

Japan Charged-Particle Nuclear Reaction Data Group (JCPRG)

EXFOR : Recent Compilation List (Added in Aug 2006)

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Retrieval service is available at:

<http://www.jcprg.org/exfor/>

Quantity code

ALF	Alpha	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	Nu
D3A	Triple differential $d\Omega_1/d\Omega_2/dE'$	NUD	Nu delayed
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	Eta	TTD	Differential thick target yield, $d/d\Omega$
EVL	Evaluation	TT	Partial thick target yield

Special codes in outgoing particle field

abs	Absorption	fus	Fusion	non	Nonelastic	ths	Thermal scattering
el	Elastic	inel	Inelastic	sct	Scattering	tot	Total
f	Fission	incl	Inclusive	tcc	Total charge changing		

Special codes in incident energy field

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

1 Hydrogen 1

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
${}^6\text{He},t$	${}^4\text{He}$	DA	2BLGLVN	8.0+05		Jour	NP/A,701,19	02	A.N.Ostrowski	D0177
${}^7\text{Li},\alpha$	${}^4\text{He}$	CS	2ITYLNS	9.5+03	2.9+05	Jour	PR/C,60,055802	99	C.Spitaleri+	F0756

1 Hydrogen 3

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
d,γ		RP	4RUSEPA	0.0+00		Jour	YF,10,225	69	V.M.Bezotosny+	F0751
d,γ	${}^5\text{He}$	CS	4RUSEPA	2.6+04	9.5+04	Jour	YF,10,225	69	V.M.Bezotosny+	F0751

1 Hydrogen

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,tot		CS	3KORPUE	5.8-03	4.7+02	Jour	RM,35,321	02	Y.S.Lee+	31580

2 Helium 3

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$\gamma,n+p$	${}^1\text{H}$	CS	2JPNAIS	1.0+07	1.6+07	Jour	PR/C,73,034003	06	S.Naito+	M0688
γ,p	${}^2\text{H}$	CS	2JPNAIS	1.0+07	1.6+07	Jour	PR/C,73,034003	06	S.Naito+	M0688
γ,p	${}^2\text{H}$?	2JPNAIS	1.0+07	1.6+07	Jour	PR/C,73,034003	06	S.Naito+	M0688

2 Helium 6

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,γ	${}^7\text{Li}$	DA	2FR CAE	4.0+07		Jour	PRL,87,042501	01	E.Sauvan+	F0746
p,γ	${}^7\text{Li}$	DE	2FR CAE	4.0+07		Jour	PRL,87,042501	01	E.Sauvan+	F0746

3 Lithium 6

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	${}^7\text{Li}$	CS	3KORKAE	Maxwl		Jour	NIM/B,245,367	06	Changsupark+	31570
n,γ	${}^7\text{Li}$	CSP	3KORKAE	Maxwl		Jour	NIM/B,245,367	06	Changsupark+	31570
${}^3\text{He},\text{el}$	${}^6\text{Li}$	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783
${}^3\text{He},\text{el}$	${}^6\text{Li}$	DA	4KASKAZ	3.4+07	7.2+07	Jour	YF,44,312	86	V.N.Bragin+	F0777

α ,el ${}^6\text{Li}$ DA 4KASKAZ 3.7+07 5.0+07 Jour YF,44,312 86 V.N.Bragin+ F0777

3 Lithium 7

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p ,inel	${}^7\text{Li}$	CSP	2PRTJES	6.5+05	2.3+06	Jour	NIM/B,190,117	02	R.Mateus+	D0328
d , n + α	${}^4\text{He}$	D3A	2ITYPAD	7.0+06		Jour	NCL,23,1	78	N.Arena+	F0695
d , n + α	${}^4\text{He}$	DAA	2ITYPAD	7.0+06		Jour	NCL,23,1	78	N.Arena+	F0695
${}^6\text{Li}$, ${}^6\text{He}$	${}^7\text{Be}$	DAP	4RUSKUR	9.3+07		Jour	YF,65,1819	02	S.B.Sakuta+	F0771

4 Beryllium 9

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p , α	${}^6\text{Li}$	CSP	4RUSEPA	2.0+06	2.7+06	Jour	IZV,69,1629	05	L.N.Generalov+	F0760
p , γ	${}^{10}\text{B}$	CSP	4RUSEPA	1.7+06	2.1+06	Jour	IZV,69,1629	05	L.N.Generalov+	F0760
d , p	${}^{10}\text{Be}$	DAP	4RUSMOS	1.2+07	1.5+07	Jour	YF,64,1995	01	N.S.Zelenskaya+	F0499
d , p	${}^{10}\text{Be}$	POD	4RUSMOS	1.5+07		Jour	YF,64,1995	01	N.S.Zelenskaya+	F0499
${}^3\text{He}$,el	${}^9\text{Be}$	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783
α ,el	${}^9\text{Be}$	DA	4KASKAZ	2.9+07	5.0+07	Jour	VAT/Y,1/2,137	02	N.Burtebaev	F0759

