^{202}At

The paper "α-particle branching ratios for neutron-deficient astatine isotopes" by Latimer et al. reported the observation of ^{202}At in 1961 (1961La02). Gold and platinum foils were irradiated with 50−125 MeV ^{12}C and 65−130 MeV ^{14}N beams, respectively, from the Berkeley HILAC. Alpha-particle spectra were measured with a gridded ionization chamber following chemical separation. "Using the reported α-branching ratio of 0.02 for ^{202}Po, we have calculated an alpha-branching ratio of 0.120±0.008 for ^{202}At, corresponding to a partial α-half-life of 25 min... The over-all half-lives observed are in agreement with those reported by Hoff et al. (1959Ho86)..." The overall half-life for ^{202}At was 3.0(2) min. The reference to Hoff et al. corresponds to a conference abstract. Hoff et al. published their results in a refereed journal two years later (1963Ho18). Also, about three months later Forsling et al. independently reported a 3(1) min half-life for ^{202}At (1961Fo04).

Adapted from reference (2013Fr09)

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