^{37}S

In 1945, ^{37}S was identified by Zünti and Bleuler at the E.T.H. Zürich as described in "Über zwei Aktivitäten S^{37} und P^{34}, die durch schnelle Neutronen in Chlor induziert werden" (1945Zu01). Fast neutrons produced by a tensator were used to bombard chlorine targets. Beta- and gamma-ray spectra were measured following chemical separation. "Bei den Messungen an diesem Phosphorisotop bemerkten wir die Anwesenheit einer längern Periode. Subtrahiert man von der Abklingkurve des bestrahlten Chlors die bekannten Aktivitäten von P^{34}, Cl^{34}, Cl^{35}, P^{32} und S^{35}, so bleibt ein rein exponentieller Abfall mit 5,0 min Halbwertszeit übrig. Die chemische Abtrennung zeigt, dass diese Aktivität einem Schwefelisotop zukommt und zwar dem S^{37}, da nach Kamen [(1941Ka01)] der S^{35} mit einer 88-Tage-Periode zerfällt." [During the measurements of this phosphor isotope we noticed the presence of a longer period. After subtraction of the known activities of P^{34}, Cl^{34}, Cl^{35}, P^{32} and S^{35} from the decay curve of the irradiated chlorine a pure exponential decay with a half-life of 5.0 min remains. The chemical separation shows, that this activity is due to a sulfur isotope, specifically S^{37}, because Kamen [(1941Ka01)] had shown that S^{35} decays with a period of 88 days.] The measured half-life was 5.04(2) min. Previously a 14.7 s half-life was reported to result from either ^{34}P or ^{37}S (1942Hu01).

Adapted from reference (2012Th10)

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