EXFOR News (June 2011)

New experimental data available from Nuclear Reaction Data Centres

EXFOR is a world-wide data library for experimental neutron induced, charged-particle induced and photonuclear reaction data compiled by the International Network of the Nuclear Reaction Data Centres (NRDC)[a] coordinated by the IAEA Nuclear Data Section. Regularly updated retrieval database is available at NNDC, NEADB, IAEA-NDS, JCPRG, JAEA and CDFE.

Quantity codes

ALF	α-value ($\sigma_{\rm capt}/\sigma_{\rm fis}$)	FY	Fission product yield
AMP	Length or amplitude	INT	Cross section integral over incident energy
CHG	Fragment charge	KE	Kinetic energy
CS	Cross section	KER	Kerma factor
CSN	Differential with respect to number of particles	MLT	Multiplicity
CSP	Partial cross section	NQ	Nuclear quantity
CST	Temperature dependent cross section	NU	Fission neutron multiplicity $\bar{\nu}$
D3A	Triple differential $\mathrm{d}\Omega_1/\mathrm{d}\Omega_2/\mathrm{d}E'$	NUD	Delayed fission neutron multiplicity $\bar{\nu}_d$
D3E	Triple differential $\mathrm{d}\Omega/\mathrm{d}E'_1/\mathrm{d}E'_2$	NUF	Fragment neutrons
D4A	Quadruple diff. $\mathrm{d}\Omega_1/\mathrm{d}\Omega_2/\mathrm{d}E'_1/\mathrm{d}E'_2$	POL	Polarization
DA	Differential $\mathrm{d}/\mathrm{d}\Omega$	POD	Differential polarization
DAA	Double differential $\mathrm{d}\Omega_1/\mathrm{d}\Omega_2$	PY	Product yield (other than fission)
DAE	Double differential $\mathrm{d}\Omega/\mathrm{d}E'$	RI	Resonance integral
DAP	Partial differential $\mathrm{d}/\mathrm{d}\Omega$	RP	Resonance parameter
DAT	Temperature-dependent Legendre coefficient	RR	Reaction rate
DE	Differential $\mathrm{d}/\mathrm{d}E'$	SIF	Self indication
DEP	Energy spectrum for specific group	SPC	Gamma spectrum
DP	Diff. by linear momentum of outgoing part.	TSL	Thermal scattering
DT	Diff. by 4-momentum transfer squared	TT	Thick target yield
ETA	η-value $\bar{\nu}\sigma_{\rm fis}/(\sigma_{\rm capt}+\sigma_{\rm fis})$	TTD	Differential thick target yield, $\mathrm{d}/\mathrm{d}\Omega$
EVL	Evaluation	TTP	Partial thick target yield

Special codes in outgoing particle field

abs	Absorption	fus	Fusion	sct	Scattering	tot	Total
el	Elastic	inel	Inelastic	tcx	Total charge changing		
fis	Fission	non	Nonelastic	ths	Thermal scattering		

Special codes in incident energy field

Fast	Fast reactor spectrum average	Maxw	Maxwellian spectrum average
Fiss	Fission spectrum average	Spont	Spontaneous (for fission)

[a] NNDC (USA), NEADB (France), NDS (Austria), CJD (Russia), CNDC (China), ATOMKI (Hungary), BARC (India), JCPRG (Japan), JAEA (Japan), KAERI (Korea), CAJaD (Russia), CDFE (Russia), CNPD (Russia), UkrNDC (Ukraine)

1 Hydrogen 1

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,inel	^{1}H	DAA	1USABRK	4.5+07	4.5+07	Jour	PR/C,2,1579	70	F.P.Brady+	14202
d,η	^{3}He	DA	2GERJUL			Jour	PRL,98,242301	07	T.Mersmann+	D5077
^{6}He,el	^{1}H	DA	2JPNIPC	4.2+08	4.2+08	Jour	PR/C,82,021602	Aug 10	T.Uesaka+	E2287
^{6}He,el	^{1}H	DA	2JPNIPC	4.9+08	4.9+08	Jour	CPL,27,(9),092501	Sep 10	Jamil-Qureshifaisal+	E2286
^{6}He,el	^{1}H	POD	2JPNIPC	4.2+08	4.2+08	Jour	PR/C,82,021602	Aug 10	T.Uesaka+	E2287
^{32}Mg,abs		CS	2GERGSI	2.9+10	2.9+10	Jour	PR/C,83,021302	11	R.Kanungo+	D0643
^{33}Mg,abs		CS	2GERGSI	3.0+10	3.0+10	Jour	PR/C,83,021302	11	R.Kanungo+	D0643
^{34}Mg,abs		CS	2GERGSI	3.1+10	3.1+10	Jour	PR/C,83,021302	11	R.Kanungo+	D0643
^{35}Mg,abs		CS	2GERGSI	3.2+10	3.2+10	Jour	PR/C,83,021302	11	R.Kanungo+	D0643
^{181}Ta,fis		?	2GERGSI	5.4+10	1.8+11	Jour	EPJ/CS,8,07011	10	Y.Ayyad+	O1888

1 Hydrogen 2

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,el	^{2}H	DA	2FR PAR	1.6+08	1.6+08	Jour	PL,13,67	64	P.Vonbrentano+	O1893
p,n	^{2}He	DAE	2GERJUL	5.0+08	2.0+09	Jour	PR/C,81,044001	10	S.Dymov+	O1853
p,n	^{2}He	DAP	2GERJUL	5.0+08	2.0+09	Jour	PR/C,81,044001	10	S.Dymov+	O1853
p,n	^{2}He	POD	2NEDKVI	1.9+08	1.9+08	Jour	PL/B,687,149	10	H.Mardanpour+	O1863
^{17}O,n+α	^{14}N	DAE	2ITYLNS	4.1+07	4.1+07	Jour	PR/C,82,032801	10	M.L.Sergi+	O1864
^{136}Xe,x	Many	?	2GERGSI	6.8+10	6.8+10	Jour	EPJ/CS,8,070129	10	J.A.Alcantara-Nunez+	O1889

1 Hydrogen 3

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,n	^{4}He	DA	4UKRIJD	3.7+07	3.7+07	Jour	YFE,9,(3/25),53	08	O.O.Beljuskina+	D5067
d,x+p	inclusive	DA	4UKRIJD	3.7+07	3.7+07	Jour	IZV,74,798	10	O.O.Belyuskina+	D5078
d,x+p	inclusive	DAE	4UKRIJD	3.7+07	3.7+07	Jour	IZV,74,798	10	O.O.Belyuskina+	D5078
^{30}Mg,p	^{32}Mg	DAP	2ZZZCER	1.4+09	1.4+09	Jour	PRL,105,252501	10	K.Wimmer+	O1886

2 Helium 3

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,n+p	^{1}H	DAE	1USATNL	1.3+07	1.5+07	Jour	PR/C,83,034003	11	B.A.Perdue+	L0158
γ,π^{+}	^{3}H	DA	1USACBF	5.0+08	1.3+09	Jour	PR/C,83,034001	11	R.Nasseripour+	L0157

2 Helium 4

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{12}C,γ	^{16}O	CS	2JPNKYU	1.5+06	2.4+06	Rept	AIP-1238,211	Jun 10	K.Fujita+	E2281
^{14}O,p	^{17}F	CS	2JPNIPC	8.8+05	3.8+06	Jour	NP/A,746,113C	Dec 04	M.Notani+	E2284

3 Lithium 6

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,η	^{7}Be	DA	2GERJUL	6.7+08	6.7+08	Jour	PR/C,82,041001	10	A.Budzanowski+	O1867
d,el	^{6}Li	DA	4KASKAZ	2.5+07	2.5+07	Jour	YF,73,776	10	N.Burtebyaev+	A0867
d,inel	^{6}Li	DAP	4KASKAZ	2.5+07	2.5+07	Jour	YF,73,776	10	N.Burtebyaev+	A0867
α,π^0	^{10}B	CS	2NEDKVI	2.4+08	2.4+08	Jour	PL/B,694,310	11	L.Joulaeizadeh+	O1883
α,π^0	^{10}B	DA	2NEDKVI	2.4+08	2.4+08	Jour	PL/B,694,310	11	L.Joulaeizadeh+	O1883

3 Lithium 7

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+n	inclusive	TTD	2JPNTOH	2.0+07	4.0+07	Jour	NIM/A,389,(3),463	Apr 97	Y.Uwamino+	E1826

