Cross sections below threshold energy in EXFOR

(N. Otsuka, 2024-02-12, CP-D/1101)

I extracted data points below the threshold energy in the C4 library Ver. 2023-05-02 (C4-2023-05-02.xc4) by Tcalc (https://www.jcprg.org/tcalc/) and the AME2020 mass table.

- SF2 is G, N, P, D, T, HE3 or A
- SF3 is not for scattering (EL, INL, SCT)
- SF4 is a product other than photon and Z(SF1)+Z(SF2) – Z(SF4) ≤ 10
- SF8 is not MSC or a spectrum average modifier (EPI, FIS, FST, MXW, SDT, SPA)
- MF 3
- MT is defined for an outgoing particle (or its combinations), or MT≥9000
- Incident energy is not negative.
- Cross section is positive.

The list shows all data points where the threshold energy is lower than the incident energy E (plus the incident energy uncertainty ΔE if coded). (Note that the actual threshold energy may be higher due to Coulomb barrier if the ejectile is a charged particle. This must be discussed separately.)

A possible reason of the problem could be due to

- Use of a particle combination (e.g., `N+P`) instead of `X` in REACTION SF3
- Use of A≠0 (e.g., `23-V-51`) instead of A=0 (e.g., `23-V-0`) in REACTION SF1 for a nearly monoisotopic element

To give some ideas to the data centres, the following two threshold energies are given in the table in addition to the threshold energy calculated for the reaction spelled under REACITON:

- the lowest threshold energy leaving the same reaction product ($E_{thr,i}$)
- threshold energy natural sample leaving the same reaction product ($E_{thr,n}$).

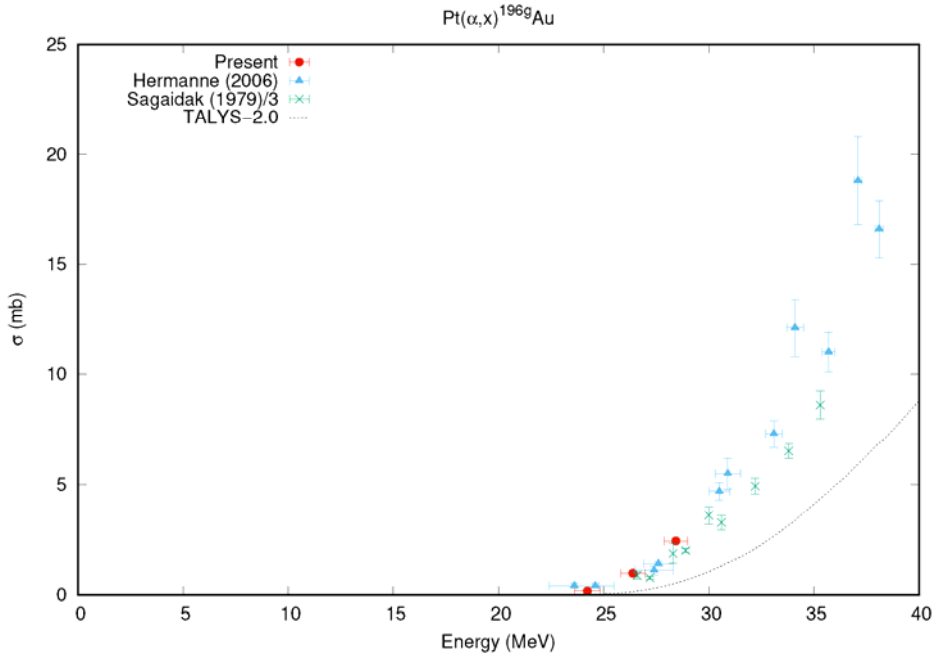
Example (8-O-16(A,N+P)9-F-18,,SIG):

- E_{thr} = 23.20 MeV for ^{16}O(α,np)^{18}F
- $E_{thr,i}$ = 20.41 MeV for ^{16}O(α,x)^{18}F
- $E_{thr,n}$ = 17.56 MeV for ^{nat}O(α,x)^{18}F

Note that the actual threshold energy may be higher than the threshold energy calculated with a mass table.

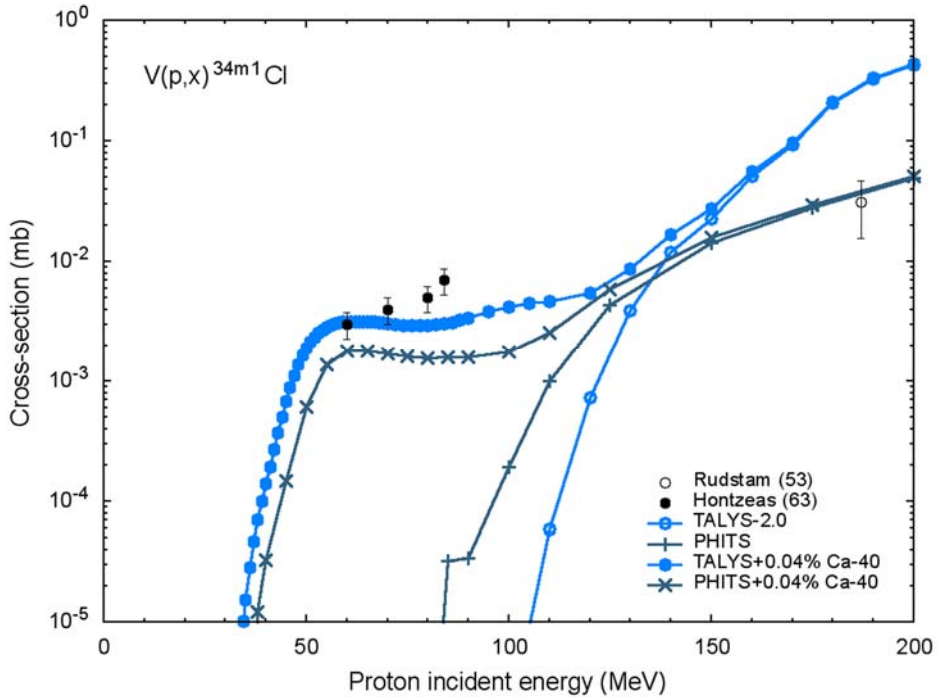
Example 1

The threshold energy of $^{nat}Pt(\alpha,x)^{196g}Au$ calculated from the mass table is 14.5 MeV. But both experimental and calculated excitation functions show the actual threshold energy is higher. Assuming spherical shapes for both the charged ejectile and residual, the Coulomb barrier height is ~12 MeV, which estimates an "effective" threshold energy of ~26 MeV.



Example 2 (Courtesy of Alexander Konobeev):

The $V(p,x)^{34}Cl$ threshold energy calculated by the mass table is ~57 MeV. But the calculated excitation functions show a much higher threshold energy of ~100 MeV. The finite cross sections by Hontzeas (EXFOR C2366.020) can be nicely explained by the calculations if we consider presence of Ca impurity (0.04%!).

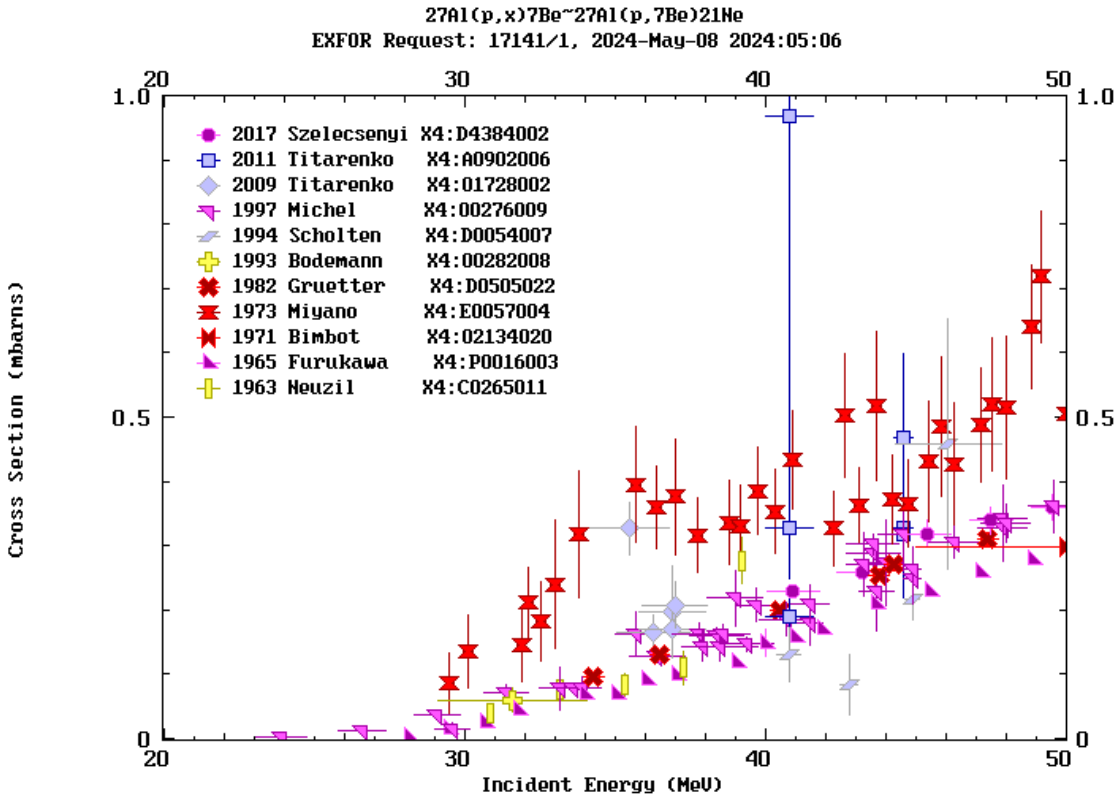


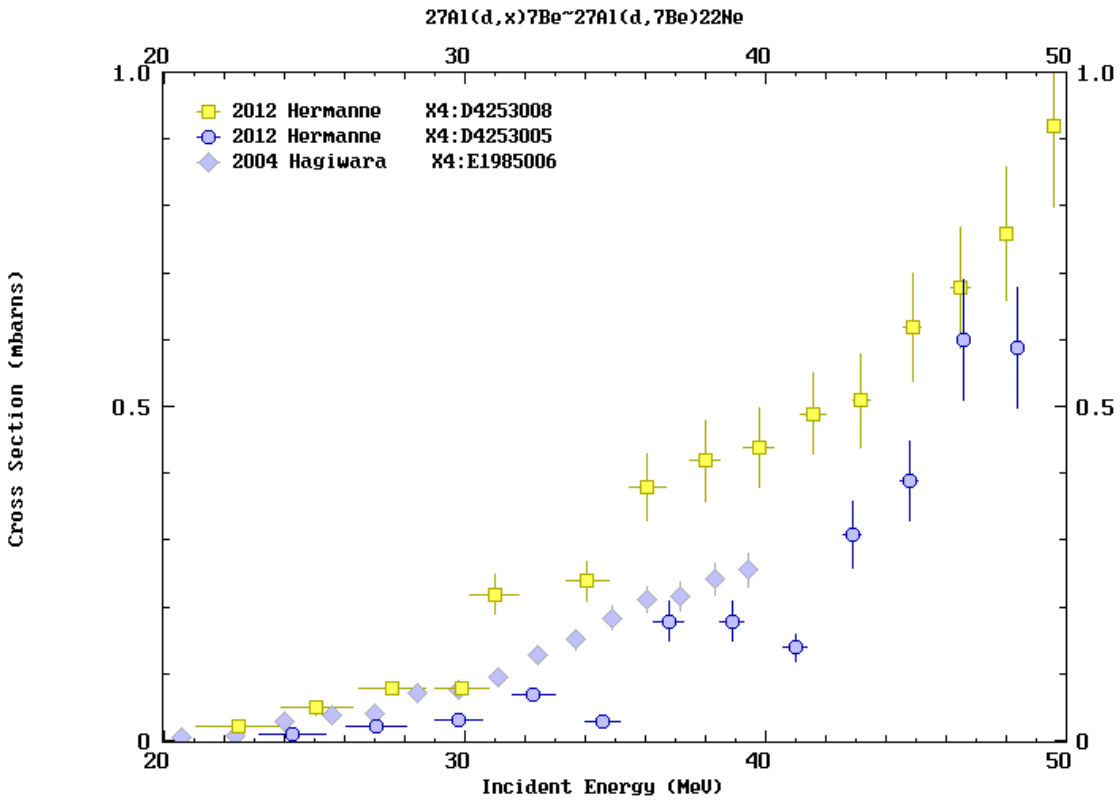
The number of entries and subentries in the list

Area	Centre	Entry	Subentry
1	NNDC	7	13
2	NEA DB	13	14
3	NDS	8	11
4	CJD	1	1
A	CNPD	35	78
B	NDS	15	30
C	NNDC	37	54
D0	NDS	29	43
D4	ATOMKI	51	73
D5	UkrNDC	1	2
D6	NDPCI	3	5
D7	KNDC	3	5
E	JCPRG	22	30
F	CNPD	11	16
G	NDS	1	1
L	NNDC	31	62
M	CDFE	19	26
O	NEA DB	23	32
P	NNDC	13	25
R	JCPRG	3	3
S	CNDC	2	2
T	NNDC	8	12

Note added to WP2024-21:

I realised that ^{27}Al(p,x)^{7}Be and ^{27}Al(d,x)^{7}Be are possible by two-body reactions such as ^{27}Al(p,^{7}**Be**)^{21}Ne (Ethr=22 MeV) and ^{27}Al(d,^{7}**Be**)^{22}Ne (Ethr~14 MeV), which are the processes not taken into account in my listing, and I think many data points of these reactions listed in the Appendix are legal. I indicated the relevant data points the relevant data points in green in the table.





Cross section below the threshold energy for γ, n, p, d, t, h and α induced reaction cross sections in EXFOR extracted from C4-2023-05-02.xc4

E_{in}: Incident energy
ΔE_{in}: Uncertainty or spread in incident energy
E_{thr}: Threshold energy calculated with AME2020
$E_{thr,i}$: Threshold energy for inclusive reaction (i.e., SF3=X)
$E_{thr,n}$: Threshold energy for natural target

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
11097.006	V.J.Ashby	1958	14.10	0.00	20.31	20.31	20.31	6-C-12(N,2N)6-C-11,,SIG
11222.006	P.H.Stelson	1957	0.60	0.00	0.66	0.66	0.66	4-BE-9(N,A)2-HE-6,,SIG
11222.007	P.H.Stelson	1957	0.52	0.00	0.66	0.66	0.66	4-BE-9(N,A)2-HE-6,,SIG
11222.007	P.H.Stelson	1957	0.63	0.00	0.66	0.66	0.66	4-BE-9(N,A)2-HE-6,,SIG
11504.004	H.A.Tewes	1960	10.35	0.10	10.60	10.60	10.60	37-RB-85(N,2N)37-RB-84,,SIG
11520.002	D.M.Arnold	1965	17.07	0.10	17.23	17.23	17.23	12-MG-24(N,2N)12-MG-23,,SIG
13949.005	P.E.Garrett	2000	2.00	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	2.15	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	2.22	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	2.43	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	2.80	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	3.13	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	3.27	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	3.56	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	3.94	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	4.16	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	4.29	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	4.60	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	5.37	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	5.76	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
13949.005	P.E.Garrett	2000	6.37	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	6.83	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.005	P.E.Garrett	2000	7.44	0.00	7.54	5.29	5.29	42-MO-92(N,N+P)41-NB-91,PAR,SIG
13949.006	P.E.Garrett	2000	18.63	0.00	19.72	11.15	11.15	42-MO-92(N,2N+P)41-NB-90,PAR,SIG
13949.006	P.E.Garrett	2000	17.04	0.00	19.72	11.15	11.15	42-MO-92(N,2N+P)41-NB-90,PAR,SIG
13949.006	P.E.Garrett	2000	17.48	0.00	19.72	11.15	11.15	42-MO-92(N,2N+P)41-NB-90,PAR,SIG
13949.006	P.E.Garrett	2000	19.32	0.00	19.72	11.15	11.15	42-MO-92(N,2N+P)41-NB-90,PAR,SIG
13949.007	P.E.Garrett	2000	22.00	0.00	29.94	21.37	21.37	42-MO-92(N,3N+P)41-NB-89,PAR,SIG
13949.007	P.E.Garrett	2000	24.60	0.00	29.94	21.37	21.37	42-MO-92(N,3N+P)41-NB-89,PAR,SIG
13949.007	P.E.Garrett	2000	27.38	1.21	29.94	21.37	21.37	42-MO-92(N,3N+P)41-NB-89,PAR,SIG
14461.013	N.Fotiades	2016	8.19	0.12	9.27	9.27	0.00	47-AG-109(N,2N)47-AG-108-G,,SIG
14461.013	N.Fotiades	2016	8.70	0.14	9.27	9.27	0.00	47-AG-109(N,2N)47-AG-108-G,,SIG
14461.014	N.Fotiades	2016	9.25	0.15	9.41	9.41	9.41	45-RH-103(N,2N)45-RH-102-M,,SIG
14461.015	N.Fotiades	2016	8.70	0.14	9.41	9.41	9.41	45-RH-103(N,2N)45-RH-102-G,,SIG
14461.015	N.Fotiades	2016	9.25	0.15	9.41	9.41	9.41	45-RH-103(N,2N)45-RH-102-G,,SIG
14461.018	N.Fotiades	2016	16.50	0.35	16.93	16.93	16.93	45-RH-103(N,3N)45-RH-101-M,,SIG
14497.004	M.Yuly	2018	20.06	0.00	20.31	20.31	20.31	6-C-12(N,2N)6-C-11,,SIG
20416.103	J.Frehaut	1980	8.44	0.14	8.59	8.59	0.00	64-GD-156(N,2N)64-GD-155,,SIG
20794.007	D.S.Mather	1969	14.06	0.00	14.78	14.78	6.62	3-LI-7(N,3N)3-LI-5,,SIG
20926.003	H.Liskien	1965	12.63	0.06	12.97	12.97	12.97	11-NA-23(N,2N)11-NA-22,,SIG
20926.003	H.Liskien	1965	12.81	0.07	12.97	12.97	12.97	11-NA-23(N,2N)11-NA-22,,SIG
21990.007	M.M.Rahman	1985	8.13	0.05	8.38	8.38	0.00	42-MO-100(N,2N)42-MO-99,,SIG
22089.013	Y.Ikeda	1988	13.41	0.00	13.42	13.42	13.42	19-K-39(N,2N)19-K-38-G,,SIG
22286.002.2	R.Woelfle	1993	11.00	0.50	11.61	0.00	0.00	4-BE-9(N,X)1-H-3,,SIG
22611.002	V.H.Braun	1968	14.69	0.03	16.03	16.03	16.03	20-CA-40(N,2N)20-CA-39,,SIG
22664.003	M.Ibn Majah	2001	11.44	0.21	12.10	12.10	12.10	40-ZR-90(N,2N)40-ZR-89,,SIG
22735.005	S.Mirzadeh	2002	20.00	0.00	21.45	12.92	0.23	76-OS-192(N,3N+P)75-RE-189,DI,SIG
22794.002	R.Michel	2015	28.00	0.00	28.50	28.50	28.50	6-C-12(N,X)4-BE-7,,SIG,,,DERIV

