

¹⁸⁷W

In 1940, Minawaka reported the discovery of ¹⁸⁷W in “Neutron-Induced Radioactivity of Tungsten” (1940Mi05). Pure metallic tungsten powder was irradiated with slow and fast neutrons produced in nuclear reactions in the Tokyo cyclotron at RIKEN. A Lauritsen type electroscope, chemical separation and measurements with a thin-walled G-M counter and a magnetic field were used to identify ¹⁸⁷W. “From the relative intensities of both periods ..., it was found that the shorter period is produced practically only with slow neutrons and the longer one both with fast and slow neutrons. The above results lead to the conclusion that 24-hour activity is due to W¹⁸⁷ ...” Previously, an ~ 24 h half-life had been measured but could not be assigned to a specific tungsten isotope (1935Am01, 1935Mc07, 1937Ja04). It should be mentioned that Fajans and Sullivan confirmed the result by Minawaka later in the same year (1940Fa01).

Adapted from reference (2010Fr08)

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