

## <sup>189</sup>Ir

Smith and Hollander first observed <sup>189</sup>Ir in 1955 as reported in “Radiochemical study of neutron-deficient chains in the noble metal region” (1955Sm42). The experiments were performed with protons from the Berkeley 184-inch and 60-inch cyclotrons. Decay curves and  $\gamma$ -ray spectra were measured with a Geiger counter and NaI(Tl) scintillation spectrometer, respectively. “Bombardments of iridium with 32-Mev protons produce in the platinum fraction active isotopes of masses 193, 191, 189, and 188. If one allows this fraction to decay for several weeks and then removes iridium from it, good samples of Ir<sup>189</sup> and Ir<sup>188</sup> are obtained, because Pt<sup>191</sup> and Pt<sup>193m</sup> have no active iridium daughters. The 11-day Ir<sup>189</sup> can be distinguished from 41-hour Ir<sup>188</sup> by virtue of their very different half-lives.” Previously, Chu had assigned a 12.6 d half-life incorrectly as an isomer of <sup>190</sup>Ir (1950Ch11).

Adapted from reference (2012Ro36)

- 1950Ch11 T. C. Chu, Phys. Rev. **79**, 582 (1950).  
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