^{92}Zr(^{16}O,^{16}O′), (^{18}O,^{18}O′) 1990Ta14

History

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

See also: Coulomb excitation.
Others: 1999Al23, 1983Ko36, 1979Es04.

1999Al23: E(^{16}O)=45-48 MeV (1 MeV steps); nine surface barrier detectors 5° apart; measured $\sigma(\theta)$ at θ(c.m.)≈40°−170° for g.s. and 934-level groups; coupled-channels and double-folding calculations, deduced optical-model potentials.

1990Ta14: E(^{16}O)=56 MeV; FWHM=85 keV; θ(c.m.)=45°−160°. Coupled channels DWBA analysis of $\sigma(\theta)$ and σ(E). Deduced nuclear and charge deformation parameters. Reorientation effects included.

1983Ko36: E(^{16}O)=49 MeV; FWHM=75 keV; θ(lab)=40°. 0, 934 levels.

1979Es04: E(^{18}O)=68.5 MeV; FWHM=250 keV; θ(c.m.)≈22°−90°. DWBA analysis of $\sigma(\theta)$ for 0, 934 levels.

^{92}Zr Levels

E(level)†	J$^{\pi}$†	Comments
0	0^+	
934	2^+	β_{02}: 0.25 (nuclear), 0.104-0.108 (charge). β_{22}: 0.95 (nuclear), 0.0-0.41 (charge). (1990Ta14).
1495	4^+	
1847	2^+	β_{02}: 0.008-0.05 (nuclear), 0.075 (charge) (1990Ta14).
2340	3^-	β_{03}: 0.10-0.17 (nuclear), 0.20 (charge). β_{33}: 0.0-0.5 (nuclear). (1990Ta14).

† From Adopted Levels. All levels listed here are evident in spectrum from 1990Ta14.