

⁷⁷Ge

Sagane identified ⁷⁷Ge in 1939 as reported in “Radioactive isotopes of Cu, Zn, Ga and Ge” (1939Sa02). Metallic germanium targets were irradiated by slow and fast neutrons produced by deuteron bombardments of lithium and beryllium from the Berkeley cyclotron. ⁷⁷Ge was produced by neutron capture reactions and the resulting activities were measured with a Lauritsen-type quartz fiber electroscope. “The 8-hr. period was obtained appreciably only in slow neutron bombardments. With fast neutrons only a trace of this period was noticed, indicating very clearly that this period is very sensitive to slow neutrons. There remains only one possibility for this kind of negative electron active period, that is Ge⁷⁷.” Previously, Aston had incorrectly reported ⁷⁷Ge to be stable (1928As02, 1931As04).

Adapted from reference (2012Gr19)

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