



UNIVERSITY OF MINNESOTA
Driven to DiscoverSM

Department of Chemistry Kolthoff Lectureship in Chemistry

Professor Barbara Finlayson-Pitts

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Faculty Host: Kenneth Leopold

Barbara Finlayson-Pitts is professor of chemistry at the University of California, Irvine. She did her undergraduate degree at Trent University in Canada, and her master's and doctorate at University of California-Riverside. She joined the faculty in the Department of Chemistry and Biochemistry at Cal State Fullerton in 1974, and in 1994 moved to UC Irvine. Her research focuses on experimental studies of reactions that occur in the atmosphere, particularly those between gases and particles such as sea salt, and/or thin water films on surfaces such as buildings, vegetation, etc. In addition, mechanisms of formation and growth of particles in the atmosphere are of interest. Finlayson-Pitts is author or coauthor of more than 160 scientific publications and two books on atmospheric chemistry. She has mentored many students from undergraduates to graduate students, as well as postdoctoral fellows who have gone on to pursue a wide variety of careers. Professor Finlayson-Pitts' research and teaching have been recognized by a number of awards, including the 2004 American Chemistry Society Award for Creative Advances in Environmental Science & Technology, election as a Fellow of the American Association for the Advancement of Science, the American Geophysical Union, and the Royal Society of Chemistry, and election to the American Academy of Arts & Sciences and the National Academy of Sciences.



Lecture 1:

Serendipity and the Art and Practice of Science: How Experiments "Gone Bad" Can Open New Doors

9:45 a.m.

Tuesday, October 6, 2015

331 Smith Hall

A reception for Professor Finlayson-Pitts will be conducted at 5 p.m. in the Kate & Michael Bárány Conference Room (117/119 Smith Hall). All are welcome to attend.

Laboratory experiments designed to address specific questions sometimes "go bad", for no apparent reason. However, it can be that these "experiments gone bad" actually end up pointing in new directions and highlighting new, unsolved problems that are as interesting, or more interesting, than the original one the experiment was supposed to address. This talk will illustrate how such serendipity has played an important role in some discoveries from our laboratory, especially the role of reactions of oxides of nitrogen and halogens at interfaces in air quality and climate change.

Izaak Maurits Kolthoff was born on February 11, 1894, in Almelo, Holland. He died on March 4, 1993, in St. Paul, Minnesota. In 1911, he entered the University of Utrecht, Holland. He published his first paper on acid titrations in 1915. On the basis of his world-renowned reputation, he was invited to join the faculty of the University of Minnesota's Department of Chemistry in 1927. By the time of his retirement from the University in 1962, he had published approximately 800 papers. He continued to publish approximately 150 more papers until his health failed. His research, covering approximately a dozen areas of chemistry, was recognized by many medals and memberships in learned societies throughout the world, including the National Academy of Sciences and the Nichols Medal of the American Chemical Society. Best known to the general public is his work on synthetic rubber. During World War II, the government established a comprehensive research program at major industrial companies and several universities, including Minnesota. Kolthoff quickly assembled a large research group and made major contributions to the program. Many of Kolthoff's graduate students went on to successful careers in industry and academic life and, in turn, trained many more. In 1982, it was estimated that approximately 1,100 doctorate holders could trace their scientific roots to Kolthoff. When the American Chemical Society inaugurated an award for excellence in 1983, he was the first recipient.

