^{174}Au

"Alpha Decay of New Neutron Deficient Gold, Mercury and Thallium Isotopes" reported the first discovery of ^{174}Au by Schneider et al. in 1983 at the Gesellschaft für Schwerionenforschung (GSI) in Germany (1983Sc24). The isotope was produced in fusion evaporation reactions with a ^{92}Mo beam of energies between 4.5 A·MeV and 5.4 A·MeV and separated with the velocity filter SHIP. The assignment of ^{174}Au was made because "this activity was seen to peak at excitation energies (43.5 MeV) intermediate between those of the unambiguously identified isotopes ^{173}Au and ^{175}Au, and the corresponding decay energy does not match with any of the previously known lower Z (Pt, Ir) isotopes that were energetically possible in the particular region." The half-life of ^{174}Au was measured to be 120(20) ms.

Adapted from reference (2010Sc35)

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