

⁷⁴Br

⁷⁴Br was discovered by Hollander in 1953 as described in “Bromine Isotopes Produced by Carbon-Ion Bombardment of Copper” ([1953Ho53](#)). An approximately 90 MeV ¹²C beam from the Berkeley 60-inch cyclotron bombarded copper foils and ⁷⁴Br was formed in the fusion-evaporation reaction ⁶³Cu(¹²C,n). Decay curves were recorded following chemical separation. Targets with enriched ⁶³Cu and ⁶⁵Cu were used and the results indicated “that the 36-minute activity has been made in Cu⁶³ by a reaction with a very low cross section, and hence may be assigned tentatively to Br⁷⁴, by the Cu⁶³(C,n)Br⁷⁴ reaction.” This half-life corresponds to an isomeric state and the ground state half-life of 25.7(9) min was first measured by Butement and Boswell seven years later ([1960Bu22](#)).

Adapted from reference ([2012Gr02](#))

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