^{44}K

Cohen from Oak Ridge National Laboratory identified ^{44}K in the 1954 paper "Potassium-44" (1954Co70). Natural calcium and enriched ^{44}Ca was irradiated with neutrons which were produced by bombarding beryllium with 22 MeV protons. Gamma- and beta-ray spectra were measured following chemical separation. "Potassium-44 was produced by an (n,p) reaction on calcium and found to decay by negatron and gamma emission with a 22.0±0.5 minute half-life. The identification was ascertained by comparison of yields from normal and isotopically enriched calcium, cross section measurements, chemical processing, and investigation of impurity effects." Previously, Walke had assigned a half-life of 18(1) min to either ^{43}K or ^{44}K (1937Wa04).

Adapted from reference (2012Th10)

1937Wa04 H. Walke, Phys. Rev. **51**, 439 (1937).
1954Co70 B. L. Cohen, Phys. Rev. **94**, 117 (1954).
2012Th10 M. Thoennessen, At. Data Nucl. Data Tables **98**, 933 (2012).

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