

# SEMINAR INVITATION

## Innovative Solutions for Aerosol Measurement

### Irvine, CA – April 29, 2009

TSI, the leading worldwide manufacturer of aerosol measurement solutions, invites you to join us for a discussion of innovative solutions for aerosol measurements and product demonstration.

#### **Presentations:** Innovative Solutions for Aerosol Measurements

- Diesel Particulate Filters Particle Measurement Solutions
- A Novel Instrument for Real-Time Size Segregated Mass Concentration Measurement
- Sensitive Instruments to Evaluate Occupational Exposure in Nanoparticle Workplaces
- An Overview of Mobile Laboratories for the Measurement of Fine Particles
- Characterizations of Ultrafine Particle Emissions from Laser Printers and Copiers
- Calibrating Condensation Particle Counters with Electro sprayed Emery Oil and Flame Soot Particles

#### **Featured Speaker:** Christopher W. Harmon

PhD Student, University of California Irvine, doing research in the area of Hygroscopicity of Amphiphilic Nanoparticles working with Research Advisor: Prof. Sergey A. Nizkorodov. He has a B.S. in Chemistry from Purdue University.

#### **Tandem Nano-DMA Studies on Hygroscopic Growth of Amphiphilic Nanoparticles**

The Nizkorodov group focuses on experimental studies of atmospheric aging of aerosol. Projects underway include chemical, photolytic and hygroscopic aging of atmospherically relevant aerosol and particles. Nanoparticles display interesting behavior with respect to hygroscopic growth. Recent development of nanoparticle sizing equipment allows us to measure and observe fundamental level interactions of water and surfaces as they exist in the real atmosphere. To this end, we are able to measure atomistic scale growth which is missed in experiments probing hygroscopic behavior of larger, micron sized particles. Nanoparticles are generated by our own electrospray ionization-neutralization apparatus. We have also constructed our own nanoparticle supersonic jet impactor which can be used with any type of substrate for imaging or chemical analysis. Recent atomic force microscopy images and X-ray photoelectron spectra of impacted nanoparticles on graphite confirms the effectiveness of the jet impactor.

#### **Speakers**

Tim Johnson, Senior Application Engineer; Kathy Erickson, Senior Applications Engineer; Chris Hakim, Research & Analytical Sales Specialist

#### **Who should attend**

Professors, Managers, Regulators, Scientists, Post Docs, Graduate Students, Engineers and Technicians

#### **Topics**

Aerosol Research, Atmospheric Research, Ultrafine Monitoring, Engine Emissions Measurements, Ambient PM Measurement, Laser Printer Emissions, Material Science, Nanotechnology

#### **Program**

April 29, 2009 10:00 a.m. – 4 p.m. Irvine, CA



#### **Registration Required**

For registration please visit [www.tsi.com/CAseminar](http://www.tsi.com/CAseminar)

If you have further questions, contact Alissa Kroening:

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This Seminar is Invitation Only. No participation fees apply.

