EXFOR News (June 2019)

New experimental data available from Nuclear Reaction Data Centres

EXFOR [1] is a world-wide data library for experimental neutron, charged-particle and photon induced reaction data compiled by the International Network of the Nuclear Reaction Data Centres (NRDC)[a] co-ordinated by the IAEA Nuclear Data Section. Regularly updated web retrieval databases are available at IAEA-NDS as well as NNDC, NEADB, JCPRG and CDFE.

This News lists newly created EXFOR entries as well as revised EXFOR entries where new data subentries are added. Entries from articles pubslished in past 10 years are flagged by asterisks (*). Please send an email to the NRDC Coordinator (Naohiko Otsuka n.otsuka@iaea.org) for inclusion in the EXFOR News distribution list as well as any question on EXFOR.

[1] N. Otuka, E. Dupont, V. Semkova et al., Nucl.Data.Sheets **120**(2014)272.

Quantity codes

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

Special codes in outgoing particle field

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

Special codes in incident energy field

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

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

3 Lithium 6

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,t	^{4}He	CS	2BLGMOL	7.6+05	7.6+05	Conf	82GAITHERS,2,889	82	B.M.Oliver+	23226

4 Beryllium 7

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,p	^{7}Li	CS	3CZRUJV	2.5-02	2.5-02	Jour	PR/C,99,014612	19	I.Tomandl+	31791
*	n,p	^{7}Li	CSP	3CZRUJV	2.5-02	2.5-02	Jour	PR/C,99,014612	19	I.Tomandl+	31791

4 Beryllium 9

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,el	^{9}Be	DA	3CPRAEP	2.2+07	2.2+07	Jour	EPJ/A,53,236	17	Yaling Zhang+	32774
*	n,inel	^{9}Be	DAP	3CPRAEP	2.2+07	2.2+07	Jour	EPJ/A,53,236	17	Yaling Zhang+	32774
*	n,x+n	inclusive	DAE	3CPRAEP	2.2+07	2.2+07	Jour	EPJ/A,53,236	17	Yaling Zhang+	32774
	p,el	^{9}Be	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144
*	p,γ	^{10}B	CSP	3INDTRM	7.2+05	5.2+06	Jour	PR/C,95,014614	17	D.R.Chakrabarty+	D6305
*	^{3}He,el	^{9}Be	DA	3CZRUJF	3.0+07	4.7+07	Jour	IMP/E,27,1850089	18	D.M.Janseitov+	D0937
*	^{3}He,inel	^{9}Be	DAP	3CZRUJF	3.0+07	4.7+07	Jour	IMP/E,27,1850089	18	D.M.Janseitov+	D0937

5 Boron 10

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,x+α	inclusive	CS	2BLGMOL	7.6+05	7.6+05	Conf	82GAITHERS,2,889	82	B.M.Oliver+	23226

5 Boron 11

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,γ	^{12}C	CSP	3INDTRM	8.0+06	8.0+06	Jour	PR/C,95,014614	17	D.R.Chakrabarty+	D6305
*	α,inel	^{11}B	DAP	4KASKAZ	4.0+07	4.0+07	Jour	IMP/E,27,1850094	18	N.Burtebayev+	D0938

6 Carbon

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	π^{+},x	^{11}C	CS	1CANUBC	3.0+07	1.0+08	Jour	PR/C,26,1737	82	G.W.Butler+	C2379

π^-,x	^{11}C	CS	1CANUBC	3.0+07	9.0+07	Jour	PR/C,26,1737	82	G.W.Butler+	C2379
π^+,x	^{11}C	CS	1USALAS	4.0+07	5.2+08	Jour	PR/C,20,1844	79	B.J.Dropesky+	C2378
π^-,x	^{11}C	CS	1USALAS	4.0+07	6.0+08	Jour	PR/C,20,1844	79	B.J.Dropesky+	C2378
p,el	^{nat}C	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144

6 Carbon 14

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	γ,0		RP	1CANOTC			Jour	PR/C,31,318	85	P.C-K.Kuo+	L0245
	γ,n	^{13}C	CSP	1CANOTC	1.0+07	2.7+07	Jour	PR/C,31,318	85	P.C-K.Kuo+	L0245
	γ,n	^{13}C	DAP	1CANOTC	1.0+07	2.3+07	Jour	PR/C,31,318	85	P.C-K.Kuo+	L0245

