^{27}Si

Kuerti and Van Voorhis from the University of Rochester identified ^{27}Si in 1939 as described in the paper "Induced radioactivity produced by bombarding aluminum with protons" (1939Ku11). Aluminum was bombarded with protons and ^{27}Al was produced in the (p,n) charge exchange reaction. Excitation functions and activities were measured with an ionization chamber. Previously there had been some uncertainties about the assignment of a 6−7 min half-life to either ^{27}Si or ^{29}Al. "However, all our attempts to find such a period have been completely unsuccessful, its intensity if present being at least ten thousand times weaker than would be predicted from (p,n) cross sections for neighboring elements. We have, however, found an activity of 3.7 seconds half-life which is produced in aluminum by protons." The previous measurements with the uncertain assignment were 7.5(15) min (1935Ec01), 6.7(10) min (1935Fa01), 6−7 min (1936El01), and 6.6(3) min (1937Me02). This half-life was later assigned to ^{29}Al (1939Be04). In addition, Curie and Joliet had assigned a 2.5 min half-life to ^{27}Si (1934Cu01, 1934Jo02) which most likely was due to ^{28}Al.

Adapted from reference (2012Th10)

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