

$^{80}\text{Kr}(\text{p,p}'),(\text{p,p}'\gamma)$ 1979Sa14,1978Ma11,1993Gi01

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 105, 223 (2005)	22-Jun-2005

Includes (pol p, p) and (pol d,D).

1979Sa14, 1978Ma11: (p,p') E=51.9 MeV. Enriched target (70%), FWHM=100 keV, measured $\sigma(\theta)$ from 10° to 65° . Absolute cross sections accurate to 10%. $\sigma(\theta)$ data analyzed by DWBA and coupled- channel calculations. Both references are from the same group, the former deals with positive parity levels and the latter with those of negative parity.

Others:

1993Gi01: (p,p' γ) E=6.5 MeV. Measured γ , lifetime of first excited 0^+ state at 1320 by Doppler-shift attenuation method (DSAM).

1985Bu14: (pol p, p) and (pol d, D).

Additional information 1.

1971BjZZ: (p,p') E=13.9 MeV.

1969Ki14: (p,p') E=3.6-5.4 MeV, three levels reported.

 ^{80}Kr Levels

E(level) [†]	J^π [‡]	$T_{1/2}$	L	B(EL)(W.u.) (1979Sa14,1978Ma11)	Comments
0	0^+				
617.6 15	2^+		2	37 [#] 6	E(level): 617 15 (1979Sa14). β_2 (DWBA)=0.284, β_2 (coupled-channel)=0.268 (1979Sa14). Deduced B(E2)=0.38 6.
1257.2	2^+		2	1.5 [#] 3	E(level): 1250 15 (1979Sa14). β_2 (DWBA)=0.059, β_2 (coupled-channel)=0.054 (1979Sa14). Deduced B(E2)=0.015 3.
1321.5	0^+	4.9 ps 21		[#]	E(level): 1320 15 (1969Ki14). $J^\pi, T_{1/2}$: from 1993Gi01; Half-life from DSAM.
1437.0	4^+		4	2.3 [#] 5	E(level): 1417 15 (1979Sa14). β_4 (DWBA)=0.061, β_4 (coupled-channel)=0.064 (1979Sa14). Deduced B(E4)=0.0015 3.
2414 [@] 15	3^-		3	16.1 [@] 24	Deduced B(E3)=0.043 7.
2957 [@] 15	3^-		3	4.0 [@] 6	Deduced B(E3)=0.011 2.

[†] From E_γ 's in figure 3 of 1993Gi01, unless otherwise stated.

[‡] From L(p,p').

[#] From 1979Sa14.

[@] From 1978Ma11.

 $\gamma(^{80}\text{Kr})$

E_γ [†]	$E_i(\text{level})$	J_i^π	E_f	J_f^π
617.6	617.6	2^+	0	0^+
639.6	1257.2	2^+	617.6	2^+
703.9	1321.5	0^+	617.6	2^+
819.4	1437.0	4^+	617.6	2^+

[†] From 1993Gi01.

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Level Scheme

