

¹⁹³Pt

In 1948, Wilkinson described the first observation of ¹⁹³Pt in “Some Isotopes of Platinum and Gold” (1948Wi01). The 60-inch Crocker Laboratory cyclotron in Berkeley bombarded platinum and iridium targets with α -particles, deuterons and neutrons. Decay curves were measured following chemical separation. “...The activity is attributed to Pt¹⁹³ decaying by orbital electron capture for the following reasons. The isotope is formed in the deuteron, fast and thermal neutron bombardments of platinum, and also the deuteron and α -particle bombardment of iridium in yields agreeing with allocation to mass 193.” The measured half-life of 4.33(3) d corresponds to an isomeric state and the ground state half-life of 50(9) y was reported 23 years later by Ravn and Bogeholt (1971Ra18). A previously measured half-life of 49 m (1936Co02) could not be confirmed.

Adapted from reference (2011Am01)

- 1936Co02 J. M. Cork and E. O. Lawrence, Phys. Rev. **49**, 788 (1936).
1948Wi01 G. Wilkinson, Phys. Rev. **73**, 252 (1948).
1971Ra18 H. L. Ravn and P. Bogeholt, Phys. Rev. C **4**, 601 (1971).
2011Am01 S. Amos, J. L. Gross, and M. Thoennessen, At. Data Nucl. Data Tables **97**, 383 (2011).

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