

²⁷⁶Ds

In 2023, ²⁷⁶Ds was discovered by Oganessian et al. in “New isotope ²⁷⁶Ds and its decay products ²⁷²Hs and ²⁶⁸Sg from the ²³²Th + ⁴⁸Ca reaction” (2023Og03). The DC280 cyclotron at the SHE Factory at JINR in Dubna accelerated a ⁴⁸Ca beam to 230–250 MeV impinging on ²³²Th targets. Evaporation residues from the reaction ²³²Th(⁴⁸Ca,4n) were separated and identified with the gas-filled separator DGFRS-2 which also detected subsequent α decays. “Three new nuclides were synthesized for the first time: [...] and ²⁷⁶Ds with $T_{1/2} = 0.15^{+0.10}_{-0.04}$ ms, $E_{\alpha} = 10.75 \pm 0.03$ MeV, and an SF branch of 57%.”

Adapted from reference (2024Th02)

2023Og03 Yu. Ts. Oganessian, V. K. Utyonkov, M. V. Shumeiko, F. Sh. Abdullin *et al.*, Phys. Rev. C **108**, 024611 (2023).

2024Th02 M. Thoennessen, Int. J. Mod. Phys. E **33**, 2430001 (2024).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152”