

^{271}Sg

In the 2004 paper “Measurements of cross sections and decay properties of the isotopes of elements 112, 114, and 116 produced in the fusion reactions $^{233,238}\text{U}$, ^{242}Pu , and $^{248}\text{Cm}+^{48}\text{Ca}$ ”, Oganessian et al. identified ^{271}Sg (2004Og12). ^{238}U and ^{242}Pu targets were bombarded with ^{48}Ca beams from the Dubna U400 cyclotron producing ^{283}Cn and $^{287}\text{114}$, respectively. ^{271}Sg was then populated by α decays. 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. “Data on the decay characteristics of the isotopes $^{286,287}\text{114}$, $^{282,283}\text{112}$, and $^{279}\text{110}$, as well as ^{275}Hs , ^{271}Sg , and ^{267}Rf synthesized in the reactions ^{242}Pu , $^{238}\text{U}+^{48}\text{Ca}$, are summarized in [the table].” 2 events for ^{271}Sg were observed, one decaying by α -emission the other one by spontaneous fission with a half-life of $2.4^{+4.3}_{-1.0}$ min.

Adapted from reference (2013Th02)

2004Og12 Yu. Ts. Oganessian, V. K. Utyonkov, Yu. V. Lobanov, F. Sh. Abdullin *et al.*, Phys. Rev. C **70**, 064609 (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”