^{91}Zr(n,n′)   1990Wa13

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 114, 1293 (2013)	1-Sep-2013

1990Wa13: E(n)=8.0, 10.0, 24.0 MeV with FWHM=135, 188, 410 keV, respectively; 89.2% ^{91}Zr target; tof; NE213 scintillators, pulse-shape discrimination; θ(c.m.)$\approx$20°−130°. Measured $\sigma(\theta)$; deduced deformation parameters. DWBA analysis.

^{91}Zr Levels

1990Wa13 deduce deformation parameters β_{lj}, β_L from dσ/dΩ(exp)/dσ/dΩ(DWBA)=β_{lj}^2=β_L^2x(2J+1)/((2J(g.s.)+1)(2L+1)) and the resulting β_L values are given in comments.

E(level)[†]	J$^{\pi}$[‡]	Comments
0	5/2$^+$	
1204	1/2$^+$	β_2=0.21 *3*.
1466	5/2$^+$	β_2=0.076 *16*.
1882	7/2$^+$	β_2=0.103 *12*.
2042[#]	3/2$^+$	β_2=0.082 *11*.
2131[#]	(9/2)$^+$	β_2=0.052 *7*.
2170[#]	(11/2)$^-$	β_3=0.180 *15* (misprinted as 0.0180 in table 7 of 1990Wa13).

[†] Rounded-off value from Adopted Levels.

[‡] Adopted value; assumed in order to deduce β_L from β_{lj}.

[#] The 2042, 2131, 2170 triplet of levels was not resolvable in 1990Wa13; β_L values for individual levels were deduced assuming the relative β_{lj}^2 values for the levels were the same as observed in (p,p′).