

EXFOR News (March 2012)

New experimental data available from Nuclear Reaction Data Centres

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Quantity codes

ALF	α -value ($\sigma_{\text{capt}}/\sigma_{\text{fis}}$)	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 $d\Omega_1/d\Omega_2/dE'$	NUD	Delayed fission neutron multiplicity $\bar{\nu}_d$
D3E	Triple differential $d\Omega/dE'_1/dE'_2$	NUF	Fragment neutrons
D4A	Quadruple diff. $d\Omega_1/d\Omega_2/dE'_1/dE'_2$	POL	Polarization
DA	Differential $d/d\Omega$	POD	Differential polarization
DAA	Double differential $d\Omega_1/d\Omega_2$	PY	Product yield (other than fission)
DAE	Double differential $d\Omega/dE'$	RI	Resonance integral
DAP	Partial differential $d/d\Omega$	RP	Resonance parameter
DAT	Temperature-dependent Legendre coefficient	RR	Reaction rate
DE	Differential d/dE'	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 $\bar{\nu}\sigma_{\text{fis}}/(\sigma_{\text{capt}} + \sigma_{\text{fis}})$	TTD	Differential thick target yield, $d/d\Omega$
EVL	Evaluation	TTP	Partial thick target yield

Special codes in outgoing particle field

abs	Absorption	fus	Fusion	sc	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), [JAEA](#) (Japan), [JCPRG](#) (Japan), [KAERI](#) (Korea), [CAJaD](#) (Russia), [CDFE](#) (Russia), [CNPD](#) (Russia), [UkrNDC](#) (Ukraine)

1 Hydrogen 1										
Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,γ	^2H	CSP	2SWDUPP	3.1+08	3.1+08	Jour	PR/C,83,054001	11	A.Johansson+	O1914
p,γ	^2H	DAP	2SWDUPP	3.1+08	3.1+08	Jour	PL/B,673,5	09	A.Johansson+	O1922
p,γ	^2H	DEP	2SWDUPP	3.1+08	3.1+08	Jour	PR/C,83,054001	11	A.Johansson+	O1914
p,γ	^2H	?	2SWDUPP	3.1+08	3.1+08	Jour	PL/B,673,5	09	A.Johansson+	O1922
d,γ	^3He	DA	2NEDKVI	1.1+08	1.8+08	Jour	EPJ/A,47,59	11	A.A.Mehmandoost-Khajeh-Dad+	O1903
$^6\text{He},\text{el}$	^1H	?	2GERGSI	4.3+09	4.3+09	Jour	NIM/A,641,72	11	O.A.Kiselev+	O1908
$^8\text{He},\text{el}$	^1H	?	2GERGSI	5.4+09	5.4+09	Jour	NIM/A,641,72	11	O.A.Kiselev+	O1908

1 Hydrogen 2										
Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,γ	^3He	CS	4RUSTPI	3.3+03	1.0+04	Jour	IZV,74,563	10	V.M.Bystritsky+	F1083
d,n	^3He	CS	4RUSTPI	2.3+03	6.1+03	Jour	IZV,74,563	10	V.M.Bystritsky+	F1083
$^{20}\text{O},p$	^{21}O	?	2FR GAN	2.1+08	2.1+08	Jour	PR/C,84,011301	11	B.Fernandez-Dominguez+	O1915

1 Hydrogen 3										
Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,n	^3He	DE	2GERKFK	1.1+06	1.1+06	Jour	PR/C,35,936	87	F.Kaeppler+	O1964

2 Helium 4										
Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$p,2p$	^3H	CS	4ZZZDUB	6.3+08	6.3+08	Jour	ZET,38,708	60	M.S.Kozodaev+	A0925
p,el	^4He	DA	4ZZZDUB	6.3+08	6.3+08	Jour	ZET,38,708	60	M.S.Kozodaev+	A0925
$p,n+p$	^3He	?	4ZZZDUB	6.3+08	6.3+08	Jour	ZET,38,708	60	M.S.Kozodaev+	A0925
p,non		CS	4ZZZDUB	6.3+08	6.3+08	Jour	ZET,38,708	60	M.S.Kozodaev+	A0925
p,tot		CS	4ZZZDUB	6.3+08	6.3+08	Jour	ZET,38,708	60	M.S.Kozodaev+	A0925
$^8\text{Li},\text{el}$	^4He	DA	2ITYLNS	2.7+06	4.8+06	Jour	JP/CS,267,012011	11	M.G.Pellegriti+	O1905

3 Lithium 7										
Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,n	^7Be	CS	4RUSKUR	1.8+06	1.2+07	Jour	AE,2,171	57	S.P.Kalinin+	A0923
p,n	^7Be	DE	2GERKFK	1.9+06	1.9+06	Jour	PR/C,37,595	88	W.Ratynski+	O1963
$d,x+n$	inclusive	TTD	1USALRL	5.0+06	1.6+07	Jour	NSE,52,35	73	K.A.Weaver+	F0218

4 Beryllium 7

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d,p</i>		RP	1USACLA	9.0+05	1.5+06	Jour	NP,18,492	60	R.W.Kavanagh	F1124
<i>d,p</i>	⁸ Be	DAP	1USACLA	7.5+05	1.7+06	Jour	NP,18,492	60	R.W.Kavanagh	F1124

4 Beryllium 9

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x+n</i>	inclusive	TTD	2ITYPAD	5.0+06	5.0+06	Jour	ARI,69,1664	11	S.Agosteo+	O1951
<i>d,p</i>	¹⁰ Be	DAP	1USAWAS	8.1+06	1.0+07	Jour	PR,112,2020	58	B.Zeidman+	F1118
<i>d,x+γ</i>	inclusive	TTD	2BLGLVN	1.6+07	5.0+07	Jour	PMB,20,(2),235	75	J.P.Meulders+	O1923
<i>d,x+n</i>	inclusive	DAP	2GERKFK	4.7+07	4.7+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
<i>d,x+n</i>	inclusive	TTD	2BLGLVN	1.6+07	5.0+07	Jour	PMB,20,(2),235	75	J.P.Meulders+	O1923
<i>d,x+n</i>	inclusive	TTD	1USALRL	1.9+07	1.9+07	Jour	NSE,52,35	73	K.A.Weaver+	F0218
<i>d,x+n</i>	inclusive	TTD	2GERKFK	4.0+07	4.0+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
<i>d,x+n</i>	inclusive	TTD	2BLGLVN	5.0+07	5.0+07	Jour	PMB,20,(2),235	75	J.P.Meulders+	O1923
<i>d,x+n</i>	inclusive	TTD	2GERKFK	5.4+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
¹³² Sn,x	Many	?	2GERGSI	1.3+11	1.3+11	Jour	PL/B,703,552	11	D.Perez-Loureiro+	O1956
²⁰⁸ Pb,x	Many	?	2GERGSI	2.1+11	2.1+11	Jour	PR/C,84,011601	11	A.I.Morales+	O1916

5 Boron 10

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,α</i>	⁷ Be	CS	4RUSKUR	4.0+05	1.1+07	Jour	AE,2,171	57	S.P.Kalinin+	A0923
<i>d,p</i>	¹¹ B	DAP	1USAWAS	8.1+06	1.0+07	Jour	PR,112,2020	58	B.Zeidman+	F1118

5 Boron 11

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,n</i>	¹¹ C	CS	4RUSKUR	3.0+06	1.1+07	Jour	AE,2,171	57	S.P.Kalinin+	A0923
<i>d,n</i>	¹² C	DAP	1USAWAS	1.0+07	1.0+07	Jour	PR,112,2020	58	B.Zeidman+	F1118

6 Carbon 67

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d,x+n</i>	inclusive	DAP	2GERKFK	4.7+07	4.7+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924

