^{40}Mg

Baumann et al. discovered ^{40}Mg in the 2007 paper "Discovery of ^{40}Mg and ^{42}Al suggests neutron drip-line slant towards heavier isotopes" (2007Ba71). A 141 MeV/nucleon ^{48}Ca beam bombarded a natural tungsten target and ^{40}Mg was identified with the MSU/NSCL A1900 fragment separator and the S800 analysis system. "The particle identification can be seen in [the figure], where the locus of isotopes with constant N=2Z is indicated by the vertical line and heavier isotopes lie to the right. Three events of ^{40}Mg were clearly identified. Each of the parameters that are used for the particle identification has been checked on an event-by-event basis to exclude possible ambiguous background events."

Adapted from reference (2012Th10)

2007Ba71 T. Baumann, A. M. Amthor, D. Bazin, B. A. Brown *et al.*, Nature **449**, 1022 (2007).

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

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