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TABULATED NEUTRON CROSS SECTIONS
PART I
0.001 - 14.5 Mev

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TABULATED NEUTRON CROSS SECTIONS

PART I

0.001 - 14.5 Mev

Introduction

For the past twenty years there have been many thousands of cross-section measurements performed throughout the world. From time to time, and for one reason or another, compilations have been made which have presented selected portions of these data. There has not been, however, a tabulation which attempted to present essentially all the experimental data. There is no need to present arguments as to why such a tabulation is desirable. Suffice it to say, it is the opinion of responsible persons in several fields that such a tabulation is needed.

Within the limitations of human error, this compilation purports to present these data for total and reaction neutron cross sections for all isotopes in the energy range from 0.001 through 14.5 Mev. Undoubtedly certain measurements have been omitted and others possibly have been misrepresented. It will be appreciated if such omissions and errors are called to the author's attention.

It is intended that there will be a subsequent part of the tabulation which will extend the energy range and another to tabulate differential neutron cross sections.

Method of Collecting Data

There were three general sources of information. First, twenty-seven journals were searched through all volumes contained in the UCRL, Livermore, Library and some (but, not all) the missing volumes were borrowed through inter-library loan.

Second, the AEC report literature was obtained by searching, card by card, the corporate author file in the Technical Information Division of UCRL, Livermore, and the reports requested from Technical Information Division. With few exceptions the reports were obtained and the data extracted.

Third, private communications were received from experimenters. These are documented in the Bibliography by the experimenters' names.

A certain difficulty arose from duplication of references in the report and journal literature. Whenever the same measurements were reported both in an AEC report and in the journal literature, the policy was to report the journal reference since it is felt that journals are, for most persons, more accessible.

Organization of the Tabulation

In an upper corner of each page there appears the elemental or isotopic symbol of the target nucleus. In those cases in which the superscript does not appear, the measurement was performed with the natural isotopic distribution of the element. The type of cross section is centered above the tabulated data.

The first four columns of the tabulation are self-explanatory. The fifth (Yr. - Ref.) is the year the measurement was reported and the reference as in the bibliography. For each measurement the experimentalist's statement of resolution and error is used. If no statement was made a dash is entered.

Definitions of the Cross Sections

It is a relatively easy task to define a self-consistent set of notation to describe the various cross sections which are measured. The difficulty in using a defined set arises in the possibility of confusion with other systems on the part of the user of this compilation.

The notation used for the various cross sections presented here represents a compromise of sorts between the notation used by the experimenters and that which presents the least possibility of ambiguous interpretation. The non-elastic cross section is probably the best case in point. At various times and places it has been called non-elastic, total minus elastic, reaction, collision, inelastic collision and perhaps others.

The symbols used here are:

<u>σ_{tot}</u>	Total Cross Section.
<u>σ_{non}</u>	Total minus Elastic Cross Section - includes all processes except elastic scattering.
<u>σ_{el}</u>	Elastic Scattering Cross Section - includes potential scattering and compound nucleus scattering where the neutron suffers no degradation of energy in the center of mass system.

<u>$\sigma_{n,n'}$</u>	Inelastic Scattering Cross Section. In some cases there appears immediately below the symbol a statement that the cross section given is for the excitation of certain levels only. When there is no such statement, the symbol represents the cross section for production of all neutron groups below the highest incident neutron energy tabulated.
<u>σ_{el+in}</u>	Scattering Cross Section - includes those neutrons which suffer energy degradation in the center of mass system as well as those which do not.
<u>$\sigma_{n,n'p}$</u>	Neutron In - Neutron plus Proton Out Cross Section.
<u>$\sigma_{n,2n}$</u>	Neutron In - Two Neutrons Out Cross Section.
<u>$\sigma_{n,3n}$</u>	Neutron In - Three Neutrons Out Cross Section.
<u>$\sigma_{n,p}$</u>	Neutron In - Proton Out Cross Section.
<u>$\sigma_{n,\alpha}$</u>	Neutron In - Alpha Particle Out Cross Section.
<u>$\sigma_{n,dn'2\alpha}$</u>	Neutron In - Degraded Neutron plus Deuteron plus Two Alpha Particles Out Cross Section.
<u>$\sigma_{n,t2\alpha}$</u>	Neutron In - Triton plus Two Alpha Particles Out Cross Section.
<u>$\sigma_{n,d}$</u>	Neutron In - Deuteron Out Cross Section.
<u>$\sigma_{n,t}$</u>	Neutron In - Triton Out Cross Section.
<u>σ_{abs}</u>	Absorption Cross Section - Includes all processes which absorb neutron.
<u>$\sigma_{n,\gamma}$</u>	Cross Section for Production of the Isotope $A+1$ (same Z). This process is accompanied by the emission of a Gamma Ray, hence the notation.

$\sigma_{n, \gamma}$

Cross Section for the Production of Gamma Rays of all energies by all processes.

 $\sigma_{n, n'3\alpha}$

Neutron In - Degraded Neutron plus Three Alpha Particles Out Cross Section.

 σ_f

Fission Cross Section.

It has been suggested that each measurement should be accompanied by a note indicating the measurement technique. Not only would that be a formidable task, it would also be of questionable value. Each measurement is referenced for the convenience of the user. Those who wish more information than the numerical value of the measurement probably wish to read the experimenters' discussion. Likewise no note is made as to the form in which the data are presented by the experimenter. Elsewhere in this discussion it is noted that some graphs are difficult to read. If the user wishes to check the experimenters' method of presentation the reference is noted for each measurement. Further notes have little to offer the user in the opinion of the compiler.

Addenda

A compilation such as this must be maintained up-to-date if it is to be of much value. It is bound "loose-leaf" so that new measurements may be inserted periodically. It is planned that additional information will be included on replacement sheets, published annually as addenda.

Acknowledgements

The cooperation of many persons was solicited in the preparation of this compilation. With notably few exceptions the cooperation received was very gratifying.

For numerous articles appearing both as AEC reports and in the journal literature, the data were plotted on difficult-to-read graphs. Most experimenters responded very quickly and exerted a high order of effort to supply the tabulated data. Much gratitude is extended to those who cooperated. (A fig to those who refused).

Technical Information Division of UCRL was most cooperative in supplying the AEC reports requested and in offering suggestions as to the form the tabulation should take as well as taking care of the mechanics of securing a printer and distributing the report.

Because of the painstaking day-by-day work of Mrs. Violet Gamble, who oversaw the clerical detail of this project and because of the excellent cooperation of Mr. H. W. Hudson, Administrative Assistant for Theoretical Physics Division, who attempted to fulfill today's request yesterday, this compilation is possible. The stenographic pool of Theoretical Physics Division typed the final manuscript ready for photographing, with Mrs. Elaine Garber bearing the brunt of the job.

To the many physicists who offered encouragement and consultation, thanks.

Alphabetical List of Elements with
Symbol and Z of the Elements.

<u>Name</u>	<u>Symbol</u>	<u>Atomic Number</u>
Actinium	Ac	89
Aluminum	Al	13
Americium	Am	95
Antimony	Sb	51
Argon	A	18
Arsenic	As	33
Astatine	At	85
Barium	Ba	56
Beryllium	Be	4
Bismuth	Bi	83
Boron	B	5
Bromine	Br	35
Cadmium	Cd	48
Calcium	Ca	20
Carbon	C	6
Cerium	Ce	58
Cesium	Cs	55
Chlorine	Cl	17
Chromium	Cr	24
Cobalt	Co	27
Columbium	Cb	41
Copper	Cu	29
Dysprosium	Dy	66
Erbium	Er	68
Europium	Eu	63
Fluorine	F	9
Francium	Fr	87

<u>Name</u>	<u>Symbol</u>	<u>Atomic Number</u>
Gadolinium	Gd	64
Gallium	Ga	31
Germanium	Ge	32
Gold	Au	79
Hafnium	Hf	72
Helium	He	2
Holmium	Ho	67
Hydrogen	H	1
Indium	In	49
Iodine	I	53
Iridium	Ir	77
Iron	Fe	26
Krypton	Kr	36
Lanthanum	La	57
Lead	Pb	82
Lithium	Li	3
Lutecium	Lu	71
Magnesium	Mg	12
Manganese	Mn	25
Mercury	Hg	80
Molybdenum	Mo	42
Neodymium	Nd	60
Neon	Ne	10
Neptunium	Np	93
Nickel	Ni	28
Nitrogen	N	7
Osmium	Os	76
Oxygen	O	8

<u>Name</u>	<u>Symbol</u>	<u>Atomic Number</u>
Palladium	Pd	46
Phosphorus	P	15
Platinum	Pt	78
Plutonium	Pu	94
Polonium	Po	84
Potassium	K	19
Praseodymium	Pr	59
Promethium	Pm	61
Protactinium	Pa	91
Radium	Ra	88
Radon	Rn	86
Rhenium	Re	75
Rhodium	Rh	45
Rubidium	Rb	37
Ruthenium	Ru	44
Samarium	Sm	62
Scandium	Sc	21
Selenium	Se	34
Silicon	Si	14
Silver	Ag	47
Sodium	Na	11
Strontium	Sr	38
Sulfur	S	16
Tantalum	Ta	73
Technetium	Tc	43
Tellurium	Te	52
Terbium	Tb	65
Thallium	Tl	81

<u>Name</u>	<u>Symbol</u>	<u>Atomic Number</u>
Thorium	Th	90
Thulium	Tm	69
Tin	Sn	50
Titanium	Ti	22
Tungsten	W	74
Uranium	U	92
Vanadium	V	23
Xenon	Xe	54
Ytterbium	Yb	70
Yttrium	Y	39
Zinc	Zn	30
Zirconium	Zr	40

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.02	$\pm .03$	6.2	± 0.3	49-50
0.024	$\pm .015$	6.3	$\pm 5\%$	47-46
0.04	$\pm .03$	6.3	± 0.3	49-50
0.08	$\pm .03$	6.3	± 0.3	49-50
0.12	$\pm .03$	6.1	± 0.3	49-50
0.13	$\pm .02$	6.9	$\pm 5\%$	47-46
0.14	$\pm .04$	5.4	-----	39-282
0.14	$\pm .03$	6.4	$\pm 5\%$	47-46
0.14	$\pm .03$	6.8	± 0.3	49-50
0.20	$\pm .07$	6.5	± 0.3	49-50
0.22	$\pm .02$	6.1	$\pm 5\%$	47-46
0.28	$\pm .07$	6.7	± 0.3	49-50
0.40	$\pm .07$	6.6	± 0.3	49-50
0.44	$\pm .07$	7.0	± 0.3	49-50
0.50	$\pm .07$	7.2	± 0.3	49-50
0.59	$\pm .07$	7.3	± 0.3	49-50
0.62	$\pm .07$	5.7	$\pm 5\%$	47-46
0.63	$\pm .07$	7.4	± 0.3	49-50
0.66	$\pm .07$	7.0	± 0.3	49-50
0.73	$\pm .07$	6.8	± 0.3	49-50
0.76	$\pm .07$	6.8	± 0.3	49-50
0.83	$\pm .04$	6.4	$\pm 5\%$	47-46
0.83	$\pm .07$	6.7	± 0.3	49-50
0.88	$\pm .07$	6.8	± 0.3	49-50
0.92	$\pm .07$	6.3	± 0.3	49-50
1.00	$\pm .01$	6.8	± 0.2	52-80
1.00	$\pm .07$	6.7	± 0.3	49-50
1.04	$\pm .07$	7.2	± 0.3	49-50
1.10	$\pm .07$	6.8	± 0.3	49-50
1.14	$\pm .07$	7.1	± 0.3	49-50
1.15	$\pm .01$	6.3	± 0.2	52-80
1.24	$\pm .07$	6.1	± 0.3	49-50
1.30	$\pm .01$	7.0	± 0.2	52-80

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.32	$\pm .07$	6.5	± 0.3	49-50
1.45	$\pm .01$	6.6	± 0.2	52-80
1.55	$\pm .01$	6.0	± 0.2	52-80
1.60	$\pm .01$	6.2	± 0.2	52-80
1.75	$\pm .01$	6.2	± 0.2	52-80
1.85	$\pm .01$	6.0	± 0.2	52-80
1.90	$\pm .01$	6.0	± 0.2	52-80
2.06	$\pm .01$	5.7	± 0.2	52-80
2.13	$\pm .15$	4.80	± 0.14	39-4
2.15	$\pm .01$	6.0	± 0.2	52-80
2.25	$\pm .01$	5.4	± 0.2	52-80
2.28	$\pm .15$	4.70	± 0.14	39-4
2.42	$\pm .15$	4.71	± 0.14	39-4
2.45	$\pm .01$	5.2	± 0.2	52-80
2.60	$\pm .15$	4.62	± 0.11	39-4
2.65	$\pm .01$	5.0	± 0.2	52-80
2.75	$\pm .15$	4.50	± 0.14	39-4
2.8	$\pm 10\%$	5.1	$\pm 10\%$	54-108
2.83	$\pm .01$	4.8	± 0.2	52-80
3.0	$\pm 10\%$	5.0	$\pm 10\%$	54-108
3.03	$\pm .01$	4.7	± 0.2	52-80
3.2	$\pm 10\%$	4.8	$\pm 10\%$	54-108
3.21	$\pm .01$	4.6	± 0.2	52-80
3.6	$\pm 10\%$	4.5	$\pm 10\%$	54-108
4.0	$\pm 10\%$	4.4	$\pm 10\%$	54-108
4.5	$\pm 10\%$	4.3	$\pm 10\%$	54-108
4.9	$\pm 10\%$	4.3	$\pm 10\%$	54-108
5.1	$\pm 10\%$	4.2	$\pm 10\%$	54-108
5.5	$\pm 10\%$	4.2	$\pm 10\%$	54-108
5.8	$\pm 10\%$	4.0	$\pm 10\%$	54-108
6.1	$\pm 10\%$	4.1	$\pm 10\%$	54-108
6.5	$\pm 10\%$	4.1	$\pm 10\%$	54-108
7.01	$\pm .17$	4.28	± 0.04	57-22

σ_{tot}

<u>E_n (Mev)</u>	<u>Δ E_n (Mev)</u>	<u>σ (Barns)</u>	<u>Δ σ (Barns)</u>	<u>Yr. Ref.</u>
7.2	± 10%	5.3	± 10%	54-108
8.0	± 10%	4.1	± 10%	54-108
8.3	± 10%	4.1	± 10%	54-108
8.68	± .15	4.48	± 0.04	57-22
8.8	± 10%	4.2	± 10%	54-108
10.36	± .11	4.69	± 0.05	57-22
10.5	± 10%	4.3	± 10%	54-108
11.4	± 10%	4.4	± 10%	54-108
12.3	± 10%	4.6	± 10%	54-108
12.30	± .09	4.73	± 0.04	57-22
13.2	± 10%	4.8	± 10%	54-108
14.	-----	4.6	± 0.3	52-207
14.	-----	4.68	± 2%	52-332
14.12	± .05	4.71	± 0.09	52-81
14.37	± .07	4.68	± 0.05	57-22

 σ_{non}

1.0	± .05	0.8	± 0.6	54-103
14.1	-----	1.87	± 0.08	57-199
14.2	± .04	1.96	± 0.06	56-274
14.5	-----	2.06	± 0.04	56-200

 $\sigma_{n,n'}$

0.29	± .03	0.0	-----	56-353
0.77	± .002	0.4	± 0.2	56-353
1.02	± .003	0.7	± 0.3	56-353
2.5	-----	1.9	± 0.2	56-34

 $\sigma_{n,\gamma}$

0.40	± .09	0.147	± 0.013	56-9
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$\sigma_{n, 2n}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
9.25	-----	0.040	± 0.004	51-283
14.5	-----	0.750	$\pm 25\%$	53-27

 $\sigma_{n, \gamma}$

0.025	$\pm .005$	0.81	± 0.25	57-23
0.025	$\pm .005$	0.95	± 0.10	57-272
0.025	$\pm .005$	1.6	± 0.8	51-66
0.200	$\pm .028$	0.185	± 0.050	49-212
0.900	$\pm .013$	0.156	± 0.080	49-212

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$\sigma_{n, 2n}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
14.5	-----	1.245	$\pm 25\%$	53-27

 $\sigma_{n, \gamma}$

0.025	$\pm .005$	0.456	± 0.046	57-272
0.025	$\pm .005$	0.23	± 0.10	57-23

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$E_n(\text{Mev})$	$\Delta E_n(\text{Mev})$	σ_{tot} σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.10	$\pm .025$	5.1	-----	53-90
0.20	$\pm .025$	5.4	-----	53-90
0.30	$\pm .025$	5.6	-----	53-90
0.40	$\pm .025$	6.2	-----	53-90
0.50	$\pm .025$	6.1	-----	53-90
0.60	$\pm .025$	6.1	-----	53-90
0.80	$\pm .025$	6.0	-----	53-90
0.90	$\pm .025$	6.1	-----	53-90
1.2	$\pm .05$	7.1	-----	53-90
1.4	$\pm .05$	6.4	-----	53-90
1.6	$\pm .05$	6.5	-----	53-90
1.8	$\pm .05$	6.3	-----	53-90
2.0	$\pm .05$	6.2	-----	53-90
2.2	$\pm .05$	6.3	-----	53-90
2.4	$\pm .05$	4.8	-----	53-90
2.5	$\pm .05$	5.0	-----	53-90
2.6	$\pm .05$	5.0	-----	53-90
2.8	$\pm .05$	5.2	-----	53-90
2.8	$\pm 10\%$	5.3	$\pm 10\%$	54-108
3.0	$\pm .05$	4.7	-----	53-90
3.0	$\pm 10\%$	5.2	$\pm 10\%$	54-108
3.2	$\pm 10\%$	5.0	$\pm 10\%$	54-108
3.4	$\pm 10\%$	4.9	$\pm 10\%$	54-108
3.6	$\pm 10\%$	4.7	$\pm 10\%$	54-108
3.8	$\pm 10\%$	4.6	$\pm 10\%$	54-108
4.1	$\pm 10\%$	4.5	$\pm 10\%$	54-108
4.5	$\pm 10\%$	4.4	$\pm 10\%$	54-108
4.9	$\pm 10\%$	4.3	$\pm 10\%$	54-108
5.2	$\pm 10\%$	4.4	$\pm 10\%$	54-108
5.8	$\pm 10\%$	4.4	$\pm 10\%$	54-108
6.1	$\pm 10\%$	4.3	$\pm 10\%$	54-108
6.8	$\pm 10\%$	4.2	$\pm 10\%$	54-108
7.2	$\pm 10\%$	4.3	$\pm 10\%$	54-108

<u>E_n (Mev)</u>	<u>Δ E_n (Mev)</u>	<u>σ_{tot}</u>		<u>Yr. Ref.</u>
		<u>σ (Barns)</u>	<u>Δ σ (Barns)</u>	
7.7	± 10%	4.3	± 10%	54-108
8.1	± 10%	4.5	± 10%	54-108
8.5	± 10%	4.1	± 10%	54-108
8.9	± 10%	4.3	± 10%	54-108
9.8	± 10%	4.4	± 10%	54-108
10.3	± 10%	4.2	± 10%	54-108
10.5	± 10%	4.6	± 10%	54-108
11.3	± 10%	4.7	± 10%	54-108
12.3	± 10%	4.6	± 10%	54-108
13.2	± 10%	4.7	± 10%	54-108
14.	-----	4.83	± 2%	52-332
14.	-----	4.81	-----	51-333
14.12	± .05	4.85	± 0.10	52-81

<u>σ_{non}</u>				
1.0	± .05	0.6	± 0.5	54-103
14.1	-----	2.0	± 0.1	57-199

<u>σ_{el + in}</u>				
0.060	-----	5.30	± 10%	56-231
0.156	± .100	5.10	± 10%	56-231
0.246	± .100	5.50	± 10%	56-231
0.330	± .100	5.18	± 10%	56-231
0.400	± .100	5.68	± 10%	56-231
0.500	± .100	6.32	± 10%	56-231
0.505	± .100	6.23	± 10%	56-231
0.580	± .100	6.35	± 10%	56-231
0.660	± .100	6.17	± 10%	56-231
0.732	± .100	6.09	± 10%	56-231
0.816	± .100	6.20	± 10%	56-231
0.894	± .100	6.30	± 10%	56-231
0.980	± .100	6.22	± 10%	56-231
1.056	± .100	6.30	± 10%	56-231

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>$\sigma_{\text{el} + \text{in}}$</u> <u>$\sigma$ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
1.135	$\pm .100$	5.96	$\pm 10\%$	56-231
1.218	$\pm .100$	5.78	$\pm 10\%$	56-231
1.300	$\pm .100$	5.98	$\pm 10\%$	56-231
1.380	$\pm .100$	5.91	$\pm 10\%$	56-231
1.460	$\pm .100$	6.00	$\pm 10\%$	56-231
1.545	$\pm .100$	5.76	$\pm 10\%$	56-231
1.630	$\pm .100$	5.90	$\pm 10\%$	56-231
1.700	$\pm .100$	5.75	$\pm 10\%$	56-231
1.800	$\pm .100$	5.79	$\pm 10\%$	56-231

 $\sigma_{n, n'}$

2.5	-----	2.0	± 0.35	56-34
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$\sigma_{n, 2n}$

$\underline{E_n (\text{Mev})}$	$\underline{\Delta E_n (\text{Mev})}$	$\underline{\sigma (\text{Barns})}$	$\underline{\Delta \sigma (\text{Barns})}$	$\underline{\text{Yr. Ref.}}$
14.5	-----	0.779	$\pm 30\%$	53-27

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$\sigma_{n, 2n}$

$E_n (\text{Mev})$	$\Delta E_n (\text{Mev})$	$\sigma (\text{Barns})$	$\Delta \sigma (\text{Barns})$	Yr. Ref.
14.5	-----	0.599	$\pm 20\%$	53-27

 $\sigma_{n, \gamma}$

0.200	$\pm .028$	0.034	± 0.017	49-212
0.900	$\pm .013$	0.0265	± 0.008	49-212

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.001	-----	7.2	± 0.4	47-45
0.001	$\pm .0002$	9.5	± 0.05	52-216
0.004	-----	6.8	± 0.4	47-45
0.005	$\pm .003$	8.0	± 0.05	52-216
0.01	-----	6.5	± 0.5	47-45
0.02	$\pm .03$	6.0	± 0.3	49-50
0.024	$\pm .015$	7.0	$\pm 5\%$	47-46
0.04	$\pm .03$	5.6	± 0.3	49-50
0.08	$\pm .03$	5.5	± 0.3	49-50
0.12	$\pm .03$	5.7	± 0.3	49-50
0.13	$\pm .02$	6.6	$\pm 5\%$	47-46
0.14	$\pm .03$	6.5	$\pm 5\%$	47-46
0.14	$\pm .03$	6.3	± 0.3	49-50
0.20	$\pm .07$	6.2	± 0.3	49-50
0.22	$\pm .02$	6.1	$\pm 5\%$	47-46
0.28	$\pm .07$	6.0	± 0.3	49-50
0.40	$\pm .07$	5.9	± 0.3	49-50
0.44	$\pm .07$	5.7	± 0.3	49-50
0.50	$\pm .07$	6.4	± 0.3	49-50
0.53	$\pm .07$	6.6	± 0.3	49-50
0.59	$\pm .07$	6.5	± 0.3	49-50
0.62	$\pm .07$	6.8	$\pm 5\%$	47-46
0.63	$\pm .07$	6.7	± 0.3	49-50
0.66	$\pm .07$	6.9	± 0.3	49-50
0.73	$\pm .07$	6.4	± 0.3	49-50
0.76	$\pm .07$	6.5	± 0.3	49-50
0.83	$\pm .04$	6.7	$\pm 5\%$	47-46
0.83	$\pm .07$	6.6	± 0.3	49-50
0.88	$\pm .07$	6.5	± 0.3	49-50
0.92	$\pm .07$	7.1	± 0.3	49-50
1.00	$\pm .01$	6.9	± 0.2	52-80
1.00	$\pm .07$	6.6	± 0.3	49-50
1.04	$\pm .07$	6.7	± 0.3	49-50

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.10	$\pm .07$	6.7	± 0.3	49-50
1.14	$\pm .07$	6.8	± 0.3	49-50
1.15	$\pm .01$	6.8	± 0.2	52-80
1.24	$\pm .07$	6.0	± 0.3	49-50
1.30	$\pm .01$	6.5	± 0.2	52-80
1.32	$\pm .07$	6.0	± 0.3	49-50
1.45	$\pm .01$	6.4	± 0.2	52-80
1.60	$\pm .01$	6.2	± 0.2	52-80
1.75	$\pm .01$	6.0	± 0.2	52-80
1.90	$\pm .01$	5.9	± 0.2	52-80
2.06	$\pm .01$	5.8	± 0.2	52-80
2.13	$\pm .15$	4.88	± 0.20	39-4
2.25	$\pm .01$	5.6	± 0.2	52-80
2.42	$\pm .15$	4.95	± 0.20	39-4
2.45	$\pm .01$	5.3	± 0.2	52-80
2.65	$\pm .01$	5.3	± 0.2	52-80
2.75	$\pm .15$	4.75	± 0.20	39-4
2.83	$\pm .01$	5.2	± 0.2	52-80
3.01	$\pm .01$	5.0	± 0.2	52-80
3.21	$\pm .01$	4.9	± 0.2	52-80
14.	-----	4.69	$\pm 2\%$	52-332
14.12	$\pm .05$	4.74	± 0.10	52-81

 σ_{non}

14.1	-----	1.88	± 0.16	57-199
14.5	-----	2.11	± 0.06	56-200

 $\sigma_{n, n'}$

(For Excitation of .062, .028, .435, and .632 Mev Levels)

0.15	$\pm .04$	0.12	± 0.04	56-135
0.20	$\pm .04$	0.14	± 0.04	56-135
0.27	$\pm .04$	0.28	± 0.04	56-135
0.30	$\pm .04$	0.32	± 0.04	56-135
0.35	$\pm .04$	0.35	± 0.04	56-135

$$\sigma_{n,n'}$$

(For Excitation of .062, .208, .435, and .632 Mev Levels)

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.40	$\pm .04$	0.48	± 0.04	56-135
0.45	$\pm .04$	0.47	± 0.04	56-135
0.50	$\pm .04$	0.70	± 0.04	56-135
0.55	$\pm .04$	0.78	± 0.04	56-135
0.60	$\pm .04$	0.83	± 0.04	56-135
0.65	$\pm .04$	0.90	± 0.04	56-135
0.70	$\pm .04$	0.95	± 0.04	56-135
0.75	$\pm .04$	1.07	± 0.04	56-135
0.80	$\pm .04$	1.20	± 0.04	56-135
0.90	$\pm .04$	1.35	± 0.04	56-135
1.00	$\pm .04$	1.36	± 0.04	56-135
1.10	$\pm .04$	1.50	± 0.04	56-135
1.20	$\pm .04$	1.60	± 0.04	56-135
2.5	-----	1.96	± 0.25	56-34

$$\sigma_{n,n'}$$

(For Excitation of .060 Mev Level)

0.12	$\pm .025$	0.0	± 0.03	56-137
0.17	$\pm .025$	0.07	± 0.03	56-137
0.21	$\pm .025$	0.16	± 0.03	56-137
0.25	$\pm .025$	0.22	± 0.03	56-137
0.28	$\pm .025$	0.28	± 0.03	56-137
0.32	$\pm .025$	0.30	± 0.03	56-137
0.36	$\pm .025$	0.30	± 0.03	56-137
0.40	$\pm .025$	0.30	± 0.02	56-137
0.44	$\pm .025$	0.32	± 0.02	56-137
0.46	$\pm .025$	0.34	± 0.02	56-137
0.50	$\pm .025$	0.35	± 0.02	56-137
0.53	$\pm .025$	0.33	± 0.02	56-137
0.56	$\pm .025$	0.31	± 0.02	56-137
0.59	$\pm .025$	0.30	± 0.02	56-137
0.63	$\pm .025$	0.33	± 0.02	56-137
0.66	$\pm .025$	0.32	± 0.02	56-137
0.70	$\pm .025$	0.30	± 0.02	56-137

$\sigma_{n,n'}$

(For Excitation of .060 Mev Level)

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.74	$\pm .025$	0.28	± 0.02	56-137
0.77	$\pm .025$	0.25	± 0.02	56-137
0.80	$\pm .025$	0.19	± 0.02	56-137
0.83	$\pm .025$	0.17	± 0.02	56-137
0.89	$\pm .025$	0.17	± 0.02	56-137
0.94	$\pm .025$	0.15	± 0.02	56-137
0.99	$\pm .025$	0.18	± 0.02	56-137
1.01	$\pm .025$	0.15	± 0.02	56-137
1.06	$\pm .025$	0.24	± 0.02	56-137
1.20	$\pm .025$	0.28	± 0.02	56-137

 $\sigma_{n,2n}$

9.45	-----	0.031	± 0.003	51-283
12.3	$\pm .7$	0.90	$\pm 6\%$	53-91
13.1	$\pm .7$	1.12	$\pm 6\%$	53-91
14.1	$\pm .7$	1.30	$\pm 6\%$	53-91
14.5	-----	1.12	$\pm 35\%$	53-27

 $\sigma_{n,p}$

14.5	-----	0.231	$\pm 60\%$	53-27
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 $\sigma_{n,\alpha}$

14.5	-----	0.018	$\pm 15\%$	53-27
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 $\sigma_{n,\gamma}$

0.0035	$\pm .003$	3.07	± 0.43	46-167
0.016	$\pm .010$	1.37	± 0.23	46-167
0.025	$\pm .005$	0.82	± 0.06	57-272

$\sigma_{n,\gamma}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.025	$\pm .005$	0.78	± 0.06	56-277
0.025	$\pm .005$	0.82	± 0.06	56-26
0.033	$\pm .030$	1.05	± 0.15	46-167
0.035	$\pm 25\%$	2.2	$\pm 20\%$	51-66
0.067	$\pm .035$	0.727	± 0.100	46-167
0.098	$\pm .035$	0.593	± 0.080	46-167
0.195	$\pm .020$	0.529	± 0.080	46-167
0.200	$\pm .028$	0.30	± 0.06	49-212
0.25	$\pm .05$	0.36	$\pm 7\%$	53-91
0.30	$\pm .05$	0.34	$\pm 7\%$	53-91
0.35	$\pm .05$	0.30	$\pm 7\%$	53-91
0.390	$\pm .020$	0.288	± 0.060	46-167
0.50	$\pm .05$	0.24	$\pm 7\%$	53-91
0.67	$\pm .05$	0.17	$\pm 7\%$	53-91
0.77	$\pm .05$	0.14	$\pm 7\%$	53-91
0.86	$\pm .05$	0.13	$\pm 7\%$	53-91
0.900	$\pm .013$	0.18	± 0.03	49-212
0.95	$\pm .05$	0.12	$\pm 7\%$	53-91
1.05	$\pm .05$	0.10	$\pm 7\%$	53-91
1.15	$\pm .05$	0.10	$\pm 7\%$	53-91
1.27	$\pm .05$	0.09	$\pm 7\%$	53-91
1.36	$\pm .05$	0.09	$\pm 7\%$	53-91
1.62	$\pm .05$	0.08	$\pm 7\%$	53-91
5.90	$\pm .10$	0.0289	± 0.0200	46-167

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$\sigma_{n,\gamma}$				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
1.	-----	0.001	-----	48-327

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$\sigma_{n,\alpha}$				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.	-----	0.0011	± 0.0005	56-277

$\sigma_{n,\gamma}$				
0.025	$\pm .005$	0.9	± 0.3	57-23

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0155	$\pm .001$	6.0	± 0.3	56-143
0.0175	$\pm .001$	7.1	± 0.3	56-143
0.0185	$\pm .001$	7.0	± 0.3	56-143
0.019	$\pm .001$	7.0	± 0.3	56-143
0.020	$\pm .001$	7.7	± 0.3	56-143
0.021	$\pm .001$	7.4	± 0.3	56-143
0.0215	$\pm .001$	6.5	± 0.3	56-143
0.0225	$\pm .001$	5.4	± 0.3	56-143
0.0235	$\pm .001$	4.8	± 0.3	56-143
0.024	$\pm .001$	6.3	± 0.3	56-143
0.025	$\pm .001$	6.2	± 0.3	56-143
0.026	$\pm .001$	6.9	± 0.3	56-143
0.0275	$\pm .001$	6.1	± 0.3	56-143
0.0295	$\pm .001$	7.5	± 0.3	56-143
0.031	$\pm .001$	10.5	± 0.3	56-143
0.032	$\pm .001$	11.5	± 0.3	56-143
0.033	$\pm .001$	9.8	± 0.3	56-143
0.034	$\pm .001$	8.0	± 0.3	56-143
0.035	$\pm .001$	7.1	± 0.3	56-143
0.0355	$\pm .001$	9.4	± 0.3	56-143
0.037	$\pm .001$	5.4	± 0.3	56-143
0.039	$\pm .001$	6.0	± 0.3	56-143
0.040	$\pm .001$	9.0	± 0.3	56-143
0.041	$\pm .001$	11.0	± 0.3	56-143
0.0415	$\pm .001$	9.7	± 0.3	56-143
0.0435	$\pm .001$	7.8	± 0.3	56-143
0.046	$\pm .001$	5.9	± 0.3	56-143
0.0475	$\pm .001$	6.9	± 0.3	56-143
0.0495	$\pm .001$	7.8	± 0.3	56-143
0.05	$\pm .01$	5.1	± 0.2	52-80
0.0515	$\pm .001$	8.0	± 0.3	56-143
0.0525	$\pm .001$	8.3	± 0.3	56-143
0.055	$\pm .001$	7.8	± 0.3	56-143

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.0555	$\pm .001$	6.9	± 0.3	56-143
0.057	$\pm .001$	7.0	± 0.3	56-143
0.058	$\pm .001$	6.1	± 0.3	56-143
0.059	$\pm .001$	7.1	± 0.3	56-143
0.0605	$\pm .001$	8.1	± 0.3	56-143
0.061	$\pm .001$	8.7	± 0.3	56-143
0.062	$\pm .001$	8.4	± 0.3	56-143
0.063	$\pm .001$	8.5	± 0.3	56-143
0.0665	$\pm .001$	7.8	± 0.3	56-143
0.069	$\pm .001$	8.1	± 0.3	56-143
0.072	$\pm .001$	8.5	± 0.3	56-143
0.074	$\pm .001$	7.3	± 0.3	56-143
0.079	$\pm .001$	6.5	± 0.3	56-143
0.08	$\pm .01$	4.9	± 0.2	52-80
0.082	$\pm .001$	9.2	± 0.3	56-143
0.085	$\pm .001$	6.3	± 0.3	56-143
0.0905	$\pm .001$	6.9	± 0.3	56-143
0.0925	$\pm .001$	6.5	± 0.3	56-143
0.096	$\pm .001$	6.0	± 0.3	56-143
0.099	$\pm .001$	5.6	± 0.3	56-143
0.10	$\pm .01$	5.0	± 0.2	52-80
0.1015	$\pm .001$	6.0	± 0.3	56-143
0.12	$\pm .01$	4.5	± 0.2	52-80
0.14	$\pm .01$	5.1	± 0.2	52-80
0.15	$\pm .01$	5.2	± 0.2	52-80
0.16	$\pm .01$	5.4	± 0.2	52-80
0.18	$\pm .01$	4.8	± 0.2	52-80
0.20	$\pm .01$	4.9	± 0.2	52-80
0.23	$\pm .01$	4.8	± 0.2	52-80
0.26	$\pm .01$	5.3	± 0.2	52-80
0.28	$\pm .01$	5.3	± 0.2	52-80
0.31	$\pm .01$	5.5	± 0.2	52-80
0.33	$\pm .01$	5.6	± 0.2	52-80

σ_{tot}

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.36	$\pm .01$	5.5	± 0.2	52-80
0.38	$\pm .01$	5.2	± 0.2	52-80
0.42	$\pm .01$	5.2	± 0.2	52-80
0.44	$\pm .01$	5.3	± 0.2	52-80
0.47	$\pm .01$	5.8	± 0.2	52-80
0.50	$\pm .01$	5.7	± 0.2	52-80
0.52	$\pm .01$	5.7	± 0.2	52-80
0.54	$\pm .01$	5.9	± 0.2	52-80
0.56	$\pm .01$	6.0	± 0.2	52-80
0.58	$\pm .01$	5.9	± 0.2	52-80
0.60	$\pm .01$	6.0	± 0.2	52-80
0.62	$\pm .01$	5.9	± 0.2	52-80
0.65	$\pm .01$	5.9	± 0.2	52-80
0.68	$\pm .01$	7.0	± 0.2	52-80
0.69	$\pm .01$	6.2	± 0.2	52-80
0.71	$\pm .01$	6.1	± 0.2	52-80
0.75	$\pm .01$	6.1	± 0.2	52-80
0.76	$\pm .01$	7.0	± 0.2	52-80
0.77	$\pm .01$	6.5	± 0.2	52-80
0.78	$\pm .01$	5.9	± 0.2	52-80
0.81	$\pm .01$	6.0	± 0.2	52-80
0.82	$\pm .01$	6.7	± 0.2	52-80
0.84	$\pm .01$	6.6	± 0.2	52-80
0.86	$\pm .01$	6.5	± 0.2	52-80
0.89	$\pm .01$	6.5	± 0.2	52-80
0.92	$\pm .01$	6.9	± 0.2	52-80
0.94	$\pm .01$	6.9	± 0.2	52-80
0.95	$\pm .01$	7.2	± 0.2	52-80
0.96	$\pm .01$	6.2	± 0.2	52-80
0.98	$\pm .01$	6.4	± 0.2	52-80
1.00	$\pm .01$	6.2	± 0.2	52-80
1.01	$\pm .01$	6.0	± 0.2	52-80
1.03	$\pm .01$	7.1	± 0.2	52-80

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.06	$\pm .01$	6.7	± 0.2	52-80
1.08	$\pm .01$	6.8	± 0.2	52-80
1.12	$\pm .01$	7.1	± 0.2	52-80
1.15	$\pm .01$	6.7	± 0.2	52-80
1.19	$\pm .01$	6.8	± 0.2	52-80
1.22	$\pm .01$	7.2	± 0.2	52-80
1.25	$\pm .01$	6.5	± 0.2	52-80
1.28	$\pm .01$	6.8	± 0.2	52-80
1.32	$\pm .01$	7.2	± 0.2	52-80
1.35	$\pm .01$	7.2	± 0.2	52-80
1.38	$\pm .01$	7.0	± 0.2	52-80
1.40	$\pm .01$	6.7	± 0.2	52-80
1.60	$\pm .01$	7.0	± 0.2	52-80
1.75	$\pm .01$	6.5	± 0.2	52-80
1.90	$\pm .01$	6.5	± 0.2	52-80
2.06	$\pm .01$	6.0	± 0.2	52-80
2.13	$\pm .15$	6.69	± 0.27	39-4
2.25	$\pm .01$	5.6	± 0.2	52-80
2.42	$\pm .15$	6.89	± 0.27	39-4
2.45	$\pm .01$	5.3	± 0.2	52-80
2.65	$\pm .01$	5.2	± 0.2	52-80
2.75	$\pm .15$	6.51	± 0.27	39-4
2.83	$\pm .01$	5.2	± 0.2	52-80
3.01	$\pm .01$	5.0	± 0.2	52-80
3.21	$\pm .01$	5.0	± 0.2	52-80
13.14	$\pm .05$	5.01	± 0.09	58-324
14.	-----	5.22	$\pm 2\%$	52-332
14.10	$\pm .04$	5.02	± 0.07	58-324
14.12	$\pm .05$	5.17	± 0.10	52-81

σ_{non}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.0	$\pm .05$	0.2	± 0.2	54-103
14.1	-----	1.90	± 0.17	57-199

 $\sigma_{n,n'}$

2.5	-----	1.6	± 1.0	56-34
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$\sigma_{n, n'}$
(For Production of $\text{Ba}^{137\text{m}}$)

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.66	$\pm .1\%$	0.0	$\pm 20\%$	55-300
0.70	$\pm .1\%$	0.030	$\pm 20\%$	55-300
0.78	$\pm .1\%$	0.040	$\pm 20\%$	55-300
0.82	$\pm .1\%$	0.046	$\pm 20\%$	55-300
0.90	$\pm .1\%$	0.055	$\pm 20\%$	55-300
0.95	$\pm .1\%$	0.060	$\pm 20\%$	55-300
1.02	$\pm .1\%$	0.065	$\pm 20\%$	55-300

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$\sigma_{n,p}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
3.1	-----	<0.0002	-----	51-283
14.5	-----	0.006	$\pm 35\%$	53-27

 $\sigma_{n,\gamma}$

0.025	$\pm .005$	0.053	$\pm 10\%$	53-222
0.025	$\pm .005$	0.0114	± 0.0011	57-272
1.	-----	0.0026	-----	48-327

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0010	$\pm .0010$	6.3	± 0.4	57-154
0.0012	$\pm .0010$	3.1	± 0.4	57-154
0.0018	$\pm .0010$	4.3	± 0.4	57-154
0.0020	$\pm .0010$	5.1	± 0.4	57-154
0.0022	$\pm .0010$	7.2	± 0.4	57-154
0.0024	$\pm .0010$	5.0	± 0.4	57-154
0.0025	$\pm .0010$	5.8	± 0.4	57-154
0.0028	$\pm .0010$	4.2	± 0.4	57-154
0.0029	$\pm .0010$	4.1	± 0.4	57-154
0.0030	$\pm .0010$	6.8	± 0.4	57-154
0.0033	$\pm .0010$	7.9	± 0.4	57-154
0.0037	$\pm .0010$	8.9	± 0.4	57-154
0.0040	$\pm .0010$	7.7	± 0.4	57-154
0.0043	$\pm .0010$	8.0	± 0.4	57-154
0.0048	$\pm .0010$	7.0	± 0.4	57-154
0.0050	$\pm .0010$	5.5	± 0.4	57-154
0.0053	$\pm .0010$	5.2	± 0.4	57-154
0.0057	$\pm .0010$	5.4	± 0.4	57-154
0.0060	$\pm .0010$	5.8	± 0.4	57-154
0.0063	$\pm .0010$	5.5	± 0.4	57-154
0.0068	$\pm .0010$	5.1	± 0.4	57-154
0.0070	$\pm .0010$	6.3	± 0.4	57-154
0.0073	$\pm .0010$	6.7	± 0.4	57-154
0.0077	$\pm .0010$	6.2	± 0.4	57-154
0.0080	$\pm .0010$	5.8	± 0.4	57-154
0.0083	$\pm .0010$	6.3	± 0.4	57-154
0.0088	$\pm .0010$	7.2	± 0.4	57-154
0.0090	$\pm .0010$	7.1	± 0.4	57-154
0.0093	$\pm .0010$	7.8	± 0.4	57-154
0.0098	$\pm .0010$	7.0	± 0.4	57-154
0.01	$\pm .01$	4.2	± 0.2	52-80
0.0100	$\pm .0010$	4.8	± 0.4	57-154
0.02	$\pm .01$	4.4	± 0.2	52-80

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.03	$\pm .01$	4.6	± 0.2	52-80
0.04	$\pm .01$	4.1	± 0.2	52-80
0.05	$\pm .01$	4.1	± 0.2	52-80
0.06	$\pm .01$	4.2	± 0.2	52-80
0.07	$\pm .01$	4.1	± 0.2	52-80
0.08	$\pm .01$	4.1	± 0.2	52-80
0.09	$\pm .01$	4.1	± 0.2	52-80
0.10	$\pm .01$	5.0	± 0.2	52-80
0.11	$\pm .01$	4.2	± 0.2	52-80
0.12	$\pm .01$	5.1	± 0.2	52-80
0.13	$\pm .01$	5.1	± 0.2	52-80
0.14	$\pm .01$	5.1	± 0.2	52-80
0.15	$\pm .01$	5.1	± 0.2	52-80
0.17	$\pm .01$	3.8	± 0.2	52-80
0.19	$\pm .01$	5.0	± 0.2	52-80
0.22	$\pm .01$	4.8	± 0.2	52-80
0.24	$\pm .01$	4.9	± 0.2	52-80
0.27	$\pm .01$	5.3	± 0.2	52-80
0.29	$\pm .01$	4.6	± 0.2	52-80
0.33	$\pm .01$	5.4	± 0.2	52-80
0.37	$\pm .01$	4.8	± 0.2	52-80
0.39	$\pm .01$	5.2	± 0.2	52-80
0.41	$\pm .01$	5.3	± 0.2	52-80
0.43	$\pm .01$	6.0	± 0.2	52-80
0.44	$\pm .01$	5.4	± 0.2	52-80
0.46	$\pm .01$	5.4	± 0.2	52-80
0.48	$\pm .01$	5.8	± 0.2	52-80
0.50	$\pm .01$	5.6	± 0.2	52-80
0.52	$\pm .01$	5.5	± 0.2	52-80
0.54	$\pm .01$	6.1	± 0.2	52-80
0.56	$\pm .01$	6.5	± 0.2	52-80
0.58	$\pm .01$	5.9	± 0.2	52-80
0.60	$\pm .01$	5.8	± 0.2	52-80

