Abstract Submitted
for the DNP07 Meeting of
The American Physical Society

Induced Polarization in ^{4}He$(e, e'\vec{p})^3$H[1] SIMONA MALACE, University of South Carolina, HALL A COLLABORATION — The transferred polarization in the $^4\mathrm{He}(\vec{e}, e'\vec{p})^3\mathrm{H}$ reaction at Q^2 values of 0.4, 0.5, 1.0, 1.6, and 2.6 GeV^2 have been measured to study possible medium modifications of the proton form factors. The measured ratio of polarization-transfer coefficients was described by the inclusion of in-medium proton form factors. This interpretation was recently challenged by a calculation by Schiavilla *et al* including, particularly, a spin-dependent charge exchange in the final-state interaction (FSI). The induced polarization of the recoiling proton in this reaction is a measure of FSI. Precise data on these are key to shed more light on this controversy. Even more, a precise knowledge of the induced polarization will allow improvement of the FSI treatment by providing additional experimental constraints to existing theoretical calculations. In our follow-up experiment E03-104 at JLab high statistics data were taken at a Q^2 of 0.8 GeV^2 and 1.3 GeV^2 on ^{1}H and ^{4}He targets. The extraction of the small induced polarization is complicated by the possible presence of instrumental asymmetries in the focal-plane polarimeter. The induced polarization in the elastic $^1\mathrm{H}(e, e'\vec{p})$ reaction is (in one-photon approximation) zero and provides crucial information about these false asymmetries. Our preliminary results indicate an induced polarization of about -0.03 and seem to be in reasonable agreement with the RDWIA calculation of Udias *et al*.

[1]Work supported in part by NSF PHY-0555604.

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Date submitted: 29 Jun 2007 Electronic form version 1.4