

^{165}W $\varepsilon+\beta^+$ decay (5.1 s)

Type	Author	History	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh and Jun Chen		NDS 194,460 (2024)	31-Oct-2022

Parent: ^{165}W : $E=0.0$; $J^\pi=(5/2^-)$; $T_{1/2}=5.1$ s 5; $Q(\varepsilon)=6987$ 29; $\% \varepsilon + \% \beta^+$ decay > 99.8

^{165}W - $J^\pi, T_{1/2}$: From ^{165}W Adopted Levels. Adopted $T_{1/2}$ is taken from [1975To05](#).

^{165}W - $Q(\varepsilon)$: From [2021Wa16](#).

^{165}W - $\% \varepsilon + \% \beta^+$ decay: From adopted $\% I_\alpha < 0.2$ deduced based on requirement $\text{HF} > 1$ ([2006Ja09](#)). Other: $\% I(\varepsilon + \beta^+) > 98.5$ from $\% I_\alpha < 1.5\%$ reported in [1979Ho10](#) based on measured $T_{1/2} > 300$ s for α decay branch and $T_{1/2} = 5.1$ s 5 from [1975To05](#).

[1996Sc50](#): ^{165}W produced in $^{144}\text{Sm}, ^{147}\text{Sm}(^{24}\text{Mg}, \text{xn})$ at 112 MeV, but ^{165}W could not be identified due to short half-life, only the daughter isotope ^{165}Ta was absorbed in the cation-exchange resin.

[1975To05](#): measured $T_{1/2}$ and α decay of ^{165}W .

No decay scheme information is available.