

^{129}La

“Lanthanum isotopes in a possible new region of nuclear deformation“ was published in 1963 by Preiss et al. from Yale University documenting the observation of ^{129}La ([1963Pr02](#)). Indium foils were irradiated with either 66.4 MeV and 168 MeV ^{16}O beams and ^{129}La was produced in the fusion evaporation reactions $^{113-115}\text{In}(^{16}\text{O},\text{xn})$. Decay curves were recorded following chemical separation. “ La^{126} and La^{129} have Ba daughters sufficiently similar in half-life to make their resolution difficult. The sum of the activities of these Ba daughters at the time of milking is plotted in [the Figure]. This curve can be resolved into 1.0- and 6.2-min components. The shorter half-life is assigned to La^{126} , it being the expectation that this more neutron-deficient odd-odd isotope has a shorter half-life than the odd-even La^{129} .” The corrected half-life for ^{129}La was 7.2(5) min.

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

[1963Pr02](#) I. L. Preiss, P. M. Strudler, and R. Wolfgang, Phys. Rev. **129**, 1284 (1963).

[2012Ma48](#) E. May and M. Thoennessen, At. Data Nucl. Data Tables **98**, 960 (2012).

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