

**An Integrated System for Production of Neutronics and
Photonics Computational Constants
Volume 8**

**GRAPHICAL EXPERIMENTAL DATA FOR
SUPPLEMENTAL NEUTRON-INDUCED INTERACTIONS**

D. E. Cullen, R. C. Haight, R. J. Howerton,
M. H. MacGregor, and S. T. Perkins

October 31, 1974

Prepared for U.S. Atomic Energy Commission under contract No. W-7405-Eng-48



**LAWRENCE
LIVERMORE
LABORATORY**

University of California, Livermore

MASTER



LAWRENCE LIVERMORE LABORATORY
University of California, Livermore, California 94550

UCRL-50400 Volume 8

**GRAPHICAL EXPERIMENTAL DATA FOR
SUPPLEMENTAL NEUTRON-INDUCED INTERACTIONS**

D. E. Cullen, R. C. Haight, R. J. Howerton,
M. H. MacGregor, and S. T. Perkins

MS. date: October 31, 1974

NOTICE

This report was prepared as an account of work sponsored by the United States Government. Neither the United States nor the United States Atomic Energy Commission, nor any of their employees, nor any of their contractors, subcontractors, or their employees, makes any warranty, express or implied, or assumes any legal liability or responsibility for the accuracy, completeness or usefulness of any information, apparatus, product or process disclosed, or represents that its use would not infringe privately owned rights.

THIS REPORT
IS UNCLASSIFIED
DATE 10/15/83 BY SP-8
JRS/STP

Foreword

The UCRL-50400 series describes an integrated and computer-oriented system for the production and application of neutronics and photonics calculational constants.

The system must supply reliable up-to-date data, select specific types of data on request, provide output in a variety of forms — ultimately in the form of input to other computer codes, and function rapidly and efficiently. The system has now been developed to a point where these goals are being realized.

The UCRL-50400 series, An Integrated System for Production of Neutronics and Photonics Calculational Constants, comprises the following volumes:

- Vol. 1, ECSIL, A System for Storage, Retrieval and Display of Experimental Neutron Data, March 1974.
- Vol. 2, A Bibliography of the Experimental Data of Neutron-Induced Interactions, March 1974.
- Vol. 3, An Index of the Experimental Data of Neutron-Induced Interactions, March 1974.
- Vol. 4, Evaluated Nuclear Cross-Section Library, April 1971.
- Vol. 5, CLYDE: A Nuclear Data-Processing Computer Program for

Producing Calculational Constants, May 1971.

- Vol. 6, Photon Cross Sections 1 keV to 100 MeV, October 1968.
- Vol. 7, Graphical Experimental Data for Major Neutron-Induced Interactions, April 1974.
- Vol. 8, Graphical Experimental Data for Supplemental Neutron-Induced Interactions, to be published.
- Vol. 9, Thresholds of Nuclear Reactions Induced by Neutrons, Photons, Deuterons, Tritons, and Alpha Particles, September 1970.
- Vol. 10, Tabulated Experimental Data for Neutron-Induced Interactions, May 1974.
- Vol. 11, Experimental Data, Indexes and Techniques of Obtaining a Selected Set of Neutron Resonance Parameters, May 1972.
- Vol. 12, An Atlas of Resolved Neutron Resonance Parameters, July 1972.
- Vol. 13, An Atlas of Unresolved Neutron Resonance Parameters, September 1972.
- Vol. 14, TARTNP: A Coupled Neutron-Photon Monte Carlo Transport Code, June 1974.

GRAPHICAL EXPERIMENTAL DATA FOR SUPPLEMENTAL NEUTRON-INDUCED INTERACTIONS

Abstract

Volumes 7 and 8 present graphs of all cross sections contained in the *Experimental Cross Section Information Library (ECSIL)* as of March 1, 1974. Volume 7 consists primarily of interactions where a single data set contains enough points to show cross section behavior. Volume 8 consists of interactions where more than one data set is needed to show

cross section behavior. Thus, the total, elastic, capture, and fission cross sections (along with the parameters $\bar{\nu}$, σ , and η) are found in Vol. 7. All other reactions are in Vol. 8. For the sake of clarity, the data are plotted without associated error bars. The plots are arranged in ascending order of atomic number (Z) and atomic weight (A).

Introduction

In 1958, a computerized system for the storage and retrieval of experimental neutron-interaction data was installed at Lawrence Livermore Laboratory. The system has developed gradually and it is still being improved.

The present system¹ is made up of two separate files: A numeric data file and a bibliographic information file. The two files are linked through the use of a four digit number which is uniquely assigned to each reference.

In 1959 and 1960, tabulations of integrated and differential neutron cross sections below 15 MeV were published.

Since that time the number of entries in the system has increased by more than an order of magnitude. Consequently, there is too much data in the current library (almost one million data points) to publish tabulations of this information; the resulting volumes would be prohibitively expensive and bulky. However, by presenting the data in graphs² and on microfiche,³ we can significantly reduce the expense and the bulk. Moreover, the reduction in bulk means that indexes³ and bibliographies³ can be added to help in the manipulation of the data.

Graphical Data

The present ECSIL library contains 985 158 points, of which 823 568 points are cross sections. Of these points

790 694 (over 96%) are total, elastic,

As opposed to angular distributions and energy distributions.

capture, fission, $\bar{\nu}$, α or β and are, therefore, contained in Vol. 7. The remaining 32 814 points are contained in Vol. 8. Although Vol. 7 contains the vast majority of the data points, the division of data sets³ between the two volumes is more equitable: 1612 in Vol. 7, and 4113 in Vol. 8.

In this volume each data set is plotted separately. The plots are arranged in ascending atomic number (Z) and atomic weight (A) (see ECSH conventions for compounds and special materials). Within each material the reactions are arranged in C and S number order (see Tables 2 and 5). For each reaction, the plots are arranged in ascending least energy order (identical to the order in the data indexes,

Vol. 3). The reference number and year of the reference appear to the left of each plot (e.g., ECSH-3327 (6B) indicates that the ECSH reference number is 3327 and that the reference is dated 1969).

Any reference that contains a large number of points is first plotted as a single entity and is then followed by a number of subplots that slightly overlap in energy. Each subplot is chosen to contain an acceptable number of data points.

Any reference that contains less than four points is not plotted. Points from these references are listed at the end of each material (ZA) in C and S number order. Within each (C, S) they are listed by ascending incident energy.

Relationship to Other Volumes

This volume is closely related to other volumes in the ICRU-50400 series and can be used to determine whether experimental data are available for a given target and reaction. The following volumes provide other paths to the information:

Volume 1 describes the format and conventions associated with the library, as well as the supporting system of programs. The forms (e.g., plots and listings) and the order in which data and bibliographic information may be obtained are also given.

Volume 2 contains bibliographic indexes that can be used to determine whether a specific reference is included in the

ECSH system, and which experimental data are associated with the reference.

Volume 3 lists data indexes that may be used to determine the data in the library for a given isotope or reaction.

Volume 7 is a graphical presentation of the total, elastic, capture and fission integrated (as opposed to angular distribution) cross sections.

Volume 10 contains all of the ECSH data tabulated on microfiche.

Volume 11 lists the indexes and tabulated resonance parameters contained in ECSH.

Volume 12 lists selected tabulated resolved resonance parameters.

Volume 13 lists selected tabulated unresolved resonance parameters.

³A data set, in this context is the data from a given reference, for a single target and reaction.

Acknowledgments

We gratefully acknowledge the cooperation we have received from the National Neutron Cross Section Center at Brookhaven National Laboratory; the ENEA Center for collection of neutron data at Saclay; the IAEA Nuclear Data Section at Vienna; and the Nuclear Data Section at Obninsk. The National Neutron Cross Section Center has routinely supplied us with experimental data collected at the four centers.

Many experimenters have furnished us with their data in advance of publication. To them, especially, we offer our grateful thanks. Finally, we would like to express our sincere gratitude to Mrs. Violet Gamble for her effort in maintaining the bibliographic file and to Mr. Kenneth Hill for insuring that the numerous computer runs were satisfactorily completed.

References

1. D. E. Cullen, K. L. Hill, R. J. Howerton, and S. T. Perkins, ECNSL, A System for Storage, Retrieval and Display of Experimental Data, Lawrence Livermore Laboratory, Rept. UCRL-50400, Vol. 1, October 1974.
2. D. E. Cullen, R. C. Haight, R. J. Howerton, M. H. MacGregor, and S. T. Perkins, Graphical Experimental Data for Major Neutron-Induced Interactions, Lawrence Livermore Laboratory, Rept. UCRL-50400, Vol. 7, April 1974.
3. S. T. Perkins, D. E. Cullen, R. C. Haight, R. J. Howerton, and M. H. MacGregor, Tabulated Experimental Data for Neutron-Induced Interactions, Lawrence Livermore Laboratory, Rept. UCRL-50400, Vol. 10, to be published.
4. S. T. Perkins, D. E. Cullen, R. C. Haight, R. J. Howerton, and M. H. MacGregor, An Index to the Experimental Data of Neutron-Induced Interactions, Lawrence Livermore Laboratory, Rept. UCRL-50400, Vol. 3, March 1974.
5. S. T. Perkins, D. E. Cullen, R. C. Haight, R. J. Howerton, and M. H. MacGregor, A Bibliography of the Experimental Data of Neutron-Induced Interactions, Lawrence Livermore Laboratory, Rept. UCRL-50400, Vol. 2, March 1974.

ECSIL Conventions

The ECSIL Data System describes experimental neutron-induced cross sections and related information by indicating:

- **Target** – The ZA number is used to describe the target. There are several special conventions. For example, A is set equal to zero for elemental mixtures. For compounds, the Z of the element that appears first in the molecular formula is used, and A is defined as 300 plus the molecular weight (e.g., H₂O is assigned Z = 1 and A = 318). For unstable targets, the longest-lived isomer is assigned the ZA of the target; short lived isomers are assigned the Z of the target, and A is defined as 600 plus the A of the target (e.g., ^{242g}Am is assigned Z = 95 and A = 842). See Table 1 for a complete list of compounds and special isotopes.

- **Interaction** – A numerical equivalent is used to designate the interaction: total, elastic, capture, etc. In ECSIL this numerical equivalent is referred to as the basic C number. Table 2 gives a complete list of all basic C numbers.

MSG:lc

- **Interaction Property** – A numerical equivalent designates the interaction properties that are measured, such as cross section, angular distribution, or energy distribution. In ECSIL this numerical equivalent is referred to as the C increment number. The total C number used to describe the interaction and its property is the sum of the C number increment and the basic C number [e.g., 11 indicates the total (N,N') cross section, whereas 311 indicates the (N,N') secondary neutron energy spectrum]. Table 3 gives a complete list of all C number increments. Table 4 lists miscellaneous quantities that are not included in the basic C, C increment scheme.

- **Interaction Modifier** – A numerical equivalent is used to further qualify or describe the interaction. This quantity indicates conditions such as target temperature, the cross section for excitation of one or more levels of the residual nucleus, and the cross section for production of one or more photons. In ECSIL this numerical equivalent is referred to as the S number. Table 5 gives a complete list of all S numbers.

Table 1. Compounds and special isotopes
(assigned ZA's).

Assigned ZA	Material	Assigned ZA	Material
1302	H ₂ (gas)	14360	SiO ₂
1318	H ₂ O	16364	SO ₂
1320	D ₂ O	22349	TiH _{0.6}
5370	B ₂ O ₃	22350	TiH _{1.9}
6328	C ₂ H ₄	26460	Fe ₂ O ₃
6331	CH ₃ OH	27660	^{60m} Co
6376	C ₆ H ₆	40391	ZrH _{0.63}
6384	C ₆ H ₁₂	40392	ZrH _{0.98}
6386	C ₆ H ₁₄	40393	ZrH _{1.5}
6392	C ₃ H ₈ O ₃	40394	ZrH _{1.98}
6404	C ₈ H ₈	40423	ZrO ₂
6652	C ₂₅ H ₅₂	60636	Nd ₂ O ₃
7328	N ₂ (gas)	61748	^{148g} Pm
7353	NH ₄ Cl	82999	RADIO-Pb
7398	NH ₄ Br	92370	CO ₂
7445	NH ₄ I	95842	^{242g} Am
8332	O ₂ (gas)	95844	^{244g} Am
12340	MgO	99854	^{254m} Es
13402	Al ₂ O ₃		

Table 2. Basic reaction designator (basic C).

Basic C	Cross section type	Basic C	Cross section type
1	Total	26	(N,P)
2	Elastic	27	(N,XP)
3	Nonelastic	28	(N,D)
4	Neutron emission (elastic + nonelastic)	29	(N,ND)
5	Total scattering (inelastic + elastic)	30	(N,T)
6	Neutron nonelastic emission	31	(N,XT)
7	Removal	32	(N, ³ He)
8	—	33	(N,X ³ He)
9	—	34	(N, α)
10	—	35	(N,X α)
11	(N,N')	36	Activation
12	(N, $2N$)	37	(N, 2α)
13	(N, $3N$)	38	—
14	(N, $4N$)	39	—
15	(N,N'P)	40	—
16	(N,N'D)	41	Bound atom
17	(N,N'T)	42	Free atom
18	(N,N', ³ He)	43	Coherent scattering
19	(N,N', α)	44	Incoherent scattering
20	(N, γ)	45	—
21	—	46	$\bar{\nu}_p$, prompt neutrons per fission (average)
22	Absorption	47	$\bar{\nu}_d$, delayed neutrons per fission (average)
23	(N,fission)	48	η , neutrons produced per non-elastic
24	(N,N γ) gamma-ray production	49	α , capture-to-fission ratio
25	(N,N) charged-particle emission		

Table 3. Reaction designator increments (C increment).

C increment	Reaction property (units)	Definition
0	Integrated cross sections (barns), or related parameters	σ
50	Spectrum-averaged cross section (barns)	$\bar{\sigma}$
100 ^a	Angular distributions (barns/steradian)	$\sigma(E, \theta)$
200	Energy distributions (barns/MeV)	$\sigma(E, E')$
250	Angular distributions integrated between fixed angular limits (barns)	$\sigma(E, \theta_{\min}^{\theta_{\max}})_{\text{lab}}$
300	Differential energy distributions (barns/steradian MeV)	$\sigma(E, E', \theta)_{\text{lab}}$
350	Partial distributions integrated between fixed energy and angular limits (barns)	$\sigma(E, E'_{\min} E'_{\max}, \theta_{\min}^{\theta_{\max}})_{\text{lab}}$
400	Energy distributions integrated between fixed energy limits (barns)	$\sigma(E, E'_{\min} E'_{\max})$
450 ^a	Legendre expansion of angular distributions - $g_k(E)$ (dimensionless)	$\sigma(E, \theta) = \sigma(E) \sum_{k=0}^{\infty} \frac{2k+1}{4\pi} g_k(E) P_k(\cos \theta)$
500	Resonance integrals (barns)	$R, I = \int_{E_{\min}}^{E_{\max}} \sigma(E) \frac{dE}{E}$
550 ^a	Polarization (dimensionless)	$P(E, \theta)$
600	Partial distributions integrated between fixed energy limits (barns/steradian)	$\sigma(E, E'_{\min} E'_{\max}, \theta)_{\text{lab}}$
650	Partial distributions integrated between fixed angular limits (barns/MeV)	$\sigma(E, E', \theta_{\min}^{\theta_{\max}})_{\text{lab}}$
800	C/S ratios (dimensionless)	
900	Miscellaneous quantities	See: Table 4

^a Angular distributions for all unique two-body reactions are expressed in the center-of-mass system. Multibody reactions are expressed in the laboratory frame of reference.

Table 4. Reaction designator for miscellaneous quantities.

<u>C</u>		<u>Spectra parameters</u>			
901		Nuclear temperature, nonelastic (excluding fission)			
902		Nuclear temperature, total nonelastic			
903		Nuclear temperature, fission			
904		Nuclear temperature, inelastic (first neutron)			
905		Nuclear temperature (second neutron)			
<u>Thermal parameters</u>					
911		Thermal scattering law, $S(\alpha, \beta)$			
<u>Average resonance parameters</u>					
941	\bar{D} observed	944	$\bar{\Gamma}_n^k$		
942	$\bar{\Gamma}_\gamma$	945	\bar{D}_f		
943	$\bar{\Gamma}_f$	946	\bar{S}_f		
<u>Resolved resonance parameters</u>					
951	E_o (energy only)	965	$g\Gamma_n^2$	979	$\Gamma_n \sigma_o$
952	J, π	966	$g\Gamma_n$	981	$\sigma_o \Gamma_f / \Gamma_t$
953	i	967	$g\Gamma_n^o$	982	$\sigma_o \Gamma_\gamma / \Gamma_t$
954	g	968	$g\Gamma_\gamma$	983	$\sigma_o \Gamma_a / \Gamma_t$
955	σ_o	969	Γ_n / Γ_t	986	$g\Gamma_\gamma \Gamma_n / \Gamma_t$
956	Γ_t	970	Γ_a / Γ_t	987	$2g\Gamma_n^2 / \Gamma_t$
957	Γ_n	971	Γ_γ / Γ_t	988	$\Gamma_t^2 \sigma_o$
958	Γ_n^o	972	Γ_n / Γ_a	989	$g\Gamma_n^2 \Gamma_f$
959	Γ_γ	973	Γ_f / Γ_t	990	$g\Gamma_f \Gamma_n / \Gamma_t$
960	Γ_f	974	Γ_f / Γ_a	991	$\sigma_o \Gamma_f \Gamma_t$
961	Γ_a	975	Γ_γ / Γ_f	992	$\Gamma_n^o \Gamma_f / \Gamma_t$
962	Γ_o	976	$\Gamma_t \sigma_o$	993	$g(\Gamma_n)^2$
963	Γ_p	977	$\Gamma_f \sigma_o$	994	$g\Gamma_n \Gamma_\gamma$
964	$g\Gamma_n^1$	978	$\Gamma_\gamma \sigma_o$		

03/01/74

TOTAL SCATTERING
CROSS SECTION

1-H -1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	786	6.1100- 5	2.0350+ 1	1.0000- 2

03/01/74

ABSORPTION

1-H -1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	2995	2.5300- 8	3.2800- 1	8.0000- 3	59	2781	2.5300- 8	3.3700- 1	5.0000- 3
58	2995	2.5300- 8	3.3600- 1	8.0000- 3	58	2782	2.5300- 8	3.2700- 1	4.0000- 3
55	2940	2.5300- 8	3.2900- 1	8.0000- 3	54	2783	2.5300- 8	3.7300- 1	3.0000- 3
56	2931	2.5300- 8	3.3500- 1	4.0000- 3	54	2730	2.5300- 8	3.2300- 1	8.0000- 3
56	2930	2.5300- 8	3.3700- 1	1.0000- 2	53	2785	2.5300- 8	3.2100- 1	5.0000- 3
53	2786	2.5300- 8	3.2900- 1	4.0000- 3	53	2784	2.5300- 8	3.3200- 1	7.0000- 3
42	2787	2.5300- 8	3.3000- 1	2.0000- 2	65	1565	2.5300- 8	3.2600- 1	3.0000- 3
59	2792	2.5300- 8	3.3000- 1	8.0000- 3	60	891	2.5300- 8	3.3500- 1	5.0000- 3

03/01/74

BOUND ATOM

1-H -1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8	8.0000+ 1	

03/01/74

FREE ATOM

1-H -1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67	2364	2.5300- 8	2.0440+ 1	2.3000- 2
65	786	3.3900- 5	2.0580+ 1	1.2000- 2

03/01/74

COHERENT SCATTERING

1-H -1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55	2826	2.5300- 8	2.3000+ 0	1.5000- 1	62	2798	2.5300- 8	1.7600+ 0	2.0000- 2
51	2790	2.5300- 8	1.8000+ 0	2.0000- 2	47	2798	2.5300- 8	1.9500+ 0	1.2000- 1
53	2799	2.5300- 8	1.8100+ 0	5.0000- 2	51	1584	7.3000- 8	2.0000+ 0	1.6000- 1

1-1

1-H -1 -1

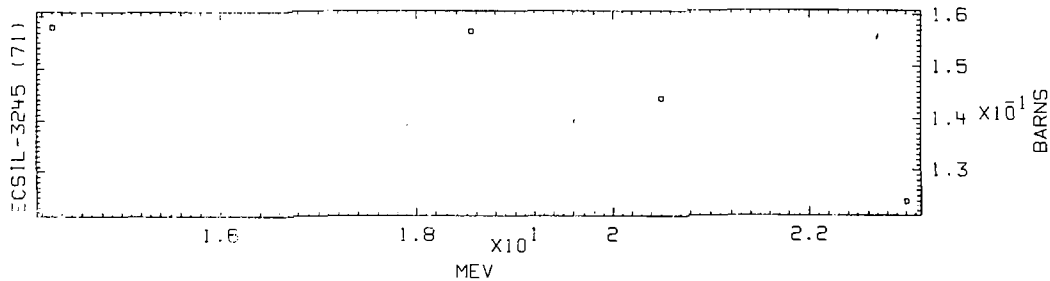
CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 2791	2.5000- 8		6.8000+ 1	1.2000+ 1

03/01/74

NONELASTIC
CROSS SECTION

1-H -2



1-2

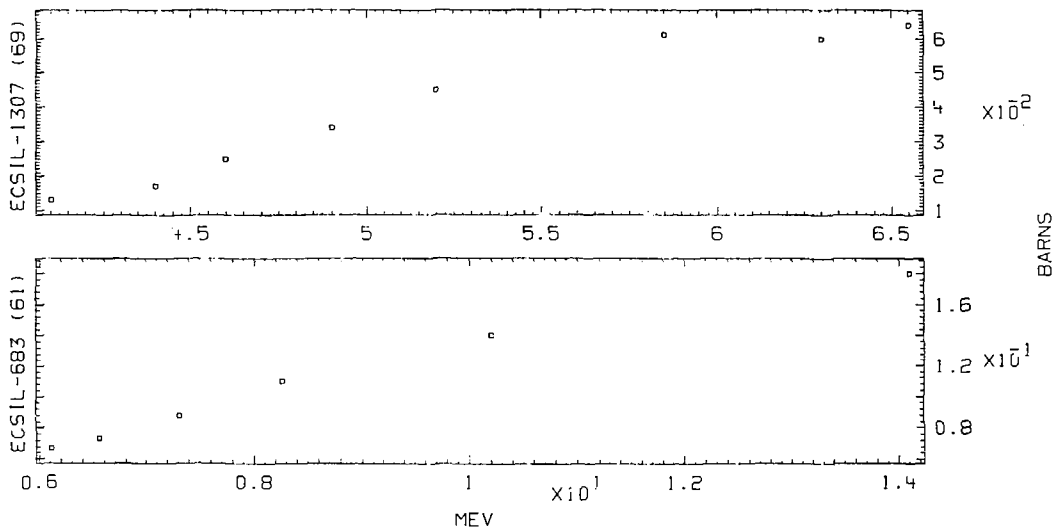
1-H -2 -1

03/01/74

N,2N

1-H -2

CROSS SECTION



03/01/74

N,2N

1-H -2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2586	1.4100+ 1	8.7995- 2	1.9600- 1	
58	7 1.4100+ 1		2.0000- 1	2.0000- 2

03/01/74

BOUND ATOM
CROSS SECTION

1-H -2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		7.4000+ 0	

03/01/74

COHERENT SCATTERING

1-H -2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 2826	2.5300- 5		5.7300+ 0	2.7000- 1	53 2654	2.5300- 8		5.7600+ 0	1.4000- 1
51 2794	2.5300- 8		5.5900+ 0	2.7000- 1	51 1584	7.3000- 8		5.2000+ 0	4.1600- 1

03/01/74

INCOHERENT SCATTER.

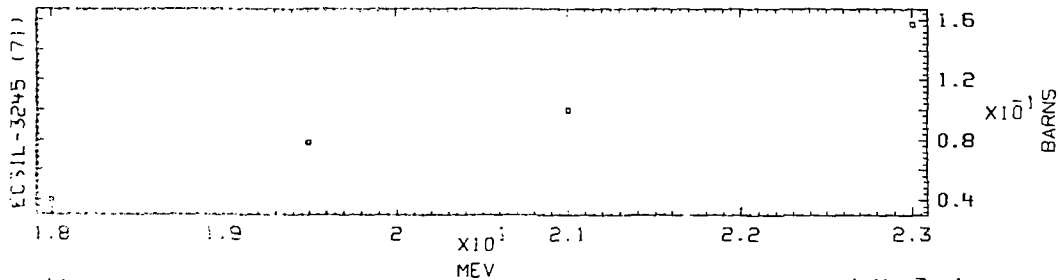
1-H -2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2795	2.5300- 8		2.2500+ 0	4.0000- 2

03/01/74

NONELASTIC
CROSS SECTION

1-H -3



1-H -3 -1

03/01/74

FREE ATOM
CROSS SECTION

H20

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 054	2.5300- 5		2.0390+ 1	7.2000- 2

03/01/74

TOTAL SCATTERING

D20

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 2508	5.4500-10		1.3100+ 1	
69 2508	5.5100-10		1.3090+ 1	
69 2508	5.5200-10		1.3380+ 1	

03/01/74

ABSORPTION

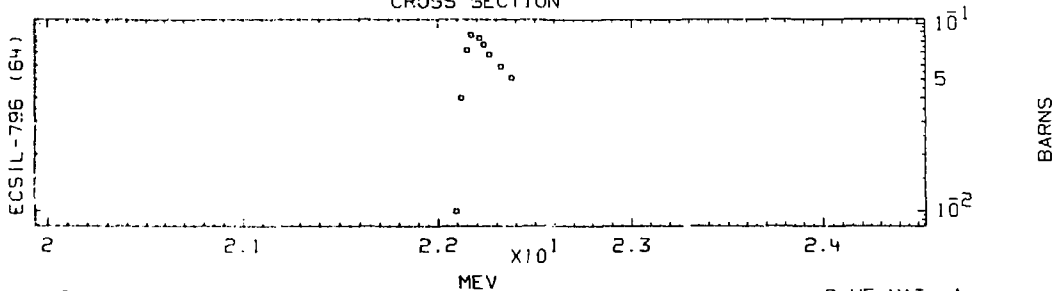
D20

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2508	5.5200-10		1.2430+ 1	
47 2928	2.5300- 8		9.2000- 4	2.2000- 4

03/01/74

N,D
CROSS SECTION

2-HE-NAT



1-5

2-HE-NAT -1

03/01/74

TOTAL SCATTERING
CROSS SECTION

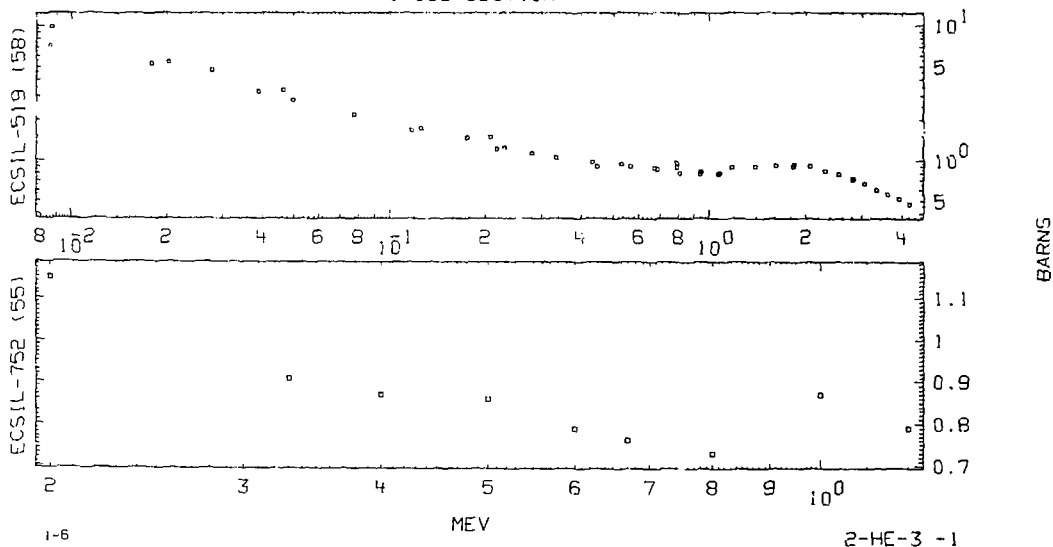
2-HE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2998	2.5300-8		7.7300-1	9.0000-3
63 777	2.5300-8		7.2000-1	3.0000-2

03/01/74

N,P
CROSS SECTION

2-HE-3



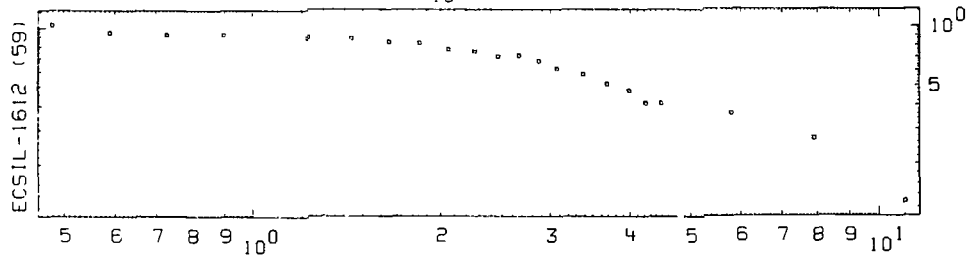
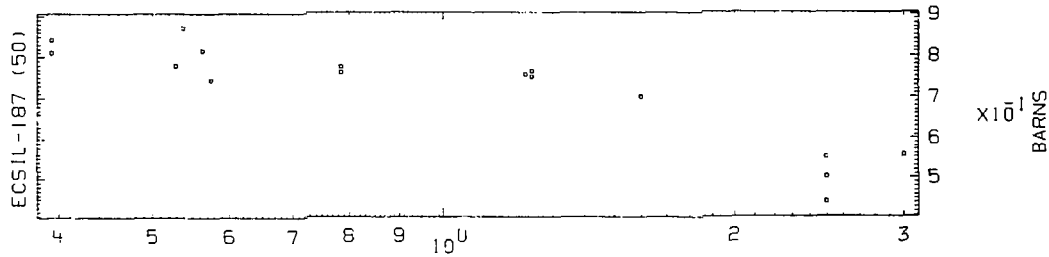
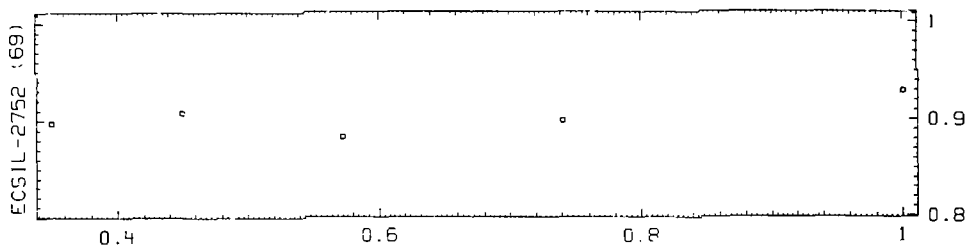
1-6

2-HE-3 -1

03/01/74

N,P
CROSS SECTION

2-HE-3



1-7

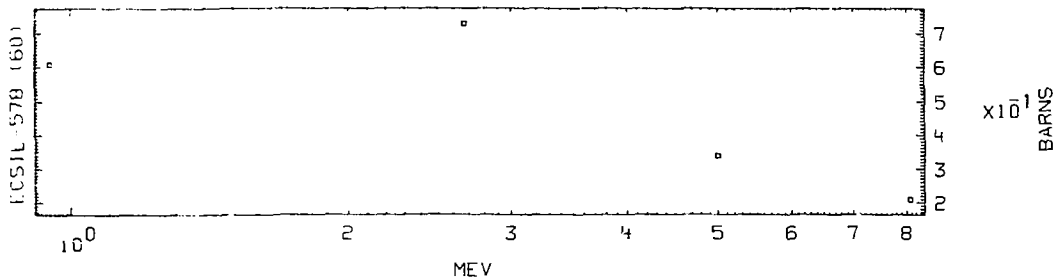
MEV

2-HE-3 -2

03/01/74

N,P
CROSS SECTION

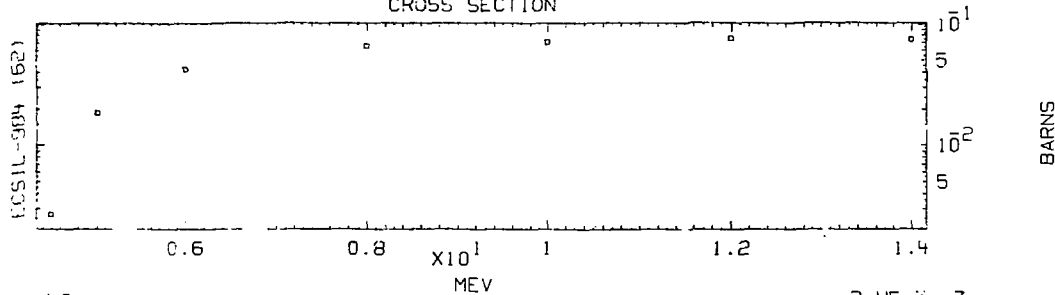
2-HE-3



03/01/74

N,D
CROSS SECTION

2-HE-3



1-8

2-HE-3 -3

03/01/74

ABSORPTION
CROSS SECTION

2-HE-3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64	776	2.5300- 0	5.3270+ 3	1.0000+ 1

03/01/74

N,P

2-HE-3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67	1614	1.4400+ 1	1.4220- 1	6.3000- 3

03/01/74

N,D

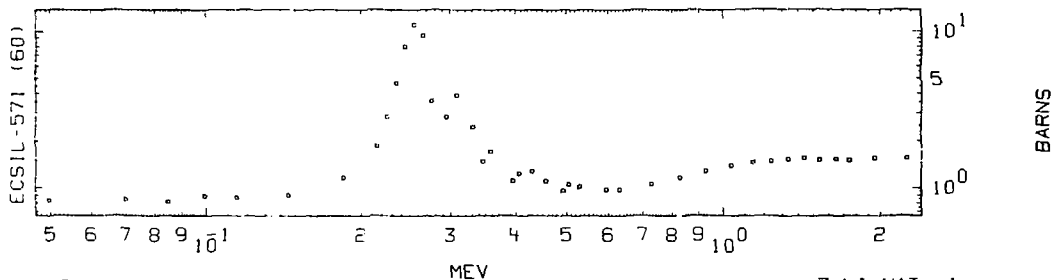
2-HE-3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59	578	5.0000+ 0	2.0000- 2	4.1000- 2
60	578	8.0700+ 0	2.0000- 2	7.1010- 2
67	1614	1.4400+ 1	6.6460- 2	3.2000- 3

03/01/74

TOTAL SCATTERING
CROSS SECTION

3-LI-NAT



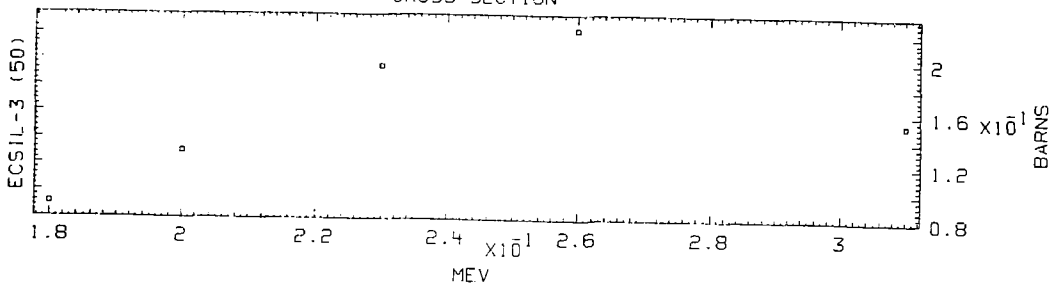
1-9

3-LI-NAT -1

03/01/74

N, ALPHA
CROSS SECTION

3-LI-NAT



03/01/74

ABSORPTION

3-LI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
46 961	2.5300- 6		7.2300+ 1	1.3000+ 0
52 1624	2.5300- 6		7.1000+ 1	7.0000- 1
60 891	2.5300- 6		7.0400+ 1	4.0000- 1

03/01/74

COHERENT SCATTERING

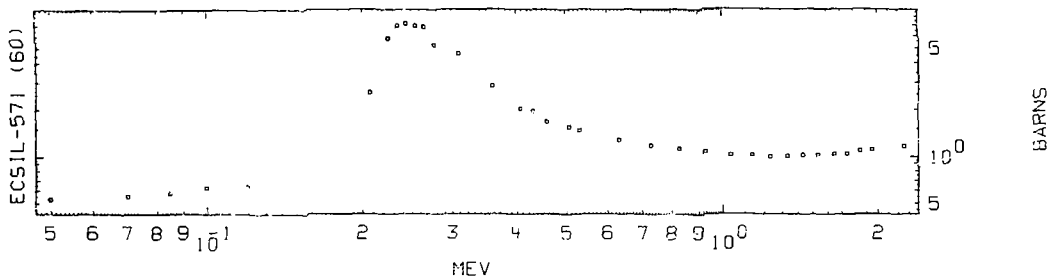
3-LI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 5		4.0000- 1	3.2000- 2

03/01/74

TOTAL SCATTERING
CROSS SECTION

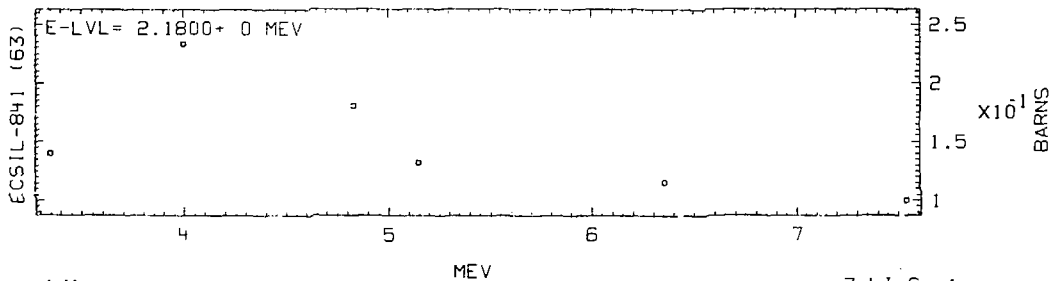
3-LI-6



03/01/74

N,N'
CROSS SECTION

3-LI-6



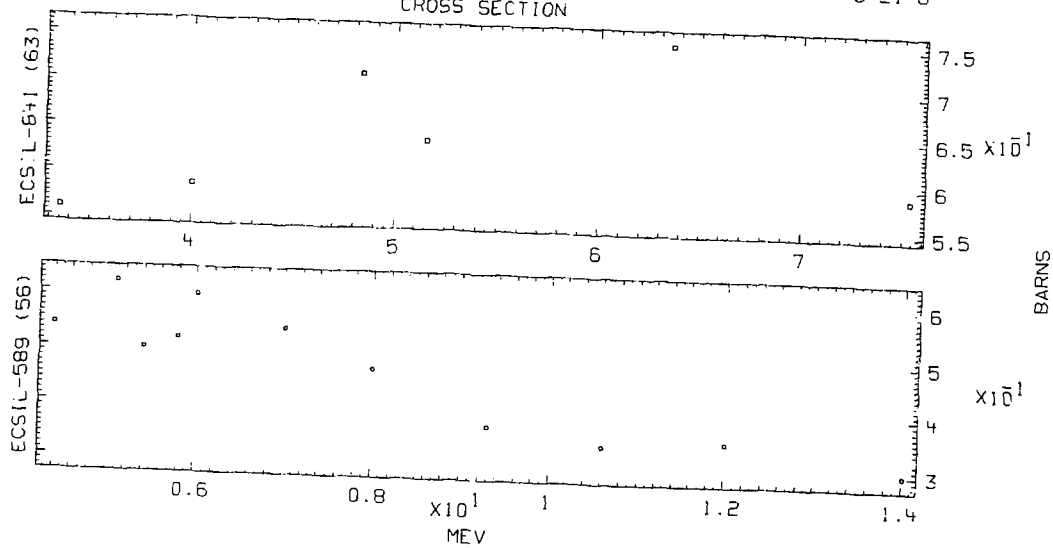
1-11

3-LI-6 -1

03/01/74

N,N'D
CROSS SECTION

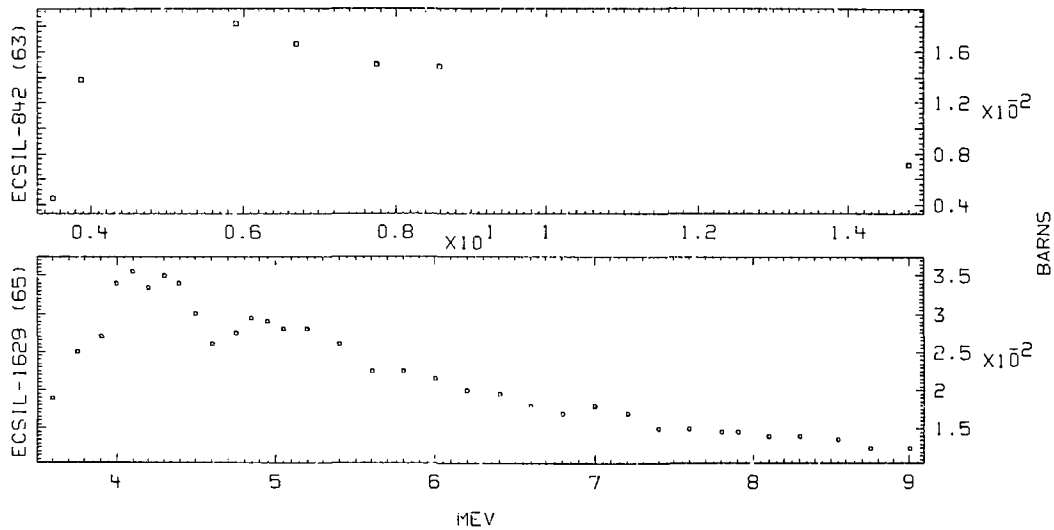
3-LI-6



03/01/74

N,P
CROSS SECTION

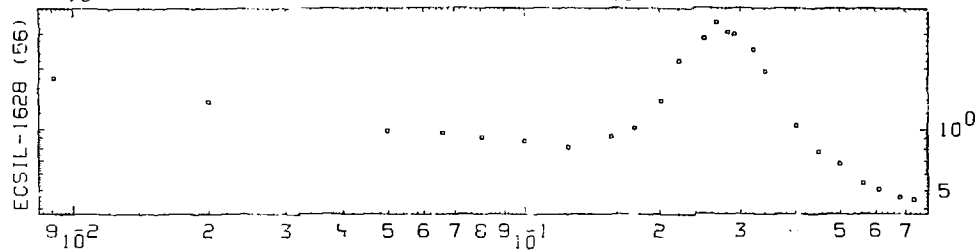
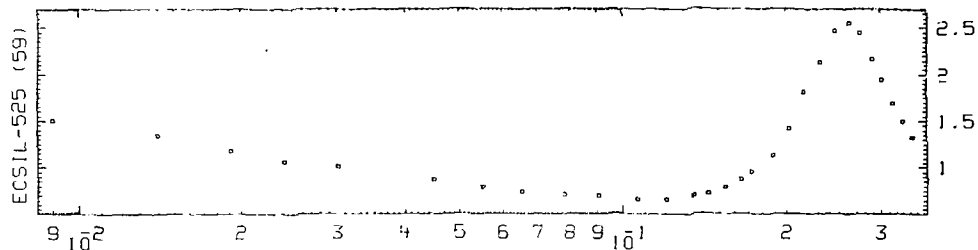
3-LI-6



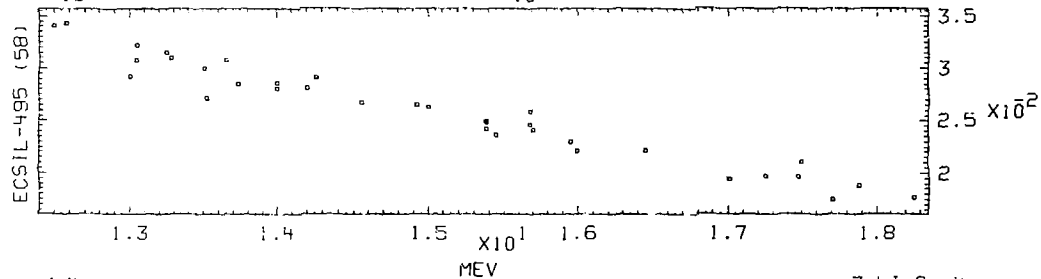
03/01/74

N,T
CROSS SECTION

3-L1-6



BARNS



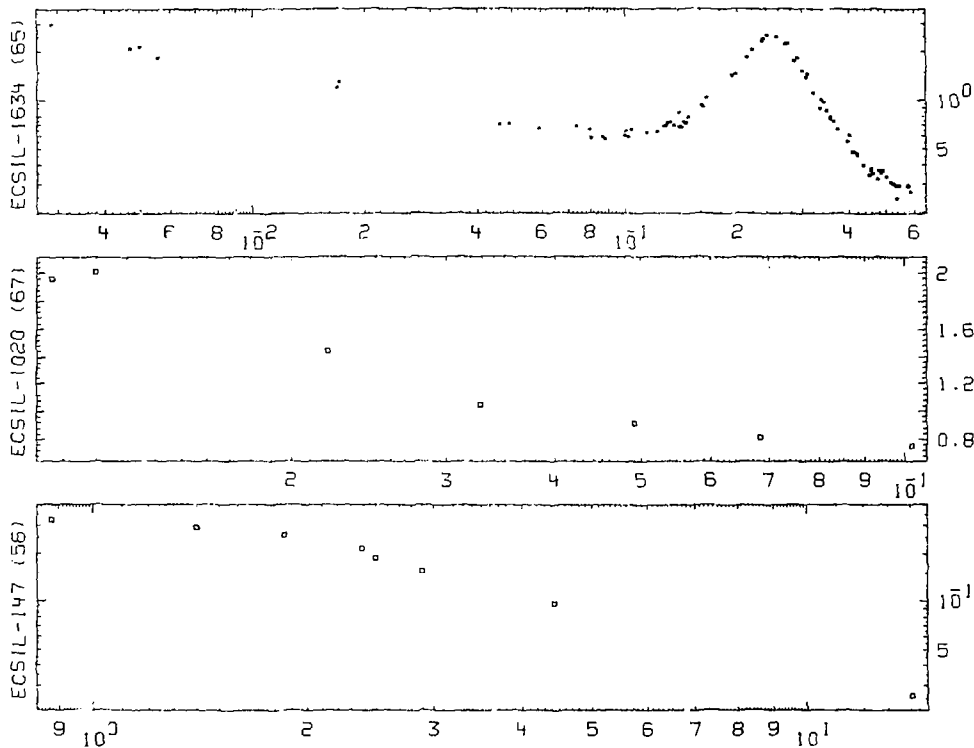
1-14

3-L1-6 -4

03/01/74

N, ALPHA
CROSS SECTION

3-L1-6



1-15

MEV

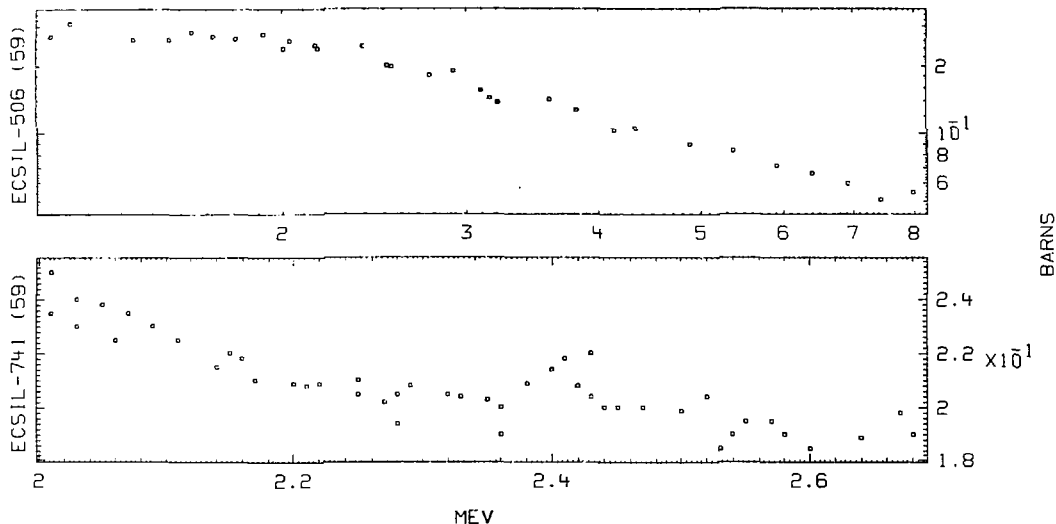
3-L1-6 -5

BARNS

03/01/74

N, ALPHA
CROSS SECTION

3-LI-6



03/01/74

NONELASTIC

3-LI-6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	592	8.1000+ 0	6.5010- 1	2.0000- 1	58	490	1.4000+ 1	6.6010- 1	5.0000- 2
58	592	1.1900+ 1	6.0010- 1	2.0000- 1	58	592	1.4200+ 1	5.2010- 1	5.0000- 2
63	2335	1.4000+ 1	4.2000- 1	4.0000- 2					

03/01/74

NEUTRON EMISSION
CROSS SECTION

3-LI-6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2335	1.4000+ 1		1.4700+ 0	1.6000- 1
64 1633	1.4100- 1	1.0000- 1	1.4400+ 0	1.6000- 1

03/01/74

N,N'

3-LI-6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
68 1632	4.8300+ 0	4.7000- 2	2.0800- 1	1.3000- 2	2.1800+ 0	68 1632	7.5000+ 0	1.7000- 1	1.4900- 1	1.5000- 2	2.1800+ 0
68 1632	5.7400+ 0	2.3000- 1	1.7000- 1	1.7000- 2	2.1600+ 0	65 1627	1.4000+ 1		1.0000- 1	2.5000- 2	2.1800+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
68 1632	4.8300+ 0	4.7000- 2	4.6000- 1	4.9000- 2	2.2000+ 0	4.8300+ 0
68 1632	5.7400+ 0	2.3000- 1	4.8000- 1	4.8000- 2	2.2000+ 0	5.7400+ 0
68 1632	7.5000+ 0	1.7000- 1	5.7000- 1	5.7000- 2	2.2000+ 0	7.5000+ 0

03/01/74

N,2N

3-LI-6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 593	1.0200+ 1		3.3000- 2	1.5000- 2	58 594	1.4100+ 1		7.0010- 2	6.0010- 3
63 2335	1.4000+ 1		8.7000- 2	3.7000- 2	61 487	1.4100+ 1		5.0000- 2	1.0000- 2
61 2375	1.4000+ 1		1.4000- 1	6.0000- 2					

03/01/74

N,N'D

3-LI-6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1632	4.8300+ 0	4.7000- 2	6.7000- 1	4.2000- 2	68 1632	7.5000+ 0	1.7000+ 0	7.2000- 1	5.9000- 2
68 1632	5.7400+ 0	2.3000- 1	6.5000- 1	5.1000- 2	61 487	1.4100+ 1		7.0000- 2	1.2000- 2

ABSORPTION
CROSS SECTION

3-L1-6

03/01/74

N, P

3-L1-6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3216	2.5300- 8		9.3800+ 2	6.0000+ 0

03/01/74

N, T

3-L1-6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 487	1.4100+ 1		5.0000- 3	
53 86	1.4100+ 1	1.0000- 1	6.7010- 3	8.0010- 4
54 104	1.4100+ 1	5.0000- 1	6.0010- 3	2.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1631	2.5000- 2	6.0000- 3	1.0900- 0	7.0000- 2	62 595	2.5000+ 0		1.9000- 1	1.5000- 2
66 1631	6.7000- 2	1.0000- 2	9.1000- 1	6.0000- 2	67 2691	2.7000+ 0		1.6600- 1	2.1000- 2
66 1631	1.0000- 1	1.5000- 2	6.9500- 1	2.0000- 3	61 487	1.4100+ 1		2.7000- 2	6.0000- 1
59 1626	2.7000- 1		3.7000+ 0	4.0000- 1	60 580	1.4100+ 1		2.5000- 2	2.0000- 3
54 109	1.5000+ 0	6.0000- 1	3.2000- 1	5.0000- 2	52 1637	1.4200+ 1		2.6000- 2	3.6400- 3
54 109	2.0000+ 0		2.4000- 1	4.0000- 2	67 2691	1.4400+ 1	6.0000- 1	2.6000- 2	3.0000- 3
52 1637	2.4900+ 0		1.8000- 1	2.6320- 2					

03/01/74

N, ALPHA

3-L1-6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 3335	1.0000- 1	5.0000- 3	6.4000- 1	2.0000- 2	60 832	2.1500+ 0		2.1500- 1	3.0000- 2
54 109	1.5000+ 0		3.2000- 1	6.0010- 2	57 482	2.5000+ 0		1.7000- 1	2.0000- 2

03/01/74

COHERENT SCATTERING

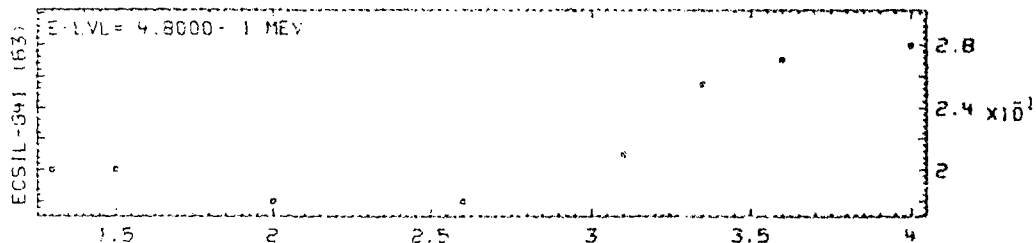
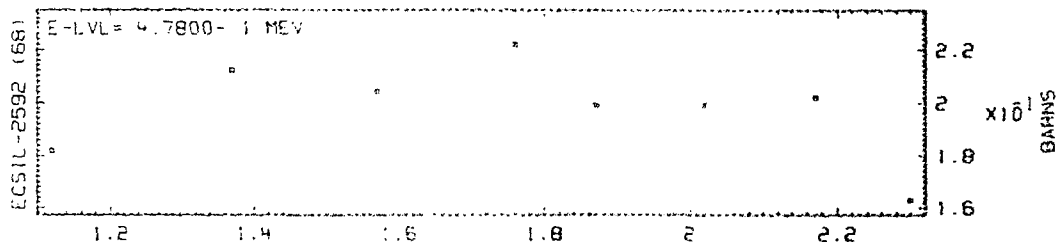
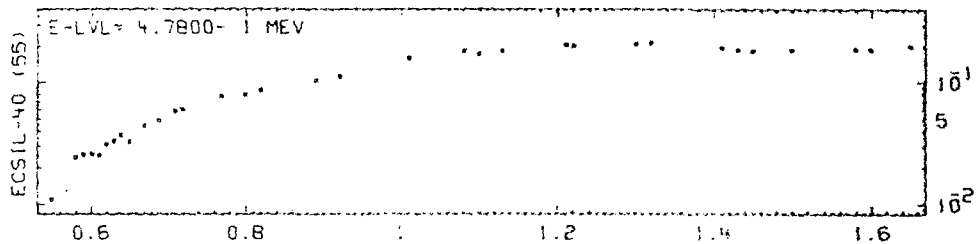
3-L1-6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 2801	2.5300- 8		4.0000- 1	

03/01/74

N,N'
CROSS SECTION

3-L1-7



1-18

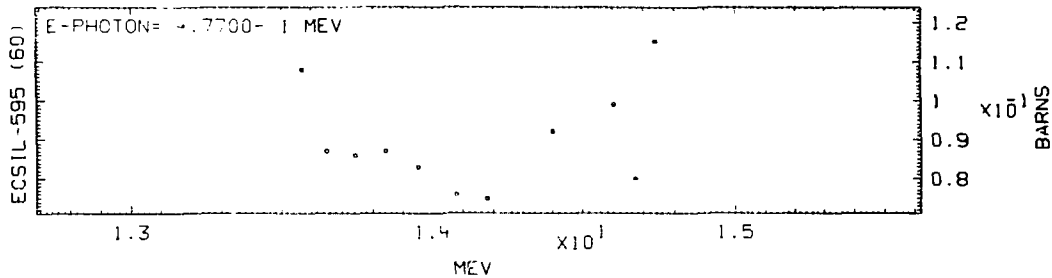
MEV

3-L1-7 -1

03/01/74

N,N'
CROSS SECTION

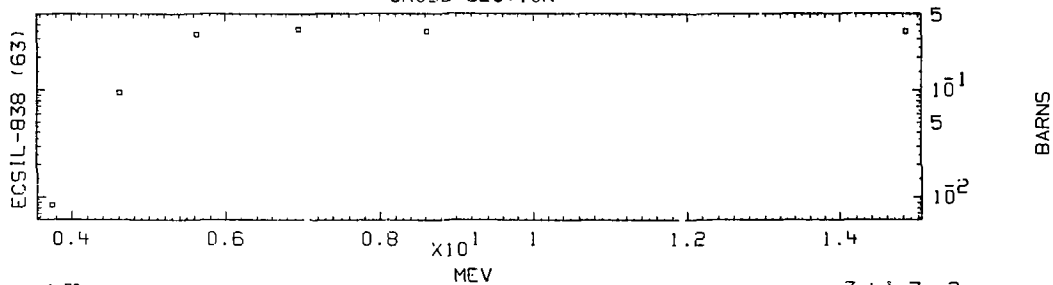
3-L1-7



03/01/74

N,N'T
CROSS SECTION

3-L1-7



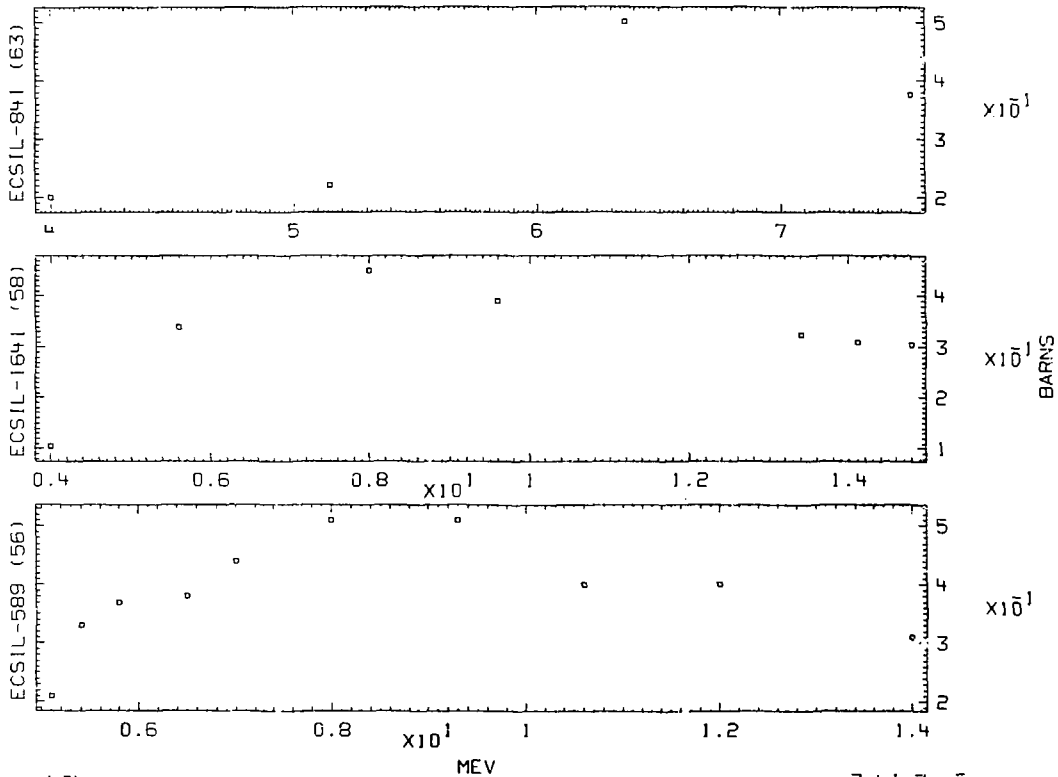
1-20

3-L1-7 -2

03/01/74

N,N'T
CROSS SECTION

3-L1-7



03/01/74

NONELASTIC
CROSS SECTION

3-LI-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	592	8.1000+ 0	4.5000- 1	2.0000- 1	65	1228	1.6700+ 1	4.2000- 1	3.0000- 2
58	592	1.1900+ 1	4.3000- 1	2.0000- 1	65	1228	1.8200+ 1	4.7000- 1	4.0000- 2
58	490	1.4000+ 1	5.2010- 1	6.0010- 2	65	1228	2.0700+ 1	3.0000- 1	3.0000- 2
58	592	1.4200+ 1	4.0000- 1	5.0000- 2					

03/01/74

NEUTRON EMISSION

3-LI-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	2335	1.4000+ 1	1.7000+ 0	2.0000- 1
6-	1633	1.4100+ 1	1.0000- 1	1.6100+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
63	841	5.1500+ 0	8.0000- 2	2.0200- 0	7.0000- 2	0.0000+ 0
63	841	6.3500+ 0	6.0000- 2	1.5700- 0	5.3000- 2	0.0000+ 0
63	841	7.5400+ 0	6.0000- 2	1.4200- 0	5.3000- 2	0.0000+ 0

03/01/74

TOTAL SCATTERING

3-LI-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	1639	1.4000+ 1	9.3780- 1	

03/01/74

N,N'

3-LI-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	497	1.4100+ 1	5.0000- 2	1.5000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
68	1632	5.7400+ 0	2.3000- 1	1.7700+ 0	7.1000- 2	0.0000+ 0
68	1632	7.5000+ 0	1.7000- 1	1.5200+ 0	6.1000- 2	0.0000+ 0
63	828	1.2000+ 0	2.0000- 1	5.0000- 2	4.7800- 1	
68	1632	3.3500+ 0	6.2000- 2	2.4200- 1	2.0000- 2	4.7800- 1

03/01/74

N,N'
CROSS SECTION

3-L1-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
68 1632	4.8300+ 0	4.7000- 1	1.7800- 1	2.7000- 2	4.7800- 1	
66 1640	1.4000+ 1		1.3500- 1	2.0000- 2	4.4300+ 0	
65 1639	1.4000+ 1		1.2600- 1		4.6000+ 0	
68 1632	5.7400+ 0	2.3000- 1	1.1400- 1	1.7000- 2	4.6300+ 0	
63 841	6.3600+ 0	6.0000- 2	1.7000- 1	6.5000- 2	4.6300+ 0	
68 1632	7.5000+ 0	1.7000- 1	1.2200- 1	1.2000- 2	4.6300+ 0	
63 841	7.5400+ 0	6.0000- 2	1.3000- 1	2.5000- 2	4.6300+ 0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
68 1632	4.8300+ 0	4.7000- 2	1.6000- 1	2.2000- 2	4.6500+ 0	4.8300+ 0
58 1632	5.7400+ 0	2.3000- 1	2.2000- 1	3.4000- 2	4.6500+ 0	5.7400+ 0
68 1632	7.5000+ 0	1.7000- 1	3.1000- 1	3.7000- 2	4.6500+ 0	7.5000+ 0

03/01/74

N,2N

3-L1-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 593	1.0200+ 1		2.7000- 2	1.5000- 2
61 2375	1.4000+ 1		1.3000- 1	3.0000- 2
58 594	1.4100+ 1		5.6010- 2	5.0000- 3

03/01/74

N,N'T

3-L1-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1632	4.8300+ 0	4.7000- 2	1.0000- 1	2.2000- 2	61 2385	1.4000+ 1		3.3500- 1	1.2000- 2
68 1632	5.7400+ 0	2.3000- 1	3.3000- 1	3.8000- 2	61 487	1.4100+ 1		5.8000- 2	1.2000- 2
68 1632	7.5000+ 0	1.7000- 1	4.3000- 1	3.9000- 2					

03/01/74

N,D

3-L1-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 487	1.4100+ 1		5.0000- 3		53 86	1.4100+ 1	1.0000- 1	9.8010- 3	1.1000- 3
61 487	1.4100+ 1		5.0000- 3	5.0000- 3	63 842	1.4800+ 1	2.5000- 1	1.4000- 2	1.5000- 3

03/01/74

N, T
CROSS SECTION

3-LI-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 487	1.4100+ 1		5.8010- 2	1.2000- 2

03/01/74

N, ALPHA

3-LI-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
66 3304	1.4700+ 1		2.2000- 3	2.2000- 3	0.0000+ 0

03/01/74

BOUND ATOM

3-LI-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		2.0000+ 0	

03/01/74

COHERENT SCATTERING

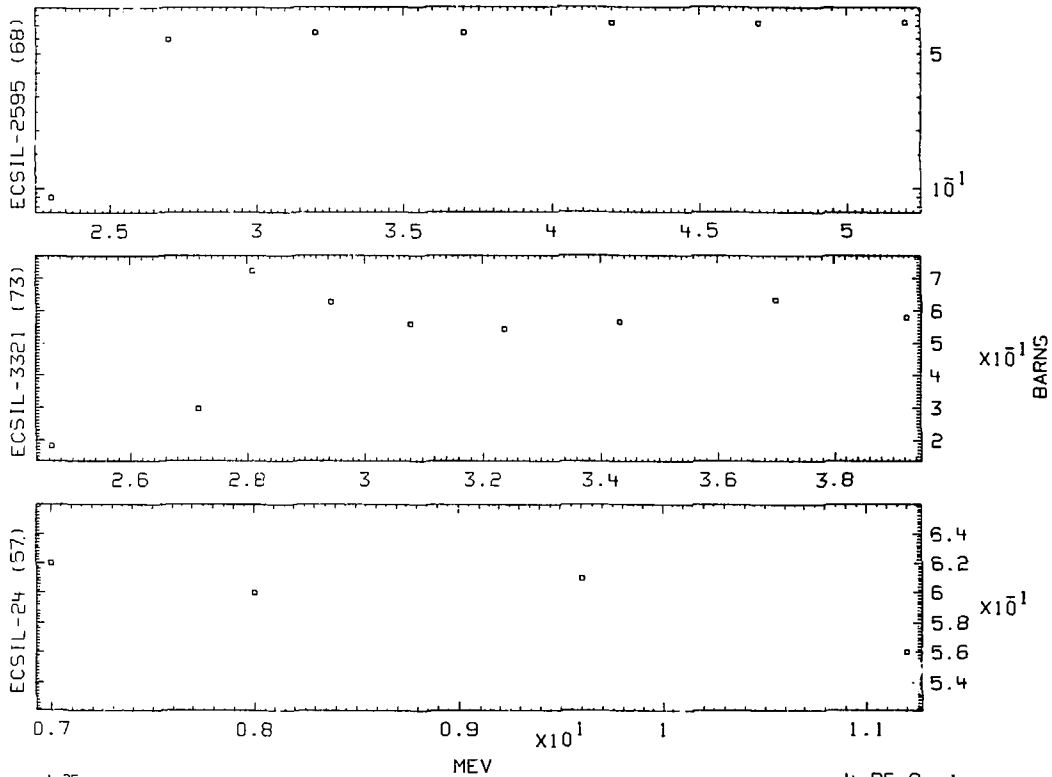
3-LI-7

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2673	2.5300- 8		5.5000- 1	
51 1584	7.3000- 8		8.0000- 1	6.4000- 2

03/01/74

NONELASTIC
CROSS SECTION

4-BE-9



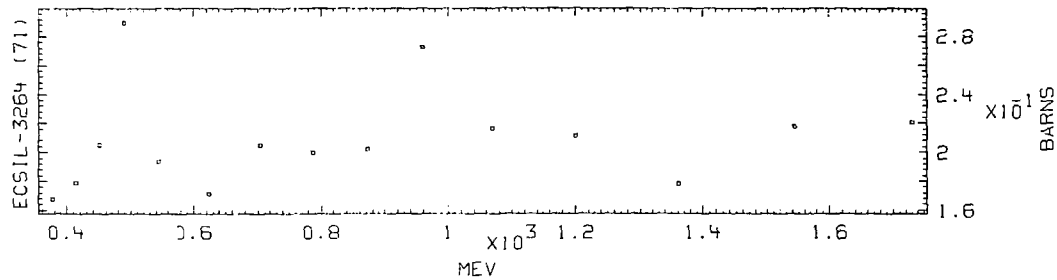
1-25

4-BE-9 -1

03/01/74

NONELASTIC
CROSS SECTION

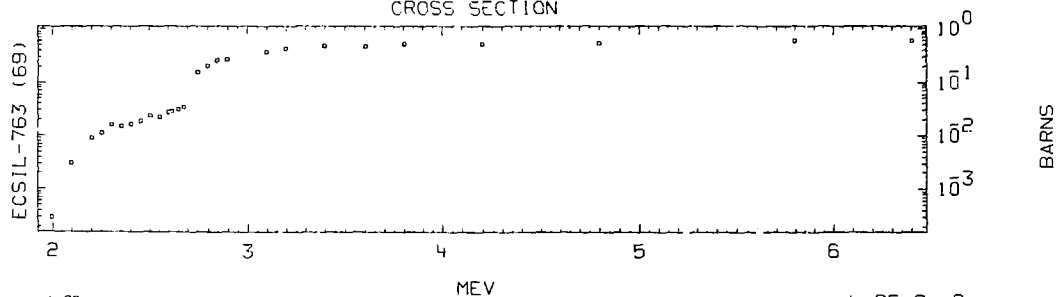
4-BE-9



03/01/74

N,2N
CROSS SECTION

4-BE-9



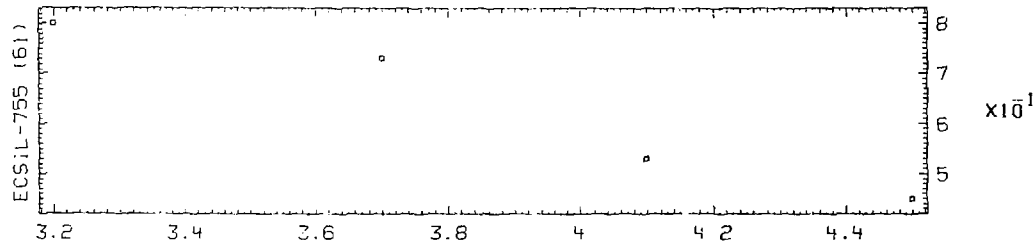
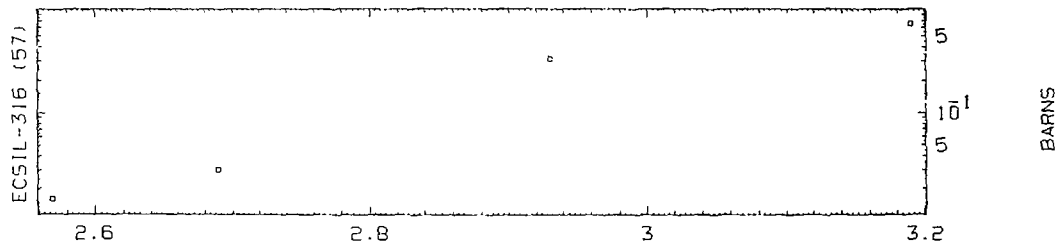
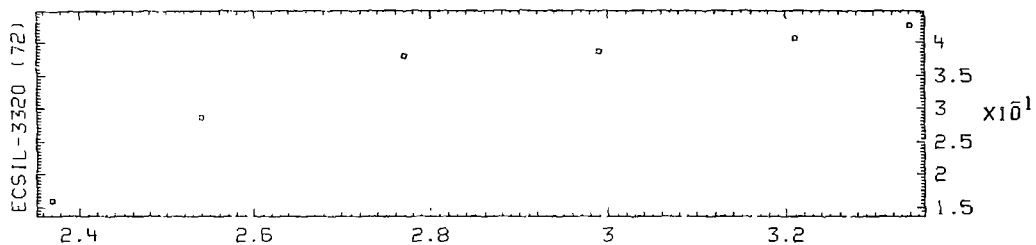
1-26

4-BE-9 -2

03/01/74

N,2N
CROSS SECTION

4-BE-9



1-27

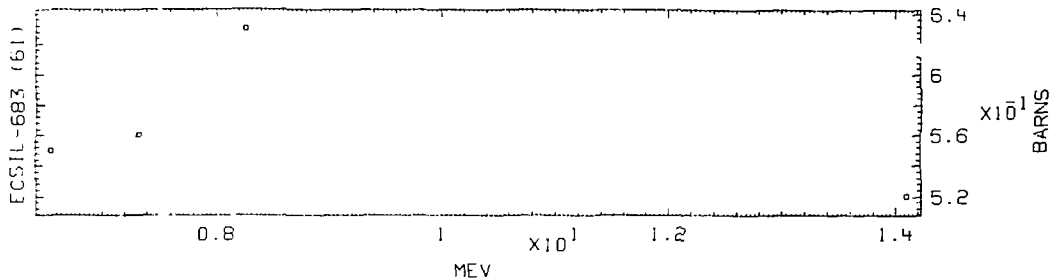
MEV

4-BE-9 -3

03/01/74

N,2N
CROSS SECTION

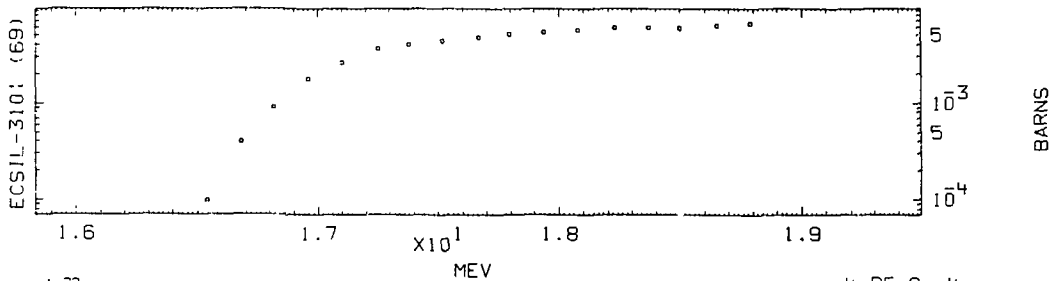
4-BE-9



03/01/74

N,D
CROSS SECTION

4-BE-9



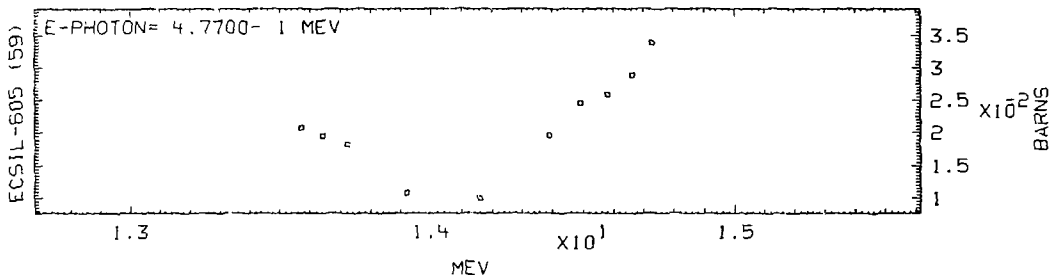
J-28

4-BE-9 -4

03/01/74

N,T
CROSS SECTION

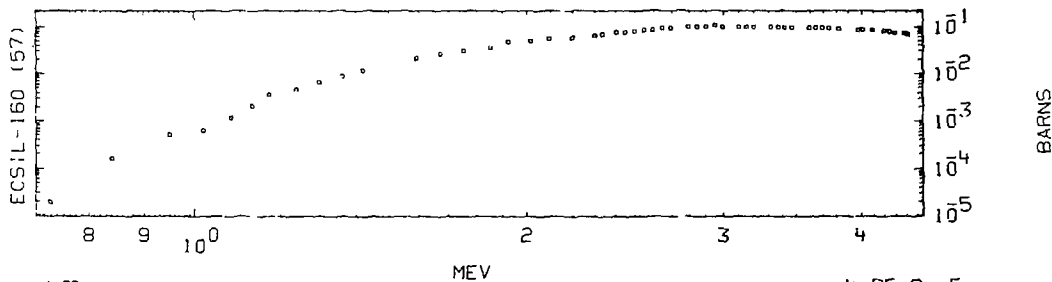
4-BE-9



03/01/74

N, ALPHA
CROSS SECTION

4-BE-9



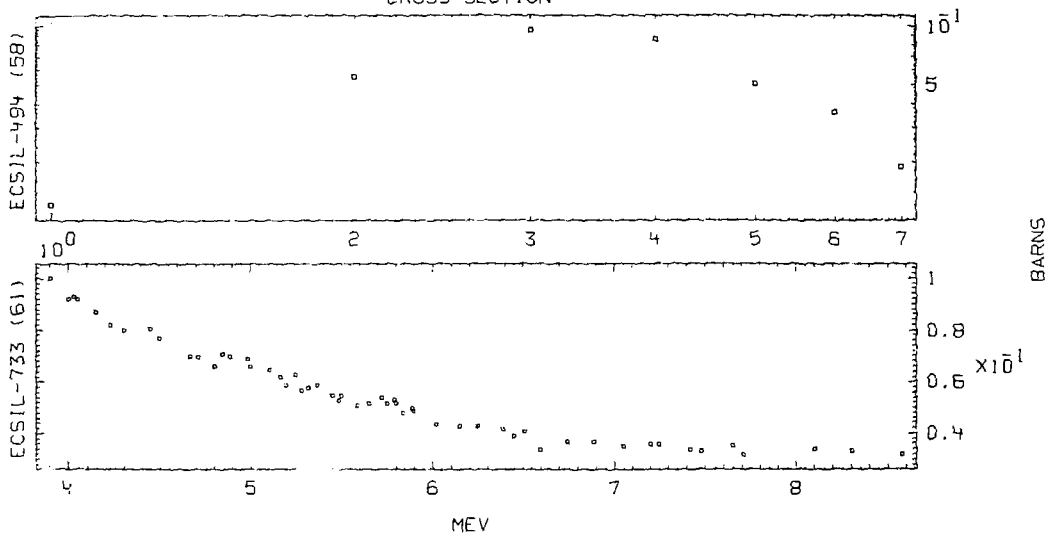
1-29

4-BE-9 -5

03/01/74

N, ALPHA
CROSS SECTION

4-BE-9



03/01/74

NONELASTIC

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 122	4.0700+0	7.0010-2	6.2010-1	3.0000-2	63 277	1.4000+1		4.7000-1	4.0000-2
55 298	4.1000+0	4.0000-2	6.0010-1	1.0000-1	61 743	1.4000+1	4.0000-2	5.0000-1	3.5000-2
56 151	5.6000+0	2.0000-1	5.5010-1	6.0010-2	55 130	1.4100+1		3.7000-1	8.0010-2
55 130	1.2700-1		4.9000-1	8.0000-2	58 490	1.4100+1		5.5010-1	4.0000-2
49 3103	1.4000+1		5.7000-1		63 1271	1.4200+1	1.0000-1	5.0000-1	1.0000-2
60 3104	1.4000+1		4.4000-1	2.5000-2	57 319	1.4200+1	1.5000-1	4.9000-1	2.0000-2

03/01/74

NONELASTIC
CROSS SECTION

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
56 200	1.4500+ 1		6.4010- 1	2.0000- 2
58 356	2.5500+ 1		3.8000- 1	5.0000- 2
55 2756	1.4000+ 3	2.0000+ 2	1.9000- 1	9.5000- 3

03/01/74

N,N'

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
59 500	3.5000+ 0	8.5000- 2	2.3000- 1	4.0000- 2	2.4300+ 0	68 3105	1.4000+ 1		1.7400- 1	2.0000- 2	2.4300+ 0
58 500	4.1000+ 0	7.5000- 2	2.5000- 1	4.0000- 2	2.4300+ 0	66 2585	1.4000+ 1		1.5000- 1	2.0000- 2	2.4300+ 0
59 500	5.0300+ 0	2.9000- 1	3.4000- 1	5.0000- 2	2.4300+ 0	58 405	1.4000+ 1		1.7000- 1	3.0000- 2	2.4300+ 0
64 17	7.0000+ 0		4.5000- 1		2.4300+ 0	61 743	1.4080+ 1	4.0000- 2	2.0000- 1	4.5000- 2	2.4300+ 0

03/01/74

N,2N

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
55 279	3.7000+ 0		3.2000- 1	8.0000- 2	57 162	1.4000+ 1	9.8010- 1	4.2000- 1	7.0010- 2
64 17	7.0000+ 0		5.1000- 1		61 650	1.4100+ 1		5.4010- 1	7.0010- 2
59 530	1.4000+ 1		4.7000- 1	1.4100- 1	53 539	1.4100+ 1	2.0000- 1	5.4010- 1	9.0010- 2
58 509	1.4000+ 1		5.6010- 1	6.6010- 2	58 7	1.4100+ 1		5.4010- 1	4.0000- 2
63 277	1.4000+ 1		4.5000- 1	4.0000- 2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	E-LVL MEV
66 3105	1.4550+ 1		7.1000- 2		6.7500+ 0	
66 3105	1.4550+ 1		3.0000- 2		7.9400+ 0	
66 3105	1.4550+ 1		7.1000- 2		9.1000+ 0	2.9000+ 0

03/01/74

ABSORPTION

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
47 2936	2.5300- 8		1.0200- 2	5.0000- 4
52 2806	2.5300- 8		1.0000- 2	1.0000- 3

03/01/74

N, P
CROSS SECTION

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 913	1.5500+ 1		7.0000- 4	3.5000- 4

03/01/74

N, T

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 494	1.4000+ 1	5.0000- 1	1.1000- 1	5.0000- 2	58 494	1.5000+ 1	5.0000- 1	1.2000- 1	6.0000- 2
61 650	1.4100+ 1		2.0000- 2		58 494	1.6000+ 1	5.0000- 1	1.3000- 1	6.0000- 2
58 496	1.4100+ 1	1.0000- 1	1.8000- 2	1.5000- 3					

03/01/74

N, ALPHA

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 86	1.4100+ 1	1.0000- 1	1.0000- 2	1.0000- 3
61 650	1.4100+ 1		1.1000- 2	4.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
67 2367	1.4400+ 1		1.1700- 2	1.8000- 3	0.0000+ 0

03/01/74

ROUND ATOM

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		7.5000+ 0	

03/01/74

COHERENT SCATTERING

4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		7.7000+ 0	6.1600- 1

03/01/74

INCOHERENT SCATTER.
CROSS SECTION

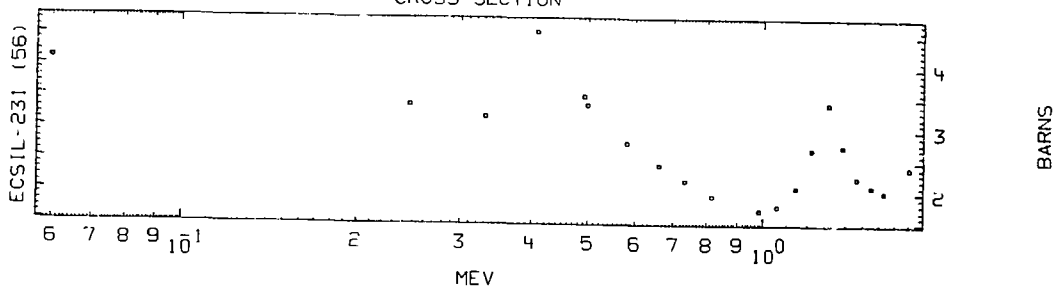
4-BE-9

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2663	2.5300- 8		4.0000- 3	1.0000- 3

03/01/74

TOTAL SCATTERING
CROSS SECTION

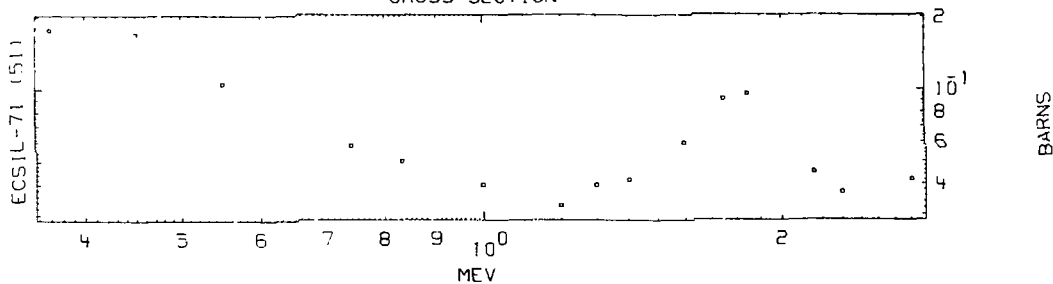
5-B -NAT



03/01/74

N, ALPHA
CROSS SECTION

5-B -NAT



03/01/74

NONELASTIC

5-B -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	490 1.4100+ 1		7.4010- 1	7.0010- 2
52	62 1.4150+ 1	5.0000- 2	6.9010- 1	1.0000- 1
56	200 1.4500+ 1		6.4010- 1	4.0000- 2

03/01/74

N, N'

5-B -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
62	1060 1.4000+ 1		3.5300- 2	7.0000- 3	2.1300+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
62	1060 1.4000+ 1		8.1000- 2	1.1000- 2	4.0000+ 0	6.0000+ 0
62	1060 1.4000+ 1		7.0000- 2	8.0000- 3	6.0000+ 0	8.0000+ 0

03/01/74

ABSORPTION
CROSS SECTION

5-B -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1053	2.5300- 8		7.6010+ 2	1.5000+ 0	60 1995	2.5300- 8		7.5600+ 2	8.0000+ 0
61 2933	2.5300- 8		7.5900+ 2	1.1000+ 1	64 776	2.5300- 8		7.5910+ 2	2.0000+ 0
61 2605	2.5300- 8		7.6100+ 2	3.0000+ 0	63 463	2.5300- 8		7.6080+ 2	1.9000+ 0
53 2786	2.5300- 8		7.5500+ 2	3.0000+ 0	60 805	2.5300- 8		7.6400+ 2	3.0000+ 0
58 2607	2.5300- 8		7.6000+ 2	4.0000+ 0	53 809	2.5300- 8		7.4900+ 2	4.0000+ 0
61 2605	2.5300- 8		7.6400+ 2	3.0030+ 0	57 432	2.5300- 8		7.7100+ 2	5.0000+ 0
61 2605	2.5300- 8		7.6200+ 2	3.0000+ 0	60 891	2.5300- 8		7.5400+ 2	4.0000+ 0

03/01/74

N, X GAMMA

5-B -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
68 2997	1.4000+ 1	8.0000- 1	1.1000- 1	4.0000- 2	2.1000+ 0	68 2997	1.4000+ 1	8.0000- 1	8.0000- 1	4.0000- 2	4.4500+ 0
68 2997	1.4000+ 1	8.0000- 1	3.3000- 2	1.5000- 2	2.9500+ 0	68 2997	1.4000+ 1	8.0000- 1	2.8000- 2	1.0000- 2	5.0500+ 0
68 2997	1.4000+ 1	8.0000- 1	1.6000- 2	6.0000- 3	3.3600+ 0	68 2997	1.4000+ 1	8.0000- 1	2.5000- 2	1.5000- 2	7.0000+ 0
68 2997	1.4000+ 1	8.0000- 1	1.6000- 2	8.0000- 3	3.7000+ 0	68 2997	1.4000+ 1	8.0000- 1	5.0000- 3	3.0000- 3	8.5000+ 0
68 2997	1.4000+ 1	8.0000- 1	1.3000- 2	6.0000- 3	4.0000+ 0	68 2997	1.4000+ 1	8.0000- 1	5.0000- 3	3.0000- 3	8.2000+ 0

03/01/74

COHERENT SCATTERING

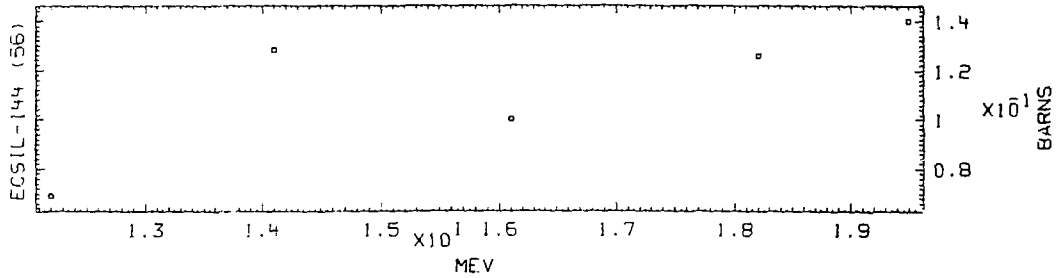
5-B -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 2654	2.5300- 8		3.6600+ 0	5.0000- 2

03/01/74

N,N'D
CROSS SECTION

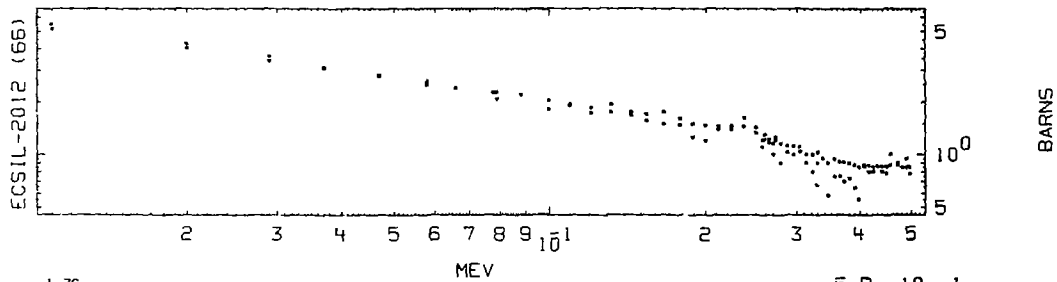
5-B -10



03/01/74

ABSORPTION
CROSS SECTION

5-B -10



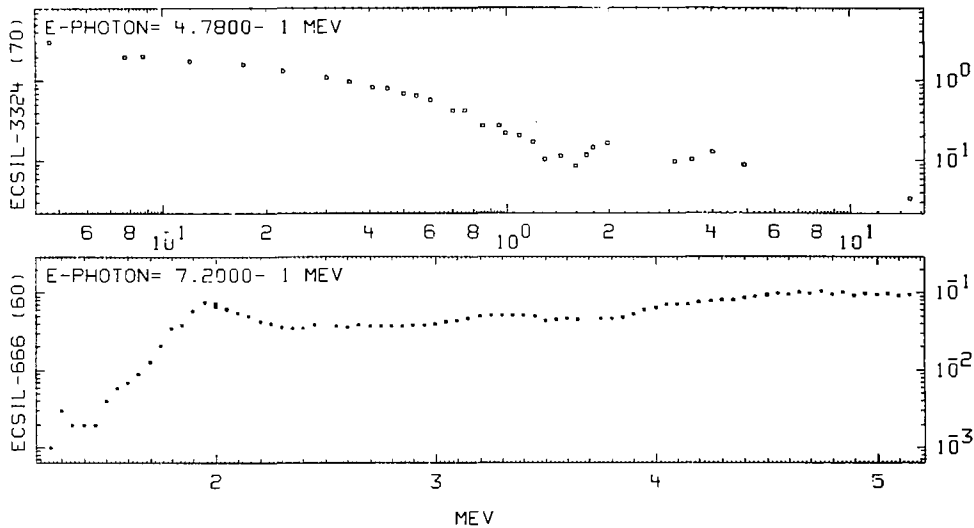
1-36

5-B -10 -1

03/01/74

N, X GAMMA
CROSS SECTION

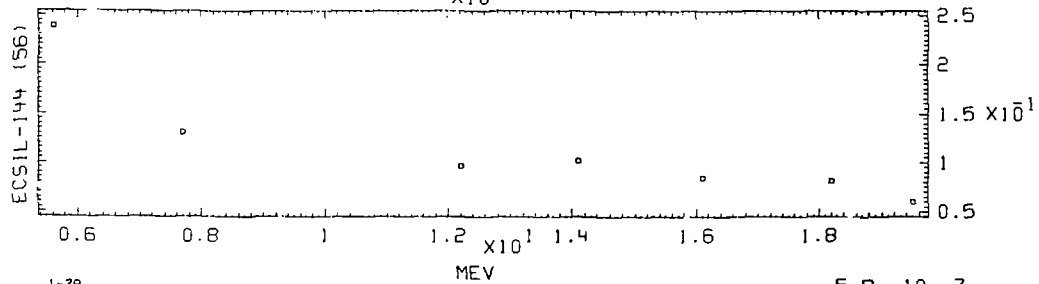
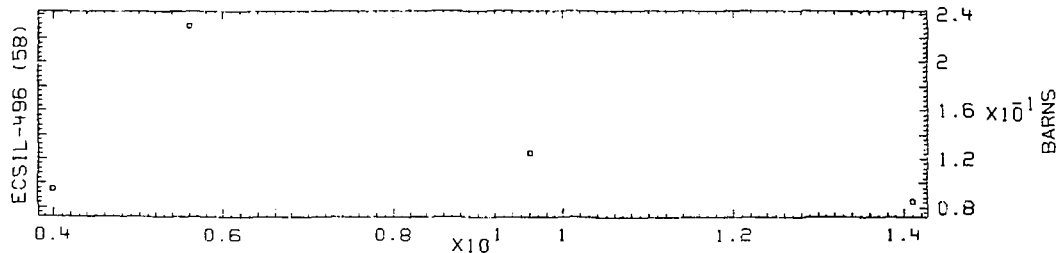
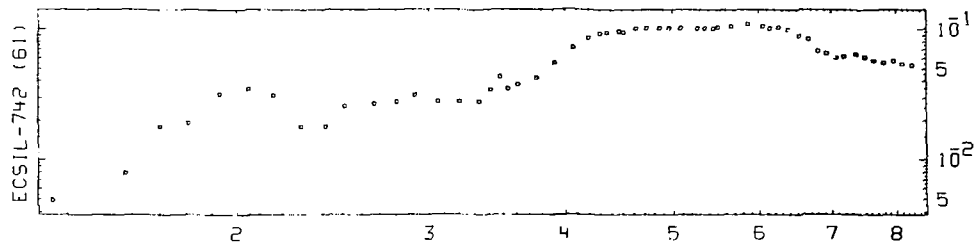
5-B -10



03/01/74

N,T
CROSS SECTION

5-B -10



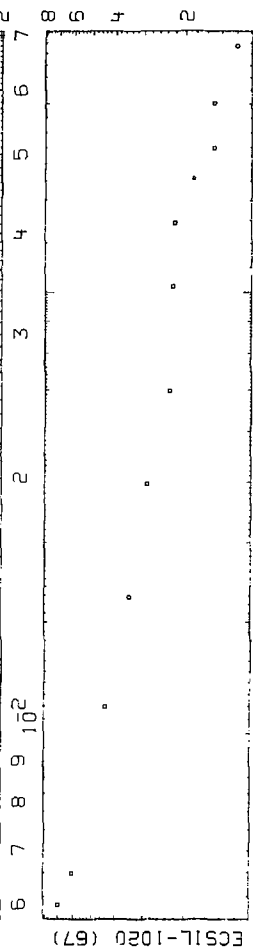
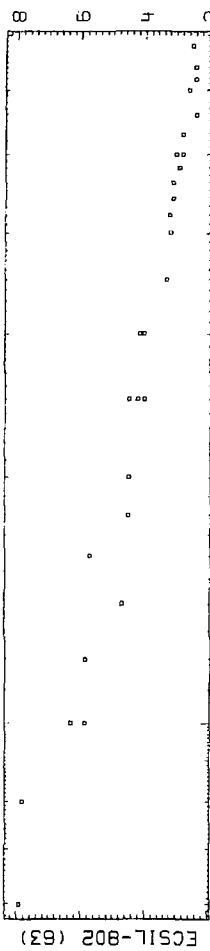
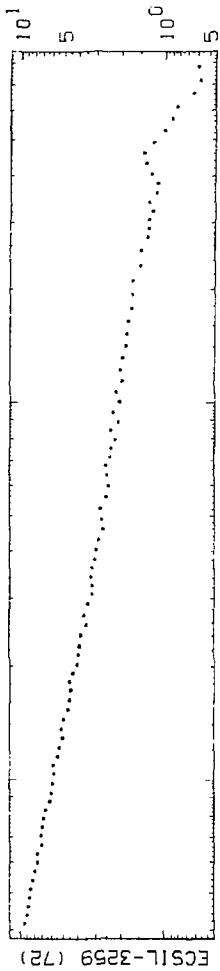
1-38

5-B -10 -3

03/01/74

5-B -10

N, ALPHA
CROSS SECTION



BARNS

MEV

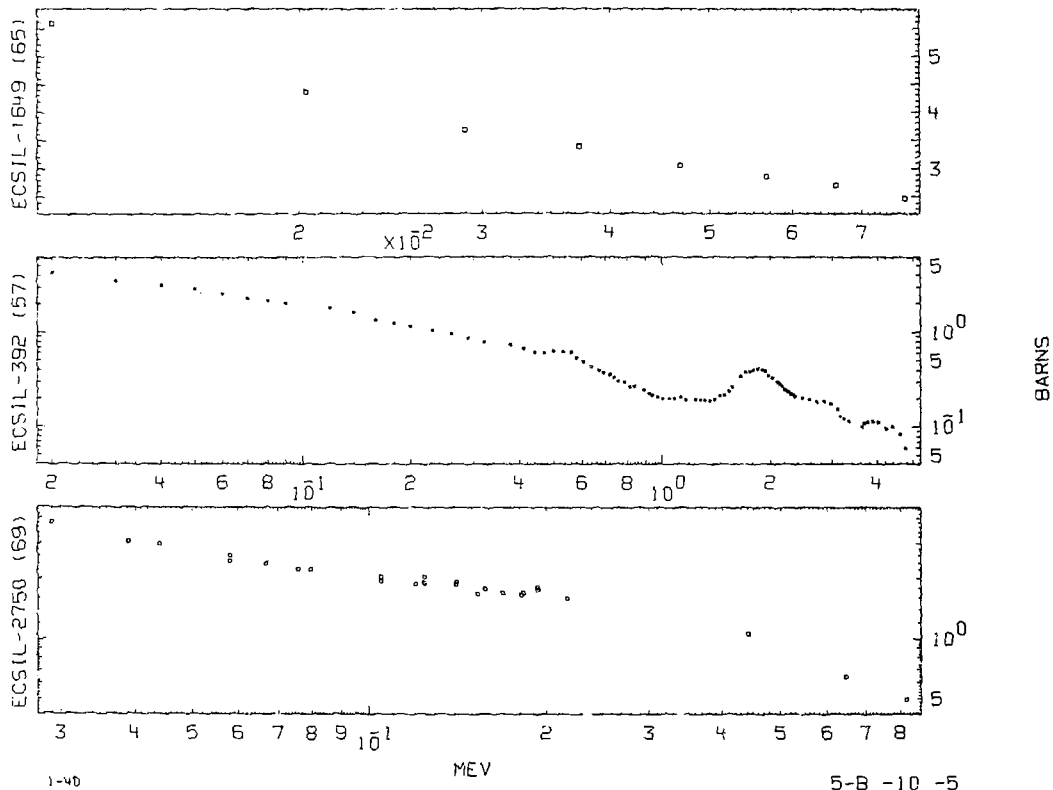
1-39

5-B -10 -4

03/01/74

N, ALPHA
CROSS SECTION

5-B -10



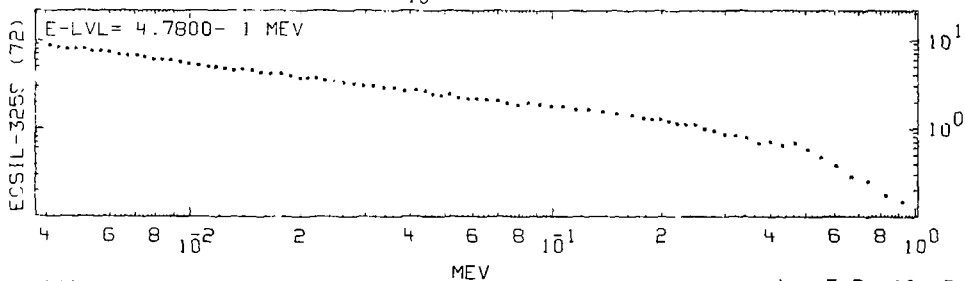
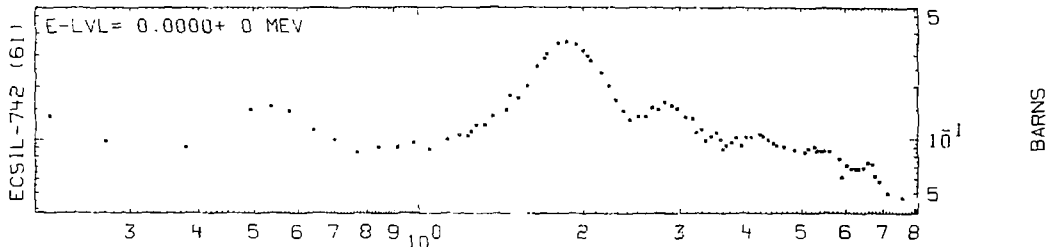
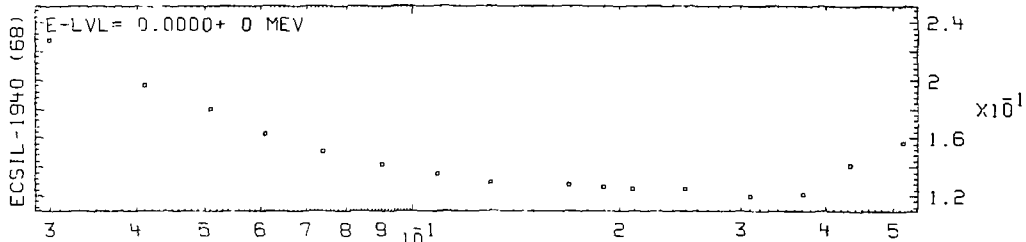
1-40

5-B -10 -5

03/01/74

N. ALPHA
CROSS SECTION

5-B -10



1-41

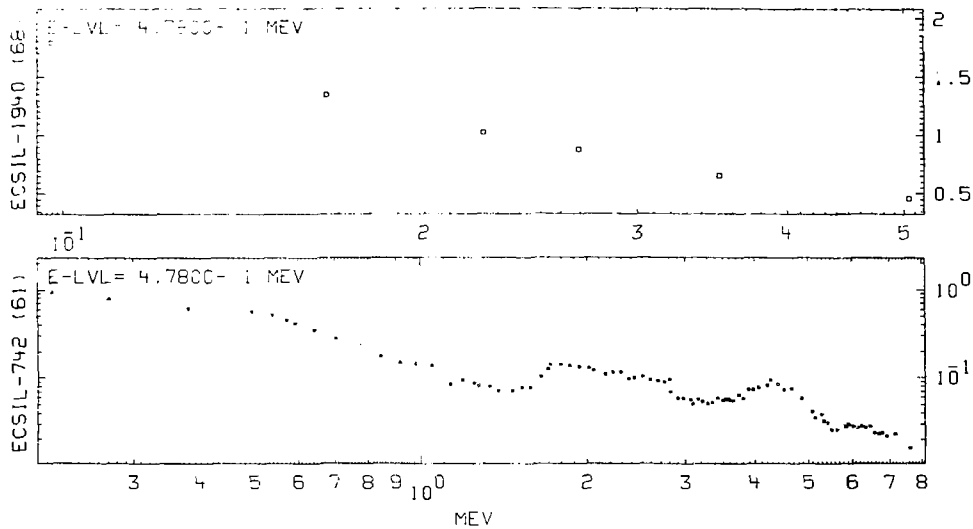
MEV

5-B -10 -6

03/01/74

N, ALPHA
CROSS SECTION

5-B -10



03/01/74

NONELASTIC

5-B -10

REFERENCL	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 319	1.4200+ 1	1.5000- 1	5.6010- 1	7.0010- 2

1-42

5-B -10 -7

03/01/74

TOTAL SCATTERING
CROSS SECTION

5-B -10

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2999	7.0200+ 0	1.3000- 1	3.2000- 2	9.0000- 3 2.1500+ 0
69 2999	7.5500+ 0	1.2000- 1	4.2000- 2	7.0000- 3 2.1500+ 0

03/01/74

N,N'

5-B -10

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
69 2999	7.0200+ 0	1.3000- 1	3.2000- 2	9.0000- 3	2.1500+ 0	69 2999	7.5500+ 0	1.2000- 1	3.3000- 2	5.0000- 3	4.7700+ 0
69 2999	7.5500+ 0	1.2000- 1	2.5000- 2	7.0000- 3	2.1500+ 0	69 2999	7.0200+ 0	1.3000- 1	2.3000- 2	5.0000- 3	5.1700+ 0
69 2999	7.0200+ 0	1.3000- 1	3.8000- 2	7.0000- 3	3.5900+ 0	69 2999	7.0200+ 0	1.3000- 1	5.4000- 2	2.1000- 3	6.0000+ 0
69 2999	7.5500+ 0	1.2000- 1	2.8000- 2	5.0000- 3	3.5900+ 0	69 2999	7.5500+ 0	1.2000- 1	7.1000- 2	5.0000- 3	6.0000+ 0
69 2999	7.0200+ 0	1.3000- 1	4.2000- 2	7.0000- 3	4.7700+ 0						

03/01/74

ABSORPTION

5-B -10

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 463	2.5300- 8		3.8360+ 3	9.0000+ 0	60 891	2.5300- 8		3.8430+ 3	1.7000+ 1
60 805	2.5300- 8		3.8380+ 3	1.1000+ 1	70 3218	2.5300- 8		3.8550+ 3	2.6000+ 1

03/01/74

N,X GAMMA

5-B -10

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
55 140	2.5620+ 0	3.0000- 2	3.1000- 2	3.0000- 3	7.2000- 1

03/01/74

N, ALPHA

5-B -10

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 278	2.5000- 2		4.4000+ 0	

03/01/74

N, ALPHA
CROSS SECTION

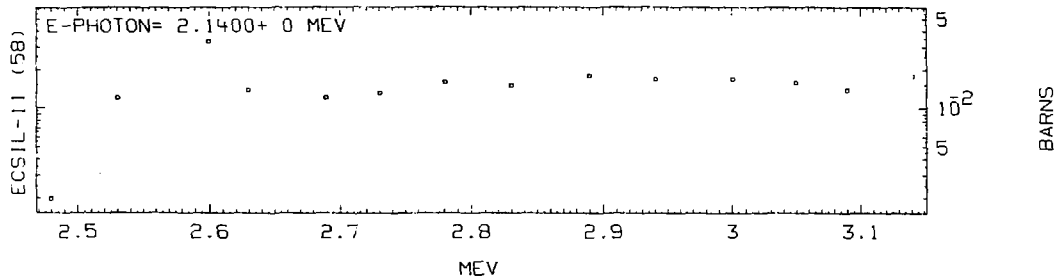
5-B -10

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
69 3282	1.4400+ 1		8.2000- 3	2.5000- 3	0.0000+ 0	4.7800- 1
69 3282	1.4400+ 1		1.0000- 2	1.0000- 2	6.0000- 1	4.5000+ 0
69 3282	1.4400+ 1		1.9000- 2	5.6000- 3	4.6300+ 0	

03/01/74

N, X GAMMA
CROSS SECTION

5-B -11



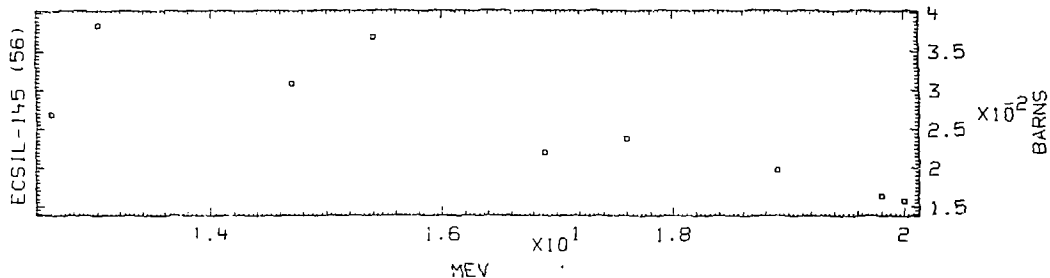
1-44

5-B -11 -1

03/01/74

N, ALPHA
CROSS SECTION

5-B -11



03/01/74

N, N'

5-B -11

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
69 2998	7.5500+ 0	1.2000- 1	5.2000- 2	1.6000- 2	
69 2939	7.5500+ 0	1.2000- 1	1.6800- 1	2.5000- 2	4.4600+ 0

03/01/74

N, P

5-B -11

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
61 2374	1.4000+ 1		5.0000- 3	5.0000- 4	62 88	1.4700+ 1	1.5000- 1	3.3000- 3	6.0010- 4
67 1851	1.4500+ 1	4.0000- 1	7.1000- 3	2.0000- 3	67 3371	1.4700+ 1	1.0000- 1	5.1000- 3	9.2000- 4

03/01/74

N, T

5-B -11

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
58 496	1.4100+ 1	1.0000- 1	1.5000- 2	5.0000- 3

03/01/74

N, ALPHA
CROSS SECTION

5-B -11

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 539	1.4100+ 1	2.0000- 1	3.5000- 2	7.0010- 3
62 88	1.4700+ 1	1.5000- 1	3.3000- 2	

03/01/74

COHERENT SCATTERING

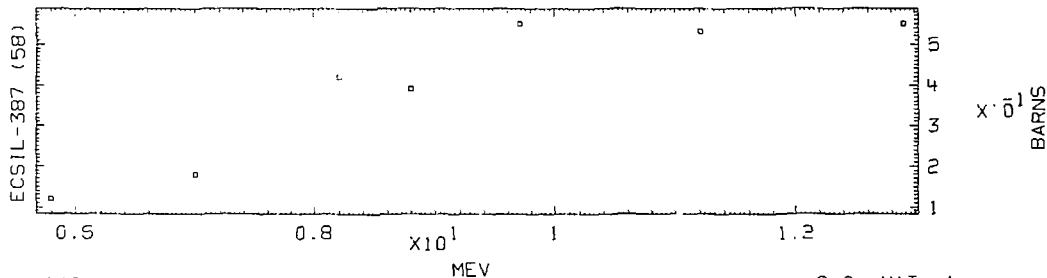
5-B -11

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2621	2.5300- 0		4.6000+ 0	1.0000- 2

03/01/74

NONELASTIC
CROSS SECTION

6-C -NAT



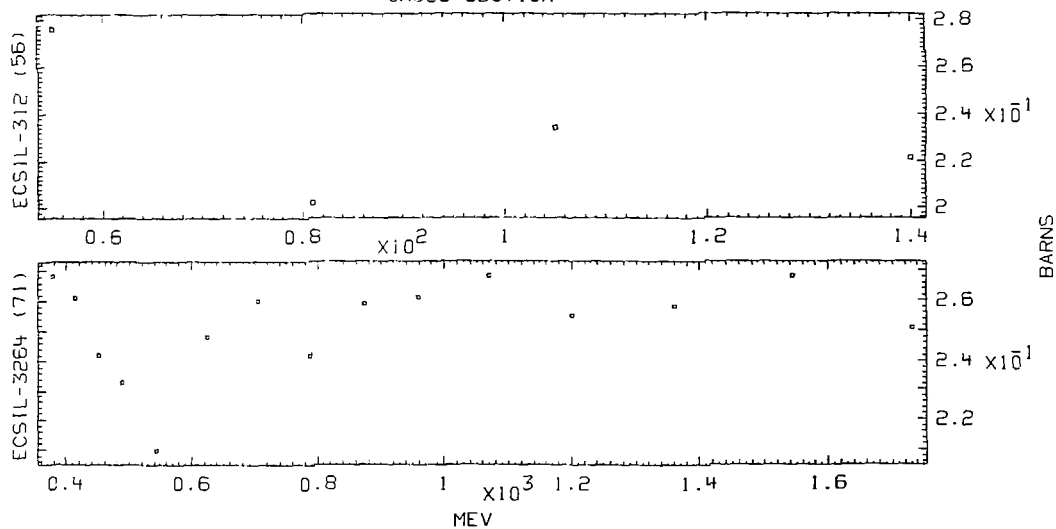
1-46

6-C -NAT -1

03/01/74

NONELASTIC
CROSS SECTION

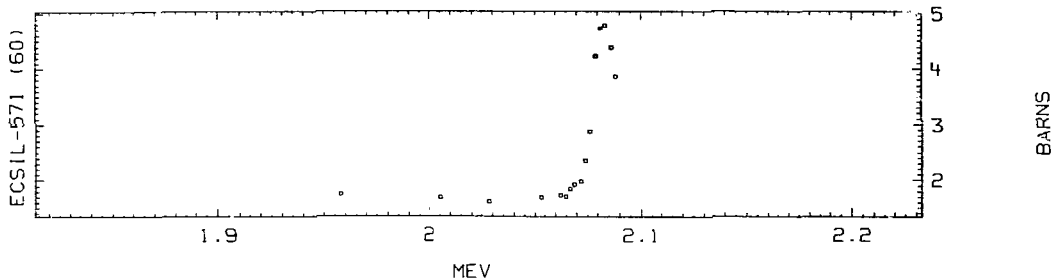
6-C -NAT



03/01/74

TOTAL SCATTERING
CROSS SECTION

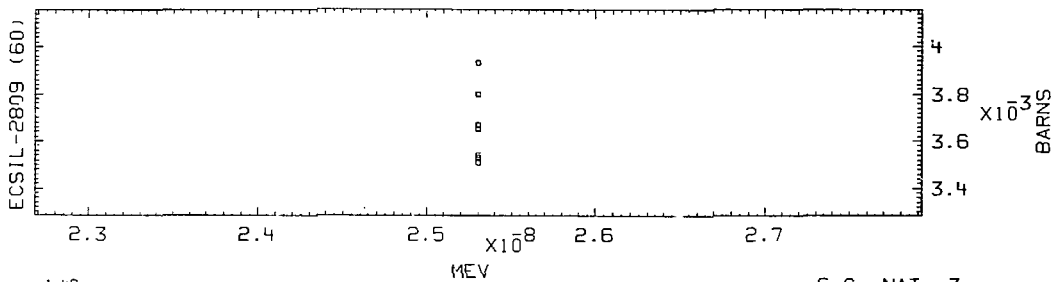
6-C -NAT



03/01/74

ABSORPTION
CROSS SECTION

6-C -NAT



1-48

6-C -NAT -3

03/01/74

NONELASTIC
CROSS SECTION

6-C -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	151 2.5000+	0 4.0000-	2 5.0000-	2 5.0000- 2	57	24 1.4200+	1 7.0010-	2 5.5010-	1 3.0000- 2
55	122 4.0700+	0	4.0000-	2 4.0000- 2	57	319 1.4200+	1 1.5000-	1 5.5010-	1 2.0000- 2
55	295 4.1000+	0 4.0000-	2 8.0010-	2 1.0000- 1	56	200 1.4500+	1	7.3010-	1 2.0000- 2
56	151 7.0000+	0 2.0000-	1 1.7000-	1 3.0000- 2	67	1656 1.4800+	1 1.0000-	1 5.5000-	1 2.0000- 2
55	130 1.2700+	1	5.6010-	1 1.0000- 1	65	1228 1.5200+	1	5.2000-	1 2.0000- 2
58	190 1.4000+	1	6.3000-	1 6.0000- 2	68	2746 1.5300+	1	5.5400-	1 3.0000- 2
55	790 1.4000+	1	6.3010-	1 5.0000- 2	65	1228 1.9800+	1	6.5000-	1 2.0000- 2
64	845 1.4100+	1 9.0010-	1 7.3010-	1 7.0010- 2	58	356 2.1000+	1	4.9000-	1 4.0000- 2
55	117 1.4100+	1	6.0110-	1 6.0010- 3	58	356 2.5500+	1	4.4000-	1 4.0000- 2
55	130 1.4100+	1	5.1010-	1 8.0010- 2	58	356 2.9200+	1	4.5000-	1 4.0000- 2
52	82 1.4150+	1 5.0000-	2 7.6010-	1 4.0000- 2	55	2056 1.4000+	3 2.0000+	2 2.0000-	1 1.0000- 2

03/01/74

TOTAL SCATTERING

6-C -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	786 3.3900-	5	4.7430+	0 2.0000- 3
65	786 6.1100-	5	4.7260+	0 2.4000- 3

03/01/74

ABSORPTION

6-C -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	2810 2.5300-	E	3.4400-	3 8.0000- 5
58	2811 2.5300-	B	3.8000-	3 1.0000- 4
63	2808 2.5300-	B	3.7200-	3 1.5000- 4

03/01/74

BOUND ATOM

6-C -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584 7.3000-	B	5.2000+	0

03/01/74

COHERENT SCATTERING
CROSS SECTION

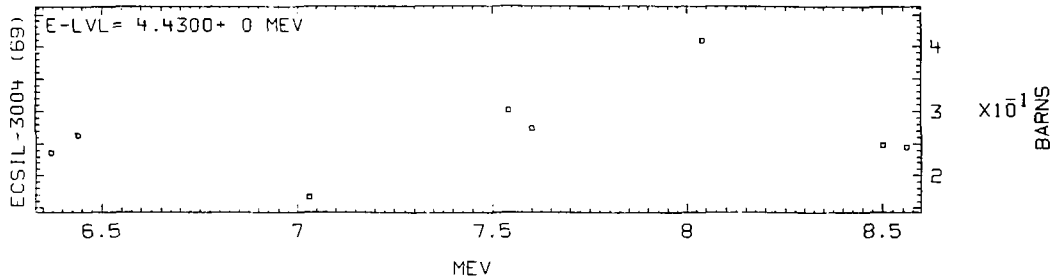
6-C -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		5.2000+ 0	4.1600- 1

03/01/74

N,N'
CROSS SECTION

6-C -12



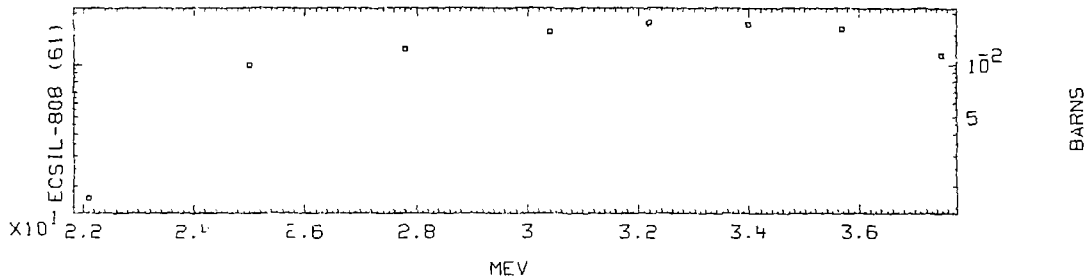
1-50

6-C -12 -1

03/01/74

N,2N
CROSS SECTION

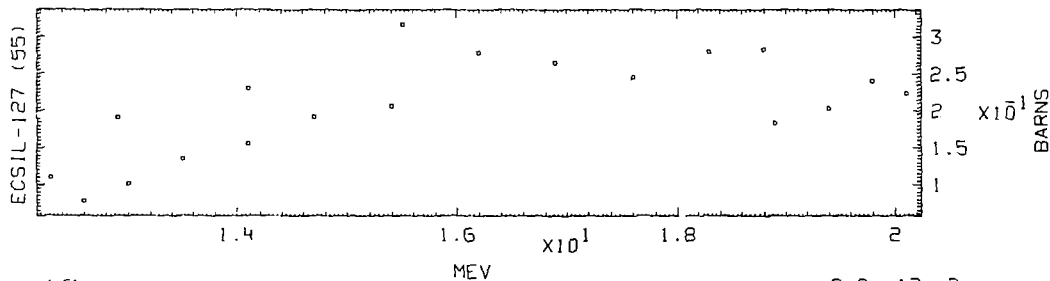
6-C -12



03/01/74

N,N'ALPHA
CROSS SECTION

6-C -12



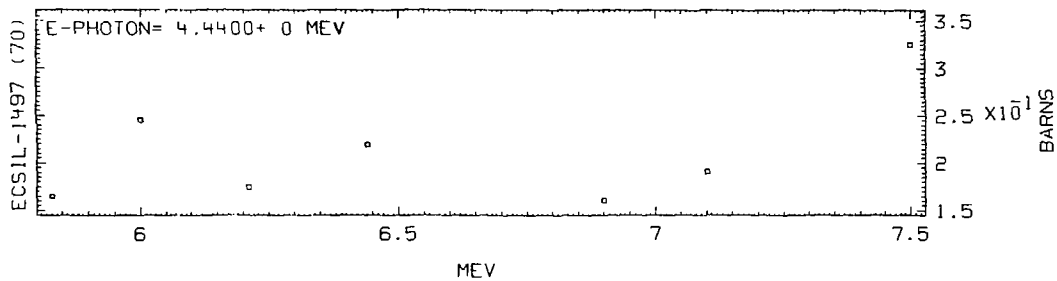
1-51

6-C -12 -2

03/01/74

N, X GAMMA
CROSS SECTION

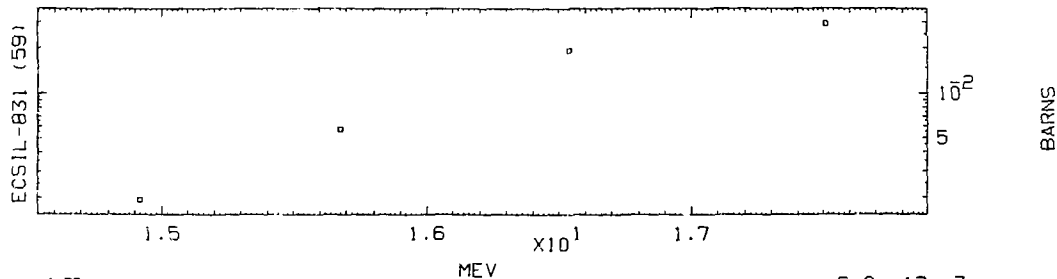
6-C -12



03/01/74

N, P
CROSS SECTION

6-C -12



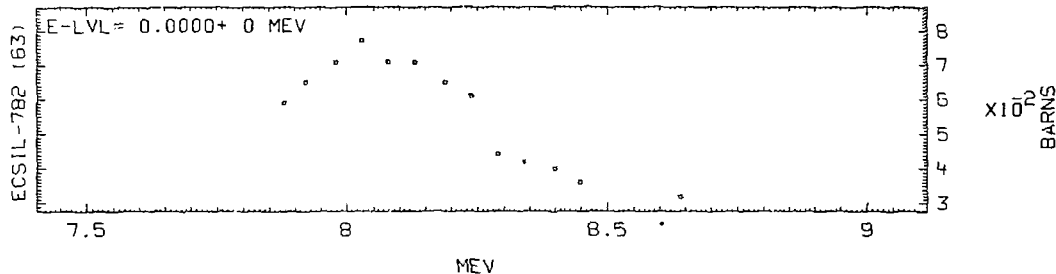
1-52

6-C -12 -3

03/01/74

N, ALPHA
CROSS SECTION

6-C -12



03/01/74

N,N'

6-C -12

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
63	3004 6.0100+ 0	7.0000- 2	2.4900- 1	1.0130- 1		59	560 1.4100+ 1		2.0300- 1		4.4330+ 0
65	889 6.0400+ 0	4.6000- 1	2.2500- 1	2.5000- 2	4.4300+ 0	65	1639 1.4100+ 1		5.4300- 2		7.6000+ 0
62	1060 1.4000+ 1		2.2000- 1	2.5000- 2	4.4300+ 0	66	1659 1.4000+ 1		1.6000- 2	1.0000- 2	7.6500+ 0
58	405 1.4000+ 1		2.2000- 1	3.0000- 2	4.4300+ 0	64	1661 1.4000+ 1	1.4000+ 0	1.6000- 2	1.0000- 2	7.6500+ 0
66	1659 1.4000+ 1		2.1500- 1	4.0000- 2	4.4300+ 0	66	1659 1.4000+ 1		7.6000- 2	1.3000- 2	9.6000+ 0
64	1661 1.4000+ 1	1.4000+ 0	2.7000- 1	2.5000- 2	4.4300+ 0	65	1639 1.4100+ 1		1.0160- 1		9.6000+ 0
65	1639 1.4100+ 1		2.2400- 1		4.4300+ 0	64	845 1.4100+ 1	9.0000- 1	4.5000- 2	1.0000- 2	9.6000+ 0
64	845 1.4100+ 1	9.0000- 1	2.9900- 1	2.0000- 2	4.4300+ 0	68	2746 1.5300+ 1		1.0000- 1	3.0000- 2	9.6000+ 0
68	2746 1.5300+ 1		2.2000- 1	2.0000- 2	4.4300+ 0	59	560 1.4100+ 1		9.6010- 2		9.6200+ 0
59	544 6.0000+ 0		2.4000- 1		4.4330+ 0	66	1556 1.4100+ 1		5.5000- 2	1.2000- 2	1.0100+ 1
59	544 6.3000+ 0		3.5000- 1		4.4330+ 0	65	472 1.4100+ 1		1.3500- 2	3.0000- 3	1.0800+ 1
59	544 7.0000+ 0		1.7000- 1		4.4330+ 0						

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV
55	295 1.4000+ 1		2.4500- 1	3.5000- 2	4.4300+ 0

03/01/74

N,2N
CROSS SECTION

6-C -12

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	7 1.4100+ 1		6.0010- 3	6.0010- 3	52	83 2.4000+ 1	2.0000+ 0	5.0000- 3	1.0000- 3
52	83 2.3000+ 1	2.0000+ 0	4.7500- 3	1.0000- 3	52	83 2.7000+ 1	2.0000+ 0	1.0000- 2	1.0000- 3

03/01/74

N,N'P

6-C -12

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
61 1664	1.4000+ 2	2.0000+ 1	3.2000- 3	8.0000- 4	4.6600+ 0
61 1664	1.4000+ 2	2.0000+ 1	7.0000- 4	3.5000- 4	5.0400+ 0
61 1664	1.4000+ 2	2.0000+ 1	1.4000- 3	7.0000- 4	5.8000+ 0

03/01/74

N,X GAMMA

6-C -12

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
53	294 1.4200+ 1			1.9000- 1	5.0000- 2	66	1839 1.4000+ 1		1.3300- 1	1.7000- 2	4.4500+ 0
66 1839	1.4000+ 1	3.5000- 2	1.0000- 2	2.6400- 0	0	68 2997	1.4000+ 1	8.0000- 1	1.6300- 1	3.0000- 2	4.4500+ 0
53 294	1.4200+ 1	3.6000- 2	1.3000- 2	2.8000- 0	0	60 1721	1.4000+ 1		2.3000- 2		6.0000+ 0
66 1839	1.4000+ 1	1.3000- 2	6.6000- 3	3.1600+ 0	0	61 850	1.4000+ 1		2.3000- 2	4.6000- 3	6.0000+ 0
65 1797	1.5600+ 1	1.7000- 1		4.4900+ 0	0	53 294	1.4200+ 1		2.0000- 3	7.0000- 4	6.0000+ 0
65 1797	1.6000+ 1	1.4000- 1		4.4000+ 0	0	66 1839	1.4000+ 1		6.1000- 2	1.6000- 2	6.1000+ 0
56 140	6.5800+ 0	3.0000- 2	3.5300- 1	5.9000- 2	4.4300+ 0	60 1721	1.4000+ 1		1.3000- 2		7.0000+ 0
60 833	1.4000+ 1		2.9000- 1	5.0000- 2	4.4300+ 0	61 850	1.4000+ 1		1.3000- 2	2.6000- 3	7.0000+ 0
60 583	1.4000+ 1		2.4900- 1	2.8000- 2	4.4300+ 0	53 294	1.4200+ 1		2.0000- 3	7.0000- 4	7.0000+ 0
54 302	1.4100+ 1		3.0000+ 1		4.4300+ 0	66 1839	1.4000+ 1		6.5000- 3	2.7000- 3	7.5000+ 0
64 1666	1.4100+ 1		2.3200- 1	1.8000- 2	4.4300+ 0						
53 294	1.4200+ 1		6.9000- 2	2.4000- 2	4.4300+ 0						

03/01/74

N, ALPHA
CROSS SECTION

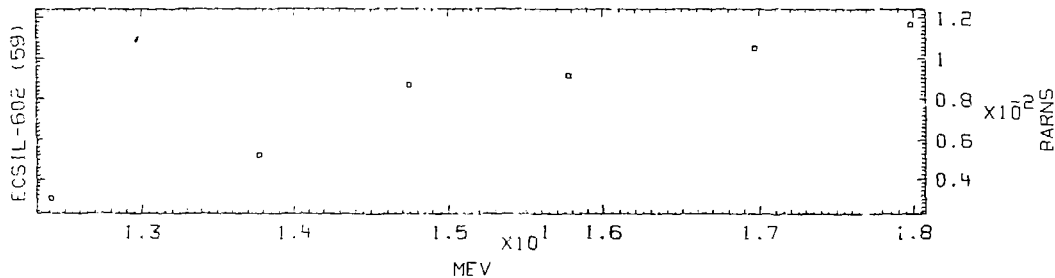
6-C -12

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
64 821	1.4500+ 0		6.9010- 2	1.3000- 2	0.0000+ 0	66 3022	1.6000+ 1		4.5000- 2	1.6000- 2	0.0000+ 0
71 3802	1.4400+ 1		7.5000- 2	4.0000- 2	0.0000+ 0	66 3022	1.7000+ 1		5.4000- 2	1.8000- 2	0.0000+ 0

03/01/74

N, 2N
CROSS SECTION

7-N -NAT



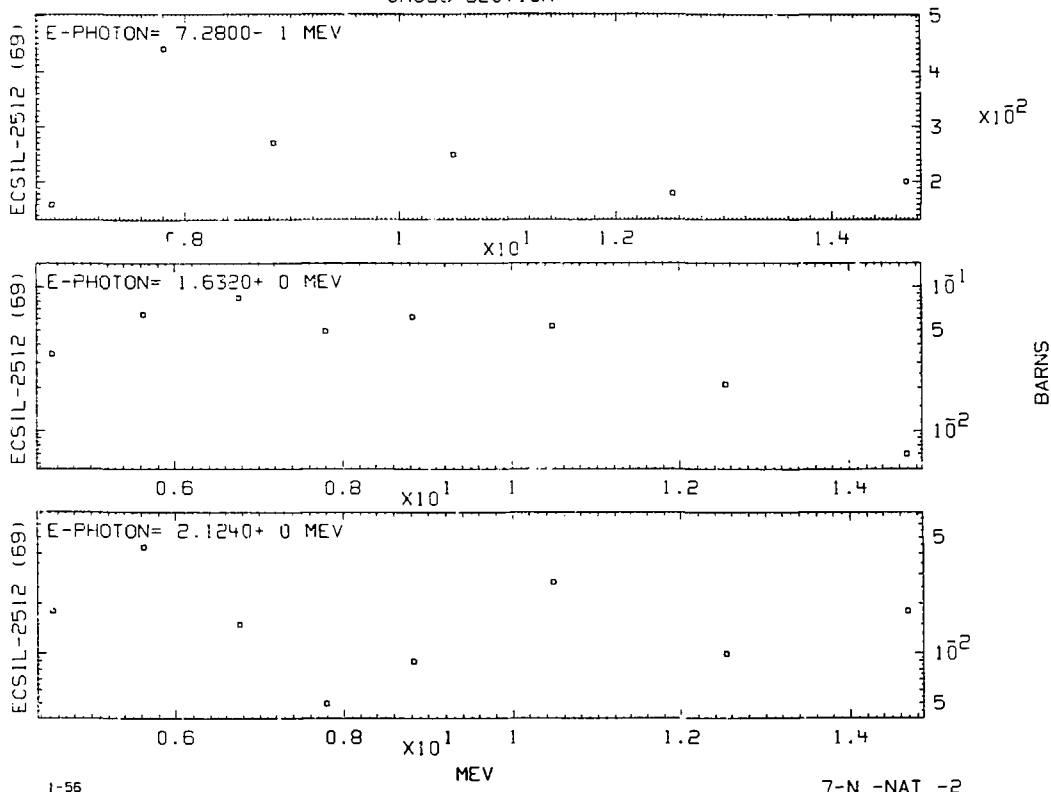
1-55

7-N -NAT -1

03/01/74

N, X GAMMA
CROSS SECTION

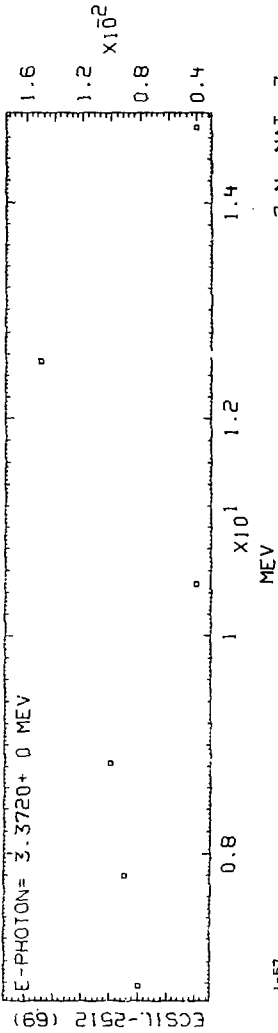
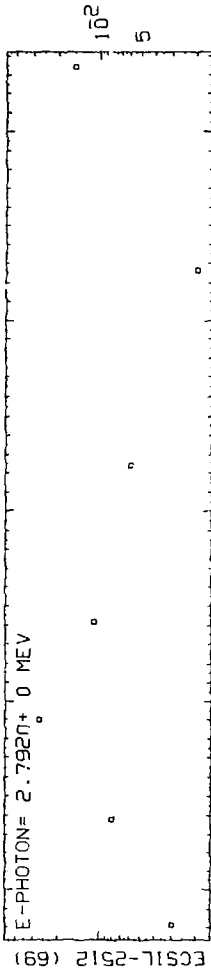
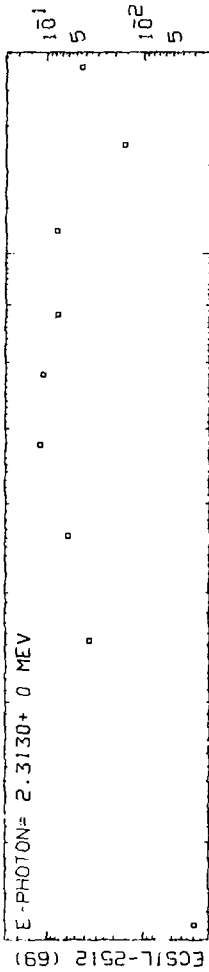
7-N -NAT



03/01/74

N, X GAMMA
CROSS SECTION

7-N -NAT

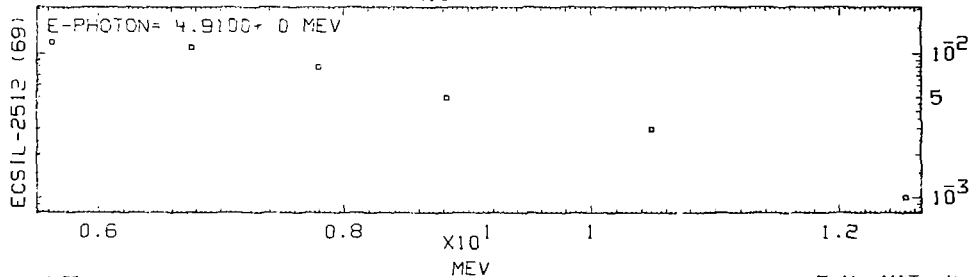
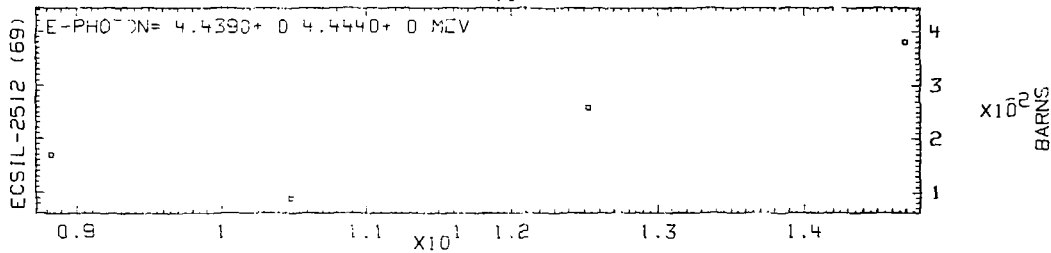
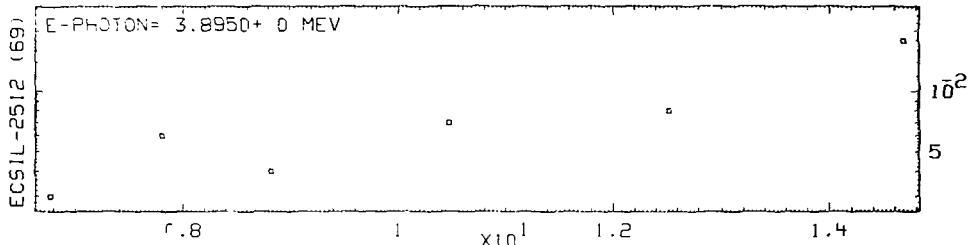


BARNs

03/01/74

N, X GAMMA
CROSS SECTION

7-N -NAT



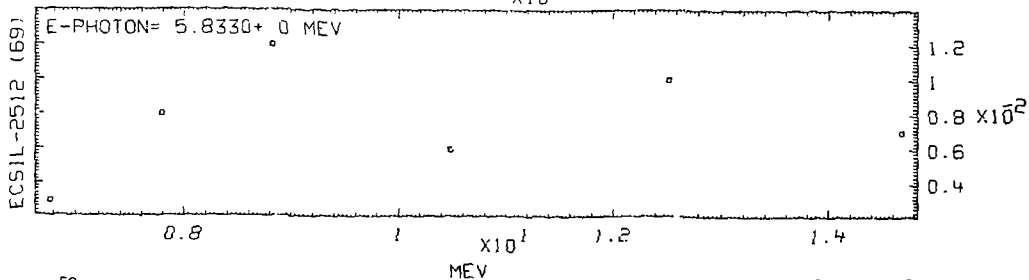
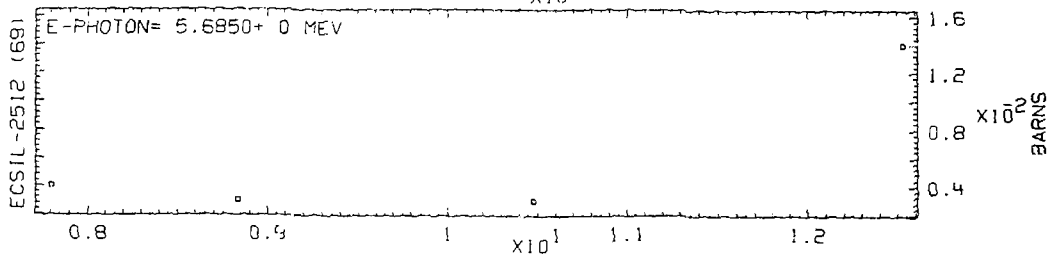
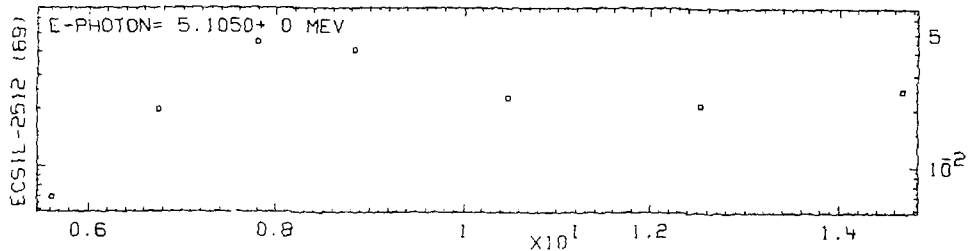
1-58

7-N -NAT -4

03/01/74

N, X GAMMA
CROSS SECTION

7-N -NAT



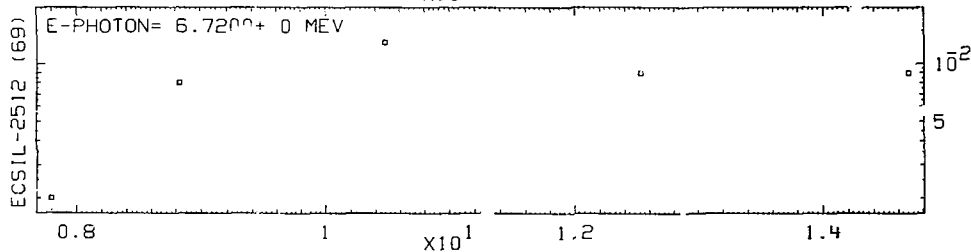
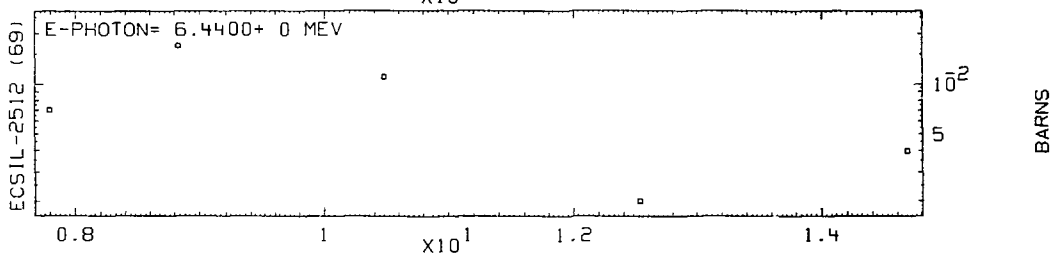
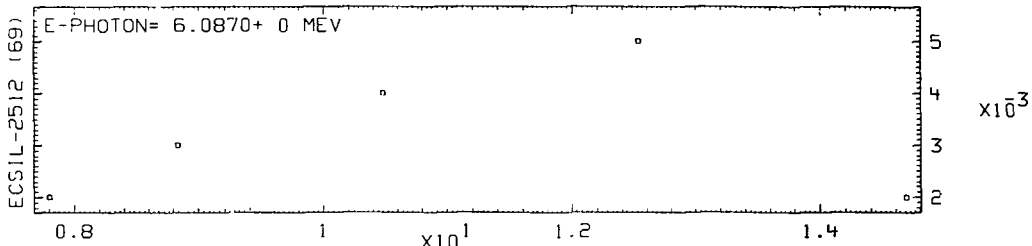
1-59

7-N -NAT -5

03/01/74

N,X GAMMA
CROSS SECTION

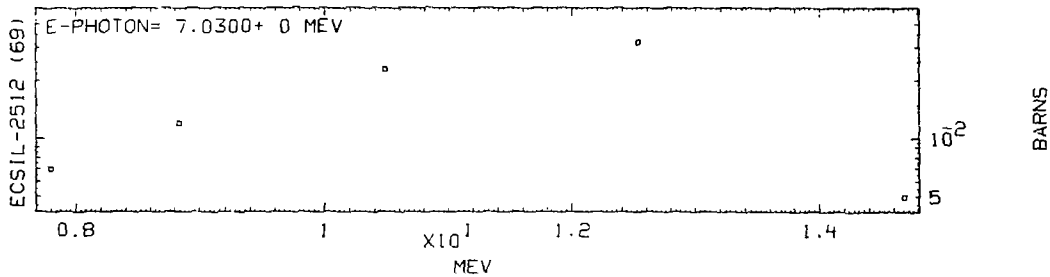
7-N -NAT



03/01/74

N,X GAMMA
CROSS SECTION

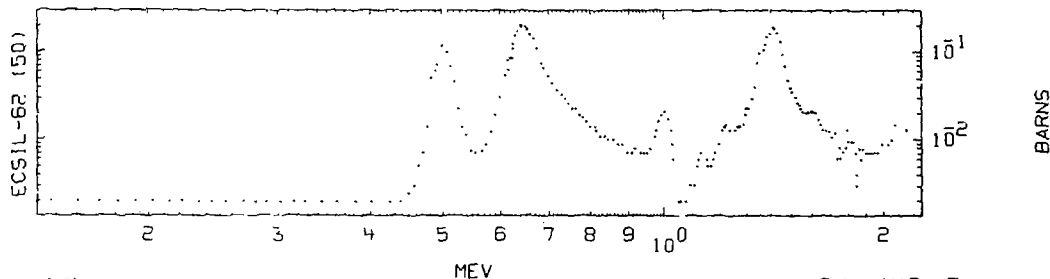
7-N -NAT



03/01/74

N,P
CROSS SECTION

7-N -NAT



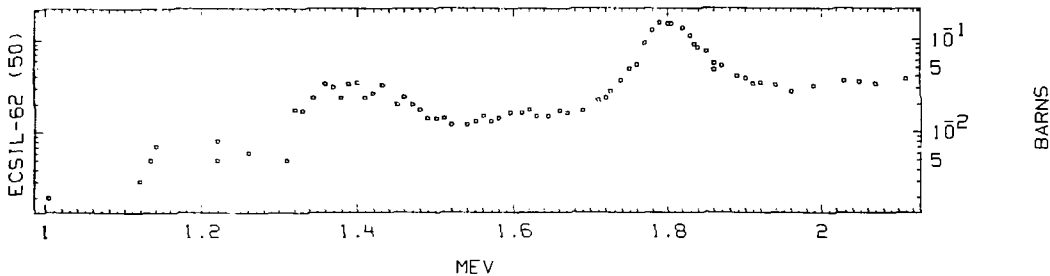
1-61

7-N -NAT -7

03/01/74

N, ALPHA
CROSS SECTION

7-N -NAT



03/01/74

NONELASTIC

7-N -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52 B2	1.4150+1	5.0000-2	7.9010-1	5.0000-2	65 122B	1.5200+1		7.0000-1	3.0000-2
56 200	1.4500+1		8.2000-1	2.0000-2	65 122B	1.9800+1		6.9000-1	5.0000-2
56 200	1.4500+1		8.2010-1	2.0000-2					

03/01/74

N,N'

7-N -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54 110	1.4100+1	1.0000-1	4.8000-1	

03/01/74

N,2N

7-N -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	7 1.4100+1		1.9000-2	1.0000-2
62	10B 1.4130+1	1.0000-1	5.4010-3	4.6000-4
61	67B 1.4400+1	3.0000-1	7.4010-3	5.0010-4

N.A. GAMMA
CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA MEV	X-SEC BARN	DELTA MEV	E-PHOTON MEV
64 1730	1.4800*	1 4.0000-	1 4.5800-	1 9.0000- 2			
64 1730	1.4800*	1 4.0000-	2 2.9000-	2 4.6000-	3 7.5000-		
64 1730	1.4800*	1 4.0000-	1 3.1900-	2 4.4000-	3 1.6000+		
64 1730	1.4800*	1 4.0000-	2 0.4300-	2 4.1000-	2 1.7000+		
68 2997	1.4000*	1 8.0000-	1 7.0000-	2 3.0000-	2 2.8000+		
68 2512	3.7500*	0 5.0000-	1 1.4000-	2 4.2000-	2 2.3000+		
68 140	3.9500*	0 3.0000-	2 6.0000-	3 3.0000-	3 2.3100+		
64 1730	1.4800*	1 4.0000-	1 4.6500-	2 9.3000-	3 2.3100+		
68 2512	7.8000*	0 4.7000-	1 1.0000-	2 8.5000-	3 2.4900+		
68 2512	8.8500*	0 5.6000-	1 9.0000-	3 7.6500-	3 2.4900+		
68 2512	1.0480*	1 1.0900-	0 5.0000-	3 4.2500-	3 2.4900+		
64 1730	1.4800*	1 4.0000-	1 7.0000-	3 1.4300-	3 2.8000+		
64 1730	1.4800*	1 4.0000-	1 1.7000-	2 2.3000-	3 3.0900+		
64 1730	1.4800*	1 4.0000-	1 9.1000-	3 1.6000-	3 3.3700+		
68 2512	1.2530*	1 5.6000-	1 1.0000-	2 1.0000-	2 3.6800+		
68 2512	1.4800*	1 1.2100-	0 4.0000-	3 4.0000-	3 3.6800+		
64 1730	1.4800*	1 4.0000-	1 3.7500-	2 6.7000-	3 3.6800+		
68 2512	1.0480*	1 1.0900-	0 2.0000-	3 2.0000-	3 3.6800+		
68 2512	1.4850*	1 1.2100-	0 6.0000-	3 6.0000-	3 3.8500+		
64 1730	1.4800*	1 1.0000-	1 3.1000-	2 6.2000-	3 3.8600+		
68 2512	5.6250*	0 5.7500-	1 2.0000-	3 1.7000-	3 4.4400+		
68 2512	6.7650*	0 5.6500-	1 1.8000-	2 9.0000-	3 4.4400+		
68 2512	7.8900*	0 4.7000-	1 3.1000-	2 9.3000-	3 4.4400+		
68 2997	1.4000*	1 4.0000-	1 5.0100-	2 1.0000-	2 4.4600+		
64 1730	1.4800*	1 3.0000-	1 2.6400-	2 5.3000-	3 4.9000+		
64 1730	1.4800*	1 4.0000-	1 3.1900-	2 6.4000-	3 5.0300+	0 5.1000+	
68 2997	1.4000*	1 3.0000-	1 7.0000-	2 2.0000-	2 5.2000+		
64 1730	1.4800*	1 4.0000-	1 2.7800-	2 5.6000-	3 5.8300+	0 6.0900+	
64 1730	1.4800*	1 4.0000-	1 2.9800-	2 6.0000-	3 6.4400+		
64 1730	1.4800*	1 4.0000-	1 1.3800-	2 6.3800-	3 6.7200+		
64 1730	1.4800*	1 4.0000-	1 1.8600-	2 3.3000-	3 7.0300+	0 7.4000+	
68 2997	1.4000*	1 8.0000-	1 8.0000-	3 4.3000-	3 9.1000+		

03/01/74

N, X GAMMA
CROSS SECTION

7-N -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHN-MIN MEV	E-PHN-MAX MEV
64 1730	1.4800+ 1	4.0000- 1	2.0500- 2	4.1000- 3	9.0000- 1	1.4500+ 0

03/01/74

N, ALPHA

7-N -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52 79	1.4100+ 1		1.0000- 1	

03/01/74

BOUND ATOM

7-N -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 158+	7.3000- 0		1.0000+ 1	

03/01/74

FREE ATOM

7-N -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
49 53	1.5000- 5		9.9600+ 0	

03/01/74

COHERENT SCATTERING

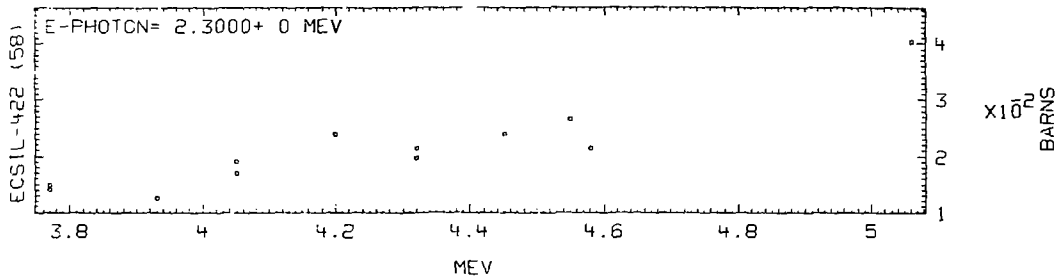
7-N -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 2817	2.5300- 0		1.1000+ 1	1.5000+ 0	51 2818	2.5300- 0		9.1000+ 0	
51 2817	2.5300- 0		9.7000+ 0	1.1000- 0	64 2654	2.5300- 0		1.0600+ 1	3.0000- 1
52 2816	2.5300- 0		1.1100- 1	3.0000- 1	51 158+	7.3000- 0		9.1000+ 0	7.2800- 1

03/01/74

N,N'
CROSS SECTION

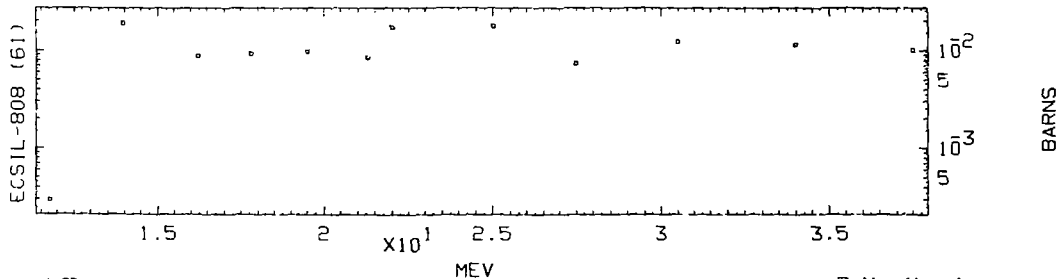
7-N -14



03/01/74

N,2N
CROSS SECTION

7-N -14



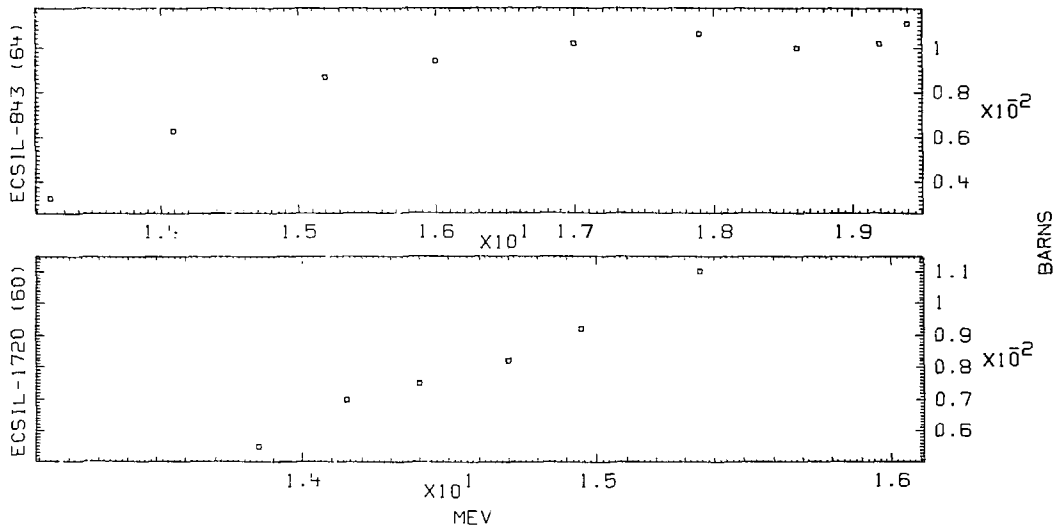
1-65

7-N -14 -1

03/01/74

N,2N
CROSS SECTION

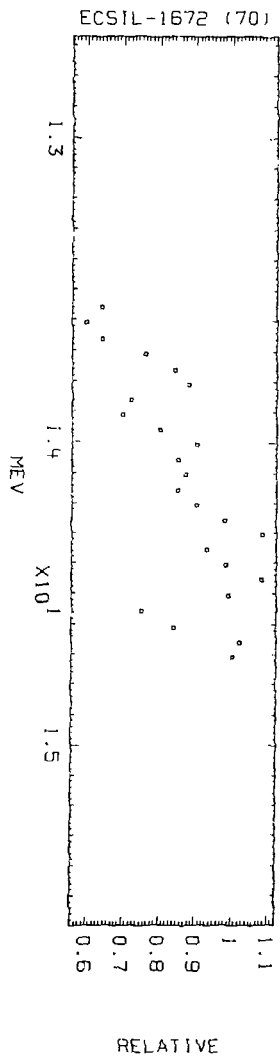
7-N -14



03/01/74

N,2N
CROSS SECTION

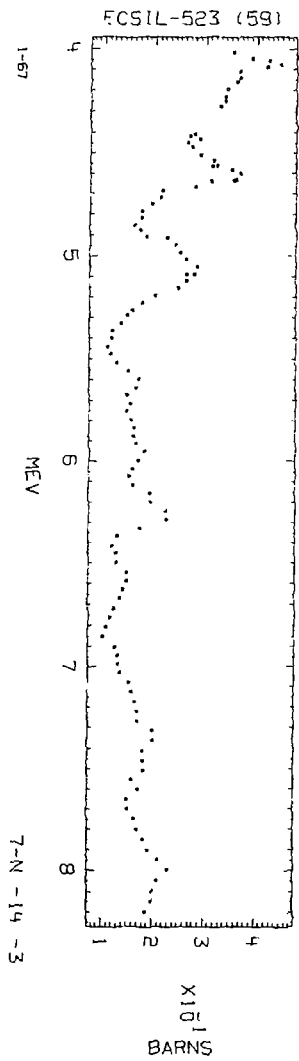
7-N -14



03/01/74

N, X CHARGED PARTICLE
CROSS SECTION

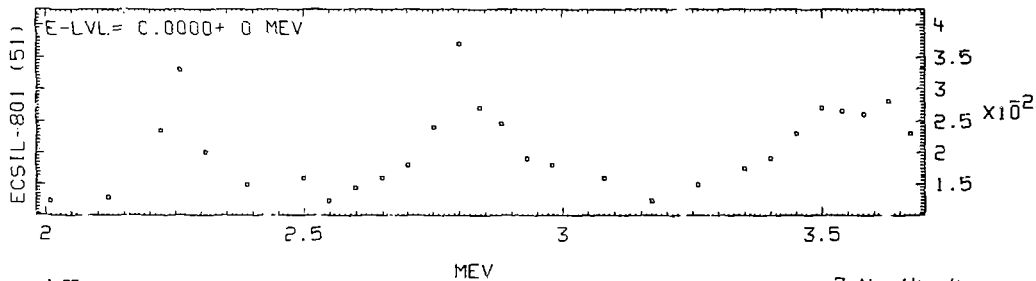
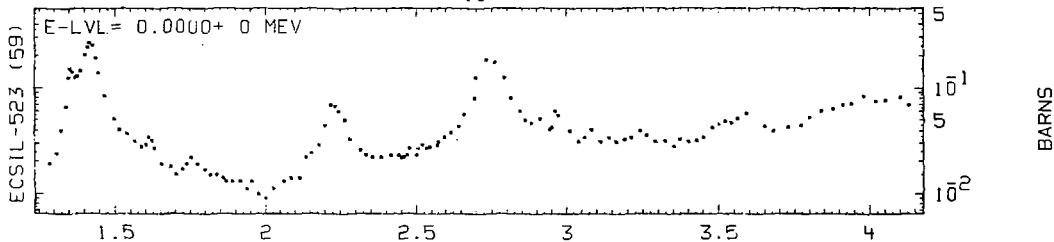
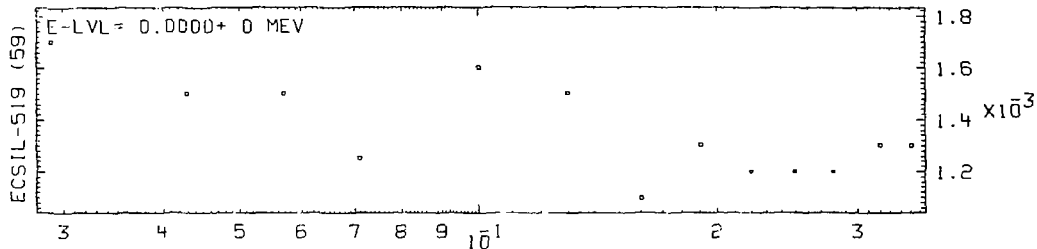
7-N -14



03/01/74

N,P
CROSS SECTION

7-N -14



1-56

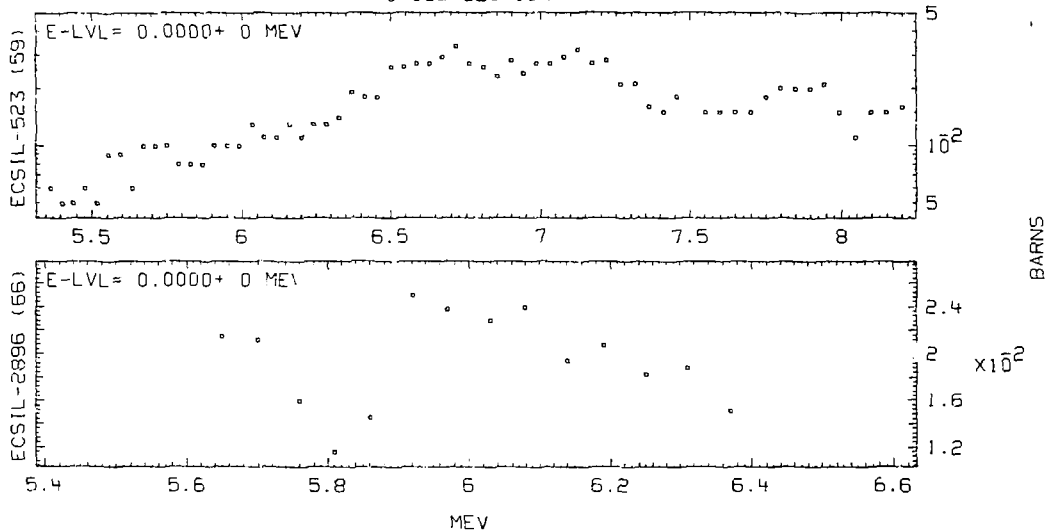
MEV

7-N -14 -4

05/01/74

N,T
CROSS SECTION

7-N -14

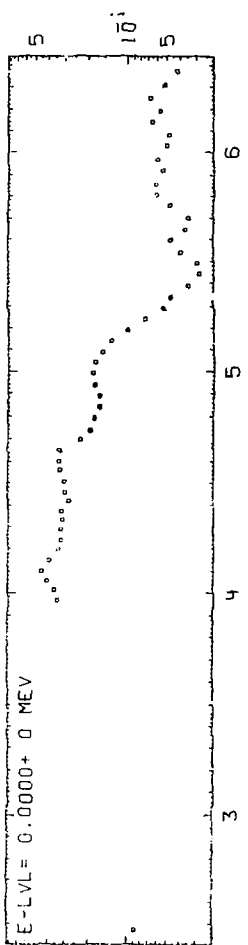
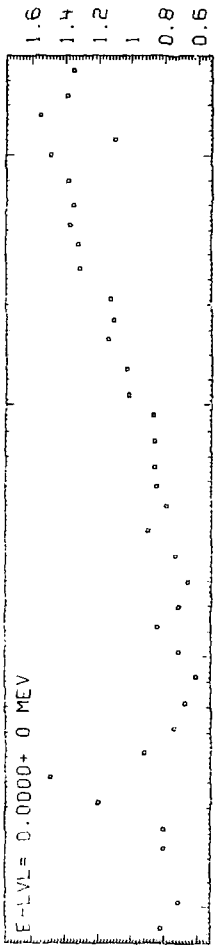
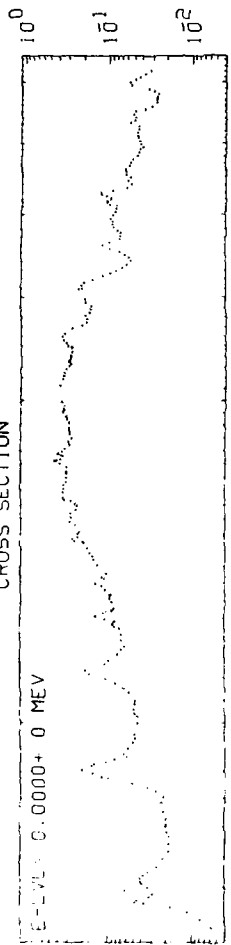


03/01/74

N, ALPHA

7-N -14

CROSS SECTION



MEV

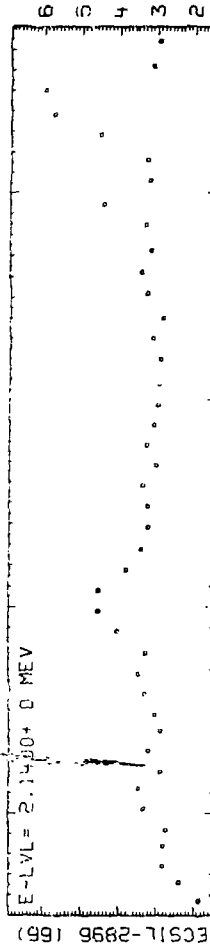
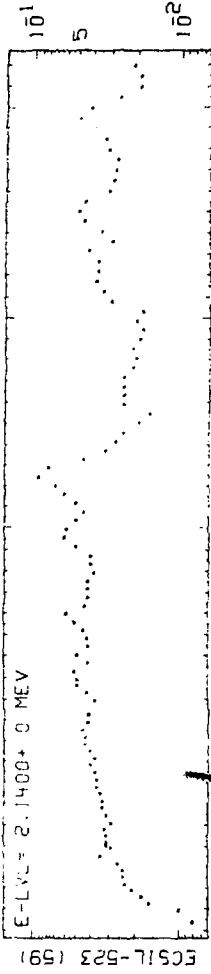
7-N -14 -6

1-70

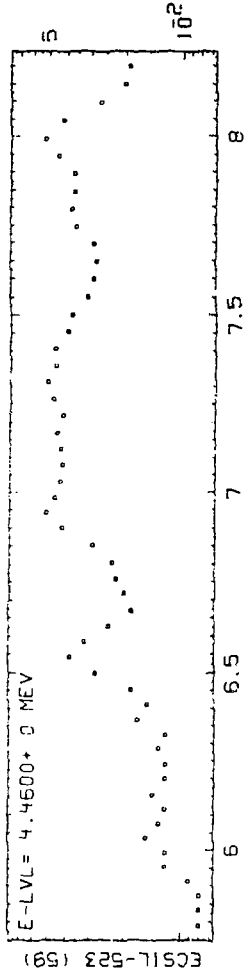
03/01/74

N, ALPHA
CROSS SECTION

7-N -14



BARNS
 $\times 10^{22}$



MEV

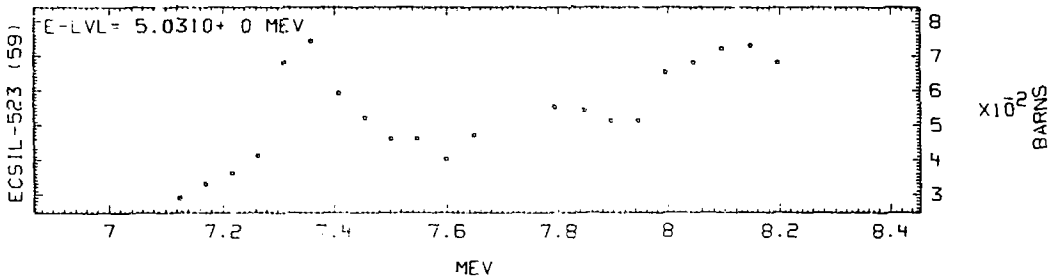
1-71

7-N -14 -7

03/01/74

N, ALPHA
CROSS SECTION

7-N -14



03/01/74

N, N'

7-N -14

REFERENCE	ENERGY	DELTA	X-SEC	DELTA
	MEV	MEV	BARNs	BARNs
59	422	3.3900 + 0	1.3600 - 2	5.9910 - 3

03/01/74

N, 2N

7-N -14

REFERENCE	ENERGY	DELTA	X-SEC	DELTA	REFERENCE	ENERGY	DELTA	X-SEC	DELTA
	MEV	MEV	BARNs	BARNs		MEV	MEV	BARNs	BARNs
67	2009	1.2300 + 1	8.2000 - 3	1.2300 - 3	53	27	1.4500 + 1	5.6700 - 3	8.5050 - 4
54	453	1.4000 + 1	3.4000 - 3	1.0000 - 3	65	1672	1.4600 + 1	1.0000 - 1	8.0000 - 3
65	2140	1.4100 + 1	7.2000 - 3	2.2000 - 3	67	1921	1.4700 + 1	1.0000 - 1	6.1000 - 3
65	1676	1.4100 + 1	7.1900 - 3	2.2500 - 3	65	3379	1.4800 + 1	1.0000 - 1	8.3800 - 3

03/01/74

N, N*P

7-N -14

REFERENCE	ENERGY	DELTA	X-SEC	DELTA
	MEV	MEV	BARNs	BARNs
66	1675	1.4700 + 1	4.6000 - 2	1.3000 - 2

03/01/74

N,P
CROSS SECTION

7-N -14

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2819	2.5300- 8		1.8300+ 0	3.0000- 2
51 2820	2.5300- 8		1.9100+ 0	1.0000- 1
66 1675	1.4700+ 1		7.7000- 2	1.4000- 2

03/01/74

N,T

7-N -14

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
67 1943	1.5700+ 1	5.0000- 1	8.0000- 4	5.0000- 4	9.6300+ 0

03/01/74

N, ALPHA

7-N -14

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
68 3292	1.4100+ 1	1.1500- 2	5.0000+ 4	0.0000+ 0		68 3292	1.4100+ 1		1.4100- 2	5.0000- 4	4.4600+ 0
68 3292	1.4100+ 1	8.8000- 3	4.0000+ 4	2.1400+ 0		68 3292	1.4100+ 1		1.3400- 2	5.0000- 4	5.0300+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
68 3292	1.4100+ 1		1.8800+ 2	6.0000- 4	6.7600+ 0	6.8100+ 0

03/01/74

N,2 ALPHA

7-N -14

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
67 1943	1.4100+ 1	2.5700- 1	5.8000- 2	1.2000- 2	0.0000+ 0
67 1943	1.5700+ 1	5.0000- 1	7.0000- 2	1.5000- 2	0.0000+ 0

03/01/74

N,P

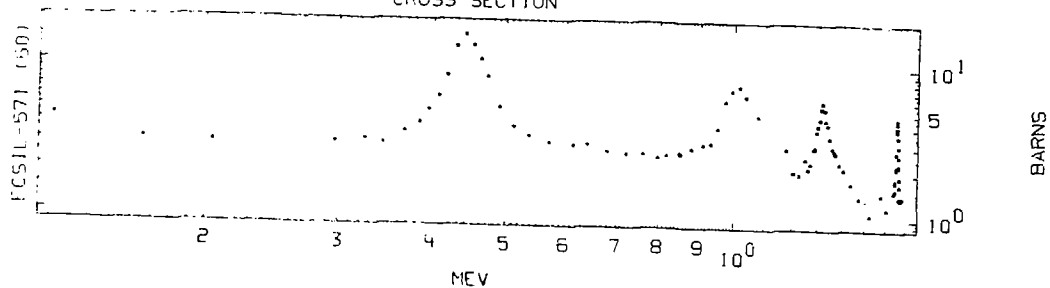
7-N -15

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2142	1.4600+ 1		1.6000- 2	4.0000- 3

03-01-74

TOTAL SCATTERING
CROSS SECTION

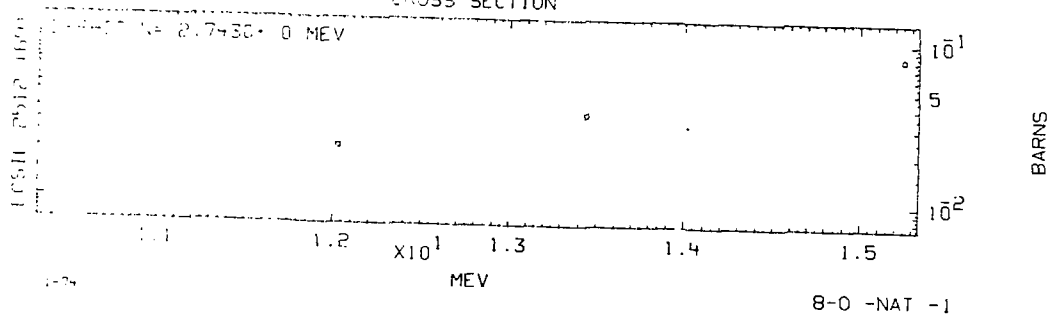
8-0 -NAT



03-01-74

N,X GAMMA
CROSS SECTION

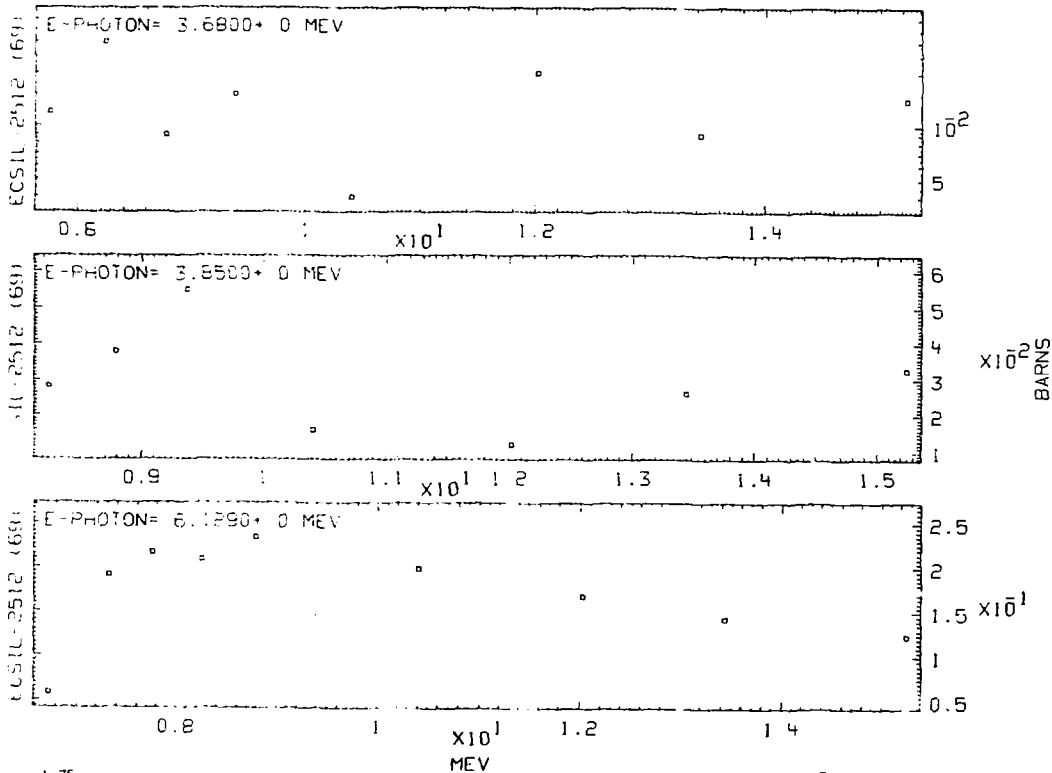
8-0 -NAT



03/01/74

N, X GAMMA
CROSS SECTION

8-0 -NAT



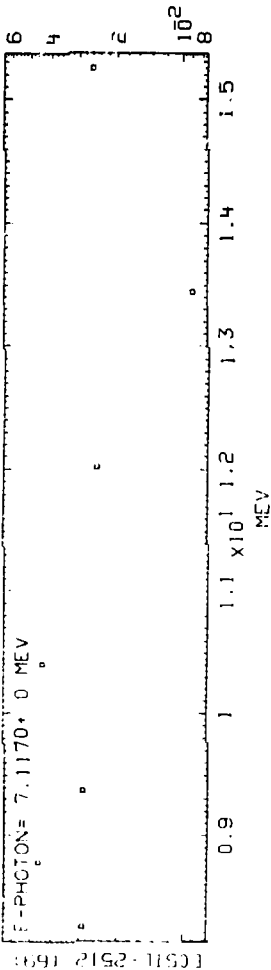
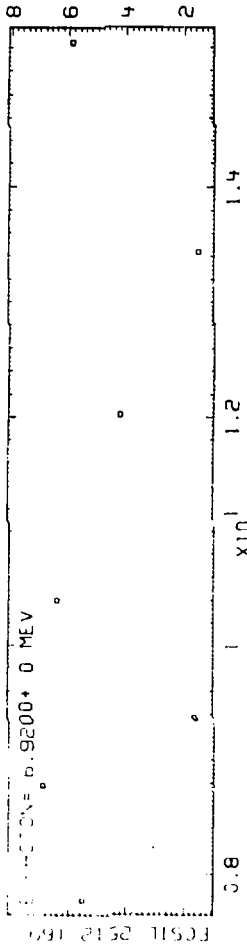
1-75

8-0 -NAT -2

03-01-74

N. X. 1MA
CROSS SECTION

8-0 -NAT



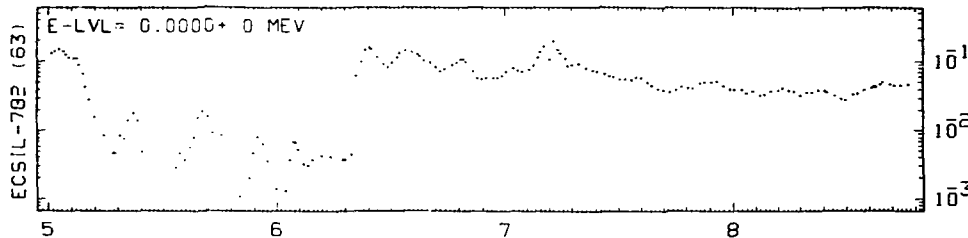
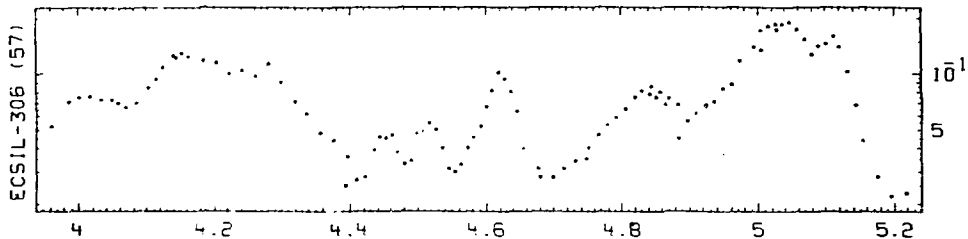
1-76

8-C -NAT -3

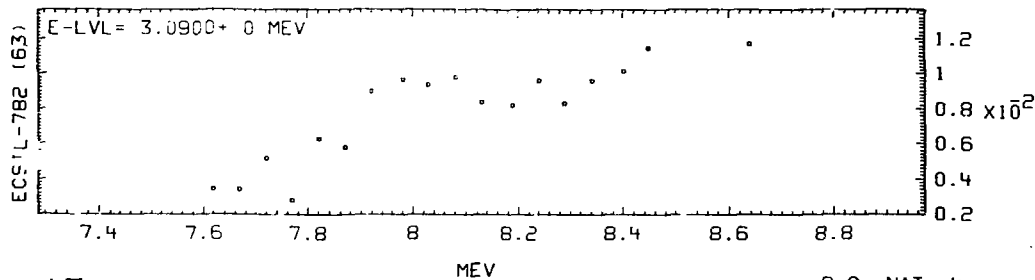
03/01/74

N, ALPHA
CROSS SECTION

8-0 -NAT



BARNS



1-77

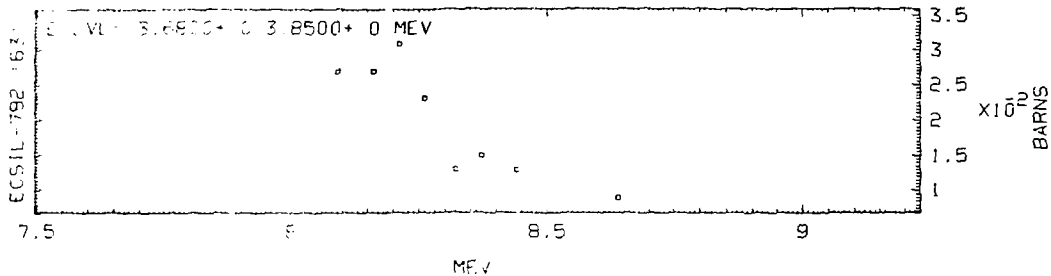
MEV

8-0 -NAT -4

03/01/74

N. ALPHA
CROSS SECTION

8-0 -NAT



03/01/74

NONELASTIC

8-0 -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
58 200	1.4500+ 1		8.5010- 1	3.0000- 2
ET 1698	1.4800+ 1	1.0000- 1	8.5000- 1	4.0000- 2

03/01/74

N, X GAMMA

8-0 -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
53 294	1.4200+ 1		5.2000- 1	1.3000- 1
64 1730	1.4800+ 1	4.0000- 1	4.9930- 1	1.0000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV	E-PHOTON MEV
66 1839	1.4000+ 1		8.4000- 3	3.5000- 3	1.7500+ 0	
64 1730	1.4800+ 1	4.0000- 1	3.0500- 3	6.0000- 4	1.7600+ 0	1.9600+ 0
66 1839	1.4000+ 1		7.0000- 2	1.1000- 2	2.2800+ 0	
66 1839	1.4000+ 1		1.4200- 1	2.5000- 2	2.7000+ 0	
64 1730	1.4800+ 1	4.0000- 1	4.3700- 2	7.9000- 3	2.7000+ 0	
52 294	1.4200+ 1		8.6500- 2	2.3000- 2	3.0000+ 0	
64 1730	1.4200+ 1		8.6000- 2	3.0000- 2	3.0000+ 0	

N, X GAMMA
CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV	E-PHOTON MEV	
6- 297	9.700+ 0	3.1000+ 1	3.6000	2 3.0600	2 3.0950	0	
6- 298	9.700+ 1	5.3000+ 1	4.4000	2 3.7500	2 3.7950	0	
6- 299	9.700+ 1	1.9000+ 0	2.0000	2 1.2500		50.0	
6- 300	9.700+ 1	4.6000+ 1	2.7600	2 3.7600		300.0	
6- 301	9.700+ 1	8.0000+ 1	8.0000	2 2.6000	2 3.1000	0	
6- 302	9.700+ 1	4.0000+ 1	6.3600	2 1.7400	2 3.6800	0	
6- 303	9.700+ 1	4.0000+ 1	4.5000	1 9.1000	2 3.6000	0	
6- 304	9.700+ 1	4.0000+ 1	3.0000	1 4.5000	2 3.8000	0	
6- 305	9.700+ 1	8.0000+ 1	8.5000	2 3.0000	2 3.8500	0	
6- 306	9.700+ 1	4.0000+ 1	4.9800	2 9.0000	3 3.8500	0	
6- 307	9.700+ 1	5.3000+ 1	4.6000	2 2.3000	2 4.1400	0	
6- 308	9.700+ 1	1.9000+ 0	8.0000	3 8.0000	3 4.1400	0	
6- 309	9.700+ 1	4.0000+ 1	2.1800	2 3.7200	3 4.4300	0	
6- 310	9.700+ 1	4.0000+ 1	7.0000	2 1.4000	2 4.6000	0	
6- 311	9.700+ 1	5.3000+ 1	2.2000	2 1.1000	2 4.9300	0	
6- 312	9.700+ 1	1.2800+ 0	7.0000	3 7.0000	3 4.9300	0	
6- 313	9.700+ 1	4.0000+ 1	1.0000	1 2.0000	2 5.0000	0	
6- 314	9.700+ 1	4.0000+ 1	5.5000	2 2.0000	2 5.2000	0	
6- 315	9.700+ 1	4.0000+ 1	8.0000	1 4.4000	1 3.9000	2 6.1000	0
6- 316	9.700+ 1	4.0000+ 1	2.0000	1 4.2000	2 6.1000	0	
6- 317	9.700+ 1	4.0000+ 1	2.5000	1 5.0000	2 6.1000	0	
6- 318	9.700+ 1	4.0000+ 1	2.0000	2	6.1300	0	
6- 319	9.700+ 0	3.6500+ 1	1.0400	1 2.5000	2 6.1400	0	
6- 320	9.700+ 1	4.0000+ 1	1.7210	1 3.1000	2 6.1400	0	
6- 321	9.700+ 1	4.0000+ 1	6.0000	2 1.2000	2 6.9100	0 7.1200+ 0	
6- 322	9.700+ 1	4.0000+ 1	5.0000	2	6.9100	0 7.1200+ 0	
6- 323	9.700+ 1	4.0000+ 1	4.4800	2 8.1000	3 6.9200	0	
6- 324	9.700+ 1	8.0000+ 1	3.8000	2 1.5000	2 7.0000	0	
6- 325	9.700+ 1	4.0000+ 1	3.8200	2 6.9000	3 7.1200	0	
6- 326	9.700+ 1	8.0000+ 1	4.0000	3 2.0000	3 7.7000	0	
6- 327	9.700+ 1	4.0000+ 1	4.9000	3 1.0000	3 8.8800	0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHN-MIN MEV	E-PHN-MAX MEV
6- 1730	9.800+ 1	4.0000+ 1	3.7700	2 6.8000	3 5.0000	1 1.5000+ 0

03/01/74

N,P
CROSS SECTION

8-0 -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 88	1.4700+ 1	1.5000- 1	3.8200- 2	5.0000- 3

03/01/74

BOUND ATOM

8-0 -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		4.2000+ 0	

03/01/74

FREE ATOM

8-0 -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
49 53	1.5000- 5		3.7300+ 0	

03/01/74

COHERENT SCATTERING

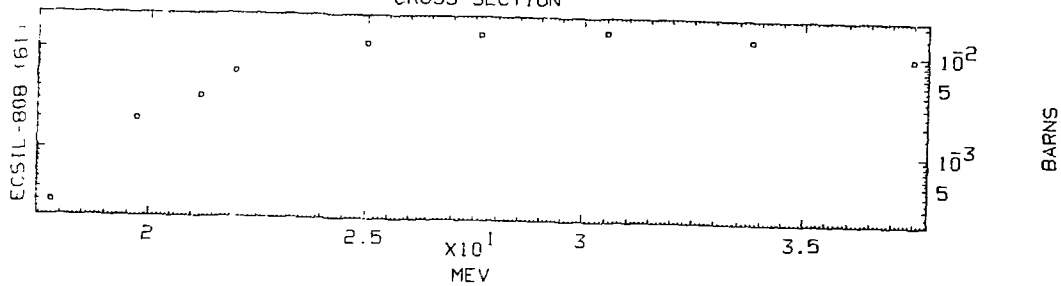
8-0 -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 2854	2.5300- 8		4.2300+ 0	7.0000- 2
62 1275	4.2000- 8		4.2300+ 0	
51 1584	7.3000- 8		4.2000+ 0	3.3600- 1

03/01/74

N,2N
CROSS SECTION

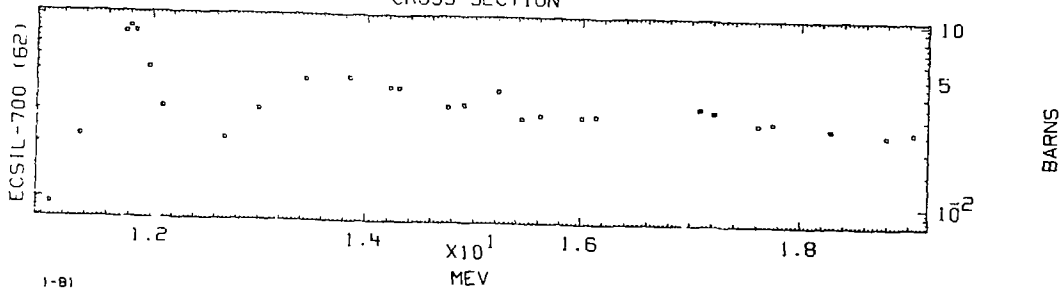
8-0 -16



03/01/74

N,P
CROSS SECTION

8-0 -16



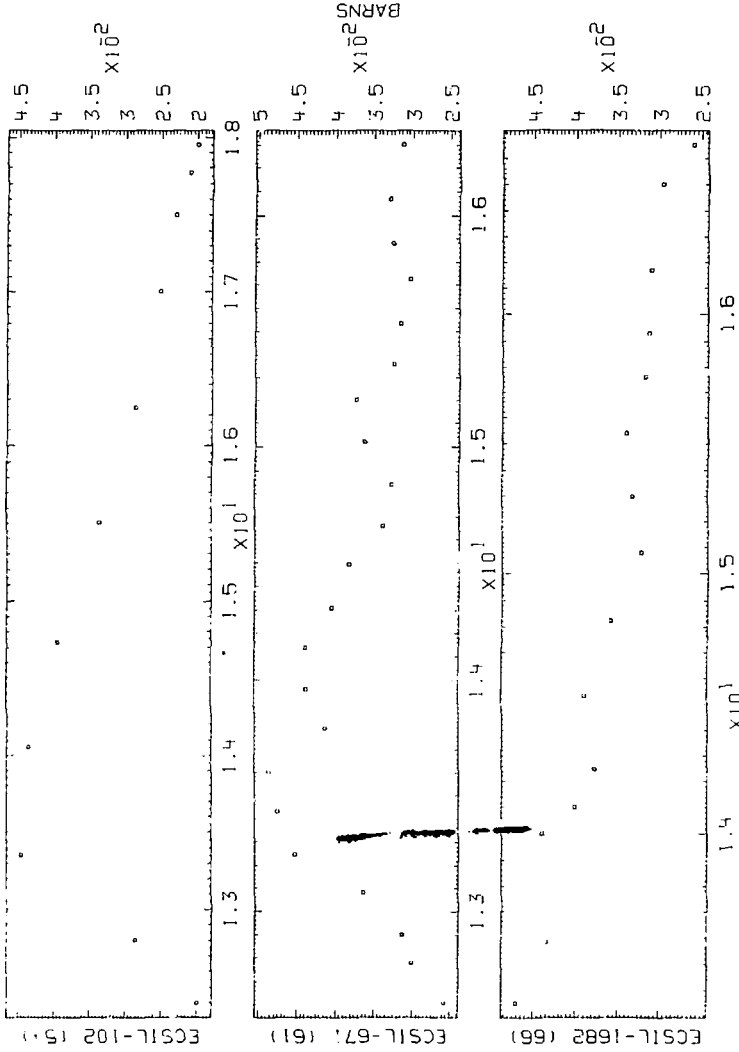
1-81

8-0 -16 -1

02 01/74

8-0 -16

N,P
CROSS SECTION



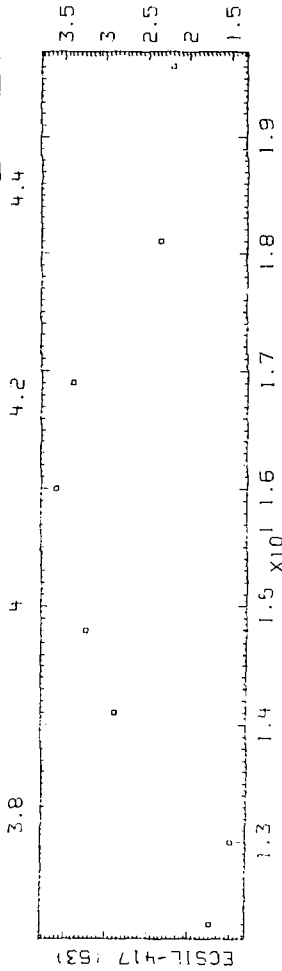
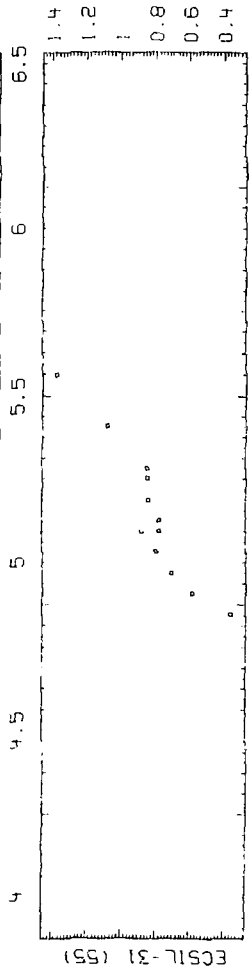
1-62

8-0 -16 -2

03/01/74

8-0-16

N, ALPHA
CROSS SECTION



BARNS
 $\times 10^1$

MEV

1-83

8-0-16-2

03/01/74

N,N'
CROSS SECTION

8-0 -16

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 289	1.4100+ 1		5.0000- 1	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
72 322P	7.5400+ 0	6.0000- 2	4.2910- 1	1.1760- 1	6.0520+ 0	6.1310+ 0
72 322P	8.0400+ 0	5.0000- 2	1.1430- 1	1.7150- 2	6.0520+ 0	6.1310+ 0
72 322P	6.5600+ 0	5.0000- 2	3.0840- 1	3.8550- 2	6.0520+ 0	6.1310+ 0
66 1681	1.4100+ 1		5.0000- 2	1.0000- 2	6.1000+ 0	
66 1681	1.4100+ 1		5.8000- 2	7.0000- 3	7.0000+ 0	
66 1681	1.4100+ 1		1.8000- 2	5.0000- 3	8.9000+ 0	

03/01/74

N,X GAMMA

8-0 -16

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
61 850	1.4000+ 1		4.5000- 1		3.8000+ 0	61 850	1.4000+ 1		2.5000- 1		6.1010+ 0
61 850	1.4000+ 1		7.0010- 2		4.6000+ 0	61 850	1.4000+ 1		6.0010- 2		7.1010+ 0
61 850	1.4000+ 1		1.0000- 1		5.0000+ 0						

03/01/74

N,P

8-0 -16

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52 79	1.4100+ 1		3.5000- 2		60 695	1.4700+ 1	1.0000- 1	3.9200- 2	1.6000- 3
61 542	1.4400+ 1		3.4000- 2	4.0000- 3	66 2142	1.4800+ 1		2.9000- 2	2.6000- 3
53 27	1.4500+ 1		4.9000- 2	2.4500- 2	66 907	1.4800+ 1	1.0000- 1	4.0100- 2	2.7000- 3

03/01/74

N,D

8-0 -16

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52 79	1.4100+ 1		1.5000- 2	

03/01/74

N, ALPHA
CROSS SECTION

8-0 -16

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	
52	79	1.4100+ 1							3.1000- 1			
66 1920	1.4100+ 1	3.5000- 2	2.7000- 2	6.0000- 3	0.0000+ 0	67 2365	1.4100+ 1			3.1900- 2	2.8000- 3	3.0800+ 0
67 2365	1.4100+ 1		2.5900- 2	2.2000- 3	0.0000+ 0	67 2365	1.4100+ 1			1.0530- 1	9.1000- 3	3.7650+ 0

03/01/74

N,P

8-0 -17

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
70	3165	1.4100+ 1	2.1500- 2	1.7000- 3

03/01/74

N, ALPHA

8-0 -17

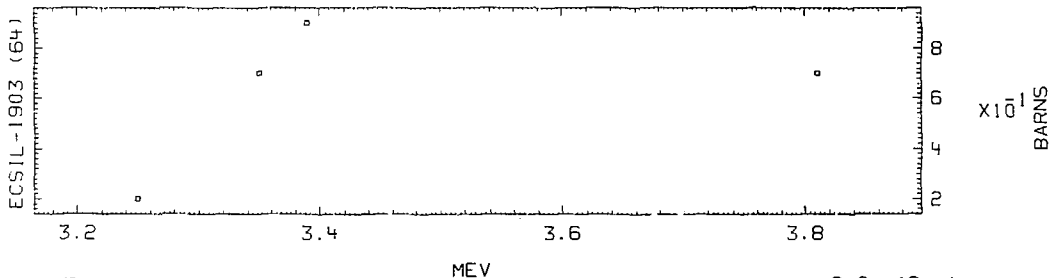
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
56	2822	2.5300- 8	2.4000- 1	1.5000- 1
61	2619	2.5300- 8	2.3500- 1	5.0000- 3

03/01/74

N,N'

8-0 -18

CROSS SECTION



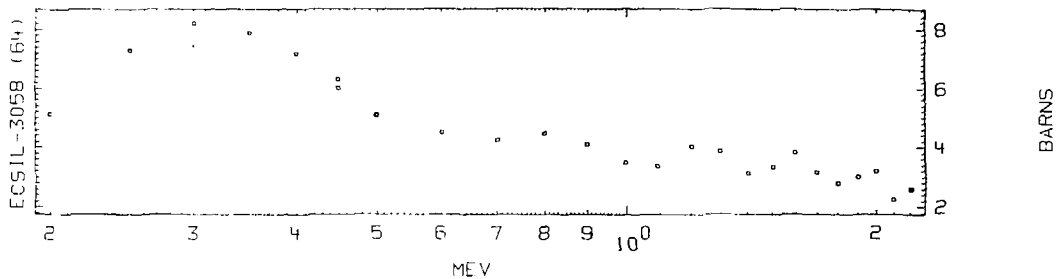
1-85

8-0 -18 -1

03/01/74

TOTAL SCATTERING
CROSS SECTION

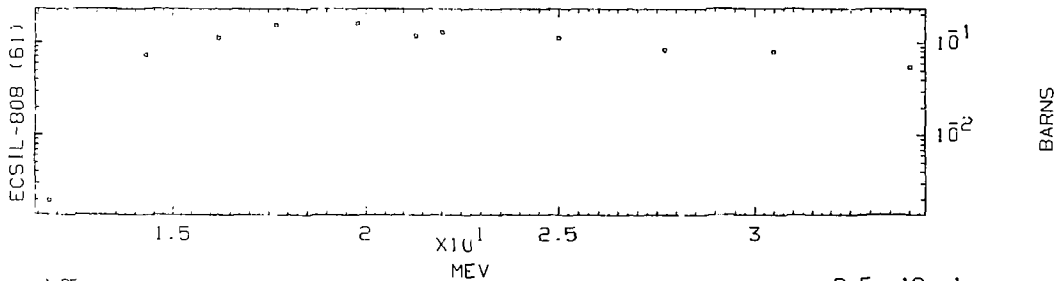
9-F -19



03/01/74

N,2N
CROSS SECTION

9-F -19



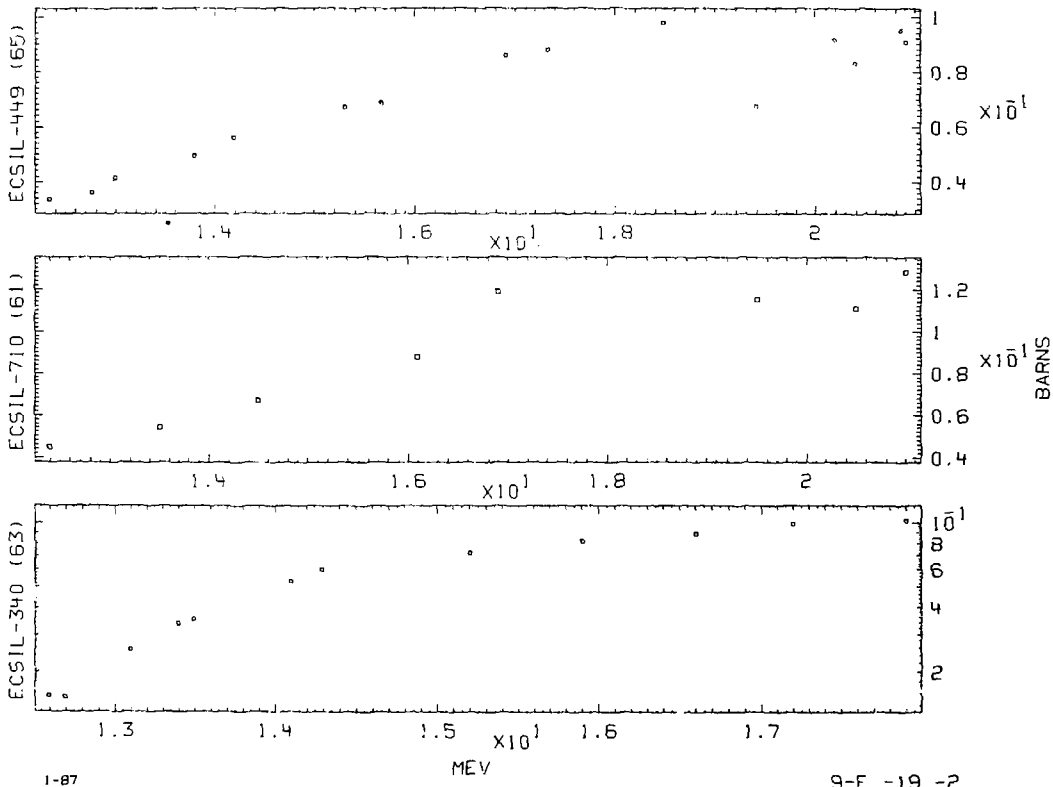
1-86

9-F -19 -1

03/01/74

N.2N
CROSS SECTION

9-F -19



1-87

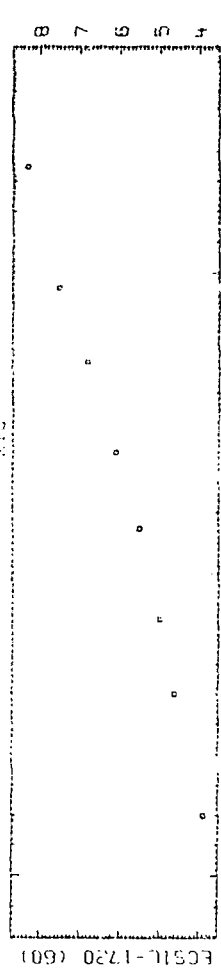
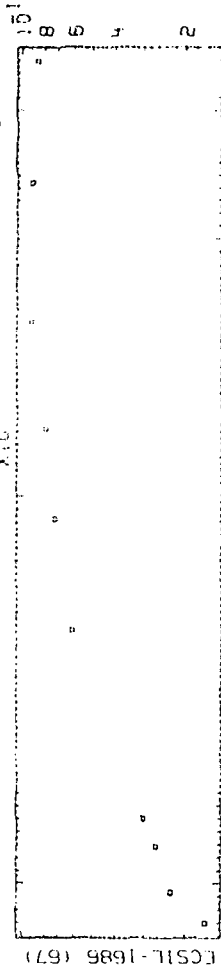
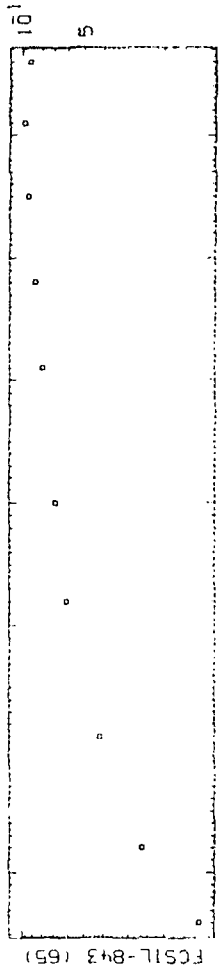
9-F -19 -2

07/01/74

9-F -19

N,2N

CROSS SECTION



DARNS

x10²

MEV

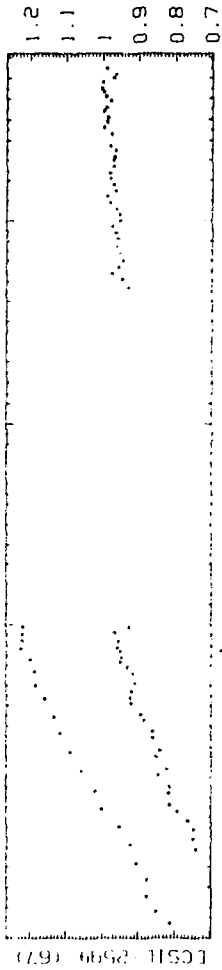
9-F -19 -3

1-88

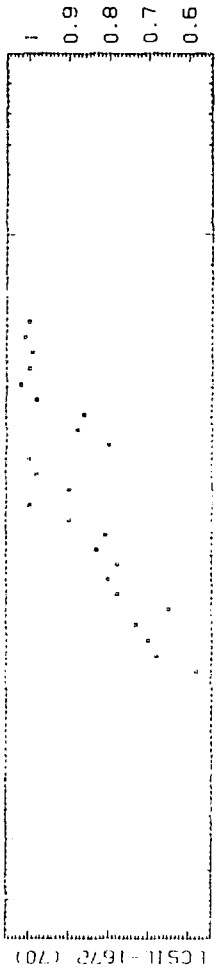
03/01/74

9-F -19

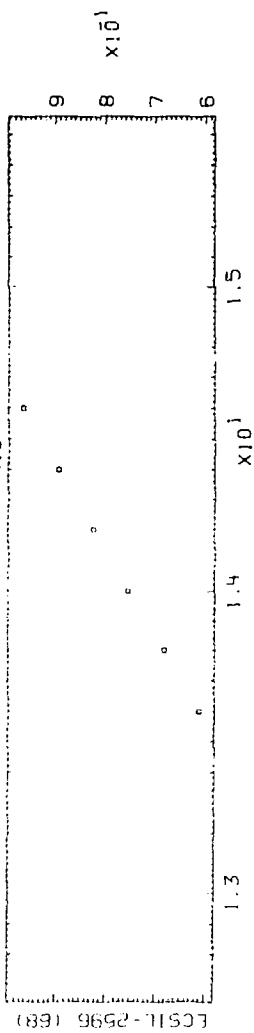
N, 2N
CROSS SECTION



LC511-2599 (67)



LC511-1672 (70)



EC511-2596 (68)

MEV

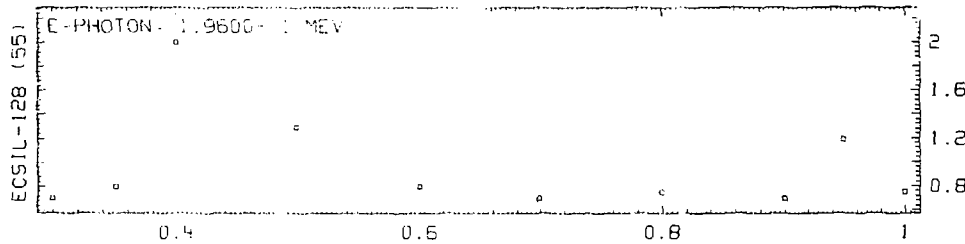
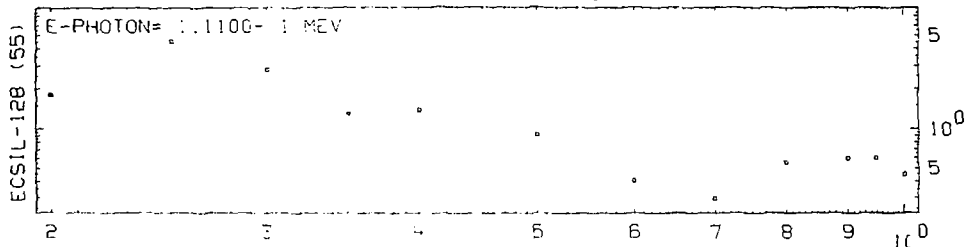
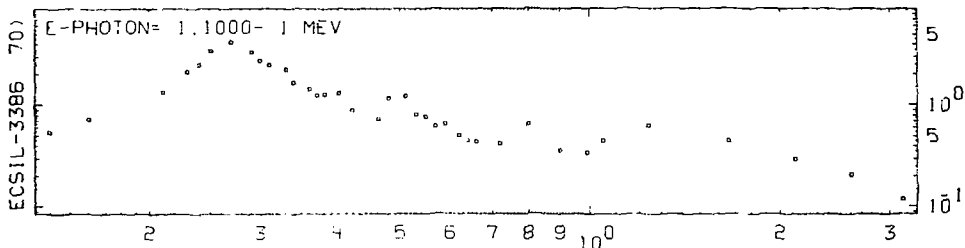
9-F -19 -4

1-69

03/01/74

N,X GAMMA
CROSS SECTION

9-F -19



BARNs

1-90

MEV

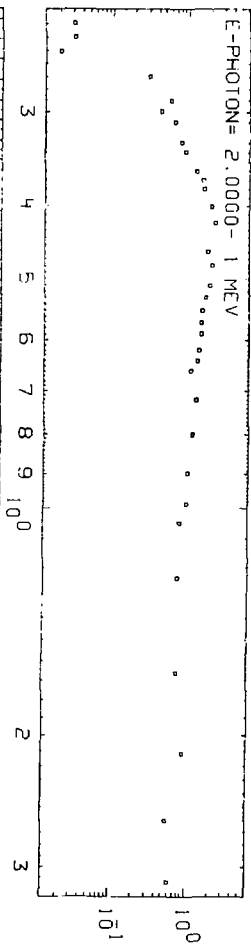
9-F -19 -5

03/01/74

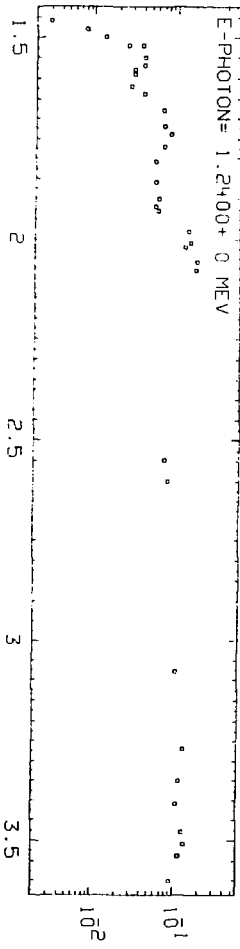
N, X GAMMA
CROSS SECTION

9-F -19

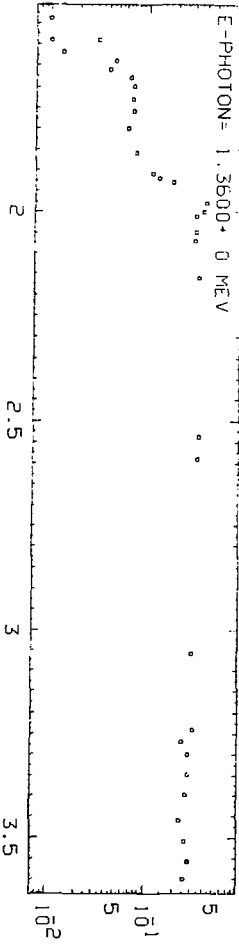
ECSIL-3386 (70)



ECSIL-B16 (57)



ECSIL-B16 (57)



1-91

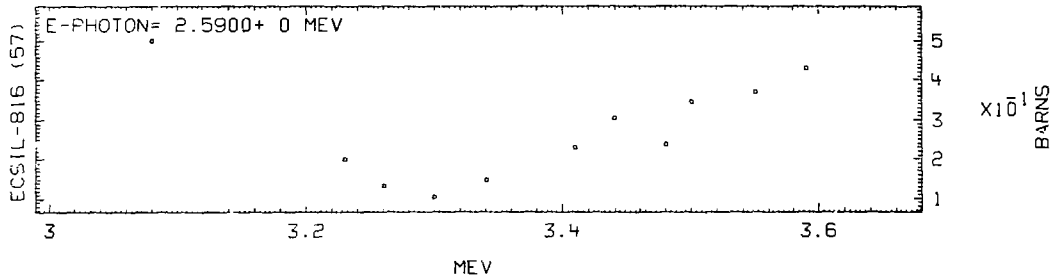
9-F -19 -6

BARN

03/01/74

N,X GAMMA
CROSS SECTION

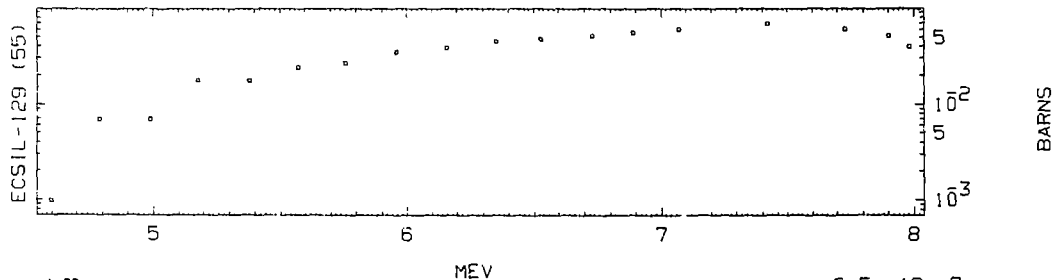
9-F -19



03/01/74

N,P
CROSS SECTION

9-F -19



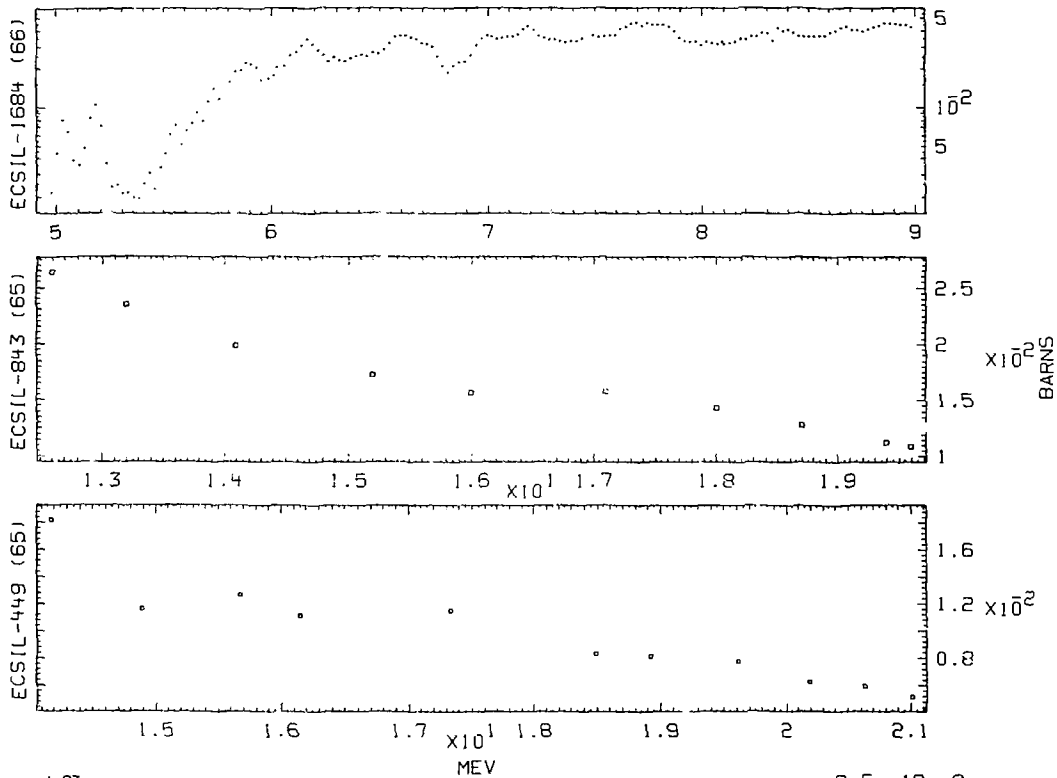
1-92

9-F -19 -7

03/01/74

N,P
CROSS SECTION

9-F -19



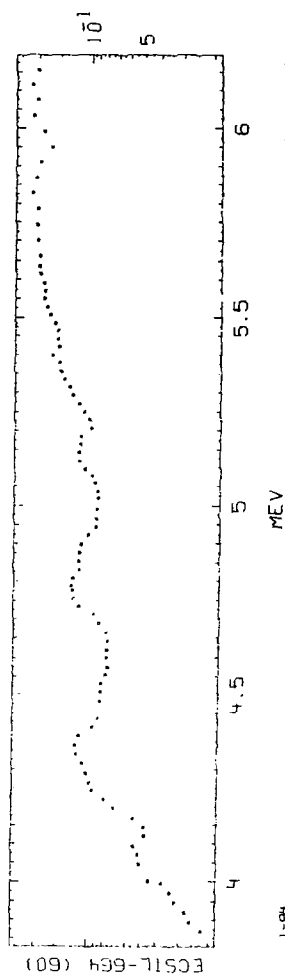
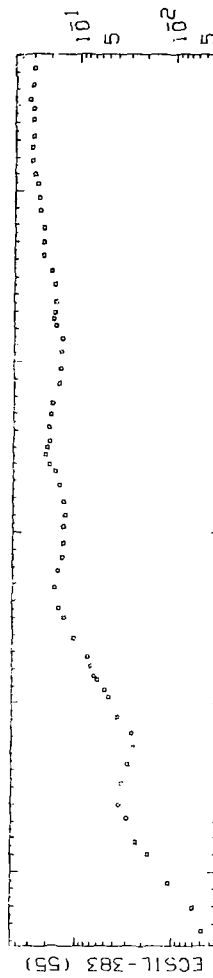
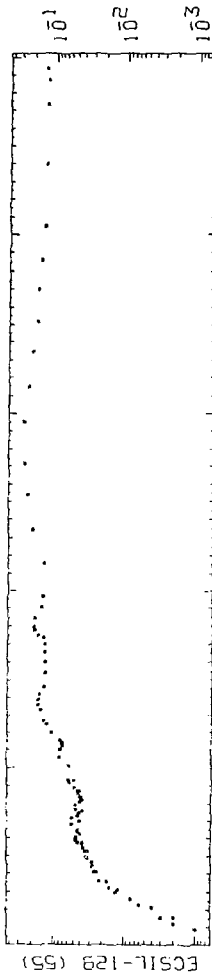
1-93

9-F -19 -8

03/01/74

9-F -19

N. ALPHA CROSS SECTION



MEV

1-94

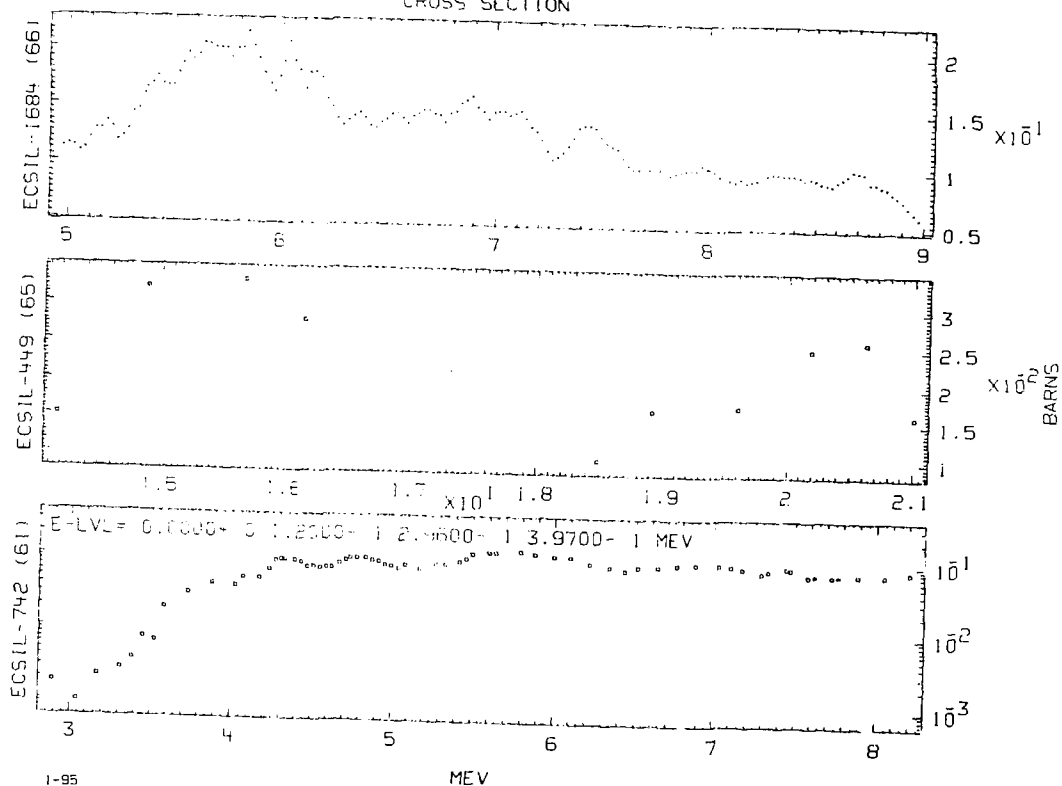
9-F -19 -9

BARNs

03/01/74

N, ALPHA CROSS SECTION

9-F -19



1-95

MEV

9-F -19 -10

03/01/74

NONELASTIC
CROSS SECTION

9-F -19

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 319	1.4200+ 1	1.5000- 1	8.3010- 1	5.0000- 2

03/01/74

N,N'

9-F -19

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
60 696	5.5500- 1		5.4010- 1	1.7000- 1	1.0900- 1
60 696	5.6500- 1		1.3500+ 0	2.5000- 1	1.9700- 1

03/01/74

N,2N

9-F -19

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2009	1.4000+ 1		6.3000- 2	9.4500- 3	53 27	1.4500+ 1		6.0610- 2	1.8000- 2
56 7	1.4100+ 1		6.2010- 2	9.0010- 3	69 2354	1.4600+ 1	2.0000- 1	4.7000- 2	4.0000- 2
62 108	1.4130+ 1	1.0000- 1	3.6900- 2	2.3000- 3	65 1672	1.4600+ 1	1.0000- 1	5.3000- 2	4.0000- 3
66 3018	1.4200+ 1	2.0000- 1	4.6500- 2	5.9000- 3	67 1921	1.4700+ 1	1.0000- 1	4.1000- 2	1.5000- 3
66 3018	1.4200+ 1	2.0000- 1	4.0100- 2	5.3000- 3	56 2586	1.4700+ 1	7.5000- 2	4.5400- 2	2.0000- 3
65 1777	1.4200+ 1	2.0000- 1	4.2600- 2	5.9640- 3	66 2058	1.4800+ 1	1.0000- 1	4.6300- 2	4.6000- 3
61 676	1.4400+ 1	3.0000- 1	5.1910- 2	3.8000- 3					

03/01/74

N,X GAMMA

9-F -19

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
56 140	2.5600+ 0	3.0000- 2	1.9300- 1	3.8000- 2	1.1100- 1	68 2997	1.4000+ 1	8.0000- 1	4.9000- 2	2.5000- 2	2.6000+ 0
56 140	2.5600+ 0	3.0000- 2	5.3700- 1	7.2000- 2	1.9700- 1	68 2997	1.4000+ 1	8.0000- 1	1.7000- 2	8.0000- 3	3.1000+ 0
56 140	2.5600+ 0	3.0000- 2	5.0000- 2	1.2000- 2	1.2340+ 0	68 2997	1.4000+ 1	8.0000- 1	3.5000- 2	2.5000- 2	4.2000+ 0
56 140	2.5600+ 0	3.0000- 2	3.0700- 1	3.2000- 2	1.3580+ 0	68 2997	1.4000+ 1	8.0000- 1	2.2000- 2	1.9000- 2	5.2600+ 0
57 284	2.5000+ 0		5.2800- 1	1.6000- 1	1.3600+ 0	68 2997	1.4000+ 1	8.0000- 1	2.5000- 2	1.0000- 2	6.1000+ 0
56 140	2.5600+ 0	3.0000- 2	5.7000- 2	1.6000- 2	1.4600+ 0	68 2997	1.4000+ 1	8.0000- 1	4.0000- 3	3.0000- 3	7.7000+ 0
56 140	2.5600+ 0	3.0000- 2	2.1000- 2	1.0000- 2	1.5600+ 0						

03/01/74

N, P
CROSS SECTION

9-F -19

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53	27 1.4500+ 1		1.3500- 1	4.7000- 2	62	88 1.4700+ 1	1.5000- 1	1.4300- 2	3.5000- 3
67	1921 1.4700+ 1	1.0000- 1	1.6400- 2	7.0000- 4	66	2142 1.4800+ 1		5.1000- 2	1.0000- 2
66	1675 1.4700+ 1		2.1000- 2	5.0000- 3	66	907 1.4800+ 1	1.0000- 1	2.3300- 2	2.8000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
61	742 7.6700+ 0		2.4000- 2	1.0000- 2	0.0000+ 0	9.6000- 2

03/01/74

N, ALPHA

9-F -19

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	1035 6.0000+ 0	4.8000- 1	1.2100- 1	1.4000- 2
66	2142 1.4700+ 1		2.4000- 2	5.0000- 3

03/01/74

BOUND ATOM

9-F -19

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584 7.3000- 8		3.5000+ 0	

03/01/74

FREE ATOM

9-F -19

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
49	53 1.5000- 5		6.8000- 1	

03/01/74

COHERENT SCATTERING

9-F -19

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64	2654 2.5300- 8		3.9400+ 0	1.4000- 1
51	1584 7.3000- 8		3.8000+ 0	3.0400- 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

10-NE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2998	2.5300- 0		2.4200+ 0	3.0000- 2
63 777	2.5300- 0		2.3800+ 0	4.0000- 2

03/01/74

ABSORPTION

10-NE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 822	2.5300- 0		3.8000- 2	7.0000- 3

03/01/74

N,P

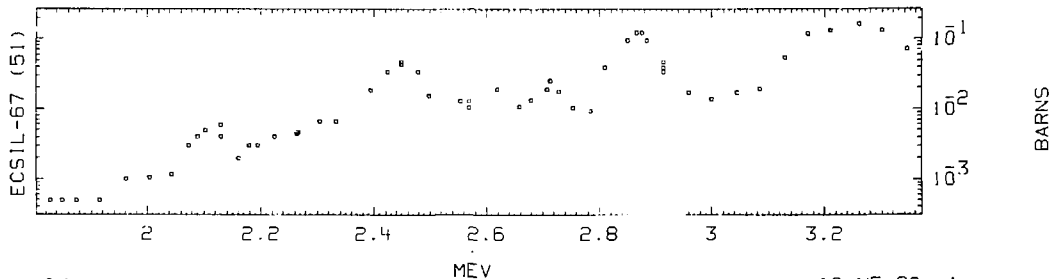
10-NE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1699	1.4100+ 1	1.0000- 1	1.4200- 1	2.8000- 2

03/01/74

N, ALPHA
CROSS SECTION

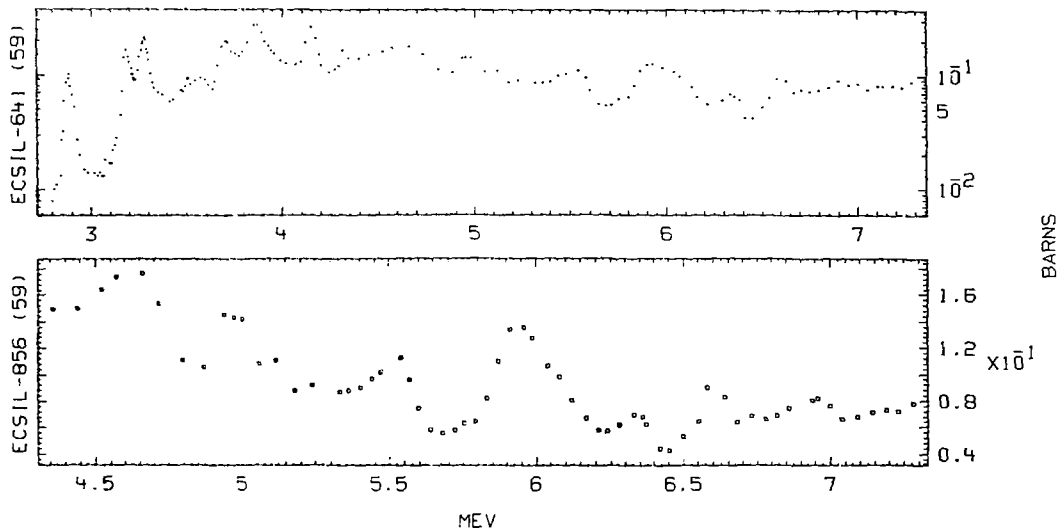
10-NE-20



03/01/74

N, ALPHA
CROSS SECTION

10-NE-20



03/01/74

N,P

10-NE-20

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
71	3186	1.4300+1	1.0000-3	

03/01/74

N, ALPHA
CROSS SECTION

10-NE-20

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
71 3186	1.4300+ 1					71 3186	1.4300+ 1		1.2400- 2	4.0000- 3	
66 1920	1.4100- 1	3.5000- 2	5.5000- 3	9.0000- 4	0.0000+ 0	71 3186	1.4300+ 1		2.0000- 3	4.0000- 4	3.9000+ 0
71 3186	1.4300+ 1		6.6000- 3	2.4000- 3	0.0000+ 0	71 3186	1.4300+ 1		1.3000- 3	3.0000- 4	4.6300+ 0
71 3186	1.4300+ 1		1.0000- 3	4.0000- 4	8.3000- 1	71 3186	1.4300+ 1		4.0000- 4		5.5500+ 0
66 1920	1.4100+ 1	3.5000- 2	4.0000- 3	6.0000- 4	8.7100- 1	71 3186	1.4300+ 1		1.0000- 4		5.9000+ 0
71 3186	1.4300+ 1		1.5000- 3	4.0000- 4	3.1800+ 0						

03/01/74

N, 2 ALPHA

10-NE-20

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
71 3186	1.4300+ 1		4.1800- 2	8.1000- 3	0.0000+ 0

03/01/74

N, ALPHA

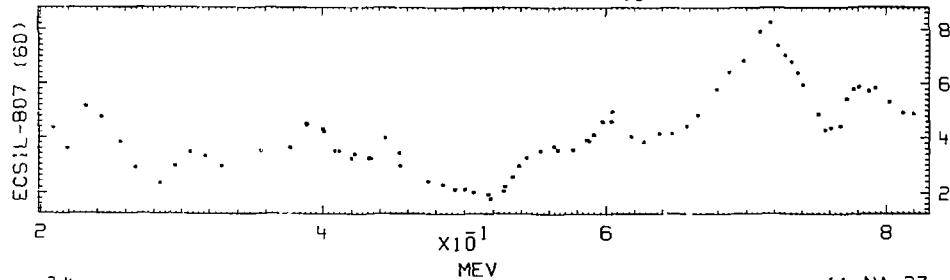
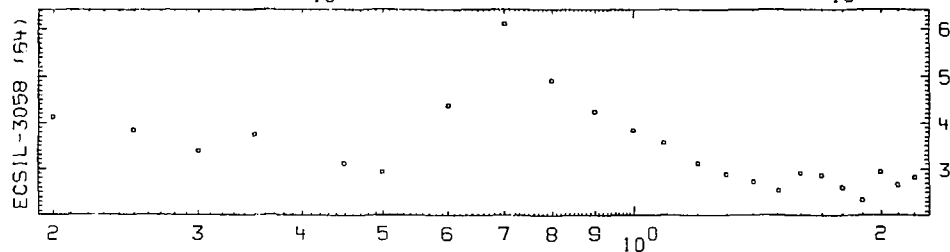
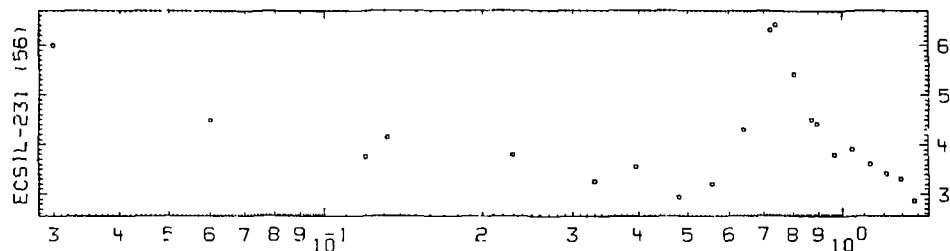
10-NE-21

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
61 2824	2.5300- 8		9.6000+ 1	3.3000+ 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

11-NA-23



BARN

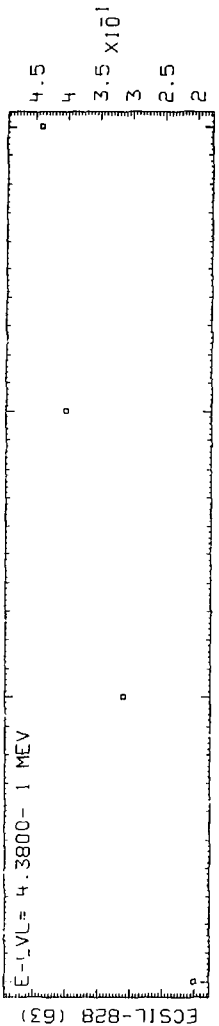
2-4

11-NA-23 -1

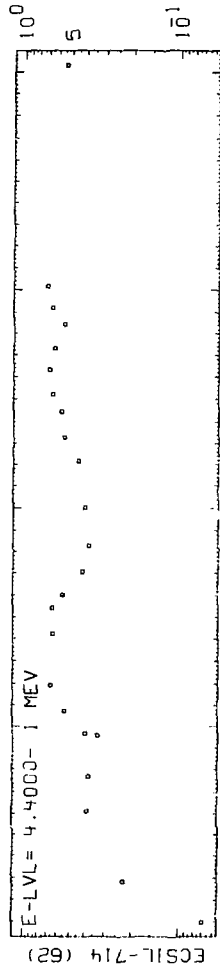
03/01/74

11-NA-23

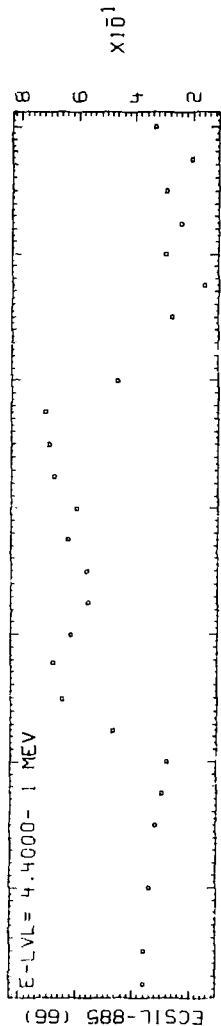
N,N'
CROSS SECTION



EC51L-828 (63)



EC51L-714 (62)

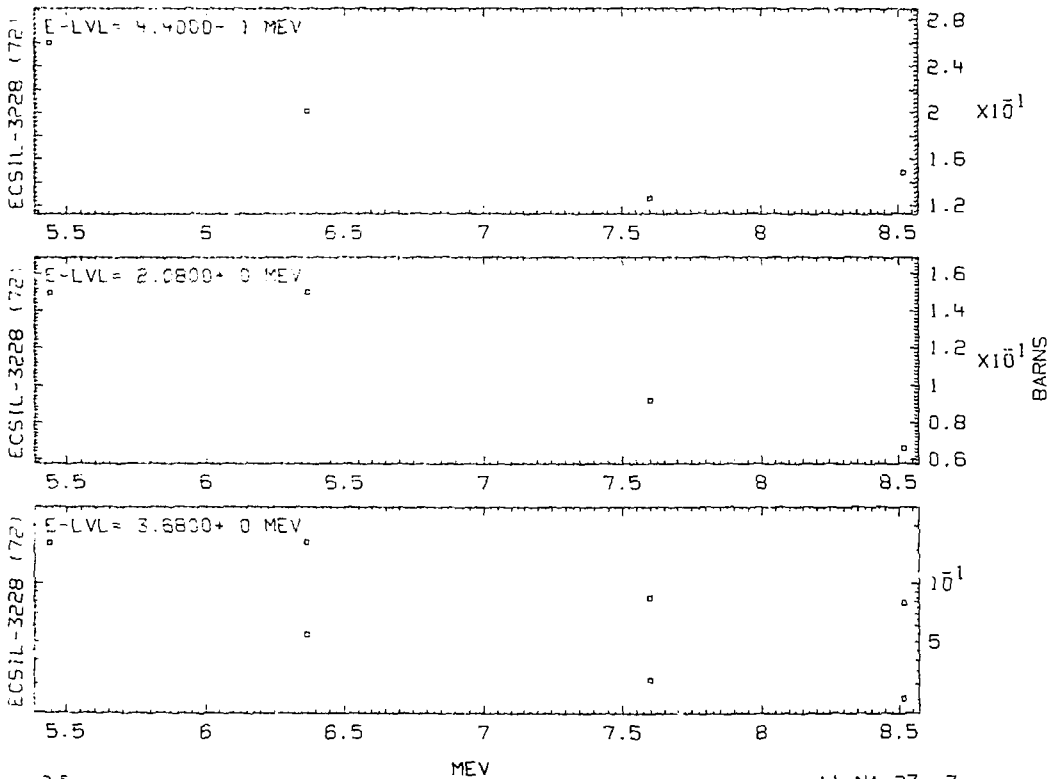


EC51L-885 (66)

03/01/74

N,N'
CROSS SECTION

11-NA-23



2-6

11-NA-23 -3

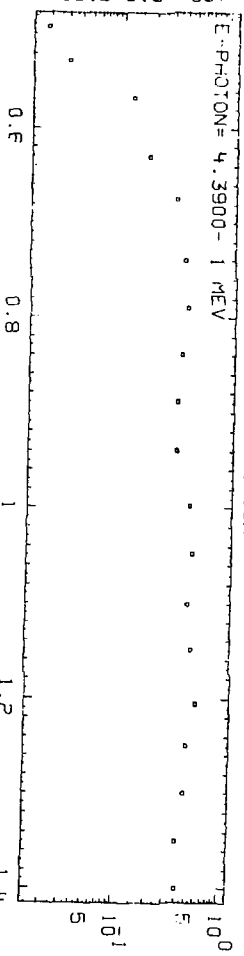
03/01/74

N,N'

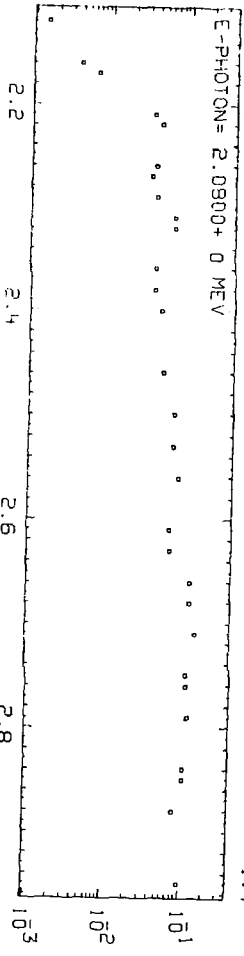
11-NA-23

CROSS SECTION

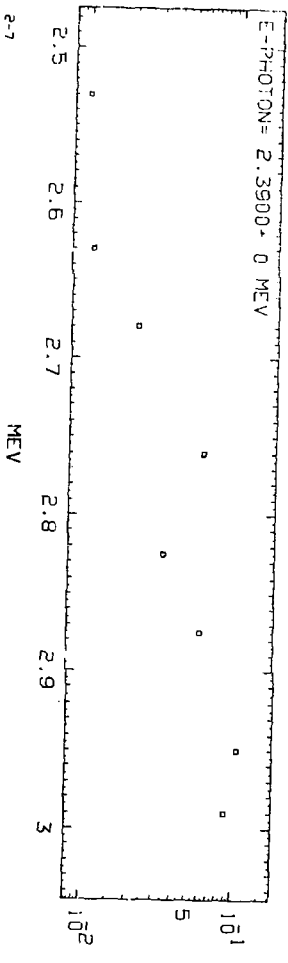
ECSIL-618 (59)



ECSIL-618 (59)



ECSIL-618 (59)



2-7

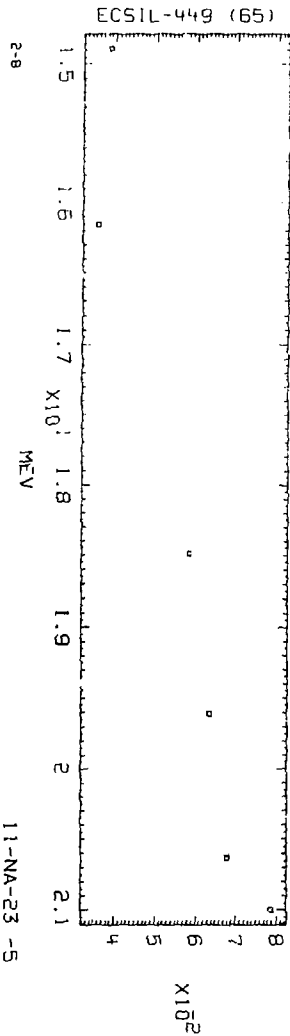
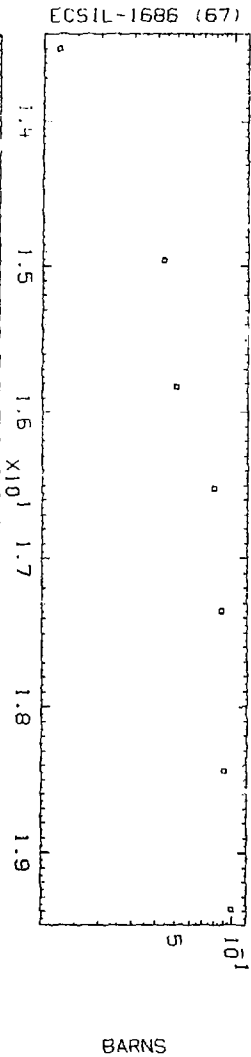
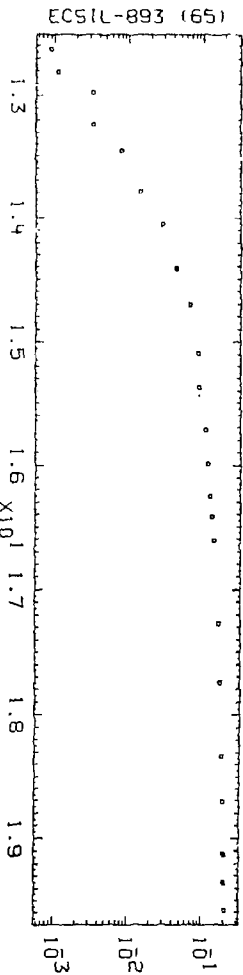
11-NA-23 -4

BARNs

03/01/74

N,2N
CROSS SECTION

11-NA-23



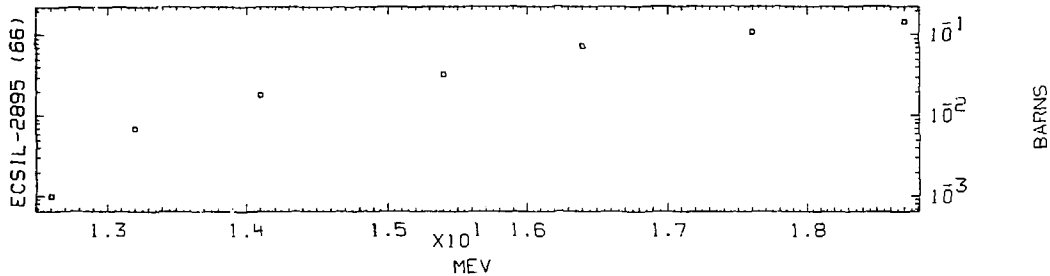
2-8

11-NA-23 -5

03/01/74

N,N' ALPHA
CROSS SECTION

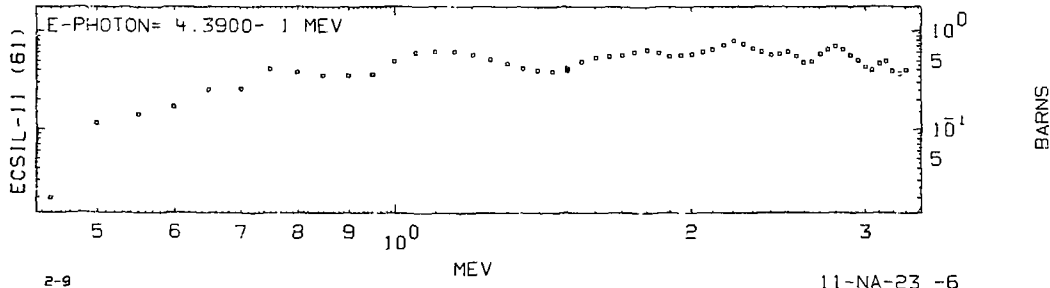
11-NA-23



03/01/74

N,X GAMMA
CROSS SECTION

11-NA-23



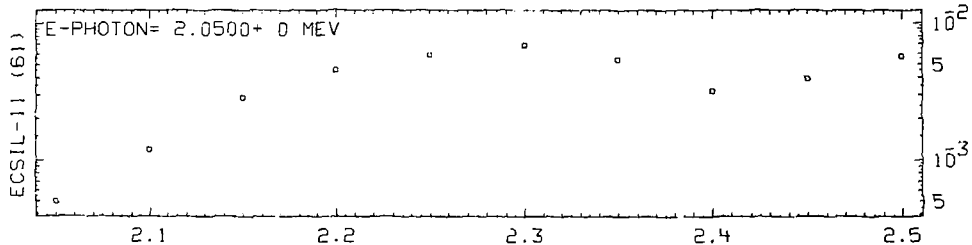
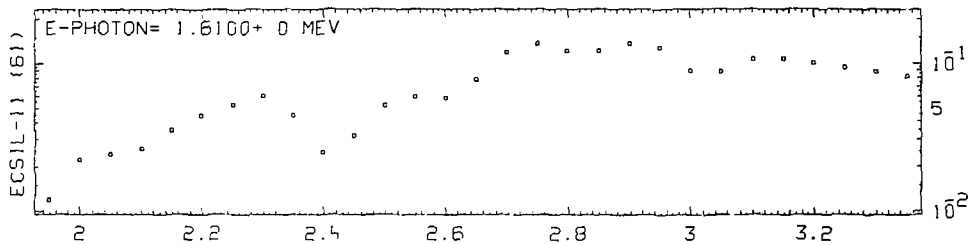
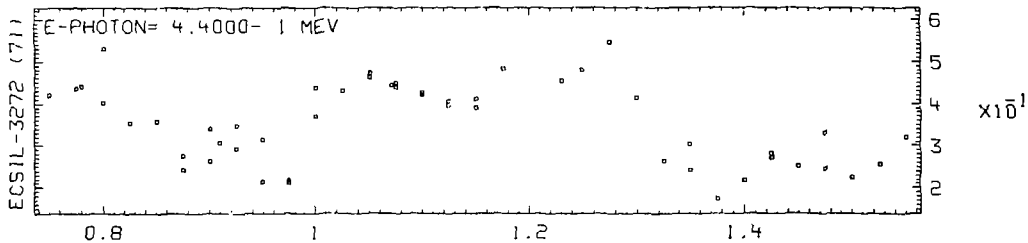
2-9

11-NA-23 -6

03/01/74

N, X GAMMA
CROSS SECTION

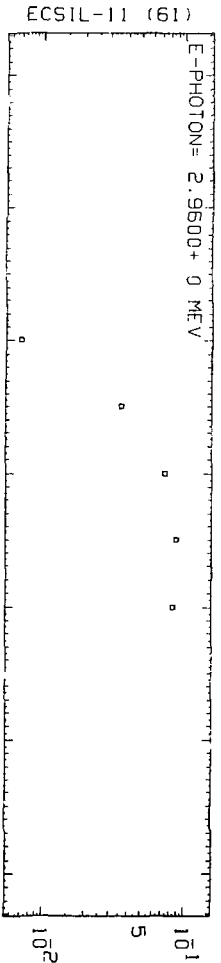
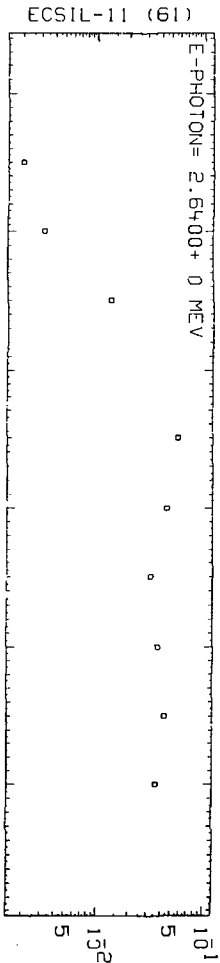
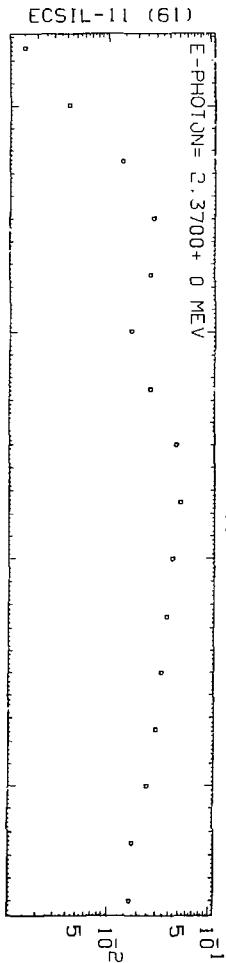
11-NA-23



03/01/74

N, X GAMMA
CROSS SECTION

11-NA-23



BARNs

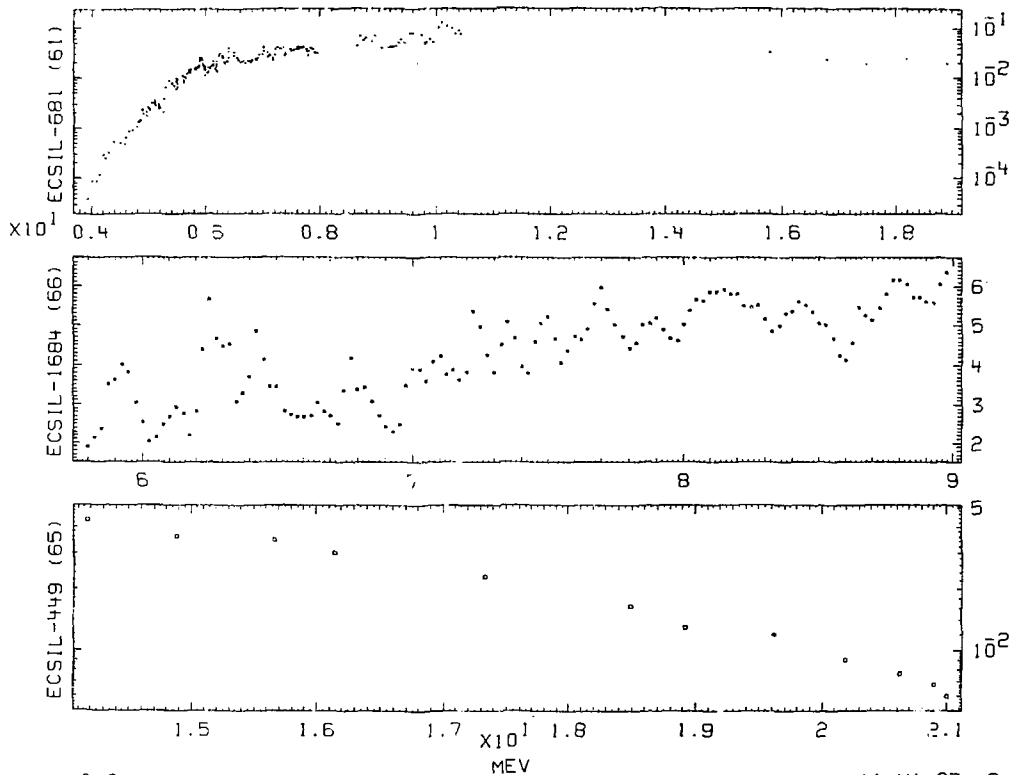
2-11

11-NA-23 -8

03/01/74

N,P
CROSS SECTION

11-NA-23



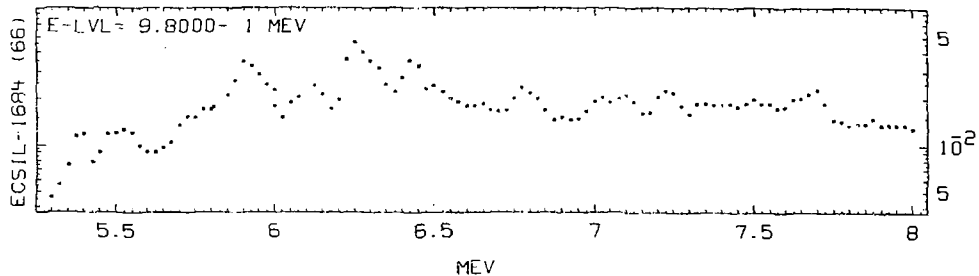
2-12

11-NA-23 -9

03/01/74

N,P
CROSS SECTION

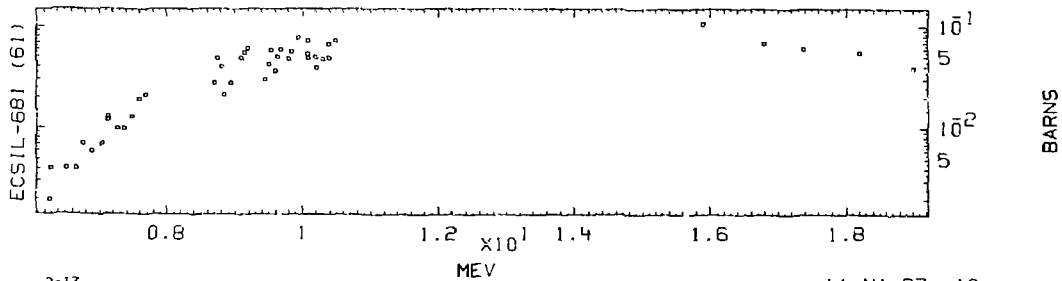
11-NA-23



03/01/74

N, ALPHA
CROSS SECTION

11-NA-23



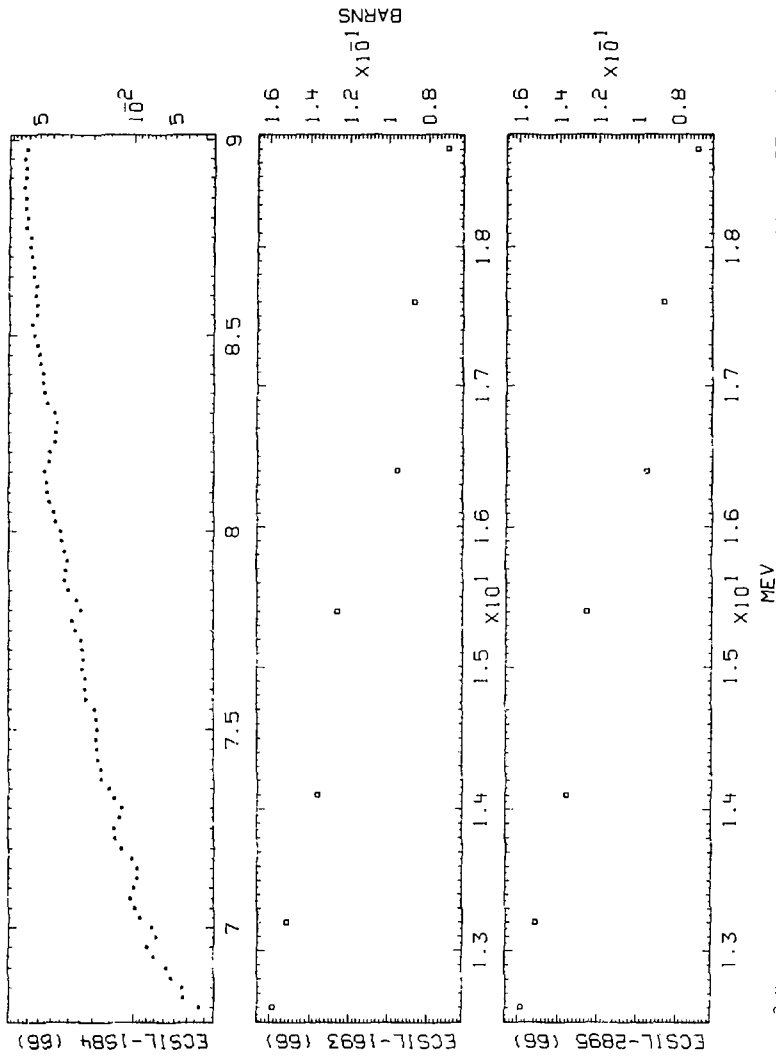
2-13

11-NA-23 -10

03/01/74

11-NA-23

N, ALPHA CROSS SECTION



2-14

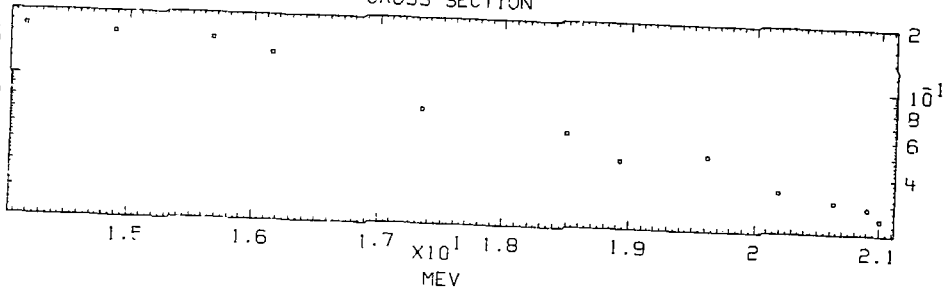
11-NA-23 -11

03/01/74

N, ALPHA
CROSS SECTION

11-NA-23

ECSIL-449 (65)



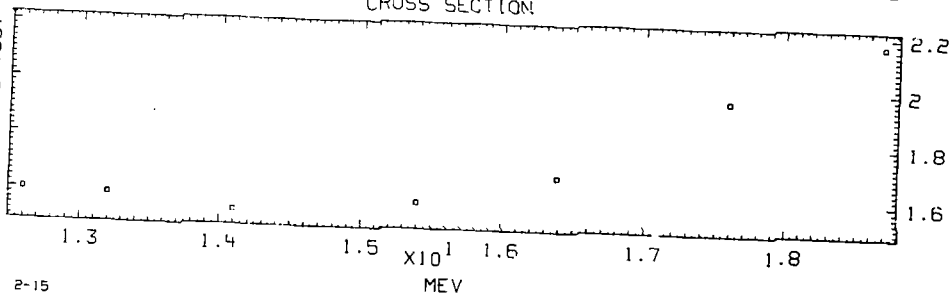
BARN

03/01/74

N, X ALPHA
CROSS SECTION

11-NA-23

ECSIL-1693 (66)



BARN

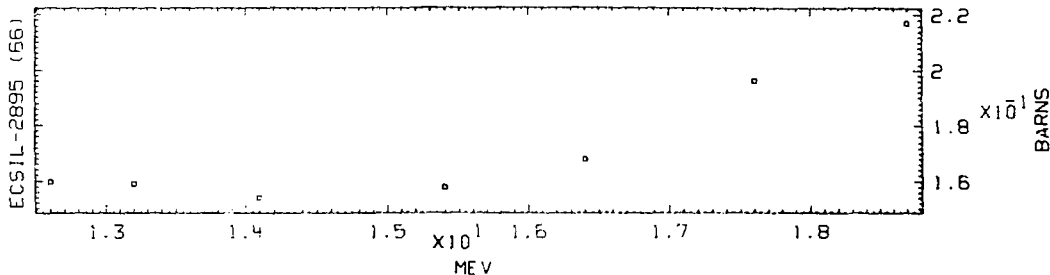
2-15

11-NA-23 -12

03/01/74

N,X ALPHA
CROSS SECTION

11-NA-23



03/01/74

NONELASTIC

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	353	1.0200+ 0	4.0000- 1	2.0000- 1	56	789	2.5000+ 0	1.5000- 1	5.3010- 1
56	34	2.5000+ 0	5.3000- 1	2.6900- 1	56	790	4.1000+ 0		
61	848	2.5000+ 0	3.4000- 1	1.0010- 2				5.7010- 1	

03/01/74

TOTAL SCATTERING

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53	609	9.0000- 1	5.0000- 2	3.5200+ 0
				1.0560- 1

03/01/74

NEUTRON NONEL. EMISS.

