Coulomb excitation **1974Ba45,1974La05,1979Sa05**

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	T. Tamura	NDS 108, 455 (2007)	30-Sep-2006

(x,x′γ) measured σ(γ).
1974Ba45: E(^{16}O)=42,44.8 MeV; semi γ; deduced B(E2).
1974La05: E(^{32}S)=57.5 MeV; semi γ, ^{32}S; deduced Q(2$^+$).
1969He11: E(^{16}O)=33 MeV; measured g-factor with IMPAC method.
1974Hu01: Re-determination of g-factor measured by 1969He11.
Others: semi γ (1970LaZM,1965Ro09); scin γ (1961St02,1959Mc59,1956Te26); g-factor (1966Bo19); inelastic scattering at incident energy around Coulomb barrier.
1979Sa05: E(^{3}He)=19.52 MeV; semi ^{3}He(θ); optical model and DWBA analysis, deduced B(E2), B(E3).
1974Ba45: E(α)=8,10 MeV, E(^{16}O)=42 MeV; semi α, ^{16}O; deduced B(E2),Q.
1977Sa04: E(α)=8-18 MeV, semi α(θ); DWBA analysis, deduced B(E2) Reorientation effect measurement.
1978Be10: E(α)=8-10 MeV, E(^{14}N)=32-37.0 MeV, E(^{16}O)=30.5-42 MeV E(^{18}O)=34-35 MeV; semi α, ^{14}N, ^{16}O, ^{18}O(θ); deduced B(E2), B(E3), Q.
1976Bo12: E(α)=10.0-10.5 MeV, E(^{16}O)=35.0-54.0 MeV; deduced B(E2), Q.
Others: semi γ (1970LaZM,1965Ro09); scin γ (1961St02,1959Mc59,1956Te26); g-factor (1966Bo19); inelastic scattering at incident energy around Coulomb barrier.

^{122}Te Levels

E(level)†	J$^\pi$‡	$T_{1/2}$	Comments
0.0	0$^+$		
564.1 *1*	2$^+$	7.46 ps *5*	$T_{1/2}$: from B(E2) and branching=1.0. B(E2)↑=0.664 *4*. B(E2) value is weighted average of 0.664 *20* (1977Sa04), 0.658 *4* (1976Bo12), 0.667 *11* (1974Ba45), 0.665 *4* (1978Be10), 0.53 *2* (1979Sa05). Others: 0.61 *3* (1970LaZM), 0.65 *5* (1959Mc59), 0.47 *10* (1956Te26). Q=−0.57 *5* or −0.35 *5* (1978Be10), −0.48 *5* or −0.22 *5* (1976Bo12), −0.46 *10* or −0.20 *10* (1974Ba45), −0.43 *8* or −0.21 *8* (1974La05). g-factor(2$^+$)=0.33 *3* (1981Sh15); others: 0.54 *4* (1966Bo19), 0.31 *3* (1967Bh06), 0.32 *5* (1974Hu01).
1182.0 *13*	4$^+$		
1256.9 *1*	2$^+$	0.72 ps *17*	$T_{1/2}$: from B(E2) and branching=0.17 *2*. B(E2)↑=0.021 *5* (1961St02). Others: 0.0094 (1974Ba45), 0.01 (1976Bo12).
1357.0 *13*	0$^+$		
1752.6 *1*	2$^+$		1974Ba45 report matrix elements of 0.069 for 1752γ and 0.265 for 1188γ; however, these matrix elements are inconsistent with known branchings, %(1752γ)=60 *2* and %(1188γ)=31 *2*. The authors appear to have reversed the branchings of the two γ′s. The evaluator assumes that the matrix element of 1188γ is the one deduced by the authors.
2196.8# *1*	3$^-$		B(E3)↑=0.11 *3* (1979Sa05).

† Rounded values from Adopted Levels.
‡ From Adopted Levels.
# From 1979Sa05.

Coulomb excitation **1974Ba45,1974La05,1979Sa05** **(continued)**

$\gamma(^{122}Te)$

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]
564.1	2^+	564.1 *1*	100	0.0	0^+	
1182.0	4^+	617.2 *1*	100	564.1	2^+	E2
1256.9	2^+	692.8 *1*	100	564.1	2^+	
		1256.9 *1*	20.1	0.0	0^+	
1357.0	0^+	793.3 *1*	100	564.1	2^+	
1752.6	2^+	395.2 *1*	7.3	1357.0	0^+	
		495.5 *1*	7.4	1256.9	2^+	
		1188.5 *1*	51.9	564.1	2^+	
		1752.7 *1*	100	0.0	0^+	

† Rounded values from adopted gammas.
‡ From adopted gammas.

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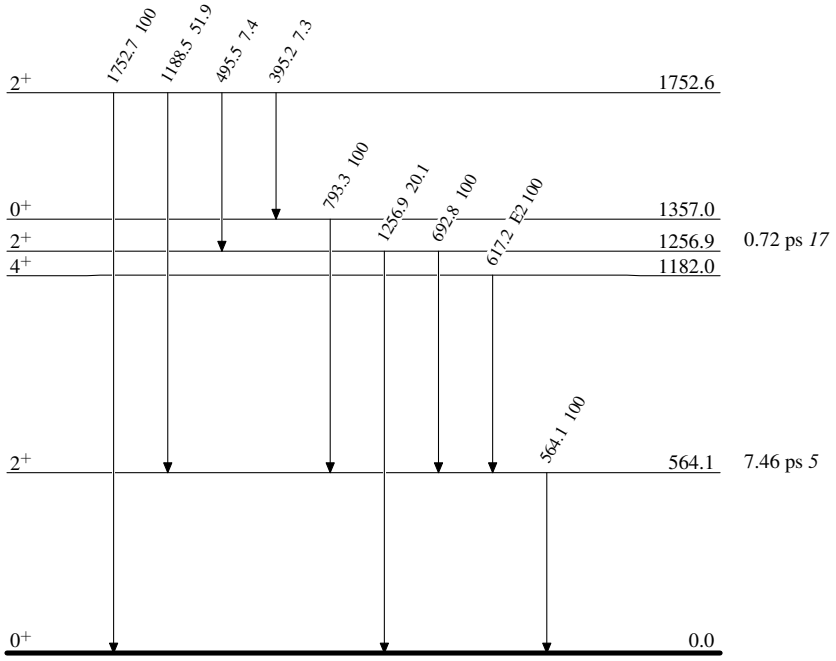
Level Scheme

Intensities: Relative photon branching from each level



$^{122}_{52}Te_{70}$