4 Beryllium 9

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,el	^{9}Be	DA	2JPNKTO	1.2+07	1.4+07	Jour	JPJ,45,(3),733	Sep 78	S.Tanaka+	E0029
d,inel	^{9}Be	DAP	2JPNKTO	1.2+07	1.4+07	Jour	JPJ,45,(3),733	Sep 78	S.Tanaka+	E0029
^{14}C,X+n	^{13}C	CS	2GERGSI	9.8+09	9.8+09	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{15}C,X+n	^{14}C	CS	2GERGSI	1.0+10	1.0+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{16}C,X+n	^{15}C	CS	2GERGSI	1.1+10	1.1+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{17}C,X+n	^{16}C	CS	2GERGSI	1.2+10	1.2+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{18}C,X+n	^{17}C	CS	2GERGSI	1.3+10	1.3+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{19}C,X+n	^{18}C	CS	2GERGSI	1.3+10	1.3+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{16}N,X+n	^{15}N	CS	2GERGSI	1.1+10	1.1+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{17}N,X+n	^{16}N	CS	2GERGSI	1.2+10	1.2+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{18}N,X+n	^{17}N	CS	2GERGSI	1.3+10	1.3+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{19}N,X+n	^{18}N	CS	2GERGSI	1.3+10	1.3+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{20}N,X+n	^{19}N	CS	2GERGSI	1.4+10	1.4+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{21}N,X+n	^{20}N	CS	2GERGSI	1.5+10	1.5+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{22}N,X+n	^{21}N	CS	2GERGSI	1.5+10	1.5+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{19}O,X+n	^{18}O	CS	2GERGSI	1.3+10	1.3+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{20}O,X+n	^{19}O	CS	2GERGSI	1.4+10	1.4+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{21}O,X+n	^{20}O	CS	2GERGSI	1.5+10	1.5+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{22}O,X+n	^{21}O	CS	2GERGSI	1.5+10	1.5+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{23}O,X+n	^{22}O	CS	2GERGSI	1.6+10	1.6+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{21}F,X+n	^{20}F	CS	2GERGSI	1.5+10	1.5+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{22}F,X+n	^{21}F	CS	2GERGSI	1.5+10	1.5+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{23}F,X+n	^{22}F	CS	2GERGSI	1.6+10	1.6+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855

^{24}F,X+n	^{23}F	CS	2GERGSI	1.7+10	1.7+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{25}F,X+n	^{24}F	CS	2GERGSI	1.8+10	1.8+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{26}F,X+n	^{25}F	CS	2GERGSI	1.8+10	1.8+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{24}Ne,X+n	^{23}Ne	CS	2GERGSI	1.7+10	1.7+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{25}Ne,X+n	^{24}Ne	CS	2GERGSI	1.8+10	1.8+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{26}Ne,X+n	^{25}Ne	CS	2GERGSI	1.8+10	1.8+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{27}Ne,X+n	^{26}Ne	CS	2GERGSI	1.9+10	1.9+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{28}Ne,X+n	^{27}Ne	CS	2GERGSI	2.0+10	2.0+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{27}Na,X+n	^{26}Na	CS	2GERGSI	1.9+10	1.9+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{28}Na,X+n	^{27}Na	CS	2GERGSI	2.0+10	2.0+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{29}Na,X+n	^{28}Na	CS	2GERGSI	2.0+10	2.0+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{30}Na,X+n	^{29}Na	CS	2GERGSI	2.1+10	2.1+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{31}Na,X+n	^{30}Na	CS	2GERGSI	2.2+10	2.2+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{31}Mg,X+n	^{30}Mg	CS	2GERGSI	2.2+10	2.2+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{32}Mg,X+n	^{31}Mg	CS	2GERGSI	2.2+10	2.2+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{33}Mg,X+n	^{32}Mg	CS	2GERGSI	2.3+10	2.3+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{34}Al,X+n	^{33}Al	CS	2GERGSI	2.4+10	2.4+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{35}Al,X+n	^{34}Al	CS	2GERGSI	2.4+10	2.4+10	Jour	PR/C,82,024305	10	C.Rodriguez-Tajes+	O1855
^{238}U,fis	Many	CS	2GERGSI	2.3+11	2.3+11	Rept	AIP-1175,27	09	D.Perez-Loureiro+	O1857
^{238}U,fis	Many	CS	2JPNIPC	8.2+10	8.2+10	Jour	JPJ,79,(7),073201	Jul 10	T.Ohnishi+	E2200

5 Boron 11

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,α	^{8}Be	DA	2GRCATH	2.2+06	4.2+06	Jour	NIM/B,268,3539	10	M.Kokkoris+	O1876
p,el	^{11}B	DA	2GRCATH	2.2+06	4.2+06	Jour	NIM/B,268,3539	10	M.Kokkoris+	O1876
p,γ	^{12}C	DAP	2SWDUPP	9.8+07	1.8+08	Jour	NP/A,603,1	96	T.B.Bright+	O1873

6 Carbon

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{32}Mg,abs		CS	2GERGSI	2.9+10	2.9+10	Jour	PR/C,83,021302	11	R.Kanungo+	D0643
^{33}Mg,abs		CS	2GERGSI	3.0+10	3.0+10	Jour	PR/C,83,021302	11	R.Kanungo+	D0643
^{34}Mg,abs		CS	2GERGSI	3.1+10	3.1+10	Jour	PR/C,83,021302	11	R.Kanungo+	D0643
^{35}Mg,abs		CS	2GERGSI	3.2+10	3.2+10	Jour	PR/C,83,021302	11	R.Kanungo+	D0643

6 Carbon 12

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,γ	^{13}N	DAP	2SWDUPP	9.8+07	1.8+08	Jour	NP/A,621,754	97	T.B.Bright+	O1872
^{7}Li,p	^{18}O	DAP	2GERMUU	4.4+07	4.4+07	Jour	EPJ/A,43,17	10	W.Vonoertzen+	O1890
^{12}C,el	^{12}C	DA	4ZZZDUB	1.2+08	1.2+08	Jour	FCY/L,1,53	11	V.A.Maslov+	A0879
^{12}C,inel	^{12}C	DAP	4ZZZDUB	1.2+08	1.2+08	Jour	FCY/L,1,53	11	V.A.Maslov+	A0879

6 Carbon 13

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{7}Li,p	^{19}O	DAP	2GERMUU	4.4+07	4.4+07	Jour	EPJ/A,46,345	10	W.Vonoertzen+	O1885

7 Nitrogen 14

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,γ		RP	2GERDRE	1.1+06	1.1+06	Jour	PR/C,81,055807	10	M.Marta+	O1851
p,γ		?	2GERDRE		1.1+06	Jour	PR/C,81,055807	10	M.Marta+	O1851
p,γ	^{15}O	DAP	2GERDRE	2.8+05	1.1+06	Jour	PR/C,81,055807	10	M.Marta+	O1851
d,inel	^{14}N	DAP	2JPNOSA	1.0+07	1.2+07	Jour	PL/B,61,(5),437	Apr 76	Y.Aoki+	E0024

7 Nitrogen 15

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,α	^{12}C	?	2GERDRE		9.0+05	Jour	PR/C,81,055807	10	M.Marta+	O1851

8 Oxygen 16

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+p	inclusive	DAE	2JPNOSA	3.0+08	3.0+08	Jour	PR/C,82,(3),034604	Sep 10	Hirokiiwamoto+	E2289

9 Fluorine 19

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,α		RP	2UK HAR	3.4+05	3.4+05	Jour	NIM/A,307,353	91	S.Croft	O0913

12 Magnesium

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+t	inclusive	CS	1USAUSA	2.0+06	2.0+06	Jour	PR,114,878	59	L.A.Currie	O0305
p,x+t	inclusive	CS	4ZZZDUB	3.0+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877

12 Magnesium 24

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #

p,γ		RP	2ITYLGS	2.1+05	2.1+05	Jour	PR/C,82,015801	10	B.Limata+	O1854
p,γ		?	2ITYLGS	2.1+05	2.1+05	Jour	PR/C,82,015801	10	B.Limata+	O1854
d,p	^{25}Mg	CSP	2JPNTOH	2.0+06	4.2+06	Jour	NP/A,122,(1),97	Dec 68	S.M.Lee+	E2201
d,p	^{25}Mg	DAP	2JPNTOH	2.0+06	4.2+06	Jour	NP/A,122,(1),97	Dec 68	S.M.Lee+	E2201

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,γ		RP	2ITYLGS	3.0+05	3.0+05	Jour	PR/C,82,015801	10	B.Limata+	O1854
p,γ		?	2ITYLGS	3.0+05	3.0+05	Jour	PR/C,82,015801	10	B.Limata+	O1854

