

## $^{109}\text{Pd}$

In “Radioactive isotopes of palladium and silver from palladium”, Kraus and Cork described the observation of  $^{109}\text{Pd}$  in 1937 ([1937Kr01](#)).  $^{109}\text{Pd}$  was produced by bombarding palladium with 6.3 MeV deuterons from the University of Michigan cyclotron and irradiating palladium with fast and slow neutrons. Decay curves were measured with Lauritsen quartz fiber electroscopes and a Wulf string electrometer equipped with an ionization chamber following chemical separation. “The 13-hr. palladium activity could be due to either isotopes 107 or 109. The assignment to isotope 109 is preferred when one considers the ratio of activities for fast and slow neutrons and the relative abundance of the parent isotopes.” Previously, a 12 h half-life of palladium was reported without a mass assignment ([1935Am01](#)).

Adapted from reference ([2013Ka01](#))

- [1935Am01](#) E. Amaldi, O. D’Agostino, E. Fermi, B. Pontecorvo *et al.*, Proc. Roy. Soc. (London) A **149**, 522 (1935).  
[1937Kr01](#) J. D. Kraus and J. M. Cork, Phys. Rev. **52**, 763 (1937).  
[2013Ka01](#) J. Kathawa, C. Fry, and M. Thoennessen, At. Data Nucl. Data Tables **99**, 22 (2013).

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