

¹⁷⁵Ta

Faler and Rasmussen described the observation of ¹⁷⁵Ta in “New neutron-deficient isotopes of tantalum” in 1960 (1960Fa03). ¹⁴N beams between 35 and 95 MeV from the Berkeley heavy-ion linear accelerator bombarded Ho₂O₃ powder targets and (xn) fusion evaporation reactions produced tungsten which subsequently decayed to tantalum isotopes. Decay curves and γ -ray spectra were measured with an end-window G-M counter and a Na(Tl) detector following chemical separation. “Tantalum-175, with an 11-hr half-life, has also been produced by 48-Mev alpha-particle bombardment of Lu₂O₃, and its conversion-electron spectrum was studied.” ¹⁷⁵Ta was not considered a new observation quoting a presentation at a meeting of the American Chemical Society. An 11 h half-life was also mentioned in a note added in proof in a paper by Harmatz et al. (1959Ha09), which in turn was quoted by Grigorev who observed several γ -rays with a half-life between 8 and 11 h. They concluded that ¹⁷⁵Ta as well as ¹⁷⁶Ta were present in their data (1960Gr14).

Adapted from reference (2012Ro36)

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