^{70}Ga

Bothe and Gentner observed ^{70}Ga in 1937 at the Institut für Physik am Kaiser Wilhelm Institut für medizinische Forschung in Heidelberg, Germany, in "Weitere Atomumwandlungen durch γ-Strahlen" (1937Bo14). Lithium-γ-rays irradiated gallium targets producing ^{68}Ga and ^{70}Ga in photo-nuclear reactions. "Gallium: T_1 = 20 min; T_2= 60 min. T_1 wird auch bei Anlagerung von Neutronen erhalten, gehört also zu Ga^{70}, weil dieses zwischen den beiden stabilen Isotopen des Ga liegt. Dann muß T_2 zu dem neuen Isotop Ga^{68} gehören." [Gallium: T_1 = 20 min; T_2 = 60 min. T_1 can also be produced by neutron capture and thus corresponds to Ga^{70} because it is located between the two stable Ga isotopes. Then T_2 must be due to the new isotope Ga^{68}]. A 20-min half-life had previously been observed without a mass assignment (1935Am01).

Adapted from reference (2012Gr19)

1935Am01 E. Amaldi, O. D'Agostino, E. Fermi, B. Pontecorvo *et al.*, Proc. Roy. Soc. (London) A **149**, 522 (1935).

1937Bo14 W. Bothe and W. Gentner, Naturwissenschaften **25**, 191 (1937).

2012Gr19 J. L. Gross and M. Thoennessen, At. Data Nucl. Data Tables **98**, 983 (2012).

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