

¹³⁵Nd

¹³⁵Nd was discovered by Abdurazakov et al. in the 1970 paper “New Isotopes ¹³³Pr, ¹³⁴Nd, and ¹³⁵Nd; Decay Schemes of ¹³⁴Pr and ¹³⁵Pr” (1970Ab07). Spallation reactions were induced by 660 MeV protons irradiating a gadolinium target at the Joint Institute for Nuclear Reactions in Dubna, Russia. The reaction products were then chemically separated and identified by the measured γ -ray spectra. “The half-life of ¹³⁵Nd was found from the difference of the curves (k1-k2) to be 5.5 ± 0.5 min...” This level corresponds to an isomeric state and the ground state (15 min) was first reported two years later by Arlt et al. (1972Ar02).

Adapted from reference (2012Gr02)

- 1970Ab07 A. A. Abdurazakov, R. Arlt, R. Babadzhanov, G. Baier *et al.*, Bull. Acad. Sci. USSR, Phys. Ser. **34**, 706 (1971).
- 1972Ar02 R. Arlt, V. A. Bystrov, W. Habenicht, E. Herrmann *et al.*, Nucl. Instrum. Methods **102**, 253 (1972).
- 2012Gr02 J. L. Gross, J. Claes, J. Kathawa, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 75 (2012).

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