5 Boron 10

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
d , p	${}^{11}\text{B}$	DAP	4RUSMOS	1.1+07	1.5+07	Jour	YF,68,2019	05	L.I.Galanina+	F0761
α , d	${}^{12}\text{C}$	DAP	4RUSMOS	2.5+07		Jour	YF,49,625	89	O.I.Vasileva+	F0781
α , ${}^3\text{He}$	${}^{11}\text{B}$	DAP	4KASKAZ	5.0+07		Jour	VAT/Y,1/2,95	02	N.Burtebaev+	F0758

5 Boron 11

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
d , ${}^3\text{He}$	${}^{10}\text{Be}$	DA	4KASKAZ	2.5+07		Jour	VAT/Y,1/2,95	02	N.Burtebaev+	F0758
t , p	${}^{13}\text{B}$	CS	4RUSEPA	2.5+06	6.9+06	Jour	IZV,70,191	06	L.N.Generalov+	F0778
α ,inel	${}^{11}\text{B}$	DAP	4KASKAZ	4.0+07	5.0+07	Jour	YF,68,1356	05	N.Burtebaev+	F0772
α , t	${}^{12}\text{C}$	DAP	4RUSMOS	2.5+07		Jour	YF,49,625	89	O.I.Vasileva+	F0781

6 Carbon 12

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
γ , p	${}^{11}\text{B}$	DAP	2SWDLND	5.0+07	7.0+07	Jour	PR/C,73,044611	06	S.A.Morrow+	M0689
p , d	${}^{11}\text{C}$	DAP	3KORKRM	4.5+07		Jour	KPS,46,1318	05	J.-H.Kim+	D0414
p ,el	${}^{12}\text{C}$	DA	2GERJUL	2.0+07	3.2+07	Jour	PR/C,12,1697	75	H.V.Geramb+	F0740

$p,inel$	^{12}C	DAP	2GERJUL	3.0+07	4.5+07	Jour	PR/C,12,1697	75	H.V.Geramb+	F0740
$^3\text{He},d$	^{13}N	DAP	4RUSMOS	4.2+07		Jour	IZV,66,60	02	S.V.Artemov+	F0784
$^3\text{He},el$	^{12}C	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783
$^{19}\text{F},\alpha$	incl	DAE	3INDTRM	9.6+07		Jour	EPJ/A,14,53	02	D.Bandyopadhyay+	D0205
$^{19}\text{F},d$	incl	DAE	3INDTRM	9.6+07		Jour	EPJ/A,14,53	02	D.Bandyopadhyay+	D0205
$^{19}\text{F},p$	incl	DAE	3INDTRM	9.6+07		Jour	EPJ/A,14,53	02	D.Bandyopadhyay+	D0205
$^{19}\text{F},t$	incl	DAE	3INDTRM	9.6+07		Jour	EPJ/A,14,53	02	D.Bandyopadhyay+	D0205

6 Carbon 13

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
γ,n	^{12}C	DAP	2JPNTOH	1.7+07	6.7+07	Jour	JPJ,75,(3),034201	Mar 06	K.Maeda+	M0687
p,γ	^{14}N	CS	2GERBOC	1.7+06	1.8+06	Jour	PR/C,72,062801	05	S.Harissopulos+	F0786
$^3\text{He},el$	^{13}C	DA	4KASKAZ	5.0+07	6.0+07	Jour	YF,63,625	00	N.Burtebaev+	F0775
$^3\text{He},t$	^{13}N	DAP	4KASKAZ	6.0+07		Jour	YF,66,51	03	N.Burtebaev+	F0767
α,el	^{13}C	DA	4UZ UZB	2.6+07	3.5+07	Jour	IZV,65,1579	01	S.V.Artemov+	F0780
α,el	^{13}C	DAP	4UZ UZB	3.5+07		Jour	IZV,65,1579	01	S.V.Artemov+	F0780
$\alpha,inel$	^{13}C	DAP	4UZ UZB	2.5+07	3.5+07	Jour	IZV,65,1579	01	S.V.Artemov+	F0780
α,n	^{16}O	CS	2GERBOC	7.7+05	8.0+06	Jour	PR/C,72,062801	05	S.Harissopulos+	F0786

6 Carbon 14

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,el		RP	2SF ABA	3.6+06	1.9+07	Jour	YF,68,1123	05	V.Z.Goldberg+	F0754
α,el	^{14}C	DA	2SF ABA	1.6+07	1.8+07	Jour	YF,68,1123	05	V.Z.Goldberg+	F0754

