

Japan Charged-Particle Nuclear Reaction Data Group (JCPRG)

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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					
<i>n,ths</i>	¹ H	AMP	1USAMIS	1.1-02		Jour	PR/C,67,044005	03	K.Schoen+	13898

1 Hydrogen 2

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,ths</i>	² H	AMP	1USAMIS	1.1-02		Jour	PR/C,67,044005	03	K.Schoen+	13898

1 Hydrogen 3

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>t,el</i>	³ H	DA	4ZZZDUB	5.8+07		Jour	NIM/A,513,439	03	A.A.Yukhimchuk+	F0677

2 Helium 3

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,p</i>	³ H	CS	1USALAS	1.1-01	1.5+01	Jour	PR/C,69,034005	Mar 04	C.D.Keith+	13895
<i>n,tot</i>		CS	1USALAS	1.2-01	3.9+02	Jour	PR/C,69,034005	Mar 04	C.D.Keith+	13895

4 Beryllium 9

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,α</i>	⁶ Li	CSP	4RUSEPA	2.4+06	3.1+06	Jour	IZV,67,1462	03	L.N.Generalov+	F0685
<i>α,el</i>	⁹ Be	DA	4RUSTPI	2.7+07		Jour	SNP,20,632	74	B.I.Kuznetsov+	F0675

6 Carbon 12

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>p,el</i>	¹² C	DA	4RUSLIN	1.0+09		Jour	PL/B,42,121	72	G.D.Alkhazov+	F0690
<i>p,inel</i>	¹² C	DAP	4RUSLIN	1.0+09		Jour	PL/B,42,121	72	G.D.Alkhazov+	F0690
<i>α,el</i>	¹² C	DA	2SPNJNE	2.0+07	2.4+07	Jour	ARS,65,201	69	J.Aguilar+	F0353
<i>α,el</i>	¹² C	DA	4RUSTPI	2.7+07		Jour	SNP,20,632	74	B.I.Kuznetsov+	F0675
<i>α,el</i>	¹² C	DA	4KASKAZ	3.3+07	5.0+07	Jour	SNP,23,252	76	N.N.Pavlova+	F0672
<i>α,inel</i>	¹² C	DAP	4KASKAZ	3.9+07	5.0+07	Jour	SNP,23,252	76	N.N.Pavlova+	F0672

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Carbon

13

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α ,el	^{13}C	DA	4RUSTPI	2.2+07	2.7+07	Jour	SNP,20,632	74	B.I.Kuznetsov+	F0675

7

Nitrogen

14

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α ,el	^{14}N	DA	4RUSSUL	2.4+07		Jour	IZV,40,2210	76	G.A.Feofilov+	F0483
α ,inel	^{14}N	DAP	4RUSSUL	2.4+07		Jour	IZV,40,2210	76	G.A.Feofilov+	F0483

8

Oxygen

16

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α ,0		RP	2UK OXF	0.0+00		Jour	NP/A,372,194	81	E.F.Garman+	F0290
α ,0		RP	1CANQU	0.0+00		Jour	PR/C,22,356	80	J.D.Macarthur+	F0693
α ,0		RP	2UK OXF	9.0+06		Jour	JP/G,6,891	80	M.J.Hurst+	F0584
α ,el	^{16}O	DA	1CANQU	1.3+06		Jour	PR/C,22,356	80	J.D.Macarthur+	F0693
α ,el	^{16}O	DA	2SPNJNE	2.0+07	2.3+07	Jour	ARS,65,201	69	J.Aguilar+	F0353
α ,el	^{16}O	DA	4RUSSUL	2.4+07		Jour	IZV,40,2210	76	G.A.Feofilov+	F0483
α ,el	^{16}O	DA	4RUSTPI	2.7+07		Jour	SNP,20,632	74	B.I.Kuznetsov+	F0675
α ,el	^{16}O	DA	1CANQU	3.0+06	3.1+06	Jour	PR/C,22,356	80	J.D.Macarthur+	F0693
α ,inel	^{16}O	DA	2UK OXF	9.5+06	9.8+06	Jour	NP/A,372,194	81	E.F.Garman+	F0290
α ,inel	^{16}O	DAP	4RUSSUL	2.4+07		Jour	IZV,40,2210	76	G.A.Feofilov+	F0483
α ,inel	^{16}O	DAP	2UK OXF	9.6+06	9.7+06	Jour	NP/A,372,194	81	E.F.Garman+	F0290

