

^{281}Ds

^{281}Ds was first identified by Oganessian et al. in “Measurements of cross sections for the fusion-evaporation reactions $^{244}\text{Pu}(^{48}\text{Ca},\text{xn})^{292-x}\text{114}$ and $^{245}\text{Cm}(^{48}\text{Ca},\text{xn})^{293-x}\text{116}$ ” in 2004 ([2004Og07](#)). ^{48}Ca beams of 243 and 250 MeV from the Dubna U400 cyclotron bombarded a PuO_2 target enriched ^{244}Pu . ^{281}Ds was populated by α decays from $^{289}\text{114}$ which was formed in the (3n) evaporation reaction. The residues were separated with a gas-filled recoil separator and implanted in a semiconductor detector array. Subsequent α particle decay and spontaneous fission events were recorded in this array and in eight detectors arranged in a box configuration around the implantation detector. The observation of ^{281}Ds was not specifically mentioned in the text but a table listed the spontaneous fission half-life to be $9.6^{+5.0}_{-2.5}$ s. Eight decay chains ending in ^{281}Ds were reported.

Adapted from reference ([2013Th02](#))

[2004Og07](#) Yu. Ts. Oganessian, V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin *et al.*, *Phys. Rev. C* **69**, 054607 (2004).

[2013Th02](#) M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 312 (2013).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”