

Magnetic field induced electron temperature inhomogeneity effects on discharge properties in cylindrical capacitively coupled plasmas

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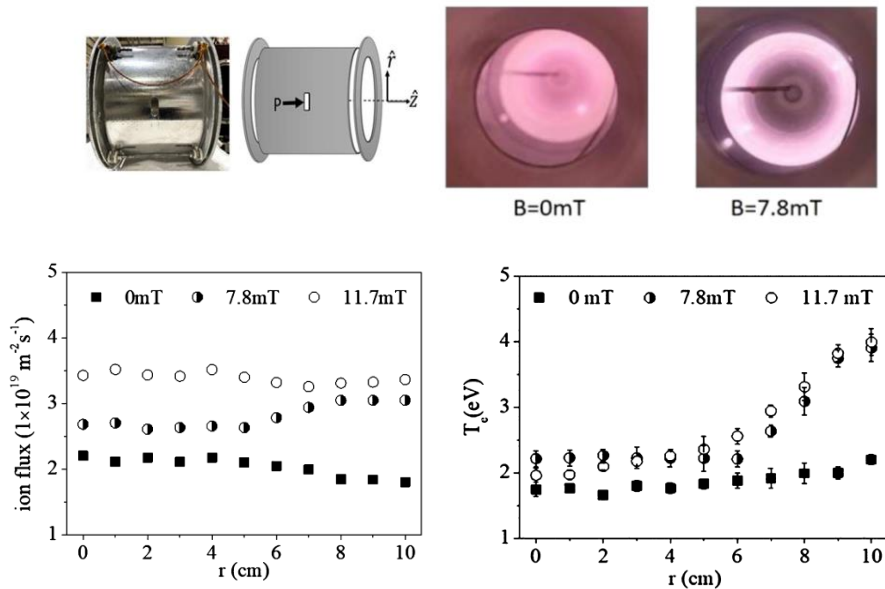


Figure: Figure showing the discharge electrodes and plasma. The radial flux of positive argon ions are shown, the ion flux and the electron temperature

The features of a capacitive plasma in a cylindrical device are described in the paper. The electron temperature rises radially when an external magnetic field is applied. An analytical model has been developed to investigate the impact of electron temperature on the potential distribution and radial density. This source's ability to produce a consistent ion flow throughout a 20 cm diameter is one of its key features. This works well for applying a homogeneous surface treatment.