

$^{78}\text{Kr}(\alpha, \text{p})$ 1983StZQ

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

Additional information 1.

E=26 MeV, enriched target, multi-angle magnetic spectrograph, FWHM \approx 65 keV.

 ^{81}Rb Levels

E(level) [†]	J π [‡]	S [#]	Comments
0	3/2 ⁻	3.8 8	
89	9/2 ⁺	1.6 3	
183	5/2 ⁻ , 1/2 ⁻	2.9+4.9	
461	3/2 ⁻ , 5/2 ⁻	0.36+0.32	
579	1/2 ⁻	2.8 6	
635			
705	3/2 ⁻	0.41 8	
825	5/2 ⁺	0.26 5	
913	5/2 ⁺	0.19 4	
1130			
1284	9/2 ⁺ , 7/2 ⁺ , 7/2 ⁻		S: 0.086+0.15+0.16.
1387	5/2 ⁺	0.20 4	
1543	9/2 ⁺ , 7/2 ⁺	0.35+0.64	
1721	5/2 ⁺	1.07 21	
1795			
2060	5/2 ⁺	0.31 6	
2205	5/2 ⁺	0.64 13	
2393	5/2 ⁺	0.63 13	
2620	3/2 ⁺ , 5/2 ⁺	1.56+0.81	
2801	(1/2 ⁺)	2.5 5	
3257	5/2 ⁺	0.61 12	

[†] ΔE not stated by authors. Based on a comparison with adopted E(level)<1400 keV, energies for single levels here have $\Delta E \approx 5$ keV, but doublets may include levels 35 keV apart. Also, due to the 65 keV spectrum resolution, it is likely that some levels reported at higher E with a single J value will, in fact, be multiplets.

[‡] From J-dependence of DWBA. Those levels with angular distributions characteristic of a sum of J values are presumed to be unresolved doublets.

[#] σ (exp)/ σ (DWBA). The uncertainty is 20% for each term of the sums.