EXFOR News (October 2015)

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, JAEA, 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 N.Otsuka (NRDC Coordinator n.otsuka@iaea.org) for inclusion in the EXFOR News distribution list as well as any question on EXFOR.

[1] N.Otuka 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 dΩ_1/dΩ_2/dE'	NUD	Delayed fission neutron multiplicity $\bar{\nu_d}$
D3E	Triple differential dΩ/dE'_1/dE'_2	NUF	Fragment neutrons
D4A	Quadruple diff. dΩ_1/dΩ_2/dE'_1/dE'_2	POL	Polarization
DA	Differential d/dΩ	POD	Differential polarization
DAA	Double differential dΩ_1/dΩ_2	PY	Product yield (other than fission)
DAE	Double differential dΩ/dE'	RI	Resonance integral
DAP	Partial differential d/dΩ	RP	Resonance parameter
DAT	Temperature-dependent Legendre coefficient	RR	Reaction rate
DE	Differential d/dE'	SIF	Self indication
DEP	Energy spectrum for specific group	SPC	Gamma spectrum
DP	Diff. by linear momentum of outgoing part.	TSL	Thermal scattering
DT	Diff. by 4-momentum transfer squared	TT	Thick target yield
ETA	η-value $\bar{\nu}\sigma_{\rm fis}/(\sigma_{\rm capt}+\sigma_{\rm fis})$	TTD	Differential thick target yield, d/dΩ
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)

1 Hydrogen 1

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{20}C,x	^{19}C	?	2JPNIPC	1.0+09	1.0+09	Jour	PR/C,91,064315	15	Zs.Vajta+	E2482

1 Hydrogen 3

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,3n	^{1}H	DAP	3CRORBZ	1.4+07	1.4+07	Jour	PRL,14,444	65	V.Ajdacic+	30131
	n,γ	^{4}H	DA	3CRORBZ	1.4+07	1.4+07	Jour	PRL,14,444	65	V.Ajdacic+	30131

2 Helium 4

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	α,γ	^{8}Be	CSP	3INDTRM	1.8+07	2.8+07	Jour	PRL,111,062502	13	V.M.Datar+	D6232
	^{8}Li,n+α	^{7}Li	CS	2JPNIPC	2.2+06	6.8+06	Jour	PR/C,62,(6),065801	Dec 00	Y.Mizoi+	E1737
*	^{10}Be,el	^{4}He	DA	1USAORL			Jour	PR/C,90,054324	14	M.Freer+	C2146
*	^{10}Be,el	^{4}He	?	1USAORL			Jour	PR/C,90,054324	14	M.Freer+	C2146

3 Lithium 6

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{13}C,d	^{17}O	DAP	1USAFSU	7.7+06	7.7+06	Jour	PR/C,91,048801	15	M.L.Avila+	C2158

4 Beryllium 9

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,tot		CS	3CPRAEP	2.4+04	1.4+05	Jour	CST,16,1	82	Cuiyunfeng+	30929
*	p,x+n	inclusive	PY	3INDTRM	2.0+07	2.0+07	Jour	NIM/B,318,237	14	S.P.Tripathy+	D6221
*	^{36}Si,x	^{35}Si	CSP	1USAMSU	3.6+09	3.6+09	Jour	PR/C,91,041302	15	S.R.Stroberg+	C2162
*	^{38}Si,x	^{37}Si	CSP	1USAMSU	3.6+09	3.6+09	Jour	PR/C,91,041302	15	S.R.Stroberg+	C2162
*	^{40}Si,x	^{39}Si	CSP	1USAMSU	3.4+09	3.4+09	Jour	PR/C,91,041302	15	S.R.Stroberg+	C2162

6 Carbon

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,tot		CS	3CPRAEP	2.4+04	1.4+05	Jour	CST,16,1	82	Cuiyunfeng+	30929

6 Carbon 12

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,inel	^{12}C	MLT	3CHLSAN	1.5+07	1.5+07	Jour	NP/A,96,449	67	J.Zamudio+	30036
*	p,x+n	inclusive	PY	3INDTRM	2.0+07	2.0+07	Jour	NIM/B,318,237	14	S.P.Tripathy+	D6221
*	^{6}Li,d	^{16}O	DAP	3INDNSD	2.0+07	2.0+07	Jour	PR/C,89,044618	14	S.Adhikari+	D6239
*	^{10}C,fus		CS	1USAANL	1.0+07	1.9+07	Jour	PRL,112,192701	14	P.F.F.Carnelli+	C2117
*	^{12}C,fus		CS	1USAANL	1.1+07	1.8+07	Jour	PRL,112,192701	14	P.F.F.Carnelli+	C2117
*	^{13}C,fus		CS	1USAANL	8.1+06	1.8+07	Jour	PRL,112,192701	14	P.F.F.Carnelli+	C2117
*	^{14}C,fus		CS	1USAANL	9.5+06	1.7+07	Jour	PRL,112,192701	14	P.F.F.Carnelli+	C2117
*	^{15}C,fus		CS	1USAANL	9.7+06	1.8+07	Jour	PRL,112,192701	14	P.F.F.Carnelli+	C2117
*	^{16}O,fus		CS	1USAWMU	7.0+06	1.5+07	Jour	NIM/A,743,5	14	T.K.Steinbach+	C2092
*	^{16}O,x+α	inclusive	DAE	3INDVEC	1.2+08	1.6+08	Jour	PR/C,87,024602	13	S.Kundu+	D6224
*	^{18}O,inel	^{12}C	DAP	1USATAM	2.2+08	2.2+08	Jour	PR/C,89,064602	14	T.Al-Abdullah+	C2118

