

Abstract Submitted
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Vector Analyzing Power Measurements During PREX-II¹ RYAN RICHARDS, Stony Brook University, PREX2 COLLABORATION — I report on measurements of the vector analyzing power A_n on various spin-0 nuclei during PREX-II at $\langle Q^2 \rangle = 0.0064 \left(\frac{\text{GeV}}{c}\right)^2$ and $\langle \theta \rangle = 5^\circ$. The PREX-II experiment at Jefferson Lab measures the parity-violating (PV) asymmetry of longitudinally polarized electrons elastically scattering off an unpolarized ^{208}Pb target. The analyzing power couples to any residual transverse beam polarization thus making it a potential source of systematic error. Dedicated A_n measurements took place during PREX-II highlighted by the first A_n measurement on an intermediate Z nuclei, ^{40}Ca . The ^{40}Ca measurement is interesting, providing additional input in better understanding the Z dependence of the analyzing power. In addition, A_n measurements were taken on ^{208}Pb and ^{12}C . The $^{12}\text{C}A_n$ is required due to the lead target being sandwiched between two diamond foils.

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