^{278}Rg

Oganessian et al. reported the observation of ^{278}Rg in 2007 in "Synthesis of the isotope ^{282}113 in the ^{237}Np+^{48}Ca fusion reaction" (2007Og02). A 244 MeV ^{48}Ca beam from the Dubna U400 cyclotron bombarded a ^{237}Np target and ^{282}113 was populated in the (3n) fusion evaporation reaction. ^{278}Rg was populated by subsequent α decay. 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 ^{282}113 and ^{278}Rg agree well with expected values resulting from the trend of the Q_α(N) systematics measured for the neighboring isotopes ^{278,283,284}113 and ^{274,279,280}Rg." Two decay chains were observed.

Adapted from reference (2013Th02)

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