

Developing a multi-electrode apparatus for the generation and control of plasma column

Abstract

Dual frequency RF plasmas find application in the etching and deposition, especially in the semiconductor manufacturing. The advantage lies in the better ability to control the plasma parameters and the sheath profile. Observations in a multi-electrode apparatus with DC / oscillating electric fields, will be carried out to explore the plasma dynamics and range of plasma parameters. Electrode configuration will be optimized for various operating conditions. The student will learn about simple plasma apparatus, plasma production methods, diagnostic / measurement methods, and analysis techniques.

Academic Project Requirements:

1) Required No. of student(s) for academic project: 1

2) Name of course with branch/discipline: M.Sc. Physics

3) Academic Project duration:

(a) Total academic project duration: 20 Weeks

(b) Student's presence at IPR for academic project work: 2 Full working Days per week

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