^{98}Rh

"Formation and properties of neutron-deficient isotopes of rhodium and palladium" by Aten Jr and De Vries-Hamerling describes the identification of ^{97}Rh in 1955 (1955At34). Ruthenium targets were bombarded with 17 MeV and 25 MeV deuterons from the Amsterdam Instituut voor Kernphysisch Onderzoek Phillips cyclotron. Beta- and γ-ray spectra were measured following chemical separation. The identification of ^{98}Rh was also a confirmation of an earlier uncertain mass assignment: "When we observed that the palladium mother isotope of the 9-minute rhodium had a half-life of 15 minutes we suggested the mass number 98 and 96 for these nuclei. We have since found by means of milking experiments that the palladium-mother of the 9-minutes rhodium can also be obtained from ruthenium irradiated with 24 MeV helium ions, which rules out the mass number 96, as the latter can only be formed by an (α,4n) process. Therefore it seems likely that the 9-minutes period is due to ^{98}Rh and its 17-minutes mother to ^{98}Pd." The authors had discussed this half-life in two previous papers without a firm mass assignment (1952At32, 1953At27).

Adapted from reference (2012Pa21)

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