



Society of Applied Spectroscopy  
New England Section

### **January Dinner Meeting Announcement**

When: Tuesday January 19, 2016  
5:30 – 6:30 Social Hour  
6:30 – 7:30 Dinner  
7:30 – 8:30 Presentation & Discussion

Where: **Asian Bistro, Bedford MA 01730**  
**200 Great Road, (781)280-0707**

Speaker: John Jayne  
Vice President, Instrument Systems Development and Production  
Co-Director, Center for Aerosol and Cloud Chemistry  
Aerodyne Research Inc.

Title: **Advances in Mass Spectrometry with Applications in Atmospheric Chemistry**

#### **Abstract:**

Mass spectrometric techniques are widely used in many areas of research and analytical chemistry. With the growing interest in better understanding and characterizing air quality and climate change, applications of mass spectrometric techniques for real-time measurement and characterization of atmospheric aerosols and aerosol precursor gases has grown significantly over the past decade. The versatility and portability of such instruments represents a significant advance in the field of atmospheric science allowing field measurements from ground, ship, truck and aircraft platforms. This talk will present an overview of research from our group which is focused on the development and application of mass spectrometric measurements of aerosol and trace gases from both field and laboratory experiments.

#### **Speaker Biography:**

Dr. Jayne is a Principal Research Scientist with over 24 years' experience in the field of atmospheric chemistry. He works at Aerodyne Research, Inc. (ARI), where he is the Co-Director for the Center for Aerosol and Cloud Chemistry and Vice President of Instrument Systems Development and Production.

Dr. Jayne received his PhD from Boston College in physical chemistry studying heterogeneous chemistry of cloud and fog water droplets with trace gas pollutants. Following his PhD work, he continued his studies in atmospheric chemistry as a Post-Doctoral Research Associate at MIT. Dr. Jayne received his Bachelor of Science degree in Biochemistry from Hofstra University.

His research interests and experience include studies of gas phase kinetics, heterogeneous gas-particle kinetics and the chemistry related to atmospheric aerosol formation and processing utilizing mass

spectrometric techniques. He is the co-inventor and developer of the Aerodyne Aerosol Mass Spectrometer (AMS) system designed to measure size and composition of submicron particles. In 2004 he jointly received the Benjamin Liu Award for “Outstanding achievements for aerosol instrumentation and techniques” from the American Association for Aerosol Research. He has been involved in numerous field measurement programs focused on the chemical characterization and emission rates of trace gas and particulate pollutants.

Today, his research at ARI continues with the further development and application of mass spectrometric techniques for gas and particle measurement relating to the study of atmospheric chemistry with a particular focus on the characterization of organic aerosol composition. Dr. Jayne serves on the American Chemical Society Committee for Environmental Improvement.

**Dinner Details:** Attendees will be ordering and paying for their own meals from the restaurant menu. Please RSVP to Mary Kate Donais at [mdonais@anselm.edu](mailto:mdonais@anselm.edu) so that we can be sure of a headcount and the room’s physical arrangement for the talk.

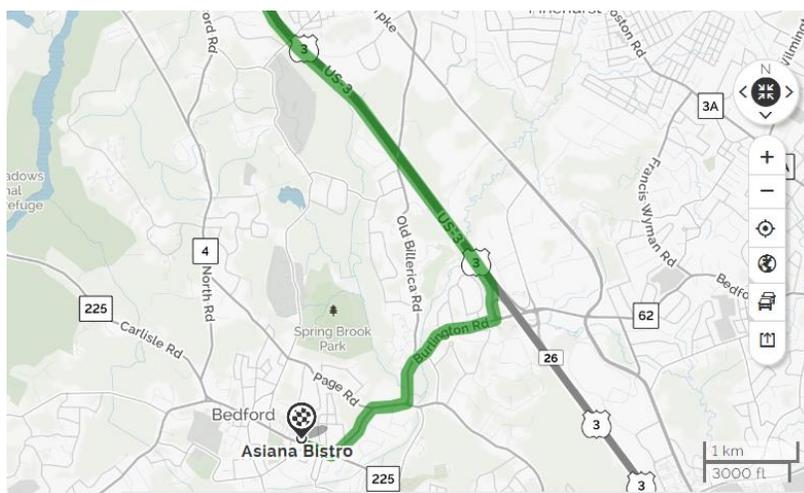
**Cost:** SAS Members \$5; non-members \$7; full time students and unemployed members \$5. Please try to have a check or exact change.

**Contact:** We need to know if you are coming ahead of time. Please contact Mary Kate Donais at [mdonais@anselm.edu](mailto:mdonais@anselm.edu) to make a reservation.

**Directions to the** **Asian Bistro, Bedford MA 01730**  
**200 Great Road, (781)280-0707**

From the North via Route 3:

- Take Route 3 South to Exit 26 onto MA-62 toward Burlington/Bedford.
- Turn right onto Burlington Road/MA-62.
- Take slight right to remain on MA-62 which turns into Page Road.
- Turn right to remain on MA-62 which turns into Great Road.
- The restaurant is on the right just past Bedford Village.



From the South via I-95:

- Take I-95 to Exit 31B onto MA-4 N/MA-225 W toward Bedford.
- The restaurant is on the right after about 2 miles just past Bedford Village.