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{27}Mg	CS	3GHALGN	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{27}Mg	RI	3GHALGN		5.5-01	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
p,γ		RP	2ITYLGS	3.3+05	3.3+05	Jour	PR/C,82,015801	10	B.Limata+	O1854
p,γ		?	2ITYLGS	3.3+05	3.3+05	Jour	PR/C,82,015801	10	B.Limata+	O1854

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{28}Al	CS	3GHAGHA	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
p,γ	^{28}Si	CSP	2JPNTOK	7.4+06	1.5+07	Jour	JPJ,15,1128	60	M.Kimura+	E2182
p,x	^{7}Be	CS	2JPNTOK	3.0+07	5.1+07	Jour	JPJ,34,(4),853	Apr 73	K.Miyano	E0057
p,x	^{22}Na	CS	2JPNTOK	2.2+07	5.2+07	Jour	JPJ,34,(4),853	Apr 73	K.Miyano	E0057
p,x	^{24}Na	CS	2JPNTOK	3.4+07	5.2+07	Jour	JPJ,34,(4),853	Apr 73	K.Miyano	E0057
p,x+t	inclusive	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877
d,α	^{25}Mg	DAP	3CHFTHU	2.4+06	2.9+06	Jour	JPJ,30,(5),1236	71	Y.-C.Liu+	D0642
d,α	^{25}Mg	?	3CHFTHU	2.4+06	2.9+06	Jour	JPJ,30,(5),1236	71	Y.-C.Liu+	D0642

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,t	^{26}Si	DAP	2JPNOSA	9.9+07	9.9+07	Jour	PR/C,82,(2),025807	Aug 10	A.Matic+	E2288
α,el	^{28}Si	DA	4RUSMOS	3.0+07	3.0+07	Jour	YF,73,1382	10	L.I.Galanina+	A0861
α,inel	^{28}Si	DAP	4RUSMOS	3.0+07	3.0+07	Jour	YF,73,1382	10	L.I.Galanina+	A0861
^{7}Li,el	^{28}Si	DA	2FR GAN	1.8+08	1.8+08	Jour	NP/A,562,301	93	M.Lewitowicz+	O1879
^{11}Li,el	^{28}Si	DA	2FR GAN	3.2+08	3.2+08	Jour	NP/A,562,301	93	M.Lewitowicz+	O1879
^{7}Be,non		CS	2FR GAN	6.8+07	2.7+08	Jour	NP/A,616,231	97	C.Borcea+	O1868
^{8}B,non		CS	2FR GAN	1.2+08	3.0+08	Jour	NP/A,616,231	97	C.Borcea+	O1868
^{8}B,X+α	^{3}He	CS	2FR GAN	2.8+08	2.8+08	Jour	NP/A,616,231	97	C.Borcea+	O1868
^{8}B,x	^{7}Be	CS	2FR GAN	2.3+08	3.0+08	Jour	NP/A,616,231	97	C.Borcea+	O1868

20 Calcium 46

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{47}Ca	CS	3NI ABU	2.5-02	2.5-02	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699
n,γ	^{47}Ca	?	3NI ABU		5.5-01	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699

20 Calcium 48

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{49}Ca	CS	3GHALGN	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{49}Ca	RI	3GHALGN		5.5-01	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
^{3}He,α	^{47}Ca	DAP	2JPNTOK	8.2+07	8.2+07	Jour	NP/A,311,38	Nov 77	T.Tanabe+	E0087
^{3}He,d	^{49}Sc	DAP	2JPNTOK	8.2+07	8.2+07	Jour	NP/A,311,38	Nov 77	T.Tanabe+	E0087
^{3}He,el	^{48}Ca	DA	2JPNTOK	8.2+07	8.2+07	Jour	NP/A,311,38	Nov 77	T.Tanabe+	E0087
^{3}He,t	^{48}Sc	DAP	2JPNTOK	8.2+07	8.2+07	Jour	NP/A,311,38	Nov 77	T.Tanabe+	E0087
^{36}S,x		CS	2ITYPAD	3.7+07	6.1+07	Jour	PR/C,78,044607	08	A.M.Stefanini+	D0641

21 Scandium 45

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,n	^{44}Sc	CS	3KORPUE		7.0+07	Jour	JRN,287,813	11	N.V.Do+	G3102

22 Titanium

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,x	^{44}Sc	CS	3KORPUE		7.0+07	Jour	JRN,287,813	11	N.V.Do+	G3102
p,x	^{7}Be	CS	2FR SAT	9.5+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{22}Na	CS	2FR SAT	9.5+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{24}Na	CS	2FR SAT	9.5+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{28}Mg	CS	2FR SAT	9.5+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{42}K	CS	2FR SAT	6.7+07	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{43}K	CS	2FR SAT	5.2+07	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{47}Ca	CS	2FR SAT	5.2+07	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{44}Sc	CS	2FR SAT	4.3+07	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{46}Sc	CS	2FR SAT	4.3+07	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{47}Sc	CS	2FR SAT	4.3+07	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{48}Sc	CS	2FR SAT	4.3+07	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{44}Ti	CS	2FR SAT	2.8+07	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{48}V	CS	2FR SAT	4.3+07	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882

23 Vanadium 51

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{52}V	CS	3GHAGHA	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
p,x+p	inclusive	DAE	2JPNOSA	3.9+08	3.9+08	Jour	PR/C,82,(3),034604	Sep 10	Hirokiiwamoto+	E2289

25 Manganese 55

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,sct		RP	1USAMIT		2.5+06	Jour	PR/C,78,041601(R)	08	W.Bertozzi+	L0139
p,el	^{55}Mn	DA	2JPNKYU	4.3+06	6.1+06	Jour	JPJ,44,16	Jan 78	T.Maki	E0094
p,el	^{55}Mn	DA	2JPNTOK	5.2+07	5.2+07	Jour	JPJ,40,(6),1541	Jun 76	K.Miura+	E0069
p,inel	^{55}Mn	DAP	2JPNKYU	4.2+06	6.1+06	Jour	JPJ,44,16	Jan 78	T.Maki	E0094
p,t	^{53}Mn	DAP	2JPNTOK	5.2+07	5.2+07	Jour	JPJ,40,(6),1541	Jun 76	K.Miura+	E0069

26 Iron

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x	^{7}Be	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{7}Be	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{22}Na	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{22}Na	CS	2FR SAT	3.2+08	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{24}Na	CS	2FR SAT	3.2+08	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{24}Na	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{28}Mg	CS	2FR SAT	5.9+08	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{28}Mg	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{42}K	CS	2FR SAT	1.0+08	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{42}K	CS	2FR SAT	9.6+08	1.4+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{43}K	CS	2FR SAT	1.0+08	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{43}K	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{47}Ca	CS	2FR SAT	1.4+09	1.4+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{47}Ca	CS	2FR SAT	3.2+08	1.6+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{44}Sc	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{44}Sc	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{46}Sc	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{46}Sc	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{47}Sc	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{47}Sc	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{48}Sc	CS	2FR SAT	3.2+08	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{48}Sc	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{44}Ti	CS	2FR SAT	1.4+08	1.2+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{44}Ti	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{48}V	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{48}V	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{48}Cr	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{48}Cr	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{51}Cr	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{51}Cr	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{52}Mn	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882

p,x	^{52}Mn	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{54}Mn	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{54}Mn	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{52}Fe	CS	2FR SAT	2.6+09	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{52}Fe	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{55}Fe	CS	2FR SAT	1.7+07	1.2+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{55}Co	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{55}Co	CS	2FR SAT	9.6+08	1.4+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{56}Co	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{56}Co	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{57}Co	CS	2FR SAT	2.8+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{57}Co	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881
p,x	^{58}Co	CS	2FR SAT	1.4+09	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{58}Co	CS	2FR SAT	8.4+07	2.5+09	Thes	Gloris	98	M.Gloris	O1881

26 Iron 54

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{58}Ni,fus		CS	2ITYPAD	8.5+07	1.1+08	Jour	PR/C,82,014614	10	A.M.Stefanini+	A0875