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.62	$\pm .01$	6.0	± 0.2	52-80
0.64	$\pm .01$	5.8	± 0.2	52-80
0.66	$\pm .01$	6.2	± 0.2	52-80
0.68	$\pm .01$	6.2	± 0.2	52-80
0.70	$\pm .01$	6.3	± 0.2	52-80
0.72	$\pm .01$	6.6	± 0.2	52-80
0.74	$\pm .01$	6.2	± 0.2	52-80
0.75	$\pm .01$	6.3	± 0.2	52-80
0.78	$\pm .01$	5.9	± 0.2	52-80
0.80	$\pm .01$	6.6	± 0.2	52-80
0.82	$\pm .01$	6.6	± 0.2	52-80
0.84	$\pm .01$	6.1	± 0.2	52-80
0.86	$\pm .01$	6.2	± 0.2	52-80
0.88	$\pm .01$	6.8	± 0.2	52-80
0.90	$\pm .01$	6.9	± 0.2	52-80
0.92	$\pm .01$	6.2	± 0.2	52-80
0.94	$\pm .01$	6.3	± 0.2	52-80
0.96	$\pm .01$	6.6	± 0.2	52-80
0.98	$\pm .01$	6.8	± 0.2	52-80
1.00	$\pm .01$	7.0	± 0.2	52-80
1.02	$\pm .01$	7.0	± 0.2	52-80
1.04	$\pm .01$	6.9	± 0.2	52-80
1.06	$\pm .01$	6.8	± 0.2	52-80
1.08	$\pm .01$	7.1	± 0.2	52-80
1.12	$\pm .01$	6.8	± 0.2	52-80
1.15	$\pm .01$	6.8	± 0.2	52-80
1.19	$\pm .01$	7.1	± 0.2	52-80
1.21	$\pm .01$	6.9	± 0.2	52-80
1.24	$\pm .01$	7.0	± 0.2	52-80
1.27	$\pm .01$	7.0	± 0.2	52-80
1.30	$\pm .01$	6.8	± 0.2	52-80
1.34	$\pm .01$	6.9	± 0.2	52-80
1.38	$\pm .01$	7.1	± 0.2	52-80

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.40	$\pm .01$	6.8	± 0.2	52-80
1.55	$\pm .01$	7.2	± 0.2	52-80
1.61	$\pm .01$	7.5	± 0.2	52-80
1.75	$\pm .01$	7.0	± 0.2	52-80
1.85	$\pm .01$	6.5	± 0.2	52-80
1.90	$\pm .01$	6.5	± 0.2	52-80
2.06	$\pm .01$	6.7	± 0.2	52-80
2.15	$\pm .01$	6.3	± 0.2	52-80
2.25	$\pm .01$	6.7	± 0.2	52-80
2.45	$\pm .01$	6.1	± 0.2	52-80
2.65	$\pm .01$	5.9	± 0.2	52-80
2.7	$\pm 10\%$	6.4	$\pm 10\%$	54-108
2.83	$\pm .01$	5.6	± 0.2	52-80
2.9	$\pm 10\%$	6.2	$\pm 10\%$	54-108
3.03	$\pm .01$	5.3	± 0.2	52-80
3.1	$\pm 10\%$	6.0	$\pm 10\%$	54-108
3.21	$\pm .01$	5.2	± 0.2	52-80
3.5	$\pm 10\%$	5.6	$\pm 10\%$	54-108
3.9	$\pm 10\%$	5.2	$\pm 10\%$	54-108
4.5	$\pm 10\%$	5.0	$\pm 10\%$	54-108
5.0	$\pm 10\%$	4.8	$\pm 10\%$	54-108
5.3	$\pm 10\%$	4.8	$\pm 10\%$	54-108
5.7	$\pm 10\%$	4.7	$\pm 10\%$	54-108
6.0	$\pm 10\%$	4.6	$\pm 10\%$	54-108
6.4	$\pm 10\%$	4.4	$\pm 10\%$	54-108
7.8	$\pm 10\%$	4.4	$\pm 10\%$	54-108
8.0	$\pm 10\%$	4.4	$\pm 10\%$	54-108
9.3	$\pm 10\%$	4.4	$\pm 10\%$	54-108
10.5	$\pm 10\%$	4.4	$\pm 10\%$	54-108
11.4	$\pm 10\%$	4.4	$\pm 10\%$	54-108
12.3	$\pm 10\%$	4.6	$\pm 10\%$	54-108
13.14	$\pm .05$	4.81	± 0.08	58-324
13.2	$\pm 10\%$	5.0	$\pm 10\%$	54-108

σ_{tot}

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
13.60	$\pm .07$	4.78	± 0.07	58-324
14.10	$\pm .04$	4.79	± 0.07	58-324
14.12	$\pm .05$	5.18	± 0.10	52-81

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$\sigma_{n,p}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
2.1	-----	< 0.0002	-----	51-283
14.5	-----	0.0057	$\pm 42\%$	53-27

 $\sigma_{n,\gamma}$

0.025	$\pm .005$	0.050	± 0.007	57-272
0.025	$\pm .005$	0.049	± 0.015	57-23
1.	-----	0.005	-----	48-327

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σ_{tot}				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.005	$\pm .001$	4.5	± 0.3	56-143
0.006	$\pm .001$	5.0	± 0.3	56-143
0.007	$\pm .001$	5.3	± 0.3	56-143
0.0075	$\pm .001$	4.1	± 0.3	56-143
0.008	$\pm .001$	3.0	± 0.3	56-143
0.0085	$\pm .001$	3.5	± 0.3	56-143
0.009	$\pm .001$	4.0	± 0.3	56-143
0.01	$\pm .01$	4.3	± 0.2	52-80
0.010	$\pm .001$	3.8	± 0.3	56-143
0.011	$\pm .001$	5.4	± 0.3	56-143
0.012	$\pm .001$	5.2	± 0.3	56-143
0.013	$\pm .001$	5.8	± 0.3	56-143
0.014	$\pm .001$	6.0	± 0.3	56-143
0.0145	$\pm .001$	5.0	± 0.3	56-143
0.015	$\pm .001$	3.9	± 0.3	56-143
0.0155	$\pm .001$	3.1	± 0.3	56-143
0.016	$\pm .001$	4.4	± 0.3	56-143
0.017	$\pm .001$	5.0	± 0.3	56-143
0.0175	$\pm .001$	3.5	± 0.3	56-143
0.0185	$\pm .001$	3.1	± 0.3	56-143
0.019	$\pm .001$	4.3	± 0.3	56-143
0.0195	$\pm .001$	5.3	± 0.3	56-143
0.02	$\pm .01$	7.2	± 0.2	52-80
0.0205	$\pm .001$	5.8	± 0.3	56-143
0.0215	$\pm .001$	2.7	± 0.3	56-143
0.0225	$\pm .001$	1.9	± 0.3	56-143
0.023	$\pm .001$	7.3	± 0.3	56-143
0.0235	$\pm .001$	11.0	± 0.3	56-143
0.024	$\pm .001$	14.8	± 0.3	56-143
0.0245	$\pm .001$	16.5	± 0.3	56-143
0.025	$\pm .001$	17.9	± 0.3	56-143
0.026	$\pm .001$	17.6	± 0.3	56-143
0.027	$\pm .001$	13.2	± 0.3	56-143

σ_{tot}				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.0275	$\pm .001$	9.0	± 0.3	56-143
0.028	$\pm .001$	10.6	± 0.3	56-143
0.029	$\pm .001$	10.2	± 0.3	56-143
0.0295	$\pm .001$	9.3	± 0.3	56-143
0.03	$\pm .01$	9.2	± 0.2	52-80
0.030	$\pm .001$	7.5	± 0.3	56-143
0.031	$\pm .001$	6.4	± 0.3	56-143
0.0315	$\pm .001$	9.0	± 0.3	56-143
0.032	$\pm .001$	8.1	± 0.3	56-143
0.0325	$\pm .001$	7.3	± 0.3	56-143
0.033	$\pm .001$	6.5	± 0.3	56-143
0.034	$\pm .001$	6.7	± 0.3	56-143
0.035	$\pm .001$	7.5	± 0.3	56-143
0.036	$\pm .001$	6.2	± 0.3	56-143
0.037	$\pm .001$	5.1	± 0.3	56-143
0.0375	$\pm .001$	5.0	± 0.3	56-143
0.039	$\pm .001$	4.7	± 0.3	56-143
0.0395	$\pm .001$	5.3	± 0.3	56-143
0.04	$\pm .01$	5.1	± 0.2	52-80
0.041	$\pm .001$	3.9	± 0.3	56-143
0.042	$\pm .001$	5.5	± 0.3	56-143
0.043	$\pm .001$	4.4	± 0.3	56-143
0.044	$\pm .001$	4.0	± 0.3	56-143
0.045	$\pm .001$	6.0	± 0.3	56-143
0.0455	$\pm .001$	5.1	± 0.3	56-143
0.047	$\pm .001$	8.9	± 0.3	56-143
0.048	$\pm .001$	6.5	± 0.3	56-143
0.049	$\pm .001$	6.7	± 0.3	56-143
0.0495	$\pm .001$	5.0	± 0.3	56-143
0.05	$\pm .01$	4.2	± 0.2	52-80
0.050	$\pm .001$	4.8	± 0.3	56-143
0.051	$\pm .001$	4.2	± 0.3	56-143
0.052	$\pm .001$	4.5	± 0.3	56-143

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.053	$\pm .001$	4.6	± 0.3	56-143
0.054	$\pm .001$	5.8	± 0.3	56-143
0.0545	$\pm .001$	6.0	± 0.3	56-143
0.0555	$\pm .001$	5.1	± 0.3	56-143
0.056	$\pm .001$	5.2	± 0.3	56-143
0.06	$\pm .01$	4.1	± 0.2	52-80
0.09	$\pm .01$	4.1	± 0.2	52-80
0.12	$\pm .01$	5.1	± 0.2	52-80
0.13	$\pm .01$	4.0	± 0.2	52-80
0.15	$\pm .01$	4.5	± 0.2	52-80
0.17	$\pm .01$	4.0	± 0.2	52-80
0.19	$\pm .01$	4.5	± 0.2	52-80
0.21	$\pm .01$	5.4	± 0.2	52-80
0.21	-----	5.8	-----	49-39
0.24	$\pm .01$	5.0	± 0.2	52-80
0.24	-----	5.6	-----	49-39
0.27	-----	4.2	-----	49-39
0.28	$\pm .01$	5.2	± 0.2	52-80
0.29	-----	5.5	-----	49-39
0.30	$\pm .01$	5.4	± 0.2	52-80
0.31	-----	4.8	-----	49-39
0.32	$\pm .01$	5.3	± 0.2	52-80
0.33	-----	5.4	-----	49-39
0.34	$\pm .01$	5.2	± 0.2	52-80
0.35	-----	5.0	-----	49-39
0.36	$\pm .01$	5.5	± 0.2	52-80
0.37	-----	6.0	-----	49-39
0.38	$\pm .01$	5.1	± 0.2	52-80
0.39	-----	5.5	-----	49-39
0.41	-----	5.9	-----	49-39
0.41	$\pm .01$	5.7	± 0.2	52-80
0.43	-----	5.9	-----	49-39
0.44	$\pm .01$	5.0	± 0.2	52-80

σ_{tot}				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.45	-----	6.4	-----	49-39
0.46	$\pm .01$	5.3	± 0.2	52-80
0.47	-----	5.8	-----	49-39
0.49	$\pm .01$	5.5	± 0.2	52-80
0.49	-----	6.0	-----	49-39
0.51	-----	5.7	-----	49-39
0.52	$\pm .01$	5.8	± 0.2	52-80
0.53	-----	6.5	-----	49-39
0.54	$\pm .01$	5.8	± 0.2	52-80
0.55	-----	6.7	-----	49-39
0.56	$\pm .01$	6.2	± 0.2	52-80
0.57	-----	6.3	-----	49-39
0.58	$\pm .01$	6.1	± 0.2	52-80
0.60	-----	6.4	-----	49-39
0.62	$\pm .01$	5.8	± 0.2	52-80
0.63	-----	6.9	-----	49-39
0.64	$\pm .01$	6.1	± 0.2	52-80
0.66	-----	6.6	-----	49-39
0.68	-----	6.9	-----	49-39
0.68	$\pm .01$	6.0	± 0.2	52-80
0.70	$\pm .01$	6.2	± 0.2	52-80
0.72	$\pm .01$	6.2	± 0.2	52-80
0.74	$\pm .01$	6.2	± 0.2	52-80
0.76	$\pm .01$	6.4	± 0.2	52-80
0.78	$\pm .01$	6.6	± 0.2	52-80
0.81	$\pm .01$	6.2	± 0.2	52-80
0.84	$\pm .01$	6.0	± 0.2	52-80
0.86	$\pm .01$	7.0	± 0.2	52-80
0.88	$\pm .01$	6.5	± 0.2	52-80
0.90	$\pm .01$	6.7	± 0.2	52-80
0.92	$\pm .01$	6.6	± 0.2	52-80
0.94	$\pm .01$	7.0	± 0.2	52-80
0.96	$\pm .01$	6.6	± 0.2	52-80

E_n (Mev)	ΔE_n (Mev)	σ_{tot} σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.98	$\pm .01$	6.4	± 0.2	52-80
1.00	$\pm .01$	6.6	± 0.2	52-80
1.03	$\pm .01$	6.8	± 0.2	52-80
1.05	$\pm .01$	6.4	± 0.2	52-80
1.07	$\pm .01$	6.8	± 0.2	52-80
1.09	$\pm .01$	6.9	± 0.2	52-80
1.12	$\pm .01$	6.7	± 0.2	52-80
1.15	$\pm .01$	6.8	± 0.2	52-80
1.18	$\pm .01$	6.8	± 0.2	52-80
1.21	$\pm .01$	7.0	± 0.2	52-80
1.23	$\pm .01$	6.5	± 0.2	52-80
1.24	$\pm .01$	7.1	± 0.2	52-80
1.25	$\pm .01$	7.0	± 0.2	52-80
1.29	$\pm .01$	7.0	± 0.2	52-80
1.34	$\pm .01$	6.4	± 0.2	52-80
1.40	$\pm .01$	7.2	± 0.2	52-80
1.55	$\pm .01$	7.4	± 0.2	52-80
1.60	$\pm .01$	7.2	± 0.2	52-80
1.75	$\pm .01$	6.8	± 0.2	52-80
1.85	$\pm .01$	6.6	± 0.2	52-80
1.90	$\pm .01$	6.7	± 0.2	52-80
2.06	$\pm .01$	6.5	± 0.2	52-80
2.15	$\pm .01$	6.6	± 0.2	52-80
2.25	$\pm .01$	6.5	± 0.2	52-80
2.45	$\pm .01$	6.3	± 0.2	52-80
2.65	$\pm .01$	5.8	± 0.2	52-80
2.83	$\pm .01$	5.5	± 0.2	52-80
3.03	$\pm .01$	5.7	± 0.2	52-80
3.21	$\pm .01$	5.2	± 0.2	52-80
13.14	$\pm .05$	4.99	± 0.08	58-324
14.	-----	5.01	$\pm 2\%$	52-332
14.10	$\pm .04$	5.01	± 0.07	58-324
14.12	$\pm .05$	5.08	± 0.10	52-81

E_n (Mev)	ΔE_n (Mev)	σ_{non} σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
<u>1.0</u>	<u>$\pm .05$</u>	<u>0.1</u>	<u>± 0.1</u>	<u>54-103</u>

$\sigma_{n, \alpha}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.5	-----	0.012	$\pm 50\%$	53-27

 $\sigma_{n, \gamma}$

0.025	$\pm .005$	0.031	± 0.004	57-272
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$\sigma_{n, \gamma}$				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.025	$\pm .005$	0.425	± 0.043	57-272

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.05	$\pm .01$	6.0	± 0.2	52-80
0.08	$\pm .01$	6.0	± 0.2	52-80
0.10	$\pm .01$	6.5	± 0.2	52-80
0.11	$\pm .01$	5.6	± 0.2	52-80
0.13	$\pm .01$	5.6	± 0.2	52-80
0.15	$\pm .01$	5.2	± 0.2	52-80
0.18	$\pm .01$	5.1	± 0.2	52-80
0.20	$\pm .01$	5.4	± 0.2	52-80
0.23	$\pm .01$	5.3	± 0.2	52-80
0.25	$\pm .01$	5.5	± 0.2	52-80
0.27	$\pm .01$	5.4	± 0.2	52-80
0.30	$\pm .01$	5.2	± 0.2	52-80
0.32	$\pm .01$	5.4	± 0.2	52-80
0.35	$\pm .01$	5.2	± 0.2	52-80
0.36	$\pm .01$	5.6	± 0.2	52-80
0.40	$\pm .01$	6.0	± 0.2	52-80
0.42	$\pm .01$	6.2	± 0.2	52-80
0.44	$\pm .01$	6.2	± 0.2	52-80
0.46	$\pm .01$	6.1	± 0.2	52-80
0.48	$\pm .01$	6.2	± 0.2	52-80
0.50	$\pm .01$	5.8	± 0.2	52-80
0.51	$\pm .01$	5.8	± 0.2	52-80
0.52	$\pm .01$	6.2	± 0.2	52-80
0.53	$\pm .01$	6.1	± 0.2	52-80
0.54	$\pm .01$	6.0	± 0.2	52-80
0.55	$\pm .01$	5.9	± 0.2	52-80
0.56	$\pm .01$	5.8	± 0.2	52-80
0.57	$\pm .01$	6.5	± 0.2	52-80
0.58	$\pm .01$	6.0	± 0.2	52-80
0.59	$\pm .01$	6.0	± 0.2	52-80
0.60	$\pm .01$	6.2	± 0.2	52-80
0.61	$\pm .01$	6.2	± 0.2	52-80
0.62	$\pm .01$	6.2	± 0.2	52-80

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.63	$\pm .01$	6.2	± 0.2	52-80
0.64	$\pm .01$	6.2	± 0.2	52-80
0.65	$\pm .01$	6.2	± 0.2	52-80
0.67	$\pm .01$	6.0	± 0.2	52-80
0.69	$\pm .01$	6.9	± 0.2	52-80
0.71	$\pm .01$	5.8	± 0.2	52-80
0.74	$\pm .01$	6.2	± 0.2	52-80
0.76	$\pm .01$	6.2	± 0.2	52-80
0.78	$\pm .01$	6.9	± 0.2	52-80
0.80	$\pm .01$	7.0	± 0.2	52-80
0.82	$\pm .01$	6.8	± 0.2	52-80
0.84	$\pm .01$	7.1	± 0.2	52-80
0.86	$\pm .01$	6.8	± 0.2	52-80
0.88	$\pm .01$	6.9	± 0.2	52-80
0.90	$\pm .01$	7.0	± 0.2	52-80
0.92	$\pm .01$	7.5	± 0.2	52-80
0.94	$\pm .01$	7.0	± 0.2	52-80
0.95	$\pm .01$	7.0	± 0.2	52-80
0.97	$\pm .01$	7.4	± 0.2	52-80
0.99	$\pm .01$	7.3	± 0.2	52-80
1.01	$\pm .01$	7.5	± 0.2	52-80
1.04	$\pm .01$	7.8	± 0.2	52-80
1.07	$\pm .01$	7.7	± 0.2	52-80
1.09	$\pm .01$	6.9	± 0.2	52-80
1.13	$\pm .01$	7.0	± 0.2	52-80
1.17	$\pm .01$	7.0	± 0.2	52-80
1.19	$\pm .01$	7.0	± 0.2	52-80
1.22	$\pm .01$	7.8	± 0.2	52-80
1.25	$\pm .01$	6.7	± 0.2	52-80
1.28	$\pm .01$	7.8	± 0.2	52-80
1.32	$\pm .01$	6.8	± 0.2	52-80
1.35	$\pm .01$	7.5	± 0.2	52-80

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.37	$\pm .01$	7.2	± 0.2	52-80
1.46	$\pm .01$	7.7	± 0.2	52-80
1.60	$\pm .01$	7.2	± 0.2	52-80
1.75	$\pm .01$	7.5	± 0.2	52-80
1.90	$\pm .01$	7.2	± 0.2	52-80
2.06	$\pm .01$	6.6	± 0.2	52-80
2.25	$\pm .01$	6.4	± 0.2	52-80
2.45	$\pm .01$	6.6	± 0.2	52-80
2.65	$\pm .01$	6.2	± 0.2	52-80
2.83	$\pm .01$	6.0	± 0.2	52-80
3.03	$\pm .01$	5.8	± 0.2	52-80
3.21	$\pm .01$	5.6	± 0.2	52-80
14.	-----	4.84	$\pm 2\%$	53-332
14.12	$\pm .05$	4.93	± 0.25	52-81

 $\sigma_{n, 2n}$

9.4	-----	0.039	± 0.004	51-283
14.5	-----	2.06	$\pm 35\%$	53-27

 $\sigma_{n, \gamma}$

0.025	$\pm .005$	0.547	± 0.055	57-272
0.025	$\pm .005$	0.17	± 0.04	57-23
1.	-----	0.011	-----	48-327

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.05	$\pm .06$	7.5	$\pm 4\%$	53-101
0.15	$\pm .06$	6.9	$\pm 4\%$	53-101
0.20	$\pm .06$	6.2	$\pm 4\%$	53-101
0.25	$\pm .06$	6.0	$\pm 4\%$	53-101
0.40	$\pm .06$	5.9	$\pm 4\%$	53-101
0.55	$\pm .06$	6.6	$\pm 4\%$	53-101
0.65	$\pm .06$	6.7	$\pm 4\%$	53-101
0.75	$\pm .06$	6.7	$\pm 4\%$	53-101
0.85	$\pm .06$	7.0	$\pm 4\%$	53-101
1.1	$\pm .06$	7.0	$\pm 4\%$	53-101
1.3	$\pm .06$	7.3	$\pm 4\%$	53-101
1.4	$\pm .06$	7.2	$\pm 4\%$	53-101
1.6	$\pm .06$	7.1	$\pm 4\%$	53-101
1.7	$\pm .06$	7.1	$\pm 4\%$	53-101
1.8	$\pm .06$	7.0	$\pm 4\%$	53-101
2.0	$\pm .06$	6.8	$\pm 4\%$	53-101
2.2	$\pm .06$	7.0	$\pm 4\%$	53-101
2.4	$\pm .06$	6.6	$\pm 4\%$	53-101
2.5	$\pm .06$	6.5	$\pm 4\%$	53-101
2.7	$\pm .06$	6.3	$\pm 4\%$	53-101
2.8	$\pm .06$	6.5	$\pm 4\%$	53-101
2.9	$\pm .06$	6.0	$\pm 4\%$	53-101
13.14	$\pm .05$	4.92	± 0.09	58-324
14.0	-----	5.06	± 0.12	56-232
14.10	$\pm .04$	5.09	± 0.08	58-324

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.10	$\pm .06$	11.0	$\pm 4\%$	53-101
0.20	$\pm .06$	8.7	$\pm 4\%$	53-101
0.30	$\pm .06$	7.3	$\pm 4\%$	53-101
0.40	$\pm .06$	7.8	$\pm 4\%$	53-101
0.50	$\pm .06$	7.5	$\pm 4\%$	53-101
0.60	$\pm .06$	7.4	$\pm 4\%$	53-101
0.75	$\pm .06$	7.2	$\pm 4\%$	53-101
0.80	$\pm .06$	7.4	$\pm 4\%$	53-101
0.90	$\pm .06$	7.3	$\pm 4\%$	53-101
1.0	$\pm .06$	7.5	$\pm 4\%$	53-101
1.1	$\pm .06$	7.2	$\pm 4\%$	53-101
1.2	$\pm .06$	7.4	$\pm 4\%$	53-101
1.3	$\pm .06$	7.2	$\pm 4\%$	53-101
1.4	$\pm .06$	7.4	$\pm 4\%$	53-101
1.5	$\pm .06$	7.2	$\pm 4\%$	53-101
1.6	$\pm .06$	7.2	$\pm 4\%$	53-101
1.75	$\pm .06$	7.0	$\pm 4\%$	53-101
1.9	$\pm .06$	7.2	$\pm 4\%$	53-101
2.0	$\pm .06$	6.8	$\pm 4\%$	53-101
2.1	$\pm .06$	6.7	$\pm 4\%$	53-101
2.2	$\pm .06$	6.7	$\pm 4\%$	53-101
2.3	$\pm .06$	7.2	$\pm 4\%$	53-101
2.4	$\pm .06$	6.1	$\pm 4\%$	53-101
2.5	$\pm .06$	6.6	$\pm 4\%$	53-101
2.6	$\pm .06$	6.5	$\pm 4\%$	53-101
2.7	$\pm .06$	6.1	$\pm 4\%$	53-101
2.8	$\pm .06$	6.0	$\pm 4\%$	53-101
2.9	$\pm .06$	6.5	$\pm 4\%$	53-101
13.14	$\pm .05$	5.10	± 0.09	58-324
14.0	-----	5.05	± 0.16	56-232
14.10	$\pm .04$	5.14	± 0.08	58-324

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$\sigma_{n,\alpha}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.5	-----	0.009	$\pm 55\%$	53-27

 $\sigma_{n,\gamma}$

0.025	$\pm .005$	0.668	± 0.100	57-272
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$\sigma_{n, 2n}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.5	-----	0.225	$\pm 40\%$	53-27

 $\sigma_{n, \gamma}$

0.025	$\pm .005$	0.54	± 0.07	57-272
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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0028	-----	27.	-----	52-252
13.14	$\pm .05$	5.33	± 0.03	58-324
14.10	$\pm .04$	5.14	± 0.09	58-324

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$\sigma_{n, \gamma}$				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.025	$\pm .005$	0.710	± 0.071	57-272

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$\sigma_{n, 2n}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.5	-----	1.47	$\pm 55\%$	53-27

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$\sigma_{n,\gamma}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.025	$\pm .005$	0.33	± 0.13	57-23

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.05	$\pm .06$	9.0	$\pm 4\%$	53-101
0.10	$\pm .06$	8.0	$\pm 4\%$	53-101
0.27	$\pm .06$	7.8	$\pm 4\%$	53-101
0.40	$\pm .06$	7.6	$\pm 4\%$	53-101
0.53	$\pm .06$	7.2	$\pm 4\%$	53-101
0.70	$\pm .06$	7.2	$\pm 4\%$	53-101
0.77	$\pm .06$	7.2	$\pm 4\%$	53-101
0.90	$\pm .06$	7.4	$\pm 4\%$	53-101
1.00	$\pm .06$	7.1	$\pm 4\%$	53-101
1.10	$\pm .06$	7.0	$\pm 4\%$	53-101
1.20	$\pm .06$	6.6	$\pm 4\%$	53-101
1.35	$\pm .06$	6.7	$\pm 4\%$	53-101
1.40	$\pm .06$	6.7	$\pm 4\%$	53-101
1.50	$\pm .06$	6.9	$\pm 4\%$	53-101
1.60	$\pm .06$	6.6	$\pm 4\%$	53-101
1.70	$\pm .06$	6.5	$\pm 4\%$	53-101
1.90	$\pm .06$	6.0	$\pm 4\%$	53-101
2.17	$\pm .06$	6.0	$\pm 4\%$	53-101
2.30	$\pm .06$	5.9	$\pm 4\%$	53-101
2.50	$\pm .06$	5.7	$\pm 4\%$	53-101
2.70	$\pm .06$	5.7	$\pm 4\%$	53-101
2.80	$\pm .06$	5.6	$\pm 4\%$	53-101
2.97	$\pm .06$	6.0	$\pm 4\%$	53-101
13.14	$\pm .05$	5.37	± 0.09	58-324
14.10	$\pm .04$	5.37	± 0.08	58-324

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$\sigma_{n,\gamma}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.025	$\pm .005$	0.298	± 0.030	57-272

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.05	$\pm .06$	9.9	$\pm 4\%$	53-101
0.10	$\pm .06$	9.2	$\pm 4\%$	53-101
0.20	$\pm .06$	8.3	$\pm 4\%$	53-101
0.30	$\pm .06$	7.5	$\pm 4\%$	53-101
0.40	$\pm .06$	7.5	$\pm 4\%$	53-101
0.50	$\pm .06$	7.4	$\pm 4\%$	53-101
0.60	$\pm .06$	7.3	$\pm 4\%$	53-101
0.70	$\pm .06$	7.3	$\pm 4\%$	53-101
0.85	$\pm .06$	7.2	$\pm 4\%$	53-101
0.90	$\pm .06$	7.2	$\pm 4\%$	53-101
1.10	$\pm .06$	7.0	$\pm 4\%$	53-101
1.23	$\pm .06$	7.3	$\pm 4\%$	53-101
1.30	$\pm .06$	7.0	$\pm 4\%$	53-101
1.46	$\pm .06$	7.1	$\pm 4\%$	53-101
1.60	$\pm .06$	6.9	$\pm 4\%$	53-101
1.70	$\pm .06$	6.9	$\pm 4\%$	53-101
1.84	$\pm .06$	7.3	$\pm 4\%$	53-101
1.98	$\pm .06$	7.0	$\pm 4\%$	53-101
2.15	$\pm .06$	7.2	$\pm 4\%$	53-101
2.25	$\pm .06$	6.7	$\pm 4\%$	53-101
2.35	$\pm .06$	7.2	$\pm 4\%$	53-101
2.44	$\pm .06$	6.9	$\pm 4\%$	53-101
2.60	$\pm .06$	6.7	$\pm 4\%$	53-101
2.70	$\pm .06$	6.5	$\pm 4\%$	53-101
2.80	$\pm .06$	6.7	$\pm 4\%$	53-101
2.95	$\pm .06$	6.7	$\pm 4\%$	53-101

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0023	-----	14.9	-----	50-247
0.05	$\pm .06$	9.2	$\pm 4\%$	53-101
0.10	$\pm .06$	9.0	$\pm 4\%$	53-101
0.25	$\pm .06$	8.0	$\pm 4\%$	53-101
0.35	$\pm .06$	7.3	$\pm 4\%$	53-101
0.50	$\pm .06$	7.1	$\pm 4\%$	53-101
0.65	$\pm .06$	7.0	$\pm 4\%$	53-101
0.75	$\pm .06$	7.2	$\pm 4\%$	53-101
0.80	$\pm .06$	7.3	$\pm 4\%$	53-101
1.00	$\pm .06$	7.1	$\pm 4\%$	53-101
1.15	$\pm .06$	6.6	$\pm 4\%$	53-101
1.23	$\pm .06$	7.2	$\pm 4\%$	53-101
1.35	$\pm .06$	7.0	$\pm 4\%$	53-101
1.48	$\pm .06$	7.3	$\pm 4\%$	53-101
1.60	$\pm .06$	7.1	$\pm 4\%$	53-101
1.70	$\pm .06$	7.0	$\pm 4\%$	53-101
1.85	$\pm .06$	7.1	$\pm 4\%$	53-101
2.15	$\pm .06$	7.0	$\pm 4\%$	53-101
2.30	$\pm .06$	7.1	$\pm 4\%$	53-101
2.49	$\pm .06$	7.1	$\pm 4\%$	53-101
2.63	$\pm .06$	7.0	$\pm 4\%$	53-101
2.78	$\pm .06$	7.1	$\pm 4\%$	53-101
2.95	$\pm .06$	6.6	$\pm 4\%$	53-101
14.	-----	5.72	-----	55-228
14.0	-----	5.38	± 0.08	56-232

 σ_{non}

1.0	$\pm .05$	2.1	± 0.7	54-103
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$$\sigma_{n, n'}$$

(For Excitation of $\sim .230$ Mev Levels from all stable isotopes.
Includes cascade radiation.)

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.33	$\pm .025$	0.40	± 0.17	56-137
0.43	$\pm .025$	0.63	± 0.17	56-137
0.53	$\pm .025$	0.70	± 0.17	56-137
0.63	$\pm .025$	0.81	± 0.17	56-137
0.73	$\pm .025$	0.98	± 0.17	56-137
0.83	$\pm .025$	1.35	± 0.17	56-137
0.93	$\pm .025$	1.37	± 0.17	56-137
1.03	$\pm .025$	1.75	± 0.17	56-137
1.13	$\pm .025$	1.88	± 0.17	56-137
1.23	$\pm .025$	1.85	± 0.17	56-137
1.33	$\pm .025$	1.90	± 0.17	56-137
1.38	$\pm .025$	2.07	± 0.17	56-137
1.43	$\pm .025$	2.15	± 0.17	56-137
1.48	$\pm .025$	2.53	± 0.17	56-137
1.58	$\pm .025$	2.56	± 0.17	56-137
1.68	$\pm .025$	2.33	± 0.17	56-137
1.73	$\pm .025$	2.51	± 0.17	56-137
1.78	$\pm .025$	2.46	± 0.17	56-137
1.83	$\pm .025$	2.15	± 0.17	56-137
1.88	$\pm .025$	2.32	± 0.17	56-137

$\sigma_{n, \gamma}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.025	$\pm .005$	0.441	± 0.066	57-272

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.001	-----	40.	-----	56-201
0.001	$\pm .001$	14.5	± 1.0	53-100
0.0010	$\pm .0001$	12.5	± 1.0	47-44
0.0011	$\pm .0010$	12.6	± 0.7	57-154
0.0013	$\pm .0010$	12.5	± 0.7	57-154
0.0015	$\pm .0010$	12.9	± 0.7	57-154
0.0018	$\pm .0010$	12.7	± 0.7	57-154
0.0020	$\pm .0010$	11.8	± 0.7	57-154
0.0023	$\pm .0010$	13.0	± 0.7	57-154
0.0026	$\pm .0010$	12.8	± 0.7	57-154
0.0028	$\pm .0010$	12.5	± 0.7	57-154
0.0031	$\pm .0010$	13.2	± 0.7	57-154
0.0034	$\pm .0010$	13.2	± 0.7	57-154
0.0037	$\pm .0010$	13.3	± 0.7	57-154
0.0039	$\pm .0010$	12.7	± 0.7	57-154
0.0041	$\pm .0010$	13.0	± 0.7	57-154
0.0043	$\pm .0010$	11.7	± 0.7	57-154
0.0048	$\pm .0010$	12.3	± 0.7	57-154
0.0050	$\pm .0001$	11.0	± 1.0	47-44
0.0052	$\pm .0010$	13.0	± 0.7	57-154
0.0058	$\pm .0010$	12.6	± 0.7	57-154
0.01	-----	15.	-----	56-201
0.010	$\pm .001$	13.5	± 1.0	53-100
0.02	$\pm .03$	11.0	± 0.3	49-50
0.04	$\pm .03$	9.2	± 0.3	49-50
0.08	$\pm .03$	8.6	± 0.3	49-50
0.12	$\pm .03$	8.4	± 0.3	49-50
0.14	$\pm .03$	7.6	± 0.3	49-50
0.20	$\pm .07$	7.3	± 0.3	49-50
0.28	$\pm .07$	7.5	± 0.3	49-50
0.40	$\pm .07$	7.2	± 0.3	49-50
0.44	$\pm .07$	6.7	± 0.3	49-50
0.50	$\pm .07$	7.4	± 0.3	49-50

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.53	$\pm .07$	7.3	± 0.3	49-50
0.59	$\pm .07$	7.5	± 0.3	49-50
0.63	$\pm .07$	7.3	± 0.3	49-50
0.66	$\pm .07$	7.4	± 0.3	49-50
0.73	$\pm .07$	7.3	± 0.3	49-50
0.76	$\pm .07$	7.7	± 0.3	49-50
0.83	$\pm .07$	6.7	± 0.3	49-50
0.88	$\pm .07$	7.0	± 0.3	49-50
0.92	$\pm .07$	6.9	± 0.3	49-50
1.00	$\pm .01$	6.8	± 0.2	52-80
1.00	$\pm .07$	6.5	± 0.3	49-50
1.04	$\pm .07$	6.8	± 0.3	49-50
1.10	$\pm .07$	6.7	± 0.3	49-50
1.14	$\pm .07$	6.8	± 0.3	49-50
1.15	$\pm .01$	6.8	± 0.2	52-80
1.24	$\pm .07$	6.6	± 0.3	49-50
1.30	$\pm .01$	6.6	± 0.2	52-80
1.32	$\pm .07$	6.9	± 0.3	49-50
1.42	$\pm .07$	6.5	± 0.3	49-50
1.45	$\pm .01$	6.8	± 0.2	52-80
1.48	$\pm .07$	6.5	± 0.3	49-50
1.58	$\pm .07$	6.5	± 0.3	49-50
1.60	$\pm .01$	6.8	± 0.2	52-80
1.75	$\pm .01$	6.7	± 0.2	52-80
1.90	$\pm .01$	6.6	± 0.2	52-80
2.06	$\pm .01$	6.9	± 0.2	52-80
2.25	$\pm .01$	6.6	± 0.2	52-80
2.45	$\pm .01$	6.5	± 0.2	52-80
2.63	$\pm .01$	6.3	± 0.2	52-80
2.7	$\pm 10\%$	6.9	$\pm 10\%$	54-108
2.83	$\pm .01$	6.2	± 0.2	52-80
2.9	$\pm 10\%$	6.8	$\pm 10\%$	54-108
3.03	$\pm .01$	6.3	± 0.2	52-80

σ_{tot}

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
3.1	$\pm 10\%$	6.7	$\pm 10\%$	54-108
3.20	$\pm .01$	6.0	± 0.2	52-80
3.7	$\pm 10\%$	6.4	$\pm 10\%$	54-108
3.9	$\pm 10\%$	6.1	$\pm 10\%$	54-108
4.10	$\pm .04$	6.4	± 0.2	55-296
4.6	$\pm 10\%$	5.7	$\pm 10\%$	54-108
5.0	$\pm 10\%$	5.7	$\pm 10\%$	54-108
5.3	$\pm 10\%$	5.6	$\pm 10\%$	54-108
5.7	$\pm 10\%$	5.6	$\pm 10\%$	54-108
6.8	$\pm 10\%$	5.2	$\pm 10\%$	54-108
7.05	$\pm .17$	5.09	± 0.05	57-22
7.6	$\pm 10\%$	5.0	$\pm 10\%$	54-108
8.1	$\pm 10\%$	4.7	$\pm 10\%$	54-108
8.5	$\pm 10\%$	4.9	$\pm 10\%$	54-108
8.67	$\pm .15$	4.89	± 0.05	57-22
8.9	$\pm 10\%$	4.5	$\pm 10\%$	54-108
9.6	$\pm 10\%$	4.8	$\pm 10\%$	54-108
9.8	$\pm 10\%$	4.5	$\pm 10\%$	54-108
10.27	$\pm .11$	4.98	± 0.05	57-22
10.5	$\pm 10\%$	4.8	$\pm 10\%$	54-108
11.3	$\pm 10\%$	4.8	$\pm 10\%$	54-108
12.2	$\pm 10\%$	4.8	$\pm 10\%$	54-108
12.43	$\pm .09$	4.99	± 0.05	57-22
13.1	$\pm 10\%$	4.9	$\pm 10\%$	54-108
13.14	$\pm .05$	5.27	± 0.09	58-324
13.60	$\pm .07$	5.30	± 0.08	58-324
14.	-----	5.39	$\pm 2\%$	52-332
14.	-----	5.14	± 0.11	55-262
14.0	-----	4.99	± 0.08	56-232
14.10	$\pm .04$	5.31	± 0.08	58-324
14.12	$\pm .05$	5.24	± 0.10	52-81
14.45	$\pm .07$	5.10	± 0.05	57-22

σ_{non}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.0	$\pm .05$	2.2	± 0.8	54-103
2.50	$\pm .04$	2.90	± 0.35	56-151
4.0	-----	2.71	± 0.15	54-329
4.10	$\pm .04$	2.7	± 0.2	55-296
7.0	$\pm .2$	2.50	± 0.20	56-151
14.	$\pm 7\%$	2.0	± 0.4	57-162

 $\sigma_{\text{el} + \text{in}}$

0.030	-----	10.95	$\pm 10\%$	56-231
0.060	-----	9.30	$\pm 10\%$	56-231
0.135	$\pm .100$	8.25	$\pm 10\%$	56-231
0.228	$\pm .100$	6.80	$\pm 10\%$	56-231
0.330	$\pm .100$	6.40	$\pm 10\%$	56-231
0.400	$\pm .100$	6.64	$\pm 10\%$	56-231
0.475	$\pm .100$	6.25	$\pm 10\%$	56-231
0.558	$\pm .100$	6.30	$\pm 10\%$	56-231
0.558	$\pm .100$	6.40	$\pm 10\%$	56-231
0.640	$\pm .100$	6.22	$\pm 10\%$	56-231
0.725	$\pm .100$	6.31	$\pm 10\%$	56-231
0.804	$\pm .100$	6.38	$\pm 10\%$	56-231
0.882	$\pm .100$	6.30	$\pm 10\%$	56-231
0.970	$\pm .100$	6.34	$\pm 10\%$	56-231
0.970	$\pm .100$	6.55	$\pm 10\%$	56-231
1.044	$\pm .100$	6.20	$\pm 10\%$	56-231
1.128	$\pm .100$	6.04	$\pm 10\%$	56-231
1.210	$\pm .100$	6.15	$\pm 10\%$	56-231
1.290	$\pm .100$	6.17	$\pm 10\%$	56-231
1.375	$\pm .100$	6.30	$\pm 10\%$	56-231

 $\sigma_{n, n'}$

(For Excitation of .137, .166, .350, and .485 Mev Levels)

2.56	$\pm .03$	1.689	± 0.150	56-140
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$\sigma_{n, n'}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
14.	$\pm 7\%$	0.17	± 0.03	57-162

 $\sigma_{n, n'}$

(For Excitation of .137 Mev Level. Includes Cascade Radiation from Higher Levels)

0.27	$\pm .025$	0.39	± 0.08	56-137
0.35	$\pm .025$	0.32	± 0.08	56-137
0.45	$\pm .025$	0.60	± 0.08	56-137
0.55	$\pm .025$	0.47	± 0.08	56-137
0.65	$\pm .025$	0.89	± 0.08	56-137
0.77	$\pm .025$	0.88	± 0.08	56-137
0.86	$\pm .025$	1.08	± 0.08	56-137
0.96	$\pm .025$	1.00	± 0.08	56-137
1.05	$\pm .025$	1.39	± 0.08	56-137
1.12	$\pm .025$	1.39	± 0.08	56-137
1.17	$\pm .025$	1.56	± 0.08	56-137
1.22	$\pm .025$	1.72	± 0.08	56-137
1.26	$\pm .025$	1.33	± 0.08	56-137
1.27	$\pm .025$	1.74	± 0.08	56-137
1.36	$\pm .025$	1.41	± 0.08	56-137
1.47	$\pm .025$	1.34	± 0.08	56-137
1.67	$\pm .025$	1.53	± 0.08	56-137
1.73	$\pm .025$	1.90	± 0.08	56-137
1.82	$\pm .025$	1.85	± 0.08	56-137

 $\sigma_{n, 2n}$

14.	$\pm 7\%$	1.8	± 0.3	57-162
14.1	-----	2.64	± 0.20	58-7
14.2	-----	1.96	$\pm 10\%$	57-8

$\sigma_{n, 3n}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.	-----	0.0	-----	57-338

 $\sigma_{n, \gamma}$

0.40	$\pm .09$	0.220	± 0.013	56-9
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$\sigma_{n, 2n}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.5	-----	0.867	$\pm 25\%$	53-27

 $\sigma_{n, \gamma}$

0.025	$\pm .005$	1.40	± 0.31	57-23
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$\sigma_{n,\gamma}$

$\underline{E_n \text{ (Mev)}}$	$\underline{\Delta E_n \text{ (Mev)}}$	$\underline{\sigma \text{ (Barns)}}$	$\underline{\Delta \sigma \text{ (Barns)}}$	$\underline{\text{Yr. Ref.}}$
0.025	$\pm .005$	1.28	± 0.15	57-275

 $\sigma_{n,x\gamma}$

3.2	$\pm .2$	2.19	$\pm 20\%$	54-113
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σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0010	$\pm .0001$	17.	$\pm 1.$	47-44
0.002	$\pm .001$	0.6	± 0.05	51-288
0.003	$\pm .001$	0.7	± 0.05	51-288
0.004	$\pm .001$	0.6	± 0.05	51-288
0.0050	$\pm .0001$	16.	$\pm 1.$	47-44
0.024	$\pm .015$	13.8	$\pm 5\%$	47-46
0.13	$\pm .02$	10.0	$\pm 5\%$	47-46
0.14	$\pm .03$	9.4	$\pm 5\%$	47-46
0.22	$\pm .02$	8.0	$\pm 5\%$	47-46
0.62	$\pm .07$	7.8	$\pm 5\%$	47-46
0.83	$\pm .04$	7.7	$\pm 5\%$	47-46
0.85	$\pm .01$	6.8	± 0.2	52-80
1.00	$\pm .01$	6.4	± 0.2	52-80
1.15	$\pm .01$	6.7	± 0.2	52-80
1.30	$\pm .01$	6.4	± 0.2	52-80
1.45	$\pm .01$	6.7	± 0.2	52-80
1.60	$\pm .01$	6.8	± 0.2	52-80
1.75	$\pm .01$	6.8	± 0.2	52-80
1.90	$\pm .01$	6.5	± 0.2	52-80
2.06	$\pm .01$	6.6	± 0.2	52-80
2.13	$\pm .15$	5.77	± 0.19	39-4
2.25	$\pm .01$	6.6	± 0.2	52-80
2.42	$\pm .15$	6.10	± 0.19	39-4
2.45	$\pm .01$	6.5	± 0.2	52-80
2.65	$\pm .01$	6.6	± 0.2	52-80
2.7	$\pm 10\%$	6.9	$\pm 10\%$	54-108
2.75	$\pm .15$	5.94	± 0.19	39-4
2.83	$\pm .01$	6.4	± 0.2	52-80
2.9	$\pm 10\%$	6.8	$\pm 10\%$	54-108
3.02	$\pm .01$	6.3	± 0.2	52-80
3.1	$\pm 10\%$	6.7	$\pm 10\%$	54-108
3.21	$\pm .01$	6.2	± 0.2	52-80
3.6	$\pm 10\%$	6.6	$\pm 10\%$	54-108