6 Carbon 12

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,el	¹² C	DA	2GRCATH	3.3+06	7.0+06	Jour	NIM/B,269,2011	11	D.Aabriola+	O1909
<i>p</i> , <i>n</i> + <i>p</i>	¹¹ C	?	2UK BIR	2.0+08	9.8+08	Jour	PPS/A,69,43	56	G.A.Chackett+	O1921
<i>p</i> ,non		CS	2UK HAR	1.3+08	1.3+08	Jour	PPS/A,67,125	54	J.M.Cassels+	O1947
<i>p</i> ,non		CS	2UK KCL	2.5+07	5.4+07	Jour	NP,13,511	59	E.J.Burge	O1946
<i>d</i> , α	¹⁰ B	DAP	4RUSRI	6.2+06	6.8+06	Jour	IZV,29,1197	65	Yu.A.Nemilov+	F1112
<i>d</i> , <i>x</i> + <i>n</i>	inclusive	TTD	2BLGLVN	1.3+07	5.0+07	Jour	PMB,20,(2),235	75	J.P.Meulders+	O1923
<i>d</i> , <i>x</i> + <i>n</i>	inclusive	TTD	2GERKFK	4.0+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
³ He, α	¹¹ C	DAP	4RUSTPI	1.8+07	2.2+07	Jour	YF,26,683	77	G.D.Adeev+	F1139
³ He, <i>n</i>	¹⁴ O	CSP	2UK BIR	2.0+06	3.0+07	Jour	NP/A,155,443	70	J.Singh	F1130
³ He, <i>p</i>	¹⁴ N	DAP	2UK BIR	1.6+07	3.1+07	Jour	NP/A,155,443	70	J.Singh	F1130
³ He, <i>x</i>	¹³ N	CSP	2UK BIR	7.0+06	3.1+07	Jour	NP/A,155,443	70	J.Singh	F1130
α , γ	¹⁶ O	CSP	2GERBOC	3.3+06	4.5+06	Jour	PL/B,703,557	11	D.Schuermann+	O1957
⁷ Li, <i>t</i>	¹⁶ O	DAP	2FR PAR	2.8+07	3.4+07	Conf	2010HEIDLB.,129	10	N.Oulebsir+	O1896
⁷ Li, <i>x</i> + α	inclusive	DAE	3INDTRM	4.2+07	4.2+07	Jour	PRM,57,(1),209	01	Dhrubagupta+	D6112
⁷ Li, <i>x</i> + <i>t</i>	inclusive	DAE	3INDTRM	4.2+07	4.2+07	Jour	PRM,57,(1),209	01	Dhrubagupta+	D6112
²³ Al, <i>X</i> + <i>p</i>	²² Mg	CSP	2FR GAN	1.3+09	1.3+09	Jour	PR/C,84,015803	11	A.Banu+	O1918
²³ Al, <i>x</i>	²² Mg	DP	2FR GAN	1.3+09	1.3+09	Jour	PR/C,84,015803	11	A.Banu+	O1918
²⁸ Si, <i>x</i> + α	inclusive	DAE	2FR STR	1.1+08	1.1+08	Jour	PRM,57,(1),203	01	C.Bhattacharya+	D6120

6 Carbon 13

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d</i> , α	¹¹ B	DAP	4RUSRI	6.5+06	6.7+06	Jour	IZV,29,1197	65	Yu.A.Nemilov+	F1112
³ He, α	¹² C	DAP	4RUSTPI	1.8+07	2.0+07	Jour	YF,26,683	77	G.D.Adeev+	F1139

6 Carbon 14

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d</i> , <i>n</i>	¹⁵ N	DAP	1USAWIS	1.1+06	3.5+06	Jour	PR,123,1316	61	R.Chiba	F1136
<i>d</i> ,tot		RP	1USAWIS	1.3+06	3.1+06	Jour	PR,123,1316	61	R.Chiba	F1136
⁷ Li, <i>p</i>	²⁰ O	DAP	2GERMUU	4.4+07	4.4+07	Jour	EPJ/A,47,44	11	H.G.Bohlen+	O1899

7 Nitrogen 14

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> , γ	¹⁵ O	CSP	2ITYLGS	3.1+05	3.8+05	Jour	PR/C,83,045804	11	Lunacollaboration+	O1912
<i>p</i> , γ	¹⁵ O	?	2ITYLGS		2.6+05	Jour	PR/C,83,045804	11	Lunacollaboration+	O1912
<i>p</i> ,inel	¹⁴ N	CSP	2FR PAR	7.2+06	2.6+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902
α ,inel	¹⁴ N	CSP	2FR PAR	1.1+07	3.5+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902

7 Nitrogen 15

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,el	^{15}N	DA	4RUSSUL	1.7+07	2.4+07	Jour	IZV,41,186	77	G.A.Feofilov+	F1141
$\alpha,incl$	^{15}N	CSP	4RUSSUL	2.4+07	2.4+07	Jour	IZV,41,186	77	G.A.Feofilov+	F1141
$\alpha,incl$	^{15}N	DAP	4RUSSUL	2.4+07	2.4+07	Jour	IZV,41,186	77	G.A.Feofilov+	F1141

8 Oxygen 16

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
d,n	^{17}F	CSP	1USAWIS	1.8+06	2.4+06	Jour	PR,123,1316	61	R.Chiba	F1136

8 Oxygen 18

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,α	^{15}N	DA	1USAPUP	6.4+05	8.1+05	Jour	NIM/B,237,631	05	S.N.Wosu	F1094
p,n	^{18}F	DE	2GERKFK	2.6+06	2.6+06	Jour	PR/C,71,025803	Feb 05	M.Heil+	O1962

9 Fluorine 19

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,el		RP	2ITYLNS	1.3+07	1.3+07	Jour	AJ/L,739,L54	11	M.Lacognata+	D0674
d,α	^{17}O	CSP	2JPNTOH	9.0+05	4.0+06	Jour	NP/A,109,105	68	Y.Takeuchi+	F1062
d,α	^{17}O	DAP	2JPNTOH	9.0+05	4.3+06	Jour	NP/A,109,105	68	Y.Takeuchi+	F1062

10 Neon

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,x	^{16}O	CSP	2FR PAR	1.5+07	2.6+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902
p,x	^{20}Ne	CSP	2FR PAR	7.7+06	2.6+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902
p,x	^{22}Ne	CSP	2FR PAR	7.7+06	2.6+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902
α,x	^{20}Ne	CSP	2FR PAR	7.3+06	2.0+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902
α,x	^{22}Ne	CSP	2FR PAR	7.3+06	2.5+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902
α,x	^{23}Na	CSP	2FR PAR	1.5+07	2.5+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902

12 Magnesium 24

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,el	^{24}Mg	DA	4UZ UZB	1.5+07	1.5+07	Jour	IZV,42,2409	78	S.V.Artemov+	F1140

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,inel	²⁷ Al	DAP	4RUSMOS	6.3+06	6.6+06	Jour	IZV,30,214	66	S.S.Vasilev+	F1111
<i>p</i> ,non		CS	2UK HAR	1.3+08	1.3+08	Jour	PPS/A,67,125	54	J.M.Cassels+	O1947
<i>p</i> ,x	⁷ Be	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3	62	A.K.Lavrukhina+	A0917
<i>p</i> ,x	¹¹ C	?	2UK BIR	9.8+08	9.8+08	Jour	PPS/A,69,43	56	G.A.Chackett+	O1921
<i>p</i> ,x	¹³ N	?	2UK BIR	9.8+08	9.8+08	Jour	PPS/A,69,43	56	G.A.Chackett+	O1921
<i>p</i> ,x	¹⁸ F	?	2UK BIR	2.0+08	1.0+09	Jour	PPS/A,69,43	56	G.A.Chackett+	O1921
<i>p</i> ,x	²⁷ Mg	CS	4ZZZDUB	1.3+08	6.6+08	Jour	ZET,42,1451	62	M.Ja.Kuznetsova+	A0912
<i>d</i> ,x+n	inclusive	DAP	2GERKFK	4.7+07	4.7+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
<i>d</i> ,x+n	inclusive	TTD	2GERKFK	4.0+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
³ He, α	²⁶ Al	DE	4KASKAZ	3.5+07	3.5+07	Jour	IZV,41,2132	77	A.D.Duisebaev+	F1142
α ,x+d	inclusive	DAE	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
α ,x+d	inclusive	DAP	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
α ,x+p	inclusive	DAE	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
α ,x+p	inclusive	DAP	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
α ,x+t	inclusive	DAE	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
α ,x+t	inclusive	DAP	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
⁹ Be, 2α	²⁸ Al	CS	2AUSIRK	5.0+06	1.3+07	Jour	JP/CS,312,082021	11	O.Forstner+	O1954
⁹ Be, $2n$	³⁴ Cl	CS	2AUSIRK	9.8+06	1.3+07	Jour	JP/CS,312,082021	11	O.Forstner+	O1954
⁹ Be, $2n+\alpha$	³⁰ P	CS	2AUSIRK	8.4+06	1.3+07	Jour	JP/CS,312,082021	11	O.Forstner+	O1954
⁹ Be,x	³⁴ S	CS	2AUSIRK	8.4+06	1.3+07	Jour	JP/CS,312,082021	11	O.Forstner+	O1954

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,x	²⁸ Si	CSP	2FR PAR	9.6+06	2.0+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902
<i>p</i> ,x	²⁹ Si	CSP	2FR PAR	9.6+06	2.0+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902
<i>p</i> ,x	³⁰ Si	CSP	2FR PAR	9.6+06	2.0+07	Jour	PR/C,83,024603	11	H.Benhables-Mezhoud+	O1902

