^{94}Rh

"The γ-spectrum of ^{94}Rh" published in 1979 by Zarifov et al. reported the observation of ^{94}Rh (1979Za08). Enriched ^{96}Ru targets were bombarded with 34-59 MeV ^{3}He from the isochronous cyclotron of the Nuclear Physics Institute of the Kazakh Academy of Sciences in Almaty, Kazakhstan. ^{94}Rh was produced in the reaction ^{96}Ru(^{3}He,p4n) and identified by measuring characteristic γ-rays with a Ge(Li) detector. "Along with the γ-lines of known radio-nuclides unknown γ-lines having energies and relative intensities (indicated in parentheses) of 311.1 (90$\pm$10), 756.5 (70$\pm$20), and 1430.4 (100) keV were present in the γ-spectra. Based on the identification given above, these γ lines were assigned to the decay of ^{94}Rh. According to our measurements the half-life of ^{94}Rh is equal to 24$\pm$3 sec." This half-life (25(3) s) had previously been reported in a conference abstract (1973WeZY) and corresponds to an isomeric state. The 70.6(6) s ground state was discovered a year later by Oxorn et al. (1980Ox01).

Adapted from reference (2012Pa21)

1973WeZY C. Weiffenbach, S. C. Gujrathi, and J. K. P. Lee, Bull. Amer. Phys. Soc. 18, No. 4, 702, JL3 (1973).

1979Za08 R. A. Zarifov, O. D. Kovrigin, V. P. Burminskii, and G. S. Dombrovskaya, Bull. Acad. Sci. USSR, Phys. Ser. **43**, 76 (1979).

1980Ox01 K. Oxorn, B. Singh, and S. K. Mark, Z. Phys. A **294**, 389 (1980).

2012Pa21 A. M. Parker and M. Thoennessen, At. Data Nucl. Data Tables **98**, 812 (2012).

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