2650. 8270.	3830+ 2650+ 8270+
MIA *001511	,162	.00712	.000383	-0000169	.162	.00712	9.65					7776+	7770. AB10.	7770. RR)0.	7770. Raio.	7770. Ario.	7770+ AA10+
.0015	.162	.00915	.000471	.0000267	.162	.00912	9.38					5210+	5210+	5210+ 4900-	5710.	5710. 4900.	5210+ 4900.
HIII .001544	.102	+00746	.000486	+0000284	.102	• 00 9 • 2	4.35					5630.	5630.	5630.	5630.	5630.	5630+
MII .001688	.182	.0105	.000532	+0000343	.102	•0104	9.19					5130.	5130.	51 30.	5130.	5130.	5130.
H ₁ .001881	.162	.0118	.000590	+0000429	.161	.0118	9.00					4750+	4750+	4750.	4750.	4750.	4750.
•002	.162	.0126	.000628	.0000490	. 161	.0126	8.89					4060.	4060.	4060.	4060.	4060.	4060.
.003	.161	.0195	.000935	.000113	. 160	.0193	7,89					1380+	1380.	1390.	1380.	1380.	1380.
+004	.160	.0258	•00124	.000199	.159	.0256	6.97					643+	643.	071.	643+	043.	643+
+005	.16 0	.0316	.00153	.000303	159	.0313	6.17					354.	334.	303+	157.	177.	337.
•006	+159	•0368	.00182	+000421	1 57	.0364	5.48					227•	222+	22/+	722+	722.	2224
L _{III} +007243	. 159	+0425	•00218	•000586	. 156	.0417	4.75					134+	1344	137.	137+	134.	746.
					164							314.	270.	321.	716.	316.	270.
LI +00/430	+128	+0439	.00231	+000088	+120		4.40					417.	372.	440.	A 37.	437.	172.
008	.158			. 000607	.156	.0452	4.37					425.	362.	429.	425.	425.	162.
1 008375	120	- 0400	+00239	*****	155	AAA7	4 31					380.	326.	383.	380.	380.	326.
"I +000312	+150	.0	+00230	*000/91	+100		4421					437.	374.	440.	A37.	437.	374.
•01	.157	. 0536	.00294	.00100	.154	.0525	3.55					271.	239,	275.	271.	271	239
.015	.154	.0686	.00425	+00190	.150	.0666	2.29					89+6	82+3	91.9	89+6	89.6	82.3
.02	.151	.0793	.00548	.00286	146	.0766	1.63					41+4	39.1	42.9	41.4	41.4	39+1
.03	.146	.0927	.00762	.00483	.139	.0877	.950					13.7	13.2	14.7	13.8	13.7	13.2
. 04	.142	.100	.00946	.00666	.131	.0935	.617					6+17	5.97	6.89	6+28	6.)7	5.97
.05	.137	104	.0111	.00839	126	.0954	.433					3.29	3.21	3.83	3.39	3.30	3.22
K.050239	.137	.104	.0111	.00843	.126	.0954	.429					3.24	3.16	3.77	3.34	3,25	3.17
												18.2	5,90	18.7	18.3	18.2	5,90
•06	+134	.106	+0126	•00992	.121	.0957	.324					1)+2	4.86	11+6	11+3	11.2	4.80
•08	.127	.107	•0149	.0125	.112	.0942	.198					5+21	3.00	2.52	5,32	5.21	3.01
•1	,121	.106	.0167	+0146	.104	.0912	.131					2+03	1.0/	3.07	2.94	<u> </u>	
•15	.109	+101	•0197	.0183	.0889	.0827	+0617				•	• • • • • •	360	.653	.517		
•2	.0996	.0950	.0215	+0205	.0781	.0743	.0358					• • • • • •	. 196	.747	.326	165	-370
•3	.0866	+0843	+0234	.0227	.0632	+0617	+0163					.0444	-0609	.152	-143		
• •	.0777	.0762	+02+1	+0234	.0736	.0529	.00923					.0379	.0354	.114	.108	.0620	
•5	.0709	+0701	+02+2	.0237	.0467	.0463	+00597					.0246	. 0232		. 0896		.0.570
•6	.0655	+0651	+0241	.0236	.0414	+0414	.00417					.0126	.0121	.0720	.0697	0362	
.•8	.05/5	+05/1	+0236	+0228	.0340	.0342	+00237					.00797	.00770	.0613	.0597	.0308	
1. E			+0228	+0210	0217	.0300	00152	00107		00107	000325	.00379	.00371	.0475	.0471	.0257	.0241
1+3	.0758	+0461	+0208	+0201	0169	.0179	.000383	.00154		.00364	.00163	.00230	.00226	.0421	.0417	.0249	.0218
5.	+0356	+0350	0140	•01/9	0110	.0177	.000173	.00973			.00532	.00124	.00122	.0383	.0381	.0262	.0214
A .	.0234		.0163	.0127	.00927	.0109	.0000969	.0134	-0000406	.0134	.00908	.000820	.000812	.0380	.0378	.0286	.0226
5.	.0204	.0204	-0128	.0110	.00758	.00935	-0000632	-0173	.0000797	.0173	.0123	.000605	.000601	.0383	.0387	.0308	.0239
<u>.</u>	.0180	.0180	.0116	.0.969	0064.0	.00831	.0000437	-0204	+000123	.0205	.0149	+000475	.000471	.0391	•0391	.0326	.0250
A.	.0147	.0147	.0.980	.00781	00490	.00689	.00n074R	+0255	-000Z0A	.0257	.0189	.000333	.000331	+0410	.0406	.0359	.0271
10.	.0125	.0125	-00854	-00640	00398	.00613	-0000157	.0299	000287	.0302	.0222	.000255	.000254	.0429	.0429	.0391	.0288
15.	.00927	+00927	.00659	+00463	.00269	.00463	.0000064	.0387	+000448	.0391	.0275	+001160	.000159	.0484	.0456	+0460	•0322
20.	.00743	.00743	.00540	.00352	.00204	.00391		.0452	.000563	0456	.0299	+000115	+000115	.0532	+0532	.0509	.0336
30.	.00544	.00544	.00406	.00228	.00137	.00316		+0540	+000732	054R	.0324	+0000739	.0000739	•0601	+0601	+0590	·0347
40.	.00433	.00433	.00327	.00161	.00103	.00272		.0601	.000854	.0609	.0324	+0000540	+0000540	• 651	+0651	.0643	+0341
50.	.00360	.00360	.00277	.00123	.000827	.00237		.0643	.000946	.0651	.0317	+0000425	+0000425	•0689	• 1689	.0678	.0330
60.	.00310	.00310	.00241	.000954	.000693	.00214		.0682	.0010Z	.0693	.0314	+0000 350	+0000350	•0724	+0724	.0716	.0324
80.	.00244	.00244	.00192	.000647	.000521	.00180		.0732	.00113	.0743	.0304	.0000257	•000 n257	.0766	•0766	.0762	.0311
100.	.00203	.00203	.00161	.000479	.000417	.00155		.0770	+00121	.0781	.0291	+0000202	•000n202	•0800	•08 00	.0797	.0296
						-				·· -•	•						

65 TERBIUM (barns/atom)

E (MeV	$\sigma_{inc,t}^{KN}$	o ^{BD} _{inc,t}	o ^{KN} 0)nc, a	σ ^{BD} inc, a	σ ^{KN} σ _{)nc,s}	σ ^{BD} _{)nc,s}	σ _{coh}	σ×n	σ×e	<u>σ_{*,t}</u>	<u>σ_{×, a}</u>	σ _{r,t}	σ,	σ _{tot,t}	o _{tot,t-coh}	Utot,a	σ _{tot, en}
001 ۲ _۷ ۵۰۱۶	43.1 43.0	1.44 1.89	.0839 .104	.00281 .00456	43.0 42.9	1.44 1.89	2660. 2600.					1050000. 657000. 2050000.	1050000+ 657000+ 2050000+	1050000+ 660000+ 2050000+	1050000. 657000. 2050000.	10500n0+ 6570n0+ 2050000+	1050000+ 657000+ 2050000+
HIV .0012	74 43.0	1.95	.107	.00484	42.9	1.95	2600.					1930000.	1930000+	1930000.	1930000.	1930000.2190000.	1930000 + 2190000 +
.0015	43.0	2.37	.125	.00691	42.9	2.36	2540.					1450000.	1450000.	1450000.	1450000.	1450000.	1450000.
MIII .0016	10 43.0	2.57	+1.54	+00804	42.0	2.00	2210+					1400000.	1400000.	1400000.	1400000.	1400000.	1400000.
M _{II} .0017	5 42.9	2.86	.147	.00980	42.8	2.85	2470.					1070n00. 1280000.	1070000. 1280000.	1070000.	1070000.	1070000. 12800n0.	1280000.
H _I .0019	53 42.9	3.22	.163	.0123	42.7	3.21	2420.					987000. 1180000.	987n00. 1180000.	989000. 1180000.	987000+ 1180000+	987000. 1180000.	987000.
.002	42.9	3.28	.166	.0127	42.7	3.27	2410.					1130000.	1130000.	1130000.	1130000.	1130000.	1130000.
.003	42.7	5.06	.248	.0293	42+5	5.03	2160.					388000+	179000.	181000.	179000.	179000+	179000+
+004	42.6	6.73	.328	.0518	42.2	0.00	1910+					99000.	99000	101000.	99000.	99000.	99000+
+005	42,4	0.43	484	.110	41.8	9.42	1500.					61500+	61500+	63000+	61500+	61500+	61500+
	42.0	11.5	.598	.164	41.4	11.3	1260.					33800.	33800.	35100.	33800.	33800+	33800+
-111			••••	•••		• • •	• - · ·					103000.	86400+	104000.	103000.	103000+	72944
+008	41.9	12.0	.635	.182	41.3	11.8	1200.					85900+	12900+	79800	78600.	78600.	47100+
LII .0085	52 41.9	12.3	. 653	, 192	41.2	12.1	1170.					109000+	92400.	110000.	109000+	109000.	92400 .
T 0087		12.	497	210	A1.1	12.6	1110.					94600+	81000.	95700.	94600+	94600+	81000+
-1 •0001	41.0	12.00	+001	• 210		1240						109000.	93200.	110000+	109000.	109000+	93200.
.01	41.6	14.0	.780	• 262	40+9	13.7	973.					75000.	65500+	76000+	75000.	75000.	45500+
.015	40.9	18.0	1.13	,498	39.8	17.5	626.					25000+	22900+	43000+	11400.	11400+	10700.
.02	40.2	20.9	1,45	.754	38.7	20.1	444.					3920.	3660.	4100.	3840.	3820.	3660 .
.03	38.8	24.4	2.02	1.27	36.8	23.1	259.					1720.	1670.	1910.	1750.	1720+	1670+
+04	37.6	26.4	2,51	1.76	1001	24.0	118.					913.	890.	1060.	940+	916.	892+
T 0510	30,5	27.6	3.02	2.30	11.3	25.3	111.					821.	801.	960+	849.	824.	803.
× •0317	10 30.0	L/ •0	3.02	L.J.		L						4570+	1470.	4710.	4000.	4570+	1470+
.06	35.5	28.0	3,33	2.63	32+1	25.4	88+3					3080.	1270.	3200+	3110.	1630.	804.
.08	33.6	28.2	3.94	3.30	29.7	24.9	53+8					785.	601.	849.	813.	789.	513.
•1	32.0	28.0	4.42	3,86	27.0	24.1		<u> </u>			·		199.	304+	287.	265.	204 •
•15	28.8	20.8	5.71	5.43	23+0	19.7	9.74)18.	97.2	153+	143.	174+	103.
. 2	23.0	22.3	6.19	6.01	16.8	16.3	4.43					39+2	34.6	65.9	61.5	45+4	40.0
	20.6	20.2	6.38	6.20	14.2	14.0	2+51					18.5	18+9	41+2	38.7	24+9	23+1
.5	18.8	18.5	6.41	6,23	12+4	12.3	1+63					10.5	9+/0	30+0	24.0	13.2	12.6
.6	17.4	17.2	6.39	6.23	11.0	11+0	1.13					3.52	3.37	19.4	18.7	9.76	9.43
.8	15.3	15.2	6.24	6.06	9.03	9+14	+645					2.22	2+14	16.3	15.9	8+26	7.91
1.	13.7	13.7	6.04		- 7.09 E.64	<u> </u>		. 290		.290	.0882	1+06	1.04	12+6	12+4	6+87	6.40
2.	9.51	9.50	5.05	4.75	4.46	4.75	+104	.963		.963	.443	•638	•627	11+2	11+1	6+65	5+82
3.	7.48	7.47	4.32	3.93	3.16	3.54	.0470	2.35	+00262	2+35	1+43	+ 345	+341	10+2	10+2	7.64	5.03
4.	6,25	6.25	3.79	3,36	2.46	2.89	+0264	3.61	•0107	3.62	2.44	• 228	•220	10.3	10.2	8.23	6.39
5.	5.40	5+40	3.39	2,92	2.01	2.48	+0172	4.05	+0211	4+0/ 5-57	3+30	+133	•132	10.4	10.4	8.72	6.70
6.	4.77	4.77	3.07	2.57	1.70	2.20	+0119	5.84	+0327	5+52	5.07	+0931	.0977	10.9	10.9	9.61	7.27
.8.	3,90	3.90	2.00	2.00	1.05	1.62	.00427	8.05	0760		5.96	•0712	.0709	<u> </u>	11.5	10.5	7.73
15.	2.46	2.46	1.75	1.23	.714	1.23	.00173	10.3	+118	10+4	7.28	+0443	+0442	12.9	12+9	12.2	R.94
20.	1.98	1.98	1.44	.935	.540	1.05		12.1	+149	12+2	7.97	+0317	.0205	16-2	16.2	15.8	9.27
30.	1.44	1.44	1.07	.600	• 36 3	+840		14.5	+194	14.7	8.05	.0150	•0150	17.5	17.5	17.2	9.08
40.	1.14	1+14	,868	.423	+274	•717		10+1	+ 220	10+3	8.48	+0118	+0118	18.6	18+6)8.3	A+81
50.	+954	+954	.734	.322	•220	.632		18.3	.270	18.6	8.39	.00975	+00974	19.4	19+4	19.2	8+65
60.	.822	1022	+0.50	+ 252	13A	.477		19.7	.300	20+0	8.14	+00718	+00718	20+7	20.7	20+5	8.32
100.	.538	.538	.427	.126	.111	+412		20.6	.321	20.9	7.74	+00543	•00%63	71.4	71+4	71+3	1 + 6 7
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65 TERBIUM (cm³/g = 0.003790 x barns/atom)

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E	(MeV)	(声) ^{KN} (声) _{nc,t}	(声) ^{BD} inc,t	([#] _p) _{nc,a}	([#] _p) _{nc, a}	(岁) ^{KN} inc,s	(声) _{nc,8}	(声) _{coh}	(پ ٌ)×r	(券) _{×e}	(^μ _ρ) _{×, t}	([#] _p) _{×, a}	([#] _p) _{7,t}	$(\frac{\mu}{\rho})_{\tau, a}$	([#]) _{tot,t}	([#]) _{tot,t-coh}	(^µ _p) _{tot.a}	(ģ) _{tot} , en
	.001	.163	+00546	.000318	.0000106	.163	.00546	10.1					3980+	3980.	3980.	3980.	3980. 2490.	3980 - 2490 -
мv	.001240	.163	+00716	.000394	+0000173	, 163	+00716	9.85					7770.	7770.	7770.	7770.	7770.	7770.
MIN	.001274	.163	.00739	.000406	.0000183	.163	.00739	9.85					7310.	7310.	7310.	7310.	7310.	7310.
		147				167		0 4 3					5500.	H300.	5500.	5500.	5500.	5500.
M	+0015 +0015	.163	+00876	+000474	-0000262	.162	.00970	9.51					4620.	4620.	4670.	4620.	4620.	4620.
			••••										5310+	5310+	\$310.	5310 •	5310.	5310+
MII	•001765	•163	.0108	•000557	.0000371	162	•0108	9.36					4850.	4850.	4850.	4850.	4850.	4850.
H _I	.001963	.163	.0122	.000618	+0000466	,162	.0122	9.17					3740.	3740.	3750.	3740. 4470.	3740. 4470.	3740. 4470.
	•002	.163	.0124	.000629	+0000481	.162	.0124	9.13					4280+	4280.	4280.	4280.	4280.	4280.
	.003	.162	.0192	.000940	.000111	.161	.0191	8.19					1470+	1470.	1480.	1470.	1470.	478.
	•004	•161	.0255	.00124	.000196	.160	.0253	7.24					376.	375.	383.	375.	375.	375.
	.005	•161	.0313	+00154	+000299	159	-0361	0+41					233.	233.	239.	233.	233.	233.
T	.000 .007514	.159	.0.305	+00183	+000417	.157	.0428	4.78					128.	128.	133.	128.)28.	128.
-111		•••				••••							390.	327 .	394.	390.	390.	327+
	.008	•159 ·	+0455	.00241	.000690	. 157	.0447	4.55					376.	276+	370.	326.	326.	270+
LII	.008252	.159	.0466	+00247	+000728	. 156	•0459	4.43					298.	254+	417	270.	A13.	350.
1	0.08708	.168				156	.0478	4.21					359.	307.	363.	359.	359.	307.
						••••							413.	353.	417.	413.	413.	353.
	.01	.158	.0531	+00296	+000993	.155	.0519	3.69					284+	248.	288.		284	248+
	+015	.155	.0682	+00428	+00189	.151	.0663	2.37					94+8	80.0	45.1	41.2	43.2	40.6
	•02	+152	.0792	.00550	.00286	+147	.0762	1.68					14.5	13.9	15.5	14.6	14.5	13.9
	•03	147	•0925	+00/66	+00481	139	.0012	.437					6.52	6.33	7.24	6.63	6.52	6.33
	.05	.138	.104	.0111	.00838	.127	.0955	.447					3.46	3.37	4+02	3.56	3.47	3.38
K	.051996	.138	.105	+0114	.00872	.126	.0959	.421					3.11	3.04	3+64	3.22	, <u>3</u> ,12	3+04
													17.3	5.57	17.9	11.8	11+3	3+57
	• 06	.135	.106	+0126	.00997	•122	.0963	•3.35					5.42	3.04	5.72	5.53	5.42	3.05
	•08	.121	•107	+0149	+0125	.115	.0913	.135					2.98	1.93	3.22	3.08	2.99	1.94
	15	-109	.102	+0198	+0184	.0894	.0830	.0637					+985	•754	1+15	1+09	1.00	•773
	.2	.100	.0951	.0216	.0206	.0785	•0747	.0369						+ 308	+ 560	. 392	.172	.154
	• 3	.0872	.0845	.0235	+0228	.0637	+0618	+0168					.0701	+131	.156	147	0944	.0875
	•	.0781	.0766	+0242	+0235	.0538	.0531	+00951					.0398	.0370	.116	.110	.0641	+0606
	•7	.0659	.0652	+0243	.0236	.0417	.0417	.00428					+0258	.0243	.0951	.0910	.0500	+0478
	.8	.0580	.0576	.0236	.0230	.0342	.0346	+00244					+0133	.0128	.0735	.0709	.0370	.0357
1	•	.0519	.0519	.0229	+0219	.0291	.0301	.00156					+00841	+00811	+ 0618	+0603	.0313	+0300
1	•5	.0424	.0421	.0209	•0500	.0214	.0221	.000705	.00110		.00110	+000334	.00242	.00238	.0424	.0421	.0252	.022)
2	•	.0300	.0360	+0191	+0180	.0109	.0180	+000394	.00365		+00365	.00542	.00131	.00129	.0387	.0387	.0266	.0216
	•	.0237	.0237	.0144	.0127	.00932	.0110	.000100	.0137	.0000406	.0137	.00925	.001864	.000857	.0387	.0387	+0290	•1229
5	•	.0205	.0205	+0128	.0111	.00762	.00940	+0000652	.0176	.0000800	.0177	0125	+000644	+000641	+0390	.0387	+0312	+0242
6	•	.0181	+0181	.0116	+00974	.00644	.00834	+0000451	+0208	.000124	•0209	+0152	+000504	+000500	+0394	.0394	+0330	+0254
. 8	•	.0148	.0148	+00985	.00781	.00493	.00697	+0000257	.0260	.000209	.0262	.0192	+000353	+000269	.0436	. 0436	.0398	.0293
-12	*	.00932	.00932	+00860	400099	.00271	.00466	.0000066	.0390	.000447	.039A	.0276	.000168	+000)68	.0489	.0489	+0462	45 60.
20		.00750	.00750	.00546	.00354	00205	.0039A		.0459	.000565	+0462	.0302	+000120	+000120	- 0538	+053A	.0519	•0339
30	•	+00546	+00546	+00406	.00227	.00138	.00318		.0550	.000735	.0557	.0328	+0000777	+0000777	+0614	+0614	.0599	•0351
40	•	+00432	+00432	.00329	+00160	.00104	.00272		.0610	.000857	.061R	.0327	+0000565	+0000568	+0063	+0003	Sco0+	+0344
50	•	.00362	.00362	+00278	+00122	.000834	.00240		+0656	.000951	.0667	.0321	.0000370	.0000369	.0734	.0735	0728	.0328
00	•	-00312	+00312	+00242	+000755	.000523	+00210		.0747	.00114	+0703	•0318	+0000272	+0000272	.0785	.0785	.0777	.0315
100	•	.00204	.00204	+00162	.000478	.000421	.00156		.0781	.00122	.0792	.0293	+00002)3	.0000213	.0811	.0811	.0807	•0298

66 DYSPROSIUM (barns/atom)

E	(MeV)	σ _{inc,t}	σ ^{BD} _{inc,t}	o ^{KN}	o ^{BD} o _{inc,a}	0 ^{KN})nc, s	σ ^{BD} inc,s	σ _{coh}	σ×n	σ×e	σ _{*.t}	σ _{×,a}	σ _{r, t}	σ _{τ, a}	$\sigma_{tot,t}$	σ _{tot,t-coh}	σ _{tot} , a	σ _{tot, en}
•1 Ну •1	001 001295	43.7 43.7	1.42 1.98	.0852 .110	.00277 .00499	43.6 43.6	1.42 1.98	2750. 2680.					1100000.	1100000. 626000.	1100000+	11n0000+ 626000+	110000. 676000.	1100000.
M _{IV} .(001332	43.7	2.04	.113	.00529	43.6	2.03	2670.					1960000+ 1840000+	1960000+	1960000+	1960000+	1960000+ 1840000+	1960000+ 1840000+
(0015	43.6	2.35	.127	.00685	43.5	2.34	2630.					2080000+	2080000. 1540000.	2080000+ 1540000+	20A0000+ 1540000+	2080000+ 15400n0+	2080000+ 1540000+
*111 *	01010	43.0	2.08	•1•2	.00873	43+5	2.67	2580+					1170000. 1350000.	1170000+ 1350000+	1170000+ 135n000+	1170000+ 1350000+	1170000+ 1350000+	117000 0 . 1350000.
"II •	001842	43.6	2.96	, 156	.0107	43.4	2.97	2540+					1020000. 1220000.	1020000. 1220000.	102n00n. 1220000.	1020000. 1220000.	1020000. 1220000.	1020000. 1220000.
، ۲۰	02 002046	43.6	3.27 3.35	.169 .173	.0127	43.4 43.4	3.26	2500. 2490.					1000000.	100000.	1000000.	100000.	1000000+	1000000.
	003	43.4	5.05	. 252	.0293	43.1	5.02	2240.					1130000.	1130000.	1130000.	1130000 .	1130000+	1130000.
	04	43.2	6.72	.333	.0517	42.9	6.67	1990.					192000.	192000.	194000.	192000.	192000.	192000.
•	005	43,1	8.25	.412	.0790	42.6	8.17	1760.					106000.)06000+	108000+	106000.	106000.	106000+
. •9	006	42.9	9.64	+491	.110	42.4	9.53	1560+					65600.	65600 .	67200+	65610+	65600+	65600+
·111 •0	01790	42.6	11.5	•629	+174	42+0	11+6	1280.					32800+ 98400+	32800+ 82100+	34100+ 99700+	37800 · 98400 ·	32800 · 98400 ·	32800 · 82100 ·
•	008	42.6	12.0	.644	.182	41+9	11.8	1250.					90900.	76200.	92200+	90900.	90900+	76200.
¹ 11 • 0	04580	42,5	12.7	.688	.206	41.8	12.5	1170.					74900.	63600+	76100.	74900+	74900+	63600.
L(09046	42.4	13.1	.723	.223	41.7	12.9	1120.					90400+	77000.	915000+	104000+	104000+	87800+
1													104000.	88400.	105000.	104000.	104000.	88400.
)]	42.3	14.1	. 792	+264	41.5	13.8	1010.					79300.	68600+	Bn300.	79300.	79300+	68600+
•0	12	40.8	21.0	1+15	+501	40.4	17+6	651+					12200.	24000+	12700.	20400+	20900+	24000+
	3	39.4	24.7	2.05	1.29	37.4	23.4	269.					4090.	3910.	4380.	4110.	4090.	3910
•0	4	38.2	26.7	2,55	1.78	35.6	24.9	175.					1840.	1780.	2040.	1870.	1840.	1780.
- •0	5	37.1	27.8	2,99	2.24	34+1	25+6	123.					978.	952 •	1130.	1010.	981.	954+
K +0	53/88	30*0	28.0	3,14	2.40	33+5	25+6	109.					4400.	14104	¥34+ 4540.	825+	800+	1410.
•0	6	36.0	28.3	3.38	2.66	32.6	25+6	91+8					3260.	1280.	3340.	3290.	3260 .	1280.
.0	8	34.1	28.6	4.00	3,35	30+1	25.3	56.0					1510.	821 +	1590 .	1540.	1510.	824.
بب ا	<u> </u>	32,5	28,3	4,49	3.91	28+0	24.4						830.	527	895.	858,	814.	531.
•1		24.3	27.1	5,31	4.92	24+0	22+2	17+5					275.	208+	320+	302.	280+	213.
		23.3	22.7	6.29	6.12	17.0	16.6	4.61					41.7	36.6	69.0	64.4	48.0	42.7
		20.9	20.5	6.47	6.29	14.4	14.2	2.61					19.6	17+8	42.7	40.1	26+1	24+1
.5	6	19.1	18.8	6.51	6,34	12.6	12.5	1+69					11+3	10.5	31.8	30+1	17.8	16+8
		17.7	17.5	6,49	6,33	11.2	11.2	1+18					7+32	6+87	26+0	24.8	13.8	13+2_
۰ ۰	,	13.9	13.9	6.13	5.84	7.81	9+25	+670					2.38	2.29	16.7	16.3	10+1	8.13
-1.5	, · · ·	11.3	n.i	5.60	5.37	5.72	5.93	•193	.301		. 301	.0915	1.14	1.11	12.9	12.7	7.04	6.57
2.		9.66	9.64	5.13	4.82	4.53	4+82	.108	1.00		1.00	.460	+685	+677	11+4	11+3	6+81	5.95
3.		7.60	7.59	4,38	3,99	3.21	3.60	+049	2,44	.00265	2.44	1.49	+ 369	• 365	10.4)0.4	7.19	5.04
- 1		0.35	5.48	3,85	3,41	2.04	2.94	+0275	3.72	.0109	3.73	2.51	• 181	.180	10.5	10+5	8.44	0+10
6.		4.85	4.85	3.12	2.60	1.73	2.25	•0124	5.65	.0332	5.68	4.11	•143	+142	10+7	10.7	R . 94	6+85
8.		3,96	3.96	2.64	2.09	1.32	1+87	.00705	7.01	.0560	7.07	5.18	+0995	+ 0990	11+1	11+1	9+81	7+37
10.		3,38	3.39	2.31	1.72	1.07	1.66	+00446	8.30	+0771	8+38	6.12	+0760		11.8)1.8	10.8	7.92
15.		2.01	2.50	1.46	1+24	+ 729 - 549	1.20	+09180	12.4	+120	10+7	7+46	+04/5	+0474	13+2	13+2	12.5	5+75 0,11
30.		1.46	1.46	1.09	.607	.369	.853		14.9	.197	15+1	8.85	+0219	+0719	16.6)6.6	16+2	9.48
40.		1.16	1+16	.882	.429	.279	.731		16.5	.230	16.7	8.78	+0160	+0160	17.9	17.9	17+6	9.22
50.		.969	.969	.746	.327	•2 23	.642		17.8	+254	18+1	8.70	+0126	+0126	19+1	19+1	18+9	9.04
60.		.834	+934	.648	+ 255	•187	•579		18.8	•274	19+1	8.58	+0103	+0103	19+9	19.9	19+8	8+85
100.		.546	.546	.434	.127	•113	.419		21.3	.326	20+5	7.96	.00600	•00600	72.7	72+2	22+0	A+09

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66 DYSPROSIUM (cm¹/g = 0,003706 x barns/atom)

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E (MeV)	([#] _p) ^{KN} _{inc,t}	([#] _₽) ^{BD} _{inc,t}	([#] _p) ^{KN} _{nc,a}	(声) ^{BD} inc, a	([#]) ^{KN} _{inc,s}	$\left(\frac{\mu}{\rho}\right)_{nc,s}^{BD}$	([#] _p) _{coh}	(≝)×µ	(片) _{N e}	([#]) _{x,t}	([#] _p) *,	([#] _p) _{r,t}	([#] _p) _{7,8}	([#]) _{ti,t,t}	(\$),t.t.coh	([#] _p) _{tot.a}	([#] _p) _{tot} , er.
.001 My .001295	.162 .162	•00526 •00734	.n00316 .000408	.0000103 .0000185	•162 •162	.00526 .00734	10.2 9.93					4080. 2320.	4080. 2320.	4080. 2330. 7260.	4080+ 2320+ 7260-	4080. 2320. 7260.	4080. 2320. 7260.
MIN .001332	.162	.00756	.000419	.0000196	.162	.00752	9.90					6820+	6820+	6920.	6A20+	6A20.	6820.
+0015	.162	.00871	.000471	.0000254	.161	.00867	9.75					5710+	5710.	5710.	5710.	5710.	5710 · 4340 ·
HIII .001676	.162	.00993	.000526	.0000324	101	.00990	9,50					5000+	5000.	5000. 3780.	5000+ 3780+	5000 · 3780 ·	5000 . 3780 -
HII +001842	.162	•0110	.000576	.0000397	101		0.76					4520.	4520.	4520.	4520.	4520. 3710.	4520 • 3710 •
+002 M ₁ +002046	.162 .162	•0121 •0124	.000626 .000641	.0000493	.161	.0124	9,23					3500 •	3500.	3510.	3500.	3500.4190.	3500. 4190.
.003	.161	.0187	.000934	.000109	.160	.0186	8.30					1530.	1530.	1530.	1530.	1530.	1530. 712.
+004	. 160	+0249	.00123	+000145	+157	+0247	1+31					303	393.	400.	201.	193.	193.
+005	.160	•0306	+00153	•000293	.158	+0.303	0+54					24.7	343.	249.	743.	243.	243.
•006	.159	.0357	•00182	+000408	.157	.0353	5.78					127	127.	126.	122.	122.	122.
LTTT .007790	.158	+0437	•00233	+000645	•156	+0430	4.74					122+	165+	749.	745.	765	304.
111												367.	304+	3070	3034	127	582.
.008	.158	+0445	.00239	+000674	155	.0437	4.63					337.	202+	3424	33'4	378	236.
008580 , ,,1	,158	.0471	.00255	.000763	. 155	•0463	4,34					2/8+	230+	202.	2700	-85	125.
												385.	325+	307.	303+	305.	285.
L _I .009046	.157	•0485	•00268	+000826	•155	.0478	4.15					385.	328.	389.	385.	385.	328.
.01	.157	.0523	+00294	+000978	.154	.0511	3.74						254.	298.	294.	294	254.
115	.154	+0671	.00426	.00186	.150	.0652	2.41					97+8	88.9	100.	97.8	97.8	68.9
.02	151	.0778	.00545	.00281	.146	.0749	1.71					45.2	42.2	47+1	45.2	42+Z	42.2
.03	146	.0915	.00760	.00478	139	0867	.997					15+2	14.5	10+2	15+2	15+2	14.5
.04	142	.0990	00945	.0066.0	132	.0923	.649					6.82	6+60	7.56	6.93	6.82	6.60
.05	117	.103	.0111	.00830	126	0949	.456					3.62	3.53	4+19	3.74	3.64	3.54
r .053788	136	104	.0116	.00889	.124	.0949	.404					2.95	2+88	3.46	3.06	2.96	2.89
x	••••	••••		••••	••	•						16.3	5.23	16+8	16+4	16.7	5.23
.06	.133	.105	.0125	.00986	.121	.0949	.340		•			12+1	4.74	12+5	12+2	12+1	4.74
.08	126	+106	+0148	+0124	.112	.0938	.208					5.60	3.04	5.89	5.71	5.60	3.05
• • • •	120	.105	.0166	.0145	104	.0904	.137					3.08	1.95	3,32	3,18	3.09	1,97
-15	.109		-0197	0182	0889	.0823	.0849) • 02	.771	1.19	1.12	1.04	.789
	.0993	0945	.0215	.0204	.0778	.0741	.0374					•463	+378	+597	• 556	+485	+400
	0863	0841	.0233	.0227	.0630	.0615	.0171					+155	.136	•256	.239	.178	+158
• 3	0775	.076.0	.0240	.0233	.0534	.0526	.00967					+0726	•0660	.158	+149	• 0967	.0593
	0708	.0697	.0241	.0235	.0467	.0463	.00626					+0419	•0389	+118	+112	+0660	• 0623
•5	0454	.0449	.0241	. 0235	.0415	.0415	+00437					.0271	.0255	•0964	•0919	0511	+0489
	0574	.0571	.0235	.0228	.0340	.0343	.00248					+0140	.0134	•0734	•0712	+0374	.0361
1.	.0515	.0515	.0227	.0216	.0289	.0299	.00159					+00A82	+00849	+0614	.0604	.0315	.0301
1.5	0419		-0208	.0199	.0212	.0220	.000715	.00112		.00112	.000339	+00422	+00411	047/	.0471	+0261	.0243
2.	.0358	.0357	.0190	.0179	.0168	.0179	.000400	.00371		+00371	.00170	+00254	+00249	+0422	•0419	•0252	•0221
ā .	.0282	.0281	.0162	.0148	.0119	.0133	.000182	+00904	.00000982	+00904	•00552	+00137	+00135	.038	5 . 0385	•0569	+0216
	0235	.0235	.0143	-0126	.00926	.0109	.000102	.0138	.0000404	.0138	.00930	+000901	.000893	•038	\$.0382	+0290	+0226
21	0203	0203	.0127	.0110	.00756	.00934	.0000663	.0178	.0000793	.0179	.0126	.000671	•000667	.0384	•0389	.0313	+0247
3.	.0203	.0203	.0116	.00964	.00641	.00834	+0000460	.0209	.000123	.0211	.0152	.001530	+000526	+0391	7 .0391	•0331	.0254
a .	-0100	.0147	.0897=	.00775	00489	.00693	.0000261	.0260	.000208	.0262	+0192	000369	.000367	+0411	+0411	.0364	.0271
	A126	.0125	.00854	.00637	.00397	.00615	.0000165	.0308	.000286	.0311	.0227	.000282	+000241	+0431	0437	+0400	+0294
	00123	.00926	.00656	-00460	.00269	.00467	.0000067	.0393	+000445	.0397	.0276	+000176	+000176	+0484	+0489	• 0463	+0324
12+	+UU720	+UU720	.00541	.00350	.00203	.00397		.0460	.000560	.0467	.0301	.000127	.000127	+1541	.0541	+0523	.0334
20.	+00745	+00743	.00404	.00225	.00137	.00316		0552	.000730	.0560	.0328	+0000B12	+0000812	+061	.0615	.0600	.0351
30.	++++++	000041	.00327	.00150	.00103	.00271		+0611	.000852	.0619	.0325	.0000593	.0000593	+066	.0663	. 0652	.0342
40 +	.00-30	+00+30	+00321	.00137	.000824	.00238		.0660	+000941	.0671	.0322	.0000467	+0000467	.070	+0704	+0700	.033
50.	+00359	+00339	+00210	+ UUIEI	000603	.00215		.0697	.00102	0708	.0318	+0000382	.0000382	.0731	1 .0737	+0734	.0 324
60.	.00309	+00204	.002.00	+000795	000073	00180		.0749	.00113	0760	.0307	.0000282	+00002R2	.078/	.0786	.0778	.0314
80.	.00244	+00244	+0014Z	+0006=1	.000523	+V0100			.00121	.0800	.0295	.0000292	.0000222	.0821	.0821	.0815	.0 300
100.	*00205	•00202	+00101	+000471	+000414	+00122		.0107	*AATET			TTTTTT	*******				

67 HOLMIUM (barns/atom)

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E (MeV)	σ _{inc,t}	o ^{BD} _{inc,t}	σ ^{KN} σ)nc, ∎	0 ^{BD} 0 ^{inc, a}	O ^{KN} Oinc.s	σ ^{BD} _{inc,s}		σ _{¥n}	σ _{×e}	σ _{κ.t}	<u>σ_{*, a}</u>	σ _{r,t}	σ _{r,a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot, a}	σ _{tot, en}
.001	44.4	1.41	.0865	.00275	44.3	1.41	2830.					1150000+	1150000+	1150000+	1150000.	1150000+	1150000+
H001351	44.3	2.06	.117	.00542	44.2	2.05	2750 .	•				598000+	598000+ 1870000+	1870000+	1870000+	1870000+	1870000 •
HIV .001392	44.3	2.14	.120	.00580	44.2	2.13	2740.					1750000.	1750000+	1750000+ 1980000+	1750000. 1980000.	1750000+ 1980000+	1750000+ 1980000+
.0015	44.3	2.34	.129	.00683	44.2	2.33	2710.					1620000+	1620000+	1620000.	1620000+	1670000+	1620000+
HTT .001743	44,3	2.78	.150	.00941	44.1	2.77	2650.					1120000.	1120000.	120000+	1290000	1290000.	1290000.
···			145	0116	44.1	3.10	2610.					976000.	976000.	979000.	976000.	976000.	976000 .
"II +001923	**.2	3+11	•105	.0110		3.10	20100					1160000.	1160000.	1160000.	1160000.	1160000.	1)60000. 1050000.
•002	44.2	3.25	.172	.0126	44.0	3.24	2580+					905000	905000.	908000.	905000.	905000.	905000.
HI .002130	44,2	3.48	.183	+0144	44.0	3.47	2330+					1080000.	1080000.	1080000.	1080000.	1080000.	1080000.
.003	44.1	5.03	,255	.0292	43.8	5.00	2320.					438000.	438000.	440000.	203000	203000.	203000.
.004	43.9	6.70	.338	.0516	43.5	6.65	2060 •					113000.	113000	115000.	113000.	113000.	113000.
.005	43.7	8.24	+419	.0789	43.3	8.10	1630.					70100.	70100.	71700.	70100.	70100.	70100.
.005	43.2	12.1	.654	.183	42.6	11.9	1300.					32200.	32200.	33500.	32200.	32200.	31800.
L008072	43.2	12.1	.660	.185	42.6	11.9	1290.					31800.	31800+	95700.	94400	94400.	78400.
			734	-10	47.4	12.0	1180.					71500.	60600	72700.	71500.	71500.	60600.
TI .008418	4341	13+0		+217	42.44	12+0	1100.					98700.	83000.	99900.	98700.	98700.	83000+
L009394	43.0	13.5	.760	.239	42.2	13.3	1120.					86300.	73300.	87400.	86300.	99800.	84600.
1	·				•							99800.	72100.	85300.	84200.	A4200.	72100.
.01	42.9	14.1	.804	.264	42.1	13.8	478.		·			28100.	25400.	28800.	28100.	28100.	25400+
.015	42.1	18+2	1+17	• 50 3	19.9	20.4	479.					13000.	12100.	13500.)3000.	13000.	4110.
.03	40.0	24.9	2.08	1.30	38 . 0	23.6	280.					4320.	4110.	2170.	1990.	1960.	1890.
.04	38.8	27.0	2.59	1.80	36.2	25+2	182.					1960.	1010.	1200.	1070.	1040.	1010.
•05	37.6	28.1	3.04	2.27	34.0	25+8	128+					775.	755.	912.	804.	778.	758.
r *022018	31.0	20+3	3,20	5+31	3341	2008	1000					4740.	1360.	4380.	4270.	3450.	1280.
.06	36.6	28.7	3.43	2.69	33.1	26+0	95+4					3450.	1280.	1680.	1620.	1590.	842.
.08	34.7	29.0	4.06	3.40	30.6	25.6	58.3					878.	546.	945.	907	883.	550.
•1	33.0	28.7	4,50	3,96	28.5	22.5	18.2					291.	218.	337.	3)8.	296.	273.
•13	27.2	25.9	5.89	5.60	21.3	20.3	10.5					133.	108.	72.0	67.2	50.6	44.8
.3	23.7	23.0	6,38	6,20	17.3	<u>16+8</u>	4+80					21.0	19.0	44.5	41.8	27.6	25.4
•4	21.2	20.8	6,57	6.39	14.0	14.4	2.71					12.0	11.1	32.9	31.1	18.6	17.5
•5	19.4	19,1	6,81	6 41	11.3	11.3	1.22					7.40	7.31	26.7	75.5	14.7	10.0
.8	15.7	15.6	6.44	6.22	9.31	9,38	+697					4.02	2,63	17.1	16.6	8.75	8,35
1.	14.2	14.1	6.22	5.92	7.93	8.18	645			313	A053	1.22	1.19	13.2	13.0	7.22	6.74
1.5	11.5	11.5	5,69	5.45	5.81	6+05	+201	1.03		1.03	474	.735	•721	11.7	11.6	6.96	5.96
2.	7.71	7.70	4.45	4.04	3.26	3.66	.0509	2.51	.00270	2+51	1.53	, 193	.375	10.7	10.6	8.01	6.31
4.	6.45	6.45	3,91	3.46	2.53	2.99	+0286	3,83	.0111	3.84	2.59	.194	.193	10.7	10.7	8,65	6.69
5.	5.57	5.57	3.50	3.00	2.07	2.57	+0186	4,94	+0218	4+96	3,20	152	.151	10.9	10.9	9,15	6.99
6.	4,92	4.92	3,17	2+03	1.75	1.91	+0124	7.23	.0570	7.29	5.33	.106	.105	11.4	11.4	10+1	8.09
B.	3.43	3.43	2.34	1.74	1.08	1.69		8.51	0782	8.59	_6.27			13-6)3.6	12.9	8.97
-15	2.54	2.54	1.80	1.26	.736	1.28	+00187	10.9	+122	11.0	7.66	.0364	.0363	15.1	15.1	14.5	9,37
20.	2.04	2.04	1.48	.957	.557	1.08		12.8	+100	15+5	9.04	.0234	.0234	17.0	17.0)6+6	9,08 9,44
30.	1,18	1.18	.89#	.435	.283	.745		17.0	.233	17.2	9.01	.0171	.0)71	18.4	19.6	19+4	9.25
50.	.984	.984	.757	.331	+226	.653		18.3	.258	18+6	8+91	.0135	•0135	20.5	20.5	20.3	9.00
60.	.847	.847	.657	.258	.190	+589		19.3	+278	19+6	8.73	.00815	.00415	21.8	21.8	2).6	8,67
80.	.668	.668	•525	.175	+143 _11≜	+473		21.9	.330	22.2	8.14	.00639	,00639	22.A	22.8	92,6	n • 2 R
100+	+223		•		****												

67 HOLMIUM (cm³/g = 0,003652 x barns/atom)

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E (MeV)	([#] _p) _{nc,t}	([#] _₽) ^{BD} _{)nc,t}	(#) ^{KN} Inc, a	(声) ^{BD} inc.a	([#]) _{inc.s}	(岸) ^{BD} _{)nc, 8}	(岸) _{coh}	([#] _p) _{×1}	n(岸)xe	(^µ _p) _{x,t}	([#] _p) _{x, is}	([#] _p) _{r,t}	([#] _p) _{r,a}	(声) _{tot,t}	(\$) tot, 1.con	([#] _p) _{tot, 8}	(\$)tot, en
.001 My .001351	•162 •162	.00515 .00752	.000316 .000427	.0000100 .0000198	.162 .161	.00515 .00749	10•3 10•0					4200. 2180.	4200. 2180.	4200. 7190.	4200+ 2)80+	4700. 2)80. 6830.	4200. 2180. 6830.
HIN .001392	.162	.00782	.000438	•0000212	.161	.00778	10.0					6390. 7230.	6390.	6390. 7230.	6340.	6390. 7230.	6390. 7230.
+0015	•162	.00855	.000471	+0000249	•161 •161	.00851 .0101	4.90 9.68					5920+ 4090+	5920 · 4090 ·	5920 · 4090 ·	5920. 4090.	5920 · 4090 ·	5920 · • 090 ·
MII .001923	.161	.0114	.000603	+0000424	.161	.0113	9.53					4710. 3560.	4710.3560.	4710.3580.	4710.3560.	4710.3560.	4710.3560.
.002	.161	.0119	.000628	.0000460	.161	.0118	9.42					3830. 3310.	3830.	3810.	3830.	3430. 3310.	3830. 3310.
.003	•161	+0127	.000931	•0000526	.160	.0183	8.47					3940. 1600.	3940. 1600.	3940. 1610.	3940. 1600.	3940. 1600.	3940. 1600.
.0.04	.160	.0245	.00123	.000188	.159	.0243	7.52					741+	741.	749.	741+	741.	741+
.005	160	.0303	.00153	.008288	158	0298	6.68					413.	413.	420.	413.	413.	413.
.006	.159	.0352	.00182	+000402	.157	.0348	5.95					256 •	256 +	262.	256+	256 +	256+
.008	158	.0442	.00239	.000668	156	.0435	4.75					118.	118.	122.	118 .)18.	118.
Lang .008072	.158	-0442	+00241	.000676	.156	.0435	4.71					116.	116.	121.	116.	116.	116+
-111 ******	•••	••••=		•••••	• • • •	•••						345.	286.	349.	345+	745.	590.
L _{II} .008918	•157	+0475	.00264	.00800	•155	.0467	4.31					26).	221+	590 •	261+	201+	221+
												360.	303.	367.	300.	300.	303.
L ₁ .009394	.157	+0493	•00278	•000873	•154	.0486	4.09					315.	200+	317.	312+	315.	200+
												304+	3074	3070	307.	207.	263.
•01	•15/	+0515	.00294	•000964	•134	.0504	3+8/					103.	92.8	105.	103.	103.	92.8
+015	+154	.0005	+00427	+00184	+150	+0646	2.40					47.5	44.7	49.1	47.5	47.5	44.2
•02	+151	.0774	+00544	.00279	+1+0	+0/45	1+/5					15.8	15.0	16.9	15.8	15.8	15.0
+03	+146	.0909	+00/60	+00475	+1.39	+0862	1+02					7.16	6.90	7.92	7.27	7.16	6.90
.04	+142	+0986	+00946	.00657	+132	• 0920	+605					3.60	3.69	4.38	1.91	3.80	3.69
+05	+137	.103	+0111	+00829	+126	.0942	+407					2.83	2.76	3.11	2.94	2.84	2.77
K +055618	•135	+104	+0119	.00917	•123	•0950	.394					15.5	4.97	16.0	15.6	15.5	4.97
. 66	.134	.105	. 0125		.121	.0950	. 348					12.6	4.67	13.0	12.7	12.6	4.67
	197	105	A148	A174	112	0035	213					5.81	3.06	6.14	5.92	5.81	3.07
1	121	105	.0147	0145	104	.0902	-141					3.21	1.99	3.45	3.31	3,22	2.01
15	.108	.100	.0197	10182	.0887	.0622	.0665)+06	.796	1+23	1.16	1.08	•R)4
	.0993	.0946	.0215	.0205	.0778	.0741	.0383					+486	+ 394	+617	•581	.508	+416
.3	0866	-0540	.0233	.0226	.0632	+0614	.0175					+161	•141	• 26 3	+245	•185	+164
	.0774	.0760	.0240	.0233	.0533	.0526	.00990					+0767	+ 0694	•163	+153	+101	+092B
.5	.0708	.0698	+0241	.0235	.0467	.0464	.00643					.0438	+0405	• 120	+114	+0679	.0639
.6	.0654	.0646	+0241	.0234	.0413	.0413	.00446					.0245	.0267	.0975	•0931	+0526	•0500
.8	.0573	.0570	.0235	.0227	+0340	.0343	+00255					+0147	+0140	+0741	+0/16	.0303	+0305
1.	,0519	.0515	.0227	.0216	.0 290	.0299						•00924	+00887	+0024			
1.5	.0420	+0420	+0208	+0199	.0212	.0221	.000734	.00114		+00114	.000348	+00440	+00435	+0+02	+04/3	+0204	+0240
2.	.0358	.0358	.0190	•0179	.0168	.0179	+000413	.00376		.00376	.00173	+00200	+00201	+0+2/	+0424	A749	+0267
3.	.0282	.0281	+0163	+0148	.0119	.0134	.000186	+00917	+00000986	.00917	.00559	+00144	+00142	+0371	.0307	+ 9293	+0216
4.	.0236	.0236	+0143	•0126	+00924	.0109	+000104	+0140	+0000405	.0140	.00946	+000755	.000748	•0301			0230
5.	.0203	.0203	•0128	.0110	.00756	•00939	+0000679	+0180	.0000796	.0181	.0128	.000708	-000705	00371	+0371	•0316	• 02= 4
6.	.0180	.0180	.0116	•00960	.00639	.00836	+0000471	•0212	+000123	.0213	•0154	+000555	+000551	+0378	+0.390	+0334	+0255
8.	.0147	+0147	.00979	.00771	.00489	.00698	+0000268	+0264	.000208	.0266	.0195	+ 000 387	+000383	-0410	-0443	• 0 307	+0275
10.	.0125	.0125	.00855	.00635	.00394	.00617	0000170	0311	.000286			-000290	+000293		.0497	. 0471	
15.	.00928	•00928	+00657	+00460	.00269	.00467	•0000068	•0398	.000446	•0402	.0280	.000133	+000144	.055)	.0551	.0530	0260
20.	.00745	+00745	+00540	+00349	.00203	.00394		.0467	.000559	+0475	•0306	*000133	+000133	.055)	.0621	. 0604	+ UJ+2 - A364
30.	.00540	.00540	+00405	+00224	.00137	.00317		+ 0559	.000730	+0>66	+0330	.0000494	.000.435	. 1673	.0673	. 0661	
40.	.00431	+00431	+00327	.00159	.00103	.00272		+0621	+000851	.06ZR	+0329	.0000024	.0000424	.0714	.0716	.0708	.0320
50.	.00359	.00359	.00276	·00121	.000825	.00238		.0668	.000942	.0679	.0325	.0000473	.0000473	.0740	749	.0741	120
60.	.00309	.00309	·00Z40	+000942	.000694	.00215		.0705	.00102	.0716	.0319	.0000909	.0000403	.0704	.0794	.0780	.0317
80.	.00244	.00244	.00192	.000639	.000522	.00180		•0760	+00112	+0771	+0310	.0000270	.0000270	+0175	.0833	.0825	10317
100.	.00203	•00203	+00161	+000471	+000416	•00156		•0800	+00121	+0811	+0297	+0000233	+0000233	•0033	••••33	+0023	•0302

68 ERBIUM (barns/atom)

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E (MeV)	KN σ _{inc,t}	$\sigma_{inc,t}^{BD}$	o ^{KN} inc, a	σ ^{BD} _{inc,a}	KN 0 inc, s	σ ^{BD} inc,s	σ _{coh}	σ×n	σ _{×e}	σ _{x,t}	σ _{x, a}	σ _{r.t}	σ _{r,a}	σ _{tot.t}	otot, t-coh	⁰ tot, a	⁰ tot, en
					45.0	1.39	2920.					1200000.	1200000.	1200000+	1200000.	1200000.	1200000.
+001	45.0	1+39	.123	.00589	44.9	2.14	2830.					571000+	571000+	574000+	571000+	571000+	1790000
NV 1001404	43.0	2413	••••									1790000+	1790000+	1470000+	1670000+	1670000.	1670000.
MTW .001453	45.0	2.23	•127	.0063	44.8	2.22	2820+					1890000+	1890000+	1890000+	1890000+	1890000+	1890000.
					44.8	2.11	2800.					1730000+	1730000+	1730000+	1730000+	1730000+	1730000+
+0015	43.0	2,32	+131		44.8	2.87	2720.					1080000.	1080000+	1080000+	1080000.	1080000+	1080000+
MIII .001815	44.7	2+80	+128	*0101	4400	200	2.201					1240000.	1240000.	1240000+	1240000+	935000+	935000
•00Z	44.9	3.22	.174	.0125	44.7	3.21	2670.					935000+	931000.	934000.	931000.	931000.	931000.
HII .002006	44.9	3.24	.175	.0126	44.7	3.23	2670.					1110000.	1110000.	1110000.	1110000.	1110000.	1110000.
		1.47	.193	. 0156	44.7	3.60	2610.					867000.	867000.	870000.	867000.	867000.	867000.
HI +002211		3402	•1•3									1030000.	1030000.	1030000+	1030000+	1010000	468000.
.003	44.7	5.00	. 259	+0290	44.5	4.97	2400.					408000+	400000+ 218000-	220000	218000.	218000.	218000+
+004	44.5	6.68	.343	.0514	44.2	6.63	2140+					120000.	120000.	122000+	120000.	120000+	120000 .
+005	44.4	8.23	• 4 25	.0788	43.9	8+15	1400.					75000.	75000 .	76700.	75000.	75000+	75000+
.006	44.2	9.64	.506	-183	43.2	11.9	1350.					34400+	34400 .	35800+	34400+	34400+	34400+
+000 Lawn -008358	43.8	12.5	.692	.197	43.1	12.3	1300.					30400.	30800+	32100+	30800+	90700.	75000+
-111 +000-350			• - • -	• -	-							90700+	57600.	69400.	68200.	68200+	57600+
L _{II} .009264	43,7	13.4	.761	.234	42.9	13+2	1140+					94300.	79000.	95500 .	94300+	94300.	79000.
	47.4	17.0	. 798	. 255	42.8	13.6	1130.					82500 .	69800.	83600.	A2500+	A2500+	69800+
T .004125	43.0	13.7	• • • •				•••					95400.	80500.	96500+	95400+	88700+	75200+
.01	43,5	14.2	.816	• 266	42.7	13.9	1100.						26600	30300.	29600.	29600.	26600.
.015	42.8	18.3	1.18	. 506	41.6	17.8	706+					13400+	12800+	14300+	13800+	13800+	12800+
•02	42.0	21.3	1.52	. 769	40+7	20.5	470+ 291.					4590.	4360.	4910.	4620.	4590+	4360+
.03	40.6	25.2	2+11	1.82	36.7	25.5	189.					2100.	2020.	2320+	2130+	2100+	1090.
.05	37.3	28.4	3.08	2.29	35.1	26.1	133.					1120+	1090+	888.	782.	756.	736.
K .057486	37.4	28.9	3,38	2.61	34.0	26.3	106.					4080	1300.	4210.	4110.	40 80 .	1300+
					33.6	76.7	99.2					3620 .	1260.	3750+	3650 .	3620 .	1260+
.06	37.1	29.0	3,40	2.12	31.1	25.9	60.6					1680.	858.	1770.	1710.	1050+	567.
+08	33.6	29.1	4.62	4.02	28.9	25.1	40+1					924.	228		336.	313.	233.
15	30.2	27.9	5.47	5,06	24.7	22+8	18.9					141.	113.	178.	167.	147.	119.
.2	27.6	26.2	5,98	5,66	21.7	20.5	11.0					47.0	40+9	75.3	70+3	53+5	47+2
.3	24.0	23.3	6.48	6,28	17.0	17+0	4,97					22+3	20+1	46+2	43.4	29.0	20.0
• •	21.5	21+1	6.71	6.54	13.0	12.9	1.83					12.8	11+8	34+0	26.3	15.0	14.3
.5	18.2	18.0	6.68	6.52	11.5	11.5	1.27					6.30	4.09	20.9	20+2	10.8	10+4
.8	16.0	15.9	6,53	6.34	9.45	9.56	+724					2.70	2.59	17.5	17.0	9.02	8,60
1	14.4	14,3	6,32	6.01	8.04	6.29		. 326		.326	.0991	1+30	1.27	13.4	13.2	7+40	6+87
1.5	11.7	11.6	5.77	3,30	4.67	4.97	.117	1.07		1.07	.491	.785	•770	11+9	11.0	7.53	6.10
<u></u>	7.83	7.82	4.51	4.10	3.31	3,72	.0530	2,60	.00274	2.60	1,58		.276	10.8	10.8	8+23	6+46
	6.54	6.54	3,97	3.50	2.57	3.04	+0298	3.97	.0112	3.98	2.68	.207	.205	11.0	11.0	8+87	6+83
5.	5,65	5.65	3,55	3.03	2.10	2.62	+0194	5.09	.0220	5.11	4.34	•)63	+167	11+2	11.2	9.40	7+15
6.	4,99	4,99	3,22	2,65	1.36	1.94	.00764	7.41	.0578	7.47	5.46	•)13	+112 •112	11.7	11.7	10.3	7+71
	3 48	4,08	2.38	1.76	i.10	1.72	.00485	8.76	.0797	8.84	6.44	+0000	-0539	13.9	13.9	13+2	9.18
15.	2,57	2.57	1,83	1.27	.747	1.30	.00194	11.2	+123	11.3	7.56	.0390	.0349	15.5	15.5	14.9	9.67
20.	2.07	2.07	1.50	.969	+565	1.10	+00102	13.7	•155	15.9	9.24	.0250	+0250	17•4	17.4	17.0	9.88
30.	1.50	1.50	1.12	+618	.287	+ 80 Z		17.5	.236	17.7	9.22	+0182	.0182	18.9	18+9	10.0	9.44
40.	1.20	1.20	.769	. 334	.230	•664		18.8	.262	19+1	9.09	+0144	+0144 +011A	20+1	21.0	20.8	9.19
90 ·	.860	. 860	.667	.261	.192	.599		19.8	.282	20.1	8.92	.00866	.00866	22.4	72.4	72.2	8.85
80.	.678	.678	.533	.177	+145	.501		21.4 22.5	+312	21+7	8.31	+006A	.00680	23.4	23.4	73+3	8+45
100.	,563	.563	. 447	.130	+116	,433		22.7	• • • • •	22.0	00-1						

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and the second

68 ERBIUM (cm³/g = 0.00360¹ x barns/atom)

 $\sum_{i=1}^{n-1} \frac{1}{2} \sum_{i=1}^{n-1} \frac{1}{2$

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E (MeV)	(≝) ^{KN} inc,t	(چ) BD inc, t	(#) ^{KN} inc, a	(費) BD (費) inc, a	([#]) ^{KN} _{inc.s}	(♯) ^{BD} _{inc,s}	(뿔) _{coh}	([#] ₆) _{×11}	([#] / ₇) _{* e}	([#]) _{*. t}	([#] _P) _{x, 2}	(岸) _{下,t}	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	(#) _{tot,t}	(#) wat, t-con	(#),t. a	(#) t'st, er.
•001 Hy •001409	•162 •162	•00501 •00774	.000316 .000443	.00000980	•162 •162	•00501 •00771	10.5 10.2					432n. 2060.	4320. 2060.	4320. 2070.	4320. 2060.	4320. 2060. 6450.	4320. 2060. 6450.
HIV .001453	•162	.00803	+000457	.0000227	.161	.00799	10.2					6010+ 6810+	6010.	6010.	6010. 6810.	6n10. 6810.	6010. 6810.
+0015	.162	.00835	.000472	+0000244	•161	.00832	10+1					6230.	6230.	6230.	6730.	6730.	6230.
MIII *001815	.162	+0104	.000569	+0000364	.161	.0103	9.79					4470.	4470.	4470.	4470.	4470.	4470.
•002	.162	.0116	.000627	.0000450	.161	.0116	9.61					3370+	3370.	3380.	3370.	3370. 3350.	3370.
M _{II} .002006	.162	•0117	.000630	.0000454	+161	.0116	9.61					4000+	4000+	4000.	4000.	4000.	4000+
H _I .002217	.161	.0130	.000695	.0000562	.161	.0130	9+40					3120. 3710.	3120 • 3710 •	3130.	3)20. 37)0.	3120.	3120.
.003	.161	+0180	.000933	.000104	•160	.0179	8.64					1690 • 785 •	785.	792.	785.	785.	785.
•004	+160	+0241	+00124	.000185	150	.0293	6.84					437.	432.	439.	432.	432.	432.
.007	.159	+0290	.00193	.000396	.157	.0343	6.09					270.	270.	276.	270.	270.	270.
.008	158	.0436	.00239	.000659	.156	.0429	4.86					124.	124.	159.	124 •	124.	1244
LTTT .008358	.158	+0450	.00249	.000709	.155	.0443	4.68					111+	270.	331.	327.	327.	270.
L. 000764	157		AA 374		.154	.0475	4.29					246.	207.	250.	246 .	746.	207.
-II +004504	+15/	•0463	.00274	•000843	•134							340.	284.	344.	340.	340.	284.
L1 .009752	.157	+0501	.00287	+000918	.154	.0490	4.07					297.	251.	301+ 347-	297.	797.	251.
.01	.157	.0511	.00294	.000958	.154	.0501	3.96						27]	323.			271.
.015	+154	.0659	+00425	+00182	+150	.0641	2.54					107.	95.8	109.	107.	107.	95.8
.02	.151	.0767	+00547	.00277	.146	•0738	1.79					49.7	40+1	17.7	16.6	16.5	15.7
.03	.146	.0907	.00760	+00472	.139	+0861	1.05					7.56	7.27	8.35	7.67	7.56	7.27
+04	+142	•0983	•00943	.00055	.132	+0918	+001					4+03	3.93	4+61	4+14	4+03	3.93
+UD E -057486	.135	+102	+0111	.00940	.122	.0947	.382					2.71	2.64	3.20	2.82	2.72	2.65
	•1.3-	•104			**-=	••••						14+7	4.68	15.2	14+8	14.7	4.68
•06	+134	+104	.0125	.00979	•121	.0947	.357					13.0	3.09	6.37	6.16	6.05	3.10
.08	·127	.106	•0148	.0124	.112	.0933	.218					3.33	2.03	3.58	3.43	3,35	2.04
	-121	•105	-0108	.0145	.0889	.0821	0681) • 11	+821	1.78	1+21	1+13	.839
.2	.0994	.0943	.0215	.0204	0781	.0738	.0396					+50A	+407	+641	.601	. 529	.429
.3	.0864	.0839	.0233	.0226	.0634	.0612	.0180					•169	•147	+271	+253	• 193	.170
.4	.0774	.0760	.0240	.0233	.0537	+0526	.0102					+0803	+0/24	+100	.116	.0702	.0659
•5	.0709	.0699	.0Z4Z	.0236	.0468	.0465	+00659					.0300	.0280	.0994	.0947	.0540	.0515
•6	.0635	.0648	+0241	+0235	.0340	.0344	.00261					0155	+0147	.0753	.0727	.0389	.0375
1.	.0519	.0515	.0228	.0216	0290	.0299	.00167					.00972	.00933	.0630	.0617		0310
1.5	.0421	+0418	.0208	+0198	.0212	.0220	.000753	.00117		.00117	.000357	+00468	+00457	+0483	.04/5	.0200	.0247
2.	.0358	•0358	.0190	.0179	.0168	.0179	.000421	.00385		+00385	+00177	.00152	.00150	.0393	+0389	.0271	.0220
3.	.0282	.0262	.0162	.0148	+0119	.0134	.000191	.0143	.00000987	.00930	+00309	+00100	.000994	.0389	.0389	.0296	.0233
2.	.0203	+0230	.0173	+0120	.00756	.00943	.0000699	.0183	.0000792	.0184	.0130	+000745	.000718	+0396	• 0396	.0319	+02 46
6.	.0180	.0180	.0116	.00954	.00641	.00843	.0000486	.0216	.000123	.0217	.0156	.000587	+0005A3	+0403	+0403	•0338	+02.57
8.	.0147	+0147	.00979	.00771	00490	.00699	.0000275	.0267	.000208	.0269	.0197	+000407	+000403	+042)	.0421	+03/1	+02/8
10.	0125	.0125	00857	.00634	_00396	.00619	.0000175	-0315	.000287	-0318	.0232	000313	.000194	.0501	.0501		.0331
15.	.00925	.00925	.00059	.00457	.00209	.00408	.0000070	+0+03	+000443	+0+07	.0203	.000140	.000140	+0558	+055A	.0537	.0346
20.	+00145	+00745	+003401 +00401	.00223	.00137	.00318	+0000031	.0565	.000727	.0573	.0333	.0000900	.0000900	+0627	.0627	.0612	.03 56
40.	.00432	+00432	.00327	.00159	.00103	.00273		.0630	.000850	.0637	.0332	+0000655	+0000655	+068)	+0681	•0670	+0349
50.	.00359	.00359	.00277	.00120	.000828	.00239		+0677	+000943	.0688	.0327	+0000519	+0000519	+0724	.0724	.0717	.0340
60.	.00310	.00310	+00240	+00094	.000691	.00216		•0713	+00102	+0724	.0321	.0000425	.0000425	.0807	+0807	.0799	.0310
80.	.00244	+00244	.00192	+000637	+000522	+00180		+0771	+00112	+0/81	.0299	+0000245	.0000745	+0843	.0843	.0839	.0304
100+	+ VUE V 3	+00503	+0.10T	• • • • • • • • • • • •	*****10	******											

