^{294}Og

Oganessian et al. reported the first identification of ^{294}Og in the 2006 paper "Synthesis of the isotopes of elements 118 and 116 in the ^{249}Cf and ^{245}Cm+^{48}Ca fusion reactions" (2006Og05). A 251 MeV ^{48}Ca beam from the Dubna U400 cyclotron bombarded an enriched ^{249}Cf target and ^{294}Og 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. "From the comparison of the decay properties of the nuclei synthesized in the two experiments with targets of ^{249}Cf and ^{245}Cm, it follows that in the ^{249}Cf+^{48}Ca reaction an isotope of the new element with Z = 118 and A = 294 was observed." One of the three measured decay chains had been mentioned in a previous publication by the same group (2004Og12) referring to internal reports (2002OgZX). In another publication it was speculated that two events could have resulted from either ^{294}Og or ^{295}Og (2004Og05).

Adapted from reference (2013Th02)

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