

¹⁶³Re

“Alpha decay studies of very neutron deficient isotopes of Hf, Ta, W, and Re” was published in 1979 by Hofmann et al. describing the observation of ¹⁶³Re ([1979Ho10](#)). Targets of ¹⁰³Rh, ^{nat,108,110}Pd, and ^{107,109}Ag were bombarded with beams of ⁵⁸Ni from the GSI UNILAC linear accelerator. Evaporation residues were separated with the high-velocity SHIP separator. “In the investigated reactions the eleven new isotopes ^{161–164}Re, ¹⁶⁰W, ^{157–161}Ta, and ¹⁵⁶Hf could be identified.” The half-life of 260(40) ms reported for ¹⁶³Re corresponds to an isomeric state and the ground state half life (390(72) ms) was measured eighteen years later by Davids et al. ([1997Da07](#)).

Adapted from reference ([2012Ro36](#))

- [1979Ho10](#) S. Hofmann, W. Faust, G. Munzenberg, W. Reisdorf *et al.*, *Z. Phys. A* **291**, 53 (1979).
[1997Da07](#) C. N. Davids, P. J. Woods, J. C. Batchelder, C. R. Bingham *et al.*, *Phys. Rev. C* **55**, 2255 (1997).
[2012Ro36](#) R. Robinson and M. Thoennessen, *At. Data Nucl. Data Tables* **98**, 911 (2012).

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