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α ,el	²⁸ Si	DA	2NOROSL	2.3+07	2.8+07	Jour	JP/G,38,035107	11	T.Lonnroth+	O1900
α ,tot		RP	2NOROSL	1.9+07	3.0+07	Jour	JP/G,38,035107	11	T.Lonnroth+	O1900
⁶ Li,el	²⁸ Si	DA	2SWTETH	1.3+07	2.5+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
⁶ Li,fus		CS	2SWTETH	1.3+07	2.5+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
⁶ Li,fus		CS	3INDTRM	5.7+06	2.0+07	Jour	EPJ/A,44,403	10	M.Sinha+	D6103
⁶ Li,x	²⁶ Al	CSP	3INDTRM	1.2+07	2.0+07	Jour	EPJ/A,44,403	10	M.Sinha+	D6103
⁶ Li,x	²⁸ Si	?	3INDTRM	9.1+06	2.0+07	Jour	EPJ/A,44,403	10	M.Sinha+	D6103
⁶ Li,x	²⁹ Si	CSP	3INDTRM	5.7+06	2.0+07	Jour	EPJ/A,44,403	10	M.Sinha+	D6103
⁶ Li,x	²⁹ Si	?	3INDTRM	9.1+06	2.0+07	Jour	EPJ/A,44,403	10	M.Sinha+	D6103
⁶ Li,x	³¹ P	?	3INDTRM	9.1+06	2.0+07	Jour	EPJ/A,44,403	10	M.Sinha+	D6103
⁶ Li,x	³² S	CSP	3INDTRM	5.7+06	8.2+06	Jour	EPJ/A,44,403	10	M.Sinha+	D6103
⁶ Li,x α	inclusive	DAE	2SWTETH	2.0+07	2.0+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
⁶ Li,x α	inclusive	DE	2SWTETH	1.3+07	2.5+07	Jour	NP/A,368,173	81	M.Hugi+	O1950

⁶ Li,x+d	inclusive	DAE	2SWTETH	2.0+07	2.0+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
⁶ Li,x+d	inclusive	DE	2SWTETH	1.3+07	2.5+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
⁶ Li,x+p	inclusive	DAE	2SWTETH	2.0+07	2.0+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
⁶ Li,x+p	inclusive	DE	2SWTETH	1.3+07	2.5+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
⁹ Be, ⁸ Be	²⁹ Si	DAP	2SWTETH	1.4+07	3.0+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
⁹ Be,el	²⁸ Si	DA	2SWTETH	1.2+07	3.0+07	Jour	NP/A,339,353	80	K.Bodek+	O1949
⁹ Be,fus		CS	2SWTETH	1.2+07	3.0+07	Jour	NP/A,339,353	80	K.Bodek+	O1949
⁹ Be,x+α	inclusive	DAE	2SWTETH	1.4+07	2.6+07	Jour	NP/A,339,353	80	K.Bodek+	O1949
⁹ Be,x+α	inclusive	DE	2SWTETH	1.2+07	3.0+07	Jour	NP/A,339,353	80	K.Bodek+	O1949
⁹ Be,x+d	inclusive	DAE	2SWTETH	1.4+07	2.6+07	Jour	NP/A,339,353	80	K.Bodek+	O1949
⁹ Be,x+d	inclusive	DE	2SWTETH	1.2+07	3.0+07	Jour	NP/A,339,353	80	K.Bodek+	O1949
⁹ Be,x+p	inclusive	DAE	2SWTETH	1.4+07	2.6+07	Jour	NP/A,339,353	80	K.Bodek+	O1949
⁹ Be,x+p	inclusive	DE	2SWTETH	1.2+07	3.0+07	Jour	NP/A,339,353	80	K.Bodek+	O1949
¹² C,fus		CS	2SWTETH	2.2+07	3.6+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
¹² C,x+α	inclusive	DAE	2SWTETH	2.7+07	2.7+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
¹² C,x+α	inclusive	DE	2SWTETH	2.2+07	3.6+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
¹² C,x+d	inclusive	DAE	2SWTETH	2.7+07	2.7+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
¹² C,x+d	inclusive	DE	2SWTETH	2.2+07	3.6+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
¹² C,x+p	inclusive	DAE	2SWTETH	2.7+07	2.7+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
¹² C,x+p	inclusive	DE	2SWTETH	2.2+07	3.6+07	Jour	NP/A,368,173	81	M.Hugi+	O1950
²⁸ Si,x+α	inclusive	DAE	2FR STR	1.8+08	1.8+08	Jour	PRM,57,(1),203	01	C.Bhattacharya+	D6120

15 Phosphorus 31

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

³ He,t	³¹ S	DAP	2GERMUU	2.5+07	2.5+07	Jour	PR/C,83,045806	11	A.Parikh+	O1913
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16 Sulphur 34

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

α,el	³⁴ S	DA	4RUSSUL	2.4+07	2.4+07	Jour	IZV,37,1873	73	A.E.Antropov+	F1137
α,incl	³⁴ S	DAP	4RUSSUL	2.4+07	2.4+07	Jour	IZV,37,1873	73	A.E.Antropov+	F1137

18 Argon 40

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

p,el	⁴⁰ Ar	DA	1USAMIN	1.7+06	2.7+06	Jour	PR,110,446	Apr 58	G.D.Freier+	C0858
p,γ		RP	4UKRKFT	1.3+06	2.9+06	Jour	IZV,75,(7),973	11	A.S.Kachan+	D5088

19 Potassium 41

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

p,n	⁴¹ Ca	CS	3INDTRM	1.5+06	4.1+06	Jour	NP/A,405,55	83	S.Saini+	D6100
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20 Calcium 40

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
⁷⁸ Kr,fis		CS	2FR GAN	4.3+08	4.3+08	Jour	PR/C,83,054619	11	G.Ademard+	A0911
⁷⁸ Kr,fus		CS	2FR GAN	4.3+08	4.3+08	Jour	PR/C,83,054619	11	G.Ademard+	A0911
⁷⁸ Kr,x	Many	CS	2FR GAN	4.3+08	4.3+08	Jour	PR/C,83,054619	11	G.Ademard+	A0911
⁷⁸ Kr,x	Many	DA	2FR GAN	4.3+08	4.3+08	Jour	PR/C,83,054619	11	G.Ademard+	A0911
⁸² Kr,fis		CS	2FR GAN	4.5+08	4.5+08	Jour	PR/C,83,054619	11	G.Ademard+	A0911
⁸² Kr,fus		CS	2FR GAN	4.5+08	4.5+08	Jour	PR/C,83,054619	11	G.Ademard+	A0911
⁸² Kr,x	Many	CS	2FR GAN	4.5+08	4.5+08	Jour	PR/C,83,054619	11	G.Ademard+	A0911

22 Titanium 48

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d,p</i>	⁴⁹ Ti	CSP	1USAIOW	2.6+06	2.6+06	Jour	PR,97,131	55	W.W.Pratt	F1121
<i>d,p</i>	⁴⁹ Ti	DAP	1USAIOW	2.6+06	2.6+06	Jour	PR,97,131	55	W.W.Pratt	F1121

23 Vanadium 51

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
⁴⁵ Sc,fus		CS	3INDTRM	1.1+08	1.3+08	Jour	NP/A,539,351	92	M.Dasgupta+	D6113

24 Chromium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d,x</i>	⁴⁶ Sc	CS	2BLGLVN	2.2+07	4.9+07	Jour	NIM/B,269,2563	11	A.Hermanne+	D4252
<i>d,x</i>	⁴⁷ Sc	CS	2BLGLVN	3.0+07	4.9+07	Jour	NIM/B,269,2563	11	A.Hermanne+	D4252
<i>d,x</i>	⁴⁸ V	CS	2BLGLVN	6.2+06	4.9+07	Jour	NIM/B,269,2563	11	A.Hermanne+	D4252
<i>d,x</i>	⁵¹ Cr	CS	2BLGLVN	6.2+06	4.9+07	Jour	NIM/B,269,2563	11	A.Hermanne+	D4252
<i>d,x</i>	⁵² Mn	CS	2BLGLVN	8.3+06	4.9+07	Jour	NIM/B,269,2563	11	A.Hermanne+	D4252
<i>d,x</i>	⁵⁴ Mn	CS	2BLGLVN	1.7+07	4.9+07	Jour	NIM/B,269,2563	11	A.Hermanne+	D4252

24 Chromium 52

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,el</i>	⁵² Cr	DA	2JPNTIT	3.2+06	4.8+06	Jour	NP/A,440,13	85	Y.Ozawa+	F1060
<i>p,incl</i>	⁵² Cr	DAP	2JPNTIT	3.2+06	4.8+06	Jour	NP/A,440,13	85	Y.Ozawa+	F1060

