

¹⁵⁸Lu α decay 1983To01,1992Ha10

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 200,2 (2025)	22-Aug-2022

Parent: ¹⁵⁸Lu: E=0; J ^{π} =(2⁻); T_{1/2}=10.6 s 3; Q(α)=4790 5; % α decay=0.91 20

¹⁵⁸Lu-T_{1/2}: [Additional information 2](#).

¹⁵⁸Lu-Q(α): [Additional information 3](#).

¹⁵⁸Lu-Q(α): From [2021Wa16](#).

¹⁵⁸Lu-% α decay: [Additional information 1](#).

[Additional information 4](#).

Production: ¹⁴⁴Sm(¹⁹F,5n) with E=166 MeV ([1983To01](#)) and in spallation of W or Ta target by 660-MeV or 1-GeV protons followed by mass separation ([1979Al16](#) and [1992Po14](#)).

¹⁵⁴Tm Levels

E(level)	T _{1/2} [†]	Comments
0	8.1 s 3	E(level): As in the mass evaluation (2021Wa16), the α decay is taken to be between the two ground states involved.

[†] From ¹⁵⁴Tm Adopted Levels.

α radiations

E α	E(level)	I α [‡]	HF [†]	Comments
4669 4	0	100	0.58 25	E α : From 1991Ry01 recalibration and based on 4666 5 (1983To01) and 4665 10 (1979Be52).

[†] The nuclear radius parameter r₀(¹⁵⁴Tm)=1.559 18 is deduced from interpolation of radius parameters of the adjacent even-even nuclides in [2020Si16](#).

[‡] For absolute intensity per 100 decays, multiply by 0.0091 20.