

⁸⁷Nb

In “Decay Scheme Studies of Short-Lived Isotopes of $69 \leq A \leq 88$ Produced by Heavy-Ion Bombardment,” published in 1971, Doron and Blann described the first observation of ⁸⁷Nb ([1971Do01](#)). Natural nickel and enriched ⁵⁸Ni targets were bombarded with 85 to 100 MeV ³²S beams at the University of Rochester MP Tandem Van de Graaff accelerator. ⁸⁷Nb was identified by measuring half-lives, excitation functions and γ -rays. “According to the calculated excitation functions, the relative cross sections for the 3.5 min activity and the observed growth of the ^{87m}Y isomeric transition, this activity could possibly be due to either the decay of ⁸⁷Nb or of ⁸⁷Mo. The fact that the predicted cross section for ⁸⁷Mo production by the ⁵⁹Co(³²S,p3n)⁸⁷Mo reaction is smaller by a factor of 100 than the ⁵⁹Co(³²S,2p2n)⁸⁷Nb cross section suggests that this activity is due to the decay of ⁸⁷Nb.”

Adapted from reference ([2012Ny02](#))

- [1971Do01](#) T. A. Doron and M. Blann, Nucl. Phys. A **161**, 12 (1971).
[2012Ny02](#) A. Nystrom and M. Thoennessen, At. Data Nucl. Data Tables **98**, 95 (2012).

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