^{36}Cl

Grahame and Walke reported the observation of ^{36}Cl in the 1941 paper "Preparation and properties of long-lived radio-chlorine" (1941Gr04). "Irradiation was carried out by allowing relatively large quantities (about a pound each) of sodium chlorate or of sodium perchlorate to stand in the neighborhood of the target holder of the Berkeley 37-inch cyclotron for periods of six months or more while the cyclotron was in use for other purposes." Activities were measured with a Lauritsen quartz fiber electroscope and a thin-walled counter. "The emission of positrons, taken together with the fact that the familiar 37-minute radio-chlorine is known to be Cl^{38}, makes it reasonably certain that the new isotope is Cl^{36} formed by the reaction $Cl^{35}(n,\gamma)Cl^{36}$."

Adapted from reference (2012Th10)

1941Gr04 D. C. Grahame and H. J. Walke, Phys. Rev. **60**, 909 (1941).
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