Abstract Submitted
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Measurements of $^{11}B(\vec{p},p)^{11}B$. THOMAS LEWIS, RALPH FRANCE III, Georgia College and State University, AJ RICHARDS, The College of New Jersey, MOHAMMAD AHMED, MATTHEW BLACKSTON, SETH HENSHAW, PAUL KINGSBURY, BRENT PERDUE, HENRY WELLER, TUNL/Duke University, RICHARD PRIOR, MARK SPRAKER, North Georgia College and State University — The vector analyzing powers, $A_y(\theta, E)$, of the $^{11}B(\vec{p},p)^{11}B$ reaction were measured as a function of angle and energy as part of a program to study the reaction $^{11}B(p,\alpha)2\alpha$. The experiment was performed at the Triangle Universities Nuclear Laboratory at Duke University, where polarized proton beams between 100 nA and 600 nA with energies (E_p) of 1.388, 2.65, 3.9, 4.0, 4.93, 5.11, and 5.5 MeV were produced using the ABPIS source and the FN tandem. These energies were selected to be on (and off) several of the known resonances in this region. The target was composed of 35 $\mu g/cm^2$ isotopically pure (99.9% enriched) ^{11}B deposited on a 9 $\mu g/cm^2$ carbon backing. Scattered protons were detected by an array of six surface barrier detectors placed symmetrically to the left and right of the target. The analyzing powers will be used to further our understanding of the reaction dynamics of the elastic proton channel in this energy region.

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