

## $^{140}\text{Xe}$

Dillard et al. reported the discovery of  $^{140}\text{Xe}$  in 1951 as part of the Manhattan Project Technical Series: “Determination of gas half-life by the charged-wire technique (II)” (1950Di01). A uranium salt solution was irradiated with neutrons in the Argonne Graphite Pile to produce  $^{140}\text{Xe}$ . Noble gases were swept out of the uranium solution during the irradiation and the half-lives were measured with the charged-wire technique. “ $\text{Xe}^{140}$ :... [The figure] shows the distribution of 12.8 d  $\text{Ba}^{140}$  activity 29 hr after the irradiation. The activity fell to half value every 5.6 in., indicating that the half-life of  $\text{Xe}^{140}$  is 16.3 sec.”

Adapted from reference (2013Ka01)

1950Di01 C. R. Dillard, R. M. Adams, H. Finston, and A. Turkevich, Nat. Nucl. Ener. Ser. **9**, paper68 p. 624 (1950).

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

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”