^{246}Fm

The observation of ^{246}Fm was reported in "Synthesis of several isotopes of fermium and determination of their radioactive properties" by Akapev et al. in 1966 (1966Ak01). ^{16}O beams with energies of 80−105 MeV from the Dubna 310-cm cyclotron bombarded an enriched ^{235}U target and ^{246}Fm was produced in the (5n) fusion-evaporation reaction. Recoil products were transported in front of a semiconductor detector with a helium gas stream to measure subsequent α decay. "For O^{16} ion energies corresponding to the estimated values of the maxima of the excitation function of the $U^{235}(O^{16},5n)$ reaction, we obtained an activity with $T_{1/2}$=1.4±0.6 sec and an energy of E_α=8.23±0.02 MeV... As the energy of the bombarding ions is increased, the yield of this activity decreases, in accordance with the behavior of the excitation function of a complete-fusion reaction with the evaporation of five neutrons. It must be assumed that this α activity belongs to Fm^{246}."

Adapted from reference (2013Th02)

1966Ak01 G. N. Akapev, A. G. Demin, V. A. Druin, E. G. Imaev *et al.*, Soviet J. At. Energy **21**, 243 (1966).

2013Th02 M. Thoennessen, At. Data Nucl. Data Tables **99**, 312 (2013).

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