

^{174}Lu IT decay (395 ns) 1980Ke08

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	E. Browne, Huo Junde		NDS 87,15 (1999)	1-Nov-1998

Parent: ^{174}Lu : E=240.7 9; $J^\pi=3^+$; $T_{1/2}=395$ ns 15; %IT decay=?

From $^{176}\text{Yb}(p,3n\gamma)$, E(p)=22.7 MeV. Measured γ -ray energies and intensities of prompt and delayed transitions as a function of time.

 ^{174}Lu Levels

E(level)	J^π	$T_{1/2}$	Comments
0.0 [†]	1 ⁻		
44.7 [†] 9	2 ⁻		
111.7 [†] 9	3 ⁻		
240.7 9	3 ⁺	395 ns 15	J^π : probable configuration= $(\pi 1/2[541])\pm(\nu 5/2[512])$. $T_{1/2}$: other value: 290 ns 30 (1973AnYG).

[†] Band(A): $K^\pi=1^-$ band member. Configuration= $(\pi 7/2(404))-(\nu 5/2(512))$.

 $\gamma(^{174}\text{Lu})$

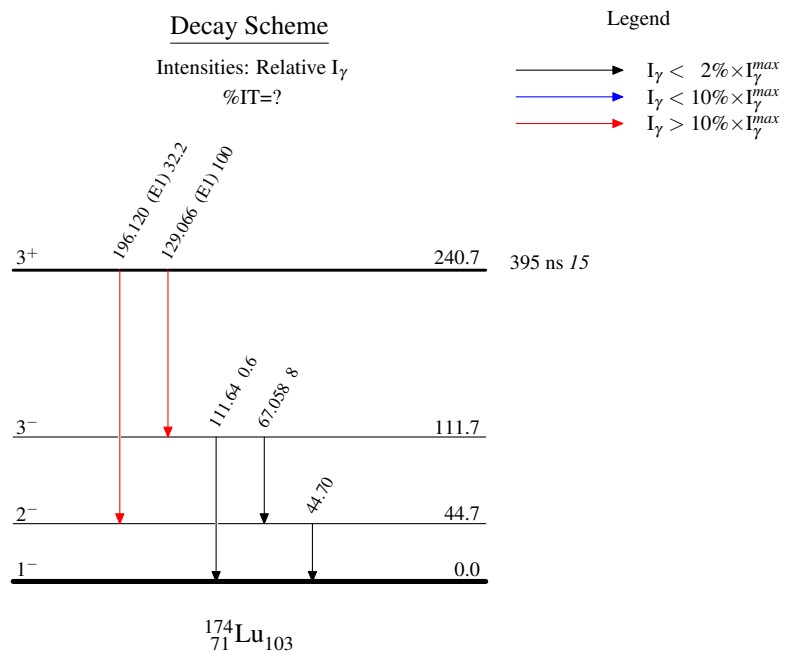
E_γ [†]	I_γ [#]	$E_i(\text{level})$	J_i^π	E_f	J_f^π	Mult. [@]
44.70 3		44.7	2 ⁻	0.0	1 ⁻	
67.058 10	8 [‡] 2	111.7	3 ⁻	44.7	2 ⁻	
111.64 5	0.6 [‡] 1	111.7	3 ⁻	0.0	1 ⁻	
129.066 4	100	240.7	3 ⁺	111.7	3 ⁻	(E1)
196.120 10	32.2 12	240.7	3 ⁺	44.7	2 ⁻	(E1)

[†] Relative to 411.044 keV of ^{198}Au β^- decay.

[‡] Contains component due to 145-ns IT decay.

[#] Relative to $I_\gamma(129.066\gamma)=100$.

[@] From $^{176}\text{Yb}(p,3n\gamma)$.

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