Coulomb excitation **2011Ju01,2011Wa15,1981Jo03**

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	S. Lalkovski, F. G. Kondev	NDS 124, 157 (2015)	1-Aug-2014

2011Ju01,2011Wa15: Facility: GSI Unilac accelerator; Beam: E(^{112}Sn)=448 MeV; Target: cooled and polarized multilayer target consisting of 0.67 mg/cm^2 natural carbon, 10.8 mg/cm^2 natural Gd, 1.0 mg/cm^2 natural Ta, and a 4.86 mg/cm^2 natural Cu; Detectors: array of four Si diodes and four EUROBALL Cluster detectors; Measured: C ions, γ, γ-C ions, Eγ, Iγ, $\gamma(\theta)$; Deduced: τ, B(E2), g-factor from the recoil distance transient field (RDTF) technique.

1981Jo03: Facility: Uppsala EN tandem; Beam: E(^{16}O)=48 MeV; Detectors: one NaI(Tl), one Ge(Li); Measured: γ, γ-γ. Eγ, Iγ; Deduced: ^{112}Sn level scheme, B(E2).

1975Gr30: Facility: three-stage Van de Graaff accelerator at University of Pittsburgh; Beams: E(α)= 10.6 MeV and E(^{16}O)=42 MeV; Targets: 5 to 40 μg/cm^2 of SnO_2, enriched to 87.51% in ^{112}Sn, 15 μg/cm^2 carbon backing; Detectors: surface-barrier Si detector; Measured: E(α),

Other: 2011Ku05, 2010Ku07, 2007Va22, 1981Ba05, 1970St20, 1965Ro09.

^{112}Sn Levels

E(level)[†]	J$^\pi$[‡]	$T_{1/2}$	Comments
0.0	0$^+$		
1256.69 *4*	2$^+$	0.376 ps *5*	$T_{1/2}$: from B(E2)↑. B(E2)↑: 0.240 *3*, weighted average of 0.242 *8* (2011Ku05,2010Ku07), 0.240 *20* (2007Va22), 0.229 *5* (1975Gr30), and 0.256 *6* (1970St20). Other: 0.240 *14* (1987Ra01), weighted average of the data in 1975Gr30 and 1970St20. μ: +0.21 *7* from g-factor=+0.104 *35* in 2011Wa15. Q: −0.06 *9*, weighted average of-0.03 *11* (1975Gr30) and −0.15 *18* (1970St20).
2150.86 *6*	2$^+$	1.4 ps *4*	$T_{1/2}$: from B(E2)↑=0.00065 *20* (1981Jo03).
2190.81 *6*	0$^+$	≥2.7 ps	$T_{1/2}$: From B(E2)↑ ≤0.029 (1981Ba05).
2247.38 *6*	4$^+$	3.3 ps *5*	$T_{1/2}$: From B(E2)↑. B(E2)↑=0.032 *5* (1981Jo03). μ: +1.5 *7* from g-factor=+0.38 *18* in 2011Wa15.
2354.07 *8*	3$^-$	0.215 ps *14*	B(E3)↑=0.087 *12* (1981Jo03) $T_{1/2}$: from DSAM in 2011Ju01. μ: −1.4 *28* from g-factor=−0.48 *92* in 2011Wa15.
2476.2 *5*	2$^+$		
2521.4 *5*	4$^+$		

[†] From a least-squares fit to Eγ.

[‡] From the Adopted Levels.

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$\gamma(^{112}Sn)$

E_γ[†]	I_γ[†]	E_i(level)	J_i^π	E_f	J_f^π	Mult.[†]	δ[†]	α[‡]	$I_{(\gamma+ce)}$[†]	Comments
203.2 *2*		2354.07	3^-	2150.86	2^+					
286		2476.2	2^+	2190.81	0^+					
894.17 *4*	100 *1*	2150.86	2^+	1256.69	2^+	M1+E2	−0.28 *6*			
934.12 *4*		2190.81	0^+	1256.69	2^+	E2				
990.69 *4*	100	2247.38	4^+	1256.69	2^+					
1097.38 *7*	100	2354.07	3^-	1256.69	2^+	E1				
1219.34 *13*	20.5 *24*	2476.2	2^+	1256.69	2^+	M1+E2	−0.54 *7*	9.77×10^{-4} *16*		
1256.68 *4*	100	1256.69	2^+	0.0	0^+	E2				Mult.: A_2=0.64 *8* (2011Wa15) and A_4=−0.82 *8* (2011Wa15); Also: A_2=0.90 *6* (2011Wa15) and A_4=−0.71 *6* (2011Wa15).
1264.07 *7*	100	2521.4	4^+	1256.69	2^+	E2		7.96×10^{-4}		
2150.9 *4*	16.7 *11*	2150.86	2^+	0.0	0^+	E2				
2190.9 *5*		2190.81	0^+	0.0	0^+	E0			0.1455 *21*	
2475.8 *3*	100.0 *24*	2476.2	2^+	0.0	0^+	E2		7.48×10^{-4}		

