

Abstract Submitted
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Experimental investigation on Edge-to-Center density ratio in an inductively coupled plasma GUN-HO KIM, SUNG-HO JANG, CHIN-WOOK CHUNG, Department of Electrical Engineering, Hanyang University, Republic of Korea — The plasma densities at the edge and center of a chamber in an inductively coupled plasma were measured by using a floating-type probe [1], which can measure ion density without changing sheath formation on the chamber edge. Measurements have been done in argon gas ranging in gas pressure between 5mTorr and 30mTorr. The ratios between edge and center density has been compared with theoretical ones. The Measured edge-to-center density ratios agree well with the tendency of theoretical values. It was found that the edge density has maximum values at 10mTorr, regardless of input powers. This can be understood by considering the dependence of the edge to center density ratio and center density on pressure. [1] M. H. Lee, S. H. Jang, C.W. Chung, J. of Applied Physics, 101, 033305 (2007)

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