25 Manganese 55

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$p,4n$	^{52}Fe	CS	4RUSFVE	5.5+07	5.5+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918
$p,4n$	^{52}Fe	TT	4RUSFVE	4.0+07	9.5+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918

26 Iron

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$d,x+n$	inclusive	TTD	2GERKFK	5.4+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924

26 Iron 56

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,n	^{59}Ni	DA	3CHPAEP	1.2+07	1.2+07	Jour	IZV,64,414	00	B.V.Zhuravlev	F0730
α,n	^{59}Ni	DA	3CHPAEP	1.2+07	1.6+07	Rept	ISINN-16,237	09	B.V.Zhuravlev+	F1084
α,n	^{59}Ni	DE	3CHPAEP	1.2+07	1.2+07	Rept	ISINN-16,237	09	B.V.Zhuravlev+	F1084
$\alpha,x+n$	inclusive	DA	4RUSFEI	2.7+07	4.5+07	Rept	ISINN-16,237	09	B.V.Zhuravlev+	F1084
$\alpha,x+n$	inclusive	DE	4RUSFEI	2.7+07	4.5+07	Rept	ISINN-16,237	09	B.V.Zhuravlev+	F1084

27 Cobalt 59

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,x	^{52}Fe	CS	4RUSFVE	7.7+07	7.7+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918
p,x	^{52}Fe	TT	4RUSFVE	6.7+07	9.8+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918
p,x	^{58}Co	CS	3SARKFR	1.2+07	2.6+07	Jour	RCA,99,763	11	A.A.Alharbi+	D0673
$d,x+n$	inclusive	TTD	2GERKFK	5.4+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
$^3\text{He},\alpha$	^{58}Co	DE	4KASKAZ	3.5+07	3.5+07	Jour	IZV,41,2132	77	A.D.Duisebaev+	F1142
$\alpha,x+d$	inclusive	DAE	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
$\alpha,x+d$	inclusive	DAP	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
$\alpha,x+p$	inclusive	DAE	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
$\alpha,x+p$	inclusive	DAP	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
$\alpha,x+t$	inclusive	DAE	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
$\alpha,x+t$	inclusive	DAP	4KASKAZ	5.0+07	5.0+07	Jour	IZV,39,2168	75	A.D.Duisebaev+	F1145
$^{37}\text{Cl},\text{fus}$		CS	3INDTRM	9.0+07	1.1+08	Jour	NP/A,539,351	92	M.Dasgupta+	D6113
$^{37}\text{Cl},x$	^{93}Tc	CS	3INDTRM	9.0+07	9.0+07	Jour	NP/A,539,351	92	M.Dasgupta+	D6113

28 Nickel

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,x	^{57}Ni	CS	3SARKFR	1.3+07	2.6+07	Jour	RCA,99,763	11	A.A.Alharbi+	D0673
$d,x+n$	inclusive	TTD	2GERKFK	5.4+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924

28 Nickel 58

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,inel	⁵⁸ Ni	DAP	2FR SAC	1.0+09	1.0+09	Jour	NP/A,360,233	81	R.M.Lombard+	O0126
<i>p</i> ,inel	⁵⁸ Ni	DAP	4RUSSUL	5.2+06	6.1+06	Jour	IZV,41,2210	77	A.E.Antropov+	F1143

28 Nickel 60

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,inel	⁶⁰ Ni	DAP	2FR SAC	1.0+09	1.0+09	Jour	NP/A,360,233	81	R.M.Lombard+	O0126

28 Nickel 62

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,inel	⁶² Ni	DAP	2FR SAC	1.0+09	1.0+09	Jour	NP/A,360,233	81	R.M.Lombard+	O0126
<i>p</i> ,inel	⁶² Ni	DAP	4RUSSUL	5.2+06	6.1+06	Jour	IZV,41,2210	77	A.E.Antropov+	F1143

28 Nickel 64

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,inel	⁶⁴ Ni	DAP	2FR SAC	1.0+09	1.0+09	Jour	NP/A,360,233	81	R.M.Lombard+	O0126
³² S,fus		CS	3INDTRM	7.9+07	1.1+08	Jour	NP/A,539,351	92	M.Dasgupta+	D6113

29 Copper

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,el	^{nat} Cu	DA	2UK BIR	9.5+06	9.5+06	Jour	PPS/A,78,1275	61	G.W.Greenless+	O1948
<i>p</i> ,non		CS	2UK BIR	9.3+06	9.3+06	Jour	PPS/A,78,1275	61	G.W.Greenless+	O1948
<i>p</i> ,x	⁷ Be	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3	62	A.K.Lavrukhina+	A0917
<i>p</i> ,x	¹⁸ F	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3	62	A.K.Lavrukhina+	A0917
<i>d</i> ,x+n	inclusive	DAP	2GERKFK	4.7+07	4.7+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
<i>d</i> ,x+n	inclusive	TTD	2BLGLVN	1.3+07	5.0+07	Jour	PMB,20,(2),235	75	J.P.Meulders+	O1923
<i>d</i> ,x+n	inclusive	TTD	2GERKFK	4.0+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924

29 Copper 64

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,non		CS	2UK HAR	1.3+08	1.3+08	Jour	PPS/A,67,125	54	J.M.Cassels+	O1947

29 Copper 65

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

<i>p,n</i>	⁶⁵ Zn	CS	3INDTRM	2.3+06	4.1+06	Jour	NP/A,405,55	83	S.Saini+	D6100
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30 Zinc 68

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

²⁸ Si,fus		CS	3INDTRM	7.4+07	1.0+08	Jour	NP/A,539,351	92	M.Dasgupta+	D6113
²⁸ Si,x	⁹³ Tc	CS	3INDTRM	7.2+07	7.2+07	Jour	NP/A,539,351	92	M.Dasgupta+	D6113

34 Selenium 80

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

⁶ Li,el	⁸⁰ Se	DA	3ARGCNE	1.4+07	2.6+07	Jour	EPJ/CS,17,03003	11	L.Fimiani+	D0671
⁷ Li,el	⁸⁰ Se	DA	3ARGCNE	1.4+07	2.6+07	Jour	EPJ/CS,17,03003	11	L.Fimiani+	D0671

35 Bromine

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

<i>p,x</i>	⁷⁶ Kr	TT	4RUSFVE	3.7+07	9.7+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918
<i>p,x</i>	⁷⁷ Kr	CS	4RUSFVE	3.5+07	3.5+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918
<i>p,x</i>	⁷⁷ Kr	TT	4RUSFVE	2.8+07	9.7+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918
<i>p,x</i>	⁷⁹ Kr	TT	4RUSFVE	2.8+07	9.7+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918

36 Krypton

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

<i>d,el</i>	^{nat} Kr	DA	2UK BIR	2.0+07	2.0+07	Jour	NP,22,138	61	P.E.Hodgson+	F1123
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37 Rubidium

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

<i>p,x</i>	⁷⁴ As	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Br	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁶ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915

<i>p,x</i>	⁷⁹ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁸⁴ Rb	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁸² Sr	CS	4RUSFVE	5.2+07	5.2+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918
<i>p,x</i>	⁸² Sr	TT	4RUSFVE	4.3+07	9.6+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918

38 Strontium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
				Min	Max					
<i>p,x</i>	⁷⁴ As	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Br	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁶ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁹ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁸⁴ Rb	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915