6 Carbon 13

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{17}O,el	^{13}C	DA	1USATAM	2.0+08	2.0+08	Jour	PR/C,89,064602	14	T.Al-Abdullah+	C2118
*	^{17}O,inel	^{13}C	DAP	1USATAM	2.0+08	2.0+08	Jour	PR/C,89,064602	14	T.Al-Abdullah+	C2118

7 Nitrogen 14

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,el	^{14}N	?	1USANOT	1.0+06	4.0+06	Jour	PR/C,91,045804	15	R.J.Deboer+	C2160
*	d,p	^{15}N	DAP	1USAFSU	1.6+07	1.6+07	Jour	PR/C,91,044317	15	C.E.Mertin+	C2161

8 Oxygen 17

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,γ		RP	1USATNL	1.8+05	4.9+05	Jour	PR/C,91,015812	15	M.Q.Buckner+	C2155
*	p,γ	^{18}F	CS	1USATNL	1.6+05	3.0+05	Jour	PR/C,91,015812	15	M.Q.Buckner+	C2155

10 Neon 20

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	α,el	^{20}Ne	DA	1USAWIS	3.8+06	1.1+07	Jour	PR/C,43,2523	Jun 91	R.Abegg+	C0100

11 Sodium 23

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,γ	^{24}Na	CS	3INDPOO	1.0+03	4.0+06	Jour	ANE,59,25	13	M.S.Barough+	33051

13 Aluminium

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,tot		CS	3ARGCAB	1.1-03	8.9+01	Jour	ANE,80,43	15	F.Cantargi+	31743

13 Aluminium 27

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,tot		CS	3CPRAEP	2.4+04	2.4+04	Jour	CST,16,1	82	Cuiyunfeng+	30929
*	^{7}Be,el	^{27}Al	DA	1USANOT	1.4+07	1.5+07	Jour	PR/C,89,044611	14	V.Morcelle+	C2139
*	^{19}F,x+n	inclusive	PY	3INDTRM	1.1+08	1.4+08	Jour	NIM/A,721,21	13	C.Sunil+	D6222

23 Vanadium 51

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,γ	^{52}V	CS	3INDPOO	1.0+03	4.0+06	Jour	ANE,59,25	13	M.S.Barough+	33051

24 Chromium

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,x	^{52}Mn	CS	1USAWAS	6.6+06	1.3+07	Jour	ARI,96,154	15	A.L.Wooten+	C2145
*	p,x	^{54}Mn	CS	1USAWAS	7.8+06	1.2+07	Jour	ARI,96,154	15	A.L.Wooten+	C2145

25 Manganese 55

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	p,4n	^{52}Fe	CS	2JPNIRS	4.0+07	7.2+07	Jour	RI,34,537	85	K.Suzuki	E2397
	p,4n	^{52}Fe	TT	2JPNIRS	6.0+07	7.3+07	Jour	RI,34,537	85	K.Suzuki	E2397
	p,n	^{55}Fe	CS	2JPNIRS	3.6+07	7.2+07	Jour	RI,34,537	85	K.Suzuki	E2397

27 Cobalt 59

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,2n	^{58}Co	CS	3CZRUJF	1.8+07	3.5+07	Jour	KPS,59,1801	11	E.Simeckova+	31764
*	n,3n	^{57}Co	CS	3CZRUJF	1.8+07	3.5+07	Jour	KPS,59,1801	11	E.Simeckova+	31764
*	n,4n	^{56}Co	CS	3CZRUJF	3.2+07	3.5+07	Jour	KPS,59,1801	11	E.Simeckova+	31764
*	n,p	^{59}Fe	CS	3CZRUJF	1.8+07	3.5+07	Jour	KPS,59,1801	11	E.Simeckova+	31764
*	n,x	^{54}Mn	CS	3CZRUJF	2.8+07	3.5+07	Jour	KPS,59,1801	11	E.Simeckova+	31764
*	n,x	^{56}Mn	CS	3CZRUJF	1.8+07	3.5+07	Jour	KPS,59,1801	11	E.Simeckova+	31764

