^{166}Ir

The 1981 paper "New neutron deficient isotopes in the range of elements Tm to Pt" reported the discovery of ^{166}Ir by Hofmann et al. at the linear accelerator UNILAC, GSI, Darmstadt in Germany (1981Ho10). ^{166}Ir was produced in reactions bombarding neutron deficient targets between molybdenum and tin with a beam of ^{58}Ni as well as bombarding targets between vanadium and nickel with a beam of ^{107}Ag, with energies between 4.4 MeV/u and 5.9 MeV/u. Residues were separated using the velocity filter SHIP. "The Ir isotopes with mass numbers 167 and 166 were produced in p2n and p3n reactions. Their α lines could be correlated to their Re daughter decays." The α-decay energies of 6541(20) keV and 6386(20) keV for ^{166}Ir and ^{167}Ir, respectively are listed in a table. Only an upper limit of 5 ms could be determined for the half-lives.

Adapted from reference (2012Ro36)

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

2012Ro36 R. Robinson and M. Thoennessen, At. Data Nucl. Data Tables **98**, 911 (2012).

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