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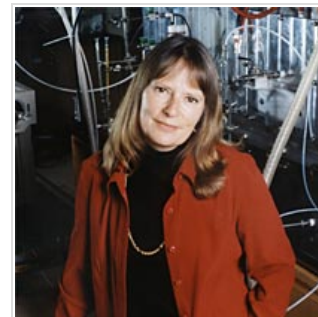
## Schiff lecturer will take a different look at atmospheric analysis

Barbara J. Finlayson-Pitts, professor at the University of California, Irvine, will give the 20th Annual Harold I. Schiff Lecture in York's Senate Chamber on Nov. 18.

Organized by the York University Centre for Atmospheric Chemistry and the Faculty of Science & Engineering, Finlayson-Pitts' talk, "Reactions at Interfaces in the Atmosphere: Challenges and Opportunities", starts at 2:30pm in the Senate Chamber, N940 Ross Building on York's Keele campus.

### Right: Finlayson-Pitts

Multiphase chemistry in the atmosphere has traditionally been viewed as reactions in the gas phase and 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.



### Barbara J. Finlayson-Pitts

Finlayson-Pitts completed her BSc. (Hons.) at Trent University in Peterborough in 1970 and her MS (1971) and PhD (1973) in chemistry at the University of California, Riverside, where she also did post-doctoral work for one year. She was on the faculty in the Department of Chemistry & Biochemistry at California State University, Fullerton, from 1974 to 1994. Finlayson-Pitts joined the faculty in the Department of Chemistry at the University of California, Irvine, in 1994 where she is currently a UCI distinguished professor, professor of chemistry and director of **AirUCI**, a multidisciplinary research unit.

Finlayson-Pitts' research interests include the photochemistry, kinetics and mechanisms of atmospheric reactions, especially heterogeneous reactions. Current studies include the chemistry of sea salt particles, organics and oxides of nitrogen, and the photochemistry of species at interfaces. Finlayson-Pitts is author or co-author of more than 150 peer-reviewed articles, as well as two books, *Atmospheric Chemistry: Fundamentals and Experimental Techniques* (Wiley, 1986) and *Chemistry of the Upper and Lower Atmosphere: Theory, Experiments and Applications* (Academic, 2000), which she co-authored with James N. Pitts Jr.

Her teaching has included physical chemistry, instrumental analysis, freshman chemistry, chemistry for non-science majors and graduate seminars, and courses in atmospheric chemistry. She developed a number of new undergraduate experiments centred on the theme of the analysis of complex environmental mixtures; these are described in a number of papers published in the *Journal of Chemical Education*.

After a career in which she has received many awards and distinctions, Finlayson-Pitts was elected to both the American Academy of Arts & Sciences and to the National Academy of Sciences in 2006. In 2008, she was awarded the Richard C. Tolman Medal of the Southern California Section of the American Chemical Society, and in 2009 the Coalition for Clean Air Carl Moyer Award for Scientific Leadership and Technical Excellence.

Finlayson-Pitts has served on a number of editorial boards, including the board of reviewing editors of *Science* as well as the *The Journal of Physical Chemistry*, *Atmospheric Environment*, *Analytical Chemistry*, *Research on Chemical Intermediates* and *International Reviews in Physical Chemistry*.

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