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Oxygen

18

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α ,inel	^{18}O	DAP	4RUSSUL	2.4+07		Jour	IZV,48,995	84	V.S.Sadkovskiy+	F0496

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Fluorine

19

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α ,inel	^{19}F	DAP	4RUSSUL	2.4+07		Jour	IZV,48,995	84	V.S.Sadkovskiy+	F0496

14

Silicon

28

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,inel$	^{28}Si	DE	1USALAS	3.9+06	2.0+07	Jour	NIM/A,523,102	04	D.Rochman+	13899
$\alpha,0$		RP	2GERTUE	0.0+00		Jour	PR/C,66,028801	80	M.Babilon+	F0616
$\alpha,0$		RP	2FR CSN	0.0+00		Jour	NP/A,102,449	67	J.Vernotte+	F0622
α,el	^{28}Si	DA	2SF ABA	1.3+07	1.9+07	Jour	NIM/A,338,413	94	K.-M.Kallman+	F0599
α,el	^{28}Si	DA	2SF ABA	1.4+07		Jour	NP/A,504,130	89	P.Manngard+	F0653
α,el	^{28}Si	DA	2SF ABA	1.4+07		Jour	NIM/A,338,413	94	K.-M.Kallman+	F0599
α,el	^{28}Si	DA	1USAFSU	1.4+07	1.5+07	Jour	IZV,64,1019	00	S.E.Belov+	F0688
α,el	^{28}Si	DA	4RUSMOS	1.4+07	2.5+07	Jour	SNP,9,691	69	N.S.Zelenskaya+	F0673
α,el	^{28}Si	DA	1USAFSU	1.5+07		Jour	IZV,64,1019	00	S.E.Belov+	F0688
α,el	^{28}Si	DA	2BLGPCL	1.9+07	2.2+07	Jour	NP/A,218,429	74	J.Lega+	F0661
α,el	^{28}Si	DA	3POLIFJ	2.3+07	2.8+07	Jour	APP/B,5,125	74	A.Bobrowska+	F0591
α,el	^{28}Si	DA	3POLIFJ	2.4+07	2.8+07	Jour	APP/B,7,523	76	K.Chyla+	F0594
α,el	^{28}Si	DA	3SARDHA	3.0+06	7.7+06	Jour	NP/A,678,3	00	A.Coban+	F0602
α,el	^{28}Si	DA	4KASKAZ	4.0+07		Jour	IZV,32,604	68	V.Yu.Gonchar+	F0668
α,el	^{28}Si	DA	3SARDHA	6.0+06	6.8+06	Jour	NP/A,678,3	00	A.Coban+	F0602
α,el	^{28}Si	DA	2SWDTLU	6.5+06	1.9+07	Jour	ZP/A,349,335	94	P.Manngard	F0642
α,γ	^{32}S	DA	2FR CSN	3.8+06	4.2+06	Jour	NP/A,102,449	67	J.Vernotte+	F0622
α,γ	^{32}S	DAP	2FR CSN	3.8+06		Jour	NP/A,124,350	69	J.Vernotte+	F0623
$\alpha,inel$	^{28}Si	DAA	2GERUEN	1.5+07	1.6+07	Jour	NP/A,255,64	75	R.Prasad+	F0630
$\alpha,inel$	^{28}Si	DAP	1USAFSU	1.4+07	1.5+07	Jour	IZV,64,1019	00	S.E.Belov+	F0688
$\alpha,inel$	^{28}Si	DAP	4RUSMOS	1.9+07	2.5+07	Jour	SNP,9,691	69	N.S.Zelenskaya+	F0673
$\alpha,inel$	^{28}Si	DAP	3POLIFJ	2.3+07	2.8+07	Jour	APP/B,5,125	74	A.Bobrowska+	F0591
α,p	^{31}P	CSP	4RUSMOS	1.5+07	2.5+07	Jour	SNP,9,691	69	N.S.Zelenskaya+	F0673
α,p	^{31}P	DAP	4RUSMOS	1.2+07	2.5+07	Jour	SNP,9,691	69	N.S.Zelenskaya+	F0673
α,p	^{31}P	DAP	2UK BIR	2.5+07		Jour	JP/G,13,375	87	N.J.Davis+	F0615