<u>σ_{tot}</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
3.9	$\pm 10\%$	6.2	$\pm 10\%$	54-108
4.1	$\pm 10\%$	6.0	$\pm 10\%$	54-108
4.10	$\pm .04$	6.4	± 0.3	55-296
4.6	$\pm 10\%$	5.8	$\pm 10\%$	54-108
5.1	$\pm 10\%$	5.6	$\pm 10\%$	54-108
5.7	$\pm 10\%$	5.5	$\pm 10\%$	54-108
6.4	$\pm 10\%$	5.4	$\pm 10\%$	54-108
6.8	$\pm 10\%$	5.2	$\pm 10\%$	54-108
7.05	$\pm .17$	5.37	± 0.05	57-22
7.2	$\pm 10\%$	5.0	$\pm 10\%$	54-108
7.6	$\pm 10\%$	5.1	$\pm 10\%$	54-108
8.0	$\pm 10\%$	4.8	$\pm 10\%$	54-108
8.5	$\pm 10\%$	5.0	$\pm 10\%$	54-108
8.67	$\pm .15$	5.17	± 0.04	57-22
8.9	$\pm 10\%$	4.7	$\pm 10\%$	54-108
9.8	$\pm 10\%$	4.6	$\pm 10\%$	54-108
10.25	$\pm .11$	5.21	± 0.05	57-22
10.5	$\pm 10\%$	4.8	$\pm 10\%$	54-108
11.0	$\pm 10\%$	4.8	$\pm 10\%$	54-108
12.1	$\pm 10\%$	5.0	$\pm 10\%$	54-108
12.30	$\pm .09$	5.30	± 0.05	57-22
12.9	$\pm 10\%$	5.2	$\pm 10\%$	54-108
14.	----	4.8	± 0.3	52-207
14.	----	5.29	$\pm 2\%$	52-332
14.12	$\pm .05$	5.30	± 0.11	52-81
14.25	$\pm .07$	5.40	± 0.06	57-22

<u>σ_{non}</u>				
1.0	$\pm---$	1.5	$\pm 1.$	53-253
1.00	$\pm .05$	> 2.2	$\pm ----$	55-103
1.00	$\pm .04$	2.25	± 0.30	56-151

<u>σ_{non}</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
1.5	----	2.5	$\pm 1.$	53-253
2.50	$\pm .04$	2.66	± 0.30	56-151
4.0	----	2.60	± 0.20	55-122
4.0	----	2.36	± 0.15	54-329
4.00	$\pm .07$	2.58	± 0.20	55-115
4.10	$\pm .04$	2.4	± 0.3	55-296
4.5	----	2.60	± 0.20	55-122
4.50	$\pm .07$	2.56	± 0.20	55-115
7.0	$\pm .2$	2.45	± 0.20	56-151
14.1	----	2.35	± 0.14	57-199
14.20	$\pm .15$	2.40	± 0.05	57-319
14.5	----	2.48	± 0.03	56-200

<u>$\sigma_{\text{el+in}}$</u>				
0.060	$\pm$ ----	11.35	$\pm 10\%$	56-231
0.135	$\pm .100$	9.75	$\pm 10\%$	56-231
0.228	$\pm .100$	7.90	$\pm 10\%$	56-231
0.330	$\pm .100$	7.02	$\pm 10\%$	56-231
0.330	$\pm .100$	7.11	$\pm 10\%$	56-231
0.396	$\pm .100$	6.90	$\pm 10\%$	56-231
0.396	$\pm .100$	7.35	$\pm 10\%$	56-231
0.475	$\pm .100$	6.70	$\pm 10\%$	56-231
0.558	$\pm .100$	6.50	$\pm 10\%$	56-231
0.645	$\pm .100$	6.30	$\pm 10\%$	56-231
0.645	$\pm .100$	6.40	$\pm 10\%$	56-231
0.725	$\pm .100$	6.35	$\pm 10\%$	56-231
0.725	$\pm .100$	6.50	$\pm 10\%$	56-231
0.804	$\pm .100$	6.40	$\pm 10\%$	56-231
0.882	$\pm .100$	6.30	$\pm 10\%$	56-231
0.970	$\pm .100$	6.45	$\pm 10\%$	56-231
1.044	$\pm .100$	6.20	$\pm 10\%$	56-231
1.044	$\pm .100$	6.30	$\pm 10\%$	56-231

<u>$\sigma_{n,n'}$</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.29	$\pm .03$	0.4	± 0.2	56-353
0.77	$\pm .002$	1.3	± 0.4	56-353
1.02	$\pm .003$	2.6	± 0.8	56-353
2.5	$\pm ----$	2.6	± 0.25	56-34

<u>$\sigma_{n,n'}$</u>				
(for Excitation of Levels at $\sim .115$ Mev in various Isotopes)				
0.30	$\pm .025$	0.15	± 0.06	56-137
0.35	$\pm .025$	0.28	± 0.06	56-137
0.40	$\pm .025$	0.25	± 0.06	56-137
0.50	$\pm .025$	0.33	± 0.06	56-137
0.60	$\pm .025$	0.40	± 0.06	56-137
0.70	$\pm .025$	0.47	± 0.06	56-137
0.80	$\pm .025$	0.43	± 0.06	56-137
0.90	$\pm .025$	0.60	± 0.06	56-137
1.00	$\pm .025$	0.74	± 0.06	56-137
1.10	$\pm .025$	1.00	± 0.06	56-137
1.20	$\pm .025$	0.96	± 0.06	56-137
1.40	$\pm .025$	0.93	± 0.06	56-137
1.50	$\pm .025$	0.91	± 0.06	56-137
1.60	$\pm .025$	0.85	± 0.06	56-137
1.70	$\pm .025$	0.79	± 0.06	56-137

<u>σ_f</u>				
14.	$\pm .5$	$\leq 1.2 \times 10^{-5}$	----	49-126

σ_{tot}				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.001	$\pm .001$	0.95	± 0.05	51-288
0.002	$\pm .001$	0.90	± 0.05	51-288
0.003	$\pm .001$	0.95	± 0.05	51-288
0.005	$\pm .001$	0.85	± 0.05	51-288

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.001	$\pm .001$	0.84	± 0.05	51-288
0.002	$\pm .001$	0.87	± 0.05	51-288
0.003	$\pm .001$	0.86	± 0.05	51-288
0.004	$\pm .001$	0.85	± 0.05	51-288

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σ_{tot}

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.001	$\pm .001$	0.93	± 0.05	51-288
0.002	$\pm .001$	0.93	± 0.05	51-288
0.003	$\pm .001$	0.93	± 0.05	51-288
0.005	$\pm .001$	0.92	± 0.05	51-288

 $\sigma_{n,\gamma}$

0.025	$\pm .005$	0.35	± 0.18	57-23
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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.001	$\pm .001$	0.79	± 0.05	51-288
0.003	$\pm .001$	0.84	± 0.05	51-288
0.004	$\pm .001$	0.85	± 0.05	51-288

 $\sigma_{n,\gamma}$

0.025	$\pm .005$	0.27	± 0.07	57-23
0.025	$\pm .005$	0.119	$\pm 15\%$	53-222
0.025	$\pm .005$	0.296	± 0.044	57-272
0.025	$\pm .005$	0.26	± 0.04	57-275
0.200	$\pm .028$	0.0605	± 0.019	49-212
0.900	$\pm .013$	0.042	± 0.007	49-212

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.001	$\pm .001$	30.	$\pm 20.$	53-100
0.010	$\pm .001$	50.	$\pm 20.$	53-100

 $\sigma_{n,n'}$ (For Excitation of $\sim .135$ Mev Level)

0.10	$\pm .025$	0.0	± 0.07	56-137
0.20	$\pm .025$	0.20	± 0.07	56-137
0.30	$\pm .025$	0.48	± 0.07	56-137
0.46	$\pm .025$	0.62	± 0.07	56-137
0.60	$\pm .025$	0.69	± 0.07	56-137
0.70	$\pm .025$	0.59	± 0.07	56-137
0.80	$\pm .025$	0.60	± 0.07	56-137
1.00	$\pm .025$	0.79	± 0.07	56-137
1.10	$\pm .025$	0.82	± 0.07	56-137
1.20	$\pm .025$	0.80	± 0.07	56-137
1.40	$\pm .025$	0.80	± 0.07	56-137
1.60	$\pm .025$	0.77	± 0.07	56-137
1.70	$\pm .025$	0.79	± 0.07	56-137
1.80	$\pm .025$	0.81	± 0.07	56-137
1.90	$\pm .025$	0.83	± 0.07	56-137

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$\sigma_{n,\gamma}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.025	$\pm .005$	2.65	± 0.50	57-272
0.240	-----	1.21	-----	43-309

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$\sigma_{n,\gamma}$				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.025	$\pm .005$	0.97	± 0.20	57-272
0.240	-----	1.31	-----	43-309

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σ_{tot}				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.001	----	17.8	± 0.4	47-45
0.005	----	15.6	± 0.4	47-45
0.01	----	13.	$\pm 1.$	47-45

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$\sigma_{n,\gamma}$				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.025	$\pm .005$	0.886	± 0.130	57-272

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$\underline{\sigma_f}$				
$\underline{E_n (\text{Mev})}$	$\underline{\Delta E_n (\text{Mev})}$	$\underline{\sigma (\text{Barns})}$	$\underline{\Delta \sigma (\text{Barns})}$	$\underline{\text{Yr. Ref.}}$
14.	$\pm .5$	$\leq 1.5 \times 10^{-5}$	----	49-126

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0010	$\pm .0001$	13.	$\pm 1.$	47-44
0.0050	$\pm .0001$	12.	$\pm 1.$	47-44
0.0100	$\pm .0001$	10.5	$\pm 1.$	47-44
0.10	$\pm .025$	9.4	----	53-90
0.20	$\pm .025$	8.7	----	53-90
0.30	$\pm .025$	7.4	----	53-90
0.40	$\pm .025$	7.0	----	53-90
0.50	$\pm .025$	6.6	----	53-90
0.60	$\pm .025$	6.0	----	53-90
0.80	$\pm .025$	5.5	----	53-90
1.00	$\pm .05$	5.4	----	53-90
1.20	$\pm .05$	5.5	----	53-90
1.40	$\pm .05$	5.5	----	53-90
1.70	$\pm .05$	5.5	----	53-90
1.80	$\pm .05$	6.0	----	53-90
2.00	$\pm .05$	6.4	----	53-90
2.20	$\pm .05$	6.2	----	53-90
2.40	$\pm .05$	6.4	----	53-90
2.60	$\pm .05$	6.7	----	53-90
2.80	$\pm .05$	6.8	----	53-90
3.00	$\pm .05$	6.7	----	53-90
6.83	$\pm .17$	5.73	± 0.08	57-22
8.57	$\pm .15$	5.21	± 0.05	57-22
10.40	$\pm .11$	5.13	± 0.05	57-22
12.43	$\pm .09$	5.22	± 0.07	57-22
14.	$\pm$ ----	5.35	$\pm 2\%$	52-332
14.11	$\pm .07$	5.38	± 0.04	57-22
14.12	$\pm .05$	5.36	± 0.11	52-81

<u>$\sigma_{el} + in$</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.135	$\pm .100$	10.60	$\pm 10\%$	56-231
0.228	$\pm .100$	8.67	$\pm 10\%$	56-231
0.330	$\pm .100$	7.46	$\pm 10\%$	56-231
0.475	$\pm .100$	6.40	$\pm 10\%$	56-231
0.558	$\pm .100$	6.35	$\pm 10\%$	56-231
0.640	$\pm .100$	5.91	$\pm 10\%$	56-231
0.725	$\pm .100$	5.61	$\pm 10\%$	56-231
0.804	$\pm .100$	5.54	$\pm 10\%$	56-231
0.882	$\pm .100$	5.50	$\pm 10\%$	56-231
0.970	$\pm .100$	5.55	$\pm 10\%$	56-231
1.044	$\pm .100$	5.28	$\pm 10\%$	56-231
1.128	$\pm .100$	5.30	$\pm 10\%$	56-231
1.210	$\pm .100$	5.20	$\pm 10\%$	56-231
1.290	$\pm .100$	5.38	$\pm 10\%$	56-231
1.368	$\pm .100$	5.40	$\pm 10\%$	56-231

$\sigma_{n,n'}$
 (for Excitation of $\sim .330$ Mev Levels in Pt¹⁹⁴ and Pt¹⁹⁶)

0.40	$\pm .025$	0.14	± 0.04	56-137
0.50	$\pm .025$	0.14	± 0.04	56-137
0.65	$\pm .025$	0.34	± 0.04	56-137
0.75	$\pm .025$	0.18	± 0.04	56-137
0.85	$\pm .025$	0.40	± 0.04	56-137
1.00	$\pm .025$	0.48	± 0.04	56-137
1.10	$\pm .025$	0.48	± 0.04	56-137
1.25	$\pm .025$	0.54	± 0.04	56-137
1.50	$\pm .025$	0.57	± 0.04	56-137
1.65	$\pm .025$	0.68	± 0.04	56-137
1.75	$\pm .025$	0.71	± 0.04	56-137
1.80	$\pm .025$	0.59	± 0.04	56-137

$\sigma_{n,\gamma}$				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.025	$\pm .005$	0.21	± 0.06	57-23

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<u>$\sigma_{n, 2n}$</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.5	----	2.77	$\pm 55\%$	53-27
 <u>n, γ</u>				
0.025	$\pm .005$	0.24	± 0.08	57-23
0.025	$\pm .005$	0.020	± 0.002	51-66
0.200	$\pm .028$	1.170	± 0.600	49-212
0.900	$\pm .013$	0.48	± 0.23	49-212

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.10	$\pm .02$	9.4	± 0.5	53-237
0.10	$\pm .02$	10.5	± 0.5	53-237
0.10	$\pm .025$	9.0	-----	53-90
0.100	$\pm .050$	10.60	$\pm 15\%$	53-93
0.100	$\pm .050$	9.38	$\pm 15\%$	53-93
0.125	$\pm .02$	9.9	± 0.5	53-237
0.125	$\pm .050$	9.90	$\pm 15\%$	53-93
0.13	$\pm .02$	10.2	± 0.5	53-237
0.130	$\pm .050$	10.17	$\pm 15\%$	53-93
0.145	$\pm .02$	9.5	± 0.5	53-237
0.147	$\pm .050$	9.42	$\pm 15\%$	53-93
0.155	$\pm .02$	8.9	± 0.5	53-237
0.158	$\pm .050$	8.74	$\pm 15\%$	53-93
0.17	$\pm .02$	9.3	± 0.5	53-237
0.170	$\pm .050$	9.22	$\pm 15\%$	53-93
0.18	$\pm .02$	9.0	± 0.5	53-237
0.180	$\pm .050$	9.09	$\pm 15\%$	53-93
0.19	$\pm .02$	8.9	± 0.5	53-237
0.190	$\pm .050$	8.80	$\pm 15\%$	53-93
0.198	$\pm .050$	9.83	$\pm 15\%$	53-93
0.20	$\pm .025$	8.4	-----	53-90
0.200	$\pm .050$	9.42	$\pm 15\%$	53-93
0.21	$\pm .02$	8.3	± 0.5	53-237
0.210	$\pm .050$	8.30	$\pm 15\%$	53-93
0.22	$\pm .02$	9.0	± 0.5	53-237
0.220	$\pm .050$	8.88	$\pm 15\%$	53-93
0.225	$\pm .02$	8.9	± 0.5	53-237
0.227	$\pm .050$	8.80	$\pm 15\%$	53-93
0.240	$\pm .050$	9.22	$\pm 15\%$	53-93
0.24	$\pm .02$	9.3	± 0.5	53-237
0.24	$\pm .02$	8.6	± 0.5	53-237
0.24	$\pm .02$	8.2	± 0.5	53-237
0.242	$\pm .050$	8.10	$\pm 15\%$	53-93

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.253	$\pm .050$	8.73	$\pm 15\%$	53-93
0.255	$\pm .050$	8.21	$\pm 15\%$	53-93
0.255	$\pm .050$	8.40	$\pm 15\%$	53-93
0.255	$\pm .02$	8.3	± 0.5	53-237
0.255	$\pm .02$	8.4	± 0.5	53-237
0.255	$\pm .02$	8.7	± 0.5	53-237
0.26	$\pm .02$	9.5	± 0.5	53-237
0.262	$\pm .050$	7.92	$\pm 15\%$	53-93
0.265	$\pm .02$	8.0	± 0.5	53-237
0.268	$\pm .050$	8.40	$\pm 15\%$	53-93
0.27	$\pm .02$	9.2	± 0.5	53-237
0.275	$\pm .02$	8.2	± 0.5	53-237
0.278	$\pm .050$	8.17	$\pm 15\%$	53-93
0.278	$\pm .050$	8.72	$\pm 15\%$	53-93
0.28	$\pm .02$	8.1	± 0.5	53-237
0.280	$\pm .02$	7.8	± 0.5	53-237
0.282	$\pm .050$	8.37	$\pm 15\%$	53-93
0.283	$\pm .050$	7.60	$\pm 15\%$	53-93
0.29	$\pm .02$	7.9	± 0.5	53-237
0.295	$\pm .050$	7.77	$\pm 15\%$	53-93
0.298	$\pm .050$	8.00	$\pm 15\%$	53-93
0.298	$\pm .050$	9.00	$\pm 15\%$	53-93
0.30	$\pm .025$	7.5	-----	53-90
0.30	$\pm .02$	8.0	± 0.5	53-237
0.30	$\pm .02$	8.1	± 0.5	53-237
0.30	$\pm .02$	8.6	± 0.5	53-237
0.30	$\pm .02$	9.0	± 0.5	53-237
0.300	$\pm .050$	8.00	$\pm 15\%$	53-93
0.304	$\pm .050$	8.51	$\pm 15\%$	53-93
0.31	$\pm .02$	8.0	± 0.5	53-237
0.31	$\pm .02$	8.9	± 0.5	53-237
0.310	$\pm .050$	8.80	$\pm 15\%$	53-93
0.314	$\pm .050$	9.22	$\pm 15\%$	53-93

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.315	$\pm .02$	9.3	± 0.5	53-237
0.325	$\pm .02$	7.3	± 0.5	53-237
0.325	$\pm .02$	8.0	± 0.5	53-237
0.325	$\pm .050$	7.20	$\pm 15\%$	53-93
0.325	$\pm .050$	7.23	$\pm 15\%$	53-93
0.328	$\pm .050$	8.30	$\pm 15\%$	53-93
0.33	$\pm .02$	6.9	± 0.5	53-237
0.332	$\pm .050$	6.82	$\pm 15\%$	53-93
0.335	$\pm .050$	7.30	$\pm 15\%$	53-93
0.335	$\pm .02$	7.4	± 0.5	53-237
0.35	$\pm .02$	7.5	± 0.5	53-237
0.35	$\pm .02$	8.0	± 0.5	53-237
0.35	$\pm .02$	8.4	± 0.5	53-237
0.35	$\pm .02$	8.7	± 0.5	53-237
0.350	$\pm .050$	8.36	$\pm 15\%$	53-93
0.350	$\pm .050$	8.70	$\pm 15\%$	53-93
0.350	$\pm .050$	7.37	$\pm 15\%$	53-93
0.351	$\pm .050$	7.97	$\pm 15\%$	53-93
0.362	$\pm .050$	7.00	$\pm 15\%$	53-93
0.37	$\pm .02$	7.3	± 0.5	53-237
0.370	$\pm .050$	7.30	$\pm 15\%$	53-93
0.375	$\pm .02$	8.0	± 0.5	53-237
0.375	$\pm .050$	7.23	$\pm 15\%$	53-93
0.375	$\pm .050$	7.90	$\pm 15\%$	53-93
0.376	$\pm .050$	7.68	$\pm 15\%$	53-93
0.386	$\pm .050$	8.50	$\pm 15\%$	53-93
0.39	$\pm .02$	8.7	± 0.5	53-237
0.399	$\pm .050$	7.52	$\pm 15\%$	53-93
0.399	$\pm .050$	7.50	$\pm 15\%$	53-93
0.399	$\pm .050$	7.68	$\pm 15\%$	53-93
0.40	$\pm .025$	6.7	-----	53-90
0.40	$\pm .02$	7.6	± 0.5	53-237
0.40	$\pm .02$	7.7	± 0.5	53-237

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.41	$\pm .02$	7.5	± 0.5	53-237
0.411	$\pm .050$	7.40	$\pm 15\%$	53-93
0.42	$\pm .02$	7.4	± 0.5	53-237
0.42.	$\pm .02$	8.3	± 0.5	53-237
0.424	$\pm .050$	8.20	$\pm 15\%$	53-93
0.424	$\pm .050$	7.24	$\pm 15\%$	53-93
0.43	$\pm .02$	6.9	± 0.5	53-237
0.435	$\pm .050$	6.80	$\pm 15\%$	53-93
0.448	$\pm .050$	7.37	$\pm 15\%$	53-93
0.45	$\pm .02$	7.5	± 0.5	53-237
0.46	$\pm .02$	8.0	± 0.5	53-237
0.460	$\pm .050$	8.00	$\pm 15\%$	53-93
0.47	$\pm .02$	8.0	± 0.5	53-237
0.471	$\pm .050$	8.00	$\pm 15\%$	53-93
0.483	$\pm .050$	7.20	$\pm 15\%$	53-93
0.485	$\pm .02$	7.3	± 0.5	53-237
0.495	$\pm .02$	7.3	± 0.5	53-237
0.495	$\pm .050$	7.15	$\pm 15\%$	53-93
0.50	$\pm .025$	6.0	-----	53-90
0.508	$\pm .050$	7.50	$\pm 15\%$	53-93
0.51	$\pm .02$	7.6	± 0.5	53-237
0.519	$\pm .050$	6.65	$\pm 15\%$	53-93
0.52	$\pm .02$	6.8	± 0.5	53-237
0.54	$\pm .02$	7.2	± 0.5	53-237
0.542	$\pm .050$	7.21	$\pm 15\%$	53-93
0.55	$\pm .02$	6.5	± 0.5	53-237
0.552	$\pm .050$	6.40	$\pm 15\%$	53-93
0.56	$\pm .02$	6.6	± 0.5	53-237
0.564	$\pm .050$	6.55	$\pm 15\%$	53-93
0.575	$\pm .02$	6.5	± 0.5	53-237
0.576	$\pm .050$	6.40	$\pm 15\%$	53-93
0.588	$\pm .050$	5.97	$\pm 15\%$	53-93
0.590	$\pm .02$	6.0	± 0.5	53-237

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.60	$\pm .02$	6.7	± 0.5	53-237
0.60	$\pm .025$	5.7	-----	53-90
0.600	$\pm .050$	6.60	$\pm 15\%$	53-93
0.61	$\pm .02$	6.1	± 0.5	53-237
0.611	$\pm .050$	6.05	$\pm 15\%$	53-93
0.62	$\pm .02$	6.1	± 0.5	53-237
0.621	$\pm .050$	6.10	$\pm 15\%$	53-93
0.63	$\pm .02$	6.1	± 0.5	53-237
0.632	$\pm .050$	6.05	$\pm 15\%$	53-93
0.64	$\pm .02$	7.0	± 0.5	53-237
0.642	$\pm .050$	7.00	$\pm 15\%$	53-93
0.65	$\pm .02$	6.9	± 0.5	53-237
0.654	$\pm .050$	6.80	$\pm 15\%$	53-93
0.675	$\pm .02$	5.0	± 0.5	53-237
0.676	$\pm .050$	4.97	$\pm 15\%$	53-93
0.72	$\pm .02$	7.0	± 0.5	53-237
0.720	$\pm .050$	6.89	$\pm 15\%$	53-93
0.80	$\pm .025$	5.2	-----	53-90
0.90	$\pm .025$	5.4	-----	53-90
1.2	$\pm .025$	5.5	-----	53-90
1.4	$\pm .025$	5.5	-----	53-90
1.6	$\pm .025$	5.9	-----	53-90
1.8	$\pm .025$	6.5	-----	53-90
2.0	$\pm .025$	6.7	-----	53-90
2.2	$\pm .05$	5.8	-----	53-90
2.4	$\pm .05$	7.2	-----	53-90
2.6	$\pm .05$	6.7	-----	53-90
2.7	$\pm 10\%$	7.3	$\pm 10\%$	54-108
2.8	$\pm .05$	7.1	-----	53-90
3.0	$\pm .05$	7.2	-----	53-90
3.1	$\pm 10\%$	7.4	$\pm 10\%$	54-108
3.6	$\pm 10\%$	7.3	$\pm 10\%$	54-108
3.9	$\pm 10\%$	6.8	$\pm 10\%$	54-108

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
4.1	$\pm 10\%$	6.8	$\pm 10\%$	54-108
4.10	$\pm .04$	7.1	± 0.3	55-296
4.4	$\pm 10\%$	6.7	$\pm 10\%$	54-108
5.0	$\pm 10\%$	6.5	$\pm 10\%$	54-108
5.3	$\pm 10\%$	6.3	$\pm 10\%$	54-108
5.7	$\pm 10\%$	6.2	$\pm 10\%$	54-108
6.4	$\pm 10\%$	5.9	$\pm 10\%$	54-108
7.05	$\pm .17$	5.72	± 0.05	57-22
7.2	$\pm 10\%$	5.4	$\pm 10\%$	54-108
8.1	$\pm 10\%$	5.2	$\pm 10\%$	54-108
8.5	$\pm 10\%$	5.0	$\pm 10\%$	54-108
8.66	$\pm .15$	5.19	± 0.04	57-22
9.5	$\pm 10\%$	4.8	$\pm 10\%$	54-108
10.2	$\pm 10\%$	4.4	$\pm 10\%$	54-108
10.4	$\pm 10\%$	4.7	$\pm 10\%$	54-108
10.40	$\pm .11$	5.12	± 0.05	57-22
10.7	$\pm 10\%$	4.6	$\pm 10\%$	54-108
11.3	$\pm 10\%$	4.8	$\pm 10\%$	54-108
12.2	$\pm 10\%$	4.8	$\pm 10\%$	54-108
12.43	$\pm .09$	5.22	± 0.05	57-22
13.0	$\pm 10\%$	4.9	$\pm 10\%$	54-108
13.14	$\pm .05$	5.34	± 0.09	58-324
13.60	$\pm .07$	5.34	± 0.08	58-324
13.97	$\pm .07$	5.38	± 0.05	57-22
14.	-----	5.27	$\pm 2\%$	52-332
14.	-----	5.27	-----	51-333
14.10	$\pm .04$	5.40	± 0.08	58-324
14.12	$\pm .05$	5.31	± 0.11	52-81

σ_{non}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.50	$\pm .06$	0.9	± 0.6	56-149
1.0	-----	1.80	± 0.25	55-122
1.00	$\pm .05$	1.5	± 0.6	54-103
1.00	$\pm .16$	1.63	± 0.10	55-115
1.00	$\pm .04$	1.75	± 0.20	56-151
1.77	$\pm .04$	2.20	± 0.17	56-151
2.50	$\pm .04$	2.72	± 0.20	56-151
3.25	$\pm .04$	2.63	± 0.15	56-151
4.0	-----	2.75	± 0.15	55-122
4.0	-----	2.67	± 0.15	54-329
4.00	$\pm .07$	2.75	± 0.12	55-115
4.1	-----	2.7	± 0.3	55-296
4.5	-----	2.70	± 0.15	55-122
4.50	$\pm .07$	2.69	± 0.13	55-115
7.0	$\pm .2$	2.50	± 0.15	56-151
14.	-----	2.51	± 0.04	50-334
14.1	-----	2.44	± 0.02	55-117
14.15	$\pm .05$	2.51	± 0.04	52-82
14.20	$\pm .04$	2.42	± 0.04	56-274

 σ_{el}

0.50	$\pm .06$	5.4	$\pm 10\%$	56-149
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 $\sigma_{\text{el} + \text{in}}$

0.030	-----	12.30	$\pm 10\%$	56-231
0.030	-----	12.55	$\pm 10\%$	56-231
0.060	-----	11.55	$\pm 10\%$	56-231
0.060	-----	11.70	$\pm 10\%$	56-231
0.135	$\pm .100$	9.95	$\pm 10\%$	56-231
0.135	$\pm .100$	10.18	$\pm 10\%$	56-231
0.228	$\pm .100$	8.25	$\pm 10\%$	56-231
0.228	$\pm .100$	8.50	$\pm 10\%$	56-231

$\sigma_{\text{el} + \text{in}}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.330	$\pm .100$	6.90	$\pm 10\%$	56-231
0.330	$\pm .100$	7.20	$\pm 10\%$	56-231
0.475	$\pm .100$	6.25	$\pm 10\%$	56-231
0.645	$\pm .100$	5.68	$\pm 10\%$	56-231
0.725	$\pm .100$	5.30	$\pm 10\%$	56-231
0.725	$\pm .100$	5.40	$\pm 10\%$	56-231
0.804	$\pm .100$	5.45	$\pm 10\%$	56-231
0.882	$\pm .100$	5.38	$\pm 10\%$	56-231
0.882	$\pm .100$	5.45	$\pm 10\%$	56-231
0.970	$\pm .100$	5.45	$\pm 10\%$	56-231
1.044	$\pm .100$	5.25	$\pm 10\%$	56-231

 $\sigma_{n, n'}$

(For Production of $\text{Au}^{197\text{m}}$)

0.45	$\pm .09$	0.01	$\pm 25\%$	54-299
0.52	$\pm .09$	0.02	$\pm 25\%$	54-299
0.53	$\pm .04$	0.01	-----	54-298
0.55	$\pm .04$	0.05	-----	54-298
0.59	$\pm .04$	0.08	-----	54-298
0.60	$\pm .09$	0.05	$\pm 25\%$	54-299
0.63	$\pm .04$	0.12	-----	54-298
0.65	$\pm .09$	0.09	$\pm 25\%$	54-299
0.68	$\pm .01$	0.16	-----	54-298
0.70	$\pm .09$	0.12	$\pm 25\%$	54-299
0.72	$\pm .04$	0.20	-----	54-298
0.75	$\pm .09$	0.17	$\pm 25\%$	54-299
0.78	$\pm .04$	0.23	-----	54-298
0.80	$\pm .09$	0.18	$\pm 25\%$	54-299
0.82	$\pm .04$	0.26	-----	54-298
0.85	$\pm .09$	0.23	$\pm 25\%$	54-299
0.88	$\pm .04$	0.25	-----	54-298
0.89	$\pm .09$	0.24	$\pm 25\%$	54-299
0.92	$\pm .04$	0.26	-----	54-298

$\sigma_{n,n'}$
(For Production of $\text{Au}^{197\text{m}}$)

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.93	$\pm .09$	0.26	$\pm 25\%$	54-299
0.97	$\pm .04$	0.29	-----	54-298
0.98	$\pm .09$	0.28	$\pm 25\%$	54-299
1.00	$\pm .09$	0.30	$\pm 25\%$	54-299
1.02	$\pm .04$	0.29	-----	54-298
1.07	$\pm .04$	0.30	-----	54-298
1.10	$\pm .09$	0.32	$\pm 25\%$	54-299
1.12	$\pm .04$	0.31	-----	54-298
1.14	$\pm .09$	0.34	$\pm 25\%$	54-299
1.18	$\pm .04$	0.36	-----	54-298
1.20	$\pm .04$	0.39	-----	54-298
1.20	$\pm .07$	0.36	$\pm 25\%$	54-299
1.25	$\pm .04$	0.41	-----	54-298
1.25	$\pm .07$	0.40	$\pm 25\%$	54-299
1.27	$\pm .07$	0.41	$\pm 25\%$	54-299
1.30	$\pm .04$	0.43	-----	54-298
1.30	$\pm .07$	0.43	$\pm 25\%$	54-299
1.35	$\pm .07$	0.49	$\pm 25\%$	54-299
1.35	$\pm .04$	0.46	-----	54-298
1.40	$\pm .025$	0.51	$\pm 25\%$	54-299
1.40	$\pm .04$	0.47	-----	54-298
1.43	$\pm .04$	0.51	-----	54-298
1.45	$\pm .025$	0.53	$\pm 25\%$	54-299
1.49	$\pm .04$	0.52	-----	54-298
1.50	$\pm .025$	0.56	$\pm 25\%$	54-299
1.53	$\pm .04$	0.57	-----	54-298
1.55	$\pm .025$	0.59	$\pm 25\%$	54-299
1.58	$\pm .04$	0.60	-----	54-298
1.60	$\pm .025$	0.62	$\pm 25\%$	54-299
1.62	$\pm .04$	0.63	-----	54-298
1.65	$\pm .025$	0.65	$\pm 25\%$	54-299
1.66	$\pm .04$	0.66	-----	54-298
1.70	$\pm .025$	0.69	$\pm 25\%$	54-299

$\sigma_{n, n'}$
(For Production of Au^{197m})

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.71	$\pm .04$	0.65	-----	54-298
1.75	$\pm .04$	0.71	-----	54-298
1.75	$\pm .025$	0.69	$\pm 25\%$	54-299
1.80	$\pm .09$	0.72	$\pm 25\%$	54-299
1.80	$\pm .04$	0.71	-----	54-298
1.85	$\pm .04$	0.74	-----	54-298
1.88	$\pm .09$	0.80	$\pm 25\%$	54-299
1.90	$\pm .04$	0.79	-----	54-298
1.94	$\pm .04$	0.78	-----	54-298
1.98	$\pm .04$	0.78	-----	54-298
1.98	$\pm .09$	0.83	$\pm 25\%$	54-299
2.15	$\pm .09$	0.93	$\pm 25\%$	54-299
2.25	$\pm .09$	1.06	$\pm 25\%$	54-299
2.40	$\pm .23$	1.21	$\pm 25\%$	54-299
2.60	$\pm .23$	1.31	$\pm 25\%$	54-299
2.80	$\pm .23$	1.21	$\pm 25\%$	54-299
3.00	$\pm .23$	1.28	$\pm 25\%$	54-299
3.30	$\pm .23$	1.27	$\pm 25\%$	54-299
3.50	$\pm .23$	1.19	$\pm 25\%$	54-299
3.80	$\pm .20$	1.21	$\pm 25\%$	54-299
4.00	$\pm .20$	1.18	$\pm 25\%$	54-299
4.35	$\pm .20$	1.11	$\pm 25\%$	54-299
4.55	$\pm .20$	1.16	$\pm 25\%$	54-299
4.80	$\pm .20$	1.02	$\pm 25\%$	54-299
4.98	$\pm .20$	0.93	$\pm 25\%$	54-299
5.20	$\pm .06$	0.83	$\pm 25\%$	54-299
5.30	$\pm .06$	0.79	$\pm 25\%$	54-299

$\sigma_{n, n'}$
(For Excitation of .270 Mev Level)

0.40	$\pm .025$	0.14	± 0.04	56-137
0.55	$\pm .025$	0.23	± 0.04	56-137
0.65	$\pm .025$	0.28	± 0.04	56-137

$\sigma_{n,n'}$

(For Excitation of .270 Mev Level)

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.75	$\pm .025$	0.31	± 0.04	56-137
0.86	$\pm .025$	0.26	± 0.04	56-137
1.00	$\pm .025$	0.38	± 0.04	56-137
1.10	$\pm .025$	0.37	± 0.04	56-137
1.25	$\pm .025$	0.29	± 0.04	56-137
1.50	$\pm .025$	0.36	± 0.04	56-137
1.65	$\pm .025$	0.34	± 0.04	56-137

 $\sigma_{n,2n}$

14.1	-----	2.6	± 0.2	58-7
14.5	-----	1.722	$\pm 27\%$	53-27

 $\sigma_{n,p}$

14.0	± 1.2	0.0205	± 0.006	57-158
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 $\sigma_{n,\gamma}$

0.025	$\pm .005$	0.89	± 0.19	57-23
0.025	$\pm .005$	1.12	± 0.11	57-272
0.03	$\pm .03$	1.40	$\pm 20\%$	44-260
0.035	$\pm 25\%$	1.5	$\pm 15\%$	51-66
0.13	$\pm .01$	0.50	$\pm 30\%$	50-61
0.16	$\pm .07$	0.62	$\pm 20\%$	44-260
0.20	$\pm .07$	0.40	$\pm 20\%$	44-260
0.200	$\pm .028$	0.49	± 0.12	49-212
0.240	-----	0.71	-----	43-309
0.38	$\pm .07$	0.30	$\pm 20\%$	44-260
0.40	$\pm .09$	0.138	± 0.006	56-9
0.55	$\pm .01$	0.17	$\pm 30\%$	50-61
0.75	$\pm .07$	0.159	$\pm 20\%$	44-260
0.90	$\pm .01$	0.14	$\pm 30\%$	50-61

$\sigma_{n, \gamma}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.900	$\pm .013$	0.49	± 0.08	49-212
1.00	$\pm .01$	0.12	$\pm 30\%$	50-61
1.73	$\pm .07$	0.088	$\pm 20\%$	44-260
3.00	$\pm .07$	0.049	$\pm 20\%$	44-260

 σ_f

14.	$\pm .5$	$\leq 1.2 \times 10^{-5}$	-----	49-126
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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.001	$\pm .0005$	8.0	-----	46-259
0.10	$\pm .025$	9.9	-----	53-90
0.14	$\pm .04$	6.8	-----	39-282
0.20	$\pm .025$	9.1	-----	53-90
0.30	$\pm .025$	8.0	-----	53-90
0.30	$\pm .035$	7.5	± 0.3	52-264
0.40	$\pm .035$	7.3	± 0.3	52-264
0.40	$\pm .025$	7.0	-----	53-90
0.48	$\pm .035$	7.1	± 0.3	52-264
0.50	$\pm .025$	6.6	-----	53-90
0.53	$\pm .035$	6.0	± 0.3	52-264
0.60	$\pm .025$	6.5	-----	53-90
0.64	$\pm .035$	6.3	± 0.3	52-264
0.75	$\pm .035$	5.7	± 0.3	52-264
0.80	$\pm .025$	5.4	-----	53-90
0.83	$\pm .035$	5.4	± 0.3	52-264
0.93	$\pm .035$	5.4	± 0.3	52-264
1.00	$\pm .05$	5.3	-----	53-90
1.03	$\pm .035$	5.8	± 0.3	52-264
1.13	$\pm .035$	5.5	± 0.3	52-264
1.20	$\pm .05$	5.3	-----	53-90
1.20	$\pm .035$	5.3	± 0.3	52-264
1.30	$\pm .035$	5.5	± 0.3	52-264
1.37	$\pm .035$	5.8	± 0.3	52-264
1.40	$\pm .05$	5.6	-----	53-90
1.46	$\pm .035$	6.3	± 0.3	52-264
1.56	$\pm .035$	6.2	± 0.3	52-264
1.60	$\pm .05$	5.9	-----	53-90
1.66	$\pm .035$	6.2	± 0.3	52-264
1.77	$\pm .035$	5.8	± 0.3	52-264
1.80	$\pm .05$	6.0	-----	53-90
1.86	$\pm .035$	7.0	± 0.3	52-264
1.98	$\pm .035$	6.5	± 0.3	52-264

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
2.00	$\pm .05$	6.6	-----	53-90
2.07	$\pm .035$	6.7	± 0.3	52-264
2.13	$\pm .15$	4.75	± 0.22	39-4
2.16	$\pm .035$	6.8	± 0.3	52-264
2.20	$\pm .05$	6.5	-----	53-90
2.25	$\pm .035$	6.7	± 0.3	52-264
2.35	$\pm .035$	7.3	± 0.3	52-264
2.40	$\pm .05$	6.8	-----	53-90
2.42	$\pm .15$	5.16	± 0.22	39-4
2.44	$\pm .035$	7.2	± 0.3	52-264
2.55	$\pm .035$	6.8	± 0.3	52-264
2.60	$\pm .05$	7.0	-----	53-90
2.65	$\pm .035$	6.7	± 0.3	52-264
2.75	$\pm .15$	5.27	± 0.22	39-4
2.76	$\pm .035$	7.2	± 0.3	52-264
2.8	$\pm 10\%$	7.3	$\pm 10\%$	54-108
2.80	$\pm .05$	5.8	-----	53-90
2.88	$\pm .04$	5.34	± 0.20	39-42
2.90	$\pm .035$	7.4	± 0.3	52-264
3.00	$\pm .05$	7.0	-----	53-90
3.00	$\pm .035$	6.6	± 0.3	52-264
3.1	$\pm 10\%$	7.5	$\pm 10\%$	54-108
3.10	$\pm .035$	7.0	± 0.3	52-264
3.20	$\pm .035$	7.2	± 0.3	52-264
3.30	$\pm .035$	7.1	± 0.3	52-264
3.40	$\pm .035$	7.2	± 0.3	52-264
3.6	$\pm 10\%$	7.3	$\pm 10\%$	54-108
4.1	$\pm 10\%$	6.8	$\pm 10\%$	54-108
4.6	$\pm 10\%$	6.5	$\pm 10\%$	54-108
5.0	$\pm 10\%$	6.5	$\pm 10\%$	54-108
5.4	$\pm 10\%$	6.2	$\pm 10\%$	54-108
6.0	$\pm 10\%$	6.2	$\pm 10\%$	54-108
6.8	$\pm 10\%$	5.6	$\pm 10\%$	54-108

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
7.7	$\pm 10\%$	5.4	$\pm 10\%$	54-108
8.1	$\pm 10\%$	5.2	$\pm 10\%$	54-108
8.5	$\pm 10\%$	5.0	$\pm 10\%$	54-108
9.3	$\pm 10\%$	4.8	$\pm 10\%$	54-108
10.2	$\pm 10\%$	4.5	$\pm 10\%$	54-108
10.5	$\pm 10\%$	4.8	$\pm 10\%$	54-108
10.7	$\pm 10\%$	4.5	$\pm 10\%$	54-108
11.3	$\pm 10\%$	5.0	$\pm 10\%$	54-108
12.2	$\pm 10\%$	5.4	$\pm 10\%$	54-108
13.2	$\pm 10\%$	5.2	$\pm 10\%$	54-108
14.	-----	5.32	$\pm 2\%$	52-332
14.12	$\pm .05$	5.36	± 0.11	52-81

 σ_{non}

1.0	$\pm .05$	0.9	± 0.6	54-103
14.1	-----	2.8	± 0.3	57-199
14.20	$\pm .04$	2.43	± 0.04	56-274
14.5	-----	2.65	± 0.04	56-200

 $\sigma_{n,n'}$

0.29	$\pm .03$	0.10	± 0.06	56-353
0.77	$\pm .002$	0.8	± 0.2	56-353
1.02	$\pm .003$	1.5	± 0.4	56-353
2.5	-----	2.6	± 0.3	56-34

 σ_f

14.	$\pm .5$	$\leq 6.7 \times 10^{-6}$	-----	49-126
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$\sigma_{n,\gamma}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.025	$\pm .005$	0.057	± 0.013	57-272

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0010	$\pm .0010$	14.2	± 2.2	57-154
0.0012	$\pm .0010$	25.1	± 2.2	57-154
0.0014	$\pm .0010$	20.8	± 2.2	57-154
0.0015	$\pm .0010$	18.1	± 2.2	57-154
0.0018	$\pm .0010$	9.0	± 2.2	57-154
0.0022	$\pm .0010$	11.0	± 2.2	57-154
0.0028	$\pm .0010$	11.1	± 0.9	57-154
0.0034	$\pm .0010$	12.1	± 0.9	57-154
0.0040	$\pm .0010$	13.7	± 0.9	57-154
0.0042	$\pm .0010$	13.5	± 0.9	57-154
0.0046	$\pm .0010$	14.1	± 0.9	57-154
0.0050	$\pm .0010$	16.2	± 0.9	57-154
0.0053	$\pm .0010$	13.3	± 0.9	57-154
0.0055	$\pm .0010$	14.0	± 0.9	57-154
0.0060	$\pm .0010$	12.4	± 0.9	57-154
0.0063	$\pm .0010$	12.7	± 0.9	57-154
0.0068	$\pm .0010$	14.2	± 0.9	57-154
0.0072	$\pm .0010$	12.8	± 0.9	57-154
0.0075	$\pm .0010$	13.0	± 0.9	57-154
0.0078	$\pm .0010$	11.7	± 0.9	57-154
0.0082	$\pm .0010$	10.9	± 0.9	57-154
0.0087	$\pm .0010$	11.0	± 0.9	57-154
0.0090	$\pm .0010$	11.2	± 0.9	57-154
0.0094	$\pm .0010$	11.4	± 0.9	57-154
0.0099	$\pm .0010$	11.2	± 0.9	57-154
0.0102	$\pm .0010$	10.1	± 0.9	57-154
0.0105	$\pm .0010$	10.2	± 0.9	57-154
0.0110	$\pm .0010$	12.0	± 0.9	57-154
0.0113	$\pm .0010$	10.9	± 0.9	57-154
0.0118	$\pm .0010$	10.2	± 0.9	57-154
0.0122	$\pm .0010$	11.3	± 0.9	57-154
0.0126	$\pm .0010$	11.5	± 0.9	57-154
0.0130	$\pm .0010$	11.5	± 0.9	57-154

