^{20}F

Crane et al. discovered ^{20}F at the Kellogg Radiation Laboratory of the California Institute of Technology in 1935 as reported in the paper "The Emission of Negative Electrons from Lithium and Fluorine Bombarded with Deuterons" (1935Cr01). Deuterons of 0.8 MeV bombarded a fluorine target inside a cloud chamber and ^{20}F was probably formed in the reaction ^{19}F(d,p). Photographs of the electron tracks were taken and the energy distribution extracted. "The electrons probably arise from the reaction $F^{19} + H^2 \rightarrow F^{20} + H^1 \rightarrow Ne^{20} + e^- + H^1$. We have measured the half-life of the radio-fluorine by means of an ionization chamber and found it to be 12 ± 2 seconds."

Adapted from reference (2012Th01)

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

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