^{20}Mg

^{20}Mg was discovered by Robertson et al. in the 1974 paper "Highly proton-rich $T_z = -2$ nuclides: ^{8}C and ^{20}Mg" (1974Ro17). Alpha-particles accelerated to 156 MeV by the Jülich isochronous cyclotron bombarded an enriched ^{24}Mg target and produced ^{20}Mg in the reaction ^{24}Mg(α,^{8}He). The ^{8}He ejectiles were measured in a double-focusing magnetic analyzer and the energy-loss, energy, magnetic rigidity and time-of-flight were recorded. "For ^{20}Mg, a mass excess of 17.74±0.21 MeV is found, indicating that ^{20}Mg is nucleon stable." An earlier tentative report of a 0.62 s half-life for ^{20}Mg (1964Ma44) was incorrect.

Adapted from reference (2012Th10)

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