

Abstract Submitted
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Microwave Emission Observations on the Maryland Centrifugal Experiment REMINGTON REID, University of Maryland — Microwave emission in the electron cyclotron range has been observed axially and radially on the Maryland Centrifugal Experiment. Microwave emission is measured in two bands, 8.5-12.5 GHz and 30.0-40.0 GHz using standard superheterodyne detectors with a noise temperature around 4 eV. If the plasma density is less than $10^{19}/m^3$ then the axial emission is consistent with cyclotron emission in the whistler mode. However there is evidence that the signal is contaminated by reflections. The radial emission is consistent with electron Bernstein emission, appearing at the second harmonic of the cyclotron frequency and is polarized perpendicular to the magnetic field.

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