

Abstract Submitted
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Effect of Electron Cyclotron Resonance Heating Location upon Confinement in a Laboratory Dipole Plasma¹ A.K. HANSEN, D.T. GARNIER, M.E. MAUEL, E.E. ORTIZ, Columbia University, J. KESNER, A.C. BOXER, J.L. ELLSWORTH, I. KARIM, S. MAHAR, MIT PSFC — An important topic being investigated in the Levitated Dipole Experiment is the effect on confinement of varying the deposition profile of the electron cyclotron resonance heating. We report the results of using different operational combinations of our RF sources, such as varying the power levels, sequencing of the onset time, and altering the active duration. In addition, we have employed external shaping coils to reduce the plasma volume, which in turn changes the locations of the resonances. Although in the levitated mode of operation the ability to alter the floating coil current, and thereby move the resonances but allow the plasma to occupy its full volume, is severely constrained, the current *can* be varied in the supported mode, and these experiments have been performed. Results from these studies will be presented and discussed.

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