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.0135	$\pm .0010$	11.6	± 0.9	57-154
0.0143	$\pm .0010$	11.0	± 0.9	57-154
0.0152	$\pm .0010$	10.3	± 0.9	57-154
0.0161	$\pm .0010$	10.3	± 0.9	57-154
0.0162	$\pm .0010$	11.2	± 0.9	57-154
0.0164	$\pm .0010$	10.5	± 0.9	57-154
0.0165	$\pm .0010$	12.1	± 0.9	57-154
0.0166	$\pm .0010$	14.2	± 0.9	57-154
0.0169	$\pm .0010$	15.1	± 0.9	57-154
0.0173	$\pm .0010$	14.3	± 0.9	57-154
0.0177	$\pm .0010$	14.1	± 0.9	57-154
0.0182	$\pm .0010$	14.2	± 0.9	57-154
0.0187	$\pm .0010$	13.3	± 0.9	57-154
0.0195	$\pm .0010$	12.0	± 0.9	57-154
0.0200	$\pm .0010$	13.0	± 0.5	57-154
0.0210	$\pm .0010$	12.3	± 0.5	57-154
0.0225	$\pm .0010$	11.3	± 0.5	57-154
0.0230	$\pm .0010$	12.0	± 0.5	57-154
0.0240	$\pm .0010$	10.7	± 0.5	57-154
0.0250	$\pm .0010$	11.3	± 0.5	57-154
0.0260	$\pm .0010$	11.4	± 0.5	57-154
0.0270	$\pm .0010$	10.5	± 0.5	57-154
0.0280	$\pm .0010$	11.4	± 0.5	57-154
0.0290	$\pm .0010$	12.3	± 0.5	57-154
0.0300	$\pm .0010$	11.1	± 0.5	57-154
0.0310	$\pm .0010$	10.4	± 0.5	57-154
0.0320	$\pm .0010$	10.5	± 0.5	57-154
0.0330	$\pm .0010$	10.7	± 0.5	57-154
0.0350	$\pm .0010$	10.7	± 0.5	57-154
0.0355	$\pm .0010$	10.5	± 0.5	57-154
0.0360	$\pm .0010$	10.9	± 0.5	57-154
0.0370	$\pm .0010$	11.7	± 0.5	57-154
0.0375	$\pm .0010$	11.1	± 0.5	57-154

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0390	$\pm .0010$	11.3	± 0.5	57-154
0.0400	$\pm .0010$	11.0	± 0.5	57-154
0.0410	$\pm .0010$	10.9	± 0.5	57-154
0.0420	$\pm .0010$	9.0	± 0.5	57-154
0.0425	$\pm .0010$	10.2	± 0.5	57-154
0.0430	$\pm .0010$	9.9	± 0.5	57-154
0.0435	$\pm .0010$	9.5	± 0.5	57-154
0.0450	$\pm .0010$	9.6	± 0.5	57-154
0.0465	$\pm .0010$	9.5	± 0.5	57-154
0.0470	$\pm .0010$	9.8	± 0.5	57-154
0.0480	$\pm .0010$	9.4	± 0.5	57-154
0.0485	$\pm .0010$	9.9	± 0.5	57-154
0.0490	$\pm .0010$	9.7	± 0.5	57-154
0.0515	$\pm .0010$	9.6	± 0.5	57-154
0.0530	$\pm .0010$	9.5	± 0.5	57-154
0.0540	$\pm .0010$	9.1	± 0.5	57-154
0.0555	$\pm .0010$	9.2	± 0.5	57-154
0.0565	$\pm .0010$	11.3	± 0.5	57-154
0.0570	$\pm .0010$	13.9	± 0.5	57-154
0.0580	$\pm .0010$	12.0	± 0.5	57-154
0.0585	$\pm .0010$	11.3	± 0.5	57-154
0.0590	$\pm .0010$	12.2	± 0.5	57-154
0.0595	$\pm .0010$	11.6	± 0.5	57-154
0.0600	$\pm .0010$	11.0	± 0.5	57-154
0.0610	$\pm .0010$	10.7	± 0.5	57-154
0.0620	$\pm .0010$	10.0	± 0.5	57-154
0.0630	$\pm .0010$	10.0	± 0.5	57-154
0.0640	$\pm .0010$	9.7	± 0.5	57-154
0.0680	$\pm .0010$	9.7	± 0.5	57-154
0.0690	$\pm .0010$	9.7	± 0.5	57-154
0.0705	$\pm .0010$	9.7	± 0.5	57-154
0.0715	$\pm .0010$	9.8	± 0.5	57-154
0.0745	$\pm .0010$	10.0	± 0.5	57-154

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0765	$\pm .0010$	10.2	± 0.5	57-154
0.0775	$\pm .0010$	10.5	± 0.5	57-154
0.0780	$\pm .0010$	10.6	± 0.5	57-154
0.0790	$\pm .0010$	11.1	± 0.5	57-154
0.0795	$\pm .0010$	11.3	± 0.5	57-154
0.0800	$\pm .0010$	11.0	± 0.5	57-154
0.0810	$\pm .0010$	10.1	± 0.5	57-154
2.7	$\pm 10\%$	7.3	$\pm 10\%$	54-108
2.9	$\pm 10\%$	7.4	$\pm 10\%$	54-108
3.1	$\pm 10\%$	7.5	$\pm 10\%$	54-108
3.3	$\pm 10\%$	7.6	$\pm 10\%$	54-108
3.6	$\pm 10\%$	7.4	$\pm 10\%$	54-108
3.8	$\pm 10\%$	7.4	$\pm 10\%$	54-108
3.9	$\pm 10\%$	7.1	$\pm 10\%$	54-108
4.2	$\pm 10\%$	7.0	$\pm 10\%$	54-108
4.4	$\pm 10\%$	6.9	$\pm 10\%$	54-108
4.6	$\pm 10\%$	6.8	$\pm 10\%$	54-108
4.8	$\pm 10\%$	6.7	$\pm 10\%$	54-108
5.1	$\pm 10\%$	6.7	$\pm 10\%$	54-108
5.3	$\pm 10\%$	6.4	$\pm 10\%$	54-108
5.7	$\pm 10\%$	6.3	$\pm 10\%$	54-108
6.0	$\pm 10\%$	6.4	$\pm 10\%$	54-108
6.4	$\pm 10\%$	6.2	$\pm 10\%$	54-108
6.7	$\pm 10\%$	5.8	$\pm 10\%$	54-108
7.2	$\pm 10\%$	5.6	$\pm 10\%$	54-108
7.7	$\pm 10\%$	5.5	$\pm 10\%$	54-108
7.15	$\pm .17$	5.53	± 0.05	57-22
8.0	$\pm 10\%$	5.3	$\pm 10\%$	54-108
8.4	$\pm 10\%$	5.0	$\pm 10\%$	54-108
8.54	$\pm .15$	5.28	± 0.05	57-22
8.8	$\pm 10\%$	4.9	$\pm 10\%$	54-108
9.3	$\pm 10\%$	4.8	$\pm 10\%$	54-108
9.6	$\pm 10\%$	4.9	$\pm 10\%$	54-108

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
10.2	$\pm 10\%$	4.9	$\pm 10\%$	54-108
10.6	$\pm 10\%$	4.9	$\pm 10\%$	54-108
11.13	$\pm .11$	5.10	± 0.05	57-22
11.3	$\pm 10\%$	4.7	$\pm 10\%$	54-108
12.2	$\pm 10\%$	5.1	$\pm 10\%$	54-108
12.70	$\pm .09$	5.19	± 0.06	57-22
13.1	$\pm 10\%$	5.4	$\pm 10\%$	54-108
14.	-----	5.33	$\pm 2\%$	52-332
14.07	$\pm .07$	5.45	± 0.06	57-22
14.12	$\pm .05$	5.36	± 0.11	52-81

 $\sigma_{\text{el} + \text{in}}$

0.060	-----	11.75	$\pm 10\%$	56-231
0.156	$\pm .100$	10.00	$\pm 10\%$	56-231
0.246	$\pm .100$	8.49	$\pm 10\%$	56-231
0.330	$\pm .100$	7.80	$\pm 10\%$	56-231
0.400	$\pm .100$	6.85	$\pm 10\%$	56-231
0.498	$\pm .100$	6.70	$\pm 10\%$	56-231
0.504	$\pm .100$	6.60	$\pm 10\%$	56-231
0.580	$\pm .100$	6.25	$\pm 10\%$	56-231
0.660	$\pm .100$	6.08	$\pm 10\%$	56-231
0.732	$\pm .100$	5.80	$\pm 10\%$	56-231
0.816	$\pm .100$	5.59	$\pm 10\%$	56-231
0.894	$\pm .100$	5.30	$\pm 10\%$	56-231
0.980	$\pm .100$	5.40	$\pm 10\%$	56-231
1.056	$\pm .100$	5.00	$\pm 10\%$	56-231
1.135	$\pm .100$	5.00	$\pm 10\%$	56-231
1.218	$\pm .100$	5.00	$\pm 10\%$	56-231
1.300	$\pm .100$	5.30	$\pm 10\%$	56-231
1.380	$\pm .100$	5.25	$\pm 10\%$	56-231
1.460	$\pm .100$	5.25	$\pm 10\%$	56-231

$\sigma_{\text{el} + \text{in}}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
1.545	$\pm .100$	5.22	$\pm 10\%$	56-231
1.630	$\pm .100$	5.33	$\pm 10\%$	56-231
1.700	$\pm .100$	5.50	$\pm 10\%$	56-231
1.800	$\pm .100$	5.30	$\pm 10\%$	56-231

$\sigma_{n,p}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.5	-----	0.003	$\pm 50\%$	53-27

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σ_{tot}				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.02	$\pm .03$	11.3	± 0.3	49-50
0.02	$\pm .01$	10.5	± 0.3	49-52
0.0203	$\pm .0010$	9.3	-----	56-273
0.0205	$\pm .0010$	9.6	-----	56-273
0.0210	$\pm .0010$	10.1	-----	56-273
0.0213	$\pm .0010$	9.8	-----	56-273
0.0217	$\pm .0010$	10.2	-----	56-273
0.0221	$\pm .0010$	9.8	-----	56-273
0.0223	$\pm .0010$	10.1	-----	56-273
0.0227	$\pm .0010$	10.3	-----	56-273
0.0233	$\pm .0010$	10.6	-----	56-273
0.0236	$\pm .0010$	10.3	-----	56-273
0.024	$\pm .015$	11.4	$\pm 5\%$	47-46
0.0240	$\pm .0010$	11.0	-----	56-273
0.0240	$\pm .0010$	10.5	-----	56-273
0.0240	$\pm .0010$	11.1	-----	56-273
0.0240	$\pm .0010$	11.7	-----	56-273
0.0249	$\pm .0010$	10.7	-----	56-273
0.0249	$\pm .0010$	11.8	-----	56-273
0.0252	$\pm .0010$	11.1	-----	56-273
0.0253	$\pm .0010$	9.7	-----	56-273
0.0253	$\pm .0010$	10.8	-----	56-273
0.0257	$\pm .0010$	11.0	-----	56-273
0.0258	$\pm .0010$	10.4	-----	56-273
0.0258	$\pm .0010$	10.8	-----	56-273
0.0262	$\pm .0010$	10.0	-----	56-273
0.0263	$\pm .0010$	11.0	-----	56-273
0.0268	$\pm .0010$	10.0	-----	56-273
0.0268	$\pm .0010$	10.2	-----	56-273
0.0272	$\pm .0010$	9.3	-----	56-273
0.0273	$\pm .0010$	10.3	-----	56-273
0.0273	$\pm .0010$	10.5	-----	56-273
0.0278	$\pm .0010$	10.5	-----	56-273

<u>E_n (Mev)</u>	<u>Δ E_n (Mev)</u>	<u>σ_{tot}</u>		<u>Yr. Ref.</u>
		<u>σ (Barns)</u>	<u>Δσ (Barns)</u>	
0.0278	± .0010	11.1	-----	56-273
0.0283	± .0010	10.5	-----	56-273
0.0288	± .0010	10.4	-----	56-273
0.0288	± .0010	10.5	-----	56-273
0.0293	± .0010	10.1	-----	56-273
0.0293	± .0010	10.3	-----	56-273
0.0299	± .0010	9.8	-----	56-273
0.0299	± .0010	10.0	-----	56-273
0.03	± .01	10.8	± 0.3	49-52
0.0304	± .0010	9.8	-----	56-273
0.0305	± .0010	10.1	-----	56-273
0.0311	± .0010	9.6	-----	56-273
0.0311	± .0010	10.2	-----	56-273
0.0318	± .0010	9.9	-----	56-273
0.0323	± .0010	9.9	-----	56-273
0.0323	± .0010	10.1	-----	56-273
0.0329	± .0010	9.7	-----	56-273
0.0335	± .0010	9.4	-----	56-273
0.0335	± .0010	9.6	-----	56-273
0.0342	± .0010	9.5	-----	56-273
0.0342	± .0010	10.1	-----	56-273
0.04	± .03	11.5	± 0.3	49-50
0.04	± .01	10.7	± 0.3	49-52
0.05	± .01	11.8	± 0.3	49-52
0.06	± .01	11.2	± 0.3	49-52
0.07	± .01	10.3	± 0.3	49-52
0.08	± .03	11.0	± 0.3	49-50
0.08	± .01	11.1	± 0.3	49-52
0.09	± .01	11.4	± 0.3	49-52
0.10	± .01	10.3	± 0.3	49-52
0.11	± .01	9.8	± 0.3	49-52
0.12	± .03	9.4	± 0.3	49-50
0.12	± .01	10.1	± 0.3	49-52

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.13	$\pm .02$	10.6	$\pm 5\%$	47-46
0.13	$\pm .01$	10.7	± 0.3	49-52
0.14	$\pm .04$	7.2	-----	39-282
0.14	$\pm .03$	10.6	$\pm 5\%$	47-46
0.14	$\pm .03$	8.8	± 0.3	49-50
0.14	$\pm .01$	9.7	± 0.3	49-52
0.15	$\pm .01$	9.7	± 0.3	49-52
0.16	$\pm .01$	8.8	± 0.3	49-52
0.17	$\pm .01$	9.0	± 0.3	49-52
0.18	$\pm .01$	8.6	± 0.3	49-52
0.19	$\pm .01$	8.0	± 0.3	49-52
0.20	$\pm .07$	7.7	± 0.3	49-50
0.20	$\pm .01$	7.5	± 0.3	49-52
0.21	$\pm .01$	7.8	± 0.3	49-52
0.22	$\pm .02$	8.6	$\pm 5\%$	47-46
0.22	$\pm .01$	7.9	± 0.3	49-52
0.23	$\pm .01$	7.7	± 0.3	49-52
0.24	$\pm .01$	7.8	± 0.3	49-52
0.25	$\pm .01$	7.4	± 0.3	49-52
0.26	$\pm .01$	7.7	± 0.3	49-52
0.27	$\pm .01$	7.4	± 0.3	49-52
0.28	$\pm .07$	7.2	± 0.3	49-50
0.28	$\pm .01$	7.4	± 0.3	49-52
0.29	$\pm .01$	7.4	± 0.3	49-52
0.292	$\pm .005$	7.3	± 0.4	50-59
0.30	$\pm .01$	7.0	± 0.3	49-52
0.302	$\pm .005$	6.9	± 0.3	49-52
0.304	$\pm .005$	6.2	± 0.4	50-59
0.312	$\pm .005$	6.8	± 0.3	49-52
0.313	$\pm .005$	6.6	± 0.4	50-59
0.317	$\pm .005$	7.4	± 0.3	49-52
0.318	$\pm .005$	6.8	± 0.4	50-59
0.320	$\pm .005$	6.7	± 0.4	50-59

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.322	$\pm .005$	7.3	± 0.3	49-52
0.328	$\pm .005$	5.9	± 0.4	50-59
0.330	$\pm .005$	5.3	± 0.4	50-59
0.330	$\pm .005$	5.4	± 0.3	49-52
0.332	$\pm .005$	6.1	± 0.4	50-59
0.338	$\pm .005$	5.9	± 0.4	50-59
0.338	$\pm .005$	5.7	± 0.3	49-52
0.340	$\pm .005$	5.5	± 0.4	50-59
0.340	$\pm .005$	5.6	± 0.3	49-52
0.342	$\pm .005$	6.2	± 0.3	49-52
0.342	$\pm .005$	4.7	± 0.4	50-59
0.347	$\pm .005$	6.1	± 0.3	49-52
0.348	$\pm .005$	5.8	± 0.4	50-59
0.350	$\pm .005$	7.2	± 0.4	50-59
0.350	$\pm .005$	8.2	± 0.3	49-52
0.351	$\pm .003$	7.5	± 0.4	50-59
0.352	$\pm .005$	9.8	± 0.3	49-52
0.352	$\pm .005$	9.0	± 0.4	50-59
0.354	$\pm .003$	9.9	± 0.4	50-59
0.356	$\pm .003$	9.7	± 0.4	50-59
0.356	$\pm .005$	9.3	± 0.3	49-52
0.358	$\pm .003$	8.3	± 0.4	50-59
0.359	$\pm .005$	8.5	± 0.3	49-52
0.360	$\pm .003$	7.7	± 0.4	50-59
0.362	$\pm .005$	7.2	± 0.4	50-59
0.362	$\pm .005$	7.0	± 0.3	49-52
0.364	$\pm .005$	7.7	± 0.3	49-52
0.368	$\pm .005$	6.7	± 0.4	50-59
0.369	$\pm .005$	6.5	± 0.3	49-52
0.372	$\pm .005$	6.1	± 0.4	50-59
0.378	$\pm .005$	5.8	± 0.4	50-59
0.380	$\pm .005$	5.5	± 0.4	50-59
0.380	$\pm .010$	6.2	± 0.15	49-52

σ_{tot}				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.382	$\pm .005$	5.4	± 0.4	50-59
0.385	$\pm .005$	5.8	± 0.4	50-59
0.388	$\pm .005$	5.6	± 0.4	50-59
0.390	$\pm .005$	6.0	± 0.4	50-59
0.390	$\pm .010$	6.1	± 0.15	49-52
0.395	$\pm .005$	5.2	± 0.4	50-59
0.395	$\pm .010$	5.9	± 0.15	49-52
0.398	$\pm .005$	5.6	± 0.4	50-59
0.40	$\pm .070$	6.7	± 0.3	49-50
0.401	$\pm .005$	6.5	± 0.4	50-59
0.406	$\pm .005$	5.6	± 0.4	50-59
0.410	$\pm .010$	6.2	± 0.15	49-52
0.411	$\pm .005$	6.0	± 0.4	50-59
0.413	$\pm .005$	6.0	± 0.4	50-59
0.418	$\pm .005$	6.0	± 0.4	50-59
0.420	$\pm .010$	5.9	± 0.15	49-52
0.421	$\pm .005$	5.3	± 0.4	50-59
0.423	$\pm .005$	5.1	± 0.4	50-59
0.426	$\pm .005$	5.5	± 0.4	50-59
0.429	$\pm .005$	5.3	± 0.4	50-59
0.430	$\pm .010$	5.6	± 0.15	49-52
0.431	$\pm .005$	5.5	± 0.4	50-59
0.435	$\pm .005$	5.3	± 0.4	50-59
0.439	$\pm .005$	5.1	± 0.4	50-59
0.44	$\pm .07$	4.4	± 0.3	49-50
0.440	$\pm .010$	5.5	± 0.15	49-52
0.442	$\pm .005$	4.7	± 0.4	50-59
0.448	$\pm .005$	4.7	± 0.4	50-59
0.450	$\pm .005$	4.9	± 0.4	50-59
0.450	$\pm .005$	5.5	± 0.3	49-52
0.452	$\pm .005$	4.6	± 0.4	50-59
0.455	$\pm .005$	4.8	± 0.4	50-59
0.458	$\pm .005$	4.7	± 0.3	49-52

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.459	$\pm .005$	4.9	± 0.4	50-59
0.462	$\pm .005$	4.9	± 0.4	50-59
0.463	$\pm .005$	4.8	± 0.3	49-52
0.465	$\pm .005$	4.3	± 0.4	50-59
0.468	$\pm .005$	4.8	± 0.4	50-59
0.470	$\pm .005$	4.9	± 0.3	49-52
0.472	$\pm .005$	4.8	± 0.4	50-59
0.476	$\pm .005$	4.9	± 0.4	50-59
0.477	$\pm .005$	4.2	± 0.4	50-59
0.477	$\pm .005$	4.7	± 0.3	49-52
0.479	$\pm .005$	4.8	± 0.4	50-59
0.480	$\pm .005$	4.3	± 0.4	50-59
0.482	$\pm .005$	3.8	± 0.4	50-59
0.482	$\pm .005$	4.2	± 0.3	49-52
0.484	$\pm .005$	3.7	± 0.4	50-59
0.488	$\pm .005$	4.2	± 0.4	50-59
0.488	$\pm .005$	3.8	± 0.3	49-52
0.490	$\pm .005$	3.2	± 0.4	50-59
0.493	$\pm .005$	3.2	± 0.4	50-59
0.497	$\pm .005$	3.4	± 0.4	50-59
0.497	$\pm .005$	3.3	± 0.3	49-52
0.499	$\pm .005$	3.5	± 0.4	50-59
0.50	$\pm .07$	5.0	± 0.3	49-50
0.502	$\pm .005$	3.5	± 0.4	50-59
0.503	$\pm .005$	3.4	± 0.3	49-52
0.508	$\pm .005$	3.7	± 0.4	50-59
0.509	$\pm .005$	3.2	± 0.3	49-52
0.512	$\pm .005$	3.8	± 0.3	49-52
0.512	$\pm .005$	3.9	± 0.4	50-59
0.515	$\pm .005$	3.8	± 0.4	50-59
0.515	$\pm .005$	4.6	± 0.3	49-52
0.519	$\pm .005$	4.5	± 0.3	49-52
0.519	$\pm .005$	4.3	± 0.4	50-59

σ_{tot}				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.520	$\pm .003$	4.6	± 0.4	50-59
0.521	$\pm .005$	5.3	± 0.4	50-59
0.522	$\pm .005$	5.7	± 0.4	50-59
0.522	$\pm .005$	5.8	± 0.3	49-52
0.524	$\pm .005$	7.8	± 0.3	49-52
0.524	$\pm .003$	7.8	± 0.4	50-59
0.525	$\pm .003$	9.1	± 0.4	50-59
0.526	$\pm .005$	8.4	± 0.3	49-52
0.528	$\pm .003$	9.4	± 0.4	50-59
0.530	$\pm .005$	7.2	± 0.3	49-52
0.531	$\pm .003$	7.3	± 0.4	50-59
0.532	$\pm .005$	6.0	± 0.3	49-52
0.533	$\pm .003$	5.6	± 0.4	50-59
0.537	$\pm .005$	5.3	± 0.3	49-52
0.537	$\pm .005$	5.5	± 0.4	50-59
0.540	$\pm .005$	5.4	± 0.3	49-52
0.541	$\pm .005$	5.3	± 0.4	50-59
0.543	$\pm .005$	5.2	± 0.4	50-59
0.545	$\pm .005$	4.8	± 0.3	49-52
0.546	$\pm .005$	4.7	± 0.4	50-59
0.548	$\pm .005$	4.9	± 0.4	50-59
0.550	$\pm .005$	4.7	± 0.3	49-52
0.552	$\pm .005$	4.8	± 0.4	50-59
0.553	$\pm .005$	4.7	± 0.3	49-52
0.555	$\pm .005$	5.1	± 0.4	50-59
0.559	$\pm .005$	5.4	± 0.4	50-59
0.559	$\pm .005$	5.2	± 0.3	49-52
0.565	$\pm .005$	5.9	± 0.3	49-52
0.571	$\pm .005$	5.3	± 0.3	49-52
0.580	$\pm .010$	5.5	± 0.15	49-52
0.59	$\pm .07$	5.4	± 0.3	49-50
0.590	$\pm .010$	5.4	± 0.15	49-52
0.600	$\pm .010$	5.3	± 0.15	49-52

<u>E_n (Mev)</u>	<u>Δ E_n (Mev)</u>	<u>σ_{tot}</u>		<u>Yr. Ref.</u>
		<u>σ (Barns)</u>	<u>Δσ (Barns)</u>	
0.610	± .003	5.65	± 0.15	50-315
0.610	± .010	5.8	± 0.15	49-52
0.62	± .07	6.1	± 5%	47-46
0.620	± .010	5.5	± 0.15	49-52
0.63	± .07	6.0	± 0.3	49-50
0.630	± .010	5.6	± 0.15	49-52
0.640	± .010	5.7	± 0.15	49-52
0.650	± .010	5.6	± 0.15	49-52
0.66	± .07	6.4	± 0.3	49-50
0.660	± .010	5.5	± 0.15	49-52
0.670	± .010	5.6	± 0.15	49-52
0.680	± .010	5.3	± 0.15	49-52
0.680	± .003	5.60	± 0.15	50-315
0.690	± .010	5.2	± 0.15	49-52
0.692	± .003	5.6	± 0.4	50-59
0.693	± .003	5.9	± 0.4	50-59
0.698	± .003	5.6	± 0.4	50-59
0.700	± .010	5.4	± 0.15	49-52
0.702	± .005	5.3	± 0.3	49-52
0.702	± .005	5.5	± 0.4	50-59
0.704	± .005	5.4	± 0.3	49-52
0.705	± .005	4.8	± 0.4	50-59
0.708	± .005	5.2	± 0.3	49-52
0.709	± .005	4.7	± 0.4	50-59
0.710	± .003	6.15	± 0.15	50-315
0.711	± .003	4.9	± 0.1	50-59
0.712	± .005	5.4	± 0.3	49-52
0.714	± .003	4.9	± 0.4	50-59
0.716	± .005	6.3	± 0.3	49-52
0.717	± .003	5.2	± 0.4	50-59
0.718	± .003	5.3	± 0.4	50-59
0.718	± .005	7.1	± 0.3	49-52
0.720	± .003	5.7	± 0.4	50-59

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.721	$\pm .003$	7.8	± 0.4	50-59
0.722	$\pm .003$	8.3	± 0.4	50-59
0.722	$\pm .005$	7.2	± 0.3	49-52
0.723	$\pm .003$	8.9	± 0.4	50-59
0.724	$\pm .003$	7.8	± 0.4	50-59
0.725	$\pm .003$	6.5	± 0.4	50-59
0.725	$\pm .003$	6.65	± 0.15	50-315
0.726	$\pm .005$	6.7	± 0.3	49-52
0.727	$\pm .005$	6.1	± 0.4	50-59
0.729	$\pm .005$	5.7	± 0.4	50-59
0.729	$\pm .005$	6.2	± 0.3	49-52
0.731	$\pm .003$	5.3	± 0.4	50-59
0.732	$\pm .003$	5.8	± 0.4	50-59
0.732	$\pm .005$	5.7	± 0.3	49-52
0.734	$\pm .005$	5.6	± 0.3	49-52
0.735	$\pm .005$	5.3	± 0.4	50-59
0.737	$\pm .005$	5.2	± 0.3	49-52
0.738	$\pm .003$	5.4	± 0.4	50-59
0.740	$\pm .010$	5.5	± 0.15	49-52
0.740	$\pm .003$	6.10	± 0.15	50-315
0.745	$\pm .003$	5.3	± 0.4	50-59
0.749	$\pm .003$	4.5	± 0.4	50-59
0.750	$\pm .010$	5.5	± 0.15	49-52
0.750	$\pm .003$	5.52	± 0.15	50-315
0.754	$\pm .003$	5.3	± 0.4	50-59
0.76	$\pm .07$	6.7	± 0.3	49-50
0.760	$\pm .010$	4.9	± 0.15	49-52
0.770	$\pm .010$	5.4	± 0.15	49-52
0.79	$\pm .07$	6.6	± 0.3	49-50
0.810	$\pm .003$	5.60	± 0.15	50-315
0.83	$\pm .04$	5.8	$\pm 5\%$	47-46
0.83	$\pm .07$	6.0	± 0.3	49-50
0.840	$\pm .003$	5.80	± 0.15	50-315

		σ_{tot}		
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.85	$\pm .01$	5.0	± 0.2	52-80
0.88	$\pm .07$	5.0	± 0.3	49-50
0.890	$\pm .003$	5.90	± 0.15	50-315
0.90	-----	6.83	± 0.40	41-170
0.90	-----	5.1	± 0.6	40-190
0.92	$\pm .07$	5.4	± 0.3	49-50
0.940	$\pm .003$	5.95	± 0.15	50-315
0.980	$\pm .003$	6.55	± 0.15	50-315
1.0	$\pm .01$	5.2	± 0.2	52-80
1.00	$\pm .01$	4.9	± 0.2	52-80
1.00	$\pm .07$	5.1	± 0.3	49-50
1.020	$\pm .003$	6.10	± 0.15	50-315
1.04	$\pm .07$	5.0	± 0.3	49-50
1.040	$\pm .003$	5.25	± 0.15	50-315
1.10	$\pm .07$	5.1	± 0.3	49-50
1.110	$\pm .003$	5.55	± 0.15	50-315
1.14	$\pm .07$	5.4	± 0.3	49-50
1.15	$\pm .01$	5.4	± 0.2	52-80
1.15	$\pm .01$	5.2	± 0.2	52-80
1.170	$\pm .003$	5.65	± 0.15	50-315
1.220	$\pm .003$	5.67	± 0.15	50-315
1.24	$\pm .07$	5.4	± 0.3	49-50
1.280	$\pm .003$	5.35	± 0.15	50-315
1.30	$\pm .01$	4.8	± 0.2	52-80
1.30	$\pm .01$	5.0	± 0.2	52-80
1.32	$\pm .07$	5.0	± 0.3	49-50
1.320	$\pm .003$	5.50	± 0.15	50-315
1.340	$\pm .003$	5.75	± 0.15	50-315
1.360	$\pm .003$	5.55	± 0.15	50-315
1.380	$\pm .003$	5.35	± 0.15	50-315
1.440	$\pm .003$	5.30	± 0.15	50-315
1.45	$\pm .01$	5.1	± 0.2	52-80
1.46	$\pm .01$	4.8	± 0.2	52-80

E_n (Mev)	ΔE_n (Mev)	σ_{tot} σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
1.48	$\pm .07$	4.8	± 0.3	49-50
1.510	$\pm .003$	5.30	± 0.15	50-315
1.58	$\pm .07$	5.2	± 0.3	49-50
1.60	$\pm .01$	4.8	± 0.2	52-80
1.60	$\pm .01$	5.3	± 0.2	52-80
1.600	$\pm .003$	5.45	± 0.15	50-315
1.700	$\pm .003$	5.28	± 0.15	50-315
1.75	$\pm .01$	5.3	± 0.2	52-80
1.75	$\pm .01$	6.3	± 0.2	52-80
1.85	$\pm .01$	5.3	± 0.2	52-80
1.850	$\pm .003$	5.40	± 0.15	50-315
1.90	$\pm .01$	5.0	± 0.2	52-80
1.90	$\pm .01$	5.4	± 0.2	52-80
1.980	$\pm .003$	5.27	± 0.15	50-315
2.06	$\pm .01$	6.0	± 0.2	52-80
2.06	$\pm .01$	5.9	± 0.2	52-80
2.100	$\pm .003$	5.35	± 0.15	50-315
2.13	$\pm .15$	4.82	± 0.13	39-4
2.180	$\pm .003$	5.25	± 0.15	50-315
2.25	$\pm .01$	6.0	± 0.2	52-80
2.25	$\pm .01$	6.1	± 0.2	52-80
2.28	$\pm .15$	5.38	± 0.13	39-4
2.280	$\pm .003$	5.22	± 0.15	50-315
2.360	$\pm .003$	5.22	± 0.15	50-315
2.42	$\pm .15$	5.24	± 0.13	39-4
2.45	$\pm .01$	6.8	± 0.2	52-80
2.45	$\pm .01$	6.5	± 0.2	52-80
2.5	$\pm .15$	6.0	± 0.7	42-196
2.60	$\pm .15$	5.19	± 0.13	39-4
2.63	$\pm .01$	6.1	± 0.2	52-80
2.65	$\pm .01$	6.4	± 0.2	52-80
2.75	$\pm .15$	5.46	± 0.13	39-4
2.8	-----	6.09	± 0.30	38-203

<u>E_n (Mev)</u>	<u>Δ E_n (Mev)</u>	<u>σ_{tot} σ (Barns)</u>	<u>Δσ (Barns)</u>	<u>Yr. Ref.</u>
2.83	± .01	6.0	± 0.2	52-80
2.85	± .01	6.6	± 0.4	52-80
2.88	± .04	6.74	± 0.24	39-42
2.9	± 10%	7.6	± 10%	53-88
3.02	± .01	6.9	± 0.2	52-80
3.02	± .01	6.7	± 0.2	52-80
3.21	± .01	7.0	± 0.2	52-80
3.21	± .01	6.8	± 0.2	52-80
3.5	± 10%	7.5	± 10%	53-88
3.7	± .2	7.60	± 10%	53-297
4.0	± 10%	7.7	± 10%	53-88
4.1	-----	7.8	± 0.3	55-296
4.6	± 10%	7.5	± 10%	53-88
5.0	± 10%	7.3	± 10%	53-88
6.0	± 10%	6.3	± 10%	53-88
6.7	± 10%	6.0	± 10%	53-88
7.17	± .17	5.86	± 0.06	57-22
7.5	± 10%	5.5	± 10%	53-88
8.0	± 10%	5.2	± 10%	53-88
8.5	± 10%	5.0	± 10%	53-88
8.67	± .15	5.38	± 0.04	57-22
9.1	± 10%	4.7	± 10%	53-88
9.6	± 10%	4.9	± 10%	53-88
9.9	± 10%	4.8	± 10%	53-88
10.38	± .11	5.21	± 0.05	57-22
10.5	± 14%	4.7	± 10%	53-88
11.4	± 14%	4.7	± 10%	53-88
12.3	± 14%	5.0	± 10%	53-88
12.49	± .09	5.22	± 0.04	57-22
12.8	-----	5.2	-----	55-116
13.14	± .05	5.47	± 0.10	58-324
13.2	± 14%	5.3	± 10%	53-88
13.2	-----	5.4	-----	55-116

σ_{tot}

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
13.60	$\pm .07$	5.39	± 0.09	58-324
13.77	$\pm .06$	5.33	± 0.11	58-349
13.82	$\pm .05$	5.40	± 0.11	58-349
13.89	$\pm .02$	5.48	± 0.10	58-349
13.9	± 1.0	4.97	± 0.27	51-65
13.95	$\pm .005$	5.33	± 0.10	58-349
14.	-----	5.39	$\pm 2\%$	52-332
14.	-----	5.1	± 0.4	52-207
14.01	$\pm .02$	5.55	± 0.10	58-349
14.08	$\pm .04$	5.49	± 0.10	58-349
14.1	$\pm 14\%$	5.5	$\pm 10\%$	53-88
14.1	-----	5.4	-----	55-116
14.10	$\pm .04$	5.40	± 0.08	58-324
14.12	$\pm .05$	5.48	± 0.11	52-81
14.14	$\pm .05$	5.47	± 0.10	58-349
14.20	$\pm .07$	5.53	± 0.10	58-349
14.25	$\pm .07$	5.42	± 0.06	57-22
14.27	$\pm .09$	5.54	± 0.10	58-349
14.33	$\pm .11$	5.51	± 0.10	58-349
14.39	$\pm .13$	5.43	± 0.10	58-349
14.45	$\pm .14$	5.49	± 0.10	58-349
14.50	$\pm .16$	5.51	± 0.10	58-349

 σ_{non}

1.0	-----	0.21	± 0.03	55-122
1.00	$\pm .05$	0.3	± 0.3	54-103
1.00	$\pm .16$	0.23	± 0.04	55-115
1.2	-----	0.4	$\pm 20\%$	56-164
1.4	-----	0.75	± 0.25	53-253
1.6	-----	0.6	$\pm 20\%$	56-164
2.0	-----	1.0	$\pm 20\%$	56-164

σ_{non}

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
2.50	$\pm .04$	0.71	± 0.06	56-151
3.5	-----	1.58	± 0.07	55-130
4.0	-----	1.86	± 0.10	55-122
4.0	-----	1.89	± 0.15	54-329
4.00	$\pm .07$	1.84	± 0.08	55-115
4.10	$\pm .04$	1.9	± 0.3	55-296
4.50	$\pm .07$	2.02	± 0.16	55-115
4.5	-----	2.02	± 0.14	55-122
4.7	-----	2.25	± 0.07	55-130
7.0	$\pm .2$	2.38	± 0.15	56-151
7.1	-----	2.67	± 0.07	55-130
10.	-----	2.58	-----	56-21
12.7	-----	2.58	± 0.09	55-130
14.	-----	2.649	± 0.066	55-343
14.	-----	2.56	± 0.05	50-334
14.1	-----	2.52	± 0.09	55-130
14.1	-----	2.49	± 0.02	55-117
14.1	-----	2.42	± 0.08	57-199
14.15	$\pm .05$	2.56	± 0.05	52-82
14.20	$\pm .04$	2.56	± 0.03	56-274
14.5	-----	2.54	± 0.05	56-200

 σ_{el}

10.0	-----	2.02	-----	56-21
14.0	-----	2.92	± 0.18	54-330

 $\sigma_{\text{el} + \text{in}}$

0.030	-----	12.25	$\pm 10\%$	56-231
0.060	-----	11.48	$\pm 10\%$	56-231
0.060	-----	11.65	$\pm 10\%$	56-231

$\sigma_{\text{el} + \text{in}}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.135	$\pm .100$	9.90	$\pm 10\%$	56-231
0.135	$\pm .100$	10.20	$\pm 10\%$	56-231
0.228	$\pm .100$	7.88	$\pm 10\%$	56-231
0.228	$\pm .100$	8.51	$\pm 10\%$	56-231
0.310	$\pm .100$	7.15	$\pm 10\%$	56-231
0.330	$\pm .100$	7.35	$\pm 10\%$	56-231
0.396	$\pm .100$	6.25	$\pm 10\%$	56-231
0.396	$\pm .100$	6.40	$\pm 10\%$	56-231
0.396	$\pm .100$	6.58	$\pm 10\%$	56-231
0.475	$\pm .100$	4.20	$\pm 10\%$	56-231
0.475	$\pm .100$	4.51	$\pm 10\%$	56-231
0.558	$\pm .100$	5.22	$\pm 10\%$	56-231
0.558	$\pm .100$	5.75	$\pm 10\%$	56-231
0.640	$\pm .100$	5.50	$\pm 10\%$	56-231
0.640	$\pm .100$	5.80	$\pm 10\%$	56-231
0.725	$\pm .100$	5.45	$\pm 10\%$	56-231
0.725	$\pm .100$	5.55	$\pm 10\%$	56-231
0.804	$\pm .100$	5.65	$\pm 10\%$	56-231
0.882	$\pm .100$	5.10	$\pm 10\%$	56-231
0.882	$\pm .100$	5.40	$\pm 10\%$	56-231
0.970	$\pm .100$	4.87	$\pm 10\%$	56-231
1.044	$\pm .100$	4.60	$\pm 10\%$	56-231
1.044	$\pm .100$	4.68	$\pm 10\%$	56-231
1.128	$\pm .100$	4.80	$\pm 10\%$	56-231
1.210	$\pm .100$	4.70	$\pm 10\%$	56-231
1.290	$\pm .100$	4.95	$\pm 10\%$	56-231
1.368	$\pm .100$	4.80	$\pm 10\%$	56-231
1.450	$\pm .100$	5.02	$\pm 10\%$	56-231
10.0	-----	4.60	-----	56-21

<u>$\sigma_{n,n'}$</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.29	$\pm .03$	0.0	-----	56-353
0.77	$\pm .002$	<0.1	-----	56-353
1.02	$\pm .003$	0.2	± 0.1	56-353
2.44	$\pm .40$	1.31	± 0.53	41-195
2.5	-----	1.7	± 0.3	56-34

<u>$\sigma_{n,2n}$</u>				
14.1	-----	2.74	± 0.20	58-7

<u>$\sigma_{n,xy}$</u>				
2.25	$\pm .15$	0.45	± 0.10	41-194
2.38	$\pm .15$	0.60	± 0.15	41-194
2.52	$\pm .15$	0.45	± 0.20	41-194
2.66	$\pm .15$	0.30	± 0.10	41-194
2.78	$\pm .15$	0.78	± 0.15	41-194
2.88	$\pm .15$	0.80	± 0.15	41-194
2.90	$\pm .15$	0.90	± 0.15	41-194
14.2	$\pm .2$	4.2	-----	53-294

σ_f

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.	$\pm .5$	≤ 0.0013	-----	49-126

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
14.	-----	5.35	$\pm 2\%$	52-332
14.12	$\pm .04$	5.40	± 0.11	52-81

 σ_{non}

1.0	$\pm .05$	0.2	± 0.2	54-103
-----	-----------	-----	-----------	--------

 $\sigma_{n,n'}$

0.72	$\pm .04$	0.0	$\pm 15\%$	58-11
0.76	$\pm .04$	0.030	$\pm 15\%$	58-11
0.82	$\pm .04$	0.060	$\pm 15\%$	58-11
0.88	$\pm .04$	0.100	$\pm 15\%$	58-11
0.94	$\pm .04$	0.120	$\pm 15\%$	58-11
0.99	$\pm .04$	0.180	$\pm 15\%$	58-11
1.07	$\pm .04$	0.220	$\pm 15\%$	58-11
1.12	$\pm .04$	0.300	$\pm 15\%$	58-11
1.16	$\pm .04$	0.330	$\pm 15\%$	58-11
1.21	$\pm .04$	0.400	$\pm 15\%$	58-11
1.27	$\pm .04$	0.330	$\pm 15\%$	58-11
1.33	$\pm .04$	0.370	$\pm 15\%$	58-11
1.39	$\pm .04$	0.430	$\pm 15\%$	58-11
1.43	$\pm .04$	0.470	$\pm 15\%$	58-11
1.53	$\pm .03$	0.440	$\pm 15\%$	58-11
1.58	$\pm .03$	0.435	$\pm 15\%$	58-11
1.64	$\pm .03$	0.440	$\pm 15\%$	58-11
1.70	$\pm .03$	0.480	$\pm 15\%$	58-11
1.76	$\pm .03$	0.490	$\pm 15\%$	58-11
1.80	$\pm .03$	0.525	$\pm 15\%$	58-11
1.87	$\pm .03$	0.560	$\pm 15\%$	58-11
1.91	$\pm .03$	0.645	$\pm 15\%$	58-11
2.00	$\pm .03$	0.650	$\pm 15\%$	58-11
2.12	$\pm .03$	0.685	$\pm 15\%$	58-11
2.22	$\pm .03$	0.680	$\pm 15\%$	58-11

$\sigma_{n, n'}$

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
2.27	$\pm .03$	0.690	$\pm 15\%$	58-11
2.32	$\pm .03$	0.685	$\pm 15\%$	58-11
2.37	$\pm .03$	0.725	$\pm 15\%$	58-11
2.43	$\pm .03$	0.810	$\pm 15\%$	58-11
2.48	$\pm .025$	0.820	$\pm 15\%$	58-11
2.53	$\pm .025$	0.780	$\pm 15\%$	58-11
2.59	$\pm .025$	0.915	$\pm 15\%$	58-11
2.64	$\pm .025$	0.855	$\pm 15\%$	58-11
2.74	$\pm .025$	1.075	$\pm 15\%$	58-11
2.84	$\pm .025$	1.095	$\pm 15\%$	58-11
2.95	$\pm .025$	1.085	$\pm 15\%$	58-11
3.05	$\pm .025$	1.235	$\pm 15\%$	58-11

 σ_f

0.14	$\pm .5$	$\leq 8.2 \times 10^{-5}$	-----	49-126
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$\sigma_{n,n'}$
 $^{207}_{82}\text{Pb}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.60	$\pm .015$	0.0	-----	55-118
1.70	$\pm .015$	0.005	$\pm 40\%$	55-118
1.80	$\pm .015$	0.010	$\pm 40\%$	55-118
1.90	$\pm .015$	0.018	$\pm 40\%$	55-118
2.00	$\pm .015$	0.030	$\pm 40\%$	55-118
2.10	$\pm .015$	0.035	$\pm 40\%$	55-118
2.20	$\pm .015$	0.040	$\pm 40\%$	55-118
2.40	$\pm .015$	0.075	$\pm 40\%$	55-118
2.60	$\pm .015$	0.090	$\pm 40\%$	55-118
2.80	$\pm .015$	0.115	$\pm 40\%$	55-118
3.00	$\pm .015$	0.175	$\pm 40\%$	55-118
3.20	$\pm .015$	0.210	$\pm 40\%$	55-118

σ_f				
14.	$\pm .5$	$\leq 8.6 \times 10^{-5}$	-----	49-126

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$\sigma_{n,p}$

$\underline{E_n \text{ (Mev)}}$	$\underline{\Delta E_n \text{ (Mev)}}$	$\underline{\sigma \text{ (Barns)}}$	$\underline{\Delta \sigma \text{ (Barns)}}$	$\underline{\text{Yr. Ref.}}$
14.5	-----	0.001	$\pm 100\%$	53-27

 $\underline{\sigma_f}$

14.	$\pm .5$	$\leq 3.7 \times 10^{-5}$	-----	49-126
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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.015	$\pm .011$	10.4	± 0.4	50-59
0.020	$\pm .011$	9.6	± 0.4	50-59
0.025	$\pm .011$	10.9	± 0.4	50-59
0.032	$\pm .011$	10.3	± 0.4	50-59
0.040	$\pm .011$	9.1	± 0.4	50-59
0.045	$\pm .011$	10.0	± 0.4	50-59
0.050	$\pm .011$	9.6	± 0.4	50-59
0.058	$\pm .011$	9.7	± 0.4	50-59
0.065	$\pm .011$	9.5	± 0.4	50-59
0.070	$\pm .011$	9.1	± 0.4	50-59
0.077	$\pm .011$	9.0	± 0.4	50-59
0.084	$\pm .011$	9.4	± 0.4	50-59
0.090	$\pm .011$	9.3	± 0.4	50-59
0.096	$\pm .011$	8.6	± 0.4	50-59
0.105	$\pm .011$	8.7	± 0.4	50-59
0.110	$\pm .011$	8.3	± 0.4	50-59
0.122	$\pm .011$	8.5	± 0.4	50-59
0.127	$\pm .011$	9.5	± 0.4	50-59
0.130	$\pm .005$	10.0	± 0.4	50-59
0.135	$\pm .005$	9.1	± 0.4	50-59
0.140	$\pm .005$	9.1	± 0.4	50-59
0.145	$\pm .005$	8.7	± 0.4	50-59
0.148	$\pm .005$	8.8	± 0.4	50-59
0.152	$\pm .005$	10.1	± 0.4	50-59
0.156	$\pm .005$	10.1	± 0.4	50-59
0.160	$\pm .005$	9.3	± 0.4	50-59
0.165	$\pm .005$	8.7	± 0.4	50-59
0.169	$\pm .005$	8.4	± 0.4	50-59
0.172	$\pm .005$	8.1	± 0.4	50-59
0.175	$\pm .005$	7.6	± 0.4	50-59
0.180	$\pm .005$	7.6	± 0.4	50-59
0.183	$\pm .005$	7.3	± 0.4	50-59
0.187	$\pm .005$	6.8	± 0.4	50-59