7 Nitrogen

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,el	^{nat}N	DA	3HUNDEB	3.0+06	4.0+06	Jour	NIM/B,443,48	19	L.Csedreki+	D4396

7 Nitrogen 14

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	γ,n	^{13}N	CS	1CANSAS	1.1+07	2.5+07	Jour	CJP,38,231	60	J.D.King+	L0234
	γ,n	^{13}N	INT	1CANSAS		1.6+07	Jour	CJP,38,231	60	J.D.King+	L0234
*	p,inel	^{14}N	DAP	3HUNDEB	3.3+06	4.0+06	Jour	NIM/B,443,48	19	L.Csedreki+	D4396

7 Nitrogen 15

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	γ,n	^{14}N	CSP	1CANOTC	1.3+07	2.4+07	Jour	PR/C,27,506	83	J.D.Watson+	L0244

8 Oxygen 16

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	γ,0		RP	1CANSAS			Jour	CJP,42,731	64	L.H.Greenberg+	L0236
	γ,α	^{12}C	CSP	1CANSAS	9.7+06	1.6+07	Jour	CJP,42,731	64	L.H.Greenberg+	L0236

9 Fluorine 19

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

	γ,n	^{18}F	CSP	1CANOTC	1.5+07	2.5+07	Jour	NP/A,499,328	89	P.C.-K.Kuo+	L0247
	γ,n	^{18}F	DAP	1CANOTC	1.6+07	2.4+07	Jour	NP/A,499,328	89	P.C.-K.Kuo+	L0247
	p,el	^{19}F	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144

12 Magnesium

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
	p,el	^{nat}Mg	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144

12 Magnesium 24

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
	p,inel	^{24}Mg	DAP	1CANMCG	1.0+08	1.0+08	Jour	NP/A,134,577	69	Y.S.Horowitz+	C2358

13 Aluminium 27

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
	γ,tot		CS	1CANOTC	3.7+06	3.8+07	Conf	81GRENOB,62,630	81	N.K.Sherman+	L0241
	γ,tot		INT	1CANOTC	1.0+07	3.8+07	Conf	81GRENOB,62,630	81	N.K.Sherman+	L0241
	π^+,x	^{18}F	CS	1USALAS	5.0+07	3.9+08	Jour	PR/C,32,1305	85	B.J.Dropesky+	C2377
	π^-,x	^{18}F	CS	1USALAS	5.0+07	5.0+08	Jour	PR/C,32,1305	85	B.J.Dropesky+	C2377
	π^+,x	^{24}Na	CS	1USALAS	5.0+07	3.9+08	Jour	PR/C,32,1305	85	B.J.Dropesky+	C2377
	π^-,x	^{24}Na	CS	1USALAS	5.0+07	5.0+08	Jour	PR/C,32,1305	85	B.J.Dropesky+	C2377
	p,el	^{27}Al	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144
*	p,γ	^{28}Si	CSP	3INDTRM	8.0+06	1.0+07	Jour	PR/C,95,014614	17	D.R.Chakrabarty+	D6305
*	^{16}O,x+n	inclusive	PY	3INDTRM	1.2+08	1.4+08	Jour	PR/C,96,044607	17	S.Paul+	D6321

14 Silicon

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
	π^+,x	^{18}F	CS	1USALAS	5.0+07	3.9+08	Jour	PR/C,32,1305	85	B.J.Dropesky+	C2377
	π^-,x	^{18}F	CS	1USALAS	5.0+07	5.0+08	Jour	PR/C,32,1305	85	B.J.Dropesky+	C2377
	π^+,x	^{24}Na	CS	1USALAS	5.0+07	3.9+08	Jour	PR/C,32,1305	85	B.J.Dropesky+	C2377
	π^-,x	^{24}Na	CS	1USALAS	5.0+07	5.0+08	Jour	PR/C,32,1305	85	B.J.Dropesky+	C2377
*	p,el	^{nat}Si	DA	3HUNDEB	3.0+06	4.0+06	Jour	NIM/B,443,48	19	L.Csedreki+	D4396

