

Adopted Levels, Gammas

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	A. A. Sonzogni	NDS 103,1 (2004)	31-Jul-2004

Q(β⁻)=7588 4; S(n)=3629 4; S(p)=1.626×10⁴ syst; Q(α)=-7.32×10³ 17 2012Wa38

Note: Current evaluation has used the following Q record 7.37E+3 9 3910 1110.62×10⁴ syst-77×10² 3 2003Au03.

ΔS(p)=314 (2003Au03).

¹³⁴Sn is populated in ¹³⁴In β decay and ¹³⁵In β⁻n decay (2002Di12); there is however, no information on the ¹³⁴Sn levels populated by these decays.

Theory: 2002Co12, 2001Sa28, 2000Sh16, 2000Ta30, 1998Ho09.

¹³⁴Sn Levels

Cross Reference (XREF) Flags

A ²⁴⁸Cm SF decay

E(level)	J ^π †	T _{1/2}	XREF	Comments
0.0	0 ⁺	1.050 s 11	A	%β ⁻ =100; %β ⁻ n=17 13 (1975As04) T _{1/2} : from 1993Ru01. Others: 1.20 s 10 (1990Fo03), 1.04 s 2 (1976Lu02), 0.7 s 2 (1975As04), ≈1 s (1974Sh18).
725.6	2 ⁺			Configuration=(ν f _{7/2}) ² .
1073.4	4 ⁺			Configuration=(ν f _{7/2}) ² .
1247.4	6 ⁺	80 ns 15		Configuration=(ν f _{7/2}) ² .
2508.9	(8 ⁺)			T _{1/2} : from ²⁴⁸ Cm SF decay (2000Ko15). Configuration=((ν f _{7/2})(ν h _{9/2})).

† Based on the multiplicities of γ transitions, systematics of N=84 nuclei and Shell Model calculations.

γ(¹³⁴Sn)

E _i (level)	J _i ^π	E _γ †	I _γ	E _f	J _f ^π	Mult.†	α‡	Comments
725.6	2 ⁺	725.6	100	0.0	0 ⁺	Q		
1073.4	4 ⁺	347.8	100	725.6	2 ⁺	Q		
1247.4	6 ⁺	174.0	100	1073.4	4 ⁺	(E2)	0.227	α(K)=0.183 6; α(L)=0.0356 11; α(M)=0.00710 22; α(N+..)=0.00151 5 B(E2)(W.u.)=0.89 17
2508.9	(8 ⁺)	1261.5	100	1247.4	6 ⁺			

† From ²⁴⁸Cm SF decay (2000Ko15).

‡ Total theoretical internal conversion coefficients, calculated using the BrIcc code (2008Ki07) with Frozen orbital approximation based on γ-ray energies, assigned multiplicities, and mixing ratios, unless otherwise specified.

Adopted Levels, Gammas**Level Scheme**

Intensities: Type not specified

Legend

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

