Abstract Submitted for the GEC14 Meeting of The American Physical Society

Experimental investigation of plasma parameter profiles on wafer level with discharge gap lengths in an inductively coupled plasma JU HO KIM, Department of Electrical Engineering, Hanyang University, Seoul, 133-791, Republic of Korea, YOUNG-CHEOL KIM, JUNE YOUNG KIM, Department of Nanoscale Semiconductor Engineering, Hanyang University, Seoul 133-791, South Korea, CHIN-WOOK CHUNG, Department of Electrical Engineering, Hanyang University, Seoul, 133-791, Republic of Korea — Experimental investigation of the gap length effect on plasma parameters was performed in a planar type inductively coupled plasma (ICP) at various conditions. The spatial profile (wafer level, 260 mm) of ion flux, and electron temperature were measured from a 2-D floating probe measurement system. At low pressures, the spatial profile of the ion flux rarely changed; however, at relatively high pressures, the spatial profile of the ion flux dramatically changed with different discharge gap length.

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Date submitted: 13 Jun 2014