14 Silicon 28

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
	p,inel	^{28}Si	DAP	1CANMCG	1.0+08	1.0+08	Jour	NP/A,134,577	69	Y.S.Horowitz+	C2358
*	p,inel	^{28}Si	DAP	3HUNDEB	3.0+06	4.0+06	Jour	NIM/B,443,48	19	L.Csedreki+	D4396

14 Silicon 29

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,inel	^{29}Si	DAP	3HUNDEB	3.0+06	4.0+06	Jour	NIM/B,443,48	19	L.Csedreki+	D4396

16 Sulphur 32

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	γ,n	^{31}S	CSP	1CANOTC	1.8+07	2.9+07	Jour	NP/A,481,217	88	P.C.-K.Kuo+	L0246
	γ,n	^{31}S	DAP	1CANOTC	1.8+07	2.9+07	Jour	NP/A,481,217	88	P.C.-K.Kuo+	L0246

18 Argon 40

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	γ,n		RP	1CANOTC			Jour	PRL,28,1526	72	K.H.Lokan+	L0242
	γ,n	^{39}Ar	DAP	1CANOTC	1.1+07	1.2+07	Jour	PRL,28,1526	72	K.H.Lokan+	L0242

20 Calcium

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	p,el	^{nat}Ca	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144

22 Titanium 46

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,t	^{44}Sc	CS	3CPRNPC	1.4+07	1.5+07	Jour	NIM/B,432,20	18	Yueli Song+	32744
	n,t	^{44}Sc	CS	3CPRLNZ	1.5+07	1.5+07	Jour	RCA,81,63	98	Xiangzhong Kong+	32515

25 Manganese 55

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,2n	^{54}Mn	CS	3CZRUJV	Fiss		Jour	ARI,143,132	19	M.Schulc+	31789
	p,el	^{55}Mn	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144
*	d,x	^{48}V	CS	2BLGLVN	4.2+07	5.0+07	Jour	JRN,320,145	19	F.Tarkanyi+	D4398
*	d,x	^{51}Cr	CS	2BLGLVN	2.2+07	5.0+07	Jour	JRN,320,145	19	F.Tarkanyi+	D4398
*	d,x	^{52}Mn	CS	2BLGLVN	2.2+07	5.0+07	Jour	JRN,320,145	19	F.Tarkanyi+	D4398
*	d,x	^{54}Mn	CS	2BLGLVN	1.2+07	5.0+07	Jour	JRN,320,145	19	F.Tarkanyi+	D4398

*	d,x	^{56}Mn	CS	2BLGLVN	1.2+07	5.0+07	Jour	JRN,320,145	19	F.Tarkanyi+	D4398

26 Iron 54

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,γ	^{55}Fe	CS	3HUNKFI	2.5-02	2.5-02	Jour	PR/C,96,025808	17	A.Wallner+	31790

26 Iron 56

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	α,el	^{56}Fe	DA	4KASKAZ	5.0+07	5.0+07	Jour	IZK,,(2),67	99	N.Burtebaev+	D0927

26 Iron 58

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,n	^{58}Co	CS	3INDTRM	3.4+06	2.0+07	Jour	NP/A,964,86	17	R.Ghosh+	D6304

27 Cobalt 59

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,2n	^{58}Co	CS	3CZRUJV	Fiss		Jour	ARI,143,132	19	M.Schulc+	31789
*	n,γ	^{60}Co	CS	3INDTRM	1.2+07	1.6+07	Jour	JRN,314,457	17	S.S.Yerraguntla+	33110
*	n,p	^{59}Fe	CS	3CZRUJV	Fiss		Jour	ARI,143,132	19	M.Schulc+	31789

28 Nickel

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	p,el	^{nat}Ni	DA	4UKRKFT	1.9+07	1.9+07	Jour	ZET,30,577	56	R.A.Vanetsian+	D5173
	p,el	^{nat}Ni	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144

28 Nickel 58

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	γ,0		RP	1CANSAS			Jour	CJP,37,607	59	J.P.Roalsvig+	L0235
	γ,n	^{57}Ni	INT	1CANSAS		2.4+07	Jour	CJP,37,607	59	J.P.Roalsvig+	L0235

29 Copper

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	p,el	^{nat}Cu	DA	4UKRKFT	1.9+07	1.9+07	Jour	ZET,30,577	56	R.A.Vanetsian+	D5173
	p,el	^{nat}Cu	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144