14

Silicon

29

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,p	^{32}P	DAP	2UK BIR	2.5+07		Jour	JP/G,13,375	87	N.J.Davis+	F0615

14

Silicon

30

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,p	^{33}P	DAP	2UK BIR	2.5+07		Jour	JP/G,13,375	87	N.J.Davis+	F0615

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Phosphorus

31

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	NP/A,102,449	67	J.Vernotte+	F0622
p,α	^{28}Si	DA	2FR CSN	1.5+06		Jour	NP/A,102,449	67	J.Vernotte+	F0622

p,α	^{28}Si	?	2FR CSN	1.5+06	1.8+06	Jour	NP/A,102,449	67	J.Vernotte+	F0622
α,el	^{31}P	DA	4RUSSUL	2.4+07		Jour	IZV,38,2175	74	A.E.Antropov+	F0667
α,inel	^{31}P	DAP	4RUSSUL	2.4+07		Jour	IZV,38,2175	74	A.E.Antropov+	F0667

16 Sulphur 32

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,el	^{32}S	DA	4RUSSUL	1.9+07	2.4+07	Jour	IZV,38,2175	74	A.E.Antropov+	F0667
α,inel	^{32}S	DAP	4RUSSUL	1.9+07	2.4+07	Jour	IZV,38,2175	74	A.E.Antropov+	F0667

16 Sulphur 34

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,el	^{34}S	DA	4RUSSUL	2.4+07		Jour	IZV,38,2175	74	A.E.Antropov+	F0667
α,inel	^{34}S	DAP	4RUSSUL	2.4+07		Jour	IZV,38,2175	74	A.E.Antropov+	F0667

17 Chlorine 36

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,0$		RP	1USALAS	0.0+00		Jour	PR/C,47,2107	May 93	P.E.Koehler+	13905

18 Argon 36

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$\alpha,0$		RP	3AULCBR	0.0+00		Jour	NP/A,203,209	73	R.B.Watson+	F0605
α,el	^{36}Ar	DA	2GERMPH	2.2+07	2.9+07	Jour	NP/A,137,177	69	G.Gaul+	F0625
α,el	^{36}Ar	DA	2GERBON	4.0+07	5.4+07	Jour	PR/C,45,123	92	K.Kocher+	F0650
α,el	^{36}Ar	DA	2UK OXF	5.5+06		Jour	PL/B,183,35	87	S.K.B.Hesmondhalgh+	F0644
α,γ	^{40}Ca	DA	3AULCBR	6.3+06	1.7+07	Jour	NP/A,203,209	73	R.B.Watson+	F0605
α,inel	^{36}Ar	DAP	2GERBON	4.0+07	5.4+07	Jour	PR/C,45,123	92	K.Kocher+	F0650
α,p	^{39}K	DAP	2SWDIPS	1.4+07		Jour	PS,10,43	74	G.Alenius+	F0666
α,tot		RP	2UK OXF	1.1+04		Jour	PL/B,183,35	87	S.K.B.Hesmondhalgh+	F0644

18 Argon 40

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,d	^{42}K	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,el	^{40}Ar	DA	2GERMPH	2.2+07	2.9+07	Jour	NP/A,137,177	69	G.Gaul+	F0625
α,inel	^{40}Ar	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,n	^{43}Ca	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,n	^{43}Ca	DAE	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656

