

Abstract Submitted
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Lithium effects on the current profile in NSTX HOWARD YUH, Nova Photonics, M.G. BELL, S.M. KAYE, H.W. KUGEL, PPPL, F.M. LEVINTON, Nova Photonics, R. MAINGI, ORNL, V. SOUKHANOVSKII, LLNL — Lithium coating of the plasma facing surfaces has been used extensively in NSTX, both on the carbon tiles and now on a Liquid Lithium Divertor. Improvements in electron confinement have been observed at mid-radii in the profiles for some lithiated plasma discharges. The effects of lithium on the current, q , and magnetic shear profiles are examined and correlated to these changes in transport and will be compared for discharges run with solid and liquid lithium on the divertor. The analyses of NSTX plasma equilibria use data from the upgraded 18 channel Motional Stark Effect (MSE) diagnostic. Issues that should be considered in this analysis include changes in impurity profiles and pedestal characteristics. Supported by US DOE contracts DE-FG02-99ER54520 and DE-AC02-09CH11466.

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