

¹¹C

In 1934, Crane and Lauritsen reported the discovery of ¹¹C in “Radioactivity from Carbon and Boron Oxide Bombarded with Deutons and the Conversion of Positrons into Radiation” (1934Cr06). A B₂O₃ target was bombarded with deuterons accelerated by 900 kV at the Kellogg Radiation Laboratory of the California Institute of Technology and ¹¹C was identified by measuring the decay curve and γ -rays. “The B₂O₃ target gave an effect which was somewhat smaller than that obtained from carbon, and decreased at a rate corresponding to a half life of about 20 minutes... Although this target has not yet been tested in a cloud chamber, the activity here concerned seems to be of the same nature as that of carbon, and by analogy we suppose that the transmutations are ${}_5\text{B}^{10} + {}_1\text{H}^2 \rightarrow {}_6\text{C}^{11} + {}_0\text{n}^1$, ${}_6\text{C}^{11} \rightarrow {}_5\text{B}^{11} + (+\text{e})$.”

Adapted from reference (2012Th01)

1934Cr06 H. R. Crane and C. C. Lauritsen, Phys. Rev. **45**, 430 (1934).

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

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