α,p ^{43}K CS 2GERHAM 2.4+07 Jour PR/C,14,755 76 W.Fitz+ F0656

19 Potassium 41

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{41}Ar	CS	2JPNJAE	3.1+06		Jour	ANE,31,975	04	T.Shimizu+	22837
α,el	^{41}K	DA	2GERMPH	1.8+07	2.4+07	Jour	NP/A,137,177	69	G.Gaul+	F0625

20 Calcium 40

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,d	^{42}Sc	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,el	^{40}Ca	DA	2GERMPH	1.8+07	2.9+07	Jour	NP/A,137,177	69	G.Gaul+	F0625
α,el	^{40}Ca	DA	3INDVEC	2.5+07		Jour	PR/C,51,1604	95	A.Ray+	F0654
α,el	^{40}Ca	DA	2SWTBAS	2.6+07	4.7+07	Jour	PL/B,74,202	78	H.P.Gubler+	F0645
α,el	^{40}Ca	DA	2GERMPH	2.9+07		Jour	PL/B,33,219	70	H.Schmeing+	F0647
$\alpha,inel$	^{40}Ca	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
$\alpha,inel$	^{40}Ca	DAP	2GERMPH	2.9+07		Jour	PL/B,33,219	70	H.Schmeing+	F0647
α,n	^{43}Ti	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,n	^{43}Ti	DAE	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,p	^{43}Sc	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,p	^{43}Sc	DA	3INDVEC	2.5+07		Jour	PR/C,51,1604	95	A.Ray+	F0654

20 Calcium 42

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,el	^{42}Ca	DA	2GERMPH	1.8+07	2.9+07	Jour	NP/A,137,177	69	G.Gaul+	F0625

20 Calcium 44

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,d	^{46}Sc	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,el	^{44}Ca	DA	2GERMPH	1.8+07	2.9+07	Jour	NP/A,137,177	69	G.Gaul+	F0625
$\alpha,inel$	^{44}Ca	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,n	^{47}Ti	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,n	^{47}Ti	DAE	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656
α,p	^{47}Sc	CS	2GERHAM	2.4+07		Jour	PR/C,14,755	76	W.Fitz+	F0656

20 Calcium 48

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

α,el	^{48}Ca	DA	2GERMPH	1.8+07	2.9+07	Jour	NP/A,137,177	69	G.Gaul+	F0625
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22 Titanium 47

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{47}Sc	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,975	04	T.Shimizu+	22837

22 Titanium 50

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$\alpha,2n$	^{52}Cr	DAP	3RUMBUC	2.1+07		Jour	NP/A,284,65	77	A.Berinde+	F0299
$\alpha,2n$	^{52}Cr	SPC	3RUMBUC	2.1+07		Jour	NP/A,284,65	77	A.Berinde+	F0299

23 Vanadium 51

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{51}Ti	CS	2JPNJAE	3.1+06		Jour	ANE,31,975	04	T.Shimizu+	22837

25 Manganese 55

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{54}Mn	CS	2JPNJAE	1.4+07		Rept	JAERI-C-02-006,144	Nov 02	M.Matuzda+	22839

26 Iron 54

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,α	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831
n,d	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831
n,γ	incl	CSP	1USALAS	1.1+06	6.8+06	Rept	LA-UR-02-7167	02	R.O.Nelson+	13884
n,γ	incl	DAP	1USAORL	5.4+06	9.0+06	Prog	ORNL-4592,32	Sep 70	J.K.Dickens+	13871
n,p	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831
n,t	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831
n,x	^3He	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831

26 Iron 54

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{54}Mn	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,975	04	T.Shimizu+	22837

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Cobalt

59

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,el	^{59}Co	DA	1USATNL	1.0+07	1.9+07	Jour	PR/C,68,044610	03	M.M.Nagadi+	13903
n,el	^{59}Co	POD	1USATNL	1.5+07		Jour	PR/C,68,044610	03	M.M.Nagadi+	13903
n,p	^{59}Fe	CS	2JPNJAE	3.1+06	2.9+06	Jour	ANE,31,975	04	T.Shimizu+	22837

