

BROND-2

General Purpose File

This is the 1990-1991 version of the BROND-2 library. The BROND-2 library was compiled, checked and released by the Centre po Jadernym Dannym (CJD) at the Fiziko-Energeticheskij Institut (FEI), Obninsk.

For 121 materials from 1-H-1 to 96-Cm-244 all relevant cross-sections and differential data of all relevant neutron-induced reactions are given in the energy range $1.0e-5$ eV to 20 MeV. The BROND-2 library is in ENDF-6 format and has N-LIB=dl for identifying of library. In Table 1 the materials included in the BROND-2 General Purpose File, date, authors and laboratory of evaluation, MAT-number and a number of records (NC) are listed.

The BROND-2 Library is now available in two versions:

- the original version contains data in the form of resonance parameters and has 265544 records;
- in the derived version BROND-2R the resonance parameters have been converted by the codes "Linear+Recent" to pointwise cross-sections as functions of energy at a temperature of OK.

A complete summary description of the evaluations in the BROND-2 Library is given in:

- J., Yadernye Konstanty, 1991, v.2 and 3, Obninsk (in Engl.)
Editors: Blokhin A.I., Ignatyuk A.V., Manokhin V.N., Nikolaev M.N., Pronyev V.G.
- Blokhin A.I., Ignatyuk A.V., Kuzminov B.D., Manokhin V.N., Manturov G.N., Nikolaev M.N. The Library of the evaluated neutron data files./Report to Inter. Conf. "Nuclear Data for Science and Technology", 13-17 may 1991, Julich, FRG.

The Compilation Group of the CJD hopes for wide application of the BROND-2 Library in the various fields of nuclear technology and welcomes any comments and suggestions to improve the nuclear data from BROND-2.

All comments should be sent to:

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Table 1. Content of the EPOND-2 library (01.03.92)

Z	S	A	MAT	LAE	AUTHOR	DATE	NR
1-H	-	1	101	FEI	DODDER, L. STEWART, G. HALE	DEC70	646
1-H	-	2	102	FEI	NIKOLAEV M.N.	DEC88	870
1-H	-	3	103	FEI	NIKOLAEV M.N.	DEC88	282
2-HE	-	3	203	FEI	NIKOLAEV M.N.	DEC88	579
2-HE	-	4	204	FEI	NIKOLAEL, ABAGJAN, BAZAZJANTS	JAN76	378
3-LI	-	6	306	CJD-FEI	NIKOLAEV M.N.	JAN89	2153
3-LI	-	7	307	CJD-FEI	BONDARENKO I.M.	MAY84	1705
6-C	-	0	600	BRNL	C.Y. FU, E.J. AXTON AND F.G. PEREY	AUG89	3515
7-N	-	14	710	CJD-FEI	A.I. BLOKHIN, N.S. RABOTNOV	NOV88	5966
7-N	-	15	720	CJD	A.I. BLOKHIN, N.S. RABOTNOV	APR89	4292
8-D	-	16	816	FEI	M.N. NIKOLAEV ET AL.	AUG77	5659
9-F	-	19	919	FEI	BLOKHIN A.I., RABOTNOV N.S.	NOV90	4682
11-NA	-	23	1123	FEI	M.N. NIKOLAEV, V.N. KOSCHEEV ET AL.	1978	1355
14-SI	-	0	1402	TUD/CJD	HERMSDORF, BLOKHIN, IGNATYUK A.	MAY85	6777
15-P	-	31	1531	FEI	V.N. KOSCHEEV	MAY89	1137
17-CL	-	0	1700	FEI	M.N. NIKOLAEV ET AL.	FEB90	4602
24-CR	-	0	2401	CJD-FEI	SEE LIST BELOW	APR84	6455
24-CR	-	50	2450	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK ET AL.	NOV87	3377
