

⁸¹Se

In 1949, the first identification of ⁸¹Se was reported by Bergström and Thulin from the Nobel Institute for Physics in Stockholm in “Internal Conversion Coefficient and Mass Assignment of the 57-Min. Se Isomer” (1949Be59). ⁸¹Se was produced by deuteron induced reactions on selenium and identified with an electromagnetic isotope separator. “The 57-min. activity of mass number 81 (no activity at 79) was sufficient for β -spectrometer investigation.” The 57-min. half-life corresponds to an isomeric state and its 104-keV γ -ray transition to the ground state was measured. Previously, half-lives of 57 min. (1937Sn02, 1940La03) and 19 min. (1940La03) were reported but only assigned to either ⁷⁹Se or ⁸¹Se. In addition, half-lives of 57 and 17 min. could only be assigned to selenium masses lighter than 82 (1939Bo05). In 1948, Wäffler and Hirzel reported the observation of the ground state and the isomeric state in a conference proceeding (1948Wa13).

This assignment was changed in 2024 from the original compilation (2012Gr02) which credited Wäffler and Hirzel (1948Wa13) with the discovery of ⁸¹Se.

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