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	883	1.4000+ 1		4.5000- 1
				1.0000- 1

03/01/74

N,N'

11-NA-23

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNS	DELTA BARNS	E-LVL MEV	E-LVL MEV		
62	714	3.9700	0 3.0000	2 1.4400	0 4.0000	2 0.0000	0 4.4000	1
62	714	3.9700	0 3.0000	2 1.8000	1 1.5000	2 2.0000	2 2.0000	0
62	714	3.9700	0 3.0000	2 7.0000	2 0.0000	3 2.3900	0	0
72	3228	6.3700	0 1.0000	1 3.5410	2 4.3200	3 2.3900	0	0
72	3228	7.6000	0 1.0000	1 3.7430	2 4.0700	3 2.3900	0	0
72	3228	8.5200	0 0.0000	2 1.5750	2 1.0270	3 2.3900	0	0
52	714	3.9700	0 3.0000	2 1.4600	1 1.3000	2 2.6400	0 2.7100	0
72	3228	6.3700	0 1.0000	1 1.1000	1 1.0010	2 2.6400	0 2.7100	0
72	3228	7.6000	0 1.0000	1 5.6710	2 5.6710	3 2.6400	0 2.7100	0
72	3228	8.5200	0 0.0000	2 4.3390	2 4.1220	3 2.6400	0 2.7100	0
62	714	3.9700	0 3.0000	2 1.0000	1 0.0000	3 2.9800	0	0
72	3228	6.3700	0 1.0000	1 0.0200	2 7.4660	3 2.9800	0	0
72	3228	7.6000	0 1.0000	1 5.0960	2 5.7780	3 2.9800	0	0
72	3228	8.5200	0 0.0000	2 3.8160	2 3.5130	3 2.9800	0	0
72	3228	6.3700	0 1.0000	1 1.1680	1 1.1690	2 3.0500	0 3.9200	0
72	3228	7.6000	0 1.0000	1 6.0820	2 6.6070	3 3.0500	0 3.9200	0
72	3228	8.5200	0 0.0000	2 5.4780	2 5.2650	3 3.0500	0 3.9200	0
72	3228	6.3700	0 1.0000	1 2.7270	2 3.9270	3 4.4300	0	0
72	3228	7.6000	0 1.0000	1 1.0560	2 1.7640	3 4.4300	0	0
72	3228	8.5200	0 0.0000	2 1.0640	2 2.1630	3 4.4300	0	0
72	3228	6.3700	0 1.0000	1 6.9720	2 9.7610	3 4.7700	0	0
72	3228	7.6000	0 1.0000	1 5.4970	2 6.1070	3 4.7700	0	0
72	3228	8.5200	0 0.0000	2 3.0740	2 3.2200	3 4.7700	0	0
72	3228	7.6000	0 1.0000	1 3.3930	2 5.1570	3 5.3800	0	0
72	3228	8.5200	0 0.0000	2 3.5580	2 4.2700	3 5.3800	0	0
72	3228	7.6000	0 1.0000	1 6.7000	2 7.7050	3 5.3000	0 5.5300	0
72	3228	8.5200	0 0.0000	2 5.6570	2 5.9400	3 5.3000	0 5.5300	0
72	3228	7.6000	0 1.0000	1 2.4570	2 4.6930	3 5.5300	0	0
72	3228	8.5200	0 0.0000	2 2.0170	2 3.1060	3 5.5300	0	0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNS	DELTA BARNS	E-PHOTON MEV		
59	572	3.4700	0 1.0000	1 3.7000	1 1.2000	1 4.3900	1
59	572	3.7500	0 1.0000	1 2.7000	1 9.0010	2 4.3900	1
59	572	4.0000	0 1.0000	1 2.8000	1 9.0010	2 4.3900	1

03/01/74

N,N'
CROSS SECTION

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
72 3228	5.4400+ 0	1.7000- 1	2.3430- 1	2.1790- 2	2.3300+ 0	2.9800+ 0
72 3228	6.3700+ 0	1.3000- 1	2.1310- 1	1.7470- 2	2.3300+ 0	2.9800+ 0
72 3228	7.6000+ 0	1.0000- 1	1.1230- 1	1.9870- 3	2.3300+ 0	2.9800+ 0
72 3228	7.6000+ 0	1.0000- 1	6.0500- 2	1.0600- 2	5.7400+ 0	5.7800+ 0
72 3228	8.5200+ 0	8.0000- 2	3.9350- 2	4.7610- 3	5.7400+ 0	5.7800+ 0

03/01/74

N,2N

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 119	1.4100+ 1	2.0000- 1	1.3800- 2	2.2000- 3
69 2354	1.4600+ 1	2.0000- 1	4.9500- 2	1.0000- 2

03/01/74

ABSORPTION

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 1162	2.5300- 8		5.3600- 1	8.0000- 3
60 691	2.5300- 8		4.7000- 1	6.0000- 2

03/01/74

N,X GAMMA

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
65 1694	1.4100+ 1		4.6300- 1	5.6000- 2	4.4000- 1

03/01/74

N,P

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 586	1.4000+ 1		9.0000- 3	4.0000- 3	67 3371	1.4700+ 1	1.0000- 1	4.4000- 2	9.2000- 3
61 361	1.4000+ 1		5.7010- 2	2.0000- 2	66 2142	1.4800+ 1		4.5000- 2	5.0000- 3
53 27	1.4500+ 1		3.3900- 2	1.5000- 2	66 907	1.4800+ 1	1.0000- 1	4.1800- 2	3.8000- 3
67 1921	1.4700+ 1	1.0000- 1	4.1000- 2	1.2000- 3	65 1697	1.4800+ 1		4.5000- 2	5.0000- 3
66 1675	1.4700+ 1		3.9000- 2	4.0000- 3	61 660	1.4800+ 1		2.9000- 2	3.0000- 3

03/01/74

N,P
CROSS SECTION

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
65	1717	8.0000+ 0	1.5000- 2	2.0000- 3	0.0000+ 0	65	1717	8.0000+ 0	1.2600- 2	2.0000- 3	1.7000+ 0
65	1717	8.8000+ 0	1.2000- 2	2.0000- 3	0.0000+ 0	65	1717	8.0000+ 0	5.0000- 3	1.5000- 3	1.8300+ 0
65	1717	8.0000+ 0	5.4000- 3	1.0000- 3	1.0200+ 0	65	1717	8.0000+ 0	6.0000- 3	1.5000- 3	1.8300+ 0
65	1717	8.8000+ 0	5.4000- 3	1.0000- 3	1.0200+ 0	65	1717	8.8000+ 0	4.0000- 3	2.5000- 3	2.3100+ 0
65	1717	8.0000+ 0	5.7500- 3	1.5000- 3	1.7000+ 0	65	1717	8.6000+ 0	4.5000- 3	1.5000- 3	2.5200+ 0

03/01/74

N, ALPHA

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
60	586	1.4000+ 1	2.3000- 2	9.0000- 3		67	3371	1.4700+ 1	1.0000- 1	1.4100- 1	2.1000- 2
62	585	1.4050+ 1	1.4700- 1	1.8000- 2		61	660	1.4800+ 1		2.2200- 1	2.2000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
65	1717	8.0000+ 0	5.0000- 3	2.0000- 3	0.0000+ 0	65	1717	8.0000+ 0	2.5500- 3	5.0000- 4	9.9000- 1
65	1717	8.8000+ 0	1.3000- 2	3.0000- 3	0.0000+ 0	65	1717	8.8000+ 0	4.5000- 3	1.0000- 3	9.9000- 1
65	1717	8.0000+ 0	5.0000- 3	2.0000- 3	6.6000- 1	65	1717	8.0000+ 0	1.3000- 3	3.0000- 4	1.0600+ 0
65	1717	8.8000+ 0	1.9200- 2	3.0000- 3	6.6000- 1	65	1717	8.8000+ 0	4.5000- 3	1.0000- 3	1.0600+ 0
65	1717	8.0000+ 0	3.4800- 3	1.0000- 3	8.3000- 1	65	1717	8.0000+ 0	1.3500- 3	3.0000- 4	1.3100+ 0
65	1717	8.8000+ 0	7.2000- 3	2.0000- 3	8.3000- 1	65	1717	8.8000+ 0	3.6000- 3	8.0000- 4	1.3100+ 0

03/01/74

BOUND ATOM

11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8		3.5000+ 0

03/01/74

COHERENT SCATTERING

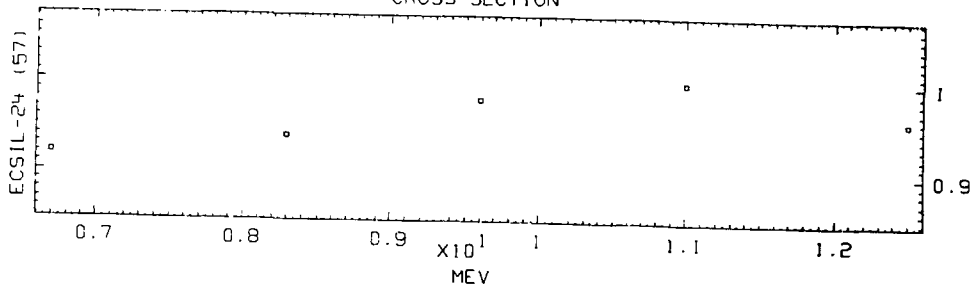
11-NA-23

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8		1.5000+ 0 1.2000- 1

03/01/74

NONELASTIC
CROSS SECTION

12-MG-NAT

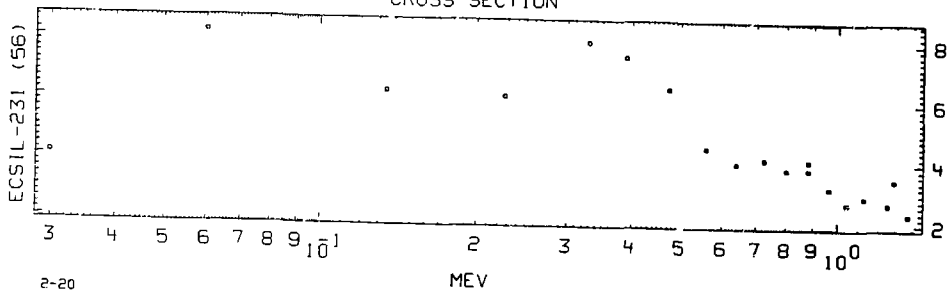


BARNs

03/01/74

TOTAL SCATTERING
CROSS SECTION

12-MG-NAT



BARNs

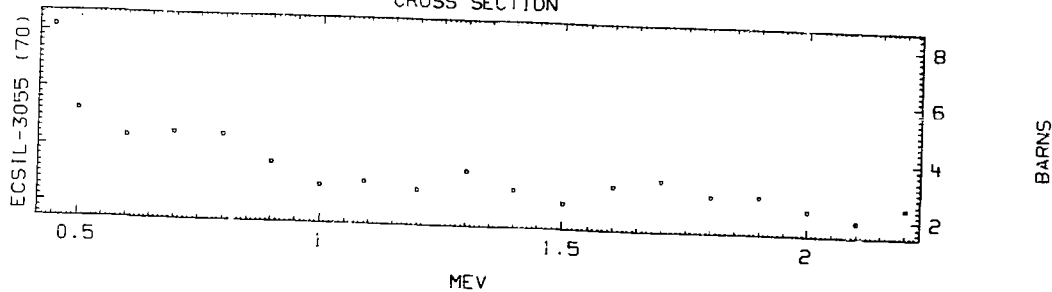
2-20

12-MG-NAT -1

03/01/74

TOTAL SCATTERING
CROSS SECTION

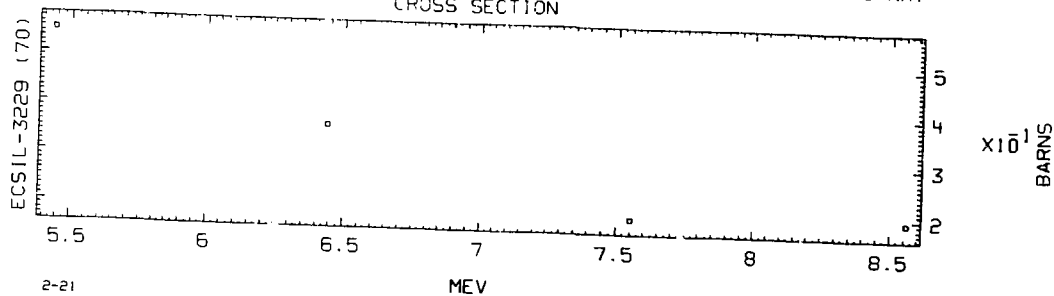
12-MG-NAT



03/01/74

N,N'
CROSS SECTION

12-MG-NAT



2-21

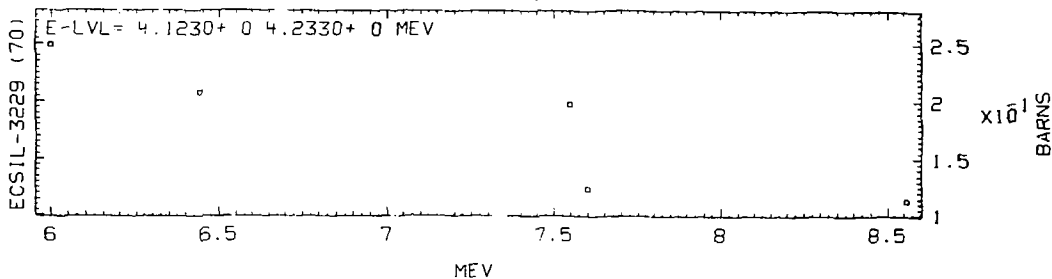
12-MG-NAT -2

03/01/74

N,N'

12-MG-NAT

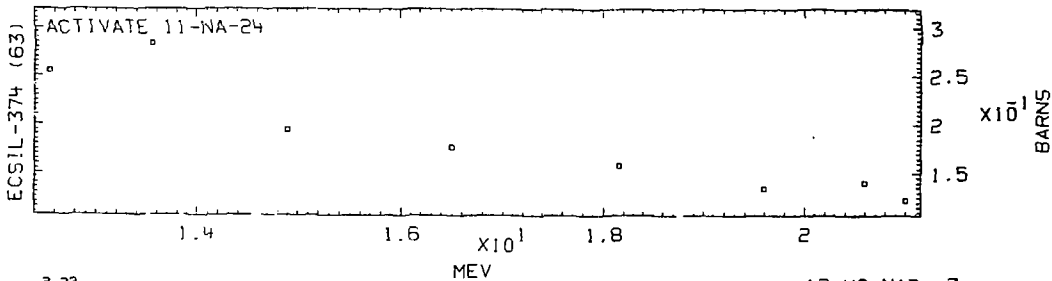
CROSS SECTION



03/01/74

ACTIVATION
CROSS SECTION

12-MG-NAT



2-22

12-MG-NAT -3

03/01/74

NONELASTIC
CROSS SECTION

12-MG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	34 2.5000+ 0		7.7010- 1 2.5000- 1		57	319 1.4200+ 1 1.5000- 1	9.9010- 1 2.0000- 2		
55	790 2.5000+ 0	1.5000- 1	7.7010- 1 2.5000- 1		56	200 1.4500+ 1	9.5010- 1 4.0000- 2		
55	790 4.1000+ 0		7.8010- 1 2.0000- 1		58	356 2.1000+ 1	7.8010- 1 5.0000- 2		
55	790 1.4000+ 1		1.0800+ 0 9.0010- 2		58	356 2.5500+ 1	7.8010- 1 5.0000- 2		
57	199 1.4100+ 1		9.6010- 1 8.0010- 2		58	356 2.9200+ 1	7.6010- 1 5.0000- 2		

03/01/74

TOTAL SCATTERING

12-MG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
46	197 2.5000+ 0	1.5000- 1	1.6000+ 0	2.0000- 1

03/01/74

N,N'

12-MG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
70	3229 8.5600+ 0	8.0000- 2	4.2520- 2	8.9230- 3	4.1230+ 0	
70	3229 8.5600+ 0	8.0000- 2	6.1240- 2	1.2250- 2	4.2330+ 0	
70	3229 7.5500+ 0	4.0000- 2	5.3150- 2	7.0690- 3	5.2280+ 0	
70	3229 7.6000+ 0	1.0000- 1	6.5420- 2	9.8780- 3	5.2280+ 0	
70	3229 8.5600+ 0	8.0000- 2	7.4520- 2	6.7890- 3	5.2280+ 0	
70	3229 7.5500+ 0	4.0000- 2	5.8470- 2	1.9760- 2	6.0000+ 0	
70	3229 7.6000+ 0	1.0000- 1	4.3030- 2	7.0140- 3	6.0000+ 0	
70	3229 8.5600+ 0	8.0000- 2	5.6920- 2	5.8060- 3	6.0000+ 0	
70	3229 8.5600+ 0	8.0000- 2	4.5520- 2	7.4200- 3	6.0000+ 0	6.4360+ 0
70	3229 8.5600+ 0	8.0000- 2	3.6600- 2	5.3070- 3	6.4360+ 0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
61	850 1.4000+ 1		2.8000- 1	8.4000- 2	4.1000+ 0	61	850 1.4000+ 1		3.0000- 2	9.0000- 3	6.1000+ 0
61	850 1.4000+ 1		7.0000- 2	2.1400- 2	4.8000+ 0	61	850 1.4000+ 1		3.0000- 2	9.0000- 3	6.9000+ 0
61	850 1.4000+ 1		1.0000- 1	3.0000- 2	5.3000+ 0						

03/01/74

ABSORPTION
CROSS SECTION

12-MG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2569	2.5300- 8		6.5000- 2	5.0000- 3	58 364	2.5000- 2	4.0000- 3	1.9000- 2	3.0000- 3
66 1491	2.5300- 8		6.4200- 2	1.5000- 2	58 364	2.2000- 1	2.0000- 2	1.3000- 2	1.0000- 2
58 1162	2.5300- 8		7.3000- 2	2.0000- 3	58 364	2.3000- 1	4.0000- 2	1.0000- 2	4.0000- 3

03/01/74

N, X GAMMA

12-MG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
56 140	2.5600+ 0	3.0000- 2	4.8500- 1	4.2000- 2	1.3680+ 0	56 140	2.5600+ 0	3.0000- 2	1.9700- 2	4.0000- 3	1.6160+ 0
60 833	1.4000+ 1		5.5000- 1	1.0000- 1	1.3680+ 0	56 140	2.5600+ 0	3.0000- 2	1.7000- 2	3.0000- 3	1.8200+ 0
52 284	2.5000+ 0		7.5000- 1	2.3000- 1	1.4000+ 0						

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHM-MIN MEV	E-PHM-MAX MEV
63 1223	1.4100+ 1		6.3000- 1	7.0300- 1	2.0000+ 0	1.0000+ 1

03/01/74

N, P

12-MG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 688	1.4400+ 1		2.0000- 1	8.0010- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
59 829	1.4500+ 1		8.0010- 5		2.0000- 2

03/01/74

SOUND ATOM

12-MG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 2			4.2000+ 0

03/01/74

COHERENT SCATTERING
CROSS SECTION

12-MG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNS	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- 8		2.9000* 0		51 2832	2.5300- 8		3.7000* 0	1.5000- 1
52 2831	2.5300- 1		3.4000* 0	1.4000- 1	51 1584	7.3000- 8		2.4000* 0	1.9200- 1
63 2830	2.5300- 8		3.3500* 0	8.0000- 2					

03/01/74

INCOHERENT SCATTER.

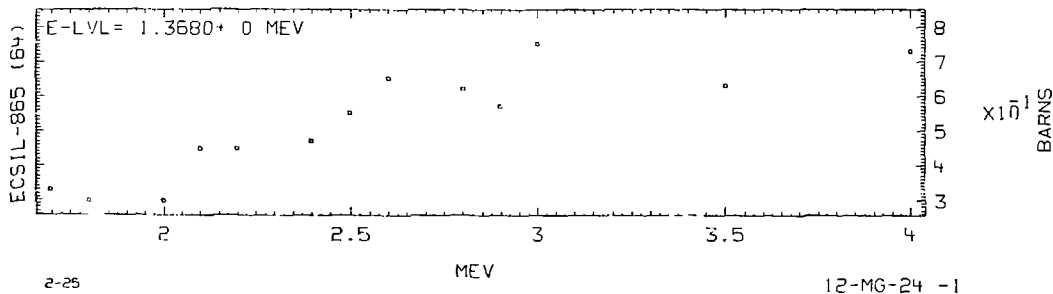
12-MG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 2833	2.5300- 8		9.0000- 2	2.0000- 2
52 2834	2.5300- 8		1.1000- 1	

03/01/74

N,N'
CROSS SECTION

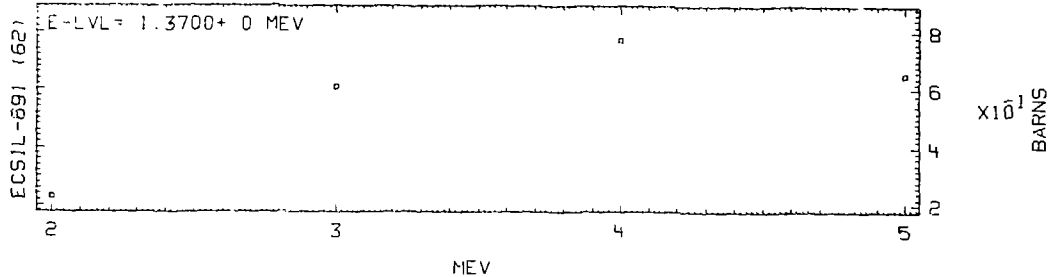
12-MG-24



03/01/74

N,N'
CROSS SECTION

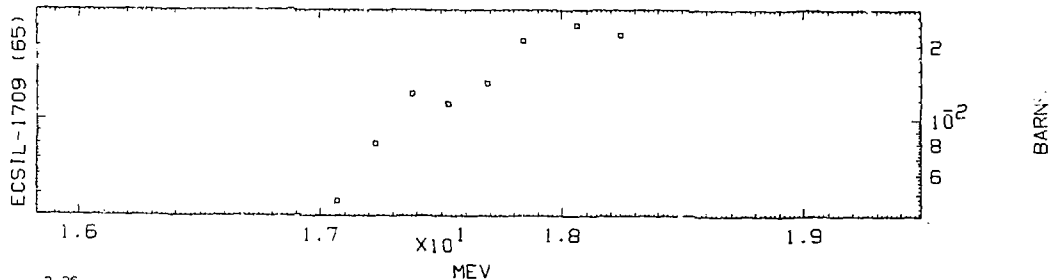
12-MG-24



03/01/74

N,2N
CROSS SECTION

12-MG-24



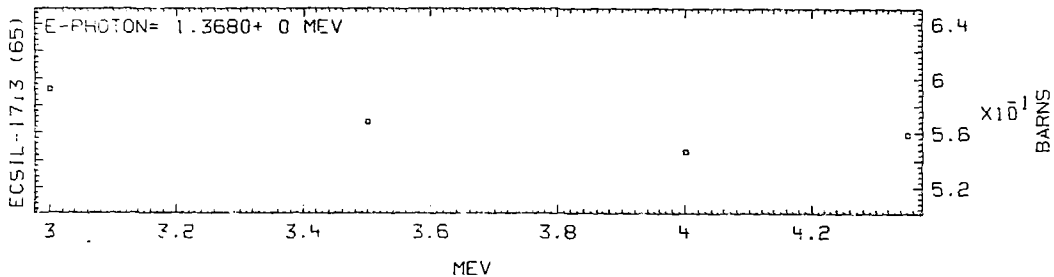
a-26

12-MG-24 -2

03/01/74

N, X GAMMA
CROSS SECTION

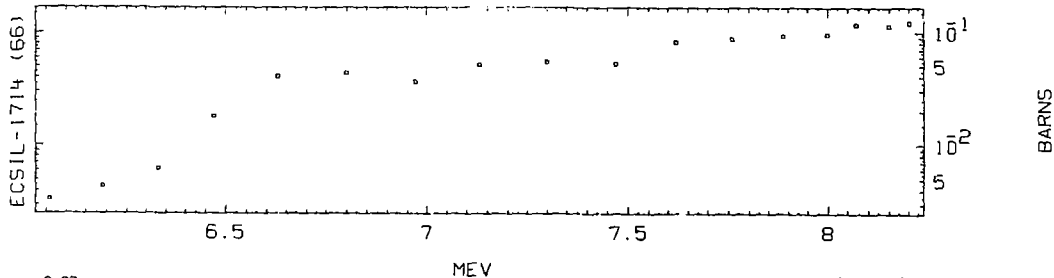
12-MG-24



03/01/74

N, P
CROSS SECTION

12-MG-24



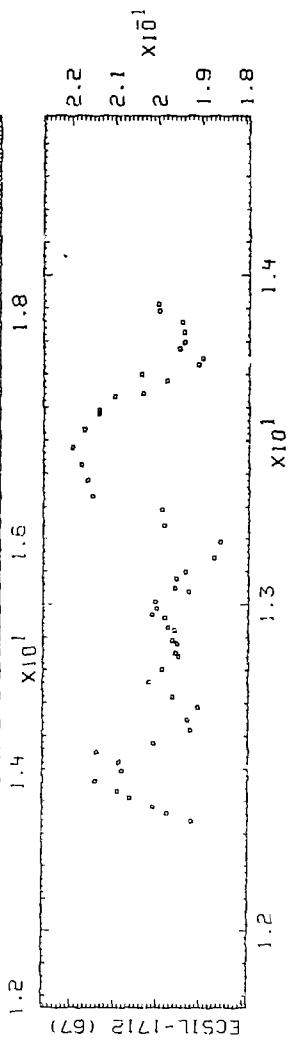
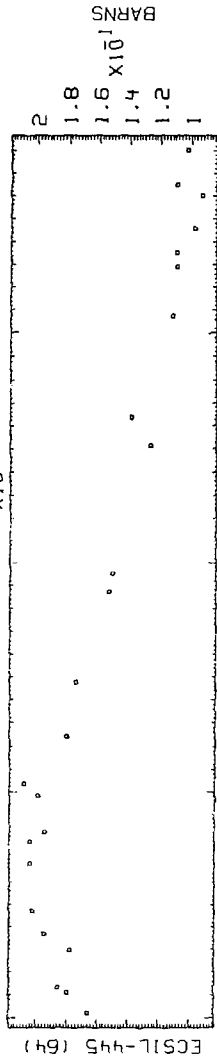
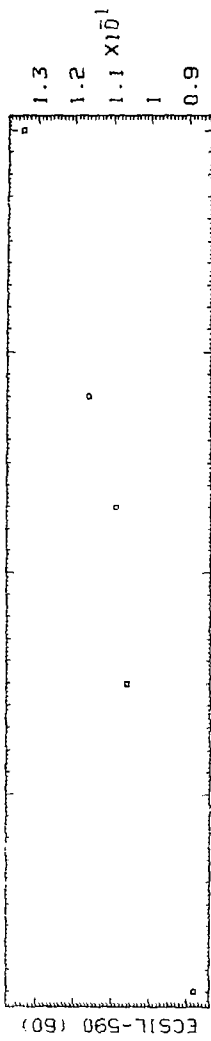
2-27

12-MG-24 -3

03/01/74

N,P
CROSS SECTION

12-MG-24



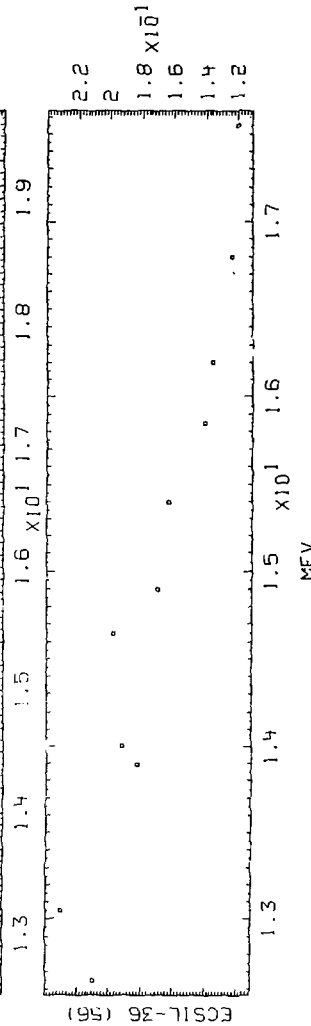
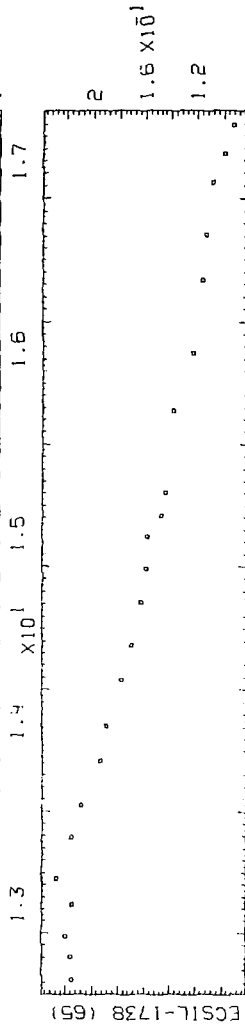
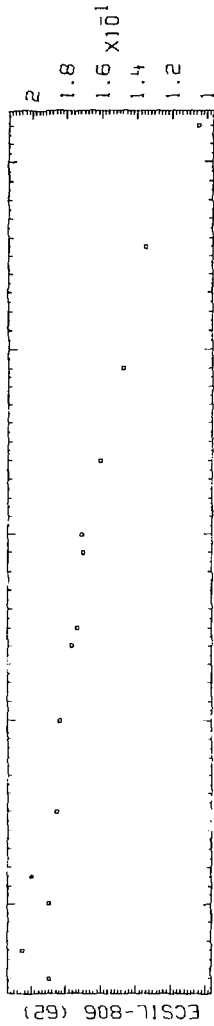
MEV

12-MG-24 -4

03/01/74

12-MG-24

N,P
CROSS SECTION



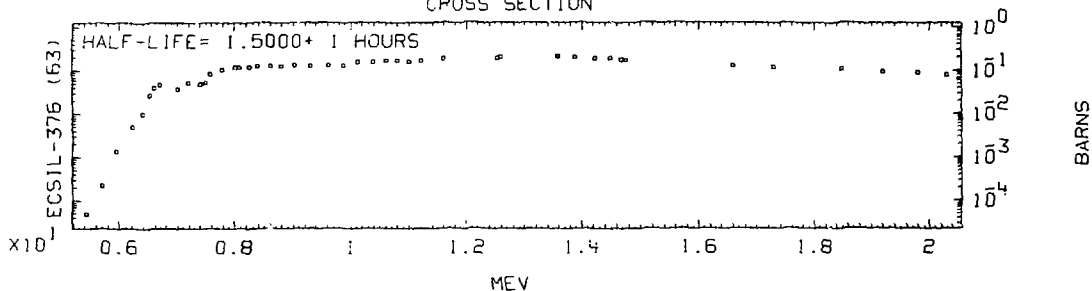
2-29

12-MG-24 -5

03/01/74

N,P
CROSS SECTION

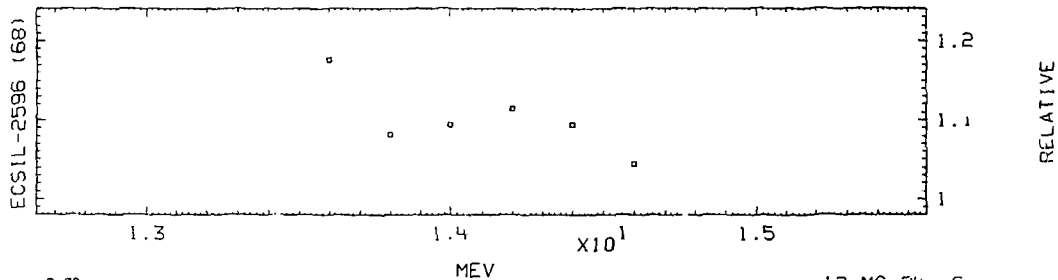
12-MG-24



03/01/74

N,P
CROSS SECTION

12-MG-24



2-30

12-MG-24 -6

03/01/74

N, N'
CROSS SECTION

12-MG-24

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
64 855	1.600+ 0	3.000- 2	3.000- 1	4.500- 2	
84 845	1.4100+ 1	5.000- 1	1.6600- 1	2.5000- 2	1.3700+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
64 1859	1.4000+ 1		5.9000- 1	9.6100- 2	1.3700+ 0
65 1684	1.4100+ 1		6.1900- 1	6.0000- 2	1.3700+ 0

03/01/74

N, X GAMMA

12-MG-24

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
61 686	2.7000+ 0	3.0000- 2	6.7000- 1	4.5000- 2	1.3680+ 0
64 1729	1.4000+ 1		5.9000- 1	9.5000- 2	1.3680+ 0
64 1666	1.4100+ 1		6.1900- 1	3.2000- 2	1.3700+ 0

03/01/74

N, P

12-MG-24

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 533	1.3030+ 1	2.0000- 1	2.1900- 1	2.6000- 2	68 2536	1.4700+ 1	7.5000- 2	1.7970- 1	4.0000- 3
61 361	1.4000+ 1		1.8000- 1	1.6000- 2	67 1921	1.4700+ 1	1.0000- 1	1.8200- 1	5.0000- 3
53 27	1.4500+ 1		1.9100- 1	3.4000- 2	60 628	1.5000+ 1		2.0300- 1	1.1000- 2
69 2354	1.4600+ 1	2.0000- 1	1.9400- 1	1.4000- 2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV	E-LVL MEV
60 849	1.4000+ 1		2.8000- 2	2.0000- 3	1.3400+ 0	1.8400+ 0	1.8800+ 0

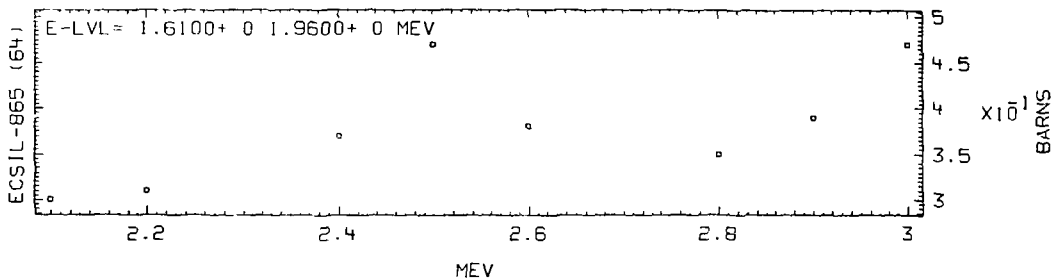
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
71 3200	1.4800+ 1		1.3800- 1	1.4000- 2	1.9600- 2

03/01/74

N,N'

12-MG-25

CROSS SECTION

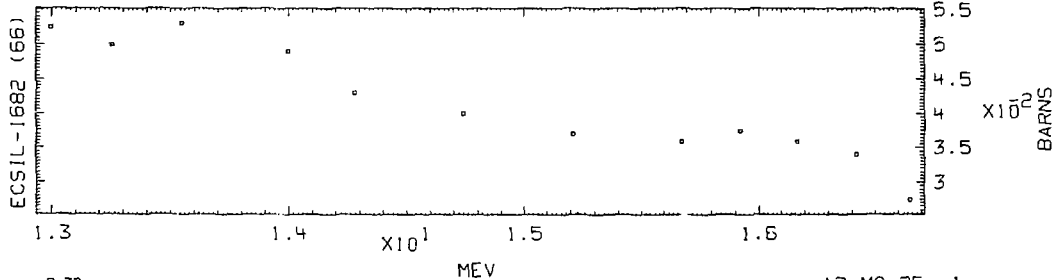


03/01/74

N,P

12-MG-25

CROSS SECTION



2-32

12-MG-25 - 1

03/01/74

N,N'
CROSS SECTION

12-MG-25

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
64	865	2.0000+ 0	3.0000- 2	2.1000- 1	5.2500- 2

03/01/74

N,P

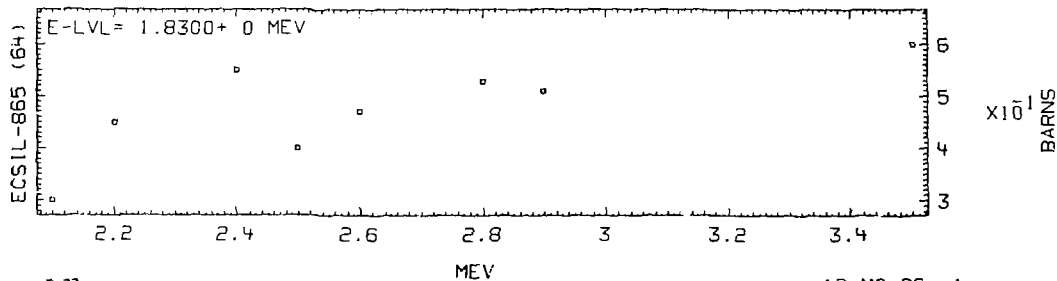
12-MG-25

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361	1.4000+ 1	6.7010- 2	1.0000- 2	66	2142	1.4000+ 1	5.4000- 2	6.0000- 3
53	27	1.4500+ 1	4.4900- 2	1.8000- 2	58	443	1.4000+ 1	2.3000- 2	5.0000- 3
67	1921	1.4700+ 1	1.0000- 1	6.6000- 2	3.0000- 3				

03/01/74

N,N'
CROSS SECTION

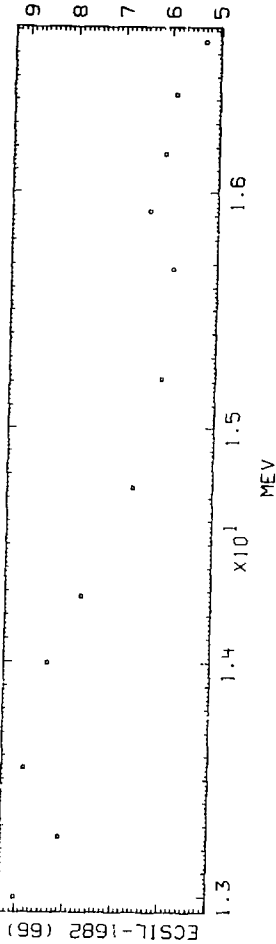
12-MG-26



03/01/74

N, ALPHA
CROSS SECTION

12-MG-26

BARNs
 $\times 10^2$

03/01/74

N, N'

12-MG-26

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
6*	865	2.0000-0	3.0000-2	1.5000-2

03/01/74

N, P

12-MG-26

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361	1.4000+1	2.7000-2	7.0010-3
58	443	1.4800+1	2.0000-2	5.0000-3

03/01/74

N, ALPHA

12-MG-26

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67	1921	1.4700+1	1.0000-1	8.0000-2
56	2142	1.4800+1	8.3000-2	3.0000-3
58	443	1.4800+1	3.5000-2	5.0000-3

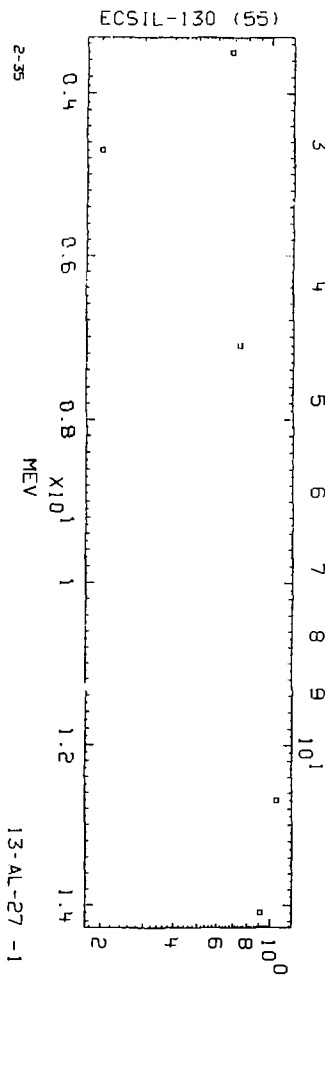
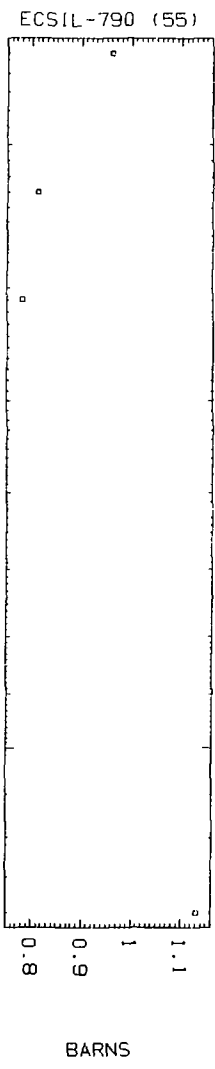
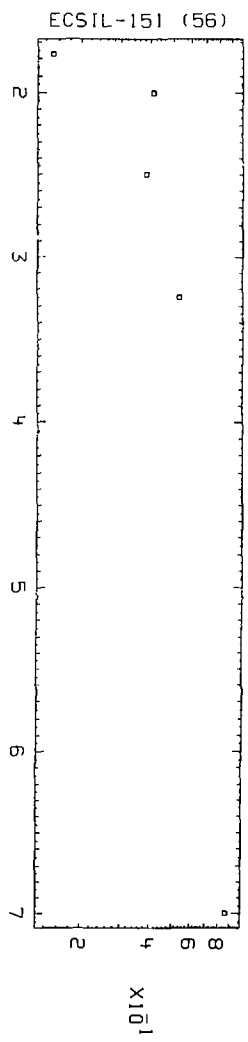
2-34

12-MG-26 -2

03/01/74

NONELASTIC
CROSS SECTION

13-AL-27



2-35

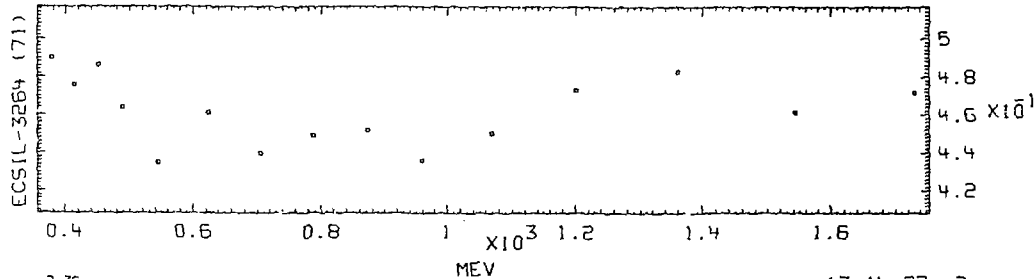
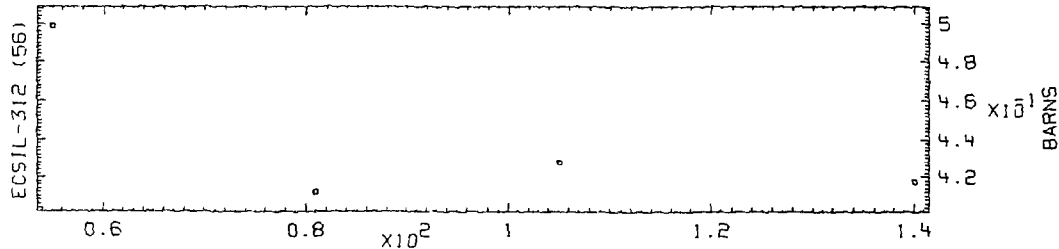
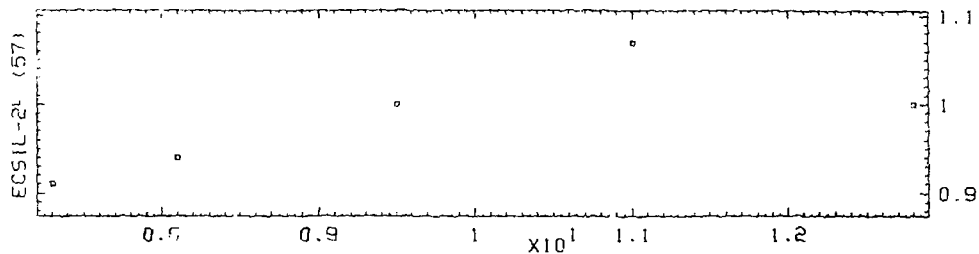
13-AL-27 -1

BARNs

03/01/74

NONELASTIC
CROSS SECTION

13-AL-27



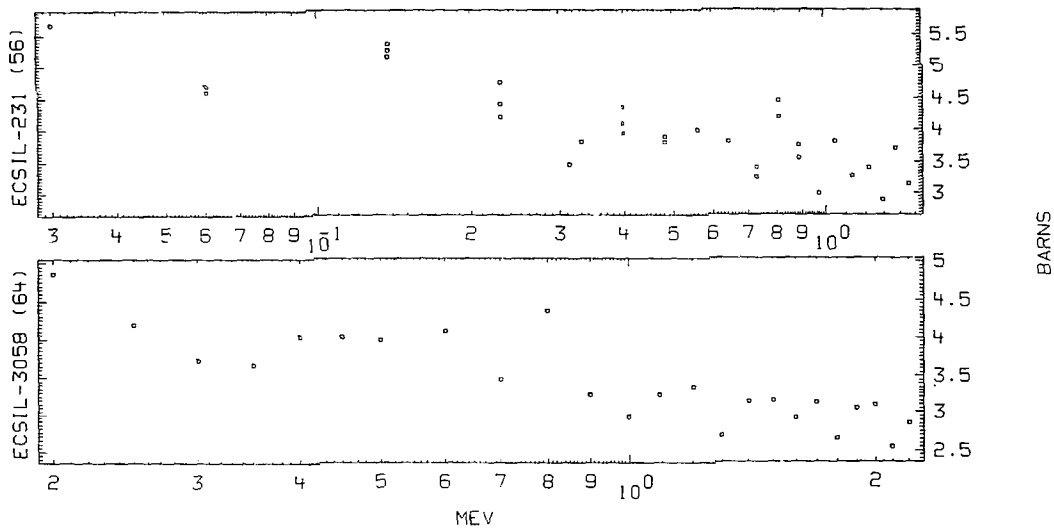
2-36

13-AL-27 -2

03/01/74

TOTAL SCATTERING
CROSS SECTION

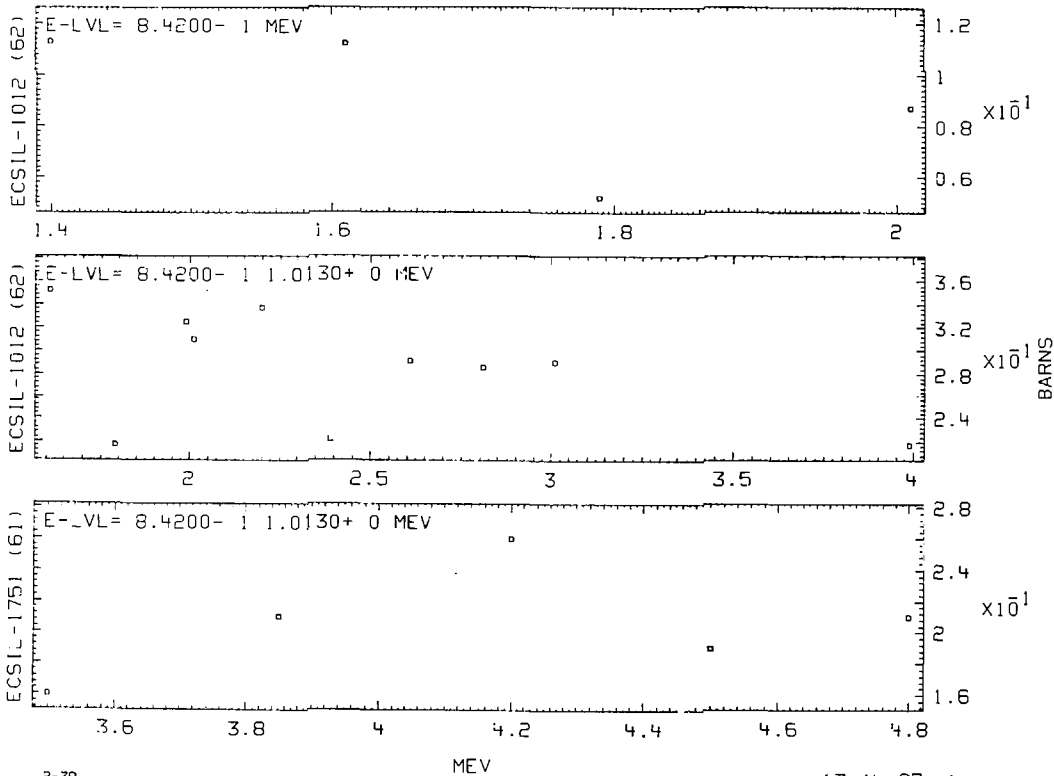
13-AL-27



03/01/74

N,N'
CROSS SECTION

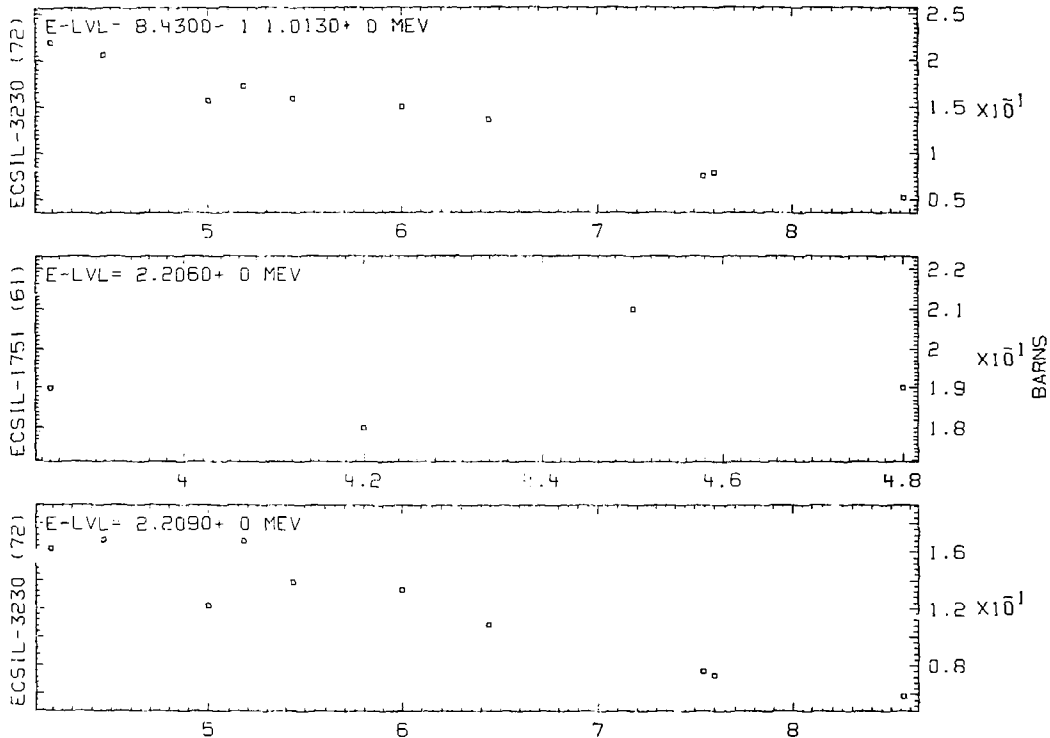
13-AL-27



03/01/74

N,N'
CROSS SECTION

13-AL-27

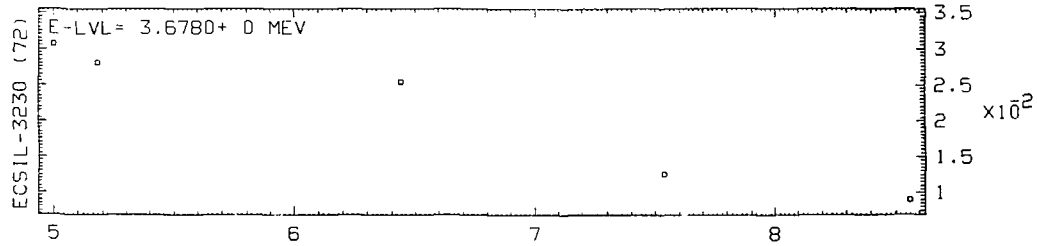
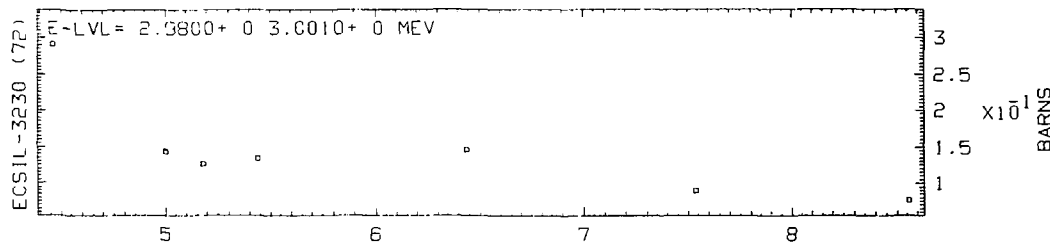
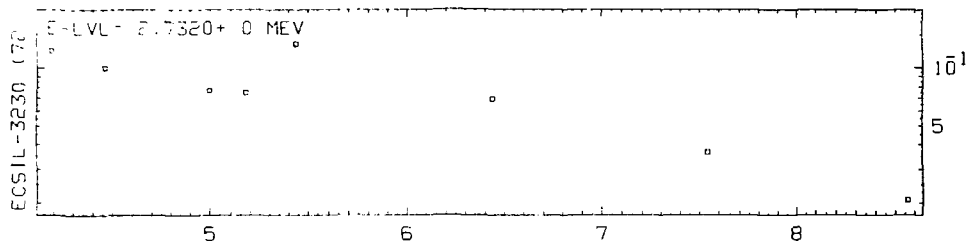


03/01/74

N,N'

13-AL-27

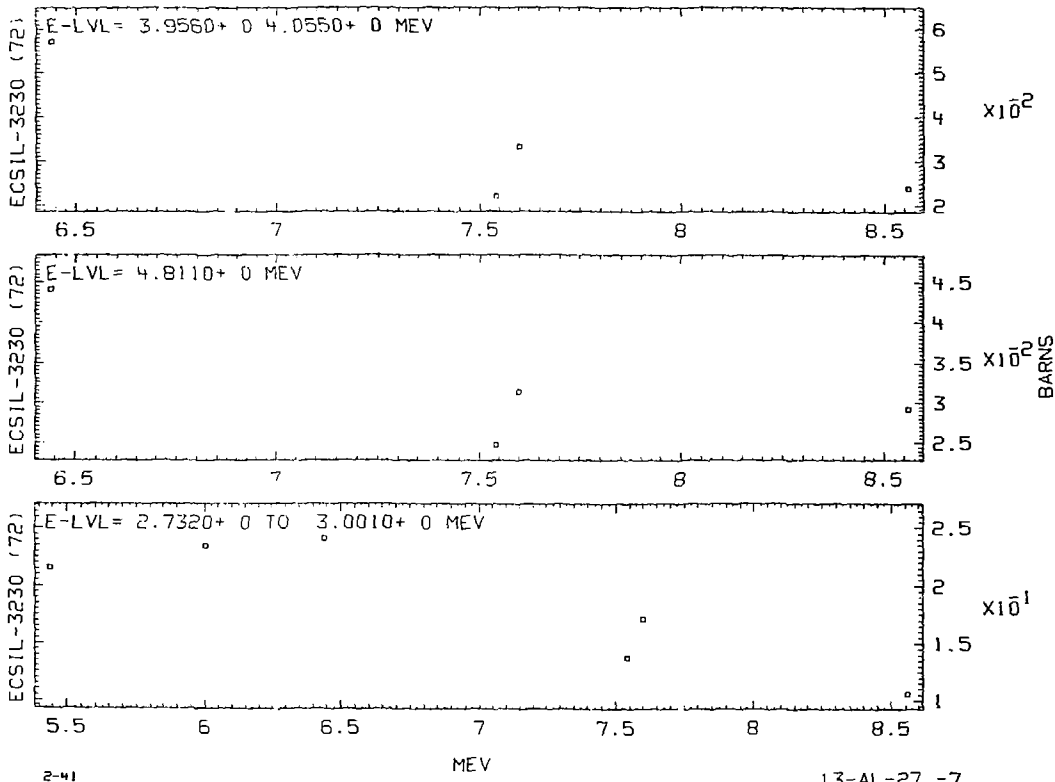
CROSS SECTION



03/01/74

N,N'
CROSS SECTION

13-AL-27



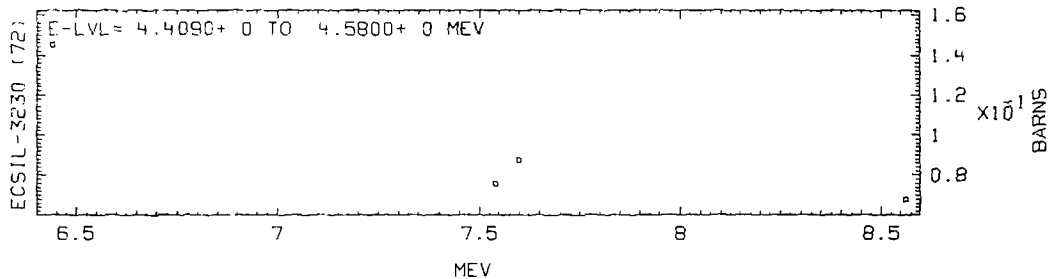
2-41

13-AL-27 -7

03/01/74

N,N'
CROSS SECTION

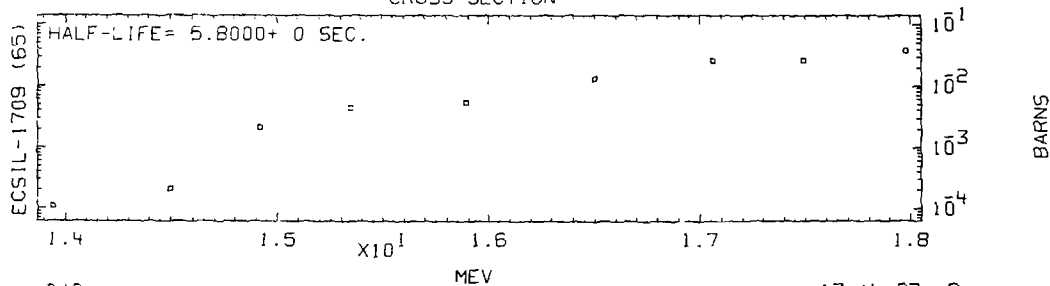
13-AL-27



03/01/74

N,2N
CROSS SECTION

13-AL-27



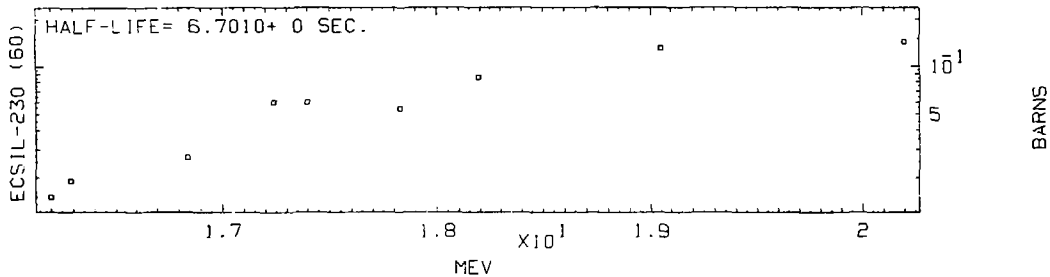
2-42

13-AL-27 -8

03/01/74

N,2N
CROSS SECTION

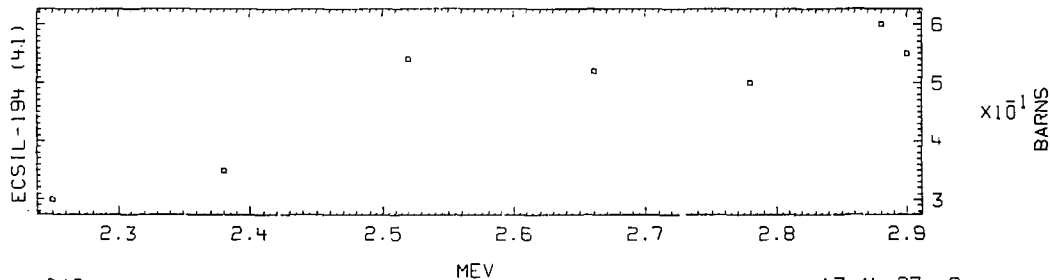
13-AL-27



03/01/74

N,X GAMMA
CROSS SECTION

13-AL-27



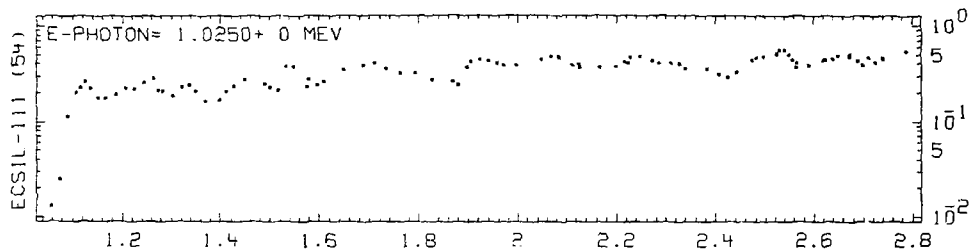
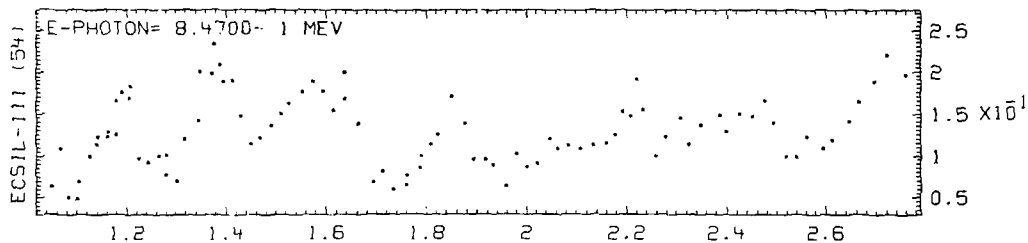
2-43

13-AL-27 -9

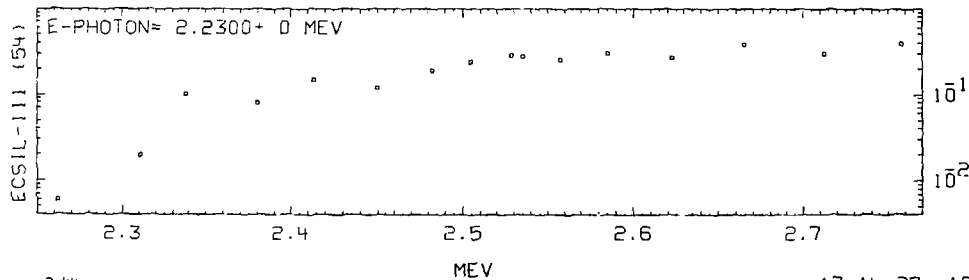
03/01/74

N, X GAMMA
CROSS SECTION

13-AL-27



BARNS



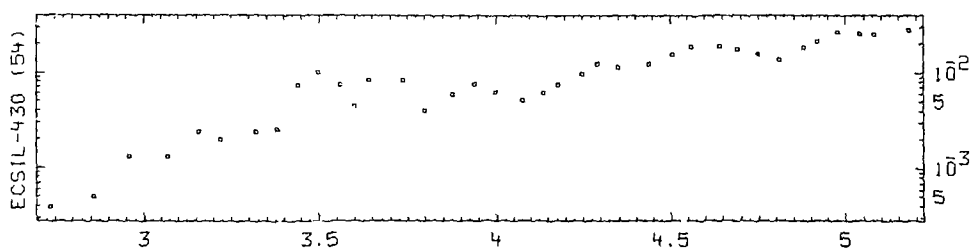
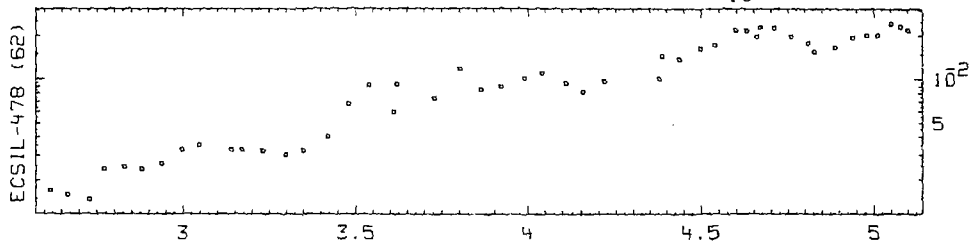
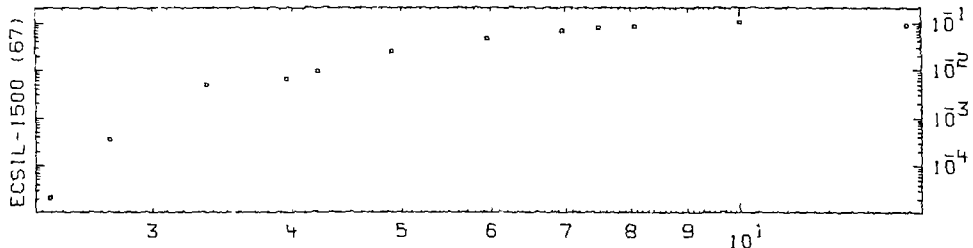
2-44

13-AL-27 -10

03/01/74

N,P
CROSS SECTION

13-AL-27



BARN

2-45

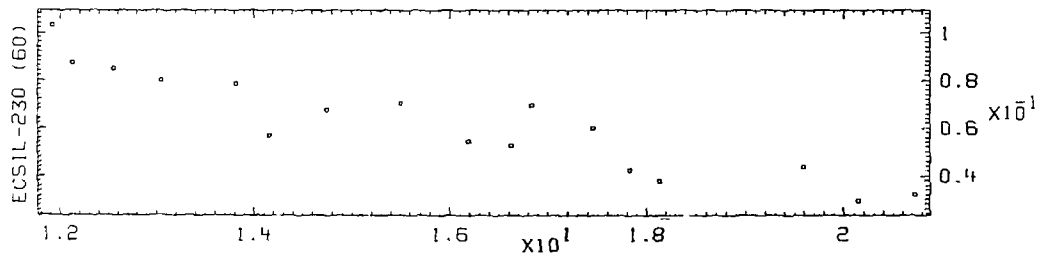
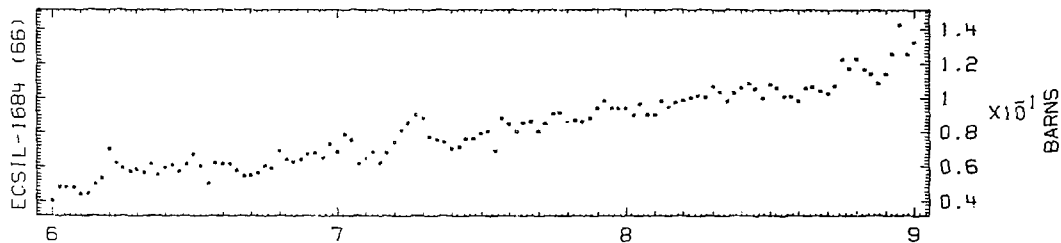
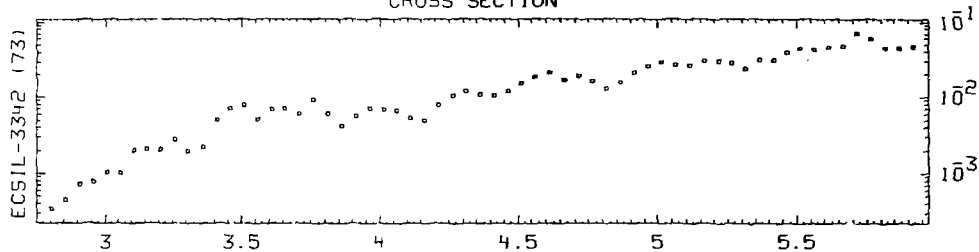
MEV

13-AL-27 -11

03/01/74

N,P
CROSS SECTION

13-AL-27



2-46

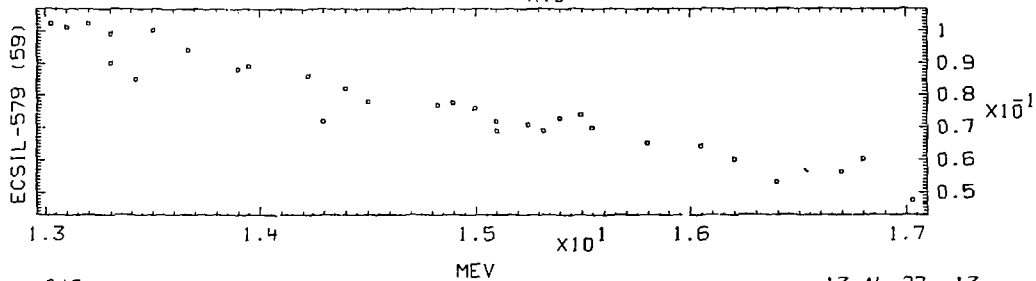
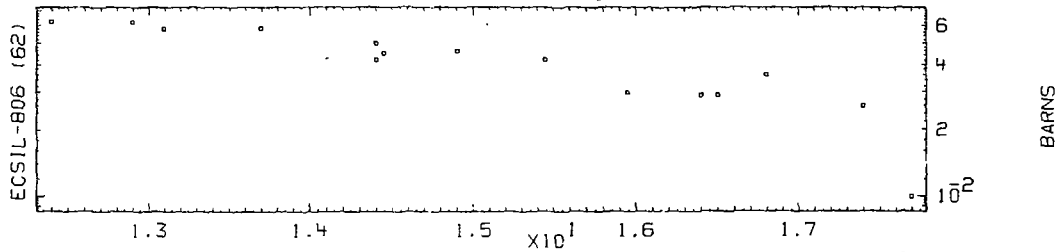
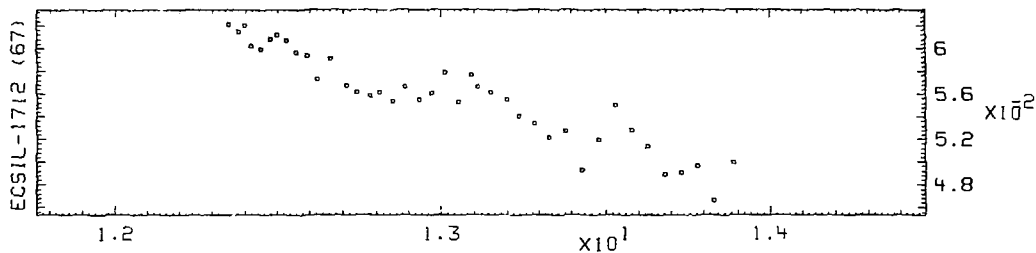
MEV

13-AL-27 -12

03/01/74

N,P
CROSS SECTION

13-AL-27



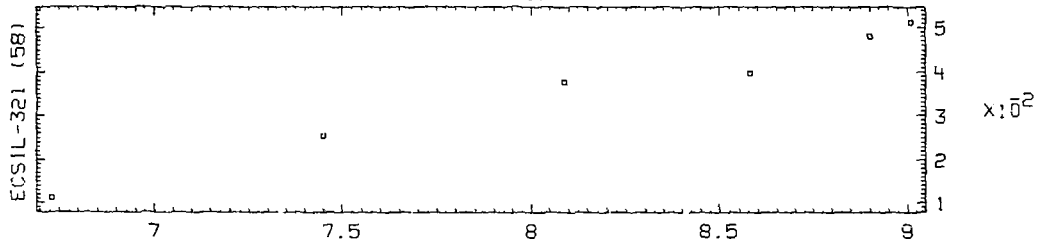
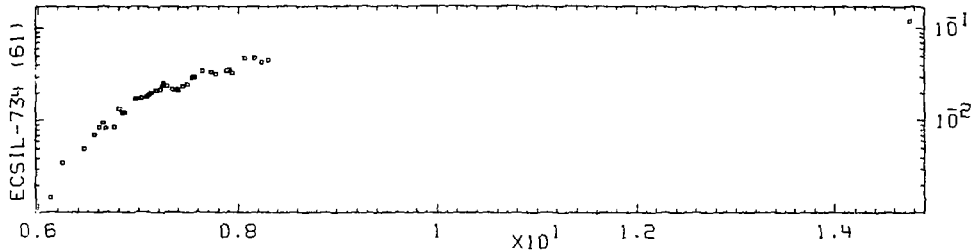
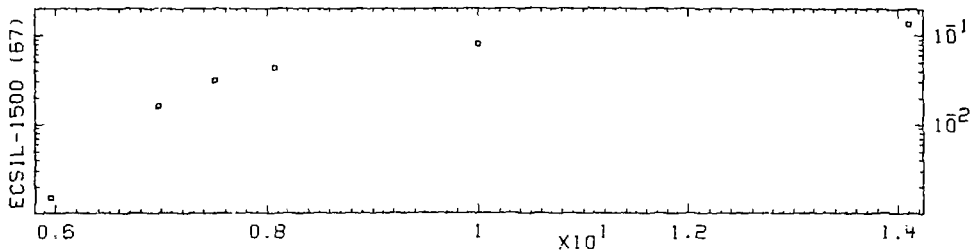
2-47

13-AL-27 -13

03/01/74

N, ALPHA
CROSS SECTION

13-AL-27

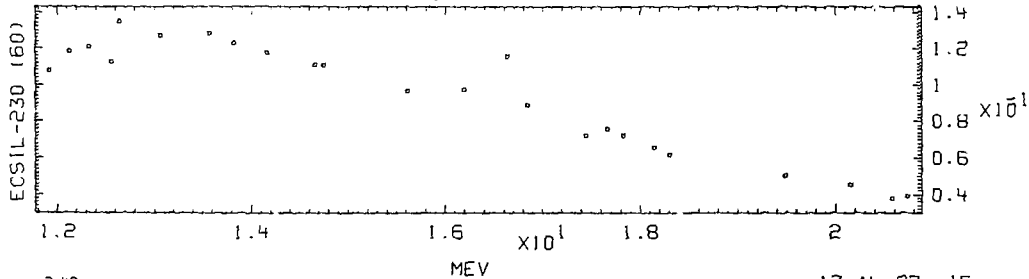
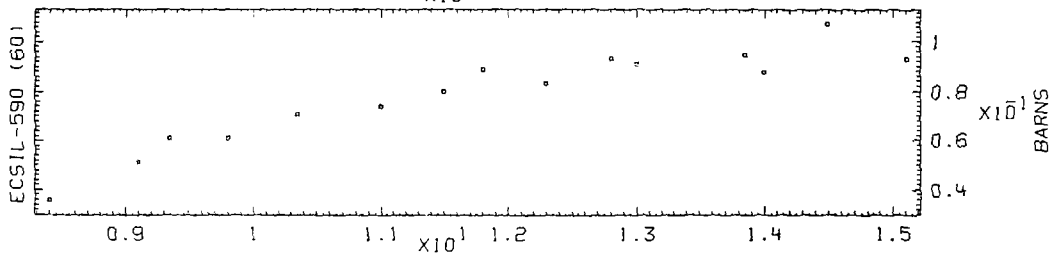
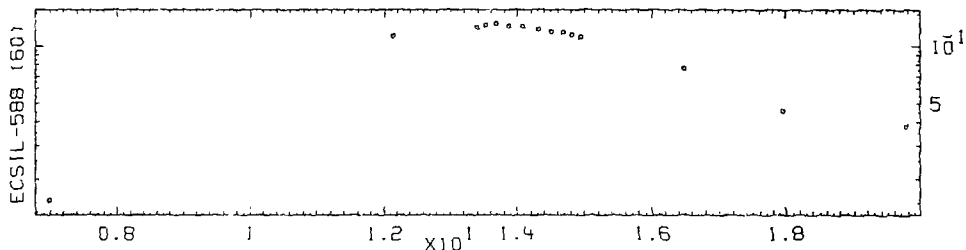


BARNs

03/01/74

N, ALPHA
CROSS SECTION

13-AL-27



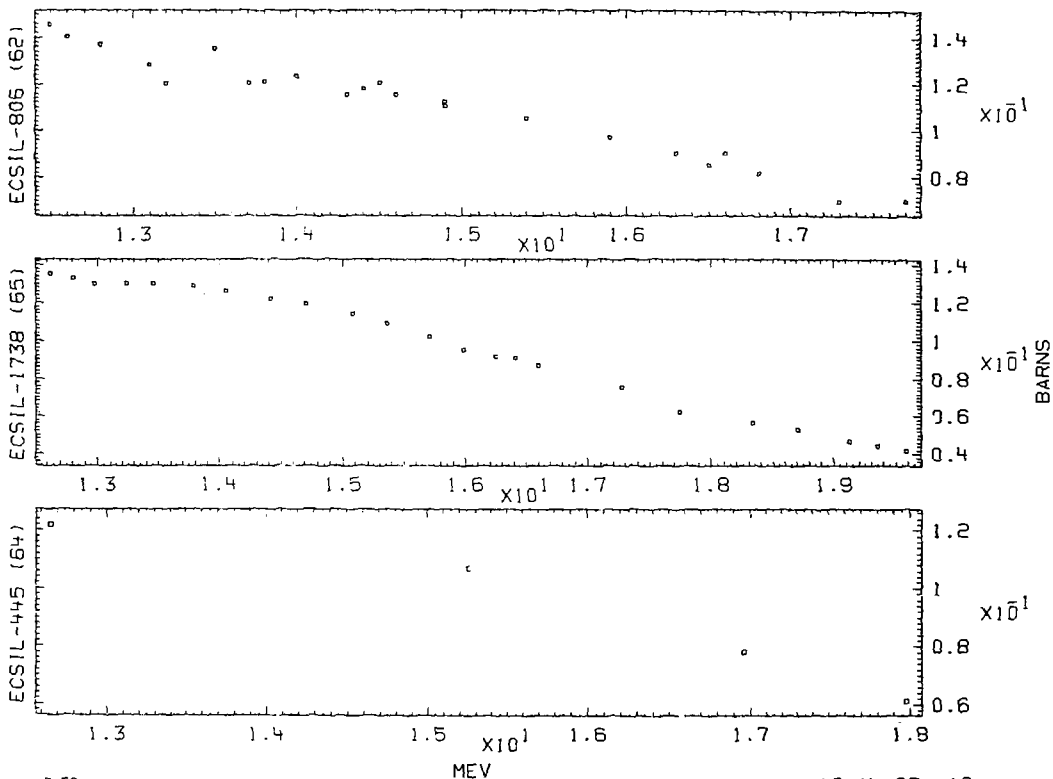
2-49

13-AL-27 -15

03/01/74

N, ALPHA
CROSS SECTION

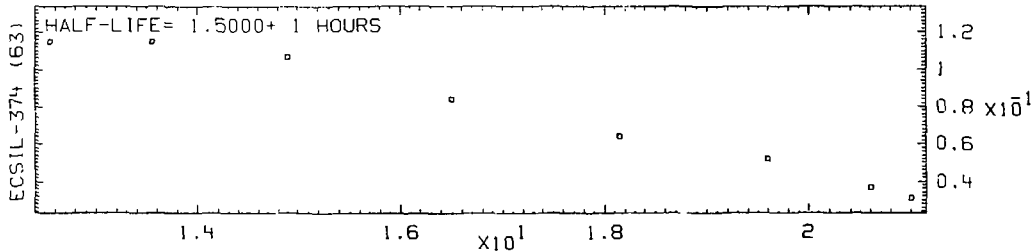
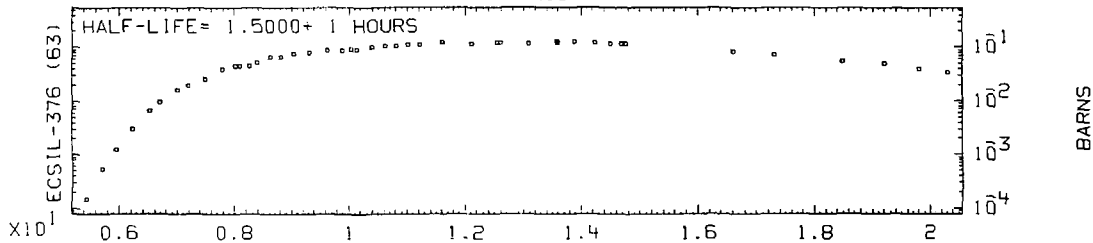
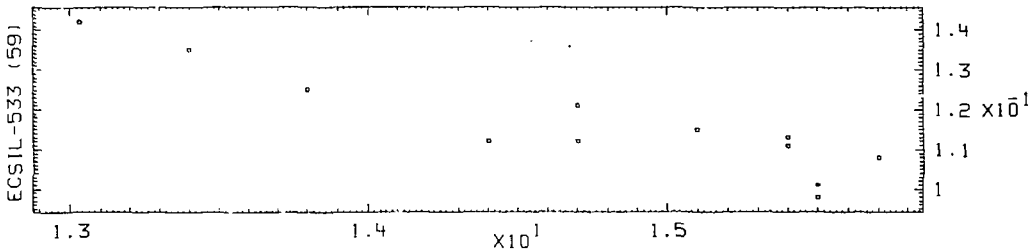
13-AL-27



03/01/74

N, ALPHA
CROSS SECTION

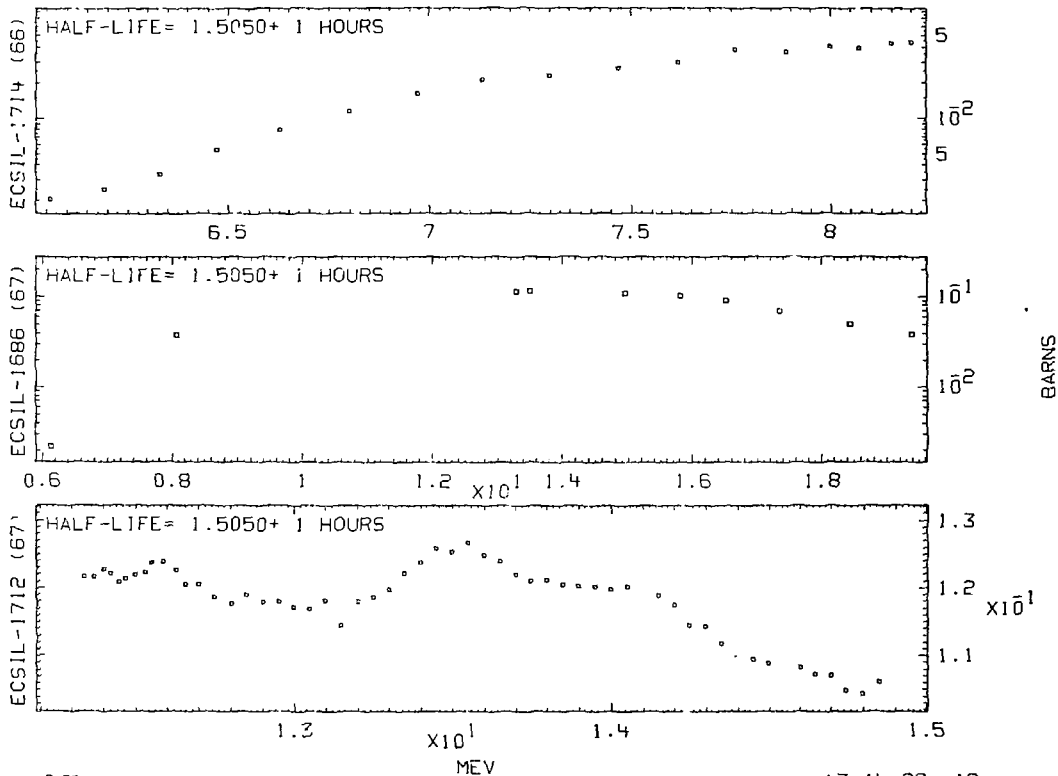
13-AL-27



03/01/74

N, ALPHA
CROSS SECTION

13-AL-27



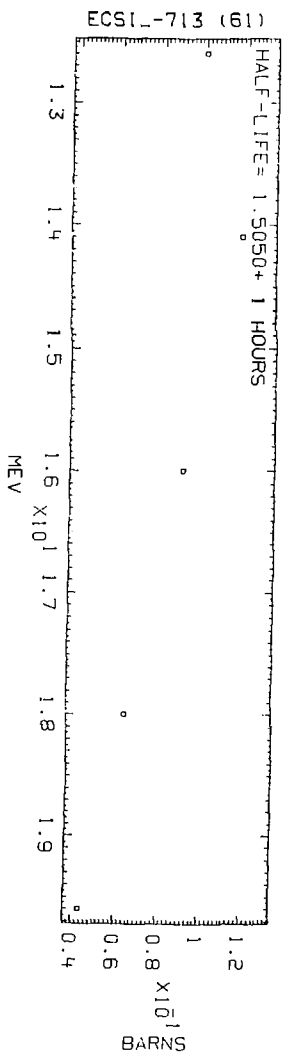
03/01/74

N. ALPHA

13-AL-27

CROSS SECTION

HALF-LIFE = 1.5050 ± 1 HOURS

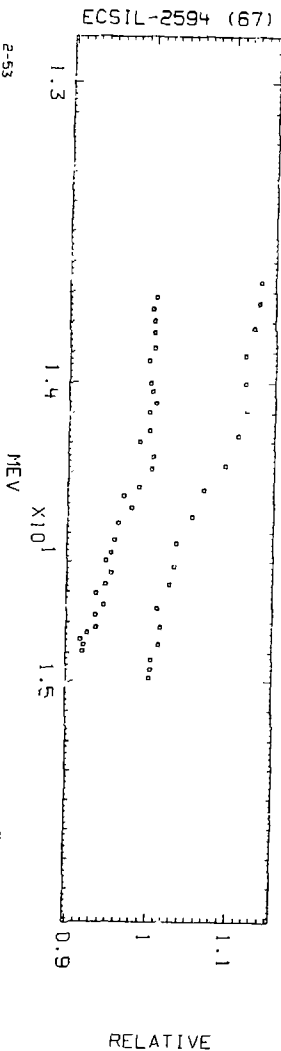


03/01/74

N. ALPHA

13-AL-27

CROSS SECTION



2-53

13-AL-27 -19

03/01/74

NONELASTIC
CROSS SECTION

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
55	122	1.0000+ 0	1.6000- 1	1.0000- 2	3.0000- 2	57	319	1.4200+ 1	1.5000- 1	9.7010- 1	2.0000- 2
56	353	1.0200+ 0	2.0900- 1	1.0000- 1		61	706	1.4300+ 1		8.8010- 1	4.0000- 2
56	34	2.5000+ 0		9.3000- 1	1.7000- 1	56	200	1.4500+ 1		1.0200+ 0	2.9000- 2
55	296	4.1000+ 0	4.0000- 2	7.0010- 1	2.0000- 1	67	1656	1.4800+ 1	1.0000- 1	9.4000- 1	3.0000- 2
55	122	4.5000+ 0	7.0010- 2	7.2010- 1	4.0000- 2	61	766	1.5400+ 1		9.6010- 1	4.0000- 2
65	1228	8.1000+ 0		1.0200+ 0	8.0000- 2	61	705	1.6100+ 1		9.2010- 1	4.0000- 2
57	199	1.4100+ 1		1.0400+ 0	6.0010- 2	58	356	2.8500+ 1		8.1010- 1	5.0000- 2
55	117	1.4100+ 1		1.0000+ 0	1.0000- 2	55	2656	1.4000+ 3	2.0000+ 2	4.1000- 1	2.0500- 2
52	82	1.4150+ 1	5.0000- 2	1.3650+ 0	5.0000- 2	61	1566	5.0000+ 3	4.0000+ 2	3.8100- 1	2.7000- 2

03/01/74

TOTAL SCATTERING

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
63	879	9.8000- 1	5.0000- 2	2.9200+ 0	8.7600- 2

03/01/74

N,N'

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
63	836	7.0000+ 0		8.1010- 1	8.0010- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV	E-LVL MEV
63	828	1.2000+ 0	5.0000- 2	3.0000- 2	8.4210- 1		
63	828	1.2000+ 0		1.3000- 1	5.0000- 2	1.0130+ 0	
62	1012	1.6100+ 0	4.0000- 2	2.4900- 1	1.6000- 2	1.0130+ 0	
62	1012	1.7900+ 0	4.0000- 2	1.6500- 1	1.0000- 2	1.0130+ 0	
62	1012	2.0100+ 0	4.0000- 2	2.2300- 1	1.3000- 2	1.0130+ 0	
63	820	2.7600+ 0		3.1000- 1	4.0000- 2	1.0130+ 0	
68	2371	3.5000+ 0		1.2000- 1		1.0130+ 0	
72	3230	4.4600+ 0	7.0000- 2	1.3510- 1	1.9990- 2	1.0130+ 0	
72	3230	5.0000+ 0	5.0000- 2	8.0890- 2	7.5230- 3	1.0130+ 0	
72	3230	5.1900+ 0	5.0000- 2	1.0400- 1	1.8190- 2	1.0130+ 0	
63	820	2.7600+ 0		1.5000- 1	2.0000- 2	1.9100+ 0	
72	3230	6.4400+ 0	1.3000- 1	1.0070- 1	9.1660- 3	2.2090+ 0	2.7320+ 0
62	1012	2.8100+ 0	3.0000- 2	1.6600- 1	9.0000- 3	2.2100+ 0	

2-54

13-AL-27 -20

03/01/74

N,N'

13-AL-27

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV	E-LVL MEV
62 1012	3.0100+ 0	3.0000- 2	2.0000-	1 6.0000-	3 2.2100+ 0		
62 1012	3.9900+ 0	3.0000- 2	1.9300-	1 8.0000-	3 2.2100+ 0		
68 2371	3.5300+ 0		2.0700-	1	2.2130+ 0		
61 1751	4.2000+ 0		1.5000-	1 3.0000-	2 2.7290+ 0	2.9760+ 0	2.9990+ 0
61 1751	4.5090+ 0		2.5000-	1 3.0000-	2 2.7290+ 0	2.9990+ 0	2.9990+ 0
61 1751	4.8000+ 0		2.9000-	1 3.0000-	2 2.7290+ 0	2.9990+ 0	2.9990+ 0
69 2371	3.5000+ 0		8.7000-	2	2.7300+ 0		
62 1012	3.9900+ 0	3.0000- 2	1.2700-	1 8.0000-	3 2.7300+ 0		
68 2371	3.5000+ 0		1.6000-	2	2.9800+ 0		
62 1012	3.9900+ 0	3.0000- 2	2.2600-	1 9.0000-	3 2.9800+ 0	3.0000+ 0	
68 2371	3.5000+ 0		6.2000-	2	3.0020+ 0		
72 3230	7.5400+ 0	4.0000- 2	8.9900-	3 2.8140-	3 3.9560+ 0		
72 3230	7.5400+ 0	4.0000- 2	9.0700-	3 2.1220-	3 4.0550+ 0		
72 3230	7.5400+ 0	4.0000- 2	1.6750-	2 3.8020-	3 4.4090+ 0		
72 3230	7.5400+ 0	4.0000- 2	5.5790-	2 1.3610-	2 4.5080+ 0	4.5800+ 0	
72 3230	8.5600+ 0	8.0000- 2	5.7690-	2 1.3130-	2 4.5080+ 0	4.5800+ 0	
72 3230	7.5400+ 0	4.0000- 2	4.5710-	2 5.5310-	3 5.1550+ 0	5.2460+ 0	
72 3230	8.5600+ 0	8.0000- 2	3.3430-	2 6.0510-	3 5.1550+ 0	5.2460+ 0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
64 1859	1.4000+ 1		2.9000-	2 5.0000-	3 8.4000- 1
64 1859	1.4000+ 1		4.1000-	2 6.0000-	3 1.0100+ 0
64 1859	1.4000+ 1		5.0000-	2 1.0000-	2 2.2100+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
72 3230	6.0000+ 0	1.3000-	1 8.6830-	2 8.9430-	3 3.6780+ 0	4.0550+ 0
72 3230	6.4400+ 0	1.3000-	1 9.4610-	2 8.9880-	3 3.6780+ 0	4.0550+ 0
72 3230	7.6000+ 0	1.0000-	1 4.6840-	2 4.1690-	3 3.6780+ 0	4.0550+ 0
72 3230	6.0000+ 0	1.3000-	1 7.3950-	2 1.8710-	2 4.4090+ 0	4.8110+ 0
72 3230	6.4400+ 0	1.3000-	1 1.5390-	1 1.8620-	2 4.4090+ 0	4.8110+ 0
72 3230	7.6000+ 0	1.0000-	1 2.9810-	1 2.8920-	2 5.1550+ 0	5.8250+ 0
72 3230	8.5600+ 0	8.0000- 2	1.1940-	1 1.1220-	2 5.4100+ 0	5.6590+ 0

03/01/74

N,N'P
CROSS SECTION

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
57	217	1.4000+ 1	7.0010- 2	9.8010- 3	62	688	1.4400+ 1	2.0000- 1	1.7000- 2	6.0010- 3
61	361	1.4000+ 1	5.3010- 2	1.1000- 2	61	658	1.4800+ 1			1.5700- 1

03/01/74

ABSORPTION

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
61	2569	2.5300- 8	2.7900- 1	1.4000- 2	58	364	2.5600- 2	4.0000- 3	1.7000- 2	7.0000- 3
60	2932	2.5900- 8	2.2000- 1	1.3000- 2	58	364	2.2000- 1	2.0000- 2	6.0000- 3	1.0000- 3
66	1491	2.5100- 8	2.2900- 1	3.0000- 3	58	364	8.3000- 1	4.0000- 2	1.6000- 2	
58	1162	2.5100- 8	2.4600- 1	3.0000- 3						

03/01/74

N_x GAMMA

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	E-PHOTON MEV
63	294	1.4200+ 1		1.7000+ 0		
56	140	2.5600+ 0	3.0000- 2	1.6000- 3	4.0000- 4	1.6600- 1
66	1839	1.4000+ 1		1.0200- 1	1.3000- 2	8.4000- 1
63	1723	1.4100+ 1	6.0000- 1	2.8000- 2		8.4000- 1
56	140	2.5625+ 0	3.0000- 2	6.4000- 2	7.0000- 3	8.4200- 1
65	1713	3.5700+ 0	1.0000- 1	1.1970- 1	3.2300- 2	8.4200- 1
65	1713	4.0700+ 0	1.0000- 1	1.2510- 1	2.8700- 2	8.4200- 1
65	1713	4.5700+ 0	1.0000- 1	1.1050- 1	2.2100- 2	8.4200- 1
66	1829	1.4000+ 1		9.2000- 2	1.2000- 2	1.0100+ 0
56	140	2.5600+ 0	3.0000- 2	1.4200- 1	1.3000- 2	1.0130+ 0
68	2371	3.5000+ 0		2.0000- 1		1.0130+ 0
65	1713	3.5700+ 0	1.0000- 1	2.2750- 1	4.3200- 2	1.0130+ 0
65	1713	4.0700+ 0	1.0000- 1	2.4580- 1	4.6700- 2	1.0130+ 0
65	1713	4.5700+ 0	1.0000- 1	2.3440- 1	4.6900- 2	1.0130+ 0
63	1723	1.4100+ 1	6.0000- 1	5.5000- 2		1.0130+ 0
68	2371	3.5000+ 0		8.7000- 2		1.7170+ 0
65	1713	3.5700+ 0	1.0000- 1	8.8000- 2	1.8500- 2	1.7200+ 0
65	1713	4.0700+ 0	1.0000- 1	1.0090- 1	2.0200- 2	1.7200+ 0

2-56

13-AL-27 -22

03/01/74

N, X GAMMA
CROSS SECTION

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	E-PHOTON MEV
65 1713	4.5700+	0 1.0000-	1 6.4600-	2 1.2900-	2 1.7200+	0
63 1723	1.4100+	1 6.0000-	1 1.6300-	1	1.7200+	0
53 294	1.4200+	1	1.7600-	1	1.7200+	0
66 1839	1.4000+	1	1.5500-	1 2.0000-	2 1.7600+	0
68 2997	1.4000+	1 8.0000-	1 1.1000-	1 4.0000-	2 2.2000+	0
56 1839	1.4000+	1	1.4800-	1 1.9000-	2 2.2000+	0
56 140	2.5600+	0 3.0000-	2 8.7000-	2 8.0000-	3 2.2100+	0
65 1713	3.5700+	0 1.0000-	1 2.1430-	1 3.6400-	2 2.2100+	0
65 1713	4.0700+	0 1.0000-	1 2.1160-	1 3.6000-	2 2.2100+	0
65 1713	4.5700+	0 1.0000-	1 1.9140-	1 3.8300-	2 2.2100+	0
63 1723	1.4100+	1 6.0000-	1 1.0300-	1	2.2100+	0
68 2371	3.5000+	0	2.1300-	1	2.2130+	0
65 1713	3.5700+	0 1.0000-	1 3.0100-	2 6.9000-	3 2.7300+	0
65 1713	4.0700+	0 1.0000-	1 4.4200-	2 8.8000-	3 2.7300+	0
66 1839	1.4000+	1	4.0000-	2 1.0000-	2 2.7600+	0
68 2997	1.4000+	1 8.0000-	1 2.5000-	2 1.5000-	2 2.8000+	0
68 2371	3.5000+	0	1.6000-	2	2.9800+	0
65 1713	3.5700+	0 1.0000-	1 1.1110-	1 2.0000-	2 2.9800+	0 3.0000+
65 1713	4.0700+	0 1.0000-	1 1.8240-	1 3.1000-	2 2.9800+	0 3.0000+
65 1713	4.5700+	0 1.0000-	1 1.6580-	1 2.8200-	2 2.9800+	0 3.0000+
68 2997	1.4000+	1 8.0000-	1 1.0200-	1 3.0000-	2 3.0000+	0
63 1723	1.4100+	1 6.0000-	1 7.9000-	2	3.0000+	0
68 2371	3.5000+	0	6.2000-	2	3.0020+	0
66 1839	1.4000+	1	1.3100-	1 2.0000-	2 3.0400+	0
66 1839	1.4000+	1	7.4000-	2 1.6000-	2 3.8000+	0
61 850	1.4000+	1	2.9000-	1 8.7000-	2 3.8000+	0
60 1721	1.4000+	1	2.9000-	1 5.8000-	2 3.8000+	0
68 2997	1.4000+	1 8.0000-	1 1.8000-	2 1.0000-	2 4.0000+	0
53 294	1.4200+	1	2.4000-	2	4.5000+	0
61 850	1.4000+	1	1.6000-	1 4.8000-	2 4.9000+	0
60 1721	1.4000+	1	1.6000-	1 3.2000-	2 4.9000+	0
66 1839	1.4000+	1	1.1300-	1 2.0000-	2 5.1000+	0
61 850	1.4000+	1	9.0000-	2 2.7000-	2 5.4000+	0
60 1721	1.4000+	1	9.0000-	2 1.8000-	2 5.4000+	0
53 294	1.4200+	1	5.4000-	2	5.4000+	0
61 850	1.4000+	1	4.0000-	2 1.2000-	2 6.3000+	0
60 1721	1.4000+	1	4.0000-	2 8.0000-	3 6.3000+	0
66 1839	1.4000+	1	1.7000-	2 1.1000-	2 6.4000+	0
61 850	1.4000+	1	3.0000-	2 9.0000-	3 6.9000+	0

2-57

13-AL-27 -23

03/01/74

N, X GAMMA
CROSS SECTION

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	E-PHOTON MEV
60 1721	1.4000+ 1		3.0000- 2	6.0000- 3	6.9000+ 0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHN-MIN MEV	E-PHN-MAX MEV
63 1723	1.4100+ 1	6.0000- 1	2.2000+ 0		2.0000+ 0	1.0000+ 1

03/01/74

N, P

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 361	1.4000+ 1		8.7010- 2	1.1000- 2	69 2050	1.4500+ 1	2.0000- 1	8.1900- 2	7.0000- 3
57 217	1.4000+ 1		7.0010- 2	1.0000- 2	53 27	1.4500+ 1		5.2410- 2	9.4010- 3
60 837	1.4100+ 1	1.0000- 1	9.0010- 2	1.8000- 2	63 372	1.4600+ 1		7.2010- 2	
61 651	1.4100+ 1		8.1010- 2	4.0000- 3	64 1848	1.4700+ 1	1.5000- 1	6.6000- 2	1.0000- 3
57 159	1.4100+ 1	1.0000+ 0	7.9010- 2	1.5000- 2	62 88	1.4700+ 1	1.5000- 1	8.2010- 2	1.0000- 2
52 84	1.4100+ 1		7.9010- 2	6.0010- 3	66 907	1.4800+ 1	1.0000- 1	9.7000- 2	1.0000- 2
57 535	1.4140+ 1	1.8000- 1	8.7010- 2	7.0010- 3	61 660	1.4800+ 1		7.7010- 2	8.0010- 3
68 1944	1.4200+ 1	2.0000- 1	7.1000- 2	9.0000- 3	59 662	1.4800+ 1	9.0010- 1	5.3010- 2	5.0000- 3
69 2334	1.4200+ 1	2.0000- 1	7.4000- 2	7.0000- 3	70 3150	1.4800+ 1	2.0000- 1	7.3000- 2	5.0000- 3
68 2695	1.4400+ 1	3.0000- 1	6.8000- 2	8.0000- 3	60 628	1.5000+ 1		5.9010- 2	6.0010- 3
62 688	1.4400+ 1	2.0000- 1	9.3010- 2	1.0000- 2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
67 1914	7.9000+ 0	8.0000- 2	7.1000- 3	7.0000- 4	0.0000+ 0	3.1000- 2
67 1914	7.9000+ 0	8.0000- 2	9.8000- 3	1.0000- 3	9.8000- 1	3.1000- 2
67 1914	7.9000+ 0	8.0000- 2	2.4500- 2	2.5000- 3	1.6900+ 0	1.9400+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
59 619	1.4000+ 1	5.0000- 1	1.1500- 1	1.0000- 2	9.9010+ 0
61 830	1.4100+ 1		8.5010- 2	2.8000- 3	1.0000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
64 1859	1.4000+ 1		7.7000- 2		8.4000- 1

03/01/74

N, X P
CROSS SECTION

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 847	1.3200+ 1	2.0000- 1	1.4000- 1	3.0000- 2
61 658	1.4800+ 1		2.7300- 1	2.0000- 2

03/01/74

N, HE-3

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 667	1.4800+ 1	9.0010- 1	5.0000- 4	

03/01/74

N, ALPHA

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 899	1.4100+ 1		1.1900- 1	1.0000- 2	69 3351	1.4700+ 1	2.0000- 1	1.2100- 1	5.0000- 3
57 535	1.1400+ 1		1.2000- 1	1.4000- 2	69 2354	1.4790+ 1		1.1610- 1	8.0000- 3
70 3364	1.4420+ 1	2.0000- 1	1.1700- 1	8.0000- 4	68 2711	1.4800+ 1	2.0000- 1	1.1600- 1	8.0000- 3
64 1735	1.4600+ 1	1.5000- 1	1.0600- 1	2.3000- 3	59 662	1.4800+ 1	9.0010- 1	1.1400- 1	7.0010- 3
63 372	1.4600+ 1		1.1900- 1		64 843	1.4800+ 1	7.0010- 1	1.2000- 1	8.8010- 3
62 702	1.4600+ 1	3.0000- 1	1.1500- 1	2.0000- 3	60 628	1.5000+ 1		1.1600- 1	9.0010- 3
67 1902	1.4700+ 1		1.2000- 1	1.0000- 2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
71 3200	1.4800+ 1		6.5000- 2	6.0000- 3
59 829	1.4500+ 1		4.0000- 2	2.0000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS		
59 619	1.4000+ 1	5.0000- 1	1.1100- 1	9.0010- 3	1.5000+ 1	52 84	1.4100+ 1		1.3500- 1	9.4500- 3	1.5050+ 1
53 27	1.4500+ 1		7.6910- 2	1.6000- 2	1.5000+ 1	64 1848	1.4700+ 1	1.5000- 1	1.1200- 1	2.0000- 3	1.5050+ 1

03/01/74

N, X ALPHA
CROSS SECTION

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	537 1.4800+ 1		9.2000- 2	1.5000- 2

03/01/74

ACTIVATION

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	ACTIVATE
70	3197 1.4700+ 1		1.1000- 1	1.5000- 2	11-NA-24
71	3200 1.4800+ 1		1.1100- 1	9.0000- 3	11-NA-24
71	3200 1.4800+ 1		7.5000- 2	6.0000- 3	12-MG-27

03/01/74

BOUND ATOM

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1504 7.3000- 8		1.5000+ 0	
65	1753 9.4100- 6		1.5150+ 0	1.1000- 3

03/01/74

FREE ATOM

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	1753 9.4100- 6		1.4080+ 0	1.1000- 3

03/01/74

COHERENT SCATTERING

13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584 7.3000- 8		1.5000+ 0	1.2000- 1
65	1753 9.4100- 6		1.5040+ 0	1.5000- 3

03/01/74

INCOHERENT SCATTER.
CROSS SECTION

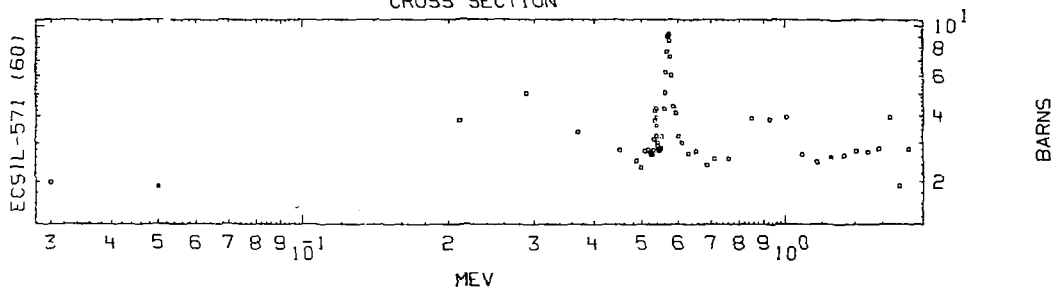
13-AL-27

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2663	2.5300- B		1.0000- 2	1.0000- 3

03/01/74

TOTAL SCATTERING
CROSS SECTION

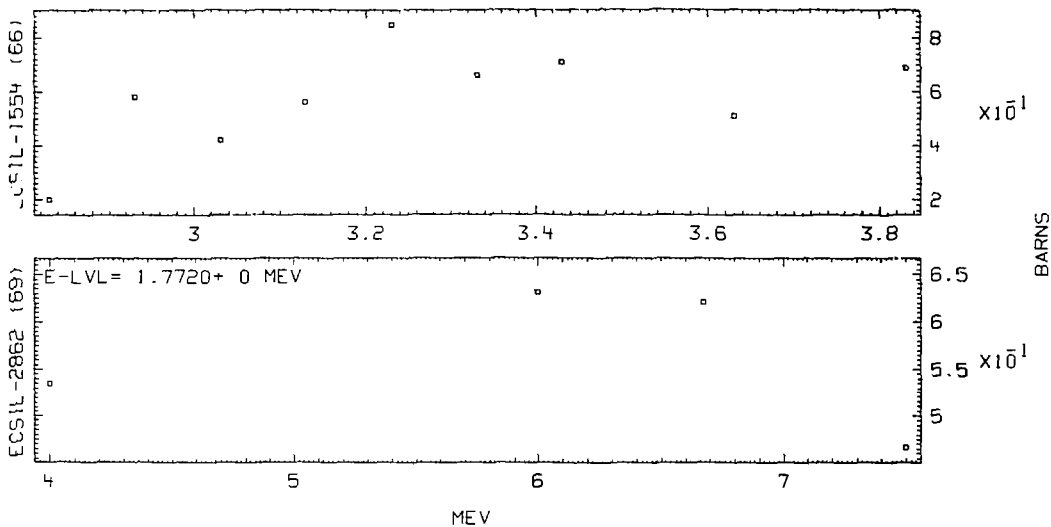
14-SI-NAT



03/01/74

N,N'
CROSS SECTION

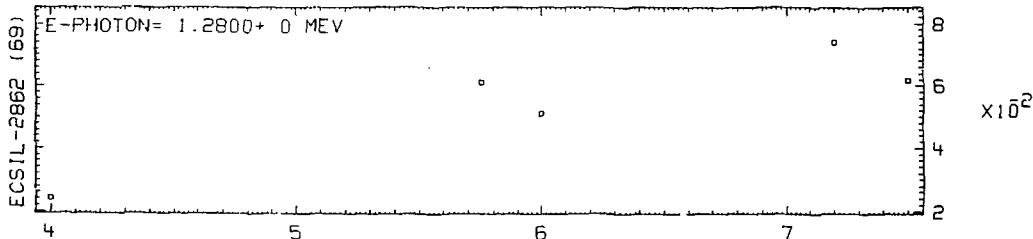
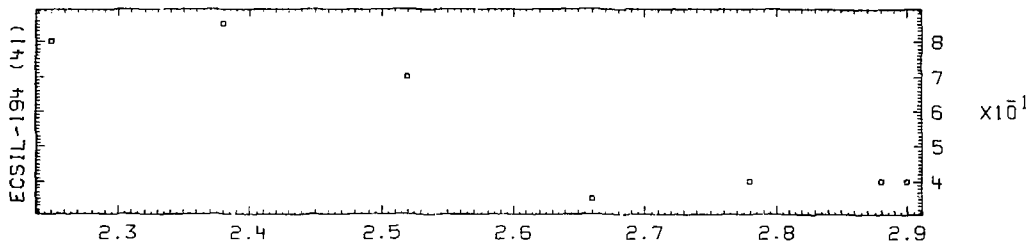
14-S1-NAT



03/01/74

N, X GAMMA
CROSS SECTION

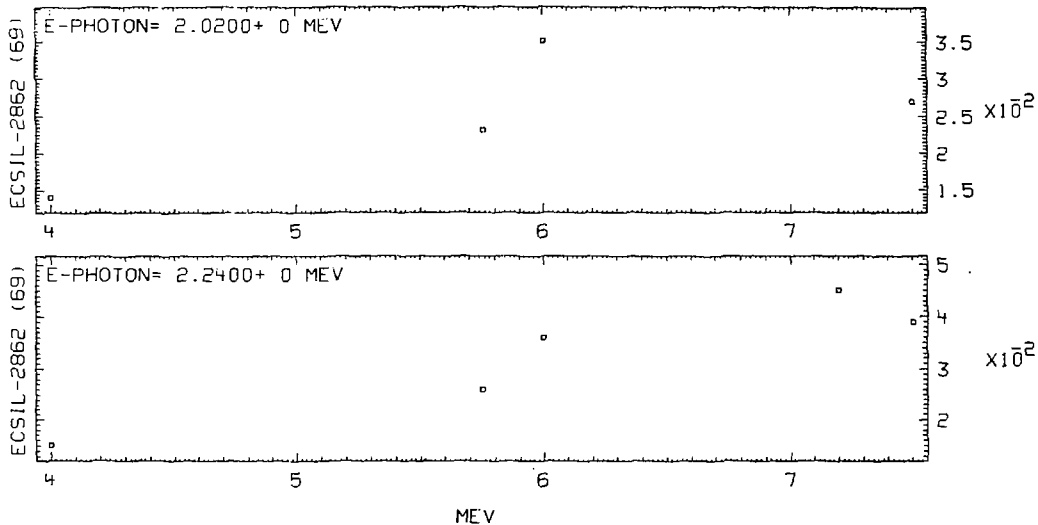
14-SI-NAT



03/01/74

N,X GAMMA
CROSS SECTION

14-SI-NAT



03/01/74

NONELASTIC

14-SI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 200	1.4500 + 1		1.0600 + 0	6.0020 - 2

03/01/74

N,N'
CROSS SECTION

14-SI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
69 2862	6.0000+ 0	1.2000- 1	6.8700- 2	3.4000- 3	4.6100+ 0	
69 2862	6.6700+ 0	1.9000- 1	7.7600- 2	5.9000- 3	4.6100+ 0	
69 2862	7.5000+ 0	1.6000- 1	9.0500- 2	1.0400- 2	4.6100+ 0	
69 2862	7.5000+ 0	1.6000- 1	1.3700- 1	9.9000- 3	4.6100+ 0	4.9700+ 0
69 2862	6.0000+ 0	1.2000- 1	5.7200- 2	5.5000- 3	4.9700+ 0	
69 2862	6.6700+ 0	1.9000- 1	5.4600- 2	6.1000- 3	4.9700+ 0	
69 2862	7.5000+ 0	1.6000- 1	4.3100- 2	5.3000- 3	4.9700+ 0	
69 2862	7.5000+ 0	1.6000- 1	4.8800- 2	4.3000- 3	6.2700+ 0	

03/01/74

N,X GAMMA

14-SI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHON MEV	E-PHON MEV
63 1723	1.4100+ 1	6.0000- 1	5.1000- 1		1.7800+ 0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHON-MIN MEV	E-PHON-MAX MEV
63 1723	1.4100+ 1	6.0000- 1	1.2780+ 0		2.0000+ 0	1.0000+ 1

03/01/74

N,P

14-SI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 688	1.4400+ 1	2.0000- 1	1.6000- 1	1.6000- 2

03/01/74

FREE ATOM

14-SI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1759	9.4200- 6		2.0220+ 0	3.0000- 3

03/01/74

COHERENT SCATTERING
CROSS SECTION

14-SI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
72 3240	2.5000- 8		$2.1530 \pm 0.1.0420$ - 3	
51 2564	2.5300- 8		$2.0000 \pm 0.2.0000$ - 1	

03/01/74

INCOHERENT SCATTER.

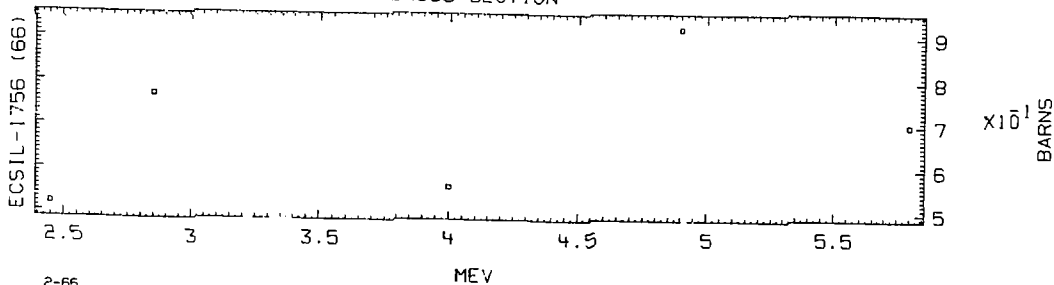
14-SI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1759	0.4200- F		1.5000 - 2	1.3000 - 3

03/01/74

N,N'
CROSS SECTION

14-SI-28



P-66

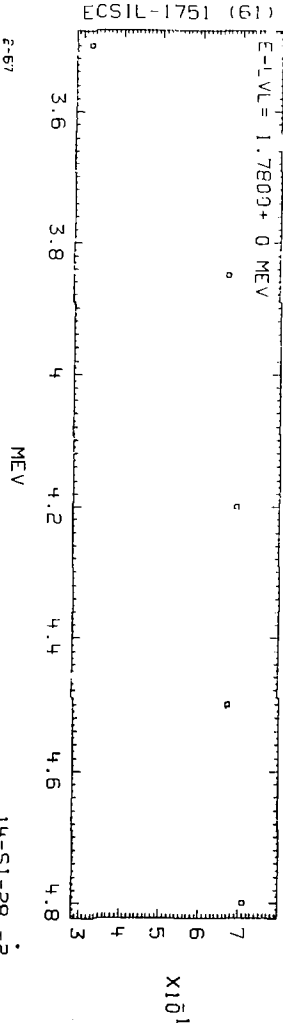
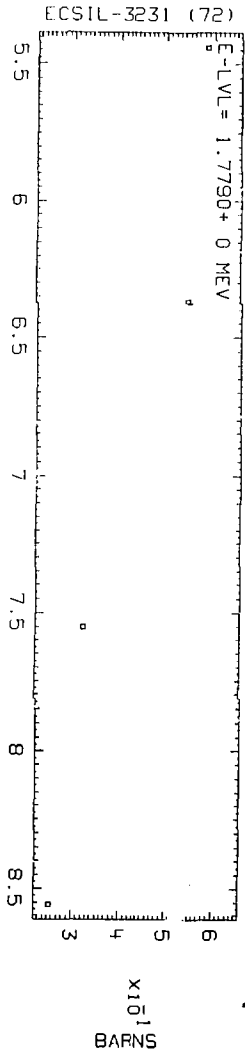
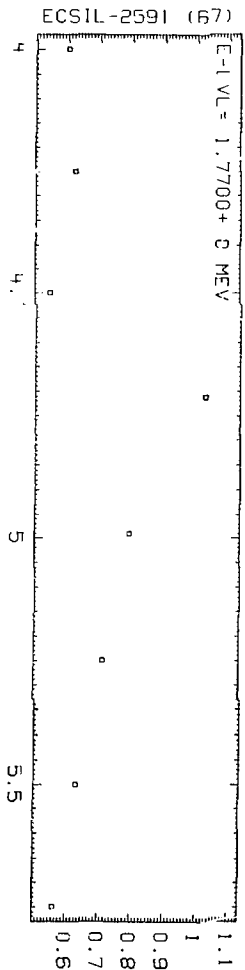
14-SI-28 - 1

03/01/74

N,N'

14-SI-28

CROSS SECTION



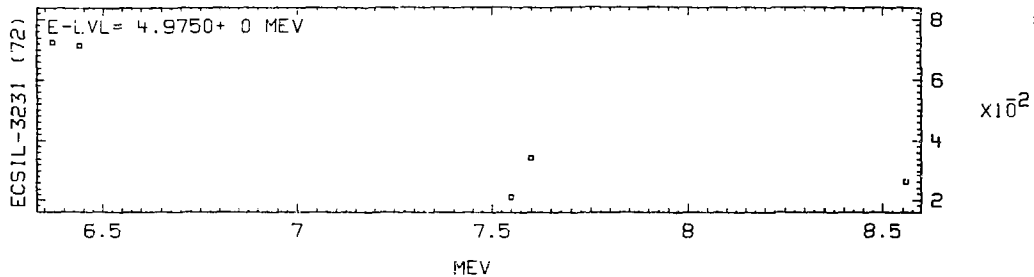
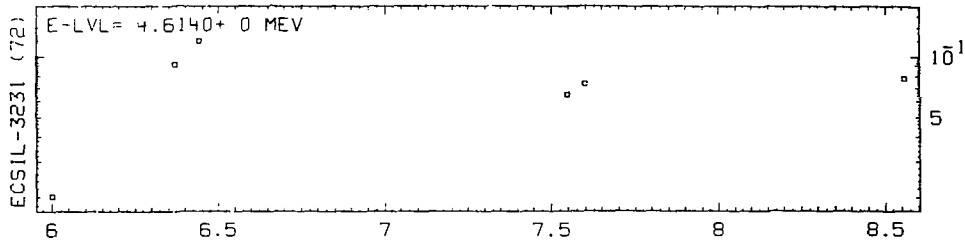
E-67

14-SI-28 -2

03/01/74

N,N'
CROSS SECTION

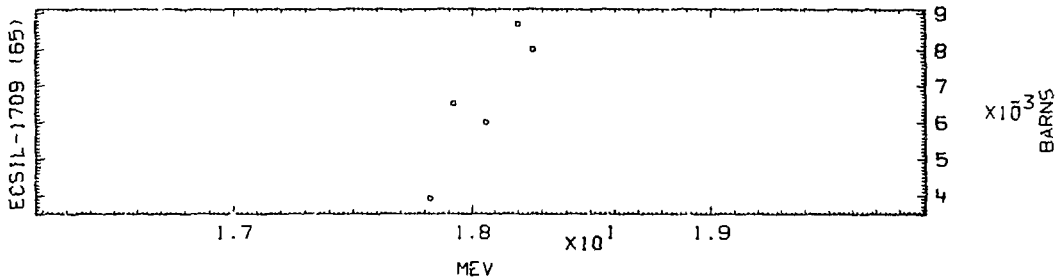
14-SI-28



03/01/74

N,2N
CROSS SECTION

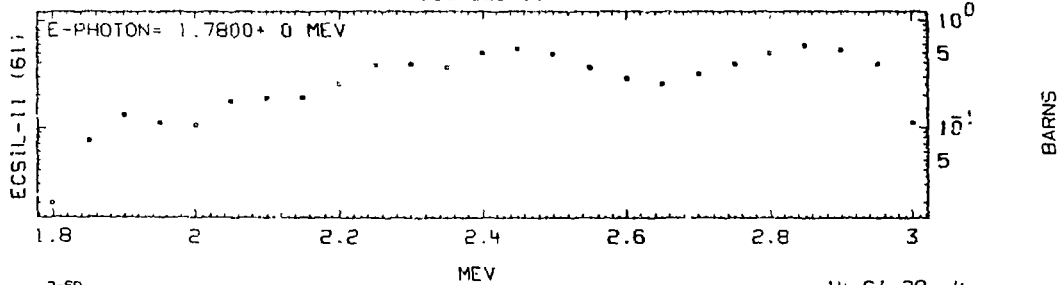
14-SI-28



03/01/74

N,X GAMMA
CROSS SECTION

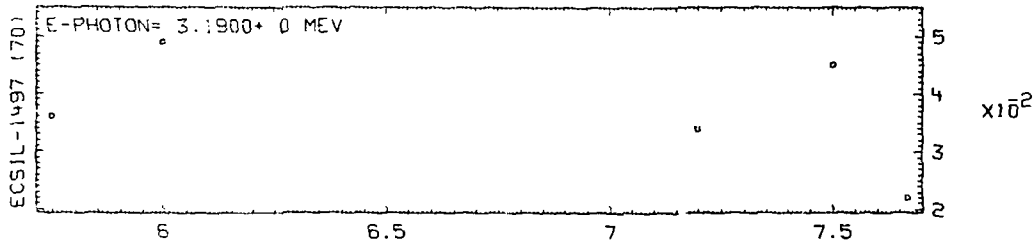
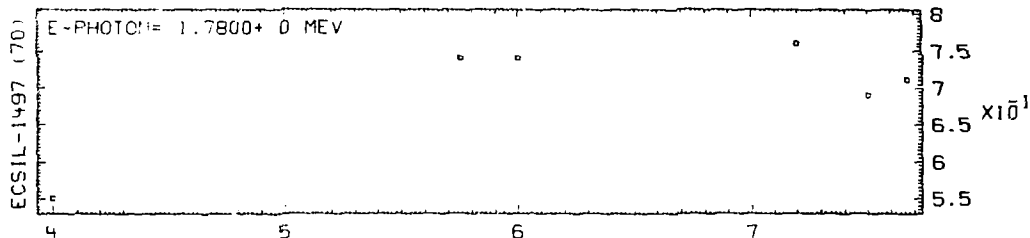
14-SI-28



03/01/74

N,X GAMMA
CROSS SECTION

14-SI-28



2-70

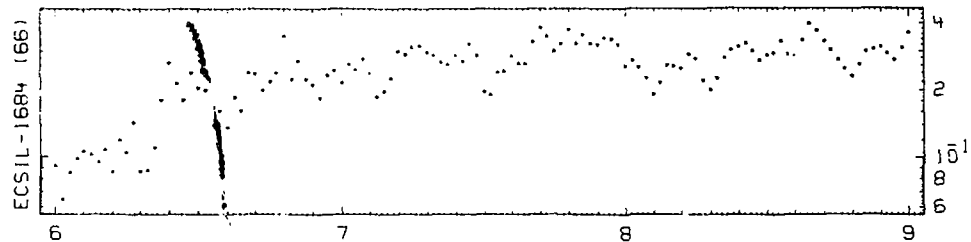
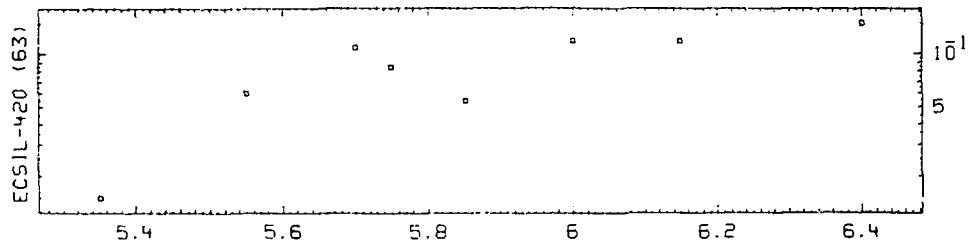
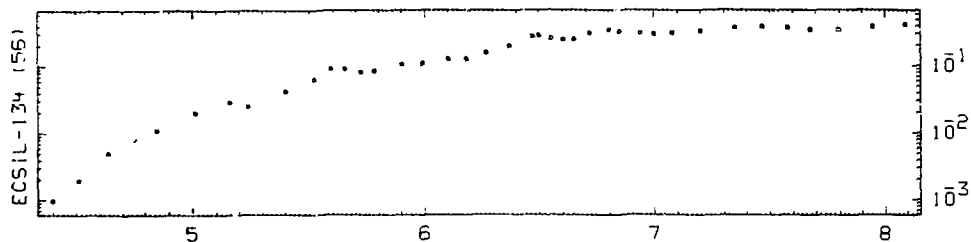
MEV

14-SI-28 -5

03/01/74

N,P
CROSS SECTION

14-S1-28



BARNs

2-71

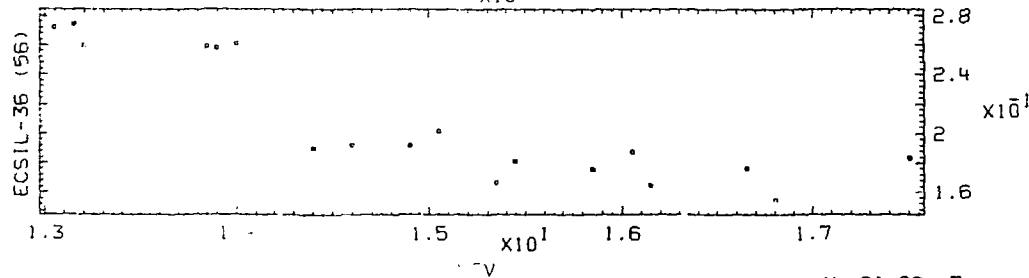
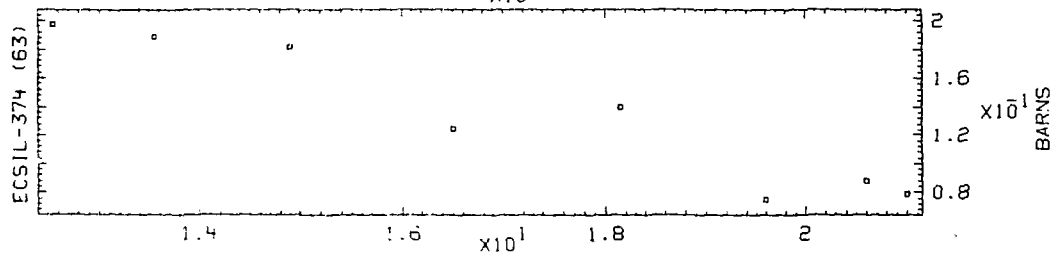
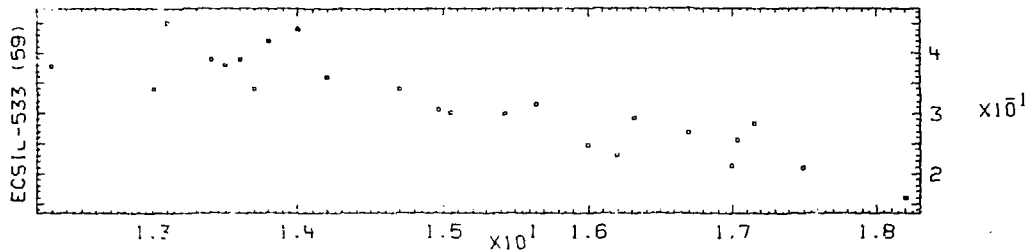
MEV

14-S1-28 -6

03/01/74

N,P
CROSS SECTION

14-SI-28

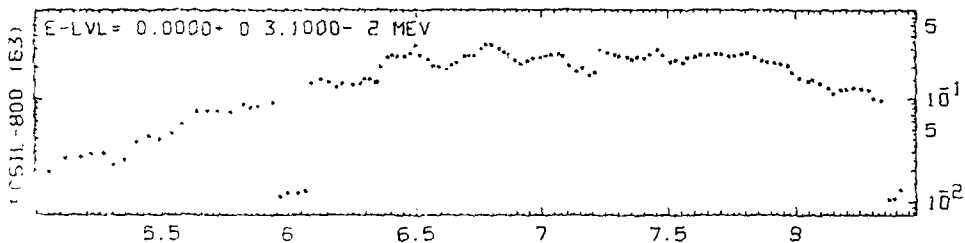
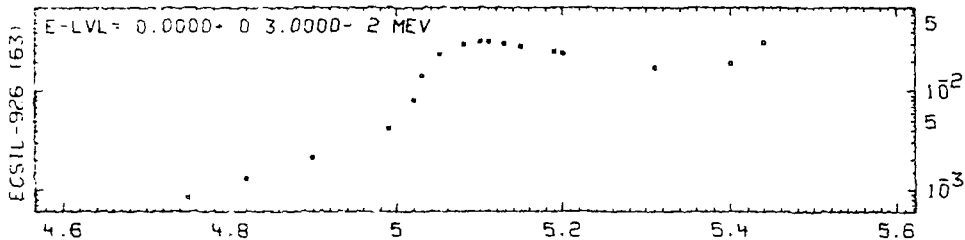


14-SI-28 -7

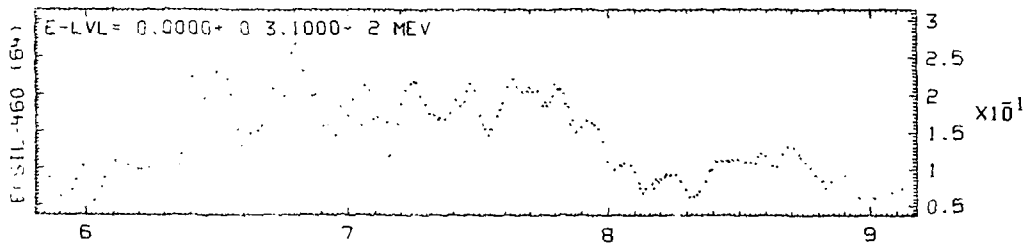
03/01/74

N,P
CROSS SECTION

14-SI-28



BARNS



$\times 10^1$

MEV

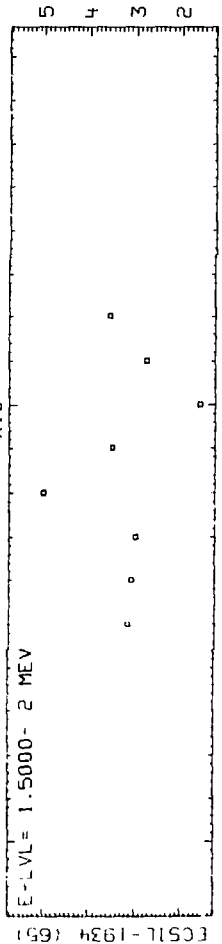
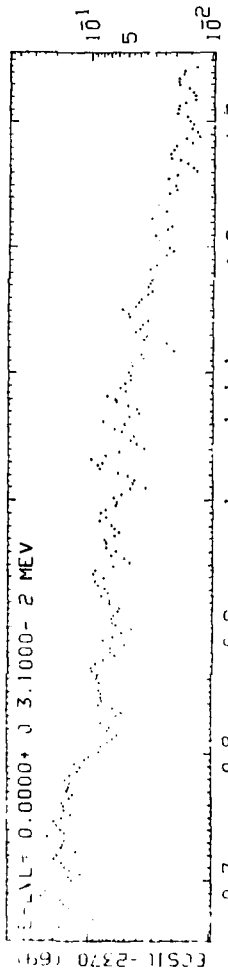
2-73

14-SI-28 -8

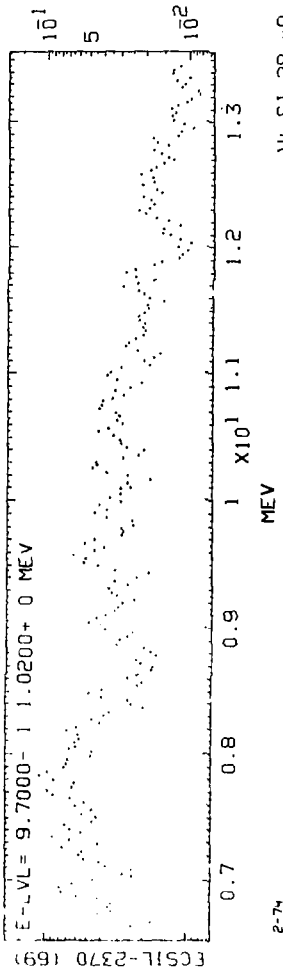
01/74

N,P
CROSS SECTION

14-51-28



BARS
 $\times 10^2$



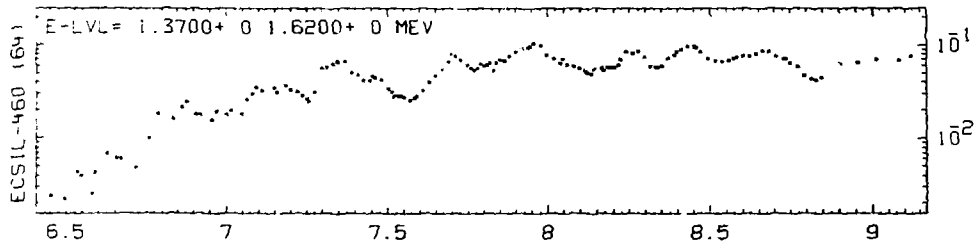
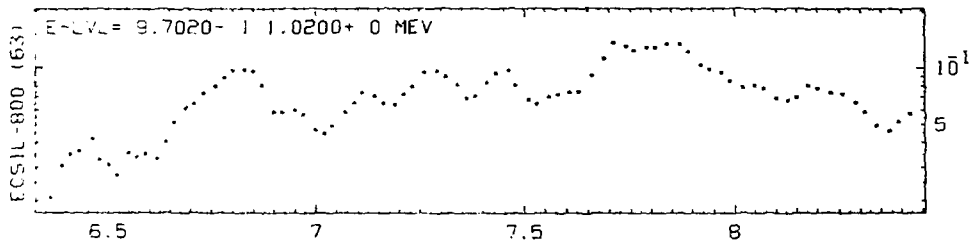
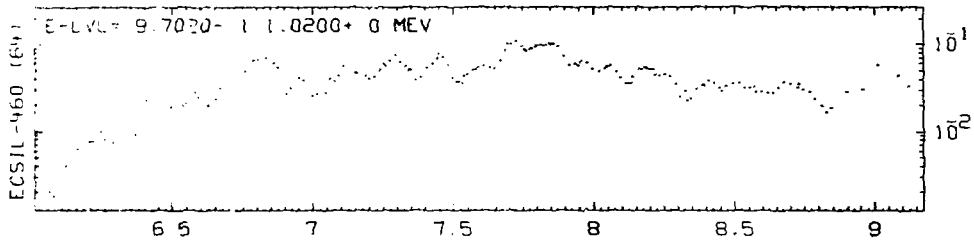
2-74

14-51-28 -9

03-01-74

N,P
CROSS SECTION

14-SI-28



BARNs

2-75

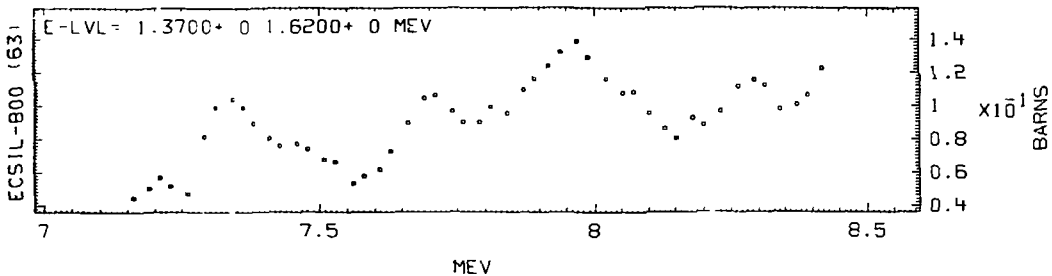
MEV

14-SI-28 -10

03/01/74

N,P
CROSS SECTION

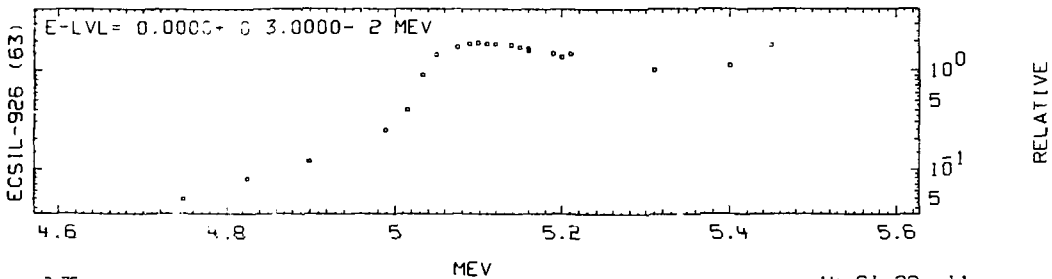
14-SI-29



03/01/74

N,P
CROSS SECTION

14-SI-28



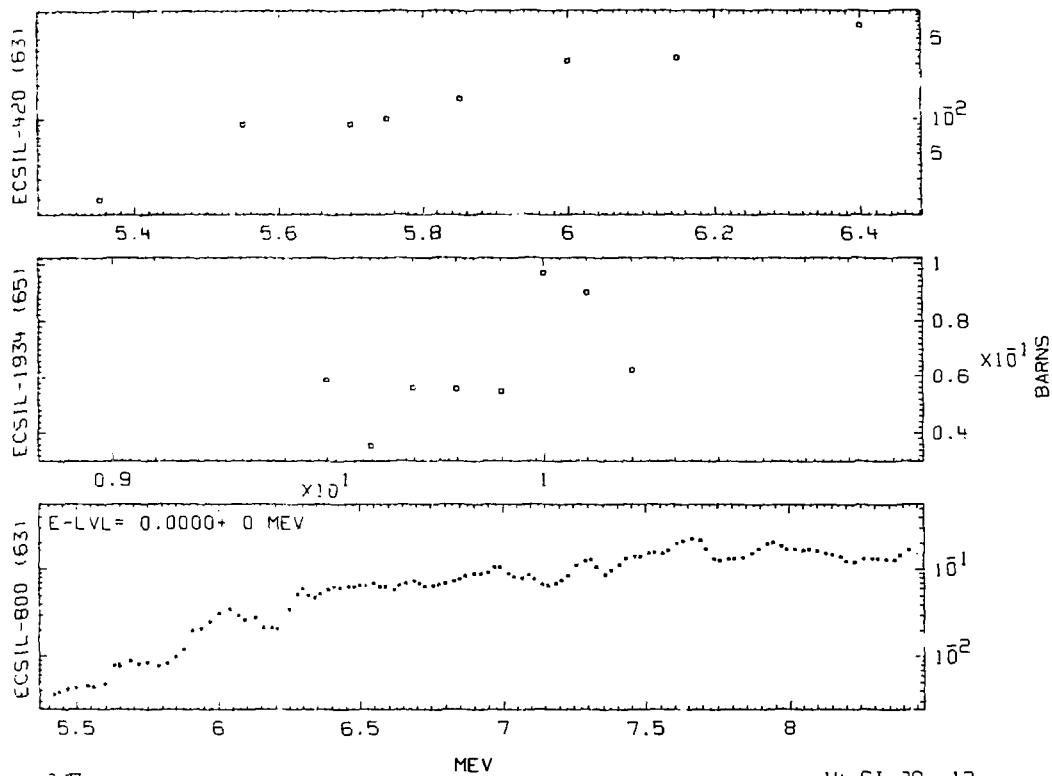
2-76

14-SI-28 -11

03/01/74

N, ALPHA CROSS SECTION

14-SI-28



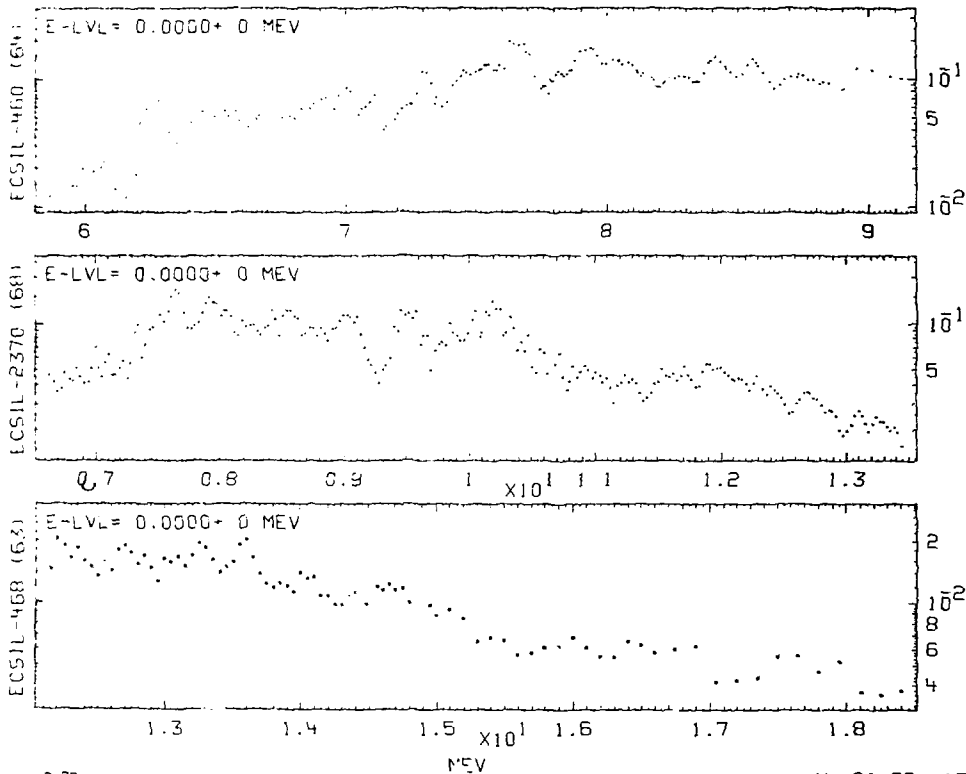
2-17

14-SI-28 -12

03/01/74

N, ALPHA
CROSS SECTION

14-51-28



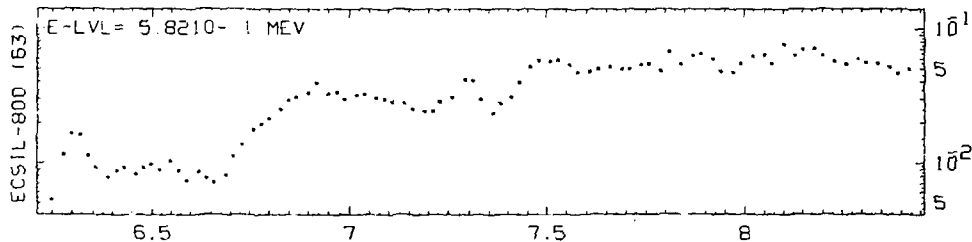
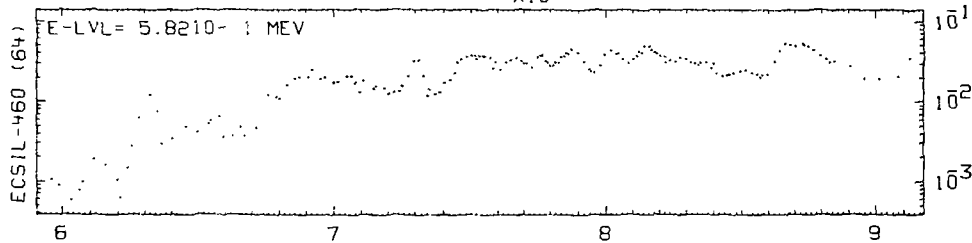
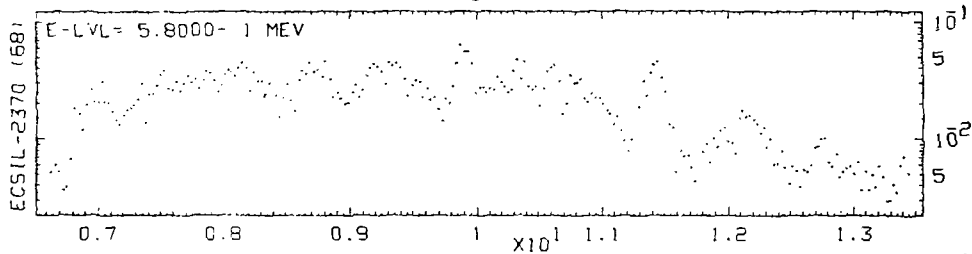
2-78

14-51-28 -13

03/01/74

N, ALPHA
CROSS SECTION

14-SI-28



BARNS

2-79

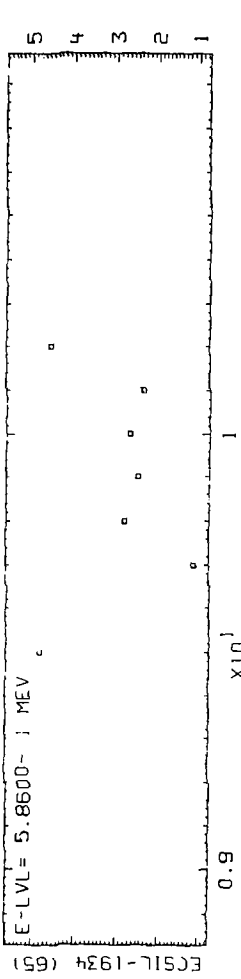
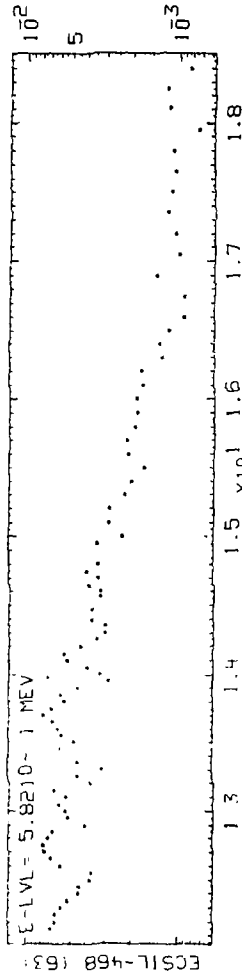
MEV

14-SI-28 -14

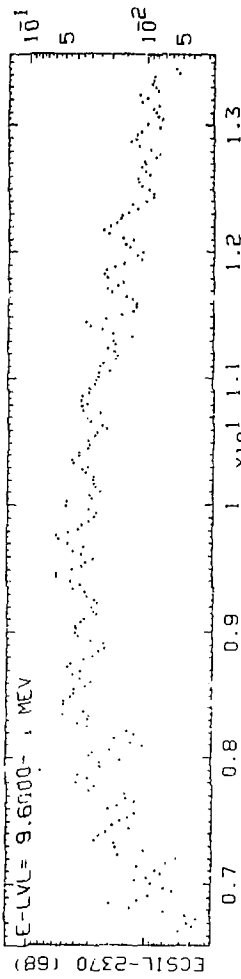
03/01/74

14-SI-28

N, ALPHA
CROSS SECTION



BARS
 $\times 10^{-25}$



MEV

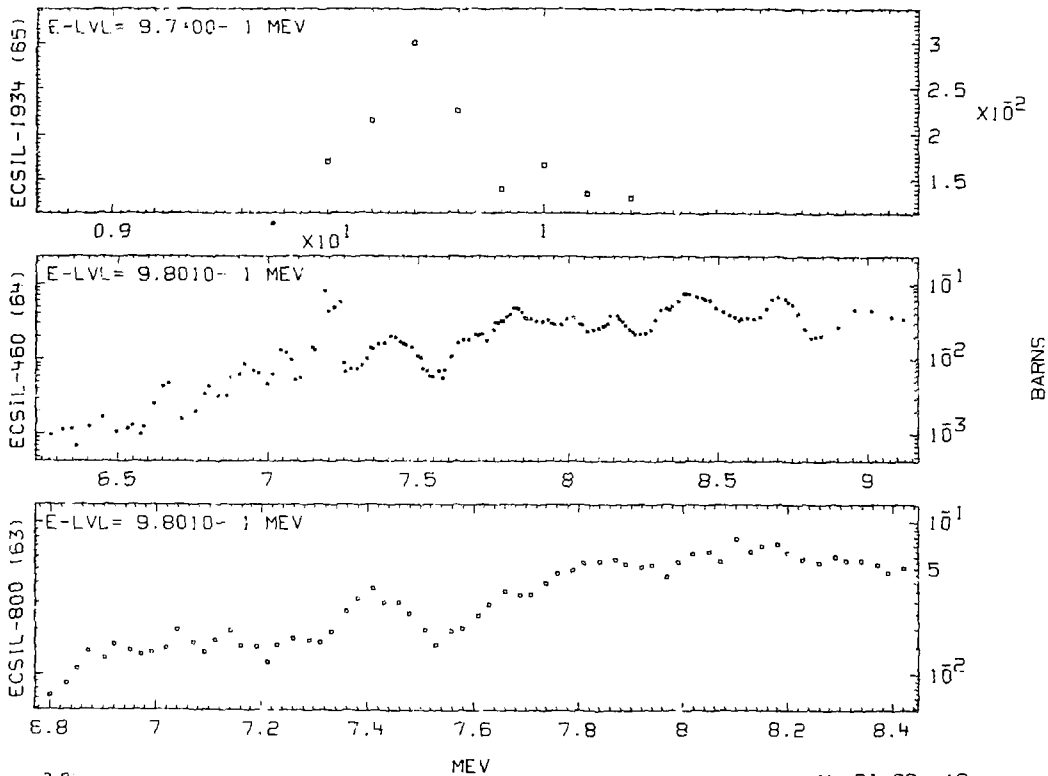
P-80

14-SI-28 -15

03/01/74

N, ALPHA
CROSS SECTION

14-SI-28



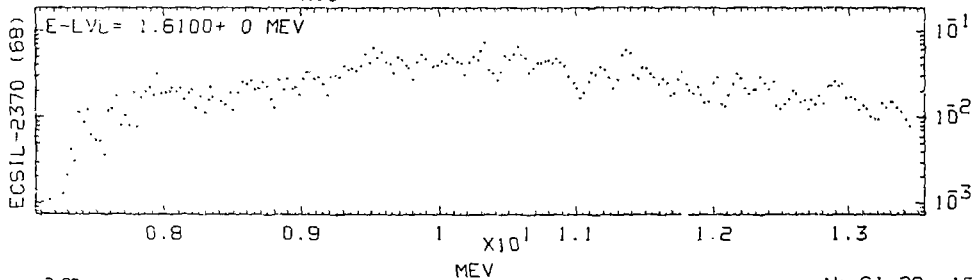
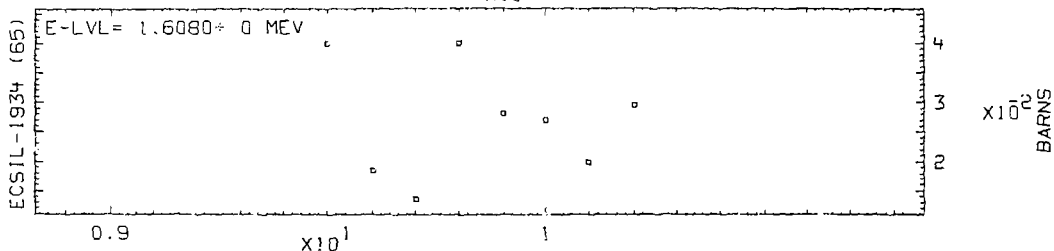
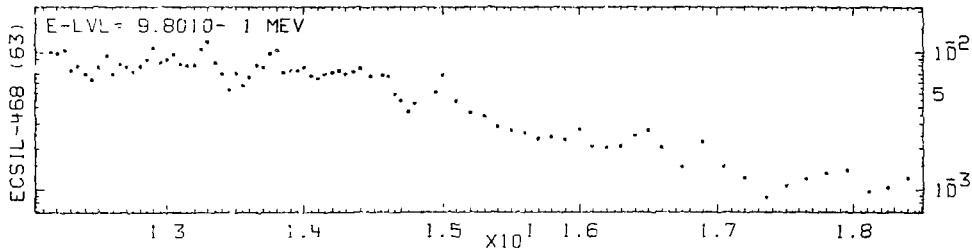
2-8.

14-SI-28 -16

03/01/74

N, ALPHA
CROSS SECTION

14-SI-28



2-82

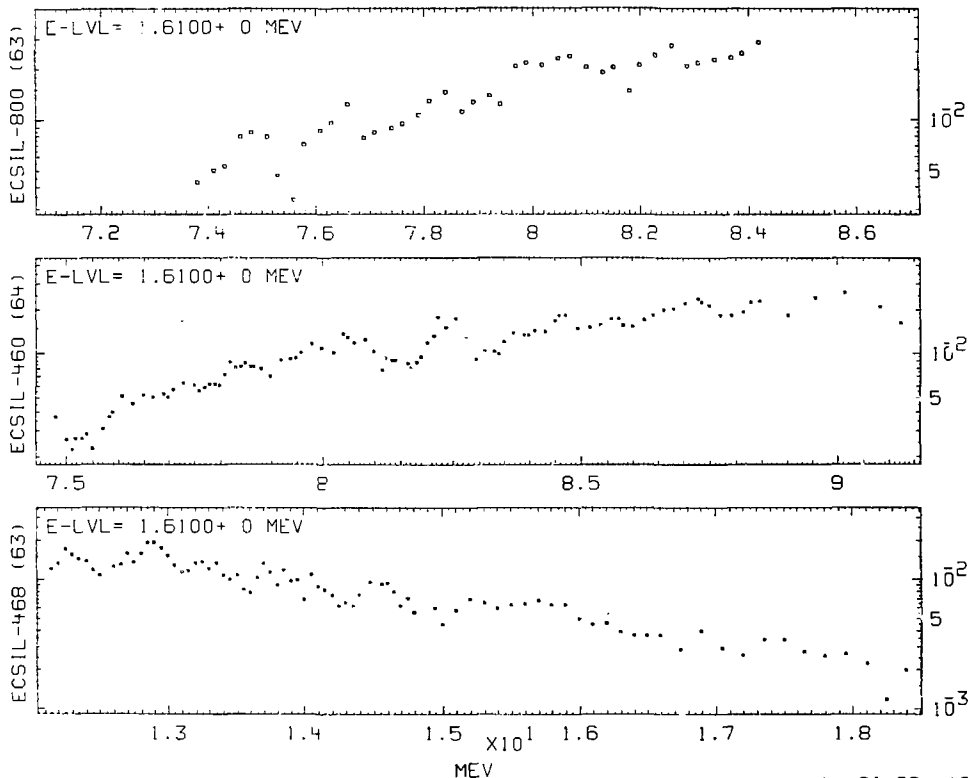
MEV

14-SI-28 -17

03/01/74

N, ALPHA
CROSS SECTION

14-SI-28



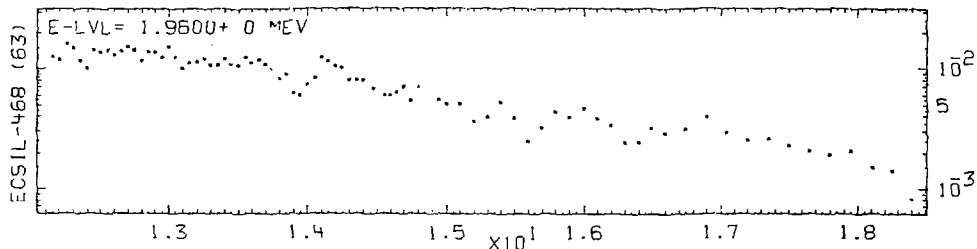
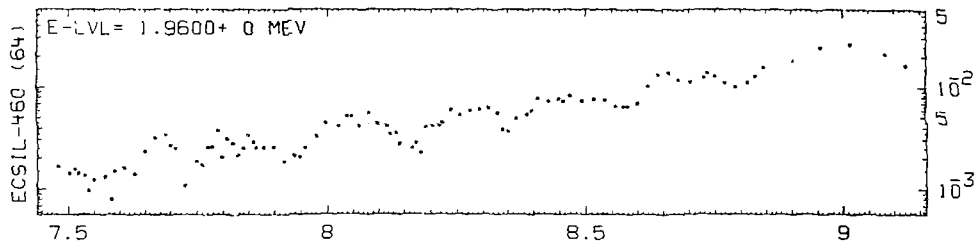
2-83

14-SI-28 -18

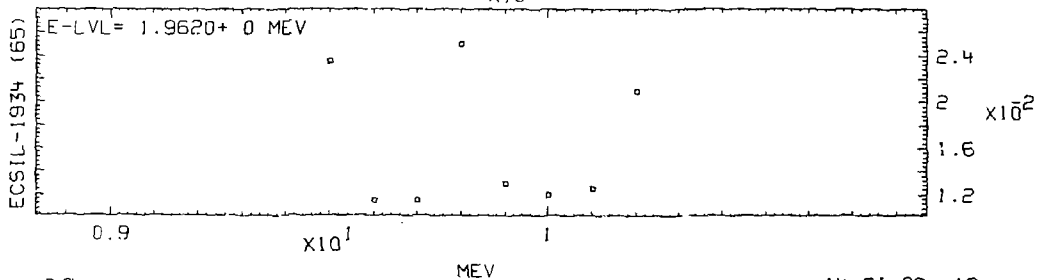
03/01/74

N, ALPHA
CROSS SECTION

14-SI-28



BARNs



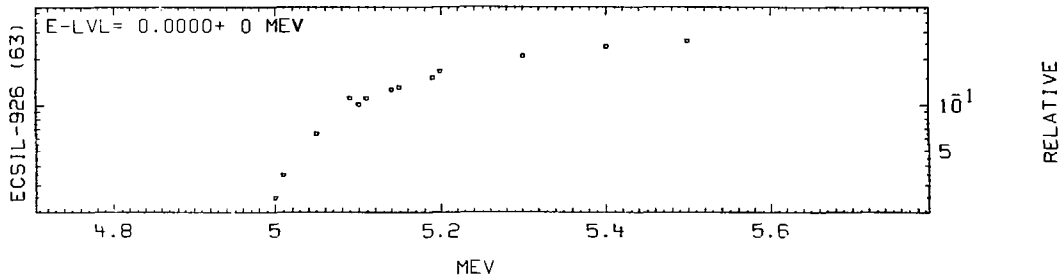
2-84

14-SI-28 -19

03/01/74

N, ALPHA
CROSS SECTION

14-SI-28



03/01/74

NONELASTIC

14-SI-28

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
64 845	1.4100+ 1	9.0020- 1	7.5020- 1	7.0020- 2

03/01/74

N, N'

14-SI-28

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	E-LVL MEV
64 845	1.4100+ 1	9.0000- 1	1.0900- 1	1.6000- 2	1.7800+ 0	
72 3231	6.3700+ 0	1.3000- 1	1.5580- 1	1.9790- 2	4.6140+ 0	4.9750+ 0
72 3231	7.5500+ 0	4.0000- 2	1.1670- 1	2.1360- 2	4.6140+ 0	4.9750+ 0
72 3231	7.6000+ 0	1.0000- 1	6.4640- 2	1.7000- 2	6.2720+ 0	
72 3231	8.5600+ 0	8.0000- 2	8.7470- 2	9.1840- 3	6.2720+ 0	
72 3231	8.5600+ 0	8.0000- 2	8.0410- 2	8.8450- 3	6.2720+ 0	6.6900+ 0
72 3231	8.5600+ 0	8.0000- 2	3.3400- 2	5.7110- 3	6.6900+ 0	
72 3231	8.5600+ 0	8.0070- 2	2.0460- 1	3.9290- 2	6.6900+ 0	
72 3231	8.5600+ 0	8.0000- 2	1.1550- 1	2.9450- 2	6.9780+ 0	6.8870+ 0

03/01/74

N,N'
CROSS SECTION

14-S1-28

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV
64 1859	1.4000+1		3.7000-1	6.0000-2	1.7800+0

03/01/74

N,N'P

14-S1-28

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
61 361	1.4000+1		2.7000-2	2.2000-2

03/01/74

N,X GAMMA

14-S1-28

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV
55 1713	3.0000+0	2.10000-1	6.10000-1	1.0200-1	1.7700+0	70 1497	7.5000+0	1.0000-1	4.8000-2	7.0000-2	3.4.4900+0
55 1713	3.5000+0	2.10000-1	4.5000-1	9.1000-2	1.7700+0	70 1497	7.5000+0	1.0000-1	4.0000-2	8.0000-2	3.5.1100+0
65 1713	4.0000+0	2.10000-1	6.2000-1	1.2600-1	1.7700+0	70 1497	7.5000+0	1.0000-1	3.0000-2	5.0000-2	3.5.1100+0
65 1694	1.4100+1		4.7000-1	7.0000-2	1.1000+0	70 1497	7.5000+0	1.0000-1	2.0000-2	5.0000-2	3.6.8800+0
70 1497	7.2000+0	2.10000-1	4.8000-2	8.0000-2	3.4.4900+0	70 1497	7.5000+0	1.0000-1	1.5000-2	4.0000-2	3.6.8800+0
70 1497	7.5000+0	2.10000-1	5.5000-2	8.0000-2	3.4.4900+0						

03/01/74

N,P

14-S1-28

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
61 361	1.4000+1		2.4300-1	2.2000-2	67 1921	1.4700+1	1.0000-1	2.2200-1	1.2000-2
68 2695	1.4700+1	2.0000-1	2.5200-1	1.5000-2	65 807	1.4800+1	1.0000-1	2.2200-1	1.2000-2
53 271	1.4500+1		2.2000-1	5.1020-2	65 1627	1.4800+1		1.8000-1	1.1000-2
70 3256	1.4500+1		2.1320-1	1.8300-2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	C-LVL MEV	E-LVL MEV
61 1760	1.4000+1	1.20000-1	1.1500-2	1.0000-3	0.0000+0	
67 1914	7.7000+0	0.80000-2	1.4000-1	1.4000-2	0.0000+0	3.1000-2
67 1914	8.2000+0	0.80000-2	6.5000-2	7.0000-3	0.0000+0	3.1000-2
67 1914	9.1000+0	0.80000-2	6.7000-2	7.0000-3	0.0000+0	3.1000-2
61 1760	1.4000+1	2.00000-1	1.5000-2	2.0000-3	1.3000+0	
61 1760	1.4000+1	2.00000-1	2.9000-2	3.0000-3	2.4000+0	

2-86

14-S1-28 -21

03/01/74

N,P
CROSS SECTION

14-S1-28

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
61 1760	1.4000+ 1	2.0000- 1	4.9600- 2	5.0000- 3	4.0000+ 0	
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	
6+ 1859	1.4000+ 1		3.0000- 1		1.7800+ 0	

03/01/74

N, ALPHA

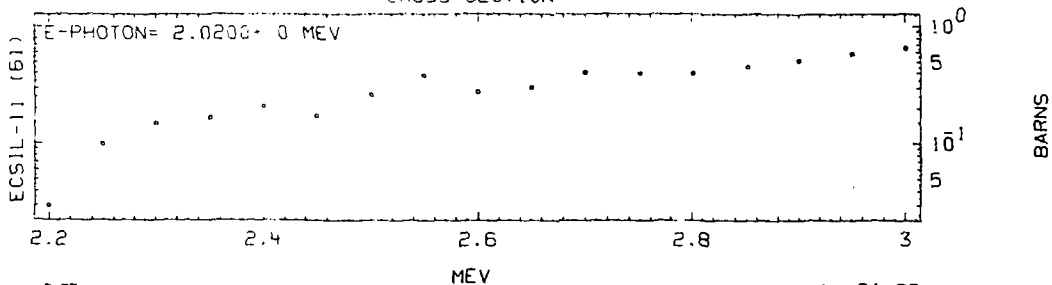
14-S1-28

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
61 656	1.4030+ 1	5.0000- 2	1.8400- 3	6.1020+ 4	0.0000+ 0	61 656	1.4030+ 1	5.0000- 2	1.1900- 3	3.9000- 4	1.6120+ 0
61 656	1.4030+ 1	5.0000- 2	1.5020- 4	2.5000- 4	5.8210- 1	61 656	1.4030+ 1	5.0000- 2	1.2800- 3	4.3000- 4	1.9500+ 0
61 656	1.4030+ 1	5.0000- 2	9.8020- 4	3.2000- 4	9.8010- 1						

03/01/74

N,X GAMMA
CROSS SECTION

14-S1-29



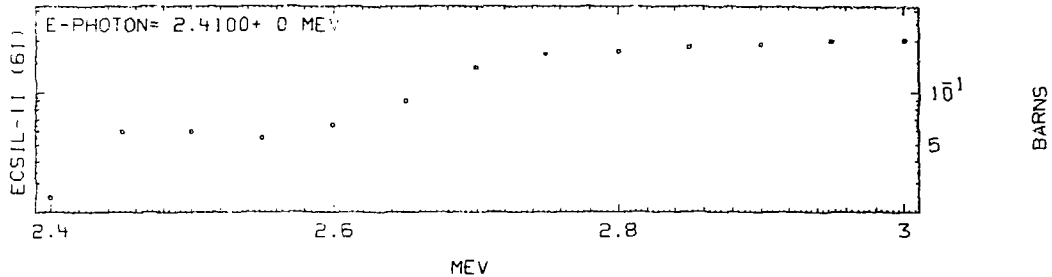
2-87

14-S1-29 -1

03/01/74

N, X GAMMA
CROSS SECTION

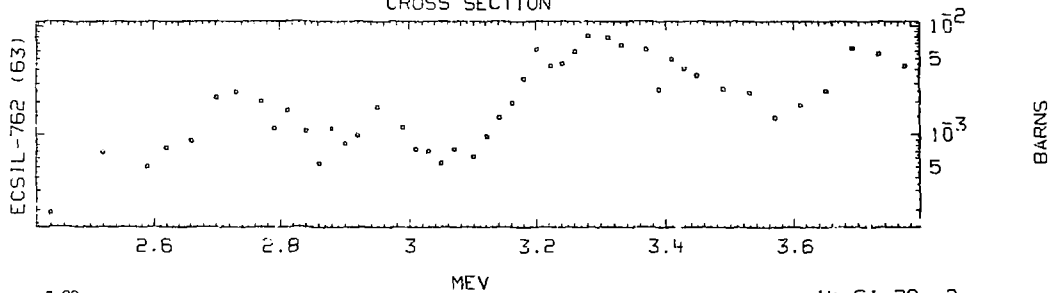
14-SI-29



03/01/74

N, ALPHA
CROSS SECTION

14-SI-29



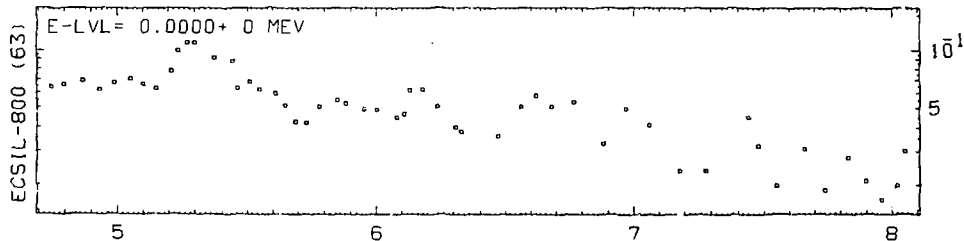
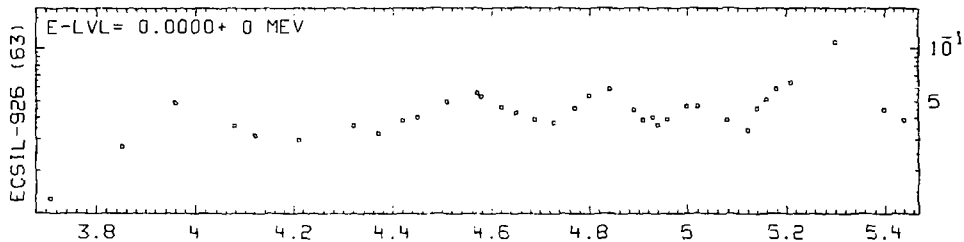
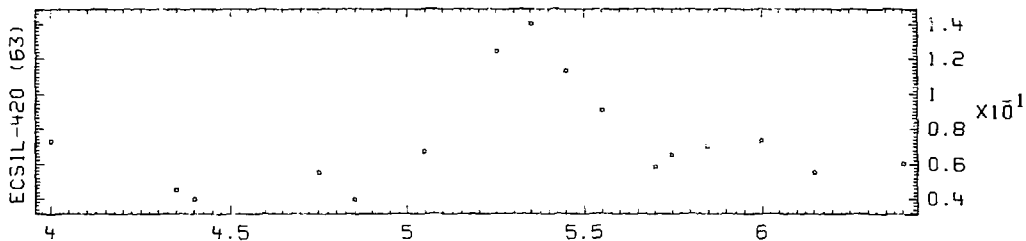
2-88

14-SI-29 -2

03/01/74

N, ALPHA
CROSS SECTION

14-SI-29

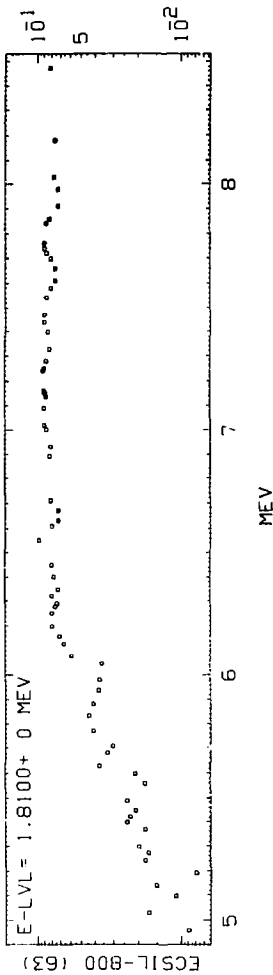


03/01/74

N, ALPHA

14-SI-29

CROSS SECTION



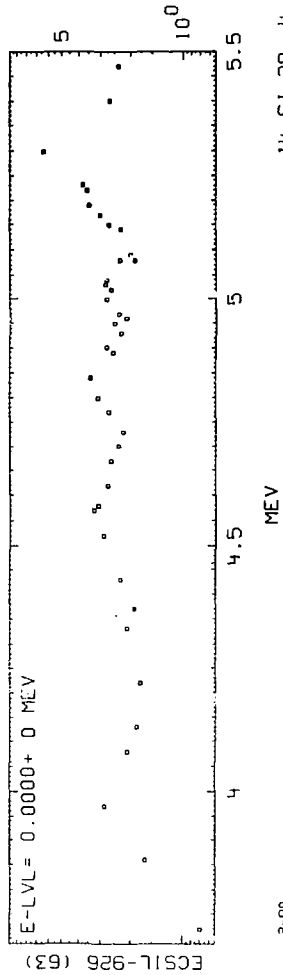
BARNs

03/01/74

N, ALPHA

14-SI-29

CROSS SECTION



2-90

MEV

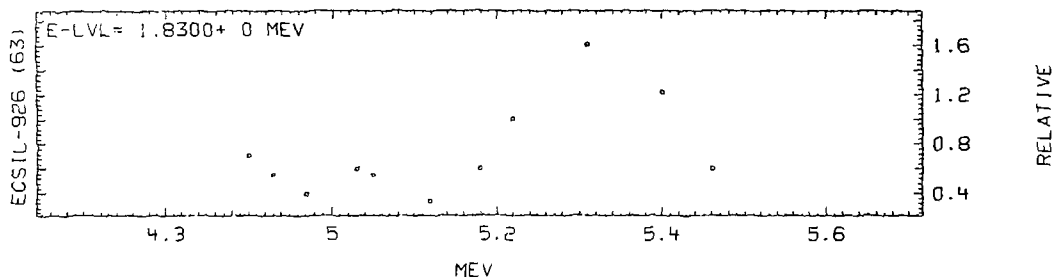
14-SI-29 -4

RELATIVE

03/01/74

N ALPHA
CROSS SECTION

14-S1-29



03/01/74

N,P

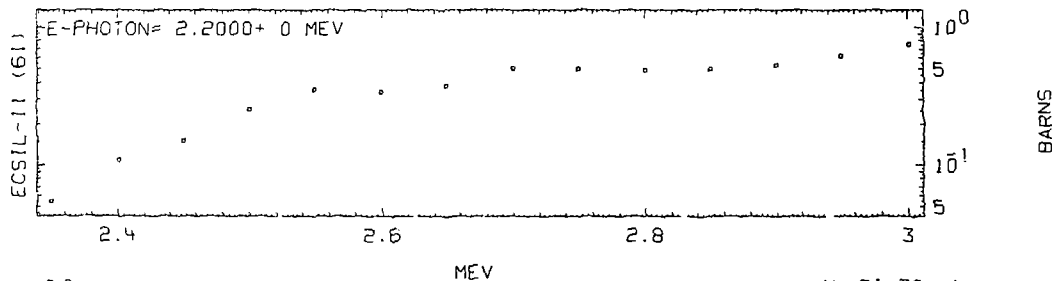
14-S1-29

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68	2695	1.4400-1	3.0000-1	1.3000-1	70	3258	1.4500-1	1.1250-1	1.6800-2
53	27	1.4500+1	1.0100-1	3.0000-2	67	1921	1.4700-1	1.0000-1	2.2700-2

03/01/74

N,X GAMMA
CROSS SECTION

14-S1-30



2-91

14-S1-30 -1

03/01/74

N,P
CROSS SECTION

14-SI-30

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3258	1.4500+ 1		5.0000- 3	5.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE SECONDS
63 2033	1.4000+ 1		1.8000- 1	6.0000- 2	7.2500+ 1
68 2695	1.4400+ 1	3.0000- 1	7.0000- 3		7.2500+ 1
71 3199	1.5000+ 1		2.0000- 4	2.0000- 4	7.2500+ 1

03/01/74

N, ALPHA

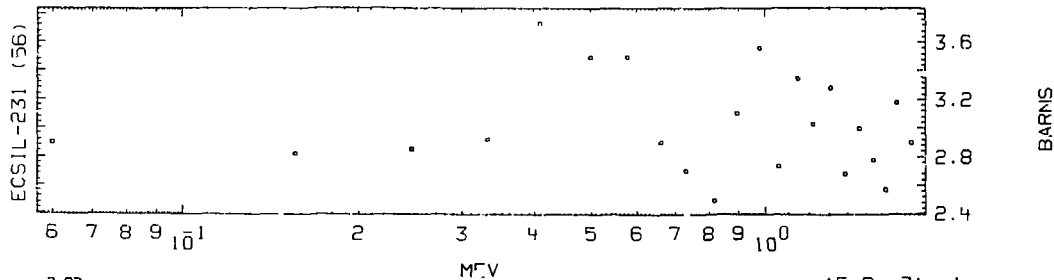
14-SI-30

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2695	1.4400+ 1	3.0000- 1	6.8000- 2	8.0000- 3	67 1921	1.4700+ 1	1.0000- 1	1.7500- 1	1.8000- 2
53 27	1.4500+ 1		4.5900- 2	2.5000- 2	65 1697	1.4000+ 1		1.2300- 1	1.5000- 2
70 3258	1.4500+ 1		7.3600- 2	1.0300- 2					

03/01/74

TOTAL SCATTERING
CROSS SECTION

15-P -31



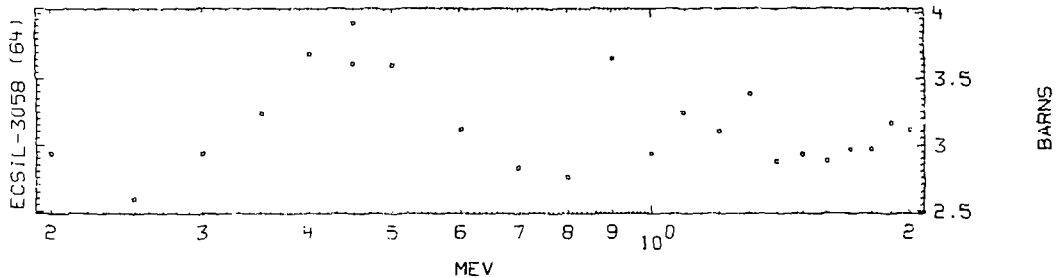
2-92

15-P -31 -1

03/01/74

TOTAL SCATTERING
CROSS SECTION

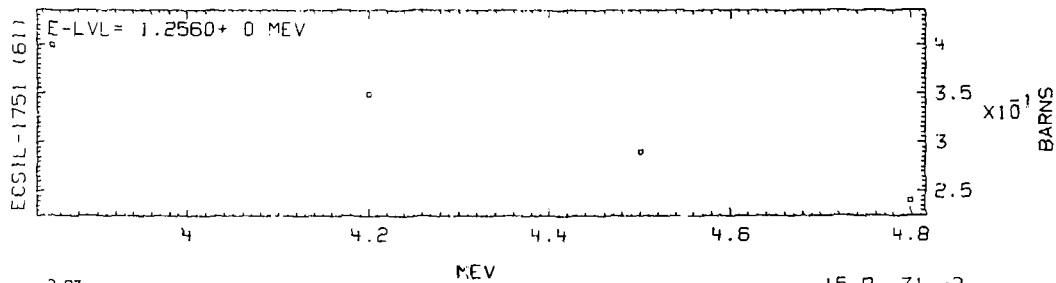
15-P -31



03/01/74

N,N'
CROSS SECTION

15-P -31



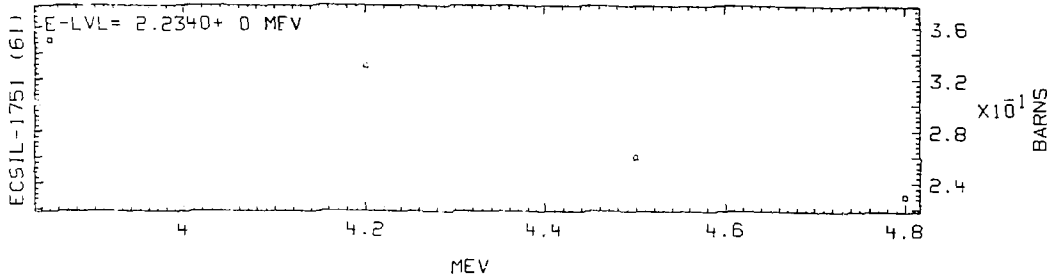
2-93

15-P -31 -2

03/01/74

N,N'
CROSS SECTION

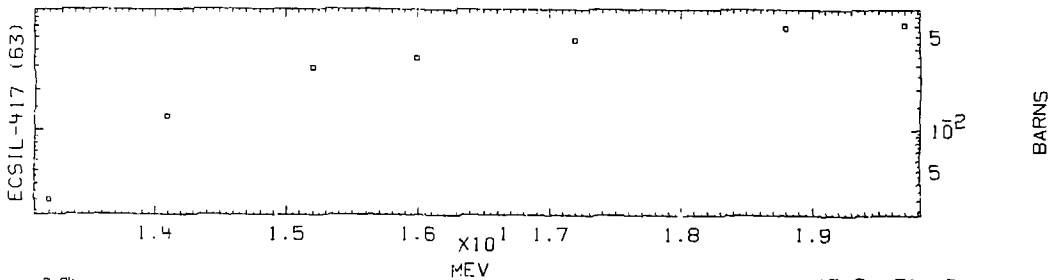
15-P -31



03/01/74

N,2N
CROSS SECTION

15-P -31



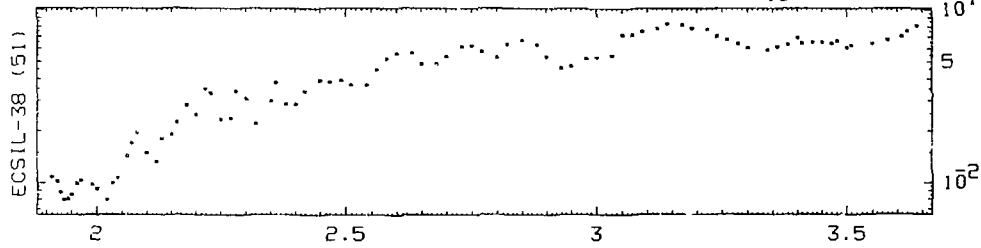
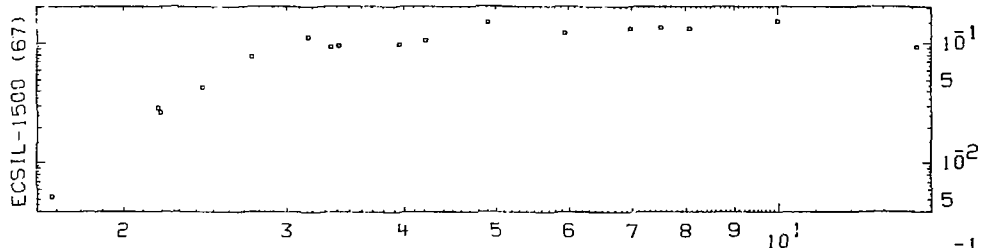
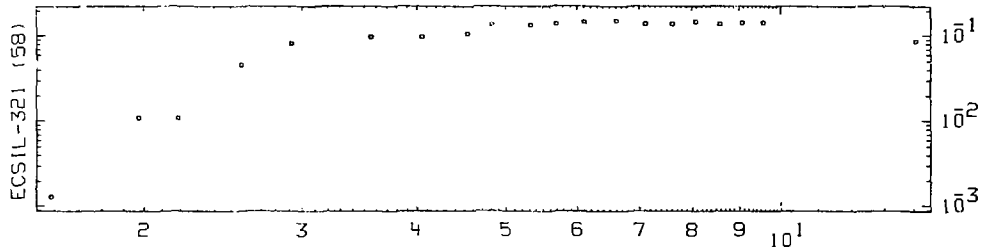
2-94

15-P -31 -3

03/01/74

N,P
CROSS SECTION

15-P -31



BARNs

2-95

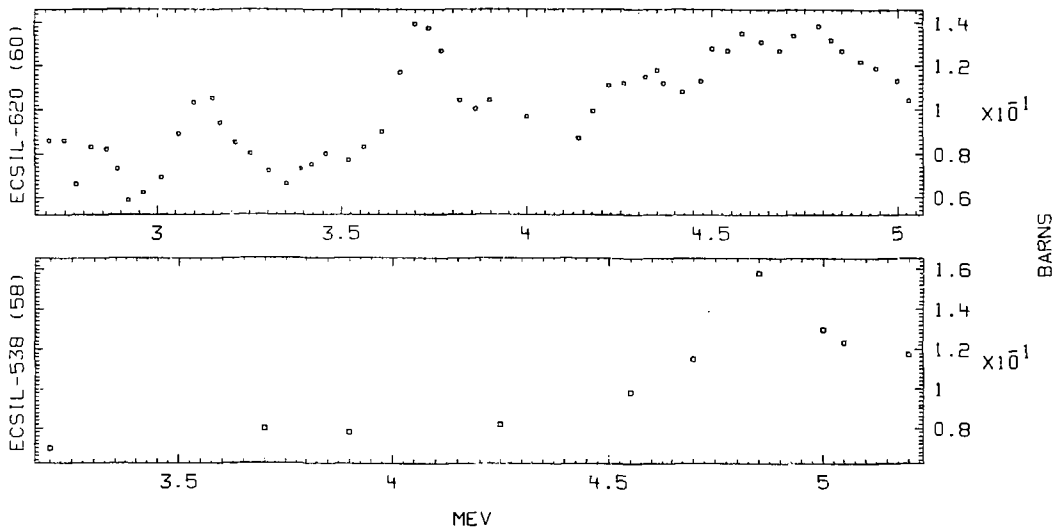
MEV

15-P -31 -4

03/01/74

N,P
CROSS SECTION

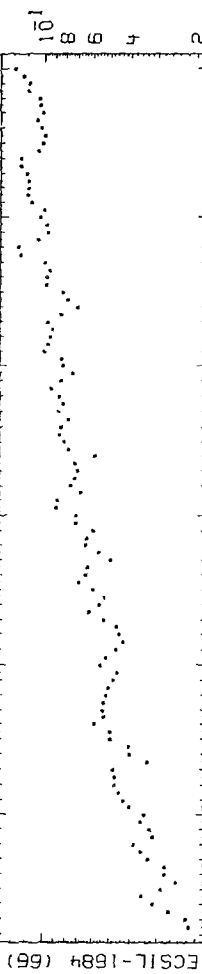
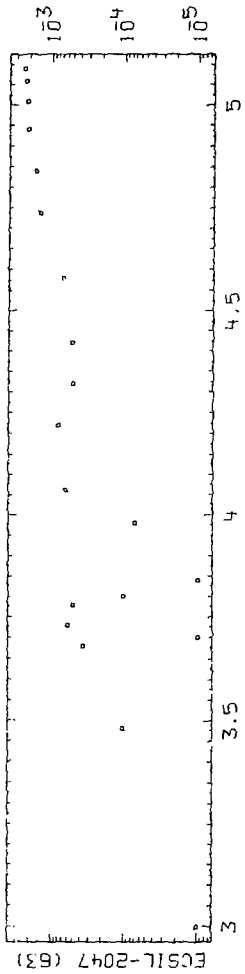
15-P -31



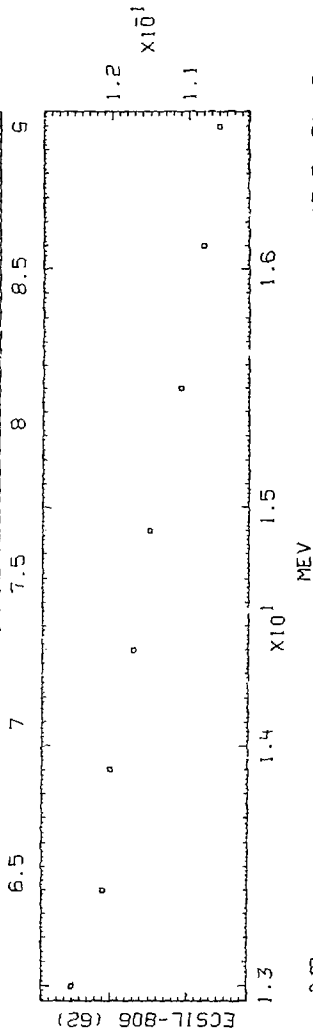
03/01/74

N, ALPHA
CROSS SECTION

15-P -31



BARNs



2-97

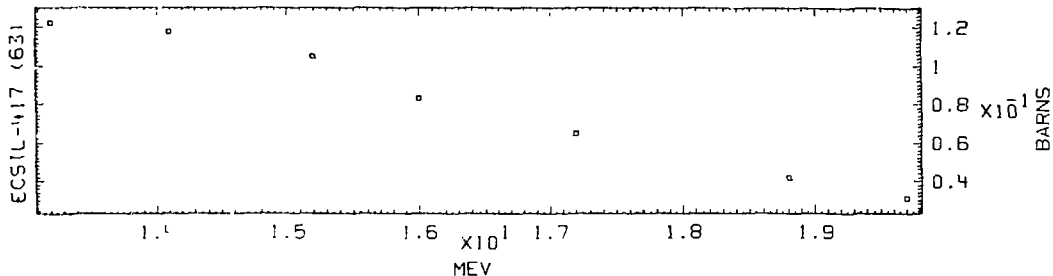
MEV

15-P -31 -6

03/01/74

N, ALPHA
CROSS SECTION

15-P -31



03/01/74

NONELASTIC

15-P -31

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 34	2.5000+ 0		7.0020- 1	2.0000- 1
55 799	2.5000+ 0	1.5000- 1	7.0020- 1	2.0000- 1
56 200	1.4500+ 1		1.1300+ 0	3.0000- 2

03/01/74

N,2N

15-P -31

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 373	1.4100+ 1		2.5000- 2	5.0000- 3	64 1763	1.4800+ 1	1.0000- 1	8.5000- 3	1.2000- 3
62 128	1.30+ 1	1.0000- 1	5.1020- 3	4.5000- 4	66 3279	1.4800+ 1	1.0000- 1	1.1000- 2	3.0000- 3
61 676	1.4400+ 1	3.0000- 1	1.0900- 2	9.0020- 4	65 3379	1.4800+ 1	1.0000- 1	1.1700- 2	3.0000- 4
67 1921	1.4700+ 1	1.0000- 1	8.4000- 3	3.0000- 4	65 3379	1.4800+ 1	1.0000- 1	1.1200- 2	4.0000- 4
65 88	1.4700+ 1	1.5000- 1	8.9020- 3	1.2000- 3	59 602	1.6960+ 1	3.4000- 1	4.3600- 2	5.2020- 3
56 672	1.4740+ 1	2.7000- 1	8.7020- 3	2.7000- 3	59 602	1.7980+ 1	2.4000- 1	7.4020- 2	7.4020- 3
67 2369	1.4820+ 1	1.0000- 1	1.6000- 2	1.6000- 3					

03/01/74

N,N'P
CROSS SECTION

15-P -31

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361 1.4000+ 1		1.6300- 1	1.4000- 2
62	698 1.4400+ 1	2.0000- 1	7.0020- 2	1.4000- 2

03/01/74

N,P

15-P -31

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361 1.4000+ 1		1.8400- 1	1.4000- 2	67	1921 1.4700+ 1	1.0000- 1	6.4000- 2	2.0000- 3
52	84 1.4100+ 1		9.1000- 2	9.1000- 3	62	88 1.4700+ 1	1.5000- 1	8.2020- 2	1.0000- 2
62	698 1.4400+ 1	2.0000- 1	1.9500- 1	1.6000- 2	65	3379 1.4800+ 1	1.0000- 1	8.5000- 2	3.0000- 3
53	27 1.4500+ 1		6.4220- 2	8.3020- 3					

03/01/74

N,HE-3

15-P -31

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	667 1.4800+ 1	9.0020- 1	7.0020- 4	

03/01/74

N,ALPHA

15-P -31

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	1764 1.4500+ 1	4.0000- 1	1.4200- 1	1.7000- 2	62	88 1.4700+ 1	1.5000- 1	1.5300- 1	2.0000- 2
53	27 1.4500+ 1		1.4600- 1	2.9000- 2	65	3379 1.4800+ 1	1.0000- 1	1.2900- 1	3.0000- 3
67	1921 1.4700+ 1	1.0000- 1	9.6800- 2	3.5000- 3					

03/01/74

COHERENT SCATTERING

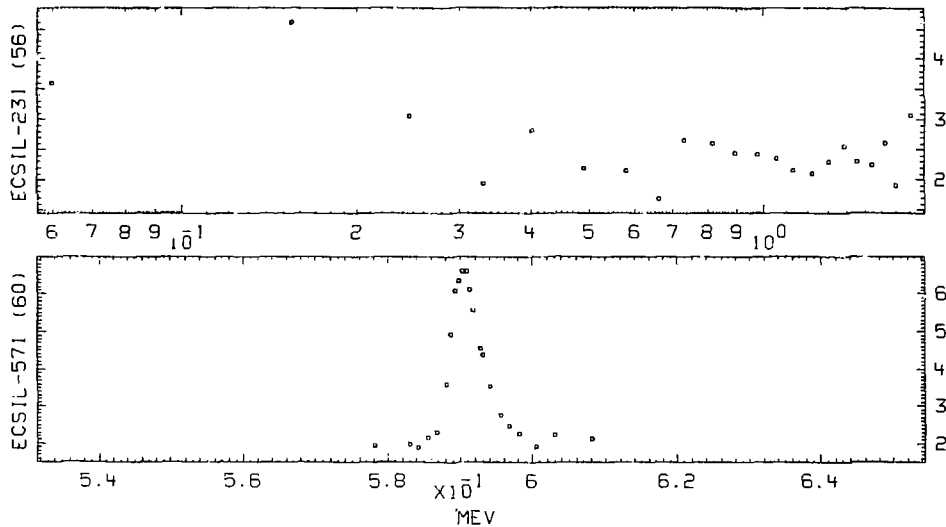
15-P -31

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52	2937 2.5300- 8		3.1400+ 0	9.0000- 2
61	2673 2.5300- 8		3.5000+ 0	

