

¹³⁴Nd

¹³⁴Nd 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. “¹³⁴Nd was identified and its half-life determined via the strongest γ rays of ¹³⁴Pr (T = 17±2 min) with energies 409.2 and 639.0 keV. [The figure] shows the build-up and decline of the intensity of the 409.2 keV γ ray of ¹³⁴Pr. The half-life was found from the difference of the curves (k1-k2) to be 8.5±1 min. A similar determination of this half-life using the 639.0 keV line gave 9±2 min.”

Adapted from reference (2012Gr02)

1970Ab07 A. A. Abdurazakov, R. Arlt, R. Babadzhyanov, G. Baier *et al.*, Bull. Acad. Sci. USSR, Phys. Ser. **34**, 706 (1971).

2012Gr02 J. L. Gross, J. Claes, J. Kathawa, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 75 (2012).

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