

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

$Q(\beta^-) = -2614$ SY; $S(n) = 6624$ SY; $S(p) = 2276$ SY; $Q(\alpha) = 9900$ SY [2021Wa16](#)

$\Delta Q(\beta^-) = 870$, $\Delta S(n) = 939$, $\Delta S(p) = 1076$, $\Delta Q(\alpha) = 400$ ([2021WA16](#)).

$S(2n) = 12531$ SY 882, $S(2p) = 6830$ SY 1024 ([2021WA16](#)).

^{281}Rg has been observed as the α -decay daughter of ^{285}Nh at JINR ([2011OG04](#), [2012OG02](#), [2012OG06](#), [2013OG01](#), [2013OG04](#)) and GSI ([2019KH04](#)). Events were identified based on the observation of time- and position-correlated chains of α -decaying nuclei, terminated by spontaneous fission. Comparison of the decay chains to previous observations allowed individual decays to be assigned to specific nuclei.

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.

 ^{281}Rg LevelsCross Reference (XREF) Flags

A ^{285}Nh α decay (0.93 s)

<u>E(level)</u>	<u>T_{1/2}</u>	<u>XREF</u>	<u>Comments</u>
0	15 s +4-3	A	% α =18; %SF=82 E(level): Assumed ground state. T _{1/2} : From 21 events.