28

Nickel

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,α		DAE	2JPNTOH	4.8+06	6.5+06	Jour	NST,35,851	98	T.Sanami+	22354

28

Nickel

58

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,α	^{55}Fe	DAE	2JPNTOH	4.5+06	6.5+06	Jour	NST,35,851	98	T.Sanami+	22354
n,p	^{58}Co	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,975	04	T.Shimizu+	22837

28

Nickel

61

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{61}Co	CS	2JPNJAE	3.1+06	2.3+06	Jour	ANE,31,975	04	T.Shimizu+	22837

29

Copper

65

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{65}Ni	CS	2JPNJAE	3.1+06	2.9+06	Jour	ANE,31,975	04	T.Shimizu+	22837

30

Zinc

64

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{64}Cu	CS	2GERJUL	Fiss	1.4+07	Prog	INDC(GER)-049,10	Mar 03	S.M.Qaim+	22832

30

Zinc

67

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{67}Cu	CS	2GERJUL	1.4+07		Prog	INDC(GER)-049,10	Mar 03	S.M.Qaim+	22832
n,p	^{67}Cu	CS	2JPNJAE	3.1+06	2.7+06	Jour	ANE,31,975	04	T.Shimizu+	22837
n,p	^{67}Cu	CS	2GERJUL	Fiss		Prog	INDC(GER)-049,10	Mar 03	S.M.Qaim+	22832

31

Gallium

69

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{68}Ga	CS	3CPRLNZ	1.4+07	1.5+07	Jour	ARI,58,723	03	Z.Pu+	31534
n,α	^{66}Cu	CS	2JPNJAE	3.1+06		Jour	ANE,31,975	04	T.Shimizu+	22837
n,p	^{69}Zn	CS	3CPRLNZ	1.4+07		Jour	ARI,58,723	03	Z.Pu+	31534
n,p	^{69}Zn	CS	2JPNJAE	3.1+06	2.3+06	Jour	ANE,31,975	04	T.Shimizu+	22837

31

Gallium

71

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,n+\alpha$	^{67}Cu	CS	3CPRLNZ	1.4+07	1.5+07	Jour	ARI,58,723	03	Z.Pu+	31534
n,p	^{71}Zn	CS	3CPRLNZ	1.4+07		Jour	ARI,58,723	03	Z.Pu+	31534

34

Selenium

77

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,inel	^{77}Se	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

34

Selenium

80

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{81}Se	CS	2JPNYOK	Maxwl		Jour	NST,40,	03	S.Nakamura+	22834
n,γ	^{81}Se	RI	2JPNYOK	5.0-01		Jour	NST,40,	03	S.Nakamura+	22834

35

Bromine

79

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,inel	^{79}Br	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838
n,p	^{79}Se	CS	2JPNJAE	3.1+06		Jour	ANE,31,975	04	T.Shimizu+	22837

37

Rubidium

85

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{86}Rb	SPC	1USALAS	Maxwl		Jour	PR,181,1618	May 69	J.W.Dawson+	13904

38

Strontium

87

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,inel	^{87}Sr	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

39

Yttrium

89

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,inel	^{89}Y	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838
n,p	^{89}Sr	CS	2GERJUL	Fiss	1.4+07	Prog	INDC(GER)-049,10	Mar 03	S.M.Qaim+	22832

40

Zirconium

94

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{95}Zr	CS	2JPNYOK	Maxwl		Jour	NST,40,	03	S.Nakamura+	22834
n,γ	^{95}Zr	RI	2JPNYOK	5.0-01		Jour	NST,40,	03	S.Nakamura+	22834

40

Zirconium

96

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{97}Zr	CS	2JPNYOK	Maxwl		Jour	NST,40,	03	S.Nakamura+	22834
n,γ	^{97}Zr	RI	2JPNYOK	5.0-01		Jour	NST,40,	03	S.Nakamura+	22834

