^{199}Po IT decay (4.17 min) 1985St02

History

Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	01-Dec-2015

Parent: ^{199}Po: E=310; J^{π}=(13/2$^+$); $T_{1/2}$=4.17 min *5*; %IT decay=2.5 *10*
^{199}Po-%IT decay: from IT/(ε+β^+)=0.034 (1985St02), %IT=2.5 if %α=24.

^{199}Po Levels

E(level)[†]	J^{π}[‡]	$T_{1/2}$[‡]	Comments
0	(3/2$^-$)		
72 *2*	(5/2$^-$)		
310 *2*	(13/2$^+$)	4.17 min *5*	$T_{1/2}$: other: 4.3 min *2* (1985St02, from ce of 238γ).

[†] Uncertainties based on assumed 1 keV uncertainty for each of the two γ rays.
[‡] From Adopted Levels.

γ(^{199}Po)

E_γ[†]	I_γ[‡]	E_i(level)	J_i^{π}	E_f	J_f^{π}	Mult.	α[#]	$I_{(\gamma+ce)}$[‡]	Comments
72 *1*		72	(5/2$^-$)	0	(3/2$^-$)	[M1,E2]	19 *13*	685	$I_{(\gamma+ce)}$: from intensity balance in level scheme. Iγ=3.4 *22* from I(γ+ce) and α.
238 *1*	10.0	310	(13/2$^+$)	72	(5/2$^-$)	M4	65.2 *17*		α(K)=22.3 *5*; α(L)=30.7 *9*; α(M)=9.2 *3*; α(N)=2.45 *7*; α(O)=0.484 *14*; α(P)=0.0500 *14* Mult.: from K/L12=1.53 *22*, K/L3=1.81 *29*, K/M=1.90 *32* (1985St02); theory: K/L12=1.38, K/L3=1.56, K/M=2.44. ce(K)(238γ) were observed to be in coin with Po K x ray.

[†] Uncertainty not reported by 1985St02, assumed as 1 keV (evaluator).
[‡] For absolute intensity per 100 decays, multiply by 0.0037 *15*.
[#] 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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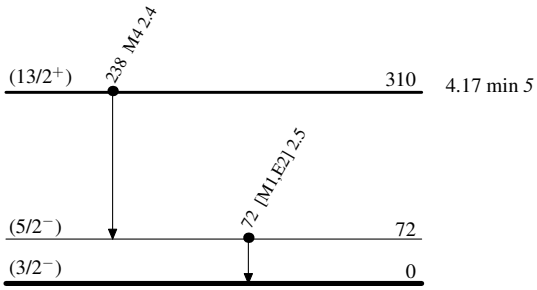
Legend

Decay Scheme

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

%IT=2.5 *10*

● Coincidence



$^{199}_{84}Po_{115}$