

⁴⁹Mn

⁴⁹Mn was first observed by Cerny et al. in 1970 and reported in the paper “⁴⁹Fe A New $T_z = -3/2$ Delayed-Proton Emitter” ([1970Ce02](#)). The reaction $^{40}\text{Ca}(^{12}\text{C},3n)$ using 65 A·MeV carbon ions accelerated by the Harwell variable-energy cyclotron was used to produce ⁴⁹Fe. Beta-delayed protons were measured with a semiconductor telescope consisting of two surface-barrier detectors. “... beta-delayed protons with an energy of 1.96 ± 0.05 MeV probably originating from the lowest $T = \frac{3}{2}$ state in ⁴⁹Mn were observed”. Cerny et al. did not claim this observation as the discovery probably because the observed state did not correspond to the ground state of ⁴⁹Mn. Cerny and his collaborators reported the observation of the ⁴⁹Mn ground state only a few months later ([1970Ce03](#)).

This assignment was changed ([2016ThZW](#)) from the original compilation ([2012Ga06](#)) which credited the subsequent paper by Cerny et al. ([1970Ce03](#)).

- [1970Ce02](#) J. Cerny, C. U. Cardinal, H. C. Evans, K. P. Jackson, and N. A. Jelley, Phys. Rev. Lett. **24**, 1128 (1970).
[1970Ce03](#) J. Cerny, C. U. Cardinal, K. P. Jackson, D. K. Scott, and A. C. Shotton, Phys. Rev. Lett. **25**, 676 (1970).
[2012Ga06](#) K. Garofali, R. Robinson, and M. Thoennessen, At. Data Nucl. Data Tables **98**, 356 (2012).
[2016ThZW](#) M. Thoennessen, The Discovery of Isotopes, A Complete Compilation, Springer, Switzerland (2016).

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