69 THULIUM (barns/atom)

E (MeV)	KN ₀ inc.t	σ ^{BD} _{)nc,t}	o ^{KN} o _{inc, a}	σ ^{BD} nc,a	o ^{KN}	σ ^{BD} _{inc,s}	σ _{coh}	σ×n	σxe	σ _{κ,t}	<u>σ_{*, a}</u>	σ _{τ, t}	σ _{r.a}	σ _{tot,t}	o _{tot,t-coh}	^{or} tot.a	Utot, en
•001	45.7	1.38	.0891	.00269	45.6 45.5	1.38 2.23	3010• 2900•					1250000+546000+	1250000. 546000.	1250000+ 549000+	1250000 + 546000 +	1250000+ 546000+	1250000+ 546000+ 1710000+
		2.20	122	00671	45.5	2.79	2890.					1620000.	1620000+	1620000+	1620000.	1620000.	1620000.
.0015 New .001515	45.6	2.30	.134	.00683	45.5	2.31	2890.					1590000+	1590000.	1590000+	1590000+	1590000+	1590000+
					4E 4	2.04	3704.					1040000+	1040000+	1040000.	1040000.	1040000 +	1040000+
MIII +001881	42.0	2.99	•100	*0104	4344	2090	21700					1190000.	1190000.	1190000+	1190000.	1190000+	1190000+
•002	45.5	3.20	.177	.0124	45+4	3.19	2760.					1010000+	890000.	893000.	890000.	8900n0+	890000.
HII .002090	45.5	3,36	.185	+0136	45.3	3+35	27404					1060000.	1060000.	1060000.	1060000+	1060000+	1060000.
H1 .002306	45,5	3.75	.203	.0168	45.3	3.73	2680 .					831000+ 987000+	831000+	990000+	987000+	9A7000+	987000+
	45 A	4.98	- 263	.0289	45.1	4.95	2490.					496000.	496000.	498000.	496000+	496000+	496000+
.005	45.2	6.66	.348	.0512	44.8	6+61	2220 .					231000.	231000.	233000+	231000+	231000+	128000+
.005	45.0	8.22	.431	+0787	44.6	8.14	1980.					120000+	79400+	81200+	79400+	79400+	79400+
.006	44.8	9.64	.513	+110	44.3	9.53	1760.					36600.	36600 •	38000+	36600 .	36600+	36600+
+008	44.5	12.1	+674	.183	43.0	11+9	1320.					29900.	29900+	31200.	29900.	29900+	29900+
LII .000048	**.*	12.8	+125	+ 20 9	4341	15+0	13200					87300+	71900+	88600+	87300+	87300+	71900+
LTT +009617	44.2	13.8	.800	.249	43.4	13.6	1190.					65200.	54900+	91300+	90100+	90100+	75300+
				744	47.4	11.0	1150.					81300.	68400+	82500.	81300.	81300+	68400.
+01	44.2	14.2	.828	.200	43.3	14.0	1140.					79000+	66600+	80200+	79000+	79000+	66600+
T	47.6	1443		•••	-							91300.	76800+	92500+	31300.	31300+	28000+
.015	43.4	18.3	1.20	.506	42.2	17.8	736.					14600+	13400+	15100.	14600+	14600+	13400+
•02	42.6	21.5	1.54	.776	41+1	20+7	303.					4870.	4610+	5200 ·	4900.	4870 .	4610.
.03	41.2	27.4	2.44	1.93	37.3	25.7	197.					2220 •	2130.	2440+	2250+	2270+	2130+
-05	37.7	28.7	3.13	2.32	35.6	26.4	138.					1190.	1150+	1360+	761.	736.	715.
K .059390	37.7	29.3	3,50	2.72	34.2	26.6	105.					3940.	1250.	4070.	3970.	3940.	1250.
	-7 4	70.4	1 61	2 76	34.1	26.6	103.					3820.	1240.	3950+	3850.	3820.	1240.
•0•	3/.0	29.4	4.18	3.48	31.5	26.2	63.0					1770.	874.	1860.	1800+	1770+	577.
•08	34.0	29.5	4.69	4.07	29.3	25.4	41.7					975,	580.	1050.	355.	333.	244 .
.15	30.6	28.3	5,55	5.14	25.1	23.2	19.7					150.	120.	188.	177.	156.	126.
•2	28.0	26.6	6,06	5,75	22.0	20.8	11.4					50.0	43.3	78.9	73.7	56,6	49.7
•3	24.4	23.7	6,57	6.39	17+8	17+3	2.03					23.8	21.4	48.1	45.2	30.0	27.9
•	21.0	21.4	6.80	6.64	13.1	13.1	1.90					13.7	12.6	35.3	33,4	15.6	14.9
	18.5	18.3	6.78	6.62	11.7	11.7	1.32					0,00	4.37	21.4	20.7	11.2	10.8
.8	16.2	16.1	6,63	6.42	9.58	9.68	.750					2.90	2.78	17.9	17.4	9,31	8,86
1.	14.6	14.5	6.41	6,08	8.16	8,42		340		. 340	.103	1.39	1.35	13.7	13.5	7,59	7.03
1.5	11.8	11.8	5,80	5,55	4.74	5.05	.122	1.11		1.11	.509	.840	.823	12.2	12.0	7,71	6.27
2.	7.94	7.93	4.58	4.15	3.36	3.78	+0548	2.68	.00278	2.68	1.63		. 295	11.1	11.0	8.42	6.59
4.	6.64	6.64	4.03	3,55	2.61	3.09	.0310	4.08	.0114	4.09	2.75	.220	.218	11.2	11.2	9.07	6,94
5,	5,73	5.73	3,60	3.07	2.13	2,66	.0202	5.23	+0223	5+25	3.10	•)74	.173	11.4	11+4	9,61	7.31
6.	5.07	5.07	3.26	2.69	1.30	2,30	.00795	7.62	.0586	7.68	5.60	,121	.120	11.9	11.9	10.0	8.45
	4,14	3,53	2.41	1.78	1.12	1.75	.00506	9.00	.0807	9.08	6.58	.0928		16.1	14.3	13.5	9,36
15.	2.61	2.61	1.85	1.29	.758	1.32	•00202	11.5	+125	11+6	8.01	.0414	.0413	15.8	15.8	15.3	9.79
20.	2.10	2.10	1.52	.979	.573	1.12	+00105	13.5	·158	13.7	9.44	.0264	.0264	17.9	17.9	17.5	10.1
30.	1.53	1.53	1.14	.627	+386	.903		18.0	+240	18+2	9.43	.0194	.0)94	19.4	19.4)9.1	9,87
40.	1.21	1+21	.922	.337	.231	.673		19.3	.266	19+6	9.27	.0153	+0143 -0175	21.6	21.6	21.4	9,42
50.	.872	.872	677	,264	.195	.608		20.4	+286	20.7	9.14	.00920	.0092n	23.0	23.0	72.9	9.05
80.	.688	.688	.541	.179	+147	.509		22.0	.316	22.3	8.46	.00726	.00726	24.0	74.0	21.9	8,60
100.	.571	•571	,454	. 131	+118			c3.1	• 3= 0	6344	3440						

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69 THULIUM (cm¹/g = 0.003565 x barns/atom)

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E (MeV)	(≝) ^{KN} (≝) _{inc,t}	(뿔) _{)nc,}	(声) ^{KN} inc,a	(学) ^{BD} inc, a	([#] _p) ^{KN} inc, s	(^µ _p) ^{BD} _{inc,s}	(#) _{co'i}	;#)×,	(#)×e	([#] _p) _x ,	([#] / _p) _{x, a}	(#), t	([#] _p), a	(#) _{tot,t}	(#)11,t,t-coh	(#) _{tot, *}	(\$) _{101.er.}
+001	.163	.00492	.000318	.0000096	.163	.00492	10.7					4460.	4460.	4460.	4460.	4460.	4460.
Hy +001468	.163	.00799	+000463	•0000228	.162	•00795	10.3					6100.	6100.	6100.	6)00.	6100.	6100.
.0015	.163	.00820	.000474	.0000239	.162	.00816	10.3					5780.	5780.	5780.	5780.	5780.	5780.
HIV +001515	.163	.00827	+000478	.0000243	.162	. 00824	10.3					56/0.	50/0.	6420.	6470.	6420.	6420.
M _{III} .001881	.163	.0107	.000592	.0000389	.162	.0106	9,95					3710.	3710. 4240.	3710.	37)0. 4240.	37)0.	3710.
.002	.162	+0114	.000631	+0000442	•162	.0114	9.84					3600.	3600.	3600.	3600.	3600.	3600.
H _{II} .002090	. 162	•0120	•000660	+0000485	.161	.0119	9.77					3170.	3170.	3780.	3780.	3780.	3780.
HI *005306	.162	•0134	•000724	•0000599	•101	.0133	9.55					2960. 3520.	2960. 3520.	2970. 3510.	2960. 3520.	2960. 3520.	2960 • 3520 •
.003	.162	.0178	.000938	.000103	.161	.0176	8.88					1770.)770.)780.) 770 .	1770.	1770 •
+004	.161	.0237	.00124	+000183	.160	.0236	7.91					824.	624.	831.	524+	724. AB6	456.
.005	.160	.0293	.00154	.000281	+159	.0290	7.06					430. 281.	281.	289.	283.	283.	283.
+006	.160	+0344	.00183	•000392	.158	.0340	6.27					130.	130.	135.	130.	30.	130.
.008	.159	+0431	+00240	.000652	+170	.0424	5.03					107.	107.	111.	107.	107.	107.
111 +0000+B	+120	+0438	+00238	+000745	•120		4411					31).	256.	316.	311.	311.	256.
L _{II} .009617	.158	.0492	•00285	•000888	. 155	•0485	4.24					232. 32).	196. 268.	237.	232. 321.	732. 321.	196. 268.
.01	.158	.0506	.00295	+000948	,155	.0496	4.10					290.		294.	290.	290	244,
L _I .010116	•158	.0510	.00299	•000966	•154 154	.0499	4.06					325.	237.	330. 114.	325.	325.	274. 99.B
+019	+155	+0652	+00428	.00180	.150	+0635	2.02					52.0	47.8	53.8	52.0	52.0	47.8
.02	+152	+0766	+00549	+00277	1 30	.0738	1.87					17.4	16.4	18,5	17,5	17.4	16.4
•03	147	.0900	.00/00	+00+1	137	.0034	1.00					7,91	7.59	8,70	8.02	7,91	7,59
.05	.138	.102	.0112	+00822	127	.0941	492					4.24	4.10	4,85	4,35	4,74	4.10
K .059390	.134	+104	+0125	.00970	.122	.0948	. 374					2+61	2.54	3.09	2.71	2.62	2.55
	••••				-							14.0	4.46	14.5	14.2	14.0	4.46
•06	.134	+105	•0126	+00984	.122	.0948	.367					13.0	4,42	14+1	13.7	13.0	3 13
.08	.127	+106	+0149	.0124	+112	.0934	.225					3.49	3.07	3 74	3.56	3.49	2.06
•	<u>-121</u>		0167	+0145	-104	.0906						1.17	.852	1.34	1.27	1,19	.870
•15	•109	+101	+0198	+0183	.0075	+0821	+0/02					.535	.428	.670	.631	.556	.449
.1	.0870	.0845	-0234	+0205	.0635	.0617	.0185					.178	.154	281	, 263	.202	+177
	0777	.0763	.0241	.0234	.0538	.0531	.0104					.0848	.0763	+171	.161	.109	.099
.5	.0709	.0702	+0242	.0237	.0467	.0467	.00677					.0488	.0449	.126	•119	.0731	.068
•6	.0660	•0652	•0242	+0236	.0417	.0417	.00471					.0316	.0294	+102	.0970	.0550	.053
•8	.0578	+0574	.0236	•0229	.0342	+0345	.00267					-0103	.0.0991	.0638	.0620	.0332	.031
	+0520	.0517	.0229		.0291		00171	00121		001 21	000367	.00496	.00481	.0488	+0 +81	.0271	.025
1.07	.0360	.0360	+0207	.0180	.0169	.0180	.000435	.00396		.00396	.00181	.00299	.00293	.0435	.0428	.0261	.022
3.	.0283	.0283	.0163	+0148	.0120	.0135	.000195	.00955	.00000991	.00955	.00581	.00160	.0015B	.0396	.0396	.0275	•055
4.	.0237	.0237	.0144	.0127	.00930	.0110	.000111	+0145	+0000406	.0146	.00980	.00106	.00105	.0396	.0392	.0300	.023
5.	.0204	.0204	+0128	.0109	.00759	.00948	.0000720	.0186	.0000795	.0187	.0132	.000784	.000777	.0399	.0399	.0323	+024
6.	.0181	+0181	+0116	•00959	+00642	.00848	.0000499	+0219	•000124	.0220	+0159	.000620	+0006)/	.0406	+040h	.0343	.020
8.	+0148	+0148	+00984	.00770	.00492	.00706	.0000283	+0272	.000209	.0274	.0200	.000431	.000329	0453	.0453	0414	.020
10.	.0126	.0126	.00859	•00635	.00399	.00624	.0000180	-0321	.000288		A204	.000205	.000704		.0510	.0481	.033
13.	.00730	+007.50	+00000	+00460	.00204	.00399	.0000072	.0491	.000563	.0488	.0313	.000148	.000147	.0563	.0563	. 0545	.034
30.	.00545	+00749	+00404	.00224	.00138	.00322	******	.0574	.000731	.0581	.0337	.0000941	.0000941	.0638	.0638	, 0624	.036
40.	.00431	.00431	.00329	.00158	.00104	,00273		.0642	.000856	.0649	.0336	.0000692	.0000692	.0697	.0697	.0681	035
50.	.00360	.00360	+0027R	.00120	.000831	.00240		.0688	.000948	.0699	.0330	.0000545	+0000545	.0734	.0734	.0727	.034
60.	.00311	.00311	.00241	+000941	.000695	.00217		•0727	-0010Z	.0738	.0326	.0000446	.0000446	+0770	.0770	.0763	.033
80.	.00245	+00245	+00193	+000638	.000524	.00181		.0784	.00113	.0795	.0316	.0000328	.0000328	+0820	.0820	.0816	.032
100.	+0204	.00204	.00162	.000467	.0004Z1	.00157		.0824	.00121	.0534	.0302	+ UUUU 259	+00005294	+0076	*ve26	.0052	,030

70	YTTERBIUM
(barns/atom)

E	(MeV)	σ _{inc,t}	o ^{BD}	0)nc, a	o ^{BD}	Olnc, s	σ ^{BD} _{inc, s}	0 _{coh}	σ _{×n}	σ×e	σ _{*, t}	σ,	σ _{r, t}	σ _{r,a}	σ _{rot, t}	⁰ tot,t-coh	σ _{tot, a}	σ _{tot, en}
	.001	46.4	1.36	.0904	.00265	46.3	1.36	3110.					1310000.	1310000.	1310000.	13,0000.	1310000.	1310000.
	.0015	46.3	2.27	.135	.00662	46.2	2.26	2980.					543000.	543000.	546000.	543000.	543000.	543000.
мv	.001528	46.3	2.32	+137	.00689	46+1	2.31	2980.					522000.	522000.	525000.	522000.	522000.	522000.
Hrw	.001577	46.3	2.41	.142	.00739	46.1	2.40	2960.					1520000	1520000	1520000	1520000	1520000.	1520000
		• -		•• -	••••								1730000.	1730000.	1730000.	1730000.	1730000.	1730000.
^H 111	•001950	46.2	3.08	.175	.0117	46+0	3.07	2860.					1000000.	1000000.	100000.	100000.	1000000.	1000000.
	. 007	46.2	3.17	179	A123	44.0	7.16	2854					1150000.	1150000.	1150000.	1150000.	1150000.	1150000.
M	.002175	46.2	3.49	.195	.0147	46.0	3.48	2800.					853000.	853000.	856000.	853000	853000.	853000.
-11				••••		4014		20000					1010000.	1010000.	1010000.	1010000.	10)0000.	1010000.
м _т	.002398	46.1	3.89	.214	.0181	45.9	3.87	2740.					797000.	797000.	800000.	797000.	797000.	797000.
			4.05	747									944000.	944000.	947000.	944000.	944000.	944000.
	004	40.0	4 4 4 4	+207	+0287	43+0	4.72	23/0+					32/000.	52/000+	348000	527000.	52/000.	52/000.
	.005	45.7	8.20	.437	.0785	45.2	8.12	2050.					136000	136000.	138000.	136000.	136000.	136000.
	.006	45.5	9.63	.521	.110	45.0	9.52	1830.					84900.	84900.	86700.	84900.	84900.	84900.
	.008	45.2	12+1	.683	.183	44.5	11+9	1470.					38800.	38800.	40300.	38800.	38800.	38800.
^L 211	.008943	45.0	13.2	,758	• 222	44.2	13.0	1330.					29100.	29100.	30400.	29100.	29100.	29100.
I	.009978	44.8	14.7	.839	. 266		11.9	1200.					62300.	52300.	63500.	A2300.	42300.	87000.
-11				••••			1207	12000					86100.	71700.	87300.	B6100.	86100.	71700.
	•01	44.8	14.2	.840	.266	44.0	13.9	1200 .					85800	71500.	87000.	A5800.	A5800.	71500,
ել	.010489	44.7	14.7	.879	.289	43.9	14+4	1140.					75600.	63600.	76800.	75600.	75600.	63600 .
	015		18.4	1 33	640	47.8	17.0	745					87500.	73400+	88700.	87500.	87500.	73400.
	.02	43.3	21.4	1.56	.780	42+0	20.8	538.					15400	14100.	16000	15400	15400.	14100.
	.03	41.8	25.6	2.18	1.33	39.7	24.3	314.					5180.	4890.	5520 .	5210.	5180.	4890 .
	.04	40.5	27.8	2.70	1.85	37.8	25.9	204.					2360.	2260.	2590.	2390.	2360.	2260.
	• 05	39.3	29.1	3.17	2.35	36+1	26+8	144.					1260.	1220.	1430.	1290.	1260.	1220.
	•06	38.2	29.7	3,58	2.79	34.0	26.9	107.					712	/3 4 .	846	743	759.	137.
r	+001332	30.0	24.8	3*03	2.04	34.4	2/+0	103.					3800	1210.	3930.	3830.	3800.	1210.
	• 08	36.2	30.1	4.24	3,52	32.0	26+6	65.4					1870.	892.	1970.	1900.	1870.	896.
	•1	34,5	29.9	4,76	4,13	29.7	25.8	43.3					1020.	593,	1090.	1050.	1070,	597.
	•15	31.1	28.7	5.63	5.21	25+4	23.5	20.4					348.	251.	397.	377.	354.	256.
	•2	26.4	2/+0	6+17	5.84	22.3	21+2	11+8					53.2	45.8	82.6	77.2	100+	52.3
		22.2	21.7	6.87	6.64	15.3	15.1	3.05					25.3	22.7	50.0	47.0	32.2	29.3
	.5	20.2	20.0	6.90	6.74	13.3	13.3	1.98					14.6	13.4	36.6	34.6	21.5	20.1
	•6	18.7	18.5	6.88	6.68	11+8	11.8	1 • 37					9,50	8.84	29.4	28.0	16.4	15.5
	•8	16.4	16.3	6.72	6.50	9.72	9.80	•780					3,10	2.97	22+0	17.8	11.0	11+1
Ť		12.0	12.0	5.94	6 48	6.20	4.12		. 161		. 36.3	107	1.49	1.45	14.1	13.8	7.78	7.24
ż	•	10.2	10.2	5.44	5.09	4.81	5+11	+127	1.16		1.16	.532	, A95	.876	12.4	12.3	7.49	6.50
3	•	8,06	8.05	4.65	4.20	3.41	3.85	+0569	2.77	.00282	2.77	1.69	.478	+47)	11.4	11.3	7.90	6.36
<u> </u>	•	6.73	6.73	4.09	3.59	2+65	3.14	•0321	4.20	+0116	4+21	2.83	.318	+315	11.3	11.3	8,62	6+73
2	•	5.14	5.14	3,05	3.11	2.10	2.71	+0210	5.39	+0227	5+41	3.81	186	185	11.7	11.7	9.86	7.47
Ä	•	4.20	4.20	2.80	2.19	1.40	2.01	+00826	7.85	.0595	7.91	5.76	129	,178	12.2	12.2)n.8	8.08
_10	•	3,58	3,58	2,45	1.00	1.13	1.78	.00527	9.26		9.34	6.76	,0990	,0986	13.0	13.0	11.9	8,66
15	•	2.65	2+65	1.88	1.30	.769	1.35	+00210	11.9	•127	12.0	8.26	.0610	.0608	14.7	14+7	13.9	9.62
20	•	2.13	2.13	1.55	.986	.582	1.14	.00108	13.8	.160	14.0	8.92	.0284	.0284	18.3	10.2	17.9	10.3
30	•	1.23	1+55	.935	+L0+	.295	•910		18.4	.243	18+6	9.56	.0208	.0208	19.9	19.9)9.6	10.0
50	•	1.03	1:03	791	. 342	+237	+688		19.8	.269	20+1	9.47	.0163	+0163	2)+1	21+1	20.9	9.83
60	•	.885	.885	687	.267	+198	+618		20.9	.290	21+2	9.30	+0134	+0134	22 • 1	\$2·1	21+9	9.54
80	•	•698	.698	.5×9	.181	+149	+517		22.5	• 320	22+8	9.01	+009A0	+00979	23+5	23+5	23.4	9.20
100	•	•280	+580	.460	•133	+119	• 4 4 7		23.6	+344	23.9	8.57	+00770	+00770	24+3	~++3	24+4	a+/)

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70 YTTERBIUM (cm³/g = 0.003480 x barns/atom)

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E (MeV)	(声) ^{KN} inc, t	(声) ^{BD} _{'nc,t}	([#] _p) ^{KN} inc, a	$\left(\frac{\mu}{\rho}\right)_{inc,a}^{BD}$	(≝) ^{KN} inc,s	(岁) ^{BD} inc, s	([#] _p) _{coh}	([#] _p) _{*11}	(芹) _{×1}	(#) _{*, t}	([#] _p) _*	([#] _p),	([#] _φ) , , , , , , , , , , , , , , , , , , ,	([#]) ₁₁	(劳)	([#] _p) _{t/(t, ia}	13) t., er.
.001	.161	.00473	.000315	+00000920	.161	.00473	10.8					4560+	4560+	4560.	4560 -	4560. 1890.	4560.
+0015	+161	+00790	+000470	+0000230	.161	+00786	10.4					1820.	1820+	1830.	1820.	1820.	1820.
NV +001350	*101	+00001										5670 +	5670+	5670.	5670.	5670.	5670+
HIV .001577	.161	.00839	+000494	.0000257	.160	.00835	10.3					5290+	5270+ 6020-	6020.	6020.	6120.	6020.
H001950	.161	.0107	.000609	.0000407	.160	.0107	9.95		•			3480+	3480.	3480.	3480.	3480.	3480.
	••••											4000+	4000+	4000.	4000+	4000.	4000+
.002	.161	.0110	+000623	+0000428	.160	.0110	9.92					2970.	2970.	2990.	2970.	2970.	2970.
MII +002175	•191	+0121	.000679	+000051Z	.100	.0121	9 ./ 4					3510.	3510.	35)0.	35)0.	3510.	3510.
ж _г .002398	.160	.0135	.000745	.0000630	. 160	.0135	9.54					2770 •	2770.	2760.	2770.	2770.	2770+
	140	A177			.159	.0171	8.94					1830+)830+	1840.	1930.	1430.	1830.
.004	.159	.0231	.00123	+00017B	.158	.0229	8.00					856.	856.	863.	A56 .	A56.	856.
.005	159	.0285	.00152	.000273	.157	.0283	7.13					473+	473.	480.	473.	473.	4/3.
.006	.158	.0335	.00181	.000383	.157	.0331	6.37					295.	295.	302.	295.	293+	277.
.008	.157	.0421	.00238	.000637	.155	+0414	5+12					101.	101.	106.	135.	101.	101.
L _{III} .008943	•157	•0459	•00264	+000773	+154	.0452	4.63					292.	240.	297.	292.	292.	240.
L009978	.156	.0494	.00292	.000926	. 153	.0484	4+18					217.	182.	221.	217 .	217.	182.
-11	••••	••••										300.	250.	304.	300.	300.	250.
•01	•156	.0494	+00292	.000926	•153	+0484	4.18					249.	221.	267.	263.	263.	221.
L .010489	•156	.0512	•00306	.00101	.153	+0501	3.97					304 •	255.	309.	304+	304.	255.
.015	.153	+0640	.00425	+00177	•149	.0623	2.66					116+	103.	119.)16+	116.	107.
•02	.151	.0752	+00543	.00271	.145	•0724	1+87					33+0	17.0	19.3	33+0	18.0	4741
.03	•145	•0891	+00759	+00463	.138	+0846	1+09					8.21	7.86	9.01	8.32	8.21	7.86
.04	+141	.0967	+00940	+00644	.132	.0901	.710					4.38	4.25	4.98	4.49	4.38	4.75
+05	•137	•101	+0110	+00818	.120	.0935	.373					2.63	2.55	3.10	2.73	2.64	2.56
.00 F .061332	.132	.104	+0125	+00771	.120	.0940	. 358					2+48	2+41	2+94	2+58	2.49	2.42
× •001332	**35	••••			••••	••••						13+2	4.21	13.7	13.3	13.2	4.21
• 08	+126	.105	+0148	•0122	•111	.0926	.228					8+51	3+10	3.79	3.65	3.55	2.08
•1	.120	<u>•104</u>	.0166		<u>,103</u>	-0898						1.21		1.78	1.31	1.23	.891
.15	.0988	.0940	.0214	.0203	.0776	.0738	.0411					+557	+442	.693	.651	.578	.463
.3	0860	.0835	.0232	.0225	.0630	.0609	.0187					+185	+159	+787	•269	•208	+182
	.0773	.0755	.0239	.0231	.0532	.0525	.0106					+0880	•0790	+174	+164	•112	.102
,5	.0703	0696	.0240	+0235	.0463	.0463	.00689					+0508	+0400	.102	.0974	.0571	.053
•6	+0651	+0644	.0239	.0232	.0411	+0411	+00477					•0171	+0161	.0766	.0738	.0404	.038
	+0571	+0507	.0234	+0220	.0288	-0297	.00174					+0108	.0103	.0637	.0619	,0334	,031
1.5	+0418	.0418	.0207	.0198	.0211	.0220	.000783	.00123		.00123	.000 372	.00519	+00505	+0491	.0480	.0271	.025
2.	.0355	.0355	.0189	.0177	.0167	.0178	+000442	+00404		.00404	.00185	+00311	+00305	+0+32	.0393	.0201	.022
3.	.0280	.028 0	.0162	+0146	.0119	.0134	+000198	+00964	.00000981	1 .00964	.00588	.00111	.00110	.0393	.0393	.0300	.023
* •	.0234	+0234	+0142	.0125	.00922	+0109	.000112	+0146	+0000404	.0147	+00985	1000821	+000814	.0400	+0400	.0324	+024
5.	-0203	.0203	.0115	+0108	.00637	+00842	+0000505	+0220	+000122	.0221	.0159	+000647	+000644	.0407	+0407	.0343	.026
8.	.0146	.0146	.00974	.00762	.00487	.00699	.0000287	.0273	.000207	.0275	.0200	+000449	+000445	.0425	+0425	+0376	.028
10.	.0125	.0125	.00853	.00626	00393	.00619	.0000183	.0322	.000285		0235	+000345	+000343		+0452		
15.	.00922	.00922	.00654	+00452	.00268	.00470	.0000073	+0414	+000442	+0418	.0287	+000212	+000212	.0512	+0512	.0543	.033
20.	+00741	+00741	.00539	.00343	.00203	.00397	•0000038	+0480 +0574	.000557	.0581	.0310	.0000988	+0000988	.0637	.0637	.0623	.035
30.	.00420	.00428	.00325	+00221	.00103	.00272		.0640	.000846	.0647	.0333	+0000724	+0000724	.0693	•0693	.0682	.034
50.	.00358	.00358	.00275	.00119	.000825	.00239		+0689	.000936	.0699	.0330	.0000567	.0000567	.0734	+0734	•0727	.034
60.	.00308	.00308	.00239	.000929	.000689	.00215		.0727	.00101	+073A	.0324	+00000466	+0000466	+0769	.0769	-0/62	1033
80.	.00243	.00243	.00191	.000630	.000519	.00180		.0783	+00111	.0793	.0314	+0000341	+0000341	+0851	•0018 •0853	.0814	.032
100.	•00202	•00205	+00160	.000463	+000+14	+00126		+0851	•001 <i>2</i> 0	\$00.35	+02MB					•	

71 LUTETIUM (barns/atom)

E	(MeV)	σ ^{KN} nc,t	σ ^{BD} _{inc,t}	o ^{KN} 0)nc,a	σ ^{BD} _{)nc,a}	o ^{KN}	σ ^{BD} _{inc,s}	σ _{coh}	σ _{×n}	σ _{×s}	σ _{κ.t}	<u>σ_{κ, a}</u>	σ _{r,t}	 	σ _{tot,t}	Ttot, t-coh	σ _{tot,a}	σ _{tot, en}
•	001	47.0	1.35	.0917	.00263	47.0	1.35	3200.					1360000.	1360000.	1360000.	1360000.	1360000.	1360000.
•	0015	47.0	2.27	.137	.00662	46.8	2+26	3070.					567000.	567000.	570000.	567000.	567000.	567000.
Hy •	001241	40,9	2.44	+145	+00754	46.8	2.43	3040.					500000.	500000.	503000 +	500000 +	500000.	500000.
HTW .	001641	46.9	2.53	.150	.00807	46.8	2.52	3030.					1560000+	1560000.	1500000+	1560000.	1560000.	1500000.
••	_ `			•••	•••••			20000					1650000.	1650000.	1650800.	1650000+	1650000+	1450000+
•	002	46.9	3.18	•18z	.0123	46.7	3+17	2930.					987000.	987000.	990000.	9A7000.	9A7000.	987000.
"III *	002024	40,9	3.22	.184	.0126	46.7	3.21	2920.					961000.	961000.	964000.	961000.	961000.	961000.
^н 11 •	002264	46.8	3.66	.205	.0161	46.6	3+64	2850.					1110000. 816000.	1110000. 816000.	819000	1110000. 816000.	1110000. 816000.	1110000. 816000.
∺₁•	002494	46.8	4.07	•559	•0197	46.5	4.05	2790.					764000.	764000 -	767000.	764000+	764000.	764000.
•	003	46.7	4.96	.271	.0287	46.4	4.93	2640.					557000 .	557000.	560000	57000.	557000.	702000+ 557000+
•	004	46.5	6.65	.358	.0512	46.1	6.60	2370.					261000.	261000.	263000.	261000.	261000+	261000.
•	005	46.3	8.23	.444	.0788	45.9	8.15	2110.					144000.	144000+	146000+	144000.	144000.	144000+
•	006	46.1	9.67	+528	.111	45+6	9.56	1880.					90100.	90100.	92000.	90100.	90100.	90100.
L	009245	45.6	12.2	.793	.185	45+1	12.0	1520.					41500+	41500+	43000+	41500.	41500+	41500+
-111 •			1240				1344	13304					80900	66100.	82200.	80900.	80900	20300+
•	01	45,5	14.4	.852	270	44.6	14.1	1240.					65200.	54100.	66500.	65200.	65200.	_54100+
L11 •	010349	45.4	14.7	.881	.285	44.5	14+4	1200.					59600.	49800.	60800+	\$9600.	59600.	49800.
1	010874	45.3	15.2	.921	. 300		14.0	1140.					82300+	68200.	83500+	A2300.	82300.	68200+
-1 •			1.7.45	••••			1444	11404					83800.	70000.	73000+	72400.	72400.	60600.
•	015	44.7	18.6	1.23	.514	43.4	18+1	793.					35300.	31100.	36100.	35300.	35300.	31100.
•	02	43.9	21.8	1.58	.787	42.3	21.0	557.					16400.	14900.	17000.	16400.	16400.	14900.
•	03	42.4	25.9	2.21	1.35	40.2	24+6	326.					5500 .	5170.	5850+	5530.	5500.	5170 .
•	04	41.1	28.1	2.74	1.87	38.3	26+2	212.					2500+	2390 .	2740+	2530.	2500.	2390.
	06	38.7	30.1	3,62	2.87	30+1	27.3	111.					1350.	1300.	1530+	1380.	1350.	1300.
. к .	063316	38.4	30.2	3.75	2.95	34.6	27.2	102.					693.	673.	825.	723.	697.	674.
			-				-						3660.	1160.	3790.	3690.	3660.	1160.
•	08	30,7	30.4	4,30	3.56	32.4	26.8	67.8					1960 •	900.	2060.	1990.	1960.	904+
<u>.</u>	1	35.0	30.2	4.83	4.17	30.2	26.0	44.9					1070.	607,	1150.	1100.	1070.	611.
•	2	28.9	27.3	5.76	5.90	22.6	23+8	12.2					30/.	201+	417+ 200-	396.	373.	266+
	3	25.1	24.3	6.76	6.55	18.3	17.7	5.58					56.7	48.5	86.6	81.0	63.5	55.8
•	4	22,5	22.0	6,97	6.73	15.5	15.3	3.16					26.9	24.0	52+1	48.9	33.9	30.7
•	5	20.5	20.2	7.00	6.81	13.5	13.4	2.05					15.5	14+2	37.8	35.7	22.5	21+0
•	6	19.0	18.6	6.98	6.79	12.0	12.0	1.42					10.0	9.28	30.2	28+8	17+0	16+1
1.	o	15.0	14.9	6.60	6.24	8.40	7.70 8.66	+810					3.28	3.14	22.0	21+0	12.0	11+7
1.	5	12.2	12.1	6.03	5.72	6.16	6.38	.233	.366		•366	.111	1.57	1.52	14.3	14.0	7.97	7.35
2.		10.4	10.4	5,51	5.19	4.88	5.21	•131	1,20		1 • 20	.551	+946	•926	12+7	12+5	7+66	6+67
3.		8,17	8.16	4.71	4.26	3.45	3.90	•0589	2.86	.00286	2+86	1.74	.507	.500	11+6	11+5	8.08	6+50
- 21		5 00	8.83	4.1 7 70	3.03	2.09	3.20	•0333	4.31	+0117	4.32	2.90	+33/	+333	11.5	11.2	8.80	6+86
6.		5.21	5.21	3.36	2.76	1.56	2.45	+0217	5.50	+0230	7+37	3.70	.197	.196	12.0	11.9	10.1	7.65
8.		4.26	4.26	2.84	2.21	1.42	2.05	.00857	8.05	.0601	8+11	5.89	•137	+136	12.5	12.5	11.1	8.24
10.		3,63	3.63	2,48	1.82	1.15	1.81	.00549	9.50	.0830	9.58	6.93	.105		13.3	13.3	12.2	8.85
15.		2.69	2.69	1.91	1.32	•780	1.37	+00219	12.2	+128	12+3	8.43	•0651	•0649	15.1	15.1	14.3	9.81
20.		2.10	2.10	1.17	.998	.397	1+10	+00111	14.2	.162	14+4	9.15	+0405	+0+67	10+0)6+6	10+0	10+2
40.		1.25	1.25	.949	.454	.300	.796		18.9	.246	19.1	9.78	.0220	.0220	20+4	20.4	20.1	10.3
50.		1.04	1.04	.802	.344	.240	.696		20.3	.272	20.6	9.67	.0173	+0173	21.7	21.7	71+4	10.0
60.		.897	.897	.697	+270	.201	•627		21.4	.293	21+7	9.48	+0147	+0142	22+6	22+6	72+4	9.76
80.		.708	.708	.557	.183	+151	•525		23.1	•325	23+4	9.21	+ 01 04	+0104	24+1	24+1	74.0	9.40
100+		*200	+290	++01	+132	+161	+423		C++3	+344	24+6	0,7R	+00420	•00420	52+5	75+2	75+1	a•72

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7) LUTETIUM (cm²/g = 0.003442 x barns/atom)

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E (MeV)	(費) _{nc,t}	([#] ¢) _{)nc} ,	^(#) inc, i	a ([#]) _{nc,a}	([#]) ^{KN} inc. s	$(\frac{\mu}{p})_{\text{nc,s}}^{\text{BD}}$	([#]) _{coh}	(چ).	n (片)*e	(≝) _{×,}	د ([#]) _{×, ط}	(岸) _{7,1}	(#), a	([#]) _{tot, t}	([#]), ot. t.coh	(#) _{t/t} a	(#)tol. ET
+001	.162	.00465	.000316	+0000091	. 162	.00465	11.0					4680.	A680.	4680.		4480	4480.
+0015	+162	.00781	+000472	+0000228	.161	.00778	10.6					1950.	1950.	1960.	1950.	1950.	1950.
		*00840	*****	•0000260	+101	•00836	10.5					1720+	1720.)730.	1720.	1720.	1720.
HIV +001641	. 161	.00871	.000516	+0000278	.161	+00867	10.4					5030.	5030.	5030.	53/0+	5370.	5370+
-002	.161	.0109	.000626		.161	. 01 0 9	10.1					5680+	5680.	5680.	5680.	5680.	5680.
HTTT +002024	.161	.0111	.000633	+0000434	.161	.0110	10.1					3400.	3400.	3410.	3400.	3400.	3400.
N007764	141											3820.	3820.	3870.	3820.	3A20.	3820.
"II +002204	+101	+0150	+000708	+0000554	.100	+0125	9,81					2810.	7810.	2820.	2810.	2A10.	2A10.
M _I +002494	.161	+0140	.000778	+0000678	.160	.0139	9.60					2630.	2630.	3350.	7340.	3340, 2630.	3340.
.003	.161	.0171	.000933	A000098	. 160	.0170	0.00					3100.	3100.	3120.	3)00.	3100.	3100.
.004	.160	.0229	+00123	+000176	.159	.0227	8.16					1920+)920.	1930.	1920.	1920.	1920.
+005	.159	•0283	.00153	.000271	158	.0281	7.26					496.	496.	503.	870.	NY0.	898+
.006	+159	.0333	.00182	.000382	. 157	.0329	6.47					310.	310.	317.	310.	310	310
.008	.158	+0420	.00239	.000637	.155	+0413	5.23					143.	143.	148.	143.	143.	143.
rIII *004542	•157	+0468	.00273	•000816	+154	.0461	4.58					97.4	97+4	102.	97.4	97.4	97.4
.01	.157	.0496	. 00293	.000929	.154		4.77					278.	228.	283.	278.	278.	228.
LTT +010349	.156	+0506	.00303	+000981	.153	.0496	4.13		~ ~~	· · · · · · · ·		224+	186.	229.	224.	224.	186+
						•••••	~~~~					283.	235.	287.	205.	205.	171+
T +010814	.156	+0523	.00317	.00106	. 153	.0513	3.92					249+	209.	253.	249.	249.	209.
.015	.154	+0640	+00423	.00177	.149	.0623	2.73					288 -	241.	293.	288 -	288.	241+
•02	.151	.0750	.00544	.00271	.146	.0723	1.92					1270	107.	124+	122+	122.	107.
.03	.146	.0891	.00761	.00465	.138	0847	1.12					18.9	51+3	50.5	50.4	56.4	51+3
•04	•14 <u>1</u>	.0967	.00943	.00644	.132	.0902	.730					8.60	8.21	20.11	19.0	18.9	17.8
.05	.137	.101	+0111	.00816	.126	.0929	.513					4.65	4.47	7.43	0+/1 A 75	8.60	6.23
•06	.133	.104	•0125	.00971	.121	.0940	.382					2.78	2.70	3.27	2.60	9.03	4.41
K .063316	•132	+104	•0129	.0102	.119	.0936	.351					2,39	2.32	2.84	2.49	2.40	2.17
.08	.126	.105	-0148	.0123	. 112	.0077	- 27-					12+6	3.99	13.0	12.7	12.6	3.49
•1	.120	+104	.0166	.0144	.104	.0995	+233					6+75	3+10	7+09	6+85	6.75	3.11
.15	.108	+100	+0197	+0182	.0888	+0819	+0730		•			1+00	2.09	3.96	3.79	3,68	2.10
•2	•0995	+0940	+0215	.0203	.0778	.0737	.0423					.582		.710	1+36	1,28	.916
•3	.0864	•0836	.0233	+0225	.0630	.0609	.0192					.195	.167	.798	+0/5	+602	.475
• •	.0774	+0757	.0240	.0232	.0534	.0527	+0109					.0926	.0826	.179	.168	+217	+167
•5	.0706	+0695	+0241	+0234	+0465	•0461	.00706					+0534	.0489	130	.123	.0774	+100
•	.0634	+0647	+0240	.0234	+0413	+0413	+00489					.0344	.0319	.104	.0991	.0585	
1.	+03/3	+05/1	+0235	•0228	.0339	.0344	.00279					.0179	•0169	.0778	.0750	.0413	.0396
1.5	.0420	-0416	+0227	.0415	.0289	.0298							+010A		.0626	.0340	.0323
2.	.0358	.0358	+0208	+0147	.0212	.0220	.000802	+00126		.00126	.000382	+00540	.00523	.0492	.0482	.0274	.0253
3.	.0281	.0281	.0162	.0147	.0119	.0134	.000303	.00413		.00413	.00190	.00326	.003)9	+0437	+0430	• 0264	.0230
4.	.0235	.0235	+0142	.0125	.00926	.0110	-000115	+00784	+00000984	.00484	.00599	+00175	+00172	.0399	+0396	.027B	.0224
5.	.0203	.0203	.0127	.0108	.00754	.00950	.0000747	-0190	.0000403	+0149	•00998	+00110	+00115	+0396	+0396	•0303	.0236
6.	.0179	.0179	+0116	+00950	.00640	.00843	.0000520	.0224	.000123	.0225	.0161	-00.0678	+0000776	+0+0.1	+0403	+0327	•025)
8.	+0147	+0147	+00978	+00761	.00489	.00706	.0000295	+0277	+000207	.0279	.0203	+000472	+000675	+0+13	+0410	+0348	.0263
10.	.0125	•0125	.00854	.00626	00396	.00623	.0000189	+0327	000286	0330	. 0239	.000361	.000361	+0458	.0458	+0302	+0204
12.	.00926	.00926	.00657	+00454	.00268	+00472	.0000075	.0420	+000441	+0423	.0290	+000224	+000223	+0520	+0520		
30.	.00743	+00743	+00540	.00344	.00203	.00399	.0000038	+0489	+000558	+0496	.0315	+000161	+000161	+0571	.0571	-0551	.035
40.	.00410	+00240	+00703	+00/21	.00137	.00320		+0585	.000723	.0592	.0339	+000103	+000103	+0647	+0647	•0633	.0361
50.	.00358	.00358	.003274	+00130	+00103	+10214		+0651	+000847	+0657	.0337	+0000757	+0000757	+0702	.0707	.0692	.0355
60.	.00309	.00309	.00240	.000929	.000692	.00216		+0699	+000936	•0709	+0333	+0000595	+0000595	+0747	+0747	.0737	.0344
80.	.00244	.00244	.00192	.000630	.000520	.00181		+0131	+00101	+0747 ABAK	+0326	+0000489	+0000489	+077A	+0778	+0771	.0336
100.	·00202	.00202	+00161	.000465	.000416	.00156		+0836	.00120	.0847	.0302	+0000354	+0000398	.0830	+0830	•0826	.0324
										+++++	•••=•e		*******	+u+6/	+0867	+0864	• 0 307

72	HAFNIUM
(ba	arns/atom)

E (MeV)	<u> </u>	σ _{inc,t}	σ ^{BD} _{inc,t}	O ^{KN} Oinc, a	o ^{BD} inc,a	0)nc, 8	σ ^{BD} inc,s	σ _{coh}	σ×n	σxe	σ _{*,t}	σ.,	σ _{τ, t}		o _{tot,t}	⁰ tot, t-coh	σ _{tot,a}	ot, en
.001		.7.7	1.34	.0930	.00261	47.6	1.34	3290 +					1420000.	1420000.	1+20000+	1420000.	1420000+	1420000.
+001	5 4	47.6	2.27	.139	.00662	47.5	2+26	3160.					593000+	593000+	575000+ 478000+	593000+	593000+	993000+ 475000+
	502 4	***	2451	*134	+00030	4/44	2+30	3110+					1490000.	1490000.	1490000+	1490000+	1490000+	1490000+
HIN .0017	716 4	•7.6	2.67	,159	.00890	47.4	2.66	3100.					1380000.	1380000+	1380000+	1340000+	13A0000+	1380000.
. 0.02		47.5	1,19	.184	. 0174	47.3	3.18	3010.					1570000+	1570000+	1570000+	1570000+	1570000+	1570000+
H.TT .002)	108 4	47.5	3.38	.194	.0138	47.3	3.37	2980.					919000.	919000+	922000+	9)9000+	919000+	919000+
111													1060000+	1060000.	1060000.	1060000+	1060000+	1060000+
MII +0023	304 4	47.5	3,84	•217	•0176	47.2	3+82	2900+					776000.	776000+	779000+	776000.	76000.	776000+
HT .0026	500 4	47.4	4.27	.239	.0215	47.2	4.25	2830.					729000 •	729000+	732000+	729000+	729000.	729000
													859000.	859000 .	862000+	859000.	859000+	859000 .
.003	4	47.3	4.97	.274	.0288	47.1	4.94 s	2710.					588000.	588000.	591000.	588000.	588000.	568000+
-005		N7.0	8.25	.303	.0512	40.0	0.01	2430+					154000+	154000+	156000.	154000.	154000	154000+
.006		46.8	9.71	.536	.111	46.3	9.60	1940.					95400+	95400+	97300.	95400+	95400+	95400+
.008	4	46.4	12.3	.703	.186	45.7	12+1	1560.					44000+	44000+	45600+	44000+	44000+	44000+
L _{III} .0095	560 4	•6 •5	14.0	.830	• 252	45.4	13.7	1340.					27500+	27500+	28900.	27500.	27500+	27500+
.01		16.1	14.5	.864	.272	45.3	14.2	1280.					68600+	56400+	69900+	68600+	A8600+	55400+
LTT .0107	39 4	6.0	15.2	.924	.305	45+1	14.9	1190.					56900+	47500+	58100+	\$6900+	56900+	47500+
													78600+	65000+	79800.	78600+	78600+	65000+
LI .OIIS	12	*2 * 4	13.7	, 700	+ 3 30	44.7	12+4	1130.					80200+	66800+	81300.	80200.	80200+	66800+
.015	4	\$5,3	18.7	1.25	.517	44+0	18.2	822.					37200.	32500.	38000.	37200.	37200.	32500.
.02	4	4.5	22.0	1.60	.794	42.9	21.2	577.					17300 .	15700.	17900.	17300+	17300.	15700+
•03	4	13.0	26+1	2.24	1.36	40.8	24.7	337.					5840.	5470+	6200+	5870 · 2690 ·	5840+	5470.
•0=		•1•'	29.7	2.70	2.40	30.7	20+5	154.					1440.	1390.	1620.	1470.	1440+	1390.
.06	3	39.3	30.4	3.69	2.85	35.6	27.5	115.					855.	828.	1000.	885.	859.	831.
K .0653	845 3	38.7	30.6	3.88	3.07	34.8	27.5	100 +					674+	655+	805.	705.	678.	658.
.08	1	17.2	30.8	4.36	3.61	12.9	27.2	70.3					2050.	906.	2150 •	2080.	2050.	910+
.1	3	35.5	30.6	4.90	4.22	30.6	26.4	46.6					1130.	626.	12)0.	1160.	11 70 +	630.
.15		31.9	29.4	5.80	5.34	26+1	24+1	22.0			Bart		385.	270.	436.	414.	391.	275.
•2	2	29.3	27.7	6.33	5,99	22.9	21+7	12.7					177.	137.	217+	205.	183+	143.
• 3	2	22.8	24.7	0.00	0.00	18.0	18.0	3.77					28.4	25.2	54+0	50.7	35.5	37.0
.5	ž	20.8	20.5	7.10	6.89	13.7	13.6	2+12					16.5	15.0	39+1	37.0	23.6	21.9
.6	1	9.3	19.1	7.08	6.90	12+2	12.2	1.47					10+6	9+81	31+2	29.7)7+7	16+7
.•8	1	16.9	16+8	6.92	6.70	10.0	10.1	+840					3.49	3.33	19.1	18-6	10.2	9.64
1.5		2.4	12.1	6.11	5.81	6.24	6.49		.380		.380	.115	1.66	1+61	14+6	14+3	8+15	7+53
2.	i	10.5	10.5	5.59	5.24	4.94	5+26	.136	1.24		1+24	.569	1.00	+978	12+9	12.7	7.83	6+79
з.		8.29	8.28	4.78	4.31	3.50	3.97	+0610	2.95	+00290	2+95	1.79	+540	+537	11+8	11+8	9.01	6+03 7+02
<u>*</u> •		6,93	6.93	4.20	3.68	2.72	3.25	+0345	6.67	.0119	4+45	2.98	• 769	+267	12+0	11.9	9.72	7.45
7 .		5,70	5.29	3.40	2.79	1.88	2.50	.0156	6.66	.0362	6.70	4.79	+712	•210	12+2	12+2	10+3	7.79
8.		4.32	4+32	2.89	2.74	1.44	2.08	+00889	8.26	.0610	8.32	6.03	•)46	+145	12+8	12.8	11+4	8+4)
10		3.68	3.68	2.52	1.84	1.17	1.84	+00571	9.75		<u>-9.83</u>	7.10	+112	+112	13.6	13.6	12+5	9+05
15.		2./3	2.73	1.94	1.34	.599	1.18	+00229	14.5	+130	12+0	0.03	+0500	.0499	16.9	16.9	16.3	10.4
30.		1.59	1.59	1.19	.644	+402	.946	+0+114	17.4	.213	17+6	10.0	+0320	+0370	19+2	19+2	18+8	10+7
40.		1.27	1.27	.962	.460	.304	.810		19.4	.249	19+6	10.0	+0235	+0235	20.9	20.9	20.6	10.5
50.		1.06	1.06	.814	.350	.243	•710		20.8	.276	21+1	9.82	+0184	+0144	22+2	72+2	21.0	10+2
60. 80.		.910	•910 •718	.706	.185	+404	•637		23.6	. 290	22+3	9.33	+0110	+0110	24+6	24.6	24.5	9.53
100.		596	.596	.473	•136	.123	.460		24.9	. 352	25+3	8.94	+00870	+00A70	25+9	25.9	25.8	9.08

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72 HAFNIUM (cm¹/g = 0,003374 x barns/atom)

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E (MeV)	([#] ₅) ^{KN} _{inc,t}	(勞) _{nc,1}	$(\frac{\mu}{p})_{inc}^{KN}$	a_(学) ^{BD})nc, a	([#]) _{nc,s}	([#] _p) ^{BD} _{inc,s}	(^µ _p) _{coh}	(5),	<u>(م (#</u>)»،	<u>(</u> چ) (t ([#] _p) _{x.}	a	(岸) _{7, t}	(#), <u>a</u>	(賞) _{tot,t}	(\$), ut, t .cuh	([#]) _{toi a}	([#]) _{tot, en}
•001 •0015	•161	+00452	.000314	•0000088	•161	.00452	11.1						4790.	4790 +	4790.	4790.	4790.	4790.
Hy .001662	.161	.00867	.000520	.0000280	.160	+00763	10.7						2000.	2000.	2010. 1610.	2000.	2000.	2000.
M _{IV} .001716	.161	.00901	.000530	6 .0000300	.160	.00897	10.5						5030+ 46 6 0+	5030 + 4660 +	5030. 4660.	5030 · 4660 ·	5n30. 4660.	5030. 4660.
.002	.160	.0108	.000621	.0000418	.160	.0107	10.2						5300. 3540.	5300. 3 54 0.	5300. 3540.	5300 ·	5300.	5300.
TII +002108	•160	+0114	•000655	•0000466	•160	+0114	10+1						3100.	3100.	3110.	3)00.	3100.	3100.
M _{II} .002364	.160	.0130	.000732	•0000594	,159	.0129	9.78						2620.	2620.	2630.	3580.	2620.	3580.
HI +002000	.160	.0144	.000806	.0000725	.159	.0143	9,55						2460.	2460.	3120.	3110 + 2460 +	3110. 2460.	3110. 2460.
.003	+160	+0168	.000924	+0000972	.159	.0167	9.14						1980.	2900 • 1980 •	2910.	2900. 1980.	2900. 1980.	2900. 1980.
.005	.159	.0278	+00122	+000173	.158	+0223	8.20						935.	935.	941.	935.	935.	935.
.006	.158	.0328	.00181	+000375	.156	.0324	4.55						520.	520.	526.	520.	520.	520.
+008	•157	.0415	.00237	.000628	.154	.0408	5.26						148.	322+	328.	322+	322.	322.
L _{III} +009560	.156	+0472	•00280	.000850	.153	.0462	4.52						92.8	92.8	97.5	92.8	92.8	92.8
.01	.156	.0489	.00292	.000918	.153	04 70	4 77						262.	214+	267.	262 .	262.	214.
LTT -010739	.155	.0513	+00312	+00103	152	.0503	4.32				······································		231.	190.	236.	231.	231.	190.
							4402						265.	160.	196.	192.	192.	160.
L +011272	•155	.0530	•00326	•00111	•151	.0520	3.81						233.	195.	237.	233.	285.	219.
.015	.153	.0631	.00422	+00174	.148	.0614	2.77						27)+	225+	274.	271+	271.	225.
.02	.150	.0742	+00540	• 00268	+145	.0715	1.95						58.4	53.0	60.4) 20+)20.	110.
•03	+145	.0881	.00756	+00459	.138	.0833	ī.14						19.7	18.5	20.9	19.8	19.7	18.6
.05	.136	+0958	•00938	.00638	.131	.0894	+742						8.97	8.54	9.82	9.08	8.97	8,54
.06	.133	.103	-0125	.00810	.120	.0921	.520						4+86	4+69	5.47	4.96	4.86	4.69
K .065345	.131	.103	.0131	.0104	.117	.0928	.337						2+88	2.79	3.37	2.99	2,90	2+60
••	1-4	• • •			• • • • •								11.9	3.78	12.3	2+38	2.29	2.22
.08	+120	+104	+0147	•0122	•111	.0918	.237						6.92	3.06	7.25	7.02	6.92	3.07
15	.108	+103	+0165	•0142	.103		•157						3+81	2+11	4+08	3.91	3.81	2.13
•2	.0989	.0935	.0214	+0100	.0773	+0813	+0742						1+30	•911	1+47	1+40	1,32	1928
.3	.0857	.0833	+0231	+0225	.0628	.0607	.0195						.203	.462	•732	• 692	+617	+482
••	.0769	.0752	.0238	.0230	.0530	.0523	.0110						.0958	.0850	+ 300	+ 280	•226	+195
.5	.0702	•0692	+0240	.0232	+0462	.0459	+00715						+0557	+0506	+132	125	.0796	+108
.8	.0570	+0044	+0239	+0233	+0412	+0412	.00496						+0358	.0331	•Ì05	.100	.0597	.0561
1.	.0513	.0509	.0226	.0213	.0287	.0297	+00283						+0186	+0175	.0779	.0752	.0418	-04 02
1.5	.0418	.0415	+0206	.0196	+0211	.0219	+000817	.00128		+00128	.000388		+00560	+0112	+0644	.0628	.0344	.0325
2.	.0354	.0354	+0189	+0177	.0167	.0177	.000459	.00418		.00418	.00192		+00337	.00330	.0435	.0402	+02/5	+0254
4.	.0236	+0219	+0101	+0145	.0118	.0134	.000206	+00995	+0000097	8 .00995	+00604		+00182	.00179	.0398	.0398	.0279	+9229
5.	.0202	.0202	.0127	.0107	.00752	.00945	+000116	+0150	+0000402	+0150	+0101		+00)21	.00120	.0398	.0395	.0304	.0237
6.	+0178	.0178	.0115	+00941	.00634	.00843	+0000526	+0171	+0000786	+0192	+0135		+000908	+000901	+0405	+0402	.0328	+0251
8.	+0146	+0146	+00975	.00756	.00486	.00702	.0000300	.0279	.000206	.02A1	.0203		+000493	.000489	+0+12	+0412	+0348	•0263
10.	+0124	+0124	+00850	•00621	•00395	.00621	.0000193	0329	.000284	.0332	.0240		.000378	+000378	+0459	.0459	.0305	.0284
20.	.00739	.00739	.00536	+00452	+00207	+00469	.0000077	•0422	.000439	+0425	.0291		.000234	+000234	.0520	+0520	+0493	+0337
30.	.00536	.00536	+00402	.00217	.00136	.00319	+0000039	•0489 •0587	+000557	+0496	.0315		+000169	.000168	.0570	.0570	+0550	+0351
40.	.00428	.00428	.00325	.00155	.00103	.00273		+0655	+000840	+0594	.0337		+000108	+000108	+0648	+0648	.0634	+0361
50.	.0035A	.00358	+00275	+00118	.00082	.00240		.0702	.000931	.0712	.0331		+0000621	+0000621	+0705	+0705	.0695	+0354
80.	+00.307	+00307	+00238	.000921	.000688	+00215		.0742	+000999	.0752	.0327		+0000509	+0000509	.0783	.0781	+0139	+0344
100.	.00201	+00201	+00160	+000024	+000216	+00180		•0796	.00111	.0806	.0315		+0000371	+0000371	.0830	.0830	.0827	.0322
-					******			••8•0	+00114	.0854	•0305		+00000294	+0000294	• 0874	.0874	.0870	+1306

73 TANTALUM (baros/atom)

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	1410000 1490000 1490000 110000 879000 1010000 378000 878000 878000 878000 878000 878000 878000 817000 817000 817000 817000 810000 810000
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K.067416 39.0 31.0 4.01 3.18 35.0 27.8 98.5 3410. 1080. 3540. 3440. 3410. .08 37.8 31.2 4.42 3.65 33.3 27.5 72.8 2160. 916. 2260. 2190. 2160. .1 36.0 31.0 4.96 4.28 31.0 26.7 48.3 1190. 642. 1270. 1220. 1190. .1 36.0 31.0 4.96 4.28 31.0 26.7 48.3 100. 642. 1270. 1220. 1190. .15 32.4 29.6 5.88 5.41 26.5 24.4 22.8 187. 144. 228. 215. 143. .2 29.7 78.1 6.41 6.08 23.3 22.0 13.2 187. 144. 228. 215. 143.	640.
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.1 36,0 31,0 4,96 4,28 31,0 26.7 48.3 404. 280. 457. 434. 410. .15 32,4 29,8 5,41 26.5 22.8 187. 144. 228. 215. 193. .2 29,7 78,1 6,41 6,08 23.3 22.0 13.2 187. 144. 228. 215. 193.	646,
-15 32.4 29.8 5.88 5.41 20.7 2** 2** 187, 144, 228, 215, 143, .2 29.7 28.1 6.41 6.08 23.3 22.0 13.2 	285.
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• 3 23.0 23.0 0.70 0.70 10.0 10.0 00.0 30.0 30.1 20.6 50.2 32.0 37.3	22.9
1,5 $1,5$	17.3
.6 19.5 19.3 7.18 6.97 12.4 12.3 1.52 5.51 7.51 7.51 7.51 7.51	12.3
.8 17.1 17.0 7.01 6.77 10.1 10.2 .865 3.70 3.53 19.6 19.0 <u>10.5</u>	9,93
1. 15.4 15.3 <u>6.78 6.40 8.64 8.90 .557</u>	7.73
1.5 12.5 12.5 6.20 5.90 6.33 6.60 .250 .395 117 1.06 1.04 13.2 13.0 8.01	6,97
	7 14
3, 8,40 8,39 4,55 4,30 3,55 40 10 10 10 10 10 10 10 10 10 10 10 10 10	7.59
4, 1,02 1,02 4,60 3,61 2,26 2,85 4,0233 5,82 4,0237 5,84 4,10 ,283 4,260 12,6 12,6 12,6 12,6 10,5	7.94
5. 5.05 5.06 5.06 7.82 1.91 2.54 •0162 6.82 •0367 6.86 4.90 125 125 125 13.1 13.1 11.6	8,58
a a 19 a 19 2.93 2.26 1.46 2.12 .00920 8.46 .0620 8.52 6.17 118 117 14.0 13.9 12.8	9,24
10. 3,73 3,73 2,55 1.87 1.18 1.87 .00593 9.99 .0852 10.1 7.25 .0734 .0737 15.7 15.7 14.9	10.2
15. 2.76 2.76 1.96 1.35 .802 1.41 .00239 12.8 .132 12.9 8.15 .0531 .0530 17.4 17.4 16.8	10.6
	10.9
30, 1,61 1,61 1,71 ,699 ,908 ,901 16,6 ,552 20,2 10,2 ,0249 ,0249 21,5 21,5 21,5 21,5 21,5	10.7
40, 1,28 1,28 ,775 ,405 ,200 ,019 ,214 ,280 21-7 10,0 ,0195 ,0195 22.8 22.8 22.8 22.8	10.7
50, 1,07 1,07 ,005 ,325 ,127 ,268 22.6 ,300 22.9 9.89 ,0160 ,0160 23.0 73.0 73.0 73.0	9.74
00, .723 .728 .572 .187 .155 .541 24.3 .333 24.6 9.56 .001/ .011/ 23.5 26.5 26.5	9.25
100604 .604 .880 .137 .125 .467 25.5 .357 28.9 9.10 .00720 .00720 .00720 .00720	

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73 TANTALUM (cm³/g = 0.003328 x barns/atom)

