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***In situ* feedback control of ion flux by using a floating harmonic method in processing plasmas** YU-SIN KIM, SE-JIN OH, SUNG-HO JANG, CHIN-WOOK CHUNG, Hanyang University — In plasma processing such as etch and deposition, ion fluxes relate closely to processing results. A real time feedback control of ion fluxes can improve processing performance. In this study, the ion fluxes were measured by using floating harmonic method in real time. The measured ion fluxes were transmitted to an actuator to control processing input parameters. The feedback control technique was used PID (Proportional, Integral, and Derivative). The experimental results showed this control system allowed the ion fluxes to keep the desired values below 0.1 % of the state error.

Yu-Sin Kim
Hanyang University

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