29 Copper 63

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	γ,n	^{62}Cu	?	1CANSAS	2.2+07	2.2+07	Jour	CJP,37,607	59	J.P.Roalsvig+	L0235

29 Copper 65

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,n+α	^{61}Co	CS	3CPRLNZ	1.5+07	1.5+07	Jour	RCA,81,63	98	Xiangzhong Kong+	32515

30 Zinc

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	p,el	^{nat}Zn	DA	4UKRKFT	5.4+06	5.4+06	Jour	ZET,30,573	56	A.P.Kliucharev+	D5144

30 Zinc 68

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	α,el	^{68}Zn	DA	4KASKAZ	2.9+07	5.0+07	Jour	SNP,19,370	74	A.V.Yushkov+	D0939
	α,inel	^{68}Zn	DAP	4KASKAZ	2.9+07	5.0+07	Jour	SNP,19,370	74	A.V.Yushkov+	D0939

34 Selenium 80

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,n	^{79}Se	CS	1USATNL	1.6+07	1.6+07	Jour	PR/C,98,054621	18	S.A.Yates+	L0238

39 Yttrium 89

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,2n	^{88}Y	CS	3CZRUJV	Fiss		Jour	ARI,143,132	19	M.Schulc+	31789
*	^{11}B,3n	^{97}Ru	CS	3INDTRM	2.8+07	5.9+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307

*	^{11}B,5n	^{95}Ru	CS	3INDTRM	4.6+07	5.9+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,x	^{90}Y	CS	3INDTRM	3.7+07	5.9+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,x	^{93}Mo	CS	3INDTRM	4.0+07	5.9+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,x	^{94}Tc	CS	3INDTRM	5.1+07	5.9+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,x	^{95}Tc	CS	3INDTRM	4.0+07	5.9+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,x	^{96}Tc	CS	3INDTRM	3.7+07	5.9+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307

40 Zirconium 90

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,t	^{88}Y	CS	3CPRLNZ	1.5+07	1.5+07	Jour	RCA,81,63	98	Xiangzhong Kong+	32515

40 Zirconium 92

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{28}Si,fus		CS	3INDNSD	6.8+07	8.4+07	Jour	PR/C,96,014614	17	Khushboo+	D6319

40 Zirconium 96

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{28}Si,fus		CS	3INDNSD	6.3+07	9.2+07	Jour	PR/C,96,014614	17	Khushboo+	D6319

41 Niobium 93

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,2n	^{92}Nb	CS	3CZRUJV	Fiss		Jour	ARI,143,132	19	M.Schulc+	31789
*	^{7}Li,x	^{93}Mo	CS	3INDTRM	2.8+07	3.0+07	Jour	PR/C,96,044616	17	S.K.Pandit+	D6313
*	^{7}Li,x	^{94}Mo	CS	3INDTRM	2.4+07	3.0+07	Jour	PR/C,96,044616	17	S.K.Pandit+	D6313
*	^{7}Li,x	^{95}Mo	CS	3INDTRM	2.4+07	3.0+07	Jour	PR/C,96,044616	17	S.K.Pandit+	D6313
*	^{7}Li,x	^{95}Tc	CS	3INDTRM	2.4+07	3.0+07	Jour	PR/C,96,044616	17	S.K.Pandit+	D6313
*	^{7}Li,x	^{96}Tc	CS	3INDTRM	2.4+07	3.0+07	Jour	PR/C,96,044616	17	S.K.Pandit+	D6313
*	^{7}Li,x	^{97}Tc	CS	3INDTRM	2.4+07	3.0+07	Jour	PR/C,96,044616	17	S.K.Pandit+	D6313
*	^{7}Li,x	^{96}Ru	CS	3INDTRM	2.8+07	3.0+07	Jour	PR/C,96,044616	17	S.K.Pandit+	D6313
*	^{7}Li,x	^{97}Ru	CS	3INDTRM	2.4+07	3.0+07	Jour	PR/C,96,044616	17	S.K.Pandit+	D6313
*	^{7}Li,x	^{98}Ru	CS	3INDTRM	2.4+07	3.0+07	Jour	PR/C,96,044616	17	S.K.Pandit+	D6313
*	^{11}B,3n	^{101}Pd	CS	3INDTRM	3.1+07	6.2+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,4n	^{100}Pd	CS	3INDTRM	3.6+07	6.2+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,5n	^{99}Pd	CS	3INDTRM	5.1+07	6.2+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,x	^{97}Ru	CS	3INDTRM	4.1+07	6.2+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,x	^{99}Rh	CS	3INDTRM	4.6+07	6.2+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,x	^{100}Rh	CS	3INDTRM	3.6+07	6.2+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307
*	^{11}B,x	^{101}Rh	CS	3INDTRM	3.6+07	6.2+07	Jour	PR/C,95,064602	17	Deepakkumar+	D6307