28 Nickel 64

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{6}Li,2n	^{68}Ga	CS	3INDTRM	1.2+07	2.8+07	Jour	PR/C,90,024615	14	Md.Moinshaikh+	D6243
*	^{6}Li,3n	^{67}Ga	CS	3INDTRM	1.4+07	2.8+07	Jour	PR/C,90,024615	14	Md.Moinshaikh+	D6243
*	^{6}Li,x	^{64}Cu	CS	3INDTRM	1.7+07	2.8+07	Jour	PR/C,90,024615	14	Md.Moinshaikh+	D6243
*	^{6}Li,x	^{65}Cu	CS	3INDTRM	1.2+07	2.8+07	Jour	PR/C,90,024615	14	Md.Moinshaikh+	D6243
*	^{6}Li,x	^{67}Zn	CS	3INDTRM	1.2+07	2.8+07	Jour	PR/C,90,024615	14	Md.Moinshaikh+	D6243
*	^{6}Li,x	^{68}Zn	CS	3INDTRM	1.2+07	2.8+07	Jour	PR/C,90,024615	14	Md.Moinshaikh+	D6243

30 Zinc

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	^{3}He,x	^{66}Ga	CS	2JPNIPC	8.5+06	3.6+07	Jour	RI,27,631	78	Y.Nagame+	E2395
	^{3}He,x	^{67}Ga	CS	2JPNIPC	8.5+06	3.9+07	Jour	RI,27,631	78	Y.Nagame+	E2395
	^{3}He,x	^{67}Ga	TT	2JPNIPC	1.2+07	3.9+07	Jour	RI,27,631	78	Y.Nagame+	E2395
	^{3}He,x	^{68}Ge	CS	2JPNIPC	1.5+07	3.8+07	Jour	RI,27,631	78	Y.Nagame+	E2395
	^{3}He,x	^{68}Ge	TT	2JPNIPC	1.8+07	3.8+07	Jour	RI,27,631	78	Y.Nagame+	E2395
	α,x	^{66}Ga	CS	2JPNIPC	1.9+07	3.7+07	Jour	RI,27,631	78	Y.Nagame+	E2395
	α,x	^{67}Ga	CS	2JPNIPC	1.1+07	3.7+07	Jour	RI,27,631	78	Y.Nagame+	E2395
	α,x	^{67}Ga	TT	2JPNIPC	1.2+07	3.0+07	Jour	RI,27,631	78	Y.Nagame+	E2395
	α,x	^{68}Ge	CS	2JPNIPC	2.3+07	3.7+07	Jour	RI,27,631	78	Y.Nagame+	E2395
	α,x	^{68}Ge	TT	2JPNIPC	2.1+07	3.7+07	Jour	RI,27,631	78	Y.Nagame+	E2395

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	3KORKRM	1.6+07	2.8+07	Jour	JRN,303,815	15	M.Zaman+	30834
*	n,3n	^{87}Y	CS	3KORKRM	2.5+07	3.1+07	Jour	JRN,303,815	15	M.Zaman+	30834
*	n,4n	^{86}Y	CS	3KORKRM	3.6+07	3.6+07	Jour	JRN,303,815	15	M.Zaman+	30834
*	^{9}Be,el	^{89}Y	DA	3INDTRM	1.9+07	3.3+07	Jour	PR/C,89,064610	14	C.S.Palshetkar+	D6240
*	^{9}Be,x+α	inclusive	CS	3INDTRM	2.1+07	3.0+07	Jour	PR/C,89,064610	14	C.S.Palshetkar+	D6240
*	^{9}Be,x+α	inclusive	DA	3INDTRM	2.3+07	3.3+07	Jour	PR/C,89,064610	14	C.S.Palshetkar+	D6240
*	^{9}Be,x+α	inclusive	DAE	3INDTRM	2.3+07	3.3+07	Jour	PR/C,89,064610	14	C.S.Palshetkar+	D6240
*	^{12}C,x	Many	TT	3INDTAT	7.5+07	7.5+07	Jour	RCA,101,437	13	M.Maiti	D6233
*	^{16}O,el	^{89}Y	DA	3INDTRM	6.2+07	8.4+07	Jour	PR/C,90,027604	14	R.Tripathi+	D6244

40 Zirconium

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,x	Many	CS	2GERZFK		7.0+07	Jour	EPJ/A,50,83	14	H.Naik+	G0509

40 Zirconium 91

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,2n	^{89}Zr	CS	4RUSMOS	1.9+07	3.0+07	Jour	YF,78,(7),678	15	V.V.Varlamov+	M0914
*	γ,n	^{90}Zr	CS	4RUSMOS	1.1+07	3.0+07	Jour	YF,78,(7),678	15	V.V.Varlamov+	M0914
*	γ,x+n	inclusive	CS	4RUSMOS	1.1+07	3.0+07	Jour	YF,78,(7),678	15	V.V.Varlamov+	M0914

