Coulomb excitation **1989Sp03,1981Jo03,1981Ba05**

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

1970St20: E(α)=10 MeV; E(^{16}O)=45.5 MeV; semi γ, α, ^{16}O; enriched target.
1975Gr30: E(α)=10,10.5,10.6 MeV; E(^{16}O)=42,46 MeV; semi α, ^{16}O; enriched target.
1980Ha19: E(^{35}Cl)=108 MeV; scin γ, semi ^{35}Cl′, (^{35}Cl′)(γ)(θ).
1981Ba05: E(^{16}O)=48 MeV; semi γ, anti-Compton spectrometer; $\gamma\gamma$-coin; enriched target.
1981Jo03: E(^{16}O)=48 MeV; semi γ, anti-Compton spectrometer; $\gamma\gamma$-coin; enriched target.
1989Sp03: E(^{12}C)=37, 38 MeV; semi γ; deduced B(E3)↑ enriched target.
Others: 1963Ha20, 1964Al26.

^{122}Sn Levels

E(level)†	J$^\pi$‡	$T_{1/2}$#	Comments
0.0	0^+		
1140.5 *1*	2^+	0.776 ps *16*	B(E2)↑=0.189 *4* g=0.07 *11* (1980Ha19) B(E2)↑: Average of 0.196 *4* (1970St20), 0.188 *4* (1975Gr30) and 0.182 *3* (1989Sp03); recommended value B(E2)=0.192 *4* (2001Ra27). $T_{1/2}$: From B(E2)=0.189 *4*; branching=1.0.
2087.7 *1*	0^+	≥3.3 ps	B(E2)(1140-keV 2^+ to 2088-keV 0^+)≤0.0044 (1981Ba05); branching=1.0.
2142.1 *1*	4^+	1.56 ps *21*	B(E2)(1140-keV 2^+ to 2145-keV 4^+)=0.065 *9* (1981Jo03); branching=1.0.
2153.8@ *1*	2^+		
2245.8@ *1*	5^-		
2331.1 *1*	4^+	≥3.5 ps	B(E2)(1140-keV 2^+ to 2330-keV 4^+)<0.012 (1981Jo03); branching=1.0.
2415.5 *1*	2^+	≥0.78 ps	B(E2)↑≤0.0019 B(E2)↑: from 1981Jo03; branching=0.46 *5*.
2492.7 *1*	3^-		B(E3)↑=0.092 *10* B(E3)↑: recommended value (2002Ki06); measured values: 0.087 *6* (1989Sp03), 0.110 *17* (1981Jo03).
2675.6 *1*	0^+	>0.2 ps	B(E2)(1140-keV 2^+ to 2674-keV 0^+)<0.0068 (1981Ba05); branching=1.0.

† E(levels) rounded values from Adopted Levels, unless otherwise noted.
‡ From Adopted Levels.
# From B(E2) and branching from adopted gammas.
@ Not directly observed, but included to complete the decay path to gs.

γ(^{122}Sn)

E_i(level)	J_i^π	E_γ†	I_γ†	E_f	J_f^π	Mult.‡
1140.5	2^+	1140.5 *1*	100	0.0	0^+	E2
2087.7	0^+	947.2 *1*	100	1140.5	2^+	E2
2142.1	4^+	1001.5 *1*	100	1140.5	2^+	E2
2153.8	2^+	1013.3 *1*	100 *5*	1140.5	2^+	M1+E2
		2153.7 *1*	3.1 *3*	0.0	0^+	E2
2245.8	5^-	103.7 *1*	100 *4*	2142.1	4^+	E1(+M2)
		1105.4 *1*	1.6 *4*	1140.5	2^+	
2331.1	4^+	1190.6 *1*	100	1140.5	2^+	E2
2415.5	2^+	261.8 *1*	76 *9*	2153.8	2^+	
		1275.0 *1*	43 *2*	1140.5	2^+	M1+E2
		2415.5 *1*	100 *5*	0.0	0^+	E2
2492.7	3^-	246.4 *8*	24 *10*	2245.8	5^-	

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Coulomb excitation **1989Sp03,1981Jo03,1981Ba05** **(continued)**

$\gamma(^{122}Sn)$ (continued)

E_i(level)	J_i^π	E_γ[†]	I_γ[†]	E_f	J_f^π	Mult.[‡]
2492.7	3^-	1352.2 *1*	100	1140.5	2^+	E1+M2
		2492.6 *4*	0.052 *5*	0.0	0^+	E3
2675.6	0^+	1535.1 *1*	100	1140.5	2^+	E2

[†] Rounded value from adopted gammas.
[‡] From adopted gammas.