42 Molybdenum

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{7}Li,x	^{93}Mo	CS	3INDTRM	2.1+07	4.5+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{93}Tc	CS	3INDTRM	2.1+07	4.4+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{94}Tc	CS	3INDTRM	2.1+07	4.4+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{95}Tc	CS	3INDTRM	2.1+07	4.4+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{96}Tc	CS	3INDTRM	2.1+07	4.4+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{99}Tc	CS	3INDTRM	2.1+07	4.4+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{95}Ru	CS	3INDTRM	2.6+07	4.5+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{97}Ru	CS	3INDTRM	2.1+07	4.5+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{97}Rh	CS	3INDTRM	2.1+07	4.5+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{99}Rh	CS	3INDTRM	2.1+07	4.5+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{100}Rh	CS	3INDTRM	2.1+07	4.5+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309
*	^{7}Li,x	^{101}Rh	CS	3INDTRM	2.1+07	4.5+07	Jour	PR/C,96,014617	17	D.Kumar+	D6309

42 Molybdenum 90

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,n	^{89}Mo	CS	1USATNL	1.2+07	1.4+07	Jour	PR/C,99,025802	19	A.Banu+	L0248

42 Molybdenum 92

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,t	^{90}Nb	CS	3CPRLNZ	1.5+07	1.5+07	Jour	RCA,81,63	98	Xiangzhong Kong+	32515

42 Molybdenum 94

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,n	^{93}Mo	CS	1USATNL	9.7+06	1.4+07	Jour	PR/C,99,025802	19	A.Banu+	L0248

42 Molybdenum 98

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,γ	^{99}Mo	CS	3INDTRM	2.5-02	2.5-02	Jour	ARI,129,117	17	S.Badwar+	33108

42 Molybdenum 100

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

*	n,2n	^{99}Mo	CS	3INDTRM	1.2+07	1.6+07	Jour	ARI,129,117	17	S.Badwar+	33108

45 Rhodium 103

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
*	n,tot		CS	2ZZZGEL	1.0-02	5.0+00	Rept	INDC(EUR)-0033	19	Y.K.Kim+	23452

46 Palladium

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
*	α,x	^{107}Cd	CS	2BLGVUB	1.5+07	3.7+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	α,x	^{109}Cd	CS	2BLGVUB	1.2+07	3.7+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395

46 Palladium 108

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
*	n,γ	^{109}Pd	CS	3KORPUE	2.5-02	2.5-02	Jour	NIM/B,424,37	18	T.H.Nguyen+	30844
*	n,γ	^{109}Pd	RI	3KORPUE		5.5-01	Jour	NIM/B,424,37	18	T.H.Nguyen+	30844

47 Silver

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
*	p,x	^{107}Cd	CS	2JPNTOH	1.2+07	7.8+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	p,x	^{109}Cd	CS	2JPNTOH	1.2+07	6.6+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	d,x	^{107}Cd	CS	2BLGLVN	3.3+07	4.9+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	d,x	^{109}Cd	CS	2BLGLVN	3.3+07	4.9+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	^{3}He,x	^{107}Cd	CS	3HUNDEB	1.9+07	2.7+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	^{3}He,x	^{109}Cd	CS	3HUNDEB	1.8+07	2.7+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	^{3}He,x	^{109}In	CS	3HUNDEB	1.2+07	2.7+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	α,x	^{109}Cd	CS	2BLGVUB	1.4+07	2.5+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395

48 Cadmium

	Reaction	Product	Quant.	Lab.	Energy (eV)		Type	Documentation	Date	Author	Data #
					Min	Max		Ref Vol Page			
*	d,x	^{107}Cd	CS	2JPNTOH	2.0+07	4.0+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	d,x	^{109}Cd	CS	2JPNTOH	9.0+06	4.0+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395

