

Abstract Submitted  
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**The Effect of Anode Material and Secondary Gas Injection on Self-organized Patterns in Atmospheric Pressure Glows<sup>1</sup>** YAO KOVACH, JOHN FOSTER, University of Michigan — Ann Arbor — Plasma self-organization on anode surfaces in DC glow discharges remains poorly understood. This effort aims to elucidate the nature of self-organization through the study of resulting patterns on both liquid and metal electrode surfaces. Self-organization pattern formation and behavior were studied as a function of inter-electrode spacing, electrode material type, gas composition and gas flow rate using emission spectroscopy and fast camera imaging. The response of the patterns to variation in these parameters is reported. These results are used as a basis for speculating upon the underlying physical processes that give rise to the self-organization.

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