

¹⁷⁰Au

¹⁷⁰Au was discovered by Kettunen et al. in 2004, and published in “Decay studies of ^{170,171}Au, ^{171–173}Hg, and ¹⁷⁶Tl” (2004Ke06). The cyclotron of the Accelerator Laboratory of the University of Jyväskylä in Finland was used to produce ¹⁷⁰Au in the ⁹⁶Ru(⁷⁸Kr,p3n) fusion evaporation reaction. The isotopes were separated by the gas-filled recoil separator RITU, and implanted into a position sensitive silicon strip detector. The identification was based on correlations between the daughter and granddaughter activities of ¹⁶⁹Pt and ¹⁶⁵Os, respectively. “Two states decaying by proton emission were assigned to ¹⁷⁰Au in [the figure]. The identification was based on the ER–p_m – α_d correlated decay chains.” The decay of an isomeric state was previously reported in a conference proceeding (2002Ma61).

The assignment was changed from the original compilation (2010Sc35) which credited the paper by Mahmud et al. (2002Ma61) with the discovery of ¹⁷⁰Au.

- 2002Ma61 H. Mahmud, C. N. Davids, P. J. Woods, T. Davinson *et al.*, Eur. Phys. J. A **15**, 85 (2002).
- 2004Ke06 H. Kettunen, T. Enqvist, T. Grahn, P. T. Greenlees *et al.*, Phys. Rev. C **69**, 054323 (2004).
- 2010Sc35 A. Schuh, A. Fritsch, J. Q. Ginepro, M. Heim *et al.*, At. Data Nucl. Data Tables **96**, 307 (2010).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152”