03/01/74

TOTAL SCATTERING
CROSS SECTION

16-S -NAT

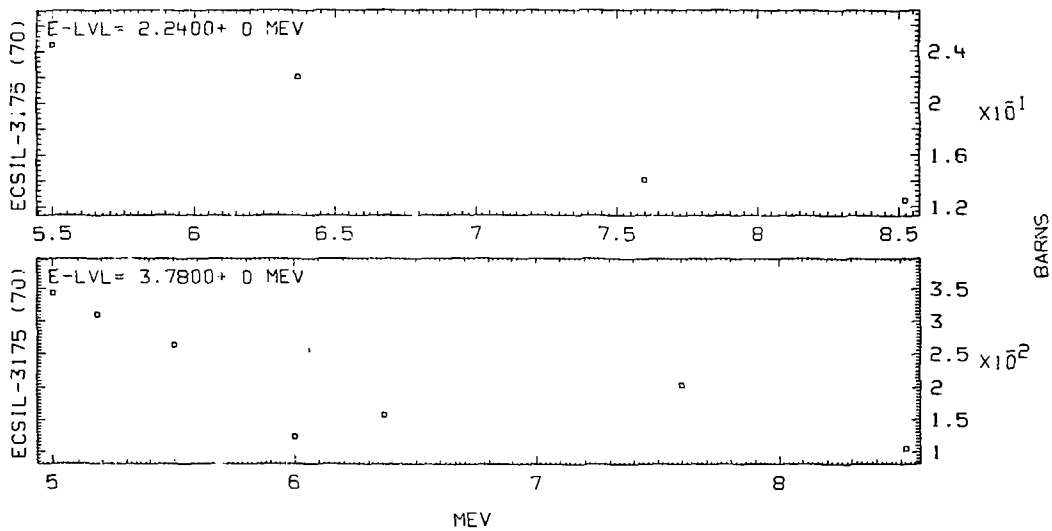


BARNs

03/01/74

N,N'
CROSS SECTION

16-S -NAT

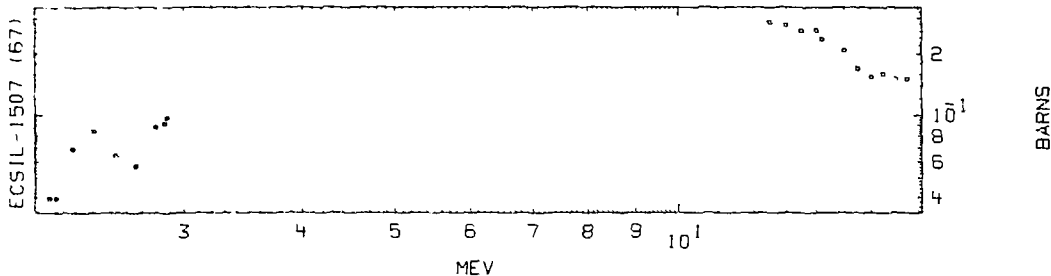


03/01/74

N,P

16-S -NAT

CROSS SECTION



03/01/74

NONELASTIC

16-S -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	34	2.5000+ 0	5.4020- 1	2.1000- 1	57	199	1.4100+ 1	1.0800+ 0	8.0020- 2
55	790	2.5000+ 0	1.5000- 1	5.4020- 1	57	319	1.4200+ 1	1.1400+ 0	4.0000- 2
59	559	3.6600+ 0	2.0000- 1	7.8020- 1	56	200	1.4500+ 1	1.1500+ 0	3.0000- 2
56	151	7.0000+ 0	2.0000- 1	1.1400+ 0					

03/01/74

N,N'

16-S -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV		
52	1060	1.4000+ 1	5.4000- 2	9.0030- 3	2.2400+ 0	70	3175	6.3700+ 0	1.3000- 1	5.7130- 2	1.4630- 2	5.0100+ 0	
70	3175	6.3700+ 0	1.3000- 1	5.6850- 2	7.0490- 3	4.2900+ 0	70	3175	7.6000+ 0	1.0000- 1	5.2220- 2	6.0050- 3	5.0100+ 0
70	3175	7.6000+ 0	1.0000- 1	5.6160- 2	5.3910- 3	4.2900+ 0	70	3175	8.5200+ 0	8.0000- 2	6.8990- 2	5.8640- 3	5.0100+ 0
70	3175	8.5200+ 0	8.0000- 2	4.0140- 2	4.4150- 3	4.2900+ 0	70	3175	8.5200+ 0	8.0000- 2	3.5430- 2	4.1810- 3	5.4100+ 0
70	3	3.63700+ 0	1.3000- 1	3.6740- 2	5.3270- 3	4.4600+ 0	70	3175	8.5200+ 0	8.0000- 2	4.3670- 2	5.1090- 3	5.5500+ 0
70	3175	7.6300+ 0	1.0000- 1	4.7390- 2	4.6440- 3	4.4600+ 0	70	3175	7.6000+ 0	1.0000- 1	3.3750- 2	4.5990- 3	5.8000+ 0
70	3175	8.5200+ 0	8.0000- 2	3.4750- 2	3.9950- 3	4.4600+ 0	70	3175	8.5200+ 0	8.0000- 2	1.2750- 2	2.3860- 3	5.8000+ 0
70	3175	6.3700+ 0	1.3000- 1	2.9770- 2	3.6620- 3	4.7000+ 0	70	3175	8.5200+ 0	8.0000- 2	5.0420- 2	5.9500- 3	6.2300+ 0
70	3175	7.6000+ 0	1.0000- 1	1.8610- 2	3.5730- 3	4.7000+ 0	70	3175	8.5200+ 0	8.0000- 2	2.1280- 2	3.5320- 3	6.4400+ 0
70	3175	8.5200+ 0	8.0000- 2	2.8040- 2	2.6360- 3	4.7000+ 0	70	3175	8.5200+ 0	8.0000- 2	2.6160- 2	5.7290- 3	6.7600+ 0

2-102

16-S -NAT -3

03/01/74

N,P
CROSS SECTION

16-S -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 688	1.4400+ 1	2.0000- 1	2.0600- 1	2.1000- 2

03/01/74

BOUND ATOM

16-S -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		1.2000+ 0	

03/01/74

COHERENT SCATTERING

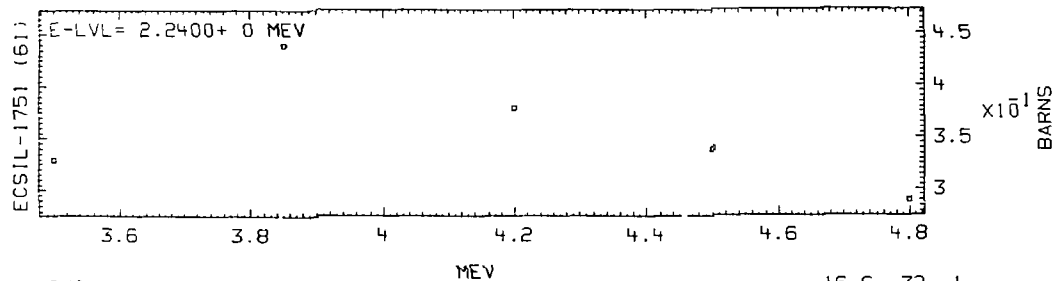
16-S -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		1.2000+ 0	9.6000- 2

03/01/74

N,N'
CROSS SECTION

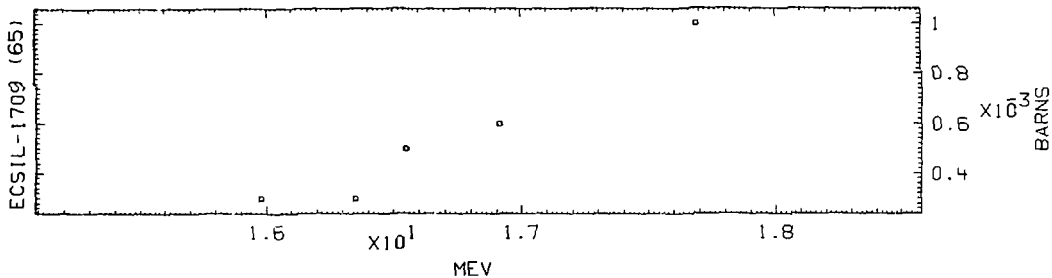
16-S -32



03/01/74

N,2N
CROSS SECTION

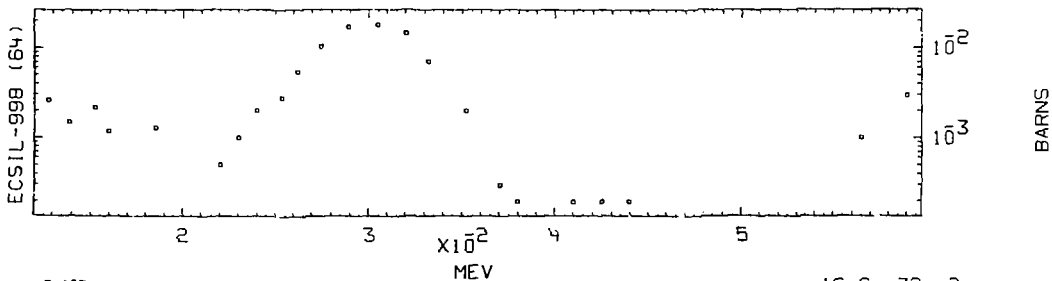
16-S -32



03/01/74

ABSORPTION
CROSS SECTION

16-S -32



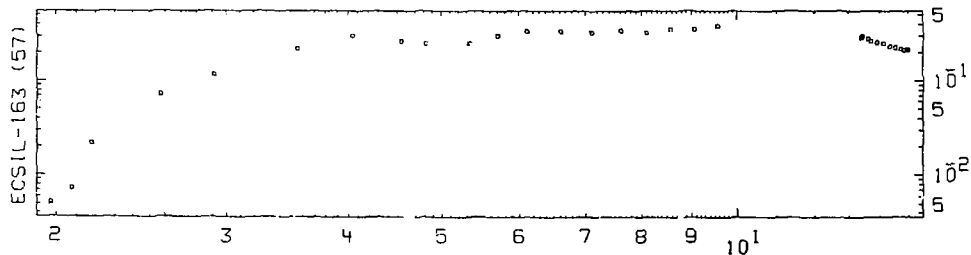
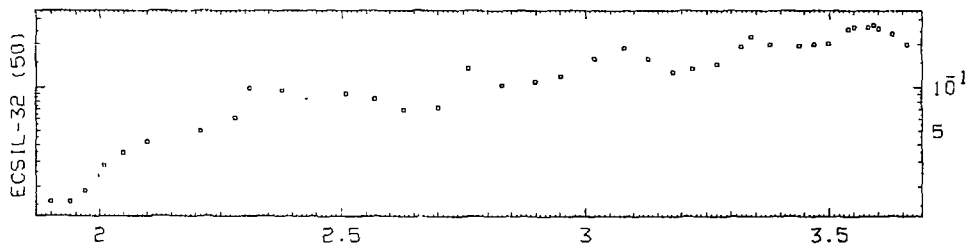
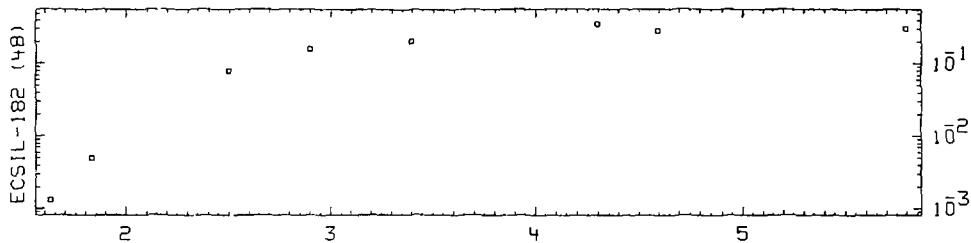
2-105

16-S -32 -2

03/01/74

N,P
CROSS SECTION

16-S -32



BARNs

2-106

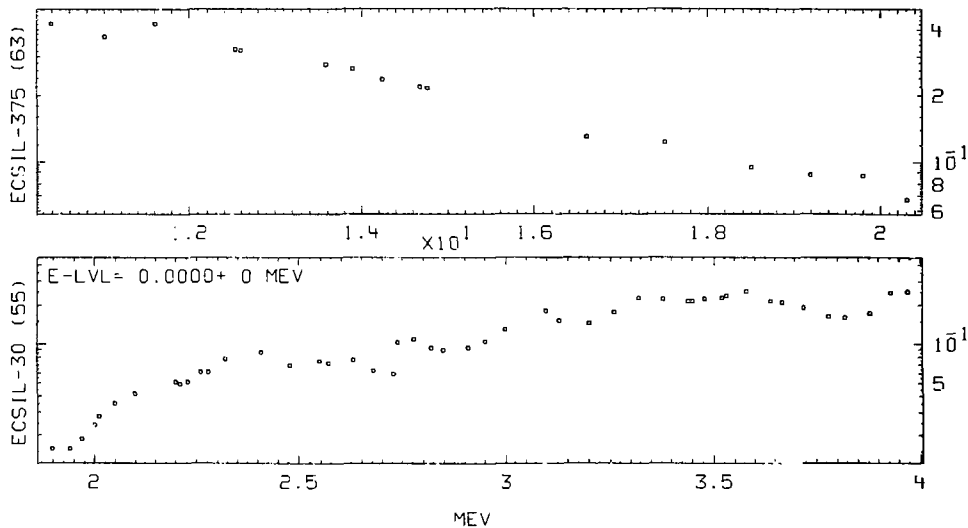
MEV

16-S -32 -3

03/01/74

N,P
CROSS SECTION

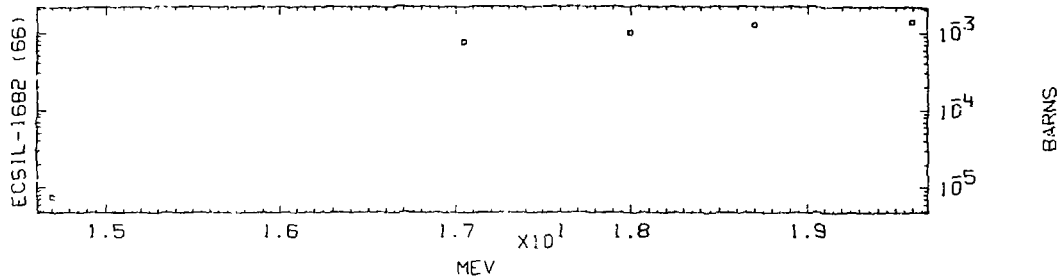
16-S -32



03/01/74

N, T
CROSS SECTION

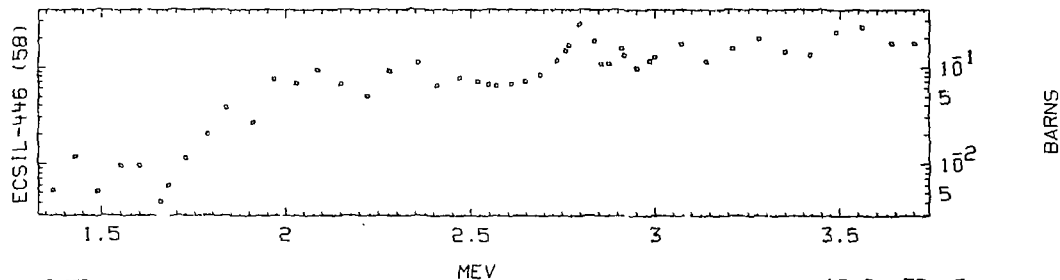
16-C -32



03/01/74

N, ALPHA
CROSS SECTION

16-S -32



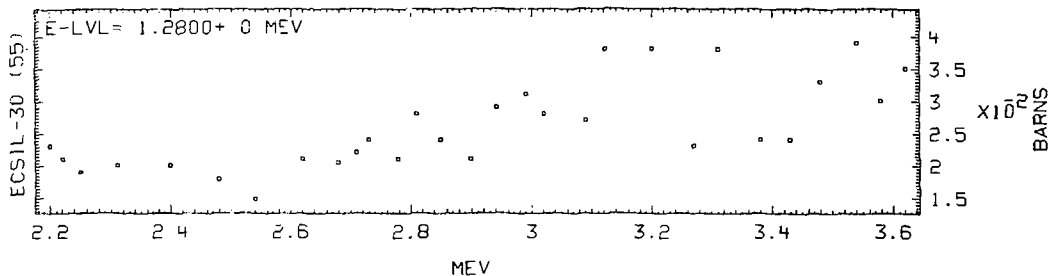
2-108

16-S -32 -5

03/01/74

N, ALPHA
CROSS SECTION

16-S -32



03/01/74

NONELASTIC

16-S -32

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64	845 1.4100+ 1	9.0020- 1	7.4020- 1	8.0020- 2

03/01/74

N,N'

16-S -32

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	1756 4.0000+ 0	2.8000- 1	3.9000- 1	4.6800- 2
66	1756 4.9000+ 0	3.4000- 1	4.1000- 1	4.9200- 2
66	1756 5.8000+ 0	2.4000- 1	2.3000- 1	2.7600- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
64	845 1.4100+ 1	9.0000- 1	6.4000- 2	1.0000- 2	2.2400+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
65	1694 1.4100+ 1		3.3200- 1	5.0000- 2	2.2400+ 0

03/01/74

N,N'
CROSS SECTION

16-S -32

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
64	845 1.4100+ 1	9.0000- 1	5.0000- 2	2.0000- 2	4.0000+ 0	6.0000+ 0

03/01/74

N,2N

16-S -32

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66	1768 1.8920+ 1	2.6000- 1	1.4500- 4	1.4000- 5
66	1768 1.6170+ 1	2.8000- 1	2.8000- 4	2.7000- 5
65	1768 1.6420+ 1	3.0000- 1	5.8000- 4	5.7000- 5

03/01/74

N,N'P

16-S -32

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361 1.4000+ 1		1.0500- 1	2.5000- 2

03/01/74

N,P

16-S -32

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	323 1.4000+ 1	2.2000- 1	4.0000- 2		67	1921 1.4700+ 1	1.0000- 1	2.1500- 1	6.0000- 3
61	361 1.4000+ 1	3.6500- 1	2.5000- 2		68	2354 1.4790+ 1		1.8600- 1	1.5000- 2
53	27 1.4500+ 1	3.6500- 1	4.4000- 2		68	2354 1.4800+ 1		1.8900- 1	1.5000- 2
68	2354 1.4600+ 1	2.0000- 1	2.1400- 1	1.6000- 2	68	2711 1.4800+ 1	2.0000- 1	1.8400- 1	1.5000- 2
63	224 1.4600+ 1	2.8900- 1	1.9000- 2		65	1697 1.4800+ 1		3.5200- 1	4.0000- 2
63	224 1.4600+ 1	2.3200- 1	1.9000- 2						

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
60	849 1.4000+ 1		5.7700- 2	7.0000- 3	3.4500+ 0	6.5300+ 0

03/01/74

N, X P
CROSS SECTION

16-S -32

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 224	1.4600+ 1		3.8000- 1	1.9000- 2

03/01/74

N, T

16-S -32

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 661	1.4600+ 1		4.0000- 6	1.0000- 6	68 3368	1.4700+ 1	2.0000- 1	6.7000- 6	1.9000- 6
62 1770	1.4700+ 1	3.0000- 1	2.0000- 5	5.0000- 6	65 1697	1.4800+ 1		2.2000- 3	2.0000- 4

03/01/74

N, ALPHA

16-S -32

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1767	3.5000- 8		3.2000- 3	7.0000- 4
65 1771	3.6000+ 0		1.7000- 1	7.0000- 2
58 537	1.4800+ 1		1.0900- 1	1.6000- 2

03/01/74

N, ALPHA

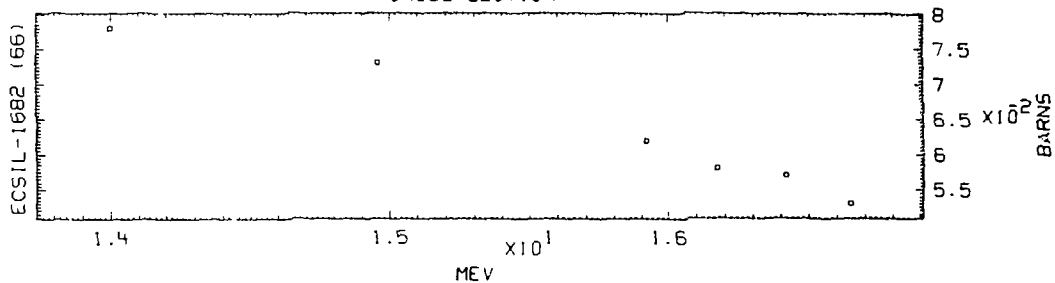
16-S -33

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1767	3.5000- 8		1.4800- 1	3.9000- 2

03/01/74

N,P
CROSS SECTION

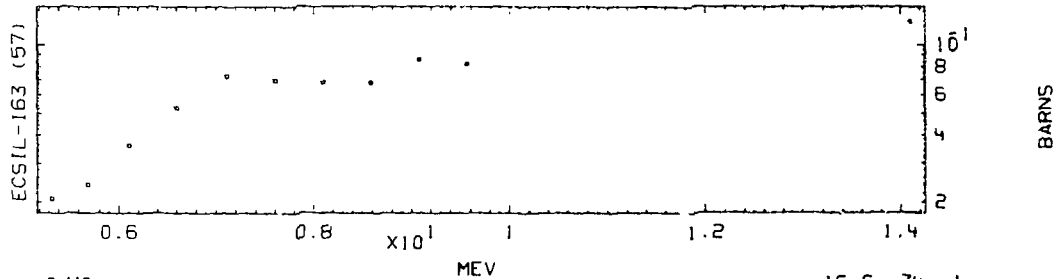
16-S -34



03/01/74

N,ALPHA
CROSS SECTION

16-S -34



2-112

16-S -34 -1

03/01/74

N,P
CROSS SECTION

16-S -34

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+ 1		8.5220- 2	3.8000- 2
66 2142	1.4800+ 1		3.2000- 2	8.0600- 3

03/01/74

N, ALPHA

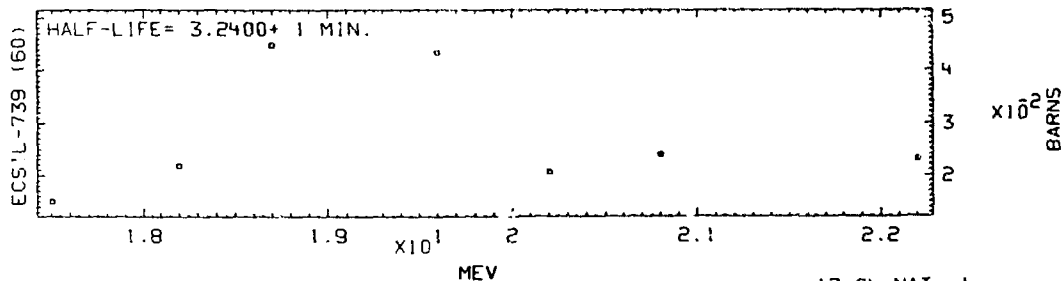
16-S -34

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+ 1		1.3800- 1	3.5000- 2	67 1921	1.4700+ 1	1.0000- 1	1.6300- 1	1.2000- 2
69 235+	1.4500+ 1	2.0000- 1	1.3700- 1	1.0000- 2	65 1697	1.4800+ 1		1.6500- 1	2.3000- 2

03/01/74

N,N'
CROSS SECTION

17-CL-NAT



2-113

17-CL-NAT -1

03/01/74

NONELASTIC
CROSS SECTION

17-CL-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 34	2.5000+ 0		6.0020- 1	3.0000- 1
55 790	2.5000+ 0	1.5000- 1	6.0020- 1	3.0000- 1
55 790	4.1000+ 0		9.0020- 1	3.0000- 1

03/01/74

N,N'

17-CL-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	E-PHOTON MEV
66 1775	2.400+ 0	7.0000- 2	1.7000- 1	1.8000- 2	1.2200+ 0	
66 1775	3.0900+ 0	7.0000- 2	1.7200- 1	1.8000- 2	1.2200+ 0	
66 1775	4.0300+ 0	7.0000- 2	1.5900- 1	1.6000- 2	1.2200+ 0	
66 1775	2.5400+ 0	7.0000- 2	4.1000- 2		1.7260+ 0	
66 1775	3.0900+ 0	7.0000- 2	6.1000- 2		1.7260+ 0	
66 1775	4.0300+ 0	7.0000- 2	6.8900- 2		1.7260+ 0	
66 1775	2.5400+ 0	7.0000- 2	1.7900- 1		1.7620+ 0	
66 1775	3.0900+ 0	7.0000- 2	2.5000- 1		1.7620+ 0	
66 1775	4.0300+ 0	7.0000- 2	2.5700- 1		1.7620+ 0	
66 1775	3.0900+ 0	7.0000- 2	5.3000- 2		2.6450+ 0	
66 1775	4.0300+ 0	7.0000- 2	9.4000- 2		2.6450+ 0	
66 1775	3.0900+ 0	7.0000- 2	3.0000- 2		2.6950+ 0	
66 1775	4.0300+ 0	7.0000- 2	5.5000- 2		2.6950+ 0	
66 1775	4.0300+ 0	7.0000- 2	1.1600- 1		3.0060+ 0	
66 1775	4.0300+ 0	7.0000- 2	7.2000- 2	7.0000- 3	3.0900+ 0	3.1100+ 0
66 1775	4.0300+ 0	7.0000- 2	6.1000- 2		3.1630+ 0	
66 1775	4.2300+ 0	7.0000- 2	2.9000- 2		3.7100+ 0	

03/01/74

ABSORPTION

17-CL-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2934	2.5300- 8		3.1000+ 1	2.0000+ 0
60 891	2.5300- 8		3.3500+ 1	3.0000- 1

03/01/74

N,X GAMMA
CROSS SECTION

17-CL-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	F-PHOTON MEV
64 834	2.9700+ 0	2.5000- 2	1.6400- 1		6.5000- 1
64 934	2.9700+ 0	2.5000- 2	9.3000- 2		1.2000+ 0
64 834	2.9700+ 0	2.5000- 2	8.9000- 2		1.7400+ 0

03/01/74

BOUND ATOM

17-CL-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		1.5000+ 1	

03/01/74

COHERENT SCATTERING

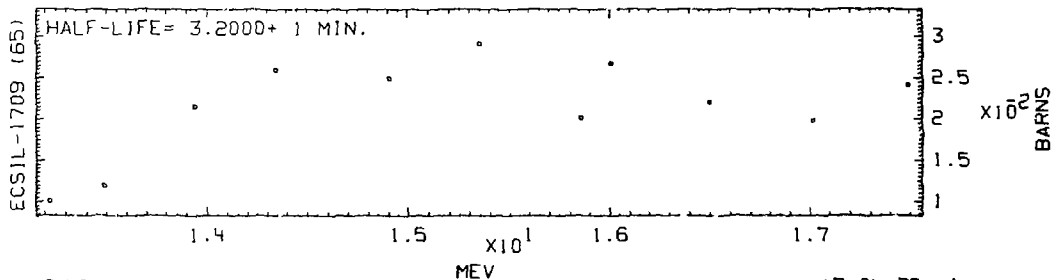
17-CL-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		1.2200+ 1	9.7600- 1

03/01/74

N,2N
CROSS SECTION

17-CL-35



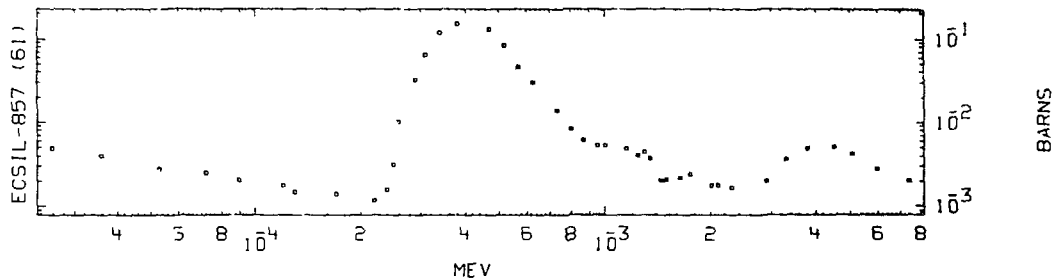
2-115

17-CL-35 - 1

03/01/74

N,P
CROSS SECTION

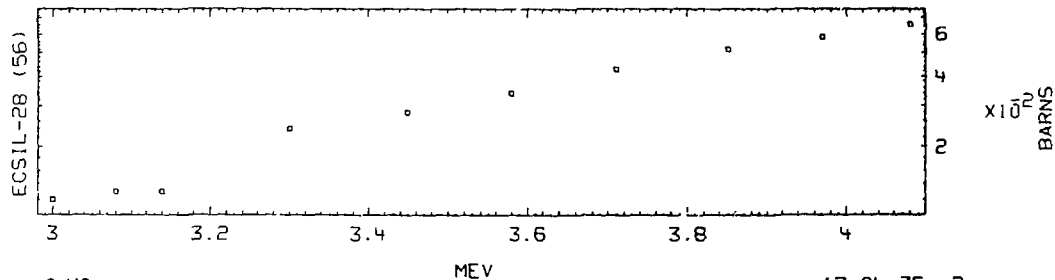
17-CL-35



03/01/74

N, ALPHA
CROSS SECTION

17-CL-35



2-116

17-CL-35 -2

03/01/74

N,N'
CROSS SECTION

17-CL-35

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
66 1775	2.5400+ 0	7.0000- 2	2.2500- 1			66 1775	3.0900+ 0	7.0000- 2	7.0000- 2	2.0000- 2	2.6450+ 0
66 1775	3.0500+ 0	7.0000- 2	2.2800- 1		1.2200+ 0	66 1775	4.0300+ 0	7.0000- 2	1.2500- 1	3.6000- 2	2.6450+ 0
66 1775	4.0300+ 0	7.0000- 2	2.1000- 1		1.2200+ 0	66 1775	3.0900+ 0	7.0000- 2	4.0000- 2	1.2000- 2	2.6950+ 0
66 1775	2.5400+ 0	7.0000- 2	2.3700- 1		1.7620+ 0	66 1775	4.0300+ 0	7.0000- 2	7.3000- 2	2.3000- 2	2.6950+ 0
66 1775	3.0900- 0	7.0000- 2	3.3100- 1		1.7620- 0	66 1775	4.0300+ 0	7.0000- 2	1.5400- 1		3.0060+ 0
66 1775	4.0300+ 0	7.0000- 2	3.4000- 1		1.7620- 0	66 1775	4.0300+ 0	7.0000- 2	6.1000- 2		3.1630+ 0

03/01/74

N,2N

17-CL-35

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE BARNs SECONDS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
61 676	1.4400+ 1	3.0000- 1	5.4020- 3	4.0000- 4		67 1901	1.4800+ 1	5.0000- 1	7.3000- 3	1.7000+ 0
61 733	1.4800+ 1	2.5000- 1	1.2000- 2	2.0000- 3		67 2369	1.5000+ 1	3.0000- 1	1.7000- 3	3.0000- 4
58 531	1.4800+ 1		8.4020- 3	2.5000- 3		67 1901	1.4800+ 1	5.0000- 1	7.3000- 3	1.7000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
67 1921	1.4700+ 1	1.0000- 1	7.0000- 3	2.0000- 4	3.2000+ 1	53 27	1.4500+ 1	3.4700- 3	1.5615- 3
68 2369	1.5000+ 1	3.0000- 1	7.6000- 3	7.0000- 4	3.2000+ 1	67 1901	1.4800+ 1	5.0000- 1	1.2000- 2

03/01/74

N,F

17-CL-35

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 3216	2.5300- 0		4.8900- 1	1.4000- 2	61 361	1.4000+ 1		1.2500- 1	3.8000- 2
44 2874	2.5300- 0		4.6000- 1	1.0000- 1	66 3018	1.4600+ 1	2.0000- 1	1.3100- 1	2.0000- 2
49 2873	2.5300- 0		3.5000- 1	9.0000- 2	66 3018	1.4600+ 1	2.0000- 1	1.1700- 1	2.5000- 2
47 888	2.5300- 0		1.6900- 1	3.3800- 2	65 1777	1.4600+ 1	2.0000- 1	1.2100- 1	2.0570- 2

03/01/74

N, ALPHA
CROSS SECTION

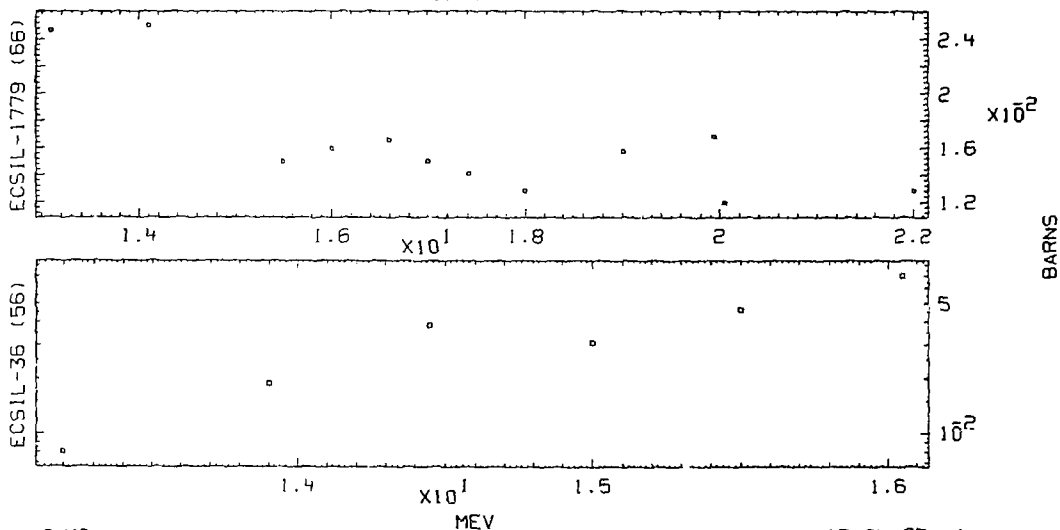
17-CL-35

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2935	2.5300- 8		8.0000- 5		66 3018	1.4600+ 1	2.0000- 1	1.1700- 1	2.0000- 2
63 323	1.4000+ 1		1.0000- 1	2.0000- 2	66 3018	1.4600+ 1	2.0000- 1	1.2100- 1	2.0000- 2
53 27	1.4500+ 1		1.9100- 1	3.1000- 2	65 1777	1.4600+ 1	2.0000- 1	1.0500- 1	1.6350- 2
69 2354	1.4600+ 1	2.0000- 1	1.0860- 1	9.0000- 2	58 531	1.4800+ 1		1.2200- 1	5.6020- 2

03/01/74

N,P
CROSS SECTION

17-CL-37



2-118

17-CL-37 -1

03/01/74

N,N'
CROSS SECTION

17-CL-37

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
66 1775	2.5400+ 0	7.0000- 2	1.6700- 1			66 1775	4.0300+ 0	7.0000- 2	2.7800- 1		1.7260+ 0
66 1775	3.0900+ 0	7.0000- 2	2.4600- 1		1.7260+ 0	66 1775	4.2300+ 0	7.0000- 2	1.1800- 1		3.7100+ 0

03/01/74

N,P

17-CL-37

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 3307	1.4100+ 1	1.8000- 1	2.1000- 2	3.0000- 3	58 531	1.4800+ 1		2.5400- 2	2.1000- 3
53 27	1.4500+ 1		3.3400- 2	6.6800- 3	66 907	1.4800+ 1	1.0000- 1	2.1300- 2	2.1000- 3
67 1921	1.4700+ 1	1.0000- 1	2.5500- 2	1.2000- 3	67 3307	1.4800+ 1	2.0000- 2	2.5000- 2	3.0000- 3
65 1697	1.4800+ 1		4.0000- 2	4.0000- 3					

03/01/74

N, ALPHA

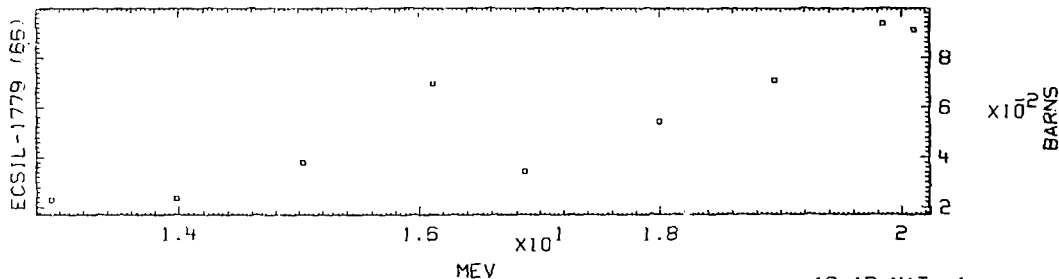
17-CL-37

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+ 1		5.2420- 2	2.6000- 2
66 2142	1.4800+ 1		2.8000- 2	1.0000- 2
58 531	1.4800+ 1		4.3800- 2	6.9020- 3

03/01/74

N, X ALPHA
CROSS SECTION

18-AR-NAT



2-119

18-AR-NAT -1

03/01/74

TOTAL SCATTERING
CROSS SECTION

18-AR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	%-SEC BARNs	DELTA BARNs
69 2998	2.5300- 8		6.3800- 1	5.0000- 3
63 777	2.5300- 8		6.2000- 1	2.0000- 2

03/01/74

ABSORPTION

18-AR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 822	2.5300- 8		6.1000- 1	3.0000- 2
63 777	2.5300- 8		6.4000- 1	1.0000- 2

03/01/74

N, ALPHA

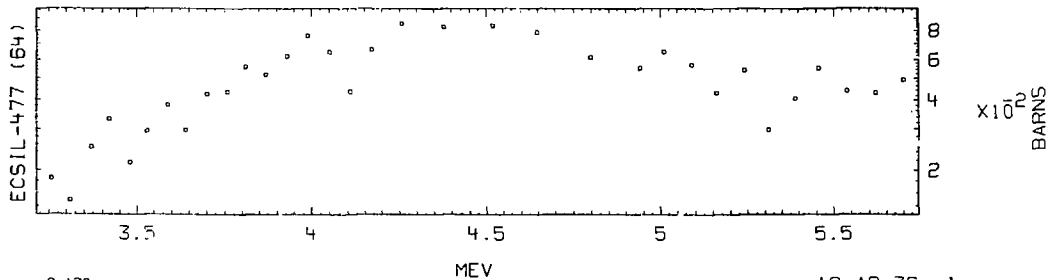
18-AR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
46 171	2.5000+ 0	1.5000- 1	1.0000- 4	

03/01/74

N, P
CROSS SECTION

18-AR-36



2-120

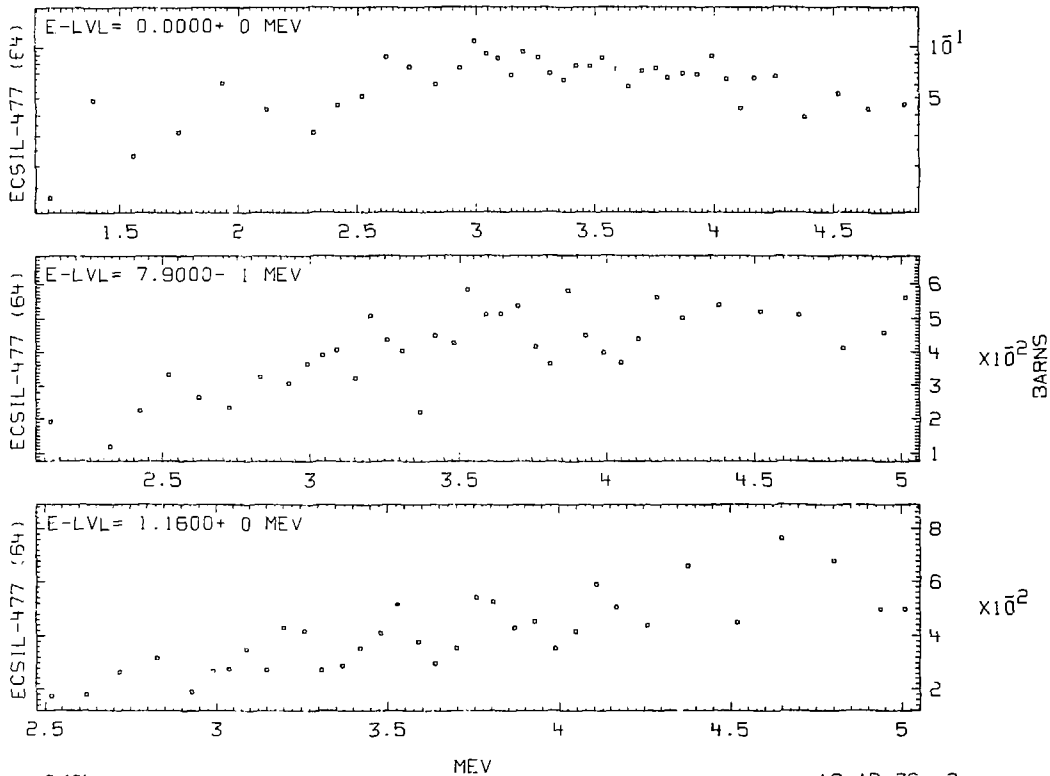
18-AR-36 -1

03/01/74

N,P

18-AR-36

CROSS SECTION



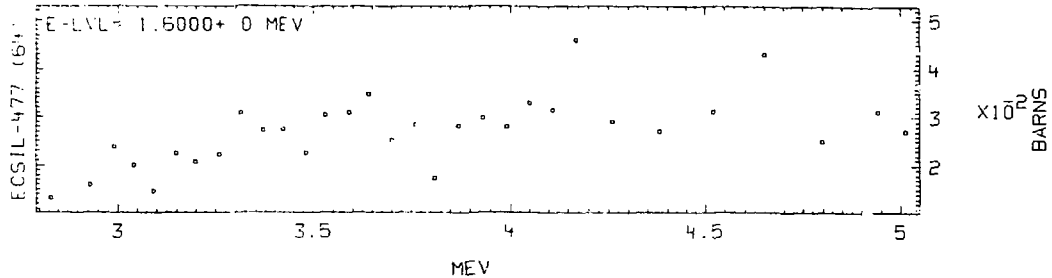
2-121

18-AR-36 -2

03 01/74

N,P
CROSS SECTION

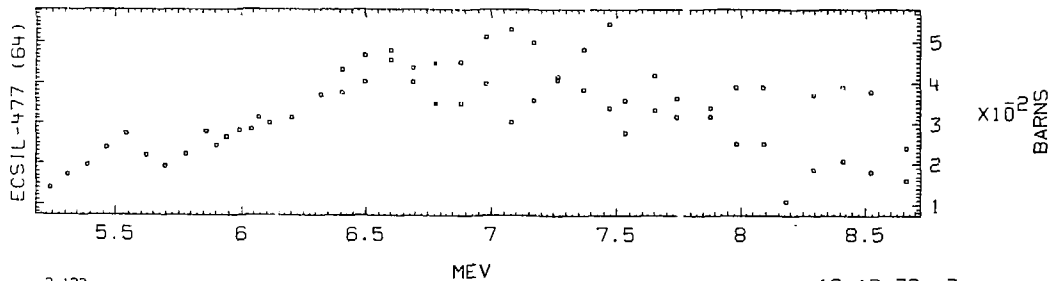
18-AR-36



03/01/74

N, ALPHA
CROSS SECTION

18-AR-36



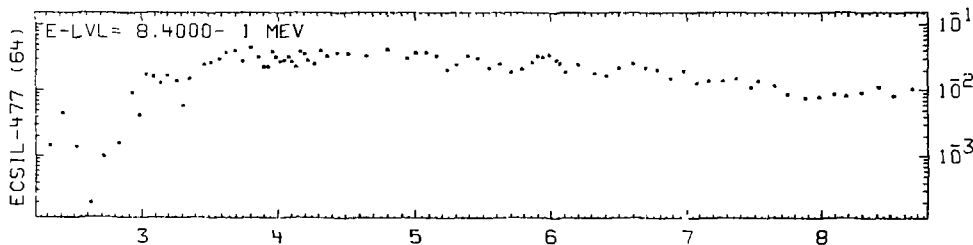
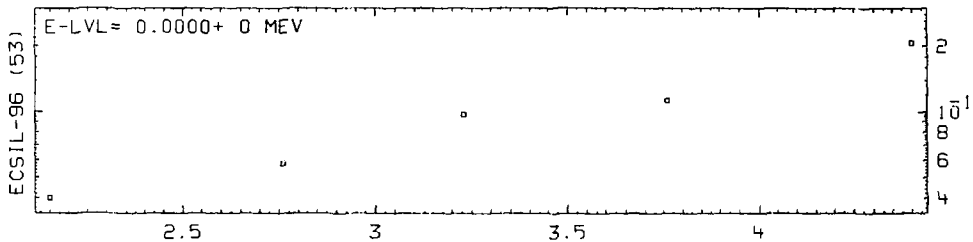
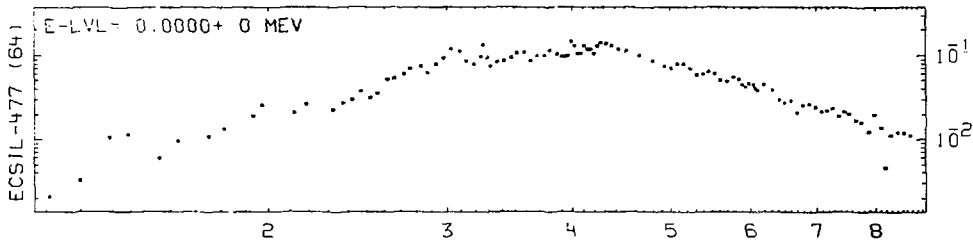
2-122

18-AR-36 -3

03/01/74

N, ALPHA
CROSS SECTION

18-AR-36



BARNs

2-123

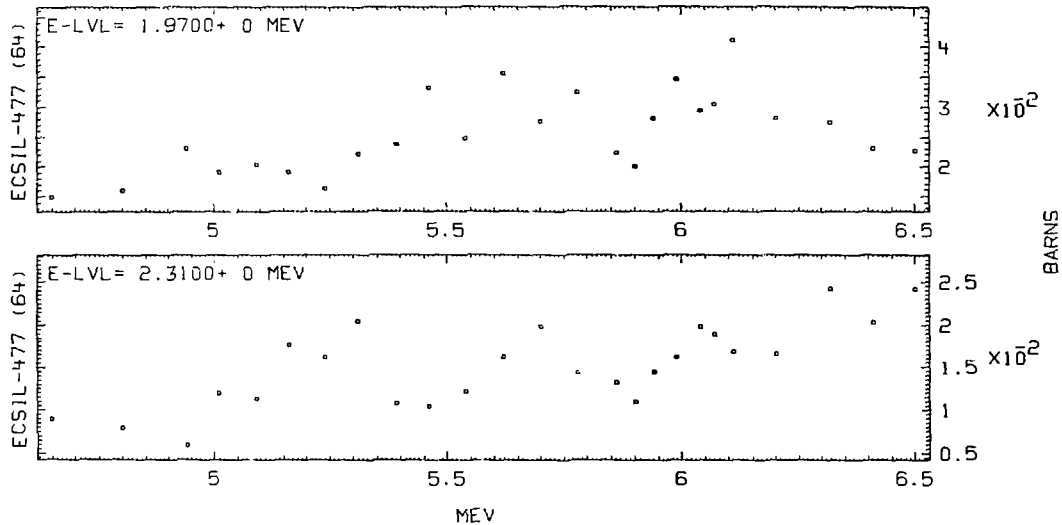
MEV

18-AR-36 -4

03/01/74

N, ALPHA
CROSS SECTION

18-AR-36



03/01/74

TOTAL SCATTERING

18-AR-36

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 2029	7.5600 - 8		7.3000 + 1	9.0000 + 0

03/01/74

N, ALPHA
CROSS SECTION

18-AR-36

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2819	2.5300- 8		5.5200- 3	1.1000- 4

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
53	96 3.2300+ 0	1.0000- 1	3.0000- 3	3.0000- 3	9.0000- 1
53	96 3.7600+ 0	1.0000- 1	2.2000- 2	1.3000- 2	9.0000- 1
53	96 4.4000+ 0	1.0000- 1	4.1000- 2	2.5000- 2	9.0000- 1

03/01/74

N, P

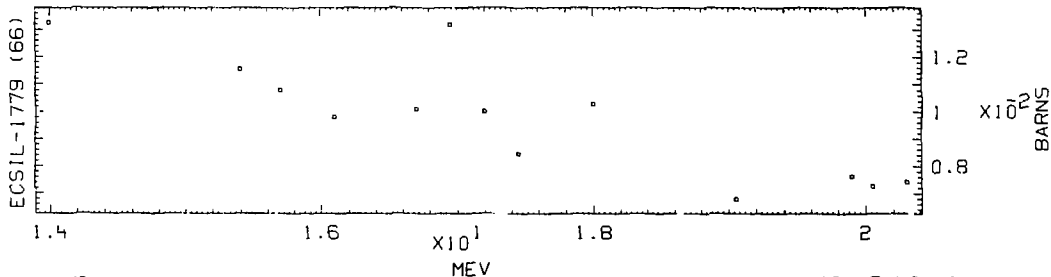
18-AR-38

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2717	1.4400+ 1	3.0000- 1	7.5000- 2	2.0000- 2
68 1945	1.4800+ 1	2.0000- 1	1.1000- 1	2.2000- 2

03/01/74

N, ALPHA
CROSS SECTION

18-AR-40



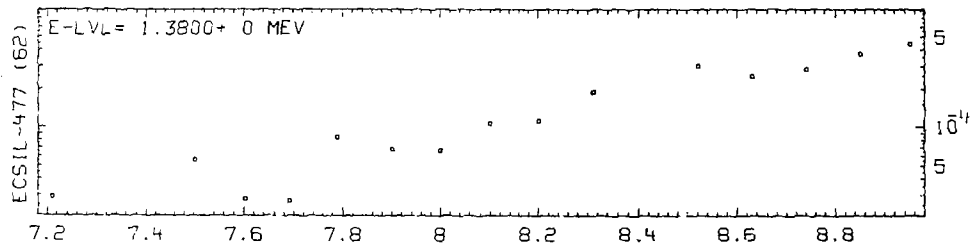
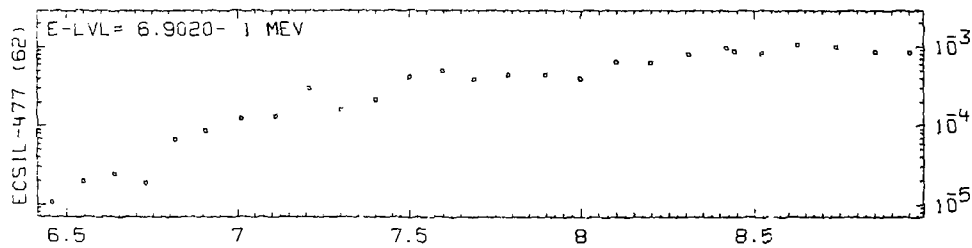
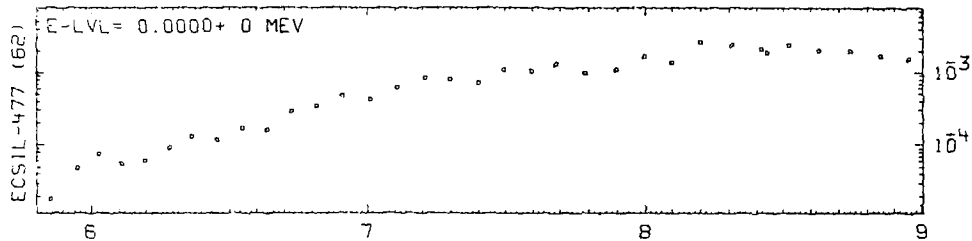
2-125

18-AR-40 -1

03/01/74

N, ALPHA
CROSS SECTION

18-AR-40

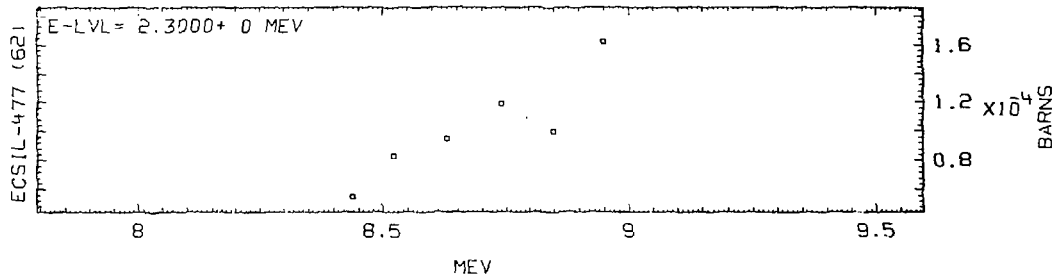


BARNs

03/01/74

N, ALPHA
CROSS SECTION

18-AR-40



03/01/74

TOTAL SCATTERING

18-AR-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 2029	7.0200- 0		3.6000- 1	

03/01/74

N, N'P

18-AR-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 1945	1.4800+ 1	2.0000- 1	1.7000- 3	2.0000- 4

03/01/74

N, X GAMMA

18-AR-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
65 1731	3.5000+ 0	1.0000- 1	1.0560- 1	2.1100- 2	6.0000- 1	65 1731	3.5000+ 0	1.0000- 1	3.7400- 2	8.2000- 2	1.7700+ 0
65 1731	3.5000+ 0	1.0000- 1	8.9200- 2	1.7800- 2	1.0800+ 0	65 1731	3.5000+ 0	1.0000- 1	8.6700- 2	1.7300- 2	2.5200+ 0
65 1731	3.5000+ 0	1.0000- 1	8.2220- 1	1.6440- 1	1.4500+ 0						

03/01/74

N,P
CROSS SECTION

18-AR-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2747	1.4400+ 1	3.7000- 1	1.5700- 2	2.0000- 3
65 1781	1.4700+ 1	5.0000- 1	2.5000- 2	2.0000- 3
69 1945	1.4800+ 1	2.0000- 1	1.5000- 2	2.0000- 3

03/01/74

N,D

18-AR-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1781	1.4700+ 1	5.0000- 1	2.9000- 3	5.0000- 4

03/01/74

N, ALPHA

18-AR-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 178G	1.4100+ 1		3.1000- 2	4.6500- 3	65 1781	1.4700+ 1	5.0000- 1	2.4000- 2	2.0000- 3
69 2747	1.4400+ 1	3.0000- 1	1.0500- 2	1.0000- 3	69 1945	1.4800+ 1	2.0000- 1	1.0000- 2	1.5000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
71 3202	1.4400+ 1		2.1000- 3	4.0000- 4	0.0000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
71 3202	1.4400+ 1		3.0000- 4	1.0000- 4	4.9000- 1	6.9000- 1
71 3202	1.4400+ 1		3.1000- 3	6.0000- 4	1.3000+ 0	1.4800+ 0
71 3202	1.4400+ 1		3.5000- 3	7.0000- 4	2.1500+ 0	2.2500+ 0
71 3202	1.4400+ 1		3.0000- 4	3.0000- 4	2.7400+ 0	2.9200+ 0
71 3202	1.4400+ 1		1.0000- 4	1.0000- 4	3.3000+ 0	3.7000+ 0

03/01/74

ACTIVATION

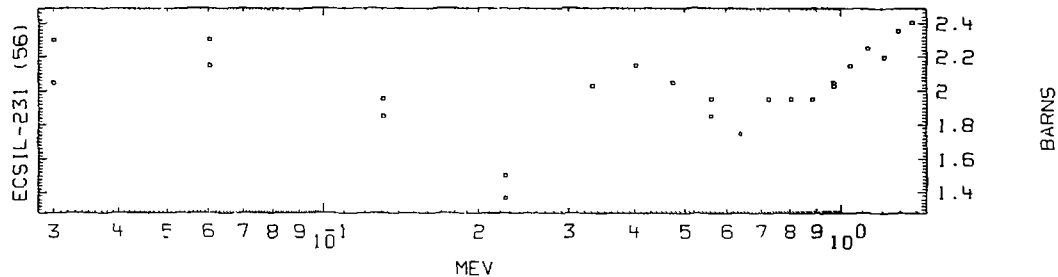
18-AR-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	ACTIVATE
69 2747	1.4400+ 1	3.0000- 1	1.4000- 3	1.5000- 4	17-CL-39

03/01/74

TOTAL SCATTERING
CROSS SECTION

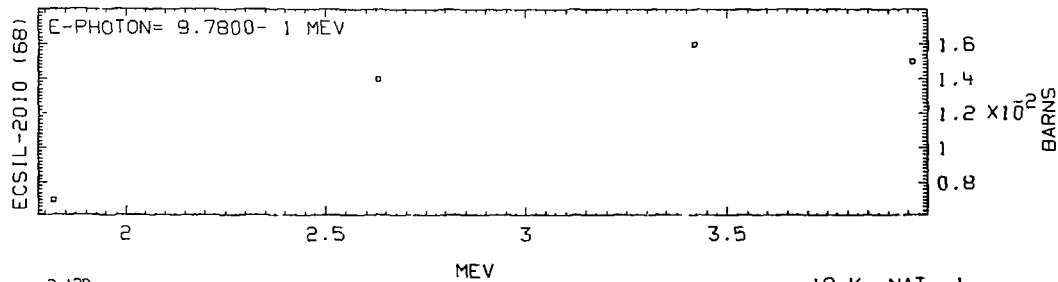
19-K -NAT



03/01/74

N, X GAMMA
CROSS SECTION

19-K -NAT



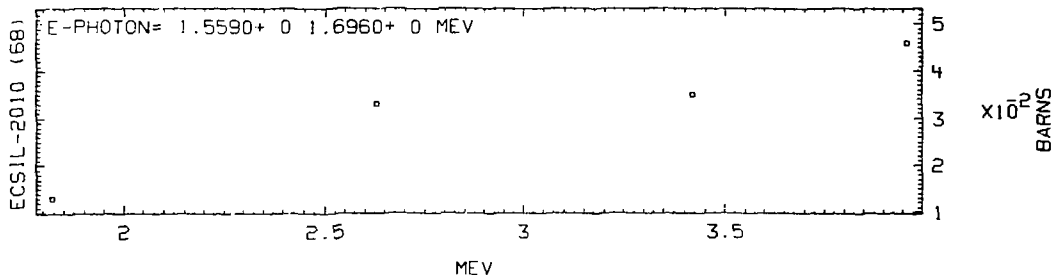
2-129

19-K -NAT -1

03/01/74

N,X GAMMA
CROSS SECTION

19-K -NAT



03/01/74

N,X GAMMA

19-K -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV
68 2010	3.4200+ 0	3.7000-	2 4.0000-	3 1.2660+ 0	68 2010	3.4200+ 0	5.6000-	2 6.0000-	3 2.8170+ 0		
68 2010	3.9600+ 0	7.2000-	2 7.0000-	3 1.2660+ 0	68 2010	3.9600+ 0	1.2500-	1 1.3000-	2 2.8170+ 0		
68 2010	1.8200+ 0	5.0000-	3 5.0000-	4 1.2910+ 0	66 1783	3.9600+ 0	1.1900-	1 1.1000-	2 2.8170+ 0		
68 2010	2.6300+ 0	1.6000-	2 2.0000-	3 1.2910+ 0	68 2010	3.4200+ 0	3.7000-	2 4.0000-	3 3.0210+ 0		
68 2010	2.6300+ 0	1.3000-	2 1.0000-	3 2.5150+ 0	68 2010	3.9600+ 0	7.0000-	2 7.0000-	3 3.0210+ 0		
68 2010	3.4200+ 0	5.9000-	2 6.0000-	3 2.5190+ 0	66 1783	3.9600+ 0	6.3000-	2 6.0000-	3 3.0210+ 0		
68 2010	3.9600+ 0	1.0700-	1 1.0000-	2 2.5190+ 0	66 1783	3.9600+ 0	1.6000-	2 2.0000-	3 3.5000+ 0		
66 1783	3.9600+ 0	1.0000-	1 9.0000-	3 2.5190+ 0	68 2010	3.9600+ 0	1.7000-	2 2.0000-	3 3.5030+ 0		

03/01/74

BOUND ATOM

19-K -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
51 1584	7.3000- 8		2.0000+ 0	

03/01/74

COHERENT SCATTERING
CROSS SECTION

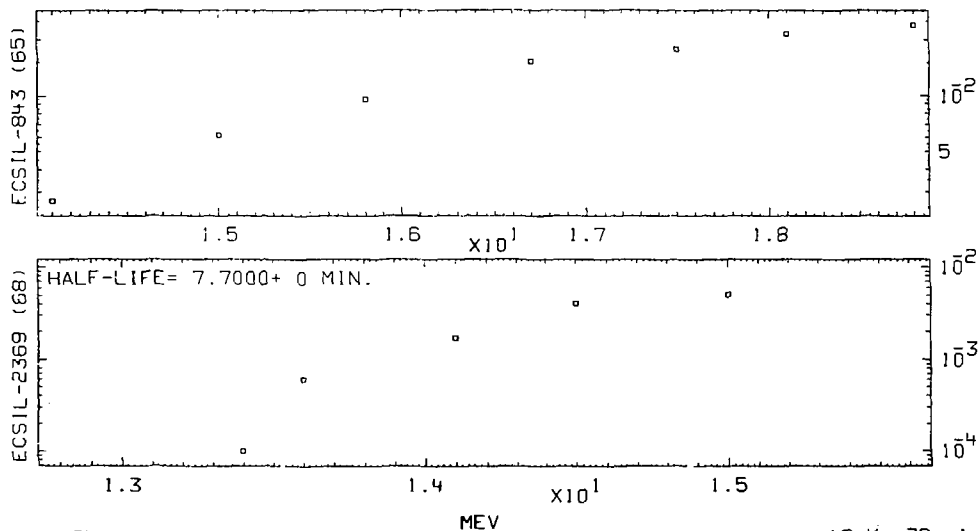
19-K -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- 8		1.4500+ 0	
51 1584	7.3000- 8		1.5000+ 0	1.2000- 1

03/01/74

N, 2N
CROSS SECTION

19-K -39



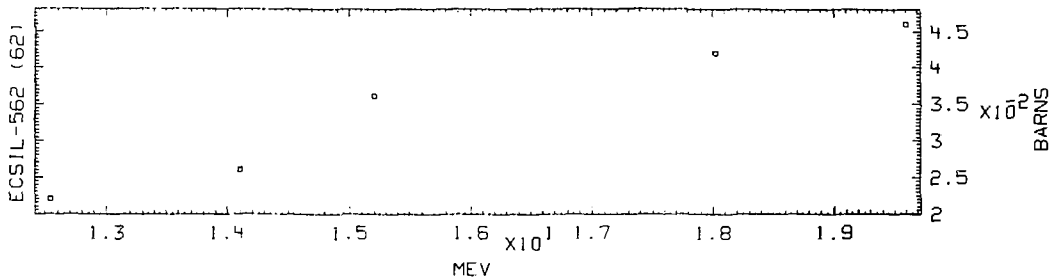
2-131

19-K -39 -1

03/01/74

N,N'ALPHA
CROSS SECTION

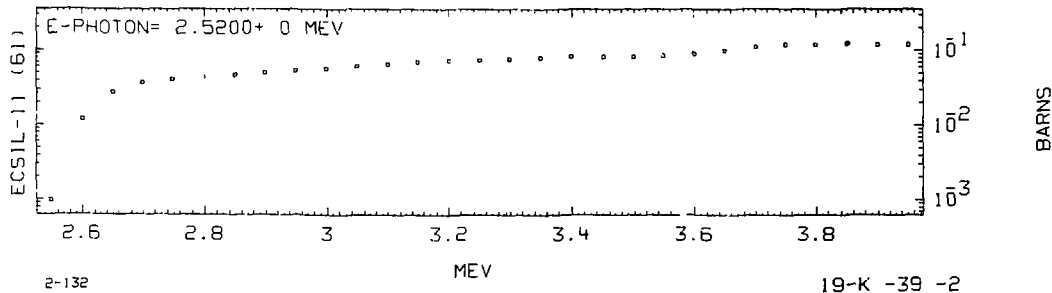
19-K -39



03/01/74

N,X GAMMA
CROSS SECTION

19-K -39



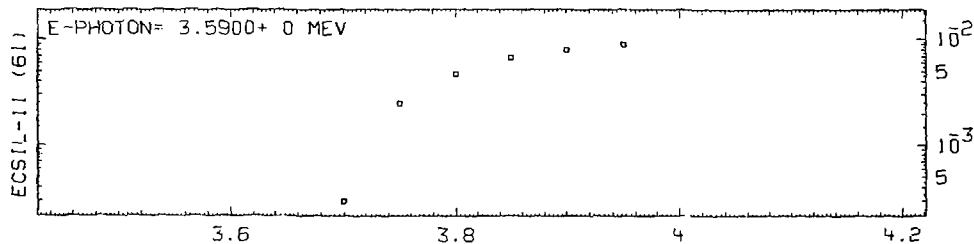
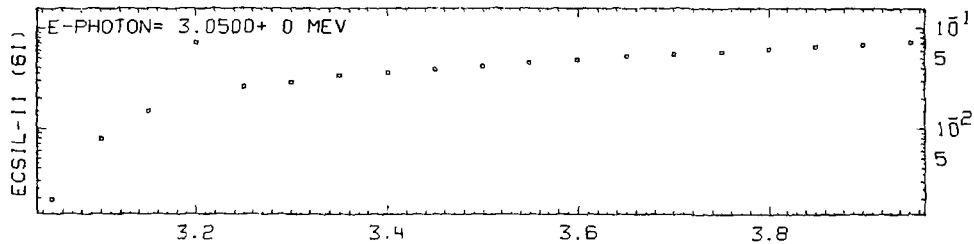
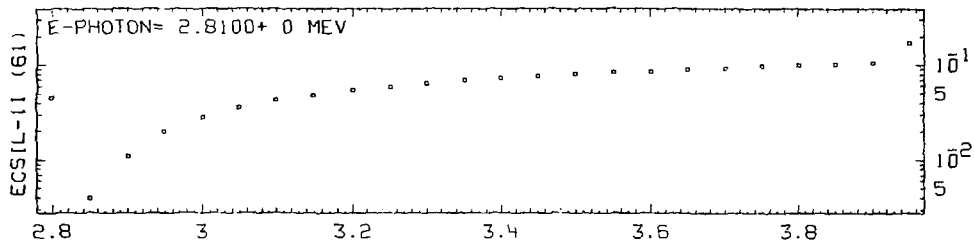
2-132

19-K -39 -2

03/01/74

N, X GAMMA
CROSS SECTION

19-K -39



BARNS

2-133

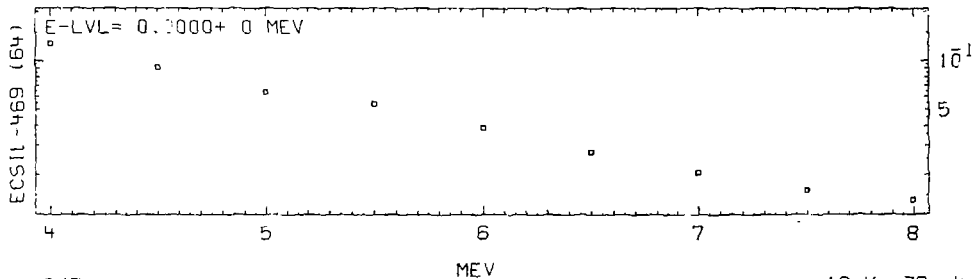
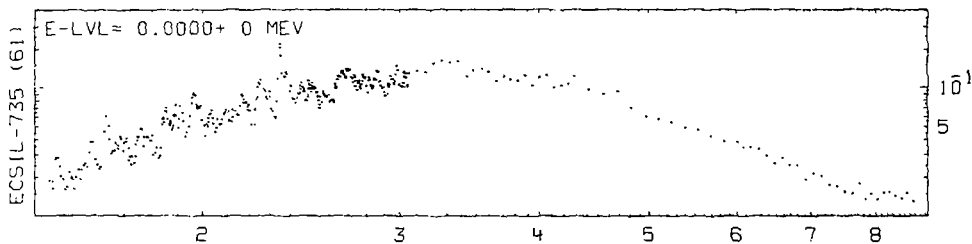
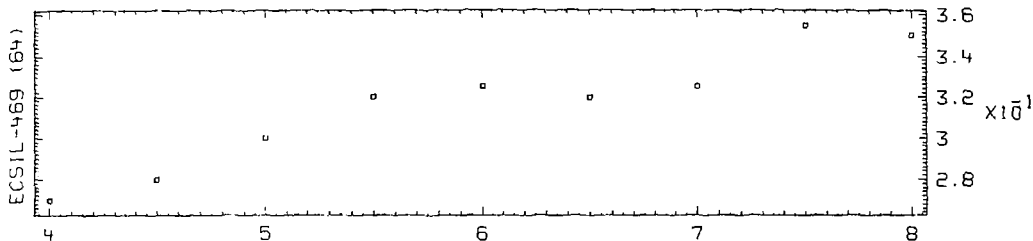
MEV

19-K -39 -3

03/01/74

N,P
CROSS SECTION

19-K -39



2-134

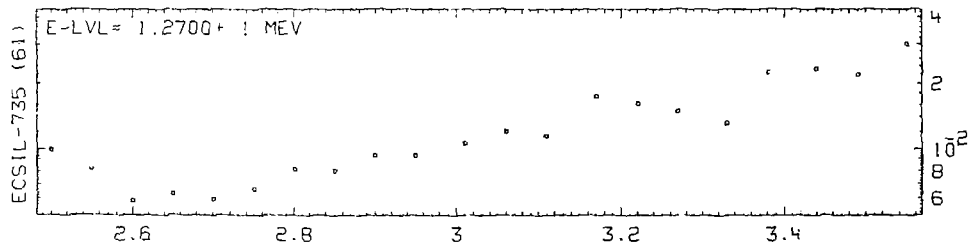
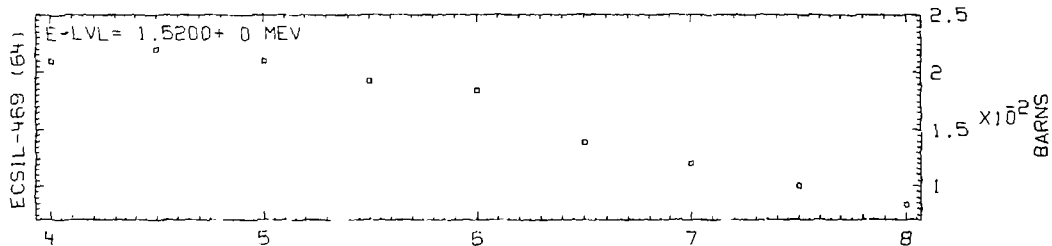
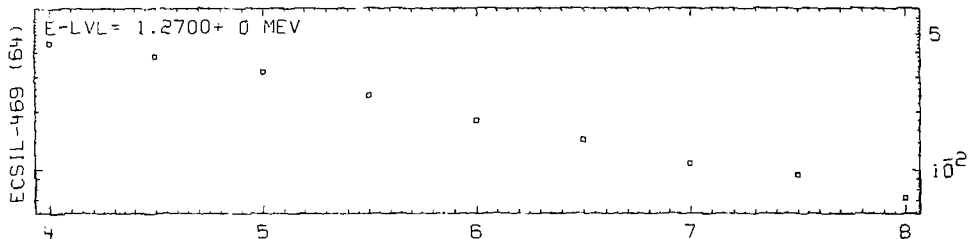
MEV

19-K -39 -4

03/01/74

N,P
CROSS SECTION

19-K -39



2-135

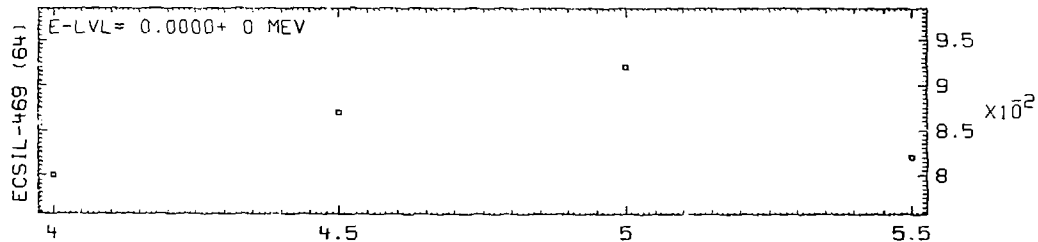
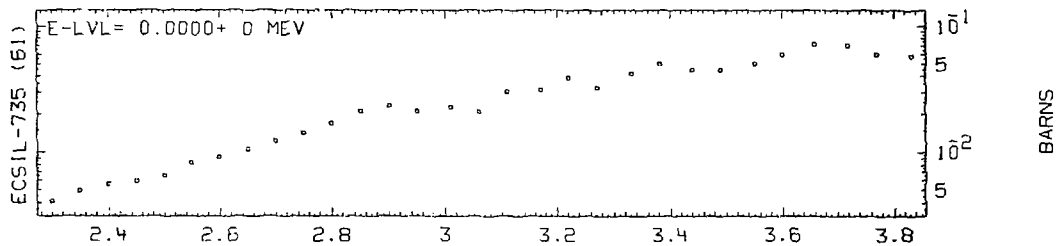
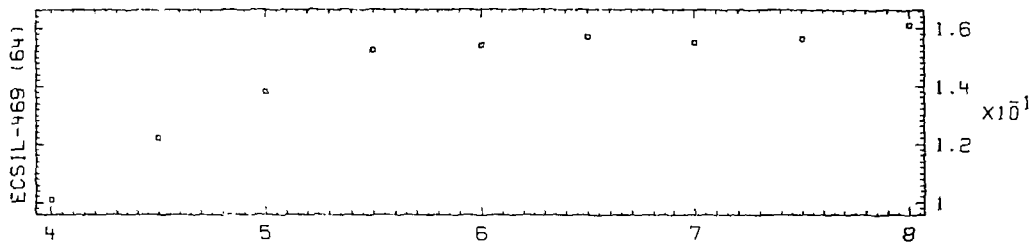
MEV

19-K -39 -5

03/01/74

N, ALPHA
CROSS SECTION

19-K -39



2-136

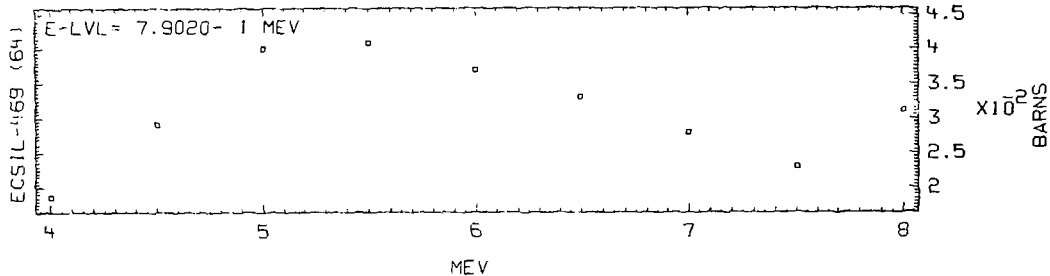
MEV

19-K -39 -6

03/01/74

N, ALPHA
CROSS SECTION

19-K -39



03/01/74

N, N'

19-K -39

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1785	3.7600+ 0	9.0000- 2	2.9200- 1	1.4000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
65 1785	3.7600+ 0	9.0000- 2	1.0400- 1	5.0000- 3	2.5300+ 0
65 1785	3.7600+ 0	9.0000- 2	1.1300- 1	6.0000- 3	2.6200+ 0
65 1785	3.7500+ 0	9.0000- 2	7.6000- 2	8.0000- 3	3.0200+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
68 2010	2.6300+ 0	7.4000- 2		2.5190+ 0		68 2010	3.9600+ 0		1.3400- 1		2.8170+ 0
68 2010	3.4200+ 0	6.4000- 2		2.5190+ 0		68 2010	3.4200+ 0		3.8000- 2		3.0210+ 0
68 2010	3.9600+ 0	1.1500- 1		2.5190+ 0		68 2010	3.9600+ 0		7.6000- 2		3.0210+ 0
68 2010	3.4200+ 0	6.0000- 2		2.6170+ 0		68 2010	3.9600+ 0		3.0000- 2		3.6030+ 0

03/01/74

N, 2N
CROSS SECTION

19-K -39

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 676	1.4400+ 1	3.0000- 1	3.4000- 3	3.0000- 4	67 1921	1.4700+ 1	1.0000- 1	3.2400- 3	1.0000- 4
65 1764	1.4500+ 1	4.0000- 1	3.3000- 3	7.0000- 4	61 703	1.4800+ 1	2.5000- 1	6.0020- 3	1.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
68 3369	1.4700+ 1	2.0000- 1	4.7800- 3	4.7600- 4	0.0000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
66 2369	1.5000+ 1	3.0000- 1	8.0000- 4	2.0000- 4	9.5000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
58 1944	1.4200+ 1	2.0000- 1	2.6000- 3	4.0000- 4	7.7000+ 0
53 27	1.4500+ 1		1.0000- 2	5.5000- 3	7.7000+ 0

03/01/74

N, N*P

19-K -39

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 586	1.4000+ 1		1.8600- 1	2.8000- 2

03/01/74

N, X GAMMA

19-K -39

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
68 2010	3.4200+ 0		4.0000- 2		1.2660+ 0
68 2010	3.9500+ 0		7.7000- 2		1.2660+ 0

03/01/74

N, P

19-K -39

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1896	2.4600+ 0	4.0000- 2	9.5000- 2	4.0000- 3	58 457	2.5900+ 0	5.0000- 2	4.5000- 2	4.5000- 3
61 653	2.4600+ 0	5.0000- 2	9.6020- 2	6.0020- 3	60 586	1.4000+ 1		3.5400- 1	5.4020- 2

03/01/74

N, ALPHA
CROSS SECTION

19-K -39

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
67	1896	2.4600+ 0	4.0000- 2	6.2000- 3	1.0000- 3	58	457	2.5900+ 0	5.0000- 2	3.6000- 2	3.6000- 3
61	653	2.4600+ 0	5.0000- 2	6.0020- 3		60	586	1.4000+ 1	1.1000- 1	1.6000- 2	

03/01/74

N, 2 ALPHA

19-K -39

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
66	3367	1.4750+ 1	1.5000- 1	1.2700- 4	2.4000- 5

03/01/74

COHERENT SCATTERING

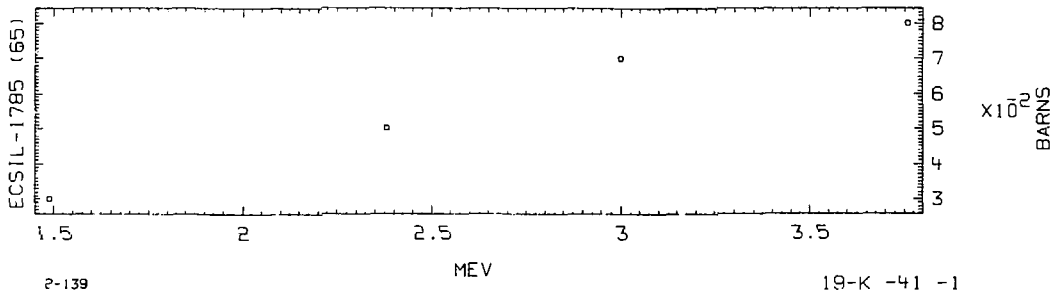
19-K -39

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	2877	2.5300- 8		1.7200+ 0

03/01/74

N, N'
CROSS SECTION

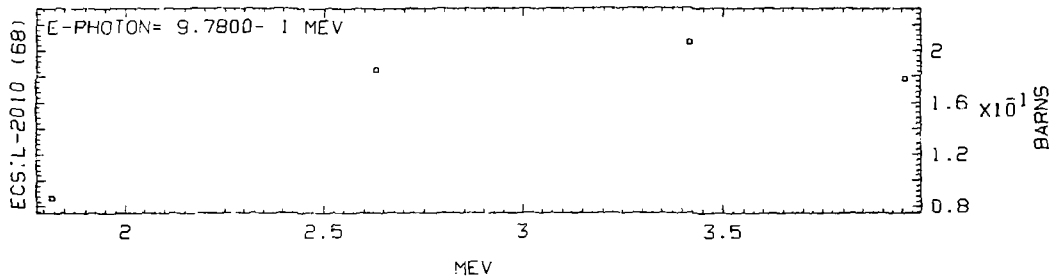
19-K -41



03/01/74

N,N'
CROSS SECTION

19-K -41



03/01/74

N,N'

19-K -41

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
68 2010	1.8200+ 0		7.6000- 2		1.2910+ 0

03/01/74

N,P

19-K -41

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1944	1.4200+ 1	2.0000- 1	5.0000- 2	6.0000- 3	65 1697	1.4800+ 1		8.8000- 2	9.0000- 3
53 27	1.4500+ 1		8.7220- 2	3.5000- 2	63 756	1.4800+ 1	2.3000- 1	6.9020- 2	1.7000- 2
67 1921	1.4700+ 1	1.0000- 1	3.0500- 2	2.5000- 3					

03/01/74

N, ALPHA

19-K -41

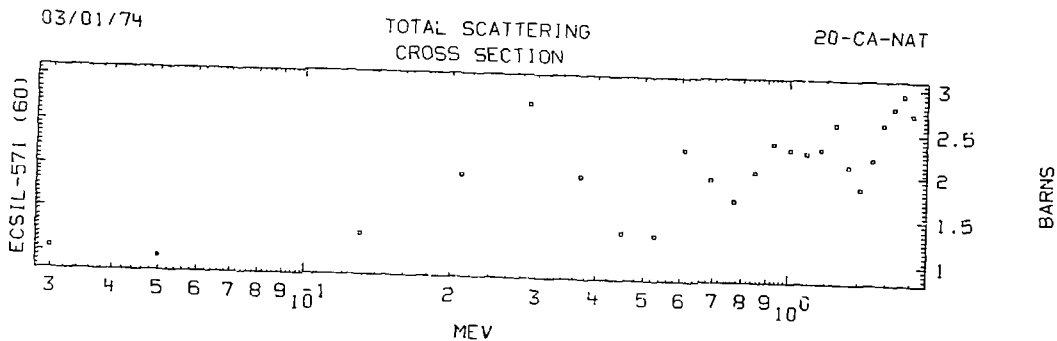
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 586	1.4000+ 1		1.2000- 2	5.0000- 3	67 1921	1.4700+ 1	1.0000- 1	3.1500- 2	1.5000- 3
68 1944	1.4200+ 1	2.0000- 1	4.6000- 2	6.0000- 3	65 1697	1.4800+ 1		3.3000- 2	4.0000- 3
65 1764	1.4500+ 1	4.0000- 1	3.9000- 2	8.0000- 3	63 756	1.4800+ 1	1.0000- 1	3.0000- 2	1.2000- 2

03/01/74

N. ALPHA
CROSS SECTION

19-K -41

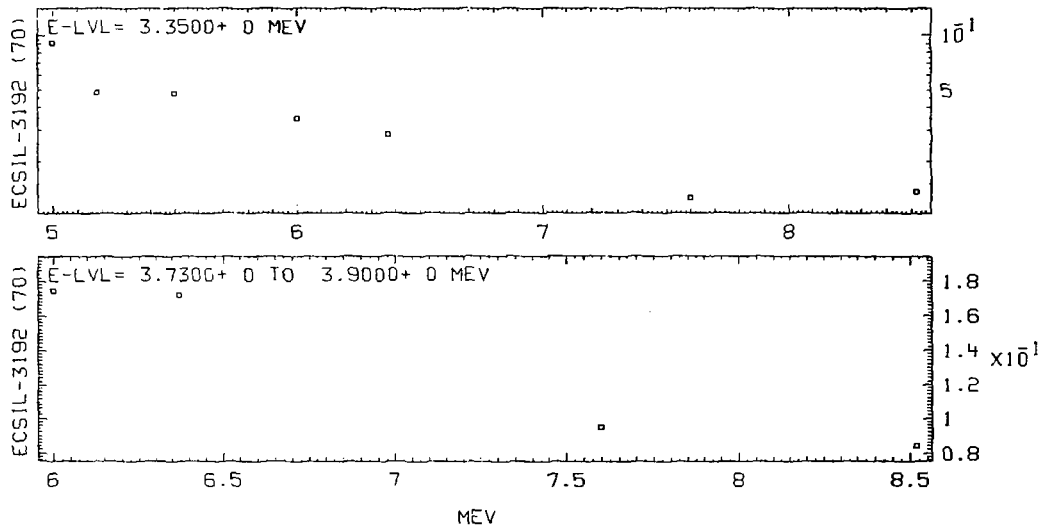
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
53	27	1.4500 ± 1	3.1400×2	1.1000×2	3.8000 ± 1



03/01/74

N.
CROSS SECTION

20-CA-NAT



03/01/74

NONELASTIC

20-CA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
56	34	2.5000+ 0	4.0000- 1	2.0000- 1	56	151	7.0000+ 0	2.0000- 1	1.1400+ 0	7.0020- 2
55	790	2.5000+ 0	1.5000- 1	4.0000- 1	55	200	1.4500+ 1		1.3500+ 0	2.0000- 2

03/01/74

N,N'

20-CA-NAT

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
70 3192	5.000+	0 5.000-	2 2.0540-	1 5.6090-	2 3.7300+ 0	70 3192	6.3700+	0 1.3000-	1 3.5990-	2 4.0310- 3 4.4900+ 0	
70 3192	5.1800+	0 5.000-	2 1.4000-	1 2.2680-	2 3.7300+ 0	70 3192	7.6000+	0 1.0000-	1 2.2580-	2 2.1450- 3 4.4900+ 0	
70 3192	5.5000+	0 5.000-	2 1.6270-	1 1.9040-	2 3.7300+ 0	70 3192	8.5200+	0 8.0000-	2 2.6660-	2 3.1990- 3 4.4900+ 0	
70 3192	5.1800+	0 5.000-	2 1.8000-	1 4.7350-	2 3.9000+ 0	70 3192	8.5200+	0 8.0000-	2 2.3120-	2 4.5080- 3 6.2800+ 0	
70 3192	5.5000+	0 5.000-	2 1.3420-	1 1.9450-	2 3.9000+ 0						

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
70 3192	7.6000+	0 1.0000-	1 8.5600-	2 7.4470-	3 5.2000+	0 5.2700+ 0
70 3192	8.5200+	0 8.0000-	2 6.1850-	2 5.7520-	3 5.2000+	0 5.2700+ 0
70 3192	7.6000+	0 1.0000-	1 4.5950-	2 6.0650-	3 5.6100+	0 5.6200+ 0
70 3192	8.5200+	0 8.0000-	2 3.2350-	2 3.8170-	3 5.6100+	0 5.6200+ 0
70 3192	7.6000+	0 1.0000-	1 5.7440-	2 1.1830-	2 5.9000+	0 6.0200+ 0
70 3192	8.5200+	0 8.0000-	2 4.9950-	2 6.7930-	3 5.9000+	0 6.0200+ 0
70 3192	8.5200+	0 8.0000-	2 5.3340-	2 9.0680-	3 6.5100+	0 6.5800+ 0

03/01/74

ABSORPTION

20-CA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
5B 364	2.5000-	2 4.0000-	3 1.3000-	2 1.0000- 2
5B 364	2.2000-	1 2.0000-	2 5.0000-	3 1.0000- 2
5B 364	8.3000-	1 4.0000-	2 8.0020-	3 1.0000- 2

03/01/74

N,X GAMMA

20-CA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	E-PHOTON MEV
56 140	3.9500+	0 3.0000-	2 1.2500-	1 6.3000-	2 3.0000- 2	
56 140	3.9500+	0 3.0000-	2 1.0200-	1 1.5000-	2 5.1000- 1	
56 140	3.9500+	0 3.0000-	2 7.1000-	2 1.8000-	2 7.6700- 1	
56 140	3.9500+	0 3.0000-	2 7.0000-	3 4.0000-	3 8.7700- 1	
56 140	3.9500+	0 3.0000-	2 2.3000-	2 6.0000-	3 1.1500+ 0	
63 1723	1.4100+	1 6.0000-	1 9.0000-	2	3.7300+	0 3.9000+ 0
56 140	3.9500+	0 3.0000-	2 7.3000-	2 3.0000-	2 3.7400+ 0	
56 140	3.9500+	0 3.0000-	2 3.6000-	2 1.6000-	2 3.9000+ 0	

03/01/74

N, X GAMMA
CROSS SECTION

20-CA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHN-MIN MEV	E-PHN-MAX MEV
63 1723	1.4100+ 1	6.0000- 1	5.6700- 1		2.0000+ 0	9.0000+ 0

03/01/74

BOUND ATOM

20-CA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		3.5000+ 0	

03/01/74

COHERENT SCATTERING

20-CA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		3.0000+ 0	2.4000- 1

03/01/74

N, N'P

20-CA-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 361	1.4000+ 1		2.0500- 1	3.8000- 2
58 3021	1.4100+ 1	1.0000- 1	1.8000- 1	3.2000- 2

03/01/74

N, N' ALPHA

20-CA-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2894	1.4100+ 1	1.0000- 1	2.3000- 2	6.0000- 3

03/01/74

N, P

20-CA-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 2032	6.0700+ 0		5.2000- 1	5.0000- 2

03/01/74

N,T
CROSS SECTION

20-CA-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 3369	1.4700+ 1	2.0000- 1	7.5000- 6	7.5000- 6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
68 1944	1.4200+ 1	2.0000- 1	1.8000- 4	2.0000- 5 7.7000+ 0

03/01/74

N, ALPHA

20-CA-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2032	6.0000+ 0		4.3000- 1	1.0000- 1

03/01/74

N, X ALPHA

20-CA-40

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2894	1.4100+ 1	1.0000- 1	1.3600- 1	2.0000- 2

03/01/74

N, P

20-CA-42

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 323	1.4000+ 1		1.6000- 1	3.0000- 2	65 1777	1.4600+ 1	2.0000- 1	1.8200- 1	2.1840- 2
58 1944	1.4200+ 1	2.0000- 1	1.9000- 1	2.4000- 2	66 1675	1.4700+ 1		1.7300- 1	1.2000- 2
66 3018	1.4600+ 1	2.0000- 1	1.9400- 1	2.3000- 2	61 3373	1.4900+ 1		1.4000- 1	4.5000- 2

03/01/74

N, P

20-CA-43

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1944	1.4200+ 1	2.0000- 1	9.3000- 2	1.2000- 2	65 1777	1.4600+ 1	2.0000- 1	1.1000- 1	1.3200- 2
66 3018	1.4600+ 1	2.0000- 1	1.3700- 1	3.0000- 2	66 1675	1.4700+ 1		1.0100- 1	8.0000- 3

03/01/74

N, D
CROSS SECTION

20-CA-43

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1944	1.4200+ 1	2.0000- 1	1.3000- 3	

03/01/74

N, P

20-CA-44

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 323	1.4000+ 1		3.7000- 2	7.0020- 3	65 1697	1.4800+ 1		9.1000- 2	2.0000- 2
68 1944	1.4200+ 1	2.0090- 1	2.0000- 2	8.0000- 3	61 3373	1.4900+ 1		2.5000- 2	1.2000- 2
66 1675	1.4700+ 1		4.5000- 2	6.0000- 3					

03/01/74

N, D

20-CA-44

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1944	1.4200+ 1	2.0000- 1	2.6000- 3	4.0000- 4

03/01/74

N, ALPHA

20-CA-44

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1944	1.4200+ 1	2.0000- 1	3.5000- 2	3.0000- 3
65 1657	1.4800+ 1		1.1300- 1	2.0000- 2
61 3373	1.4900+ 1		3.5000- 2	1.0000- 2

03/01/74

COHERENT SCATTERING

20-CA-44

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1564	7.3000- 8		4.0000- 1	6.0000- 2

03/01/74

N,2N
CROSS SECTION

20-CA-48

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
67	2009	1.3300+ 1	8.6000- 1	1.2900- 1	62	040	1.4500+ 1	5.0000- 1	9.2020- 1	
68	1944	1.4200+ 1	2.0000- 1	9.0000- 1	1.0800- 1	61	3373	1.4900+ 1	1.0700+ 0	3.6000- 1

03/01/74

N, ALPHA

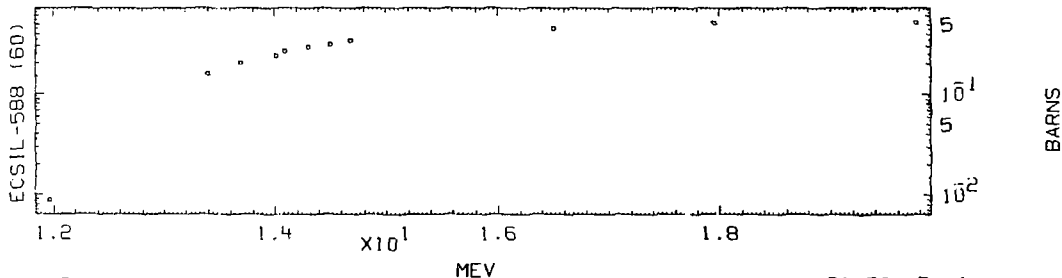
20-CA-48

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67	1780	1.4100+ 1	3.9000- 2	5.8500- 3

03/01/74

N,2N
CROSS SECTION

21-SC-45



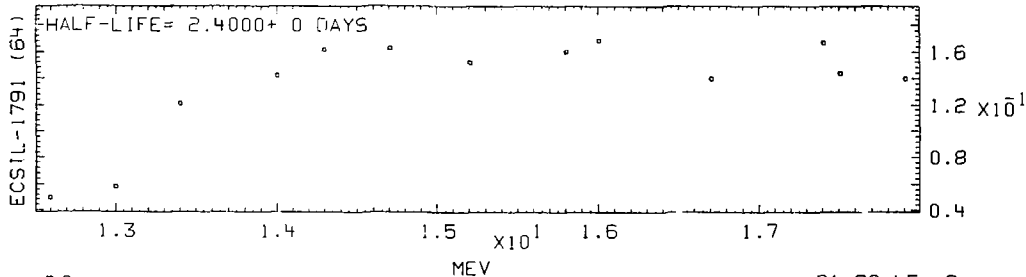
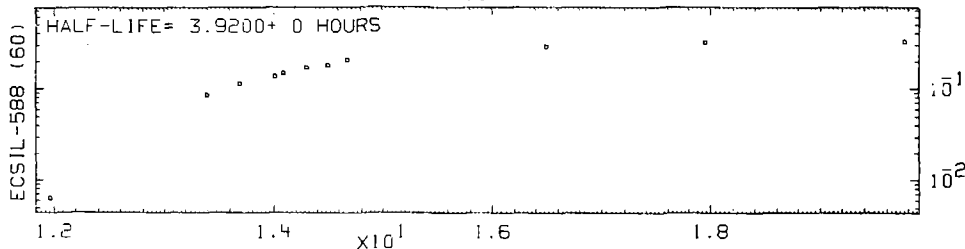
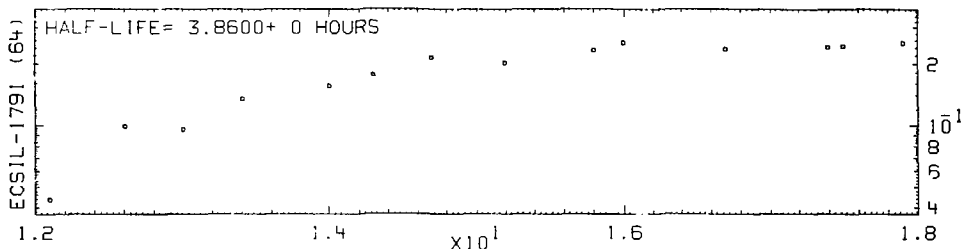
3-7

21-SC-45 -1

03/01/74

N,2N
CROSS SECTION

21-SC-45



3-8

21-SC-45 -2

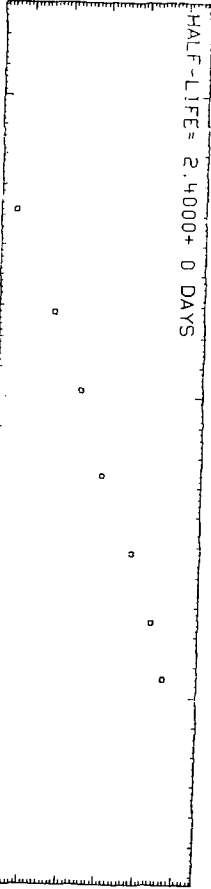
03/01/74

N:ZN

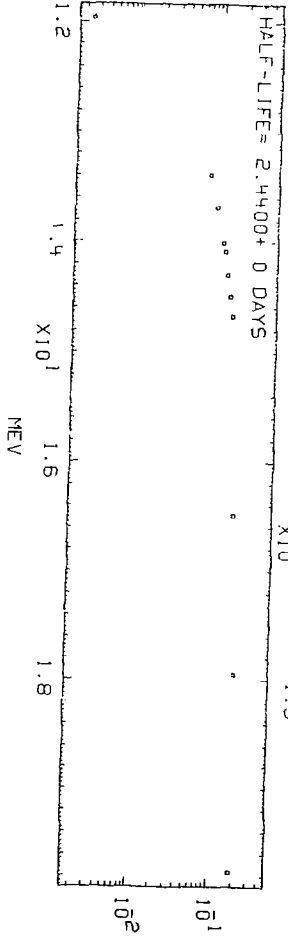
21-SC-45

CROSS SECTION

ECSIL-1792 (61)



ECSIL-588 (60)



BARNs

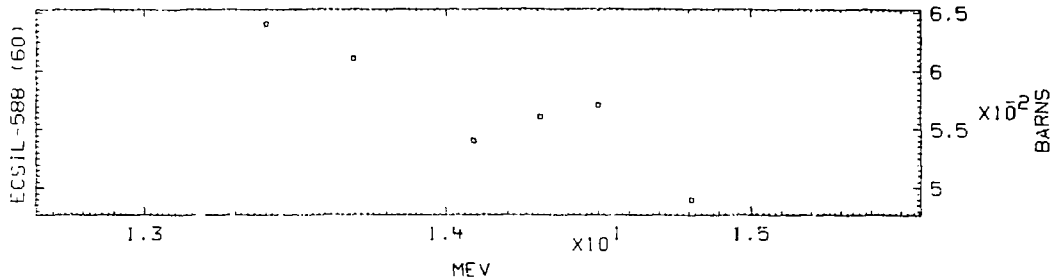
3-9

21-SC-45 -3

03/01/74

N,P
CROSS SECTION

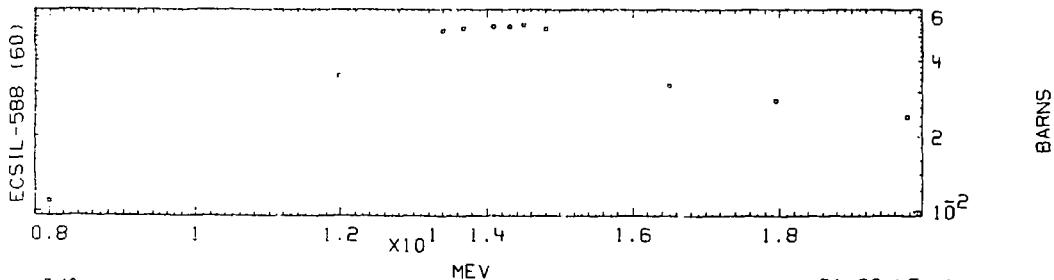
21-SC-45



03/01/74

N,ALPHA
CROSS SECTION

21-SC-45



3-10

21-SC-45 -4

03/01/74

N,2N

21-SC-45

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs				
61	676	1.4400+ 1	3.0000-	1 3.4700-	1 2.6000-	63	756	1.4800+ 1	2.0000-	1 2.0400-	1 2.5000-	2	
67	2009	1.4600+ 1		3.2000-	1 4.8000-	2	61	660	1.4800+ 1		3.2800-	1 4.9000-	2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS		
62	108	1.4130+ 1	1.0000-	1 1.3000-	1 7.8020-	3 3.9200+ 0	67	1901	1.4800+ 1	5.0000-	1 1.0000-	1 1.0000-	2 4.0000+ 0
61	660	1.4800+ 1		1.7900-	1 2.7000-	2 3.9200+ 0	59	615	1.4000+ 1	5.0000-	1 1.2900-	1 9.0020-	3 4.0100+ 0
66	2889	1.4000+ 1		1.5200-	1 2.2000-	2 4.0000+ 0	61	703	1.4800+ 1	5.0000-	1 1.4800-	1 2.2200-	2 4.0100+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS	
66	2889	1.4000+ 1		1.9500-	1 3.0000-	2 2.4000+ 0
61	660	1.4800+ 1		1 4900-	1 2.2000-	2 2.4400+ 0

03/01/74

N,X GAMMA

21-SC-45

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV		
61	11 1.6100+ 0		1.3600-	1 5.4400-	3 3.7300-	1	61	11 1.6100+ 0		6.6000-	2 2.6400-	3 5.6300-	1
61	11 1.6100+ 0		1.2900-	1 5.1600-	3 5.3400-	1	61	11 1.6100+ 0		1.2300-	1 4.9200-	3 1.2200+ 0	0
61	11 1.6100+ 0		1.7500-	1 7.0020-	3 7.1500-	1	61	11 1.6100+ 0		7.6000-	2 3.0400-	3 1.4900+ 0	0

03/01/74

N,P

21-SC-45

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
66	1675	1.4700+ 1		5.7000-	2 8.0000-	3

03/01/74

N,ALPHA

21-SC-45

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
63	756	1.4800+ 1	2.0000-	1 6.3020-	2 1.2000-	2
61	660	1.4800+ 1		6.3020-	2 9.0020-	3

03/01/74

N, ALPHA
CROSS SECTION

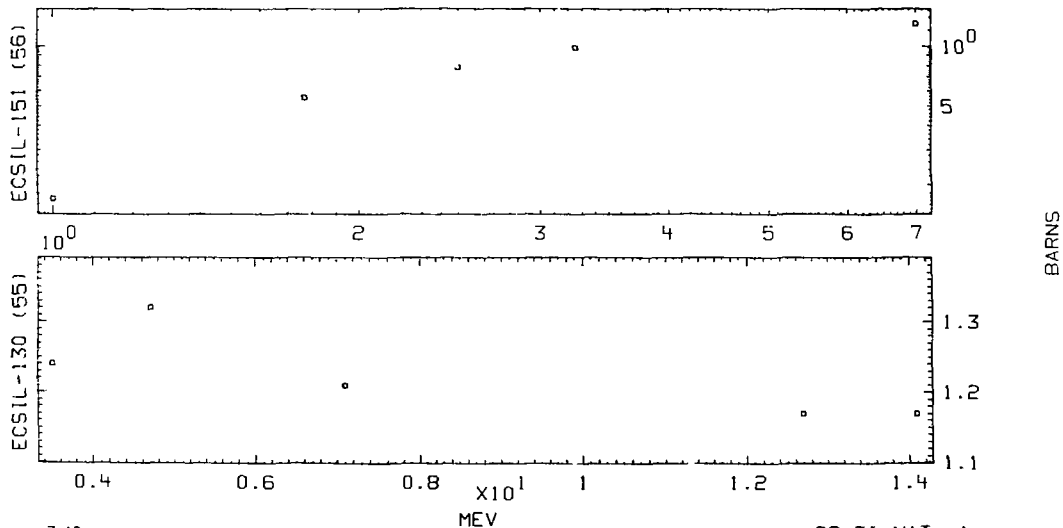
21-SC-45

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNS	DELTA HALF-LIFE BARNS HOURS
59 619	1.4000+ 1	5.0000- 1	1.3200- 1	8.0020- 3 1.2400+ 1

03/01/74

NONELASTIC
CROSS SECTION

22-TJ-NAT



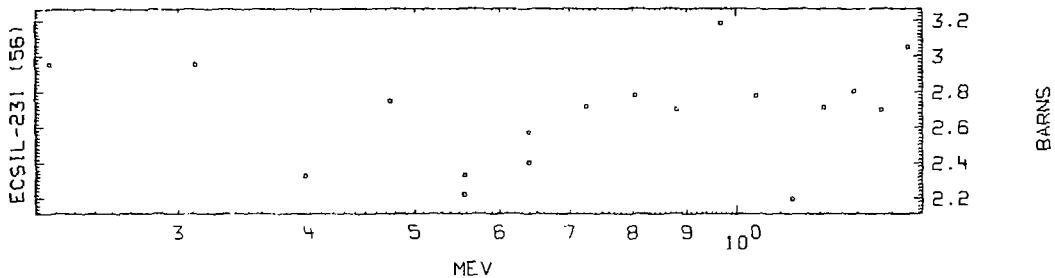
3-12

22-TJ-NAT -1

03/01/74

TOTAL SCATTERING
CROSS SECTION

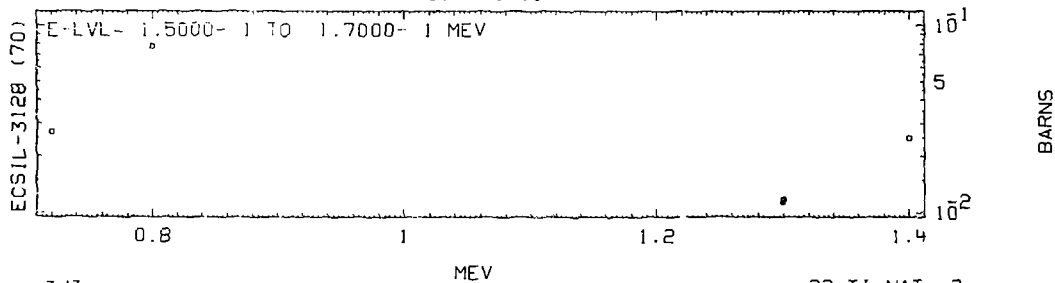
22-TI-NAT



03/01/74

N,N'
CROSS SECTION

22-TI-NAT



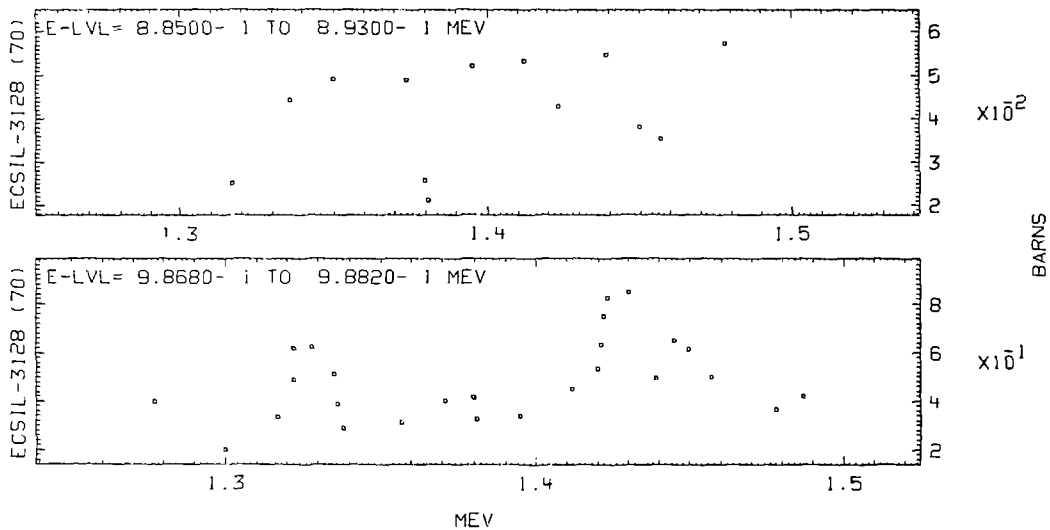
3-13

22-TI-NAT -2

03/01/74

N,N'
CROSS SECTION

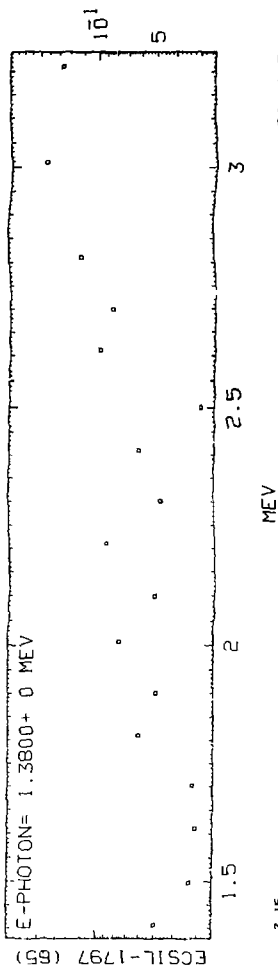
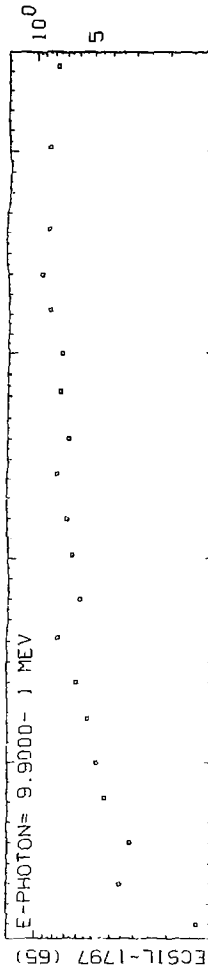
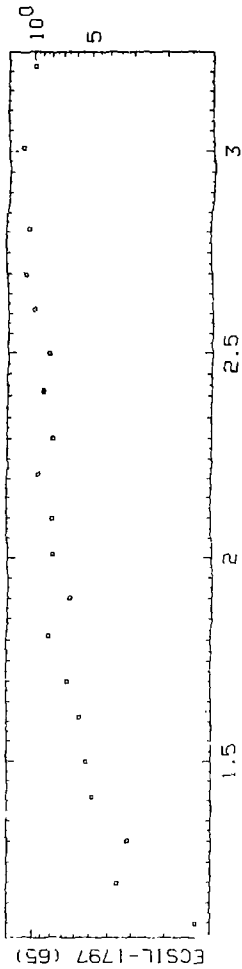
22-TI-NAT



03/01/74

N, X GAMMA
CROSS SECTION

22-TI-NAT



BARNs

3-15

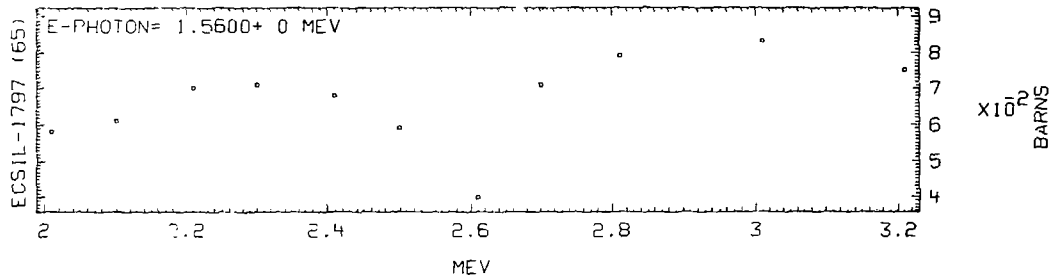
MEV

22-TI-NAT -4

03/01/74

N,X GAMMA
CROSS SECTION

22-TI-NAT



03/01/74

NONELASTIC

22-TI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55	122 4.0000+ 0	7.0020- 2	1.2800+ 0	7.0020- 2	57	319 1.4200+ 1	1.5000- 1	1.3300+ 0	3.0000- 2
55	295 4.1000+ 0	4.0000- 2	1.2000+ 0	2.0000- 1	58	356 2.5500+ 1		1.0800+ 0	6.0020- 2
55	122 4.5000+ 0	7.0020- 2	1.1800+ 0	7.0020- 2					

03/01/74

TOTAL SCATTERING

22-TI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	2561 7.0000- 8		4.0000+ 0	

03/01/74

N,2N

22-TI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	1821 1.4100+ 1		5.2000- 1	4.0000- 2

03/01/74

N,P
CROSS SECTION

22-TI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 689	1.4400+ 1	2.0000- 1	3.5000- 2	4.0000- 3

03/01/74

BOUND ATOM

22-TI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		6.0000+ 0	

03/01/74

FREE ATOM

22-TI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 887	4.5000- 5		4.0200+ 0	4.0000- 2

03/01/74

COHERENT SCATTERING

22-TI-NAT

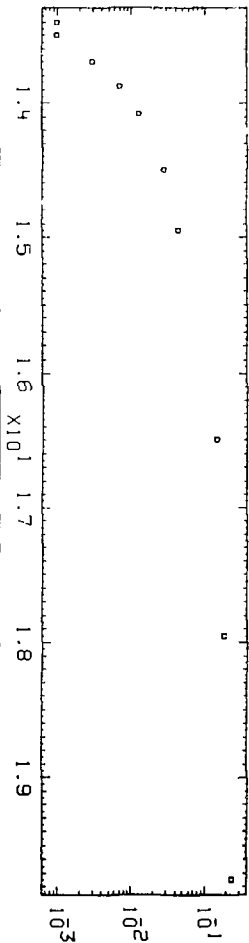
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 2564	2.5300- 8		1.6000+ 0	3.0000- 1
60 561	7.0000- 8		1.4500+ 0	1.1600- 1
51 1584	7.3000- 8		1.8000+ 0	1.4400- 1

03/01/74

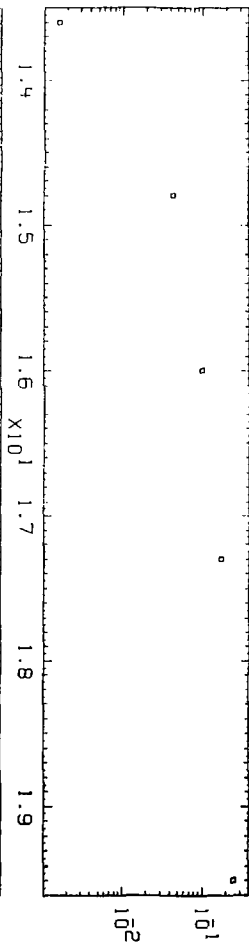
N,2N
CROSS SECTION

22-T1-46

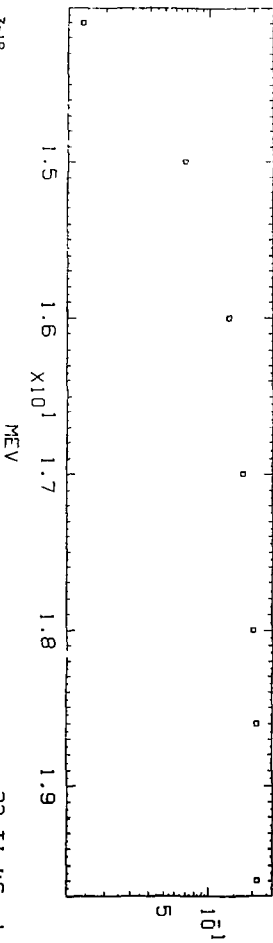
ECSIL-588 (60)



ECSIL-1799 (66)



ECSIL-1800 (65)



BARN

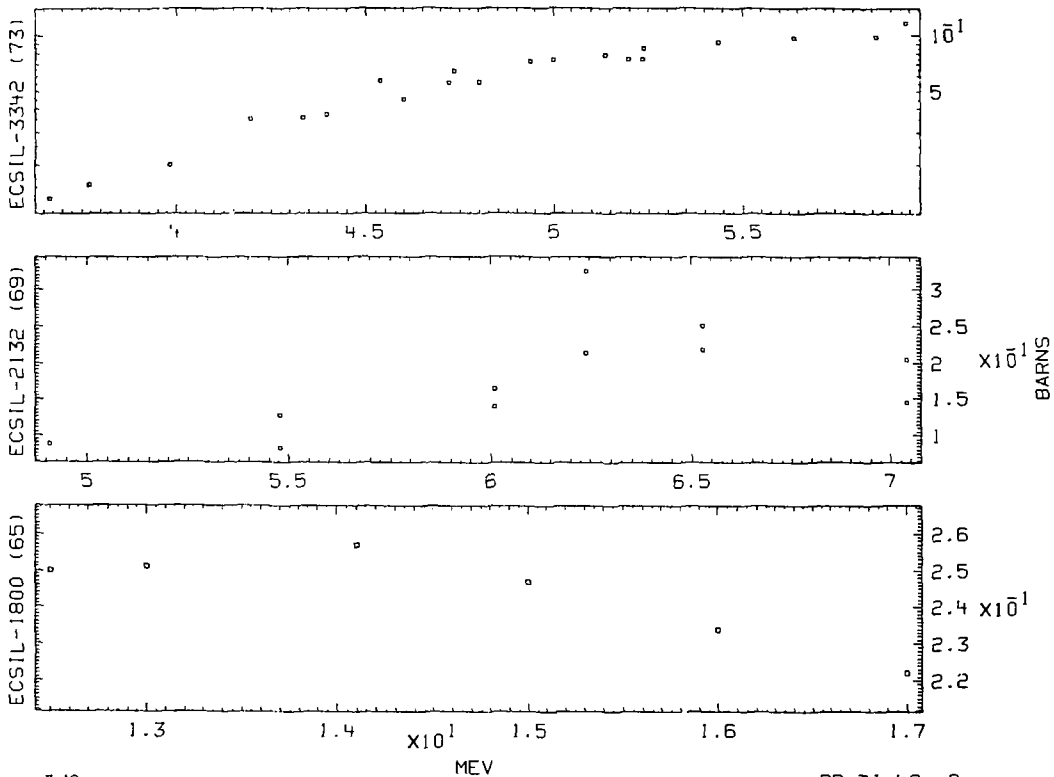
3-18

22-T1-46 -1

03/01/74

N,P
CROSS SECTION

22-TI-46



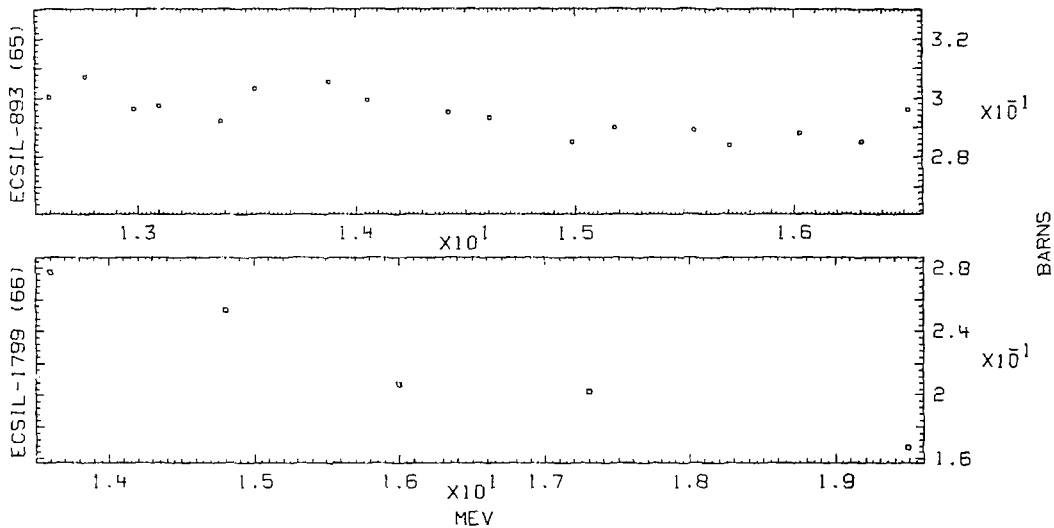
3-19

22-TI-46 -2

03/01/74

N,P
CROSS SECTION

22-TI-46



03/01/74

TOTAL SCATTERING

22-TI-46

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
60 2561	7.0000- 8		2.1000+ 0	

03/01/74

N,P
CROSS SECTION

22-TI-46

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
62	108	1.4130+ 1	1.0000- 1	1.3300- 2	1.1000- 3	63	1009	1.4700+ 1	5.0000- 2		
61	676	1.4400+ 1	3.0000- 1	3.2000- 2	2.0000- 3	59	662	1.4800+ 1	9.0020- 1	5.0000- 2	8.0020- 3
65	1672	1.4600+ 1	1.0000- 1	5.6000- 2	5.0000- 3						

03/01/74

N,P

22-TI-46

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
71	3178	4.1000+ 0	2.0000- 1	4.6000- 2	8.0000- 3	63	1009	1.4500+ 1	2.6000- 1	3.0000- 2	
71	3178	5.0000- 0	2.0000- 1	1.0600- 1	2.0000- 2	64	1801	1.4700+ 1	7.0000- 1	3.2400- 1	9.7200- 2
71	3178	6.1000+ 0	2.0000- 1	1.4900- 1	2.7000- 2	59	662	1.4800+ 1	9.0020- 1	5.2020- 1	
61	361	1.4000+ 1	2.0000- 1	2.0300- 1	2.1000- 2						

03/01/74

COHERENT SCATTERING

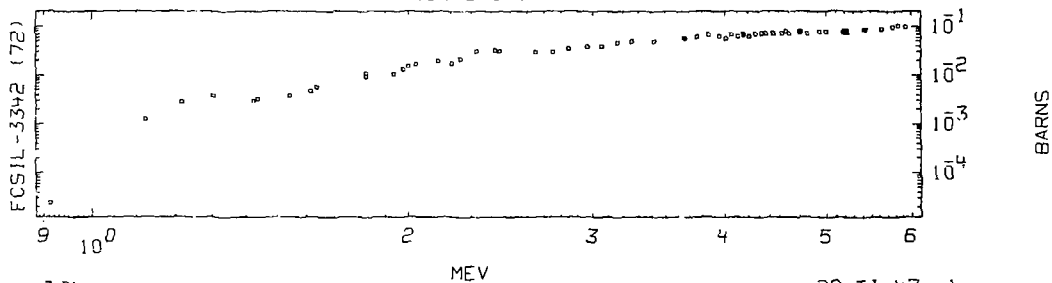
22-TI-46

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	2561	7.0000- 0	2.9000+ 0	2.3200- 1

03/01/74

N,P
CROSS SECTION

22-TI-47



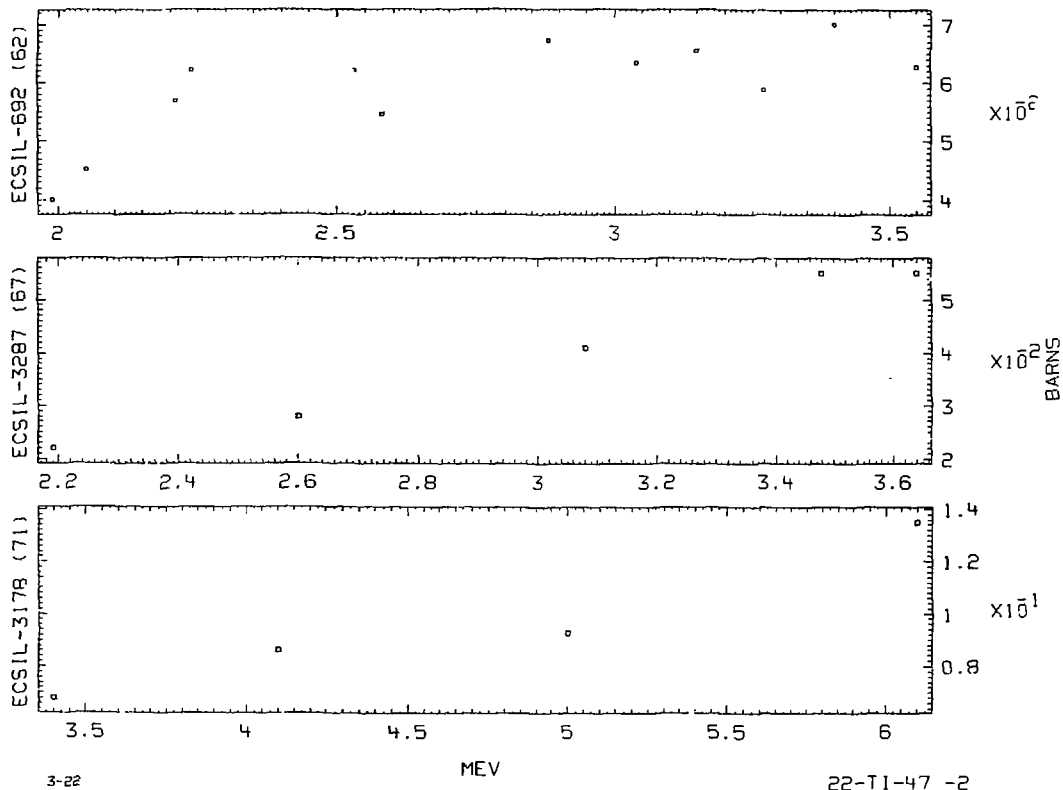
3-21

22-TI-47 -1

03/01/74

N,P
CROSS SECTION

22-11-47



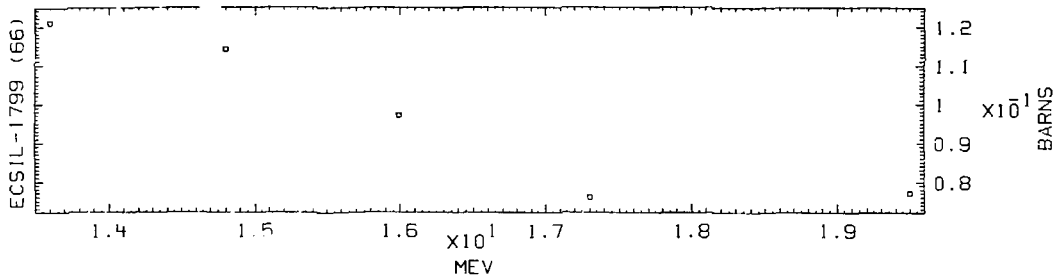
3-22

22-11-47 -2

03/01/74

N,P
CROSS SECTION

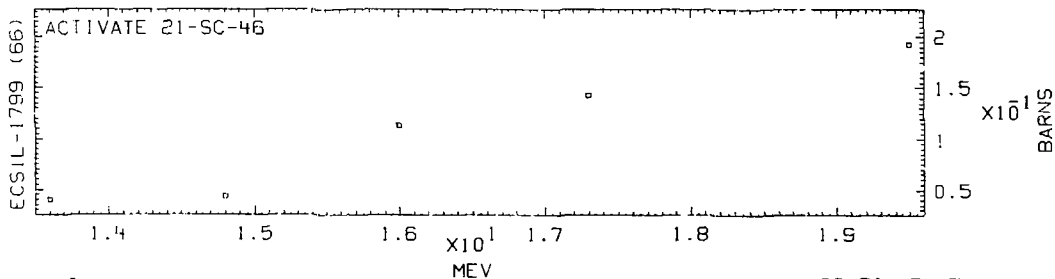
22-TI-47



03/01/74

ACTIVATION
CROSS SECTION

22-TI-47



3-23

22-TI-47 - 3

03/01/74

TOTAL SCATTERING
CROSS SECTION

22-TI-47

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 2551	7.0000- 8		1.3000+ 0	

03/01/74

N,P

22-TI-47

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 351	1.4000+ 1		1.2000- 1	1.5000- P	62 840	1.4500+ 1	5.0000- 1	9.9020- 2	2.0000- 2
63 1009	1.4500+ 1		1.2000- 1	1.2000- P	59 662	1.4800+ 1	9.0020- 1	2.3000- 1	4.0000- 2

03/01/74

N, ALPHA

22-TI-47

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
69 2710	1.4600+ 1		1.6000- 3	6.0000- 4	1.1560+ 0

03/01/74

ACTIVATION

22-TI-47

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	ACTIVATE
63 1009	1.4500+ 1		5.4000- 2	1.5000- 2	21-9C-4E

03/01/74

COHERENT SCATTERING

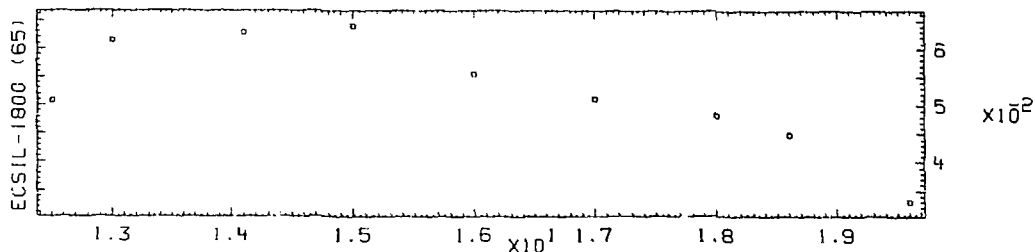
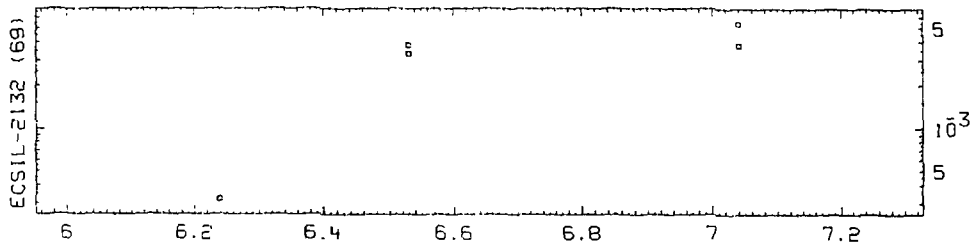
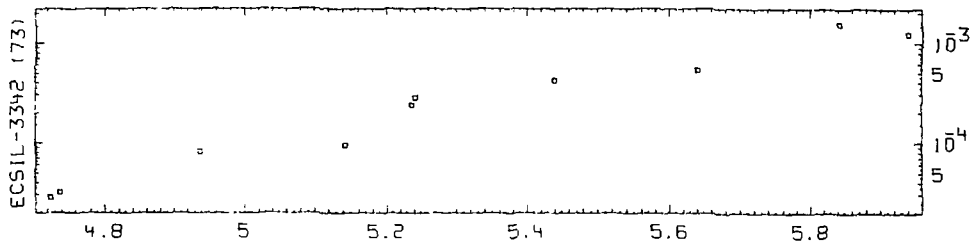
22-TI-47

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 2551	7.0000- 8		1.3700+ 0	1.0960- 1

03/01/74

N. P.
CROSS SECTION

22-T1-48



BARNs

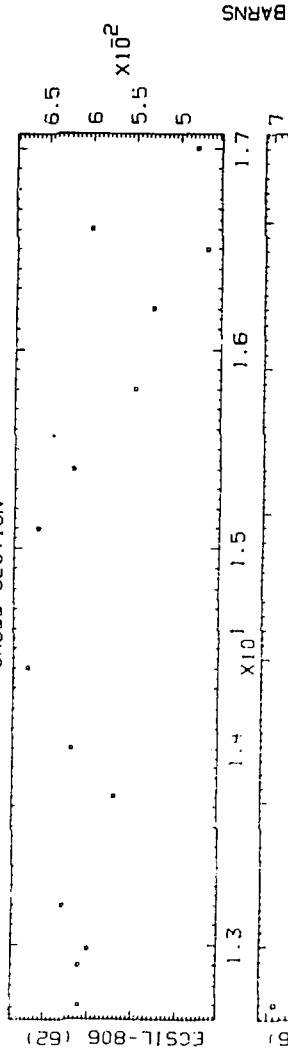
$\times 10^{10}$

03/01/74

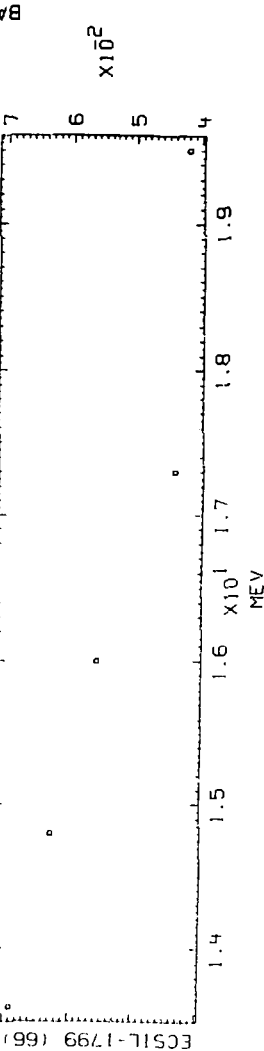
N,P

22-T1-48

CROSS SECTION



ECSIL-806 (62)

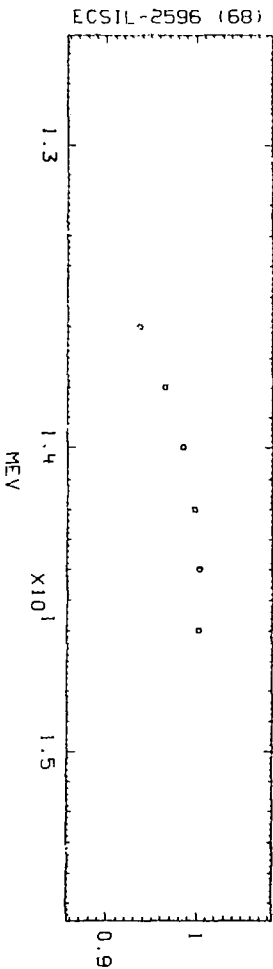


ECSIL-1799 (66)

03/01/74

N,P
CROSS SECTION

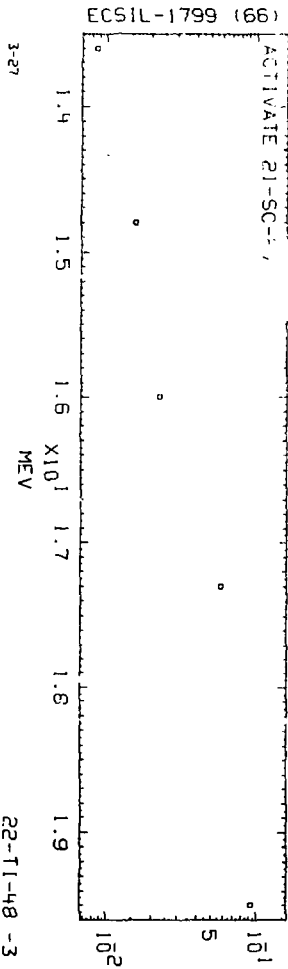
22-TI-48



03/01/74

ACTIVATION
CROSS SECTION

22-TI-48



3-27

22-TI-48 -3

03/01/74

TOTAL SCATTERING
CROSS SECTION

22-TI-48

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 2561	7.0000- 8		3.7000+ 8	

03/01/74

N, P

22-TI-48

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
71 3176	6.1000+ 0	2.0000- 1	2.4000- 3	4.0000- 4	53 27	1.4500+ 1		9.2720- 2	3.2000- 2
61 361	1.4000+ :		2.9000- 2	6.0000- 3	68 2586	1.4700+ 1	7.5000- 2	6.6500- 2	2.5000- 3
63 1009	1.4500+ :		5.2000- 2	7.0000- 3	59 662	1.4800+ 1	9.0020- 1	5.8020- 2	8.0020- 3
62 846	1.4500+ :	6.0000- 1	5.5020- 2	1.1000- 2					

03/01/74

N, ALPHA

22-TI-48

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 1009	1.4500+ 1		4.8000- 2	1.0000- 2

03/01/74

ACTIVATION

22-TI-48

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	ACTIVATE
63 1009	1.4500+ 1		1.2400- 2	2.0000- 3	21-SC-47

03/01/74

COHERENT SCATTERING

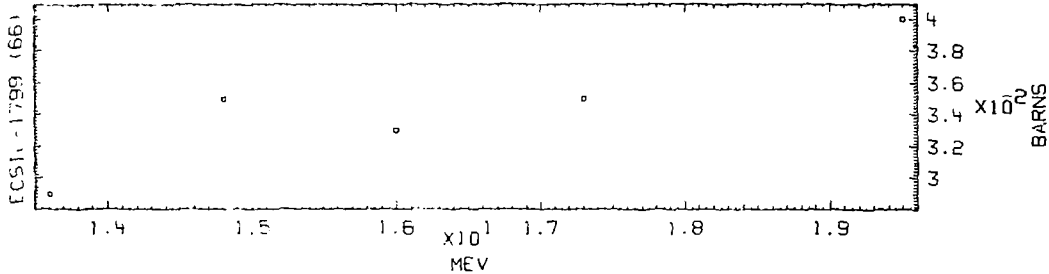
22-TI-48

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 2561	7.0000- 8		4.2300+ 0	3.3840- 1

01/74

N,P
CROSS SECTION

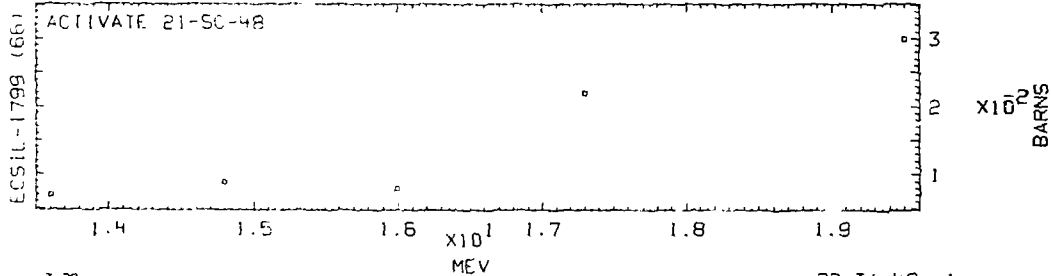
22-11-49



03/01/74

ACTIVATION
CROSS SECTION

22-11-49



3-28

22-11-49 -1

03/01/74

TOTAL SCATTERING
CROSS SECTION

22-TI-49

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 2561	7.0000- 8		1.0000+ 0	

03/01/74

N.P

22-TI-49

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 1009	1.4500+ 1		3.5000- 2	4.0000- 3
62 682	1.4800+ 1	9.0020- 1	2.9000- 2	5.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
59 619	1.4500+ 1	5.0000- 1	9.7020- 2	1.6000- 2	5.6320+ 1

03/01/74

ACTIVATION

22-TI-49

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	ACTIVATE
63 1009	1.4500+ 1		9.0000- 3	2.0000- 3	21-50-48

03/01/74

COHERENT SCATTERING

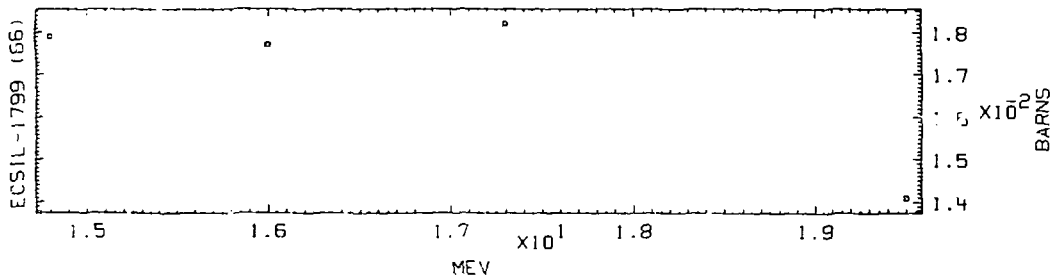
22-TI-49

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 2561	7.0.00- 8		8.0000- 2	6.4000- 3

03/01/74

N,P
CROSS SECTION

22-TI-50



03/01/74

TOTAL SCATTERING

22-TI-50

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
60	2561	7.0000- 0	3.5000+ 0	

03/01/74

N,P

22-TI-50

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
63	1009	1.4500- 1	1.7000- 2	3.0000- 3	63	756	1.4800+ 1	2.0000- 1	2.8000- 2
64	1801	1.4700- 1	9.0000- 3	2.7000- 3	59	662	1.4800+ 1	9.0020- 1	7.5020- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE MINUTES
59	619	1.4200- 1	5.0000- 1	1.4700- 1	1.3000- 2

03/01/74

N, ALPHA
CROSS SECTION

22-TI-50

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1780	1.4100 ⁺¹		9.4000 ⁻³	2.8200 ⁻³
63 1009	1.4500 ⁺¹		8.6000 ⁻³	2.0000 ⁻³
62 840	1.4500 ⁺¹	5.0000 ⁻¹	1.0000 ⁻²	2.0000 ⁻³

03/01/74

COHERENT SCATTERING

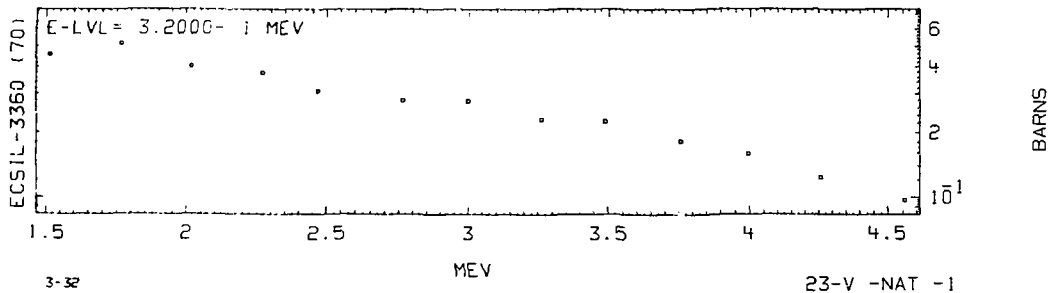
22-TI-50

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 2561	7.0000 ⁻²		3.8000 ⁺⁰	3.0400 ⁻¹

03/01/74

N, N'
CROSS SECTION

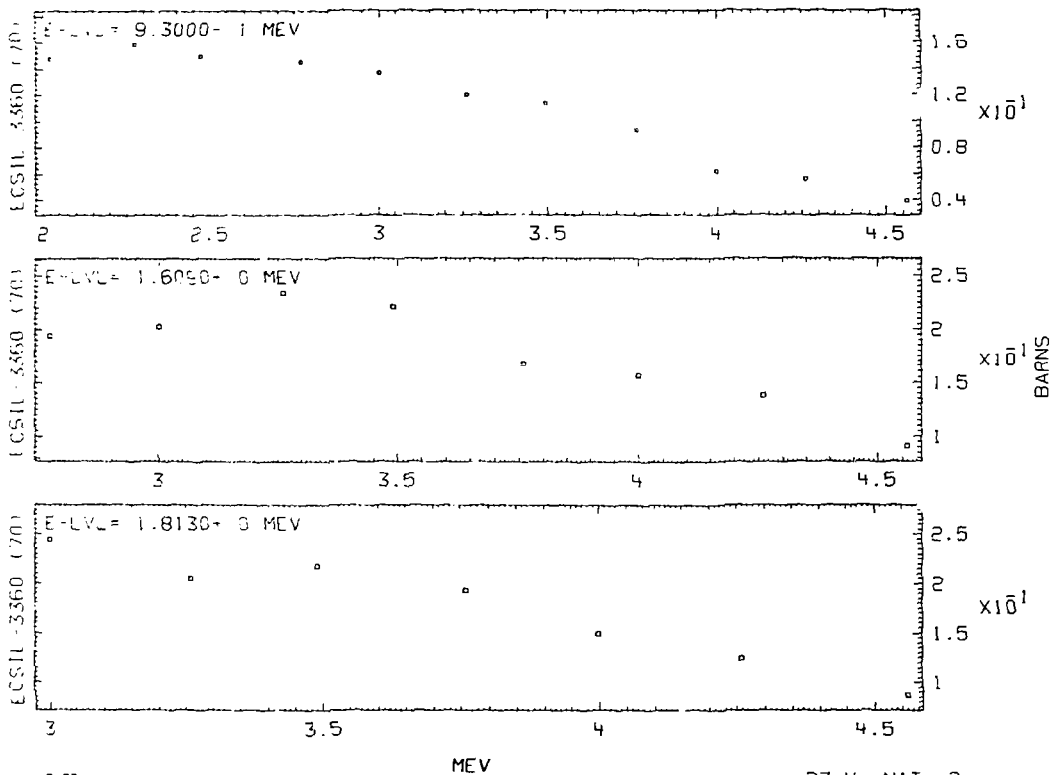
23-V -NAT



03/01/74

N,N'
CROSS SECTION

23-V -NAT



3-33

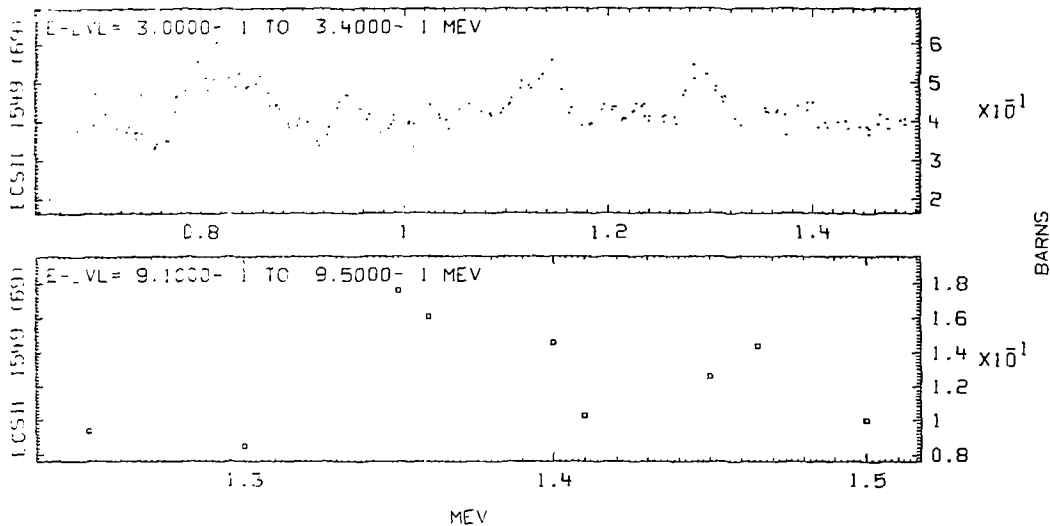
MEV

23-V -NAT -2

03 01/74

N,N'
CROSS SECTION

23-V -NAT



03/01/74

N,N'

23-V -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
63 836	7.0000+ 0		1.2700+ 0	1.1000- 1		70 3360	4.5600+ 0	5.0000- 2	5.7000- 2	1.7100- 2	2.6750+ 0
70 3360	4.5600+ 0	5.0000- 2	3.8000- 2	1.1400- 2	2.4090+ 0	70 3360	4.5600+ 0	5.0000- 2	5.7000- 2	1.7100- 2	2.6990+ 0
70 3360	4.5600+ 0	5.0000- 2	1.3000- 2	6.5000- 3	2.5450+ 0						

3-34

23-V -NAT -3

03/01/74

N,N'
CROSS SECTION

23-V -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
70 3360	4.5600+ 0	5.0000- 2	1.0000- 2	5.0000- 3	2.7900+ 0

03/01/74

ABSORPTION

23-V -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2569	2.5300- 8		6.2900+ 0	3.4000- 1
53 370	2.5300- 8		5.5500+ 0	2.0000- 1
58 1162	2.5300- 8		5.0100+ 0	7.0000- 2

03/01/74

BOUND ATOM

23-V -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		5.0000+ 0	

03/01/74

FREE ATOM

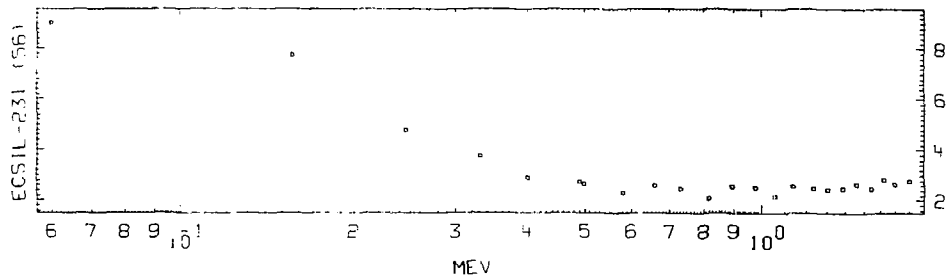
23-V -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 874	5.0000- 6		5.0700+ 0	1.5000- 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

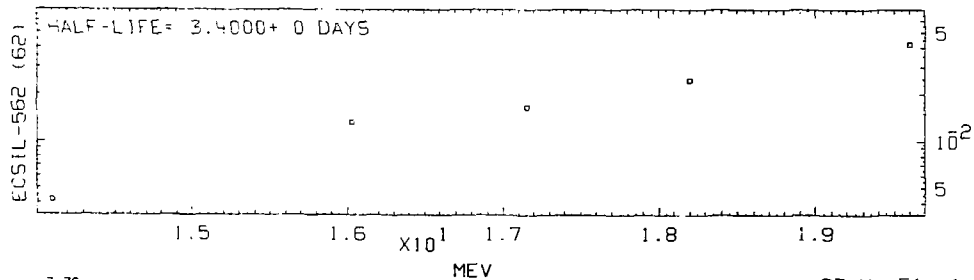
23-V -51



03/01/74

N,N'ALPHA
CROSS SECTION

23-V -51



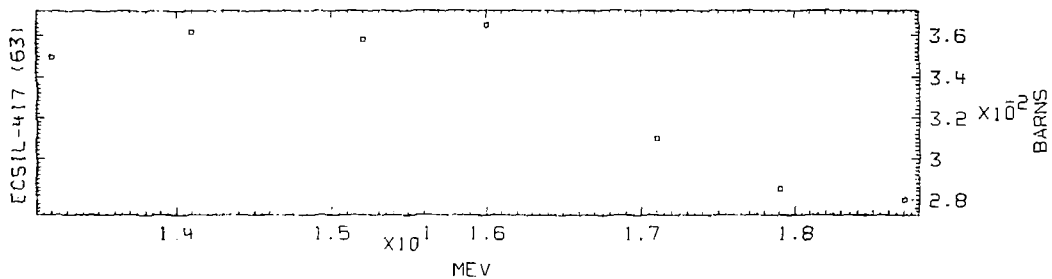
5-36

23-V -51 -1

03/01/74

N,P
CROSS SECTION

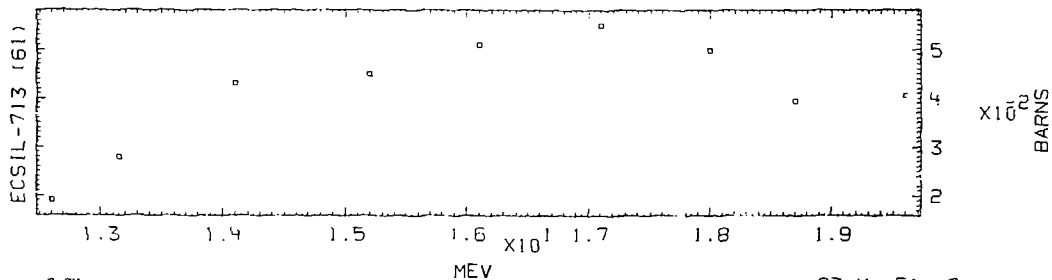
23-V -51



03/01/74

N, ALPHA
CROSS SECTION

23-V -51



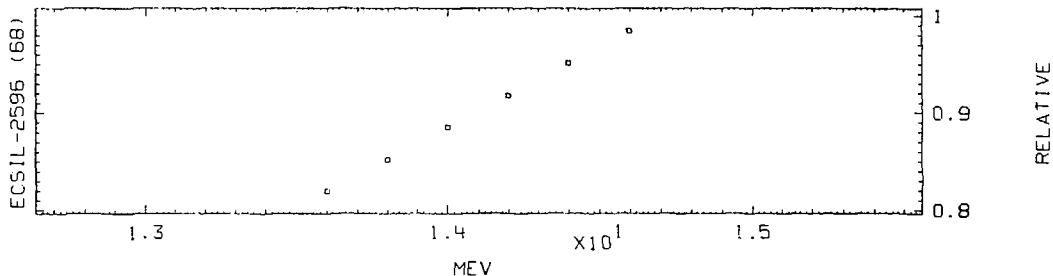
3-37

23-V -51 -2

03/01/74

N, ALPHA
CROSS SECTION

23-V -51



03/01/74

N, N'

23-V -51

REFERENCE	ENERGY MEV	DELTA MEV	Y-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV		
65	1809	2.3500+ 0	7.0000- 2	3.6000- 1	3.0000- 2	3.2000- 1	65	1809	2.3500+ 0	7.0000- 2	2.0700- 1	1.0000- 2	1.6100+ 0
65	1809	2.3500+ 0	7.0000- 2	1.6000- 1	8.0000- 1	3.93000- 1	65	1809	2.3500+ 0	7.0000- 2	1.4500- 1	1.5000- 2	1.8100+ 0

03/01/74

N, 2N

23-V -51

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
56	7	1.4100+ 1	6.6020- 1	5.0000- 2

03/01/74

N, N' ALPHA

23-V -51

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
58	614	1.4100+ 1	1.0000- 4	5.0000- 5
58	537	1.4800+ 1	1.3020- 2	1.2000- 2

03/01/74

N,P
CROSS SECTION

23-V -51

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361	1.4000+ 1	2.0000- 2	7.0020- 3	65	1697	1.4800+ 1	2.5000- 2	3.0000- 3
53	27	1.4500+ 1	2.7000- 2	4.1000- 3	63	756	1.4800+ 1	2.0000- 1	5.5020- 2
66	927	1.4800+ 1	1.0000- 1	2.4700- 2					2.2000- 3

03/01/74

N, HE-3

23-V -51

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	667	1.4800+ 1	9.0020- 1	8.0020- 4

03/01/74

N, ALPHA

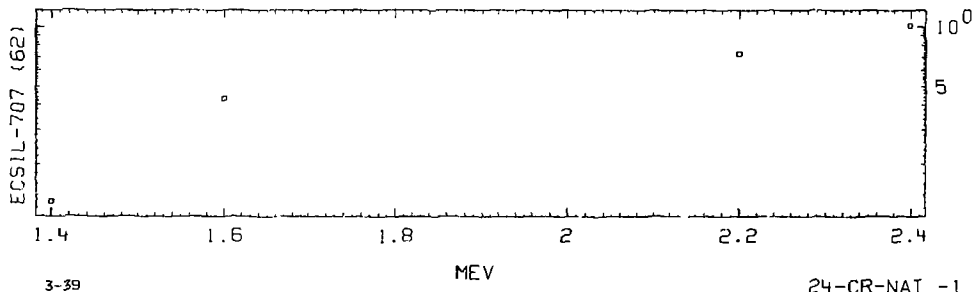
23-V -51

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
58	614	1.4100+ 1	1.3500- 2	1.4000- 3	68	2596	1.4700+ 1	7.5000- 2	1.6400- 2	
62	840	1.4500+ 1	5.0000- 1	1.8000- 2	3.6000- 3	63	756	1.4800+ 1	2.0000- 1	2.3000- 2
53	27	1.4500+ 1	2.8600- 2	1.2000- 2	58	537	1.4800+ 1	4.3000- 2	6.0020- 3	

03/01/74

NONELASTIC
CROSS SECTION

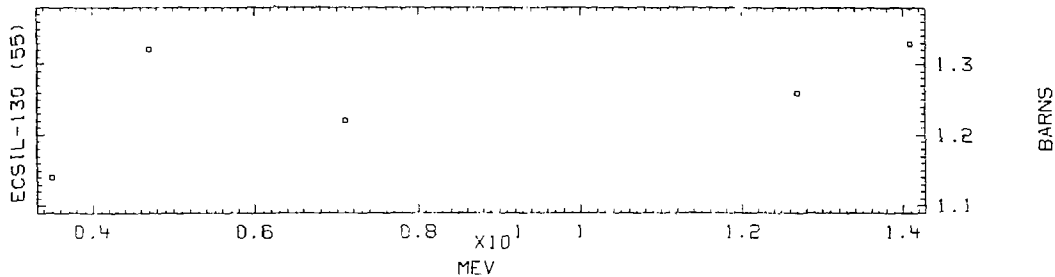
24-CR-NAT



03/01/74

NONELASTIC
CROSS SECTION

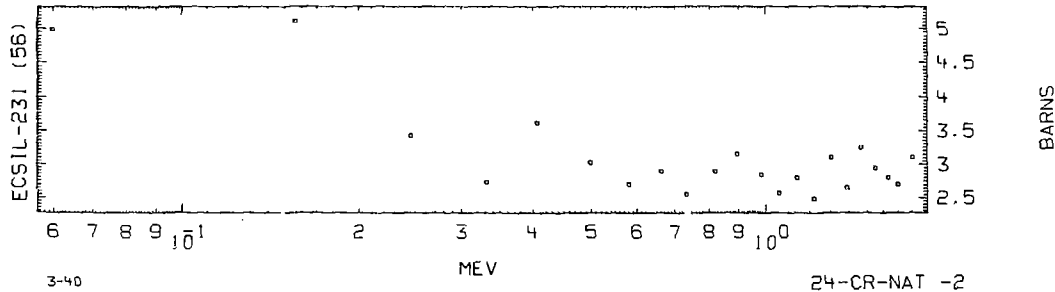
24-CR-NAT



03/01/74

TOTAL SCATTERING
CROSS SECTION

24-CR-NAT



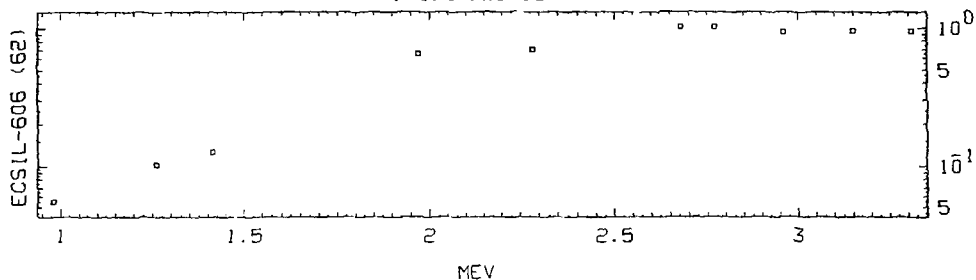
3-40

24-CR-NAT -2

03/01/74

N,N'
CROSS SECTION

24-CR-NAT

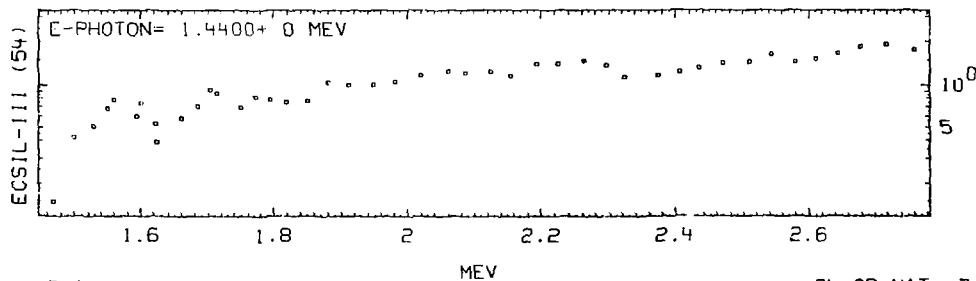


BARNs

03/01/74

N,X GAMMA
CROSS SECTION

24-CR-NAT



BARNs

3-41

24-CR-NAT -3

03/01/74

NONELASTIC
CROSS SECTION

24-CR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 34	2.5000+ 0		1.4000+ 0	3.0000- 1
55 760	2.5000+ 0	1.5000- 1	4.000+ 0	3.0000- 1

03/01/74

TOTAL SCATTERING

24-CR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 678	9.9000	5.0000- 2	2.9900+ 0	0.9700- 2

03/01/74

N,N'

24-CR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
54 30	2.5000+ 0		1.0000+ 0	2.5000- 1	1.4200+ 0

03/01/74

ABSORPTION

24-CR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1364	2.4000- 2		1.0000- 2	4.0000- 3	59 364	2.2000- 1	2.0000- 2	3.6000- 2	1.0000- 3
58 364	2.5000- 2	4.0000- 3	1.6200- 1	7.0000- 3	58 764	2.3000- 1	4.0000- 2	2.1000- 2	1.0000- 3

03/01/74

N,X GAMMA

24-CR-NAT

REFERENCE	ENERGY E.V	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
54 113	3.2000+ 0	3.0000- 2	2.7000- 2	5.0000- 3	7.5000- 1	54 113	3.2000+ 0	3.0000- 2	7.3000- 1	1.5000- 2	1.4300+ 0
54 113	3.2000+ 0	3.0000- 2	1.0000- 1	2.0000- 2	9.4000- 1	51 264	2.5000- 0		1.2000+ 0	4.0000- 1	1.4600+ 0

03/01/74

BOUND ATOM
CROSS SECTION

24-CR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1.584	0.3000	8	
			3.8000	0

03/01/74

COHERENT SCATTERING

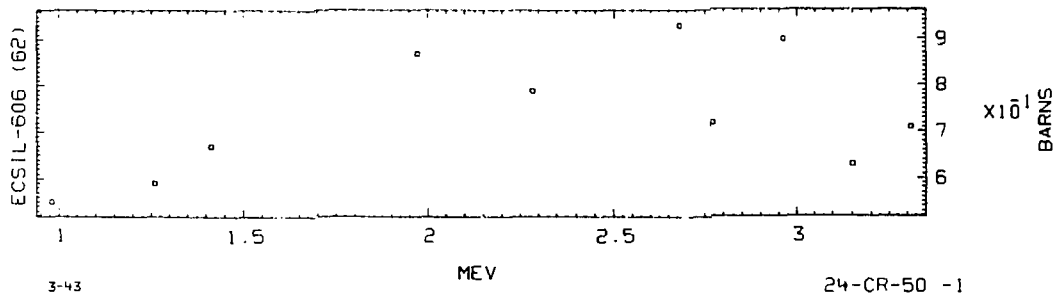
24-CR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1.584	0.3000	8	
			1.7000	0
			1.3600	1

03/01/74

N,N'
CROSS SECTION

24-CR-50

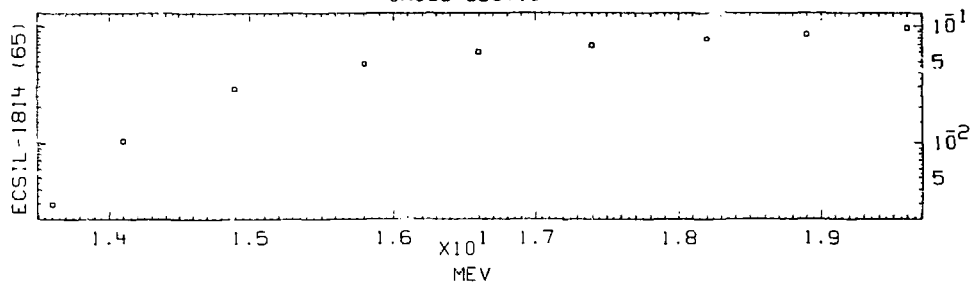


03/01/74

N,2N

24-CR-50

CROSS SECTION



BARNs

03/01/74

N,2N

24-CR-50

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	676 1.4400+ 1	3.0000- 1	2.6400- 2	2.2000- 3	61	703 1.4800+ 1	2.5000- 1	2.7000- 2	7.0020- 3
61	701 1.4800+ 1		1.8800- 2	1.9900- 3	61	660 1.4806+ 1		3.2000- 2	3.0000- 3

03/01/74

N,N'P

24-CR-50

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361 1.4000+ 1		1.5300- 1	2.1000- 2

03/01/74

N,P

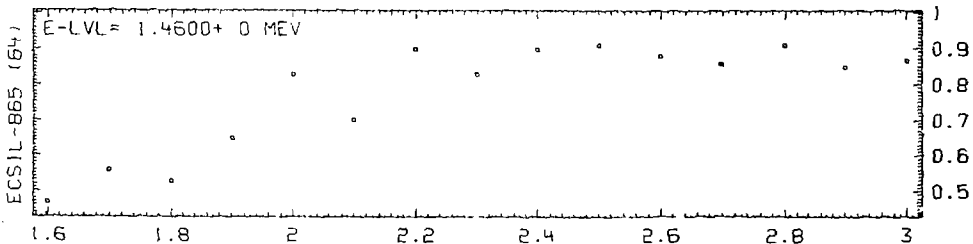
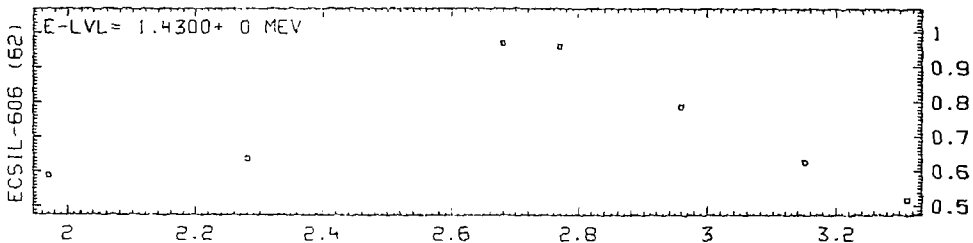
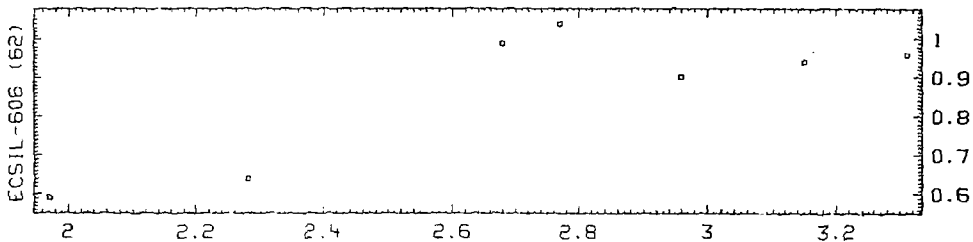
24-CR-50

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361 1.4000+ 1		2.6500- 1	2.1000- 2

03/01/74

N,N'
CROSS SECTION

24-CR-52

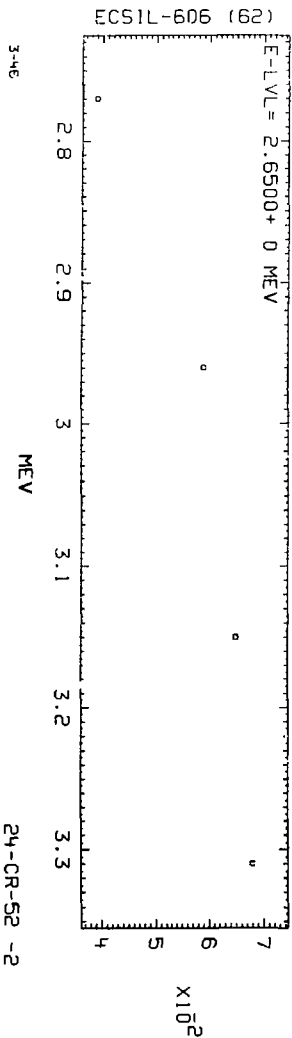
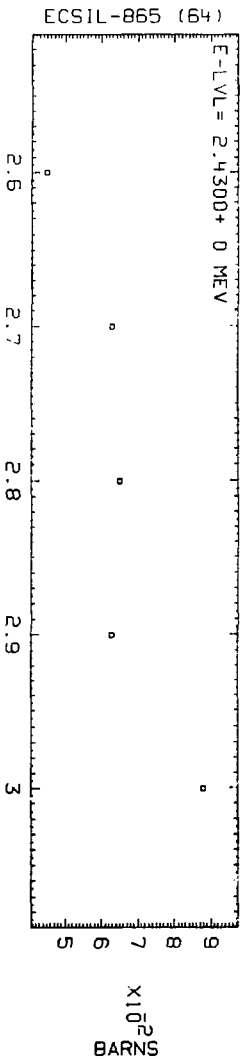
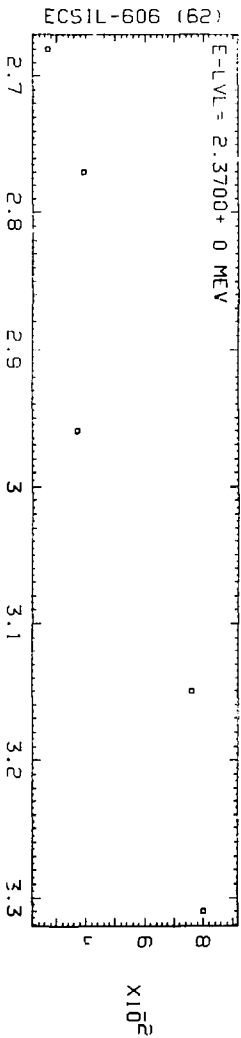


BARN

03/01/74

N,N'
CROSS SECTION

24-CR-52

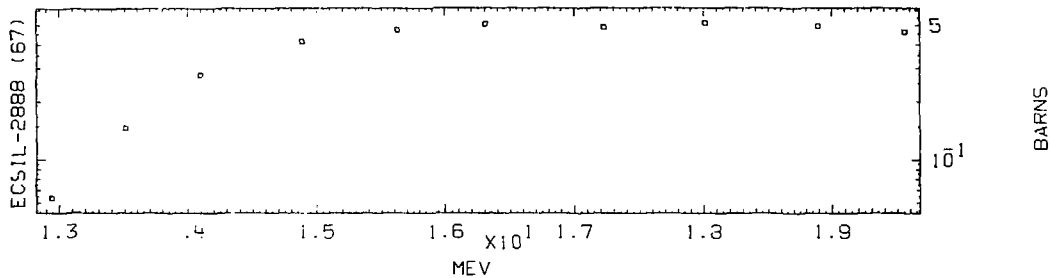


24-CR-52 -2

03/01/74

N,2N
CROSS SECTION

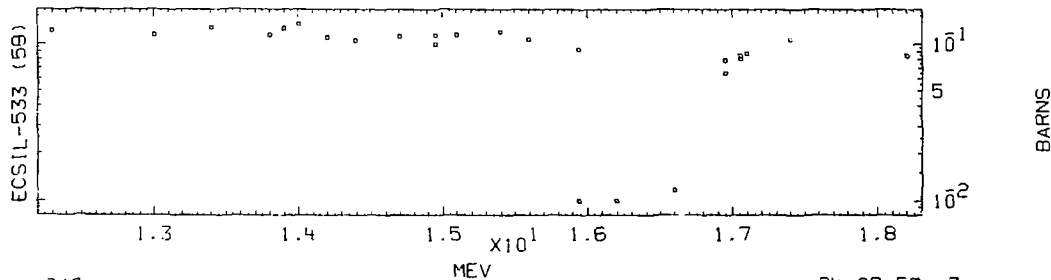
24-CR-52



03/01/74

N,P
CROSS SECTION

24-CR-52



3-47

24-CR-52 -3

03/01/74

N,N'
CROSS SECTION

24-CR-52

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	
62	606	2.9600+ 0	2.0000- 2	2.0000- 2	2.7700+ 0	62	606	3.1500+ 0	2.0000- 2	1.5000- 1	3.0000- 2	2.9600+ 0
62	606	3.1500+ 0	2.0000- 2	3.0000- 2	2.7700+ 0	62	606	3.3100+ 0	2.0000- 2	1.7000- 1	4.0000- 2	2.9600+ 0
62	606	3.3100+ 0	2.0000- 2	6.0020- 2	2.7700+ 0	62	606	3.3100+ 0	2.0000- 2	6.1020- 2	1.3000- 2	3.1600+ 0
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV							
65	1816	1.4100+ 1	1.0000- 1	7.4000- 1	1.8500- 1	1.4000+ 0						
66	1867	1.4000+ 1		7.4000- 1	1.8000- 1	1.4300+ 0						

03/01/74

N,2N

24-CR-52

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
62	3374	1.4000+ 1		2.8000- 1
				6.0000- 2

03/01/74

N,P

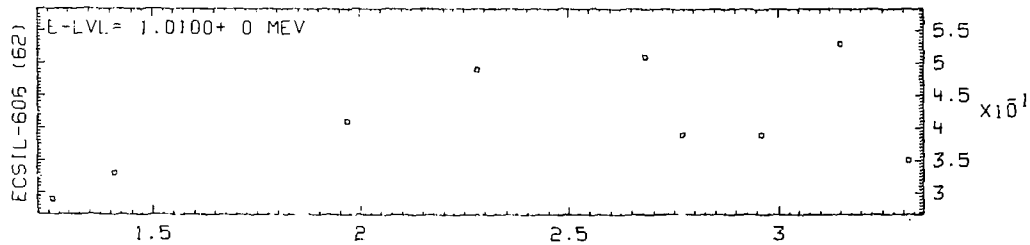
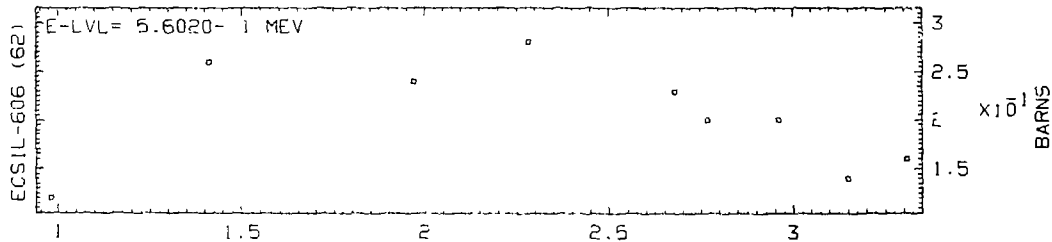
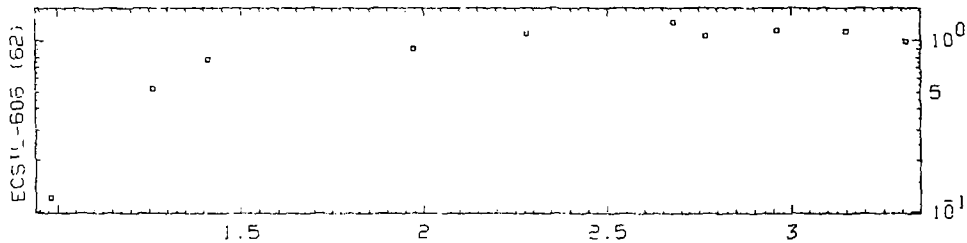
24-CR-52

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
61	361	1.4000+ 1		7.4020- 2	1.0000- 2	65	1697	1.4800+ 1	1.1800- 1
53	27	1.4500+ 1		7.7720- 2	1.1000- 2	61	701	1.4800+ 1	8.2700- 2
66	907	1.4800+ 1	1.0000- 1	6.2800- 2	5.8000- 3	61	650	1.4800+ 1	1.0500- 1

03/01/71

N,N'
CROSS SECTION

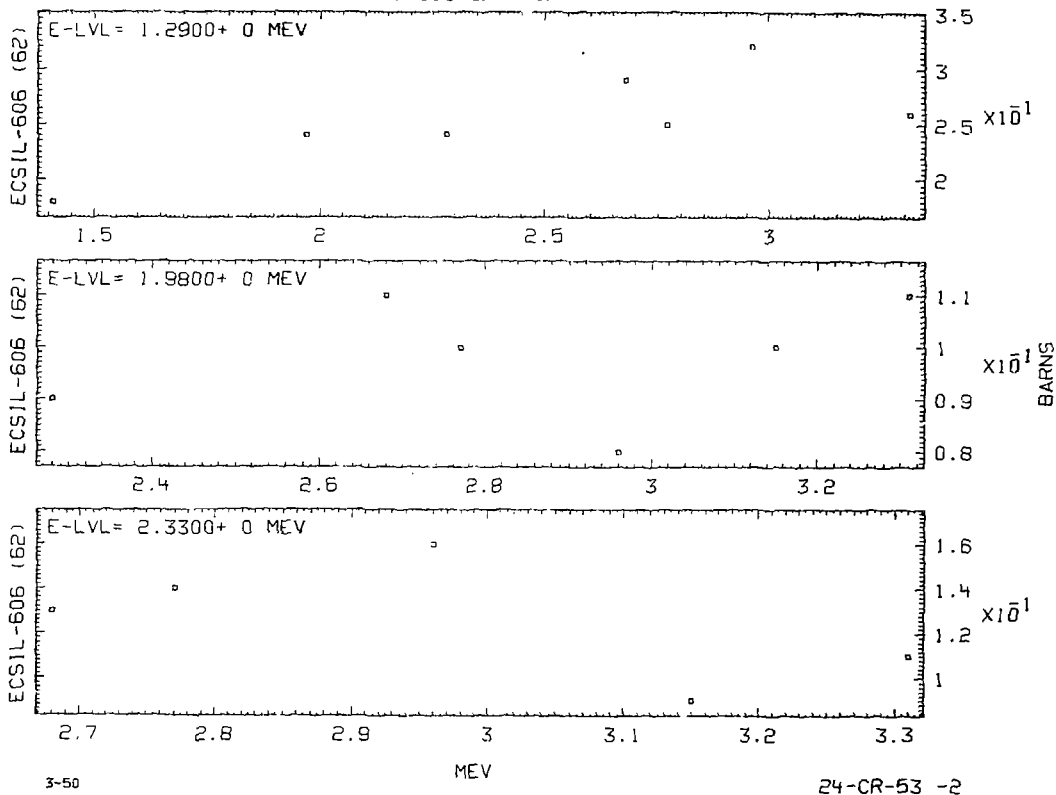
24-CR-53



03/01/74

N,N'
CROSS SECTION

24-CR-53



3-50

MEV

24-CR-53 -2

03/01/74

N,N'P
CROSS SECTION

24-CR-53

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2713	1.4700+ 1		7.3000- 3	7.0000- 4

03/01/74

N,P

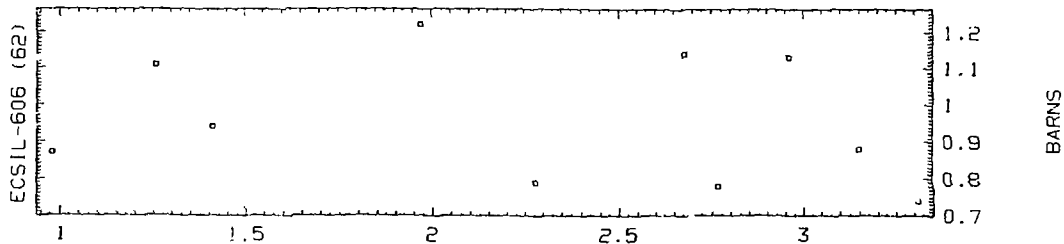
24-CR-53

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 361	1.4000+ 1		4.4000- 2	7.0000- 3
61 701	1.4800+ 1		3.7300- 2	3.7000- 3

03/01/74

N,N'
CROSS SECTION

24-CR-54



3-51

MEV

24-CR-54 - 1

03/01/74

N, 2N
CROSS SECTION

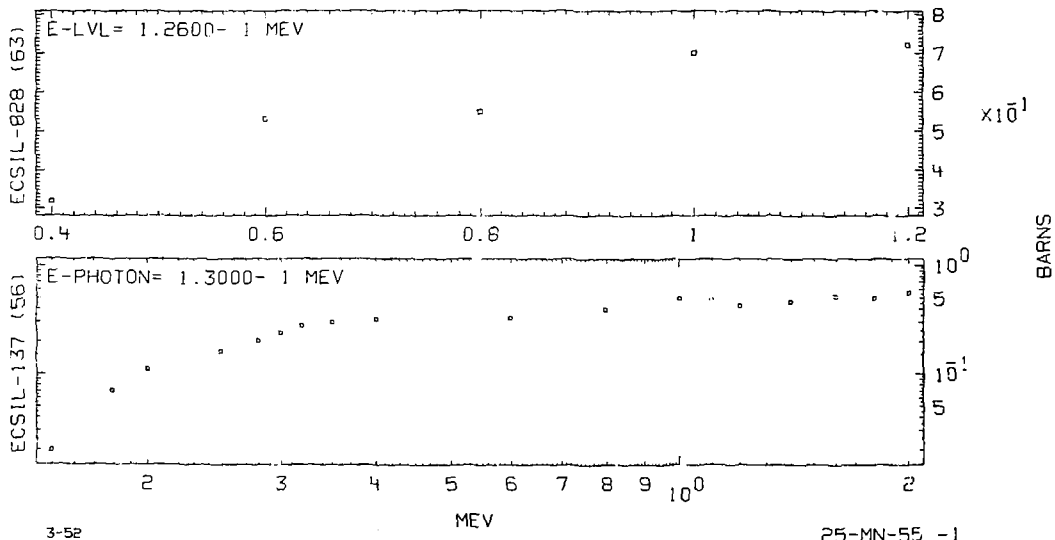
24-CP-54

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
57 217	1.4000 ± 1		1.0000 - 2	4.0000 - 3

03/01/74

N, N'
CROSS SECTION

25-MN-55



3-52

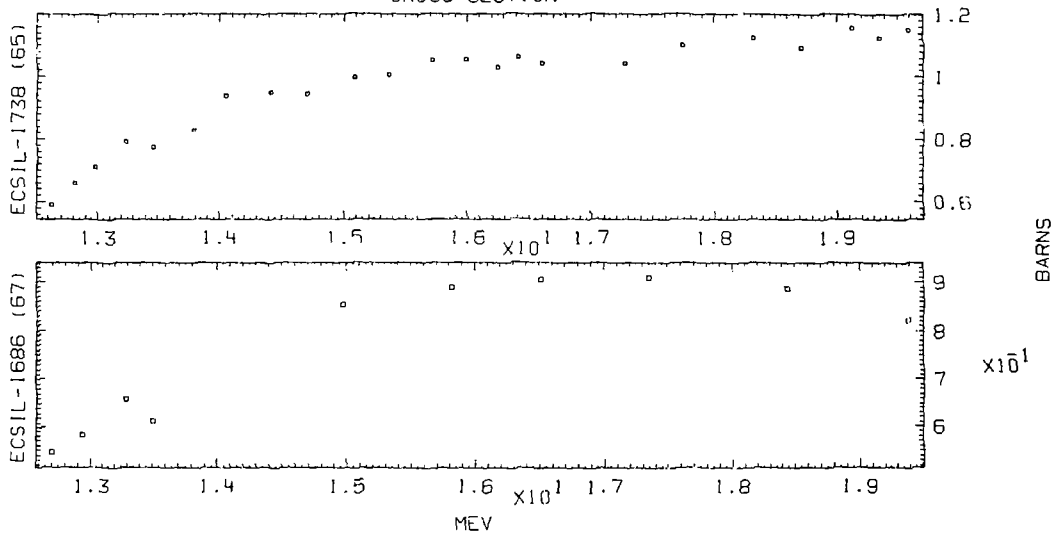
25-MN-55 -1

03/01/74

N,2N

25-MN-55

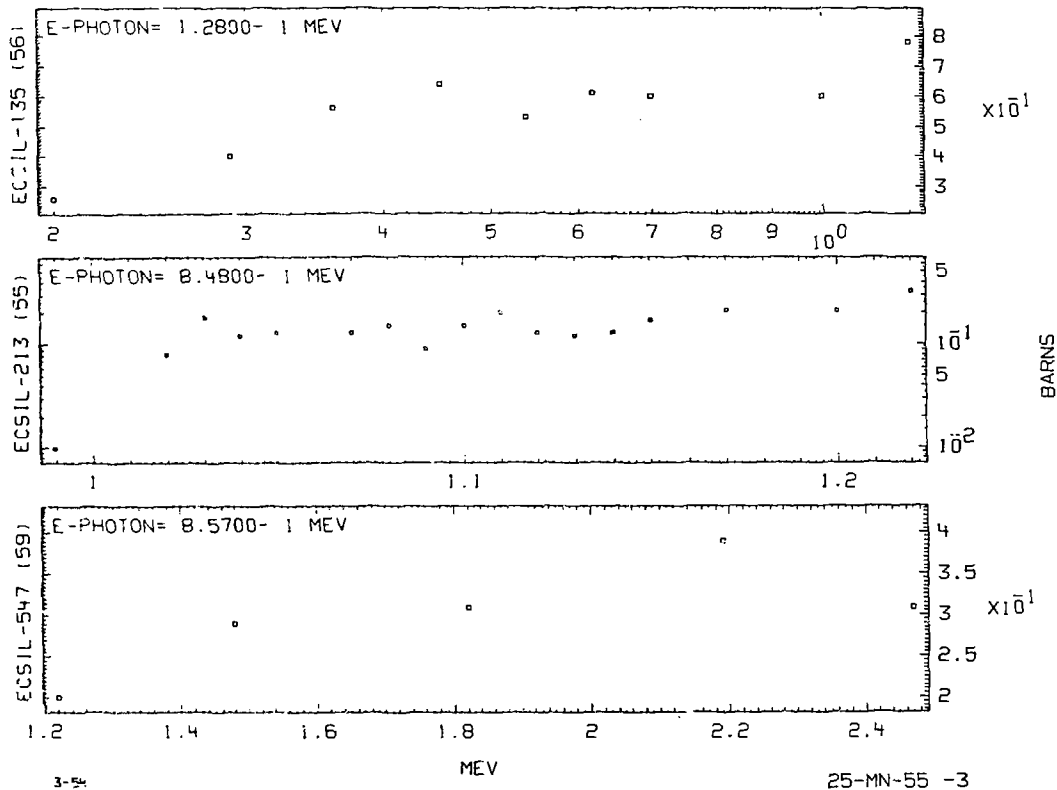
CROSS SECTION



03/01/74

N, X GAMMA
CROSS SECTION

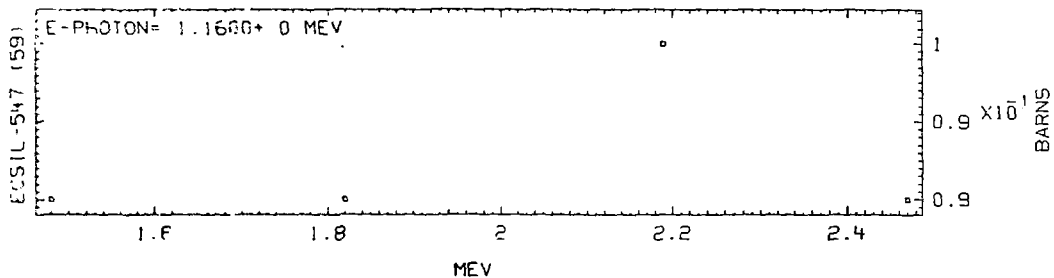
25-MN-55



03/01/74

N, X GAMMA
CROSS SECTION

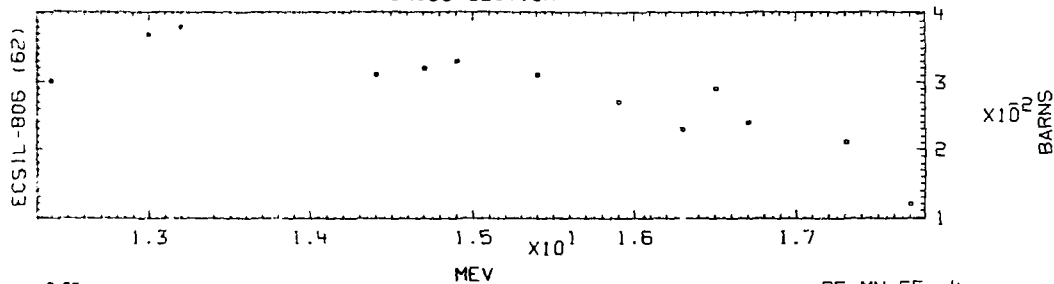
25-MN-55



03/01/74

N, ALPHA
CROSS SECTION

25-MN-55



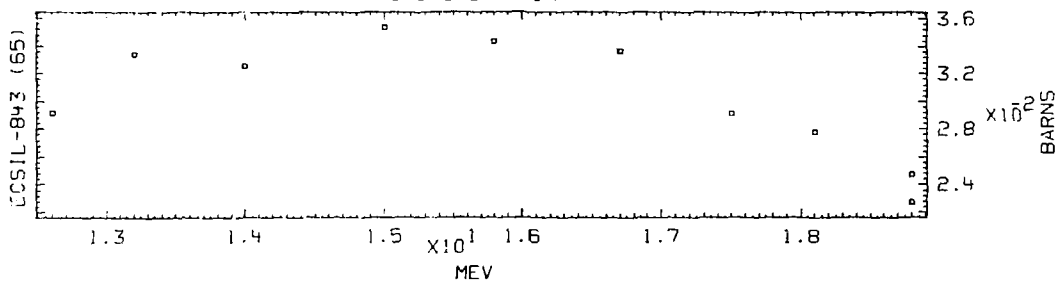
7-55

25-MN-55 -4

03/01/74

N, ALPHA
CROSS SECTION

25-MN-55



03/01/74

N, N'

25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
63 836	7.000+ 0			1.240+ 0	1.300- 1						
63 1822	2.210+ 0	6.860- 1	3.000- 2	1.260- 1		56 2337	2.500+ 0		3.000- 1		1.370+ 0
63 1822	2.210+ 0	2.920- 1	7.000- 3	9.380- 1		63 1822	2.210+ 0		1.460- 1	7.000- 3	1.527+ 0
56 2337	2.500+ 0	4.000- 1		9.400- 1		56 2337	2.500+ 0		1.700- 1		1.650+ 0
63 828	1.200+ 0	1.100- 1	3.000- 2	9.832- 0		63 1822	2.210+ 0		5.400- 2	9.000- 3	1.884+ 0
63 1822	2.210+ 0	1.160- 1	7.000- 3	1.289+ 0							
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV						
65 1694	1.410+ 1			6.370- 1	7.300- 2	8.500- 1					

03/01/74

N,2N
CROSS SECTION

25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2009	1.3400+ 1		7.5000- 1	1.1250- 1	60 629	1.4500+ 1	5.0000- 1	8.2520- 1	1.8500- 1
63 377	1.4000+ 1		1.3100+ 0	3.2750- 1	69 2354	1.4600+ 1	2.0000- 1	7.8500- 1	8.0000- 2
62 3374	1.4000+ 1		5.0000- 1	1.2000- 1	68 2711	1.4800+ 1	2.0000- 1	7.5000- 1	6.0000- 2
58 1821	1.4100+ 1		9.0000- 1	7.0000- 2					

03/01/74

ABSORPTION

25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 897	2.5300- B		1.3250+ 1	1.5000- 1
60 891	2.5300- B		1.3200+ 1	1.0000- 1

03/01/74

N, X GAMMA

25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
63 1728	1.0000+ 0	1.0000- 1	5.1000- 1	1.0000- 1	1.2600- 1	59 547	1.8200+ 0		1.6000- 1	4.8000- 2	1.5400+ 0
59 547	1.2200+ 0		7.3300- 1	2.1900- 1	1.3000- 1	59 547	2.1900+ 0		1.8000- 1	5.4000- 2	1.5400+ 0
55 213	1.2400+ 0	2.3000- 2	2.6500- 1	5.6000- 2	8.5700- 1	59 547	2.4700+ 0		1.5000- 1	4.5000- 2	1.5400+ 0
61 686	2.9000+ 0	1.7000- 1	3.5500- 1	2.0000- 2	8.5700- 1	59 547	2.1900+ 0	2.0000- 2	1.0000- 1	3.0000- 2	1.7800+ 0
61 686	2.9000+ 0	1.7000- 1	3.1000- 1	2.0000- 2	1.1600+ 0	59 547	2.4700+ 0	2.0000- 2	1.4000- 1	4.2000- 2	1.7800+ 0

03/01/74

N,P

25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 361	1.4000+ 1		4.3000- 2	7.0020- 3
67 1902	1.4700+ 1		3.0000- 2	3.0000- 3
66 997	1.4800+ 1	1.0000- 1	5.9500- 2	5.9000- 3

03/01/74

N, X P
CROSS SECTION

25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1818	1.4000+ 1		1.1000- 1	1.5000- 2

03/01/74

N, 4E-3

25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 667	1.4800+ 1	9.0020- 1	4.0000- 3	2.0000- 3

03/01/74

N, ALPHA

25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC EARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1764	1.4500+ 1	4.0000- 1	2.5000- 2	3.0000- 3	65 2151	1.4800+ 1		1.3800- 2	2.1000- 3
60 629	1.4500+ 1	5.0000- 1	2.7000- 2	5.0000- 3	65 1697	1.4800+ 1		5.7000- 2	7.0000- 3
53 27	1.4500+ 1		5.2520- 2	7.9020- 3	61 701	1.4800+ 1	9.0020- 1	1.1800- 2	7.0020- 4
67 1902	1.4700+ 1		2.7000- 2	2.0000- 3	58 536	1.4800+ 1		9.6020- 2	1.4000- 2

03/01/74

BOUND ATOM

25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		2.2000+ 0	

03/01/74

COHERENT SCATTERING

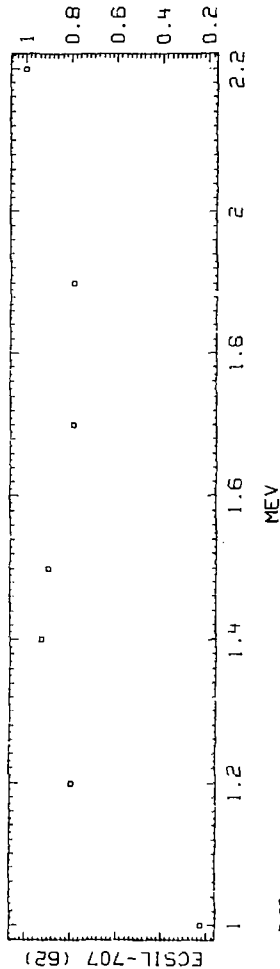
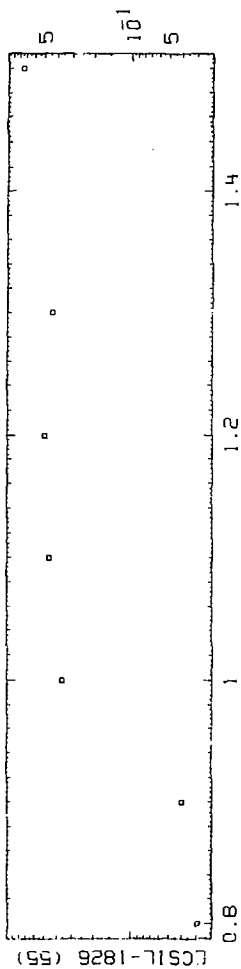
25-MN-55

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		1.3500+ 0	1.0800- 1

03/01/74

NONELASTIC
CROSS SECTION

26-FE-NAT



BARN

3-59

MEV

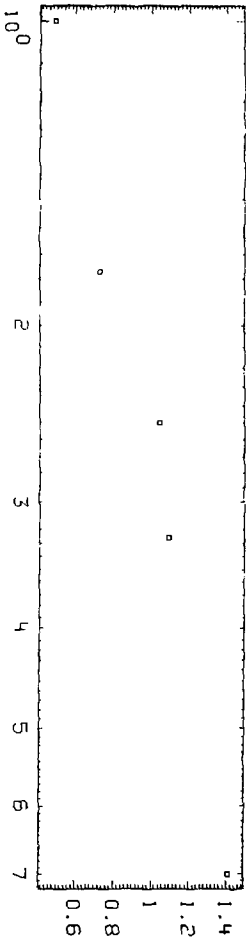
26-FE-NAT - 1

03/01/74

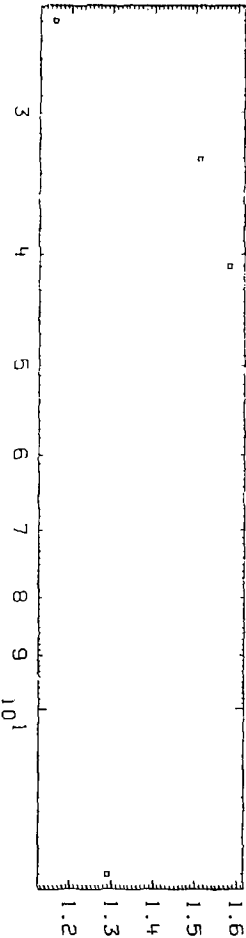
NONELASTIC
CROSS SECTION

26-FE-NAT

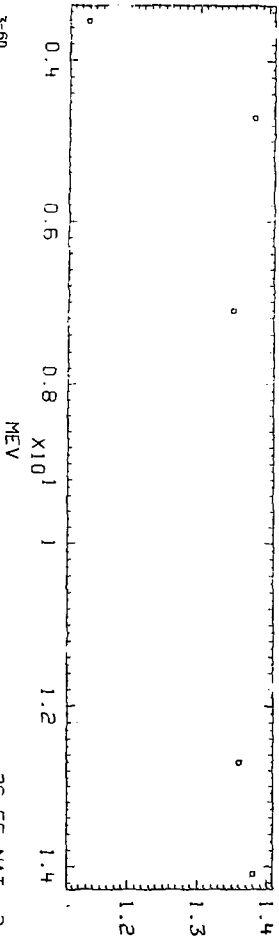
ECSIL-151 (56)



ECSIL-790 (55)



ECSIL-130 (55)



3-60

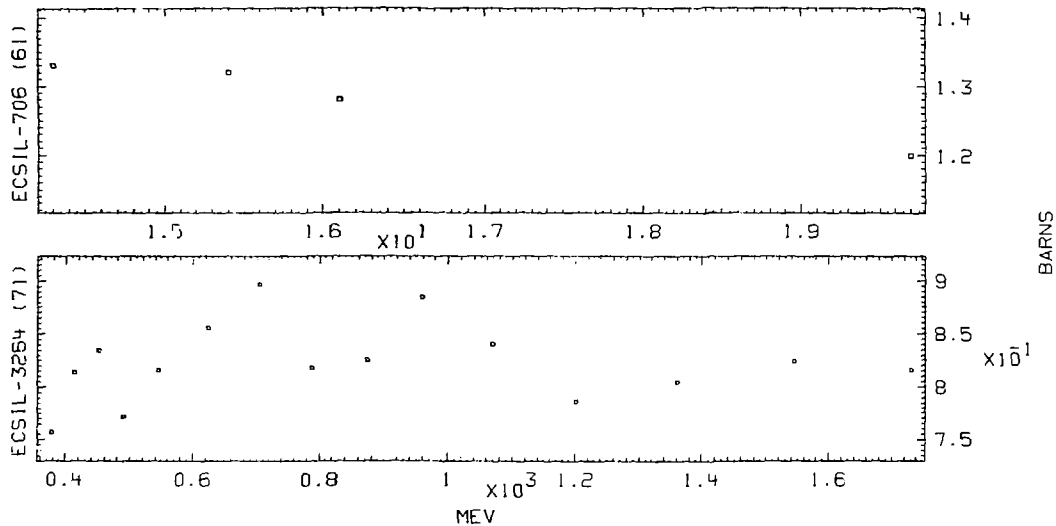
26-FE-NAT -2

BARNs

03/01/74

NONELASTIC
CROSS SECTION

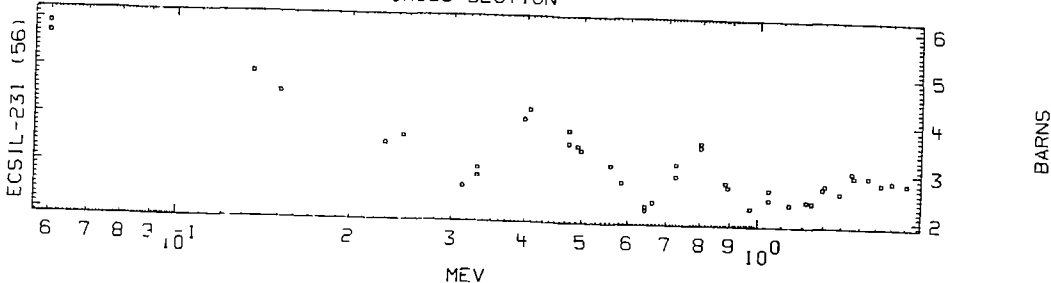
26-FE-NAT



03/01/74

TOTAL SCATTERING
CROSS SECTION

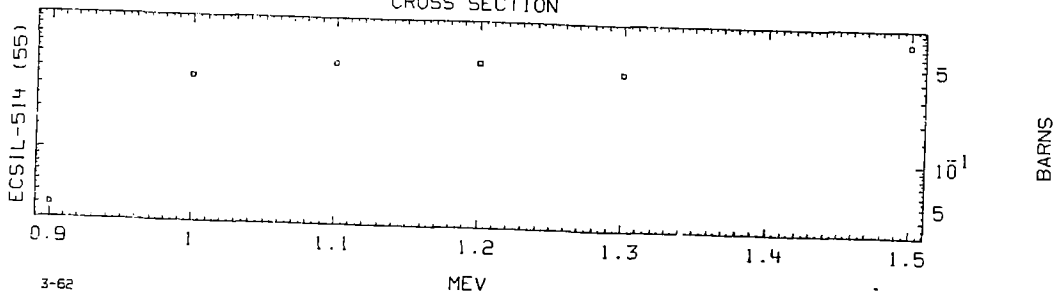
26-FE-NAT



03/01/74

N,N'
CROSS SECTION

26-FE-NAT



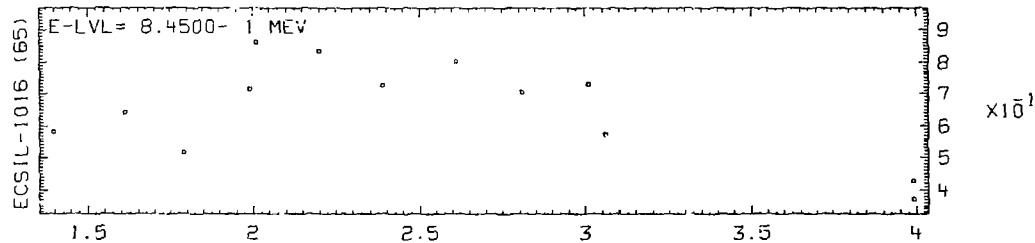
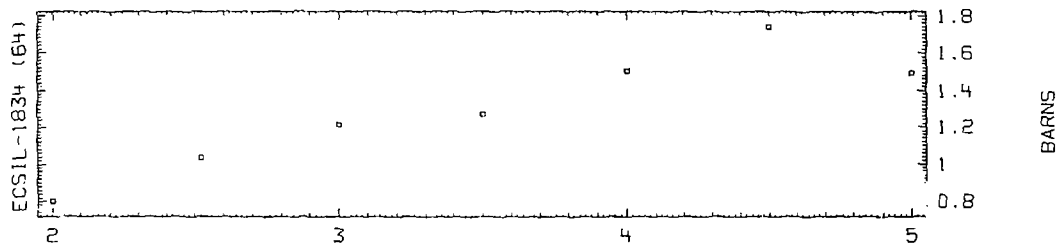
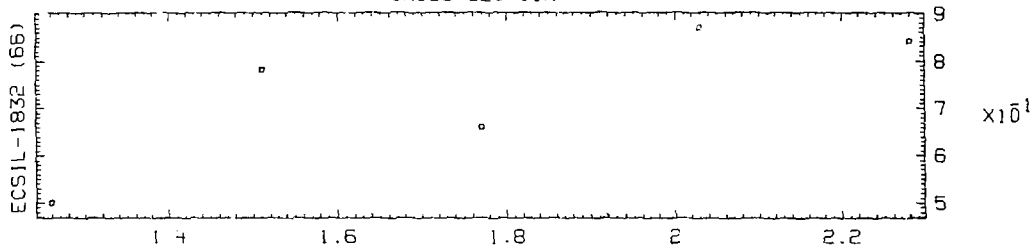
3-62

26-FE-NAT -4

03/01/74

N,N'
CROSS SECTION

26-FE-NAT



3-63

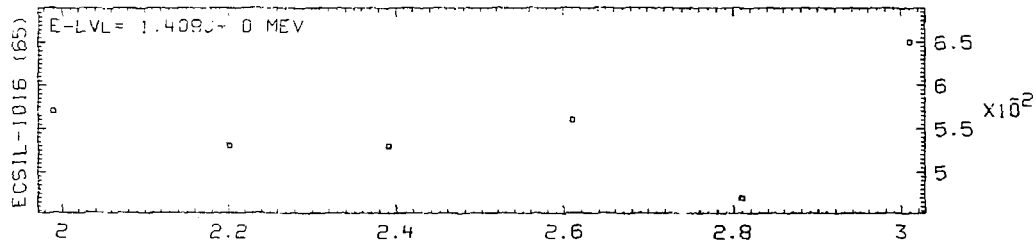
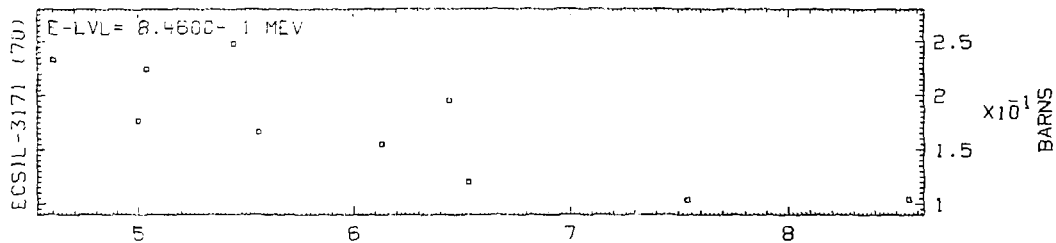
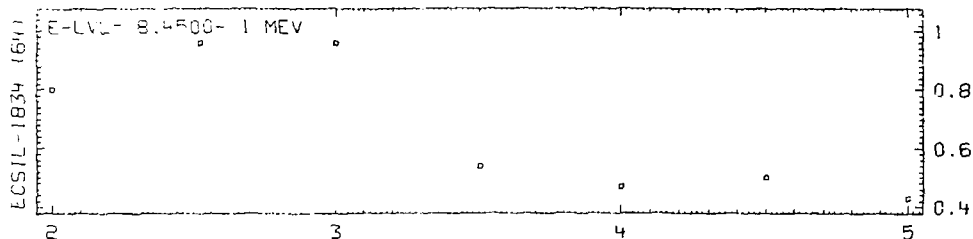
MEV

26-FE-NAT -5

03/01/74

N,N'
CROSS SECTION

26-FE-NAT



3-64

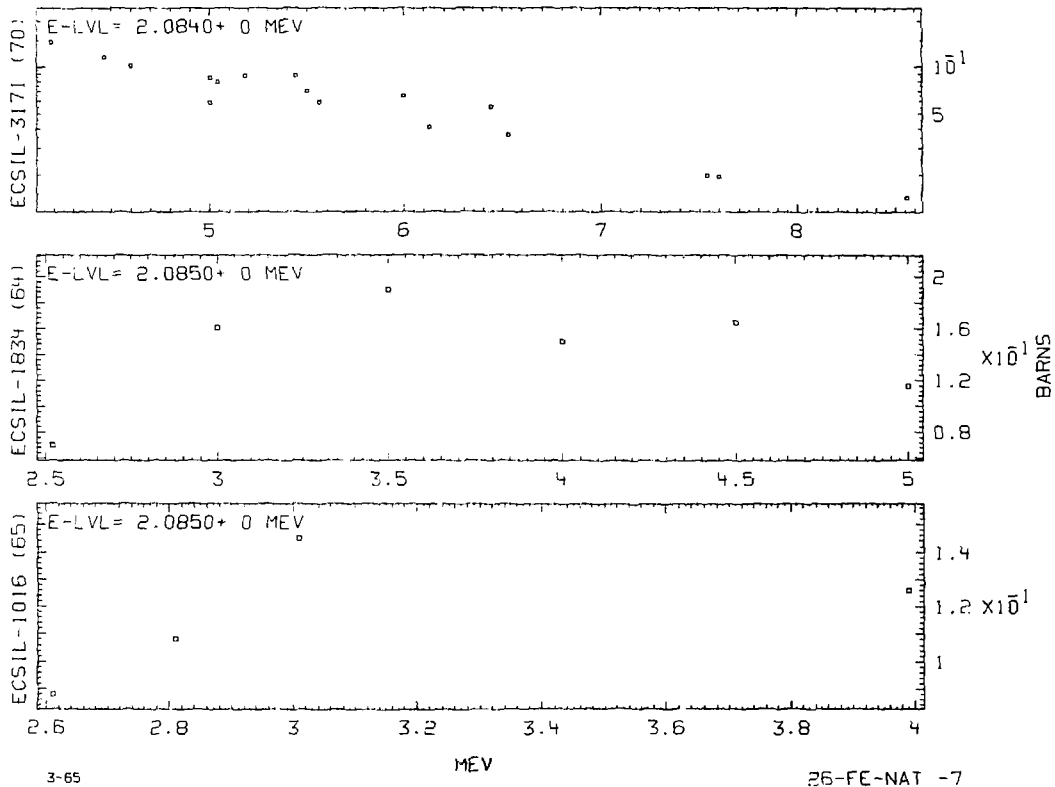
MEV

26-FE-NAT -6

03/01/74

N,N'
CROSS SECTION

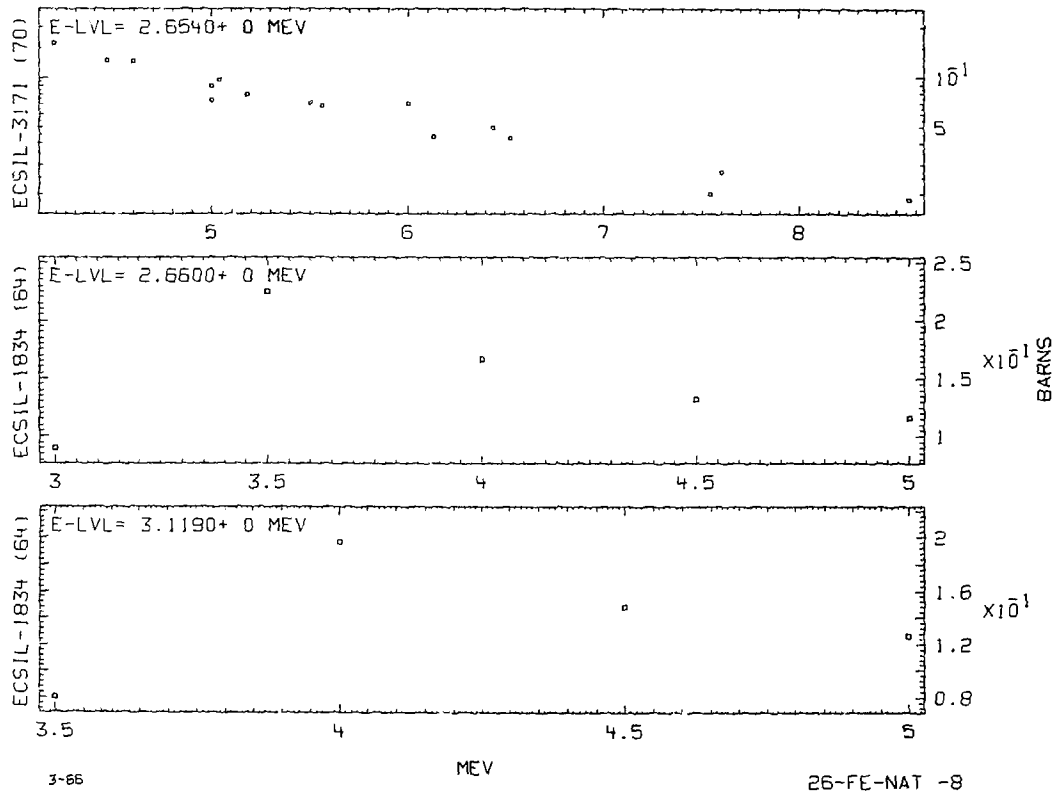
26-FE-NAT



03/01/74

N,N'
CROSS SECTION

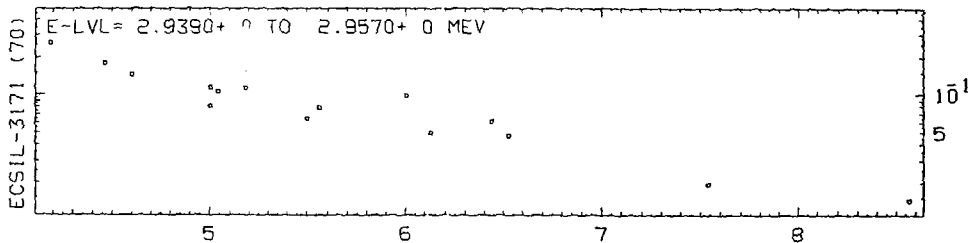
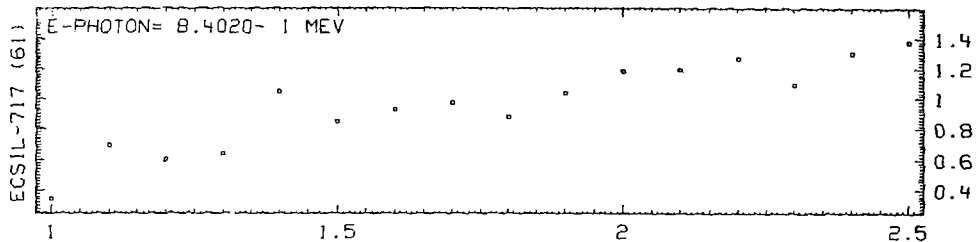
26-FE-NAT



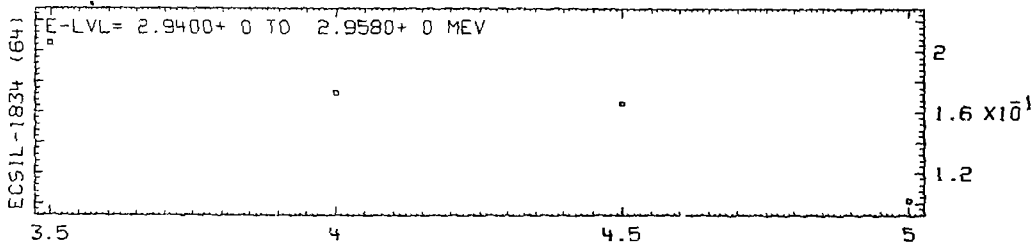
03/01/74

N,N'
CROSS SECTION

26-FE-NAT



BARNS



3-67

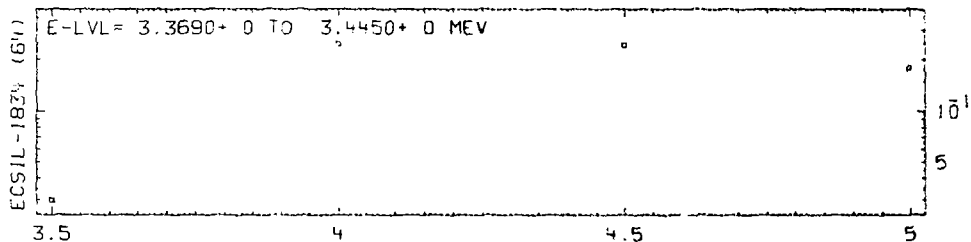
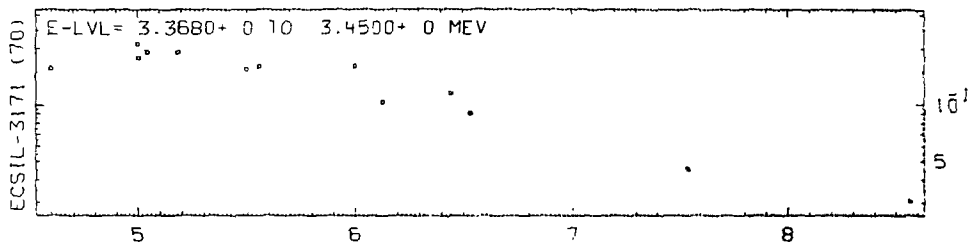
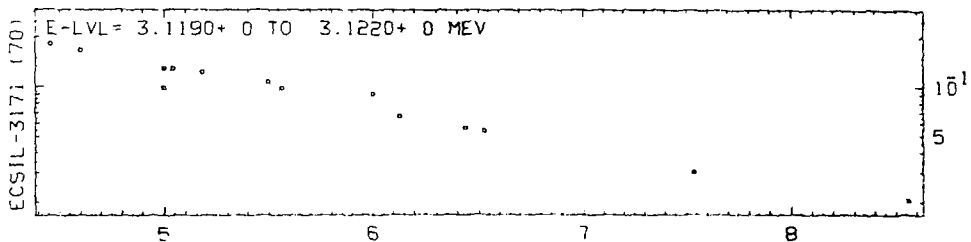
MEV

26-FE-NAT -9

03/01/74

N,N'
CROSS SECTION

26-FE-NAT

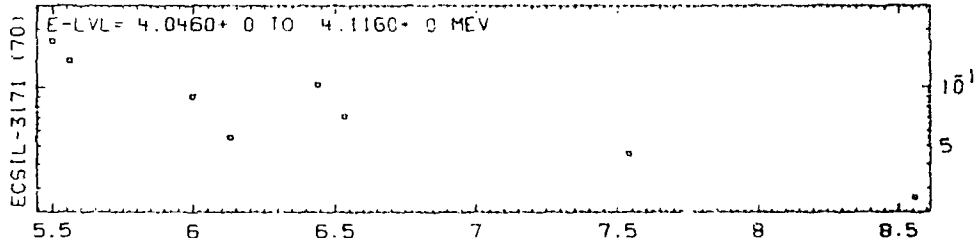
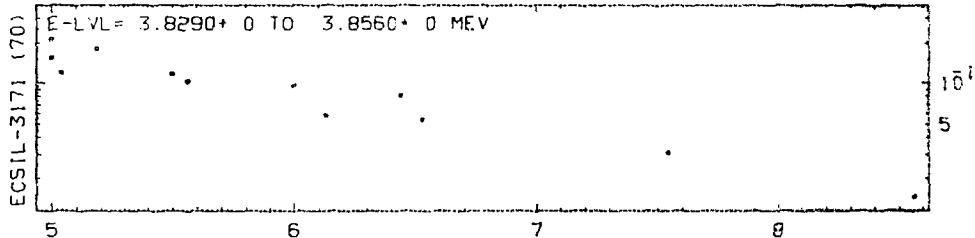
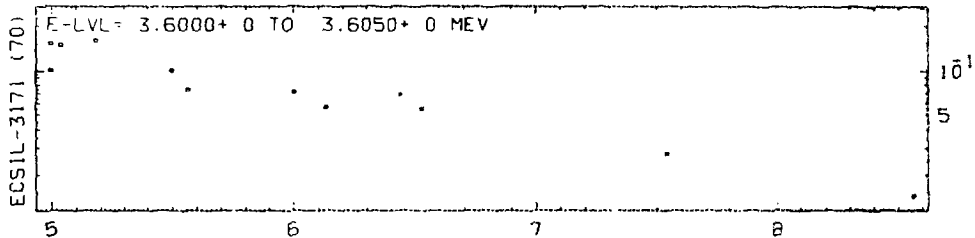


BARNs

03/01/74

N,N'
CROSS SECTION

26-FE-NAT

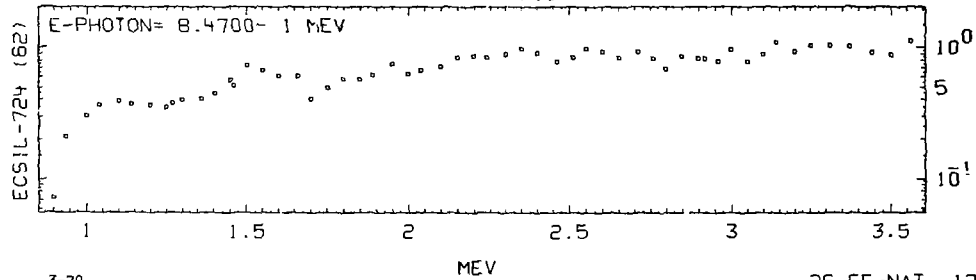
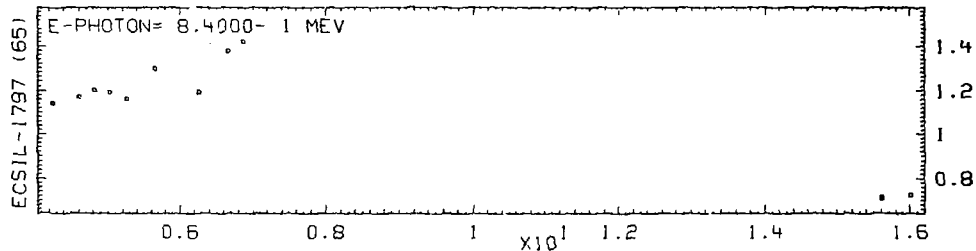
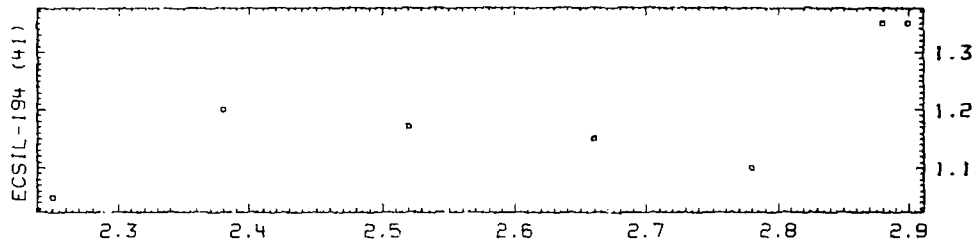


BARN'S

03/01/74

N,X GAMMA
CROSS SECTION

26-FE-NAT

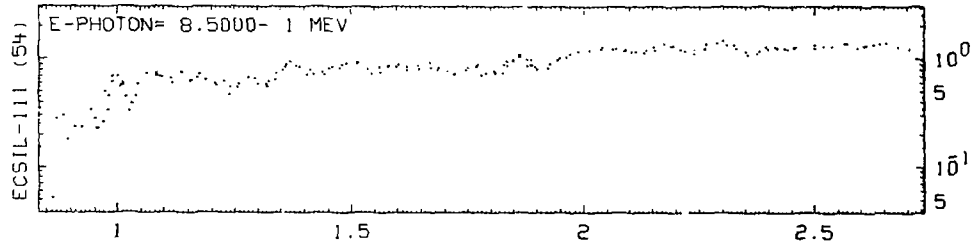
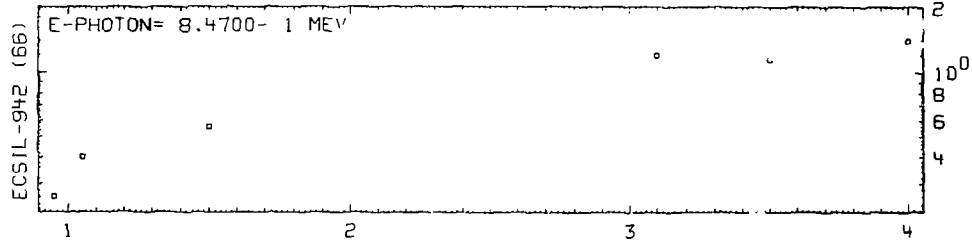
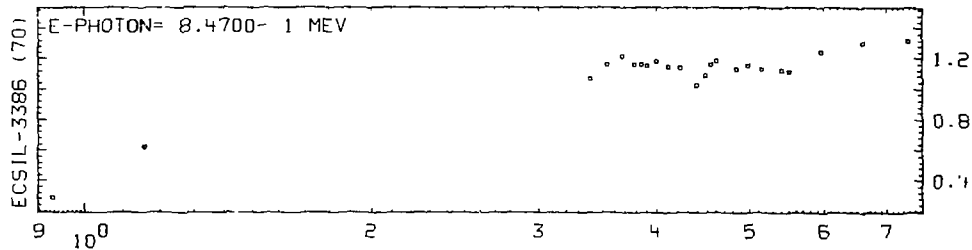


BARNIS

03/01/74

N, X GAMMA
CROSS SECTION

26-FE-NAT



BARNs

3-71

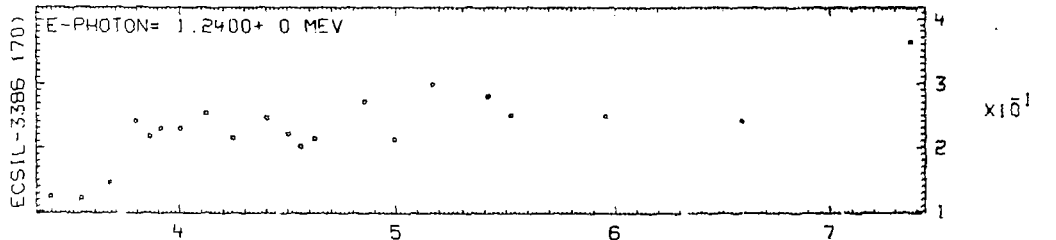
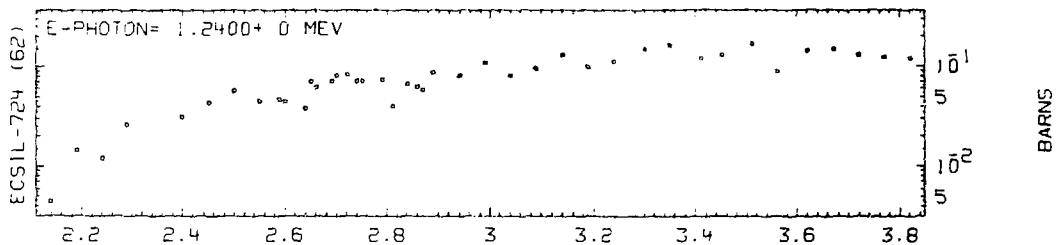
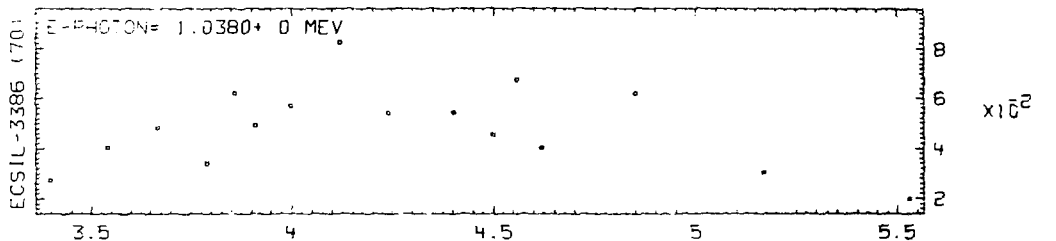
MEV

26-FE-NAT -13

03/01/74

N, X GAMMA
CROSS SECTION

26-FE-NAT



3-72

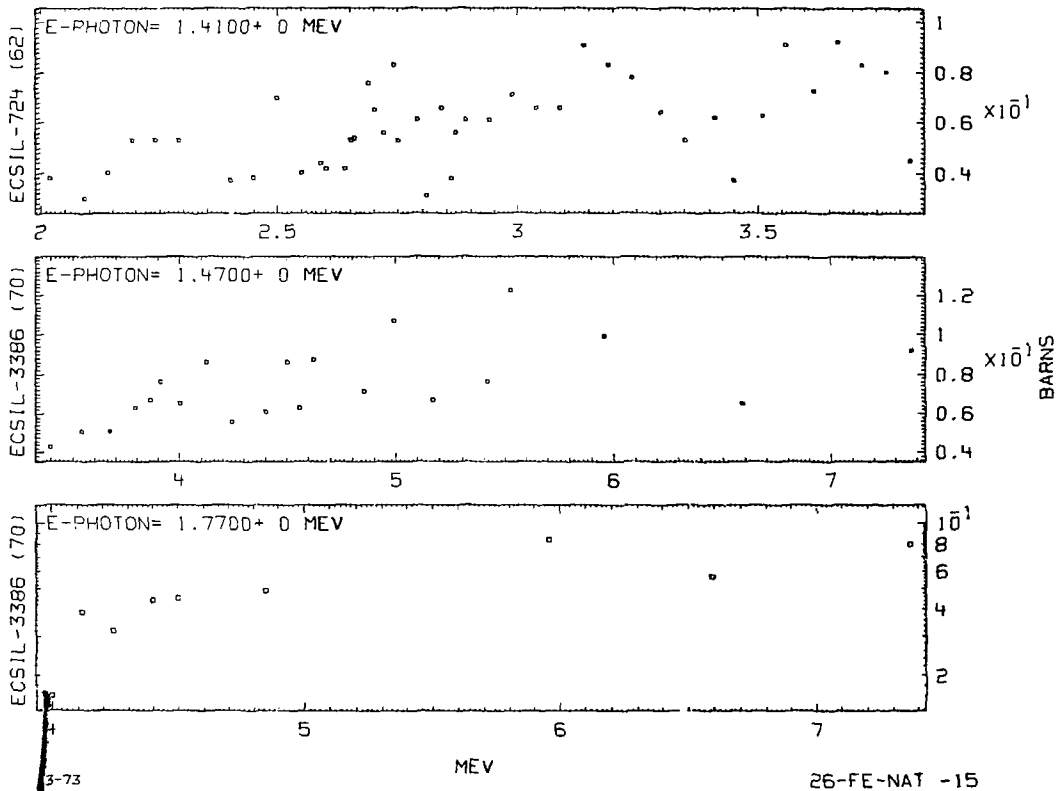
MEV

26-FE-NAT -14

03/01/74

N, X GAMMA
CROSS SECTION

26-FE-NAT



3-73

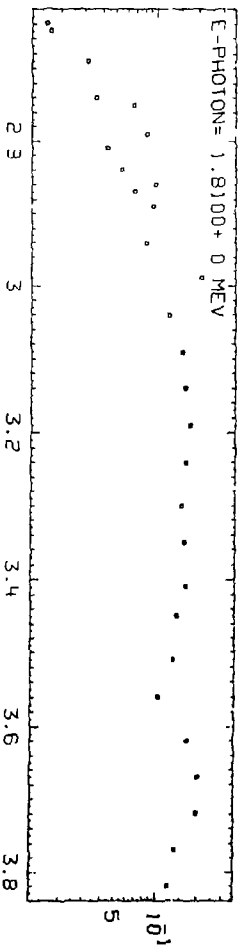
26-FE-NAT -15

03/01/74

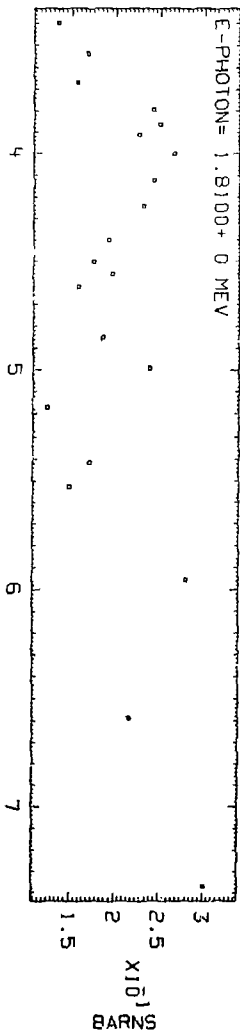
N, X GAMMA
CROSS SECTION

26-FE-NAT

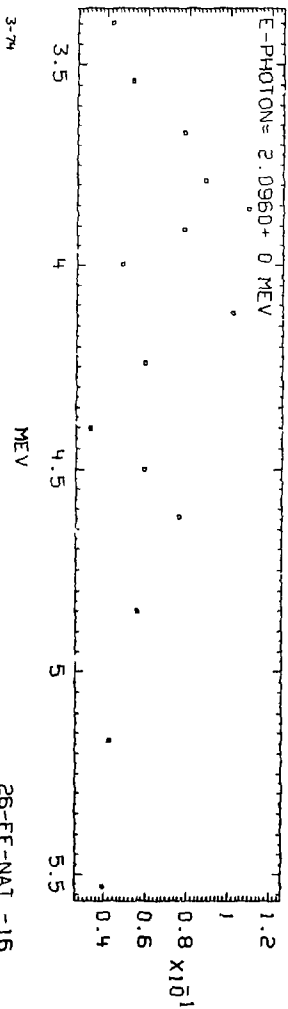
ECSIL-724 (62)



ECSIL-3386 (70)



ECSIL-3386 (70)

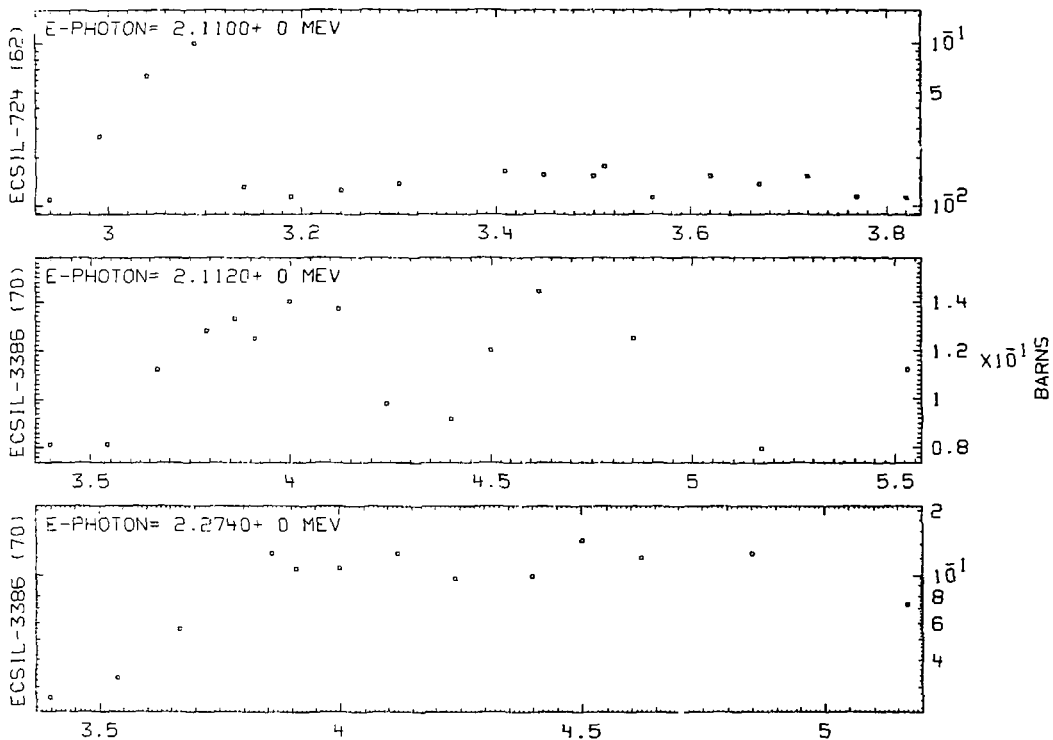


26-FE-NAT -16

03/01/74

N, X GAMMA
CROSS SECTION

26-FE-NAT



3-75

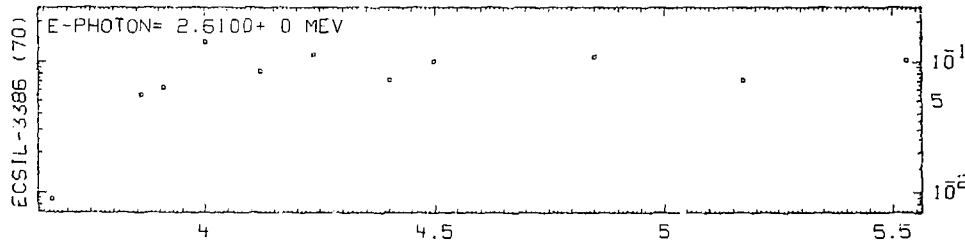
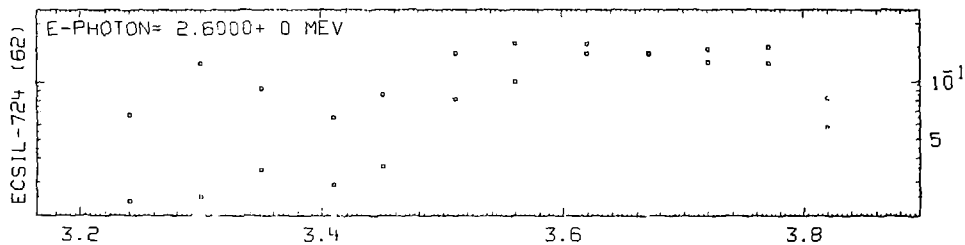
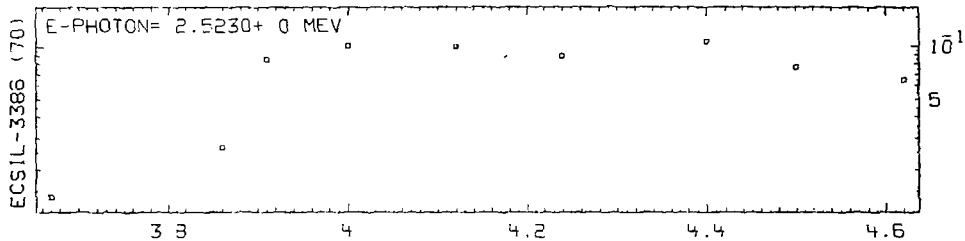
MEV

26-FE-NAT -17

03/01/74

N, X GAMMA
CROSS SECTION

25-FE-NAT

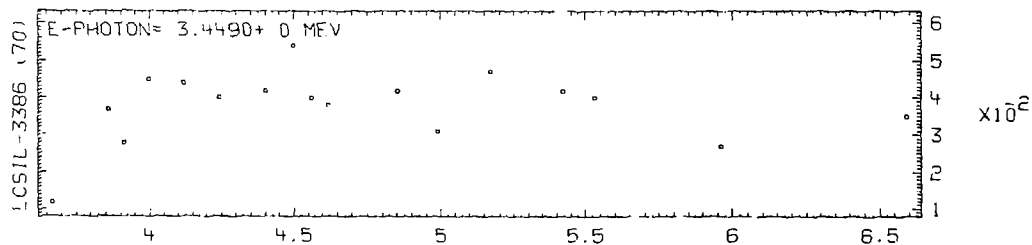
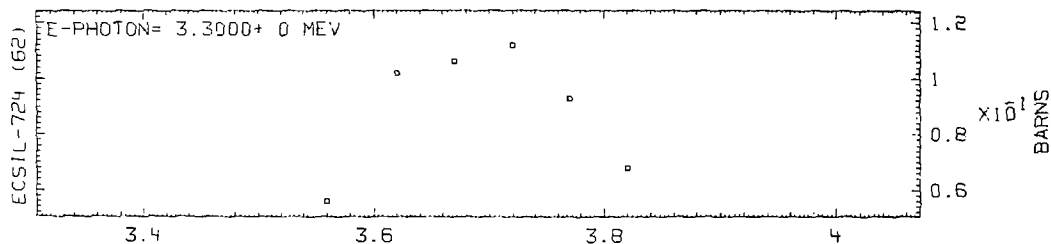
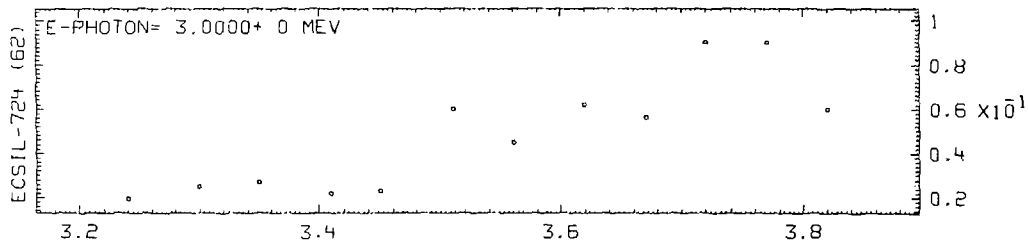


BARNs

03/01/74

N,X GAMMA
CROSS SECTION

26-FE-NAT



3-77

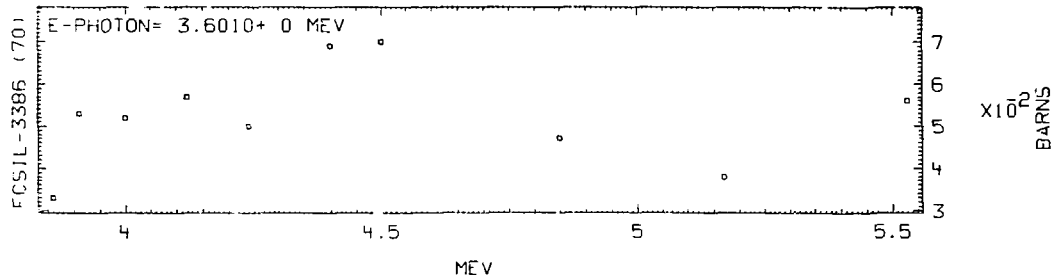
MEV

26-FE-NAT -19

03/01/74

N,X GAMMA
CROSS SECTION

26-FE-NAT



03/01/74

NONELASTIC

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	633 2.2000+ 0	1 2.0000- 2	8.0000- 3	2.0000- 3	55	122 4.5000+ 0	7.0020- 2	1.3300+ 0	5.0000- 2
56	353 1.0200+ 0		3.0000- 1	1.0000- 1	58	877 1.4000+ 1		1.4400+ 0	4.0000- 2
5E	164 1.2000+ 0		5.0000- 1	1.0000- 1	55	117 1.4100+ 1		1.2700+ 0	4.0000- 2
56	164 1.6000+ 0		7.0020- 1	1.0000- 1	57	199 1.4100+ 1		1.2900+ 0	7.0020- 2
56	164 2.0000+ 0		1.0000+ 0	2.0000- 1	52	82 1.4150+ 1	5.0000- 2	1.4500- 1	2.0000- 2
56	34 2.5000+ 0		1.1600+ 0	1.2000- 1	57	319 1.4200+ 1	1.5000- 1	1.3600+ 0	3.0000- 2
58	5 9 3.6600+ 0	2.0000- 1	1.5100+ 0	1.7000- 1	56	200 1.4500+ 1		1.3800+ 0	2.0000- 2
55	127 4.0000+ 0	7.0020- 2	1.4200+ 0	5.0000- 2	58	356 2.5500+ 1		1.2100+ 0	7.0020- 2
55	295 4.1000+ 0	4.0000- 2	1.5000+ 0	2.0000- 1					

03/01/74

TOTAL SCATTERING

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	873 9.8000- 1	5.0000- 2	2.0200+ 0	6.0600- 2

03/01/74

NEUTRON NONEL. EMISS.
CROSS SECTION

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 893	1.4000+ 1		9.6000- 1	2.0000- 1

03/01/74

N,N'

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 773	1.0000+ 0		2.8000- 1	4.0000- 2	65 889	6.0400+ 0	2.3000- 1	1.6000+ 0	2.5000- 1
63 773	1.2000+ 0		5.5000- 1	5.0000- 2	63 836	7.0000+ 0		1.2900+ 0	1.1000- 1
58 497	2.2000+ 0	2.0000- 2	1.1100+ 0						

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
66 1831	4.5600+ 0		2.6900- 1	2.6900- 2	8.4600- 1	
54 301	2.5000+ 0		1.0000+ 0	3.0000- 1	9.1000- 1	
66 1831	4.5600+ 0		1.1200- 1	1.1200- 2	2.0890+ 0	
66 1831	4.5600+ 0		1.3700- 1	1.2700- 2	2.6540+ 0	
65 1016	3.9900+ 0	3.0000- 2	1.6300- 1	1.1000- 2	2.6580+ 0	
66 1831	4.5600+ 0		1.1100- 1	1.1100- 2	2.9390+ 0	2.9570+ 0
65 1016	3.9900+ 0	3.0000- 2	1.5300- 1	1.4000- 2	2.9400+ 0	2.9580+ 0
65 1016	3.9900+ 0	3.0000- 2	1.7000- 1	1.7000- 2	3.1190+ 0	
66 1831	4.5600+ 0		8.5000- 2	8.5000- 3	3.1190+ 0	3.1220+ 0
65 1016	3.9900+ 0	3.0000- 2	9.4000- 2	1.4000- 2	3.3680+ 0	3.3880+ 0
65 1016	3.9900+ 0	3.0000- 2	1.2300- 1	1.7000- 2	3.4450+ 0	
64 1834	4.0000+ 0		6.8000- 2	3.5000- 2	3.6010+ 0	
64 1834	4.5000+ 0		1.7800- 1	1.1000- 2	3.6010+ 0	
64 1834	5.0000+ 0		1.6600- 1	1.1000- 2	3.6010+ 0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
61 850	1.4000+ 1		5.5000- 1	1.6500- 1	5.0000+ 0
61 850	1.4000+ 1		3.4000- 1	1.0200- 1	5.1000+ 0
61 850	1.4000+ 1		2.9000- 1	8.7000- 2	7.5000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
70 3171	6.4400+ 0	1.3000- 1	1.2500- 1	1.1000- 2	2.9390+ 0	3.1220+ 0
70 3171	7.5400+ 0	4.0000- 2	4.9830- 2	5.5810- 3	2.9390+ 0	3.1220+ 0
70 3171	8.5600+ 0	8.0000- 2	3.6540- 2	8.3310- 3	2.9390+ 0	3.1220+ 0

3-79

26-FE-NAT -21

03/01/74

N,N'
CROSS SECTION

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA E-LVL-MIN BARNs	E-LVL-MAX MEV
64 183+	4.000+ 0		2.9000- 2	1.5000- 2	3.8300+ 0
64 183+	4.5000+ 0		1.5300- 1	1.6000- 2	3.8300+ 0
64 183+	5.0000+ 0		1.3000- 1	1.6000- 2	3.8300+ 0
64 183+	4.5000+ 0		5.0000- 2	2.5000- 2	4.0350+ 0
64 183+	5.0000+ 0		1.2600- 1	2.0000- 2	4.0350+ 0

03/01/74

N,2N

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	7.14100+ 1		5.0000- 1	4.0000- 2

03/01/74

ABSORPTION

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 897	2.5300- 8		1.6500+ 0	1.0000- 1	58 354	2.5000- 2	4.0000- 3	1.9000- 2	2.0000- 3
66 1491	2.5300- 8		2.5300+ 0	3.6000- 2	58 364	8.3000- 1	4.0000- 2	9.0000- 3	2.0000- 3
58 1162	2.5300- 8		2.7500+ 0	7.0000- 2					

03/01/74

N,X GAMMA

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 292	1.4000+ 1		4.6000+ 0	5.0000- 1
63 1723	1.4000+ 1	2.8000- 1	4.9000+ 0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA E-PHONON BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA E-PHONON BARNs
56 140	2.5600+ 0	3.0000- 2	1.2000- 2	2.6000- 3	1.2500- 1	65 1797	1.5600+ 1	5.4000- 2	1.0100+ 0
51 284	2.5000+ 0		1.8000+ 0	1.3000+ 0	8.4700- 1	66 942	3.5000+ 0	2.5000- 2	5.0000- 3
56 140	2.5500+ 0	3.0000- 2	8.5900- 1	6.9000- 2	8.4700- 1	68 942	4.0000+ 0	4.9000- 2	9.8000- 3
54 113	3.2000+ 0	2.0000- 1	1.1800+ 0	2.3600- 1	8.4700- 1	65 1797	1.5600+ 1	2.6000- 1	1.2300+ 0
63 1723	1.4000+ 1	2.0000- 1	7.2000- 1	1.0800- 1	8.4700- 1	56 140	2.5600+ 0	3.0000- 2	4.1000- 2
66 1839	1.4000+ 1		1.2280+ 0	1.5000- 1	8.5000- 1	66 942	3.1000+ 0	1.5900- 1	3.2000- 2
55 202	1.4000+ 1		7.5000- 1	7.5000- 2	8.5000- 1	54 113	3.2000+ 0	5.0000- 1	3.9000- 1

3-80

26-FE-NAT -22

03/01/74

N, X GAMMA
CROSS SECTION

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
66	942 3.5000+ 0		1.5400-	1 3.1000-	2 1.2400+ 0	66	942 4.0000+ 0		1.7200-	1 3.4400-	2 2.1200+ 0
66	942 4.0000+ 0		2.4000-	1 4.8000-	2 1.2400+ 0	66	140 2.5600+ 0	3.0000-	2 2.0000-	3 1.0000-	3 2.3000+ 0
66	1839 1.4000+ 1		4.2600-	1 5.5000-	2 1.2400+ 0	66	942 3.5000+ 0		5.5000-	2 1.1000-	2 2.3000+ 0
63	1727 1.4000+ 1	2.8000-	1 4.8000-	1 7.2000-	2 1.2400+ 0	66	942 4.0000+ 0		7.8000-	2 1.5600-	2 2.3000+ 0
55	202 1.4000+ 1		2.6000-	1 2.6000-	2 1.2500+ 0	70	1497 7.5000+ 0		1.1400-	2	2.3000+ 0
66	942 3.1000+ 0		3.6000-	2 7.2000-	3 1.4000+ 0	65	1797 1.5600+ 1		1.9000-	2	2.3000+ 0
66	942 3.5000+ 0		3.9000-	2 7.8000-	3 1.4000+ 0	66	1839 1.4000+ 1		7.7000-	2 1.5000-	2 2.5600+ 0
66	942 4.0000+ 0		5.0000-	2 1.0000-	2 1.4000+ 0	66	942 3.5000+ 0		4.1000-	2 8.2000-	3 2.6000+ 0
66	140 2.5600+ 0	3.0000-	2 4.7000-	2 5.0000-	3 1.4200+ 0	66	942 4.0000+ 0		1.0600-	1 2.1200-	2 2.6000+ 0
70	1497 6.0000+ 0		7.6000-	2	1.6500+ 0	55	1797 1.5600+ 1		6.8000-	2	2.6000+ 0
70	1497 7.5000+ 0		8.9000-	2	1.6500+ 0	66	942 4.0000+ 0		3.6000-	2 7.2000-	3 2.7600+ 0
54	113 3.2000+ 0	2.0000-	1 3.3000-	1 6.6000-	2 1.6700+ 0	55	1797 1.5600+ 1		1.0200-	1	2.8800+ 0
66	942 3.1000+ 0		1.7000-	1 3.4000-	2 1.8100+ 0	70	3386 4.1200+ 0		3.8000-	2	2.9800+ 0
66	942 3.5000+ 0		1.6300-	1 3.2000-	2 1.8100+ 0	70	3386 4.4000+ 0		3.8000-	2	2.9800+ 0
66	942 4.0000+ 0		1.8000-	1 3.6000-	2 1.8100+ 0	70	3386 4.5000+ 0		2.1000-	2	2.9800+ 0
66	1797 1.5600+ 1		3.4000-	2	1.8200+ 0	66	1839 1.4000+ 1		1.5000-	1 2.9000-	2 3.0000+ 0
66	1839 1.4000+ 1		1.8400-	1 2.2000-	2 1.8400+ 0	53	292 1.4000+ 1		2.7700-	1	3.3000+ 0
66	1839 1.4000+ 1		1.1700-	1 2.1000-	2 2.0800+ 0	66	942 4.0000+ 0		4.8000-	2 9.8000-	3 3.4500+ 0
65	1797 1.5600+ 1		3.6000-	2	2.0800+ 0	66	942 4.0000+ 0		3.6000-	2 7.2000-	3 3.6000+ 0
51	284 2.5000+ 0		1.4000-	1 5.0000-	2 2.1100+ 0	53	292 1.4000+ 1		1.9300-	1	4.4000+ 0
66	140 2.5600+ 0	3.0000-	2 5.0000-	3 1.0000-	3 2.1100+ 0	53	292 1.4000+ 1		7.7000-	2	5.8000+ 0
66	942 3.1000+ 0		9.2000-	2 1.8400-	2 2.1200+ 0	53	292 1.4000+ 1		7.0000-	2	7.1000+ 0
66	942 3.5000+ 0		1.1300-	1 2.2600-	2 2.1200+ 0	53	292 1.4000+ 1		2.6000-	2	8.7500+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHN-MIN MEV	E-PHN-MAX MEV
60	1721 1.4000+ 1		5.5000-	1 1.6500-	1 4.0000+ 0	5.0000+ 0
60	1721 1.4000+ 1		3.4000-	1 1.0200-	1 5.0000+ 0	6.1000+ 0
60	1721 1.4000+ 1		2.9000-	1 9.7000-	2 6.1000+ 0	7.5000+ 0

03/01/74

N,P

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
62	688 1.4400+ 1	2.0000-	1 1.0200-	1 1.0000-	2

3-B1

26-FE-NAT -23

03/01/74

BOUND ATOM
CROSS SECTION

26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 158*	7.3000- B		1.1700* 1	

03/01/74

COHERENT SCATTERING

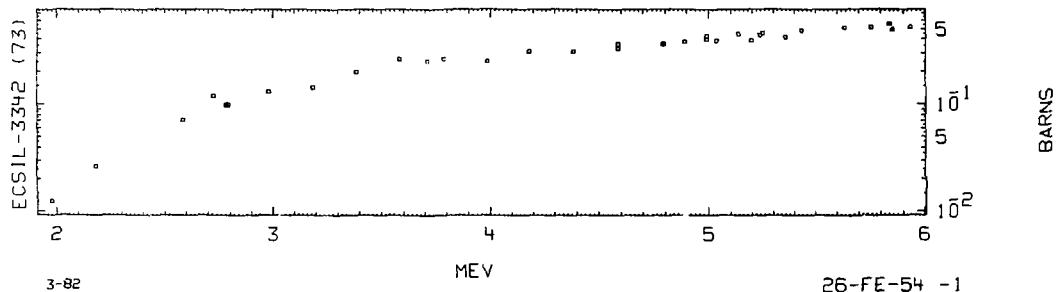
26-FE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 915	6.0700- B		1.0500* 1	3.0000- 1
51 158*	7.3000- F		1.1400* 1	9.1200- 1

03/01/74

N,P
CROSS SECTION

26-FE-54

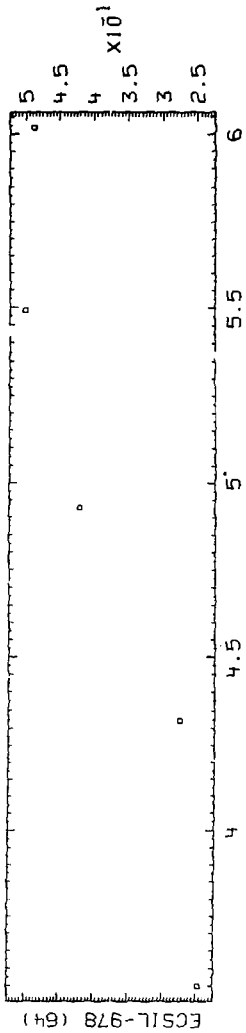
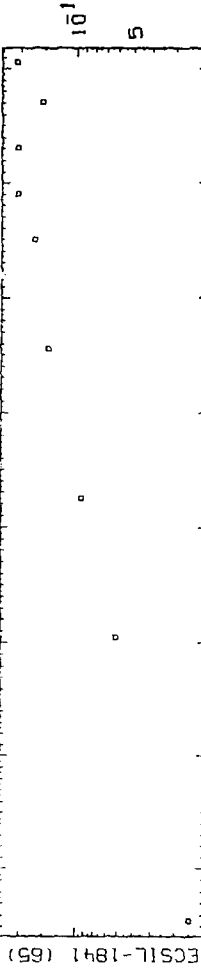
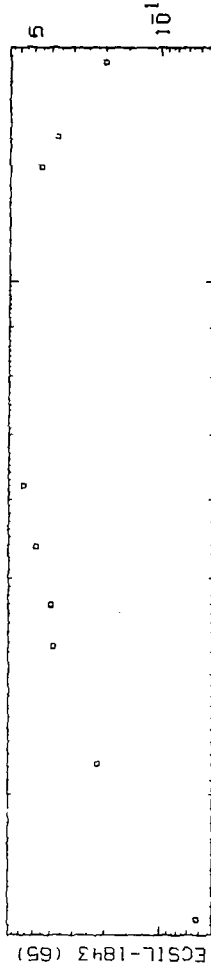


03/01/74

N.P.

