

Abstract Submitted
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Spectroscopy of NSTX Plasmas During Lithium Wall Conditioning Experiments¹ J. ROBINSON, S. PAUL, R. BELL, C.H. SKINNER, Princeton Plasma Physics Laboratory — During the 2007 NSTX campaign a lithium evaporation system, LiTER, was used to coat plasma facing components as part of a long term program to explore the potential for lithium to improve plasma and PFC performance. The plasma emission was recorded by vacuum ultra-violet and air wavelength spectrometers and showed significant changes with lithium conditioning. Preliminary results show that the lithium conditioning suppressed oxygen and hydrogen to deuterium ratios. However, with lithium applied, ELM-free H-mode plasmas were achieved, which developed high central radiation containing significant levels of metallic impurities. We will present data on the spectral emission of the plasma both with and without lithium evaporation and compare it to 2006 data.

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