

Abstract Submitted
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Analysis of the 4He target density for Jefferson Lab Short Range Correlations (SRC) experiments NICHOLAS MCMAHON, Christopher Newport University — A series of Short Range Correlations experiments aiming to study the interactions between nucleons inside 4He nuclei ran in Hall A of the Thomas Jefferson National Accelerator Facility (TJNAF) between February and May of 2011. My work consists on the study of the density of the 4He gas target. The Target conditions were set to pressures between 190 and 210 PSI and temperatures between 18 and 20 K. My work shows that virial corrections to the target density taking care of the deviations from an ideal gas model are up to 2%. An additional study showed how slowly target heating increased along with the beam current between 5 and 60 μA .

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