

$^{92}\text{Zr}(n,n')$ 1990Wa13,1988Wa27,1975Gu20

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

Other: 1974Mc13 (E(n)=1.5 MeV, g.s. and 934 level only).

1990Wa13,1988Wa27: E(n)=8,10,24 MeV, FWHM=135,188,410 keV, respectively; $\theta(\text{c.m.})\approx 25^\circ-145^\circ$. DWBA analysis of $\sigma(\theta)$ to deduce deformation lengths, $\beta_L R$ (R=5.39 fm).

1975Gu20: E(n)=1.8-4.0 MeV, FWHM=30-50 keV, $\theta(\text{lab})=20^\circ-155^\circ$. Also measured n-total σ for E(n)=0.9-5.5 MeV. 95% ^{92}Zr enriched target.

 ^{92}Zr Levels

E(level) [†]	J π [‡]	$\beta_L R$ [#]	E(level) [†]	J π [‡]	$\beta_L R$ [#]	E(level) [†]	J π [‡]
0			2320 20	3 ⁻	0.88 4	2900 40	2,3
934 10	2 ⁺	0.66 3	2360 20	1,3		3063 30	
1375 10	0 ⁺		2486 20	5		3187 30	
1492 10	4 ⁺		2666 30			3275 50	
1838 15	2 ⁺	0.28 2	2778 [@] 30	2,3			
2058 15	2 ⁺	0.25 2	2867 30	2,3,4			

[†] From 1975Gu20.

[‡] From 1975Gu20, based on comparison between $\sigma(\text{exp})$ and $\sigma(\text{calc})$ (optical-statistical model calculations with corrections for width fluctuation and correlation of resonances).

[#] Deformation lengths, $\beta_L R$, from DWBA analysis (1988Wa27); average of 8-MeV and 24-MeV data.

[@] Level at approximately this energy excited in (p,p') was ascribed by 1968Di05 to ^{90}Zr target impurity.