

^{127}Xe

The first observation of ^{127}Xe was published in the 1950 paper “Radioactive xenon 125, and xenon 127” by Anderson and Pool (1950An05). Enriched ^{122}Te and ^{124}Te targets were bombarded with alpha particles and ^{125}Xe was formed in the reaction $^{124}\text{Te}(\alpha, n)$. The experiment was most likely performed at Ohio State University. Absorption spectra and decay curves were measured with a Wulf electrometer following chemical separation. “The activity obtained by the reaction $\text{Te}^{124}(\alpha, n)\text{Xe}^{127}$ has a half-life of 32 ± 2 days.” Ten years earlier, Creutz et al. reported a 34(2) d half-life in proton induced reactions on ^{127}I (1940Cr06). However, they did not explicitly state that they observed the (p,n) reaction rather than the (p, γ). In the 1948 Table of Isotopes (1948Se40) the assignment to ^{127}Xe was made based on the results by Creutz et al.

Adapted from reference (2013Ka01)

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