

^{142}Xe

In the 1960 article “Identification of ^{142}Xe and measurement of its cumulative yield from thermal-neutron fission of ^{235}U ”, Wolfsberg et al. reported the identification of ^{142}Xe (1960Wo03). Uranyl nitrate enriched in ^{235}U was irradiated with neutrons produced by bombarding beryllium with deuterons from the Washington University cyclotron. Activities were measured with a side-window, methane-flow, β -proportional counter following chemical separation. “Since the lower emanating power at atmospheric pressure is due to the successful competition of the rate of decay of xenon with the rate of diffusion of xenon in air, the half-life of ^{142}Xe must be only a little less than the half-life of ^{141}Xe , say ~ 1.5 sec.”

Adapted from reference (2013Ka01)

1960Wo03 D. R. Wolfsberg, D. R. Nethaway, H. P. Malan, and A. C. Wahl, *J. Inorg. Nucl. Chem.* **12**, 201 (1960).

2013Ka01 J. Kathawa, C. Fry, and M. Thoennessen, *At. Data Nucl. Data Tables* **99**, 22 (2013).

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