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E (MeV)	(≝) ^{KN}) _{nc,t}	(≝) ^{BD} , t	$\left(\frac{\mu}{\rho}\right)_{inc,a}^{KN}$	(世) (世) _{)nc, a}	([#]) _{)nc, в}	([#] _₽) ^{BD} _{)nc, s}	(뿔) _{coh}	(労)×	n (片)*	e (لم),	. ([#])*)	(#)	(#)	121	(2)	<i>(</i> #\
•001	.161	.00443	.000313	.0000086	.161	.00443	11.3		_		<u> </u>	· · · · · · · · · · · · · · · · · · ·	· · · . ·	(p'T, a	· / (-,t, 1	P'tot.1-cor.	·₽'t•t.a	(plant, et.
+0015	+161 -160	+00755	+000469	+0000220	.160	.00752	10.8					206	50.	2060.	4960.	4960.	4960.	4960.
0.01707	140			******	.100	+00877	10+6					150	0.	1500.)510.	1500.	1500.	1500.
•001/93	.160	+00935	•000559	•0000325	.160	+00932	10.5					439	90.	4070.	4690. 4390.	4690. 4390	4690.	4690.
•002	.160	.0106	+000622	.0000413	.160	.0106	10.3					496	0.	4960.	4960.	4960	4960	4960.
+002194	. 160	.0118	•000682	·00005n3	.159	•0117	10+1					293	10.	3670.	3690. 2940.	3690.	3690.	3690.
.002469	.160	• 01 34	•000765	+0000642	.159	+0134	9.82					336 246		3360.	3360.	3360.	3360.	3360.
.002709	.160	•0148	.000839	.0000779	.159	+0148	9,58					292 232	10. 10.	2920 • 2320 •	2930. 2330.	2920.	2920.	2920.
.003	.160	+0165	.000925	+0000958	+159	.0164	9.29					272		2720.	2730.	2720.	2720.	2720.
.005	+159	•0222	.00122	+000171	•158	.0220	8.32					97	2.	972.	2080.	2070.	2070.	2070.
.006	.158	.0374	+00152	.000264	.157	.0273	7.42					54	2.	542.	549	542.	542.	542.
.008	.157	.0413	.00237	+000676	.154	.0406	0.00					33	3.	333.	339.	133.	133.	333.
+00988	.156	.0483	.00289	+000895	.153	.0473	4.46					15	5.	155.	160.	155.	155.	155.
.01	165					·						24	9.	88.9 202	93.5	88.9	88.9	88.9
.011136	.155	.0522	+00292	+000912	.153	.0476	4.39					24	1.	196.	245.	247.	249.	202.
	••••		*******	*00104	+13E	+0513	3.90					18	1.	151.	185.	181.	181.	151.
.01168	.155	.0539	.00336	.00117	•151	.0526	3.76					25	0.	206.	254.	250.	250.	206.
.015	.153	.0629	.00423	.00174	.149	0417						25	6.	212.	259	221.	221.	184.
+02	.150	.0735	+00542	.00266	.145	.0709	2.83					13	0.	113.	133.) 30.	130.	113.
.03	.145	.0875	.00755	+00456	.138	.0829	1.16					60	0.9	54.9	62.9	60.9	60.9	54,9
•04	.140	•0955	+00938	.00636	.131	.0892	.759					2	0.47	19.1	21.7	20.5	20.4	19.1
.05	.136	•0998	.0110	.00805	.125	.0919	.532						5.09	A.89	10.3	9.52	9,42	6,95
.067416	.130	.102	+0124	•00958	.120	.0925	.396						3.06	2.96	3.56	3,16	3.09	4.89
100.410	•••3•	+103	*0122	+0106	+116	•0925	• 328						2.18	2.12	2.62	2.29	2.20	2,13
•08	.126	+104	+0147	•0121	•111	.0915	+242					1).3	3,59	11.8	11.4	11.3	3,59
<u>+1</u>	<u>-120</u>	.103	.0165	.0142	.103	.0889	.161						3.96	3.05	7.52	7.29	7.19	3.06
•13	.0988	+0992	+0196	•0180	.0882	.0812	.0759						1.34	.932	1.52	1.44	1 36	2,15
.3	.0859	.0832	.0232	+0202	+0//5	+0732	•0439						.622	479	.759	716	.642	
•4	.0769	.0755	.0238	.0231	.0532	+0526	+0200						.213	.180	.316	.296	. 236	202
•5	.0702	+0692	+0240	.0233	.0463	.0459	.00732						.100	.0885	•187	.176	.124	.111
•0	+0649	+0642	•0239	•0232	+0413	.0409	+00506						.0373	.0343	•) 35	+127	.0822	.0762
1.	.0513	+0500	+0233	+0225	.0336	+0339	+00288						.0195	.0183	.0789	.0759	.0429	.07/0
1.5	.0416	.0416	.0206	•0213	+0200	+0270	+00185	00131					•0123	.0)17	.0652	.0632	.0349	.0330
2.	.0356	.0356	+0189	+0178	.0167	.0178	+000469	.00426		+00131	+000396		.00586	+00569	+0496	.0489	.0278	.0257
3.	.0280	.0279	+0161	•0145	.0118	+0134	.000210	+0101	.000009	18 .0101	.00612		.00190	.00187	+0439	.0433	+0267	.0232
5.	.0234	+0234	+0142	.0124	+00919	.0110	+000119	.0152	+0000403	.0152	.0102		.00126	.00125	.0399	.0399	.0201	.02 25
6.	.0178	.0178	.0115	.00938	.00636	+00948	+0000775	+0194	+0000789	+0194	.0136		.000942	.000932	+0406	. 0406	.0330	.0253
8.	.0146	+0146	.00975	.00752	.00486	.00706	+00003366	+0227	.000122	+0228	•0163		.000742	.000735	+0416	.0413	.0349	10264
10.	.0124	+0124	.00849	.00622	.00393	.00622	.0000197	,0332	+000284	.0334	.0205		.000393	+000513	+0436	.0436	.0386	.0286
20.	.00719	+00919	+00652	+00449	.00267	.00469	.0000080	.0426	.000439	+0429	+0291		.000246	.000245		.0522		0304
30.	.00536	.00536	+00403	+00339 +00216	.00202	.00399	•0000039	+0496	+000556	.0503	.0317		.000177	.000176	.0579	.0579	.0559	.0339
40.	.00426	.00426	.00324	00154	.00103	.00272		+0392	+000719	+0599	.0339		.000113	.000113	.0652	.0652	.0639	.0361
50.	.00356	.00356	+00275	00117	.000822	.00239		.0712	.000932	.0723	.0339		.0000829	.0000429	.0716	.0716	.0706	,0356
80.	.00307	.00307	+0023R	000915	.000689	.00216		.0752	·000998	.0762	.0329		.0000532	.0000532	.0792	+0759	.0749	10346
100.	.00201	100242	+00190 4	0000022	+000516	+00180		+0809	+00111	.0819	.0318		.0000389	+0000389	.0842	.0842	.0105	.0339
	,	*****	******	000430	******	+10122		+0849	+00119	.0862	•0303		.0000306	+0000306	.08A2	.0882	.0879	.0308

74 TUNGSTEN (barns/atom)

E	(MeV)	$\sigma_{inc,t}^{KN}$	$\sigma_{inc,t}^{BD}$	σ ^{KN} nc, a	o ^{BD}	0)nc.s	σ ^{BD} _{inc,s}	σ _{coh}	σ×n	σ×e	σ _{×.t}	σ _{κ, a}	σ _{r.t}	σ _{τ, a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot,a}	o _{tot, en}
	.001	49.0	1.31	.0955	.00255	48.9	1.31	3480.					1560000.	1560000.	1560000.	1560000.	1560000.	1560000.
	+0015	48.9	2.27	.143	.00662	48.8	2.26	3350.					646000.	646000.	649000.	646000.	646000.	646000.
мv	.001809	48.9	2.84	.172	.00998	48.7	2.83	3250.					431000.	431000.	434000.	431000.	431000+	431000.
M	001871	48.0	7.04			40 7	3.05	1014					1350000.	1350000.	1350000.	1350000.	1350000.	1350000.
1A	*001011	40.7	2.90	•1 **	+0108	48.1	2+95	3530 +					1250000.	1250000.	120000.	1250000	1250000.	1250000.
	.002	48.8	3.19	.190	.0124	48.6	3.18	3190.					1180000.	1180000.	1180000.	1180000.	1180000.	1180000.
N _{TTT}	.002281	48.8	3.70	.216	.0164	48.6	3.68	3100.					842000.	842000.	A45000 .	842000	842000	842000.
			-	• = • =	•••••								969000.	969000.	972000.	969000.	969000.	969000.
^M II	+002575	48.7	4.23	• 243	.0211	48.5	4.21	3000+					703000.	703000.	706000.	703000.	703000.	703000.
×.		49 7		94 E		48.4	4 4 2	7676					837000.	837000.	840000.	A37000.	837000 .	837000.
		40.1	4.40	*502	+0234	+0++	4003	2930.					779000	585000+	50000. 782000	555000.	865000.	665000.
	.003	48.7	4.97	.282	.0288	48.4	4.94	2870.					660000.	A60000	663000.	660000	660000.	660000
	.004	48,5	6.67	.373	.0513	48.1	6.62	2570.					310000.	310000.	313000.	310000	310000.	310000
	.005	48,3	8.28	462	.0793	47.8	8+20	2290.					173000.	173000.	175000.	173000.	173000.	173000.
	.006	48.1	9,79	.551	.112	47.6	9.68	2050.					106000.	106000.	108000.	106000.	106000.	106000.
	•008	47.7	12.5	.723	.189	47.0	12.3	1660.					49300.	49300.	51000.	49300.	49300.	49300.
	•01	47.4	14.7	.888	.275	46.5	14.4	1360.					27100	27100.	28500.	27100.	27100.	27100.
<u>'</u> 111	.010204	47.4	14.9	•906	.285	46+4	14+6	1340.					25900.	25900.	27300.	25900.	25900.	25900.
Le -	.011541	47.1	16.2	1.01	. 349	46.1	15.9	1180.					52100	50100.	53300.	72100. 52100	72100.	56100.
-11					• • • •		1247	1100+					71900	\$7000	73100	71900	71945	57000
L,	.012098	47.0	16.7	1.06	.376	46.0	16.3	1120.					63500	51000	64600	63500.	63500.	51000.
				-	••		• •						73600.	58900.	74700.	73600.	73600.	58900.
	.015	46.5	19+1	1.29	.528	45.3	18+6	880.					41300.	34700.	42200.	41300.	41300.	34700.
	•02	45.7	22.3	1.65	.805	44+1	21+5	617.					19300.	17000.	19900.	19300.	19300.	17000.
	.03	44.2	26.6	2.30	1.38	41+9	25+2	361.					6510.	5990.	6900.	6540.	6510.	5990.
	•04	42.8	29.0	2.86	1.93	40+0	27+1	236.					2980.	2800.	3250.	3010.	2980.	2800.
	+05	41.5	30.3	3.35	2.44	38+2	27.9	166+					1610.	1930.	1010.	1040.	1610+	1530.
-	+U0	30 3	31+1	3.19	2.92	30+0	20+2	123.					419.	417	747	670	767+	620
•	+007563	37+3	31.44	4.14	3,30	74+5	50+1	70+9					3290	1040.	3420	3320.	3290.	1040.
	•08	38.3	31.5	4.48	3.69	33.8	27.8	75.4					2270.	920.	2380.	2300.	2270.	924.
	•1	36.5	31.3	5.03	4.32	31+4	27.0	50.0					1250.	655,	1330.	1240.	1260.	659,
	•15	32.8	30.2	5,96	5.48	26.9	24.7	\$3.6					427.	292.	481+	457.	413.	297.
	•5	30.1	28.4	6,50	6.14	23.6	22.3	13+6					197.	150.	239.	225.	204.	156.
	•3	26.2	25.3	7.05	6.82	19+1	18.5	6+21					67+1	56+5	98.6	92.4	74+1	63+3
	• *	23.4	23.0	7,26	7.04	16+2	10.0	3.51					31.9	20,1	50.0	74,7	19.2	35.1
	• 7	10 8	21+1	7.30	7.07	19+1	14+0	2+20					10.5	11.0	33.1	17.0	10.2	18.1
		17.4	17.3	7.11	6.89	10.3	10.4	.897					6.22	5.85	24.4	23.5	17.3	12.7
1		15.6	15.5	6.87	6.48	8.75	9.02	.576					3.92	3.73	20.0	19.4	10.8	10.2
Ť	.5	12.7	12.7	6.28	5.98	6.42	6.72	+260	.410		+410	+124	1.87	1,81)5,2	15.0	8,56	7.91
Ź	•	10.8	10.8	5,75	5,38	5.08	5.42	• <u>1</u> 47	1,33		1.33	.610	1.13	1.10	13.4	13.3	8.21	7.09
3	•	8.52	8.51	4.91	4,43	3.60	4.08	.0653	3,14	.00297	3.14	1.91	•610	• 600	12.3	15*3	8.68	6,94
<u>.</u>	•	7.12	7.12	4,32	3.77	2.80	3,35	• 0 3 7 0	4.70	+0122	4+71	3,15	.406	+401	12.3	12.2	9,44	7.32
5	•	6.15	6.15	3,80	3.25	2.29	2.90	+0241	6.00	+0240	6.02	4.22	• 300	• 27 /	12.7	14.7	10.2	· · · · ·
	•	3.43	5.43	3,50	2.00	1.473	2,30	+0107	r • 01	+0372	7.05	5,04	. 165	. 164	13.4	12.4	10.0	8.78
10	•	3.79	3.79	2.59	1.89	1.20	1.90	+00731	10.2	.0864	10.3	7.38	125	.124	14.2	14.2	13.0	9.39
15	•	2.80	2.80	1.99	1.36	.813	1.44	.00250	13.1	•134	13.2	8.95	.077	.0773	16.1	16.1	15.3	10.4
20	•	2.25	2.25	1.63	1.03	.615	1.22	.00121	15.3	.169	15.5	9.73	.0560	.0559	17,8	17.8	17.2	10.8
30	•	1.64	1.64	1.22	.659	.414	.981		18.2	•219	18.4	10+4	.0361	.0360	20.1	20,1	19.7	11.1
40	•	1.30	1.30	.989	.468	.312	.832		20.4	.256	20.7	10.4	• 0263	.0263	22.0	22.0	21.7	10.9
50	•	1.09	1.09	.836	.356	• 250	.734		22.0	•283	22+3	10.3	• 020 1	.0207	23.4	23.4	73.2	10.7
60	•	.935	.935	.726	•278	• 209	+657		23+1	•304	23+4	10.0	.0101	.0124	26.0	26.0	7941	0.01
100	•	.613	.613	. 486	.139	+126	+347		24.7	- 357	23+2	9.27	.0097	8 .00978	27.2	27.2	27.1	9,42
	•				• •					• 3	2000				- /-			

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74 TUNGSTEN (cm³/g # 0.003276 x barns/atom)

E (MeV)	([#]) _{inc,t}	([#]) ^{BD} יnc, 1	ر ([#] ^{KN}) معر (a (学) ^{BD}	([#]) ^{KN} inc, s	(声) ^{BD} (声) _{Inc, 8}	(불) _{coh}	(چ),	<u>(</u> 作) _{不e}	(ڭ) _{×.}	<u>د</u> ([#])*, ،	(岸) _{て, t}	([#] _p) _{7,2}	(#) _{tot,t}	(#) _{tot}	(#) _{t'st. b}	(#),t. es.
.001	.161	.00429	.000313	.0000084	.160	.00429	11.4					5110.	5110.	5110.	5110.	5110.	5110.
H001809	.160	.00930	+000563	.0000327	.160	.00927	10.6					1410.	1610.	1420.	2120.	2)20.	2120.
M	160	00070			144							4420.	4420.	4420	4420.	4420	4420.
IA	.100	.00970	+000580	+0000354	+100	+00400	10+6					4100. 4650.	4100 ·	4100.	4100.	4)00.	4100.
•002	.160	.0105	.000622	+0000406	.159	+0104	10.5					3870.	3870.	3870.	3870.	3A70.	3870.
JII .002501	•100	•0121	+000708	+0000537	+159	+0121	10+2					2760.	2760.	2770.	2760.	2760.	2760.
H _{II} .002575	.160	.0139	•000796	+0000691	. 159	.0138	9.83					2300 .	2300.	2310.	2300.	2300	2300.
M _I .002820	.160	.0153	.000868	+0000832	.159	.0152	9.60				•	2180.	2180.	2190.	2180.	2)80.	2180.
.003	.160	.0163	+000924	+0000943	.159	.0162	9+40					2160.	2160.	2170.	2160.	2)60.	2160.
+004	+159	.0219	.00122	.000168	.158	.0217	8.42					1020.	1020.)030.	1020.	1020.	1020.
.006	.158	.0321	+00151	+000260	154	.0269	7.50					367.	50/.	573,	567.	567.	567.
.008	.156	.0409	.00237	+000619	.154	.0403	5.44					162.	162.	167.	347.	347.	347.
.01	.155	.0482	.00291	.000901	.152	.0472	4.46					68.8	88.8	93.4	88.8	88.8	58.5
LIII +010204	+155	+0488	.00297	+000934	.152	+0478	4.39					84,8	84.8	89.4	84.8	84.8	84.8
L011541	.154	.0531	.00331	-00114	.151	. 0521	3.97					236.	184.	241.	236.	236.	184.
11	••••	•••••			••••		3487					236.	137.	219.	171.	171.	137.
L ₁ .012098	. 154	+0547	.00347	•00123	.151	.0534	3.67					208.	167.	212.	208.	208.	167.
-015	.152	. 6626			149		2 00					24) •	193.	245.	241+	241.	193.
.02	.150	.0731	+00723	+00173	.144	+0009	2.02					135+	114.	138.)35.)35.	114.
.03	.145	.0871	.00753	+00452	.137	.0826	1.18					21.3	19.6	22.6	21.4	21.2	19.4
.04	.140	.0950	+00937	.00632	.131	.0888	.773					9.76	9.17	10.6	9.86	9.76	9.17
.05	•136	.0993	+0110	.00799	.125	.0914	.544					5+27	5+01	5.93	5.37	5.27	5.01
+00 F .069525	.132	+102	+0124	+00957	.120	.0924	.403					3+16	3.03	3.67	3.26	3+17	3:04
K .00.323	•16 *	•103	+0130	*0108	+115	*U421	+317					10.8	2.02	2.51	2+19	2.11	2:03
•08	.125	.103	+0147	•0121	•111	•0911	+247					7.44	3.01	7.80	7.53	7.44	3,03
•]	.120	.103	.0165	.0142	,103	.0885	.164					4.09	2+15	4.36	4.19	4.13	2.16
•19	.0986	.0930	.0213	+0180	.0773	•0809	.0773					1+40	• 957	1+58	1+50	1.42	.973
.3	.0858	.0829	.0231	.0223	.0626	.0606	.0203					•220	•185	. 703	+/3/	+ 000	1511
• •	.0767	0753	.0238	.0231	.0531	.0524	.0115					.105	.0921	•191	.180	.128	.115
•5	.0701	+0691	.0239	.0232	.0462	.0459	.00747					+0606	+0547	•137	+130	+0845	.0780
.8	.0570	+0042	+0238	+0232	.0409	+0409	+00518					.0390	+0360	+108	.103	•0629	.0593
1.	.0511	.0508	.0225	.0212	.0287	.0295	.00189					•0128	.0122	.0655	.0636	.0436	10418
1.5	.0416	+0416	+0206	+0196	.0210	.0220	+000852	.00134		+00134	.000406	.00613	+00593	.0498	+0491	.0280	10259
2.	+0354	.0354	+0188	+0176	.0166	.0178	.000482	+00436		.00436	.00200	.00370	+00360	.0439	+0436	.0269	.0232
. .	.0233	.0233	+0101	+01=3	.00917	.0134	+000214	+0103	•00000973	.0103	•00626	+00200	+00197	•0403	.0403	.0284	.0227
5.	.0201	.0201	.0126	.0106	.00750	.00950	.0000790	.0197	.0000786	.0197	•0103 •01 38	.000983	.000973	.0403	+0400	.0309	.0240
6.	.0178	.0178	.0115	.00934	.00632	.00845	+0000547	.0230	+000122	.0231	.0165	+000776	.000770	.0416	+0416	.0354	10233
.8.	+0145	+0145	.00973	+00747	.00485	+00708	·0000312	.0285	.000205	.0287	.0208	+000541	.000537	.0439	+0439	.0390	.0288
15.	+0124	+0124	+00848	+00619	.00393	+00622	.0000201	,0334	.000283	.0337	.0242	+000410	+000406	+0465	+0465	.0426	.0308
20.	.00737	.00737	.00534	.00337	.00201	.00400	+00000HZ	+0=29	+000439 +000554	.0508	.0293	+000234	.000183	+0527	+0527	.0501	0341
30.	.00537	.00537	.00400	.00216	.00136	.00321		.0596	.000717	.0603	.0341	+000118	+000118	.0658	+U30.1 +065A	+0763	10354
40.	.00426	.00426	.00324	.00153	.00102	.00273		.0668	.000839	.0678	.0341	+0000862	+0000862	.072)	.0721	.0711	+0357
50. 60.	.00357	+00357	+00274	.00117	.000819	.00240		.0721	.000927	.0731	.0337	+0000678	•0000678	• 0767	.0767	.0760	.0351
80.	.00242	.00242	.00190	+000411	.000518	+00215		+0757	+000996	+0767	.0328	+0000554	+0000354	+0799	.0799	.0790	.0337
100.	.00201	.00201	.00159	+000455	.000413	.00155		.0858	.00119	.0871	.0304	.0000320	+0000320	+089)	•0891	.0888	+0326 +0309

75 RHENIUM (baros/atom)

E	(MeV)	σ _{inc,t}	o ^{BD} _{inc,t}	O)nc, a	o ^{BD} inc, a	Unc,s	o ^{BD} _{)nc, s}	0 _{coh}	σ×n	σ×ε	σ _{x.t}	σ _{×,a}	<u>σ_{τ,t}</u>	- σ _{τ, a}	σ _{tot,t}	ot,t-coh	O _{rot, a}	⁰ tot, en
	.001	49.7	1.30	.0968	.00253	49.6	1.30	3580.					1630000+	1630000.	1630000+	1630000+	1630000+	1630000 · 677000 ·
м.	.001883	49.5	2.98	.181	.0109	49.3	2.97	3320.					412000.	412000.	415000.	412000.	4)2000.	412000+
													1290000+	1290000.	1290000+	1290000.	1290000.	1290000+
"IV	+001420	47.5	3.11	•187	+0118	49+3	3+10	3300+					1350000+	1350000+	1350000+	1350000	1350000	1350000.
	.002	49.5	3.20	.192	.0124	49.3	3+19	3280.					1260000.	1260000.	1260000.	1260000.	1260000.	1260000.
MITT	.002368	49.4	3.86	.227	.0177	49.2	3.84	3160.					808000.	808000.	811000.	808000.	808000+	808000+
м	. 002682	49.4	4.47	256	. 1220	A9.1	4.40	3050.					930000.	930000+	433000.	671000.	671000+	671000.
.ц			4442					30300					799000.	799000.	802000.	799000.	799000.	799000.
мı	.002934	49.3	4.86	.280	.0276	49+0	4.83	2970.					636000.	636000.	639000+	636000.	636000+	636000+
	.003	49.3	4.97	286		49.0	A.9A	2950.					/43000+ 697000+	697000.	700000	A97000.	697000.	697000+
	.004	49.1	6.68	.378	.0514	48.7	6.63	2640.					329000.	329000.	332000.	329000.	379000.	329000+
	.005	48.9	8.30	.469	.0795	48.5	8.22	2360.					183000+	183000.) 85000 •.	183000+	183000+	183000+
	•006	48.7	9+82	.558	+112	48+2	9+71	2110.					113000+	113000+	115000+	1)3000+	52400+	52400+
	•000	48.0	12+6	.900	.191	47.1	12.5	1410.				•	28800.	28800.	30200 .	28800.	28800.	28800.
L ₁₁₁	.010534	47.9	15.4	.945	.304	47.0	15.1	1340.					25200.	25200.	26600.	25200.	25200.	25200.
,	411057		14.9	1 46	373		16.7	1180					69500+	52900.	70900+ 51000+	69500+	49800+	39300.
-11	*011431	•·•·	10.1	1.00	+315	40.0	10+3	1100.					68800.	53600.	70000.	68800.	68800 .	53600.
LI	.012528	47.6	17.2	1.11	.400	46.5	16+8	1120.					60800.	48000.	61900.	60800.	60800.	48000+
-													70500.	55400.	F1600.	70500+	70500+	35700+
	.015	47.2	19.2	1,30	.531	45.9	18+7	910+					20300.	17600.	21000.	20300.	20300.	17600+
	.03	44.8	26.8	2.33	1.39	42.5	25+4	373.					6870.	6260+	7270.	6900.	6870 .	6260.
	.04	43.4	29.3	2.89	1.95	40.5	27+3	244.					3140.	2930.	3410.	3170.	3140+	2930+
	•05	42.1	30.6	3.40	2.47	38.7	28+1	171+					1030.	984.	1190.	1060.	1030	987.
r	.071676	39.6	31.8	4.27	3.42	35.4	28.4	95.3					622+	599.	749.	654.	626 .	602+
													3180.	1000.	3310.	3210.	3140.	1000+
	•08	38.8	31.9	4,34	3,74	34+3	28+2	78+0					1320.	672.	1400.	1350.	1330.	676.
	•1	33.3	30.6	6.04	5.55	27.2	25.0	24.4					449.	302.	504.	480+	455+	308.
	•2	30,5	28.8	6,59	6,23	23.9	22+6	14+1					207.	156.	250 •	236.	2)4.	162.
	•3	26.5	25.7	7.15	6.93	19.4)8.8	6.43					33.9	29.7	60.8	57.2	41.3	36.8
	.5	21.7	23.3	7.40	7.19	14.3	14.2	2.36					19+5	17.6	43.3	40.9	26.9	24.8
	.5	20.1	19.8	7.37	7.15	12.7	12.7	1+63					12.7	11+7	34+1	32+5	20+1	18+8
	.8	17.6	17.5	7,20	6.96	10.4	10.5	•930					4+18	3.97	20+6	20+0		10+6
-†		12.9	12.8	6.37	6.03	6.50	6.77	.269	.425		.425	.129	1+97	1.91	15+5	15+2	8+76	8+07
ż		11.0	11.0	5,82	5.48	5.15	5.52	•152	1.37		1.37	.629	1+20	1+17	13.7	13+6	8+39 8+86	7+28
3	•	8,63	8.62	4,98	4.47	3,65	4.15	•0676	3,23	.00302	3.23	1,96	+430	+425	12+5	12.5	9+65	7+47
	•	6.23	/•21 b.23	3.91	3,01	2.32	2.94	.0249	6.15	.0243	6.17	4.32	+ 320	+317	12.7	12.7	10+4	7.93
6	•	5.51	5.51	3,55	2.89	1.96	2+62	• 0173	7.20	.0377	7+24	5.17	• 253	+25)	13.0	13.0	11+0	8.31
	•	4.50	4.50	3.01	2.31	1.50	2.19	.00983	8,90	.0635	8.96	6.47	•175	•173	14.6	14+6	13+4	9.67
10	•	2.84	2.84	2.02	1.38	.623	1.46	.00261	13.4	.136	13.5	9.14	.0828	.0825	16.4	16.4	15.6	10+6
20	•	2.28	2.28	1.66	1.04	.623	1.24	.00126	15.7	•171	15.9	9.95	+0604	•0603	18.2	18.2	17.6	11+1
30	•	1.66	1.66	1.24	•666	.419	.994		18.7	+222	18+9	10.7	+0365	.0280	22.5	20.0	22.2	11.1
40	•	1.10	1+32	1+00 -847	.359	.253	.741		22.5	.286	22+8	10.4	.0219	.02)9	23.9	23.9	23.7	10.8
60	•	.948	.948	.736	,281	+212	.667		23.6	.308	23.9	10.2	+0179	•0179	24.9	24.9	24.7	10.5
80	•	.748	.748	.588	+191	+160	.557		25.5	.341	25.8	9,92	01.10+ F010+	•0190	27+B	27.8	27.7	9.58
100	•	.621	.621	.493	.140	+128	+481		20.0	.300	27+2	4.43	+0103					

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										75 RH	ENIUM							
100	•	*esa	*esa	.500	*) * 5	•)30	• 4 8 7		27.5 (cw	*/g = 0.0032 *310	34 x barn S1•ð	s/atom) ð°eS	• 0 1 0 -	•0104	5412	C+1+2		4133
80	E (MeV)	G ^{KN}	129BD	EKN	1,3BD	LOSN	H BD	(#)	Se*I	•3•2	See	10.4	, 013a	8110,4		, 51+5	"ż7.0	10.3
20	•	1.12	-1.12	1 950	395 JEE	a "91mc,	8 4219hc.8	'P'coh	53.0	*n •31007×e	-53+3	10.6	2 (\$14,1680	(34) 49	Seor, t	(F) SH. F col	(j), ja	(5)[d(, = n
¥0 30	.001	3761) 300420	1.000313	0000082	1950	05+20	11+6	51**	*505	51+7	10.8	5270:0501	5270:0301	527d 1	5278:1	577811	5270.3
54	, .001883	5 160	5 200964	1.000585	1.000021	155	00731 00960	11.1 00)30	16.1	173	16+3	10.2	2190.0408	2190 0401	2200.1	21901	2190.7	2140.2
12		5'85	3.841 01	S aven a	1.40	- 1837	1.48	00513)3,7	•138	13+8	9,34		4170-0840	4178-8	A170_B	4170.0	4170.8
		+ 29	1.76	3.15	S'33	1*25	5'53	10.7 .0101	19.12	.0643	9.18	e.e2	3850	3850.100	3855.8	3850	3850.0	3850 13
~ ~ ~	5005	2*2960	2*29103	3,000621	5 0000401	1,11,559 5 b b b b	\$ 09103	10.6.0176	7,39	•038S	7.43	2*30	4070.508	4070.500	4076.3	4070.3	4070-3	4070
(un)		7.31	7.31	***	3.82	2.87	- 0T24	10.2.0389	4.97	+0126	4.98	3*35	2610:340 3010:465	2610:331	2620.0 3020.9	2610:0	2610.0	2610,00
ਾਹੁ	.002682	11•1 11•1	8*301*3 11*1	2.000828	******	3,169	1.09K42	•13/ •13/ 00700	3'33	.00306	3.33	5.05	2170.805	2170,000	2180;8	2175.9	2170,01	2170.5
н	2002934	12 0159	13 00157	9.000906	0000893	6 158	STRE6	9.6018	•++0		+++0	•133	2580.38	2580.34	2595.0	2580.9	2580.00	2580.
1	woo3	16-1	16.0 17,90191	7.000032	6*63 55600031	6°30 10.758	6*33 10mm 60	• ¢)2					2405.*)	2400.10	24 10.0	2400.7	2400,2	2400.0
	8004	50.3159	S0*J0216	4 //04 22	-000166	15,767	15 0214	8.540					2250.0	2250.83	2200.7	2250.1	2250.3	2250.5
	*2005 *2006	55 0158 Se 1157	5) 0268	00152	4 000 257	14 157	0266	7.63					592.4	592.9	598.4	592.3	592 5	572
	3008	Se 157	50 - 20407	4,00237	-000618	14,164	\$0401	5.53					365.0	365.7	372	365.3	365.5	305.
T-	-201 -010834	30-0155	50 50479	f 00291	4 000896	51,332	5.0469	4.36					793.1	191.1	97.7	\$91.1	593.1	93+1
-111		71.0	35*1	5.17	****	35.3	51.1							<u>381+5</u> 171+				
-11	•\$611957	39,9124	35*40540	*0,0343	200750	34151	560527	35,821					\$104:	P27.	-165.	5161.	5181.	127.
Ŀ _T	-0002526	30 0154	35 \$0556	1.00359	3 003 29	3.,250	560543	3462					3222 · YYT:	1173 + 1754 -	200	222	197	9.73
	ະງຍ •ພອ15	*)"2 *5°4153	31*01621	3 60 3 mm 20	5 708	30.1948	58'6 58 54 65	1751					224.	1779.	232.		228	1479.
	-02	** 450	50 0728	00540	1.00263	11145	5+0702	2.99					2 38 4 . 7	3442.9	344.	3368.7	3265.7	175. 30 min. e
	-2013	*2*5145 *: 0140	55 0867	-00754 L'obbas	1.00450	*%107 ** 131	560821	1421					1.22.2	P220.2	1421.5	1565.3	7255.5	65.02.5
	-05	• 1 6 1 36	14 0990	11110	.003799	*6 125	180909	6.553					5/10+2 fel: 5-51	390 5.74	531YT+0	V28 5.63	*#8'5'5'	3905 4.24
-' x	•06 •_0751-676	+132 +>1128	+102	•0124 1.55338	+00954 basis	.120	.0922	-414					P1403.33	2523.18	48143.85	47673 43	474-3'33	2526 3.19
T				ef 1970-0	• 0-1-1-1								PHOTO -3	20401.53	+1110.7	Ved 10.4	2,02	#0PC 1.95
4.	•1	• 8· +125	17-103	10147	-0121	107	160912	11.252					*11.7.70	31502.97	* 80 8.05	1117.79	11 7.70	3120 2, 98
r():	<u>, 15 17</u>	108		.0195 _	•0179	,0880_	0080						4.27	977	1.63		4,30	2,19
		* 0986 * 0857	* 140931 5140831	.0213	•0201	140773 140627	\$0731	740456				•	30203.669	.505	808	.763	.692	524
	4.4.4	* # 0766	d 40754	.0238	.0231	0530	+0524	51,0118					1500C 110	190041-0960	JSSCG	12001-185	1200-1-134	1500002214
	•		8 10692 4 10640	.7239 .7238	.02330	-40462	60459 L0411	51.00763					10400:0631	14+013 0569	14900 +140	1840 10 ,132	J0+020 -0870	Je+060.0802
τ.	.8	.0569	.0566	.0233	.0225	.0336	.0340	+00301					749100-0513	109000-0318	1)5005-110	1140-16 0779	100003 0650	10000000008
- 4° 1	1999 1999 1997 19 5 2 3			0225	-0213-	~40287 	.0298	10.00192	00137				#25000.0135	908009,0128	·) J U05 . 0666	V080-10 .0647	908000.0359	408000 0343
	•	.0356	.0356	.0188	.0177	.0167	.0179	.000492	+00443		.00137	.00203			•0501	0440	.0283	0261
4	•:0513S	.0233	+ 0279	-0101 5010-	•01453 •0123	-40118	.0134	J.000219	.0104	.00000977	.0104	.00634	4-1-00-1-00-210	Seption 00206	***GLL +0407	2016-10404	.0287	
и ^{г (f} 🖁	105-57	c 0201	.0201	•rd 26	.01069	¥ 9 00750	.00951	15.0000805	.0199	.0000786	.0200	.0140	1.2000.00103	-19000-00103	330309 0411	14000 .0411	1.4.1.0312	.10000 0242
مت _{ار}		-01/8 -0*20146	+01/8 31/146	.0115 .00973	.00935	.00634 2100485	+00847	+0000559	.0233	.000122	.0234	.0167)540000,000818	Sa0000:000812	1500000420	15000-0 .0420	150000 - 0356	1500000000269
10	-: 15	20 - 0124	3:0124	.008A7	.00618	2600391	.00624	73.0000206	,0340	1000284	.0343	.0245	1180000.000433	118000,000430	1 Jau000.0472	11000-0.0472) Jaouuu .0391	1) 800 0 0289
<u>1</u> 20	• •i0)aec	-00718	5 690 737	.00053 .no537	.00446 .be336	2100200	.00472 .00401	.0000084	+0433	.000440	+0437	.0296	343442 000268	3010-0-000267	.0530	+0530	30.4(3:30
30	-u0) -	y.u . D0537	5.00537	.00481	.be218)	2100136	000 321	3594	.0605	.000718	.0611	.0346	10+000.000125	10+000.000124	10+2	104000 0589	10+000 -0569	1.006-0359
_50	•		_00356	•00724-	.00116	00081A	.00240	14.81	•0676	+000838	.0686	.0343	1710000,00000000	1710003:0000906	1 1 1 00 JH . 0728	1100J-+0728	0718	.0 359
6.0	+r(=A)	0100307	000307	0023B	.000909	.000686	.00216	n' 1'	.0763	+000/996	.0173	.0330"	a+0000579	+0000708 A*0000579	·0773			
100	•	.00201	.00201	+00159	+000453	.000414	.00156		+0825	.00110	.0834	.0321	.0000420	.0000420	.0860	.0860	+0854	.0327
										1.10110	****	••••	+ v v V V J J J J	+++++	+0944	+0644	+0876	.0310

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76 (ISMIUM (ILLE - 1990)

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76 OSMIUM (barns/atom)

.001 50.4 1.19 .0981 .00232 50.3 1.19 3680. 1710000. 1710000. 17 .0015 50.3 2.13 .147 .00621 50.1 2.12 3540. 704000. 704000.	710000• 1710000• 708000• 704000•	1710000. 1710000. 704000. 704000.
Hy 001960 50.2 2.98 .191 0113 50.0 2.97 3390. 393000. 393000. 3	396000+ 393000+	393000. 393000.
	230000 1230000	
	140000 1140000 -	1140000. 1140000.
1290000. 1290000. 17	290000 • 1290000 •	1290000. 1290000.
H _{III} ,002457 50,1 3,9 ,238 ,0186 49,8 3,88 3220, 776000, 776000, 76000, 93000, 93000, 93000, 93000,	779000. 776000.	776000. 776000.
K ₂₇ ,002792 50.0 4.51 .270 .0243 49.7 4.49 3100. 6410000. 6410000.	641000. 641000.	641000. 641000.
763000. 763000. 7	766000. 763000.	763000. 763000.
003 50,0 4,68 .290 .0283 49.7 4.85 3030. 633000. 633000. 633000. 64000.	636000+ 633000+	633000. 633000.
ng 003032 50°0 4°47 4235 0233 49°7 4°44 3020° 709000 709000 709000	712000. 709000.	709000. 709000.
.004 49,8 6.59 ,383 ,0507 49.4 6.54 2710.	351000. 348000.	348000+ 348000+
•005 49•6 8•24 •475 •0789 49•1 8•16 2420• 194000• 194000• 194000•	196000. 194000.	194000. 194000.
•006 49•4 9•80 •565 •112 48•8 9•69 2170• 120000• 120000•	122000. 120000.	120000 120000
008 49.0 12.6 .742 .191 48.3 12.4 1760. 55500. 55500. 55500.	32000 33500 -	30500. 30500.
01 68,7 14,9 ,912 ,279 67,6 14,9 430, 205000	260000 266000	24600 24600
	68400. 67000.	67000 . 50200 .
L _{rr} .012385 48.2 17.3 1.11 .398 47.1 16.9 1170. 47700. 37200.	48900. 47700.	47700. 37200.
65900. 50600.	67100. 65900.	65900. 50600.
L ₁ .012969 48.1 17.8 1.16 .428 47.0 17.4 1110. 58300. 45600.	59400. 58300.	58300. 45400.
015 47 8 10 4 1.72 577 44.5 18.0 040. 45800. 3600. 3600.	44800. 45800.	A5800. 36900.
• • • • • • • • • • • • • • • • • • •	22100. 21400.	21400. 18300.
	7650. 7270.	7240. 6540.
104 44.0 29.6 2.93 1.97 41.0 27.6 252. 3330. 3090.	3610. 3360.	3330. 3090.
105 42.7 31.0 3.44 2.50 39.2 28.5 177. 1810. 1700.	2020+ 1840+	1810. 1700.
.06 41.5 31.8 3.89 2.98 37.6 28.8 132. 1090. 1040.	1250. 1120.	1090+ 1040+
K 073871 39,9 32,2 4,40 3,55 35,5 28,7 93,8 600, 582, 770 047	732. 636.	6)0• 556• 3070- 971-
۵۵٬۷۷۰ ۲۵٬۷۷۰ ۵۵٬۶ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵۵٬۰۰۰ ۵	2600. 2520.	2490. 919.
• 00 37•3 32•2 •• 00 3•1' 3•1' 20•• 00•1 20•0 10•1	1470. 1410.	1390. 686.
1 31.0 6.12 5.63 27.6 25.4 25.2 472. 313.	528. 503.	478. 319.
.2 30.9 29.2 6.68 6.31 24.2 22.9 14.6 219. 164.	263. 248.	226. 170.
·3 26.9 26.0 7.24 7.01 19.6 19.0 6.65 75.0 62.3	108. 101.	82.2 69.3
$\cdot 4 = 24 \cdot 1 = 23 \cdot 6 = 7 \cdot 46 = 7 \cdot 22 = 16 \cdot 6 = 16 \cdot 4 = 3 \cdot 77 = 33 \cdot 7 = 33 \cdot 7 = 33 \cdot 7 = 31 \cdot 2 = 34 \cdot 7 = 31 \cdot 2 = 34 \cdot 7 = 34 \cdot 2 = 34 \cdot$	63+1 57+3	43+2 30+4
-5 22.0 21.6 7.50 7.28 14.5 14.3 2.44 20.7 10.00 13.4 12.3	15.2 13.5	20.9 19.6
	25.6 24.7	14.3 13.4
60 17.7 17.7 7.50 7.04 10.6 10.7 7.50 1. 16.1 16.0 7.66 6.67 8.99 9.33 .615 4.441 4.19	21.0 20.4	11.5 10.9
1.5 13.0 13.0 6.45 6.12 6.59 6.88 .278 .440 .440 .133 2.08 2.01	15.8 15.5	8.97 8.26
2, 11,1 11,1 5,90 5,53 5,22 5,57 ,157 1,42 1,42 ,652 1,28 1,25	14.0 13.8	8.60 7.43
3. 8.75 8.74 5.05 4.54 3.70 4.20 .0700 3.33 .00306 3.33 2.02 .692 .680	12.6 12.6	9.07 7.24
4, 7,31 7,31 4,44 3,85 2,87 3,46 ,0396 4,97 ,0126 4,98 3,32 ,02 ,340 ,337	13.0 13.0	10.6 B.09
5, 6,3] 6,3] 3,96 3,33 2,35 2,98 ,0238 8,30 ,0287 6,32 4,82	13.3 13.3	11.3 8.48
	13.9 13.9	12.4 9.13
	14.8 14.8	13.6 9.77
15. 2,88 2,88 2,04 1,40 .834 1.48 .00273 13.7 .138 13.8 9.34 .0872 .0869	16-5 16-5	15+9 10+8
20. 2.31 2.31 1.68 1.06 .632 1.25 .00130 16.1 .173 16.3 10.2 .0042 .0040	10+7 10+7	
30, 1,68 1,68 1,76 ,672 ,425 1,01 19,2 ,225 19,4 10,9 ,0000 ,000 1007 ,0207 ,0207 ,0207	23.1 23.1	22.7 11.3
40, 1,34 1,34 1,07 ,480 ,321 ,880 21,4 ,202 21,7 10,8 ,027 32	24.4 24.4	24.2 11.0
50 , 1.12 1.12 .057 .305 .657 .675 .230 .670 .235 10.0	25.5 25.5	25+3 10+7
80758 .758 .596 .193 .162 .565 .26.1 .345 26.4 10.1 .0138 .0138	27.2 27.2	27+0 10+3
100, .629 .629 .500 .142 .130 .487 27.5 .370 27.9 9.62 .0109 .0109	28+5 28+5	28+4 9.77

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76 OSMIUM $(cm^3/g = 0.003166 \times barns/atom)$

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E (MeV)	$\left(\frac{\mu}{p}\right)_{inc,t}^{KN}$	([#]) ^{BD} _{)nc,t}	([#] _p) ^{KN} _{)nc} , a	(#) ^{BD} _{inc,a}	([#]) ^{KN} _{inc, s}	(چ) ^{BD} inc , s	([#]) _{coh}	(چ) »	<u>n (</u> #) _{*e}	([#] _p) _{×, 1}	([#] _p) _{×, a}	([#]), t	(5), a	(声) _{tot, t}	(賞)1/1.1 · cun	([#]) _{tut. ه}	([#] 14,1, en
.001	.160	•00377	.000311	.0000074	.159	.00377	11.7						5410.	5410.	5410.	5410.	5410.	5410.
Hy .001960	.159	.00943	+000465	+0000197 +0000358	•159 •158	.00671 .00940	11.2 10.7						2230• 1240•	2230 • 1240 •	2240.	2230.	2230.	2230 .
.002	.159	.00969	.000617	+0000377	.158	.00966	10.7						3890+	3890.	3890 .	3490.	3890.	3890.
MIN .005031	. 159	.00988	•000627	.0000389	.158	.00985	10.6						3610.	3610.	3610.	3610 •	3610.	3610.
M _{III} +002457	.159	.0123	•000754	•0000589	. 158	.0123	10.2						4080+	4080.	4060. 2470.	4n80. 2460.	4080 . 2460.	4080. 2460.
M _{II} .002792	•158	+0143	.000855	•0000769	.157	.0142	9.81						283n. 203n.	2830. 2030.	2840. 2040.	2830. 2030.	2A30. 2030.	2830.
.003	.158	+0155	.000918	.0000896	.157	.0154	9.59						2420.	2420.	2430.	2420.	2420.	2420.
M _I .003052	. 158	.0157	+000934	•0000928	•157	.0156	9.56						1920.	1920.	1930.	1920.	1920.	1920.
+004	.158	.0209	.00121	+000161	.156	.0207	8.58						1100.	1100.	1110.	2740.	2740. 1100.	2240. 1100.
.006	.156	.0310	+00150	+000250	+155	+0258	7.60						614+	614.	621.	614.	614.	614.
+00B	155	.0399	.00235	•000605	.153	.0393	0+6/						380+	380.	386.	380.	380.	360.
•01	.154	.0472	+00289	.000883	151	.0462	4.59						96.6	96.6	101.) 78+	176.	176+
L _{III} +010871	+154	.0500	.00312	•0010Z	. 150	.0491	4.24						77.9	77.9	82,3	77.9	77.9	77.9
L _{II} .012385	.153	.0548	.00351	.00126	.149	.0535	3.70						212.	159.	217.	712.	212.	159.
La .012969	.152	.0564		00176	140								209	160.	212	209.	209	160
-1 001-7-7	1		•00367		•1•9	•0351	3+21						185. 214.	144. 166.	188.	185. 214.	185.	144.
.02	+151	+0614	+00418	•00170	+147	•0598	2.98						145.	117.	148.)45.)45.	117.
.03	.144	-0858	+00335	+00259	.136	.0893	2.08						67.8	57,9	70.0	67.8	67.8	57.9
.04	.139	.0937	.00928	.00624	.130	.0874	1.798						22.9	20.7	24.2	23.0	22,9	20.7
.05	.135	.0981	.0109	.00792	.124	.0902	.560						5.73	9.78 5.38	11.4	10.6	10.5	9.78
•06	•131	.101	+0123	+00943	-119	.0912	+418						3.45	3.29	3.96	3,55	3,45	5,38
K +073871	•126	•102	•0139	+0112	.112	•0909	• 297						1,92	1.84	2.32	2.02	1,93	1.86
•08	.124	.102	.0146	•0119	.110	.0899	.255						7.88	3,06	10.1	9.81	9.72	3.07
•1	.118	.102	+0164	.0140	,102	.0877	.169						4,37	2.16	4.65	4.46	7.88	2.91
•15	.107	.0981	+0194	•0178	.0874	.0804	.0798).49	.991	1.67	1.59	1.51	1.01
.3	.0852	.0924	+0211	+0200	+0/66	.0725	+0462						.693	.519	.833	.785	,716	.538
	.0763	.0747	.0236	.0229	.0526	.0519	.0119						113	.197	.342	.320	.260	.219
•5	.0697	+0684	.0237	.0230	.0459	.0453	.00773						.0655	.0589	.142	.188	+137	+122
•6	.0643	.0636	.0237	.0230	.0408	.0405	.00535						.0424	.0389	.111	.106	.0662	+ 0820
1.	.0510	+0500	+0231	•0223	+0336	+0339	+00304						.0220	.0206	.0810	.0782	.0453	.0431
1.5	.0412	+0412	+0204	+0211	.0209	.0218	.000195	.00170					0140	0133	.0665	,0646	.0364	.0345
2.	.0351	.0351	+0187	.0175	.0165	.0176	+000497	+00450		.004	50	+000421	.00405	.00396	.0.000	.0491	.0284	•0262
3.	.0277	+0277	.0160	+0144	.0117	.0133	.000222	+0105	+000009	969 .010	5	.00640	.00219	.00215	.0405	.0405	.0287	+ 0235
* • 5.	.0231	.0231	+0141	•0122	.00909	.0110	.000125	+0157	+000039	99 +015	58	.0105	.00146	.00144	.0405	.0405	.0313	.0242
6.	.0177	.0177	+0125	+0105	.00630	+00743	+0000817	+0199	•000078	82 .020	0.	•0140	.00108	.00107	.0412	.0412	.0336	.0256
8.	.0144	.0144	.00966	+00738	+00481	.00706	.0000384	.0299	+000121	L +0<3	5 · ·	•0168	+000586	+000842	.0421	.0421	.0358	.0268
10.	,0123	.0123	+00842	.00611	.00389	.00621	.0000209	.0339	.000282	2 .034	7	.0244	.000446	.000443	.0469	.0440	.0393	.0289
12.	.00912	+00912	+00646	.00443	.00264	.00469	.0000086	.0434	+000431	.043	17	.0296	.000276	.000275	,0532	.0532	.0503	.0343
30.	.00532	.00532	+00532	+00336	+00200	.00396	.0000041	.0510	+000548	• 051	.6	.0323	.000203	.000203	.0592	.0592	.0570	.035A
40.	.00424	.00424	.00323	.00152	.00102	.00272		+0608	+000/12	.061	.	+0345	+000129	.000129	• 066 B	.0668	.0655	.0367
50.	.00355	+00355	.00272	.00116	.000814	.00239		.0728	+000021	, 008 071		542	.0000735	.0000940	.0731	.0731	.0719	.0358
60.	.00304	.00304	.00236	+000896	.000681	.00215		.0766	.000988	077	6	0329	.0000598	.0000598	.0807	.0807	.0766	+0348
100.	+00240	+00240	+00189	.000611	.000513	+00179		•0826	+00109	.083	6	.0320	.0000437	.0000437	.0861	.0861	.0855	.0124
		****	****	+VUV=5V	******	**0124		•0871	+00117	+088	3 .	0305	.0000345	+0000345	.0902	.0902	. 0899	.0309

77 IRIDIUM (barns/atom)

Е (MeV)	KN ⁰ inc.t	o BD	σ Mnc.a	oBD 0)nc, a	o ^{KN} o _{inc,∎}	σ ^{BD} unc,s	σ _{coh}	σ×n	σ×e	σ _{×,t}	<u>σ_{*, a}</u>	σ _{r,t}	σ _{r.a}	σ _{tot,t}	otot,t-coh	σ _{tot, a}	Utot, en
							1.07	3784.					1790000.	1790000.	1790000.	1790000.	1790000.	1790000 .
	.001	51.0	1.07	.0994	+00208	50+7	1.97	3640.					739000.	739000+	743000.	739000.	39000+	395000+
	•0015 •002	50.8	2.92	197	.0113	50.6	2.91	3470.					395000+	375000+	379000.	376000.	376000.	376000.
Her.	002040	50.8	2.99	.201	.0118	50+6	2.98	3460.					1180000+	1180000+	1180000+	1180000+	1180000.	1180000+
						** *	- 12	7470.					1090000.	1090000.	1090000.	1040000+	1090000+	1090000.
H ^{I∆}	.002116	50.8	3+13	.208	.0128	50+0	3.12	3430.					1230000.	1230000+	1230000+ 748000+	1230000+ 745000+	1230000+ 745000+	1230000+
^M 111	.002551	50.7	3.94	•250	.0195	50.5	3.92	3200.					857000+	857000+	860000+ 615000+	857000+ 612000+	857000+ 612000+	857000+ 612000+
MII	.002908	50.6	4,58	,285	.0257	50+4	4.55	3150•					728000.	728000.	731000.	728000.	728000.	728000+ 670000+
	.003	50.6	4.74	, 293	.0275	50.3	4.71	3120.					582000.	582000+	585000.	582000.	\$82000.	582000+
ЖŢ	.003173	50.6	5.05	.310	.0309	50.3	5.02	3060.					677000.	677000.	680000.	677000.	677000.	677000+
•	4			780		60.0	6.43	2790.					368000.	368000.	371000.	368000.	368000+	368000+
	•004	50.4	0.48	+ 308	A782	49.8	8.08	2490.					206000.	206000.	208000.	206000+	206000+	126000.
	•005	50.2	0.76	573	.112	49.5	9.65	2230.					126000.	126000+	120000.	#8400.	58600.	58600+
	.000	49.7	12.6	.752	.191	48.9	12.4	1810.					58600.	32300+	33800+	32300.	32300+	32300+
	.01	49.3	15.0	.924	281	48.4	14.7	1490.					23900+	23900.	25300.	23900+	23900+	23900+
L	011215	49.1	16.3	1.03	.341	48+1	16.0	1340.					64600+	47800.	66000.	64600+	64600+	47800+
-111		•••						1160					45700+	35300.	46900+	45700+	45700+	35300+
LII	•012824	48.8	17.8	1+16	.423	47.0	1/+4	1100+					63100.	47900.	64300.	63100.	63100+	47900.
-						47.5	17.8	1100.					55900.	43100.	57000.	55900.	55900.	43100+
41	•013419	48.7	18+3	1.21		47.5	10.0						64900. 48100.	49800. 38100.	66000+ 49100+	64900. 48100.	48100.	38100+
	•015	48.4	19.5	1.34	,539	47.1	19.0	480.					22500 +	19000+	23200+	22500+	22500+	19000+
	•02	47.6	22.9	1.72	.820	43.7	26.9	397.					7630.	6840+	8050 •	7660.	3510.	3240.
	•03	46.0	27.3	2,39	1.42	41.6	23.8	261.					3510.	3240.	3800+	37404	1910.	1790.
	+04	44.6	29.8	2.49	2.61	39.7	28.8	183.					1910.	1790+	1320.	1180.	1150.	1090.
	•05	43,2	32.3	3.94	3.01	38.1	29.1	136 •					1150+	1090+	714.	623.	595.	570 .
-	400	42.0	32.6	4.54	3.68	35.7	28.9	91+6					390+	936.	3090.	3000+	2970 .	940+
•		40.1	22.00	•••									2600.	906.	2720 .	2630 +	2600+	910+
	.08	39.8	32.6	4,66	3.82	35+2	28.5	83+4					1450.	694.	1540.	1480.	1460+	098.
	•1	37.9	32.5	5.24	4,48	32.7	28.0	22+3					493.	322+	550+	524+	449.	175.
	-15	34.2	31.3	6.20	5.68	28.0	23.0	15.1					229.	169.	274.	270.	230+	72.3
	•2	31,3	29.5	7 74	7 49	19.9	19.2	6.88					78.9	65.2	1124	61.6	45.3	40+1
	•3	27.2	20.3	7.55	7.31	16.8	16.6	3.89					37.7	32+0	44.2	43.7	29.4	26.9
		22.3	21.9	7.59	7.38	14.7	14.5	2.52					21+5	12.9	36.2	34+5	21.7	20.3
		20.6	20.4	7.57	7,36	13.0	13.0	1+74					7.38	6.90	26+4	25+4)4+8	14+1
		18.1	18.0	7,40	7.16	10.7	10.8	+995					4.69	4.45	21.5	20.9	11+8	<u>11•2</u>
1	•	16,3	16.2	7,15	6,76	9,11	9.44	.038	455		.455	.138	2+21	2+13	16+2	15+9	9.20	7.54
1	.5	13.2	13.2	6,54	6.20	6.08	7.00	+207	1.47		1.47	.675	1+35	1+31	14+2	14+0	8+00	7.19
2	•	11.3	11.2	5,98	5.50	3.75	3+02	.0723	3.43	.00310	3.43	2.08	•730	•717	13+1	13.0	10.1	7.80
3	•	8.86	8.85	5+11	3,91	2,91	3.50	+0409	5.10	+0127	5+11	3.41	+487	+401	13.0	13.2	10.8	8+25
	•	1.41	6.40	4.02	3.37	2.38	3.03	+0266	6,45	.0250	6+47	4.52	+300	.281	13.6	13.6	11.5	8.66
	•	5.65	5.65	3.64	2.94	2.01	2.71	+0184	7.58	+0387	7+62	5.44	195	.194	14.2	14.2	12.7	9.31
	•	4.62	4.62	3.09	2.36	1.54	2,26	+0105	9,34	+0651	9+41	6+76	.149	-148	15+2	15.2		10,0
		3.94	3.94	2,69	1.95	1.25	1.99	.0068	11.0			9.49	.0931	+0928	17.1	17+1	16.3	11+0
1		2.92	2.92	2.07	1.41	.845	1+51	+0028	14.6	+137	16.7	10.4	• 1675	+0673	19+1	19+1	18+5	11+5
20).	2.34	2.34	1.70	1.06	+640	1+28	+0013	19.6	.227	19.8	ii.i	• 0431	.0430	21.5	71.7	21+1	11.5
30).	1.70	1.70	1.27	.678	30	1.02		21.9	.265	22 + 2	11.0	+0314	.0314	23.6	23.0	2+27	11-2
- 41).	1.35	1.35	1.03	+ 401	+ 327	.761		23.6	.294	23.9	10.8	• 0246	+0246	25+1	24.2	26-0	11.0
5	•	1.13	1.13	.870	+ 30 /	•200 •21A	.687		24.9	.316	25+2	10.7	•0200	+0700	27.8	27.8	27.6	10.5
6	•	. 973	.713	+135	.194	.164	+574		26.7	•350	27.0	10.3	+0193	.0115	29.1	29.1	29.0	9.96
10).).	.638	.638	.506	.144	.131	.494		28.1	• 375	28+5	9+80	•110	••115				

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77 1RIDIUM (cm²/g = 0.003)33 x barns/atom)

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E (MeV)	KN (費) _{inc,t}	([#] _₽) ^{BD} _{)nc, i}	([#] _p) ^{KN})nc,a	([#] _p) _{)nc, a}	([#]) ^{KN} _{inc, s}	([#]) ^{BD} _{inc,s}	([#]) _{co)i}	([#])*n	(岸) _{×e}	(声) _{*,t}	([#] _p) _{x.a}	(#), t	([#] _p),	([#] _p) _{1t.t}	([#] _p) _{tol,t-con}	(^µ / _p) _{1.t.a}	([#])t.,t, er.
.001	.160	.00335	.000311	.0000065	.159	.00335	11.8					5610.	5610.	5610.	5610.	5610.	5610.
.0015	.159	.00620	+000467	.0000181	+159	.00617	11+4					2320+	1240.	1250.	1240.	1740.	1240.
•002	+159	.00915	.000617	•0000354	.159	.00912	10.9					1180.	1180.	1190.	1180.	1180.	1180.
Ny +002040	•157	+00737	+000630	+0000370	•134	••••	1000					3700.	3700.	3700.	3700.	3700.	3700.
HIV .002116	•159	.00981	.000652	+0000401	.159	.00977	10.7					3410. 3850.	3410. 3850.	3410. 3850.	3410. 3850.	3410. 3850.	3850.
H _{III} .00255)	+159	.0123	.000783	+0000611	.158	.0123	10.3			•		2330. 2680.	2330. 2680.	2340.	2330.	2680.	2680.
H _{II} .002908	•159	.0143	.000893	.0000805	.158	.0143	9.87					1920. 2280.	1920 • 2280 •	1930.	1420.	2280.	2280 •
.003	.159	+0149	.000918	+0000862	.158	.0148	9.77					2100.	2100.	2110.	2100.	1820.	1820.
H00317:	3 .159	•0158	.000971	•0000968	. 158	•0157	9.59					2120.	2120	2130.	2120.	2120.	2120.
	.168	.0203	.00122	-000156	.157	.0201	8.74					1150.	1150.	1160.	1150.	1150.	1150.
.005	.157	.0256	.00151	.000245	.156	.0253	7.80					645.	645.	652.	645.	645.	640+ 195.
.005	.157	.0306	.00180	.000351	.155	.0302	6.99					395.	395.	401. 189.	193.	184.	184.
.008	156	.0395	.00236	.000598	. 153	.0388	5.67					104.	101.	106.	101.	101.	101.
.01	•154	+0470	+00289	.000880	.152	.0461	4.67					74.9	74.9	79.3	74.9	74.9	74.9
LIII +01121	5 +154	+0511	•00JZ3	+00107	•151	*020I	4.20					202+	150.	207.	202.	202.	150.
L01282	4 .153	.05\$8	.00363	.00133	.149	+0545	3.63					143+	111.	147.	143.	143.	111+
-11							9 AE					178.	135.	179.	175.	175.	135.
L _I .01341	9 .153	.0573	•00379	.00142	.149	.0558	3.45					203.	156.	207.	203.	203.	156. 119.
.015	.152	.0611	.00420	.00169	.148	+0595	3.04					70.5	59.5	72.7	70.5	70.5	59.5
•02	•149	+0717	•00539	+00259	.137	+0092	2.13					23.9	21+4	25.7	24+0	23.9	21+4
.03	-144	+0677	+00/49	+00443	.130	.0871	.818					1)+0	10.2	11.9	11.1	11.0	10.2
.04	.135	.0934	+0109	.00793	.124	.0902	.573					5.98	5.61	6.64	6.08	5,98	5.61
•06	.132	.101	.0123	.00943	+119	.0912	•426					3.60	3.41	4 ,14 2.24	1.96	1.86	1.79
R .07611	1 .126	+102	•014Z	+0115	.112	•0905	•287					9.31	2.93	9.68	9.40	9, 31	2.95
••	1.75	107	A1 44	A1 7A	.110	. 0902	. 261					8.15	2.84	8,52	8.24	8.15	2.85
•08 \	+123	102	.0166	.0140	.102	.0877	.173					4.54	2.17	4,82	4.64	4.57	2.19
15		.0981	.0194	.0178	.0877	.0802	.0818) • 54	1.01	1.72	1.64	1,50	1+03
.2	0981	.0924	.0212	.0200	.0768	.0724	.0473					.247	+ 529	.351	.329	.270	. 227
.3	.0852	.0824	.0230	.0222	.0623	.0602	.0216					.118	.103	.205	•193	.142	+126
•4	.0764	+0749	+0237	+0229	.0520	.0520	+0122					.0683	.0611	.145	+137	.0921	+0843
	.0645	.0639	.0237	.0231	.0407	.0407	.00545					.0442	.0404	•113	.108	.0680	• 0636
.8	.0567	.0564	.0232	.0224	.0335	0338	.00312					•0231	.0210			. 0370	.0351
1.	.0511	.0508	+0224	+0212	.0285	.0296	+00200			00147		.00692		.0508	+0498	.0288	+0265
1.5	.0414	.0414	.0205	.0194	.0209	.0219	+000899	+00143		.00461	+000432	.00423	+00410	+0445	.0439	.0276	. 0237
2.	+0334	+0351	+0167	+01/5	.0117	.0133	.000227	.0107	.00000971	.0107	.00652	.00229	.00225	+0410	•0407	.0290	+0232
3 .	.0232	.0232	.0141	.0123	.00912	.0110	.000128	.0160	.0000398	.0160	.0107	.00153	+00151	• 0407	+0407	+0310	+0244
5.	.0201	.0201	.0126	.0106	.00746	.00949	.0000833	•0202	.0000783	.0203	.014Z	•00113	+00112	+0+17	.0476	.0360	.0271
6.	.0177	.0177	+0114	+00921	.00630	.00849	+0000576	.0237	.000121	+0239	•0170	.000611	.000608	.0445	.0445	.0398	.0292
8.	+0145	.0145	+00968	.00739	+00+82	+00708	+0000329	+0293	.000204	+0295	-0212 -0248	+000467	+000464	.0476	.0476	. 04 35	.0313
10.	.0123	+0123 5 -00015	+00043	+00611	00265	+00473	.0000089	.0439	+000435	+0442	.0297	+000292	+000291	•0536	.0536	•0511	+0345
20.	.0073	3 .00733	.00533	.00332	.00201	+00401	+0000042	.0517	+00054B	.0523	.0326	.000211	.000211	+059F	+0598	.0580	+0360
30.	.0053	3 .00533	.00398	.00212	.00135	.00320		+0614	+000711	.0620	+0348	.000135	+000135	.00/4	.0730		01E0.
40.	.0042	3 .00423	.00323	.00151	.00102	+00272		+0686	+000830	.0098	.0345 A120	.0000771	.0000771	.0786	.0786	0771	.035)
50.	.0035	4 .00354	+00273	+00115	.000815	.00214		.0780	.000921	.0790	.0335	.0000627	+0000627	.0821	.082)	.0815	.0345
60.	.0030	5 .00J05	.0023/	+000070	.000514	.00180		.0837	.00110	.0846	.0323	.0000454	.0000454	+0871	+0871	+ 1865	•0329
100.	.0020	0.00200	.00159	+000451	.000410	.00155		.0880	.00117	.0893	.0307	.0000360	.0000360	.0912	•0912	•0909	+0312

