

## <sup>74</sup>Ga

<sup>74</sup>Ga was discovered by Morinaga as reported in “Radioactive isotopes Cl<sup>40</sup> and Ga<sup>74</sup>” in 1956 ([1956Mo39](#)). Germanium targets were irradiated with fast neutrons produced by bombarding a beryllium target with 10 MeV deuterons from the Purdue cyclotron. Gamma- and beta-rays were measured with a NaI scintillator and GM counter, respectively. “Very many gamma rays with various half-lives were observed after the bombardment, but all could be assigned to some known isotopes produced by fast neutrons on Ge, except for three distinct gamma rays with energies 0.58, 2.3, and 2.6 Mev which decayed with a half-life of about 8 min... Therefore this activity is assigned to Ga<sup>74</sup>.” Earlier measurements incorrectly assigned half-lives of 6(1) d ([1939Sa02](#)) and 9 d ([1941Sa01](#)) to <sup>74</sup>Ga.

Adapted from reference ([2012Gr19](#))

- [1939Sa02](#) R. Sagane, Phys. Rev. **55**, 31 (1939).  
[1941Sa01](#) R. Sagane, G. Miyamoto, and M. Ikawa, Phys. Rev. **59**, 904 (1941).  
[1956Mo39](#) H. Morinaga, Phys. Rev. **103**, 504 (1956).  
[2012Gr19](#) J. L. Gross and M. Thoennessen, At. Data Nucl. Data Tables **98**, 983 (2012).

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”