EXFOR News (November 2016)

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)

4 Beryllium 7

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	p,γ	^{8}B	CS	1USABNL	4.8+05	1.5+06	Jour	PR,150,851	66	P.D.Parker	C0087

8 Oxygen 17

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	n,γ	^{18}O	CS	1CANCRC	Maxwl		Conf	78BNL,,678	79	M.A.Lone+	13963

19 Potassium

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,tot		?	1USAORL	4.3+00	9.8+08	Conf	2007NICE,1,403	07	K.H.Guber+	14155

19 Potassium 39

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	n,γ	^{40}K	CS	1USAORL	3.0+01	6.0+05	Conf	2007NICE,1,403	07	K.H.Guber+	14155
*	n,tot		CS	1USAORL	1.0+02	1.8+05	Conf	2007NICE,1,403	07	K.H.Guber+	14155

48 Cadmium 114

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
*	p,n	^{114}In	CS	3EGYCAI	7.4+06	1.3+07	Jour	ARI,64,1655	06	S.A.Said+	O1502

50 Tin 116

	Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
	p,t	^{114}Sn	DAP	2FR PAR	1.7+08	1.7+08	Jour	PR/C,39,2190	89	E.Gerlic+	O0680

50 Tin 118

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

^{16}O,x	^{14}C	DA	3INDNSD	9.0+07	9.0+07	Jour	PRM,53,553	99	S.Saha+	O1056
^{16}O,x	^{18}O	DA	3INDNSD	7.0+07	9.0+07	Jour	PRM,53,553	99	S.Saha+	O1056

92 Uranium 234

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,fis	γ	FY	1USAORL	Maxwl		Prog	ORNL-4844,109	72	F.Pleasonton+	14214
n,fis	γ	KE	1USAORL	Maxwl		Prog	ORNL-4844,109	72	F.Pleasonton+	14214

92 Uranium 235

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,abs		CS	1USALAS	1.2-02	2.1+02	Rept	LA-158	44	E.E.Anderson+	13877
n,fis		CS	1USALAS	1.3-02	1.0+03	Rept	LA-158	44	E.E.Anderson+	13877

92 Uranium 236

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,fis	γ	FY	1USAORL	Maxwl		Prog	ORNL-4844,109	72	F.Pleasonton+	14214
n,fis	γ	KE	1USAORL	Maxwl		Prog	ORNL-4844,109	72	F.Pleasonton+	14214

92 Uranium 238

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,0		RP	1USALAS			Rept	LA-158	44	E.E.Anderson+	13877

93 Neptunium 237

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
p,x	Many	CS	2NEDAMS	1.2+07	2.6+07	Jour	JIN,42,641	80	P.Polak+	O0637

94 Plutonium 240

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Energy (eV) Max	Type	Documentation Ref Vol Page	Date	Author	Data #
n,fis	γ	FY	1USAORL	Maxwl		Prog	ORNL-4844,109	72	F.Pleasonton+	14214
n,fis	γ	KE	1USAORL	Maxwl		Prog	ORNL-4844,109	72	F.Pleasonton+	14214

Reaction	Product	Quant.	Lab.	Energy (eV) Min	Max	Type	Documentation Ref Vol Page	Date	Author	Data #
0,fis	γ	FY	1USAORL	Maxwl		Prog	ORNL-4844,109	72	F.Pleasonton+	14214
0,fis	γ	KE	1USAORL	Maxwl		Prog	ORNL-4844,109	72	F.Pleasonton+	14214