^{206}Pb - 88%)
 ^{207}Pb - 9%) Radio Lead
 ^{208}Pb - 3%)

UCRL-5226

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.190	$\pm .005$	7.3	± 0.4	50-59
0.195	$\pm .005$	6.9	± 0.4	50-59
0.198	$\pm .005$	6.8	± 0.4	50-59
0.201	$\pm .005$	6.4	± 0.4	50-59
0.205	$\pm .005$	5.2	± 0.4	50-59
0.210	$\pm .005$	6.8	± 0.4	50-59
0.216	$\pm .005$	8.4	± 0.4	50-59
0.220	$\pm .005$	6.8	± 0.4	50-59
0.223	$\pm .005$	6.7	± 0.4	50-59
0.227	$\pm .005$	7.6	± 0.4	50-59
0.230	$\pm .005$	8.2	± 0.4	50-59
0.235	$\pm .005$	8.8	± 0.4	50-59
0.238	$\pm .005$	8.3	± 0.4	50-59
0.240	$\pm .005$	8.0	± 0.4	50-59
0.243	$\pm .005$	7.7	± 0.4	50-59
0.248	$\pm .005$	7.0	± 0.4	50-59
0.250	$\pm .005$	6.8	± 0.4	50-59
0.253	$\pm .005$	6.1	± 0.4	50-59
0.257	$\pm .005$	5.3	± 0.4	50-59
0.260	$\pm .005$	7.0	± 0.4	50-59
0.265	$\pm .005$	7.5	± 0.4	50-59
0.270	$\pm .005$	7.3	± 0.4	50-59
0.272	$\pm .005$	7.8	± 0.4	50-59
0.277	$\pm .005$	7.2	± 0.4	50-59
0.279	$\pm .005$	7.3	± 0.4	50-59
0.282	$\pm .005$	7.1	± 0.4	50-59
0.287	$\pm .005$	6.8	± 0.4	50-59
0.290	$\pm .005$	7.0	± 0.4	50-59
0.292	$\pm .005$	6.0	± 0.4	50-59
0.293	$\pm .005$	6.0	± 0.4	50-59
0.296	$\pm .005$	6.0	± 0.4	50-59
0.299	$\pm .005$	5.7	± 0.4	50-59
0.304	$\pm .005$	5.9	± 0.4	50-59

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.310	$\pm .005$	5.4	± 0.4	50-59
0.320	$\pm .005$	4.5	± 0.4	50-59
0.324	$\pm .005$	4.6	± 0.4	50-59
0.328	$\pm .005$	3.7	± 0.4	50-59
0.330	$\pm .005$	3.9	± 0.4	50-59
0.334	$\pm .005$	3.1	± 0.4	50-59
0.336	$\pm .005$	3.1	± 0.4	50-59
0.339	$\pm .005$	3.6	± 0.4	50-59
0.342	$\pm .005$	3.2	± 0.4	50-59
0.347	$\pm .005$	4.5	± 0.4	50-59
0.352	$\pm .005$	6.0	± 0.4	50-59
0.356	$\pm .005$	7.6	± 0.4	50-59
0.360	$\pm .005$	6.8	± 0.4	50-59
0.361	$\pm .005$	7.3	± 0.4	50-59
0.363	$\pm .005$	7.0	± 0.4	50-59
0.365	$\pm .005$	7.3	± 0.4	50-59
0.370	$\pm .005$	7.2	± 0.4	50-59
0.371	$\pm .005$	7.0	± 0.4	50-59
0.373	$\pm .005$	6.4	± 0.4	50-59
0.374	$\pm .005$	6.7	± 0.4	50-59
0.376	$\pm .005$	6.2	± 0.4	50-59
0.378	$\pm .005$	5.7	± 0.4	50-59
0.380	$\pm .005$	4.0	± 0.4	50-59
0.382	$\pm .003$	3.9	± 0.4	50-59
0.383	$\pm .003$	2.3	± 0.4	50-59
0.385	$\pm .003$	2.5	± 0.4	50-59
0.386	$\pm .003$	4.9	± 0.4	50-59
0.387	$\pm .003$	6.2	± 0.4	50-59
0.388	$\pm .003$	7.3	± 0.4	50-59
0.390	$\pm .003$	7.5	± 0.4	50-59
0.391	$\pm .003$	6.5	± 0.4	50-59
0.393	$\pm .003$	6.7	± 0.4	50-59
0.394	$\pm .003$	4.0	± 0.4	50-59

^{206}Pb - 88%)
 ^{207}Pb - 9%) Radio Lead
 ^{208}Pb - 3%)

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.395	$\pm .003$	3.5	± 0.4	50-59
0.396	$\pm .003$	3.0	± 0.4	50-59
0.398	$\pm .003$	3.3	± 0.4	50-59
0.399	$\pm .003$	4.3	± 0.4	50-59
0.400	$\pm .003$	5.2	± 0.4	50-59
0.401	$\pm .003$	5.9	± 0.4	50-59
0.403	$\pm .003$	6.9	± 0.4	50-59
0.405	$\pm .003$	6.5	± 0.4	50-59
0.406	$\pm .003$	6.8	± 0.4	50-59
0.408	$\pm .003$	6.8	± 0.4	50-59
0.410	$\pm .003$	7.0	± 0.4	50-59
0.411	$\pm .003$	7.4	± 0.4	50-59
0.412	$\pm .003$	6.8	± 0.4	50-59
0.415	$\pm .003$	7.0	± 0.4	50-59
0.416	$\pm .003$	6.0	± 0.4	50-59
0.417	$\pm .003$	5.6	± 0.4	50-59
0.418	$\pm .003$	6.0	± 0.4	50-59
0.421	$\pm .003$	5.7	± 0.4	50-59
0.423	$\pm .003$	4.8	± 0.4	50-59
0.425	$\pm .003$	2.7	± 0.4	50-59
0.426	$\pm .003$	3.2	± 0.4	50-59
0.427	$\pm .003$	3.6	± 0.4	50-59
0.428	$\pm .003$	4.7	± 0.4	50-59
0.429	$\pm .003$	5.2	± 0.4	50-59
0.430	$\pm .005$	6.7	± 0.4	50-59
0.433	$\pm .005$	6.4	± 0.4	50-59
0.438	$\pm .005$	7.0	± 0.4	50-59
0.440	$\pm .005$	6.6	± 0.4	50-59
0.443	$\pm .005$	6.3	± 0.4	50-59
0.446	$\pm .005$	6.4	± 0.4	50-59
0.449	$\pm .005$	6.3	± 0.4	50-59
0.452	$\pm .005$	6.3	± 0.4	50-59
0.456	$\pm .005$	6.7	± 0.4	50-59

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.459	$\pm .005$	6.2	± 0.4	50-59
0.461	$\pm .005$	6.0	± 0.4	50-59
0.462	$\pm .005$	6.0	± 0.4	50-59
0.465	$\pm .005$	6.1	± 0.4	50-59
0.466	$\pm .005$	6.2	± 0.4	50-59
0.470	$\pm .005$	6.4	± 0.4	50-59
0.472	$\pm .005$	6.5	± 0.4	50-59
0.475	$\pm .005$	5.3	± 0.4	50-59
0.477	$\pm .005$	5.1	± 0.4	50-59
0.481	$\pm .005$	4.2	± 0.4	50-59
0.483	$\pm .005$	2.5	± 0.4	50-59
0.486	$\pm .005$	2.4	± 0.4	50-59
0.490	$\pm .005$	3.6	± 0.4	50-59
0.492	$\pm .005$	5.0	± 0.4	50-59
0.496	$\pm .005$	5.7	± 0.4	50-59
0.498	$\pm .005$	5.6	± 0.4	50-59
0.502	$\pm .005$	5.6	± 0.4	50-59
0.506	$\pm .005$	6.0	± 0.4	50-59
0.510	$\pm .005$	5.7	± 0.4	50-59
0.514	$\pm .005$	5.7	± 0.4	50-59
0.519	$\pm .005$	6.0	± 0.4	50-59
0.522	$\pm .005$	6.3	± 0.4	50-59
0.526	$\pm .005$	6.2	± 0.4	50-59
0.529	$\pm .005$	6.5	± 0.4	50-59
0.530	$\pm .005$	5.5	± 0.4	50-59
0.532	$\pm .005$	5.9	± 0.4	50-59
0.536	$\pm .005$	5.9	± 0.4	50-59
0.540	$\pm .005$	6.2	± 0.4	50-59
0.543	$\pm .005$	5.6	± 0.4	50-59
0.545	$\pm .005$	4.1	± 0.4	50-59
0.547	$\pm .005$	4.2	± 0.4	50-59
0.550	$\pm .005$	4.6	± 0.4	50-59
0.552	$\pm .005$	5.3	± 0.4	50-59

^{206}Pb - 88%)
 ^{207}Pb - 9%) Radio Lead
 ^{208}Pb - 3%)

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σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.556	$\pm .005$	5.4	± 0.4	50-59
0.561	$\pm .005$	5.7	± 0.4	50-59
0.565	$\pm .005$	5.8	± 0.4	50-59
0.569	$\pm .005$	7.0	± 0.4	50-59
0.571	$\pm .005$	6.7	± 0.4	50-59
0.577	$\pm .005$	5.9	± 0.4	50-59
0.578	$\pm .005$	6.3	± 0.4	50-59
0.580	$\pm .005$	5.8	± 0.4	50-59
0.581	$\pm .005$	5.8	± 0.4	50-59
0.583	$\pm .005$	5.7	± 0.4	50-59
0.587	$\pm .005$	5.5	± 0.4	50-59
0.590	$\pm .005$	5.5	± 0.4	50-59
0.593	$\pm .003$	5.5	± 0.4	50-59
0.595	$\pm .003$	5.6	± 0.4	50-59
0.597	$\pm .003$	5.4	± 0.4	50-59
0.598	$\pm .003$	5.8	± 0.4	50-59
0.600	$\pm .003$	5.3	± 0.4	50-59
0.603	$\pm .003$	5.6	± 0.4	50-59
0.609	$\pm .003$	5.2	± 0.4	50-59
0.610	$\pm .003$	6.0	± 0.4	50-59
0.611	$\pm .003$	6.3	± 0.4	50-59
0.612	$\pm .003$	6.5	± 0.4	50-59
0.613	$\pm .003$	6.6	± 0.4	50-59
0.615	$\pm .003$	6.8	± 0.4	50-59
0.616	$\pm .003$	6.2	± 0.4	50-59
0.617	$\pm .003$	7.1	± 0.4	50-59
0.619	$\pm .003$	6.3	± 0.4	50-59
0.620	$\pm .003$	6.0	± 0.4	50-59
0.621	$\pm .003$	5.3	± 0.4	50-59
0.622	$\pm .003$	4.0	± 0.4	50-59
0.623	$\pm .003$	3.5	± 0.4	50-59
0.624	$\pm .003$	3.9	± 0.4	50-59
0.625	$\pm .003$	4.0	± 0.4	50-59

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.626	$\pm .003$	5.0	± 0.4	50-59
0.627	$\pm .003$	5.2	± 0.4	50-59
0.628	$\pm .003$	5.8	± 0.4	50-59
0.629	$\pm .003$	5.7	± 0.4	50-59
0.630	$\pm .003$	5.9	± 0.4	50-59
0.631	$\pm .003$	5.9	± 0.4	50-59
0.632	$\pm .005$	6.2	± 0.4	50-59
0.634	$\pm .005$	5.8	± 0.4	50-59
0.638	$\pm .005$	5.5	± 0.4	50-59
0.641	$\pm .005$	5.5	± 0.4	50-59
0.643	$\pm .005$	6.5	± 0.4	50-59
0.647	$\pm .005$	7.5	± 0.4	50-59
0.650	$\pm .005$	6.4	± 0.4	50-59
0.652	$\pm .005$	5.5	± 0.4	50-59
0.655	$\pm .005$	5.8	± 0.4	50-59
0.662	$\pm .005$	5.4	± 0.4	50-59
0.665	$\pm .005$	5.6	± 0.4	50-59
0.669	$\pm .005$	5.5	± 0.4	50-59
0.671	$\pm .005$	5.5	± 0.4	50-59
0.675	$\pm .005$	5.3	± 0.4	50-59
0.678	$\pm .005$	5.4	± 0.4	50-59
0.681	$\pm .005$	4.8	± 0.4	50-59
0.684	$\pm .005$	5.2	± 0.4	50-59
0.686	$\pm .005$	5.6	± 0.4	50-59
0.689	$\pm .005$	5.5	± 0.4	50-59
0.691	$\pm .005$	6.5	± 0.4	50-59
0.696	$\pm .005$	6.2	± 0.4	50-59
0.699	$\pm .005$	6.4	± 0.4	50-59
0.700	$\pm .005$	6.3	± 0.4	50-59
0.705	$\pm .005$	5.4	± 0.4	50-59
0.710	$\pm .005$	5.1	± 0.4	50-59
0.715	$\pm .005$	5.8	± 0.4	50-59
0.719	$\pm .005$	5.7	± 0.4	50-59

^{82}Pb 206 - 88%)
 207 - 9%) Radio Lead
 208 - 3%)

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.721	$\pm .005$	5.0	± 0.4	50-59
0.723	$\pm .005$	4.7	± 0.4	50-59
0.726	$\pm .005$	5.1	± 0.4	50-59
0.729	$\pm .005$	5.8	± 0.4	50-59
0.732	$\pm .005$	6.3	± 0.4	50-59
0.736	$\pm .005$	5.4	± 0.4	50-59
0.739	$\pm .005$	5.2	± 0.4	50-59
1.00	$\pm .01$	4.8	± 0.2	52-80
1.15	$\pm .01$	5.3	± 0.2	52-80
1.30	$\pm .01$	5.0	± 0.2	52-80
1.45	$\pm .01$	4.7	± 0.2	52-80
1.60	$\pm .01$	4.7	± 0.2	52-80
1.68	$\pm .01$	5.5	± 0.2	52-80
1.75	$\pm .01$	6.5	± 0.2	52-80
1.85	$\pm .01$	5.4	± 0.2	52-80
1.90	$\pm .01$	4.9	± 0.2	52-80
2.05	$\pm .01$	6.0	± 0.2	52-80
2.25	$\pm .01$	5.9	± 0.2	52-80
2.45	$\pm .01$	6.7	± 0.2	52-80
2.65	$\pm .01$	6.4	± 0.2	52-80
2.83	$\pm .01$	6.0	± 0.2	52-80
3.02	$\pm .01$	6.8	± 0.2	52-80
3.21	$\pm .01$	6.7	± 0.2	52-80

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0010	$\pm .0005$	11.	± 1.5	56-142
0.0015	$\pm .0005$	15.	± 1.5	56-142
0.0017	$\pm .0001$	15.8	$\pm 20\%$	55-269
0.0018	$\pm .0001$	17.2	$\pm 20\%$	55-269
0.0018	$\pm .0001$	17.7	$\pm 20\%$	55-269
0.0019	$\pm .0001$	16.1	$\pm 20\%$	55-269
0.0020	$\pm .0001$	16.5	$\pm 20\%$	55-269
0.0020	$\pm .0001$	17.2	$\pm 20\%$	55-269
0.0020	$\pm .0005$	8.	± 1.5	56-142
0.00217	$\pm .00020$	16.6	-----	58-15
0.00219	$\pm .00020$	20.9	-----	58-15
0.0022	$\pm .0001$	22.3	$\pm 20\%$	55-269
0.00221	$\pm .00020$	29.0	-----	58-15
0.00223	$\pm .00020$	36.0	-----	58-15
0.00225	$\pm .00020$	49.0	-----	58-15
0.00228	$\pm .00020$	56.9	-----	58-15
0.0023	$\pm .0001$	24.2	$\pm 20\%$	55-269
0.00231	$\pm .00020$	48.2	-----	58-15
0.00234	$\pm .00020$	33.1	-----	58-15
0.00235	$\pm .00020$	27.0	-----	58-15
0.00238	$\pm .00020$	30.5	-----	58-15
0.0024	$\pm .0001$	26.0	$\pm 20\%$	55-269
0.00243	$\pm .00020$	18.5	-----	58-15
0.00245	$\pm .00020$	22.6	-----	58-15
0.00248	$\pm .00020$	16.3	-----	58-15
0.0025	$\pm .0001$	22.5	$\pm 20\%$	55-269
0.0025	$\pm .0005$	0.0	± 1.5	56-142
0.00250	$\pm .00020$	20.5	-----	58-15
0.00252	$\pm .00020$	17.0	-----	58-15
0.0026	$\pm .0001$	21.5	$\pm 20\%$	55-269
0.0027	$\pm .0001$	19.6	$\pm 20\%$	55-269
0.0028	$\pm .0001$	16.8	$\pm 20\%$	55-269

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.0029	$\pm .0001$	18.6	$\pm 20\%$	55-269
0.0030	$\pm .0001$	17.1	$\pm 20\%$	55-269
0.0030	$\pm .0001$	15.8	$\pm 20\%$	55-269
0.0030	$\pm .0005$	15.	± 1.5	56-142
0.0031	$\pm .0001$	12.7	$\pm 20\%$	55-269
0.0033	$\pm .0001$	16.4	$\pm 20\%$	55-269
0.0033	$\pm .0001$	13.8	$\pm 20\%$	55-269
0.0035	$\pm .0005$	12.	± 1.5	56-142
0.0036	$\pm .0001$	14.8	$\pm 20\%$	55-269
0.0036	$\pm .0001$	16.2	$\pm 20\%$	55-269
0.0039	$\pm .0001$	14.8	$\pm 20\%$	55-269
0.0040	$\pm .0005$	11.	± 1.5	56-142
0.0042	$\pm .0001$	16.2	$\pm 20\%$	55-269
0.0043	$\pm .0001$	16.9	$\pm 20\%$	55-269
0.0045	$\pm .0005$	10.	± 1.5	56-142
0.0046	$\pm .0001$	14.6	$\pm 20\%$	55-269
0.0049	$\pm .0001$	14.9	$\pm 20\%$	55-269
0.0055	$\pm .0005$	9.	± 1.5	56-142
0.0056	$\pm .0001$	14.5	$\pm 20\%$	55-269
0.0060	$\pm .0005$	11.	± 1.5	56-142
0.0070	$\pm .0005$	12.	± 1.5	56-142
0.0070	$\pm .0001$	13.8	$\pm 20\%$	55-269
0.0080	$\pm .0005$	9.	± 1.5	56-142
0.0090	$\pm .0005$	9.	± 1.5	56-142
0.010	$\pm .010$	13.6	± 1.2	48-48
0.0100	$\pm .0010$	8.	± 1.5	56-142
0.0107	$\pm .0001$	13.2	$\pm 20\%$	55-269
0.0109	$\pm .0001$	12.5	$\pm 20\%$	55-269
0.0110	$\pm .0001$	13.2	$\pm 20\%$	55-269
0.0110	$\pm .0010$	9.	± 1.5	56-142
0.0111	$\pm .0001$	15.9	$\pm 20\%$	55-269
0.0115	$\pm .0001$	13.2	$\pm 20\%$	55-269
0.0115	$\pm .0010$	10.	± 1.5	56-142
0.0117	$\pm .0001$	17.2	$\pm 20\%$	55-269

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0118	$\pm .0001$	26.2	$\pm 20\%$	55-269
0.0120	$\pm .0001$	32.0	$\pm 20\%$	55-269
0.0120	$\pm .0010$	15.	± 1.5	56-142
0.0122	$\pm .0001$	33.5	$\pm 20\%$	55-269
0.0124	$\pm .0001$	23.8	$\pm 20\%$	55-269
0.0125	$\pm .0001$	17.8	$\pm 20\%$	55-269
0.0125	$\pm .0010$	28.	± 1.5	56-142
0.0127	$\pm .0001$	16.1	$\pm 20\%$	55-269
0.0129	$\pm .0001$	15.0	$\pm 20\%$	55-269
0.0129	$\pm .0001$	12.9	$\pm 20\%$	55-269
0.0130	$\pm .0010$	32.	± 1.5	56-142
0.0132	$\pm .0001$	11.0	$\pm 20\%$	55-269
0.0135	$\pm .0010$	17.	± 1.5	56-142
0.0136	$\pm .0001$	12.0	$\pm 20\%$	55-269
0.0139	$\pm .0001$	12.2	$\pm 20\%$	55-269
0.0140	$\pm .0010$	13.	± 1.5	56-142
0.0142	$\pm .0001$	11.0	$\pm 20\%$	55-269
0.0143	$\pm .0001$	9.4	$\pm 20\%$	55-269
0.0144	$\pm .0001$	8.5	$\pm 20\%$	55-269
0.0145	$\pm .0010$	12.	± 1.5	56-142
0.0146	$\pm .0001$	7.8	$\pm 20\%$	55-269
0.0148	$\pm .0001$	12.5	$\pm 20\%$	55-269
0.0149	$\pm .0001$	16.5	$\pm 20\%$	55-269
0.015	$\pm .015$	12.5	± 1.2	48-48
0.0150	$\pm .0010$	16.	± 1.5	56-142
0.0152	$\pm .0001$	16.7	$\pm 20\%$	55-269
0.0155	$\pm .0001$	14.2	$\pm 20\%$	55-269
0.0155	$\pm .0010$	17.	± 1.5	56-142
0.0159	$\pm .0001$	12.2	$\pm 20\%$	55-269
0.0160	$\pm .0010$	19.	± 1.5	56-142
0.0162	$\pm .0001$	12.1	$\pm 20\%$	55-269
0.0165	$\pm .0010$	16.	± 1.5	56-142
0.0170	$\pm .0010$	13.	± 1.5	56-142

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.018	$\pm .018$	14.1	± 1.2	48-48
0.0180	$\pm .0010$	12.	± 1.5	56-142
0.0190	$\pm .0010$	11.	± 1.5	56-142
0.02	$\pm .01$	9.7	± 0.4	49-52
0.022	$\pm .020$	14.3	± 1.2	48-48
0.0220	$\pm .0020$	12.	± 1.5	56-142
0.024	$\pm .015$	12.1	$\pm 5\%$	47-46
0.0240	$\pm .0020$	11.	± 1.5	56-142
0.025	$\pm .020$	9.9	± 1.2	48-48
0.0260	$\pm .0020$	13.	± 1.5	56-142
0.0270	$\pm .0001$	7.5	$\pm 20\%$	55-269
0.0272	$\pm .0001$	11.0	$\pm 20\%$	55-269
0.0278	$\pm .0001$	11.7	$\pm 20\%$	55-269
0.0280	$\pm .0020$	11.	± 1.5	56-142
0.0282	$\pm .0001$	8.9	$\pm 20\%$	55-269
0.0286	$\pm .0001$	10.9	$\pm 20\%$	55-269
0.0290	$\pm .0001$	11.0	$\pm 20\%$	55-269
0.0293	$\pm .0001$	9.7	$\pm 20\%$	55-269
0.0298	$\pm .0001$	8.6	$\pm 20\%$	55-269
0.03	$\pm .01$	10.6	± 0.4	49-52
0.030	$\pm .020$	10.1	± 1.2	48-48
0.0300	$\pm .0020$	10.	± 1.5	56-142
0.0304	$\pm .0001$	9.9	$\pm 20\%$	55-269
0.0309	$\pm .0001$	8.2	$\pm 20\%$	55-269
0.0310	$\pm .0020$	10.	± 1.5	56-142
0.0312	$\pm .0001$	9.1	$\pm 20\%$	55-269
0.0318	$\pm .0001$	8.8	$\pm 20\%$	55-269
0.0320	$\pm .0020$	8.	± 1.5	56-142
0.0323	$\pm .0001$	11.2	$\pm 20\%$	55-269
0.0325	$\pm .0020$	7.	± 1.5	56-142
0.0328	$\pm .0001$	15.1	$\pm 20\%$	55-269
0.0330	$\pm .0020$	7.	± 1.5	56-142
0.0332	$\pm .0001$	17.0	$\pm 20\%$	55-269

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0335	$\pm .0020$	12.	± 1.5	56-142
0.0338	$\pm .0001$	14.9	$\pm 20\%$	55-269
0.0340	$\pm .0020$	16.	± 1.5	56-142
0.0343	$\pm .0001$	11.7	$\pm 20\%$	55-269
0.0348	$\pm .0001$	11.2	$\pm 20\%$	55-269
0.035	$\pm .020$	12.6	± 1.2	48-48
0.0350	$\pm .0020$	14.	± 1.5	56-142
0.0352	$\pm .0001$	9.0	$\pm 20\%$	55-269
0.0358	$\pm .0001$	11.8	$\pm 20\%$	55-269
0.0360	$\pm .0020$	13.	± 1.5	56-142
0.0363	$\pm .0001$	9.9	$\pm 20\%$	55-269
0.0370	$\pm .0020$	12.	± 1.5	56-142
0.0371	$\pm .0001$	11.0	$\pm 20\%$	55-269
0.0376	$\pm .0001$	11.5	$\pm 20\%$	55-269
0.038	$\pm .020$	12.2	± 1.2	48-48
0.0380	$\pm .0020$	11.	± 1.5	56-142
0.0383	$\pm .0001$	11.5	$\pm 20\%$	55-269
0.0390	$\pm .0020$	11.	± 1.5	56-142
0.04	$\pm .01$	11.4	± 0.4	49-52
0.0400	$\pm .0020$	10.	± 1.5	56-142
0.0410	$\pm .0020$	10.	± 1.5	56-142
0.0420	$\pm .0020$	10.	± 1.5	56-142
0.0430	$\pm .0020$	9.	± 1.5	56-142
0.0440	$\pm .0020$	8.	± 1.5	56-142
0.045	$\pm .020$	11.8	± 1.2	48-48
0.0450	$\pm .0020$	8.	± 1.5	56-142
0.0460	$\pm .0020$	9.	± 1.5	56-142
0.0470	$\pm .0020$	14.	± 1.5	56-142
0.0480	$\pm .0020$	10.	± 1.5	56-142
0.0490	$\pm .0020$	10.	± 1.5	56-142
0.05	$\pm .01$	10.7	± 0.4	49-52
0.0500	$\pm .0020$	10.	± 1.5	56-142
0.052	$\pm .020$	12.3	± 1.0	48-48

<u>σ_{tot}</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.0520	$\pm .0020$	10.	± 1.5	56-142
0.0540	$\pm .0020$	10.	± 1.5	56-142
0.0560	$\pm .0020$	9.	± 1.5	56-142
0.058	$\pm .020$	8.9	± 1.0	48-48
0.0580	$\pm .0020$	9.	± 1.5	56-142
0.06	$\pm .01$	10.5	± 0.4	49-52
0.0600	$\pm .0020$	8.	± 1.5	56-142
0.0620	$\pm .0020$	10.	± 1.5	56-142
0.063	$\pm .020$	8.8	± 1.0	48-48
0.0640	$\pm .0020$	9.	± 1.5	56-142
0.0660	$\pm .0020$	9.	± 1.5	56-142
0.0670	$\pm .0020$	9.	± 1.5	56-142
0.0680	$\pm .0020$	8.	± 1.5	56-142
0.0690	$\pm .0020$	7.	± 1.5	56-142
0.0695	$\pm .0020$	11.	± 1.5	56-142
0.07	$\pm .01$	9.4	± 0.4	49-52
0.070	$\pm .020$	10.9	± 1.0	48-48
0.0700	$\pm .0030$	13.	± 1.5	56-142
0.0710	$\pm .0030$	12.	± 1.5	56-142
0.072	$\pm .020$	8.5	± 1.0	48-48
0.0720	$\pm .0030$	10.	± 1.5	56-142
0.0740	$\pm .0030$	9.	± 1.5	56-142
0.0760	$\pm .0030$	9.	± 1.5	56-142
0.0780	$\pm .0030$	10.	± 1.5	56-142
0.08	$\pm .01$	9.3	± 0.4	49-52
0.080	$\pm .020$	10.0	± 1.0	48-48
0.0800	$\pm .0030$	12.	± 1.5	56-142
0.085	$\pm .020$	9.0	± 1.0	48-48
0.09	$\pm .01$	9.6	± 0.4	49-52
0.090	$\pm .020$	8.4	± 0.8	48-48
0.095	$\pm .020$	10.0	± 0.8	48-48
0.10	$\pm .01$	9.6	± 0.4	49-52
0.103	$\pm .020$	9.6	± 0.8	48-48

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.11	$\pm .01$	9.7	± 0.4	49-52
0.110	$\pm .020$	9.2	± 0.8	48-48
0.117	$\pm .020$	10.2	± 0.8	48-48
0.12	$\pm .01$	9.3	± 0.4	49-52
0.122	$\pm .020$	9.2	± 0.8	48-48
0.127	$\pm .020$	9.9	± 0.8	48-48
0.13	$\pm .02$	10.2	$\pm 5\%$	47-46
0.132	$\pm .020$	8.2	± 0.8	48-48
0.138	$\pm .020$	10.5	± 0.5	48-48
0.14	$\pm .04$	7.7	-----	39-282
0.14	$\pm .01$	8.8	± 0.4	49-52
0.14	$\pm .03$	9.7	$\pm 5\%$	47-46
0.145	$\pm .020$	9.9	± 0.5	48-48
0.15	$\pm .01$	9.2	± 0.4	49-52
0.16	$\pm .01$	8.6	± 0.4	49-52
0.165	$\pm .020$	8.1	± 0.5	48-48
0.17	$\pm .01$	7.6	± 0.4	49-52
0.18	$\pm .01$	8.1	± 0.4	49-52
0.180	$\pm .020$	8.1	± 0.5	48-48
0.19	$\pm .01$	8.0	± 0.4	49-52
0.196	$\pm .020$	9.2	± 0.5	48-48
0.21	$\pm .01$	8.7	± 0.4	49-52
0.214	$\pm .020$	9.4	± 0.5	48-48
0.22	$\pm .01$	7.8	± 0.4	49-52
0.22	$\pm .02$	8.0	$\pm 5\%$	47-46
0.229	$\pm .020$	8.2	± 0.5	48-48
0.23	$\pm .01$	7.7	± 0.4	49-52
0.24	$\pm .01$	7.8	± 0.4	49-52
0.243	$\pm .020$	7.0	± 0.5	48-48
0.25	$\pm .01$	7.8	± 0.4	49-52
0.26	$\pm .01$	7.0	± 0.4	49-52
0.260	$\pm .020$	7.6	± 0.5	48-48
0.27	$\pm .01$	7.5	± 0.4	49-52

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.275	$\pm .020$	6.0	± 0.5	48-48
0.28	$\pm .01$	7.0	± 0.4	49-52
0.29	$\pm .01$	6.7	± 0.4	49-52
0.290	$\pm .020$	6.6	± 0.5	48-48
0.30	$\pm .01$	7.0	± 0.4	49-52
0.304	$\pm .020$	7.9	± 0.5	48-48
0.31	$\pm .01$	7.5	± 0.4	49-52
0.32	$\pm .01$	7.2	± 0.4	49-52
0.321	$\pm .020$	7.5	± 0.5	48-48
0.33	$\pm .01$	6.7	± 0.4	49-52
0.332	$\pm .020$	6.8	± 0.5	48-48
0.34	$\pm .01$	7.2	± 0.4	49-52
0.348	$\pm .020$	8.8	± 0.5	48-48
0.35	$\pm .01$	7.1	± 0.4	49-52
0.36	$\pm .01$	7.5	± 0.4	49-52
0.362	$\pm .020$	8.1	± 0.5	48-48
0.37	$\pm .01$	7.4	± 0.4	49-52
0.378	$\pm .020$	7.1	± 0.5	48-48
0.38	$\pm .01$	7.2	± 0.4	49-52
0.39	$\pm .01$	6.8	± 0.4	49-52
0.391	$\pm .020$	7.0	± 0.5	48-48
0.40	$\pm .01$	6.7	± 0.4	49-52
0.407	$\pm .020$	6.6	± 0.5	48-48
0.41	$\pm .01$	7.1	± 0.4	49-52
0.42	$\pm .01$	7.1	± 0.4	49-52
0.421	$\pm .020$	6.9	± 0.5	48-48
0.43	$\pm .01$	6.7	± 0.4	49-52
0.433	$\pm .020$	6.8	± 0.5	48-48
0.44	$\pm .01$	7.0	± 0.4	49-52
0.447	$\pm .020$	6.9	± 0.5	48-48
0.45	$\pm .01$	6.9	± 0.4	49-52
0.46	$\pm .01$	6.4	± 0.4	49-52
0.462	$\pm .020$	6.9	± 0.5	48-48

σ tot

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.47	$\pm .01$	6.3	± 0.4	49-52
0.475	$\pm .020$	5.4	± 0.5	48-48
0.48	$\pm .01$	6.3	± 0.4	49-52
0.49	$\pm .01$	6.1	± 0.4	49-52
0.490	$\pm .020$	6.5	± 0.5	48-48
0.50	$\pm .01$	6.3	± 0.4	49-52
0.500	$\pm .020$	6.3	± 0.5	48-48
0.51	$\pm .01$	6.6	± 0.4	49-52
0.52	$\pm .01$	5.8	± 0.4	49-52
0.520	$\pm .150$	6.2	± 0.5	48-48
0.53	$\pm .01$	5.7	± 0.4	49-52
0.600	$\pm .150$	6.0	± 0.5	48-48
0.680	$\pm .150$	5.6	± 0.5	48-48
0.720	$\pm .150$	5.5	± 0.5	48-48
0.805	$\pm .150$	5.2	± 0.5	48-48
0.83	$\pm .04$	5.9	$\pm 5\%$	47-46
0.900	$\pm .150$	5.1	± 0.5	48-48
0.990	$\pm .150$	4.5	± 0.5	48-48
1.00	$\pm .01$	4.8	± 0.2	52-80
1.080	$\pm .150$	4.4	± 0.5	48-48
1.15	$\pm .01$	4.5	± 0.2	52-80
1.175	$\pm .150$	5.2	± 0.5	48-48
1.260	$\pm .150$	4.0	± 0.5	48-48
1.30	$\pm .01$	4.8	± 0.2	52-80
1.350	$\pm .150$	4.3	± 0.5	48-48
1.46	$\pm .01$	4.8	± 0.2	52-80
1.60	$\pm .01$	5.2	± 0.2	52-80
1.75	$\pm .01$	5.2	± 0.2	52-80
1.90	$\pm .01$	5.2	± 0.2	52-80
2.06	$\pm .01$	5.7	± 0.2	52-80
2.13	$\pm .15$	5.35	± 0.19	39-4
2.25	$\pm .01$	6.2	± 0.2	52-80
2.28	$\pm .15$	5.52	± 0.19	39-4

σ_{tot}				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
2.42	$\pm .15$	5.64	± 0.19	39-4
2.45	$\pm .01$	6.3	± 0.2	52-80
2.60	$\pm .15$	5.79	± 0.19	39-4
2.65	$\pm .01$	6.3	± 0.2	52-80
2.75	$\pm .15$	6.01	± 0.19	39-4
2.83	$\pm .01$	7.0	± 0.2	52-80
2.9	$\pm 10\%$	7.6	$\pm 10\%$	53-88
3.02	$\pm .01$	6.9	± 0.2	52-80
3.1	$\pm 10\%$	7.7	$\pm 10\%$	53-88
3.21	$\pm .01$	6.8	± 0.2	52-80
3.6	$\pm 10\%$	7.6	$\pm 10\%$	53-88
3.7	$\pm .1$	8.3	$\pm 15\%$	54-303
4.0	$\pm 10\%$	7.8	$\pm 10\%$	53-88
4.1	$\pm .04$	7.9	± 0.3	55-296
4.6	$\pm 10\%$	7.5	$\pm 10\%$	53-88
5.3	$\pm 10\%$	7.0	$\pm 10\%$	53-88
6.1	$\pm 10\%$	6.5	$\pm 10\%$	53-88
6.6	$\pm 10\%$	6.0	$\pm 10\%$	53-88
7.0	$\pm 10\%$	5.8	$\pm 10\%$	53-88
7.01	$\pm .17$	6.02	± 0.06	57-22
7.4	$\pm 10\%$	5.4	$\pm 10\%$	53-88
7.8	$\pm 10\%$	5.2	$\pm 10\%$	53-88
8.3	$\pm 10\%$	4.9	$\pm 10\%$	53-88
8.67	$\pm .15$	5.41	± 0.05	57-22
8.8	$\pm 10\%$	4.8	$\pm 10\%$	53-88
9.5	$\pm 10\%$	4.7	$\pm 10\%$	53-88
10.38	$\pm .11$	5.22	± 0.05	57-22
10.4	$\pm 14\%$	5.0	$\pm 10\%$	53-88
11.3	$\pm 14\%$	5.0	$\pm 10\%$	53-88
12.2	$\pm 14\%$	4.9	$\pm 10\%$	53-88
12.49	$\pm .09$	5.19	± 0.05	57-22
13.2	$\pm 14\%$	5.2	$\pm 10\%$	53-88
14.	-----	5.39	$\pm 2\%$	52-332

σ_{tot}

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
14.	-----	5.2	± 0.5	52-207
14.	-----	5.33	± 0.08	55-262
14.1	$\pm 14\%$	5.5	$\pm 10\%$	53-88
14.12	$\pm .05$	5.46	± 0.11	52-81
14.37	$\pm .07$	5.44	± 0.05	57-22

 σ_{non}

0.50	$\pm .06$	0.0	± 0.6	56-149
1.0	-----	0.12	± 0.03	55-122
1.00	$\pm .05$	0.1	± 0.1	54-103
1.00	$\pm .16$	0.12	± 0.04	55-115
1.77	$\pm .04$	0.40	± 0.04	56-151
2.50	$\pm .04$	0.75	± 0.06	56-151
3.25	$\pm .04$	1.33	± 0.07	56-151
3.5	-----	1.73	± 0.06	55-130
4.0	-----	2.21	± 0.15	54-329
4.0	-----	1.98	± 0.09	55-122
4.00	$\pm .07$	1.98	± 0.10	55-115
4.1	-----	2.2	± 0.3	55-296
4.5	-----	2.19	± 0.08	55-122
4.50	$\pm .07$	2.19	± 0.10	55-115
4.7	-----	2.38	± 0.14	56-151
7.0	$\pm .2$	2.66	± 0.07	55-130
7.1	-----	2.52	-----	56-21
7.2	$\pm .17$	2.42	± 0.06	57-24
8.4	$\pm .15$	2.57	± 0.05	57-24
9.5	$\pm .11$	2.58	± 0.05	57-24
10.	-----	2.52	-----	56-21
11.0	$\pm .09$	2.57	± 0.06	57-24
12.7	-----	2.47	± 0.14	55-130
12.8	$\pm .08$	2.51	± 0.08	57-24

σ_{non}

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
13.9	$\pm .07$	2.59	± 0.05	57-24
14.	$\pm 7\%$	2.4	± 0.4	57-162
14.	-----	2.56	± 0.05	50-334
14.1	-----	2.53	± 0.02	55-117
14.1	-----	2.50	± 0.07	55-130
14.1	-----	2.40	± 0.99	57-199
14.15	$\pm .05$	2.56	± 0.05	52-82
14.20	$\pm .04$	2.56	± 0.04	56-274
14.5	-----	2.59	± 0.03	56-200

 σ_{el}

10.	-----	2.23	-----	56-21
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 $\sigma_{\text{el}} + \text{in}$

0.030	-----	12.30	+ 10%	56-231
0.060	-----	10.55	$\pm 10\%$	56-231
0.135	$\pm .100$	9.35	$\pm 10\%$	56-231
0.228	$\pm .100$	8.10	$\pm 10\%$	56-231
0.330	$\pm .100$	6.95	$\pm 10\%$	56-231
0.396	$\pm .100$	7.30	$\pm 10\%$	56-231
0.475	$\pm .100$	6.42	$\pm 10\%$	56-231
0.50	$\pm .06$	6.3	$\pm 10\%$	56-149
0.558	$\pm .100$	6.08	$\pm 10\%$	56-231
0.640	$\pm .100$	5.81	$\pm 10\%$	56-231
0.725	$\pm .100$	5.40	$\pm 10\%$	56-231
0.804	$\pm .100$	5.10	$\pm 10\%$	56-231
0.882	$\pm .100$	4.80	$\pm 10\%$	56-231
0.970	$\pm .100$	5.00	$\pm 10\%$	56-231
1.044	$\pm .100$	4.80	$\pm 10\%$	56-231
1.128	$\pm .100$	4.68	$\pm 10\%$	56-231

<u>$\sigma_{\text{el}} + \text{in}$</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
1.210	$\pm .100$	4.15	$\pm 10\%$	56-231
1.290	$\pm .100$	4.15	$\pm 10\%$	56-231
1.368	$\pm .100$	4.18	$\pm 10\%$	56-231
10.0	-----	4.72	-----	56-21

<u>$\sigma_{n,n'}$</u>				
0.29	$\pm .03$	0.0	-----	56-353
0.77	$\pm .002$	0.0	-----	56-353
0.88	$\pm .02$	0.0	$\pm 15\%$	54-111
0.95	$\pm .02$	0.10	$\pm 15\%$	54-111
1.02	$\pm .003$	0.1	-----	56-353
1.02	$\pm .02$	0.15	$\pm 15\%$	54-111
1.10	$\pm .02$	0.20	$\pm 15\%$	54-111
1.17	$\pm .02$	0.22	$\pm 15\%$	54-111
1.24	$\pm .02$	0.25	$\pm 15\%$	54-111
1.33	$\pm .02$	0.30	$\pm 15\%$	54-111
1.39	$\pm .02$	0.31	$\pm 15\%$	54-111
1.48	$\pm .02$	0.35	$\pm 15\%$	54-111
1.57	$\pm .02$	0.37	$\pm 15\%$	54-111
1.64	$\pm .02$	0.39	$\pm 15\%$	54-111
1.73	$\pm .02$	0.50	$\pm 15\%$	54-111
1.81	$\pm .02$	0.53	$\pm 15\%$	54-111
1.90	$\pm .02$	0.60	$\pm 15\%$	54-111
1.99	$\pm .02$	0.68	$\pm 15\%$	54-111
2.10	$\pm .02$	0.76	$\pm 15\%$	54-111
2.18	$\pm .02$	0.79	$\pm 15\%$	54-111

		<u>$\sigma_{n, n'}$</u>		
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
2.26	$\pm .02$	0.80	$\pm 15\%$	54-111
2.37	$\pm .02$	0.84	$\pm 15\%$	54-111
2.45	$\pm .02$	0.96	$\pm 15\%$	54-111
2.5	-----	0.7	± 0.3	56-34
2.54	$\pm .02$	1.08	$\pm 15\%$	54-111
2.56	$\pm .03$	0.791	± 0.075	56-140
2.63	$\pm .02$	1.10	$\pm 15\%$	54-111
2.75	$\pm .02$	1.12	$\pm 15\%$	54-111
14.	$\pm 7\%$	0.17	± 0.03	57-162

<u>$\sigma_{n, 2n}$</u>				
14.	$\pm 7\%$	2.3	± 0.3	57-162
14.1	-----	2.60	± 0.19	58-7
14.2	-----	1.82	$\pm 10\%$	57-8

<u>$\sigma_{n, 3n}$</u>				
14.	$\pm 7\%$	0.0	-----	57-336

<u>$\sigma_{n, \alpha}$</u>				
14.5	-----	0.001	$\pm 85\%$	53-27

<u>$\sigma_{n, \gamma}$</u>				
0.025	$\pm .005$	0.0014	± 0.0006	57-275
0.025	$\pm .005$	0.0018	± 0.0007	57-23

<u>$\sigma_{n, x\gamma}$</u>				
3.2	$\pm .2$	2.59	$\pm 20\%$	54-113

E_n (Mev)	ΔE_n (Mev)	σ_f σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
14.	$\pm .5$	$\leq 1.4 \times 10^{-5}$	-----	49-126

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σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
2.0	$\pm .3$	0.00046	$\pm 25\%$	58-346
2.5	$\pm .2$	0.00048	$\pm 25\%$	58-346
4.5	$\pm .3$	0.0020	$\pm 25\%$	58-346
7.3	$\pm .8$	0.0030	$\pm 25\%$	58-346
7.7	$\pm .5$	0.0019	$\pm 25\%$	58-346
10.6	$\pm .4$	0.0050	$\pm 25\%$	58-346
13.6	-----	0.0120	$\pm 25\%$	58-346
14.1	-----	0.0120	$\pm 25\%$	58-346