7 Nitrogen 14

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,γ	^{15}O	DAP	4KASKAZ	8.5+05	1.1+06	Jour	IZV,68,1554	04	N.T.Burtebaev+	F0763
d,n	^{15}O	DAP	2UK OXF	5.0+06		Jour	NP/A,98,82	67	S.Mubarakmand+	F0721

7 Nitrogen 15

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,el	^{15}N	DA	2GERTHS	1.7+06	1.9+06	Jour	PR/C,66,065802	02	S.Wilmes+	F0748
α,γ		RP	2GERTHS	3.6+05	5.4+05	Jour	PR/C,52,2823	95	S.Wilmes+	F0741
α,γ		RP	2GERTHS	6.8+05	2.6+06	Jour	PR/C,66,065802	02	S.Wilmes+	F0748
α,γ	^{19}F	CSP	2GERTHS	1.1+06	2.6+06	Jour	PR/C,66,065802	02	S.Wilmes+	F0748
α,γ	^{19}F	PY	2GERTHS	6.7+05	6.9+05	Jour	PR/C,52,2823	95	S.Wilmes+	F0741

8

Oxygen

16

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n, {}^3\text{He}$	${}^{14}\text{C}$	CS	3KORKRM	1.6+07		Jour	KPS,47,23	05	J.H.Park+	31576
n,t	${}^{14}\text{N}$	CS	3KORKRM	1.6+07		Jour	KPS,47,23	05	J.H.Park+	31576
p,inel	${}^{16}\text{O}$	DA	4RUSMOS	2.6+06	2.7+06	Jour	NP/A,549,375	92	A.D' Arrigo+	F0532
d,n	${}^{17}\text{F}$	DAP	2UK LVP	7.7+06	1.2+07	Jour	NP/A,127,567	69	C.J.Oliver+	F0711
d,p	${}^{17}\text{O}$	POD	2UK BIR	1.2+07		Jour	NP/A,185,49	72	R.C.Brown+	F0736
${}^3\text{He},d$	${}^{17}\text{F}$	DAP	4KASKAZ	2.2+07	4.2+07	Jour	IZV,66,60	02	S.V.Artemov+	F0784
${}^{12}\text{C},\text{el}$	${}^{16}\text{O}$	DA	4RUSKUR	1.3+08	2.8+08	Jour	IZV,65,647	01	Yu.A.Glukhov+	F0779

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Oxygen

17

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$p,0$		RP	2FR CSN	0.0+00		Jour	PRL,95,031101	05	A.Chafa+	F0757
p,α	${}^{14}\text{N}$	DA	2FR CSN	1.9+05		Jour	PRL,95,031101	05	A.Chafa+	F0757
p,α	${}^{14}\text{N}$	PY	2FR CSN	1.9+05	2.0+05	Jour	PRL,95,031101	05	A.Chafa+	F0757

8

Oxygen

18

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,α	${}^{15}\text{N}$	PY	2FR CSN	1.9+05	2.0+05	Jour	PRL,95,031101	05	A.Chafa+	F0757
$\alpha,0$		RP	2FR STR	0.0+00		Jour	JPR,29,271	68	S.Gorodetzky+	D0272
α,el	${}^{18}\text{O}$	DA	2FR STR	2.9+06	5.1+06	Jour	JPR,29,271	68	S.Gorodetzky+	D0272
α,γ	${}^{22}\text{Ne}$	DAP	2FR STR	2.5+06	3.9+06	Jour	JPR,29,271	68	S.Gorodetzky+	D0272
α,n	${}^{21}\text{Ne}$	DA	2FR STR	2.4+06	5.0+06	Jour	JPR,29,271	68	S.Gorodetzky+	D0272

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Fluorine

19

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,inel	${}^{19}\text{F}$	DAP	2FR GRE	3.0+07		Jour	PL/B,43,27	73	R.Deswiniarski+	F0739
d,α	${}^{17}\text{O}$	DAP	3YUGBKB	9.5+05	1.2+06	Jour	NP,73,657	65	D.M.Stanojevic+	F0731

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Neon

20

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,inel	${}^{20}\text{Ne}$	DAP	2FR GRE	3.0+07		Jour	PL/B,43,27	73	R.Deswiniarski+	F0739
${}^3\text{He},d$	${}^{21}\text{Na}$	DAP	3CZRUJF	2.6+07		Jour	PR/C,73,035806	06	A.M.Mukhamedzhanov+	D0396
${}^3\text{He},\text{el}$	${}^{20}\text{Ne}$	DA	3CZRUJF	2.6+07		Jour	PR/C,73,035806	06	A.M.Mukhamedzhanov+	D0396

