^{140}Pr

The first detection of ^{140}Pr was reported in 1938 by Pool and Quill in "Radioactivity induced in the rare earth elements by fast neutrons" (1938Po05). Fast and slow neutrons were produced with 6.3 MeV deuterons from the University of Michigan cyclotron. Decay curves were measured with a Wulf string electrometer. "With fast neutrons a very strong 3.5 min period was observed which is by far the strongest positron period in the rare earth group of elements... since praseodymium has only one stable isotope, the reaction equations for the short period may be written: $_{59}Pr^{141} + _{0}n^{1} \rightarrow _{59}Pr^{140} + 2_{0}n^{1}$; $_{59}Pr^{140} \rightarrow _{58}Ce^{140} + _{1}e^{0}$ (3.5 min)."

Adapted from reference (2012Ma48)

1938Po05 M. L. Pool and L. L. Quill, Phys. Rev. **53**, 437 (1938).
2012Ma48 E. May and M. Thoennessen, At. Data Nucl. Data Tables **98**, 960 (2012).

Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"