^{197}Fr

Kalaninova et al. reported the discovery of ^{197}Fr in the 2013 paper "α decay of the very neutron-deficient isotopes $^{197-199}$Fr" (2013Ka16). ^{197}Fr was produced in the fusion-evaporation reaction ^{141}Pr(^{60}Ni,4n) with ^{60}Ni beams between 262 and 300 MeV from the UNILAC at GSI. Evaporation residues were separated and identified with the Separator for Heavy Ion reaction Products SHIP and implanted into a position-sensitive silicon detector (PSSD). Subsequent α-decays were measured in the PSSD and a silicon detector "Box": "The new isotope ^{197}Fr was identified based on the observation of one α-decay chain yielding E_α = 7728(15) keV and $T_{1/2} = 0.6^{+3.0}_{-0.3}$ ms."

Adapted from reference (2014Th03)

2013Ka16 Z. Kalaninova, A. N. Andreyev, S. Antalic, F. P. Hessberger *et al.*, Phys. Rev. C **87**, 044335 (2013).

2014Th03 M. Thoennessen, Int. J. Mod. Phys. E **23**, 1430002 (2014).

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