10

Neon

21

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,inel	²¹ Ne	DAP	2FR GRE	3.0+07		Jour	PL/B,43,27	73	R.Deswiniarski+	F0739

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Magnesium

24

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,el	²⁴ Mg	DA	4RUSSUL	5.8+06	6.1+06	Jour	IZV,56,197	92	V.V.Lazarev+	F0762
<i>p</i> ,inel	²⁴ Mg	DAP	4RUSSUL	5.8+06	6.1+06	Jour	IZV,56,197	92	V.V.Lazarev+	F0762
<i>d</i> , <i>p</i>	²⁵ Mg	POD	2UK BIR	1.2+07		Jour	NP/A,185,49	72	R.C.Brown+	F0736
³ He,el	²⁴ Mg	DA	2GERJUL	1.3+08		Jour	NP/A,306,221	78	A.Djaloeis+	F0782
⁷ Li, α	incl	DAE	3INDTRM	4.7+07		Jour	EPJ/A,14,53	02	D.Bandyopadhyay+	D0205
⁷ Li, <i>d</i>	incl	DAE	3INDTRM	4.7+07		Jour	EPJ/A,14,53	02	D.Bandyopadhyay+	D0205
⁷ Li, <i>p</i>	incl	DAE	3INDTRM	4.7+07		Jour	EPJ/A,14,53	02	D.Bandyopadhyay+	D0205
⁷ Li, <i>t</i>	incl	DAE	3INDTRM	4.7+07		Jour	EPJ/A,14,53	02	D.Bandyopadhyay+	D0205

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Magnesium

25

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
³ He, α	²⁴ Mg	DAP	2ITYMIL	8.0+06	1.6+07	Jour	PR/C,25,717	82	R.Bonetti+	F0755
³ He, α	²⁴ Mg	INT	2ITYMIL	1.2+07	1.8+07	Jour	PR/C,25,717	82	R.Bonetti+	F0755
³ He, <i>p</i>	²⁷ Al	DAP	2ITYMIL	8.0+06	1.6+07	Jour	PR/C,25,717	82	R.Bonetti+	F0755
³ He, <i>p</i>	²⁷ Al	INT	2ITYMIL	1.2+07	1.8+07	Jour	PR/C,25,717	82	R.Bonetti+	F0755

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Magnesium

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Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
γ , <i>p</i>	incl	CS	4RUSMOS	1.5+07	2.9+07	Jour	NP/A,222,548	74	V.V.Varlamov+	M0691

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Silicon

28

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p</i> ,el	²⁸ Si	DA	4RUSSUL	5.3+06	5.7+06	Jour	IZV,56,197	92	V.V.Lazarev+	F0762
<i>p</i> ,inel	²⁸ Si	DAP	4RUSSUL	5.3+06	5.7+06	Jour	IZV,56,197	92	V.V.Lazarev+	F0762
³ He,el	²⁸ Si	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783
α ,tot		CS	2SF JYV	1.8+07	1.0+08	Jour	YF,68,17	05	V.Yu.Ugryumov+	F0773
α ,tot		CS	4KASKAZ	8.6+06	2.4+07	Jour	YF,66,1662	03	M.K.Baktybaev+	F0766
α ,tot		CS	4ZZZDUB	9.4+07	1.1+08	Jour	YF,65,1609	02	I.V.Kuznetsov+	F0769
⁶ He, α	incl	CS	4ZZZDUB	5.1+07	1.5+08	Jour	YF,65,1609	02	I.V.Kuznetsov+	F0769
⁶ He,tot		CS	4ZZZDUB	5.2+07	1.7+08	Jour	YF,65,1609	02	I.V.Kuznetsov+	F0769

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Sulphur

32

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
d,n	^{33}Cl	DAP	2UK OXF	5.0+06		Jour	NP/A,98,82	67	S.Mubarakmand+	F0721

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Calcium

40

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^3\text{He},el$	^{40}Ca	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783
$^{16}\text{O},el$	^{40}Ca	DA	4RUSKUR	2.8+08		Jour	IZV,65,647	01	Yu.A.Glukhov+	F0779

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Titanium

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,tot		CS	3KORPUE	9.6-03	9.3+01	Jour	KPS,43,479	03	G.Kim+	31581

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Titanium

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Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{45}Ti	CS	3INDPOO	1.5+07		Jour	IMP/E,2,(01),259	Mar 93	G.R.Pansare+	33001

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Titanium

49

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$p,\gamma+n$	^{49}V	CSP	4UKRKFT	1.5+06	3.3+06	Jour	IZV,50,(10),2016	86	I.D.Fedorets+	D5004

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Chromium

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,tot		CS	4UKRIJD	1.9+04	6.1+04	Jour	NSTS,2,(1),389	Aug 02	O.O.Gritzay+	32212

