

¹⁵⁴Hf

In the 1981 paper “New neutron deficient isotopes in the range of elements Tm to Pt” Hofmann et al. reported the first observation of ¹⁵⁴Hf ([1981Ho10](#)). Neutron deficient isotopes of elements from molybdenum to tin and vanadium to nickel targets were bombarded with ⁵⁸Ni and ¹⁰⁷Ag at the GSI linear accelerator UNILAC. Reaction products were separated by the SHIP velocity filter and implanted into silicon detectors. “The time distances between parent and daughter of the 5 correlated events are between 2.0 s and 4.5 s. We explain these observations by the decay chain $^{158}\text{W} \xrightarrow{\alpha} ^{154}\text{Hf} \xrightarrow{\beta} ^{154}\text{Lu} \xrightarrow{\beta} ^{154}\text{Yb} \xrightarrow{\alpha} ^{150}\text{Er}$. A half-life of (2 ± 1) s can be deduced for the isotope ¹⁵⁴Hf.”

Adapted from reference ([2012Gr19](#))

[1981Ho10](#) S. Hofmann, G. Munzenberg, F. Hessberger, W. Reisdorf *et al.*, Z. Phys. A **299**, 281 (1981).

[2012Gr19](#) J. L. Gross and M. Thoennessen, At. Data Nucl. Data Tables **98**, 983 (2012).

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