^{71}Ge

Seaborg et al. from the University of California at Berkeley correctly identified ^{71}Ge in the 1941 paper, "Radioactive isotopes of germanium" (1941Se03). Gallium and germanium targets were bombarded with 8 MeV and 16 MeV deuterons, respectively. Decay curves and absorption spectra were measured. "Bombarding gallium with 8-Mev deuterons we found in the germanium fraction a 40±2-hour positron-emitter and an 11-day activity. These are almost certainly due to Ge^{69} or Ge^{7l}, produced by the d,2n reaction from the only stable gallium isotopes, Ga^{69} and Ga^{71} (d,n reactions would lead to stable germanium isotopes). But since the bombardment of germanium with 16-Mev deuterons also produces a 40±2-hour and an 11-day germanium period, both periods must be assigned to Ge^{71}, formed by the d,p reaction from Ge^{70}." Seaborg et al. also extracted an 11 d half-life from a figure in a paper by Mann (1938Ma01) who had not mentioned it. The 40(2) h activity, however, most likely corresponds to the half-life of ^{69}Ge. A previously assigned half-life of 26(3) h (1939Sa02) was incorrect. Also Aston had incorrectly reported ^{71}Ge to be stable (1928As02, 1931As04).

Adapted from reference (2012Gr19)

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