^{80}Kr(d,p),(pol d,p) 1985Bu14,1975Ch11

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	M. Shamsuzzoha Basunia	NDS 199,271 (2025)	1-Sep-2024

Other: 1976Me08.

1985Bu14: E(pol d)=11 MeV, 93% ^{80}Kr target, θ(lab)=20°−85°, FWHM=30, 65 keV, ΔE-E telescopes; measured $\sigma(\theta)$, vector analyzing power; DWBA analysis.

1975Ch11: 76.2% ^{82}Kr target, E=11 MeV, Si(Li), FWHM≈30 keV; DWBA analysis.

1976Me08: Proposed that the 0-keV level of 1975Ch11 was actually the 49-keV level found in other reaction measurements, and in decay studies. Systematics support this assumption. Subsequently, all works follow 1976Me08.

^{81}Kr Levels

E(level)†	Jπ#	L‡	S‡	E(level)†	Jπ#	L‡	S‡	E(level)†
50	9/2+	4	0.25	1744	(1/2−)	1	0.04	3630
190	1/2−	1	0.25	1888	5/2+	2	0.03	3750
457	5/2−	3	0.36	2218	5/2+	2	0.09	3820
552	5/2+	2	0.08	2365	1/2+	0	0.03	4180
637	3/2−	1	0.07	2421	1/2+	0	0.04	4470
732	5/2+	2	0.02	2530				4560
920	3/2−	1	0.04	2680				4690
980	1/2+	0	0.16	2830				4820
1098	5/2+	2	0.19	3070				4960
1281	3/2+	2	0.04	3270				5130
1492	1/2+	0	0.04	3310				
1678	9/2+	4	0.17	3460				

† From 1985Bu14 (data for E>2500 taken from figs. 1 and 2). Agreement with E from 1975Ch11 (when increased by 49 keV as proposed in 1976Me08) is excellent wherever data overlap. ΔE is not stated, but E is within 4 keV of adopted energies deduced from Eγ data.

‡ From DWBA analysis of $\sigma(\theta)$, normalization factor=1.53 (1985Bu14). S values from 1975Ch11 are larger by factors of ≈1 to ≈3; 1985Bu14 attribute this to the use in 1975Ch11 of potentials derived for unpolarized deuterons on neighboring Kr isotopes.

From L and vector analyzing power (1985Bu14).