26-FE-54

CROSS SECTION



BARNS

MEV

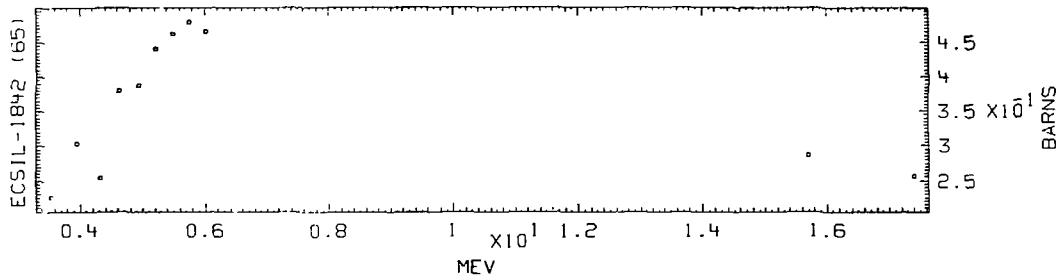
3-83

26-FE-54 -2

03/01/74

N,P
CROSS SECTION

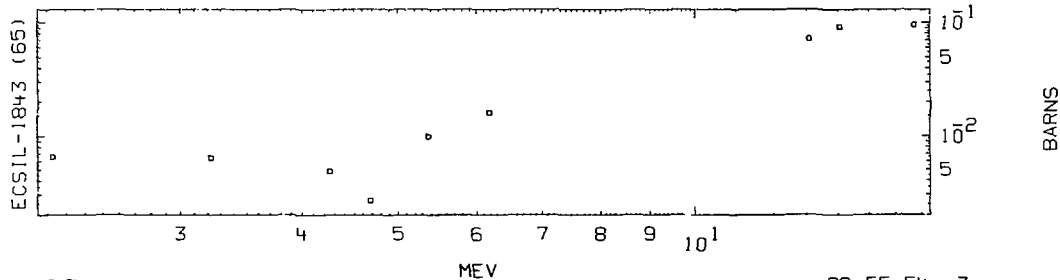
26-FE-54



03/01/74

N, ALPHA
CROSS SECTION

26-FE-54



3-64

26-FE-54 - 3

03/01/74

N,N'
CROSS SECTION

26-FE-54

REFERENCE ENERGY DELTA X-SEC DELTA						REFERENCE ENERGY DELTA X-SEC DELTA					
55 41 2.5000+ 0						1.0000+ 0 3.0000- 1					
REFERENCE	ENERGY	DELTA	X-SEC	DELTA	E-LVL	REFERENCE	ENERGY	DELTA	X-SEC	DELTA	E-LVL
	MEV	MEV	BARNS	BARNS	MEV		MEV	MEV	BARNS	BARNS	MEV
71 3214	4.0400+ 0	2.0000-	3.8800-	1.7000-	2.14100+ 0	71 3214	5.0600+ 0	1.0000-	2.1300-	1.6000-	2.9500+ 0
71 3214	5.0600+ 0	1.0000-	2.4000-	1.0000-	2.14100+ 0	71 3214	5.6000+ 0	1.0000-	2.1200-	1.6000-	3.29500+ 0
71 3214	5.6000+ 0	1.0000-	2.10200-	1.0000-	2.14100+ 0	71 3214	4.0400+ 0	2.0000-	2.2500-	1.6000-	2.3.1600+ 0
71 3214	4.0400+ 0	2.0000-	2.2200-	1.0000-	2.2500+ 0	71 3214	5.0600+ 0	1.0000-	2.1.3600-	1.8.0000-	3.3.1600+ 0
71 3214	5.0600+ 0	1.0000-	2.1.1400-	1.8.0000-	3.2.5500+ 0	71 3214	5.6000+ 0	1.0000-	2.8.0000-	2.7.0000-	3.3.1600+ 0
71 3214	5.6000+ 0	1.0000-	2.1.2000-	1.0000-	2.2.5500+ 0	71 3214	5.0600+ 0	1.0000-	2.1.4200-	1.1.1000-	2.3.3200+ 0
71 3214	4.0400+ 0	2.0000-	2.1.3200-	1.9.0000-	3.2.9500+ 0	71 3214	5.6000+ 0	1.0000-	2.1.7300-	1.9.0000-	3.3.3200+ 0

03/01/74

N,2N

26-FE-54

REFERENCE ENERGY DELTA X-SEC DELTA					REFERENCE ENERGY DELTA X-SEC DELTA				
57 217 1.4000+ 1					65 1672 1.4600+ 1 1.0000- 1 1.6000- 2 3.0000- 3				
REFERENCE	ENERGY	DELTA	X-SEC	DELTA	REFERENCE	ENERGY	DELTA	X-SEC	DELTA
	MEV	MEV	BARNS	BARNS		MEV	MEV	BARNS	BARNS
65 1843	1.4050+ 1	1.0500+ 0	2.8300-	3.5.0000- 5	61 679	1.4800+ 1	2.0010-	7.9010-	3.8.0010- 4
61 651	1.4100+ 1		1.1000-	2.2.0000- 3	60 628	1.5000+ 1		7.0010-	3.1.3000- 2
63 373	1.4100+ 1		1.0002-	2.5.6010- 3	65 1843	1.6750+ 1	5.5000-	1.5.0400-	2.5.0000- 3
61 676	1.4400+ 1	3.0000-	1.5000-	2.1.0000- 3	58 326	1.6890+ 1	3.2000-	1.2000-	1.3.6000- 2
63 1039	1.4500+ 1		8.5000-	3.8.0000- 4	58 326	1.7890+ 1	8.0000-	2.1.7000-	1.5.1000- 2

03/01/74

N,N'P

26-FE-54

REFERENCE	ENERGY	DELTA	X-SEC	DELTA
	MEV	MEV	BARNS	BARNS
61 361	1.4000+ 1		2.1800-	1.1.3000- 2
57 217	1.4000+ 1		2.2000-	1.4.4000- 2

03/01/74

N,P

26-FE-54

REFERENCE ENERGY DELTA X-SEC DELTA					REFERENCE ENERGY DELTA X-SEC DELTA				
61 655 2.6000+ 0 2.0000- 1 1.5000- 1 1.5000- 2					61 655 3.6000+ 0 1.0000- 1 2.1000- 1 2.0000- 2				
REFERENCE	ENERGY	DELTA	X-SEC	DELTA	REFERENCE	ENERGY	DELTA	X-SEC	DELTA
	MEV	MEV	BARNS	BARNS		MEV	MEV	BARNS	BARNS
61 655	3.3000+ 0	1.0000-	1.9000-	1.2.0000- 2	62 1008	1.3580+ 1		3.7000-	1.3.7000- 2

3-85

26-FE-54 -4

03/01/74

N, P
CROSS SECTION

26-FE-54

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	351 1.4000+ 1		3.8200- 1	7.0010- 3	72	33+5 1.4500+ 1		5.109J- 1	2.7500- 2
57	217 1.4000+ 1		4.6000- 1	9.2010- 2	69	235+ 1.4600+ 1	2.0000- 1	3.4600- 1	3.0000- 2
62	1008 1.4070+ 1		3.4600- 1	3.4600- 2	62	1008 1.4730+ 1		3.2000- 1	3.2000- 2
60	827 1.4100+ 1	1.0000- 1	3.3300- 1	6.6010- 2	69	235+ 1.4800+ 1		2.9800- 1	2.4000- 2
67	184+ 1.4400+ 1	3.0000- 1	2.5900- 1	2.6000- 2	68	2711 1.4800+ 1	2.0000- 1	3.0000- 1	2.0000- 2
62	1009 1.4500+ 1		2.1000- 1	2.5000- 2	60	837 1.5700+ 1	1.0000- 1	5.6110- 1	1.1200- 1
63	1009 1.4500+ 1		3.1800- 1	3.0000- 2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs DAYS
61	651 1.4000+ 1		2.5400- 1	2.8000- 2 2.6000+ 2

03/01/74

N, X P

26-FE-54

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59	184+ 1.4000+ 1		6.1000- 1	2.0000- 2

03/01/74

N, T

26-FE-54

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
61	679 1.4800+ 1	9.0010- 1	6.0010- 4	1.0000- 4 2.1000+ 1

03/01/74

N, ALPHA

26-FE-54

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62	1008 1.3580+ 1		8.7000- 2	8.7000- 3	63	1009 1.4500+ 1		9.4000- 2	1.0000- 2
62	1008 1.4070+ 1		9.4000- 2	9.4000- 3	72	33+5 1.4500+ 1		1.3950- 1	7.5000- 3
61	551 1.4100+ 1		1.3100- 1	2.4000- 2	62	1008 1.4730+ 1		9.6000- 2	9.6000- 3
67	184+ 1.4400+ 1	3.0000- 1	9.0000- 2	1.0000- 2	61	679 1.4800+ 1	9.0010- 1	2.7000- 1	1.3500- 1
62	1009 1.4500+ 1		1.0900- 1	1.0000- 2					

03/01/74

BOUND ATOM
CROSS SECTION

26-FE-54

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		2.5000+ 0	

03/01/74

COHERENT SCATTERING

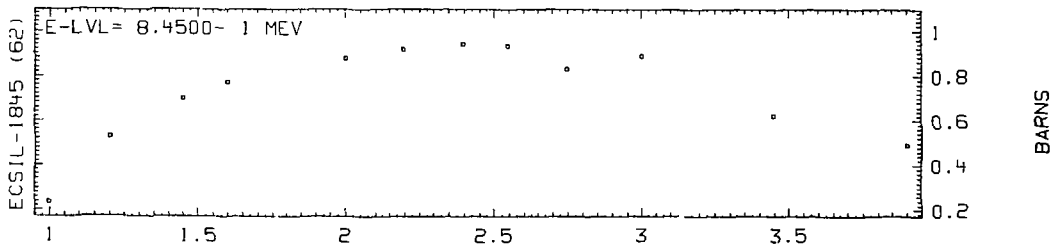
26-FE-54

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		2.2000+ 0	1.7600- 1

03/01/74

N,N'
CROSS SECTION

26-FE-56



3-87

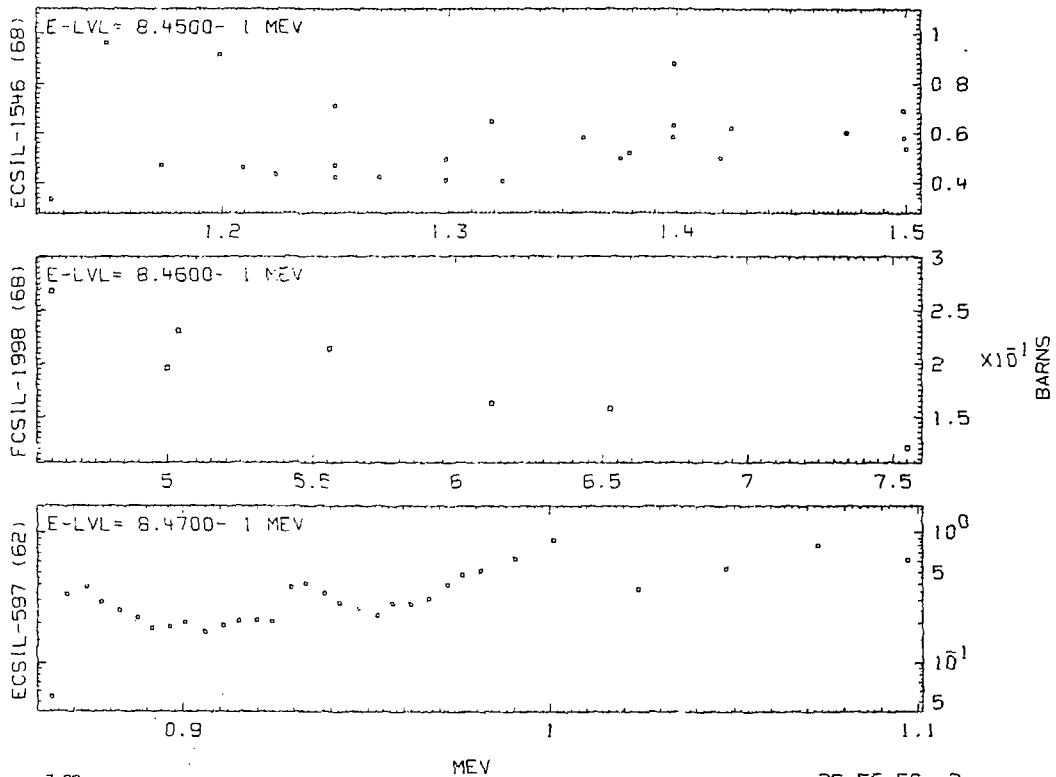
MEV

26-FE-56 -1

03/01/74

N,N'
CROSS SECTION

26-FE-56



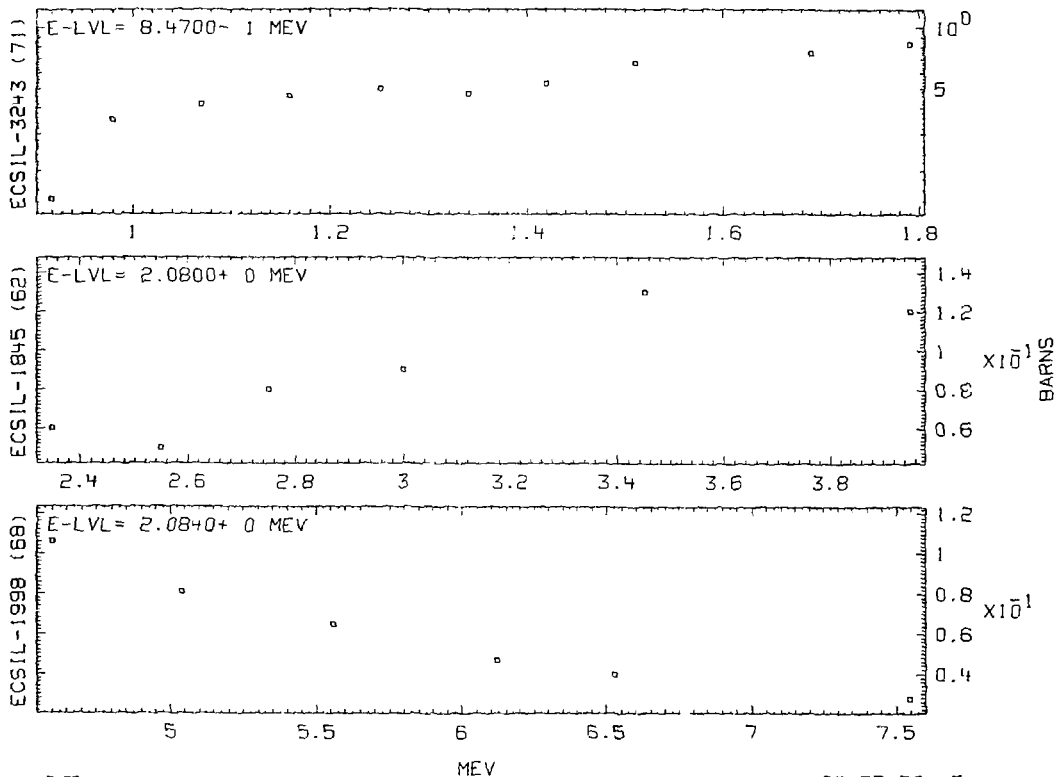
3-88

26-FE-56 -2

03/01/74

N,N'
CROSS SECTION

26-FE-56



3-89

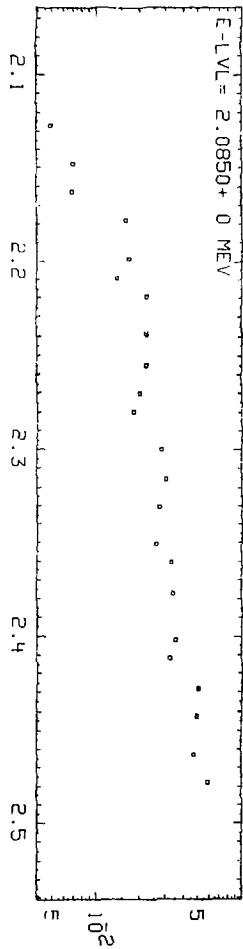
26-FE-56 -3

03/01/74

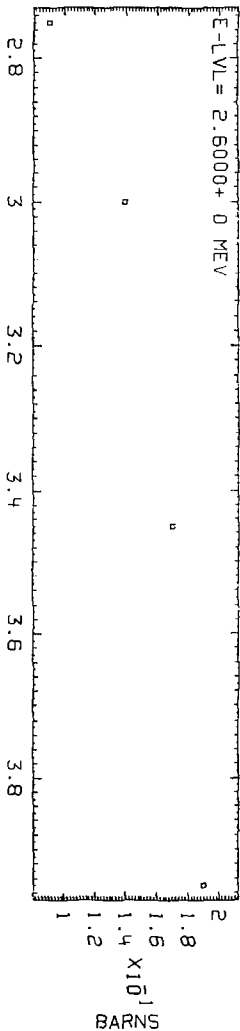
N,N'
CROSS SECTION

26-FE-56

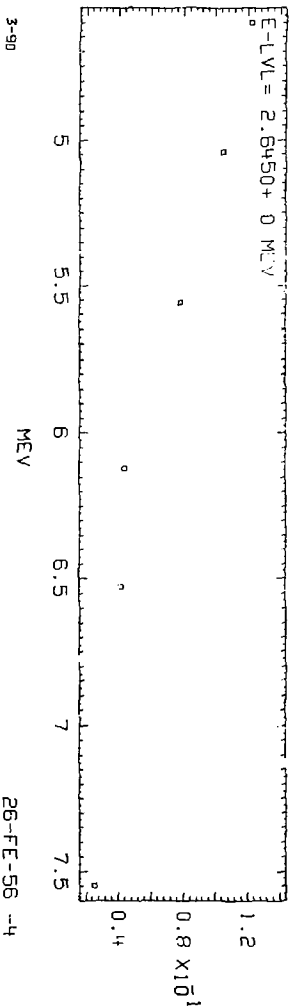
EC5IL-597 (62)



EC5IL-1845 (62)



EC5IL-1998 (68)



3-90

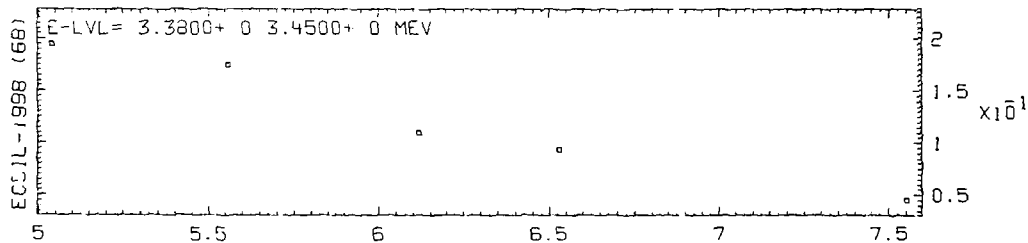
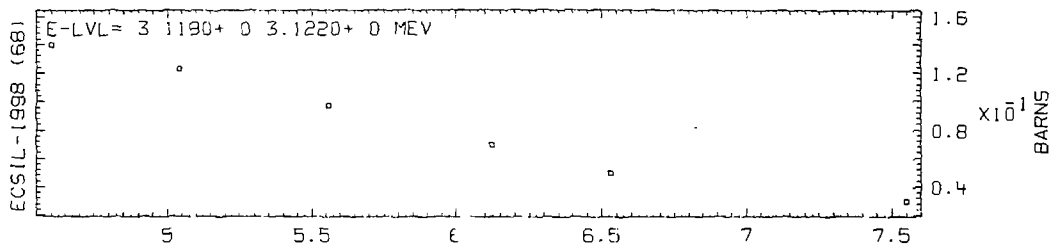
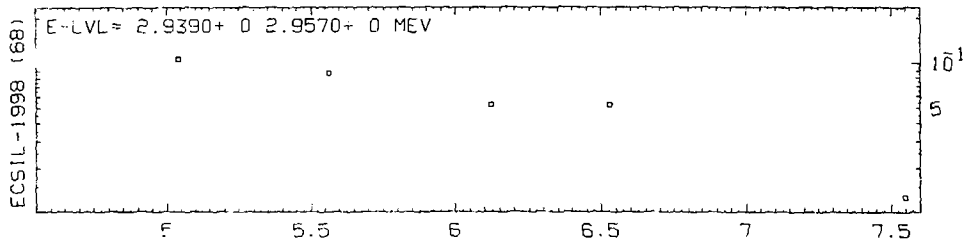
MEV

26-FE-56 -4

03/01/74

N,N'
CROSS SECTION

26-FE-56



3-91

MEV

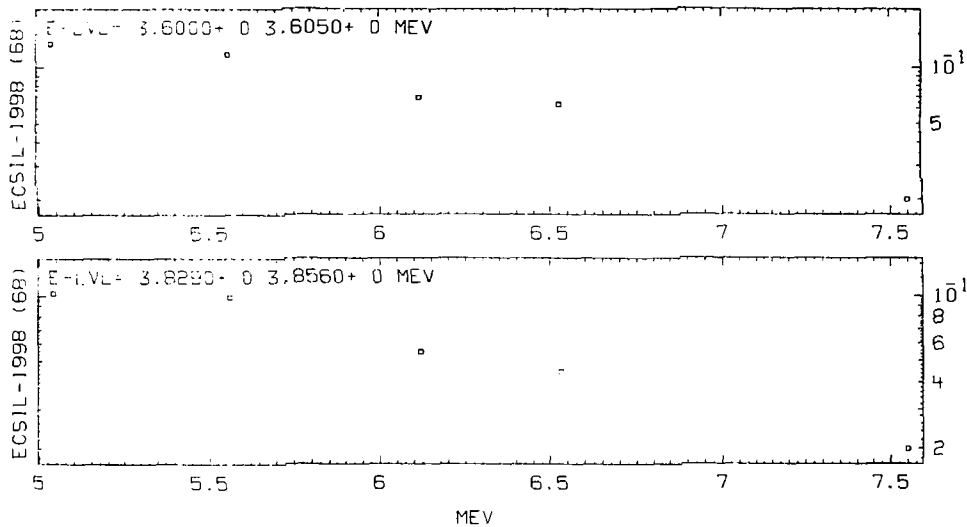
26-FE-56 -5

05/01/74

N,N'

26-FE-56

CROSS SECTION

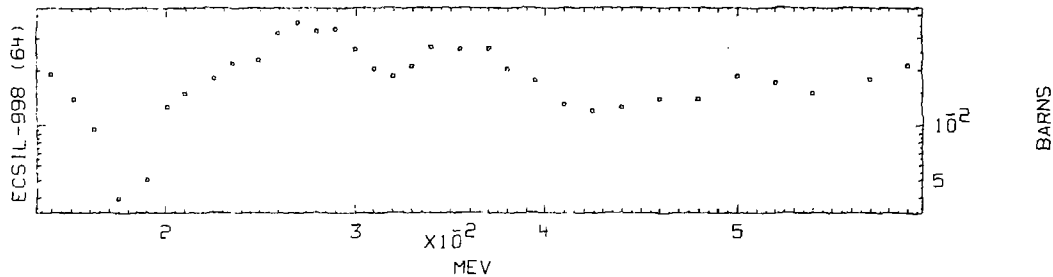


BARNs

03/01/74

ABSORPTION
CROSS SECTION

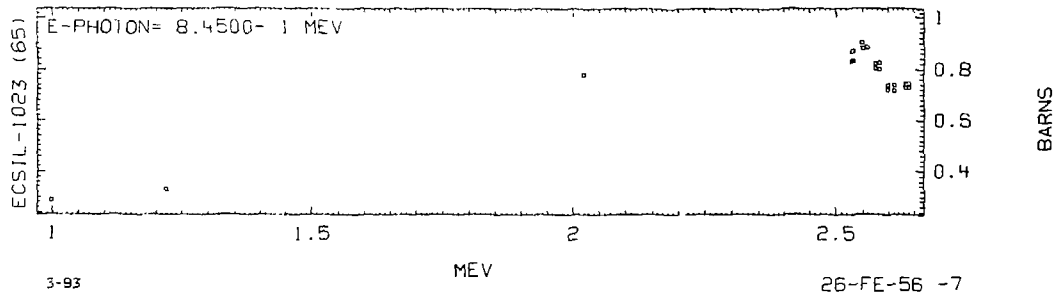
26-FE-56



03/01/74

N, X GAMMA
CROSS SECTION

26-FE-56



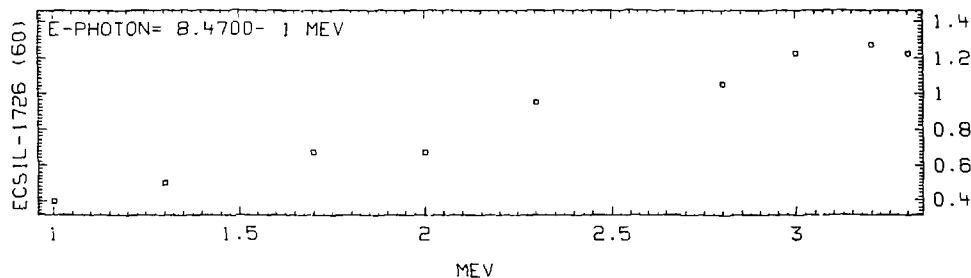
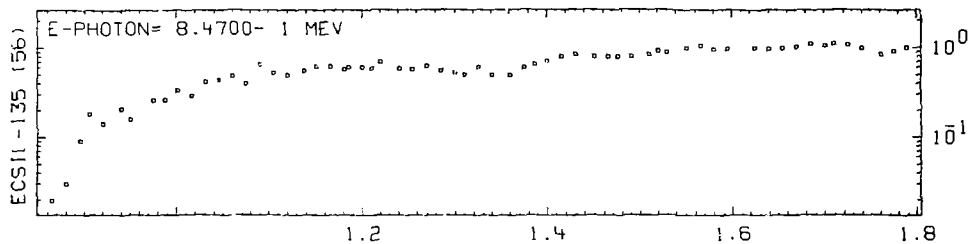
3-93

26-FE-56 -7

03/01/74

N, X GAMMA
CROSS SECTION

26-FE-56

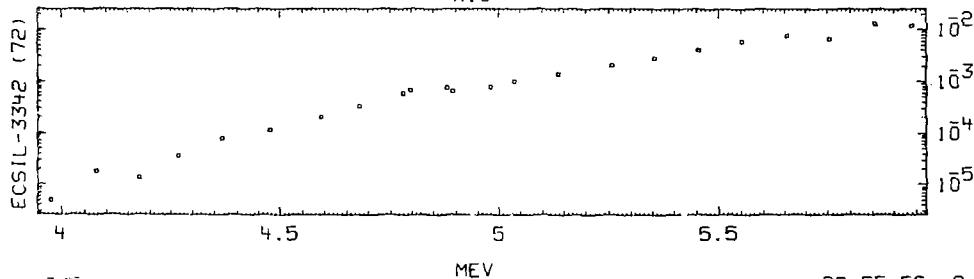
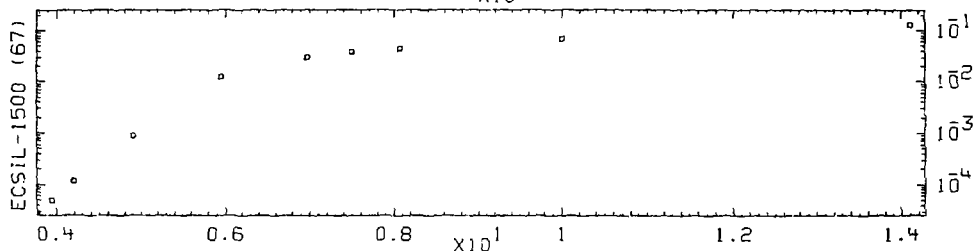
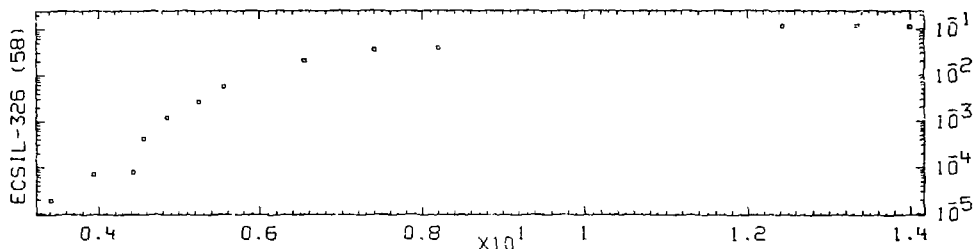


BARNs

03/01/74

N,P
CROSS SECTION

26-FE-56



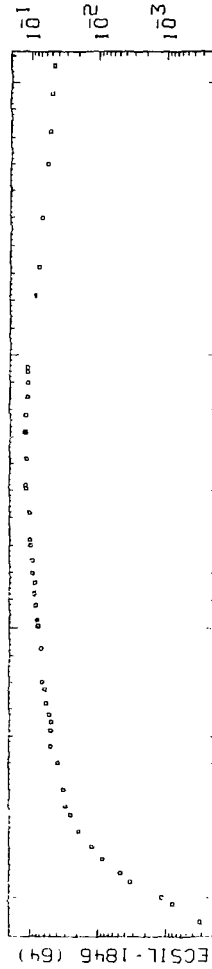
BARNs

03/01/74

N,P

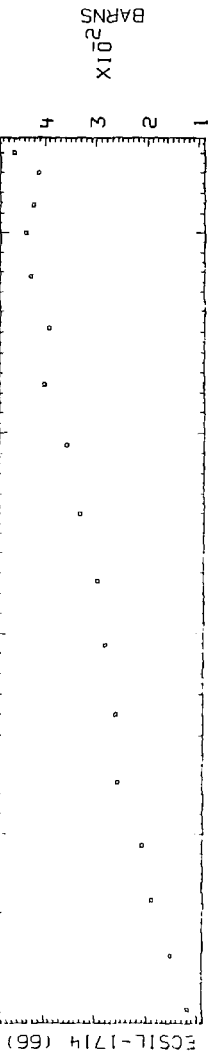
26-FE-56

CROSS SECTION



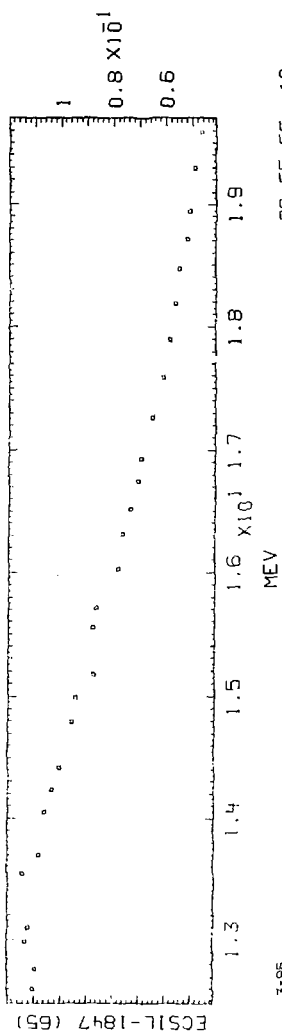
0.5 1 1.5 2

x 10¹



6.5 7 7.5 8

BARNS
x 10²



1.3 1.4 1.5 1.6 x 10¹ 1.7 1.8 1.9
MEV

1
0.8 x 10¹
0.6

3-96

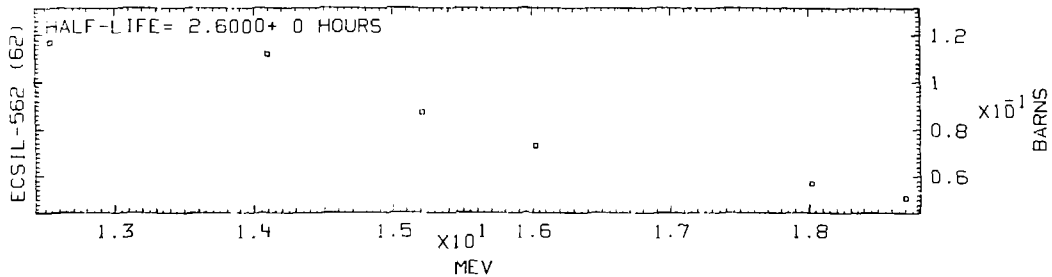
26-FE-56 -10

03/01/74

N,P

26-FE-56

CROSS SECTION

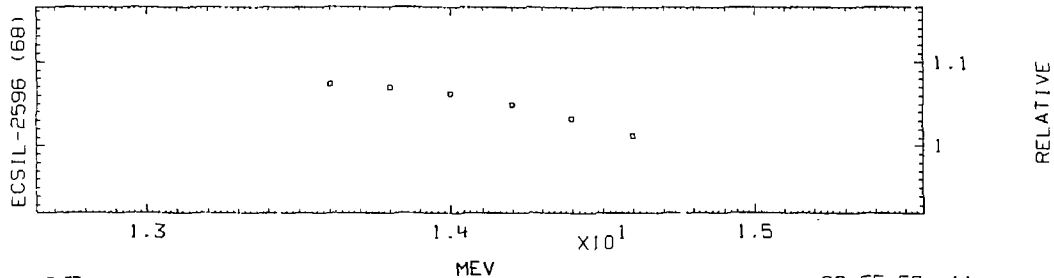


03/01/74

N,P

26-FE-56

CROSS SECTION



3-97

26-FE-56 -11

03/01/74

NONELASTIC
CROSS SECTION

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
65 122B	8.1000+ 0		1.3400+ 0	6.0000- 2
65 122B	1.9700+ 1		1.2200+ 0	4.0000- 2

03/01/74

N, N'

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
65 2321	1.8300+ 0		6.3460- 1	6.7500- 2	65 2321	2.4300+ 0		8.3060- 1	8.6400- 2
65 2321	2.2100+ 0		1.1200+ 0	1.1300- 1	55 41	2.5000+ 0		1.0600+ 0	2.5000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	E-LVL MEV
65 1016	3.9900+ 0	3.0000- 2	4.0600- 1	4.6000- 2	8.4500- 1	
63 828	1.0000+ 0		2.8000- 1	3.0000- 2	8.4510- 1	
63 828	1.2000+ 0		5.2010- 1	5.0000- 2	8.4510- 1	
71 3214	5.0500+ 0	1.0000- 2	2.5000- 1	1.5000- 2	8.5000- 1	
71 3214	5.5800+ 0	1.0000- 2	2.0500- 1	9.0000- 3	8.5000- 1	
65 1016	3.9900+ 0	3.0000- 2	1.3800- 1	8.0000- 3	2.0850+ 0	
71 3214	5.0500+ 0	1.0000- 2	9.7000- 2	9.0000- 3	2.0900+ 0	
71 3214	5.5800+ 0	1.0000- 2	8.0000- 2	8.0000- 3	2.0900+ 0	
65 1016	3.9900+ 0	3.7000- 2	1.6500- 1	1.2000- 2	2.6580+ 0	
71 3214	5.0500+ 0	1.0000- 2	9.7900- 2	5.0000- 3	2.6600+ 0	
71 3214	5.5800+ 0	1.0000- 2	8.5000- 2	5.0000- 3	2.6600+ 0	
65 1016	3.9900+ 0	3.0000- 2	1.5900- 1	1.5000- 2	2.9400+ 0	2.9525+ 0
62 1845	3.9500+ 0		1.4000- 1		3.0200+ 0	
62 1845	3.9500+ 0		1.3000- 1		3.0200+ 0	
65 1016	3.9900+ 0	3.0000- 2	1.7800- 1	1.9000- 2	3.1190+ 0	
62 1845	3.9500+ 0		6.0000- 2		3.1400+ 0	
62 1845	3.9500+ 0		5.0000- 2		3.1400+ 0	
71 3214	5.0500+ 0	1.0000- 2	2.7100- 1	8.0000- 3	3.1500+ 0	
71 3214	5.5800+ 0	1.0000- 2	1.8500- 1	7.0000- 3	3.1500+ 0	
65 1016	3.9900+ 0	3.0000- 2	8.7000- 2	1.5000- 2	3.3690+ 0	3.3880+ 0
65 1016	3.9900+ 0	3.0000- 2	1.3400- 1	1.4000- 2	3.4450+ 0	
62 1845	3.9500+ 0		1.6000- 1		3.4500+ 0	
71 3214	5.0500+ 0	1.0000- 2	2.1300- 1	1.1000- 2	3.4500+ 0	
71 3214	5.5800+ 0	1.0000- 2	1.5600- 1	1.1000- 2	3.4500+ 0	
71 3214	5.0500+ 0	1.0000- 2	1.1900- 1	6.0000- 3	3.6000+ 0	
71 3214	5.5800+ 0	1.0000- 2	1.2700- 1	7.0000- 3	3.6000+ 0	

3-98

26-FE-56 -12

03/01/74

N,N'
CROSS SECTION

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
64 1859	1.4000+ 1		6.6000- 1	8.0000- 2	8.4500- 1
64 1859	1.4000+ 1		2.7000- 1	4.0000- 2	1.2400+ 0

03/01/74

N,2N

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 3374	1.4000+ 1		4.4000- 1	9.0000- 2

03/01/74

N,N'P

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 361	1.4000+ 1		3.5000- 2	7.0010- 3

03/01/74

N,X GAMMA

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
61 656	2.9000+ 0	1.7000- 1	1.2600+ 0	6.0000- 2	8.4700- 1

03/01/74

N,P

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 1006	1.3580- 1		1.0600- 1	1.0600- 2	62 1009	1.4500+ 1		1.0600- 1	6.0000- 3
55 202	1.4000+ 1		7.2000- 2	7.2000- 3	63 1009	1.4500+ 1		1.0700- 1	8.0000- 3
57 217	1.4000+ 1		1.9000- 1	3.8000- 2	53 27	1.4500+ 1		9.6710- 2	1.2000- 2
61 361	1.4000+ 1		8.2010- 2	1.3000- 2	72 3345	1.4500+ 1		1.4840- 1	1.0000- 2
67 1008	1.4070+ 1		1.0800- 1	1.0800- 2	69 2354	1.4600+ 1	2.0000- 1	1.1300- 1	8.0000- 2
52 84	1.4100+ 1		1.2400- 1	1.2400- 2	68 2596	1.4700+ 1	7.5000- 2	1.0000- 1	4.0000- 3
60 837	1.4100+ 1	1.0000- 1	9.0010- 2	1.8000- 2	64 1848	1.4700+ 1	1.5000- 1	1.0500- 1	2.5000- 3
61 651	1.4100+ 1		1.1200- 1	5.6010- 3	62 1008	1.4730+ 1		1.0000- 1	1.0000- 2
57 535	1.4140+ 1	1.8000- 1	1.4400- 1	1.8700- 2	69 2354	1.4800+ 1		1.0620- 1	9.0000- 3
62 806	1.4400+ 1	2.5000- 2	1.0800- 1	1.0000- 2	68 2711	1.4800+ 1	2.0000- 1	1.0900- 1	9.0000- 3

03/01/74

N,P
CROSS SECTION

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
64	843	1.4800+1	7.0010-1	1.0800-1	8.6010-3	60	528	1.5000+1	1.2800-1	1.3000-2
61	679	1.4840+1	9.0010-1	1.2800-1	1.3000-2	59	533	1.5270+1	3.3000-1	1.5000-2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
54	1859	1.4000+1	1.1500-1		8.4500-1

03/01/74

N, X P

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
57	847	1.3700+1	2.0000-1	1.2000-1	3.0000-2

03/01/74

N, ALPHA

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
69	2710	1.4600+1	2.3000-3	7.0000-4	0.0000+0

03/01/74

BOUND ATOM

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000-8	1.3000+1	

03/01/74

COHERENT SCATTERING

26-FE-56

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000-8	1.2600+1	1.0080+0

03/01/74

N,N'P
CROSS SECTION

26-FE-57

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 679	1.4800+ 1	9.0010- 1	6.1010- 3	2.6000- 3

03/01/74

N,P

26-FE-57

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 651	1.4100+ 1		5.0000- 2	1.0000- 2	72 3345	1.4500+ 1		3.1500- 2	2.0000- 3
63 1009	1.4500+ 1		7.5000- 2	8.0000- 3	61 679	1.4800+ 1	9.0010- 1	7.1010- 1	2.70010- 3

03/01/74

BOUND ATOM

26-FE-57

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8			2.0000+ 0

03/01/74

COHERENT SCATTERING

26-FE-57

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		6.4000- 1	5.1200- 2

03/01/74

N,P

26-FE-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
72 3345	1.4500+ 1		3.5000- 2	2.5000- 2
61 679	1.4800+ 1	9.0010- 1	2.3000- 2	3.0000- 3

03/01/74

N, ALPHA

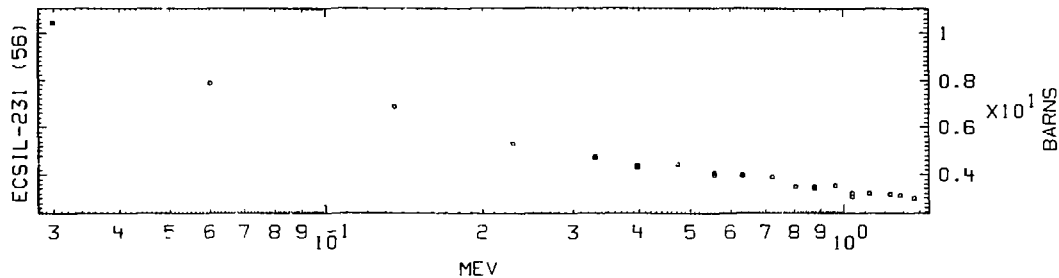
26-FE-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 679	1.4800+ 1	9.0010- 1	2.1500- 2	2.0000- 3

03/01/74

TOTAL SCATTERING
CROSS SECTION

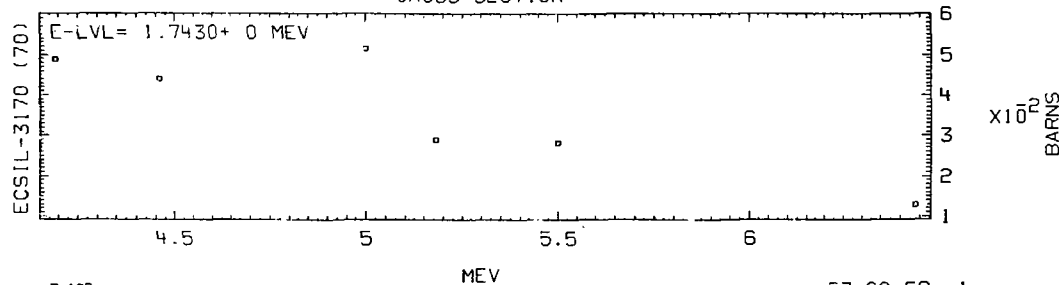
27-CO-59



03/01/74

N, N'
CROSS SECTION

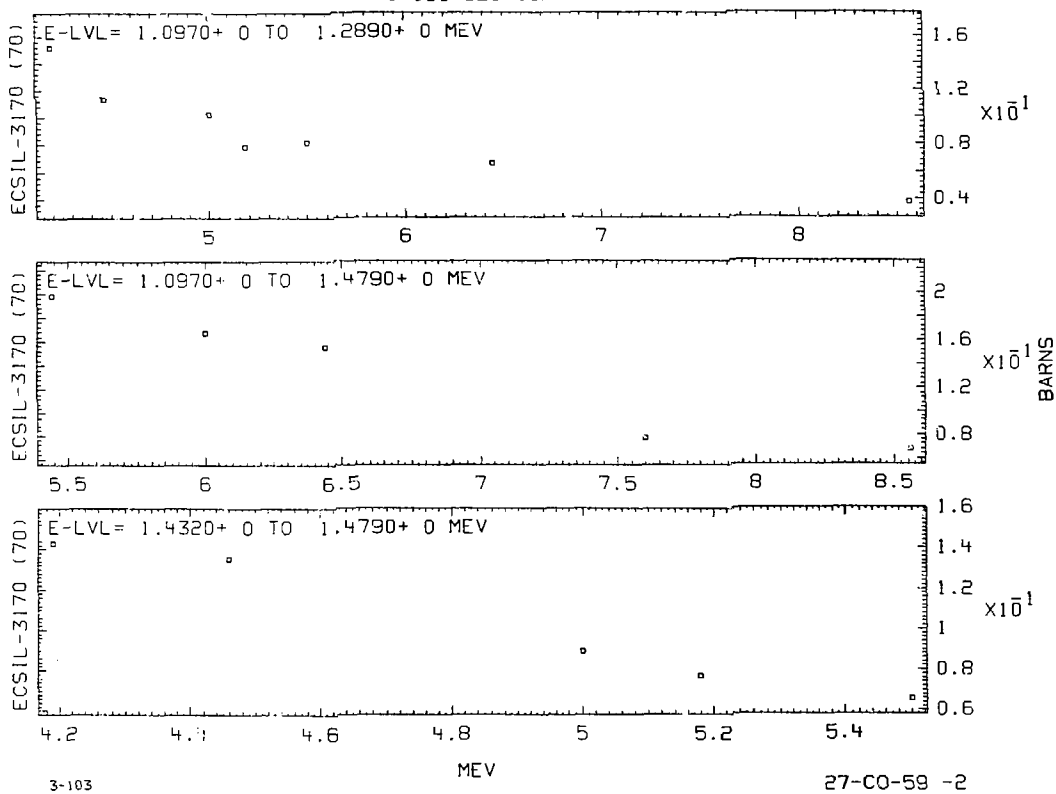
27-CO-59



03/01/74

N,N'
CROSS SECTION

27-CO-59



3-103

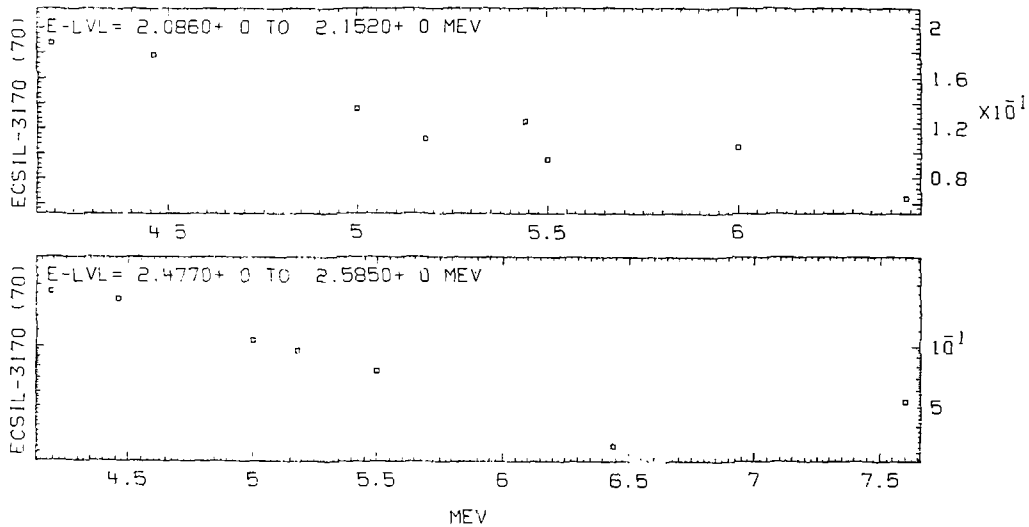
27-CO-59 -2

03/01/74

N,N'

27-CO-59

CROSS SECTION

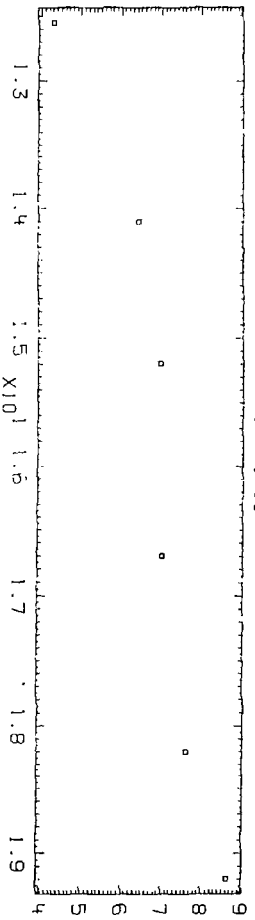


03/01/74

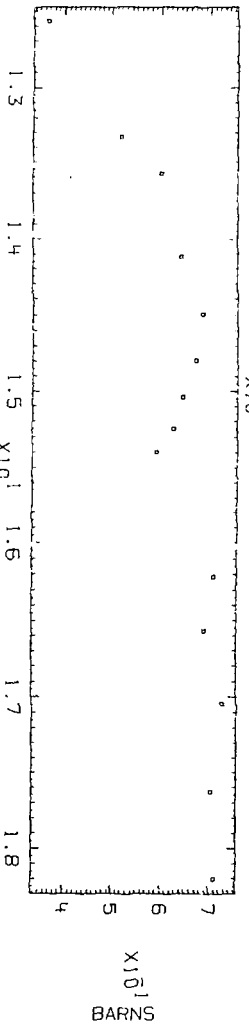
N,2N
CROSS SECTION

27-CO-59

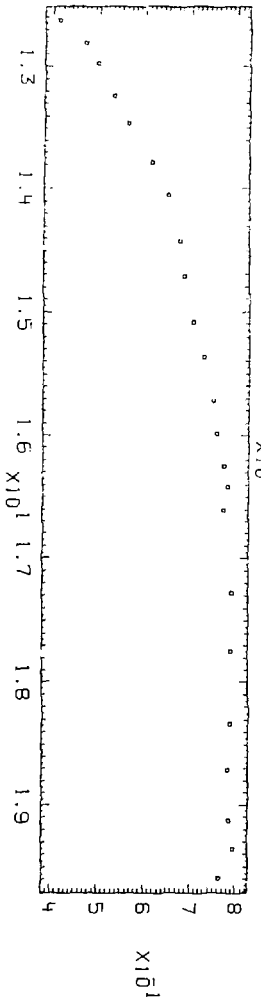
ECSIL-2894 (66)



ECSIL-2340 (68)



ECSIL-1738 (65)



3-105

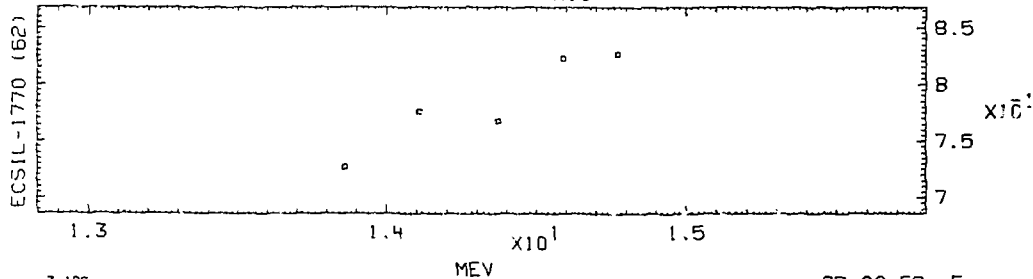
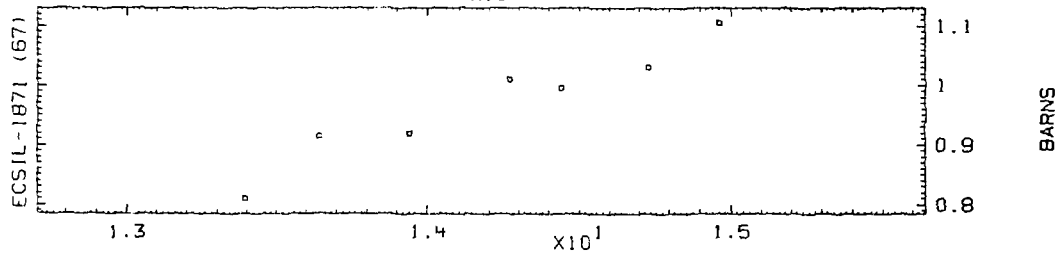
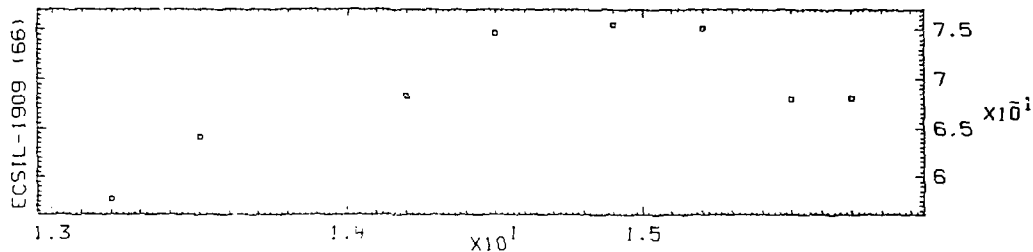
MEV

27-CO-59 -4

03/01/74

N,2N
CROSS SECTION

27-CO-59



3-106

MEV

27-CO-59 -5

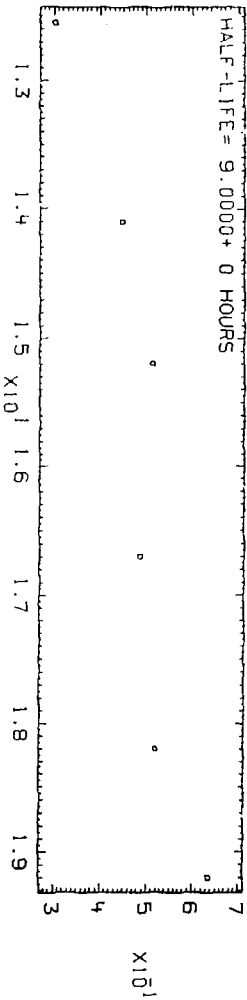
03/01/74

N,2N

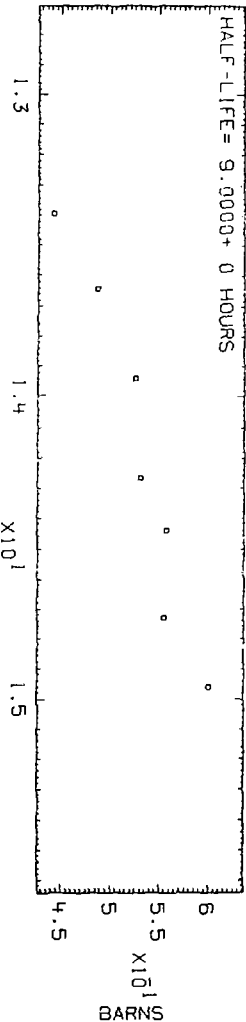
27-CO-59

CROSS SECTION

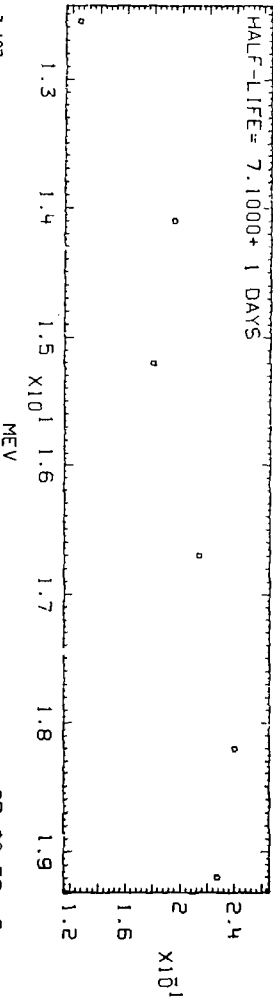
ECSIL-2894 (66)



ECSIL-1871 (67)



ECSIL-2894 (66)



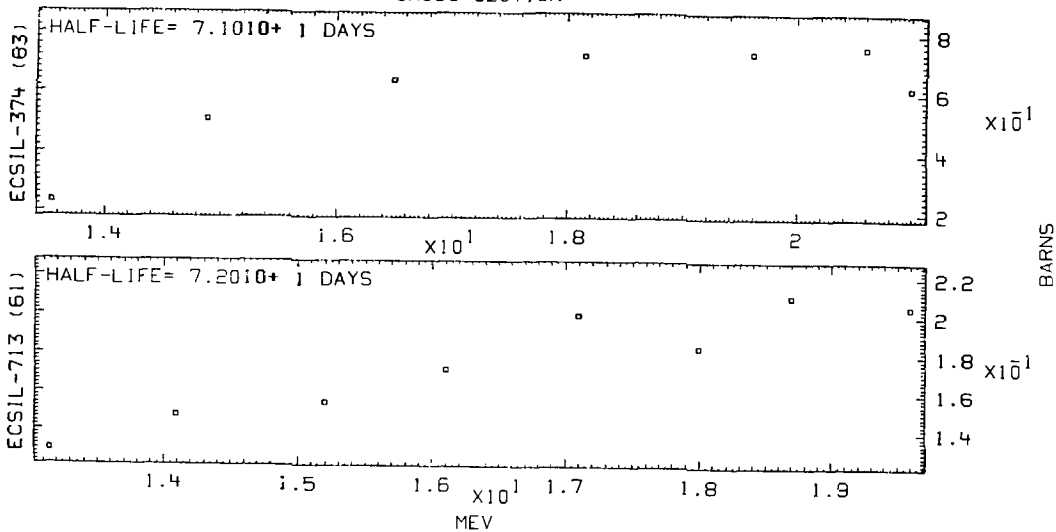
3-107

27-CO-59 -6

03/01/74

N,2N
CROSS SECTION

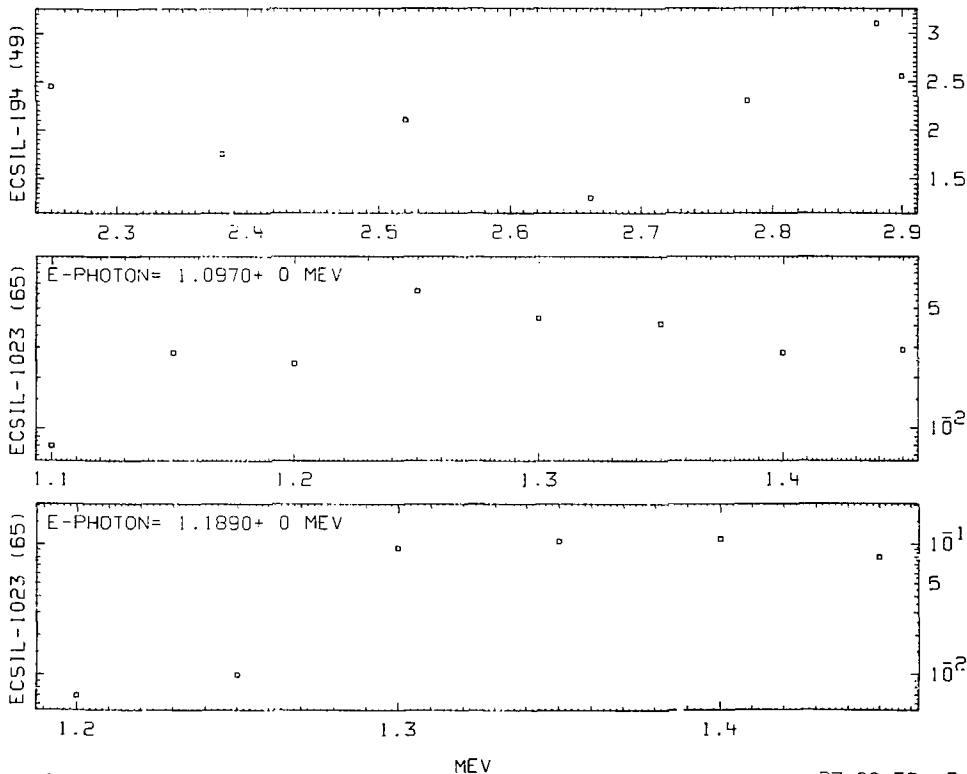
27-CO-59



03/01/74

N, X GAMMA
CROSS SECTION

27-CO-59



3-109

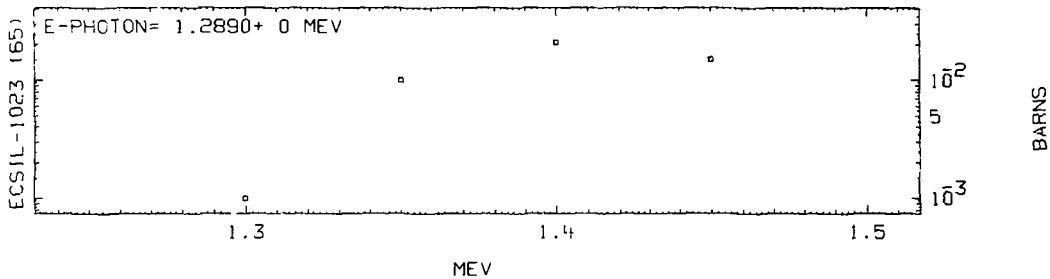
MEV

27-CO-59 -8

03/01/74

N, X GAMMA
CROSS SECTION

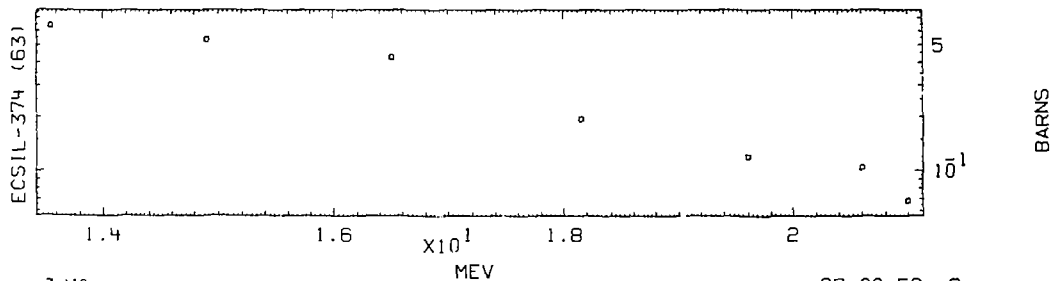
27-CO-59



03/01/74

N, P
CROSS SECTION

27-CO-59



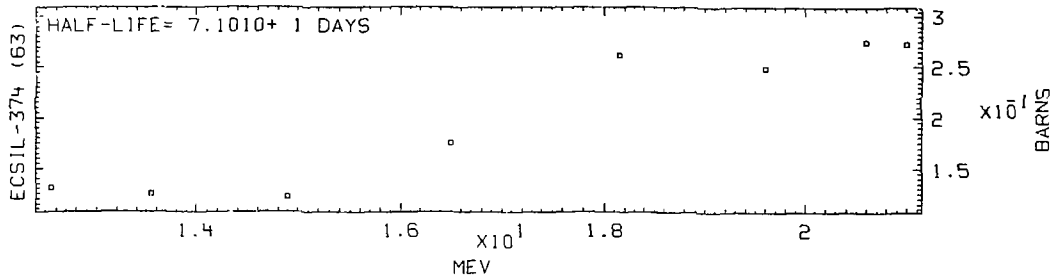
3-110

27-CO-59 -9

03/01/74

N,P
CROSS SECTION

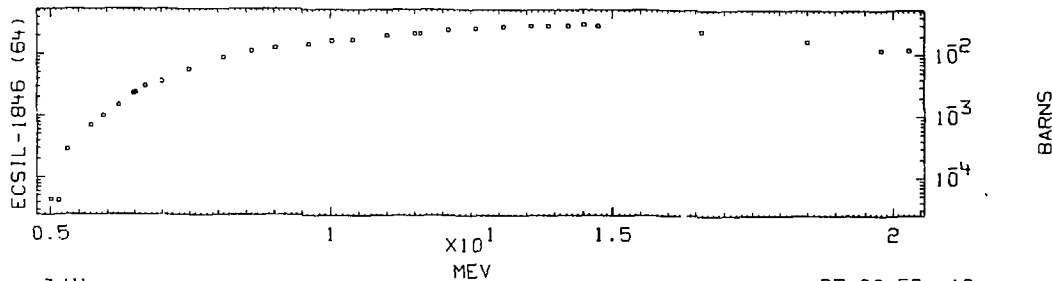
27-CO-59



03/01/74

N, ALPHA
CROSS SECTION

27-CO-59



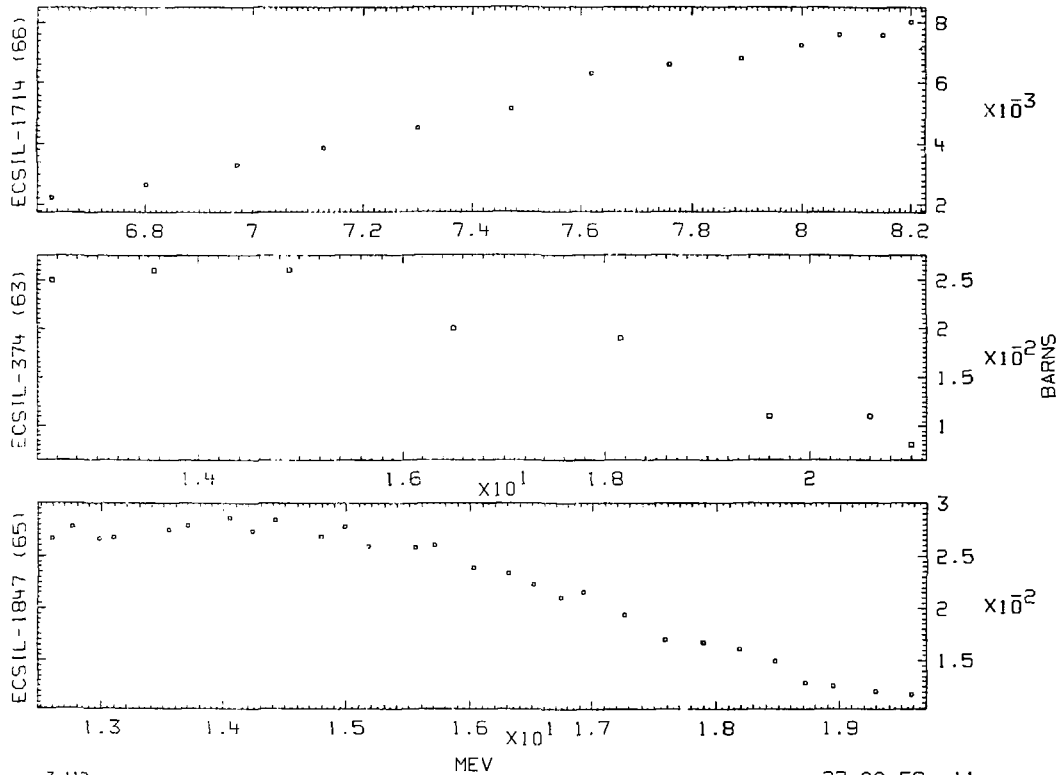
3-111

27-CO-59 - 10

03/01/74

N, ALPHA
CROSS SECTION

27-CO-59



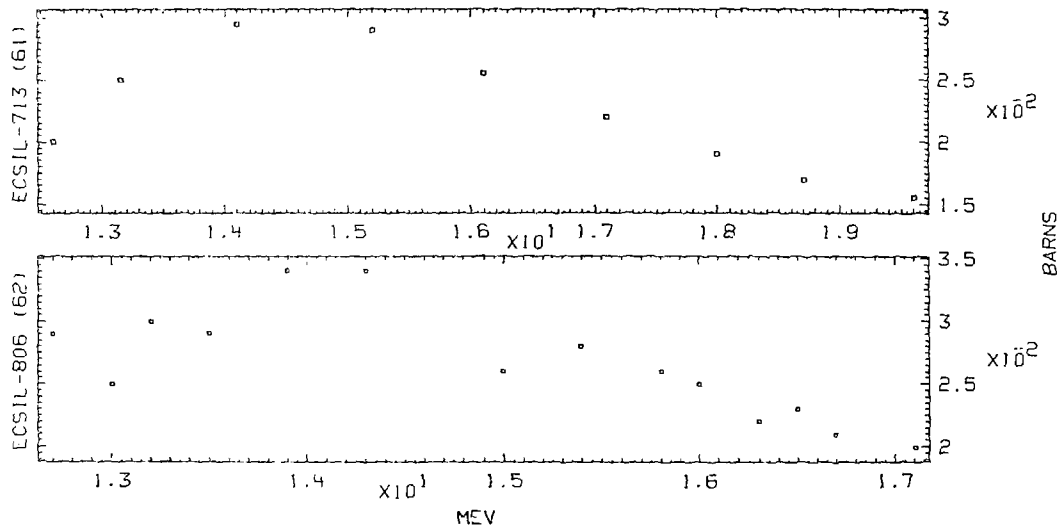
3-112

27-CO-59 -11

03/01/74

N, ALPHA
CROSS SECTION

27-00-59



03/01/74

NONELASTIC

27-00-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
54	103	1.0000+ 0	5.0000- 2	2.0000- 1	9.0010- 2	59	559	3.6600+ 0	2.0000- 1	1.6200+ 0	1.8000- 1
56	34	2.5000+ 0		1.4000+ 0	1.1000- 1	57	319	1.4200+ 1	1.5000- 1	1.3700+ 0	3.0000- 2
55	790	2.5000+ 0	1.5000- 1	1.4000+ 0	1.1000- 1						

03/01/74

N, 2N
CROSS SECTION

27-CO-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 377	1.4000+ 1		5.8710- 1	1.1740- 1	63 455	1.4100+ 1		6.4010- 1	7.0010- 2
62 3374	1.4000+ 1		6.3000- 1	1.2000- 1	60 629	1.4500+ 1	5.0000- 1	8.5510- 1	1.6500- 1
58 1821	1.4100+ 1		8.7000- 1	7.0000- 2	69 2354	1.4600+ 1	2.0000- 1	7.6000- 1	6.0000- 2
65 1800	1.4100+ 1		6.4200- 1	3.2000- 2	60 598	1.4800+ 1	9.0010- 1	1.4900- 1	6.0010- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
65 1800	1.4100+ 1		1.9500- 1	5.3000- 2	9.0000+ 0
58 598	1.4800+ 1	9.0000- 1	4.0000- 3	2.0000- 3	9.0000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
65 1800	1.4100+ 1		4.4700- 1	4.2000- 2	7.1000+ 1
58 598	1.4800+ 1	9.0000- 1	1.4500- 1	5.0000- 3	7.2000+ 1

03/01/74

N, N'P

27-CC-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 686	1.4400+ 1	2.0000- 1	1.1000- 2	

03/01/74

ABSORPTION

27-CO-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2569	2.5300- 8		3.8400+ 1	9.9000- 1	58 1162	2.5300- 8		3.8200+ 1	7.0000- 1
52 437	2.5300- 8		3.8700+ 1		60 891	2.5300- 8		3.6300+ 1	6.0000- 1
66 1491	2.5300- 8		3.8000+ 1	3.0000- 1					

03/01/74

N, X GAMMA

27-CO-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
54 113	3.2000+ 0	2.0000- 1	2.0000- 1	4.0000- 1	2.6000- 1	54 113	3.2000+ 0	2.0000- 1	1.5000- 1	3.0000- 2	1.7000+ 0
54 113	3.2000+ 0	2.0000- 1	8.2000- 1	1.6000- 1	1.1500+ 0	54 113	3.2000+ 0	2.0000- 1	1.8000- 1	4.0000- 2	2.5000+ 0
54 113	3.2000+ 0	2.0000- 1	5.3000- 1	1.1000- 1	1.4900+ 0						

03/01/74

N, P
CROSS SECTION

27-CO-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361 1.4000+ 1		8.1010- 2	7.0010- 3	60	629 1.4500+ 1	5.0000- 1	8.0010- 2	2.3000- 2
60	837 1.4100+ 1	1.0000- 1	7.5010- 2	1.5000- 2	65	1855 1.4800+ 1		5.3000- 2	1.2000- 2
62	688 1.4400+ 1	2.0000- 1	4.8000- 2	5.0000- 3	60	598 1.4800+ 1	9.0010- 1	8.2010- 2	8.0010- 3

03/01/74

N, T

27-CO-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	1697 1.4800+ 1		2.1000- 3	2.0000- 4

03/01/74

N, HE-3

27-CO-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	667 1.4800+ 1	9.0010- 1	2.0000- 3	8.0010- 4
65	2151 1.4800+ 1		1.7000- 5	8.5000- 6

03/01/74

N, ALPHA

27-CO-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	401 1.4050+ 1	5.5010- 1	3.1900- 2	3.0000- 3	65	1697 1.4800+ 1		3.2000- 2	5.0000- 3
65	1800 1.4100+ 1		2.7600- 2	1.5000- 3	60	598 1.4800+ 1	9.0010- 1	3.0000- 2	3.0000- 3
60	629 1.4500+ 1	5.0000- 1	2.9000- 2	6.0010- 3	65	2151 1.4800+ 1		3.0000- 2	3.0000- 3
53	27 1.4500+ 1		3.9100- 2	7.8010- 3					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
69	2710 1.4600+ 1		1.1000- 3	4.0000- 4	0.0000+ 0

03/01/74

N, X ALPHA
CROSS SECTION

27-CO-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 536	1.4800+ 1		8.4000- 2	1.2600- 2

03/01/74

BOUND ATOM

27-CO-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		5.0000+ 0	

03/01/74

COHERENT SCATTERING

27-CO-59

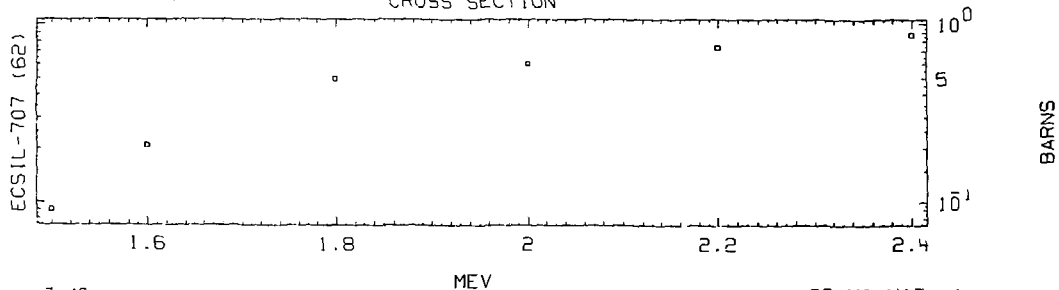
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		1.0000+ 0	8.0000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	SPIN
69 3226	2.5300- 8		1.4120+ 1	6.1580- 2	3.0000+ 0
69 3226	2.5300- 8		1.8150+ 0	3.6640- 2	4.0000+ 0

03/01/74

NONELASTIC
CROSS SECTION

28-NI-NAT



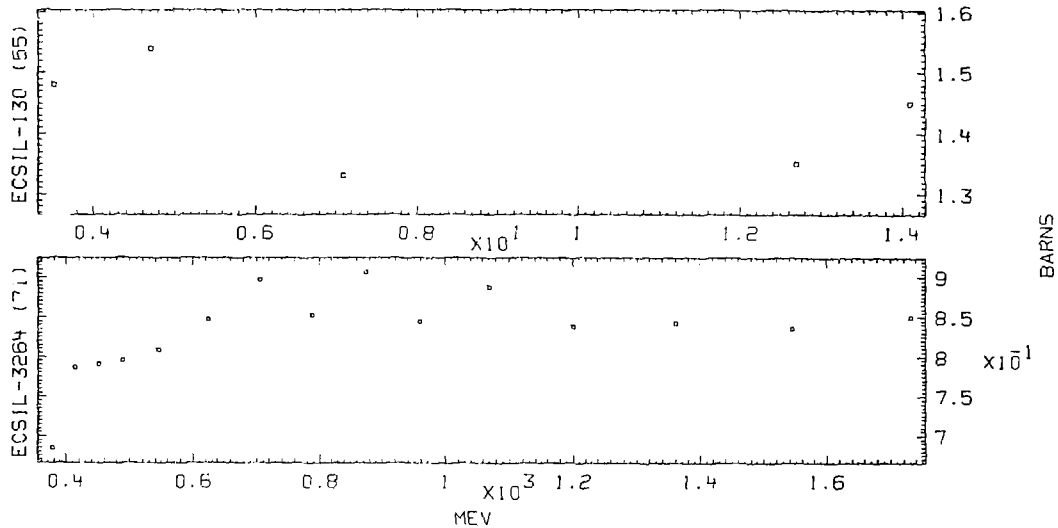
3-116

28-NI-NAT -1

03/01/74

NONELASTIC
CROSS SECTION

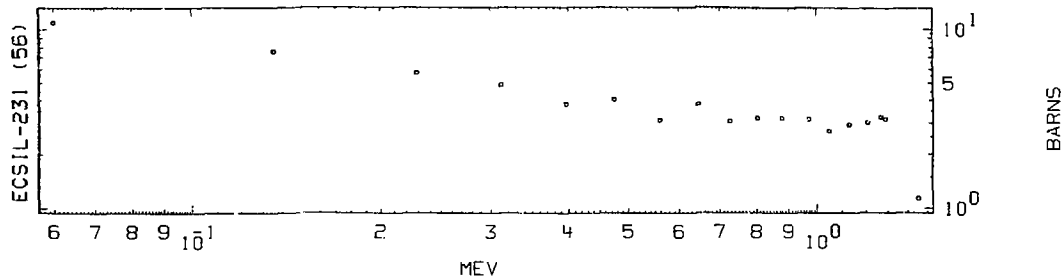
28-NI-NAT



03/01/74

TOTAL SCATTERING
CROSS SECTION

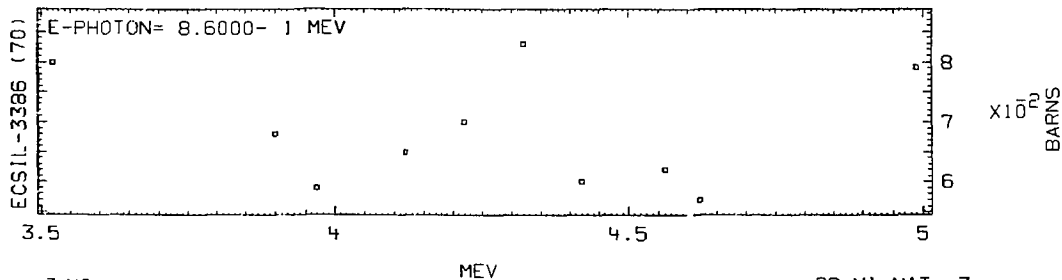
28-NI-NAT



03/01/74

N,X GAMMA
CROSS SECTION

28-NI-NAT



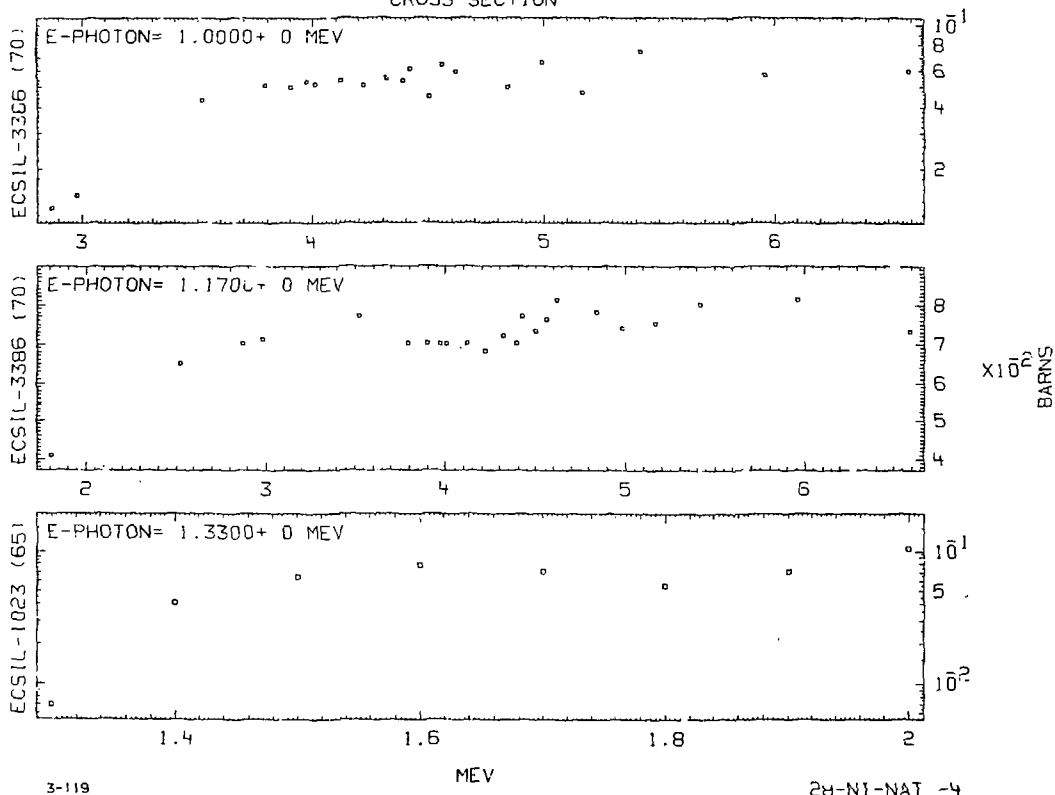
3-110

28-NI-NAT -3

03/01/74

N,X GAMMA
CROSS SECTION

28-NI-NAT



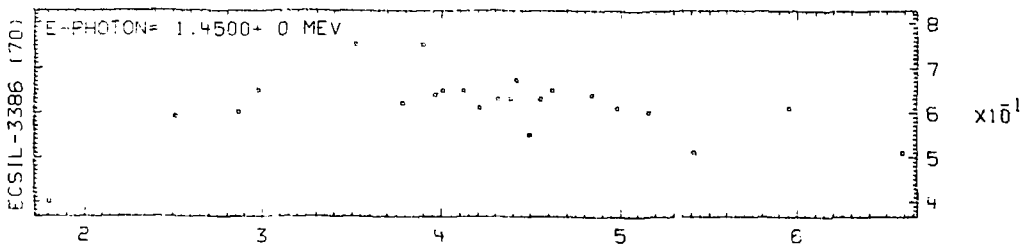
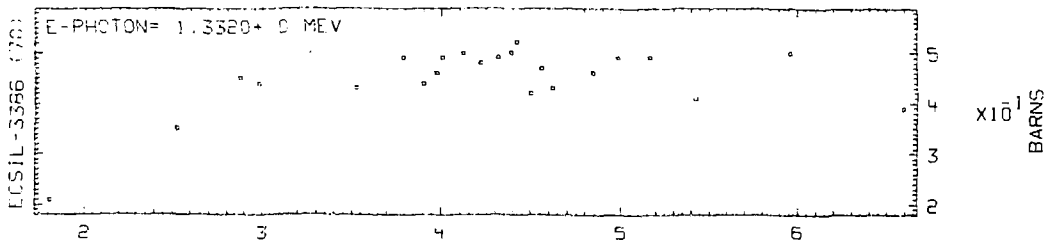
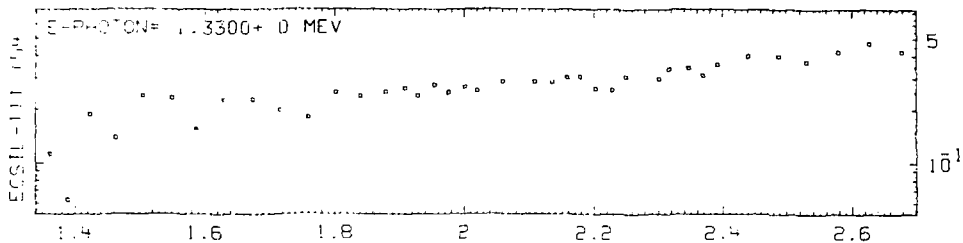
3-119

28-NI-NAT -4

03/01/74

N,X GAMMA
CROSS SECTION

28-NI-NAT



3-120

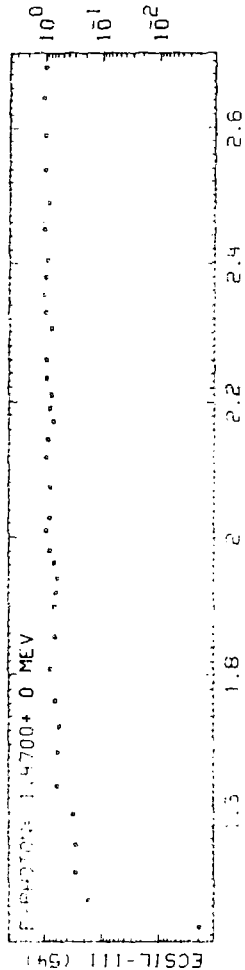
MEV

28-NI-NAT -5

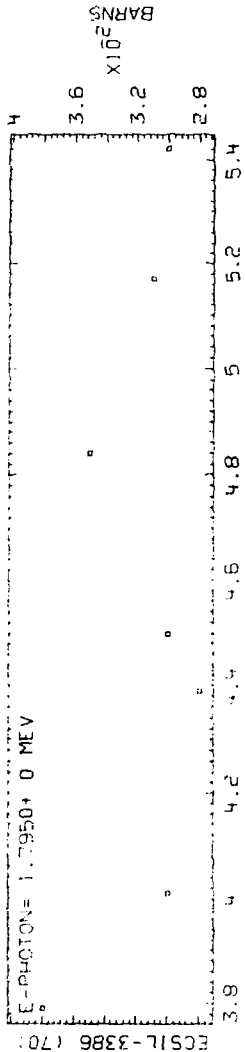
03/01/74

28-NI-NAT

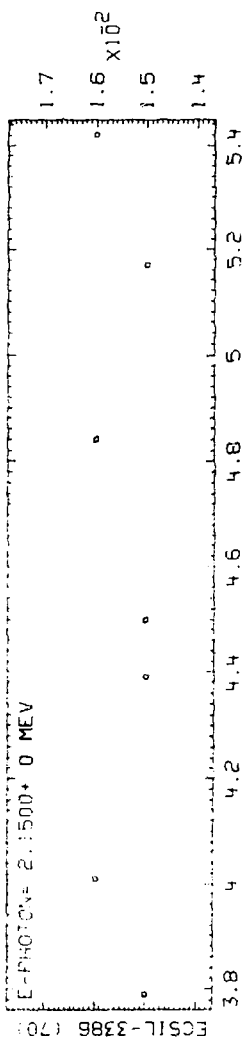
N, X GAMMA
CROSS SECTION



EC51L-111 (59)



EC51L-3386 (70)



EC51L-3386 (70)

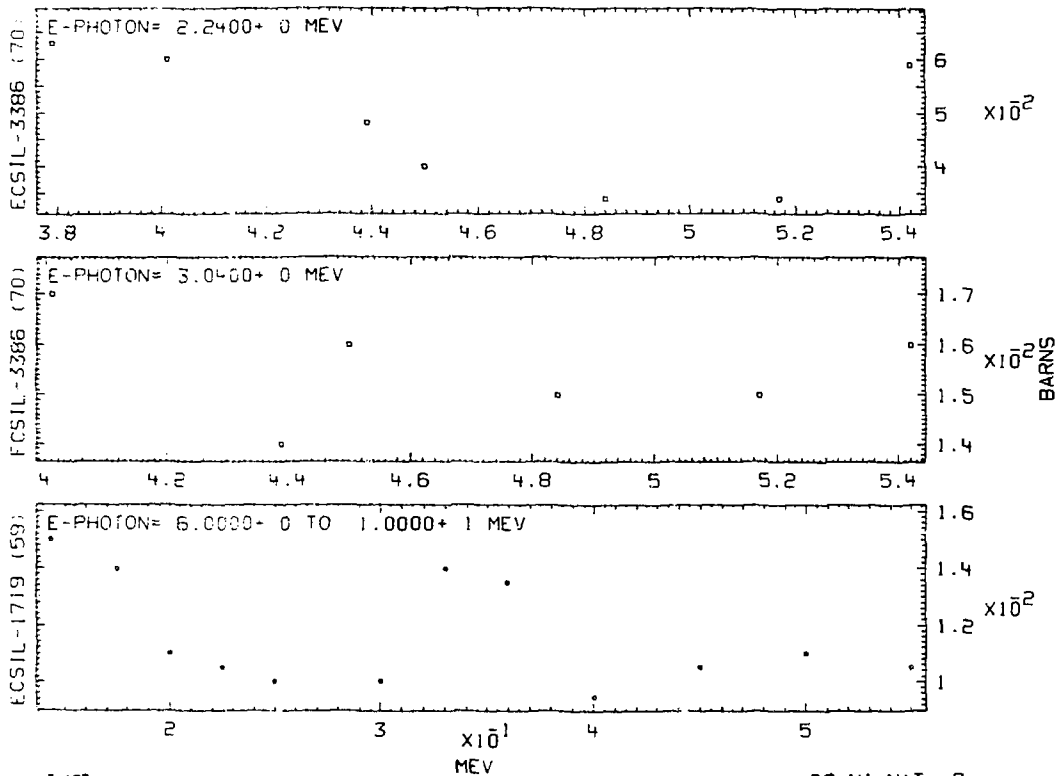
28-NI-NAT -6

3-121

03/01/74

N, X GAMMA
CROSS SECTION

28-NI-NAT



3-122

28-NI-NAT -7

03/01/74

NONELASTIC
CROSS SECTION

28-NI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55	151 1.000+ 0	1.0000- 2	6.0010- 2	3.0000- 2	55	122 4.0000+ 0	7.0010- 2	1.3500+ 0	1.0000- 1
55	34 2.5000+ 0		8.3000- 1	1.2000- 1	55	122 4.5000+ 0	7.0010- 2	1.5000+ 0	6.0010- 2
55	151 2.5000+ 0	4.0000- 2	8.0010- 1	6.0010- 2	56	151 7.0000+ 0	2.0000- 1	1.4800+ 0	6.0010- 2
55	790 2.5000+ 0	1.5000- 1	8.3010- 1	1.2000- 1	55	790 1.4000+ 1		1.3800+ 0	5.0000- 2
55	790 3.3000+ 0		1.3500- 0	2.5000- 1	57	199 1.4100+ 1		1.3800+ 0	5.0000- 2
55	559 3.6600+ 0	2.0000- 1	1.5100- 0	1.8000- 1	57	319 1.4200+ 1	1.5000- 1	1.3800+ 0	3.0000- 2

03/01/74

NEUTRON NONEL. EMISS.

28-NI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	883 1.4000+ 1		9.0000- 1	2.0000- 1

03/01/74

N,2N

28-NI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	182 1.4100+ 1		2.0000- 1	2.0000- 2

03/01/74

N,N*P

28-NI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62	688 1.4400+ 1	2.0000- 1	2.4000- 1	5.0000- 2

03/01/74

ABSORPTION

28-NI-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	1162 2.5300- 8		4.6000+ 0	1.0000- 1	58	364 2.2000- 1	2.0000- 2	2.6000- 2	2.0000- 3
65	1364 2.4000- 2		2.3000- 2	6.0000- 3	58	364 8.3000- 1	4.0000- 2	1.9000- 2	6.0010- 3
58	364 2.5000- 2	4.0000- 3	5.0000- 2	1.0000- 3					

03 01 74

N,X GAMMA
CROSS SECTION

28-NI-NAT

ENERGY MEV	DELTA MEV	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV				
0.0000	0.0000	0.0000	0.0000	53 294	0.4200	1	0.0000	0.0000	56 140	2.5600	0	3.0000	2	1.7000	2	5.0000	3	2.1800	0
0.0500	0.0500	0.0500	0.0500	53 294	0.4200	1	0.0500	0.0500	54 133	3.7000	0	2.0000	1	1.0000	2	2.4000	3	2.6600	0
0.1000	0.1000	0.1000	0.1000	53 294	0.4200	1	0.1000	0.1000	53 294	1.4200	1	0.0000	1	9.6000	2	2.4000	3	2.9000	0
0.1500	0.1500	0.1500	0.1500	53 294	0.4200	1	0.1500	0.1500	53 294	1.4200	1	0.0000	1	2.1000	2	5.0000	3	5.2000	0
0.2000	0.2000	0.2000	0.2000	53 294	0.4200	1	0.2000	0.2000	53 294	1.4200	1	0.0000	1	3.2000	2	8.0000	3	6.6000	0
0.2500	0.2500	0.2500	0.2500	53 294	0.4200	1	0.2500	0.2500	53 294	1.4200	1	0.0000	1	1.0000	2	2.5000	3	8.0000	0

03 01 74

N,P

28-NI-NAT

ENERGY MEV	DELTA MEV	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV		
0.0000	0.0000	0.0000	0.0000	66 665	1.4400	1	0.0000	0.0000	1	2.9500	1	2.6000	2	6.1000	1	1.7000	1
0.0500	0.0500	0.0500	0.0500	66 767	1.5000	1	0.0500	0.0500	1	1.7000	1	1.7000	1	6.1000	1	1.7000	1

03 01 74

BOUND ATOM

28-NI-NAT

ENERGY MEV	DELTA MEV	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV
0.0000	0.0000	0.0000	0.0000	51 1564	7.4000	0	0.0000	0.0000	1	7.3000	1	0.0000	0	0.0000	0

03 01 74

COHERENT SCATTERING

28-NI-NAT

ENERGY MEV	DELTA MEV	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA E-PROTON MEV		
0.0000	0.0000	0.0000	0.0000	51 2344	3.5300	0	0.0000	0.0000	1	4.0000	0	0.0000	0	1.7000	1	1.0720	0
0.0500	0.0500	0.0500	0.0500	5 1594	3.5300	0	0.0500	0.0500	1	3.4000	1	1.0720	0	1.7000	1	1.0720	0

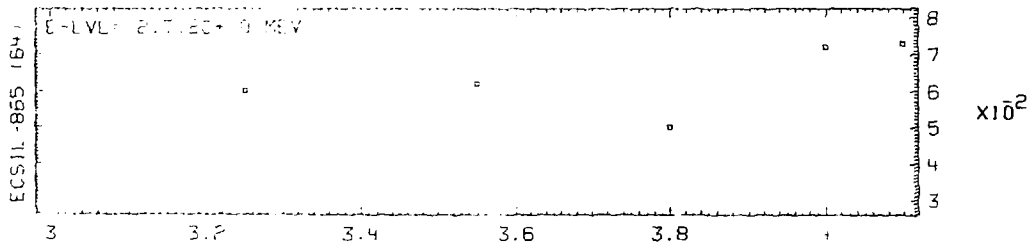
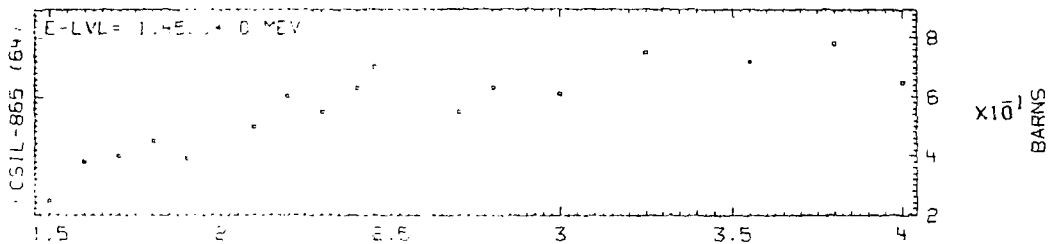
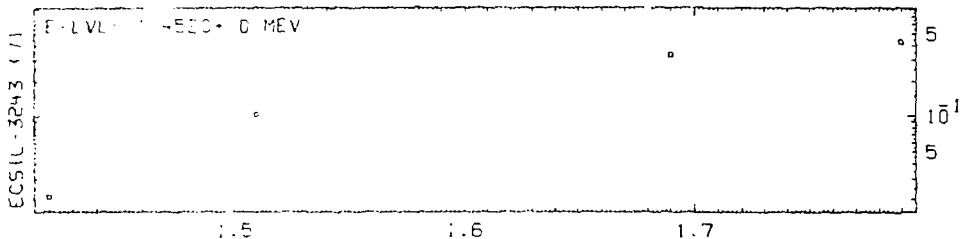
3-124

28-NI-NAT -9

03/01/74

N,N'
CROSS SECTION

28-N1-58



3-126

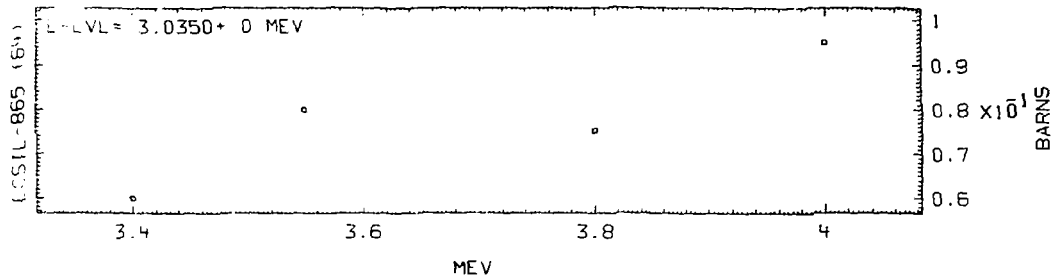
MEV

28-N1-58 -1

03/01/74

N,N'
CROSS SECTION

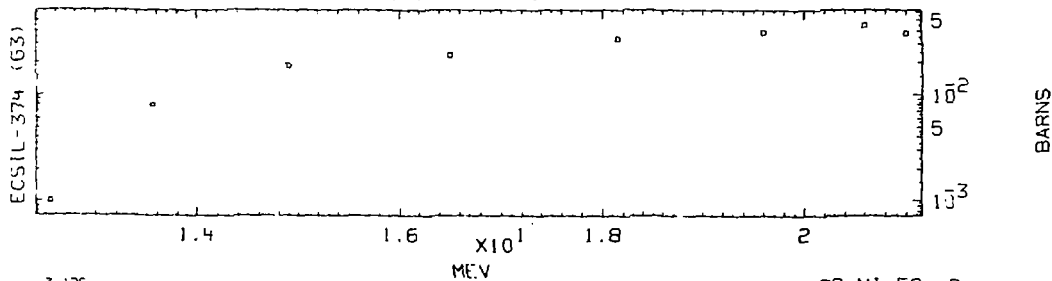
28-NI-58



03/01/74

N,2N
CROSS SECTION

28-NI-58



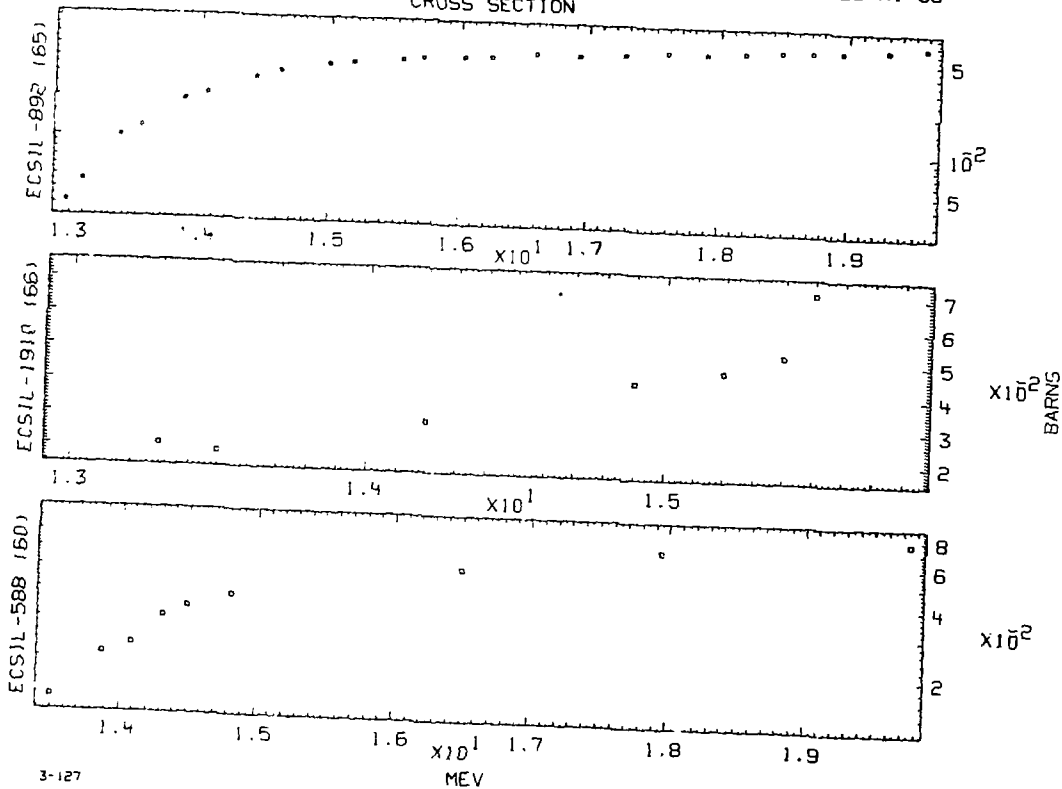
3-126

28-NI-58 -2

03/01/74

N.2N
CROSS SECTION

28-NI-58



3-127

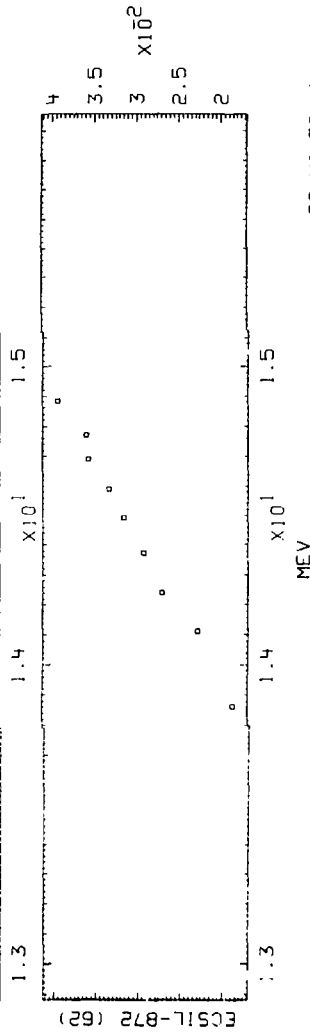
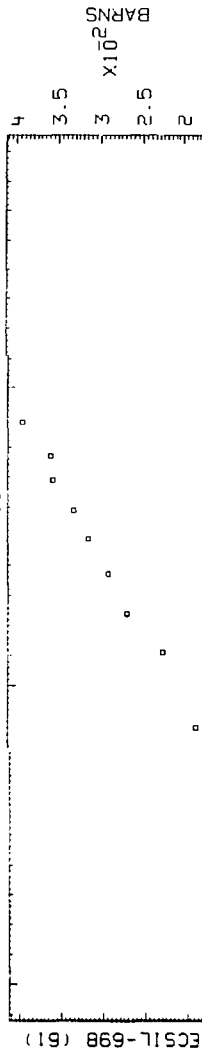
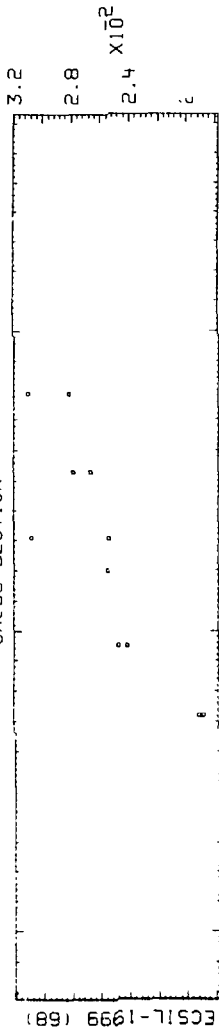
28-NI-58 -3

03/01/74

N.2N

28-NI-58

CROSS SECTION



3-128

MEV

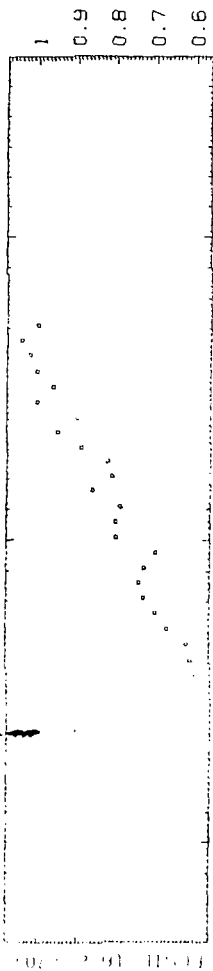
28-NI-58 -4

28-NI-58

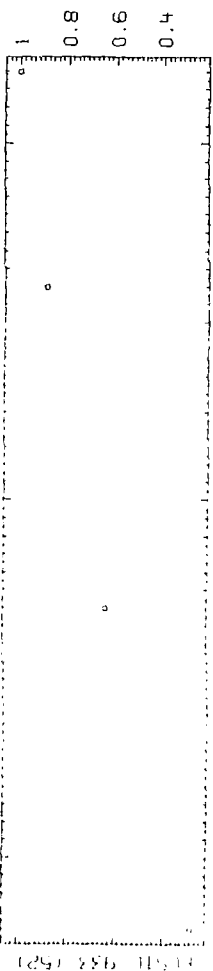
N,ZN

CROSS SECTION

28-NI-58



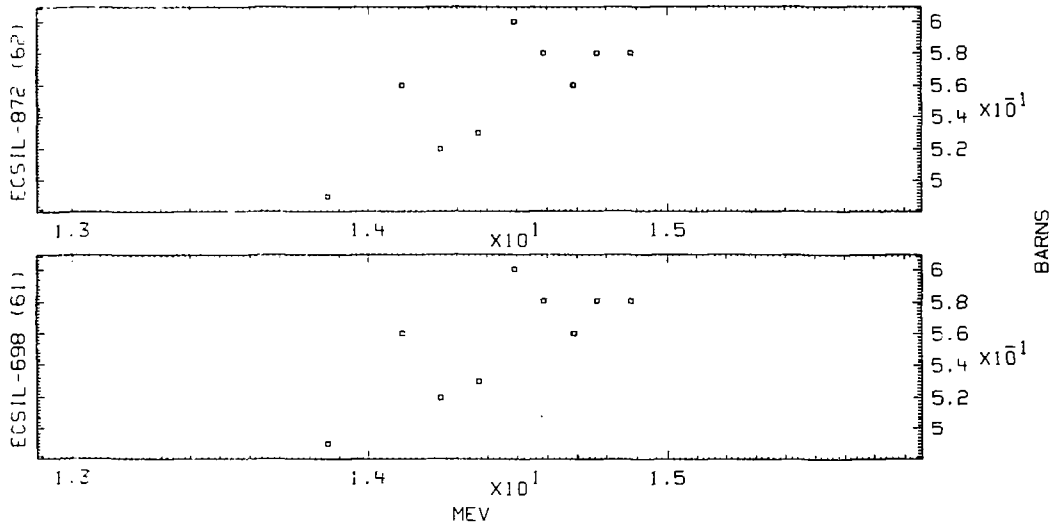
RELATIVE



03-01-74

N,N'P
CROSS SECTION

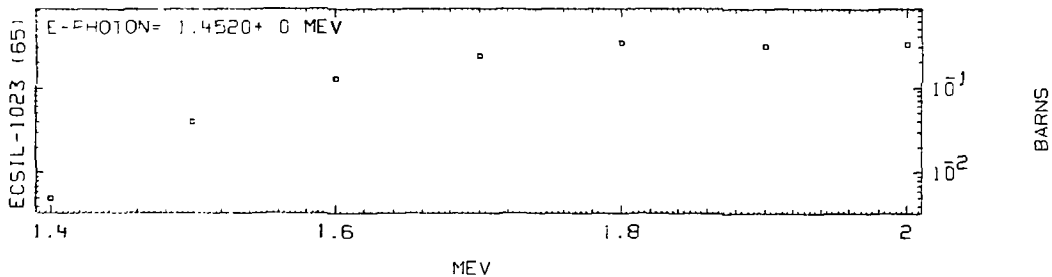
28-NI-58



03/01/74

N, X GAMMA
CROSS SECTION

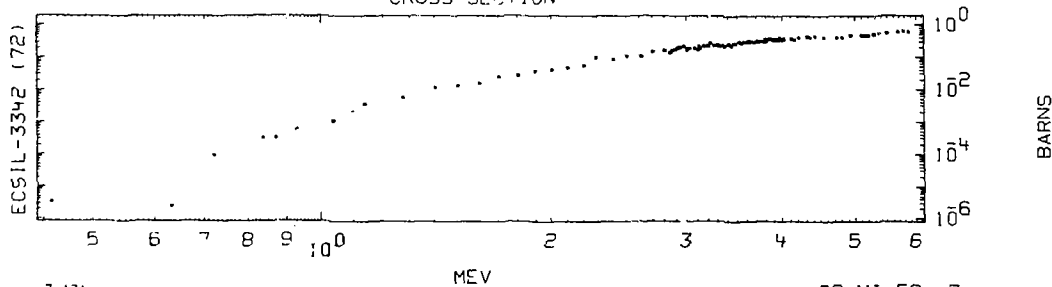
28-NI-58



03/01/74

N, P
CROSS SECTION

28-NI-58



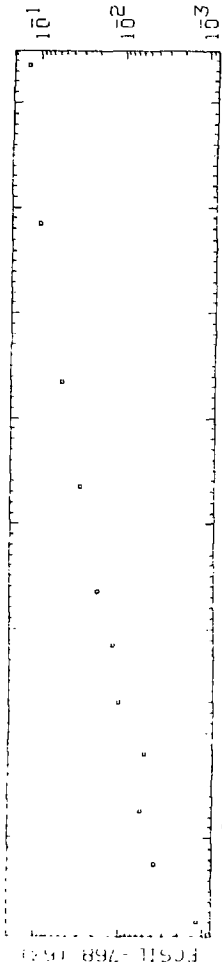
3-131

28-NI-58 -7

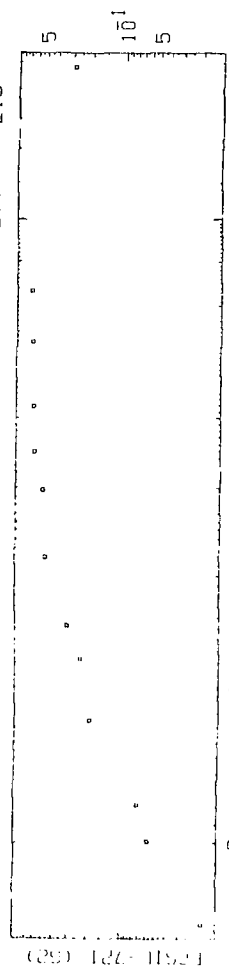
62-0174

28-NI-58

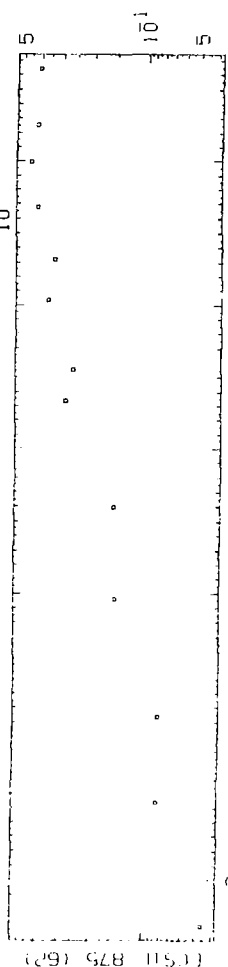
N,P
CROSS SECTION



FGSI 768 (52)



FGSI 721 (52)



FGSI 875 (62)

BARNs

2-132

MEV

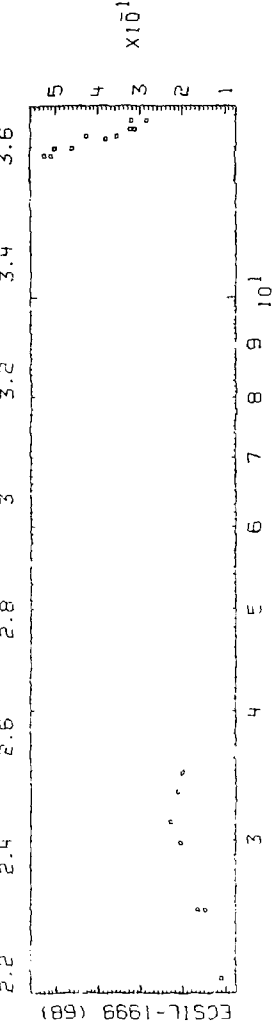
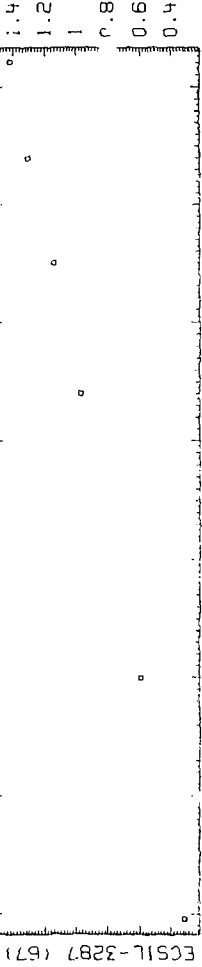
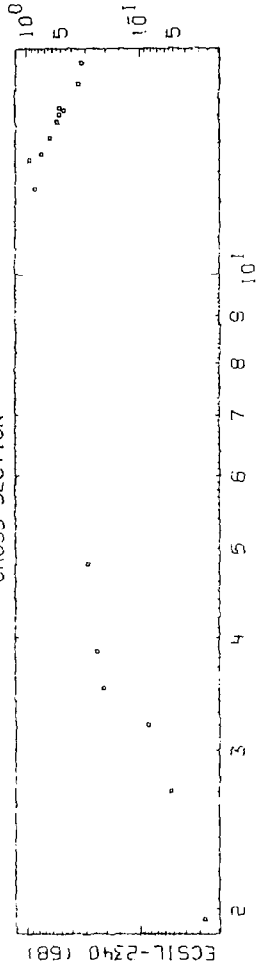
28-NI-58 -8

03-01/74

N,P

28-NJ-58

CROSS SECTION



3-133

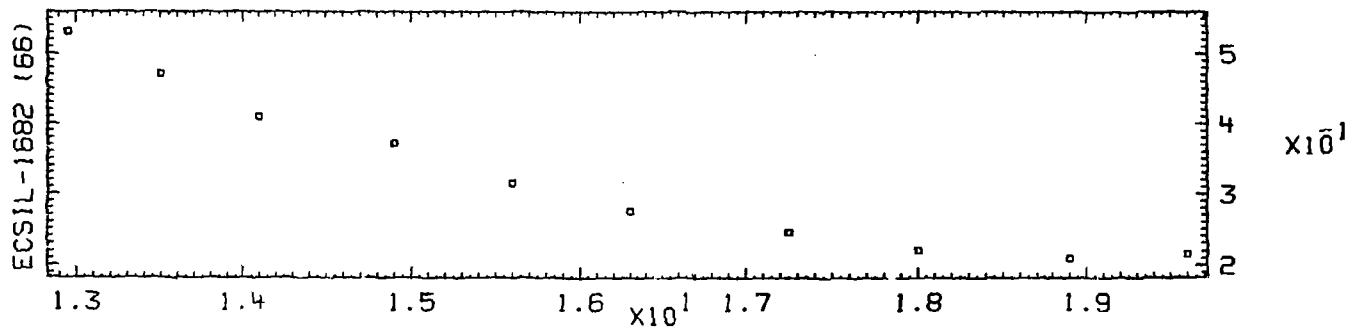
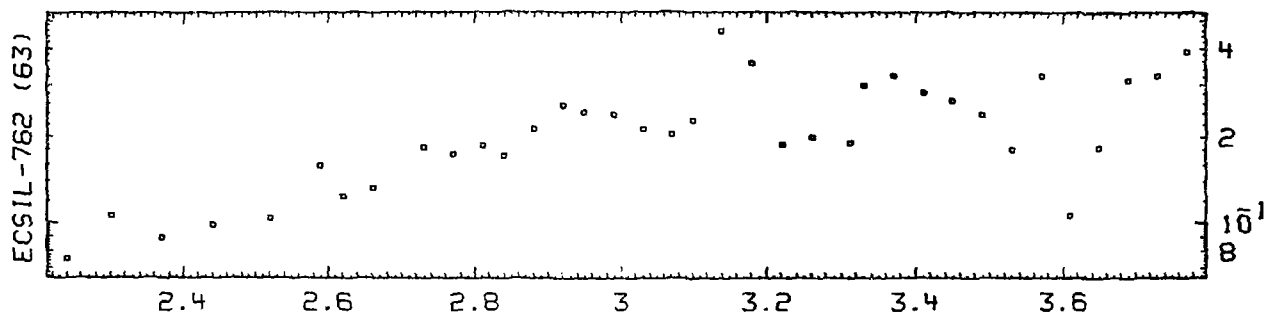
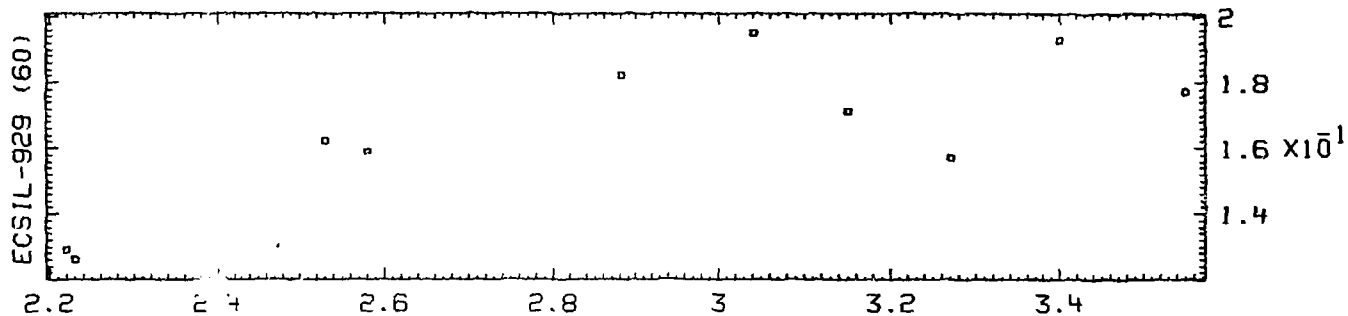
MEV

28-NJ-58 -9

03/01/74

N,P
CROSS SECTION

28-NI-58



BARNs

3-134

MEV

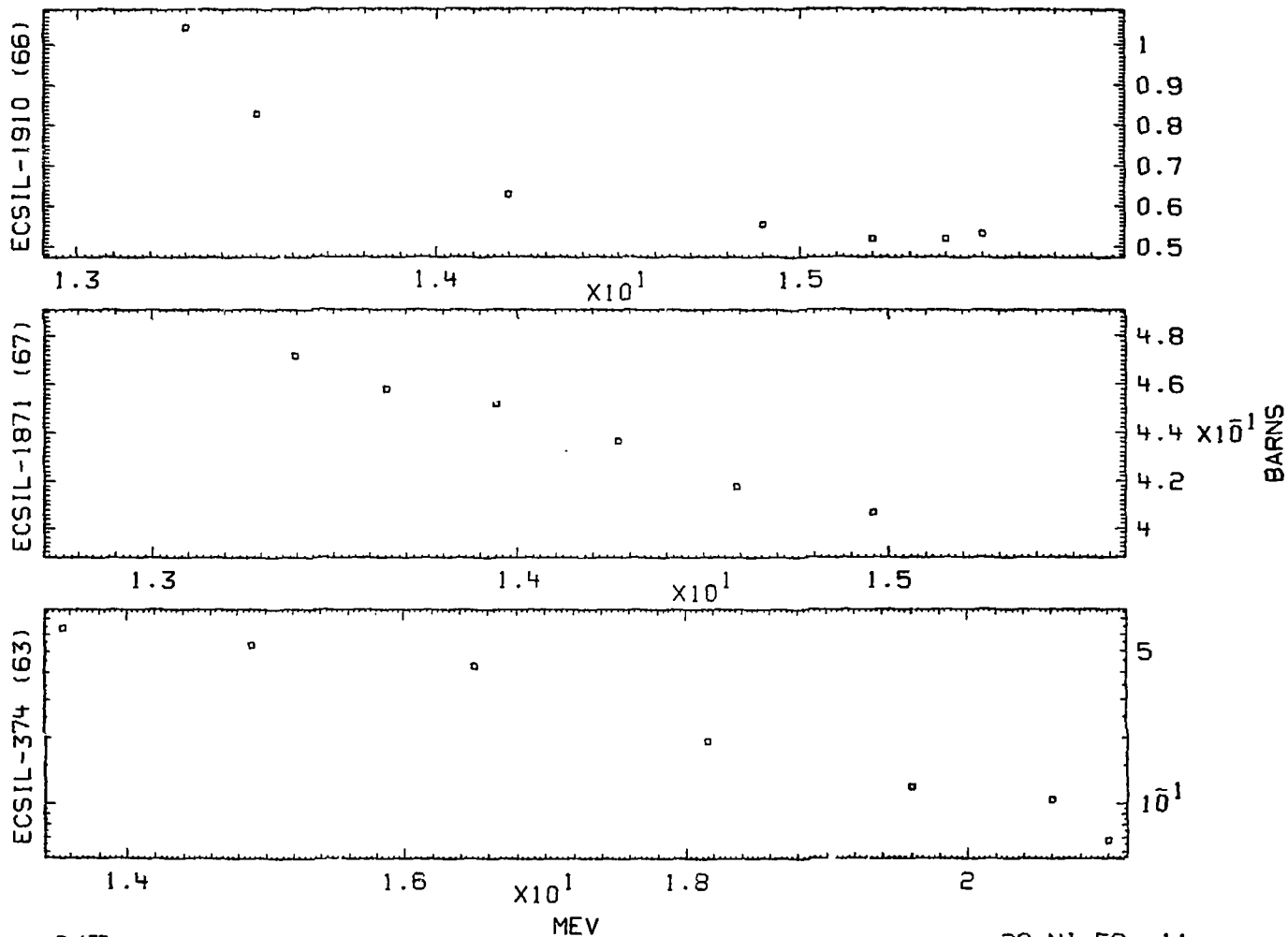
28-NI-58 -10

9

03/01/74

N,P
CROSS SECTION

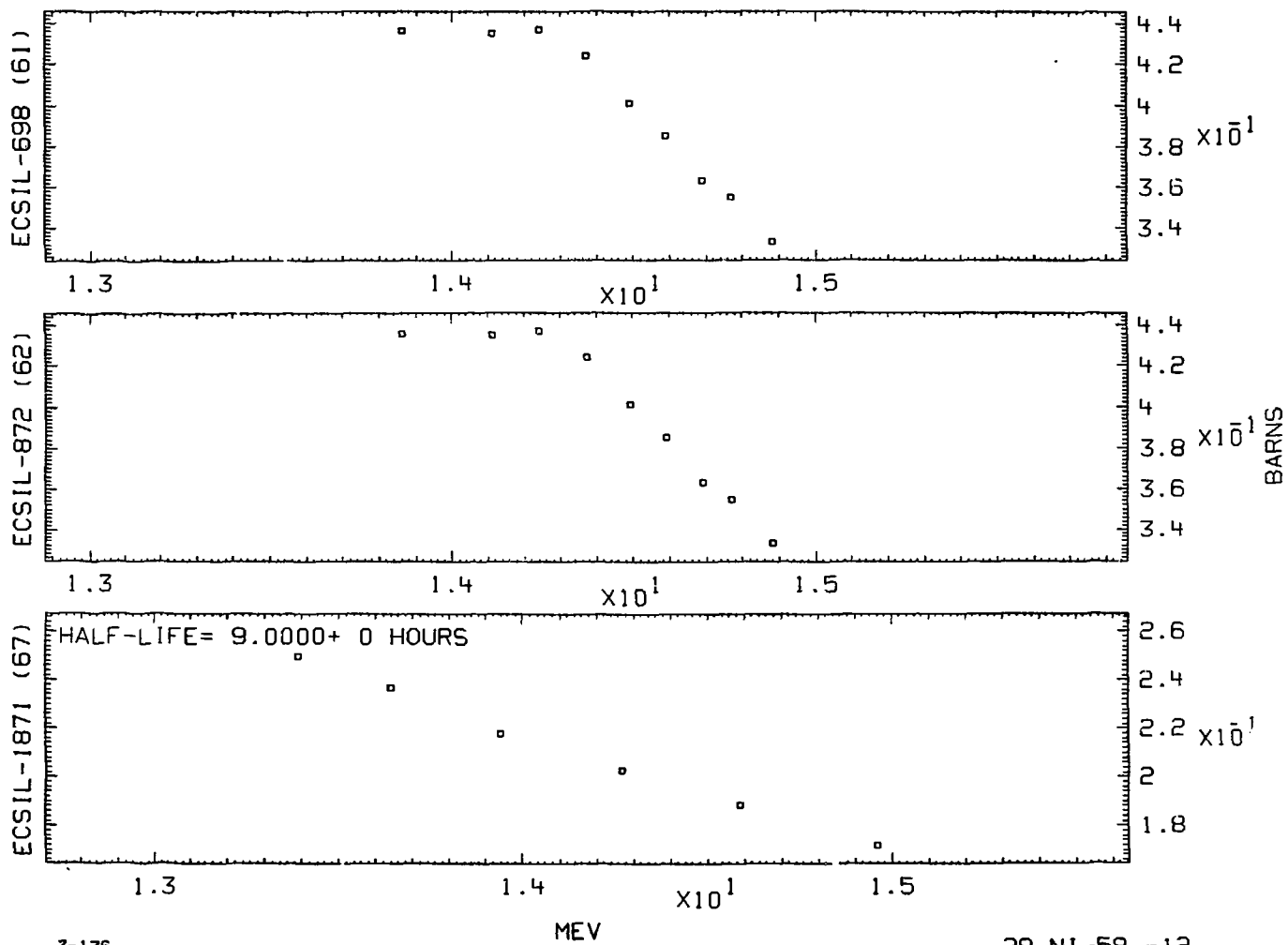
28-N1-58



03/01/74

N,P
CROSS SECTION

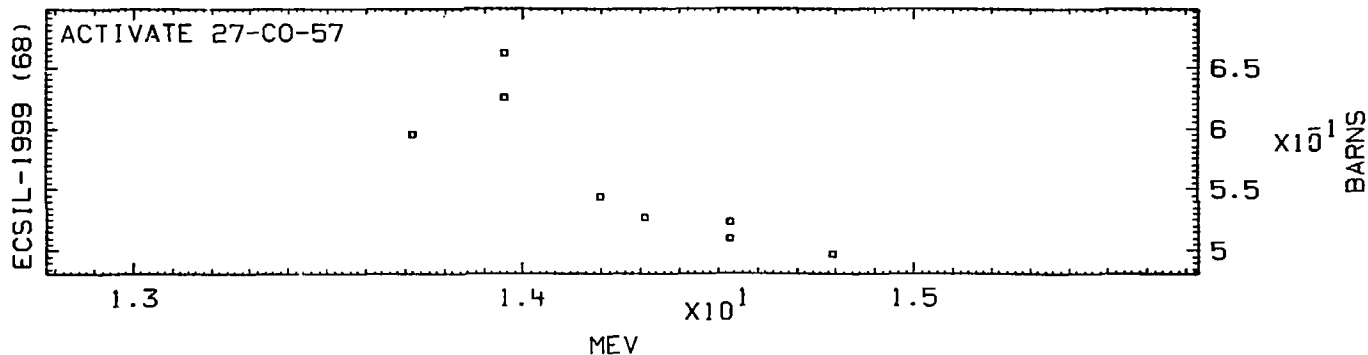
28-NI-58



03/01/74

ACTIVATION
CROSS SECTION

28-NI-58



03/01/74

N,N'

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
71 3214	5.0500+ 0	1.0000- 2	1.9500- 1	9.0000- 3		71 3214	5.5800+ 0	1.0000- 2	6.8000- 2	8.0000- 3	2.4600+ 0
71 3214	5.5800+ 0	1.0000- 2	1.6600- 1	8.0000- 3	1.4500+ 0	71 3214	5.0500+ 0	1.0000- 2	2.2800- 1	1.4000- 2	2.9100+ 0
64 865	2.7000+ 0	3.0000- 2	1.4000- 1	3.5000- 2	2.4580+ 0	71 3214	5.5800+ 0	1.0000- 2	1.8600- 1	1.1000- 2	2.9100+ 0
64 865	2.8000+ 0	3.0000- 2	1.5000- 1	3.7500- 2	2.4580+ 0	64 865	3.8000+ 0	8.0000- 2	6.0000- 2	1.5000- 2	3.2600+ 0
64 865	3.0000+ 0	3.0000- 2	1.7000- 1	4.2500- 2	2.4580+ 0	71 3214	5.0500+ 0	1.0000- 2	1.2100- 1	1.0000- 2	3.3400+ 0
71 3214	5.0500+ 0	1.0000- 2	7.3000- 2	6.0000- 3	2.4600+ 0	71 3214	5.5800+ 0	1.0000- 2	1.1800- 1	1.2000- 2	3.3400+ 0

03/01/74

N,2N

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 527	1.4100+ 1		3.8000	2 8.0000- 3	65 1672	1.4600+ 1	1.0000- 1	3.7000- 2	3.0000- 3
61 676	1.4400+ 1	3.0000- 1	3.4200- 2	2.6000- 3	69 2354	1.4790+ 1		3.6100- 2	3.0000- 3
69 2050	1.4500+ 1	2.0000- 1	3.1500- 2	2.0000- 3	69 2354	1.4800+ 1		3.6200- 2	3.0000- 3
62 1009	1.4500+ 1		4.0000- 2	5.0000- 3	58 598	1.4800+ 1	9.0000- 1	5.2000- 2	5.0000- 3
63 1009	1.4500+ 1		3.5000- 2	4.0000- 3	63 756	1.4800+ 1	2.0000- 1	2.7000- 2	4.0000- 3
53 27	1.4500+ 1		4.0600- 2	1.2180- 2	68 2711	1.4800+ 1	2.0000- 1	3.6000- 2	3.0000- 3
69 2354	1.4600+ 1	2.0000- 1	3.3400- 2	2.0000- 3	67 2009	1.5400+ 1		4.5000- 2	6.7500- 3

3-137

28-NI-58 -13

03/01/74

N,N'P
CROSS SECTION

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361	1.4000*	1	3.4300- 1 2.7000- 2	69	2050	1.4500*	1 2.0000- 1 7.5000- 1 7.0000- 2	
57	217	1.4000*	1	2.2000- 1 4.4000- 2	61	654	1.4800*	1 3.0000- 1 3.4000- 1 7.0000- 2	
59	527	1.4100*	1	1.6000- 1 4.0000- 2					

03/01/74

N,N'ALPHA

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	899	1.4100*	1	3.0000- 2 6.0000- 3

03/01/74

N,P

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	655	3.3000* 0	1.0000- 1	1.7000- 1 1.5000- 2	62	1009	1.4500*	1	3.1600- 1 2.0000- 2
65	1739	8.4000* 0		6.3000- 1 5.0000- 2	63	1009	1.4500*	1	3.3500- 1 2.0000- 2
62	1008	1.3580*	1	4.1000- 1 4.1000- 2	69	2354	1.4600*	1 2.0000- 1	3.4100- 1 7.0000- 2
61	361	1.4000*	1	4.4000- 1 1.0000- 2	62	1009	1.4730*	1	3.1500- 1 3.1500- 2
57	217	1.4000*	1	3.1000- 1 5.2010- 2	69	2354	1.4790*	1	3.2000- 1 2.5000- 2
62	1008	1.4070*	1	3.6500- 1 3.6500- 2	69	2354	1.4800*	1	3.2100- 1 2.5000- 2
59	527	1.4100*	1	5.6000- 1 1.1000- 1	68	2711	1.4800*	1 2.0000- 1	3.1800- 1 2.5000- 2
60	837	1.4100*	1 1.0000- 1	5.3410- 1 1.0600- 1	60	837	1.5700*	1 1.0000- 1	7.5410- 1 1.5000- 1
69	2050	1.4500*	1 2.0000- 1	3.7400- 1 3.0000- 2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
56	1768	1.4100*	1 1.5000- 1	3.0500- 1 2.6000- 2	9.0000* 0
63	1009	1.4500*	1	1.6400- 1 1.5000- 2	9.0000* 0
60	598	1.4800*	1 9.0010- 1	4.0000- 2 1.5000- 2	9.0010* 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
56	1768	1.4100*	1 1.5000- 1	2.2700- 1 5.1000- 2	7.1000* 1
60	598	1.4800*	1 9.0010- 1	2.3700- 1 2.0000- 2	7.1010* 1

03/01/74

N, X P
CROSS SECTION

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 630	1.4800+ 1		4.4000- 1	4.4000- 2

03/01/74

N, D

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 654	1.4800+ 1	3.0000- 1	2.5000- 2	6.0000- 3

03/01/74

N, ALPHA

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
69 2710	1.4600+ 1		1.4000- 3	4.0700- 4	0.0000+ 0	
69 2710	1.4600+ 1		4.4000- 3	1.0000- 3	1.3220+ 0	1.4120+ 0

03/01/74

N, X ALPHA

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 899	1.4100+ 1		1.2500- 1	1.6000- 2

03/01/74

ACTIVATION

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	ACTIVATE	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	ACTIVATE
62 1009	1.4500+ 1		6.8000- 1	8.0000- 2	27-CO-57	69 2354	1.4790+ 1		7.6400- 1	6.0000- 2	27-CO-57
63 1009	1.4500+ 1		6.6500- 1	6.0000- 2	27-CO-57	63 756	1.4800+ 1		5.2000- 1	1.2000- 1	27-CO-57
69 2354	1.4600+ 1	2.0000- 1	7.3000- 1	6.0000- 2	27-CO-57	68 2711	1.4800+ 1	2.0000- 1	7.5000- 1	6.0000- 2	27-CO-57

03/01/74

BOUND ATOM
CROSS SECTION

28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52 437	2.5300- 8		2.7000+ 1	
51 1584	7.3000- 8		2.7000+ 1	

03/01/74

FREE ATOM

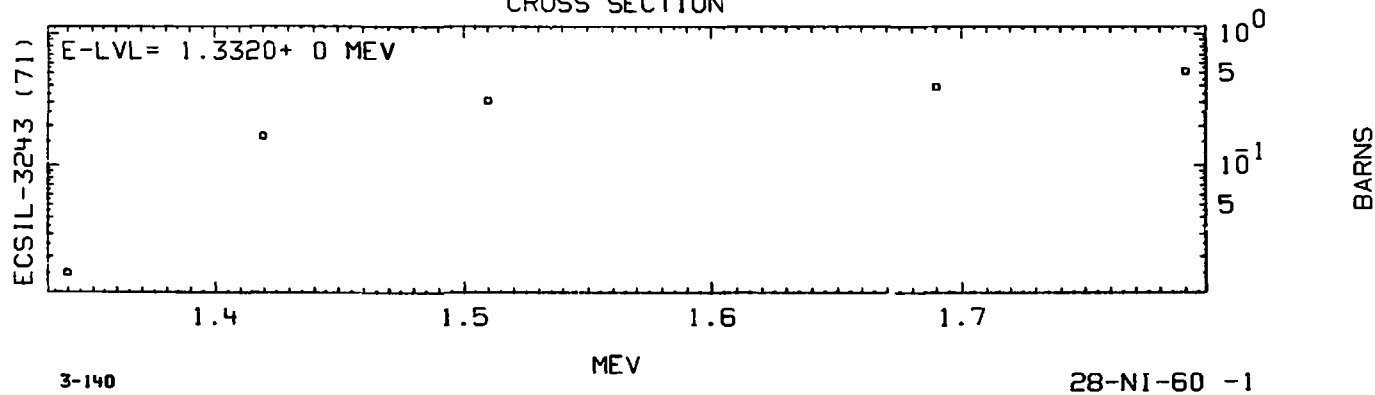
28-NI-58

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52 437	2.5300- 8		2.6000+ 1	

03/01/74

N,N'
CROSS SECTION

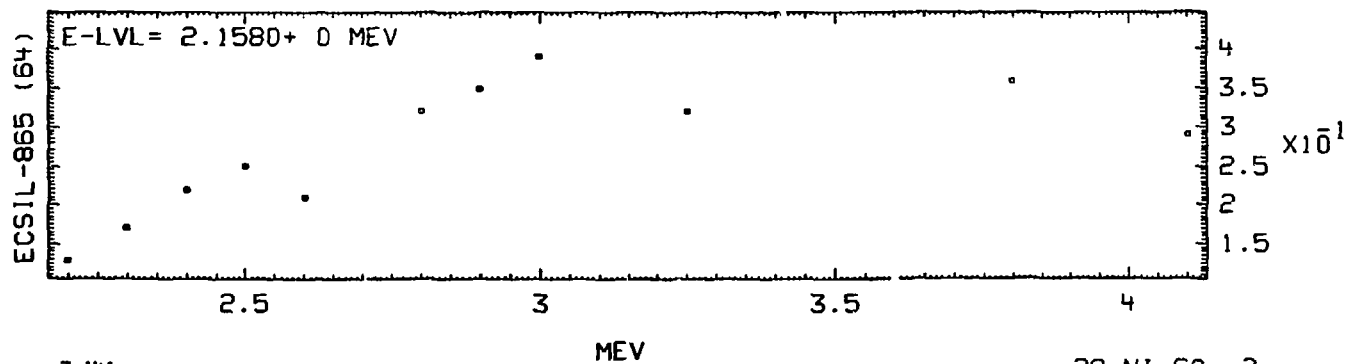
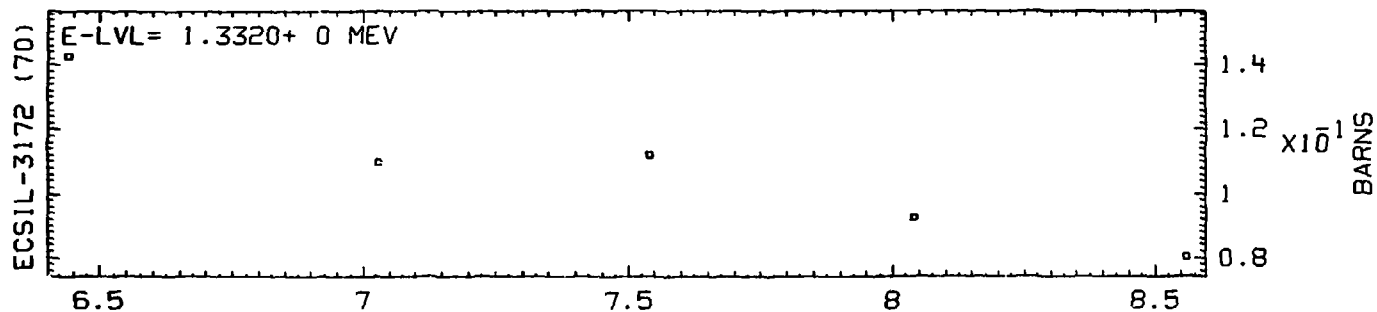
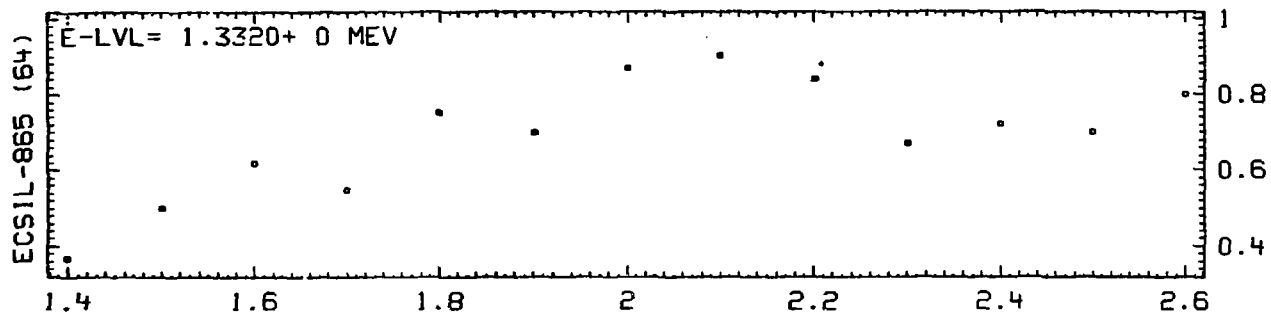
28-NI-60



03/01/74

N,N'
CROSS SECTION

28-NI-60



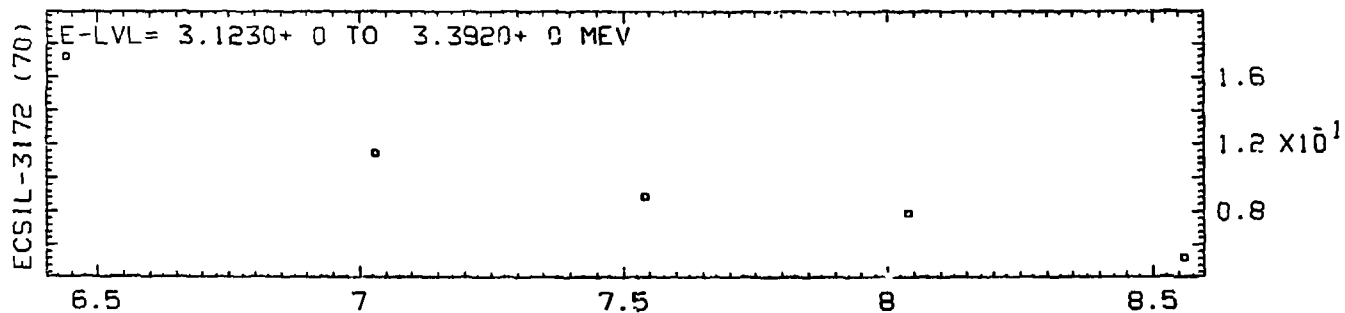
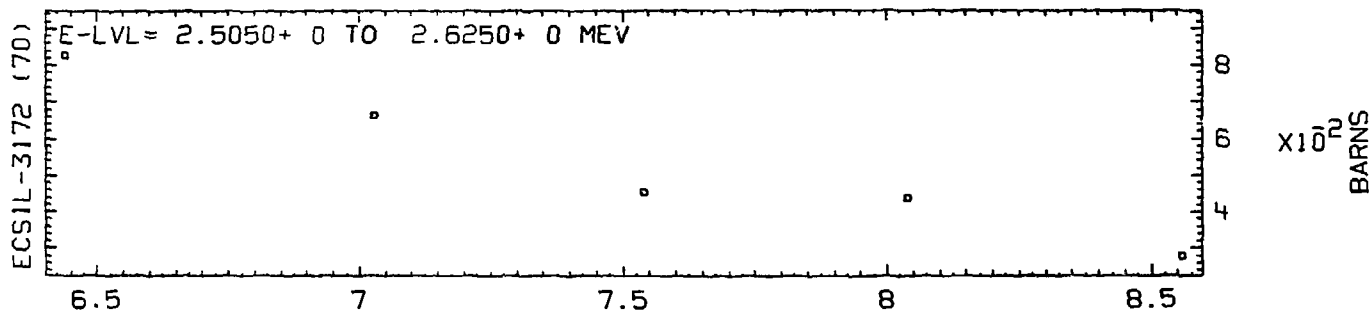
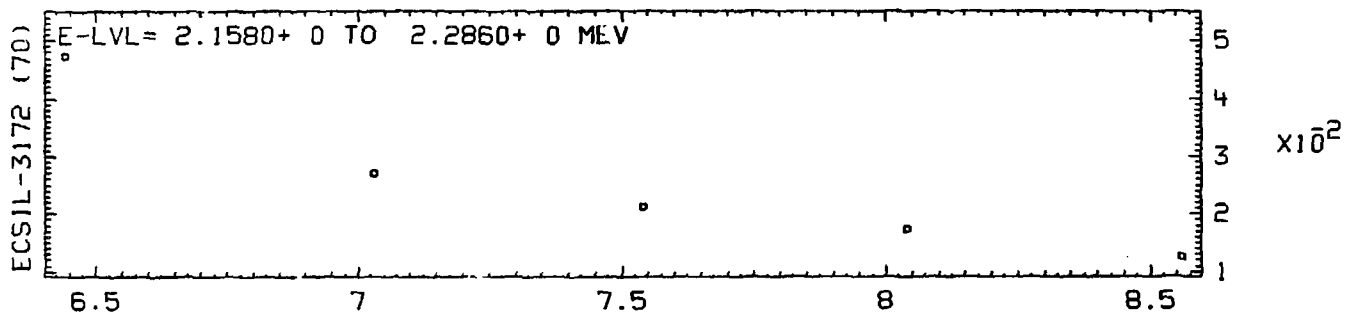
3-141

28-NI-60 -2

03/01/74

N,N'
CROSS SECTION

28-NI-60



3-142

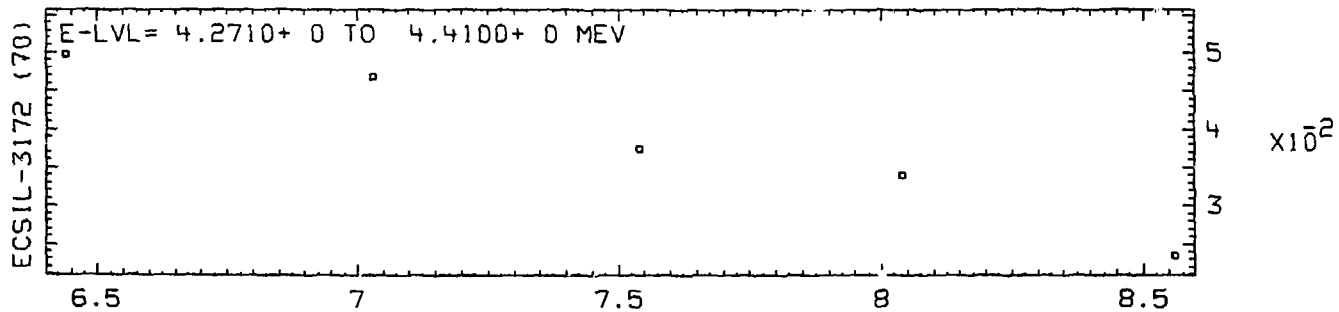
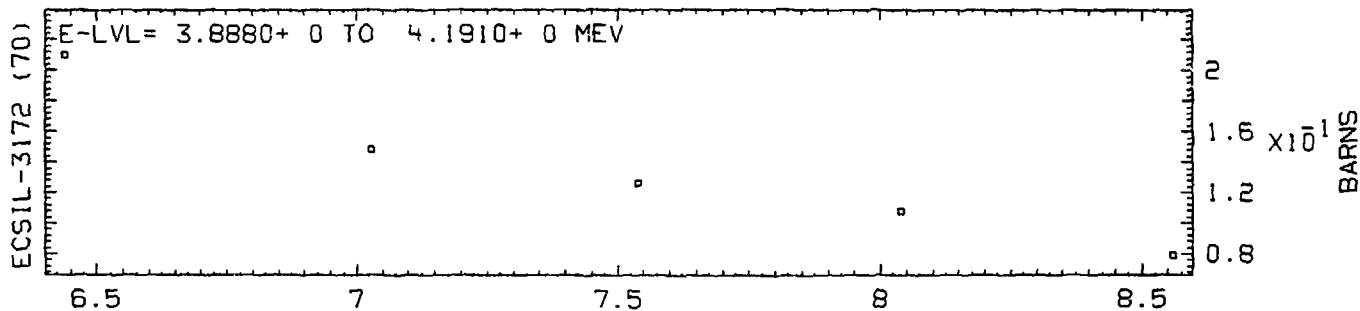
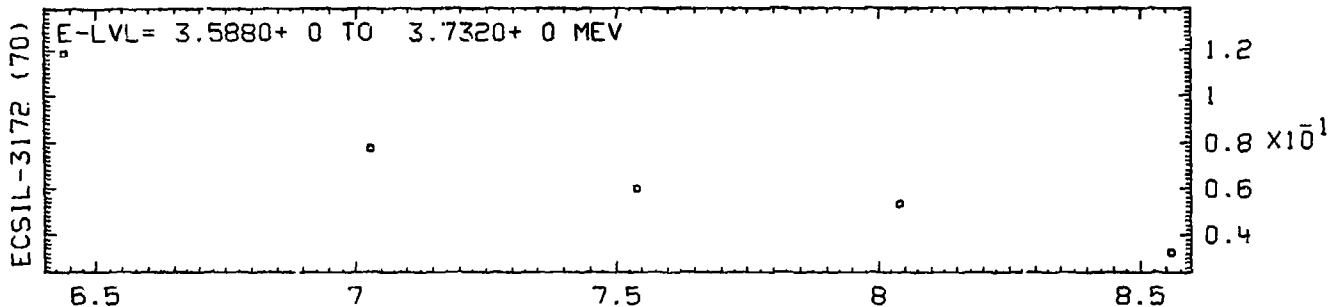
MEV

28-NI-60 -3

03/01/74

N,N'
CROSS SECTION

28-NI-60



3-143

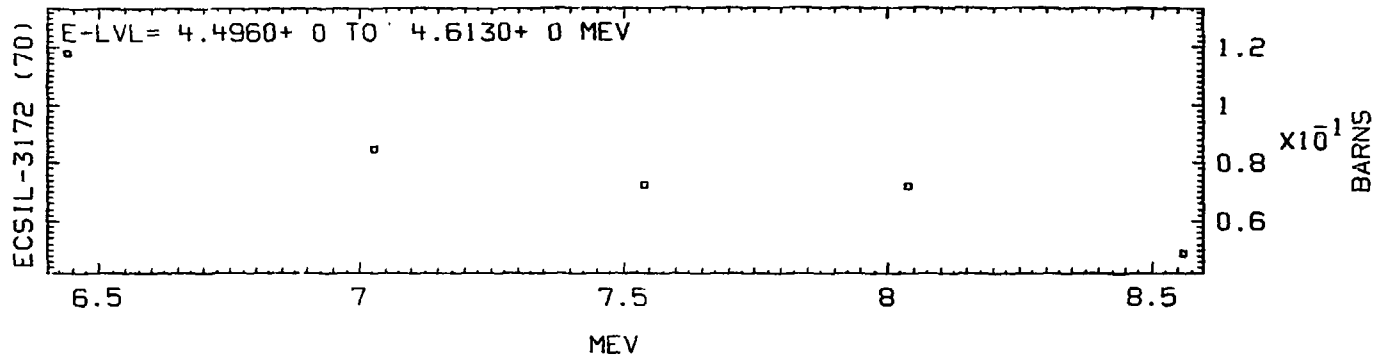
MEV

28-NI-60 -4

03/01/74

N,N'
CROSS SECTION

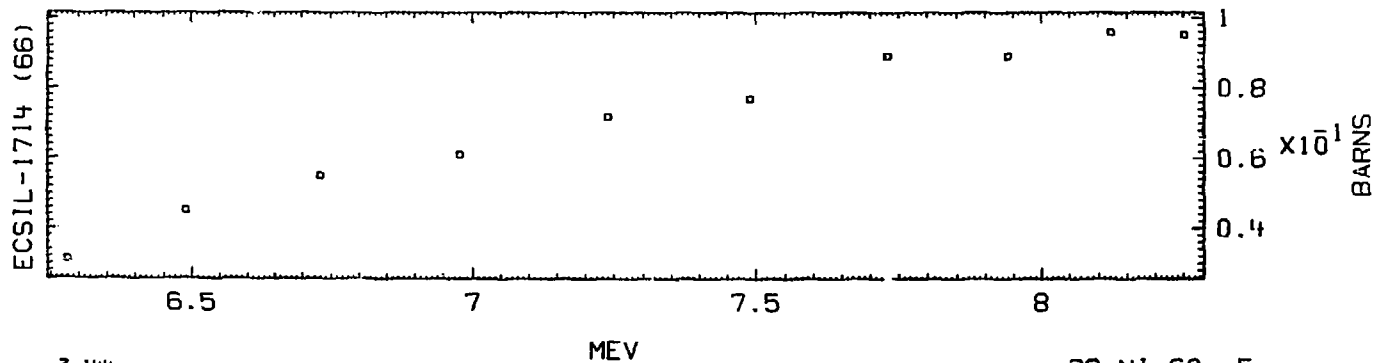
28-NI-60



03/01/74

N,P
CROSS SECTION

28-NI-60



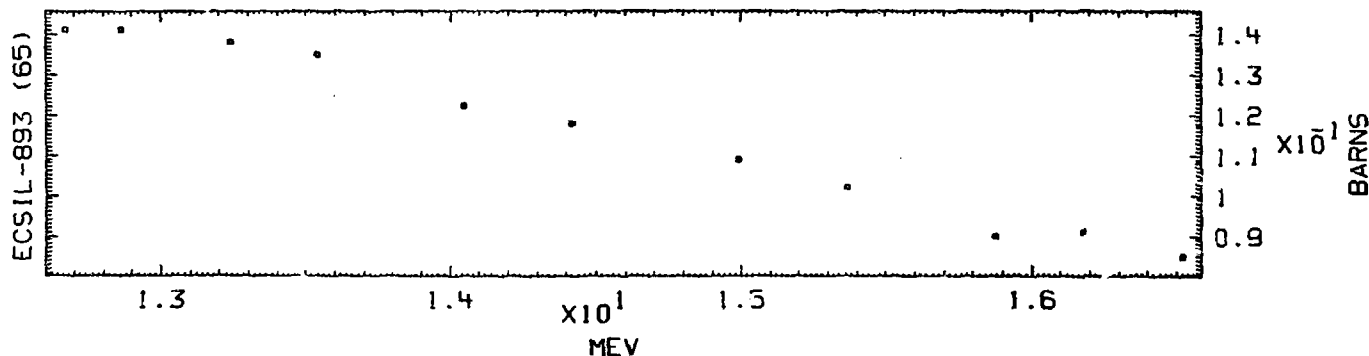
3-144

28-NI-60 -5

03/01/74

N,P
CROSS SECTION

28-NI-60



03/01/74

TOTAL SCATTERING

28-NI-60

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52	437	2.5300- 0		5.0000+ 0

03/01/74

N,N'

28-NI-60

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV		
71	3214	5.0500+ 0	1.0000- 2	2.4100- 1	9.0000- 3	1.3300+ 0	71	3214	5.0500+ 0	1.0000- 2	1.7000- 1	8.0000- 3	2.5700+ 0
71	3214	5.5800+ 0	1.0000- 2	2.1000- 1	1.5000- 2	1.3300+ 0	71	3214	5.5800+ 0	1.0000- 2	1.3000- 1	9.0000- 3	2.5700+ 0
71	3214	5.0500+ 0	1.0000- 2	1.3200- 1	1.2000- 2	2.2200+ 0	71	3214	5.0500+ 0	1.0000- 2	3.9900- 1	2.2000- 2	3.2500+ 0
71	3214	5.5800+ 0	1.0000- 2	1.0400- 1	1.1000- 2	2.2200+ 0	71	3214	5.5800+ 0	1.0000- 2	3.0500- 1	1.9000- 2	3.2500+ 0

03/01/74

N,N'P

28-NI-60

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
58	448	1.3500+ 1	1.0000- 1	6.8000- 2	
61	361	1.4000+ 1		5.1010- 2	9.0010- 3
57	217	1.4000+ 1		6.0010- 2	1.2000- 2

03/01/74

N,P
CROSS SECTION

28-NI-60

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 448	1.3500+ 1	1.0000- 1	1.5500- 1		62 1009	1.4500+ 1		1.8000- 1	2.5000- 2
61 361	1.4000+ 1		1.2400- 1	9.0010- 3	63 1009	1.4500+ 1		1.6000- 1	2.0000- 2
57 217	1.4000+ 1		2.4000- 1	4.8000- 2	62 1008	1.4500+ 1		1.5000- 1	2.0000- 2
60 837	1.4100+ 1	1.0000- 1	1.5800- 1	3.2000- 2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
63 1009	1.4500+ 1		2.0000- 3		1.0500+ 1
58 598	1.4800+ 1	9.0000- 1	9.0000- 3	2.0000- 3	1.0500+ 1

03/01/74

N, ALPHA

28-NI-60

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
69 2710	1.4600+ 1		4.3000- 3	2.0000- 3	0.0000+ 0

03/01/74

BOUND ATOM

28-NI-60

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		1.0000+ 0	

03/01/74

COHERENT SCATTERING

28-NI-60

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		9.7000- 1	7.7600- 2

03/01/74

N,N'P

28-NI-61

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 598	1.4800+ 1	9.0000- 1	3.8000- 3	1.0000- 3

03/01/74

N,P
CROSS SECTION

29-NI-61

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	655 3.3000+ 0	2.0000- 1	3.0000- 3	1.5000- 3	63	1009 1.4500+ 1		8.3000- 2	8.0000- 3
56	278 1.4000+ 1		9.1010- 2		53	27 1.4500+ 1		1.8150- 1	2.5000- 2
62	868 1.4100+ 1		8.6000- 2	3.0000- 3	60	598 1.4800+ 1	9.0000- 1	2.2000- 2	2.0000- 3
62	1009 1.4500+ 1		1.0300- 1	1.0000- 2					

03/01/74

N, ALPHA

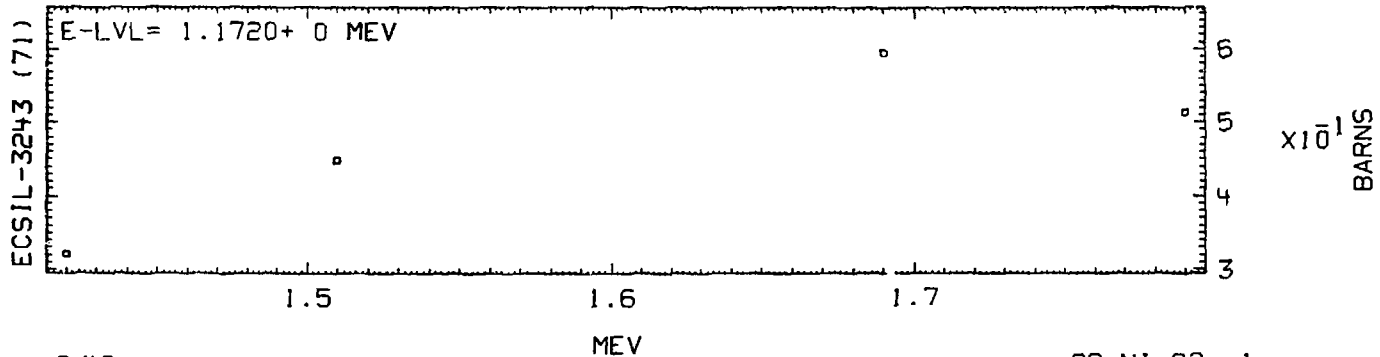
28-NI-61

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
69	2710 1.4600+ 1		7.0000- 4	2.0000- 4	0.0000+ 0
69	2710 1.4600+ 1		1.1000- 3	4.0000- 4	8.1000- 1

03/01/74

N,N'
CROSS SECTION

28-NI-62



3-147

28-NI-62 -1

03/01/74

N,N'
CROSS SECTION

28-NI-62

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
71 3243	1.3400+ 0		3.4200- 1	

03/01/74

N,N'P

28-NI-62

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 868	1.4100+ 1		4.0000- 3	2.0000- 3
60 598	1.4800+ 1	9.0010- 1	6.5010- 4	1.5000- 4

03/01/74

N,P

28-NI-62

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 1009	1.4500+ 1		2.4000- 2	6.0000- 3
63 1009	1.4500+ 1		3.9000- 2	6.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
62 868	1.4100+ 1		3.4000- 2	2.0000- 3	1.5000+ 0	66 1768	1.4100+ 1	1.5000- 1	1.4700- 2	2.2000- 3	1.3900+ 1
60 598	1.4800+ 1	9.0010- 1	2.0000- 3	5.0000- 4	1.6000+ 0	62 868	1.4100+ 1		2.2000- 2	1.0000- 3	1.3900+ 1
63 1009	1.4500+ 1		1.5000- 2	3.0000- 3	1.9000+ 0	60 598	1.4800+ 1	9.0010- 1	3.3000- 3	2.0000- 4	1.4000+ 1

03/01/74

N, ALPHA

28-NI-62

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1780	1.4100+ 1		2.2000- 2	3.3000- 3

03/01/74

ACTIVATION

28-NI-62

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	ACTIVATE
63 1009	1.4500+ 1		4.4000- 3	1.0000- 3	27-CO-61

03/01/74

BOUND ATOM
CROSS SECTION

28-NI-62

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		9.0000+ 0	

03/01/74

COHERENT SCATTERING

28-NI-62

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		9.1000+ 0	7.2800- 1

03/01/74

N,N'P

28-NI-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 598	1.4800+ 1	9.0010- 1	9.3010- 4	4.0000- 5

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES
62 868	1.4100+ 1		6.0000- 3	2.0000- 3	1.2200+ 2

03/01/74

N,P

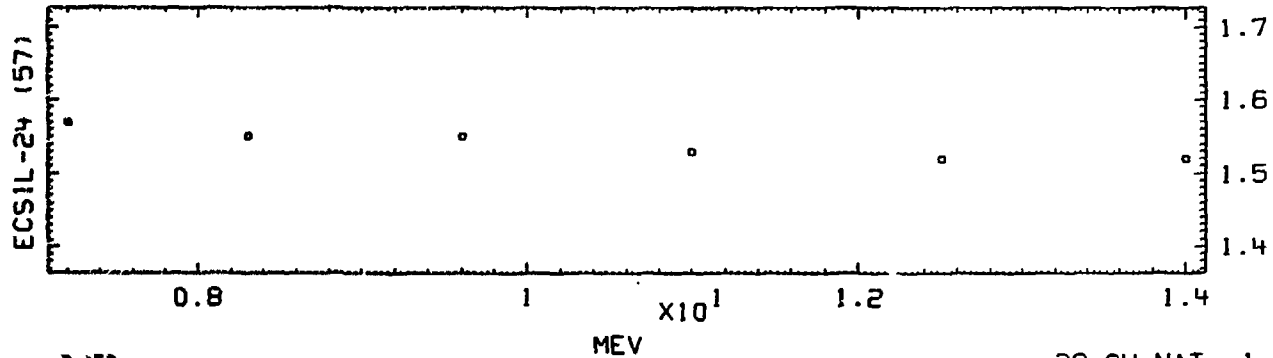
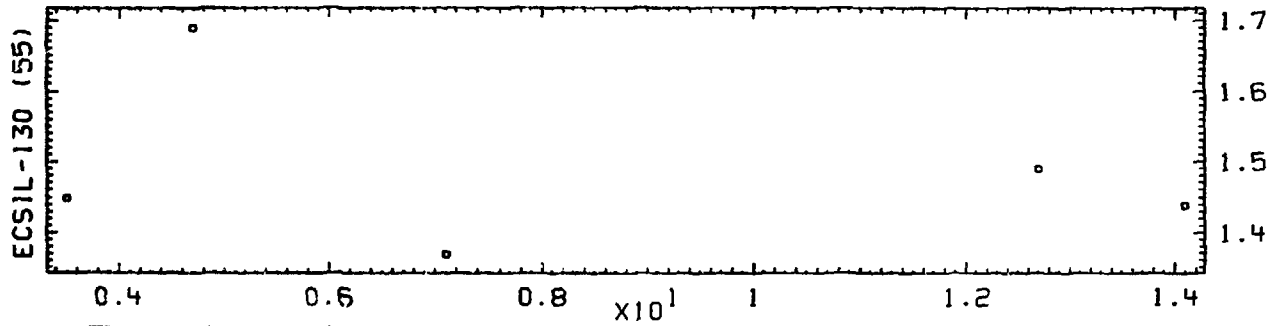
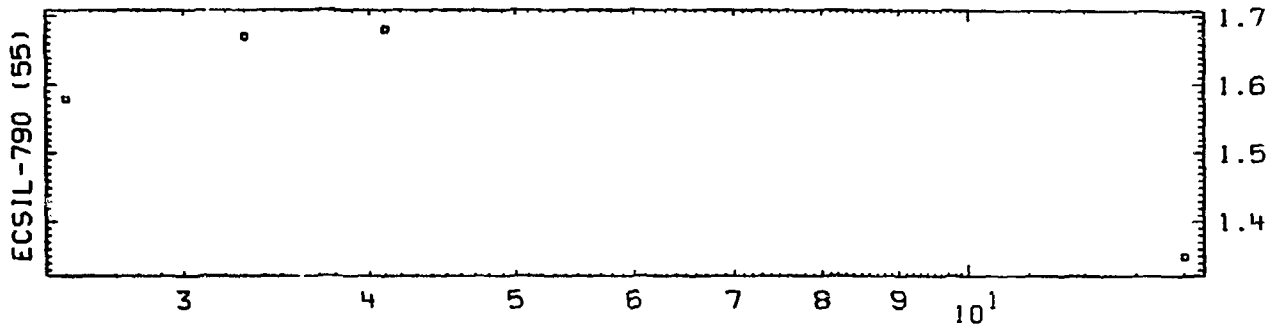
28-NI-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES
62 868	1.4100+ 1		2.0000- 3	1.0000- 3	2.0000+ 0	60 598	1.4800+ 1	9.0010- 1	4.1000- 3	5.0000- 5	7.8010+ 0
60 598	1.4800+ 1	9.0010- 1	4.3000- 4	2.0000- 5	2.0000+ 0	62 868	1.4100+ 1		5.0000- 3	1.0000- 3	9.3000+ 0

03/01/74

NONELASTIC
CROSS SECTION

29-CU-NAT



BARN

3-150

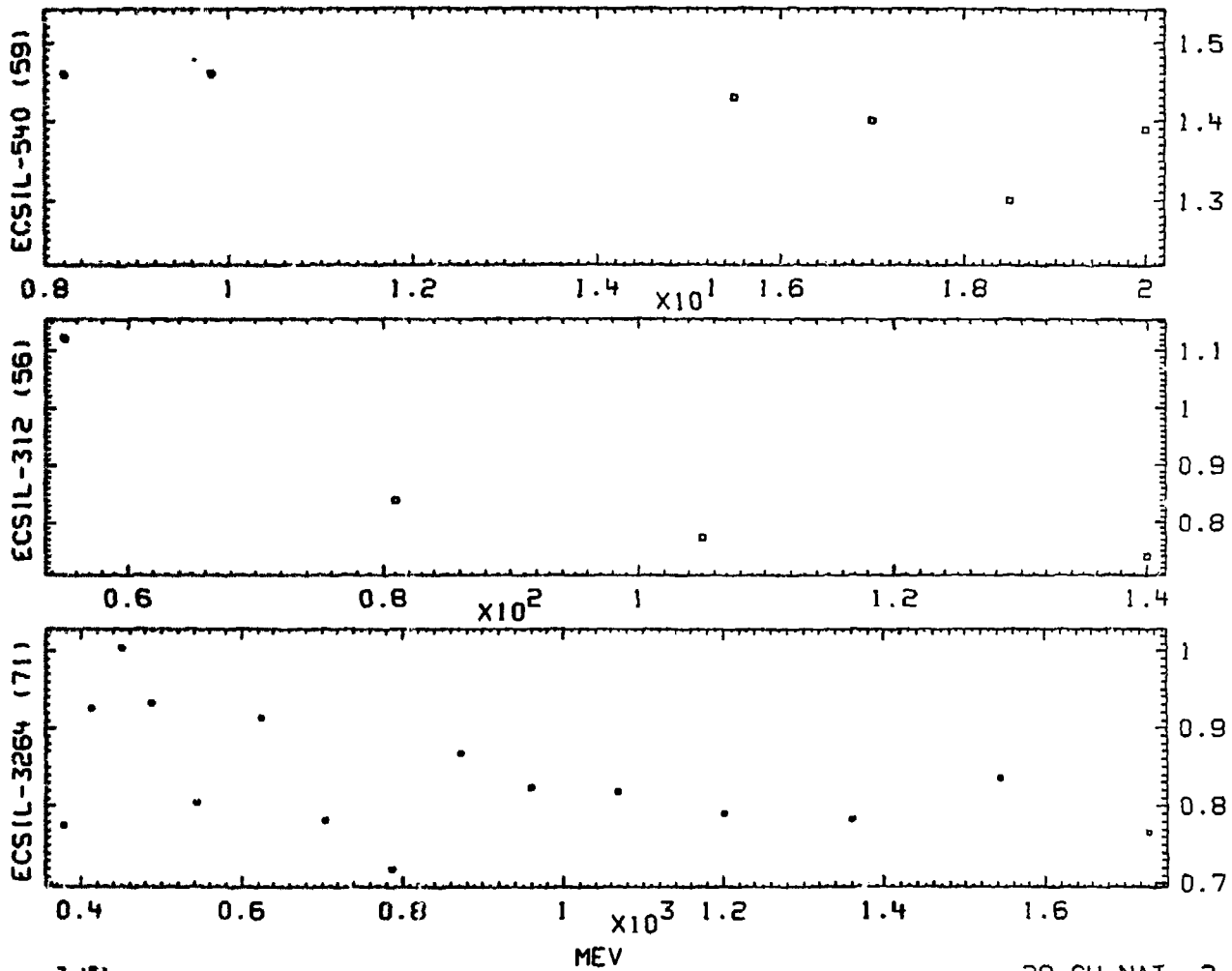
MEV

29-CU-NAT -1

03/01/74

NONELASTIC
CROSS SECTION

29-CU-NAT



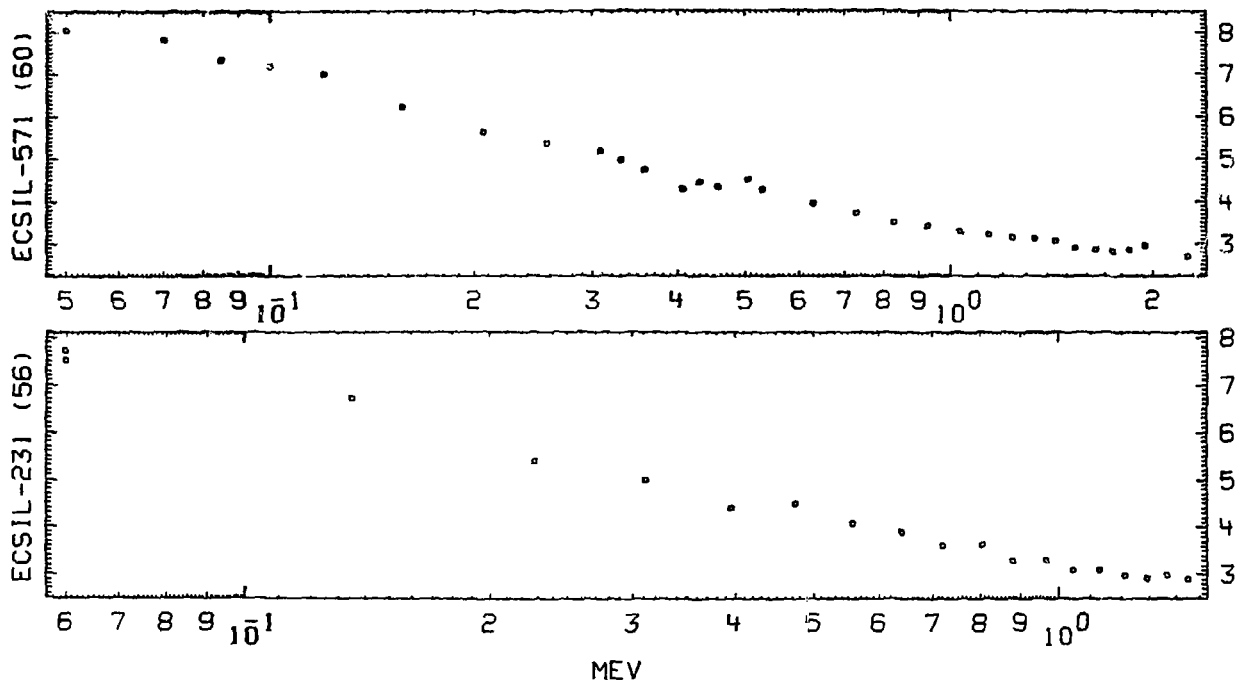
3-151

29-CU-NAT -2

03/01/74

TOTAL SCATTERING
CROSS SECTION

29-CU-NAT

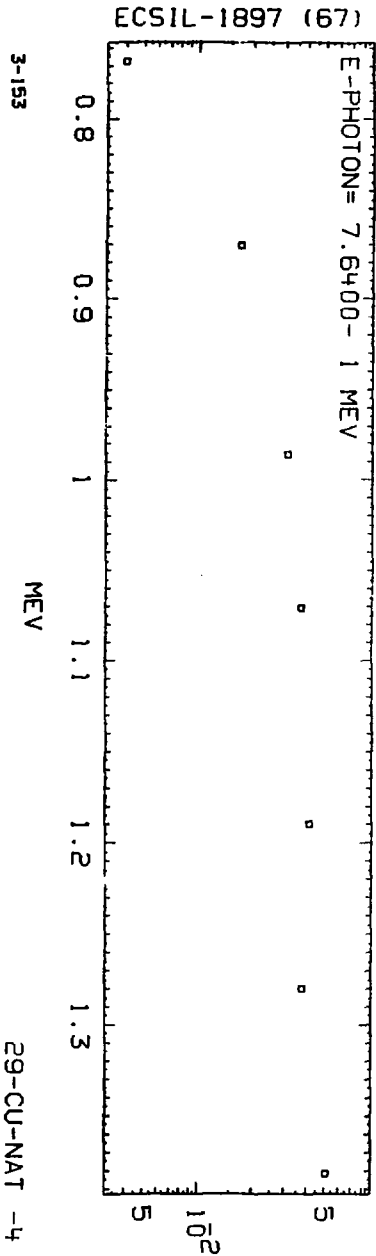
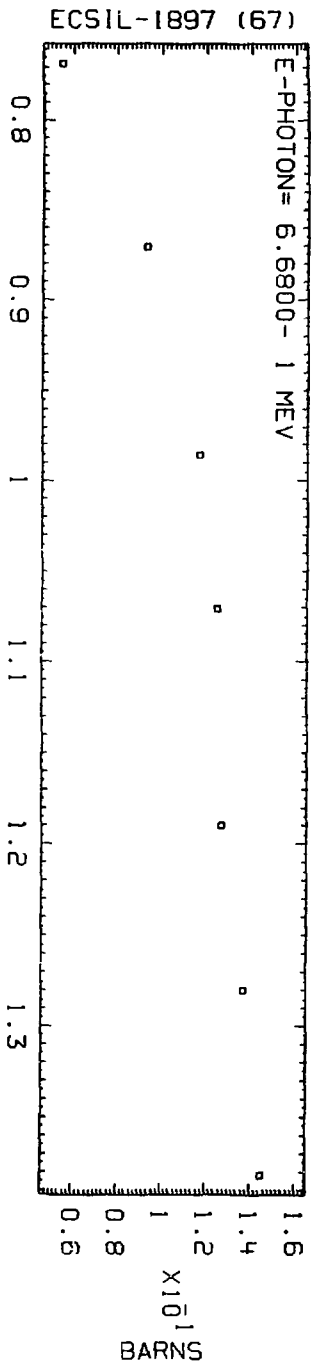
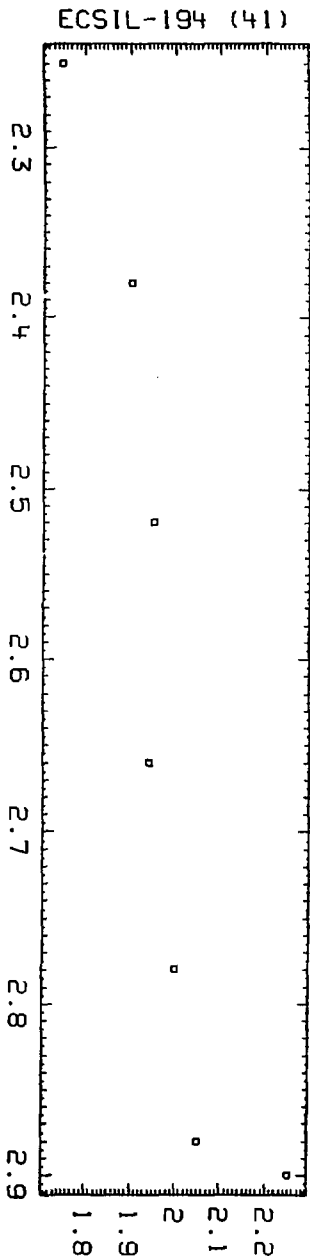


BARNs

03/01/74

N,X GAMMA
CROSS SECTION

29-CU-NAT



3-153

MEV

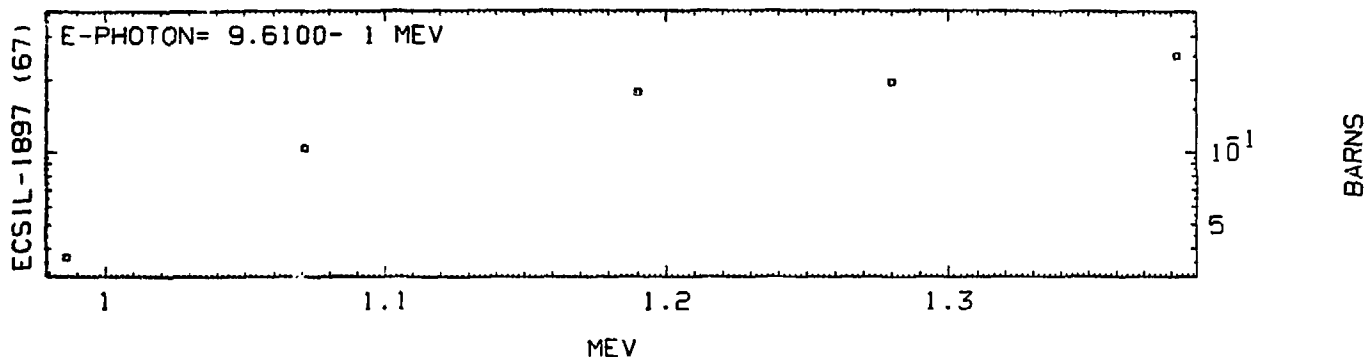
29-CU-NAT -4

BARNs
 $\times 10^{-1}$

03/01/74

N,X GAMMA
CROSS SECTION

29-CU-NAT



03/01/74

NONELASTIC

29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
55 122	1.0000+ 0	1.6000- 1	2.1000- 1	4.0000- 2	55 117	1.4100+ 1		1.4200+ 0	4.0000- 2
56 353	1.0200+ 0		2.0000- 1	1.0000- 1	52 82	1.4150+ 1	5.0000- 2	1.5100- 1	6.0010- 2
56 164	1.2000+ 0		5.0000- 1	1.0000- 1	57 319	1.4200+ 1	1.5000- 1	1.4900+ 0	2.0000- 2
56 164	1.6000+ 0		7.0010- 1	1.4000- 1	56 200	1.4500+ 1		1.4800+ 0	2.0000- 2
56 164	2.0000+ 0		1.1000+ 0	2.2000- 1	63 1271	1.4700+ 1	2.0000- 1	1.4800+ 0	4.0000- 2
56 34	2.5000+ 0		1.5800+ 0	1.5000- 1	67 1656	1.4800+ 1	5.0000- 2	1.8500+ 0	4.0000- 2
56 151	2.5000+ 0	4.0000- 2	1.2700+ 0	6.0010- 2	61 706	1.6100+ 1		1.3800- 0	4.0000- 2
55 559	3.6600+ 0	2.0000- 1	1.5700+ 0	1.8000- 1	61 706	1.9700+ 1		1.4800+ 0	4.0000- 2
55 122	4.0000+ 0	7.0010- 2	1.6000+ 0	5.0000- 2	58 356	2.1000+ 1		1.3900+ 0	7.0010- 2
55 122	4.5000+ 0	7.0010- 2	1.6000+ 0	5.0000- 2	58 356	2.5500+ 1		1.3300+ 0	7.0010- 2
56 151	7.0000+ 0	2.0000- 1	1.5400+ 0	6.0010- 2	58 356	2.9200+ 1		1.3000+ 0	7.0010- 2
65 1228	8.1000+ 0		1.4700+ 0	7.0000- 2	55 2056	1.4000+ 3	2.0000+ 2	6.7000- 1	3.3500- 2
63 766	1.3980+ 1	5.0000- 2	1.4400+ 0	3.0000- 2	61 1566	5.0000+ 3	4.0000+ 2	5.8600- 1	2.5000- 2
58 877	1.4000+ 1		1.5000+ 0	7.0000- 2	62 1657	8.3000+ 3		6.2600- 1	2.9000- 2

3-154

29-CU-NAT -5

03/01/74

N,N'
CROSS SECTION

29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 836	5.0000+ 0		1.7400+ 0	2.2000- 1
63 836	7.0000+ 0		1.4600+ 0	1.2000- 1

03/01/74

N,2N

29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 7	1.4100+ 1		7.6010- 1	6.0010- 2
57 8	1.4200+ 1		5.6010- 1	6.0010- 2

03/01/74

N,N'P

29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 2053	1.4000+ 1		1.8100- 1	1.8100- 2

03/01/74

ABSORPTION

29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2569	2.5300- 8		4.1400+ 0	1.0000- 1	58 364	2.4000- 2	2.0000- 3	3.2000- 2	1.1000- 2
58 404	2.5300- 8		3.9300+ 0	1.0000- 2	66 1541	2.4000- 2	1.5000- 3	5.9000- 2	6.0000- 3
60 2570	2.5300- 8		3.7900+ 0	4.0000- 2	65 1364	2.4000- 2		5.9000- 2	8.0000- 3
66 1491	2.5300- 8		3.7400+ 0	4.0000- 2	58 364	2.2000- 1	2.0000- 2	1.8000- 2	2.0000- 3
58 1162	2.5300- 8		4.0000+ 0	1.0000- 1	58 364	8.3000- 1	4.0000- 2	1.9000- 2	1.0000- 3

03/01/74

N,X GAMMA

29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 294	1.4200+ 1		6.3000+ 0	1.5750+ 0

03/01/74

N, X GAMMA
CROSS SECTION

29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	
56	140 2.5600+	0 3.0000-	2 4.9000-	2 1.0000-	2 3.6500-	1	56	140 2.5600+	0 3.0000-	2 6.0000-	2 2.0000-	2 1.4100+
56	140 2.5600+	0 3.0000-	2 7.1000-	2 1.8000-	2 6.5000-	1	56	140 2.5600+	0 3.0000-	2 3.0000-	2 1.5000-	2 1.4700+
54	113 3.2000+	0 2.0000-	1 2.1000-	1 4.2000-	2 6.6000-	1	56	140 2.5600+	0 3.0000-	2 4.9000-	2 1.0000-	2 1.5500+
56	140 2.5600+	0 3.0000-	2 4.7000-	2 1.5000-	2 7.6400-	1	56	140 2.5600+	0 3.0000-	2 2.6000-	2 9.0000-	3 1.8800+
56	140 2.5600+	0 3.0000-	2 3.6700-	1 4.8000-	2 9.5800-	1	54	113 3.2000+	0 2.0000-	1 1.6000-	1 3.2000-	2 1.9000+
54	113 3.2000+	0 2.0000-	1 1.2000-	1 2.4000-	2 9.6000-	1	56	140 2.5600+	0 3.0000-	2 3.7000-	2 7.0000-	3 2.0700+
52	284 2.5000+	0	1.2000+	0 6.0000-	1 1.1000+	0	52	284 2.5000+	0	3.4000-	1 1.2000-	1 2.2000+
56	140 2.5600+	0 3.0000-	2 1.6600-	1 2.1000-	2 1.1100+	0	53	294 1.4200+	1	5.2000-	2 1.8200-	2 3.1000+
67	1897 1.1900+	0 3.3000-	2 3.3000-	2 7.0000-	3 1.1140+	0	61	850 1.4000+	1	4.7000-	1 1.4100-	1 4.0000+
67	1897 1.2800+	0 3.2000-	2 5.1000-	2 1.1000-	2 1.1140+	0	53	294 1.4200+	1	2.9000-	2 1.0150-	2 4.5000+
57	1897 1.3820+	0 3.1600-	2 9.0000-	2 1.9000-	2 1.1140+	0	61	850 1.4000+	1	2.5000-	1 7.5000-	2 5.0000+
56	140 2.5600+	0 3.0000-	2 1.1000-	1 1.8000-	2 1.3250+	0	61	850 1.4000+	1	1.4000-	1 4.2000-	2 6.1000+
54	113 3.2000+	0 2.0000-	1 8.1000-	1 1.6000-	2 1.3700+	0						

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHN-MIN MEV	E-PHN-MAX MEV
63 1723	1.4100+	1 6.0000-	1 6.3900-	1	1.5000+	0 9.0000+
60 1721	1.4000+	1	4.7000-	1 1.4100-	1 4.0000+	0 5.0000+
60 1721	1.4000+	1	2.5000-	1 7.5000-	2 5.0000+	0 6.1000+
60 1721	1.4000+	1	1.4000-	1 4.2000-	2 6.1000+	0 7.5000+

03/01/74

N, X P

29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 1840	1.4000+	1	2.4600-	1 1.0000-
58 441	1.4000+	1	1.7300-	1

03/01/74

BOUND ATOM

29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000-	0	7.8000+	0

03/01/74

COHERENT SCATTERING
CROSS SECTION

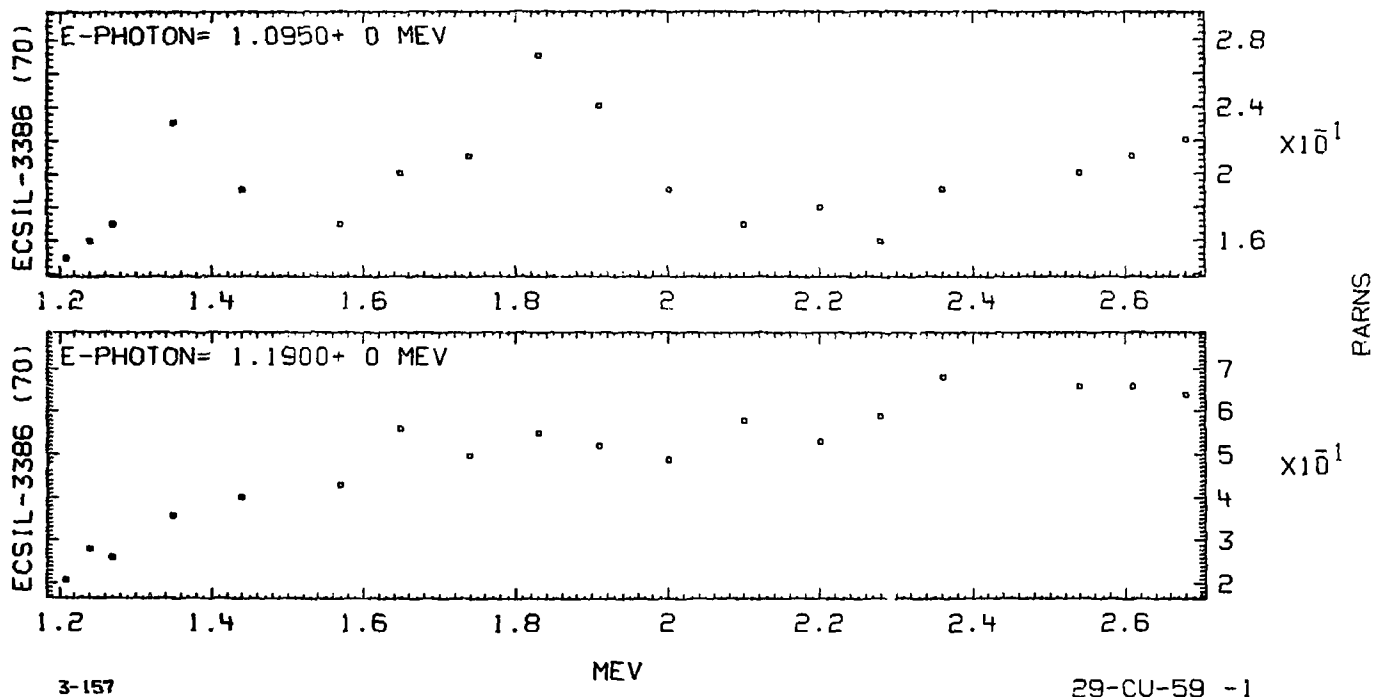
29-CU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 2555	2.5300- 8		6.8000+ 0	5.0000- 1
62 915	6.0700- 8		7.0000+ 0	2.9000- 1
51 1584	7.3000- 8		7.3000+ 0	5.8400- 1

03/01/74

N,X GAMMA
CROSS SECTION

29-CU-59



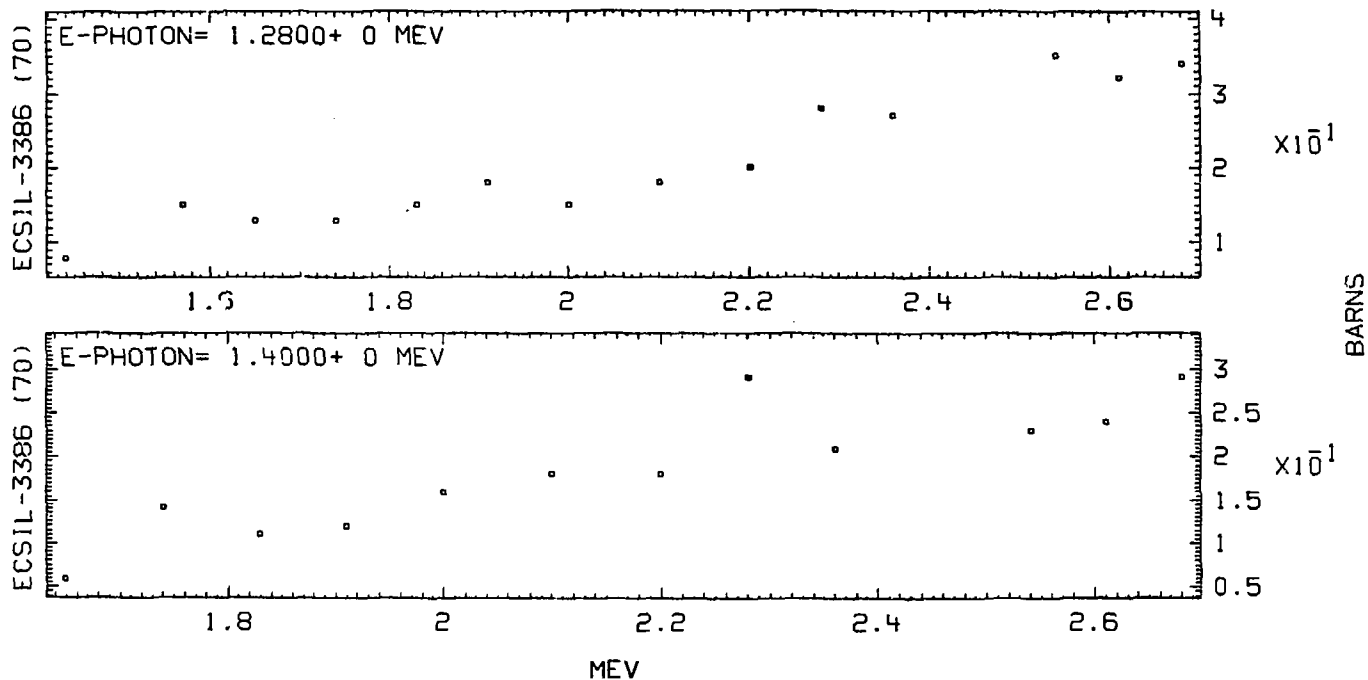
3-157

29-CU-59 -1

03/01/74

N,X GAMMA
CROSS SECTION

29-CU-59



03/01/74

N,X GAMMA

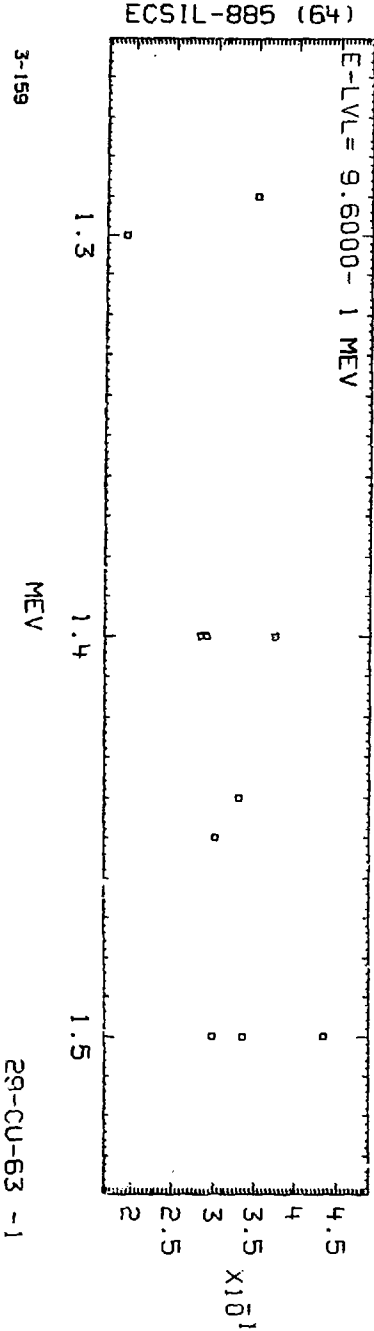
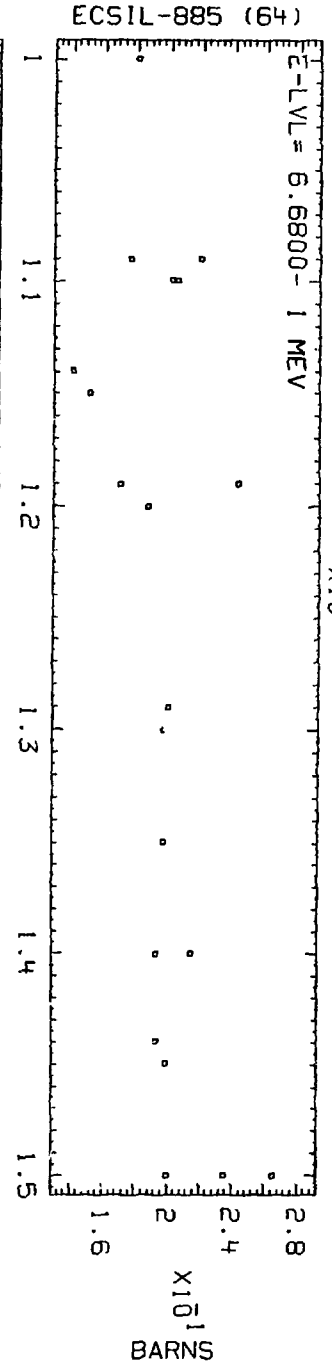
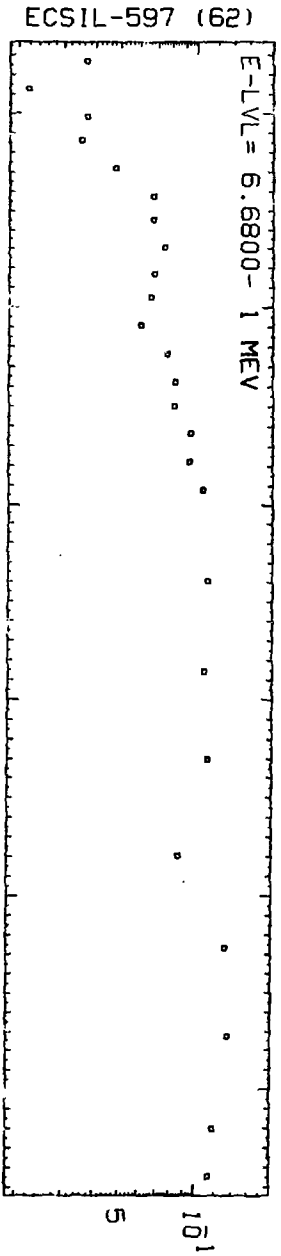
29-CU-59

