

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 |

$S(n)=6885$ SY; $S(p)=1605$ SY; $Q(\alpha)=1.151\times 10^4$ 3 [2021Wa16](#)

$\Delta S(n)=303$, $\Delta S(p)=235$ ([2021WA16](#)).

$S(2n)=15188$ SY 206, $S(2p)=2401$ SY 100, $Q(\epsilon p)=4578$ SY 302 ([2021WA16](#)).

^{269}Ds has been observed in the $^{208}\text{Pb}(^{62}\text{Ni},n)$ reaction at GSI ([1995HO03](#)). Events were identified based on the observation of chains of α -decaying nuclei, correlated in time and position. Comparison of the decay properties of the chains with the literature allowed individual decays to be assigned to specific nuclei.

The data from [1995HO03](#) was reanalyzed in [2002HO11](#), and the left-most event in Fig. 5 was found to be reported in error.

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}Ds Levels

| <u>E(level)</u> | <u>$T_{1/2}$</u> | <u>Comments</u> |
|-----------------|-----------------------------|--|
| 0 | 0.18 ms $+21-6$ | $\% \alpha = 100$; $\% SF \leq 25$ E(level): Assumed ground state. $T_{1/2}$: From three events. |