^{139}Ce

^{139}Ce was discovered at Ohio State University in 1948 by Pool and Krisberg: "Radioactive Cerium and Praseodymium" (1948Po01). 10 MeV deuterons from the 42-inch cyclotron produced ^{139}Ce in the reaction ^{139}La(d,2n). A decay curve with a half-life of 140(1)d was observed in the γ- and β-decay. The assignment was based on the observation of K_α x-rays from lanthanum: "The 140-day half-life is therefore assigned to ^{139}Ce." It is curious to note that the authors do not mention an earlier paper by the same first author (1938Po03) who reported a 2.1 min positron activity "...the carrier of the 2.1-min. positron activity is very probably ^{139}Ce." Although it could be possible that they observed the isomeric state of ^{139}Ce, the half-life of this state (54.8(10)s) is significantly different.

Adapted from reference (2009Gi07)

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