

¹³⁰Sn

¹³⁰Sn was first correctly identified in 1972 by Izak and Amiel in “Half-Lives and Gamma Rays of Tin Isotopes of Masses 129, 130, 131 and 132” (1972Iz01). Neutrons from the Soreq IRR-1 reactor in Yavne, Israel, irradiated an enriched UO₂(NO₃)₂ solution. Decay curves, X-rays and γ -rays were recorded following chemical separation. “A tin activity with a half-life of 3.69 ± 0.10 min was assigned to ¹³⁰Sn. The mean half-life obtained from twelve X-ray measurements was 3.72 ± 0.18 min...” In 1956, Pappas and Wiles had reported a half-life of 2.6(3) m (1956Pa20) which could have corresponded to either the ground state or the isomeric state. However, because none of the quoted half-lives for the other tin isotopes (¹³¹Sn and ¹³²Sn) were correct, we do not credit Pappas and Wiles with the discovery of ¹³⁰Sn. The 57 m ¹²⁸Sn half-life had initially been assigned to ¹³⁰Sn (1955Fr11).

Adapted from reference (2011Am01)

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