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
22794.086	R.Michel	2015	3.00	0.00	7.42	0.00	7.42	52-TE-0(N,X)51-SB-127,CUM,SIG,,,DERIV
22794.086	R.Michel	2015	4.00	0.00	7.42	0.00	7.42	52-TE-0(N,X)51-SB-127,CUM,SIG,,,DERIV
22794.086	R.Michel	2015	5.00	0.00	7.42	0.00	7.42	52-TE-0(N,X)51-SB-127,CUM,SIG,,,DERIV
22794.086	R.Michel	2015	6.00	0.00	7.42	0.00	7.42	52-TE-0(N,X)51-SB-127,CUM,SIG,,,DERIV
22794.086	R.Michel	2015	7.00	0.00	7.42	0.00	7.42	52-TE-0(N,X)51-SB-127,CUM,SIG,,,DERIV
23032.008	M.Furuta	2008	0.93	0.10	1.38	1.38	1.38	29-CU-65(N,P)28-NI-65,,SIG
23171.004	A.Wallner	2011	13.51	0.04	13.63	13.63	13.63	26-FE-54(N,2N)26-FE-53,,SIG
23521.006	K.W.Allen	1947	0.60	0.00	0.66	0.66	0.66	4-BE-9(N,A)2-HE-6,,SIG
30028.006	A.Abboud	1969	12.71	0.09	12.81	12.81	12.81	42-MO-92(N,2N)42-MO-91,,SIG
30447.004	G.Shani	1976	15.10	0.00	15.52	15.52	15.52	16-S-32(N,2N)16-S-31,,SIG
30472.005	N.Lakshmana Das	1975	14.20	0.20	14.89	14.89	0.00	82-PB-206(N,3N)82-PB-204-M,,SIG
31080.006	S.M.Qaim	1968	14.70	0.00	16.42	16.42	16.42	53-I-127(N,3N)53-I-125,,SIG
31519.008	B.Kiraly	2001	11.30	0.20	12.10	12.10	12.10	40-ZR-90(N,2N)40-ZR-89,,SIG
31764.006.1	E.Simeckova	2011	17.50	1.25	19.36	19.36	19.36	27-CO-59(N,3N)27-CO-57,,SIG
31764.006.2	E.Simeckova	2011	17.50	1.25	19.36	19.36	19.36	27-CO-59(N,3N)27-CO-57,,SIG
31784.014	M.Majerle	2017	27.40	1.70	32.58	32.58	21.31	23-V-51(N,4N)23-V-48,,SIG
31784.014	M.Majerle	2017	30.00	1.60	32.58	32.58	21.31	23-V-51(N,4N)23-V-48,,SIG
31851.005	M.F.Attallah	2022	1.00	0.00	1.62	1.62	1.62	22-TI-46(N,P)21-SC-46,,SIG
31851.006	M.F.Attallah	2022	1.00	0.00	3.27	3.27	3.27	22-TI-48(N,P)21-SC-48,,SIG
31851.007	M.F.Attallah	2022	1.00	0.00	2.09	2.09	2.09	23-V-51(N,A)21-SC-48,,SIG
41065.002	S.L.Faddeev	1990	0.00	0.00	7.70	7.70	0.00	84-PO-210(N,2N)84-PO-209,,SIG
A0085.028	A.V.Muminov	1980	4.85	0.00	5.05	5.05	5.05	11-NA-23(P,N)12-MG-23,,SIG
A0146.004	R.Michel	1979	28.18	0.21	35.07	35.07	23.80	23-V-51(P,4N)24-CR-48,,SIG
A0146.004	R.Michel	1979	29.56	0.42	35.07	35.07	23.80	23-V-51(P,4N)24-CR-48,,SIG
A0146.004	R.Michel	1979	29.90	0.14	35.07	35.07	23.80	23-V-51(P,4N)24-CR-48,,SIG
A0146.004	R.Michel	1979	31.52	0.40	35.07	35.07	23.80	23-V-51(P,4N)24-CR-48,,SIG
A0146.004	R.Michel	1979	33.46	0.37	35.07	35.07	23.80	23-V-51(P,4N)24-CR-48,,SIG
A0146.005	R.Michel	1979	16.66	0.42	23.93	23.93	12.66	23-V-51(P,X)23-V-48,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
A0146.005	R.Michel	1979	18.45	0.39	23.93	23.93	12.66	23-V-51(P,X)23-V-48,,SIG
A0146.005	R.Michel	1979	20.59	0.36	23.93	23.93	12.66	23-V-51(P,X)23-V-48,,SIG
A0146.005	R.Michel	1979	22.58	0.32	23.93	23.93	12.66	23-V-51(P,X)23-V-48,,SIG
A0146.007	R.Michel	1979	18.45	0.39	19.09	19.09	10.09	23-V-51(P,X)21-SC-46,,SIG
A0165.005	S.N.Abramovich	1982	3.96	0.00	5.66	5.66	5.66	5-B-10(HE3,X)4-BE-7,,SIG
A0165.005	S.N.Abramovich	1982	4.64	0.00	5.66	5.66	5.66	5-B-10(HE3,X)4-BE-7,,SIG
A0165.005	S.N.Abramovich	1982	4.95	0.00	5.66	5.66	5.66	5-B-10(HE3,X)4-BE-7,,SIG
A0180.003	M.C.Lagunas-Solar	1980	35.37	2.83	38.90	38.90	24.63	81-TL-205(P,6N)82-PB-200,,SIG
A0180.003	M.C.Lagunas-Solar	1980	35.51	2.84	38.90	38.90	24.63	81-TL-205(P,6N)82-PB-200,,SIG
A0182.004	M.C.Lagunas-Solar	1979	15.60	0.00	15.71	15.71	0.00	26-FE-56(P,2N)27-CO-55,,SIG
A0185.005	S.M.Qaim	1979	17.20	0.00	17.50	0.00	17.50	81-TL-0(P,X)82-PB-201,IND,SIG
A0235.002	T.J.Ruth	1979	2.30	0.10	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
A0235.002	T.J.Ruth	1979	2.30	0.10	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
A0243.002	S.L.Waters	1973	13.80	0.00	14.24	14.24	14.24	33-AS-75(A,2N)35-BR-77,,SIG
A0246.002.2	W.J.Ramler	1959	20.60	0.00	20.72	20.72	20.72	83-BI-209(A,2N)85-AT-211,,SIG
A0246.003.8	W.J.Ramler	1959	11.80	0.00	11.98	11.98	11.98	83-BI-209(D,3N)84-PO-208,,SIG
A0282.002	F.Hermes	1974	15.40	1.00	16.71	16.71	8.97	73-TA-181(A,2N)75-RE-183,,SIG
A0313.002	M.Sajjad	1984	3.72	0.00	3.77	3.77	0.00	7-N-15(P,N)8-O-15,,SIG
A0316.004	M.Sajjad	1985	12.55	0.25	13.78	13.78	8.93	7-N-15(P,X)7-N-13,,SIG
A0319.012	P.Misaelides	1980	13.20	0.00	16.22	16.22	16.22	47-AG-107(A,2N)49-IN-109,,SIG
A0321.004	F.E.Little	1983	6.00	0.00	6.05	6.05	6.05	30-ZN-66(P,N)31-GA-66,,SIG
A0340.002.3	V.N.Aleksandrov	1988	30.00	1.80	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,IND,SIG
A0340.002.3	V.N.Aleksandrov	1988	36.00	1.30	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,IND,SIG
A0340.002.3	V.N.Aleksandrov	1988	40.00	1.80	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,IND,SIG
A0340.002.3	V.N.Aleksandrov	1988	45.00	1.60	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,IND,SIG
A0363.003	M.C.Lagunas-Solar	1986	18.10	0.00	18.86	18.86	18.86	53-I-127(P,3N)54-XE-125,,SIG
A0382.004.1	N.Ramamoorthy	1986	9.12	0.09	15.55	15.55	15.55	41-NB-93(A,2N)43-TC-95-G,,SIG
A0382.004.1	N.Ramamoorthy	1986	11.40	0.11	15.55	15.55	15.55	41-NB-93(A,2N)43-TC-95-G,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
A0382.004.1	N.Ramamoorthy	1986	13.46	0.13	15.55	15.55	15.55	41-NB-93(A,2N)43-TC-95-G,,SIG
A0382.004.1	N.Ramamoorthy	1986	15.36	0.15	15.55	15.55	15.55	41-NB-93(A,2N)43-TC-95-G,,SIG
A0390.006	C.Wasilevsky	1988	5.61	0.03	14.28	14.28	14.28	47-AG-109(A,X)47-AG-110-M,,SIG
A0390.007	C.Wasilevsky	1988	5.61	0.03	13.12	13.12	13.12	47-AG-109(A,2P)47-AG-111,,SIG
A0400.004	A.Calboreanu	1987	17.00	0.00	17.35	17.35	17.35	32-GE-70(A,2N)34-SE-72,,SIG
A0445.002	M.C.Lagunas-Solar	1988	24.30	0.34	29.86	29.86	29.86	13-AL-27(P,X)9-F-18,,SIG
A0445.002	M.C.Lagunas-Solar	1988	27.90	0.39	29.86	29.86	29.86	13-AL-27(P,X)9-F-18,,SIG
A0445.003	M.C.Lagunas-Solar	1988	10.20	0.14	24.61	24.61	24.61	13-AL-27(P,X)11-NA-24,,SIG
A0445.003	M.C.Lagunas-Solar	1988	15.80	0.22	24.61	24.61	24.61	13-AL-27(P,X)11-NA-24,,SIG
A0445.003	M.C.Lagunas-Solar	1988	20.30	0.28	24.61	24.61	24.61	13-AL-27(P,X)11-NA-24,,SIG
A0456.005	R.K.Y.Singh	2001	24.60	1.30	25.92	25.92	25.92	41-NB-93(A,3N)43-TC-94-G,,SIG
A0485.008	V.N.Aleksandrov	1990	22.20	1.50	26.67	26.67	26.67	9-F-19(P,X)4-BE-7,,SIG
A0485.009	V.N.Aleksandrov	1990	30.80	1.20	37.38	37.38	37.38	11-NA-23(P,X)4-BE-7,,SIG
A0485.009	V.N.Aleksandrov	1990	35.00	0.50	37.38	37.38	37.38	11-NA-23(P,X)4-BE-7,,SIG
A0494.005.2	A.Hermanne	1991	12.00	0.00	12.16	12.16	0.00	30-ZN-68(P,2N)31-GA-67,,SIG
A0509.004	D.S.Flynn	1978	5.80	0.00	5.80	5.80	5.80	13-AL-27(P,N)14-SI-27,,SIG
A0510.023	V.N.Levkovski	1991	14.80	0.00	15.66	15.66	0.00	22-TI-48(P,2N)23-V-47,,SIG
A0510.027	V.N.Levkovski	1991	12.80	0.00	13.21	13.21	0.00	22-TI-49(P,2N)23-V-48,,SIG
A0510.071	V.N.Levkovski	1991	13.80	0.00	13.84	13.84	0.00	28-NI-62(P,2N)29-CU-61,,SIG
A0510.079	V.N.Levkovski	1991	12.80	0.00	13.48	13.48	13.48	29-CU-63(P,2N)30-ZN-62,,SIG
A0510.179	V.N.Levkovski	1991	13.80	0.00	13.92	13.92	0.00	38-SR-88(P,2N)39-Y-87-M,,SIG
A0510.180	V.N.Levkovski	1991	13.80	0.00	13.92	13.92	0.00	38-SR-88(P,2N)39-Y-87-G,,SIG
A0510.191	V.N.Levkovski	1991	15.80	0.00	17.19	17.19	17.19	40-ZR-90(P,2N)41-NB-89-M,,SIG
A0510.191	V.N.Levkovski	1991	16.70	0.00	17.19	17.19	17.19	40-ZR-90(P,2N)41-NB-89-M,,SIG
A0510.220	V.N.Levkovski	1991	13.80	0.00	13.81	13.81	0.00	42-MO-94(P,2N)43-TC-93-M,,SIG
A0510.258	V.N.Levkovski	1991	14.20	0.00	14.37	14.37	0.00	19-K-41(A,2N)21-SC-43,,SIG
A0510.283	V.N.Levkovski	1991	16.20	0.00	16.34	16.34	16.34	22-TI-46(A,2N)24-CR-48,,SIG
A0510.302	V.N.Levkovski	1991	24.50	0.00	25.12	25.12	13.21	23-V-51(A,3N)25-MN-52-G,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
A0510.307	V.N.Levkovski	1991	14.60	0.00	16.90	16.90	16.90	24-CR-50(A,2N)26-FE-52,,SIG
A0510.307	V.N.Levkovski	1991	15.50	0.00	16.90	16.90	16.90	24-CR-50(A,2N)26-FE-52,,SIG
A0510.307	V.N.Levkovski	1991	16.40	0.00	16.90	16.90	16.90	24-CR-50(A,2N)26-FE-52,,SIG
A0510.327	V.N.Levkovski	1991	11.40	0.00	11.74	11.74	11.74	26-FE-54(A,X)27-CO-56,,SIG
A0510.358	V.N.Levkovski	1991	7.40	0.00	8.43	8.43	8.43	28-NI-60(A,N)30-ZN-63,,SIG
A0510.368	V.N.Levkovski	1991	7.80	0.00	7.98	7.98	7.98	29-CU-63(A,N)31-GA-66,,SIG
A0510.369	V.N.Levkovski	1991	16.70	0.00	17.70	17.70	17.70	29-CU-63(A,2N)31-GA-65,,SIG
A0510.369	V.N.Levkovski	1991	17.60	0.00	17.70	17.70	17.70	29-CU-63(A,2N)31-GA-65,,SIG
A0510.375	V.N.Levkovski	1991	14.00	0.00	14.97	14.97	0.00	29-CU-65(A,2N)31-GA-67,,SIG
A0510.378	V.N.Levkovski	1991	7.80	0.00	9.54	9.54	9.54	30-ZN-64(A,N)32-GE-67,,SIG
A0510.385	V.N.Levkovski	1991	7.80	0.00	7.90	7.90	7.90	30-ZN-66(A,N)32-GE-69,,SIG
A0510.391	V.N.Levkovski	1991	15.00	0.00	15.37	15.37	7.90	30-ZN-67(A,2N)32-GE-69,,SIG
A0510.412	V.N.Levkovski	1991	7.80	0.00	8.44	8.44	8.44	32-GE-70(A,N)34-SE-73,,SIG
A0510.413	V.N.Levkovski	1991	16.70	0.00	17.35	17.35	17.35	32-GE-70(A,2N)34-SE-72,,SIG
A0510.422	V.N.Levkovski	1991	12.80	0.00	13.55	13.55	6.40	32-GE-73(A,2N)34-SE-75,,SIG
A0510.468	V.N.Levkovski	1991	13.40	0.00	13.47	13.47	13.47	37-RB-85(A,2N)39-Y-87-M,,SIG
A0510.469	V.N.Levkovski	1991	13.40	0.00	13.47	13.47	13.47	37-RB-85(A,2N)39-Y-87-G,,SIG
A0510.470	V.N.Levkovski	1991	24.50	0.00	25.84	25.84	25.84	37-RB-85(A,3N)39-Y-86-M,,SIG
A0510.480	V.N.Levkovski	1991	14.00	0.00	14.35	14.35	5.54	38-SR-87(A,2N)40-ZR-89,,SIG
A0510.486	V.N.Levkovski	1991	27.90	0.00	28.05	28.05	28.05	39-Y-89(A,3N)41-NB-90,,SIG
A0510.503	V.N.Levkovski	1991	15.50	0.00	15.55	15.55	15.55	41-NB-93(A,2N)43-TC-95-M,,SIG
A0510.504	V.N.Levkovski	1991	15.50	0.00	15.55	15.55	15.55	41-NB-93(A,2N)43-TC-95-G,,SIG
A0510.511	V.N.Levkovski	1991	8.40	0.00	9.39	9.39	9.39	42-MO-92(A,N)44-RU-95,,SIG
A0510.514	V.N.Levkovski	1991	17.90	0.00	18.73	18.73	18.73	42-MO-92(A,2N)44-RU-94,,SIG
A0556.003	M.J.Ozafran	1993	9.90	0.00	10.08	10.08	2.34	73-TA-181(A,N)75-RE-184-M,,SIG
A0556.004	M.J.Ozafran	1993	9.90	0.00	10.08	10.08	2.34	73-TA-181(A,N)75-RE-184-G,,SIG
A0556.008	M.J.Ozafran	1993	9.90	0.00	10.08	10.08	2.34	73-TA-181(A,N)75-RE-184,,SIG
A0569.002.1	N.G.Zaitseva	1990	5.80	0.00	17.73	17.73	0.00	48-CD-113(P,3N)49-IN-111,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
A0569.002.1	N.G.Zaitseva	1990	10.60	1.40	17.73	17.73	0.00	48-CD-113(P,3N)49-IN-111,,SIG
A0569.002.1	N.G.Zaitseva	1990	15.50	1.10	17.73	17.73	0.00	48-CD-113(P,3N)49-IN-111,,SIG
A0569.003.1	N.G.Zaitseva	1990	7.50	1.70	26.86	26.86	0.00	48-CD-114(P,4N)49-IN-111,,SIG
A0569.003.1	N.G.Zaitseva	1990	13.20	1.20	26.86	26.86	0.00	48-CD-114(P,4N)49-IN-111,,SIG
A0569.003.1	N.G.Zaitseva	1990	17.65	1.05	26.86	26.86	0.00	48-CD-114(P,4N)49-IN-111,,SIG
A0569.003.1	N.G.Zaitseva	1990	21.40	0.90	26.86	26.86	0.00	48-CD-114(P,4N)49-IN-111,,SIG
A0569.003.1	N.G.Zaitseva	1990	24.55	0.75	26.86	26.86	0.00	48-CD-114(P,4N)49-IN-111,,SIG
A0602.002	S.N.Kondratyev	1998	17.00	2.10	23.45	23.45	23.45	27-CO-59(HE3,X)28-NI-57,CUM,SIG
A0602.003	S.N.Kondratyev	1998	17.00	2.10	34.23	34.23	34.23	27-CO-59(HE3,X)28-NI-56,CUM,SIG
A0602.003	S.N.Kondratyev	1998	25.60	1.60	34.23	34.23	34.23	27-CO-59(HE3,X)28-NI-56,CUM,SIG
A0602.008	S.N.Kondratyev	1998	17.00	2.10	20.93	20.93	20.93	27-CO-59(HE3,X)27-CO-55,CUM,SIG
A0617.004	V.G.Batij	1990	5.50	0.00	5.53	5.53	0.00	50-SN-116(P,N)51-SB-116-G,,SIG
A0647.004	O.A.Zhukova	1970	13.80	1.00	14.97	14.97	0.00	29-CU-65(A,2N)31-GA-67,,SIG
A0887.004	V.A.Zagryadskii	2011	41.83	0.00	43.95	43.95	0.00	36-KR-83(A,5N)38-SR-82,,SIG
A0902.006	Yu.E.Titarenko	2011	40.80	0.80	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
A0902.006	Yu.E.Titarenko	2011	40.80	0.80	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
A0902.006	Yu.E.Titarenko	2011	40.80	0.80	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
A0902.006	Yu.E.Titarenko	2011	44.60	0.30	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
A0902.006	Yu.E.Titarenko	2011	44.60	0.30	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
A0902.006	Yu.E.Titarenko	2011	44.60	0.30	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
A0904.206	Yu.E.Titarenko	2011	2605.00	8.00	?	?	?	73-TA-0(P,X)72-HF-181,CUM,SIG
A0923.002	S.P.Kalinin	1957	1.84	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.002	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.002	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.005	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.005	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.005	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.005	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
A1466.005	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.005	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.005	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.005	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
A1466.005	H.W.Newson	1957	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
B0017.005	S.N.Ghoshal	1950	3.90	0.00	4.22	4.22	4.22	29-CU-63(P,N)30-ZN-63,,SIG
B0020.016	S.Tanaka	1972	6.70	0.00	7.03	7.03	7.03	28-NI-60(P,N)29-CU-60,,SIG
B0020.018	S.Tanaka	1972	2.70	0.00	3.07	3.07	0.00	28-NI-61(P,N)29-CU-61,,SIG
B0025.004.G	J.J.Hogan	1972	20.00	0.00	21.79	21.79	5.09	42-MO-96(P,3N)43-TC-94-G,,SIG
B0025.004.M	J.J.Hogan	1972	20.00	0.00	21.79	21.79	5.09	42-MO-96(P,3N)43-TC-94-M,,SIG
B0025.004.S	J.J.Hogan	1972	20.00	0.00	21.79	21.79	5.09	42-MO-96(P,3N)43-TC-94,,SIG
B0025.005.G	J.J.Hogan	1972	30.00	0.00	30.51	30.51	0.00	42-MO-96(P,4N)43-TC-93-G,,SIG
B0025.005.M	J.J.Hogan	1972	30.00	0.00	30.51	30.51	0.00	42-MO-96(P,4N)43-TC-93-M,,SIG
B0025.005.S	J.J.Hogan	1972	30.00	0.00	30.51	30.51	0.00	42-MO-96(P,4N)43-TC-93,,SIG
B0041.002	I.L.Jenkins	1970	4.80	0.00	5.45	5.45	5.45	26-FE-56(P,N)27-CO-56,,SIG
B0041.004	I.L.Jenkins	1970	15.60	0.00	15.71	15.71	0.00	26-FE-56(P,2N)27-CO-55,,SIG
B0048.006	J.-P.Blaser	1951	3.38	0.00	3.76	3.76	0.00	30-ZN-68(P,N)31-GA-68,,SIG
B0048.006	J.-P.Blaser	1951	3.58	0.00	3.76	3.76	0.00	30-ZN-68(P,N)31-GA-68,,SIG
B0048.009	J.-P.Blaser	1951	4.52	0.00	4.70	4.70	4.70	48-CD-110(P,N)49-IN-110-M,,SIG
B0048.009	J.-P.Blaser	1951	4.66	0.00	4.70	4.70	4.70	48-CD-110(P,N)49-IN-110-M,,SIG
B0057.002	R.Colle	1974	3.99	0.10	4.22	4.22	4.22	29-CU-63(P,N)30-ZN-63,,SIG
B0060.004	H.A.Howe	1958	5.50	0.00	6.05	6.05	6.05	30-ZN-66(P,N)31-GA-66,,SIG
B0060.004	H.A.Howe	1958	5.80	0.00	6.05	6.05	6.05	30-ZN-66(P,N)31-GA-66,,SIG
B0076.002	N.M.Hintz	1952	0.10	0.00	21.05	21.05	21.05	13-AL-27(P,X)11-NA-22,CUM,SIG
B0076.002	N.M.Hintz	1952	13.60	0.00	21.05	21.05	21.05	13-AL-27(P,X)11-NA-22,CUM,SIG
B0076.002	N.M.Hintz	1952	17.40	0.00	21.05	21.05	21.05	13-AL-27(P,X)11-NA-22,CUM,SIG
B0076.002	N.M.Hintz	1952	19.60	0.00	21.05	21.05	21.05	13-AL-27(P,X)11-NA-22,CUM,SIG
B0076.003	N.M.Hintz	1952	13.40	0.00	24.61	24.61	24.61	13-AL-27(P,X)11-NA-24,CUM,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
B0076.003	N.M.Hintz	1952	19.60	0.00	24.61	24.61	24.61	13-AL-27(P,X)11-NA-24,CUM,SIG
B0076.005	N.M.Hintz	1952	8.50	0.00	17.89	17.89	16.37	6-C-12(P,X)6-C-11,IND,SIG
B0076.005	N.M.Hintz	1952	9.80	0.00	17.89	17.89	16.37	6-C-12(P,X)6-C-11,IND,SIG
B0076.005	N.M.Hintz	1952	17.60	0.00	17.89	17.89	16.37	6-C-12(P,X)6-C-11,IND,SIG
B0076.005	N.M.Hintz	1952	17.60	0.00	17.89	17.89	16.37	6-C-12(P,X)6-C-11,IND,SIG
B0076.006	N.M.Hintz	1952	0.10	0.00	6.46	6.46	0.00	16-S-34(P,N)17-CL-34-M,,SIG
B0076.007	N.M.Hintz	1952	0.20	0.00	3.02	3.02	0.00	5-B-11(P,N)6-C-11,,SIG
B0076.007	N.M.Hintz	1952	2.30	0.00	3.02	3.02	0.00	5-B-11(P,N)6-C-11,,SIG
B0079.016	E.A.Bryant	1963	7.80	0.00	7.98	7.98	7.98	29-CU-63(A,N)31-GA-66,,SIG
B0079.017	E.A.Bryant	1963	11.30	0.00	14.97	14.97	0.00	29-CU-65(A,2N)31-GA-67,,SIG
B0079.017	E.A.Bryant	1963	12.50	0.00	14.97	14.97	0.00	29-CU-65(A,2N)31-GA-67,,SIG
B0079.017	E.A.Bryant	1963	14.60	0.00	14.97	14.97	0.00	29-CU-65(A,2N)31-GA-67,,SIG
B0109.005.2	Z.Randa	1976	6.30	0.00	7.42	7.42	0.00	42-MO-94(D,2N)43-TC-94-G,,SIG
B0109.005.2	Z.Randa	1976	7.30	0.00	7.42	7.42	0.00	42-MO-94(D,2N)43-TC-94-G,,SIG
B0109.005.3	Z.Randa	1976	6.40	0.00	7.42	7.42	0.00	42-MO-94(D,2N)43-TC-94-G,,SIG
B0109.005.3	Z.Randa	1976	7.40	0.00	7.42	7.42	0.00	42-MO-94(D,2N)43-TC-94-G,,SIG
B0111.002	T.Horiguchi	1980	21.70	0.00	22.56	22.56	22.56	37-RB-85(P,3N)38-SR-83,,SIG
B0138.002	P.Hornshoj	1977	12.20	0.00	12.81	12.81	12.81	26-FE-54(HE3,2N)28-NI-55,,SIG
B0138.002	P.Hornshoj	1977	12.70	0.00	12.81	12.81	12.81	26-FE-54(HE3,2N)28-NI-55,,SIG
B0138.003	P.Hornshoj	1977	11.70	0.00	11.97	11.97	11.97	24-CR-50(HE3,2N)26-FE-51,,SIG
B0142.002	U.Martens	1970	20.30	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	21.30	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	22.40	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	23.30	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	24.20	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	25.00	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	25.90	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	27.10	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