49 Indium

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,x	^{107}Cd	CS	2JPNTOH	5.8+07	6.5+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395
*	d,x	^{109}Cd	CS	2BLGVUB	3.2+07	4.3+07	Jour	JRN,318,1949	18	F.Tarkanyi+	D4395

49 Indium 115

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,inel	^{115}In	CS	1USATNL	1.8+06	3.7+06	Jour	PR/C,98,064305	18	W.Tornow+	L0237

50 Tin 124

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	^{3}He,x+α	inclusive	DAE	4KASKAZ	3.4+07	3.4+07	Jour	IZK,,(6),52	86	A.D.Duisebaev+	D0929
	^{3}He,x+^{3}He	inclusive	DAE	4KASKAZ	3.4+07	3.4+07	Jour	IZK,,(6),52	86	A.D.Duisebaev+	D0929

58 Cerium 142

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,x	^{141}La	CS	3CPRLNZ	1.5+07	1.5+07	Jour	RCA,81,63	98	Xiangzhong Kong+	32515

60 Neodymium 146

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	p,inel	^{146}Nd	DAP	1USAPTN	3.5+07	3.5+07	Jour	PR/C,44,1668	91	P.D.Cottle+	C2380

64 Gadolinium 154

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,2n	^{153}Gd	CS	3INDTRM	1.2+07	1.7+07	Jour	PR/C,96,024608	17	R.Makwana+	33111

64 Gadolinium 160

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,2n	^{159}Gd	CS	3INDTRM	1.2+07	1.7+07	Jour	PR/C,96,024608	17	R.Makwana+	33111

69 Thulium 169

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,2n	^{168}Tm	CS	3CZRUJV	Fiss		Jour	ARI,143,132	19	M.Schulc+	31789
*	^{12}C,x	Many	CS	3INDNSD	7.7+07	8.9+07	Jour	PR/C,96,014620	17	A.Sood+	D6310

72 Hafnium

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,x	^{169}Yb	CS	2BLGLVN	4.0+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	p,x	^{170}Lu	CS	2BLGLVN	4.9+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	p,x	^{171}Lu	CS	2BLGLVN	4.0+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	p,x	^{172}Lu	CS	2BLGLVN	2.2+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	p,x	^{173}Lu	CS	2BLGLVN	1.6+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	p,x	^{172}Hf	CS	2BLGLVN	2.4+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	p,x	^{173}Hf	CS	2BLGLVN	1.4+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	p,x	^{175}Hf	CS	2BLGLVN	1.2+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	p,x	^{179}Hf	CS	2BLGLVN	1.6+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	d,x	^{180}Hf	CS	2BLGLVN	1.2+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	d,x	^{181}Hf	CS	2BLGLVN	1.2+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	d,x	^{173}Ta	CS	2BLGLVN	3.8+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	d,x	^{175}Ta	CS	2BLGLVN	1.2+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	d,x	^{176}Ta	CS	2BLGLVN	1.2+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	d,x	^{177}Ta	CS	2BLGLVN	1.2+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397
*	d,x	^{178}Ta	CS	2BLGLVN	1.2+07	4.9+07	Jour	NIM/B,441,93	19	F.Tarkanyi+	D4397

72 Hafnium 180

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{28}Si,fus		CS	3INDNSD	1.1+08	1.7+08	Jour	PR/C,95,034610	17	A.Shamlath+	D6318
*	^{30}Si,fus		CS	3INDNSD	1.1+08	1.5+08	Jour	PR/C,95,034610	17	A.Shamlath+	D6318

74 Tungsten 182

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,p	^{182}Ta	CS	3INDTRM	9.0+06	1.7+07	Jour	PR/C,96,024608	17	R.Makwana+	33111

74 Tungsten 186

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,γ	^{187}W	CS	3INDTRM	5.1+06	1.7+07	Jour	PR/C,96,024608	17	R.Makwana+	33111

*	^{40}Ca,fis		CS	3AULCBR	1.6+08	1.9+08	Jour	PR/C,96,034608	17	E.Prasad+	D0932
*	^{40}Ca,fis		DA	3AULCBR	1.6+08	1.9+08	Jour	PR/C,96,034608	17	E.Prasad+	D0932

