

¹⁸⁸Re

Sinma and Yamasaki identified ¹⁸⁸Re in the 1939 article “ β -radioactivities of rhenium” (1939Si05). Metallic rhenium samples were irradiated with slow and fast neutrons produced from Be+D and Li+D reactions from the Tokyo cyclotron at RIKEN, respectively. Energy spectra were measured with a Wilson cloud chamber and decay curves were recorded. “Now rhenium has only two isotopes Re¹⁸⁵ and Re¹⁸⁷. From the above large change in the ratio of the intensities for two cases, it seems therefore more probable, contrary to Pool, Cork and Thornton, to ascribe the 16-hour period to Re¹⁸⁸ and the 90-hour activity to Re¹⁸⁶.” The opposite assignment mentioned in the quote was published two years earlier (1937Po04). Half-lives of 20 h (1935Am01, 1935Ku03) and 85 h (1935Ku03) had previously been reported without mass assignments.

Adapted from reference (2012Ro36)

- 1935Am01 E. Amaldi, O. D’Agostino, E. Fermi, B. Pontecorvo *et al.*, Proc. Roy. Soc. (London) A **149**, 522 (1935).
1935Ku03 I. V. Kurtchatov, G. D. Latyshev, L. M. Nemenov, and I. P. Selinov, Physik Z. Sowjetunion **8**, 589 (1935).
1937Po04 M. L. Pool, J. M. Cork, and R. L. Thornton, Phys. Rev. **52**, 239 (1937).
1939Si05 K. Sinma and F. Yamasaki, Phys. Rev. **55**, 320 (1939).
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”