^{82}Br

In 1937, Bothe and Gentner discovered ^{82}Br as reported in "Kernisomerie beim Brom" (1937Bo15) (submitted 4/19/1937). ^{82}Br was produced by photonuclear reactions using γ rays from lithium irradiated by protons at the Institut für Physik am Kaiser Wilhelm-Institut für medizinische Forschung in Heidelberg, Germany. "Unsere Ergebnisse lehren in der Tat, daß es die beiden Halbwertzeiten von 18 min und 4,2 h sind, welche zu Kernisomeren gehören, und daß diese die Masse 80 besitzen. Wenn man nicht noch ein drittes Br^{80} annehmen will, muß hiernach offenbar der 5 min-Abfall zu Br^{78}, der 36 h-Abfall zu Br^{82} gehören. [Indeed, we learn from our results that the two half-lives on 18 min and 4.2 h belong to nuclear isomers with the mass 80. If one does not assume the existence of a third Br^{80}, the 5 min and the 36 h decays must belong to Br^{78}Br and Br^{82}, respectively.] The 36-h half-life had previously been incorrectly assigned to ^{78}Br (1935Ku01).

The assignment was changed from the paper by Snell (1937Sn02) which was submitted about four months later and quoted Bothe and Gentner.

Adapted from reference (2012Gr02)

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