^{175}Re

Nadjakov et al. described the discovery of ^{175}Re in the 1967 paper "New isotopes ^{176}Re and ^{175}Re" (1967Na17). Holmium and terbium targets were bombarded with beams of ^{16}O and ^{22}Ne from the Dubna U-300 heavy-ion accelerator, and ^{175}Re and ^{176}Re were produced in 6n and 5n evaporation reactions, respectively. Gamma-ray spectra were measured with a germanium spectrometer following chemical separation. Targets of ^{165}Ho and ^{159}Tb were used to synthesize ^{175}Re. "By varying the ion energy and target thickness, ^{177}Re could be eliminated so that sources of almost pure ^{176}Re plus ^{175}Re could be obtained. The existence of the ^{176}Re and ^{175}Re isotopes in our rhenium samples was thus proved." A half-life of 5(1) min was measured.

Adapted from reference (2012Ro36)

1967Na17 E. Nadjakov, N. Nenov, D. Christov, G. Pfrepper, and N. G. Zaitseva, Compt. Rend. Acad. Bulg. Sci. **20**, 533 (1967).

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"