^{134}Cs IT decay (2.912 h) 1975Va12,1975Al21

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

Parent: ^{134}Cs: E=138.7441 *26*; $J^\pi=8^-$; $T_{1/2}$=2.912 h *2*; %IT decay=100.0

^{134}Cs Levels

E(level)	J^π[†]	$T_{1/2}$	Comments
0.0	4^+	2.0652 y *4*	$T_{1/2}$: from Adopted Levels.
11.239 *6*	5^+	46.6 ns *6*	g=+0.665 *13* (1971DrZX) $T_{1/2}$: weighted average of 47.8 ns *7* (1969Ly08), 45.7 ns *12* (1970BlZT), 47 ns *1* (1971DrZX), and 45.7 ns *6* (1972TuZV). Other: 37.9 ns *14* (1961Bl13).
138.741 *7*	8^-	2.912 h *2*	$T_{1/2}$: weighted average of 2.91 h *1* (1960Ba49), 2.895 h *5* (1961Ke03), 2.93 h *5* (1964Fr02), 2.91 h *2* (1964Wa10), 2.90 h *1* (1968Re04), 2.91 h *5* (1970Qa02), 2.95 h *2* (1973Ma68), and 2.913 h *1* (1999Na39).

[†] From Adopted Levels.

$\gamma(^{134}Cs)$

Iγ normalization: From level scheme.
Ice measurements: 1964Fr02, 1972PlZX, 1973Ma68, 1973MaVM, 1975Al21, 1975Ma32, 1987Bo24.
For possible anomaly in α(exp) of E3 transition, see 1988Ch17.
Ice(K)(138.7)/Ice(K)(127.5)=0.0078 *8* (1975Al21).

E_γ[†]	I_γ[‡]	E_i(level)	J_i^π	E_f	J_f^π	Mult.	δ	α[#]	Comments
11.242 *7*	86 *5*	11.239	5^+	0.0	4^+	M1+E2	0.016 *1*	90.9 *9*	α(L)=71.5 *7*; α(M)=14.60 *15* I_γ: from the intensity balance. Mult.,δ: M1:M2:M3=1.0:0.131 *8*:0.084 *11*, M1:N1:O1:P1=4.38 *19*:1.0:0.162 *9*:<0.0068 (1973MaVM).
127.502 *3*	1000	138.741	8^-	11.239	5^+	E3		6.89	α(K)=2.77; α(L)=3.22; α(M)=0.719 K:L1:L2:L3=1.89 *5*:0.176 *6*:1.03 *1*:1.0, M1:M2:M3:M45:N:L3=0.034 *6*:0.258 *4*:0.216 *3*:0.0053 *8*:0.105 *4*:1.0 (1973Ma68).
138.733 *11*	0.31 *2*	138.741	8^-	0.0	4^+	M4		131.9	α(K)=73.5; α(L)=44.9; α(M)=10.53 K:L:M+=206:100:31 (1964Fr02). I_γ: averaged from 1975Al21 and 1975Va12.

[†] From 1987Bo24 and 1989Du03.
[‡] For absolute intensity per 100 decays, multiply by 0.0126 *4*.
[#] 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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Decay Scheme

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

%IT=100.0