40 Zirconium 94

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,2n	^{92}Zr	CS	4RUSMOS	1.4+07	3.1+07	Jour	YF,78,(7),678	15	V.V.Varlamov+	M0914
*	γ,3n	^{91}Zr	CS	4RUSMOS	2.4+07	3.1+07	Jour	YF,78,(7),678	15	V.V.Varlamov+	M0914
*	γ,n	^{93}Zr	CS	4RUSMOS	7.8+06	3.1+07	Jour	YF,78,(7),678	15	V.V.Varlamov+	M0914
*	γ,x+n	inclusive	CS	4RUSMOS	7.8+06	3.1+07	Jour	YF,78,(7),678	15	V.V.Varlamov+	M0914

40 Zirconium 96

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,n	^{95}Zr	CS	3INDTRM		1.2+07	Jour	RCA,102,221	14	Ritacrasta+	G0511
*	γ,n	^{95}Zr	CS	2GERZFK		7.0+07	Jour	EPJ/A,50,83	14	H.Naik+	G0509

41 Niobium 93

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,n	^{92}Nb	CS	3INDTRM		1.2+07	Jour	RCA,101,541	13	R.Crasta+	G0508

42 Molybdenum 95

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	p,n	^{95}Tc	CS	2JPNJAE	5.0+06	2.8+07	Jour	ARI,42,297	91	M.Izumo+	E2396
	p,n	^{95}Tc	TT	2JPNJAE	2.8+07	2.8+07	Jour	ARI,42,297	91	M.Izumo+	E2396

49 Indium 115

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{16}O,x	^{116}Sb	CS	3INDNSD	8.3+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{117}Sb	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{118}Sb	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{119}I	CS	3INDNSD	8.3+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{120}I	CS	3INDNSD	8.3+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{121}I	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{121}Xe	CS	3INDNSD	6.6+07	9.6+07	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{122}Xe	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{123}Xe	CS	3INDNSD	7.5+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{125}Xe	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{125}Cs	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{127}Cs	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{126}Ba	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{127}Ba	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{128}Ba	CS	3INDNSD	6.6+07	1.0+08	Jour	PR/C,88,064613	13	K.Kumar+	D6231
*	^{16}O,x	^{129}Ba	CS	3INDNSD	6.6+07	8.3+07	Jour	PR/C,88,064613	13	K.Kumar+	D6231

50 Tin 112

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,x	^{111}In	CS	4ARMJER		4.0+07	Jour	YF,78,483	15	A.S.Danagulyan+	M0913

50 Tin 118

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,n	^{117}Sn	CS	4ARMJER		4.0+07	Jour	YF,78,483	15	A.S.Danagulyan+	M0913

50 Tin 120

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,inel	^{120}Sn	DAE	2JPNOSA	3.0+08	3.0+08	Jour	PL/B,744,7	15	A.M.Krumbholz+	E2480

52 Tellurium

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,x	^{124}Sb	CS	4ARMJER		4.0+07	Jour	YF,78,483	15	A.S.Danagulyan+	M0913

52 Tellurium 130

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{16}O,5n	^{141}Nd	CS	3INDNSD	6.1+07	9.0+07	Jour	PR/C,89,024612	14	Devendrap.Singh+	D6238
*	^{16}O,x	^{131}Xe	CS	3INDNSD	6.1+07	9.0+07	Jour	PR/C,89,024612	14	Devendrap.Singh+	D6238
*	^{16}O,x	^{133}Xe	CS	3INDNSD	6.1+07	9.0+07	Jour	PR/C,89,024612	14	Devendrap.Singh+	D6238
*	^{16}O,x	^{139}Ce	CS	3INDNSD	6.7+07	9.0+07	Jour	PR/C,89,024612	14	Devendrap.Singh+	D6238

53 Iodine 127

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,γ	^{128}I	CS	3INDPOO	1.0+03	4.0+06	Jour	ANE,59,25	13	M.S.Barough+	33051

56 Barium 137

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,inel	^{137}Ba	CS	3INDPOO	1.0+03	4.0+06	Jour	ANE,63,209	14	M.S.Barough+	33055

57 Lanthanum 139

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,el	^{139}La	DA	3SAFSUN	2.3+05	1.6+06	Jour	NP/A,124,111	69	J.C.Malan+	31263
	n,inel	^{139}La	DAP	3SAFSUN	3.6+05	2.1+06	Jour	NP/A,124,111	69	J.C.Malan+	31263

59 Praseodymium 141

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,el	^{141}Pr	DA	3SAFSUN	2.3+05	1.6+06	Jour	NP/A,124,111	69	J.C.Malan+	31263
	n,inel	^{141}Pr	DAP	3SAFSUN	2.6+05	2.2+06	Jour	NP/A,124,111	69	J.C.Malan+	31263

62 Samarium 144

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{7}Li,2n	^{149}Tb	CS	3INDTAT	2.2+07	4.0+07	Jour	PR/C,88,044617	13	P.K.Rath+	D6229
*	^{7}Li,3n	^{148}Tb	CS	3INDTAT	2.2+07	4.0+07	Jour	PR/C,88,044617	13	P.K.Rath+	D6229
*	^{7}Li,4n	^{147}Tb	CS	3INDTAT	3.4+07	4.0+07	Jour	PR/C,88,044617	13	P.K.Rath+	D6229

