Abstract Submitted
for the GEC08 Meeting of
The American Physical Society

Real-time measurement of electron temperatures and ion densities using self-bias effect in argon inductively coupled plasma KWANG-TAE HWANG, IK-JIN CHOI, CHIN-WOOK CHUNG, Department of Electrical Engineering, Hanyang University, Republic of Korea — AC bias voltage was applied through a DC blocking capacitor between a probe and a signal generator. Self-bias potentials were changed with the amplitude of AC bias voltage, electron temperatures and ion densities. The electron temperature and ion density were measured from the variations of the self-bias potentials at various RF powers (100-500W) and pressures (5-50mTorr). The experimental results were in good agreement with those from Langmuir probes.

Chin-Wook Chung
Department of Electrical Engineering, Hanyang University, Republic of Korea

Date submitted: 16 Jun 2008 Electronic form version 1.4