^{145}Pr

^{145}Pr was discovered by Markowitz et al. in 1954: "A new 3.0min Ce fission product and its 5.95-hr Pr daughter" (1954Ma07). Uranyl nitrate was irradiated with neutrons in the Brookhaven pile and the cerium and praseodymium were chemically separated. "The decay of this sample was followed with an end-window proportional counter and the Pr^{145} activity was observed to decay exponentially through 14 half-lives with a half-time of 5.93 hours. A weighted average gives a value of 5.95 hours with an estimated maximum error of 0.10 hr. Several other decay curves, which were not determined as carefully as these two, also yielded values very close to 6.0 hours." A 4.5 h half-life of praseodymium was reported in other papers of the Plutonium Project, however, no firm mass assignments were made (1951BaZY, 1951KaZV).

Adapted from reference (2012Ma48)

1951BaZY N. E. Ballou, Radiochemical Studies: The Fission Products, Book 2, Part V, McGraw-Hill, p. 1151 (1951).

1951KaZV S. Katcoff, Radiochemical Studies: The Fission Products, Book 2, Part V, McGraw-Hill, p. 1159 (1951).

1954Ma07 S. S. Markowitz, W. Bernstein, and S. Katcoff, Phys. Rev. **93**, 178 (1954).

2012Ma48 E. May and M. Thoennessen, At. Data Nucl. Data Tables **98**, 960 (2012).

Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"