76 Osmium 192

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{40}Ca,fis		CS	3AULCBR	1.6+08	2.2+08	Jour	PR/C,96,034608	17	E.Prasad+	D0932
*	^{40}Ca,fis		DA	3AULCBR	1.6+08	2.2+08	Jour	PR/C,96,034608	17	E.Prasad+	D0932

79 Gold 197

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,2n	^{196}Au	CS	3CZRUJV	Fiss		Jour	ARI,143,132	19	M.Schulc+	31789
*	^{11}B,3n	^{205}Po	CS	3INDTRM	3.9+07	5.5+07	Jour	PR/C,96,034620	17	A.Shrivastava+	D6312
*	^{11}B,4n	^{204}Po	CS	3INDTRM	4.1+07	6.1+07	Jour	PR/C,96,034620	17	A.Shrivastava+	D6312
*	^{11}B,5n	^{203}Po	CS	3INDTRM	5.0+07	6.1+07	Jour	PR/C,96,034620	17	A.Shrivastava+	D6312
*	^{11}B,6n	^{202}Po	CS	3INDTRM	6.1+07	6.1+07	Jour	PR/C,96,034620	17	A.Shrivastava+	D6312
*	^{48}Ca,2n	^{243}Es	CS	2SF JYV	2.1+08	2.1+08	Jour	PR/C,99,024614	19	R.Briselet+	D0923

81 Thallium 203

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{48}Ca,2n	^{249}Md	CS	2SF JYV	2.1+08	2.1+08	Jour	PR/C,99,024614	19	R.Briselet+	D0923

82 Lead 204

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,t	^{202}Tl	CS	3CPRLNZ	1.5+07	1.5+07	Jour	RCA,81,63	98	Xiangzhong Kong+	32515

82 Lead 206

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	α,el	^{206}Pb	DA	4KASKAZ	3.9+07	3.9+07	Jour	SNP,9,406	69	V.Yu.Gonchar+	D0940

82 Lead 207

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	α,el	^{207}Pb	DA	4KASKAZ	3.9+07	3.9+07	Jour	SNP,9,406	69	V.Yu.Gonchar+	D0940

82 Lead 208

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	γ,0		RP	1CANOTC			Jour	PRL,35,1215	75	N.K.Sherman+	L0243
	γ,n	^{207}Pb	CSP	1CANOTC	7.9+06	1.2+07	Jour	PRL,35,1215	75	N.K.Sherman+	L0243
	γ,n	^{207}Pb	DAP	1CANOTC	7.9+06	1.2+07	Jour	PRL,35,1215	75	N.K.Sherman+	L0243
	γ,tot		CS	1CANOTC	3.7+06	1.3+07	Conf	81GRENOB,62,630	81	N.K.Sherman+	L0241
	α,el	^{208}Pb	DA	4KASKAZ	3.9+07	3.9+07	Jour	SNP,9,406	69	V.Yu.Gonchar+	D0940

90 Thorium 232

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,fis	Many	CHG	3INDTRM	1.9+06	1.9+06	Jour	ARI,127,92	17	Haladharanaik+	33106
*	n,fis	Many	?	3INDTRM	1.9+06	1.9+06	Jour	ARI,127,92	17	Haladharanaik+	33106
	n,fis	^{4}He	?	3HUNKFI	2.5+06	1.4+07	Jour	SNP,8,257	69	L.Nagy+	30921
*	^{6}Li,fis		DA	3INDTRM	2.8+07	3.6+07	Jour	PR/C,96,024603	17	A.Pal+	D6311
*	^{6}Li,x+α	inclusive	DA	3INDTRM	2.8+07	3.6+07	Jour	PR/C,96,024603	17	A.Pal+	D6311
*	^{6}Li,x+d	inclusive	DA	3INDTRM	3.2+07	3.6+07	Jour	PR/C,96,024603	17	A.Pal+	D6311
*	^{6}Li,x+p	inclusive	DA	3INDTRM	3.2+07	3.6+07	Jour	PR/C,96,024603	17	A.Pal+	D6311
*	^{28}Si,fis	Many	CS	3INDTRM	1.6+08	1.8+08	Jour	PR/C,95,014612	17	Suparnasodaye+	D6316
*	^{28}Si,fis		DA	3INDTRM	1.7+08	1.7+08	Jour	PR/C,95,014612	17	Suparnasodaye+	D6316
*	^{28}Si,fis	Many	FY	3INDTRM	1.6+08	1.8+08	Jour	PR/C,95,014612	17	Suparnasodaye+	D6316