27 Cobalt 59

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,x	^{54}Mn	CS	2JPNTOH	3.3+07	3.9+07	Jour	NIM/B,268,2571	10	F.Ditroi+	D4232
d,x	^{56}Mn	CS	2JPNTOH	3.7+07	3.9+07	Jour	NIM/B,268,2571	10	F.Ditroi+	D4232
d,x	^{59}Fe	CS	2JPNTOH	5.7+06	3.9+07	Jour	NIM/B,268,2571	10	F.Ditroi+	D4232
d,x	^{56}Co	CS	2JPNTOH	3.5+07	3.9+07	Jour	NIM/B,268,2571	10	F.Ditroi+	D4232
d,x	^{57}Co	CS	2JPNTOH	1.4+07	3.9+07	Jour	NIM/B,268,2571	10	F.Ditroi+	D4232
d,x	^{58}Co	CS	2JPNTOH	5.7+06	3.9+07	Jour	NIM/B,268,2571	10	F.Ditroi+	D4232
d,x	^{60}Co	CS	2JPNTOH	8.0+05	3.9+07	Jour	NIM/B,268,2571	10	F.Ditroi+	D4232
d,x	^{57}Ni	CS	2JPNTOH	2.8+07	3.9+07	Jour	NIM/B,268,2571	10	F.Ditroi+	D4232

28 Nickel

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x	^{6}He	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{6}Li	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{6}Li	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{7}Li	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{7}Li	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{8}Li	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{8}Li	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{9}Li	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{7}Be	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{7}Be	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{7}Be	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{9}Be	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865

p,x	^{9}Be	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{10}Be	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{10}Be	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{10}B	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{10}B	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{11}B	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{11}B	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{12}B	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x	^{22}Na	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{24}Na	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{28}Mg	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{42}K	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{43}K	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{44}Sc	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{46}Sc	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{47}Sc	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{48}Sc	CS	2FR SAT	1.4+09	1.4+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{44}Ti	CS	2FR SAT	3.0+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{48}V	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{48}Cr	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{51}Cr	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{52}Mn	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{54}Mn	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{52}Fe	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{59}Fe	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{55}Co	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{56}Co	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{57}Co	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{58}Co	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{60}Co	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{56}Ni	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x	^{57}Ni	CS	2FR SAT	9.6+08	2.6+09	Thes	NEUMANN	99	S.Neumann	O1882
p,x+α	inclusive	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x+α	inclusive	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x+d	inclusive	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x+d	inclusive	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x+^{3}He	inclusive	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x+^{3}He	inclusive	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x+p	inclusive	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x+p	inclusive	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x+t	inclusive	CS	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865
p,x+t	inclusive	CS	1USAUSA	2.0+06	2.0+06	Jour	PR,114,878	59	L.A.Currie	O0305
p,x+t	inclusive	DAE	2GERJUL	1.2+09	2.5+09	Jour	PR/C,82,034605	10	A.Budzanowski+	O1865

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,α	^{55}Fe	CS	4RUSFEI	3.6+06	6.8+06	Conf	94GATLIN,117	Mar 94	A.A.Goverdovskiy+	41561
n,α	^{55}Fe	DA	4RUSFEI	3.6+06	6.8+06	Conf	94GATLIN,117	Mar 94	A.A.Goverdovskiy+	41561
n,α	^{55}Fe	DAP	4RUSFEI	5.0+06	5.0+06	Conf	94GATLIN,117	Mar 94	A.A.Goverdovskiy+	41561
n,γ	^{59}Ni	CS	1USAORL	Maxwl		Jour	PR/C,82,057601	10	K.H.Guber+	14246

29 Copper

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+t	inclusive	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877

29 Copper 65

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{8}He,^{7}He	^{66}Cu	?	2FR GAN	1.8+07	3.1+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,3n	^{70}Ga	CS	2FR GAN	1.8+07	2.7+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,4n	^{69}Ga	CS	2FR GAN	1.8+07	2.7+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,5n	^{68}Ga	CS	2FR GAN	1.8+07	2.7+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,el	^{65}Cu	DA	2FR GAN	2.0+07	3.1+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,fus		CS	2FR GAN	1.8+07	2.7+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,x	^{6}He	DAP	2FR GAN	2.0+07	3.1+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,x	^{65}Cu	CS	2FR GAN	1.8+07	2.7+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,x	^{66}Cu	CS	2FR GAN	1.8+07	2.7+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,x	^{68}Zn	CS	2FR GAN	2.7+07	2.7+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869
^{8}He,x+α	inclusive	DAP	2FR GAN	2.0+07	3.1+07	Jour	PR/C,82,044617	10	A.Lemasson+	O1869

30 Zinc

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+t	inclusive	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877

30 Zinc 64

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{6}Li,fus		CS	2ITYLNS	1.5+07	3.9+07	Jour	NP/A,834,408C	10	A.Dipietro	O1862
^{9}Be,el	^{64}Zn	DA	2ITYLNS	2.5+07	2.5+07	Jour	PRL,105,022701	10	A.Dipietro+	O1856
^{9}Be,non		CS	2ITYLNS	2.5+07	2.5+07	Jour	PRL,105,022701	10	A.Dipietro+	O1856
^{10}Be,el	^{64}Zn	DA	2ZZZCER	2.4+07	2.4+07	Jour	PRL,105,022701	10	A.Dipietro+	O1856
^{10}Be,non		CS	2ZZZCER	2.4+07	2.4+07	Jour	PRL,105,022701	10	A.Dipietro+	O1856
^{11}Be,el	^{64}Zn	DA	2ZZZCER	2.4+07	2.4+07	Jour	PRL,105,022701	10	A.Dipietro+	O1856
^{11}Be,X+n	^{10}Be	DA	2ZZZCER	2.4+07	2.4+07	Jour	PRL,105,022701	10	A.Dipietro+	O1856
^{11}Be,x	^{10}Be	CS	2ZZZCER	2.4+07	2.4+07	Jour	PRL,105,022701	10	A.Dipietro+	O1856

31 Gallium 71

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{72}Ga	CS	3NI ABU	2.5-02	2.5-02	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699
n,γ	^{72}Ga	?	3NI ABU		5.5-01	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699

32 Germanium

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x	^{60}Co	CS	4RUSJIA	1.2+08	1.2+08	Jour	YF,73,1144	10	I.R.Barabanov+	A0868
p,x	^{65}Zn	CS	4RUSJIA	1.0+08	1.2+08	Jour	YF,73,1144	10	I.R.Barabanov+	A0868
p,x	^{67}Ga	CS	4RUSJIA	1.0+08	1.0+08	Jour	YF,73,1144	10	I.R.Barabanov+	A0868
p,x	^{67}Ge	CS	4RUSJIA	1.2+08	1.2+08	Jour	YF,73,1144	10	I.R.Barabanov+	A0868
p,x	^{68}Ge	CS	4RUSJIA	1.0+08	1.2+08	Jour	YF,73,1144	10	I.R.Barabanov+	A0868
p,x	^{69}Ge	CS	4RUSJIA	1.0+08	1.0+08	Jour	YF,73,1144	10	I.R.Barabanov+	A0868
p,x	^{71}As	CS	4RUSJIA	1.0+08	1.2+08	Jour	YF,73,1144	10	I.R.Barabanov+	A0868
p,x	^{71}As	TT	2GERJUL	2.6+07	2.8+07	Jour	JRN,287,435	11	M.M.Shehata+	O1892
p,x	^{74}As	CS	4RUSJIA	1.0+08	1.2+08	Jour	YF,73,1144	10	I.R.Barabanov+	A0868

33 Arsenic 75

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{76}As	CS	3GHALGN	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{76}As	CS	3NI ABU	2.5-02	2.5-02	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699
n,γ	^{76}As	RI	3GHALGN		5.5-01	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{76}As	?	3NI ABU		5.5-01	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699

34 Selenium 74

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,el	^{74}Se	DA	2JPNKYU	6.0+06	6.0+06	Jour	NP/A,301,15	78	A.Shibuta+	E0072
d,p	^{75}Se	DAP	2JPNKYU	6.0+06	6.0+06	Jour	NP/A,301,15	78	A.Shibuta+	E0072

36 Krypton 84

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,inel	^{84}Kr	DAP	2JPNTOK	5.2+07	5.2+07	Jour	PL/B,83,(1),39	Apr 79	N.Sakamoto+	E0372

38 Strontium 88

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{12}C,^{10}Be	^{90}Zr	DAP	3INDTAT	8.8+07	8.8+07	Jour	NP/A,588,706	95	B.J.Roy+	D6107
^{12}C,^{9}Be	^{91}Zr	DAP	3INDTAT	8.8+07	8.8+07	Jour	NP/A,588,706	95	B.J.Roy+	D6107
^{12}C,^{10}B	^{90}Y	DAP	3INDTAT	8.8+07	8.8+07	Jour	NP/A,588,706	95	B.J.Roy+	D6107
^{12}C,^{11}B	^{89}Y	DAP	3INDTAT	8.8+07	8.8+07	Jour	NP/A,588,706	95	B.J.Roy+	D6107
^{12}C,^{12}B	^{88}Y	DAP	3INDTAT	8.8+07	8.8+07	Jour	NP/A,588,706	95	B.J.Roy+	D6107
^{12}C,^{11}C	^{89}Sr	DAP	3INDTAT	8.8+07	8.8+07	Jour	NP/A,588,706	95	B.J.Roy+	D6107

