

^{12}B

In 1935, Crane et al. observed ^{12}B for the first time in “The Emission of Negative Electrons from Boron Bombarded by Deuterons” at the Kellogg Radiation Laboratory of the California Institute of Technology([1935Cr02](#)). Deuterons accelerated by 500 kV bombarded a metal boron target and ^{12}B was produced in the reaction $^{11}\text{B}(\text{d},\text{p})$. Protons and electrons were detected in cloud chambers where the electron tracks were curved by a 1500 G magnetic field. “The conclusion to be drawn from this is that B^{12} , in disintegrating, loses an amount of mass not less than that corresponding to the upper limit of energy of the electron spectrum. The large energy involved in the electron spectrum and the fact that only the mass difference between n^1 and H^1 is made use of, place this conclusion well beyond the limits of experimental error, provided only that the reactions assumed are correct.”

Adapted from reference ([2012Th01](#))

[1935Cr02](#) H. R. Crane, L. A. Delsasso, W. A. Fowler, and C. C. Lauritsen, Phys. Rev. **47**, 887 (1935).

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

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