

Abstract Submitted
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The lithium deposition on NSTX plasma facing components by LITER-1 evaporator in 2006¹ LEONID E. ZAKHAROV, HENRY KUGEL, LANE ROQUEMORE, CHARLES SKINNER, Princeton University, PPPL — The deposition of lithium from the LITER-1 lithium evaporator to the in-vessel components of NSTX during the 2006 experimental campaign has been calculated using the recently written Cbebm code. Its numerical model represents a collisionless gas model which assumes re-evaporation of the Li molecules after their collision with the hot walls of evaporator. Theoretically, the model is valid up to lithium temperatures of 650 °C. The code reproduces the real 3-D geometry of the evaporator canister and snout as well as the plasma facing components of NSTX, including the details of its carbon tiles. The simulation data can serve as a reference Li deposition distribution, which would be established in a perfectly clean vacuum vessel, and are compared with the lithium content in the surface layer of the sample tiles, obtained by Bill Wampler (SNL) using nuclear analysis.

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