78	PLATINUM	
(Ъ	arns/atom)	

E	(MeV)	κN σ _{inc,t}	$\sigma_{inc,t}^{BD}$	o ^{KN} oinc, a	σ ^{BD} inc, a	o ^{KN} inc, s	o ^{BD} oinc, ∎	σ _{coh}	σ×n	σ×e	σ _{*,t}	σ.,	σ _{r.t}	or, a	O _{tot,t}	Ttot, t-coh	^{or} tot, a	tot, en
						E1.6	1.04	3890.					1870000.	1470000 .	1870000.	1870000.	1870000+	1870000+
	.001	51.7	1.05	150	.00569	51.4	1.94	3760 .					769000.	769000+	7/3000+	AA9000+	409000+	409000+
	+0017	51.5	2.90	200	.0113	51.3	2.89	3590 .					409000+	407000+	363000.	359000.	359000+	359000+
н.	.002122	51.5	3.13	.212	.0129	51.2	3.15	3550 •					1120000.	1120000+	1120000+	1120000 •	1120000+	1120000+
							3 37	3524.					1040000.	1040000+	1040000+	1040000+	1040000.	1040000+
HIA	.002202	51.4	3.28	.220	+0140	51+2	3.21	3920+					1180000.	1180000.	1180000.	1180000.	1180000.	1180000+
		51.4	4.10	. 263	.0210	51.1	4.08	3360.					716000+	716000.	719000+	#24000+	824000+	824000.
"III		2104		•===	•••••								824000+	598000+	601000.	598000.	598000 .	598000.
	.003	51.3	4.74	.297	.0275	51.0	4.71	3230.					5840.00.	584000+	587000.	584000.	584000+	584000+
MTT	.003027	51.3	4.78	.300	•0280	51.0	4 • 75	3220+					695000.	695000.	698000+	695000+	695000.	695000+
**					4335	5 a . A	5.23	3120.					558000+	558000+	561000+	558000.	558000.	558000+
м	+003297	51.2	5.20	. 320	•0335	30+7	3423	31200					647000.	647000.	650000.	647000.	64/000+	389000.
		e	4 44	101	.0497	50.7	6.41	2880+					389000+	389000+	392000+	389000+	216000.	216000
	.004	51+1	8.14	487	.0782	50.4	8.08	2570.					216000.	216000.	219000+	134000+	134000.	134000.
	.005	50.7	9.77	580	.112	50.1	9.66	2300.					134000.	62300.	64200+	62300.	62300.	62300+
	.008	50.3	12.7	.762	192	49.6	12.5	1860.					34300 +	34300.	35900.	34300.	34300.	34300.
	.01	50.0	15.1	936	283	49.0	14.8	1540.				· · · · · · · · · · · · · · · · · · ·	23300	23300	24700+	23300+	23300 +	23300+
L	011564	49.7	16.8	1.07	.362	48+6	16.4	1340+					62400+	45700+	63800+	62400+	62400+	45700+
111								1150.					43700.	33500.	44900+	43700+	43700+	33500+
LII	.013273	49.4	18.3	1.21	.450	48+1	1.44	1150+					60400.	45500.	61600.	60400+	60400.	43300+
-				1 76	482	48-0	18.3	1100.					53600 +	41000.	54700+	53000+	53000+	47400.
-1	+013880	47.3	10+8	1+50			1013						62200.	47400+	63300.	62200+	50800+	39600.
	.015	49.1	19.7	1.36	.545	47.7	19+2	1000.					50800.	39600+	244.00.	23700.	23700.	19800+
	.02	48.2	23.1	1.74	.834	46.5	22+3	703.					23700+	7160.	8490.	8080	8050+	7160+
	.03	46.6	27.5	2.43	1.43	44.2	26+1	410.					3700.	3390.	4000+	3730.	3700.	3390 •
	.04	45.1	30.1	3.01	2.01	42+1	28+1	270+					2030.	1900+	2250 .	2060+	2030.	1900 +
	.05	43.8	31.6	3,53	2.55	40.3	29+1	190+					1230.	1160.	1400+	1260 .	1270.	1160.
	•06	42.6	32.4	3,99	3.04	38.0	29.4	1414					575.	551+	697.	608.	580+	252+
K	.078395	40.5	32.9	4.67	3,79	35+0	24+1	07+0					2870+	904+	2990.	2900+	2070+	902.
		40.3	17.0	4.72	3.85	35.6	29.0	86.3					2730.	898.	2050+	2100+	1520.	704.
	•00		32.0	5.30	4.53	33.1	28.3	57.2							578.	551.	525.	339.
	*16	34.6	31.7	6.28	5.75	28.3	25.9	27+0					241.	176.	286.	271.	248.	182+
		31.7	29.9	6.85	6.46	24.9	23.4	15+6					83.2	68.3	117+	110.	90+6	75+5
	.3	27.6	26.7	7,43	7.20	20+1	19.5	7+12					39.8	34.5	68+0	64.0	47+4	41+9
		24.7	24.2	7,65	7+41	17+1	16.5	4+03					22.9	20.4	47.7	45+1	30.6	27.9
	•5	22.5	22.2	7.69	7.48	14.9	14+/	2+01					14.4	13.6	37.3	35.5	22+0	14.5
	•6	20.9	20.6	7.67	7.44	13.2	11.0	1.02					7.80	7.28	27.0	21.4	12.2	11.5
	•0	10.3	18+2	7 25	6.84	9.23	9.56	+660					4,90		16.4	16+1	9.46	8+68
4		11.4	11.1	6.62	6.25	6.76	7.05	+296	.470		+470	+142	2+37	1.40	14.5	14.4	9.02	7.78
	• • •	11.4	11.4	6.06	5,68	5.36	5.72	•168	1.52		1+52	.098	.773	.759	13.3	13+3	9.47	7+54
		8.98	8.97	5,18	4,65	3.79	4.32	+0749	3,52	.00.314	3,52	2,13	-514	.507	13.3	13.2	10.3	7.94
- 7		7.50	7.50	4,55	3,94	2.95	3.55	.0424	5.22	+0129	5+23	4.43	.180	•376	13.5	13.5	11-1	8++1
	5.	6,48	6.48	4.07	3,40	2+41	3.08	.02/3	7.73	.0392	7.77	5.54	.300	.297	13.6)3.8	11.8	0.02
	5.	5.73	5.73	3.69	2.98	2.04	2.10	+0170	9.50	.0660	9.57	6.87	•508	.207	14+5	14+7	12.7	10.2
		4.68	4.68	3,13	1.97	1.26	2.02	.00705	11.2	.0914	11.3	8.03	•158	+15/	17.5	17.5	16.7	11.2
- #	Le	3.99	- 3.97	2.10	1.42	.856	1.53	+00298	14.4	+141	14+5	9,70	+09/7	+0710	19.4	19.4	18.8	11.6
1:	· ·	2.37	2.37	1.72	1.07	.648	1.30	+00139	16.8	•177	17.0	10.5		.0452	22.0	25.0	21.5	11+9
	,.	1.73	1.73	1.29	.689	.436	1.04		20.0	•230	20.2	11+2	• 1330	.0330	24.0	24+0	23.7	11.6
		1.37	1.37	1.04	.486	.329	.884		22.3	• 268	22+0	11.1	.0258	+0258	25 • 6	25+6	25+3	11+4
5	.	1.15	1.15	.881	.373	•264	•777		27+1	.319	25.7	10.9	•n210	+0210	26+7	26.7	76.5	11+2
6		.986	•986	.765	.289	.221	-677		27.3	.354	27.7	10.4	+0154	+0154	28.5	78+5	271+3	10+0
8	•	.778	•778	.612	+17/	.133	.501		28.7	.380	29+1	9.95	•0121	+0121	29+8	24.0	2310	10.1
10	D.	+040	+9+0	+213	+1-3					-								

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212

78 PLATINUM (cm³/g = 0,003087 x barns/atom)

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								(cm	-/g = 0,005	obi x bain	is/atom)						
E (MeV)	(声) ^{KN} inc,t	(≝) ^{BD})nc,t	([#]) _{)nc} , a	$\left(\frac{\mu}{p}\right)_{nc,a}^{BD}$	(声) ^{KN} inc,s	([#]) ^{BD} inc,s	(불) _{coh}	(貨) _{×n}	(片) _{×e}	(^{لل} ه) _{ع. t}	([#] _p) _{*, a}	(#),	(#)	(5)	(#)	(#)	. 44 5
+001	.160	.00321			150									"P'tot,t	P'tot, t-c-sh	Tot. a	(p)tot, en
.0015	.159	+00521	+00031	<pre>< +0000063 3 +00000176</pre>	.159	+00321	12.0					5770+	5770.	5770 .	\$770.	5770.	5770.
+002	+159	.00895	.00061	7 .0000349	158	.00892	11.0					2370+	2370 •	2390 •	2370.	2370.	2370+
My +002122	2 +159	+00966	+00065	4 +0000398	.158	+00963	11.0					1110.	1110.	12/0.	1260+	1260.	1260.
M	. 159	. 01.01										3460+	3460 .	3460.	3460.	3460.	3460.
	•••	*0101	.00087	••••••••	+128	+0101	10.9					3210.	3210.	3210.	3210.	3210.	3210.
MTII +002645	5 . 159	.0127	.00081	2 .0000648	.158	.0126	10.4					3640.	3640.	3640.	3640.	3640.	3640.
			•••••		••••		10.44					2210+	2210+	2220.	2210 •	2210.	2210.
.003	+158	+0146	+000911	7 +0000849	.157	+0145	9.97					1850.	1850.	1860.	2340+	2540.	2540+
HII +003027	•158	+0148	+000920	6 .0000864	157	.0147	9,94					1800.	1800.	1810.	1800.	1800.	1800.
MT .003297	.158	.0162	.00101	.000103	.157	.0161	0.41					215n .	2150.	2150.	2150.	2150.	2150.
-			•••••		••••		7105					1720 •	1720.	1730.	1720.	1720.	1720.
+004	•158	.0199	.00121	+000153	.157	.0198	8.89					1200.	2000+	2010+	2000.	2000.	2000+
.005	.157	+0252	+00150	+000241	.156	+0249	7,93					667.	667.	676.	667.	467.	447.
.008	.155	+0302	+00179	+000346	+155	•0298	7.10					414.	414.	420.	414+	414.	414.
.01	.154	.0466	.00289	+000393	.151	+0380	5.74					192.	192.	198.	192.	192.	192.
L _{III} .011564	.153	.0519	+00330	.00112	.150	+0506		· · · ·				71.9	106.		106.	106.	106.
1	157											193.	1414	197.	71.9	71.9	71.9
-II +01-2/3	+135	+0203	+10374	+00139	•1 4 8	+0553	3.55					135.	103.	139.	135.	135.	107.
L013860	.152	.0580	.00389	.00149	. 148		3 4 4					186+	140.	190.	184.	186.	140.
L · · ·	• • •	•••••			•140	•0303	3**0					165.	127.	169.)65+	165.	127.
+015	+152	.0608	+00420	+00168	.147	.0593	3.09					172+	146+	195.	192.	192.	146+
+02	+149	•0713	+00537	+00257	.144	.0688	2.17					73.2	61.1	100+	157+	157.	122+
+03	110	+0849	+00750	+00441	.136	.0806	1.27			·		24.9	22+1	26.2	24.9	73+2	22.1
.05	.135	.0975	.010929	+00620	+130	+0867	.833					11+4	10.5	12.3	11.5	11.4	10.5
•06	.132	.100	.0123	+00938	.119	.0908	+307					6+27	5.87	6.95	6.36	6.27	5.87
K .078395	.125	.102	+0144	.0117	.111	.0898	.277					3+60	3.58	4.32	3.89	3.80	3.58
.08	174	1.47										8.86	2.79	9,23	1.88	1.79	1+71
.1	.119	+102	+0146	•0119	•110	•0895	•266					8.43	2.77	8.80	8.52	8.43	2.78
.15	.107	.0979	.0194	.0178	.0874	0874					<u>}</u>	4.66	2+16	4.94	4 • 75	4.69	2.17
•2	.0979	.0923	.0211	.0199	0769	.0722	.0482					1.60	1.03	1.78	1.70	1.62	1.05
•3	.0852	.0824	.0229	+0222	.0620	.0602	.0220					.257	+343	•883	.837	.766	.562
• *	+0762	+0747	.0236	.0229	.0528	.0519	.0124					+123	.107	-210	.198	.280	•233
• 5	.0645	.0605	.0237	+0231	.0460	+0454	.00806					.0707	0630	.147	.139	.0945	.0861
.8	.0565	.0562	.0231	.0223	.0333	+0407	.00556					+0460	+0420	+115	.110	.0698	.0648
1.	•0509	.0506	+0224	.0211	,0285	.0295	.00204					.0153	+0225	•0833	.0803	.0472	+0448
1.5	+0414	+0411	.0204	.0143	.0209	.0218	+000914	.00145		.00145	.000438	+00732	.00707	.0504	.0001	.03/7	.0355
3.	.0277	+0352	+0187	.0175	.0165	.0177	.000519	+00469		+00469	.00215	+00445	.00432	+0448	.0445	.0278	.0268
4.	.0232	.0232	.0140	-0122	.00911	.0133	.000231	+0109	+00000969	.0109	+00658	+00239	+00234	+0411	+0411	.0292	.0233
5.	.0200	.0200	.0126	.0105	.00744	.00951	+000131	+0101	+0000398	•0161	.0108	.00159	.00157	• 0411	+0407	+0318	.0245
6.	.0177	+0177	+0114	+0092	.00630	.00849	.0000587	.0239	.000121	.0240	+0143	.000926	+00116	+0417	+0417	.0343	+0260
10	.0144	+0144	.00966	.00735	.00482	+00710	.0000333	+0293	.000204	.0295	.0212	+000642	+000639	.0448	.0448	+0304	.0272
15.	.00911	.00911	.00649	.00608	.00389	.00624	.0000218	.0346		.0349	.0248	+00048R	+000485	+0478	.0475	•0438	.0292
20.	.00732	.00732	.00531	.00330	.00200	+00+72	+0000092	+0445	.000435	.0448	.0299	+000302	.000301	+0543	+0540	.0516	+0346
30.	.00534	+00534	.00398	.00213	.00135	.00321	********	+0617	+000710	+0525	.0324	+000220	+000219	+0599	+0599	.0580	+035A
40.	.00423	.00423	.00321	+00150	.00102	.00273		.0688	.000827	.0698	.0343	+000102	+000140	.0679	•0679	+0664	.0367
50.	.00304	.00355	+90272	.00115	.000815	+00240		+0744	.000917	.0753	+0340	.0000796	+0000796	•0741	+0/41	.0732	+0358
80.	.00240	+00240	.00189	+000842	.000513	+03215		+0784	+000985	.0793	.0336	+0000648	+0000648	.0824	.0824	.0818	-0352
100.	.00199	.00199	.00158	+000448	.000411	.00155		.0843	+00109	.0855	.0321	+0000475	+0000475	.0880	.0880	.0874	.0327
				2				+*00 0	*****	+0048	• 0.50 7	+0000374	+0000374	.0920	•0950	.0914	.0312

79 GOLD (barns/atom)

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E (MeV)	KN _{(inc,t}	$\sigma_{inc,t}^{BD}$	σ ^{KN} _{inc,a}	$\sigma_{\rm inc,a}^{\rm BD}$	σ ^{KN} inc, s	σ ^{BD} _{inc, s}		σ×n	σ×e	σ _{x,t}	σ _{×,a}	σ _{τ, t}	Or,a	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot, a}	⁰ toł, en
.001	52.3	1.07	.102	.00208	52.2	1.07	4000.					1970000 .	1970000+	1970000.	1970000.	1970000.	1970000.
.0015	52.2	1.99	152	.00580	52.1	1.98	3860 .					804000.	804000.	808000+	804000+	427000.	804000+
.002	52.1	2.94	.202	.0114	51+9	2.43	3690+					92/000+	344000.	345000.	344000+	344000+	344 000 .
Hy +002206	52.1	3.32	• 223	.0142	51+9	3+31	3620+					1080000.	1080000.	1080000.	1080000.	1080000+	1080000.
M 002291	52.1	3.48	. 231	.0155	51.9	3.46	3590.					992000.	992000.	996000+	+000566	992000+	992000.
WIN HOULENT	52.01	2,40	••	•••••								1120000.	1120000.	1120000.	1120000.	1120000.	1120000+
H111 .002743	52.0	4.32	.276	.0229	51.7	4.30	3420+					688000+	688000.	571000+ 794000-	791000.	791000.	791000.
						A 75	77 70 .					630000	630000	633000.	630000+	630000.	630000.
.003	51.9	4 .78	-301	.02//	51.6	5.02	3320.	•				558000.	558000.	561000+	558000+	558000+	558000+
UII +003130	51.47	3.03	• • • • •	*0301	5140	3402						664000.	664000+	667000.	664000+	664000+	664000+
H003425	51.9	5,54	.343	.0366	51.5	5 + 50	3170.					534000.	534000.	537000.	534000+	534000+	534000+
•												618000+	616000+	A13000+	410000+	410000+	410000+
+004	51.7	6.54	.398	.0503	51.3	6+49	2960+					229000	229000.	232000.	229000.	229000.	229000.
+005	51.5	8,22		.0/87	51+0	0 71	2360.					141000.	141000+	143000+	141000+	141000+	141000+
+006	51.3	9.82	+ 568	112	50.0	12.6	1910.					65900.	65900.	67800+	65900+	65900+	65900+
.01	50.6	15.3	948	.287	49.7	15.0	1580.					36300.	36300.	37900.	36300.	36300.	36300+
1	50.2	17.3	1.11	. 384	49.1	16.9	1330.					22700.	22700+	24000+	22/00+	22/00+	A3600.
-III ····												41000.	32000.	43100.	41900.	41900+	32000 .
L _{II} +013734	49,9	18.9	1.27	• 4 80	45+0	18.4	1120+					57900.	43300.	59100.	\$7900.	57900.	43300.
1	A0 8	10.4	1.12		48.5	18.9	1090.					51400.	39000.	52500.	51400.	51400+	39000.
rI +01+393		17.4	1.55	• 3 1 3		1000						59700.	45200.	60800 .	59700.	59700+	45200.
.015	49.7	19.9	1.37	.550	48.3	19.3	1040+					53300+	40900+	54400+	53300+	53300.	20500.
.02	48.8	23.3	1.76	.841	47+1	22.5	725+					24900+	7600.	29000.	8520.	5490.	7500
.03	47.2	27.8	2.46	1.45	44.8	26+4	423.					3910.	3570.	4220.	3940.	3910.	3570.
+04	45.7	30.4	3.05	2.03	42+7	28.4	278.					2140.	1990.	2370.	2170.	2140+	1990 •
.05	44.4	31.9	3.58	2.57	40.0	29+3	146.					1290.	1210.	1470+	1320.	1290+	1210+
• 06	43.1	32.8	4.79	3.90	36.1	29.4	89.1					576+	551+	698.	609+	581+	555+
K .080725	40.8	33.3	4.81	3.93	36.0	29.4	87.6					560 •	536.	•[80 -800	2800.	2770.	877.
••••	-				(1580.	706.	1670.	1610.	1590.	711+
•1	38.9	33.2	5.37	4,58		28+0	37.0					540.	341.	600.	572.	546+	347.
•15	35.0	32.1	6.30	5.8J 4 EK	25.2	20.3	16.2					252+	182.	298+	282.	259.	189 •
•5	32.1	27.0	7.53	7.28	20.4	19.7	7.36					87.0	71.0	121.	114.	94.5	78+3
•3	25.0	24.5	7.75	7.50	17.3	17.0	4.16					41.9	36+1	70+0	00.4	4747	-3-0
.5	22.8	22.5	7.79	7,58	15.0	14.9 .	2.70					24+2	21+5	38.6	36.7	23.6	21.8
•6	21.1	20.9	7.76	7.52	13+4	13.4	1+87					13+0	7.73	27.8	26.7	15.9	15.0
.8	18.6	18.4	7,59	7,32	11.0	11.1	1.00					5.27	4.98	22+6	21.9	12.6	11.9
1.	16.7	16.6	7.34	6.91	4.35	7.15		. 490		. 490	.148	2+50	2+41	16+8	16+5	9.70	8.90
1.5	13.0	13.5	6.14	5.73	5.42	5.77	.173	1.57		1.57	.721	1.52	1+48	14+8)4+6	9.23	7,93
2.	9.09	9.08	5.24	4.70	3.84	4.38	.0773	3,62	.00318	3.67	2.19	•820	+805	13+0	13+3	10.5	8.12
.	7.60	7.60	4.61	3.99	2.99	3.61	.0438	5.37	.0131	5+3A	3.59	+540	+340	13.8	13.5	11.4	8.59
5.	6.56	6.56	4,12	3.44	2.44	3.12	•0285	6,80	+0257	6+83	4.75	.318	.315	14.1	14+1	12+0	9.00
6.	5.80	5.80	3.74	3.01	2.07	2.79	+0196	7.94	.0397	7.98	7 45	.220	+218	14.8)4+8	13+2	9.67
8.	4.74	4.74	3.17	2.40	1+98	2.34	+0111	11.5	.0925	11.6	8.21	• 168	•167	15+8	15.8	14+5	10.4
10.	- 4,04	2,99	2.12	1.44	.867	1.55	•00311	14.7	.143	14.8	9.89	+104	+104	17+9)7.9	17+0	11+4
20.	2.40	2.40	1.74	1.08	.656	1.32	+0014	5 17.3	.180	17+5	10.8	•0756	+0754	20.0	20+0	22-1	12.2
30.	1.75	1.75	1.31	.693	.442	1.06		20.5	•233	20+7	11.5	+0+01	.0350	24.6	24.6	24.3	11.9
40 .	1.39	1.39	1.06	.491	.333	. 899		22.9	.272	23+2	11+4	.0273	+0273	26+2	26.2	25.9	11.6
50.	1.16	1.16	.893	• 375	.267	.785		24.1	. 121	23+0	11.0	+0223	+0223	27.3	27.3	27+1	11.3
60.	.999	.999	+775	.272	.168	.689		28.0	.358	28.4	10.6	.0163	+0163	29.2	29.2	29.0	10.8
80. 100	• 766 664	. (78	.519	.146	.135	.508		29.4	.384	29.8	10.1	+0128	+0128	30+5	30+5	30+3	10+3
100 0	****			••													
79 GOLD (cm³/g = 0.003058 x barns/atom)

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E (MeV)	(声) ^{KN} inc,t	(^µ _p) ^{BD} _{inc, t}	([#] _p) ^{KN} _{)nc,a}	(声) ^{BD} inc,a	(≝) _{)nc,s}	(ģ) ^{BD} inc,s	(뿔) _{coh}	(貨) _{×n}	(片) _{× e}	(چ). ر	(#) _{*.a}	(#),	(#)	(#)	(告)	(#)	(#)
.001	.160	.00327	.000312	.0000064	.160	.00327	12.2					6070		<u></u>	P'tot,t-coh	"P'tot, a	Tot, en
+0015	.160	+00609	+000465	.0000177	.159	.00605	11.8					2460+	2460 +	2470.	6020+	6020. Za60.	6020+ 2460-
N. •00220	•159	+00899	+000618	+0000349	+159	.00896	11.3					1310+	1310.	1320.	1310.	1310.	1310.
			*****	******	•1.2.9	*0101	11+1					1050.	1050.	1060.	1050.	1050.	1050.
HIV +00229	.159	•0106	.000706	+0000474	.159	.0106	11+0					3030 •	3030.	3300.	3300.	3300. 3030.	3300.
HTTT +00274	.159	.0132	.000844	.0000700	.158	.0131	10.5					3420.	3420.	3420.	3420.	3420.	3420.
				•••••	••••							2420.	2100.	2110.	2100.	2)00.	2100.
+003	+159	+0146	.000920	+0000847	+158	+0145	10.2					1930.	1930.	1940.	1930.	1930.	1930.
UI •003130	+137	+0154	+000966	•0000939	• 158	•0154	10.0					1710.	1710.	1720.	1710.	1710.	1710.
H1 .00342	. 159	.0169	.00105	.000112	.157	.0168	9.69					2030.	2030.	2040.	2030.	2030.	2030.
.004	.158	. 0 300										1890.	1890.	1900.	1830+	1630.	1630+
.005	157	.0251	.00161	+000154	+15/	.0148	9.05					1250.	1250.	1260.	1250.	1250.	1250.
.006	.157	.0300	-00180	.000342	.156	+0247	8+07					700.	700.	709.	700.	700.	700.
.008	.156	.0391	.00236	.000593	.154	.0385	7+2E B. 84					431+	431.	437.	431.	431.	431.
.01	.155	.0468	.00290	.000878	.152	.0459	4.83					202 •	202.	207.	202+	202+	202.
L _{III} .011919	+154	+0529	.00339	.00117	.150	.0517	4.07				· · · · ·	<u> </u>		116.	<u>11</u> .	111	111.
- T- A13734	187											184.	134.	188.	69+4	07.4	69+4
- "II +013/34	•123	+05/18	+00388	+00147	+149	•0563	3.52					128.	97.9	132.	328.	128.	97.9
Ly .014353	.152	.0593	.00404	.00157	.148	.0578	2.22					177.	132.	181+	177.	177.	132.
•					••••							157.	119.	161.	157.	157.	119.
+015	152	+0609	.00419	.00168	.148	.0590	3+18					163.	125.	146.	183.	183.	138.
•02	+149	.0713	.00538	.00257	.144	.0688	2.22					74.1	62.7	78.3	76.1	103.	125.
+03	+144	.0850	+00752	+00443	.137	.0807	1.29					26.0	22.9	27.3	26.1	26.0	22.9
+04	.140	.0930	.00933	+00621	.131	.0868	.850					12.0	10.9	12.9	12.0	12.0	10.0
+05	.130	.09/6	•0109	+00786	+125	.0896	• 599					6+54	6.09	7.25	6.64	6.54	6.09
.08	+132	.100	+0124	+00942	.120	.0908	+446					7.94	3.70	4.50	4.04	3.94	3.70
K .080725	.125	.102	+0146	+0119	.110	.0899	+272					1+76	1+68	2+)3	1.86	1.78	1.70
	••••	*102	+01+1	+0120	•110	+0899	+208					1.71	1+64	2.08	1+81	1.73	1+65
•1	.119	+102	.0164	+0140	.103	.0875	.181					4.83	2.0/	8.84	8.56	8.47	2+68
-15	.107	.0982	+0194	.0178	.0878	+0804	.0853).65	1.04	1.83	1.75	1.67	2.17
• 5	+0982	.0927	.0212	•0200	.0771	•0725	+0495					•771	+557	.911	.862	. 792	
• • •	.0853	+0826	.0230	•0223	+0624	.0602	+0225					•266	+217	+370	.349	.289	.219
.5	.0697	.0689	+0237	.0229	.0529	•0520	.0127					+128	+110	.216	.203	.152	.133
.6	.0645	.0439	.0230	40232	.0437	+0430	+00826					+0740	+0657	+151	+143	.0974	.0890
.8	.0569	.0563	.0232	.0224	.0336	.0339	+00572					+0483	+0437	+118	•112	.0722	.0667
1.	.0511	.0508	.0224	.0211	.0286	.0296	.00209					+0254	+0236	.085	0.0816	.0486	.0459
1.5	+0416	.0413	+0205	.0194	.0209	.0219	.000936	-00150		001 50	AAA453	+0101	+0152		1 .0670	+0385	.0364
2.	•0355	.0352	•0188	+0175	.0166	.0176	.000529	.00480		.00480	.00220	.00465	.00453	+051	• • • • • • • • • • • • • • • • • • • •	+ 0297	+0272
3.	.0278	•0278	.0160	+0144	.0117	.0134	.000236	.0111	.0000097	2 .0111	.00670	.00251	+00246	.041	6 .0413	+0202	•0242
6 .	.0232	.0232	+0141	•0122	.00914	.0110	•000134	.0164	+0000401	.0165	.0110	+00168	+00165	.041	6 .0413	.0321	10235
5.	.0201	+0201	•0126	+0105	.00746	.00954	.0000872	+0208	+0000786	.0209	.0145	+00123	.00122	.042	2 .0422	349	10290
A.	0145	+U1//	+0114	.00920	.00033	.00853	.0000599	•0243	+000121	+0244	+0174	+000972	+000963	.043	1 .0431	.0367	.0276
10.	.0124	.0124	.00969	+00734	.00483	.00716	.0000339	•0298	.000205	.0301	•0216	+000673	+000667	+045	3 +0453	.0404	.0296
15.	.00914	.00914	+00648	-00609	.00265	+00021	.0000222	.0352	-000283	0355	.0251	+000514	+000511	.048	3 .0483		.0318
20.	.00734	.00734	.00532	.00330	.00201	.00404	.0000095	.0529	.000437	+0453	.0302	+000318	.000318	+054	7 .0547	+0520	+0349
30.	.00535	.00535	+00401	.00212	.00135	.00324		.0427	+000330	+0735	.0.330	.000231	+000231	.061	2 +0612	.0590	+0367
40.	+00425	+00425	.00324	.00150	.00102	.00275		A0700	.000832	.0709	-0372	+000147	.000147	•068	.0688	•0676	.0373
50.	.00355	.00355	.00273	+00115	.000816	.00240		.0755	.000917	.0764	.0347	.0000A35	*00010/	+0752	c +0752	+0743	10364
60.	.00305	.00305	.00237	•000893	.000682	.00216		+0795	.000988	.0804	.0336	+0000682	+0000682	+000		+0792	-0355
80.	+00241	+00241	.00189	•000609	.000514	.00180		+0856	+00109	.0868	.0324	+0000498	+0000498	.0A9		+0029	+0346
	+00200	+00200	•¤0159	+000446	+000413	+00155		•0899	.00117	.0911	.0309	+0000391	+0000391	+0933	.0911	.0927	+0330
													-				.0312

80 MERCURY (barns/atom)

 $\sigma_{inc,t}^{BD}$ $\sigma_{inc,a}^{KN}$ $\sigma_{inc,a}^{BD}$ o^{KN} tnc, s σ^{BD}inc,∎ σ×e $\sigma_{x_{\underline{t}}}$ E (MeV) σ_{inc,t} σ_{coh} σ<u>*, a</u> σ×n σ_{7, t} σ, ot. I-coh T_{iot, a} T_{tot}, en Utot, t .001 53,0 1.19 .103 .00232 52.9 1.19 4090. 2050000. 2050000. 2050000. 2050000. 2050000. 2050000+ 52.9 154 .00627 839000. A43000. 839000. 839000. 839000. .0015 2.15 52.8 2.14 3950 . 839 000 . 205 3.10 445000. 445000. 449000+ 445000. 445000+ 445000. .00Z 52.8 .0121 52.6 3770. 3.11 My .002295 52.7 3.66 235 .0163 52+5 3.64 3660+ 328000. 328000. 332000. 328000. 328000. 328000. 1030000. 1030000. 1030000. 1030000+ 1030000+ 1030000. HIN .002385 52.7 3.83 .244 .0177 52.5 3.81 3630. 946000. 946000. 950000. 946000. 946000. 946000 . 1070000. 1070000. 1070000. 1070000. 1070000. 1070000. HIII .002847 52.6 4.67 .290 .0257 52.3 4.64 3450. 659000. 659000. 662000. 659000. 659000. 659000. 759000. 759000. 762000. 759000. 759000+ 759000. .003 52.6 4.94 .305 +0266 52.3 4.91 3400. 667000. 667000 670000. 667000. 667000. 667000. MII .003280 52.5 532000. 532000. 535000. 532000. 532000. 532000. 5.44 .333. .0344 52.2 5.41 3290. 633000. 633000 636000. 633000. 633000. 633000. HT .003562 52.5 5.93 .360 .0407 52 . 1 5.89 3190. 510000. 510000. 513000. 510000. 510000. 510000. 589000. 589000. 592000 . 589000. 589000. 589000. .403 436000+ .004 52.4 6.69 .0515 52.0 6.64 3030. 436000+ 436000. 439000. 436000+ 436000+ .005 8.28 242000. 242000. 245000. 242000. 242000+ 242000. 52.2 8.36 .500 .0801 51.7 2700. 595 .114 149000. 149000. 151000+ 149000+ 149000+ .006 52.0 9.95 51.4 9.84 2420. 149000. 69500 . 51.6 .195 69500 . 69500. 71500 . 69500+ 69500 . .008 12.9 781 50.8 1960. 12.7 38400 . 101 51.2 960 .289 1630. 38400+ 38400. 40000. 38400+ 38400+ 50.3 15.1 LIII .012283 50.8 22100+ 22100. 23400+ 22100. 22100. 49.6 22100. 17.8 1.16 .406 17.4 1330. 59500. 58200. 42000. 58200. 58200. 42000. LII .014209 50.5 30400. 19.5 1.32 .511 49.1 19.0 1140. 30400. 41300. 40100. 40100. 40100. 41300+ 55500. 41300. 56700. 55500. 55500+ L1 .014842 50.3 20.0 1.37 +546 49.0 19.5 1080. 49300. 37200. 50400. 49300. 49300. 37200. 58400+ 57300. 43100. \$7300 . 57300+ 43100+ .015 .556 1070. 50.3 20.1 1.39 48.9 19.5 55A00. 42100. 56900. 55800. 55800+ 42100+ 1.78 .02 49.4 23.5 .848 47.7 22.7 748. 26100. 21300. 26900. 26100+ 26100+ 21300. 8940. 7840. 9400+ 8970. 8940. 7840. 2.49 1.46 .03 47.8 28.0 45.3 26+5 436 . 4100. 3720. 4420+ 4130. 4100. 3720. -04 46.3 3.09 2.05 43.2 28.7 287. 32.2 33.1 2260. 2090. 2490. 2290 . 2260. 2090. .05 44.9 3.62 2.60 41.3 29+6 202. 1360. 1280. 1540. 1390. 1360 . 1280+ 43.6 .06 4.10 3.11 151. 608. 580. 734. 642. 613. 584 . .08 41.4 33.7 4.85 3,95 36.5 29.8 92.0 546 . 522. 665. 580. 551. 526. K .083102 41.1 33.7 4.95 4.06 36.1 29.6 85.7 2680. 844. 2800. 2710. 2680. 848. 39.4 33.6 5.44 34+0 29+0 61.0 1650 . 711. 1740 . 1680. 1660. 716. 4.64 •1 567. 352. 628. 599. 573. .15 35.5 32.5 6.44 5,90 29.0 26.6 28.8 765. 190. 296. 197. ÷2 32.5 30.6 7.03 6,62 25.5 24.0 16.7 312. 272. 91.5 74.1 99+1 .3 119. 81+5 28,3 27.3 7,62 7,36 20.7 19.9 7.60 126. 17.2 44.0 73+1 68.8 51.8 45.3 25.3 24.8 7.85 7,59 17.5 4.30 25.6 22.7 48.4 51+2 13.5 30.4 23.1 22.8 7.89 7.68 15.2 15.1 2.79 37.7 39.6 24.5 22.6 .6 21.4 21.1 7,86 7,60 13.5 13.5 1.93 16+6 15.0 8.80 8.17 28.6 27.5 16.5 15.6 18.8 18.7 7,68 7.44 ī1+1 11+3 1.09 5.24 5.56 23.1 22.4 13.0 9.96 12.2 16.9 16.8 7,43 6,99 9.46 9.8 .703 1.5 2+66 2.56 17.2 16.9 13.7 13.7 6,79 6.94 7.26 .317 .510 .155 6,44 +510 1+61 1.56 14.9 8.14 15+1 9.45 2. 11.7 11.7 6,21 5,83 5.49 5.87 .179 1.63 1.63 +870 .853 13.9 13.8 9.91 7+86 3. 9.21 9.20 5,31 3.89 4.44 +0800 3.73 .00322 3.73 2.25 4,76 +579 .571 13.8 8.27 4. 7.70 4.67 4.03 3.03 3.67 +0452 5.50 .0132 5.51 3.67 13.8 10.8 7.70 8.77 +426 +421 14.1 14+1 11.6 4.17 2.47 3.17 +0294 6.97 .0260 7+00 4.87 5. 6,65 6.65 3,48 +338 .335 14.4 14.4 12.3 9.17 6. 5,87 5.87 3.78 3.04 2.09 2.83 .0203 8.13 +0401 8+17 5.80 .232 15.1 9.86 .0114 10.0 .230 15.1 13.5 8. 4.80 4.80 3.21 2.42 1.60 2.38 .0676 10+1 7.21 .176 2.08 +177 16.2 16.2 14.9 <u>10.6</u> 4.09 1.30 .00748 11.8 .0937 11.9 10. 15. 4.09 2.80 2.01 8.40 3.03 2.15 .878 .00324 15.1 .145 15.2 10.1 +110 .110 17.5 .0798 .0796 20.4 20.4 12.2 2.43 1.77 +00151 17.7 .182 17.9 20. 2.43 1.09 .665 1.34 11.0 .0509 .0508 23.0 23.0 22.6 12.4 1.77 .699 .447 1.07 .236 11.7 30. 1.32 21.0 21+2 .0370 .0369 12.0 25.1 25.1 74.8 40. 1.41 1.41 1.07 .496 .338 .914 23.4 .275 23.7 11.5 .0290 .0290 26.7 76.4 11.8 .793 25.2 .304 25.5 1.17 1.17 .904 .377 .270 11.4 50. 27.9 .0237 .0237 27.9 27.7 11.5 .785 +716 26+9 1.01 .294 •226 26.6 +326 11.2 60. 1.01 .0173 .0173 29.8 29.6 11.0 .627 .201 .170 .597 28.6 .362 29.0 10.8 80. .798 .798

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80 MERCURY (cm¹/g = 0.003002 x barns/atom)

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E (MeV)	(≝) ^{KN} inc,t	([#] _₽) ^{BD} _{)nc,t}	(분) KN (声) nc, a	(費) _{)nc, a}	(声) ^{KN} inc,s	([#] _p) ^{BD} _{nc,s}	(券) _{coh}	([#])*n	(^件)xe	(\$) _{x,t}	([#] _p) _{×, ±}	$\left(\frac{\mu}{\rho}\right)_{\tau,t}$	$\left(\frac{\mu}{\rho}\right)_{\tau,a}$	(賞) _{tot,t}	(#)	([#] _p)	([#] _p) _{tot, en}
.001	.159	.00357	.000309	.000007	.159	.00357	12.3					6150.	6150 .	6150.	6150.	6150.	6150.
.0015	+159	.00645	.00046	2 .0000188	,159	.00642	11.9					2520.	2520.	2530.	2520.	2520.	2520.
•002	.159	.00934	•00061	.0000363	.158	.00931	11+3					1340.	1340.	1350.	1340.	1340.	1340.
My +002295	.158	•0110	• 000705	• • 0 0 0 0 4 8 9	•158	+0109	11+0					985.	985.	997.	985.	985,	985.
M002385	.158	.0115	.000732	2 .0000531	.158	.0114	10.9					2840.	3090.	3090.	3090.	3090.	3090.
	• • •		•••••		•••							3210.	3210	3210	3210.	3210.	3210.
M _{III} +002847	+158	.0140	.00087	1 .0000772	.157	.0139	10.4					1980.	1980.	1990.	1980.	1980.	1980.
500	168											2280.	2280.	2290.	2280.	2780.	2280.
N00328	.158	.0163	+000410	.000103	157	.0147	10+2					2000.	2000.	2010.	2000.	2000.	2000.
.11	•1.50			******	•101		400					1900.	1900.	1910.	1900.	1900.	1900.
H ₁ .003562	+158	.0178	.00108	+000122	.156	.0177	9.58					1530.	1530.) 540 .	1530.	1530.	1530.
												1770.	1770.	1780.	1770.	1770.	1770.
•00 4	+157	+0201	+00121	+000155	+156	.0199	9+10					1310.	1310.	1320.	1310.	1310.	1310.
.005	.156	.0299	.00130	.000240	.154	.0295	D+11 7.26					447	447	453	/20.	720.	/20+
.008	.155	.0387	.00234	.000585	.153	.0381	5.88					209.	209	215.	209.	209	209
• 01	+154	.0462	.00288	.000868	.151	.0453	4.89					115.	115.	120	115.	115.	115.
L _{III} •012283	•153	+0534	+00348	+00122	+149	+0522	3.99					66.3	66.3	70.2	66.3	66,3	66.3
Lev .014209	.152	.0585	.00396	.00153	.147	.0570	3.42					175.	126.	179.	175.	175.	126.
-11	•••-				•1•1	*****	3.45					167.	71.3	124.	120.)20.	91.3
L _{1 •} 014842	.151	.0600	+00411	.00164	.147	.0585	3.24					148.	112.	151.	148.	148.	112.
-												172.	129.	175.	172.	172.	129.
•015	+151	.0603	.00417	.00167	.147	.0585	3.21					168.	126.	171.	î68.	168.	126.
•02	+148	• 0705	+00534	•00255	+143	.0681	2.25					78.4	63.9	80.8	78.4	78.4	63.9
•03	.139	+0841	.00928	+00438	.130	.0962	1+31					20.0	23.5	28.2	26.9	26.8	23.5
.05	.135	.0967	.0109	.00781	.124	.0889	.606					6.78	6.27	13.3	6.87	6.78	11.2
+06	.131	+0994	.0123	+00934	.119	.0901	+453					4.08	3.84	4.62	4.17	4.08	3.84
+08	.124	+101	+0146	•0119	.110	.0895	.276					1.83	1.74	2.20	1.93	1.84	1.75
K+083102	•123	+101	+0149	+0122	.108	•0889	.257					1.64	1,57	2.00	1.74	1,65	1,58
•1	.118	.101	.0163	+0139	.102	.0871	.183					A. 95	2,53	8,41	8.14	8,05	2.55
.15	.107	.0976	.0193	.0177	.0871	.0799	.0865	· ·				1.70	1.06	1.89	1.80	1.72	1 07
•2	.0976	.0919	.0211	.0199	.0766	.0720	.0501					.796	.570	.937	.889	.817	.591
•3	.0850	.0820	.0229	•0221	.0621	.0597	.0228					.275	• 222	.378	,357	.297	.245
	.0760	•0744	+0236	+0228	+0525	+0516	.0129					+132	•113	•219	.207	.156	.136
•6	.0642	.0633	.0236	.0228	.0405	.0405	.00579					.0498	.0450	+154	+145	+101 •77F	.0913
.8	.0564	.0561	.0231	.0223	.0333	.0339	.00327					.0264	.0245	.0859	.0826	.0495	+00/E
1.	.0507	.0504	.0223	.0210	.0284	.0294	.00211					.0167	.0157	.0693	.0672	.0390	.0366
1.5	+0411	+0411	.0204	+0193	.0208	.0218	.000952	+00153		.00153	.000465	.00799	.00769	+0516	.0507	.0299	.0275
3.	+0351	.0351	+0188	+0175	.0165	.0176	+000537	+00489		+00449	.00224	+00483	+00465	.0453	.0447	.0284	.0244
4.	.0231	.0231	+0140	.0121	.00910	.0110	.000136	+0112	+0000096	+0112	+00675	.00174	+00256	+0+17	.0414	.0297	.0236
5.	.0200	.0200	.0125	+0104	.00741	.00952	.0000883	+0209	+0000781	.0210	.0146	.00128	.00126	.0423	.0423	.0348	+024D
6.	+0176	.0176	+0113	+00913	.00627	•00850	+0000609	+0244	+000120	.0245	+0174	.00101	.00101	.0432	.0432	.0369	.0275
.8.	+0144	+0144	+00964	• 00 726	.00480	+00714	+0000342	+0300	.000203	.0303	.0216	.000696	.000690	.0453	.0453	.0405	.0296
10+	+0123	+0123	+00841		.00390	.00624	.0000225	+0354	+000281	0357	0252	.000531	.000528	0486	.0486	.0447	.0314
20.	.00729	.00729	+00531	.00327	.00200	.00402	.0000045	.0531	.000546	+0-30	+0303	.000240	.000330	.0349	.0549	.0525	.0351
30.	+00531	.00531	.00396	.00210	.00134	.00321		.0630	+000708	.0636	.0351	.000153	.000153	.0690	.0690	•U391 •0678	.0368
40.	.00423	+00423	.00321	+00149	.00101	.00274		.0702	.000826	.0711	.0345	.000111	.000111	.0754	.0754	.0744	.03160
50.	+00351	+00351	+00271	+00113	.000811	.00238		+0757	.000913	.0766	+ 0342	+0000871	.0000A71	.0802	.0802	.0793	.0354
80.	.00240	.00203	+00236	+000883	.000510	.00215		.0799	.000979	.080A	.0336	.0000711	.0000711	.0538	.0838	.0832	.0345
100.	.00199	.00199	.0015A	.000444	.000411	.00154		.0901	+00107	.0913	.0306	.0000405	.0000405	.0875	+0895	+0589	.0330
									100110	*****	+U300		*******	10434	*0424	*UA59	*0315

6: THALLIUM (barns/atom)

E	(MeV)	σ _{inc,t}	$\sigma_{\text{inc,t}}^{\text{BD}}$	o ^{KN}	σ ^{BD} inc, a	0)nc,s	σ ^{BD} inc, s	σ _{coh}	σ×n	σxe	σ _{κ,t}	σ*, a	σ _{r,t}	σ _{r,a}	o _{tot,t}	σ _{tot,t-coh}	σ _{tot,a}	or sot, en
_	•001	53.7	1.20	.105	.00234	53.6	1.20	4180.					2150000.	2150000.	2150000.	2150000.	2150000.	2150000.
	.0015	53.6	2.20	.156	.00642	53+4	2.19	4030.					878000.	878000.	468000 ·	8/8000+	464000+	464000.
	.002	53.5	3.20	.207	.0124	53.2	3.19	3850.					31 3000.	313000	317000.	313000.	313000.	313000.
- HV	+005384	53.4	3.74	• 2 • 1	+0185	23+1	3.72	3100+					980000.	980000.	984000.	980000	980000.	980000.
Mrw	.002485	53.4	4.11	.257	.0198	53.1	4.09	3660.					901000.	901000.	905000.	901000.	901000.	901000.
		- •											1020000.	1020000.	1020000.	1020000.	1020000.	632000.
MIII	.002956	53,3	4,98	.304	.0284	53.0	4.95	3480.					632000+	727000.	730000.	727000.	727000.	727000
		c 7 . 7	R 64	200	4207	62.9	5.03	3460.					700000	700000	703000.	700000.	700000.	700000.
M	.003416	53.2	5.81	. 350	.0383	52.8	5.77	3310.					507000.	507000.	510000.	507000.	507000.	507000.
"11		3-42	3401	•20•									603000.	603000.	606000.	603000.	603000.	603000.
м _т	.003704	53.1	6.32	.379	+0451	52.7	6.27	3200.					488000.	488000.	491000.	488000.	488000+ 541000-	400000+ 561080-
-						/		-					561000.	501000 ·	459000	456000.	456000	456000.
	+004	53.1	6.84	.408	.0526	52.0	8.43	3100+					255000.	255000.	258000.	255000.	255000.	255000.
	+005	52.4	10 1	.603	.116	52.1	9,98	2480.					158000.	158000.	160000.	158000.	158000.	158000.
	.008	52.3	13.0	791	197	51.5	12.8	2010.					73300.	73300.	75300.	73300.	73300.	73300.
	.01	51.9	15.6	972	.292	50.9	15.3	1670.					40500	40500	22800	21500.	21500.	21500+
LIII	.012656	51.4	18.3	1.21	.430	50.2	17.9	1330.					56200.	40300.	57500	56200.	56200.	40300.
•		E) A	20.1	1.78		49.6	19.6	1120.					38500	29100.	39600.	38500.	38500.	29100.
-11	*014041	31.0	20.1	1+30	• 3 • •	4740	1,,,,,						53100.	39300.	54200.	53100.	53100.	39300.
	.015	50.9	20.3	1.41	.561	49.5	j9.7	1100.					49900.	37200.	51000.	49900.	47700.	37200+
L	.015346	50.9	20.6	1.43	•581	49.4	20+0	1070.					47300	41200.	56100.	55000	55000.	41200.
-						40.3	32.8	770.					27400	22100.	28200.	27400.	27400.	22100.
	•02	50.0	23.1	1.01		45.9	26.8	449.					9370.	8170.	9850.	9400 .	9370.	8170.
	+0.3	40.9	31.0	3.13	2.07	43.7	28.9	296.					4300.	3890.	4630.	4330.	4300.	3890.
	.05	45.5	32.6	3.67	2.63	41.8	30.0	209.					2360.	2180.	2600.	2390.	2360+	1340.
	.06	44.2	33.4	4.15	3.13	40+1	30+3	155.					643.	612.	772.	677.	648.	616.
	.08	41.9	34.0	4.91	3.98	37.0	30.0	94.9					532.	508.	650 .	566 .	537.	512.
K	.085530	41.3	34+0	5.09	4.19	30.2	54+0	03+5					2590.	816.	2710.	2620.	2600.	820.
	•1	39.9	33.9	5.51	4,68	34.4	29.2	63.0					1720.	712.	1820.	1750 .	1730.	717.
	.15	35,9	32.9	6.52	5.97	29.4	26+9	29 • 7					573.	301+	326.	309.	285.	204.
	•5	32.9	31.0	7.12	6.70	25.8	24.3	17.2					95.8	77.1	131.	123.	104.	84.6
	•3	28.6	27.7	7.72	7.47	20.9	20.2	4.44					46.3	39.5	75.8	71.4	54.2	47.2
	• 2	23.0	27.1	7,99	7.76	15.4	15.3	2.87					26.9	23.7	52.9	50.0	34.9	31.5
	.6	21.7	21.4	7.96	7.70	13.7	13.7	1+99					17.5	15.8	40.9	38,9	25+7	16.1
	.8	19.0	18.9	7.78	7.50	11.3	11.4	1+12					5.90	5.55	23.6	22.9	13.4	12.6
1		17.1	17.0	7.52	7.07				637		. 6 . 7	.160	2,80	2,69	17.6	17.2	10.2	9.38
1	•5	13.9	13.9	6.88	0.53	5.56	5.04	+327	1.67		1.67	.765	1.70	1.65	15.4	15.2	9.6	5 8,27
	•	9.32	9.31	5.38	4.81	3.94	4.50	.0820	3,84	.00326	3.84	2.32	.914	.896	14.1	14.1	10.1	8.03
4	•	7.79	7.79	4.73	4.07	3.06	3.72	.0467	5,63	+0134	5.64	3.75	+610	+601	14.1	14.4	11.9	8.94
9	•	6.73	6.73	4.23	3.51	2.50	3.22	.0304	7.15	+0262	7+10	4.99	. 354	.351	14.7	14.7	12.5	9,35
6	•	5,95	5,95	3.83	3.08	2.12	2.87	.0209	8.31	+0+00	10.3	7.34	.244	,242	15.4	15,4	13.8	10.0
	•	4.86	4.86	3.25	2.44	1.31	2.12	-0077	12.0	.0950	12.1		.186	.185	16.4)6,4	15+1	10.7
10		3.07	3.07	2.19	1.47	.889	1+60	+00337	15.4	+146	15+5	10.3	.116	.116	14.7)8,7	17.8	11.9
20		2.46	2.46	1.79	1.10	.673	1.36	.00157	18.0	+184	18+2	11.2	.0838	.0536	20.1	23.4	23.0	12.7
30	•	1.79	1.79	1.34	.705	+453	1+08		21.4	.239	Z1+6	11.9	,0390	.0389	25.8	25.8	25.4	12.2
40	•	1.42	1+42	1.08	.498	, 342	+922		24.0	+2/0	24+3	11.6	.0305	.0305	27.3	27.3	27.0	12.0
50	•	1.19	1.19	.915	.382	+274	.723		27.2	.330	27.5	11.4	. 0250	.0250	28.5	28.5	28.3	<u>11•7</u>
00	•	.808	.806	.635	.203	.172	.605		29.3	+366	29.7	11.0	+0182	+01R2	2,06	30.5	10.*	11+2
100		.671	.671	.532	.150	+138	•\$21		30.4	•393	31+2	10.4	+01+2	*v1+z	3147	31.47	71 • *	1000

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8) THALLIUM (cm³/g = 0.002947 x barns/atom)

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E (MeV)	(⊈) ^{KN})nc,t	(≝) ^{BD} _{inc,t}	$\binom{\mu}{p}_{nc,a}^{KN}$	(≝) ^{BD} inc,a	(^µ _p) ^{KN} _{inc,s}	(≝) ^{BD} inc,s	([#]) _{coh}	([#] 5)*"	(券)×e	(^{لل} ه) _{×. t}	(#) × a	(巻)。	(#)	(#)	(生).	(#).	(#)
.001	.158	+00354	.000309	.0000069	.158	.00354	12.3		·			4340	4740	4340			(priot, en
.0015	.158	.00648	+000460	+0000189	.157	.00645	11.9					2590.	2590.	2600	2590 .	2590	2590.
.002 Mr .002389	•150	.00943	+000610	+0000365	.157	+00940	11.3					1370.	1370.	1380.	1370.	1370.	1370.
HIV .002485	.157	.0121	.000757	+0000584	,156	.0121	10.8					2890. 2660.	2890.	2900	2890.	2890. 2660.	2890.
H002956	.157	.0147	. 000896	.0000837	.156	.0146	10.3					3010.	3010.	3010	3010.	3010.	3010.
.003	.157	.0149	.000911	.0000863	.156	.0148	10+3					2140.	2140.	2150	2140.	1860. 2140.	1860.
HTT .003416	.157	.0171	.00103	.000113	.156	.0170	9.75					1490.	2000.	1500.	2060.	2060.	2060.
H ₁ .003704	.156	.0186	.00112	.000133	.155	.0185	9.43					1780. 1440.	1780.	1790.	1780.	1780. 1440.	1780. 1440.
+004	.156	.0202	.00120	•000155	.155	.0200	9.14					1050.	1650.	1660.	1650.	1650.	1650.
+005	.156	.0251	.00149	.000240	.154	.0248	8.16					751.	751	760	751	751.	751.
+006	+155	•0298	.00178	+000342	.154	.0294	7.31					466.	466.	472.	466.	466.	466.
+008	+154	.0383	.00233	.000581	.152	.0377	5.92					216.	216.	222.	216.	216.	216.
Lavy .012656	.151	.0539	.00357	.00127	148		4.92							124.	119.		119_
LII +014697	•150	•0592	+00407	.00160	.146	.0578	3.30					166.	119.	169, 117,	166.	93.4)66. 113.	03.4 119. 85.8
.015	154						1					156.	116.	160.)56.	156.	116.
La .015346	.150	.0607	.00421	+00105	+1+0	+0581	3.24					147.	110.	150.	147.	147.	110.
-1	••••			*****	•1-0	**384	3+19					162.	121.	145.	139.	139.	105.
•02	+147	•0698	.00533	.00252	.142	.0672	2.27					80.7	65.1	83.1	80.7	80.7	65.1
.03	.143	.0834	.00743	.00433	.135	.0790	1.32					27.6	24.1	29.0	27.7	27.6	24.1
.05	.136	.0914	+00922	+00610	.129	+0852	+872					12.7	11.5	13.6	12.8	12.7	11.5
.06	.130	.0984	.0122	.00922	.118	.0893	+010					4.21	1.95	/ • 00 • 77	4 70	0,95	6,42
.08	.123	.100	+0145	.0117	.109	.0884	280					1.89	1.80	2.28	2.00	4,21	3,95
K +085530	+122	.100	+0150	.0123	.107	.0878	.247					1.57	1.50	1.92	1.67	1.58	1,51
•1	.118	.0999	.0162	.0138	.101	.0861	.186					5.07	2.10	5.36	5-16	F+66	2.42
•15	.106	.0970	·0192	+0176	.0866	.0793	.0875) • 75	1.06	1.93	1.84	1.77	1.08
•2	.09/0	.0914	.0210	+0197	.0760	.0716	+0507					+819	•581	•961	•911	.840	+601
	.0754	.0740	+0220	+0220	.0522	+0375	.0231					+282	•227	.386	+362	.306	.249
.5	.0690	.0681	.0235	+0229	.0454	.0451	+0131					•136	+110	+ 223	• 210	.160	+139
•6	.0639	.0631	.0235	.0227	.0404	.0404	.00586					.0516	.0466	.121	.115	.0751	10768
. •8	.0560	.0557	•0229	.0221	.0333	.0336	.00330					.0274	.0254	.086	.0831	.0504	.0474
1.5	.0504	+0501	.0222	.0208	.0282	.0293	.00215					+0174	.0164	+069	.0675	.0395	.0371
2.	.0351	.034	+0185	.0173	.0164	.0175	.000545	+00155		+00155	.000472	+00823	.00/93	+0519	.0507	.0301	.0276
3.	0275	.0274	.0159	.0142	.0116	.0133	.000242	.0113	.00000961	.0113	.00684	.00269	.00264	.0414	0440	.0285	.0244
<u>*</u> •	.0230	.0230	.0139	.0120	.00902	.0110	.000138	.0166	.0000395	.0166	.0111	.00180	+00177	+0410	.0413	•0324	.0237
5.	.0198	.0198	.0125	.0103	.00737	.00949	.0000896	.0211	.0000772	.0212	.0147	+00133	+00131	+0424	+0424	.0351	+0263
8.	.01/3	.01/5	.0113	.00908	.00025	.00846	.0000616	.0245	.000120	.0246	.0174	+00104	•00103	• 0433	+0433	.0368	.0276
10.	.0122	.0122	.00834	.00719	00386	.00713	.0000348	+0301	.000201	+0304	.0216	+000719	+000713	+0454	.0454	+0407	+0295
15.	.00905	.00905	.00642	.00433	.00262	.00472	.0000099	.0454	_000430	.0457	.0304	+000342	+000342	-0483	+0483	+0445	.0315
20.	.00725	.00725	.00528	.00324	.00198	.00401	.0000046	.0530	.000542	.0536	.0330	.000247	.000246	•0610	.0610	.0592	·037]
30.	.00528	.00528	.00395	.00208	.00133	.00318		.0631	.000704	.0637	.0351	+000158	+000158	• 0690	.0690	.0678	•0307
→V. 50.	*00#18	.00*18	+00318 -00270	+00147	.00101	.00272		.0707	.000819	+0716	.0345	+000115	+000115	+0760	.0760	+0749	+0360
60.	.00301	.00301	.00234	+00113	.000675	.00238		0760	+000905	.0769	+0342	+0000899	+0000899	+0805	+0805	.0796	+0354
80.	.00238	.00238	.00187	.000598	.000507	.00178		.0863	.00108	.0875	.0324	.0000536	+0000737	+0840	+0540	+0834	+0345
100.	.0019A	.00198	.00157	.000442	.000407	.00154		.0908	.00116	.0919	.0306	+0000418	+0000418	.0940	.0940	.0896	•0330 •0312

82	LEAD
(barn	s/atom)

E	(Me V)	σ _{inc,t}	$\sigma_{inc,t}^{BD}$	σ ^{KN} σ _{inc, a}	σ ^{BD} _{inc,a}	Oinc, s	σ ^{BD} _{inc,s}	0 _{coh}	σ×n	σ _{×e}	σ _{×.t}	<u>σ,, a</u>	 	σ ₇ , a	σ _{tot,t}	σ _{tot,t-coh}	σ _{iot, a}	σ ιot, i:n
		64.3	1 33	104		EA . 2	1.37	4784.					3240000	2240000	2240000	2240000	2240000	2240.000
	.0015	54.2	2.24	.158	.00653	54.1	2.23	4120.					921000	921000.	925000.	921000.	921000.	921000
	.002	54.1	3.27	.210	.0127	53.9	3.26	3930.					483000.	483000.	487000.	483000+	4A3000+	483000+
Mar	.002484	54.0	4.25	.260	.0204	53.8	4.23	3740.					299000.	299000.	303000.	299000.	299000.	299000 .
•													936000.	936000.	940000+	936000+	936000+	936000+
MIN	.002586	54.0	4.44	.270	.0222	53.7	4.42	3700.					860000 +	860000+	864000+	860000+	8600n0+	B60000+
													975000.	975000+	979000+	975000.	975000+	975000.
	•003	53.9	5.23	.313	.0303	53.0	5.20	3530.					648000+	648000.	652000+	648000+	648000+	648000.
MIII	•003066	53.9	5.35	.319	.0317	53+6	5.32	3510.					606000.	606000.	610000+	606000+	606000+	606000+
			4				4.10						697000+	697000.	701000.	69/000+	69/000+	697000+
11	+003334	23*0	0.23	+ 304	•U=27	23+4	0+14	3350+					= 3=000 + = 76 a a a	576000	570000 ·	574000.	576000.	576000.
м.	.003851	53.7	6.76	. 198		67.1	6.71	3220.					466000.	466000.	469000.	466000.	466000.	466000
-т -	••••••••	32.01		•370	•0.241	2242		JELVI					535000	535000.	538000.	\$15000.	535000.	535000.
	.004	53.7	7.02	. 413	.0540	53.3	6.97	3160.					482000	482000	485000+	482000.	482000.	482000.
	.005	53.5	8.69	.512	.0832	53.0	8.61	2830.					268000.	268000.	271000.	268000.	268000.	268000.
	.006	53.3	10.3	.610	.118	52.7	10.2	2540.					166000.	166000.	169000.	166000.	1660-00+	166000+
	.008	52.9	13.2	.801	200	52.1	13.0	2060.					77400.	77400+	79500+	77400+	77400+	77400+
	.01	52,5	15,7	984	294	.51,5	15.4	1710.					42800.	42800+	44500+	42800+	42800+	42600+
LTTT	.013035	51.9	14.9	1,25	+457	50.7	18.4	1320+					21000+	21000+	22300.	21000.	21000+	21000+
													54300+	38700.	55600 •	54300+	54300+	38700.
	.015	51.6	20.5	1.43	.567	50+2	19.9	1130+					38000.	20500.	39200+	38000+	10000+	20300+
LII	+015200	51.5	20.7	1.44	•578	50+1	20.1	1110.					36900.	27800+	53000+	30700+	30700.	27600.
		E1 4	31.5		414	40.9	70.4	1060.					30900+	3/500+	52000+	50700+	45400.	34000.
-1	*012801	31 * 4	e1+e	1.447	*010	4747	20+0	10001					52800.	39300.	53900.	\$2800.	52800+	39300.
	.02	50.7	21.9	1.83	.863	48.8	23.0	793.					28600.	22800.	29400.	28600 .	28600	22800.
	.03	49.0	29 6	2.55	1 48	44.5	27.0	462.					9810.	8490.	10300.	9840.	9810.	8490 .
	.04	47.4	31.7	3.17	2.09	44.3	29.2	305.					4540.	4080.	4880.	4570.	4540.	4080 .
	.05	46.0	12.9	3.71	2.65	42.3	30.2	215.					2480.	2280 .	2730.	25)0+	2480+	2280 •
	.06	44.7	33.4	4.20	3.17	40.5	30.6	160.					1510.	1410+	1700+	1540+	1510.	1410+
	.08	42.4	34.4	4.97	4.03	37.4	30.4	97.9					678.	644.	810.	712+	683.	648 •
K	.088004	41.6	34.4	5.23	4,33	36.3	30+1	82.0					519.	495.	635.	553.	524+	499.
													2510.	791.	2630.	2540.	2520 •	795.
	•1	40.4	34.3	<u>5,58</u>	4.73	34.8	29.6	65+0					1800.		1900.	18.30 .		
	•15	36.4	33.2	6.60	6.03	29.8	27.2	30.7					620.	3/1+	230	10130	307	3//+
	•2	33.3	31.4	7+21	6,79	26.1	24+6	17+A					290 +	203.	134.	177.	107.	87.0
	•3	29.0	28.0	7.81	7.55	21+2	20.5	8+04					77.5	1703	78.4	71.8	56.4	48.8
	• *	20.0	25.4	8.04	7.03	1/47	11+1	9+30					28.1	24.9	54.6	51.6	36.4	32.7
		23.1	23.3	8.05	7.81	13.9	13.9	2.05					18.5	16.6	42.3	40.2	26.6	24.4
		19.3	19.1	7.88	7.58	11.4	11.5	1.17					9.80	9+06	30+1	28.9	17.7	16+6
1		17.3	17.2	7.62	7.14	9,70	10.1	• 750					6.20	5.83	24.1	23.4	13.8	13.0
î	.5	14.1	14.0	6,96	6.57	7.11	7.43	+338	+548		+548	.165	2+95	2+83	17+8	17+5	10+5	9+56
ź	•	12.0	12.0	6,37	5.96	5.63	6.04	•191	1.72		1.72	.788	1.80	1+75	15+7) 5+5	9.89	8.50
3	•	9,44	9.42	5.44	4.86	3.99	4.56	•0850	3.94	•00330	3+94	2.38	.970	• 95)	14+4	14+3	10+3	8+19
4	•	7.89	7.89	4,79	4.11	3.10	3.78	+ 0481	5.78	.0136	5+79	3.85	+647	•637	14+4	14+3	11+2	8.00
5	•	6.81	6.81	4.28	3,55	2.53	3.26	+0314	7.30	+0266	7+33	5.09	• 4 7 5	++/2)4+0	14+0	12+1	9.53
6	•	6.02	6.02	3.88	3.10	2.14	2.92	+0216	8.00	+0411	8+24	0.00	+3/3	• 307	15.7	1447	12.0	10.2
. 8	•	4.92	4.92	3.29	2.47	1.04	2.49	+0122	10.4	+0072	12.4	7.55	•250	.195	16-8	16-8	15-5	11.0
Ťð	• • • • •			2 20		. 1.33	1.42	+00/96	15.7	.148	15.8	10.4		.121	19+0	19.0	18.1	12.0
15	•	3+10	3+10	1.81	1.12	.681	1.37	.00143	18.5	.186	18.7	11.4	.0878	.0A75	21.3	21.3	20.6	12.6
20	•	2+47	1.81	1.36	.710	.458	1.10	400103	21.9	.242	22.1	12.1	•0561	+0560	24.0	24.0	23.5	12.9
10		1.44	1.44	1.10	.504	.346	.936		24.5	.281	24.8	11.9	+ 0410	+0409	26.3	26.3	25.9	12.4
50		1.20	1.20	.927	. 384	.277	.816		26.4	•311	26.7	11.8	+0 321	.0321	27.9	27.9	27.7	12+2
60	•	1.04	1.04	.805	. 102	.232	.738		27.8	.334	28.1	11.6	. 0263	•0263	24+2	29+2	28.9	11+9
80	•	.818	.818	.643	.205	.175	•6)3		29.9	.370	30+3	11.2	+0192	•0192	31.1	<u>]]+]</u>	31+0	11.4
100	•	.679	.479	,539	.151	.140	•528		31.6	. 398	32.0	10.6	+0150	+0150	32.7	32.7	37+6	10+0