B0142.002	U.Martens	1970	28.30	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	29.50	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	30.70	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	31.90	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	33.00	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	34.10	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	35.10	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	36.10	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	37.10	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	38.10	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	39.10	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	40.00	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	40.90	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	41.80	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	42.70	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	43.60	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	44.50	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	45.30	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	46.10	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	47.00	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	47.80	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	48.60	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	49.30	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	50.10	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	50.90	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0142.002	U.Martens	1970	51.70	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
B0148.004	D.B.Syme	1978	51.90	0.00	56.17	56.17	56.17	53-I-127(P,7N)54-XE-121,,SIG
B0174.005	H.J.Probst	1976	22.90	1.40	25.74	25.74	25.74	13-AL-27(A,X)12-MG-27,CUM,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
C0196.003	J.M.Sisterson	1996	40.20	0.00	48.58	48.58	48.58	13-AL-27(P,X)4-BE-10,,SIG
C0205.009	R.E.Brown	1987	17.90	0.00	27.54	0.00	0.00	2-HE-3(HE3,X)1-H-3,,SIG
C0205.009	R.E.Brown	1987	21.70	0.00	27.54	0.00	0.00	2-HE-3(HE3,X)1-H-3,,SIG
C0205.009	R.E.Brown	1987	24.00	0.00	27.54	0.00	0.00	2-HE-3(HE3,X)1-H-3,,SIG
C0234.002	L.R.Willams	1967	24.50	0.00	26.09	26.09	24.51	6-C-12(P,X)4-BE-7,,SIG
C0245.002	M.G.Albouy	1962	15.00	0.00	16.66	14.29	12.00	8-O-16(P,N+P)8-O-15,,SIG
C0245.002	M.G.Albouy	1962	16.00	0.00	16.66	14.29	12.00	8-O-16(P,N+P)8-O-15,,SIG
C0245.003	M.G.Albouy	1962	14.00	0.00	35.66	5.55	5.55	8-O-16(P,2N+2P)7-N-13,,SIG
C0245.003	M.G.Albouy	1962	15.00	0.00	35.66	5.55	5.55	8-O-16(P,2N+2P)7-N-13,,SIG
C0245.003	M.G.Albouy	1962	25.00	0.00	35.66	5.55	5.55	8-O-16(P,2N+2P)7-N-13,,SIG
C0245.003	M.G.Albouy	1962	26.00	0.00	35.66	5.55	5.55	8-O-16(P,2N+2P)7-N-13,,SIG
C0245.003	M.G.Albouy	1962	28.00	0.00	35.66	5.55	5.55	8-O-16(P,2N+2P)7-N-13,,SIG
C0245.003	M.G.Albouy	1962	29.00	0.00	35.66	5.55	5.55	8-O-16(P,2N+2P)7-N-13,,SIG
C0245.003	M.G.Albouy	1962	32.00	0.00	35.66	5.55	5.55	8-O-16(P,2N+2P)7-N-13,,SIG
C0245.003	M.G.Albouy	1962	35.00	0.00	35.66	5.55	5.55	8-O-16(P,2N+2P)7-N-13,,SIG
C0251.002	J.W.Meadows	1951	20.50	0.00	23.61	23.61	12.10	12-MG-26(P,X)9-F-18,,SIG
C0251.002	J.W.Meadows	1951	22.00	0.00	23.61	23.61	12.10	12-MG-26(P,X)9-F-18,,SIG
C0251.004	J.W.Meadows	1951	5.50	0.00	12.10	12.10	12.10	12-MG-25(P,X)9-F-18,,SIG
C0251.005	J.W.Meadows	1951	5.50	0.00	12.55	12.55	12.55	12-MG-25(P,X)11-NA-24,,SIG
C0251.007	J.W.Meadows	1951	15.00	0.00	19.50	19.50	19.50	11-NA-23(P,X)9-F-18,,SIG
C0265.010	E.F.Neuzil	1963	33.49	0.00	55.45	55.45	55.45	12-MG-24(A,X)4-BE-7,,SIG
C0265.010	E.F.Neuzil	1963	36.13	0.00	55.45	55.45	55.45	12-MG-24(A,X)4-BE-7,,SIG
C0265.010	E.F.Neuzil	1963	37.98	0.00	55.45	55.45	55.45	12-MG-24(A,X)4-BE-7,,SIG
C0265.010	E.F.Neuzil	1963	39.50	0.00	55.45	55.45	55.45	12-MG-24(A,X)4-BE-7,,SIG
C0265.010	E.F.Neuzil	1963	40.89	0.00	55.45	55.45	55.45	12-MG-24(A,X)4-BE-7,,SIG
C0265.010	E.F.Neuzil	1963	41.48	0.00	55.45	55.45	55.45	12-MG-24(A,X)4-BE-7,,SIG
C0265.011	E.F.Neuzil	1963	30.90	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
C0265.011	E.F.Neuzil	1963	33.18	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
C0265.011	E.F.Neuzil	1963	35.35	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
C0265.011	E.F.Neuzil	1963	37.31	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
C0265.011	E.F.Neuzil	1963	39.23	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
C0266.003	J.W.Meadows	1951	14.50	0.00	14.80	14.80	3.27	12-MG-26(P,X)11-NA-22,,SIG
C0482.002	Hsin-min Kuan	1964	1.42	0.00	1.44	1.44	1.44	6-C-12(HE3,N)8-O-14,,SIG
C0483.002	F.L.Riffle	1968	4.04	0.01	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
C0483.002	F.L.Riffle	1968	4.06	0.01	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
C0483.002	F.L.Riffle	1968	4.08	0.01	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
C0483.002	F.L.Riffle	1968	4.11	0.01	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
C0483.002	F.L.Riffle	1968	4.13	0.01	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
C0483.002	F.L.Riffle	1968	4.16	0.01	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
C0483.002	F.L.Riffle	1968	4.18	0.01	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
C0483.002	F.L.Riffle	1968	4.20	0.01	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
C0483.002	F.L.Riffle	1968	4.23	0.01	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
C0507.016	J.M.Sisterson	1997	30.90	0.00	36.55	36.55	19.27	8-O-16(P,X)4-BE-10,,SIG
C0702.002	M.Lindner	1953	22.00	0.00	24.98	24.98	24.98	6-C-12(A,N+A)6-C-11,,SIG
C0705.002	M.Blann	1963	3.50	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.002	M.Blann	1963	4.90	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.002	M.Blann	1963	6.30	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.002	M.Blann	1963	7.50	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.002	M.Blann	1963	8.80	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.002	M.Blann	1963	9.70	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.002	M.Blann	1963	10.90	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.002	M.Blann	1963	11.70	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.002	M.Blann	1963	12.60	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.002	M.Blann	1963	13.40	0.00	14.94	6.17	6.17	28-NI-58(D,2N+P)28-NI-57,,SIG
C0705.003	M.Blann	1963	4.90	0.00	10.76	2.77	2.57	28-NI-58(D,N+2P)27-CO-57,,SIG
C0705.003	M.Blann	1963	7.50	0.00	10.76	2.77	2.57	28-NI-58(D,N+2P)27-CO-57,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
C0705.003	M.Blann	1963	9.70	0.00	10.76	2.77	2.57	28-NI-58(D,N+2P)27-CO-57,,SIG
C0709.015	J.Wing	1959	28.50	0.00	29.20	29.20	5.69	92-U-238(A,X)94-PU-238,CUM,SIG
C0711.003	B.M.Foreman	1961	16.60	0.00	23.81	15.87	15.87	58-CE-142(A,N+2P)58-CE-143,,SIG
C0711.003	B.M.Foreman	1961	21.20	0.00	23.81	15.87	15.87	58-CE-142(A,N+2P)58-CE-143,,SIG
C0738.002	R.L.Hershberger	1984	2.04	0.00	2.17	2.17	2.17	29-CU-65(P,N)30-ZN-65,,SIG
C0738.002	R.L.Hershberger	1984	2.07	0.00	2.17	2.17	2.17	29-CU-65(P,N)30-ZN-65,,SIG
C0738.002	R.L.Hershberger	1984	2.12	0.00	2.17	2.17	2.17	29-CU-65(P,N)30-ZN-65,,SIG
C0738.002	R.L.Hershberger	1984	2.15	0.00	2.17	2.17	2.17	29-CU-65(P,N)30-ZN-65,,SIG
C0739.008	S.Qiang	1990	1.92	0.00	2.17	2.17	2.17	29-CU-65(P,N)30-ZN-65,,SIG
C0739.008	S.Qiang	1990	2.07	0.00	2.17	2.17	2.17	29-CU-65(P,N)30-ZN-65,,SIG
C0739.008	S.Qiang	1990	2.07	0.00	2.17	2.17	2.17	29-CU-65(P,N)30-ZN-65,,SIG
C0929.003	B.M.Gordon	1967	23.70	0.00	31.21	22.02	10.16	20-CA-48(A,3N+P)21-SC-48,,SIG
C0929.003	B.M.Gordon	1967	27.00	0.00	31.21	22.02	10.16	20-CA-48(A,3N+P)21-SC-48,,SIG
C0929.003	B.M.Gordon	1967	30.10	0.00	31.21	22.02	10.16	20-CA-48(A,3N+P)21-SC-48,,SIG
C0929.004	B.M.Gordon	1967	17.00	0.00	20.23	11.04	1.57	20-CA-48(A,2N+P)21-SC-49,,SIG
C0929.004	B.M.Gordon	1967	19.30	0.00	20.23	11.04	1.57	20-CA-48(A,2N+P)21-SC-49,,SIG
C0947.002	G.H.Bouchard Jr	1959	33.80	0.00	41.83	41.83	41.83	8-O-16(A,X)4-BE-7,,SIG
C0947.002	G.H.Bouchard Jr	1959	33.80	0.00	41.83	41.83	41.83	8-O-16(A,X)4-BE-7,,SIG
C0947.002	G.H.Bouchard Jr	1959	39.40	0.00	41.83	41.83	41.83	8-O-16(A,X)4-BE-7,,SIG
C0980.004	C.O.Hower	1962	33.20	0.00	41.83	41.83	41.83	8-O-16(A,X)4-BE-7,,SIG
C0980.004	C.O.Hower	1962	37.60	0.00	41.83	41.83	41.83	8-O-16(A,X)4-BE-7,,SIG
C0980.004	C.O.Hower	1962	41.70	0.00	41.83	41.83	41.83	8-O-16(A,X)4-BE-7,,SIG
C0980.005	C.O.Hower	1962	33.90	0.00	54.69	54.69	54.69	9-F-19(A,X)4-BE-7,,SIG
C0980.005	C.O.Hower	1962	38.20	0.00	54.69	54.69	54.69	9-F-19(A,X)4-BE-7,,SIG
C0980.005	C.O.Hower	1962	41.80	0.00	54.69	54.69	54.69	9-F-19(A,X)4-BE-7,,SIG
C0980.006	C.O.Hower	1962	29.50	0.00	45.84	0.00	45.84	10-NE-0(A,X)4-BE-7,,SIG
C0980.006	C.O.Hower	1962	30.00	0.00	45.84	0.00	45.84	10-NE-0(A,X)4-BE-7,,SIG
C0980.006	C.O.Hower	1962	32.60	0.00	45.84	0.00	45.84	10-NE-0(A,X)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
C0980.006	C.O.Hower	1962	33.80	0.00	45.84	0.00	45.84	10-NE-0(A,X)4-BE-7,,SIG
C0980.006	C.O.Hower	1962	35.10	0.00	45.84	0.00	45.84	10-NE-0(A,X)4-BE-7,,SIG
C0980.006	C.O.Hower	1962	38.10	0.00	45.84	0.00	45.84	10-NE-0(A,X)4-BE-7,,SIG
C1010.002	J.K.Bair	1973	3.62	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.62	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.63	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.63	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.64	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.65	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.65	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.66	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.66	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.66	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.67	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.68	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.68	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.69	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.70	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.70	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.70	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.71	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.71	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.72	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.73	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.73	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.74	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.002	J.K.Bair	1973	3.75	0.00	3.75	3.75	0.00	8-O-17(P,N)9-F-17,,SIG
C1010.004	J.K.Bair	1973	2.52	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
C1010.004	J.K.Bair	1973	2.53	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
C1010.004	J.K.Bair	1973	2.54	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
C1010.004	J.K.Bair	1973	2.54	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
C1010.004	J.K.Bair	1973	2.55	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
C1010.004	J.K.Bair	1973	2.56	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
C1010.004	J.K.Bair	1973	2.57	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
C1010.004	J.K.Bair	1973	2.57	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
C1047.002	S.J.Balestrini	1954	9.60	0.30	11.09	11.09	11.09	53-I-127(D,3N)54-XE-126,,SIG
C1049.002	P.R.Wrean	2000	2.28	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.29	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.29	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.29	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.30	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.30	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.31	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.32	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.33	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.34	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.35	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.35	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.36	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.36	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.36	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.36	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.002	P.R.Wrean	2000	2.36	0.00	2.36	2.36	2.36	9-F-19(A,N)11-NA-22,,SIG
C1049.003	P.R.Wrean	2000	3.70	0.00	3.79	3.79	0.00	10-NE-22(P,N)11-NA-22,,SIG
C1049.003	P.R.Wrean	2000	3.70	0.00	3.79	3.79	0.00	10-NE-22(P,N)11-NA-22,,SIG
C1049.003	P.R.Wrean	2000	3.72	0.00	3.79	3.79	0.00	10-NE-22(P,N)11-NA-22,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
C1049.003	P.R.Wrean	2000	3.74	0.00	3.79	3.79	0.00	10-NE-22(P,N)11-NA-22,,SIG
C1049.003	P.R.Wrean	2000	3.76	0.00	3.79	3.79	0.00	10-NE-22(P,N)11-NA-22,,SIG
C1049.003	P.R.Wrean	2000	3.77	0.00	3.79	3.79	0.00	10-NE-22(P,N)11-NA-22,,SIG
C1049.003	P.R.Wrean	2000	3.78	0.00	3.79	3.79	0.00	10-NE-22(P,N)11-NA-22,,SIG
C1049.003	P.R.Wrean	2000	3.79	0.00	3.79	3.79	0.00	10-NE-22(P,N)11-NA-22,,SIG
C1400.003	O.R.J.Silva	1959	12.92	0.00	15.18	12.81	3.90	28-NI-62(A,N+P)29-CU-64,,SIG
C1952.002	F.Gabbard	1970	4.44	0.00	4.46	4.46	0.00	38-SR-88(P,N)39-Y-88,,SIG
C1952.002	F.Gabbard	1970	4.45	0.00	4.46	4.46	0.00	38-SR-88(P,N)39-Y-88,,SIG
C1961.002	C.J.Umbarger	1970	6.36	0.00	6.46	6.46	0.00	16-S-34(P,N)17-CL-34-G,,SIG
C1961.002	C.J.Umbarger	1970	6.37	0.00	6.46	6.46	0.00	16-S-34(P,N)17-CL-34-G,,SIG
C1961.002	C.J.Umbarger	1970	6.39	0.00	6.46	6.46	0.00	16-S-34(P,N)17-CL-34-G,,SIG
C1961.002	C.J.Umbarger	1970	6.41	0.00	6.46	6.46	0.00	16-S-34(P,N)17-CL-34-G,,SIG
C1961.002	C.J.Umbarger	1970	6.43	0.00	6.46	6.46	0.00	16-S-34(P,N)17-CL-34-G,,SIG
C1961.002	C.J.Umbarger	1970	6.45	0.00	6.46	6.46	0.00	16-S-34(P,N)17-CL-34-G,,SIG
C1961.002	C.J.Umbarger	1970	6.45	0.00	6.46	6.46	0.00	16-S-34(P,N)17-CL-34-G,,SIG
C1961.003	C.J.Umbarger	1970	6.30	0.00	6.38	6.38	6.38	15-P-31(A,N)17-CL-34-G,,SIG
C1961.003	C.J.Umbarger	1970	6.32	0.00	6.38	6.38	6.38	15-P-31(A,N)17-CL-34-G,,SIG
C1961.003	C.J.Umbarger	1970	6.36	0.00	6.38	6.38	6.38	15-P-31(A,N)17-CL-34-G,,SIG
C1961.003	C.J.Umbarger	1970	6.37	0.00	6.38	6.38	6.38	15-P-31(A,N)17-CL-34-G,,SIG
C2004.004	F.O.Bartell	1951	6.84	0.00	7.54	7.54	0.00	12-MG-24(D,2P)11-NA-24,,SIG
C2004.005	F.O.Bartell	1951	17.15	0.00	26.59	26.59	26.59	13-AL-27(D,X)9-F-18,,SIG
C2004.005	F.O.Bartell	1951	24.27	0.00	26.59	26.59	26.59	13-AL-27(D,X)9-F-18,,SIG
C2008.003	S.Hontzeas	1963	17.00	1.00	24.27	24.27	13.00	23-V-51(P,3N)24-CR-49,,SIG
C2008.011	S.Hontzeas	1963	24.00	1.00	33.20	33.20	21.93	23-V-51(P,X)21-SC-44-M,,SIG
C2008.011	S.Hontzeas	1963	30.00	1.00	33.20	33.20	21.93	23-V-51(P,X)21-SC-44-M,,SIG
C2008.013	S.Hontzeas	1963	24.00	1.00	43.10	43.10	31.83	23-V-51(P,X)21-SC-43,CUM,SIG
C2008.017	S.Hontzeas	1963	60.00	1.00	68.28	68.28	57.02	23-V-51(P,X)17-CL-34-M,,SIG
C2048.006	J.R.Griswold	2013	12.00	0.40	13.71	13.71	2.10	90-TH-232(P,3N)91-PA-230,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
C2048.007	J.R.Griswold	2013	25.00	0.20	26.66	26.66	15.05	90-TH-232(P,5N)91-PA-228,,SIG
C2190.003	R.M.Williamson	1960	2.77	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.77	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.79	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.79	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.80	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.81	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.81	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.82	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.83	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.83	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.85	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.85	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.86	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.87	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.88	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.89	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.89	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.90	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.91	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.92	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.93	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.94	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.95	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.96	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.97	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.98	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	2.99	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
