

ATS/CIRA Colloquium

Dr. Dan Jaffe, Professor

Visiting CSU ATS from University of Washington-Bothell

The challenge of tropospheric ozone in the western US

Hosted by Sonia Kreidenweis

Thursday, February 14, 2013

ATS room 101; Discussion will begin at 3:30pm
Refreshments will be served at 3:00pm in the coffee lounge

Ozone is a natural component of the stratosphere and a minor component in the lower atmosphere, but anthropogenic smog significantly enhances the concentrations in the troposphere. As a strong oxidizer, ozone will react with many substances including plant and animal tissues. Numerous health studies have demonstrated significant impacts on lung function from ozone exposure. As a result, over the last 40 years, the U.S. has made the ozone standard increasingly strict, in accordance with the available health data. But meeting this standard will be very challenging. Natural and global sources result in high concentrations, especially in the western US. In this talk, I'll present an overview of O₃ production in the troposphere, our recent research to tease out the sources of O₃ and describe the challenges we face in meeting the new health standards.

About Dr. Jaffe:

Dr. Jaffe is a Professor of Environmental Science at the University of Washington in the Department of Atmospheric Sciences (UWS) and in the Science and Technology Program (UWB). He is expert on atmospheric chemistry, ozone photochemistry, urban and regional smog and long range transport of pollutants and is the author of more than 100 peer-reviewed publications on ozone, aerosols, mercury and other air pollutants. Dr. Jaffe is widely recognized as an expert on global transport of pollutants, especially transport from Asia to the U.S. and has several papers on the influence of background sources on regional and urban air quality. He recently participated on the panel for the National Academy of Science's study on The Significance of Intercontinental Transport of Air Pollutants. His research has been supported by the NSF, NOAA, EPA, NASA, NPS, EPRI, API, BPA and other organizations. He is the Principal Investigator for the Mt. Bachelor Observatory in Central Oregon, which is the only high elevation research station on the west coast of the U.S. Data from Mt. Bachelor and further information about Dr. Jaffe can be found at <http://www.atmos.washington.edu/jaffegroup>

Link to colloquium videos and announcement page: <http://www.atmos.colostate.edu/dept/colloquia.php>