

Adopted Levels

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

S(n)=6800 SY; S(p)=2046 SY; Q(α)=10870 J8 [2021Wa16](#)

$\Delta S(n)=105$, $\Delta S(p)=214$ ([2021WA16](#)).

S(2n)=15025 SY 102, S(2p)=3119 SY 163, Q(ϵp)=3551 SY 266 ([2021WA16](#)).

^{271}Ds has been observed in the $^{208}\text{Pb}(^{64}\text{Ni},n)$ reaction at GSI ([1998HO13,2011HO10](#)), LBNL ([2003GI05,2004FO08](#)), RIKEN ([2004MO40](#)), and HIRFL ([2012ZH04](#)). Events were identified based on the observation of chains of α decays correlated in time and position. Comparison of the properties of these chains with the literature allowed individual decays to be assigned to specific nuclei.

Evidence for the existence of an isomer in ^{271}Ds comes from the observation of α decays with similar energies but very different lifetimes. [2004MO40](#) suggests that this isomer is much longer lived than the ground state, to which it decays by internal transition.

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}Ds Levels

<u>E(level)</u>	<u>T_{1/2}</u>	<u>Comments</u>
0	1.6 ms +4-3	% α =100 E(level): Assumed ground state. T _{1/2} : From 30 events.
0+x	69 ms +45-20	T _{1/2} : From six events.