

Adopted Levels

<u>Type</u>	<u>Author</u>	<u>History Citation</u>	<u>Literature Cutoff Date</u>
Full Evaluation	C. Morse	NDS 182, 167 (2022)	14-Sep-2021

$Q(\beta^-) = -1785$ SY; $S(n) = 5179$ SY; $S(p) = 4656$ SY; $Q(\alpha) = 8.58 \times 10^3$ 7 [2021Wa16](#)

$\Delta Q(\beta^-) = 525$, $\Delta S(n) = 596$, $\Delta S(p) = 645$ ([2021WA16](#)).

$S(2n) = 12257$ SY 452, $S(2p) = 8330$ SY 682 ([2021WA16](#)).

^{269}Sg has been observed as the α -decay daughter of ^{273}Hs at LBNL ([2010EL06](#)) and JINR ([2015UT02,2018UT02](#)). Events were identified by the observation of chains of α -decaying nuclei, terminated by spontaneous fission. Comparison of the properties of these chains with those in the literature allowed individual decays to be assigned to specific nuclei.

[2018UT02](#) lists one decay of ^{269}Sg with a lifetime of 6486 s. Including it increases the average lifetime by nearly an order of magnitude, and on this basis it is excluded.

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.

 ^{269}Sg LevelsCross Reference (XREF) Flags

A ^{273}Hs α decay (0.51 s)

<u>E(level)</u>	<u>$T_{1/2}$</u>	<u>XREF</u>	<u>Comments</u>
0	1.3×10^2 s +10-4	A	% α =100; %SF<15 E(level): Assumed ground state. $T_{1/2}$: From five events.