41

Niobium

93

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,α	^{90}Y	CS	2JPNJAE	3.1+06		Jour	ANE,31,975	04	T.Shimizu+	22837

42

Molybdenum

92

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{92}Nb	CS	2JPNJAE	3.1+06	2.3+06	Jour	ANE,31,975	04	T.Shimizu+	22837

42 Molybdenum 95

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,0$		RP	1USAORL	0.0+00		Jour	PR/C,68,015802	Jul 03	W.Rapp+	13896
n,α	^{92}Zr	CS	1USAORL	1.5+03	4.5+05	Jour	PR/C,68,015802	Jul 03	W.Rapp+	13896

42 Molybdenum 98

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
α,el	^{98}Mo	DA	4KASKAZ	5.0+07		Jour	IZV,43,2317	79	N.N.Pavlova+	F0670
α,inel	^{98}Mo	DAP	4KASKAZ	5.0+07		Jour	IZV,43,2317	79	N.N.Pavlova+	F0670

44 Ruthenium 96

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,p	^{96}Tc	CS	2JPNJAE	3.1+06	2.7+06	Jour	ANE,31,975	04	T.Shimizu+	22837

47 Silver 107

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,inel	^{107}Ag	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

47 Silver 109

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{110}Ag	CS	2JPNYOK	2.5-02		Jour	NST,40,(2),119	Feb 03	S.Nakamura+	22833
n,γ	^{110}Ag	RI	2JPNYOK	5.0-01		Jour	NST,40,(2),119	Feb 03	S.Nakamura+	22833
n,inel	^{109}Ag	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

48 Cadmium 111

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,inel	^{111}Cd	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

49

Indium

113

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,inel$	^{113}In	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

50

Tin

117

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,inel$	^{117}Sn	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

50

Tin

124

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{125}Sn	CS	2JPNYOK	Maxwl		Jour	NST,40,	03	S.Nakamura+	22834
n,γ	^{125}Sn	RI	2JPNYOK	5.0-01		Jour	NST,40,	03	S.Nakamura+	22834

52

Tellurium

122

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{123}Te	SPC	3CZRUJF	Maxwl		Jour	NP/A,673,85	00	V.Bondarenko+	31535

52

Tellurium

128

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{129}Te	CS	3CZRUJF	Maxwl		Jour	NP/A,716,3	03	H.-F.Wirth+	31537
n,γ	^{129}Te	SPC	3CZRUJF	Maxwl		Jour	NP/A,716,3	03	H.-F.Wirth+	31537

52

Tellurium

130

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{131}Te	CS	3CZRUJF	Maxwl		Jour	NP/A,717,149	03	I.Tomandl+	31536
n,γ	^{131}Te	SPC	3CZRUJF	Maxwl		Jour	NP/A,717,149	03	I.Tomandl+	31536

56

Barium

137

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,inel$	^{137}Ba	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

64 Gadolinium

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,el	^{nat}Gd	DA	1USAANL	3.3+05	1.0+07	Rept	ANL-NDM-157	Jul 04	A.B.Smith	13894
$n,inel$	^{nat}Gd	CSP	1USAANL	3.4+05	1.5+06	Rept	ANL-NDM-157	Jul 04	A.B.Smith	13894

65 Terbium 159

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{160}Tb	CS	3PAKNIL	2.5-02		Jour	PR/C,68,044608	03	M.U.Rajput+	31533
n,γ	^{160}Tb	RI	3PAKNIL	5.0-01		Jour	PR/C,68,044608	03	M.U.Rajput+	31533

66 Dysprosium

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,tot		CS	3KORPUE	2.5-02	9.9+01	Jour	ANE,30,1123	03	G.Kim+	31530

66 Dysprosium 163

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,0$		RP	3KORPUE	0.0+00		Jour	ANE,30,1123	03	G.Kim+	31530

68 Erbium

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,tot		CS	1USACOL	1.0+04	6.8+02	Jour	PR/C,5,974	Mar 72	H.I.Liou+	10591

