^{22}Al

Cable et al. discovered ^{22}Al as described in the 1982 paper "Beta-delayed proton decay of an odd-odd T_z=−2 isotope, ^{22}Al" (1982Ca16). A 110 MeV ^{3}He beam from the Berkeley 88-in cyclotron bombarded magnesium targets forming ^{22}Al in the reaction ^{24}Mg(^{3}He,p4n). Beta-delayed protons were measured with a three-element semiconductor particle telescope. "At 110 MeV, two new proton groups are observed at laboratory energies of 7.839±0.015 MeV and 8.149±0.021 MeV. As noted below and as indicated in [the figure], these groups lie very near the predicted absolute proton energies for the decay of ^{22}Al based on Coulomb displacement energy calculations... A rough half-life (70^{+50}_{-35} ms) for the 7.839 group was determined by observing the relative yields of ^{25}Si, ^{21}Mg, and ^{22}Al with different helium jet operating conditions resulting in different transit times from target to catcher."

Adapted from reference (2012Th10)

1982Ca16 M. D. Cable, J. Honkanen, R. F. Parry, H. M. Thierens *et al.*, Phys. Rev. C **26**, 1778 (1982).

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Please cite this abstract as: "FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:10.11578/frib/2279152"