C2190.003	R.M.Williamson	1960	3.00	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	3.02	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2190.003	R.M.Williamson	1960	3.03	0.00	3.03	3.03	3.03	13-AL-27(A,N)15-P-30,,SIG
C2296.016	R.A.Glass	1956	24.50	0.00	25.34	25.34	0.00	94-PU-239(A,3N)96-CM-240,,SIG
C2297.002	P.Kafalas	1956	6.60	0.00	8.01	8.01	0.00	24-CR-52(D,2N)25-MN-52-G,,SIG
C2297.002	P.Kafalas	1956	7.26	0.00	8.01	8.01	0.00	24-CR-52(D,2N)25-MN-52-G,,SIG
C2297.002	P.Kafalas	1956	7.88	0.00	8.01	8.01	0.00	24-CR-52(D,2N)25-MN-52-G,,SIG
C2307.004	J.B.Cumming	1959	5.03	0.00	8.43	8.43	8.43	28-NI-60(A,N)30-ZN-63,,SIG
C2309.007	B.M.Foreman Jr	1959	16.50	0.50	21.46	21.46	16.07	90-TH-232(A,X)91-PA-232,,SIG
C2316.002	J.W.Nelson	1963	11.29	0.00	11.34	11.34	11.34	6-C-12(A,N)8-O-15,,SIG
C2506.002	N.E.Davison	1974	22.02	0.00	22.74	22.74	22.74	4-BE-9(P,2N)5-B-8,,SIG
C2589.002	D.L.Benedict	1943	0.27	0.00	1.88	0.00	0.00	3-LI-7(P,X)0-NN-1,,SIG
C2589.002	D.L.Benedict	1943	1.10	0.00	1.88	0.00	0.00	3-LI-7(P,X)0-NN-1,,SIG
C2747.003	H.Jayatissa	2022	3.47	0.10	5.55	5.55	5.55	8-O-16(P,A)7-N-13,,SIG,,SFC
C2747.003	H.Jayatissa	2022	3.88	0.09	5.55	5.55	5.55	8-O-16(P,A)7-N-13,,SIG,,SFC
C2747.003	H.Jayatissa	2022	4.27	0.09	5.55	5.55	5.55	8-O-16(P,A)7-N-13,,SIG,,SFC
C2747.003	H.Jayatissa	2022	4.65	0.09	5.55	5.55	5.55	8-O-16(P,A)7-N-13,,SIG,,SFC
C2747.003	H.Jayatissa	2022	5.02	0.09	5.55	5.55	5.55	8-O-16(P,A)7-N-13,,SIG,,SFC
C2747.003	H.Jayatissa	2022	5.38	0.08	5.55	5.55	5.55	8-O-16(P,A)7-N-13,,SIG,,SFC
D0030.005	A.Calboreanu	1982	14.57	0.00	15.88	15.88	15.88	51-SB-121(A,2N)53-I-123,,SIG
D0030.005	A.Calboreanu	1982	14.97	0.00	15.88	15.88	15.88	51-SB-121(A,2N)53-I-123,,SIG
D0030.005	A.Calboreanu	1982	15.36	0.00	15.88	15.88	15.88	51-SB-121(A,2N)53-I-123,,SIG
D0030.005	A.Calboreanu	1982	15.75	0.00	15.88	15.88	15.88	51-SB-121(A,2N)53-I-123,,SIG
D0036.002	K.K.Sekharan	1976	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG
D0042.003.1	M.J.Ozafran	1980	24.80	0.00	25.67	25.67	25.67	45-RH-103(A,3N)47-AG-104-G,,SIG
D0042.006.1	M.J.Ozafran	1980	24.80	0.00	27.69	27.69	27.69	45-RH-103(A,3N+A)45-RH-100,,SIG
D0042.006.1	M.J.Ozafran	1980	27.00	0.00	27.69	27.69	27.69	45-RH-103(A,3N+A)45-RH-100,,SIG
D0054.007	B.Scholten	1994	40.80	0.40	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
D0054.007	B.Scholten	1994	42.80	0.30	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D0054.007	B.Scholten	1994	44.90	0.25	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D0089.002	P.Kopecky	1990	5.78	0.00	6.05	0.00	6.05	30-ZN-0(P,X)31-GA-66,,SIG
D0095.002	J.P.Blaser	1951	2.48	0.00	3.02	3.02	0.00	5-B-11(P,N)6-C-11,,SIG
D0095.002	J.P.Blaser	1951	2.83	0.00	3.02	3.02	0.00	5-B-11(P,N)6-C-11,,SIG
D0095.003	J.P.Blaser	1951	2.73	0.00	3.24	3.24	0.00	6-C-13(P,N)7-N-13,,SIG
D0095.003	J.P.Blaser	1951	3.00	0.00	3.24	3.24	0.00	6-C-13(P,N)7-N-13,,SIG
D0095.004	J.P.Blaser	1951	2.08	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
D0095.004	J.P.Blaser	1951	2.29	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
D0095.004	J.P.Blaser	1951	2.50	0.00	2.57	2.57	0.00	8-O-18(P,N)9-F-18,,SIG
D0095.005	J.P.Blaser	1951	4.15	0.00	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
D0095.005	J.P.Blaser	1951	4.21	0.00	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
D0095.006	J.P.Blaser	1951	4.99	0.00	5.05	5.05	5.05	11-NA-23(P,N)12-MG-23,,SIG
D0095.006	J.P.Blaser	1951	5.05	0.00	5.05	5.05	5.05	11-NA-23(P,N)12-MG-23,,SIG
D0095.007	J.P.Blaser	1951	5.07	0.00	5.26	5.26	0.00	12-MG-25(P,N)13-AL-25,,SIG
D0095.007	J.P.Blaser	1951	5.13	0.00	5.26	5.26	0.00	12-MG-25(P,N)13-AL-25,,SIG
D0095.007	J.P.Blaser	1951	5.19	0.00	5.26	5.26	0.00	12-MG-25(P,N)13-AL-25,,SIG
D0095.007	J.P.Blaser	1951	5.24	0.00	5.26	5.26	0.00	12-MG-25(P,N)13-AL-25,,SIG
D0111.003	A.R.Barnett	1968	3.75	0.00	3.77	3.77	0.00	7-N-15(P,N)8-O-15,,SIG
D0118.007	Z.E.Switkowski	1978	2.16	0.00	2.17	2.17	2.17	29-CU-65(P,N)30-ZN-65,,SIG
D0119.004	J.Zweit	1987	12.63	0.00	14.97	14.97	0.00	29-CU-65(A,2N)31-GA-67,,SIG
D0119.004	J.Zweit	1987	14.80	0.00	14.97	14.97	0.00	29-CU-65(A,2N)31-GA-67,,SIG
D0121.004	A.Agarwal	2002	23.30	1.30	25.92	25.92	25.92	41-NB-93(A,3N)43-TC-94,,SIG
D0142.003	M.K.Bhardwaj	1992	16.71	0.49	17.38	17.38	17.38	77-IR-191(A,2N)79-AU-193,,SIG
D0164.007	H.E.Hassan	2004	4.60	1.00	5.82	5.82	5.82	34-SE-76(P,N)35-BR-76,,SIG
D0164.009	H.E.Hassan	2004	6.70	0.90	13.34	13.34	5.82	34-SE-77(P,2N)35-BR-76,,SIG
D0164.009	H.E.Hassan	2004	7.90	0.80	13.34	13.34	5.82	34-SE-77(P,2N)35-BR-76,,SIG
D0164.009	H.E.Hassan	2004	9.90	0.70	13.34	13.34	5.82	34-SE-77(P,2N)35-BR-76,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
D0164.009	H.E.Hassan	2004	10.40	0.80	13.34	13.34	5.82	34-SE-77(P,2N)35-BR-76,,SIG
D0164.009	H.E.Hassan	2004	12.40	0.70	13.34	13.34	5.82	34-SE-77(P,2N)35-BR-76,,SIG
D0164.009	H.E.Hassan	2004	12.60	0.50	13.34	13.34	5.82	34-SE-77(P,2N)35-BR-76,,SIG
D0282.009	M.U.Khandaker	2008	6.61	0.00	7.35	0.00	7.35	74-W-0(P,X)73-TA-184,CUM,SIG
D0453.002	P.Bem	2009	3.38	0.93	5.76	5.76	5.76	13-AL-27(D,P+A)11-NA-24,,SIG
D0453.003	P.Bem	2009	3.38	0.93	4.36	4.36	4.36	13-AL-27(D,2P)12-MG-27,,SIG
D0455.002	M.S.Uddin	2008	4.60	1.50	6.97	0.00	6.97	40-ZR-0(P,X)41-NB-90,,SIG
D0455.007	M.S.Uddin	2008	4.60	1.50	9.85	0.00	9.85	40-ZR-0(P,X)40-ZR-89,,SIG
D0455.007	M.S.Uddin	2008	6.00	1.40	9.85	0.00	9.85	40-ZR-0(P,X)40-ZR-89,,SIG
D0490.002	E.L.Kelly	1949	20.20	0.00	20.72	20.72	20.72	83-BI-209(A,2N)85-AT-211,,SIG
D0490.003	E.L.Kelly	1949	28.60	0.00	28.62	28.62	28.62	83-BI-209(A,3N)85-AT-210,,SIG
D0490.003	E.L.Kelly	1949	28.60	0.00	28.62	28.62	28.62	83-BI-209(A,3N)85-AT-210,,SIG
D0497.005	M.L.Firouzbakht	1993	7.50	0.00	13.88	13.88	0.00	52-TE-124(D,3N)53-I-123,,SIG
D0497.005	M.L.Firouzbakht	1993	9.40	0.00	13.88	13.88	0.00	52-TE-124(D,3N)53-I-123,,SIG
D0497.005	M.L.Firouzbakht	1993	10.90	0.00	13.88	13.88	0.00	52-TE-124(D,3N)53-I-123,,SIG
D0497.005	M.L.Firouzbakht	1993	12.30	0.00	13.88	13.88	0.00	52-TE-124(D,3N)53-I-123,,SIG
D0497.005	M.L.Firouzbakht	1993	13.60	0.00	13.88	13.88	0.00	52-TE-124(D,3N)53-I-123,,SIG
D0505.022	A.Gruetter	1982	34.30	0.34	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D0505.022	A.Gruetter	1982	36.50	0.34	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D0505.022	A.Gruetter	1982	40.50	0.34	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D0505.022	A.Gruetter	1982	43.80	0.34	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D0505.022	A.Gruetter	1982	44.30	0.34	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D0517.002	M.U.Khandaker	2008	0.90	1.20	2.22	0.00	2.22	47-AG-0(P,X)48-CD-107,CUM,SIG
D0568.003	I.Spahn	2009	32.20	0.90	33.35	33.35	0.00	34-SE-78(P,4N)35-BR-75,,SIG
D0568.003	I.Spahn	2009	32.50	0.60	33.35	33.35	0.00	34-SE-78(P,4N)35-BR-75,,SIG
D0570.002	M.U.Khandaker	2009	5.30	1.20	6.97	0.00	6.97	40-ZR-0(P,X)41-NB-90,,SIG
D0570.005	M.U.Khandaker	2009	5.30	1.20	9.85	0.00	9.85	40-ZR-0(P,X)40-ZR-89-G,CUM,SIG
D0653.003	E.Simeckova	2011	4.56	0.79	6.58	6.58	6.58	29-CU-63(D,2N)30-ZN-63,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
D0734.003	A.H.Asad	2014	4.00	0.75	6.05	0.00	6.05	30-ZN-0(P,X)31-GA-66,,SIG
D0734.003	A.H.Asad	2014	4.92	0.70	6.05	0.00	6.05	30-ZN-0(P,X)31-GA-66,,SIG
D0777.003	O.Lebeda	2015	5.04	0.50	5.97	5.97	5.97	39-Y-89(D,2N)40-ZR-89,,SIG
D0777.004	O.Lebeda	2015	5.04	0.50	5.97	5.97	5.97	39-Y-89(D,2N)40-ZR-89-G,,SIG
D0777.016	O.Lebeda	2015	3.04	0.79	5.76	5.76	5.76	13-AL-27(D,X)11-NA-24,,SIG
D0802.004	Md.S.Uddin	2016	6.50	0.40	7.03	0.00	7.03	28-NI-0(P,X)29-CU-60,,SIG
D0805.029	J.Cervenak	2016	9.46	0.70	11.94	0.00	11.94	42-MO-0(P,X)40-ZR-89-G,CUM,SIG
D0949.008.1	E.K.Elmaghraby	2019	5.96	0.00	8.71	8.71	8.71	49-IN-113(P,T)49-IN-111,,SIG
D0949.008.2	E.K.Elmaghraby	2019	5.96	0.00	8.71	8.71	8.71	49-IN-113(P,T)49-IN-111,,SIG
D0949.008.2	E.K.Elmaghraby	2019	8.47	0.00	8.71	8.71	8.71	49-IN-113(P,T)49-IN-111,,SIG
D0949.008.2	E.K.Elmaghraby	2019	8.63	0.00	8.71	8.71	8.71	49-IN-113(P,T)49-IN-111,,SIG
D0996.009	E.Simeckova	2021	4.32	0.60	9.32	0.00	9.32	40-ZR-0(D,X)41-NB-90,,SIG
D0996.009	E.Simeckova	2021	6.54	0.46	9.32	0.00	9.32	40-ZR-0(D,X)41-NB-90,,SIG
D0996.009	E.Simeckova	2021	8.33	0.40	9.32	0.00	9.32	40-ZR-0(D,X)41-NB-90,,SIG
D1007.007	A.A.Ahmed	2022	3.30	2.70	7.80	7.80	0.00	42-MO-100(P,2N)43-TC-99-M,,SIG,,FCT
D4030.004	F.Roesch	1993	15.30	0.20	15.72	15.72	0.00	38-SR-86(P,2N)39-Y-85-G,,SIG
D4030.005	F.Roesch	1993	14.40	0.20	15.72	15.72	0.00	38-SR-86(P,2N)39-Y-85-M,,SIG
D4030.005	F.Roesch	1993	15.30	0.20	15.72	15.72	0.00	38-SR-86(P,2N)39-Y-85-M,,SIG
D4050.002.1	S.Takacs	1996	2.34	0.86	3.32	0.00	3.32	28-NI-0(A,X)29-CU-61,,SIG
D4050.005.1	S.Takacs	1996	5.92	0.29	8.43	0.00	8.43	28-NI-0(A,X)30-ZN-63,,SIG
D4055.002.1	F.-O.Denzler	1995	11.30	0.69	13.46	13.46	0.00	62-SM-147(HE3,3N)64-GD-147,,SIG
D4061.002.1	C.K.Cline	1971	4.10	0.00	6.17	6.17	6.17	28-NI-58(D,X)28-NI-57,,SIG
D4077.004.1	S.Merchel	1997	5.70	5.60	20.24	0.00	20.24	10-NE-0(HE3,X)4-BE-7,,SIG
D4077.004.1	S.Merchel	1997	10.45	5.25	20.24	0.00	20.24	10-NE-0(HE3,X)4-BE-7,,SIG
D4077.004.1	S.Merchel	1997	14.40	3.90	20.24	0.00	20.24	10-NE-0(HE3,X)4-BE-7,,SIG
D4093.003	A.Hermanne	1997	4.78	0.00	6.05	0.00	6.05	30-ZN-0(P,X)31-GA-66,,SIG
D4093.003	A.Hermanne	1997	5.57	0.00	6.05	0.00	6.05	30-ZN-0(P,X)31-GA-66,,SIG
D4093.004	A.Hermanne	1997	4.78	0.00	6.05	6.05	6.05	30-ZN-66(P,N)31-GA-66,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
D4093.004	A.Hermanne	1997	5.57	0.00	6.05	6.05	6.05	30-ZN-66(P,N)31-GA-66,,SIG
D4093.009.1	A.Hermanne	1997	12.15	0.00	12.16	12.16	0.00	30-ZN-68(P,2N)31-GA-67,,SIG
D4102.002	W.H.Burgus	1954	3.03	0.00	7.32	7.32	0.00	22-TI-48(D,2N)23-V-48,,SIG
D4102.002	W.H.Burgus	1954	4.03	0.00	7.32	7.32	0.00	22-TI-48(D,2N)23-V-48,,SIG
D4102.002	W.H.Burgus	1954	5.07	0.00	7.32	7.32	0.00	22-TI-48(D,2N)23-V-48,,SIG
D4102.002	W.H.Burgus	1954	5.53	0.37	7.32	7.32	0.00	22-TI-48(D,2N)23-V-48,,SIG
D4102.002	W.H.Burgus	1954	6.06	0.00	7.32	7.32	0.00	22-TI-48(D,2N)23-V-48,,SIG
D4102.002	W.H.Burgus	1954	6.98	0.00	7.32	7.32	0.00	22-TI-48(D,2N)23-V-48,,SIG
D4104.008	R.L.Wilson	1976	13.75	0.25	15.49	15.49	15.49	13-AL-27(P,X)12-MG-23,,SIG
D4113.005	F.Tarkanyi	2002	24.90	0.61	25.92	25.92	25.92	41-NB-93(A,3N)43-TC-94-G,,SIG
D4123.002.1	M.S.Uddin	2006	2.62	0.00	11.43	0.00	11.43	47-AG-0(D,X)47-AG-105-G,CUM,SIG
D4123.002.1	M.S.Uddin	2006	10.82	0.00	11.43	0.00	11.43	47-AG-0(D,X)47-AG-105-G,CUM,SIG
D4123.002.2	M.S.Uddin	2006	2.62	0.00	3.34	0.00	3.34	47-AG-0(D,X)47-AG-106-M,,SIG
D4123.004.1	M.S.Uddin	2006	2.21	0.00	4.51	0.00	4.51	47-AG-0(D,X)48-CD-107,,SIG
D4123.004.1	M.S.Uddin	2006	2.62	0.00	4.51	0.00	4.51	47-AG-0(D,X)48-CD-107,,SIG
D4123.004.1	M.S.Uddin	2006	3.51	0.00	4.51	0.00	4.51	47-AG-0(D,X)48-CD-107,,SIG
D4127.003.1	S.Kastleiner	2002	20.70	0.60	22.56	22.56	22.56	37-RB-85(P,3N)38-SR-83,,SIG
D4134.003.1	A.Fenyvesi	1997	12.00	1.60	15.09	0.00	15.09	10-NE-0(A,X)11-NA-22,,SIG
D4143.002.1	F.Tarkanyi	2004	3.70	1.50	9.32	0.00	9.32	40-ZR-0(D,X)41-NB-90,,SIG
D4143.002.1	F.Tarkanyi	2004	6.80	1.10	9.32	0.00	9.32	40-ZR-0(D,X)41-NB-90,,SIG
D4143.005.2	F.Tarkanyi	2004	3.70	1.50	5.84	0.00	5.84	40-ZR-0(D,X)40-ZR-89,,SIG
D4156.002	F.Tarkanyi	2007	0.02	2.70	3.49	3.49	3.49	41-NB-93(D,2N)42-MO-93-M,,SIG
D4156.006	F.Tarkanyi	2007	0.02	2.70	7.94	7.94	7.94	41-NB-93(D,X)40-ZR-89,,SIG
D4156.006	F.Tarkanyi	2007	5.63	1.18	7.94	7.94	7.94	41-NB-93(D,X)40-ZR-89,,SIG
D4159.004.2	K.F.Hassan	2006	15.00	0.72	15.88	15.88	15.88	51-SB-121(A,2N)53-I-123,,SIG
D4160.006.1	F.Tarkanyi	2005	7.88	1.59	11.93	11.93	0.00	48-CD-114(D,3N)49-IN-113-M,,SIG
D4160.006.1	F.Tarkanyi	2005	9.19	1.46	11.93	11.93	0.00	48-CD-114(D,3N)49-IN-113-M,,SIG
D4160.006.1	F.Tarkanyi	2005	10.38	1.34	11.93	11.93	0.00	48-CD-114(D,3N)49-IN-113-M,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
D4173.006.2	A.Hermanne	2006	3.20	2.00	8.15	0.00	8.15	50-SN-0(P,X)50-SN-113-G,CUM,SIG
D4188.005	F.Tarkanyi	2008	3.10	0.70	3.84	0.00	3.84	68-ER-0(P,X)69-TM-166,,SIG
D4202.004	B.Scholten	2007	17.60	0.00	19.78	19.78	0.00	52-TE-126(P,3N)53-I-124,,SIG
D4202.004	B.Scholten	2007	19.10	0.00	19.78	19.78	0.00	52-TE-126(P,3N)53-I-124,,SIG
D4202.004	B.Scholten	2007	19.20	0.00	19.78	19.78	0.00	52-TE-126(P,3N)53-I-124,,SIG
D4203.009	B.Kiraly	2008	7.80	1.50	9.64	0.00	9.64	70-YB-0(A,X)71-LU-177-G,IND,SIG
D4204.007	R.Adam Rebeles	2008	14.80	2.10	20.80	20.80	0.00	48-CD-116(A,3N)50-SN-117-M,,SIG
D4204.011	R.Adam Rebeles	2008	8.00	4.30	12.72	12.72	6.14	48-CD-116(A,X)49-IN-117,,SIG
D4229.004	A.Hermanne	2010	7.40	0.60	8.10	8.10	0.00	48-CD-116(P,2N)49-IN-115-M,,SIG
D4235.002	F.Tarkanyi	2011	6.70	0.90	10.14	10.14	0.00	42-MO-100(D,3N)43-TC-99-M,,SIG
D4235.002	F.Tarkanyi	2011	8.40	0.80	10.14	10.14	0.00	42-MO-100(D,3N)43-TC-99-M,,SIG
D4235.002	F.Tarkanyi	2011	8.80	0.90	10.14	10.14	0.00	42-MO-100(D,3N)43-TC-99-M,,SIG
D4236.002	A.Hermanne	2011	9.70	1.20	12.63	12.63	0.00	68-ER-167(D,3N)69-TM-166,,SIG
D4236.002	A.Hermanne	2011	10.10	1.40	12.63	12.63	0.00	68-ER-167(D,3N)69-TM-166,,SIG
D4236.002	A.Hermanne	2011	10.80	1.20	12.63	12.63	0.00	68-ER-167(D,3N)69-TM-166,,SIG
D4236.005	A.Hermanne	2011	10.10	1.40	13.23	13.23	0.00	68-ER-166(D,3N)69-TM-165,,SIG
D4236.005	A.Hermanne	2011	12.20	1.00	13.23	13.23	0.00	68-ER-166(D,3N)69-TM-165,,SIG
D4247.004	F.Ditroi	2011	24.30	0.70	25.88	25.88	25.88	25-MN-55(D,X)25-MN-52,,SIG
D4253.005	A.Hermanne	2012	24.30	1.10	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	27.10	1.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	29.80	0.80	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	32.30	0.70	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	34.60	0.60	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	36.80	0.50	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	38.90	0.40	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	41.00	0.40	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	42.90	0.30	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	44.80	0.30	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
D4253.005	A.Hermanne	2012	46.60	0.20	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.005	A.Hermanne	2012	48.40	0.20	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	22.50	1.40	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	25.10	1.20	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	27.60	1.10	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	29.90	0.90	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	31.00	0.80	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	34.10	0.70	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	36.10	0.60	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	38.00	0.50	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	39.80	0.50	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	41.60	0.40	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	43.20	0.30	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	44.90	0.30	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	46.50	0.30	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	48.00	0.20	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4253.008	A.Hermanne	2012	49.60	0.20	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
D4256.009	F.Ditroi	2012	3.30	0.80	12.83	0.00	12.83	46-PD-0(D,X)46-PD-100,CUM,SIG
D4256.009	F.Ditroi	2012	4.60	0.70	12.83	0.00	12.83	46-PD-0(D,X)46-PD-100,CUM,SIG
D4256.009	F.Ditroi	2012	5.80	0.70	12.83	0.00	12.83	46-PD-0(D,X)46-PD-100,CUM,SIG
D4256.009	F.Ditroi	2012	6.70	0.70	12.83	0.00	12.83	46-PD-0(D,X)46-PD-100,CUM,SIG
D4256.009	F.Ditroi	2012	7.60	0.60	12.83	0.00	12.83	46-PD-0(D,X)46-PD-100,CUM,SIG
D4256.009	F.Ditroi	2012	9.50	0.50	12.83	0.00	12.83	46-PD-0(D,X)46-PD-100,CUM,SIG
D4256.009	F.Ditroi	2012	10.00	0.50	12.83	0.00	12.83	46-PD-0(D,X)46-PD-100,CUM,SIG
D4256.009	F.Ditroi	2012	11.40	0.40	12.83	0.00	12.83	46-PD-0(D,X)46-PD-100,CUM,SIG
D4256.009	F.Ditroi	2012	11.80	0.60	12.83	0.00	12.83	46-PD-0(D,X)46-PD-100,CUM,SIG
D4264.006	F.Tarkanyi	2012	2.78	1.00	5.09	0.00	5.09	42-MO-0(P,X)43-TC-94-G,,SIG
D4264.010	F.Tarkanyi	2012	5.71	0.78	7.80	7.80	0.00	42-MO-100(P,X)43-TC-99-M,IND,SIG

