^{32}Si

Lindner identified ^{32}Si in the 1953 paper "New nuclides produced in chlorine spallation" (1953Li21). A 340 MeV proton beam from the Berkeley 184-in. cyclotron bombarded sodium chloride targets. Beta absorption and decay curves were measured following chemical separation. "The radiation properties of the beta-emitting nuclides Si^{32} and Mg^{28} are described. Si^{32} was found to have a maximum probable half-life of 710 years, emitting beta-particles of $E_{max} \sim 100$ kev... These data, therefore, establish the existence of the long-lived Si^{32}, which emits beta particles of about 100 kev and apparently no gamma radiation... It is unlikely that the half-life is as low as 100 years." A previous search for ^{32}Si was unsuccessful (1953Li31) while Turkevich and Tompkins set an upper limit for the abundance of ^{32}Si in natural silicon (1953Tu25).

Adapted from reference (2012Th10)

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