24

Chromium

50

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{49}Cr	CS	3INDPOO	1.5+07		Jour	IMP/E,2,(01),259	Mar 93	G.R.Pansare+	33001

24 Chromium 52

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,tot		CS	4UKRIJD	1.9+04	6.0+04	Conf	2004SANTA,(969)	04	O.O.Gritzay+	32214
n,tot		CS	4UKRIJD	1.9+04	6.1+04	Jour	NSTS,2,(1),389	Aug 02	O.O.Gritzay+	32212

24 Chromium 54

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,α	^{51}V	DAP	4RUSFEI	6.9+06	7.5+06	Rept	FEI-2462,	95	A.F.Gurbich+	D0405

26 Iron 54

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{53}Fe	CS	3INDPOO	1.5+07		Jour	IMP/E,2,(01),259	Mar 93	G.R.Pansare+	33001

28 Nickel

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,x	^{55}Co	TT	3BZLUSP	2.4+07		Jour	JRN,250,429	01	L.Landini+	D0303
p,x	^{56}Co	TT	3BZLUSP	2.4+07		Jour	JRN,250,429	01	L.Landini+	D0303
p,x	^{57}Co	TT	3BZLUSP	2.4+07		Jour	JRN,250,429	01	L.Landini+	D0303
p,x	^{58}Co	TT	3BZLUSP	2.4+07		Jour	JRN,250,429	01	L.Landini+	D0303
p,x	^{56}Ni	TT	3BZLUSP	2.4+07		Jour	JRN,250,429	01	L.Landini+	D0303
p,x	^{57}Ni	TT	3BZLUSP	2.4+07		Jour	JRN,250,429	01	L.Landini+	D0303

28 Nickel 58

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{57}Ni	CS	3INDPOO	1.5+07		Jour	IMP/E,2,(01),259	Mar 93	G.R.Pansare+	33001
$^3\text{He,el}$	^{58}Ni	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783
$^{18}\text{O},^{16}\text{O}$	^{60}Ni	DAP	3BZLUSP	3.7+07	3.8+07	Jour	NP/A,707,325	02	E.S.Rossi+	D0180
$^{18}\text{O},^{17}\text{O}$	^{59}Ni	DAP	3BZLUSP	3.5+07	3.8+07	Jour	NP/A,707,325	02	E.S.Rossi+	D0180
$^{18}\text{O,el}$	^{58}Ni	DA	3BZLUSP	3.5+07	3.8+07	Jour	NP/A,707,325	02	E.S.Rossi+	D0180
$^{18}\text{O,inel}$	^{58}Ni	DAP	3BZLUSP	3.5+07	3.8+07	Jour	NP/A,707,325	02	E.S.Rossi+	D0180

28 Nickel 60

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^{18}\text{O},^{16}\text{O}$	^{62}Ni	DAP	3BZLUSP	3.8+07		Jour	NP/A,707,325	02	E.S.Rossi+	D0180
$^{18}\text{O,el}$	^{60}Ni	DA	3BZLUSP	3.4+07	3.8+07	Jour	NP/A,707,325	02	E.S.Rossi+	D0180
$^{18}\text{O,inel}$	^{60}Ni	DAP	3BZLUSP	3.4+07	3.8+07	Jour	NP/A,707,325	02	E.S.Rossi+	D0180

29 Copper

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n_{tot}		CS	3KORPUE	1.5-01	9.0+01	Jour	KPS,41,314	02	V.Skoy+	31579

29 Copper 63

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{62}Cu	CS	3INDPOO	1.5+07		Jour	IMP/E,2,(01),259	Mar 93	G.R.Pansare+	33001
$^{16}\text{O,el}$	^{63}Cu	DA	3BZLUSP	4.6+07		Jour	PL/B,220,347	89	D.Pereira+	D0408
$^{16}\text{O,fus}$		CS	3BZLUSP	3.2+07	6.8+07	Jour	PL/B,220,347	89	D.Pereira+	D0408

29 Copper 65

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^{16}\text{O,el}$	^{65}Cu	DA	3BZLUSP	4.6+07		Jour	PL/B,220,347	89	D.Pereira+	D0408
$^{16}\text{O,fus}$		CS	3BZLUSP	3.2+07	5.8+07	Jour	PL/B,220,347	89	D.Pereira+	D0408

