Abstract Submitted
for the DNP20 Meeting of
The American Physical Society

Electromagnetic device for MEOP polarization of 3He at PULSTAR TANIA ZANATTA MARTNEZ, LIBERTAD BARRN-PALOS, Instituto de Fsica, UNAM — We present the design of electromagnetic spin transport coils for the Syste-matic Operational Studies apparatus at the PULSTAR reactor at North Caro-lina State University, which will investigate techniques to improve NMR techniques needed for the nEDM experiment at the Spallation Neutron Source. These coils will guide the spin of the 3He co-magnetometer from the Metastability Ex-change Optical Pumping (MEOP) polarizer to inside the measurement cryostat. The device consists of an empty cylinder coil with circular covers on the top and bottom and which provides a uniform 5 G magnetic eld everywhere inside the cylinder. The nal design of this device is presented with high magnetic eld uniformity inside the ducial volume, satisfying two dierent constraints on eld gradients corresponding to separate relaxation of polarization requirements .

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Date submitted: 26 Jun 2020 Electronic form version 1.4