

## <sup>280</sup>Cn

<sup>280</sup>Cn was first reported in 2025 by Oganessian et al. in “Investigation of reactions with <sup>50</sup>Ti and <sup>54</sup>Cr for the synthesis of new elements” (2025Og03). A 267.7 MeV <sup>50</sup>Ti beam from the DC280 cyclotron at the SHE Factory at the Flerov Laboratory for Nuclear Reactions (FLNR) of the Joint Institute for Nuclear Research (JINR) in Dubna, Russia impinged on rotating 0.73 mg/cm<sup>2</sup> <sup>242</sup>Pu targets. Evaporation residues from the reaction <sup>242</sup>Pu(<sup>50</sup>Ti,4n) were separated with the gas filled separator DGFRS-2 and identified by their correlated  $\alpha$ -particle emission and subsequent fission in two double-sided strip detectors. “In the <sup>242</sup>Pu+<sup>50</sup>Ti reaction, leading to the same compound nucleus <sup>292</sup>Lv as the <sup>238</sup>U+<sup>54</sup>Cr reaction, we registered two decay chains (Fig. 3) in which the decay properties of the mother nucleus coincide with the properties of <sup>288</sup>Lv in the first chain shown in Fig. 1. However, in both cases, after 1-2 ms, we registered  $\alpha$  decay of the daughter nucleus, which was followed by spontaneous fission of the granddaughter nucleus over a period of 10-20  $\mu$ s... Thus, in this work, we observed for the first time the branch for  $\alpha$  decay of <sup>284</sup>Fl which resulted in the production of a new isotope <sup>280</sup>Cn.”

2025Og03 Yu. Ts. Oganessian, V. K. Utyonkov, F. Sh. Abdullin, S. N. Dmitriev *et al.*, Phys. Rev. C **112**, 014603 (2025).

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)”