

¹⁸⁷Ir

In the 1958 paper “Neutron-deficient iridium isotopes”, Diamond and Hollander reported the discovery of ¹⁸⁷Ir ([1958Di44](#)). Natural rhenium targets were bombarded with α particles between 25 and 45 MeV from the Berkeley Crocker 60-inch cyclotron. Following chemical separation, decay curves were measured with proportional counter and γ -rays spectra were recorded with a sodium iodide crystal. “Iridium-187: In irradiations of rhenium foils at an initial alpha particle energy of 25 to 27 MeV, i.e. below the threshold for the production of Ir¹⁸⁵ and Ir¹⁸⁶, several short-lived conversion electron lines and gamma rays were observed in the separated iridium fraction. By comparing the intensities of the more prominent of these electron lines in a series of timed exposures in the electron spectrographs with lines of known intensities in a group of standard plates, we obtained a value of 13 ± 3 hours for the half-life of this new activity.” Earlier, Smith and Hollander had assigned a half-life of 14 h incorrectly to ¹⁸⁷Ir ([1955Sm42](#)). Smith and Hollander also questioned the previous assignment of an 11.8 h half-life to ¹⁸⁷Ir by Chu ([1950Ch11](#)) arguing that it corresponded most likely to ¹⁸⁶Ir.

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

- [1950Ch11](#) T. C. Chu, Phys. Rev. **79**, 582 (1950).
[1955Sm42](#) W. G. Smith and J. M. Hollander, Phys. Rev. **98**, 1258 (1955).
[1958Di44](#) R. M. Diamond and J. M. Hollander, Nucl. Phys. **8**, 143 (1958).
[2012Ro36](#) R. Robinson and M. Thoennessen, At. Data Nucl. Data Tables **98**, 911 (2012).

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