

Appendix B

IAEA Photonuclear Data library: Graphical Presentation

The IAEA Photonuclear Data Library includes 164 isotopes. Data for each isotope are illustrated in several figures accompanied by a short explanatory text. For users convenience, an Index of nuclei is given below.

Table B.1: INDEX OF NUCLEI

NUCLEUS	PAGE	NUCLEUS	PAGE	NUCLEUS	PAGE	NUCLEUS	PAGE	NUCLEUS	PAGE
H-2	93	Ca-44	128	Ge-73	162	Cd-106	195	Pr-141	228
Be-9	94	Ca-46	129	Ge-74	163	Cd-108	196	Sm-144	229
C-12	95	Ca-48	130	Ge-76	164	Cd-110	197	Sm-147	230
C-13	97	Ti-46	131	Sr-84	165	Cd-111	198	Sm-148	231
N-14	98	Ti-47	132	Sr-86	166	Cd-112	199	Sm-149	232
N-15	99	Ti-48	133	Sr-87	167	Cd-113	200	Sm-150	233
O-16	100	Ti-49	134	Sr-88	168	Cd-114	201	Sm-151	234
O-17	102	Ti-50	135	Sr-90	169	Cd-116	202	Sm-152	235
O-18	103	V-51	136	Zr-90	170	Sn-112	203	Sm-154	236
Na-23	104	Cr-50	137	Zr-91	171	Sn-115	204	Tb-158	237
Mg-24	105	Cr-52	138	Zr-92	172	Sn-114	205	Tb-159	238
Mg-25	106	Cr-53	139	Zr-93	173	Sn-116	206	Ho-165	239
Mg-26	107	Cr-54	140	Zr-94	174	Sn-117	207	Ta-181	240
Al-27	106	Mn-55	141	Zr-96	175	Sn-118	208	W-180	242
Si-27	109	Fe-54	143	Nb-93	176	Sn-119	209	W-182	243
Si-28	110	Fe-56	144	Nb-94	177	Sn-120	210	W-183	244
Si-29	111	Fe-57	145	Mo-92	178	Sn-122	211	W-184	245
Si-30	112	Fe-58	146	Mo-94	179	Sn-124	212	W-186	246
S-32	113	Co-59	147	Mo-95	180	Sb-121	213	Au-197	247
S-33	114	Ni-58	148	Mo-96	181	Sb-123	214	Pb-206	249
S-34	115	Ni-60	149	Mo-97	182	Te-120	215	Pb-207	250
S-36	116	Ni-61	150	Mo-98	183	Te-122	216	Pb-208	251
Cl-35	117	Ni-62	151	Mo-100	184	Te-123	217	Bi-209	253
Cl-37	118	Ni-64	152	Pd-102	185	Te-124	218	Th-232	254
Ar-36	119	Cu-63	153	Pd-104	186	Te-125	219	U-233	255
Ar-38	120	Cu-65	154	Pd-105	187	Te-126	220	U-234	256
Ar-40	121	Zn-64	155	Pd-106	188	Te-128	221	U-235	257
K-39	122	Zn-66	156	Pd-107	189	Te-130	222	U-236	258
K-40	123	Zn-67	157	Pd-108	190	I-127	223	U-238	259
K-41	124	Zn-68	158	Pd-110	191	I-129	224	Pu-238	260
Ca-40	125	Zn-70	159	Ag-107	192	Cs-133	225	Pu-239	261
Ca-42	126	Ge-70	160	Ag-108	193	Cs-135	226	Pu-241	262
Ca-43	127	Ge-72	161	Ag-109	194	Cs-137	227		

The figures are organized as follows. For each isotope we give its abundance and threshold energies of the most important photonuclear reactions. This is followed by several figures with experimental data, if available, along with recommended evaluated data. References to experimental data are shown in figures in the EXFOR style, with full list of references given at the end of the present Appendix. Recommended evaluated data are displayed as curves, denoted as BOFOD, CNDC, JENDL, KAERI and LANL, according to the name of the original library.

It should be noted that the figures do not show emission spectra in view of practical non-availability of experimental data. However, evaluated emission spectra are included in the ENDF-6 numerical data files that can be obtained from the Web or upon request from the IAEA Nuclear Data Section as explained in Sec. 6.4.

To summarize, the ENDF-6 numerical data files of the IAEA Photonuclear Data Library contain the following information:

- cross sections,
- spectra of emitted particles,
- angular distributions of emitted particles, and
- production cross sections, including activation cross sections.