69 Thulium 171

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{172}Tm	CS	2GERKFK	Maxwl		Jour	NP/A,718,478	03	R.Reifarth+	22841

72

Hafnium

179

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,inel$	^{179}Hf	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

72

Hafnium

180

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,inel$	^{180}Hf	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

74

Tungsten

186

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,γ	^{187}W	CS	2TUKANR	Maxwl		Jour	ANE,31,1285	04	M.Karadag+	22842
n,γ	^{187}W	RI	2TUKANR	5.5-01		Jour	ANE,31,1285	04	M.Karadag+	22842

79

Gold

197

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,inel$	^{197}Au	CS	2JPNJAE	3.1+06	2.1+06	Jour	ANE,31,1883	04	T.Shimizu+	22838

81

Thallium

203

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
$n,2n$	^{202}Tl	CS	1USASMU	1.5+07		Jour	JIN,37,1121	May 75	P.K.Eapen+	10493

82

Lead

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
n,α	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blidleanu+	22831
n,d	incl	CS	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
n,d	incl	DA	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
n,d	incl	DAE	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
n,d	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blidleanu+	22831
n,d	incl	DE	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
n,p	incl	CS	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
n,p	incl	DA	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
n,p	incl	DAE	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
n,p	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blidleanu+	22831
n,p	incl	DE	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812

<i>n,t</i>	incl	CS	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
<i>n,t</i>	incl	DA	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
<i>n,t</i>	incl	DAE	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812
<i>n,t</i>	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831
<i>n,t</i>	incl	DE	2BLGLVN	6.3+07		Jour	PR/C,66,014601	Jul 02	M.Kerveno+	22812

83

Bismuth

209

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,γ</i>	²¹⁰ Bi	CS	2JPNTIT	3.0+04	5.3+05	Rept	JAERI-C-03-006,133	Nov 02	K.Saito+	22836
<i>n,x</i>	²¹⁰ Po	CS	2JPNTIT	3.0+04	5.3+05	Rept	JAERI-C-03-006,133	Nov 02	K.Saito+	22836

90

Thorium

232

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>	⁹⁰ Rb	FY	4UKRIJD	1.4+07		Jour	YF,61,(9),1562	Sep 98	I.N.Vishnevsky+	32213
<i>n,f</i>	⁹⁵ Nb	FY	4UKRIJD	1.4+07		Jour	YF,61,(9),1562	Sep 98	I.N.Vishnevsky+	32213
<i>n,f</i>	¹³⁰ Sb	FY	4UKRIJD	1.4+07		Jour	YF,61,(9),1562	Sep 98	I.N.Vishnevsky+	32213
<i>n,f</i>	¹³² Sb	FY	4UKRIJD	1.4+07		Jour	YF,61,(9),1562	Sep 98	I.N.Vishnevsky+	32213
<i>n,f</i>	¹³¹ Te	FY	4UKRIJD	1.4+07		Jour	YF,61,(9),1562	Sep 98	I.N.Vishnevsky+	32213
<i>n,f</i>	¹³³ Te	FY	4UKRIJD	1.4+07		Jour	YF,61,(9),1562	Sep 98	I.N.Vishnevsky+	32213
<i>n,f</i>	¹³² I	FY	4UKRIJD	1.4+07		Jour	YF,61,(9),1562	Sep 98	I.N.Vishnevsky+	32213
<i>n,f</i>	¹³⁴ I	FY	4UKRIJD	1.4+07		Jour	YF,61,(9),1562	Sep 98	I.N.Vishnevsky+	32213
<i>n,f</i>	¹³³ Xe	FY	4UKRIJD	1.4+07		Jour	YF,61,(9),1562	Sep 98	I.N.Vishnevsky+	32213
<i>n,tot</i>		CS	1USAORL	4.0+03	1.5+01	Jour	NSE,82,289	Nov 82	D.K.Olsen+	10973

91

Protactinium

233

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>		CS	2ZZZGEL	1.0+06	8.5+06	Jour	NP/A,733,(1),3	04	F.Tovesson+	22698

