

⁸²Br

In 1937, Bothe and Gentner discovered ⁸²Br as reported in “Kernisomerie beim Brom” ([1937Bo15](#)) (submitted 4/19/1937). ⁸²Br 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 Halbwertszeiten 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 Br⁸⁰ annehmen will, muß hiernach offenbar der 5 min-Abfall zu Br⁷⁸, der 36 h-Abfall zu Br⁸² 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 Br⁸⁰, the 5 min and the 36 h decays must belong to Br⁷⁸Br and Br⁸², respectively.] The 36-h half-life had previously been incorrectly assigned to ⁷⁸Br ([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](#))

- [1935Ku01](#) B. Kourtchatow, I. Kourtchatow, L. Myssovsky, and L. Roussinow, Compt. Rend. **200**, 1201 (1935).
- [1937Bo15](#) W. Bothe and W. Gentner, Naturwissenschaften **25**, 284 (1937).
- [1937Sn02](#) A. H. Snell, Phys. Rev. **52**, 1007 (1937).
- [2012Gr02](#) J. L. Gross, J. Claes, J. Kathawa, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 75 (2012).

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