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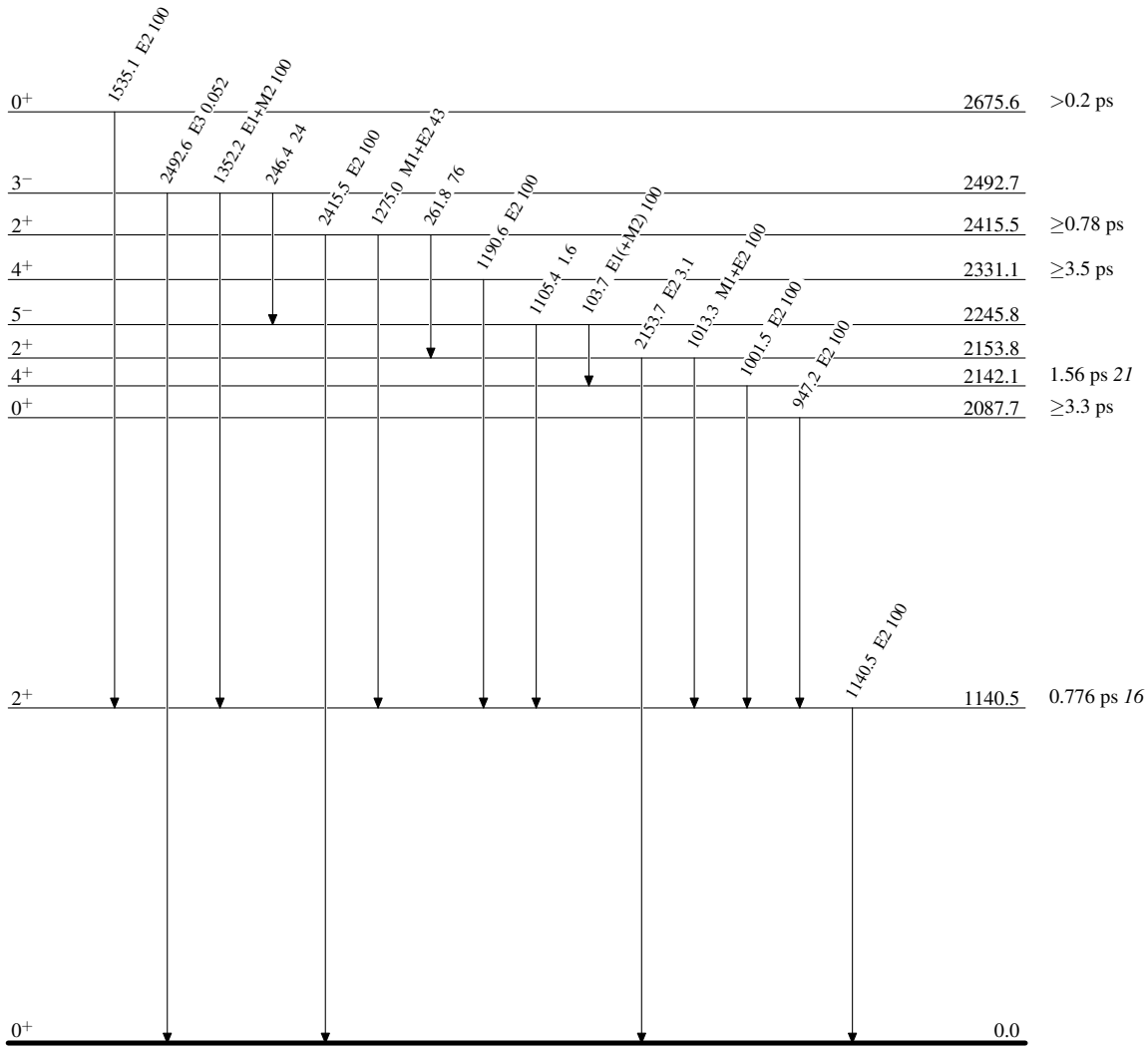
Level Scheme

Intensities: Relative photon branching from each level



$^{122}_{50}Sn_{72}$