

Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	M. S. Basunia	NDS 181, 475 (2022)	1-Jan-2022

S(n)= 1.001×10^4 10; S(p)=-250 60; Q(α)=8384 12 [2021Wa16](#)

$^{150}\text{Er}(^{51}\text{V},\text{X})$, E=5.2-5.6 MeV/nucleon; measured E α , I α , $\alpha\alpha$ correlation ([1995Ni05](#)). The production cross sections for ^{213}Pa were measured to be 100 pb 50 and 200 pb 100 at the beam energies of 5.4 A-MeV and 5.6 A-MeV, respectively.

 ^{213}Pa Levels

E(level)	J $^{\pi}$	T $_{1/2}$	Comments
0	9/2 $^{-}$	5.3 ms +40-16	<p>$\% \alpha = 100$</p> <p>J$^{\pi}$: Based on favored α-decay chain from ^{213}Pa g.s. to g.s. of ^{209}Ac, J$^{\pi}=9/2^{-}$, to g.s. of ^{205}At, J$^{\pi}=9/2^{-}$ (firm J$^{\pi}=9/2^{-}$-(^{205}At) in 2020Ko17). Configuration: $\pi(h_{9/2}^{+1})$.</p> <p>T$_{1/2}$: Weighted average of 5.3 ms +40-16 (1995Ni05 – from measured time intervals between implantation of evaporation residue (ER) and the first α-decay – also in 2000He17 and 1996An21 – same research group of 1995Ni05) and 4.9 ms +59-18 (2020Au04 – extracted with the exact maximum likelihood method of three correlated α decay chains). Uncertainty is the lower input value.</p> <p>Eα: 8236 keV 20, 8236 keV 15, and 8236 keV 15 reported in 1995Ni05, 1996An21, and 2000He17, respectively, all from the same group. 8210 keV 20 in 2020Au04.</p> <p>Proton decay is allowed for S(p)=-250 60, However, 2020Au04 noted – proton emission was found unlikely.</p>