

# Discharge characteristics of a low-pressure geometrically asymmetric cylindrical capacitively coupled plasma with an axisymmetric magnetic field

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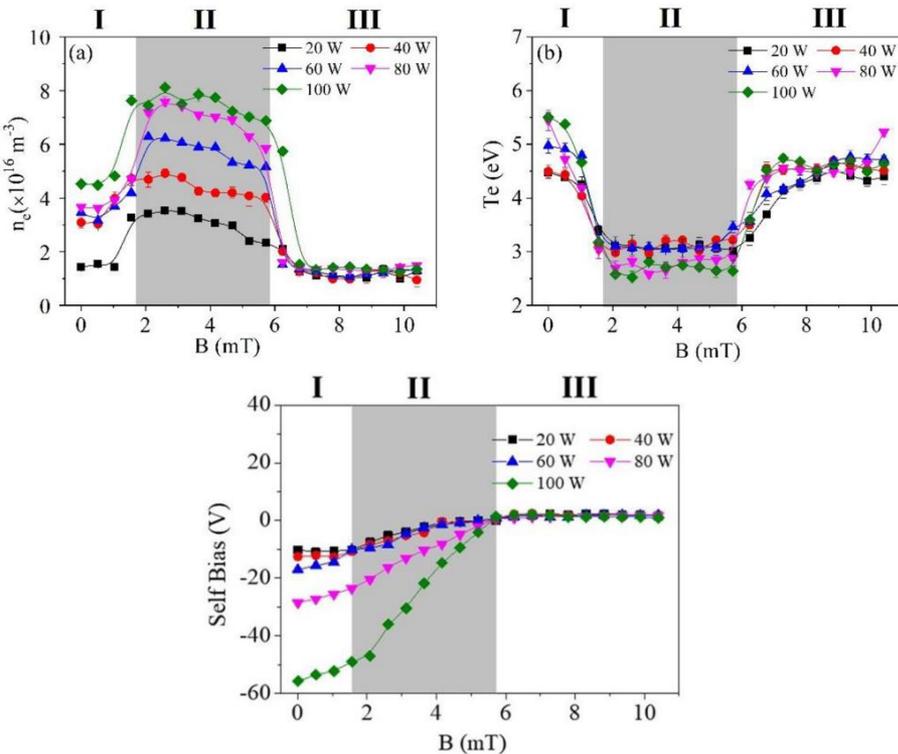


Figure: Bulk plasma density, electron temperature and DC self-bias at powered electrode with application of external B-field

It is essential to regulate the ion energy and flux within capacitively coupled plasmas in order to process substrates using plasma. The presence of a magnetic field can change these characteristics. This work presents a novel method to independently control the ion energy and ion flux in this system by demonstrating that the application of an external magnetic field can affect not only the DC self-bias on the powered electrode but also the plasma density and electron temperature inside a large capacitively driven device.