^{153}Lu ε decay   1989Ni04

		History	
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 170, 1 (2020)	16-Aug-2020

Parent: ^{153}Lu: E=0.0; J^{π}=(11/2$^-$); T$_{1/2}$=0.9 s 2; Q(ε)=884×10^1 25; %ε+%β^+ decay=?

^{153}Lu-ΔQ(ε) based on syst, 2017Wa10.

^{153}Lu produced by ^{92}Mo(^{64}Zn,p2n) at 285 MeV followed by mass separation. Measured singles and coincidence spectra with Si
ΔE-E telescope and Ge and plastic scintillator detectors.

^{153}Yb Levels

Assignment of γ's to ^{153}Lu decay and their placement was based (1989Ni04) on their previous observation in the IT decay of the
2578.2+x level.

E(level)	$J^{\pi\dagger}$	T$_{1/2}$‡
0.0	(7/2$^-$)	4.2 s 2
566.5	(9/2$^-$)	
1202	(13/2$^+$)	≈6 ns
1491	(11/2$^-$)	

† See Adopted Levels for configuration assignments.

‡ Adopted values.

$\gamma(^{153}$Yb)

Since this scheme is very incomplete, no Iγ normalization is given.

E$_\gamma$	I$_\gamma$	E$_i$(level)	J_i^{π}	E$_f$	J_f^{π}
566.5	100	566.5	(9/2$^-$)	0.0	(7/2$^-$)
1202	≈10	1202	(13/2$^+$)	0.0	(7/2$^-$)
1491	≈15	1491	(11/2$^-$)	0.0	(7/2$^-$)

^{153}Lu ε decay   1989Ni04

Decay Scheme

Intensities: Relative I$_\gamma$

Legend

$I_\gamma < 2\% \times I_\gamma^{max}$
$I_\gamma < 10\% \times I_\gamma^{max}$
$I_\gamma > 10\% \times I_\gamma^{max}$

(11/2$^-$)   0.0   0.9 s *2*

%ε + %β^+=?   Q$_\varepsilon$=884×10^1 *25*

$^{153}_{71}$Lu$_{82}$

1491 ≈15
1202 ≈10
566.5 100

(11/2$^-$)   1491
(13/2$^+$)   1202   ≈6 ns

(9/2$^-$)   566.5

(7/2$^-$)   0.0   4.2 s *2*

$^{153}_{70}$Yb$_{83}$