[†] From the adopted gammas.

[‡] 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.

$^{112}_{50}Sn_{62}$-2

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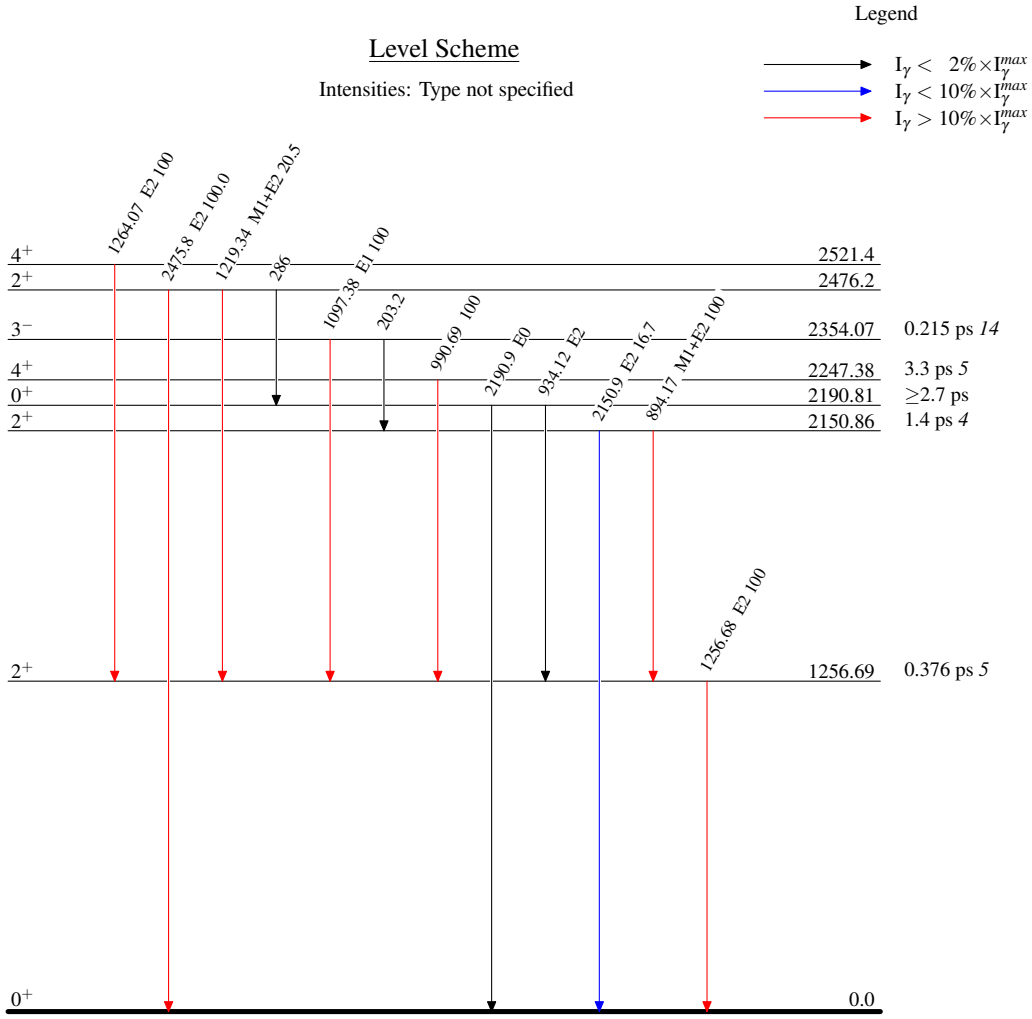

$^{112}_{50}Sn_{62}$