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82 LEAD (cm³/g = 0.002907 x barns/atom)

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E (MeV)	(声) ^{KN} inc, t	(声) ^{BD} inc,t	(♯) ^{KN} inc,a	(声) ^{BD} inc, a	$\left(\frac{\mu}{\rho}\right)_{inc, s}^{KN}$	(≝) ^{BD} inc,s	(券) _{coh}	(<u></u>) _{×n}	(斧)×e	([#])*, (([#] _p) * *	(#),	(#)	(#)	(#).	(#).	(5).
+001	.158	.00355	.000306	3 .0000069	.158	.00355	12.4					47.0	<u>, , , , , , , , , , , , , , , , , , , </u>		'P'tut, 1+cun	'P'tist, a	pital, en
.0015	+158	+00651	.000459	.0000190	.157	.00648	12.0					2680.	6510+ 2680-	6510. 2690.	6510+	6510.	6510+
+002 M- 00248	+157 + 157	+00951	.000610	.0000369	+157	.00948	11.4					1400 +	1400.	1420.	1400.	1400.	1400.
100240	• •15/	+015+	+000756	+0000541	+120	.0123	10.9					869.	869.	881	869.	A69.	869.
MIV +00258	6 .157	.0129	.000785	.0000645	•156	.0128	10.8					2720.	2720+	2730.	2720.	2720.	2720.
												2830.	2500+	2510+	2500+	2500.	2500.
+003 M00306	•157 • 157	+0152	.000910	.0000881	•156	+0151	10.3					1880 .	1880.	1900.	1880.	1880.	1880.
	•15,	10120	+ 000921	.0000422	•128	•0155	10.2					1760.	1760.	1770.	1760.	1760.	1760.
M _{II} .00355	• .156	.0181	+00107	+000124	.155	.0180	9.65					2030 • 1410 •	2030. 14 <u>1</u> 0.	2040. 1420.	2030+ 1410+	2030. 1410.	2030. 1410.
HI +00385	1 .156	•0197	.00116	+000146	•155	.0195	9.36					1670+ 1350+	1670. 1350.	1680. 1360.	1670. 1350.	1670. 1350.	1670. 1350.
.004	.156	+0204	.00120	.000157	.155	.0203	9.19					1560.	1560.	1560.	1560.	1560.	1560.
+005	.156	•0253	.00149	+000242	.154	.0250	8.23					779.	1400+	1410.	1400.	1400.	1400.
•006	•155	.0299	.00177	+000343	.153	.0297	7.38					483.	483.	491.	483.	483.	483.
.008	+154	+0384	•00233	+000581	+151	.0378	5.99					225.	225.	231.	225.	225.	225.
LTTT .01303	5 .151	.0549	+00363	+000855	.147	.0535	1.94					124.	124.	129,	124.	<u>124</u>	124.
111					••		3404					61.0 158.	61.0	64.8	61.0	61.0	61.0
•015	.150	.0596	.00416	.00165	.146	•0578	3,28					110.	82.8	114.	150.	100+	113.
-11 •01-500	•150	+0602	+00419	+0016R	+146	• 0584	3.23					107.	80.8	110.	107.	107.	80.8
L _{I +} 015861	.149	•0616	.00433	.00179	.145	.0599	3.08					148. 132.	109. 98.8	151. 135.	148.	148.	109.
•02	.147	.0695	.00532	.00251	.142	. 0669	2.31					153.	114.	157.	153.	153.	114.
.03	.142	.0828	.00741	.00430	.135	.0785	1.34					83+1 28.5	06.3	85.5	83.1	83.1	66.3
•04	+138	.0910	.00922	.00608	.129	.0849	.887					13.2	11.9	27.9	28+6	28.5	24.7
.05	+134	.0956	.0108	•00770	.123	.0878	+625					7.21	6.63	7.54	7.30	7.21	11.9
+06	+130	+0983	•0122	+00922	.118	.0890	• 465					4.39	4+10	4.94	4 . 48	4.39	4.10
K .088004	.121	.100	.0152	.0126	.106	+080+	.205)+97	1.87	2.35	2.07	1,99	1.88
			•		••••		*2.78).51	1.44	1.85	1.61	1.52	1.45
<u>-1</u>	.117	.0997	.0162	.0138	.101	.0860	.189					5.23	2.08	5,52	/+38 5,12	7.33	2.31
•15	.100	+0905	+0192	+0175	.0866	•0791	+0892			-)+80	1+08	1.99	1.90	1.82	1.10
.3	.0843	.0814	.0227	.0219	.0616	.0715	+0517					+843	• 590	.985	.933	.863	.610
4	.0756	.0738	.0234	.0225	.0520	.0515	.0133					+289	•231	• 395	•369	•311	.253
•5	.0689	.0677	.0235	.0228	.0453	.0451	.00860					.0823	•117	+220	+215	+164	+142
•9	.0637	•0631	+0234	•0227	.0404	.0404	.00596					.0538	.0483	.123	.117	.0773	+0751
1.	.0503	+0555	+0229	+0220	•0331	+0334	.00340					.0285	.0263	.087	.0840	.0515	.0483
1.5	.0410	+0407	.0202	•0191	.0207	.0216		-00159		001 60	00040	+0180	.0169	.070	.0680	+0401	.0378
2.	.0349	+0349	+0185	+0173	.0164	.0176	.000555	.00500		.00500	.00229	+00523	+00823	+051	+0509	•0305	• 027A
3.	.0274	+0274	+0158	.0141	.0116	.0133	+000247	.0115	+00000959	+0115	.00692	+00282	.00276	•0419	.0416	.0200	+ 0247
5.	.0729	.0229	.0139	+0119	.00401	+0110	+000140	.0168	.0000395	.016M	.0112	+00188	+00185	+0414	.0416	.0326	• 0250
6.	.0175	+0175	.0113	.00901	.00622	.00948	+0000413	+0212	.0000773	.0213	.0148	.00139	.00137	+0424	+0424	.0352	.0265
8.	.0143	.0143	.00956	.00718	.00477	.00712	.0000355	.0302	+000119	.0248	+0176	+00108	+00107	+0436	•0433	.0372	.0277
10.	.0122	,0122	.00834	.00593	,00387	.00625	.0000230	.0358	.000279	.0360	.0254	+000570	+000744	+0436	+0456	+0407	+ 0297
15.	.00901	+00901	+00640	.00430	.00262	.00471	.0000102	.0456	+000430	.0459	.0302	+000352	+000352	+0552	+0552		
30.	.00524	+00724	+00326	+00326	.00198	.00398	.0000047	+0538	+000541	.0544	.0331	+000255	+000254	.0619	.0619	.0599	.0366
40.	.00419	+00419	.00320	.00147	.00101	.00272		+0637	+000703	.0042	.0352	+000163	+000163	+069A	+0698	.0683	.0375
50.	.00349	.00349	.00269	.00112	.000805	.00237		.0767	.000904	.0776	.0341	+000119	.000119	•0765	•0765	.0753	. 0360
60.	•00305	.00302	.00234	+000878	.000674	.00215		.0808	.000971	.0817	.0337	+0000765	.0000765	+0811	+0811	+0805	+0355
100.	.00238	.0023R	+00187	+000596	.000509	.00178		.0869	.00108	.0881	.0326	+0000558	.0000558	.0904	.0904	.0901	• • • • • • • • • • • • • • • • • • • •
	*****	+0014/	+00121	+000+34	.000407	+00123		+0919	.00116	.0930	.0308	+0000436	.0000436	+0951	+0951	.0948	.0314

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83 BISMUTH (barns/atom)

F (MeV)		"BD	_л ки	BD	KN	BD	0.	σ _s	σ×.	σ _{s.t}	σ _{*. a}	σ _{r.t}	σ _{r.a}	σ _{tot,t}	σ _{tof,t-coh}	σ _{tot,a}	σ _{tot, en}
E (MeV)	^o inc, t	"inc,t	-inc, a	-unc,a	-100,8	- 100, 8			_ <u>_</u>			2340000	2340000	2340000.	2340000.	2340000+	2340000+
.001	55.0	1.22	.107	.00238	54+9	1.22	4380.					961000.	961000+	965000 .	961000+	961000+	961000+
+0015	54.9	1.12	.213	.0129	54.6	3.31	4010.					504000+	504000.	508000.	504000+	504000+	504000+
N- 002581	54.7	4.52	273	.0226	54.4	4.50	3770.					286 n 0 0 +	286000+	290000+	286000+	895000+	895000.
					.	4 30	1714					875000+	871000+	825000 +	921000+	821000,	821000+
HIN .005689	54.6	4,74	•284	.0247	34.4	** /2	3730.					931 000 .	931000.	935000 .	931000.	931000+	931000+
.003	54.6	5.34	.316	.0310	54.3	5.31	3610.					686000+	500000+	587000.	583000+	583000+	583000+
M _{III} .003177	54.5	5.67	•334	+0348	54.2	5+64	3540.					670000	670000.	674000.	670000.	670000.	670000.
HII .003696	54.4	6.62	.387	.0471	54.0	6.57	3340.					462000+	462000. 550000.	465000+ 553000+	462000+ 550000+	462000+ 550000+	462000+ 550000+
-004	54.4	7.17	.418	.0552	53.9	7.11	3230.					511000.	511000.	514000+	511000+	511000.	511000+
H004000	54.4	7.17	.418	.0552	53.9	7.11	3230.					446000.	446000+	449000+ 514000-	446000+ 511000+	511000+	511000+
							2000					511000+	283000+	286000.	283000.	283000+	283000 .
+005	54.2	8.85	.519	.0848	53+0	10.7	2870+					175000+	175000+	178000.	175000.	175000+	175000+
.006	53.9	10.4	.810	.201	53.3	13.1	2110.					81900 +	81900+	84000+	81900+	81900+	81900+
.01	53.2	15.9	.996	.298	52.2	15.6	1750.					45200.	45200.	47000.	45200+	45200+	20400+
Laur +013420	52.5	19.4	1.30	.482	51+2	18.9	1310.		•			20400+	20400+	53700+	52400.	52400+	37200.
-111				e 73	EA . 8	20.1	1160.					39600.	29300 .	40800+	39600.	39600+	29300+
+015	52.2	20.7	1.50	• • • •	50.6	20.7	1100.					35300.	26500.	36400+	35300.	35300+	26500+
L _{II} +015714	52.1	21.3	1.50	*014	50.00	2041	11000					48800.	35900 .	49900.	48800+	48800.	33900+
L _I +016391	51.9	21.8	1.56	•653	50 • 4	21+1	1050.					43500. 50600.	32500 • 37600 •	51700.	\$0600+ 39900-	50600+	37600 •
•02	51.3	24.2	1.85	.873	49.4	23+3	817.					29900+	8850.	10800.	10300.	10300.	8850 .
•03	49.6	28.8	2.58	1.50	47.0	27.3	475+					4770.	4270.	5120.	4800.	4770+	4270.
.04	48.0	31.6	3.20	2.11	44.0	30.5	222.					2600.	2380.	2860 .	2630 •	2600.	2380+
+ 05	40.0	33.2	4.25	3.20	41.0	30.9	165.					1590.	1480.	1790+	1620+	721.	682.
.08	42.9	34.7	5.03	4.06	37.9	30.6	101.					710.	670+	621.	541.	511.	486.
K .090526	41.8	34.7	5,37	4,46	36.5	30.2	80 • 3					2430.	766.	2540.	2460.	2440+	770. 716.
•1	40,9	34.7	5,64	4,79	35.3	29.9	67.0						380.	713.	682.	695.	386.
.15	36.8	33.6	6,68	6.10	30 • 1	27.5	31+6					303.	209.	353.	335.	310.	216+
•2	33.7	31.7	7.29	0,87	20.4	24+6	8.14)05.	83+3	142.	133.	113.	90+9
•3	29.3	25.7	8.14	7.84	18.1	17.9	4.72			_		51+3	43+3	51+/	#7.6	38.2	34.2
.5	24.0	23.6	8.19	7,93	15.8	15.7	3.06					30+0	20+3	43.6	41.5	27.8	25.5
.6	22.2	21.9	8.16	7.88	14+0	14+0	2+11					10.4	9.59	30.9	29.7	18+4	17.2
.8	19.5	19.3	7.97	7,66	11.5	11+6	1+20				·	6.56	6,15	24.7	24.0	14.3	13+4
<u>].</u>	17.5	17.4	7.05	6.66	7.20	7.54	•348	.565		+565	+171	3+15	3+02	18+3	1/49	10+0	8.66
1+3	12.1	12.1	6.45	6.00	5.70	6.10	+197	1.79		1+79	.820	1.90	1.00	14.7	14+6	10.6	8.38
3.	9.55	9.54	5.51	4.92	4.04	4.62	+ 0877	4.07	.00334	4+07	2.46	4681	.670	14+7	14+6	11+5	* 8.77
4.	7.98	7.98	4.85	4.15	3.14	3.83	•0495	5.93	+0137	7.51	5.21	+506	.500	14+9	14+9	12+3	9.30
5.	6.90	6,40	4.33	3.59	2,17	2,96	.0223	8.70	.0416	8.74	6.19	• 398	+ 394	15+3	15+2	13.1	9.1
6.	6.09	6.09	3.72	2.49	1.66	2.49	+0125	10.6	.0700	10.7	7.61	+274	+272	16+0	17.2	15+8	11.2
10-	4.25	4.25	2.90	2.07	1.34	2.18	.0081	5 12.6			<u></u>	•208	+126	19.6	19.6	18.7	12.3
15.	3.14	3.14	2.23	1.50	•911	1.64	+00364	10.2	150	10+3	11.6	.0922	.0919	21.6	21+6	20+9	12+8
20.	2.52	2.52	1.83	1.13	+690	1.39	+00170	22.4	.244	22.6	12.3	+0592	+0591	24.5	24.5	24.0	13.1
30.	1.84	1.84	1.37	+719	.350	1+15		25.0	.284	25+3	12.2	+0430	+0429	26.8	26+8	26+5	12.8
40.	1,40	1.77	1411	.388	.281	.832		27.0	+314	27.3	12.0	• 03 38	+0338	24+0 20-8	29.8	29.5	12.1
9 0.	1.05	1.05	.014	.303	.235	.747		28.4	.338	28+7	11.8	.0275	+0202	31.8	31.8	31 • 7	11.5
80.	.828	.828	.651	.206	+177	+622		30.6	.374	31+0	11.3	.0157	+0157	33.3	13.3	33.2	11.0
100.	.687	•687	. 54h	+153	+142	+534		36,2	+===	35+0	****		-				

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83 BISMUTH (cm³/g = 0.002882 x barns/atom)

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E (MeV) ((声) ^{KN} inc, t	([#] ₅) ^{BD} _{inc,t}	([#]), KN	([#] _p) ^{BD} _{inc,a}	([#] _p) ^{KN} _{)nc,s}	([#] _p) ^{BD} inc, s	([#]) _{coh}	([#] _p) _{×n}	(券) _{×e}	([#]) _{×, t}	([#] _p) _{×,a}	(#) _{r.t}	([#] _p) _{r,a}	([#]) _{tot,t}	(勞) _{tot,t-coh}	([#] _p) _{tot,a}	([#]) _{tot, en}
.001	+159	.00352	.00030	8 .0000069	.158	.00352	12.6					6740.	6740.	6740.	6740.	6740.	6740.
.0015	.158	+00651	.00046	.0000190	.158	+00648	12+1					2770 .	2770.	2780.	2770.	2770.	2770.
+002	+158	.00957	.00061	.0000372	•157	+00954	11.6					1450+	1450.	1460.	1450.	1450.	1450.
MA *005381	+120	• 01 20	+000/8	.0000651	+121	+0130	10.9					824+	824 •	836.	824.	824.	824+
HTW .002689	.157	.0137	.00081	8 .0000712	.157	.0136	10.7					2300+	2500+	2590 •	2580+	2580.	2580 +
			-		• -							2680	2680.	2690.	25100	2480.	23100
.003	.157	+0154	.00091	.0000893	+156	.0153	10.4					1980.	1980.	1990.	1980 .	1980.	1980.
H _{III} +003177	.157	+0163	+00096	3 .000100	. 156	.0163	10.2					1680.	1680.	1690.	1680.	1680.	1680.
M _{II} .003696	+157	.0191	.00112	.000136	.156	.0189	9.63					1930. 1330.	1930. 1330.	1940. 1340.	1930. 1330.	1930.	1930. 1330.
.004	.157	.0207	.00120	.000159	.155	.0205	9.31					1390.	1590.	1990.	1590.	1590+	1590.
H _T +004000	,157	.0207	.00120	.000159	.155	.0205	9.31					1290.	1290.	1290.	1290.	1280.	1970.
• • • • • •					• • • •							1470.	1470.	1480.	1470.	1470.	1470.
.005	.156	.0255	.00150	.000244	+154	.0253	8.33					816+	816.	824 .	816.	816.	816.
•000	.159	.0300	+00178	.000343	+154	.0297	7.46					504.	504.	513.	504.	504.	504.
•008	+154	+0383	.00233	+000579	+152	•0378	6.08					236.	236.	242.	236.	236.	236.
Larr +01 3420	.151	.0559	.00376	.00139	.149	.0545	3.78				· ·	130.	130.	135.	130.		130.
-111 001-020	•••	•0337			•1-0	•••••	3+10					161.	38+8	02+5	58.8	58.8	58.8
.015	.150	.0597	.00415	.00165	.146	.0579	3.34					114.	84.4	118.	171+	121+	107.
L _{II} +015714	.150	+0614	.00432	+00177	.146	.0597	3.17					102.	76.4	105.	102.	102.	76.4
1 414301												141+	103.	144.	i41.	141.	103.
rd *010341	•1=0	•0028	+00450	+00188	.145	•0608	3.03					125.	93.7	129.	125.	125.	93.7
-02	.148	.0697	.00533	.00252	.142	.0672	2.15					146+	108.	149.	146.	146.	108.
.03	.143	.0830	.00744	.00432	.135	.0787	1.37					20.2	98.0	88.5	56 .2	80.2	68.0
.04	.138	.0911	.00922	+00608	.129	.0850	.906					13.7	12.3	31+1	27.1	29.7	(3.5
.05	.134	.0957	.0108	.00772	.123	.0879	.640					7.49	6.86	8.24	7.58	7.49	12+3
•06	•131	•0983	.0122	+00922	+118	.0891	+476					4.58	4.27	5.16	4.67	4.58	4.27
•08	.124	.100	+0145	+0117	.109	•0882	• 291					2.06	1.95	2.46	2.16	2.08	1.97
K .090526	.120	+100	+0155	•0129	.105	•0870	• 231)+46	1.39	1.79	1.56	1.47	1.40
• t	.118	.100	.0163	.0138	.102	.0862	. 192					7 • 00 5 · 30	2+21	7.32	7.09	7.03	2.22
•15	.106	.0968	.0193	+0176	.0867	.0793		•••				1.87	1.10	2.45	2,48	5,42	2.06
+2	.0971	.0914	.0210	.0197	.0761	.0715	.0527					.873	.602	1.02	.965	1.87	1+11
•3	.0844	.0816	.0228	+0220	.0617	.0597	.0240					.303	.240	.409	.383	. 326	.262
•4	.0758	.0741	.0235	•0226	.0522	.0516	.0136					+148	+125	+235	.222	.171	147
•5	0692	+0680	+0236	+0229	.0455	.0452	.00882					.0865	.0758	•163	+154	.110	.0986
+0	.0040	.0631	•0235	.0227	.0403	.0403	+00608					+0565	+0507	+126	+120	.0801	+0735
1.	.0504	+0556	.0222	+0221	.0331	.0334	+00346					+0.300	.0276	+0891	0856	• 0530	.0496
1.5	.0409	+0409	.0203	.0192	.0208	.0217	.00100	.00163		.00163	000497	.00908	.00870	.0/12	.0692		
2.	.0349	+0349	.0186	.0173	.0164	.0176	.000568	.00516		.00516	.00236	+00548	.00530	-0461	.0455	+0311	+0204
3.	.0275	.0275	.0159	•n142	.0116	.0133	.000253	.0117	.00000963	.0117	.00709	.00294	.00288	.0474	-0421	.0305	+0230
<u>4</u> .	.0230	.0230	.0140	.0120	.00905	.0110	.00n143	.0171	.0000395	.0171	.0114	.00196	.00193	.0424	.0421	.0331	.0751
5.	.0199	.0199	•0125	.0103	+00741	.00954	.0000934	.0216	.0000775	.0216	.0150	+00146	.00144	.0429	+0429	.0354	+0268
0. 8.	+01/8 -0144	+0176	+0113	.00902	.00625	.00853	.0000643	.0251	.000120	.0252	.0178	+00115	+00114	+0441	. 0438	.0378	.0280
10.	.0122	-0122	+00700	+00/18	+00978	-00628	.0000360	+0305	+000202	•0308	+0219	+000/90	+000784	+0461	+0461	-0412	+030 0
15.	.00905	+00905	.00643	+00432	.00263	.00473	.0000105	.0467	+000200	.0470	.0306	+000344	.000597	.0496	.0496		•0323
20.	.00726	.00726	.00527	.00326	.00199	.00401	+0000049	.0542	.000542	-054R	.0334	+000266	.000363	+0205	+0505	10539	+0354
30.	.00530	.00530	.00395	.00207	.00134	.00323		.0646	.000703	.0651	.0354	+000171	+000170	.0704	0704	2000.	+0369
40.	.00421	.00421	.00320	+00147	.00101	.00274		.0720	.000818	.0729	.0352	.000124	.000124	.0772	.0772	.0764	0.1EU+
50.	.00352	.00352	.00270	.00112	.000810	.00240		.0778	+000905	.0787	.0346	.0000974	+0000974	.0824	.0824	.0816	+0357
80.	•00-03	.00.03	+00235	.000873	.000677	+00215		+0818	+000974	.0827	.0340	.+0000795	+0000795	+0859	.0859	.0850	40349
	AA230	A 8 7 7 7			AAAE'-	AA1 70										•	

84 POLONIUM (barns/aiom)

E (MeV)	σ _{inc,t}	$\sigma_{inc,t}^{BD}$	σ ^{KN} σinc,∎	σ ^{BD} _{inc,a}	KN Otnc,s	σ ^{BD} _{inc, •}	oc oh	σ _{*n}	σ _{×e}	σ _{*,t}	σ _{×, a}	σ,,,	σ _{r,a}	σ _{tot,t}	T _{tot,t-coh}	σ _{tot.a}	or tot.en
.001	55.7	1.20	.108	.00234	55.5	1.20						2450000	2450000	2450000	2450000	2450000	2450000
+0015	55.5	2.25	.162	.00656	55.4	2.24	4310.					1010000.	1010000.	1010000.	1010000.	10)0000+	1010000.
+002	55.4	3.74	.215	.0130	55.2	3.33	4100.					526000.	526000+	530000+	526000+	526000+	526000+
My +002683	55.3	4.79	.287	.0249	55.0	4.77	3810.					274000.	274000.	278000.	274000.	274000+	274000.
N 002798	55.3	5.02	. 29 9	. 1272	55.0	4.99	3760.					856000.	856000 +	860000.	856000+	856000.	856000 +
NIV TOTAL TO		5002			5540	••••	3.000					888000	868000+	892000.	888000	885000	686000+
.003	55.2	5.42	.320	.0314	54.9	5.39	3680.					729000.	729000 /	733000.	729000.	729000.	729000 .
H _{III} .003295	55.2	6.00	.351	.038)	54.B	5.96	3560.					559000.	559000.	563000.	559000.	559000.	559000.
N003840	65 A	7	409	4533	E4 . 6	6.09	3354					643000.	643000.	647000.	643000.	643000.	643000.
ull	3340			.0322	34.0	0.77	3320+					990000+ 524000.	440000 · 526000 ·	443000 ·	440000. 524000.	440000+ 524000+	440000+ 524000+
.004	55.0	7.3)	.423	.0563	54.6	7.25	3290.					472000	472000.	475000.	472000.	472000.	472000+
M1 - 004156	55.0	7.59	.439	.0606	54.5	7.53	3240+					427000.	427000.	430000.	427000.	427000.	427000.
												487000.	487000.	490000.	487000.	487000+	487000+
•005	54.0	9.02	.525	.0864	54.3	8.93	2950+					298000.	298000.	301000.	298000.	298000.	298000.
.008	54.2	10.0	.023	+121	54.0	10+5	2070+					54700 ·	104000+	88900.	86700.	86700+	86700.
.01	53.8	16.1	1.01	.302	52.8	15.8	1790.					47600.	47600.	49400+	47600+	47600+	47600+
LTTT .013814	53.1	20.0	1.35	.510	51.7	14.5	1310.					19900.	19900+	21200+	19900.	19900+	19900 .
		74 0		- 74								50700.	35900.	52000.	50700.	50700+	35900+
+U13	52.0	20.9	1.54	+378	21+4	20+3	1090.					♥1000 • 33000 •	30000+	42200+ 35000-	41000+	41000+	30000+
MI	35+0	E1.44	1.50	• 6 2 1	31.0	21+2	1070+					46800	34400.	47900.	46800.	46800.	34400.
L ₁ .016936	52.5	22.4	1.62	.692	50.8	21.7	1030.					41800.	31100.	42900 .	41800.	41800+	31100.
		-										48600.	36000.	49700+	48600.	48600+	36000+
•02	51.9	24.4	1.87	.881	50.0	23.5	840+					31200.	24400.	32100.	31200.	31200.	24400+
•03	50.2	29.1	2.61	1.51	47.0	27+6	489.					10400.	9220.	11300+	10800.	10800.	9220.
.05	47.2	33.5	3.81	2.13	43.4	30.8	229.					2750.	2510.	3010.	2780.	2750.	2510.
• 06	45.8	34.5	4.30	3.24	41.5	31.3	170.					1670.	1550.	1870.	1700.	1670.	1550 +
•08	43.4	35.1	5.09	4.11	38.4	31.0	104.					756 •	715+	895.	791.	761+	719.
K.093105	42+1	35.1	5.51	4.6	36.6	30.5	78.6					493.	470.	607.	528.	499.	475 •
.1	41.4	35.0	5.71	4.83	35.7	30.2	69.0					2350.	707.	2050.	1990.	1960.	712.
15	37.3	34.0	6.76	6.17	30.5	27.8	32.6			~		672.	386.	739.	706.	679.	392.
.2	34.1	32.1	7,38	6.94	26.8	25.2	18.9					318.	217.	369.	350.	375.	224+
• 3	29.7	28.7	8.00	7.74	21.7	21.0	8+60					110.	86+6	147.	139.	118+	94+3
	76.6	26.0	8,24	7,93	18.4	18-1	4+87					53.4	45+2	84+7 68-5	79.8	62+0	53-1
.5	27.5	22 2	8.26	7 99	14.2	12.7	3.19					20.8	18.6	45.2	43.0	29.1	26.6
.8	19.7	19.6	8.07	7.78	11.7	11.8	1+23					10.9	10.0	31+7	30+5	19.0	17.8
1.	17,7	17.6	7,80	7,30	9.94	10.3	.800					6,93	6.49	25+3	24.5	i+•7_	13.0
1.5	14.4	14+4	7.13	6,75	7+28	7.65	•359	•585		+585	+177	3.30	3+16	18+6	18+3	11+0	10+1
2.	12.3	12.3	6.52	6.10	5.77	6.20	+202	1.05		1185	+ 54 7	2.00	1.94	16+4	10+1	10+*	8.55
3. A.	8.08	7+07 8.08	4.90	4.19	3.18	3.89	+0510	6.07	.0138	6.08	4.04	.720	.709	14.9	14.9	11.7	8.94
5.	6.98	6.98	4.38	3.62	2.60	3.36	• 0333	7.63	.0272	7.66	5.31	.535	-528	15+2	15.2	j 2. 6	9.46
6.	6.17	6.17	3.97	3,17	2.20	3.00	•0231	8.90	+0421	8.94	6.32	+421	+417	15.6	15.5	13+3	9.91
8.	5.05	5.05	3.37	2.52	1+68	2.53	+0129	10.9	+0710	11.0	7.81	.290	+288	16+4	16.3	14.7	10.6
10.	4,30	1.10	2.94	2,09			.00039	16.5	.152	1647	<u></u>		.133	20+0	20+0	19.1	12+5
20.	2.55	2.55	1.85	1.14	.698	1.41	• 00177	19.3	• 190	19.5	11.6	.0963	.0960	22+1	22+1	21.4	13.0
30.	1.86	1.84	1.39	725	.470	1.13		22.8	.247	23.0	12.5	.0620	+0619	24.9	24.9	24+5	13.3
.40.	1.48	1.4R	1.1Z	.515	.354	.905		25.6	.287	25.9	12.4	+0452	+0451	27.4	27.4	27+1	13.0
50.	1.23	1.23	,949	. 390	• 284	-840		27.5	.318	27+8	12+2	10101	+0355	29.1	24+1	28+0	12.3
00.	1.05	1.05	.650	. 105	. 238	• / 75		31.2	- 341	31.6	11.5	.0213	+0213	32.5	32.5	32.3	15.7
100.	.696	.696	•552	.155	.143	.541		32.9	.406	33.3	10.4	.0166	.0166	34.0	34.0	13.9	11+1

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84 POLONIUM (cm³/g = 0.002868 x barns/atom)

E (MeV) (∰),nc,t	([#]) ^{BD} _{inc,t} (KN ())nc, a	(声) _{inc,a}	([#]) _{)nc, s}	(声) ^{BD} inc。s	(岸) _{coh}	$(\frac{\mu}{\rho})_{*_n}$	(#)»e	([#] _p) _{x,t}	(#) _{x,a}	(#),,t	([#] _p), , a	(\$) _{tot,t}	(#)11,t,t-cub	(^µ _p) _{tot.a}	(f)tot, en
	144			0000067	.159	. 00344	12.9					7030.	7030.	7030.	7030.	7030.	7030.
.001	100	00344	+000310	.0000188	159	.00642	12.4					2900 .	2900.	2900.	2900.	2900.	2900.
-0015	159	.00958	.000617	.0000373	156	.00955	11.8					1510.	1510.	1520.	1510+	1510.	1510+
N002683	159	.0137	.000823	+0000714	.158	.0137	10.9					786+	786+	797.	786+	780+	760+
	••••	•••										2460+	2460+	2470.	2460+	2250.	2250.
HTY +002798	,159	+0144	.000858	+0000780	. 158	.0143	10.8					2250+	2250+	2200+	2650.	2650.	2550.
												2000	2000	2100.	2090.	2090.	2090.
.003	. 158	+0155	.000918	.0000901	157	•0155	10.8					1600+	1600.	1610.	1600+	1600.	1600.
M ₁₁₁ •003295	. 158	.0172	.00101	.000109	,157	•0171	10.2					1840.	1840.	1860.	1840.	1840.	1840.
	150	4343		0001E0	157	. 0200	9.61					1260.	1260.	1270.	1260.	1260.	1260.
11 +00-1844	+130	*VEVE		+000130	••••							1500.	1500.	1510.	1500-	1500.	1500+
.004	.158	.0210	.00121	.000161	.157	.0208	9.44					1350.	1350.	1360.	1350.	1350.	1350.
M004156	.158	.0218	.00126	.000174	156	.0216	9.29					1220.	1220 •	1230.	1220+	1220.	1220+
					•							1400.	1400+	1410+	1400+		855.
.005	.157	•0259	.00151	•000248	156	•0256	8.46					655+	655+	60 J+	678.	628.	528.
.006	.157	.0304	•00179	.000347	.155	.0301	7.60					528+	749.	255.	249.	249.	249.
.008	,155	.0387	.00235	•000585	,153	.0381	6.19					137.	137.	142.	137.	137.	137.
.01		.0462	00500	.000866	<u>151</u>	.0453	5.13					67.1	57.1	60.8	57.1	57.1	57.1
L _{III} +013814	. 152	+0574	.00387	+00146	.148	• 0559	3.70					145.	103.	149.	145.	i45.	103.
	151	4699		.00166	. 147	.0582	3-41					118.	86+0	121+	118.	j18.	86.0
• • • • • • • • • • • • • • • • • • • •	151	•0377	00417	.00187	146	.0608	1.13					97.2	73.1	100.	97+2	97.2	73+1
11 .010244	+121	+0050	+00447		1140		3412					134.	98.7	137.	134.	134.	98.7
L016936	-151	.0642	.00465	.00198	.146	.0622	2,95					120.	89.2	123.	120.	120.	89+2
-1 -1				••••								139+	103.	143+	139.	139.	103+
.02	.149	.0700	.00536	•00253	.143	.0674	2.41					89+5	70+0	92+1	8715	31 0	76.4
.03	+144	.0835	+00749	+00433	.137	.0792	1.40					31.0	20.4	32+4	31+0	14.4	12.8
+04	.139	.0915	•00929	.00611	.130	.0855	• 929					7-80	7.20	8.63	7.97	7.49	7.20
.05	.135	+0961	.0109	.00774	+124	+0883	+657					4.79	4.45	5.36	4.88	4.79	4.45
•06	•131	.0989	.0123	•00929	•119	• 0898	+ 468					2.17	2.05	2.57	2.27	2.18	2.06
•08	-124	+101	+0146	+0118	+110	.0889	+ 278					1+41	1.35	1+74	1.51	1.43	1.36
K +093105	+121	+101	+0128	+0135	+109	• • • • • •	+2-3					6.74	2.13	7.06	6.85	6,77	2.14
.1	.119	.100	+0164	.0139	.102	.0866	.198					5+59	2+03	5.88	5.71	5.62	2.04
	-107	.0975	+0194	.0177	.0875	.0797	.0935					1.93	1+11	2+12	2.02	1.95	1.12
.2	.0978	.0921	.0212	.0199	.0769	.0723	.0542					•912	• 622	1.06	1.00	.932	+842
.3	.0852	.0823	.0229	.0222	.0622	•0602	+0247					+ 315	+248	- 422	+ 377	+ 3 30	152
	.0763	.0746	.0236	.0227	.0528	.0519	+0140					+134	.0780	.148	.159		102
•5	.0697	.0685	.0237	.0230	.0459	.0456	.00903					-0703	.0533	.130	.123	.083	.0763
•6	+0645	.0637	.0237	+0229	.0407	.0407	.00628					.0313	.0287	.090	9 .0875	.054	.0511
.8	.0565	.0562	.0231	.0223	+0336	.0338	.00333					.0199	.0186	.072	6 .0703	.0422	.0396
<u>l.</u>	,0508	.0505	.0224	.0209	A200	A210	00107	.00168		.00149	-000508	+00946	+00906	.053	3 .0525	.0315	.0290
1.5	+0413	+0413	+0204	+0194	.0165	+0219	.000579	+00130		.00531	.00243	+00574	+00556	• 147	0 •0462	•0298	+0255
<u> </u>	+0353	+0353	.0160	.0143	.0117	.0134	.000260	.0120	.0000096	9 .0120	.00723	.00310	+00304	+043	0 +0427	.031	+0245
3.	.0212	.0232	-0141	.0120	00912	.0112	.000146	.0174	.0000396	.0174	.0116	+00206	+00203	•042	7 +0427	.0336	+0256
5.	.0200	.0200	.0126	.0104	.00746	.00964	.000095	5 .0219	.0000780	.0220	.0152	+00153	.00151	+ 043(•0436	.030)	+0271
6.	.0177	.0177	+0114	.00909	.00631	.00860	.000066	3 .0255	.000121	.0256	+0181	+00121	.00120	•044	7 +0445	.038)	+0284
8.	.0145	.0145	.00967	.00723	.00482	.00726	.000037	.0313	.000204	.0315	+0224	.000832	+000826	+0+/	0 0401	•0424	0304
10.	.0123	.0123	.00843	,00599	.00390	.00634	.000024	1 .0367	.000282	.0370	.0260	.000631	.000628		4 .0574	1040	10327
15.	.0091	2 .00912	+00648	.00433	.00264	.00479	.000010	5 .0473	+000436	.0479	.0313	-000.000	.000275	.rA1.	AF 40.4		
20.	.0073	1 .00731	.00531	.00327	.00200	.00404	+000005	1 +0574	+000345	•0759	•03.58	+000278	.000178	.071	.0714	.0703	.0381
30.	.0053	3 .00533	.00399	+00208	.00135	+00324		+0674	801000	.0000	+0356	+000130	.0001 29	07A	6 .0786	.0771	.0373
40.	+0042	+ +00424	+00321	+00148	.00102	+00217		+0734	.000023		.0350	.000102	.000102	.083	5 .0835	.0826	.0361
50.	.0035	3 .00.353	+00272	+00112	+000815	+00271		+0/07	+000712	.0840	+0341	+0000835	+0000835	.087	2 +0872	.0866	.0350
60.	.0030	00-304	+00230	+0000/5	.000003	+00417		.0895	+00108	.0906	.0330	.0000611	.0000611	.093	2 .0932	.0926	+0336
80.	+0024	0 00240	+00194	+000397	.000610	.00155		.0944	.00116	.0955	.0313	.0000476	+0000476	.097	5.0975	.0972	+0318
100.	+0.050	• •00 ∠ 00	+00128	+000++2	******	+00122		****									

85 ASTATINE (barns/atom)

E	(MeV)	σinc, t	$\sigma_{ioc,t}^{BD}$	σ _{)nc,a}	o ^{BD}	σ _{inc,s}	σ ^{BD} σ _{inc,s}	σ _{coh}	σ.	σ×e	<u>σ_{*,t}</u>	σ _{x,a}	σ _{r,t}	σ _{τ, a}	σ _{tot,t}	Tiot, t-coh	⁰ tot,a	σ tot, en
×T	.001	56.3 56.3	1.17	•110 •114	.00228	56.2	1.17	4600.										
	.0015	56.2	2,23	.164	.0065	56.0	2+22	4410.					2360000.	2360000.	2360000.	2340000.	2360000+	2360000.
	.002	56.1	3.36	.218	.0130	55.9	3.35	4200.					548000.	548000.	552000.	548000.	548000.	548000.
×v	+002787	55.9	5.07	.301	.0273	55.6	5.04	3850.					262000.	262000.	266000 .	262000.	262000.	262000.
^M I¥	.002909	55.9	5,32	.314	•0299	55.6	5+29	3800.					748000 +	748000.	752000.	748000+	748000 +	748000+
	.003	55.9	5.51	, 324	.0319	55.6	5.48	3760.					774000	774000	778000.	774000.	774000	774000.
MIII	.003416	55.8	6.34	.368	.0418	55.4	6.30	3590.					536000.	536000.	540000.	536000.	536000.	536000.
	.004	55.7	7.46	.428	.0574	55.2	7.40	3360.					422000	422000	425000	422000.	422000.	422000.
MII	+004006	55.7	7.47	.429	.0576	55.2	7+41	3360.					420000.	420000.	423000.	420000.	420000.	420000.
н.	.004317	55.6	8.03	. 461	.0666	55.1	7.96	3250.					500000.	500000+	503000+	50000.	500000.	500000.
•	••••			• •									465000.	465000.	468000.	465000.	465000.	465000.
	•005	55.5	9.2	.531	+0881	54.9	9+11	3010.					315000.	315000	318000.	3) 50 00 .	315000.	315000.
	+000	57.2	10.8	.632	•124	54+6	10+7	2710+					194000.	194000+	197000.	194000.	194000+	194000+
	.01	54.4	16.3	1.02	. 305	53.4	16.0	1840.					50200	50200	52100.	50200.	50200.	50200.
L ₁₁₁	+014214	53.6	20.5	1+41	.538	52.2	20+0	1300+					19400.	19400.	20700.	19400.	19400.	19400.
	.015	53.5	21.2	1.48	. 586	52.0	20.6	1220 .					49000.	34600.	50300.	49000.	49000.	34600.
LTT	.016785	53.1	22.5	1.63	.689	51.5	21.8	1070.					32500.	24400	33600.	32500.	32500.	24400.
							•						44900.	32900.	46000.	44900.	44900.	32900.
4	+01/441	53.0	23.0	1.69	.732	51+3	22+3	1020+					40100.	29800.	41100.	40100.	40100+	29800.
	.02	52.5	24.7	1.89	.891	50.6	23.8	864.					32700.	25300.	33600.	32700.	32700.	25300.
	.03	50.8	29.3	2.64	1.52	48.2	27.8	502.					11300.	9580.	11800.	11300.	11300.	9580.
	•04	49.2	32.2	3.28	2.15	45.9	30.1	333.					5250.	4650.	5020.	5250.	5250.	4650 +
	.05	46.4	34.8	4.35	3.27	42.0	31.5	175.					1760.	1630.	1970.	1790.	1760.	1630.
	.08	44.0	35,5	5,15	4,16	38.8	31.3	107.					798.	753.	941.	834.	803.	757.
K	.095730	42.3	35.4	5.66	4,73	36.6	30.7	77.0					481.	458.	593.	516.	487.	463.
	•1	41.9	35.4	5.78	4.89	36+1	30.5	71+1					2010.	692.	2120.	2050.	2020.	697.
	•15	37.7	34.4	6.84	6.24	30.9	28+2	33+6					700.	394,	768.	734.	707.	400.
	•2	34.5	32.5	7.47	7.03	27.1	25.5	19+5					333.	224.	385.	366.	340.	231.
		26.9	29.0	8.10	8.02	18.6	18.3	5.02					56.3	47.1	87.6	82.6	64.6	55.1
	.5	24.6	24.2	8.38	8,13	16.2	16+1	3.25					33.1	28.8	60.5	57.3	41.5	36,9
	•6	22.7	22.5	8,35	8.10	14.4	14.4	2+24					21.8	19.4	46.5	44.3	30.1	27.5
,	•8	18.0	19.8	8+17	7.39	11+8	10.4	1+27					7,32	6.84	25.9	25.1	15.2	14.2
î	•5	14.6	14.5	7.21	6,79	7.37	7.71	.370	.603		+603	.182	3,50	3,35	19.0	18.6	11.3	10.3
2	•	12.4	12.4	6.60	6.14	5.84	6.26	•207	1.91		1+91	.875	2.11	2.04	16.6	16.4	10.6	9.05
-	•	8.18	8.18	4.96	4.24	3.21	3.94	+0735	6.20	.0140	6.21	4.13	.760	.748	15.2	15.1	11.9	9,12
5	•	7.06	7.06	4,43	3.66	2.63	3 + 40	+0343	7.80	.0275	7.83	5.42	.562	.555	15.5)5.5)2.8	9.61
6	•	6.24	6.24	4.02	3.19	2.22	3.05	•0238	9.10	.0426	9.14	6.45	.443	,43A	15.8	15.8	13.6	10.1
10	•	5+11	5.11	3.41	2,54	1.70	2.57	+01.33	11.2	+0718	11+3	8.01	.230	.228	17.9	17.9	15.0	11.6
15	•	3.22	3.22	2.28	1.53	.433	1.69	+00390	16.8	•153	17+0	11.0	.141	.140	20.4	20.4	19.4	12.7
20	•	2.58	2.58	1.88	1.15	.706	1.43	+00184	19.7	.193	19+9	12.0	.101	.101	22.6	22.6	21.9	13.3
30	•	1.88	1+48	1.41	.517	. 150	1.15		23.4	+250	23+6	12.5	.0474	.0473	27.9	27,9	27,6	13.5
50	•	1.25	1.75	960	.395	287	.955		28.1	.321	28+4	12.4	.0371	.0371	29.7	79.7	29.4	12.8
60	•	1.07	1.07	.834	.307	.240	•763		29.7	.345	30.0	12.2	.0305	.0305	31.1	31.1	30.9	12.5
.80	•	+847	.847	,666	.209	·181	.638		31.9	.382	32.3	11.7	• n223	+0223	33+2	33.2	13.0	11.9
100	•	0.10.4	a 7 72 W	*234	*120	***2	• = • d				3307	** * *	1011-1		3410	, ~ ,0		***3

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226

85 ASTATINE (cm³/g = 0.002868 x barns/atom)

E (MeV)	(\$) _{nc,t}	([#]) ^{BD} _{inc,t}	([#]))nc, a	(声) ^{BD} inc, a	(^µ _φ) _{nc,s}	(∦) ^{BD}) _{nc,s}	(≝) _{coh}	(≝)×n	(^분) _{*e}	(岸) _{×, t}	([#] ₆) _{*, a}	(芳) _{て、1}	(#),	(岩)。, .	(žh	(#1	(2).
+001 N= +00104	.161	.00336	.000315	5 .0000065	.161	.00336	13.2										
.0015	.161	.00540	.000476		.161	•00338	13+1					6770.	6770.	6770.	6770.	6770.	6770.
.002	.161	.00964	.0006Z	5 .0000373	.160	+00961	12.0					3010. 1570.	3010. 1570.	3010. 1560.	3010. 1570.	3010. 1570.	3010. 1570.
my +00≥78	+160	+01+5	+000863	3 .0000783	•159	+0145	11.0					75). 2350.	751.	763.	751.	751.	751.
HIA *00540	9 +160	+0153	•000901	.0000858	•159	.0152	10.9					2150.	2150.	2160.	2) 50 .	2150.	2150.
+003 M00341	.160	-0158	.000929	.0000915	•159	.0157	10.8					2220.	2220.	2230	2430. 2220.	2430. 2220.	2430. 2220.
	140	.0102	+00108	•000120	+137	+0181	10+3					1540. 1770.	1540. 1770.	1550. 1780.	1540-	1540.	1540.
HII .00400	6 .160	.0214	+00123	+000165	.158	+0212 •0213	9.64					1210.	1210.	1220.	1210.	1210.	1210.
HT +00431	7.159	.0230	.00132	.000191	.158	.0228	9.32					1430.	1430.	1440.	1430.	1430.	1430.
.005	.159	.0264	.00152	.000253	157	.0261	9 4 3					1330.	1330.	1180.	1170.	1170.	1170.
.006	.158	.0310	.00181	+000356	.157	.0307	7.77					903. 556.	903.	912.	903.	903.	903.
.008	+157	.0393	.00238	.000594	+155	.0387	6.34					261.	261.	267	261.	261.	261.
LTTT +01421	4 .154	+0588	.00293	+000875	+153 +150	+0459	5,28				·· ·· ··	144.		149.		144.	144.
.015	187						2010					141+	99.2	144.	55+6	55.6	55+6
L ₁₁ .01678	5 .152	.0645	+00+24	+00168	.148	+0591	3.50					123.	88.9	127.	123.	123.	88.9
L _I +01749	1 .152	.0660	.00485	.00210	•147	+0640	2.93					129. 115.	94.4 85.5	132. 118.	93.2 129. 115.	93.2 129. 115.	70+0 94+4 85+5
•02	.151	.0708	+00542	+00256	.145	.0683	2.48					134+ 93+8	98.9 72.6	177.	134.	134.	98.9
+03	.146	•0840	.00757	•00436	.138	.0797	1.44					37.4	27.5	33.8	32.4	32.4	27.5
.05	.137	.0972	.0110	+00617	.126	+0863	.955					15+1	13.3	16+1	15+1	15.1	13+3
•06	.133	.0998	.0125	.00938	.120	.0903	.502					5.05	4.67	5.65	5,13	5.05	7+54
+08 K -095734	•126 • 121	.102	+0148	•0119	+111	+0898	•307					2.29	2.16	2,70	2,39	2,30	2,17
	•121	+10E	+0102	+0136	+142	+0580	•221					1+38	1.31	1.70	1.48	1.40	1+33
<u>+1</u>	<u>,120</u>	•102	.0166	+0140	.104	,0275	.204					5.76	1.98	6,08	5.88	5.79	2+07
•13	.0989	.0932	+0196	+0179	+0886	.0809	+0964					2.01	1.13	2.20	2.11	2.03	1.15
.3	.0860	.0832	.0232	.0224	0628	.0608	.0254					.330	+ 0 + Z , 258	1.10	1+05	•975 153	•663
• 4	.0771	+0754	.0239	•0230	.0533	.0525	+0144					+161	.135	•251	-237	•185	.158
.6	.0651	.0645	.0239	.0233	.0413	+0402	+00932					+0949	• 0826	•174	+164	+119	+106
.* ⁸	•0574	.0568	.0234	+0225	.0338	.0341	.00364					+0330	+0304	•133	.12/	.0565	+0789
1.5	<u>_0516</u>		+0227	.0212	.0290	.0298	.00236					•0210	+0196	• 0743	.0720	.0436	+0407
2.	.0356	.0356	+0189	.0176	.0167	.0180	+00108	+00173		+00173	+000522	+0100	+0096) -00585	+0545	.0533	.0324	+0295
3.	+0280	.0280	.0162	+0144	.0119	.0136	.000268	.0123	.00000981	.0123	.00743	+00327	+00321	•0439	.0436	•0304	+0260
5 .	+0235	+0235	+0142	+0122	+00921	+0113	+000151	+0178	+0000402	+0178	+0118	.00218	+00215	.0436	.0433	.0341	+0262
6.	.0179	.0179	.0115	+00915	.00637	.00875	.0000683	•0224	+0000789	+0225	+0155	+00161	+00159	+0445	+0445	• 0367	.0276
.8.	.0147	+0147	+00978	+00728	.00488	.00737	.0000381	+0321	.000206	.0324	.0230	.000878	.000869	•0479	.0479	.0430	+0290
15.	.00923	.0125	.00654	+00605	.00396	.00642	.0000248	0379	.000286	0381	.0267	+000660	+000654	+0513	.0513	.0473	
20.	.00740	+00740	.00539	.00330	.00202	+00410	+0000053	+0565	.000554	•0=8H •0571	.0315	+000290	+000402	.0585	+0585 +0648	+0556	+0364
30.	.00539	.00539	.00404	.00710	.00136	.00330		.0671	.000717	.0677	.0364	.000186	+0001R6	.0731	.0731	.0720	+0381
50.	.00358	+00358	.00275	+00148	.000823	+00279		+0749	+000832	.0757	.0358	+000136	+000136	• 0800	+0800	.0792	+0376
60.	.00307	.00307	.00239	.000860	.000688	.00219		+0852	+000989	.0860	.0350	+0000875	+000106	+ 0852	+0852	.0843	+0367
80.	+00243	.00243	+00191	•000599	.000519	.00183		.0915	.00110	.0926	.0336	+0000640	+0000640	+0952	+0952	• 10 00	+0358
	+VUEUE	+UUZUZ	+00100	+000447	+000416	+00157		•0961	+00118	•0972	•0318	+0000502	+0000502	• 0992	. 1997	.0989	+0324

86	RADON
(bar	ns/stom)

E (Me	eV) .	σ _{inc,t}	σ ^{BD} _{inc,t}	o ^{KN} o ^{tnc} , a	σ ^{BD} _{inc, a}	KN 0 inc.s	σ _{)nc,s}	σ _{coh}	σ×n	σ _{×e}	σ _{x.t}	σ _{×, a}	σ _{r,t}	σ _{7.8}	ortet t	σ, to the set	σ	σ
.0	01	57. 0	1.17	.111	.00228	56.9	1.17	A710.										tot, en
¥1 .0	01095	57.0	1.36	.122	.00290	56.8	1.36	4670.										
•0•	015	56.9	2.25	.166	.00656	56.7	2.24	4520.					2210000.	2210000.	2210000.	22)0000.	2210000.	2210000.
.0	02	56.8	3.40	.220	.0132	56+5	3.39	4290.					575000	575000.	579000.	575000.	575000+	575000
Жу ₊0	02892	56.6	5+38	.316	.0301	56.2	5.35	3890.					251000.	251000.	255000.	251000.	251000.	251000.
.0	03	\$6.5	5.60	. 17.0	. 4 375	54.2	5.67	3840.					784000.	784000.	788000.	784000.	784000.	784000.
Here a O	03022	56.5	5.65	. 330	.0330	56.2	5.62	3830.					726000.	726000	72000.	728000	728000.	728000.
													811000.	811000.	A15000.	A11000.	811000.	811000
MIII +0	03538	50.4	6.71	• 385	•0458	56+0	6.66	3610.					515000.	515000.	519000.	5)5000.	5)5000.	515000.
.0	04	56.3	7.61	.433	.0586	55+9	7.55	3430.					593000.	593000.	597000.	593000.	593000.	593000,
MII +0	04164	56.3	7.92	. 451	.0634	55.8	7.86	3370.					401000.	4010.00.	404000.	401000.	401000.	401000.
M 0		6 6 7	8.40	494		E.E. 7	0 4 3	1054					477000.	477000.	480000.	477000.	477000.	477000.
	04402	2015	6	• = 0 =	•0.31	3741	0.42	3520 +					391000.	391000+	394000+	391000.	391000.	391000.
• 0	05	56.1	9.38	.537	.0899	55.6	9.29	3080+					330000.	330000.	333000	330000.	330000.	444000. 330000.
• 01	06	55.9	11.0	+640	.126	55.3	10.9	2770.					205000.	205000.	208000.	205000.	205000.	205000.
•00	08 1	55.5	13.9	.840	.210	54.6	13.7	2260 •					96000.	96000.	94300 .	96000.	96000 •	96000.
Larr •0	14619	54.2	21.1	1.46	.568	52.7	20.5	1290.					19000+	19000+	20300+	53000+	53000+	53000+
111		- · ·											47400 .	33400+	48700.	47400.	47400.	33400.
•0	15	54.1	21.4	1.50	. 592	52.6	20.8	1260.					44400.	31600.	45700.	44400.	44400+	31600.
-II •0	1,331	23.0	23.1	1.04	. 729	51+9	22.4	1060.					31200.	23400+	32300.	31200.	31200+	23400.
L ₇ +0	18055	53.5	23.6	1.75	.774	51.7	22.6	1010.					38500.	28600	39500+	38500.	38500.	28600.
-	_												44900.	33200.	45900.	44900.	44900.	33200.
•0	2	53.1	24.9	1.92	+899	51+2	24.0	888 •					34200.	26100.	35100.	34200+	34200.	26100.
.0	4	49.8	32.5	3.32	2.17	46.4	30.3	342.					5520.	10000+	12400+	11900+	11900+	10000+
.0	5	48,3	34.2	3.90	2.76	44.4	31.4	243.					3020.	2730.	3300.	3050 .	3020+	2730.
• 00	6	46.9	35.1	4.40	3.29	42+5	31+8	181.					1850.	1700 .	2070 .	1890 .	1850+	1700.
•00 T •00	8 98414	44,3	35+8	5.21	4.14	39+3	31.6	110+					H43+	793.	989+	879+	545+	797.
× •••	,		33.1	5100	4.01	30	30.0	1304					2200 •	695.	2310.	2240+	2210.	•52• 700•
•1		42.4	35.8	5.85	4,94	36.5	30.9	73.2					2110.		2220+	2150+	2120+	695.
•1	5	38.1	34.7	0.92	6.30	31+2	28.4	34+6					730.	402.	799.	765.	737.	406.
.3		30.4	29.3	8.19	7.90	22.2	21.4	9+13					120.	93.1	400+	149.	128.	23/+
•4		27.2	26.6	8,44	8.11	18.8	18+5	5+17					59+)	49.2	90.9	A5.7	67+5	57.3
•5		24.9	24.5	8.48	8.23	16+4	16.3	3+35					34+5	30:1	62+6	59.3	43+3	38+3
•• • A		20.2	20.0	8.26	7.94	11.9	12.1	2.30					12+1	20+3	4/.9	42+0	31+3	28.5
1.		18.2	18.1	7.99	7.49	10.2	10.6	<u>850</u>					7,70	7.18	26.6	25.8	15.7	10.7
1.5		14.8	14.7	7,30	6.88	7.46	7.82	•381	.625		+625	.188	3.68	3.51	19.4	19.0	11.6	10.6
2.		9.90	9,89	5.71	5.08	5+71 4.1R	6.30	+715	1.97	.00344	1+97	•896 2.63	2+23	2+15	17+0	16+8	10.9	9.29
4.		8.27	A.27	5.02	4.28	3.25	3.99	+0540	6.37	+0142	6+38	4.21	+800	.787	15+5	15.4	12.2	9.24
5.		7.14	7.14	4.49	3.69	2.66	3.45	.0353	8.00	.0279	8.03	5.5?	+596	-588	15+8	15.8	13+1	9.80
6.		0.31	6.31	4.07	3.22	2+25	3.09	+0245	9.30	+0431	9+34	6.56	•469	•464	16+1	16+1	13.9	10+2
10.		4.40	3.1r 4.40	3.01	2.13	1.39	2.27	+0138 •0138	13.4	+0724 +100	13+5	8+10	+326	.240	14.2	18+1	15+3	11+0
15.		3.26	3.76	2.31	1.54	.944	1.72	+00403	17.2	.155	17.4	11.2	•) 49	+148	20.8	20.8)9.9	12.9
20.		2.61	2.6)	1.90	1.16	.715	1.45	+00192	20.1	•195	20+3	12.2	.107	+107	23.0	23.0	22.3	13.5
30.		1.90	1.90	1.42	.737	+481	1.16		23,9	•252	24+2	12.9	• 0652 • 0498	+0A80 +0497	26+2	76+2	25+7	13.7
50.		1.26	1.26	.472	.397	•291	.863		28.7	. 325	29+0	12.5	.1390	.0349	30.3	10.3	30.0	12.9
60.		1.09	1.09		.313	.243	.777		30.3	.349	30+6	12.3	.0320	•0320	31.7	31+7	31+5	12+6
		+857	.857	+674 E4E	.212	•183	- 645		32.6	.386	33.0	11.8	• 1234	+0734	33.9	13.9	33.7	12+0
100.		• () Z	•71 C	*202	*121	****	+777		24+2	**13	39+7	11+4	+u103	+0143	3714	1714	1.1+3	11+4

224

86 RADON (cm³/g = 0,0027)3 x barns/atom)

E (MeV)	(学) ^{KN} inc, t	(声) ^{BD} inc, t	$\left(\frac{\mu}{\rho}\right)_{\mathrm{inc}, a}^{\mathrm{KN}}$	(≝) ^{BD} inc,a	(費) ^{KN} inc, s	(岁) _{nc,s}	(#) _{con}	([#] ₂) _{×11}	(作) _{* e}	(^µ / _p) _{×,1}	([#] _p) _{×.a}	(岩) _{て, t}	([#] _p) _{7,2}	(#) _{tot,t}	(#)tot,t-coh	([#]) _{tota}	() tut en
.001 Ny .001095	•155 •155	.00317	.000301	.0000062	.154 .154	.00317 .00369	12+8 12+7					***					
.0015	.154	.00610	+000450	.0000178	.154	.00608	12.3					6000. 2980.	6000. 298n.	A000. 2940.	4000. 2980.	6000. 2980.	6000. 2980.
.002 My .002892	•154 2 •154	.00922 •0146	•000597 •000857	+0000358 +0000817	•153 •152	.00920 .0145	11.6 10.6					681.	681.	692.	681.	481.	681.
.003	.153	•0152	.000890	.0000882	.152	.0151	10.4					1980.	1980.)990.	1980.	1980.	1980.
MIN .003022	2 ,153	.0193	.00104	+0000895	•152 •152	.0157	9.79					2200.	2200.	2210.	2200.	2700.	2200.
	.153	.0206	00117	.000159	.152	.0205	9,31					1610.	1610.)620.	1610.	1610.	1610.
HII .004164	.153	.0215	.00122	.000172	.151	.0213	9.14					1090 •)090.	1100.	1090.	1090.	1090 •
M1 .004482	2 .152	.0230	.00131	.000198	•151	•0228	8.82					1060.	1060.	1070.	1060.	1060.	1060.
.005	·152	.0254	.00146	.000244	.151	.0252	8.36					895.	895.	903.	A95.	A95.	895.
.008	.151	.0377	.00228	.000570	.148	.0372	6.13					260.	260.	267.	260.	760.	260 .
L _{III} .014619	.147	.0572	.00396	+00154	.143	+0556	3.50				~ <u>~</u> ~~~	51+5	51.5	55+)	51.5	51.5	51.5
.015	.147	.0581	.00407	.00161	.143	•0564	3.42					120.	85.7	124.	120 •	j20. 84.6	85.7
1 .01935	· •143	.0640	.00475	+00198	.140	.0619	2.74					117.	85.5 77.6	120.	117.	j17.	85.5
.07	. 144	.0676	.00521	.00244	.139	-0651	2.41					122.	90 • 1 70 • 8	125.	122.	122.	90.1 70.5
.03	.139	.0803	.00724	.00418	132	.0762	1.40					32.3	27.1	33.6	32.3	32.3	27.1
.04	•135 •131	.0882 .0928	.00901 .0106	•00589 •00749	.126	.0822	.928					R+19	7.41	8.45	8.27	8.19	7.41
•06 •08	• 127 • 121	.0952 .0971	.0119 .0141	•00893 •0114	.115 .107	.0863 .0857	.491 .298					5.02	4.01 2.15	5.62 2.68	5.13 2.38	5.02 2.30	4.61 2.16
K .098404	•115	.0969	.0157	.0132	.0996	.0836	.205					1+28 5+97	1.21	1.58 6.27	1•37 6•08	1.29	1.23
<u>•1</u>	•115	.0971	.0159	.0134	.0990	.0838	.199		<u> </u>			5.72	1.87	6.02	5,83	5.75	1.89
•15 •2	•103	.0890	+0205	•0192	.0743	.0697	• 0545					.941	.624	1.09	1.03	.963	.643
.3	•0825 •0738	.0795	+0222	+0214	.0602 .0510	.0581 .0502	•0248 •0140					• 326 • 160	•253 •133	•429 • 247	.404	•347 •183	.274
.5	.0676	.0665	.0230	.0223	.0445	.0442	.00909					.0944	.0817	•170	.161	•117	.104
•6	.0548	+0616	+0229	+0222	.0396	.0393 .0328	+00629					•0621	+0551	+130	•12 • 6 •0871	.0849	+07/3
1	.0494	.0491	.0217	.0203	.0277	.0288	.00231					.0209	•0195	.072	2 +0700	.0426	.0399
1.5	.0402	.0399	+0198	+0187	+0202	.0212	.00103	+00170		+00170	+000510	•00498	+00952	+ 052	6 •0515 1 •0456	.0315	.0252
3.	.0269	.0268	.0155	.0138	.0113	.0130	.000761	.0119	.00000939	.0119	.00714	+00326	.00317	•042	3 •0421	.0307	+024)
4.	+0224	+0224	+0136	+0116	.00882	+0108	.000147	.0173	+0000385	.0173	+0114	15200+	+00214	+0+2	1 •0418 9 •0429	•0331	.0252
6.	.0171	.0171	.0110	.00874	.00610	.00838	.0000665	.0252	.000117	.0253	.0178	.00127	.00126	.043	7 .0437	.0377	.0277
8.	.0140	.0140	.00936	+00695	.00467	.00708	.0000374	.0309	.000196	.0312	+0220	+000874 +000657	+000865 +000651	- 046	1 .0461	+0415	-029R
15.	+00884	.00884	.00627	+00418	.00256	.00467	+0000109	.0467	.000421	.0472	.0304	.000404	•0004n2	.056	4 .0564	.0540	.0350
20 .	.00708	.0070A	.00515	.00315	.00194	.00393	•0000052	+0545	+000529	.0551	.0331	+000290 -000185	.000290	+062	4 •0624	. 1605	.0366
30.	+00515 +00410	.00515	.00312	.00200	.000985	.00268		+0722	+000795	.0730	.0342	+000135	+000135	.077	3 .0773	.0762	•0358
50.	.00342	.00342	.00264	.00108	.000789	.00234		+0779	.0008B2	+0787	.0339	.000106	.000) 06	•082	2 .0822	.0814	.0350
60. 80.	.00296	+00296	.00229 .00183	.000849	.000496	.00211		+0822 +0884	+000947 +00105	.0830	•0334 •0320	.0000868	+0000488	•086	0 +0860	.0855 .0914	.0342
100.	.00193	.00193	.00153	+000426	.000399	.00151		.0931	.00113	+0941	.0304	+0000496	.0000496	.096	0 .0960	.0958	.0309