62 Samarium 152

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{7}Li,3n	^{156}Tb	CS	3INDTAT	2.0+07	4.0+07	Jour	PR/C,88,044617	13	P.K.Rath+	D6229
*	^{7}Li,4n	^{155}Tb	CS	3INDTAT	2.7+07	4.0+07	Jour	PR/C,88,044617	13	P.K.Rath+	D6229
*	^{7}Li,5n	^{154}Tb	CS	3INDTAT	3.6+07	4.0+07	Jour	PR/C,88,044617	13	P.K.Rath+	D6229

65 Terbium 159

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{6}Li,x+α	inclusive	CS	3INDTRM	2.2+07	3.4+07	Jour	PR/C,88,064603	13	M.K.Pradhan+	D6230
*	^{6}Li,x+α	inclusive	DA	3INDTRM	2.3+07	3.5+07	Jour	PR/C,88,064603	13	M.K.Pradhan+	D6230

67 Holmium 165

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{16}O,3n	^{178}Re	CS	3INDNSD	7.3+07	9.6+07	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,4n	^{177}Re	CS	3INDNSD	7.3+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,5n	^{176}Re	CS	3INDNSD	8.4+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,6n	^{175}Re	CS	3INDNSD	9.3+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,x	^{166}Tm	CS	3INDNSD	8.4+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,x	^{173}Ta	CS	3INDNSD	8.4+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,x	^{174}Ta	CS	3INDNSD	8.4+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,x	^{175}Ta	CS	3INDNSD	8.4+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,x	^{176}Ta	CS	3INDNSD	8.4+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,x	^{175}W	CS	3INDNSD	9.3+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,x	^{176}W	CS	3INDNSD	8.4+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225
*	^{16}O,x	^{177}W	CS	3INDNSD	7.3+07	1.0+08	Jour	PR/C,87,044608	13	Kamalkumar+	D6225

68 Erbium 170

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{30}Si,fus		CS	3INDNSD	1.3+08	1.6+08	Jour	PR/C,88,034606	13	G.Mohanto+	D6228
*	^{31}P,fus		CS	3INDNSD	1.3+08	1.8+08	Jour	PR/C,88,034606	13	G.Mohanto+	D6228

69 Thulium 169

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{13}C,3n	^{179}Re	CS	3INDNSD	6.0+07	7.2+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236
*	^{13}C,4n	^{178}Re	CS	3INDNSD	6.0+07	8.5+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236
*	^{13}C,5n	^{177}Re	CS	3INDNSD	6.4+07	8.5+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236
*	^{13}C,6n	^{176}Re	CS	3INDNSD	8.0+07	8.5+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236
*	^{13}C,x	^{171}Lu	CS	3INDNSD	8.0+07	8.5+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236

*	^{13}C,x	^{172}Lu	CS	3INDNSD	6.4+07	8.5+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236
*	^{13}C,x	^{173}Ta	CS	3INDNSD	6.4+07	8.5+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236
*	^{13}C,x	^{174}Ta	CS	3INDNSD	6.4+07	8.5+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236
*	^{13}C,x	^{175}Ta	CS	3INDNSD	6.4+07	8.5+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236
*	^{13}C,x	^{177}W	CS	3INDNSD	6.7+07	8.5+07	Jour	PR/C,89,024608	14	Vijayr.Sharma+	D6236

72 Hafnium

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,x	^{177}Lu	CS	4ARMJER		4.0+07	Jour	YF,78,483	15	A.S.Danagulyan+	M0913

74 Tungsten

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,x	^{181}Re	TT	1USALAS	9.7+06	2.6+07	Jour	RCA,101,339	13	M.E.Fassbender+	C2147
*	p,x	^{182}Re	TT	1USALAS	9.7+06	2.6+07	Jour	RCA,101,339	13	M.E.Fassbender+	C2147
*	p,x	^{183}Re	TT	1USALAS	9.7+06	2.6+07	Jour	RCA,101,339	13	M.E.Fassbender+	C2147
*	p,x	^{184}Re	TT	1USALAS	9.7+06	2.6+07	Jour	RCA,101,339	13	M.E.Fassbender+	C2147
*	p,x	^{186}Re	TT	1USALAS	9.7+06	2.6+07	Jour	RCA,101,339	13	M.E.Fassbender+	C2147

76 Osmium 186

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,n	^{185}Os	CS	4RUSMOS	1.1+07	2.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915
*	γ,x+n	inclusive	CS	4RUSMOS	1.1+07	2.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915

76 Osmium 190

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,2n	^{188}Os	CS	4RUSMOS	1.4+07	3.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915
*	γ,3n	^{187}Os	CS	4RUSMOS	2.2+07	3.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915
*	γ,n	^{189}Os	CS	4RUSMOS	7.4+06	3.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915
*	γ,x+n	inclusive	CS	4RUSMOS	7.4+06	3.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915

