

¹¹⁷Sn IT decay

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Jean Blachot	ENSDF	1-Mar-2009

Parent: ¹¹⁷Sn: E=314.58 4; J^π=11/2⁻; T_{1/2}=14.00 d 5; %IT decay=100.0

γγ(t), γγ(θ), γγ(θ,H) (1972Jo13); γγ(t) (1963Sc12).

(156γ)(158γ)(θ): A₂=-0.132 13(1972Jo13), -0.146 10 (1962Ha02).

Others: 1950Mi52, 1951Co34, 1952Mi38, 1956Go27, 1956Ka43.

α: Additional information 1.

¹¹⁷Sn Levels

E(level)	J ^π †	T _{1/2}	Comments
0	1/2 ⁺		
158.56 2	3/2 ⁺	0.279 ns 9	T _{1/2} : from Adopted Levels.
314.58 4	11/2 ⁻	14.00 d 5	T _{1/2} : From 2002Un02. Others: 13.98 d 7 (2003Po21), 13.60 d 4 (1977Ka16), 14.0 d 5 (1951Co34), 14.0 d 3 (1950Mi52).

† From Adopted Levels.

γ(¹¹⁷Sn)

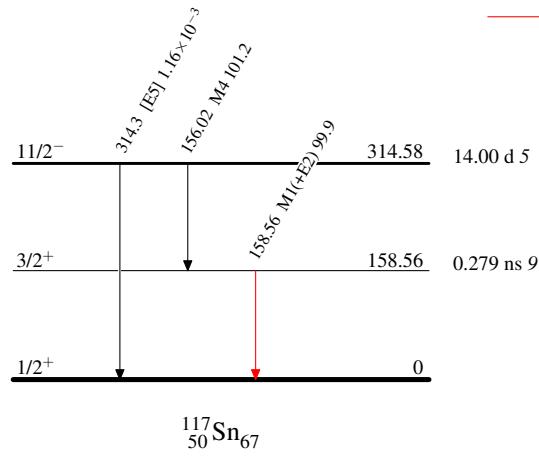
E _γ †	I _γ ‡	E _i (level)	J _i ^π	E _f	J _f ^π	Mult.	δ	α	Comments
156.02 3	2.446 7	314.58	11/2 ⁻	158.56	3/2 ⁺	M4		46.9	α(K)=31.1 5; α(L)=12.55 18; α(M)=2.74 4; α(N)=0.500 7; α(O)=0.0258 4; α(N+..)=0.525 8 B(M4)(W.u.)=5.1 3 α: from intensity balance. K:L:M:N=243 4:100:21.5:3.3 3 L1:L2:L3=49.8 16:10.7 6:39.5 (1969Ka40). I _γ : from I _γ (158γ)/I _γ (156γ)=40.88 12 reported by 1973Ra14.
158.56 2	100	158.56	3/2 ⁺	0	1/2 ⁺	M1(+E2)	≤0.03	0.1558	α(K)exp=0.131 5; α(L)exp=0.018 2 (1969Ka40) α(K)=0.1348 19; α(L)=0.01703 24; α(M)=0.00334 5; α(N)=0.000628 9; α(O)=5.45×10 ⁻⁵ 8 α(N+..)=0.000682 10 B(E2)(W.u.)<0.48; B(M1)(W.u.)>0.017
314.3 3	4.90×10 ⁻⁴ 11	314.58	11/2 ⁻	0	1/2 ⁺	[E5]		1.75	α(K)=0.956 14; α(L)=0.633 10; α(M)=0.1357 21; α(N)=0.0239 4; α(O)=0.001031 16 α(N+..)=0.0249 4 B(E5)(W.u.)=0.0450 22 I _γ : from 1979Ka10 Compton suppression spectrometer. α: estimated from extrapolation (theory).

† From 1974HeYW.

‡ For absolute intensity per 100 decays, multiply by 0.864 4.

^{117}Sn IT decay

Decay Scheme

Intensities: $I_{(\gamma+ce)}$ per 100 parent decays
%IT=100.0

Legend

- $I_{\gamma} < 2\% \times I_{\gamma}^{max}$
- $I_{\gamma} < 10\% \times I_{\gamma}^{max}$
- $I_{\gamma} > 10\% \times I_{\gamma}^{max}$