87 FRANCIUM (barns/atom)

E (M	eV)	KN o _{inc.t}	σ ^{BD} _{inc} ,	o ^{KN}	o ^{BD})nc, a	o ^{KN}	σ _{tnc,s}	σ _{coh}	σ×n	σ×e	σ _{×,t}	σ.,	σ _{r,t}	- σ _{τ, a}	σ _{tot,t}	σ _{tot,t-coh}	o _{tot,a}	Utot, en
						e7.5	1.54	A780.										
	001 001)EO	57.6	1.54	.112	+00300	57.5	1.05	4720.						2070000	2070000.	2070000.	2070000.	2070000.
"I *	001190	à, •o	1103	•••	*****	2.04							2070000.	1150000	1150000.	1150000.	1150000.	1150000.
	0015	57.5	5+90	.168	.00758	57+4	2.59	4580+					599000	599000.	603000.	599000.	599000.	599000.
•	002	57.4	3.70	.223	.0144	57+2	3+07	3910.					240000.	240000.	244000.	240000.	240000.	240000+
. •	003	57.2	5.86	.332	.0340	56.9	5.83	3910.					240000 .	240000+	244000+	240000+	751000.	751000+
· •	003	3145	5.00			-							751000+	/51000+ 685000+	689000+	685000+	685000+	685000+
HTW .	003136	57.2	6.14	.346	.0372	56+8	6+10	3850+					777000.	777000+	781000+	777000.	777000.	777000.
			7 31	407		56.7	7.16	3620.					495000+	495000+	499000+	495000+	495000+	473000+ 570000+
^m 111 •	003004	2/*1	(• C]	. 403	.0304	200							570000.	570000.	574000+	570000+	460000+	460000+
	004	57.0	7.86	.438	.0605	56.5	7.80	3490.					460000.	383000.	386000+	383000+	383000+	383000+
HTT .	004325	\$6.9	8.46	.473	.0703	56+4	8.39	3370.					456000+	456000+	459000+	456000+	456000+	456000+
		~ ~ ~		= 0.7		64.3	8.96	3250.					374000+	374000+	377000+	374000.	374000+	374000+
ы.	004652	20.0	9.04	+307	.0807	30+3							424000+	424000+	427000+	424000+	350000+	350000 .
	0 0 5	56.8	9.64	.544	.0923	56.2	9.55	3130.					350000+	350000.	219000.	216000+	216000+	216000+
	006	56.5	11.2	.647	.128	55.9	11.1	2820.					100000.	100000.	102000+	100000.	100000+	100000.
	008	56.1	14+1	.849	.213	55.3	13.9	2310+					55900.	55900.	57800.	55900.	55900 +	55900+
	01	55,7	16.7	1.00	.597	53.2	21.0	1290.					18600+	18600.	19900+	18500+	18500+	18500+
1	015030	54.7	21.7	1.51	.600	53.2	21+1	1280.					18500+	10500.	47200+	45900+	45900+	32300 +
-111 •						4	-1 -	1 A B A .	•				29900.	22500.	31000+	29900.	29900+	22500+
L11 •	017904	54.2	23.8	1.76	•774	52+4	23.0	1050+					41300+	30200.	42400+	41300.	41300.	30200+
T _	A18430	54.0	24.3	1.82	.821	52.2	23.5	997.					37000+	27500.	34000+	37000+	43100+	31800.
4 1 •	010034	34.0	2413	1	•		-						43100+	31800+	36500+	35600.	35600+	26900+
	02	53.8	25.2	1.94	.909	51.8	24.3	913.					12300.	10300.	12900+	12300.	12300+	10300.
	.03	52.0	29.9	2.70	1.56	49.3	28+3	530+					5770.	5070.	6150+	5800+	5770+	5070+
•	04	50.3	32.8	3.30	2.19	47.0	31.7	250.					3180 .	2870+	3460+	3210+	1950-	1790.
•	05	48.8	34+5	4.45	3.33	43.0	32.2	186.					1950.	1790+	21/0+	915.	884.	830.
	08	45.0	36.2	5.27	4.24	39.7	32+0	113.					A71.	448.	582.	507.	477.	453+
,	i	42.9	36.1	5.92	4.9B	37.0		75.4					458.	436.	568+	494.	464+	441+
K	101137	42.8	36.1	5,95	5.02	30.0	31+1	1319					2130.	673.	2240+	2170.	2140+	415.
	16	38.6	35.1	7.00	6.37	31.6	28.7	35.6					760 •	409.	631+	3944	369.	243+
	.2	35.4	33.2	7.64	7.18	27.7	26.0	20+6					301+	96.9	165.	156.	134+	105.
	3	30.7	29.7	8.29	8.01	22.5	21+7	9+40					62+0	51+3	94+	2 A8.	9 70+	5 59+5
	4	27.5	26.9	8.53	8.20	19+0	18+7	3.45					36+5	31+4	64.	6 61+ 7 46	2 45+	A 29.4
•	5	25.2	24.7	8.55	8.28	14.7	14.7	2.40					23.9	21+1	49.	3 33.	7 71.	1 19+6
		20.4	20.3	8,36	8.04	12.1	12.3	1.35					8.10	7.54	27.	3	<u> </u>	2 15.1
1		18.4	18.3	8.08	7.58	10+3	10.7		.645		.645	+194	3.86	3.68	19.	8)9•	•)1•	9 <u>10</u> +0 1 9-47
ī	.5	14.9	14+9	7.38	6.97	7.54	6.41	• 372	2.03		2.03	.924	2.34	2.26	17.	3 17.		9.09
2	•	12.7	12.7	5.78	5.14	4.23	4.85	.0992	4.52	.00350	4+52	2.71	1+77	1+/+	15.	8 15.	7 12.	4 9+44
.د ۱	•	8.37	8.37	5.08	4.32	3.29	4+05	• 0555	6.50	+0143	6+51	4.29	.629	+620	16.	1 16.	1 13.	4 9+99
5		7,23	7.73	4.54	3.73	2.69	3.20	•0363	8.18	+0282	9.54	6.69	.493	+487	16.	16+	4 14.	
6	•	6.39	6.39	4.11	3.25	2.27	3.14	+0252	11.6	.0732	11.7	8,23	• 340	•337	17.	3 1/4	3 17• 5 17.	1 11.9
8	•	5,23	5.23	3.05	2.15	1.41	2.30	.00914	13.7	.102		9.54			21.	2 71.	1 70.	2 13•1
15	•	3.29	3.29	2.34	1.55	.955	1.74	+0041	6 17.5	+157	17+7	11.4	,112	+112	23	5 73.	5 22+	7 13.6
20	-	2.64	2.6.	1.92	1.17	•723	1.47	+0020	20.5	+197	20+7	13.1	.0719	.0717	26.	<u>. 76</u> .	8 26.	s 13.9 a 17.6
30	•	1.92	1.92	1.4.	.743	+486	1.18		27.3	.296	27.6	12.9	+ 0524	. 0573	29	2 79.	2 74.	6 13•1
40	•	1.53	1.53	1°19 1°19	+348	.294	.878		29.3	.329	29.6	12.7	+0410	+040¥	30 4	4 12.	4 32.	2 17.7
50	•	1.10	1.10	.854	.315	.246	.185		30.9	.352	31.3	12.4	• 1245	+0245	34	6 34.	6 74.	4)7+2
80	:	.867	867	.682	.7)4	•185	•6>3		33,3	+340	35.7	11.3	.0192	- 0192	364	,0 76.	0 75.	9 11+5
100	•	.720	•720	,512	.158	.149	•205		39 67	****	33+3							

230

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43 63 9 3 4 4 2 7 4 2 7 4 2 1

87 FRANCIUM (cm³/g = 0.00270) x barns/atom)

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								(00		ter a barn	2) aconi,						
E (MeV)	(岸) ^{KN} inc,t	(声) ^{BD} inc,t	([#]))nc.a	([#] _p) ^{BD} _{)nc,a}	([#] ₂) ^{KN}) _{nc, 8}	(≝) ^{BD} inc,s	(#) _{coh}	(#)×n	(券) _{* c}	([#] *, 1	([#] _p) _{*. 3}	(労)	(#),	(៥), , ,	(5)	(*)	(#)
+001	.156	.00416	.00030	3 .000008	1.155	.00416	12.9					<u> </u>					(p/t+,t, en
RI .001150	+150	•00500	+00034	8 .0000113	2 .155	.00500	12.7										
.0015	.155	.00702	.00045		5.156	. 0.0 70.0	17.4					5594.	5590.	5590.	5590.	5590.	5590.
+002	.155	.00999	.00060	2 .000038	9 .154	.00997	11.8					3110.	3110.	3110.	3110.	3110.	3110.
.003	+154	.0158	.00089	7 .0000918	B .154	.0157	10.6					648.	5620.	1030.) 620.	1620.	1020.
My .003	+154	•0158	•00089	7 .0000918	B .154	.0157	10.6					64R.	648.	659.	648.	A48.	648.
M +003136	.154	.0166	. 00093	5 .000100	167	A145			•			2030.	2030.	2040.	2030.	2030	2030.
	••••				••••	*0103	10.4					1850.)850.	1860.	1850.	1850.) 850 .
M _{III} .003664	,154	.0195	.00109	.000137	.153	.0193	9.78					1340.	2100.	2110.	2100.	2)00.	2100.
	154				150							1540.) 540 .	1550.	1540.	1540.	1540.
N004326	.154	+0212	+00118	+000163	.153	+0211	9.43					1240.	1240.	1250.	1240.	1740.	1240.
11 ******	•1.34	+0227	+00158	*000140	•132	.0221	9.10					1030.	1030.)040.	1030.	1030.	1030.
M ₁ +004652	.153	+0244	.00137	+000218	.152	+0242	8.78					1230.	1230.	1240.	1230.	1230.	1230.
0.0E	1.63						_					1150.	1150.	1150.	1010-	1010.	1010+
\$UUJ	+153	+0260	+00147	.000249	+152	+0258	8+45					945.	945.	953.	945.	945.	945.
-008	.152	+0303	+001/5	+000346	+151	+0300	7+62					587.	583+	592.	583.	583.	583.
.01	.150	.0451	.00281	+000375	.148	.0443	5.19					270.	270+	276.	270.	270.	270.
.015	.148	+0583	.0040B	.00161	.144	.0567	3.48					151.		150.		<u>151.</u>	<u> </u>
L _{III} .015030	.148	•0586	+00408	.00162	+144	.0570	3.46					50+0	50.0	53.5	50.0	50.0	50.0
L017904	.146	.0643	.00475	.00209	.147	.0621	7.84					124+	87.2	127.) 24 •	124.	87.2
-11	•• •=				• 1 ~ 5	****	2+04					80+8	60.8	83.7	A0+8	80.8	60.8
L ₁ .018639	+146	+0656	+00492	.00222	. 1 4 1	.0635	2.69					112+	81+6	115.	112.	112.	81.6
							_					116.	85.9	119.	116.	116	74+3
+02	140	+0681	+00524	+00246	+140	•0656	2.47					96+2	72.7	98.6	96.2	96.2	72.7
.04	.136	.0886	.00729	+00+21	127	+0764	1.43					33.2	27.8	74.8	33.2	33.2	27.8
.05	.132	.0932	.0106	.00751	.121	.0856	+951 -675					15.6	13.7	16+6	15+7_	15+6	13.7
.06	.128	.0959	.0120	.00899	.116	.0870	.502					5.27	7.75	2.35	8+67	8,59	7+75
•08	.122	.0978	+0142	.0115	.107	.0864	.305					2.37	2.23	2.78	2.47	2, 19	4,83
r - 101132		.0975	.0160	+0135	•0999	.0840	+204					1.27	1.21	1.57	1.37	1.29	1.22
K +101137	+110	+0413	+0101	+0136	+0484	.0840	•200)+24	1+18	1.53	1.33	1.25	1.19
+15	.104	+0948	.0189	.0172	.0854	.0775	.0962					5+75	1.82	6.05	5.86	5,78	1.83
•2	•0956	.0897	•0206	+0194	.0748	.0702	+0556					.975	1+10	2.24	2.15	2.07	1.12
•3	.0829	+0802	•0224	+0216	.0608	.0586	+0254					.340	.262		6 .421	. 167	+650
•• '	.0481	+0727	.0230	+0221	.0513	+0505	+0144					.167	.139	.25	4 .240	.190	.161
.6	.0629	.0621	.0231	+0224	.0397	.0197	.00932					+0986	+0848	+17	4 +165	.122	.107
•8	0551	.0548	.0226	.0217	.0327	.0332	+00365					+0040	+0570	•13	3 •127	+087	5 +0794
1.	,0497	+0494	.0218	+0205	.0278	.0289	.00236					+0219	+0204	+07	20 1087	1 +057	0 +0529
1.5	+0402	50404	.0199	.0188	.0204	.0214	.00106	+00174		+00174	.000524	+0104	+00994	+05	35 .052	.032	1 40292
3.	.0270	.0270	+0103	+0170	.0101	.0173	.000000	+00548	000000AE	.00548	.00250	+00632	+00610	+046	67 .046	.030	0 .0256
4.	.0226	.0226	.0137	.0117	.00889	.0109	+000260	.0176	+00000945	.0122	.00/32	+00343	+00335	•04	29 • 0 4 2	.031	3 .0246
5.	.0195	•0195	.0123	.0101	.00727	.00945	.0000980	.0221	+0000762	.0222	.0152	+00227	+00225	• 0 • 2	2/ +042/	•033	5 0255
6.	.0173	.0173	+0111	.00878	.00613	.00848	.0000681	+0257	+000118	.025A	.0181	+00133	.00132	•04	37 .043 AAA	•030	
10.	.0141	+0141	+00943	+00700	.00470	.00713	+0000384	.0313	.000198	.0316	.0222	+00091A	+000910	+046	67 .046	.041	9 .0303
15.	.00889	.00889	+00632	+00419	+0025A	.00021	.0000247	+0370	+000276	.0373	.0258	+000694	+000689	+050	00 0500	.046	2 .0321
20.	.00713	.00713	.00519	.00316	.00195	.00397	+0000054	+0554	+000532	.0559	+0308	+000424	+000421	.051	/3 .0570	•0540	.0354
30.	.00519	.00519	.00389	.00201	.00131	.00319		+0662	+000689	.0670	.0354	+000194	.000194	+06-	-063	.061	s •0367
40. 50.	+00413	+00413	+00313	.00143	.000991	.00270		.0737	.000799	.0745	.0348	+000142	+000141	•078	39 .0789	.077	8 .03/5
60.	.00297	.00297	+00466	+00109	+000794	.00237		.0791	+000889	.0799	.0343	+000111	+0001)0	+083	35 .0839		7 +0354
80.	.00234	+00234	+00184	+00057A	.000500	.00176		+0835	+000951	+0845	.0335	.0000908	+0000908	-051	.087	.0870	•0343
100.	.00194	.00194	.00154	.000427	.000402	.00152		.0943	.00113	.0953	+0324	+0000662	+0000662	+093	•093	• 092	0330
											****		+0000219	• 091	rz .0972	: .0970	•031)

88 RADIUM (barns/atoni)

E (MeV)	σ _{inc,t}	$\sigma_{inc,t}^{BD}$	σ ^{KN} σ _{inc, a}	σ _{inc,a}	OKN	σ ^{BD} _{inc,s}	σ _{con}	σ _{*n}	σ _{×e}	σ _{x.t}	σ _{x,a}	σ _{7,1}	σ, <u>a</u>	0, tor, t	σ _{tot,‡•coh}	⁰ tot,a	U. iot, en
.001	58.3	1.50	.114	.00351	58.2	1.80	4870.										
NT .001208	58.3	2.26	.137	.00532	58.1	2.25	4780+					1950000	1950000.	1950000.	1950000.	1950000.	1950000.
-	69.7	2.90	.170	.00846	58.0	2.89	4650.					1200000.	1200000.	1200000.	1200000.	1200000.	1200000.
+0019	58.1	4.00	.225	.0155	57.9	3.94	4420+					625000.	625000.	629000.	625000.	625000+ 2490.00.	249000.
.003	57.9	6.13	, 335	.0355	57.5	6+09	3970.					249000.	249000.	234000	230000	230000.	230000.
Hy .003109	57.8	6.35	.347	.0351	57.5	6+31	3450 •					721000.	721000.	725000 .	721000.	721000.	721000+
HIV .003253	57.8	6.65	.363	.0417	57.4	6+61	3860.					656000. 744000.	656000. 744000.	660000. 748000.	656000. 744000.	656000. 744000.	744000+
M _{III} .003791	57.7	7.73	•421	•0564	57.3	7.67	3640.					477000. 548000.	477000. 548000.	481000. 552000.	477000. 548000.	548000.	548000.
.004	57.6	8,13	.444	.0626	57.2	8+07	3550 +					480000.	480000.	370000.	367000	367000.	367000.
HII .004490	57.5	9.02	.496	•0778	57.0	8.94	3370.					436000	436000.	439000.	436000.	436000.	436000.
HI .004824	57.5	9.61	.531	.0889	56+9	9.52	3250 .					358000.	358000.	361000. 408000.	358000. 405000.	3580nn. 405000.	358000. 405000.
.005	57.4	9.91	.550	.0949	56.9	9.82	3190.					367000.	367000.	370000.	367000.	36/000+	227000.
.006	57.2	11.5	.655	.132	56+5	11.4	2880.					227000.	227000.	108000.	106000.	106000.	106000.
.008	56.8	14.4	.859	.218	55+9	14+2	2360.					58500.	58500.	60500.	58500.	58500.	58500.
•01	56.4	16.9	1.06	.317	55.3	21.1	1310.					19400.	19400.	20700.	19400.	19400.	19400+
+015	50.3	22.3	1.57	.632	53.7	21.7	1270.					18100.	18100.	19400.	18100.	44500	31200.
-111 •015•••3	5000	2213										44500.	21600.	29800	28700.	28700.	21600.
L _{II} .018484	54.7	24.5	1.83	.821	52+8	23.7	1030.					39700.	29000.	40800.	39700. 35500.	39700 · 35500 ·	29000. 26300.
L _{1 •019237}	54.5	25.0	1.90	.869	52.0	24+1	491+					41400.	30600.	42400.	41400.	41400+	30600.
43	EA A	26.4	1.96	. 917	52.4	24.5	934 •					37000.	27700.	38000.	37000.	3/000+	27700+
.02	52.6	30.1	2.74	1.57	49.9	28+5	543.					12900.	10700.	13000	6070.	6040.	5280.
.04	50.9	33.1	3.40	2.21	47.5	30.9	360.					3340.	3000	3630.	3370.	3340.	3000.
05	49.4	34.8	3.99	2.81	45.4	32.0	256+					2040.	1870.	2270.	2040.	2040.	1870.
•06	48.0	35.8	4,50	3.30	5.04	32.7	116.					926.	868.	1080.	963.	931.	480.
.00	43.4	36.5	5.98	5.04	37.4	31.5	77.4					<u>500.</u>	475	556	484.	453.	430.
x 103922	43.0	36.6	6.04	5.19	36.9	31.4	72+1					2060.	651	2170.	2100.	2070.	656.
		36 C	7 48	6.44	32.0	29.1	36.5					790.	416.	862.	876.	797.	422+
•15	37.0	33.5	7.73	7.26	28.0	26.3	21+2					378,	244.	433.	412.	140.	109.
	31.1	30.0	8.38	8.09	22.7	21+9	9+67) 32.	101+	98.0	92.5	73.9	62.0
.4	27.9	27.2	8.63	8.30	19+2	18+9	5+47					38.3	32.9	66.8	63.3	47.0	41.3
•5	25.4	25.0	8,68	8,40	16.8	10+0	3.51					25.3	22.3	51.0	48,5	33.	9 30.0
•6	23.5	23+2	8.45	8.12	12.2	12.4	1.39					13.4	12.2	35.3	33.7	16.	7 15.6
1.	18.6	18.5	8.18	7.66	10.4	10.8	• 90 0	(10		670	. 201	4.08	3.89	20.2	19.7	12.	2 11.1
1.5	15.1	15.0	7.47	7.02	7.63	7.98	+400	2.10		2.10	.955	2,48	2,39	17.6	17.4	11.	9,69
2.	12.9	12.8	5.84	5.18	4.28	4.92	.102	4.65	.00354	4+65	2.78	1.33	1.30	16.2	2 16.1	11+	7 9.64
3.	8.47	8.47	5.14	4.36	3.33	4+11	+0571	6.66	+0145	6.67	4,40	,R94 463	10/0 1654	16.4	16.4	j3.	6 10,2
5.	7.31	7.31	4,59	3.76	2.72	3.55	•0373	8.36	+0285	8.39	5.75	.521	.5) 5	16.1	7 16.7	14.	4 10.6
6.	6.46	6.46	4.16	3,28	2.30	3.10	+0239	11.8	.0740	11.9	8.36	.359	.356	17.6	5)7 . 5	15.	8 11.J
8.	5.29	5.29	3.53	2.17	1.42	2.33	.0094	14.0	.103	14.1	9.73	.270	.268)8,	21.6	20.	6 13.3
10.	3.31	3.33	2.37	1.57	.966	1.76	+00429	17.9	+158	18+1	11.6	4102 119	.119	24.0	74.0	23.	3 13.9
20.	2,67	2.67	1.40	1.18	•731	1+49	• 00 201	21.0	•199 75 F	21+2	12.0	0758	.0756	27.	3 27.3	26+	8 14.1
30.	1.95	1.95	1.45	.753		1.02		27.8	.300	28.1	13.1	.0551	.0550	59.	7 29.7	29.	3 13.7 1 13.2
40.	1.55	1+55	1.18	. 405	.297	.685		29.8	.332	30 • 1	12.8	. 04 30	.0429	31.0	• • • • • • • • • • • • • • • • • • •	32.	9 13.1
50.	1.11	1.11	.+63	.316	.249	.794		31.6	.356	32.0	12.7	.0373 .025A	.0258	35.3	3 35,3	35.	1 17.4
80.	.877	.877	. 490	.216	.187	•661		34.0	. 394	34+4	12+2	.0201	.0201	34.9	9 16,9	36.	8 11.8
100.	.729	.729	<u>+578</u>	.160	+150	•569		32+6	**2*	30.5	11.0	•••					

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88 RADIUM (cm³/g = 0,002665 x barns/atom)

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E (MeV)	([#]) ^{KN} inc, t	(声) ^{BD} inc,t	(声) ^{KN} (声) _{inc,a}	([#] _p) ^{BD} _{inc,a}	(#) ^{KN} inc, s	(^µ _p) ^{BD} _{inc,s}	(賞) _{coh}	([#] _p) _{*,1}	(片) _{× c}	([#] _p) _{*,1}	([#] _p) _{*, a}	([#] _p) _{r,t}	(#), a	(#) _{tut.1}	(岸), cu, t · cui	(#) _{t/,t.a}	([#]) _{t',t,er.}
.001 NI .001208	.155 .155	+00480 +00602	.000304 .000365	.0000094 .0000142	.155	.00480 .00600	13.0 12.7					 520 n .	5200.	5200.	5200.	5700.	5200.
•0015 •002	.155 .155	.00773 .0107	.000453	.0000225	•155 •154	.00770 .u106	12.4 11.8					3200.	3200. 1670.	3200. 1680.	3200.	3700. 1670.	3200. 1670. 664.
•003 Hy •003109	•154 •154	•0163 •0169	.000893 .000925	.0000946 .000102	.153 .153	.0162 .0168	10.6 10.4					613. 1920.	613. 1920.	624.)930.	613. 1920.	613. 1920.	613. 1920.
HIA .003523	•154	+0177	.000967	.000111	.153	.0176	10.3					1750. 1980.	1750. 1980.	1760.)990.	1750. 1980.	1750. 1980. 1270.	1750.)980. 1270.
M _{III} •003791	+154	• 02 06	.00112	•000150	•153	.0204	9.70					1270.	1460.	1470.	1460.	1460.	1460.
+004	•154 •153	.0217	.00118	•000167	.152 .152	•0215 •0238	9.46 8.98					978.	978.	986.	978.	978	978.
MI .004824	•153	.0256	+00142	.000237	•15z	.0254	8.66					1160• 954• 1080-	1160 • 954 • 1080 •	962.	954. 1080.	954. 1080.	954. 1080.
.005	.153	.0264	.00147	.000253	. 152	•0262	8.50					978.	978	986	978.	978.	978. 605.
.006	.152	.0306	.00175	.000352	.151	.0304	7.68					605. 282.	282.	288.	282.	282.	282.
•00B	.151	.0384	•00229	+000581	.149	+0378	5.25					156,	156	161.	156.	156.	156.
•01	-150	.0584	+00282	+00161	-143	.0568	3.49					51.7	51.7	55.2	51.7	51.7	51.7
LIII .015446	.147	.0594	.00418	.00168	143	.0578	3,38					48.2 119. 76.5	48,2 83,1 57,6	51.7 122. 79.4	48.2 119. 76.5	119.	83.1 57.6
L _{II} .018484	.146	.0653	•00488	.00219	•1•1	• 06 32	2.14					106.	77.3	109.	106.)06.	77.3
LI .014537	.145	•0666	.00506	•00232	.140	.0642	2.61					94.6 110.	70.1 81.5 73.8	97.3 113.	110.	110. 98.6	81.5 73.8
• 02	.145	.0677	.00522	.00244	.140	.0653	2.49					34.4	28.5	36.0	34.4	34.4	28.5
•03	•140	+0802	.00/30	+00418	+133	.0823	.959					16+1	14+1	17.1	16.2	16.1	14+1
+04	.132	+ 0802	-0106	.00749	.121	.0853	.682					8+90	7.99	9.67	8,98	8,90	A 08
.06	.128	.0954	.0120	.00895	.116	.0863	.509					5.44	4,98	2,08	2,57	2.48	2.12
. 08	.121	.0973	+0142	+0114	.107	.0858	.309					1.33	1.27	1.64	1.43	1,35	1.28
	.116	.0973	.0159	+0134	,0997	.0839	.192	~~~~~				1.19	1.13	1.48	1.29	1.21	1.15
x .103922	•115	.0946	.0182	•0172	.0853	.0776	•0973					5.49 2.1)	1.73	5.78 2.30	5.60	5,52 2,12	1.75
•2	.0954	.0895	.0206	.0193	.0746	.0701	.0565					1.01	+ 650	1,15	1,10	.373	.290
.3	.0829	.0799	.0223	.0216	.0605	+0584	•0258					.174	.143	.261	.247	197	165
• •	.0744	.0725	.0230	•0221	.0512	+0504	.00935					.102	0877	.178	.169	125	.110
*2	+06//	+0000	.0231	+0224	.0397	.0394	.00658					.0674	.0594	.136	+129	.0903	.0815
.8	.0552	.0546	.0225	.0216	.0325	.0330	.00370					.0357	.0325	• 7 4 1	.0903	.0501	.0341
1.	.0496	.0493	.0218	.0204	.0277	.0288	.00240			00170	000636	.0109	.0104	.053/	0525	.0325	.0296
1.5	.0402	.0400	•0199	+0187	+0203	.0213	.00108	+00177		.00560	.00255	.00661	,00637	.0464	.0464	.0304	.0258
2.	.0344	.0341	.0156	.0138	.0114	.0131	.000272	+0124	.00000943	.0124	.00741	.00354	.00346	.043	2 .0429	,0314	.0247
Å .	.0226	.0226	.0137	•0)16	.00887	.0110	.000152	+0177	.0000386	.0178	.0117	.00238	.00234	+042	0420	0358	.0257
5.	.0195	.0195	.0122	.0100	.00725	.00946	.0000994	•0223	•0000760	.0224	.0153	.00139	.00137	.044	.0445	.0384	.0282
6.	.0172	.0172	•0111	.00874	.00613	.00847	.0000690	+0259	+000117	.0200	.0223	.000957	.000949	.0469	.0466	.0421	.0301
.8.	+0141	.0141	+00741	+00076	.00378	.00621	.0000251	.0373	.000274	0376	0259	.000720	,000714	.0504	.0504	0464	0325
15.	.00887	.00887	+00632	+00418	.00257	.00469	.0000114	.0477	.000421	.0482	.0309	.000440	.000437	+0570	5 •0576 	.0549	.0354
20.	.00712	.00712	.00517	.00314	.00195	.00397	•0000055	.0560	.000530	.0565	.0336	.000317	.000201	.072	.0728	.0714	.0376
30.	.00520	.00520	.00386	.0020)	.00131	.00320		+0666	.0006816	.0740	.0354	.000147	.000147	.079	2 .0792	.0781	.0365
40.	+00413	.00413	+00314	+00142	.000789	.00272		.0794	+000885	.0802	.0341	.000115	.000114	.083	7 .0837	, 1829	.0352
50. 60.	+00344 +00246	.00294	.00230	+000842	.000664	.00212		+0842	.000949	.0853	.0338	.0000941	.0000941	.088	.0882	.0877	,0349
80.	.00234	.00234	n0184	+000576	.000498	•00)76		.0906	+00105	+0917	•0325	.00000088	.0000536	.074	1 .0983	.0981	.0314
100.	.00194	+00194	.00154	.000426	+000400	.00152		+0954	+00113	.0965	+0104		10000-30	•			•••••

89 ACTINIUM (baros/atom)

E	(MeV)	σ _{inc.t}	σ ^{BD} _{)nc,t}	o ^{KN} inc,a	σ ^{BD} _{inc,a}	o ^{KN}	σ ^{BD} _{)nc,s}	σ _{coh}	σ*n	σ×e	σ _{x,t}	σ.,	σ _{τ, 1}	σ _{τ, a}	o _{tot,t}	σ _{tot,t-coh}	σ _{tot, a}	Utot, an
	001	69.0	1.83	.115	.00356	58.9	1.83	4980.										
N -	.001269	58.9	2.43	.146	.00600	58.8	2.42	4860+					1820000	1820000	1020000.	1820000.	1820000.	1820000.
						E. 7	2.04	A 75A .					1250000.	1250000	1250000.	1250000.	1250000.	1250000.
	.0015	58,9	2.95	.1/2	.00861	58.5	2.40	4510.					653000.	653 000.	658000.	653000.	653000+	653000 +
	.002	58.5	4.00	.339	.0362	58.2	6.20	4040.					259000.	259000.	263000.	259000+	259000+	259000+
Her	.003219	58.5	6.69	.363	.0416	58.1	6.65	3950.					221000.	221000.	697000.	693000	693000	693000.
H _{TW}	.003371	58.4	7.01	.380	.0456	58+1	6.96	3880.					630000.	630000.	634000. 718000.	630000. 7)4000.	6300n0. 7140n0.	630000. 714000.
						57.9	8.05	3650.					459000.	459000.	463000.	459000.	459000.	459000.
ⁿ 111	•003418	28.3	8+11	• • • •	*0011	37.07	0000	20000					528000.	528000.	532000.	528000.	578000. 504000.	528000.
	.004	58.3	8.27	.449	.0636	57.8	8+21	3620.					351000.	351000.	354000.	351000 .	351000 .	351000.
MII	+004658	58.1	9.47	•520	.0846	57+6	9.39	3370 •					418000.	418000.	421000.	418000.	4)8000+	418000.
	.005	58.1	10.1	.556	.0967	57.5	10.0	3250.					343000.	343000.	346000.	343000.	343000.	343000.
M.	.005002	58.1	10.1	,556	.0968	57.5	10.0	3250.					343000.	343000.	390000.	343000.	387000.	387000.
1						67.7	11.6	2930.					239000.	239000.	242000.	239000.	239000.	239000.
	.000	57.8	11.7	.002	-134	56.6	14.3	2410.					111000.	111000.	113000.	111000.	1)1000.	111000.
	+000	57.0	17.1	1.07	.320	55.9	16.8	2010.					62000,	62000,	64000.	62000+	20500+	20500+
	.015	56.0	22.1	1.55	.611	54+4	21.5	1350.					20500.	20500.	18900.)7600.	17600.	17600.
L ₁₁₁	.015870	55.8	22.8	1.62	.663	54.2	22•1	1270.					43100	30300.	44400.	43100.	43100.	30300.
LII	•019083	55,2	25.1	1.90	.866	53.3	24.2	1020.					27500. 38100.	20700. 27900.	28500. 39100.	27500. 38100.	27500. 38100.	20700.
L	.019845	55.0	25.6	1.97	.916	53+1	24.7	971.					34100.	25400.	35100.	34100. 39800.	34100.	29400.
-							-	041					38500	28600.	39500.	38500.	38500.	28600.
	•02	55.0	25.7	1.98	.928	53+0	29.0	559.					13400.	11100.	14000.	13400.	13400.	11100.
	.03	53.2	30.4	2.11	2,23	48.1	31.2	371.					6320.	5500.	6720.	6350+	3500.	3140.
	.05	50.0	35.1	4.03	2.83	45.9	32.3	264.					3500.	3140.	2380.	2190.	2150.	1960.
	.06	48.6	36.1	4.56	3.39	44.0	32.7	197.					972.	909	1130.	10)0.	977.	913.
	.08	46.0	36.9	5,39	4,32	40.0	32.6	120+					525.	498,	642.	562.	511.	503.
-	-1	43.9	36.8	6.05	5.35	36.9	31.6	70.8					436.	415.	544.	473.	442.	420.
, K	+100134	4J¢2	3. 40	0024	5425			-					2000.	633.	2110+	866.	837.	433.
	•15	39.5	35.9	7.16	6.52	32.3	29+4	37.7					395.	251.	451.	429.	403.	258.
	•2	36.2	33.9	7.82	7.33	28+4	20+0	21+9					138.	104.	178.	168.	146.	112.
	•3	31.5	30+3	8.73	8.39	19.5	19+1	5+63					68.2	55.8	101.	45.7	/0.7	42.7
	.5	25.7	25.3	8.78	8.50	17.0	16.8	3.65					40.1	34,2	52.7	50.2	15.5	32.0
	.6	23.8	23.5	8,75	8,46	15+1	15+0	2.53					14.1	12.8	36.2	34,8	22.6	21.0
	•8	20.9	20.7	8,55	8.20	12.4	12+5	1.43					9,00	8,34	28.6	27.7	17.3	16.1
-	<u> </u>	18.8	18+7	-7.55	7.11	7.72	8.09	+417	.690		+690	.207	4,28	4.07	20.0	20.2	12.5	9.91
÷	2.	13.0	13.0	6.91	6.42	6+11	6.58	.236	2.17		2+17	.987	2.59	2.50	16.5	16.4	12.1	9.45
	3.	10.2	10.2	5.91	5.22	4.33	4.95	+105	4,78	+00358	4+78	2.00	.931	.914	16.4	16.3	12.9	9,79
	••	8,56	8.56	5.20	4.40	3+3/	3.60	.0383	8.53	.0288	8.56	5.86	.692	.682	16.7	16.6)3.9	10.3
	•	7.39	7.39	4.21	3.31	2.33	3.22	.0266	9,90	+0445	9.94	6 • 96	,545	,538	17.0	17.9	16.1	11.6
	·	5.35	5.35	3.57	2.63	1.78	2.72	+0150	12.1	+0749	12.2	8,56	+ 3/ 2	-372	19.1	19.1	17.7	12.3
)		4,55	4.55	3.11	2.19	1.44	2.36	•00968	14.2	<u></u>	18.5	<u></u>	.173	.172	27.0	72.0	21.1	13.6
19	5.	3.37	3.37	2.39	1.59	.7.0	1.51	.00216	21.4	.202	21.6	12.8	.124	+174	24.4	74.4	21.7	14+1
2		2.70	2.70	1.47	.758	.498	1.21		25.5	+260	25.8	13.5	+0790	•0788 ^*74	27.0	77.8	29.9	13.9
3	0 e D e	1.56	1.56	1.19	535	.376	1.02		28.4	.303	28.7	13.3	.05//	.0450	32.2	32.2	71.9	13.5
5		1.31	1.3)	1.01	+410	.301	.900		30.5	•3.50	30+8	12.8	,0370	.0370	33.8	73.8	73.	13.2
6	D •	1.12	1.12	.873	.3)8	.189	+702 •669		34.6	. 398	35.0	12.3	.0270	.0770	35.9	15.9	75.7	12.5
8 10	D. D.	.887	.737	,585	•161	.152	76		36.5	•428	36+9	11.7	.0211	•0211	37.7	1/./	47.03	

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B9 ACTINIUM (cm³/g = 0.002653 x barns/atom)

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E (MeV)	(貨) ^{KN} inc,t	(劳) _{)nc,t}	(声) ^{KN} (声) _{)nc,a}	(声) ^{BD})nc, a	(≝))nc,s	(چ) ^{BD} inc,s	(뿔) _{coh}	(پ) _{*n}	(岸) _{× e}	([#]) _{x.1}	([#] _p) _{×, 8}	(#)	<i>(</i> #)	<i>,</i> µ,	.4.		
•001	.157	.00485	.00030	.0000094	.156	.00485	13.2					(p)r,t	(p) _{7, a}	(\$) _{tist,t}	(5)tut, t.coh	(p) _{tot, ±}	(\$) _{tot, en}
"I	•130	+000+3	.00038	+0000159	+156	.00642	12.9										
+0015	+156	+00783	+000456	.0000228	.156	.0078	12.6					3320.	3320.	4830. 3320.	4930. 3320.	4930. 3320.	4530.
.003	.155	.0166	.000899	•0000419 •0000960	.155	.0107	12.0					1730.)730.	1750	1730.	1730.	1730.
Hy .0032	19 .155	.0177	.000963	+000110	.154	.0176	10.5					687. 586.	687. 586.	698.	687.	687.	687.
HTV .0033	71 .155	.0186	.00101	.000121	.154	.0185	10.3					1840.	1840.	1850	1840.	1940,	1840.
					•••		1043		·			1670.)670.	1680.	1670.	1670.	1670.
WIII +0034	18 •155	+0215	.00117	+000162	.154	.0214	9.68					1220.	1220.	1230	1220.	1220	1220.
.004	•155	.0219	.00119	.000169	.153	.0218	9+60					1400.	1400.	1410.	1400.	1400.	1400.
MII •00•6	58 .154	•0251	•00138	•000224	.153	.0249	8.94					93).	931.	939	931.	931.	1340.
.005	.154	+0268	.00148	+000257	.153	.0265	8.62		•			1110.	1110.	1120.	1110.	1110.	1110.
H1 .0050	02 .154	•0268	+00148	+000257	.153	.0265	8.62					910.	910.	918.	910. 910.	910. 910	910.
+006	.153	+0310	.00176	.000356	.152	.0308	7.77					1030.	1030.	1030.	1030.	1030.	1030.
+008	•152	.0385	.00231	+000584	.150	.0379	6.39					294.	034, 294.	642. 300	634.	634.	634.
.015		+0454	+00284	+000849	-148	.0446	5.33					164.	164.	170.	164.	164	164.
LIII .01587	70 .148	.0605	+00430	.00176	.144	.0586	3.37					54.4	54.4	58.1	54.4	54.4	54.4
L _{II} .01908	.146	.0666	.00504	.00230	.141	.0642	2.71					114.	80.4	118.	46.7	46.7 114.	46.7
I	E											73.0	54.9	75.6	73.0	73.0	54.9
-I +0190	•1•0	.00/7	+00>23	+00243	•141	+0655	2.58					90.5	67.4	93.1	90.5	90.5	67.4
•02	•146	.0682	.00525	+00246	+141	•0658	2.55					106.	78.0	108.	106.	106.	78.0
•03	.141	.0807	.00735	+00419	.134	.0764	1.48					35.6	29.4	37.1	35.6	35.6	75.9 29.4
.05	.133	.0931	+0107	.00751	.122	+0828	.984					16.8	14.6	17.8	16.8	16.8	14.6
•06	.129	.0958	.0121	.00899	.117	.0868	.523					5.70	5,20	10.1	9,39	9.29	8.33
•1	•122	+0979	+0143	+0115	•108 •100	+0865	•31A					2.58	2.41	3.00	2.68	2.59	2.42
K .10675	9 .115	+0982	+0166	+0142	.0979	.0838	•188			· ····		1,39	1,32	1.70	1.49	1.41	1.33
.15	.105	.0952	.0190	.0173	.0857	.0780	100					5.31	1.68	5.60	1.25	1.17	1.11
•2	.0960	.0899	.0207	.0194	.0753	.0706	•100 •0581					2.20	1.13	2.40	2.30	2,22	1.15
•3	.0836	.0804	.0225	+0217	.0610	.0586	.0264					.366	.276	1.20	1.14	1.07	.684
.5	.0682	•0730	.0232	+0223	+0517	.0507	+0149					.181	.148	.268	.254	.204	.170
•6	.0631	.0623	.0232	.0224	.0401	.0398	.00671					•106 •0708	.0907	.183	•174	.130	.113
1.	+0534	+0549	+0227	.0218	.0329	.0332	.00379					.0374	.0340	.0960	.0923	.0942	.0849
1.5	.0406	+0403	.0200	+0189	.0205	.0215	+00246	+00183		.00107	000540	,0239	.0221	.0759	.0735	.0459	.0427
2.	.0345	+0345	•0183	•0170	.0162	.0175	.000626	.00576		.00576	.00262	.00687	.00663	.0547	.0536	.0332	.0302
4 .	.0227	.0227	•0138	•0138	.00894	.0132	.000279	+0127	.0000095	.0127	.00759	.00371	.00363	.0438	.0435	.0321	.0263
5.	.0196	+0196	.0123	.0101	.00730	.00955	.000102	+0226	.0000764	.0227	+0119	.00247	.00242	.0435	.0432	.0342	.0260
8.	+0173	+0173	+0112	+00878	.00618	.00854	.0000706	.0263	.000118	.0264	.0185	.00145	.00143	.0451	.0451	.0369	.0273
10.	.0121	0121	.00825	•00581	.00382	.00626	+0000398	+0321	.000199	+0324	+0227	.000995	.000987	.0475	.0475	.0427	.030A
15.	+00894	+00894	+00634	+00422	.00259	.00472	.0000117	+0485	+000424	+0491	.0313	.000459	.000456	.0507	.0584	.0470	.0326
30.	.00523	.00523	.00390	+00316	.00196	.00401	.0000057	.0568	.000536	.0573	+0340	.000 329	.000379	.0647	.0647	.0629	.0374
40.	.00414	.00414	.00316	.00142	.000998	.00271		+0753	+000804	.0761	•0358 •0353	.000153	.000209	+073A	.0738	.0724	.0379
50. 60.	+00348	+00348	+00Z6R	+00109	.000799	.00239		.0809	+000891	.0817	.0345	.000120	.000119	.0854	.0854	.0846	.0369
80.	.00235	.00235	.00185	.000578	.000501	.00213		+0854 +0918	+000955	.0865	.0340	.0000982	.0000982	.0897	.0897	. 0889	.0350
100.	.00196	.00196	.00155	.000427	.000403	.00153		.0968	.00114	.0979	.0310	+0000560	+0000716	+0952	.0952	+0947	.0332
											-			• / • •		.0773	• 0.316

90 THORIUM (barns/atom)

E (MeV)	σ _{inc,t}	σ ^{BD} _{inc,t}	o ^{KN} tnc, a	σ _{inc,a}	0 ^{KN} tnc,s	0 BD	σ _{coh}	σ×n	σxe	σ _{x,t}	σ _{×, a}	σ _{r,t}	σ _{τ, a}	o _{tot,t}	σ _{tot,t-cou}	σ _{tot, a}	ottot.en
¥.	.001	59.6	1.82	.116	.00355	59.5 59.4	1.82	5090.										
-1	.0015	89.5	3.05		00000	50.1	7.44	4960.					1720000.	1720000.	1720000.	1720000.	1720000.	1720000.
	.002	59.4	4.08	.230	.0158	59.2	4+06	4610.					681000.	681000.	686000.	681000.	681000.	661000+
	.003	59.2	6.28	.3.3	.0364	58+8	6+24	4120 +					269000.	269000.	273000.	269000.	269000.	269000.
My	.003332	59.1	6.98	.380	+0449	58+7	6.94	3970.					213000.	213000.	217000 ·	213000.	213000.	2 3000.
H _{IV}	.003490	59.1	7.31	. 397	.0492	58.7	7.26	3900+					605000.	605000.	A09000.	605000.	605000.	605000.
		58.9	A.15	.454	.0643	58.5	8.29	3690 .					686100.	A86000.	690000.	686000.	686000.	686000.
MTIT	.004046	58,9	8.44	.459	.0657	58.5	8+37	3670.					443000.	443000.	447000.	443000.	443000.	443000.
×		6 9.9	9.07	. 5 4 4	91 .	KA.2	9.78	3370.					510000.	510000.	514000.	510000.	510000.	510000.
-11	•••••	2010	7481		•••••	2014		33000					401000.	401000.	404000.	401000.	401000.	401000.
	.005	58,7	10.2	.562	.0977	58+2	10+1	3310.					363000.	363000.	366000.	363000.	3430 00 .	363000.
MI	.005182	56.7	10.5	•582	+104	58+1	10+4	3250.					330000+	330000.	333000.	330000.	330000.	330000+
	.006	58,5	11.8	.670	.135	57.8	11.7	2990.					250000 .	250000.	253000.	250000.	250000 .	250000 .
	.008	58.1	14.6	.879	.221	57.2	14+4	2460.					117000.	117000.	119000.	117000+	117000+	117000+
-	•01	57.6	22.3	-1.08		55.0		1380.					21600+	21600+	23000+	21600+	21600+	21600+
L ₁₁₁	.016300	56.3	23.3	1.68	. 695	54.7	22.6	1260.					17200.	17200.	18500.	17200.	17200.	17200+
1	. 019693	55.7	25.7	1.98	. 913	51.7	74.8	1010.					41800+ 26500-	29400.	43100.	41800+	41800+	29400+
-11	••1•0•3		2341	1470	.,		2.00				·		36500.	26800 .	37500.	36500+	36500.	26800 .
	•02	55.6	25.9	2.01	.935	53.6	25+0	986 •					35000.	25800.	36000+	35000 +	35000.	25800.
ц	•020466	55.5	26.2	2.04	•965	53+9	25+2	957+					32400.	28300.	39300.	32700.	32000.	28300+
	•03	53.8	30.7	2.80	1.60	51.0	29+1	573.					14100-	11600+	14700+) 41 00 +	14100+	11600 •
	•04	52.1	33.6	3.47	2.24	48.6	31.4	381 •					6620+	5740+	7030.	6650+	6670 ·	5740+
	.05 .06	49.1	35.4	4,00	3.42	44.5	33.1	202.					2250.	2050.	2490.	2290.	2250+	2050 .
	.08	46.5	37.2	5,45	4.36	41.1	32.8	123.					1030.	961.	1190.	1070.	1040.	965.
-	•]	44.3	37.2	6,12	<u>_5,13</u>	38.2	32.1	82+0					<u> </u>	527.	511.	<u> </u>	412.	<u></u>
•	10,021	• 3 • •	31.43	0,37	3.4.4	3/10	31.40	0713					1940.	615.	2050.	1980.	1950.	620.
	•15	39.9	36.3	7.24	6.59	32.7	29+7	38.8					866.	434.	941.	902.	873.	441.
	•2	30.0	34.3	7.91	7.42	28.7	20.9	10.2					144.	108.	185.	175.	153.	116.
	.4	28.5	27.8	8,83	8.48	19.7	19.3	5+79					71+7	58+3	105.	99.5	80+5	66+8
	.5	26.0	25.6	8.88	8,58	17.1	17.0	3.75					42+2	35+9	71.5	67+8 51+7	51+1 76+8	44.5
	•0	24+1	23.8	8.65	8.32	12.5	12.7	1.47					14+8	13.4	37.3	35.8	23.4	21.7
1	•	19.0	18.9	8.36	7.81	10.6	<u></u>	.952					9.40	8.70	29.3	28.3	17.8	16.5
1	•5	13.3	15.4	7,04	7.19	7.80	8.21	• 429	2.24		+712	+214	2+72	2+62	18+3	18+1	11.9	10+1
3	•	10.4	10.3	5,98	5.27	4.38	5.03	-108	4.90	.00362	4.90	2.93	1+46	1+42	16+8	16.7	12+3	9.67
	•	8,66	8.66	5.25	4.45	3.40	4.21	+0604	6,95	+0148	6+96	4.58	+980	+962	16+7	16+0	13+2	9.99
5	•	F+48 6-61	7.44	4.70	3.83	2.35	3.27	•0374	10.1	.0450	10+1	7.09	.572	+565	17+3	17.3	14.9	11+0
8	•	5.41	5.41	3.61	2.65	1.00	2.70	+0155	12.4	.0757	12+5	8.76	• 392	+3A8	18.3)8.3	16.5	11+8
10	•	4.60	4.60	3.15	2.21	1.46	2.39	.00998	14.5	.162		10.0	•181	•277	22.5	22.5	21.5	13.8
20		2.74	2.74	1,99	1.20	.748	1.54	+00225	21.8	.204	22+0	13.0	• 130	.130	24.9	24.9	24.1	14.3
30	•	1.99	1.99	1.49	.762	+503	1.23		26.0	• 263	26+3	13.7	• 0832	+0830 +0607	28.4	28.4	27.9	14+5
40	•	1.58	1.58	1.20	.540	•380 •30≜	1+0*		31.1	.300	31.4	13.2	. 1476	+/475	37.8	32.8	32.5	13.7
60	•	1.14	1.14	.883	.323	.255	+817		32,9	.363	33.3	13.1	• 1390	•0 190	34+5	34.5	74+2	13+5
80	•	.897	.497	.706	.220	•)92	1677		35.3	.402	35.7	12.5	. 0285	+0245	36+6	10+0 78-2	76+4 78+0	12.0
100	•	. /43	. / . 7		.)02	1134	6024 		2.00	**35	31.44				- ••			
																	•	

1 1 1 1

90 THORIUM (cm¹/g = 0.002595 x barns/atom)

• •

E (MeV)	([#])) _{nc,t}	([#] _p) ^{BD} _{nc,t} (^{#)KN} inc,a	(∰) _{nc,a}	(劳) _{)nc,s}	([#]) ^{BD} _{inc, s}	(뿔) _{coh}	([#] _p) _{* 11}	(片) _{×e}	([#] / _p) _{×, t}	(#) ×, a	(券) _{т. t}	([#] _p)	(芳), ot i	(5)tet tacob	(^佐)	(š)
.001 NT .00133	.155 30 .155	•00472 •00667	.00030		2 .154	.00472	13.2						•-•				
-	164						12.0					4460.	4460.	4460.		AA60.	4440
•002	•154	+00/66	+00045	7 .0000223	3 ,154	.00763	12.6					3400.	3400.	3400.	3400.	3400.	3400.
.003	+154	.0163	+00089	0 .0000945	5 .153	.0162	12.0					1770.	1770.	1780.	1770.	1770.	1770.
My +00333	32 .153	+0181	.00098	6 .000117	.152	.0180	10.3					553.	678. 551.	708.	698. 553	698. 551	698.
MIN .00349	90 .153	+0190	.00103	.000128	•15Z	.0188	10.1					1730.	1730.	1740.	1730.	1730	1730.
+004	.153	.0217	.00118	.000167	.152	.0215	9.58					1780.	1780.	1790.	1780.	1780.	1780.
M _{III} .00404	46 .153	.0219	.00119	.000170	.152	.0217	9.52					1190.	1190+	1200.	1190.	1190.	1190.
Nr00483	30 .153	. 0256	.00141		161	A754						1320.	1320.	1330.	1320+	1320.	1150.
11			*****	•••••23/	•1-1	+V234	8.73					875.	875.	882.	A75.	A75.	875.
+005	•152	.0265	+00146	.000254	.151	.0262	8.59					1040+	1040+	1050.	1040.	1040.	1040.
H _I •00518	82 .152	+0272	.00151	•000270	.151	.0270	8.43					856.	856.	450. 864.	942.	942.	942.
.006	.152	.0306	.00174	.000350	.150	. 0704	7.76					963.	963.	971.	963.	963.	963.
.008	•151	.0379	.00228	+000573	.148	.0374	6.38					649.	649.	657.	649.	649.	649.
<u>, 01</u>	.149	.0446	.00280	.000836	,147	.0439	5.32					304+	304+	309.	304.	304.	304 •
Larr .01630	•147 00 •146	+0579	+00407	.00160	•143	.0563	3.58			·······		56+1	56+1	59.7	56+1	56.1	56.1
-111 +	• • • • •	*****	*00430	+00190	• I • C	+0280	3.27					44+6	44+6	48.0	44+6	44+6	44+6
L _{II} .01969	93 .145	•0667	.00514	.00237	•139	.0644	2.62					108+	76+3	112.	108.) 08.	76.3
.02	. 144	. 4473	44533		1 20							94.7	51.47	97.3	68+8	68+8	S1.4
L- +02046	144	+0672	.00522	+00243	139	.0649	2.56					90.8	67.0	93.4	90.8	90.8	67.0
1	••••			****	+137	•0034	2.00					85.1	63.3	87.7	85.1	85.1	63.3
•03	.140	.0797	.00727	+00415	•132	.0755	1.49					36.6	73+4	102.	99.4	99.4	73.4
•04	•135	+0872	•00900	+00581	.126	.0815	.989					17.2	14.9	18.2	17.3	17.2	30+1
.06	.127	.0947	+0105	+00/42	•121	+0843	•703					9.50	8.49	10.3	9.60	9.50	8.49
+08	•121	.0965	.0141	.0113	.107	.0851	.319					5.84	5.32	6,46	5,94	5,84	5.32
+ <u>+1</u>	•115	,0965	.0159	.0133	.0991	.0833	213					2.07	2.49	3.09	2.78	2.70	2.50
× +10765	• • • • • • • • • •	•0968	+0166	+0142	.0960	•0825	+180).11	1.05	1.38	1.20	1,12	1.38
.15	.104	1.0942	.0188	+0171	.0849	.0771	•101					5.03	1.60	5,32	5.14	5,06	1.61
•2	.0950	.0890	•0205	.0193	.0745	.0698	.0584					2+25	1.13	2.44	2.34	2.27	1+14
• 3	+0825	.0797	+0223	+0215	.0602	.0581	+0265					• 374	.260	1+22	1+16	1.09	• 658
.5	.0675	.0664	+0229	.0220	.0511	+0501	+0150					.186	+151	•272	.258	209	• 301
•6	.0625	.0618	.0230	.0222	.0394	.0394	.00675					+110	•0932	+186	.176	.133	+115
.• ⁸	•0548	+0545	.0224	.0216	.0324	.0330	.00381					.0724	+0633	+141	•134	.095	5 +0856
1.5	.0400	.0490	.0217		.0275	.0288	.00247					.0244	+0226	. 076	0 .0734	•000	/ +0563 2 -0428
2.	.0343	.0340	.0181	+0168	.0160	.0213	+00111	+00185		+001A5	.000555	+0117	+0111	+054	5 .0535	•033	5 +0304
3.	.0270	+0267	+0155	+0137	.0114	.0131	.000280	+0127	.0000093	9 .0127	+00265	+00700	+00640	.047	5 .0470	.030	9 • 0262
5.	+0225	+0225	.0136	.0115	.00882	.0109	.000157	.0180	.0000384	.0181	+0119	+00254	•00250	.043	LE#0+ 0 1 EAN+ E	+031	• 0250
6.	.0172	.0172	+0122	.00994	.00721	.00947	.000102	+0226	.0000758	.0227	.0155	+00189	+00186	+044	1 .0439	.036	·0239
8.	+0140	+0140	.00937	+00688	.00467	.00716	+000071	1 +0202	+000117	+0262	+0184	+00148	+00147	+044	9 .0449	1038	7 +0285
10.	0119	.0119	.00817	.00573	.00379	.00620	.000025	.0376	.000272	.0379	.0259	+00102	+00101 +000766	+047	5 +0475 6 -0504	•042	+0306
20.	+00885	+00885	+00628	+00415	.00256	.00470	.000011	8 .0485	.000420	.0490	.0311	+000470	.000467	+ 058	.0584	.040	+0324
30.	.00516	.00516	.00387	+00311 +00198	.00131	.00400	.000005	• •0566	.000529	.0571	.0337	.000337	+000337	+ 064	6 +0646	.0625	- •0371
40.	.00410	.00410	.00311	.00140	.000986	.00270		.0753	•000882 •00079▲	.0082	.0356	+000216	.0002)5	. 073	7 .0737	.0724	.0376
50.	.00343	+00343	.00265	.00107	.000789	.00236		.0807	.000880	.0815	.0343	+000124	.000123	+050	c +0802	.0794	0366
80.	.00296	.00233	+00229	+000838	+000662	.00712		.0854	+000942	.0864	.0340	+00010)	+000)n)	+099	, .0895 5 .0895	.0887	·0356
100.	.00193	.00193	.00154	+000420	.000400	.00151		+0916	+00104	+0926	+0324	+0000740	+0000740	• 0950	•1950	1945	5 +0330
			•						100115	*0 - r 1	•0308	.0000576	+0000576	+ 099]) .0991	.0986	• • • • • • • • • • • • • • • • • • • •

9' PROTACTINIUM (barns/atom)

E ()	MeV)		BD onc.t	σ ^{KN}	$\sigma_{inc,a}^{BD}$	0)nc.s	σ ^{BD})nc,s	σ _{coh}	σ×n	σ×e	σ _{x,t}	σ _{×, a}	σ _{r,t}	σ _{7, 2}	σ _{tot,t}	ot,t-coh	σ _{tot, a}	Utot, en
	.001	60.3	1.80	.117	.00351	60.2	1.80	5220+										
H _T	001385	60.2	2.68	. 162	.00722	60.0	2.67	5040+					1630000.	1630000.	1640000.	1630000.	1670000+	1630000.
-				174	00041	60.0	2.94	4990.					1360000.	1360000+	1360000+	1360000.	1360000.	1360000+
	.0015	60.2	2.95	+1/0	+00001	50.8	4.05	A740.					709000.	709000.	714000.	709000.	709000+	709000+
	.002	60.1	4.07	.233	+0138	59.5	6.24	4250 .					281000+	281000.	285000+	201000+	205000	205000.
¥.	+003	57.6	7.21	. 196	.0479	59.3	7.16	4040 .					205000.	207000.	6460004	642000+	642000+	642000+
ny -	*****	37.01		•2/0	••••	-		_					642000+	5820001	586000+	582000+	542000+	582000 +
HTV	.003609	59.7	7.56	.415	•0259	59.3	7.51	3970.					660000+	660000.	664000+	660000+	660000+	660000+
						FO 1	8.79	3800.					484000+	484000.	488000+	484000+	484000+	484000+
	+004	59.6	8.35	.459	.0043	59.1	0.41	3730.					428000+	428000+	432000+	428000+	478000+	420000+
^M 111	+004174	59.6	8.68	• 4 78	.0070	57+1	0+01	31300					493000+	493000+	497000+	493000+	323000.	323000 .
	.005	59.4	10.2	.569	.0977	58.6	10.1	3410.					323000.	323000.	326000.	323000.	323000.	323000+
M	.005003	59.4	10.2	.569	.0978	58.8	10+1	3410+					384000+	384000	387000.	384000.	384000+	384000+
11					•								317000+	317000+	320000+	317000.	317000+	317000+
MI	.005364	59.3	10.8	.608	•111	58+7	10+7	3280+					355000.	355000.	358000+	355000.	355000+	355000+
-			· • • •	477	1 76	58.5	11.7	3070.					263000.	263000+	266000+	263000+	263000+	203000+
	.006	59+1	11.8		•132	57.8	14.5	2520.					122000+	122000+	125000.	122000+	122000+	68000+
	+008	58,7	14.7	1.09	. 324	57.2	17.0	2100.					68000+	68000+	24000+	22600.	22600 •	22600 .
-	+01	50.3	- 22.4	1.58	.620	55.7	21.8	1420+					22600+	16800.	18100.	16800 .	16800+	16800+
Larr	.016733	56.9	23.8	1.74	.727	55+1	23+1	1260+					40500+	28500.	41800.	40500.	40500+	28500+
-111							-5.3	1010					26400.	19800.	27400+	26400.	26400+	19800+
	•02	56.2	26+1	2.03	.942	54.4	25+2	1010+					25400.	19200+	26400+	25400+	25400+	19200+
LII	.020314	56.2	26.3	2,05	•962	54+1	25+3	yy . .					35100.	25800 .	36100.	35100+	39100+	23500+
		E.6.	76.8	2.12	1.02	53.9	25.8	946.					31600.	23500.	32000+	36800.	36800.	27300.
-1	+021105	20.0	20.00	C+1-									36800+	12000+	15300.	14700.	14700 .	12000.
	.03	54.4	30.9	2.83	1.61	51+6	29.3	589 •					6910.	5960.	7330.	6940+	6910+	5960 •
	.04	52.7	33.9	3.51	2,26	49+1	31+6	391 •					3840 .	3420.	4150+	3880 .	3840+	3420+
	.05	51.1	35.7	4.12	2.88	47+0	32.8	279.					2360.	2140+	2600+	2400+	2360 •	2140+
	.06	49.6	36.8	4.66	3.45	45+0	33+3	127.					1090.	1020 •)250+	1130.	1100+	540.
	•08	47+1	37.6	5.51	4,4U 5 10	39.7	32.4	84.4					587.	555+		454	421.	402.
-	•1	44,8	37.0	6.54	5.66	37.0	32.0	68.0					410.	390.	1990.	1920.	1890+	603.
ĸ	+115001	4340	31.11	0,34	5,00		••••						1460+	A39.	976 .	937.	907.	446.
	.15	40.4	36.6	7.33	6.64	33.0	30+0	39.9					430 •	265+	488+	465.	478+	272+
	.2	37.0	34.6	8.00	7,48	29.0	27+1	23+1					150+	112+	192+	181+	159.	120+
	.3	32.2	31.0	8.67	8.36	23.5	22.0	10+5					74+6	60+3	109.	103+	83.3	45.9
	.4	28.8	28.1	8,93	8.57	17.3	17.7	3.86					44+0	37+2	73+8	57.1	38.0	34.0
	•5	20.3	25.9	8.94	8.64	15.4	15.4	2.68					24+1	2314	38.2	36.7	24.2	22.4
	•0	24.3	21.2	8.74	8.40	12.6	12.8	1+51					9,85	9.09	29.9	78.9	18.3	17.0
1		19.2	19.1	8.45	7,89	10.8	11.2	.981			74.0	222	4.68	4.44	21.5	21+0	13.1	12.0
ī	.5	15.6	15.6	7.72	7,29	7.89	8.31	+440	• 740		2,30	1.04	2.84	2+73	18+7	18+4	12+2	10.3
2	•	13.3	13.3	7.07	6.56	6.25	6.74		5.01	.00366	5.01	2.99	1+54	1+50	17+2	17+0	12.0	10.2
3	J.	10.5	10.5	6.04	5.37	3.44	4.26	.0622	7.10	.0150	7+11	4.67	1+03	1+01	17.0	17.3	14.4	10.7
4	•	8.75	8.75	3,31	3.86	2.81	3.70	.0405	8.90	+0295	8+93	6+11	•762	• /50	17.6	17.6	15.	2 11+2
	•	6.68	6.68	4.30	3.37	2.38	3.31	+0282	2 10.3	+0455	10+3	7.22	• 5 • 7 • 5 • 7 •	+407	18.6	18.6	j 6+l	12+0
6	•	5.47	5.47	3.65	2.67	1.82	2.80	+0159	12.6	+0764	12+7	5.67	.310	-304	19.9	19.9	18.	12.7
10		4,65	4.65	3.18	2.73	17	2.42	.0102	19.8	.167	19.2	12.2	•) 90	+189	22.6	25.8	21.	5 14+0 L 14-5
15		3.45	3.45	2.45	1.62	.999	1+83	+0040	13 22.3	.206	22.5	13.2	•)37	+) 36	25+4	75.4	24.0	14.8
20	•	2.77	2.77	2.01	1.21	.500	1.24		26.5	.265	26+8	13.9	+0875	+0873	28.5	21.	31.	14.3
30	•	2.01	2.01	1.22	.708	.384	1.05		29.5	.309	29.8	13.7	• 1639	•0636 •0438	31.3	13.3	13.	13.9
40	2.	1.34	1.74	1.03	.417	.308	.923		31.6	+342	31+9	13.4		.0409	35.1	35+1	34+	8 13+6
50	/ •) •	1,15	1.15	.893	.324	.257	+826		33.5	•367	33.9	13.2	• 1299	+0799	37+3	17.3	37+	1 13•0
Ac		.907	.917	7) 4	•221	•194	•686		36.0	.400	30+4	12.0	.0237	+ 0732	39+0) 39+0) 76.	R 15+5
100	5.	,753	.753	.59A	+164	.155	• 든 H 9		31 +0		30.5							

