

⁷³Ge

In the 1931 paper “The Isotopic Constitution and Atomic Weights of Selenium, Bromine, Boron, Tungsten, Antimony, Osmium, Ruthenium, Tellurium, Germanium, Rhenium and Chlorine” Aston identified stable ⁷³Ge at the Cavendish Laboratory in Cambridge, UK (1931As04). Mass spectra were recorded from a freezing mixture of germanium tetraethyl: “Strong lines were easily obtained by the use of Q plates and all eight isotopes previously observed were confirmed.” The previous results mentioned in the quote refer to a 1928 paper by Aston (1928As02), which, however, was not credited with the discovery because it did not have the correct order of the relative abundances. ⁷⁵Ge, which is unstable was supposed to be more intense than the stable ⁷⁶Ge. In the 1931 paper Aston still claimed to observe lines of the unstable isotopes ⁷¹Ge, ⁷⁵Ge, and ⁷⁷Ge, however, with significantly less intensity than the stable isotopes ⁷⁰Ge, ⁷²Ge, ⁷³Ge, ⁷⁴Ge, and ⁷⁶Ge.

The assignment was changed (2016Th03) from the original compilation (2012Gr19) which credited a later publication by Bainbridge (1933Ba02) with the discovery of ⁷³Ge.

- 1928As02 F. W. Aston, Nature **122**, 167 (1928).
1931As04 F. W. Aston, Proc. Roy. Soc. (London) **132**, 487 (1931).
1933Ba02 K. T. Bainbridge, J. Franklin Inst. **215**, 509 (1933).
2012Gr19 J. L. Gross and M. Thoennessen, At. Data Nucl. Data Tables **98**, 983 (2012).
2016Th03 M. Thoennessen, Int. J. Mod. Phys. E **25**, 1630004 (2016).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152”