^{94}Zr(p,p′γ) 1981Ju03

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	D. Abriola(a), A. A. Sonzogni	NDS 107, 2423 (2006)	1-Jan-2006

^{94}Zr Levels

E=6.99 MeV and 8.11 MeV (IAS energies). Enriched target. Ge(Li). Magnetic lens electron spectrometer , Si(Li). Measured electron-γ coincidences, γ(t).

E(level)	Jπ†	$T_{1/2}$	Comments
0	0^+		
918.75 *5*	2^+		
1300.19 *18*	0^+	0.28 ns *4*	$T_{1/2}$: from centroid shift of electron-γ(t) (shifts have been determined relative to the cyclotron repetition pulse and relative to prompt curves from other isotopes). More accurate than 0.320 ns *21* from (P,P′γ) measured the slope of the γ(t)-curve relative to protons. (1970Co10).

† From Adopted Levels.

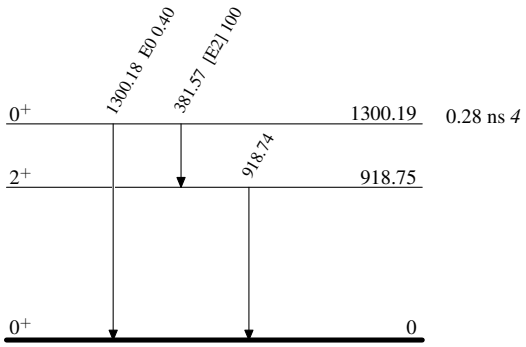
γ(^{94}Zr)

E_γ†	E_i(level)	J_i^π	E_f	J_f^π	Mult.	α#	$I_{(\gamma+ce)}$‡	Comments
381.57 *19*	1300.19	0^+	918.75	2^+	[E2]	0.0099	100	α=0.0099
918.74 *5*	918.75	2^+	0	0^+				
1300.18 *18*	1300.19	0^+	0	0^+	E0		0.40 *4*	Ice(K)(1300.3)/Ice(K)(381.6)=0.83 *8*. No photon peak observed.

† From adopted γ-radiation. The energy of the E0 transition has been deduced from the level energy difference.
‡ Deduced from Ice(K)(1300.3)/Ice(K)(381.6)=0.83 *8*.
# Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multipolarities, and mixing ratios, unless otherwise specified.

^{94}Zr(p,p′γ) 1981Ju03

Level Scheme



$^{94}_{40}Zr_{54}$