^{92}Zr(e,e′)   1983Sa11,2009ScZV,2010Sc32

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

Other: 2011Wa01.

2011Wa01: calculated momentum-transfer dependence of σ At E=63 MeV for fully-symmetric and for mixed symmetry 2^+ states; measured σ At E(e)=63 MeV from S-DALINAC facility using 94.6% enriched ^{92}Zr target and covering momentum transfers of 0.3-0.6 fm^{-1}.

2010Sc32: E(e)=63 MeV; θ=33° −169°; spectrometer with ±2.1% momentum acceptance and 4 single strip Si detectors In focal plane; measured form factor for inelastic scattering to 934 (2^+), 1847 (2^+) and 2339 (3^-) levels; comparison with form factors calculated using quasi-particle phonon model; deduced B(E2)(W.u.) and B(E3)(W.u.).

2009ScZV: E(e)=63 MeV; θ=69° −165°; measured form factor for scattering to first and second 2^+ levels; deduced E2 excitation strength for 1846 level relative to that for 934 level.

1983Sa11: E(e)=220 MeV; FWHM=200 keV; θ(lab)=32°−61°; ΔE=50 keV; DWBA analysis of $\sigma(\theta)$.

^{92}Zr Levels

E(level)[†]	J$^{\pi}$[#]	Γ[‡]	Comments
934[@]	2^+[&]		B(E2)(W.u.)=1.24 *6* (2010Sc32).
			weakly-collective one-phonon state (2010Sc32).
1846[@]	2^+[&]		B(E2)(W.u.)=0.66 *4* (2010Sc32).
			B(E2)/B(E2)(934 level)=15.0 *13* (2009ScZV).
			predominantly a one-phonon state; form factor closely resembles that for 934, 2^+ level (2010Sc32).
2339	3^-		B(E3)(W.u.)=2.61 *16* (2010Sc32).
13.2×10^3 *1*	2^+	3.8 MeV *2*	B(E2)=17.3 *7*; %EWSR=86 *3*; T=0. GQR.
15.7×10^3 *1*	0^+	4.0 MeV *2*	B(E0)=960 *50* fm^4; %EWSR=49 *3*; T=0.
16.27×10^3		4.73 MeV	E(level),Γ: assumed value, based on (γ,n) data and theory.
			B(E1)=0.186; %EWSR=90; T=1. GDR.
25.1×10^3 *3*	3^-	6.3 MeV *3*	B(E3)=3.0×10^{-4} *3*; %EWSR=39 *4*; T=0.
28.1×10^3 *3*	2^+	5.9 MeV *2*	B(E2)=3.26×10^{-3} *16*; %EWSR=27 *1*; T=1.

[†] For E(level)>13 MeV, E is from 1983Sa11 and it refers to giant-resonance structure, not to a discrete level. rounded value from Adopted Levels, otherwise.

[‡] From 1983Sa11.

[#] From comparison of experimental and theoretical (DWBA) form factors (1983Sa11) or quasiparticle phonon model form factors (2010Sc32).

[@] Rounded value from Adopted Levels.

[&] From Adopted Levels.