76 Osmium 192

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,2n	^{190}Os	CS	4RUSMOS	1.3+07	3.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915
*	γ,3n	^{189}Os	CS	4RUSMOS	2.2+07	3.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915
*	γ,n	^{191}Os	CS	4RUSMOS	7.4+06	3.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915
*	γ,x+n	inclusive	CS	4RUSMOS	7.4+06	3.0+07	Jour	YF,78,(9),797	15	V.V.Varlamov+	M0915

78 Platinum 194

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{19}F,fus		CS	3INDNSD	9.0+07	1.3+08	Jour	PR/C,89,024609	14	Varinderjitsingh+	D6237

78 Platinum 196

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{19}F,fus		CS	3INDNSD	9.6+07	1.3+08	Jour	PR/C,89,024609	14	Varinderjitsingh+	D6237

78 Platinum 198

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{7}Li,x	Many	CS	3INDTRM	2.3+07	4.3+07	Jour	PL/B,718,931	13	A.Shrivastava+	D6223
*	^{7}Li,x	^{197}Pt	CS	3INDTRM	2.6+07	4.3+07	Jour	PL/B,718,931	13	A.Shrivastava+	D6223
*	^{7}Li,x	^{199}Pt	CS	3INDTRM	2.3+07	4.3+07	Jour	PL/B,718,931	13	A.Shrivastava+	D6223
*	^{7}Li,x	^{200}Pt	CS	3INDTRM	2.6+07	4.3+07	Jour	PL/B,718,931	13	A.Shrivastava+	D6223
*	^{19}F,fus		CS	3INDNSD	9.1+07	1.3+08	Jour	PR/C,89,024609	14	Varinderjitsingh+	D6237

79 Gold 197

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{6}Li,2n	^{201}Pb	CS	3INDTRM	2.4+07	3.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{6}Li,3n	^{200}Pb	CS	3INDTRM	2.4+07	3.9+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{6}Li,4n	^{199}Pb	CS	3INDTRM	2.8+07	3.9+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{6}Li,5n	^{198}Pb	CS	3INDTRM	3.7+07	3.9+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{6}Li,x	^{196}Au	CS	3INDTRM	2.4+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{6}Li,x	^{198}Au	CS	3INDTRM	2.4+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{6}Li,x	^{197}Hg	CS	3INDTRM	2.4+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{6}Li,x	^{198}Hg	CS	3INDTRM	2.0+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{6}Li,x	^{199}Tl	CS	3INDTRM	2.7+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{6}Li,x	^{200}Tl	CS	3INDTRM	2.5+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,3n	^{201}Pb	CS	3INDTRM	2.3+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,4n	^{200}Pb	CS	3INDTRM	2.8+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,5n	^{199}Pb	CS	3INDTRM	3.8+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,x	^{198}Au	CS	3INDTRM	2.0+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,x	^{199}Au	CS	3INDTRM	2.0+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,x	^{197}Hg	CS	3INDTRM	2.0+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,x	^{198}Hg	CS	3INDTRM	2.2+07	4.2+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,x	^{199}Hg	CS	3INDTRM	2.0+07	4.3+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,x	^{199}Tl	CS	3INDTRM	3.1+07	4.2+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235
*	^{7}Li,x	^{200}Tl	CS	3INDTRM	2.6+07	4.2+07	Jour	PR/C,89,024607	14	C.S.Palshetkar+	D6235

82 Lead

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	^{7}Li,x	^{207}At	CS	2JPNJAE	3.8+07	4.8+07	Jour	JRN,304,1077	15	I.Nishinaka+	E2481
*	^{7}Li,x	^{208}At	CS	2JPNJAE	3.2+07	5.7+07	Jour	JRN,304,1077	15	I.Nishinaka+	E2481
*	^{7}Li,x	^{209}At	CS	2JPNJAE	3.2+07	5.7+07	Jour	JRN,304,1077	15	I.Nishinaka+	E2481
*	^{7}Li,x	^{210}At	CS	2JPNJAE	2.9+07	5.7+07	Jour	JRN,304,1077	15	I.Nishinaka+	E2481
*	^{7}Li,x	^{211}At	CS	2JPNJAE	3.5+07	5.7+07	Jour	JRN,304,1077	15	I.Nishinaka+	E2481

