

Abstract Submitted
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Overview of Results and Plans at the Lithium Tokamak Experiment – β^1 D.P. BOYLE, R.E. BELL, P.E. HUGHES, R. KAITA, B.P. LEBLANC, A. LEVINNESS, A. MAAN, R. MAJESKI, E. MERINO, X. ZHANG, PPPL, J.K. ANDERSON, W. CAPPECHI, UW Madison, P. BEIRESDORFER, F. SCOTTI, V.A. SOUKHANOVSKII, LLNL, T.M. BIEWER, D.B. ELLIOTT, ORNL, D. DONOVAN, UT-Knoxville, C. HANSEN, UWash, B. KOEL, E. OSTROWSKI, Princeton, S. KUBOTA, T. RHODES, UCLA, N. YONEDA, Kyoto U, L.E. ZAKHAROV, Li-Wall Fusion — Following extensive investigation of plasmas almost fully surrounded by solid or liquid lithium walls coatings, the Lithium Tokamak Experiment was upgraded to LTX- β with the addition of a neutral beam, higher magnetic fields, and improved diagnostics. The main goal of LTX- β is to extend the low-recycling regime first observed in LTX to higher performance, steadier discharges with neutral beam heating and fueling. Initial measurements of confinement and plasma-material interactions have been made with new and enhanced diagnostics, and additional diagnostic upgrades underway will allow better kinetic profiles and the determination of wall recycling. Machine upgrades also in progress will further increase plasma current, enhance neutral beam coupling, and improve lithium wall conditioning.

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