30 Zinc 64

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{63}Zn	CS	3PAKNIL	Fiss		Jour	RCA,94,63	06	I.A.Abbasi+	31568
n,p	^{64}Cu	CS	3PAKNIL	Fiss		Jour	RCA,94,63	06	I.A.Abbasi+	31568
$^{16}\text{O,el}$	^{64}Zn	DA	3BZLUSP	3.2+07	5.2+07	Jour	PR/C,53,2870	96	C.Tenreiro+	D0416
$^{16}\text{O,el}$	^{64}Zn	DA	3BZLUSP	4.3+07	4.8+07	Rept	IFUSP/P-710,	88	C.F.Tenreiro+	D0411
$^{16}\text{O,inel}$	^{64}Zn	DAP	3BZLUSP	3.2+07	5.1+07	Jour	PR/C,53,2870	96	C.Tenreiro+	D0416

30 Zinc 67

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{67}Cu	CS	3PAKNIL	Fiss		Jour	RCA,94,63	06	I.A.Abbasi+	31568

30

Zinc

68

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,α	^{65}Ni	CS	3PAKNIL	Fiss		Jour	RCA,94,63	06	I.A.Abbasi+	31568
p,γ	^{69}Ga	CSP	4UKRKFT	1.5+06	3.0+06	Jour	IZV,69,(1),102	05	B.A.Nemashkalo+	D5005
$^{16}\text{O},\text{el}$	^{68}Zn	DA	3BZLUSP	4.4+07	5.6+07	Rept	IFUSP/P-710,	88	C.F.Tenreiro+	D0411

35

Bromine

79

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{78}Br	CS	3INDPOO	1.5+07		Jour	IMP/E,2,(01),259	Mar 93	G.R.Pansare+	33001

39

Yttrium

89

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^3\text{He},\text{el}$	^{89}Y	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783

40

Zirconium

90

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$^3\text{He},\text{el}$	^{90}Zr	DA	2GERJUL	1.3+08		Jour	NP/A,306,221	78	A.Djaloeis+	F0782
$^3\text{He},\text{el}$	^{90}Zr	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783
$^3\text{He},\text{tot}$		CS	4UKRIJI	9.5+07		Jour	YF,66,627	03	A.D.Duysebaev+	F0768
α,el	^{90}Zr	DA	4KASKAZ	4.0+07	5.0+07	Jour	YF,66,627	03	A.D.Duysebaev+	F0768
α,inel	^{90}Zr	DAP	4KASKAZ	4.0+07	5.0+07	Jour	YF,66,627	03	A.D.Duysebaev+	F0768
α,tot		CS	4UKRIJI	9.6+07		Jour	YF,66,627	03	A.D.Duysebaev+	F0768

40

Zirconium

94

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,el	^{94}Zr	DA	4KASKAZ	4.0+07	5.0+07	Jour	YF,66,627	03	A.D.Duysebaev+	F0768
α,inel	^{94}Zr	DAP	4KASKAZ	4.0+07	5.0+07	Jour	YF,66,627	03	A.D.Duysebaev+	F0768

42

Molybdenum

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,x	^{95}Tc	CS	3KORKRM	2.6+07	1.2+07	Jour	KPS,48,821	06	M.U.Khandaker+	D0412
p,x	^{96}Tc	CS	3KORKRM	2.6+07	1.2+07	Jour	KPS,48,821	06	M.U.Khandaker+	D0412
p,x	^{99}Tc	CS	3KORKRM	2.6+07	1.6+07	Jour	KPS,48,821	06	M.U.Khandaker+	D0412

d,x ⁹⁵Tc CS 3KORKRM 2.6+07 1.2+07 Jour KPS,48,821 06 M.U.Khandaker+ D0412

46 Palladium 102

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,γ</i>	¹⁰³ Pd	CS	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577
<i>n,γ</i>	¹⁰³ Pd	CSP	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577

46 Palladium 104

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,γ</i>	¹⁰⁵ Pd	CS	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577
<i>n,γ</i>	¹⁰⁵ Pd	CSP	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577

46 Palladium 105

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,γ</i>	¹⁰⁶ Pd	CS	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577

46 Palladium 106

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,γ</i>	¹⁰⁷ Pd	CS	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577
<i>n,γ</i>	¹⁰⁷ Pd	CSP	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577

46 Palladium 108

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,γ</i>	¹⁰⁹ Pd	CS	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577
<i>n,γ</i>	¹⁰⁹ Pd	CSP	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577

46 Palladium 110

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,γ</i>	¹¹¹ Pd	CS	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577
<i>n,γ</i>	¹¹¹ Pd	CSP	3HUNII	Maxwl		Conf	2005NOTRED,,389	05	R.B.Firestone+	31577

47 Silver

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,x</i>	¹⁰⁶ Ag	TT	3BZLUSP	2.4+07		Jour	JRN,250,429	01	L.Landini+	D0303
<i>p,x</i>	¹⁰⁷ Cd	TT	3BZLUSP	2.4+07		Jour	JRN,250,429	01	L.Landini+	D0303
<i>p,x</i>	¹⁰⁹ Cd	TT	3BZLUSP	2.4+07		Jour	JRN,250,429	01	L.Landini+	D0303