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3386	1.1400 + 0		7.0000 - 2	

03/01/74

CROSS SECTION

29-CU-63



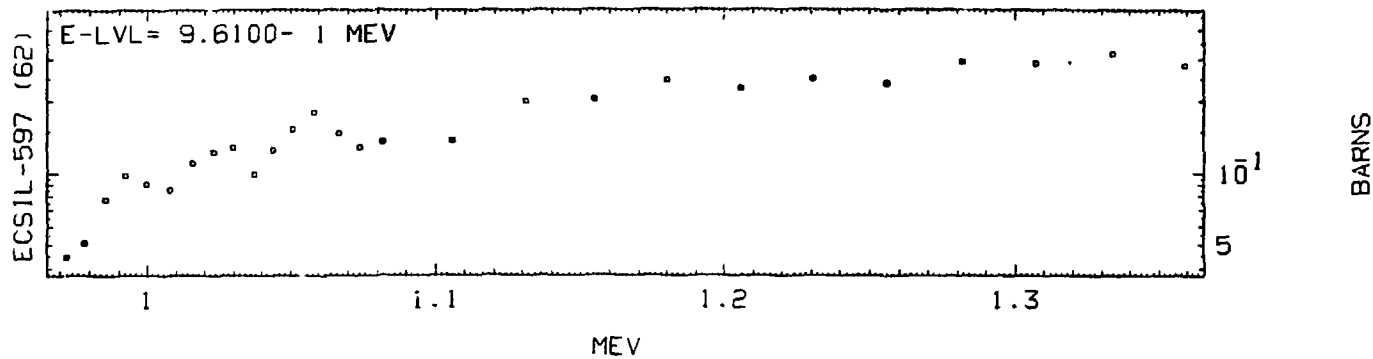
3-159

29-CU-63 -1

03/01/74

N,N'
CROSS SECTION

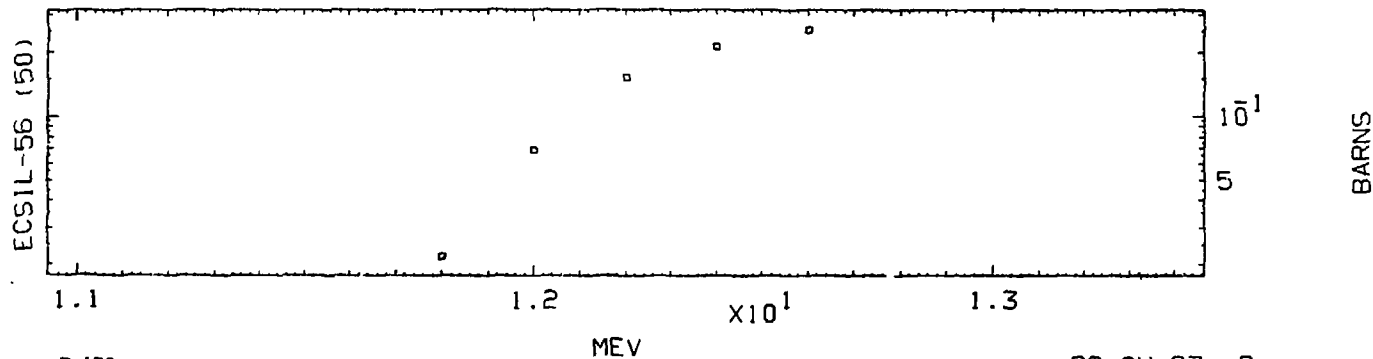
29-CU-63



03/01/74

N,2N
CROSS SECTION

29-CU-63



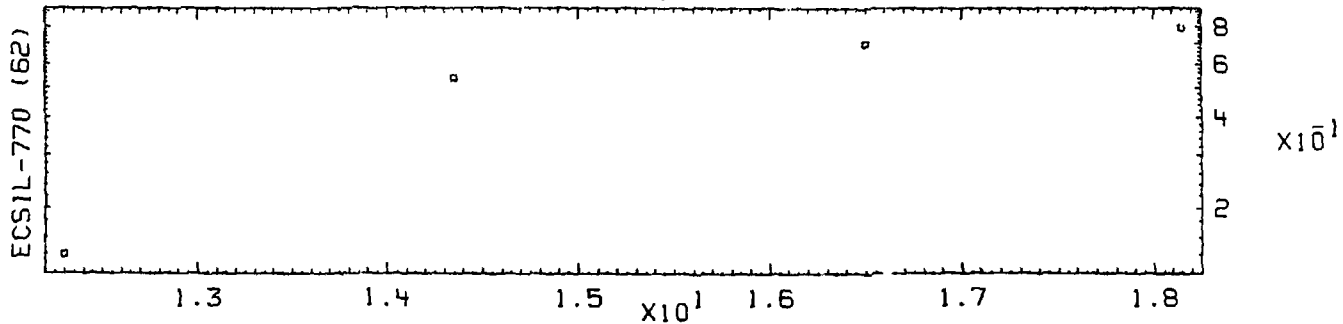
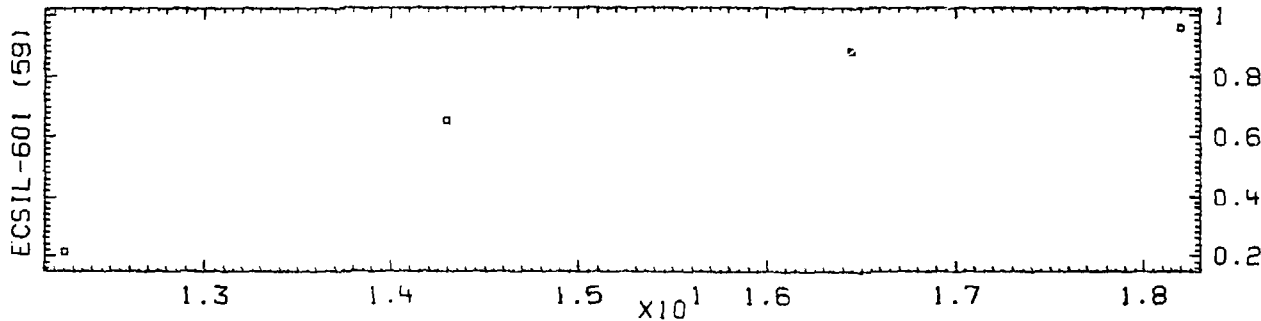
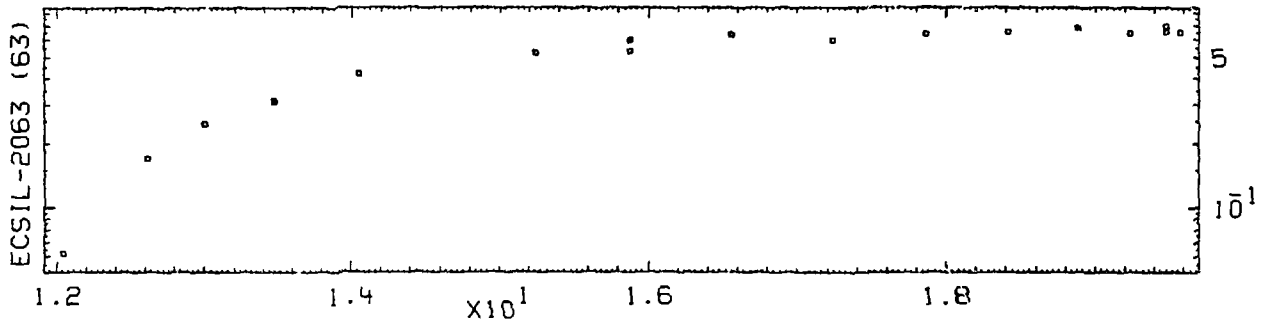
3-160

29-CU-63 --2

03/01/74

N,2N
CROSS SECTION

29-CU-63

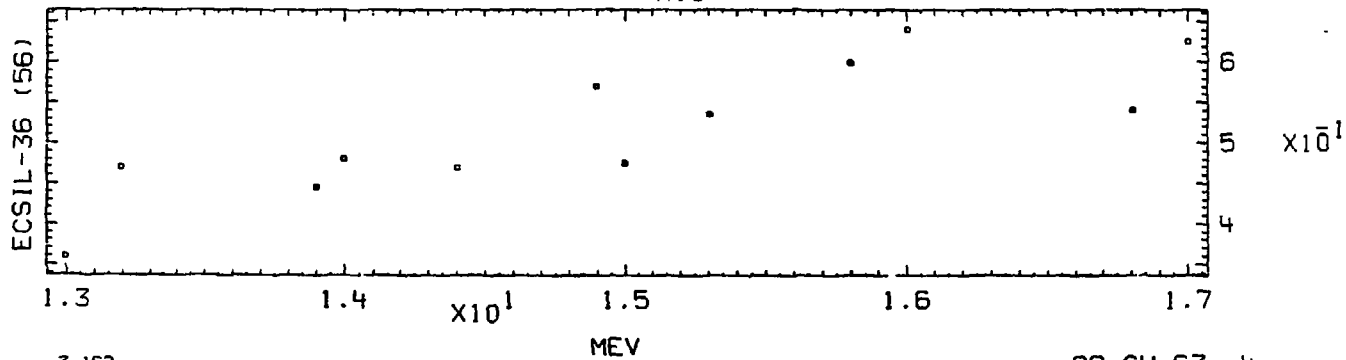
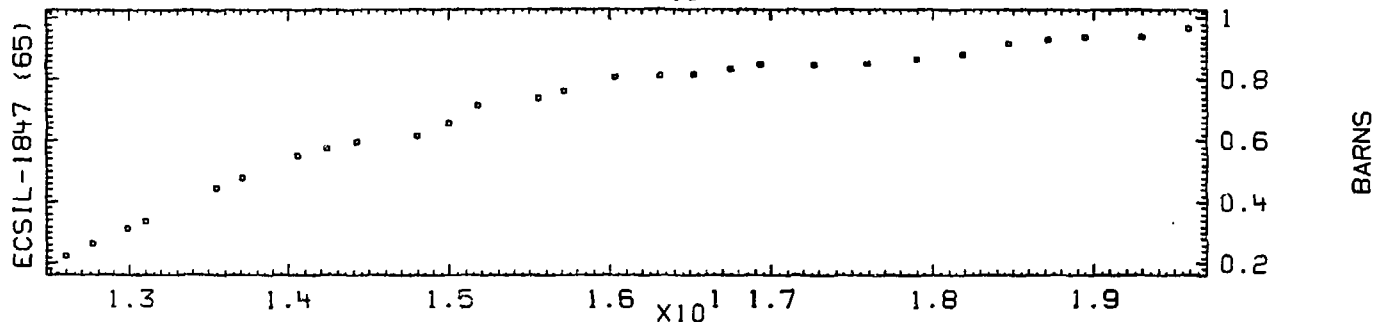
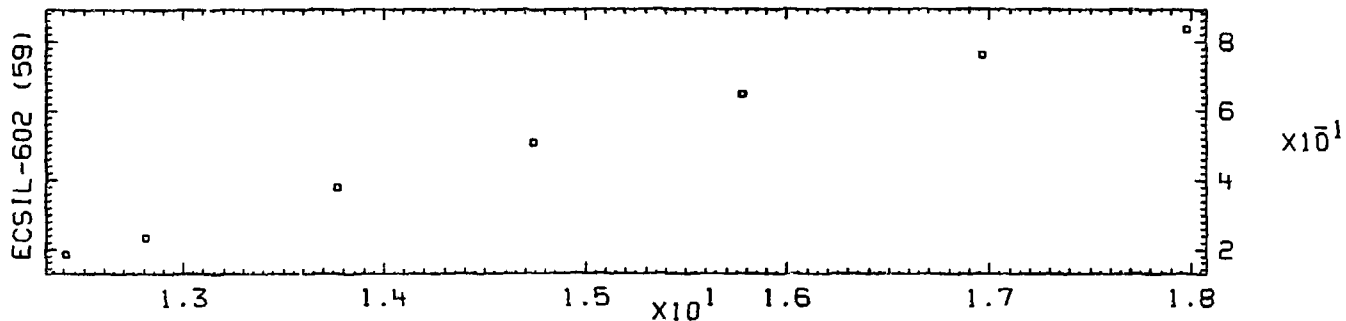


BARNs

03/01/74

N,2N
CROSS SECTION

29-CU-63



3-162

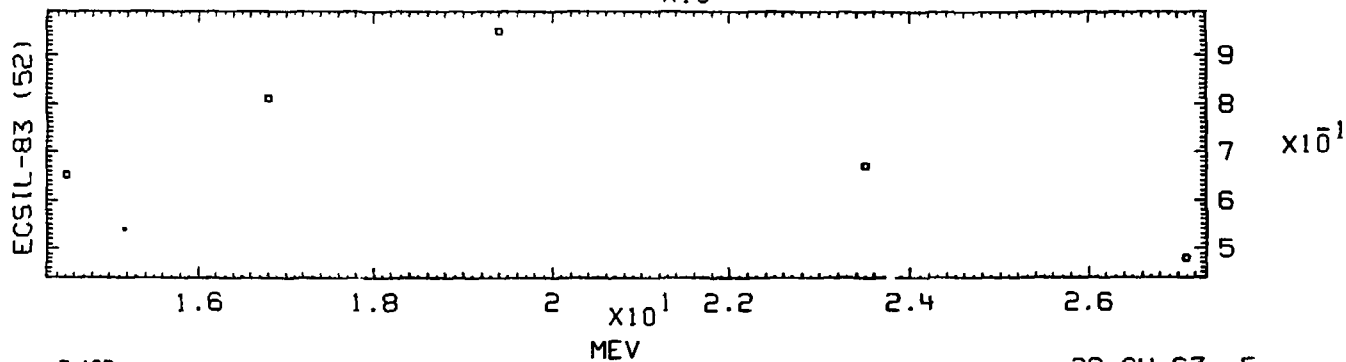
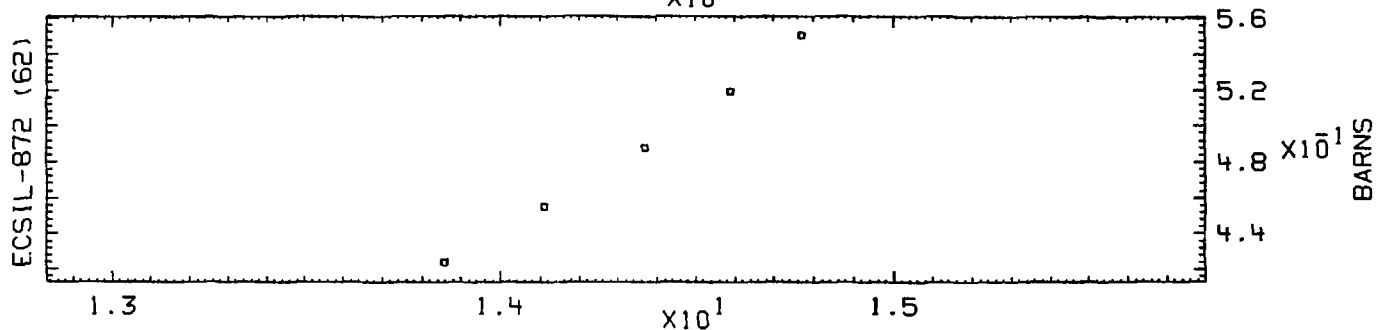
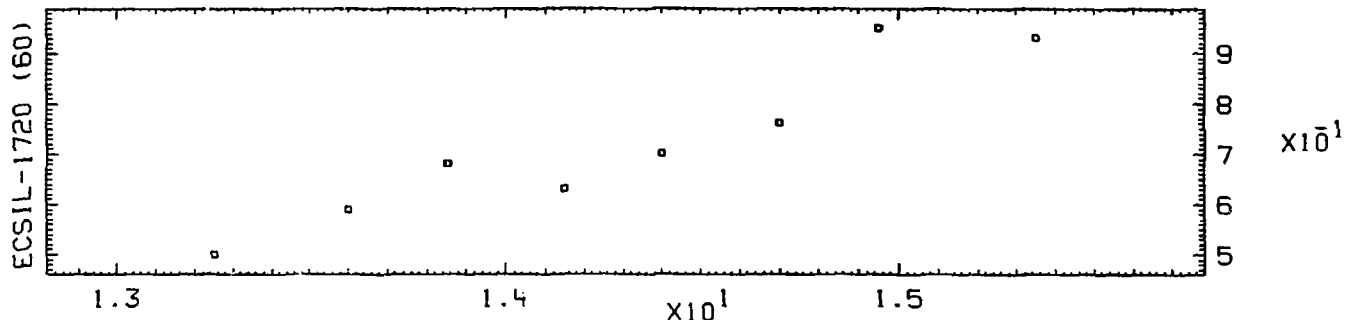
MEV

29-CU-63 -4

03/01/74

N,2N
CROSS SECTION

29-CU-63



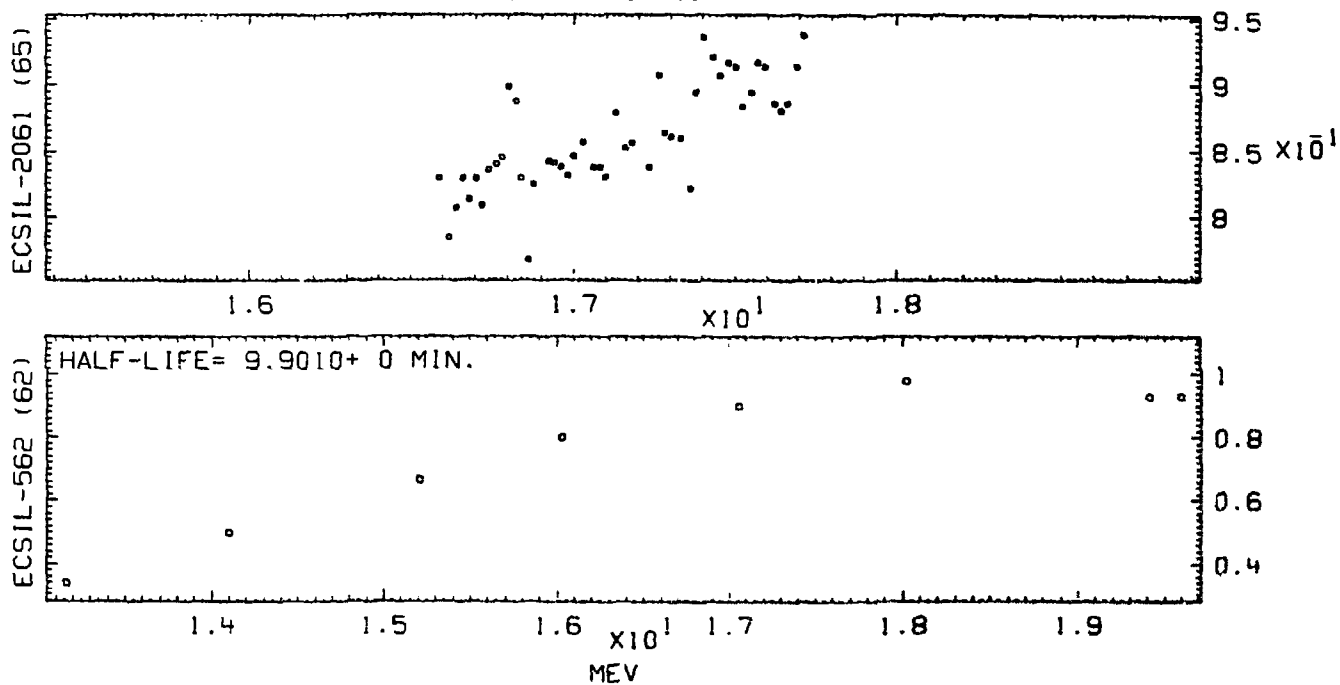
3-163

29-CU-63 -5

03/01/74

N,2N
CROSS SECTION

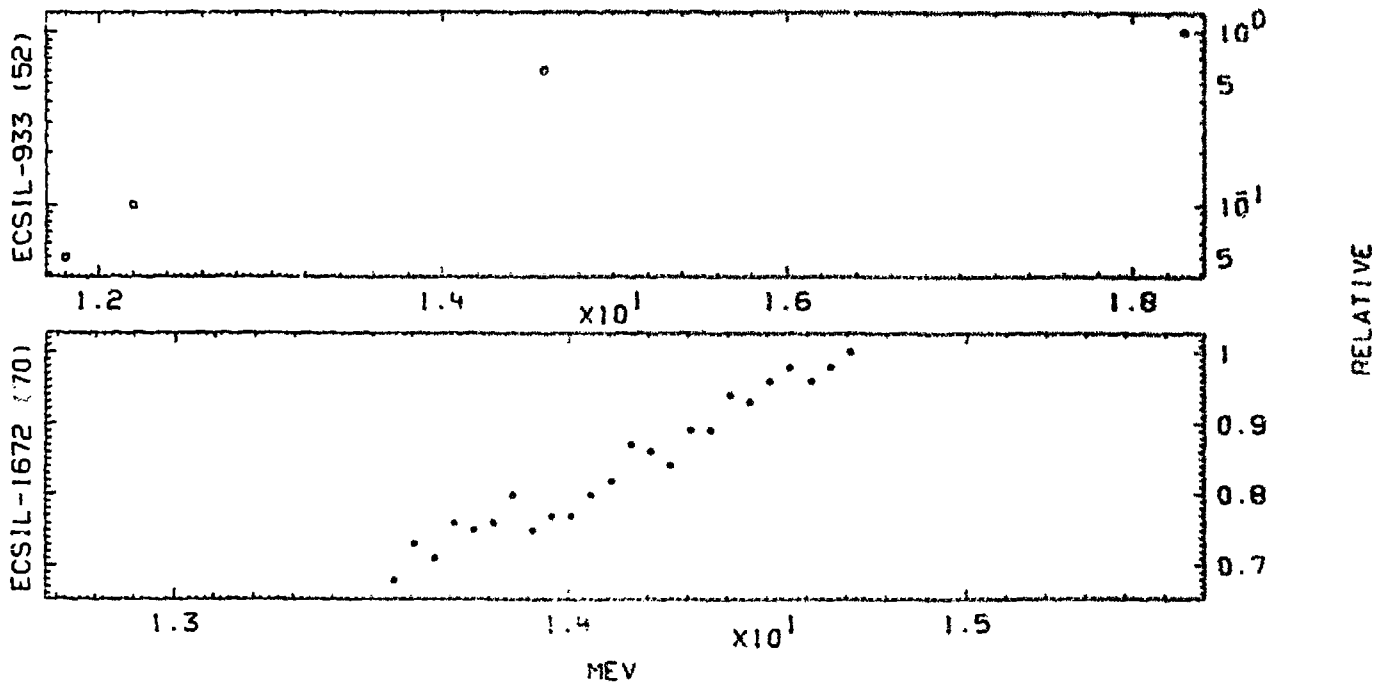
29-CU-63



03/01/74

N,2N
CROSS SECTION

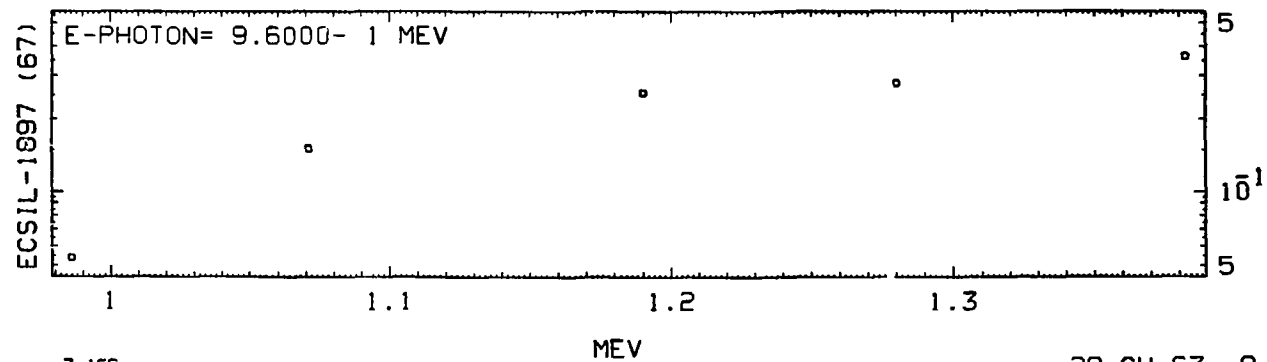
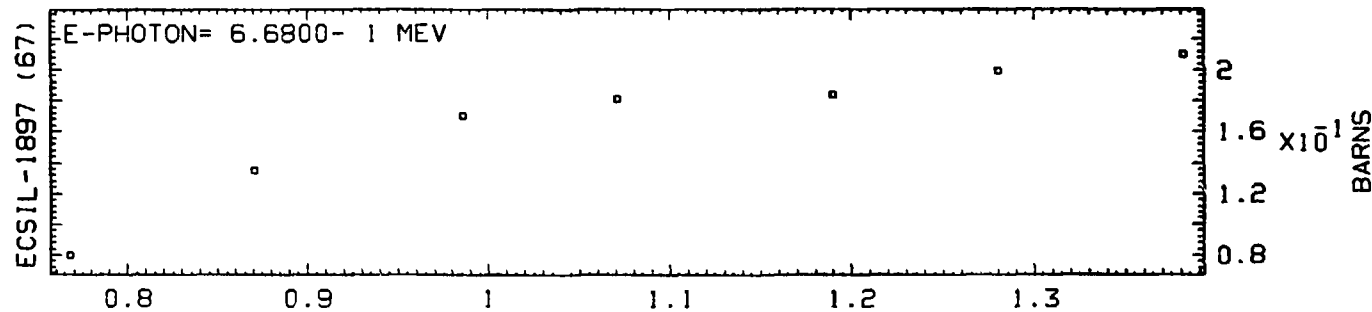
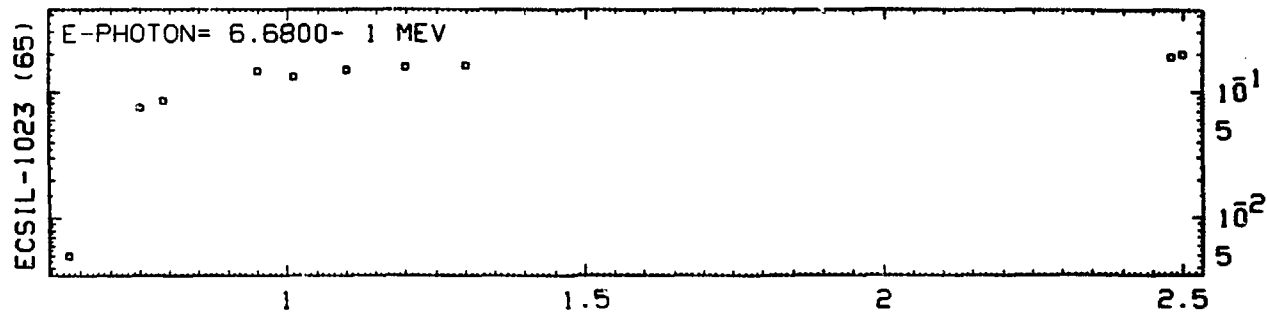
29-CU-63



03/01/74

N, X GAMMA
CROSS SECTION

29-CU-63



3-166

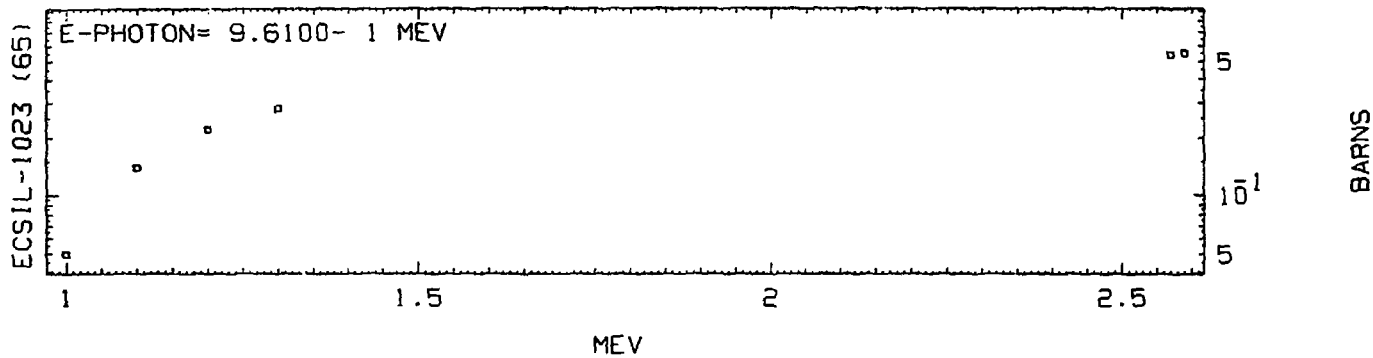
MEV

29-CU-63 -8

03/01/74

N, X GAMMA
CROSS SECTION

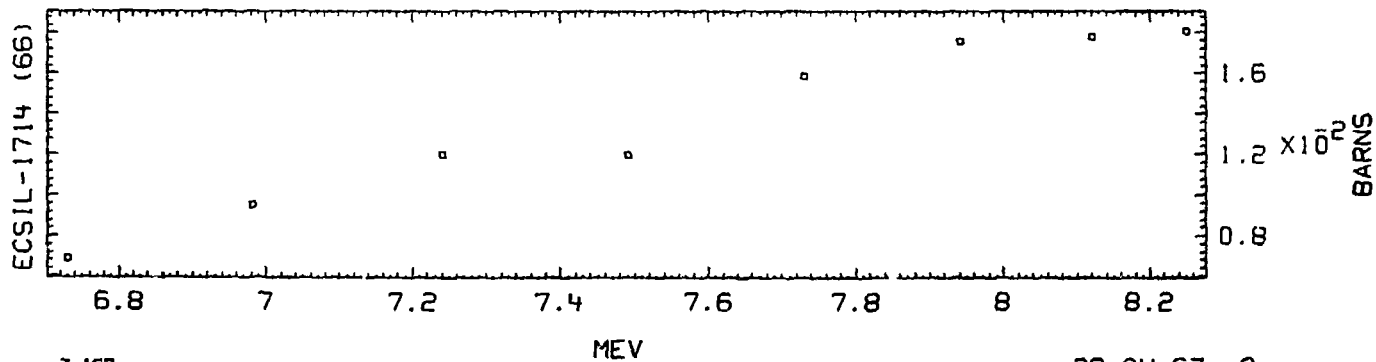
29-CU-63



03/01/74

N, ALPHA
CROSS SECTION

29-CU-63



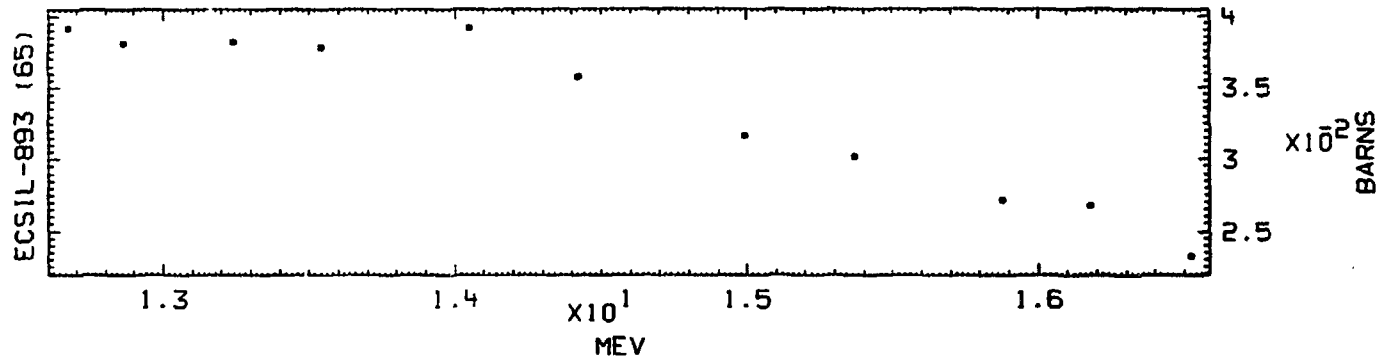
3-167

29-CU-63 -9

03/01/74

N, ALPHA
CROSS SECTION

29-CU-63



03/01/74

N, N'

29-CU-63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
62	597	6.8160- 1	2.8000- 2	5.6000- 3		63	828	1.2000+ 0	2.4000- 1	5.0000- 2	6.6810- 1
63	828	8.0000- 1	1.0000- 1	5.0000- 2	6.6810- 1	63	828	1.0000+ 0	1.0000- 1	5.0000- 2	9.3110- 1
63	828	1.0000+ 0	1.7000- 1	5.0000- 2	6.6810- 1	63	828	1.2000+ 0	3.0000- 1	5.0000- 2	9.3110- 1

03/01/74

N, 2N

29-CU-63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67	2009	1.4000+ 1	4.9500- 1	7.4250- 2	65	1672	1.4600+ 1	1.0000- 1	5.4100- 1
64	2060	1.4100+ 1	4.7800- 1	4.8000- 2	60	695	1.4600+ 1	5.3000- 1	2.6500- 2
61	651	1.4100+ 1	4.9000- 1	4.0000- 2	67	1921	1.4700+ 1	1.0000- 1	5.1100- 1
52	84	1.4100+ 1	5.1010- 1	4.0000- 2	69	3351	1.4700+ 1	2.0000- 1	6.0300- 1
62	108	1.4130+ 1	1.0000- 1	4.0900- 1	69	3351	1.4800+ 1	3.5000- 1	6.1500- 1
57	535	1.4140+ 1	1.8000- 1	5.5610- 1	65	3379	1.4800+ 1	1.0000- 1	5.6800- 1
69	2050	1.4500+ 1	2.0000- 1	6.0800- 1	65	3379	1.4800+ 1	1.0000- 1	5.4600- 1
53	27	1.4500+ 1	4.8200- 1	7.2010- 2	66	2058	1.4800+ 1	1.0000- 1	5.0900- 1

03/01/74

N,2N
CROSS SECTION

29-CU-63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
61	830	1.4100+ 1	4.5800- 1	1.0000- 2	9.9010+ 0

03/01/74

N,N'P

29-CU-63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361	1.4000+ 1	1.5200- 1	9.0010- 3
57	217	1.4000+ 1	1.3000- 1	2.6000- 2

03/01/74

N,P

29-CU-63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
57	217	1.4000+ 1	1.2000- 1	2.4000- 2	
61	361	1.4000+ 1	1.1800- 1	9.0010- 3	
60	837	1.4100+ 1	1.0000- 1	1.4900- 1	3.0000- 2

03/01/74

N,HE-3

29-CU-63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	651	1.4100+ 1	3.0000- 3	1.0000- 3

03/01/74

N,ALPHA

29-CU-63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
60	3372	1.4000+ 1	4.7000- 2	9.6000- 3	
69	2354	1.4600+ 1	2.0000- 1	4.9500- 2	1.0000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
69	2710	1.4600+ 1	2.8000- 3	1.0000- 5	0.0000+ 0

03/01/74

N, ALPHA
CROSS SECTION

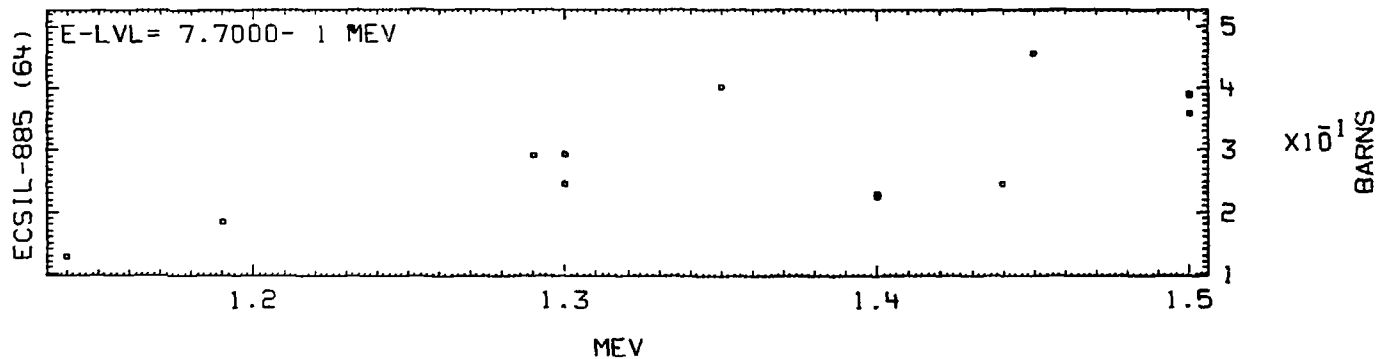
29-CU-63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
62 88	1.4700+	1 1.5000-	1 2.3000-	2 3.0000-	3 1.0500+

03/01/74

N, N'
CROSS SECTION

29-CU-65



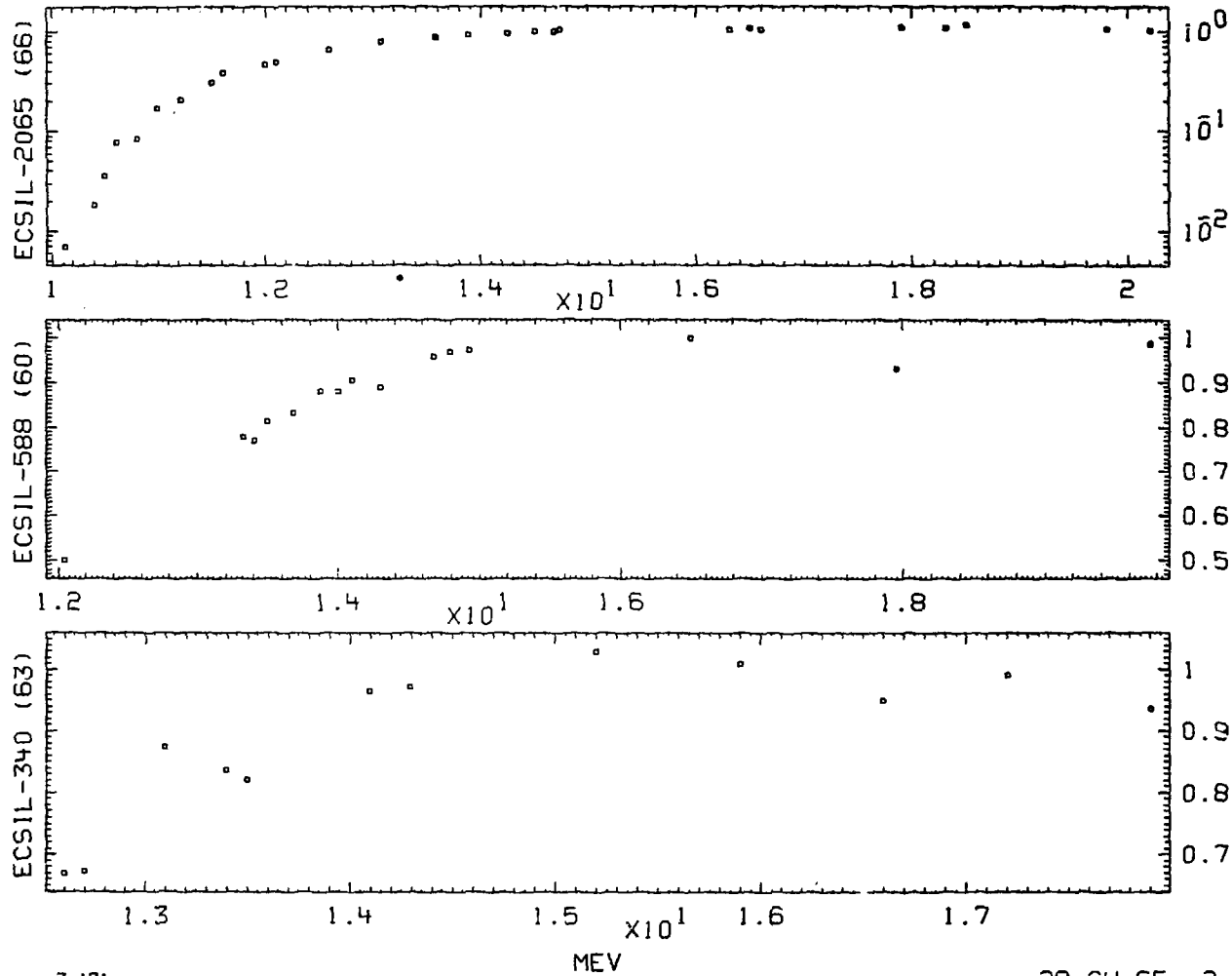
3-170

29-CU-65 -1

03/01/74

N,2N
CROSS SECTION

29-CU-65



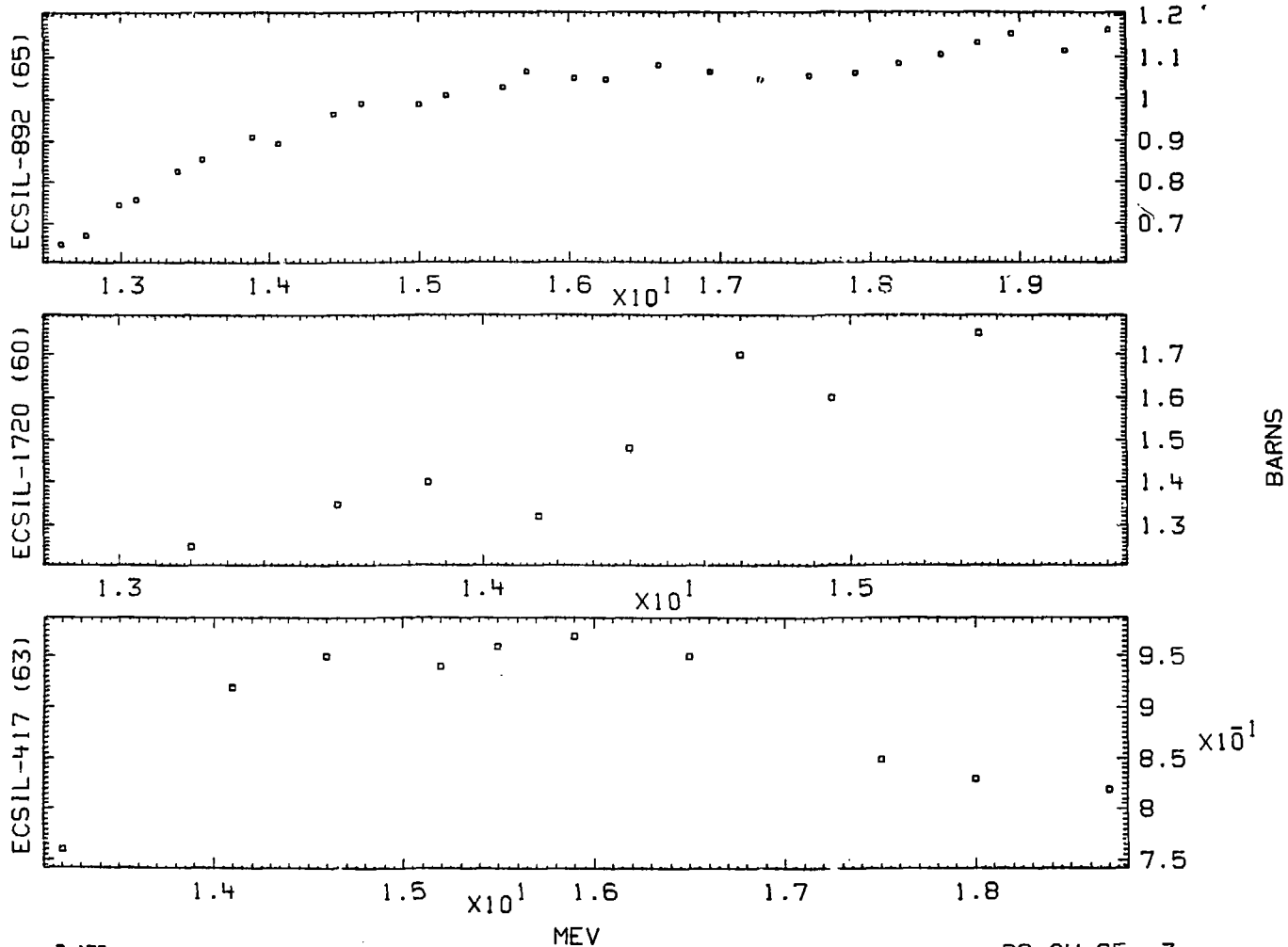
3-171

29-CU-65 -2

03/01/74

N,2N
CROSS SECTION

29-CU-65



3-172

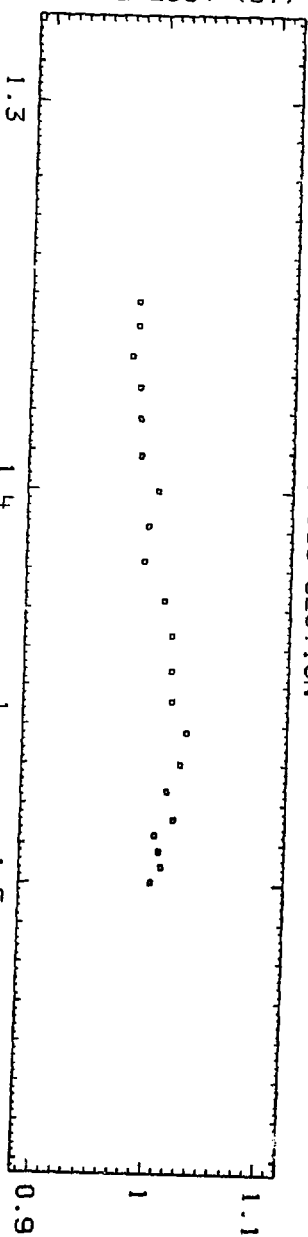
29-CU-65 -3

03/01/74

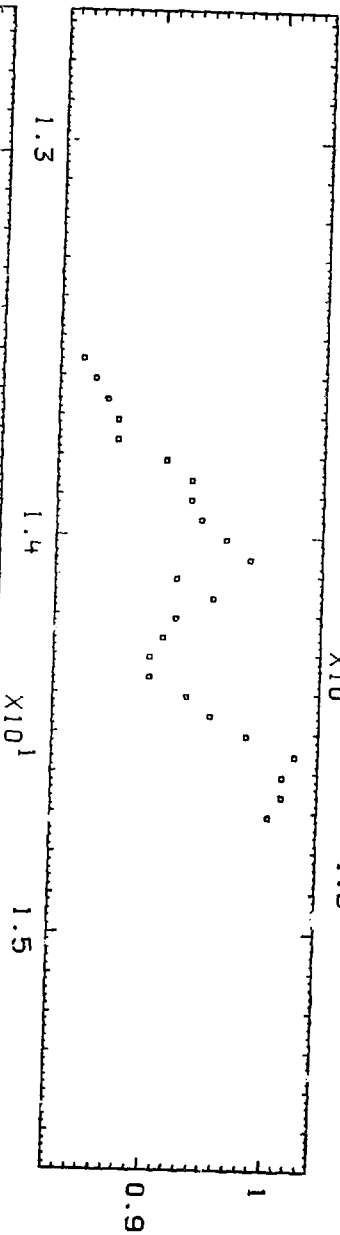
N,2N
CROSS SECTION

29-CU-65

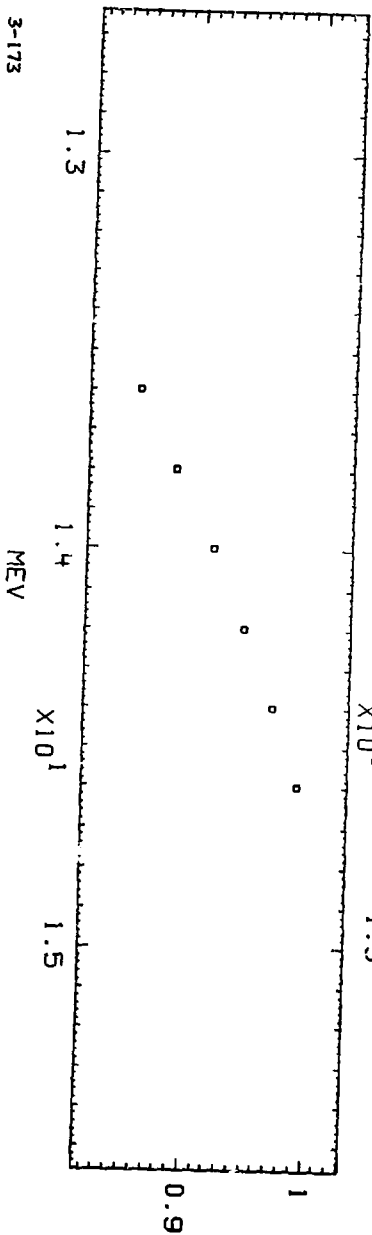
ECSIL-2594 (67)



ECSIL-1672 (70)



ECSIL-2596 (68)



3-173

MEV

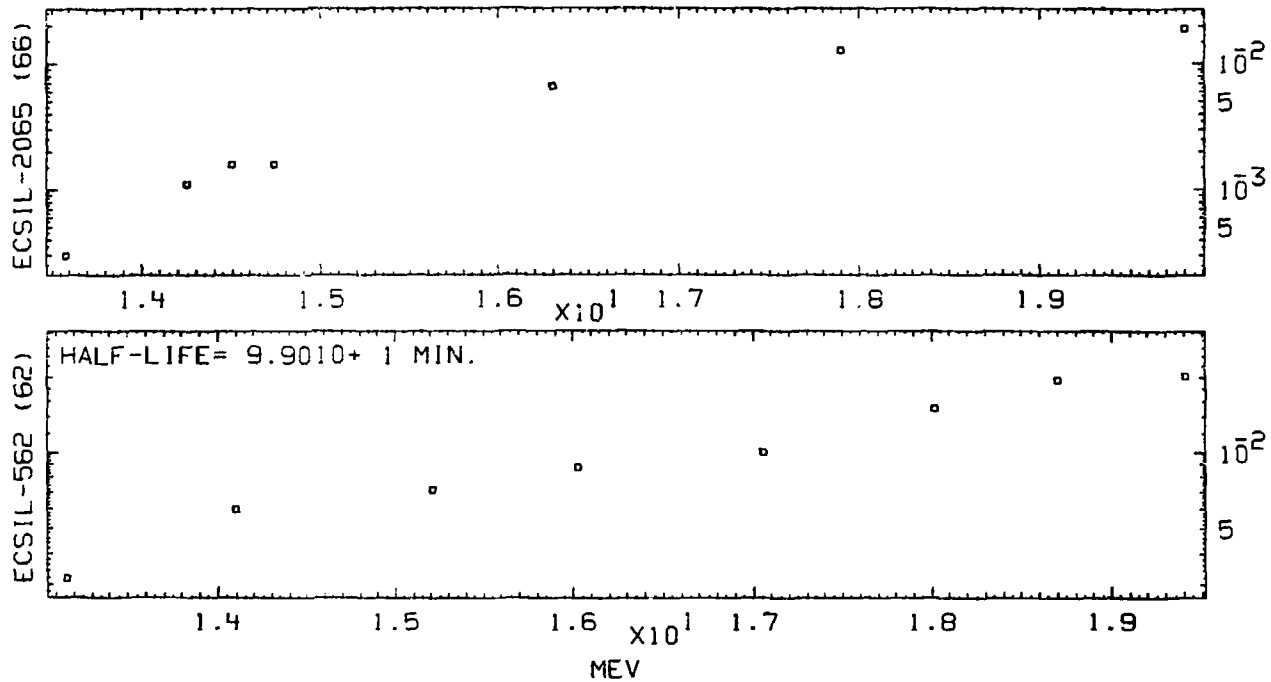
29-CU-65 -4

RELATIVE

03/01/74

N,N'ALPHA
CROSS SECTION

29-CU-65



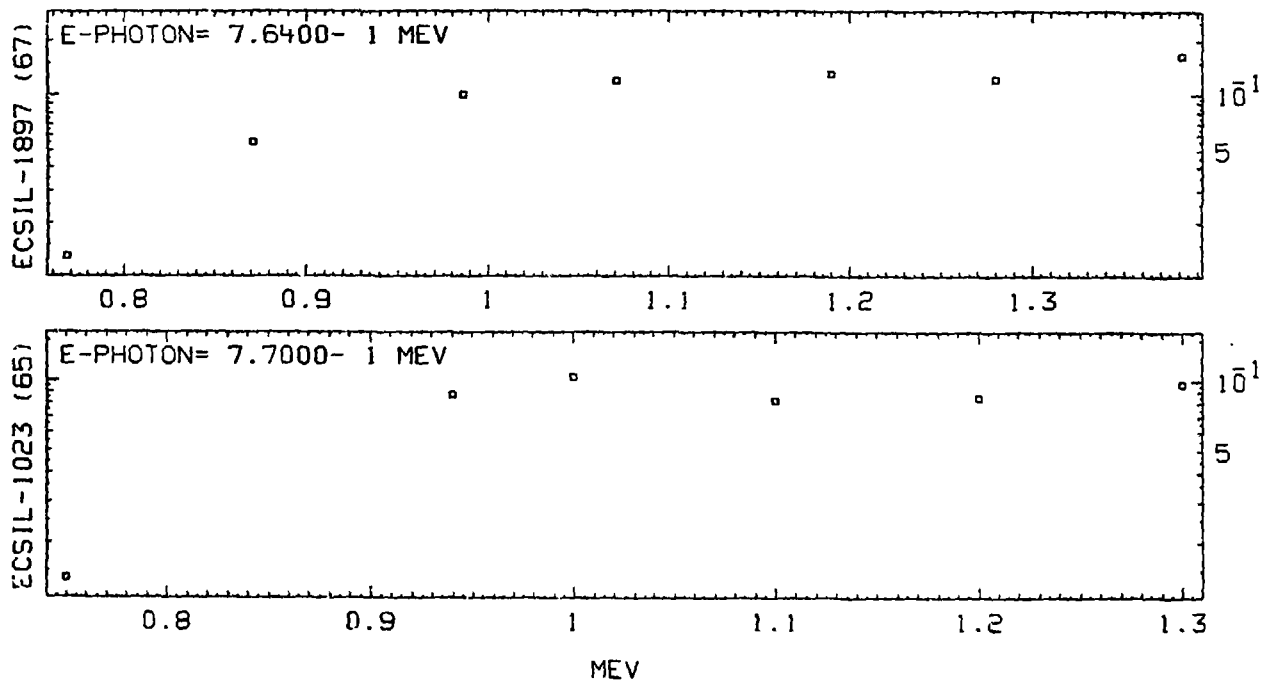
3-174

29-CU-65 -5

03/01/74

N,X GAMMA
CROSS SECTION

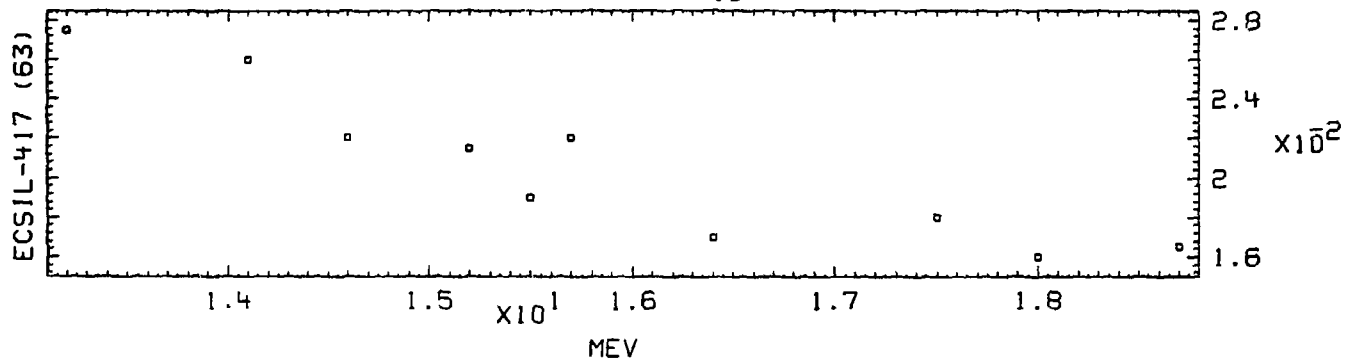
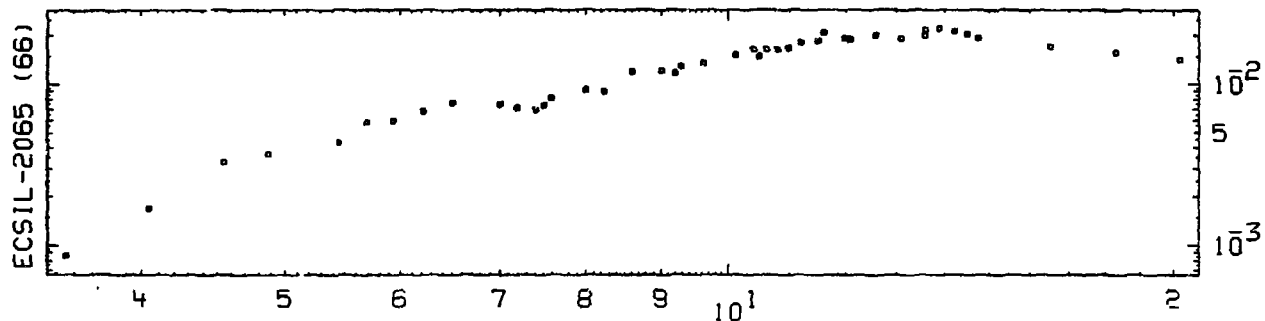
29-CU-65



03/01/74

N,P
CROSS SECTION

29-CU-65



03/01/74

N,N'

29-CU-65

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
64	885	1.1000+ 0	9.4000- 2	4.8000- 2		64	885	1.4400+ 0	3.8100- 1	1.1300- 1	1.1140+ 0
64	885	1.4000+ 0	4.6800- 1		1.1140+ 0	64	885	1.5000+ 0	7.1100- 1	1.2900- 1	1.1140+ 0

3-176

29-CU-65 -7

03/01/74

N,2N
CROSS SECTION

29-CU-65

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2009	1.3100+ 1		8.1000- 1	1.2150- 1	69 2354	1.4600+ 1	2.0000- 1	8.9700- 1	1.0000- 1
52 84	1.4100+ 1		9.7000- 1	7.7600- 2	66 3018	1.4600+ 1	2.0000- 1	8.0800- 1	7.3000- 2
61 651	1.4100+ 1		9.4010- 1	8.0010- 2	65 1672	1.4600+ 1	1.0000- 1	1.0260+ 0	5.0000- 2
66 3018	1.4200+ 1	2.0000- 1	8.6600- 1	7.8000- 2	65 1777	1.4600+ 1	2.0000- 1	8.7800- 1	7.9020- 2
66 3018	1.4200+ 1	2.0000- 1	8.4000- 1	6.5000- 2	68 2596	1.4700+ 1	7.5000- 2	8.6600- 1	3.5000- 2
65 1777	1.4200+ 1	2.0000- 1	9.3700- 1	8.4330- 2	64 1848	1.4700+ 1	1.5000- 1	1.0000+ 0	1.2500- 2
61 676	1.4400+ 1	3.0000- 1	9.5910- 1	8.0010- 2	69 3351	1.4700+ 1	2.0000- 1	9.5300- 1	5.4000- 2
60 629	1.4500+ 1	5.0000- 1	1.0300+ 0	9.5000- 2	62 872	1.4770+ 1	2.5000- 1	9.9500- 1	7.0000- 2
61 588	1.4500+ 1	2.0000- 1	9.3810- 1	3.0000- 2	59 662	1.4800+ 1	9.0010- 1	9.5410- 1	1.3000- 1
53 27	1.4500+ 1		1.0850+ 0	1.7000- 1	60 628	1.5000+ 1		8.6910- 1	1.0400- 1

03/01/74

N,N'P

29-CU-65

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 2053	1.4000+ 1		2.5000- 1	2.5000- 2
57 217	1.4000+ 1		4.0000- 2	8.0010- 3

03/01/74

N,N'ALPHA

29-CU-65

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 757	1.4500+ 1	9.0000- 1	2.3000- 3	1.3000- 3
62 88	1.4700+ 1	1.5000- 1	2.8000- 3	3.0000- 4
63 756	1.4800+ 1	2.0000- 1	2.9000- 3	8.0010- 4

03/01/74

N,X GAMMA

29-CU-65

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
67 1897	1.1900+ 0		1.0700- 1	2.3000- 2	1.1140+ 0	65 1023	1.3000+ 0	3.0000- 2	1.2000- 1		1.1140+ 0
65 1023	1.2000+ 0	3.0000- 2	1.0000- 1		1.1140+ 0	67 1897	1.2800+ 0		2.9100- 1	6.1000- 2	1.1140+ 0
67 1897	1.2800+ 0		1.6500- 1	3.6000- 2	1.1140+ 0						

03/01/74

N,P
CROSS SECTION

29-CU-65

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
56	278	1.4000+	1	2.0000- 2	63	756	1.4800+	1	2.0000- 1		
52	84	1.4100+	1	1.9000- 2	3.8000- 3	59	662	1.4800+	1	9.0010- 1	
60	837	1.4100+	1	1.0000- 1	2.5700- 1	5.0000- 2	60	598	1.4800+	1	
61	651	1.4100+	1	2.9000- 2	5.0000- 3	58	531	1.4800+	1	3.1000- 2	
67	3307	1.4100+	1	1.8000- 1	1.9000- 2	2.0000- 3	61	660	1.4800+	1	2.9000- 2
64	1848	1.4700+	1	1.5000- 1	2.6000- 2	1.5000- 3	67	3307	1.4800+	1	2.0000- 2
67	2005	1.4800+	1	2.0000- 2	2.0000- 3	60	628	1.5000+	1	1.7000- 2	

03/01/74

N,HE-3

29-CU-65

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	538	1.4800+	1	9.0010- 1
			4.0000- 3	1.0000- 3

03/01/74

N,ALPHA

29-CU-65

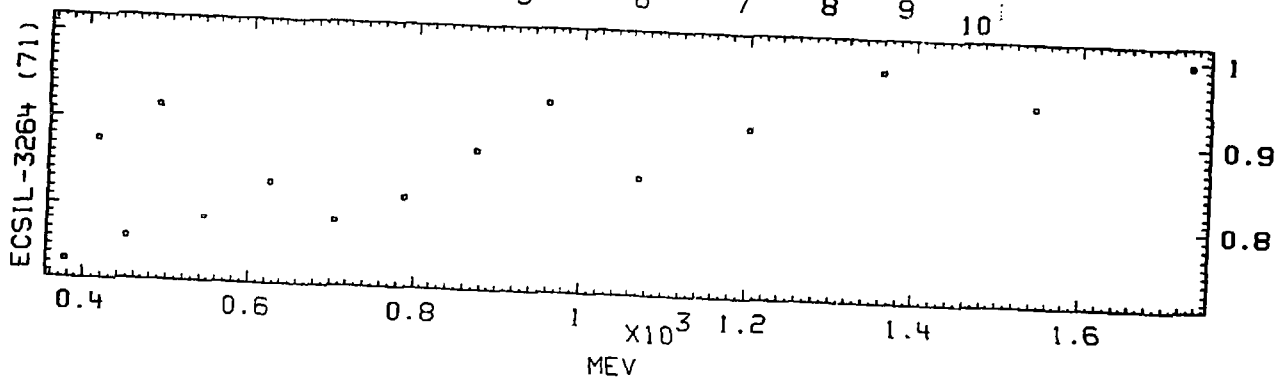
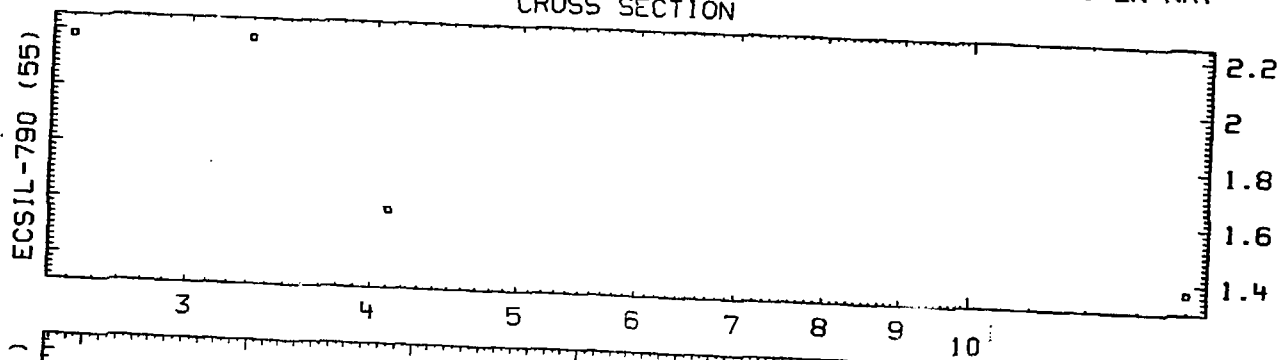
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	598	1.4800+	1	9.0010- 1
			2.1000- 2	7.0010- 3
63	756	1.4800+	1	2.0000- 1
			1.4000- 2	1.0000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES				
63	756	1.4800+	1	2.0000- 1	1.9000- 3	6.0010- 4	1.6000+ 0	62	88	1.4700+	1	1.5000- 1	7.5010- 3	2.0000- 3	1.3900+ 1
66	1768	1.4100+	1	1.5000- 1	4.8000- 3	1.4000- 3	1.3900+ 1	63	756	1.4800+	1	2.0000- 1	1.4000- 2	1.0000- 2	1.3900+ 1

03/01/74

NONELASTIC
CROSS SECTION

30-ZN-NAT

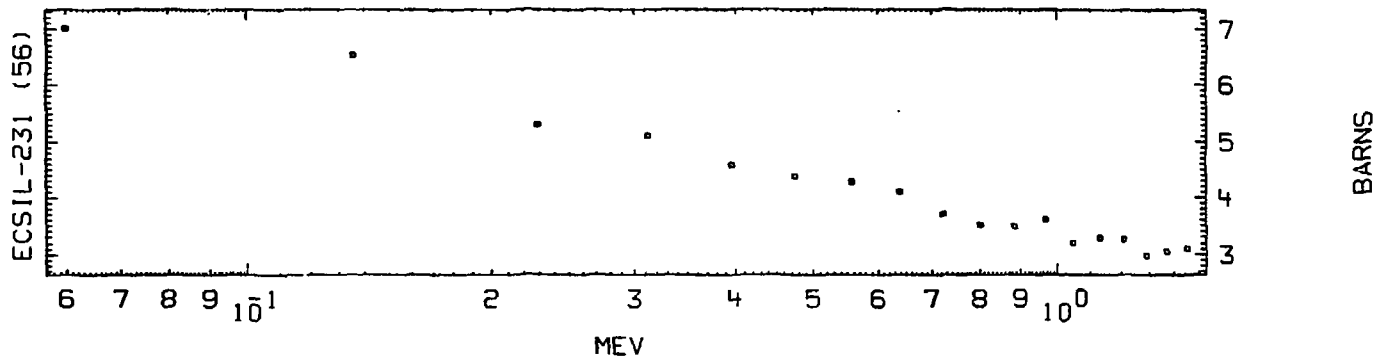


BARNs

03/01/74

TOTAL SCATTERING
CROSS SECTION

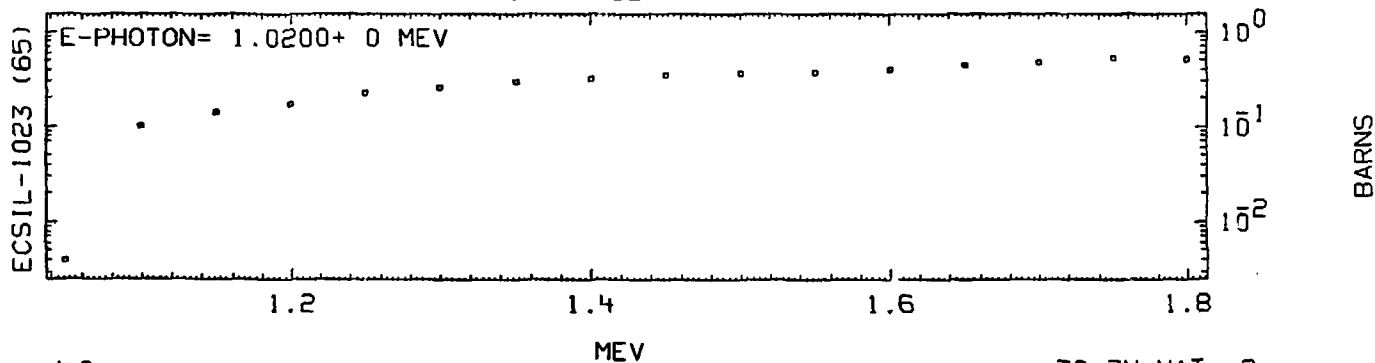
30-ZN-NAT



03/01/74

N,X GAMMA
CROSS SECTION

30-ZN-NAT



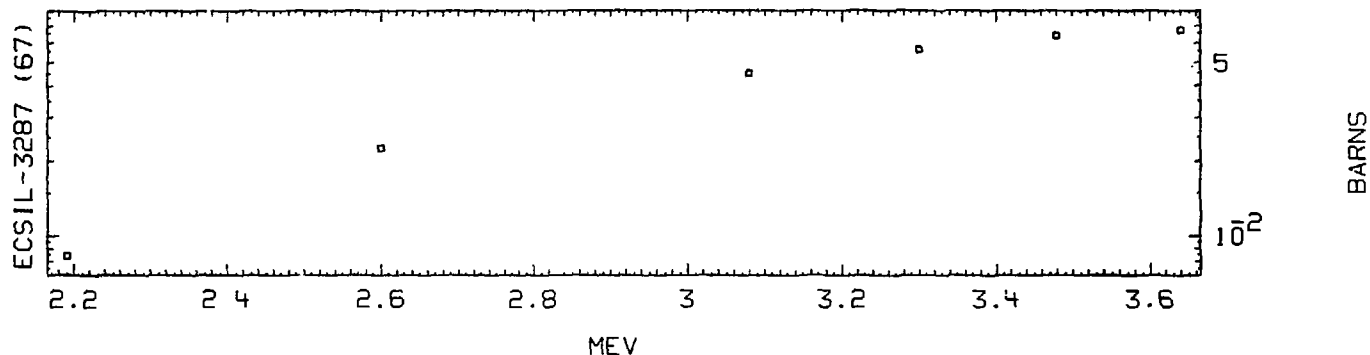
4-2

30-ZN-NAT -2

03/01/74

N,P
CROSS SECTION

30-ZN-NAT



03/01/74

NONELASTIC

30-ZN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
54	103	1.0000+ 0	5.0000- 2	3.0000- 1	1.0000- 1	55	122	4.5000+ 0	7.0010- 2	1.8100+ 0	1.0000- 1
56	34	2.5000+ 0		1.8800+ 0	1.5000- 1	56	151	7.0000+ 0	2.0000- 1	1.6100+ 0	1.0000- 1
56	151	2.5000+ 0	4.0000- 2	1.3000+ 0	1.0000- 1	56	117	1.4100+ 1		1.4600+ 0	3.0000- 2
59	559	3.6600+ 0	2.0000- 1	1.8400+ 0	2.0000- 1	57	319	1.4200+ 1	1.5000- 1	1.5800+ 0	3.0000- 2
55	122	4.0000+ 0	7.0010- 2	1.6900+ 0	5.0000- 2	56	200	1.4500+ 1		1.5800+ 0	2.0000- 2
55	296	4.1000+ 0	4.0000- 2	1.7000+ 0	2.0000- 1						

03/01/74

N,2N

30-ZN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	1821	1.4100+ 1	5.5000- 1	5.0000- 2

03/01/74

ABSORPTION
CROSS SECTION

30-ZN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1162	2.5300- 8		1.0900+ 0	2.0000- 2	58 364	2.2000- 1	2.0000- 2	2.1000- 2	2.0000- 3
58 364	2.4000- 2	2.0000- 3	2.9000- 2	2.0000- 3	58 364	8.3000- 1	4.0000- 2	1.8000- 2	3.0000- 3
65 1364	2.4000- 2		6.4000- 2	7.0000- 3					

03/01/74

N, X GAMMA

30-ZN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
54 113	3.2000+ 0	2.0000- 1	1.3000+ 0	2.6000- 1	1.0200+ 0
54 113	3.2000+ 0	2.0000- 1	3.0000- 2	6.0000- 3	1.3000+ 0
54 113	3.2000+ 0	2.0000- 1	2.0000- 2	4.0000- 3	1.5000+ 0

03/01/74

N, X P

30-ZN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 688	1.4400+ 1	2.0000- 1	1.7000- 1	2.0000- 2

03/01/74

BOUND ATOM

30-ZN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		4.2000+ 0	

03/01/74

COHERENT SCATTERING

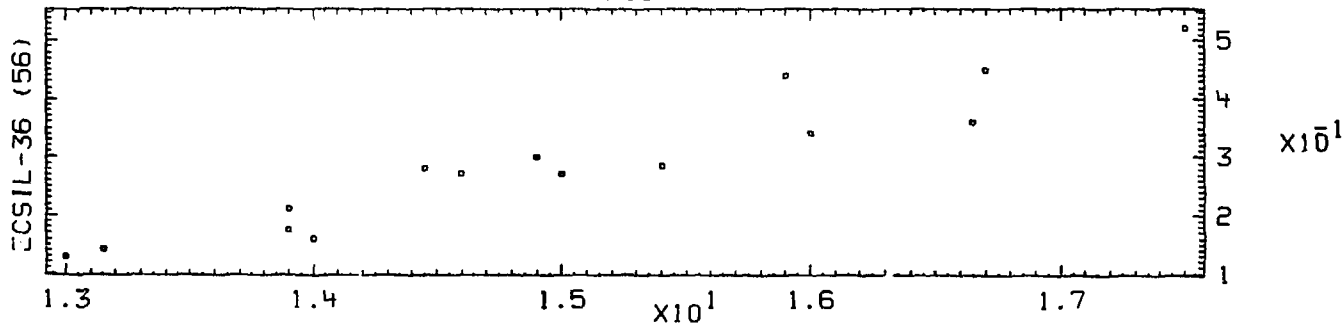
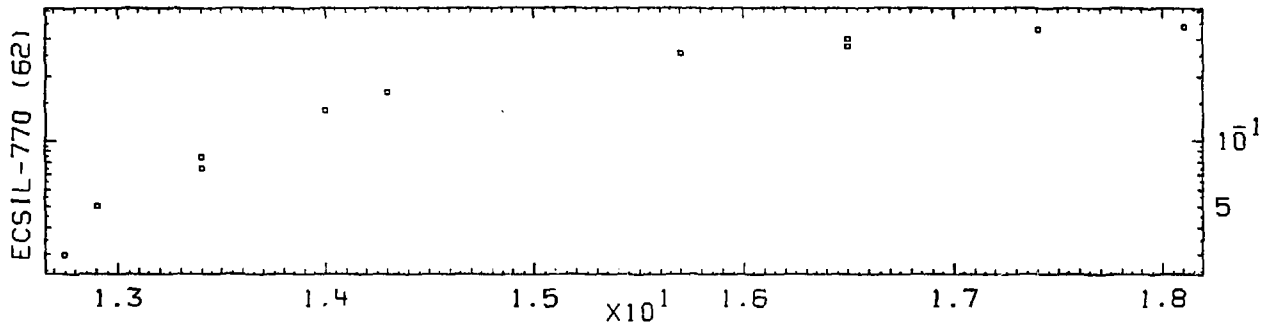
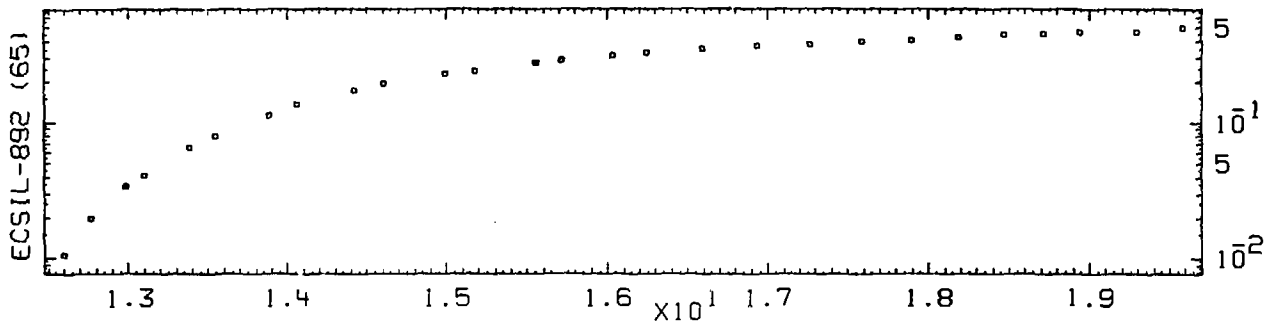
30-ZN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		4.3000+ 0	3.4400- 1

03/01/74

N,2N
CROSS SECTION

30-ZN-64

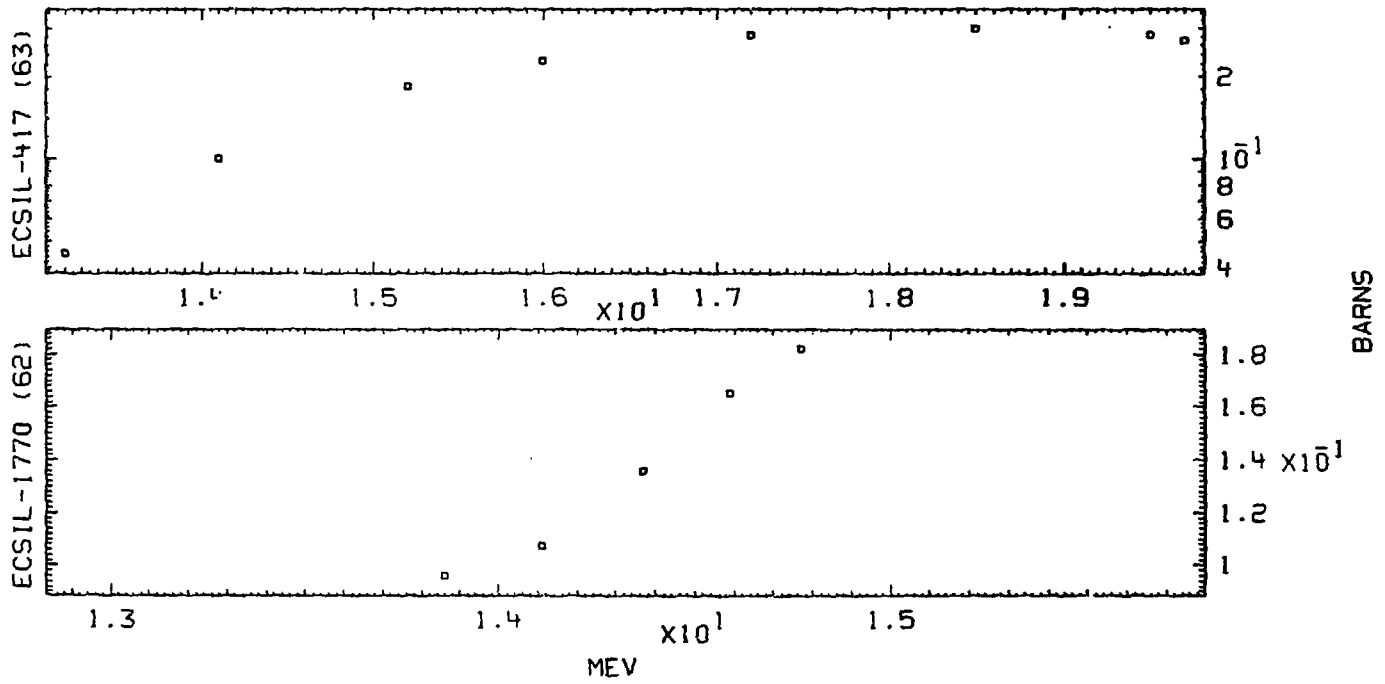


BARNs

03/01/74

N,2N
CROSS SECTION

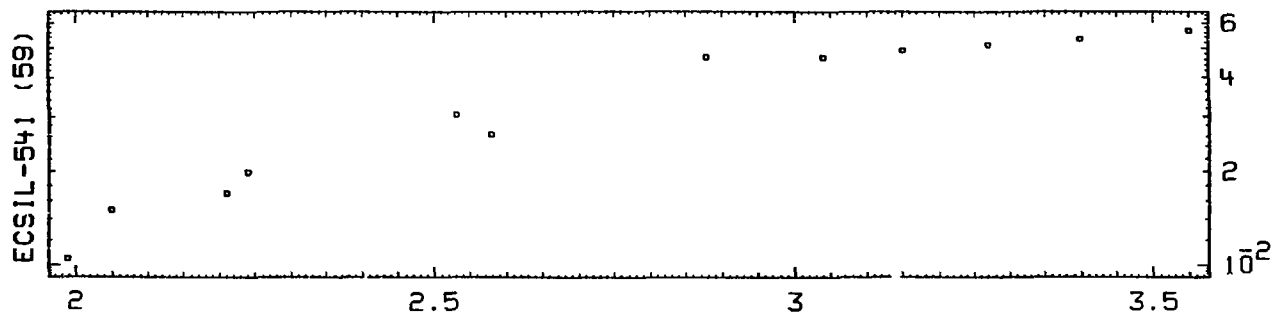
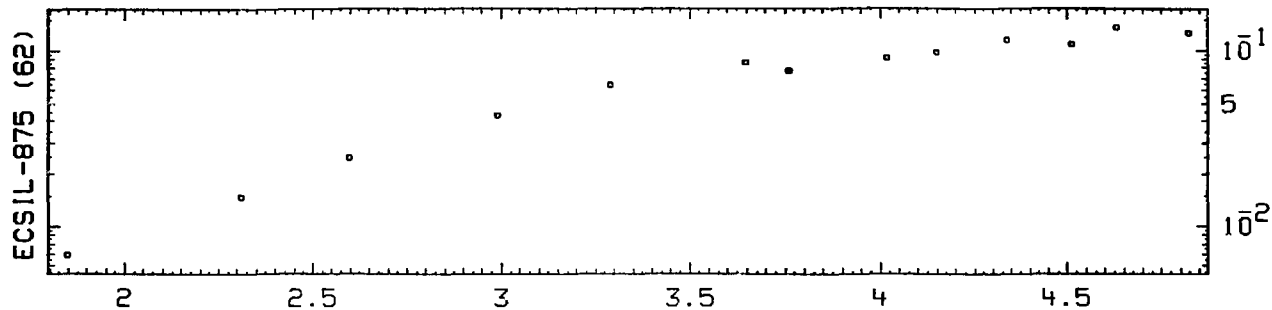
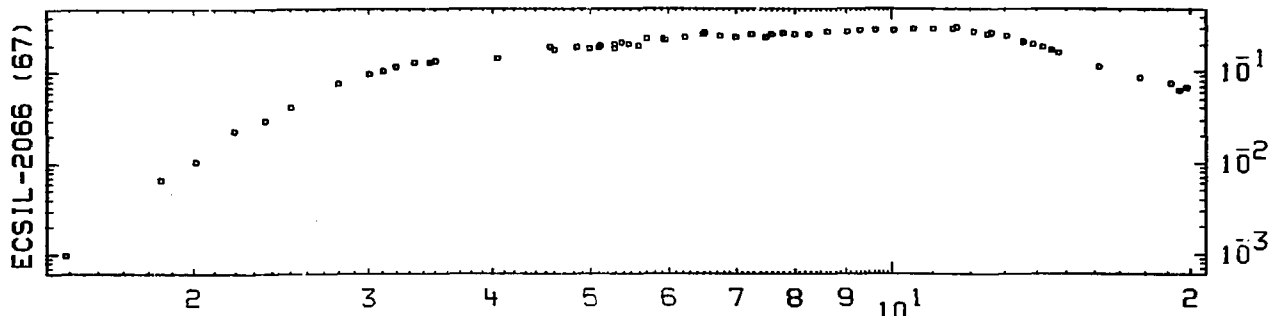
30-ZN-64



03/01/74

N,P
CROSS SECTION

30-ZN-64



BARNs

4-7

MEV

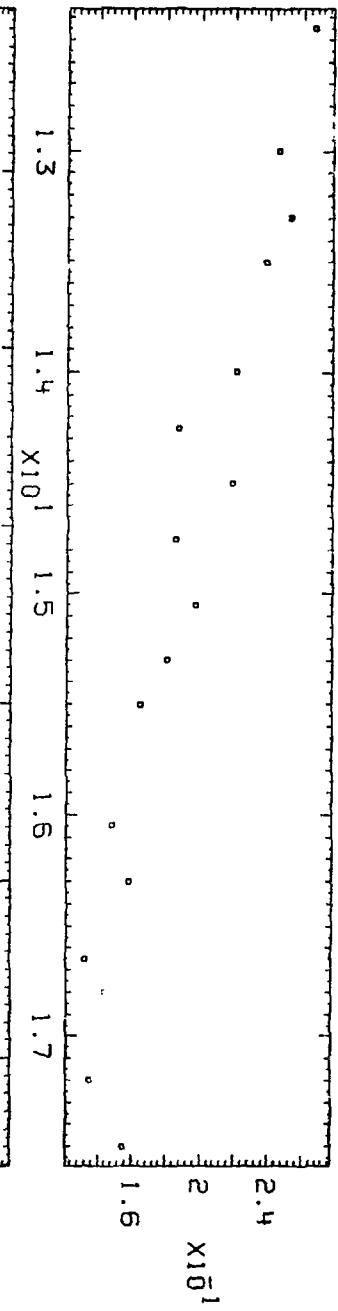
30-ZN-64 -3

03/01/74

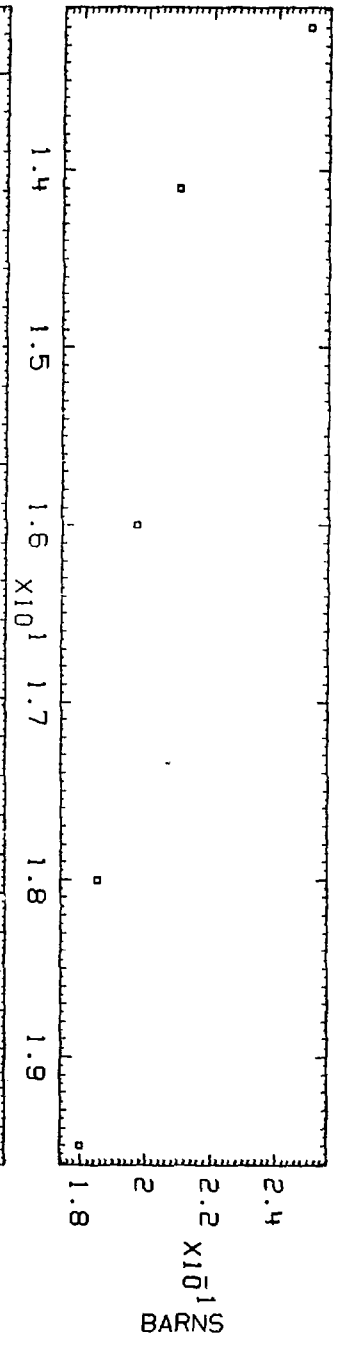
N, P
CROSS SECTION

30-ZN-64

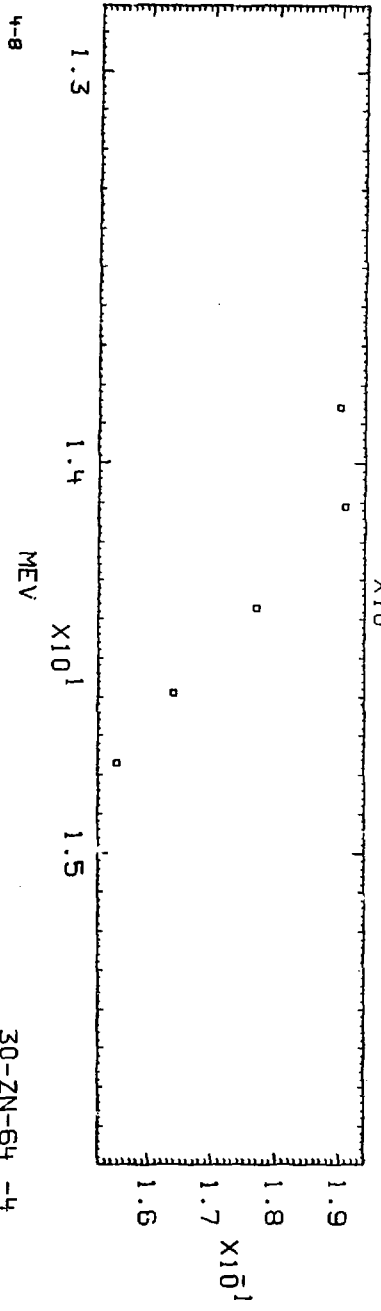
ECSIL-806 (62)



ECSIL-417 (63)



ECSIL-1770 (62)



4-8

30-ZN-64 -4

03/01/74

N, 2N
CROSS SECTION

30-ZN-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
59	601 1.3500+	1 3.0000-	1 6.5010-	2 6.0010-	3	67	2009 1.4700+	1	2.2500-	1 2.5000-	2
58	425 1.4000+	1	1.5900-	1	67	2368 1.4800+	1 1.0000-	1 1.0200-	1 1.0000-	2	
62	108 1.4130+	1 1.0000-	1 1.0500-	1 7.0010-	3	58	598 1.4800+	1 9.0000-	1 2.5400-	1 2.0000-	2
57	535 1.4140+	1 1.8000-	1 1.1900-	1 1.4000-	2	63	756 1.4800+	1 2.0000-	1 1.5300-	1 3.6000-	2
68	2695 1.4400+	1 3.0000-	1 1.5000-	1 1.2000-	2	66	2058 1.4800+	1 1.0000-	1 1.6500-	1 1.6000-	5
61	676 1.4400+	1 3.0000-	1 1.6700-	1 1.3000-	2	67	2009 1.5000+	1	2.8800-	1 4.3200-	2
53	27 1.4500+	1	2.2400-	1 4.4800-	2	59	601 1.5600+	1 3.0000-	1 2.2500-	1 2.0000-	2
65	1672 1.4600+	1 1.0000-	1 2.0000-	1 1.3000-	2	59	601 1.6400+	1 4.0000-	1 2.6000-	1 2.5000-	2

03/01/74

N, N'P

30-ZN-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
61	361 1.4000+	1	2.8100-	1 1.8000-	2

03/01/74

N, N' ALPHA

30-ZN-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
66	2894 1.4100+	1 1.0000-	1 7.3000-	2 7.0000-	3

03/01/74

N, P

30-ZN-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
61	655 2.6000+	0 2.0000-	1 2.6500-	2 2.0000-	3	53	27 1.4500+	1	3.8600-	1 5.8010-	2
61	651 3.3000+	0 1.0000-	1 5.1510-	2 5.0000-	3	69	2354 1.4600+	1 2.0000-	1 1.4700-	1 1.0000-	2
61	651 3.6000+	0 1.0000-	1 5.6510-	2 4.0000-	3	67	2005 1.4800+	1	1.5400-	1 1.0000-	2
63	323 1.4000+	1	2.1000-	1 4.0000-	2	60	598 1.4800+	1 9.0010-	1 2.8400-	1 2.0000-	2
61	361 1.4000+	1	1.7900-	1 1.8000-	2	63	756 1.4800+	1 2.0000-	1 2.3000-	1 3.0000-	2
60	837 1.4100+	1 1.0000-	1 3.4400-	1 6.8010-	2	66	3380 1.4800+	1 2.0000-	1 2.0400-	1 1.5000-	2
68	2695 1.4400+	1 3.0000-	1 2.1000-	1 2.0000-	2	60	837 1.5700+	1 1.0000-	1 3.0000-	2 6.0010-	3

03/01/74

N, X P
CROSS SECTION

30-ZN-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 25	1.4000+ 1		5.9000- 1	7.5000- 2

03/01/74

N, T

30-ZN-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2708	1.4700+ 1		1.5000- 4	1.0000- 5

03/01/74

N, ALPHA

30-ZN-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
69 2710	1.4600+ 1		6.6000- 3	2.0000- 3	0.0000+ 0

03/01/74

N, X ALPHA

30-ZN-64

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2894	1.4100+ 1	1.0000- 1	1.6800- 1	1.6000- 2

03/01/74

N, 2N

30-ZN-66

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2009	1.4200+ 1		5.5000- 1	8.2500- 2
68 2695	1.4400+ 1	3.0000- 1	6.5000- 1	1.5000- 1

03/01/74

N, N'P

30-ZN-66

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 361	1.4000+ 1		5.0000- 2	4.0000- 3

03/01/74

N,P
CROSS SECTION

30-ZN-66

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 843	1.3200+ 1	6.0010- 1	7.4410- 2	9.7010- 3	68 2695	1.4400+ 1	3.0000- 1	6.5000- 2	6.0000- 3
56 278	1.4000+ 1		8.0010- 2		53 27	1.4500+ 1		1.0100- 1	1.7000- 2
63 323	1.4000+ 1		7.5010- 2	1.0000- 2	67 2005	1.4800+ 1		6.7000- 2	1.0000- 2
61 361	1.4000+ 1		3.4000- 2	4.0000- 3	60 598	1.4800+ 1	9.0010- 1	7.7010- 2	1.0000- 2
57 535	1.4140+ 1	1.8000- 1	6.0010- 2	7.0010- 3					

03/01/74

N,P

30-ZN-67

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 655	3.3000+ 0	2.0000- 1	5.0000- 3		63 323	1.4000+ 1		4.8000- 2	8.0010- 3
61 361	1.4000+ 1		4.1000- 2	7.0010- 3	67 2005	1.4800+ 1		4.3000- 2	1.0000- 2

03/01/74

N,2N

30-ZN-68

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 3374	1.4000+ 1		5.3000- 1	1.0000- 1

03/01/74

N,P

30-ZN-68

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2695	1.4400+ 1	3.0000- 1	8.0000- 3	1.0000- 3
60 598	1.4800+ 1	9.0010- 1	2.5000- 2	1.0600- 2

03/01/74

N,ALPHA

30-ZN-68

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 131	1.4000+ 1		7.6000- 3	8.0000- 4	67 2005	1.4800+ 1		1.0000- 2	1.0000- 3
58 401	1.4050+ 1	5.5010- 1	7.6010- 3	8.0010- 4	63 756	1.4800+ 1	2.0000- 1	1.8000- 2	5.0000- 3
68 2695	1.4400+ 1	3.0000- 1	9.0000- 3	1.0000- 3	60 598	1.4800+ 1	9.0010- 1	5.1010- 2	1.0000- 2

03/01/74

N,2N
CROSS SECTION

30-ZN-70

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1672	1.2200+ 1		1.0800+ 0	1.6200- 1
67 2009	1.4700+ 1		1.3070+ 0	1.3000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
68 2695	1.4400+ 1	3.0000- 1	6.0000- 1	4.0000- 2	1.3800+ 1

03/01/74

N,N' ALPHA

30-ZN-70

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 756	1.4800+ 1	2.0000- 1	8.9010- 4	4.0000- 4

03/01/74

N,N'

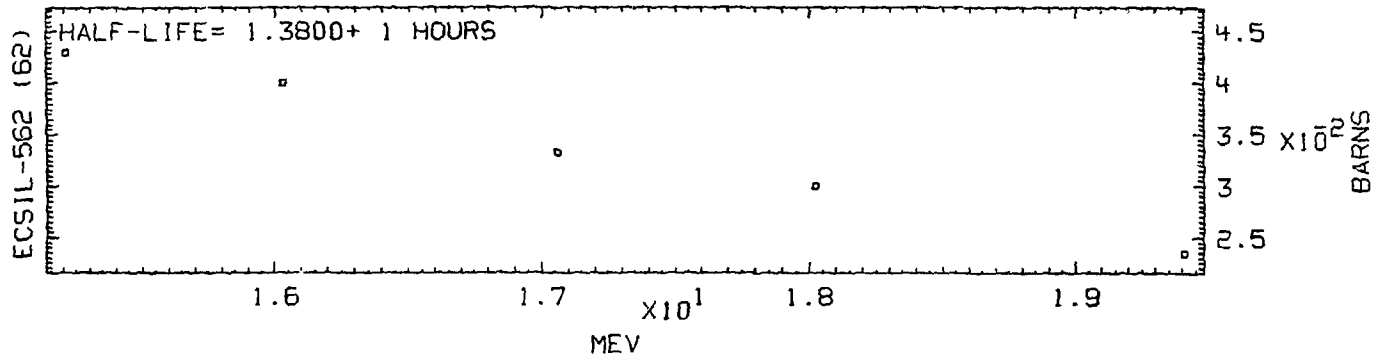
30-ZN-74

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
70 2763	1.7500+ 0	5.5000- 2	7.6500- 1			70 2763	2.5500+ 0	5.5000- 2	1.5100- 1		1.4640+ 0
70 2763	2.1300+ 0	5.5000- 2	6.8800- 1		5.9600- 1	70 2763	1.7500+ 0	5.5000- 2	5.4000- 2		1.4840+ 0
70 2763	2.5500+ 0	5.5000- 2	6.7200- 1		5.9600- 1	70 2763	2.1500+ 0	5.5000- 2	9.2000- 2		1.4840+ 0
70 2763	1.7500+ 0	5.5000- 2	3.4100- 1		1.2050+ 0	70 2763	2.5500+ 0	5.5000- 2	1.2300- 1		1.4840+ 0
70 2763	2.1300+ 0	5.5000- 2	3.1500- 1		1.2050+ 0	70 2763	1.7500+ 0	5.5000- 2	1.0000- 2		1.6980+ 0
70 2763	2.5500+ 0	5.5000- 2	3.7700- 1		1.2050+ 0	70 2763	2.1300+ 0	5.5000- 2	1.2900- 1		1.6980+ 0
70 2763	1.7500+ 0	5.5000- 2	6.5000- 2		1.4640+ 0	70 2763	2.5500+ 0	5.5000- 2	2.3800- 1		1.6980+ 0
70 2763	2.1300+ 0	5.5000- 2	1.0900- 1		1.4640+ 0	70 2763	2.5500+ 0	5.5000- 2	1.6000- 2		2.1980+ 0

03/01/74

N,P
CROSS SECTION

31-GA-69



03/01/74

N,2N

31-GA-69

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 108	1.4130+ 1	1.0000- 1	7.3510- 1	4.4000- 2	67 2368	1.4800+ 1	1.0000- 1	9.8300- 1	1.5000- 1
61 676	1.4400+ 1	3.0000- 1	9.2310- 1	6.9010- 2	61 703	1.4800+ 1	2.5000- 1	1.0700+ 0	1.1000- 1
53 27	1.4500+ 1		5.5210- 1	1.7000- 1	66 2058	1.4800+ 1	1.0000- 1	9.5000- 1	9.5000- 5
67 2009	1.4700+ 1	3.0000- 1	1.0880+ 0	1.0000- 1					

03/01/74

N,P

31-GA-69

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
67 2005	1.4800+ 1		1.0000- 2	1.5000- 3	5.2500+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
67 2005	1.4800+ 1		2.3600- 2	3.0000- 3	1.3900+ 1
53 27	1.4500+ 1		2.4200- 2	1.9000- 2	1.4000+ 1

03/01/74

N, ALPHA
CROSS SECTION

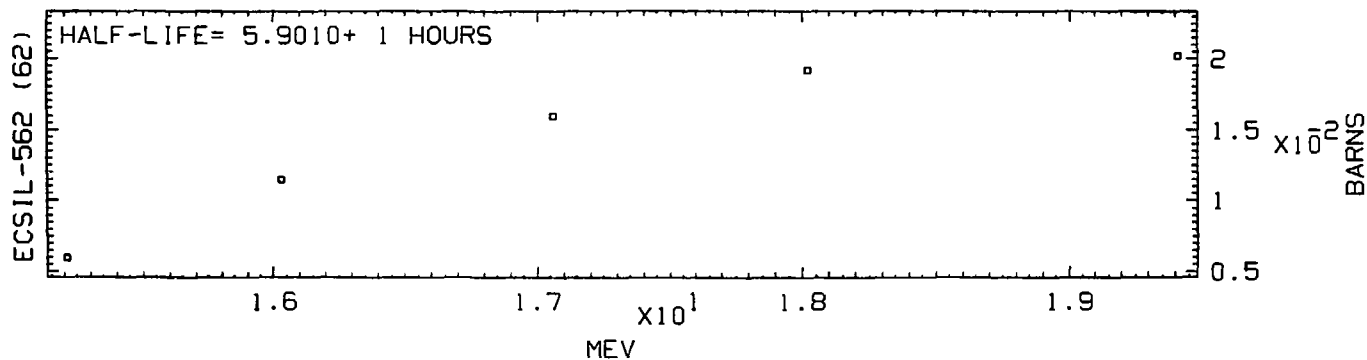
31-GA-69

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+ 1		1.0500- 1	5.7010- 2
67 2005	1.4800+ 1		1.8000- 2	2.0000- 3

03/01/74

N, N' ALPHA
CROSS SECTION

31-GA-71



03/01/74

N, 2N

31-GA-71

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1672	1.2320+ 1		8.0600- 1	1.2100- 1	67 2009	1.4700+ 1	3.0000- 1	9.6100- 1	1.0000- 1
53 27	1.4500+ 1		7.0010- 1	1.1000- 1	61 703	1.4800+ 1	2.5000- 1	2.1800+ 0	2.2000- 1

03/01/74

N,N'ALPHA
CROSS SECTION

31-GA-71

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 756	1.4800+ 1	2.0000- 1	2.1000- 3	1.8000- 3

03/01/74

N,P

31-GA-71

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
67 2005	1.4800+ 1		5.4000- 3	1.2000- 3	2.3000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
67 2005	1.4800+ 1		1.1000- 2	1.5000- 3	3.9200+ 0

03/01/74

N,ALPHA

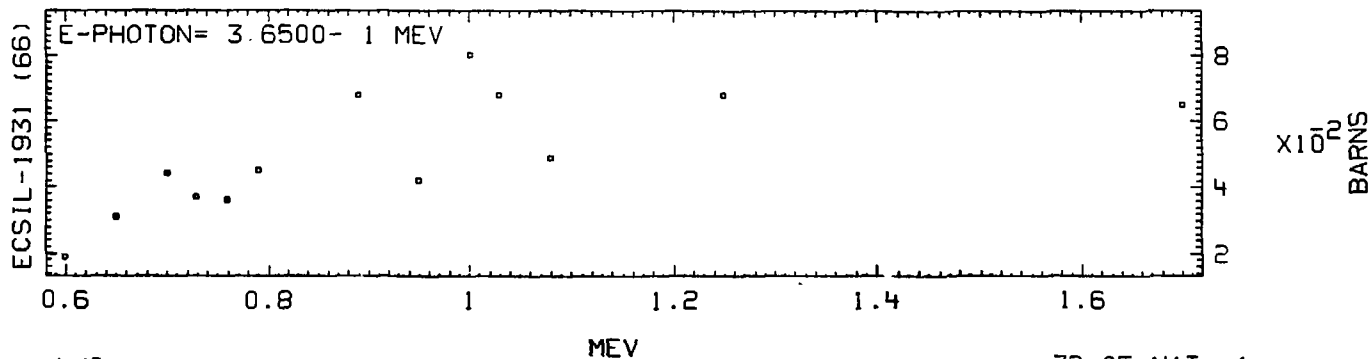
31-GA-71

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2142	1.4800+ 1		6.0000- 2	4.0000- 3

03/01/74

N,N'
CROSS SECTION

32-GE-NAT



4-15

32-GE-NAT -1

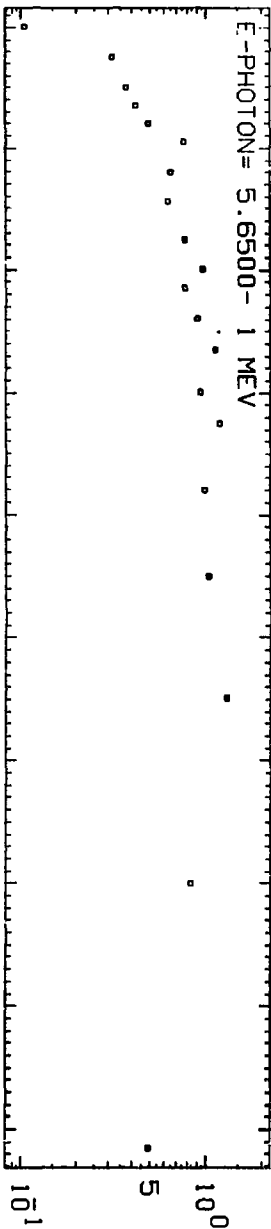
03/01/74

N,N'

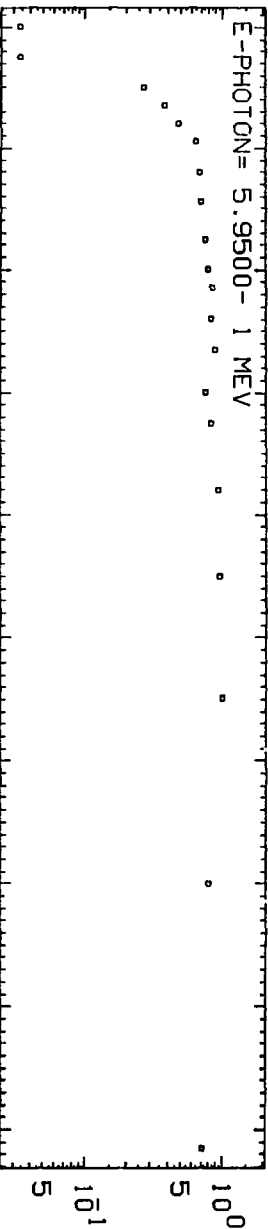
32-GE-NAT

CROSS SECTION

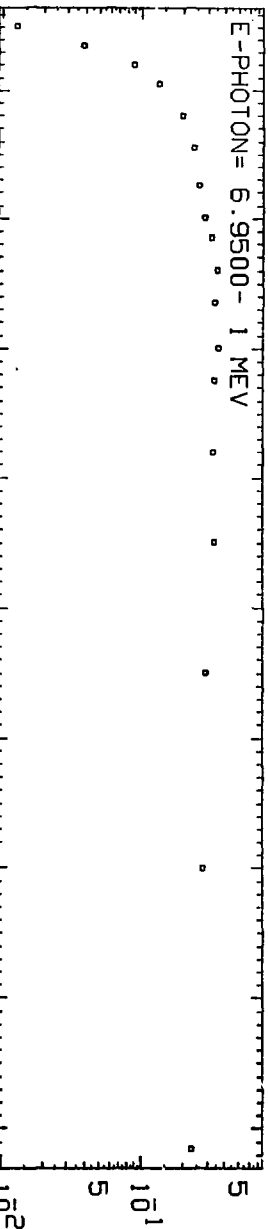
ECSIL-1931 (66)



ECSIL-1931 (66)



ECSIL-1931 (66)



4-16

MEV

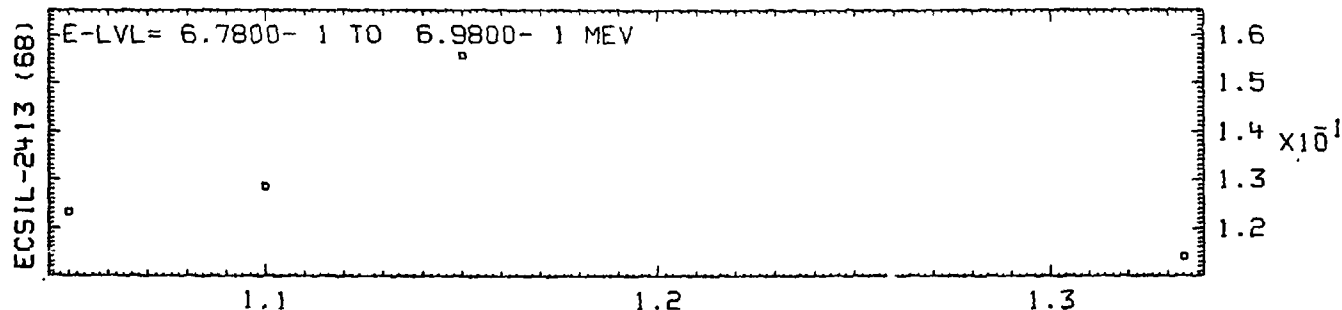
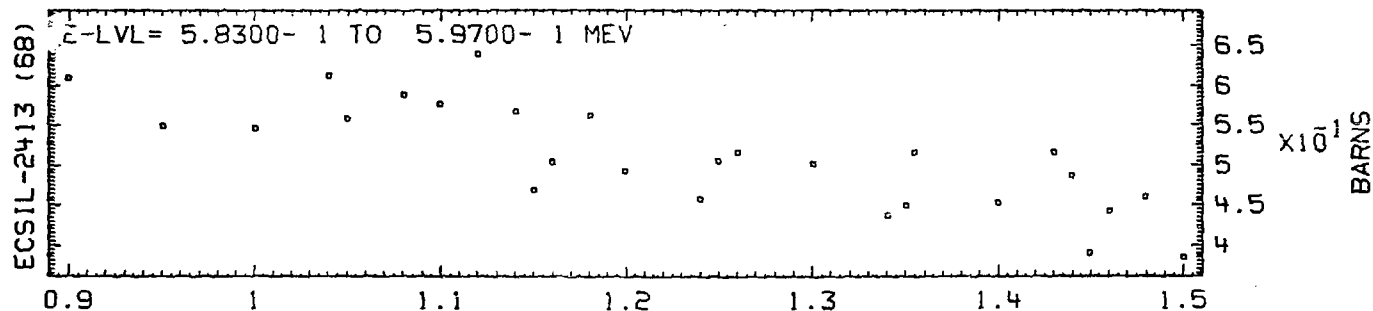
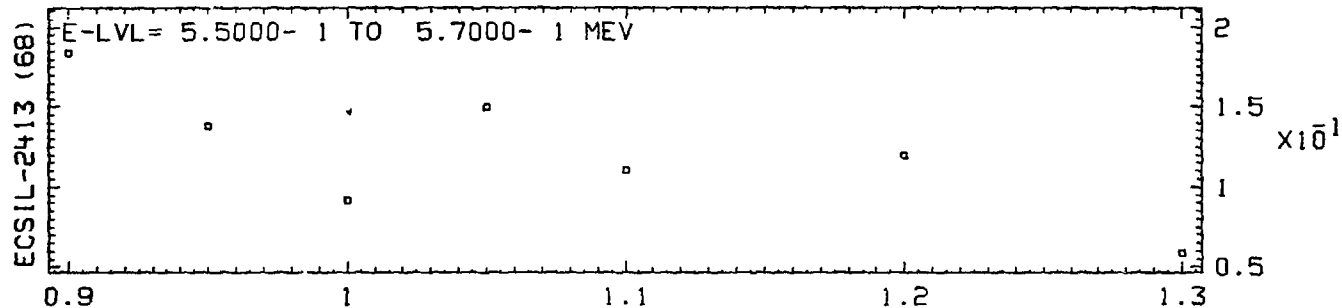
32-GE-NAT -2

BARNs

03/01/74

N,N'
CROSS SECTION

32-GE-NAT



4-17

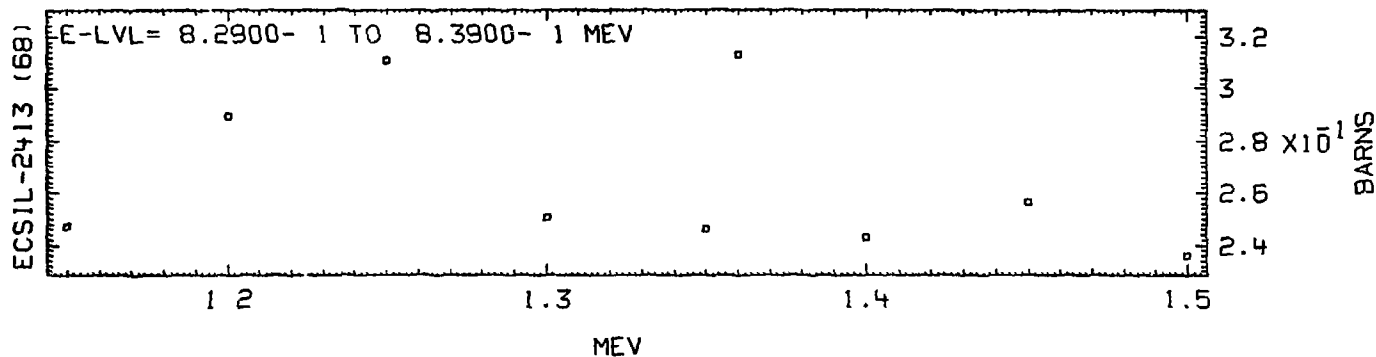
MEV

32-GE-NAT -3

03/01/74

N,N'
CROSS SECTION

32-GE-NAT



03/01/74

N,N'

32-GE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
69 2850	7.5500+ 0	1.3000- 1	1.6800+ 0	1.7000- 1	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
66 1931	1.0800+ 0	5.0000- 2	5.2000- 2		1.0400+ 0
66 1931	1.1300+ 0	5.0000- 2	1.1200- 1		1.0400+ 0
66 1931	1.2000+ 0	5.0000- 2	1.4200- 1		1.0400+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
68 2413	1.4000+ 0	2.0000- 2	1.8450- 1	2.0120- 2	1.0400+ 0	1.0600+ 0
68 2413	1.4500+ 0	2.0000- 2	1.9830- 1	2.1390- 2	1.0400+ 0	1.0600+ 0
68 2413	1.5000+ 0	2.0000- 2	1.9330- 1	1.6330- 2	1.0400+ 0	1.0600+ 0

03/01/74

N,X CHARGED PARTICLE
CROSS SECTION

32-GE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
59 829	1.4500+ 1		3.0000- 4	1.6000- 2

03/01/74

BOUND ATOM

32-GE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		8.5000+ 0	6.8000- 1

03/01/74

COHERENT SCATTERING

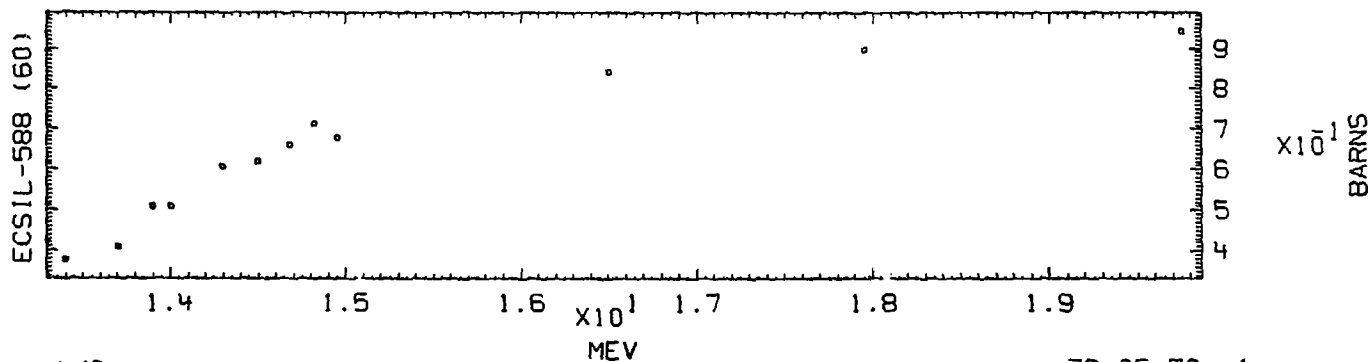
32-GE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		8.8000+ 0	7.0400- 1

03/01/74

N,2N
CROSS SECTION

32-GE-70



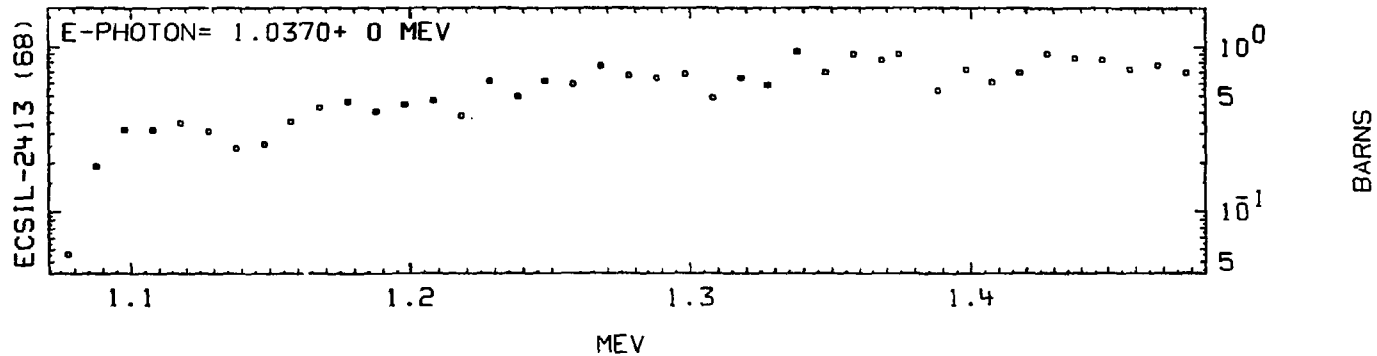
4-19

32-GE-70 -1

03/01/74

N, X GAMMA
CROSS SECTION

32-GE-70



03/01/74

N, N'

32-GE-70

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
70 2763	1.7500+ 0	5.5000- 2	6.8200- 1			70 2763	2.1300+ 0	5.5000- 2	1.9700- 1		1.7090+ 0
70 2763	2.1300+ 0	5.5000- 2	7.0900- 1		1.0400+ 0	70 2763	2.5500+ 0	5.5000- 2	3.1700- 1		1.7090+ 0
70 2763	2.5500+ 0	5.5000- 2	9.3300- 1		1.0400+ 0						

03/01/74

N, 2N

32-GE-70

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 676	1.4400+ 1	3.0000- 1	5.9810- 1	4.5000- 2
53 27	1.4500+ 1		6.6670- 1	2.3000- 1
61 703	1.4800+ 1	5.0000- 1	1.6000+ 0	2.4000- 1

03/01/74

N, X GAMMA

32-GE-70

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
70 2763	2.1300+ 0	5.5000- 2	1.0500- 1	1.1000- 2	6.6800- 1	70 2763	1.7500+ 0	5.5000- 2	6.8200- 1	6.8000- 2	1.0410+ 0
70 2763	2.5500+ 0	5.5000- 2	1.5400- 1	1.6000- 2	6.6800- 1	70 2763	2.1300+ 0	5.5000- 2	8.1400- 1	8.1000- 2	1.0410+ 0

03/01/74

N,X GAMMA
CROSS SECTION

32-GE-70

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
70 2763	2.5500+ 0	5.5000- 2	1.0870+ 0	1.1800- 1	1.0410+ 0
70 2763	2.1300+ 0	5.5000- 2	9.2000- 2		1.7090+ 0
70 2763	2.5500+ 0	5.5000- 2	1.6300- 1	1.6000- 2	1.7090+ 0

03/01/74

N,P

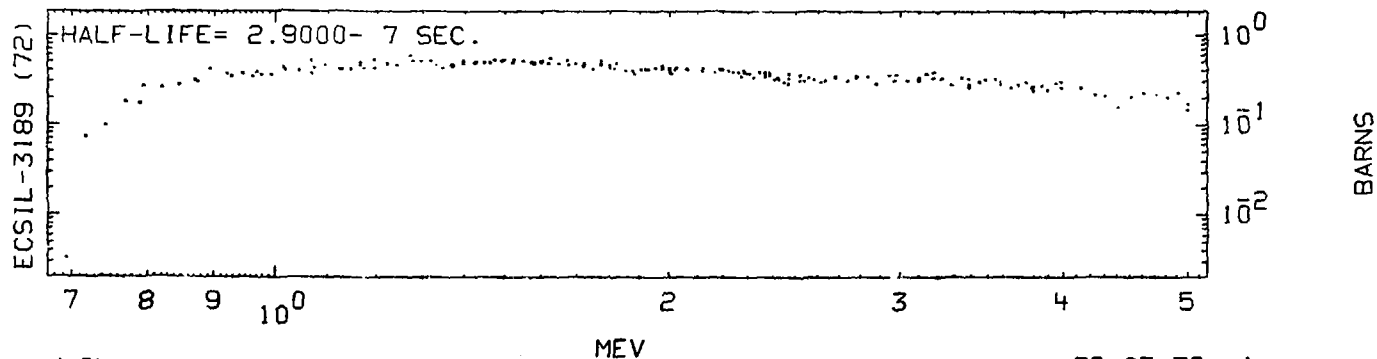
32-GE-70

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 278	1.4000+ 1		9.3010- 2	
53 27	1.4500+ 1		1.2900- 1	6.5010- 2
67 2005	1.4800+ 1		7.7000- 2	1.6000- 2

03/01/74

N,N'
CROSS SECTION

32-GE-72



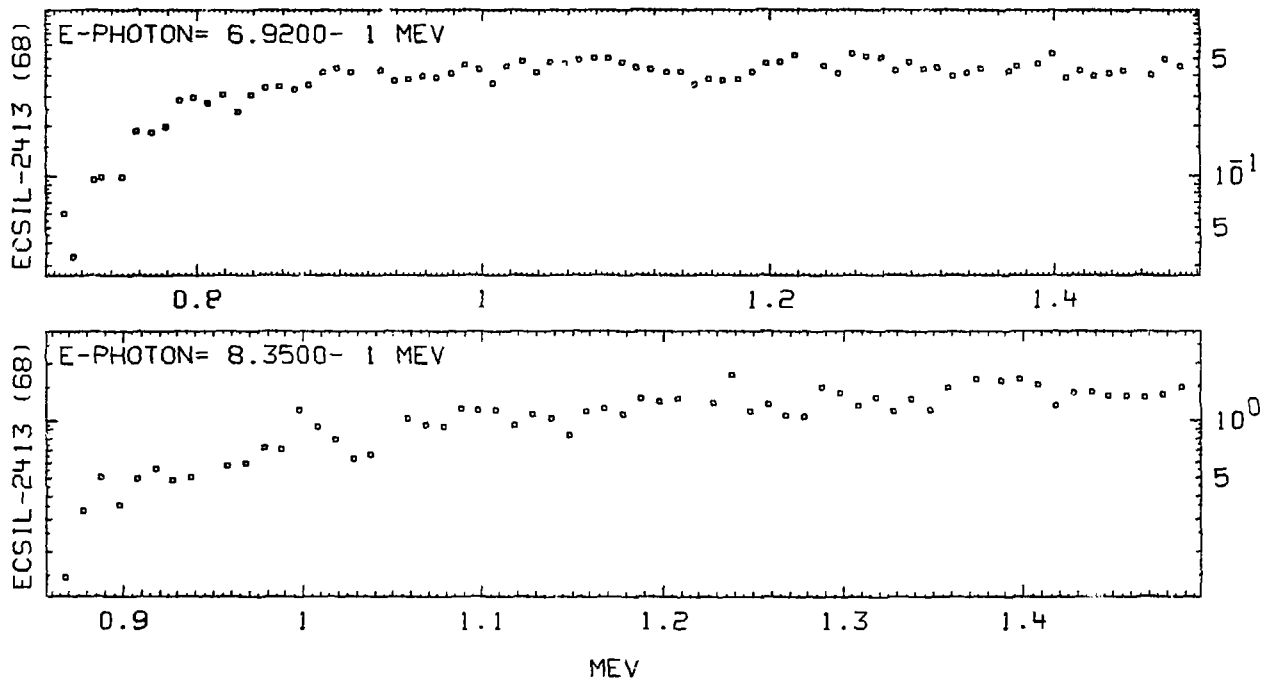
4-21

32-GE-72 -1

03/01/74

N,X GAMMA
CROSS SECTION

32-GE-72



03/01/74

N,N'

32-GE-72

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
70 2763	1.7500+ 0	5.5000- 2	6.6200- 1			70 2763	2.5500+ 0	5.5000- 2	4.9100- 1		1.4650+ 0
70 2763	2.1300+ 0	5.5000- 2	6.4500- 1		8.3400- 1	70 2763	2.1300+ 0	5.5000- 2	4.5000- 2		1.7300+ 0
70 2763	2.5500+ 0	5.5000- 2	6.6000- 1		8.3400- 1	70 2763	2.5500+ 0	5.5000- 2	8.3000- 2		1.7300+ 0
70 2763	1.7500+ 0	5.5000- 2	1.8200- 1		1.4650+ 0	70 2763	2.5500+ 0	5.5000- 2	2.2000- 2		2.0650+ 0
70 2763	2.1300+ 0	5.5000- 2	2.9400- 1		1.4650+ 0						

4-22

32-GE-72 -2

03/01/74

N,2N
CROSS SECTION

32-GE-72

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE SECONDS
69 2910	1.4800+ 1		4.8700- 1	5.0000- 2	2.0000- 2

03/01/74

N,X GAMMA

32-GE-72

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
70 2763	1.7500+ 0	5.5000- 2	1.6500- 1	1.7000- 2	6.3000- 1	70 2763	2.1300+ 0	5.5000- 2	4.5000- 2	5.0000- 3	8.9500- 1
70 2763	2.1300+ 0	5.5000- 2	2.4800- 1	2.5000- 2	6.3000- 1	70 2763	2.5500+ 0	5.5000- 2	8.3000- 2	9.0000- 3	8.9500- 1
70 2763	2.5500+ 0	5.5000- 2	4.0600- 1	4.1000- 2	6.3000- 1	70 2763	2.5500+ 0	5.5000- 2	2.2000- 2	3.0000- 3	1.2300+ 0
70 2763	1.7500+ 0	5.5000- 2	8.2700- 1	8.3000- 2	8.3400- 1	70 2763	1.7500+ 0	5.5000- 2	1.8000- 2	2.0000- 3	1.4650+ 0
70 2763	2.1300+ 0	5.5000- 2	9.3700- 1		8.3400- 1	70 2763	2.1300+ 0	5.5000- 2	4.7000- 2	5.0000- 3	1.4650+ 0
70 2763	2.5500+ 0	5.5000- 2	1.1700+ 0	1.1700- 1	8.3400- 1	70 2763	2.5500+ 0	5.5000- 2	8.5000- 2	9.0000- 3	1.4650+ 0

03/01/74

N,P

32-GE-72

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 278	1.4000+ 1		3.2000- 2	
67 3010	1.4400+ 1	3.0000- 1	4.7400- 2	4.7000- 3
67 2005	1.4800+ 1		3.1000- 2	4.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE HOURS
53 27	1.4500+ 1		6.5210- 2	2.6000- 2	1.4000+ 1

03/01/74

N,ALPHA

32-GE-72

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 3010	1.4400+ 1	3.0000- 1	1.5200- 2	1.5200- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE MINUTES
67 2005	1.4800+ 1		6.3000- 3	1.0000- 3	5.2500+ 1

03/01/74

N, ALPHA
CROSS SECTION

32-GE-72

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS
67 2005	1.4800+ 1		8.2000- 3	1.0000- 3 1.3900+ 1
67 3010	1.4400+ 1	3.0000- 1	7.6100- 3	7.6000- 4 1.4000+ 1

03/01/74

N,P

32-GE-73

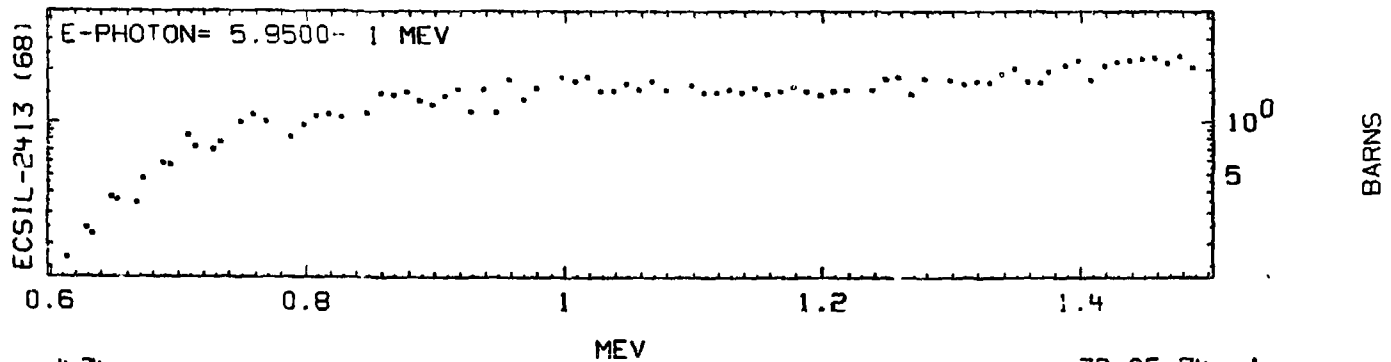
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 278	1.4000+ 1		2.0000- 2	
67 3010	1.4400+ 1	3.0000- 1	2.6400- 2	2.6000- 3
67 2005	1.4800+ 1		2.0000- 2	4.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
53 27	1.4500+ 1		1.3660- 1	6.8010- 2 2.2000+ 0

03/01/74

N, X GAMMA
CROSS SECTION

32-GE-74



4-24

32-GE-74 -1

03/01/74

N,N'P
CROSS SECTION

32-GE-74

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
68 2713	1.4700+ 1		6.7000- 4	7.0000- 5

03/01/74

N, X GAMMA

32-GE-74

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV
70 2763	2.1300+ 0	5.5000- 2	5.1000- 2	5.0000- 3	4.9300- 1	70 2763	1.7500+ 0	5.5000- 2	5.4000- 2	5.0000- 3	8.8800- 1
70 2763	2.5500+ 0	5.5000- 2	1.3600- 1	1.4000- 2	4.9300- 1	70 2763	2.1300+ 0	5.5000- 2	9.2000- 2	9.0000- 3	8.8800- 1
70 2763	1.7500+ 0	5.5000- 2	1.1290+ 0	1.1300- 1	5.9600- 1	70 2763	2.5500+ 0	5.5000- 2	1.2300- 1	1.2000- 2	8.8800- 1
70 2763	2.1300+ 0	5.5000- 2	1.1860+ 0	1.1900- 1	5.9600- 1	70 2763	1.7500+ 0	5.5000- 2	1.0000- 2	1.0000- 3	1.1020+ 0
70 2763	2.5500+ 0	5.5000- 2	1.3900+ 0	1.4000- 1	5.9600- 1	70 2763	2.1300+ 0	5.5000- 2	7.8000- 2	8.0000- 3	1.1020+ 0
70 2763	1.7500+ 0	5.5000- 2	2.3500- 1	2.4000- 2	6.0900- 1	70 2763	2.5500+ 0	5.5000- 2	1.0200- 1	1.0000- 2	1.1020+ 0
70 2763	2.1300+ 0	5.5000- 2	2.2000- 1	2.2000- 2	6.0900- 1	70 2763	1.7500+ 0	5.5000- 2	1.0600- 1	1.1000- 2	1.2050+ 0
70 2763	2.5500+ 0	5.5000- 2	3.4800- 1	3.4000- 2	6.0900- 1	70 2763	2.1300+ 0	5.5000- 2	1.4600- 1	1.5000- 2	1.2050+ 0
70 2763	1.7500+ 0	5.5000- 2	6.5000- 2	6.0000- 3	8.6800- 1	70 2763	2.5500+ 0	5.5000- 2	1.7100- 1	1.7000- 2	1.2050+ 0
70 2763	2.1300+ 0	5.5000- 2	1.0900- 1	1.1000- 2	8.6800- 1	70 2763	2.5500+ 0	5.5000- 2	1.6000- 2	2.0000- 3	2.1980+ 0
70 2763	2.5500+ 0	5.5000- 2	1.1000- 1	1.5000- 2	9.6800- 1						

03/01/74

N, P

32-GE-74

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
67 3010	1.4400+ 1	3.0000- 1	1.3200- 2	1.3000- 3
67 2005	1.4800+ 1		1.0000- 2	3.0000- 3

03/01/74

N, ALPHA

32-GE-74

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
67 3010	1.4400+ 1	3.0000- 1	1.3300- 2	1.3300- 3
53 27	1.4500+ 1		1.4900- 2	6.0010- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE MINUTES
67 2005	1.4800+ 1		2.8000- 3	6.0000- 4	2.7000+ 0

03/01/74

N. ALPHA
CROSS SECTION

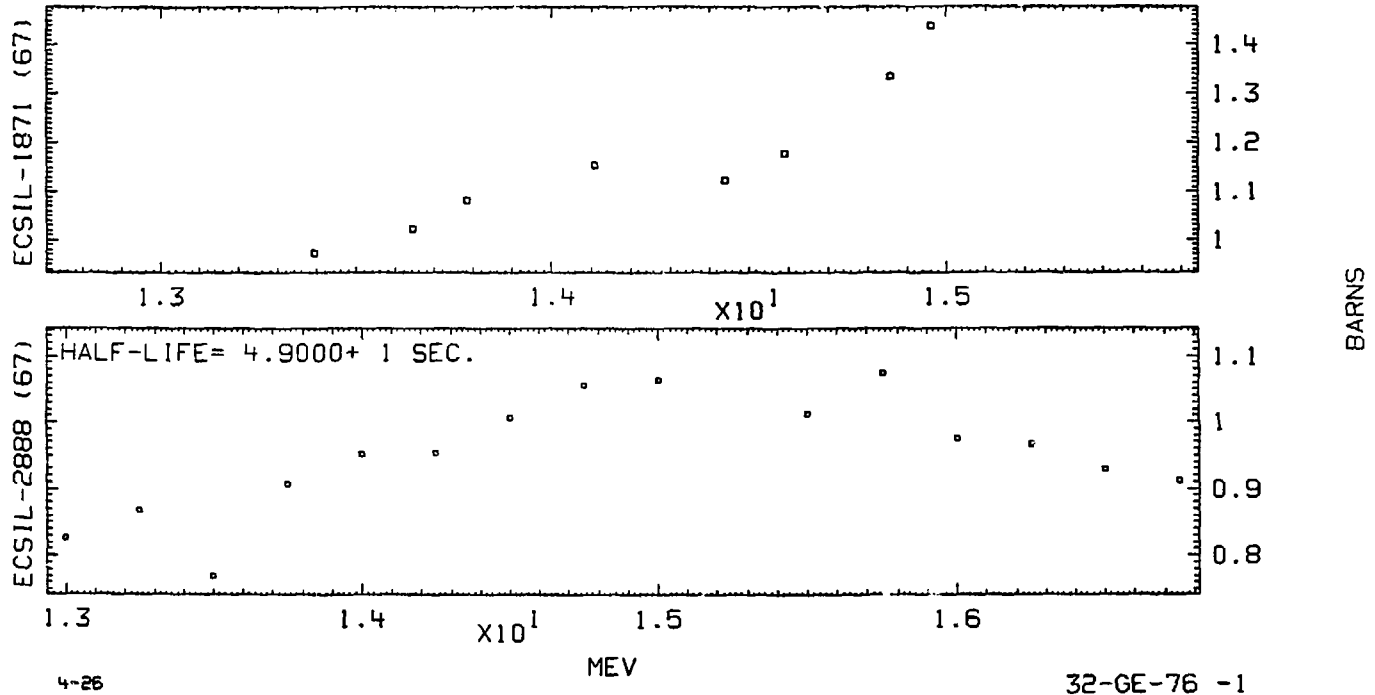
32-GE-74

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
67 3010	1.4400+ 1	3.0000- 1	3.3200- 3	3.3000- 4	3.9000+ 0
67 2005	1.4800+ 1		3.3000- 3	5.0000- 4	3.9200+ 0

03/01/74

N,2N
CROSS SECTION

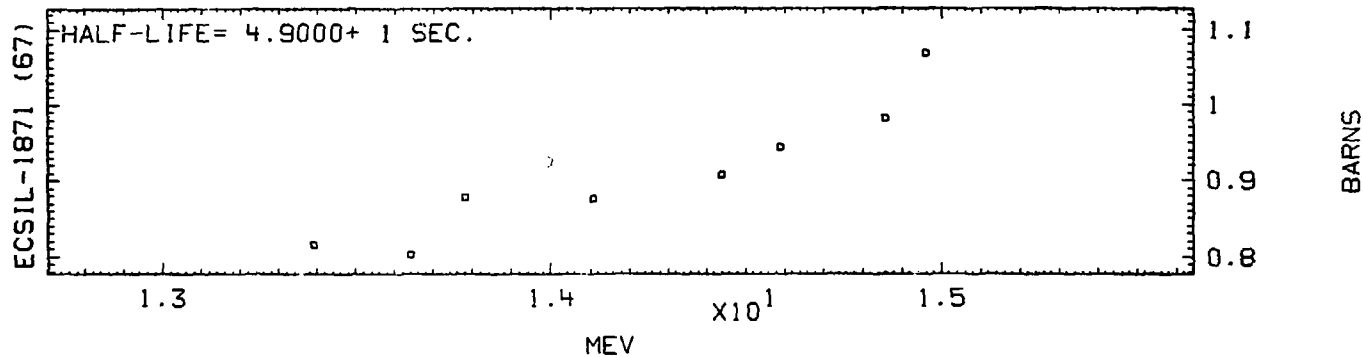
32-GE-76



03/01/74

N,2N
CROSS SECTION

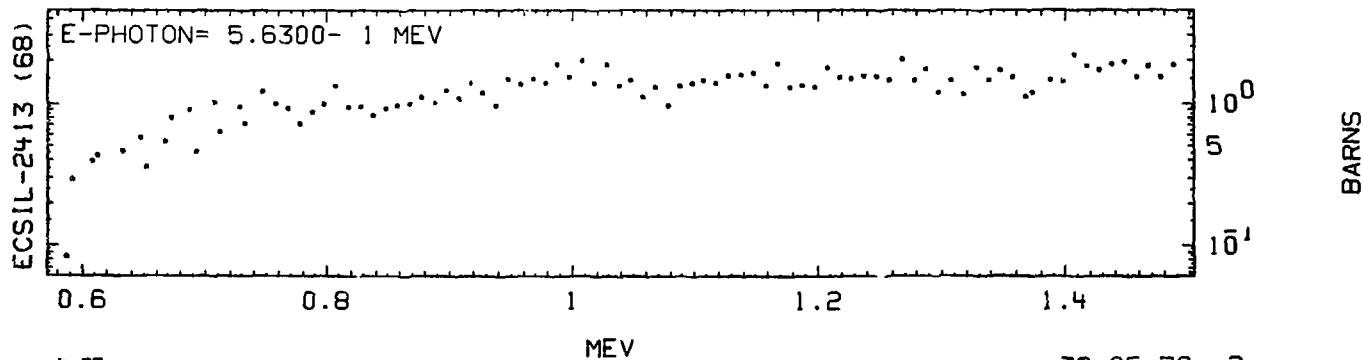
32-GE-76



03/01/74

N,X GAMMA
CROSS SECTION

32-GE-76



4-27

32-GE-76 -2

03/01/74

N,N'
CROSS SECTION

32-GE-76

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
70 2763	1.7500+ 0	5.5000- 2	8.4200- 1			70 2763	1.7500+ 0	5.5000- 2	3.5400- 1		1.1090+ 0
70 2763	2.1300+ 0	5.5000- 2	9.0300- 1		5.6300- 1	70 2763	2.1300+ 0	5.5000- 2	3.4800- 1		1.1090+ 0
70 2763	2.5500+ 0	5.5000- 2	9.8000- 1		5.6300- 1	70 2763	2.5500+ 0	5.5000- 2	4.6400- 1		1.1090+ 0

03/01/74

N,2N

32-GE-76

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
67 3010	1.4400+ 1	3.0000- 1	1.2360+ 0	1.2000- 1	53 27	1.4500+ 1		1.8200+ 0	5.5010- 1
67 3010	1.4400+ 1	3.0000- 1	1.4440+ 0	2.8900- 1	61 703	1.4800+ 1	2.5000- 1	1.2000+ 0	2.4000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE SECONDS
63 884	1.4800+ 1	2.5000- 1	7.2600- 1	1.0890- 1	4.8000+ 1

03/01/74

N,X GAMMA

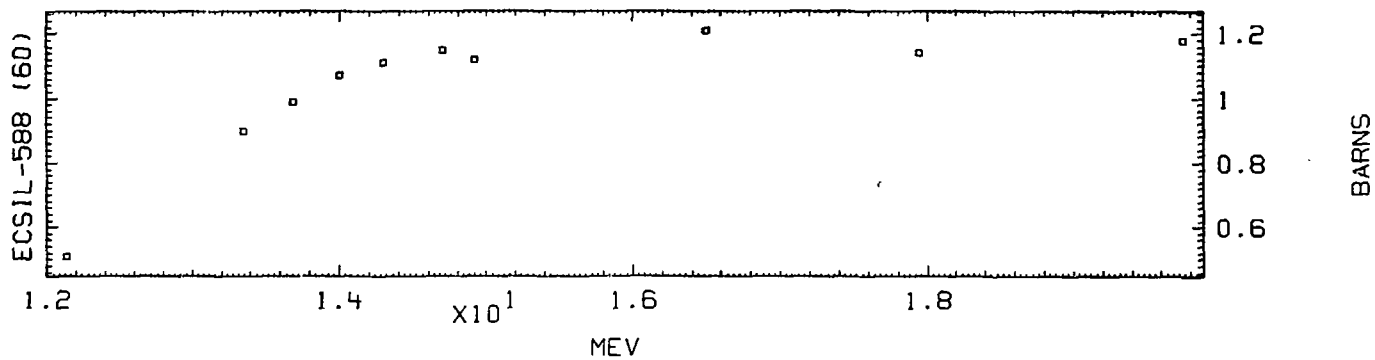
32-GE-76

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV
70 2763	1.7500+ 0	5.5000- 2	2.0200- 1	2.0000- 2	5.4500- 1	70 2763	2.5500+ 0	5.5000- 2	1.2000+ 0	1.2000- 1	5.6300- 1
70 2763	2.1300+ 0	5.5000- 2	2.0600- 1	2.1000- 2	5.4500- 1	70 2763	1.7500+ 0	5.5000- 2	1.5200- 1	1.5000- 2	1.1090+ 0
70 2763	2.5500+ 0	5.5000- 2	2.2000- 1	2.2000- 2	5.4500- 1	70 2763	2.1300+ 0	5.5000- 2	1.4200- 1	1.4000- 2	1.1090+ 0
70 2763	1.7500+ 0	5.5000- 2	1.0440+ 0	1.1406- 1	5.6300- 1	70 2763	2.5500+ 0	5.5000- 2	2.4400- 1	2.5000- 2	1.1090+ 0
70 2763	2.1300+ 0	5.5000- 2	1.1090+ 0	1.1100- 1	5.6300- 1						

03/01/74

N,2N
CROSS SECTION

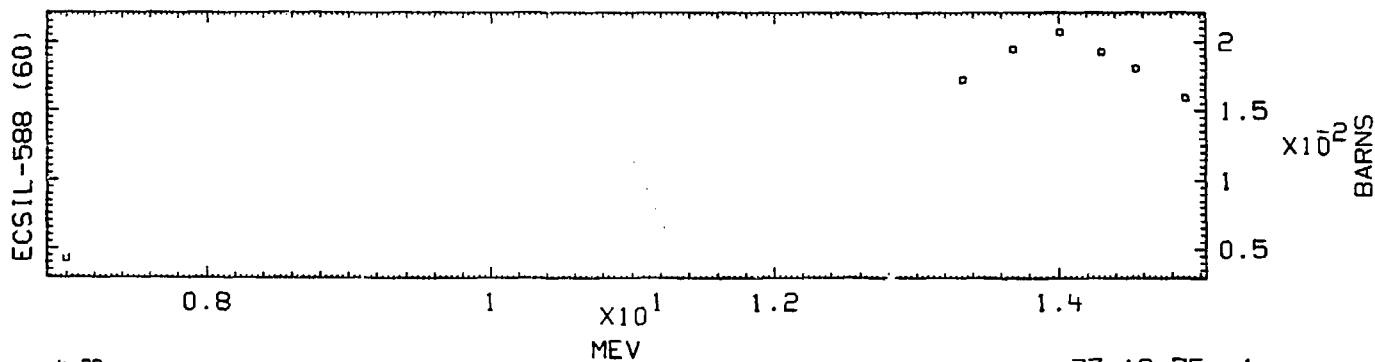
33-AS-75



03/01/74

N,P
CROSS SECTION

33-AS-75



4-29

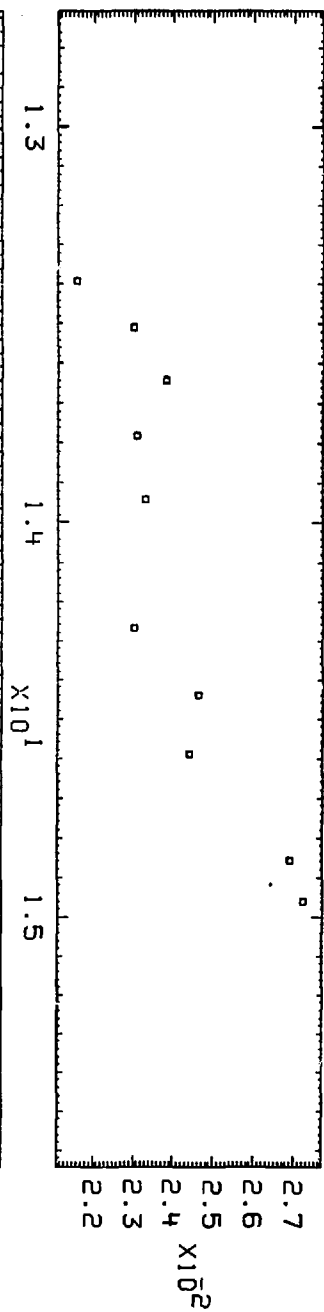
33-AS-75 -1

03/01/74

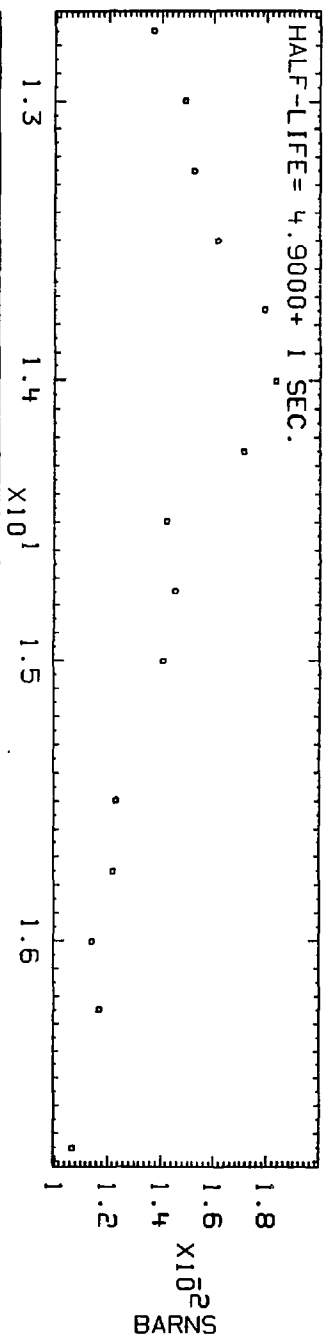
N,P
CROSS SECTION

33-AS-75

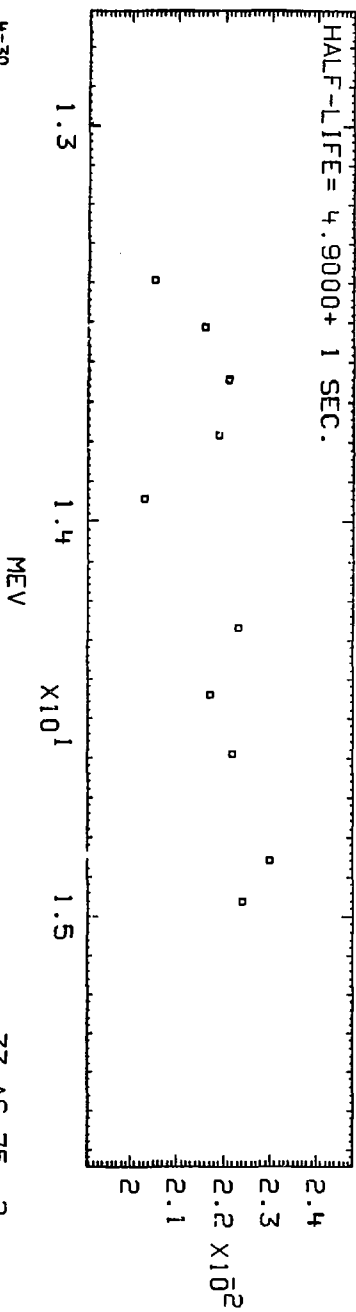
ECSIL-1871 (67)



ECSIL-2888 (67)



ECSIL-1871 (67)



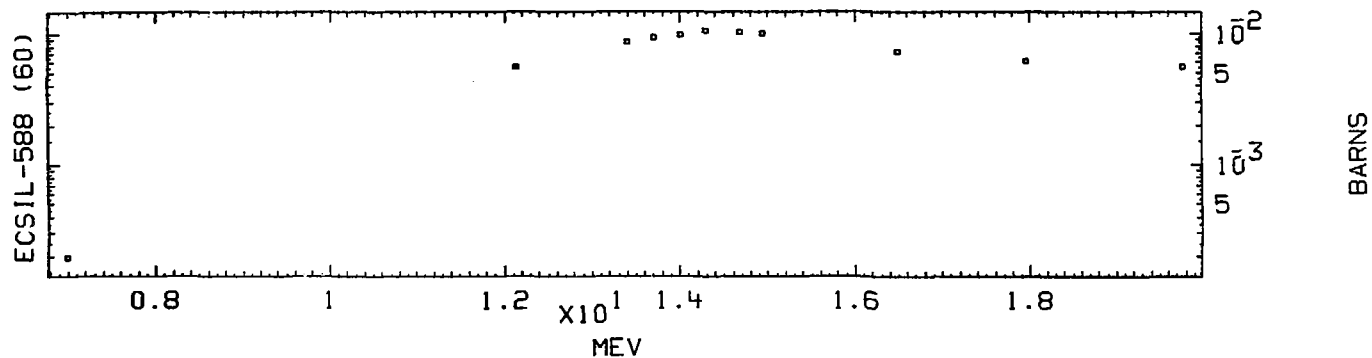
4-50

33-AS-75 -2

03/01/74

N, ALPHA
CROSS SECTION

33-AS-75



03/01/74

N, N'

33-AS-75

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 836	7.0000+ 0		1.7000+ 0	1.5000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
59 829	1.4500+ 1		1.3000- 4	1.7000- 2

03/01/74

N, 2N

33-AS-75

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 377	1.4000+ 1		8.4310- 1	2.5290- 1	67 2009	1.4700+ 1	3.0000- 1	1.0920+ 0	1.2000- 1
66 1874	1.4050+ 1	1.0000- 1	9.6500- 1	6.7550- 2	66 1874	1.4750+ 1	1.0000- 1	1.0380+ 0	7.2660- 2
69 2334	1.4200+ 1	2.0000- 1	1.1700+ 0	1.1700- 1					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS
53 27	1.4500+ 1		5.4510- 1	1.6000- 1 1.7000+ 1

03/01/74

N, 2N
CROSS SECTION

33-AS-75

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE DAYS
71 3184	1.4400+ 1	3.0000- 1	1.0160+ 0	1.0200- 1	1.8000+ 1

03/01/74

N, P

33-AS-75

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2894	1.4100+ 1	1.0000- 1	2.0300- 2	1.6000- 3
67 3307	1.4100+ 1	1.8000- 1	1.5000- 2	4.0000- 3
67 3307	1.4800+ 1	2.0000- 2	3.3000- 2	3.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE SECONDS
66 2894	1.4100+ 1	1.0000- 1	1.8600- 2	1.5000- 3	4.9000+ 1
61 704	1.4100+ 1	2.0000- 1	1.0000- 2	2.0000- 3	4.9000+ 1
69 2334	1.4200+ 1	2.0000- 1	8.0000- 3	1.0000- 3	4.9000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE MINUTES
53 27	1.4500+ 1		1.1800- 2	2.4000- 3	1.1800+ 1	61 704	1.4100+ 1	2.0000- 1	2.5000- 2	5.0000- 3	8.2010+ 1
71 3184	1.4400+ 1	3.0000- 1	1.9000- 2	2.0000- 3	8.0000+ 1	67 2006	1.4800+ 1		1.7000- 2	3.0000- 3	8.5000+ 1
69 2334	1.4200+ 1	2.0000- 1	1.6000- 2	2.4000- 3	8.2000+ 1						

03/01/74

N, HE-3

33-AS-75

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 667	1.4800+ 1	9.0010- 1	5.0000- 3	2.0000- 3
65 2151	1.4800+ 1		5.0000- 4	5.0000- 4

03/01/74

N, ALPHA

33-AS-75

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2334	1.4200+ 1	2.0000- 1	1.3600- 2	1.6000- 3	63 756	1.4800+ 1	2.0000- 1	9.3010- 3	3.1000- 3
67 2006	1.4800+ 1		9.0000- 3	2.0000- 3	61 701	1.4800+ 1	9.0010- 1	4.6000- 3	

03/01/74

N, ALPHA
CROSS SECTION

33-AS-75

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
53 27	1.4500+ 1		1.2300- 2	2.2000- 3	1.4000+ 1
71 3184	1.4400+ 1	3.0000- 1	1.3500- 2	1.5000- 3	1.4100+ 1

03/01/74

BOUND ATOM

33-AS-75

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		7.0000+ 0	

03/01/74

COHERENT SCATTERING

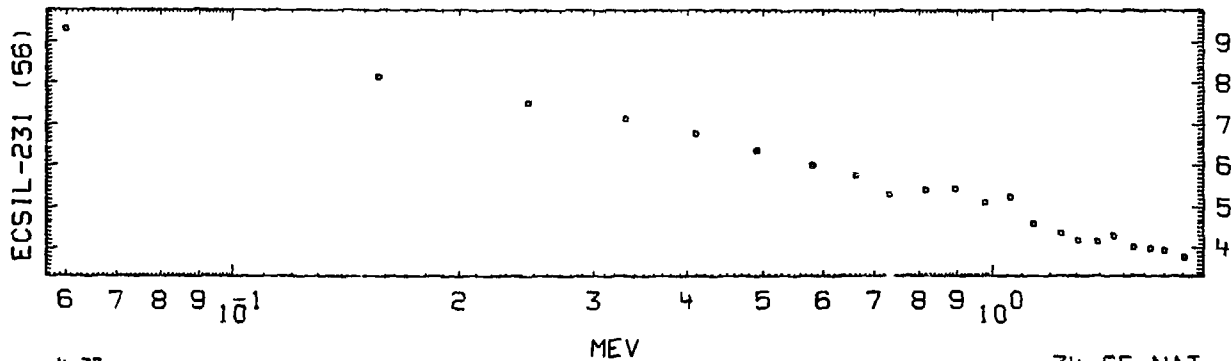
33-AS-75

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
50 2564	2.5300- 8		4.6000+ 0	5.0000- 1
51 1584	7.3000- 8		5.0000+ 0	4.0000- 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

34-SE-NAT



03/01/74

NONELASTIC
CROSS SECTION

34-SE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
54	103	1.0000+ 0	5.0000- 2	7.0010- 1	1.0000- 1	55	790	1.4000+ 1	1.4000+ 0	2.3000- 1
56	34	2.5000+ 0		1.8800+ 0	1.7000- 1	57	199	1.4100+ 1	1.5700+ 0	8.0010- 2
55	790	2.5000+ 0	1.5000- 1	1.8800+ 0	1.7000- 1	56	200	1.4500+ 1	1.7700+ 0	6.0010- 2

03/01/74

N,N'

34-SE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	836	7.0000+ 0	1.7800+ 0	1.6000- 1

03/01/74

ABSORPTION

34-SE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
53	370	2.5300- 8	1.2400+ 1	5.0000- 1	58	364	2.2000- 1	2.0000- 2	8.3010- 2	1.3000- 2
60	891	2.5300- 8	1.1700+ 1	1.0000- 1	58	364	8.3000- 1	4.0000- 2	5.8010- 2	1.6000- 2
58	364	2.5000- 2	4.0000- 3	2.1500- 1	1.1000- 2					

03/01/74

BOUND ATOM

34-SE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8	1.0000+ 1	

03/01/74

COHERENT SCATTERING

34-SE-NAT

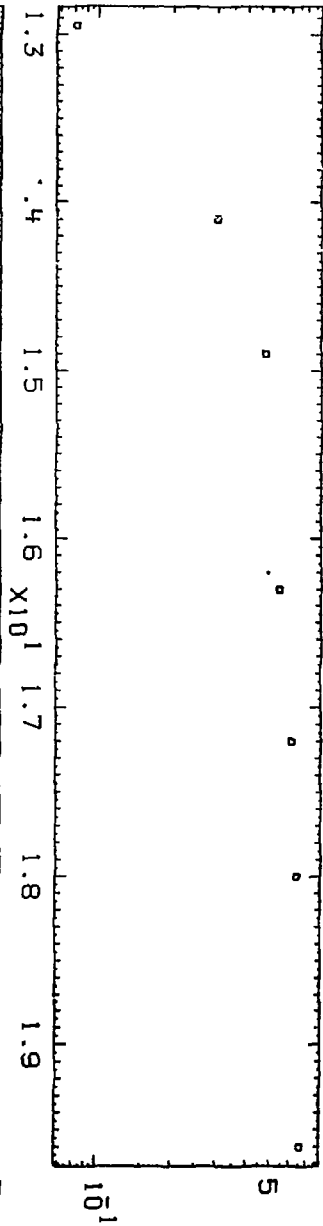
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8	1.0000+ 1	8.0000- 1

03/01/74

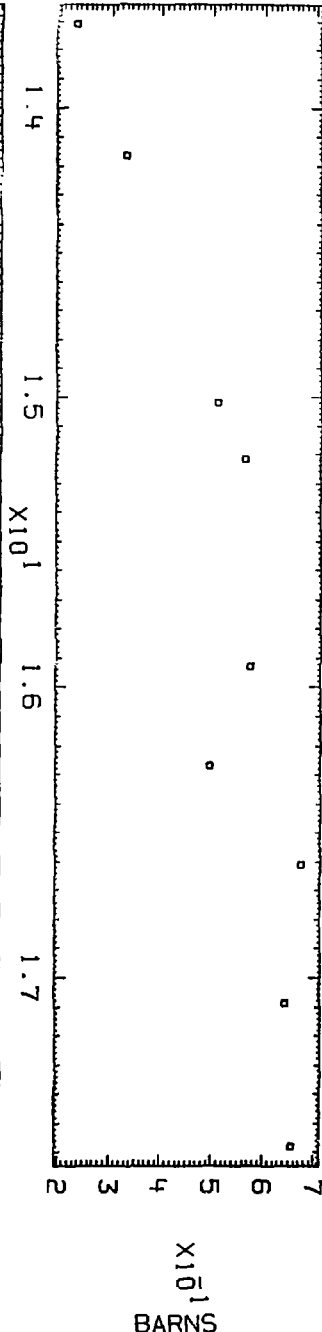
N,2N
CROSS SECTION

34-SE-74

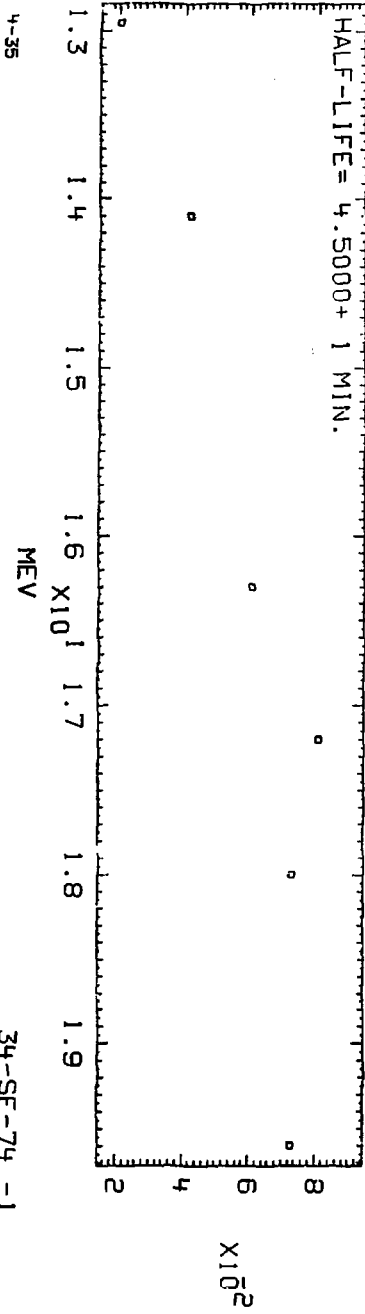
ECSIL-2894 (66)



ECSIL-2366 (69)



ECSIL-2894 (66)



4-35

34-SE-74 -1

03/01/74

1.2N

34-SE-74

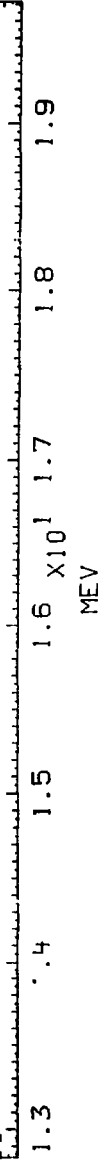
CROSS SECTION

HALF-LIFE = 7.1000 ± 0 HOURS

EC51L-2894 (66)

BARNS

10^1



03/01/74

N,P

34-SE-74

CROSS SECTION

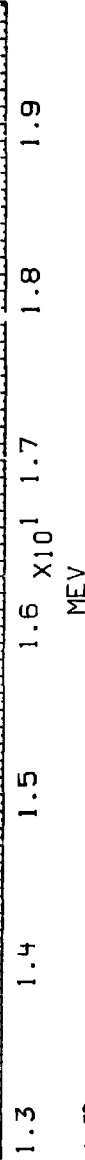
EC51L-1682 (66)

BARNs

1.6

1.2×10^1

0.8



4-36

34-SE-74 -2

03/01/74

N,2N
CROSS SECTION

34-SE-74

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE MINUTES
61 676	1.4400+ 1	3.0000- 1	4.9000- 2	8.0010- 3	3.9000+ 1
67 1844	1.4400+ 1	3.0000- 1	6.5000- 2	1.5000- 2	4.4000+ 1
67 1876	1.4700+ 1		5.8000- 1	6.0000- 2	4.4000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE HOURS
61 676	1.4400+ 1	3.0000- 1	3.8300- 1	2.9000- 2	6.8010+ 0
67 1844	1.4400+ 1	3.0000- 1	2.9300- 1	2.9000- 2	7.1000+ 0
67 1876	1.4700+ 1		2.9400- 1	2.0000- 2	7.1000+ 0

03/01/74

N,P

34-SE-74

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1874	1.4050+ 1	1.0000- 1	1.6500- 1	3.3000- 2	66 1874	1.4750+ 1	1.0000- 1	1.4200- 1	1.4200- 2
67 1844	1.4400+ 1	3.0000- 1	1.0700- 1	1.1000- 2	67 2006	1.4800+ 1		2.0000- 1	4.0000- 2

03/01/74

N,2N

34-SE-76

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1874	1.4050+ 1	1.0000- 1	8.4500- 1	5.9150- 2	67 1876	1.4700+ 1		1.2500+ 0	8.0000- 2
67 1844	1.4400+ 1	3.0000- 1	8.0800- 1	8.1000- 2	66 1874	1.4750+ 1	1.0000- 1	9.4400- 1	6.6080- 2

03/01/74

N,P

34-SE-76

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1844	1.4400+ 1	3.0000- 1	5.6000- 2	5.6000- 3	67 1876	1.4700+ 1		4.7000- 2	5.0000- 3
67 2004	1.4700+ 1		6.8000- 2	8.0000- 3	67 2006	1.4800+ 1		5.4000- 2	8.0000- 3

03/01/74

N,N'
CROSS SECTION

34-SE-77

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2602	2.8000+ 0	7.0000- 2	1.0000+ 0	1.3000- 1

03/01/74

N,P

34-SE-77

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 27	1.4500+ 1		4.5200- 2	2.3000- 2
67 2006	1.4800+ 1		3.8000- 2	1.0000- 2

03/01/74

ACTIVATION

34-SE-77

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	ACTIVATE
67 2004	1.4700+ 1		1.2100- 2	1.6000- 3	33-AS-76

03/01/74

N,2N

34-SE-78

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1876	1.4700+ 1		7.3800- 1	4.0000- 2

03/01/74

N,P

34-SE-78

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1844	1.4400+ 1	3.0000- 1	2.4000- 2	2.4000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
67 1876	1.4700+ 1		9.3000- 4	9.0000- 5	6.0000+ 0
67 1876	1.4700+ 1		2.1000- 2	2.0000- 3	9.1000+ 1
67 2006	1.4800+ 1		1.4000- 2	2.0000- 3	9.5000+ 1

03/01/74

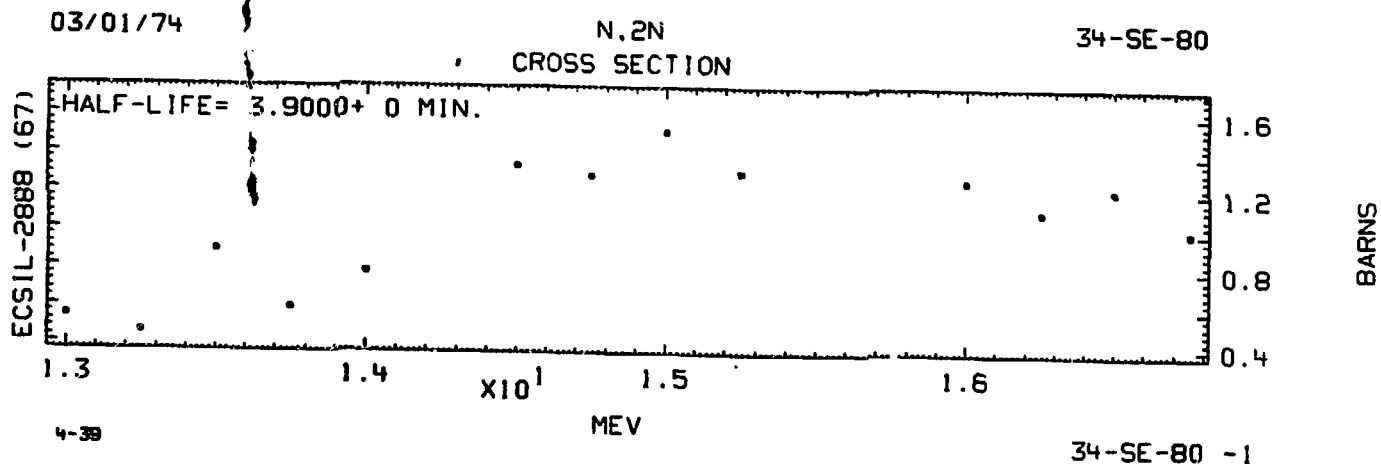
N, ALPHA
CROSS SECTION

34-SE-78

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1844	1.4400+ 1	3.0000- 1	6.0000- 3	1.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
67 1876	1.4700+ 1		7.6000- 3	9.0000- 4	4.9000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
67 1876	1.4700+ 1		1.9000- 2	2.0000- 3	8.2000+ 1
67 2006	1.4800+ 1		7.0000- 3	1.0000- 3	8.5000+ 1



03/01/74

N,2N
CROSS SECTION

34-SE-80

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES
65 1957	1.4800+ 1		1.2500- 1	1.2500- 2	
67 1844	1.4400+ 1	3.0000- 1	6.8000- 1	1.0000- 1	3.9000+ 0
67 1876	1.4700+ 1		2.5500- 1	2.0000- 2	3.9000+ 0

03/01/74

N,P

34-SE-80

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1876	1.4700+ 1		1.6000- 2	2.0000- 3

03/01/74

N, ALPHA

34-SE-80

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2004	1.4700+ 1		1.4600- 1	2.2000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE SECONDS
67 1876	1.4700+ 1		6.0000- 3	2.0000- 3	5.4000+ 1
53 27	1.4500+ 1		3.7700- 2	1.6000- 2	5.9010+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE HOURS
67 1876	1.4700+ 1		6.0000- 4	3.0000- 4	1.1000+ 1
67 2006	1.4800+ 1		2.6000- 3	4.0000- 4	1.2000+ 1

03/01/74

N,2N

34-SE-82

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2009	1.2300+ 1		1.4900+ 0	2.2350- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES
67 1844	1.4400+ 1	3.0000- 1	2.2500- 1	4.5000- 2	1.8000+ 1	65 1957	1.4800+ 1		1.6000+ 0	1.6000- 1	5.6000+ 1
67 1876	1.4700+ 1		3.8500- 1	2.0000- 2	1.8000+ 1	67 1844	1.4400+ 1	3.0000- 1	8.9400- 1	8.9000- 2	5.7000+ 1

4-40

34-SE-82 -1

03/01/74

N, 2N
CROSS SECTION

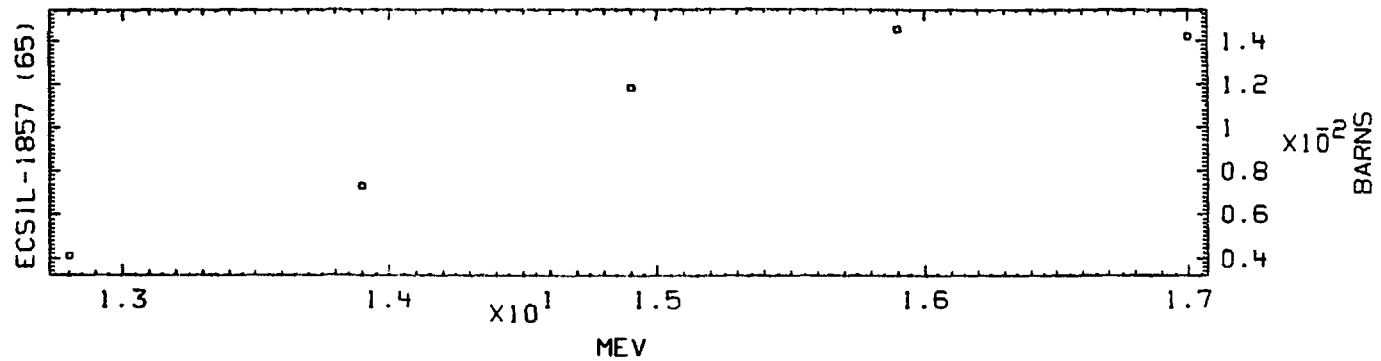
34-SE-82

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
67 1876	1.4700+ 1		1.0770+ 0	3.0000- 2	5.7000+ 1
53 27	1.4500+ 1		1.5000+ 0	5.0000- 1	5.9010+ 1

03/01/74

N, ALPHA
CROSS SECTION

35-BR-NAT



03/01/74

ABSORPTION

35-BR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 370	2.5300- 8		6.6000+ 0	1.0000- 1
60 891	2.5300- 8		6.8200+ 0	6.0000- 2

4-41

35-BR-NAT -1

03/01/74

BOUND ATOM
CROSS SECTION

35-BR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		6.0000+ 0	

03/01/74

COHERENT SCATTERING

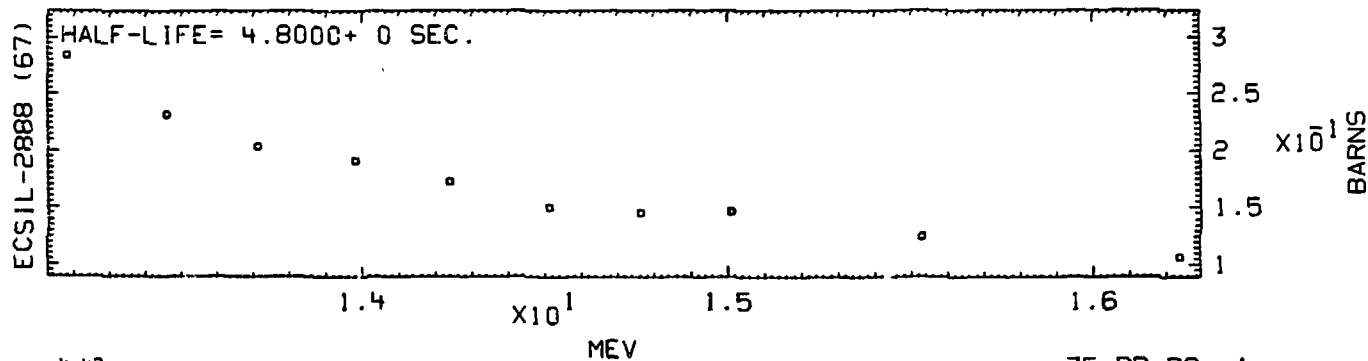
35-BR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		5.7000+ 0	4.5600- 1

03/01/74

N,N'
CROSS SECTION

35-BR-79



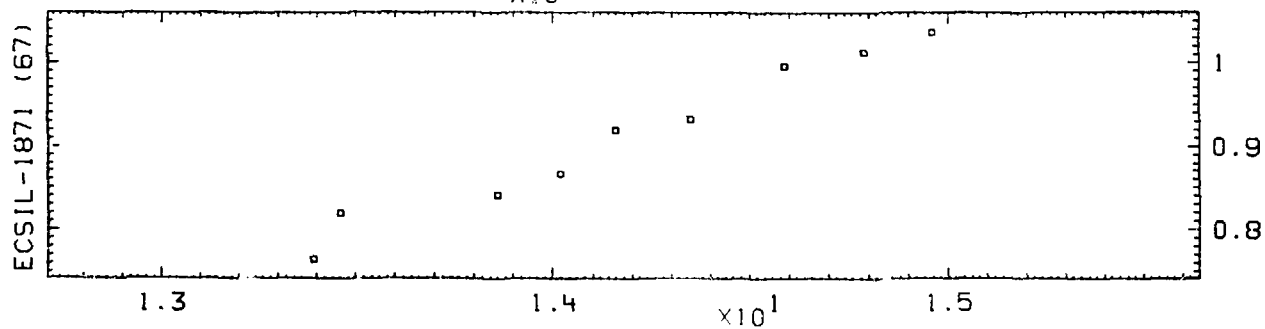
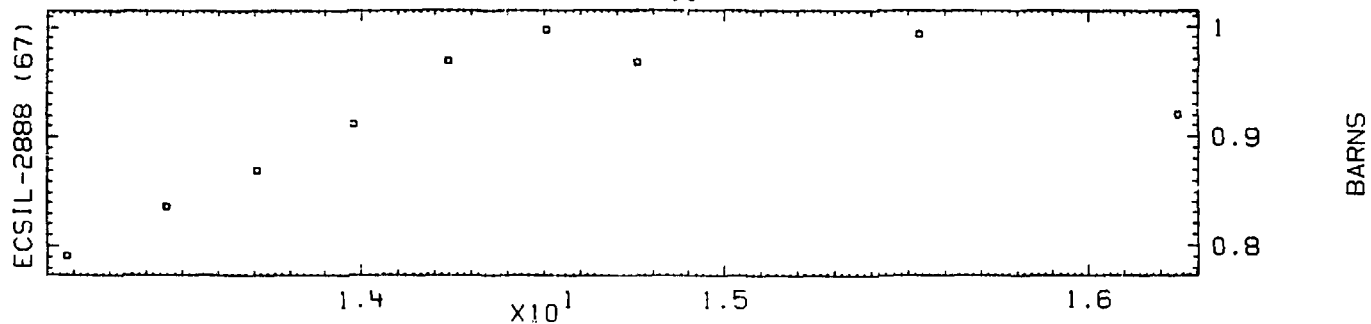
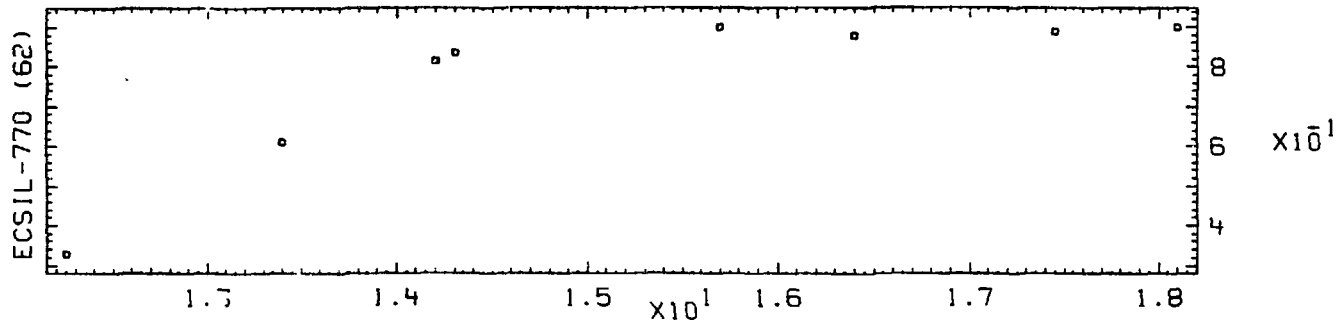
4-42

35-BR-79 -1

03/01/74

N,2N
CROSS SECTION

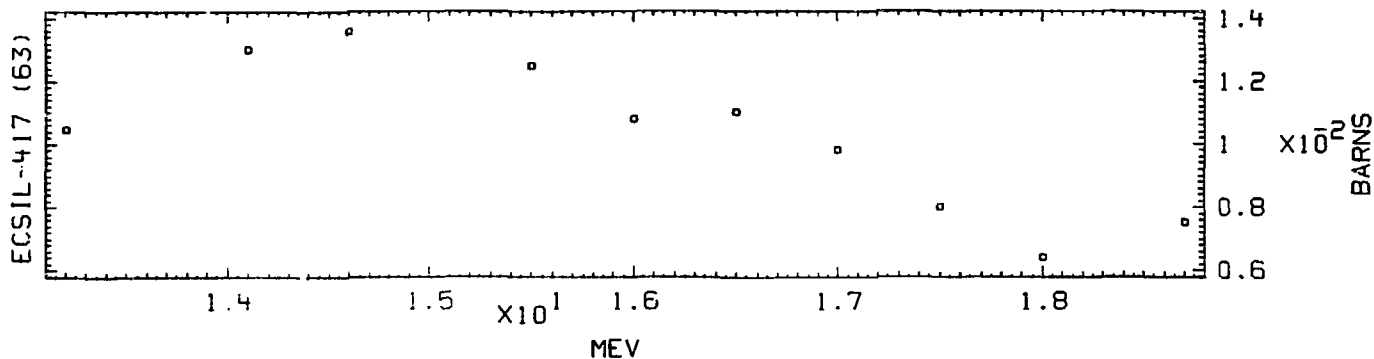
35-BR-79



03/01/74

N, ALPHA
CROSS SECTION

35-BR-79



03/01/74

N, N'

35-BR-79

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
67	2.8000+ 0	7.0000- 2	2.3700- 1	3.0810- 2	
68	3.368 1.4700+ 1	1.0000- 1	2.6600- 1	3.6000- 2	4.8640+ 0

03/01/74

N, 2N

35-BR-79

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	373 1.4100+ 1		1.3370+ 0	1.6700- 1	65	3379 1.4800+ 1	1.0000- 1	1.1400+ 0	2.7000- 2
6B	2002 1.4400+ 1	3.0000- 1	7.4100- 1		65	3379 1.4800+ 1	1.0000- 1	1.0600+ 0	3.5000- 2
61	676 1.4400+ 1	3.0000- 1	8.3510- 1	6.3010- 2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
53	27 1.4500+ 1		1.1410+ 0	2.9000- 1	6.4010+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
71	318+ 1.4400+ 1	3.0000- 1	7.4100- 1	7.4000- 2	6.4000+ 0
62	108 1.4130+ 1	1.0000- 1	7.9310- 1	4.8000- 2	6.4010+ 0

03/01/74

N,P
CROSS SECTION

35-BR-79

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE BARNs MINUTES
66 3380	1.4800+	1 2.0000-	1 1.0000-	2 3.0000-	3 3.9000+ 0

03/01/74

N, ALPHA

35-BR-79

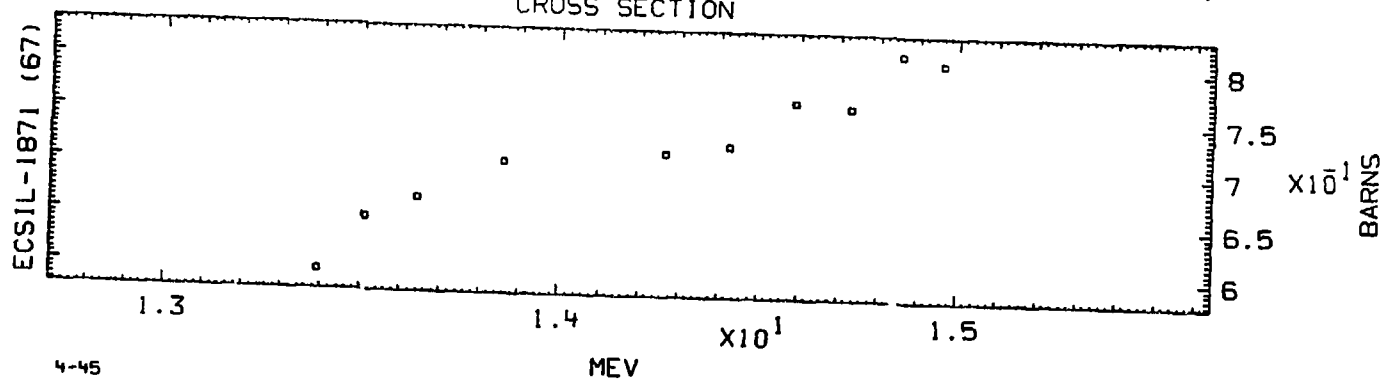
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 401	1.4050+	1 5.5010-	1 1.0000-	2 1.8000-	66 3380	1.4800+	1 2.0000-	1 1.2000-	2 2.0000-
68 2002	1.4400+	1 3.0000-	1 2.0000-	2	67 2006	1.4800+	1	1.7000-	2 2.0000-
65 3379	1.4800+	1 1.0000-	1 2.0000-	2 1.0000-	63 756	1.4800+	1 2.0000-	1 9.2010-	3 2.0000-

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS
71 3184	1.4400+	1 3.0000-	1 2.0000-	2 2.0000-
				3 2.6500+ 1

03/01/74

N,2N
CROSS SECTION

35-BR-81



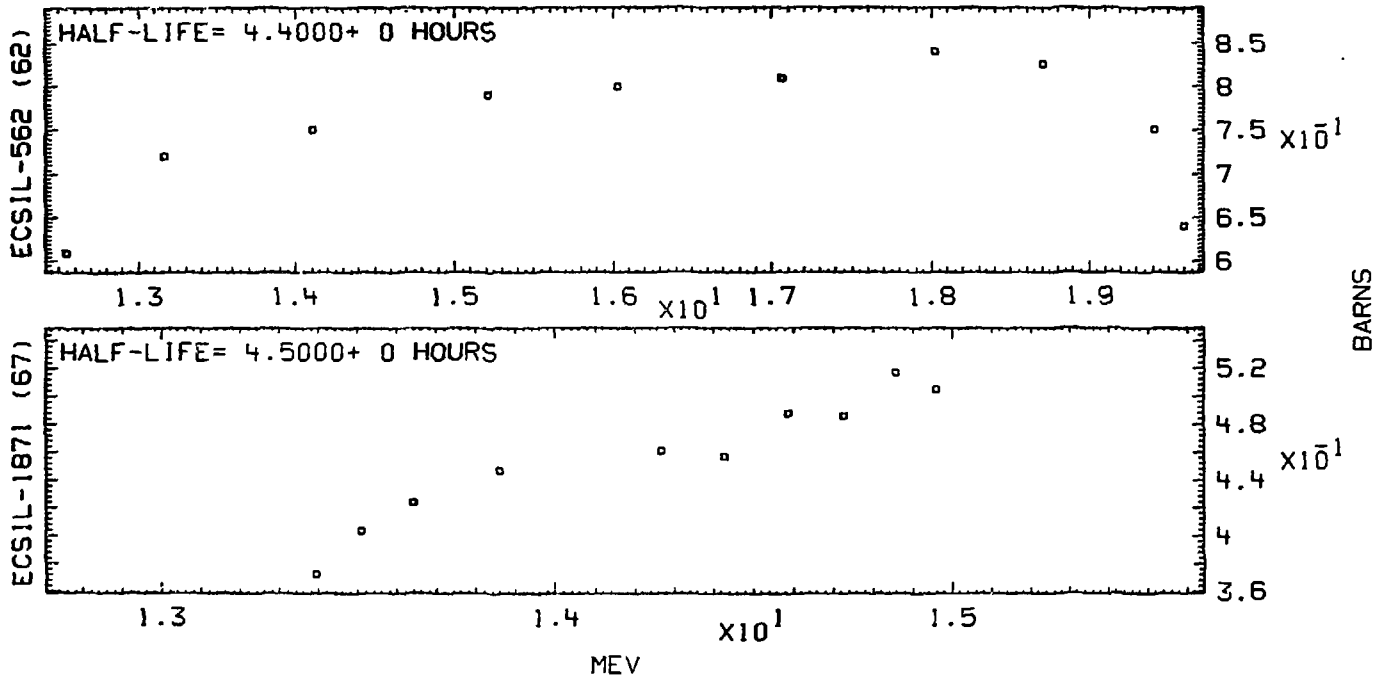
4-45

35-BR-81 -1

03/01/74

N,2N
CROSS SECTION

35-BR-81



03/01/74

N,2N

35-BR-81

REFERENCE	ENERGY	DELTA	X-SEC	DELTA
	MEV	MEV	BARNs	BARNs
62	702 1.4600+ 1	3.0000- 1	1.0470+ 0	9.8000- 2

REFERENCE	ENERGY	DELTA	X-SEC	DELTA	E-LVL
	MEV	MEV	BARNs	BARNs	MEV
65	3379 1.4800+ 1	1.0000- 1	4.6400- 1	3.6000- 2	3.5080+ 4

03/01/74

N,2N
CROSS SECTION

35-BR-81

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
61 704	1.4100+	1 2.0000-	1 4.7000-	1 5.0000-	2 1.8000+	62 702	1.4600+	1 3.0000-	1 4.3700-	1 2.9000-	2 1.8000+
68 202	1.4400+	1 3.0000-	1 3.9100-		1 1.8000+	53 27	1.4500+		8.2810-	1 1.7000-	1 4.4000+
71 3184	1.4400+	1 3.0000-	1 3.9100-	1 3.9000-	2 1.8000+						

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS	HALF-LIFE HOURS
71 3184	1.4400+	1 3.0000-	1 7.3700-	1 7.4000-	2 4.2000+	0
61 704	1.4100+	1 2.0000-	1 5.1010-	1 5.0000-	2 4.5000+	0
68 202	1.4400+	1 3.0000-	1 7.3700-		1 4.5000+	0
61 676	1.4400+	1 3.0000-	1 7.5210-	1 6.8010-	2 4.5000+	0
62 702	1.4600+	1 3.0000-	1 6.1010-	1 9.3010-	2 4.5000+	0
65 3379	1.4800+	1 1.0000-	1 7.6000-	1 1.5000-	2 3.5080+	4 4.5000+

03/01/74

N,P

35-BR-81

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 702	1.4600+	1 3.0000-	1 5.7000-	2 1.0000-

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES	HALF-LIFE MINUTES
62 702	1.4600+	1 3.0000-	1 2.5000-	2 5.0000-	3 1.8000+	1
67 2006	1.4800+		6.5000-	3 1.5000-	3 1.8000+	1
66 3380	1.4800+	1 2.0000-	1 8.0000-	3 1.4000-	3 1.8000+	1
71 3184	1.4400+	1 3.0000-	1 1.3000-	2 2.0000-	3 5.7000+	1
66 3380	1.4800+	1 2.0000-	1 1.6000-	2 3.0000-	3 5.7000+	1
62 702	1.4600+	1 3.0000-	1 3.2000-	2 8.0010-	3 5.7010+	1
67 2006	1.4800+		1.4500-	2 2.0000-	3 5.8000+	1
65 3379	1.4800+	1 1.0000-	1 2.6000-	2 1.3000-	2 3.4081+	4 5.7000+

03/01/74

N, ALPHA

35-BR-81

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2002	1.4400+	1 3.0000-	1 1.9000-	2	65 3379	1.4800+	1 1.0000-	1 7.0000-	3 3.0000-
62 702	1.4600+	1 3.0000-	1 1.0700-	1 2.0000-	2	65 3379	1.4800+	1 1.0000-	1 1.4000-
53 756	1.4800+	1 2.0000-	1 6.6010-	3 1.4000-	3	66 3380	1.4800+	1 2.0000-	1 3.8000-
									3 1.0000-

4-47

35-BR-81 -3

03/01/74

N, ALPHA
CROSS SECTION

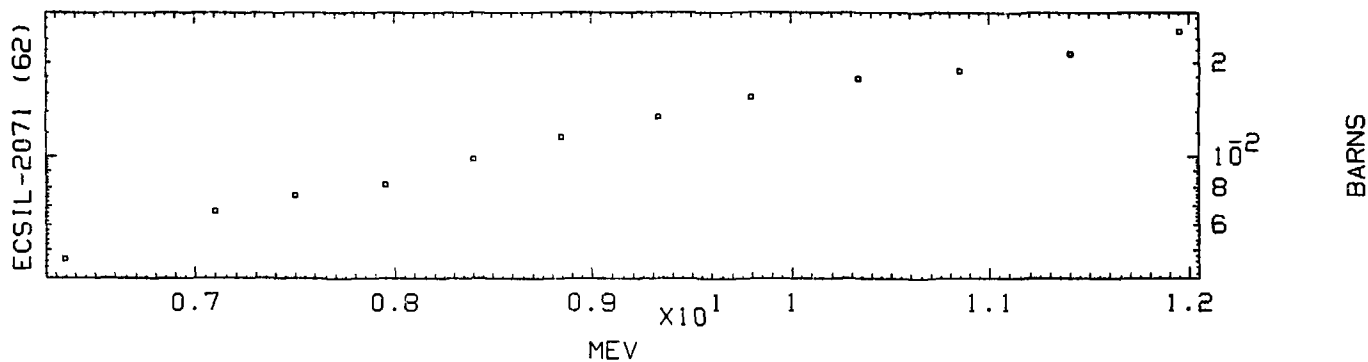
35-BR-81

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	DELTA HALF-LIFE MINUTES
71 3184	1.4400+ 1	3.0000- 1	1.9000- 2	2.0000- 3	9.0000+ 1
53 27	1.4500+ 1		1.0300- 1	2.1000- 2	9.0010+ 1
67 2006	1.4800+ 1		6.5000- 3	1.2000- 3	9.5000+ 1

03/01/74

N, X CHARGED PARTICLE
CROSS SECTION

36-KR-NAT



03/01/74

TOTAL SCATTERING

36-KR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
69 2998	2.5300- 8		6.2000+ 0	1.0000- 1

4-48

36-KR-NAT -1

03/01/74

ABSORPTION
CROSS SECTION

36-KR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2680	2.5300- 8		2.5000+ 1	8.0000- 1
57 434	2.5300- 8		3.0600+ 1	1.8000+ 0

03/01/74

FREE ATOM

36-KR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2680	2.5300- F		7.5000+ 0	1.3000- 1

03/01/74

N,2N

36-KR-78

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	2.4500- 1	2.0000- 2

03/01/74

N,2N

36-KR-80

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	8.1000- 1	6.0000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
68 2842	1.4400+ 1	3.0000- 1	4.1500- 1	5.0000- 2 5.5000+ 1

03/01/74

N,P

36-KR-80

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS
68 2842	1.4400+ 1	3.0000- 1	5.5000- 2	9.0000- 3 4.5000+ 0

03/01/74

N,2N
CROSS SECTION

36-KR-82

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	1.6000- 1	1.5000- 2

03/01/74

N,P

36-KR-82

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	2.3000- 2	4.0000- 3

03/01/74

N,P

36-KR-84

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	8.5000- 3	1.5000- 3

03/01/74

N,2N

36-KR-86

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	3.5000- 1	3.5000- 2

03/01/74

N, ALPHA

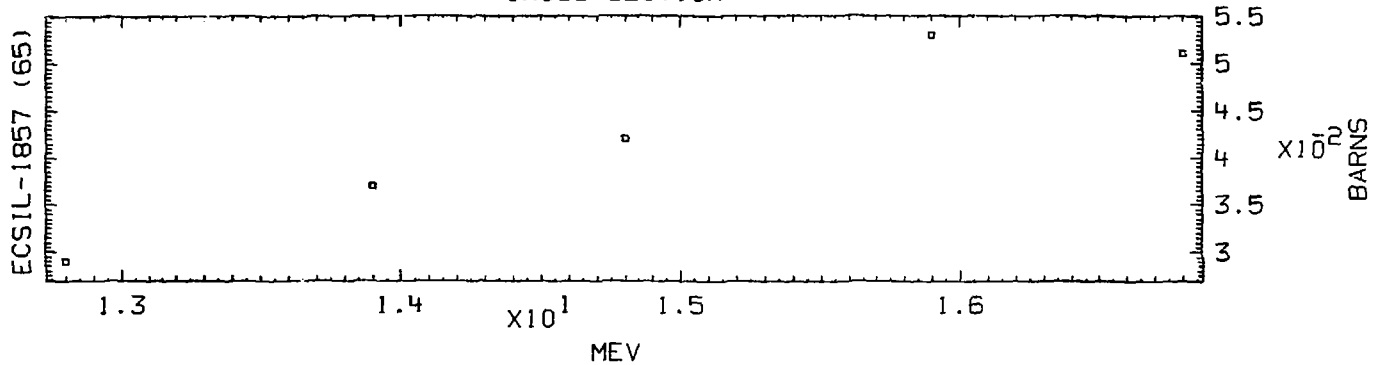
36-KR-86

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	1.2000- 3	2.0000- 4

03/01/74

N,P
CROSS SECTION

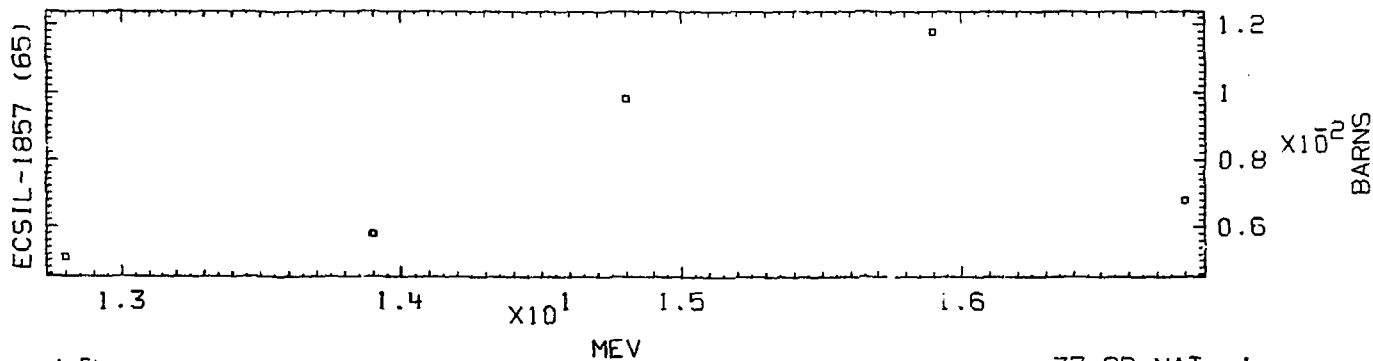
37-RB-NAT



03/01/74

N, ALPHA
CROSS SECTION

37-RB-NAT



4-51

37-RB-NAT -1

03/01/74

BOUND ATOM
CROSS SECTION

37-RB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		5.5000+ 0	

03/01/74

COHERENT SCATTERING

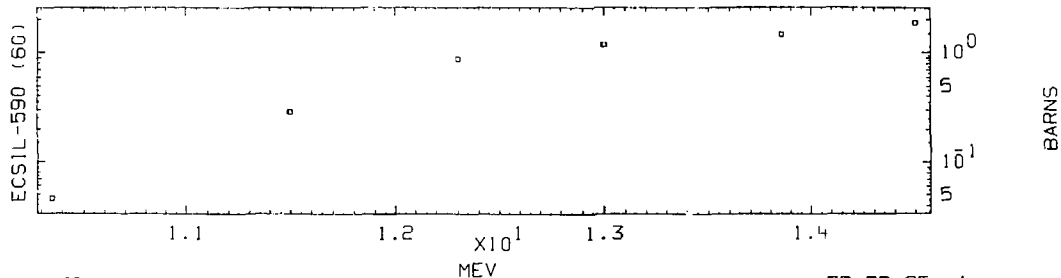
37-RB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- 8		9.0800+ 0	
70 1006	2.5300- 8		5.9000+ 0	2.0000- 1
51 1584	7.3000- 8		3.8000+ 0	3.0400- 1

03/01/74

N,2N
CROSS SECTION

37-RB-85



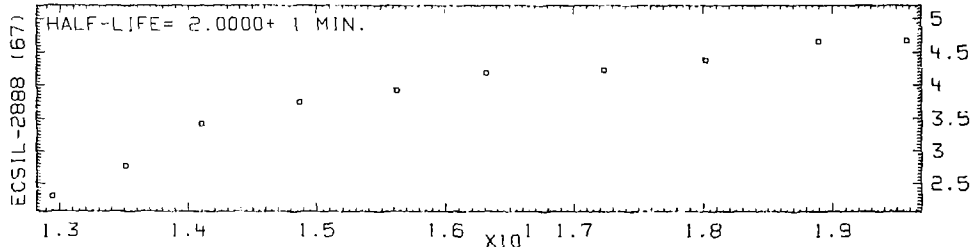
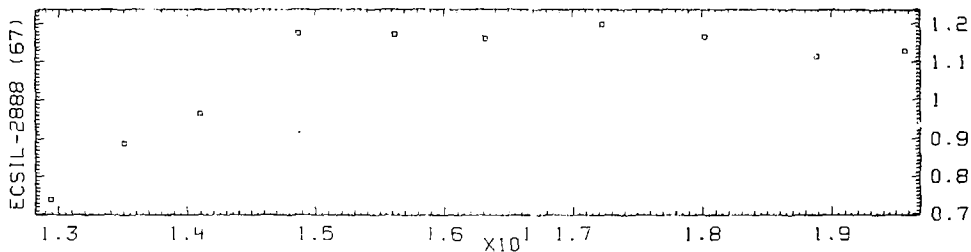
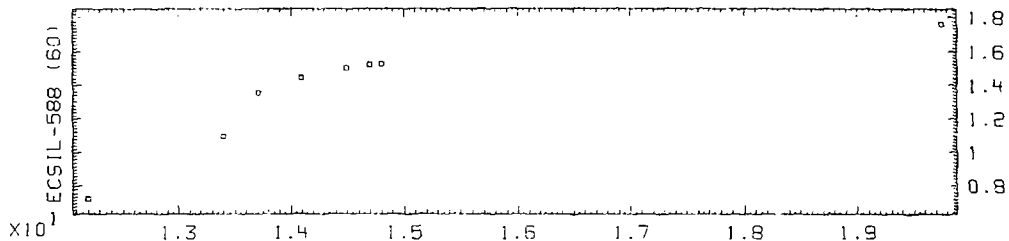
4-52

37-RB-85 -1

03/01/74

N,2N
CROSS SECTION

37-RB-85

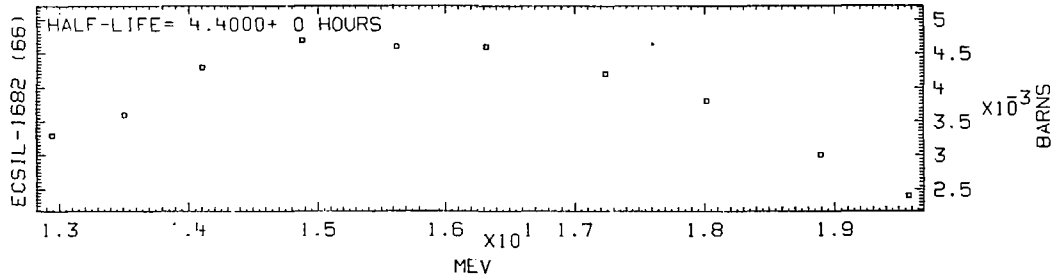


BARNS

03/01/74

N,P
CROSS SECTION

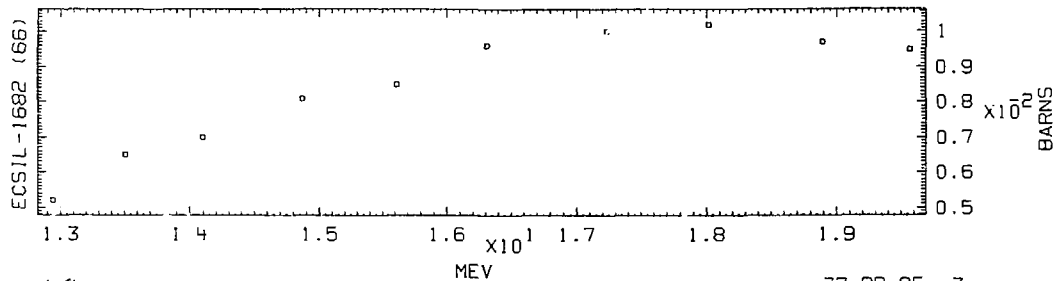
37-RB-85



03/01/74

N,ALPHA
CROSS SECTION

37-RB-85



4-54

37-RB-85 -3

03/01/74

N, 2N
CROSS SECTION

37-RB-85

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2009	1.3600+ 1		8.3000- 1	1.2450- 1	66 1873	1.4700+ 1	1.0000- 1	1.4350+ 0	7.1500- 2
65 1873	1.4050+ 1	5.0000- 2	1.0110+ 0	5.1000- 2	70 3150	1.4800+ 1	2.0000- 1	1.3350+ 0	9.0000- 2
62 702	1.4600+ 1	3.0000- 1	6.8710- 1	7.4010- 2					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
68 2002	1.4400+ 1	3.0000- 1	4.7800- 1		2.0000+ 1
71 3184	1.4400+ 1	3.0000- 1	4.7800- 1	4.8000- 2	2.0000+ 1
70 3150	1.4800+ 1	2.0000- 1	7.1400- 1	5.0000- 2	2.0000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
68 2002	1.4400+ 1	3.0000- 1	4.1400- 1		3.3000+ 1
71 3184	1.4400+ 1	3.0000- 1	4.1400- 1	4.1000- 2	3.3000+ 1
70 3150	1.4800+ 1	2.0000- 1	6.2100- 1	7.5000- 2	3.3000+ 1

03/01/74

N, P

37-RB-85

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
68 2002	1.4400+ 1	3.0000- 1	4.1000- 3		4.4000+ 0
71 3184	1.4400+ 1	3.0000- 1	4.1000- 3	4.0000- 4	4.4000+ 0
70 3150	1.4800+ 1	2.0000- 1	6.0000- 3	1.0000- 3	4.4000+ 0

03/01/74

N, ALPHA

37-RB-85

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2002	1.4400+ 1	3.0000- 1	4.9000- 3	
62 702	1.4600+ 1	3.0000- 1	1.4200- 1	9.0010- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
71 3184	1.4400+ 1	3.0000- 1	4.9000- 3	5.0000- 4	3.5000+ 1

03/01/74

COHERENT SCATTERING
CROSS SECTION

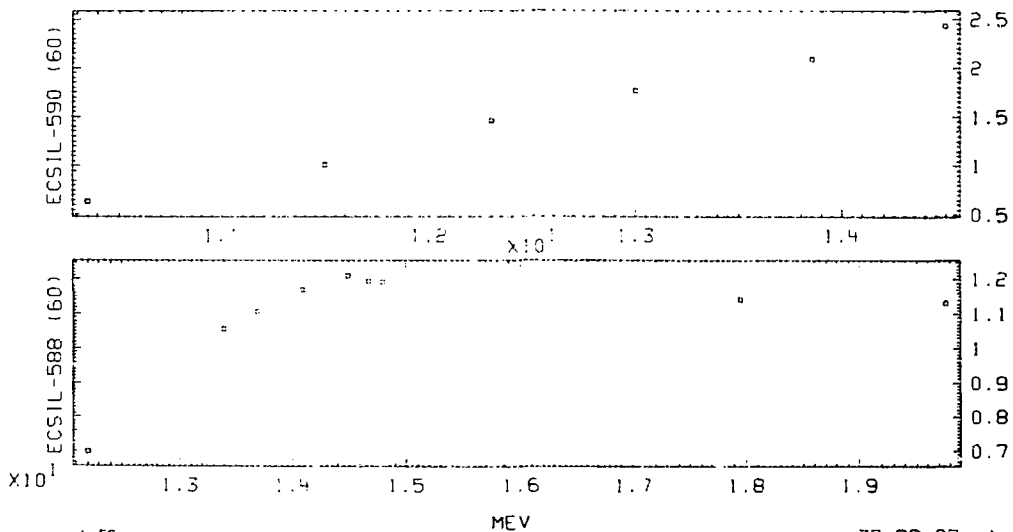
37-RB-85

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 20 17 2	5300 ± 8		8.6600 ± 0	

03/01/74

N₂N
CROSS SECTION

37-RB-87



4-56

MEV

37-RB-87 -1

03/01/74

N, 2N
CROSS SECTION

37-RB-87

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2609	1.3000	1.0000	1.9900	1.9350	62 702	1.4600	1.3000	1.83810	1.13600
66 1873	1.4050	1.1000	1.2940	1.3940	66 1873	1.4700	1.1000	1.15600	0.15600
66 2602	1.4400	1.0000	1.27500		70 750	1.4800	1.2000	1.14170	0.72000

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
70 750	1.4800	1.2000	1.5400	1.4000	2.1000

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
70 750	1.4800	1.2000	1.99500	1.99000	2.18700
70 750	1.4800	1.2000	1.67350	1.60000	2.18700

03/01/74

N, P

37-RB-87

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 2710	1.4400	1.3000	1.4900	3
70 750	1.4800	1.2000	1.7000	3.1000

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
70 750	1.4800	1.2000	1.49000	3.50000	4.76000

03/01/74

N, ALPHA

37-RB-87

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2602	1.4400	1.3000	1.1800	3
70 750	1.4800	1.3000	1.59010	2.12000

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
70 750	1.4800	1.3000	1.18000	2.20000	3.20000
53 271	1.4500	1.3000	3.8400	2.16000	2.33000

03/01/74

NONELASTIC
CROSS SECTION

38-SR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54 103 1	0.000+ 0	5.0000- 2	7.0010- 1	2.0000- 1
61 848	2.5000+ 0		1.1000+ 0	1.3000- 1

03/01/74

N,N'

38-SR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 835	7.0000+ 0		1.7400+ 0	1.6000- 1

03/01/74

ABSORPTION

38-SR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1354	2.4000- 2		1.0800- 1	1.5000- 2

03/01/74

N,P

38-SR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 361	1.4000+ 1		2.2000- 2	1.7000- 2

03/01/74

BOUND ATOM

38-SR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		9.5000+ 0	

03/01/74

COHERENT SCATTERING

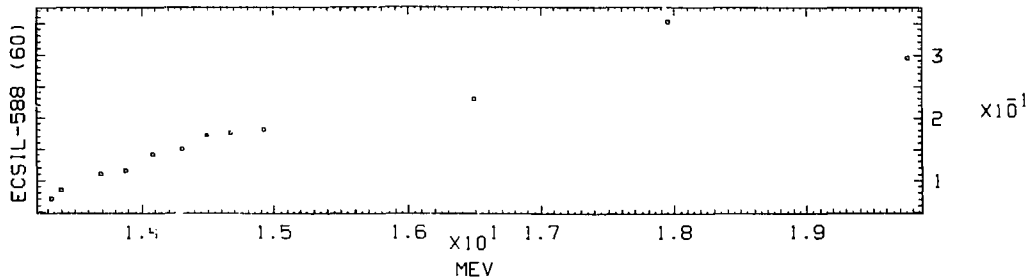
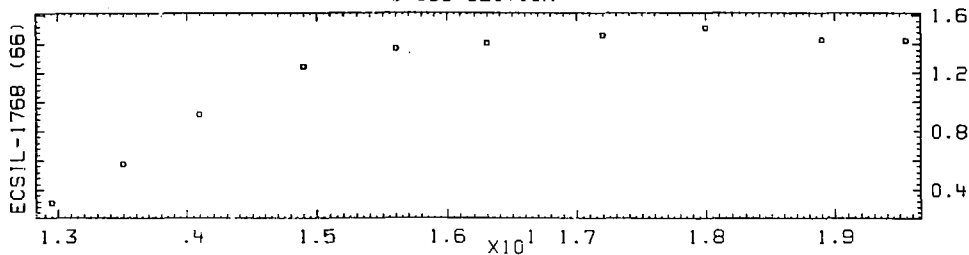
38-SR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		4.1000+ 0	3.2800- 1

03/01/74

N,2N
CROSS SECTION

38-SR-84



03/01/74

N,2N

38-SR-84

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 702	1.4600+ 1	3.0000- 1	3.8000- 1	
61 703	1.4800+ 1	5.0000- 1	1.7700+ 0	1.7700- 1
70 3150	1.4800+ 1	2.0000- 1	3.9500- 1	7.5000- 2

03/01/74

N,2N
CROSS SECTION

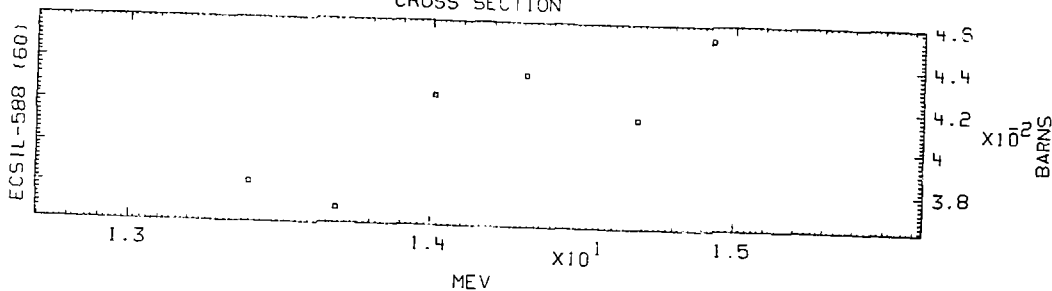
38-SR-84

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS
71 3184	1.4400+ 1	3.0000- 1	4.8200- 1	9.0000- 2 3.2400+ 1

03/01/74

N,P
CROSS SECTION

38-SR-86



03/01/74

N,2N

38-SR-86

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 815	1.4100+ 1		7.0010- 1	1.2000- 1	71 1673	1.4700+ 1	1.0000- 1	9.8500- 1	4.9000- 2
67 2009	1.4600+ 1		5.7000- 1	8.5500- 2	70 3150	1.4800+ 1	2.0000- 1	6.8300- 1	4.2000- 2
62 702	1.4600+ 1	3.0000- 1	5.9200- 1	5.1000- 2					

4-60

38-SR-86 -1

03/01/74

N,P
CROSS SECTION

38-SR-86

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN SECONDS
59 615	1.4100+ 1		1.5000- 1	5.7000- 2 7.0000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN MINUTES		
71 3184	1.4400- 1	3.0000- 1	2.4700- 1	2.5000- 2	7.0000+ 1	70 3150	1.4800+ 1	2.0000- 1	3.6000- 1	3.0000- 2	7.0000+ 1
66 1873	1.4700+ 1	1.0000- 1	2.4600- 1	1.2000- 2	7.0000+ 1	62 702	1.4600+ 1	3.0000- 1	3.1200- 1	5.0000- 2	7.0010+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN DAYS	
62 702	1.4600+ 1	3.0000- 1	2.8000- 1	1.0000- 2	5.4010+ 1
70 3150	1.4800+ 1	2.0000- 1	3.2300- 1	3.0000- 2	6.4700+ 1

03/01/74

N,P

38-SR-86

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
63 323	1.4000+ 1		3.9000- 2	7.0010- 3
62 702	1.4630+ 1	3.0000- 1	6.4610- 2	7.0010- 3

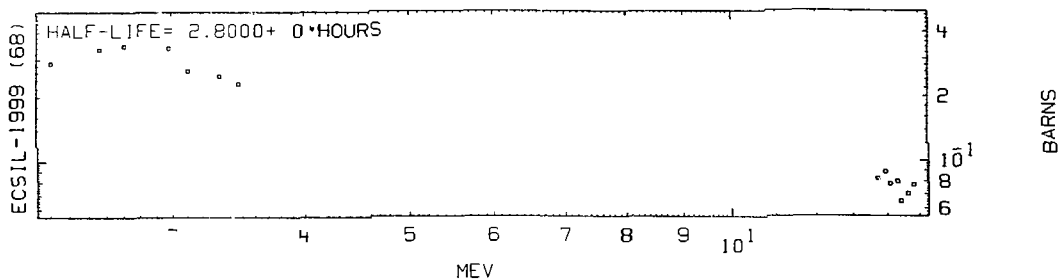
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN MINUTES	
70 3150	1.4800- 1	2.0000- 1	9.3000- 3	1.0000- 3	1.0000+ 0

03/01/74

N,N'

38-SR-87

CROSS SECTION



03/01/74

N,N'

38-SR-87

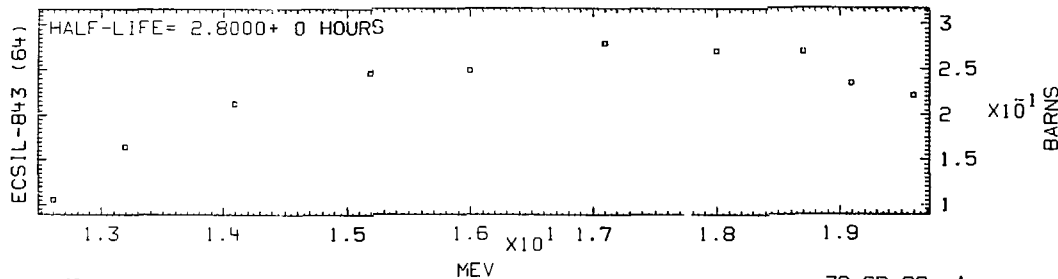
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 1999	2.2000 + 0	7.0000 - 2	2.8800 - 1	3.4000 - 2

03/01/74

N,2N

38-SR-88

CROSS SECTION



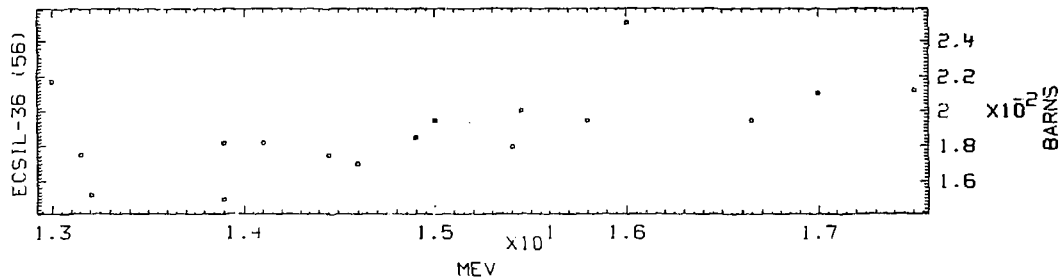
4-62

38-SR-88 -1

03/01/74

N,P
CROSS SECTION

38-SR-88



03/01/74

N,2N

38-SR-88

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62	702	1.4600+ 1	3.0000- 1	2.1500- 1 2.4000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
61	701	1.4800+ 1	9.0010- 1	4.3600- 2	2.8000+ 0
70	3150	1.4800+ 1	2.0000- 1	3.4400- 1	3.0000- 2 2.8000+ 0

03/01/74

N,P

38-SR-88

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	323	1.4000+ 1	1.8000- 2	3.0000- 3	61	701	1.4800+ 1	9.0010- 1	1.1200- 2
53	27	1.4500+ 1	1.7700- 2	3.5000- 3	70	3150	1.4800+ 1	2.0600- 1	2.0000- 2 2.0000- 3
62	702	1.4600+ 1	3.0000- 1	3.0000- 2 2.8000- 3					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
71	2184	1.4400+ 1	3.0000- 1	1.3000- 2	1.0000- 3 1.7000+ 1

03/01/74

N, ALPHA
CROSS SECTION

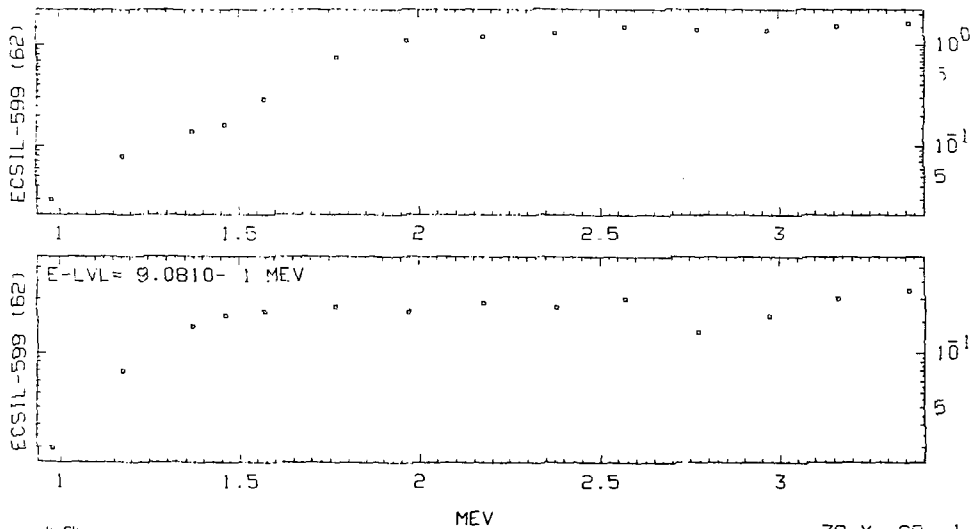
38-SR-88

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
62	702 1 4620+ 1	3.0000- 1	8.7000- 3	3.1000- 2	4.4000+ 0
53	27 1.4500+ 1		6.4010- 2	1.9000- 2	4.5000+ 0

03/01/74

N,N'
CROSS SECTION

39-Y -89



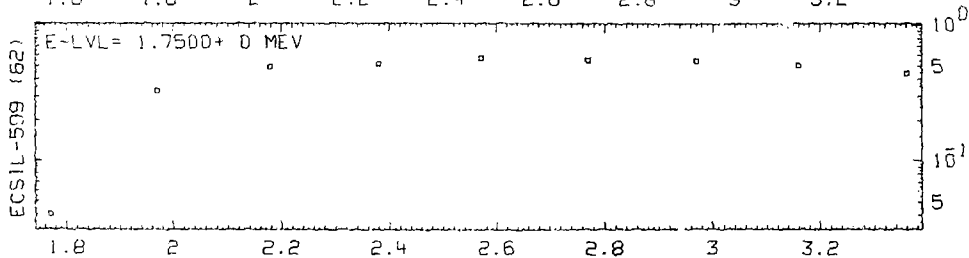
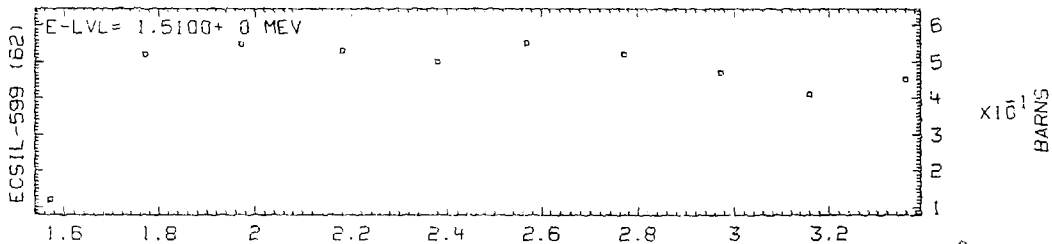
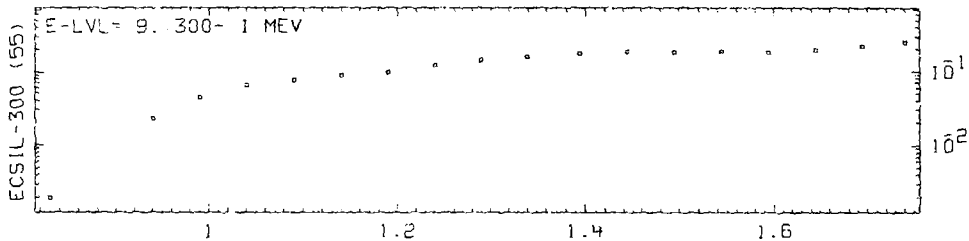
4-64

39-Y -89 -1

03/01/74

N,11
CROSS SECTION

39-Y -89



4-65

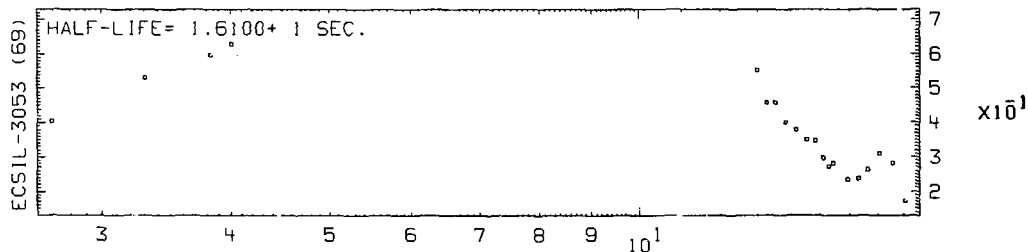
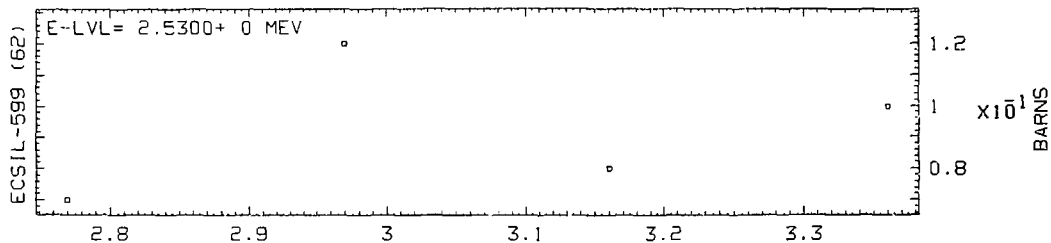
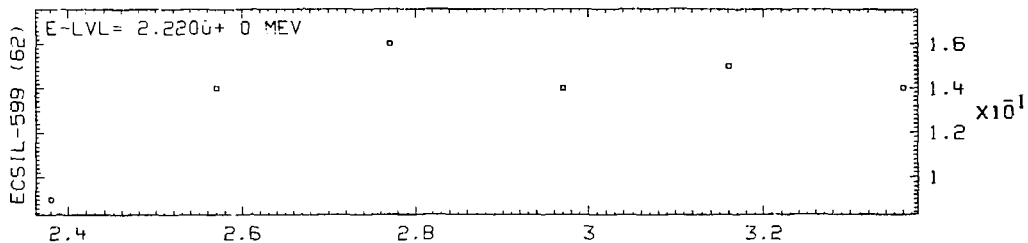
MEV

39-Y -89 -2

03/01/74

N,N'
CROSS SECTION

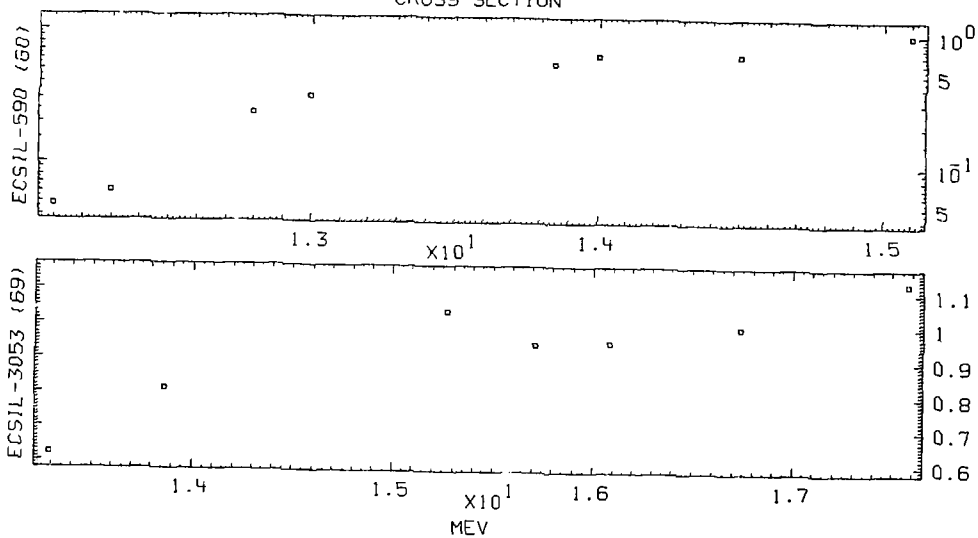
39-Y -89



03/01/74

N,2N
CROSS SECTION

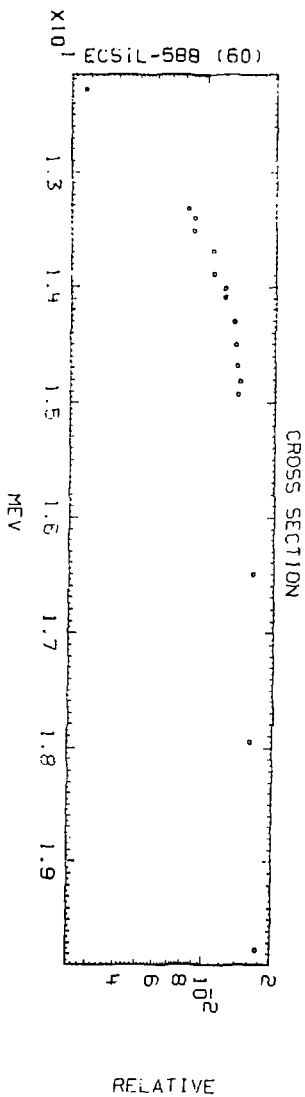
39-Y -89



03/01/74

N,2N

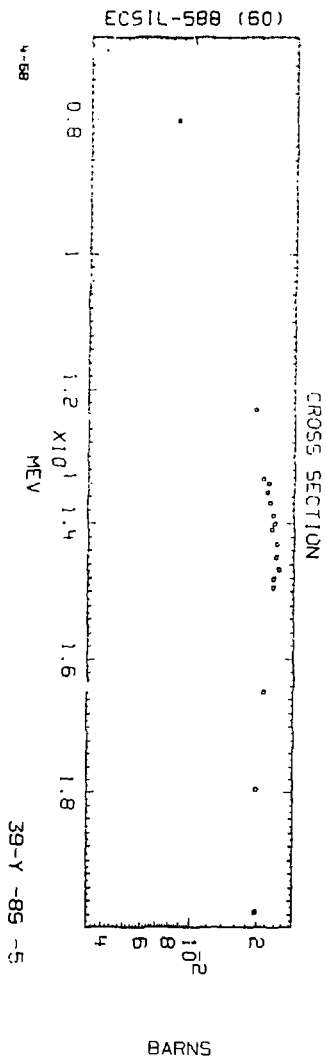
39-Y-89



03/01/74

N,P

39-Y-89



BARNs

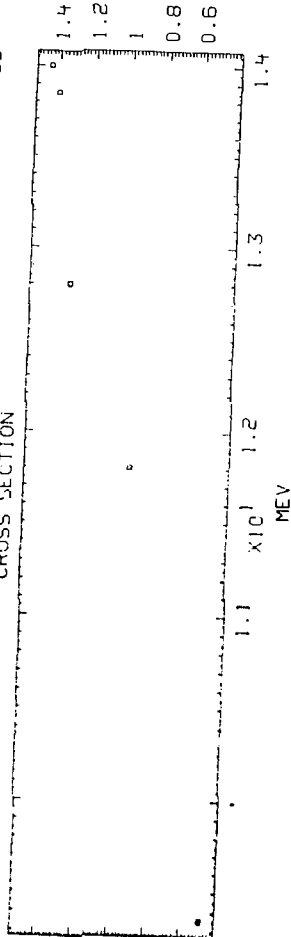
03/01/74

N,P

39-Y -89

CROSS SECTION

ECSIL-590 (60)



BARN'S
 $\times 10^2$

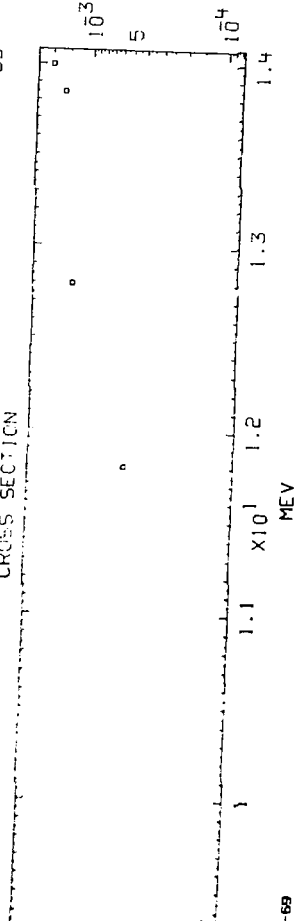
03/01/74

N, ALPHA

39-Y -89

CROSS SECTION

ECSIL-590 (60)



BARN'S

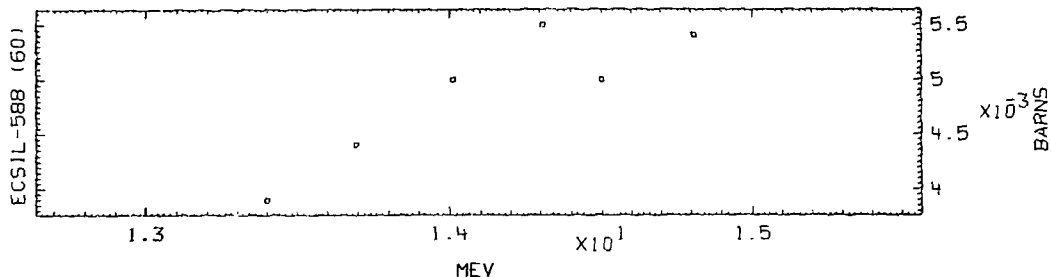
4-69

39-Y -89 -6

03/01/74

N, ALPHA
CROSS SECTION

39-Y -89



03/01/74

N, N'

39-Y -89

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
65	889	6.0400+ 0	2.3000- 1	2.3000+ 0	3.0000- 1						
65 1809	3.7700+ 0	7.0000- 2	1.4000- 1	2.0000- 2	9.0800- 1	65 1809	3.7700+ 0	7.0000- 2	1.9500- 1	1.0000- 2	2.8400+ 0
65 1809	3.7700+ 0	7.0000- 2	1.4000- 1	7.0000- 3	2.2200+ 0	62 599	3.1600+ 0		3.0000- 2	1.0000- 2	3.0500+ 0
62 599	2.9700+ 0		2.0000- 2	1.0000- 2	2.8400+ 0	62 599	3.3600+ 0		1.1000- 1	2.0000- 2	3.0500+ 0
62 599	3.1600+ 0		1.3000- 1	4.0000- 2	2.8400+ 0	65 1809	3.7700+ 0	7.0000- 2	3.6000- 1	2.0000- 2	3.0500+ 0
62 599	3.3600+ 0		1.0000- 1	2.0000- 2	2.8400+ 0						
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
68 3368	1.4700+ 1	1.0000- 1	5.2400- 1	5.8000- 2	1.5780+ 1	65 2120	1.4600+ 1	3.0000- 1	4.0000- 1	4.7000- 2	1.6800+ 1
67 2602	2.8000+ 0	7.0000- 2	2.5100+ 2	3.2630+ 1	1.6000+ 1	68 2836	1.5000+ 1	3.0000- 1	5.9400- 1	1.3000- 1	1.7000+ 1
67 1776	1.5000+ 1	3.0000- 1	5.9400- 1	1.3000- 1	1.6000+ 1						
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV					
65 1809	3.7700+ 0	7.0000- 2	5.0000- 1	2.5000- 2	1.5100+ 0	1.7500+ 0					
65 1809	3.7700+ 0	7.0000- 2	1.6500- 1	1.8000- 3	2.5300+ 0	2.6100+ 0					

4-70

39-Y -89 -7

03/01/74

N,2N
CROSS SECTION

39-Y -89

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	377	1.4000+ 1		1.3500+ 0 3.3750- 1	66	1873	1.4700+ 1	1.0000- 1	1.0150+ 0 5.0750- 2
66	1873	1.4050+ 1	5.0000- 2	9.1500- 1 4.5750- 2	67	2009	1.5000+ 1		1.0100+ 0 1.5150- 1
59	615	1.4100+ 1		5.4010- 1 8.0010- 2	61	2116	1.6000+ 1		1.1250- 3 2.9250- 4
62	702	1.4600+ 1	3.0000- 1	5.4210- 1 5.8010- 2					

03/01/74

N,P

39-Y -89

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66	1675	1.4700+ 1	5.3000- 2	5.0000- 3

03/01/74

N,ALPHA

39-Y -89

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62	702	1.4600+ 1	3.0000- 1	9.6000- 2 2.4000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
63	756	1.4800+ 1	9.1000- 4	4.5000- 4 1.0000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs DAYS
53	27	1.4500+ 1	6.9710- 2	4.2000- 2 1.9000+ 1

03/01/74

BOUND ATOM

39-Y -89

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	2118	2.5300- 8	7.6300+ 0	1.0000- 2

03/01/74

FREE ATOM
CROSS SECTION

39-Y -89

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2118	2.5300- 8		7.4600+ 0	1.0000- 2

03/01/74

COHERENT SCATTERING

39-Y -89

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2118	2.5300- 8		7.5800+ 0	3.0000- 2

03/01/74

INCOHERENT SCATTER.