83 Bismuth 209

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,2n	^{207}Bi	CS	4RUSMOS	1.4+07	2.6+07	Jour	EPJ/A,51,67	15	S.S.Belyshev+	M0912
*	γ,2n	^{207}Bi	?	4RUSMOS		5.6+07	Jour	EPJ/A,51,67	15	S.S.Belyshev+	M0912
*	γ,4n	^{205}Bi	?	4RUSMOS		5.6+07	Jour	EPJ/A,51,67	15	S.S.Belyshev+	M0912
*	γ,5n	^{204}Bi	?	4RUSMOS		5.6+07	Jour	EPJ/A,51,67	15	S.S.Belyshev+	M0912
*	γ,6n	^{203}Bi	?	4RUSMOS		5.6+07	Jour	EPJ/A,51,67	15	S.S.Belyshev+	M0912
*	γ,n	^{208}Bi	CS	4RUSMOS	8.0+06	2.6+07	Jour	EPJ/A,51,67	15	S.S.Belyshev+	M0912
*	γ,x	^{203}Pb	?	4RUSMOS		5.6+07	Jour	EPJ/A,51,67	15	S.S.Belyshev+	M0912
*	γ,x	^{204}Pb	?	4RUSMOS		5.6+07	Jour	EPJ/A,51,67	15	S.S.Belyshev+	M0912
*	α,2n	^{211}At	TT	2JPNIRS	2.7+07	3.0+07	Jour	ARI,94,363	14	K.Nagatsu+	E2476
*	^{6}Li,sct	^{209}Bi	DA	3INDTRM	2.1+07	3.8+07	Jour	PR/C,89,064614	14	D.Patel+	D6241
*	^{6}Li,x+α	inclusive	DA	3INDTRM	2.1+07	3.8+07	Jour	PR/C,89,064614	14	D.Patel+	D6241
*	^{7}Li,sct	^{209}Bi	DA	3INDTRM	2.1+07	3.8+07	Jour	PR/C,89,064614	14	D.Patel+	D6241
*	^{7}Li,x+α	inclusive	DA	3INDTRM	2.4+07	3.8+07	Jour	PR/C,89,064614	14	D.Patel+	D6241

90 Thorium 232

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,fis	Many	FY	3INDMNG		8.0+06	Jour	JRN,299,127	14	H.Naik+	G0510
	n,fis	Many	FY	3INDTRM	2.5-02	2.5-02	Jour	JIN,43,3067	81	A.Ramaswami+	33010
*	n,fis	Many	FY	3INDTRM	5.4+06	1.0+07	Jour	NSE,176,106	14	P.M.Prajapati+	33058
*	n,fis	Many	FY	3INDTRM	6.4+06	1.0+07	Jour	EPJ/A,50,144	14	H.Naik+	33057
*	n,fis		FY	3INDTRM	6.4+06	1.0+07	Jour	EPJ/A,50,144	14	H.Naik+	33057
*	n,fis		NU	3INDTRM	6.4+06	1.0+07	Jour	EPJ/A,50,144	14	H.Naik+	33057
*	p,x	^{140}Ba	CS	1USALAS	4.4+07	1.9+08	Jour	RCA,102,569	14	J.W.Engle+	C2154
*	p,x	^{140}La	CS	1USALAS	4.4+07	1.9+08	Jour	RCA,102,569	14	J.W.Engle+	C2154
*	p,x	^{139}Ce	CS	1USALAS	7.3+07	1.9+08	Jour	RCA,102,569	14	J.W.Engle+	C2154
*	p,x	^{141}Ce	CS	1USALAS	4.4+07	1.9+08	Jour	RCA,102,569	14	J.W.Engle+	C2154
*	p,x	^{143}Ce	CS	1USALAS	4.4+07	1.9+08	Jour	RCA,102,569	14	J.W.Engle+	C2154
*	p,x	^{226}Ac	CS	1USALAS	4.4+07	1.9+08	Jour	RCA,102,569	14	J.W.Engle+	C2154
*	p,x	^{227}Ac	CS	1USALAS	4.4+07	1.9+08	Jour	RCA,102,569	14	J.W.Engle+	C2154
*	^{6}Li,el	^{232}Th	DA	3INDTRM	2.6+07	4.4+07	Jour	PR/C,89,014610	14	Shradhadubey+	D6234
*	^{7}Li,el	^{232}Th	DA	3INDTRM	2.4+07	4.4+07	Jour	PR/C,89,014610	14	Shradhadubey+	D6234
*	^{20}Ne,fis	Many	CS	3INDVEC	1.1+05	1.4+08	Jour	PR/C,87,044610	13	Suparnasodaye+	D6226
*	^{20}Ne,fis	Many	DA	3INDVEC	1.3+08	1.4+08	Jour	PR/C,88,024603	13	R.Tripathi+	D6227
*	^{20}Ne,x	^{232}Pa	CS	3INDVEC	1.1+08	1.4+08	Jour	PR/C,87,044610	13	Suparnasodaye+	D6226

*	^{20}Ne,x	^{233}Pa	CS	3INDVEC	1.1+08	1.4+08	Jour	PR/C,87,044610	13	Suparnasodaye+	D6226

91 Protactinium 234

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,fis		CS	3INDTRM	7.9+06	1.4+07	Jour	PR/C,89,024606	14	V.V.Desai+	33060

