

¹⁹¹Re

In 1963, Crasemann et al. identified ¹⁹¹Re in the paper “Properties of radioactive Re¹⁸⁹” (1963Cr06). During the study of ¹⁸⁹Re by (n,p) and (n,pn) reactions on metallic osmium irradiated with neutrons produced by bombarding beryllium with 20 MeV deuterons from the Brookhaven 60-in. cyclotron the previously observed 9.75 min half-life (1953At27) was assigned to ¹⁹¹Re. “Aten and de Feyfer obtained a 9.75-min rhenium activity by bombardment of osmium with fast neutrons from 26-MeV deuterons on brass, and assigned this half-life to mass number 189, 190, or 192. It is now clear that they produced 10-min Re¹⁹¹ through the reaction Os¹⁹²(n,pn).”

Adapted from reference (2012Ro36)

- 1953At27 A. H. W. Aten Jr., *Physica* **19**, 1200 (1953).
1963Cr06 B. Crasemann, G. T. Emery, W. R. Kane, and M. L. Perlman, *Phys. Rev.* **132**, 1681 (1963).
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”