

¹¹⁵Cd

The isotope ¹¹⁵Cd was first correctly identified by Goldhaber et al. in 1939 in “Radioactivity Induced by Nuclear Excitation” (1939Go02). Cadmium was irradiated with neutrons produced by bombarding lithium with deuterons of 950 KeV at the Cavendish Laboratory. ¹¹⁵Cd was produced in the reaction ¹¹⁶Cd(n,2n). Decay curves were measured with a Geiger-Müller counter following chemical separation. “Our experiments show that In^{115*} grows from the parent Cd¹¹⁵ which decays with a half-life time of 2.5 days.” In 1937, Cork and Thornton had reported half-lives of 58 h and 4.3 h and incorrectly assigned them to ¹¹⁷Cd and ¹¹⁵Cd, respectively (1937Co01). A few months later Mitchell (1937Mi01) measured half-lives of 52 h and 5 h, agreeing with the assignment by Cork and Thornton. Seven months after the submission of the Goldhaber paper, Cork and Lawson independently reversed their assignment of newly measured half-lives of 56 h and 3.75 h to ¹¹⁵Cd and ¹¹⁷Cd, respectively (1939Co04). It should be noted that Aston had incorrectly reported the observation of stable ¹¹⁵Cd in 1934 (1934As04).

Adapted from reference (2010Am04)

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- 1939Go02 M. Goldhaber, R. D. Hill, and L. Szilard, Phys. Rev. **55**, 47 (1939).
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