^{198}Au

The identification of ^{198}Au was first reported by Pool et al. from the University of Michigan in 1937 in the paper "A Survey of Radioactivity Produced by High Energy Neutron Bombardment" (1937Po04). The bombardment of gold with 20 MeV neutrons resulted in the observation of weak intensities of half-lives of 17 m and 2.5 d which were assigned to ^{198}Au. The paper presented the results for a large number of elements and "The assignments of the periods is tentative and is based upon evidence from the sign of the emitted beta-particle, the chemical separations and known periods from other sources." The longer half-life could correspond to the ground state or an isomeric state. It should be mentioned that the paper was received on July 3, 1937, while a paper by McMillan et al. was received only about two weeks later, on July 19, 1937, and it assigned the observation of a 2.7 d half-life to ^{198}Au (1937Mc04). This activity had actually been observed already by Fermi et al. and Amaldi et al. in 1934/35, however, they did not ascribe it to a particular isotope (1934Fe01, 1935Am01).

Adapted from reference (2010Sc35)

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