

^{89}Tc ε decay (12.8 s) 1991He04,1983OxZZ

Type	Author	History Citation	Literature Cutoff Date
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Parent: ^{89}Tc : $E=0.0$; $J^\pi=(9/2^+)$; $T_{1/2}=12.8$ s 9; $Q(\varepsilon)=7620$ 5; $\% \varepsilon + \% \beta^+$ decay=100.0

^{89}Tc -E, J^π , $T_{1/2}$: From ^{89}Tc Adopted Levels.

^{89}Tc - $Q(\varepsilon)$: From 2021Wa16.

1991He04: ^{89}Tc formed by $^{60}\text{Ni}(^{32}\text{S},p2n)$ $E=95$ MeV and $^{58}\text{Ni}(^{35}\text{Cl},2p2n)$ $E=135$ MeV. Measured γ , $\beta\gamma$ coin. Deduced $Q(\varepsilon)=7510$ 210.

1983OxZZ (also 1981OxZZ): ^{89}Tc identified from $^{92}\text{Mo}(p,4n)$ $E=61$ MeV reaction. Measured E_γ , I_γ , $\gamma\gamma$.

The decay scheme is mostly unknown.

 ^{89}Mo Levels

E(level)	J^π †	$T_{1/2}$ †	Comments
0.0	(9/2 ⁺)	2.11 min 10	
118.8	(7/2 ⁺)		E(level): From E_γ .

† From the Adopted Levels.

 $\gamma(^{89}\text{Mo})$

E_γ	E_i (level)	J_i^π	E_f	J_f^π	Comments
118.8	118.8	(7/2 ⁺)	0.0	(9/2 ⁺)	E_γ : from 1991He04. $E_\gamma=118.6$ 3 (1983OxZZ).

 ^{89}Tc ε decay (12.8 s) 1991He04,1983OxZZDecay Scheme