

¹³⁴In β⁻n decay 1996Ho16,2000Ho32

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Yu. Khazov and A. Rodionov, F. G. Kondev		NDS 112, 855 (2011)	31-Oct-2010

Parent: ¹³⁴In: E=0.0; T_{1/2}=140 ms 4; Q(β⁻n)=10752 SY; %β⁻n decay=65.0

¹³⁴In-Q(β⁻n): 10752 401 (syst, 2009AuZZ).

¹³⁴In-%β⁻n decay: from 1996Ho16.

1995JoZZ, 1996Ho16, 2000Ho32: ¹³⁴In (β⁻n) [from ²³⁸U(p,f) E=1 GeV]; measured E_γ, I_γ, γγ⁻, nγ⁻, βγ-coin, T_{1/2} from (βn)γ(t). ISOLDE facility; plastic scin β detector, two liquid scin n detectors, two Ge γ-ray detectors.

¹³³Sn Levels

E(level) [†]	J ^π [†]	Comments
0.0	(7/2 ⁻)	Population=50% per β-n decay of ¹³⁴ In (1996Ho16,2000Ho32). possible configuration ν(f _{7/2} ⁺¹).
853.7 3	(3/2 ⁻)	Population=2% per β-n decay of ¹³⁴ In (1996Ho16,2000Ho32). possible configuration ν(p _{3/2} ⁺¹).
1560.9 5	(9/2 ⁻)	Population=10% per β-n decay of ¹³⁴ In (1996Ho16,2000Ho32). possible configuration ν(h _{9/2} ⁺¹).
1655.7? 11	(1/2 ⁻)	possible configuration ν(p _{1/2} ⁺¹).
2004.6 10	(5/2 ⁻)	Population=3% per β-n decay of ¹³⁴ In (1996Ho16,2000Ho32). possible configuration ν(f _{5/2} ⁺¹).
≈3700?	(11/2 ⁻)	E(level): observed in the spectrum of β-delayed neutrons. No deexciting γ observed. possible configuration: neutron hole at ν(h _{11/2} ⁻¹).

[†] From Adopted Levels.

γ(¹³³Sn)

E _γ [†]	I _γ [†]	E _i (level)	J _i ^π	E _f	J _f ^π	Comments
^x 354.0 10	2.3 7					I _γ : <2.3 β ⁻ gated.
802.0 [‡] 10	2.1 10	1655.7?	(1/2 ⁻)	853.7	(3/2 ⁻)	I _γ : 9 2 β ⁻ gated.
853.7 3	13 2	853.7	(3/2 ⁻)	0.0	(7/2 ⁻)	I _γ : 23 2 β ⁻ gated.
1560.9 5	100 5	1560.9	(9/2 ⁻)	0.0	(7/2 ⁻)	The absolute intensity of the transition is 5-10% per decay of ¹³⁴ In (1996Ho16, 2000Ho32).
2004.6 10	5.1 10	2004.6	(5/2 ⁻)	0.0	(7/2 ⁻)	I _γ : 26 3 β ⁻ gated.

[†] From 1996Ho16, 2000Ho32; neutron gated intensities are given.

[‡] Placement of transition in the level scheme is uncertain.

^x γ ray not placed in level scheme.

^{134}In β^- n decay 1996Ho16,2000Ho32

Legend

- ▶ $I_\gamma < 2\% \times I_\gamma^{\text{max}}$
- ▶ $I_\gamma < 10\% \times I_\gamma^{\text{max}}$
- ▶ $I_\gamma > 10\% \times I_\gamma^{\text{max}}$
- ▶ γ Decay (Uncertain)

Decay Scheme

Intensities: Relative I_γ 