

## <sup>89</sup>Nb

Diamond reported the discovery of <sup>89</sup>Nb in “New Isotopes of Niobium: Nb<sup>89</sup> and Nb<sup>89m</sup>” in 1954 ([1954Di16](#)). Niobium and zirconium metal foils were irradiated with 60 MeV protons from the Harvard synchrocyclotron. <sup>89</sup>Nb was identified by measuring the activity with an end-window Geiger counter following chemical separation. “A new 1.9±0.3-hour activity was found in niobium fractions isolated from proton irradiated niobium and zirconium metal foils. By identification of the 78-hour daughter activity, the mass assignment has been made to Nb<sup>89</sup>.” Diamond also identified a 0.8(3) h isomer of <sup>89</sup>Nb.

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

[1954Di16](#) R. M. Diamond, Phys. Rev. **95**, 410 (1954).  
[2012Ny02](#) A. Nystrom and M. Thoennessen, At. Data Nucl. Data Tables **98**, 95 (2012).

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