^{38}Cl

In 1940, Kennedy and Seaborg reported the observation of ^{38}Cl in"Isotopic identification of induced radioactivity by bombardment of separated isotopes; 37-minute Cl^{38}" (1940Ke11). An enriched HCl^{35} and an ordinary HCl solution was activated with paraffin-slowed neutrons which were produced by beryllium bombardment with 16 MeV deuterons from the Berkeley 60-in. cyclotron. "The lower intensity in the HCl^{35} sample shows that this activity is to be assigned to Cl^{38}, formed as the result of neutron absorption by the heavier isotope Cl^{37}." Previous reports of the 37-min half-life were produced in the reactions Cl(n,γ) (1935Am01), Cl(d,p) (1936Va01), and K(n,α) (1937Hu01) and could have been due to either ^{36}Cl or ^{38}Cl.

Adapted from reference (2012Th10)

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