

Abstract Submitted
for the GEC07 Meeting of
The American Physical Society

Electric probes for characterization of microwave produced plasma. VIPIN K. YADAV, Centre for Space Physics, Kolkata, India — Electric probes namely Langmuir and capacitive probes are designed to characterize microwave produced plasma. In microwave or electron cyclotron resonance (ECR) produced plasmas, the simple Langmuir probe gives error in the measurement of plasma parameters due to the presence of a steady magnetic field. To eliminate these errors along with the already existing sheath effects, some modifications are mandatory to be incorporated in the design of a Langmuir probe. Two such probes, a Langmuir probe to measure plasma parameters and a capacitive probe to detect plasma oscillations are designed. The plasma parameters measured by the designed probe matches well with the theoretically estimated values.

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Date submitted: 04 Jun 2007

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