

Abstract Submitted
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Measurement of current density profile modification in LHCD experiments in Alcator C-Mod¹ JINSEOK KO, MIT PSFC, STEVE SCOTT, PPPL, ANDREA SCHMIDT, SYUN'ICHI SHIRAIWA, PAUL BONOLI, RON PARKER, JOHN WRIGHT, GREG WALLACE, MIT PSFC — Recent identification and resolution of problems in the Motional Stark Effect (MSE) diagnostic in Alcator C-Mod have made it possible to measure current density profile modifications in Lower Hybrid Current Drive (LHCD) experiments. A spurious drift in measured pitch angle has been traced to thermal stress- induced birefringence on the in-vessel lenses and is avoided by measuring the change in pitch angle between a LHCD phase and a baseline Ohmic phase within a discharge. The MSE measurements imply clear off-axis current drive and the dependence on parallel refractive index in the location and the magnitude of the driven current. The measurements are compared with GENRAY/CQL3D modeling.

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