^{202}Au

The paper "New Isotope Au^{204} and Decay of Au^{202}" by Ward et al. in 1967 constitutes the first unambiguous identification of ^{202}Au (1967Wa23). 14.8 MeV neutrons, produced via the D(d,t) reaction from the University of Arkansas 400 KV Cockcroft-Walton linear accelerator bombarded natural mercury and thallium targets. Gamma- and beta spectra were recorded to identify ^{202}Au. The extracted half-life was 30 s. The authors do not consider their measurement a discovery: "It has been reported that a 25±5 sec activity is produced from the Hg^{202}(n,p)Au^{202} and Tl^{205}(n,α)Hg^{202} reactions" with a reference to the paper by Butement and Shillito (1952Bu80). However, Butement and Shillito do not claim the discovery because they were unable to distinguish between ^{202}Au and ^{204}Au: " The 25-second activity is probably due to one of these isotopes" (1952Bu80).

Adapted from reference (2010Sc35)

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