

²⁶P

The discovery of ²⁶P was reported in 1983 by Cable et al. in “Beta-delayed proton decay of the T_z=−2 isotope ²⁶P” (1983Ca06). ²⁸Si was bombarded with a 110–130 MeV ³He beam from the Berkeley 88-in. cyclotron and ²⁶P was produced in the reaction ²⁸Si(³He,p4n). Recoil products were collected on a rotating wheel and β-delayed protons were measured in a three-element semiconductor telescope. “A rough half-life of 20⁺³⁵_{−15} ms was determined for the 7.269 MeV proton group by varying the wheel rotational speed and observing the relative yields of the various activities present. This method could, in principle, yield a precise half-life measurement but does not do so here due to the low yield of ²⁶P. As shown in [the figure], the 7.269±0.015 MeV group can be attributed to the isospin forbidden decay of the lowest T = 2 state in ²⁶Si (fed by the superallowed β⁺-decay of the T = 2 ground state of ²⁶P) to the ground state of ²⁵Al.”

Adapted from reference (2012Th10)

1983Ca06 M. D. Cable, J. Honkanen, R. F. Parry, S. H. Zhou *et al.*, Phys. Lett. B **123**, 25 (1983).

2012Th10 M. Thoennessen, At. Data Nucl. Data Tables **98**, 933 (2012).

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