^{158}W α decay (1.25 ms)   2000Ma95,1996Pa01,1989Ho12

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

Parent: ^{158}W: E=0; J^{π}=0^{+}; T$_{1/2}$=1.25 ms 21; Q(α)=6612.5 26; %α decay=100

^{158}W-T$_{1/2}$: Additional information 1.

^{158}W-Q(α): Additional information 2.

^{158}W-T$_{1/2}$: From 2017Ni05.

^{158}W-Q(α): From 2021Wa16.

^{158}W-%α decay: %α≈100. From the theoretically computed T$_{1/2}$ for ε+β^{+} decay (0.33 s, 1997Mo25), one estimates
%ε+%β^{+}≈0.4. 2003Au02 list %α=100.

Additional information 3.

Production: ^{58}Ni bombardment of ^{106}Cd using the velocity filter SHIP (1989Ho12); 290-MeV ^{58}Ni ions on isotopically enriched
^{102}Pd target at the Daresbury Recoil Mass Separator (1996Pa01); ^{58}Ni bombardment of ^{102}Pd, involving mass separation
(2000Ma95).

^{154}Hf Levels

E(level)	J^{π}	T$_{1/2}$	Comments
0	0^{+}	2 s 1	T$_{1/2}$: from Adopted Levels.

α radiations

Eα	E(level)	Iα[‡]	HF[†]	Comments
6445 3	0	100	1.000	Eα: From 2000Ma95. Note that this is the same as the weighted average of: 6433 30 (1989Ho12); 6442 30 (1996Pa01); and 6445 3 (2000Ma95). Additional information 4.

[†] The nuclear radius parameter r$_{0}$(^{154}Hf)=1.558 10 is deduced by assuming HF=1.0 for the ground-state to ground-state alpha decay branch.

[‡] Absolute intensity per 100 decays.