

¹²⁵La

The first observation of ¹²⁵La was published by Nakai et al. from the University of California at Berkeley in their 1973 paper titled “Prolate deformation in neutron-deficient lanthanum isotopes” ([1973Na08](#)). Fusion evaporation reactions of ¹⁴N on tin targets populated excited states in ¹²⁵La. Gamma-ray angular distribution measurements and γ - γ coincidences were recorded. “The odd-A La isotopes from A = 125 to 137 have been studied by in-beam γ -ray spectroscopy of Sn(¹⁴N,xn)La reactions...” Three transitions at 241, 437, and 604 keV were measured in ¹²⁵La. In 1963, Preiss et al. ([1963Pr02](#)) could only quote an upper limit for the lifetime of ¹²⁵La. Bogdanov et al. who claimed the first observation of ¹²⁵La in 1978 ([1978Bo32](#)) was apparently not aware of the γ -ray spectroscopy work by Nakai et al.

Adapted from reference ([2012Ma48](#))

- [1963Pr02](#) I. L. Preiss, P. M. Strudler, and R. Wolfgang, Phys. Rev. **129**, 1284 (1963).
[1973Na08](#) K. Nakai, P. Kleinheinz, J. R. Leigh, K. H. Maier *et al.*, Phys. Lett. B **44**, 443 (1973).
[1978Bo32](#) D. D. Bogdanov, A. V. Demyanov, V. A. Karnaukhov, M. Nowicki *et al.*, Nucl. Phys. A **307**, 421 (1978).
[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](https://doi.org/10.11578/frib/2279152)”