Abstract Submitted
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UCN Transport for the UCNA Experiment BRITTNEY VORNDICK, NC State University, UCNA COLLABORATION — The UCNA Experiment at Los Alamos National Laboratory utilizes polarized ultracold neutrons (UCN) from a spallation-driven solid deuterium UCN converter. The polarized UCN are bottled in a 1 Tesla $2 \times 2\pi$ magnetic spectrometer to measure the β asymmetry parameter A. In order to store the UCN, the materials used for transport and storage of UCN is critical. Diamond-like carbon (DLC) coatings are used in order to minimize depolarization and loss. We discuss the fabrication, characterization, and modeling of DLC-coated guides used in the experiment.

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