^{129}Te

In 1939, Seaborg et al. reported the first identification of ^{129}Te at the University of California at Berkeley in "Radioactive tellurium: further production and separation of isomers" (1939Se05). ^{129}Te was produced as a result of deuteron bombardment of tellurium. "Isomer separations show that a 70-minute tellurium activity grows from this 30-day period. The 70-minute activity is also undoubtedly produced directly by deuteron bombardment, but the presence of so many other activities makes it difficult to observe; however, an electron emitting activity with half-life about one hour seems to be present in the deuteron activated samples. If our electron-emitting 70-minute activity is to be identified with the 60-minute period that is produced by gamma-rays, the only remaining possibility for the isotopic assignment is Te^{129}." The 70 m and 30 d half-lives correspond to the ground state and an isomeric state, respectively. Previously, half-lives of 45 min (1935Am01) and 70 min (1939Ab05) had been measured without a mass assignment and a 60 min half-life was assigned to either ^{129}Te or ^{131}Te (1937Bo14). Also, a 66 min half-life had been assigned to either ^{127}Te or ^{129}Te, and the 31-d half-life had been assigned to ^{121}Te in a conference abstract (1938Ta01).

Adapted from reference (2013Ka01)

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