39 Yttrium 89

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
				Min	Max					
<i>p,2n</i>	⁸⁸ Zr	CS	4ZZZDUB	1.2+08	6.7+08	Jour	NP,81,81	66	I.Levenberg+	A0913
<i>p,2n</i>	⁸⁸ Zr	CS	3KORKRM	1.3+07	4.2+07	Jour	NIM/B,271,72	12	M.U.Khandaker+	D0675
<i>p,4n</i>	⁸⁶ Zr	CS	3KORKRM	4.0+07	4.2+07	Jour	NIM/B,271,72	12	M.U.Khandaker+	D0675
<i>p,n</i>	⁸⁹ Zr	CS	4ZZZDUB	1.2+08	6.7+08	Jour	NP,81,81	66	I.Levenberg+	A0913
<i>p,n</i>	⁸⁹ Zr	CS	3KORKRM	3.6+06	4.2+07	Jour	NIM/B,271,72	12	M.U.Khandaker+	D0675
<i>p,n</i>	⁸⁹ Zr	TT	2ITYUBO	9.5+06	1.3+07	Jour	RCA,99,631	11	A.Ciarmatori+	O1960
<i>p,x</i>	⁷⁴ As	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Br	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁶ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁹ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁸⁴ Rb	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁸⁴ Rb	CS	3KORKRM	3.8+07	4.2+07	Jour	NIM/B,271,72	12	M.U.Khandaker+	D0675
<i>p,x</i>	⁸⁵ Sr	CS	3KORKRM	1.9+07	4.2+07	Jour	NIM/B,271,72	12	M.U.Khandaker+	D0675
<i>p,x</i>	⁸⁶ Y	CS	3KORKRM	3.4+07	4.2+07	Jour	NIM/B,271,72	12	M.U.Khandaker+	D0675
<i>p,x</i>	⁸⁷ Y	CS	3KORKRM	2.2+07	4.2+07	Jour	NIM/B,271,72	12	M.U.Khandaker+	D0675
<i>p,x</i>	⁸⁸ Y	CS	3KORKRM	1.0+07	4.2+07	Jour	NIM/B,271,72	12	M.U.Khandaker+	D0675
<i>p,x</i>	⁸⁸ Y	CS	4ZZZDUB	1.2+08	6.7+08	Jour	NP,81,81	66	I.Levenberg+	A0913
⁹ Be, <i>2n</i>	⁹⁶ Tc	CS	3INDTAT	1.9+07	3.3+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
⁹ Be, <i>3n</i>	⁹⁵ Tc	CS	3INDTAT	1.9+07	3.3+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
⁹ Be, <i>4n</i>	⁹⁴ Tc	CS	3INDTAT	2.9+07	3.3+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
⁹ Be, <i>x</i>	⁹⁰ Y	CS	3INDTAT	1.8+07	3.0+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
⁹ Be, <i>x</i>	⁹² Nb	CS	3INDTAT	2.0+07	3.3+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
¹² C, <i>2n</i>	⁹⁹ Rh	CS	3INDTAT	3.1+07	4.6+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
¹² C, <i>3n</i>	⁹⁸ Rh	CS	3INDTAT	3.4+07	4.6+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
¹² C, <i>4n</i>	⁹⁷ Rh	CS	3INDTAT	4.6+07	4.6+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
¹² C, <i>x</i>	⁹⁵ Tc	CS	3INDTAT	3.5+07	4.6+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
¹² C, <i>x</i>	⁹⁶ Tc	CS	3INDTAT	3.2+07	4.6+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118

40 Zirconium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	⁷⁴ As	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Br	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁶ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁹ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁸⁴ Rb	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915

41 Niobium 93

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	⁷⁴ As	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Br	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁹ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁸⁴ Rb	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>d,x+n</i>	inclusive	TTD	2GERKFK	5.4+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
<i>α,2n</i>	⁹⁵ Tc	CS	3INDTAT	1.6+07	1.7+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118
<i>α,n</i>	⁹⁶ Tc	CS	3INDTAT	1.0+07	1.7+07	Jour	PR/C,82,044608	10	C.S.Palshetkar+	D6118

42 Molybdenum

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	⁷⁴ As	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Br	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁶ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁷ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁷⁹ Kr	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁸⁴ Rb	CS	4RUSLIN	1.0+09	1.0+09	Jour	RAK,26,667	84	E.G.Alekseev+	A0915
<i>p,x</i>	⁹⁴ Tc	CS	3SARKFR	9.9+06	2.6+07	Jour	RCA,99,763	11	A.A.Alharbi+	D0673
<i>p,x</i>	⁹⁵ Tc	CS	3SARKFR	5.4+06	2.6+07	Jour	RCA,99,763	11	A.A.Alharbi+	D0673
<i>p,x</i>	⁹⁶ Tc	CS	3SARKFR	5.4+06	2.6+07	Jour	RCA,99,763	11	A.A.Alharbi+	D0673
<i>d,x+n</i>	inclusive	TTD	2BLGLVN	1.3+07	3.3+07	Jour	PMB,20,(2),235	75	J.P.Meulders+	O1923
<i>d,x+n</i>	inclusive	TTD	2GERKFK	5.4+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924

42 Molybdenum 92

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,γ</i>	⁹³ Tc	CS	2GERKLN	2.4+09	3.5+09	Jour	JP/CS,202,012005	10	J.Hasper+	O1897

45 Rhodium 103

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d,2n</i>	¹⁰³ Pd	CS	2JPNTOH	4.8+06	4.0+07	Jour	NIM/B,269,1963	11	F.Ditroi+	D4250
<i>d,2p</i>	¹⁰³ Ru	CS	2JPNTOH	1.8+07	4.0+07	Jour	NIM/B,269,1963	11	F.Ditroi+	D4250
<i>d,4n</i>	¹⁰¹ Pd	CS	2JPNTOH	3.1+07	4.0+07	Jour	NIM/B,269,1963	11	F.Ditroi+	D4250
<i>d,5n</i>	¹⁰⁰ Pd	CS	2JPNTOH	3.7+07	4.0+07	Jour	NIM/B,269,1963	11	F.Ditroi+	D4250
<i>d,x</i>	¹⁰⁰ Rh	CS	2JPNTOH	3.1+07	4.0+07	Jour	NIM/B,269,1963	11	F.Ditroi+	D4250
<i>d,x</i>	¹⁰¹ Rh	CS	2JPNTOH	1.3+07	4.0+07	Jour	NIM/B,269,1963	11	F.Ditroi+	D4250
<i>d,x</i>	¹⁰² Rh	CS	2JPNTOH	4.8+06	4.0+07	Jour	NIM/B,269,1963	11	F.Ditroi+	D4250

46 Palladium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	¹⁰⁵ Ag	?	2GERPTB	2.7+06	4.9+06	Jour	PR/C,84,015802	11	I.Dillmann+	O1917
<i>p,x</i>	¹⁰⁶ Ag	?	2GERPTB	3.2+06	4.9+06	Jour	PR/C,84,015802	11	I.Dillmann+	O1917
<i>d,x+n</i>	inclusive	TTD	2GERKFK	5.4+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924

46 Palladium 102

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,γ</i>	¹⁰³ Ag	CS	2GERPTB	2.7+06	6.9+06	Jour	PR/C,84,015802	11	I.Dillmann+	O1917

46 Palladium 104

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,γ</i>	¹⁰⁵ Ag	CS	2GERPTB	2.7+06	5.0+06	Jour	PR/C,84,015802	11	I.Dillmann+	O1917
<i>p,n</i>	¹⁰⁴ Ag	CS	2GERPTB	5.8+06	8.8+06	Jour	PR/C,84,015802	11	I.Dillmann+	O1917

46 Palladium 105

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,γ</i>	¹⁰⁶ Ag	CS	2GERPTB	2.7+06	5.0+06	Jour	PR/C,84,015802	11	I.Dillmann+	O1917
<i>p,n</i>	¹⁰⁵ Ag	CS	2GERPTB	2.7+06	5.0+06	Jour	PR/C,84,015802	11	I.Dillmann+	O1917

46 Palladium 106

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,n</i>	¹⁰⁶ Ag	CS	2GERPTB	4.2+06	4.9+06	Jour	PR/C,84,015802	11	I.Dillmann+	O1917

46 Palladium 110

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,n	^{110}Ag	CS	2GERPTB	3.4+06	8.8+06	Jour	PR/C,84,015802	11	I.Dillmann+	O1917

47 Silver

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$d,x+n$	inclusive	DAP	2GERKFK	4.7+07	4.7+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
$d,x+n$	inclusive	TTD	2GERKFK	4.0+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924

48 Cadmium 112

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,non		CS	2UK HAR	1.3+08	1.3+08	Jour	PPS/A,67,125	54	J.M.Cassels+	O1947

49 Indium 115

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,π^++p	^{115}Cd	CS	4ZZZDUB	3.0+08	6.6+08	Jour	RAK,7,90	65	V.N.Rydakov+	A0926
$^{12}\text{C},x$	Many	DA	3INDTRM	8.4+07	8.4+07	Jour	NP/A,597,151	96	B.J.Roy+	D6119

50 Tin

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,x	^{18}F	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3	62	A.K.Lavrukhina+	A0917
p,x	^{24}Na	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3	62	A.K.Lavrukhina+	A0917

50 Tin 112

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^3\text{He},\alpha$	^{111}Sn	DE	4KASKAZ	3.5+07	3.5+07	Jour	IZV,41,2132	77	A.D.Duisebaev+	F1142
$^6\text{Li},\text{el}$	^{112}Sn	DA	3INDTRM	2.1+07	3.5+07	Jour	PR/C,83,024607	11	N.N.Deshmukh+	D6098
$^6\text{Li},\text{non}$		CS	3INDTRM	2.1+07	3.5+07	Jour	PR/C,83,024607	11	N.N.Deshmukh+	D6098