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234

91 PROTACTINIUM (cm³/g = 0.002607 x barns/atom)

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E (MeV)	([#] β) ^{KN} _{)nc,t}	(貨) ^{BD})nc, t	$\binom{\mu}{p}_{nc,a}^{KN}$	(#) ^{BD} _{p)nc,a}	([#]), KN inc, s	(岁) ^{BD} inc, s	(^ی) _{د ۲} ۱	(څ) _{*n}	(<u>4</u>)× e	([#] / _p) _{x,1}	([#] _p) _{×, a}	(巻)	(#)	(≝)	(#)	(#).	(5).
•001 NT •001385	•157 •157	.00469	.000305	+0000092	.157	.00469	13.6							<u></u>		<u></u>	10/101, et.
.0015	157	44764			154							4250.	4250.	4280.	4250.	4250	4250 .
•002	.157	.0106	.000607	+0000224	.156	.0106	13+0					3550.	3550.	3550.	3550.	3550.	3550.
.003	.156	+0164	.000905	.0000949	.155	.0163	ii.i					733.	733.	743.	733.	733.	1850.
MA +003445	+150	•0188	+00103	.000125	•155	.0187	10.5					534.	534.	545.	534 .	534	534
MIA *003908	•156	.0197	.00108	.000137	•155	.0196	10.3					1520.	1670.	1680.)530.	1670.	1670.	1670.
.004	.155	.0218	.00120	.000168	.154	.0216	9.91					1720.	1720 .	1730.	1720.	1720.	1720.
MIII +004174	.155	.0226	.00125	.000181	.154	.0224	9.72					1120+	1200.	1270.	1260.	1260.	1260.
.005	.155	.0266	.00148	+000255	.153	.0263	8.89					1290+	1290.	300.	1290.	1290.	1290.
M _{II} .005003	.155	.0266	+00148	.000255	.153	.0263	8.89					842.	842. 842.	850. 850.	842. 842.	842. 842.	842 ·
H1 .005364	•155	.0282	.00159	.000289	.153	.0279	8.55					1000.	1000.	1010.	1000.	1000.	1000.
-												925.	925.	834. 913.	826.	826.	826.
+000	+154	+0308	+00176	.000352	,153	•0305	8.00					684.	686.	693.	686.	686.	686.
.01	.152	.0451	.00284	+000845	.149	.0443	5.47					314.	318.	326.	318 .	318.	318+
+015	.149	+0584	+00412	.00162	.145	.0568	3.70					58+9	58.9	62+6	58.9	58.9	58.9
-111 +010/33	140	+0020	+00434	+00140	•1••	•0602	3+28					43.8	43.8	47.2	43.8	43.8	43.8
+02	•147	.0680	.00529	.00246	+1+1	.0657	2.63					69.8	51.6	71.4	100+	106.	74.3
LII +020314	+147	•0686	+00534	.00251	•1•1	.0660	2.59					66+2 .	50.1	68.8	66.2	66.2	50.1
L ₁ .021105	.146	.0699	.00553	•00266	.141	.0673	2.47					82.4	67.3	94.1 85.0	91.5	91.5 82.4	67.3
+03	.142	+0806	.00738	+00420	.135	.0764	1.54					95.9	71.2	98.5	95.9	95.9	71.2
.04	.137	.0884	.00915	.00589	.128	.0824	1.02					18+0	31.3	39.9	38.3	38.3	31+3
•05	+133	•0931 •0959	+0107	.00751	.123	+0855	.727					10+0	8+92	10.8	10+1	10.0	8+92
.08	.123	.0980	+0144	•0115	.108	.0866	.331					6+15	5.58	6.78	6.26	6.15	5.58
F 112601	<u>•117</u>	.0980	.0161	.0135	.101	.0845	.220					1.53	1,45	1.85	1.63	1.55	2.00
	•114	+0403	+0110	*01#8	+0765	+0834	+177					1+08	1.03	1.36	1.18	1.10	1+05
•15	.105	.0954	.0191	+0173	.0860	.0752	.104					2.35	1+14	2.54	2.44	4,93	1+57
.3	.0839	.0808	+0209	+0195	.0756	.0706	+0602					1+12	•691	1.27	1+21	1.14	•70 9
• •	.0751	.0733	.0233	+0223	.0519	.0508	.0155					• 391	•292	+501	.472	.415	.313
•5	.0686	.0675	.0234	+0226	+0451	.0448	.0101					+115	.0970	.192	+182	.138	•120
.8	.0558	+0553	.0228	+0219	.0328	.0334	.00394					+0759	+0662	•145	•138	.0991	•0886
1.	+0501	0498	+0.220	.0206	.0282	.0292	.00256					+0257	.0237	.077	.0753	.0477	+0504
2.	.0347	+0347	•0184	•0170	.0200	.0217	+00115 +00n649	.00193		+00193	.000579	+0122	+0116	.056	+ 0547	.0342	+0313
3.	.0274	.0274	.0157	.0140	.0115	.0134	.000289	.0131	.00000954	.0131	.00779	+00401	+00391	+044	·0480 •0443	+0318	+0269
5.	.0228	.0228	.0138	•0117	.00897	.0111	.000162	+0185	.0000391	.0185	.0122	+00269	+00263	+044	3 +0441	.0349	+0266
6.	.0174	.0174	.0112	.00879	.00620	.00863	.0000735	+0269	.000119	.0233	.0159	+00)99	+00196	+045	L +0451	.0375	.0279
8. 10.	.0143	.0143	.00952	+00696	.00474	.00730	+0000415	.0328	.000199	.0331	.0232	+00107	.00106	+048	.0485	.0438	+0313
15.	.00899	.00899	.00639	+00422	+00260	+00477	.0000122	.0495	.000276	_0388 _0501	0266	+000808	+000803	+0514	.0519	.0480	0331
20.	.00722	.00722	.00524	.00315	.00197	.00407	.0000061	.0581	.000537	.0587	.0344	+000357	.000355	+066	.0662	+0568	+0365 +037A
40.	.00417	.00924	.00318	+00200	.00133	.00323 .00274		+0691	+000691	.0699	.0362	+000228	+000228	.0753	+0753	0740	+0386
50.	.00349	.00349	•00269	.00109	.000803	.00241		+0824	+000892	.0832	.0349	+000130	+000130	• 1861	• 0869	• 0811	+0373
80.	.00236	+00300 +00236	.00233 .00186	+000845	.000670	.00215 .00179		+0873	.000957	.0884	.0344	.000107	.000107	.091	.0915	. 0907	+0355
100.	.00196	.00196	.00156	.000428	.000404	.00154		.0985	+00114	.0996	.0313	+0000605	+0000779	•197;	.10972	• 0967	+0339
										-		• -		- , • •	- 10E		• • • 3 1 8

92 URANIUM (liarns/atom)

E	(MeV)	σ _{tnc,t}	σ ^{BD} _{inc, t}	o ^{KN}	σ _{)nc,a}	σ ^{KN})nc.s	σ ^{BD} σ _{inc,•}	0 _{con}	σ _{×n}	σ _{×e}	<u>σ_{*,t}</u>	σ _{×,a}	σ _{τ, ε}	σ _{τ, a}	σ _{tot,t}	σ _{tot,t-coh}	o _{tot, a}	σ _{tot, sn}
	.001	61.0	1.79	.119	.00349	60.8	1.79	5340.										
MI	+001441	h0.9	2.80	.171	.00785	60.7	2.79	5140.										
	.0015	60.8	7.94	.177	.00858	60.7	2.93	5110.					1550000.	1550000+	1420000.	1410000.	1550000+	1410000+
	.002	60.7	4.07	.236	.0158	60.5	4.05	4860.					737000.	737000.	742000.	737000.	737000+	737000+
	.003	60.5	6.28	.351	.0364	60 - 1	6.2.	4350.					291000.	291000.	295000+	291000.	291000+	291000.
м	•003552	60.4	7.43	.413	.0509	59.9	7.38	4090.					198000.	198000+	202000+	198000+	198000+	198000+
X.,	.003728	60.3	7.80	. 4 33	.0560	59.9	7.74	4010.					562000.	562000.	566000+	562000.	562000+	562000.
	••••	••••		•		· .							636000 .	636000+	640000.	636000.	636000+	636000+
	.004	60.3	8.34	.464	.0642	59.8	8+28	3890.					513000.	513000.	517000+	513000.	513000+	513000+
"III	+004304	60.2	8.45		•0/38	24+1	8+45	3/60+					477000.	A77000.	A81000.	477000.	477000 .	477000.
	.005	60.0	10.2	.575	.0977	\$9.5	10.1	3490.					335000.	335000.	339000.	335000.	335000.	335000.
MII	.005181	60.0	10.5	,595	.104	59+4	10+4	3420+					310000.	310000.	313000.	310000.	310000.	310000.
×	-005548	59.9	11.1	.635	.118	59.3	11.0	3290.					305000+	305000+	308000+	309000+	305000.	305000.
		2	****		•110	3/1-	1100	22/01					341000+	341000+	344000+	341000.	341000+	341000.
	•006	59.8	11.8	.684	•135	59+1	11+7	3140.					277000.	277000.	280000.	277000.	277000 +	277000+
	.008	59.3	14.8		• 224	58+5	14+6	2580.					128000.	128000+	131000+	128000+	178000+	128000+
	.01	57.9	-22.6	1.60		56.3	22.0	1450.					23700.	23700.	25200+	23700.	23700.	23700.
LIII	.017170	57.4	24.3	1.80	.761	\$5.6	23.5	1250.					16500.	16500.	17800.)6500.	16500 .	16500.
			34.3	2.45	040	EA 8	75 A	1040					39400.	27800 +	40700+	39400.	39400+	2/800+
1	.020948	56.7	20.3	2.13	1.01	54.5	25.9	981.					24400.	18500.	25400.	24400.	24400.	18500.
-11			2000										33700 .	24800+	34700.	33700.	33700.	24800+
ւլ	•021759	56.5	27.3	2.20	1.06	54.3	26+2	934 •					30300.	22600.	31300.	30300.	30300.	22600+
	. 03	55.0	31.2	2.86	1.62	52.1	29.6	605.					35400+	12500.	16000.	15400.	15400.	12500.
	.04	53.2	34.2	3.55	2.28	49.7	31.9	402+					7220.	6210.	7660 .	7250.	7220.	6210.
	.05	51.6	36.0	4.17	2.90	47.5	33+1	286 .					4010.	3560.	4330.	4050.	4010+	3560.
	• 06	50.2	37.1	4.71	3.48	45.5	33.6	214.					2460+	2230 +	2/10+	2500+	2400+	1050.
	.08	45.3	37.9	6.26	5.23	39.1	32.7	86.7					617.	582.	742.	655.	673.	587,
K	115606	43.8	38.0	6.69	5.81	37.1	32+2	66+6					406.	386.	511.	444.	413+	392.
			37 0	7 41	4 77	33.4	30.3	41.0					1820 •	578.	1920+	1000.	1610+	204.
	*12	37.4	35.0	8.08	7.57	29.3	27.4	23.8					446+	270.	505.	481.	454+	278.
	•3	32.5	31.3	8.77	8.44	23.8	22.9	10.8					156+	115+_	198.	187.	165+	123.
	.4	29.1	28.4	9.03	8.66	20+1	19.7	6+13					75+1	62+7	113.	106+	57+1 55-3	71+4
	15	26+6	26.1	9.07	8.74	1745	17+4	3.97					30.3	26+3	57.3	54+6	19.3	35+0
	.8	21.6	21.4	8.84	8.45	12.8	12.9	1.55					16+2	14+6	39+1	37+6	25+0	53+0
1	•	19.4	19.3	8,55	7.95	10.9	11.3	1.00			7/0	224	10+3	9,49	30.6	29.6	18.9	17.4
	.5	15.8	15.7	7.81	7.33	6.32	8+37	+452	2.37		2.37	1.08	2.49	2.87	19.0	18.8	12.5	10.6
-	:• •	10.6	10.6	6.11	5.42	4,48	5.18	•114	5,13	.00370	5+13	3.06	1+61	1.57	17+5	17+3	12.8	10+0
		8,85	8.85	5,3/	4.53	3.48	4.32	+0640	7,29	.0151	7+31	4.79	1+08	1+06	17.3	17.2	13.8	10+4
5	.	7.64	7.64	4.80	3,40	2.84	3.74	+0417	9.05	+0298	9+08	6.21 7.35	• / 70	.620	17.9	17.9	15+5	11+4
	•	5.53	5.53	3.69	2.70	1.84	2.83	.0163	12.8	.0772	12.9	9.01	.431	.427)8.9	18.9	17.0	12+1
10		4,7)	4.71	3.22	2.25	1.49	2.46	.0105	15.1	.107	15.2	10.4	•327	•324	20.2	20.2	14.7	13.0
1		3,48	3.48	2.47	1.63	1.01	1.85	.00482	2 19.4	•165	19+6	12.4	•198	.197	23.3	25.7	25.0	14.5
20	•	2.80	2.04	1.52	.777	+/05	1.70	•072=4	27.0	.268	27.3	14.2	.0914	+0412	29.4	29.4	28.9	15+1
30		1.62	1.62	1.23	.552	388	1.07		30.0	.312	30+3	13.8	• 06 70	•0669	32.0	32.0	31.6	14.4
50).	1,35	1.35	1.04	+418	+311	.931		32.2	.346	32.5	13.6	+0523	+0522	33.9	73.9	73+0	14+1
6(} •	1.16	1+16	.903	. 326	.196	.834		34.1	+10	34+5	12.8	+0313	.0313	37.9	17.9	37.8	13.1
100	•	.762	762		.165	+157	.597		38.5	. 440	38+9	12.1	+0244	+0244	39.7	39.7	39.5	12+3

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92 UR ANIUM (cm³/g = 0.002530 x barns/atom)

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E (MeV)	(影) _{nc,t}	([#]) ^{BD} _{inc,t}	([#] _p) _{nc,a}	([#] _p) ^{BD} _{inc,a}	(≝) _{nc,s}	(^µ _β) ^{BD} _{inc,s}	(%) _{coh}	([#] _p) _{*11}	(片)*e	(ڭ) _{×, 1}	(^µ _p) _{x, a}	(芳) _{7,1}	([#] _p) _{r,a}	([#] _p) _{tist,1}	(\$) _{test} , terest.	([#] _p) _{:•,! a}	(%);t. er.
+001 NI +001441	•154 •154	•00453 •00708	.000301 .000433	.0000088 .0000199	•154 •154	.00453 .00706	13.5 13.0										
.0015	+154	+00744	.000448	.0000217	.154	.00741	12.9					3570.	3570 .	3590.	3570.	3570.	3570.
•002	.154	.0103	+000597	+0000400	•153	.0102	12.3					1860.	1860.	1880.	1560.	1860.	1000.
+003	+153	.0159	.000885	.0000921	+152 152	.0158	11.0					736.	/ 36+ 50) -	740+ 511.	501.	501.	501.
W +003352	•123	• • 1 8 8	*00104	.000129	.156	•••••	10.3					1570.	1570.	1580.	1570.	1570.	1570.
MIV .003728	•153	.0197	.00110	.000142	.152	.0196	10+1					1420. 1610.	1420.	1430.	1420 • 1610 •	1420. 1610.	1420. 1610.
+004	.153	.0211	.00117	.000162	-151	.0209	9.84					1300.	1300.	1310.	1300.	1300.	1300.
MIII +00+304	•152	•0226	.00126	+000187	•1=1	.0224	4+21					1050+	1000.	1220.	1210.	1210.	1210.
.005	.152	.0258	.00145	.000247	.151	.0256	8.83					848.	848.	858.	848.	848.	848.
HTT .005181	.152	.0266	.00151	.000263	.150	.0263	8.65					784+	784.	792.	784 •	784 .	784.
					150							934 •	934.	941.	934.	934.	934.
HI +00-248	•15c	•0281	.00161	+000299	*120	.0278	5+34					772.	772.	870.	772.	863.	863.
.006	.151	.0299	.00173	.000342	.150	.0296	7.94					701.	701.	708.	701.	701.	701.
.008	.150	.0374	.00227	+000567	.148	.0369	6.53					324.	324.	331.	324+	324.	324.
.01	.149	.0440	.00278	+000825	.146	.0433	5.44			~		180+	180.	186.	180.	180.	180.
+015	.146	.0572	.00405	+00158	•142	•0557	3.67					60+0	60+0	63.6	80.0	60.0	60+0
"III +01/1/0	+1+5	.0013	+00435	+00173	•1•1	*0342	3+10					99.7	70.3	103.	99.7	99.7	70.3
•02	.144	.0665	.00519	+00240	.139	.0643	2.63					68+8	51+4	71.6	68.8	68.8	51+4
L _{II} .020948	.143	.0681	.00539	•00256	.138	.0655	2.48					61+7	46.8	64+3	61+7	61.7	46.8
L _{I •021759}	•143	•0691	.00557	•00268	.137	.0663	2,36					85:3 76:7 89:6	62.7 57.2	87.8 79.2 97.1	85.3 76.7 89.6	85.3 76.7 89.6	82+7 57+2 66+5
•03	.139	.0789	.00724	.00410	.132	.0749	1.53					39+0	31+6	40.5	39.0	39.0	31.6
.04	.135	.0865	.00898	+00577	.126	.0807	1.02					18+3	15.7	19.4	18.3	18.3	15.7
.05	.131	.0911	.0106	+00734	.120	.0837	.724					10+1	9+01	11.0	10+2	10.1	9+01
•06	.127	.0939	+0119	.00880	+115	+0850	+541					6+22	5.04	0.00	0+32	0.22	2.64
+08	.115	.0959	+01+1	+0112	. 0989	.0827	.219					1.56	1.47	1.88	1.66	1.58	1.49
x .115606		.0961	.0169	.0147	.0939	.0815	+168					1+03	.977	1.29	1.12	1.04	.992
												4.60	1+46	4.86	4.71	4.63	1.48
•15	.103	.0936	.0187	+0170	+0845	.0767	+104					2.37	1+12	2.58	2.46	2,39	1+14
.1	.09770	+0880	.0204	+0192	.0602	.0579	.0273					, 196	+003	1.20	1.22	.417	.703
	.0736	.0719	.0228	.0219	.0509	.0498	.0155					.198	.159	.286	.268	. 220	.181
.5	.0673	.0660	.0229	+0221	.0443	.0440	.0100					+117_	+0984	.193	.183	+140	.120
•6	.0622	.0615	.0229	.0221	.0395	.0395	+00696					+0767	+0665	+145	•138	.0974	.0656
	.0346	+0541	+0224	+0214	.0324	+0320	.00392					+0410	+0240	.070	A .0749	.0478	10502
1.5	.0400	.0397	.0198	.0185	.0202	.0212	.00114	.00192		+00192	.000577	+0124	+0118	+055	2 +0541	+0342	.0309
2.	.0342	.0339	.0181	.0167	.0160	.0172	+000648	.00600		.00600	.00273	+00756	+00726	+048	1 +0476	.0316	.0268
3.	.0268	.0268	•0155	+0137	.0113	.0131	.000288	+0130	.00000936	•0130	+00774	+00407	+00397	• 044	3 .0438	+0324	+0253
* •	.0224	.0224	•0136	•0115	.00880	+0109	.000162	+0184	.0000382	+0185	.0121	+00202	+00200	.043	5 .0443	.0372	.0203
6.	.0171	.0171	.0110	.00858	.00607	00850	.0000731	.0266	.000116	.0266	.0186	+00159	.00157	+045	3 .0453	.0392	10286
8.	.0140	.0140	.00934	.00683	.00466	.00716	.0000412	.0324	.000195	.0326	.0228	+00109	+0010A	+047	8 •0478	.0430	.0306
10.	.0119	•0119	.00815	+00569	.00377	.00622	.0000266	.0382	.000271	0385	0263	+000827	+000820		1 .0511	.0473	10329
15.	.00880	.00680	+00625	-00412	.00256	.00408	.0000122	.0491	+000417	.0496	.0314	•000362	.000498	.058	0 +0504	.0631	10399
30.	.00514	.00514	.00385	+00309	.00130	.00319	*******	.0683	-00067A	.0691	.0359	.000231	.000231	.074	4 .0744	.0731	.0382
40.	.00410	.00410	.00311	.00140	.000982	.00271		.0759	.000789	.0767	.0349	+000170	.000169	.081	0 .0810	.0799	10364
50.	.00342	.00342	.00263	.00106	.000787	.00236		.0815	+000875	.0822	.0344	.000132	.000132	+085	.0858	.0850	.0357
60.	.00293	.00293	+0022R	+000825	+000658	.00211		.0863	+000936	.0873	.0336	.000108	.000108	•090	G 10903	+0076 .0954	10547
100.	+00232	.00193	.00162	.000507	.000397	.00151		.0974	.00111	.0984	.0306	.0000617	.0000617	.100	,100	, 1999	10331

93 NEPTUNIUM (barns/atom)

E	(MeV)	KN Øinc,t	o ^{BD}	σ ^{KN} σ _{inc, a}	$\sigma_{\rm inc,a}^{\rm BD}$	OINC, S	σ _{inc,s}	or coh	σ _{*n}	σ _{×e}	σ _{×.t}	σ _{×, a}	σ _{r,t}	σ _{r, a}	σ _{tot,t}	σ. tot,t-coh	σ.	σ tot.en
	.001	61.6	1.78	.120	.00347	61.5	1.78	5460.										
	.0015	61.5	2.92	.179	.00852	61.3	2.91	5230.										
H.	+001501	61.5	2.93	.180	+00855	61.3	2.92	5230.										
	.002	61.4	4.06	.238	.0158	61.1	4.04	4970.					1480000+	1480000+	775000.	770000	770000.	1480000+
	.003	61.1	6.27	.354	.0363	60.8	6.23	4460.					303000.	303000.	307000.	303000.	303000.	303000.
Ny	.003664	61.0	7+66	. 431	+0541	60+6	7.61	4140.					191000.	191000.	195000.	191000.	191000.	191000.
Brw	.003850	60.9	8.03	. 452	.0595	60.5	7.97	4060.					542000.	599000+	546000+	599000+ 542000-	399000+ 542000+	399000+ 542000-
				• · · · -									614000.	614000.	618000.	614000.	614000.	614000.
	+004	60.9	8.33	.469	.0641	60.4	8.27	3990.					546000.	546000.	550000.	546000.	546000.	546000.
-III	+00+435	00.0	7.15	+210	+0//9	00+3	9.07	3800+					401000.	401000.	405000.	401000.	401000.	401000.
	.005	60.7	10.2	.581	.0977	60+1	10.1	3570.					349000	349000.	353000.	349000	349000.	349000.
¥ _{II}	.005366	60.6	10.8	.622	•111	60+0	10.7	3440.					298000.	298000.	301000.	298000.	298000 .	298000.
ж.	.005735	60.5	11.4	. 663	. 125	59.8	11.3	3310.					354000.	354000.	357000.	354000.	354000.	354000.
-1					••••		1	22100					328000	328000.	331000.	328060.	328080.	328000.
	.006	60.4	11.8	•692	.135	59.8	11.7	3220+					292000.	292000.	295000.	292000.	292000.	292000.
	.00	60.0	14+8	.908	• 224	59+1 50-5	14+6	2640+					134000.	134000.	137000.	134000.	134000.	134000.
	.015	58.5	22.7	1.62	.628	56.9	22.1	1490.		<u> </u>			24800	24800.	26300.	24800	24800.	24800.
LIII	.017613	57.9	24.8	1.86	.795	56+1	24.0	1240+					16100.	16100.	17400.	16100.	16100.	16100.
	.02	57.5	26.5	2.07	. 956	55.4	25.5	1070.					38200.	27000.	39500.	38200.	38200.	27000.
Ler	.021600	57.1	27.5	2.21	1.06	54.9	26.4	968.					23500.	17900.	24500.	23500	23500.	17908.
													32400.	23900.	33400.	32400.	32400.	23900.
ч	.022427	57.0	27.9	2.28	1+12	54+7	20.0	922+					29200.	21800.	30100.	29200.	29200.	21800.
	.03	55.6	31.4	2.89	1.63	52.7	29.8	621+					15900.	12900.	16600.	15900	15900.	12900
	+04	53,8	34.5	3,59	2,30	50.2	32.2	412.					7550	6460.	8000.	7580.	7550 .	6460.
	• 05	52.2	36.4	4.21	2.94	48.0	33.5	294.					4200.	3720.	4530.	4240.	4200.	3720.
	.08	48.1	37.5	5.63	3.52	42.5	34+0	134.					1200.	2320.	1370.	1240.	1210.	1110.
	.1	45,8	38.3	6,32	5,29	39.5		89+1						614.	778.	689		619.
K	.114670	43.9	38.4	6.84	5,97	37.1	32.4	65+3					396.	377.	500.	434.	403.	383.
	.15	41.3	37.4	7.49	6.79	33.8	30.6	42.2					973.	557.	1050.	1000.	980.	202.
	•2	37.8	35.4	8.17	7.65	29.6	27.7	24.5					466.	277.	526.	501.	474.	285.
	•3	32,9	31.7	8.86	8.55	24.0	23.2	11+1					164.	120.	207.	196.	173.	129+
		29.4	28.7	9,12	8,75	20+3	19.9	6+30					48.3	40.5	78.8	111.7	91.1	49.3
	.6	24.9	24.5	9.14	8.80	15.7	15.7	2.83					32,1	27.8	59.4	56.6	41.2	36.6
	.8	21.8	21.7	8,93	8.57	12.9	13.1	1.60					17.0	15.3	40.3	38,7	25.9	23,9
1	•	19.0	19.5	7:89	8.03	11+0	<u> </u>	1+03	.781		.781	.214	5.20	4,93	22.3	21.9	11.9	12.6
ż	• •	13.6	13.6	7.22	6.69	6.39	6.91	•263	2.45		2.45	1.11	3,13	3,00	19.4	19.2	12.8	10.8
3	•	10.7	10.7	6.17	5.46	4.52	5.24	+117	5.28	.00375	5+28	3.15	1.70	1.65	17.8	17.7	13.1	10.3
4	•	8,95	8.95	5,43	4,57	3.52	4.38	+0058	7,45	+0153	7+47	4.89	1.14	1,12	17.9	17.6	14.0	10.0
5	•	6.83	6.83	4,40	3.42	2.43	3.41	.0297	10.7	.0465	10.7	7.48	.663	.654	18.2	18.2	15.8	11.6
8	•	5.59	5.59	3,73	2.72	1.86	2.87	.0168	13,1	.0781	13.2	9.21	•454	.449	19.3	19.2	17.4	12.4
10		4,76	4.76	3.25	2.27	1.51	2.49	+0108	15.4		15+5	10.6		,338	20.6	20,6		<u>13,2</u>
15	•	2.83	2.83	2.05	1.23	.773	1.60	•00251	23.1	.210	23.3	13.6	+152	•151	26.3	26.3	25.5	15.0
30	•	2.06	2.06	1,54	.783	.520	1.28		27.5	.271	27.8	14.4	•0970	+0967	30.0	30.0	29.4	15.3
40	•	1,63	1.63	1.2.	.554	.392	1.08		30.6	•315	30.9	14.0	+0708 .0552	+0707 .0551	32.6	32.6	2.56	14.6
	•	1.18	1.18	.912	.332	.263	.848		34.8	.374	35.2	13.6	.0451	.0450	36.4	36.4	36.2	14.0
80	•	.927	.927	729	.225	.198	.702		37.3	+414	37.7	13.0	.0329	.0329	38.7	38.7	18.5	13,3
100		.770	.770	.611	.167	+159	.603		39.2	+445	39+6	12.3	.0256	+0256	40.4	40.4	40,2	12,5

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93 NEPTUNIUM (cm³/g = 0.002541 x barns/atom)

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E (MeV)	([#]) _{inc,t}	([#] _p) ^{BD} _{inc,t}	([#] _p) ^{KN} inc, a	(片) _{inc,a}	$\left(\frac{\mu}{\rho}\right)_{\text{inc},8}^{\text{KN}}$	([#] _p) ^{BD} _{inc,s}	(#) _{coh}	(5)×,	<u>(#)</u> *e	(چ) _{* (}	(#) _{x,a}	(芳) -, t	([#] _P) _{7,8}	([#])tot.t	(声) _{tot} t-coh	(誉) _{tot} , a	([#])tot.en
.001	.157	+00452	.000305	.0000088	.156	.00452	13.9										
•0015 Wr •001501	.156 .156	.00742	+000455	.0000216	.156	.00739	13.3										
				******			1343					3760.	3760.	3790.	3760.	3760.	3760 .
.002	•150 •155	.0103	+000605	+0000401	+155	+0103	12+6					1960.	1960.	1970.	1960.	1960.	1960.
Ny .003664	.155	.0195	.00110	.000137	.154	.0193	10.5					770. 485.	770. 485.	780.	770.	770.	770.
N 0 03850	.155	. 0204	00115		154	0203						1520.	1520.	1530.	1520.	1520	1520
	•155	****	+00115	+000151	•134	+1503	10.3					1380.	1380.	1390.	1380.	1380	1380.
+004	+155	.0212	.00119	.000163	.153	.0210	10.1					1390.	1390.	1400.	1390.	1390	1390.
-111 +004455	•134	.0233	.00132	+000148	•123	•0230	9.00					1020.	1020.	1030.	1020.	1020.	1020.
+005	+154	.0259	.00148	.000248	.153	.0257	9.07					887.	687.	897.	887.	887.	887.
MI +002366	+134	.02/4	•00158	•000282	•152	.0272	8.74					757.	757.	765.	757.	757.	757.
M _I .005735	+154	.0290	.00168	.000318	. 152	.0287	8.41					745.	745.	752	745.	745.	400. 745.
.006	.153	.0300	.00176	.000343	.152	.0297	8-18					833.	833.	841.	833.	833.	833.
+008	.152	.0376	.00231	.000569	.150	.0371	6.71					340.	340.	348.	742.	742.	742.
•01	.151	+0445	+00285	.000833	.149	,0437	5.59					190.	190	196.	190.	190	190.
LII .017613	.147	.0630	+00473	+00202	.143	.0610 .	3.15					40.9	63.0 40.9	60,5 44.7	63.0	63.0	63.0
.02	.146	.0673	.00526	.00743	.141		3.72					97.1	68.6	100.	97.1	97.i	68.6
LTI .021600	.145	.0699	.00562	.00269	.140	.0671	2.46					71.4	52.9	74.2	71.4 EB 7	71.4	52.9
L022427	.145	. 0709			1 30	44.81						82.3	60.7	84.9	82.3	\$2.3	68. 7
-1	••••	•••••	••••	+00265	•1.37	*****	2 • 34					74.2	55.4	76.5	74.2	74.2	55.4
.03	.141	.0798	.00734	+00414	.134	.0757	1.58					40.4	32.8	42.2	40.4	40.4	32.6
.05	.133	+08/7	+00912	+00584	,128	+0818	1.05					19.2	16.4	20.3	19,3	19.2	16.4
.06	.129	.0953	.0121	+00894	.117	.0864	.559					6.53	9.45	11.5	10.8	10.7	9.45
•08	.122	.0973	+0143	.0114	.108	.0859	.340					3.05	2.82	3,48	3,15	3.07	2.82
x .118670	.112	+0976	+0174	.0152	.0943	.0823	•166		··· -	· · ·		1,65	1,56	1.98	1.75	1.67	1,57
.15	.105	.0950	.0190	73		0770	107					4.47	1.42	4.73	4.57	4.50	1.44
•2	.0960	.0900	.0208	•0194	.0752	.0704	.0623					2.47	1.14	2.67	2.57	2,49	1.10
•3	.0836	.0805	.0225	.0217	.0610	.0590	.0282					.417	.305	.526	1.27	1,20	.724
••	.0747	.0729	+0232	•0222	.0516	.0506	.0160					.208	.166	.297	.282	.231	.189
.6	.0633	.0623	.0232	.0224	,0399	.0399	.00719					.123	.103	.200	.190	.146	.125
+8	.0554	+0551	.0227	·0218	.0328	.0333	.00407					.0432	.0389	102	0983	.0658	.0430
1.5	.0407	+0404	+0200	.0188	.0205	.0216	+00262	+00198		.00198	.000596	.0274		0795	0770_		.0457
2.	.0346	+0346	.0183	.0170	.0162	.0176	.000668	.00623		.00623	.00282	.00795	.00762	.0493	.0488	.0375	.0320
3. 4.	.0272	+02/2	.0157	.0139	.0115	.0133	.000297	+0134	.00000953	.0134	.00800	.00432	.00419	.0452	.0450	.0333	.0262
5.	.0196	.0196	+0123	.00999	.00729	.00966	.000109	.0235	.0000765	.0236	.0124	.00290	+00285	.0447	.0447	.0356	.0269
6. R.	.0174	+0174	•0112	.00869	.00617	.00866	.0000755	.0272	.000118	.0272	.0190	.00168	.00166	.0462	.0462	.0401	.0295
10,	.0121	.0121	.00826	.00577	,00384	.00633	.0000427	.0333	+000198 +000274	.0335 .0394	.0234	.00115	.00114 000859	+0490	.0488	.0442	.0315
15.	.00894	.00894	.00635	+00417	.00259	.00478	.0000126	.0501	+000424	.0506	.0320	.000534	,000531	.0600	.0600	0485	.0354
30.	.00523	+00/19	+00521	+00313	.00198 .00132	+00407	.0000064	•0587	+000534	.0592	.0346	.000386	.000384	.0668	.0668	.0648	.0381
40.	.00414	.00414	.00315	.00141	.000996	.00274		.0778	+000800	.0785	.0356	.000180	.000180	.0782	.0762	.0747	.0389
70. 60.	.00348	.00348	.00267	.00107	.000798	+00241		.0839	.000887	.0846	.0351	.000140	.000140	.0882	.0882	0874	.0363
80.	.00236	.00236	.00185	.000572	.000503	.00178		.0884	.000950 .00105	.0894 .0958	•0346 •0330	.000115	.000114	.0925	.0925	.0920	+0356
100.	.00196	.00196	.00155	+000424	.000404	.00153		•0996	.00113	.101	.0313	.0000650	.0000650	.103	.103	.102	.0318

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94 PLUTONIUM (baros/atom)

E (MeV)	<u>)</u>	KN O _{inc,t}	σ ^{BD} _{inc,t}	σ ^{KN} inc, a	$\sigma_{inc,a}^{BD}$	o ^{KN} inc.s	σ ^{BD} inc, s	σ _{coh}	σ _{*n}	σ×e	σ _{x.t}	σ _{×, a}	σ _{τ,t}	σ _{τ, a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot, a}	or tot, en
.001		42.1	1.76	.121	.00343	67.2	1.75	5590.										
.001	5	62.2	2.91	181	.00849	62+0	2.90	5360.										•
NT .001	562	62.1	3.05	.189	.00926	62+0	3.04	5330.					1410000	1410000	1420000.	1410000.	1410000.	1410000.
-						41.8	4.04	E110.					802000	802000.	807000.	802000+	802000+	802000.
.002		62.0	4.06	-241	+0158	61+6	4.72	5110+					313000+	313000.	318000.	313000.	313000.	313000+
+003	778	61.6	0.20		.0573	61.2	7.82	4220.					185000+	185000+	189000.	145000+	185000+	185000.
		0100	1.00										579000+	579000.	583000+	579000+	579000+	579000+
HIA *003	973	61.6	8.26	.471	.0631	61+1	8.20	4130.					592000+	592000.	596000.	592000+	592000.	592000.
+004	•	61.6	8+31	.474	.0639	61+1	8+25	4110.					579000.	579000.	583000.	579000.	379000+	388000.
HITI .004	568	61.4	9.39	•539	•0853	60.9	9.31	3860.					388000.	447000.	451000.	447000	447000.	447000.
			1	5.97	A977	60.7	10.1	3680.					362000	362000.	366000.	362000.	362000.	362000.
+003	, 	61.3	10.2	450	119	60.6	11.0	3470.					286000.	286000.	289000.	286000.	286000.	286000.
MII *00=	2222	01+2	11+1	*030	+110	0000		24.00					340000.	340000.	343000.	340000.	340000.	340000.
HT .005	5927	61.1	11.7	.691	•132	60+4	11+6	3330.					282000.	282000.	285000.	282000+	282000.	315000.
-													315000.	315000.	308000	305000.	305000.	305000.
•006	5	61.1	11.9	•699	+136	60.4	11.8	3310+					141000	141000.	144000	141000.	141000.	141000.
.004	5	60.6	14.9	.918	.226	59+/	14+/	2260.					78200.	78200.	80500.	78200.	78200.	78200+
<u>+01</u>	<u> </u>	80 . Z	22.8	1.63		- 57.5	22.2	1530.					26000.	26000.	27600.	26000.	26000.	26000.
L	8063	58.5	25.3	1.92	.830	56+6	24+5	1240+					15800.	15800.	17100.	15800.	15800+	15000+
	•	-					-5.5						37100.	20200.	30300.	29200.	29200	21500.
•02		58.1	26.7	2.10	•964	56.0	25.7	1100+					27600.	17200.	23600.	22600.	22600.	17200.
L11 .022	2270	57.6	28.1	2,29	1.12	22+3	2/+0	430+					31200.	23100.	32200.	31200.	31200.	23100.
L1 .023	3109	57.5	28.5	2,36	1.17	55+1	27.3	911+					28100. 32800.	21100.	29000. 33700.	28100. 32800.	28100. 32800.	21100.
.03		56.2	31.7	2.92	1.65	53.3	30+1	638.					16500.	13300.	17200.	16500.	16500.	13300.
.04		54.4	34.8	3.63	2.32	50.8	32.5	424.					7870.	6710.	8330.	7900.	7870.	6710.
.05		52.8	36.7	4.26	2.96	48.5	33.7	302.					4390.	3870.	4/30.	3740	2700	2440.
.06		51.3	37.8	4.81	3,55	46.5	34+3	226+					2700.	1160.	1630.	1290.	1260.	1160.
.08		48.6	38.6	5.69	4.52	42.9	34+1	138.					680.	640.	810.	719.	686.	645.
		46,3		6.39		39.9	33+3	61.0			···- ···		387.	368.	490.	426.	394.	374+
K +123	1797	44.1	38 • 7	0,77	0.13	3441	32.0	0309					1710.	544.	1810.	1750.	1720.	550.
.15		41.7	37.7	7.57	6,84	34+1	30.9	43.4					1000.	450.	1080.	1040+	1010.	290.
•2		38.2	35.7	8.26	7.72	29.9	28+0	25+2					482.	124.	215.	203.	180.	133.
•3		33.2	32.0	8,96	8,63	24.3	23.4	11+5					85.3	67.6	121.	114.	94.5	76.4
• •		29.8	29.0	9.22	8.84	20.5	17.8	4.20					51.0	42,5	81.9	77.7	60.3	51.4
+5		27.2	20+1	9.24	8.90	15.9	15.9	2.91					33.7	29.0	61.4	58,5	42.9	37.9
		22.1	21.9	9.03	8.65	13.1	13.2	1+65					17.8	10.0	41.3	37.7	20.0	18.6
1.		19.9	19.7	8,73	8.10		11.6	1.06					<u>5.45</u>	5.15	22.8	22.4	14.2	12.9
1.5		16.1	16+1	7,98	7.50	8+15	8.60	+480	+810		+010	1.14	3,30	3.16	19.8	19.5	13.1	11.0
Ζ.		13.8	13.7	7.30	6.74	0+90	0+70 5-29	.270	5.40	.00379	5+40	3.22	1,78	1,73	18.1	18.0	13.4	10.5
3.		10.0	9.04	5.49	4.61	3.56	4.43	.0678	7.60	.0155	7.62	4.99	1,19	1.17	17.9	17.8	14.3	10.0
. .		7.81	7.81	4.90	3.97	2.91	3.84	+0441	9.45	.0304	9.48	6.48	.885	•870	18.5	18.5	16.0	11.7
6.		6.90	6.90	4.44	3.45	2.46	3.45	•0306	10.9	+0470	10+9	7.01	. 479	.474	19.6	19.6	17.7	12.6
8.		5.65	5.65	3,77	2.74	1.58	2+91	+0172	13.4	+0/04	15.8	10.8		.358	21.0		19.5	<u>13.4</u>
10.		4.81		3.29	2.29	<u></u>	1,90		9 20.2	•16 F	20+4	12.8	.220	.219	24+2	24.2	23.1	14.7
15.		3,50	3,30	2.08	1.24	.781	1.62	.0026	0 23.5	.212	23.7	13.8	•160	+159	26.7	26.7	25.9	15.5
30.		2.08	2.08	1.55	. 788	•525	1+29		28.0	.274	28.3	14.6	•102 •740	.102	30.5	1 11.1	30.0	14.9
40.		1.65	1.65	1.26	.559	. 397	1.09		31.3	•318	31.6	14.3	.0579	.0578	35.3	35.3	35.0	14.5
50.		1,38	1+38	1.06	.425	+318	•955		33.5	.353	33.9	14.0	0472	.0471	37.1	37.1	36.9	14.2
60.		1.19	1+19_	•922	.333	+266	+857		33+7	• 419	38+5	13.2	,0343	.0343	39,5	39.5	19.3	13.5
80. 100.		.937	.937	.618	.168	.160	•610		40.0	.450	40+4	12.5	.0269	•0269	41.2	41.2	4).0	12.7

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94 PLUTONIUM (cm³/g = 0.002489 x harns/atom)

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E (MeV)	(学) ^{KN} tnc,t	([#] _Ø) ^{BD} _{inc,t}	([#] _p) ^{KN} _{inc,a}	(費) BD (声) inc, a	([#] _₽) ^{KN} _{inc,s}	(^µ _p) ^{BD} _{nc,s}	(뿔) _{coh}	(ڭ) _{*n}	([#] _p) _{* e}	$\left(\frac{\mu}{\rho}\right)_{x,t}$	(#) _{*.a}	(#), t	(^μ _ρ) _{τ, a}	([#] _p) _{tot,t}	(岸) _{tot,t-coh}	(岸) _{tot,a}	(%) _{tot, en}
.001	.155	+00438	.000301	.0000085	.155	.00438	13.9										
#1 .001562	.155	.00759	.000470	.0000230	.154	.00757	13.3										
.002	+154	.0101	.000600	.0000393	.154	.0101	12.7					3510.	3510.	3530. 2010.	3510.	3510. 2000.	3510.
.003	•154 •153	•0156 •0196	.000891	+0000904	.153 .152	.0155 .0195	11+4 ·					779.	179.	792.	779.	779	779.
N	.163	0206			163	0704	1003					1440.	1440+	1450.	1440.	1440.	1440.
				+000131	•••		10.3					1300. 1470.	1300+ 1470+	1310. 1480.	1300.	1300. 1470.	1300. 1470.
.004 HTTT .004568	.153 .153	.0207	.00118 .00134	.000159 .000205	152 152	.0205	10.2					1440.	1440.	1450.	1440.	1440.	1440.
.005	.153	.0254	.00146	.000243	.151	.0251	9.16					1110.	1110.	1120.	1110.	1110.	1110.
HII .005555	.152	.0276	.00162	.000294	.151	.0274	8+64					712.	712.	719.	712.	712.	712.
H1 .005927	.152	.0291	.00172	.000329	.150	.0289	8.29					846. 702.	846. 702.	854. 709.	846. 702.	84 6. 702.	846. 702.
.006	.152	.0296	.00174	.000339	.150	.0294	8.24					784 .	784 .	792.	784.	784 .	784.
.008	.151	+0371	.00228	.000563	.149	.0366	6.75					351.	351.	358.	351.	351.	351.
+015	•147	.0567	+00406	+00157	.143	+0553	3.81					<u> </u>	<u> </u>	<u>200.</u>	<u> </u>	<u> </u>	64.7
LIII .018063	+146	.0630	:00478	•00207	+141	.0610	3.09					39.3	39.3	42.6	39.3	39.3	39.3
.02	.145	.0665	.00523	.00240	.139	.0640	2.74					72.7	53.5	75.4	72+7	72.7	53.5
-11 •022270	•1•3	.0077	+00570	+00279	•138	.0672	2+30					56.3 77.7	42.8 57.5	58.7 80.1	56.3 77.7	50.3 77.7	42.8 57.5
LI +05310A	.143	•0709	•00587	+00291	•137	.0679	2.27					69+9 81+6	52.5	72.2	69.9 81.6	69.9 81.4	52.5
•03	+140	.0789	.00727	+00411	.133	.0749	1+59					41+1	33.1	42.8	41-1	41+1	33.1
•05	.131	.0913	.0106	+00737	.121	.0839	•752					10+9	9.63	11.8	19.7	10.9	9.63
•06 •08	•128 •121	.0941 .0961	+0120	+00884 +0113	+116 +107	+0854 -0849	.563					6.72	6.07	7+37	6.82	6.72	6.07
•1	.115	.0961	.0159	.0133	,0993	.0829	.228					1.69	1.59	2.02	1.79	1.71	1.61
K .121797	+110	•0963	+0174	+0153	.0923	.0811	+159					•963 4•26	•916 1•35	1+22	1.06 4.36	•981 4.28	•931 1•37
.15	.104 .0951	.0938	•0188 •0206	+0170	.0849	•0769 •0697	•108 •0627					2.49	1.12	2.69	2.59	2.51	1.14
.3	.0826	.0796	.0223	.0215	.0605	.0582	.0286					•426	.309	•535	.505	1.22	.722
•4	.0742	.0722	.0229	•0220	.0510	.0503	+0161					.212	.168	.301	-284	.235	.190
.6	.0625	.0617	.0230	.0222	.0396	.0396	.00724					.0839	•0722	•153	•193	.150	•128 •0 943
. •8	.0550	.0545	.0225	.0215	.0326	•0329	.00411					+0443	.0398	.103	.0988	.066	.0612
1.5	•0401	.0401	+0217	•0202 •0187	.0203	+0289	+00264	.00202		.00202	-000605	+0284	+0261	.080	7	.050	0 10463
2.	.0343	+0341	.0182	.0168	.0161	.0173	+000672	.00627		.00627	.00284	+00821	.00787	.049	3 .0485	.032	10274
3.	+0269	+0269	•0155	.0137	.0114	.0132	.000301	.0134	.00000943	+0134	.00801	.00443	+00431	+045	1 .0448	. 0 33	+0261
* • 5.	.0194	+0225	+0137	+0115	.00724	+0110	+000169	+0189	+0000386	+0190	+0124	+00296	-00291	•044	6 .0443	.035	+0264
6.	.0172	0172	.0111	.00859	.00612	+00859	+0000762	+0271	+000117	.0271	.0189	+00220	+00171	•0•⊐	0 +0+73	•030	.0281 .0291
8.	+0141	+0141	.00938	+00682	.00468	+00724	.0000428	.0334	.000196	.0336	.0234	.00119	.00118	.048	8 .0488	.044	+0314
10.	.00886	0120	.00819	.00570	.00378	.00627	.0000274	.0391	.000274	.0393		.000899	+000891		3 .0523	.048	
20.	.00712	.00712	.00518	.00309	.00194	.00403	+0000065	.0585	.000528	.0590	.0343	+000398	+000396	•060	2 •0602 5 •0665	•057	0306 0378
30.	.00518	.00518	.00386	+00196	.00131	.00321		.0697	.000682	.0704	.0363	+000254	+000254	.075	9 •0759	+074	+0386
4V. 50.	.00411 .00343	+00911	+00314	.00139	.000988	+00271 -00238		.0779	+000792	.0787	.0356	+000184	+000184	-082	9 .0829	.081	+0371
60.	.00296	.00296	.00229	.000829	.000662	.00213		.0884	.000941	.0894	.0343	.000117	.000117	•087	3 .0921	.087	. •036] •0353
80.	.00237	.00233	.00183	.000567	.000498	.00176		+0948	+00104	.095A	.0329	.0000854	+0000854	.098	3 .0983	.097	•0336
100.	.00194	.00194	+00154	.000418	.000398	.00152		•0996	.00112	.101	.0311	+0000670	+0000670	•103	+103	•ioz	+0316

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95 AMERICIUM (barns/atom)

E (MeV)	σ _{inc,t}	$\sigma_{ioc,t}^{BD}$	O _{inc,a}	σ ^{BD} σ _{inc, a}	oKN 0)nc,∎	σ ^{BD} _{inc,s}	σ _{coh}	σ×n	σxe	σ _{x,t}	$\sigma_{x_{i,a}}$	σ _{r,t}	Or.a	σ _{tot,t}	⁰ tot, t-coh	⁰ tot, a	σ tot, en
.001	62.9	1.75	.123	.00341	62.8	1.75	5720.										
.001	62.8	2.90	.183	.00846	62.6	2.89	5490.										
MI +0016	25 62.8	3.19	.198	+0101	62.6	3.18	5430.					1 740000	1340000	1250000	1740000.	1340000.	13400.00.
.002	62.7	4.05	.243	.0157	62.5	4.03	5240.					835000	835000	840000	835000+	835000.	835000
.003	62.5	6.25	.362	.0362	62.1	6.21	4710.					326000.	326000.	331000.	326000.	326000.	326000.
Ny .0038	94 62.2	8.09	.467	.0606	61.8	8.03	4270.					179000.	179000.)83000.	179000.	179000.	179000.
												560000.	560000+	564000+	560000+	560000.	560000+
+004 M	02+2 m 42.2	8.49	. 490	+0039	61.1	8.42	42204					530000+	530000+	534000+	530000+	505000.	505000+
	00 0-02					0042						572000.	572000+	576000 .	572000.	572000+	572000+
HIII +0041	03 62.1	9.62	•260	s0868	61.5	9.53	3900+					376000+	376000.	380000.	376000 +	376000.	376000.
	47.0	10.2	E 94		A1 . A	10.1	3770.					433000+	433000+	437000+	433000+	433000+	433000+
Her . 0051	AR 61.8	11.5	.678	.126	61.1	11.4	3480.					275000.	275000.	278000	275000	275000.	275000
				•••								327000.	327000.	330000.	327000.	327000.	327000.
+006	61.7	11.9	.707	.136	61.0	11.8	3390+					288000+	288000+	291000+	288000+	288000+	268000.
HI *006)	22 61.7	12.1	•72	+141	61+0	12+0	3350.					272000.	272000+	275000+	272000+	272000+	272000+
.008	61.3	14.9	.928	.226	60.4	i4.7	2780 .					149000 •	149000.	152000 •	149000+	149000+	149000+
.01	60.8	17.6	1.14	.330	59.7	17.3	2310.					42200	02200	84500.	82200.	82200+	82200+
.015	59.7	23.0	1.65	.636	58.1	22.4	1560.					27200.	27200+	28800.	27200+	27200+	27200.
LIII .0185	19 59.	25.8	1.48	.800	57+0	24+9	1230.					15400+	15400+	16/00+	15400+	154004	25500+
.02	58.7	26.9	2.12	.971	56.6	25.9	1120.					30200.	22000+	31300.	30200+	30200+	22000+
L11 .0229	58 58.1	28.7	2.38	1.17	55.7	27.5	943.					21700.	16600.	22700 .	21700+	21700.	16600.
1 4231	13 67 9	20.1	7 45	1 77	EE . S	37.9						30000+	22200+	31000+	30000+	30000+	22200+
~I •0236	15 3144	27.1	2.43	1 + 2 3	3347	21.47	6784					31600.	23600+	32500 .	31600.	31600.	23600.
•03	56.8	31.9	2,95	1.66	53.8	30.2	654+					17300.	13800.	18000.	17300.	17300+	13800.
+04	55.0	35.0	3.67	2.33	51.3	32.7	434.					8230 •	6990 •	8700+	8270+	8230+	6990+
•05	53.3	37.0	4.30	2,99	49.0	34.0	310+					4570+	+020+ 2540-	4720+	4010+	2830.	4020+ 2540-
.08	49.1	39.0	5.75	3.57	41.4	34.4	142.					1310.	1210.	1490.	1350.	1320.	1210.
.1	46,8	39.0	6.46	5,38	40.4	33.6	94+1					715.	672.	846.		721.	677.
K .1249	90 44.3	39.0	7,14	6.28	37.2	32.7	62+6					378.	360.	480.	417+	345.	366.
.15	42.1	38.1	7.65	6.97	34.5	31.2	44.6					1060+	520.	1130.	100.	1040.	- PLC
.2	38.6	36.1	8.35	7.80	30.3	28.3	25.8					501.	287.	563.	537.	509.	295.
.3	33.6	32.3	9.05	8.71	24.5	23.6	11.8)78.	127+	222+	210+	187+	136+
• •	30.1	29.3	9,32	8.94	20.8	20.4	6+66					89+5	70+4	125.	119.	98.8	79.3
•5	27.5	27.0	9,37	9.05	18+1	18+0	4+32					33+2	30.0	63.1	60+1	44.3	39.0
•8	22.3	22.1	9,13	8,73	13.2	13.4	1.69					18.7	16.7	42.5	40+8	27.8	25+4
1.	20.1	19.9	8,83	8.18	_11.2		1.08					<u> </u>	10+9				<u> </u>
1,5	16.3	16.2	8.06	7.55	8.24	8.65	+491	.840		+ 840	.252	3.47	3.33	23+2	20.0	13.4	13.2
2.	13.9	13.9	6.31	5.55	4.62	5.35	+219	5.53	.00383	5.53	3.29	1.86	1+81	18.4	18.3	13.7	10.6
4.	9.14	9.14	5.55	4.65	3.59	4.49	.0697	7.80	.0156	7.82	5.11	1+25	1+22	18.3	18+2	14+6	11.0
5.	7.89	7.89	4,96	4.00	2.94	3.89	+0453	9,65	.0307	9+68	6.60	•930	+914	18+5	18.5	15.6	11.7
6.	6,97	6.97	4.49	3,48	2.48	3.49	- +0314	11.1	.04/4	11+1	9.82	•500	•495	19.9	19.9	18.0	12.8
10.	7./1 4.8A	7+11 4-85	3.32	2.31	1.54	2.55		16.0		16.1	_10.9	, 380	377		21.3	19.8	13.6
15.	3,60	3.60	2.55	1.67	1+04	1.93	+0052	20.5	.170	20.7	12.9	•730	+229	24+5	24.5	23.5	14+8
20.	2.89	2.89	2.10	1.25	•789	1.64	+00270	24.0	-214	24+2	14.0	+167	+165	27+3	27.5	20.7	13+4
30.	2.10	2.10	1.57	.790	.401	1.30		31.9	.321	32.2	14.4	+0779	•0777	33.9	33.9	33.5	15+0
50.	1.39	1.39	1.07	427	.321	.963		34.2	.356	34+6	14.2	.0608	.0607	36+1	36+1	35.7	14.7
60.	1.20	1.20	.932	.336	.269	.864		36.1	•362	36.5	13.9	• 0497	+0496	37.7	37.7	37.5	14+3
80.	.947	.947	+745	•229	.143	•718		38+8	.423	39+2	12.6	.0281	+0302	41.9	41-9	41.8	12+8
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95 AMERICIUM (cm³/g = 0.002478 x barns/atom)

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E (MeV)	(声) ^{KN} inc,t	(≝) ^{BD}) _{nc,t}	([#] _p) ^{KN} _{nc,a}	(岸) BD (声) inc, a	([#] _p) ^{KN} _{inc, 8}	([#] ₅) ^{BD} _{inc,s}	([#]) _{coh}	(#)*n	(券) _{×e}	$\left(\frac{\mu}{\rho}\right)_{x,t}$	(#) *, a	([#] _p) _{7,1}	([#] _p) _{7,8}	([#]) _{tot, t}	([#]) _{tot,t-coh}	(%) _{tot,a}	([#] _p) _{tot, sn}
+001	.156	.00434	.000305	.0000085	.156	.00434	14.2										
WI .001625	.156	.00790	+000491	.0000250	155	.00768	13.5										1124.
.002	.155	.0100	.00060Z	.0000389	.155	.00999	13.0					2070+	2070.	2080.	2070.	2070.	2070.
.003 K003894	.155 .154	•0155 •0200	.000897 .00116	.0000897 .000150	.154 .153	.0154 .0199	11.7					808.	808. 444.	820. 453.	808. 444.	808. 444.	898+ 444.
-004	.154	.0206	.00119	.000158	.153	.0204	10.5					1390.	1390 •	1400.	1390.	1390.	1390+
HIW +004100	.154	.0210	.00121	.000166	.153	.0209	10.3					1250 •	1250+	1260.	1250.	1250.	1250.
NIII +004703	.154	.0238	.00139	.000215	.152	.0236	9.66					1420+ 932+	1420+ 932+	1430. 942.	1420+ 932+	932.	1420+ 932+
.005	.154	.0253	.00147	.000242	.152	.0250	9.34					1070+ 934+	1070 • 934 •	1080.	1070+	1070.	1070+ 934+
HII .005748	,153	.0285	.00168	.000312	• 151	.0282	8.62					681.	681.	689.	681.	681.	6 8].
.006	.153	.0295	.00175	.000337	.151	.0292	8.40					714.	714.	721.	714.	714.	714.
MI .006155	•153	.0300	•00178	.000349	. 151	•0297	8.30					674. 751.	674. 751.	681. 758.	674. 751.	874. 751.	674. 751.
.008	.152	• 0369	.00230	.000560	.150	.0364	6.89					369.	369.	377.	369.	369.	369.
.015	.148	.0570	+00409	+00158	.144	.0555	3.87					67.4	67.4	71.4	67.4	67.4	
LIII .018519	,146	• 0639	+00491	.00215	.141	.0617	3.05					38.2	38.2	41.4	38.2	38.2	38.2
.02	.145	.0667	.00525	+00241	.140	.0642	2.78					74.8	54.5	77.6	74.8	74.8	54.5
LII +022428	+144	•0711	•00590	+00290	.138	•0681	2.34					53+8 74+3	•1.1 55.0	76.8	53.B 74.3	74.3	55.0
r ¹ •053815	.143	•0721	•00607	.00305	.138	.0691	2.23					66.9 78.3	50.3 58.5	69.1 80.5	66.4 78.3	66.9 78.3	50.3 58.5
.03	.141	•0790	.00731	+00411	.133	.0748	1.62					42.9	34.2	44.6	42.9	42.9	34.2
.05	.132	.0917	+0107	+005741	,121	.0843	.768					11.3	9.96	12.2	11.4	11.3	9.96
•06	.128	.0944	.0120	.00885	.116	.0855	.575					7.01	6.29	7.68	7.11	7.01	6.29
•08	.116	.0966	.0142	.0133	.100	.0833	.233					1.77	1.67	2,10	1.87	1.79	1.68
K .124990	.110	.0966	+0177	+0156	.0922	.0810	.155					•937	+892	1.19	1+03	.954	.907
.15	.104	.0944	.0190	.0171	.0855	.0773	.111					2.60	1+12	2.80	2.70	2.63	1-14
.?	.0957	+0895	•0207 •0224	+0193	-0751 -0607	.0701	•0639 •0292					1+24	+711	1.40	1+33	1.20	•731
	.0746	.0726	.0231	.0222	.0515	.0506	.0165					.222	.174	.310	.295	.245	.197
•5	.0681	.0669	.0232	+0224	.0449	.0446	.0107					+132	+109 +07#3	•209 •156	•199 •149	•155	•132
.8	.0553	.0548	.0226	.0216	.0327	.03 32	.00419					.0463	.0414	.105	•101	.0686	.0629
1.5	.0498	.0493	<u>+0219</u>	.0203	.0278	.0290	.00268	.00208		.00208	000674	+0295	.0270	0819	.0788		.0473
2.	.0344	.0344	.0183	.0169	.0162	.0175	.000691	.00644	·	.00644	.00292	+0086	.00823	.0501	.0496	.0332	.0280
3.	.0270	.0270	+0156	+0138	.0114	.0133	.000307	+0137	+00000949	.0137	.00815	+00461	+00449	•0456	•0453	• 0339	+0263
5.	.0196	.0196	.0123	.00991	,00729	.00964	.000112	.0239	.0000761	.0240	.0164	+00230	+00226	.0458	.0458	.0387	0285
6.	.0173	.0173	.0111	+00862	.00615	.00865	+0000778	+0275	+000117	.0275	.0192	+00181	+00178	+0466	.0466	•0404	+0275
10.	0120	.0120	.00823	_00572	00382	00632	0000280	0396	_000275	.0399	.0270	.000942		0530		0491	
15.	.00892	.00892	.00632	.00414	.00258	.00478	.0000129	+0508	.000421	.0513	.0320	+000570	+000567	+0607	.0607	+0582	.0367
30.	.00520	+00520	.00389	+00197	.00132	.00322	•000000	+0709	+000686	+0716	.0367	+000265	+000265	•0771	•0771	+0758	•0389
40.	.00414	+00414	.00315	+00140	.000994	.00275		.0790	.000795	.0798	.0357	+000193	.000193	.0840	+0840	.0830	.0372
60.	.00297	.00297	.00231	+00108	.000667	.00214		.0895	+000947	.0904	.0344	+000123	.000123	.0934	.0934	+0929	•0354
80.	.00235	.00235	.00185	.000567	.000501	.00178		.0961	.00105	.0971	.0330	+0000897	+0000897	.0996	•0996	•0991	.0337
100+	*001A 2	+00142	+00155	+000+21	+000+01	*00123		+101	*10112	*1°2	*0315	+ 0000040	+0000676	+10+	+10+	+104	+0317

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96 CURIUM (barns/atom)

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E (MeV)	σ _{inc,t}	σ ^{BD} inc, t	σ ^{KN} σinc, a	σ ^{BD} _{inc.a}	σ _{inc,s}	σ ^{BD} _{inc,s}	σ _{coh}	σ•n	o,e	σ _{x,t}	σ _{x,a}	σ _{r,t}	O, a	σ _{tot,t}	σ _{tot,t-coh}	Utot.a	ortot, en
001	63.6	1.73	. 174	.00337	63.5	1.73	5840.										
.0015	63.5	2.88	.185	.00840	63.3	2.87	5600.										
NT .001689	63.4	3.32	.208	.0109	63.2	3+31	5500.					1260000	1280000.	1290000.	1280000.	1280000.	1280000+
• • • •					47.1	4.01	6340.					869000.	869000	874000.	869000.	869000+	869000+
.002	63.4	4.03	.240	+0120	63.8	6.20	4800					338000.	338000.	343000.	338000.	338000+	336000.
.003	63.1	0+24	.300	.0638	62.4	8.23	4300.					173000.	173000+	177000+	173000.	173000.	173000.
× .004012	62.9	8.32	.485	.0642	62.4	8.26	4290+					173000.	173000.	177000.	173000+	173000+	542000+
M	42.8	8.74	.511	.0711	62.3	8.67	4190.					487000+	487000+	491000+	497000.	487000.	487000 .
HIA COAFTE	02.00											552000.	552000+	556000. 369000.	552000+ 365000+	552000+ 365000+	365000+
M _{III} .004839	62.7	9.88	•281	•0917	62.1	9.19	3720.					420000.	420000 +	424000 .	420000+	420000+	420000 · 390000 ·
.005	62.6	10.2	+600	.0977	62.0	10.1	3850.					390000+	264000.	267000.	264000+	264000+	264000+
H _{II} .005945	62.4	11.8	.708	<u>,134</u>	61+7	11+7	3480+					314000.	314000.	317000.	314000.	314000.	314000+
	47 A	11.0	.714	.136	61.7	11.8	3460.					305000.	305000 .	308000+	305000.	305000.	305000.
M 006322	62.3	12.4	.751	.149	61.6	12.3	3350.					262000.	262000+	265000+	262000.	262000.	284000+
1 1000355	02.05		••••	•••								291000+	291000+	294000+	241000+	291000+	155000+
.008	61.9	14.9	.937	•226	61+0	14+7	2830.					155000+	155000+	88400+	86000.	86000.	86000+
.01	61.5	17.7		,332	60+3	17.4	2300.					28400+	28400+	30000.	28400+	28400+	28400+
+015	60.4	23.1	1.04	.903	57.5	25.4	1230.					15100.	15100 .	16400 .	15100+	15100+	15100.
JII +010405	37.3	20+3	2.04		3,,,,,							35100.	24900.	36400+	35100+	35100+	22400.
.02	59.3	27.1	2.14	•978	57.2	26.1	1150+					31000.	22400+	21800+	20800	20800.	15900+
L _{II} .023663	58.6	29.3	2,46	1+23	56+1	28.1	928.					28800 -	21400+	29800 .	59900 •	28800.	21400+
L ₁ .024535	58.4	29.7	2,54	1,29	55.9	28+4	885.					26000+ 30400+	19600 • 22700 •	31300.	30400.	30400+	22700 •
.03	57.4	32.2	2.98	1.68	54.4	30.5	671.					17900+	14200+	100000	8590	8550.	7230.
.04	55.5	35.3	3.71	2.35	51+8	32.9	445+					4770.	4180.	5130.	4810+	4770+	4180+
.05	53.9	37.3	4.35	3.01	49.0	34+3	318+					2950 .	2650.	3230.	2990 •	2950.	2650+
•06	52.4	38.4	4.91	3.60	41.8	34.0	145.					1370 .	1260.	1550+	1410.	1380+	1260.
•08	47.1	37.3	6.53	5.42	40.8	33.9	96 • 7						702.		787	176.	357.
x 128253	44.5	39.2	7.29	6.42	37.2	32.8	61+3					369.	351+	1710.	1650.	1620.	519.
15	42.6	38.5	7.73	6.99	34.9	31.5	45.8					1080 •	451.	1160.	1120.	1090.	458 -
.2	19.0	36.5	8.44	7.89	30.6	28.6	26+5					521 +	293 •	221.	219.	195.	141.
.3	33.9	32.7	9.15	8.82	24.8	23.9	12+1					180+	72.7	129.	123 •	102+	81.7
. 4	30.4	29.6	9,42	9.00	21:0	20.6	0.84					55.4	45.7	87.	1 82.7	64+	54.8
+5	27.8	27.3	9.47	9.15	16.2	10+2	3.08					36.7	31+4	65.	1 62.0	46+	40+5
• •	23.4	27+3	9.22	8.85	13.3	13.6	1.73					19+6	17+5	43.	7 42+0	78+	2014
1.5	20.3	20.1	8.92	8.24	11.4	11.9	1.11						<u> </u>		7 32.0	15.0	13.5
1.5	16.5	16.4	8.15	7.63	8.32	8.77	.506	.865		+865	+259	3.63	3.47	20 .	6 20.3	13.	11.5
2.	14.0	14.0	7.46	6.87	6.59	7.13	+286	2.68	.00387	2+07	3.38	1.95	1.89	18.	8 18+6	14+	0 10.9
3.	11.0	11.0	6.3/	5.60	3.63	5.40	.0716	7.94	.0158	7.96	5,20	1.31	1+28	18+	6 18.5	14.	
<u>*</u> •	7.04	7.08	5.00	4.04	2.97	3.94	+0465	9.83	.0311	9.86	6.73	•967	•950	18.	y 18.0	13+	5 1 2 .1
5.	7.05	7.05	4.54	3.51	2.51	3.54	.0323	11.3	+0479	11.3	7.86	• 76.3	+152	20.	2 20.2	18.	3 12.9
8.	5.77	5.77	3.85	2.78	1.92	2.99	+0182	13.8	.0803	13.9	9.05	.395	.392	21.	7 21.7	20.	2 13.8
10.	4.91	4.91	3.36	2.33	1.55	2.58	+0110	A 20.9	.172	21.1	13.1	.240	•239	25+	0 25.0	23.	9 15.0
15.	3,63	3.63	2,58	1.68	.798	1.66	.0027	9 24.4	.216	24+6	14.2	•175	+174	27.	7 27.1	26+	y ∐5+8 1 1€.0
20.	2,92	2.12	1.59	.80)	.537	1.32		29.1	.279	29.4	15.0	•112	+112	31.	0 31+0 5 74.0	, 11+ ; 11+	1 15.3
40.	1.69	1.69	1.28	.570	.405	1.12		32.4	+324	32.7	14.0	1100. AFAn.	.0633	36.	7 36.7	36+	3 14.8
50.	1.41	1.41	1.08	.433	.324	.977		34,5	•300	37+2	14.3	•0515	+0517	38.	4 38.4	38+	1 14+5
60.	1.21	1.21	•942	.338	.272	.872		39.5	+ 300	39.9	13.5	•037A	+0378	40 •	9 40+9	40+	7 13.6
80. 100.	•957 •795	.957 .795	•753 •631	•232 •172	.164	.623		41.5	.458	42.0	12.8	. 0295	.0295	42.	8 42.8	42+	7 13.0

