

Abstract Submitted
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Formation and Decomposition of Lithium Deuteride Films on Mo(100)¹ ANGELA CAPECE, Princeton Plasma Physics Laboratory, JOHN ROSZELL, OLUSEYI FASORANTI, Princeton University, CHARLES SKINNER, Princeton Plasma Physics Laboratory, BRUCE KOEL, Princeton University — Lithium-conditioned plasma-facing components have improved plasma performance by reducing the recycling of hydrogenic species; however, this process is not well understood in the complex tokamak environment. Ultrahigh vacuum surface science experiments are used to investigate the processes that occur at the plasma-surface interface by probing surface chemistry and composition while independently controlling vacuum conditions, surface temperature, and D atom/ion flux. In this work we have investigated the formation and decomposition of lithium deuteride films on a Mo(100) single crystal using Auger electron spectroscopy (AES) and temperature programmed desorption (TPD).

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