24-CR	-	52	2452	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK ET AL.	OCT87	3779
24-CR	-	53	2453	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK ET AL.	NOV87	1440
24-CR	-	54	2454	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK ET AL.	OCT87	3398
26-FE	-	0	2601	CJD-FEI	PRINCIP. EVAL. V.G. PRONYAEV +	NOV85	7078
26-FE	-	54	2611	CJD-FEI	V.G. PRONYAEV + SEE FREE TEXT	NOV85	1282
26-FE	-	56	2621	CJD-FEI	V.G. PRONYAEV + SEE FREE TEXT	NOV85	3393
26-FE	-	57	2631	CJD-FEI	V.G. PRONYAEV + SEE FREE TEXT	NOV85	1272
26-FE	-	58	2641	CJD-FEI	V.G. PRONYAEV + SEE FREE TEXT	NOV85	769
28-NI	-	0	2801	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK ET AL.	DEC84	4448
28-NI	-	58	2811	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK+	MAY85	3724
28-NI	-	60	2821	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK	MAY85	3667
28-NI	-	61	2831	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK+	MAY85	3759
28-NI	-	62	2841	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK+	MAY85	3495
28-NI	-	64	2851	CJD-FEI	A.I. BLOKHIN, A.V. IGNATYUK	MAY85	3337
29-CU	-	0	2900	FEI	NIKOLAEV M.N. ET AL.	MAY81	3430
30-ZN	-	0	3000	FEI	NIKOLAEV M.N. AND ZABRODSKAJA S.V.	DEC89	4262
38-SR	-	90	3890	FEI	GRUDZEVICH, ZELENETSKY	OCT90	891
40-ZR	-	0	4000	CJD-FEI	GRUDZEVICH O.T., ZELENETSKIY A.V.	DEC88	4232
40-ZR	-	90	4090	CJD-FEI	GRUDZEVICH O.T. ET. AL.	DEC88	2217
40-ZR	-	91	4091	CJD-FEI	GRUDZEVICH O.T. ET. AL.	DEC88	2795
40-ZR	-	92	4092	CJD-FEI	GRUDZEVICH O.T. ET. AL.	DEC88	1809
40-ZR	-	93	4093	CJD	GRUDZEVICH, ZELENETSKIY	DEC89	1391
40-ZR	-	94	4094	CJD-FEI	GRUDZEVICH O.T. ET. AL.	DEC88	1751
40-ZR	-	95	4095	CJD	GRUDZEVICH, ZELENETSKIY	DEC89	809
40-ZR	-	96	4096	CJD-FEI	GRUDZEVICH O.T. ET. AL.	DEC88	1018
41-NB	-	93	4193	CJD-FEI	PRINCIP. EVAL V.G. PRONYAEV+	DEC88	5235
41-NB	-	95	4195	FEI	GRUDZEVICH, ZELENETSKY	DEC90	852
43-TC	-	99	4399	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	AUG84	1073
44-RU	-	101	4401	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	DEC84	953
44-RU	-	102	4402	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	NOV84	797
44-RU	-	104	4404	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	DEC84	597
44-RU	-	106	4406	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	NOV85	527
45-RH	-	103	4503	CJD-FEI	IGNATYUK A.V., KRAVCHENKO I.V.	AUG85	990
46-PD	-	105	4605	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	JUL84	992
46-PD	-	106	4606	CJD	BELANOVA T.S., IGNATYUK A.V.	SEP87	574
46-PD	-	107	4607	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	NOV85	923
46-PD	-	108	4608	CJD	BELANOVA T.S., IGNATYUK A.V.	SEP87	575
47-AG	-	109	4709	CJD-FEI	IGNATYUK A.V., KRAVCHENKO I.V.	JUL85	639
50-SN	-	0	5000	CJD-FEI	PRINCIP. EVAL. V.G. PRONYAEV+	APR90	3926
53-I	-	129	5329	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	SEP85	1116
54-XE	-	131	5431	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	NOV85	999