47 Silver 108

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
¹⁴ N, <i>d</i>	incl	DAE	4ZZZDUB	7.3+08		Jour	YF,63,1763	00	V.Yu.Alexakhin+	F0776
¹⁴ N, <i>p</i>	incl	DAE	4ZZZDUB	7.3+08		Jour	YF,63,1763	00	V.Yu.Alexakhin+	F0776
¹⁴ N, <i>t</i>	incl	DAE	4ZZZDUB	7.3+08		Jour	YF,63,1763	00	V.Yu.Alexakhin+	F0776

49 Indium

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,tot</i>		CS	3KORPUE	1.5-01	9.1+01	Jour	KPS,41,314	02	V.Skoy+	31579

49 Indium 113

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
γ ,inel	¹¹³ In	CS	4UKRIEP	4.5+06	1.2+07	Jour	IZV,70,255	06	Z.M.Bigana+	M0686

49 Indium 115

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,0</i>		RP	3KORPUE	0.0+00		Jour	KPS,41,314	02	V.Skoy+	31579
<i>p,\gamma</i>	¹¹⁶ Sn	CS	4UKRIJD	3.5+06	4.0+06	Jour	IZV,69,(1),81	05	I.M.Vishnevskyy+	D5006
<i>p,\gamma</i>	¹¹⁶ Sn	SPC	4UKRIJD	4.0+06		Jour	IZV,69,(1),81	05	I.M.Vishnevskyy+	D5006

50 Tin 120

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
³ He,el	¹²⁰ Sn	DA	2GERJUL	1.3+08		Jour	NP/A,306,221	78	A.Djaloeis+	F0782
³ He,el	¹²⁰ Sn	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783

58 Cerium 140

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,2n</i>	¹³⁹ Pr	TT	3SAFITH	2.0+07	3.2+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357
<i>p,3n</i>	¹³⁸ Pr	TT	3SAFITH	2.6+07	3.2+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357

58 Cerium 142

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,n</i>	¹⁴² Pr	TT	3SAFITH	2.0+07	3.2+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357

59 Praesodymium 141

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,γ</i>	¹⁴² Pr	CS	2JPNKTO	3.9-03	1.4+05	Jour	KPS,48,841	06	J.Yoon+	31574
<i>n,γ</i>	¹⁴² Pr	RI	2JPNKTO	3.0-03		Jour	KPS,48,841	06	J.Yoon+	31574
<i>p,3n</i>	¹³⁹ Nd	CS	3SAFITH	2.4+07	9.6+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357
<i>p,4n</i>	¹³⁸ Nd	CS	3SAFITH	3.4+07	9.6+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357
<i>p,5n</i>	¹³⁷ Nd	CS	3SAFITH	4.4+07	9.6+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357
<i>p,6n</i>	¹³⁶ Nd	CS	3SAFITH	6.0+07	9.6+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357
<i>p,7n</i>	¹³⁵ Nd	CS	3SAFITH	7.2+07	9.6+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357
<i>p,n</i>	¹⁴¹ Nd	CS	3SAFITH	6.8+06	2.4+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357
<i>p,x</i>	¹³⁶ Pr	CS	3SAFITH	5.3+07	9.6+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357
<i>p,x</i>	¹³⁷ Pr	CS	3SAFITH	5.0+07	9.6+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357
<i>p,x</i>	¹³⁸ Pr	CS	3SAFITH	3.0+07	9.6+07	Conf	2004SANTA,,1650	04	G.F.Steyn+	D0357

62 Samarium 154

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d,t</i>	¹⁵³ Sm	DAP	2GERMUN	2.5+07		Jour	PR/C,57,2781	98	A.Gollwitzer+	F0785
<i>d,t</i>	¹⁵³ Sm	POD	2GERMUN	2.5+07		Jour	PR/C,57,2781	98	A.Gollwitzer+	F0785

64 Gadolinium 158

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>d,p</i>	¹⁵⁹ Gd	DAP	2GERMUN	1.8+07		Jour	PR/C,70,034316	04	C.Granja+	D0275

64 Gadolinium 160

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

<i>d,t</i>	¹⁵⁹ Gd	DAP	2GERMUN	2.2+07	2.5+07	Jour	PR/C,70,034316	04	C.Granja+	D0275
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73

Tantalum

181

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
γ,n	¹⁸⁰ Ta	CS	2JPNAIS	9.2+06	1.2+07	Jour	PRL,96,192501	06	S.Goko+	M0690
$n,0$		RP	3KORPUE	0.0+00		Jour	KPS,48,827	06	A.K.M.M.H.Meaze+	31575
n,tot		CS	3KORPUE	1.7-02	9.9+01	Jour	KPS,48,827	06	A.K.M.M.H.Meaze+	31575

