^{165}Re $\varepsilon+\beta^+$ decay (1.6 s) 1999Po09,2012Th13

History

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

Parent: ^{165}Re: E=0.0; $J^\pi=(1/2^+)$; $T_{1/2}$=1.6 s *6*; Q(ε)=8200 *30*; %ε+%β^+ decay=86 *8*

^{165}Re-J^π,$T_{1/2}$: From ^{165}Re Adopted Levels. Adopted $T_{1/2}$ from 2012Th13.

^{165}Re-Q(ε): From 2021Wa16.

^{165}Re-%ε+%β^+ decay: From 100−%α, with %α=14 *8* (2012Th13).

According to the α decay study of ^{177}Tl to ^{165}Re decay chain by 1999Po09, there are two isomers in ^{165}Re: $1/2^+$ ($s_{1/2}$) ground state and $11/2^-$ ($h_{11/2}$) isomer at 48 keV *26*. The spin assignments and the energy separation are derived by 1999Po09 from systematics.

The half-life is from 2012Th13 determined from α-decay activity.