

Abstract Submitted
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Magnetic Coils to Test ^3He Services for the nEDM@SNS Experiment¹ AHMAD SAFTAH, CHRISTOPHER CRAWFORD, University of Kentucky, NEDM@SNS COLLABORATION — The nEDM@SNS experiment aims to increase experimental sensitivity to hadronic CP violation by nearly two orders of magnitude. The experiment will use polarized He-3 both as a co-magnetometer and to analyze the neutron spin in-situ during precession. Polarized He-3 from an atomic beam source will be injected into the superfluid liquid helium and diffuse into the measurement cell. I will present a system of recycled coils from the NPDGamma and n- ^3He experiments to test the injection cell with polarized He-3 from a metastability-exchange optical polarizer. The system includes a symmetric 5-loop gradient coil at both ends to actively tune out first-order gradients.

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