^{120}Sn(d,pγ)   **1976Ma09**

	Type	Author	History Citation	Literature Cutoff Date
	Full Evaluation	S. Ohya	NDS 111, 1619 (2010)	20-Jan-2009

E(d)=5-10 MeV enriched target; semi, γ, Ge(Li), ce, Si(Li), excitation function.

^{121}Sn Levels

E(level)[†]	J$^{\pi}$[‡]	E(level)[†]	J$^{\pi}$[‡]	E(level)[†]	J$^{\pi}$[‡]	E(level)[†]	J$^{\pi}$[‡]
0.0	3/2$^+$	869.7 7	5/2$^+$	949.4 6	7/2$^-$	1404.9 7	5/2$^+$
6.31[‡] 6	11/2$^-$	909.2 8	5/2$^+$	1101.7 5	3/2$^+$	1758.5 10	($^+$)
60.3 7	1/2$^+$	925.8 11	7/2$^+$	1121.4 7	5/2$^+$		

[†] E(levels) are based on a least-squares fit to the E(γ's) of 1976Ma09.
[‡] From Adopted Levels.

$\gamma(^{121}$Sn)

E$_\gamma$	I$_\gamma$[†]	E$_i$(level)	J$^{\pi}_i$	E$_f$	J$^{\pi}_f$	Mult.[‡]	α[#]	Comments
60.3 7	100	60.3	1/2$^+$	0.0	3/2$^+$			
^{x}553 1								
656.8 8	75 4	1758.5	($^+$)	1101.7	3/2$^+$	(E2,M1)	0.0038 3	α=0.0038 3; α(K)=0.0033 3; α(L)=0.000412 21; α(M)=8.1×10^{-5} 4; α(N+..)=1.64×10^{-5} 10 α(N)=1.51×10^{-5} 9; α(O)=1.29×10^{-6} 12 Mult.: from α(K)exp=0.0024 3.
^{x}783.5 4	3.6 11							
809.3 9	21.4 21	869.7	5/2$^+$	60.3	1/2$^+$			
848.4 11	66 16	909.2	5/2$^+$	60.3	1/2$^+$			
869.8 9	104 10	869.7	5/2$^+$	0.0	3/2$^+$	E2,M1	0.00195 19	α=0.00195 19; α(K)=0.00170 17; α(L)=0.000207 17; α(M)=4.0×10^{-5} 4; α(N+..)=8.3×10^{-6} 7 α(N)=7.6×10^{-6} 7; α(O)=6.6×10^{-7} 7 Mult.: from α(K)exp=0.00132 23.
909.7 11	150 8	909.2	5/2$^+$	0.0	3/2$^+$	(E2,M1)	0.00176 18	α=0.00176 18; α(K)=0.00153 16; α(L)=0.000186 16; α(M)=3.6×10^{-5} 3; α(N+..)=7.4×10^{-6} 7 α(N)=6.8×10^{-6} 6; α(O)=5.9×10^{-7} 7 Mult.: from α(K)exp=0.0012 2.
925.8 11	33 3	925.8	7/2$^+$	0.0	3/2$^+$			
943.1 6	70 11	949.4	7/2$^-$	6.31	11/2$^-$	(E2,M1)	0.00162 16	α=0.00162 16; α(K)=0.00141 15; α(L)=0.000171 15; α(M)=3.3×10^{-5} 3; α(N+..)=6.8×10^{-6} 6 α(N)=6.3×10^{-6} 6; α(O)=5.5×10^{-7} 6 Mult.: from α(K)exp=0.0010 3.
1041.4 6	26.3 26	1101.7	3/2$^+$	60.3	1/2$^+$			
^{x}1092.9 7	16.5 33							
1101.7 7	77 12	1101.7	3/2$^+$	0.0	3/2$^+$	(E2,M1)	0.00115 11	α=0.00115 11; α(K)=0.00100 10; α(L)=0.000120 11; α(M)=2.35×10^{-5} 20; α(N+..)=5.3×10^{-6} 4 α(N)=4.4×10^{-6} 4; α(O)=3.9×10^{-7} 4; α(IPF)=4.7×10^{-7} 4 Mult.: from α(K)exp=0.00096 25.

^{120}Sn(d,pγ)   **1976Ma09 (continued)**

γ(^{121}Sn) (continued)

E_γ	I_γ[†]	E_i(level)	J^π_i	E_f	J^π_f
1121.4 *7*	59 *6*	1121.4	5/2$^+$	0.0	3/2$^+$
1404.9 *7*	22 *6*	1404.9	5/2$^+$	0.0	3/2$^+$

[†] Relative photon intensity at E(d)=5-10 MeV.

[‡] From α(K)exp (1976Ma09), and L values in (d,p) (1975Be30).

[#] 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.

[x] γ ray not placed in level scheme.

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Level Scheme

Intensities: Relative I$_\gamma$

Legend

I$_\gamma <$ 2%×I$_\gamma^{max}$
I$_\gamma <$ 10%×I$_\gamma^{max}$
I$_\gamma >$ 10%×I$_\gamma^{max}$

$^{121}_{50}$Sn$_{71}$