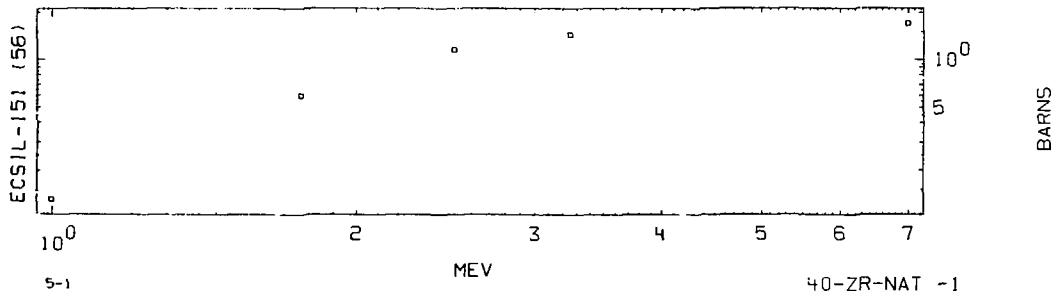
39-Y -89

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2118	2.5300- 8		5.0000- 2	3.0000- 2

03/01/74

NONELASTIC
CROSS SECTION

40-ZR-NAT



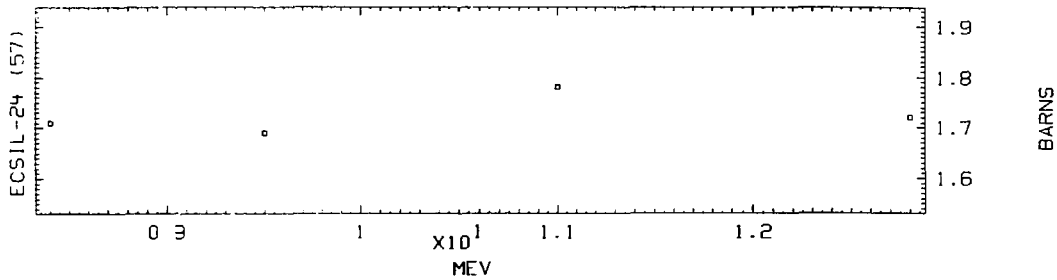
5-1

40-ZR-NAT -1

03/01/74

NONELASTIC CROSS SECTION

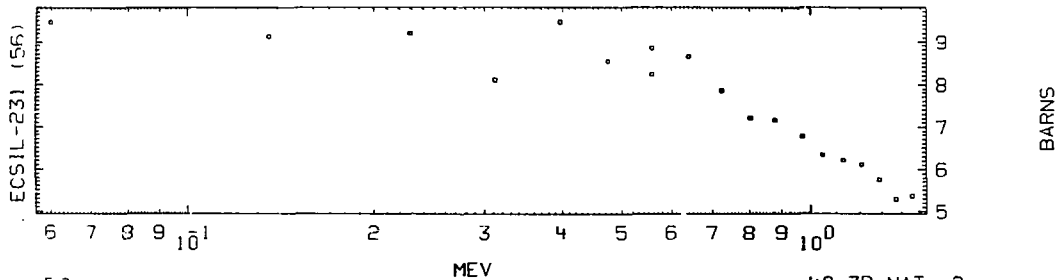
40-ZR-NAT



03/01/74

TOTAL SCATTERING CROSS SECTION

40-ZR-NAT



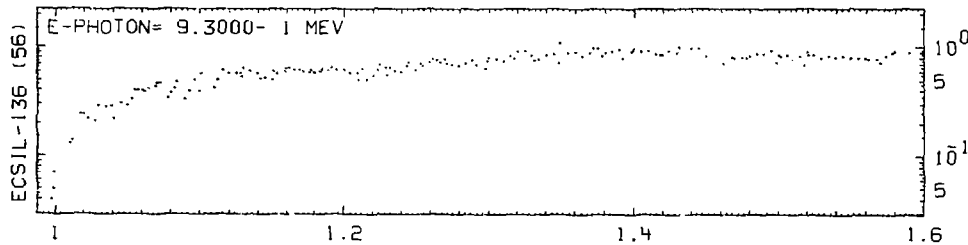
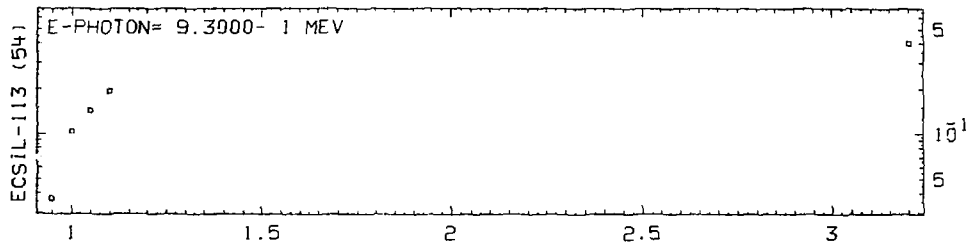
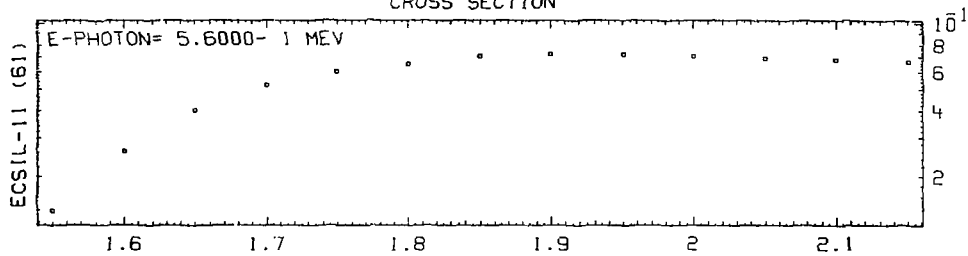
5-2

40-ZR-NAT -2

03/01/74

N, X GAMMA
CROSS SECTION

40-ZR-NAT

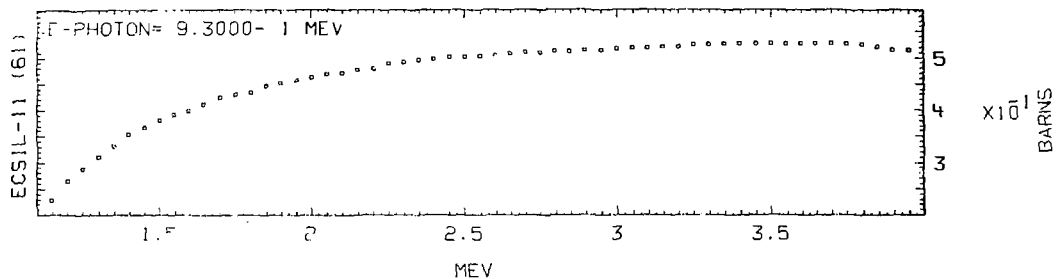


BARNs

03/01/74

N, X GAMMA
CROSS SECTION

40-ZR-NAT



03/01/74

NONELASTIC

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
55	122	4.0000+ 0	7.0010- 2	1.5600+ 0	5.0000- 2	57	319	1.4200+ 1	1.5000- 1	1.7200+ 0	3.0000- 2
55	296	4.1000+ 0	4.0000- 2	1.8000+ 0	2.0000- 1	59	356	2.5500+ 1		1.5800+ 0	8.0010- 2
55	122	4.5000+ 0	7.0010- 2	1.5900+ 0	7.0010- 2						

03/01/74

TOTAL SCATTERING

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69	2508	5.3900-10		6.0600+ 0
63	879	9.8000- 1	5.0000- 2	6.5600+ 0

03/01/74

N, N'

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57	317	1.4100+ 1		4.1000- 1
				9.0910- 2

03/01/74

N, 2N
CROSS SECTION

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 182	1.4100+ 1		1.2500+ 0	9.0000- 2
57 317	1.4100+ 1		6.1010- 1	1.0000- 1

03/01/74

ABSORPTION

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2508	5.3900- 10		1.2000- 1		58 1162	2.5300- 8		1.9000- 1	4.0000- 3
66 1491	2.5300- 8		1.8200+ 1	2.0000- 3	65 1364	2.4000- 2		1.9000- 2	5.0000- 3

03/01/74

N, X GAMMA

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
54 113	3.2000+ 0	2.0000- 1	3.8000- 2	7.6000- 3	6.9000- 1	54 113	3.2000+ 0	2.0000- 1	1.4000- 1	2.8000- 2	1.5000+ 0
54 113	3.2000+ 0	0.0000- 1	1.2000- 1	2.4000- 2	1.1400+ 0	54 113	3.2000+ 0	2.0000- 1	4.4000- 1	8.8000- 2	2.1700+ 0

03/01/74

N, X CHARGED PARTICLE

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 96	1.4500+ 1	5.0000- 1	8.7000- 2	2.2000- 2

03/01/74

N, P

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 361	1.4000+ 1		6.2000- 2	1.2000- 2
55 125	1.4100+ 1		1.8000- 1	7.0010- 2

03/01/74

ROUND ATOM
CROSS SECTION

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	3.000- 8		7.0000+ 0	

03/01/74

FREE ATOM

40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 887	1.4000- 5		6.2000+ 0	7.0000- 2

03/01/74

COHERENT SCATTERING

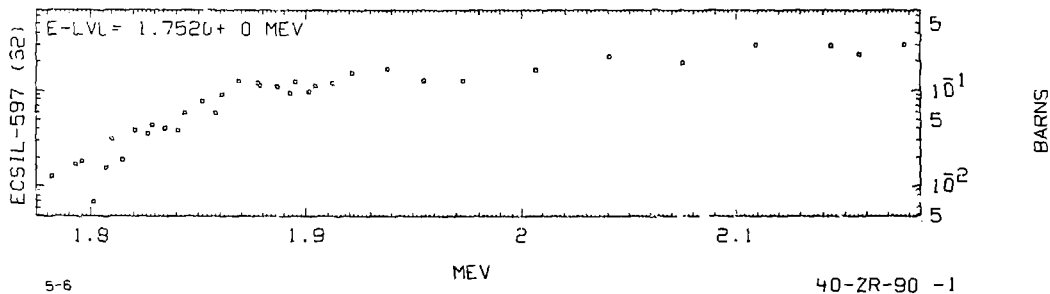
40-ZR-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2877	2.5300- 8		6.1600+ 0	
51 2818	2.5300- 8		5.1600+ 0	
51 1584	2.3000- 8		4.9000+ 0	3.9200- 1

03/01/74

N,N'
CROSS SECTION

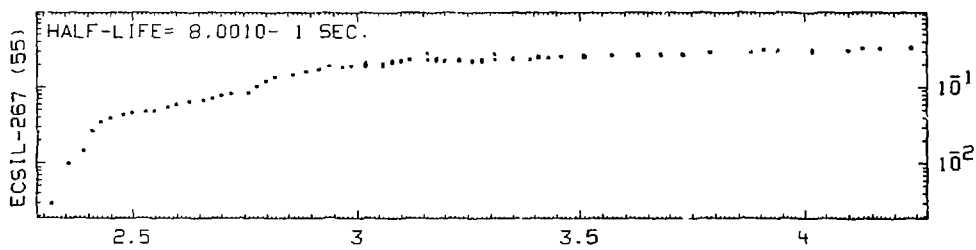
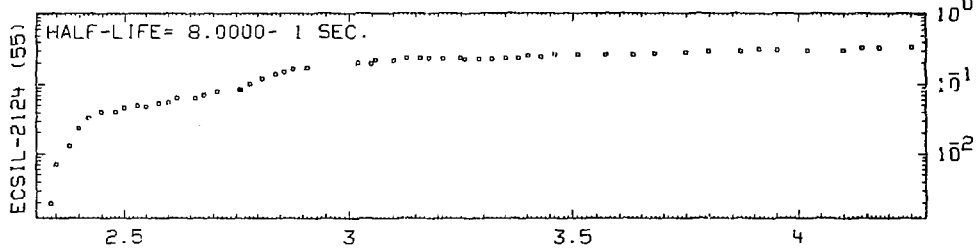
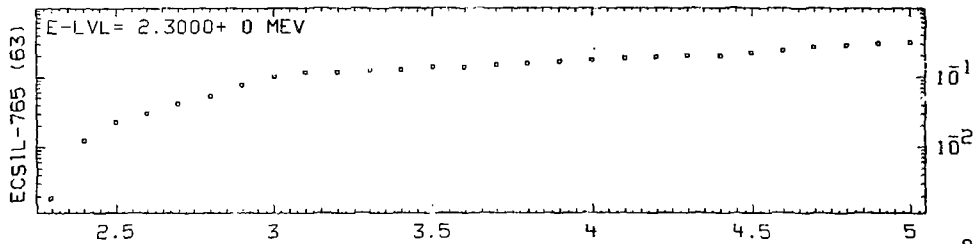
40-ZR-90



03/01/74

N,N'
CROSS SECTION

40-ZR-90



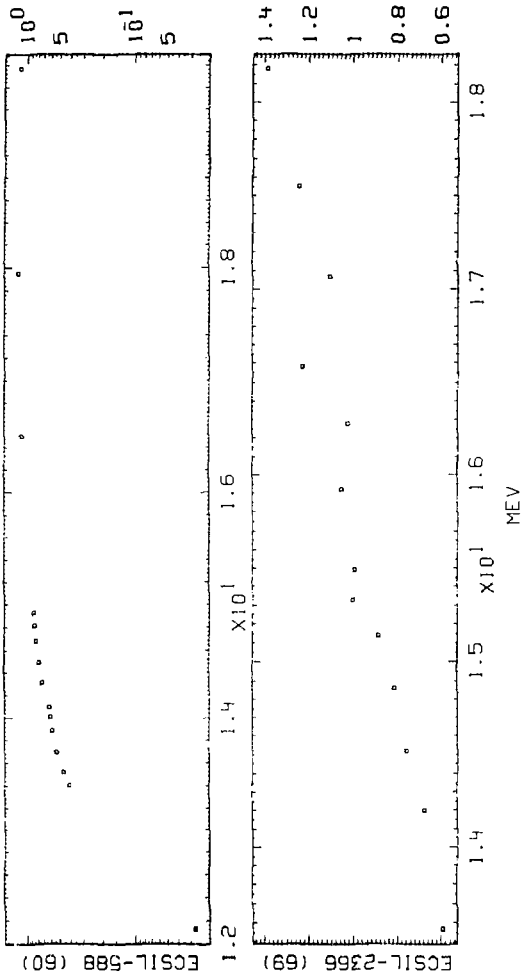
BARNS

03/01/74

N.2N

40-ZR-90

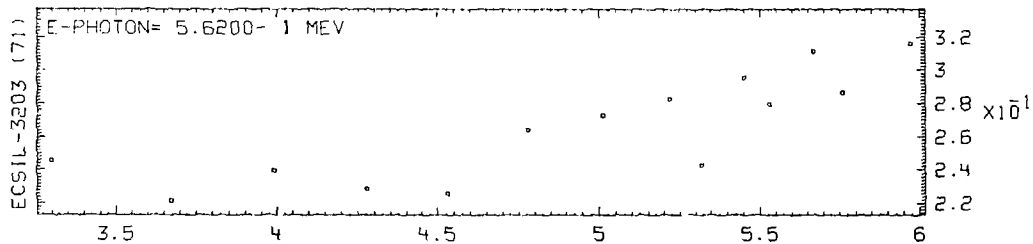
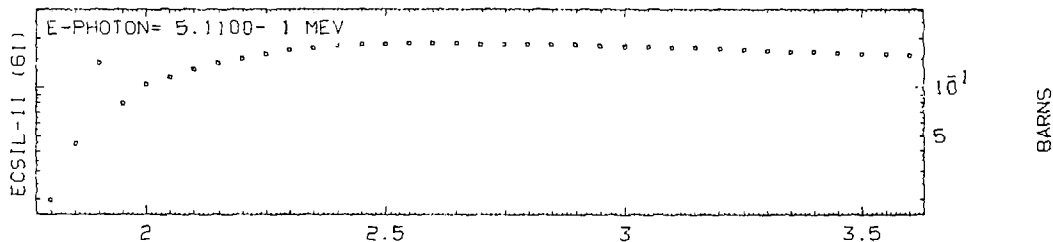
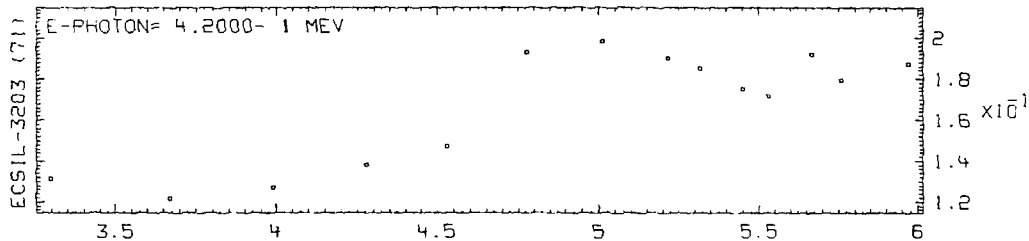
CROSS SECTION



03/01/74

N, X GAMMA
CROSS SECTION

40-ZR-90



5-9

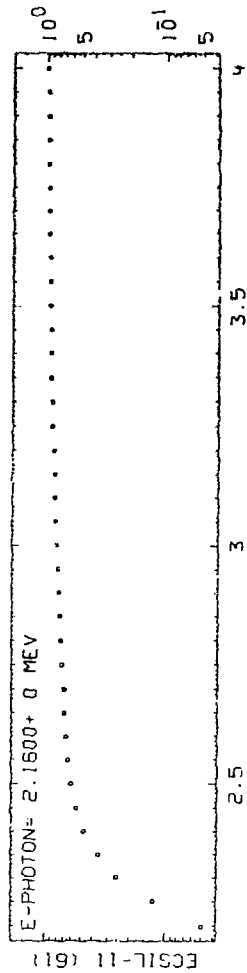
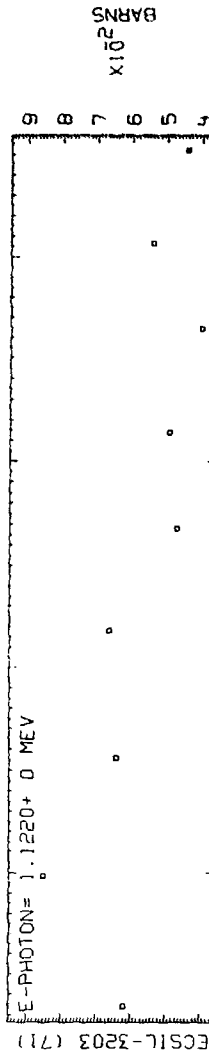
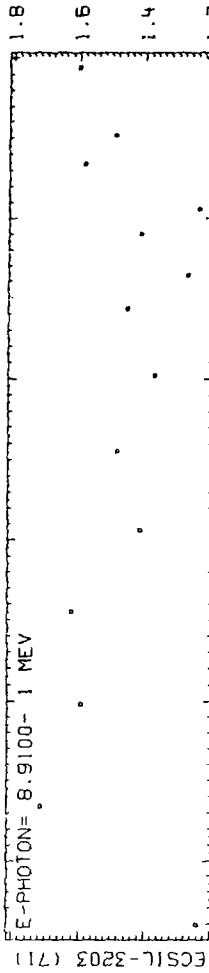
MEV

40-ZR-90 -4

03/01/74

N, X GAMMA
CROSS SECTION

40-ZR-90



5-10

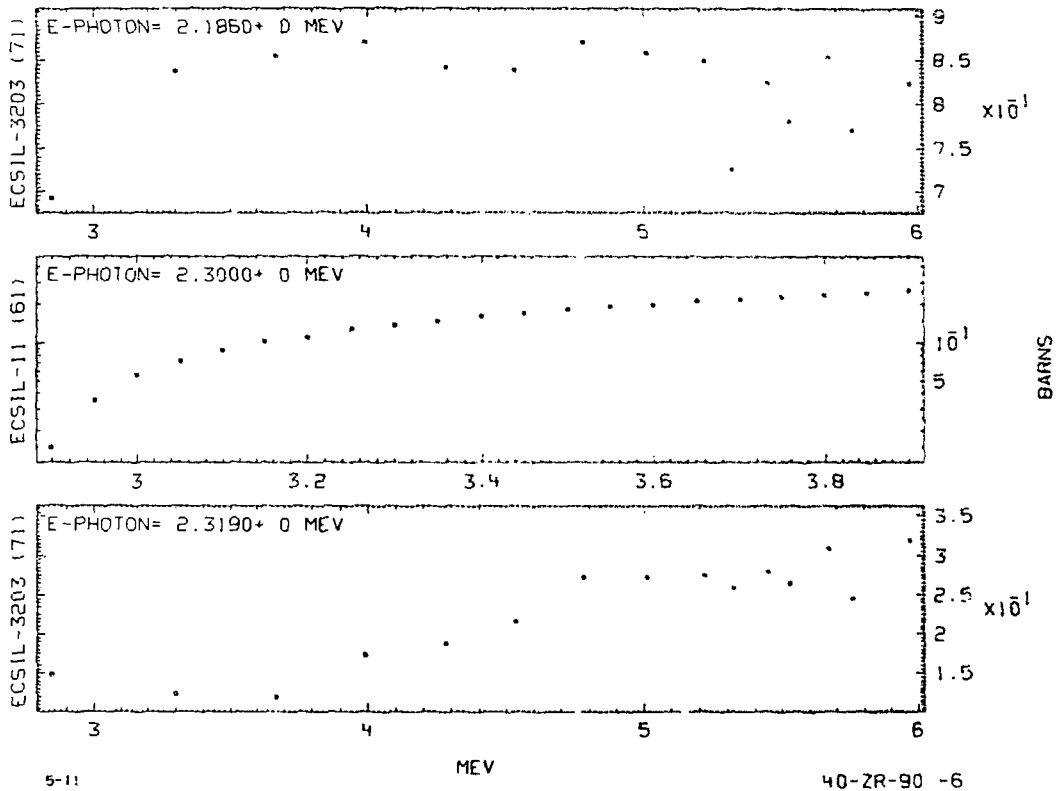
MEV

40-ZR-90 -5

03/01/74

N, X GAMMA
CROSS SECTION

40-ZR-90

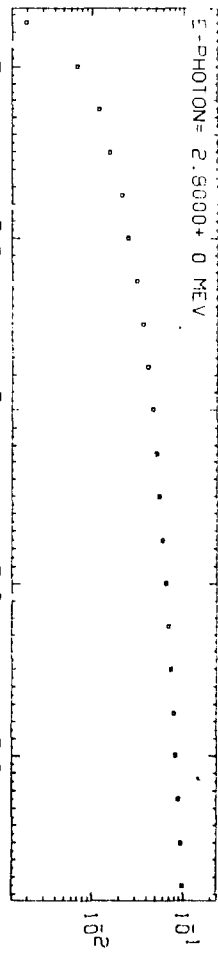


03/01/74

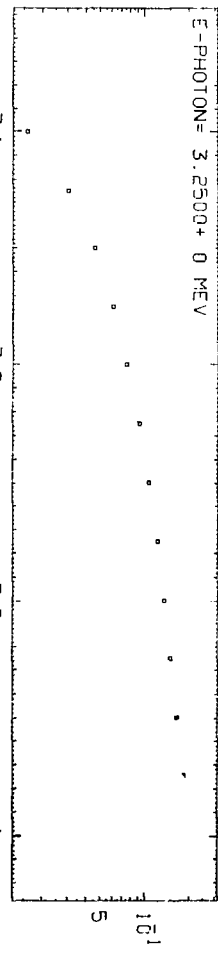
N. X GAMMA
CROSS SECTION

40-ZR-90

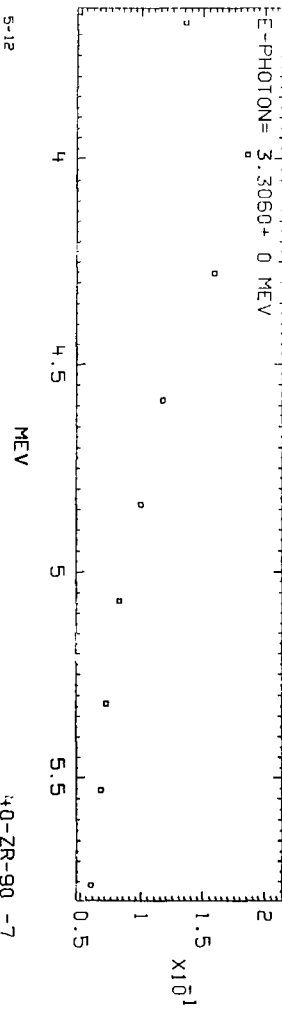
ECSIL-11 (61)



ECSIL-11 (61)



ECSIL-3203 (71)



s-12

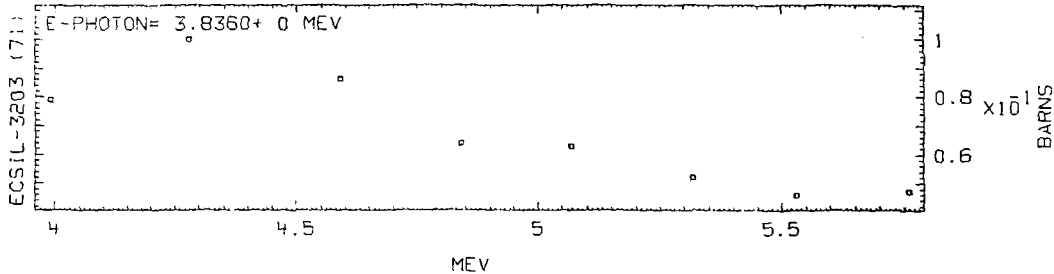
40-ZR-90 -7

BARN

03/01/74

N,X GAMMA
CROSS SECTION

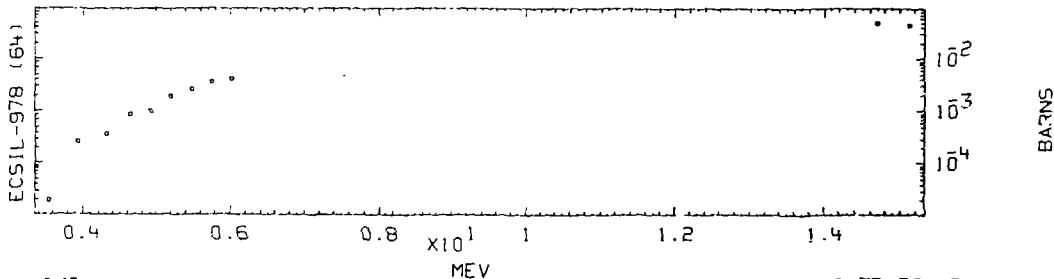
40-ZR-90



03/01/74

N,P
CROSS SECTION

40-ZR-90



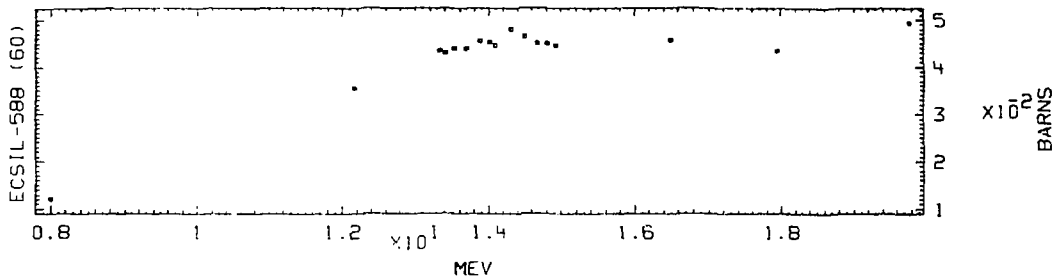
5-13

40-ZR-90 -8

03/01/74

N,P
CROSS SECTION

40-ZR-90



03/01/74

N,2N

40-ZR-90

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN		
60 644	1.4100+ 1		5.4410- 1	2.2000- 2	62 702	1.4600+ 1	3.0000- 1	5.0210- 1	3.6000- 2		
61 676	1.4400+ 1	3.0000- 1	6.7710- 1	5.4010- 2	70 3150	1.4800+ 1	2.0000- 1	4.8500- 1	2.9000- 2		
69 2354	1.4800+ 1	2.0000- 1	7.9300- 1	6.0000- 2	67 2009	1.5100+ 1		8.0000- 1	1.2000- 1		
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE MINUTES
71 1873	1.4700+ 1	1.0000- 1	7.4700- 1	4.7000- 2	0.0000+ 0	66 1873	1.4700+ 1	1.0000- 1	1.4200- 1	2.1000- 1	2.4000+ 0
66 1873	1.4700+ 1	1.3000- 1	1.4200- 1	2.1300- 2	4.2000+ 0	63 80*	1.4800+ 1	2.5000- 1	1.6800- 1	2.0160- 2	4.4000+ 0
70 3150	1.4800+ 1	2.0000- 1	1.4300- 1	1.5000- 2	4.2000+ 0	63 756	1.4800+ 1	2.0000- 1	8.4010- 2	1.2000- 2	4.4000+ 0
60 644	1.4100+ 1		7.4000- 2	3.0000- 3	4.2500+ 0	53 27	1.4500+ 1		7.9610- 2	4.0000- 2	4.5000+ 0
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE HOURS						
66 1873	1.4050+ 1	5.0000- 2	5.9500- 1	2.9750- 2	7.6400+ 1						
70 3150	1.4800+ 1	2.0000- 1	3.4200- 1	2.5000- 2	7.6400+ 1						
60 644	1.4100+ 1		4.7000- 1	2.2000- 2	7.9000+ 1						

03/01/74

ABSORPTION
CROSS SECTION

40-ZR-90

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 904	3.0000- 2		1.1000- 2	3.0000- 3

03/01/74

N, X GAMMA

40-ZR-90

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
61 11	3.7000+ 0	2.0000- 2	6.8500- 1	1.7100- 1	1.4600+ 0

03/01/74

N, P

40-ZR-90

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 323	1.4000+ 1		5.4010- 2	1.0000- 2
60 644	1.4100+ 1		4.3100- 2	2.0000- 3
62 702	1.4600+ 1	3.0000- 1	2.3300- 1	2.9000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	HOURS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	HOURS
62 770	1.4700+ 1		1.2000- 2	4.0000- 3	3.1000+ 0	53 27	1.4500+ 1		2.4700- 1	9.9010- 2	6.0010+ 1
70 3150	1.4800+ 1	2.0000- 1	1.3000- 2	1.0000- 3	3.2000+ 0	63 860	1.4500+ 1		4.5000- 2		6.4000+ 1

03/01/74

N, ALPHA

40-ZR-90

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 131	1.4000+ 1		3.3000- 3	6.0000- 4

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	MINUTES
53 27	1.4500+ 1		1.9400- 1	1.1000- 1	2.7500+ 1

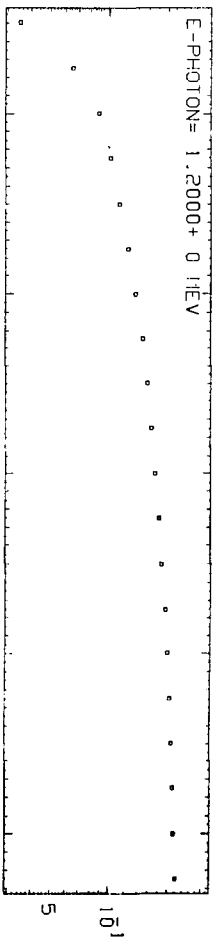
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	HOURS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	HOURS
58 401	1.4050+ 1	5.5010- 1	3.3000- 3	6.0010- 4	2.8000+ 0	63 860	1.4500+ 1		4.2000- 3		2.8000+ 0
60 644	1.4100+ 1		3.5400- 3	2.0000- 4	2.8000+ 0	63 756	1.4800+ 1	2.0000- 1	2.8000- 3	1.3000- 3	2.8000+ 0
55 124	1.4100+ 1		3.1000- 3	2.0000- 3	2.8000+ 0	70 3150	1.4800+ 1	2.0000- 1	4.6000- 3	5.0000- 4	2.8000+ 0

03/C1/74

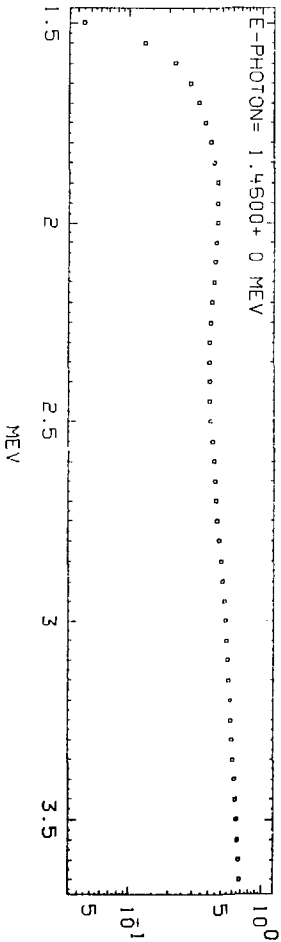
N, X GAMMA
CROSS SECTION

40-ZR-91

ECSIL-11 (61)



ECSIL-11 (61)



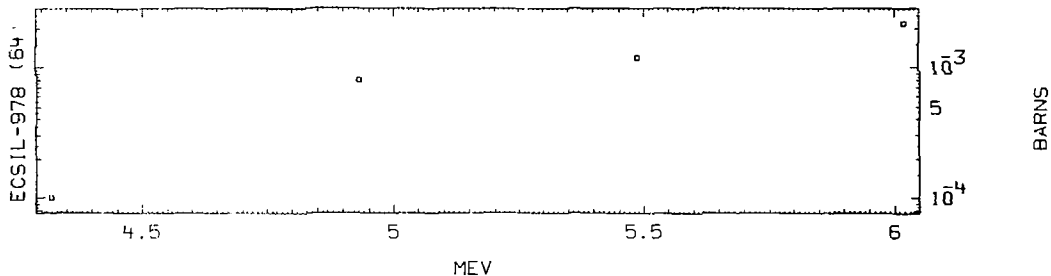
BARNs

03/01/74

N,P

40-ZR-91

CROSS SECTION



03/01/74

ABSORPTION

40-ZR-91

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S
63	904 3.0000- 2		5.9000- 2	1.0000- 2

03/01/74

N,P

40-ZR-91

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S
63	323 1.4000+ 1		4.0000- 2	8.0016- 3	62	702 1.4600+ 1	3.0000- 1	1.8000- 1	4.3000- 2
60	644 1.4100+ 1		3.1700- 2	1.4000- 3	61	701 1.4800+ 1	9.0010- 1	1.7100- 1	

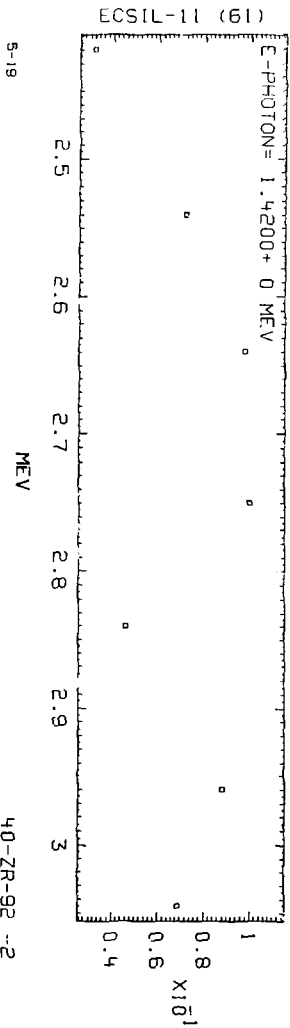
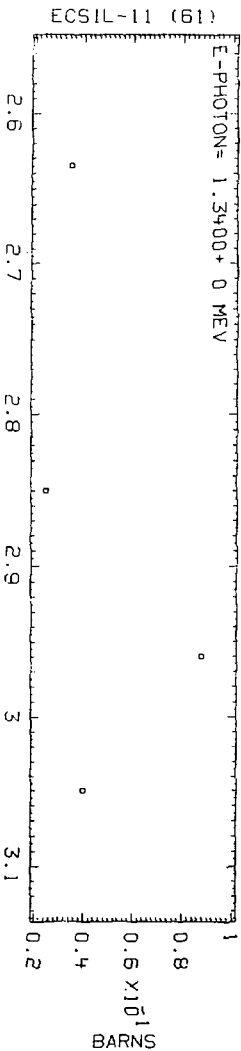
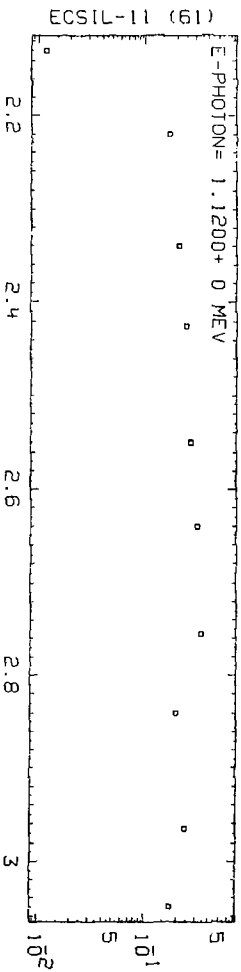
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S	HALF-LIFE MINUTES
60	644 1.4100+ 1		1.7500- 2	8.0010- 4	5.0000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S	HALF-LIFE DAYS
60	644 1.4100+ 1		1.4200- 2	1.4000- 3	5.8016+ 1

03/01/74

N, X GAMMA
CROSS SECTION

40-ZR-92



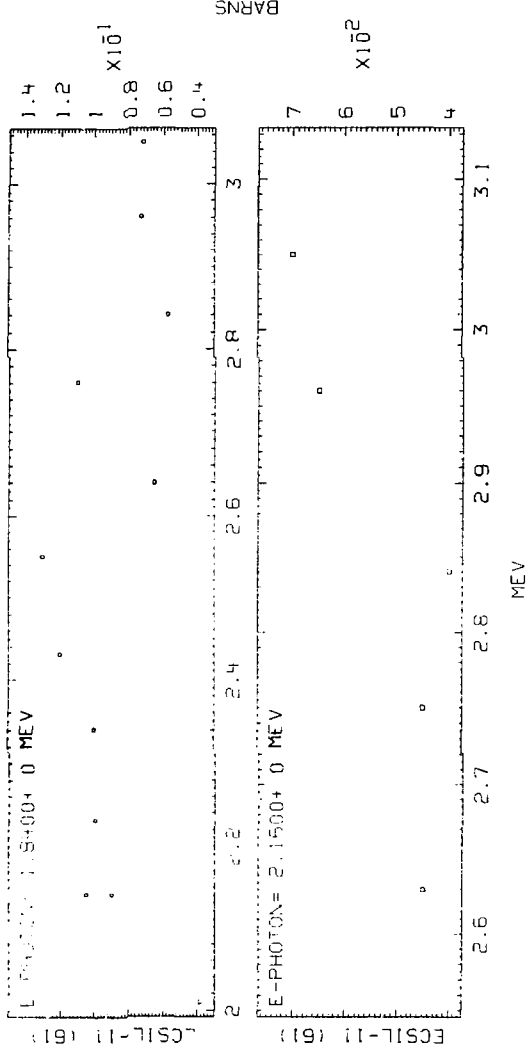
5-19

40-ZR-92 --2

CS-137

N,X GAMMA
CROSS SECTION

40-ZR-92



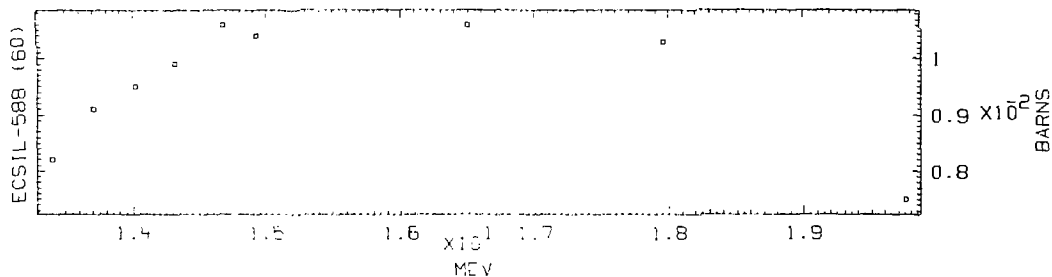
5-20

40-ZR-92 -3

03/01/74

N, ALPHA
CROSS SECTION

40-ZR-92



03/01/74

ABSORPTION

40-ZR-92

REFERENCE	ENERGY eV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	594	3.000E-2	3.400E-2	6.000E-3

03/01/74

N, P

40-ZR-92

REFERENCE	ENERGY eV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY eV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	323	1.400E-1	5.000E-2	5.000E-2	60	594	3.000E-2	7.600E-2	1.600E-2
60	644	1.400E-1	0.070E-1	9.000E-2	63	860	1.400E-1	2.000E-2	4.000E-3
63	860	1.400E-1	3.900E-2		61	101	1.400E-1	9.000E-2	2.250E-2

03/01/74

N, ALPHA

40-ZR-92

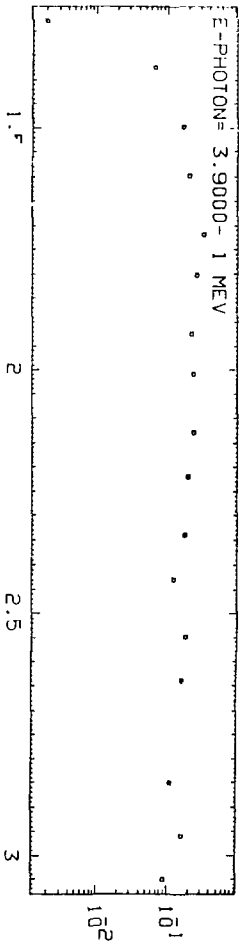
REFERENCE	ENERGY eV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	644	1.400E-1	2.160E-2	1.700E-3

03/01/74

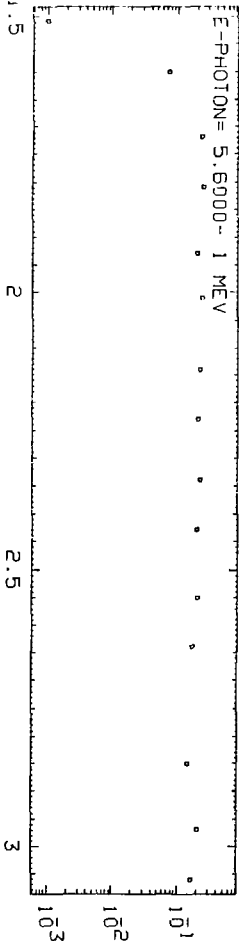
N, X GAMMA
CROSS SECTION

40-ZR-94

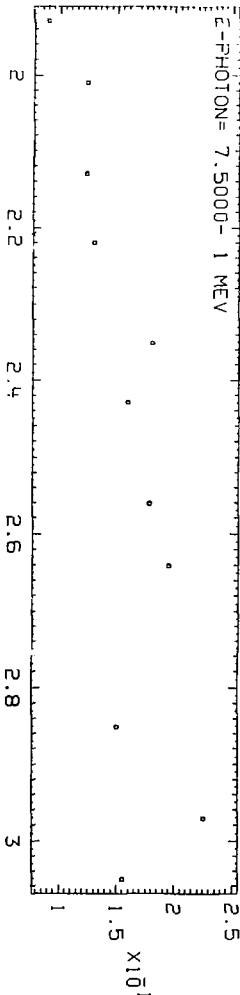
ECSIL-11 (61)



ECSIL-11 (61)



ECSIL-11 (61)



5-22

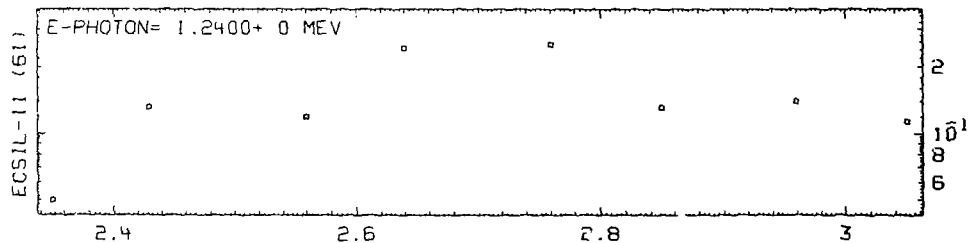
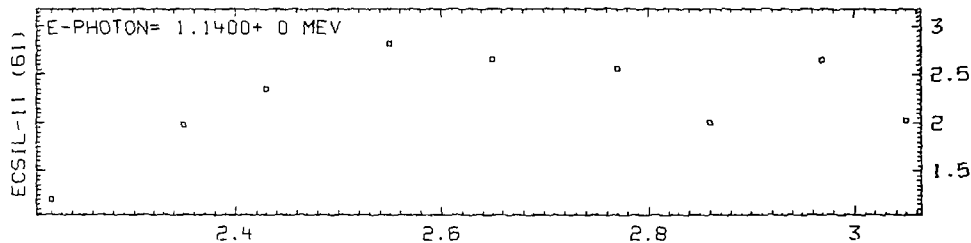
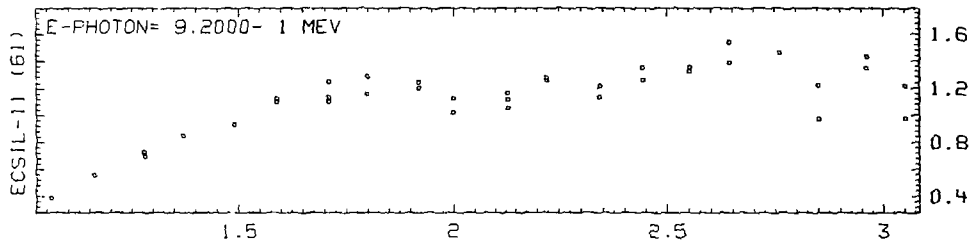
40-ZR-94 - 1

BARNs

03/01/74

N, X GAMMA
CROSS SECTION

40-ZR-94

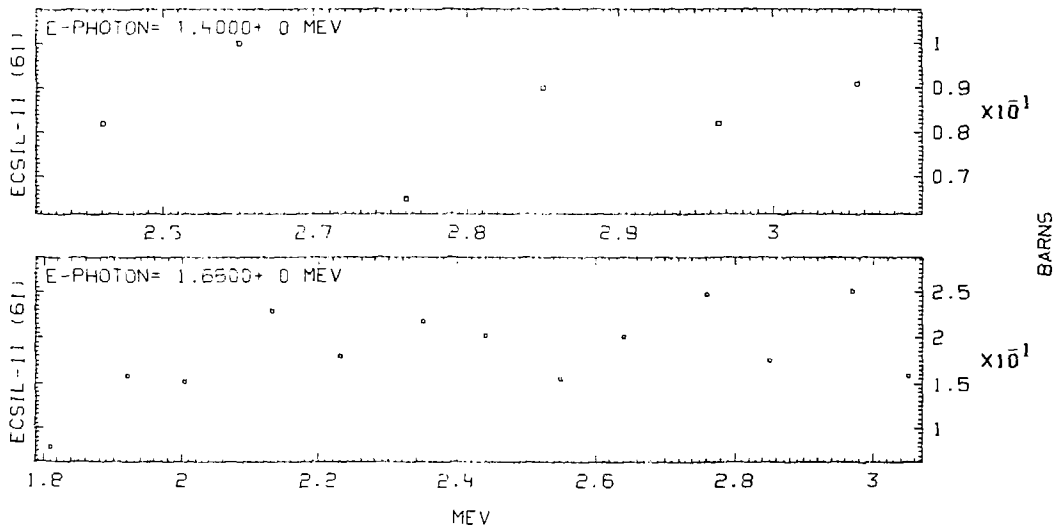


$\times 10^1$
BARNs

03/01/74

N, X GAMMA
CROSS SECTION

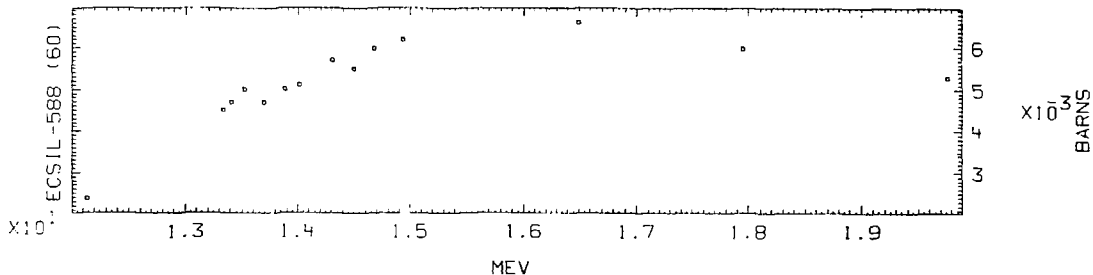
40-ZR-94



03/01/74

N, ALPHA
CROSS SECTION

40-ZR-94



03/01/74

ABSORPTION

40-ZR-94

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	904	2.0000- 2	1.9000- 2	4.0000- 3

03/01/74

N, P

40-ZR-94

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
63	323	1.4000+ 1	1.1000- 2	2.0000- 3	5P	70P	1.4600- 1	3.0000- 1	4.8000- 2	1.2000- 2
60	644	1.4100+ 1	1.0800- 2	6.0010- 4	63	756	1.4800+ 1	2.0000- 1	7.0010- 3	4.0000- 3
63	860	1.4500+ 1	5.1000- 3		61	701	1.4800+ 1	9.0010- 1	6.9010- 3	
55	27	1.4500+ 1	1.0600- 2	4.2000- 3						

03/01/74

N, ALPHA

40-ZR-94

REFERENCE	ENERGY MLV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
55	131	1.4000+ 1	3.6000- 3	5.0000- 4	63	860	1.4500+ 1	3.8000- 3		
63	323	1.4000+ 1	4.7000- 3	8.0010- 4	63	756	1.4800+ 1	2.0000- 1	4.3000- 3	1.1000- 3
60	644	1.4100+ 1	4.0000- 3	1.6000- 3	61	701	1.4800+ 1	9.0010- 1	5.3010- 3	

03/01/74

ABSORPTION
CROSS SECTION

40-ZR-96

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 904	3.0000- 2		4.0000- 2	1.2000- 2

03/01/74

N,P

40-ZR-96

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2181	1.4500+ 1		1.3000- 2	4.0000- 3

03/01/74

N,D

40-ZR-96

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 859	1.4800+ 1		3.0000- 4	

03/01/74

N, ALPHA

40-ZR-96

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 644	1.4000+ 1		4.8000- 3	7.0010- 4	63 756	1.4800+ 1	2.0000- 1	5.0000- 3	4.0000- 3
63 323	1.4000+ 1		2.3000- 3	5.0000- 4	61 701	1.4800+ 1	9.0010- 1	9.6010- 3	
63 860	1.4500+ 1		1.1000- 3						

03/01/74

TOTAL SCATTERING

ZRH.63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2508	5.3900-10		3.1800+ 1	

03/01/74

ABSORPTION

ZRH.63

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2508	5.3900-10		2.8000- 1	

03/01/74

TOTAL SCATTERING
CROSS SECTION

ZRH.98

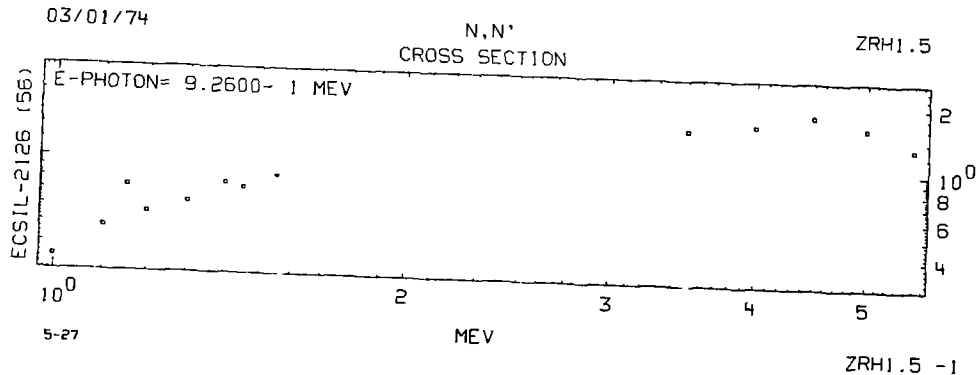
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2508	5.4400-10		4.6200+ 1	

03/01/74

ABSORPTION

ZRH.98

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2508	5.4400-10		3.4000- 1	



03/01/74

N,N'
CROSS SECTION

ZRH1.5

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 212B	9.5000-1		7.0000-2	

03/01/74

TOTAL SCATTERING

ZRH1.98

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 202B	5.4400-10		9.6900+1	

03/01/74

ABSORPTION

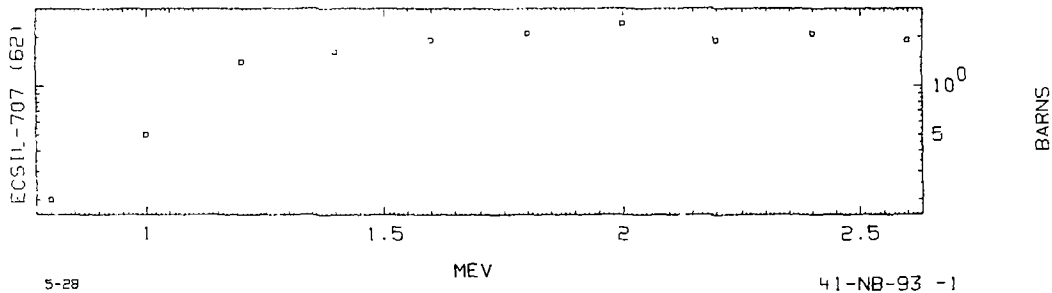
ZRH1.98

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 202B	5.4400-10		5.6000-1	

03/01/74

NONELASTIC
CROSS SECTION

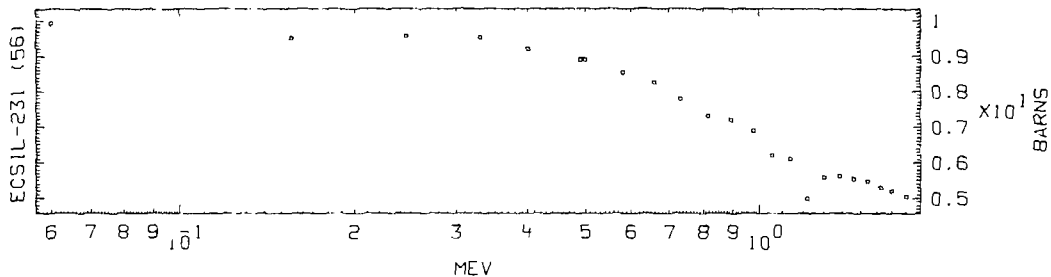
41-NB-93



03/01/74

TOTAL SCATTERING
CROSS SECTION

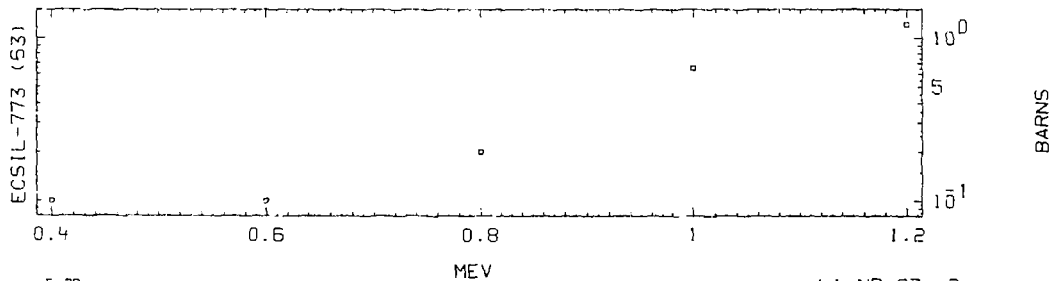
41-NB-93



03/01/74

N,N'
CROSS SECTION

41-NB-93



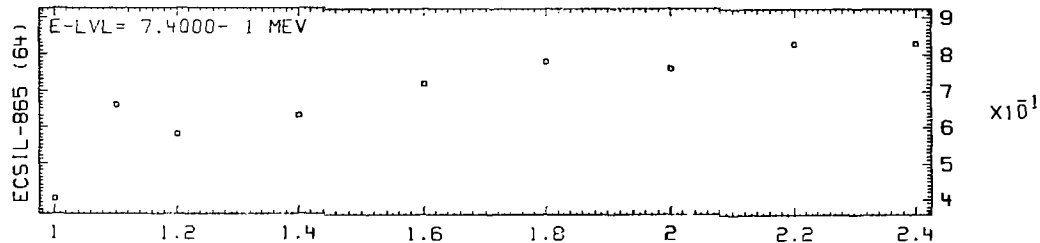
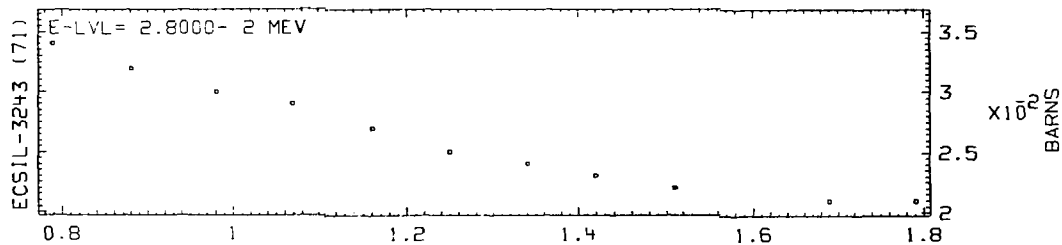
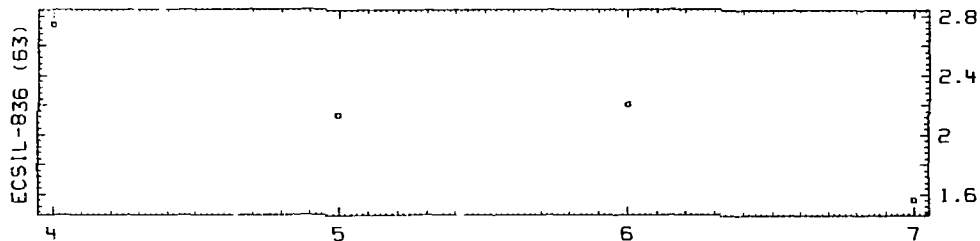
5-29

41-NB-93 -2

03/01/74

N,N'
CROSS SECTION

41-NB-93



5-72

MEV

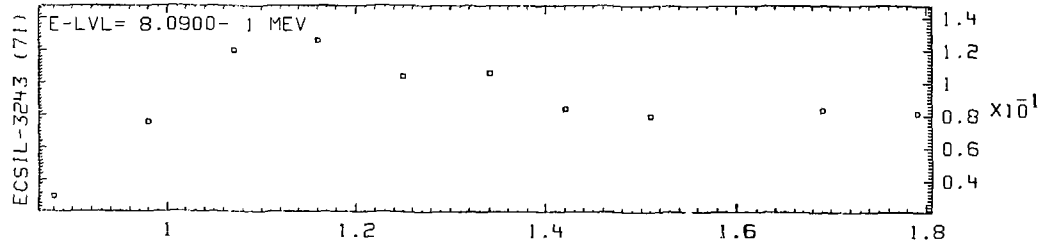
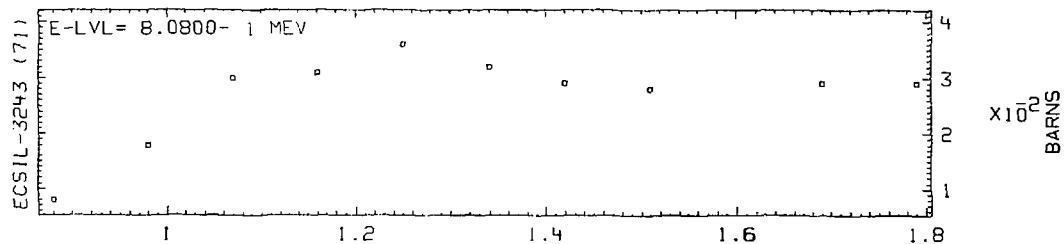
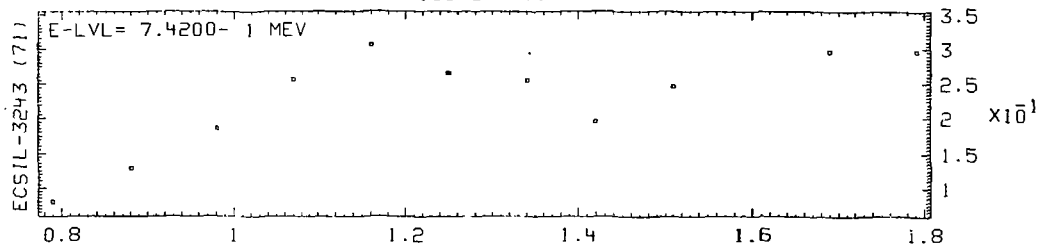
41-NB-93 -3

03/01/74

N,N'

41-NB-93

CROSS SECTION



5-31

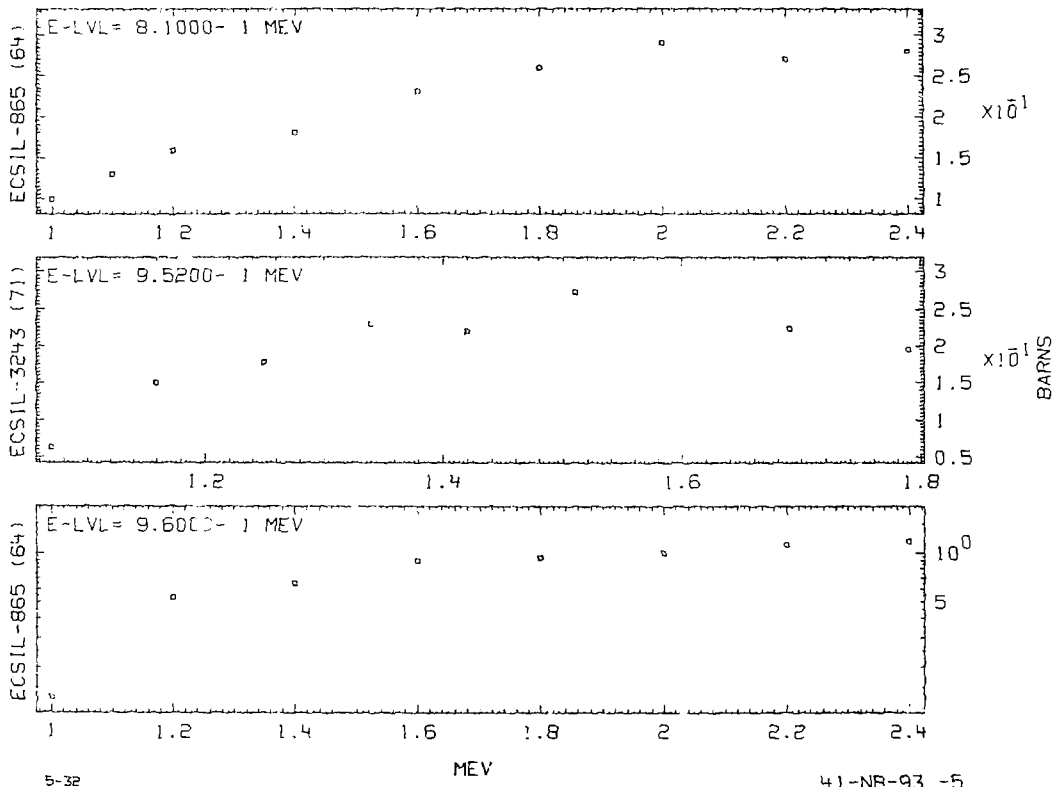
MEV

41-NB-93 -4

03/01/74

N,N'
CROSS SECTION

41-NB-93



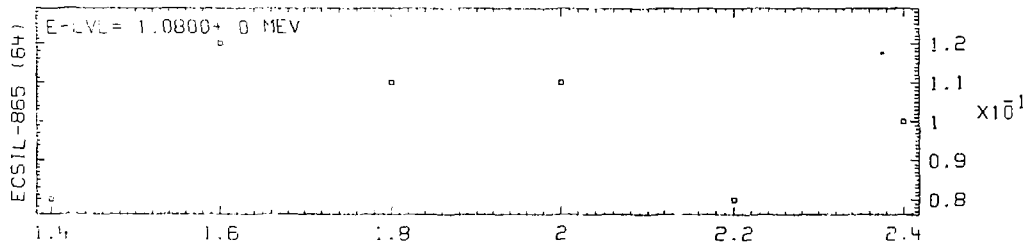
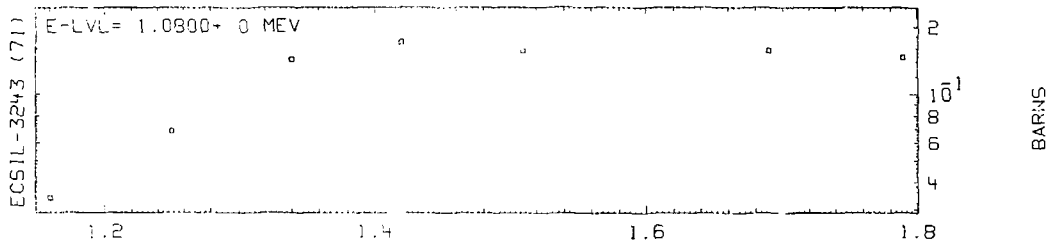
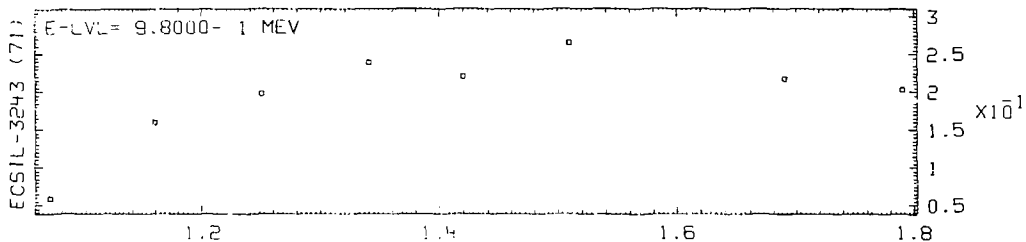
5-32

41-NR-93 -5

03/01/74

N,N'
CROSS SECTION

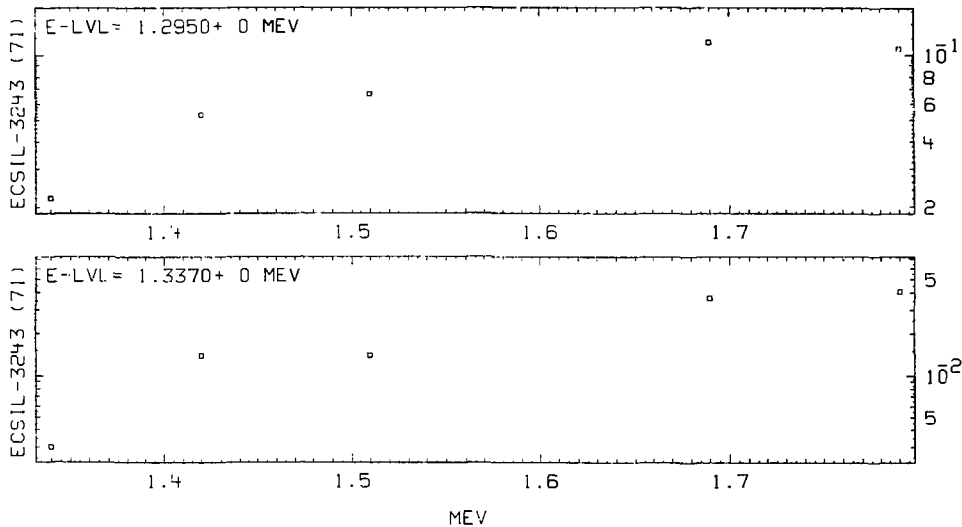
41-NB-93



03/01/74

N,N'
CROSS SECTION

41-NB-93

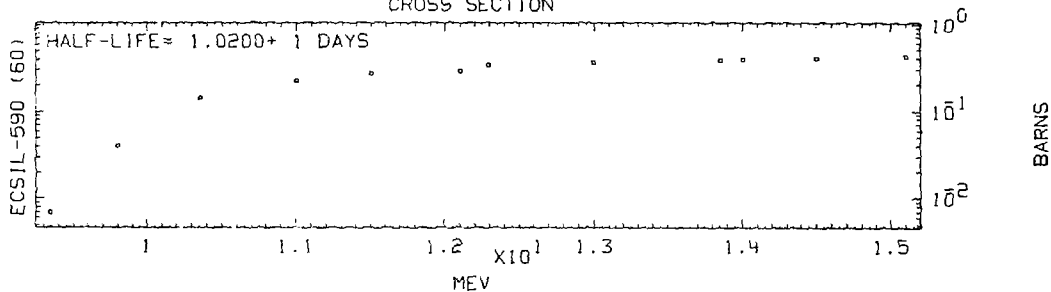


03/01/74

N,2N

41-NB-93

CROSS SECTION

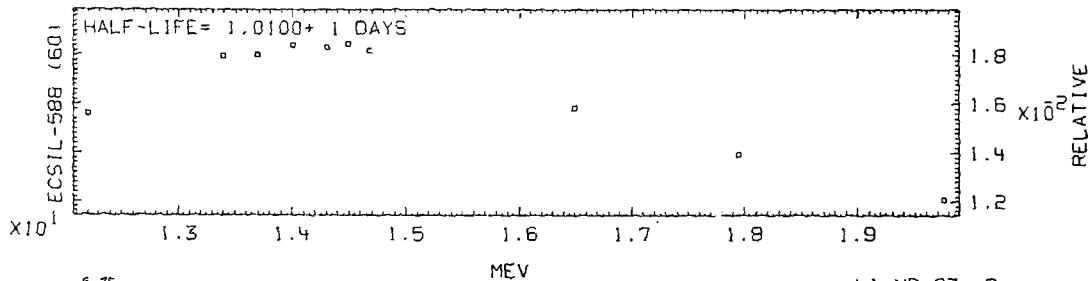


03/01/74

N,2N

41-NB-93

CROSS SECTION



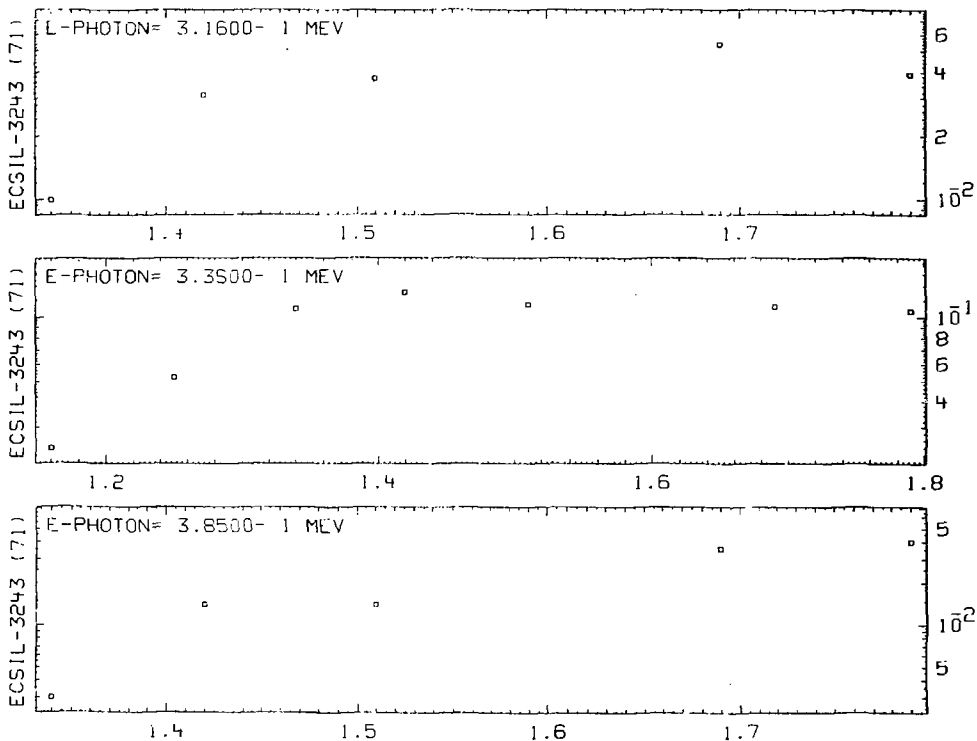
5-35

41-NB-93 -8

03/01/74

N,X GAMMA
CROSS SECTION

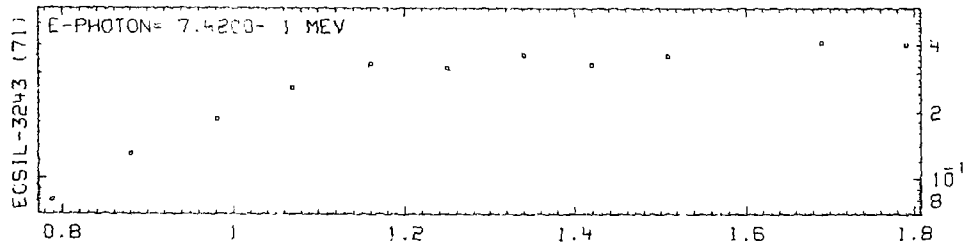
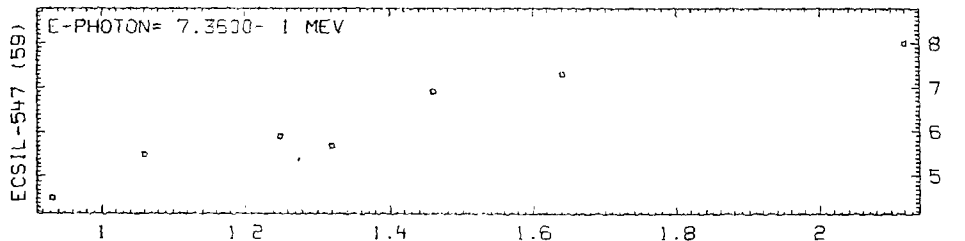
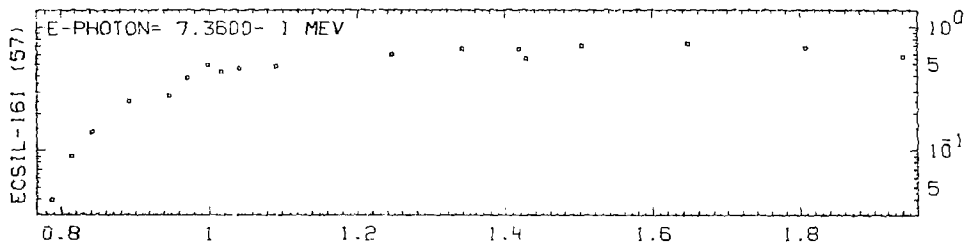
41-NB-93



03/01/74

N,X GAMMA
CROSS SECTION

41-NB-93

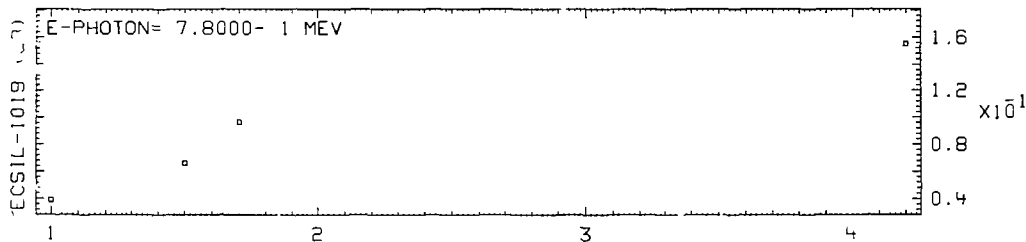
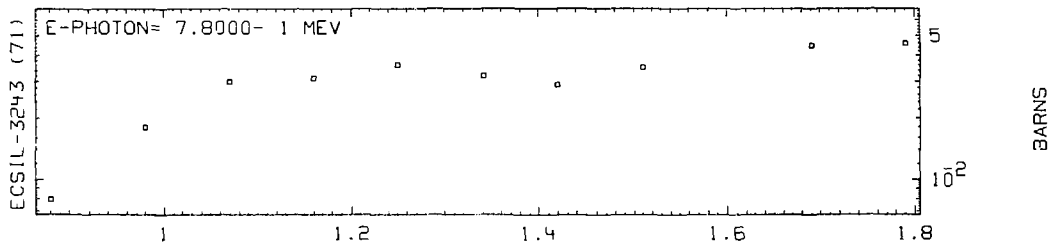
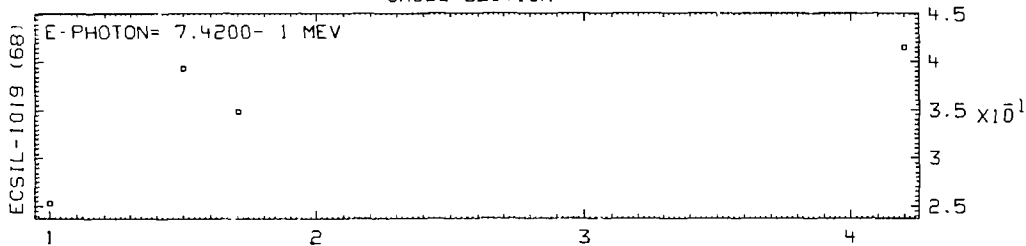


$\times 10^1$
BARNs

03/01/74

N, X GAMMA
CROSS SECTION

41-NB-93



5-38

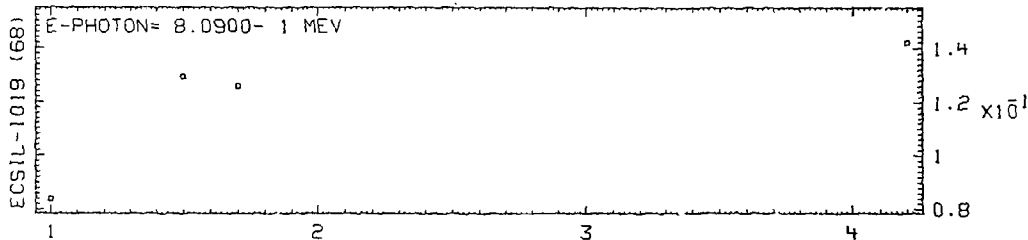
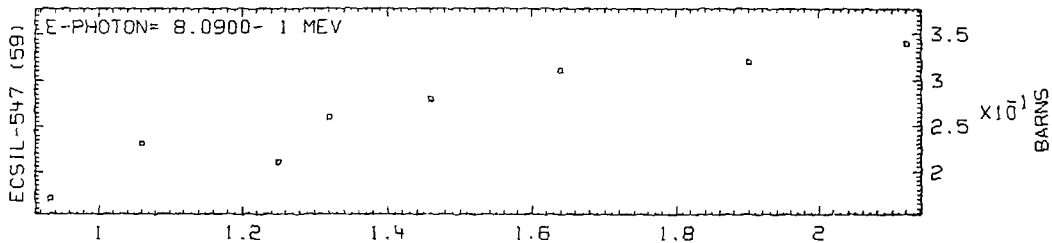
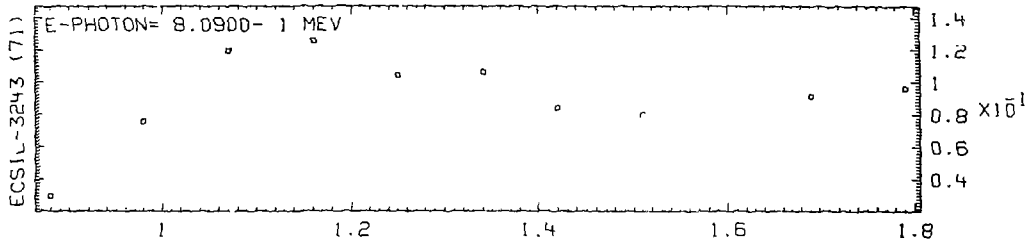
MEV

41-NB-93 -11

03/01/74

N,X GAMMA
CROSS SECTION

41-NB-93



5-39

MEV

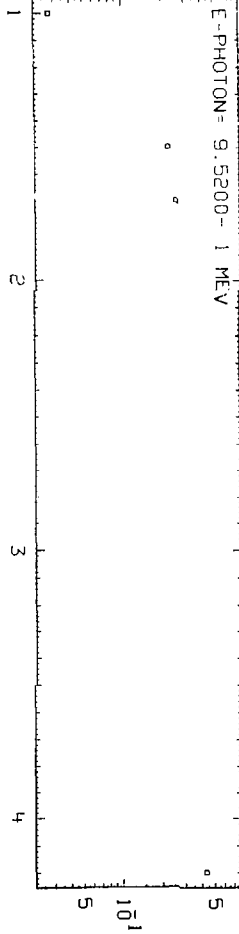
41-NB-93 -12

03/01/74

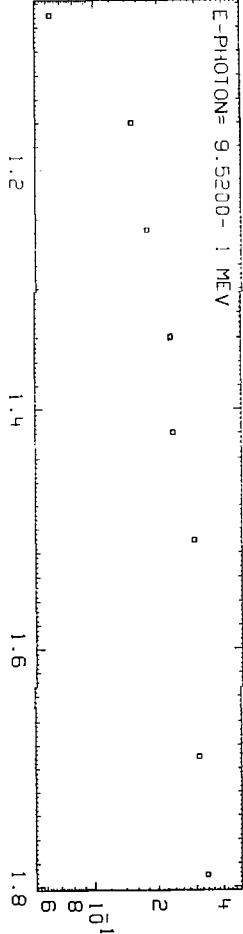
N. X GAMMA
CROSS SECTION

41-NB-93

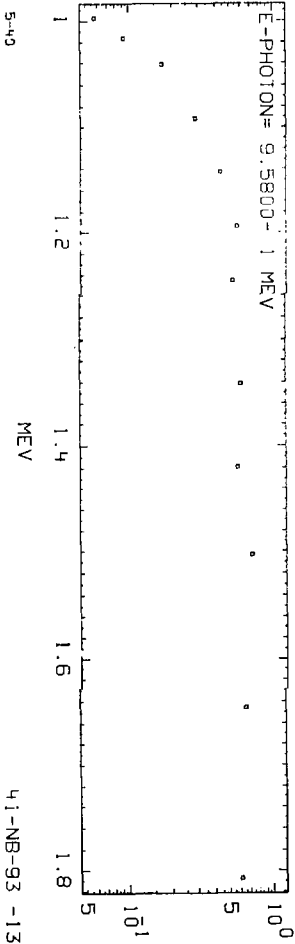
ECSIL-1019 (68)



ECSIL-3243 (71)



ECSIL-161 (57)



BARN

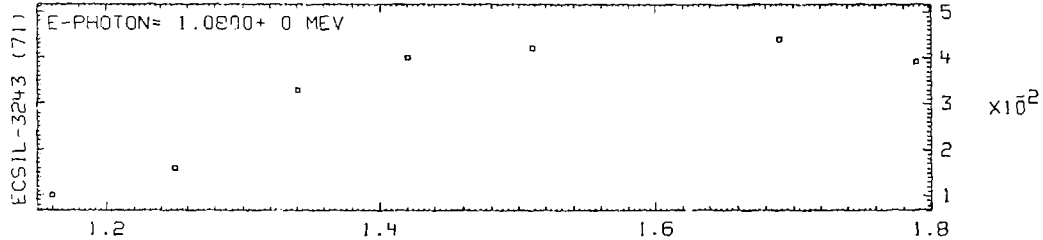
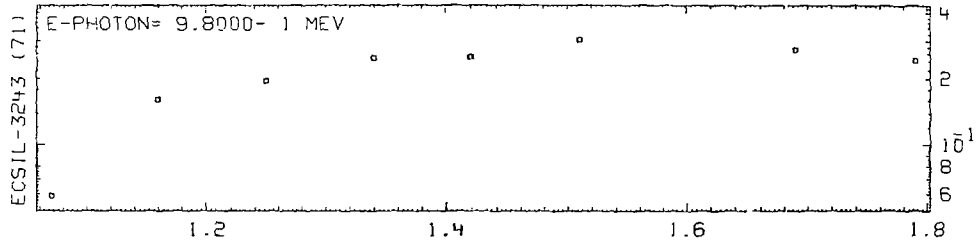
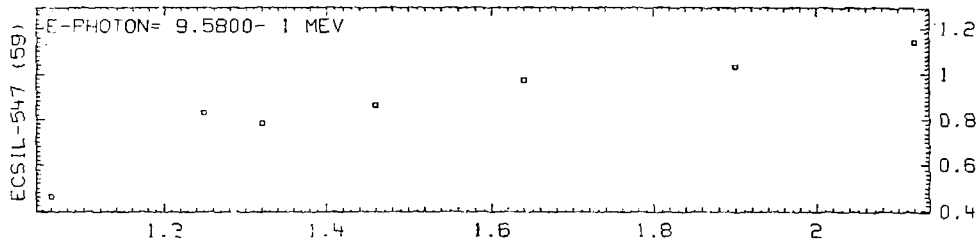
5-40

41-NB-93 -13

03/01/74

N,X GAMMA
CROSS SECTION

41-NB-93



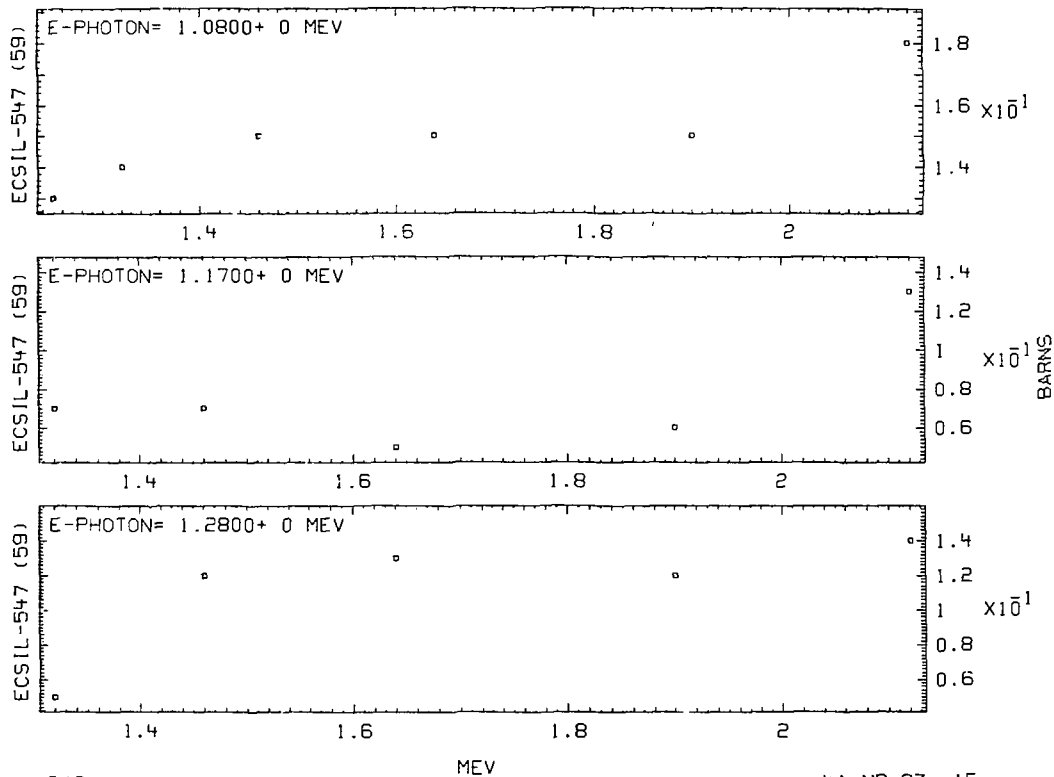
BARN

$\times 10^2$

03/01/74

N, X GAMMA
CROSS SECTION

41-NB-93



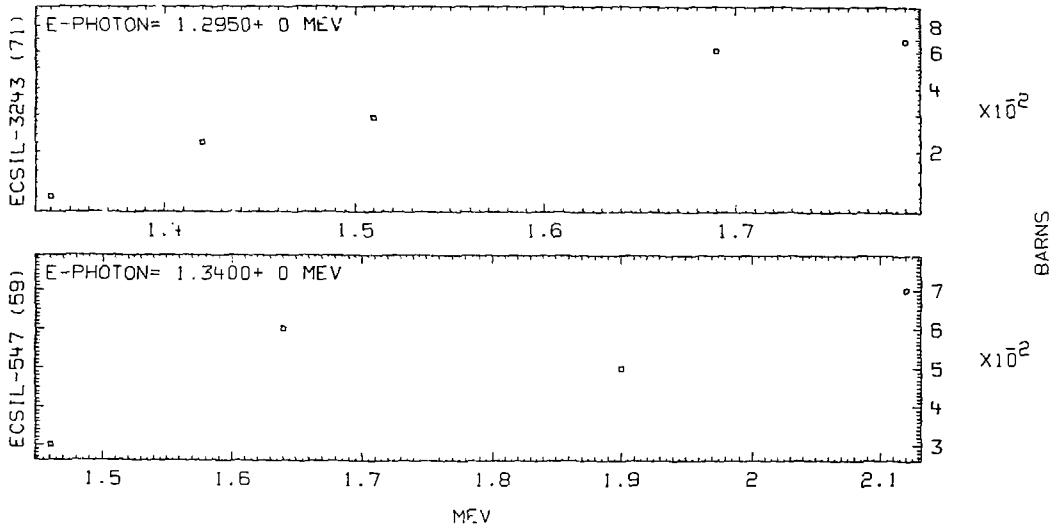
5-42

41-NB-93 -15

03/01/74

N,X GAMMA
CROSS SECTION

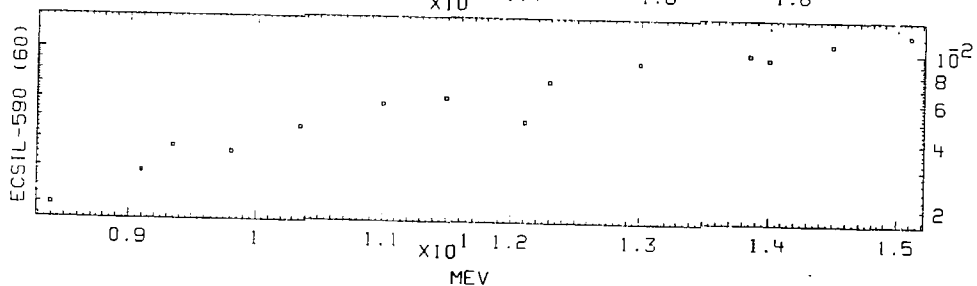
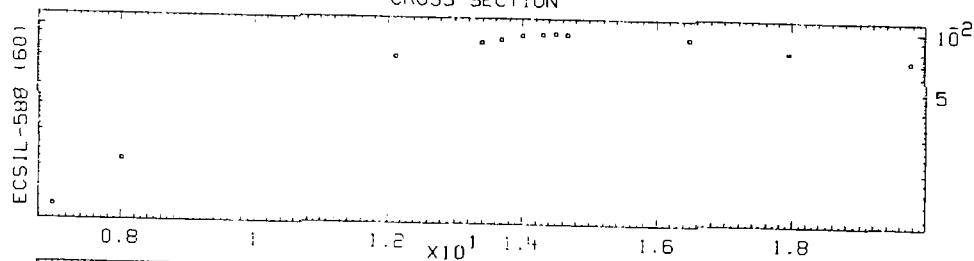
41-NB-93



03/01/74

N, ALPHA
CROSS SECTION

41-NB-93



BARNs

03/01/74

NONELASTIC

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54	103	1.0000+ 0	5.0000- 2	7.0010- 1
				1.0000- 1

03/01/74

N, N'
CROSS SECTION

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
63	773 8.0000-1	6.0010-2	2.0000-1	2.0000-2	7.4010-1	
63	773 1.0000+0	6.0010-2	1.5000-1	3.0000-1	7.4010-1	
63	773 1.2000+0	6.0010-2	3.5000-1	4.0000-1	7.4010-1	
63	828 8.0000-1		2.0000-1	3.0000-2	7.6010-1	
63	828 1.0000+0		5.5010-1	5.0000-2	7.6010-1	
63	828 1.2000+0		6.0010-1	5.0000-2	7.6010-1	
53	773 1.0000+0	5.0010-2	5.0000-1	5.0000-2	7.6010-1	
63	773 1.2000+0	5.0010-2	8.5010-1	1.0000-1	8.0010-1	9.9010-1
63	828 1.2000+0		7.0010-1	1.0000-1	9.9010-1	
71	3243 1.5100+0		7.0000-3		1.4650+0	
71	3243 1.6900+0		1.6000-2		1.4650+0	
71	3243 1.7900+0		1.7000-2		1.4650+0	
71	3243 1.5100+0		4.0000-3		1.4920+0	
71	3243 1.6900+0		4.6000-2		1.4920+0	
71	3243 1.7900+0		8.9000-2		1.4920+0	
71	3243 1.5100+0		6.0000-3		1.5070+0	
71	3243 1.6900+0		5.6000-2		1.5070+0	
71	3243 1.7900+0		8.4000-2		1.5070+0	

03/01/74

N, 2N

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
62	1893 1.4500+1	9.0000-1	4.9900-1	9.1000-2	1.0100-1	66	1873 1.4700+1	1.0000-1	4.6400-1	2.3200-2	1.0200+1
66	1873 1.4050+1	5.0000-2	4.7000-1	2.3500-2	1.0200+1	61	657 1.4700+1		5.6000-1	6.0000-2	1.0200+1
59	615 1.4100+1		4.3000-1	7.0010-2	1.0200+1	70	3150 1.4800+1	2.0000-1	4.5500-1	3.2000-2	1.0200+1
62	702 1.4600+1	3.0000-1	3.1800-1	1.8000-2	1.0200+1	63	756 1.4800+1	2.0000-1	4.9900-1	9.1010-2	1.0200+1
62	770 1.4700+1		3.6000-1	1.2000-1	1.0200+1						

03/01/74

N, 3N

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
67	1893 1.9500+1	2.0000-1	6.0000-2		6.2000+1

5-45

41-NB-93 -18

03/01/74

N,N'ALPHA
CROSS SECTION

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
63 756	1.4800+ 1		2.5000- 3	1.1000- 3
62 3169	1.4500+ 1	9.0000- 1	2.5000- 3	1.6000+ 1
			1.1000- 3	1.6300+ 1

03/01/74

ABSORPTION

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1162	2.5300- F		1.1700+ 0	2.0000- 2
65 1364	2.4000- 2		2.7000- 1	1.5000- 2

03/01/74

N,X GAMMA

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
68 1019	1.5000+ 0		1.4000- 2	2.8000- 3	3.1500- 1	68 1019	4.2000+ 0		4.4000- 2	8.8000- 3	5.8600- 1
68 1019	1.7000+ 0		5.6000- 2	1.1200- 2	3.1500- 1	71 3243	1.5100+ 0		7.0000- 3		6.5600- 1
68 1019	4.2000+ 0		5.4000- 2	1.0800- 2	3.1500- 1	71 3243	1.6900+ 0		1.6000- 2		6.5600- 1
68 1019	1.5000+ 0		1.0000- 1	2.0000- 2	3.3800- 1	71 3243	1.7900+ 0		1.7000- 2		6.5600- 1
68 1019	1.7000+ 0		1.2400- 1	2.4800- 2	3.3800- 1	68 1019	4.2000+ 0		9.3000- 2	1.8600- 2	6.5600- 1
68 1019	4.2000+ 0		9.0000- 2	1.8000- 2	3.3800- 1	68 1019	4.2000+ 0		4.6000- 2	9.2000- 3	7.0500- 1
68 1019	4.2000+ 0		2.9000- 2	5.8000- 3	3.5900- 1	71 3243	1.6900+ 0		8.0000- 3		7.2000- 1
68 1019	1.7000+ 0		3.7000- 2	7.4000- 3	3.8400- 1	71 3243	1.7900+ 0		1.5000- 2		7.2000- 1
68 1019	4.2000+ 0		7.7000- 2	1.5400- 2	3.8400- 1	70 1497	1.0000+ 0		1.2800+ 0		7.4000- 1
68 1019	4.2000+ 0		3.4000- 2	6.8000- 3	4.7800- 1	70 1497	6.0000+ 0		1.2000+ 0		8.6000- 1
71 3243	1.6900+ 0		2.2000- 2		5.4700- 1	68 1019	1.5000+ 0		2.5500- 1	5.1000- 2	9.8000- 1
68 1019	1.7000+ 0		2.9000- 2	5.8000- 3	5.4100- 1	68 1019	1.7000+ 0		2.3900- 1	4.7800- 2	9.8000- 1
71 3243	1.7900+ 0		5.5000- 2		5.4100- 1	66 1019	4.2000+ 0		2.2700- 1	4.4200- 2	9.8000- 1
68 1019	4.2000+ 0		1.2900- 1	2.5800- 2	5.4100- 1	68 1019	4.2000+ 0		2.1000- 2	4.2000- 3	1.0530+ 0
70 1127	6.0300+ 0		8.5000- 1		5.5000- 1	68 1019	1.5000+ 0		3.8000- 2	7.6000- 3	1.0820+ 0
68 1019	1.5000+ 0		3.5000- 2	7.0000- 3	5.5300- 1	68 1019	1.7000+ 0		4.1000- 2	8.2000- 3	1.0820+ 0
68 1019	1.7000+ 0		7.6000- 2	1.5200- 2	5.5300- 1	68 1019	4.2000+ 0		4.6000- 2	9.2000- 3	1.0820+ 0
68 1019	4.2000+ 0		2.6000- 2	5.2000- 3	5.5300- 1	68 1019	4.2000+ 0		1.7000- 2	3.4000- 3	1.0940+ 0
71 3243	1.5100+ 0		4.0000- 3		5.5400- 1	68 1019	1.5000+ 0		2.3000- 2	4.6000- 3	1.2940+ 0
71 3243	1.6900+ 0		2.7000- 2		5.5400- 1	68 1019	1.7000+ 0		5.3000- 2	1.0600- 2	1.2940+ 0
71 3243	1.7900+ 0		4.4000- 2		5.5400- 1	68 1019	4.2000+ 0		3.4000- 2	6.8000- 3	1.2940+ 0
69 1019	1.7000+ 0		4.7000- 2	9.4000- 3	5.7200- 1	59 547	1.6400+ 0		1.2000- 1	3.6000- 2	1.4800+ 0
68 1019	4.2000+ 0		3.9000- 2	7.8000- 3	5.7200- 1	59 547	1.9000+ 0		1.6000- 1	4.8000- 2	1.4800+ 0

5-46

41-NB-93 -19

03/01/74

N, X GAMMA
CROSS SECTION

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
58	547	2.1200+ 0	1.6000- 1	4.8000- 2	1.4800+ 0	71	3243	1.6900+ 0	2.8000- 2		1.5070+ 0
70	1497	6.0000+ 0	4.4000- 1		1.4800+ 0	71	3243	1.7900+ 0	4.0000- 2		1.5070+ 0
68	1019	4.2000+ 0	2.8000- 2	5.6000- 3	1.4900+ 0	59	547	1.9000+ 0	9.0000- 2	2.7000- 2	1.6700+ 0
71	3243	1.5100+ 0	4.0000- 3		1.4920+ 0	58	547	2.1200+ 0	1.1000- 1	3.3000- 2	1.6700+ 0
71	3243	1.6900+ 0	2.3000- 2		1.4920+ 0	68	1019	4.2000+ 0	4.1000- 2	8.2000- 3	1.6850+ 0
71	3243	1.7900+ 0	3.4000- 2		1.4920+ 0	68	1019	4.2000+ 0	1.7000- 2	3.4000- 3	1.9050+ 0
68	1019	4.2000+ 0	6.6000- 2	1.3200- 2	1.5050+ 0	59	547	2.1200+ 0	1.0000- 1	3.0000- 2	1.9200+ 0
71	3243	1.5100+ 0	2.0000- 3		1.5070+ 0						

03/01/74

N, ALPHA

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA BARNs	HALF-LIFE HOURS	
64	2036	1.4700+ 1	1.0000- 1	9.3000- 3	2.0000- 3								
63	756	1.4800+ 1	2.0000- 1	8.6010- 3	2.5000- 3								
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA BARNs	HALF-LIFE HOURS	
62	3169	1.4500+ 1	9.0000- 1	5.9000- 3	2.0000- 3	3.1000+ 0	58	401	1.4050+ 1	5.5000- 1	9.0000- 3	2.2000- 3	6.1000+ 1
62	770	1.4700+ 1	5.0000- 3	2.0000- 3	3.1000+ 0		62	3169	1.4500+ 1	9.0000- 1	8.6000- 3	2.5000- 3	6.4000+ 1
63	756	1.4800+ 1	2.0000- 1	5.9010- 3	2.0000- 3	3.1000+ 0	63	756	1.4800+ 1	2.0000- 1	8.6010- 3	2.5000- 3	6.4010+ 1
70	3150	1.4800+ 1	2.0000- 1	5.8000- 3	5.0000- 4	3.2000+ 0							

03/01/74

BOUND ATOM

41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8	6.2000+ 0	

03/01/74

COHERENT SCATTERING

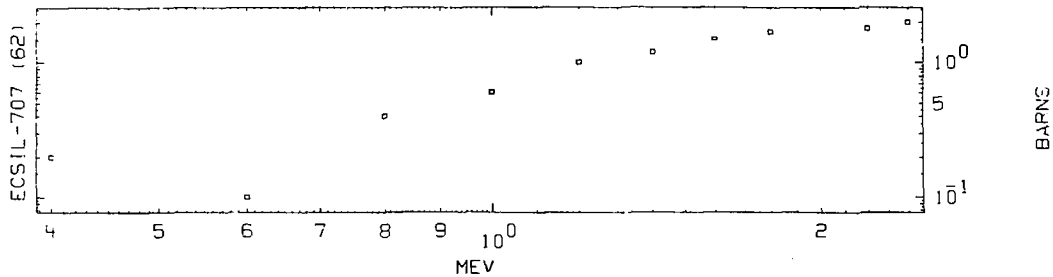
41-NB-93

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8	6.0000+ 0	4.8000- 1

03/01/74

NONELASTIC
CROSS SECTION

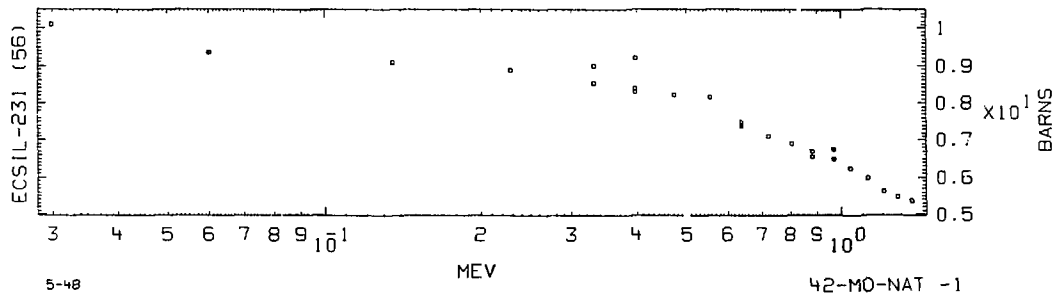
42-MO-NAT



03/01/74

TOTAL SCATTERING
CROSS SECTION

42-MO-NAT



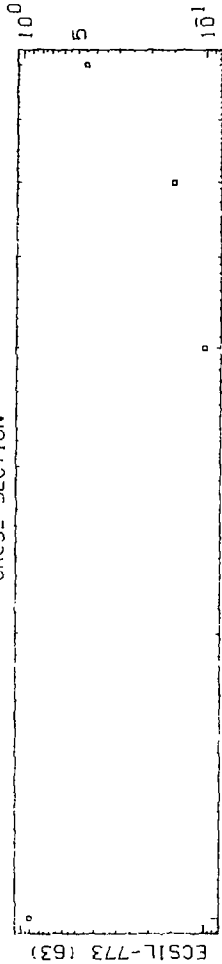
5-48

42-MO-NAT -1

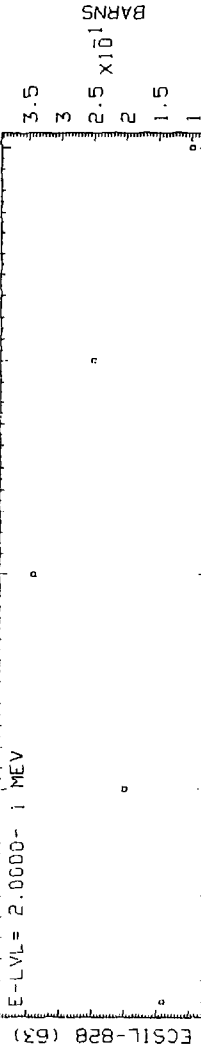
03/01/74

42-MO-NAT

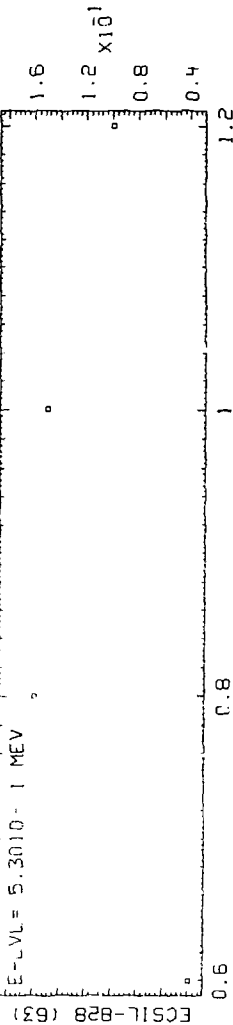
N,N'
CROSS SECTION



E-LVL = 2.0000 - 1 MEV



E-LVL = 5.3010 - 1 MEV



5-19

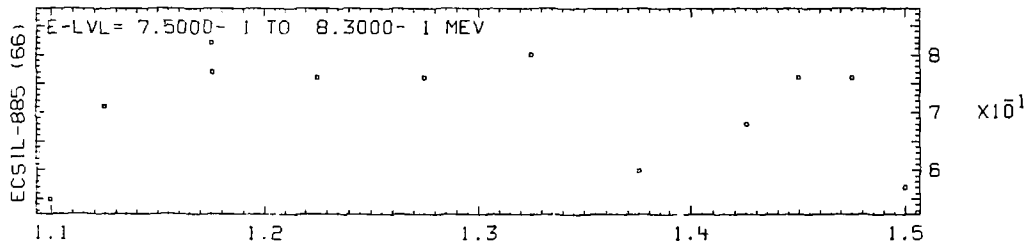
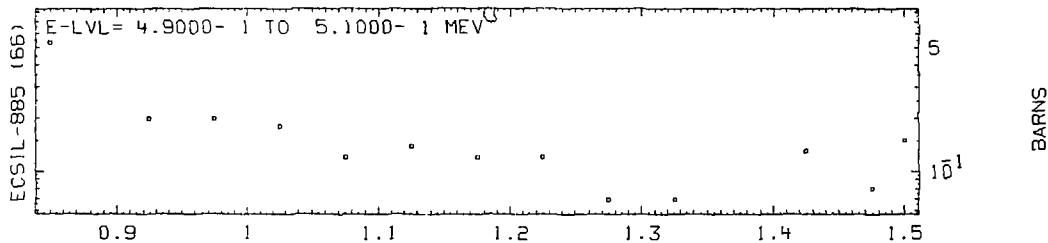
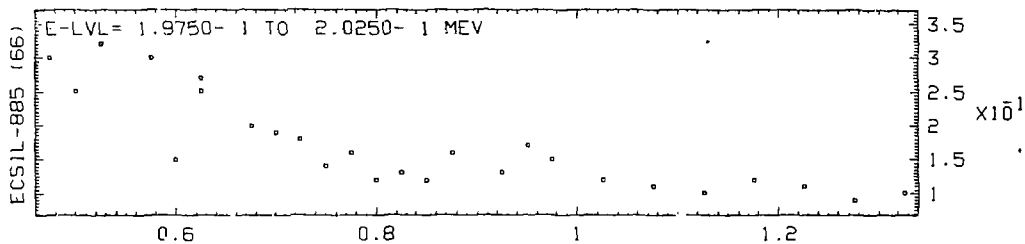
MEV

42-MO-NAT -2

03/01/74

N,N'
CROSS SECTION

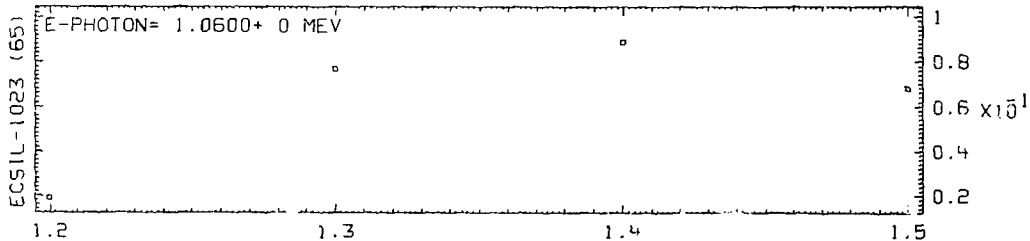
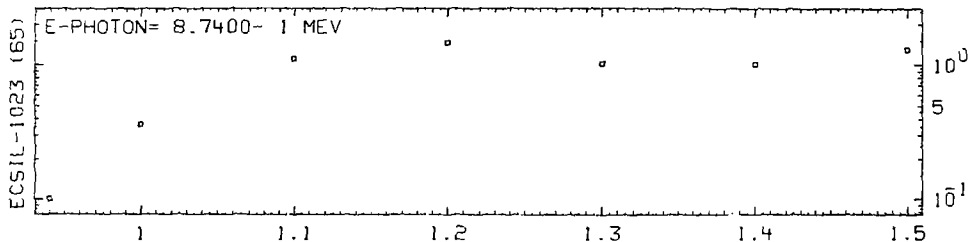
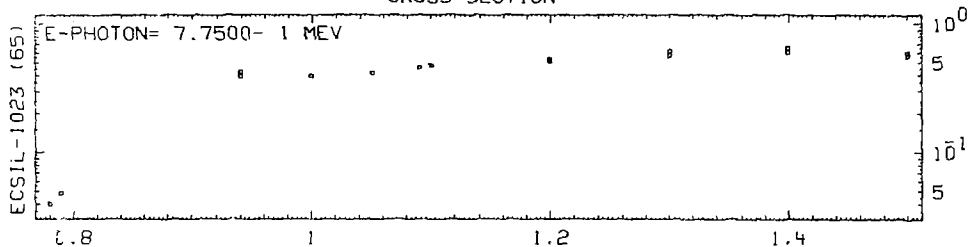
42-MO-NAT



03/01/74

N,X GAMMA
CROSS SECTION

42-MO-NAT



BARNs

03/01/74

NONELASTIC
CROSS SECTION

42-MO-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54	133 1.000+ 0	5.0000- 2	1.1000+ 0	1.5000- 1	57	320 3.6600+ 0	2.0000- 1	2.3000+ 0	3.0000- 1
55	34 2.5000+ 0		1.9000+ 0	3.0000- 1	58	576 4.1000+ 0	1.0000- 1	2.0000+ 0	3.0000- 1
55	790 2.5000+ 0	1.5000- 1	1.9000+ 0	3.0000- 1	58	877 1.4000+ 1		1.6000+ 0	1.5000- 1
61	848 2.5000+ 0		1.3600+ 0	4.0000- 2					

03/01/74

N,N'

42-MO-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	576 4.1000+ 0	1.0000- 1	2.2000+ 0	4.0000- 1
65	669 6.0400+ 0	2.3000- 1	2.2000+ 0	3.0000- 1

03/01/74

N,2N

42-MO-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	1821 1.4100+ 1		1.5000+ 0	1.2000- 1

03/01/74

N,N'P

42-MO-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59	2053 1.4000+ 1		1.1200- 1	1.1200- 2

03/01/74

ABSORPTION

42-MO-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53	370 2.5300- 8		2.5500+ 0	1.0000- 1	66	1541 2.4000- 2	1.5000- 3	1.8800- 1	1.5000- 2
66	1491 2.5300- 8		2.6000+ 0	5.0000- 2	65	1364 2.4000- 2		1.9200- 1	1.2000- 2
58	7162 2.5300- 8		2.7000+ 0	4.0000- 2					

03/01/74

N, X GAMMA
CROSS SECTION

42-MO-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
54 113	3.2000+ 0	2.0000- 1	6.6000- 1	1.3200- 1	7.3000- 1
54 113	3.2000+ 0	2.0000- 1	3.3000- 1	6.6000- 2	1.4000+ 0
54 113	3.2000+ 0	2.0000- 1	5.9000- 2	1.1800- 2	2.5000+ 0

03/01/74

N, P

42-MO-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 381	1.4000+ 1		1.2000- 1	2.0000- 2

03/01/74

BOUND ATOM

42-MO-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		7.4000+ 0	

03/01/74

COHERENT SCATTERING

42-MO-NAT

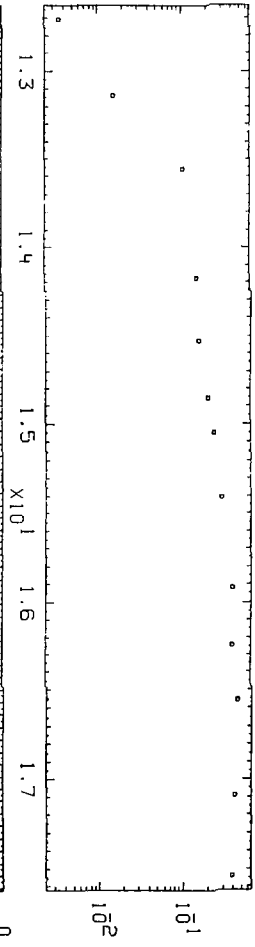
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		5.2000+ 0	4.1600- 1

03/01/74

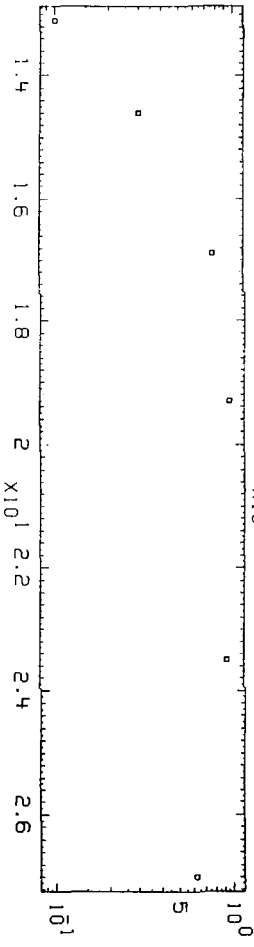
N,2N
CROSS SECTION

42-MO-92

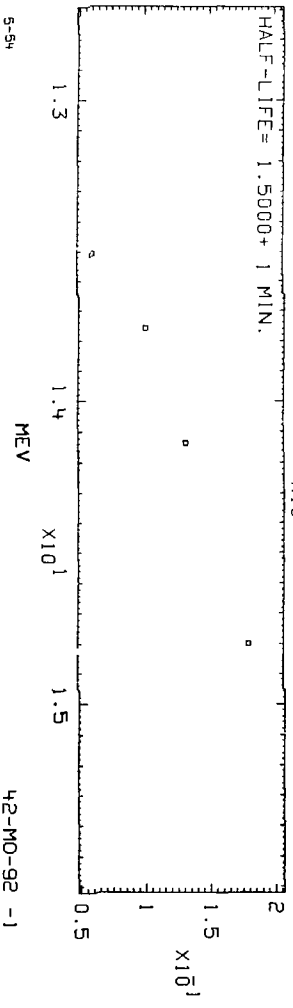
ECSIL-2366 (69)



ECSIL-83 (52)



ECSIL-535 (57)



S-5u

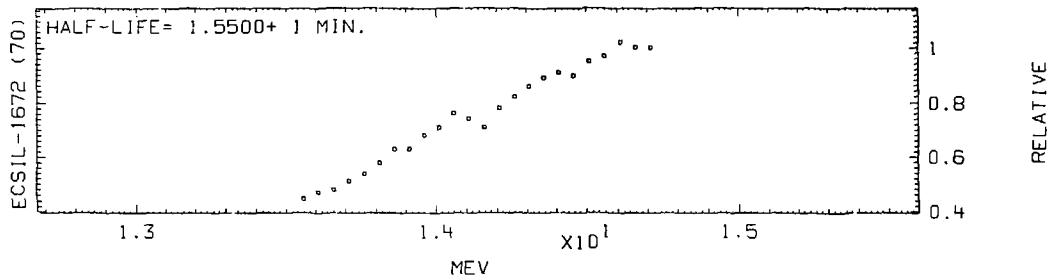
42-MO-92 -1

BARN

03/01/74

N,2N
CROSS SECTION

42-MO-92



03/01/74

N,2N

42-MO-92

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
67 1887	1.4100+ 1	2.0000- 1	1.5800- 1	5.0000- 3	69 3351	1.4700+ 1	2.0000- 1	2.2200- 1	1.0000- 2
65 1672	1.4600+ 1	1.0000- 1	1.7500- 1	1.0000- 2	69 3351	1.4800+ 1	3.5000- 1	2.2700- 1	1.0000- 2
62 702	1.4600+ 1	3.0000- 1	3.1500- 1	3.5000- 2	67 2009	1.6300+ 1		2.8000- 1	4.2000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE SECONDS
67 1901	1.4800+ 1	5.0000- 1	5.1000- 2	1.0000- 2	6.6000+ 1
53 27	1.4500+ 1		1.9000- 1	2.9000- 2	7.5010+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE MINUTES
62 108	1.4130+ 1	1.0000- 1	1.0600- 1	7.5010- 3	1.5700+ 1	63 756	1.4800+ 1	2.0000- 1	1.9800- 1	4.0000- 2	1.6000+ 1
65 2136	1.4800+ 1		1.5900- 1		1.5700+ 1	65 2136	1.4800+ 1		1.5000- 2		6.0400+ 1
67 1901	1.4800+ 1	5.0000- 1	2.0500- 1	2.5000- 2	1.6000+ 1	65 1672	1.4600+ 1	1.0000- 1	1.7500- 1	1.0000- 2	1.5500+ 4

03/01/74

N,N'P
CROSS SECTION

42-MO-92

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 2053	1.4000+ 1		7.4400- 1	7.4400- 2

03/01/74

N,P

42-MO-92

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 702	1.4600+ 1	3.0000- 1	1.4500- 2	
63 756	1.4890+ 1	2.0000- 1	6.0010- 2	1.5000- 2

03/01/74

N, ALPHA

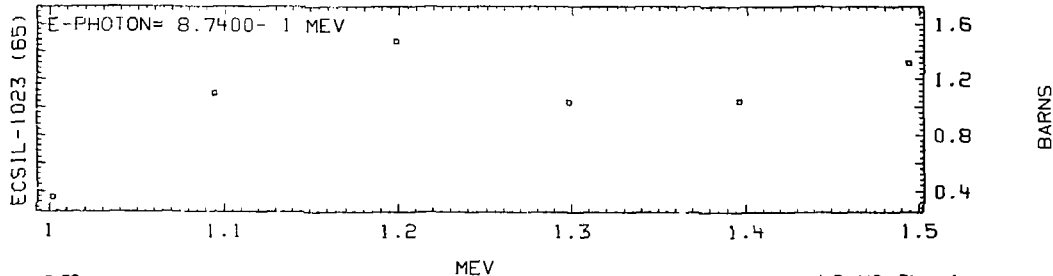
42-MO-92

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS
63 756	1.4800+ 1	2.0000- 1	2.0000- 2	8.0010- 3 7.9010+ 1

03/01/74

N,N'
CROSS SECTION

42-MO-94



5-56

42-MO-94 -1

03/01/74

N,N'
CROSS SECTION

42-MO-94

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1023	9.3700- 1		1.0200- 1	1.0000- 1

03/01/74

N,P

42-MO-94

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 756	1.4800+ 1	2.0000- 1	6.0010- 3	1.5000- 3

03/01/74

ABSORPTION

42-MO-95

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 897	2.5300- 8		1.4700+ 1	5.0000- 1

03/01/74

N,P

42-MO-96

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1887	1.-100+ 1	2.0000- 1	1.6000- 2	3.0000- 3
62 702	1.4600+ 1	3.0000- 1	2.1000- 2	7.0010- 3
63 756	1.4800+ 1	2.0000- 1	3.7000- 2	9.0010- 3

03/01/74

N,P

42-MO-97

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1887	1.4100+ 1	2.0000- 1	1.7700- 2	1.5000- 3
53 27	1.4500+ 1		1.0800- 1	5.4010- 2
62 702	1.4600+ 1	3.0000- 1	6.8010- 2	1.4000- 2

03/01/74

N,P
CROSS SECTION

42-MO-98

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 756	1.4800+ 1	2.0000- 1	9.0010- 3	2.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
56 2137	1.4800+ 1		2.0000- 3	1.0000- 3	1.5000+ 0
67 1887	1.4100+ 1	2.0000- 1	6.7000- 3	6.0000- 4	5.1000+ 1
66 2137	1.4800+ 1		1.2000- 2	2.0000- 3	5.1000+ 1

03/01/74

N,2N

42-MO-100

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1887	1.4100+ 1	2.0000- 1	1.5100+ 0	1.8000- 1	62 702	1.4600+ 1	3.0000- 1	2.0390+ 0	2.1000- 1
69 2837	1.4400+ 1	3.0000- 1	1.4210+ 0		67 2009	1.4700+ 1	3.0000- 1	1.7620+ 0	2.0000- 1
53 27 1.4500+ 1			3.7900+ 0	1.9000+ 0	61 703	1.4800+ 1	2.5000- 1	1.9100+ 0	1.9100- 1

03/01/74

N,3N

42-MO-100

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 702	1.4600+ 1	3.0000- 1	1.4000- 2	6.0010- 3

03/01/74

N,ALPHA

42-MO-100

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1887	1.4100+ 1	2.0000- 1	2.5000- 2	1.5000- 2
62 702	1.4600+ 1	3.0000- 1	1.4000- 2	6.0010- 3

03/01/74

TOTAL SCATTERING

43-TC-99

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 27 20	2.5300- 8		5.0000+ 0	1.0000+ 0

03/01/74

N,N'
CROSS SECTION

43-TC-99

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
65 2140	1.4100+ 1		4.1300- 2	6.6000- 3	6.0000+ 0

03/01/74

ABSORPTION

43-TC-99

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 897	2.5300- 8		1.6000+ 1	7.0000+ 0
58 2720	2.5300- F		2.5000+ 1	2.0000+ 0

03/01/74

N,P

43-TC-99

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2140	1.4100+ 1		6.9700- 3	1.1100- 3

03/01/74

N,ALPHA

43-TC-99

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2140	1.4100+ 1		2.0200- 3	2.2000- 4

03/01/74

COHERENT SCATTERING

43-TC-99

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- 8		5.8100+ 0	5.1000- 1

03/01/74

N,2N

44-RU-96

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3340	1.4100+ 1	5.0000- 1	6.0000- 1	7.0000- 2	66 2141	1.4700+ 1	5.0000- 1	2.6000+ 0	3.0000- 1
61 676	1.4400+ 1	3.0000- 1	6.3410- 1	5.1010- 2	66 1873	1.4700+ 1	1.0000- 1	8.6000- 1	4.3000- 2
53 27	1.4500+ 1		4.7800- 1	9.1010- 2					

03/01/74

N,P
CROSS SECTION

44-RU-96

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	DELTA HALF-LIFE DAYS
66 2141	1.4700+ 1	5.0000- 1	1.7000- 1	3.0000- 2	
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	DELTA HALF-LIFE DAYS
70 3340	1.4100+ 1		1.6000- 1	2.0000- 2	4.3000+ 0

03/01/74

N,D

44-RU-96

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	DELTA HALF-LIFE HOURS
70 3340	1.4100+ 1		2.0000- 1	1.2000- 1	2.0000+ 1
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	DELTA HALF-LIFE DAYS
70 3340	1.4100+ 1		7.6000- 2	1.7000- 2	6.1000+ 1

03/01/74

ACTIVATION

44-RU-96

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	ACTIVATE
65 1873	1.4000+ 1		3.6400- 1	7.3000- 2	43-TC-95

03/01/74

N,2N

44-RU-98

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
70 3340	1.4100+ 1	5.0000- 1	9.7000- 1	1.1000- 1

03/01/74

N,P

44-RU-100

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
66 2142	1.4800+ 1		1.5000- 2	6.0000- 3

03/01/74

N, P
CROSS SECTION

44-RU-101

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+ 1		1.9900- 3	1.4000- 3

03/01/74

N, P

44-RU-102

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2141	1.4700+ 1	5.0000- 1	6.7000- 3	2.5000- 3
66 2142	1.4800+ 1		2.0000- 3	5.0000- 4

03/01/74

N, ALPHA

44-RU-102

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3340	1.4100+ 1		3.4000- 3	4.0000- 4

03/01/74

N, 2N

44-RU-104

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2141	1.4700+ 1	5.0000- 1	2.5000+ 0	5.0000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs DAYS
70 3340	1.4100+ 1	5.0000- 1	1.5700+ 0	1.8000- 1
				3.9600+ 1

03/01/74

N, P

44-RU-104

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2141	1.4700+ 1	5.0000- 1	7.2000- 3	1.0000- 3

03/01/74

N, ALPHA
CROSS SECTION

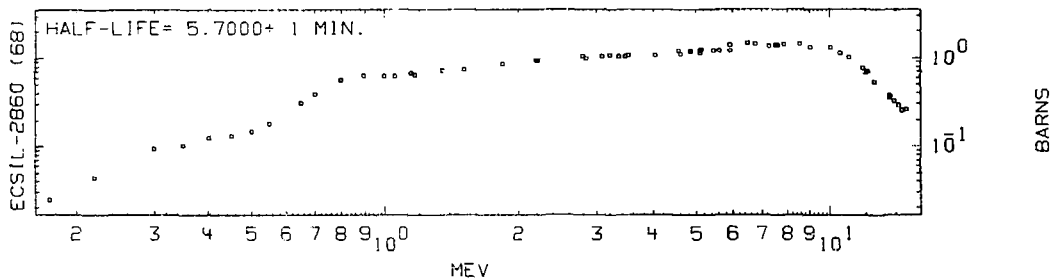
44-RU-104

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2141	4.700+ 1	5.0000- 1	2.6000- 3	1.0000- 3

03/01/74

N, N'
CROSS SECTION

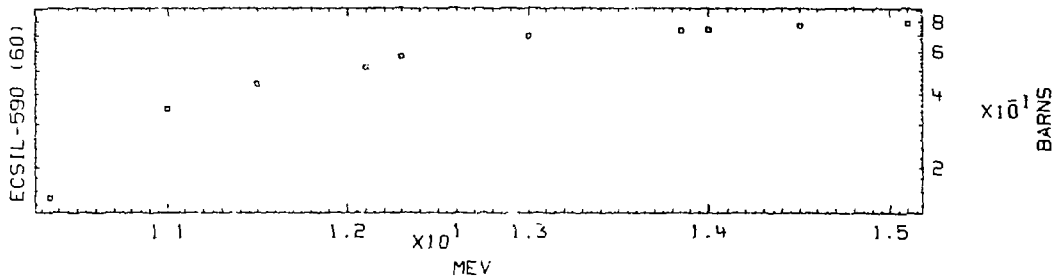
45-RH-103



03/01/74

N,2N
CROSS SECTION

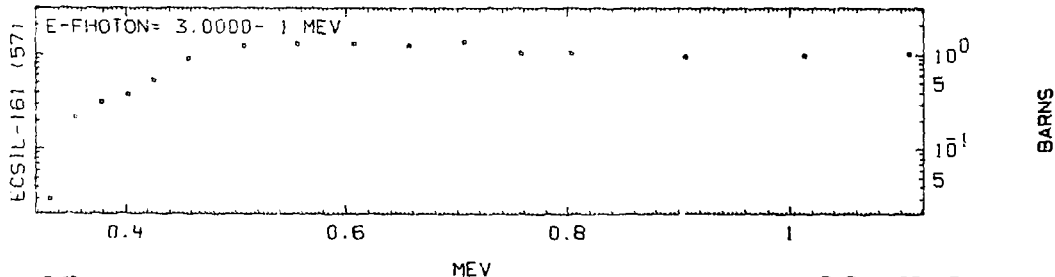
45-RH-103



03/01/74

N,X GAMMA
CROSS SECTION

45-RH-103



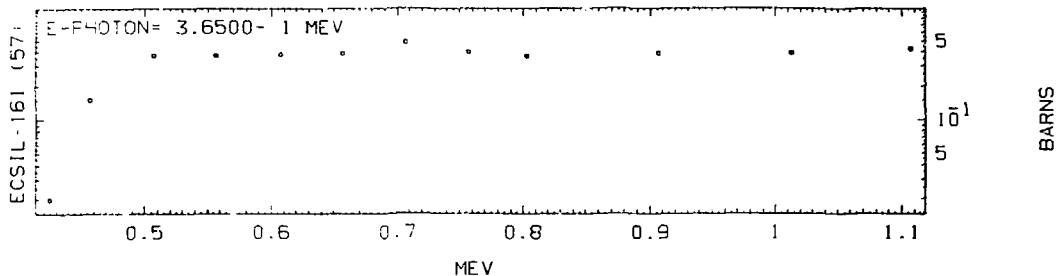
5-63

45-RH-103 -2

03/01/74

N, X GAMMA
GROSS SECTION

45-RH-103



03/01/74

N, N'

45-RH-103

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	889 5.3400- 0	2.3000- 1	2.2000+ 0	3.0000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
66	3018 1.4200- 1	2.0000- 1	4.4500- 1	3.3000- 2	5.6000+ 1
66	3018 1.4200- 1	2.0000- 1	5.0700- 1	3.7000- 2	5.6000+ 1

03/01/74

N, 3N

45-RH-103

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
67	1893 1.9500- 1	2.0000- 1	7.5000- 2	8.0000- 3	4.3900+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
68	2892 1.9500- 1	2.0000- 1	7.5000- 2	8.0000- 3	4.3900+ 0

03/01/74

N, N' ALPHA
CROSS SECTION

45-RH-103

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	HOURS
56 2142	1.4700+ 1	5.0000- 1	1.5000- 4	3.0000- 5	6.0000+ 0
FR 2707	1.4800+ 1	2.0000- 1	6.5000- 5	1.5000- 5	6.0000+ 0

03/01/74

ABSORPTION

45-RH-103

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1162	2.5300+ 6		1.4600+ 2	5.0000+ 0

03/01/74

N, P

45-RH-103

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	MINUTES
68 2707	1.4800+ 1	2.0000- 1	7.0000- 6	4.0000- 6	4.5000+ 0

03/01/74

N, X P

45-RH-103

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 847	3.200+ 1	2.0000- 1	2.5000- 2	5.0000- 3

03/01/74

N, HE-3

45-RH-103

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1918	1.4700+ 1		1.2000- 6	1.0000- 6	63 2151	1.4800+ 1		1.3000- 5	6.5000- 6
68 2707	1.4800+ 1	2.0000- 1	2.0000- 6	6.0000- 7	60 667	1.4800+ 1	9.0010- 1	2.5000- 3	1.0000- 3

03/01/74

N, ALPHA

45-RH-103

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 749	1.4670+ 1		1.1160- 2	
66 2142	1.4800+ 1		8.0000- 2	7.0000- 3

03/01/74

N, ALPHA
CROSS SECTION

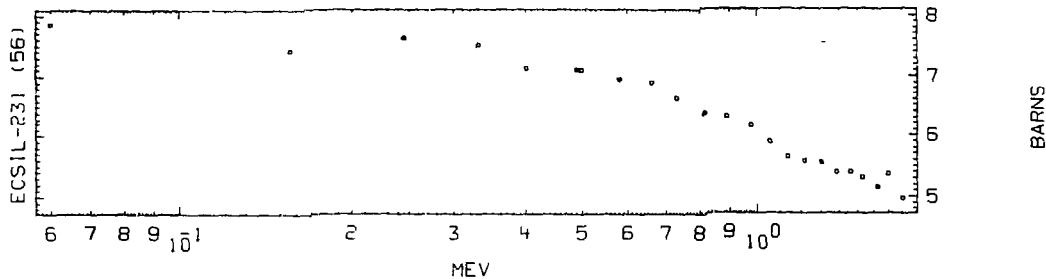
45-RH-103

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
53	27 1 4500+ 1		6.3010- 2	2.5000- 2 8.0010+ 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

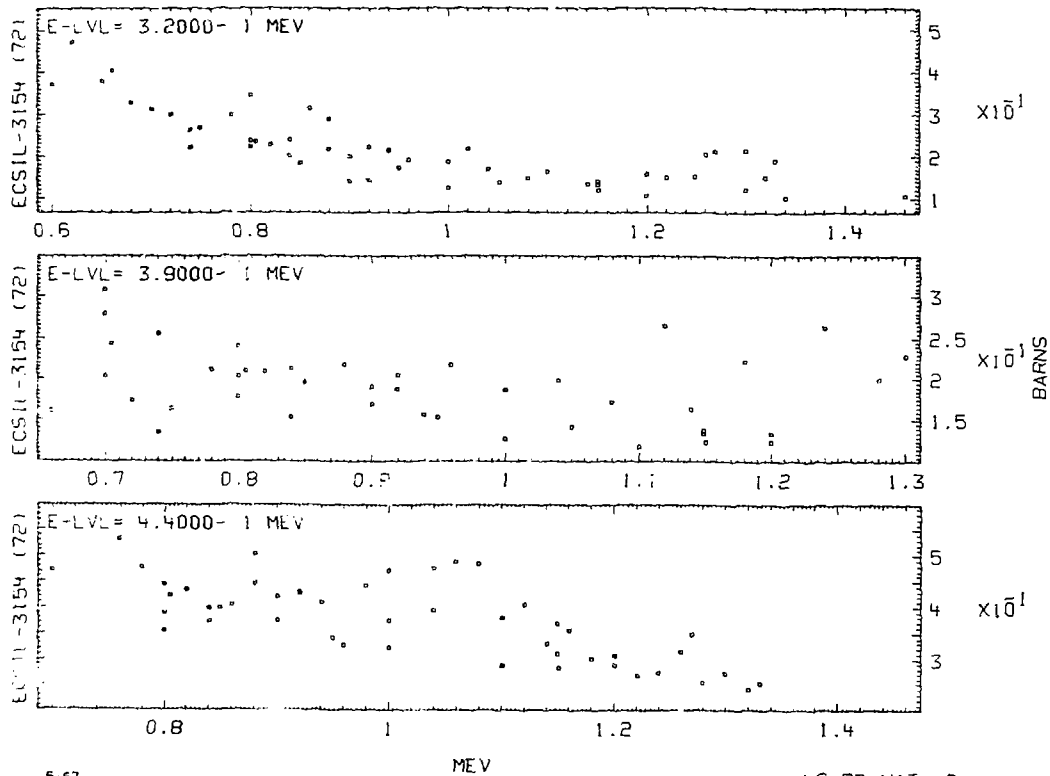
46-PD-NAT



03/01

N,N'
CROSS SECTION

46-PD-NAT



5-67

MEV

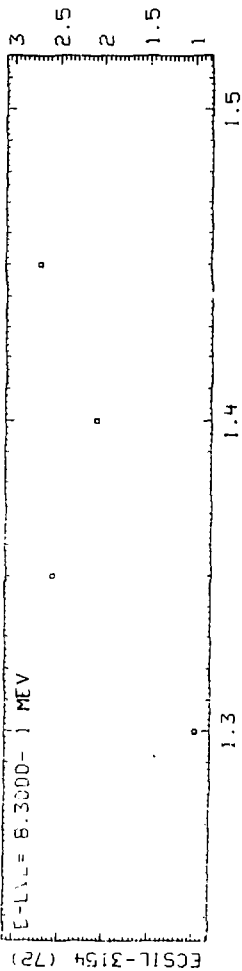
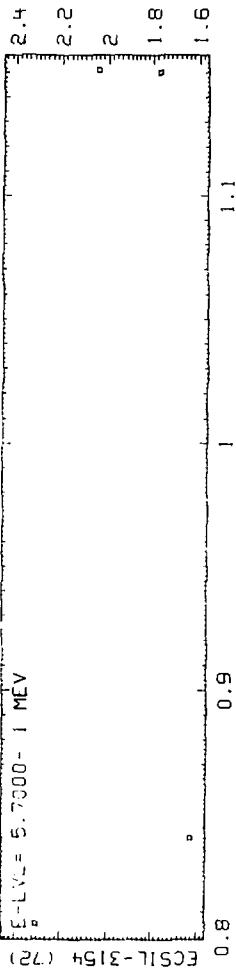
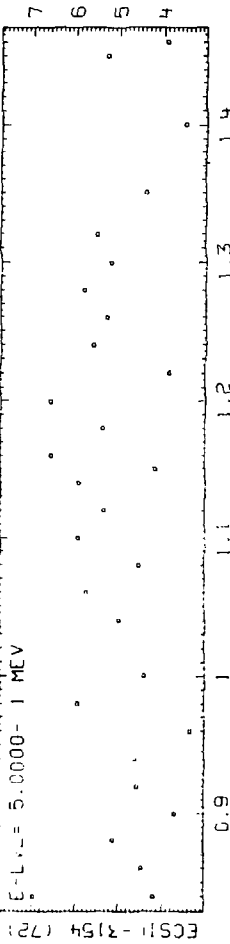
46-PD-NAT -2

0370174

N,N'

46-PD-NAT

CROSS SECTION



5-68

MEV

46-PD-NAT -3

03/01/74

N,N'
CROSS SECTION

46-PD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
72 3154	1.1500+	0 2.0000-	2 3710-	2 2.2450-	2 6.5000- 1	72 3154	1.1500+	0 2.0000-	2 2.4960-	2 1.9950-	2 7.6000- 1
72 3154	1.1510+	0 2.0000-	2 3850-	2 2.5570-	2 6.5000- 1	72 3154	1.4000+	0 2.0000-	2 5.4880-	1 1.0000-	1 9.4000- 1
72 3154	1.3000+	0 2.0000-	2 6 0240-	2 2.2400-	2 6.5000- 1	72 3154	1.4500+	0 2.0000-	2 5.2930-	1 1.0000-	1 9.4000- 1
72 3154	1.1500+	0 2.0000-	2 2 1530-	2 1.5850-	2 7.2000- 1	72 3154	1.3000+	0 2.0000-	2 1.9050-	1 5.2870-	2 1.0100+ 0
72 3154	1.1510+	0 2.0000-	2 1 1040-	2 1.3250-	2 7.2000- 1						

03/01/74

BOUND ATOM

46-PD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
51 1584	7.3000+ 8		4.8000+ 0	

03/01/74

COHERENT SCATTERING

46-PD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
50 2564	2.5300+ 8		5.2000+ 0	5.0000- 1
51 1584	7.3000+ 8		5.0000+ 0	4.0000- 1

03/01/74

N,2N

46-PD-102

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
70 3340	1.4100+ 1	5.0000- 1	5.9000- 1	7.0000- 2
68 2853	1.4400+ 1	3.0000- 1	5.6900- 1	4.0000- 2

03/01/74

N,D

46-PD-102

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN	DELTA HALF-LIFE DAYS
70 3340	1.4100+ 1		5.6000- 1	1.6000- 1	4.3400+ 0

03/01/74

N,P
CROSS SECTION

46-PD-104

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+ 1		1.3200- 1	6.6010- 2

03/01/74

N,P

46-PD-105

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2853	1.4400+ 1	3.0000- 1	3.1400- 2	2.8000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
53 27	1.4500+ 1		7.4310- 1	5.2010- 1	3.6500+ 1

03/01/74

N, ALPHA

46-PD-106

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2853	1.4400+ 1	3.0000- 1	5.5000- 3	7.0000- 4

03/01/74

N, 2N

46-PD-108

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2853	1.4400+ 1	3.0000- 1	4.4800- 1	3.2000- 2

03/01/74

N, N*P

46-PD-108

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 626	1.4500+ 1	4.0000- 1	4.0000- 3	8.0010- 4

03/01/74

N,D
CROSS SECTION

46-PD-108

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 859	1.4800+ 1		2.0000- 3	

03/01/74

N,AL

46-PD-108

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 401	1.4050+ 1	5.5010- 1	2.3000- 3	4.0000- 4
68 2853	1.4400+ 1	3.0000- 1	2.5000+ 0	3.0000- 1
63 860	1.4500+ 1		3.1000- 3	

03/01/74

N,2N

46-PD-110

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2853	1.4400+ 1	3.0000- 1	1.2000+ 0	8.4000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
63 864	1.4800+ 1	2.5000- 1	9.7100- 1	1.1650- 1	4.6000+ 0
68 2853	1.4400+ 1	3.0000- 1	4.9800- 1	3.3000- 2	4.8000+ 0
53 27	1.4500+ 1		1.9480+ 0	9.7010- 1	1.3000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
70 3340	1.4100+ 1	5.0000- 1	9.5000- 1	1.1000- 1	1.3470+ 1
64 1848	1.4700+ 1	1.5000- 1	2.5700+ 0	8.0000- 2	1.3600+ 1

03/01/74

N,D

46-PD-110

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
63 859	1.4800+ 1		1.7000- 3		5.0000+ 1

03-01-74

N, ALPHA
CROSS SECTION

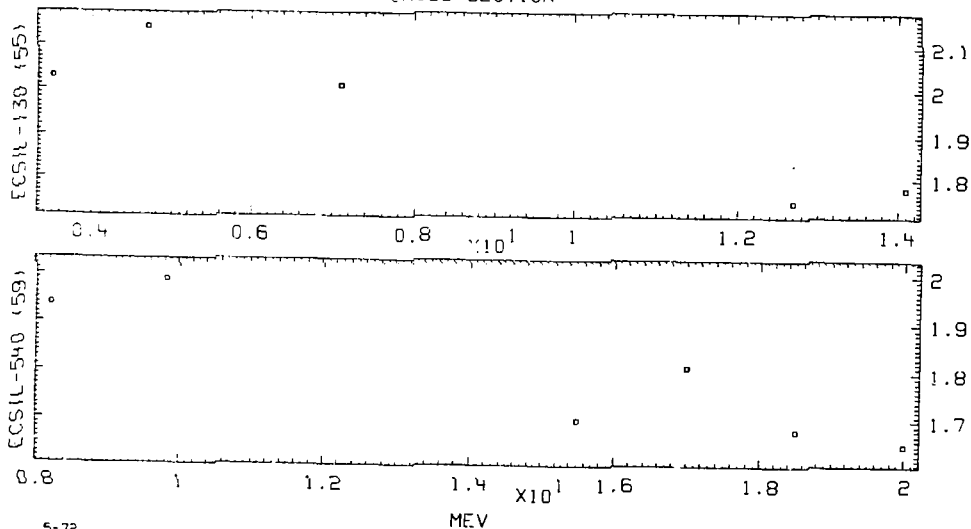
46-PO-110

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+1		3900-2	6.2010-3

03/01/74

NONELASTIC
CROSS SECTION

47-AG-NAT



5-72

MEV

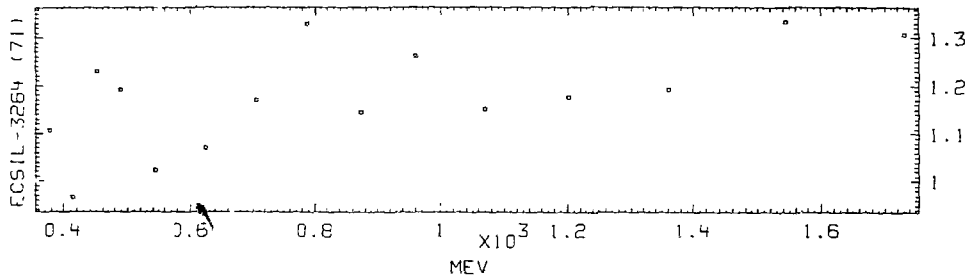
47-AG-NAT -1

BARNs

03/01/74

NONELASTIC
CROSS SECTION

47-AG-NAT

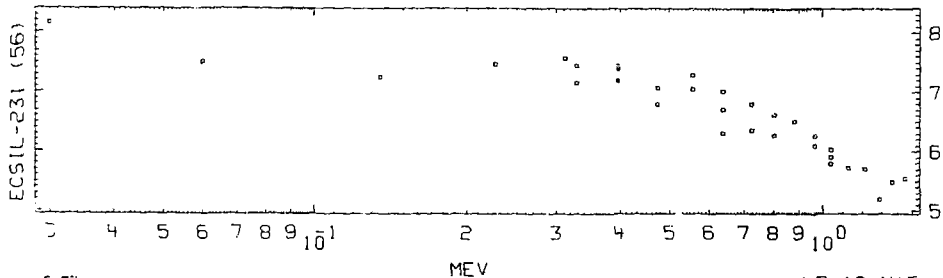


BARNs

03/01/74

TOTAL SCATTERING
CROSS SECTION

47-AG-NAT



BARNs

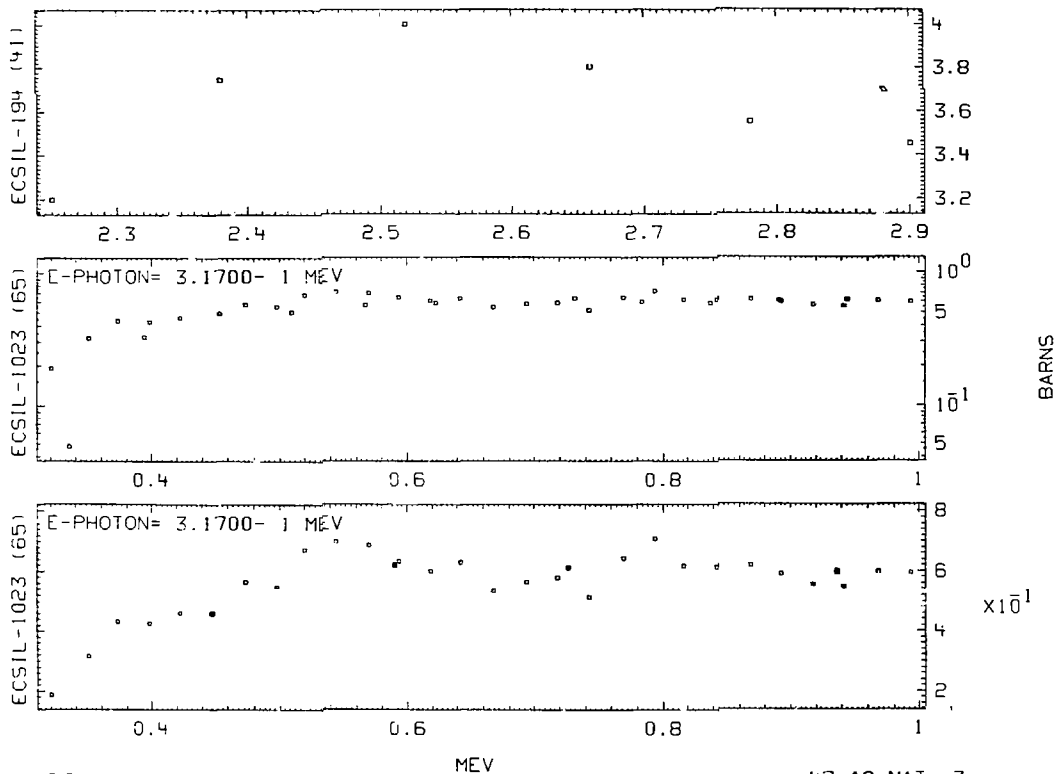
5-73

47-AG-NAT -2

03/01/74

N,X GAMMA
CROSS SECTION

47-AG-NAT



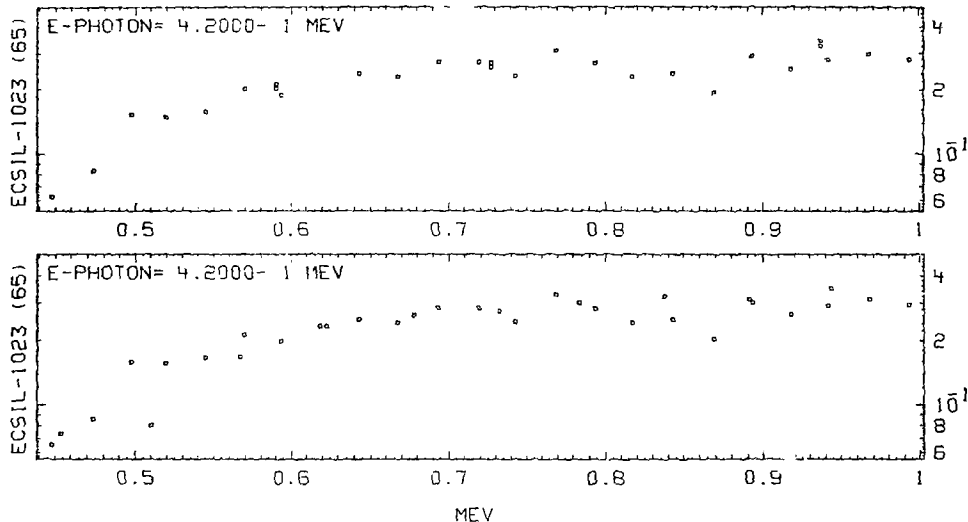
5-74

47-AG-NAT -3

03/01/74

N X GAMMA
CRU SECTION

47-AG-NAT



BARNs

03/01/74

NONELASTIC

47-AG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
63	1750	6.5000- 1	3.4000- 1	1.6000- 1	55	122	4.0000+ 0	7.0010- 2	2.0500+ 0	1.0000- 1	
56	151	1.0000+ 0	4.0000- 2	1.7200+ 0	2.0000- 1	55	122	4.5000+ 0	7.0010- 2	2.0200+ 0	1.0000- 1
56	34	2.5000+ 0		2.1000+ 0	2.0000- 1	56	151	7.0000+ 0	2.0000- 1	2.0000+ 0	1.0000- 1
56	151	2.5000+ 0	4.7000- 2	2.0800+ 0	1.2000- 1	55	117	1.4100+ 1	1.8200+ 0	2.0000- 2	
55	790	2.5000+ 0	1.5000- 1	2.1300+ 0	1.6000- 1	57	319	1.4200+ 1	1.5000- 1	1.9000+ 0	4.0000- 2

5-75

47-AG-NAT -4

03/01/74

N, N'
CROSS SECTION

47-AG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
67 2602	2.8000+ 0	7.0000- 2	5.3000+ 2	6.8900+ 1	4.0000+ 1

03/01/74

N, 2N

47-AG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	7 1.4100+ 1		1.7000+ 0	1.0000- 1

03/01/74

ABSORPTION

47-AG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 897	2.5300- 8		6.3400+ 1	1.2000+ 0	54 873	2.5300- 8		6.4000+ 1	9.0000- 1
54 2728	2.5300- 8		6.3800+ 1	4.0000- 1	60 891	2.5300- 8		6.4800+ 1	4.0000- 1
54 2730	2.5300- 8		5.8000+ 1	2.0000+ 0	55 1354	2.4000- 2		9.8000- 1	6.0000- 2

03/01/74

BOUND ATOM

47-AG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		7.0000+ 0	

03/01/74

COHERENT SCATTERING

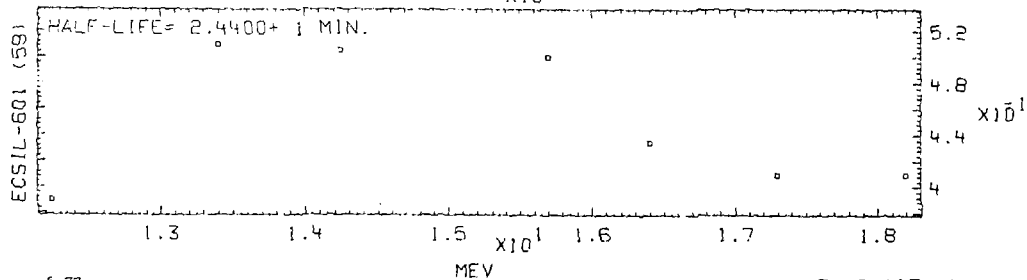
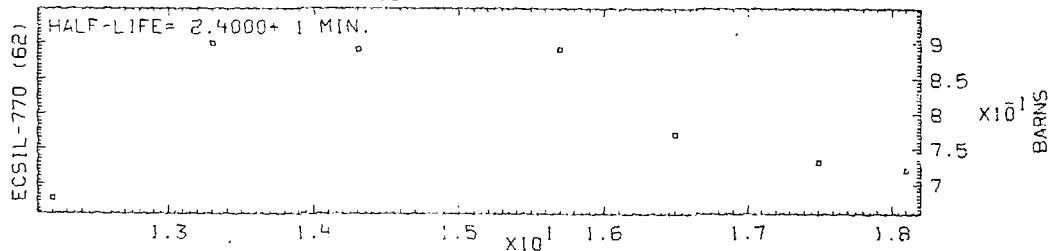
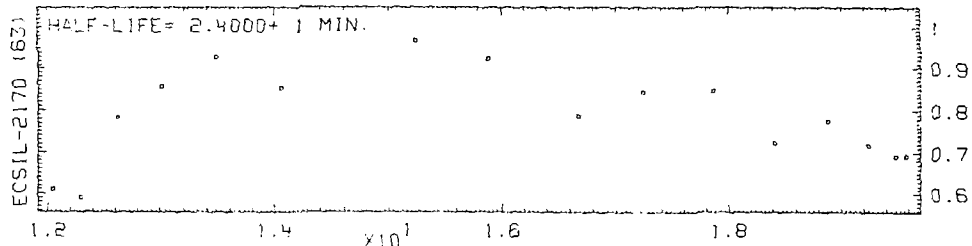
47-AG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		4.6000+ 0	3.6800- 1

03/01/74

N,2N
CROSS SECTION

47-AG-107



5-77

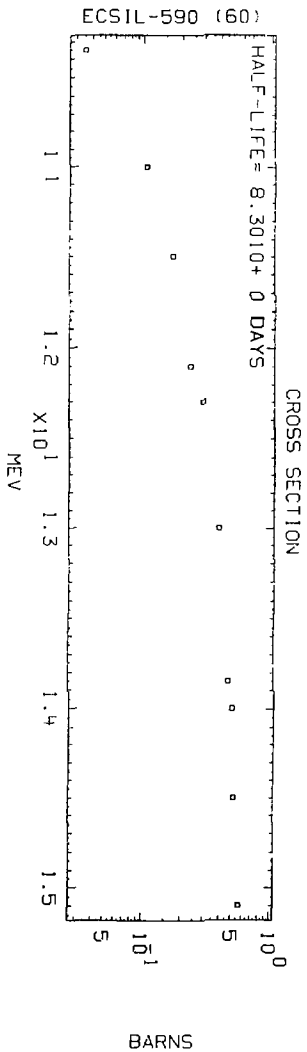
47-AG-107 -1

03/01/74

N,2N

47-AG-107

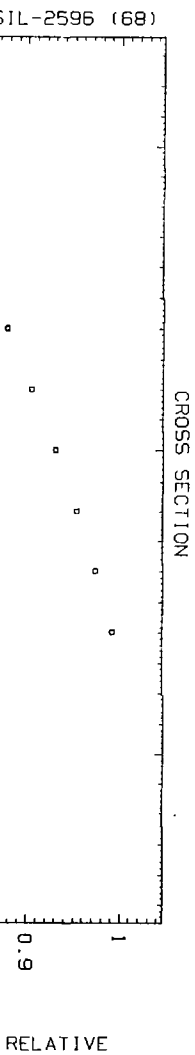
HALF-LIFE = 8.3010+ 0 DAYS



03/01/74

N,2N

47-AG-107



5-78

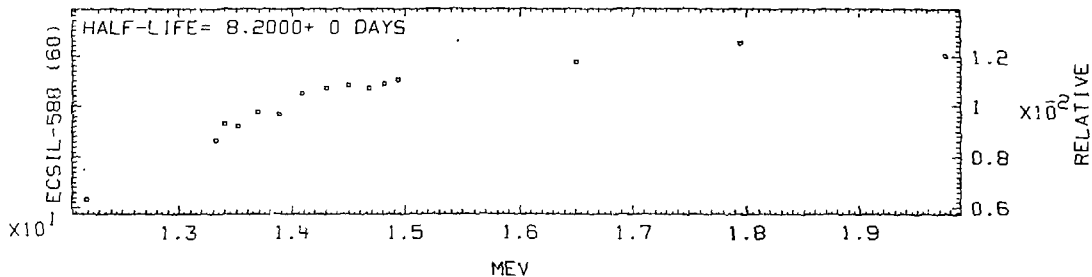
47-AG-107 -2

03/01/74

N.2N

47-AG-107

CROSS SECTION

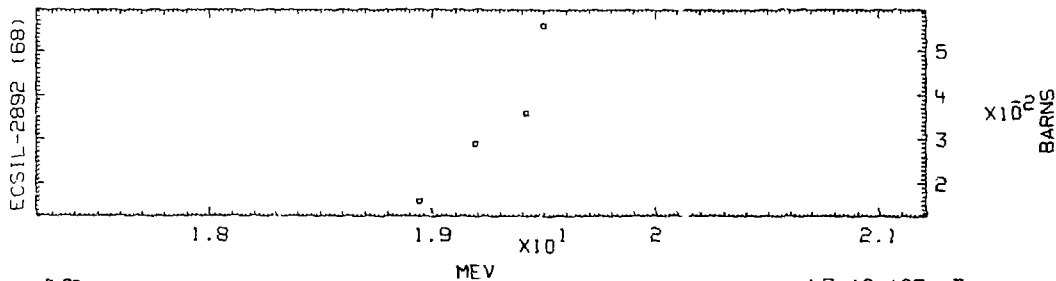


03/01/74

N.3N

47-AG-107

CROSS SECTION



5-79

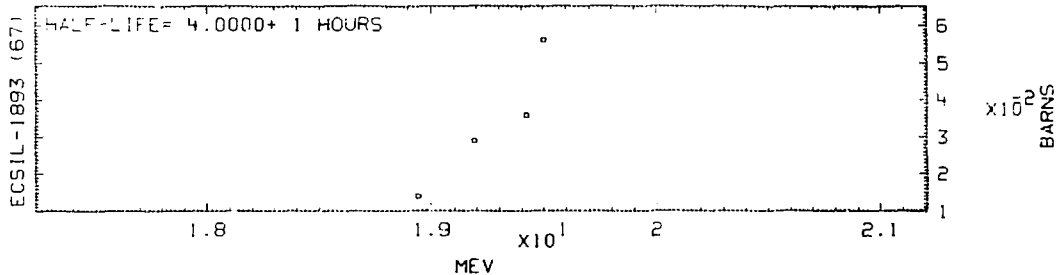
47-AG-107 -3

03/01/74

N,3N

47-AG-107

CROSS SECTION



03/01/74

N,2N

47-AG-107

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	373	1.4100+ 1	8.1810- 1	7.4010- 2	67	2368	1.4800+ 1	1.0000- 1	6.0100- 1
68	2598	1.4700+ 1	7.5000- 2	6.0400- 1	66	2058	1.4800+ 1	1.0000- 1	5.3900- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE MINUTES
61	2166	1.4000+ 1	7.4800- 1	1.2000- 1	2.4000+ 1	61	108	1.4800+ 1	2.5000- 1	6.5710- 1
62	2167	1.4100+ 1	5.8800- 1	1.5000- 2	2.4000+ 1	61	660	1.4800+ 1	6.6210- 1	6.6010- 2
62	108	1.4100+ 1	7.3410- 1	4.4000- 2	2.4000+ 1	52	84	1.4100+ 1	5.6000- 1	5.6000- 2
57	535	1.4100+ 1	4.5800- 1	5.0000- 2	2.4400+ 1	61	830	1.4100+ 1	5.3710- 1	1.5000- 2
61	676	1.4100+ 1	9.8910- 1	6.2000- 2	2.4400+ 1	53	27	1.4500+ 1	5.1910- 1	2.6000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE DAYS
61	2168	1.4000+ 1	6.9000- 1	1.0000- 1

03/01/74

BOUND ATOM
CROSS SECTION

47-AG-107

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
SI 1584	7.3000 - 0		1.0000 + 1	

03/01/74

COHERENT SCATTERING

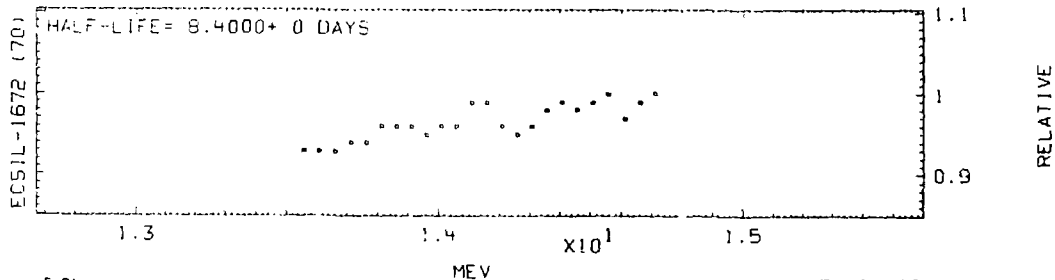
47-AG-107

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
SI 1584	7.3000 - 0		0.7000 + 0	6.9600 - 1

03/01/74

N,2N
CROSS SECTION

47-AG-109



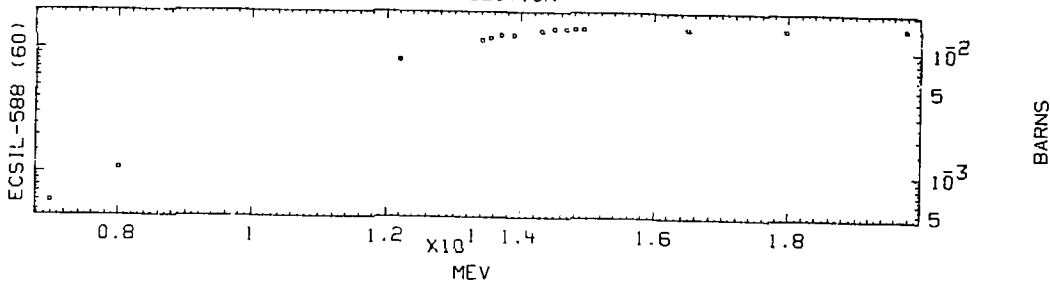
5-81

47-AG-109 -1

03/01/74

N,P
CROSS SECTION

47-AG-109



03/01/74

N,2N

47-AG-109

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
62	2167	1.4100+ 1	1.0000- 1	1.0800+ 0	1.9000- 2	61	703	1.4800+ 1	2.5000- 1	7.1010- 1	1.1000- 1
52	84	1.4100+ 1		1.0000+ 0	1.0000- 1	61	650	1.4800+ 1		8.3310- 1	8.3010- 2
57	535	1.4140+ 1	1.8000- 1	6.0410- 1	6.6010- 2						

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES	
59	619	1.4000+ 1	5.0000- 1	6.1910- 1	4.0000- 2	2.3000+ 0
53	27	1.4500+ 1		3.1110- 1	1.6000- 1	2.3000+ 0

03/01/74

ABSORPTION

47-AG-109

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	897	2.5300- 8	9.2000+ 1	2.0000+ 0

03/01/74

N,P
CROSS SECTION

47-AG-109

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2174	1.4000+ 1		1.1000- 2	2.0000- 3
57 350	1.4000+ 1		1.0500- 2	2.0000- 3
59 550	1.4500+ 1		1.2500- 2	1.9000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	HOURS
61 660	1.4800+ 1		3.7000- 3	7.0010- 4	1.3530+ 1

03/01/74

N, ALPHA

47-AG-109

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 650	1.4800+ 1		1.2000- 2	3.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	MINUTES
59 619	1.4000+ 1	5.0020- 1	3.8000- 2	6.0010- 3	1.4080+ 2

03/01/74

BOUND ATOM

47-AG-109

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1564	7.3000- 8		6.0000+ 0	

03/01/74

COHERENT SCATTERING

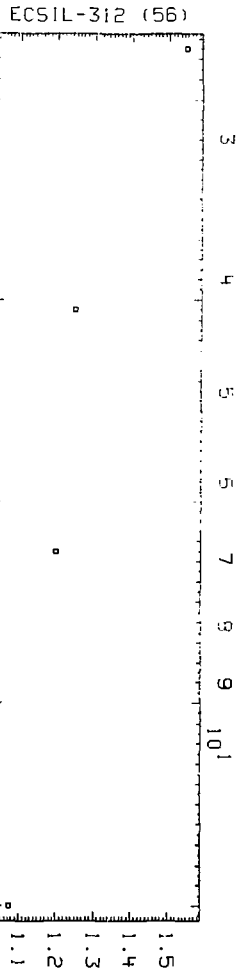
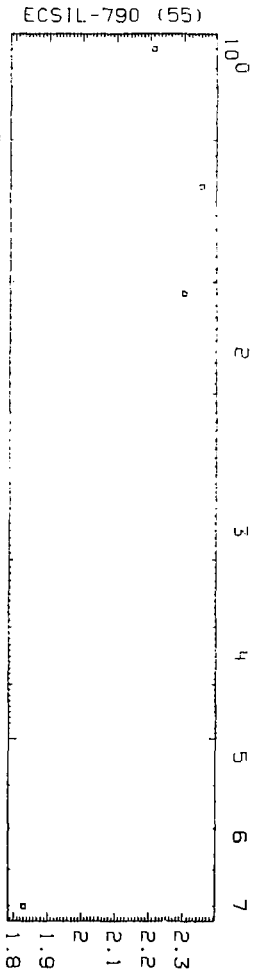
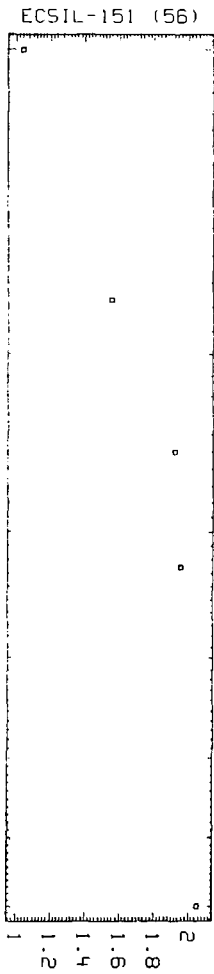
47-AG-109

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1564	7.3000- 8		2.3000+ 0	1.8400- 1

03/01/74

NONELASTIC
CROSS SECTION

⁴⁸CD-NAT



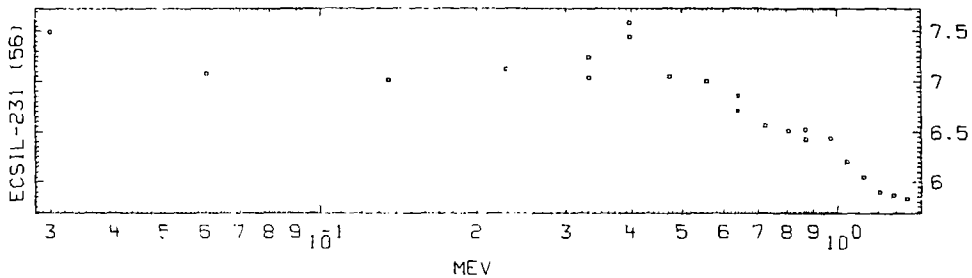
BARNs

5-84
X10²
MEV
⁴⁸CD-NAT -1

03/01/74

TOTAL SCATTERING
CROSS SECTION

48-CD-NAT

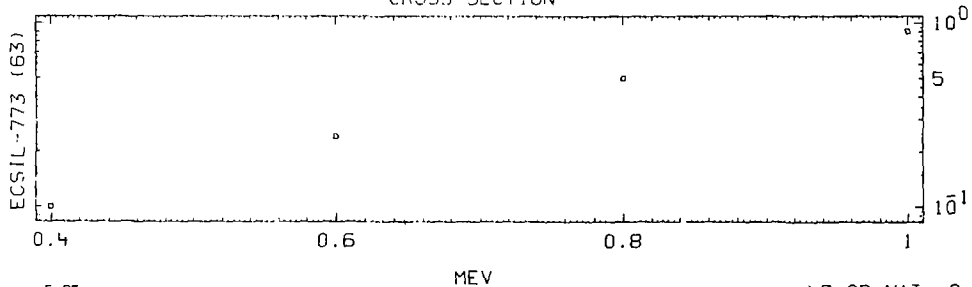


BARNs

03/01/74

N,N'
CROSS SECTION

48-CD-NAT



BARNs

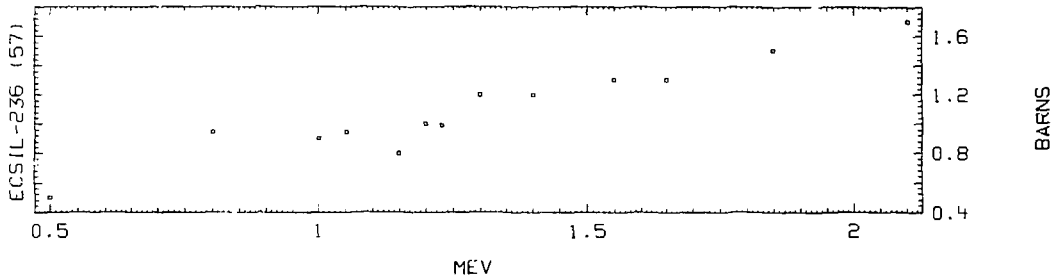
5-85

48-CD-NAT -2

03/01/74

N,N'
CROSS SECTION

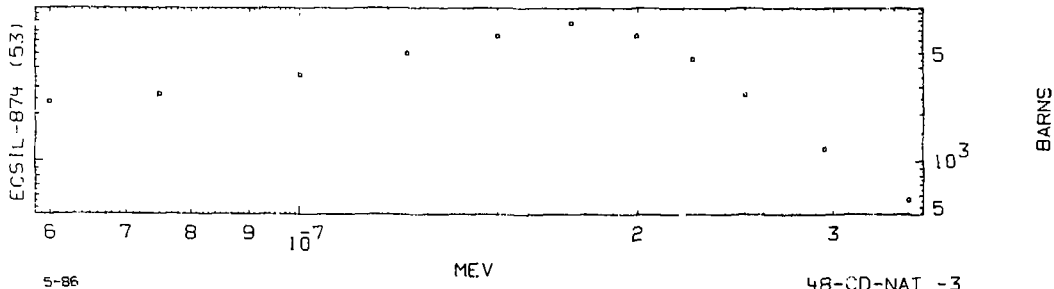
48-CD-NAT



03/01/74

ABSORPTION
CROSS SECTION

48-CD-NAT



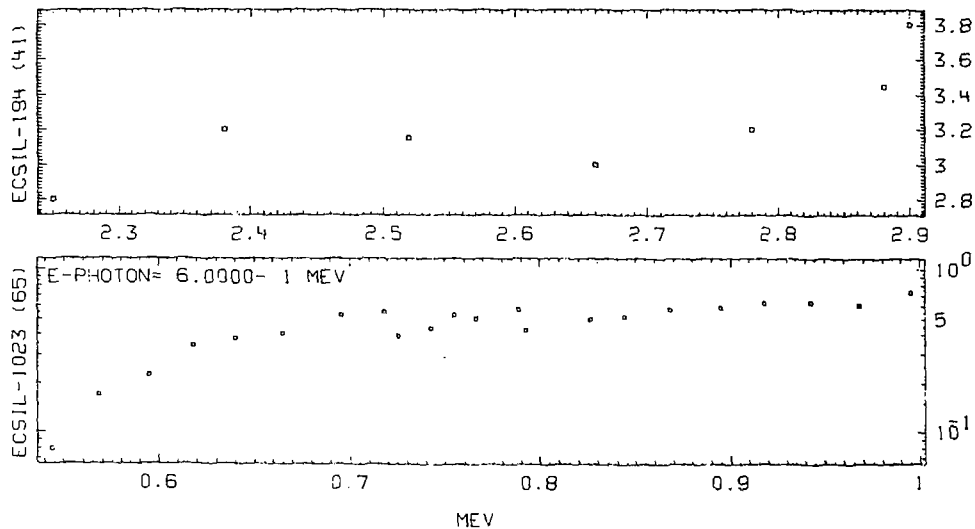
5-86

48-CD-NAT -3

03/01/74

N, X GAMMA
CROSS SECTION

48-CD-NAT



BARN

03/01/74

NONELASTIC

48-CD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	
56	353	7.7000-1	6.0010-1	2.0000-1	55	122	4.0000+0	7.0010-2	2.0600+0	1.0000-1
56	353	1.0200+0	1.0000+0	2.0000-1	55	296	4.1000+0	4.0000-2	2.1000+0	2.0000-1
56	164	1.2000+0	1.0000+0	2.0000-1	55	122	4.5000+0	7.0010-2	2.1200+0	1.2000-1
56	164	1.6000+0	1.3000+0	3.0000-1	58	877	1.4000+1		1.6700+0	2.0000-1
56	164	2.0000+0	1.7000+0	3.0000-1	57	199	1.4100+1		1.8400+0	6.0010-2
56	34	2.5000+0	2.2000+0	2.0000-1	55	117	1.4100+1		1.9500+0	5.0000-2

5-87

48-CD-NAT -4

03/01/74

NONELASTIC
CROSS SECTION

48-CD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
52	62	1.4150+ 1	5.7000- 2	1.8900+ 1	6.0010- 2	56	206	1.4500+ 1	1.9200+ 0	3.0000- 2	
57	519	1.4200+ 1	1.9100+ 0	3.0000- 2		67	1656	1.4800+ 1	5.0000- 2	1.9100+ 0	4.0000- 2

03/01/74

TOTAL SCATTERING

48-CD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
63	879	9.8000- 1	5.0000- 2	5.6000+ 0	1.6800- 1

03/01/74

N,N'

48-CD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
65	869	6.0400+ 0	2.3000- 1	2.1000+ 0	3.0000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	E-LVL MEV
63	826	1.2000+ 0	8.0010- 1	1.0000- 1	5.6010- 1	6.2010- 1

03/01/74

N,2N

48-CD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
58	7	1.4100+ 1		1.9200+ 0	1.0000- 1

03/01/74

ABSORPTION

48-CD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
58	1162	2.5300- 8	2.4300+ 3	4.0000+ 1	65	1364	2.4000- 2	3.8400- 1	2.0000- 2	
64	976	2.5300- 8	2.4450+ 3	3.0000+ 1	58	364	2.2000- 1	2.0000- 2	1.2300- 1	5.0000- 3
60	891	2.5300- 8	2.5370+ 3	9.0000+ 0	58	364	8.3000- 1	4.0000- 2	7.3010- 2	5.0000- 3
58	364	2.4000- 2	2.0000- 3	3.2100- 1	7.6010- 3					

03/01/74

N, X GAMMA
CROSS SECTION

48-CD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53	294	1.4200+ 1	1.2800+ 1	3.2000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	
54	113	3.2000+ 0	2.0000- 1	6.9000- 1	1.3800- 1	5.7000- 1
54	113	3.2000+ 0	2.0000- 1	1.6000- 2	3.2000- 2	2.8000+ 0

03/01/74

N, P

48-CD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361	1.4000+ 1	1.4000- 2	

03/01/74

COHERENT SCATTERING

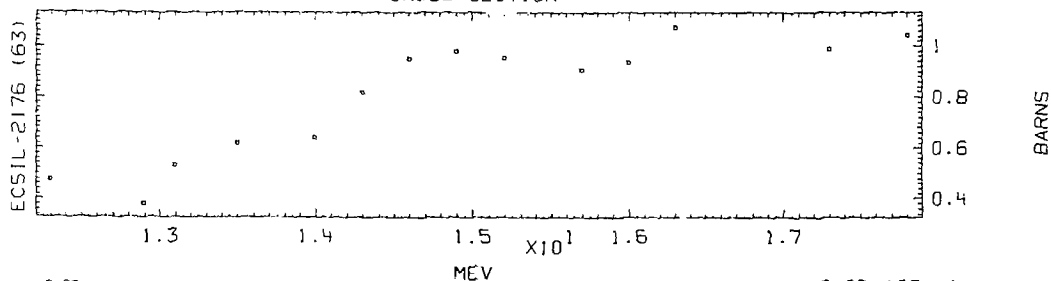
48-CD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62	928	4.2300- 8	3.3000+ 0	4.0000- 1
62	915	6.0700- 8	3.0000+ 0	3.0000- 1

03/01/74

N, 2N
CROSS SECTION

48-CD-106



5-89

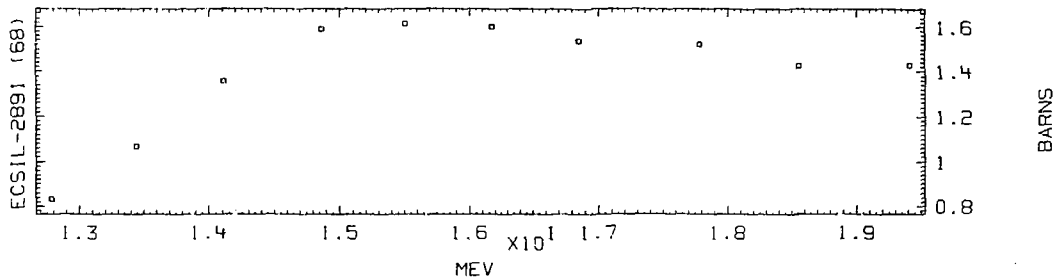
48-CD-106 -1

03/01/74

N,2N

48-CD-106

CROSS SECTION

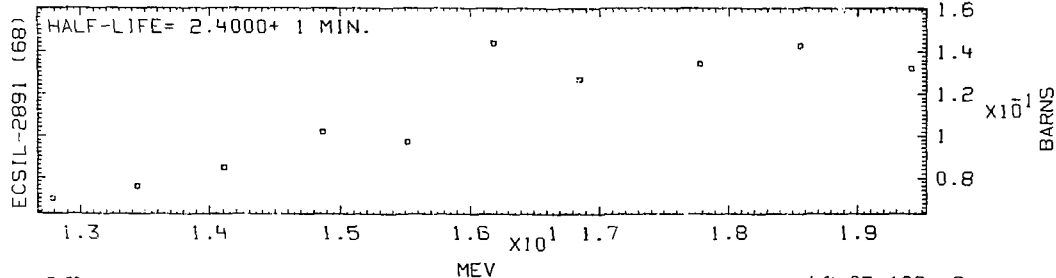


03/01/74

N,P

48-CD-106

CROSS SECTION



5-90

48-CD-106 -2

03/01/74

N,2N
CROSS SECTION

48-CD-106

REFERENCE	ENERGY eV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2853	1.4400+ 1	3.0000- 1	8.6600- 1	8.5000- 2
68 2853	1.4400+ 1	3.0000- 1	8.7500- 1	8.6000- 2
61 676	1.4400+ 1	3.0000- 1	8.2710- 1	6.6910- 2

03/01/74

N,N'⁰

48-CD-106

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2853	1.4400+ 1	3.0000- 1	2.1500- 1	2.9000- 2

03/01/74

N,P

48-CD-106

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 351	1.4000+ 1		7.6010- 2	2.4000- 2

03/01/74

N, ALPHA

48-CD-106

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1780	1.4100+ 1		1.0000- 1	4.0000- 2

03/01/74

N,2N

48-CD-108

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1780	1.4100+ 1		5.0400- 1	7.5600- 2
68 2853	1.4400+ 1	3.0000- 1	9.6400- 1	7.5000- 2

03/01/74

N,2N
CROSS SECTION

48-CD-110

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2853	$1.4400 \cdot 1$	$3.0000 \cdot 1$	$9.9800 \cdot 1$	$1.1500 \cdot 1$

03/01/74

N,P

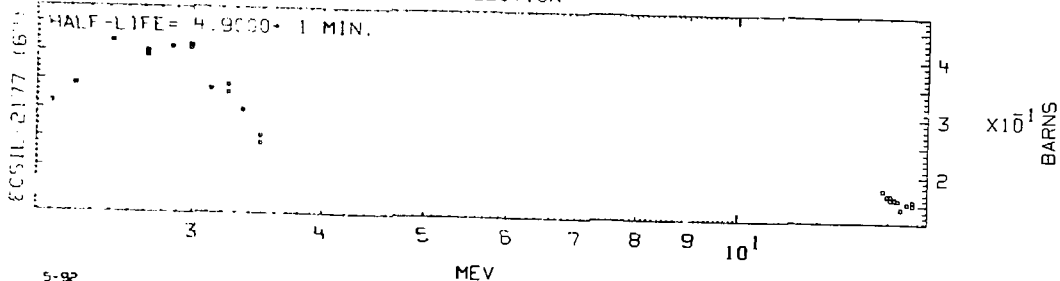
48-CD-110

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1780	$1.4100 \cdot 1$		$2.7000 \cdot 2$	$5.4000 \cdot 3$

03/01/74

N,N'
CROSS SECTION

48-CD-111



48-CD-111 -1

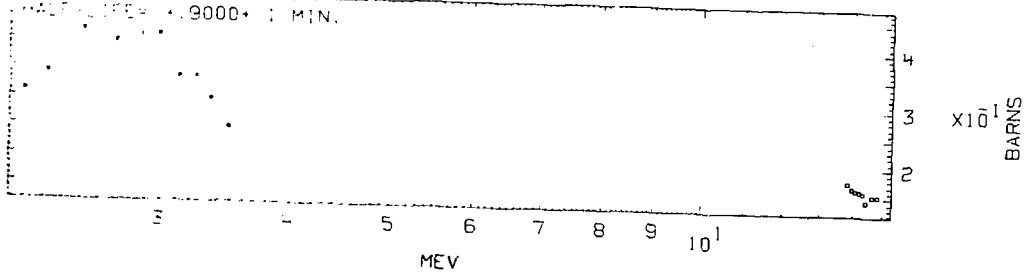
03/01/74

N,N'
CROSS SECTION

48-CD-111

ECSIL-1999 (64)

HALF LIFE = 0.9000 ± 0.1 MIN.

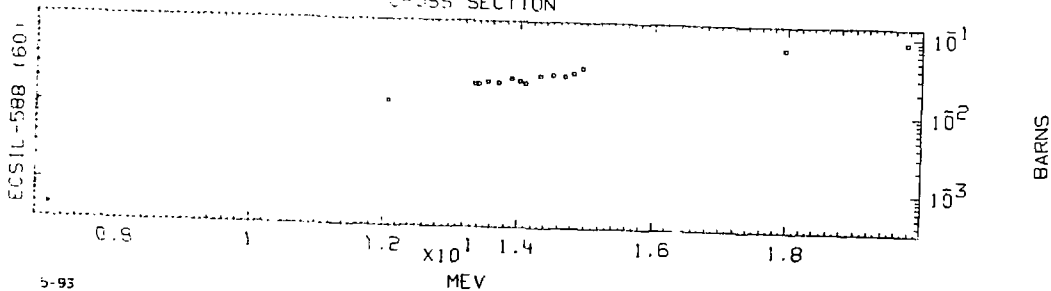


03/01/74

N,P
CROSS SECTION

48-CD-111

ECSIL-588 (60)



5-93

48-CD-111 -2

03/01/74

N,N'
CROSS SECTION

48-CD-111

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
53 291	6.0000- 1	4.0000- 2	6.0010- 3	3.0000- 3		67 2602	2.8000+ 0	7.0000- 2	2.7700+ 2	3.6010+ 1	4.9000+ 1
53 291	7.2000- 1	4.0000- 2	1.0000- 2	5.0000- 3	4.9000+ 1	68 2853	1.4400+ 1	3.0000- 1	7.8100+ 2	5.0000+ 1	4.9000+ 1

03/01/74

N,P

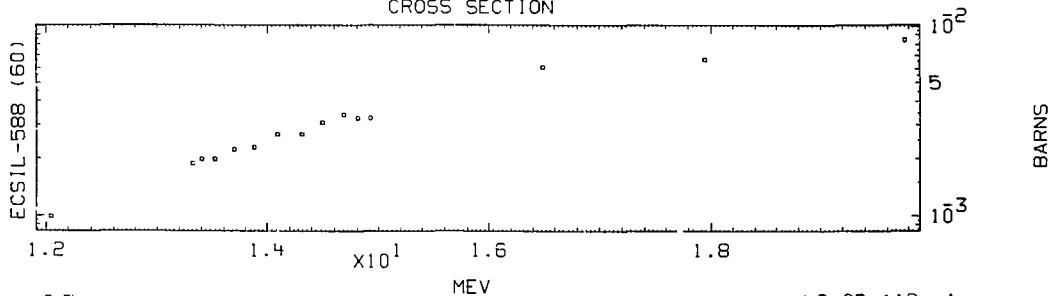
48-CD-111

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 323	1.4000+ 1		1.5000- 2	4.0000- 3
67 1780	1.4100+ 1		1.4000- 2	1.4000- 3

03/01/74

N, ALPHA
CROSS SECTION

48-CD-112



5-94

48-CD-112 - 1

03/01/74

N,2N
CROSS SECTION

48-CD-112

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
67 2177	1.3720*	1 1.3000-	1 6.6500-	1 1.0000-	1	68 2853	1.4400*	1 3.0000-	1 7.8100-	1 5.0000-	2 4.9000* 1
68 1999	1.3720*	1 1.3000-	1 6.6500-	1 8.0000-	2 4.9000* 1	67 2177	1.4780*	1 2.1000-	1 5.7600-	1 8.7000-	2 4.9000* 1
67 2177	1.4070*	1 1.3000-	1 6.2400-	1 9.3000-	2 4.9000* 1	68 1999	1.4780*	1 2.1000-	1 5.7600-	1 6.9000-	2 4.9000* 1
68 1999	1.4080*	1 1.3000-	1 6.2400-	1 7.5000-	2 4.9000* 1						

03/01/74

N,P

48-CD-112

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 323	1.4000* 1		1 1.1000-	2 3.0000- 3	67 1780	1.4100* 1		1 1.1000-	2 1.1000- 3
57 351	1.4000* 1		9.2010-	3 2.9000- 3	68 2853	1.4400* 1		1 3.0000-	1 1.5300- 2 1.3000- 3

03/01/74

N,ALPHA

48-CD-112

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 350	1.4000* 1		1 1.3500-	3 2.7000- 4
63 323	1.4000* 1		1 1.3000-	3 3.0000- 4
67 1780	1.4100* 1		2 2.4000-	3 3.6000- 4

03/01/74

ABSORPTION

48-CD-113

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1162	2.5300- 0		1 1.9800+	4 3.0000* 2

03/01/74

N,P

48-CD-113

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 323	1.4000* 1		8 8.0010-	3 2.0000- 3
57 351	1.4000* 1		7 7.2010-	3 2.2000- 3
67 1780	1.4100* 1		7 7.9000-	3 7.9000- 4

03/01/74

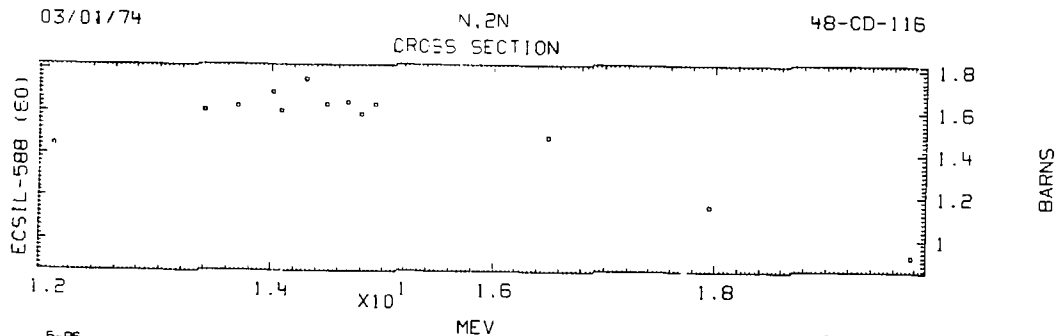
N, ALPHA
CROSS SECTION

48-CD-114

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
63 323	1.4000+ 1		6.0000- 4	1.0000- 4

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN	DELTA HALF-LIFE MINUTES
57 350	1.4000+ 1		5.1000- 4	1.3000- 4	2.2000+ 1
67 1782	1.4100+ 1		5.0000- 4	7.5000- 5	2.2000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN	DELTA HALF-LIFE HOURS
57 350	1.4000+ 1		1.2000- 4	4.0000- 5	5.5000+ 0
67 1782	1.4100+ 1		2.0000- 4	3.0000- 5	5.5000+ 0



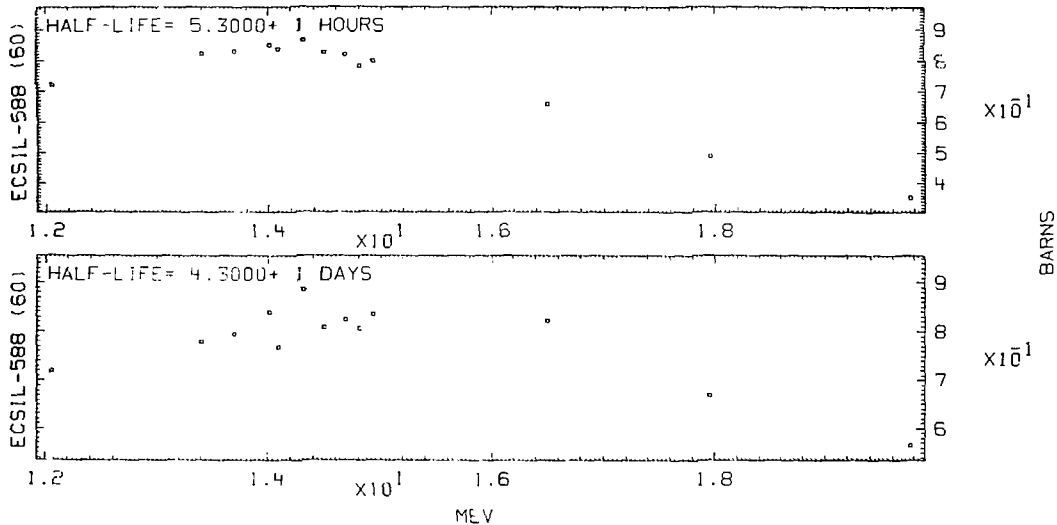
5-96

48-CD-116 -1

03/01/74

N,2N
CROSS SECTION

48-CD-116



03/01/74

N,2N

48-CD-116

REFERENCE	ENERGY MEV	DELTA MEV	X-SFC BARNs	DELTA BARNs	HALF-LIFE HOURS
67 1780	1.4100 ± 1		8.5700 ± 1	6.8560 ± 2	5.3000 ± 1
61 703	1.4800 ± 1	2.5000 ± 1	6.9010 ± 1	1.0000 ± 1	5.3510 ± 1

03/01/74

N,2N
CROSS SECTION

48-CD-116

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
68 2853	1.4400+ 1	3.3000- 1	9.0600- 1	6.0600- 2	2.3000+ 0	68 2853	1.4400+ 1	3.0000- 1	6.1500- 1	4.5000- 2	4.3000+ 1
67 1780	1.4100+ 1		7.3000- 1	5.8400- 2	4.3000+ 1	61 703	1.4800+ 1	2.5000- 1	4.9000- 1	7.0010- 2	4.3500+ 1

03/01/74

N,P

48-CD-116

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1780	1.4100+ 1		2.0000- 4	1.0000- 4

03/01/74

N,ALPHA

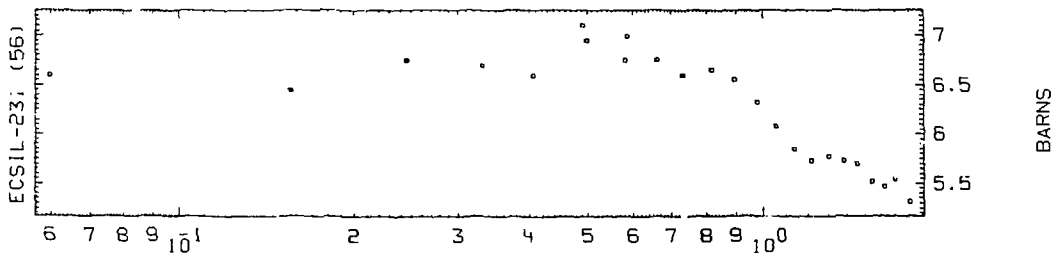
48-CD-116

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1780	1.4100+ 1		5.0000- 4	5.0000- 4

03/01/74

TOTAL SCATTERING
CROSS SECTION

49-IN-NAT



5-98

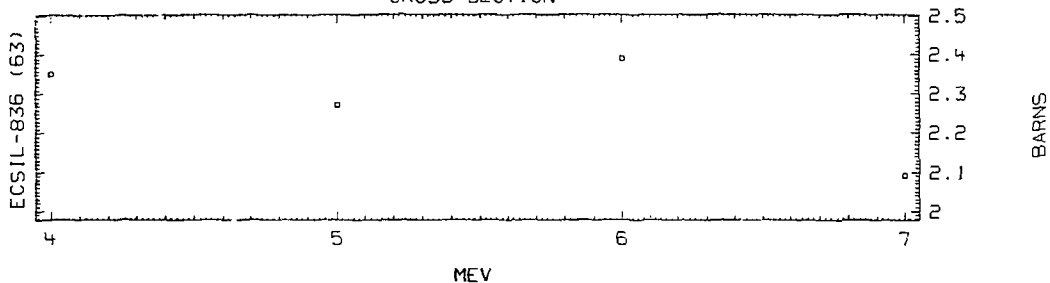
MEV

49-IN-NAT -1

03/01/74

N,N'
CROSS SECTION

49-IN-NAT



03/01/74

NONELASTIC

49-IN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
54 103	1.0000+ 0	5.0000- 2	4.0000- 2	1.5000- 1

03/01/74

N,N'

49-IN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
54 301	2.5000+ 0		2.0000- 1	1.0000- 1	6.1000- 1
54 301	2.5000+ 0		4.0000- 1	1.0000- 1	9.2000- 1

03/01/74

N,2N

49-IN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
58 1021	1.4100+ 1		1.9200+ 0	1.5000- 1

03/01/74

N, 2N
CROSS SECTION

49-IN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
59 829	1.4500+ 1		8.0010- 4		4.2000- 2

03/01/74

ABSORPTION

49-IN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1162	2.5300- 8		1.9100+ 2	2.0000+ 0	65 1541	2.4000- 2	1.5000- 3	7.7800- 1	7.9000- 2
54 873	2.5300- 8		1.9020+ 2	1.6000+ 0	65 1364	2.4000- 2		7.7600- 1	6.6000- 2
60 891	2.5300- 8		1.9400+ 2	2.0000+ 0					

03/01/74

N, X GAMMA

49-IN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHN-MIN MEV	E-PHN-MAX MEV
63 1723	1.4100+ 1	6.0000- 1	2.1500+ 0		2.0000+ 0	6.0000+ 0

03/01/74

N, D

49-IN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 361	1.4000+ 1		1.4000- 2	

03/01/74

N, ALPHA

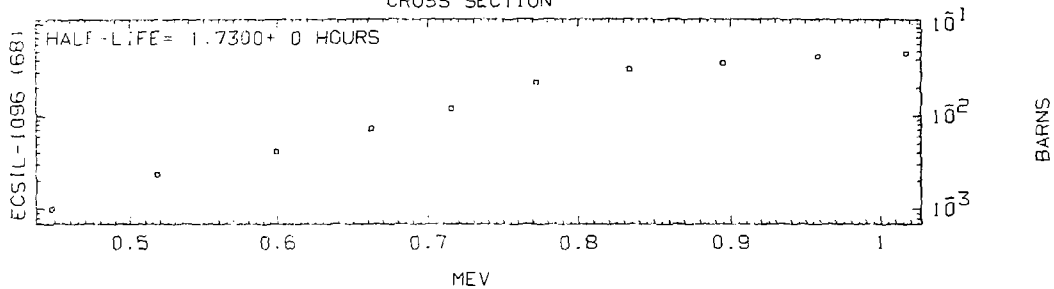
49-IN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 2180	1.4000+ 1		8.0900- 3	8.0900- 4

03/01/74

N,N'
CROSS SECTION

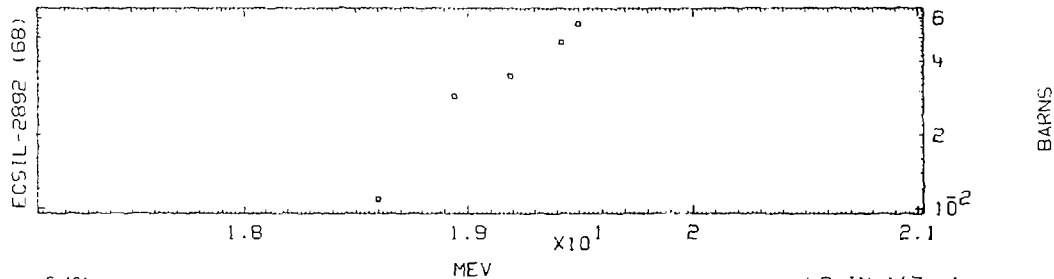
49-IN-113



03/01/74

N,3N
CROSS SECTION

49-IN-113



S-101

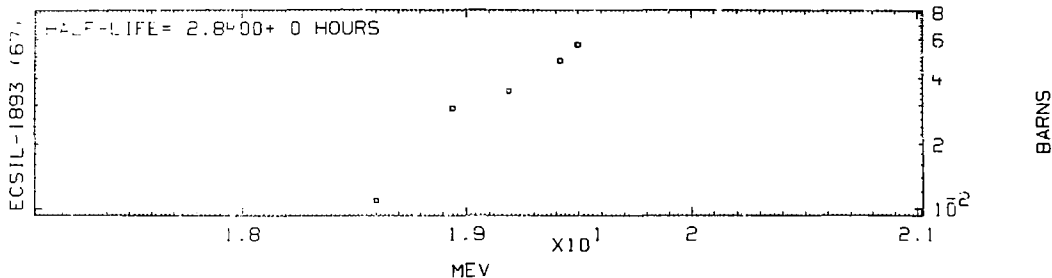
49-IN-113 -1

03/01/74

N,3N

49-IN-113

CROSS SECTION



03/01/74

N,N'

49-IN-113

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3340	1.4100 ± 1	5.0000 - 1	6.3000 - 2	3.0000 - 3

03/01/74

N,2N

49-IN-113

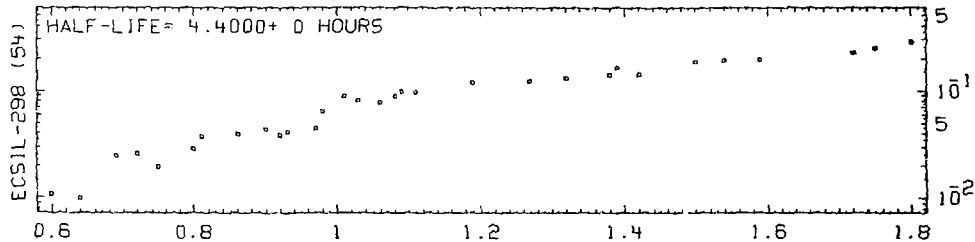
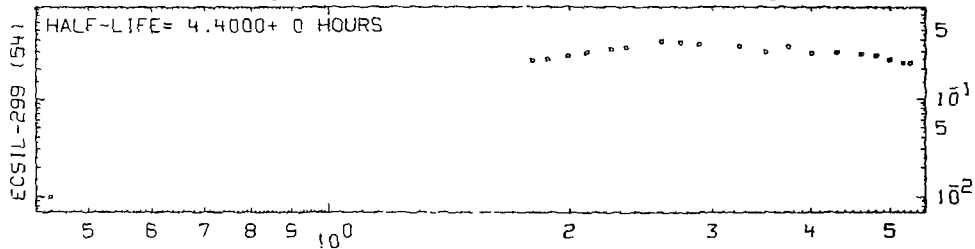
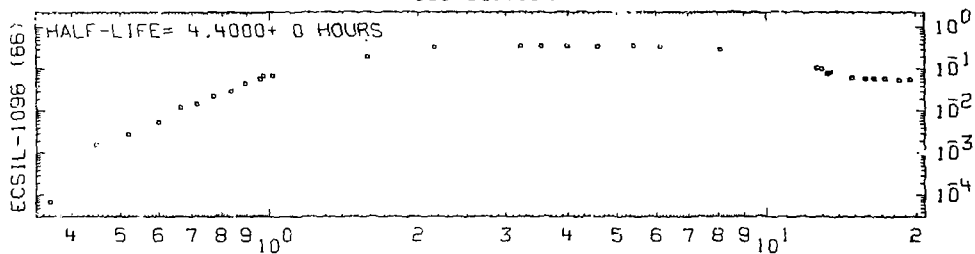
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
67 2712	1.4700 ± 1		4.4000 - 1	4.6000 - 2 4.3500 - 2
67 2712	1.4700 ± 1		1.6400 - 1	2.0000 - 2 7.2000 ± 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
70 3340	1.4100 ± 1	5.0000 - 1	2.5000 - 1	3.0000 - 2 1.4000 ± 1	68 3357	1.4700 ± 1	1.5000 - 1	1.4900 ± 0	1.5000 - 1 2.0400 ± 1
68 3357	1.4700 ± 1	1.5000 - 1	3.0000 - 1	3.0000 - 2 1.4500 ± 1	70 3340	1.4100 ± 1	5.0000 - 1	1.2100 ± 0	1.4000 - 1 2.0700 ± 1

03/01/74

N,N'
CROSS SECTION

49-IN-115



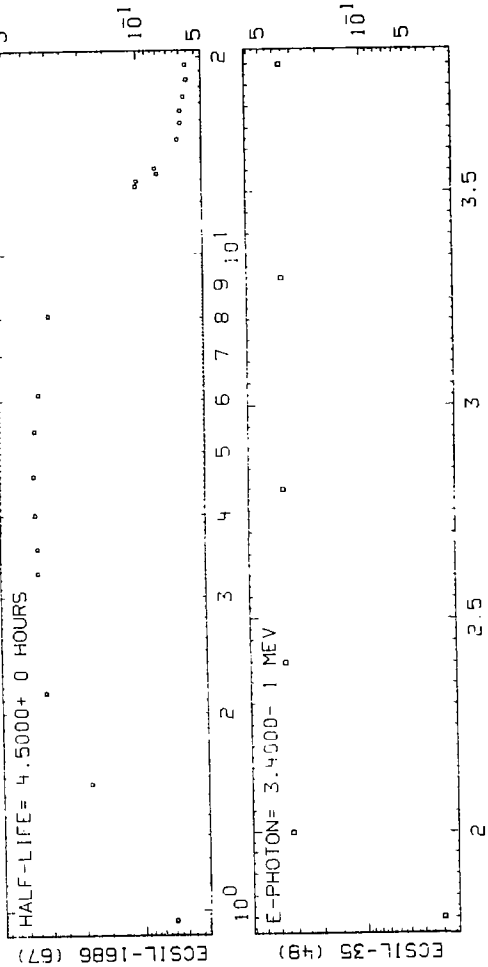
BARNs

03/01/74

N,N'

49-IN-115

CROSS SECTION



BARNs

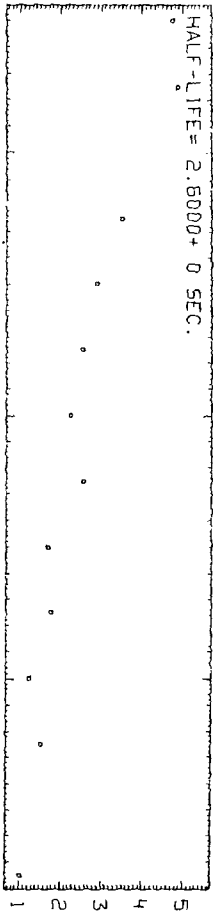
03/01/74

N,2N

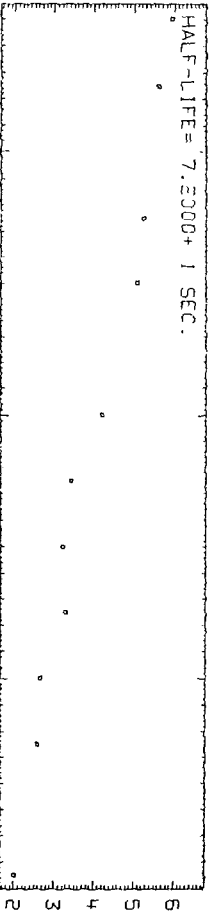
49-IN-115

CROSS SECTION

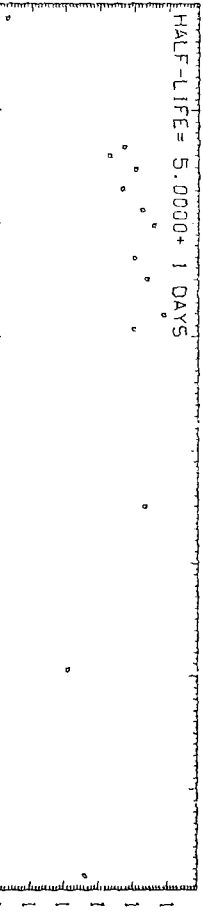
ECSIL-2888 (67)



ECSIL-2888 (67)



ECSIL-588 (60)



X10¹

5-105

MEV

49-IN-115 -3

X10²
BARNs

X10²

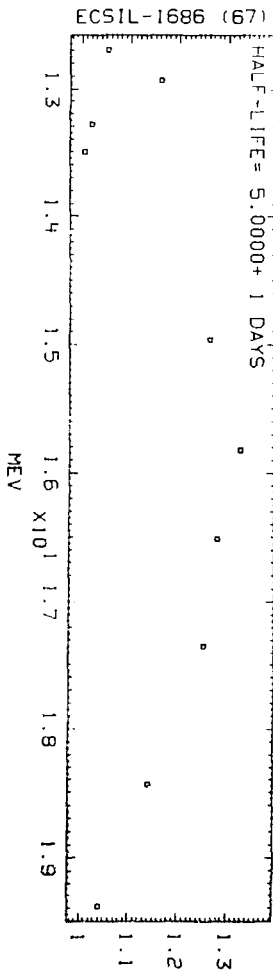
03/01/74

N,2N

49-IN-115

CROSS SECTION

HALF-LIFE = 5.0000+ 1 DAYS



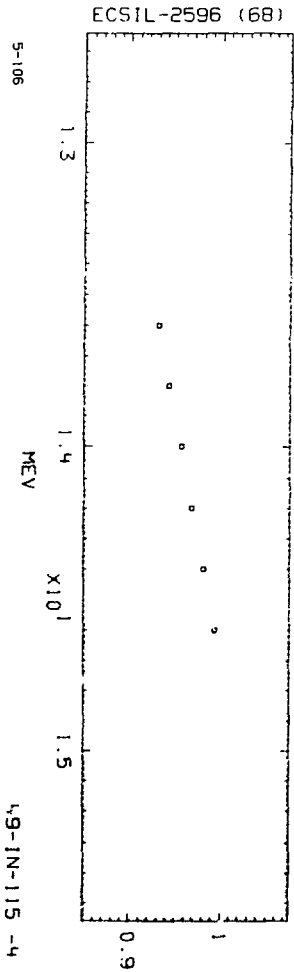
BARN

03/01/74

N,2N

49-IN-115

CROSS SECTION



RELATIVE

5-106

49-IN-115 -4

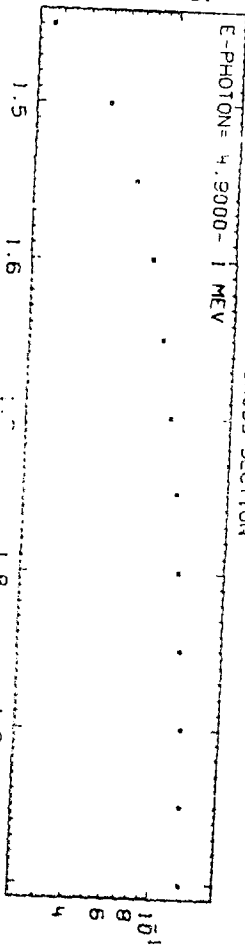
03/01/74

N, X GAMMA

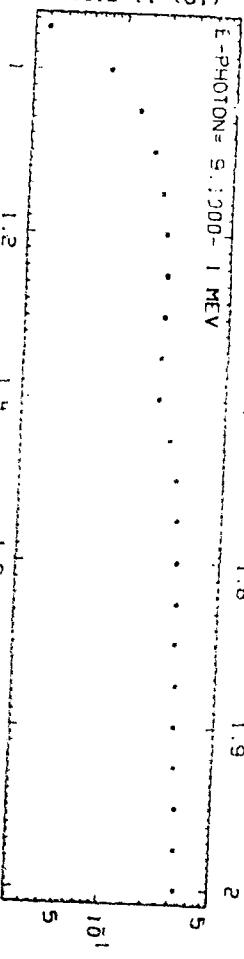
CROSS SECTION

49-IN-115

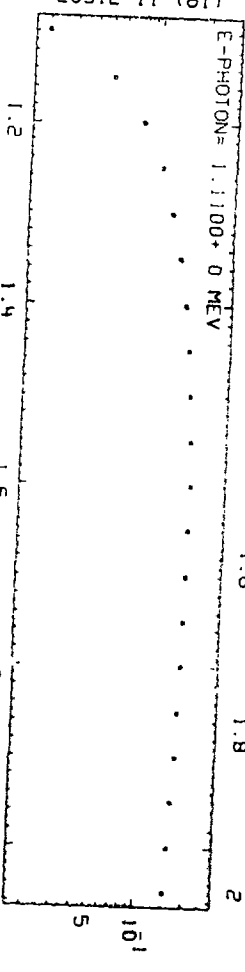
ECSIL-11 (61)



ECSIL-11 (61)



ECSIL-11 (61)



5-107

MEV

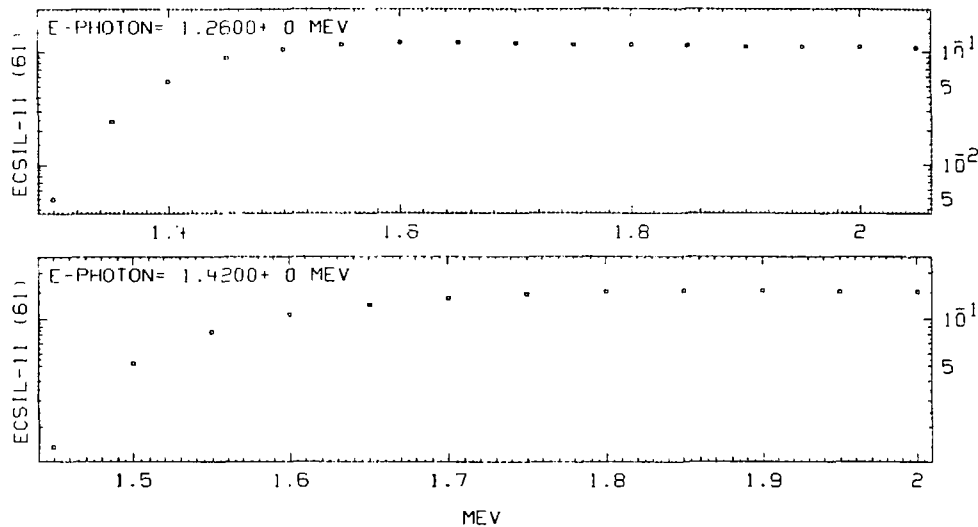
49-IN-115 -5

BARNs

03/01/74

N,X GAMMA
CROSS SECTION

49-IN-115



03/01/74

N,N'

49-IN-115

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE HOURS
69 3357	1.4700 + 1	1.5000 - 1	8.3500 - 2	4.2000 - 3	69 2354	1.4790 + 1	7.0300 - 2	5.0000 - 3	4.4000 + 0	
69 2354	1.4600 + 1	2.3000 - 1	6.7000 - 2	7.0000 - 3	56 1777	1.4600 + 1	2.0000 - 1	8.1000 - 2	8.9100 - 3	4.4600 + 0
69 2354	1.4800 + 1									

5-108

49-IN-115 -6

03/01/74

N,N'
CROSS SECTION

49-IN-115

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE HOURS
68 2711	1.4800+ 1	2.0000- 1	6.9300- 2	5.0000- 3	4.4000+ 0
70 3340	1.4100+ 1	5.0000- 1	7.3000- 2	8.0000- 3	4.5000+ 0
66 3018	1.4600+ 1	2.0000- 1	5.0000- 2	7.8000- 3	4.5000+ 0

03/01/74

N,2N

49-IN-115

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE SECONDS
66 3018	1.4200+ 1	2.0000- 1	3.5000- 1	1.0000- 1	7.2000+ 1
68 3357	1.4700+ 1	1.5000- 1	3.4000- 1	7.0000- 2	7.2000+ 1
67 1901	1.4800+ 1	5.0000- 1	3.6000- 1	4.0000- 2	7.2000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE MINUTES
67 2712	1.4700+ 1		7.0300- 1	1.0200- 1	1.4000+ 1
67 2712	1.4700+ 1		8.3700- 1	9.8000- 2	2.1000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE DAYS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE DAYS
70 3340	1.4100+ 1	5.0000- 1	1.2100+ 0	1.4000- 1	5.0000+ 1	69 2354	1.4700+ 1		1.3900+ 0	1.1000- 1	5.0000+ 1
69 2354	1.4600+ 1	2.0000- 1	1.3300+ 0	1.2000- 1	5.0000+ 1	68 2711	1.4800+ 1	2.0000- 1	1.3900+ 0	1.1000- 1	5.0000+ 1
68 3357	1.4700+ 1	1.5000- 1	1.4700+ 0	1.2000- 1	5.0000+ 1						

03/01/74

N,P

49-IN-115

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		1.5500- 2	3.9000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE DAYS
70 3340	1.4100+ 1		4.0000- 3	2.0000- 3	2.2290+ 0

03/01/74

N, ALPHA
CROSS SECTION

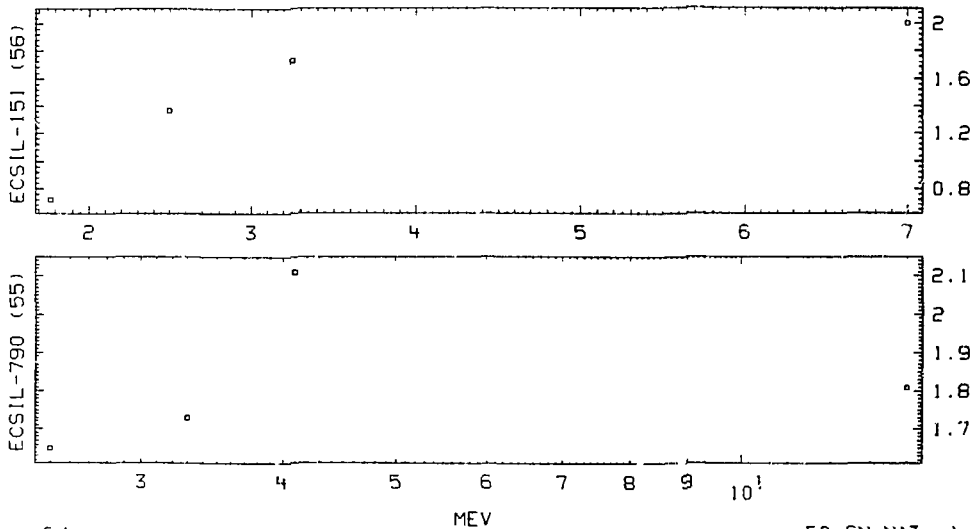
49-IN-115

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55	131	1.4000- 1	2.5000- 3	4.0000- 4	59	550	1.4500+ 1	2.9000- 3	3.0000- 4
58	401	1.4050+ 1	2.5000- 3	4.0000- 4	66	3018	1.4600+ 1	2.0000- 1	3.0000- 3
70	3340	1.4100- 1	2.5000- 3	4.0000- 4	65	1777	1.4600+ 1	2.0000- 1	3.0000- 3

