^{182}Hf

In the 1961 paper "The nuclide ^{182}Hf", Hutchin and Lindner reported the first observation of ^{182}Hf (1961Hu01). A hafnum oxide target was irradiated with thermal neutron at the Idaho Falls Materials Testing Reactor. Gamma-ray spectra were recorded with a Na(Tl) scintillation detector and mass spectra were measured following chemical separation. "A small specimen of the hafnium was analysed in the two-stage mass spectrometer at the Vallecitos Laboratory of the General Electric Company and found to contain 0.0088 atom per cent abundance at the mass 182 position. A small background correction was applied by a similar analysis of unirradiated hafnium. On the basis of the atomic abundance and the specific activity of the sample, a half-life of 8.5×10^6 years was calculated for ^{181}Hf." Two weeks later the observation of ^{182}Hf was independently reported by Naumann and Michel (1961Na03).

Adapted from reference (2012Gr19)

1961Hu01 W. H. Hutchin and M. Lindner, J. Inorg. Nucl. Chem. **16**, 369 (1961).
1961Na03 R. A. Naumann and M. C. Michel, J. Inorg. Nucl. Chem. **17**, 189 (1961).
2012Gr19 J. L. Gross and M. Thoennessen, At. Data Nucl. Data Tables **98**, 983 (2012).

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