^{66}Cu

In 1937, Chang et al. described the observation of ^{66}Cu at the Cavendish Laboratory in Cambridge UK, in "Radioactivity Produced by Gamma Rays and Neutrons of High Energy" (1937Ch01). Deuterons accelerated by a voltage of 520 kV were used to produce neutrons: "In gallium bombarded with neutrons from lithium + deuterons and boron + deuterons a new radioactivity decaying with a half-period of about 5 min and having an intensity similar to that of the 60 min period has been found. As this period seems to be identical with one of the periods produced in copper by neutron capture, it is probably due to ^{66}Cu, formed according to the reaction: $^{66}_{31}$Ga + $^{1}_{0}$n $\rightarrow ^{66}_{29}$Cu + $^{4}_{2}$He." The neutron capture measurement on copper mentioned in the quote refers to a paper by Amaldi et al. who had reported the 5 min half-life without a mass assignment (1935Am01). In 1936, Van Voorhis had suggested that this half-life would correspond to ^{66}Cu based on his measurement of ^{64}Cu. A previous report of a stable ^{66}Cu isotope (1923De01) was incorrect.

Adapted from reference (2012Ga06)

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