03/01/74

NONELASTIC
CROSS SECTION

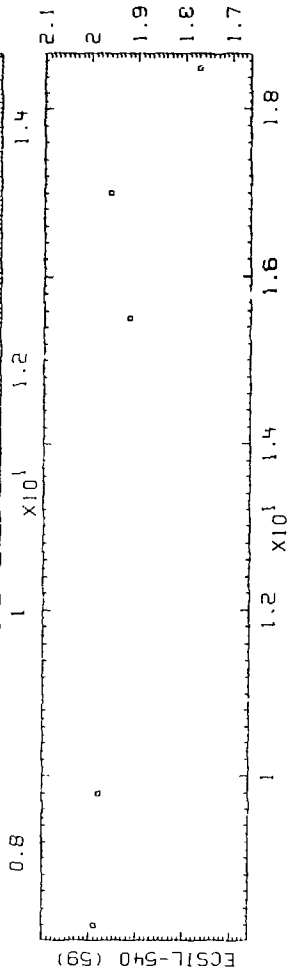
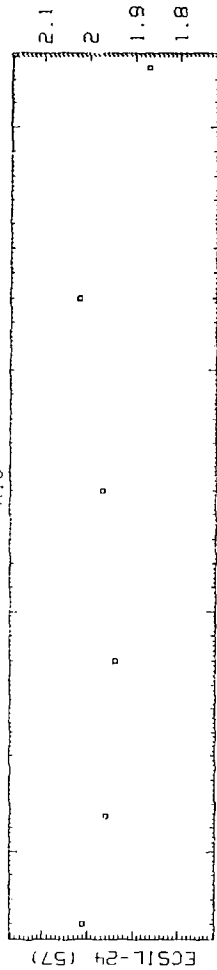
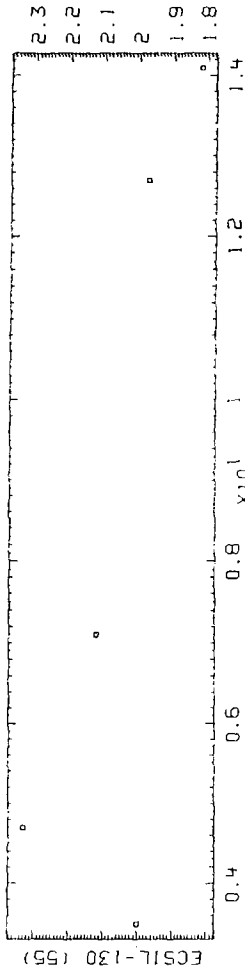
50-SN-NAT



03/01/74

NONELASTIC
CROSS SECTION

50-SN-NAT



BARNs

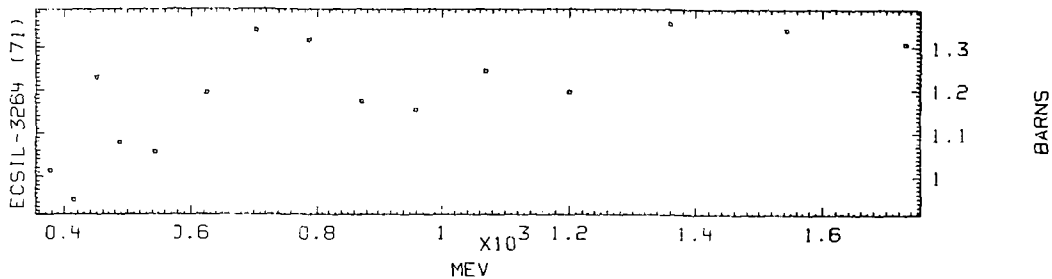
MEV

50-SN-NAT -2

03/01/74

NONELASTIC
CROSS SECTION

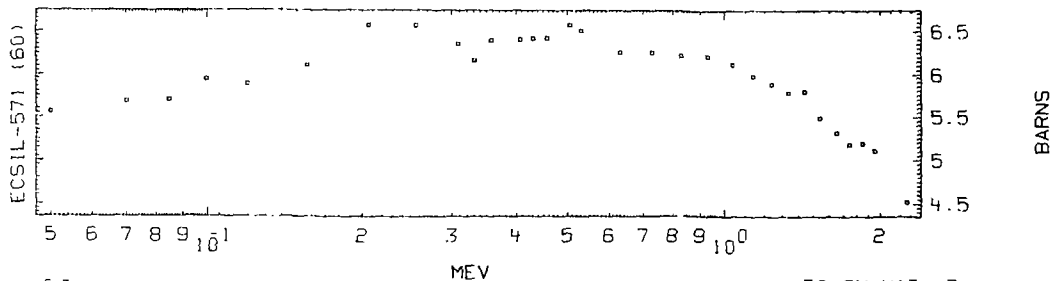
50-SN-NAT



03/01/74

TOTAL SCATTERING
CROSS SECTION

50-SN-NAT



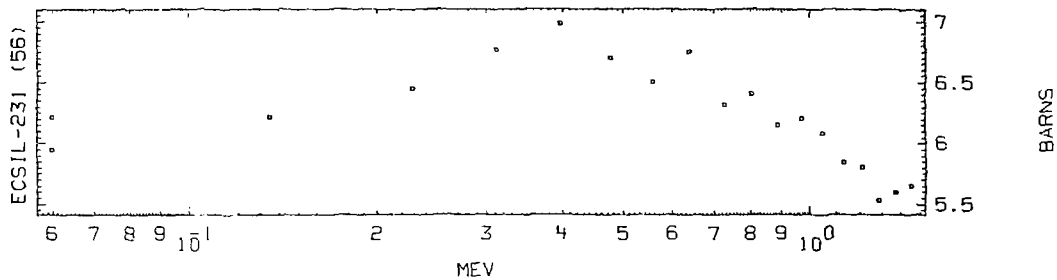
6-3

50-SN-NAT -3

03/01/74

TOTAL SCATTERING
CROSS SECTION

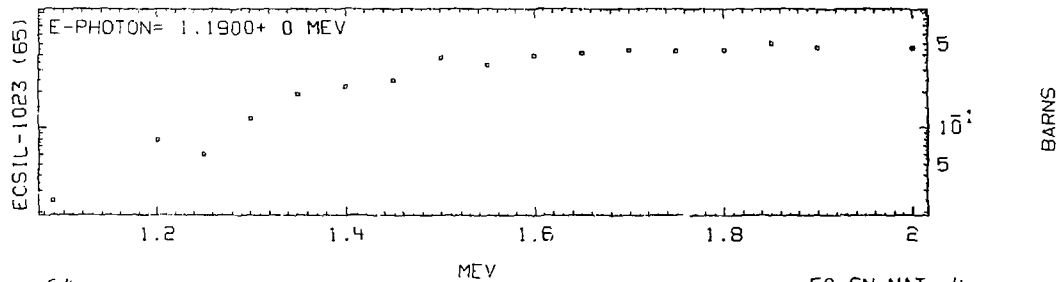
50-SN-NAT



03/01/74

N, X GAMMA
CROSS SECTION

50-SN-NAT



6-4

50-SN-NAT -4

03/01/74

NONELASTIC
CROSS SECTION

50-SN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55	122 1.0000+ 0	1.6000- 1	6.0010- 2	5.0000- 2	57	319 1.4200+ 1	1.5000- 1	1.9000+ 0	3.0000- 2
56	353 1.0200+ 0		4.0000- 1	2.0000- 1	56	200 1.4500+ 1		1.8500+ 0	2.0000- 2
56	34 2.5000+ 0		2.2000+ 0	2.0000- 1	67	1656 1.4800+ 1	5.0000- 2	2.0300+ 0	8.0000- 2
55	122 4.0000+ 0	7.0010- 2	2.0900+ 0	7.0010- 2	58	356 2.1000+ 1		1.7200+ 0	8.0010- 2
55	296 4.1000+ 0	4.0000- 0	2.1000+ 0	2.0000- 1	5A	356 2.5500+ 1		1.7700+ 0	8.0010- 2
55	122 4.5000+ 0	7.0010- 2	2.1800+ 0	6.0010- 2	5A	356 2.9200+ 1		1.8300+ 0	1.0000- 1
58	877 1.4000+ 1		1.8300+ 0	2.0000- 1	55	2056 1.4000+ 3	2.0000+ 2	1.1600+ 0	5.8000- 2
55	117 1.4100+ 1		1.9600+ 0	5.0000- 2					

03/01/74

TOTAL SCATTERING

50-SN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	879 9.8000- 1	5.0000- 2	6.1600+ 0	1.8480- 1

03/01/74

N,N'

50-SN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	889 8.7400+ 0	2.3000- 1	2.8000+ 0	6.9000- 1

03/01/74

N,2N

50-SN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	1821 1.4100+ 1		1.9200+ 0	1.4000- 1

03/01/74

ABSORPTION

50-SN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	2569 2.5300- 8		6.0500- 1	3.6000- 2	58	364 2.5000- 2	4.0000- 3	1.1200- 1	5.0000- 3
58	1162 2.5500- 8		6.2500- 1	9.0000- 3	58	364 2.2000- 1	2.0000- 2	5.2010- 2	8.0010- 3
65	1364 2.4000- 2		1.2800- 1	9.0000- 3	58	364 8.3000- 1	4.0000- 2	3.6000- 2	6.0010- 3

08/01/74

N,X GAMMA
BOUND ATOM

50-SN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV
51.158	7.3000- 6	1.14000	1.24000	2.8000- 2	6.9000- 1
51.159	7.3000- 6	1.24000	0.33000	1.11400	0
51.160	7.3000- 6	1.24000	1.44000	2.20000	0

08/01/74

N,X

50-SN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
51.158	7.3000- 6		1.5000- 2	

08/01/74

BOUND ATOM

50-SN-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
51.158	7.3000- 6		4.9000- 0	

08/01/74

COHERENT SCATTERING

50-SN-NAT

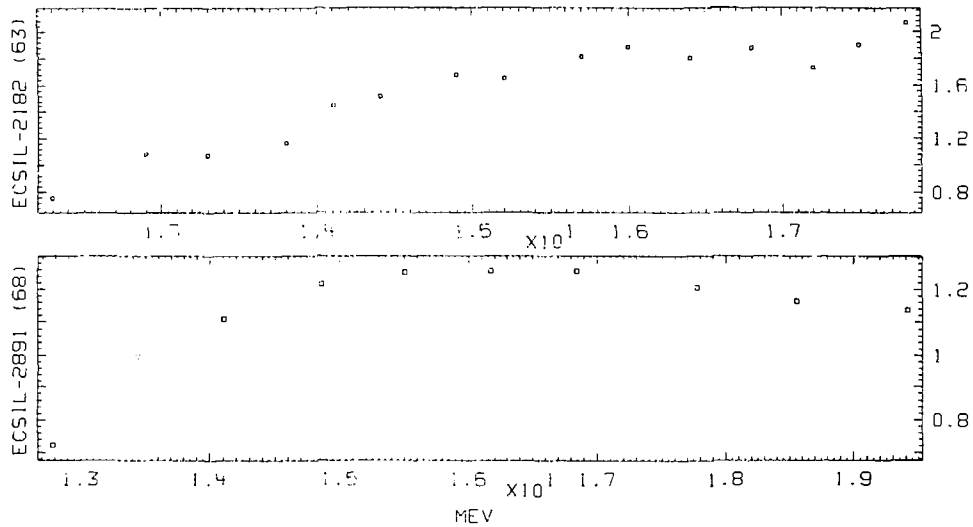
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
51.158	7.3000- 6		4.6000- 0	3.6000- 1

03/01/74

N,2N

50-SN-112

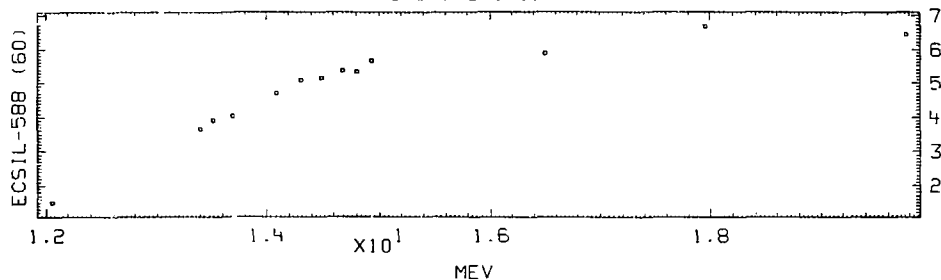
CROSS SECTION



03/01/74

N,2N
CROSS SECTION

50-SN-112


 $\times 10^3$
RELATIVE

03/01/74

N,2N

50-SN-112

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
60	590	1.1800+ 1	2.0000- 1	1.0900- 1	2.2000- 2	67	2009	1.4200+ 1	1.5300+ 0	2.2950- 1	
60	590	1.2800+ 1	2.0000- 1	5.1210- 1	1.0900- 1	69	2837	1.4400+ 1	3.0000- 1	1.2430+ 0	
64	2184	1.4100+ 1	5.0000- 1	1.6100+ 0	3.2200- 1	68	2427	1.4400+ 1	1.3000+ 0	1.5000- 1	
70	3340	1.4100+ 1	5.0000- 1	9.0000- 1	1.0000- 1	61	676	1.4400+ 1	3.0000- 1	1.5100+ 0	1.2000- 1

03/01/74

N,P

50-SN-112

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE SECONDS
64	2184	1.4100+ 1	1.4500- 1	2.5000- 2	
68	2427	1.4400+ 1	8.7000- 3	6.0000- 4	4.2000- 2

03/01/74

N,P
CROSS SECTION

50-SN-112

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
68 2427	1.4400+ 1		1.3000- 2	7.0000- 4	1.4000+ 1
63 2183	1.4500+ 1		1.0000- 2	2.6000- 3	1.8100+ 1
64 2184	1.4100+ 1		1.0000- 1	2.0000- 2	2.1000+ 1

03/01/74

N,D

50-SN-112

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3340	1.4100+ 1		1.9000- 1	1.6000- 1

03/01/74

N,2N

50-SN-114

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3340	1.4100+ 1	5.0000- 1	1.0900+ 0	1.3000- 1
68 2427	1.4400+ 1		1.8000+ 0	1.0000- 1

03/01/74

N,F

50-SN-115

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2427	1.4400+ 1		3.5000- 3	2.0000- 4

03/01/74

N,P

50-SN-116

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
63 2185	1.4200+ 1	2.0000- 1	2.2000- 2	5.0000- 3	
63 2185	1.4200+ 1	2.0000- 1	1.1000- 2	4.0000- 3	1.5600+ 1
65 2186	1.4900+ 1	5.0000- 1	1.1000- 2	4.0000- 3	1.5600+ 1

03/01/74

N,P
CROSS SECTION

50-SN-116

REFERENCE	ENERGY MEV	DELTA MLV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
68 2427	1.4400+ 1		2.0000- 3	7.0000- 4	5.4000+ 1	63 2185	1.4200+ 1	2.0000- 1	1.1000- 2	2.0000- 3	5.6600+ 1
63 2183	1.4200+ 1		5.4000- 3	1.5000- 3	5.4000+ 1	65 2186	1.4900+ 1	1.50000- 1	1.1000- 2	2.0000- 3	5.6600+ 1

03/01/74

N,P

50-SN-117

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 2184	1.4100+ 1		2.3000- 2	4.6000- 3
63 2185	1.4200+ 1	2.0000- 1	1.2000- 2	3.0000- 3

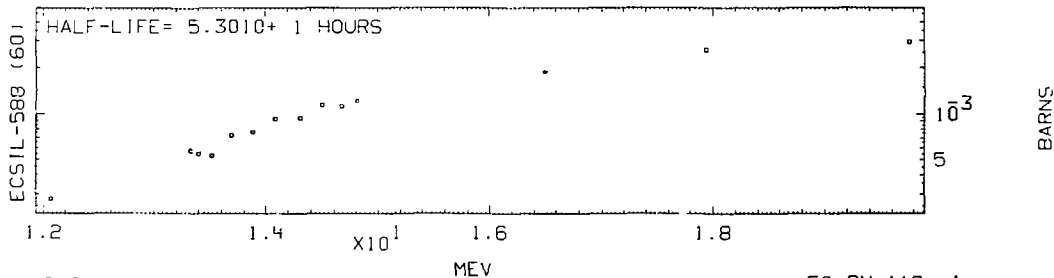
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
65 2186	1.4900+ 1	5.0000- 1	1.0700- 2	2.6000- 3	4.4600+ 1
68 2427	1.4400+ 1		5.9000- 3	4.0000- 4	4.5000+ 1
65 2186	1.4900+ 1	5.0000- 1	5.1000- 3	1.6000- 3	1.1570- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
63 2185	1.4200+ 1	2.0000- 1	9.2000- 3	2.7000- 3	1.1000+ 0
63 2185	1.4200+ 1	2.0000- 1	2.8000- 3	8.0000- 4	1.9000+ 0
68 2427	1.4400+ 1		3.7000- 3	5.0000- 4	1.9000+ 0

03/01/74

N, ALPHA
CROSS SECTION

50-SN-118



03/01/74

N,2N
CROSS SECTION

50-SN-118

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2427	1.4400+ 1		9.7600- 1	1.2000- 1

03/01/74

N,N'P

50-SN-118

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES
65 2186	1.4900+ 1	5.0000- 1	9.3000- 4	2.6000- 4	4.4600+ 1
65 2186	1.4900+ 1	5.0000- 1	4.9000- 4	1.4000- 4	1.1570+ 2

03/01/74

N,P

50-SN-118

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE SECONDS
65 2186	1.4900+ 1	5.0000- 1	4.0000- 4	2.0000- 4	5.7000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES
68 2427	1.4400+ 1		9.8000- 3	5.0000- 4	4.4400+ 0
63 2183	1.4500+ 1		1.1700- 2	2.5000- 3	4.5000+ 0
65 2186	1.4900+ 1	5.0000- 1	5.8000- 3	2.0000- 4	4.9000+ 0

03/01/74

N,P

50-SN-119

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES
68 2427	1.4400+ 1		2.6000- 3	3.0000 4		68 2427	1.4400+ 1		2.6000- 3	3.0000- 4	1.8000+ 1
65 2186	1.4900+ 1	5.0000- 1	4.3000- 3	1.5000- 3	2.8000+ 0	65 2186	1.4900+ 1	5.0000- 1	4.3000- 3	1.4000- 3	2.2600+ 1
63 2183	1.4500+ 1		1.1100- 2	2.5000- 3	1.7500+ 1						

03/01/74

N,X P

50-SN-119

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE MINUTES
63 2183	1.4500+ 1		1.0600- 2	2.8000- 3	4.0000+ 0

03/01/74

N,2N
CROSS SECTION

50-SN-120

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S
68 2427	1.4400+ 1		1.4440+ 5	2.1000- 1

03/01/74

N,P

50-SN-120

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S	HALF-LIFE SECONDS
60 2188	1.4800+ 1		1.0000- 3		3.0000+ 0
60 2188	1.4800+ 1		2.8000- 3	1.0000- 3	5.0000+ 1
63 2183	1.4500+ 1		4.6000- 3	1.2000- 3	5.1000+ 1

03/01/74

N,2N

50-SN-122

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S
68 2427	1.4400+ 1		8.7500- 1	1.3500- 1

03/01/74

N,2N

50-SN-124

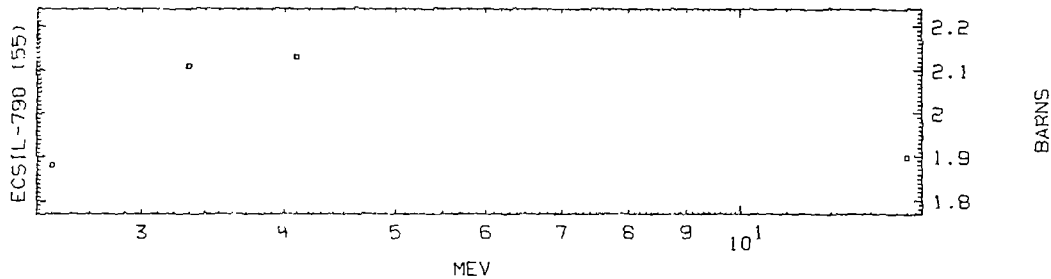
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S	HALF-LIFE MINUTES
64 2184	1.4100+ 1		9.0000- 1	1.8000- 1	
70 3340	1.4160+ 1	5.0000- 1	5.4000- 1	6.0000- 2	4.0000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S	HALF-LIFE DAYS
68 2427	1.4400+ 1		5.4700- 1	2.3000- 2	1.2900+ 2

03/01/74

NONELASTIC
CROSS SECTION

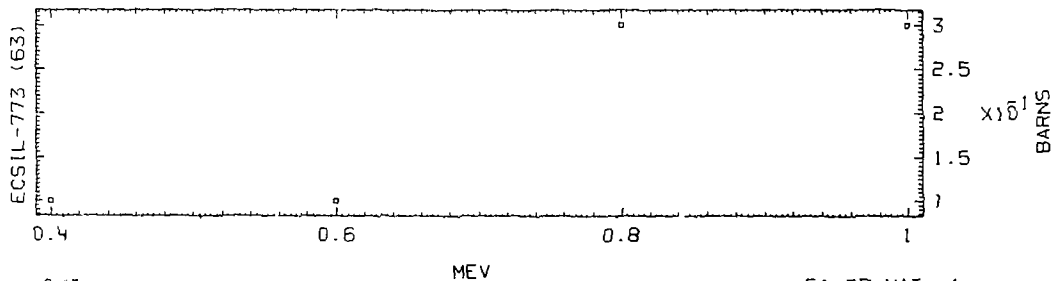
51-SB-NAT



03/01/74

N,N'
CROSS SECTION

51-SB-NAT



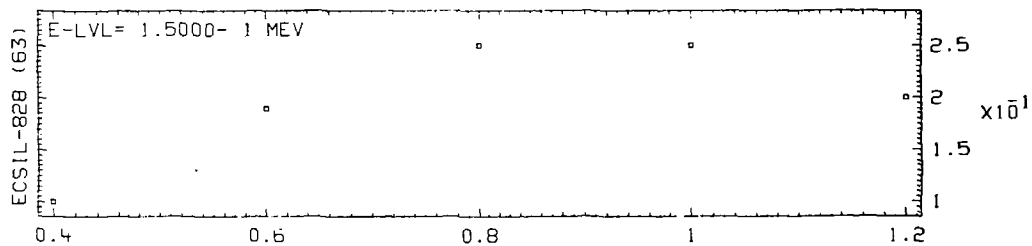
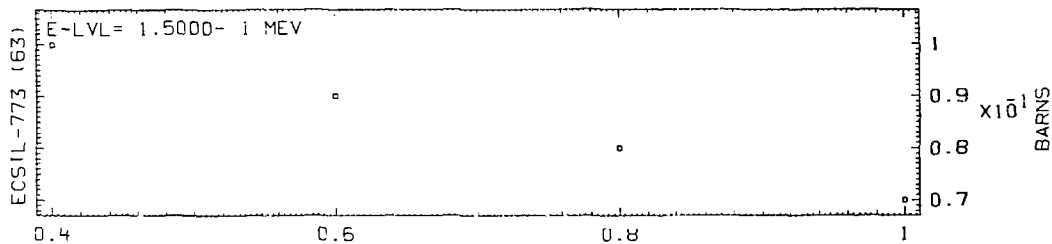
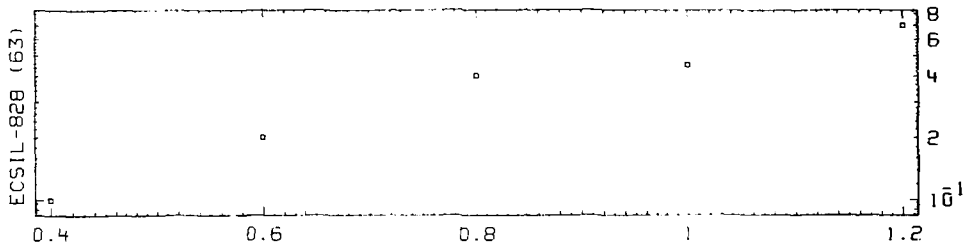
6-13

51-SB-NAT -1

03/01/74

N,N'
CROSS SECTION

51-SB-NAT



6-14

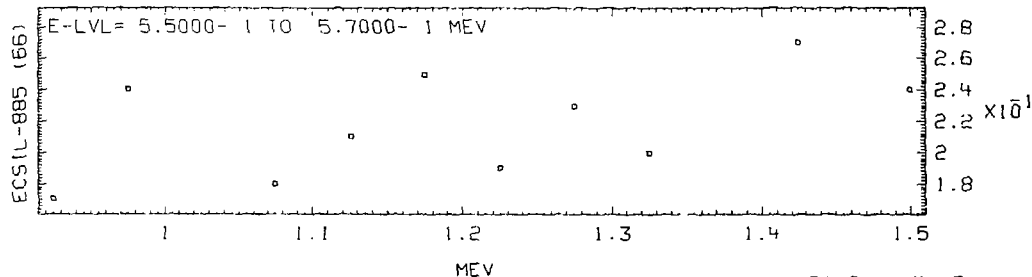
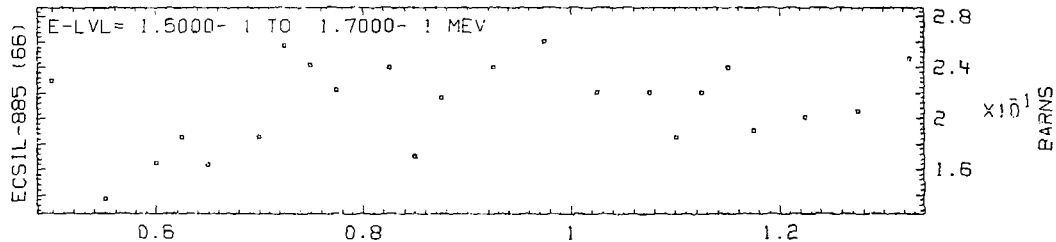
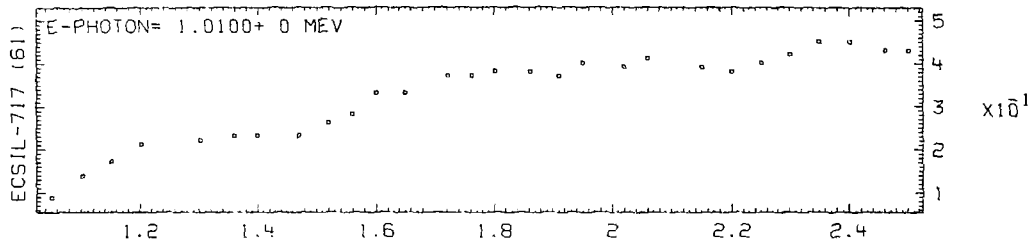
MEV

51-SB-NAT -2

03/01/74

N,N'
CROSS SECTION

51-SB-NAT



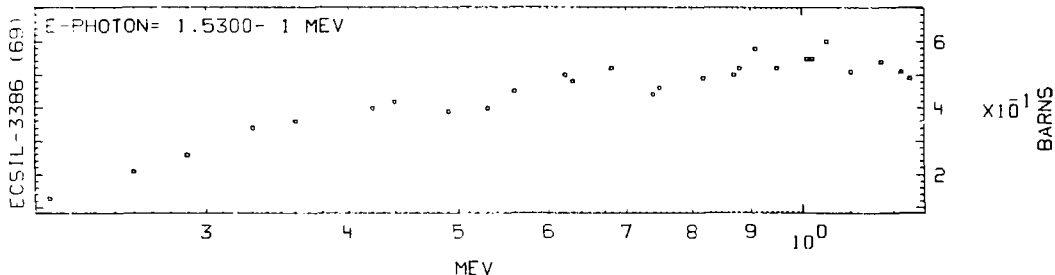
6-15

51-SB-NAT -3

03/01/74

N,X GAMMA
CROSS SECTION

51-SB-NAT



03/01/74

NONELASTIC

51-SB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
56	353 7.7000- 1		4.0000- 1	2.0000- 1	58	877 1.4000+ 1		1.8500+ 0	1.3000- 1
54	103 1.0000+ 0	5.0000- 2	8.0010- 1	6.0010- 1	57	199 1.4100+ 1		1.8700+ 0	8.0010- 2
56	353 1.0200+ 0		7.0010- 1	3.0000- 1	57	319 1.4200+ 1	1.5000- 1	1.9600+ 0	3.0000- 2
56	74 2.5000+ 0		1.9000+ 0	2.0000- 1	56	200 1.4500+ 1		2.0500+ 0	4.0000- 2
60	576 4.1000+ 0	1.0000- 1	2.3000+ 0	3.0000- 1					

03/01/74

N,N'

51-SB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	E-LVL MEV
63	825 4.0000+ 0		2.6500+ 0	2.8000- 1		
63	835 7.0000+ 0		2.1700+ 0	2.3000- 1		
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV	E-LVL MEV
63	828 8.0000- 1		1.5700- 1	2.0000- 2	5.1000- 1	5.7000- 1
63	828 1.0000+ 0		2.1000- 1	2.0000- 2	5.1000- 1	5.7000- 1
63	828 1.2000+ 0		2.1000- 1	2.0000- 2	5.1000- 1	5.7000- 1
63	828 1.2000+ 0		3.0000- 1	1.0000- 1	1.0000+ 0	

03/01/74

N,N
CROSS SECTION

51-SB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
66	885	5.6000- 1	5.0000- 3	3.0000- 1	5.0000- 2	3.8500- 2

03/01/74

N,2N

51-SB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	1821	1.4100+ 1		1.9600+ 0 1.5000- 1

03/01/74

ABSORPTION

51-SB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	1364	2.4000- 2	5.6000- 1	7.3000- 2	58	364	2.2000- 1	2.0000- 2	1.3000- 1 1.0000- 2
58	364	2.5000- 2	4.0000- 3	4.4490- 1 4.0000- 3	58	364	8.3000- 1	4.0000- 2	1.0000- 1 8.0000- 3

03/01/74

N,P

51-SB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	361	1.4000+ 1		1.1000- 2 6.0000- 3

03/01/74

BOUND ATOM

51-SB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8		4.2000+ 0

03/01/74

COHERENT SCATTERING

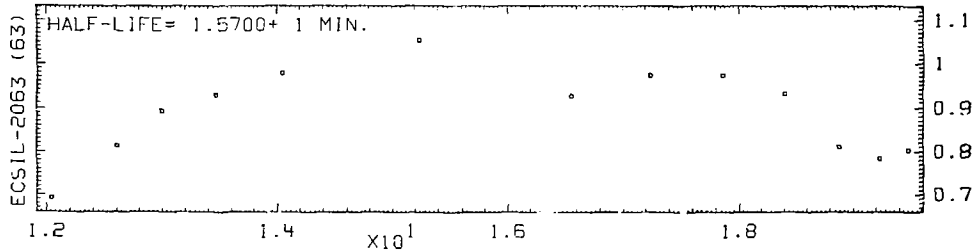
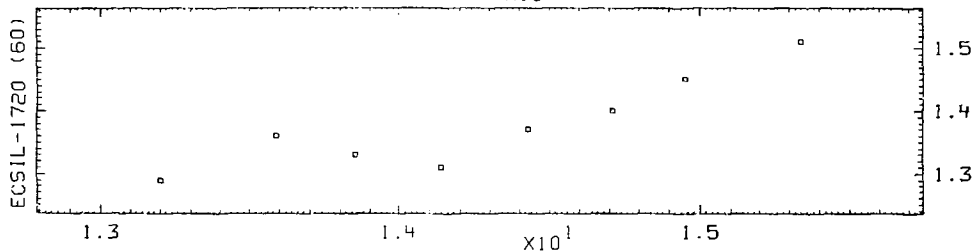
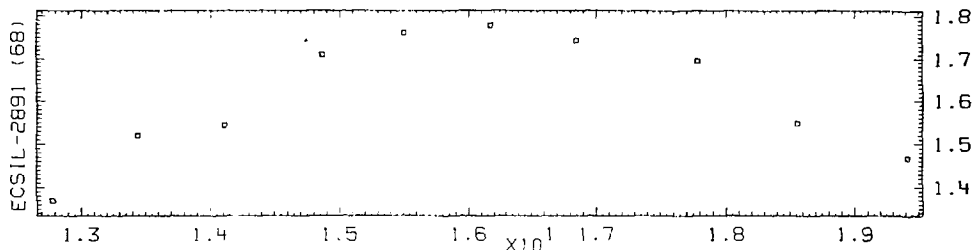
51-SB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	2564	2.5300- 8		3.9000+ 0 4.0000- 1
51	1584	7.3000- 8		3.7000+ 0 2.9600- 1

03/01/74

N,2N
CROSS SECTION

51-SB-121

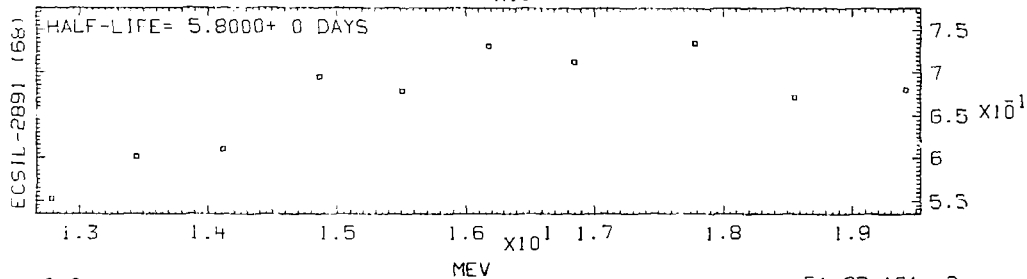
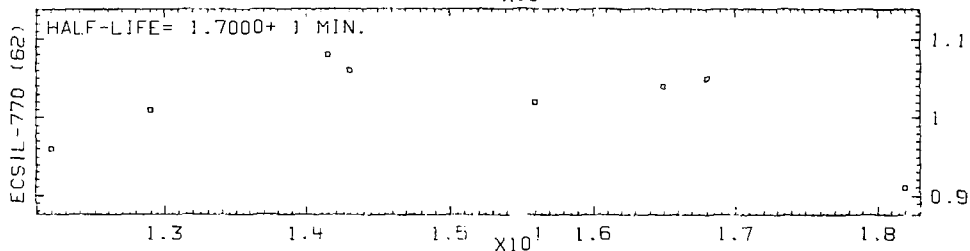
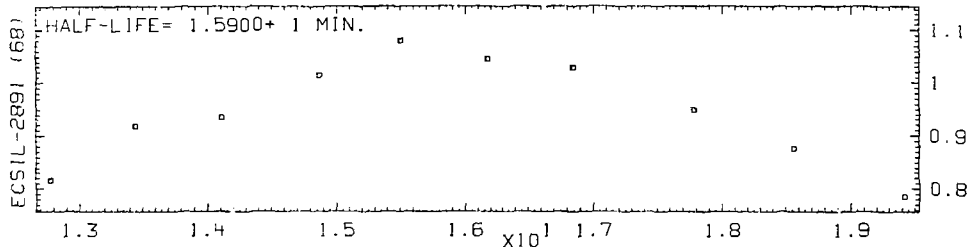


BARNs

03/01/74

N,2N
CROSS SECTION

51-SB-121



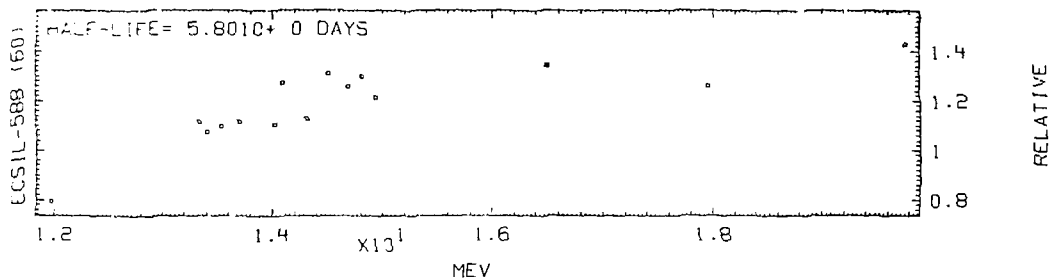
BARNs

03/01/74

N,2N

51-SB-121

CROSS SECTION



03/01/74

N,2N

51-SB-121

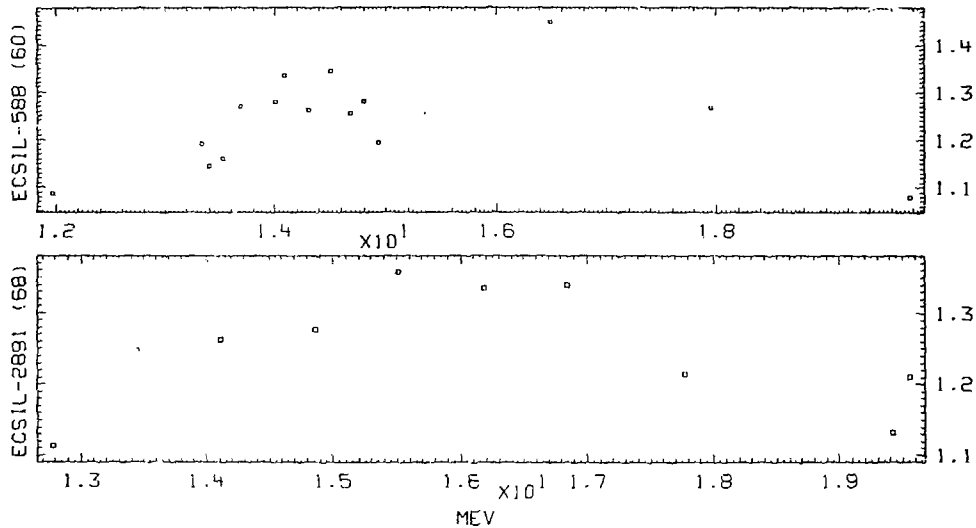
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
63	373 1.4100 ± 1		1.4550 ± 0	7.4010 - 2
61	703 1.4600 ± 1	2.5000 - 1	1.1800 ± 0	1.8000 - 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE MINUTES
53	27 1.4500 ± 1		7.5010 - 1	1.9000 - 1	1.5000 ± 1
61	676 1.4400 - 1	3.0000 - 1	1.0560 ± 0	7.9200 - 2	1.5700 ± 1
59	E19 1.4000 ± 1	5.0000 - 1	4.5300 - 1	4.3000 - 2	1.6200 ± 1

03/01/74

N,2N
CROSS SECTION

51-SB-123



BARN

03/01/74

N,2N

51-SB-123

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
69 2837	1.4400+ 1	3.0000- 1	1.5800+ 0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN MINUTES
63 884	1.4300+ 1	2.5000- 1	1.0130+ 0	1.2180- 1 3.6000+ 0

03/01/74

N,2N
CROSS SECTION

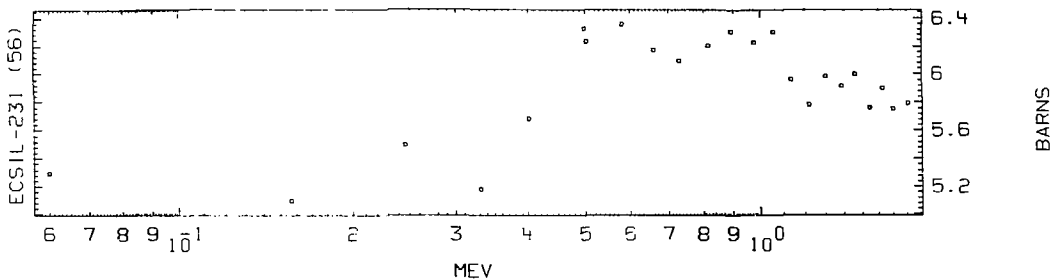
51-SB-123

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
59	6.19	1.4000+ 1	5.0000- 1	1.7060+ 0	1.2000- 1
61	7.73	1.4800+ 1	5.0000- 1	1.9500+ 0	1.9500- 1
53	8.7	1.4900+ 1		1.2+50+ 0	3.1000- 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

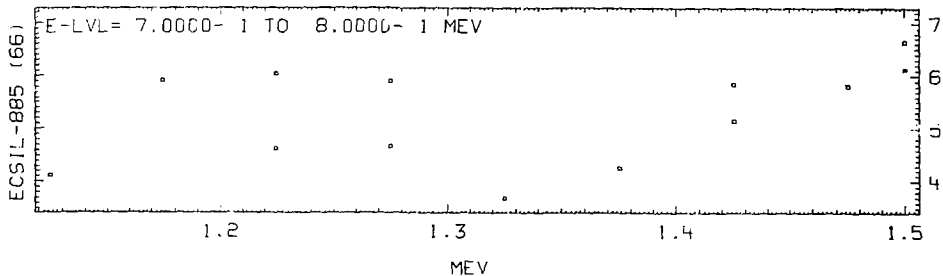
52-TE-NAT



03/01/74

N,N'
CROSS SECTION

52-TE-NAT

x10¹
BARN

03/01/74

NONELASTIC

52-TE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
54	103 1.000+ 0	5.000- 2	6.0010- 1	5.0000- 1	55	790 1.400+ 1		1.9700+ 0	2.7000- 1
56	3+ 2.500+ 0		2.0000+ 0	3.5000- 1	57	193 1.410+ 1		2.0000+ 0	1.0000- 1
55	790 2.500+ 0	1.5000- 1	2.0000+ 0	3.5000- 1					

03/01/74

ABSORPTION

52-TE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
59	1162 2.5300- 0		4.7000+ 0	1.0000- 1

03/01/74

N,P

52-TE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
61	361 1.4000+ 1		5.0000- 3	

03/01/74

COHERENT SCATTERING
CROSS SECTION

52-TE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 2555	2.5300- 8		4.0000+ 0	4.0000- 1

03/01/74

INCOHERENT SCATTER.

52-TE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 2398	2.5000- 8		6.0000- 1	1.5000- 1

03/01/74

N,2N

52-TE-120

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2314	1.4800+ 1	2.0000- 1	1.2200+ 0	1.3100- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	HOURS
68 2314	1.4800+ 1	2.0000- 1	6.8500- 1	1.0000- 1	1.6000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DAYS
68 2314	1.4800+ 1	2.0000- 1	5.3500- 1	8.5000- 2	4.7000+ 0

03/01/74

COHERENT SCATTERING

52-TE-120

REFERENCE	ENERGY MeV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 2555	2.5300- 8		3.5000+ 0	7.0000- 1

03/01/74

N,2N

52-TE-122

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2314	1.4800+ 1	2.0000- 1	1.2800+ 0	1.2800- 1

03/01/74

N,2N
CROSS SECTION

52-TE-122

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE DAYS
68 2314	1.4800+ 1	2.0000- 1	7.5000- 1	1.0000- 1	1.7000+ 1
68 2314	1.4800+ 1	2.0000- 1	5.3000- 1	8.0000- 2	1.5000+ 2

03/01/74

COHERENT SCATTERING

52-TE-123

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 2555	2.5300- F		4.2000+ 0	5.0000- 1

03/01/74

N,P

52-TE-124

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2185	1.4200+ 1	2.0000- 1	1.4900- 1	4.0000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE MINUTES
63 2185	1.4200+ 1	2.0000- 1	4.5000- 3	3.1000- 3	1.6000+ 0
65 2186	1.4900+ 1	5.0000- 1	4.5000- 3	3.1000- 3	1.6000+ 0
65 2186	1.4900+ 1	5.0000- 1	4.0000- 4		2.1000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE DAYS
63 2185	1.4200+ 1	2.0000- 1	1.4400- 1	4.0000- 2	5.9000+ 1
65 2186	1.4900+ 1	5.0000- 1	1.4400- 1	4.0000- 2	5.9000+ 1

03/01/74

N, ALPHA

52-TE-124

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE HOURS
63 2203	1.4800+ 1	2.9600- 1	3.6500- 3	2.0000- 3	2.7000+ 1

03/01/74

COHERENT SCATTERING
CROSS SECTION

52-TE-124

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2673	2.5300- 8		3.9000+ 0	

03/01/74

N, ALPHA

52-TE-125

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2314	1.4800+ 1	2.0000- 1	5.0000- 4	1.0000- 4

03/01/74

COHERENT SCATTERING

52-TE-125

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2673	2.5300- 8		4.0000+ 0	

03/01/74

N,P

52-TE-126

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2314	1.4800+ 1	2.0000- 1	1.5000- 3	2.0000- 4

03/01/74

N, ALPHA

52-TE-126

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE BARNs MINUTES
68 2314	1.4800+ 1	2.0000- 1	8.0000- 4	1.0000- 4	4.0000+ 1
63 2203	1.4900+ 1	2.9600- 1	5.5000- 4	3.0000- 4	4.0000+ 1

03/01/74

N, 2N

52-TE-128

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2314	1.4800+ 1	2.0000- 1	1.3900+ 0	

03/01/74

N,2N
CROSS SECTION

52-TE-128

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE HOURS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE HOURS
68 2314	1.4800+	1 2.0000-	1 7.6000-	1 1.0000-	1 9.3000+ 0	53	27 1.4500+	1	7.7910-	1 2.3000-	1 9.3010+ 0
63 2203	1.4800+	1 2.9500-	1 2.3800-	1 3.6000- 2	1 9.3000+ 0	64 1B48	1.4700+	1 1.5000-	1 6.4000-	1 1.1500- 2	1 9.5000+ 0
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE DAYS						
68 2314	1.4800+	1 2.0000-	1 6.3000-	1	1.0500+ 2						

03/01/74

N,N'P

52-TE-128

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
59 626	1.4500+	1 4.0000-	1 3.3000-	4 5.0000- 5

03/01/74

N,P

52-TE-128

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
63 2185	1.4200+	1 2.0000-	1 6.7000-	2 1.9000- 2
68 2314	1.4800+	1 2.0000-	1 2.3000-	3 3.0000- 4

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE MINUTES
63 2185	1.4200+	1 2.0000-	1 6.5000-	2 1.9000-	2 7.0000+ 0
65 2185	1.4900+	1 5.0000-	1 6.5000-	2 1.9000-	2 7.0000+ 0
68 2314	1.4800+	1 2.0000-	1 1.0000-	3 1.0000-	4 1.0000+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE HOURS
63 2185	1.4200+	1 2.0000-	1 2.5000-	3 5.0000-	4 9.5000+ 0
68 2314	1.4800-	1 2.0000-	1 1.3000-	3 3.0000-	4 9.5000+ 0
65 2186	1.4900+	1 5.0000-	1 2.5000-	3 5.0000-	4 9.5000+ 0

03/01/74

N, ALPHA
CROSS SECTION

52-TE-128

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE MINUTES
63 2203	1.4800+ 1	2.9600- 1	3.9000- 4	9.7000+ 1

03/01/74

N, 2N

52-TE-130

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2314	1.4800+ 1	2.0000- 1	6.7600- 1	5.8000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
53 27	1.4500+ 1		5.9910- 1	1.2000- 1 7.0010+ 0	65 2186	1.4200+ 1	2.0000- 2	2.1000- 1	4.6000- 2 6.8700+ 1
68 2314	1.4800+ 1	2.0000- 1	4.3500- 1	5.0000- 2 6.7000+ 1	64 1848	1.4700+ 1	1.5000- 1	5.8000- 1	1.3500- 2 7.2000+ 1
63 2203	1.4800+ 1	2.9600- 1	2.2500- 1	2.2000- 2 6.7000+ 1					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs DAYS
65 2186	1.4200+ 1	2.0000- 2	2.4700- 1	7.4000- 2 3.2000+ 1
63 2203	1.4800+ 1	2.9600- 1	5.2800- 1	1.0000- 1 3.3000+ 1
68 2314	1.4800+ 1	2.0000- 1	2.4100- 1	3.0000- 2 3.4000+ 1

03/01/74

N, N'P

52-TE-130

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 626	1.4500+ 1	4.0000- 1	1.7000- 4	2.0000- 5

03/01/74

N, P

52-TE-130

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2185	1.4200+ 1	2.0000- 1	1.6000- 2	5.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
63 2185	1.4200+ 1	2.0000- 1	1.3000- 2	5.0000- 3 1.2300+ 1	63 2185	1.4200+ 1	2.0000- 1	2.6000- 3	8.0000- 4 3.5600+ 1
65 2186	1.4900+ 1	5.0000- 1	1.3000- 2	5.0000- 3 1.2300+ 1	65 2186	1.4900+ 1	5.0000- 1	2.6000- 3	8.0000- 4 3.5600+ 1

03/01/74

N. ALPHA
CROSS SECTION

52-TE-130

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 55D	1.4500+ 1		3.7000- 4	6.0010- 5

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS
63 2203	1.4800+ 1	2.9600- 1	9.4000- 4	2.8000- 4
				2.4000+ 0

03/01/74

COHERENT SCATTERING

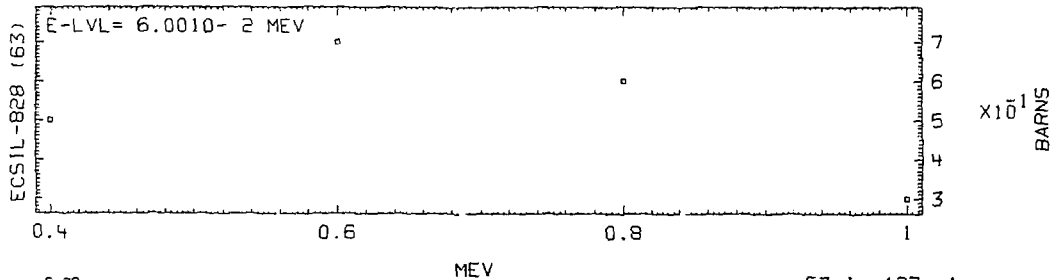
52-TE-130

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 2555	2.5300- 8		4.1000+ 0	4.0000- 1

03/01/74

N,N'
CROSS SECTION

53-1 -127



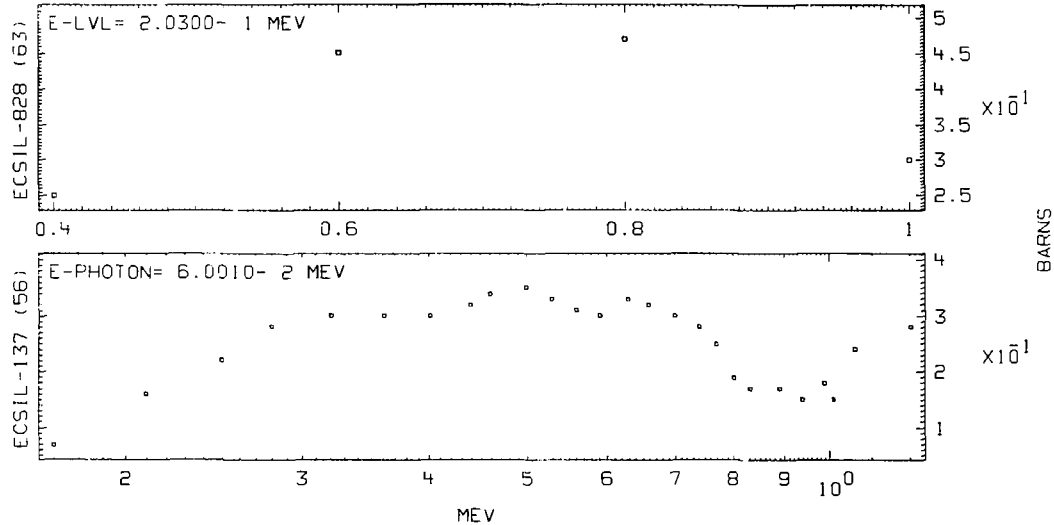
6-29

53-1 -127 -1

03/01/74

N,N'
CROSS SECTION

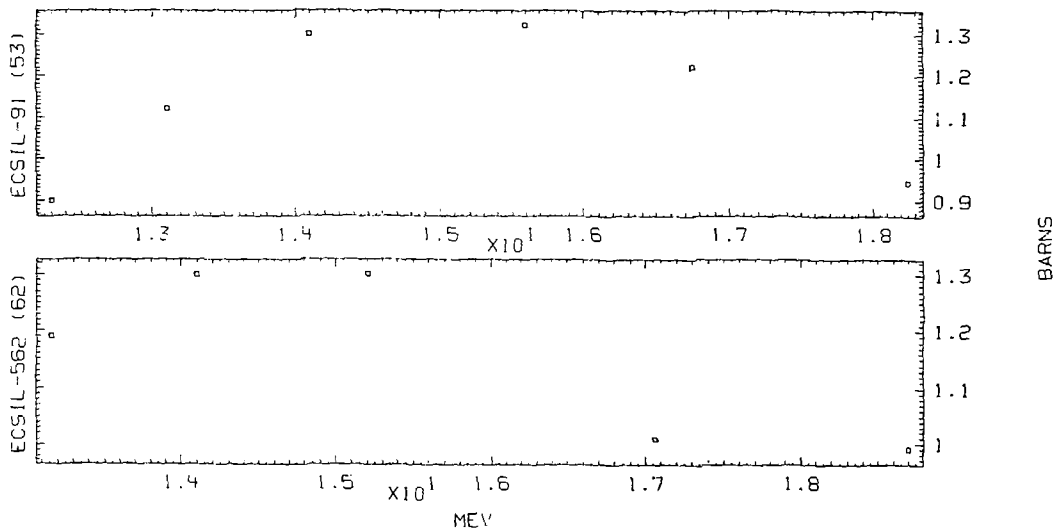
53-1 -127



03/01/74

N,2N
CROSS SECTION

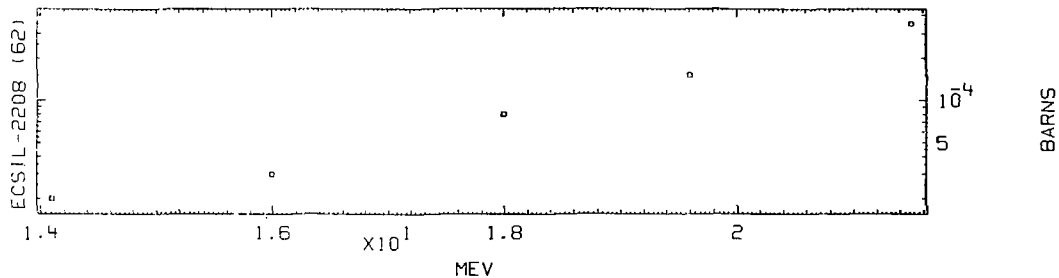
53-1 -127



03/01/74

N,N'ALPHA
CROSS SECTION

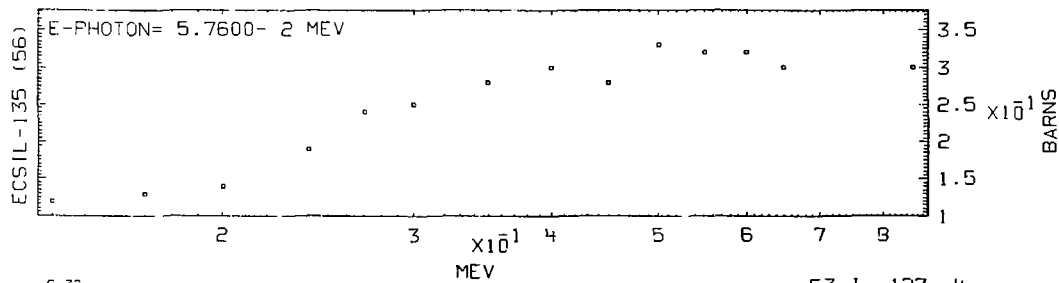
53-1 -127



03/01/74

N,X GAMMA
CROSS SECTION

53-1 -127



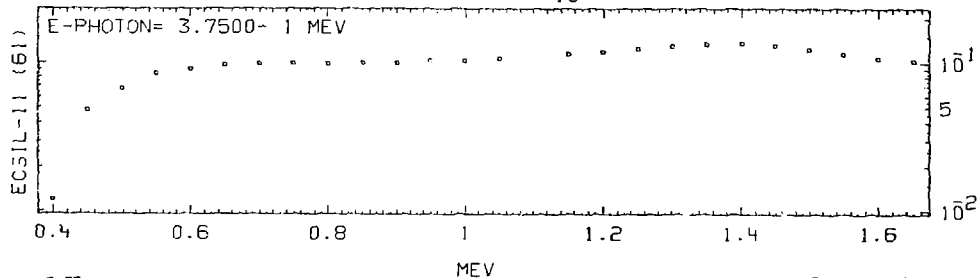
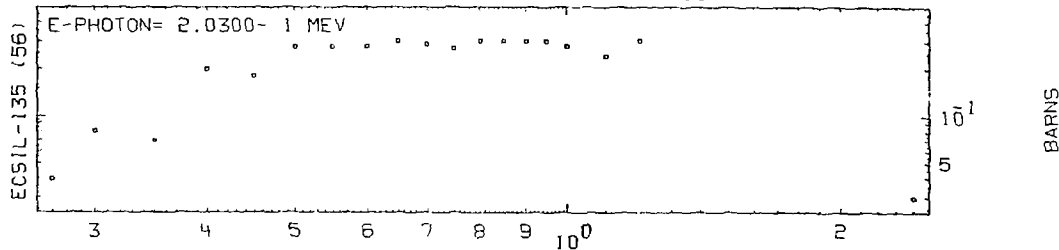
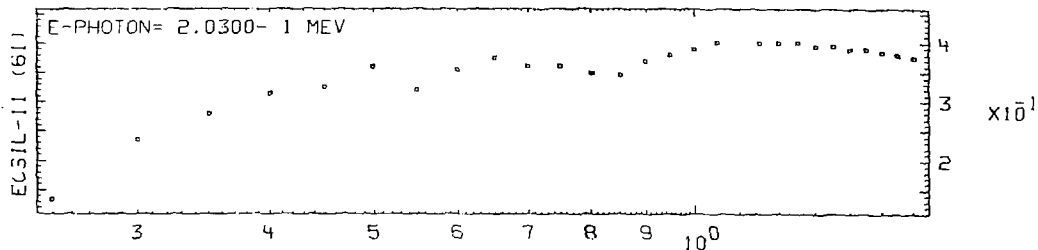
6-32

53-1 -127 -4

03/01/74

N, X GAMMA
CROSS SECTION

53-1 -127



6-33

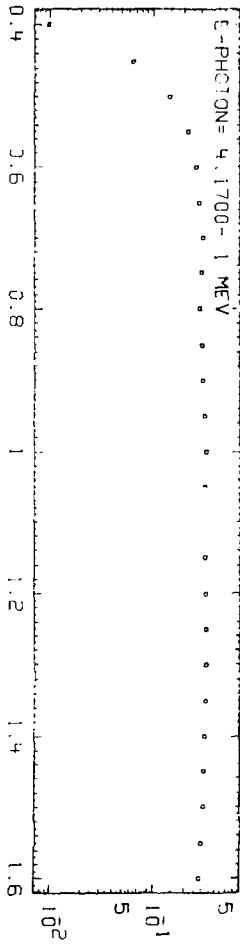
53-1 -127 -5

03/01/74

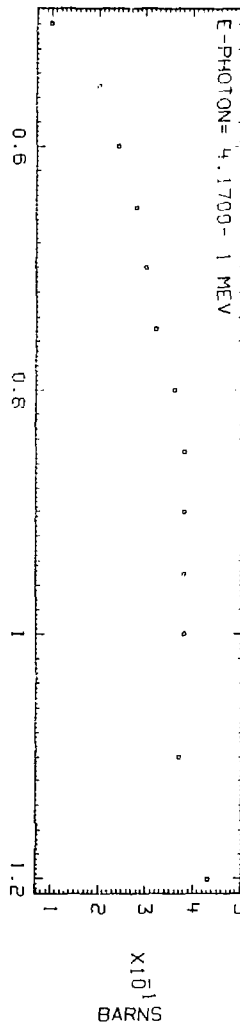
N. X GAMMA
CROSS SECTION

53-1 -127

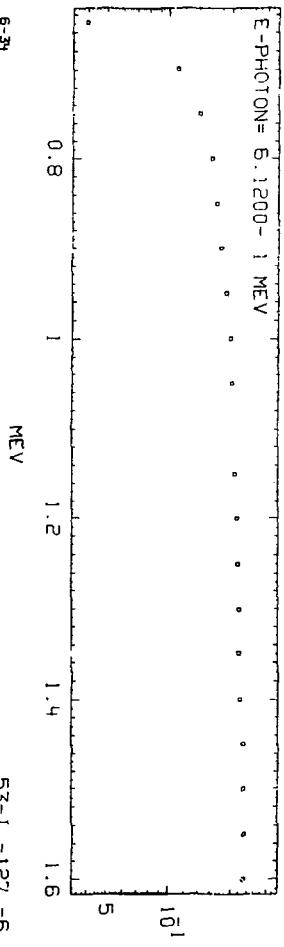
ECSIL-11 (61)



ECSIL-135 (56)



ECSIL-11 (61)



6-34

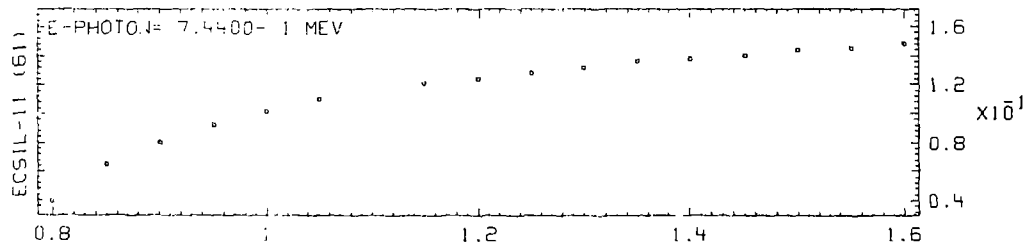
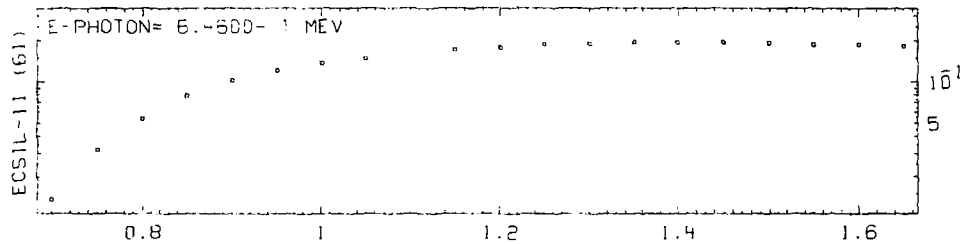
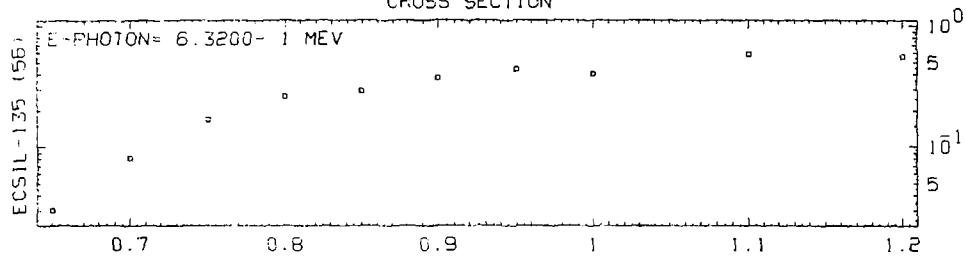
53-1 -127 -6

$\times 10^1$
BARN

03/01/74

N, X GAMMA
CROSS SECTION

53-1 -127



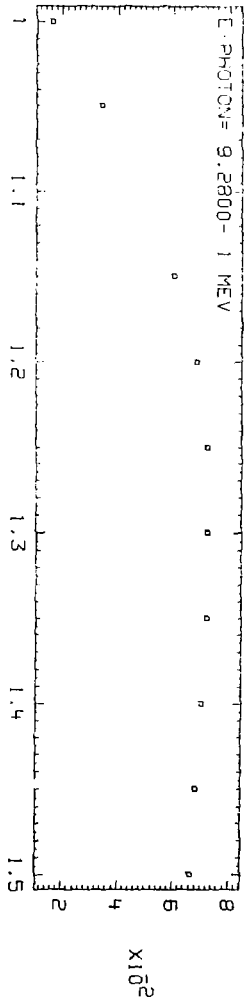
BARNs

03-01/74

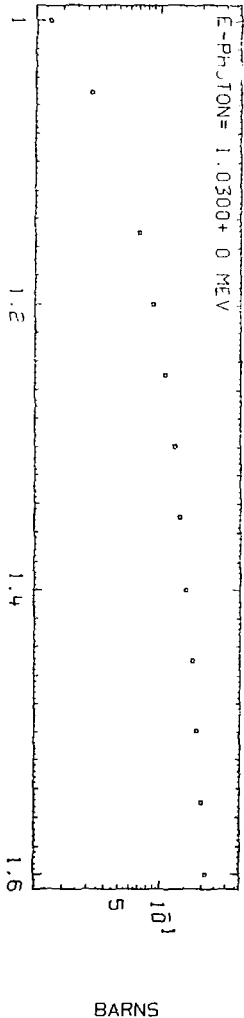
N, X GAMMA
CROSS SECTION

53-1-127

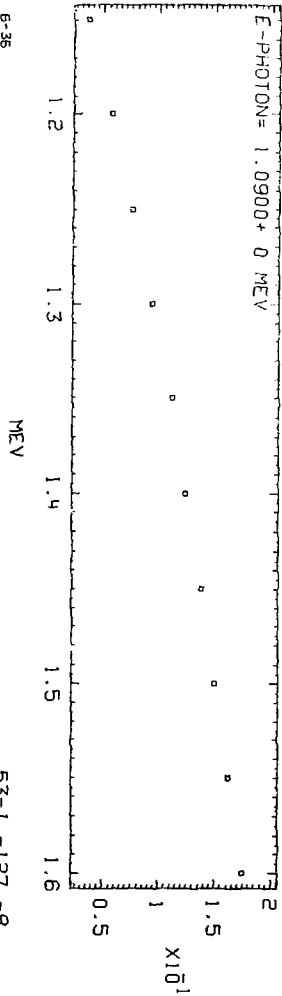
ECSIL-11 (61)



ECSIL-11 (61)



ECSIL-11 (61)



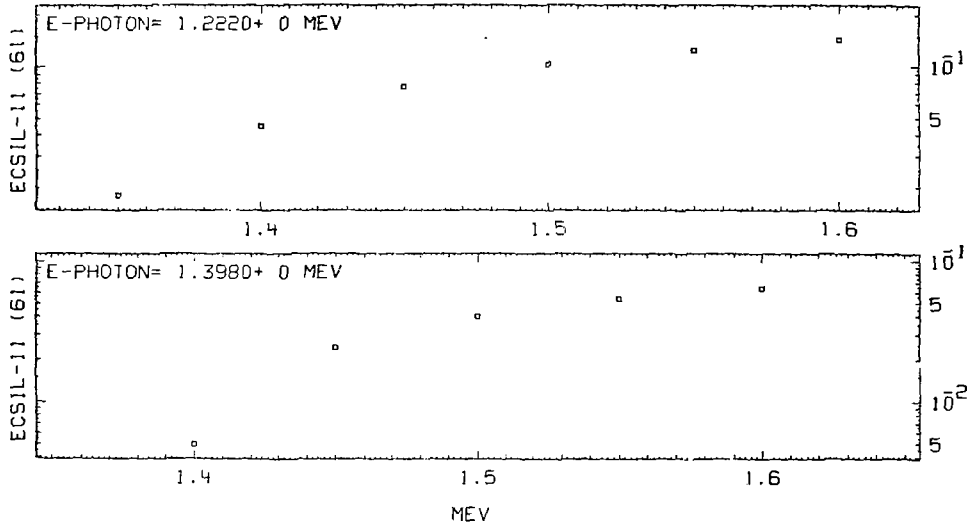
6-36

53-1-127-8

03/01/74

N, X GAMMA
CROSS SECTION

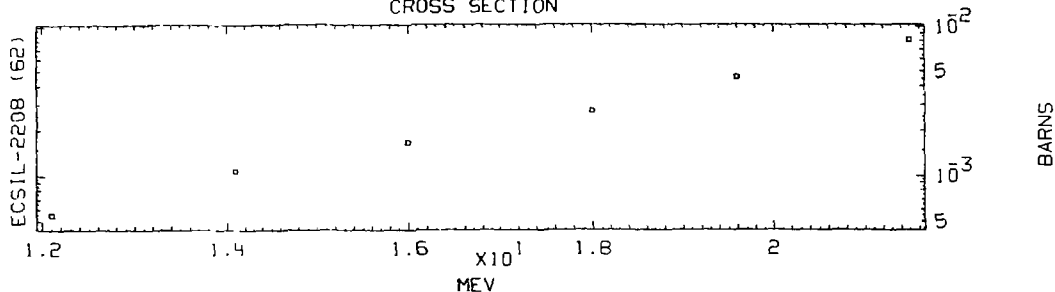
53-1 -127



03/01/74

N, ALPHA
CROSS SECTION

53-1 -127



03/01/74

NONELASTIC

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	34 2.5000+ 0		1.9500+ 0	2.5000- 1	57	199 1.4100+ 1		1.8800+ 0	1.6000 1
55	790 2.5000+ 0	1.5000- 1	1.9500+ 0	2.5000- 1	56	200 1.4500- 1		2.1100+ 0	6.0010- 2
55	790 1.4000+ 1		1.8800+ 0	1.6000- 1					

03/01/74

N, N'

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
			63 836 4.0000+ 0						2.5400+ 0	2.7000- 1	
			63 835 7.0000+ 0						2.1100+ 0	2.2000- 1	
63	828 6.0000- 1		1.7000- 1	1.0000- 1	4.2000- 1	63	828 6.0000- 1		2.8000- 1	1.0000- 1	6.3010- 1
63	828 8.0000- 1		2.8000- 1	1.5000- 1	4.2000- 1	63	828 1.0000+ 0		4.8000- 1	1.0000- 1	6.3010- 1
63	828 1.0000+ 0		4.7000- 1	1.5000- 1	4.2000- 1	63	828 1.0000+ 0		1.0000- 1	5.0000- 2	7.4410- 1

6-31

53-1 -127 -10

03/01/74

N,2N
CROSS SECTION

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53	27 1.4500+ 1		1.1200+ 0	3.9000- 1	69	2354 1.4800+ 1		1.6000+ 0	1.3000- 1
69	2354 1.4600+ 1	2.0000- 1	1.6700+ 0	9.6300- 2	68	2711 1.4800+ 1	2.0000- 1	1.6600- 3	1.4000- 4
68	2423 1.4700+ 1		1.1280+ 0	1.2000- 1					

03/01/74

N,3N

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE BARNs HOURS
60	2483 1.4700+ 1		4.0000- 2	1.5000- 2						
60	2892 1.9500+ 1	2.0000- 1	3.1000- 1	2.5000- 2						
67	1893 1.9500+ 1	2.0000- 1	3.1000- 1	2.5000- 2						6.0250+ 1

03/01/74

ABSORPTION

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	897 2.5300- 8		6.6000+ 0	3.0000- 1	58	364 2.2000- 1	2.0000- 2	3.1400- 1	4.2000- 2
60	891 2.5300- 8		6.2200+ 0	1.5000- 1	58	364 8.3000- 1	4.0000- 2	1.0100- 1	4.0000- 2
58	364 2.5000- 2	4.0000- 3	1.0970+ 0	3.9000- 2					

03/01/74

N,P

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE BARNs HOURS
60	586 1.4000+ 1		2.5000- 2	1.5000- 2	59	550 1.4500+ 1		1.1700- 2	1.8000- 3	
61	361 1.4000+ 1		5.0000- 3		53	27 1.4500+ 1		2.3100- 1	1.4000- 1	
68	2483 1.4700+ 1		8.9000- 3	1.0000- 3				9.2000+ 0		
68	2483 1.4700+ 1		8.9000- 3	1.0000- 3				9.3000+ 0		

03/01/74

N, P
CROSS SECTION

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
68 2483	1.4700+ 1		8.0000- 4		1.0500+ 2

03/01/74

N, ALPHA

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 585	1.4050+ 1		1.3900- 3	1.7000- 4

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
53 27	1.4500+ 1		1.8400- 2	2.8000- 3	2.0000+ 1
68 2483	1.4700+ 1		1.5000- 3	2.0000- 4	2.1000+ 1
68 2483	1.4700+ 1		1.5000- 3	2.0000- 4	2.1300+ 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
68 2483	1.4700+ 1		2.0000- 3		6.0200+ 1

03/01/74

BOUND ATOM

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		3.8000+ 0	

03/01/74

COHERENT SCATTERING

53-1 -127

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		3.4000+ 0	2.7200- 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

54-XE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 777	2.5300- B		4.6000+ 0	5.0000- 1

03/01/74

ABSORPTION

54-XE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2680	2.5300- B		2.5100+ 1	1.0000+ 0
63 777	2.5300- F		2.3800+ 1	4.0000- 1

03/01/74

N,2N

54-XE-124

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	1.1300+ 0	1.1000- 1

03/01/74

N,2N

54-XE-126

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	1.3550+ 0	1.6500- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
68 2842	1.4400+ 1	3.0000- 1	7.0000- 1	2.0000- 1
				6.0000+ 1

03/01/74

N,2N

54-XE-128

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	1.5300+ 0	1.7000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
68 2842	1.4400+ 1	3.0000- 1	8.4000- 1	6.5000- 2
				7.5000+ 1

03/01/74

N,2N
CROSS SECTION

54-XE-130

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	1.4350+ 0	1.3000- 1

03/01/74

N,P

54-XE-130

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
68 2842	1.4400+ 1	3.0000- 1	6.7000- 3	8.0000- 4	1.2300+ 1

03/01/74

N,P

54-XE-131

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2642	1.4400+ 1	3.0000- 1	5.3000- 3	6.0000- 4

03/01/74

N,2N

54-XE-132

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	7.7500- 1	6.5000- 2

03/01/74

N,P

54-XE-132

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
68 2842	1.4400+ 1	3.0000- 1	2.5000- 3	3.0000- 4	2.2600+ 0

03/01/74

N,2N

54-XE-134

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
68 2842	1.4400+ 1	3.0000- 1	6.6500- 1	8.0000- 2	
68 2842	1.4400+ 1	3.0000- 1	2.3600+ 0	2.4000- 1	2.3000+ 0

03/01/74

N,P

54-XE-134

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2842	1.4400+ 1	3.0000- 1	2.2000- 3	5.0000- 4

03/01/74

N,2N

54-XE-136

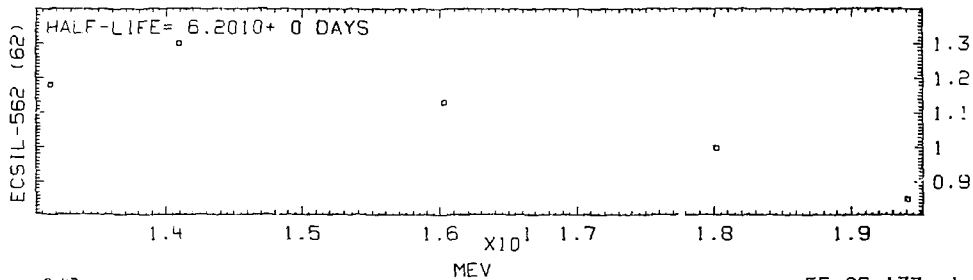
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
68 2842	1.4400+ 1	3.0000- 1	7.5000- 1	5.0000- 2	
68 2842	1.4400+ 1	3.0000- 1	1.7000+ 0	1.0000- 1	1.5600+ 1

05/01/74

N,2N

55-CS-133

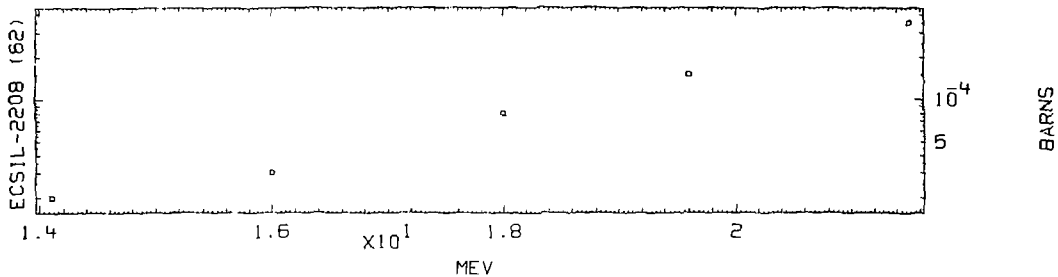
CROSS SECTION



03/01/74

N, N' ALPHA
CROSS SECTION

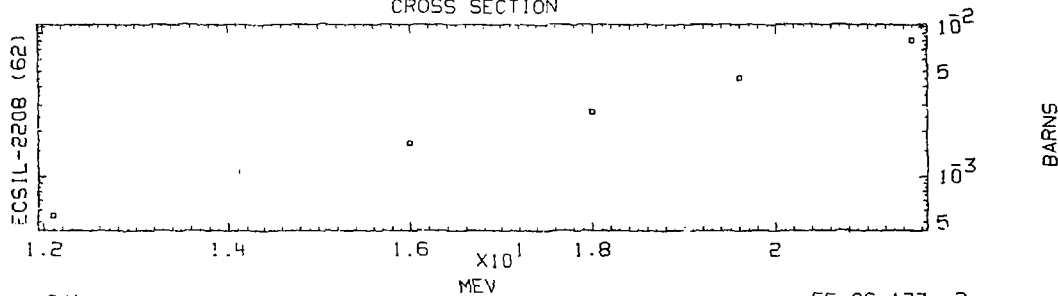
55-CS-133



03/01/74

N, ALPHA
CROSS SECTION

55-CS-133



6-44

55-CS-133 -2

03/01/74

N, 2N
CROSS SECTION

55-CS-133

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
59	615	1.4100+ 1	1.5500+ 0	2.5000- 1	65	1777	1.4200+ 1	2.0000- 1	2.0180+ 0	1.8162- 1
61	551	1.4100+ 1	7.0410- 1	8.4010- 2	65	1777	1.4600+ 1	2.0000- 1	1.5980+ 0	1.5980- 1

03/01/74

N, 3N

55-CS-133

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
68	2892	1.9500+ 1	2.0000- 1	6.6000- 1	2.2000- 1					
67	1893	1.9500+ 1	2.0000- 1	6.6000- 1	2.2000- 1	9.9600+ 0				

03/01/74

ABSORPTION

55-CS-133

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	1162	2.5300- 8	2.8000+ 1	1.0000+ 0

03/01/74

N, HE-3

55-CS-133

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	2212	1.4700+ 1	5.0000- 6	3.0000- 6

1/3/01/74

N, ALPHA

55-CS-133

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
58	401	1.4050+ 1	5.5000- 1	1.0000- 3	3.0000- 4
59	550	1.4500+ 1		1.9000- 3	2.0000- 4
63	756	1.4600+ 1	2.0000- 1	1.0000- 3	9.0010- 4

03/01/74

BOUND ATOM
CROSS SECTION

55-CS-133

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		7.0000+ 0	

03/01/74

COHERENT SCATTERING

55-CS-133

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		3.0000+ 0	2.4000- 1

03/01/74

NONELASTIC

56-BA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54 103	1.0000+ 0	5.0000- 2	2.0000- 1	2.0000- 1	55 790	3.3000+ 0		1.3000+ 0	4.0000- 1
56 34	2.5000+ 0		1.8000+ 0	1.0000+ 0	60 576	4.1000+ 0	1.0000- 1	1.8000+ 0	3.0000- 1
55 790	2.5000+ 0	1.5000- 1	0.0010- 1	5.0000- 1	55 790	4.1000+ 0		2.2000+ 0	4.0000- 1
61 848	2.5000+ 0		1.4700+ 0	1.0000- 1	57 199	1.4100+ 1		1.9000+ 0	1.7000- 1

03/01/74

N,N'

56-BA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
63 828	6.0000- 1		2.5000- 1		4.9000- 1	63 828	8.0000- 1		2.5000- 1		6.6000- 1
63 828	8.0000- 1		3.0000- 1	1.5000- 1	4.9000- 1	63 828	1.0000+ 0		3.0000- 1	1.5000- 1	6.6000- 1
63 828	1.0000+ 0		2.0000- 1	1.0000- 1	4.9000- 1	63 828	1.2000+ 0		1.5000- 1	1.0000- 1	1.0400+ 0

03/01/74

N,2N

56-BA-134

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800+ 1	8.0010- 1	9.4010- 1	8.0010- 2

J3/01/74

N,2N
CROSS SECTION

56-BA-136

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4200+ 1	8.0010- 1	7.0010- 1	8.0010- 2

03/01/74

N,P

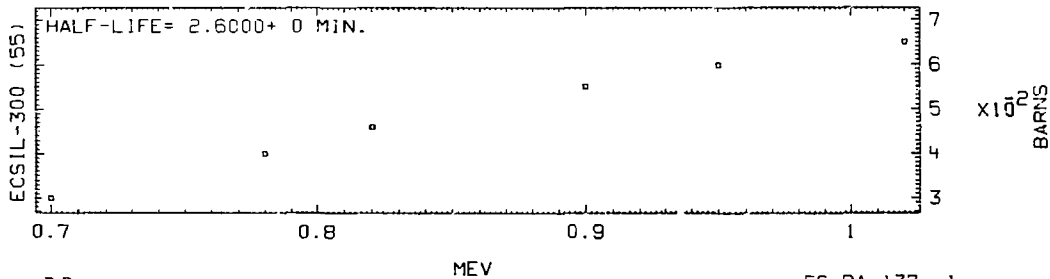
56-BA-136

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		3.8300- 2	3.8000- 3
60 672	1.4800+ 1	8.0010- 1	4.9000- 2	1.0000- 2

03/01/74

N,N'
CROSS SECTION

56-BA-137



7-2

56-BA-137 -1

03/01/74

N,N'
CROSS SECTION

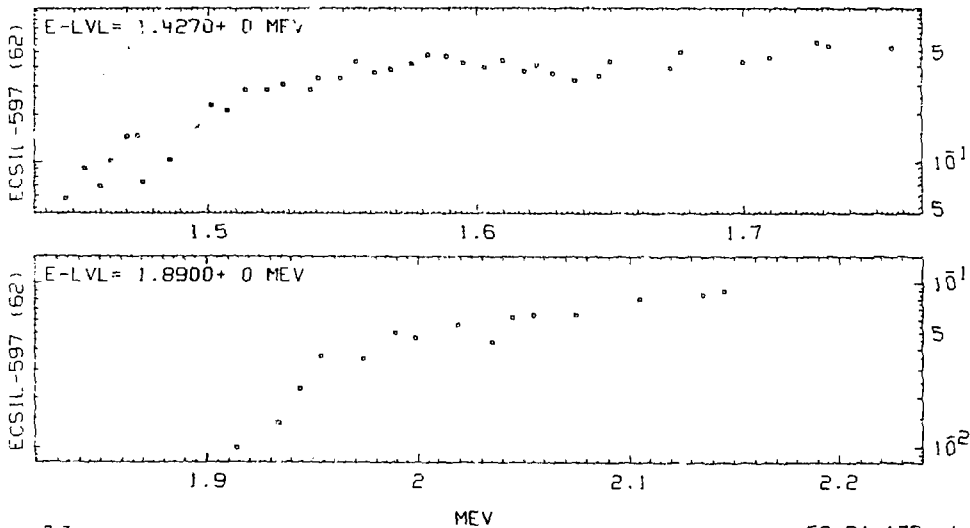
56-BA-137

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
67 2602	1.8000+ 0	7.0000- 1	4.6570- 1	6.0450- 2 2.6000+ 0

03/01/74

N,N'
CROSS SECTION

56-BA-138



7-3

56-BA-138 -1

03-0174

N,N'

56-BA-138

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
62	597	1.4430+ 0	5.0000- 2	1.0000- 2

03/01/74

N,2N

56-BA-138

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	DELTA HALF-LIFE MINUTES
69	2967	1.4500+ 1	1.0400+ 0	1.0000- 1	2.5600- 0
60	672	1.4800+ 1	1.2500+ 0	1.0000- 1	2.5600- 0

03/01/74

N,P

56-BA-138

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
63	223	1.4000+ 1	1.9000- 3	5.0000- 3	53	27	1.4500+ 1	6.5010- 3	2.2000- 3
59	551	1.4500+ 1	2.4000- 3	3.0000- 3	60	672	1.4600+ 1	1.8000- 1	2.5000- 3

03-0174

N,ALPHA

56-BA-138

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
67	1892	1.5000+ 1	2.0000- 1	4.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE MINUTES
61	704	1.4100+ 1	2.0000+ 1	1.3000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE HOURS
61	704	1.4100+ 1	2.0000+ 1	1.3000- 2

03/01/74

TOTAL SCATTERING
CROSS SECTION

57-LA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5200- 8		9.3000+ 0 7.0000- 1	
63 879	9.8000- 1	5.0000	2.72000+ 0 2.1600- 1	

03/01/74

N,N'

57-LA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 836	4.0000+ 0		2.1800+ 0 2.8000- 1	
63 836	5.0000+ 0		2.1900+ 0 2.6000- 1	
63 836	7.0000+ 0		1.9+00+ 0 2.3000- 1	

03/01/74

COHERENT SCATTERING

57-LA-NAT

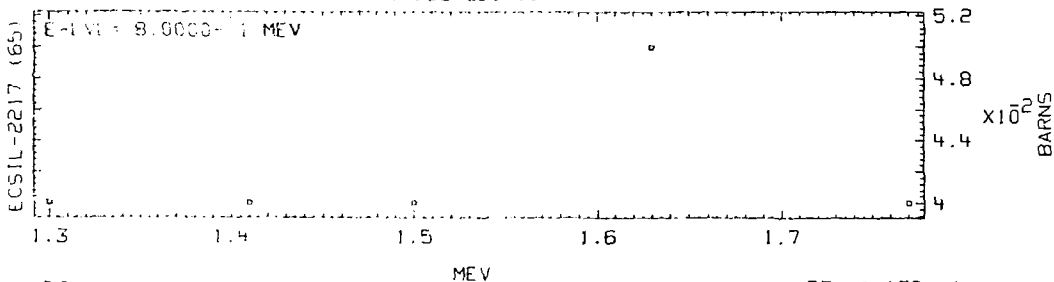
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5200- 8		6.1000+ 0 3.0000- 1	

03/01/74

N,N'

57-LA-139

CROSS SECTION



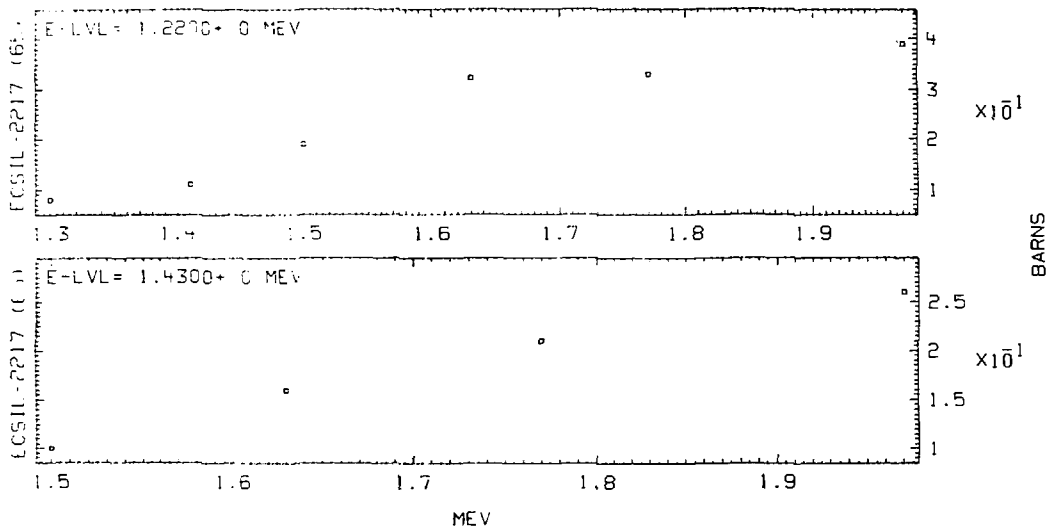
7-5

57-LA-139 -1

03/01/74

N,N'
CROSS SECTION

57-LA-139



03/01/74

N,N'

57-LA-139

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL MEV
65 22:7	1.1800+ 0	3.0000- 2	2.0000- 2	1.0000- 2	
65 22:7	1.7700+ 0	3.0000- 2	1.0000- 1	5.4000- 2	1.5700+ 0
65 22:7	1.9700+ 0	3.0000- 2	1.0000- 1	6.3000- 2	1.5700+ 0

03-01/74

ABSORPTION
CROSS SECTION

57-LA-139

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1162	2.5200- 8		8.9000+ 0	3.6000- 1

03-01/74

N,P

57-LA-139

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 2216	1.4000- 1	4.0000- 1	4.4000- 3	2.3000- 4	66 1675	1.4700+ 1		4.5000- 3	1.1000- 3
55 550	1.4500+ 1		2.3000- 3	3.0000- 4	60 672	1.4800+ 1	8.0010- 1	5.0000- 3	1.0000- 3
53 27	1.4600+ 1		5.7010- 3	2.4000- 3					

03/01/74

N,ALPHA

57-LA-139

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2326	1.4000+ 1		3.0000- 3	8.0000- 4	65 1975	1.4600+ 1		3.0000- 3	8.0000- 4
55 550	1.4500+ 1		1.8700- 3	1.9000- 4	60 672	1.4800+ 1	8.0010- 1	1.3000- 3	

03-01/74

NONELASTIC

58-CE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54 163	1.0000+ 0	5.0000- 1	1.0000- 1	1.0000- 1
67 1656	1.4800+ 1	5.0000- 2	2.4400+ 0	6.0000- 2

03/01/74

TOTAL SCATTERING

58-CE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 1766	2.5700- 8		2.7000+ 0	2.0000- 1
63 879	9.8000- 1	5.0000- 2	6.8500+ 0	2.0550- 1

01/74

N¹

58-CE-NAT

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 036	5.000+ 0		2.5000+ 0	2.7000- 1
67 036	7.0000+ 0		2.2500+ 0	2.1000- 1

03/01/74

N,N GAMMA

58-CE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHN-MIN MEV	E-PHN-MAX MEV
67 033	4.100+ 1	6.000- 1	4.700- 0		2.0000+ 0	1.0000+ 1

03/01/74

COHERENT SCATTERING

58-CE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54 2766	2.5300- 0		2.7000+ 0	2.0000- 1

03/01/74

N,2N

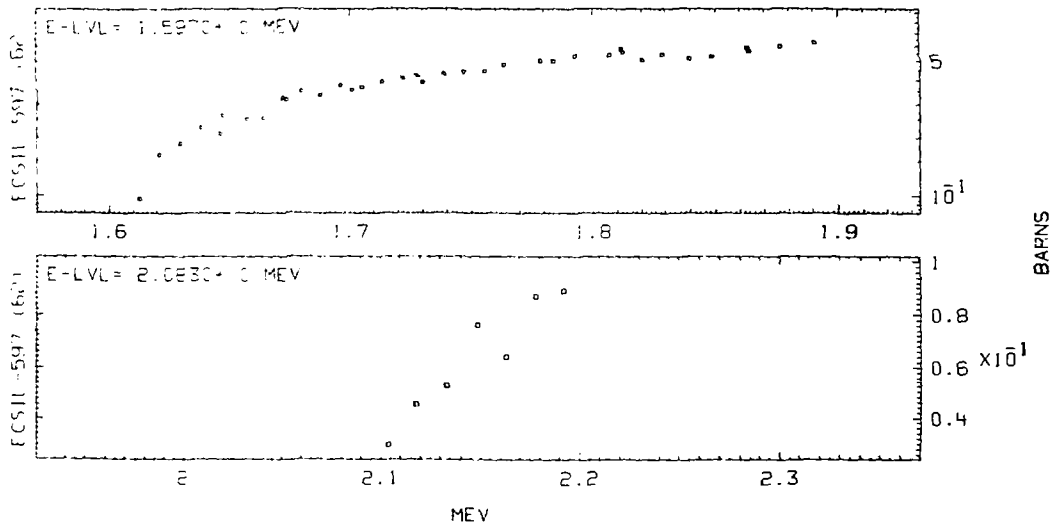
58-CE-136

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2837	1.4400+ 1	3.0000- 1	1.3530+ 0	

03/01/74

N,N'
CROSS SECTION

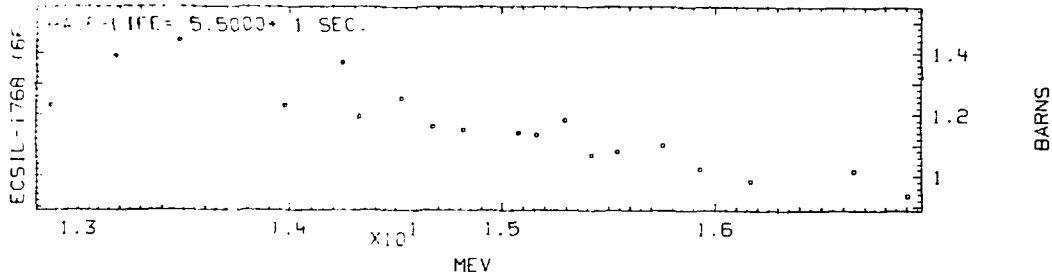
58-CE-140



03/01/74

N,2N
CROSS SECTION

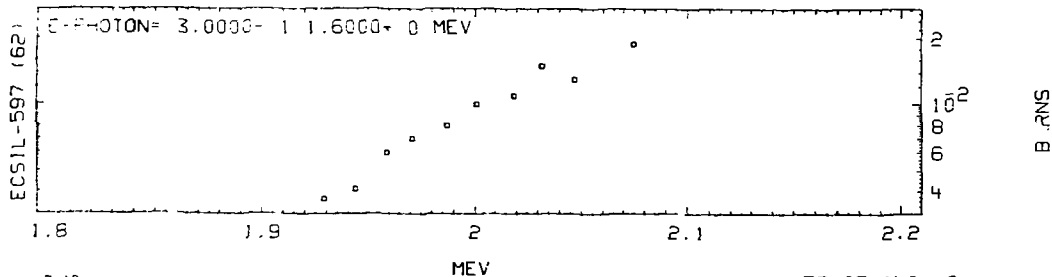
58-CE-140



03/01/74

N,X GAMMA
CROSS SECTION

58-CE-140



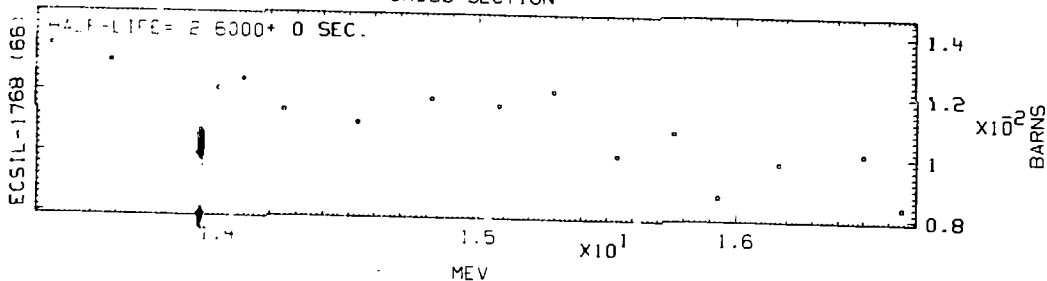
7-10

58-CE-140 -2

03/01/74

N. ALPHA
CROSS SECTION

58-CE-140



03/01/74

TOTAL SCATTERING

58-CE-140

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5300- 8		2.8000+ 0	1.0000- 1

03/01/74

N.2N

58-CE-140

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2216	1.4000+ 1	4.0000- 1	7.8000- 1	1.4100- 1	68 1718	1.4700+ 1		1.7400+ 0	1.0000- 1
65 2837	1.4400+ 1	3.0000- 1	1.7950+ 0		51 670	1.4700+ 1	7.0010- 1	1.8800+ 0	
67 2401	1.4500+ 1	3.0000- 1	2.1700+ 0		68 2762	1.4800+ 1		1.6600+ 0	1.4000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
69 2987	1.4500+ 1	2.0000- 1	1.2800+ 0	1.3000- 1	5.5000+ 1	61 651	1.4100+ 1		1.4400+ 0	1.6000- 1	6.5010+ 1
67 2401	1.4500+ 1	3.0000- 1	8.7000- 1	1.3400- 1	5.5050+ 1	61 670	1.4700+ 1	7.0010- 1	8.0510- 1		6.5010+ 1
66 1901	1.4800+ 1		1.1300+ 0	1.2000- 1	5.5000+ 1	60 672	1.4800+ 1	8.0010- 1	1.2000+ 0	4.0000- 1	6.5010+ 1

03/01/74

N,P
CROSS SECTION

58-CE-140

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65	2216	1.4000+ 1	4.0000- 1	6.7500- 3 7.7000+ 4
59	650	1.4500+ 1		1.2100- 2 1.2000- 3
60	672	1.4800+ 1	6.0010- 1	1.0000- 2 2.0000- 3

03/01/74

N,ALPHA

58-CE-140

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67	1892	1.5000+ 1	2.0000- 1	7.0000- 3 2.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
53	27	1.4500+ 1	1.2100- 2	6.1010- 3 2.6000+ 0
60	672	1.4800+ 1	6.0010- 1	2.0000- 3 2.6000+ 1

03/01/74

COHERENT SCATTERING

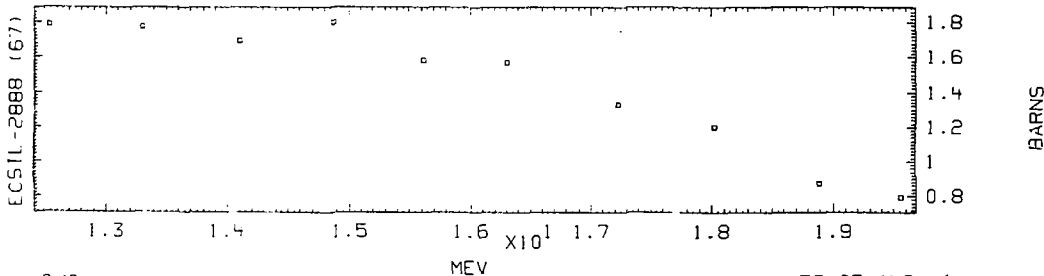
58-CE-140

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53	2766	2.5300- 8		2.8000+ 0 1.0000- 1

03/01/74

N,2N
CROSS SECTION

58-CE-142



03/01/74

TOTAL SCATTERING
CROSS SECTION

58-CE-142

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 276L	2.5200+ 8		2.6000+ 0	2.0000- 1

03/01/74

N,2N

58-CE-142

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2216	1.4000+ 1	4.0000- 1	2.0200+ 0	1.9000- 1	68 276P	1.4800+ 1		1.9600+ 0	1.7000- 1
69 2837	1.4000+ 1	3.0000- 1	1.9850+ 0		60 672	1.4800+ 1	8.0010- 1	1.6000+ 0	3.0000- 1
68 1718	1.4700+ 1		1.8600+ 0	1.7000- 1					

03/01/74

N,N'P

58-CE-142

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 626	1.4500+ 1	4.0000- 1	1.0000- 3	2.0000- 4

03/01/74

N,P

58-CE-142

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2216	1.4000+ 1	4.0000- 1	2.5800- 3	4.5000- 4
59 550	1.4500+ 1		9.4010- 3	9.0010- 4
60 672	1.4800+ 1	8.0010- 1	5.0000- 3	2.0000- 3

03/01/74

N,ALPHA

58-CE-142

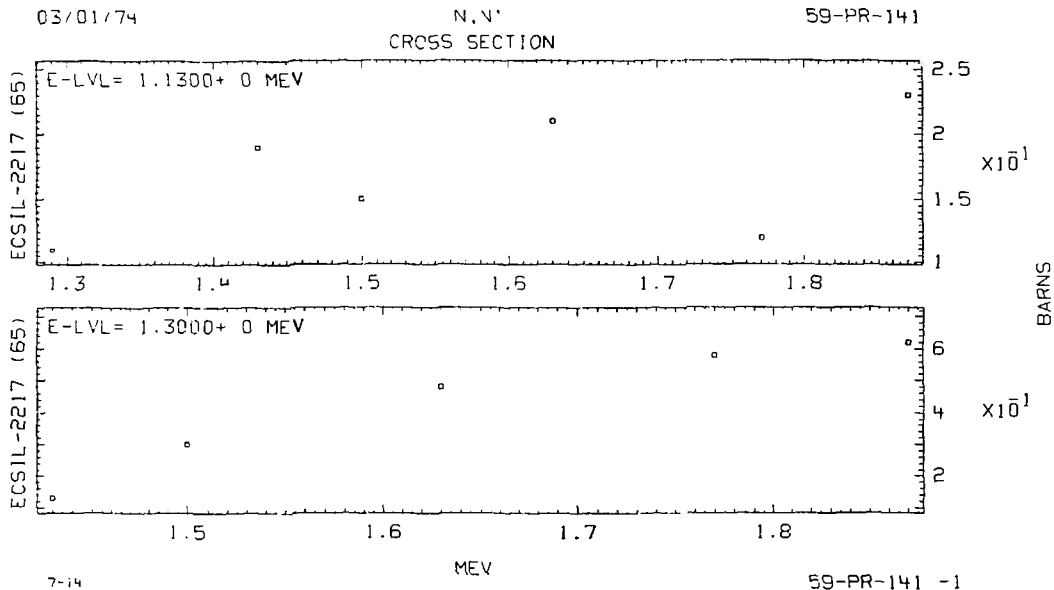
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2216	1.4000+ 1	4.0000- 1	5.2000- 3	8.0000- 4
59 550	1.4500+ 1		7.0010- 3	1.0000- 3
60 672	1.4800+ 1	8.0010- 1	8.0010- 3	2.0000- 3

03/01/74

COHERENT SCATTERING
CROSS SECTION

58-CE-142

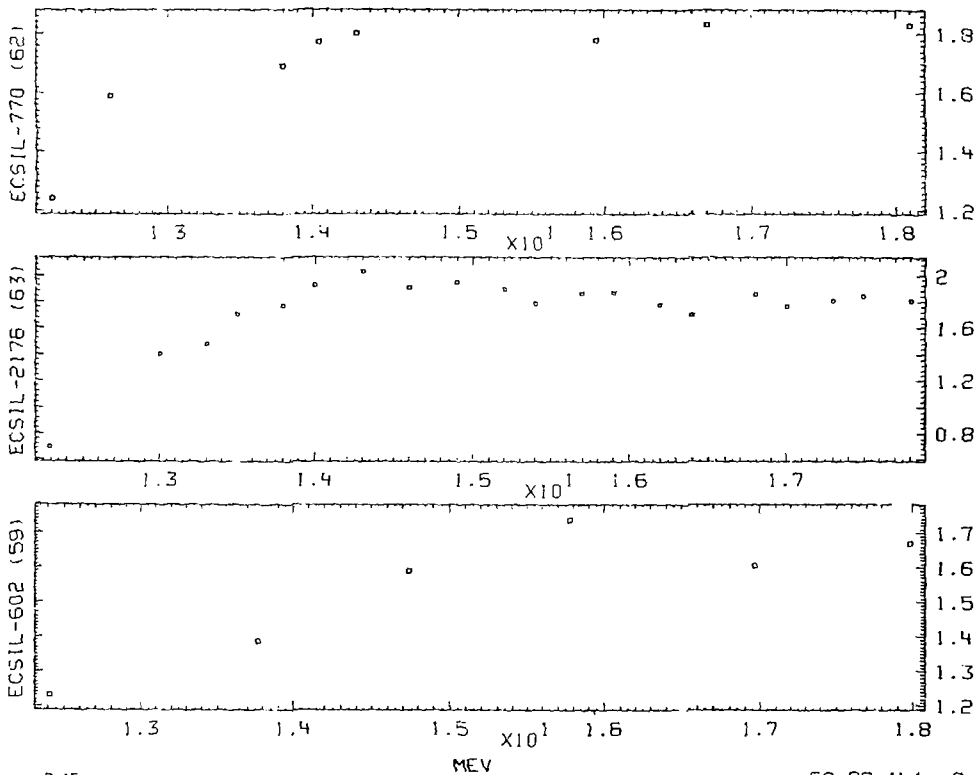
REFERENCE	ENERGY MEV	DELTA MEV	λ -SEC BARN ⁻¹	DELTA BARN ⁻¹
53 2765 2	5300- 8		2.6000+ 0	2.0000- 1



03/01/74

N,2N
CROSS SECTION

59-PR-141



7-15

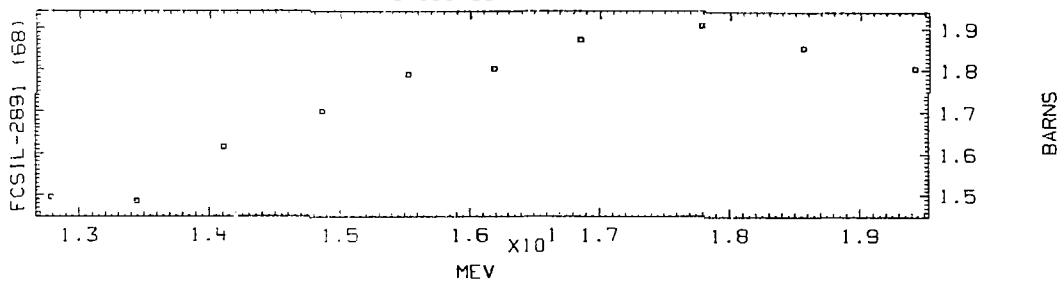
59-PR-141 -2

03/01/74

N,2N

59-PR-141

CROSS SECTION

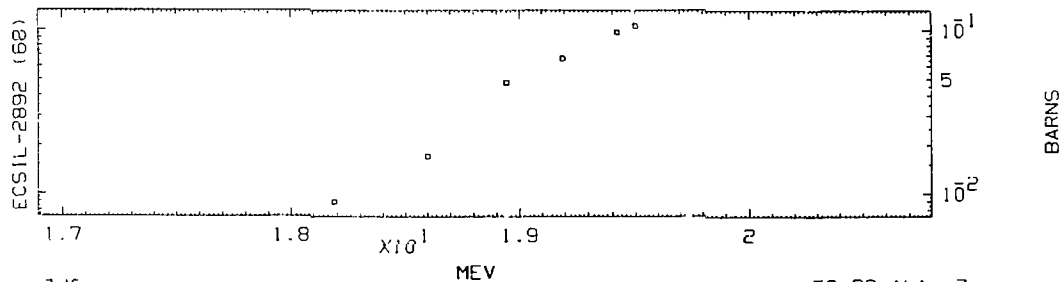


03/01/74

N,3N

59-PR-141

CROSS SECTION



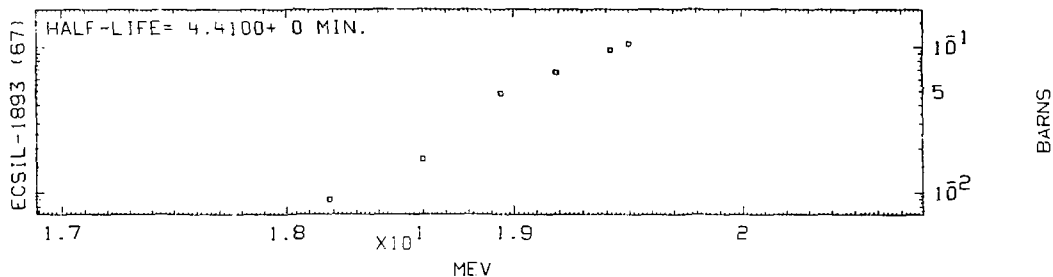
7-16

59-PR-141 -3

03/01/74

N,3N
CROSS SECTION

59-PR-141



03/01/74

TOTAL SCATTERING

59-PR-141

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53	2766	2.5300- 8	4.0000+ 0	1.0000+ 0
63	879	9.8000- 1	5.0000	6.0300+ 0
			2.0490- 1	

03/01/74

N,2N

59-PR-141

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
62	103	1.4130+ 1	1.0000- 1	1.2400+ 0	7.4010+ 2	61	703	1.4600+ 1	2.5000- 1	1.3780+ 0	2.0700- 1
61	676	1.4400+ 1	3.0000- 1	1.8000+ 0	1.4000	60	672	1.4800+ 1	0.0010- 1	2.1000+ 0	3.0000- 1
60	647	1.4400+ 1		1.6000+ 0		68	2369	1.5000+ 1	3.0000- 1	2.0500+ 0	1.8000- 1
67	2401	1.4500+ 1	3.0000- 1	1.0820+ 0	1.3000- 1	60	647	1.7500+ 1		1.6650+ 0	
53	27	1.4500+ 1		2.0600+ 0	7.2010- 1						

03/01/74

ABSORPTION
CROSS SECTION

59-PR-141

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2221	2.5300- 8		1.4000+ 1	1.0000+ 0

03/01/74

N, P

59-PR-141

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2762	1.4800+ 1		1.1400- 2	1.3000- 3
63 672	1.4800+ 1	8.0010- 1	4.5000- 3	1.0000- 3

03/01/74

N, ALPHA

59-PR-141

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 2036	1.4700+ 1	1.0000- 1	3.0000	3 5.0000- 4

03/01/74

COHERENT SCATTERING

59-PR-141

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5300- 8		2.4000+ 0	2.0000- 1

03/01/74

NONELASTIC

60-ND-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 1565	5.0000+ 3	4.0000+ 2	2.3500- 1	1.6000- 2

03/01/74

TOTAL SCATTERING

60-ND-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5300- 8		1.5000+ 1	3.0000+ 0
63 879	9.8000- 1	5.0000- 2	6.0800+ 0	1.8240- 1

03-01-74

ABSORPTION
CROSS SECTION

60-ND-142

REFERENCE ENERGY DELTA X-SEC DELTA
MEV MEV MEV BARS BARS
60 891 2.5300 0 4.9900 0 1.0000 1

03-01-74

SCATTERING

60-ND-142

REFERENCE ENERGY DELTA X-SEC DELTA
MEV MEV MEV BARS BARS
60 891 2.5300 0 6.5000 0 4.0000 1

03-01-74

TOTAL SCATTERING

60-ND-142

REFERENCE ENERGY DELTA X-SEC DELTA
MEV MEV MEV BARS BARS
60 891 2.5300 0 7.5000 0 6.0000 1

03-01-74

N,2N

60-ND-142

REFERENCE ENERGY	DELTA	X-SEC	DELTA	X-SEC	DELTA	X-SEC
MEV	MEV	BARS	MEV	BARS	MEV	BARS
60 891 2.5300	0	1.5000	0	1.0000	0	1.2000
60 891 2.5300	0	1.5000	0	1.0000	0	1.2000
60 891 2.5300	0	1.5000	0	1.0000	0	1.2000

REFERENCE ENERGY	DELTA	X-SEC	DELTA	X-SEC	DELTA	X-SEC
MEV	MEV	BARS	MEV	BARS	MEV	BARS
60 891 2.5300	0	1.5000	0	1.0000	0	1.2000
60 891 2.5300	0	1.5000	0	1.0000	0	1.2000
60 891 2.5300	0	1.5000	0	1.0000	0	1.2000

REFERENCE ENERGY DELTA X-SEC DELTA HALF-LIFE
MEV MEV MEV BARS HOURS
60 891 2.5300 0 2.0000 1 1.470 0 2.1000 1 2.5000 0

REFERENCE ENERGY DELTA X-SEC DELTA HALF-LIFE
MEV MEV MEV BARS HOURS
60 891 2.5300 0 2.0000 1 1.470 0 2.1000 1 2.5000 0

REFERENCE ENERGY DELTA X-SEC DELTA HALF-LIFE
MEV MEV MEV BARS SECONDS
60 891 2.5300 0 2.0000 1 1.470 0 2.1000 1 6.4000 1

60-ND-142 - 1

03-0174

N,P
CROSS SECTION

60-ND-142

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59	550	4500 ± 1	1.3500- 2	2.7000- 3

03-0174

N, ALPHA

60-ND-142

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	1830	1.500 ± 1	1.0000- 2	3.0000- 3

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
60	67.1	1.500 ± 1	1.0000- 2	2.0000- 3 6.0000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs DAYS
60	67.1	1.500 ± 1	1.0000- 2	1.0000- 3 1.4000- 2

03-0174

PHOTON SCATTERING

60-ND-142

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	256	1.200 ± 1	1.6000- 0	6.3000- 1

03-0174

ALPHA SECTION

60-ND-143

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	5.4	1.000 ± 1	3.4600- 2	1.0000- 1
60	5.4	1.000 ± 1	3.4000- 2	2.0000- 1

03-0174

N,P

60-ND-143

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	1500	1.500 ± 1	1.1500- 2	2.3000- 3

03/01/74

TOTAL SCATTERING
CROSS SECTION

60-ND-144

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5300- 8		1.0000+ 0	2.0000- 1

03/01/74

N, ALPHA

60-ND-144

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2334	1.4200+ 1	2.0000- 1	9.0000- 3	1.7000- 3

03/01/74

COHERENT SCATTERING

60-ND-144

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5300- 8		1.0000+ 0	2.0000- 1

03/01/74

ABSORPTION

60-ND-145

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 897	2.5300- 8		4.9300+ 1	1.5000+ 0
58 2720	2.5300- 8		5.3000+ 1	3.0000+ 0

03/01/74

TOTAL SCATTERING

60-ND-146

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2765	2.5300- 8		9.5000+ 0	4.0000- 1

03/01/74

N, ALPHA

60-ND-146

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		2.6000- 3	4.0000- 4
60 672	1.4800+ 1	8.0010- 1	8.3010- 3	2.0000- 3

03/01/74

COHERENT SCATTERING
CROSS SECTION

60-ND-146

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5300- 0		9.5000+ 0	4.0000- 1

03/01/74

N,2N

60-ND-148

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2334	1.4200+ 1	2.0000- 1	1.6260+ 0	2.0000- 1
60 672	1.4800+ 1	8.0010- 1	2.1600+ 0	2.0000- 1

03/01/74

N,P

60-ND-148

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800+ 1	8.0010- 1	3.5000- 3	8.0010- 4

03/01/74

N, ALPHA

60-ND-148

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800+ 1	8.0010- 1	5.0000- 3	1.0000- 3

03/01/74

N,2N

60-ND-150

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2401	1.4500+ 1	3.0000- 1	1.7290+ 0	2.7600- 1
60 672	1.4800+ 1	8.0010- 1	2.2000+ 0	3.0600- 1

03/01/74

ABSORPTION

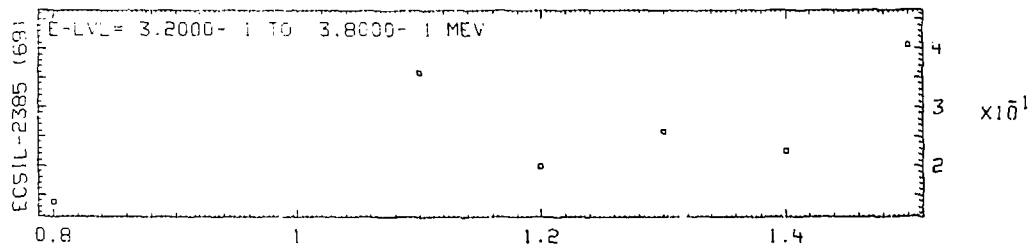
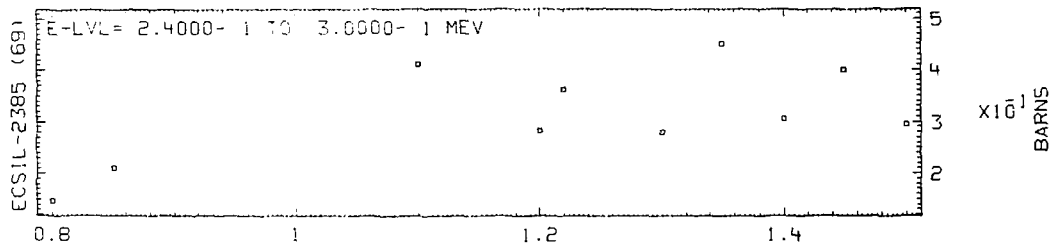
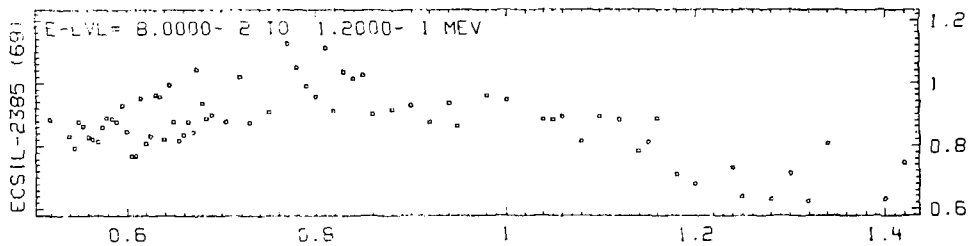
61-PM-147

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 2965	2.5300- 0		1.8000+ 2	

03/01/74

N,N'
CROSS SECTION

62-SM-NAT



8-6

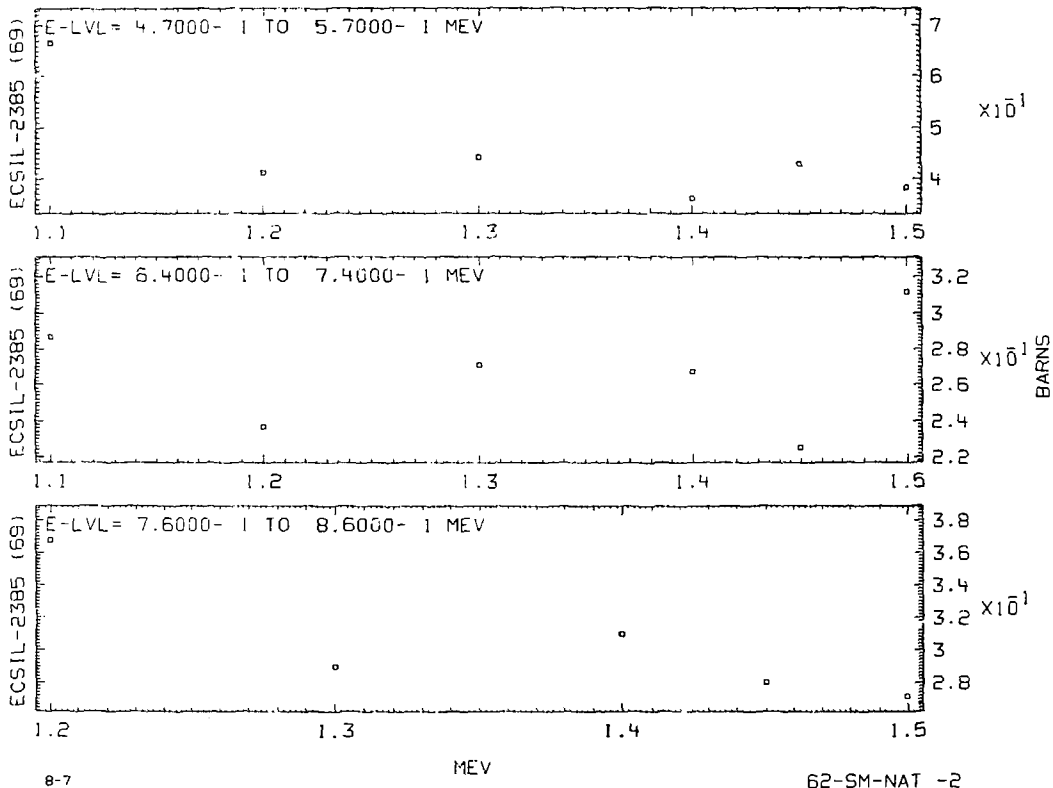
MEV

62-SM-NAT -1

03/01/74

N,N'
CROSS SECTION

E2-SM-NAT



8-7

MEV

62-SM-NAT -2

03/01/74

TOTAL SCATTERING
CROSS SECTION

62-SM-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 879	9.8000- 1	5.0000- 2	6.5400+ 0	1.9620- 1

03/01/74

N,N'

62-SM-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
68 2385	1.4500+ 0	2.0000- 2	2.9820- 1	9.7290- 2	8.9000- 1	9.7000- 1
69 2385	1.5000+ 0	2.0000- 2	2.7510- 1	9.9140- 2	8.9000- 1	9.7000- 1
68 2385	1.4000+ 0	2.0000- 2	2.6630- 1	9.2570- 2	9.9000- 1	1.0500+ 0
68 2385	1.4500+ 0	2.0000- 2	2.5270- 1	9.0110- 2	9.9000- 1	1.0500+ 0
68 2385	1.5000+ 0	2.0000- 2	3.1900- 1	9.3360- 2	9.9000- 1	1.0500+ 0
69 2385	1.4500+ 0	2.0000- 2	4.9960- 1	9.0000- 2	1.0500+ 0	1.1300+ 0
69 2385	1.5000+ 0	2.0000- 2	4.4160- 1	9.4960- 2	1.0500+ 0	1.1300+ 0

03/01/74

ABSORPTION

62-SM-NAT

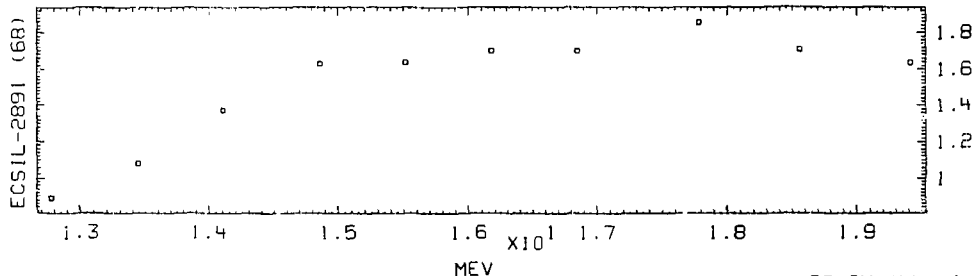
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1162	2.5300- 8		5.8100+ 3	8.0000+ 1
60 891	2.5300- 8		5.8220+ 3	3.0000+ 1

03/01/74

N,2N

62-SM-144

CROSS SECTION



8-8

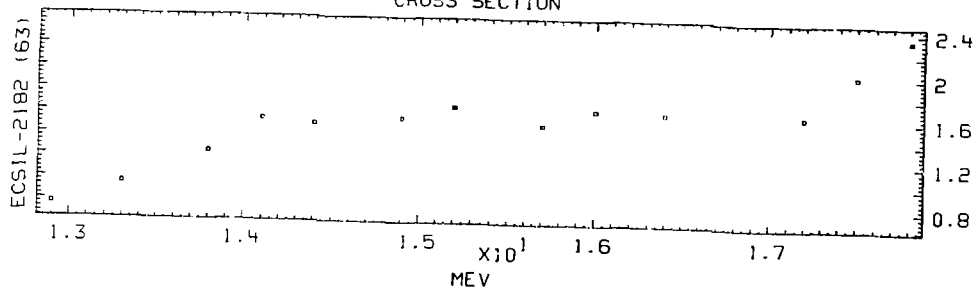
62-SM-144 - 1

BARNs

03/01/74

N,2N
CROSS SECTION

62-SM-144



BARN

03/01/74

N,2N

62-SM-144

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
67 2022	1.3800	1	1.6000	0 2.4000
67 2401	1.4500	1 3.0000	1 1.4520	0 1.6600
61 670	1.4700	1 7.0010	1 1.5950	0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN SECONDS
65 2120	1.4600	1 3.0000	1 4.0000	1 4.4600- 2 6.1000
69 2987	1.4300	1 2.0000	1 5.6400	1 1.2000- 1 6.5000
61 670	1.4700	1 7.0010	1 6.7310	1 7.3010

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN MINUTES	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA HALF-LIFE BARN MINUTES
69 2334	1.4200	1 2.0000	1 5.5400	1 5.5000- 2 1.0000	67 2401	1.4500	1 3.0000	1 7.6500	1 1.5000- 1 9.0000
67 2401	1.4500	1 3.0000	1 5.6700	1 7.1000- 2 1.0000	61 676	1.4400	1 3.0000	1 1.4800	0 1.2000- 1 9.0010
69 2334	1.4200	1 2.0000	1 7.6100	1 1.0700- 1 9.0000	60 672	1.4800	1 6.0010	1 1.2000	0 3.0000- 1 9.0010

03/01/74

ABSORPTION
CROSS SECTION

62-SM-144

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 904	3.0000- 2		1.1900- 1	5.5000- 2

03/01/74

ABSORPTION

62-SM-147

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1162	2.5300 8		8.7000+ 1	6.0000+ 1
63 904	3.0000- 2		1.1730+ 0	1.9200- 1

03/01/74

ABSORPTION

62-SM-148

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 904	3.0000- 2		2.5800- 1	4.8000- 2

03/01/74

N,P

62-SM-148

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
58 2334	1.4200+ 1	2.0000- 1	1.4300- 2	2.3000- 3	5.4000+ 0
69 2334	1.4200+ 1	2.0000- 1	1.8600- 2	4.4000- 3	4.1000+ 1

03/01/74

ABSORPTION

62-SM-149

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 2139	2.5300- 8		3.9900+ 4	6.0000+ 2	58 1162	2.5300- 8		4.2100+ 4	7.0000+ 2
50 2960	2.5300- 8		4.7000+ 4	2.0000+ 3	63 904	3.0000- 2		1.6220+ 0	2.7900- 1

03/01/74

ABSORPTION
CROSS SECTION

62-SM-150

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 904	3.0000- 2		3.7000- 1	7.2000- 2

03/01/74

ABSORPTION

62-SM-151

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 2235	2.5300- 8		8.0000+ 3	1.5000+ 3

03/01/74

ABSORPTION

62-SM-152

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 2237	2.5300- 8		2.0910+ 2	2.0700+ 1
58 2139	2.5300- 8		2.0000+ 2	5.0000+ 9
63 904	3.0000- 2		4.1100- 1	7.1000- 2

03/01/74

N,P

62-SM-152

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800+ 1	8.0010- 1	3.7000- 3	2.0000- 4

03/01/74

N, ALPHA

62-SM-152

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+ 1		8.9010- 3	4.9000- 3
60 672	1.4800+ 1	8.0010- 1	1.0000- 2	2.0000- 3

03/01/74

COHERENT SCATTERING
CROSS SECTION

62-SM-152

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5300- 8		3.0000+ 0	1.0000+ 0

03/01/74

N,2N

62-SM-154

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+ 1		2.2500- 1	9.0010- 2
60 672	1.4800+ 1		1.5000+ 0	3.0000- 1

03/01/74

ABSORPTION

62-SM-154

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 904	3.0000- 2		3.2500- 1	6.1000- 2

03/01/74

N,P

62-SM-154

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800+ 1	8.0010- 1	3.5000- 3	2.0000- 4

03/01/74

N, ALPHA

62-SM-154

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800+ 1	8.0010- 1	9.0010- 3	3.0000- 3

03/01/74

COHERENT SCATTERING

62-SM-154

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5300- 8		8.0000+ 0	2.0000+ 0

03/01/74

ABSORPTION
CROSS SECTION

63-EU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 891	2.5300- 8		4.4060+ 3	3.0000+ 1

03/01/74

COHERENT SCATTERING

63-EU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 928	4.2300- 8		5.0000+ 0	5.0000- 1
62 928	4.2300- 8		4.5000+ 0	6.0000- 1

03/01/74

N, 2N

63-EU-151

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 1968	1.4800+ 1	2.0000- 1	4.8000- 1	6.2400- 2
61 783	1.4800+ 1	2.5000- 1	6.4010- 1	6.0010- 2
60 872	1.4800+ 1	8.0010- 1	5.0000- 1	2.0000- 1

03/01/74

ABSORPTION

63-EU-151

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 897	2.5300- 8		8.7900+ 3	9.0000+ 1

03/01/74

N, ALPHA

63-EU-151

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs DAYS
69 2334	1.4200+ 1	2.0000- 1	1.9100- 2	3 6000- 3 4.1000+ 1

03/01/74

N,2N
CROSS SECTION

63-EU-153

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2334	1.4200+ 1	2.0000- 1	9.1000- 2	1.2000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
61 723	1.4800+ 1	2.5000- 1	1.6400- 1	2.5000- 2	9.0010+ 0
60 67E	1.4800+ 1	8.0010- 1	7.5010- 1	2.0000- 1	9.0010+ 0
69 2334	1.4200+ 1	2.0000- 1	6.5200- 1	9.0000- 2	9.3000+ 0

03/01/74

ABSORPTION

63-EU-153

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 E37	2.5300- 8		3.1700+ 2	5.0000+ 0
58 2139	2.5300- 8		4.4800+ 2	1.6100+ 1

03/01/74

N.P

63-EU-153

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 55D	1.4500+ 1		7.4010- 3	7.0010- 4

03/01/74

N, ALPHA

63-EU-153

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1637	1.4800+ 1		9.0000- 3	2.0000- 3

03/01/74

N,2N

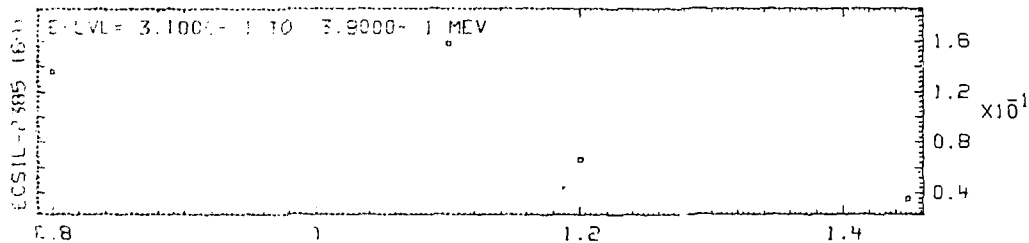
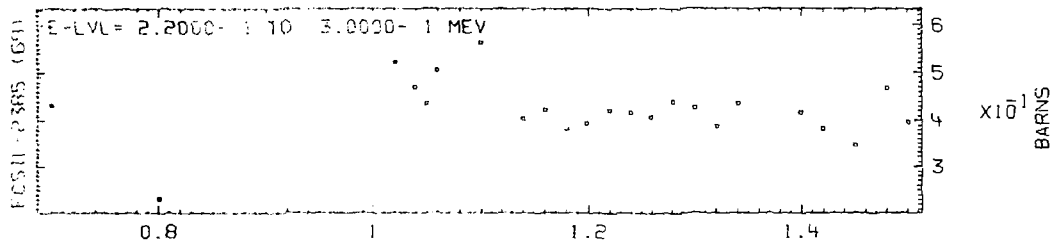
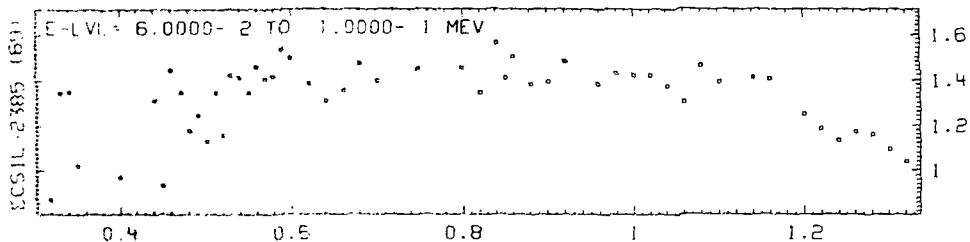
63-EU-160

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 27	1.4500+ 1		1.4700+ 0	8.1010- 1

03/01/74

N,N'
CROSS SECTION

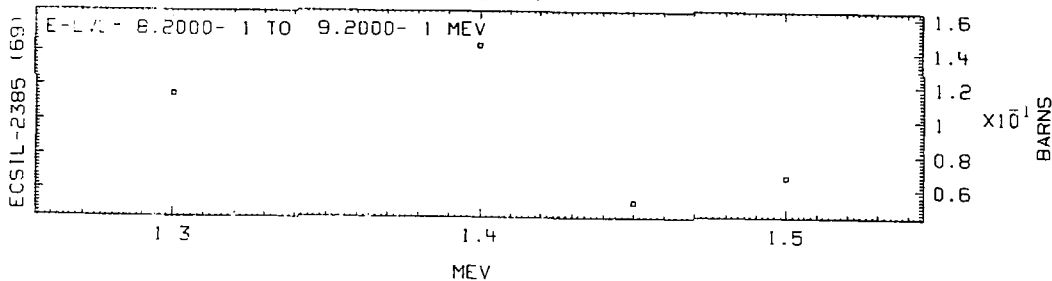
64-GD-NAT



03/01/74

N,N'
CROSS SECTION

64-GD-NAT



03/01/74

TOTAL SCATTERING

64-GD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2385	1.4000- 1	2.0000- 2	5.2200+ 0	1.9650- 1

03/01/74

N,N'

64-GD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
69 2385	1.1000+ 0	1.0000- 2	1.4830- 1	5.9900- 2	4.0000- 1	4.6000- 1
69 2385	1.2000+ 0	1.0000- 2	9.1280- 2	5.0470- 2	4.0000- 1	4.6000- 1
69 2385	1.3000+ 0	1.0000- 2	1.2100- 1	5.6280- 2	4.0000- 1	4.6000- 1
69 2385	1.4000+ 0	2.0000- 2	1.4180- 1	1.5710- 1	4.6000- 1	5.4000- 1
69 2385	1.4000+ 0	2.0000- 2	8.7040- 2	1.5750- 1	4.6000- 1	5.4000- 1
69 2385	1.5000+ 0	2.0000- 2	1.4300- 1	1.5140- 1	4.6000- 1	5.4000- 1

03/01/74

ABSORPTION
CROSS SECTION

64-GD-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
47 2444	2.5300- 8		5.0000+ 4	
58 1162	2.5300- 8		4.5700+ 4	5.0000+ 2
60 891	2.5300- 8		4.6617+ 4	1.0000+ 2

03/01/74

N, 2N

64-GD-154

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1718	1.4700+ 1		1.8550+ 0	1.4000- 1

03/01/74

ABSORPTION

64-GD-155

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
50 2960	2.5300- 8		4.1000+ 4	
58 1162	2.5300- 8		5.6800+ 4	7.0000+ 2

03/01/74

N, ALPHA

64-GD-156

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2334	1.4200+ 1	2.0000- 1	8.5000- 3	1.3000- 3
59 550	1.4200+ 1		3.2000- 3	5.0000- 4

03/01/74

ABSORPTION

64-GD-157

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
50 2960	2.5300- 8		5.9500+ 4	
58 1162	2.5300- 8		2.3800+ 5	2.0000+ 3

03/01/74

N,P
CROSS SECTION

64-GD-157

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		1.1300- 2	1.7000- 3

03/01/74

N, ALPHA

64-GD-158

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 2734	1.4000+ 1	2.0000+ 1	2.4000- 3	4.0000- 4

03/01/74

N,2N

64-GD-160

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 2234	1.4200+ 1	2.0000+ 1	1.6750+ 0	1.6000- 1
5 713	1.4800+ 1	2.5000+ 1	1.7250+ 0	1.7200- 1
5 672	1.4800+ 1	0.0010+ 1	1.4500+ 0	3.0000- 1

03/01/74

N, ALPHA

64-GD-160

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
50 672	1.4800+ 1	0.0010+ 1	2.0000- 3	1.0000- 3

03/01/74

N,2N

65-TB-159

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
55 2120	1.4000+ 1	3.0000+ 1	1.6000- 1	1.9000- 2	
63 2334	1.4000+ 1	2.0000+ 1	5.2400- 1	7.0000- 2	1.1070+ 1
66 1901	1.4800+ 1		1.2500+ 0	3.0000- 1	1.1000+ 1

03/01/74

N,P
CROSS SECTION

65-TB-159

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2334	1.4800+ 1	2.0000- 1	1.5800- 2	2.5000- 3
63 756	1.4800+ 1	2.0000- 1	2.2000- 3	1.3000- 3
61 701	1.4800+ 1	9.0010- 1	2.1600- 3	

03/01/74

N,ALPHA

65-TB-159

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2326	1.4800+ 1		2.2000- 3	5.0000- 4
68 1975	1.4800+ 1		2.2000- 3	5.0000- 4

03/01/74

TOTAL SCATTERING

66-DY-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1879	9.8000+ 1	5.0000- 2	5.8700+ 0	1.7610- 1

03/01/74

ABSORPTION

66-DY-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1851	1.4800+ 1		9.3600+ 2	2.0000+ 1

03/01/74

N,2N

66-DY-156

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 1851	1.4800+ 1	5.0000- 1	1.8430+ 0	1.9400- 1

03/01/74

N,2N
CROSS SECTION

66-DY-158

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2841	1.4400+ 1	3.0000- 1	2.0470+ 0	2.0500- 1

03/01/74

N,2N

66-DY-160

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1718	1.4700+ 1		2.0150+ 0	1.2000- 1

03/01/74

N,P

66-DY-162

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2841	1.4400+ 1	3.0000- 1	5.2000- 3	5.0000- 4

03/01/74

N,ALPHA

66-DY-162

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		3.6000- 3	4.0000- 4

03/01/74

N,P

66-DY-163

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2841	1.4400+ 1	3.0000- 1	2.7000- 3	3.0000- 4
60 672	1.4800+ 1	8.0010- 1	3.0000- 3	1.0000- 3

03/01/74

N,ALPHA

66-DY-164

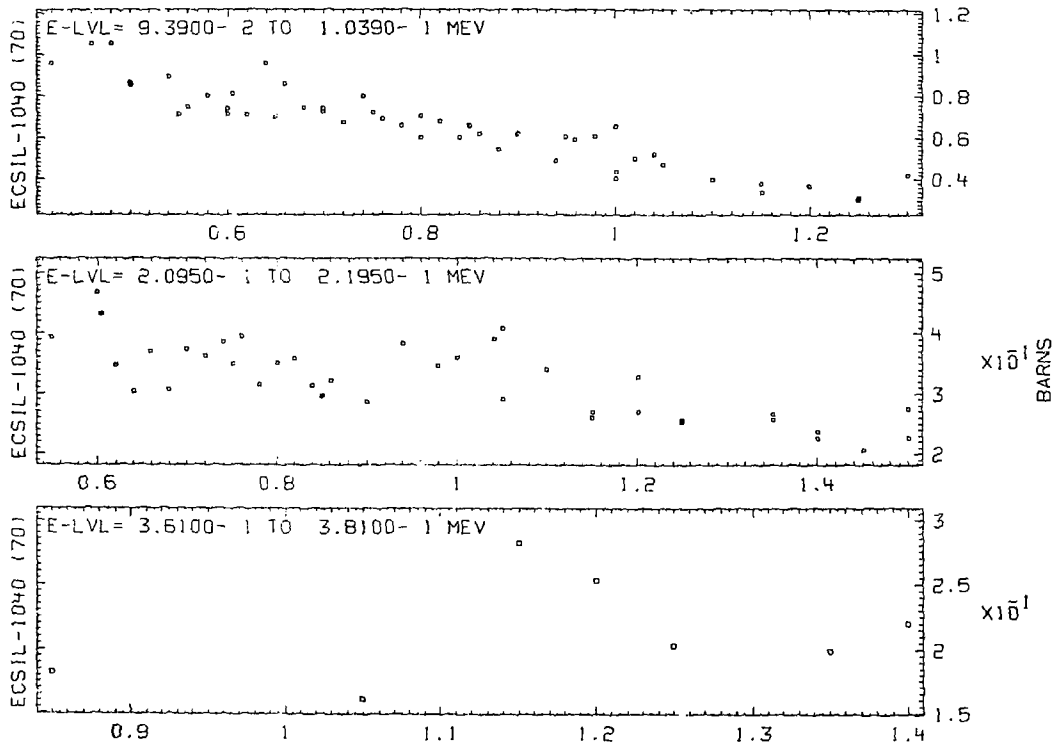
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2841	1.4400+ 1	3.0000- 1	9.0000- 4	1.0000- 4
65 1697	1.4800+ 1		4.0000- 3	1.0000- 3
60 672	1.4800+ 1	8.0010- 1	4.5000- 3	8.0010- 4

03/01/74

N,N'

67-HO-165

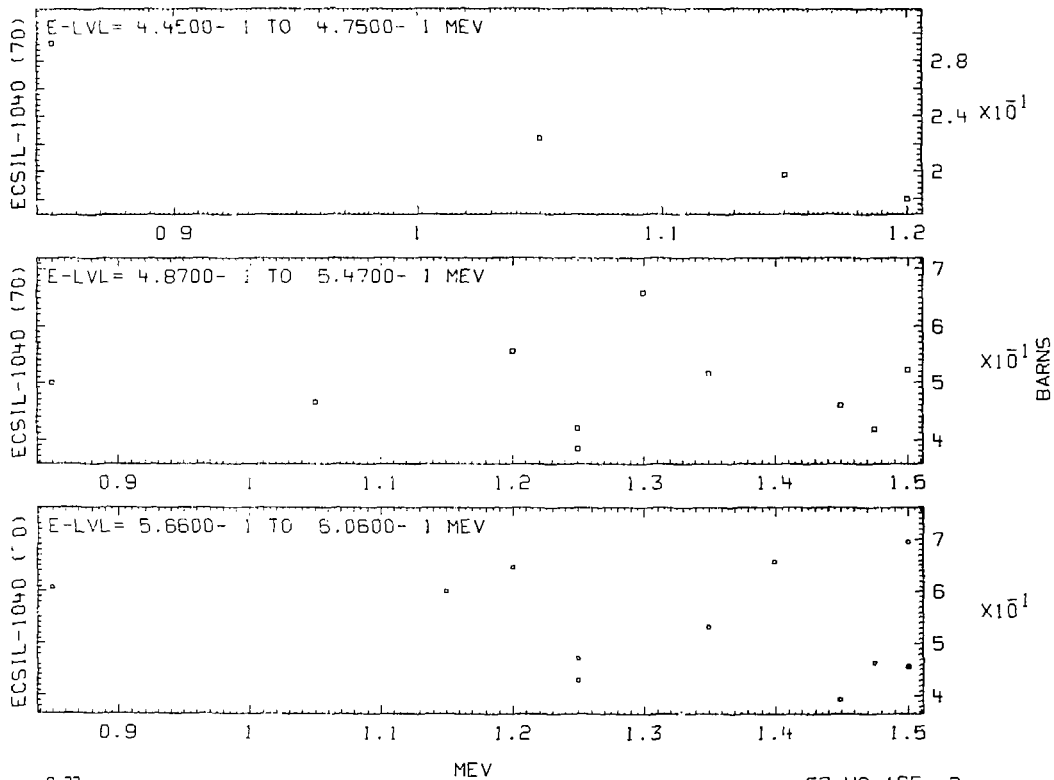
CROSS SECTION



03/01/74

N,N'
CROSS SECTION

67-HO-165



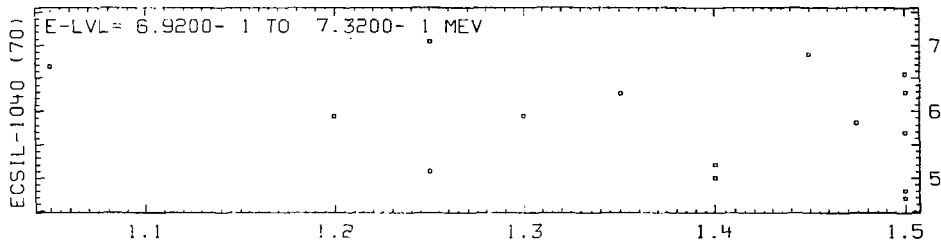
8-22

67-HO-165 -2

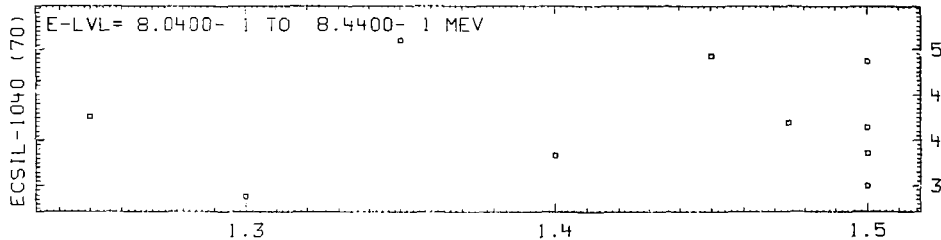
03/01/74

N,N'
CROSS SECTION

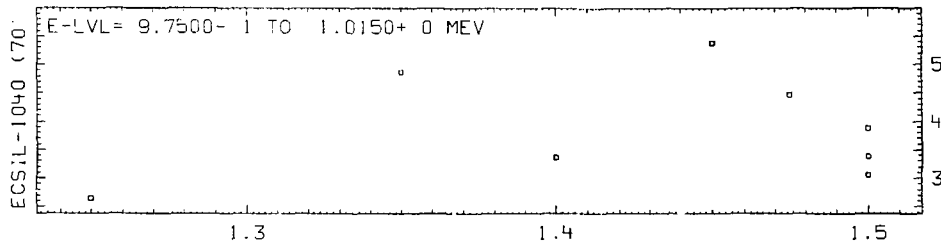
67-HO-165



$\times 10^1$



$\times 10^1$ BARNs



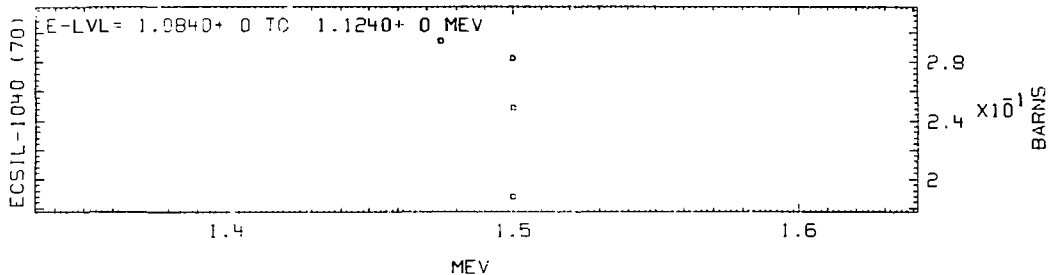
$\times 10^1$

03/01/74

N,N'

67-HO-165

CROSS SECTION

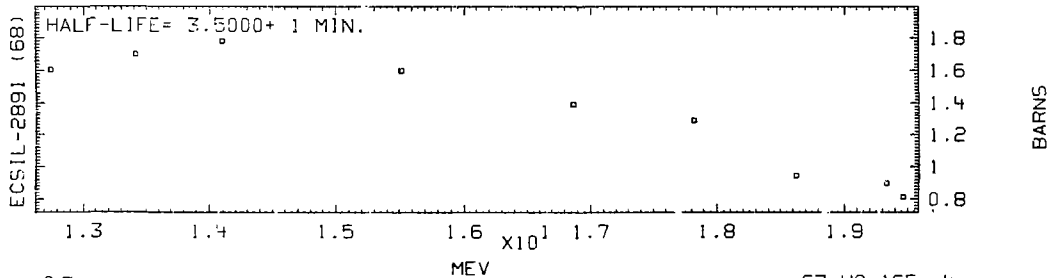


03/01/74

N,2N

67-HO-165

CROSS SECTION



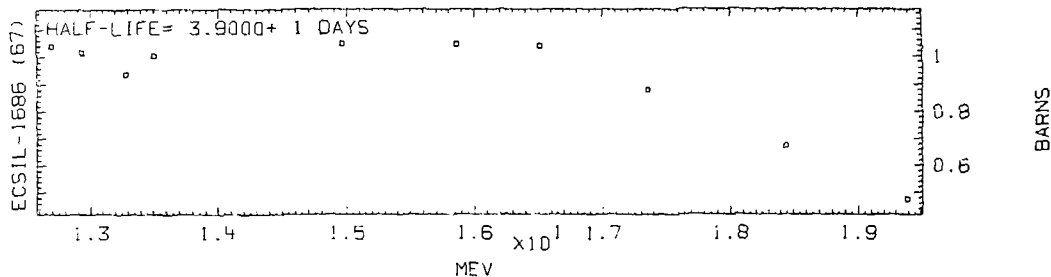
8-24

67-HO-165 -4

03/01/74

N,2N
CROSS SECTION

67-HO-165



03/01/74

TOTAL SCATTERING

67-HO-165

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
65	2983	2.5300- 8	9.0000+ 0	
63	679	9.8000- 1	5.0000- 2	4.9100+ 0
				1.4730- 1

03/01/74

N,N'

67-HO-165

REFERENCE	ENERGY MEV	DELTA MLV	X-SEC BARN	DELTA BARN	E-LVL-MIN MEV	E-LVL-MAX MEV
70	1040	1.4750+ 0	2.3000- 1	2.1860- 1	1.0030- 1	1.1230+ 0
						1.1630+ 0

03/01/74

N,2N

67-HO-165

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
66	2258	1.4000+ 1	1.0800+ 0	1.4000- 1
68	1718	1.4700+ 1	2.1100+ 0	3.0000- 1
61	703	1.4800+ 1	2.5000- 1	2.1000+ 0
				2.1000- 1

03/01/74

N, 2N
CROSS SECTION

67-HO-165

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
66 2250	1.4000+ 1		7.3000- 1	1.0000- 1	2.3900+ 1
66 2250	1.4000+ 1		1.0500+ 0	1.0000- 1	3.9000+ 1
64 1048	1.4000+ 1	1.5000- 1	2.7600+ 0	2.7500- 2	4.6000+ 1

03/01/74

ABSORPTION

67-HO-165

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 2983	2.5300- 0		6.1000+ 1	3.0000+ 0
61 2973	2.5300- 0		6.9000+ 1	3.0000+ 0

03/01/74

N, P

67-HO-165

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
61 704	1.4100+ 1	2.0000- 1	1.0000- 3		1.2000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
61 704	1.4100+ 1	2.0000- 1	4.0000- 2	1.0000- 2	2.3000+ 0

03/01/74

N, ALPHA

67-HO-165

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
69 2334	1.4200+ 1	2.0000- 1	1.2000- 3	4.0000- 4	2.0000+ 0

03/01/74

COHERENT SCATTERING

67-HO-165

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 2971	2.5300- 0		9.1000+ 0	5.0000- 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

68-ER-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2221	2.5300- 8		1.5000+ 1	5.0000+ 0
53 2766	2.5300- 8		1.5000+ 1	4.0000+ 0
65 879	9.8000- 1	5.0000- 2	6.2500+ 0	1.8750- 1

03/01/74

ABSORPTION

68-ER-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2221	2.5300- 8		1.5000+ 2	8.0000+ 0

03/01/74

COHERENT SCATTERING

68-ER-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
53 2766	2.5300- 8		7.8000+ 0	4.0000- 1

03/01/74

N, 2N

68-ER-162

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2334	1.4200+ 1	2.0000- 1	1.8700+ 0	3.0000- 1

03/01/74

N, 2N

68-ER-166

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1718	1.4700+ 1		1.9650+ 0	1.5500- 1
60 672	1.4800+ 1	8.0010- 1	1.0000+ 0	4.0000- 1

03/01/74

N,N'
CROSS SECTION

68-ER-167

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2602	2.8000+ 0	7.0000- 2	7.9000- 1	1.6590- 1

03/01/74

N,P

68-ER-167

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800+ 1	8.0010- 1	3.0000- 3	1.0000- 3

03/01/74

N,2N

68-ER-168

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
65 2120	1.4600+ 1	3.0000- 1	1.9000- 1	2.4000- 2
66 1901	1.4800+ 1		6.9000- 1	1.1000- 1 2.5000+ 0

03/01/74

N,P

68-ER-168

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800+ 1	8.0010- 1	2.5000- 3	1.0000- 3

03/01/74

N,ALPHA

68-ER-168

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs MINUTES
60 672	1.4800+ 1	8.0010- 1	1.0000- 3	2.0000- 4 1.3000+ 0
60 672	1.4800+ 1	8.0010- 1	5.0000- 4	2.0000- 4 1.4000+ 2

03/01/74

N,2N

68-ER-170

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 1988	1.4800+ 1	2.0000- 1	1.0950+ 0	1.3265- 1
60 672	1.4800+ 1	8.0010- 1	1.2000+ 0	5.0000- 1

03/01/74

N,P
CROSS SECTION

68-ER-170

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800	0.0010	1.8000	3.5000

03/01/74

N, ALPHA

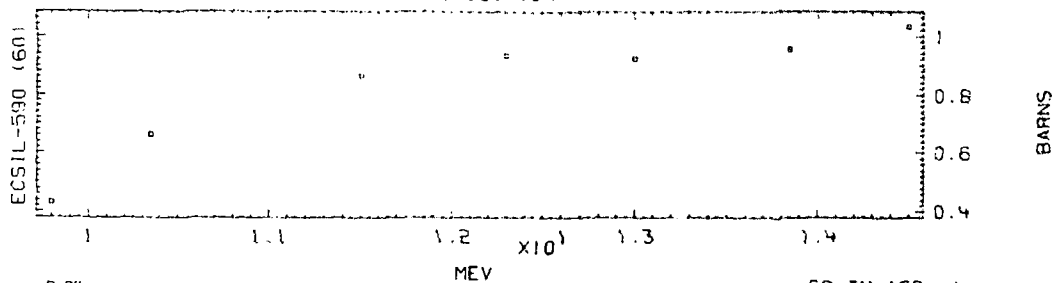
68-ER-170

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4800	0.0010	1.0000	3.2000

03/01/74

N,2N
CROSS SECTION

69-TM-169



B-29

69-TM-169 -1

03/01/74

N,2N
CROSS SECTION

69-TM-169

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1718	1.4700+ 1		2.0000+ 0	1.1000- 1

03/01/74

ABSORPTION

69-TM-169

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2256	2.5300- 8		1.0600+ 2	3.0000+ 0

03/01/74

TOTAL SCATTERING

70-YB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2221	2.5300- 8		2.2000+ 1	5.0000+ 0
61 2845	2.5300- 8		3.0000+ 1	3.0000+ 0
63 879	9.8000- 1	5.0000- 2	6.5400+ 0	1.9620- 1

03/01/74

ABSORPTION

70-YB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2221	2.5300- 8		3.7000+ 1	5.0000+ 0

03/01/74

COHERENT SCATTERING

70-YB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2845	2.5300- 8		2.0000+ 1	4.0000- 1

03/01/74

N,2N

70-YB-170

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1718	1.4700+ 1		2.0800+ 0	1.1000- 1

03/01/74

N, F
CROSS SECTION

70-YB-174

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2403	1.4800+ 1		3.5000+ 0	1.0000+ 0

03/01/74

N, N'

70-YB-176

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE SECONDS
62 2229	1.4500+ 1	5.0000- 1	5.0000- 3	2.0000- 3	
68 3368	1.4700+ 1	1.0000- 1	1.6700- 2	3.5000- 3	1.1700+ 1

03/01/74

N, 2N

70-YB-176

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 1958	1.4800+ 1	2.0000- 1	1.8100+ 0	1.2670- 1
61 705	1.4800+ 1	2.5000- 1	7.8610- 1	7.9010- 2
60 672	1.4800+ 1	8.0010- 1	4.3000- 1	1.0000- 1

03/01/74

N, ALPHA

70-YB-176

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2316	1.4800+ 1		2.0000- 4	5.0000- 5

03/01/74

TOTAL SCATTERING

71-LU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2845	2.5300- 8		1.3000+ 1	2.0000+ 0
63 2221	2.5300- 8		1.0000+ 1	5.0000+ 0

03/01/74

ADSORPTION
CROSS SECTION

71-LU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2221	2.5300- 8		1.0800- 2	5.0000+ 0

03/01/74

COHERENT SCATTERING

71-LU-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2845	2.5300- 8		6.7000+ 0	3.7000- 1

03/01/74

N, 2N

71-LU-175

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 672	1.4600+ 1	8.0010- 1	1.6000- 0	3.0000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
68 171B	1.4700+ 1		6.9500- 1	5.5000- 2	1.4000+ 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE YEARS
56 171B	1.4700+ 1		1.2850+ 0	1.4000- 1	3.6000+ 0

03/01/74

N, P

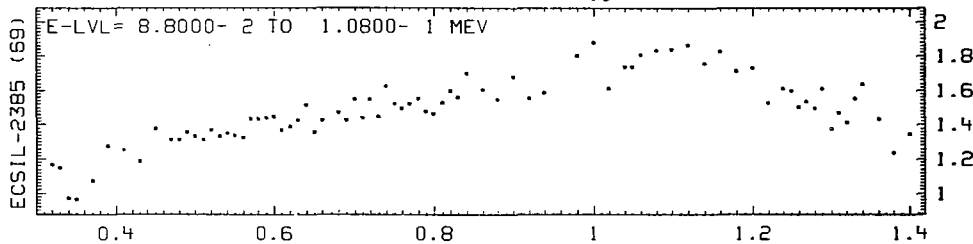
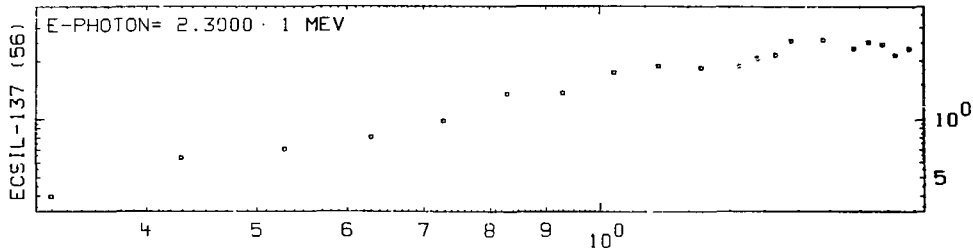
71-LU-175

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 560	1.4500+ 1		3.4000- 3	5.0000- 4

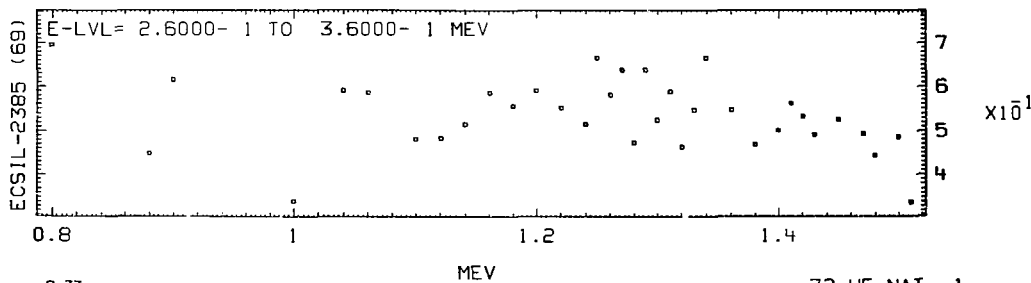
03/01/74

N,N'
CROSS SECTION

72-HF-NAT



BARNS



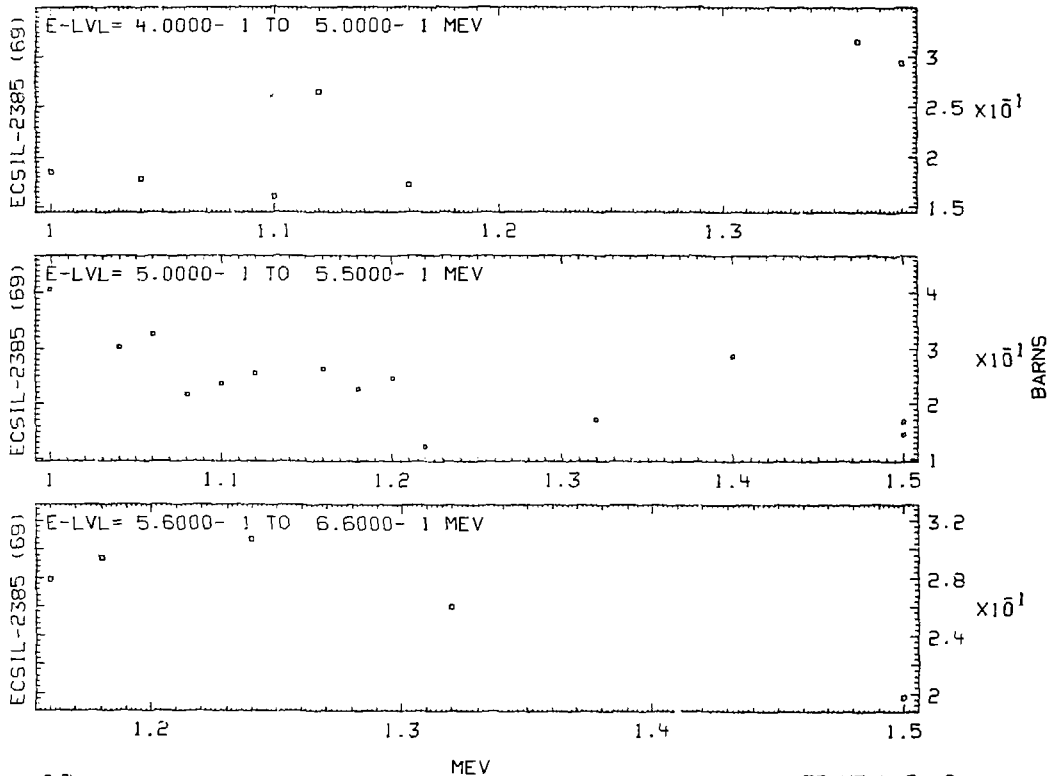
9-33

72-HF-NAT - 1

03/01/74

N,N'
CROSS SECTION

72-HF-NAT



9-34

72-HF-NAT -2

03/01/74

NONELASTIC
CROSS SECTION

72-HF-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54 103	1.000+ 0	5.000- 2	2.1000+ 0	7.0010- 1

03/01/74

TOTAL SCATTERING

72-HF-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52 437	2.5300- 8		1.5000+ 1	

03/01/74

N,N'

72-HF-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
69 2385	1.4000+ 0	1.0000- 2	4.0220- 1	1.3270- 1	7.0000- 1	9.0000- 1
69 2385	1.8000- 0	1.0000- 2	2.6580- 1	9.4310- 2	7.0000- 1	9.0000- 1
69 2385	1.4000+ 0	1.0000- 2	1.2620- 1	3.1550- 2	9.6000- 1	1.1400+ 0
69 2385	1.8000+ 0	1.0000- 2	1.9610- 1	4.9020- 2	9.6000- 1	1.1400+ 0
69 2385	1.4000+ 0	2.0000- 2	4.7900- 1	1.5600- 1	1.1500+ 0	1.3300+ 0
69 2385	1.8000+ 0	2.0000- 2	2.0000- 1	6.6000- 2	1.1500+ 0	1.3300+ 0
69 2385	1.8000+ 0	2.0000- 2	5.0000- 1	1.6590- 1	1.1500+ 0	1.3300+ 0

03/01/74

ABSORPTION

72-HF-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 897	2.5300- 6		1.3400+ 2	4.0000+ 1	53 370	2.5300- 8		1.4400+ 2	1.0000+ 1
51 2491	2.5300- 8		1.4300+ 2	8.0000+ 0	60 891	2.5300- 8		1.0140+ 2	5.0000- 1

03/01/74

COHERENT SCATTERING

72-HF-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 2636	2.5300- 8		9.7000+ 0	
64 2635	2.5300- 8		7.5900+ 0	2.7000- 1

03/01/74

N,2N
CROSS SECTION

72-HF-174

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2275	1.4000+ 1		8.6000- 1	6.0000- 2
69 2753	1.4500+ 1		8.6000- 1	6.0000- 2

03/01/74

N,2N

72-HF-176

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2275	1.4000+ 1		2.0000+ 0	1.0000- 1
69 2753	1.4500+ 1		2.0000+ 0	1.0000- 1
58 1718	1.4700+ 1		2.2200+ 0	1.1500- 1

03/01/74

N,ALPHA

72-HF-178

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		2.0000- 3	2.0000- 4

03/01/74

N,N'

72-HF-179

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2602	2.8000+ 0	7.0000- 2	4.2200- 1	8.8620- 2

03/01/74

N,2N

72-HF-179

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
66 1901	1.4800+ 1		8.8000- 1	1.0000- 1 5.0000+ 0

03/01/74

N,N'

CROSS SECTION

72-HF-180

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs HOURS
66 2275	1.4000+ 1		1.2400- 2	5.0000- 4
69 2753	1.4500+ 1		1.2400- 2	5.0000- 4 5.5000+ 0

03/01/74

N,2N

72-HF-180

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
65 1501	1.4800+ 1		5.7000- 1	5.0000- 2 1.8000+ 1

03/01/74

N,ALPHA

72-HF-180

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 2275	1.4000+ 1		2.2000- 3	2.0000- 4
69 2753	1.4500+ 1		2.2000- 3	2.0000- 4

03/01/74

NONELASTIC

73-TA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 296	4.1000+ 0	4.0000- 2	2.7000+ 0	2.0000- 1

03/01/74

TOTAL SCATTERING

73-TA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
63 873	9.8000- 1		5.0000- 2	5.5000+ 0	1.6800- 1	
62 1268	1.5200+ 1		2.6300+ 0	2.0000- 1	0.0000+ 0	1.8000+ 0

03/01/74

N,N'
CROSS SECTION

73-TA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	836	7.0000+ 0	2.6700+ 0	2.9000- 1

03/01/74

ABSORPTION

73-TA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	1162	2.5300- 8	1.9000+ 1	2.0000- 1

03/01/74

BOUND ATOM

73-TA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8	7.0000+ 0	

03/01/74

COHERENT SCATTERING

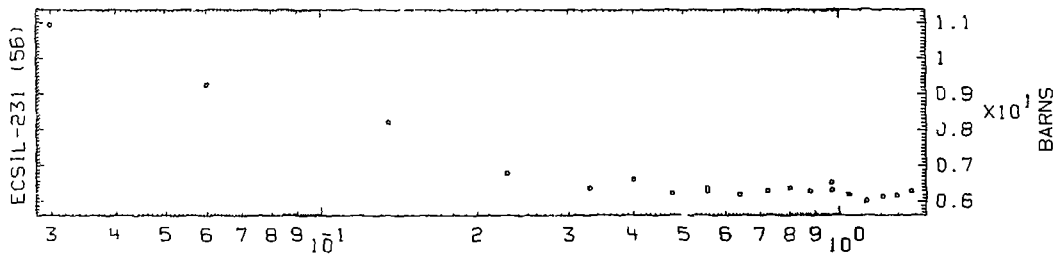
73-TA-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	1584	7.3000- 8	6.1000+ 0	4.8800- 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

73-TA-181



9-38

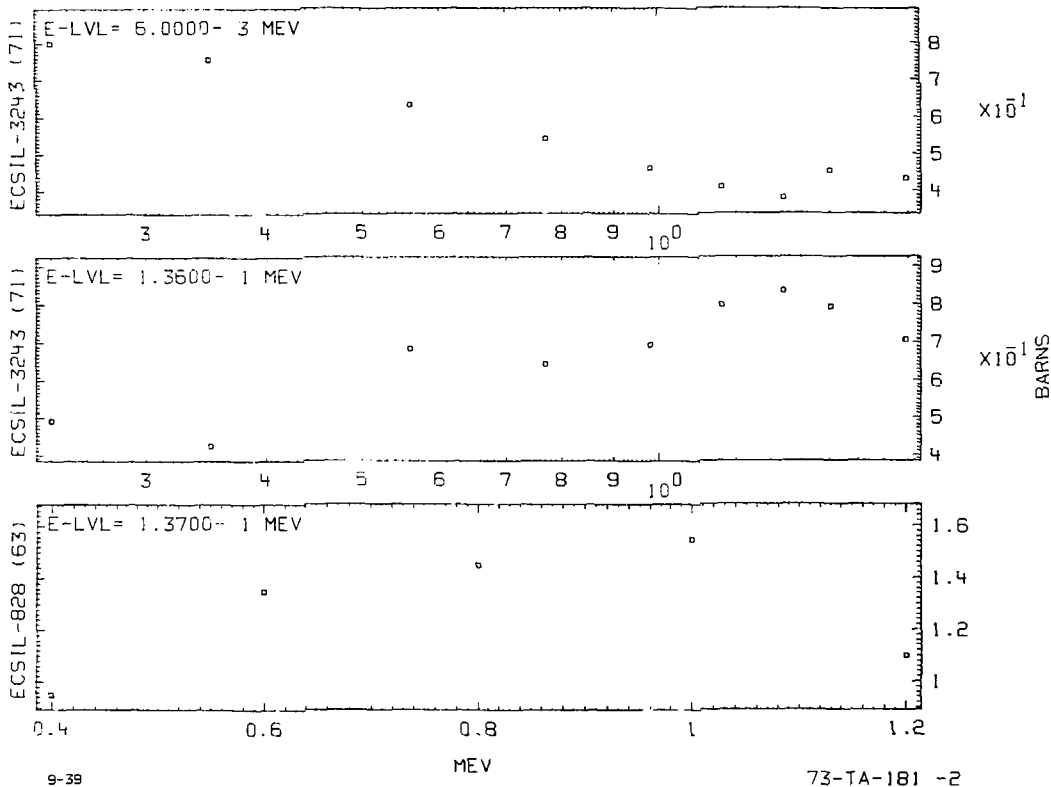
MEV

73-TA-181 -1

03/01/74

N,N'
CROSS SECTION

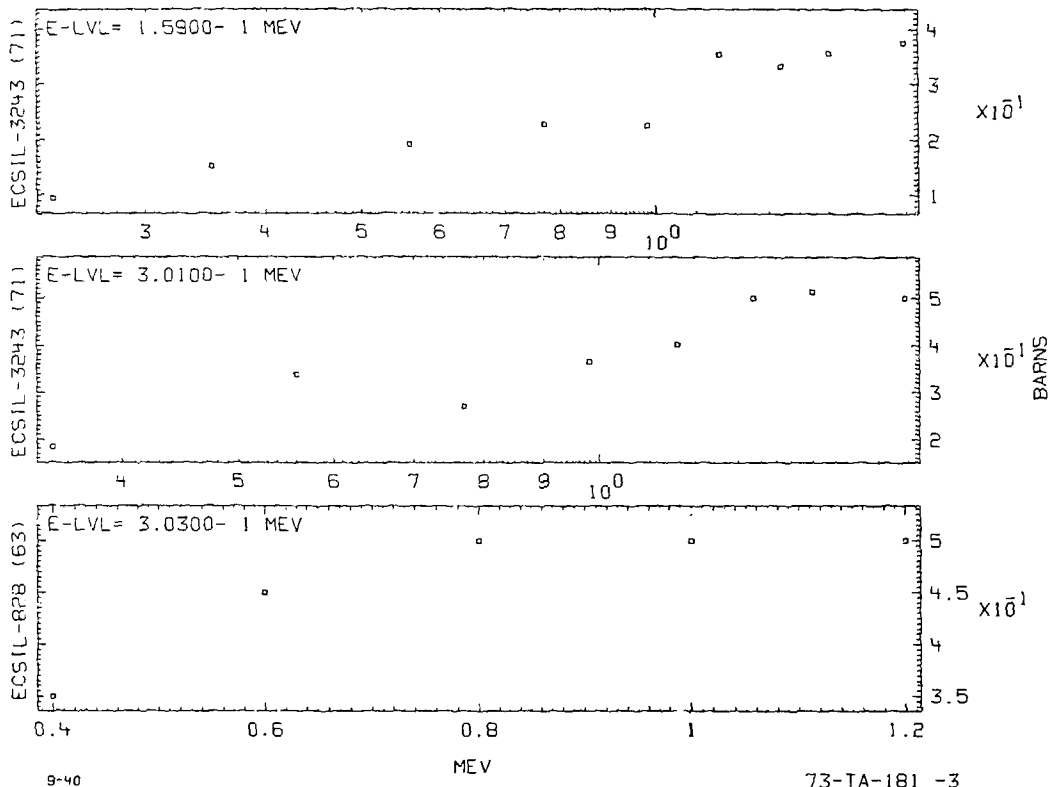
73-TA-181



03/01/74

N,N'
CROSS SECTION

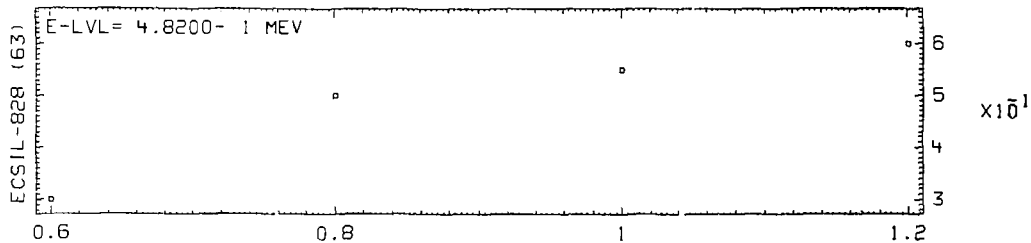
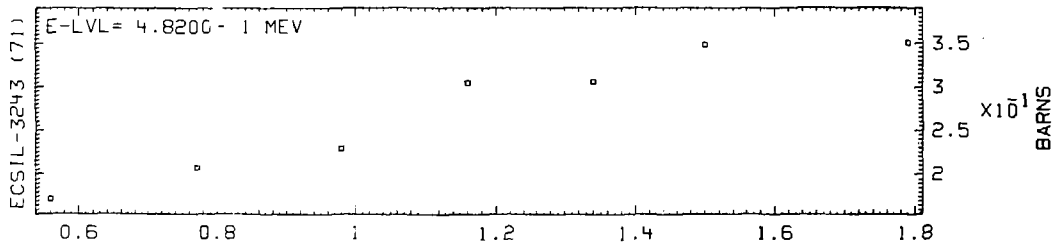
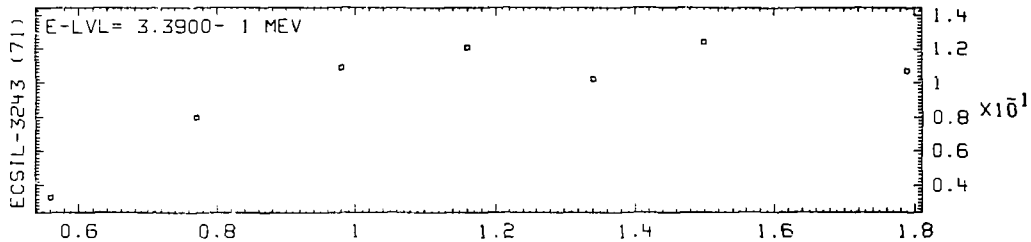
73-TA-181



03/01/74

N,N'
CROSS SECTION

73-TA-181



9-41

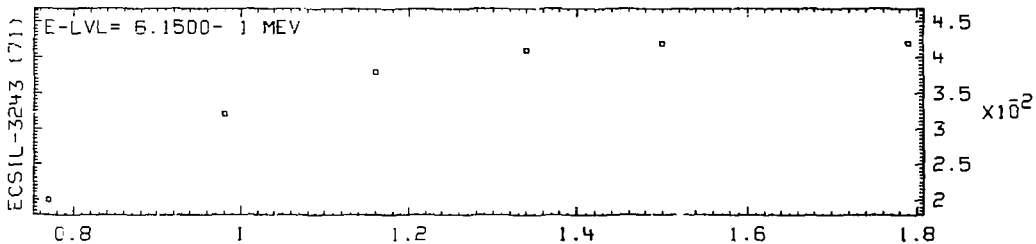
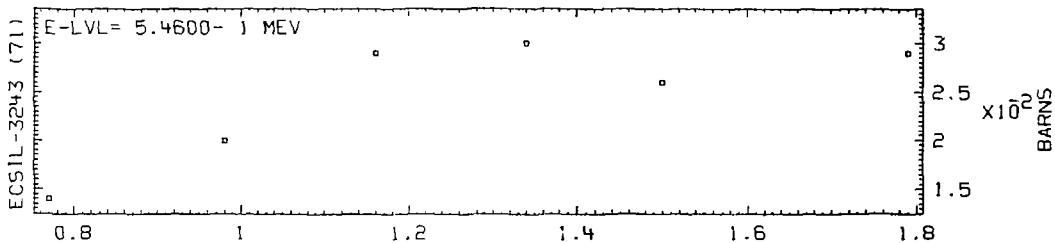
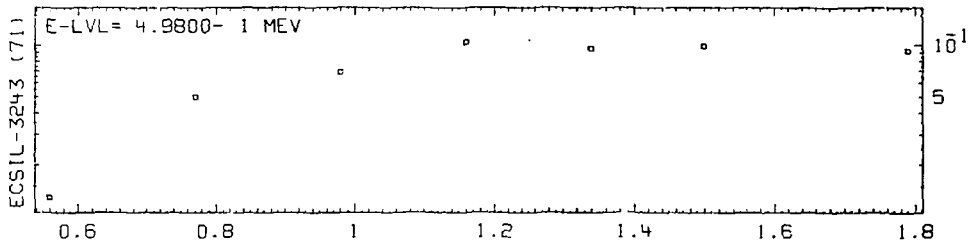
MEV

73-TA-181 -4

03/01/74

N,N'
CROSS SECTION

73-TA-181



9-42

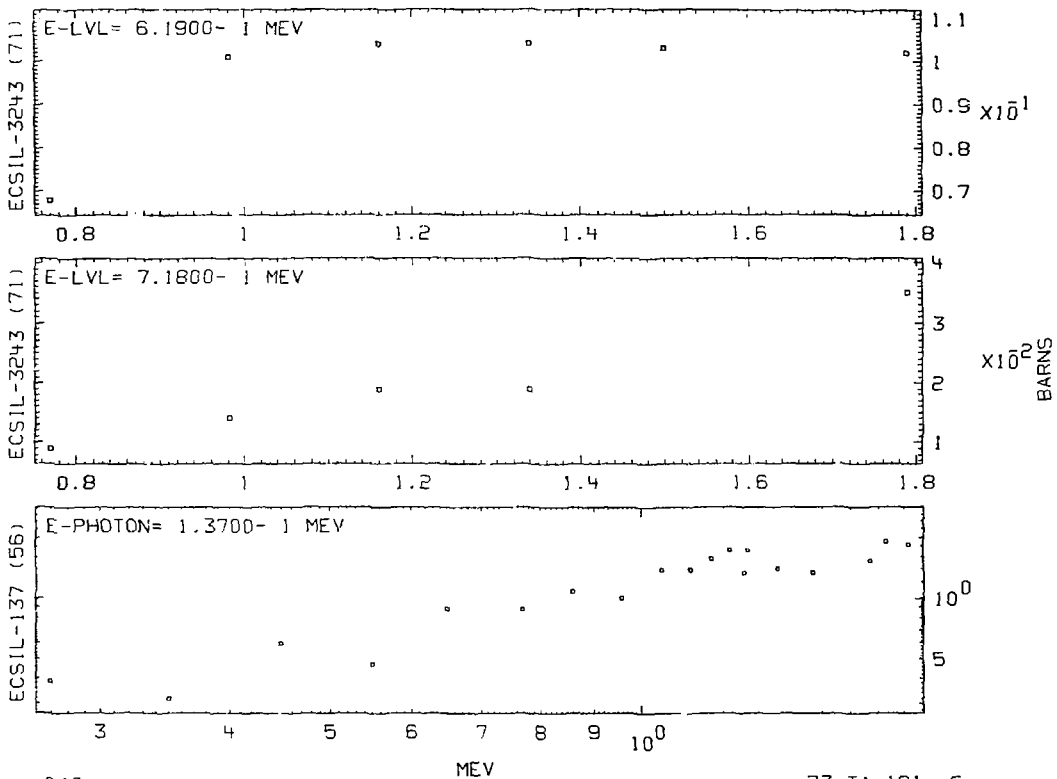
MEV

73-TA-181 -5

03/01/74

N,N'
CROSS SECTION

73-TA-181



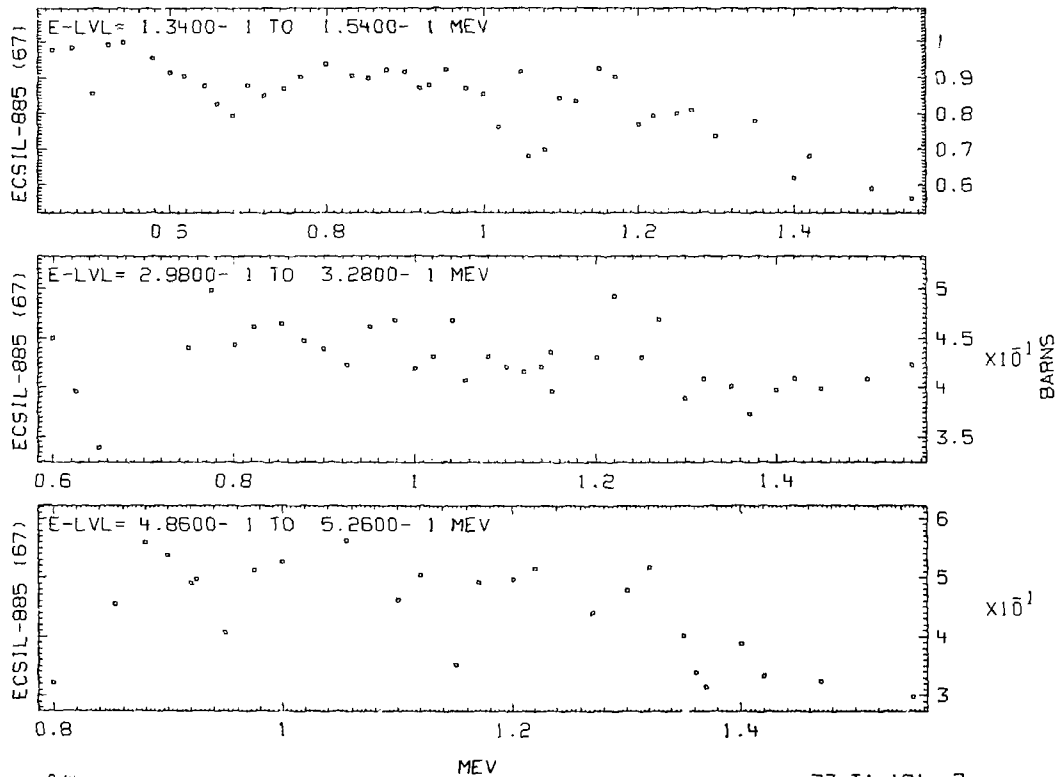
9-43

73-TA-181 -6

03/01/74

N,N'
CROSS SECTION

73-TA-181



9-44

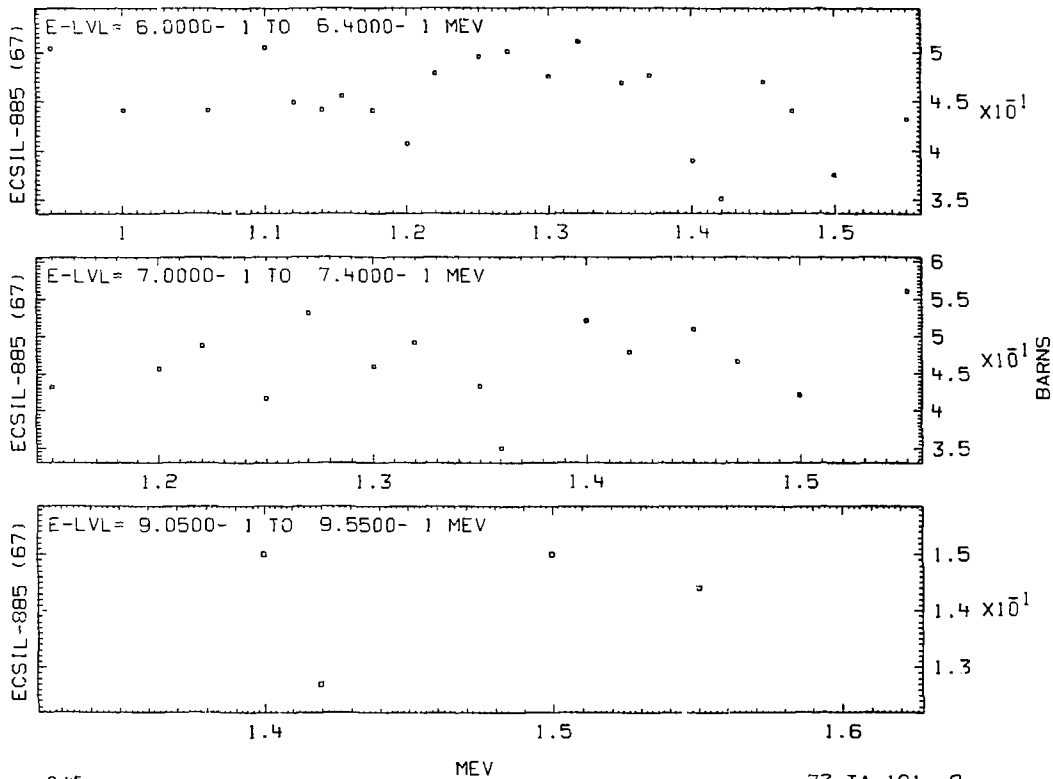
MEV

73-TA-181 -7

03/01/74

N,N'
CROSS SECTION

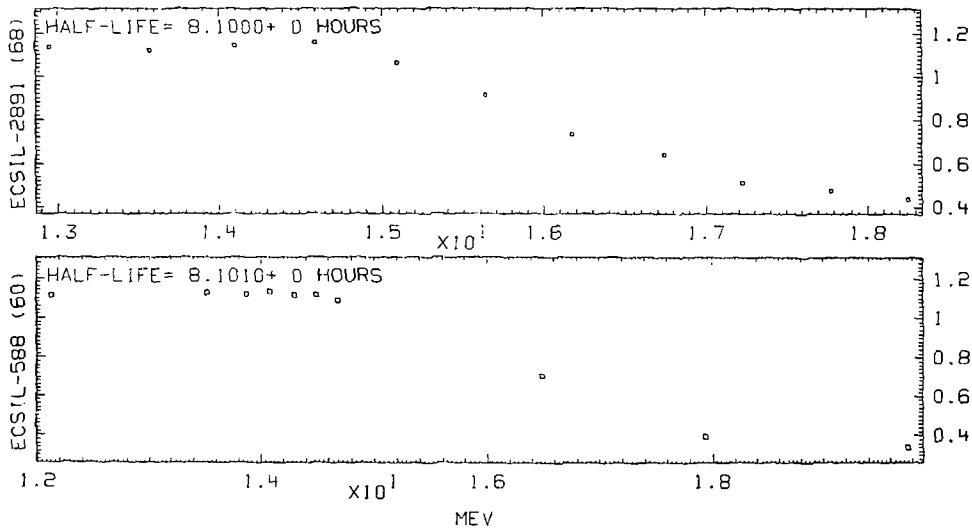
73-TA-181



03/01/74

N,2N
CROSS SECTION

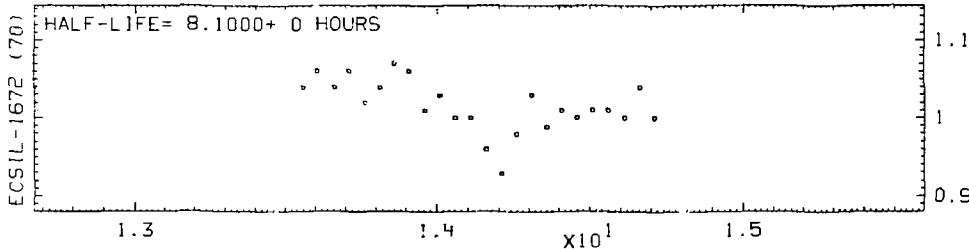
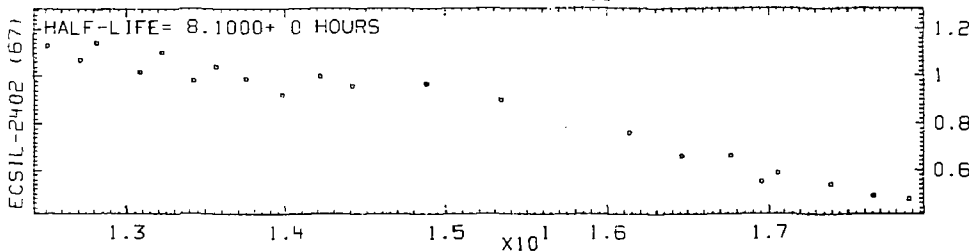
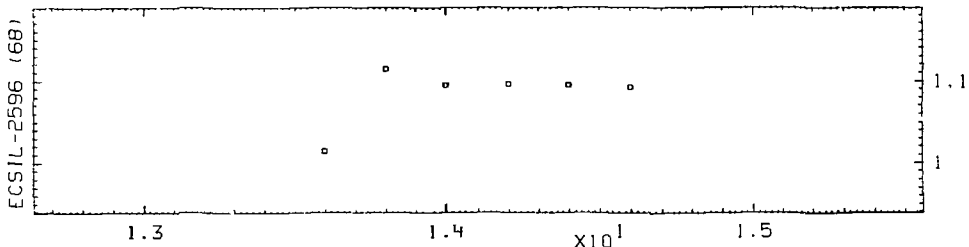
73-TA-181



03/01/74

N₂N
CROSS SECTION

73-TA-181

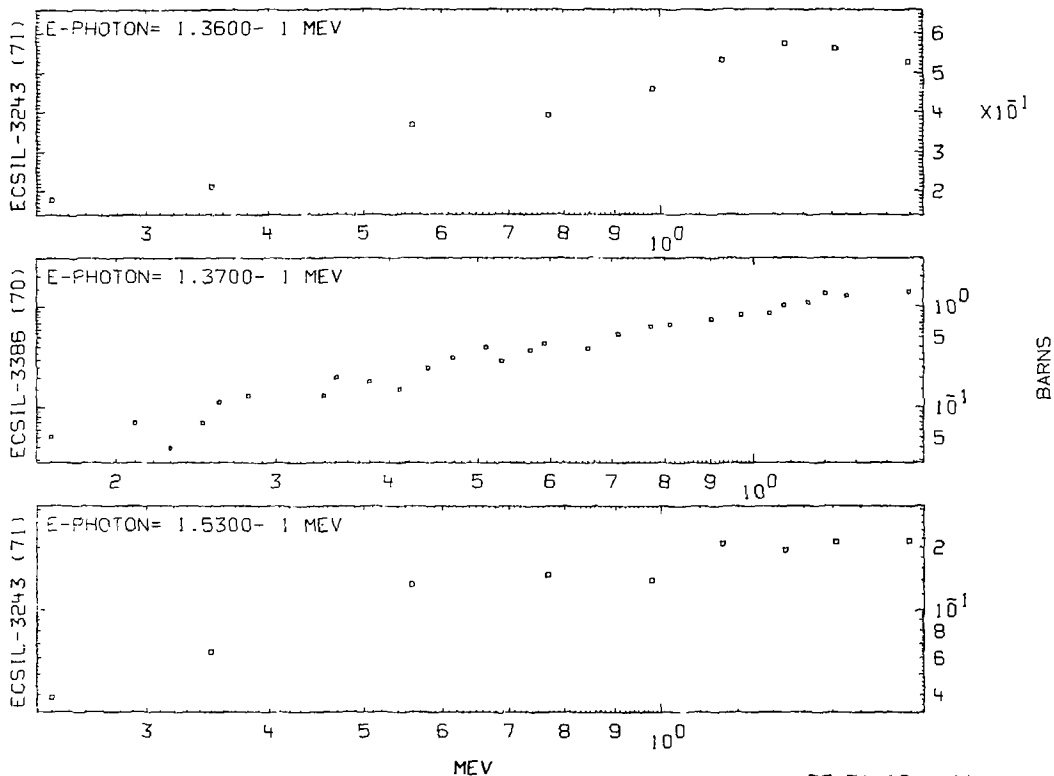


RELATIVE

03/01/74

N,X GAMMA
CROSS SECTION

73-TA-181



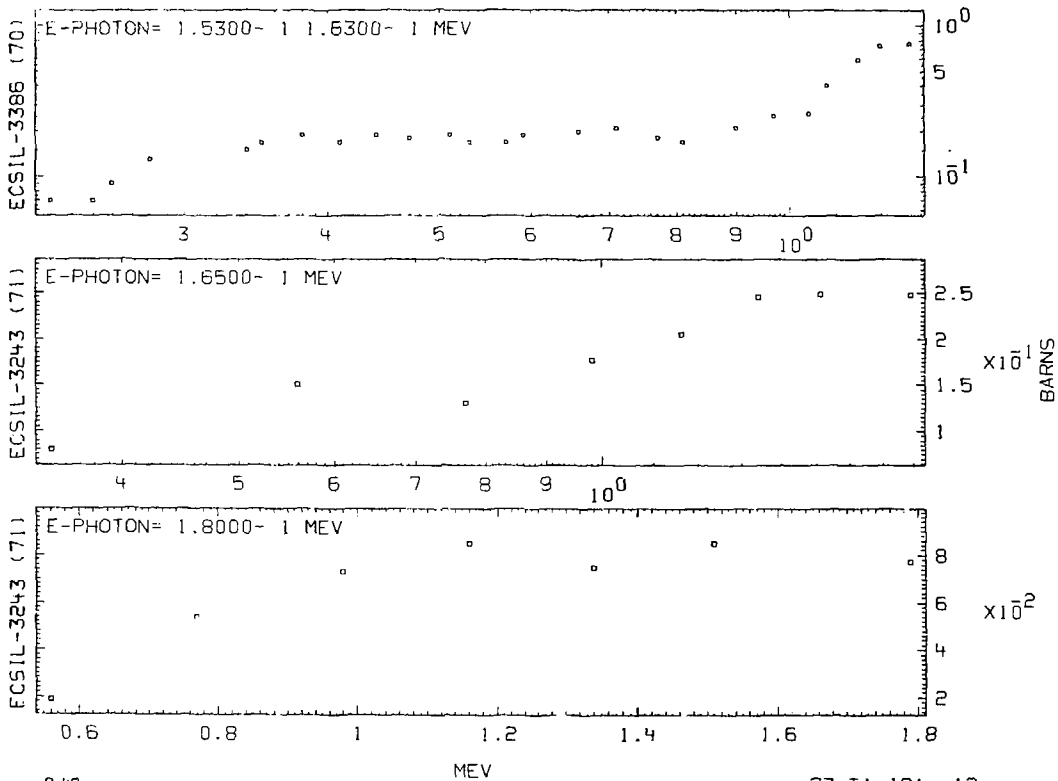
9-48

73-TA-181 -11

03/01/74

N, X GAMMA
CROSS SECTION

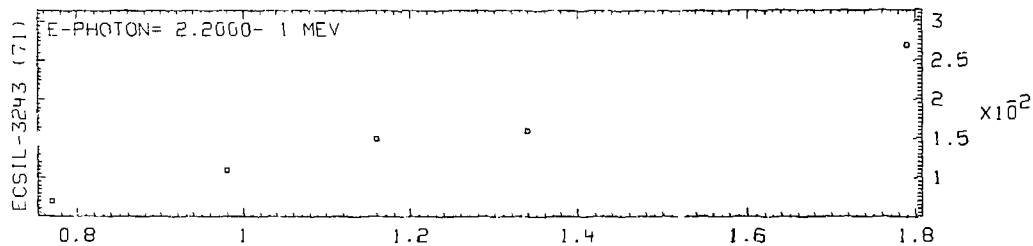
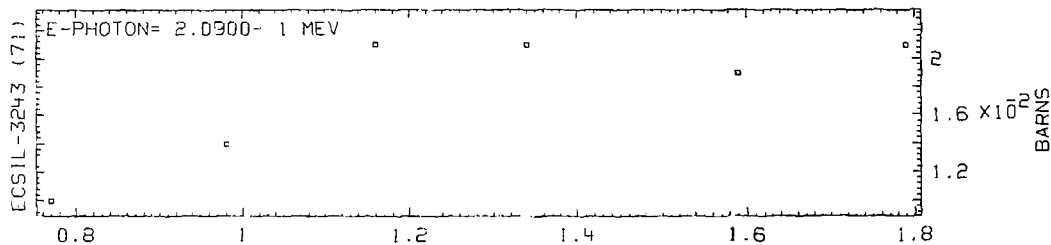
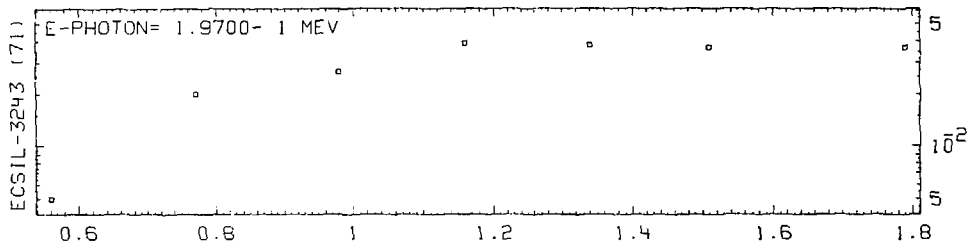
73-TA-181



03/01/74

N, X GAMMA
CROSS SECTION

73-TA-181



9-50

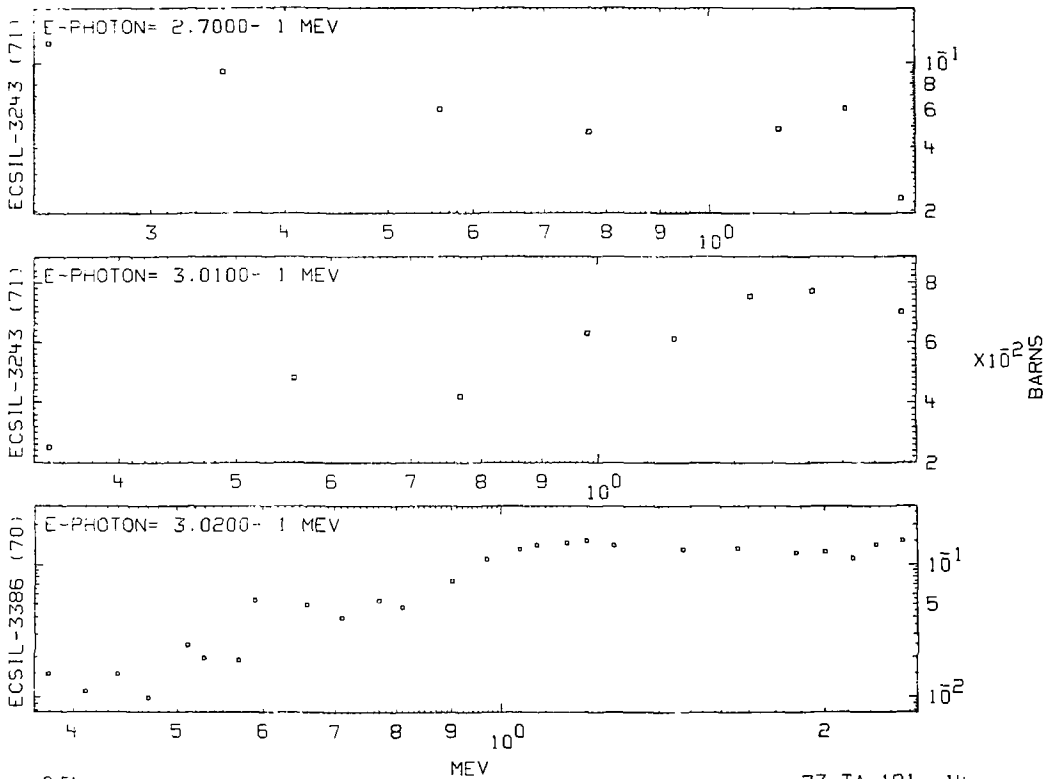
MEV

73-TA-181 -13

03/01/74

N,X GAMMA
CROSS SECTION

73-TA-181



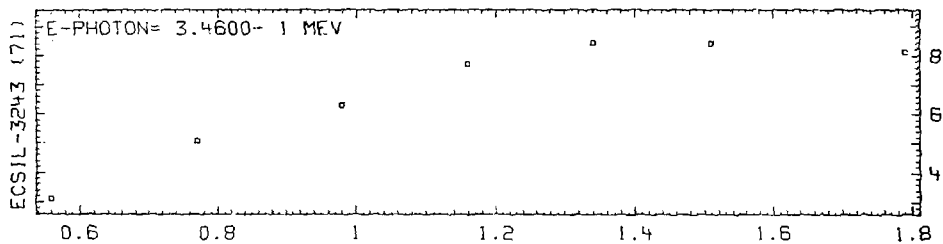
9-51

73-TA-181 -14

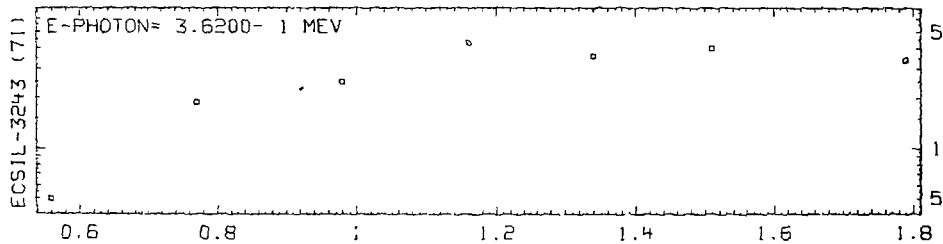
03/01/74

N, X GAMMA
CROSS SECTION

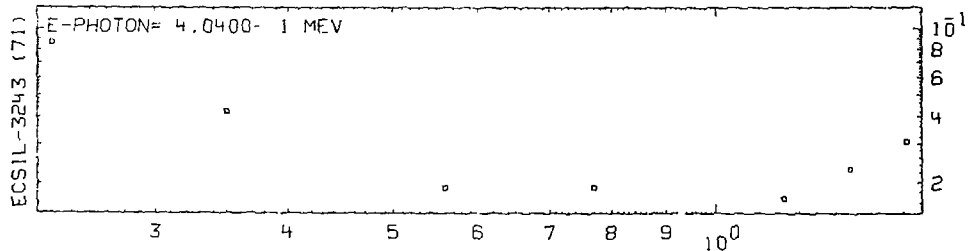
73-TA-181



$\times 10^{22}$



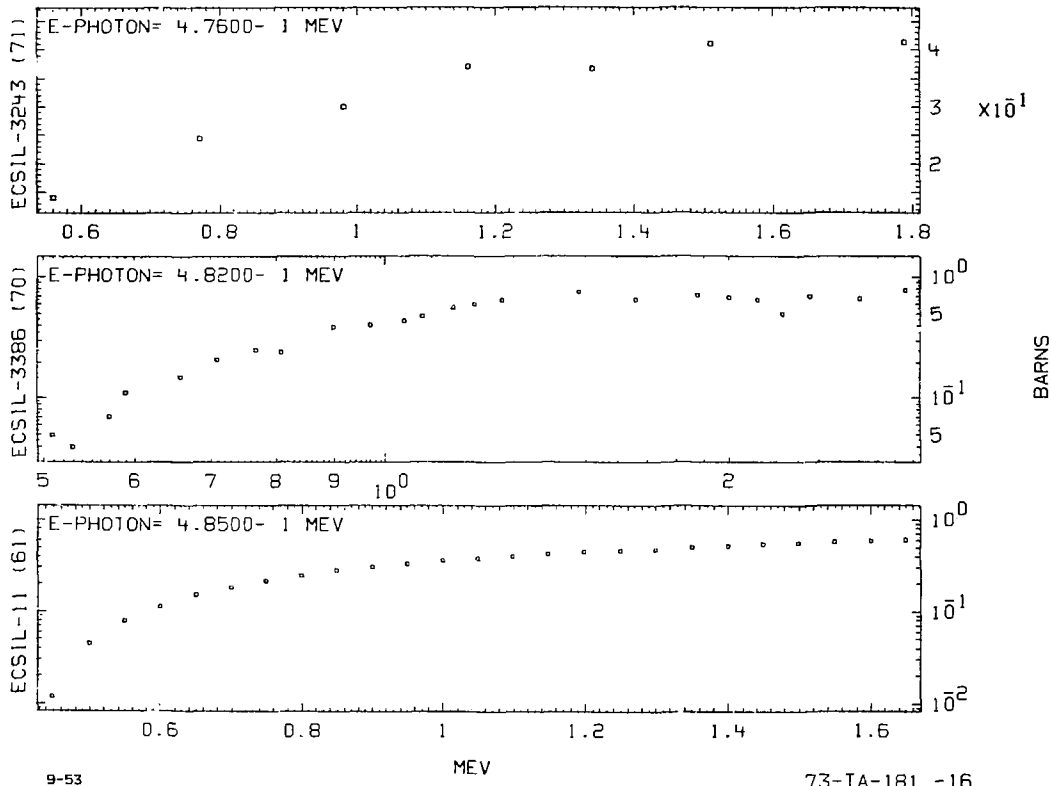
BARN



03/01/74

N, X GAMMA
CROSS SECTION

73-TA-181

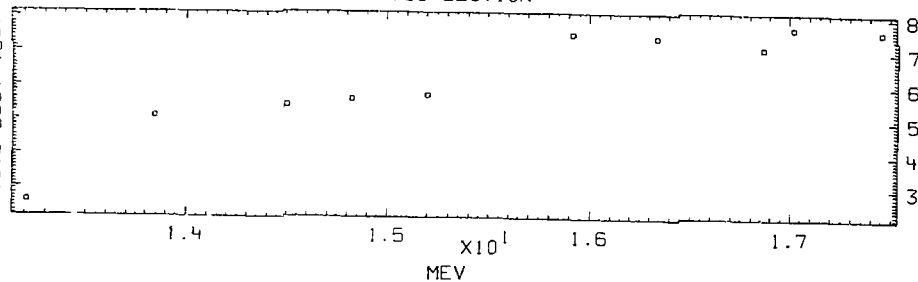


03/01/74

N,P
CROSS SECTION

73-TA-181

ECSIL-2887 (69)



03/01/74

NONELASTIC

73-TA-181

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
54	103	1.000+ 0	5.000- 2	2.200+ 0	8.0010- 1	56	151	7.000+ 0	2.000- 1	2.500+ 0	2.000- 1
56	151	2.500+ 0	4.000- 2	2.900+ 0	3.500- 1	57	162	1.400+ 1	1.000+ 0	2.000+ 0	4.000- 1

03/01/74

N,N'

73-TA-181

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
57	162	1.400+ 1	1.000+ 0	1.700- 1	3.000- 2
61	1652	7.000- 1	1.230+ 0	1.200- 1	1.3750- 1
61	1652	9.0100- 1	1.140+ 0	1.0000- 1	1.3700- 1
61	1652	9.0100- 1	4.9000- 1	9.0000- 2	3.0300- 1

03/01/74

N,2N
CROSS SECTION

73-TA-181

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 162	1.4000+ 1	9.6010- 1	1.8000+ 0	3.0000- 1
58 7	1.4100+ 1		2.6400+ 0	2.0000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
53 27	1.4500+ 1		0.6710- 1	2.2000- 1	9.0010+ 0
67 2402	1.4200+ 1	1.0000- 1	1.9300+ 0	2.1000- 1	8.1000+ 0
60 2188	1.4800+ 1		2.7400+ 0	3.0000- 2	8.1000+ 0

03/01/74

N,X GAMMA

73-TA-181

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV
56 140	2.5800+ 0	3.0000- 2	4.5200- 1	6.4000- 2	1.3700- 1	54 113	3.2000+ 0	2.0000- 1	1.2600+ 0	2.5200- 1	4.6000- 1
56 140	2.5800+ 0	3.0000- 2	2.4400- 1	3.7000- 2	1.6400- 1	50 140	2.5600+ 0	3.0000- 2	8.5500- 1	1.1000- 1	4.8500- 1
56 140	2.5800+ 0	3.0000- 2	1.3600- 1	4.2000- 2	3.5000- 1	54 113	3.2000+ 0	2.0000- 1	9.3000- 1	1.8600- 1	1.4400+ 0

03/01/74

N,P

73-TA-181

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 860	1.4500+ 1		3.2000- 3	

03/01/74

N,ALPHA

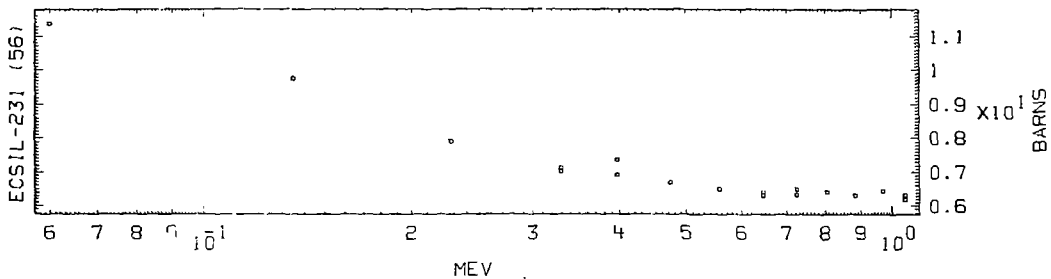
73-TA-181

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
63 860	1.4500+ 1		1.2000- 3		2.2000+ 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

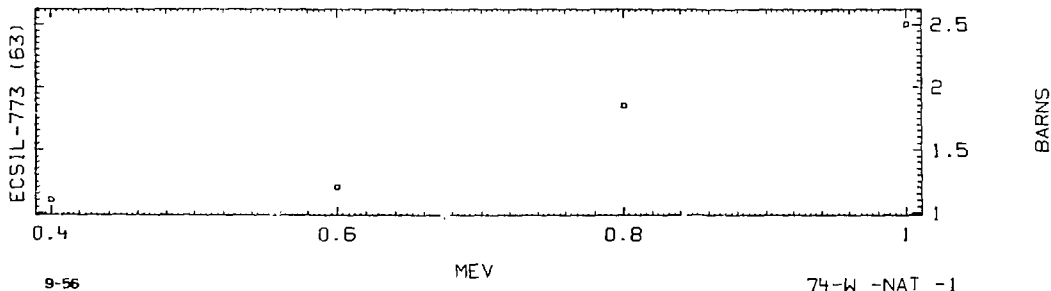
74-W -NAT



03/01/74

N,N'
CROSS SECTION

74-W -NAT



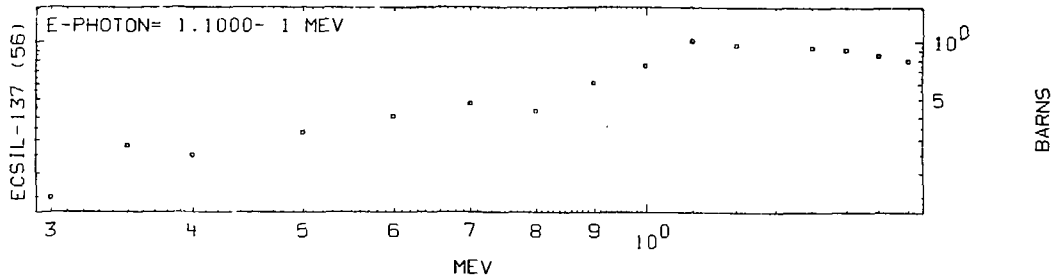
9-56

74-W -NAT -1

03/01/74

N,N'
CROSS SECTION

74-W -JIT



03/01/74

NONELASTIC

74-W -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55	353 2.9000+ 1		4.0000- 1	2.0000- 1	55	296 4.1000+ 0	4.0000- 2	2.4000+ 0	3.0000- 1
55	353 7.7000- 1		1.3000+ 0	4.0000- 1	55	122 4.5000+ 0	7.0010- 2	2.6000+ 0	2.0000- 1
56	151 1.0000+ 0	4.0000- 2	2.2500+ 0	3.0000- 1	56	151 7.0000+ 0	2.0000- 1	2.4500+ 0	2.0000- 1
55	353 1.0200+ 0		2.6000+ 0	8.0010- 1	55	790 1.4000+ 1		2.3500+ 0	1.4000- 1
53	253 1.5000+ 0		2.5000+ 0	1.0000+ 0	57	199 1.4100+ 1		2.3500+ 0	1.4000- 1
56	34 2.5000+ 0		2.6000+ 0	2.5000- 1	57	319 1.4200+ 1	1.5000- 1	2.4000+ 0	5.0000- 2
56	151 2.5000+ 0	4.0000- 2	2.6600+ 0	3.0000- 1	56	200 1.4500+ 1		2.4800+ 0	3.0000- 2
55	790 2.5000+ 0	1.5000+ 0	2.6000+ 0	2.5000- 1	67	1656 1.4600+ 1	5.0000- 2	2.5000+ 0	5.0000- 2
55	122 4.0000+ 0	7.0010- 2	2.6000+ 0	2.0000- 1					

03/01/74

N,N'

74-W -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 836	7.0000+ 0		2.5300+ 0	2.6000- 1

03/01/74

N,2N
CROSS SECTION

74-W -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
58 1821	1.4100+ 1		2.8000+ 0	2.1000- 1

03/01/74

ABSORPTION

74-W -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
60 897	2.5300- 8		1.8000+ 1	5.0000- 1	58 354	2.2000- 1	2.0000- 2	1.3300- 1	3.5000- 2
65 1364	2.4000- 2		3.0000- 1	2.5000- 2	58 364	8.3000- 1	4.0000- 2	4.0000- 2	3.3000- 2
58 354	2.5000- 2	4.0000- 3	4.2200- 1	2.6000- 2					

03/01/74

BOUND ATOM

74-W -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
51 1584	7.3000- 8		5.7000+ 0	

03/01/74

COHERENT SCATTERING

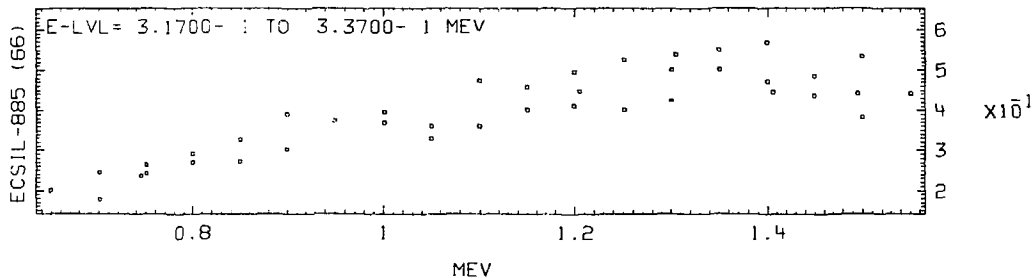
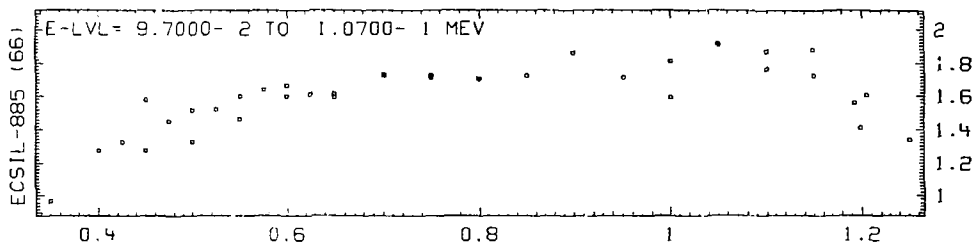
74-W -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
51 1584	7.3000- 8		3.3000+ 0	2.6400- 1

03/01/74

N,N'
CROSS SECTION

74-W -182



03/01/74

N,N'

74-W -182

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 885	3.4500×10^{-1}	1.0000×10^{-2}	7.7000×10^{-1}	2.0000×10^{-1}

03/01/74

N,2N
CROSS SECTION

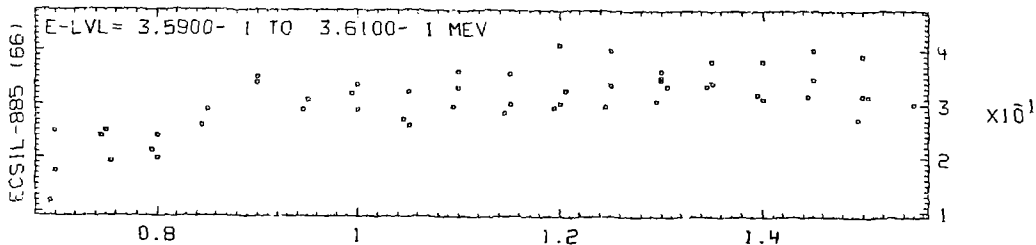
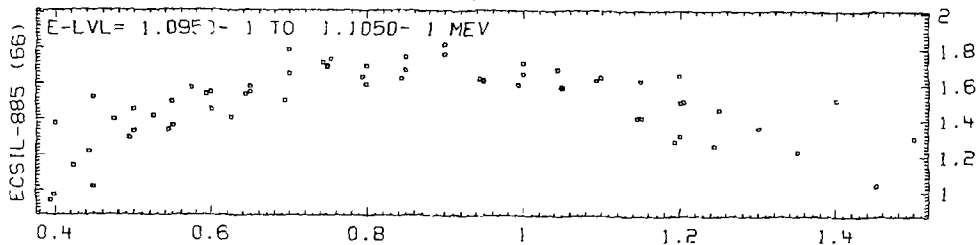
74-W -182

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 1718	1.4700 ± 1		2.1600 ± 0	1.2000 - 1
66 1882	1.4800 ± 1		2.3000 ± 0	2.0000 - 1

03/01/74

N,N'
CROSS SECTION

74-W -184



9-60

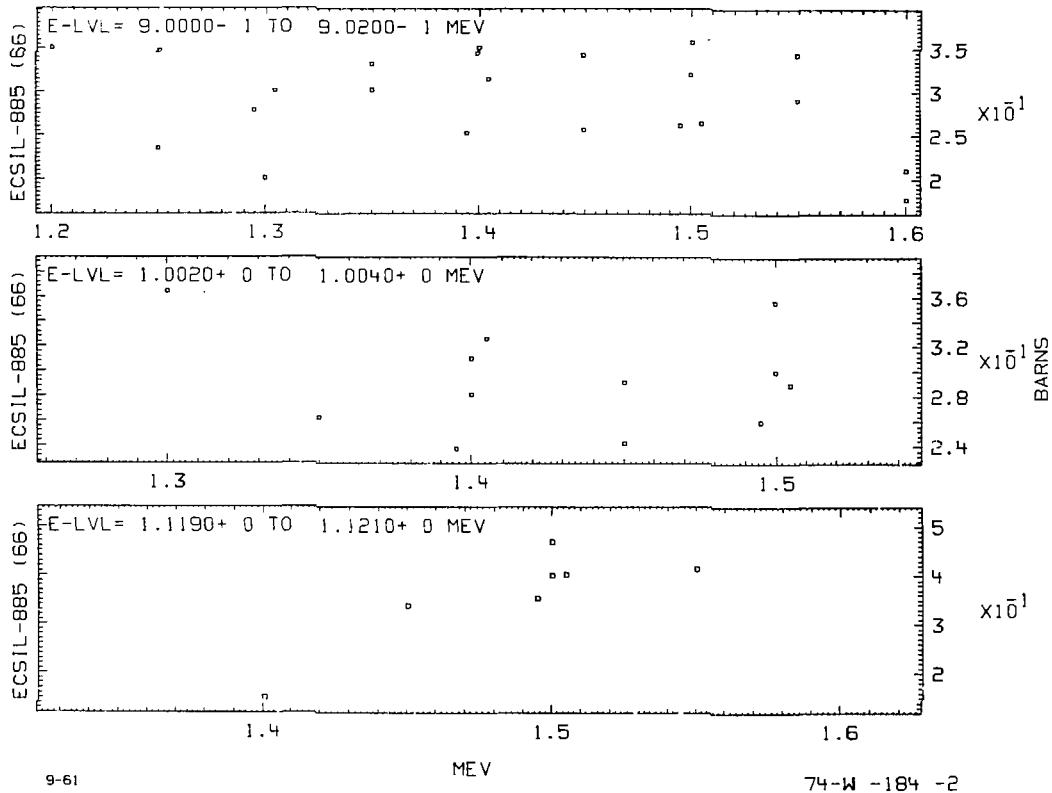
MEV

74-W -184 -1

03/01/74

N,N'
CROSS SECTION

74-W -184



9-61

MEV

74-W -184 -2

03/01/74

N,N'
CROSS SECTION

74-W -184

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 885	3.4500- 1	1.0000- 2	8.2000- 1	1.5000- 1

03/01/74

N,2N

74-W -184

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs SECONDS
66 1901	1.4800+ 1		7.9000- 1	9.0000- 2 5.1000+ 0

03/01/74

N,P

74-W -184

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 860	1.4500+ 1		4.9000- 3	
59 550	1.4500+ 1		4.8000- 3	1.0000- 3

03/01/74

N,D

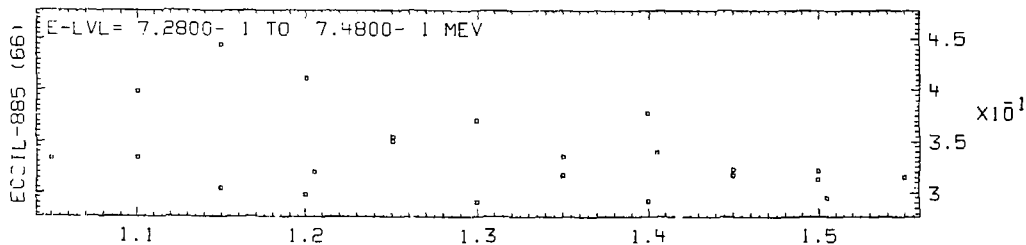
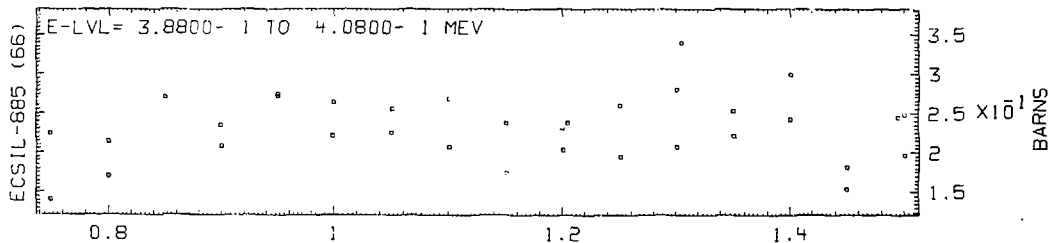
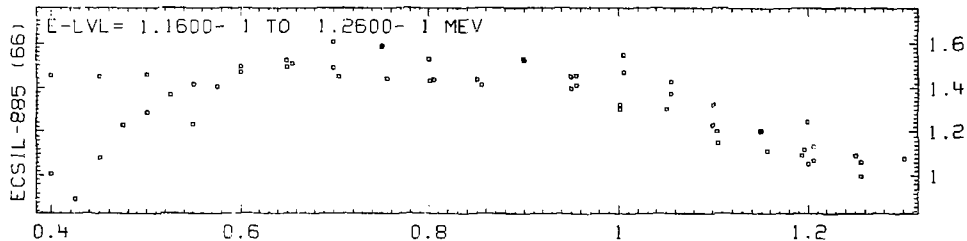
74-W -184

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 859	1.4800+ 1		1.8000- 3	

03/01/74

N,N'
CROSS SECTION

74-W -186



9-63

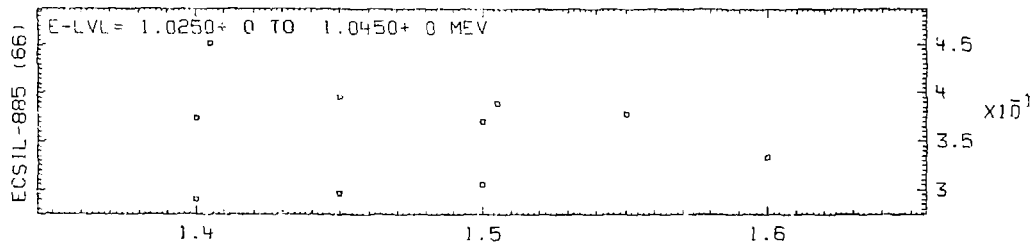
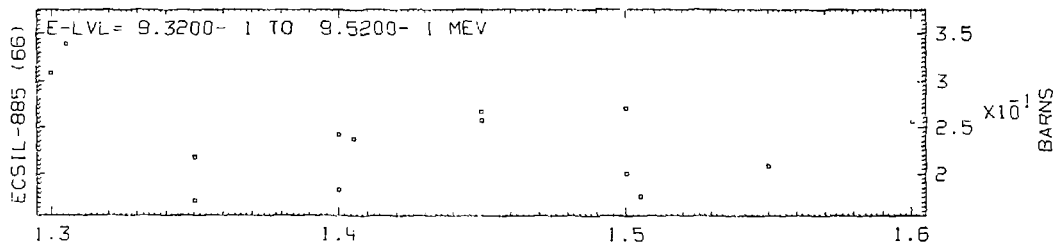
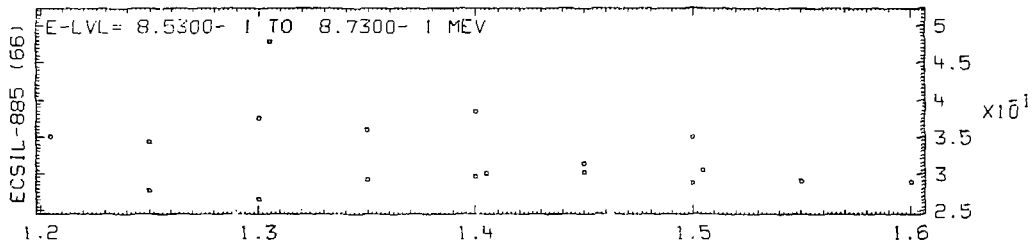
MEV