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D4264.015	F.Tarkanyi	2012	7.31	1.10	11.94	0.00	11.94	42-MO-0(P,X)40-ZR-89,CUM,SIG
D4264.015	F.Tarkanyi	2012	10.19	0.91	11.94	0.00	11.94	42-MO-0(P,X)40-ZR-89,CUM,SIG
D4264.016	F.Tarkanyi	2012	7.31	1.10	9.06	0.00	9.06	42-MO-0(P,X)41-NB-90,CUM,SIG
D4269.027	F.Ditroi	2012	8.00	0.70	9.39	0.00	9.39	42-MO-0(A,X)44-RU-95,,SIG
D4276.006	F.Szelecsenyi	2012	10.30	1.40	12.16	12.16	0.00	30-ZN-68(P,2N)31-GA-67,,SIG
D4288.005	N.Amjed	2013	3.20	1.80	6.17	0.00	6.17	28-NI-0(D,X)28-NI-57,CUM,SIG
D4293.002	F.Ditroi	2013	16.00	0.80	23.47	23.47	23.47	27-CO-59(P,3N)28-NI-57,,SIG
D4293.002	F.Ditroi	2013	18.00	0.70	23.47	23.47	23.47	27-CO-59(P,3N)28-NI-57,,SIG
D4293.002	F.Ditroi	2013	19.80	0.70	23.47	23.47	23.47	27-CO-59(P,3N)28-NI-57,,SIG
D4293.002	F.Ditroi	2013	21.50	0.60	23.47	23.47	23.47	27-CO-59(P,3N)28-NI-57,,SIG
D4296.003	F.Tarkanyi	2013	3.30	1.30	19.50	19.50	19.50	65-TB-159(D,4N)66-DY-157,,SIG
D4296.003	F.Tarkanyi	2013	11.00	1.20	19.50	19.50	19.50	65-TB-159(D,4N)66-DY-157,,SIG
D4296.003	F.Tarkanyi	2013	16.00	1.10	19.50	19.50	19.50	65-TB-159(D,4N)66-DY-157,,SIG
D4296.006	F.Tarkanyi	2013	3.30	1.30	17.62	17.62	17.62	65-TB-159(D,X)65-TB-156,,SIG
D4296.006	F.Tarkanyi	2013	11.00	1.20	17.62	17.62	17.62	65-TB-159(D,X)65-TB-156,,SIG
D4296.006	F.Tarkanyi	2013	16.00	1.10	17.62	17.62	17.62	65-TB-159(D,X)65-TB-156,,SIG
D4301.004	N.Amjed	2014	11.30	1.40	14.23	0.00	14.23	28-NI-0(P,X)28-NI-56,CUM,SIG
D4301.004	N.Amjed	2014	12.40	1.30	14.23	0.00	14.23	28-NI-0(P,X)28-NI-56,CUM,SIG
D4303.002	A.Hermanne	2014	12.80	0.60	13.44	13.44	13.44	4-BE-9(P,X)4-BE-7,,SIG
D4314.002	A.Hermanne	2014	8.80	1.80	13.50	13.50	0.00	48-CD-112(D,3N)49-IN-111,,SIG
D4314.002	A.Hermanne	2014	10.60	1.60	13.50	13.50	0.00	48-CD-112(D,3N)49-IN-111,,SIG
D4320.003	A.Hermanne	2014	19.90	0.70	21.22	21.22	4.70	48-CD-112(P,3N)49-IN-110-M,,SIG
D4320.004	A.Hermanne	2014	19.90	0.70	21.22	21.22	4.70	48-CD-112(P,3N)49-IN-110-G,,SIG
D4320.005	A.Hermanne	2014	27.70	0.40	29.35	29.35	0.00	48-CD-112(P,4N)49-IN-109,,SIG
D4320.005	A.Hermanne	2014	28.50	0.40	29.35	29.35	0.00	48-CD-112(P,4N)49-IN-109,,SIG
D4324.018	A.Hermanne	2015	8.20	1.50	11.84	0.00	11.84	28-NI-0(P,X)27-CO-56,CUM,SIG
D4324.018	A.Hermanne	2015	10.30	1.30	11.84	0.00	11.84	28-NI-0(P,X)27-CO-56,CUM,SIG
D4327.010	F.Tarkanyi	2015	11.90	0.60	14.56	14.56	0.00	47-AG-109(A,2N)49-IN-111,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
D4327.010	F.Tarkanyi	2015	12.00	0.50	14.56	14.56	0.00	47-AG-109(A,2N)49-IN-111,,SIG
D4327.010	F.Tarkanyi	2015	13.60	0.50	14.56	14.56	0.00	47-AG-109(A,2N)49-IN-111,,SIG
D4334.002	F.Tarkanyi	2016	0.60	1.20	3.58	3.58	3.58	55-CS-133(D,2N)56-BA-133-M,,SIG
D4334.005	F.Tarkanyi	2016	0.60	1.20	2.77	2.77	2.77	55-CS-133(D,X)55-CS-132,,SIG
D4335.003	A.Hermanne	2015	5.20	2.10	11.08	11.08	11.08	24-CR-50(A,X)25-MN-52-G,CUM,SIG
D4335.004	A.Hermanne	2015	5.20	2.10	11.39	0.00	11.39	24-CR-0(A,X)25-MN-54,,SIG
D4335.004	A.Hermanne	2015	9.70	1.50	11.39	0.00	11.39	24-CR-0(A,X)25-MN-54,,SIG
D4335.010	A.Hermanne	2015	3.70	2.10	6.18	6.18	6.18	29-CU-65(A,N)31-GA-68,,SIG
D4336.013	F.Tarkanyi	2015	5.10	1.10	17.06	17.06	17.06	79-AU-197(D,X)79-AU-194,,SIG
D4336.013	F.Tarkanyi	2015	7.80	1.10	17.06	17.06	17.06	79-AU-197(D,X)79-AU-194,,SIG
D4336.013	F.Tarkanyi	2015	10.00	1.00	17.06	17.06	17.06	79-AU-197(D,X)79-AU-194,,SIG
D4336.013	F.Tarkanyi	2015	12.00	1.00	17.06	17.06	17.06	79-AU-197(D,X)79-AU-194,,SIG
D4336.013	F.Tarkanyi	2015	13.70	0.90	17.06	17.06	17.06	79-AU-197(D,X)79-AU-194,,SIG
D4336.013	F.Tarkanyi	2015	15.90	0.90	17.06	17.06	17.06	79-AU-197(D,X)79-AU-194,,SIG
D4351.010	F.Ditroi	2016	4.90	0.90	5.88	5.88	5.88	79-AU-197(P,X)79-AU-196,,SIG
D4351.012	F.Ditroi	2016	10.10	0.70	14.74	14.74	14.74	79-AU-197(P,X)79-AU-194,,SIG
D4351.012	F.Ditroi	2016	12.20	0.70	14.74	14.74	14.74	79-AU-197(P,X)79-AU-194,,SIG
D4351.012	F.Ditroi	2016	14.00	0.60	14.74	14.74	14.74	79-AU-197(P,X)79-AU-194,,SIG
D4356.010	F.Ditroi	2016	38.41	1.13	43.10	43.10	31.83	23-V-51(P,X)21-SC-43,CUM,SIG
D4370.003	F.Tarkanyi	2017	14.86	0.85	17.14	17.14	17.14	65-TB-159(P,3N)66-DY-157,,SIG
D4370.011	F.Tarkanyi	2017	14.86	0.85	16.10	16.10	16.10	65-TB-159(P,X)64-GD-153,CUM,SIG
D4375.005	F.Tarkanyi	2017	33.73	0.66	35.94	35.94	27.09	57-LA-139(P,5N)58-CE-135,,SIG
D4375.005	F.Tarkanyi	2017	34.74	0.64	35.94	35.94	27.09	57-LA-139(P,5N)58-CE-135,,SIG
D4376.009	F.Tarkanyi	2017	13.24	0.24	14.38	0.00	14.38	60-ND-0(P,X)61-PM-141,,SIG
D4384.002	F.Szelecsenyi	2017	40.94	0.88	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D4384.002	F.Szelecsenyi	2017	43.22	0.83	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D4384.002	F.Szelecsenyi	2017	45.41	0.78	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
D4398.004	F.Tarkanyi	2019	22.10	1.10	25.88	25.88	25.88	25-MN-55(D,X)25-MN-52,CUM,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
D4398.004	F.Tarkanyi	2019	23.80	1.00	25.88	25.88	25.88	25-MN-55(D,X)25-MN-52,CUM,SIG
D4408.003	S.Takacs	2020	6.90	0.80	8.43	0.00	8.43	28-NI-0(A,X)30-ZN-63,,SIG
D4409.003	A.Hermanne	2020	23.80	1.60	25.54	25.54	17.87	73-TA-181(D,5N)74-W-178,,SIG
D5057.006	Ye.Skakun	2008	12.00	0.00	12.16	12.16	0.00	44-RU-101(HE3,3N)46-PD-101,,SIG
D5057.007	Ye.Skakun	2008	19.30	0.00	21.65	21.65	0.00	44-RU-102(HE3,4N)46-PD-101,,SIG
D6156.002	A.G.C.Nair	1993	17.90	0.00	24.61	24.61	24.61	13-AL-27(P,X)11-NA-24,CUM,SIG
D6171.009	F.K.Amanuel	2011	23.30	0.00	25.92	25.92	25.92	41-NB-93(A,3N)43-TC-94-M,,SIG
D6171.010	F.K.Amanuel	2011	23.30	0.00	25.92	25.92	25.92	41-NB-93(A,3N)43-TC-94-G,,SIG
D6171.011	F.K.Amanuel	2011	23.30	0.00	25.92	25.92	25.92	41-NB-93(A,3N)43-TC-94,,SIG
D6218.006	N.L.Singh	1987	14.40	0.00	14.56	14.56	0.00	47-AG-109(A,2N)49-IN-111,,SIG
D7026.003	M.S.Uddin	2017	4.80	1.60	8.43	0.00	8.43	28-NI-0(A,X)30-ZN-63,,SIG
D7030.006	K.S.Kim	2018	2.70	1.28	6.68	6.68	6.68	41-NB-93(P,X)41-NB-92-M,,SIG
D7030.006	K.S.Kim	2018	4.80	0.87	6.68	6.68	6.68	41-NB-93(P,X)41-NB-92-M,,SIG
D7038.003	M.Shahid	2020	22.68	0.37	23.47	23.47	23.47	27-CO-59(P,3N)28-NI-57,,SIG
D7038.006	M.Shahid	2020	8.99	0.74	10.73	10.73	10.73	27-CO-59(P,X)27-CO-57,CUM,SIG
D7038.007	M.Shahid	2020	5.48	1.06	8.37	8.37	8.37	27-CO-59(P,X)27-CO-58,,SIG
E0056.002	K.Miyano	1974	17.91	0.00	18.13	18.13	18.13	83-BI-209(P,3N)84-PO-207,,SIG
E0057.004	K.Miyano	1973	29.52	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	30.13	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	31.90	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	32.15	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	32.57	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	33.03	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	33.80	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	35.71	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	36.39	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	37.01	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	37.75	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
E0057.004	K.Miyano	1973	38.79	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	39.20	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	39.77	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	40.34	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	40.91	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	42.27	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	42.67	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	43.13	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	43.71	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	44.24	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	44.76	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	45.43	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	45.89	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	46.31	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E0057.004	K.Miyano	1973	47.17	0.15	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
E1370.004	Y.Nagame	1988	8.13	0.00	19.10	0.00	0.00	27-CO-59(HE3,2N+2P)27-CO-58,,SIG
E1370.004	Y.Nagame	1988	10.46	0.00	19.10	0.00	0.00	27-CO-59(HE3,2N+2P)27-CO-58,,SIG
E1370.004	Y.Nagame	1988	12.80	0.00	19.10	0.00	0.00	27-CO-59(HE3,2N+2P)27-CO-58,,SIG
E1370.004	Y.Nagame	1988	12.81	0.00	19.10	0.00	0.00	27-CO-59(HE3,2N+2P)27-CO-58,,SIG
E1370.004	Y.Nagame	1988	14.63	0.00	19.10	0.00	0.00	27-CO-59(HE3,2N+2P)27-CO-58,,SIG
E1370.004	Y.Nagame	1988	16.90	0.00	19.10	0.00	0.00	27-CO-59(HE3,2N+2P)27-CO-58,,SIG
E1370.004	Y.Nagame	1988	16.98	0.00	19.10	0.00	0.00	27-CO-59(HE3,2N+2P)27-CO-58,,SIG
E1370.004	Y.Nagame	1988	17.07	0.00	19.10	0.00	0.00	27-CO-59(HE3,2N+2P)27-CO-58,,SIG
E1370.004	Y.Nagame	1988	18.89	0.00	19.10	0.00	0.00	27-CO-59(HE3,2N+2P)27-CO-58,,SIG
E1370.010	Y.Nagame	1988	11.04	0.00	11.83	11.83	0.00	47-AG-109(HE3,3N)49-IN-109,,SIG
E1847.005	T.Inoue	1976	27.79	0.00	33.20	33.20	30.84	8-O-16(P,X)4-BE-7,,SIG
E1847.005	T.Inoue	1976	29.40	1.70	33.20	33.20	30.84	8-O-16(P,X)4-BE-7,,SIG
E1847.005	T.Inoue	1976	30.12	0.00	33.20	33.20	30.84	8-O-16(P,X)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
E1847.005	T.Inoue	1976	32.55	0.00	33.20	33.20	30.84	8-O-16(P,X)4-BE-7,,SIG
E1864.002	M.Furukawa	1990	8.21	0.00	15.52	0.00	15.52	28-NI-0(P,X)26-FE-55,,SIG
E1864.002	M.Furukawa	1990	11.85	0.00	15.52	0.00	15.52	28-NI-0(P,X)26-FE-55,,SIG
E1864.004	M.Furukawa	1990	8.48	0.00	10.17	0.00	10.17	28-NI-0(P,X)28-NI-57,,SIG
E1865.002	M.Furukawa	1991	8.53	0.00	15.52	0.00	15.52	28-NI-0(P,X)26-FE-55,,SIG
E1865.002	M.Furukawa	1991	11.89	0.00	15.52	0.00	15.52	28-NI-0(P,X)26-FE-55,,SIG
E1874.006	S.Fukushima	1963	26.25	0.50	27.06	27.06	27.06	47-AG-107(A,3N)49-IN-108-G,,SIG
E1876.004	S.Fukushima	1965	14.10	0.00	14.56	14.56	0.00	47-AG-109(A,2N)49-IN-111,,SIG
E1927.004	M.S.Uddin	2005	30.26	0.00	30.91	0.00	30.91	47-AG-0(P,X)46-PD-100,CUM,SIG
E1985.004	M.Hagiwara	2004	4.39	0.00	5.76	5.76	5.76	13-AL-27(D,X)11-NA-24,CUM,SIG
E1985.006	M.Hagiwara	2004	20.62	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	22.37	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	24.03	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	25.58	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	27.05	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	28.47	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	29.84	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	31.15	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	32.43	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	33.69	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	34.91	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	36.08	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	37.21	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	38.33	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E1985.006	M.Hagiwara	2004	39.44	0.00	51.73	51.73	51.73	13-AL-27(D,X)4-BE-7,,SIG
E2051.003	M.S.Uddin	2007	10.10	0.00	15.51	15.51	15.51	39-Y-89(D,3N)40-ZR-88,,SIG
E2073.002	Y.Homma	1976	12.90	0.00	14.91	14.91	14.91	27-CO-59(A,2N)29-CU-61,,SIG
E2394.003	T.Mikumo	1966	14.73	0.39	19.41	19.41	19.41	7-N-14(HE3,X)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
E2394.003	T.Mikumo	1966	17.82	0.56	19.41	19.41	19.41	7-N-14(HE3,X)4-BE-7,,SIG
E2394.003	T.Mikumo	1966	18.62	0.00	19.41	19.41	19.41	7-N-14(HE3,X)4-BE-7,,SIG
E2394.004	T.Mikumo	1966	13.39	0.39	15.28	15.28	15.28	8-O-16(HE3,X)4-BE-7,,SIG
E2394.004	T.Mikumo	1966	14.75	0.00	15.28	15.28	15.28	8-O-16(HE3,X)4-BE-7,,SIG
E2394.006	T.Mikumo	1966	12.94	1.33	28.46	28.46	28.46	9-F-19(HE3,X)4-BE-7,,SIG
E2394.006	T.Mikumo	1966	16.44	0.00	28.46	28.46	28.46	9-F-19(HE3,X)4-BE-7,,SIG
E2394.006	T.Mikumo	1966	16.93	0.54	28.46	28.46	28.46	9-F-19(HE3,X)4-BE-7,,SIG
E2394.006	T.Mikumo	1966	18.81	0.00	28.46	28.46	28.46	9-F-19(HE3,X)4-BE-7,,SIG
E2394.006	T.Mikumo	1966	21.14	0.58	28.46	28.46	28.46	9-F-19(HE3,X)4-BE-7,,SIG
E2394.006	T.Mikumo	1966	22.22	0.00	28.46	28.46	28.46	9-F-19(HE3,X)4-BE-7,,SIG
E2394.006	T.Mikumo	1966	23.39	0.00	28.46	28.46	28.46	9-F-19(HE3,X)4-BE-7,,SIG
E2394.006	T.Mikumo	1966	25.18	0.00	28.46	28.46	28.46	9-F-19(HE3,X)4-BE-7,,SIG
E2394.006	T.Mikumo	1966	26.84	0.00	28.46	28.46	28.46	9-F-19(HE3,X)4-BE-7,,SIG
E2394.007	T.Mikumo	1966	18.62	0.00	30.29	30.29	30.29	12-MG-24(HE3,X)4-BE-7,,SIG
E2394.007	T.Mikumo	1966	22.07	0.00	30.29	30.29	30.29	12-MG-24(HE3,X)4-BE-7,,SIG
E2394.007	T.Mikumo	1966	26.31	0.00	30.29	30.29	30.29	12-MG-24(HE3,X)4-BE-7,,SIG
E2394.007	T.Mikumo	1966	29.06	0.00	30.29	30.29	30.29	12-MG-24(HE3,X)4-BE-7,,SIG
E2449.003	T.Akagi	2013	7.20	7.20	25.17	25.17	22.84	8-O-16(P,X)6-C-11,,SIG
E2501.002	K.Matsushita	2016	10.53	5.17	17.89	17.89	16.37	6-C-12(P,X)6-C-11,,SIG
E2501.003	K.Matsushita	2016	10.53	5.17	25.35	25.35	25.35	6-C-12(P,X)6-C-10,,SIG
E2501.003	K.Matsushita	2016	13.79	5.18	25.35	25.35	25.35	6-C-12(P,X)6-C-10,,SIG
E2501.003	K.Matsushita	2016	17.24	4.26	25.35	25.35	25.35	6-C-12(P,X)6-C-10,,SIG
E2501.003	K.Matsushita	2016	20.28	3.64	25.35	25.35	25.35	6-C-12(P,X)6-C-10,,SIG
E2536.012	A.R.Usman	2017	10.40	1.50	12.40	0.00	12.40	22-TI-0(A,X)21-SC-47,,SIG
E2540.002	M.U.Khandaker	2017	3.40	1.36	5.76	5.76	5.76	13-AL-27(D,X)11-NA-24,,SIG
E2572.002	M.Ogawa	1972	2.01	0.00	2.20	2.20	0.00	24-CR-54(P,N)25-MN-54,PAR,SIG,G
E2572.002	M.Ogawa	1972	2.11	0.00	2.20	2.20	0.00	24-CR-54(P,N)25-MN-54,PAR,SIG,G
E2592.010	T.Murata	2019	6.40	2.50	12.50	0.00	12.50	40-ZR-0(A,X)40-ZR-89-G,CUM,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
E2626.056	N.Paul	2019	0.20	0.00	1.65	1.65	0.00	1-H-1(43-TC-114,X)43-TC-113,,SIG
E2693.007	M.Aikawa	2021	11.70	0.50	13.02	13.02	13.02	59-PR-141(D,3N)60-ND-140,,SIG
E2715.003	M.Aikawa	2021	9.50	1.10	10.69	10.69	10.69	59-PR-141(P,2N)60-ND-140,,SIG
E2715.004	M.Aikawa	2021	15.20	0.60	21.07	21.07	21.07	59-PR-141(P,3N)60-ND-139-M,,SIG
E2715.004	M.Aikawa	2021	16.70	0.50	21.07	21.07	21.07	59-PR-141(P,3N)60-ND-139-M,,SIG
E2715.004	M.Aikawa	2021	18.20	0.50	21.07	21.07	21.07	59-PR-141(P,3N)60-ND-139-M,,SIG
E2715.004	M.Aikawa	2021	19.60	0.40	21.07	21.07	21.07	59-PR-141(P,3N)60-ND-139-M,,SIG
F0007.003	K.K.Sekharan	1976	5.65	0.00	5.80	5.80	5.80	13-AL-27(P,N)14-SI-27,,SIG
F0007.003	K.K.Sekharan	1976	5.70	0.00	5.80	5.80	5.80	13-AL-27(P,N)14-SI-27,,SIG
F0007.003	K.K.Sekharan	1976	5.75	0.00	5.80	5.80	5.80	13-AL-27(P,N)14-SI-27,,SIG
F0007.003	K.K.Sekharan	1976	5.78	0.00	5.80	5.80	5.80	13-AL-27(P,N)14-SI-27,,SIG
F0007.003	K.K.Sekharan	1976	5.79	0.00	5.80	5.80	5.80	13-AL-27(P,N)14-SI-27,,SIG
F0007.003	K.K.Sekharan	1976	5.80	0.00	5.80	5.80	5.80	13-AL-27(P,N)14-SI-27,,SIG
F0007.003	K.K.Sekharan	1976	5.80	0.00	5.80	5.80	5.80	13-AL-27(P,N)14-SI-27,,SIG
F0007.004	K.K.Sekharan	1976	4.39	0.00	4.46	4.46	0.00	38-SR-88(P,N)39-Y-88,,SIG
F0007.004	K.K.Sekharan	1976	4.41	0.00	4.46	4.46	0.00	38-SR-88(P,N)39-Y-88,,SIG
F0007.004	K.K.Sekharan	1976	4.42	0.00	4.46	4.46	0.00	38-SR-88(P,N)39-Y-88,,SIG
F0007.004	K.K.Sekharan	1976	4.43	0.00	4.46	4.46	0.00	38-SR-88(P,N)39-Y-88,,SIG
F0007.004	K.K.Sekharan	1976	4.44	0.00	4.46	4.46	0.00	38-SR-88(P,N)39-Y-88,,SIG
F0068.010	M.Ismail	1990	14.10	0.47	15.88	15.88	15.88	51-SB-121(A,2N)53-I-123,,SIG
F0127.004	R.E.Heft	1955	17.16	0.21	17.52	17.52	17.52	4-BE-9(D,N+T)4-BE-7,,SIG
F0284.005	O.D.Brill	1959	1.98	0.00	5.90	5.90	0.00	5-B-11(D,2N)6-C-11,,SIG
F0307.005	R.E.Segel	1966	4.09	0.00	4.88	4.88	4.88	5-B-10(P,X)6-C-10,,SIG
F0307.005	R.E.Segel	1966	4.56	0.00	4.88	4.88	4.88	5-B-10(P,X)6-C-10,,SIG
F0332.006	R.E.Segel	1965	3.01	0.00	3.02	3.02	0.00	5-B-11(P,N)6-C-11,,SIG
F1222.005	Wang Chuan-Peng	1963	120.00	0.00	?0	?	?	32-GE-0(P,X)33-AS-78,,SIG
F1222.005	Wang Chuan-Peng	1963	300.00	0.00	?	?	?	32-GE-0(P,X)33-AS-78,,SIG
F1222.005	Wang Chuan-Peng	1963	480.00	0.00	?	?	?	32-GE-0(P,X)33-AS-78,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
F1222.005	Wang Chuan-Peng	1963	660.00	0.00	?	?	?	32-GE-0(P,X)33-AS-78,,SIG
F1291.004	A.E.Antropov	1992	17.50	0.00	17.51	17.51	0.44	50-SN-117(A,2N)52-TE-119-G,,SIG
F1318.003	S.A.Karamyan	1992	18.59	0.00	25.86	25.86	25.86	13-AL-27(A,X)11-NA-22,,SIG
F1318.003	S.A.Karamyan	1992	21.75	0.00	25.86	25.86	25.86	13-AL-27(A,X)11-NA-22,,SIG
F1322.009	L.N.Generalov	2017	4.96	0.00	4.98	4.98	0.00	3-LI-7(D,2N)4-BE-7,,SIG
F1458.007	L.N.Generalov	2020	4.56	0.00	4.91	4.91	4.91	7-N-14(D,X)7-N-13,,SIG
F1458.007	L.N.Generalov	2020	4.77	0.00	4.91	4.91	4.91	7-N-14(D,X)7-N-13,,SIG
F1458.008	L.N.Generalov	2020	4.56	0.00	4.91	4.91	4.91	7-N-14(D,X)7-N-13,,SIG
F1458.008	L.N.Generalov	2020	4.78	0.00	4.91	4.91	4.91	7-N-14(D,X)7-N-13,,SIG
F1458.009	L.N.Generalov	2020	4.77	0.00	4.91	4.91	4.91	7-N-14(D,X)7-N-13,,SIG
F1458.010	L.N.Generalov	2020	4.58	0.00	5.89	5.89	5.89	7-N-14(D,X)6-C-11,,SIG
F1458.010	L.N.Generalov	2020	5.64	0.00	5.89	5.89	5.89	7-N-14(D,X)6-C-11,,SIG
F1458.012	L.N.Generalov	2020	5.18	0.00	5.89	5.89	5.89	7-N-14(D,X)6-C-11,,SIG
F1458.012	L.N.Generalov	2020	5.40	0.00	5.89	5.89	5.89	7-N-14(D,X)6-C-11,,SIG
G0011.002	S.Karataglidis	1989	7.00	0.00	7.26	7.26	0.00	3-LI-7(G,N)3-LI-6,,SIG
G0011.002	S.Karataglidis	1989	7.05	0.00	7.26	7.26	0.00	3-LI-7(G,N)3-LI-6,,SIG
G0011.002	S.Karataglidis	1989	7.10	0.00	7.26	7.26	0.00	3-LI-7(G,N)3-LI-6,,SIG
G0011.002	S.Karataglidis	1989	7.15	0.00	7.26	7.26	0.00	3-LI-7(G,N)3-LI-6,,SIG
G0011.002	S.Karataglidis	1989	7.25	0.00	7.26	7.26	0.00	3-LI-7(G,N)3-LI-6,,SIG
L0012.009	R.Bergere	1968	23.58	0.00	23.66	23.66	23.66	65-TB-159(G,3N)65-TB-156,,SIG
