Coulomb excitation **2000Sp08,1975To06,1970Ha24**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Jun Chen and Balraj Singh	NDS 157, 1 (2019)	15-Apr-2019

2000Sp08: E(^{50}Ti)=110 MeV beam from Tandem accelerator at Cologne. Target=^{12}C. Measured (^{50}Ti)γ coincidences; g factor and lifetime (by DSA) determination. See also 2003Sp04 from the same group where C(^{46}Ca,^{50}Ti) reaction is used.

1975To06: E(^{32}S)=57 MeV beam from the University of Rochester model MP tandem Van de Graaff. Measured ^{32}S-γ coin, Si, NaI (θ=25^{o}−40^{o}, 5^{o} steps); Coul. ex. reorientation method.

1970Ha24: E(^{32}S)=67 MeV from the Chalk River MP tandem. Measured $\sigma(\theta)$, particle-γ coincidences, NaI; Coul. ex. reorientation method.

Others:

1972WaYZ: E(^{16}O)=21, 24, 27, and 30 MeV; E(^{35}Cl)=60, 70, 80 MeV. Measured 1554γ thick target yields and level lifetime by DSAM.

1967Af03: E(^{12}C)=36.8 MeV, E(^{14}N)=43.3 MeV. Measured particle-γ coincidences; annular Si, NaI, θ=39°; 57.5% ^{50}Ti.

1965Si02: E(^{16}O)=31-41 MeV. Measured $\sigma(\theta$=90°). FWHM≈320 keV. B(E2)↑ deduced from ratio of inelastic to elastic groups.

1962Va22: E(^{14}N)=30 MeV. 58% ^{50}Ti. Measured γ spectra.

Other: 1996YaZX.

^{50}Ti Levels

E(level)	J$^{\pi}$	T$_{1/2}$	Comments
0	0^{+}		
1550	2^{+}	1.12 ps *5*	g=+1.444 *77* (2000Sp08) Q=+0.08 *16* (1975To06); Q=−0.02 *9* (1970Ha24) B(E2)↑=0.0315 *30* (1975To06), 0.0330 *30* (1970Ha24), 0.0173 *35* (1967Af03), 0.0260 *20* (0.024 *2* in 1965Si02 reanalyzed by 1970Ha24), 0.040 *8* (1962Va22, uncertainty assigned in 2001Ra27 evaluation). All the B(E2) values are from Coulomb excitation cross sections. Value from 1967Af03 seems discrepant. T$_{1/2}$: from DSAM (2000Sp08). Other: 0.76 ps 10 (1972WaYZ, DSAM).