Transfer reactions with JENSA: study of the levels in $^{12}$N using $^{14}$N(p,t)$^{12}$N

K.A. CHIPPS, Oak Ridge National Laboratory, JENSA COLLABORATION — The Jet Experiments in Nuclear Structure and Astrophysics (JENSA) gas jet target, recently recommissioned in the ReA3 facility at the NSCL, will provide a state-of-the-art, dense, localized, and pure target of light, gaseous elements for various reaction studies. As one of a series of commissioning physics measurements to demonstrate the benefit of the new Jet Experiments in Nuclear Structure and Astrophysics (JENSA) gas jet target for enabling next-generation transfer reaction studies, the $^{14}$N(p,t)$^{12}$N reaction was studied using a pure 300 psig jet of nitrogen, in order to help elucidate the structure of $^{12}$N. The experiment and lessons learned for future gas jet transfer reaction measurements will be discussed.

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