^{158}W α decay (0.143 ms) 2000Ma95,1996Pa01,1989Ho12

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

Parent: ^{158}W: E=1888 *8*; $J^{\pi}=(8^+)$; $T_{1/2}$=0.143 ms *19*; Q(α)=6612.5 *26*; %α decay≈100

^{158}W-E: Additional information 1.

^{158}W-J^{π}: Additional information 2.

^{158}W-$T_{1/2}$: Additional information 3.

^{158}W-Q(α): Additional information 4.

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

^{158}W-Q(α): From 2021Wa16.

^{158}W-%α decay: %α≈100. Estimates of the half-life for ec decay indicate that α decay should be the dominant decay branch. 2021Ko07 list %α=100.

Additional information 5.

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
8286 *7*	0	100	1.0	Eα: From 2000Ma95. Others: 8291 *24* (1996Pa01); and 8280 *30* (1989Ho12). Note that a weighted average of these three leads to essentially the same Eα value.

[†] Additional information 6.

[‡] For absolute intensity per 100 decays, multiply by ≈1.0.