50 Tin 116

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,n</i>	¹¹⁶ Sb	CS	4UKRIJD	6.7+06	6.7+06	Jour	IZV,75,(9),1349	11	V.A.Zheltonozhsky+	D5089
⁶ Li,el	¹¹⁶ Sn	DA	3INDTRM	2.0+07	3.5+07	Jour	PR/C,83,024607	11	N.N.Deshmukh+	D6098
⁶ Li,non		CS	3INDTRM	2.0+07	3.5+07	Jour	PR/C,83,024607	11	N.N.Deshmukh+	D6098

50 Tin 118

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,n</i>	¹¹⁸ Sb	CS	4UKRIJD	6.7+06	6.7+06	Jour	IZV,75,(9),1349	11	V.A.Zheltonozhsky+	D5089
<i>p,t</i>	¹¹⁶ Sn	CSP	2GERMUN	2.5+07	2.5+07	Jour	PR/C,83,044614	11	P.Guazzoni+	O1911
<i>p,t</i>	¹¹⁶ Sn	DAP	2GERMUN	2.5+07	2.5+07	Jour	PR/C,83,044614	11	P.Guazzoni+	O1911

50 Tin 120

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,n</i>	¹²⁰ Sb	CS	4UKRIJD	6.7+06	6.7+06	Jour	IZV,75,(9),1349	11	V.A.Zheltonozhsky+	D5089

50 Tin 121

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
0,0		NQ	2NOROSL	Spont		Jour	PR/C,83,044320	11	H.K.Toft+	O1920

50 Tin 122

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
0,0		NQ	2NOROSL	Spont		Jour	PR/C,83,044320	11	H.K.Toft+	O1920

50 Tin 124

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,t</i>	¹²² Sn	CSP	2GERMUN	2.5+07	2.5+07	Jour	PR/C,83,044614	11	P.Guazzoni+	O1911
<i>p,t</i>	¹²² Sn	DAP	2GERMUN	2.5+07	2.5+07	Jour	PR/C,83,044614	11	P.Guazzoni+	O1911

51 Antimony

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation		Date	Author	Data #
				Min	Max		Ref	Vol Page			
<i>p,x</i>	⁷ Be	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>p,x</i>	¹⁸ F	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>p,x</i>	²⁴ Na	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>p,x</i>	²⁸ Mg	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>p,x</i>	³¹ Si	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>p,x</i>	³² P	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>α,x</i>	¹²³ I	CS	2BLGVUB	1.8+07	4.0+07	Jour	ARI,69,699		11	M.S.Uddin+	O1898
<i>α,x</i>	¹²⁴ I	CS	2BLGVUB	1.8+07	4.0+07	Jour	ARI,69,699		11	M.S.Uddin+	O1898

51 Antimony 123

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation		Date	Author	Data #
				Min	Max		Ref	Vol Page			
<i>α,2n</i>	¹²⁵ I	CS	2BLGVUB	1.5+07	4.0+07	Jour	ARI,69,699		11	M.S.Uddin+	O1898
<i>α,3n</i>	¹²⁴ I	CS	2BLGVUB	2.7+07	4.0+07	Jour	ARI,69,699		11	M.S.Uddin+	O1898
<i>α,n</i>	¹²⁶ I	CS	2BLGVUB	9.7+06	4.0+07	Jour	ARI,69,699		11	M.S.Uddin+	O1898

52 Tellurium 125

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation		Date	Author	Data #
				Min	Max		Ref	Vol Page			
<i>p,2n</i>	¹²⁴ I	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,2p</i>	¹²⁴ Sb	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,3n</i>	¹²³ I	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,n</i>	¹²⁵ I	CS	4ZZZDUB	1.2+08	3.0+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,x</i>	¹¹⁹ Sb	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,x</i>	¹²⁰ Sb	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,x</i>	¹²² Sb	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,x</i>	¹²⁶ I	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916

52 Tellurium 126

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation		Date	Author	Data #
				Min	Max		Ref	Vol Page			
<i>p,2n</i>	¹²⁵ I	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,3n</i>	¹²⁴ I	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,4n</i>	¹²³ I	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,n</i>	¹²⁶ I	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,x</i>	¹¹⁹ Sb	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,x</i>	¹²⁰ Sb	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,x</i>	¹²² Sb	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916
<i>p,x</i>	¹²⁴ Sb	CS	4ZZZDUB	1.2+08	6.6+08	Jour	ZET,43,1672		62	N.G.Zaitseva+	A0916

53 Iodine 127

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	¹²⁰ I	CS	4ZZZDUB	1.0+08	6.6+08	Jour	ZET,34,1096	58	M.Ja.Kuznetsova+	A0924
<i>p,x</i>	¹²¹ I	CS	4ZZZDUB	1.0+08	6.6+08	Jour	ZET,34,1096	58	M.Ja.Kuznetsova+	A0924
<i>p,x</i>	¹²³ I	CS	4ZZZDUB	1.0+08	6.6+08	Jour	ZET,34,1096	58	M.Ja.Kuznetsova+	A0924
<i>p,x</i>	¹²⁴ I	CS	4ZZZDUB	1.0+08	6.6+08	Jour	ZET,34,1096	58	M.Ja.Kuznetsova+	A0924
<i>p,x</i>	¹²⁵ I	CS	4ZZZDUB	1.0+08	6.6+08	Jour	ZET,34,1096	58	M.Ja.Kuznetsova+	A0924
<i>p,x</i>	¹²⁶ I	CS	4ZZZDUB	1.0+08	6.6+08	Jour	ZET,34,1096	58	M.Ja.Kuznetsova+	A0924
<i>p,x</i>	¹²³ Xe	CS	4RUSFVE	5.7+07	5.7+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918

55 Caesium 133

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	¹²⁸ Ba	CS	4RUSFVE	6.3+07	6.3+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918
<i>p,x</i>	¹²⁸ Ba	TT	4RUSFVE	5.0+07	9.6+07	Jour	RCA,54,57	91	N.G.Zaitseva+	A0918

56 Barium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	¹²³ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁶ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁸ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁹ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³⁰ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³¹ Xe	?	4RUSFVE	3.1+07	1.9+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³² Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³⁴ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919

57 Lanthanum

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	¹²⁴ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁶ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁹ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³⁰ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³¹ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³² Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³⁴ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919

58 Cerium

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

<i>p,x</i>	¹²⁴ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁶ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁸ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁹ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³¹ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³² Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³⁴ Xe	?	4RUSFVE	5.0+07	5.0+07	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919

59 Praseodymium 141

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	¹²⁴ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁸ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹²⁹ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³⁰ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³¹ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>p,x</i>	¹³² Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A.Yu.Shukolyukov	A0919
<i>α,n</i>	¹⁴⁴ Pm	CS	2GERPTB		1.5+07	Jour	PR/C,84,045808	11	A.Sauerwein+	O1959

60 Neodymium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	¹³⁹ Ce	CS	3CZRUFJ	1.2+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹³⁸ Pr	CS	3CZRUFJ	2.1+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹³⁹ Pr	CS	3CZRUFJ	1.2+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴² Pr	CS	3CZRUFJ	1.9+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴⁰ Nd	CS	3CZRUFJ	2.4+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴¹ Nd	CS	3CZRUFJ	1.4+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴⁷ Nd	CS	3CZRUFJ	1.3+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴⁹ Nd	CS	3CZRUFJ	1.0+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴¹ Pm	CS	3CZRUFJ	1.4+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴³ Pm	CS	3CZRUFJ	1.0+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴⁴ Pm	CS	3CZRUFJ	1.0+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴⁶ Pm	CS	3CZRUFJ	1.0+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴⁸ Pm	CS	3CZRUFJ	1.0+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁴⁹ Pm	CS	3CZRUFJ	1.0+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676
<i>p,x</i>	¹⁵⁰ Pm	CS	3CZRUFJ	1.0+07	2.9+07	Jour	PR/C,85,014602	12	O.Lebeda+	D0676

62 Samarium 144

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
⁶ Li,inel	¹⁴⁴ Sm	DAP	3ARGCNE	2.3+07	3.5+07	Jour	NP/A,873,17	12	A.E.Woodard+	D0678

62 Samarium 148

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,el	¹⁴⁸ Sm	DA	2DENNBI	1.2+07	1.2+07	Jour	IZV,31,195	67	A.B.Kurepin+	F1100
<i>p</i> ,inel	¹⁴⁸ Sm	DAP	2DENNBI	1.2+07	1.2+07	Jour	IZV,31,195	67	A.B.Kurepin+	F1100

62 Samarium 154

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,el	¹⁵⁴ Sm	DA	2DENNBI	1.2+07	1.2+07	Jour	IZV,31,195	67	A.B.Kurepin+	F1100
<i>p</i> ,inel	¹⁵⁴ Sm	DAP	2DENNBI	1.2+07	1.2+07	Jour	IZV,31,195	67	A.B.Kurepin+	F1100

