Adopted Levels

History

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

S(p)=120 *syst*; Q(α)=7453 *14* 2021Wa16

Estimated uncertainties (2021Wa16): ΔS(p)=510 (syst, 2021Wa16).

S(2p)=−1440 *500*, Q(ε)=11280 *430*, Q(εp)=12820 *430* (syst, 2021Wa16).

2019Hi06: ^{165}Pt ions were produced and identified in ^{92}Mo(^{78}Kr,5n), E(^{78}Kr)=418 MeV reaction, followed by separation of fragments using MARA spectrometer, and multiwire proportional counter (MWPC) for detection of recoils, and double-sided silicon strip detector (DSSDs) for α detection at the University of Jyvaskyla K=130 cyclotron facility. Measured Eα, Iα, $\alpha\alpha$ correlations, half-lives of ground state decay.

Additional information 1.

^{165}Pt Levels

E(level)	J$^{\pi}$	T$_{1/2}$	Comments
0	(7/2$^-$)	0.26 ms *+26−9*	%α≈100 (2019Hi06) 2019Hi06 assigned %α≈100, as only the α decay was observed in this work and β decay half-life is expected to be much longer. Theory T$_{1/2}$(β decay)=0.277 s (2019Mo01), T$_{1/2}$(α)=0.18 ms (2019Mo01) and 0.12 ms (2022Xu04). With S(2p)=−1440 *500* (2021Wa16), 2p-decay mode is likely, but no evidence was found for this decay mode in 2019Hi06. J$^{\pi}$: probable unhindered α decay with HF≈2.9 (2019Hi06) to ^{161}Os, g.s. J^{π}=(7/2$^-$) as in ^{161}Os Adopted Levels in the ENSDF database (June 2011 update). T$_{1/2}$: measured by 2019Hi06 from observation of four recoil-α-α correlated decay chains (^{165}Pt→^{161}Os→^{157}W→^{157}Ta→^{153}Lu) and analysis by maximum likelihood method.