

## <sup>57</sup>Ni

The discovery of <sup>57</sup>Ni was reported in the 1938 paper “Radio Isotopes of Nickel” by Livingood and Seaborg ([1938Li08](#)). <sup>57</sup>Ni was observed at the University of California, Berkeley, by irradiating iron with 12.6 and 16 MeV  $\alpha$ -particles. Positrons and  $\gamma$ -rays were measured following chemical separation. “We wish to report a new radioactive isotope of nickel, formed as the result of the exposure of iron to several microampere hours of bombardment with helium ions at 12.6 Mev and also at 16 Mev... We have not been able to detect this activity after strong irradiation of nickel with deuterons or slow neutrons, so we feel justified in ascribing the activity to Ni<sup>57</sup> through Fe<sup>54</sup>( $\alpha$ ,n)Ni<sup>57</sup>.” The reported half-life was 36(2) h.

Adapted from reference ([2012Ga06](#))

- [1938Li08](#) J. J. Livingood and G. T. Seaborg, Phys. Rev. **53**, 765 (1938).  
[2012Ga06](#) K. Garofali, R. Robinson, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 356 (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)”