

Abstract Submitted
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Development of high poloidal beta, steady-state scenario with ITER-like W divertor on EAST¹ A.M. GAROFALO, M. LANCTOT, GA, X.Z. GONG, S. DING, G. LI, H. LIU, B. LYU, J. QIAN, ASIPP, P.T. BONOLI, S. SHIRAIWA, MIT, C. HOLCOMB, LLNL, J. MCCLENAGHAN, ORNL — Experiments on EAST have started to adapt the fully-noninductive high poloidal beta scenario developed on DIII-D, in order to demonstrate steady state tokamak operation at high performance on metal walls. Unlike on DIII-D, where the creation of a broad current profile requires early heating at low density, on EAST a broad current profile can be obtained simply by increasing the electron density, when most of the current drive is provided by lower hybrid wave. Systematic scans yield lower internal inductance with higher density. The hypothesis is that the LHCD profile becomes more off-axis with higher density. With the newly commissioned POINT (polarimeter-interferometer) diagnostic for q-profile measurements, these experiments enable strict tests of LHCD deposition models.

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