

^{145}Ce

^{145}Ce was discovered by Markowitz et al. in 1954 at Brookhaven National Laboratory: “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 was chemically separated. A 3.0 min activity was assigned to ^{145}Ce by correlating it the 6 hour activity of ^{145}Pr : “The observed decrease in 6-hr Pr activity with each successive sample shows that it is the daughter of a 3.0-min Ce.” A previously reported 1.8 hour activity attributed to ^{145}Ce (1951BaZY) was shown to be incorrect (1953Ca10).

Adapted from reference (2009Gi07)

- 1951BaZY N. E. Ballou, Radiochemical Studies: The Fission Products, Book 2, Part V, McGraw-Hill, p. 1151 (1951).
1953Ca10 A. A. Caretto Jr. and S. Katcoff, Phys. Rev. **89**, 1267 (1953).
1954Ma07 S. S. Markowitz, W. Bernstein, and S. Katcoff, Phys. Rev. **93**, 178 (1954).
2009Gi07 J. Q. Ginepro, J. Snyder, and M. Thoennessen, At. Data Nucl. Data Tables **95**, 805 (2009).

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