Table 1. Content of the BROND-2 library (cont.)

Z -S- A	MAT	LAB	AUTHOR	DATE	NR
55-CS-135	5535	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	DEC85	538
58-CE-140	5840	CJD	IGNATYUK A.V., ULAEVA M.V.	DEC90	971
58-CE-142	5842	CJD	IGNATYUK A.V., ULAEVA M.V.	DEC90	621
58-CE-144	5844	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	DEC85	435
60-ND-143	6043	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	SEP85	924
60-ND-145	6045	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	SEP85	859
61-PM-147	6147	CJD	IGNATYUK A.V., KRAVCHENKO I.V.	AUG85	955
62-SM- 0	6200	CJD-FEI	IGNATYUK A.V. ET. AL.	DEC89	3095
62-SM-144	6244	CJD-FEI	IGNATYUK A.V., ULAEVA M.V.	DEC89	444
62-SM-147	6247	CJD-FEI	IGNATYUK A.V., KRAVCHENKO I.V.	JUN85	1260
62-SM-148	6248	CJD-FEI	ZAKHAROVA S.M., IGNATYUK A.V.	SEP87	934
62-SM-149	6249	CJD-FEI	IGNATYUK A.V., KRAVCHENKO I.V.	MAY85	1209
62-SM-150	6250	CJD-FEI	ZAKHAROVA S.M., IGNATYUK A.V.	SEP87	904
62-SM-151	6251	CJD-FEI	IGNATYUK A.V., KRAVCHENKO I.V.	JUN85	1150
62-SM-152	6252	CJD-FEI	BELANOVA, ZAKHAROVA, IGNATYUK	AUG87	939
62-SM-154	6254	CJD-FEI	BELANOVA, ZAKHAROVA, IGNATYUK	DEC89	904
63-EU-153	6353	CJD-FEI	IGNATYUK A.V., KRAVCHENKO I.V.	DEC85	2524
64-GD- 0	6400	FEI-CJD	A.I. BLOKHIN	NOV89	3305
64-GD-152	6452	FEI-CJD	A.I. BLOKHIN	NOV89	1609
64-GD-154	6454	FEI-CJD	A.I. BLOKHIN	NOV89	1607
64-GD-155	6455	FEI-CJD	A.I. BLOKHIN	NOV89	1738
64-GD-156	6456	FEI-CJD	A.I. BLOKHIN	NOV89	1551
64-GD-157	6457	FEI-CJD	A.I. BLOKHIN	NOV89	1611
64-GD-158	6458	FEI-CJD	A.I. BLOKHIN	NOV89	1522
64-GD-160	6460	FEI-CJD	A.I. BLOKHIN	NOV89	1304
68-ER-162	6862	FEI	S.M. ZAKHAROVA ET. AL.	DEC76	1139
68-ER-164	6864	FEI	S.M. ZAKHAROVA ET. AL.	DEC76	1163
68-ER-166	6866	FEI	S.M. ZAKHAROVA ET. AL.	DEC76	1267
68-ER-167	6867	FEI	S.M. ZAKHAROVA ET. AL.	DEC76	1502
68-ER-168	6868	FEI	S.M. ZAKHAROVA ET. AL.	DEC76	1400
68-ER-170	6870	FEI	S.M. ZAKHAROVA ET. AL.	DEC76	1357
73-TA-181	7381	FEI	MANTUROV G.N., KORCHAGINA J.A.	MAY83	2378
74-W -182	7482	FEI	ABAGYAN L.P., MANTUROV G.N.	MAY83	3110
74-W -183	7483	FEI	ABAGYAN L.P., MANTUROV G.N.	MAY83	3560
74-W -184	7484	FEI	ABAGYAN L.P., MANTUROV G.N.	MAY83	3020
74-W -186	7486	FEI	ABAGYAN L.P., MANTUROV G.N.	MAY83	2945
75-RE- 0	7500	FEI	NIKOLAEV M.N. ET. AL.	JAN88	1338
76-DS- 0	7600	FEI	NIKOLAEV M.N.	JAN90	2295
77-IR- 0	7700	FEI	NIKOLAEV M.N., ZABRODSKAJA S.V.	JAN90	2574
79-AU-197	7925	LANL	P.G. YOUNG	JAN84	6427
82-PB- 0	8202	TUD-FEI	D. HERMSDORF, A. BLOKHIN, A. IGNATYUK	MAY84	4704
82-PB-204	8211	FEI-CJD	A.I. BLOKHIN ET. AL.	DEC90	2655
82-PB-206	8212	FEI-CJD	A.I. BLOKHIN ET. AL.	DEC90	3189
82-PB-207	8213	FEI-CJD	A.I. BLOKHIN ET. AL.	DEC90	2416
82-PB-208	8214	FEI-CJD	A.I. BLOKHIN ET. AL.	DEC90	1956
83-BI-209	8301	CJD	BLOKHIN A.I. ET. AL.	NOV90	3568
90-TH-232	9032	FEI	M.N. NIKOLAEV ET. AL.	NOV83	1526
92-U -233	9211	IJE	SUKHOVITSKIY, KLEPATSKIY	MAR90	3014
92-U -235	9241	IJE	KON'SHIN, SUKHOVITSKIY, ANTSEPOV	APR85	2490
92-U -236	9251	IJE	KON'SHIN, SUKHOVITSKIY, KLEPATSKIY	FEB86	1719
92-U -238	9261	FEI	NIKOLAEV M.N.	JAN80	2020
94-PU-238	9411	IJE	SUKHOVITSKIY E., KLEPATSKIY A.	FEB87	1468
94-PU-239	9421	TMO	KON'SHIN, SUKHOVITSKIY, ANTSEPOV	SEP80	2258
94-PU-240	9431	TMO	KON'SHIN, SUKHOVITSKIY, ANTSEPOV	DEC80	1778
94-PU-241	9441	TMO	KON'SHIN, SUKHOVITSKIY, ANTSEPOV	FEB79	2142
94-PU-242	9451	TMO	KON'SHIN, SUKHOVITSKIY, ANTSEPOV	DEC80	1565
95-AM-241	9541	FEI+IJE	A.I. BLOKHIN, V.M. MASLOV	OCT90	3283
95-AM-242	9542	FEI+IJE	A.I. BLOKHIN, V.M. MASLOV	OCT90	1476
95-AM-242M	9543	FEI+IJE	A.I. BLOKHIN, V.M. MASLOV	OCT90	2849
95-AM-243	9544	FEI+IJE	A.I. BLOKHIN, V.M. MASLOV	OCT90	3280
96-CM-242	9611	IJE	SUKHOVITSKIY, KLEPATSKIY	DEC87	1106
96-CM-244	9631	IJE	SUKHOVITSKIY, KLEPATSKIY	DEC88	1371