^{140}Pm

The discovery of ^{140}Pm was published in the 1966 paper "Promethium-140" by Aten and Kapteijn from the Instituut voor Kernphysisch Onderzoek in Amsterdam (1966At04). ^{140}Pm was produced in irradiations of ^{142}Nd with 50 and 40 MeV protons and ^{144}Sm with 50 MeV protons. Gamma-ray spectra were measured following chemical separation. "We have already observed the formation of this activity by the irradiation of separated ^{142}Nd with 50 and 40 MeV protons.. After irradiation with 17 MeV protons the activity was not observed. The data suggest that in this case we are dealing with ^{140}Pm, formed by the reactions ^{142}Nd(p,3n)^{140}Pm and ^{144}Sm(p,αn)^{140}Pm." The observed hald-life of 6(1) min corresponds to an isomer and the ground state with a half-life of 9.2(2) s was measured two years later by Bleyl et al. (1968Bl14).

Adapted from reference (2012Ma48)

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