

¹⁹¹Os

Zingg reported the observation of ¹⁹¹Os at the Physikalisches Institut der E.T.H. Zürich in the 1940 paper “Die Isobarenpaare Cd-In, In-Sn, Sb-Te, Re-Os” (1940Zi01). Neutrons from a Ra-Be source irradiated osmium targets and X-rays were measured. “Weil beim Osmium die Isotopen der Massenzahlen A = 186, 187, 188, 189, 190 und 192 existieren, können durch langsame Neutronen nur die instabilen Kerne Os₇₆¹⁹¹ und Os₇₆¹⁹³ entstehen, und weil Os₇₆¹⁹² das häufigste Isotop ist, wird man folgende Zuordnung treffen: T= 30 h Os₇₆¹⁹² + n₀¹ → Os₇₆¹⁹³ → Ir₇₆¹⁹³ + e⁻, T = 10 d Os₇₆¹⁹⁰ + n₀¹ → Os₇₆¹⁹¹ → Ir₇₆¹⁹¹ + e⁻.” [Because the existing osmium isotopes have mass numbers 186, 187, 188, 189, 190, and 192, only the unstable nuclei Os₇₆¹⁹¹ and Os₇₆¹⁹³ will be produced and because Os₇₆¹⁹² is the most abundant isotope, the following assignment is made: T= 30 h Os₇₆¹⁹² + n₀¹ → Os₇₆¹⁹³ → Ir₇₆¹⁹³ + e⁻, T = 10 d Os₇₆¹⁹⁰ + n₀¹ → Os₇₆¹⁹¹ → Ir₇₆¹⁹¹ + e⁻.]

Adapted from reference (2012Ro36)

- 1940Zi01 E. Zingg, *Helv. Phys. Acta* **13**, 219 (1940).
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”