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.001	-----	12.5	± 0.2	51-242
0.00115	-----	~15.	-----	53-6
0.0012	$\pm .0001$	13.	-----	53-266
0.0014	$\pm .0001$	13.	-----	53-266
0.0017	$\pm .0001$	13.	-----	53-266
0.0021	$\pm .0001$	15.	-----	53-266
0.0028	$\pm .0001$	14.	-----	53-266
0.0032	$\pm .0001$	13.	-----	53-266
0.0038	$\pm .0001$	15.	-----	53-266
0.0054	$\pm .0001$	13.	-----	53-266
0.007	-----	12.2	± 0.2	51-242
0.0088	$\pm .0001$	14.	-----	53-266
0.10	$\pm .025$	11.4	-----	53-90
0.160	-----	11.5	-----	53-6
0.20	$\pm .025$	10.7	-----	53-90
0.30	$\pm .025$	10.0	-----	53-90
0.40	$\pm .025$	8.9	-----	53-90
0.50	$\pm .025$	8.3	-----	53-90
0.60	$\pm .025$	8.6	-----	53-90
0.80	$\pm .025$	7.2	-----	53-90
1.0	$\pm .05$	7.0	-----	53-90
1.2	$\pm .05$	6.8	-----	53-90
1.4	$\pm .05$	6.7	-----	53-90
1.7	$\pm .05$	6.9	-----	53-90
1.8	$\pm .05$	6.9	-----	53-90
2.0	$\pm .05$	7.0	-----	53-90
2.2	$\pm .05$	7.0	-----	53-90
2.4	$\pm .05$	7.3	-----	53-90
2.6	$\pm .05$	7.0	-----	53-90
2.8	$\pm .05$	7.3	-----	53-90
3.0	$\pm .05$	7.5	-----	53-90
14.12	$\pm .05$	5.69	± 0.11	52-81

σ_{non}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.0	$\pm .05$	1.8	± 0.8	54-103

 $\sigma_{\text{el} + \text{in}}$

0.060	-----	12.50	$\pm 10\%$	56-231
0.135	$\pm .100$	11.45	$\pm 10\%$	56-231
0.135	$\pm .100$	11.75	$\pm 10\%$	56-231
0.228	$\pm .100$	10.10	$\pm 10\%$	56-231
0.228	$\pm .100$	10.20	$\pm 10\%$	56-231
0.330	$\pm .100$	8.90	$\pm 10\%$	56-231
0.396	$\pm .100$	8.80	$\pm 10\%$	56-231
0.396	$\pm .100$	9.00	$\pm 10\%$	56-231
0.396	$\pm .100$	9.90	$\pm 10\%$	56-231
0.475	$\pm .100$	8.00	$\pm 10\%$	56-231
0.558	$\pm .100$	7.40	$\pm 10\%$	56-231
0.645	$\pm .100$	7.00	$\pm 10\%$	56-231
0.645	$\pm .100$	7.25	$\pm 10\%$	56-231
0.725	$\pm .100$	6.80	$\pm 10\%$	56-231
0.725	$\pm .100$	6.95	$\pm 10\%$	56-231
0.804	$\pm .100$	6.50	$\pm 10\%$	56-231
0.804	$\pm .100$	6.90	$\pm 10\%$	56-231
0.888	$\pm .100$	6.35	$\pm 10\%$	56-231
0.970	$\pm .100$	6.40	$\pm 10\%$	56-231
1.044	$\pm .100$	6.00	$\pm 10\%$	56-231
1.044	$\pm .100$	6.30	$\pm 10\%$	56-231
1.128	$\pm .100$	5.85	$\pm 10\%$	56-231
1.210	$\pm .100$	5.65	$\pm 10\%$	56-231
1.290	$\pm .100$	5.90	$\pm 10\%$	56-231
1.368	$\pm .100$	6.20	$\pm 10\%$	56-231

$\sigma_{n,n'}$

(For Excitation of Levels at .715, .790, 1.035, 1.106 Mev)

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.71	$\pm .06$	0.0	$\pm 15\%$	58-11
0.75	$\pm .06$	0.165	$\pm 15\%$	58-11
0.81	$\pm .06$	0.320	$\pm 15\%$	58-11
0.92	$\pm .06$	0.525	$\pm 15\%$	58-11
0.96	$\pm .06$	0.675	$\pm 15\%$	58-11
1.00	$\pm .05$	0.795	$\pm 15\%$	58-11
1.08	$\pm .05$	1.260	$\pm 15\%$	58-11
1.10	$\pm .05$	1.445	$\pm 15\%$	58-11
1.22	$\pm .05$	1.800	$\pm 15\%$	58-11
1.25	$\pm .05$	2.005	$\pm 15\%$	58-11
1.38	$\pm .05$	1.780	$\pm 15\%$	58-11
1.50	$\pm .04$	2.020	$\pm 15\%$	58-11
1.61	$\pm .04$	1.800	$\pm 15\%$	58-11

 $\sigma_{n,2n}$

7.5	-----	0.69	-----	58-17
8.5	-----	1.55	-----	58-17

 $\sigma_{n,\gamma}$

0.003	$\pm .003$	0.958	-----	46-313
0.016	$\pm .010$	0.568	-----	46-313
0.017	-----	0.58	± 0.03	57-236
0.025	$\pm .005$	0.500	± 0.100	57-272
0.033	-----	0.57	± 0.03	57-236
0.033	$\pm .025$	0.574	-----	46-313
0.067	-----	0.41	± 0.03	57-236
0.067	$\pm .025$	0.414	-----	46-313
0.10	-----	0.48	± 0.03	57-236
0.10	-----	0.35	± 0.03	57-236
0.13	-----	0.30	± 0.03	57-236
0.16	-----	0.25	± 0.03	57-236
0.16	-----	0.27	± 0.03	57-236

$\sigma_{n,\gamma}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.18	-----	0.23	± 0.03	57-236
0.195	$\pm .025$	0.278	-----	46-313
0.20	-----	0.19	± 0.03	57-236
0.23	-----	0.20	± 0.03	57-236
0.26	-----	0.23	± 0.03	57-236
0.30	-----	0.18	± 0.03	57-236
0.30	-----	0.22	± 0.03	57-236
0.35	-----	0.17	± 0.03	57-236
0.390	$\pm .025$	0.167	-----	46-313
0.40	-----	0.18	± 0.03	57-236
0.44	-----	0.195	± 0.03	57-236
0.46	-----	0.190	± 0.03	57-236
0.50	-----	0.17	± 0.03	57-236
0.58	-----	0.19	± 0.03	57-236
0.61	-----	0.19	± 0.03	57-236
0.63	-----	0.19	± 0.03	57-236
0.72	-----	0.091	± 0.03	57-236
0.96	-----	0.065	± 0.03	57-236
1.3	-----	0.063	± 0.03	57-236

 σ_f

1.10	$\pm .05$	0.0	-----	49-43
2.40	$\pm .11$	0.10	± 0.025	39-191
3.4	-----	0.17	-----	46-239
4.8	-----	0.17	-----	46-239
5.85	-----	0.17	-----	46-239

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.43	$\pm 2\%$	0.07	± 0.02	44-240
0.47	$\pm 2\%$	0.09	± 0.025	44-240
0.53	$\pm 1\%$	0.28	± 0.02	44-240
0.58	$\pm 1\%$	0.50	± 0.02	44-240
0.63	$\pm 1\%$	0.525	± 0.02	44-240
0.68	$\pm 1\%$	0.51	± 0.02	44-240
0.73	$\pm 1\%$	0.525	± 0.02	44-240
0.77	$\pm 1\%$	0.57	± 0.02	44-240
0.88	$\pm 1\%$	0.90	± 0.03	44-240
0.97	$\pm 1\%$	0.85	± 0.03	44-240
1.08	$\pm 1\%$	0.90	± 0.04	44-240
1.37	$\pm 1\%$	1.08	± 0.03	44-240
1.78	$\pm 1\%$	1.105	± 0.035	44-240
2.50	$\pm 1\%$	1.21	± 0.04	44-240
3.0	$\pm 1\%$	1.23	± 0.04	44-240

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σ_f

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.0010	$\pm .0001$	13.	$\pm 2.$	57-255
0.0034	$\pm .0032$	7.8	$\pm 5\%$	55-269
0.0050	$\pm .0050$	6.81	$\pm 5.2\%$	56-152
0.0100	$\pm .0057$	5.14	$\pm 5.2\%$	56-152
0.0128	$\pm .0055$	4.9	$\pm 5\%$	55-269
0.0260	$\pm .0038$	3.3	$\pm 5\%$	55-269
0.03	-----	3.06	± 0.16	57-198
0.03	-----	4.0	± 0.12	57-218
0.03	-----	4.54	± 0.08	44-312
0.0333	$\pm .0043$	3.1	$\pm 5\%$	55-269
0.0396	$\pm .0033$	3.0	$\pm 5\%$	55-269
0.0491	$\pm .0035$	2.9	$\pm 5\%$	55-269
0.06	-----	3.18	± 0.10	57-218
0.600	$\pm .0061$	2.8	$\pm 5\%$	55-269
0.0718	$\pm .0046$	2.7	$\pm 5\%$	55-269
0.08	-----	2.91	± 0.09	57-218
0.0960	$\pm .0062$	2.4	$\pm 5\%$	55-269
0.100	$\pm .0057$	2.37	$\pm 5.2\%$	56-152
0.1145	$\pm .0053$	2.4	$\pm 5\%$	55-269
0.12	-----	2.28	± 0.05	57-218
0.1285	$\pm .0056$	2.4	$\pm 5\%$	55-269
0.14	-----	3.47	± 0.08	44-312
0.15	-----	2.35	± 0.07	57-218
0.1519	$\pm .0062$	2.4	$\pm 5\%$	55-269
0.17	-----	3.43	± 0.08	44-312
0.175	-----	2.19	± 0.02	57-218
0.19	-----	3.18	± 0.08	44-312
0.20	-----	2.30	± 0.07	57-218
0.22	-----	2.26	± 0.03	57-218
0.24	-----	2.17	-----	57-218
0.24	-----	3.14	± 0.08	44-312
0.25	-----	2.11	± 0.13	57-198
0.25	-----	2.28	-----	57-18

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.26	-----	2.38	-----	57-18
0.275	-----	2.26	± 0.02	57-218
0.29	-----	3.13	± 0.08	44-312
0.30	-----	2.30	± 0.07	57-218
0.33	-----	2.27	-----	57-218
0.35	-----	2.32	± 0.02	57-218
0.37	-----	2.28	-----	57-18
0.38	-----	2.32	-----	57-18
0.39	-----	2.85	± 0.08	44-312
0.40	-----	2.22	± 0.04	57-218
0.445	-----	2.15	± 0.02	57-218
0.47	-----	2.18	-----	57-18
0.48	-----	2.03	-----	57-218
0.49	-----	2.70	± 0.08	44-312
0.50	-----	2.06	± 0.03	57-218
0.500	$\pm .018$	2.12	$\pm 5.2\%$	56-152
0.52	-----	2.13	-----	57-18
0.54	-----	2.03	-----	57-18
0.55	-----	2.00	± 0.02	57-218
0.58	-----	2.56	± 0.08	44-312
0.59	-----	2.00	-----	57-18
0.62	-----	3.03	-----	57-18
0.65	-----	1.95	± 0.02	57-218
0.67	-----	2.03	-----	57-18
0.68	-----	2.50	± 0.08	44-312
0.69	-----	1.97	-----	57-18
0.74	-----	1.93	-----	57-18
0.78	-----	2.54	± 0.08	44-312
0.80	-----	1.93	-----	57-18
0.88	-----	2.37	± 0.08	44-312
0.90	-----	1.83	± 0.11	57-198
0.91	-----	1.90	-----	57-18
0.93	-----	1.93	-----	57-18

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.98	-----	2.23	± 0.08	44-312
1.00	-----	1.92	-----	57-18
1.00	-----	1.90	± 0.02	57-218
1.000	$\pm .061$	1.99	$\pm 5.2\%$	56-152
1.08	-----	2.25	± 0.08	44-312
1.12	-----	1.98	-----	57-18
1.18	-----	2.19	± 0.08	44-312
1.23	-----	1.97	-----	57-18
1.28	-----	2.18	± 0.08	44-312
1.32	-----	1.95	-----	57-18
1.38	-----	2.24	± 0.08	44-312
1.40	-----	1.88	-----	57-18
1.48	-----	2.20	± 0.08	44-312
1.50	-----	1.91	± 0.02	57-218
1.500	$\pm .061$	1.99	$\pm 5.2\%$	56-152
1.58	-----	2.12	± 0.08	44-312
1.68	-----	2.12	± 0.08	44-312
1.78	-----	2.19	± 0.08	44-312
1.80	-----	1.91	± 0.04	57-218
1.88	-----	2.06	± 0.08	44-312
1.96	-----	2.19	± 0.08	44-312
2.0	-----	1.86	± 0.11	57-198
2.00	-----	1.99	$\pm 5\%$	58-352
2.00	-----	1.90	± 0.04	57-218
2.000	$\pm .061$	2.03	$\pm 5.2\%$	56-152
2.50	-----	1.99	$\pm 5\%$	58-352
2.50	-----	1.82	± 0.05	57-218
2.500	$\pm .061$	2.02	$\pm 5.2\%$	56-152
3.00	-----	1.81	$\pm 5\%$	58-352
3.00	-----	1.65	± 0.05	57-218
3.00	-----	2.06	± 0.08	44-312
3.00	-----	1.80	-----	57-18
3.000	$\pm .061$	1.99	$\pm 5.2\%$	56-152

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
3.4	-----	1.84	-----	46-239
3.45	-----	1.75	-----	57-18
3.50	-----	1.81	$\pm 5\%$	58-352
3.95	-----	1.70	-----	57-18
4.00	-----	1.65	$\pm 5\%$	58-352
4.45	-----	1.62	-----	57-18
4.50	-----	1.62	$\pm 5\%$	58-352
4.8	-----	1.79	-----	46-239
4.95	-----	1.58	-----	57-18
5.0	-----	1.96	± 0.12	57-198
5.00	-----	1.57	$\pm 5\%$	58-352
5.38	-----	1.54	-----	57-18
5.50	-----	1.53	$\pm 5\%$	58-352
5.85	-----	1.77	-----	46-239
5.95	-----	1.72	-----	57-18
6.00	-----	1.71	$\pm 5\%$	58-352
6.25	-----	1.78	$\pm 5\%$	58-352
6.40	-----	1.94	-----	57-18
6.50	-----	1.93	$\pm 5\%$	58-352
6.75	-----	2.00	$\pm 5\%$	58-352
6.90	-----	2.11	-----	57-18
7.00	-----	2.10	$\pm 5\%$	58-352
7.25	-----	2.19	-----	57-18
7.50	-----	2.20	$\pm 5\%$	58-352
7.95	-----	2.12	-----	57-18
8.00	-----	2.19	$\pm 5\%$	58-352
8.50	-----	2.29	$\pm 5\%$	58-352
8.50	-----	2.28	-----	57-18
9.00	-----	2.30	-----	57-18
9.00	-----	2.22	$\pm 5\%$	58-352
9.50	-----	2.21	$\pm 5\%$	58-352
9.60	-----	2.27	-----	57-18
10.00	-----	2.22	$\pm 5\%$	58-352
10.05	-----	2.26	-----	57-18

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.050	$\pm .050$	0.014	$\pm 10\%$	58-293
0.136	$\pm .028$	0.033	$\pm 8.7\%$	58-293
0.163	$\pm .028$	0.038	$\pm 7.7\%$	58-293
0.186	$\pm .028$	0.044	$\pm 6.8\%$	58-293
0.211	$\pm .028$	0.048	$\pm 6.2\%$	58-293
0.235	$\pm .028$	0.057	$\pm 5.3\%$	58-293
0.258	$\pm .028$	0.065	$\pm 4.6\%$	58-293
0.280	$\pm .028$	0.092	$\pm 2.5\%$	58-293
0.29	$\pm .03$	0.003	$\pm 50\%$	55-132
0.302	$\pm .028$	0.135	1.9%	58-293
0.32	$\pm .03$	0.025	$\pm 25\%$	55-132
0.325	$\pm .028$	0.157	$\pm 1.8\%$	58-293
0.348	$\pm .028$	0.152	$\pm 1.8\%$	58-293
0.36	$\pm .03$	0.096	$\pm 12\%$	55-132
0.369	$\pm .028$	0.183	$\pm 1.6\%$	58-293
0.390	$\pm .027$	0.228	$\pm 1.4\%$	58-293
0.40	$\pm .03$	0.16	$\pm 13.5\%$	55-132
0.412	$\pm .027$	0.271	$\pm 1.3\%$	58-293
0.43	$\pm .03$	0.18	$\pm 10\%$	55-132
0.433	$\pm .027$	0.330	$\pm 1.1\%$	58-293
0.455	$\pm .027$	0.405	$\pm 1.1\%$	58-293
0.47	$\pm .03$	0.29	$\pm 6\%$	55-132
0.476	$\pm .027$	0.452	$\pm 1.0\%$	58-293
0.487	$\pm .027$	0.470	$\pm 1.3\%$	58-293
0.49	$\pm .03$	0.35	$\pm 6\%$	55-132
0.498	$\pm .027$	0.522	$\pm 0.9\%$	58-293
0.501	$\pm .042$	0.486	$\pm 1.4\%$	58-293
0.509	$\pm .027$	0.553	$\pm 1.3\%$	58-293
0.520	$\pm .027$	0.617	$\pm 1.9\%$	58-293
0.53	$\pm .03$	0.45	$\pm 6\%$	55-132
0.531	$\pm .027$	0.642	$\pm 1.2\%$	58-293
0.542	$\pm .027$	0.694	$\pm 0.9\%$	58-293
0.55	$\pm .03$	0.54	$\pm 6\%$	55-132

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.553	$\pm .027$	0.693	$\pm 1.2\%$	58-293
0.563	$\pm .027$	0.714	$\pm 0.8\%$	58-293
0.565	$\pm .061$	0.652	$\pm 1.2\%$	58-293
0.57	$\pm .03$	0.58	$\pm 6\%$	55-132
0.574	$\pm .027$	0.718	$\pm 1.1\%$	58-293
0.583	$\pm .061$	0.682	$\pm 1.2\%$	58-293
0.584	$\pm .027$	0.742	$\pm 0.8\%$	58-293
0.595	$\pm .027$	0.755	$\pm 1.1\%$	58-293
0.60	$\pm .03$	0.67	$\pm 6\%$	55-132
0.600	$\pm .062$	0.716	$\pm 1.2\%$	58-293
0.604	$\pm .043$	0.726	$\pm 1.1\%$	58-293
0.606	$\pm .027$	0.766	$\pm 1.1\%$	58-293
0.617	$\pm .063$	0.749	$\pm 1.1\%$	58-293
0.637	$\pm .063$	0.785	$\pm 1.1\%$	58-293
0.64	$\pm .03$	0.72	$\pm 6\%$	55-132
0.655	$\pm .043$	0.860	$\pm 1.1\%$	58-293
0.656	$\pm .064$	0.856	$\pm 1.1\%$	58-293
0.67	$\pm .03$	0.80	$\pm 6\%$	55-132
0.675	$\pm .064$	0.890	$\pm 1.1\%$	58-293
0.692	$\pm .065$	0.965	$\pm 1.0\%$	58-293
0.70	$\pm .03$	0.88	$\pm 6\%$	55-132
0.706	$\pm .044$	0.974	$\pm 1.0\%$	58-293
0.711	$\pm .065$	0.970	$\pm 1.0\%$	58-293
0.72	$\pm .03$	0.97	$\pm 6\%$	55-132
0.730	$\pm .065$	1.06	$\pm 1.0\%$	58-293
0.74	$\pm .03$	0.99	$\pm 6\%$	55-132
0.750	$\pm .063$	1.10	$\pm 0.7\%$	58-293
0.756	$\pm .044$	1.20	$\pm 1.0\%$	58-293
0.77	$\pm .03$	1.12	$\pm 6\%$	55-132
0.773	$\pm .060$	1.19	$\pm 0.6\%$	58-293
0.790	$\pm .064$	1.23	$\pm 1.0\%$	58-293
0.81	$\pm .03$	1.22	$\pm 6\%$	55-132
0.810	$\pm .051$	1.25	$\pm 0.7\%$	58-293

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.830	$\pm .063$	1.26	$\pm 1.0\%$	58-293
0.848	$\pm .051$	1.25	$\pm 0.7\%$	58-293
0.85	$\pm .03$	1.24	$\pm 6\%$	55-132
0.868	$\pm .062$	1.26	$\pm 1.0\%$	58-293
0.888	$\pm .050$	1.24	$\pm 1.0\%$	58-293
0.89	$\pm .03$	1.20	$\pm 6\%$	55-132
0.907	$\pm .061$	1.20	$\pm 1.0\%$	58-293
0.925	$\pm .049$	1.18	$\pm 1.0\%$	58-293
0.94	$\pm .03$	1.19	$\pm 6\%$	55-132
0.945	$\pm .060$	1.19	$\pm 1.0\%$	58-293
0.965	$\pm .048$	1.17	$\pm 1.0\%$	58-293
0.98	$\pm .03$	1.17	$\pm 6\%$	55-132
0.986	$\pm .060$	1.13	$\pm 1.0\%$	58-293
1.003	$\pm .053$	1.15	$\pm 1.0\%$	58-293
1.02	$\pm .03$	1.11	$\pm 6\%$	55-132
1.025	$\pm .059$	1.11	$\pm 1.0\%$	58-293
1.041	$\pm .053$	1.12	$\pm 1.0\%$	58-293
1.066	$\pm .059$	1.15	$\pm 1.0\%$	58-293
1.07	$\pm .03$	1.08	$\pm 6\%$	55-132
1.083	$\pm .051$	1.18	$\pm 1.0\%$	58-293
1.105	$\pm .058$	1.20	$\pm 1.0\%$	58-293
1.12	$\pm .03$	1.11	$\pm 6\%$	55-132
1.127	$\pm .052$	1.22	$\pm 1.0\%$	58-293
1.14	$\pm .03$	1.16	$\pm 6\%$	55-132
1.147	$\pm .057$	1.23	$\pm 1.0\%$	58-293
1.16	$\pm .03$	1.23	$\pm 6\%$	55-132
1.169	$\pm .064$	1.22	$\pm 1.0\%$	58-293
1.188	$\pm .057$	1.23	$\pm 1.0\%$	58-293
1.20	$\pm .03$	1.23	$\pm 6\%$	55-132
1.206	$\pm .063$	1.24	$\pm 1.0\%$	58-293
1.224	$\pm .062$	1.23	$\pm 1.0\%$	58-293
1.246	$\pm .063$	1.22	$\pm 1.0\%$	58-293
1.25	$\pm .03$	1.18	$\pm 6\%$	55-132

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
1.265	$\pm .061$	1.25	$\pm 1.0\%$	58-293
1.286	$\pm .064$	1.25	$\pm 0.8\%$	58-293
1.29	$\pm .03$	1.23	$\pm 6\%$	55-132
1.304	$\pm .061$	1.24	$\pm 1.0\%$	58-293
1.326	$\pm .065$	1.27	$\pm 1.0\%$	58-293
1.34	$\pm .03$	1.21	$\pm 6\%$	55-132
1.348	$\pm .061$	1.28	$\pm 1.0\%$	58-293
1.369	$\pm .065$	1.27	$\pm 1.0\%$	58-293
1.38	$\pm .03$	1.25	$\pm 6\%$	55-132
1.390	$\pm .060$	1.28	$\pm 1.0\%$	58-293
1.411	$\pm .064$	1.29	$\pm 1.0\%$	58-293
1.43	$\pm .03$	1.27	$\pm 6\%$	55-132
1.430	$\pm .063$	1.31	$\pm 2.1\%$	58-293
1.45	$\pm .03$	1.27	$\pm 6\%$	55-132
1.451	$\pm .090$	1.31	$\pm 0.36\%$	58-293
1.48	$\pm .03$	1.28	$\pm 6\%$	55-132
1.485	$\pm .064$	1.32	$\pm 2.8\%$	58-293
1.493	$\pm .064$	1.33	$\pm 1.0\%$	58-293
1.516	$\pm .060$	1.33	$\pm 1\%$	58-293
1.52	$\pm .03$	1.35	$\pm 6\%$	55-132
1.524	$\pm .064$	1.40	$\pm 2.0\%$	58-293
1.535	$\pm .065$	1.36	$\pm 1.0\%$	58-293
1.557	$\pm .061$	1.38	$\pm 1.0\%$	58-293
1.579	$\pm .065$	1.40	$\pm 1\%$	58-293
1.602	$\pm .061$	1.42	$\pm 1\%$	58-293
1.616	$\pm .065$	1.46	$\pm 2.6\%$	58-293
1.62	$\pm .03$	1.41	$\pm 6\%$	55-132
1.624	$\pm .065$	1.44	$\pm 7\%$	58-293
1.644	$\pm .061$	1.44	$\pm 1.0\%$	58-293
1.668	$\pm .059$	1.46	$\pm 1.0\%$	58-293
1.689	$\pm .061$	1.46	$\pm 1.0\%$	58-293
1.71	$\pm .03$	1.43	$\pm 6\%$	55-132
1.712	$\pm .066$	1.48	$\pm 2.8\%$	58-293

σ_f

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
1.739	$\pm .082$	1.48	$\pm 0.36\%$	58-293
1.74	$\pm .03$	1.43	$\pm 6\%$	55-132
1.76	$\pm .03$	1.40	$\pm 6\%$	55-132
1.760	$\pm .067$	1.46	$\pm 2.7\%$	58-293
1.774	$\pm .061$	1.47	$\pm 1\%$	58-293
1.797	$\pm .061$	1.48	$\pm 1\%$	58-293
1.807	$\pm .067$	1.44	$\pm 2.8\%$	58-293
1.81	$\pm .03$	1.37	$\pm 6\%$	55-132
1.817	$\pm .061$	1.50	$\pm 1\%$	58-293
1.85	$\pm .03$	1.50	$\pm 6\%$	55-132
1.854	$\pm .067$	1.57	$\pm 2.8\%$	58-293
1.861	$\pm .062$	1.52	$\pm 1\%$	58-293
1.902	$\pm .068$	1.53	$\pm 2.7\%$	58-293
1.908	$\pm .062$	1.52	$\pm 1\%$	58-293
1.91	$\pm .03$	1.46	$\pm 6\%$	55-132
1.910	$\pm .066$	1.52	$\pm 0.90\%$	58-293
1.95	$\pm .03$	1.49	$\pm 6\%$	55-132
1.952	$\pm .063$	1.52	$\pm 1.0\%$	58-293
1.953	$\pm .068$	1.56	$\pm 2.7\%$	58-293
1.996	$\pm .064$	1.51	$\pm 1.0\%$	58-293
2.00	$\pm .03$	1.49	$\pm 6\%$	55-132
2.004	$\pm .069$	1.56	$\pm 2.7\%$	58-293
2.03	$\pm .03$	1.45	$\pm 6\%$	55-132
2.034	$\pm .077$	1.52	$\pm 0.36\%$	58-293
2.062	$\pm .068$	1.48	$\pm 1\%$	58-293
2.10	$\pm .03$	1.42	$\pm 6\%$	55-132
2.104	$\pm .070$	1.48	$\pm 2.8\%$	58-293
2.108	$\pm .056$	1.47	$\pm 1\%$	58-293
2.152	$\pm .056$	1.48	$\pm 1\%$	58-293
2.20	$\pm .03$	1.43	$\pm 6\%$	55-132
2.200	$\pm .056$	1.47	$\pm 1.0\%$	58-293
2.200	$\pm .072$	1.49	$\pm 2.7\%$	58-293
2.249	$\pm .057$	1.48	$\pm 1.0\%$	58-293

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
2.25	$\pm .03$	1.43	$\pm 6\%$	55-132
2.251	$\pm .074$	1.49	$\pm 2.8\%$	58-293
2.297	$\pm .057$	1.47	$\pm 1\%$	58-293
2.30	$\pm .03$	1.41	$\pm 6\%$	55-132
2.302	$\pm .075$	1.46	$\pm 2.1\%$	58-293
2.305	$\pm .072$	1.48	$\pm 0.90\%$	58-293
2.343	$\pm .058$	1.47	$\pm 1\%$	58-293
2.35	$\pm .03$	1.40	$\pm 6\%$	55-132
2.353	$\pm .076$	1.46	$\pm 2.7\%$	58-293
2.390	$\pm .059$	1.47	$\pm 1\%$	58-293
2.40	$\pm .03$	1.42	$\pm 6\%$	55-132
2.404	$\pm .077$	1.47	$\pm 2.8\%$	58-293
2.438	$\pm .059$	1.47	$\pm 1\%$	58-293
2.487	$\pm .060$	1.47	$\pm 1\%$	58-293
2.506	$\pm .079$	1.44	$\pm 2.1\%$	58-293
2.51	$\pm .03$	1.40	$\pm 6\%$	55-132
2.537	$\pm .060$	1.48	$\pm 1\%$	58-293
2.587	$\pm .061$	1.50	$\pm 1\%$	58-293
2.609	$\pm .082$	1.51	$\pm 2.7\%$	58-293
2.61	$\pm .03$	1.45	$\pm 6\%$	55-132
2.636	$\pm .061$	1.48	$\pm 1.0\%$	58-293
2.697	$\pm .078$	1.47	$\pm 0.90\%$	58-293
2.70	$\pm .03$	1.44	$\pm 6\%$	55-132
2.719	$\pm .085$	1.50	$\pm 1.6\%$	58-293
2.735	$\pm .063$	1.52	$\pm 1\%$	58-293
2.785	$\pm .063$	1.51	$\pm 1\%$	58-293
2.822	$\pm .088$	1.50	$\pm 2.8\%$	58-293
2.83	$\pm .03$	1.48	$\pm 6\%$	55-132
2.834	$\pm .090$	1.52	$\pm 0.36\%$	58-293
2.835	$\pm .064$	1.51	$\pm 1\%$	58-293
2.876	$\pm .088$	1.48	$\pm 2.7\%$	58-293
2.88	$\pm .03$	1.45	$\pm 6\%$	55-132
2.887	$\pm .064$	1.51	$\pm 1\%$	58-293

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
2.929	$\pm .088$	1.56	$\pm 2.1\%$	58-293
2.93	$\pm .03$	1.52	$\pm 6\%$	55-132
2.939	$\pm .065$	1.52	$\pm 1\%$	58-293
2.98	$\pm .03$	1.51	$\pm 6\%$	55-132
2.982	$\pm .089$	1.53	$\pm 2.7\%$	58-293
2.990	$\pm .066$	1.51	$\pm 1\%$	58-293
3.035	$\pm .089$	1.54	$\pm 2.1\%$	58-293
3.04	$\pm .05$	1.51	$\pm 6\%$	55-132
3.09	$\pm .05$	1.51	$\pm 6\%$	55-132
3.090	$\pm .090$	1.53	$\pm 2.7\%$	58-293
3.145	$\pm .092$	1.49	$\pm 2.1\%$	58-293
3.15	$\pm .05$	1.47	$\pm 6\%$	55-132
3.184	$\pm .088$	1.52	$\pm 0.90\%$	58-293
3.20	$\pm .05$	1.52	$\pm 6\%$	55-132
3.200	$\pm .093$	1.55	$\pm 2.7\%$	58-293
3.222	$\pm .099$	1.54	$\pm 0.36\%$	58-293
3.25	$\pm .05$	1.51	$\pm 6\%$	55-132
3.255	$\pm .096$	1.53	$\pm 2.0\%$	58-293
3.36	$\pm .05$	1.53	$\pm 6\%$	55-132
3.365	$\pm .096$	1.55	$\pm 2.7\%$	58-293
3.479	$\pm .098$	1.55	$\pm 2.7\%$	58-293
3.48	$\pm .05$	1.53	$\pm 6\%$	55-132
3.59	$\pm .05$	1.55	$\pm 6\%$	55-132
3.591	$\pm .100$	1.57	$\pm 2.7\%$	58-293
3.595	$\pm .094$	1.56	$\pm 0.90\%$	58-293
3.70	$\pm .05$	1.53	$\pm 6\%$	55-132
3.703	$\pm .102$	1.55	$\pm 2.7\%$	58-293
3.76	$\pm .05$	1.47	$\pm 6\%$	55-132
3.761	$\pm .103$	1.49	$\pm 2.5\%$	58-293
3.807	$\pm .109$	1.56	$\pm 0.36\%$	58-293
3.81	$\pm .05$	1.54	$\pm 6\%$	55-132
3.819	$\pm .104$	1.51	$\pm 2.1\%$	58-293
3.878	$\pm .105$	1.56	$\pm 2.7\%$	58-293

σ_f

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
3.88	$\pm .05$	1.55	$\pm 6\%$	55-132
3.936	$\pm .106$	1.54	$\pm 2.1\%$	58-293
3.94	$\pm .05$	1.52	$\pm 6\%$	55-132
3.995	$\pm .106$	1.51	$\pm 2.8\%$	58-293
4.00	$\pm .05$	1.53	$\pm 6\%$	55-132
4.05	$\pm .05$	1.53	$\pm 6\%$	55-132
4.054	$\pm .107$	1.54	$\pm 2.8\%$	58-293

σ_{tot}

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.001	-----	18.	-----	53-6
0.0013	$\pm .0010$	24.6	± 2.0	52-254
0.0019	$\pm .0010$	20.2	± 3.5	57-250
0.0019	$\pm .0010$	23.5	± 2.0	52-254
0.0029	$\pm .0010$	23.0	± 1.5	52-254
0.0052	$\pm .0010$	14.7	± 3.1	57-250
0.0052	$\pm .0010$	12.8	± 1.5	52-254
0.048	$\pm .001$	15.8	± 3.2	57-250
0.160	-----	11.5	-----	53-6
7.05	$\pm .17$	6.84	± 0.07	57-22
8.67	$\pm .15$	6.12	± 0.05	57-22
10.74	$\pm .11$	5.73	± 0.06	57-22
12.67	$\pm .09$	5.75	± 0.06	57-22
14.25	$\pm .07$	5.79	± 0.07	57-22

 σ_{non}

0.50	$\pm .06$	1.8	± 0.6	56-149
1.00	$\pm .05$	2.7	± 0.6	56-149
1.00	$\pm .04$	2.70	± 0.30	56-151
2.50	$\pm .04$	3.25	± 0.30	56-151

 σ_{el}

0.50	$\pm .06$	5.9	$\pm 10\%$	56-149
1.00	$\pm .05$	4.0	$\pm 10\%$	56-149

 σ_{abs}

0.0044	$\pm .0004$	5.5	± 0.5	56-16
0.0118	$\pm .0005$	4.1	± 0.4	56-16
0.0331	$\pm .0004$	2.7	± 0.4	56-16
0.0396	$\pm .0005$	3.0	± 0.4	56-16
0.0440	$\pm .0005$	2.7	± 0.4	56-16
0.0488	$\pm .0005$	2.9	± 0.4	56-16

		σf		
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.001	$\pm .001$	6.95	± 0.3	54-245
0.00102	$\pm .00050$	6.6	± 0.6	56-236
0.00107	$\pm .00050$	8.6	± 0.6	56-236
0.00109	$\pm .00050$	9.2	± 0.6	56-236
0.0011	$\pm .0010$	7.2	± 0.4	52-254
0.0011	$\pm .0010$	7.83	± 0.46	57-250
0.0011	$\pm .0010$	8.6	± 0.5	54-245
0.00114	$\pm .00050$	13.	$\pm 1.$	56-236
0.0012	$\pm .0010$	9.2	± 0.5	54-245
0.00120	$\pm .00050$	12.	$\pm 1.$	56-236
0.00125	$\pm .00050$	10.	$\pm 1.$	56-236
0.0013	$\pm .0010$	8.9	± 0.5	54-245
0.00130	$\pm .00050$	6.6	± 0.6	56-236
0.00134	$\pm .00050$	6.4	± 0.6	56-236
0.0014	$\pm .0010$	6.95	± 0.4	54-245
0.00140	$\pm .00050$	7.2	± 0.6	56-236
0.00143	$\pm .00050$	7.5	± 0.6	56-236
0.00149	$\pm .00050$	7.0	± 0.6	56-236
0.00152	$\pm .00050$	6.5	± 0.6	56-236
0.0016	$\pm .0010$	6.0	± 0.3	52-254
0.0016	$\pm .0010$	7.1	± 0.4	54-245
0.0016	$\pm .0010$	6.44	± 0.38	57-250
0.00160	$\pm .00050$	5.3	± 0.6	56-236
0.00165	$\pm .00050$	9.0	± 0.6	56-236
0.00168	$\pm .00050$	8.5	± 0.6	56-236
0.0017	$\pm .0010$	5.5	± 0.4	54-245
0.00173	$\pm .00050$	6.5	± 0.6	56-236
0.00181	$\pm .00050$	6.5	± 0.6	56-236
0.00189	$\pm .00050$	5.5	± 0.6	56-236
0.0019	$\pm .0010$	6.2	± 0.3	54-245
0.00195	$\pm .00050$	5.5	± 0.6	56-236
0.0021	$\pm .0010$	7.4	± 0.4	54-245
0.0024	$\pm .0010$	6.2	± 0.3	54-245

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0025	$\pm .0010$	5.1	± 0.3	52-254
0.0025	$\pm .0010$	5.44	± 0.33	57-250
0.0027	$\pm .0010$	5.5	± 0.3	54-245
0.0031	$\pm .0010$	5.6	± 0.3	54-245
0.0035	$\pm .0010$	5.4	± 0.3	54-245
0.0041	$\pm .0010$	5.9	± 0.3	54-245
0.0043	$\pm 50\%$	5.08	± 0.17	44-240
0.0044	$\pm .0010$	4.05	± 0.20	52-254
0.0045	$\pm .0010$	4.35	± 0.25	57-250
0.0048	$\pm .0010$	5.2	± 0.3	54-245
0.0058	$\pm .0050$	4.3	± 0.2	54-245
0.0070	$\pm .0050$	4.1	± 0.2	54-245
0.0086	$\pm .0050$	4.8	± 0.2	54-245
0.0090	$\pm 50\%$	4.35	± 0.14	44-240
0.01	-----	3.4	-----	57-18
0.0101	$\pm .0010$	3.31	± 0.16	57-250
0.0110	$\pm .0100$	3.4	± 0.2	54-245
0.0133	$\pm 30\%$	3.97	± 0.13	44-240
0.0143	$\pm .0100$	3.5	± 0.2	54-245
0.0195	$\pm .0100$	3.3	± 0.1	54-245
0.021	-----	2.9	-----	57-18
0.023	-----	2.4	-----	57-18
0.0260	$\pm .0100$	2.2	± 0.1	54-245
0.027	$\pm 10\%$	3.46	± 0.10	44-240
0.027	$\pm 9\%$	2.56	± 0.24	45-238
0.03	-----	2.21	± 0.12	57-198
0.030	-----	2.2	-----	57-18
0.030	-----	2.72	± 0.08	57-218
0.0402	$\pm .0010$	2.10	± 0.09	57-250
0.0422	$\pm .0100$	2.2	± 0.1	54-245
0.047	$\pm 10\%$	2.86	± 0.10	44-240
0.056	-----	2.08	-----	57-18
0.057	$\pm 8\%$	2.32	± 0.18	45-238

σf

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.060	-----	2.32	± 0.05	57-218
0.072	$\pm 5\%$	2.60	± 0.08	44-240
0.094	$\pm 5\%$	2.37	± 0.06	44-240
0.095	$\pm 6\%$	2.03	± 0.11	45-238
0.095	$\pm 6\%$	2.04	± 0.13	45-238
0.120	-----	1.65	± 0.03	57-218
0.130	$\pm .030$	2.87	-----	43-54
0.145	$\pm 6\%$	1.82	± 0.11	45-238
0.145	$\pm 6\%$	1.80	± 0.11	45-238
0.145	-----	1.62	-----	57-18
0.150	-----	1.68	± 0.05	57-218
0.175	-----	1.51	± 0.02	57-218
0.190	$\pm 5\%$	1.93	± 0.04	44-240
0.195	$\pm 5\%$	1.60	± 0.08	45-238
0.195	-----	1.43	-----	57-18
0.200	-----	1.47	± 0.05	57-218
0.220	-----	1.48	± 0.03	57-218
0.240	-----	1.42	± 0.03	57-218
0.25	-----	1.28	± 0.08	57-198
0.250	-----	1.42	-----	57-18
0.250	$\pm .030$	2.37	-----	43-54
0.275	-----	1.38	± 0.02	57-218
0.290	$\pm 2\%$	1.64	± 0.04	44-240
0.300	-----	1.38	± 0.04	57-218
0.304	-----	1.40	-----	57-18
0.32	$\pm .02$	1.68	± 0.08	44-311
0.320	$\pm .030$	2.12	-----	43-54
0.330	-----	1.37	± 0.03	57-218
0.340	-----	1.36	-----	57-18
0.340	$\pm 2\%$	1.49	± 0.07	44-240
0.344	$\pm 4\%$	1.51	± 0.06	45-238
0.350	-----	1.44	-----	57-218
0.377	-----	1.37	-----	57-18

E_n (Mev)	ΔE_n (Mev)	σ_f σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.385	$\pm .030$	1.72	-----	43-54
0.390	$\pm 2\%$	1.61	± 0.05	44-240
0.40	$\pm .04$	1.3	± 0.5	53-14
0.400	-----	1.34	-----	57-218
0.403	$\pm .039$	1.28	± 0.08	57-155
0.408	-----	1.32	-----	57-18
0.415	-----	1.29	± 0.02	57-218
0.445	-----	1.32	± 0.02	57-218
0.46	$\pm .02$	1.50	± 0.08	44-311
0.480	-----	1.25	± 0.02	57-218
0.485	$\pm .030$	1.50	-----	43-54
0.490	$\pm 2\%$	1.42	± 0.02	44-240
0.500	-----	1.26	± 0.02	57-218
0.508	-----	1.25	-----	57-18
0.51	$\pm .04$	1.25	± 0.05	53-14
0.513	$\pm .039$	1.24	± 0.07	57-155
0.53	$\pm .04$	1.22	-----	43-307
0.550	-----	1.27	± 0.02	57-218
0.550	$\pm .030$	1.66	-----	43-54
0.56	$\pm .04$	1.28	± 0.05	53-14
0.562	$\pm .039$	1.27	± 0.07	57-155
0.570	-----	1.24	-----	57-18
0.58	$\pm .02$	1.38	± 0.08	44-311
0.600	$\pm 1\%$	1.36	± 0.02	44-240
0.620	-----	1.20	-----	57-18
0.650	-----	1.19	± 0.02	57-218
0.665	-----	1.20	-----	57-18
0.67	$\pm .04$	1.19	± 0.05	53-14
0.673	$\pm .041$	1.17	± 0.06	57-155
0.700	$\pm 1\%$	1.34	± 0.02	44-240
0.700	$\pm .030$	1.63	-----	43-54
0.750	-----	1.18	-----	57-18
0.77	$\pm .04$	1.19	± 0.05	53-14

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.770	$\pm .040$	1.19	± 0.06	57-155
0.780	-----	1.19	-----	57-18
0.800	$\pm 1\%$	1.33	± 0.02	44-240
0.810	-----	1.19	-----	57-18
0.820	$\pm .030$	1.70	-----	43-54
0.860	-----	1.18	-----	57-18
0.865	$\pm .039$	1.23	± 0.06	57-155
0.87	$\pm .04$	1.25	± 0.05	53-14
0.90	-----	1.24	± 0.08	57-198
0.900	$\pm 1\%$	1.33	± 0.02	44-240
0.920	-----	1.24	-----	57-18
0.94	$\pm .04$	1.30	± 0.05	53-14
0.940	$\pm .030$	1.71	-----	43-54
0.944	$\pm .039$	1.27	± 0.05	57-155
0.96	$\pm .02$	1.32	± 0.08	44-311
0.960	-----	1.27	-----	57-18
1.000	$\pm 1\%$	1.33	± 0.02	44-240
1.000	-----	1.22	± 0.02	57-218
1.02	$\pm .04$	1.27	± 0.05	53-14
1.025	$\pm .039$	1.26	± 0.05	57-155
1.03	-----	1.26	-----	57-18
1.09	-----	1.27	-----	57-18
1.095	$\pm .039$	1.27	± 0.044	57-155
1.10	$\pm .04$	1.27	± 0.05	53-14
1.110	$\pm .030$	1.72	-----	43-54
1.13	-----	1.31	-----	57-18
1.171	$\pm .037$	1.27	± 0.04	57-155
1.18	$\pm .04$	1.28	± 0.05	53-14
1.19	-----	1.28	-----	57-18
1.230	$\pm .030$	1.56	-----	43-54
1.25	$\pm .04$	1.27	± 0.05	53-14
1.272	$\pm .035$	1.27	± 0.044	57-155
1.28	$\pm .04$	1.27	± 0.05	53-14

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.30	-----	1.22	-----	57-18
1.39	-----	1.27	-----	57-18
1.390	$\pm .030$	1.72	-----	43-54
1.42	-----	1.27	-----	57-18
1.424	$\pm .035$	1.27	± 0.004	57-155
1.43	$\pm .04$	1.27	± 0.05	53-14
1.500	$\pm 1\%$	1.32	± 0.02	44-240
1.500	-----	1.33	± 0.02	57-218
1.51	-----	1.32	-----	57-18
1.54	$\pm .04$	1.30	± 0.05	53-14
1.545	$\pm .032$	1.30	± 0.05	57-155
1.60	$\pm .02$	1.30	± 0.08	44-311
1.61	-----	1.32	-----	57-18
1.62	$\pm .04$	1.30	± 0.05	53-14
1.620	$\pm .030$	1.31	± 0.05	57-155
1.70	-----	1.28	-----	57-18
1.710	$\pm .030$	1.61	-----	43-54
1.800	$\pm 1\%$	1.31	± 0.03	44-240
1.800	$\pm .030$	1.52	-----	43-54
1.83	-----	1.33	-----	57-18
1.95	-----	1.31	-----	57-18
2.0	-----	1.22	± 0.08	57-198
2.000	-----	1.37	± 0.03	57-218
2.03	-----	1.32	-----	57-18
2.22	-----	1.44	$\pm 5\%$	58-352
2.24	-----	1.32	-----	57-18
2.34	-----	1.26	-----	57-18
2.43	-----	1.27	-----	57-18
2.48	-----	1.39	-----	57-18
2.50	$\pm .02$	1.33	± 0.08	44-311
2.50	-----	1.38	$\pm 5\%$	58-352
2.500	-----	1.39	± 0.03	57-218
3.00	-----	1.33	-----	57-18