^{12}C,^{13}C	^{87}Sr	DAP	3INDTAT	8.8+07	8.8+07	Jour	NP/A,588,706	95	B.J.Roy+	D6107
^{12}C,^{14}C	^{86}Sr	DAP	3INDTAT	8.8+07	8.8+07	Jour	NP/A,588,706	95	B.J.Roy+	D6107
^{12}C,el	^{88}Sr	DA	3INDTAT	8.8+07	8.8+07	Jour	NP/A,588,706	95	B.J.Roy+	D6107

40 Zirconium 90

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{6}Li,x+α	inclusive	CS	3INDTRM	1.5+07	3.0+07	Jour	PR/C,81,054601	10	H.Kumawat+	D6109
^{6}Li,x+α	inclusive	DA	3INDTRM	1.5+07	3.0+07	Jour	PR/C,81,054601	10	H.Kumawat+	D6109
^{6}Li,x+α	inclusive	DAE	3INDTRM	3.0+07	3.0+07	Jour	PR/C,81,054601	10	H.Kumawat+	D6109

40 Zirconium 94

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{95}Zr	CS	3NI ABU	2.5-02	2.5-02	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699
n,γ	^{95}Zr	?	3NI ABU		5.5-01	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699

41 Niobium 93

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,4n	^{89}Nb	CS	3KORPUE		7.0+07	Jour	JRN,287,869	11	K.S.Kim+	G3103
n,tot		CS	4ZZZDUB	2.2+02	1.0+05	Jour	YK,2002,(1-2),50	02	Yu.V.Grigoriev+	41426

42 Molybdenum

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,x	^{95}Nb	CS	3KORPUE		7.0+07	Jour	JRN,287,869	11	K.S.Kim+	G3103
n,tot		CS	4ZZZDUB	2.2+02	1.0+05	Jour	YK,2002,(1-2),50	02	Yu.V.Grigoriev+	41426

42 Molybdenum 92

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,inel	^{92}Mo	DAP	4RUSKUR	Fast		Jour	YF,73,(8),1331	10	L.I.Govor+	41556
n,inel	^{92}Mo	?	4RUSKUR	Fast		Jour	YF,73,(8),1331	10	L.I.Govor+	41556
d,el	^{92}Mo	DA	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030
d,inel	^{92}Mo	DAP	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030
^{78}Kr,x	^{163}W	CSP	2SF JYV	3.8+08	3.8+08	Jour	PR/C,81,014306	10	C.Scholey+	A0872
^{78}Kr,x	^{167}Os	CSP	2SF JYV	3.6+08	3.6+08	Jour	PR/C,81,014306	10	C.Scholey+	A0872

42 Molybdenum 94

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,el	^{94}Mo	DA	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030
d,inel	^{94}Mo	DAP	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030

42 Molybdenum 96

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,el	^{96}Mo	DA	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030
d,inel	^{96}Mo	DAP	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030

42 Molybdenum 98

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,el	^{98}Mo	DA	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030
d,inel	^{98}Mo	DAP	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030

42 Molybdenum 100

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,3n	^{99}Tc	CS	2BLGLEU	6.7+06	5.0+07	Jour	ARI,69,18	11	F.Tarkanyi+	D4235
d,el	^{100}Mo	DA	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030
d,inel	^{100}Mo	DAP	2JPNIPC	2.2+07	2.2+07	Jour	NP/A,307,425	Nov 76	T.Wada	E0030
d,x	^{97}Nb	CS	2BLGLEU	1.2+07	5.0+07	Jour	ARI,69,18	11	F.Tarkanyi+	D4235
d,x	^{98}Nb	CS	2BLGLEU	8.8+06	5.0+07	Jour	ARI,69,18	11	F.Tarkanyi+	D4235
d,x	^{99}Mo	CS	2BLGLEU	1.9+07	5.0+07	Jour	ARI,69,18	11	F.Tarkanyi+	D4235
t,p	^{102}Mo	DAP	2JPNIPC	1.6+07	1.6+07	Jour	JPJ,34,(5),1115	May 73	S.Takeda+	E0032

44 Ruthenium 96

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{78}Kr,x	^{171}Pt	CSP	2SF JYV	3.5+08	3.5+08	Jour	PR/C,81,014306	10	C.Scholey+	A0872

45 Rhodium 103

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,0		RP	1USALAS			Jour	PR/C,60,045502	99	D.A.Smith+	14285

46 Palladium 110

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,n	^{109}Pd	CS	4UZ UZ		3.4+07	Jour	IZV,75,(2),239	11	S.R.Palvanov+	M0812
n,2n	^{109}Pd	CS	4UZ UZ	1.4+07	1.4+07	Jour	IZV,75,(2),239	11	S.R.Palvanov+	41563

47 Silver

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+t	inclusive	CS	1USAUSA	2.0+06	2.0+06	Jour	PR,114,878	59	L.A.Currie	O0305
p,x+t	inclusive	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877

48 Cadmium

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+t	inclusive	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877

48 Cadmium 106

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{60}Ni,x	^{163}W	CSP	2SF JYV	2.7+08	2.7+08	Jour	PR/C,81,014306	10	C.Scholey+	A0872

48 Cadmium 116

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,n	^{115}Cd	CS	4UKRIEP		1.0+07	Jour	IZV,74,871	10	V.O.Zheltonozhsky+	G4033

49 Indium

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,x	^{111}Cd	CS	2JPNTOH	2.7+07	3.9+07	Jour	ARI,69,26	11	F.Tarkanyi+	D4234
d,x	^{115}Cd	CS	2JPNTOH	2.7+07	3.9+07	Jour	ARI,69,26	11	F.Tarkanyi+	D4234
d,x	^{111}In	CS	2JPNTOH	1.9+07	3.9+07	Jour	ARI,69,26	11	F.Tarkanyi+	D4234
d,x	^{113}In	CS	2JPNTOH	5.2+06	3.9+07	Jour	ARI,69,26	11	F.Tarkanyi+	D4234
d,x	^{114}In	CS	2JPNTOH	3.7+06	3.9+07	Jour	ARI,69,26	11	F.Tarkanyi+	D4234
d,x	^{115}In	CS	2JPNTOH	3.7+06	3.9+07	Jour	ARI,69,26	11	F.Tarkanyi+	D4234
d,x	^{116}In	CS	2JPNTOH	3.7+06	3.9+07	Jour	ARI,69,26	11	F.Tarkanyi+	D4234
d,x	^{113}Sn	CS	2JPNTOH	7.4+06	3.9+07	Jour	ARI,69,26	11	F.Tarkanyi+	D4234

49 Indium 115

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{12}C,^{11}B	^{116}Sn	DAP	3INDTAT	6.6+07	8.4+07	Jour	NP/A,564,271	93	B.J.Roy+	D6106
^{12}C,el	^{115}In	DA	3INDTAT	8.4+07	8.4+07	Jour	NP/A,564,271	93	B.J.Roy+	D6106

50 Tin

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+t	inclusive	CS	4ZZZDUB	3.0+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877
d,x	^{111}In	CS	2BLGVUB	1.2+07	3.9+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{113}Sn	CS	2BLGVUB	5.5+06	2.1+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{117}Sn	CS	2BLGVUB	3.4+06	3.9+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{125}Sn	CS	2BLGVUB	3.4+06	1.9+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{115}Sb	CS	2BLGVUB	4.5+06	2.1+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{116}Sb	CS	2BLGVUB	9.4+06	2.1+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{117}Sb	CS	2BLGVUB	3.4+06	3.9+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{118}Sb	CS	2BLGVUB	3.4+06	3.9+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{120}Sb	CS	2BLGVUB	3.4+06	3.9+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{122}Sb	CS	2BLGVUB	3.4+06	3.9+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{124}Sb	CS	2BLGVUB	3.4+06	3.9+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242
d,x	^{125}Sb	CS	2BLGVUB	5.5+06	2.1+07	Jour	NIM/B,269,405	11	F.Tarkanyi+	D4242

50 Tin 112

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{58}Ni,fis		?	2ITYLNS	2.0+09	2.0+09	Jour	PR/C,81,064605	10	P.Russotto+	A0874

50 Tin 116

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,p	^{117}Sn	DAP	2JPNTOK	2.2+07	2.2+07	Jour	PL/B,97,(2),192	Dec 80	H.Ohnuma+	E0121
d,p	^{117}Sn	POD	2JPNTOK	2.2+07	2.2+07	Jour	PL/B,97,(2),192	Dec 80	H.Ohnuma+	E0121

