

Abstract Submitted
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Measurement of Spin-Correlation Coefficients for p-³He Elastic Scattering¹ T.V. DANIELS, T. KATABUCHI, T.B. CLEGG, H.J. KARWOWSKI, University of North Carolina at Chapel Hill and Triangle Universities Nuclear Laboratory — As part of an investigation of the A=4 system, we measured the spin-correlation coefficients A_{yo} , A_{oy} , A_{yy} , and A_{xx} for p-³He elastic scattering at E_{lab} of 2.3, 2.7, 4.0, and 5.5 MeV and Θ_{lab} between 30° and 150°. The data were taken using TUNL's atomic beam polarized ion source and a new spin-exchange optical pumping polarized ³He target². We aim to resolve ambiguities in the phase shifts of George and Knutson³, which seem most sensitive to A_{xx} and A_{yy} at the lowest of these energies. Our 5.5 MeV data compare well with earlier data^{4,5}. Our new measurements will be shown with phase-shift-analysis solutions.

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⁴B.M. Fisher *et al.*, in: Proceedings of FB17, eds. W. Glockle and W. Tornow, Elsevier 2004

⁵M.T. Alley and L.D. Knutson, Phys Rev C 48, 1901 (1993)

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