

The Particle Society of Minnesota Newsletter

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Letter from the President

The past month has been very busy for the Particle Society and I am happy to share a lot of positive activities in our organization. The newly elected officers and committee chairs are now running at full speed with several accomplishments under their belts. I would like to take this opportunity to recognize the accomplishments of our active board members while announcing recent and future activities.

This year marks the first time the Particle Society has sponsored a scholarship program aimed at recognizing and rewarding graduate students in Minnesota for their outstanding work in particle science. The competition was so tough that we awarded an additional scholarship for a total of three winners and will be hosting them in our Lunch Program Series in the Spring. Congratulations to Chad Barry of the U of MN department of Electrical Engineering, Kurtis Leschkie of the U of MN department of Chemical Engineering, and Kenjiro Iida of the U of MN department of Mechanical Engineering. Congratulations also to Jim Marti and the Scholarship committee for a successful program.

On November 2nd The Particle Society was given an opportunity to present ourselves to the attendees at the Horiba Particle Technology Seminar held in St Paul. This regular event hosts speakers and vendors from across the US and Canada offering in-depth information on particle characterization and analysis. I had the opportunity to kick off the seminar by outlining the history and benefits of our organization. I want to offer a special thank you to Chuck LeGros from Horiba for hosting the event and inviting us to present.

Moving forward we are pleased to continue our Lunch Speaker Series with Dr. Peter Raynor on December 6th. Dr. Raynor is a Professor in the U of MN school of Environmental Studies and will be speaking on the topic of Bioaerosols and Infection Control in HVAC systems. Please see this newsletter and our website for more information on this and other PSM events. Have a safe and Happy Thanksgiving!

Rob Grady

President of The Particle Society of Minnesota

**The Particle Society of Minnesota
is pleased to announce
the winners of the
2006 Particle Society Scholarship**

Congratulations to University of Minnesota students

- **Chad Barry (Electrical Engineering),**
- **Kurtis Leschkies (Chemical Engineering), and**
- **Kenjiro Iida (Mechanical Engineering)**

These graduate students were selected based on their exemplary academic record and research in areas of particle science and engineering.

The goal of the Particle Society scholarship program is to promote research in particle science, and to disseminate that research to local companies. The selection criteria for these scholarships include coursework, publications, and career goals.

Winners of the scholarship will be invited to present their research during lunch presentations to the Particle Society membership during the spring of 2007. Watch the PSM newsletter and web site for more details.

From the Program Committee

The Programming Committee is working tirelessly to plan the upcoming PSM Spring Program which will focus on Particle Characterization. The program is tentatively set for early to mid March, 2007. A call for speakers and vendor registration will be sent out in the upcoming months.

The Particle Society is working hard to obtain high quality speakers for lunch programs as well as our spring program in any area of particle technology. If you are, or know of, someone who would like to give a lunch presentation, please contact Hal LaFleur by email: halafleur@mmm.com or by phone: (651) 736-5960.

We look forward to seeing you at our upcoming programs!

Lunch Speaker – Wednesday, December 6, 2006

“Bioaerosols, Infection Control and HVAC Monitoring in the Event of a Biological Attack and Tools for Characterization”

Speaker: Dr. Peter Raynor, Professor: University of Minnesota

Date: Wednesday, December 6, 2006

Time: 11:45 am – buffet lunch / networking time
12:15 – Speaker
1:15 pm – Q & A period and wrap up

Location: University of Minnesota, Food Science and Nutrition Building,
1334 Eckles Avenue, St. Paul, MN 55108. Room 23. Directions can be found at:
http://fscn.che.umn.edu/the_department/directions.html

Cost: \$15.00 per person (\$10 for students) payable at the door by cash or check. Correct change is appreciated.

RSVP: to Debbie Paetznick at paet0012@umn.edu Registration is limited to the first 30 people.

Abstract:

Biological particles are a topic of concern now more than ever. Government agencies monitor the air in cities to detect possible bioterrorism attacks. Ventilation experts and building owners are discussing ways to minimize the impact of biological agents in buildings. Health care facilities are preparing interventions to protect staff, patients, and visitors against airborne transmission of a pandemic influenza virus. This talk will describe methods for assessing exposures to biological aerosols and challenges presented by these methods. Strategies for minimizing exposures to infectious bioaerosols will also be discussed. In addition, the presentation will highlight the many gaps in our knowledge about the properties and behavior of biological particles.

Speaker Bio

Dr. Peter C. Raynor, an Assistant Professor in the School of Public Health's Division of Environmental Health Sciences at the University of Minnesota, holds a B.S. in Chemical Engineering from Cornell University and M.S. and Ph.D. degrees in Environmental Sciences & Engineering from the University of North Carolina at Chapel Hill. His research and teaching interests revolve around the assessment and control of environmental aerosol exposures, especially those occurring in workplace environments. Dr. Raynor's current research includes projects on establishing scientifically sound response plans to measurements signaling a possible bioterrorism event, evaluating interventions for workers potentially exposed to infectious agents, optimizing ventilation

parameters for airborne infection isolation rooms in hospitals, evaluating filtration of airborne microorganisms, assessing workplace exposures to nanoparticles, and developing novel samplers for semi-volatile aerosols. Dr. Raynor serves as Director of the University's Hazardous Substances Academic Training Program and on the Executive Committee of the University of Minnesota Center for Public Health Preparedness. He is a member of the American Association for Aerosol Research and has served as Chair of the Aerosol Technology Committee of the American Industrial Hygiene Association.

Featured Company Profile

Company Profile – Nanocopoeia, Inc.

Enabling convergence at the nanoscale

Nanocopoeia uses its proprietary ElectroNanospray™ process to formulate nanoscale drugs, polymers and other materials — including biologics — for the purpose of controlled therapeutic delivery. The ElectroNanospray™ platform transforms drugs and polymers into many material states, including powders, liquids, encapsulated particles, and coatings.

Nanocopoeia provides value added process development and formulation services for corporate partners whose key products are in the converging industries of medical devices, drugs, and biotechnology. Nanocopoeia is building relationships with partners in market sectors including cardiovascular, orthopedics, neurology, and tissue engineering. The opportunities created by the convergence of the device, drug, and biotech industries are substantial — but so are the technical challenges involved in applying bioactive coatings to complex, engineered, medical device surfaces. The ElectroNanospray™ process coats the devices with therapeutic compounds alone or in combination with various polymers enabling the desired release profile to be engineered for each specific application. For pharmaceutical applications, drug compounds can be processed into coated nanoparticles in a single step process. This encapsulation is done to engineer the delivery characteristics for the nanoformulated drugs. **Nanocopoeia, Inc.** is a privately held company based in St. Paul, Minnesota. Nanocopoeia is the recipient of multiple Small Business Innovation Research (SBIR) grants for process development, optimization, and material design. These awards come from both the National Science Foundation (NSF) and the National Institutes of Health (NIH).

To discuss your application and arrange for sample processing, contact us at: info@nanocopoeia.com or (651)209-1184