50 Tin 118

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,0		NQ	2NOROSL	Spont		Jour	PR/C,81,064311	10	H.K.Toft+	O1852

50 Tin 119

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,0		NQ	2NOROSL	Spont		Jour	PR/C,81,064311	10	H.K.Toft+	O1852

50 Tin 120

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,α	^{117}In	DAP	2GERMUN	2.3+07	2.3+07	Jour	EPJ/CS,2,14007	10	L.Zetta+	O1887
p,α	^{117}In	POD	2GERMUN	2.3+07	2.3+07	Jour	EPJ/CS,2,14007	10	L.Zetta+	O1887

50 Tin 124

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
^{64}Ni,fis		?	2ITYLNS	2.2+09	2.2+09	Jour	PR/C,81,064605	10	P.Russotto+	A0874

51 Antimony

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+t	inclusive	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877

51 Antimony 121

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,α	^{118}Sn	DAP	2GERMUN	2.3+07	2.3+07	Jour	EPJ/CS,2,14007	10	L.Zetta+	O1887
p,α	^{118}Sn	POD	2GERMUN	2.3+07	2.3+07	Jour	EPJ/CS,2,14007	10	L.Zetta+	O1887

53 Iodine 127

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{128}I	CS	3GHAGHA	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698

55 Caesium 133

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,n	^{133}Ba	CS	2SF HLS	5.0+06	9.8+06	Jour	JP/G,38,015001	11	P.Granholm+	O1891

56 Barium 132

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,t	^{131}Ba	DAP	2GERLMU	2.4+07	2.4+07	Jour	EPJ/A,46,187	10	G.Suliman+	O1870

56 Barium 134

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{135}Ba	SPC	CHOPF	Maxwl	2.4+04	Jour	PR/C,48,109	93	R.E.Chrien+	14284

56 Barium 138

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{139}Ba	CS	3GHALGN	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{139}Ba	CS	3GHAGHA	2.5-02	2.5-02	Jour	ANE,38,(2-3),379	11	S.E.Agbemava+	31700
n,γ	^{139}Ba	RI	3GHALGN		5.5-01	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{139}Ba	RI	3GHAGHA		5.5-01	Jour	ANE,38,(2-3),379	11	S.E.Agbemava+	31700
p,el	^{138}Ba	DA	2GERMPH	9.6+06	1.3+07	Jour	PL,17,124	65	P.Vonbrentano+	O1894

58 Cerium 140

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,el	^{140}Ce	DA	2GERMPH	8.9+06	1.2+07	Jour	PL,17,124	65	P.Vonbrentano+	O1894

60 Neodymium 142

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,n	^{141}Nd	CS	4UZ UZ	1.4+07	1.4+07	Jour	IZV,75,(2),239	11	S.R.Palvanov+	41563

62 Samarium 144

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,n	^{143}Sm	CS	4UZ UZ		3.5+07	Jour	IZV,75,(2),239	11	S.R.Palvanov+	M0812
γ,n	^{143}Sm	CS	4UZ UZ	1.4+07	1.4+07	Jour	IZV,75,(2),239	11	S.R.Palvanov+	41563
p,inel	^{144}Sm	DAP	2GERMUN	2.2+07	2.2+07	Jour	PR/C,47,2524	93	E.Mueller-Zanotti+	O1859

62 Samarium 148

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,t	^{146}Sm	DAP	2GERMUN	2.6+07	2.6+07	Jour	NP/A,613,209	97	A.M.Oros+	O1895

62 Samarium 152

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{153}Sm	CS	3GHALGN	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{153}Sm	RI	3GHALGN		5.5-01	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698

62 Samarium 154

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{155}Sm	CS	3GHALGN	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{155}Sm	CS	3GHAGHA	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
p,d	^{153}Sm	DAP	2GERMUN	2.3+07	2.3+07	Jour	NP/A,624,433	97	N.Blasi+	O1871

65 Terbium 159

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+p	inclusive	DAE	2JPNOSA	3.9+08	3.9+08	Jour	PR/C,82,(3),034604	Sep 10	Hirokiiwamoto+	E2289

70 Ytterbium

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,x	^{169}Yb	CS	2ZZZISP	8.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877
d,x	^{175}Yb	CS	2ZZZISP	7.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877
d,x	^{169}Lu	CS	2ZZZISP	1.5+07	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877
d,x	^{170}Lu	CS	2ZZZISP	8.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877
d,x	^{171}Lu	CS	2ZZZISP	7.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877
d,x	^{172}Lu	CS	2ZZZISP	7.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877
d,x	^{173}Lu	CS	2ZZZISP	7.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877
d,x	^{174}Lu	CS	2ZZZISP	7.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877

70 Ytterbium 176

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,2n	^{176}Lu	CS	2ZZZISP	7.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877
d,n	^{177}Lu	CS	2ZZZISP	7.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877

d,p	^{177}Yb	CS	2ZZZISP	7.7+06	1.8+07	Jour	ARI,69,37	11	S.Manenti+	O1877

72 Hafnium

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,x	^{177}Lu	CS	2BLGVUB	7.2+06	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{179}Lu	CS	2BLGVUB	7.2+06	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{173}Hf	CS	2BLGVUB	1.4+07	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{175}Hf	CS	2BLGVUB	1.0+07	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{179}Hf	CS	2BLGVUB	1.5+07	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{180}Hf	CS	2BLGVUB	2.7+06	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{175}Ta	CS	2BLGVUB	1.4+07	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{176}Ta	CS	2BLGVUB	7.2+06	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{177}Ta	CS	2BLGVUB	5.3+06	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{178}Ta	CS	2BLGVUB	2.7+06	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233
d,x	^{180}Ta	CS	2BLGVUB	2.7+06	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233

72 Hafnium 174

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,2n	^{174}Ta	CS	2BLGVUB	1.0+07	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233

72 Hafnium 180

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
d,p	^{181}Hf	CS	2BLGVUB	2.7+06	2.1+07	Jour	NIM/B,268,3443	10	S.Takacs+	D4233

73 Tantalum 181

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x+p	inclusive	DAE	2JPNOSA	3.9+08	3.9+08	Jour	PR/C,82,(3),034604	Sep 10	Hirokiiwamoto+	E2289

74 Tungsten

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,sct	^{nat}W	SIF	4ZZZDUB	4.6+02	1.0+05	Conf	87KIEV,2,271	Sep 87	Yu.V.Grigor'Ev+	40989
n,tot		CS	4ZZZDUB	2.2+02	1.0+05	Conf	87KIEV,2,271	Sep 87	Yu.V.Grigor'Ev+	40989
p,x	^{181}Re	CS	2ZZZISP	1.2+07	2.2+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
p,x	^{181}Re	TT	2ZZZISP	1.2+07	1.6+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
p,x	^{182}Re	CS	2ZZZISP	6.3+06	2.2+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
p,x	^{182}Re	TT	2ZZZISP	8.5+06	1.6+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884

p,x	^{183}Re	CS	2ZZZISP	6.3+06	2.2+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
p,x	^{183}Re	TT	2ZZZISP	8.5+06	1.6+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
p,x	^{184}Re	CS	2ZZZISP	6.3+06	2.2+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
p,x	^{184}Re	TT	2ZZZISP	8.5+06	1.6+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
p,x	^{186}Re	CS	2ZZZISP	4.7+06	2.2+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
d,x	^{186}Re	TT	2ZZZISP	1.1+07	1.7+07	Jour	ARI,68,1595	10	M.L.Bonardi+	O1849

74 Tungsten 186

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,3n	^{184}Re	TT	2ZZZISP	1.4+07	1.4+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
p,5n	^{182}Re	TT	2ZZZISP	1.4+07	1.4+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
p,6n	^{181}Re	TT	2ZZZISP	1.4+07	1.4+07	Jour	RCA,99,1	11	M.L.Bonardi+	O1884
d,2n	^{186}Re	TT	2ZZZISP	1.3+07	1.3+07	Jour	ARI,68,1595	10	M.L.Bonardi+	O1849

76 Osmium 192

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
α,3n	^{193}Pt	CS	2BLGVUB	2.6+07	3.9+07	Jour	ARI,68,2001	10	M.S.Uddin+	O1850
α,n	^{195}Pt	CS	2BLGVUB	2.0+07	3.9+07	Jour	ARI,68,2001	10	M.S.Uddin+	O1850

