

⁸Li

Crane et al. discovered ⁸Li in 1935 as reported in the paper “The Emission of Negative Electrons from Lithium and Fluorine Bombarded with Deuterons” (1935Cr01) at the Kellogg Radiation Laboratory of the California Institute of Technology. Deuterons of 0.8 MeV bombarded a lithium target inside a cloud chamber and ⁸Li was probably formed in the reaction ⁷Li(d,p). Photographs of the electron tracks were taken after the beam was turned off with a switching device. “To determine the half-life of the active constituent, we adjusted the timing device so that the ion beam was shut off at 1/4, 1/2, 3/4 and 1 second before the chamber expansion. 50 Photographs were taken at each of these settings, and the average numbers of tracks per photograph were found to be 7.08, 4.84, 3.70 and 2.45, respectively. These, plotted on a log scale lie quite closely on a straight line, and indicate a half-life of 0.5 ± 0.1 second.”

Adapted from reference (2012Th01)

1935Cr01 H. R. Crane, L. A. Delsasso, W. A. Fowler, and C. C. Lauritsen, Phys. Rev. **47**, 971 (1935).

2012Th01 M. Thoennessen, At. Data Nucl. Data Tables **98**, 43 (2012).

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