^{8}Be

First evidence for ^{8}Be was reported by Cockcroft and Walton in the 1932 paper "Disintegration of Lithium by Swift Protons" (1932Co02). Protons accelerated by a voltage between 125 and 400 kV bombarded a lithium target at the Cavendish Laboratory in Cambridge, UK. Charged particle tracks were measured with a Shimizu expansion chamber. " The brightness of the scintillations and the density of the tracks observed in the expansion chamber suggest that the particles are normal α-particles. If this point of view turns out to be correct, it seems not unlikely that the lithium isotope of mass 7 occasionally captures a proton and the resulting nucleus of mass 8 breaks into two α-particles, each of mass four and each with an energy of about eight million electron volts." This interpretation was confirmed by a measurement of two back-to-back α-particles in coincidence reported only a few months later (1932Co03).

Adapted from reference (2012Th01)

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