

¹⁴⁷Nd

In “The Chemical Identification of Radioisotopes of Neodymium and of Element 61”, Marinsky et al. from Oak Ridge reported the discovery of ¹⁴⁷Nd in 1947 (1947Ma28). Fission fragments from uranium fission were analyzed as part of the Manhattan Project. ¹⁴⁷Nd was separated and identified with a synthetic organic cation exchanger of the sulfonated phenol-formaldehyde type. “Radiochemical studies and fractionations have established the decay characteristics, genetic relation, and mass assignments of 11 d Nd¹⁴⁷, 3.7 y 61¹⁴⁷, 1.7 h Nd⁽¹⁴⁹⁾, and 47 h 61¹⁴⁹.” A 84 h half-life (1938Po05) reported previously was incorrect. Other half-life measurements were only reported in conference abstracts (1941La01, 1942Ku03)

Adapted from reference (2012Gr02)

- 1938Po05 M. L. Pool and L. L. Quill, Phys. Rev. **53**, 437 (1938).
1941La01 H. B. Law, M. L. Pool, J. D. Kurbatov, and L. L. Quill, Phys. Rev. **59**, 936 (1941).
1942Ku03 J. D. Kurbatov, D. C. MacDonald, M. L. Pool, and L. L. Quill, Phys. Rev. **61**, 106 (1942).
1947Ma28 J. A. Marinsky, L. E. Glendenin, and C. D. Coryell, J. Am. Chem. Soc. **69**, 2781 (1947).
2012Gr02 J. L. Gross, J. Claes, J. Kathawa, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 75 (2012).

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