EXFOR News (September 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)

17 Chlorine

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ		CS	1USAORL	5.0+01	6.3+04	Jour	PR/C,65,058801	02	K.H.Guber+	14090
n,tot		CS	1USAORL	1.5+01	8.5+03	Jour	PR/C,65,058801	02	K.H.Guber+	14090

17 Chlorine 35

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{36}Cl	RR	1USAORL			Jour	PR/C,65,058801	02	K.H.Guber+	14090

17 Chlorine 37

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,γ	^{38}Cl	RR	1USAORL			Jour	PR/C,65,058801	02	K.H.Guber+	14090

35 Bromine 87

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{87}Kr	NUD	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415
0,B-	^{87}Kr	?	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415

35 Bromine 88

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{88}Kr	NUD	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415
0,B-	^{88}Kr	?	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415

35 Bromine 89

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{89}Kr	NUD	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415
0,B-	^{89}Kr	?	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415

35 Bromine 90

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{90}Kr	NUD	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415
0,B-	^{90}Kr	?	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415

37 Rubidium 93

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{93}Sr	NUD	1USAWSU	Spont		Jour	NSE,75,140	80	P.L.Reeder+	14416
0,B-	^{93}Sr	NUD	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417
0,B-	^{93}Sr	?	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417

37 Rubidium 94

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{94}Sr	NUD	1USAWSU	Spont		Jour	NSE,75,140	80	P.L.Reeder+	14416
0,B-	^{94}Sr	NUD	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417
0,B-	^{94}Sr	?	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417

37 Rubidium 95

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{95}Sr	NUD	1USAWSU	Spont		Jour	NSE,75,140	80	P.L.Reeder+	14416
0,B-	^{95}Sr	NUD	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417
0,B-	^{95}Sr	?	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417

37 Rubidium 96

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{96}Sr	NUD	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417
0,B-	^{96}Sr	?	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417

37 Rubidium 97

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{97}Sr	NUD	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417
0,B-	^{97}Sr	?	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417

52 Tellurium 136

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{136}I	NUD	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415
0,B-	^{136}I	?	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415

53 Iodine 137

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{137}Xe	NUD	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415
0,B-	^{137}Xe	?	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415

53 Iodine 138

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{138}Xe	NUD	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415
0,B-	^{138}Xe	?	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415

53 Iodine 139

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{139}Xe	NUD	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415
0,B-	^{139}Xe	?	1USABNL	Spont		Jour	NSE,126,324	97	R.C.Greenwood+	14415

55 Caesium 143

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{143}Ba	NUD	1USAWSU	Spont		Jour	NSE,75,140	80	P.L.Reeder+	14416
0,B-	^{143}Ba	NUD	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417
0,B-	^{143}Ba	?	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417

55 Caesium 144

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{144}Ba	NUD	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417
0,B-	^{144}Ba	?	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417

55 Caesium 145

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,B-	^{145}Ba	NUD	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417
0,B-	^{145}Ba	?	1USABNL	Spont		Jour	NSE,91,305	85	R.C.Greenwood+	14417

94 Plutonium 239

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,fis		?	1USAANL	5.5+05	5.5+05	Jour	NSE,97,235	87	M.Sugimoto+	14418
n,fis	n	KE	1USAANL	5.5+05	5.5+05	Jour	NSE,97,235	87	M.Sugimoto+	14418