74

Tungsten

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,tot		CS	3KORPUE	2.4-02	1.0+02	Jour	KPS,43,479	03	G.Kim+	31581

74

Tungsten

184

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	¹⁸⁵ W	CS	3CZRUJF	Maxwl		Jour	NP/A,762,167	05	V.Bondarenko+	31572
n,γ	¹⁸⁵ W	CSP	3CZRUJF	Maxwl		Jour	NP/A,762,167	05	V.Bondarenko+	31572
n,γ	¹⁸⁵ W	SPC	3CZRUJF	Maxwl		Jour	NP/A,762,167	05	V.Bondarenko+	31572

78

Platinum

195

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$\gamma,inel$	¹⁹⁵ Pt	CS	4UKRIEP	3.5+06	8.5+06	Jour	IZV,70,255	06	Z.M.Bigan+	M0686

80

Mercury

199

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$\gamma,inel$	¹⁹⁹ Hg	CS	4UKRIEP	4.0+06	9.5+06	Jour	IZV,70,255	06	Z.M.Bigan+	M0686

81

Thallium

203

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
γ,n	²⁰² Tl	CS	4UKRUZH	1.2+07	2.2+07	Jour	UFZ,35,(8),1153	90	Ya.E.Kostyu+	G4002

82 Lead 208

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
³ He,el	²⁰⁸ Pb	DA	2GERJUL	1.3+08		Jour	NP/A,306,221	78	A.Djaloeis+	F0782
³ He,el	²⁰⁸ Pb	DA	2FR CSN	2.2+08		Jour	NP/A,204,454	73	N.Willis+	F0783

83 Bismuth 209

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$\alpha,2n$	²¹¹ At	TT	2ZZZISP	2.2+07	3.5+07	Jour	JP/CS,41,115	06	A.Alfarano+	D0413
$\alpha,3n$	²¹⁰ At	TT	2ZZZISP	3.0+07	3.5+07	Jour	JP/CS,41,115	06	A.Alfarano+	D0413
⁶ He,4n	²¹¹ At	CS	4ZZZDUB	2.4+07	4.0+07	Jour	YF,65,1603	02	Yu.E.Penionzhkevich+	F0770
⁶ He,f		CS	4ZZZDUB	2.7+07	6.8+07	Jour	YF,65,1603	02	Yu.E.Penionzhkevich+	F0770
⁹ Be,el	²⁰⁹ Bi	DA	2GERMUU	4.0+07	4.8+07	Jour	NP/A,701,23	02	C.Signorini+	D0176
⁹ Be,inel	²⁰⁹ Bi	DAP	2GERMUU	4.8+07		Jour	NP/A,701,23	02	C.Signorini+	D0176

90 Thorium 232

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
γ ,f	Many	FY	4UKRIEP	0.0+00	1.8+07	Jour	UZHv,3,24	98	O.I.Lendel+	G4004

91 Protactinium 231

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
p,t	²²⁹ Pa	CSP	2GERMUU	2.2+07		Jour	NP/A,576,267	94	A.I.Levon+	F0291
p,t	²²⁹ Pa	DAP	2GERMUU	2.2+07		Jour	NP/A,576,267	94	A.I.Levon+	F0291

92 Uranium 233

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,f	Many	FY	3INDTRM	1.5+06		Jour	JRN,256,353	03	A.Ramaswami+	31573

92 Uranium 238

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
γ ,f	⁸⁴ Br	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681
γ ,f	¹²⁹ Sb	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681
γ ,f	¹³⁰ Sb	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681
γ ,f	¹³² Sb	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681
γ ,f	¹³¹ Te	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681

γ ,f	^{133}Te	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681
γ ,f	^{134}I	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681
γ ,f	^{135}Xe	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681
n,f		CS	3AULCBR	2.5+06		Jour	EPJ/A,3,205	98	W.R.Phillips+	31571
n,f	Many	FY	3AULCBR	2.5+06		Jour	EPJ/A,3,205	98	W.R.Phillips+	31571

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Neptunium

237

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
γ ,f		CS	3BZLIPE	5.3+06	1.1+07	Jour	NSE,136,357	00	L.P.Geraldo+	M0692
γ ,f	Many	FY	4UKRIEP	0.0+00	1.8+07	Jour	UZHVI,12,83	02	O.O.Parlag+	G4003
γ ,f	^{134}I	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681
γ ,f	^{135}Xe	CS	4UKRIEP	0.0+00	1.6+07	Jour	IZV,69,(5),658	05	O.A.Bezshyyko+	M0681