^{130}I IT decay (8.84 min) 1984RoZO

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	NDS 93, 33 (2001)	11-May-2001

Parent: ^{130}I: E=39.9525 *13*; $J^\pi=2^+$; $T_{1/2}$=8.84 min *6*; %IT decay=84 *2*

^{130}I-%IT decay: %IT=84 *2*.

1984RoZO: measured Eγ, ce, $T_{1/2}$.

Others:

1989Sa11: measured Eγ in (n,γ).

1966BeZZ, 1967Ke11: estimates of isomeric transition energy from conversion data.

$T_{1/2}$: 1996Na23, 1974Di03, 1974Me17, 1972Ba51, 1970Qa02, 1970Qa03, 1968Re04, 1967Ke12, 1966Wi15.

^{130}I Levels

E(level)	J^π †	$T_{1/2}$ †	Comments
0.0	5^+	12.36 h *1*	
39.96 *2*	2^+	8.84 min *6*	$T_{1/2}$: see Adopted Levels.

† From Adopted Levels.

$\gamma(^{130}I)$

Eγ	Iγ †	E$_i$(level)	J_i^π	E$_f$	J_f^π	Mult.	α ‡	I$_{(\gamma+ce)}$ †	Comments
39.96 *2*	0.02024	39.96	2^+	0.0	5^+	M3	4.94×10^3	100	ce(K)/(γ+ce)=0.242; ce(L)/(γ+ce)=0.576; ce(M)/(γ+ce)=0.137 α(K)= 1194; α(L)= 2850; α(M)= 675 Iγ: from I(γ+ce) and α. Mult.: from L1:L2:L3=54 *6*:6.9 *7*:100 *7*, M1:M2:M3:(M4+M5)=12.3 *13*:1.6 *2*:24 *3*:0.57 *7*, N1:(N2+N3):O=3.1 *4*:5.1 *6*:0.79 *8* (1984RoZO). Eγ: from 1984RoZO. Other: 48.2 *3* (1966BeZZ) from ce spectra, 55 (1967Ke11) from proportional counter spectrum. In (n,γ), Eγ=39.9542 *21* (1989Sa11).

† For absolute intensity per 100 decays, multiply by 0.84 *2*.

‡ 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=84 *2*