

**[PP-05]**

## 대전력 펄스 플라즈마 내에서 정전 탐침을 이용한 시변동 플라즈마 변수 측정

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Spatial and temporal evolution of the plasma parameters in a pulsed inductively coupled discharge for plasma source ion implantation process was studied experimentally. Langmuir probe current and voltage measurements were performed to determine the plasma parameters. To measure the time-resolved plasma parameters automatically, data acquisition (DAQ) system was designed using a LabVIEW program and interfaced to a computer with data acquisition card. Time-resolved plasma parameters consisted of two regions: RF pulse ON time and OFF time. Experiments revealed that the plasma parameters reached a steady state at about 500 s after the RF pulse ON and they shrunk gradually after the end of the RF pulse. It was also observed that the radial and axial profiles of plasma density were uniform in large area plasma chamber at peak RF power below 20 kW.