^{189}Po

In 1999, Andreyev et al. reported the first observation of ^{189}Po in the paper "Alpha decay of the new isotopes ^{188,189}Po" (1999An52). A ^{142}Nd target was bombarded with 239−307 MeV ^{52}Cr beams from the GSI UNILAC heavy ion accelerator producing ^{189}Po in (5n) fusion-evaporation reactions. Recoils were separated with the velocity filter SHIP and implanted in a 16-strip position-sensitive silicon detector which also recorded subsequent α decays. "The new isotope ^{189}Po was identified by observing nineteen 7264(15) keV-280(1) keV α-γ events in [the figure] and 78(9) 7264(25) keV-e^- α-e^- coincidences in [the figure]. The half-life values of these two groups of events, deduced from the time interval between an implant and the α-γ or α-e^- coincidence pair are very similar and the combined data give $T_{1/2}$ = 5(1) ms."

Adapted from reference (2013Fr04)

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