

^{275}Mt

^{275}Mt was first observed by Oganessian et al. in 2004 as reported in “Experiments on the synthesis of element 115 in the reaction $^{243}\text{Am}(^{48}\text{Ca},xn)^{291-x}115$ ” (2004Og03). The Dubna U400 cyclotron was used to bombard an AmO_2 target enriched in ^{243}Am with 253 MeV and 248 MeV ^{48}Ca beams to form $^{287}115$ and $^{288}115$ in (4n) and (3n) fusion evaporation reactions, respectively. ^{275}Mt was populated by subsequent α -decays. The residues were separated with a gas-filled recoil separator and implanted in a semiconductor detector array. Alpha 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 α -decay energies attributed to the isotopes of Mt and Bh coincide well with theoretical values.” One decay chain involving ^{275}Mt was observed.

Adapted from reference (2013Th02)

2004Og03 Yu. Ts. Oganessian, V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin *et al.*, Phys. Rev. C **69**, 021601 (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)”