

# **Generation of Localized Non-Inductive Current by Electron Cyclotron Waves on the DIII-D Tokamak**

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Localized currents due to electron cyclotron current drive have been measured for the first time in experiments on the DIII-D tokamak. The location of driven current in the plasma has been varied from near the center of the tokamak out to half of the minor radius. The measured current drive efficiency agrees with quasi-linear Fokker-Planck calculations near the center and exceeds the predicted value with increasing minor radius. Reduction of the trapped electron fraction due to finite collisionality is a leading candidate to explain the discrepancy.