79 Gold 197

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{198}Au	CS	3GHALGN	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{198}Au	CS	3NI ABU	2.5-02	2.5-02	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699
n,γ	^{198}Au	RI	3GHALGN		5.5-01	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{198}Au	?	3NI ABU		5.5-01	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699
p,fis		CS	4RUSLIN	2.1+08	1.0+09	Jour	YF,74,114	11	L.A.Vaishnene+	A0878
p,x+p	inclusive	DAE	2JPNOSA	3.0+08	3.9+08	Jour	PR/C,82,(3),034604	Sep 10	Hirokiiwamoto+	E2289
p,x+t	inclusive	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877

81 Thallium 203

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,fis		CS	4RUSLIN	2.1+08	1.0+09	Jour	YF,74,114	11	L.A.Vaishnene+	A0878

82 Lead

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,fis		FY	3KORPUE		2.5+09	Jour	EPJ/A,47,37	11	H.Naik+	G3104

γ,fis	Many	?	3KORPUE		2.5+09	Jour	EPJ/A,47,37	11	H.Naik+	G3104
p,inel	^{nat}Pb	CS	4ZZZDUB	1.0+09	2.0+09	Jour	ANE,37,923	10	M.Zamani+	A0862
p,x+t	inclusive	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877
^{238}U,fis	Many	CS	2JPNIPC	8.2+10	8.2+10	Jour	JPJ,79,(7),073201	Jul 10	T.Ohnishi+	E2200

82 Lead 206

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,fis		CS	4RUSLIN	2.1+08	1.0+09	Jour	IZV,74,529	10	L.A.Vaishnene+	A0863

82 Lead 207

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,fis		CS	4RUSLIN	2.1+08	1.0+09	Jour	IZV,74,529	10	L.A.Vaishnene+	A0863
^{64}Ni,x	^{211}Po	DA	2GERGSI	2.3+08	2.7+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,x	^{211}Po	KE	2GERGSI	2.3+08	2.6+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,x	^{212}At	DA	2GERGSI	2.3+08	2.9+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,x	^{212}At	KE	2GERGSI	2.3+08	2.7+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,x	^{213}Rn	DA	2GERGSI	2.3+08	2.9+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,x	^{213}Rn	KE	2GERGSI	2.3+08	2.9+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,x	^{213}Fr	DA	2GERGSI	2.3+08	2.9+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,x	^{213}Fr	KE	2GERGSI	2.3+08	2.9+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,x	^{214}Ra	DA	2GERGSI	2.3+08	2.9+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,x	^{214}Ra	KE	2GERGSI	2.3+08	2.9+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865

82 Lead 208

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,el		RP	2GERMUN	1.5+07	1.5+07	Jour	EPJ/A,44,233	10	A.Heusler+	O1860
p,fis		CS	4RUSLIN	2.1+08	1.0+09	Jour	IZV,74,529	10	L.A.Vaishnene+	A0863
p,inel	^{208}Pb	DAP	2GERMUN	1.5+07	1.5+07	Jour	EPJ/A,44,233	10	A.Heusler+	O1860
p,inel	^{208}Pb	DAP	2GERMUN	1.6+07	1.6+07	Jour	PR/C,74,034303	06	A.Heusler+	O1866
p,inel	^{208}Pb	DAP	2GERMUN	1.6+07	1.8+07	Jour	EPJ/A,46,17	10	A.Heusler+	O1861
p,x+p	inclusive	DAE	2JPNOSA	3.9+08	3.9+08	Jour	PR/C,82,(3),034604	Sep 10	Hirokiiwamoto+	E2289
^{6}Li,el	^{208}Pb	DA	2UK DAR	2.9+07	3.9+07	Jour	NP/A,571,326	94	N.Keeley+	O1878
^{6}Li,fus		CS	2UK DAR	2.9+07	3.9+07	Jour	NP/A,571,326	94	N.Keeley+	O1878
^{7}Li,^{6}Li	^{209}Pb	DAP	2UK DAR	3.3+07	3.3+07	Jour	NP/A,575,412	94	K.Rusek+	O1880
^{7}Li,^{6}Li	^{209}Pb	POD	2UK DAR	3.3+07	3.3+07	Jour	NP/A,575,412	94	K.Rusek+	O1880
^{7}Li,el	^{208}Pb	DA	2UK DAR	2.9+07	3.9+07	Jour	NP/A,571,326	94	N.Keeley+	O1878
^{7}Li,el	^{208}Pb	POD	2UK DAR	2.7+07	3.5+07	Jour	NP/A,582,357	95	I.Martel+	O1874
^{7}Li,fus		CS	2UK DAR	2.9+07	6.0+07	Jour	NP/A,571,326	94	N.Keeley+	O1878
^{7}Li,inel	^{208}Pb	POD	2UK DAR	2.7+07	3.3+07	Jour	NP/A,582,357	95	I.Martel+	O1874
^{58}Fe,n	^{265}Hs	CS	2GERGSI	2.2+08	2.2+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{64}Ni,n	^{271}Ds	CS	2GERGSI	2.4+08	2.4+08	Jour	EPJ/A,43,181	10	S.Heinz+	A0865
^{238}U,fis	Many	CS	2GERGSI	2.3+11	2.3+11	Rept	AIP-1175,27	09	D.Perez-Loureiro+	O1857

83 Bismuth 209

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,n	^{209}Po	CS	2JPNTOK	7.2+06	6.4+07	Jour	JPJ,45,(4),1071	Oct 78	K.Miyano+	E0054
p,x+p	inclusive	DAE	2JPNOSA	3.9+08	3.9+08	Jour	PR/C,82,(3),034604	Sep 10	Hirokiiwamoto+	E2289
p,x+t	inclusive	CS	4ZZZDUB	3.0+08	6.6+08	Jour	ZET,35,587	58	V.V.Kuznetsov+	A0877
^{6}Li,x	^{6}Li	DAP	3INDTRM	3.6+07	4.0+07	Jour	NP/A,834,186C	10	S.Santra+	D6115

90 Thorium 232

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,fis	^{135}I	?	4ZZZDUB		2.5+07	Jour	PPN/L,7,(6),415	10	Yu.P.Gangrsky+	M0811
γ,fis	^{135}Xe	FY	4ZZZDUB		2.5+07	Jour	PPN/L,7,(6),415	10	Yu.P.Gangrsky+	M0811
γ,sct		RP	1USATNL	2.0+06	4.0+06	Jour	PR/C,83,034615	11	A.S.Adekola+	L0159
n,γ	^{233}Th	SIF	4ZZZDUB	2.2+01	2.2+04	Jour	YK,2000,(2),3	Jan 01	Yu.V.Grigoriev+	41405
n,tot		CS	4ZZZDUB	1.0+01	1.0+05	Jour	YK,2000,(2),3	Jan 01	Yu.V.Grigoriev+	41405
p,el	^{232}Th	DA	2JPNOSA	6.5+07	6.5+07	Jour	PR/C,34,(2),493	Aug 86	Y.Takeuchi+	E1236
p,el	^{232}Th	POD	2JPNOSA	6.5+07	6.5+07	Jour	PR/C,34,(2),493	Aug 86	Y.Takeuchi+	E1236
p,inel	^{232}Th	DAP	2JPNOSA	6.5+07	6.5+07	Jour	PR/C,34,(2),493	Aug 86	Y.Takeuchi+	E1236
p,inel	^{232}Th	POD	2JPNOSA	6.5+07	6.5+07	Jour	PR/C,34,(2),493	Aug 86	Y.Takeuchi+	E1236

92 Uranium 234

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,fis	Many	FY	2GERTHD		6.8+06	Jour	NP/A,851,1	11	A.Goeoek+	G0025
γ,fis		FY	2GERTHD		9.0+06	Jour	NP/A,851,1	11	A.Goeoek+	G0025
γ,fis	Many	KE	2GERTHD		6.8+06	Jour	NP/A,851,1	11	A.Goeoek+	G0025
γ,fis		KE	2GERTHD		9.0+06	Jour	NP/A,851,1	11	A.Goeoek+	G0025

92 Uranium 235

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,el		RP	2GERTHD	1.7+06	1.9+06	Jour	PR/C,81,044309	10	O.Yevetska+	G0024
γ,sct		RP	1USAMIT		2.5+06	Jour	PR/C,78,041601(R)	08	W.Bertozzi+	L0139
γ,sct		RP	2GERTHD		4.4+06	Jour	PR/C,81,044309	10	O.Yevetska+	G0024
n,abs		ALF	4ZZZDUB	1.4-03	1.4+00	Jour	YK,2000,(1),3	Jun 00	Yu.V.Grigoriev+	41380
n,abs		ALF	4ZZZDUB	4.7+00	1.0+03	Jour	YK,1994,(4),89	May 95	Yu.V.Grigoriev+	41191
n,fis		CHG	4ZZZDUB	2.5-02	2.5-02	Jour	PTE,4,66	09	A.N.Tyukavkin+	41554
n,fis	Many	DE	1USABNL	Maxwl		Jour	PR/C,2,1554	70	M.Derengowski+	14208
n,fis	Many	FY	1USABNL	Maxwl		Jour	PR/C,2,1554	70	M.Derengowski+	14208

