

Abstract Submitted
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Assessing the Plasma-Liquid Interface Using Single Bubble Studies¹ JOHN FOSTER, ATHENA SAGADEVAN, SARAH GUCKER, The University of Michigan-Ann Arbor — Interaction physics and chemistry between a plasma in contact with liquid water occurs at the interface. Energy transport as well as radical species production occurs in this region. An understanding of the physical processes occurring in this region is key to elucidating the effect that plasma has on water chemistry well beyond the interface. Such an understanding has implications in application areas such as plasma medicine and water purification. Here, we present preliminary results from a 2-D system aimed at elucidating the plasma-liquid interface through the study of the interfacial response under the influence of plasma produced in a single, trapped bubble. The spatial extent and associated reactivity of this active layer associated with the interface region is interrogated with chemical probes and optical imaging. Results from these studies are presented.

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