

$^{94}\text{Zr}(^3\text{He},\alpha)$ 1977Ga17,1968Ru02

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Coral M. Baglin	NDS 112, 1163 (2011)	15-Dec-2010

1977Ga17: E=39 MeV, FWHM=30-35 keV, $\theta(\text{lab})=5^\circ-40^\circ$ (5° steps), magnetic spectrometer + semi; DWBA analysis of $\sigma(\theta)$ (normalization factor=23).

1968Ru02: E=25 MeV, FWHM \approx 140 keV, $\theta(\text{lab})\approx 10^\circ-90^\circ$, semi; DWBA analysis of $\sigma(\theta)$ (normalization factor=46.4).

 ^{93}Zr Levels

E(level) [†]	J π [#]	L [‡]	C ² S [@]	Comments
0.0	5/2 ⁺	2	2.61	
1490 40	3/2 ⁺	(2)	0.66 ^{&}	E(level),L: from 1968Ru02; probably same level as that adopted at 1425 keV.
2040 8		4	0.50	
2080 8		4	0.85	
3230 12	9/2 ⁺	4	1.91	L from 1968Ru02; E=3140 40, C ² S=2.4 in 1968Ru02.
3830 40	9/2 ⁺	4	1.5 ^{&}	E(level),L: from 1968Ru02.

[†] From 1977Ga17, except as noted.

[‡] Obtained from comparison of $\sigma(\theta)$ with DWBA calculations (1977Ga17).

[#] Assumed for deduction of C²S.

[@] C²S from comparison with DWBA calculations (1977Ga17), except as noted.

[&] From data of 1968Ru02, renormalized by evaluator to correspond to same DWBA normalization factor (N=23) as used by 1977Ga17; however, this procedure gives C²S=4.3 for g.s..