74-W -186 -1

03/01/74

N,N'
CROSS SECTION

74-W -186



9-64

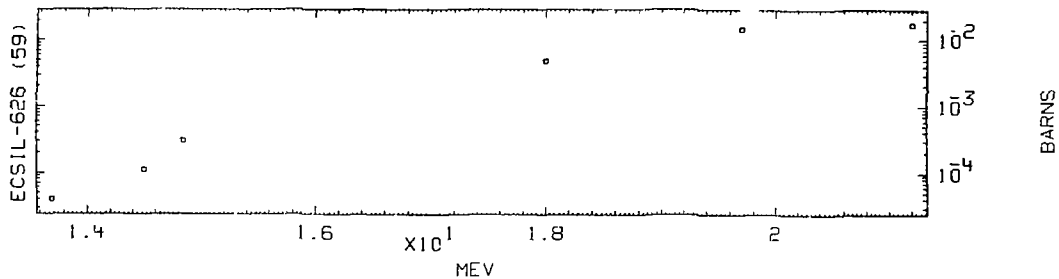
MEV

74-W -186 -2

03/01/74

N,N'P
CROSS SECTION

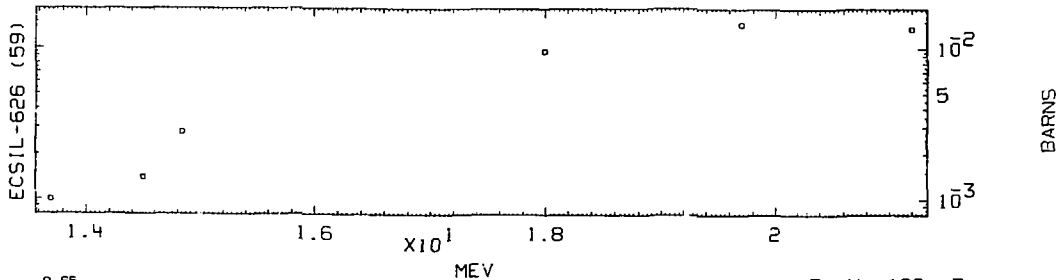
74-W -186



03/01/74

N,P
CROSS SECTION

74-W -186



9-65

74-W -186 -3

03/01/74

N,N^{*}
CROSS SECTION

74-W -186

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 885	3.5000- 1	2.0000- 2	6.0000- 1	2.0000- 1

03/01/74

N,2N

74-W -186

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1882	1.4200+ 1		2.2900+ 0	2.3000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
66 1901	1.4800+ 1		5.4000- 1	8.0000- 2	1.7000+ 0

03/01/74

N,P

74-W -186

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 850	1.4500+ 1		2.6000- 3	
59 550	1.4500+ 1		2.9000- 3	5.0010- 4

03/01/74

N,D

74-W -186

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 859	1.4800+ 1		2.0000- 3	

03/01/74

N, ALPHA

74-W -186

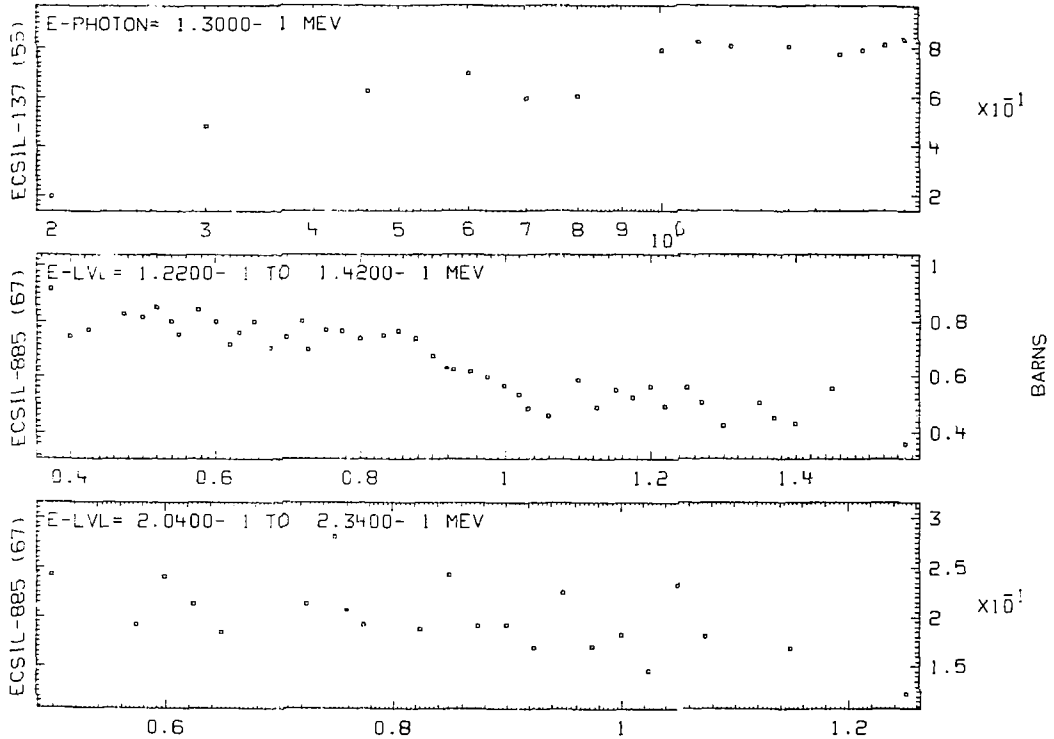
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 860	1.4500+ 1		8.5000- 4	

03/01/74

N,N'

75-RE-NAT

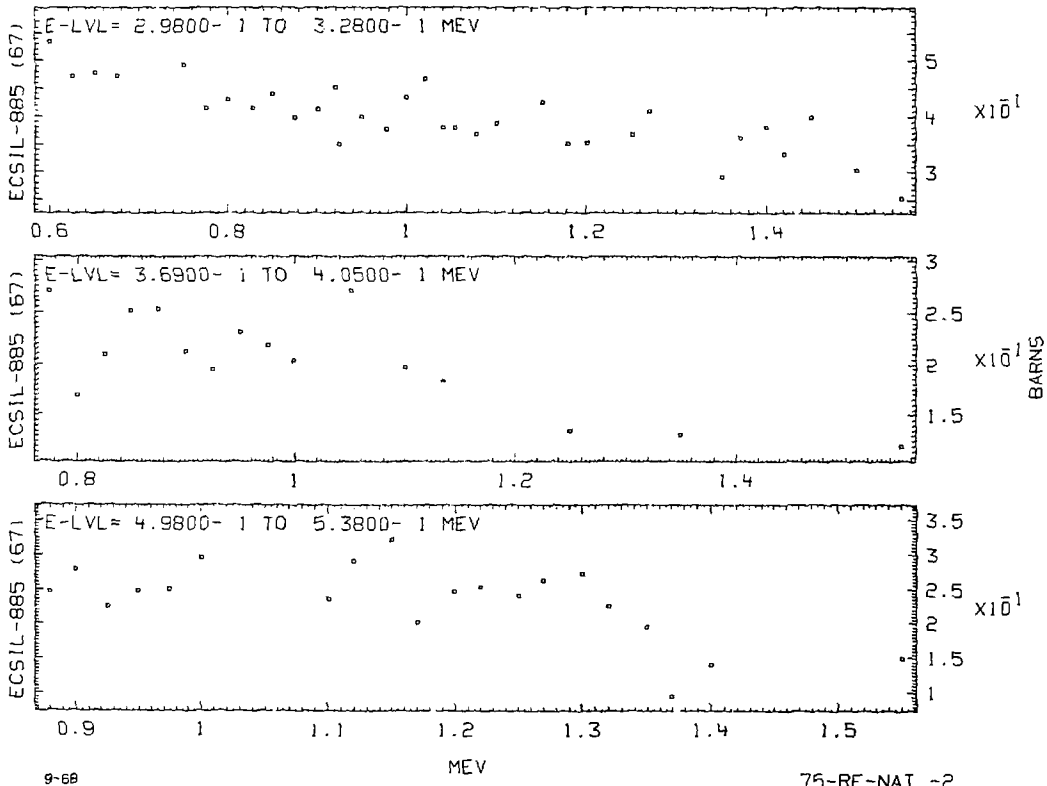
CROSS SECTION



03.01/74

N,N'
CROSS SECTION

75-RE-NAT



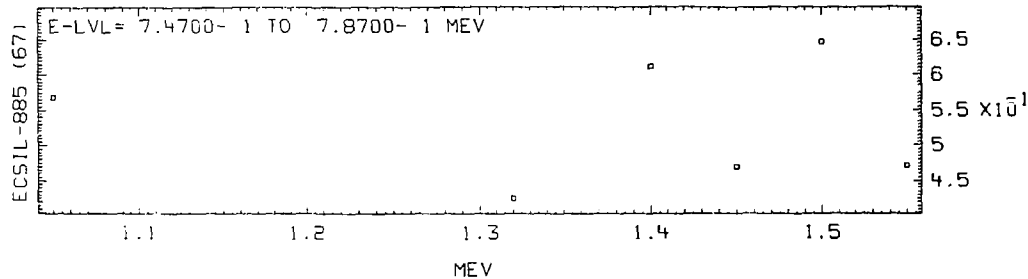
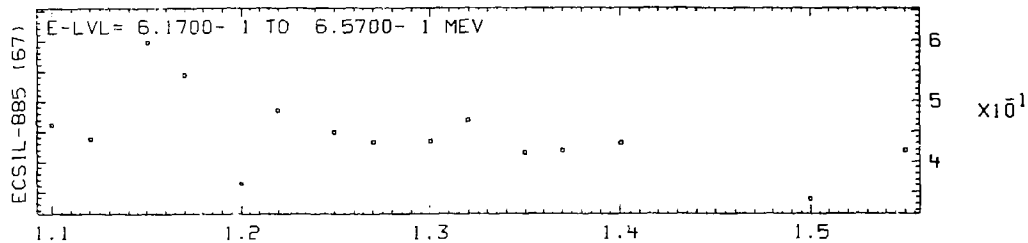
9-68

75-RE-NAT -2

03/01/74

N,N'
CROSS SECTION

75-RE-NAT



03/01/74

N,N'

75-RE-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
67 885	1.3500+	0 2.0000- 2	3.4900- 1	6.4300- 2	8.4000- 1	8.9000- 1
67 885	1.4500+	0 2.0000- 2	3.0400- 1	1.2400- 1	8.4000- 1	8.9000- 1
67 885	1.5500+	0 2.0000- 2	3.7800- 1	6.8900- 2	8.4000- 1	8.9000- 1
67 885	1.5000+	0 2.0000- 2	3.0300- 1	4.6100- 2	9.3800- 1	9.8800- 1
67 885	1.5230+	0 2.0000- 2	3.2200- 1	1.3600- 1	9.3800- 1	9.8800- 1
67 885	1.5000+	0 2.0000- 2	2.2800- 1	3.4200- 2	1.0350+ 0	1.0850+ 0

03/01/74

N,N'

75-RE-NAT

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	C-LVL-MIN MEV	E-LVL-MAX MEV
67 885	1.5500+ 0	2.0000- 2	3.2000- 1	5.6600- 2	1.0350+ 0	1.0850+ 0
67 885	1.5000+ 0	2.0000- 2	2.6300- 1	3.9500- 2	1.1100+ 0	1.1600+ 0
67 885	1.5500+ 0	2.0000- 2	3.7600- 1	7.8200- 2	1.1100+ 0	1.1600+ 0

03/01/74

N,2N

75-RE-185

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 769	1.4100+ 1	3.0000- 1	1.8000+ 0	6.0010- 1
67 2300	1.4800+ 1		1.4300+ 0	2.2000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
62 2329	1.4100+ 1		1.1200+ 0	4.0000- 1	2.2000+ 0
62 2329	1.4100+ 1		1.9100+ 0	6.0000- 1	5.0000+ 1
67 2300	1.4800+ 1		2.6000- 1	1.0000- 1	1.6500+ 2

03/01/74

N,2N

75-RE-187

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 2328	1.4100+ 1		1.4400+ 0	4.1000- 1	67 2300	1.4800+ 1		1.4800+ 0	1.6000- 1
62 769	1.4100+ 1	3.0000- 1	1.4400+ 0	4.1000- 1	61 703	1.4800+ 1	2.5000- 1	1.6750+ 0	1.6700- 1

03/01/74

N,P

75-RE-187

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		3.9000- 3	4.0000- 4

03/01/74

N, ALPHA
CROSS SECTION

75-RE-187

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		9.4010- 4	1.4000- 4

03/01/74

COHERENT SCATTERING

76-05-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- 8		1.4390+ 1	

03/01/74

N, P

76-05-188

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1777	1.4600+ 1	2.0000- 1	8.7000- 3	1.3050- 3
66 1675	1.4700+ 1		7.1000- 3	1.9000- 3

03/01/74

COHERENT SCATTERING

76-05-188

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- 8		7.6500+ 0	

03/01/74

COHERENT SCATTERING

76-05-189

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- 8		1.5210+ 1	

03/01/74

N, P

76-05-190

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1675	1.4700+ 1		2.0000- 3	5.0000- 4

03/01/74

N, ALPHA
CROSS SECTION

76-05-190

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
99 550	1.4500+ 1		5.7010- 4	9.0010- 5
65 1777	1.4600+ 1	2.0000- 1	4.7000- 4	5.6400- 5

03/01/74

COHERENT SCATTERING

76-05-190

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- P		1.6330+ 1	

03/01/74

N, 2N

76-05-192

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3362	1.4700- 1	1.5000- 1	2.1210+ 0	2.3500- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
70 3362	1.4700+ 1	1.5000- 1	8.3100- 1	1.1600- 1	1.3030+ 1

REFERENCE	ENERGY MEV	DELTA MLV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
70 3362	1.4700+ 1	1.5000- 1	1.2900+ 0	2.0500- 1	1.4400+ 1

03/01/74

COHERENT SCATTERING

76-05-192

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- B		1.7800+ 1	

03/01/74

COHERENT SCATTERING

77-1R-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2877	2.5300- B		1.4120+ 1	

03/01/74

N,N'
CROSS SECTION

77-IR-191

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2602	2.8000+ 0	7.0000- 2	5.1000- 1	6.6300- 2

03/01/74

N,2N

77-IR-191

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3340	1.4100+ 1		1.8300+ 0	2.1000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
61 703	1.4800+ 1	2.5000- 1	3.6700- 1	5.5010- 2	3.1000+ 0
70 3340	1.4100+ 1		1.4000- 1	2.0000- 2	3.2000+ 0

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE DAYS
68 1718	1.4700+ 1		1.7300+ 0	1.3500- 1	1.1000+ 1

03/01/74

N, ALPHA

77-IR-191

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		2.4000- 3	4.0000- 4

03/01/74

N,2N

77-IR-193

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3340	1.4100+ 1		1.9200+ 0	2.1000- 1

03/01/74

N,P

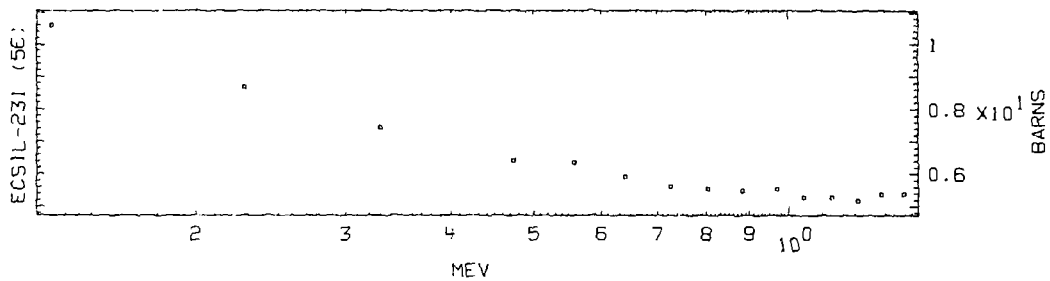
77-IR-193

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		2.7000- 3	5.0000- 4

03/01/74

TOTAL SCATTERING
CROSS SECTION

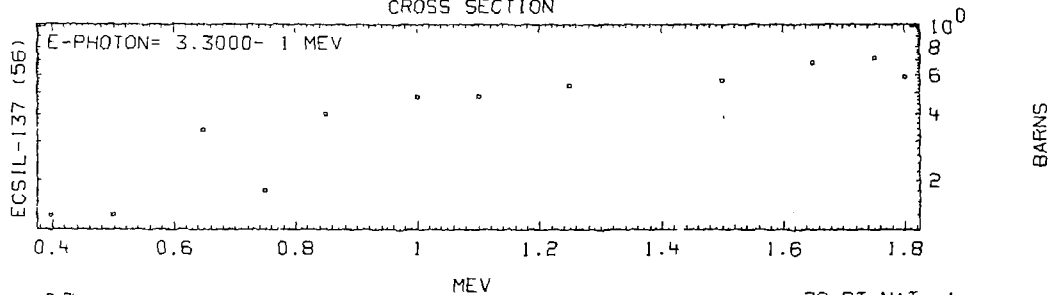
78-PT-NAT



03/01/74

N, N^*
CROSS SECTION

78-PT-NAT



9-74

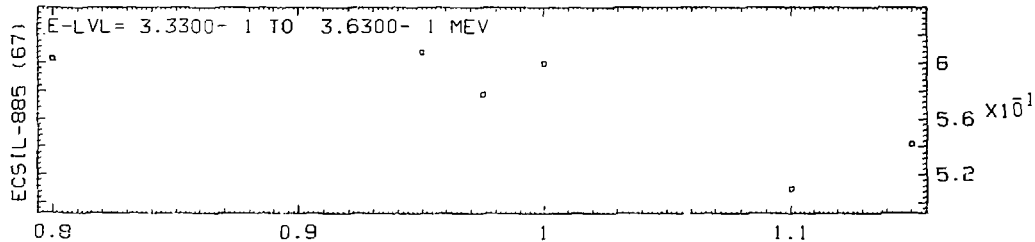
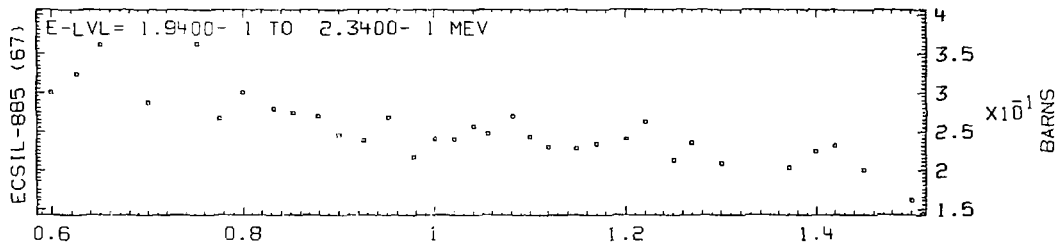
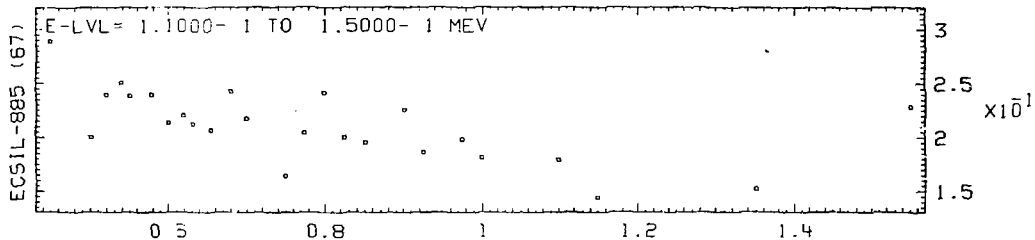
78-PT-NAT -1

03/01/74

N,N'

78-PT-NAT

CROSS SECTION



9-75

MEV

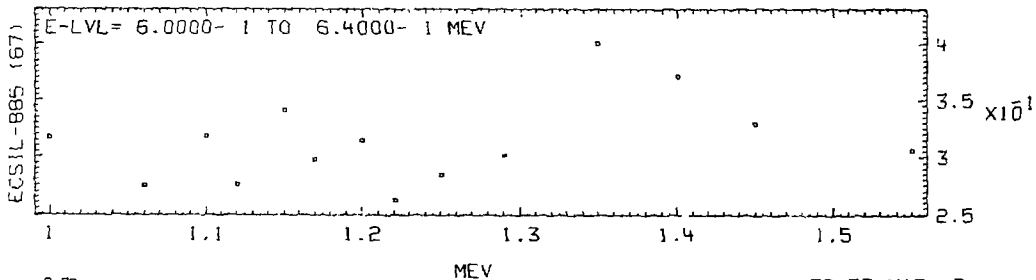
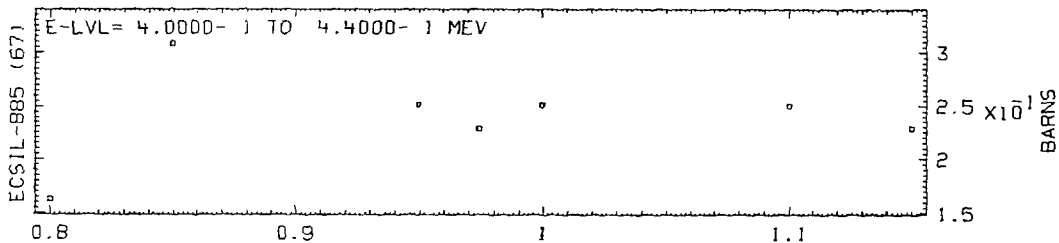
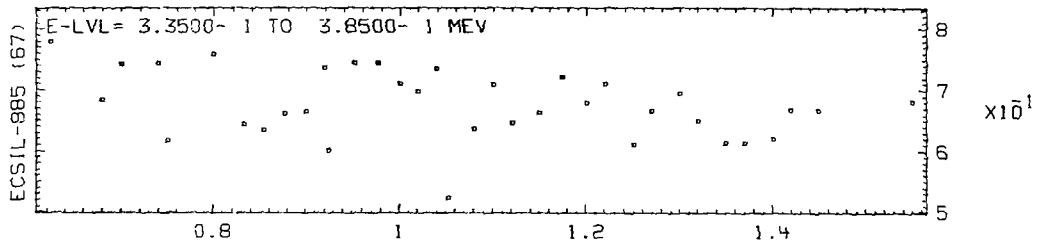
78-PT-NAT -2

03/01/74

N,N'

78-PT-NAT

CROSS SECTION



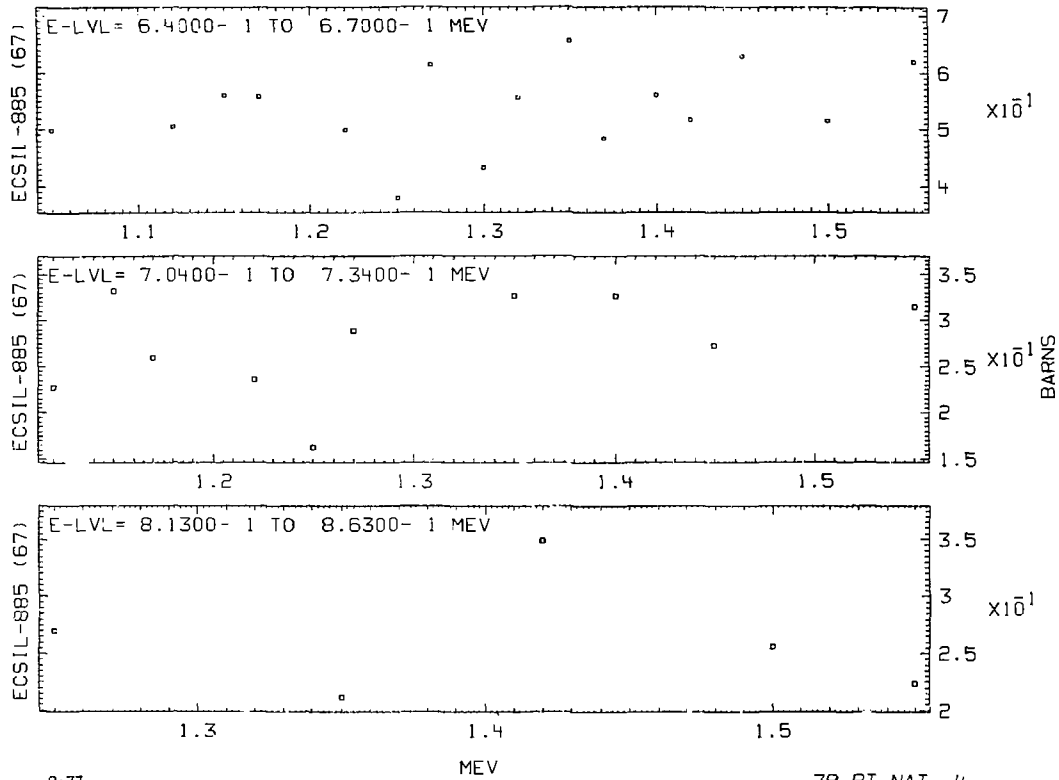
9-76

78-PT-NAT - 3

03/01/74

N,N'
CROSS SECTION

78-PT-NAT



9-77

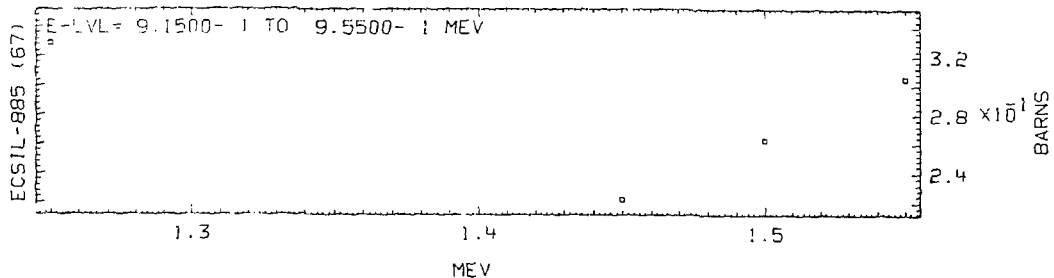
MEV

78-PT-NAT -4

03/01/74

N,N'
CROSS SECTION

78-PT-NAT



03/01/74

ABSORPTION

78-PT-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 087	2.5300- 8		9.5000+ 0 2.0000- 1	
58 1162	2.5300- 8		1.0000+ 1 2.0000- 1	

03/01/74

BOUND ATOM

78-PT-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 9		1.1200+ 1	

03/01/74

COHERENT SCATTERING

78-PT-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1584	7.3000- 8		1.1200+ 1 8.9500- 1	

03/01/74

N,P
CROSS SECTION

78-PT-194

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		3.9000- 3	4.0000- 4

03/01/74

N, ALPHA

78-PT-194

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		1.3000- 3	3.0000- 4

03/01/74

N,P

78-PT-195

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		2.9000- 3	3.0000- 4

03/01/74

N,P

78-PT-196

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1879	1.4000+ 1		1.6800- 3	2.5000- 4

03/01/74

N, ALPHA

78-PT-196

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		5.5010- 4	1.1000- 4

03/01/74

N, 2N

78-PT-198

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
70 3362	1.4700+ 1	1.5000- 1	1.9760+ 0	4.0500- 1

03/01/74

N,2N
CROSS SECTION

78-PT-198

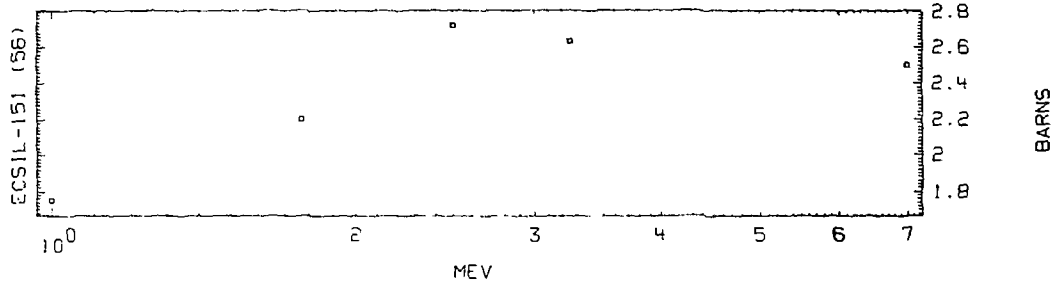
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE MINUTES
65 1067	1.4600 ± 1		1.1300 ± 0	1.1300 ± 1	8.8000 ± 1
70 3352	1.4700 ± 1	5000 ± 1	8.9400 ± 1	1.0100 ± 1	9.6000 ± 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE HOURS
53 27	1.4500 ± 1		2.7700 ± 0	1.9000 ± 0	1.8000 ± 1
65 1957	1.4600 ± 1		2.3000 ± 0	2.3000 ± 1	2.0000 ± 1

03/01/74

NONELASTIC
CROSS SECTION

79-AU-197



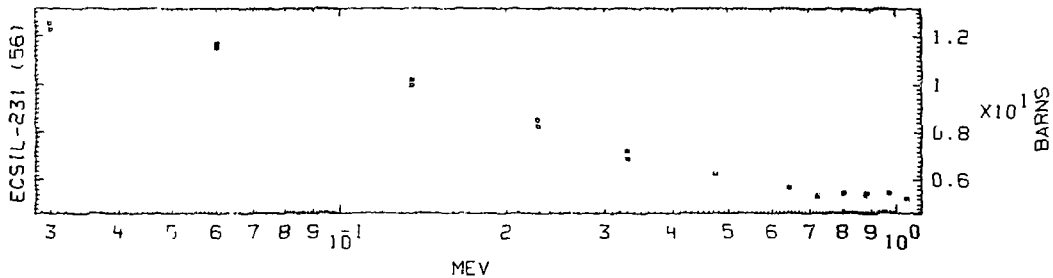
9-80

79-AU-197 -1

03/01/74

TOTAL SCATTERING
CROSS SECTION

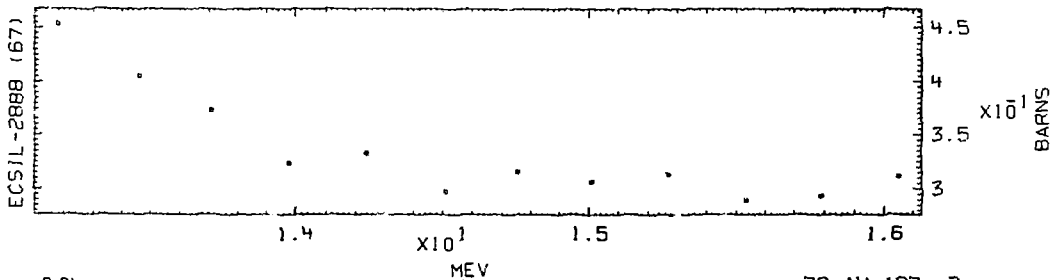
79-AU-197



03/01/74

N,N'
CROSS SECTION

79-AU-197



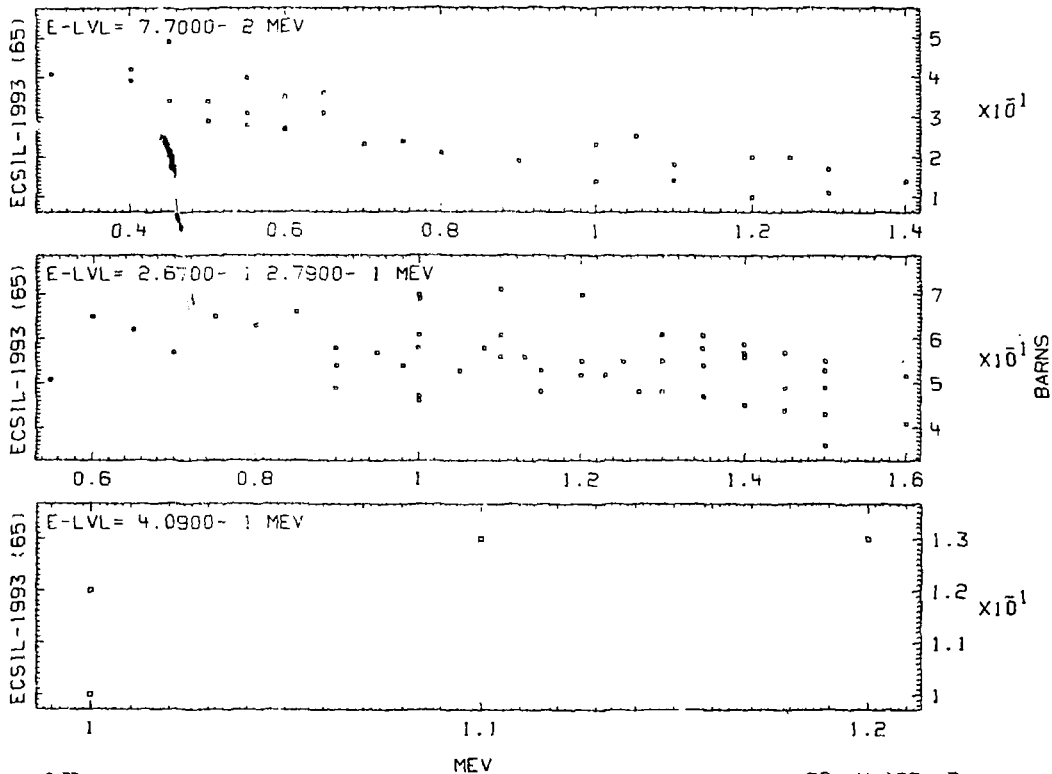
9-81

79-AU-197 -2

03/01/74

N,N'
CROSS SECTION

79-AU-197



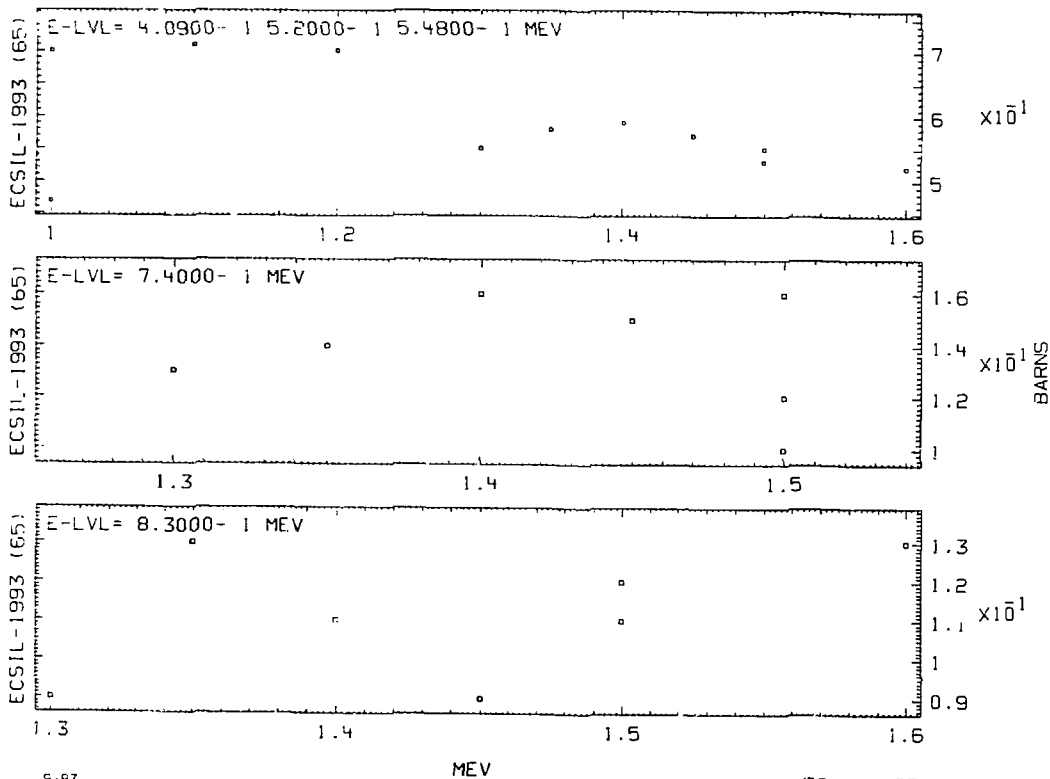
9-82

79-AU-197 -3

03/01/74

N,N'
CROSS SECTION

79-AU-197



C.07

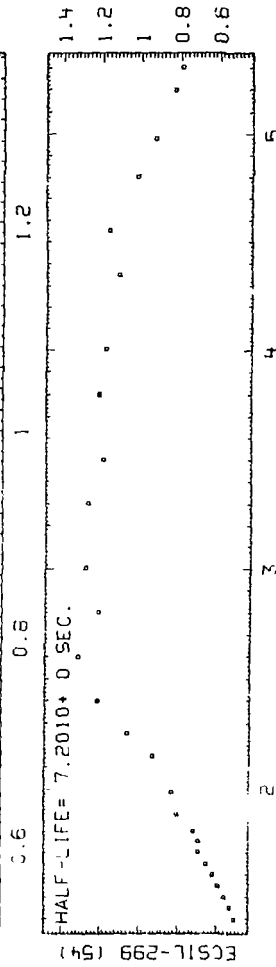
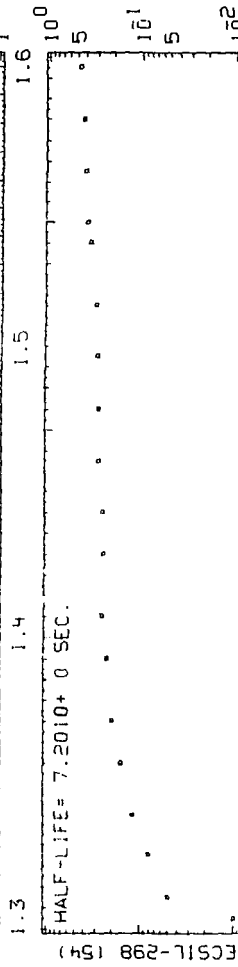
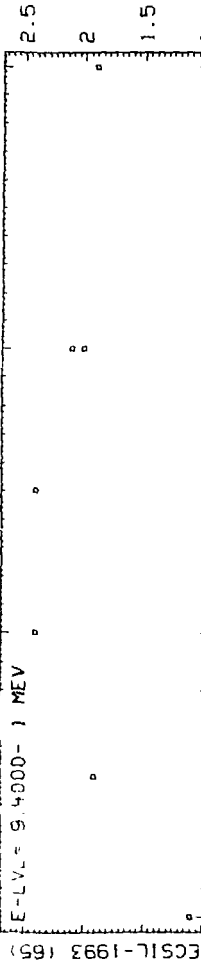
79-AU-197 -4

03/01/74

N,N'

79-AU-197

CROSS SECTION



BARNs

MEV

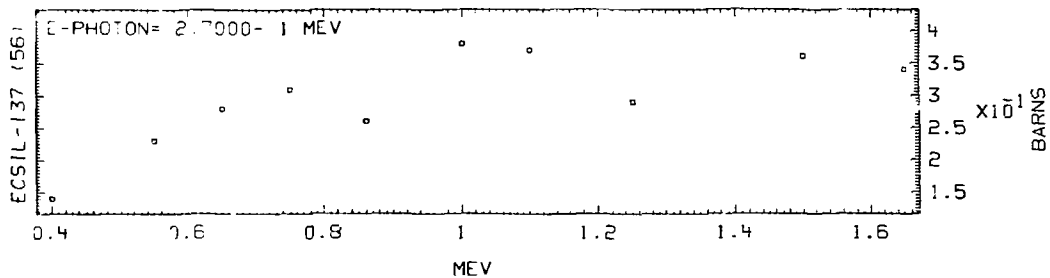
9-84

79-AU-197 -5

03/01/74

N,N'
CROSS SECTION

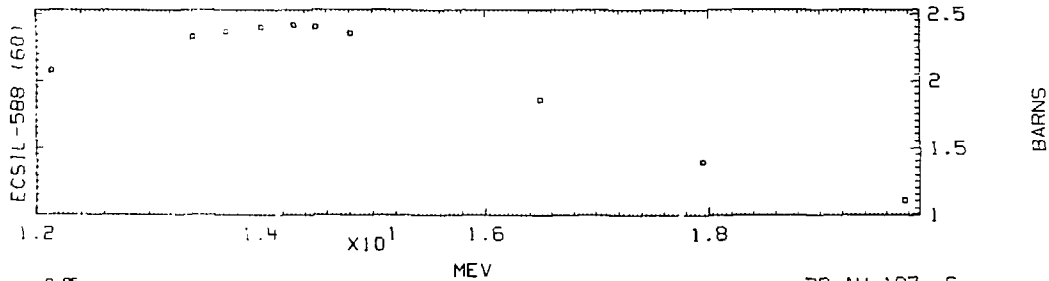
79-AU-197



03/01/74

N,2N
CROSS SECTION

79-AU-197



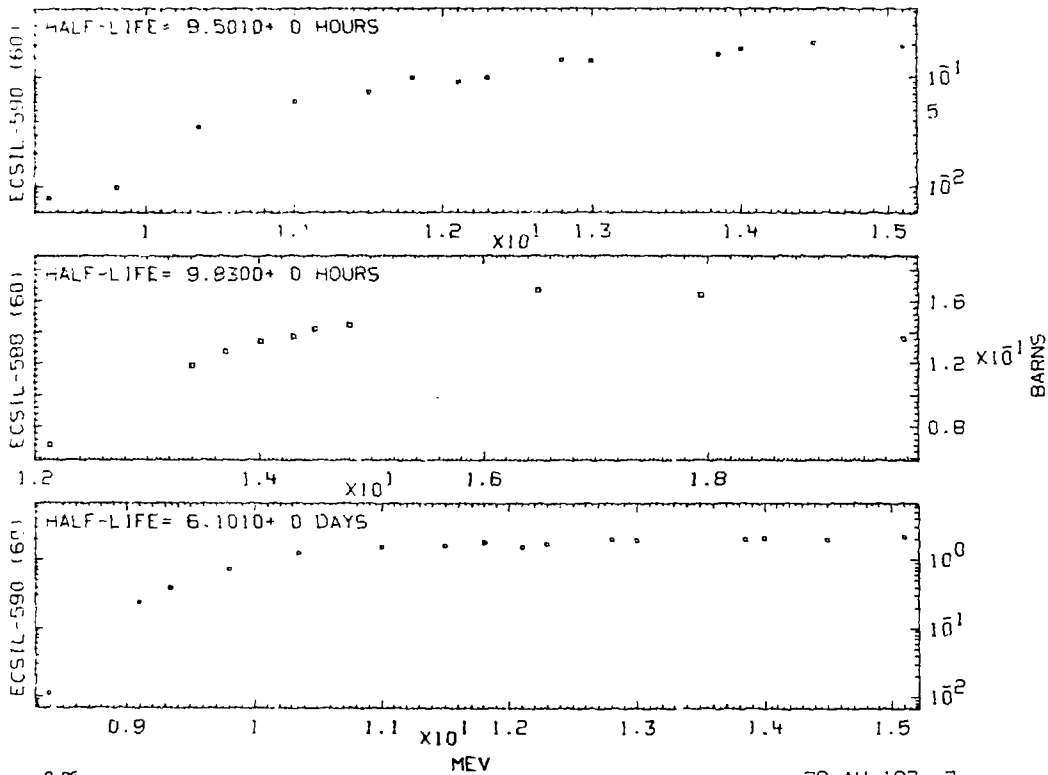
9-85

79-AU-197 -6

03/01/74

N.2N
CROSS SECTION

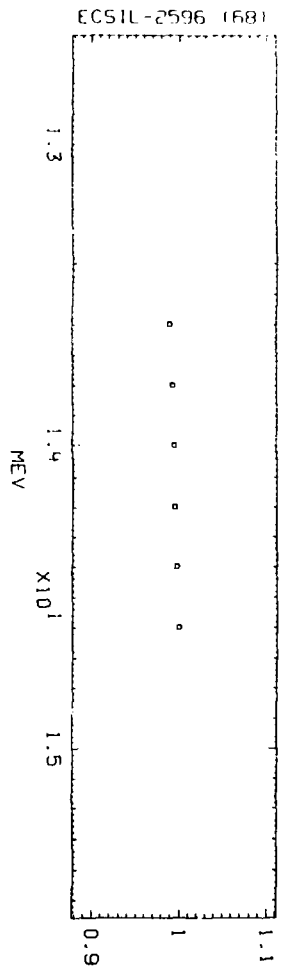
79-AU-197



03/01/76

CROSS SECTION
N,X,2N

79-AU-197

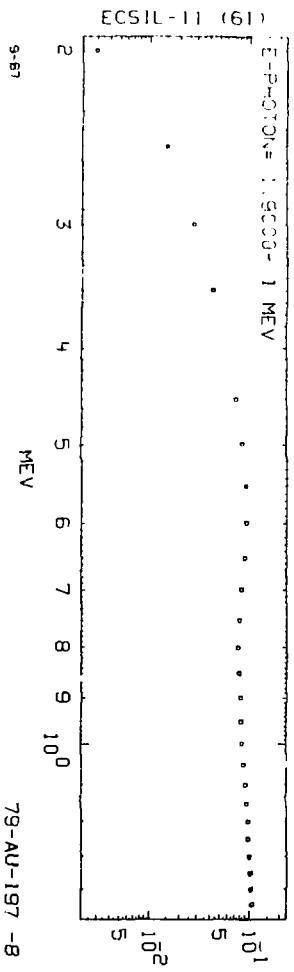


ECSIL-2596 (168)

03/01/76

N,X GAMMA
CROSS SECTION

79-AU-197



E-PROTON= 1.5000-1 MEV

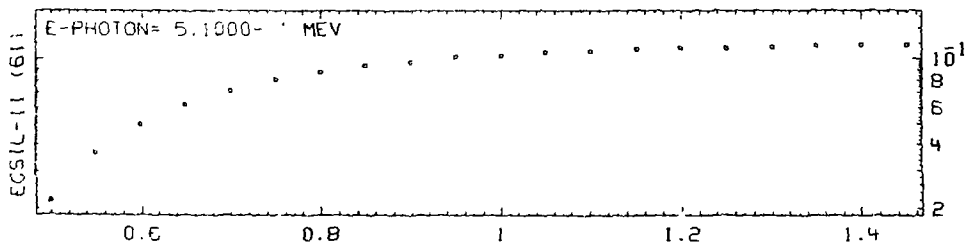
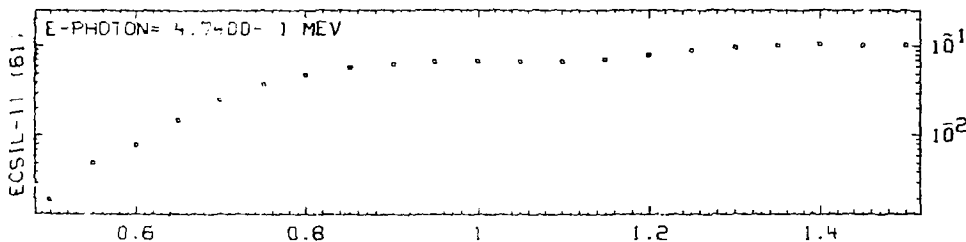
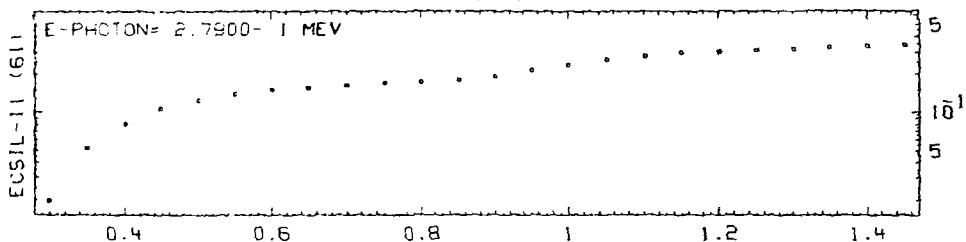
9-57

79-AU-197 -8

03/01/74

N, X GAMMA
CROSS SECTION

79-AU-197

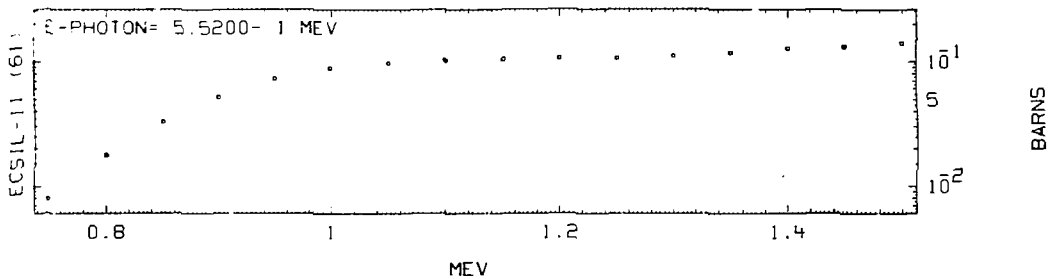


BARNS

03/01/74

N,X GAMMA
CROSS SECTION

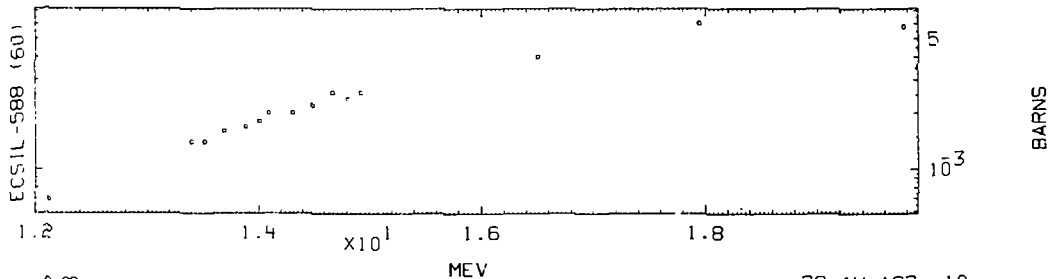
79-AU-197



03/01/74

N,P
CROSS SECTION

79-AU-197



9-89

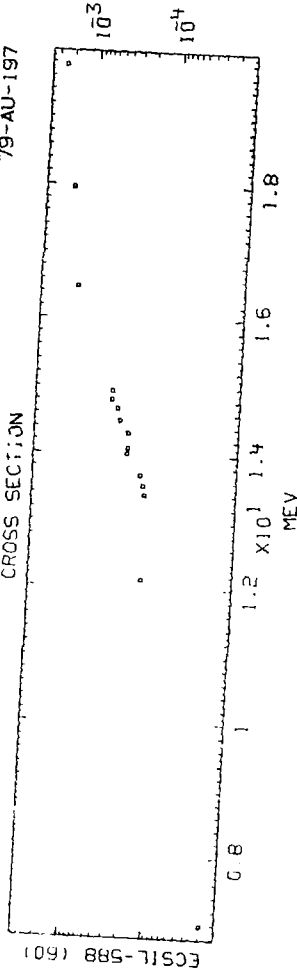
79-AU-197 -10

03/01/74

N, ALPHA
CROSS SECTION

79-AU-197

ECSTL-588 (60)



BARNs

03/01/74

NONELASTIC

79-AU-197

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56 145	5.0000	1.6000	2.9000	1.8000	55 117	1.4100	1	2.4400	2.0000
55 122	4.0000	0.7000	2.7500	1.5000	52 62	1.4150	1	2.5100	1.4000
55 295	3.0000	0.4000	2.7000	0.3000	57 319	1.4200	1	1.5000	1.4000
55 122	2.5000	0.7000	2.7000	0.1500					

03/01/74

N, N'

79-AU-197

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 836	4.0000	0	3.0500	0.3000	65 1993	1.5000	0	7.0000	2.5000
63 625	1.0000	0	2.3200	0.2400	65 1993	1.6000	0	1.2000	1.5000

9-90

79-AU-197 -11

03/01/74

N,N'
CROSS SECTION

79-AU-197

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE SECONDS
68 2836	1.5000+ 1	3.0000- 1	2.8000- 1	6.4000- 1	2.7000+ 0	27.2000+ 0
68 3368	1.4700+ 1	1.9000- 1	2.6500- 1	2.7000- 1	3.79400+ 0	

03/01/74

N,2N

79-AU-197

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	7.14100+ 1		2.6000+ 0	2.0000- 1	68 2596	1.4700+ 1	7.5000- 2	2.1500+ 0	1.0000- 1
68 2566	1.4400+ 1	3.0000- 1	1.5050+ 0	2.0000- 1	68 1718	1.4700+ 1		2.3260+ 0	1.0000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE HOURS
65 1957	1.4800+ 1		2.3000- 1	3.4500- 1	2.9.6000+ 0	
68 2847	1.4400+ 1	3.0000- 1	1.5100- 1	1.8000- 1	2.9.7000+ 0	
68 1718	1.4700+ 1		1.4800- 1	1.5000- 1	2.9.7000+ 0	

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE DAYS
53 27	1.4500+ 1		1.7220+ 0	4.6000- 1	5.5010+ 0	
65 1957	1.4800- 1		1.7200+ 0	1.7200- 1	6.1000+ 0	
68 2354	1.4600- 1	2.0000- 1	2.0700+ 0	2.0000- 1	6.2000+ 0	

03/01/74

ABSORPTION

79-AU-197

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 1995	2.5000- 8		9.8800+ 1	2.0000- 1	53 809	2.5300- 8		9.8700+ 1	6.0000- 1
62 265L	2.5300- 8		9.8900+ 1	3.0000- 1	60 891	2.5300- 8		9.8200+ 1	5.0000- 1
64 776	2.5300- 8		9.8600+ 1	2.0000- 1	54 873	2.5300- 8		9.6500+ 1	7.0000- 1
54 2651	2.5300- 8		9.8400+ 1	9.0000- 1	65 1364	2.4000- 2		5.7000- 1	3.0000- 2
58 1162	2.5300- 8		9.9360+ 1	1.5000+ 0					

9-9:

79-AU-97 -12

03/01/74

N,P
CROSS SECTION

79-AU-197

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNS	DELTA BARNS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNS	DELTA BARNS
60	590 1.1800+ 1	2.0000- 1	8.0010- 5	1.6000- 5	57	158 1.4100+ 1		2.0500- 2	8.0000- 3
60	590 1.2000+ 1	2.0000- 1	2.1000- 4	4.2000- 5	59	550 1.4500+ 1		2.4200- 3	2.4000- 4
60	590 1.3850+ 1	2.0000- 1	2.6000- 4	5.2010- 5					

03/01/74

N, ALPHA

79-AU-197

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNS	DELTA BARNS
59	550 1.4500+ 1		4.3000- 4	4.0000- 5

03/01/74

BOUND ATOM

79-AU-197

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNS	DELTA BARNS
51	1584 7.3000- 8		9.0000+ 0	

03/01/74

COHERENT SCATTERING

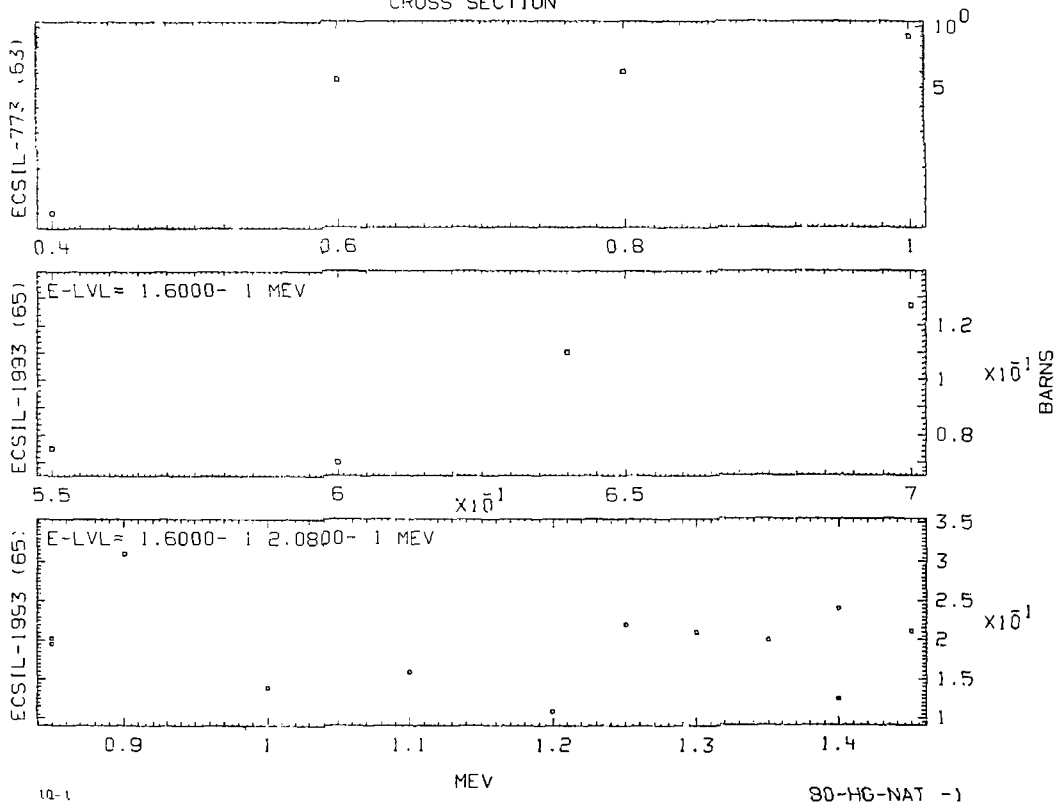
79-AU-197

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNS	DELTA BARNS
51	1584 7.3000- 8		7.5000+ 0	6.0000- 1

03/01/74

N,N'
CROSS SECTION

80-HG-NAT



10-1

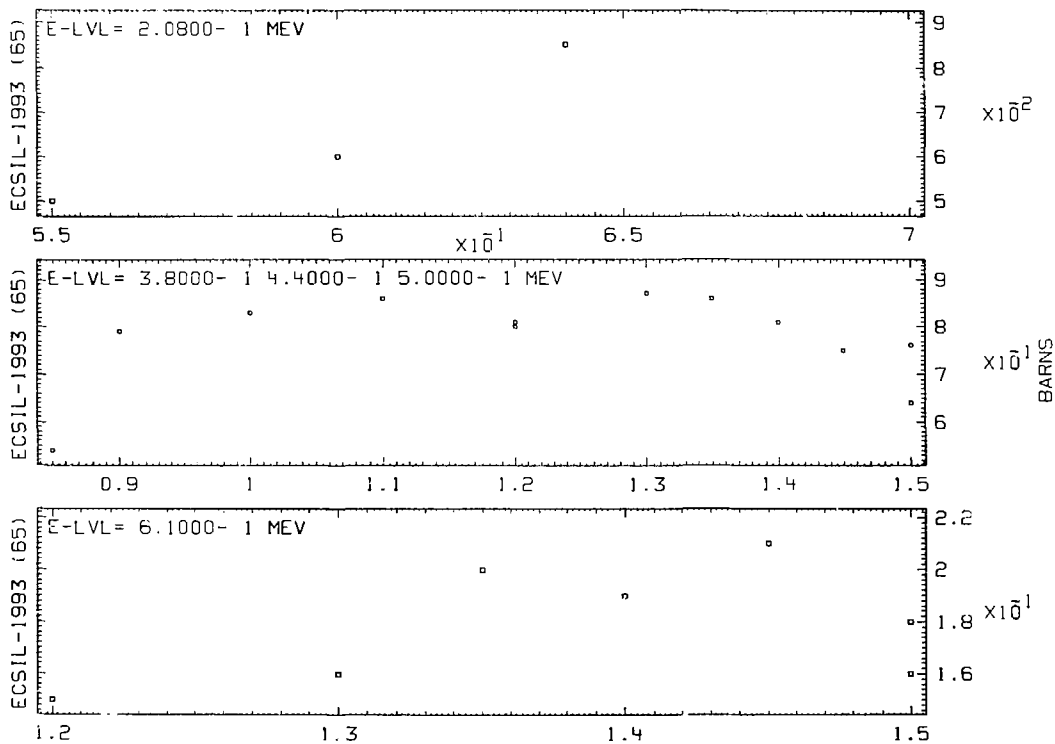
MEV

80-HG-NAT -1

03/01/74

N,N'
CROSS SECTION

80-HG-NAT



10-2

MEV

80-HG-NAT -2

03/01/74

NONELASTIC
CROSS SECTION

80-HG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	353 2.9000- 1		1.0000- 1	6.0010- 2	55	790 3.3000+ 0		2.9900+ 0	3.0000- 1
63	1750 6.5000- 1		7.0000- 1	1.5000- 1	60	576 4.1000+ 0	1.0000- 1	2.6000+ 0	4.0000- 1
56	353 7.7000- 1		0.0010- 1	2.0000- 1	55	790 4.1000+ 0		3.6000+ 0	3.0000- 1
54	103 1.0000+ 0	5.0000- 2	5.0010- 1	6.0010- 1	58	877 1.4000+ 1		2.4600+ 0	1.0000- 1
56	353 1.0200+ 0		1.5000+ 0	4.0000- 1	57	199 1.4100+ 1		2.0000+ 0	3.0000- 1
56	34 2.5000+ 0		2.5000+ 0	3.0000- 1	57	319 1.4200+ 1	1.5000- 1	2.4300+ 0	4.0000- 2
55	790 2.5000+ 0	1.5000- 1	2.5000+ 0	3.0000- 1	56	200 1.4500+ 1		2.6500+ 0	4.0000- 2

03/01/74

N,N'

80-HG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
63	773 4.0000- 1		1.2000- 1	2.0300- 2	2.0000- 1	63	773 6.0000- 1		4.2000- 1	4.0000- 2	4.0000- 1
63	773 6.0000- 1		1.5000- 1	2.0000- 2	2.0000- 1	63	773 1.0000+ 0		4.8000- 1	5.0000- 2	4.0000- 1
63	773 1.0000+ 0		1.5000- 1	2.0000- 2	2.0000- 1	63	773 1.0000+ 0		2.7000- 1	3.0000- 2	9.0000- 1
55	1993 9.5000- 1		2.5000- 1		3.8000- 1						

03/01/74

ABSORPTION

80-HG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60	891 2.5300- 8		3.7400+ 2	5.0000+ 0	58	364 2.2000- 1	2.0000- 2	1.0900- 1	1.1000- 2
65	1364 2.4000- 2		2.3300- 1	3.0000- 2	58	364 8.3000- 1	4.0000- 2	4.3000- 2	1.2000- 2
58	364 2.5000- 2	4.0000- 3	2.0200- 1	9.0000- 3					

03/01/74

COHERENT SCATTERING

80-HG-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51	962 3.7000- 9		1.8400+ 1	2.0000+ 0	51	962 2.4200- 8		2.2100+ 1	2.0000+ 0
51	962 1.1800- 8		2.4800+ 1	2.0000+ 0	63	2654 2.5300- 8		2.0200+ 1	

03/01/74

N,2N
CROSS SECTION

80-HG-196

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
69 2773	1.4100	1 5.0000	1 1.0600	0 7.0000	2
68 2647	1.4100	1 3.0000	1 1.4460	0 1.7400	1 4.0000

03/01/74

N,2N

80-HG-198

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2718	1.4700	1	2.3400	0 2.2000

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE HOURS
69 2773	1.4100	1 5.0000	1 9.0000	1 7.0000	2 2.4000
68 2647	1.4100	1 3.0000	1 0.8500	1 1.0600	1 2.4000
69 2773	1.4100	1 5.0000	1 9.4000	1 1.0000	1 6.5000

03/01/74

N,P

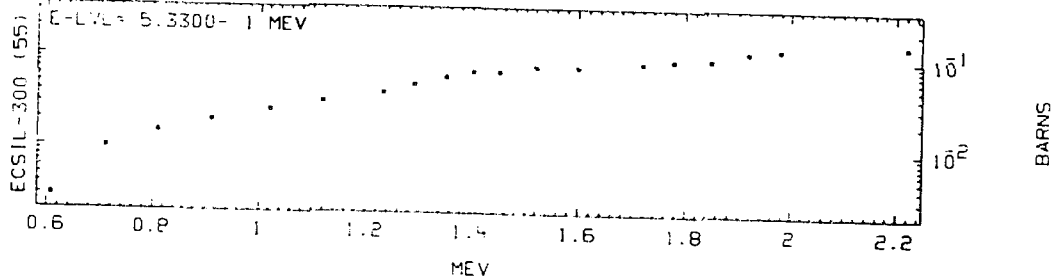
80-HG-198

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2773	1.4100	1 5.0000	1 4.7000	3 3.0000
68 2566	1.4100	1 3.0000	1 4.5000	3 7.0000

03/01/74

N,N'
CROSS SECTION

80-HG-199



03/01/74

N,N'

80-HG-199

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	DELTA HALF-LIFE MINUTES
55 300	5.7000 - 1	5.7000 - 4	2.0000 - 3	1.0000 - 4	
67 2692	2.6000 - 4	7.0000 - 2	9.5000 - 2	1.2350 - 2	4.4000* 1
68 2847	1.4400 - 1	3.0000 - 1	7.8900 - 1	1.2000 - 1	4.4000* 1

03/01/74

N,N'P

80-HG-199

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	DELTA HALF-LIFE MINUTES
69 2565	1.4400* 1	3.0000 - 1	4.0000 - 4	6.0000 - 5	

03/01/74

N,P

80-HG-199

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2773	1.4100+ 1	5.0000- 1	4.6000- 3	6.0000- 4

03/01/74

N,2N

80-HG-200

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	HALF-LIFE MINUTES
69 2773	1.4100+ 1	5.0000- 1	8.8000- 1	6.0000- 2	
68 29-7	1.4400+ 1	3.0000- 1	1.2800- 1	2.0000- 2	4.4000+ 1

03/01/74

N,P

80-HG-200

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 550	1.4500+ 1		3.6310 3	3.6000- 4

03/01/74

N, ALPHA

80-HG-200

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2773	1.4100+ 1	5.0000- 1	2.0000- 4	1.0000- 4
69 550	1.4500+ 1		1.7700- 3	3.5000- 4

03/01/74

N,P

80-HG-201

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2773	1.4100+ 1	5.0000- 1	1.5000- 3	7.0000- 4
69 550	1.4500+ 1		2.1000- 3	3.0000- 4

03/01/74

N, ALPHA
CROSS SECTION

80-HG-202

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
59 550	1.4500+ 1		1.0000- 3	1.0000- 4

03/01/74

N, 2N

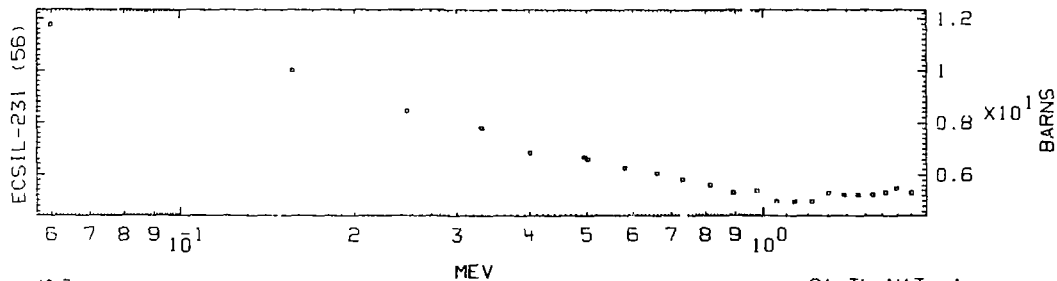
80-HG-204

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
69 2773	1.4100+ 1	5.0000- 1	2.0600- 0	1.9000- 1	68 1718	1.4700+ 1		2.3500+ 0	1.6000- 1
68 2566	1.4400+ 1	3.0000- 1	2.0770- 0	2.5000- 1	68 2836	1.5000+ 1	3.0000- 1	2.2300+ 0	3.0000- 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

81-TL-NAT



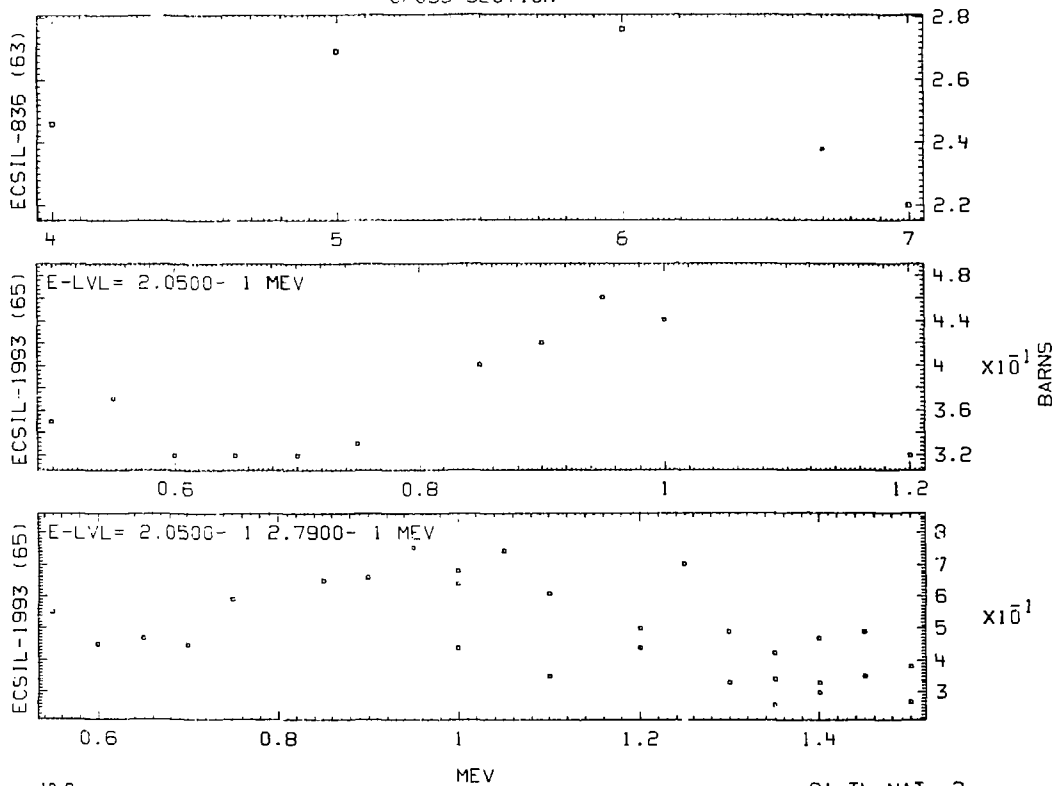
10-7

81-TL-NAT -1

03/01/74

N,N'
CROSS SECTION

81-TL-NAT



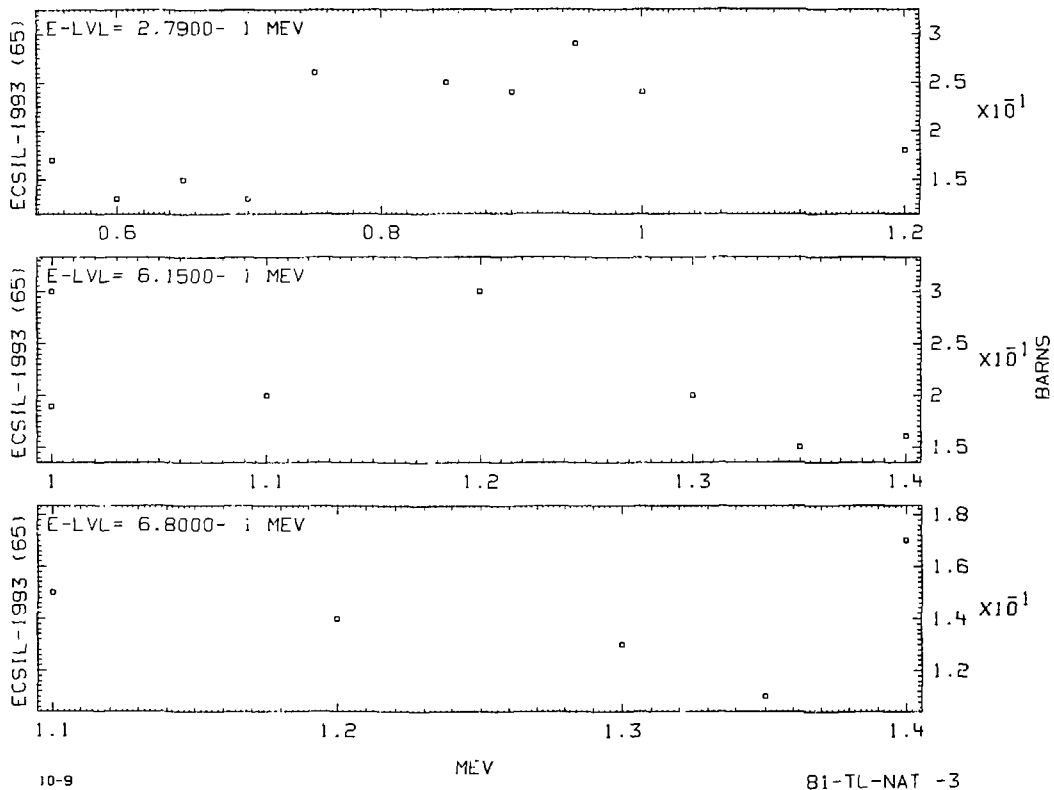
10-8

81-TL-NAT -2

03/01/74

N,N'
CROSS SECTION

81-TL-NAT



10-9

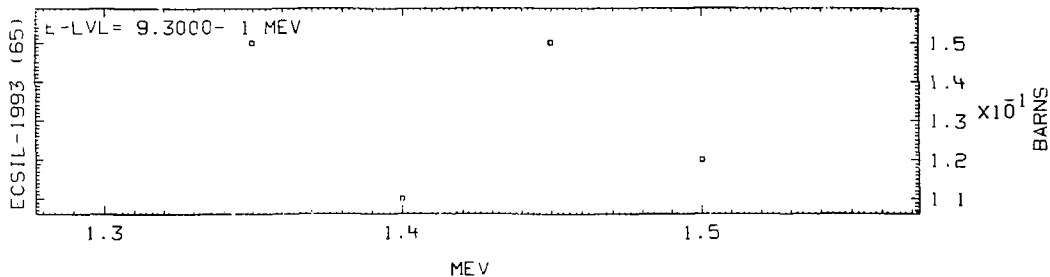
MEV

81-TL-NAT -3

03/01/74

N,N'
CROSS SECTION

81-TL-NAT



03/01/74

N,N'

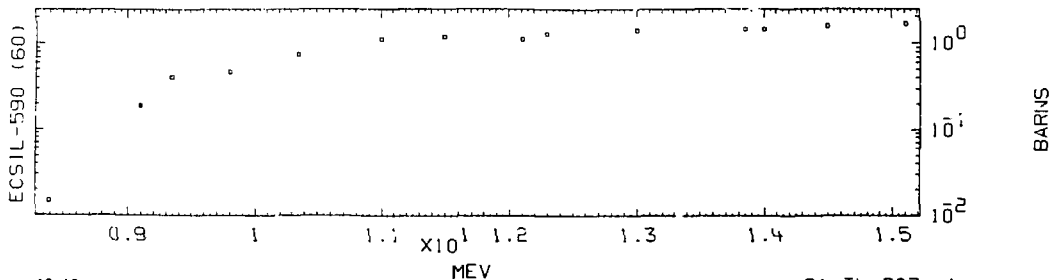
81-TL-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
65 1993	1.4500+ 0		1.1000- 1	1.0000- 1	1.0800+ 0
65 1993	1.5000+ 0		1.5000- 1	5.0000- 2	1.0800+ 0

03/01/74

N,2N
CROSS SECTION

81-TL-203



10-10

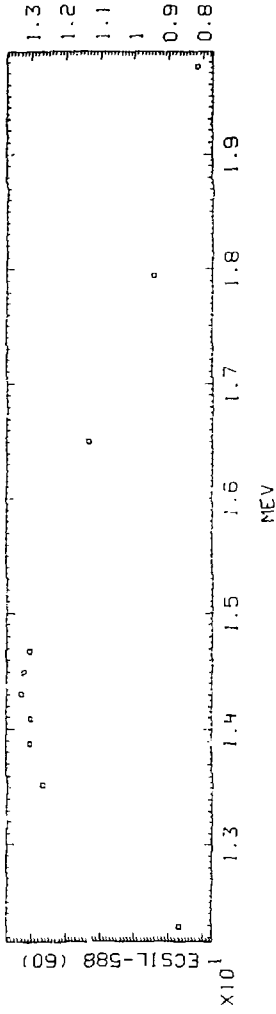
81-TL-203 -1

03/01/74

N,2N

81-TL-203

CROSS SECTION



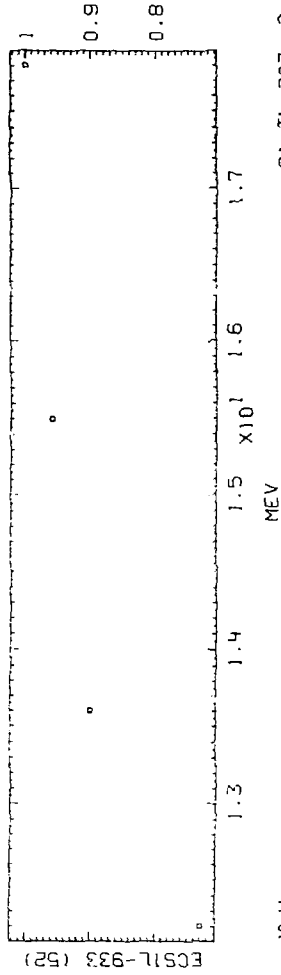
BARNS

03/01/74

N,2N

81-TL-203

CROSS SECTION



RELATIVE

10-11

MEV

81-TL-203 -2

03/01/74

N, 2N
CROSS SECTION

81-TL-203

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2566	1.4400+ 1	3.0000- 1	1.7940+ 0	2.1400- 1
68 1718	1.4700+ 1		2.1850+ 0	1.2000- 1
68 2836	1.5000+ 1	2.0000- 1	1.6800+ 0	2.1000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE SECONDS
67 3356	1.4100+ 1	1.5000- 1	4.5000- 1	6.0000- 2	6.0800- 6

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA HALF-LIFE BARNs	DELTA HALF-LIFE DAYS
67 3356	1.4100+ 1	1.5000- 1	8.8000- 1	1.2000- 1	1.2400+ 1

03/01/74

N, 3N

81-TL-203

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 588	1.6500+ 1	3.0000- 1	2.5000- 2	
60 588	1.7950+ 1	3.2000- 1	1.2400- 1	1.2000- 2
60 588	1.9760+ 1	4.3000- 1	2.8000- 1	2.8000- 2

03/01/74

N, ALPHA

81-TL-203

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2566	1.4400+ 1	3.0000- 1	2.3000- 3	5.0000- 4
59 550	1.4500+ 1		3.7000- 4	4.0000- 5

03/01/74

N, 2N

81-TL-205

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
64 1968	1.4800+ 1	2.0000- 1	1.8900+ 0	1.3930- 1

03/01/74

N,P
CROSS SECTION

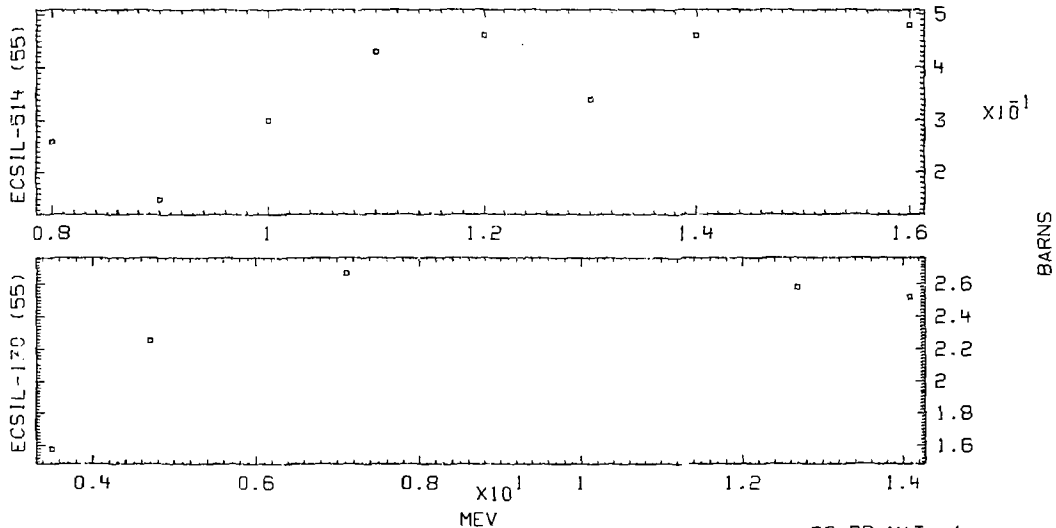
81-TL-205

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
68 2366	1.4400+ 1	3.0000- 1	6.2000- 5	1.2000- 5
59 550	1.4500+ 1		6.8010- 3	7.0010- 4
53 27	1.4500+ 1		3.0500- 3	1.5000- 3

03/01/74

NONELASTIC
CROSS SECTION

82-PB-NAT



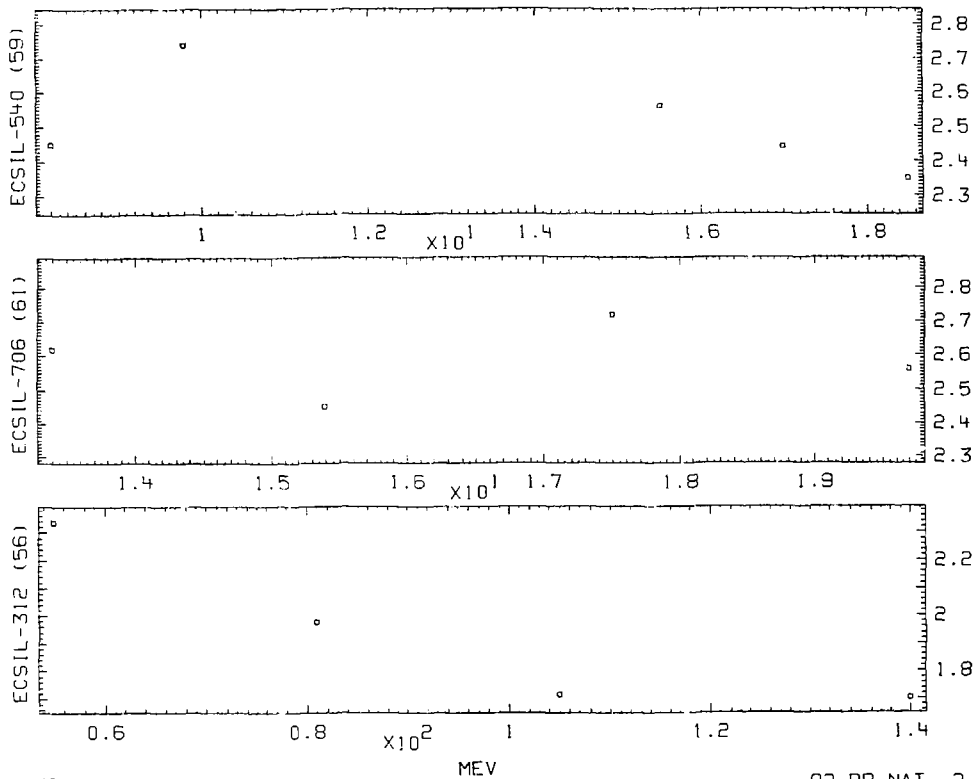
10-13

82-PB-NAT -1

03/01/74

NONELASTIC
CROSS SECTION

82-PB-NAT



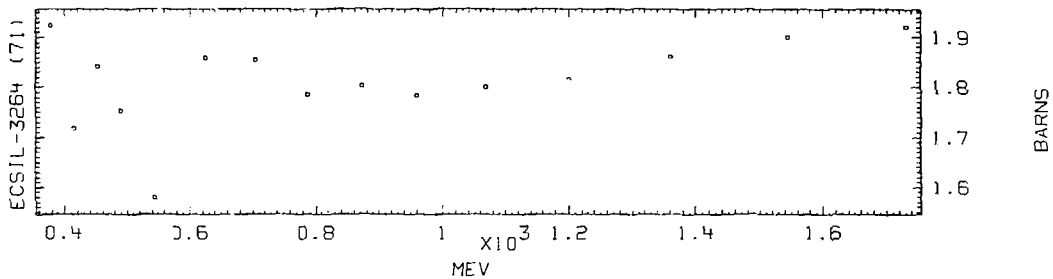
10-14

82-PB-NAT -2

03/01/74

NONELASTIC
CROSS SECTION

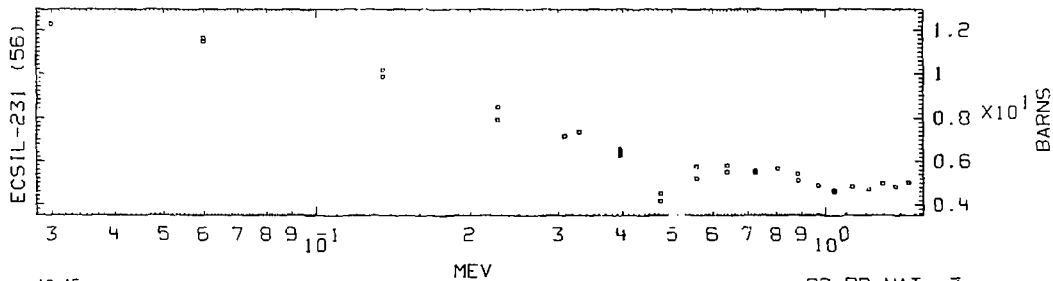
82-PB-NAT



03/01/74

TOTAL SCATTERING
CROSS SECTION

82-PB-NAT



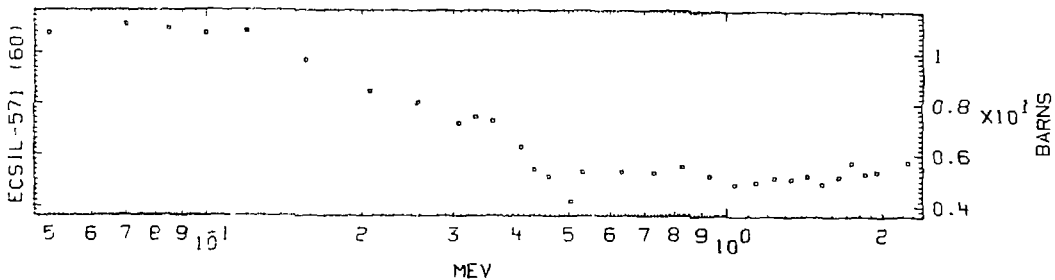
10-15

82-PB-NAT -3

03/01/74

TOTAL SCATTERING
CROSS SECTION

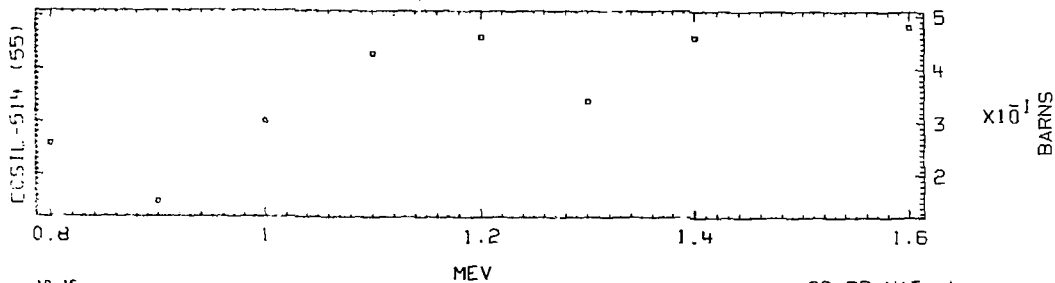
82-PB-NAT



03/01/74

N,N'
CROSS SECTION

82-PB-NAT



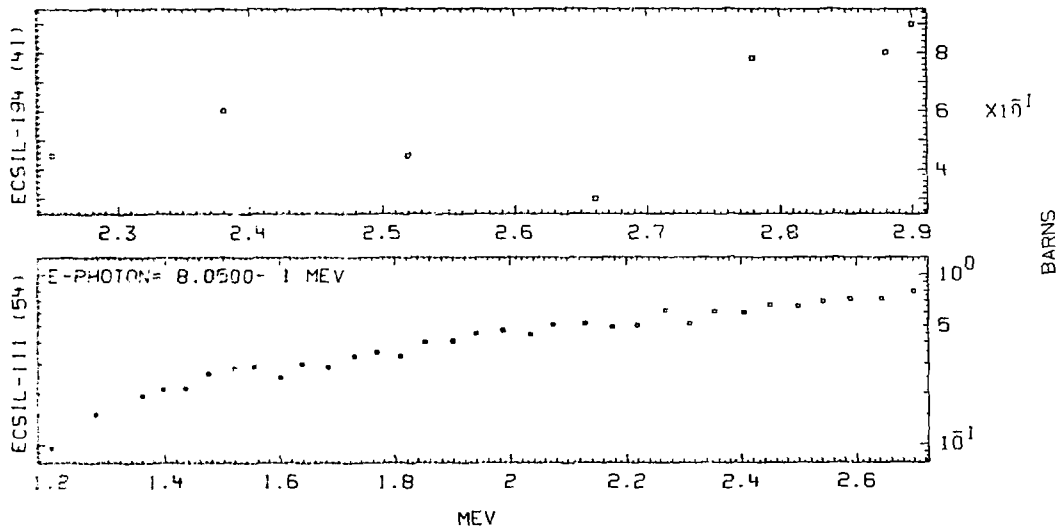
10-16

82-PB-NAT -4

03/01/74

N,X GAMMA
CROSS SECTION

82-PB-NAT



03/01/74

NONELASTIC

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	Y-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs		
55	122	1.0000+0	1.6000-1	2.1000-1	3.0000-2	56	1970	2.1000+0	5.0000-2	8.3000-1	
56	353	1.0200+0		2.0000-1	1.10000-1	56	34	2.5000+0		1.7000+0	3.00000-1
56	164	1.2000+0		4.0000-1	1.10000-1	55	790	2.5000+0	1.5000-1	1.6900+0	3.2000-1
56	164	1.6000+0		6.0010-1	1.10000-1	55	122	4.0000+0	1.5000-1	1.8600+0	1.10000-1
55	1970	1.7400+0	5.0000-2	6.5000-1		55	296	4.1000+0	4.0000-2	1.9000+0	3.0000-1
56	164	2.0000+0		1.0000+0	2.00000-1	55	790	4.1000+0		1.7200+0	3.00000-1

10-17

82-PB-NAT -5

03/01/74

NONELASTIC
CROSS SECTION

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55	122 4.5000+ 0	7.0010- 2	2.0200+ 0	1.4000- 1	57	319 1.4200+ 1	1.5000- 1	2.5600+ 0	3.0000- 2
56	151 7.0000+ 0	2.0000- 1	2.3800+ 0	1.5000- 1	56	200 1.4500+ 1		2.5400+ 0	5.0000- 2
65	1228 8.1000+ 0		2.2800+ 0	8.0000- 2	67	1656 1.4800+ 1	1.0000- 1	2.5000+ 0	5.0000- 2
56	21 1.0000+ 1		2.5800+ 0		58	356 2.1000+ 1		2.4400+ 0	1.0000- 1
63	766 1.3980+ 1	5.0000- 2	2.5300+ 0	5.0000- 2	58	356 2.5500+ 1		2.5600+ 0	1.0000- 1
55	790 1.4000+ 1		2.4200+ 0	9.0010- 2	58	356 2.9200+ 1		2.6000+ 0	1.0000- 1
58	877 1.4000+ 1		2.4600+ 0	1.0000- 1	55	2056 1.4000+ 3	2.0000+ 2	1.7300+ 0	8.6500- 2
55	117 1.4100+ 1		2.4900+ 0	2.0000- 2	61	1566 5.0000+ 3	4.0000+ 2	1.6700+ 0	7.9000- 2
57	82 1.4150+ 1	5.0000- 2	2.5600- 1	5.0000- 2					

03/01/74

TOTAL SCATTERING

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	879 9.8000- 1	5.0000- 2	4.3200+ 0	1.2900- 1
56	21 1.0000+ 1		4.6000+ 0	

03/01/74

NEUTRON NONEL. EMISS.

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61	883 1.4000+ 1		1.8000+ 0	3.0000- 1

03/01/74

N,2N

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	609 1.4000+ 1		2.3000+ 0	1.9000- 1
58	7 1.4100+ 1		2.7400+ 0	2.0000- 1
63	1701 1.4500+ 1		1.8000+ 0	2.0000- 1

03/01/74

ABSORPTION
CROSS SECTION

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
61 2569	2.5300- 8		1.7200- 1	1.9000- 2	58 364	2.5000- 2	4.0000- 3	1.3000- 2	3.0000- 3
58 1162	2.5300- 8		1.6900- 1	2.0000- 3	58 364	2.2000- 1	2.0000- 2	6.0000- 3	4.0000- 3
65 1364	2.4000- 2		4.3000- 2	7.0000- 3					

03/01/74

N, X GAMMA

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	
E3 1723	1.4100+ 1		6.0000- 1	3.2000+ 0							
53 294	1.4200+ 1		2.0000- 1	4.2000+ 0							
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	
54 113	3.2000+ 0	2.0000- 1	5.2000- 1	1.0400- 1	3.5000- 1	54 113	3.2000+ 0	2.0000- 1	2.5000- 1	5.0000- 2	1.4000+ 0
54 113	3.2000+ 0	2.0000- 1	1.0200+ 0	2.0400- 1	5.2000- 1	56 140	2.5600+ 0	3.0000- 2	3.2000- 2	1.6000- 2	1.4300+ 0
56 140	2.5600+ 0	3.0000- 2	1.4300- 1	2.6000- 2	5.3700- 1	56 140	2.5600+ 0	3.0000- 2	2.6400- 1	2.6000- 2	1.6150+ 0
56 140	2.5600+ 0	3.0000- 2	2.1500- 1	3.8000- 2	5.7000- 1	66 1839	1.4000+ 1		4.0800- 1	7.8000- 2	1.7000+ 0
56 140	2.5600+ 0	3.0000- 2	2.69000- 2	2.1000- 2	6.6200- 1	56 140	2.5600+ 0	3.0000- 2	4.8000- 2	2.1000- 2	1.7700+ 0
54 113	3.2000+ 0	2.0000- 1	1.0500+ 0	2.1000- 1	8.0000- 1	66 1839	1.4000+ 1		2.9700- 1	5.6000- 2	2.1400+ 0
66 1839	1.4000+ 1		7.2100- 1	9.4000- 2	8.0000- 1	54 113	3.2000+ 0	2.0000- 1	1.6000- 1	3.2000- 2	2.2000+ 0
56 140	2.5600+ 0	3.0000- 2	3.4400- 1	3.7000- 2	8.0300- 1	66 1839	1.4000+ 1		5.9800- 1	7.7000- 2	2.5000+ 0
56 140	2.5600+ 0	3.0000- 2	1.4300- 1	2.1000- 2	8.9400- 1	66 1839	1.4000+ 1		1.5000- 2	3.7000- 3	3.6000+ 0
56 140	2.5600+ 0	3.0000- 2	4.2700- 1	5.3000- 2	9.0400- 1	53 294	1.4200+ 1	2.0000- 1	4.8000- 2		4.4000+ 0
66 1839	1.4000+ 1		1.0250+ 0	1.2300+ 1	1.0600+ 0	66 1839	1.4000+ 1		1.2000- 2	6.2000- 3	5.5000+ 0
54 113	3.2000+ 0	2.0000- 1	1.8000- 1	3.6000- 2	1.1000+ 0	53 294	1.4200+ 1	2.0000- 1	1.7000- 2		5.5000+ 0
66 1839	1.4000+ 1		2.8500- 1	6.5000- 2	1.2700 0						

03/01/74

BOUND ATOM

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
52 2657	2.5300- 8		1.1200+ 1	5.0000- 1
51 1584	7.3000- 8		1.1600+ 1	

03/01/74

FREE ATOM
CROSS SECTION

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1759	9.4200- 6		1.0580+ 1	3.0000- 2

03/01/74

COHERENT SCATTERING

82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 1564	7.3000- 8		1.1500+ 1	3.2000- 1

03/01/74

INCOHERENT SCATTER.

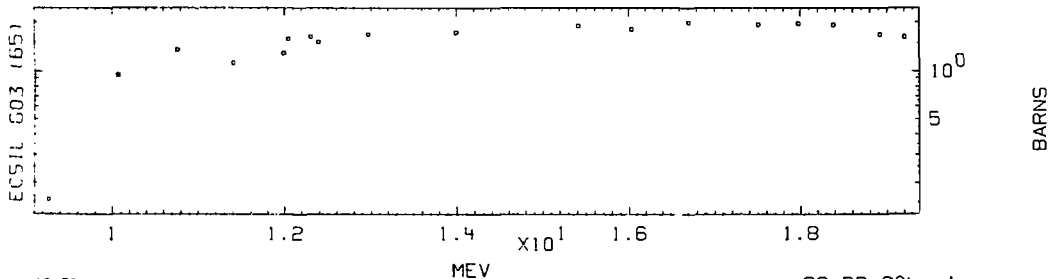
82-PB-NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66 1759	9.4200- 6		1.5000- 2	1.5000- 2

03/01/74

N,2N
CROSS SECTION

82-PB-204



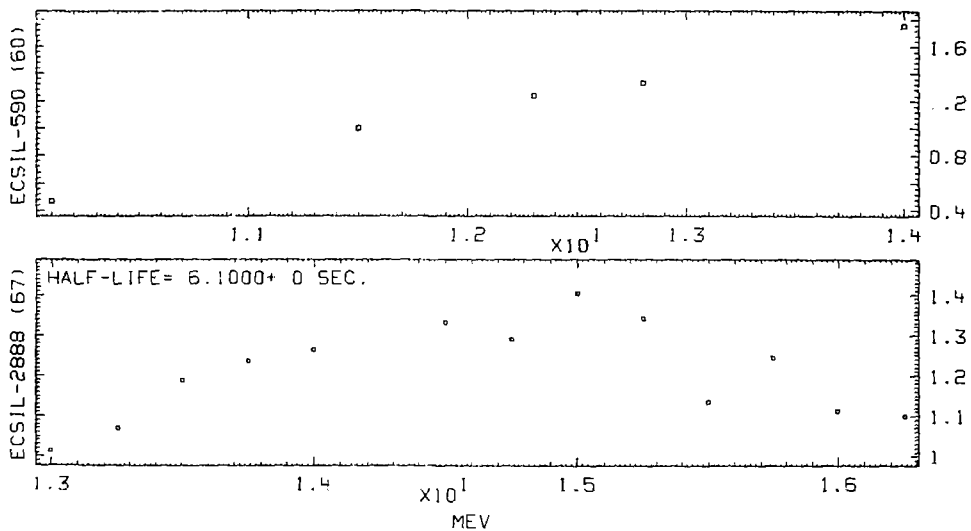
10-20

82-PB-204 -1

03/01/74

N,2N
CROSS SECTION

82-PB-204



03/01/74

N,N'

82-PB-204

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2009	1.4700 ± 1	3.0000 - 1	7.6500 - 2	8.0000 - 3

03/01/74

N, 2N
CROSS SECTION

82-PB-204

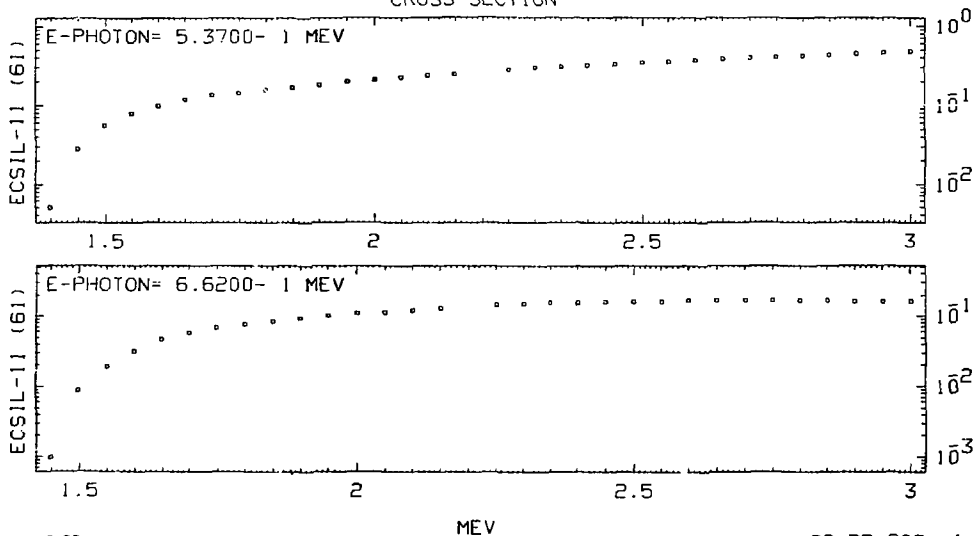
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
67 2009	1.4700+ 1	3.0000- 1	1.5750+ 0	1.6000- 1
68 1718	1.4700+ 1		2.1100+ 0	1.1000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	HALF-LIFE SECONDS
68 2836	1.5000+ 1	3.0000- 1	8.6000- 1	1.8000- 1	6.1000+ 0

03/01/74

N, X GAMMA
CROSS SECTION

82-PB-206



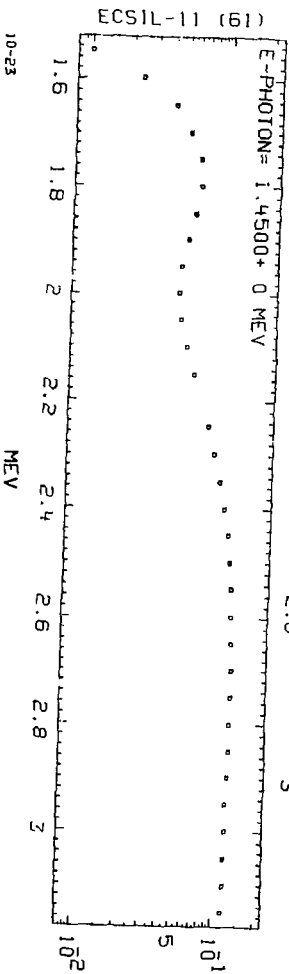
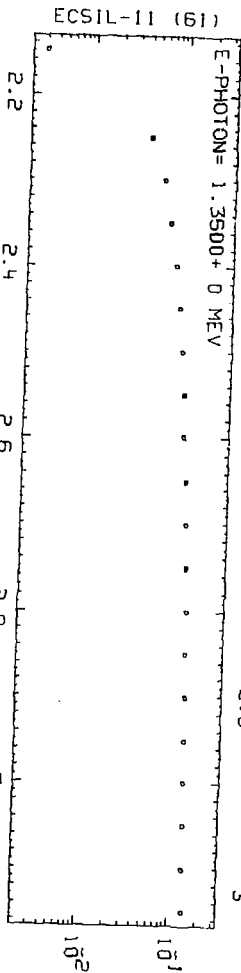
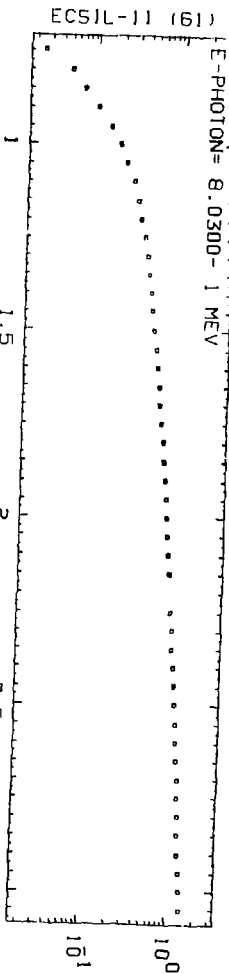
10-22

82-PB-206 - 1

03/01/74

N,X GAMMA
CROSS SECTION

82-PB-206



BARNs

10⁻²³

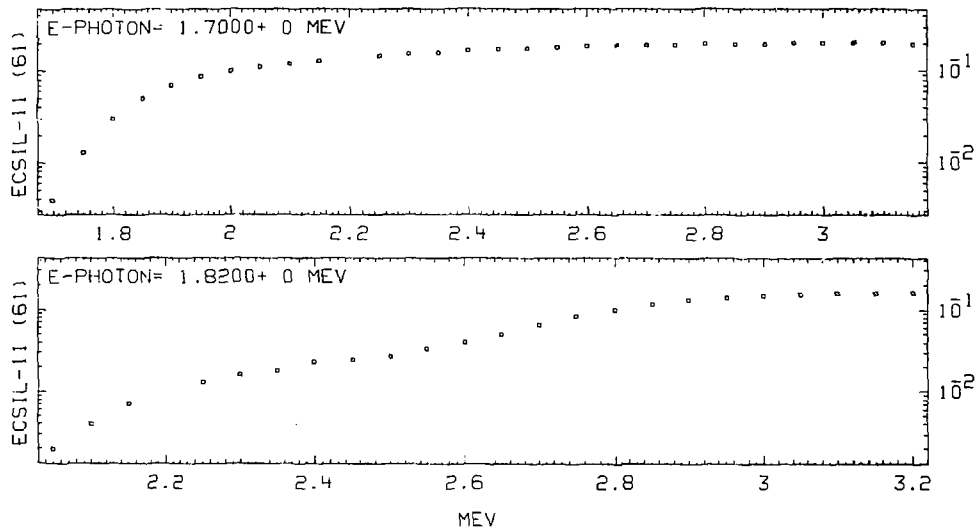
MEV

82-PB-206 -2

03/01/74

N,X GAMMA
CROSS SECTION

82-PB-206



BARNs

03/01/74

NONELASTIC

82-PB-206

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54	103 1.0000+ 0	5.0000- 2	2.0000- 1	2.0000- 1

03/01/74

N,N'
CROSS SECTION

82-PB-206

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63	0.36	7.000+ 0	2.390L+ 0	2.4000- 1

03/01/74

N,X GAMMA

82-PB-206

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-PHOTON MEV	
51	6.96	2.9000+ 0	1.7000- 1	9.2000- 1	1.3000- 1	5.3700- 1
51	5.86	2.9000+ 0	1.7000- 1	2.1220+ 0	1.2000- 1	8.0300- 1

03/01/74

N, ALPHA

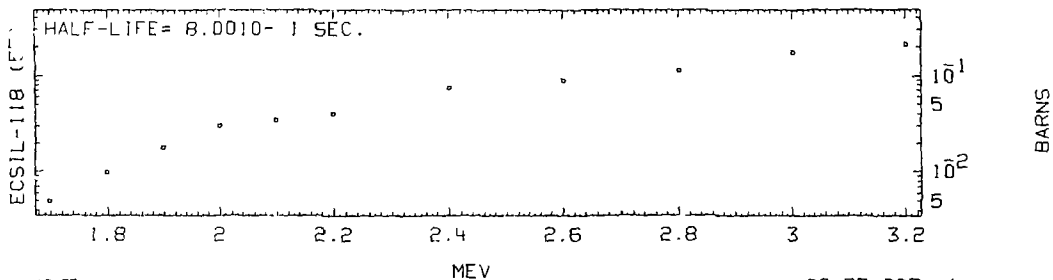
82-PB-206

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67	1.780	1.4100+ 1	2.7000- 3	4.6500- 4

03/01/74

N,N'
CROSS SECTION

82-PB-207



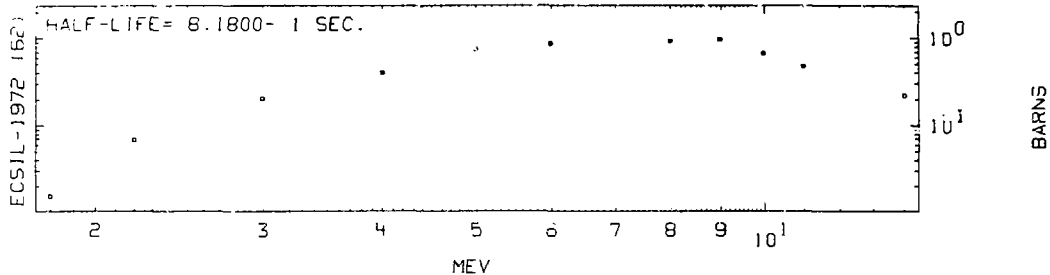
10-25

82-PB-207 -1

03/01/74

N,N'
CROSS SECTION

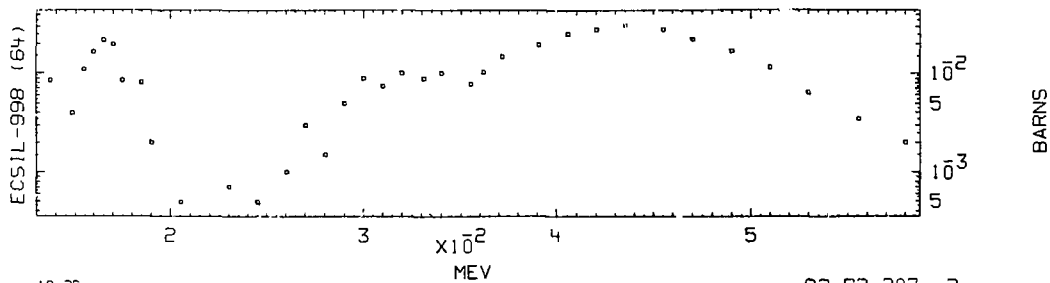
82-PB-207



03/01/74

ABSORPTION
CROSS SECTION

82-PB-207



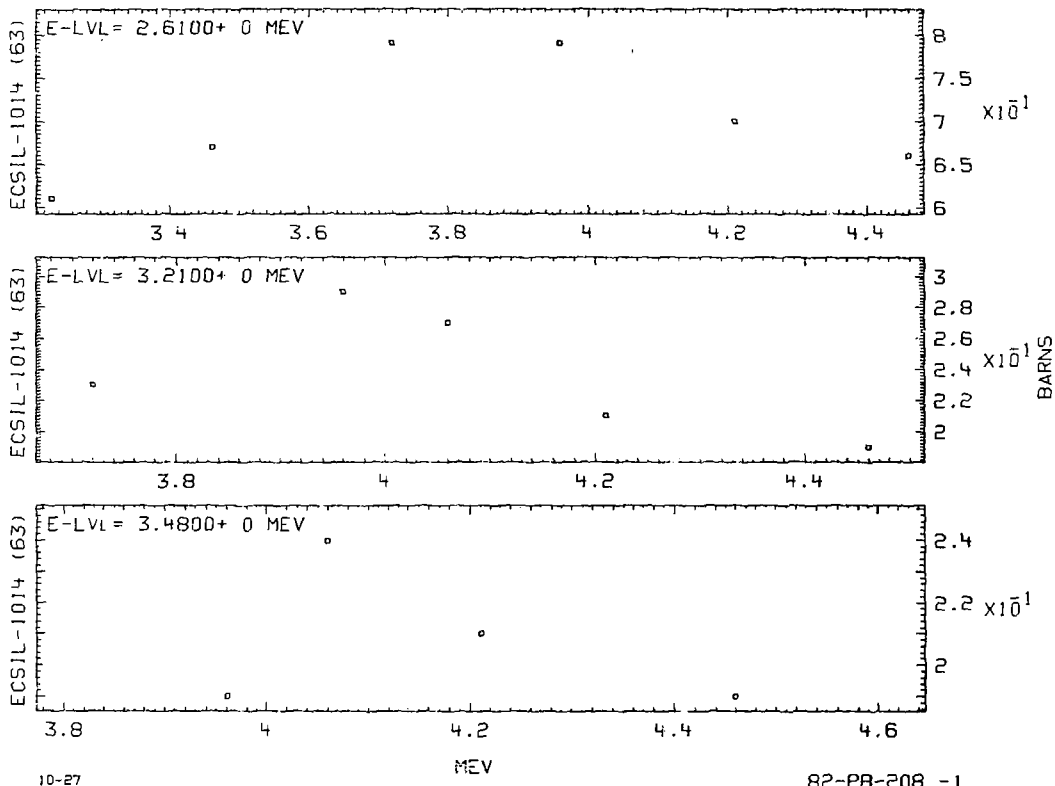
10-26

82-PB-207 -2

03/01/74

N,N'
CROSS SECTION

82-PB-208



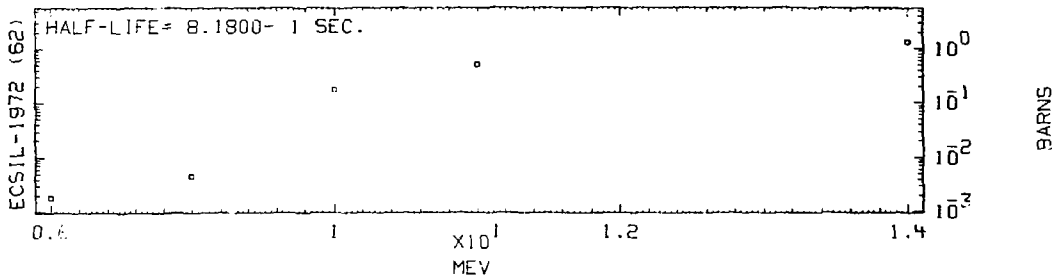
10-27

82-PB-208 -1

03/01/74

N,2N
CROSS SECTION

82-PB-208



03/01/74

N,2N

82-PB-208

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	DELTA HALF-LIFE SECONDS
59 829	1.4500+ 1		1.5000+ 0		8.0010- 1
61 657	1.4700- 1	2.5000- 1	1.7000+ 0	3.0000- 1	8.0010- 1
66 1901	1.4800+ 1		9.9000- 1	1.2000- 1	8.2000- 1

03/01/74

N,X GAMMA

82-PB-208

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV
59 1722	1.4000+ 1		2.5500- 2	4.6000- 3	2.6100+ 0

03/01/74

N,P

82-PB-208

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
53 27	1.4500+ 1		9.6010- 4	9.6010- 4

03/01/74

N, ALPHA
CROSS SECTION

82-PB-208

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58	550	1.4500+ 1	1.6000- 3	2.0000- 4

03/01/74

N, N'

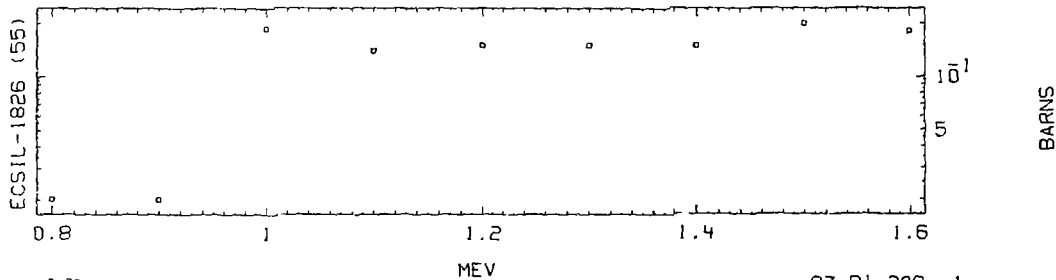
RADIO LEAD

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
58	497	2.2000+ 0	1.2000- 1	2.0000- 1	
58	497	2.2000+ 0	1.2000- 1	1.3000- 1	1.4300+ 0

03/01/74

NONELASTIC
CROSS SECTION

83-B1-209



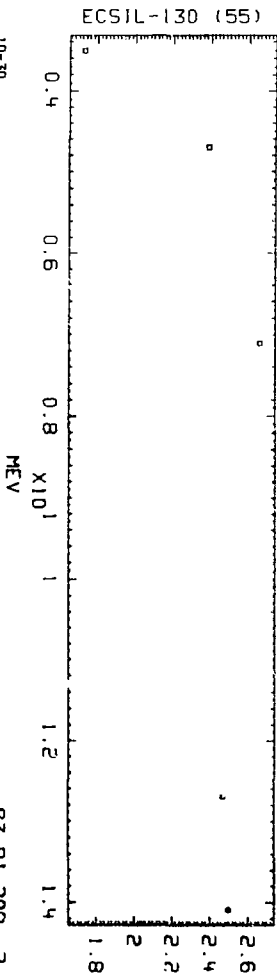
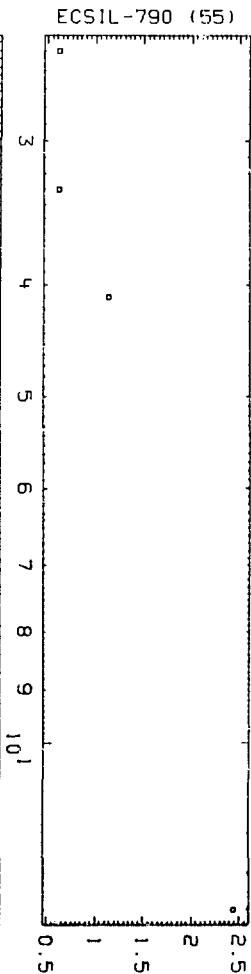
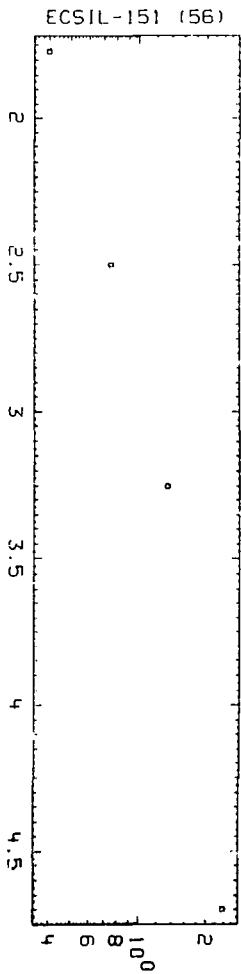
10-29

83-B1-209 -1

03/01/74

NONELASTIC
CROSS SECTION

83-81-209



BARNs

10-30

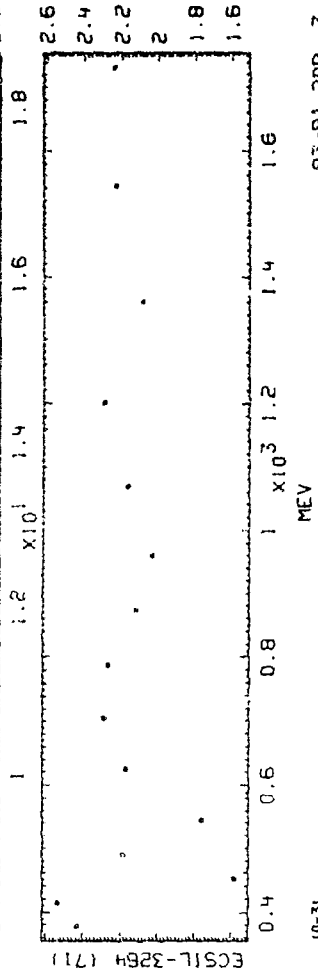
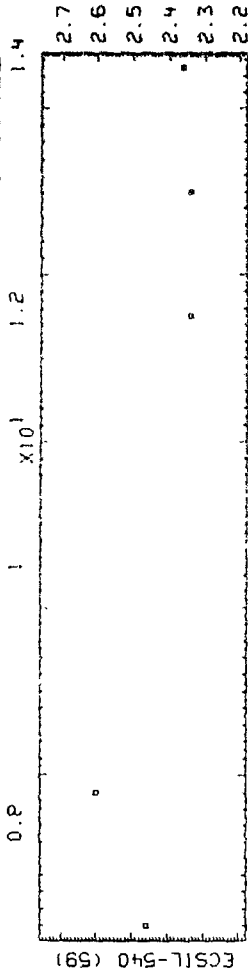
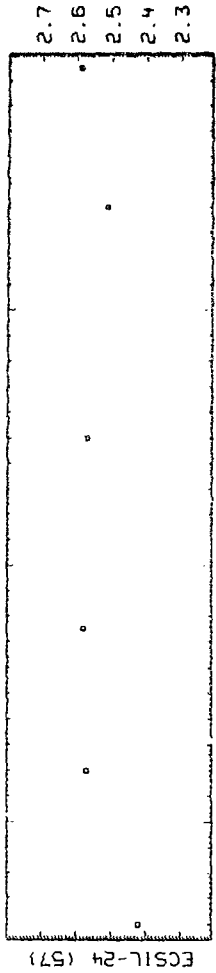
MEV

83-81-209 -2

03/01/74

NONELASTIC
CROSS SECTION

83-81-209



BARNs

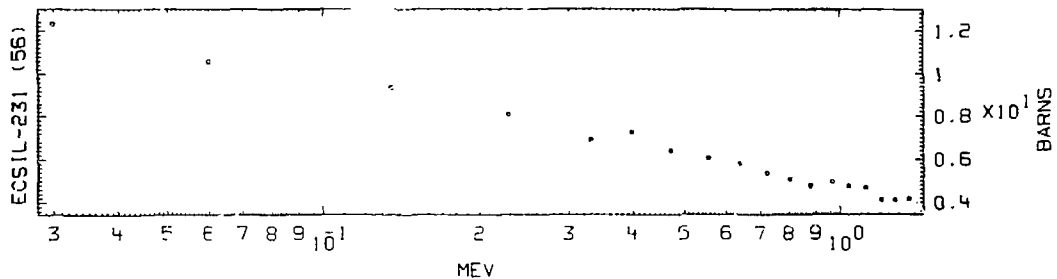
10-31

83-81-209 -3

03/01/74

TOTAL SCATTERING
CROSS SECTION

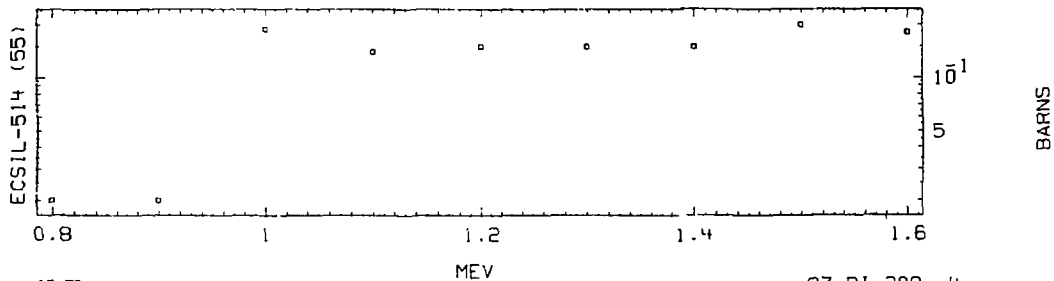
83-BI-209



03/01/74

N,N'
CROSS SECTION

83-BI-209



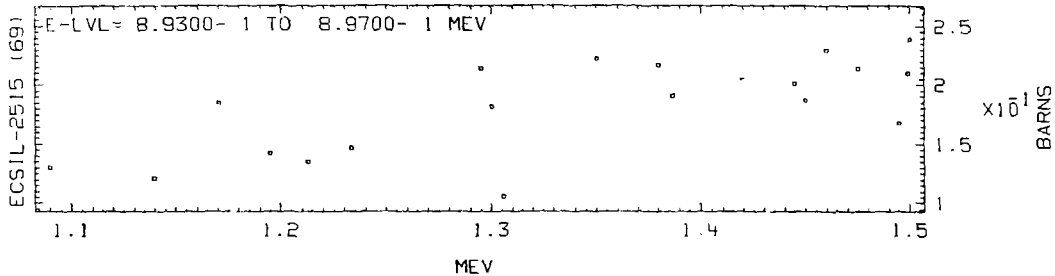
10-32

83-BI-209 -4

03/01/74

N,N'
CROSS SECTION

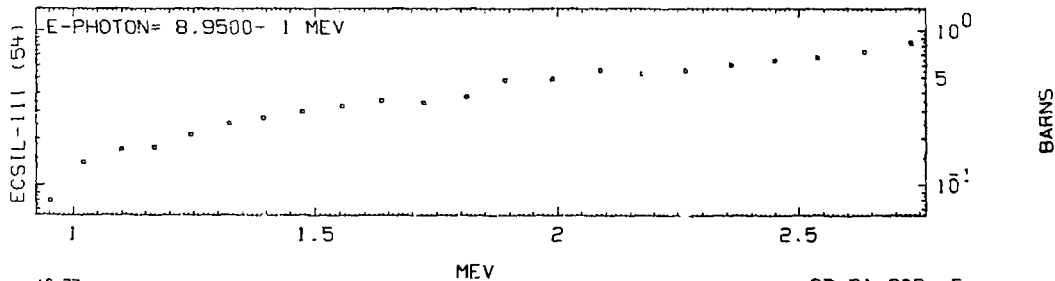
83-B1-209



03/01/74

N,X GAMMA
CROSS SECTION

83-B1-209



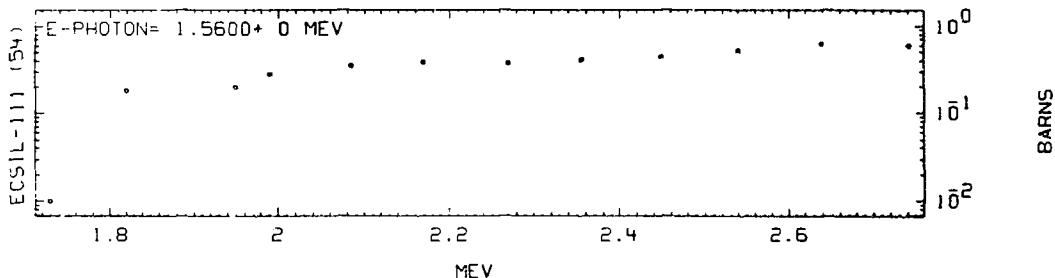
10-33

63-B1-209 -5

03/01/74

N, X GAMMA
CROSS SECTION

83-81-209



03/01/74

NONELASTIC

83-81-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55	122 1.0000+ 0	1.6000- 1	1.2000- 1	3.0000- 2	58	877 1.4000+ 1		2.5800+ 0	1.0000- 1
56	34 2.5000+ 0		7.0010- 1	3.0900- 1	55	117 1.4100+ 1		2.5300+ 0	2.0000- 2
55	122 4.0000+ 0	7.0010- 2	1.9800+ 0	9.0010- 2	57	199 1.4100+ 1		2.4000+ 0	9.9010- 1
55	296 4.1000+ 0	4.0000- 2	2.2000+ 0	3.0000- 1	52	82 1.4150+ 1	5.0000- 2	2.5600+ 0	5.0000- 2
55	122 4.5000+ 0	7.0010- 2	2.1900+ 0	8.0010- 2	57	319 1.4200+ 1	1.5000- 1	2.5600+ 0	4.0000- 2
56	21 7.1000+ 0		2.5200+ 0	0	56	200 1.4500+ 1		2.5900+ 0	3.0000- 2
56	21 1.0000+ 1		2.5200+ 0	0	58	356 2.5500+ 1		2.4300+ 0	1.0000- 1
63	766 1.3980+ 1	5.0000- 2	2.5300+ 0	5.0000- 2	55	2056 1.4000+ 3	2.0000+ 2	1.7900+ 0	8.9500- 2

03/01/74

TOTAL SCATTERING

83-81-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	149 5.0000- 1	6.0010- 2	6.3010+ 0	6.0010- 1
56	21 1.0000+ 1		4.7200+ 0	0

03/01/74

TOTAL SCATTERING
CROSS SECTION

83-B1-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BAPNS	DELTA BAPNS	E-LVL-MIN MEV	E-LVL-MAX MEV
62 1268	1.5200+ 1		2.6400+ 0	2.0000- 1	0.0000+ 0	1.8000+ 0

03/01/74

N,N'

83-B1-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BAPNS	DELTA BAPNS
65 889	6.0400+ 0	2.3000- 1	3.0000+ 0	5.0000- 1
63 836	7.0000+ 0		2.4100+ 0	2.6000- 1
57 162	1.4000+ 1	1.0000+ 0	1.7000- 1	3.0000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BAPNS	DELTA BAPNS	E-LVL MEV
54 301	2.5000+ 0		1.2000+ 0	3.0000- 1	8.5000- 1
54 301	2.5000+ 0		6.0000- 1	2.0000- 1	1.5600+ 0

03/01/74

N,2N

83-B1-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BAPNS	DELTA BAPNS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BAPNS	DELTA BAPNS
58 609	1.4000+ 1		2.4200+ 0	2.0000- 1	58	7 1.4100+ 1		2.6000+ 0	2.0000- 1
57 162	1.4000+ 1	9.8010- 1	2.3000+ 0	3.0000- 1	63 1701	1.4500+ 1		1.9500+ 0	8.0000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BAPNS	DELTA BAPNS	HALF-LIFE SECONDS
61 657	1.4700+ 1	2.5000- 1	6.6010- 1	1.2000- 1	2.6000- 3
59 829	1.4500+ 1		6.0010- 1		2.7000- 3

03/01/74

ABSORPTION

83-B1-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BAPNS	DELTA BAPNS
58 1162	2.5300- 8		3.6000- 2	4.0000- 3
65 1364	2.4000- 2		3.0000- 3	3.0000- 3

03/01/74

N, GAMMA
CROSS SECTION

83-B1-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
70 2345	3.0000+ 0	2.0000- 1	1.5300- 3	5.1000- 4

03/01/74

N, X GAMMA

83-B1-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA PHOTON BARN	E-PHOTON MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-PHOTON MEV
54 113	2.2000+ 0	2.0000- 1	4.2300- 1	6.8000- 2	4.9000- 1	54 113	2.2000+ 0	2.0000- 1	5.9000- 1	1.2000- 1	1.6200+ 0
54 113	3.2000+ 0	2.0000- 1	1.2700- 0	3.4000- 1	1.9400- 1	54 113	3.2000+ 0	2.0000- 1	3.7000- 1	1.4000- 2	2.6000+ 0

03/01/74

N, P

83-B1-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
59 550	1.4500+ 1		1.3000- 3	3.0000- 4
61 500	1.4800+ 1		7.0010- 4	1.0000- 4
59 500	1.4800+ 1	8.0010- 1	6.0010- 4	4.0000- 4

03/01/74

N, ALPHA

83-B1-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
53 27	1.4500+ 1		1.2000- 3	1.0000- 3	59 66P	1.4800+ 1	9.0010- 1	1.1000- 3	3.0000- 4
59 550	1.4500+ 1		5.0010- 4	8.0010- 4	51 660	1.4800+ 1		6.0010- 4	1.0000- 4
65 1975	1.4600+ 1		1.0000- 3	5.0000- 4					

03/01/74

SOUND ATOM

83-B1-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
59 2046	2.6300- 8		9.3700+ 0	3.0000- 2
51 1584	7.3000- 8		1.0000+ 1	
55 1753	9.4100- 6		9.3700+ 0	7.7000- 3

03/01/74

FREE ATOM
CROSS SECTION

83-BI-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1753	9.4100- 6		9.2890+ 0	7.7000- 3

03/01/74

COHERENT SCATTERING

83-BI-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
51 2084	2.5300- 8		1.0000+ 1	1.0000+ 1	51 2084	2.5300- 8		1.0100+ 1	8.0800- 1
53 2650	2.5300- 8		4.3500+ 1	4.0000- 2	65 1753	9.4100- 6		9.3490+ 0	7.8000- 3

03/01/74

INCOHERENT SCATTER.

83-BI-209

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 2663	2.5300- 8		1.2000- 2	1.0000- 3

03/01/74

N, 2N

68-RA-226

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 628	1.4500+ 1	5.0000- 1	1.6000+ 0	2.0000- 1

03/01/74

N, 3N

88-RA-226

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 628	1.4500+ 1	3.0960- 1	6.3610- 1	7.0010- 2

03/01/74

N, ALPHA

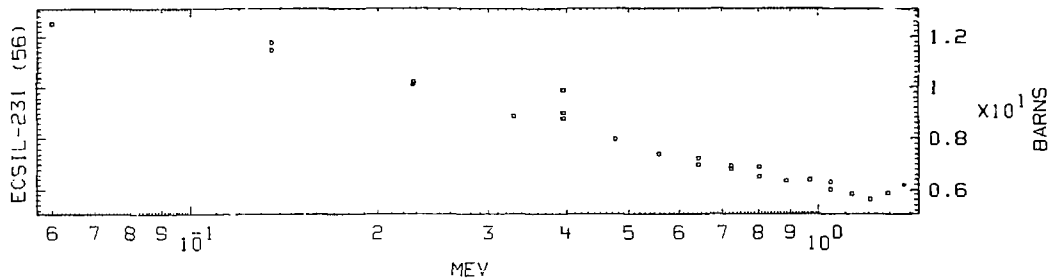
90-TH-230

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		4.6000- 3	1.1000- 3

03/01/74

TOTAL SCATTERING
CROSS SECTION

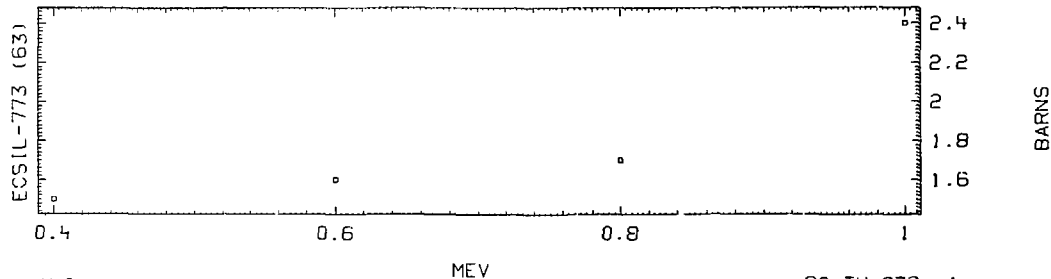
90-TH-232



03/01/74

N,N'
CROSS SECTION

90-TH-232



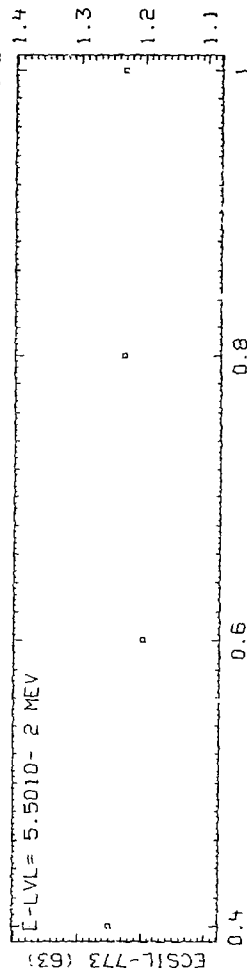
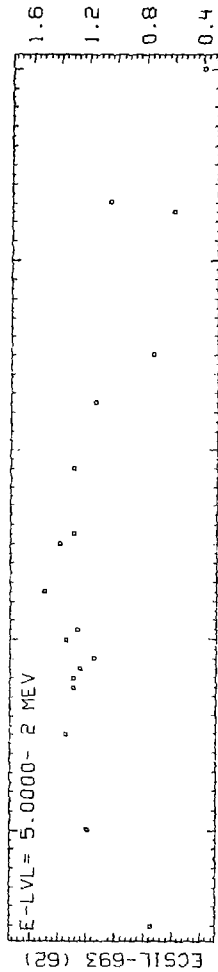
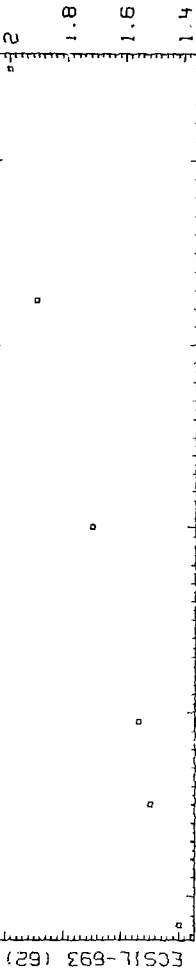
11-2

90-TH-232 -1

03/01/74

90-TH-232

N,N'
CROSS SECTION



BARNs

MEV

90-TH-232 -2

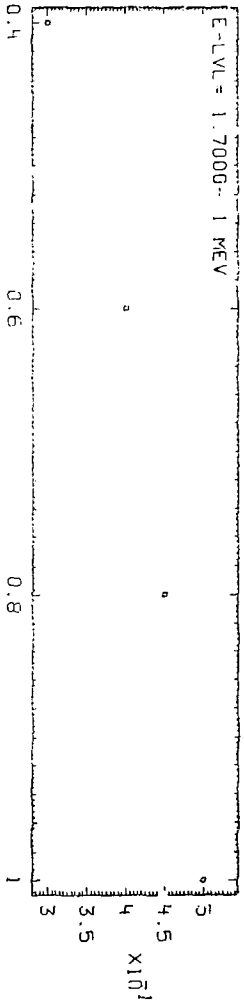
11-3

03:01/74

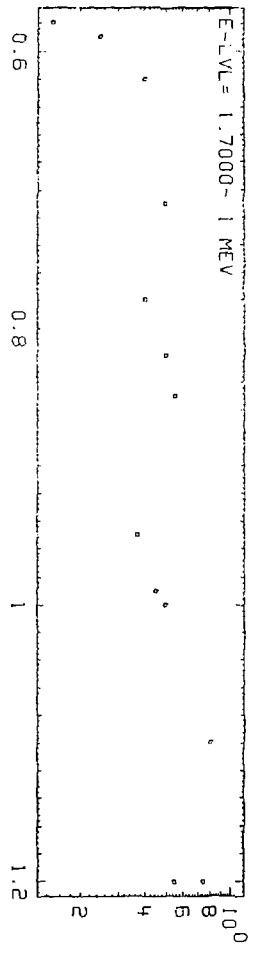
CROSS SEC: 10N

90-TH-232

ECSIL-773 (63)

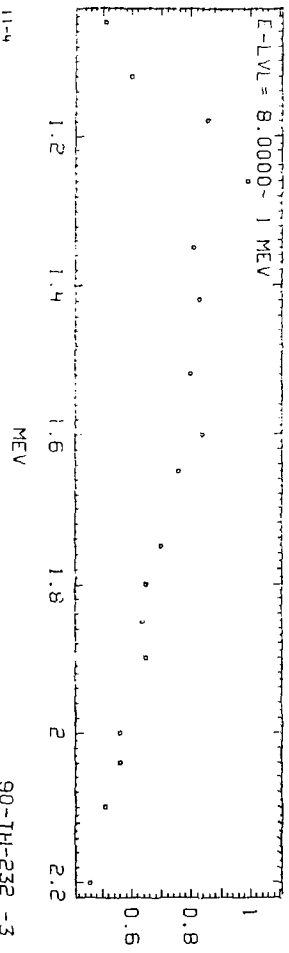


ECSIL-693 (62)



BARNs

ECSIL-2376 (69)



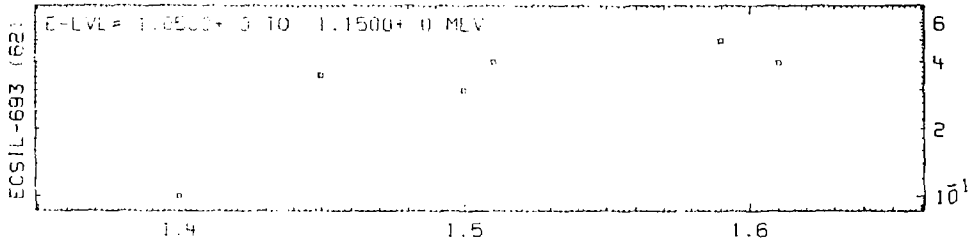
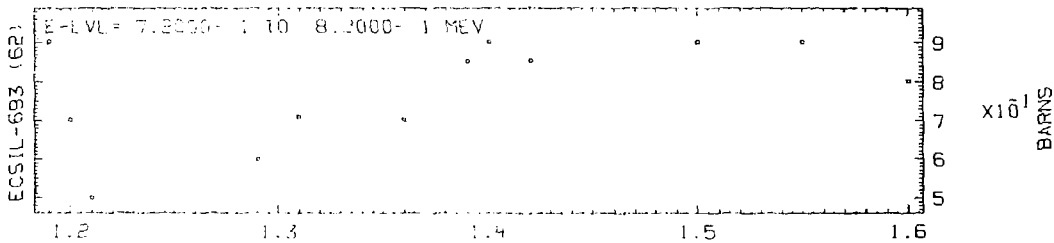
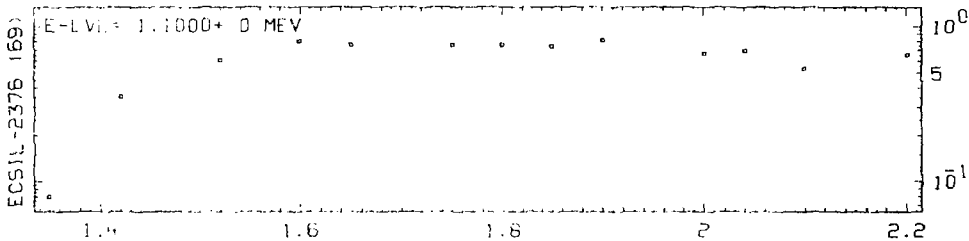
90-TH-232 -3

11-4

03/01/74

N,N'
CROSS SECTION

90-TH-232



11-5

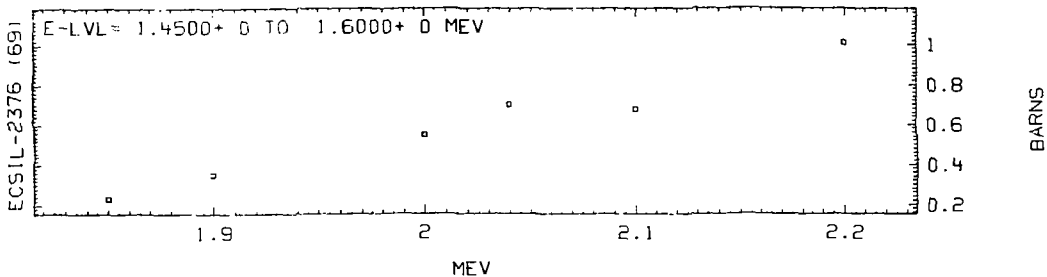
MEV

90-TH-232 -4

03/01/74

N,N'
CROSS SECTION

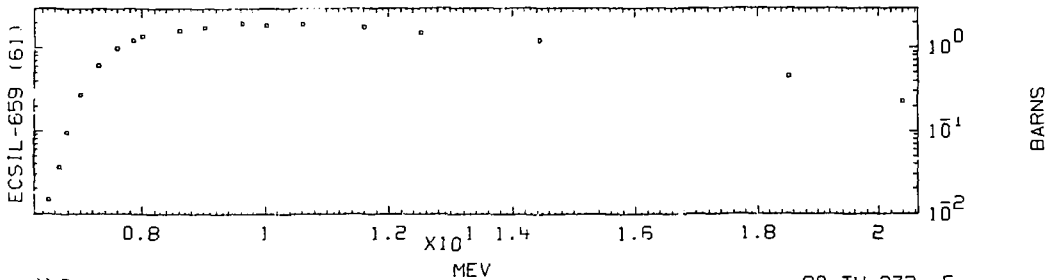
90-TH-232



03/01/74

N,2N
CROSS SECTION

90-TH-232



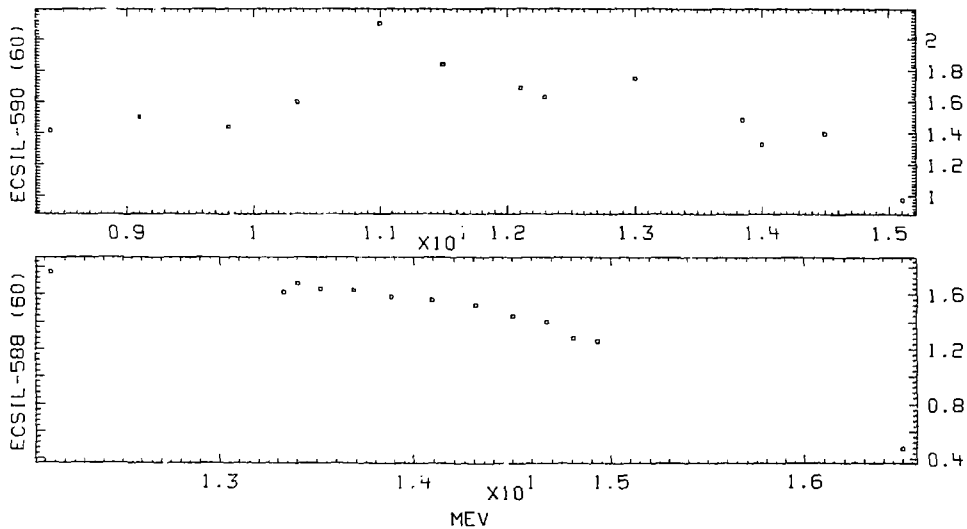
11-6

90-TH-232 -5

03/01/74

N,2N
CROSS SECTION

90-TH-232



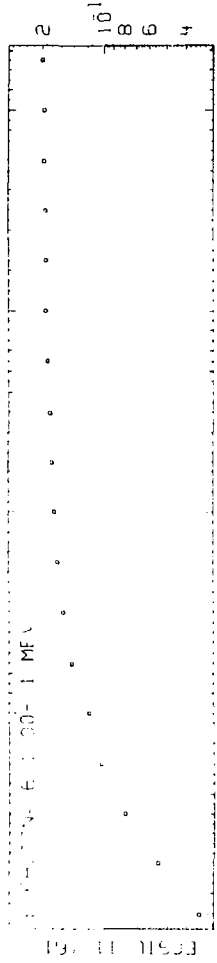
11-7

90-TH-232 -6

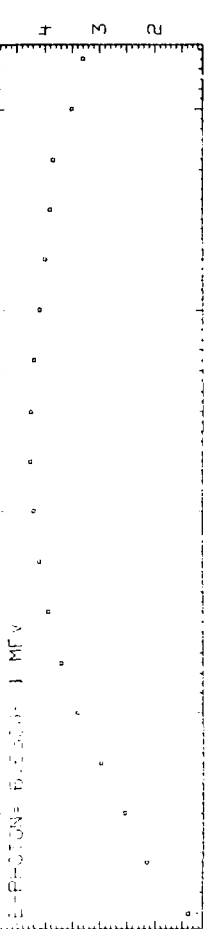
08701

90-TH-232

N,X GAMMA
CROSS SECTION

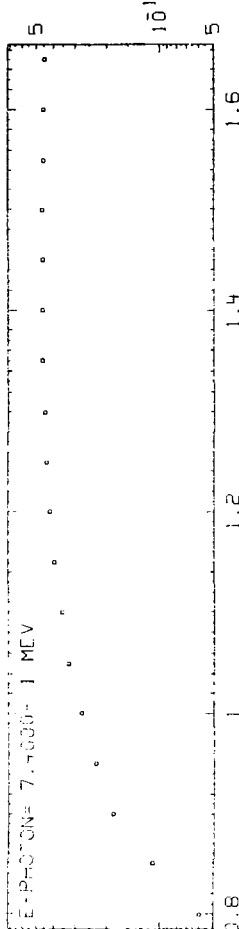


ECSL-11 (61)



BARNs
X 10¹

ECSL-11 (61)



11-8

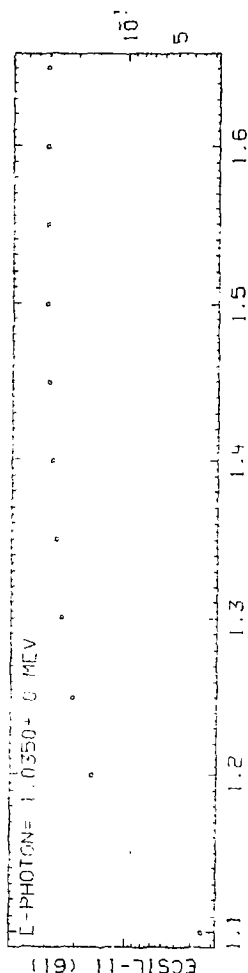
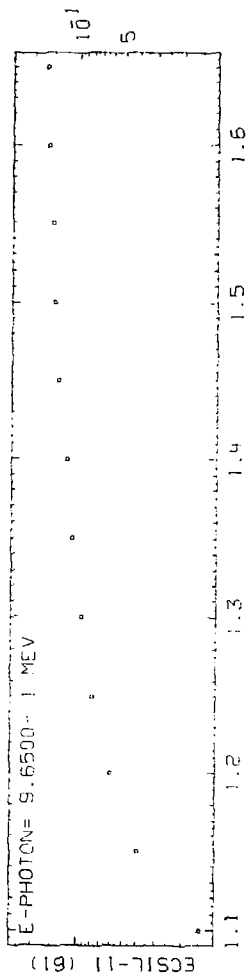
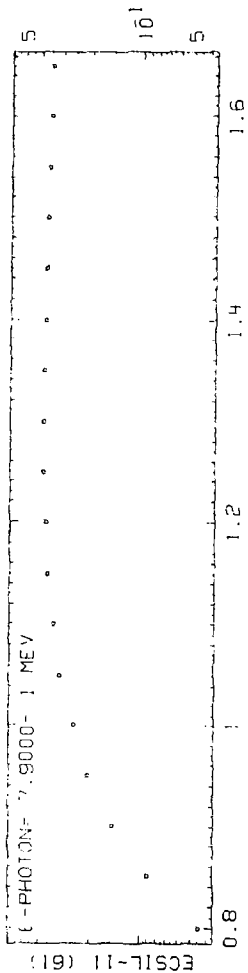
MEV

90-TH-232 -7

03/01/74

N,X GAMMA
CROSS SECTION

90-TH-232



BARNS

11-9

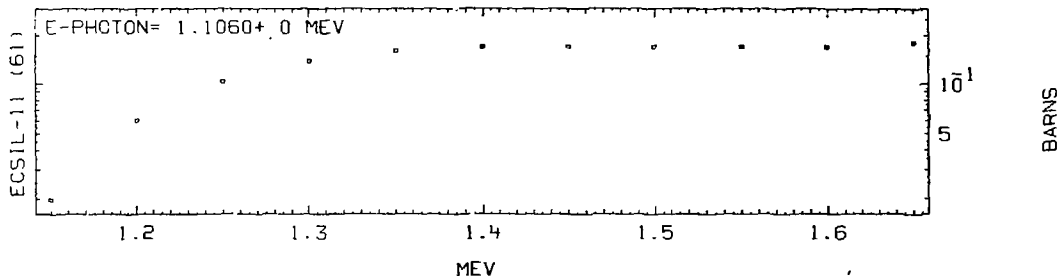
MEV

90-TH-232 -8

03/01/74

N, X GAMMA
CROSS SECTION

90-TH-232



03/01/74

NONELASTIC

90-TH-232

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
54 103	1.0000+ 0	5.0000- 2	1.8000+ 0	8.0010- 1
63 277	1.4000+ 1		2.7700+ 0	9.0010- 2

03/01/74

TOTAL SCATTERING

90-TH-232

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
62 1268	1.5200+ 1		3.1300+ 0	2.5000- 1	0.0000+ 0	1.8000+ 0

03/01/74

NEUTRON NONEL. EMISS.

90-TH-232

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1264	3.0000+ 0		3.1600+ 0	2.2000- 1
65 1264	4.0000+ 0		3.2400+ 0	2.2000- 1
65 1264	7.0000+ 0		4.3900+ 0	3.8000- 1

03/01/74

N,N'
CROSS SECTION

90-TH-232

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
63 773	1.000+ 0	6.0010- 2	1.0000- 1	5.0000- 2	3.0000- 1
63 773	1.000+ 0	6.0010- 2	6.5010- 1	2.0000- 1	8.0010- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
65 1264	1.6000+ 0		1.2500+ 0	1.0000- 1	5.7000- 1	9.4000- 1
65 1264	2.0000+ 0		6.1000- 1	6.0000- 2	5.7000- 1	9.4000- 1
65 1264	2.4000+ 0		3.6000- 1	4.0000- 2	5.7000- 1	9.4000- 1
65 1264	2.0000+ 0		6.2500- 1	6.0000- 2	9.4000- 1	1.3800+ 0
65 1264	2.0000+ 0		1.4550+ 0	3.4000- 1	1.3800+ 0	2.0000+ 0

03/01/74

N,2N

90-TH-232

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 1482	7.0300+ 0		2.7700- 1	2.5000- 2	56 1398	1.5000+ 1		1.1000+ 0	1.0000- 1
61 745	1.4100+ 1	3.0000- 1	1.2000+ 0	5.0000- 2	58 1482	1.5970+ 1		4.8000- 1	6.0000- 2
60 1520	1.4700+ 1		6.5000- 1	1.5000- 1					

03/01/74

N,3N

90-TH-232

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 277	1.4000+ 1		8.5010- 1	1.5000- 2

03/01/74

ABSORPTION

90-TH-232

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
60 897	2.5300- 0		7.5000+ 0	3.0000- 1	58 364	2.5000- 2	4.0000- 3	4.5700- 1	4.0000- 3
55 1205	2.5300- 0		7.2000+ 0	2.0000- 1	58 364	2.2000- 1	2.0000- 2	2.3500- 1	6.0000- 3
65 1541	2.4000- 2	1.5000- 3	6.1100- 1	4.0000- 2	58 364	0.3000- 1	4.0000- 2	2.0200- 1	6.0000- 3
65 1364	2.4000- 2		6.1500- 1	2.5000- 2					

03/01/74

CUMULATIVE SCATTERING
CROSS SECTION

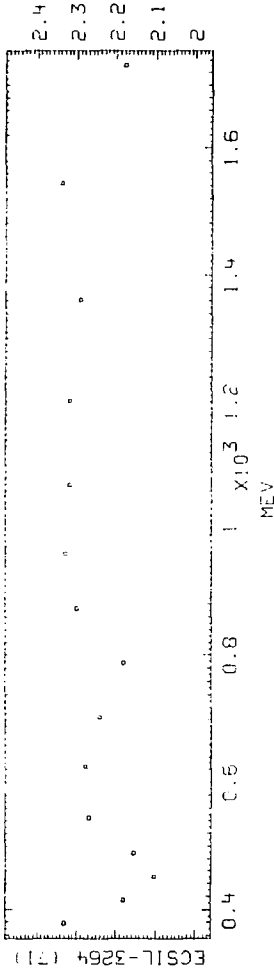
90-TH-232

REFERENCE	ENERGY MEV	DELTA MEV	X SEC BARN	DELTA BARN
62-1275	4.2000	.6	1.2100	1

03/01/74

ELASTIC
CROSS SECTION

92-U -NAT

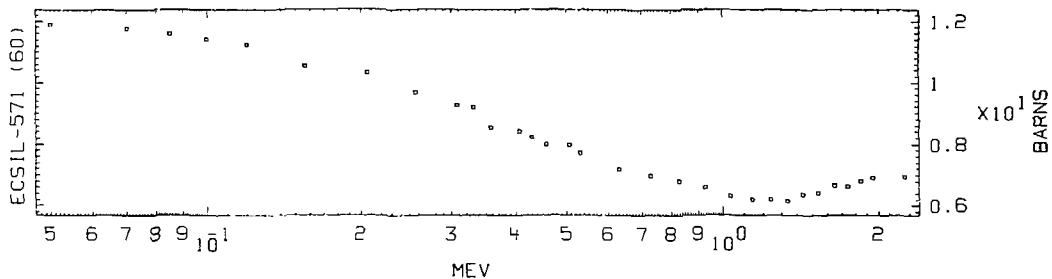


BARN

03/01/74

TOTAL SCATTERING
CROSS SECTION

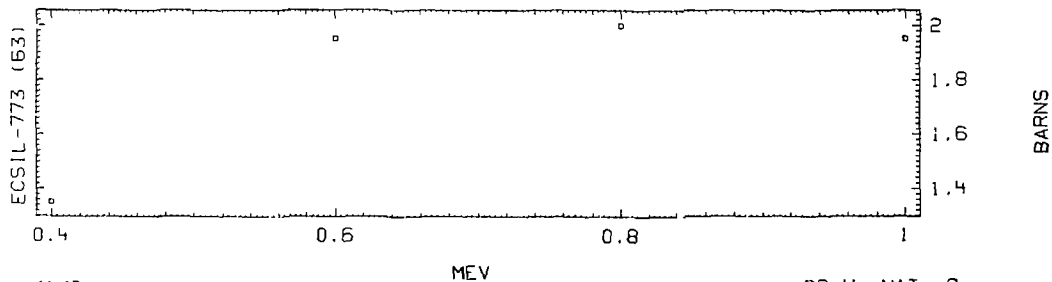
92-U -NAT



03/01/74

N,N'
CROSS SECTION

92-U -NAT



11-13

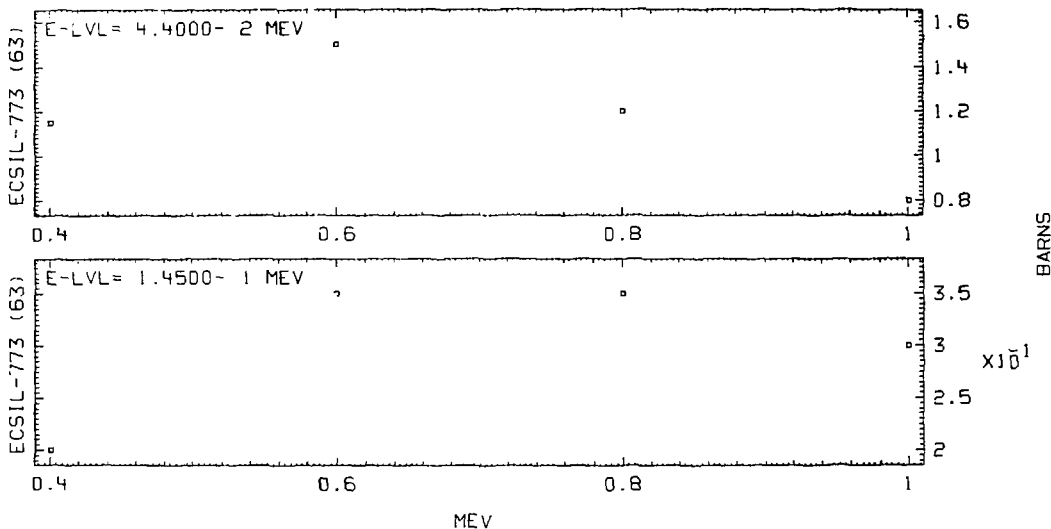
MEV

92-U -NAT -2

03/01/74

N,N'
CROSS SECTION

92-U -NAT



03/01/74

NONELASTIC

92-U -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
57	444 1.5000- 1		6.3000- 1	2.0000- 1	56	353 1.0200+ 0		1.6000+ 0	5.0000- 1
57	444 2.5000- 1		6.3000- 1		56	151 2.5000+ 0	4.0000- 2	3.2000+ 0	3.0000- 1
56	353 2.9000- 1		4.0000- 1	1.0000- 1	55	1383 4.0000+ 0		3.1700+ 0	2.0000- 1
57	444 5.0000- 1		8.0000- 1		55	1383 4.5000+ 0		3.1500+ 0	2.0000- 1
56	353 7.7000- 1		9.0010- 1	3.0000- 1	58	877 1.4000+ 1		2.9100+ 0	1.4000- 1
56	151 1.0000+ 0	4.0000- 2	1.8000+ 0	2.5000- 1	53	1271 1.4700+ 1	2.0000- 1	2.8000+ 0	6.0000- 2

11-14

92-U -NAT -3

03/01/74

NONELASTIC
CROSS SECTION

92-U -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 2056	1.4000+ 3	2.0000+ 2	1.8900+ 0	9.4500- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
57 444	1.0000+ 0		1.5700+ 0	2.0000- 1	1.4000- 1	1.0000+ 0

03/01/74

TOTAL SCATTERING

92-U -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
63 879	9.8000- 1	5.0000- 2	6.2200+ 0	1.8660- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
62 1268	1.5200+ 1		3.2100+ 0	2.4000- 1	0.0000+ 0	1.8000+ 0

03/01/74

N,N'

92-U -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
63 773	6.0000- 1	6.0010- 2	1.0000- 1	5.0000- 2	3.0000- 1	63 773	8.0000- 1	6.0010- 2	3.0000- 1	3.0000- 2	7.0010- 1
63 773	8.0000- 1	6.0010- 2	1.5000- 1	5.0000- 2	3.0000- 1	63 773	1.0000+ 0	6.0010- 2	7.0010- 1	7.0010- 2	7.0010- 1
63 773	1.0000+ 0	6.0010- 2	1.5000- 1	2.0000- 2	3.0000- 1						

03/01/74

ABSORPTION

92-U -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 1317	2.5000- 8		7.1500+ 0	
61 2569	2.5300- 8		7.8300+ 0	4.2000- 1

03/01/74

COHERENT SCATTERING
CROSS SECTION

92-U -NAT

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 1275	4.2000- 8		8.8700+ 0	

03/01/74

NONELASTIC

92-U -233

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 516	1.4700+ 0		3.1000+ 0	
55 516	1.6000+ 0		2.6500+ 0	

03/01/74

ABSORPTION

92-U -233

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 1317	2.5000- 8		5.8700+ 2	
48 1313	2.5300- 8		5.8600+ 2	1.5000+ 1
57 1404	2.5300- 8		5.7800+ 2	1.7000+ 1

03/01/74

ABSORPTION

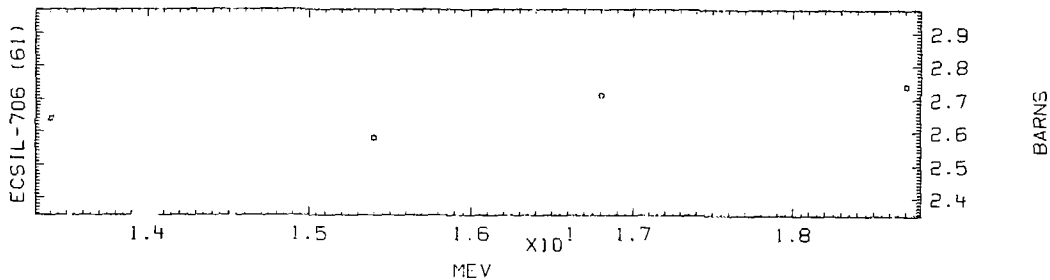
92-U -234

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 436	2.5300- 8		1.0300+ 2	8.0000+ 0

03/01/74

NONELASTIC
CROSS SECTION

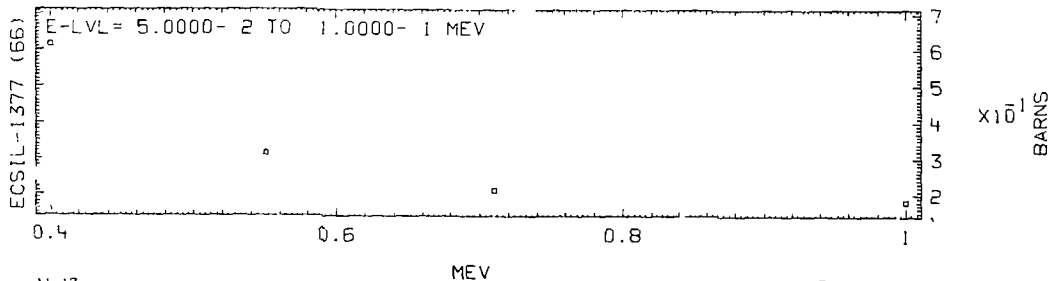
92-U -235



03/01/74

N,N'
CROSS SECTION

92-U -235



11-17

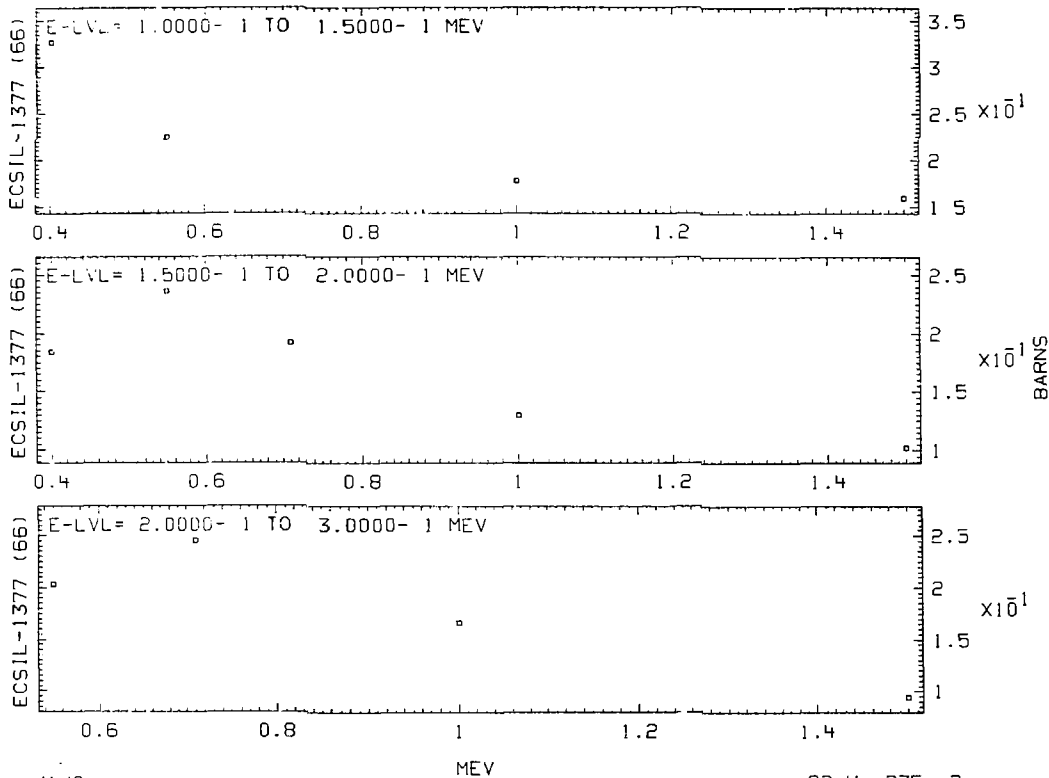
92-U -235 -1

03/01/74

N,N'

92-U -235

CROSS SECTION



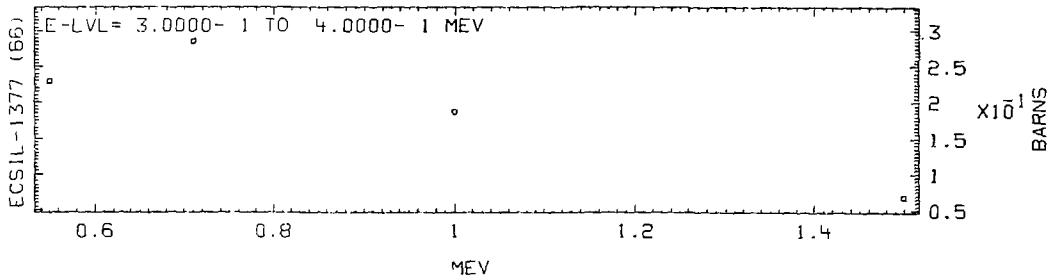
11-18

92-U -235 -2

03/01/74

N,N'
CROSS SECTION

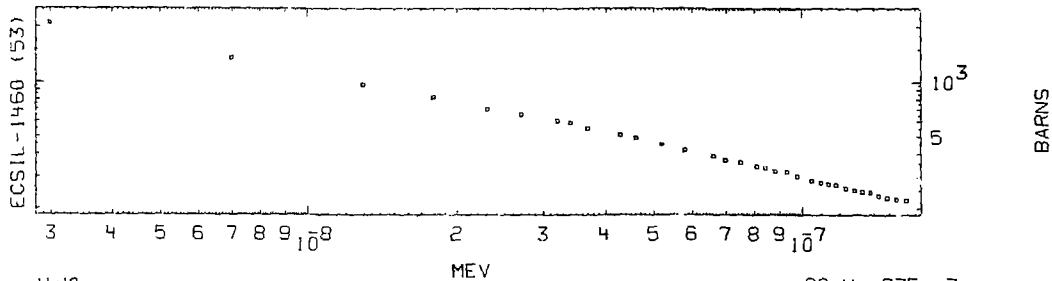
92-U -235



03/01/74

ABSORPTION
CROSS SECTION

92-U -235



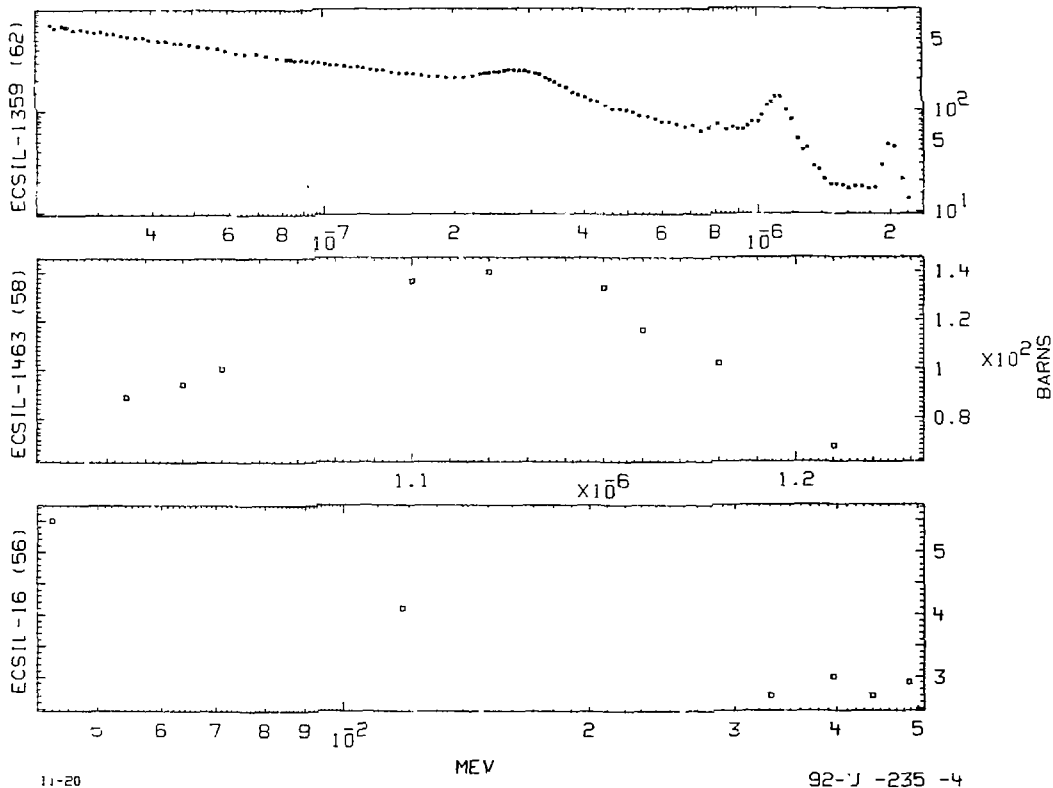
11-19

92-U -235 -3

03/01/74

ABSORPTION
CROSS SECTION

92-U -235



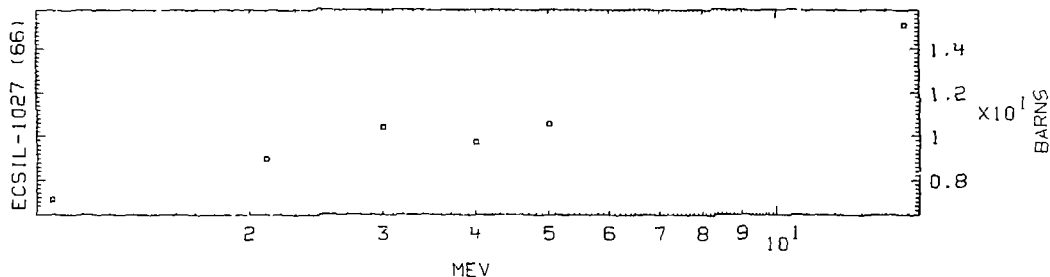
11-20

92-U -235 -4

03/01/74

N,X GAMMA
CROSS SECTION

92-U -235



03/01/74

NONELASTIC

92-U -235

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
56	149 5.000+ 1	6.0010- 2	1.8000+ 0	6.0010- 1	55	1383 4.0000+ 0		3.3400+ 0	4.0000- 1
61	754 9.0000- 1		2.6000+ 0	2.0000- 1	55	1383 4.5000+ 0		3.3400+ 0	4.0000- 1
55	151 1.0000+ 0	4.0000- 2	2.7000+ 0	3.0000- 1	65	1228 8.1000+ 0		3.1100+ 0	2.0000- 1
56	149 1.0000+ 0	5.0000- 2	2.7000+ 0	6.0010- 1	58	592 8.1000+ 0		2.9000+ 0	1.5000- 1
56	151 2.5000+ 0	4.0000- 2	3.2500+ 0	3.0000- 1	58	592 1.1900+ 1		2.6600+ 0	1.0000- 1
55	1448 3.0000+ 0		2.5000+ 0	5.0000- 1	58	592 1.4100+ 1		2.9400+ 0	1.0000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
57	444 2.5000- 1		2.6600+ 0		4.0000- 2	2.5000- 1
57	444 5.0000- 1		2.6800+ 0		4.0000- 2	5.0000- 1
57	444 5.0000- 1		2.3500+ 0	3.5000- 1	7.5000- 2	5.0000- 1
57	444 1.0000+ 0		2.6500+ 0	3.5000- 1	1.5000- 1	1.0000+ 0

03/01/74

N,N'

92-U -235

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
61 754	9.0000+ 1		1.1000+ 0	3.0000- 1	69 2598	4.0000+ 0	5.0000- 2	2.1000+ 0	3.5000- 1
69 2588	2.0000+ 0	5.0000- 2	2.0000+ 0	3.8000- 1	69 2916	6.0000+ 0		2.0200+ 0	3.6000- 1
69 2598	3.0000+ 0	5.0000- 2	2.3900+ 0	3.6000- 1	69 2916	7.5000+ 0		7.7000- 1	3.2000- 1
69 2916	4.0000+ 0		2.1300+ 0	5.0000- 1					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	E-LVL-MIN MEV	E-LVL-MAX MEV
59 77 5	5.0000- 1	1.0000- 2	5.4000+ 0	2.0700- 1	0.0000+ 0	9.0000- 2
59 77 9	8.0000- 1	4.4000- 2	4.7000+ 0	2.5300- 1	0.0000+ 0	1.5000- 1
59 77 2	0.0000+ 0	3.0000- 2	4.1400+ 0	2.7100- 1	0.0000+ 0	5.0000- 1
1 66 1377	1.3000- 1		3.4400- 1	5.8800- 2	6.5000- 3	2.5000- 2
1 66 1377	1.3000- 1		5.8200- 1	5.8200- 2	6.5000- 3	5.0000- 2
1 66 1377	4.0000- 1		3.7000- 2	7.4000- 3	2.0000- 2	2.5000- 2
1 66 1377	4.0000- 1		1.8200+ 0	1.8200- 1	2.0000- 2	2.3000- 1
1 66 1377	1.3000- 1		2.3800- 1	4.7800- 2	2.5000- 2	5.0000- 2
1 66 1377	4.0000- 1		3.0600- 1	6.1200- 2	2.5000- 2	5.0000- 2
1 66 1377	5.5000- 1		9.2000- 2	1.5400- 2	2.7500- 2	5.0000- 2
1 66 1377	5.5000- 1		1.3640+ 0	1.3640- 1	2.7500- 2	4.4000- 1
1 66 1377	7.1000- 1		4.5000- 2	9.0400- 3	3.5500- 2	5.0000- 2
1 66 1377	7.1000- 1		1.7630+ 0	1.7630- 1	3.5500- 2	5.8000- 1
1 66 1377	1.0000+ 0		1.5640+ 0	1.5640- 1	5.0000- 2	8.7000- 1
1 66 1377	1.5000+ 0		9.8000- 2	1.8000- 2	7.5000- 2	1.0000- 1
1 66 1377	1.5000+ 0		1.5760+ 0	1.5760- 1	7.5000- 2	1.3500+ 0
59 77 5	5.5000- 1	1.0000- 2	2.5000- 1	9.0000- 2	9.0000- 2	2.0000- 1
59 77 9	8.0000- 1	4.4000- 2	3.5000- 1	6.0000- 2	1.5000- 1	5.0000- 1
1 66 1377	4.0000- 1		3.5000- 1	7.0000- 2	2.0000- 2	2.3000- 1
59 77 5	5.0000- 1	1.0000- 2	2.0000- 1	5.0000- 2	2.0000- 1	3.0000- 1
1 66 1377	5.5000- 1		6.6000- 2	1.3200- 2	4.0000- 1	4.4000- 1
1 66 1377	7.1000- 1		3.5000- 1	7.1900- 2	4.0000- 1	5.0000- 1
1 66 1377	1.0000+ 0		1.7000- 1	3.5400- 2	4.0000- 1	5.0000- 1
1 66 1377	1.5000+ 0		4.7000- 2	9.4000- 3	4.0000- 1	5.0000- 1
1 66 1377	7.1000- 1		2.0600- 1	4.1200- 2	5.0000- 1	5.8000- 1
1 66 1377	1.0000+ 0		1.2600- 1	2.5200- 2	5.0000- 1	6.0000- 1
1 66 1377	1.5000+ 0		4.8000- 2	9.6000- 3	5.0000- 1	6.0000- 1
59 77 9	8.0000- 1	4.4000- 2	3.1000- 1	6.0000- 2	5.0000- 1	7.5000- 1
59 77 2	0.0000+ 0	3.0000- 2	2.7000- 1	5.0000- 2	5.0000- 1	1.8000+ 0
1 66 1377	1.0000+ 0		1.7200- 1	3.4400- 2	6.0000- 1	7.0000- 1
1 66 1377	1.5000+ 0		6.9000- 2	1.3800- 2	6.0000- 1	7.0000- 1
1 66 1377	1.0000+ 0		1.5700- 1	3.1400- 2	7.0000- 1	8.0000- 1

03/01/74

N,N'
CROSS SECTION

92-U -235

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
1 66 1377	1.5000+ 0		9.4000- 2	1.8800- 2	7.0000-	1 8.0000- 1
1 66 1377	1.0000+ 0		8.9000- 2	1.7800- 2	8.0000-	1 8.7000- 1
1 66 1377	1.5000+ 0		1.2100-	1 2.4200-	2 8.0000-	1 9.0000- 1
1 66 1377	1.5000+ 0		1.5900-	1 3.1800-	2 9.0000-	1 1.0000+ 0
1 66 1377	1.5000+ 0		1.9500-	1 3.9000-	2 1.0000+	0 1.1000+ 0
59 77	2.0000+ 0	3.0000-	2 6.7000-	1 1.5000-	1 1.0000+	0 1.5000+ 0
1 66 1377	1.5000+ 0		1.6600-	1 3.3200-	2 1.1000+	0 1.2000+ 0
1 66 1377	1.5000+ 0		1.1000-	1 2.2000-	2 1.2000+	0 1.3000+ 0
1 66 1377	1.5000+ 0		5.4000- 2	1.0800-	2 1.3000+	0 1.3600+ 0
59 77	2.0000+ 0	3.0000-	2 4.2000-	1 1.0000-	1 1.5000+	0 1.7500+ 0

03/01/74

ABSORPTION

92-U -235

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 1317	2.5000- 8		6.5200+ 2		55 1364	2.4000- 2		2.9100+ 0	1 7.0000- 1
54 1300	2.5000- 8		6.9100+ 2	5.0000+ 0	58 1338	2.4000- 2		3.7000+ 0	9.0000- 2
46 1313	2.5300- 8		6.4200+ 2		58 1338	2.4000- 1		2.0500+ 0	9.0000- 2
54 1279	2.5300- 8		7.2000+ 2	1.5000+ 1	58 1338	8.8000- 1		1.5800+ 0	9.0000- 2

03/01/74

N,P

92-U -235

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		1.9000-	3 4.0000- 4

03/01/74

ABSORPTION

92-U -236

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
58 436	2.5300- 8		8.1000+ 0	1.8800+ 0

03/01/74

ABSORPTION
CROSS SECTION

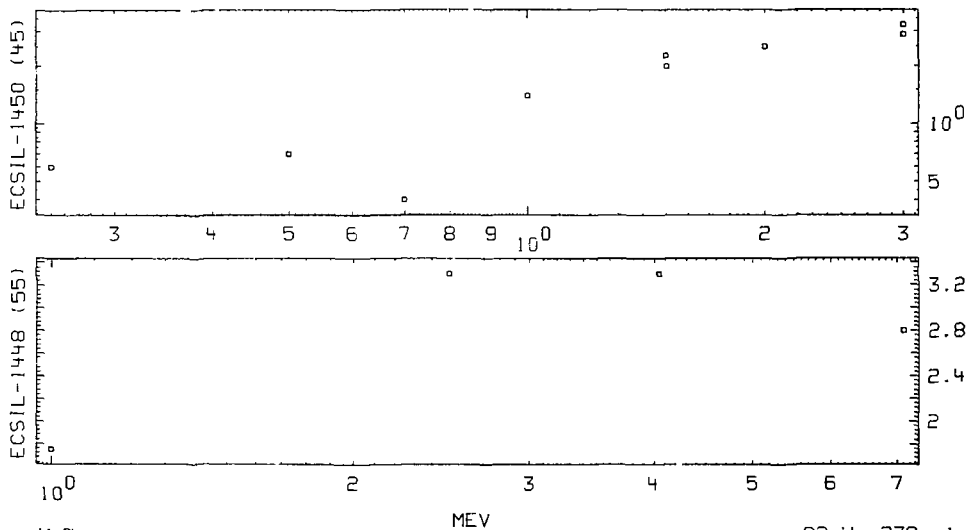
92-U -23-

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67	195	2.5300- 8	4.1100+ 2	1.3800+ 2

03/01/74

NONELASTIC
CROSS SECTION

92-U -238



11-24

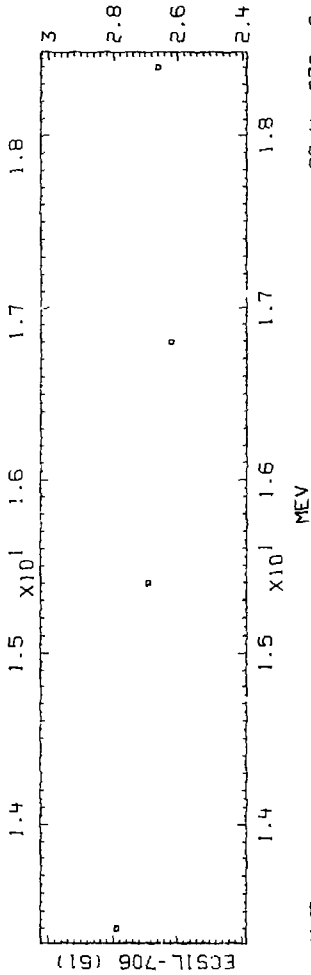
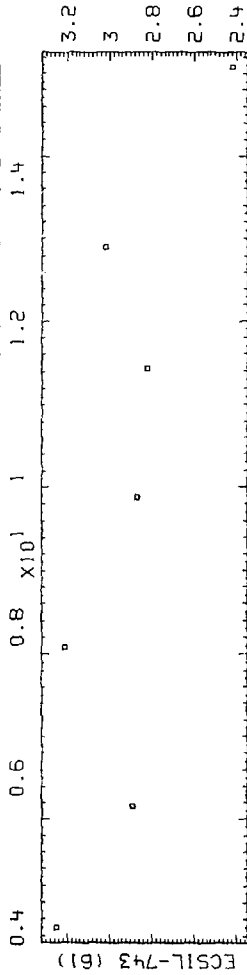
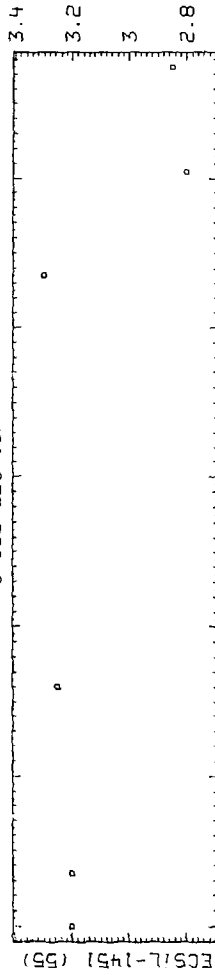
MEV

92-U -238 -1

03/01/74

NONELASTIC
CROSS SECTION

92-U -238



MEV

11-25

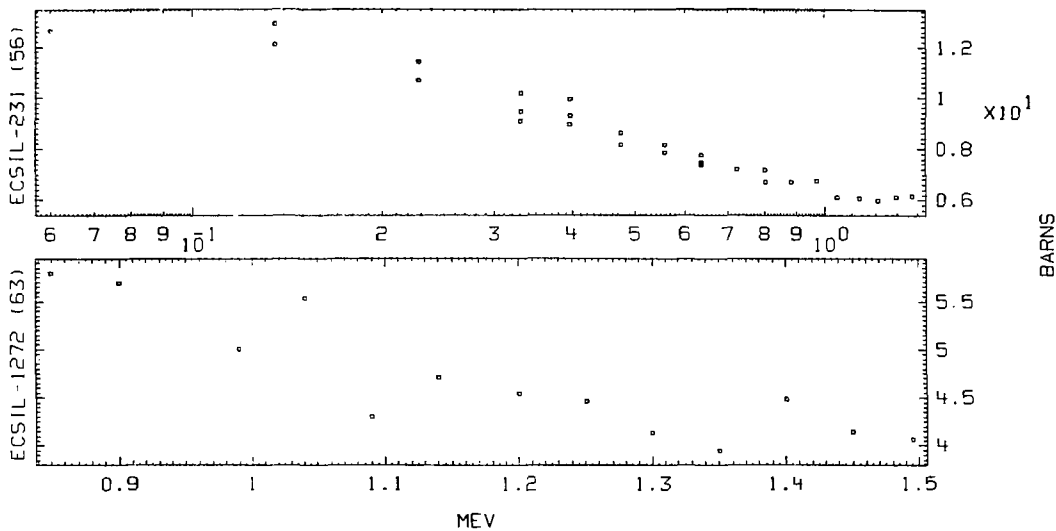
92-U -238 -2

BARNS

03/01/74

TOTAL SCATTERING
CROSS SECTION

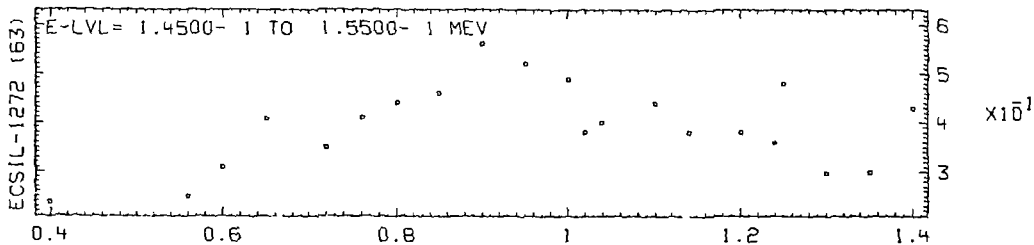
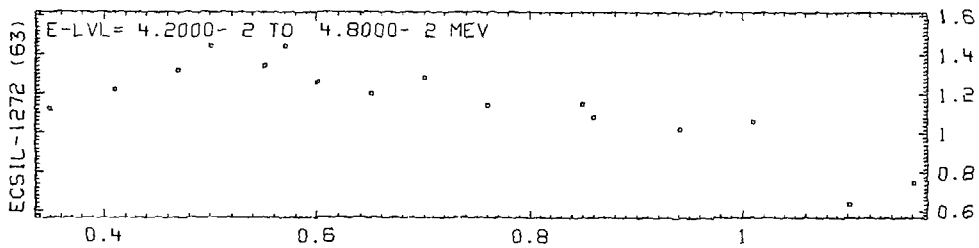
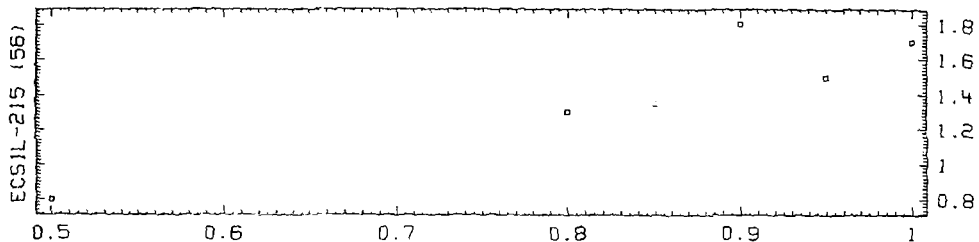
92-U -238



03/01/74

N,N'
CROSS SECTION

92-U -238



BARN

$\times 10^1$

11-27

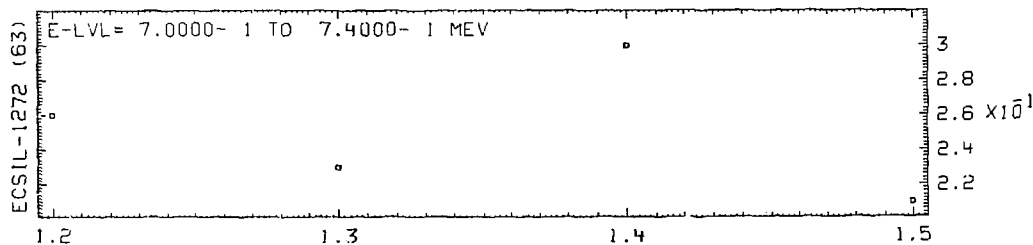
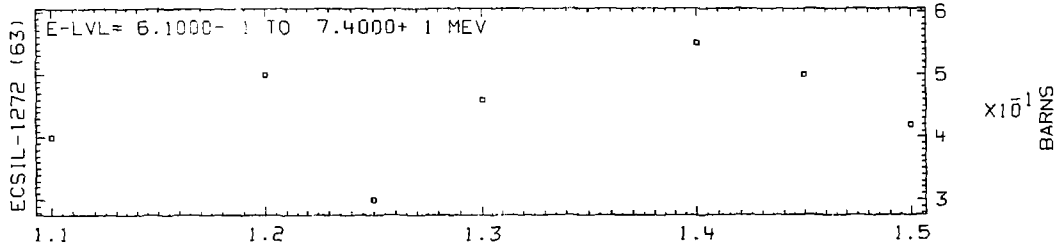
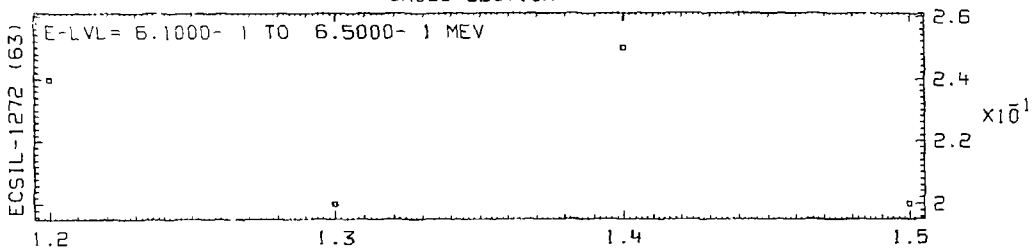
MEV

92-U -238 -4

03/01/74

N,N'
CROSS SECTION

92-U -238



11-28

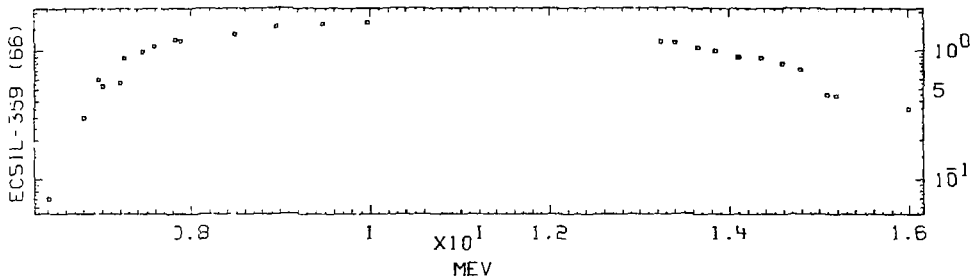
MEV

92-U -238 -5

03/01/74

N,2N
CROSS SECTION

92-U -238

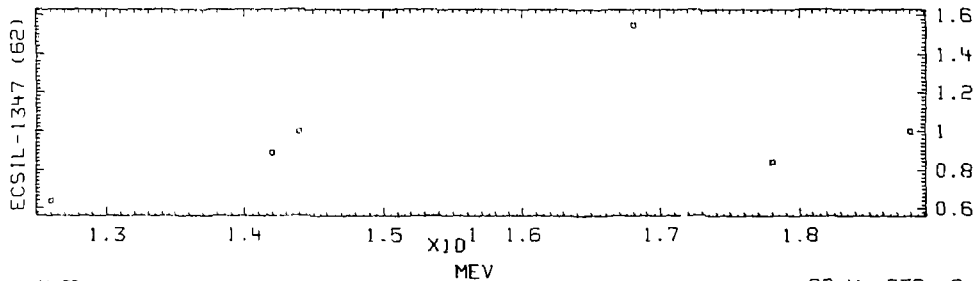


BARNs

03/01/74

N,3N
CROSS SECTION

92-U -238



BARNs

11-29

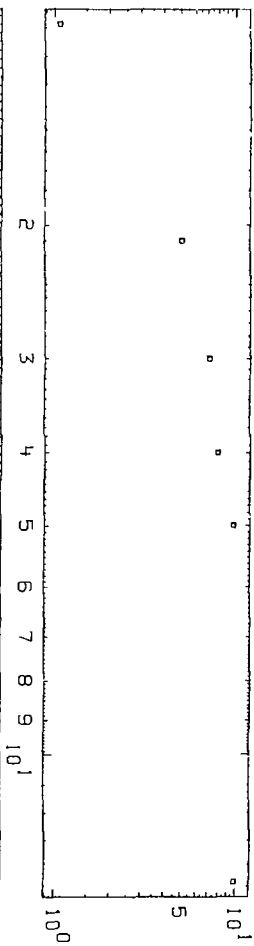
92-U -238 -6

03/01/74

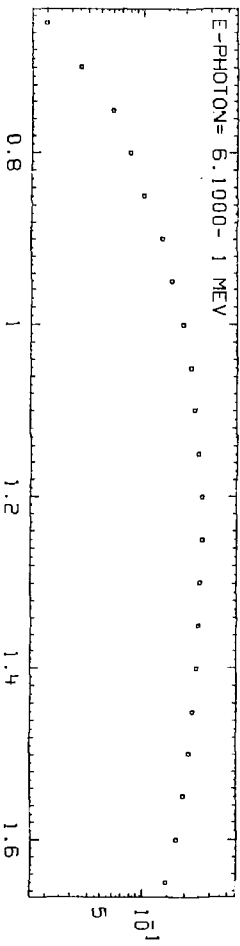
N, X GAMMA
CROSS SECTION

92-U -238

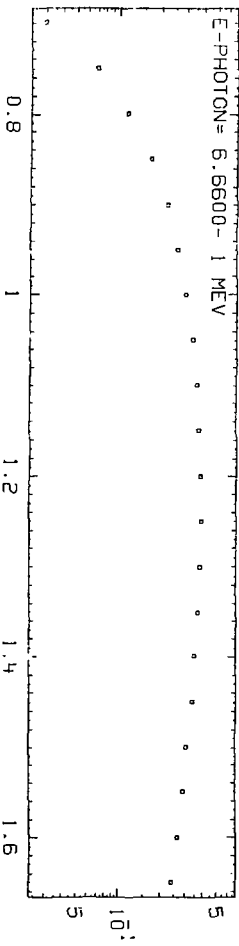
ECSIL-1027 (66)



ECSIL-11 (61)



ECSIL-11 (61)



BARNs

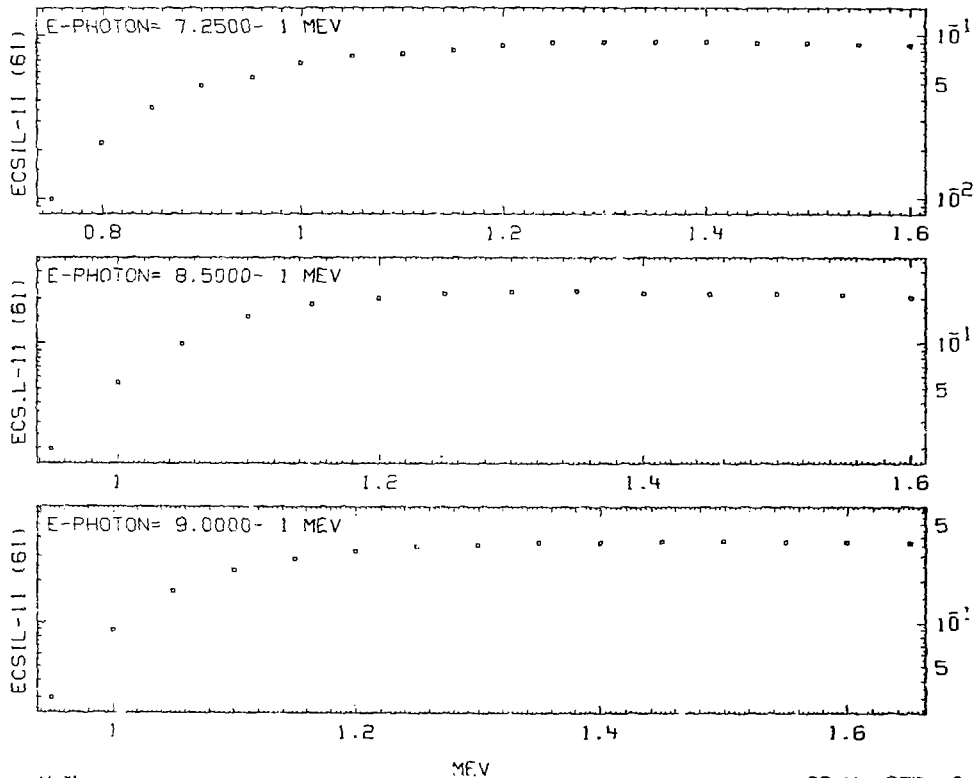
11-30

92-U -238 -7

03/01/74

N, X GAMMA
CROSS SECTION

92-U -238



11-31

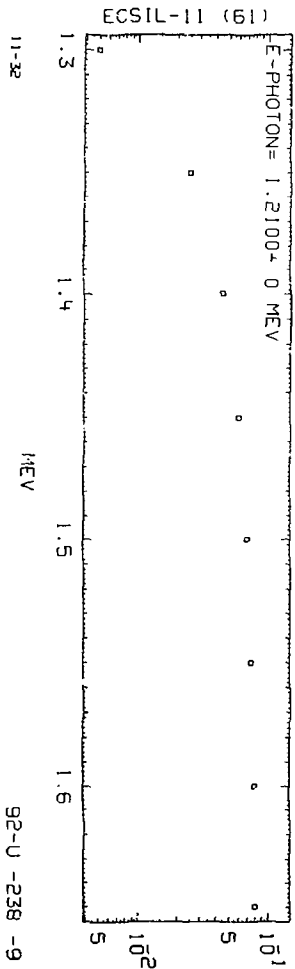
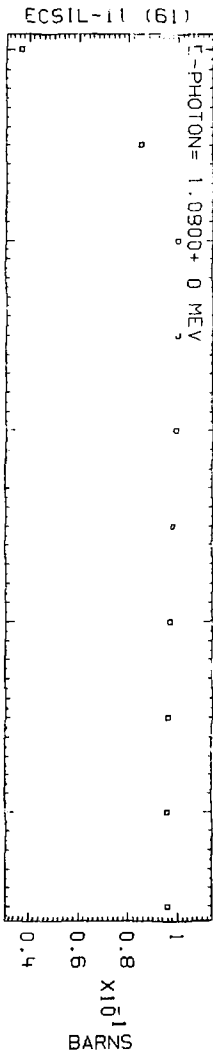
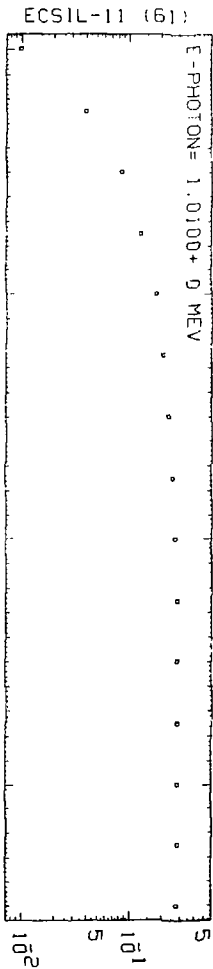
MEV

92-U -238 -8

03/01/74

N X GAMMA
CROSS SECTION

92-U -238



11-32

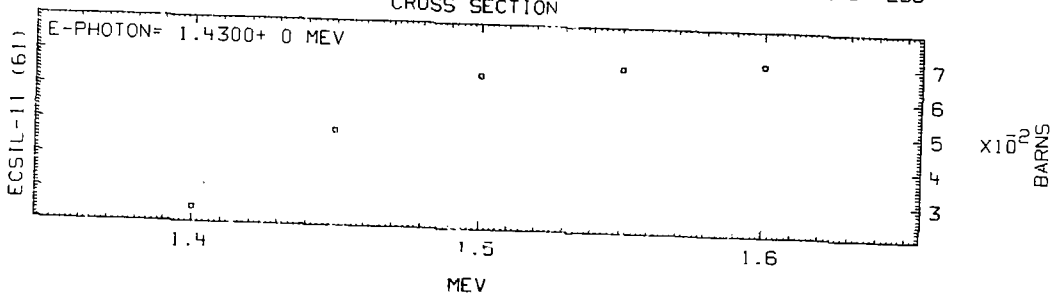
MEV

92-U -238 -9

03/01/74

N, X GAMMA
CROSS SECTION

92-U -238



03/01/74

NONELASTIC

92-U -238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
57	156 1.5000- 1		6.3010- 1	2.0000- 2	58	592 1.1900- 1		2.8300+ 0	1.0000- 1
57	156 2.5000- 1		6.3010- 1	1.5000- 1	65	1228 1.3400+ 1		2.7200+ 0	2.0000- 1
57	156 5.0000- 1		8.0010- 1	1.5000- 1	51	1449 1.4000+ 1		2.7500+ 0	1.0000- 1
61	754 9.0000- 1		1.0000+ 0	3.0000- 1	58	592 1.4100+ 1		2.9500+ 0	1.0000- 1
65	1228 8.1000+ 0		3.1000+ 0	1.0000- 1	65	1228 1.7500+ 1		2.7100+ 0	2.1000- 1
58	592 8.1000+ 0		2.9500+ 0	1.5000- 1					

03/01/74

TOTAL SCATTERING

92-U -238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN	DELTA BARN
56	149 5.0000- 1	6.0010- 2	7.3010+ 0	7.0010- 1
56	149 1.0000+ 0	5.0000- 2	5.4010+ 0	5.0000- 1

03/01/74

NEUTRON NONEL. EMISS.
CROSS SECTION

92-U -238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
15 1264	3.0000+ 0		4.2200+ 0	3.0000- 2	57 338	1.4000+ 1		7.6000+ 0	1.0000+ 0
65 1264	4.0000+ 0		3.7800+ 0	2.5000- 1	68 2085	1.4100+ 1	1.0000- 1	8.4700+ 0	7.2000- 1
65 1264	7.0000+ 0		5.7700+ 0	4.0000- 1					

03/01/74

N,N'

92-U -238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 156	1.5000- 1		4.4000- 1	2.0000- 1	57 338	1.4000+ 1		2.7000- 1	1.0000- 2
57 156	2.0000- 1		4.8000- 1	1.5000- 1	61 1270	1.4100+ 1	7.0000- 1	1.5000- 1	1.5000- 1
57 156	5.0000- 1		8.7000- 1	1.5000- 1	61 652	1.4100+ 1		1.5000- 1	7.0010- 2
61 754	9.0000- 1		8.0010- 1	3.0000- 1	62 1347	1.4200+ 1		1.0000- 1	1.9000- 2

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL MEV
65 1266	9.5000- 2		5.7000- 2	1.4500- 1	4.5000- 2	57 156	5.0000- 1		1.8000- 1	1.0000- 1	5.0000- 2
57 156	1.5000- 1		4.4000- 1	2.0000- 1	5.0000- 2	57 156	2.5000- 1		2.9000- 1	1.5000- 1	1.4000- 1
57 156	2.5000- 1		1.9000- 1	1.0000- 1	5.0000- 2	57 156	5.0000- 1		4.9000- 1	2.5000- 1	1.4000- 1

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
56 215	5.0000- 1		8.5000- 1	1.7000- 1	0.0000+ 0	5.0000- 1
56 215	8.0000- 1		7.5000- 1	1.5000- 1	3.0000- 1	8.0000- 1
56 215	8.5000- 1		7.5000- 1	1.5000- 1	3.5000- 1	8.5000- 1
56 215	9.0000- 1		6.5000- 1	1.7000- 1	4.0000- 1	9.0000- 1
56 215	9.5000- 1		6.0000- 1	1.6000- 1	4.5000- 1	9.5000- 1
56 215	1.0000+ 0		6.0000- 1	1.2000- 1	5.0000- 1	1.0000+ 0
65 1264	1.8000+ 0		3.8000- 1	4.0000- 2	5.7000- 1	1.8.7000- 1
65 1264	2.0000+ 0		2.8500- 1	3.0000- 2	5.7000- 1	1.8.7000- 1
65 1264	2.4000+ 0		2.3000- 1	3.0000- 2	5.7000- 1	1.8.7000- 1
65 1264	2.0000+ 0		1.0250+ 0	1.0000- 1	8.7000- 1	1.3800+ 0
63 1272	1.4000- 0		2.6300- 1	1.0000- 1	9.0000- 1	1.9.6000- 1
63 1272	1.5000+ 0		2.1000- 1	8.0000- 2	9.0000- 1	1.9.6000- 1
63 1272	3.5000- 1		7.7.00- 1	1.5000- 1	9.0000- 1	1.0800+ 0
63 1272	4.1000- 1		7.7.800- 1	1.5000- 1	9.0000- 1	1.0800+ 0
63 1272	1.4000+ 0		2.0100- 1	8.0000- 2	9.7000- 1	1.0300+ 0
63 1272	1.5000+ 0		2.0000- 1	8.0000- 2	9.7000- 1	1.0300+ 0
63 1272	1.4000+ 0		2.8500- 1	1.0000- 1	1.0200+ 0	1.0800+ 0

11-34

92-U -238 -11

03/01/74

N,N'
CROSS SECTION

92-U -238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
63 1272	1.5000+ 0		3.2800- 1 1.0000	1 1.0200+ 0	0 1.0800+ 0	
65 1264	3.0000+ 0		1.1000- 1	4.0000- 2	1.0300+ 0	1.0900+ 0
65 1264	2.0000+ 0		1.4800+ 0	2.5000- 1	1.3800+ 0	2.0000+ 0

03/01/74

N,2N

92-U -238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BAPNS	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 338	1.4000+ 1		8.5000- 1		61 745	1.4500+ 1	4.0000- 1	6.9010- 1	4.0000- 2
56 1398	1.4100+ 1		6.5000- 1	5.0000- 2	58 580	1.5000+ 1		9.0010- 1	1.5000- 1

03/01/74

N,3N

92-U -238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57 338	1.4000+ 1		3.7000- 1	
61 1270	1.4100+ 1	7.0000- 1	9.5000- 1	1.5000- 1

03/01/74

N,4N

92-U -238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 1347	1.7800+ 1		5.0000- 1	6.0000- 1
62 1347	1.8800+ 1		1.5000- 1	6.0000- 1

03/01/74

ABSORPTION

92-U -238

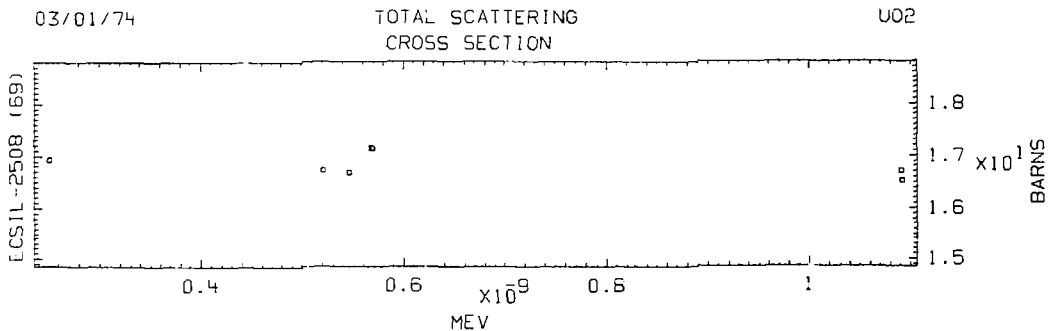
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
69 2520	2.5300- 8		2.7210+ 0	1.6000- 2	66 1341	2.4000- 2	1.5000- 3	3.8000- 1	2.9000- 2
44 1432	2.5300- 8		2.5800+ 0	7.7400- 2	65 1364	2.4000- 2		4.1200- 1	1.8000- 2
53 1431	2.5300- 8		2.7100+ 0	5.0000- 2	58 364	2.5000- 2	4.0000- 3	5.7200- 1	7.0000- 3
54 1279	2.5300- 8		2.8000+ 0	1.0000- 1	58 364	2.2000- 1	2.0000- 2	2.0400- 1	5.0000- 3
55 1205	2.5300- 8		2.6900+ 0	4.0000- 2	58 364	8.3000- 1	4.0000- 2	1.4700- 1	7.0000- 3

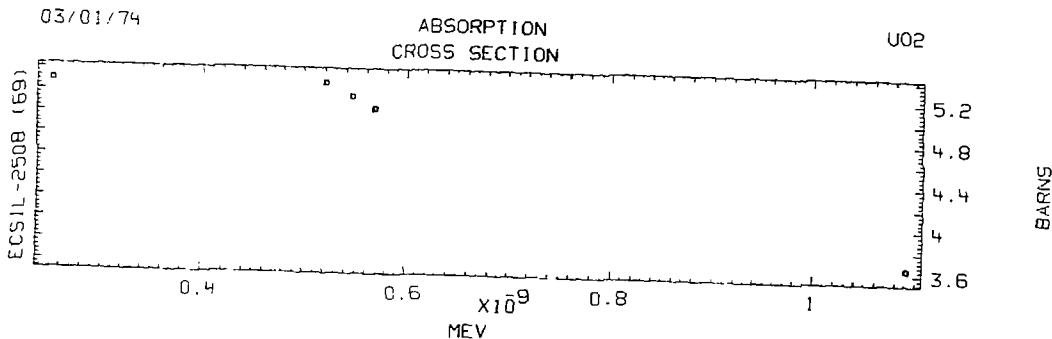
03/01/74

N, ALPHA
CROSS SECTION

92-U -238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59	550	1.4500+ 1	1.5000- 3	3.0000- 4





03/01/74

N,2N

93-NP-237

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S
61	745	1.4500+ 1	4.0000- 1	3.9000- 1
				7.0010- 2

03/01/74

N,P

93-NP-237

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S
59	550	1.4500+ 1	1.3000- 3	3.0000- 4

03/01/74

ABSORPTION

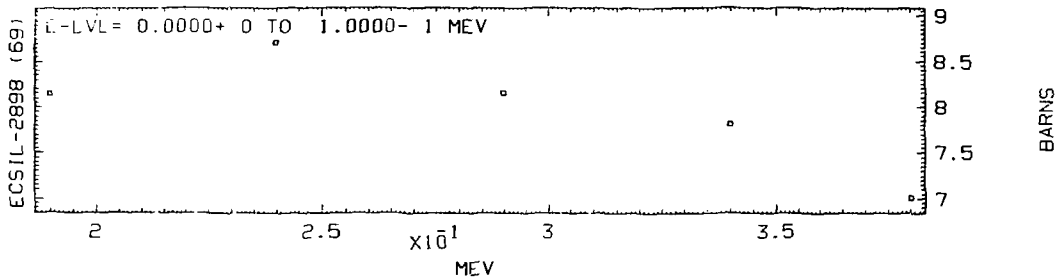
94-PU-238

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARN'S	DELTA BARN'S
67	1387	2.5300- 8	5.5900+ 2	2.5000+ 1

03/01/74

TOTAL SCATTERING
CROSS SECTION

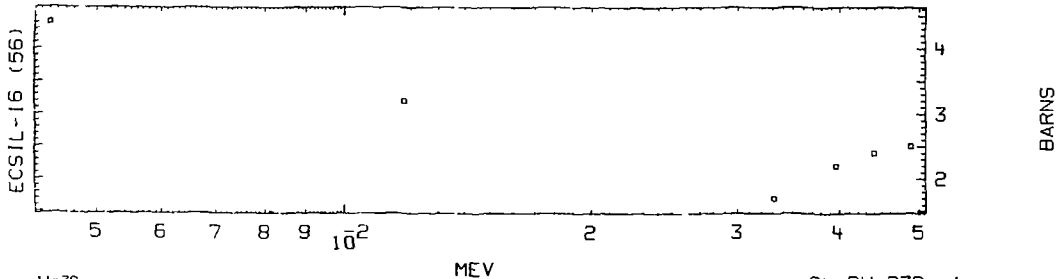
94-PU-239



03/01/74

ABSORPTION
CROSS SECTION

94-PU-239



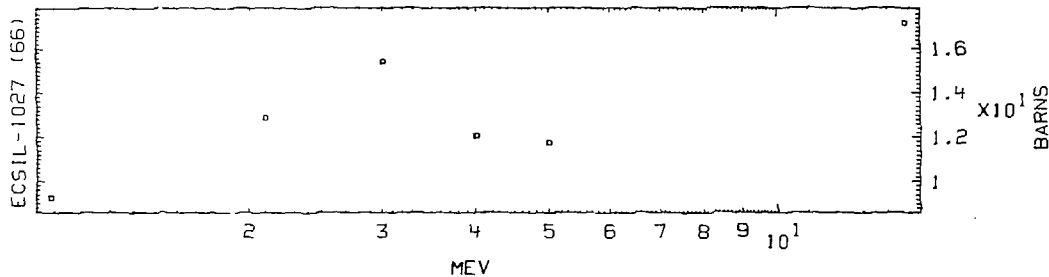
11-38

94-PU-239 - 1

03/01/74

N,X GAMMA
CROSS SECTION

94-PU-239



03/01/74

NONELASTIC

94-PU-239

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	
56	149	5.0000-1	6.0010-2	2.4000+0	6.0010-1	58	592	1.1900+1	2.8400+0	1.2000-1
61	754	9.0000-1		2.8000+0	3.0000-1	59	802	1.4100+1	2.6900+0	2.0000-1
56	149	1.0000+0	5.0000-2	3.1000+0	6.0010-1	65	1228	1.5400+1	2.7000+0	2.0000-1
55	1383	4.0000+0		3.3000+0	3.5000-1	61	706	1.6800+1	2.8700+0	1.0000-1
55	1383	4.5000+0		3.3000+0	3.5000-1	65	1228	1.8400+1	2.5700+0	7.0000-2
58	592	8.1000+0		3.2000+0	2.0000-1					

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV
57	444	2.5000-1		2.2600+0	4.0000-2	2.5000-1
57	444	5.0000-1		2.8600+0	4.0000-2	5.0000-1
57	444	5.0000-1		1.7900+0	3.0000-1	7.5000-2
57	444	1.0000+0		2.5700+0	1.5000-1	1.0000+0

03/01/74

N,N'

94-PU-239

CROSS SECTION

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 754	9.0000- 1		9.0010- 1	3.0000- 1	69 2598	3.0000+ 0	5.0000- 2	1.5800+ 0	6.1000- 1
69 2598	2.0000+ 0	5.0000- 2	1.700+ 0	4.9000- 1	69 2598	4.0000+ 0	5.0000- 2	1.8100+ 0	6.9000- 1
REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	E-LVL-MIN MEV	E-LVL-MAX MEV			
59 77	5.5000- 1	1.0000- 2	6.4500+ 0	2.0000- 1	0.0000+ 0	9.0000- 2			
59 77	9.6000- 1	4.4000- 2	5.0600+ 0	2.0000- 1	0.0000+ 0	1.5000- 1			
59 77	2.5000+ 0	3.0000- 2	4.1900+ 0	2.0000- 1	0.0000+ 0	5.0000- 1			
59 77	5.5000- 1	1.0000- 2	1.3000- 1	5.0000- 2	9.0000- 2	2.0000- 1			
59 77	9.8000- 1	4.4000- 2	1.6000- 1	6.0000- 2	1.5000- 1	5.0000- 1			
59 77	5.5000- 1	1.0000- 2	1.0000- 1	5.0000- 2	2.0000- 1	3.0000- 1			
59 77	2.0000+ 0	3.0000- 2	1.9000- 1	5.0000- 2	5.0000- 1	1.0000+ 0			
59 77	2.0000+ 0	3.0000- 2	2.4000- 1	8.0000- 2	1.0000+ 0	1.5000+ 0			
59 77	2.0000+ 0	3.0000- 2	2.4000- 1	8.0000- 2	1.5000+ 0	1.7500+ 0			

03/01/74

ABSORPTION

94-PU-239

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
55 1317	2.5000- 8		1.0000+ 3		58 1338	2.4000- 2		2.5800+ 0	9.0600- 2
66 1131	2.5300- 8		1.0120+ 3	4.0000+ 1	58 1338	2.4000- 1		1.8900+ 0	1.1800- 1
66 1311	2.5300- 8		1.0210+ 3	1.2000+ 1	58 1338	8.8000- 1		1.7900+ 0	1.3000- 1
65 1364	2.4000- 2		2.6900+ 0	1.7000- 1					

03/01/74

N,P

94-PU-239

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
59 550	1.4500+ 1		3.0000- 3	4.0000- 4

03/01/74

COHERENT SCATTERING

94-PU-239

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
62 1275	4.2000- 8		7.0700+ 0	

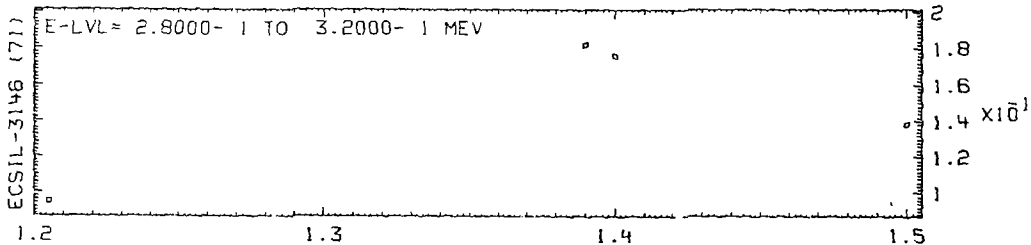
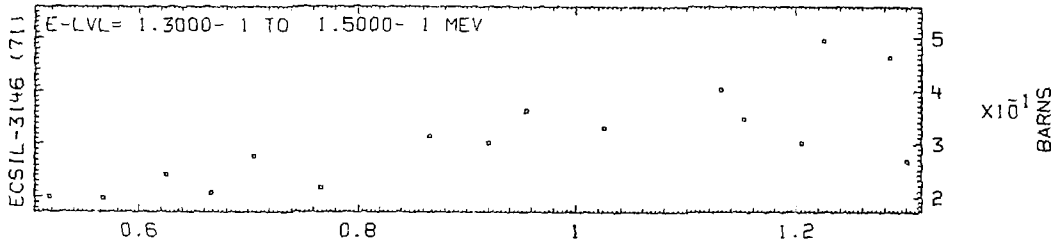
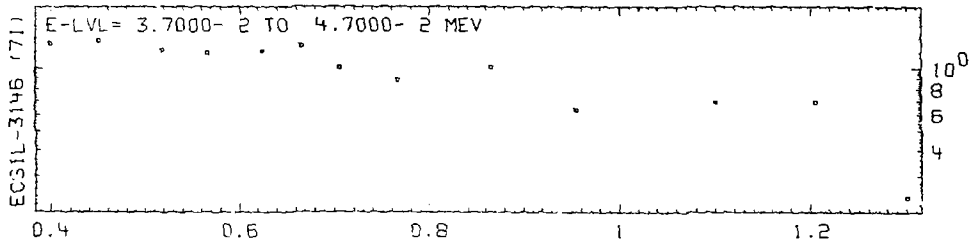
11-40

94-PU-239 -3

03/01/74

N, N'
CROSS SECTION

94-PU-240



11-41

MEV

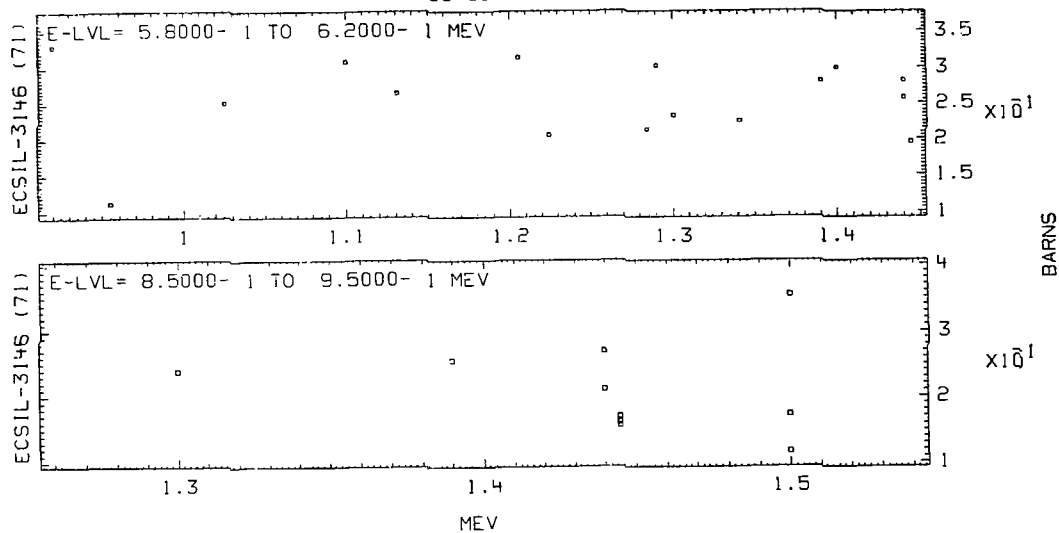
94-PU-240 -1

03/01/74

N,N'

94-PU-240

CROSS SECTION



03/01/74

N,N'

94-PU-240

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
71	3.5000- 1	2.0000- 2	1.2780+ 0	3.7350- 1

03/01/74

ABSORPTION
CROSS SECTION

94-PU-240

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs	REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
57	412	2.5000- 8	4.6000+ 2	4.5000+ 1	62	1183	2.5300- 8	2.9000+ 2	9.0000+ 0
59	1130	2.5000- 8	2.8500+ 2	2.5000+ 1	71	3239	8.0000- 8	2.0500+ 2	1.0000+ 1
58	1162	2.5300- 8	3.7000+ 2	4.0000+ 1					

03/01/74

COHERENT SCATTERING

94-PU-240

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
71	3239	2.5000- 8	1.5390+ 0	8.7900- 2
76	3242	2.5300- 8	1.8100+ 0	

03/01/74

ABSORPTION

94-PU-241

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
66	1131	2.5300- 8	1.3670+ 3	3.7000+ 1

03/01/74

ABSORPTION

94-PU-242

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68	2103	2.5300- 8	2.0000+ 1	
71	3239	7.0000- 8	1.5000+ 1	

03/01/74

COHERENT SCATTERING

94-PU-242

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
71	3239	2.5000- 8	8.2450+ 0	2.0360- 1

03/01/74

N,2N
CROSS SECTION

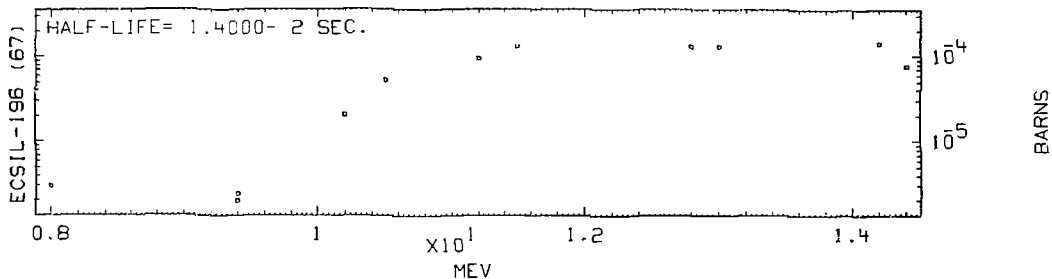
95-AM-241

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
67 2319	1.4100+ 1		9.0000- 5	

03/01/74

N,2N
CROSS SECTION

95-AM-243



03/01/74

N,2N

95-AM-243

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
65 1521	1.4000+ 1		1.5000- 4	

11-44

95-AM-243 -1

03/01/74

ABSORPTION
CROSS SECTION

95-AM-243

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2104	2.5300- 8		8.6600+ 1	
68 2103	2.5300- 8		7.8000+ 1	

03/01/74

ABSORPTION

96-CM-244

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2104	2.5300- 8		8.4000+ 0	
68 2104	2.5300- 8		1.4500+ 1	

03/01/74

ABSORPTION

96-CM-246

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2103	2.5300- 8		8.4000+ 0	

03/01/74

ABSORPTION

97-BK-249

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2103	2.5300- 8		1.4000+ 3	

03/01/74

ABSORPTION

98-CF-250

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2103	2.5300- 8		1.5000+ 3	

03/01/74

ABSORPTION

98-CF-251

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2103	2.5300- 8		6.6000+ 3	

03/01/74

ABSORPTION
CROSS SECTION

98-CF-252

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2103	2.5300- 8		8.6000+ 0	

03/01/74

ABSORPTION

99-ES-253

REFERENCE	ENERGY MEV	DELTA MEV	X-SEC BARNs	DELTA BARNs
68 2103	2.5300- 8		1.3000+ 2	