66 Dysprosium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,x	¹²⁴ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A. Yu. Shukolyukov	A0919
<i>p</i> ,x	¹²⁸ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A. Yu. Shukolyukov	A0919
<i>p</i> ,x	¹²⁹ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A. Yu. Shukolyukov	A0919
<i>p</i> ,x	¹³⁰ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A. Yu. Shukolyukov	A0919
<i>p</i> ,x	¹³¹ Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A. Yu. Shukolyukov	A0919
<i>p</i> ,x	¹³² Xe	?	4RUSFVE	3.0+10	3.0+10	Jour	RAK,28,142	86	A. Yu. Shukolyukov	A0919

70 Ytterbium 174

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,inel	¹⁷⁴ Yb	DAP	2DENNBI	1.2+07	1.2+07	Jour	IZV,31,195	67	A.B.Kurepin+	F1100

71 Lutetium 175

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
²⁸ Si,fis		NUD	3INDTRM	1.6+08	1.6+08	Jour	PR/C,73,064609	06	K.Ramachandran+	D6121
²⁸ Si,fis	¹ H	?	3INDTRM	1.6+08	1.6+08	Jour	PR/C,73,064609	06	K.Ramachandran+	D6121
²⁸ Si,fis	⁴ He	?	3INDTRM	1.3+08	1.3+08	Jour	PR/C,73,064609	06	K.Ramachandran+	D6121

72 Hafnium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,x	¹⁷² Lu	CS	2BLGVUB	2.2+07	3.6+07	Jour	NIM/B,269,2824	11	S.Takacs+	D4254
<i>p</i> ,x	¹⁷³ Lu	CS	2BLGVUB	2.0+07	3.6+07	Jour	NIM/B,269,2824	11	S.Takacs+	D4254
<i>p</i> ,x	¹⁷⁷ Lu	CS	2BLGVUB	8.9+06	3.6+07	Jour	NIM/B,269,2824	11	S.Takacs+	D4254

<i>p,x</i>	¹⁷³ Hf	CS	2BLGVUB	8.9+06	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁷⁵ Hf	CS	2BLGVUB	8.9+06	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁷⁹ Hf	CS	2BLGVUB	1.9+07	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁸⁰ Hf	CS	2BLGVUB	1.6+07	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁷³ Ta	CS	2BLGVUB	1.3+07	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁷⁴ Ta	CS	2BLGVUB	1.9+07	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁷⁵ Ta	CS	2BLGVUB	1.1+07	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁷⁶ Ta	CS	2BLGVUB	6.3+06	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁷⁷ Ta	CS	2BLGVUB	6.3+06	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁷⁸ Ta	CS	2BLGVUB	6.3+06	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254
<i>p,x</i>	¹⁸⁰ Ta	CS	2BLGVUB	6.3+06	3.6+07	Jour	NIM/B,269,2824	11	S.Takaacs+	D4254

73 Tantalum 181

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,n</i>	¹⁸¹ W	CS	4RUSFEI	5.7+06	1.9+07	Jour	AE,20,154	66	N.N.Krasnov+	A0922
<i>d,2n</i>	¹⁸¹ W	CS	4RUSFEI	7.2+06	2.1+07	Jour	AE,20,154	66	N.N.Krasnov+	A0922
<i>d,x+n</i>	inclusive	TTD	2BLGLVN	1.6+07	5.0+07	Jour	PMB,20,(2),235	75	J.P.Meulders+	O1923
<i>d,x+n</i>	inclusive	TTD	2GERKFK	5.4+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924

74 Tungsten 182

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d,p</i>	¹⁸³ W	DAP	2GERMUN	1.8+07	1.8+07	Jour	NP/A,856,1	11	V.Bondarenko+	O1910
<i>d,p</i>	¹⁸³ W	POD	2GERMUN	1.8+07	1.8+07	Jour	NP/A,856,1	11	V.Bondarenko+	O1910

76 Osmium 192

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,x	¹⁹⁴ Ir	CS	2BLGVUB	2.8+07	3.9+07	Jour	PR/C,84,024605	11	M.S.Uddin+	O1919

77 Iridium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	Many	CS	4RUSLIN	1.0+09	1.0+09	Jour	IZV,52,991	88	B.N.Belyaev+	A0921
<i>p,x</i>	Many	?	4RUSLIN	1.0+09	1.0+09	Jour	IZV,52,991	88	B.N.Belyaev+	A0921

78 Platinum

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d,x+n</i>	inclusive	TTD	2GERKFK	5.4+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924

79

Gold

197

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,el	^{197}Au	DA	2UK ALD	6.7+06	1.3+07	Jour	NP,23,32	61	A.V.Cohen+	F1122
$p,incl$	^{197}Au	DAP	2UK ALD	6.7+06	1.3+07	Jour	NP,23,32	61	A.V.Cohen+	F1122
$d,x+n$	inclusive	DAP	2GERKFK	4.7+07	4.7+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
$d,x+n$	inclusive	TTD	2BLGLVN	1.6+07	5.0+07	Jour	PMB,20,(2),235	75	J.P.Meulders+	O1923
$d,x+n$	inclusive	TTD	2GERKFK	4.0+07	5.4+07	Jour	NP/A,100,537	67	G.W.Schweimer	O1924
$^8\text{He},x$	^{198}Au	CS	2FR GAN	1.3+07	2.8+07	Jour	PL/B,697,454	11	A.Lemasson+	O1901
$^8\text{He},x$	^{199}Au	CS	2FR GAN	1.6+07	2.8+07	Jour	PL/B,697,454	11	A.Lemasson+	O1901
$^7\text{Li},x+\alpha$	inclusive	DAE	3INDTRM	4.2+07	4.2+07	Jour	PRM,57,(1),209	01	Dhrubagupta+	D6112
$^7\text{Li},x+t$	inclusive	DAE	3INDTRM	4.2+07	4.2+07	Jour	PRM,57,(1),209	01	Dhrubagupta+	D6112

82

Lead

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^{12}\text{C},fis$		KE	3INDTRM	6.4+07	8.6+07	Jour	PR/C,70,051602	04	Y.S.Sawant+	D6122

82

Lead

206

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^6\text{He},2n$	^{210}Po	CS	2BLGLVN	1.4+07	1.7+07	Jour	EPJ/A,47,111	11	R.Wolski+	O1940
$^{48}\text{Ca},2n$	^{252}No	CS	2GERGSI	2.3+08	2.3+08	Jour	PR/C,83,054618	11	J.M.Gates+	A0910

82

Lead

207

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,non		CS	2UK HAR	1.3+08	1.3+08	Jour	PPS/A,67,125	54	J.M.Cassels+	O1947
$^{48}\text{Ca},2n$	^{253}No	CS	2GERGSI	2.3+08	2.3+08	Jour	PR/C,83,054618	11	J.M.Gates+	A0910

82

Lead

208

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,x	^7Be	CS	4RUSITE	5.0+08	5.0+08	Jour	PR/C,84,064612	11	Yu.E.Titarenko+	A0927
p,x	^{46}Sc	CS	4RUSITE	5.0+08	5.0+08	Jour	PR/C,84,064612	11	Yu.E.Titarenko+	A0927
p,x	^{59}Fe	CS	4RUSITE	5.0+08	5.0+08	Jour	PR/C,84,064612	11	Yu.E.Titarenko+	A0927
p,x	^{72}Zn	CS	4RUSITE	5.0+08	5.0+08	Jour	PR/C,84,064612	11	Yu.E.Titarenko+	A0927
p,x	^{72}Ga	CS	4RUSITE	5.0+08	5.0+08	Jour	PR/C,84,064612	11	Yu.E.Titarenko+	A0927
p,x	^{74}As	CS	4RUSITE	5.0+08	5.0+08	Jour	PR/C,84,064612	11	Yu.E.Titarenko+	A0927
p,x	^{75}Se	CS	4RUSITE	5.0+08	5.0+08	Jour	PR/C,84,064612	11	Yu.E.Titarenko+	A0927