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96 CURIUM (cm³/g = 0.002438 x barns/atom)

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E (MeV)		4 <u>=.t</u> ((⁵))nc,t	([#]) inc, a	([#] _p) _{nc,a}	(岁) ^{KN} inc,s	([#] _b) ^{BD} inc,s	(불) _{coh}	(勞)×n	(作) _x e	(ڭ) _{×, t}	(#) _{×,a}	(岩) - t	(#),	(*)	(#)	(#)	(Ë).
.001	•19	55	.00422	.000302	.0000082	.155	.00422	14.2									"P'tot, a	'p'tot, en
+001 W001	5 •15 689 •18	55 55	+00702	.000451	.0000205	.154	.00700	13.7										
a1 •001	•1.	-		+000507	+0000266	•13•	+00807	13.4					3120.	3120.	3150	2120	1170	31.70
-002	.1	55	.00983	.000600	.0000380	.154	.00978	13.0					2120.	2120.	2130.	2120.	2120.	2120.
.004	-19	53	+0152	.000892	.000156	.153	.0151	11.7					824 .	824.	836.	824.	824.	824 .
Hy +004	012 .15	Š3	.0203	.00118	.000157	.152	.0201	10.5					+22+ 422+	422+ 422-	432.	422+	422.	422 .
HIV .004	230 .1	53	.0213	.00125	+000173	.152	.0211	10.2					1320.	1320. 1190.	1330. 1200.	1320.	1320.	1320. 1190.
MIII .004	839 .15	53	•0241	+00142	.000224	•151	.0239	9.56					1350. 890.	1350. 890.	1360. 900.	1350+	1350. #90.	1350. 890.
.005	.15	53	+0249	+00146	.000238	.151	.0246	9.39					1020+	1020.	1030.	1020+	1020.	1020.
HII .005	945 .15	52	•0288	+00173	.000327	.150	.0285	8.48					644.	644.	651.	644.	644.	644.
.006	.15	52	.0290	.00174	.000332	.150	.0288	8.44					766 .	766 .	773.	766.	766.	766.
H ₁ .006	322 .15	52	.0302	.00183	.000363	.150	.0300	8+17					639.	639.	751.	744.	744.	744 .
.008	.15	51	.0363	.00228	.000551	.149	.0358	6.90					709.	709.	717.	709.	709.	709.
.01	,15	50	,0432	.00280	,000809	.147	.0424	5.75					378.	378.	385.	378.	378.	378.
+015	·14	47	.0563	+00407	+00156	.143	+0549	3.90				-	69.2	69.2	73.1	69.2	69.2	69.2
-111 +010	702 ÷14	• •	*00+1	+00+97	+00220	•1•0	+0619	3.00					36.8	36.8	40.0	36.8	36.8	36.8
.02	.14	45	.0661	.00522	.00238	.139	.0636	2.80					75.6	00+7 54+6	80.7 78.5	83+6 75.6	85.6	60.7
LII +023	003 +14	• 3	+0714	•00000	.00300	•137	•0685	2.26					50.7	38.8	53.1	50.7	50.7	38.8
L1 .024	535 .14	42	•0724	.00619	.00315	.136	•0692	2,16					70+2 63+4 74-1	52.2 47.8 55.3	72.7 65.6	70.2 63.4	70.2 63.4	52.2
•03	•14	NO 15	.0785	.00727	.00410	.133	.0744	1.64					43.6	34.6	45.3	43.6	43.6	55.3
.05	.13	30	.0801	+00904	.00573	.126	.0802	1.08					20.8	17.6	22.0	20.9	20.8	17.6
.06	.12	28	.0936	.0120	.00878	.116	.0848	.580					11+0 7-19	10.2	12.5	11+7	11.6	10.2
•08	.12	21	.0958	+0142	.0112	.107	.0846	.354					3,34	3.07	3.78	3.44	7.19	0.46
x .128	253 .10	3	+0958	+0159	+0132	+0995	.0826	• <u>236</u>			· · · · · · · · · · · · · · · · · · ·	.	1.82	1.71	2.16	1.92	1.84	1.72
								••••					3.93	+056	1.14	•995	,917	.670
•15	.00)* 251	.0939	.0188	+0170	.0851	.0768	+112					2.63	1.10	2.83	2.73	2.66	1.12
.3	.08	26	.0797	.0223	.0215	.0605	.0583	+0040					1.27	•714	1.42	1.36	1+29	•734
•4	.07	41	.0722	.0230	.0219	.0512	.0502	.0167					**33	+ 322	• 503	+534	.475	•344
•5	.06	27	+0666	+0231	•0223	+0446	.0444	.0108					+135	•iii	.212	.202	.158	•134
.8	.05	51	.0546	.0225	.0216	.0324	.0332	+00791					• 0895	+0766	+159	+151	+112	.0987
<u> <u></u></u>	.04	95	.0490	.0217	.0201	.0278	.0290	.00271					+0305	+0278	• 107	+102	-0702	• 0644
2.	.03	141	+0400	.0199	+0186	+0203	.0214	.00123	+00211		.00211	.000631	+0146	+0137	+ 0578	+0566	+0366	+0329
3.	.02	68	.0268	.0155	.0137	.0114	.0132	.000310	.0138	.00000944	+00653	+00295	+00885	+00846	• 0502	+0495	.0336	+0280
4.	.02	25	.0225	.0137	+0115	.00885	.0111	.000175	+0194	.0000385	.0194	.0127	+00319	+00312	.0453	+0453	+0341	+0206
6 .	.01	72	+0195	+0122	.00985	.00724	.00961	.000113	+0240	.0000758	.0240	+0164	+00236	+00232	.0461	.0458	+0385	.0285
8.	.01	41	.0141	.00939	.00678	.00468	.00729	.0000444	•0336	+000117	.0275	.0192	+00186	+00183	• 0466	.0466	.0405	• 0295
10.	.01	20	<u>.0120</u>	.00819	+00568	.00378	.00629	.0000283	.0397	+000273	.0400	.0271	.000963	.000956	.0529	.0529	.0492	+0315
20.	+00	712	.00712	+00029	+00410	.00256	+004/5	.0000130	+0510	+000419	.0514	.0319	.000585	+000583	+0609	.0609	.0583	.0366
30.	.00	517	.00517	.00388	.00195	.00131	.00322		.0709	+000527	.0717	+0346	+000+27	.000424	+0675	+0675	.0656	.0380
40.	•00	412	.00412	.00312	.00139	.000987	.00273		.0790	.000790	.0797	.0356	+000198	+000197	•0841	+0841	.0758	+0388 +0371
60.	.00	295	.00295	.00230	+00106	.000790	.00238		+0848	+000878	.085A	•0349	.000155	.000154	.0895	.0895	.0885	•0361
80.	.00	233	.00233	.00184	+000566	.000497	.00177		•0963	+00104	.0704	.0344	+000126	+000126	•0936	•0936	•0929	+0354
100.	•00	194	+00194	+00154	+000419	.000400	•00152		•101	+00112	.102	.0312	+0000719	.0000719	+104	+104	•104	• 03 36 • 03 1 7

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97 BERKELIUM (barns/atom)

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E ()	MeV)	σ _{inc.t}	o ^{BD}	O)oc, a	o ^{BD}	oKN oinc,s	o ^{BD} nc,∎	o _{coh}	σ×n	σ×e	σ _{x.t}	σ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	σ _{r.t}	σ	σ _{tot,t}	σ _{tot.t-coh}	ortot.a	σ ≠ot.en
	.001	64.3	1.72	.125	.00335	64.1	1.72	5970.										
	.0015	64.1	2.86	.187	.00834	64.0	2.85	5730.										
×.	.001755	64+1	3.45	.218	.0118	63.9	3.44	5590+										
	. 002	64 . A	4 41	748		47 8							1220000.	1220000.	1230000.	1220000.	1220000.	1220000.
	.003	63.8	6.23	.370	.0361	43.4	3.77	3400+					903000.	903000.	908000.	903000.	903000.	903000.
	.004	63.5	8.29	489	.0638	63.0	8.23	4410.					180000.	180000.	184000+	350000.	180000.	350000+
Hy	.004132	63.5	8.55	.504	.0679	63.0	8.48	4340.					168000.	168000.	172000.	168000.	168000.	168000.
¥		47 4		E 2-		40.0							524000.	524000.	528000.	524000.	524000+	524000.
-I	•••••	03**	0.99	* 37 E	+0/34	02.7	8+41	4230+					470000.	470000.	474000.	470000.	470000.	470000.
MIII	.004977	63.3	10.1	.604	.0963	62.7	10.0	3950.					354000.	354000.	358000.	533000.	33.3000.	354000.
			·	-									407000	407000	411000.	407000	407000	407000
	.005	63,3	10.2	•606	.0977	62.7	10+1	3940.					403000.	403000.	407000.	403000.	403000.	403000.
	•000 006147	63.0	11.9	• 722	•136	62+3	11+8	3540+					268000.	268000.	272000.	268000.	268000.	268000.
HII -	•••••	63+V	12+1	• 134	•1•2	02+3	12+0	3440+					254000.	254000.	258000.	254000.	254000.	254000.
×,	.006526	62.9	12.8	.782	.159	62+1	12.6	3360.					253000	253000.	256000	253000.	263000	253000.
-							-						280000.	280000.	283000.	2A0000.	280000.	280000.
	.008	62.6	15.0	.947	• 22 7	61.6	14.8	2900.					162000.	162000.	165000.	162000.	162000.	162000.
2	01 A18	<u>62.1</u>	- 17.7	1.10	- 332	61.0	17.4	2420.		·····			89600.		92000.		A9600.	89600.
Larr	019452	60.1	26.9	2.11	.945	57.9	26.8	1220.					29/00.	29700.	14000	29700.	27/00.	29700.
-111			•				2010	12200					34100.	24300	35300.	34100.	34100.	24300
	.02	59.9	27.2	2.16	.982	57.8	26+5	1180.					31800.	22900.	33000.	31800.	31800.	22900.
LU	024385	59.0	29.9	2,55	1.29	56.5	28.6	915.					20000.	15400.	20900.	20000.	20000.	15400.
Le .	025275	58.9	30.3	2.63	1.35	56.2	28.9	872.					27700.	20700.	28600.	27700.	27700.	20700.
						2000	2007	0.54					29200.	21900	30100.	29200.	29200.	21900.
	03	57.9	32.4	3,02	1.69	55.0	30.7	688.					18600.	14700.	19300.	18600.	18600.	14700.
	04	56,1	35.6	3.74	2.37	52.4	33.2	457.					8910.	7510.	9400.	8950	8910.	7510.
•	05	54.5	37.6	4+39	3.03	50+1	34.6	327.					4970.	4340.	5330.	5010.	4970.	4340.
	00	56.7	30,7	5.88	3.63	48.0	35.1	149.					3080.	2760.	3360.	3120.	3080.	1320
	.1	47.8	39.7	6.60	5.48	41.2	34.2	99.2					786.	736.	925.	826.	793.	741.
T,	131590	44.6	39.5	7.44	6,58	37.2	32.9	60.1					360.	343.	460.	399.	367.	350.
			3.		• • •								1560.	496.	1660.	1600.	1570.	503.
	12	39.4	30,9	/+81	7.00	33+6	31+8	7.0					1120.	450.	1210.	1160.	1130.	457.
	3	34.3	33.0	9.74	8.90	25.0	24.1	12.4					194.	136.	239.	227	203.	145.
	4	30.7	29.9	9.52	4.09	21.2	20.8	7.03					97.0	75.2	134.	127.	107.	84.3
	5	28.0	27.5	9.57	9.21	18.5	18.3	4.55					57+8	47.4	89.8	85.3	67+4	56.6
•	6	25.9	25.6	9.53	9.19	16.4	16.4	3.16					38.3	32.6	67+1	63.9	47.8	41.5
1.		20.5	20.4	9.32	8.36	13+5	12.0	1.14					13.1	10.2	34.6	4301	22.1	20.3
1.	5	16.6	16.6	8.23	7.72	8.41	8.88	•520	.890		.890	.267	6.26	5.89	24+3	23.7	15.4	13.9
ź,		14.2	14.2	7.53	6,97	6+66	7.23	.294	2.75		2.75	1.25	3+80	3.63	21+0	20.7	14+1	11.8
3,		11.2	11.1	6,44	5.64	4.72	5.46	•130	5.80	.00391	5.80	3,45	2.04	1.98	19•1	18.9	14.3	11+1
- 21		9,33	9.33	5.00	4.74	3+07	4,57	•0/35	8.12	.0100	8+14	5.31	1+37	1.34	10+7	10+0	19+2	11
6.		7.12	7.12	4.59	3.54	2.54	3.58	.0332	11.5	+0515	11.5	7.99	•795	.783	19.4	19.4	16.9	12.3
8.		5,83	5.83	3.89	2.80	1.94	3.03	.0187	14.2	+0811	14+3	9.91	+547	.541	20.7	20.7	18.7	13.3
10,		4,96	4,96	3,39	2.35	1.57	2,61	•0119	16.6		16.7	11.3	••11	.407	23.1	22+1	20.5	<u>14+1</u>
15.		3.67	3.67	2,61	1.70	1+07	1.97	+00547	21+3	+174	21.5	13.4	+250	+249	25+4	25+4	24+4	15+3
30.		2.15	2.15	2.14	.811	+000	1.00	+0v 28 8	29.6	+210	29.9	15.2	.116	.116	32.2	32.2	31.6	16-1
40.		1.71	1.71	1.30	.575	+409	1.14		33.0	.327	33.3	14.8	.0845	.0843	35.1	15.1	34.7	15.5
50.		1.42	1.42	1.10	.435	.328	+985		35.5	.364	35.9	14.6	+0661	+0660	37.4	37.4	37.1	15.1
60.		1.23	1.23	.952	.342	+274	•888		37.4	.389	37.8	14.2	+0540	.0539	39+1	39+1	38.8	14.6
100-		.803	.803	.638	.233	+207	•734		42.2	430	40.0	12.9	•0307	.0307	41-5	43-5	43-4	14-1
			+ 0	+	• • •		1000											

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97 BERKELIUM (cm³/g = 0.002419 x barns/atom)

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E (MeV)	([#] _p) ^{KN} _{inc,t}	(ÿ) ^{BD} ioc,t	$\left(\frac{\mu}{\rho}\right)_{\mathrm{inc},a}^{\mathrm{KN}}$	(#) ^{BD} _{inc,a}	(^µ / _p) ^{KN} _{inc,s}	([#]) ^{BD} _{inc, s}	([#]) _{coh}	(پ) _{×n}	(^µ _p) _{×e}	(ڭ) _{×, t}	([#] _p) _{×,2}	([#] _β) _{7,1}	(#), a	([#]) _{tot, t}	(券) _{tot,t-coh}	(賞) _{tot, a}	([#]);ot, en
.001	.156	.00416	.000302	+0000081	.155	.00416	14.4										
+0015 W- +00175	•155 5 •155	+00692	.000452	10000202	+155	.00689	13.9									,	
			•••••52		• • • • •		13+3					2950.	2950.	2980.	2950.	2950.	2950.
.002	.155	.00970	+000600	+0000377	+154	+00965	13.2					2180.	2180.	2200.	2180.	2180.	2180.
.004	.154	•0201	.00118	+000154	,152	.0199	10.7					847. 435.	647. 435.	859.	847. 435.	847.	847.
My .00413	2 .154	• 02 0 7	.00122	+000164	+152	.0205	10.5					406+	406.	416.	406.	406.	406.
MIV .00436	4 .153	.0217	.00129	.000182	•15Z	.0216	10.2					1270. 1140.	1270.	1280.	1270. 1140.	1270. 1140.	1270+ 1140+
M _{III} .00497	7 .153	.0244	.00146	.000233	.152	.0242	9.56					1290.	1290 • 856 •	1300.	1290.	1290.	1290. 856.
.005	.153	.0247	.00147	.000236	.152	.0244	9.53					975.	975.	985.	975.	985.	975.
+000 H00614	•152 7 •152	+0288	+00175	.000329	+151	.0285	8.56					648.	648.	658.	648.	648.	648.
11					•1.21		0					731.	614+ 731.	624. 748.	614.	614.	614 •
RI .00052	6 .152	.0310	.00189	.000385	. 150	.0305	8.13					612.	612.	619.	612.	612.	612.
• 0 0 8	.151	.0363	.00229	.000549	.149	.0358	7.02					677+ 392.	877. 192.	685.	677.	677.	677.
• 01	.150	+0428	.00281	.000803	.148	.0421	5.85					217.	217.	223.	217.	217.	217.
LTTT .01945	2 .145	.0501 .0651	+00409	+00155	.143	•0547 •0629	3.97					71+8	71.8	76.0	71.8	71.6	71.8
					•••							82.5	58.8	30.7	37.0	37.5	35.8
+02 L +02438	•197 5 .143	.0723	+00523	+00238	•140 •137	+0634	2.65					76.9	55+4	79.8	76.9	76.9	55.4
11					•1-•		2443					40.4 67.0	37.3 50.1	50.8	48.4	48.4	37.3
L1 .02527	5 ,142	.0733	.00636	•00327	•136	.0699	2+11					60.5	45.7	62.7 72.8	60.5	60.5	45.7
+03	.140	+0784	+00731	+00409	.133	.0743	1.66					45.0	35.6	44.7	45.0	45.8	35.6
.05	.132	.0910	.0106	.00733	.121	.0837	.791					21+0	18+2	22.7	21.7	21.6	18.2
.06	.128	.0936	.0120	.00878	.116	.0849	.590					7.45	6.68	8,13	7.55	7.45	. 18.7
•00	.116	.0956	+0142	.0112	.107	.0847	.360					3.46	3.19	3,92	3.56	3.48	3.19
x 13159	108	.0956	.0180	.0159	.0900	.0796	•145		<u> </u>			•871	.830	2,24	2,00		<u>1.79</u>
.15	.104	.0941	.0189	-0171	.08%1	.0769	.114					3.77	1.20	4.02	3.67	3.80	1.22
+2	.0953	.0890	+0206	.0193	.0747	.0697	.0660					2+71	1.09	2.93	2.81	2.73	1.11
.3	.0830	.0798	.0224	.0215	.0605	.0583	.0300					.469	.329	.578	.549	.491	
.5	.0677	.0665	.0230	.0223	.0513	+0503	-0170					+235	.182	.324	• 307	.259	.204
•6	.0627	.0619	.0231	.0222	.0397	.0397	00764					.0926	•0789	.162	•200	-103	-137
1.8	.0552	+0547	+0225	+0216	.0327	.0331	.00431					+0496	+0440	•109	•104	.0721	.0656
1.5	.0402	.0402	.0199	.0187	.0203	.0215	.00126	+00215		.00215	.000646	+0151	+0285	.083	7 <u>.0810</u> A .0573		.0491
2.	.0343	.0343	.0182	.0169	.0161	.0175	.000711	+00665		.00665	.00302	+00919	.00878	.050	8 +0501	.0341	.0285
4.	.0226	+0226	.0137	.0115	.00888	.0111	+000178	.0196	+0000387	+0140	.00835	+00493	+00479	+046	2 •0457	• 0346	.0269
5.	.0195	.0195	.0122	.00985	.00726	.00965	.000116	.0242	+0000757	.0242	.0165	+00244	+0024 0	.046	2 .0492	.0389	.02/6
8.	-01/2	.0172	+0111	.00856	.00614	+00866	.0000803	+0278	+000117	•0278	.0193	+00192	+00189	•046	• 0469	.0409	.0298
10.	.0120	.0120	.00820	00568	00380	.00631	.0000288	.0402	_000273	.0406		+000132	+00131	•070	1 •0501 5 •0535	.0452	.0322
15.	.00888	•00888 •0071▲	.00631	+00411	.00259	.00477	.0000132	.0515	.000421	.0520	.0324	+000605	• 000602	.061	4 .0614	.0590	.0370
30.	00520	.00520	+00387	+00196	.00131	.00324	•0000010	.0716	+000527	+0007	•0348 •0368	+000+38 +000281	+000435 +000281	•068	2 •0682	.0663	.0382
40.	.00414	+00414	.00314	.00139	.000989	.00276		• 0798	.000791	.0806	.0358	+000204	.000204	.084	.0849	.0839	.0369
60.	.00298	.00343	.00206	+00105 +000 8 27	.000793	+00238		+0859 .0945	+000881	+0868	.0353	+000160	.000160	• 090	5 .0905	.0897	.0365
80.	.00234	.00234	+00184	+000564	.000501	.00178		.0972	+00104	.0982	• 0331	+0000953	+0000953	+0940	■ +0946 •101	.0939	.0353
100.	.00194	+00194	+00154	+000418	+000402	·00152		•10Z	+00112	.103	\$150.	+0000743	+0000743	+105	.105	.105	•0317

98 CALIFORNIUM (barns/atom)

E (MeV)	KN ⁰ inc.t	$\sigma_{inc,t}^{BD}$	o ^{KN}	σ ^{BD} inc,∎	0)nc, s	σ _{inc,s}	σ _{coh}	σ.,	σ _{×e}	σ _{x,t}	σ.,	σ _{7, t}	or, a	σ _{tot,t}	Otot,t-coh	o, a	⁰ tot, en
					8.44	1.71	£100×										
.001	64.9	1./1	121	+00333	64.6	2.84	5860.										
-0015 W001822	64.7	2+65	.229	.0127	64.5	3.57	5690.							1170000.	1140000.	1160060	1160000+
MI *0010EE	0-,,	3,30										1160000.	1100000.	942000	936000	936000.	936000.
•002	64.7	3.99	.251	.0155	64.4	3.97	5590 .					363000.	363000.	368000.	363000.	363000.	363000.
.003	64.4	6.21	.373	.0360	64.1	6+17	5040.					185000	185000+	190000.	185000.	1#5000+	185000.
.004	64.2	8.28	.494	.0637	63.7	8.22	4520+					162000.	162000+	166000.	162000+	162000+	162000+
My .004254	64.1	8.78	,524	+0718	93+0	8+11	4370+					508000+	508000.	512000.	508000.	508000+	508000.
W AA4EA7	44 1	9.25	. 554	.0799	63.5	9.17	4270.					454000+	454000+	458000+	454000+	454000+	434000+ E14000-
NIN +004905	01	7465		••••								514000+	514000+	518000+	340000+	369000	369000.
.005	63.9	10.2	.612	.0977	63.3	10.1	4040+					369000.	344000	348000.	344000.	344000.	344000.
Here .005117	63.9	10.4	.626	.102	63.3	10.3	3990.					395000.	395000.	399000	395000.	395000.	395000.
							7470.					277000.	277000.	281000.	277000.	277000.	277000.
.006	63.7	11.4	.729	.130	63.0	11.0	3630+					244000.	244000.	248000.	244000.	244000.	244000.
M _{II} .006353	63.6	12+5	. 7 70	•151	62.0	15+2	3900+					291000.	291000.	295000.	291000.	291000.	291000.
W- 006735	41.5	13.1	.814	.168	62.7	12.9	3370.					244000.	244000.	247000.	244000.	244000+	270000.
wI +000133	03.5		•-•	••••		•						270000.	270000.	273000.	169000.	169000	169000
.008	63.2	15.0	.957	.227	62.3	14+8	2970 •					109000.	93300	95800.	93300.	93300.	93300
•01	62.8	17.8	1.18	, 334	61.6	17.5	2470.						31100.	32800.	31100.	31100.	31100.
.015	61.6	23.3	1.70	.644	59.9	22.7	1670+					14500.	14500.	15700.	ī4500.	14500.	14500.
L _{III} +019929	60.6	27.4	2.18	,984	58.4	20.0	1210.					33100.	23600.	34300.	33100.	33100.	23600.
		27.4	7.18	. 989	58.4	26.4	1210.					32700.	23400.	33900.	32700.	32/00+	23400.
+02	60.0	30 6	2.64	1.35	56.9	29.1	902.					19300.	14900+	20200.	19300+	26600.	19900
rII *052152	57.5	30.03	2.04	1.13.5	5017							26600.	19900.	25000.	26100.	24100.	18300.
L 026030	59.3	30.9	2.72	1.42	56.6	29.5	860.					28200.	21200.	29100.	28200.	28200.	21200.
•						<u>.</u>	704					19400	15200.	20100.	19400.	19400.	15200.
.03	58.5	32.7	3,05	1.70	55+7	31+0	100.					9270.	7780.	9770.	9310.	9270.	7780.
.04	56.7	35.9	3.78	2,39	52+7	33+3	335.					5180.	4510.	5550.	5270.	3270	2870.
.05	55.0	37.9	4,44 E A7	3,00	48.5	35.4	251.					3210.	2870.	3700.	3650.	1510.	1380.
•06	53.5	40.0	5.94	4.68	44.8	35.3	153.					1500.	1380.	1040+	847	874.	780.
•08	48.1	40.1	6.66	5.53	41.6	34+6	102.					827.	774	450.	391.	359.	341.
x 135005	44.8	39.8	7.59	6.75	37.2	33+0	58+8					1510.	481.	1610.	1550.	1520.	488.
					ar 6		48.3					1160.	449.	1250.	1200.	1170.	456.
+15	43.5	39.2	7.89	7.11	35.0	32+1	7013					560	302.	625.	597.	569.	310.
•2	39.8	37.2	8.61	8,04	31.42	24.2	12.7					201.	139.	247.	234.	2)0.	87.0
•3	34.6	33.3	9.3	0,70	2303	21.1	7.22					101.	77.8	134.	87.8	69.7	58.3
• *	31.0	30.3	9,66	9.31	18.7	18.5	4+67					60.0	47.0	69.2	66.0	49.7	43.3
.5	26.2	25.9	9.63	9.30	16.6	16.6	3.24					21.5	19.0	46.1	44.3	30.9	28.0
	23.0	22.8	9.41	9.01	13.6	13.8	1.83					13.7	12.4	35,5	34,3	22.8	20.8
1.	20,7	20.6	9.10	8,45	<u></u>		1.18	070		.970	.276	6,55	6,15	24.7	24.2	15.8	14.2
1.5	16.8	16.7	8.32	7.75	8.78	8.97	+532	2.83		2.83	1.28	3.97	3.79	21.4	21.1	11.2	11.3
2.	14.3	14+3	7+61	F 74	4.77	5.55	.134	5.95	.00395	5.95	3.54	2.12	2.06	19.3	19.1	15.4	11.6
3.	11.3	11+3	5.72	4.75	3.71	4.65	.075	5 8.26	+0161	8+28	5.40	1.44	1.04	19.4	19.4	16.4	12.1
21	8.14	8.14	5.11	4.10	3.03	4.04	+049	10.2	.0317	10+2	6.96	.832	.819	19.8	19.7	17.2	12.5
5.	7.20	7.20	4,63	3.57	2.56	3.63	+034	1 11.7	+0488	11.7	8+12	.570	.563	21.0	21.0	19.0	13.4
8.	5.89	5.89	3,93	2.82	1+96	3.07	+019	4 14 4	-114	17.0	11.5	,430	.426	22.5	22.4	20.9	<u>19.2</u>
10.	5.01	5.01	3,43	2.36	1.59	2.05		21.6	.176	21+8	13.5	.261	.259	25.8	25.8	24.1	1943
15.	3.71	3.71	2.63	1+71	81A	1.70	.002	7 25.3	.220	25+5	14.6	•190	+189	20.1	12.7	32.1	16.3
20.	2,98	2.17	2+10	.816	.548	1.35		30.1	.284	30+4	15.4	.121	+161 •0878	35.6	35.6	35.2	15.7
30 e	1.72	1.72	1.31	.576	.414	1.14		33.5	.330	33+8	15.0	.0689	.0688	38.0	78.0	37.7	15.2
50.	1.44	1.44	1.11	.439	• 33 1	1.00		30.1	• 367	36+5	14+7	.1561	.0560	39.8	39.8	39.5	14.6
60.	1.24	1.24	. 961	. 345	+277	+895		38+1	454	30+3	13.8	.0409	.0409	42.3	42,3	42.1	14.1
80.	.977	.977	,768	.234	+209	•743		43.0	.467	43.5	13.0	•0320	•0320	44.3	44,3	44,2	13.2
100.	.811	.811	.644	+174	.10/	+0.37			• • • • •								

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98 CALIFORNIUM (cm¹/g = 0.002399 x barns/atom)

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E (MeV)	([#]))nc, t	([#] _p) ^{BD} _{inc,t}	(#) ^{KN}) _{nc.a}	([#] _p) ^{BD} _{)nc, a}	(^µ _p) ^{KN} _{inc,s}	([#]) _{inc,s}	([#] _p) _{coh}	(貨) _{*n}	([#] _p) _{× e}	$\left(\frac{\mu}{\rho}\right)_{x,t}$	([#] _p) *, 2	([#] _p) _{7,1}	(^μ _ρ) _{τ, a}	([#] _p) _{tot,t}	([#] _p) _{tot,t-coh}	([#] _p) _{tot, a}	([#])tot, en
.001	.156	+00410	.000305	.0000080	.155	.00410	14.6										
.0015	.155	.00684	.000453	.0000199	.155	.00681	14+1										
M1 *001855	•155	.00859	+000549	.0000305	•1 5 5	.00856	13.7					2780.	2780.	2810.	2780 .	2780.	2780.
.002	.155	.00957	.000602	.0000372	.154	.00952	13.4					2250.	2250.	2260.	2250 .	2250.	2250.
.003	.154	.0149	.000895	.0000864	.154	.0148	12.1					871.	871.	883.	871.	871.	871.
+004	+154	.0199	.00119	.000153	.153	.0197	10.8					444.	444.	450.	444.	444.	189.
My +004294	•15 4	•0211	+00126	+000172	•153	•0209	10.5					1220.	1220.	1230.	1220.	1220.	1220.
N004502	.154	.0222	.00133	.000192	.152	.0220	10.2					1090.	1090.	1100.	1090.	1090.	1090.
												1230.	1230.	1240+	1230.	1230.	1230.
+007	.153	.0245	.00147	+000234	.152	.0242	9.69					825.	825.	835.	825.	825.	825.
HII +009117	•123	+0249	*00120	+000245	+13E		4 •31					948.	948.	957.	948.	948.	948.
.006	.153	.0285	.00175	.000326	.151	.0283	8.71					665.	665.	674.	665.	665.	665.
M _{II} .006353	. 153	•0300	.00185	.000362	.151	.0295	8.40					585.	585.	595.	585.	585.	505.
M006735	152	.0314	.00195	.000403	.150	.0309	8.00					585.	585.	593.	585.	585.	545.
H	••••				••••	••	0000					648.	648.	655.	648.	648.	648.
•008	.152	.0360	.00230	+000545	.149	.0355	7.13					405.	405.	413.	405.	405.	405.
• 01	.151	.0427	.00283	.000801	<u>•148</u>	.0420	5.93			·			74.4	230	74.6	74.4	74.4
Levy .019929	.145	+0539	+00408	+00154	.140	.0633	2.90					34.8	34.8	37.7	34.8	34.8	34.8
-111					•••••		_					79.4	56+6	82.3	79.4	79.4	56.6
•02	.145	+0657	.00523	.00237	.140	.0633	2.90					78.4	56.1	81.3	78.4	78.4	56.1
LII +025125	+143	•0732	.00633	+00324	•137	•0698	2.10					40.3	47.7	66.0	63.8	63.8	47.7
L1 .026030	.142	+0741	.00653	+00341	.136	.0708	2.06					57.8	43.9	60.0	57.8	57.8	43.9
	• • •											67.7	50.9	69.8	67.7	67.7	50.9
.03	+140	.0784	.00732	+00408	.133	.0744	1.69					48.5	38.5	40.2	40.7	40.5	30+5
•04	.130	+0001	+00707	+00773	.121	.0835	.804					12+4	10.8	13.3	12.5	12.4	10.8
.06	.128	.0938	.0120	.00880	.116	.0849	.602					7.70	6.89	8.40	7.80	7.72	6.89
.08	.122	.0960	.0143	•0112	.107	.0847	.367					3.60	3+31	4.05	3.69	3,62	3.31
T 135005			.0160	-0133	0998	0830	.141			· ·				1.08			<u>1 4 8 7</u>
x *132003	• • • •	*****	*010E	*0105	\$007E	•••••	• 1 • 1					3.62	1.15	3.86	3.72	3.65	1+17
.15	.104	.0940	.0189	•0171	.0854	.0770	.116					2.78	1+08	3.00	2.88	2.61	1.09
•2	.0955	+0892	+0207	.0193	.0748	.0701	.0672					1+34	. 724	1.50	1.43	1.37	•74 4
.3	.0744	.0727	.0231	.0221	.0513	.0506	.0173					.242	•187	.333	.314	.246	.209
.5	.0679	.0667	.0232	.0223	0449	.0444	.0112					.144	+118	.222	•2 <u>11</u>	.167	.140
•6	.0629	.0621	.0231	.0223	.0398	.0398	.00777					•0962	+0816	•168	•150	•119	•104
1.8	+0552	-054/	-0226	.0216	.0278	.0293	.00283					•0329	• 0297	.085	2 .0823		·
1.5	.0403	.0401	.0200	.0186	.0204	.0215	.00128	.00221	~	.00221	.000662	+0157	+0148	.059	3 .0581	.037	.0341
2.	.0343	.0343	.0183	.0168	.0161	.0175	.000722	+00679		.00679	.00307	+00952	+00909	•051	3 • 0506	•034	•0290
3.	.0271	+0271	+0156	+0138	.0114	.0133	.000321	.0143	.00000948	.0143	.00849	+00509	+00474	•0•0	0 +0495	.035	•0271 •0278
5.	.0195	.0195	.0123	+0119	.00727	.00969	+000118	+0245	.0000760	.0245	.0167	+00254	+00249	+046	5 .0465	.039	3 .0290
6.	.0173	.0173	.0111	.00856	.00614	.00871	.0000818	.0281	.000117	.0281	.0195	.00200	.00196	+047	5 .0471	+041	.0300
8.	.0141	+0141	.00943	.00677	.00470	.00736	.0000461	.0345	.000197	.0348	.0240	.00137	+00135	• 050	4 + 0504	.045	•03Z1
10.	0120	0120	+00823	+00506	.00259	00030	.0000293	+0405	.000422	.0523		+000626	.000621	+061	9 .0619	.0593	.0372
20.	.00715	.00715	.00518	.00307	.00195	.00408	.0000071	.0607	.000528	.0612	.0350	+000456	.000453	.068	9 .0689	.066	.0386
30.	.00521	.00521	.00389	+00196	.00131	.00324		.0722	.000681	.0729	.0369	.000290	.000290	• 078	4	.0770	•0391
40.	.00413	+00413	+00314	.00138	.000993	.00273		.0804	.000792	+0811	.0360	+000211	+000211	+005 •001	0834	•084	• •03/7
50. 60.	.00297	.00297	+00200	+00105	.000665	.00215		.0914	+000943	.0924	.0345	+000135	+000134	+095	5 .095	.094	.0355
80.	.00234	.00234	.00184	.000561	,000501	.00178		.0981	.00104	.0991	.0331	+0000981	+0000981	+101	+101	.101	.0338
100.	.00195	.00195	+00154	+000417	.000401	.00153		.103	+00112	.104	.0312	+0000768	•0000768	+106	•106	.106	+0317

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99 EINSTEINIUM (barns/atom)

E (MeV)	$\sigma_{inc,t}^{KN}$	σ ^{BD} _{inc,t}	σ _{inc, a}	σ ^{BD} _{inc,a}	KN 0)nc, 8	σ _{inc, s}	σ _{coh}	σ _{*n}	σ _{×e}	<u> </u>	σ,,,	σ _{r,t}	σ _{r,a}	σ _{tot,t}	σ _{tot,t-coh}	σ _{tot.a}	ot tot, en
.001	65.6	1.69	.128	.00329	65.5	1.69	6230.										
.0015	65.5	2.83	.191	.00826	65+3	2+82	5990 .										
x I •00189	1 67.4	3.72	.240	.0137	65+1	3+71	5780.					1110000	1110000	1120000.	1110000	1110000.	1110000.
.002	65.3	3.97	.254	.0154	65+1	3.95	5720.					974000.	974000 .	980000.	974000.	974000.	974000.
.003	65.1	6+19	.377	.0359	64+7	6.15	5160.					376000.	376000.	381000+	376000.	376000.	376000.
+004	64.8	8.27	.499	.0636	64.3	8.21	4630.					193000.	193000.	198000+	193000.	193000.	193000.
	0 044 /		• 344	.0158	04+2	8+73	*****					492000	492000+	496000.	492000+	492000+	492000
HIV .00464	4 64.7	9,51	•576	.0847	64+1	9.43	4310.					438000+	438000.	442000+	438000+	438000+	438000. 496000.
.005	64.6	10.2	.619	.0977	64.0	10+1	4140.					391000.	391000.	395000.	391000.	391000.	391000.
HIII +00-52	9 84.5	10.6	.049	.107	63.9	10.5	4030+					334000+	334000+	335000+	334000.	334000+	334000+
.006	64.3	11.9	.737	.136	63.6	11+8	3720.					285000+	285000 .	289000.	285000	285000+	285000.
H _{II} .00656	4 64.2	12.9	.802	.161	63.4	12.7	3510.					235000.	235000.	239000.	235000.	235000.	235000.
N00694	9 44.1	13.6	. 847	178	41.1	12.2	3370.					280000+	280000.	284000+	280000+	280000.	280000.
	,	1345		••••	0305	1343	33704					260000	260000	263000.	260000	239000+	260000
•008	63.9	15.1	.967	•229	65+6	14+9	3040.					177000.	177000 .	180000.	177000.	177000.	177000.
+01	_63.4	17.8	1.19	.334	62.2	17.5	2530.					97500.	97500.	1000000	97500.	97500+	97500.
50.	61.2	27.4	2.21	.996	59.0	26.6	1240.					14980.	14900.	16200.	14900.	32000+	14900.
LTTT .02041	4 61.1	27.9	2.24	1.03	58.8	26.9	1210.					14200.	14200.	15400.	14200.	14200.	14200.
					-9.2							32200.	23000.	33400.	32200.	32200+	23000.
LII +05200	3 00+0	21+1	2.13	1.42	26+4	24.1	057.					18500.	14300+	19400.	18500.	18500+	19200.
LI .05680	3 59.8	31.5	2.81	1,48	57+0	30.0	847.					23200.	17600.	24100.	23200.	23200.	17600.
.03	59.1	32.9	3.08	1.71	56+1	31+2	724.					20100.	15700.	20900.	20100.	20100.	15700.
.04	57.3	36.1	3.82	2.41	53.5	33.7	480.					9580 .	8010.	10100.	9620.	9540+	8010+
.05	55.6	38.2	4.48	3.08	51+1	35+1	344.					5400+	4690 •	5780+	5440+	5400+	4690+
•06 •08	51.2	39.4	5.00	3.70	49.0	35.6	297+					1570.	1440.	1770.	1610.	1580 •	1440.
.1	48.8	40.4	6.73	5.58	42+1	34.8	105.		_			864.	807.	1010.	904.	871.	813.
K .13850	2 44.9	40.0	7,74	6,90	37.2	33.1	57+6					343.	327.	441+	383.	351.	334 •
.15	43.9	39.6	7.97	7.19	35.9	32.4	49.6					1460+	+00+ 446+	1200+	1240.	1210.	453.
.2	40.2	37.5	8.70	8,11	31.5	29.4	28.7					\$81.	307.	647.	618.	590 .	315.
.3	35.0	33.6	9,43	9.06	25.6	24.5	13.1					210	144.	257.	244.	518.	153.
• •	31,3	30.6	9,71	9,30	21.0	21.3	7.41					105+	50+2 51-1	143+	136+	115+	89+D 60-5
•6	26.5	26.1	9.73	9.37	16.8	16.7	3.32					42+0	35.4	71.4	68.1	51.7	44.8
.8	23.3	23.1	9.51	9.12	13.8	14.0	1.88					22.4	19+8	47+4	45+5	31.9	28.9
<u> <u> </u></u>	20.9	20.8	9.20	<u>8.51</u>	11+7	12+3].2]	945		.045	281	6.85	13+0		35.1	23.5	
2.	14.5	14.5	7.69	7.10	6.80	7.39	.310	2.92		2.92	1.32	4+15	3.95	21+9	21.6	14+8	12.4
3.	11.4	11.4	6.57	5,78	4.82	5.62	•137	6.09	.00399	6.09	3.62	2.22	2+15	19.6)9.7	14.9	13.6
4.	9.52	9.52	5,78	4,82	3.74	4.70	•0776	8,42	.0163	8.44	5.50	1+49	1+45	19+	19+4	15+7	11+5
5.	7.27	7.27	4.68	3,60	2.59	3.67	.030:	12.0	.0493	12.0	8.33	.870	•856	20+2	20.1	17.5	12.8
8.	5,95	5.95	3,97	2.84	1.98	3.11	.019	14.7	.0829	14+8	10.2	•597	.590	21.	21.3	19.4	13.6
10.	5,06	5.06	3.46	2.30	1.60	2.68	012	17.2	116		<u> </u>	.450		22,	22.	21.2	14.4
15.	3,75	3.75	2,60	1,73	1.09	2.02	+0051	7 25.8	.1/6	22+2	14.8	.198	•197	29.2	79.2	25+1	16+3
30.	2.19	2.19	1.64	.821	•553	1.37	10050	30.7	.287	31.0	15.6	+127	.127	33.3	33.3	32.8	16.5
40.	1.74	1.74	1.32	.581	.418	1.16		34.2	.333	34+5	15.2	• 0920	+0918	36+ 3	36.3	35+9	15+9
50.	1,45	1,45	1.12	+441	• 335	1.01		36.8	• 370	37.2	14.9	+0720	+0714	38+1	38.7	38+4	15+4
80.	.987	.987	.776	.236	.211	.751		41.7	.438	42.1	14.0	+042A	.0427	43.1	43+1	42.9	14.3
100.	820	.820	.651	,175	.169	.645		43.9	.471	44.4	13.3	+0335	+0335	45.3	45+3	45.1	13.5

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99 EINSTEINIUM (cm³/g = 0.002371 x barns/atom)

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E (MeV)	([#]) ^{KN} inc, t	(^µ _₽) ^{BD} _{inc,t}	([#] _p) ^{KN} _{inc, a}	(費) ^{BD} inc, a	(^µ _p) ^{KN} _{inc,s}	$\left(\frac{\mu}{p}\right)_{inc,s}^{BD}$	([#] _p) _{coh}	(#) _{*n}	(^件) _{*e}	([#] _p) _{x,t}	(#) _{x,a}	(費) _{下,t}	([#] _p), a	(券) _{tot,t}	(岸) _{tot,t-coh}	(芹) _{tot,a}	(^j)tot, en
.001	•156	.00401	.000303	.0000078	.155	.00401	14+8								•••	•	
.0015	.155	.00671	.000453	.0000196	.155	.00669	14.2										
WI +001041	•199	+00082	+000367	•0000325	+134	.00000	1341					263ú.	2630.	2660.	2630.	2630.	2630.
•002	.155	+00941	.000602	.0000365	.154	.00937	13.6					2310.	2310+	2320.	2310.	2310.	2310.
.003	.154	.0147	+000894	+0000851	.152	.0140 .0195	12+2					458.	458.	469.	458.	458.	458.
Hy .004378	.153	.0214	.00129	.000180	.152	.0212	10+5					372.	372.	382.	372+	372.	372+
HIV .004644	.153	.0225	.00137	.000201	. 152	.0224	10+2					1170+ 1040+ 1180+	1170+ 1040+ 1180-	1180. 1050.	1170+ 1040+ 1180+	1170. 1040. 1180.	1170. 1040. 1180.
+005	.153	.0242	.00147	.000232	. 152	.0239	9.82					927.	927.	937.	927.	927.	927.
MIII .005259	153	•0251	+00154	.000254	. 152	.0249	9.56					792.	792.	801.	792.	792.	792.
.006	.152	.0282	.00175	.000322	.151	.0260	8.82					676.	676.	685.	676.	676.	676.
MII .006564	.152	.0306	.00190	.000382	.150	.0301	8.32					557.	557.	567.	557.	557.	557.
M _{I •} 006949	.152	.0320	.00201	.000422	.150	.0315	7.99					664. 557.	557.	873+ 564+	557.	557.	557.
.008	.152	.0358	.00229	.000543	.149	.0353	7+21					420.	420.	427.	420.	420.	420.
.01	,150	,0422	.00282	.000792	.147	.0415	6.00		<u></u>			231.	231.0	237.	231.	231.	231.
.015	•148	• 0555	+00408	+00153	.143	+0541	4+05					77.3	77.3	81+3 38-4	77+3	77.3	77+3
LTTT .020414	.145	.0662	.00531	+00244	.139	.0638	2.87					33.7	33.7	36.5	33.7	33.7	33.7
LII .025883	.142	.0737	.00647	.00337	.136	.0704	2.11					76.3 43.9	54.5 33.9	79.2 46.8	76.3 43.9	76.3	54,5
L1 .026803	.142	•0747	•00666	•00351	.135	.0711	2.01					55.0 64.3	41.7 48.6	57•1 66•4	55.0 64.3	55.0	41.7
.03	.140	.0780	.00730	+00405	.133	+0740	1.72					47.7	37.2	49.6	47.7	47.7	37.2
-04	.136	+0856	+00906	+00571	.127	.0799	1+14					22+7	19.0	13.7	12.9	12.8	11.1
+06	.128	.0934	.0120	.00877	.116	.0846	.609					7.92	7.04	8.63	8.01	7.94	7.04
•08	•121	.0956	+0142	·0112	.107	.0844	.372					3.72	3.41	4.20	3.82	3,75	3.41
F 138502	110	.0958	+0184	+0132	.0998	.0825	<u></u>	·	··					1.05			
							••••					3+46	1.10	3.70	3.56	3.49	1-12
•15	.104	.0939	.0189	.0170	.0851	.0768	+118					2.85	1+06	3.06	2.94	2.87	1.07
.3	.0830	.0797	.0224	.0215	.0607	+0581	.0311					.498	.341	.609	.579	.519	.363
••	.0742	.0726	.0230	.0221	.0512	.0505	.0176					• 249	•190	+339	• 322	.273	+212
.5	.0678	+0686	.0231	.0223	.0448	.0396	+0114					+149	+121	+227	•210	.173	•143
.8	.0552	.0548	.0225	.0216	0327	.0332	.00446					+0531	.0469	.112	•10 8	.0756	.0685
<u> </u>	0496	.0493	0218	.0202	.0277	.0292	.00287										
1.5	.0403	.0401	+0199	+0186	.0203	.0215	.00130	.00692		.00692	.00313	+0102	+00937	•0519	.0512	.0351	.0294
3.	.0270	.0270	.0156	.0137	.0114	.0133	.000325	.0144	+00000946	.0144	.00858	+ 00 52 6	+00510	.0469	+0467	.0353	.0275
<u>.</u>	.0226	.0226	.0137	+0114	.00887	.0111	.000184	.0200	+0000386	.0200	.0130	+00353	+00344	+0462	• 046 0	• 0372	.0250
5.	.0195	.0172	+0122	.00979	.00614	.00970	.0000120	+0247	+0000761	.0285	.0198	+00206	+00203	.0479	.0477	.0415	.0303
8.	.0141	.0141	.00941	.00673	.00469	.00737	.0000467	.0349	.000197	.0351	.0242	+00142	.00140	.0507	.0505	.0460	.0322
10.	0120		.00820	.00564	,00379	.00635	.0000296	+0408	.000275	.0410	0275	+00107	00100		.0541		
20.	.00714	.00714	.00519	.00306	.00195	.00408	.0000073	.0612	.000526	.0616	.0351	+000469	+000467	+0692	.0692	.0673	.0386
30.	.00519	.00519	.00389	+00195	.00131	.00325		.0728	.000680	.0735	.0370	+000301	.000301	+0790	.0790	.0778	+0391
40.	.00413	.00413	.00313	.00138	.000991	.00275		.0811	.000790	.0818	.0360	+000218 +000171	+000218	+0861 +091A	+0861 +0918	.0571	•0377 •0365
60.	.00296	.00296	.00230	.000820	.000664	.00214		.0920	.000941	.0929	.0346	+000140	+000140	.0960	.0960	•0953	•0356
80.	.00234	.00234	.00184	.000560	.000500	.00178		.0989	+00104	0998	.0332	.000101	.000101	+102	•102	•102	+0339
100.	+00194	+00194	+00154	+000415	•000401	•00123		+104	.0011Z	105	+0315	+0000794	+0000794	+107	+10/	+107	.0320

)00 FERMIUM (baros/atom)

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E (MeV)	σ ^{KN} inc,t	$\sigma_{inc,t}^{BD}$	O ^{KN} O _{ioc, a}	o ^{BD} o ^{inc,∎}	σ _{inc,s}	σ ^{BD} _{inc,s}	0 _{coh}	σ _{*n}	σ×e	σ _{×,t}	σ _{x,a}	στ,ε	σ,	σ _{tot,t}	σ _{tot,t-coh}	O _{tot, a}	ortot, en
.001	66.3	1.68	.129	.00327	66.1	1.68	6360.										
.0015	66.1	2.81	.193	.00820	65.9	2.80	6120.										
₩ _I .001961	66.0	3.86	•251	+0147	65.8	3.85	5870.					1060000	1060000.	1070000.	1060000.	1060000.	1060000.
-002	66.0	3.95	. 256	.0153	65.7	3.93	5850.					102000.	102000.	108000.	102000.	102000.	102000.
.003	65.7	6.18	.381	.0358	65.4	6.14	5290+					391000.	391000.	396000.	391000.	391000.	391000.
+004	65.5	8.26	.504	.0636	65+0	8+20	4740.					199000.	199000+	204000.	199000.	199000.	199000.
Ny +004504	65.4	9.24	•565	.0799	64.8	9.16	4480+					152000.	152000+	156000+	152000+	152000+	152000+
H004790	65.3	9.78	.6.00	.0898	64.7	9.69	4350.					423000	423000	427000.	423000.	423000.	423000.
					••••							479000.	479000+	483000+	479000.	479000+	479000+
+005	65.2	10.2	•625	•0977	64.6	10.1	4250+					416000.	416000.	420000.	416000+	416000+	416000+
MILE +005403	65.1	10.9	.673	•113	64.5	10.6	4060.					324000.	324000.	328000.	324000.	324000.	324000+
.006	65.0	11.9	. 744	.136	64.3	11.8	3810.					296000	296000	300000.	296000.	296000.	296000+
Mry .006780	64.8	13.2	.836	.170	64.0	13.0	3520.					226000.	226000+	230000.	226000.	226000 .	226000+
			•	•• •								269000.	269000.	273000.	269000.	269000.	269000+
HI .007168	64.7	13.8	.881	. 188	63.8	13.6	3380.					227000.	227000+	230000+	227000+	227000+	22/000+
.008	64.5	15.1	.976	. 229	63.5	14.9	3120.					185000+	2500000	188000+	185000.	185000+	185000.
.01	64.0	17.9	1.20	.335	62.8	17.6	2590.			_		102000.	102000.	105000.	102000.	102000.	102000.
.015	62,9	23.5	1.74	+650	61.2	22+8	1750.					34100.	34100.	35900 .	34100.	34100+	34100.
+02	61.8	27.7	2.23	1.00	59.6	26+7	1270.					15600.	15600.	16900+	15600 •	15000+	15600+
LIII .020407	61.6	28.4	2.31	1.07	24+3	27.3	1200+					31400.	22500.	32600.	31600.	31400.	22500
LTT .026659	60.4	31.7	2.83	1.48	57.6	30.2	875.					17800.	13800.	18700.	17800.)7800.	13800.
		-		-	-							24600.	18500 .	25500.	24600.	24600.	16500.
L1 +027594	60.2	32.1	2,91	1.55	57.3	30.5	835.					22300 •	17000.	23200+	22300 -	22300+	17000+
.03	59.7	33.1	3.11	1.72	56.6	31.4	743.					20100+	16200+	21700	20900	20900+	16200 .
.04	57.9	36.4	3.86	2.43	54.0	34.0	492.					10000.	8320.	10500.	10000.	10000.	8320.
.05	56.1	38.5	4.53	3.11	51+6	35.4	352.					5610+	4860 +	6000+	5650.	5610.	4860 +
.06	54.6	39.7	5,12	3.73	49.4	36.0	264.					3490.	3100.	3790+	3530.	3500+	3100+
.08	51.7	40.7	6.06	4.77	45.7	35.9	161.					10404	1500+	1050.	941.	947.	846.
X 142085	45.0	40.3	7.90	7,06	37.1	33.2	56.1					335.	319.	432.	375.	343.	326.
												1420.	453.	1520+	1460.	1430+	460+
.15	44.4	40.0	8.05	7.26	36.3	32+7	50.9					1240 •	440.	1330+	1280.	1250+	44/+
•2	40.6	37.9	8,79	8.19	31.9	29+7	29+5					219.	312+	264.	253.	229.	157.
• 3	31.7	30.9	9.81	9.19	21.9	21.5	7.60					j10.	83.4	148.	141+	120.	92+8
•5	28.9	28.4	9,86	9.49	19.0	18.9	4.93					65+R	53+1	49+1	94+2	75+7	62+6
•6	26.7	26.4	9,83	9.48	16.9	16.9	3.42					43+4	30+7	73+0	10+2	33.0	29.8
,• ⁸	23.5	23.3	9,61	9.20	13.9	14+1	1.95					14.9	13.5	37+1	35.9	24.2	22+1
1.5	17.2	17.1	8.49	7.93	8.67	9.17	•561	,970		+970	.291	7.14	6+68	25+8	25.2	16+6	14.9
2.	14+6	14+6	7.77	7.15	6.87	7.45	.320	3.00		3.00	1.36	4.38	4+17	22.3	22.0	15+1	12• 7
3.	11.5	11.5	6.6*	5.82	4.86	5+68	+140	6.22	+00403	6+22	3.70	2:32	2+25	20+2	19.8	15+2	12.0
* •	9.62	9.62	5+84	4.80	3.09	4.14	+0/9/	10.6	.0323	10.6	7.22	1.14	1+12	20.1	20.0	17.0	12.5
5.	7.34	7.34	4.73	3.63	2.61	3.71	•0359	12.2	+0498	12.2	8.46	.900	.885	20.5	*• 05	17.8	13.0
8.	6.01	6.01	4.01	2.87	2.00	3.14	+0202	15.0	+0836	15+1	10.4	•623	• 615	2)+8	21.7	19•7	13.9
10.	5.11	5.11	3,50	2.40	1.62	2.71		17.5		17.6	-11-8			23.2	21.2	25.7	15.9
15.	3.79	3.79	2,69	1.75	1+10	2.04	+00586	26.3	+1/7	26.5	15.1	.708	.207	29.8	59.7	28.9	16.6
30.	2.21	2.21	1.65	.827	.559	1.38		31.3	.290	31+6	15.8	•)33	+133	33.9	13.9	73+4	16+8
40.	1.76	1.76	1.34	. 586	+422	1+17		35.0	.336	35+3	15.4	. 0962	+0960	37.2	17.2	36+7	16+1
50.	1.47	1++7	1.13	.445	•338	1.02		37.4 30 E	.373	37+8	15+1	+0/50	.0613	41-2	41-2	40.9	15.2
60. BA	1.26	1.26	.784	+348	+203	.760		42.5	.442	42.9	14.2	+0447	-0446	43.9	43.9	43.7	14+5
100.	.828	828	657	.177	.171	•651		44.5	.475	45+0	13.4	•0349	•0349	45.9	45.9	45.7	13+6

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100 FERMIUM (cm³/g = 0.002380 x barns/atom)

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E (MeV)	(≝) ^{KN} inc,t	(賞) _{nc,t}	([#]) _{)nc,a}	(声) ^{BD} inc, a	(^µ _ρ) ^{KN} _{inc,s}	([#]) ^{BD} _{inc,s}	([#]) _{coh}	([#])*n	([#] _p) _{*e}	(ڭ) _{×, t}	([#]) _{×,a}	([#] _p) _{7,1}	([#] _p) _{7, a}	(\$) _{tot,t}	(^µ _p) _{tot,t-coh}	([#] _p) _{tot, a}	([#] _p) _{tot, en}
.001	.158	.00400	.000307	+0000078	.157	.00400	15.1										
+0015	.157	.00669	.000459	+0000195	.157	.00666	14.6										
N ₁ +001961	+157	.00919	+000597	+0000350	•157	.00916	14.0					2520+	2520.	2550.	2520 •	2520.	2520+
•002	.157	.00940	.000609	+0000364	.156	.00935	13.9					243.	243.	257.	243.	243.	243+
.003	.156	.0147	.000907	.0000852	.156	.0146	12.6					93).	931.	942. 486.	931+	474.	474.
+004	.156	.0197	.00120	+000151	+155 154	.0195	11.3					362.	362.	371.	362.	362.	362.
ng +00+504	•120	.0220	+00134	+000140	•134		1001					1140.	1140.	1140.	1140.	1140.	1140.
MIV .00479	.155	•0233	.00143	+000214	,154	.0231	10.4					1010. 1140.	1010. 1140.	1020.	1010.	1010.	1010.
.005	155	+0243	+00149	.000233	+154	+0240	10.1					771.	771.	781.	771.	771.	771.
MIII +005403	•155	•0259	+00160	•000269	•134	.0257	A*00					888.	888 •	897.	888 -	888.	888.
.006	.155	.0283	+00177	.000324	.153	.0281	9.07					704+	704.	714+	704.	704.	704.
HTT +00678	.154	.0314	.00199	+000405	.152	.0309	8.38					538.	538.	547.	530.	530.	530+
	154				152	.0324	8.04					540.	540.	547.	540.	540.	540.
HI +00 LIG	•134	+0328	100410	•000447	•1-E	•••364	8.04					595.	595.	602.	595 .	\$95.	595.
.008	.154	.0359	,00232	+000545	.151	.0355	7.43					440+	440.	447.	440+	440.	440.
•01	.152	+0426	+00286	.000797	.149	.0419	6.16					243+		250+	<u></u>	81.2	81.2
.015	.150	+0559	+00414	.00155	.140	.0543	4,10					37.1	37.1	40.2	37.1	37.1	37.1
Latt .020901	147	.0676	.00550	.00255	.141	.0650	2.86					33+1	33+1	35.9	33+1	33.1	33.1
LII +026659	.144	.0754	+00674	.00352	.137	.0719	2.08					74.7	53.5 32.8	77.6	74.7	42.4	\$3.5 32.8
L1 .02759	• •143	.0764	.00693	.00369	.136	•0726	1.99					53+1	40+5	55.2	53·1	53+1 62-1	40.5
	147		.00740	.00409	. 135	.0747	1.77					49.7	38.6	51.6	49.7	49.7	38.6
-04	.138	.0866	.00919	.00578	.129	.0809	1.17					23+8	19.8	25.0	23.8	23.8	19+8
.05	.134	.0916	+0108	+00740	.123	.0843	.838					13.4	11.6	14+3	13.4	13.4	11.6
.06	.130	+0945	.0122	.00888	.118	+0857	•628					8+31	7+38	9+02	8+40	3.93	3.57
•08	.123	.0969	+0144	+0114	.109	+0834	.303					2.14	2.00	2,50	2.24	2.16	2.01
K 14208	5 .107	.0959	.0188	•0168	.0883	.0790	.134					•797	•759	1.03	.892	.816	.776
												3.38	1.08	3.62	3.47	3,40	1.09
•15	.106	.0952	+0192	•0173	.0864	.0778	+121					2.77	.743	1.60	1.53	1.46	.762
•2	.0900	.0902	.0207	+0173	.0614	.0590	.0319					• 521	.352	.63	.602	.545	+374
	.0754	.0735	.0233	.0223	.0521	.0512	.0181					+262	•198	.35	.336	.286	•221
•5	.0688	.0676	.0235	•0226	.0452	.0450	.0117					+157	+120	• 230		+100	•1•7
•6	.0835	+0628	.0234	•0226	.0402	+0402	+00814					+0557	.0490	.110	•111	.078	\$ +0709
1.	-0502	.0500	.0221	.0204	.0281	.0295	.00295					+0355	+0321		33 .0854	.057	.0526
1.5	+0409	+0407	.0202	+0189	.0206	.0218	.00134	.00231		.00231	.000693	•0170	+0159	• 06]	4 + 0600	•039	•0355
2.	+0347	.0347	•0185	•0170	.0164	+0177	.000762	+00714		.00714	.00324	+010+	+00772	.04	.0476	.036	2 •0281
3.	.02/4	.02/4	+0178	+0139	.00900	.0113	.000190	.0205	.0000393	.0205	.0134	+00369	.00359	+04	74 +0471	. 038	+0286
5.	.0198	.0198	.0124	.00992	.00735	.00985	.000123	+0252	.0000769	.0252	.0172	+00271	.00267	-04	7 B . 0476	-040	.0297
6.	.0175	.0175	.0113	+00864	.00621	.00883	.0000854	+0290	.000119	.0290	.0201	+00214	+00211	+04	58 +0480	+042	+ +0309
8.	.0143	+0143	.00954	.00683	.00476	.00747	.0000481	+0357	+000199	.0359	+0248	.00112	.00111	•05	52 .0552	.051	+0350
10.	.0122	.0122	+00833	+005/1	.00262	+00486	.0000139	.0535	+000426	.0540	.0331	.000681	.000676	•06	38 .0636	.061	+037A
20.	.00724	.00724	.00526	.00309	.00198	.00414	.0000075	+0626	.000533	.0631	.0359	+000495	+000493	•07	.070	.068	B +0395
30.	.00526	.00526	.00393	.00197	.00133	.00328		+0745	.000690	.0752	.0376	.000317	+000317	•08	07 •080 86	•079	D +R400
40.	.00419	.00419	.00319	.00139	.00100	+00278		.0833	+000800	.0840	+0367	+U00229 +00017A	.000178	•09	35 .093!	.092	.0371
50.	.00350	.00300	.00269	+00106	.000804	.00217		.0940	.000952	.0950	.0352	.000146	+000146	• 0 9	B1 .0981	.097	3 +0362
80.	.00237	.00237	.00187	.000564	.000507	.00181		.101	.00105	.102	.0338	.000106	+000106	•10	• 104	+104	+0345
100.	.00197	.00197	+00156	.000421	.000407	.00155		+106	.00113	.107	.0319	+0000831	+0000931	+10	• 109	+109	+0324

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