92 Uranium 233

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,fis	Many	FY	2FR ILL	Maxwl		Conf	85SANTA,1,393	85	P.Geltenbort+	21981
	n,fis	Many	KE	2FR ILL	Maxwl		Conf	85SANTA,1,393	85	P.Geltenbort+	21981
	n,fis	^{4}He	?	3HUNKFI	2.5-02	2.5-02	Jour	SNP,8,257	69	L.Nagy+	30921

92 Uranium 235

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,fis		?	1USATNL	9.0+06	1.7+07	Jour	PR/C,98,014608	18	Krishichayan+	L0233
	n,fis	Many	FY	2FR ILL	Maxwl		Conf	85SANTA,1,393	85	P.Geltenbort+	21981
	n,fis	Many	KE	2FR ILL	Maxwl		Conf	85SANTA,1,393	85	P.Geltenbort+	21981
	n,fis	^{4}He	?	3HUNKFI	2.5-02	1.4+07	Jour	SNP,8,257	69	L.Nagy+	30921
	n,γ	^{236}U	CSP	3HUNKFI	2.5-02	2.5-02	Jour	NIM/B,213,389	04	G.L.Molnar+	31788

92 Uranium 238

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,fis		?	1USATNL	9.0+06	1.7+07	Jour	PR/C,98,014608	18	Krishichayan+	L0233
*	n,fis	Many	CHG	3INDTRM	1.9+06	1.9+06	Jour	ARI,127,92	17	Haladharanaik+	33106
*	n,fis	Many	?	3INDTRM	1.9+06	1.9+06	Jour	ARI,127,92	17	Haladharanaik+	33106
	n,fis	^{4}He	?	3HUNKFI	2.5+06	1.4+07	Jour	SNP,8,257	69	L.Nagy+	30921
	n,fis	^{134}Te	CSP	3HUNKFI	2.5-02	2.5-02	Jour	NIM/B,213,389	04	G.L.Molnar+	31788
	n,fis	^{140}Ba	CSP	3HUNKFI	2.5-02	2.5-02	Jour	NIM/B,213,389	04	G.L.Molnar+	31788
	n,γ	^{239}U	CSP	3HUNKFI	2.5-02	2.5-02	Jour	NIM/B,213,389	04	G.L.Molnar+	31788
*	^{6}Li,fis		DA	3INDTRM	3.6+07	4.0+07	Jour	PR/C,96,054613	17	A.Parihari+	D6314
*	^{6}Li,fis	^{2}H	DA	3INDTRM	3.6+07	4.0+07	Jour	PR/C,96,054613	17	A.Parihari+	D6314
*	^{6}Li,fis	^{4}He	DA	3INDTRM	3.6+07	4.0+07	Jour	PR/C,96,054613	17	A.Parihari+	D6314
*	^{16}O,fis	Many	FY	3INDTRM	8.5+07	8.5+07	Jour	PR/C,96,044608	17	T.N.Nag+	D6322
*	^{18}O,x	Many	DA	2FR GAN	1.5+08	1.5+08	Jour	PL/B,779,456	18	I.Stefan+	D0935
*	^{18}O,x	Many	DAE	2FR GAN	1.5+08	1.5+08	Jour	PL/B,779,456	18	I.Stefan+	D0935

94 Plutonium 239

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,fis	Many	FY	2FR ILL	Maxwl		Conf	85SANTA,1,393	85	P.Geltenbort+	21981
	n,fis	Many	KE	2FR ILL	Maxwl		Conf	85SANTA,1,393	85	P.Geltenbort+	21981

94 Plutonium 240

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,fis	Many	CHG	3INDTRM	1.9+06	1.9+06	Jour	ARI,127,92	17	Haladharanaik+	33106
*	n,fis	Many	?	3INDTRM	1.9+06	1.9+06	Jour	ARI,127,92	17	Haladharanaik+	33106

96 Curium 244

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,fis	Many	CHG	3INDTRM	1.9+06	1.9+06	Jour	ARI,127,92	17	Haladharanaik+	33106
*	n,fis	Many	?	3INDTRM	1.9+06	1.9+06	Jour	ARI,127,92	17	Haladharanaik+	33106