

^{282}Cn

^{282}Cn was first identified by Oganessian et al. in “Measurements of cross sections for the fusion-evaporation reactions $^{244}\text{Pu}(^{48}\text{Ca},xn)^{292-x}114$ and $^{245}\text{Cm}(^{48}\text{Ca},xn)^{293-x}116$ ” in 2004 ([2004Og07](#)). ^{48}Ca beams of 243, 250, and 257 MeV from the Dubna U400 cyclotron bombarded a PuO_2 target enriched ^{244}Pu and a CmO_2 target enriched in ^{245}Cm . ^{282}Cn and ^{283}Cn were populated by α decays from $^{290}116$ and $^{291}116$ which were formed of the 243 MeV beam on the CmO_2 target in (3n) and (2n) evaporation reaction, respectively. 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 decay properties are listed in a table. One decay chain ended with ^{282}Cn decaying by spontaneous fission with a half-life of $1.0^{+4.8}_{-0.5}$ ms. A comprehensive overview of the reviewing the status of the discovery of these isotopes is presented in reference ([2007Og01](#)).

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).

[2007Og01](#) Y. Oganessian, J. Phys. G **34**, R165 (2007).

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

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