92 Uranium 238

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,fis	Many	FY	2GERTHD		7.1+06	Jour	NP/A,851,1	11	A.Goeoek+	G0025
γ,fis		FY	2GERTHD		8.5+06	Jour	NP/A,851,1	11	A.Goeoek+	G0025
γ,fis	Many	KE	2GERTHD		7.1+06	Jour	NP/A,851,1	11	A.Goeoek+	G0025
γ,fis		KE	2GERTHD		8.5+06	Jour	NP/A,851,1	11	A.Goeoek+	G0025
γ,fis	^{135}I	?	4ZZZDUB		2.5+07	Jour	PPN/L,7,(6),415	10	Yu.P.Gangrsky+	M0811
γ,fis	^{135}Xe	FY	4ZZZDUB		2.5+07	Jour	PPN/L,7,(6),415	10	Yu.P.Gangrsky+	M0811
n,fis	Many	FY	4RUSFEI	1.1+06	1.2+06	Rept	ISINN-8,298	00	A.A.Goverdovskiy+	41562
n,γ	^{239}U	CS	3GHAGHA	2.5-02	2.5-02	Rept	INDC(NDS)-0574,72	10	B.J.B.Nyarko+	31698
n,γ	^{239}U	CS	3NI ABU	2.5-02	2.5-02	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699
n,γ	^{239}U	?	3NI ABU		5.5-01	Rept	INDC(NDS)-0574,67	10	S.A.Jonah+	31699
p,el	^{238}U	DA	2JPNOSA	6.5+07	6.5+07	Jour	PR/C,34,(2),493	Aug 86	Y.Takeuchi+	E1236
p,el	^{238}U	POD	2JPNOSA	6.5+07	6.5+07	Jour	PR/C,34,(2),493	Aug 86	Y.Takeuchi+	E1236
p,fis		CS	4ZZZDUB	6.6+08	6.6+08	Jour	PAN,73,1814	10	A.R.Balabekyan+	A0871
p,inel	^{238}U	DAP	2JPNOSA	6.5+07	6.5+07	Jour	PR/C,34,(2),493	Aug 86	Y.Takeuchi+	E1236
p,inel	^{238}U	POD	2JPNOSA	6.5+07	6.5+07	Jour	PR/C,34,(2),493	Aug 86	Y.Takeuchi+	E1236
^{36}S,3n	^{271}Hs	CS	2GERGSI	1.8+08	2.0+08	Jour	PR/C,81,061601	10	R.Graeger+	A0873
^{36}S,4n	^{270}Hs	CS	2GERGSI	1.8+08	2.0+08	Jour	PR/C,81,061601	10	R.Graeger+	A0873

93 Neptunium 237

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,fis	^{135}I	?	4ZZZDUB		2.5+07	Jour	PPN/L,7,(6),415	10	Yu.P.Gangrsky+	M0811
γ,fis	^{135}Xe	FY	4ZZZDUB		2.5+07	Jour	PPN/L,7,(6),415	10	Yu.P.Gangrsky+	M0811
γ,sct		RP	1USAMIT		2.8+06	Jour	PR/C,82,054310	10	C.T.Angell+	L0155

94 Plutonium 239

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,sct		RP	1USAMIT		2.5+06	Jour	PR/C,78,041601(R)	08	W.Bertozzi+	L0139
n,abs		ALF	4ZZZDUB	4.7+00	2.2+03	Jour	YK,1997,(3-4),11	Mar 98	H.Faikov-Stanczyk+	41292
n,fis		DE	1USABNL	2.4-03	2.0-01	Jour	PR/C,4,267	71	J.Toraskar+	14282
n,fis	Many	FY	1USABNL	2.4-03	2.0-01	Jour	PR/C,4,267	71	J.Toraskar+	14282
n,fis		KE	1USABNL	4.0-03	2.0-01	Jour	PR/C,4,267	71	J.Toraskar+	14282
n,fis		SIF	4ZZZDUB	4.7+00	1.0+04	Jour	YK,1997,(1-2),3	Aug 97	Yu.V.Grigoriev+	41290
n,γ	^{240}Pu	MLT	4ZZZDUB	4.7+00	2.2+03	Jour	YK,1997,(3-4),11	Mar 98	H.Faikov-Stanczyk+	41292
n,tot		CS	4ZZZDUB	2.1+00	2.0+05	Jour	YK,1997,(1-2),3	Aug 97	Yu.V.Grigoriev+	41290

94 Plutonium 240

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,fis		?	4RUSLIN	5.8+05	2.0+08	Conf	2007SANIB,,462	Oct 07	A.B.Laptev+	41487

95 Americium 237

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,fis	^{135}I	?	4ZZZDUB		2.5+07	Jour	PPN/L,7,(6),415	10	Yu.P.Gangrsky+	M0811

95 Americium 241

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,n	^{240}Am	CS	1USATNL	9.0+06	1.6+07	Jour	PR/C,82,054620	10	A.P.Tonchev+	L0156
n,γ	^{242}Am	CS	4RUSFEI	Maxwl	3.0+05	Rept	ICD-6,42	69	A.G.Dovbenko+	41560

95 Americium 243

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,fis	^{135}Xe	FY	4ZZZDUB		2.5+07	Jour	PPN/L,7,(6),415	10	Yu.P.Gangrsky+	M0811
n,fis		?	4RUSLIN	5.8+05	2.0+08	Conf	2007SANIB,,462	Oct 07	A.B.Laptev+	41487

96 Curium 238

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,fis	^{135}Xe	FY	4ZZZDUB		2.5+07	Jour	PPN/L,7,(6),415	10	Yu.P.Gangrsky+	M0811

96 Curium 244

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,fis	NPART	NU	4ZZZDUB	Spont		Jour	PL/B,52,(3),321	Oct 74	Yu.A.Lazarev+	41559

96 Curium 247

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,el		RP	4RUSJIA	1.2+00	1.8+01	Jour	AE,109,(6),332	10	A.A.Alekseev+	41533
n,fis		CS	4RUSJIA	3.0-02	2.0+04	Jour	AE,109,(6),332	10	A.A.Alekseev+	41533
n,fis		RI	4RUSJIA	5.0-01	2.0+04	Jour	AE,109,(6),332	10	A.A.Alekseev+	41533
n,fis		RP	4RUSJIA	-5.2-01	1.9+01	Jour	AE,109,(6),332	10	A.A.Alekseev+	41533

96 Curium 248

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
γ,fis	Many	FY	4ZZZDUB		2.5+07	Jour	FCY/L,2,(2),44	05	Yu.P.Gangrsky+	M0813
0,fis	Many	FY	4ZZZDUB	Spont		Jour	FCY/L,2,(2/125),44	05	Yu.P.Gangrskiy+	41557
γ,fis	Many	?	4ZZZDUB		2.5+07	Jour	FCY/L,2,(2/125),44	05	Yu.P.Gangrskiy+	41557
n,el		RP	4RUSJIA	7.2+00	9.9+01	Jour	AE,109,(6),332	10	A.A.Alekseev+	41533
n,fis		CS	4RUSJIA	1.2-01	2.0+04	Jour	AE,109,(6),332	10	A.A.Alekseev+	41533
n,fis		RI	4RUSJIA	5.0-01	2.0+04	Jour	AE,109,(6),332	10	A.A.Alekseev+	41533
n,fis		RP	4RUSJIA	7.2+00	2.6+02	Jour	AE,109,(6),332	10	A.A.Alekseev+	41533

102 Nobelium 252

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,fis		KE	4ZZZDUB	Spont		Jour	FCY,40,(6),1563	09	Yu.S.Tsyganov	41558
0,fis		NU	4ZZZDUB	Spont		Jour	PL/B,52,(3),321	Oct 74	Yu.A.Lazarev+	41559
0,fis	NPART	NU	4ZZZDUB	Spont		Jour	PL/B,52,(3),321	Oct 74	Yu.A.Lazarev+	41559

105 Dubnium 268

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,fis		NU	4ZZZDUB	Spont		Rept	AIP-1175,297	10	A.Svirikhin+	41555