

^{270}Ds α decay (3.9 ms) [2001Ho06,2012Ac04](#)

Type	Author	History Citation	Literature Cutoff Date
Full Evaluation	Balraj Singh	ENSDF	15-Dec-2021

Parent: ^{270}Ds : $E \approx 1.13 \times 10^3$; $J^\pi = (9^-, 10^-)$; $T_{1/2} = 3.9 \text{ ms} +15-8$; $Q(\alpha) = 11117 \text{ 28}$; $\% \alpha \text{ decay} \approx 70.0$

^{270}Ds -E, $J^\pi, T_{1/2}$: From ^{270}Ds Adopted Levels. Other: $6.0 \text{ ms} +82-22$ ([2001Ho06](#)).

^{270}Ds - $Q(\alpha)$: From [2021Wa16](#).

^{270}Ds - $\% \alpha$ decay: $\%IT \approx 30$ seems possible, but could not be definitely established in [2001Ho06](#).

 ^{266}Hs Levels

E(level) [†]	$T_{1/2}$	Comments
≈ 85		
≈ 712		Level from 218γ from 930 level.
≈ 930		
≈ 1200	$0.07 \text{ s} +36-3$	E(level): from 2017Ac02 and 2015Ac04 review articles. $T_{1/2}$: $74 \text{ ms} +354-34$ from 2012Ac04 . Note: units corrected from s in the 2019 ENSDF update (and 2019Si12) to ms in the present update.

[†] Deduced by evaluator from α -energy differences and $\approx 1130 \text{ keV}$ for the isomer in ^{270}Ds , except where noted otherwise.

 α radiations

E_α	E(level)	Comments
$10.95 \times 10^3 \text{ 2}$	≈ 1200	
$11.15 \times 10^3 \text{ 2}$	≈ 930	This α is in coincidence with 218γ in ^{266}Hs .
$12.15 \times 10^3 \text{ 5}$	≈ 85	HF=37 (2001Ho06).

 $\gamma(^{266}\text{Hs})$

E_γ	$E_i(\text{level})$	E_f	Comments
218	≈ 930	≈ 712	218γ in coincidence with $11.15 \text{ MeV } \alpha$. 2001Ho06 note that E_γ is close to the theoretical energy of 299 keV from the yrast 8^+ to 6^+ levels in ^{266}Hs .

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Legend

Decay Scheme

- Coincidence

