

Abstract Submitted
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A study on measurement of the surface charge accumulation using anodic aluminum oxide template¹ SEUNG-JU OH, HYO-CHANG LEE, JUN-HYEON MOON, CHIN-WOOK CHUNG*, Department of Electrical Engineering, Hanyang University, 17 Haengdang-dong, Seongdong-gu, Seoul 133-791, South Korea, SOON-HO KWON, JUNG-JOONG LEE, Department of Material Science and Engineering, Seoul National University, 131 dong 404 ho, Gwanak-ro 599, Gwanak-gu, Seoul 151-742, South Korea, IL-GYO KOO, SOO-JIN LEE, KYO-SEONG SEONG, Research center, SEMES, #278 Mosi-ri, Cheonan 331-814, South Korea, PLASMA SURFACE ENGINEERING LAB COLLABORATION, SEMES COLLABORATION — As the critical dimension of the nano-device shrinks, an undesired etch profile resulting from the local electric field by the surface charge accumulation is made on the plasma processing. To understand and monitor the surface charge accumulation, the measurement of the voltage difference between top electrode and bottom electrode on the anodic aluminum oxide (AAO) which has high aspect structure is performed in inductively coupled plasma. The voltage difference is changed with external discharge conditions, such as gas pressure, input power, and gas species, and the result is analyzed with the measured plasma parameters.

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