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Control of spatial distribution of plasma density by series inductence in a capacitively coupled plasma HO-JUN MOON, CHIN-WOOK CHUNG, Hanyang University — In the plasma processing, the control of the spatial distribution of plasma parameters is very important to obtain the uniform processing result. The spatial distributions of the plasma density were measured in an asymmetric capacitively coupled plasma (CCP) source. An inductor and a variable capacitor are connected to the grounded electrode of the CCP to control the voltage distribution on the electrodes. When the capacitance of the variable capacitor is turned, the voltages at each electrode are changed and then the spatial distribution of the electric field in the plasma is changed. The spatial distribution of the plasma density is changed by adjusting the variable capacitor and the uniformity of the plasma density is improved when the balance voltage is applied.

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