The First Science Result with the JENSA gas-jet target

The Jet Experiments in Nuclear Structure and Astrophysics (JENSA) gas-jet target holds the record for the highest density helium-jet target ever created. The target was used recently to study $^{18}\text{F}(p,\alpha)^{15}\text{O}$ resonances via a measurement of the $^{20}\text{Ne}(p,d)^{19}\text{Ne}$ reaction.


A very clean spectrum of $^{19}\text{Ne}$ states was observed allowing for the confirmation of a strong subthreshold $^{18}\text{F}(p,\alpha)^{15}\text{O}$ resonance. The bottom panel shows the expected energies, which agree well with the data. JENSA has now been installed at NSCL for radioactive beam experiments.