^{31}Mg

^{31}Mg was discovered by Butler et al. in "Observation of the new nuclides ^{27}Ne, ^{31}Mg, ^{32}Mg, ^{34}Al, and ^{39}P" in 1977 (1977Bu11). ^{31}Mg and ^{32}Mg were produced in the spallation reaction of 800 MeV protons from the Clinton P. Anderson Meson Physics Facility LAMPF on a uranium target. The spallation fragments were identified with a silicon ΔE-E telescope and by time-of-flight measurements. "All of the stable and known neutron-rich nuclides (except ^{24}O and the more neutron-rich Na isotopes) are seen. The five previously unobserved neutron-rich nuclides ^{27}Ne, ^{31}Mg, ^{32}Mg, ^{34}Al, and ^{39}P are clearly evident. Each of these peaks contains ten or more events."

Adapted from reference (2012Th10)

1977Bu11 G. W. Butler, D. G. Perry, L. P. Remsberg, A. M. Poskanzer *et al.*, Phys. Rev. Lett. **38**, 1380 (1977).

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