

Abstract Submitted
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New research initiative for Ion/surface Interaction Experiment (IIAX) at University of Illinois: lithium coated graphite studies BENJAMIN SCHULTZ, DAVID RUZIC, University of Illinois - Plasma Materials Interaction Group — The Ion/Surface Interaction Experiment (IIAX) at the University of Illinois is beginning a new research initiative into the study of lithium coated graphite. With NSTX coating graphite tiles with lithium, IIAX could be a valuable tool to aid in their research. With the project still in the planning phase, an overview of the possible design and experiments is presented. The design will be similar to the present IIAX design with an ion beam system, a movable carriage for sample holder, beam diagnostics, and a Quartz Crystal Microbalance (QCM) to measure sputtered and evaporated materials. In addition to these, there will be an in-situ evaporator to coat the graphite films with lithium, and a calibrated leak system to determine the saturation rate of gasses into the Li. Possible experiments include measuring the intercalation rate of Li on C and measuring the sputtering yield of the Li coated C films with varying levels of Li concentration.

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