^{124}Sn(^{80}Se,^{80}Se3nγ) 1995Da26

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

^{124}Sn + E=344 MeV ^{80}Se, 12 Compton suppressed Ge BGO system; measured off beam spectra 2-12 μs after the reaction, $\gamma\gamma$-coin in time mode, identification of isomer decay mode from analogy with a seniority 3 (ν $h_{11/2}$) scheme in ^{117}Sn.

^{121}Sn Levels

E(level)	J^π	$T_{1/2}$	Comments
6.29 *8*	$11/2^-$	43.9 y *5*	E(level): from Adopted Levels. $T_{1/2}$: from Adopted Levels.
1157	$(15/2^-)$		
1247	$(13/2^-)$		
1999	$(19/2^+)$	5.3 μs *5*	J^π: possible configuration: (ν $h_{11/2}$) (5^-), or (ν $h_{11/2}$)^2($s_{1/2}$).
2187	$(19/2^-)^\dagger$		
2658	$(23/2^-)^\dagger$		
2834	$(27/2^-)^\dagger$	0.167 μs *25*	

† Possible (ν $h_{11/2}$)^n seniority 3 scheme has been predicted from fractional parentage calculation (1995Da26).

γ(^{121}Sn)

No Iγ values have been given in 1995Da26.

E_γ	E_i(level)	J_i^π	E_f	J_f^π	Mult.†	α‡	Comments
176	2834	$(27/2^-)$	2658	$(23/2^-)$	[E2]	0.217	α(K)=0.1750 *25*; α(L)=0.0339 *5*; α(M)=0.00680 *10*; α(N+..)=0.001301 *19* α(N)=0.001229 *18*; α(O)=7.20×10^{-5} *10*
471	2658	$(23/2^-)$	2187	$(19/2^-)$	[E2]	0.00877 *13*	α=0.00877 *13*; α(K)=0.00750 *11*; α(L)=0.001027 *15*; α(M)=0.000202 *3*; α(N+..)=4.05×10^{-5} *6* α(N)=3.75×10^{-5} *6*; α(O)=2.93×10^{-6} *5*
752	1999	$(19/2^+)$	1247	$(13/2^-)$	[E3]	0.00584 *9*	α=0.00584 *9*; α(K)=0.00496 *7*; α(L)=0.000716 *10*; α(M)=0.0001418 *20*; α(N+..)=2.84×10^{-5} *4* α(N)=2.63×10^{-5} *4*; α(O)=2.07×10^{-6} *3*
841	1999	$(19/2^+)$	1157	$(15/2^-)$	[M2]	0.00602 *9*	α=0.00602 *9*; α(K)=0.00520 *8*; α(L)=0.000656 *10*; α(M)=0.0001288 *18*; α(N+..)=2.64×10^{-5} *4* α(N)=2.43×10^{-5} *4*; α(O)=2.12×10^{-6} *3*
1030	2187	$(19/2^-)$	1157	$(15/2^-)$	[E2]	0.001205 *17*	α=0.001205 *17*; α(K)=0.001047 *15*; α(L)=0.0001283 *18*; α(M)=2.51×10^{-5} *4*; α(N+..)=5.10×10^{-6} α(N)=4.70×10^{-6} *7*; α(O)=4.01×10^{-7} *6*
1151	1157	$(15/2^-)$	6.29	$11/2^-$	[E2]	0.000951 *14*	α=0.000951 *14*; α(K)=0.000825 *12*; α(L)=0.0001001 *14*; α(M)=1.95×10^{-5} *3*; α(N+..)=6.35×10^{-6} α(N)=3.67×10^{-6} *6*; α(O)=3.16×10^{-7} *5*; α(IPF)=2.36×10^{-6} *4*
1241	1247	$(13/2^-)$	6.29	$11/2^-$			

† Expected yrast transitions in analogy with ^{117}Sn.

‡ 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.

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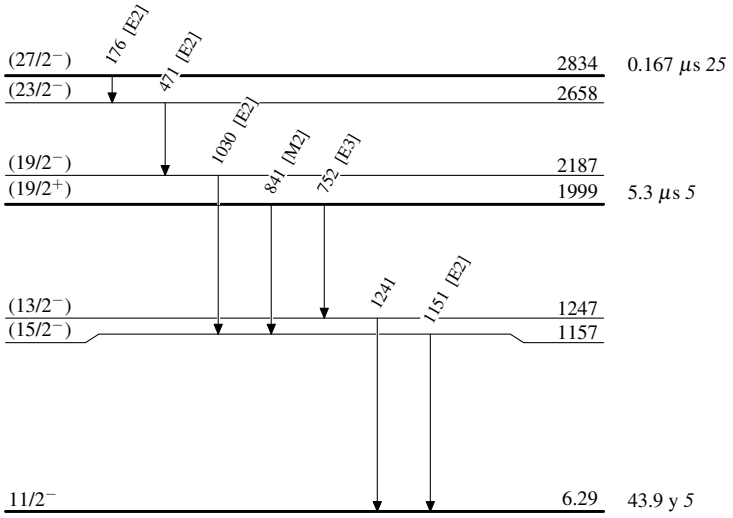
Level Scheme



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