

# THE 20<sup>TH</sup> ANNUAL HAROLD I. SCHIFF LECTURE

## FACULTY OF SCIENCE AND ENGINEERING

Presented by:

Barbara J. Finlayson-Pitts  
University of California, Irvine

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### *Reactions at Interfaces in the Atmosphere: Challenges and Opportunities*

Thursday, November 18<sup>th</sup>, 2010

2:30 p.m.

Senate Chamber, N940, Ross Building  
York University

**Abstract:** Multiphase chemistry in the atmosphere has traditionally been viewed as consisting of reactions in the gas phase and in the condensed phase, with mass transfer between the two. In this case, kinetics and mechanisms determined in laboratory studies of bulk liquid or gas phase systems can be used reliably in atmospheric models. However, there is increasing evidence that some reactions occur at interfaces between air and condensed phases in the form of airborne particles and surfaces in the boundary layer such as buildings, vegetation, etc. Such interface reactions often have unique kinetics and mechanisms that are not well represented by bulk phase chemistry. Furthermore, photochemistry at surfaces may be quite different than that in bulk phases. Some examples of unique interface chemistry and photochemistry relevant to atmospheric processes and their potential implications for understanding the chemistry of the lower atmosphere will be discussed.

*Organized by the York University Centre for Atmospheric Chemistry. Email: cac@yorku.ca*