σf

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
3.00	-----	1.31	$\pm 5\%$	58-350
3.000	-----	1.18	± 0.04	57-218
4.00	-----	1.23	$\pm 5\%$	58-350
4.00	-----	1.29	-----	57-18
5.0	-----	1.37	± 0.09	57-198
5.00	-----	1.18	-----	57-18
5.00	-----	1.16	$\pm 5\%$	58-350
5.50	-----	1.19	$\pm 5\%$	58-350
5.60	-----	1.20	-----	57-18
6.00	-----	1.18	$\pm 5\%$	58-350
6.04	-----	1.20	-----	57-18
6.41	-----	1.37	$\pm 5\%$	58-350
6.50	-----	1.38	-----	57-18
7.00	-----	1.60	-----	57-18
7.00	-----	1.57	$\pm 5\%$	58-350
7.50	-----	1.72	$\pm 5\%$	58-350
7.50	-----	1.75	-----	57-18
8.00	-----	1.78	$\pm 5\%$	58-350
8.02	-----	1.80	-----	57-18
8.50	-----	1.88	-----	57-18
8.50	-----	1.85	$\pm 5\%$	58-350
9.00	-----	1.85	$\pm 5\%$	58-350
9.10	-----	1.91	-----	57-18
9.50	-----	1.91	-----	57-18
9.50	-----	1.85	$\pm 5\%$	58-350
10.00	-----	1.79	$\pm 5\%$	58-350
10.00	-----	1.84	-----	57-18

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.69	$\pm .10$	0.01	$\pm 4\%$	55-267
0.69	$\pm .03$	0.014	$\pm 29\%$	55-132
0.70	$\pm .10$	0.04	$\pm 4\%$	55-267
0.70	$\pm .03$	0.038	$\pm 10\%$	55-132
0.71	$\pm .03$	0.034	$\pm 21\%$	55-132
0.73	$\pm .10$	0.03	$\pm 4\%$	55-267
0.74	$\pm .03$	0.044	$\pm 18\%$	55-132
0.75	$\pm .10$	0.04	$\pm 4\%$	55-267
0.76	$\pm .03$	0.056	$\pm 13.8\%$	55-132
0.77	$\pm .03$	0.091	$\pm 6\%$	55-132
0.77	$\pm .10$	0.05	$\pm 4\%$	55-267
0.78	$\pm .10$	0.08	$\pm 4\%$	55-267
0.79	$\pm .10$	0.08	$\pm 4\%$	55-267
0.79	$\pm .03$	0.080	$\pm 13\%$	55-132
0.82	$\pm .10$	0.12	$\pm 4\%$	55-267
0.84	$\pm .10$	0.18	$\pm 4\%$	55-267
0.84	$\pm .03$	0.182	$\pm 6\%$	55-132
0.88	$\pm .03$	0.203	$\pm 6\%$	55-132
0.88	$\pm .10$	0.20	$\pm 4\%$	55-267
0.89	$\pm .03$	0.182	$\pm 6\%$	55-132
0.89	$\pm .10$	0.18	$\pm 4\%$	55-267
0.91	$\pm .10$	0.22	$\pm 4\%$	55-267
0.91	$\pm .03$	0.224	$\pm 6\%$	55-132
0.92	$\pm .10$	0.26	$\pm 4\%$	55-267
0.94	$\pm .10$	0.34	$\pm 4\%$	55-267
0.94	$\pm .03$	0.316	$\pm 6\%$	55-132
0.98	$\pm .10$	0.36	$\pm 4\%$	55-267
0.98	$\pm .03$	0.358	$\pm 6\%$	55-132
1.00	$\pm .03$	0.361	$\pm 6\%$	55-132
1.00	$\pm .10$	0.36	$\pm 4\%$	55-267
1.03	$\pm .03$	0.358	$\pm 6\%$	55-132
1.04	$\pm .10$	0.36	$\pm 4\%$	55-267
1.06	$\pm .10$	0.38	$\pm 4\%$	55-267

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.06	$\pm .03$	0.387	$\pm 6\%$	55-132
1.07	$\pm .03$	0.380	$\pm 6\%$	55-132
1.09	$\pm .03$	0.413	$\pm 6\%$	55-132
1.09	$\pm .10$	0.41	$\pm 4\%$	55-267
1.12	$\pm .03$	0.452	$\pm 6\%$	55-132
1.12	$\pm .10$	0.45	$\pm 4\%$	55-267
1.16	$\pm .03$	0.516	$\pm 6\%$	55-132
1.17	$\pm .10$	0.52	$\pm 4\%$	55-267
1.21	$\pm .10$	0.60	$\pm 4\%$	55-267
1.21	$\pm .03$	0.598	$\pm 6\%$	55-132
1.25	$\pm .03$	0.618	$\pm 6\%$	55-132
1.25	$\pm .10$	0.62	$\pm 4\%$	55-267
1.27	$\pm .03$	0.645	$\pm 6\%$	55-132
1.28	$\pm .10$	0.64	$\pm 4\%$	55-267
1.29	$\pm .10$	0.71	$\pm 4\%$	55-267
1.29	$\pm .03$	0.710	$\pm 6\%$	55-132
1.32	$\pm .03$	0.710	$\pm 6\%$	55-132
1.32	$\pm .10$	0.70	$\pm 4\%$	55-267
1.33	$\pm .10$	0.72	$\pm 4\%$	55-267
1.33	$\pm .03$	0.717	$\pm 6\%$	55-132
1.34	$\pm .03$	0.718	$\pm 6\%$	55-132
1.37	$\pm .10$	0.70	$\pm 4\%$	55-267
1.37	$\pm .03$	0.700	$\pm 6\%$	55-132
1.41	$\pm .03$	0.710	$\pm 6\%$	55-132
1.41	$\pm .10$	0.71	$\pm 4\%$	55-267
1.43	$\pm .03$	0.723	$\pm 6\%$	55-132
1.44	$\pm .03$	0.728	$\pm 6\%$	55-132
1.44	$\pm .10$	0.73	$\pm 4\%$	55-267
1.45	$\pm .03$	0.719	$\pm 6\%$	55-132
1.49	$\pm .03$	0.684	$\pm 6\%$	55-132
1.49	$\pm .10$	0.68	$\pm 4\%$	55-267
1.51	$\pm .10$	0.67	$\pm 4\%$	55-267
1.52	$\pm .03$	0.671	$\pm 6\%$	55-132

σ_f

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
1.53	$\pm .10$	0.66	$\pm 4\%$	55-267
1.54	$\pm .03$	0.656	$\pm 6\%$	55-132
1.56	$\pm .03$	0.670	$\pm 6\%$	55-132
1.56	$\pm .10$	0.67	$\pm 4\%$	55-267
1.60	$\pm .10$	0.66	$\pm 4\%$	55-267
1.60	$\pm .03$	0.662	$\pm 6\%$	55-132
1.64	$\pm .03$	0.702	$\pm 6\%$	55-132
1.64	$\pm .10$	0.70	$\pm 4\%$	55-267
1.67	$\pm .10$	0.72	$\pm 4\%$	55-267
1.67	$\pm .03$	0.717	$\pm 6\%$	55-132
1.72	$\pm .10$	0.74	$\pm 4\%$	55-267
1.73	$\pm .03$	0.737	$\pm 6\%$	55-132
1.74	$\pm .10$	0.77	$\pm 4\%$	55-267
1.75	$\pm .03$	0.766	$\pm 6\%$	55-132
1.78	$\pm .10$	0.76	$\pm 4\%$	55-267
1.79	$\pm .03$	0.763	$\pm 6\%$	55-132
1.82	$\pm .03$	0.763	$\pm 6\%$	55-132
1.82	$\pm .10$	0.76	$\pm 4\%$	55-267
1.84	$\pm .10$	0.77	$\pm 4\%$	55-267
1.85	$\pm .03$	0.766	$\pm 6\%$	55-132
1.90	$\pm .03$	0.768	$\pm 6\%$	55-132
1.90	$\pm .10$	0.77	$\pm 4\%$	55-267
1.94	$\pm .10$	0.81	$\pm 4\%$	55-267
1.94	$\pm .03$	0.807	$\pm 6\%$	55-132
1.99	$\pm .10$	0.79	$\pm 4\%$	55-267
2.00	$\pm .03$	0.794	$\pm 6\%$	55-132
2.02	$\pm .10$	0.80	$\pm 4\%$	55-267
2.03	$\pm .03$	0.803	$\pm 6\%$	55-132
2.09	$\pm .10$	0.81	$\pm 4\%$	55-267
2.10	$\pm .03$	0.807	$\pm 6\%$	55-132
2.13	$\pm .10$	0.85	$\pm 4\%$	55-267
2.14	$\pm .03$	0.847	$\pm 6\%$	55-132
2.20	$\pm .03$	0.849	$\pm 6\%$	55-132

σ_f

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
2.20	$\pm .10$	0.85	$\pm 4\%$	55-267
2.22	$\pm .10$	0.84	$\pm 4\%$	55-267
2.23	$\pm .03$	0.835	$\pm 6\%$	55-132
2.30	$\pm .03$	0.871	$\pm 6\%$	55-132
2.30	$\pm .10$	0.87	$\pm 4\%$	55-267
2.33	$\pm .10$	0.89	$\pm 4\%$	55-267
2.34	$\pm .03$	0.891	$\pm 6\%$	55-132
2.40	$\pm .03$	0.879	$\pm 6\%$	55-132
2.40	$\pm .10$	0.88	$\pm 4\%$	55-267
2.42	$\pm .10$	0.88	$\pm 4\%$	55-267
2.43	$\pm .03$	0.876	$\pm 6\%$	55-132
2.50	$\pm .10$	0.90	$\pm 4\%$	55-267
2.51	$\pm .03$	0.895	$\pm 6\%$	55-132
2.52	$\pm .10$	0.88	$\pm 4\%$	55-267
2.53	$\pm .03$	0.884	$\pm 6\%$	55-132
2.61	$\pm .03$	0.885	$\pm 6\%$	55-132
2.61	$\pm .10$	0.88	$\pm 4\%$	55-267
2.65	$\pm .10$	0.82	$\pm 4\%$	55-267
2.65	$\pm .03$	0.823	$\pm 6\%$	55-132
2.70	$\pm .10$	0.88	$\pm 4\%$	55-267
2.71	$\pm .03$	0.886	$\pm 6\%$	55-132
2.74	$\pm .03$	0.872	$\pm 6\%$	55-132
2.74	$\pm .10$	0.87	$\pm 4\%$	55-267
2.82	$\pm .10$	0.88	$\pm 4\%$	55-267
2.82	$\pm .03$	0.885	$\pm 6\%$	55-132
2.86	$\pm .03$	0.840	$\pm 6\%$	55-132
2.87	$\pm .10$	0.84	$\pm 4\%$	55-267
2.92	$\pm .10$	0.90	$\pm 4\%$	55-267
2.93	$\pm .03$	0.900	$\pm 6\%$	55-132
3.00	$\pm .05$	0.918	$\pm 6\%$	55-132
3.00	$\pm .10$	0.92	$\pm 4\%$	55-267
3.03	$\pm .05$	0.928	$\pm 6\%$	55-132
3.03	$\pm .10$	0.93	$\pm 4\%$	55-267

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
3.14	$\pm .10$	0.94	$\pm 4\%$	55-267
3.14	$\pm .05$	0.937	$\pm 6\%$	55-132
3.21	$\pm .10$	0.93	$\pm 4\%$	55-267
3.22	$\pm .05$	0.926	$\pm 6\%$	55-132
3.25	$\pm .05$	0.951	$\pm 6\%$	55-132
3.25	$\pm .10$	0.95	$\pm 4\%$	55-267
3.36	$\pm .10$	0.93	$\pm 4\%$	55-267
3.36	$\pm .05$	0.928	$\pm 6\%$	55-132
3.47	$\pm .10$	0.92	$\pm 4\%$	55-267
3.48	$\pm .05$	0.922	$\pm 6\%$	55-132
3.53	$\pm .10$	0.95	$\pm 4\%$	55-267
3.54	$\pm .05$	0.947	$\pm 6\%$	55-132
3.58	$\pm .10$	0.95	$\pm 4\%$	55-267
3.59	$\pm .05$	0.951	$\pm 6\%$	55-132
3.70	$\pm .10$	0.99	$\pm 4\%$	55-267
3.70	$\pm .05$	0.991	$\pm 6\%$	55-132
3.80	$\pm .10$	0.95	$\pm 4\%$	55-267
3.81	$\pm .05$	0.976	$\pm 6\%$	55-132
3.94	$\pm .10$	0.95	$\pm 4\%$	55-267
3.94	$\pm .05$	0.944	$\pm 6\%$	55-132
4.00	$\pm .10$	1.00	$\pm 4\%$	55-267
4.01	$\pm .05$	0.996	$\pm 6\%$	55-132
4.05	$\pm .05$	0.957	$\pm 6\%$	55-132
4.05	$\pm .10$	0.96	$\pm 4\%$	55-267

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σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.00115	-----	14.5	-----	53-6
0.020	$\pm .010$	15.3	± 0.7	50-314
0.040	$\pm .010$	13.0	± 0.7	50-314
0.062	$\pm .010$	12.6	± 0.7	50-314
0.085	$\pm .010$	12.2	± 0.7	50-314
0.100	$\pm .008$	11.9	± 0.2	54-105
0.115	$\pm .010$	11.6	± 0.7	50-314
0.124	$\pm .010$	11.1	± 0.7	50-314
0.14	$\pm .04$	17.	-----	39-282
0.140	$\pm .010$	11.7	± 0.7	50-314
0.160	-----	11.	-----	53-6
0.170	$\pm .010$	11.2	± 0.5	50-314
0.20	$\pm .02$	10.2	± 0.2	54-105
0.204	$\pm .010$	10.3	± 0.5	50-314
0.230	$\pm .010$	10.0	± 0.5	50-314
0.245	$\pm .010$	9.8	± 0.5	50-314
0.265	$\pm .010$	9.6	± 0.5	50-314
0.275	$\pm .010$	9.5	± 0.5	50-314
0.30	$\pm .02$	8.9	± 0.2	54-105
0.300	$\pm .010$	9.0	± 0.5	50-314
0.310	$\pm .010$	10.0	± 0.5	50-314
0.332	$\pm .010$	8.9	± 0.5	50-314
0.345	$\pm .010$	10.3	± 0.5	50-314
0.365	$\pm .010$	8.8	± 0.5	50-314
0.380	$\pm .010$	8.5	± 0.5	50-314
0.40	$\pm .02$	8.9	± 0.2	54-105
0.400	$\pm .010$	8.5	± 0.5	50-314
0.410	$\pm .010$	8.9	± 0.5	50-314
0.435	$\pm .010$	8.3	± 0.5	50-314
0.445	$\pm .010$	8.7	± 0.5	50-314
0.480	$\pm .010$	8.4	± 0.5	50-314
0.510	$\pm .010$	8.2	± 0.5	50-314
0.55	$\pm .02$	8.0	± 0.2	54-105

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.550	$\pm .010$	8.0	± 0.5	50-314
0.575	$\pm .010$	8.5	± 0.5	50-314
0.605	$\pm .010$	8.5	± 0.5	50-314
0.635	$\pm .010$	7.6	± 0.5	50-314
0.65	$\pm .02$	7.8	± 0.2	54-105
0.670	$\pm .010$	7.2	± 0.5	50-314
0.700	$\pm .010$	7.7	± 0.5	50-314
0.730	$\pm .010$	6.9	± 0.5	50-314
0.75	$\pm .02$	7.5	± 0.2	54-105
0.765	$\pm .010$	6.6	± 0.5	50-314
0.795	$\pm .010$	6.7	± 0.5	50-314
0.810	$\pm .010$	7.3	± 0.5	50-314
0.825	$\pm .010$	7.3	± 0.5	50-314
0.840	$\pm .010$	7.0	± 0.5	50-314
0.855	$\pm .010$	6.6	± 0.5	50-314
0.870	$\pm .010$	7.1	± 0.5	50-314
0.88	$\pm .02$	7.2	± 0.2	54-105
0.885	$\pm .010$	8.1	± 0.5	50-314
0.90	-----	8.0	± 0.4	54-105
0.900	$\pm .010$	6.6	± 0.5	50-314
0.910	$\pm .010$	7.1	± 0.5	50-314
0.935	$\pm .010$	7.1	± 0.5	50-314
0.945	$\pm .010$	6.3	± 0.5	50-314
0.955	$\pm .010$	6.7	± 0.5	50-314
0.965	$\pm .010$	6.8	± 0.5	50-314
0.98	$\pm .02$	7.1	± 0.2	54-105
0.995	$\pm .010$	7.1	± 0.5	50-314
1.005	$\pm .010$	7.0	± 0.2	50-314
1.025	$\pm .010$	7.1	± 0.2	50-314
1.035	$\pm .010$	6.8	± 0.2	50-314
1.050	$\pm .010$	6.5	± 0.2	50-314
1.085	$\pm .010$	6.7	± 0.2	50-314
1.10	$\pm .02$	6.9	± 0.2	54-105

α_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.115	$\pm .010$	6.8	± 0.2	50-314
1.145	$\pm .010$	7.1	± 0.2	50-314
1.175	$\pm .010$	6.5	± 0.2	50-314
1.205	$\pm .010$	6.8	± 0.2	50-314
1.235	$\pm .010$	6.7	± 0.2	50-314
1.265	$\pm .010$	6.7	± 0.2	50-314
1.295	$\pm .010$	6.4	± 0.2	50-314
1.30	$\pm .02$	6.9	± 0.2	54-105
1.325	$\pm .010$	6.9	± 0.2	50-314
1.355	$\pm .010$	7.1	± 0.2	50-314
1.385	$\pm .010$	6.5	± 0.2	50-314
1.412	$\pm .010$	7.1	± 0.2	50-314
1.50	$\pm .02$	7.0	± 0.2	54-105
1.70	$\pm .02$	7.1	± 0.2	54-105
1.80	$\pm .02$	7.0	± 0.2	54-105
1.90	$\pm .02$	7.2	± 0.2	54-105
2.00	$\pm .02$	7.3	± 0.2	54-105
2.10	$\pm .02$	7.3	± 0.2	54-105
2.20	$\pm .02$	7.4	± 0.2	54-105
2.30	$\pm .02$	7.7	± 0.2	54-105
2.40	$\pm .02$	7.6	± 0.2	54-105
2.50	$\pm .02$	7.6	± 0.2	54-105
2.60	$\pm .02$	7.4	± 0.2	54-105
2.80	$\pm .02$	7.8	± 0.2	54-105
2.9	$\pm 10\%$	7.7	$\pm 10\%$	53-88
2.90	$\pm .02$	7.8	± 0.2	54-105
3.00	$\pm .02$	7.8	± 0.2	54-105
3.30	$\pm .02$	8.2	± 0.2	54-105
3.4	$\pm 10\%$	7.8	$\pm 10\%$	53-88
3.50	$\pm .02$	7.9	± 0.2	54-105
4.0	$\pm 10\%$	7.7	$\pm 10\%$	53-88
4.25	$\pm .10$	7.8	± 0.2	54-105
4.5	$\pm 10\%$	7.8	$\pm 10\%$	53-88

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
4.5	$\pm .10$	7.7	± 0.2	54-105
4.8	$\pm .10$	7.7	± 0.2	54-105
4.9	$\pm 10\%$	7.5	$\pm 10\%$	53-88
5.2	$\pm .10$	7.8	± 0.2	54-105
5.5	$\pm 10\%$	7.4	$\pm 10\%$	53-88
5.5	$\pm .10$	7.5	± 0.2	54-105
5.8	$\pm .10$	7.3	± 0.2	54-105
6.2	$\pm 10\%$	7.0	$\pm 10\%$	53-88
6.2	$\pm .10$	7.0	± 0.2	54-105
6.5	$\pm .10$	7.0	± 0.2	54-105
6.8	$\pm .10$	6.9	± 0.2	54-105
7.0	$\pm 10\%$	6.6	$\pm 10\%$	53-88
7.05	$\pm .17$	6.84	± 0.07	57-22
7.1	$\pm .10$	6.8	± 0.2	54-105
7.8	$\pm 10\%$	6.2	$\pm 10\%$	53-88
8.3	$\pm 10\%$	6.1	$\pm 10\%$	53-88
8.67	$\pm .15$	6.21	± 0.05	57-22
8.8	$\pm 10\%$	5.7	$\pm 10\%$	53-88
9.5	$\pm 10\%$	5.5	$\pm 10\%$	53-88
10.3	$\pm 14\%$	5.4	$\pm 10\%$	53-88
10.5	$\pm 14\%$	5.1	$\pm 10\%$	53-88
10.74	$\pm .11$	5.89	± 0.06	57-22
11.3	$\pm 14\%$	4.9	$\pm 10\%$	53-88
11.5	$\pm 14\%$	5.3	$\pm 10\%$	53-88
12.2	$\pm 14\%$	5.3	$\pm 10\%$	53-88
12.5	$\pm 14\%$	5.1	$\pm 10\%$	53-88
12.67	$\pm .09$	5.78	± 0.06	57-22
13.2	$\pm 14\%$	5.4	$\pm 10\%$	53-88
13.60	$\pm .10$	5.4	± 0.2	58-323
13.66	$\pm .09$	5.4	± 0.2	58-323
13.70	$\pm .08$	5.5	± 0.2	58-323
13.77	$\pm .06$	5.5	± 0.2	58-323
13.82	$\pm .05$	5.5	± 0.2	58-323

σ_{tot}

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
13.89	$\pm .02$	5.6	± 0.2	58-323
13.95	$\pm .005$	5.4	± 0.2	58-323
14.01	$\pm .02$	5.7	± 0.2	58-323
14.08	$\pm .04$	5.7	± 0.2	58-323
14.1	$\pm 14\%$	5.8	$\pm 10\%$	53-88
14.12	$\pm .05$	5.87	± 0.12	52-81
14.14	$\pm .05$	5.8	± 0.2	58-323
14.20	$\pm .07$	6.0	± 0.2	58-323
14.25	$\pm .07$	5.90	± 0.05	57-22
14.27	$\pm .09$	5.9	± 0.2	58-323
14.33	$\pm .11$	5.7	± 0.2	58-323
14.39	$\pm .13$	5.9	± 0.2	58-323
14.45	$\pm .14$	5.7	± 0.2	58-323
14.50	$\pm .16$	5.7	± 0.2	58-323

 σ_{non}

0.15	-----	0.63	± 0.02	57-156
0.25	-----	0.63	± 0.15	57-156
0.50	$\pm .06$	0.9	± 0.6	56-149
0.50	-----	0.80	± 0.15	57-156
1.00	$\pm .05$	1.5	± 0.6	56-149
1.00	$\pm .04$	1.80	± 0.25	56-151
2.50	$\pm .04$	3.20	± 0.30	56-151

 $\sigma_{\text{el} + \text{in}}$

0.060	-----	12.65	$\pm 10\%$	56-231
0.135	$\pm .100$	12.10	$\pm 10\%$	56-231
0.135	$\pm .100$	12.88	$\pm 10\%$	56-231
0.228	$\pm .100$	10.70	$\pm 10\%$	56-231
0.228	$\pm .100$	11.40	$\pm 10\%$	56-231
0.330	$\pm .100$	9.10	$\pm 10\%$	56-231
0.330	$\pm .100$	9.48	$\pm 10\%$	56-231

$\sigma_{\text{el} + \text{in}}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.330	$\pm .100$	10.18	$\pm 10\%$	56-231
0.396	$\pm .100$	8.95	$\pm 10\%$	56-231
0.396	$\pm .100$	9.30	$\pm 10\%$	56-231
0.396	$\pm .100$	9.95	$\pm 10\%$	56-231
0.475	$\pm .100$	8.15	$\pm 10\%$	56-231
0.475	$\pm .100$	8.60	$\pm 10\%$	56-231
0.50	$\pm .06$	7.3	$\pm 10\%$	56-149
0.558	$\pm .100$	7.86	$\pm 10\%$	56-231
0.558	$\pm .100$	8.16	$\pm 10\%$	56-231
0.640	$\pm .100$	7.38	$\pm 10\%$	56-231
0.640	$\pm .100$	7.47	$\pm 10\%$	56-231
0.640	$\pm .100$	7.75	$\pm 10\%$	56-231
0.725	$\pm .100$	7.22	$\pm 10\%$	56-231
0.804	$\pm .100$	6.70	$\pm 10\%$	56-231
0.804	$\pm .100$	7.18	$\pm 10\%$	56-231
0.882	$\pm .100$	6.70	$\pm 10\%$	56-231
0.970	$\pm .100$	6.75	$\pm 10\%$	56-231
1.00	$\pm .05$	5.4	$\pm 10\%$	56-149
1.044	$\pm .100$	6.12	$\pm 10\%$	56-231
1.128	$\pm .100$	6.09	$\pm 10\%$	56-231
1.210	$\pm .100$	6.01	$\pm 10\%$	56-231
1.290	$\pm .100$	6.12	$\pm 10\%$	56-231
1.368	$\pm .100$	6.18	$\pm 10\%$	56-231

 $\sigma_{n, n'}$

0.15	-----	0.44	± 0.20	57-8
0.25	-----	0.48	± 0.15	57-8
0.29	$\pm .03$	0.4	± 0.1	56-353
0.50	-----	0.67	± 0.15	57-8
0.50	$\pm 3\%$	0.8	$\pm 20\%$	56-215
0.770	$\pm .002$	0.9	± 0.3	56-353

$\sigma_{n, n'}$

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.80	$\pm 3\%$	1.3	$\pm 20\%$	56-215
0.85	$\pm 3\%$	1.35	$\pm 20\%$	56-215
0.90	$\pm 3\%$	1.8	$\pm 20\%$	56-215
0.95	$\pm 3\%$	1.5	$\pm 20\%$	56-215
1.00	$\pm 3\%$	1.7	$\pm 20\%$	56-215
1.020	$\pm .003$	1.6	± 0.5	56-353

 $\sigma_{n, n'}$

(For Excitation of Levels at .654, .710, .725, .900, 1.010, 1.080, 1.210, 1.430 Mev).

0.60	$\pm .06$	0.0	$\pm 15\%$	58-11
0.65	$\pm .06$	0.035	$\pm 15\%$	58-11
0.71	$\pm .06$	0.085	$\pm 15\%$	58-11
0.75	$\pm .06$	0.170	$\pm 15\%$	58-11
0.81	$\pm .06$	0.300	$\pm 15\%$	58-11
0.84	$\pm .06$	0.325	$\pm 15\%$	58-11
0.92	$\pm .06$	0.430	$\pm 15\%$	58-11
0.96	$\pm .06$	0.515	$\pm 15\%$	58-11
1.00	$\pm .05$	0.550	$\pm 15\%$	58-11
1.08	$\pm .05$	1.155	$\pm 15\%$	58-11
1.10	$\pm .05$	1.290	$\pm 15\%$	58-11
1.22	$\pm .05$	1.695	$\pm 15\%$	58-11
1.25	$\pm .05$	1.880	$\pm 15\%$	58-11
1.38	$\pm .05$	1.085	$\pm 15\%$	58-11
1.50	$\pm .04$	1.750	$\pm 15\%$	58-11
1.61	$\pm .04$	1.180	$\pm 15\%$	58-11

 $\sigma_{n, 2n}$

6.00	-----	0.00	-----	56-280
6.61	-----	0.070	-----	56-280
6.82	-----	0.27	-----	56-280
7.10	-----	0.47	-----	56-280
7.38	-----	0.77	-----	56-280
8.50	-----	1.16	-----	56-280

$\sigma_{n, 2n}$				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
9.61	-----	1.21	-----	56-280
10.11	-----	1.20	-----	56-280

$\sigma_{n, \gamma}$				
0.005	$\pm .002$	0.815	-----	46-313
0.025	$\pm .005$	0.610	± 0.061	57-272
0.029	$\pm .020$	0.376	± 0.077	55-10
0.040	$\pm .020$	0.456	-----	46-313
0.093	$\pm .025$	0.207	± 0.037	55-10
0.107	$\pm .025$	0.278	± 0.028	55-10
0.152	$\pm .020$	0.160	± 0.008	55-10
0.170	$\pm .025$	0.189	-----	46-313
0.224	$\pm .035$	0.149	± 0.008	55-10
0.240	-----	0.165	-----	43-309
0.300	$\pm .033$	0.135	± 0.007	55-10
0.360	$\pm .033$	0.124	± 0.008	55-10
0.390	$\pm .032$	0.116	± 0.006	55-10
0.392	$\pm .050$	0.124	± 0.008	55-10
0.400	$\pm .025$	0.131	-----	46-313
0.400	-----	0.123	± 0.013	45-12
0.530	$\pm .070$	0.124	± 0.008	55-10
0.600	-----	0.129	± 0.013	45-12
0.615	$\pm .025$	0.140	-----	46-313
0.682	$\pm .070$	0.147	± 0.009	55-10
0.770	-----	0.156	-----	46-313
0.840	$\pm .070$	0.161	± 0.010	55-10
1.31	$\pm .04$	0.095	-----	46-313
2.08	-----	0.039	± 0.05	45-12
2.52	-----	0.027	± 0.005	45-12
2.80	$\pm .20$	<0.04	-----	46-313
3.00	-----	0.0235	± 0.0025	45-12
3.52	-----	0.012	± 0.0025	45-12

E_n (Mev)	ΔE_n (Mev)	$\sigma_{n,\gamma}$ σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
4.05	-----	0.0135	± 0.0020	45-12
5.90	$\pm .10$	0.019	-----	46-313

σ_f				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.49	$\pm .10$	0.0	$\pm 4\%$	55-268
0.57	$\pm .10$	0.001	$\pm 4\%$	55-268
0.61	$\pm .10$	0.002	$\pm 4\%$	55-268
0.64	$\pm .10$	0.002	$\pm 4\%$	55-268
0.68	$\pm .10$	0.002	$\pm 4\%$	55-268
0.72	$\pm .10$	0.002	$\pm 4\%$	55-268
0.74	$\pm .10$	0.003	$\pm 4\%$	55-268
0.76	$\pm .10$	0.003	$\pm 4\%$	55-268
0.78	$\pm .10$	0.004	$\pm 4\%$	55-268
0.79	$\pm .10$	0.004	$\pm 4\%$	55-268
0.81	$\pm .10$	0.006	$\pm 4\%$	55-268
0.83	$\pm .10$	0.005	$\pm 4\%$	55-268
0.85	$\pm .10$	0.007	$\pm 4\%$	55-268
0.87	$\pm .10$	0.008	$\pm 4\%$	55-268
0.89	$\pm .10$	0.010	$\pm 4\%$	55-268
0.91	$\pm .10$	0.012	$\pm 4\%$	55-268
0.93	$\pm .10$	0.014	$\pm 4\%$	55-268
0.95	$\pm .10$	0.018	$\pm 4\%$	55-268
0.97	$\pm .10$	0.018	$\pm 4\%$	55-268
0.98	$\pm .10$	0.017	$\pm 4\%$	55-268
0.99	$\pm .10$	0.017	$\pm 4\%$	55-268
1.00	-----	0.0132	$\pm 5\%$	58-352
1.00	$\pm .10$	0.018	$\pm 4\%$	55-268
1.01	$\pm .10$	0.017	$\pm 4\%$	55-268
1.02	$\pm .10$	0.018	$\pm 4\%$	55-268
1.03	$\pm .10$	0.018	$\pm 4\%$	55-268
1.04	$\pm .10$	0.018	$\pm 4\%$	55-268
1.05	$\pm .10$	0.019	$\pm 4\%$	55-268

σ_f				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.06	$\pm .10$	0.018	$\pm 4\%$	55-268
1.07	$\pm .10$	0.021	$\pm 4\%$	55-268
1.08	$\pm .10$	0.022	$\pm 4\%$	55-268
1.09	$\pm .10$	0.022	$\pm 4\%$	55-268
1.10	$\pm .10$	0.028	$\pm 4\%$	55-268
1.11	$\pm .10$	0.027	$\pm 4\%$	55-268
1.11	$\pm .03$	0.015	-----	43-54
1.115	$\pm 1\%$	0.017	-----	44-240
1.12	$\pm .10$	0.029	$\pm 4\%$	55-268
1.13	$\pm .10$	0.028	$\pm 4\%$	55-268
1.14	$\pm .10$	0.035	$\pm 4\%$	55-268
1.15	$\pm .10$	0.034	$\pm 4\%$	55-268
1.16	$\pm .10$	0.041	$\pm 4\%$	55-268
1.17	$\pm .10$	0.036	$\pm 4\%$	55-268
1.18	$\pm .10$	0.040	$\pm 4\%$	55-268
1.19	$\pm .10$	0.040	$\pm 4\%$	55-268
1.20	-----	0.04	-----	57-18
1.20	$\pm .10$	0.041	$\pm 4\%$	55-268
1.205	-----	0.0685	$\pm 5\%$	58-352
1.21	$\pm .10$	0.041	$\pm 4\%$	55-268
1.22	$\pm .10$	0.038	$\pm 4\%$	55-268
1.225	$\pm 1\%$	0.042	-----	44-240
1.23	$\pm .10$	0.041	$\pm 4\%$	55-268
1.232	$\pm 1\%$	0.032	-----	44-240
1.24	$\pm .10$	0.045	$\pm 4\%$	55-268
1.24	$\pm .03$	0.040	-----	43-54
1.25	$\pm .10$	0.045	$\pm 4\%$	55-268
1.26	$\pm .10$	0.048	$\pm 4\%$	55-268
1.27	$\pm .10$	0.042	$\pm 4\%$	55-268
1.275	$\pm 1\%$	0.055	-----	44-240
1.28	$\pm .02$	0.057	-----	44-311
1.28	$\pm .10$	0.050	$\pm 4\%$	55-268
1.29	$\pm .10$	0.057	$\pm 4\%$	55-268

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.30	$\pm .10$	0.063	$\pm 4\%$	55-268
1.31	$\pm .10$	0.064	$\pm 4\%$	55-268
1.32	$\pm .10$	0.078	$\pm 4\%$	55-268
1.33	$\pm .10$	0.079	$\pm 4\%$	55-268
1.34	$\pm .10$	0.084	$\pm 4\%$	55-268
1.35	$\pm .10$	0.090	$\pm 4\%$	55-268
1.36	$\pm .10$	0.105	$\pm 4\%$	55-268
1.37	$\pm .10$	0.109	$\pm 4\%$	55-268
1.375	$\pm 1\%$	0.147	-----	44-240
1.38	$\pm .10$	0.134	$\pm 4\%$	55-268
1.40	$\pm .10$	0.139	$\pm 4\%$	55-268
1.40	$\pm .10$	0.158	$\pm 4\%$	55-268
1.400	$\pm 1\%$	0.135	-----	44-240
1.400	$\pm 1\%$	0.163	-----	44-240
1.41	$\pm .10$	0.170	$\pm 4\%$	55-268
1.42	$\pm .10$	0.180	$\pm 4\%$	55-268
1.42	$\pm .03$	0.155	-----	43-54
1.44	$\pm .10$	0.210	$\pm 4\%$	55-268
1.46	$\pm .10$	0.240	$\pm 4\%$	55-268
1.48	$\pm .10$	0.290	$\pm 4\%$	55-268
1.483	$\pm 1\%$	0.300	-----	44-240
1.49	$\pm .03$	0.355	-----	43-54
1.49	$\pm .10$	0.250	$\pm 4\%$	55-268
1.50	-----	0.3566	$\pm 5\%$	58-352
1.50	$\pm .10$	0.32	$\pm 4\%$	55-268
1.50	-----	0.33	-----	57-18
1.52	$\pm .10$	0.34	$\pm 4\%$	55-268
1.54	$\pm .10$	0.35	$\pm 4\%$	55-268
1.55	$\pm .03$	0.370	-----	43-54
1.550	$\pm 1\%$	0.328	-----	44-240
1.550	$\pm 1\%$	0.350	-----	44-240
1.57	$\pm .02$	0.35	-----	44-311
1.57	$\pm .10$	0.37	$\pm 4\%$	55-268

σ_f				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.575	$\pm 1\%$	0.358	-----	44-240
1.58	$\pm .10$	0.38	$\pm 4\%$	55-268
1.59	$\pm .10$	0.36	$\pm 4\%$	55-268
1.62	$\pm .10$	0.39	$\pm 4\%$	55-268
1.63	$\pm .10$	0.41	$\pm 4\%$	55-268
1.65	$\pm .10$	0.42	$\pm 4\%$	55-268
1.67	$\pm .10$	0.43	$\pm 4\%$	55-268
1.69	$\pm .10$	0.43	$\pm 4\%$	55-268
1.698	$\pm 1\%$	0.387	-----	44-240
1.70	$\pm .03$	0.420	-----	43-54
1.70	-----	0.43	-----	57-18
1.700	$\pm 1\%$	0.402	-----	44-240
1.71	$\pm .10$	0.44	$\pm 4\%$	55-268
1.736	-----	0.4405	$\pm 5\%$	58-352
1.74	$\pm .10$	0.45	$\pm 4\%$	55-268
1.756	$\pm 1\%$	0.420	-----	44-240
1.76	$\pm .10$	0.47	$\pm 4\%$	55-268
1.78	$\pm .10$	0.47	$\pm 4\%$	55-268
1.80	$\pm .10$	0.48	$\pm 4\%$	55-268
1.80	$\pm .03$	0.430	-----	43-54
1.800	$\pm 1\%$	0.413	-----	44-240
1.815	$\pm 1\%$	0.425	-----	44-240
1.83	$\pm .10$	0.49	$\pm 4\%$	55-268
1.85	$\pm .10$	0.52	$\pm 4\%$	55-268
1.87	$\pm .10$	0.52	$\pm 4\%$	55-268
1.880	$\pm 1\%$	0.453	-----	44-240
1.89	$\pm .10$	0.50	$\pm 4\%$	55-268
1.92	$\pm .10$	0.53	$\pm 4\%$	55-268
1.938	$\pm 1\%$	0.450	-----	44-240
1.94	$\pm .10$	0.53	$\pm 4\%$	55-268
1.96	$\pm .10$	0.54	$\pm 4\%$	55-268
1.98	$\pm .10$	0.52	$\pm 4\%$	55-268
1.988	$\pm 1\%$	0.476	-----	44-240

σ_f

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
2.0	-----	0.46	± 0.01	57-218
2.00	-----	0.5557	$\pm 5\%$	58-352
2.00	-----	0.56	-----	57-18
2.01	$\pm .10$	0.54	$\pm 4\%$	55-268
2.02	$\pm .10$	0.54	$\pm 4\%$	55-268
2.03	$\pm .10$	0.53	$\pm 4\%$	55-268
2.04	$\pm .10$	0.54	$\pm 4\%$	55-268
2.06	$\pm .10$	0.55	$\pm 4\%$	55-268
2.10	$\pm .10$	0.55	$\pm 4\%$	55-268
2.12	$\pm .10$	0.56	$\pm 4\%$	55-268
2.14	$\pm .10$	0.56	$\pm 4\%$	55-268
2.16	$\pm .10$	0.55	$\pm 4\%$	55-268
2.19	$\pm .10$	0.56	$\pm 4\%$	55-268
2.21	$\pm .10$	0.55	$\pm 4\%$	55-268
2.24	$\pm .10$	0.57	$\pm 4\%$	55-268
2.26	$\pm .10$	0.55	$\pm 4\%$	55-268
2.30	$\pm .10$	0.56	$\pm 4\%$	55-268
2.30	$\pm .10$	0.58	$\pm 4\%$	55-268
2.35	$\pm .10$	0.57	$\pm 4\%$	55-268
2.39	$\pm .10$	0.56	$\pm 4\%$	55-268
2.40	$\pm .11$	0.50	± 0.12	39-191
2.44	$\pm .10$	0.55	$\pm 4\%$	55-268
2.48	$\pm .10$	0.58	$\pm 4\%$	55-268
2.50	-----	0.57	-----	57-18
2.50	$\pm .10$	0.57	$\pm 4\%$	55-268
2.50	-----	0.5638	$\pm 5\%$	58-352
2.55	$\pm .10$	0.58	$\pm 4\%$	55-268
2.60	$\pm .10$	0.57	$\pm 4\%$	55-268
2.66	$\pm .10$	0.57	$\pm 4\%$	55-268
2.70	$\pm .10$	0.58	$\pm 4\%$	55-268
2.75	$\pm .10$	0.58	$\pm 4\%$	55-268
2.80	$\pm .10$	0.57	$\pm 4\%$	55-268
2.85	$\pm .10$	0.58	$\pm 4\%$	55-268

		σ_f		
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
2.92	$\pm .10$	0.57	$\pm 4\%$	55-268
2.96	$\pm .10$	0.57	$\pm 4\%$	55-268
3.00	-----	0.5404	$\pm 5\%$	58-352
3.00	-----	0.55	-----	57-18
3.00	$\pm .10$	0.58	$\pm 4\%$	55-268
3.00	$\pm .02$	0.56	-----	44-311
3.06	$\pm .10$	0.58	$\pm 4\%$	55-268
3.12	$\pm .10$	0.58	$\pm 4\%$	55-268
3.16	$\pm .10$	0.59	$\pm 4\%$	55-268
3.23	$\pm .10$	0.60	$\pm 4\%$	55-268
3.28	$\pm .10$	0.60	$\pm 4\%$	55-268
3.29	$\pm .10$	0.59	$\pm 4\%$	55-268
3.30	$\pm .10$	0.60	$\pm 4\%$	55-268
3.38	$\pm .10$	0.60	$\pm 4\%$	55-268
3.40	-----	0.58	-----	46-239
3.43	$\pm .10$	0.62	$\pm 4\%$	55-268
3.49	$\pm .10$	0.61	$\pm 4\%$	55-268
3.50	-----	0.57	-----	57-18
3.50	-----	0.5602	$\pm 5\%$	58-352
3.52	$\pm .10$	0.61	$\pm 4\%$	55-268
3.53	$\pm .10$	0.62	$\pm 4\%$	55-268
3.59	$\pm .10$	0.62	$\pm 4\%$	55-268
3.60	$\pm .10$	0.63	$\pm 4\%$	55-268
3.65	$\pm .10$	0.63	$\pm 4\%$	55-268
3.72	$\pm .10$	0.63	$\pm 4\%$	55-268
3.77	$\pm .10$	0.65	$\pm 4\%$	55-268
3.81	$\pm .10$	0.64	$\pm 4\%$	55-268
3.88	$\pm .10$	0.66	$\pm 4\%$	55-268
3.95	$\pm .10$	0.66	$\pm 4\%$	55-268
4.00	-----	0.5644	$\pm 5\%$	58-352
4.00	-----	0.57	-----	57-18
4.03	$\pm .10$	0.65	$\pm 4\%$	55-268
4.10	$\pm .10$	0.68	$\pm 4\%$	55-268

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
4.18	$\pm .10$	0.67	$\pm 4\%$	55-268
4.25	$\pm .10$	0.67	$\pm 4\%$	55-268
4.50	-----	0.5639	$\pm 5\%$	58-352
4.50	-----	0.58	-----	57-18
4.80	-----	0.64	-----	46-239
5.00	-----	0.5678	$\pm 5\%$	58-352
5.00	-----	0.57	-----	57-18
5.50	-----	0.5737	$\pm 5\%$	58-352
5.50	-----	0.58	-----	57-18
5.85	-----	0.665	-----	46-239
6.00	-----	0.6227	$\pm 5\%$	58-352
6.00	-----	0.62	-----	57-18
6.50	-----	0.8269	$\pm 5\%$	58-352
6.50	-----	0.82	-----	57-18
7.00	-----	0.9645	$\pm 5\%$	58-352
7.00	-----	0.96	-----	57-18
7.50	-----	1.009	$\pm 5\%$	58-352
7.50	-----	1.00	-----	57-18
8.00	-----	0.9929	$\pm 5\%$	58-352
8.00	-----	0.99	-----	57-18
8.50	-----	1.040	$\pm 5\%$	58-352
8.50	-----	1.04	-----	57-18
8.8	-----	0.96	$\pm 5\%$	57-20
9.00	-----	1.049	$\pm 5\%$	58-352
9.00	-----	1.03	-----	57-18
9.4	-----	1.00	$\pm 5\%$	57-20
9.50	-----	1.022	$\pm 5\%$	58-352
9.50	-----	1.00	-----	57-18
10.00	-----	1.008	$\pm 5\%$	58-352
10.00	-----	1.00	-----	57-18
10.50	-----	0.960	$\pm 5\%$	58-352
10.7	-----	0.99	$\pm 5\%$	57-20
11.00	-----	1.040	$\pm 5\%$	58-352

σ_f

<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
11.90	-----	0.9756	$\pm 5\%$	58-352
12.20	-----	1.023	$\pm 5\%$	58-352
13.00	-----	1.069	$\pm 5\%$	58-352
13.2	-----	1.11	$\pm 5\%$	57-20
13.20	-----	1.043	$\pm 5\%$	58-352
13.86	-----	1.12	$\pm 5\%$	57-20
14.10	-----	1.1654	$\pm 5\%$	58-352

