Adopted Levels

History			
Type	Author	Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	04-Jun-2021

S(p)=90 *SY*; Q(α)=7770 *30* 2021Wa16
Estimated uncertainty (2021Wa16): ΔS(p)=420.
S(2p)=−1850 *340*, Q(ε)=9120 *360*, Q(εp)=10590 *360* (syst, 2021Wa16).
2019Hi06: ^{165}Pt produced and identified in ^{96}Ru(^{78}Kr,4n), E(^{78}Kr)=390 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, (recoils)α-α-α-α correlations in decay chain: ^{170}Hg→^{166}Pt→^{162}Os→^{158}W, and half-life of the decay of ^{170}Hg g.s.
Theoretical structure calculations: 2016Ma54, 2008Sc02.

^{170}Hg Levels

E(level)	J$^{\pi}$	T$_{1/2}$	Comments
0	0$^+$	0.08 ms *+40−4*	%α≈100 (2019Hi06) 2019Hi06 assigned %α ≈ 100, as only the α decay was observed in this work, as β decay half-life is expected to be much longer. Theory T$_{1/2}$(β decay)=0.118 s, T$_{1/2}$(α)=8.9 μs (2019Mo01). With S(2p)=−1850 *340* (2021Wa16), 2p-decay mode is likely, but from a search for this decay mode, no evidence was found for this decay mode by 2019Hi06. Measured Eα=7590 *30* from the decay of the g.s. of ^{170}Hg (2019Hi06). T$_{1/2}$: measured by 2019Hi06 from observation of one (recoils)α-α-α-α correlated decay chain (^{170}Hg→^{166}Pt→^{162}Os→^{158}W) and analysis by maximum likelihood method.