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Effect of flow rate on the plasma parameters and electron energy distribution in plasma process reactor HYO-CHANG LEE, ARAM KIM, Hanyang University, SE YOUN MOON, Solar Energy Group , LG Electronics Advanced Research Institute, CHIN-WOOK CHUNG, Hanyang University — Effect of the flow rate on plasma parameters and electron energy distribution (EEDF) was studied in plasma process reactor. As flow rates increase at a fixed gas pressure of 5 mTorr, noticeable increase in plasma density and decrease in electron temperature were observed with evolution of the EEDF from bi-Maxwellian to Maxwellian distribution. This result is mainly due to the pressure gradient between a discharge region and a pumping port region where the gas pressure measurement occurs. Based on the measurements of gas pressures at two different regions, a considerable difference in the gas pressure between the discharge region and the pumping port region was found.

Hyo-Chang Lee
Hanyang University

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