^{39}Cl

^{39}Cl was identified in 1949 by Haslam et al. in "Confirmation of Cl^{39} activity" (1949Ha53). The University of Saskatchewan betatron was used to irradiate argon at a betatron energy of 23 MeV. The resulting activities were measured with a thin-walled beta counter. "The activity measured in the counting chamber, and thus due to the filtered argon, was then found to have a half-life of exactly 110 minutes, and the glass woolantimony filter carried a β^--activity of 55.5±0.2 minutes. This is ascribed to the isotope Cl^{39} produced in the reaction $A^{40}(\gamma,p)Cl^{39}$. This isotope is listed in the table of Seaborg and Perlman (1948Se40) as having a half-life of one hour. This result is based on unpublished data." In 1920, Aston had reported a possible stable mass 39 chlorine isotope (1920As02) which was incorrect.

Adapted from reference (2012Th10)

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