

Abstract Submitted
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Some New Results From Electron Cyclotron Heating Experiments on DIII-D¹ R. PRATER, R.J. GROEBNER, J. LOHR, P.A. POLITZER, T.H. OSBORNE, General Atomics, M.E. AUSTIN, UT-Austin, E.J. DOYLE, L. ZENG, UCLA, R.W. HARVEY, Comp-X, A.E. WHITE, MIT-PSFC — Second harmonic ECH experiments on DIII-D using up to 3.2 MW of power at 110 GHz have shown that very high central electron temperatures, to 15 keV, can be obtained without large deviations from a Maxwellian, according to calculations with the CQL3D Fokker-Planck code, and with good agreement between the Thomson scattering and electron cyclotron emission measurements of electron temperature. In some other discharges the details of the density pumpout when the ECH electron heating is applied are being studied using reflectometry for excellent spatial and temporal resolution. And experiments with ECH applied at the inboard edge of ELMing H-mode discharges show a strong increase of the ELM frequency when the heating location is just inside the last closed flux surface, possibly placing a limitation on applicable models for ELMs.

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