^{17}N

In 1949, Alvarez discovered ^{17}N in "N^{17}, A Delayed Neutron Emitter" (1949Al04). A water solution of NH_4F was bombarded with 190 MeV deuterons from the Berkeley 184 inch cyclotron. ^{17}N was formed in the reaction ^{19}F(d,α) and delayed neutron activity was counted with a BF_3 chamber. "The conclusion, therefore, comes largely from a process of elimination, but it seems quite conclusive. The nuclear evidence supports it strongly and there is little question that even without any chemical work at all, the activity would have been assigned to N^{17}." Further chemical and physical evidence supported this first conclusion. The observed half-life was 4.2 s.

Adapted from reference (2012Th01)

1949Al04 L. W. Alvarez, Phys. Rev. **75**, 1127 (1949).
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"