Adopted Levels

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	C. Morse	NDS 182, 130 (2022).	14-Sep-2021

Q(β^-)=−1242 *SY*; S(n)=4885 *SY*; S(p)=5069 *SY*; Q(α)=8748 *SY* 2021Wa16
ΔQ(β^-)=705, ΔS(n)=748, ΔS(p)=824, ΔQ(α)=138 (2021WA16).
S(2n)=11218 SY *696* (2021WA16).

^{271}Sg has been observed as the α-decay daughter of ^{275}Hs at JINR (2004OG12,2006OG05) and GSI (2012HO12). Chains of α-decaying nuclei were observed which terminated in spontaneous fission. The properties of these chains were compared to the literature in order to assign individual decays to specific nuclei.

2016HO09 revises chain #1 in 2012HO12 to begin with ^{291}Lv. An additional α decay was also identified, such that the decay labeled as ^{277}Hs is actually ^{271}Sg.

Half-lives, branching ratios, and α-decay energies in this evaluation have been computed from the individual events listed in the references above. Half-life uncertainties have been computed according to the method of 1984SC13. An additional 10 keV systematic uncertainty is assumed for the α-decay energies, which is added in quadrature to the averaged statistical uncertainty.

^{271}Sg Levels

Cross Reference (XREF) Flags

A ^{275}Hs α decay (0.20 s)

E(level)	$T_{1/2}$	XREF	Comments
0	96 s *+88−31*	A	%α=50; %SF=50 E(level): Assumed ground state. $T_{1/2}$: From four events.