

$^{92}\text{Zr}(\text{d,d}')$, (pol d,d) 1965Jo11,1992Se02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 113, 2187 (2012)	15-Sep-2012

Others: 1981Bi09, 1975Ba41, 1962Jo05.

1965Jo11: E(d)=15 MeV; E- Δ E solid-state detector system; magnetic spectrograph for several spectra only; FWHM \approx 110 keV; $\theta(\text{lab})=25^\circ-110^\circ$; DWBA analysis of $\sigma(\theta)$.

1975Ba41: E(pol d)=15 MeV; two Δ E-E solid-state counter telescopes; 99% ^{92}Zr targets; measured $\sigma(\theta)$, vector and tensor analyzing powers for 0,930,2330 levels; DWBA analysis; deduced β_L .

1981Bi09: E(pol d)=12.0 MeV; particle identification system; measured $iT_{11}(\theta)$ for g.s. only, $\Delta E\approx 0.5\%$; DWBA analysis.

1992Se02: E(pol d)=16 MeV; four Δ E-E solid-state detector telescopes; measured $\sigma(\theta)$, $\theta(\text{lab})=30^\circ-155^\circ$ (5 $^\circ$ steps, 26 angles); DWBA and α (vibrational model form factors) analyses of $\sigma(\theta)$, $iT_{11}(\theta)$; deduced β_L .

 ^{92}Zr Levels

<u>E(level)†</u>	<u>L#</u>	<u>$\beta_L^{\text{@}}$</u>	<u>E(level)†</u>	<u>L#</u>	<u>$\beta_L^{\text{@}}$</u>	<u>E(level)†</u>	<u>L#</u>	<u>$\beta_L^{\text{@}}$</u>	<u>E(level)†</u>
0.0			2040 10			3040 15			4050 20
940 5	2	0.098	2340 12	3	0.143	3250 16			4460 22
1380 7	0		2480 12			3440 17	(3)&	0.07&	4810 24
1490 7	4	0.067	2750? ‡ 14			3670 18			5510 28
1840 9	2	0.047	2850 14			3900 20			

† From 1965Jo11; 1962Jo05 report only states with E<4100 keV.

‡ Reported by 1965Jo11 only. Possible $J^\pi=3^-$ ^{90}Zr contaminant, by analogy with (p,p'); see 1968Di05.

From DWBA and CC analyses by 1992Se02. See 1965Jo11 for additional tentative assignments.

@ From 1 phonon CC analysis by 1992Se02; $\beta_L=0.098$ from 2-quadrupole phonon CC analysis for 1380, 1496 and 1847 levels.

& From DWBA analysis by 1965Jo11.