L0012.017	R.Bergere	1968	21.95	0.00	22.06	22.06	14.48	73-TA-181(G,3N)73-TA-178,,SIG
L0013.002	R.E.Sund	1968	10.12	0.00	10.86	10.86	10.86	29-CU-63(G,N)29-CU-62,,SIG
L0013.002	R.E.Sund	1968	10.59	0.00	10.86	10.86	10.86	29-CU-63(G,N)29-CU-62,,SIG
L0013.002	R.E.Sund	1968	10.82	0.00	10.86	10.86	10.86	29-CU-63(G,N)29-CU-62,,SIG
L0015.005	R.Bergere	1969	25.76	0.00	25.84	25.84	25.84	53-I-127(G,3N)53-I-124,,SIG
L0016.013	B.L.Berman	1969	23.03	0.00	23.07	23.07	23.07	67-HO-165(G,3N)67-HO-162,,SIG
L0017.005	S.C.Fultz	1969	25.20	0.00	25.76	25.76	9.45	49-IN-115(G,3N)49-IN-112,,SIG
L0017.005	S.C.Fultz	1969	25.51	0.00	25.76	25.76	9.45	49-IN-115(G,3N)49-IN-112,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
L0017.028	S.C.Fultz	1969	23.03	0.00	23.25	23.25	8.81	50-SN-124(G,3N)50-SN-121,,SIG
L0017.028	S.C.Fultz	1969	23.19	0.00	23.25	23.25	8.81	50-SN-124(G,3N)50-SN-121,,SIG
L0020.002	R.E.Sund	1970	8.89	0.00	9.40	9.40	9.40	59-PR-141(G,N)59-PR-140,,SIG
L0020.002	R.E.Sund	1970	9.21	0.00	9.40	9.40	9.40	59-PR-141(G,N)59-PR-140,,SIG
L0021.005	A.Veyssiere	1970	22.76	0.00	23.14	23.14	23.14	79-AU-197(G,3N)79-AU-194,,SIG
L0025.004	P.Carlos	1971	17.21	0.00	17.84	17.84	17.84	60-ND-142(G,2N)60-ND-140,,SIG
L0025.004	P.Carlos	1971	17.49	0.00	17.84	17.84	17.84	60-ND-142(G,2N)60-ND-140,,SIG
L0025.004	P.Carlos	1971	17.76	0.00	17.84	17.84	17.84	60-ND-142(G,2N)60-ND-140,,SIG
L0025.007	P.Carlos	1971	14.08	0.00	15.95	15.95	9.83	60-ND-143(G,2N)60-ND-141,,SIG
L0025.007	P.Carlos	1971	14.35	0.00	15.95	15.95	9.83	60-ND-143(G,2N)60-ND-141,,SIG
L0025.007	P.Carlos	1971	14.63	0.00	15.95	15.95	9.83	60-ND-143(G,2N)60-ND-141,,SIG
L0025.007	P.Carlos	1971	14.90	0.00	15.95	15.95	9.83	60-ND-143(G,2N)60-ND-141,,SIG
L0025.007	P.Carlos	1971	15.17	0.00	15.95	15.95	9.83	60-ND-143(G,2N)60-ND-141,,SIG
L0025.007	P.Carlos	1971	15.44	0.00	15.95	15.95	9.83	60-ND-143(G,2N)60-ND-141,,SIG
L0025.007	P.Carlos	1971	15.71	0.00	15.95	15.95	9.83	60-ND-143(G,2N)60-ND-141,,SIG
L0025.010	P.Carlos	1971	13.81	0.00	13.94	13.94	0.00	60-ND-144(G,2N)60-ND-142,,SIG
L0025.013	P.Carlos	1971	13.40	0.00	13.57	13.57	0.00	60-ND-145(G,2N)60-ND-143,,SIG
L0025.016	P.Carlos	1971	13.13	0.00	13.32	13.32	0.00	60-ND-146(G,2N)60-ND-144,,SIG
L0025.016	P.Carlos	1971	13.26	0.00	13.32	13.32	0.00	60-ND-146(G,2N)60-ND-144,,SIG
L0025.019	P.Carlos	1971	12.58	0.00	12.63	12.63	0.00	60-ND-148(G,2N)60-ND-146,,SIG
L0028.005	R.A.Alvarez	1979	30.33	0.00	31.22	31.22	31.22	25-MN-55(G,3N)25-MN-52,,SIG
L0028.009	R.A.Alvarez	1979	17.26	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG
L0028.009	R.A.Alvarez	1979	17.35	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG
L0028.009	R.A.Alvarez	1979	17.50	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG
L0028.009	R.A.Alvarez	1979	17.62	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG
L0028.009	R.A.Alvarez	1979	17.75	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG
L0028.009	R.A.Alvarez	1979	17.87	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG
L0028.009	R.A.Alvarez	1979	17.99	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
L0028.009	R.A.Alvarez	1979	18.21	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG
L0028.009	R.A.Alvarez	1979	18.34	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG
L0028.009	R.A.Alvarez	1979	18.58	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG
L0028.010	R.A.Alvarez	1979	29.59	0.00	30.41	30.41	30.41	27-CO-59(G,3N)27-CO-56,,SIG
L0028.010	R.A.Alvarez	1979	30.32	0.00	30.41	30.41	30.41	27-CO-59(G,3N)27-CO-56,,SIG
L0030.002	R.L.Bramblett	1973	7.05	0.00	7.26	0.00	0.00	3-LI-7(G,X)0-NN-1,,SIG
L0030.002	R.L.Bramblett	1973	7.20	0.00	7.26	0.00	0.00	3-LI-7(G,X)0-NN-1,,SIG
L0031.004	A.Veyssiere	1973	9.55	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0031.004	A.Veyssiere	1973	11.18	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0031.012	A.Veyssiere	1973	8.10	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0031.012	A.Veyssiere	1973	9.14	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0031.012	A.Veyssiere	1973	9.68	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0031.012	A.Veyssiere	1973	9.95	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0031.012	A.Veyssiere	1973	10.22	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0031.012	A.Veyssiere	1973	10.50	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0031.012	A.Veyssiere	1973	10.77	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0031.012	A.Veyssiere	1973	11.04	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0032.019	H.Beil	1974	22.69	0.00	22.87	22.87	0.00	42-MO-100(G,3N)42-MO-97,,SIG
L0033.004	P.Carlos	1974	13.21	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	13.48	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	13.75	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	14.02	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	14.29	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	14.56	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	14.83	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	15.10	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	15.37	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	15.64	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
L0033.004	P.Carlos	1974	15.92	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	16.19	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	16.46	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	16.73	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	17.00	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	17.27	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	17.54	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	17.81	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	18.08	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	18.35	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	18.63	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.004	P.Carlos	1974	18.90	0.00	19.13	19.13	19.13	62-SM-144(G,2N)62-SM-142,,SIG
L0033.007	P.Carlos	1974	13.21	0.00	14.48	14.48	6.34	62-SM-148(G,2N)62-SM-146,,SIG
L0033.007	P.Carlos	1974	14.29	0.00	14.48	14.48	6.34	62-SM-148(G,2N)62-SM-146,,SIG
L0033.010	P.Carlos	1974	13.21	0.00	13.86	13.86	0.00	62-SM-150(G,2N)62-SM-148,,SIG
L0033.013	P.Carlos	1974	13.21	0.00	13.85	13.85	0.00	62-SM-152(G,2N)62-SM-150,,SIG
L0033.013	P.Carlos	1974	13.34	0.00	13.85	13.85	0.00	62-SM-152(G,2N)62-SM-150,,SIG
L0033.013	P.Carlos	1974	13.61	0.00	13.85	13.85	0.00	62-SM-152(G,2N)62-SM-150,,SIG
L0033.016	P.Carlos	1974	13.75	0.00	13.84	13.84	0.00	62-SM-154(G,2N)62-SM-152,,SIG
L0035.019	A.Lepretre	1974	17.08	0.00	17.11	17.11	0.00	50-SN-116(G,2N)50-SN-114,,SIG
L0035.025	A.Lepretre	1974	16.12	0.00	16.27	16.27	0.00	50-SN-118(G,2N)50-SN-116,,SIG
L0035.025	A.Lepretre	1974	16.26	0.00	16.27	16.27	0.00	50-SN-118(G,2N)50-SN-116,,SIG
L0035.028	A.Lepretre	1974	15.44	0.00	15.59	15.59	0.00	50-SN-120(G,2N)50-SN-118,,SIG
L0035.028	A.Lepretre	1974	15.58	0.00	15.59	15.59	0.00	50-SN-120(G,2N)50-SN-118,,SIG
L0039.004	A.Veyssiere	1974	21.88	0.00	22.98	20.75	18.63	8-O-16(G,N+P)7-N-14,,SIG
L0039.004	A.Veyssiere	1974	22.69	0.00	22.98	20.75	18.63	8-O-16(G,N+P)7-N-14,,SIG
L0039.005	A.Veyssiere	1974	15.64	0.00	15.67	0.00	0.00	8-O-16(G,X)0-NN-1,,SIG
L0039.042	A.Veyssiere	1974	20.25	0.00	20.39	20.39	9.33	23-V-51(G,2N)23-V-49,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
L0043.012	P.Carlos	1976	17.78	0.00	18.17	18.17	0.00	32-GE-72(G,2N)32-GE-70,,SIG
L0043.015	P.Carlos	1976	16.70	0.00	16.98	16.98	0.00	32-GE-74(G,2N)32-GE-72,,SIG
L0043.018	P.Carlos	1976	15.89	0.00	15.93	15.93	0.00	32-GE-76(G,2N)32-GE-74,,SIG
L0043.024	P.Carlos	1976	18.87	0.00	19.18	19.18	0.00	34-SE-76(G,2N)34-SE-74,,SIG
L0043.024	P.Carlos	1976	19.14	0.00	19.18	19.18	0.00	34-SE-76(G,2N)34-SE-74,,SIG
L0043.027	P.Carlos	1976	17.51	0.00	17.92	17.92	0.00	34-SE-78(G,2N)34-SE-76,,SIG
L0043.027	P.Carlos	1976	17.78	0.00	17.92	17.92	0.00	34-SE-78(G,2N)34-SE-76,,SIG
L0043.030	P.Carlos	1976	16.70	0.00	16.88	16.88	0.00	34-SE-80(G,2N)34-SE-78,,SIG
L0043.033	P.Carlos	1976	15.62	0.00	15.98	15.98	0.00	34-SE-82(G,2N)34-SE-80,,SIG
L0043.033	P.Carlos	1976	15.89	0.00	15.98	15.98	0.00	34-SE-82(G,2N)34-SE-80,,SIG
L0044.006	U.Kneissl	1976	16.00	0.08	19.91	19.91	8.44	5-B-11(G,2N)5-B-9,,SIG
L0044.006	U.Kneissl	1976	17.50	0.09	19.91	19.91	8.44	5-B-11(G,2N)5-B-9,,SIG
L0044.006	U.Kneissl	1976	18.00	0.09	19.91	19.91	8.44	5-B-11(G,2N)5-B-9,,SIG
L0044.006	U.Kneissl	1976	18.49	0.09	19.91	19.91	8.44	5-B-11(G,2N)5-B-9,,SIG
L0044.006	U.Kneissl	1976	18.99	0.09	19.91	19.91	8.44	5-B-11(G,2N)5-B-9,,SIG
L0044.006	U.Kneissl	1976	19.25	0.10	19.91	19.91	8.44	5-B-11(G,2N)5-B-9,,SIG
L0044.006	U.Kneissl	1976	19.75	0.10	19.91	19.91	8.44	5-B-11(G,2N)5-B-9,,SIG
L0044.007	U.Kneissl	1976	11.00	0.06	11.46	0.00	0.00	5-B-11(G,X)0-NN-1,,SIG
L0046.007	B.L.Berman	1979	22.11	0.00	22.55	22.55	8.27	76-OS-188(G,3N)76-OS-185,,SIG
L0046.011	B.L.Berman	1979	19.42	0.00	20.20	20.20	0.00	76-OS-189(G,3N)76-OS-186,,SIG
L0046.011	B.L.Berman	1979	19.91	0.00	20.20	20.20	0.00	76-OS-189(G,3N)76-OS-186,,SIG
L0046.019	B.L.Berman	1979	20.40	0.00	21.11	21.11	0.00	76-OS-192(G,3N)76-OS-189,,SIG
L0046.019	B.L.Berman	1979	20.65	0.00	21.11	21.11	0.00	76-OS-192(G,3N)76-OS-189,,SIG
L0046.019	B.L.Berman	1979	20.89	0.00	21.11	21.11	0.00	76-OS-192(G,3N)76-OS-189,,SIG
L0047.005	J.G.Woodworth	1979	15.92	0.00	15.95	15.95	15.95	8-O-18(G,P)7-N-17,,SIG
L0050.003	J.T.Caldwell	1980	10.78	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0050.003	J.T.Caldwell	1980	10.90	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0050.003	J.T.Caldwell	1980	11.03	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
L0050.003	J.T.Caldwell	1980	11.27	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0050.003	J.T.Caldwell	1980	11.40	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0050.003	J.T.Caldwell	1980	11.52	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0050.007	J.T.Caldwell	1980	11.88	0.00	12.14	12.14	6.85	92-U-235(G,2N)92-U-233,,SIG
L0050.007	J.T.Caldwell	1980	12.00	0.00	12.14	12.14	6.85	92-U-235(G,2N)92-U-233,,SIG
L0050.011	J.T.Caldwell	1980	10.90	0.00	11.84	11.84	0.00	92-U-236(G,2N)92-U-234,,SIG
L0050.011	J.T.Caldwell	1980	11.27	0.00	11.84	11.84	0.00	92-U-236(G,2N)92-U-234,,SIG
L0050.011	J.T.Caldwell	1980	11.52	0.00	11.84	11.84	0.00	92-U-236(G,2N)92-U-234,,SIG
L0050.011	J.T.Caldwell	1980	11.76	0.00	11.84	11.84	0.00	92-U-236(G,2N)92-U-234,,SIG
L0050.015	J.T.Caldwell	1980	9.68	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0050.015	J.T.Caldwell	1980	10.41	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0050.015	J.T.Caldwell	1980	10.54	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0050.015	J.T.Caldwell	1980	10.78	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0050.015	J.T.Caldwell	1980	10.90	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0050.015	J.T.Caldwell	1980	11.27	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0052.003	D.D.Faul	1981	7.79	0.00	8.49	8.49	0.00	1-H-3(G,2N)1-H-1,,SIG
L0053.004	J.W.Jury	1982	10.80	0.00	10.84	0.00	0.00	7-N-15(G,X)0-NN-1,,SIG
L0057.006	B.L.Berman	1987	15.89	0.00	16.29	16.29	16.29	53-I-127(G,2N)53-I-125,,SIG
L0082.004	R.Bergere	1972	9.50	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0082.004	R.Bergere	1972	9.76	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0082.004	R.Bergere	1972	10.00	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0082.004	R.Bergere	1972	10.80	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0082.004	R.Bergere	1972	11.10	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0082.004	R.Bergere	1972	11.40	0.00	11.56	11.56	0.00	90-TH-232(G,2N)90-TH-230,,SIG
L0082.007	R.Bergere	1972	7.76	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0082.007	R.Bergere	1972	8.03	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0082.007	R.Bergere	1972	8.58	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0082.007	R.Bergere	1972	9.12	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
L0082.007	R.Bergere	1972	9.40	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0082.007	R.Bergere	1972	9.65	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0082.007	R.Bergere	1972	9.94	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0082.007	R.Bergere	1972	10.20	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0082.007	R.Bergere	1972	10.50	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0082.007	R.Bergere	1972	10.70	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0082.007	R.Bergere	1972	11.00	0.00	11.28	11.28	11.28	92-U-238(G,2N)92-U-236,,SIG
L0126.004	J.Miller	1966	18.50	0.00	18.74	0.00	0.00	6-C-12(G,X)0-NN-1,,SIG
L0132.002	D.V.Webb	1971	12.30	0.00	13.08	13.08	13.08	19-K-39(G,N)19-K-38-M,,SIG
L0132.002	D.V.Webb	1971	12.50	0.00	13.08	13.08	13.08	19-K-39(G,N)19-K-38-M,,SIG
L0132.002	D.V.Webb	1971	12.70	0.00	13.08	13.08	13.08	19-K-39(G,N)19-K-38-M,,SIG
L0132.002	D.V.Webb	1971	12.90	0.00	13.08	13.08	13.08	19-K-39(G,N)19-K-38-M,,SIG
L0133.003	D.Zubanov	1983	17.40	0.00	17.55	17.55	17.55	6-C-13(G,P)5-B-12,,SIG,,BRS
L0133.003	D.Zubanov	1983	17.45	0.00	17.55	17.55	17.55	6-C-13(G,P)5-B-12,,SIG,,BRS
L0133.003	D.Zubanov	1983	17.50	0.00	17.55	17.55	17.55	6-C-13(G,P)5-B-12,,SIG,,BRS
L0164.002	J.R.Tompkins	2011	9.30	0.00	9.95	9.95	9.95	20-CA-48(G,N)20-CA-47,,SIG
L0164.002	J.R.Tompkins	2011	9.60	0.00	9.95	9.95	9.95	20-CA-48(G,N)20-CA-47,,SIG
L0164.002	J.R.Tompkins	2011	9.80	0.00	9.95	9.95	9.95	20-CA-48(G,N)20-CA-47,,SIG
L0171.002	C.W.Arnold	2012	1.55	0.00	1.66	1.66	1.66	4-BE-9(G,N)4-BE-8,,SIG
L0171.002	C.W.Arnold	2012	1.62	0.00	1.66	1.66	1.66	4-BE-9(G,N)4-BE-8,,SIG
L0171.002	C.W.Arnold	2012	1.66	0.00	1.66	1.66	1.66	4-BE-9(G,N)4-BE-8,,SIG
L0208.002	B.Digiovine	2015	0.99	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.07	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.17	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.21	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.24	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.26	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.28	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
L0208.002	B.Digiovine	2015	1.28	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.29	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.34	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.38	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.41	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.45	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.45	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.49	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.53	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.58	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.59	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.65	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.70	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.80	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0208.002	B.Digiovine	2015	1.91	0.01	4.01	4.01	4.01	9-F-19(G,A)7-N-15,,SIG
L0248.002	A.Banu	2019	11.75	0.10	11.97	11.97	11.97	40-ZR-90(G,N)40-ZR-89,,SIG
M0071.003	V.V.Kirichenko	1979	26.20	0.00	26.30	26.30	26.30	6-C-12(G,N+A)4-BE-7,,SIG,,BRS
M0102.003	L.A.Kul'chitskiy	1963	9.60	0.00	9.98	9.98	9.98	3-LI-7(G,P)2-HE-6,,SIG,,BRS
M0217.002	L.Green	1964	5.43	0.00	5.67	0.00	0.00	3-LI-6(G,X)0-NN-1,,SIG
M0261.002	A.Murakami	1968	18.00	0.00	21.33	15.82	2.47	3-LI-6(G,P+D)1-H-3,,SIG
M0261.002	A.Murakami	1968	19.00	0.00	21.33	15.82	2.47	3-LI-6(G,P+D)1-H-3,,SIG
M0261.002	A.Murakami	1968	20.00	0.00	21.33	15.82	2.47	3-LI-6(G,P+D)1-H-3,,SIG
M0261.002	A.Murakami	1968	21.00	0.00	21.33	15.82	2.47	3-LI-6(G,P+D)1-H-3,,SIG
M0273.012	L.Katz	1951	20.00	0.00	21.18	18.96	18.96	16-S-32(G,N+P)15-P-30,,SIG,,BRS
M0273.012	L.Katz	1951	21.00	0.00	21.18	18.96	18.96	16-S-32(G,N+P)15-P-30,,SIG,,BRS
M0429.002	O.Y.Mafra	1974	6.42	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0429.003	O.Y.Mafra	1974	6.07	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0433.004	O.Y.Mafra	1972	6.07	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
M0496.003	J.J.Mccarthy	1975	10.00	0.00	19.73	19.73	19.73	32-GE-70(G,2N)32-GE-68,,SIG,,BRS
M0496.003	J.J.Mccarthy	1975	12.00	0.00	19.73	19.73	19.73	32-GE-70(G,2N)32-GE-68,,SIG,,BRS
M0496.003	J.J.Mccarthy	1975	14.00	0.00	19.73	19.73	19.73	32-GE-70(G,2N)32-GE-68,,SIG,,BRS
M0496.003	J.J.Mccarthy	1975	16.00	0.00	19.73	19.73	19.73	32-GE-70(G,2N)32-GE-68,,SIG,,BRS
M0496.003	J.J.Mccarthy	1975	18.00	0.00	19.73	19.73	19.73	32-GE-70(G,2N)32-GE-68,,SIG,,BRS
M0496.006	J.J.Mccarthy	1975	12.00	0.00	15.93	15.93	0.00	32-GE-76(G,2N)32-GE-74,,SIG,,BRS
M0496.006	J.J.Mccarthy	1975	14.00	0.00	15.93	15.93	0.00	32-GE-76(G,2N)32-GE-74,,SIG,,BRS
M0496.009	J.J.Mccarthy	1975	18.00	0.00	18.17	18.17	0.00	32-GE-72(G,2N)32-GE-70,,SIG,,BRS
M0496.012	J.J.Mccarthy	1975	12.00	0.00	16.98	16.98	0.00	32-GE-74(G,2N)32-GE-72,,SIG,,BRS
M0496.012	J.J.Mccarthy	1975	14.00	0.00	16.98	16.98	0.00	32-GE-74(G,2N)32-GE-72,,SIG,,BRS
M0496.012	J.J.Mccarthy	1975	16.00	0.00	16.98	16.98	0.00	32-GE-74(G,2N)32-GE-72,,SIG,,BRS
M0504.006	A.M.Khan	1972	6.02	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0504.006	A.M.Khan	1972	6.13	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0511.003	R.P.Rassool	1989	16.20	0.00	16.29	16.29	16.29	53-I-127(G,2N)53-I-125,,SIG,,BRS
