

Abstract Submitted  
for the GEC16 Meeting of  
The American Physical Society

**Reacting chemistry at the air-water interface**<sup>1</sup> TOMOYUKI MURAKAMI, Seikei University, THOMAS MORGAN, LUTZ HUWEL, Wesleyan University, WILLIAM GRAHAM, Queens University Belfast — Plasma interaction with gas-liquid interfaces is becoming increasingly important in biological applications, chemical analysis and medicine. It introduces electrons, new ionic species and reactive species and contributes to chemical and electrical self-organization at the interface. To provide insight into the associated physics and chemistry at work in the evolution of the plasma in the air-water interface (AWI), a time-dependent one-dimensional modelling has been developed. The numerical simulation is used to solve the kinetic equations and help identify the important reaction mechanisms and describe the phenomena associated with hundreds of reacting pathways in gas-phase and liquid-phase AWI chemistry.

<sup>1</sup>This work was partly supported by JSPS KAKENHI Grant Number 16K04998.

Tomoyuki Murakami  
Seikei University

Date submitted: 10 Jun 2016

Electronic form version 1.4