^{124}I

In 1938, Livingood and Seaborg identified ^{124}I in "Radioactive Isotopes of Iodine" (1938Li05). Antimony targets were bombarded with 16 MeV α particles from the Berkeley cyclotron and ^{124}I was formed in the ^{121}Sb(α,n) reaction. Reaction products were chemically separated and the resulting activities were observed with a Lauritsen-type quartz-fiber electroscope. "There are but two stable antimony isotopes, Sb^{121} and Sb^{123}, which by the (α,n) reaction would lead to radioactive I^{124} and I^{126}. Since prolonged exposure of iodine to fast neutrons yields only the 13-day period [through I^{127}(n,2n)I^{126}] but not the 4-day activity, it is certain that this latter must be due to I^{124}."

Adapted from reference (2013Ka01)

1938Li05 J. J. Livingood and G. T. Seaborg, Phys. Rev. **54**, 775 (1938).

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