92 Uranium 235

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,fis	Many	FY	3INDTRM	2.5+04	2.5+04	Jour	NIM,205,145	83	N.N.Ajitanand+	33082
	n,fis	Many	KE	3INDTRM	2.5+04	2.5+04	Jour	NIM,205,145	83	N.N.Ajitanand+	33082
	n,fis		?	3INDTRM	Maxwl		Conf	77PUNE,2,241	77	N.N.Ajitanand+	30494
*	^{6}Li,fis		CS	3INDTRM	2.8+07	4.2+07	Jour	PR/C,90,014603	14	A.Parihari+	D6242
*	^{6}Li,fis		DA	3INDTRM	2.8+07	4.2+07	Jour	PR/C,90,014603	14	A.Parihari+	D6242
*	^{7}Li,fis		CS	3INDTRM	2.8+07	4.2+07	Jour	PR/C,90,014603	14	A.Parihari+	D6242
*	^{7}Li,fis		DA	3INDTRM	2.8+07	4.2+07	Jour	PR/C,90,014603	14	A.Parihari+	D6242

92 Uranium 238

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	γ,fis	Many	FY	2FR SAC		1.7+07	Jour	EPJ/A,49,94	13	H.Naik+	G0506
*	γ,fis		FY	2FR SAC		1.7+07	Jour	EPJ/A,49,94	13	H.Naik+	G0506
*	γ,fis	Many	FY	3INDMNG		8.0+06	Jour	JRN,299,127	14	H.Naik+	G0510
*	γ,fis		NU	2FR SAC		1.7+07	Jour	EPJ/A,49,94	13	H.Naik+	G0506
*	γ,n	^{237}U	CS	3INDTRM		1.0+07	Jour	JRN,298,1065	13	H.Naik+	G0507
*	γ,n	^{237}U	CS	3INDMNG		8.0+06	Jour	JRN,298,1065	13	H.Naik+	G0507
*	n,2n	^{237}U	CS	3INDTRM	1.6+07	1.6+07	Jour	ANE,63,233	14	V.K.Mulik+	33056
*	n,2n	^{237}U	CS	3INDTRM	8.0+06	1.2+07	Jour	NSE,178,66	14	R.Crasta+	33059
*	n,fis	Many	FY	3INDTRM	3.7+06	1.0+07	Jour	NP/A,913,185	13	H.Naik+	33052
*	n,fis		FY	3INDTRM	3.7+06	1.0+07	Jour	NP/A,913,185	13	H.Naik+	33052
*	n,fis		NU	3INDTRM	3.7+06	1.0+07	Jour	NP/A,913,185	13	H.Naik+	33052
*	n,γ	^{239}U	CS	3INDTRM	5.9+06	1.6+07	Jour	ANE,63,233	14	V.K.Mulik+	33056
*	n,γ	^{239}U	CS	3INDTRM	8.0+06	1.2+07	Jour	NSE,178,66	14	R.Crasta+	33059
*	^{6}Li,fis		CS	3INDTRM	2.8+07	4.2+07	Jour	PR/C,90,014603	14	A.Parihari+	D6242
*	^{6}Li,fis		DA	3INDTRM	2.8+07	4.2+07	Jour	PR/C,90,014603	14	A.Parihari+	D6242
*	^{6}Li,fis	Many	FY	3INDNSD	3.0+07	5.0+07	Jour	PR/C,90,064620	14	S.Santra+	D6245
*	^{7}Li,fis		CS	3INDTRM	2.8+07	4.2+07	Jour	PR/C,90,014603	14	A.Parihari+	D6242
*	^{7}Li,fis		DA	3INDTRM	2.8+07	4.2+07	Jour	PR/C,90,014603	14	A.Parihari+	D6242
*	^{7}Li,fis	Many	FY	3INDNSD	3.1+07	5.1+07	Jour	PR/C,90,064620	14	S.Santra+	D6245

93 Neptunium 239

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

*	n,fis		CS	3INDTRM	1.1+07	1.6+07	Jour	PR/C,88,014613	13	V.V.Desai+	33054

93 Neptunium 240

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,fis		CS	3INDTRM	8.9+06	1.6+07	Jour	PR/C,88,014613	13	V.V.Desai+	33054

94 Plutonium 239

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,fis		CS	3RUMBUC	7.6-04	4.0-03	Jour	RRP,12,43	67	N.Grama+	30019
	n,fis	Many	FY	3AULAUA	3.0-01	3.0-01	Conf	79JUELICH,2,129	79	R.L.Walsh+	30549
	n,fis	Many	KE	3AULAUA	3.3-02	3.0-01	Conf	79JUELICH,2,129	79	R.L.Walsh+	30549

94 Plutonium 241

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,fis		CS	3INDTRM	1.1+07	1.6+07	Jour	PR/C,87,034604	13	V.V.Desai+	33053

94 Plutonium 242

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,3n	^{240}Am	CS	1USABRK	1.9+07	2.5+07	Jour	RCA,102,561	14	P.A.Ellison+	C2148

98 Californium 252

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	0,fis	^{nat}G	FY	3INDTRM	Spont		Jour	NP/A,133,625	69	N.N.Ajitanand	33083