

^{165}W α decay (5.1 s) [1975To05](#),[1979Ho10](#)

Type	History		Literature Cutoff Date
	Author	Citation	
Full Evaluation	Balraj Singh	ENSDF	31-Dec-2014

Parent: ^{165}W : $E=0$; $J^\pi=(5/2^-)$; $T_{1/2}=5.1$ s 5; $Q(\alpha)=5029$ 30; $\% \alpha$ decay <0.2

^{165}W - $E, J^\pi, T_{1/2}$: From ^{165}W Adopted Levels.

^{165}W - $Q(\alpha)$: From [2012Wa38](#). Other: 5031 keV 5 if the 4909 α transition is from ^{165}W g.s. to ^{161}Hf g.s.

^{165}W - $\% \alpha$ decay: $\% \alpha < 0.2$ from the requirement that $\text{HF} > 1$ ([2006Ja09](#)). [1979Ho10](#) report that the α branching is <0.015 . The value computed from the theoretical α and $\epsilon + \beta^+$ half-lives is 0.0015 ([1979Ho10](#)).

[1975To05](#): ^{165}W produced by $^{156}\text{Dy}(^{16}\text{O}, 7n)$ reaction, and products transported to Si detector. Report $T_{1/2}$ and $E(\alpha)$.

[1979Ho10](#): ^{165}W produced by ^{58}Ni beam on Ag or Pd target. Reaction products separated in velocity selector and implanted in position-sensitive detector.

 ^{161}Hf Levels

E(level)	J^π	Comments
0	(7/2 ⁻)	E(level): level populated by α branch is assumed as the g.s.

 α radiations

E_α	E(level)	I_α^\dagger	Comments
4909 5	0	100	E_α : from 1975To05 . Other: 4902 20 (1979Ho10). I_α : only one α branch reported.

[†] For absolute intensity per 100 decays, multiply by <0.002 .