

## $^{10}\text{N}$

An unbound resonance in  $^{10}\text{N}$  was observed in 2002 by Lépine-Szilý et al. in “Observation of the particle-unstable nucleus  $^{10}\text{N}$ ” (2002Le16). A 30 MeV/nucleon  $^{14}\text{N}$  beam was accelerated at GANIL and bombarded an isotopically enriched  $^{10}\text{B}$  target.  $^{10}\text{N}$  was produced in the double-charge-exchange reaction  $^{10}\text{B}(^{14}\text{N}, ^{14}\text{B})$  identified by measuring the ejectiles in the high-precision spectrometer SPEG. “The peak observed in the subtracted spectrum has statistical significance of  $4.0\sigma$ ... The peak is a broad structure and was fitted by an  $l=0$  resonance at  $E_r = 2.6(4)$  MeV. This resonance energy corresponds to a mass excess of  $38.8(4)$  MeV for the  $^{10}\text{N}_{g.s.}$ , very close to the Audi-Wapstra estimation, which is about  $38.5(4)$  MeV.”

Adapted from reference (2012Th01)

2002Le16 A. Lepine-Szilý, J. M. Oliveira Jr., V. R. Vanin, A. N. Ostrowski *et al.*, Phys. Rev. C **65**, 054318 (2002).

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

Please cite this abstract as: “FRIB Nuclear Data Group, *Discovery of Nuclides Project*, Isotope Database, doi:[10.11578/frib/2279152](https://doi.org/10.11578/frib/2279152)”