

¹⁴⁶La

¹⁴⁶La was identified in 1974 by Aronsson et al. from the Chalmers University of Technology in the paper “Short-lived isotopes of lanthanum, cerium and praseodymium studied by SISAK-technique” (1974Ar17). A uranium target was irradiated with 14 MeV neutrons and after chemical separation ¹⁴⁵La was identified by measuring γ -ray spectra with a Ge(Li)-detector system. “So far, no conclusive data have been presented for the isotopes ¹⁴⁵La and ¹⁴⁶La. However, information available from other laboratories along with our own data suggests that the γ -groups with half-lives 20 ± 5 sec and 11 ± 1 sec should be associated with the decay of ¹⁴⁵La and ¹⁴⁶La, respectively.” The information from other laboratories mentioned in the quote refers to a conference proceeding, an unpublished report and a private communication.

The observed half-life corresponds to an isomeric state and the half-life of the ground state (6.2 s) was first reported in a refereed publication five years later by Keyser et al. (1979Ke02)

The assignment was changed (2016Th03) from the original compilation (2012Ma48) which had credited an earlier paper by Watson et al. (1970Wa05) with the discovery of ¹⁴⁶La. However, Watson et al. did not measure a half-life and the one reported γ -ray energy was incorrect.

- 1970Wa05 R. L. Watson, J. B. Wilhelmy, R. C. Jared, C. Ruge *et al.*, Nucl. Phys. A **141**, 449 (1970).
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2016Th03 M. Thoennessen, Int. J. Mod. Phys. E **25**, 1630004 (2016).

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