		σ_f		
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.25	$\pm .06$	0.04	± 0.01	47-179
0.35	$\pm .06$	0.1	± 0.01	47-179
0.380	$\pm 2\%$	0	----	44-240
0.45	$\pm$ ----	0.25	± 0.10	52-345
0.46	$\pm .06$	0.33	± 0.02	47-179
0.485	$\pm 2\%$	0.25	± 0.05	44-240
0.50	----	0.50	± 0.10	52-345
0.583	$\pm 1\%$	0.46	± 0.09	44-240
0.60	----	0.75	± 0.10	52-345
0.60	$\pm .06$	0.62	± 0.02	47-179
0.630	$\pm 1\%$	0.55	± 0.05	44-240
0.680	$\pm 1\%$	0.58	± 0.05	44-240
0.70	----	1.00	± 0.10	52-345
0.70	$\pm .06$	0.85	± 0.02	47-170
0.730	$\pm 1\%$	0.55	± 0.07	44-240
0.75	----	1.15	± 0.10	52-345
0.780	$\pm 1\%$	0.80	± 0.06	44-240
0.85	----	1.20	± 0.10	52-345
0.85	$\pm .06$	1.20	± 0.02	47-179
0.880	$\pm 1\%$	1.0	± 0.11	44-240
0.95	----	1.30	± 0.10	52-345
0.95	$\pm .06$	1.30	± 0.03	47-179
0.980	$\pm 1\%$	1.25	± 0.11	44-240
1.05	----	1.32	± 0.10	52-345
1.05	$\pm .06$	1.46	± 0.04	47-179
1.15	----	1.35	± 0.10	52-345
1.15	$\pm .06$	1.40	± 0.04	47-179
1.20	----	1.39	± 0.10	52-345
1.25	$\pm .06$	1.39	± 0.04	47-179
1.30	----	1.42	± 0.10	52-345
1.35	$\pm .06$	1.46	± 0.10	47-179
1.40	----	1.42	± 0.10	52-345
1.45	$\pm .06$	1.48	± 0.08	47-179

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
1.50	----	1.45	± 0.10	52-345
1.55	$\pm .06$	1.42	± 0.08	47-179
1.60	$\pm$ ----	1.42	± 0.10	52-345
1.65	$\pm .06$	1.51	± 0.08	47-179
1.70	----	1.48	± 0.10	52-345
1.80	----	1.48	± 0.10	52-345
1.90	----	1.50	± 0.10	52-345
1.95	----	1.45	± 0.10	52-345
2.05	----	1.50	± 0.10	52-345
2.15	----	1.50	± 0.10	52-345
2.25	----	1.50	± 0.10	52-345
2.35	----	1.51	± 0.10	52-345
2.45	----	1.51	± 0.10	52-345
2.5	$\pm .06$	1.46	± 0.03	47-179
2.55	----	1.49	± 0.10	52-345
2.65	----	1.52	± 0.10	52-345
2.70	----	1.53	± 0.10	52-345
3.0	$\pm .2$	1.49	± 0.02	47-179
3.05	----	1.53	± 0.10	52-345
3.65	----	1.53	± 0.10	52-345
4.00	----	1.57	± 0.10	52-345
4.30	----	1.56	± 0.10	52-345
4.60	----	1.57	± 0.10	52-345
4.85	----	1.58	± 0.10	52-345
5.10	-----	1.52	± 0.10	52-345
5.30	----	1.54	± 0.10	52-345
5.40	----	1.52	± 0.10	52-345
5.55	----	1.55	± 0.10	52-345
5.65	----	1.59	± 0.10	52-345
5.75	-----	1.61	± 0.10	52-345
5.85	----	1.67	± 0.10	52-345
6.00	----	1.72	± 0.10	52-345
6.10	----	1.76	± 0.10	52-345

σ_f				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ(Barns)</u>	<u>$\Delta \sigma$ (Barns)</u>	<u>Yr. Ref.</u>
6.20	-----	1.92	± 0.10	52-345
6.40	-----	1.96	± 0.10	52-345
6.50	-----	2.06	± 0.10	52-345
6.60	-----	2.17	± 0.10	52-345
6.70	-----	2.22	± 0.10	52-345
6.80	-----	2.25	± 0.10	52-345
6.90	-----	2.26	± 0.10	52-345
7.05	-----	2.40	± 0.10	52-345
7.15	-----	2.44	± 0.10	52-345
7.20	-----	2.40	± 0.10	52-345
7.35	-----	2.38	± 0.10	52-345
7.45	-----	2.53	± 0.10	52-345

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<u>σ_{tot}</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.0015	-----	18.5	-----	53-6
0.002	$\pm .001$	18.	± 1	51-308
0.01	$\pm .01$	14.	± 1	51-308
0.160	-----	11.5	-----	53-6
7.05	$\pm .17$	6.83	± 0.06	57-22
8.67	$\pm .15$	6.32	± 0.05	57-22
10.74	$\pm .11$	5.88	± 0.06	57-22
12.67	$\pm .09$	5.82	± 0.06	57-22
14.25	$\pm .07$	5.83	± 0.08	57-22
<u>σ_{non}</u>				
0.50	$\pm .06$	2.4	± 0.6	56-149
1.00	$\pm .05$	3.1	± 0.6	56-149
<u>σ_{el}</u>				
0.50	$\pm .06$	6.1	$\pm 10\%$	56-149
1.00	$\pm .05$	4.1	$\pm 10\%$	56-149
<u>σ_{abs}</u>				
0.0044	$\pm .0004$	4.4	± 0.6	56-16
0.0118	$\pm .0005$	3.2	± 0.5	56-16
0.0331	$\pm .0004$	1.7	± 0.5	56-16
0.0396	$\pm .0005$	2.2	± 0.5	56-16
0.0440	$\pm .0005$	2.4	± 0.5	56-16
0.0488	$\pm .0005$	2.5	± 0.5	56-16

σ_f				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.0041	$\pm 50\%$	3.24	± 0.13	44-240
0.0090	$\pm 50\%$	2.82	± 0.13	44-240
0.0139	$\pm 30\%$	3.01	± 0.10	44-240
0.0265	$\pm 10\%$	2.90	± 0.08	44-240
0.03	----	1.79	± 0.11	57-198
0.03	----	2.25	± 0.06	57-218
0.0465	$\pm 10\%$	2.62	± 0.07	44-240
0.050	----	1.80	----	57-18
0.06	----	1.98	± 0.04	57-218
0.070	----	1.82	----	57-18
0.0715	$\pm 5\%$	2.43	± 0.06	44-240
0.08	$\pm .03$	3.05	± 0.27	43-310
0.08	----	1.84	± 0.06	57-218
0.0965	$\pm 5\%$	2.44	± 0.06	44-240
0.097	----	1.89	----	57-18
0.0985	$\pm 5\%$	2.47	± 0.07	44-240
0.100	----	1.88	----	57-18
0.12	----	1.59	± 0.03	57-218
0.15	----	1.73	± 0.06	57-218
0.150	----	1.77	----	57-18
0.175	----	1.55	± 0.02	57-218
0.195	$\pm 5\%$	2.07	± 0.04	44-240
0.195	$\pm 5\%$	2.14	± 0.04	44-240
0.20	----	1.56	----	57-218
0.200	----	1.65	----	57-18
0.22	$\pm .03$	2.03	± 0.10	43-310
0.22	----	1.64	± 0.03	57-218
0.24	----	1.54	----	57-218
0.25	----	1.58	± 0.10	57-198
0.275	----	1.65	± 0.02	57-218
0.295	$\pm 2\%$	2.08	± 0.04	44-240
0.297	----	1.76	----	57-18
0.30	----	1.67	± 0.03	57-218

σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
0.33	----	1.65	----	57-218
0.35	----	1.80	----	57-218
0.395	$\pm 2\%$	1.90	± 0.04	44-240
0.397	----	1.61	----	57-18
0.433	----	1.69	----	57-18
0.445	----	1.68	± 0.02	57-218
0.47	$\pm .03$	1.59	± 0.14	43-310
0.495	$\pm 2\%$	1.96	± 0.02	44-240
0.50	----	1.68	± 0.03	57-218
0.500	----	1.76	----	57-218
0.55	----	1.68	± 0.02	57-218
0.56	$\pm .03$	1.94	± 0.08	43-310
0.565	----	1.68	----	57-18
0.65	----	1.68	± 0.02	57-218
0.680	----	1.69	----	57-18
0.853	-----	1.71	----	57-18
0.90	----	1.79	± 0.12	57-198
0.95	$\pm .03$	1.92	± 0.10	43-310
1.00	----	1.80	± 0.02	57-218
1.00	----	1.92	----	57-18
1.39	----	1.89	----	57-18
1.45	$\pm .03$	1.92	± 0.10	43-310
1.50	----	1.93	± 0.02	57-218
1.58	----	2.01	----	57-18
1.95	----	2.03	----	57-18
2.0	----	1.86	± 0.13	57-198
2.00	----	2.11	$\pm 5\%$	58-352
2.00	----	1.83	± 0.04	57-218
2.45	----	1.98	----	57-18
2.50	----	2.07	$\pm 5\%$	58-352
2.50	----	1.83	± 0.05	57-218
2.95	----	1.88	----	57-18
3.00	----	2.01	$\pm 5\%$	58-352

σ_f				
E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta\sigma$ (Barns)	Yr. Ref.
3.00	----	1.67	± 0.06	57-218
3.4	----	1.97	----	46-239
3.45	-----	1.87	----	57-18
3.50	----	1.97	$\pm 5\%$	58-352
3.92	----	1.89	----	57-18
4.00	----	1.90	$\pm 5\%$	58-352
4.12	----	1.92	----	57-18
4.50	----	1.85	$\pm 5\%$	58-352
4.8	----	1.94	----	46-239
5.0	----	2.10	± 0.13	57-198
5.00	----	1.82	----	57-18
5.00	----	1.83	$\pm 5\%$	58-352
5.50	----	1.82	$\pm 5\%$	58-352
5.50	----	1.78	-----	57-18
5.85	-----	1.935	----	46-239
5.95	----	1.90	----	57-18
6.00	----	1.84	$\pm 5\%$	58-352
6.25	----	1.98	$\pm 5\%$	58-352
6.45	----	2.05	----	57-18
6.50	----	2.00	$\pm 5\%$	58-352
6.95	----	2.11	----	57-18
7.00	----	2.11	$\pm 5\%$	58-352
7.40	----	2.24	----	57-18
7.50	----	2.22	$\pm 5\%$	58-352
7.95	----	2.21	----	57-18
8.00	----	2.35	$\pm 5\%$	58-352
8.40	----	2.41	----	57-18
8.50	----	2.42	$\pm 5\%$	58-352
9.00	----	2.43	$\pm 5\%$	58-352
9.00	----	2.50	----	57-18
9.45	----	2.44	----	57-18
9.50	----	2.41	$\pm 5\%$	58-352
10.00	----	2.43	$\pm 5\%$	58-352
10.00	----	2.46	----	57-18

<u>σ_f</u>				
<u>E_n (Mev)</u>	<u>ΔE_n (Mev)</u>	<u>σ (Barns)</u>	<u>$\Delta\sigma$ (Barns)</u>	<u>Yr. Ref.</u>
0.03	----	0.0	± 0.1	57-198
0.25	----	0.0	± 0.1	57-198
0.90	----	1.3	± 0.15	57-198
5.0	----	1.4	± 0.15	57-198

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σ_f

E_n (Mev)	ΔE_n (Mev)	σ (Barns)	$\Delta \sigma$ (Barns)	Yr. Ref.
0.57	----	0.0	----	55-279
1.5	----	1.4	----	55-279
4.5	----	1.4	----	55-279

REFERENCES

1. Private Communication (1958) C. T. Hibdon
2. Private Communication (1958) T. W. Bonner via J. M. Peterson
3. ANL-4515 (1950) Quarterly Report, Argonne National Laboratory
4. Proc. of Physico-Math. Soc. of Japan 21, 232-250 (1939) H. Aoki
5. TNCC-4 (1956) Tripartite Nuclear Cross Sections Committee Meeting Minutes
6. ANL-5175 (1953) Physics Div. Quarterly Report Supplement, Argonne National Laboratory
7. UCRL-5054 (1958) V. J. Ashby, H. C. Catron, L. L. Newkirk and C. J. Taylor
8. WASH-193 (1957) Reports to AEC Nuclear Cross Sections Advisory Group
9. WASH-192 (1956) Reports to AEC Nuclear Cross Sections Advisory Group
10. AERE NP/R 1743 (1955) B. Rose
11. Private Communication (1958) D. A. Lind
12. BR-574 (1945) Broda and Wilkinson (Values corrected by Rose, see ref. 10)
13. Private Communication (1958) J. M. Freeman via D. A. Lind
14. LA-1336 (1953) B. C. Diven
15. Phys. Rev. 109, 926 (1958) W. M. Good, J. H. Neiler and J. H. Gibbons
16. ORNL-2022 (1956) R. L. Macklin, H. W. Schmitt, and J. H. Gibbons (see ref. 139)
17. Private Communication (1958) LASL Results via J. M. Peterson
18. LA-2114 (1957) R. L. Henkel
19. Bull. Am. Phys. Soc. Ser. II 1, 29 (1956) R. K. Haling
20. Private Communication (1957) M. D. Goldberg, W. S. Hall and J. M. LeBlanc
21. Bull. Am. Phys. Soc. Ser. II 1, 175 (1956) T. W. Bonner and J. H. Slattery
22. UCRL-4980 (1957) A. Bratenahl, J. M. Peterson and J. P. Stoering
23. UCRL-5005 (1957) R. Booth, W. P. Ball and M. H. MacGregor
24. UCRL-5014 (1957) W. P. Ball, M. H. MacGregor and R. Booth
25. Bull. Am. Phys. Soc. Ser. II 1, 224 (1956) L. Rosen and A. H. Armstrong

REFERENCES

26. Bull. Am. Phys. Soc. Ser. II 1, 264 (1956) R. L. Macklin
27. Can. J. Phys. 31, 267 (1953) E. B. Paul and R. L. Clarke
28. Helv. Phys. Acta 26, 349 (1953) H. Alder, P. Huber and W. Halg
29. Helv. Phys. Acta 26, 451 (1953) R. Meier, R. Ricamo, P. Scherrer and W. Zunti
30. Helv. Phys. Acta 28, 33 (1955) T. Hurlimann and P. Huber
31. Helv. Phys. Acta 28, 227 (1955) J. Seitz and P. Huber
32. Helv. Phys. Acta 23, 561 (1950) E. Luscher, R. Ricamo, P. Scherrer and W. Zunti
33. Helv. Phys. Acta 29, 255 (1956) E. Baumgartner, W. Franzén, P. Huber, L. Schellenberg and F. Seiler
34. Journal of Experimental and Theoretical Physics (USSR) 31, 907 (1956) V. I. Strizhak
35. Nature 161, 475 (1948) S. G. Cohen
36. Nuclear Physics 1, 73 (1956) A. V. Cohen and P. H. White
37. AECU-2616 (1953) Annual Progress Report, M.I.T. Laboratory for Nuclear Science
38. Nuovo, Cim. Ser. 9 8, 383 (1951) R. Ricamo
39. ANL-4350 (1949) Physics Division Quarterly Report, Argonne National Laboratory
40. Phil. Mag. (7) 46, 17 (1955) J. M. Freeman, A. M. Lane and B. Rose
41. Phil. Mag. (7) 46, 963 (1955) L. E. Beghian, D. Hicks and B. Milman
42. Phys. Rev. 56, 260 (1939) W. H. Zinn, S. Seely and V. W. Cohen
43. Phys. Rev. 75, 785 (1949) W. E. Shoup and J. E. Hill
44. Phys. Rev. 71, 165 (1947) W. W. Havens, Jr., C. S. Wu, L. J. Rainwater and C. L. Meaker
45. Phys. Rev. 71, 174 (1947) C. S. Wu, L. J. Rainwater and W. W. Havens, Jr.
46. Phys. Rev. 71, 508 (1947) R. Fields, B. Russell, D. Sachs and A. Wattenberg
47. Phys. Rev. 72, 439 (1947) L. W. Seagondollar and H. H. Barschall
48. Phys. Rev. 73, 659 (1948) H. H. Barschall, C. K. Bockelman and L. W. Seagondollar
49. Phys. Rev. 75, 1124 (1949) R. K. Adair, H. H. Barschall, C. K. Bockelman and O. Sala
50. Phys. Rev. 76, 277 (1949) C. K. Bockelman, R. E. Peterson, R. K. Adair and H. H. Barschall

REFERENCES

51. Phys. Rev. 76, 308 (1949) R. K. Adair, C. K. Bockelman and R. E. Peterson
52. Phys. Rev. 76, 1146 (1949) H. H. Barschall, C. K. Bockelman, R. E. Peterson and R. K. Adair
53. Phys. Rev. 76, 1750 (1949) E. Melkonian
54. CF-618 (1943) A. O. Hanson
55. Phys. Rev. 77, 747 (1950) R. E. Peterson
56. Phys. Rev. 77, 787 (1950) J. L. Fowler and J. M. Slye, Jr.
57. Phys. Rev. 79, 28 (1950) J. M. Blair and J. R. Wallace
58. Phys. Rev. 79, 593 (1950) R. E. Peterson, H. H. Barschall and C. K. Bockelman
59. Phys. Rev. 79, 935 (1950) R. E. Peterson, R. K. Adair and H. H. Barschall
60. Phys. Rev. 79, 1018 (1950) R. K. Adair
61. Phys. Rev. 80, 145 (1950) R. L. Henkel and H. H. Barschall
62. Phys. Rev. 80, 818 (1950) C. H. Johnson and H. H. Barschall
63. Phys. Rev. 80, 1011 (1950) C. K. Bockelman
64. Phys. Rev. 78, 508 (1950) G. Freier, M. Fulk, E. E. Lampi and J. H. Williams
65. Phys. Rev. 81, 139 (1951) A. H. Lasday
66. Phys. Rev. 82, 67 (1951) V. Hummel and B. Hamermesh
67. Phys. Rev. 82, 117 (1951) C. H. Johnson, C. K. Bockelman and H. H. Barschall
68. Phys. Rev. 82, 378 (1951) S. Bashkin, F. P. Mooring and B. Petree
69. Phys. Rev. 83, 479 (1951) R. E. Fields and M. Walt
70. Phys. Rev. 83, 1123 (1951) W. W. Havens, Jr. and L. J. Rainwater
71. Phys. Rev. 83, 1148 (1951) B. Petree, C. H. Johnson and D. W. Miller
72. Phys. Rev. 84, 69 (1951) C. K. Bockelman, D. W. Miller, R. K. Adair and H. H. Barschall
73. Phys. Rev. 84, 162 (1951) P. H. Stelson and W. M. Preston
74. Phys. Rev. 84, 902 (1951) W. F. Stubbins
75. Phys. Rev. 85, 595 (1952) C. T. Hibdon, A. Langsdorf, Jr. and R. E. Holland

REFERENCES

76. Phys. Rev. 86, 483 (1952) J. J. Hinchey, P. H. Stelson and W. M. Preston
77. Phys. Rev. 86, 565 (1952) H. C. Martin and B. C. Diven
78. Phys. Rev. 87, 11 (1952) H. L. Poss, E. D. Salant, G. A. Snow and L. C. L. Yuan
79. Phys. Rev. 87, 716 (1952) A. B. Lillie
80. Phys. Rev. 88, 83 (1952) D. W. Miller, R. K. Adair, C. K. Bockelman and S. E. Darden
81. Phys. Rev. 88, 562 (1952) J. H. Coon, E. R. Graves and H. H. Barschall
82. Phys. Rev. 88, 600 (1952) D. D. Phillips, R. W. Davis and E. R. Graves
83. Phys. Rev. 88, 618 (1952) J. E. Brolley, Jr., J. L. Fowler and L. K. Schlacks
84. Phys. Rev. 88, 1309 (1952) S. G. Forbes
85. Phys. Rev. 88, 1354 (1952) P. H. Stelson and W. M. Preston
86. Phys. Rev. 89, 80 (1953) M. E. Battat and F. L. Ribe
87. Phys. Rev. 89, 204 (1953) E. M. Hafner, W. F. Hornyak, C. E. Falk, G. Snow and T. Coor
88. Phys. Rev. 89, 775 (1953) N. Nereson and S. Darden
89. Phys. Rev. 89, 1247 (1953) P. R. Tunncliffe
90. Phys. Rev. 89, 1271 (1953) M. Walt, R. L. Becker, A. Okazaki and R. E. Fields
91. Phys. Rev. 89, 1302 (1953) H. C. Martin and R. F. Taschek
92. Phys. Rev. 90, 339 (1953) C. L. Storrs and D. H. Frisch
93. Phys. Rev. 90, 615 (1953) S. C. Snowdon and W. D. Whitehead
94. Phys. Rev. 90, 618 (1953) H. R. Dvorak and R. N. Little, Jr.
95. Phys. Rev. 91, 66 (1953) R. M. Kiehn, C. Goodman and K. F. Hansen
96. Phys. Rev. 91, 473 (1953) B. J. Toppel and S. D. Bloom
97. Phys. Rev. 91, 655 (1953) R. W. Lamphere (see ref. 293)
98. Phys. Rev. 92, 323 (1953) J. D. Guernsey and C. Goodman (supplemented by private communication)
99. Phys. Rev. 92, 652 (1953) K. F. Hansen, R. M. Kiehn and C. Goodman
100. Phys. Rev. 92, 702 (1953) E. Melkonian, W. W. Havens, Jr. and L. J. Rainwater
101. Phys. Rev. 93, 461 (1954) A. Okazaki, S. E. Darden and R. B. Walton

REFERENCES

102. Phys. Rev. 93, 498 (1954) H. C. Martin
103. Phys. Rev. 93, 1062 (1954) M. Walt and H. H. Barschall
104. Phys. Rev. 93, 1086 (1954) G. M. Frye, Jr.
105. Phys. Rev. 94, 141 (1954) R. L. Henkel, L. Cranberg, G. A. Jarvis, R. Nobles and J. E. Perry, Jr.
106. Phys. Rev. 94, 389 (1954) R. E. Fields, R. L. Becker and R. K. Adair
107. Phys. Rev. 94, 651 (1954) C. F. Cook and T. W. Bonner
108. Phys. Rev. 94, 1678 (1954) N. Nereson and S. Darden
109. Phys. Rev. 95, 117 (1954) J. B. Weddell and J. H. Roberts
110. Phys. Rev. 95, 730 (1954) J. R. Smith
111. Phys. Rev. 95, 989 (1954) R. M. Kiehn and C. Goodman
112. Phys. Rev. 95, 1252 (1954) C. L. Storrs and D. H. Frisch
113. Phys. Rev. 96, 386 (1954) V. E. Scherrer, B. A. Allison and W. R. Faust
114. Phys. Rev. 96, 985 (1954) C. H. Johnson, H. B. Willard and J. K. Bair
115. Phys. Rev. 97, 563 (1955) J. R. Beyster, R. L. Henkel and R. A. Nobles
116. Phys. Rev. 97, 985 (1955) T. W. Bonner, F. Alba, A. Fernandez and M. Mazari
117. Phys. Rev. 97, 1205 (1955) E. R. Graves and R. W. Davis
118. Phys. Rev. 97, 1222 (1955) P. H. Stelson and E. C. Campbell
119. Phys. Rev. 98, 47 (1955) R. J. Prestwood
120. Phys. Rev. 98, 666 (1955) J. D. Seagrave and R. L. Henkel
121. Phys. Rev. 98, 669 (1955) H. B. Willard, J. K. Bair and J. D. Kingston
122. Phys. Rev. 98, 1216 (1955) J. R. Beyster, R. L. Henkel, R. A. Nobles and J. M. Kister
123. Phys. Rev. 99, 55 (1955) A. Okazaki
124. Phys. Rev. 99, 330 (1955) J. E. Brolley, Jr., M. E. Bunker, D. R. F. Cochran, R. L. Henkel, J. P. Mize and J. W. Starner
125. Phys. Rev. 99, 330 (1955) A. H. Armstrong, and J. E. Brolley, Jr.
126. Phys. Rev. 75, 919 (1949) A. N. Phillips, L. Rosen and R. F. Taschek

REFERENCES

127. Phys. Rev. 99, 1375 (1955) G. M. Frye, Jr., L. Rosen and L. Stewart
128. Phys. Rev. 99, 1446 (1955) J. M. Freeman
129. Phys. Rev. 100, 69 (1955) J. B. Marion and R. M. Brugger
130. Phys. Rev. 100, 174 (1955) H. L. Taylor, O. Lonsjo and T. W. Bonner
131. Phys. Rev. 100, 429 (1955) H. G. Blosser, C. D. Goodman, T. H. Handley and M. L. Randolph
132. Phys. Rev. 100, 763 (1955) R. W. Lamphere and R. E. Green
133. Phys. Rev. 100, 972 (1955) M. Mazari, F. Alba and V. Serment
134. Phys. Rev. 101, 247 (1956) J. B. Marion, R. M. Brugger and R. A. Chapman
135. Phys. Rev. 101, 103 (1956) J. J. Van Loef and D. A. Lind
136. Phys. Rev. 101, 294 (1956) J. B. Guernsey and C. Goodman
137. Phys. Rev. 101, 1516 (1956) J. B. Guernsey and A. Wattenberg
138. Phys. Rev. 102, 228 (1956) R. R. Palmer and L. M. Bollinger
139. Phys. Rev. 102, 797 (1956) R. L. Macklin, H. W. Schmitt and J. H. Gibbons
140. Phys. Rev. 102, 767 (1956) R. B. Day
141. Phys. Rev. 102, 1384 (1956) R. L. Becker and H. H. Barschall
142. Phys. Rev. 102, 1574 (1956) J. H. Gibbons
143. Phys. Rev. 102, 1580 (1956) H. W. Newson, J. H. Gibbons, H. Marshak, R. M. Williamson, R. A. Mobley, A. L. Toller and R. Block
144. Phys. Rev. 103, 328 (1956) G. M. Frye, Jr. and J. H. Gammel
145. Phys. Rev. 103, 335 (1956) A. H. Armstrong and G. M. Frye, Jr.
146. Phys. Rev. 103, 720 (1956) C. O. Muehlhaue, S. D. Bloom, H. E. Wegner and G. N. Glasoe
147. Phys. Rev. 103, 741 (1956) F. L. Ribe
148. Phys. Rev. 104, 479 (1956) M. L. Yeater, W. R. Mills and E. R. Gacrttner
149. Phys. Rev. 104, 731 (1956) R. C. Allen, R. B. Walton, R. B. Perkins, R. A. Olson and R. F. Taschek
150. Phys. Rev. 104, 1025 (1956) M. Zucker
151. Phys. Rev. 104, 1319 (1956) J. R. Beyster, M. Walt and E. W. Salini
152. Phys. Rev. 104, 1654 (1956) R. W. Lamphere

REFERENCES

153. Phys. Rev. 105, 193 (1957) R. O. Bondelid, K. L. Dunning and F. L. Talbott
154. Phys. Rev. 105, 198 (1957) H. W. Newson, J. H. Gibbons, H. Marshak, R. M. Williamson, R. C. Mobley, J. R. Patterson and P. F. Nichols
155. Phys. Rev. 105, 1350 (1957) B. C. Diven
156. Phys. Rev. 105, 1796 (1957) R. C. Allen
157. Phys. Rev. 106, 110 (1957) H. Marshak and H. W. Newson
158. Phys. Rev. 106, 965 (1957) R. A. Peck, Jr.
159. Phys. Rev. 106, 971 (1957) R. K. Haling, R. A. Peck, Jr., and H. P. Eubank
160. Phys. Rev. 106, 1252 (1957) P. H. Stelson and E. C. Campbell
161. Phys. Rev. 107, 155 (1957) M. A. Rothman, D. M. Van Patter, V. S. Dubey, W. C. Porter and C. E. Mandeville
162. Phys. Rev. 107, 824 (1957) L. Rosen and L. Stewart
163. Phys. Rev. 107, 1363 (1957) L. Allen, Jr., W. A. Biggers, R. J. Prestwood and R. K. Smith
164. Proc. Amsterdam Conf. on Nuclear Reactions 1135 (1956) G. C. Morrison
165. ANL-4277 (1949) Physics Division Quarterly Report, Argonne National Laboratory
166. Helv. Phys. Acta 20, 519 (1947) E. Bleuler
167. MDDC 228 (1946) E. Segre, K. Greisen, G. A. Linenberger and T. A. Miskel
168. Phys. Rev. 57, 669 (1940) M. R. MacPhail
169. Phys. Rev. 57, 1075 (1940) E. O. Salant and N. F. Ramsey
170. Phys. Rev. 59, 917 (1941) W. E. Good and G. Scharff-Goldhaber
171. Phys. Rev. 70, 101 (1946) E. R. Graves and J. H. Coon
172. Phys. Rev. 70, 245 (1946) H. H. Barschall and M. E. Battat
173. Phys. Rev. 73, 733 (1948) L. J. Rainwater, W. W. Havens, Jr., J. R. Dunning and C. S. Wu
174. Phys. Rev. 70, 583 (1946) C. L. Bailey, W. E. Bennett, T. Bergstrañ, R. G. Nuckolls, H. T. Richards and J. H. Williams
175. Phys. Rev. 70, 589 (1946) D. H. Frisch

REFERENCES

176. Phys. Rev. 70, 805 (1946) R. G. Nuckolls, C. L. Bailey, W. E. Bennett, T. Bergstrahl, H. T. Richards and J. H. Williams
177. Phys. Rev. 71, 20 (1947) M. Ageo, E. Amaldi, D. Bocciarelli and G. C. Trabacchi
178. Phys. Rev. 71, 497 (1947) A. Wattenberg
179. Phys. Rev. 72, 88 (1947) E. D. Klema
180. Phys. Rev. 72, 196 (1947) T. A. Hall and P. G. Koontz
181. Phys. Rev. 72, 207 (1947) W. Sleator, Jr.
182. Phys. Rev. 73, 106 (1948) E. D. Klema and A. D. Hanson
183. Phys. Rev. 76, 188 (1949) E. E. Lampi, G. Freier and J. H. Williams
184. Phys. Rev. 77, 286 (1950) L. E. Beghian, M. A. Grace, G. Preston and H. Halban
185. Phys. Rev. 77, 748 (1950) S. Bashkin, B. Petree, F. P. Mooring and R. E. Peterson
186. Phys. Rev. 78, 806 (1950) D. W. Miller
187. Phys. Rev. 80, 488 (1950) J. H. Coon
188. Phys. Rev. 52, 911 (1937) R. Ladenburg and M. H. Kanner
189. Phys. Rev. 73, 963 (1948) W. W. Havens, Jr., L. J. Rainwater, C. S. Wu and J. R. Dunning
190. J. Phys. U.S.S.R. 3, 231 (1940) A. I. Leipunsky
191. Phys. Rev. 56, 168 (1939) R. Ladenburg, M. H. Kanner, H. H. Barschall and C. C. Van Voorhis
192. Phys. Rev. 56, 207 (1939) M. MacPhail and J. Giarratana
193. Phys. Rev. 75, 1610 (1949) H. T. Gittings, H. H. Barschall and G. G. Everhart
194. Phys. Rev. 59, 681 (1941) I. Nonaka
195. Phys. Rev. 60, 693 (1941) H. F. Dunlap and R. N. Little
196. Phys. Rev. 61, 129 (1942) H. H. Barschall and R. Ladenburg
197. Phys. Rev. 69, 414 (1946) R. N. Little, R. W. Long and C. E. Mandeville
198. Atomnaya Energiya 2, 10 (1957) G. A. Dorofeev and Y. P. Dobrynin
199. Atomnaya Energiya 2, 68 (1957) V. I. Strizhak
200. Atomnaya Energiya 1, 155 (1956) N. N. Flerov and V. M. Talyzin
201. Atomnaya Energiya 1, 5 (1956) I. A. Radkevich, V. V. Vladimirovsky and V. V. Sokolovsky

REFERENCES

202. Journal of the Franklin Institute 260, 238 (1955) G. W. McClure and D. W. Kent
203. Phys. Rev. 53, 921 (1938) W. H. Zinn, S. Seely and V. W. Cohen
204. Phys. Rev. 58, 89 (1940) W. E. Good, G. Scharff-Goldhaber
205. Phys. Rev. 80, 469 (1950) V. Oda, J. Sanada and S. Yamabe
206. Phys. Rev. 85, 703 (1951) H. L. Poss, E. O. Salant and L. C. L. Yuan
207. Phys. Rev. 88, 686 (1952) L. S. Goodman
208. Phys. Rev. 89, 908 (1953) R. E. Fields, R. L. Becker and R. K. Adair
209. Proc. Phys. Soc. (London) A66, 120 (1953) B. Rose and J. M. Freeman
210. Proc. Phys. Soc. (London) A68, 1077 (1955) W. D. Allen and A. T. G. Ferguson
211. Nature 159, 473 (1947) K. W. Allen, W. E. Burcham and D. H. Wilkinson
212. Nature 163, 367 (1949) L. E. Beghian and H. H. Halban
213. Phil. Mag. (7) 46, 12 (1955) J. M. Freeman
214. Proc. Phys. Soc. (London) A68, 650 (1955) W. D. Allen, A. T. G. Ferguson and J. Roberts
215. Proc. Phys. Soc. (London) A69, 214 (1956) R. Batchelor
216. Proc. Roy. Soc. (London) A215, 278 (1952) A. W. Merrison and E. R. Wiblin
217. Proc. Phys. Soc. (London) A70, 195 (1957) D. L. Allan
218. Proc. Phys. Soc. (London) A70, 573 (1957) W. D. Allen and A. T. G. Ferguson
219. Proc. Roy. Soc. (London) A192, 114 (1947) K. W. Allen, W. E. Burcham and D. H. Wilkinson
220. Nuclear Physics 3, 375 (1957) C. P. Sikkema
221. ANL-4963 (1952) Physics Division Quarterly Report, Argonne National Laboratory
222. ANL-5031 (1953) Physics Division Quarterly Report, Argonne National Laboratory
223. ANL-5080 (1953) Physics Division Quarterly Report, Argonne National Laboratory

REFERENCES

- 224. ANL-5174 (1953) Physics Division Quarterly Report, Argonne National Laboratory
- 225. ANL-5273 (1954) Physics Division Quarterly Report, Argonne National Laboratory
- 226. ANL-5317 (1954) Physics Division Quarterly Report, Argonne National Laboratory
- 227. ANL-5420 (1955) Physics Division Summary Report, Argonne National Laboratory
- 228. ANL-5497 (1955) Physics Division Summary Report, Argonne National Laboratory
- 229. ANL-5498 (1955) Physics Division Summary Report, Argonne National Laboratory
- 230. ANL-5554 (1956) Physics Division Summary Report, Argonne National Laboratory
- 231. ANL-5567 (1956) A. Langsdorf, Jr., R. O. Lane, and J. E. Monohan
- 232. ANL-5609 (1956) Physics Division Summary Report, Argonne National Laboratory
- 233. ANL-4680 (1951) Physics Division Quarterly Report, Argonne National Laboratory
- 234. ANL-4476 (1950) Physics Division Quarterly Report, Argonne National Laboratory
- 235. ANL-4437 (1950) Physics Division Quarterly Report, Argonne National Laboratory
- 236. AERE-NP/R-2076 (Rev.) (1956) Proceedings of the Tripartite Conference (see ref. 56-148)
- 237. AD-3487 (1953) Semi-Annual Report, Bartol Research Foundation
- 238. LA-447 (1945) C. L. Bailey
- 239. LA-520 (1946) J. H. Williams
- 240. LA-150 (1944) J. H. Williams
- 241. NP-6142 (1956) Quarterly Progress Report, Naval Research Laboratory
- 242. AEC-D-3288 (1951) W. W. Havens, Jr. and L. J. Rainwater
- 243. IDO-16300 (1956) R. M. Brugger and R. G. Fluharty
- 244. IDO-16297 (1956) MTR Technical Branch Quarterly Report

REFERENCES

- 245. KAPL-1109 (1954) M. L. Yeater, P. L. Kelley and E. R. Gaerttner
- 246. ANL-5667 (1956) Physics Division Summary Report, Argonne National Laboratory
- 247. ANL-4552 (1950) Physics Division Quarterly Report, Argonne National Laboratory
- 248. AERE Rev/P-23 (1952) Progress Review, AERE, Harwell
- 249. BNL-82 (1950) Quarterly Report, Brookhaven National Laboratory
- 250. CU-163 (1957) E. Melkonian, V. Perez-Mendez, M. L. Melkonian and W. W. Havens, Jr.
- 251. AECD-2458 (1946) G. A. Linenberger, J. A. Miskel and E. G. Segre
- 252. ANL-4982 (1952) Physics Division Summary Report, Argonne National Laboratory
- 253. BNL-224 (C-18) (1953) Proceedings of the Mev Neutron Cross Sections Conference
- 254. CU-113 (1952) M. Levin, V. Perez-Mendez and W. W. Havens, Jr.
- 255. IDO-16373 (1957) MTR Technical Branch Quarterly Report
- 256. KAPL-1084 (1954) E. R. Gaerttner, M. L. Yeater and R. D. Albert
- 257. LA-243 (1945) H. Barschall
- 258. LA-515 (1947) E. D. Klema
- 259. MDDC-3 (1946) W. W. Havens, Jr. and L. J. Rainwater
- 260. MDDC-286 (1944) K. I. Greisen
- 261. MDDC-405 (1946) L. J. Rainwater, W. W. Havens, Jr., C. S. Wu, and J. R. Dunning (see Phys. Rev. 71, 65)
- 262. NRL-4666 (1955) W. I. McGarry, J. O. Elliot and W. R. Faust
- 263. ORNL-1278 (1951) Physics Division Quarterly Report, Oak Ridge National Laboratory
- 264. ORNL-1365 (1952) Physics Division Quarterly Report, Oak Ridge National Laboratory

REFERENCES

- 265. ORNL-1496 (1952) Physics Division Quarterly Report, Oak Ridge National Laboratory
- 266. ORNL-1620 (1953) Physics Division Semi-Annual Progress Report, Oak Ridge National Laboratory
- 267. ORNL-1879 (1955) Physics Division Semi-Annual Progress Report, Oak Ridge National Laboratory
- 268. ORNL-1926 (1955) Physics Division Semi-Annual Progress Report, Oak Ridge National Laboratory
- 269. ORNL-1975 (1955) Physics Division Semi-Annual Progress Report, Oak Ridge National Laboratory
- 270. ORNL-2076 (1956) Physics Division Semi-Annual Progress Report, Oak Ridge National Laboratory
- 271. ORNL-2204 (1956) Physics Division Semi-Annual Progress Report, Oak Ridge National Laboratory
- 272. ORNL-2302 (1957) Physics Division Semi-Annual Progress Report, Oak Ridge National Laboratory (see also ref. 305)
- 273. ORNL-2309 (1956) Conference on Neutron Physics by Time-of-Flight, (see also ref. 15)
- 274. UCRL-4790 (1956) M. H. MacGregor, W. P. Ball and R. Booth
- 275. UCRL-4876 (1957) R. Booth, W. P. Ball and M. H. MacGregor
- 276. WASH-189 (1955) Reports to the AEC NCSAG
- 277. WASH-190 (1956) Reports to the AEC NCSAG
- 278. WASH-191 (1956) Reports to the AEC NCSAG
- 279. WASH-278 (1955) Excerpts from the Program Status Summary, LASL
- 280. WASH-725 (1956) Excerpts from the Program Status Summary, LASL
- 281. Phys. Rev.55, 108 (1939) S. Kikuchi and H. Aoki
- 282. Phys. Rev.56, 881 (1939) E. Amaldi, D. Bocciarelli, F. Rasetti and G. C. Trabacchi
- 283. Phys. Rev.81, 184 (1951) B. L. Cohen
- 284. Phys. Rev.82, 969 (1952) M. A. Grace, L. E. Beghian, G. Preston and H. Halban
- 285. Phys. Rev.84, 169 (1951) E. Wantuch
- 286. Phys. Rev.84, 296 (1951) B. G. Whitmore and G. E. Dennis
- 287. Phys. Rev.84, 775 (1951) C. H. Johnson, B. Petree and R. K. Adair

REFERENCES

288. Phys. Rev. 84, 869 (1951) W. Selove
289. Phys. Rev. 89, 712 (1953) J. P. Conner
290. Phys. Rev. 89, 1165 (1953) R. K. Adair, A. Okazaki,
and M. Walt
291. Phys. Rev. 89, 1232 (1953) A. E. Francis, J. J. G. McCue
and C. Goodman
292. Phys. Rev. 89, 1268 (1953) V. E. Scherrer, R. B. Theus
and W. R. Faust
293. Private Communication (1958) R. W. Lamphere
294. Phys. Rev. 91, 1476 (1953) V. E. Scherrer, R. B. Theus
and W. R. Faust
295. Phys. Rev. 97, 1266 (1955) M. E. Battat and E. R. Graves
296. Phys. Rev. 98, 677 (1955) M. Walt and J. R. Beyster
297. Phys. Rev. 92, 114 (1953) W. D. Whitehead and S. C. Snowdon
298. Phys. Rev. 93, 197 (1954) A. A. Ebel and C. Goodman
299. Phys. Rev. 93, 199 (1954) H. C. Martin, B. C. Diven
and R. F. Taschek
300. Phys. Rev. 100, 1329 (1955) C. P. Swann and F. R. Metzger
301. Phys. Rev. 94, 144 (1954) E. A. Eliot, D. Hicks, L. E. Beghian
and H. Halban
302. Phys. Rev. 94, 941 (1954) L. C. Thompson and J. R. Risser
303. Phys. Rev. 94, 1267 (1954) S. C. Snowdon and W. D. Whitehead
304. Phys. Rev. 104, 1054 (1956) R. M. Brugger, J. E. Evans,
E. G. Joki and R. S. Shankland
305. Phys. Rev. 107, 504 (1957) R. L. Macklin, N. H. Lazar
and W. S. Lyon
306. Phys. Rev. 107, 1065 (1957) R. B. Walton, J. D. Clement
and F. Boreli
307. CF-638 (1943) D. L. Benedict and A. O. Hanson
308. CUD-92 (1951) W. W. Havens, Jr., E. Melkonian,
L. J. Rainwater and M. Levin
309. LA-16 (1943) G. A. Linenberger, M. L. Perlman
and E. Segre
310. LA-28 (1943) R. F. Taschek and J. H. Williams
311. LA-128 (1944) T. A. Hall, P. G. Koontz and B. Rossi

REFERENCES

312. LA-188 (1944) E. D. Klema
313. LA-467 (1946) G. A. Linenberger and J. A. Miskel
314. LA-1060 (1950) R. K. Adair, H. H. Barschall, C. K. Bockelman, E. R. Graves, R. L. Henkel and R. E. Peterson
315. NP-1948 (1950) H. B. Willard, W. M. Preston and C. Goodman
316. Phys. Rev. 108, 99 (1957) G. J. Fischer
317. Phys. Rev. 108, 110 (1957) Se Hee Ahn and J. H. Roberts
318. Phys. Rev. 108, 414 (1957) C. T. Hibdon
319. Phys. Rev. 108, 726 (1957) M. H. MacGregor, W. P. Ball and R. Booth
320. Phys. Rev. 108, 1028 (1957) H. S. Hans and S. C. Snowdon
321. Phys. Rev. 109, 425 (1958) J. A. Grundl, R. L. Henkel and B. L. Perkins
322. Phys. Rev. 109, 891 (1958) J. E. Wills, Jr., J. K. Bair, H. O. Cohn and H. B. Willard
323. Phys. Rev. 109, 947 (1958) J. F. Vervier and A. Martegani
324. Phys. Rev. 109, 1268 (1958) J. P. Conner
325. Phys. Rev. 109, 1620 (1958) R. C. Block, W. Haeberli and H. W. Newson
326. Phys. Rev. 109, 2031 (1958) J. Terrell and D. M. Holm
327. ANL-4174 (1948) Physics Division Quarterly Report, Argonne National Laboratory
328. Phys. Rev. 110, 139 (1958) C. F. Williamson, E. L. Hudspeth, I. L. Morgan and R. G. Moore
329. WASH-165 (1954) Unpublished LASL Data
330. WASH-159 (1954) Unpublished LASL Data
331. WASH-910 (1957) Unpublished LASL Data
332. WASH-78 (1952) Unpublished LASL Data
333. WASH-66 (1951) Unpublished LASL Data
334. LA-1142 (1950) R. W. Davis and D. D. Phillips
335. LA-1483 (1952) J. H. Coon, R. O. Bondelid and D. D. Phillips
336. WASH-76 (1952) Unpublished LASL Data
337. WASH-726 (1956) Unpublished LASL Data

REFERENCES

- 338. LA-2111 (1957) L. Rosen and L. Stewart
- 339. WASH-909 (1957) Unpublished LASL Data
- 340. WASH-286 (1955) Unpublished LASL Data
- 341. KAPL-991 (1953) Physics Division Quarterly Report, Knolls Atomic Power Laboratory
- 342. WASH-160 (1954) Unpublished LASL Data
- 343. PR-P-28 (1955) Unpublished Chalk River Data
- 344. LAMS-663 (1947) H. H. Barschall, G. G. Everhart, H. T. Gittings, A. Hemmendinger, G. A. Jarvis and R. F. Taschek
- 345. LA-1495 (1952) L. Cranberg, R. B. Day, W. Hawkins, R. L. Henkel, G. A. Jarvis, N. Lazar, R. Nobles, J. E. Perry, R. Smith and M. Walt
- 346. Nuclear Physics 5, 211 (1958) R. A. Nobles and R. B. Leachman
- 347. Nuclear Physics 5, 351 (1958) C. P. Sikkema, P. J. Pasma and H. H. Van Barneveld
- 348. Nuclear Physics 5, 603 (1958) J. E. Lynn, F. W. K. Kirk and M. C. Moxon
- 349. Nuclear Physics 6, 260 (1958) J. F. Vervier and A. Martegani
- 350. Doklady Akademii Nauk SSSR 113, 537 (1957) B. G. Dzantiev, V. N. Levkovskii, and A. D. Malievskii
- 351. Doklady Akademii Nauk SSSR 113, 1032 (1957) V. N. Levkovskii
- 352. Private Communication (1958) R. K. Smith, R. L. Henkel, and R. A. Nobles
- 353. Journal of Experimental and Theoretical Physics (SSSR) 30, 1017 (1956) Kh. R. Poze and N. P. Glazkov