

$^{134}\text{I}$  IT decay (3.52 min) 1972Co04

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

Parent:  $^{134}\text{I}$ : E=316.49 22;  $J^\pi=(8)^-$ ;  $T_{1/2}=3.52$  min 4; %IT decay=97.7 10

 $^{134}\text{I}$  Levels

E(level)	$J^\pi$ †	$T_{1/2}$	Comments
0.0	(4) <sup>+</sup>	52.5 min 2	$T_{1/2}$ : from Adopted Levels.
44.40 20	(5) <sup>+</sup>	<10 ns	
316.50 23	(8) <sup>-</sup>	3.52 min 4	$T_{1/2}$ : from Adopted Levels.

† From Adopted Levels.

 $\gamma(^{134}\text{I})$ 

$I_\gamma$  normalization: From the level scheme.

$I(\text{K x ray})/I_\gamma(271.9)=1.14$  10.

$I_\gamma(234.3,\text{Xe})/I_\gamma(271.9,\text{I})=0.020$  8.

$E_\gamma$	$I_\gamma$ †	$E_i(\text{level})$	$J_i^\pi$	$E_f$	$J_f^\pi$	Mult.	$\alpha^\ddagger$	Comments
44.4 2	13.7	44.40	(5) <sup>+</sup>	0.0	(4) <sup>+</sup>	M1	7.97	$\alpha(\text{K})= 6.83$ ; $\alpha(\text{L})= 0.900$ ; $\alpha(\text{M})= 0.1803$ Mult.: $\alpha(\text{exp})=8.5$ 8 from the intensity balance.
272.1 1	100	316.50	(8) <sup>-</sup>	44.40	(5) <sup>+</sup>	E3	0.229	$\alpha(\text{K})= 0.1639$ ; $\alpha(\text{L})= 0.0519$ ; $\alpha(\text{M})=0.01097$ ; $\alpha(\text{N+..})=0.00261$ $E_\gamma$ : from 1972Ke21. Mult.: $\text{K}/(\text{L+})=2.6$ 3 (1971Ac01), $\alpha(\text{K})_{\text{exp}}=0.19$ 2 (1972Ke21,1971Ac01).
316.3# 10	<0.6	316.50	(8) <sup>-</sup>	0.0	(4) <sup>+</sup>	[M4]	1.99	$\alpha(\text{K})= 1.516$ ; $\alpha(\text{L})= 0.376$ ; $\alpha(\text{M})= 0.0804$ ; $\alpha(\text{N+..})=0.02057$

† For absolute intensity per 100 decays, multiply by 0.79 3.

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

# Placement of transition in the level scheme is uncertain.

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Legend

## Decay Scheme

Intensities:  $I_{(\gamma+ce)}$  per 100 parent decays  
 $\%IT=97.7 \ 10$

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

