^{44}Sc

In 1937, Walke observed ^{44}Sc as described in the paper "The Induced Radioactivity of Calcium" (1937Wa04). ^{44}Sc was identified in the reaction ^{41}K(α,n) by bombarding potassium fluoride with 11 MeV α particles from the Berkeley cyclotron as described in a note added in proof: "By deflecting the emitted particles in a magnetic field it has been established that they are positrons. The decay curve shows the presence of two isotopes with half-lives of 4.1±0.2 hours and 52±2 hours. As the long period agrees with that observed in the scandium precipitate from calcium + deuterons it must be associated with Sc^{44}..." In the main text of the paper ^{44}Sc had been assigned a half-life of 53±3 m. This half-life corresponds to an isomeric state and the ground state half-life (4 h) was measured a year later by Burcham et al. (1938Bu05) and independently by Cork et al. (1938Co01). A 3 hour half-life had been reported earlier but it was assigned only to either ^{42}Sc or ^{44}Sc (1934Zy01).

Adapted from reference (2011Me01)

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