M0539.006	G.P.Antropov	1967	14.00	0.00	14.22	14.22	6.65	73-TA-181(G,2N)73-TA-179,,SIG,,BRS,DERIV
M0541.003	G.Baciu	1965	19.00	0.00	19.03	19.03	19.03	27-CO-59(G,2N)27-CO-57,,SIG,,BRS
M0612.002	F.M.Clikeman	1962	16.90	0.00	16.90	16.90	16.90	4-BE-9(G,P)3-LI-8,,SIG,,BRS
M0613.002	K.G.Mcneill	1991	15.00	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	15.25	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	15.50	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	15.75	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	16.00	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	16.25	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	17.00	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	17.50	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	18.00	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	18.25	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
M0613.002	K.G.Mcneill	1991	18.50	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	18.75	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	19.00	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0613.002	K.G.Mcneill	1991	19.20	0.00	19.61	19.61	13.79	8-O-18(G,X)7-N-16,,SIG
M0769.012	O.V.Bogdankevich	1962	17.25	0.00	17.48	17.48	17.48	47-AG-107(G,2N)47-AG-105,,SIG,,BRS,DERIV
M0785.002.1	O.L.Goncalez	1999	5.61	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.1	O.L.Goncalez	1999	5.72	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.1	O.L.Goncalez	1999	5.89	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.1	O.L.Goncalez	1999	5.97	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.1	O.L.Goncalez	1999	6.08	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.1	O.L.Goncalez	1999	6.23	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.1	O.L.Goncalez	1999	6.40	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.1	O.L.Goncalez	1999	6.42	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.2	O.L.Goncalez	1999	5.61	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.2	O.L.Goncalez	1999	5.72	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.2	O.L.Goncalez	1999	5.89	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.2	O.L.Goncalez	1999	5.97	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.2	O.L.Goncalez	1999	6.08	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.2	O.L.Goncalez	1999	6.23	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.2	O.L.Goncalez	1999	6.40	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.002.2	O.L.Goncalez	1999	6.42	0.00	6.44	6.44	6.44	90-TH-232(G,N)90-TH-231,,SIG
M0785.003.1	O.L.Goncalez	1999	5.61	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0785.003.1	O.L.Goncalez	1999	5.72	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0785.003.1	O.L.Goncalez	1999	5.89	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0785.003.1	O.L.Goncalez	1999	5.97	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0785.003.1	O.L.Goncalez	1999	6.08	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0785.003.2	O.L.Goncalez	1999	5.61	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
M0785.003.2	O.L.Goncalez	1999	5.72	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0785.003.2	O.L.Goncalez	1999	5.89	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0785.003.2	O.L.Goncalez	1999	5.97	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0785.003.2	O.L.Goncalez	1999	6.08	0.00	6.15	6.15	6.15	92-U-238(G,N)92-U-237,,SIG
M0839.003	T.K.Deague	1969	8.25	0.00	9.95	9.95	9.95	46-PD-108(G,P)45-RH-107,,SIG,,BRS
M0839.003	T.K.Deague	1969	8.50	0.00	9.95	9.95	9.95	46-PD-108(G,P)45-RH-107,,SIG,,BRS
M0839.003	T.K.Deague	1969	8.75	0.00	9.95	9.95	9.95	46-PD-108(G,P)45-RH-107,,SIG,,BRS
M0839.003	T.K.Deague	1969	9.00	0.00	9.95	9.95	9.95	46-PD-108(G,P)45-RH-107,,SIG,,BRS
M0839.003	T.K.Deague	1969	9.25	0.00	9.95	9.95	9.95	46-PD-108(G,P)45-RH-107,,SIG,,BRS
M0839.003	T.K.Deague	1969	9.50	0.00	9.95	9.95	9.95	46-PD-108(G,P)45-RH-107,,SIG,,BRS
M0839.003	T.K.Deague	1969	9.75	0.00	9.95	9.95	9.95	46-PD-108(G,P)45-RH-107,,SIG,,BRS
M0988.002	V.P.Denisov	1964	17.50	0.00	17.55	17.55	17.55	6-C-13(G,P)5-B-12,,SIG,,BRS
M1004.003	O.V.Bogdankevich	1956	16.00	0.00	16.31	16.31	0.00	49-IN-115(G,2N)49-IN-113-M,,SIG,,BRS
O0065.004	S.W.Kitwanga	1989	18.60	0.20	25.17	25.17	22.84	8-O-16(P,X)6-C-11,,SIG
O0065.004	S.W.Kitwanga	1989	21.20	0.20	25.17	25.17	22.84	8-O-16(P,X)6-C-11,,SIG
O0065.004	S.W.Kitwanga	1989	23.50	0.20	25.17	25.17	22.84	8-O-16(P,X)6-C-11,,SIG
O0076.010	A.E.Antropov	1985	16.50	0.00	21.14	21.14	21.14	28-NI-58(A,2N)30-ZN-60,,SIG
O0076.010	A.E.Antropov	1985	19.10	0.00	21.14	21.14	21.14	28-NI-58(A,2N)30-ZN-60,,SIG
O0276.006	R.Michel	1997	29.00	1.31	33.20	33.20	30.84	8-O-16(P,X)4-BE-7,,SIG
O0276.006	R.Michel	1997	31.70	1.13	33.20	33.20	30.84	8-O-16(P,X)4-BE-7,,SIG
O0276.006	R.Michel	1997	31.70	1.23	33.20	33.20	30.84	8-O-16(P,X)4-BE-7,,SIG
O0276.008	R.Michel	1997	14.90	4.70	26.67	26.67	26.67	9-F-19(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	23.90	0.84	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	26.60	0.79	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	29.10	0.76	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	29.60	0.57	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	31.40	0.75	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	33.20	0.72	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
O0276.009	R.Michel	1997	33.60	0.94	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	33.90	0.51	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	35.70	0.69	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	36.40	0.92	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	37.80	0.90	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	37.90	0.44	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	38.40	0.90	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	38.50	1.26	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	38.60	0.92	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	39.00	0.93	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	39.40	0.89	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	39.70	0.65	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	40.70	0.89	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	41.50	0.40	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	41.50	0.37	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	41.50	0.61	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	43.30	0.59	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	43.60	0.90	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	43.60	0.86	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	43.70	0.57	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	44.00	0.57	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	44.60	0.86	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	44.90	0.30	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	44.90	0.26	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.009	R.Michel	1997	46.30	0.84	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0276.089	R.Michel	1997	6.88	2.68	15.20	15.20	15.20	27-CO-59(P,X)25-MN-54,,SIG
O0276.089	R.Michel	1997	12.60	1.86	15.20	15.20	15.20	27-CO-59(P,X)25-MN-54,,SIG
O0276.214	R.Michel	1997	9.79	1.15	13.08	13.08	13.08	39-Y-89(P,2N)40-ZR-88,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
O0282.008	R.Bodemann	1993	31.60	2.47	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O0350.014	J.R.Walton	1976	18.10	0.70	21.75	0.00	21.75	14-SI-0(P,X)10-NE-21,CUM,SIG
O0350.014	J.R.Walton	1976	20.70	0.50	21.75	0.00	21.75	14-SI-0(P,X)10-NE-21,CUM,SIG
O0350.021	J.R.Walton	1976	19.10	0.90	22.35	22.35	22.35	13-AL-27(P,X)10-NE-21,CUM,SIG
O0350.021	J.R.Walton	1976	21.10	0.70	22.35	22.35	22.35	13-AL-27(P,X)10-NE-21,CUM,SIG
O0350.022	J.R.Walton	1976	15.90	0.80	19.60	19.60	19.60	13-AL-27(P,X)10-NE-22,CUM,SIG
O0350.022	J.R.Walton	1976	18.10	0.70	19.60	19.60	19.60	13-AL-27(P,X)10-NE-22,CUM,SIG
O0806.002	A.Moreno	1995	10.47	0.00	15.25	15.25	15.25	45-RH-103(A,2N)47-AG-105,,SIG
O0906.019	J.Kuhnhenn	2001	9.00	1.10	12.50	0.00	12.50	82-PB-0(P,X)83-BI-203,,SIG
O0920.040	J.Kuhnhenn	2001	21.90	1.90	25.19	25.19	25.19	83-BI-209(P,4N)84-PO-206,,SIG
O0965.003	A.Roshchin	1997	13.50	0.10	13.71	13.71	2.10	90-TH-232(P,3N)91-PA-230,,SIG
O1123.007	C.Necheva	1998	6.20	0.00	8.45	8.45	8.45	41-NB-93(HE3,2N+A)41-NB-90,,SIG
O1123.007	C.Necheva	1998	7.90	0.00	8.45	8.45	8.45	41-NB-93(HE3,2N+A)41-NB-90,,SIG
O1397.003	W.Skulski	1992	14.12	0.00	14.91	14.91	14.91	27-CO-59(A,2N)29-CU-61,,SIG
O1503.008	F.S.Al-Saleh	2007	6.60	0.40	7.03	0.00	7.03	28-NI-0(P,X)29-CU-60,,SIG
O1547.003	F.S.Al-Saleh	2007	3.70	0.40	6.05	0.00	6.05	30-ZN-0(P,X)31-GA-66,,SIG
O1600.003	M.S.Uddin	2007	4.00	0.00	6.05	0.00	6.05	30-ZN-0(P,X)31-GA-66,,SIG
O1600.003	M.S.Uddin	2007	5.00	0.00	6.05	0.00	6.05	30-ZN-0(P,X)31-GA-66,,SIG
O1600.003	M.S.Uddin	2007	6.00	0.00	6.05	0.00	6.05	30-ZN-0(P,X)31-GA-66,,SIG
O1728.002	Yu.E.Titarenko	2009	35.50	1.30	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O1728.002	Yu.E.Titarenko	2009	36.30	1.20	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O1728.002	Yu.E.Titarenko	2009	36.90	1.10	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O1728.002	Yu.E.Titarenko	2009	36.90	1.10	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O1728.002	Yu.E.Titarenko	2009	37.00	1.10	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
O2006.006	C.Riehl	1961	36.04	0.00	42.10	42.10	42.10	55-CS-133(P,X)55-CS-127,CUM,SIG
O2019.002	J.Lange	1968	7.09	0.00	13.02	13.02	13.02	59-PR-141(D,3N)60-ND-140,,SIG
O2019.002	J.Lange	1968	10.52	0.00	13.02	13.02	13.02	59-PR-141(D,3N)60-ND-140,,SIG
O2019.002	J.Lange	1968	12.98	0.00	13.02	13.02	13.02	59-PR-141(D,3N)60-ND-140,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
O2028.002	I.S.Grant	1979	6.01	0.00	13.92	13.92	6.82	50-SN-120(A,X)51-SB-122,,SIG
O2028.003	I.S.Grant	1979	9.10	0.00	12.96	12.96	12.96	50-SN-124(A,X)51-SB-126,,SIG
O2038.005.1	A.Demeyer	1971	26.80	0.00	48.40	48.40	48.40	37-RB-85(A,5N)39-Y-84,,SIG
O2038.005.1	A.Demeyer	1971	29.00	0.00	48.40	48.40	48.40	37-RB-85(A,5N)39-Y-84,,SIG
O2038.005.1	A.Demeyer	1971	35.00	0.00	48.40	48.40	48.40	37-RB-85(A,5N)39-Y-84,,SIG
O2038.005.1	A.Demeyer	1971	40.50	0.00	48.40	48.40	48.40	37-RB-85(A,5N)39-Y-84,,SIG
O2038.005.1	A.Demeyer	1971	43.00	0.00	48.40	48.40	48.40	37-RB-85(A,5N)39-Y-84,,SIG
O2038.005.1	A.Demeyer	1971	47.00	0.00	48.40	48.40	48.40	37-RB-85(A,5N)39-Y-84,,SIG
O2103.006	J.Delaunay-Olkowsky	1963	6.91	0.00	6.97	6.97	6.97	40-ZR-90(P,N)41-NB-90,,SIG
O2293.003	R.Kunz	1994	0.85	0.00	0.85	0.85	0.00	8-O-18(A,N)10-NE-21,,SIG
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
O2394.002	L.Damone	2018	1.88	0.00	1.88	1.88	0.00	3-LI-7(P,N)4-BE-7,,SIG,,,DERIV
P0008.003	A.M.Morozov	1962	4.94	0.00	6.97	6.97	6.97	40-ZR-90(P,N)41-NB-90-M,,SIG
P0008.003	A.M.Morozov	1962	6.32	0.00	6.97	6.97	6.97	40-ZR-90(P,N)41-NB-90-M,,SIG
P0008.003	A.M.Morozov	1962	6.82	0.00	6.97	6.97	6.97	40-ZR-90(P,N)41-NB-90-M,,SIG
P0009.003	A.M.Morozov	1961	8.82	0.00	9.15	9.15	0.00	32-GE-76(P,2N)33-AS-75-L,,SIG
P0013.002	M.Sakai	1965	10.50	0.00	24.63	0.00	24.63	81-TL-0(P,X)82-PB-200,,SIG
P0013.002	M.Sakai	1965	22.10	0.00	24.63	0.00	24.63	81-TL-0(P,X)82-PB-200,,SIG
P0013.003	M.Sakai	1965	10.40	0.00	17.50	0.00	17.50	81-TL-0(P,X)82-PB-201,,SIG
P0016.003	M.Furukawa	1965	28.20	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	29.50	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	30.70	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	31.80	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	34.00	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	35.10	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	36.10	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	37.10	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	39.10	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	40.00	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	41.00	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	41.90	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	43.70	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	45.50	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0016.003	M.Furukawa	1965	47.20	0.00	47.63	47.63	47.63	13-AL-27(P,X)4-BE-7,,SIG
P0019.004	K.Otozai	1966	12.60	0.00	12.83	12.83	0.00	48-CD-110(P,2N)49-IN-109,,SIG
P0019.008	K.Otozai	1966	11.20	0.00	11.74	11.74	4.70	48-CD-111(P,2N)49-IN-110-G,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
P0019.011	K.Otozai	1966	9.40	0.00	11.14	11.14	0.00	48-CD-112(P,2N)49-IN-111,,SIG
P0033.002	J.P.Blaser	1951	2.49	0.00	3.07	3.07	0.00	28-NI-61(P,N)29-CU-61,,SIG
P0033.002	J.P.Blaser	1951	2.63	0.00	3.07	3.07	0.00	28-NI-61(P,N)29-CU-61,,SIG
P0033.002	J.P.Blaser	1951	2.70	0.00	3.07	3.07	0.00	28-NI-61(P,N)29-CU-61,,SIG
P0033.002	J.P.Blaser	1951	2.81	0.00	3.07	3.07	0.00	28-NI-61(P,N)29-CU-61,,SIG
P0033.002	J.P.Blaser	1951	3.00	0.00	3.07	3.07	0.00	28-NI-61(P,N)29-CU-61,,SIG
P0033.007	J.P.Blaser	1951	2.67	0.00	2.69	2.69	2.69	34-SE-80(P,N)35-BR-80-G,,SIG
P0033.011	J.P.Blaser	1951	2.61	0.00	2.67	2.67	0.00	38-SR-87(P,N)39-Y-87,,SIG
P0033.012	J.P.Blaser	1951	3.55	0.00	3.66	3.66	3.66	39-Y-89(P,N)40-ZR-89-G,,SIG
P0033.017	J.P.Blaser	1951	4.25	0.00	4.46	4.46	0.00	44-RU-100(P,N)45-RH-100,,SIG
P0035.007	J.W.Meadows	1956	0.15	0.00	8.03	8.03	8.03	35-BR-81(P,X)35-BR-80-M,,SIG
P0037.011	S.Tanaka	1960	7.66	0.00	8.43	8.43	8.43	28-NI-60(A,N)30-ZN-63,,SIG
P0037.012	S.Tanaka	1960	7.68	0.00	15.84	13.47	13.47	28-NI-58(A,N+P)29-CU-60,CUM,SIG
P0037.012	S.Tanaka	1960	8.42	0.00	15.84	13.47	13.47	28-NI-58(A,N+P)29-CU-60,CUM,SIG
P0037.012	S.Tanaka	1960	10.70	0.00	15.84	13.47	13.47	28-NI-58(A,N+P)29-CU-60,CUM,SIG
P0037.012	S.Tanaka	1960	11.10	0.00	15.84	13.47	13.47	28-NI-58(A,N+P)29-CU-60,CUM,SIG
P0037.012	S.Tanaka	1960	12.40	0.00	15.84	13.47	13.47	28-NI-58(A,N+P)29-CU-60,CUM,SIG
P0037.012	S.Tanaka	1960	13.00	0.00	15.84	13.47	13.47	28-NI-58(A,N+P)29-CU-60,CUM,SIG
P0037.012	S.Tanaka	1960	15.10	0.00	15.84	13.47	13.47	28-NI-58(A,N+P)29-CU-60,CUM,SIG
P0037.012	S.Tanaka	1960	15.60	0.00	15.84	13.47	13.47	28-NI-58(A,N+P)29-CU-60,CUM,SIG
P0047.009	W.W.Meinke	1956	0.10	0.00	35.05	35.05	23.39	90-TH-232(D,7N)91-PA-227,,SIG
P0047.009	W.W.Meinke	1956	30.90	0.00	35.05	35.05	23.39	90-TH-232(D,7N)91-PA-227,,SIG
P0047.010	W.W.Meinke	1956	0.10	0.00	35.05	35.05	23.39	90-TH-232(D,7N)91-PA-227,,SIG
P0047.010	W.W.Meinke	1956	22.30	0.00	35.05	35.05	23.39	90-TH-232(D,7N)91-PA-227,,SIG
P0047.010	W.W.Meinke	1956	26.50	0.00	35.05	35.05	23.39	90-TH-232(D,7N)91-PA-227,,SIG
P0047.010	W.W.Meinke	1956	29.50	0.00	35.05	35.05	23.39	90-TH-232(D,7N)91-PA-227,,SIG
P0047.010	W.W.Meinke	1956	32.80	0.00	35.05	35.05	23.39	90-TH-232(D,7N)91-PA-227,,SIG
P0047.011	W.W.Meinke	1956	7.60	0.00	35.05	35.05	23.39	90-TH-232(D,7N)91-PA-227,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
P0058.005	F.S.Houck	1961	16.80	0.00	20.90	18.52	18.52	28-NI-58(A,N+P+A)27-CO-56,,SIG
P0058.005	F.S.Houck	1961	20.20	0.00	20.90	18.52	18.52	28-NI-58(A,N+P+A)27-CO-56,,SIG
P0058.010	F.S.Houck	1961	16.60	0.00	17.26	17.26	17.26	26-FE-54(A,2N)28-NI-56,,SIG
P0058.010	F.S.Houck	1961	17.20	0.00	17.26	17.26	17.26	26-FE-54(A,2N)28-NI-56,,SIG
P0058.012	F.S.Houck	1961	21.60	0.00	24.96	15.85	15.85	26-FE-54(A,2N+P)27-CO-55,,SIG
P0058.012	F.S.Houck	1961	23.80	0.00	24.96	15.85	15.85	26-FE-54(A,2N+P)27-CO-55,,SIG
P0066.004	S.C.Wright	1950	24.80	0.00	27.89	0.00	27.89	10-NE-0(D,X)3-LI-8,,SIG
P0094.002	E.Bleuler	1953	14.50	0.00	14.56	14.56	0.00	47-AG-109(A,2N)49-IN-111,,SIG
P0121.002	M.Furukawa	1961	21.00	0.75	23.20	20.41	17.56	8-O-16(A,N+P)9-F-18,,SIG
P0121.002	M.Furukawa	1961	22.20	0.45	23.20	20.41	17.56	8-O-16(A,N+P)9-F-18,,SIG
R0007.007	D.B.Syme	1978	51.70	0.00	56.17	56.17	56.17	53-I-127(P,7N)54-XE-121,,SIG
R0042.007	J.L.Gilly	1963	5.30	0.00	6.10	6.10	0.00	30-ZN-68(D,2N)31-GA-68,,SIG
R0042.007	J.L.Gilly	1963	5.90	0.00	6.10	6.10	0.00	30-ZN-68(D,2N)31-GA-68,,SIG
R0049.004	D.M.Montgometry	1969	18.00	0.00	20.80	20.80	0.00	48-CD-116(A,3N)50-SN-117-M,,SIG
R0049.004	D.M.Montgometry	1969	20.60	0.00	20.80	20.80	0.00	48-CD-116(A,3N)50-SN-117-M,,SIG
S0016.004	Zhu Fuying	1983	5.40	0.00	6.17	6.17	6.17	28-NI-58(D,T)28-NI-57,,SIG
S0060.004	Cheng Xiaowu	1966	7.85	0.00	8.01	8.01	0.00	24-CR-52(D,2N)25-MN-52,,SIG
T0010.002	J.H.Gibbons	1959	4.38	0.00	4.38	4.38	0.00	3-LI-7(A,N)5-B-10,,SIG
T0010.003	J.H.Gibbons	1959	2.89	0.00	3.02	3.02	0.00	5-B-11(P,N)6-C-11,,SIG
T0010.003	J.H.Gibbons	1959	2.93	0.00	3.02	3.02	0.00	5-B-11(P,N)6-C-11,,SIG
T0010.003	J.H.Gibbons	1959	2.97	0.00	3.02	3.02	0.00	5-B-11(P,N)6-C-11,,SIG
T0010.007	J.H.Gibbons	1959	4.21	0.00	4.24	4.24	4.24	9-F-19(P,N)10-NE-19,,SIG
T0016.002.1	M.L.Firouzbakht	1991	2.09	0.00	3.24	3.24	0.00	6-C-13(P,N)7-N-13,,SIG
T0016.002.1	M.L.Firouzbakht	1991	2.79	0.00	3.24	3.24	0.00	6-C-13(P,N)7-N-13,,SIG
T0016.002.1	M.L.Firouzbakht	1991	3.18	0.00	3.24	3.24	0.00	6-C-13(P,N)7-N-13,,SIG
T0122.007	C.H.Johnson	1958	1.89	0.00	1.89	1.89	1.89	27-CO-59(P,N)28-NI-59,,SIG
T0124.006	J.Wing	1962	1.90	0.00	2.22	2.22	2.22	47-AG-107(P,N)48-CD-107,,SIG
T0126.002	C.H.Johnson	1964	1.11	0.00	1.23	1.23	0.00	19-K-41(P,N)20-CA-41,,SIG

