

¹³⁶La

The 1950 paper “Mass spectrographic identification of radioactive lanthanum isotopes” by Naumann et al. described the observation of ¹³⁶La at the University of California at Berkeley (1950Na09). Cesium was bombarded with α particles and ¹³⁶La was identified with a mass spectrograph and by measuring positrons and X-rays. “A search was made for La¹³⁶ and it proved to be the 10-minute period reported by Maurer from the irradiation of Barium with deuterons. The assignment was made to La¹³⁶ since the ratio of the 10-minute period to the 19-hour period increased with decreasing alpha-particle energy on cesium in the range below 30 Mev, as would be expected fit the (α ,n) reaction in relation to the (α ,2n) reaction.” Maurer et al. - as referred to in the quote - could only assign the mass of the 10 min activity to either ¹³⁶La, ¹³⁷La, or ¹³⁸La (1947Ma02). A previously reported half-life of 2.1 h (1948Ch03) was incorrect.

Adapted from reference (2012Ma48)

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