

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	E. A. Mccutchan	NDS 152, 331 (2018)	1-Apr-2018

$Q(\beta^-) = -7150$ SY; $S(n) = 10170$ SY; $S(p) = 680$ SY; $Q(\alpha) = 2960$ SY [2017Wa10](#)

$\Delta Q(\beta^-) = 360$; $\Delta S(n) = 280$; $\Delta S(p) = 250$; $\Delta Q(\alpha) = 250$ ([2017Wa10](#)).

$S(2n) = 22460$ syst 360; $S(2p) = 4080$ syst 200; $Q(\epsilon p) = 6520$ syst 210 ([2017Wa10](#)).

[1989Vi04](#): $^{92}\text{Mo}(^{46}\text{Ti}, pn)$ with $E(^{46}\text{Ti}) = 192$ MeV followed by mass separation. Measured $E\gamma$, $I\gamma$, K x-rays, $X\gamma$, $\gamma\gamma$, $\beta\gamma$, $\gamma(t)$ using Si(Au) ΔE -telescope, thin planar HPGe x-ray detector, thick plastic scintillator and n-type Ge detector.

[1987Ke05](#): $^{92}\text{Mo}(^{48}\text{Ti}, p3n)$ with $E(^{48}\text{Ti}) = 220$ MeV and $^{112}\text{Sn}(^{28}\text{Si}, p3n)$ with $E(^{28}\text{Si}) = 170$ and 190 MeV followed by mass separation. Measured $E\gamma$, $I\gamma$, $\gamma\gamma$, $\gamma(t)$ using two Ge detectors.

 ^{136}Eu Levels

E(level)	J^π	$T_{1/2}$	Comments
x	(7 ⁺)	3.3 s 3	$\% \epsilon + \% \beta^+ = 100$; $\% \beta^+ p = 0.09$ (1989Vi04) $T_{1/2}$: from 431.7 $\gamma(t)$ (1989Vi04). $\% \beta^+ p$: from 1989Vi04 who were not able to assign the branch to a particular β -decaying level. J^π : tentative assignment based on observed feeding to 6 ⁺ and 8 ⁺ levels in ^{136}Sm .
y	(3 ⁺)	3.8 s 3	$\% \epsilon + \% \beta^+ = 100$; $\% \beta^+ p = 0.09$ $T_{1/2}$: average of $T_{1/2} = 3.7$ s 3 (1989Vi04) and $T_{1/2} = 3.9$ s 5 (1987Ke05). Both groups used the 2 ⁺ to g.s. transition (255 keV) in ^{136}Sm to extract $T_{1/2}$, and thus the value likely has a contribution from the high-spin isomer. J^π : tentative assignment based on observed feeding to 2 ⁺ and 4 ⁺ levels in ^{136}Sm . $\% \beta^+ p$: from 1989Vi04 who were not able to assign the branch to a particular β -decaying level.