^{159}Ta α decay (518 ms) 1996Pa01,1997Da07

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	N. Nica	NDS 160, 1 (2019)	21-Oct-2019

Parent: ^{159}Ta: E=64 *5*; $J^{\pi}=11/2^{-}$; $T_{1/2}$=518 ms *19*; Q(α)=5681 *6*; %α decay=55 *1*
^{159}Ta-E: Additional information 1.
^{159}Ta-J^{π}: Additional information 2.
^{159}Ta-$T_{1/2}$: Additional information 3.
^{159}Ta-%α decay: From 1997Da07. Others: 73 *14* (1996Pa01); and 80 *5* (1979Ho10).
1996Pa01: source material produced in heavy-ion fusion reactions initiated by ^{58}Ni and ^{70}Ge bombardment of ^{102}Pd, ^{106}Cd and ^{112}Sn targets, with bombarding energies ranging from 290 MeV to 354 MeV. Reaction products separated in a recoil mass separator and analyzed using a double-sided Si strip detector.
1997Da07: material as α decay product of ^{167}Ir, produced via the ^{92}Mo(^{78}Kr,p2n) reaction with E(^{78}Kr)=357 and 384 MeV. Reaction products separated in a fragment mass analyzer and analyzed using a thin position-sensitive parallel grid avalanche counter, followed by implantation into a double-sided Si strip detector.
The information from 1997Da07 on the α-decay chain headed by ^{167}Ir is also reported in 2001Da31.
Other: 1979Ho10.

^{155}Lu Levels

E(level)	J^{π}
0.0	$11/2^{-}$

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
5600 *5*	0.0	100	1.39 *8*	Eα: weighted average of: 5600 *5* (1997Da07); 5599 *5* (1996Pa01); and 5601 *6* (1979Ho10).

[†] The nuclear radius parameter $r_0(^{155}Lu)$=1.5588 *47* is deduced from interpolation (or unweighted average) of radius parameters of the adjacent even-even nuclides.
[‡] For absolute intensity per 100 decays, multiply by 0.55 *1*.