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation		Date	Author	Data #
				Min	Max		Ref	Vol Page			
<i>p,3n</i>	²⁰⁷ Po	CS	3KORKRM	5.0+07	5.0+07	Jour	KPS,59,1007		11	Y.H.Chung+	D7004
<i>p,4n</i>	²⁰⁶ Po	CS	3KORKRM	5.0+07	5.0+07	Jour	KPS,59,1007		11	Y.H.Chung+	D7004
<i>p,5n</i>	²⁰⁵ Po	CS	3KORKRM	5.0+07	5.0+07	Jour	KPS,59,1007		11	Y.H.Chung+	D7004
<i>p,6n</i>	²⁰⁴ Po	CS	3KORKRM	5.0+07	5.0+07	Jour	KPS,59,1007		11	Y.H.Chung+	D7004
<i>p,x</i>	Many	CS	2FR PAR	1.5+08	1.5+08	Jour	NP,19,173		60	M.Lefort+	O1906
<i>p,x</i>	¹⁰ Be	CS	2AUSPVI	1.2+08	2.6+09	Jour	JP/G,38,065103		11	D.Schumann+	O1907
<i>p,x</i>	¹⁸ F	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>p,x</i>	²⁴ Na	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>p,x</i>	²⁸ Mg	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>p,x</i>	²⁶ Al	CS	2AUSPVI	1.2+08	2.6+09	Jour	JP/G,38,065103		11	D.Schumann+	O1907
<i>p,x</i>	³² P	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3		62	A.K.Lavrukhina+	A0917
<i>p,x</i>	³⁶ Cl	CS	2SWTETH	1.0+08	2.6+09	Jour	JP/G,38,065103		11	D.Schumann+	O1907
<i>p,x</i>	⁶⁷ Cu	CS	4ZZZDUB	1.4+08	1.4+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	⁸⁹ Sr	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	⁹¹ Y	CS	4ZZZDUB	1.4+08	1.4+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	⁹⁹ Mo	CS	4ZZZDUB	2.6+08	2.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁰⁸ Ag	CS	2SWTETH	1.3+08	2.6+09	Jour	JP/G,38,065103		11	D.Schumann+	O1907
<i>p,x</i>	¹¹¹ Ag	CS	4ZZZDUB	1.4+08	2.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹²⁹ I	CS	2SWTETH	1.0+08	2.6+09	Jour	JP/G,38,065103		11	D.Schumann+	O1907
<i>p,x</i>	¹⁶⁷ Tm	CS	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁶⁶ Yb	CS	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁶⁹ Yb	CS	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁷¹ Lu	?	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁷³ Hf	CS	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁷⁵ Hf	CS	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁷⁸ W	CS	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁹⁴ Au	CS	4ZZZDUB	2.6+08	1.0+10	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁹⁵ Au	CS	4ZZZDUB	1.4+08	1.0+10	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁹⁶ Au	CS	4ZZZDUB	2.6+08	1.0+10	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁹⁴ Hg	CS	4ZZZDUB	2.6+08	2.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁹⁷ Hg	CS	4ZZZDUB	2.6+08	2.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁷⁷ Tl	CS	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁷⁹ Tl	CS	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁸³ Tl	CS	4ZZZDUB	6.6+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁹⁵ Tl	CS	4ZZZDUB	2.6+08	2.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁰ Tl	CS	4ZZZDUB	1.4+08	2.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰¹ Tl	CS	4ZZZDUB	1.4+08	1.0+10	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰² Tl	CS	4ZZZDUB	1.4+08	1.0+10	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁰ Pb	CS	4ZZZDUB	1.4+08	2.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰³ Bi	CS	4ZZZDUB	1.4+08	2.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁴ Bi	CS	4ZZZDUB	1.4+08	1.0+10	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁴ Bi	CS	3KORKRM	5.0+07	5.0+07	Jour	KPS,59,1007		11	Y.H.Chung+	D7004
<i>p,x</i>	²⁰⁵ Bi	CS	4ZZZDUB	1.4+08	1.0+10	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁶ Bi	CS	4ZZZDUB	1.4+08	1.0+10	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁷ Bi	CS	4ZZZDUB	1.4+08	2.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	¹⁹⁹ Po	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁰ Po	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰¹ Po	CS	4ZZZDUB	1.4+08	4.8+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰² Po	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰³ Po	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁴ Po	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁵ Po	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁶ Po	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923		63	B.I.Belyaev+	A0914

<i>p,x</i>	²⁰⁷ Po	CS	4ZZZDUB	1.4+08	1.4+08	Jour	IZV,27,923	63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁸ Po	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923	63	B.I.Belyaev+	A0914
<i>p,x</i>	²⁰⁹ Po	CS	4ZZZDUB	1.4+08	6.6+08	Jour	IZV,27,923	63	B.I.Belyaev+	A0914
<i>p,x</i>	²¹⁰ Po	CS	4ZZZDUB	2.6+08	6.6+08	Jour	IZV,27,923	63	B.I.Belyaev+	A0914
¹¹ B,fis		KE	3INDTRM	5.2+07	6.8+07	Jour	PR/C,70,051602	04	Y.S.Sawant+	D6122
¹² C,fis		KE	3INDTRM	6.4+07	8.0+07	Jour	PR/C,70,051602	04	Y.S.Sawant+	D6122
¹⁶ O,fis		KE	3INDTAT	8.0+07	9.2+07	Jour	EPJ/A,11,47	01	L.M.Pant+	D6124
¹⁹ F,fis		KE	3INDTAT	8.8+07	1.1+08	Jour	EPJ/A,11,47	01	L.M.Pant+	D6124

90 Thorium 232

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
¹² C,fus		CS	3INDTAT	5.1+07	7.9+07	Jour	PR/C,53,(2),R544	96	N.Majumdar+	D6101
¹⁶ O,fus		CS	3INDTAT	7.2+07	8.9+07	Jour	PR/C,53,(2),R544	96	N.Majumdar+	D6101
¹⁹ F,fis		DA	3INDTAT	5.1+07	9.8+07	Jour	PR/C,53,(2),R544	96	N.Majumdar+	D6101
¹⁹ F,fus		CS	3INDTAT	7.6+07	9.8+07	Jour	PR/C,53,(2),R544	96	N.Majumdar+	D6101
⁵⁶ Fe, <i>n</i> +X	Many	MLT	2ITYPAD	3.9+08	3.9+08	Jour	PR/C,72,034604	05	P.K.Sahu+	D6116
⁵⁶ Fe, <i>n</i> +X	Many	?	2ITYPAD	3.9+08	3.9+08	Jour	PR/C,72,034604	05	P.K.Sahu+	D6116
⁵⁶ Fe, <i>x</i>	Many	KE	2ITYPAD	3.9+08	3.9+08	Jour	PR/C,72,034604	05	P.K.Sahu+	D6116

92 Uranium

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	⁷ Be	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3	62	A.K.Lavrukhina+	A0917
<i>p,x</i>	¹⁸ F	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3	62	A.K.Lavrukhina+	A0917
<i>p,x</i>	²⁴ Na	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3	62	A.K.Lavrukhina+	A0917
<i>p,x</i>	³² P	CS	4ZZZDUB	6.6+08	6.6+08	Jour	ZET,43,3	62	A.K.Lavrukhina+	A0917

92 Uranium 235

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
¹² C,fis		KE	3INDTRM	7.2+07	8.6+07	Jour	PR/C,70,051602	04	Y.S.Sawant+	D6122

92 Uranium 238

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α ,fis	¹³² Sb	FY	3INDVEC	3.1+07	3.8+07	Jour	RCA,55,173	91	B.S.Tomar+	D6102
α ,fis	¹³¹ Te	FY	3INDVEC	2.5+07	4.4+07	Jour	NP/A,648,45	99	H.Naik+	D6099
α ,fis	¹³¹ Te	?	3INDVEC	4.0+07	4.0+07	Jour	PL/B,576,260	03	H.Naik+	D6104
α ,fis	¹³³ Te	FY	3INDVEC	2.5+07	4.4+07	Jour	NP/A,648,45	99	H.Naik+	D6099
α ,fis	¹³² I	FY	3INDVEC	Fiss		Jour	ZP/A,342,95	92	H.Naik+	D6105
α ,fis	¹³⁴ I	FY	3INDVEC	2.5+07	4.4+07	Jour	NP/A,648,45	99	H.Naik+	D6099

94 Plutonium 244

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^{48}\text{Ca}, 3n$	$^{289}\text{*}$	CS	2GERGSI	2.5+08	2.6+08	Jour	PR/C,83,054618	11	J.M.Gates+	A0910
$^{48}\text{Ca}, 4n$	$^{288}\text{*}$	CS	2GERGSI	2.5+08	2.6+08	Jour	PR/C,83,054618	11	J.M.Gates+	A0910

95 Americium 243

Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^{48}\text{Ca}, 2n$	$^{289}\text{*}$	CS	4ZZZDUB	2.4+08	2.4+08	Jour	PRL,108,022502	12	Yu.Ts.Oganessian+	A0920
$^{48}\text{Ca}, 3n$	$^{288}\text{*}$	CS	4ZZZDUB	2.4+08	2.4+08	Jour	PRL,108,022502	12	Yu.Ts.Oganessian+	A0920