

## $^{27}\text{Ne}$

$^{27}\text{Ne}$  was discovered by Butler et al. in “Observation of the new nuclides  $^{27}\text{Ne}$ ,  $^{31}\text{Mg}$ ,  $^{32}\text{Mg}$ ,  $^{34}\text{Al}$ , and  $^{39}\text{P}$ ” in 1977 ([1977Bu11](#)).  $^{27}\text{Ne}$  was 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  $\Delta E$ -E telescope and by time-of-flight measurements. “All of the stable and known neutron-rich nuclides (except  $^{24}\text{O}$  and the more neutron-rich Na isotopes) are seen. The five previously unobserved neutron-rich nuclides  $^{27}\text{Ne}$ ,  $^{31}\text{Mg}$ ,  $^{32}\text{Mg}$ ,  $^{34}\text{Al}$ , and  $^{39}\text{P}$  are clearly evident. Each of these peaks contains ten or more events.”

Adapted from reference ([2012Th01](#))

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

[2012Th01](#) M. Thoennessen, At. Data Nucl. Data Tables **98**, 43 (2012).

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