

^{54}Ni

In the paper “Mass measurements of the proton-rich nuclei ^{50}Fe and ^{54}Ni ” Tribble et al. reported the discovery of ^{54}Ni in 1977 ([1977Tr05](#)). Alpha particles accelerated to 110 MeV with the Texas A&M University 88-inch Cyclotron were used to produce the reaction $^{58}\text{Ni}(^4\text{He}, ^8\text{He})$ and the ejectiles were observed at the focal plane of an Enge split-pole magnetic spectrograph. “The experiments provide the first observation and subsequent mass measurement of the proton-rich nuclei ^{50}Fe and ^{54}Ni .” The measured β -decay energy was 7.77(5) MeV which was used to estimate a half-life of 140 ms.

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

[1977Tr05](#) R. E. Tribble, J. D. Cossairt, D. P. May, and R. A. Kenefick, Phys. Rev. C **16**, 917 (1977).

[2012Ga06](#) K. Garofali, R. Robinson, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 356 (2012).

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