EXFOR #	Author	Year	E_{in} (MeV)	ΔE_{in} (MeV)	E_{thr} (MeV)	$E_{thr,i}$ (MeV)	$E_{thr,n}$ (MeV)	REACTION
T0126.002	C.H.Johnson	1964	1.12	0.00	1.23	1.23	0.00	19-K-41(P,N)20-CA-41,,SIG
T0126.002	C.H.Johnson	1964	1.16	0.00	1.23	1.23	0.00	19-K-41(P,N)20-CA-41,,SIG
T0126.002	C.H.Johnson	1964	1.17	0.00	1.23	1.23	0.00	19-K-41(P,N)20-CA-41,,SIG
T0126.002	C.H.Johnson	1964	1.21	0.00	1.23	1.23	0.00	19-K-41(P,N)20-CA-41,,SIG
T0126.013	C.H.Johnson	1964	3.75	0.00	3.76	3.76	0.00	30-ZN-68(P,N)31-GA-68,,SIG
T0126.013	C.H.Johnson	1964	3.75	0.00	3.76	3.76	0.00	30-ZN-68(P,N)31-GA-68,,SIG
T0126.015	C.H.Johnson	1964	3.00	0.00	3.05	3.05	3.05	31-GA-69(P,N)32-GE-69,,SIG
T0126.015	C.H.Johnson	1964	3.03	0.00	3.05	3.05	3.05	31-GA-69(P,N)32-GE-69,,SIG
T0128.003	R.Holub	1977	50.00	0.00	57.38	57.38	35.66	20-CA-40(P,X)11-NA-24,CUM,SIG
T0136.003	S.Y.Lin	1977	18.50	0.00	18.55	18.55	0.00	93-NP-237(A,2N)95-AM-239,,SIG
T0197.009	S.Mirzadeh	1991	13.40	0.00	13.81	13.81	13.81	30-ZN-64(A,X)31-GA-66,CUM,SIG