^{172}Au

^{172}Au was discovered by Sellin et al. at Daresbury, England in 1993, as reported in "Alpha decay of the new isotope ^{172}Au" (1993Se09). The fusion evaporation reaction ^{106}Cd(^{70}Ge,1p3n) at 354 MeV was used. ^{172}Au was identified by its α-decay following the implantation of residues at the end of the Daresbury recoil mass separator. They observed "a new alpha decay line at an energy above that of the lightest known gold isotope ^{173}Au. This activity occurs within the A = 172 region of the strip detector and is assigned to ^{172}Au on the basis of alpha decay Q-value systematics." From the 43 observed counts a half-life of 4(1) ms was extracted for the α-decay. This decay corresponds to an isomeric state and the ground state half-life (22^{6}_{-4} ms) was measured sixteen years later by Hadinia et a.l. (2009Ha42).

Adapted from reference (2010Sc35)

1993Se09 P. J. Sellin, P. J. Woods, T. Davinson, N. J. Davis *et al.*, Z. Phys. A **346**, 323 (1993).

2009Ha42 B. Hadinia, B. Cederwall, R. D. Page, M. Sandzelius *et al.*, Phys. Rev. C **80**, 064310 (2009).

2010Sc35 A. Schuh, A. Fritsch, J. Q. Ginepro, M. Heim *et al.*, At. Data Nucl. Data Tables **96**, 307 (2010).

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