92

Uranium

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,α</i>	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831
<i>n,d</i>	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831
<i>n,p</i>	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831
<i>n,t</i>	incl	DAE	2SWDUPP	9.6+07		Conf	2003DARMST,	Oct 03	V.Blideanu+	22831

92 Uranium 233

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>		CS	2ZZZGEL	1.0+06	7.5+06	Jour	NP/A,733,(1),3	04	F.Tovesson+	22698

92 Uranium 235

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>		CS	1USAORL	1.6+00	2.5+04	Jour	PR/C,18,1320	Sep 78	M.S.Moore+	10629
<i>n,f</i>	⁴ He	KE	3INDTRM	2.5-02	1.8+06	Conf	76LOWELL,1409	Jul 76	D.M.Nadkarni+	30509

92 Uranium 238

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>		DA	2ZZZGEL	1.2+06	5.8+06	Jour	NP/A,662,(1),63	00	F.Vives+	22402
<i>n,f</i>		FY	2ZZZGEL	1.2+06	5.8+06	Jour	NP/A,662,(1),63	00	F.Vives+	22402
<i>n,f</i>		KE	2ZZZGEL	1.2+06	5.8+06	Jour	NP/A,662,(1),63	00	F.Vives+	22402
<i>n,f</i>		KE	1USALAS	1.5+06	5.0+08	Thes	ZOELLER	91	C.M.Zoeller+	22799
<i>n,f</i>		NU	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538
<i>n,f</i>	Many	FY	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538
<i>n,f</i>	Many	FY	1USALAS	1.5+06	5.0+08	Thes	ZOELLER	91	C.M.Zoeller+	22799
<i>n,γ</i>	²³⁹ U	CS	1USABNL	1.1+00	1.8+01	Jour	NSE,62,463	Mar 77	H.I.Liou+	10575
<i>n,tot</i>		CS	1USAORL	5.2-01	4.0+03	Jour	NSE,62,479	Mar 77	D.K.Olsen+	10561
<i>n,xn</i>	^{nat} G	CSP	1USALAS	1.1+06	8.4+07	Jour	PR/C,69,024601	04	N.Fotiades+	13901

93 Neptunium 237

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>		NU	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538
<i>n,f</i>	Many	FY	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538
<i>n,γ</i>	²³⁸ Np	CS	2JPNKTO	Maxwl		Jour	NST,40,559	03	T.Katoh+	22835
<i>n,γ</i>	²³⁸ Np	RI	2JPNKTO	3.6-01		Jour	NST,40,559	03	T.Katoh+	22835

93 Neptunium 238

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,γ</i>	²³⁹ Np	CS	2JPNKTO	Maxwl		Jour	NST,41,(1),1	Jan 04	H.Harada+	22843

94 Plutonium 238

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>		NU	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538
<i>n,f</i>	Many	FY	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538

94 Plutonium 240

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>		NU	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538
<i>n,f</i>	Many	FY	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538

95 Americium 243

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>		NU	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538
<i>n,f</i>	Many	FY	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538

96 Curium 244

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>		NU	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538
<i>n,f</i>	Many	FY	3INDTRM	1.0+06		Jour	NSE,135,227	00	R.H.Iyer+	31538

96 Curium 245

Reaction	Product	Quantity	Lab.	Energy (eV)		Type	Documentation Ref Vol Page	Date	Author	Data #
				Min	Max					
<i>n,f</i>	Many	FY	2FR ILL	Maxwl		Jour	NP/A,735,3	04	D.Rochman+	22840
<i>n,f</i>	Many	CHG	2FR ILL	Maxwl		Jour	NP/A,735,3	04	D.Rochman+	22840
<i>n,f</i>	Many	FY	2FR ILL	Maxwl		Jour	NP/A,735,3	04	D.Rochman+	22840
<i>n,f</i>	Many	KE	2FR ILL	Maxwl		Jour	NP/A,735,3	04	D.Rochman+	22840