Abstract Submitted
for the GEC20 Meeting of
The American Physical Society

Measurements of material induced effects on the plasma parameters of an inductively coupled plasma. JOEL BRANDON, North Carolina State University, CHENHUI QU, University of Michigan, SANG KI NAM, Samsung Electronics Mechatronics Division, STEVE SHANNON, North Carolina State University, MARK KUSHNER, University of Michigan — O2 planar inductively coupled plasmas (ICP) exhibit a characteristic heating mode within the E-H transition that exudes qualities of the gamma like heating mode of a RF CCP. The material selection for the grounded surface of a plasma has the ability to influence the duration of this heating mode via the oxygen recombination probability. Differing sets of thin metal films were exposed to a constantly running plasma eliminating possibility of interexperiment contamination. The material changes presented show a change in electron density rise time, steady state electron density, plasma potential, and electron temperatures in pulsed a planar ICP.

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Date submitted: 12 Jun 2020 Electronic form version 1.4