

## $^{11}\text{N}$

Benenson et al. discovered  $^{11}\text{N}$  in 1974 in “ $T = \frac{3}{2}$  states in mass-11 nuclei” (1974Be20). A  $^{14}\text{N}$  gas target was bombarded with a 70 MeV  $^3\text{He}$  beam at Michigan State University and  $^{11}\text{N}$  was produced in the ( $^3\text{He}, ^6\text{He}$ ) transfer reaction.  $^{11}\text{N}$  was identified in a magnetic spectrograph by measuring the time-of-flight in combination with a magnetic analysis. “The kinematic effects in the  $^{14}\text{N}(^3\text{He}, ^6\text{He})^{11}\text{N}$  reaction are quite marked even at forward angles, and therefore the observation of the same width and energy of a peak at all three angles is a strong indication that a  $^{11}\text{N}$  state is being studied... The level parameters for the peak near channel 25 are mass excess =  $25.23 \pm 0.10$  MeV and  $\Gamma = 740 \pm 100$  keV.”

Adapted from reference (2012Th01)

1974Be20 W. Benenson, E. Kashy, D. H. Kong-A-Siou, A. Moalem, and H. Nann, Phys. Rev. C **9**, 2130 (1974).

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

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