^{2}He

The 1936 paper "The scattering of protons by protons" by Tuve et al. from the Carnegie Institution of Washington, can be considered as the first evidence of a virtual state in ^{2}He (1936Tu02). The angular distribution from 15° and 45° of scattered protons were measured for incident proton energies of 600, 700, 800, and 990 keV. "Measurement of the scattering of protons by deuterium, helium, and air, together with "vacuum-scattering" tests which eliminate slit scattering and unknown vapors, have led to the conclusion that the observed anomaly is not due to a contamination and must be ascribed to a proton-proton interaction at close distances (less that 5×10^{-13}cm) which involves a marked departure from the ordinary Coulomb forces." The theoretical interpretation was presented by Breit et al. in an accompanying paper (1936Br07).

Adapted from reference (2012Th01)

1936Br07 G. Breit, E. U. Condon, and R. D. Present, Phys. Rev. **50**, 825 (1936).

1936Tu02 M. A. Tuve, N. P. Heydenburg, and L. R. Hafstad, Phys. Rev. **50**, 806 (1936).

2012Th01 M. Thoennessen, At. Data Nucl. Data Tables **98**, 43 (2012).

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