

# SAS SPECTRUM eNEWS

## SAS-Sponsored Sessions at Pittcon

The SAS is sponsoring four sessions at Pittcon this year. The sessions are *Women in Spectroscopy*, *Atomic Spectroscopy: Going Strong in the 21st Century*, the *International Year of Light*, and *Vibrational Spectroscopy: A 60-Year Celebration of the Coblenz Society*. Please consider attending the sessions, it looks like each has a great program.

### **Women in Spectroscopy: Session 720**

March 9th at 1:30 PM on Monday, room 268

Women who plan a career in spectroscopy, like their male counterparts, face a number of choices. Fewer role models exist to help these young women decide what route they want their career to follow. Many of the female professionals that young women come into contact with as they are poised to launch their careers are in an academic environment. This session is designed to discuss the career paths that women have taken and are ready to take.

This session sponsored by the Society for Applied Spectroscopy, following the successful sessions at SciX 2013, Pittcon 2014, and SciX 2014, brings an interesting group of speakers together to discuss various career paths. Two notable speakers in this session are Jeannette Grasselli Brown, a fellow of the Society and the recipient of the Coblenz Society's Williams-Wright award, presented to an industrial spectroscopist who has made significant contributions to the field of vibrational spectroscopy, and Diane Grob Schmidt, the 2015 president of the American Chemical Society.

Ellen Miseo and Gloria Story are presiding.

### **International Year of Light (SAS): Session 1030**

March 10th at 8:30 AM on Tuesday, room 245

This symposium will showcase how recent advances in vibrational spectroscopy contribute to solving fundamental and applied problems in analytical sciences covering diverse areas such as process analytics, biomedical diagnostics and material sciences. Novel technologies such as mid-IR quantum cascade lasers, imaging systems (far and near field), dedicated plasmonic structures along with advanced data analysis strategies allow to take full advantage of the inherent, direct, molecular specific information of infrared and Raman spectroscopies for rapid, highly spatially resolved and destruction free analysis.

Organized by Bernhard Lendl, Vienna University of Technology



### **Vibrational Spectroscopy: A 60-Year Celebration of the Coblentz Society: Session 1590**

March 11th at 8:30 AM on Wednesday, room 244

After a talk by Bob Hannah on the early history of the society, winners of the Coblentz Award over the past four decades will speak on their recent work. Joel Harris will discuss probing interfacial chemistry within porous materials using confocal Raman microscopy. Paul Bohn will speak on the topic of single molecule spectroelectrochemistry in nanophotonic structures. Martin Zanni will show how ultrafast multidimensional spectroscopies are applied to study topics in biophysics and materials science. Finally, Peng Chen will show how single-molecule fluorescence microscopy is used to study single nanoparticle catalysis at single-turnover resolution and nanometer precision

Organized by Bruce Chase, University of Delaware and Peter Griffiths, University of Idaho

### **Atomic Spectroscopy: Going Strong in the 21st Century: Session 2350**

March 12th at 8:30 AM on Thursday, room 263

This session will excite the Pittcon audience with some of the biggest advances in the area of atomic spectroscopy, presented by those who are driving progress in this important analytical field. From enabling developments using the smallest particles on our planet, to important studies in outer space, atomic spectroscopy is alive and well today and it has a bright future. We will celebrate the current and future utility of atomic techniques.

Organized by David Hahn and Nicolo Omenetto.

### **Student Ambassador Report for the American Geophysical Union Fall Meeting**

I was very fortunate to have been selected by the Society of Applied Spectroscopy to represent SAS as a student ambassador at the American Geophysical Union (AGU) Fall Meeting that took place from December 15-19, 2014, in San Francisco, California. I am currently a senior studying chemistry and mathematics at the University of Arkansas, and a prospective Ph.D. student. Having never presented my research at a major conference prior to this, I was excited to finally get the opportunity to talk about my work with scientists from all over the world. The wide variety of research that was presented at AGU allowed me to learn of the many applications that spectroscopy has with environmental studies, in fields including, but not limited to, ocean sciences, geology, and biogeochemistry. Without the financial support I received through the SAS Ambassador Program, attending this conference would not have been possible.

Throughout my ambassadorship, I was able to interact with many students and researchers about their ongoing research, as well as my own. Though many used spectroscopic techniques such as Raman spectroscopy and elemental analysis, I was surprised to discover that most did not know about the Society for Applied Spectroscopy and the benefits of membership. I informed many of how my involvement in the Society has allowed me to connect to other professional members at the University of Arkansas, and produce collaborative research projects. I have been able to connect and work with an analytical chemist to include MALDI-TOF MS in my research to detect the proteins of nitrogen-reducing microbes in sediments because of the network fostered by SAS. Throughout the many poster sessions and receptions I attended, I was pleasantly surprised to realize how open many people were to learning about the benefits that membership in SAS could potentially provide them. I made sure to highlight to students that SAS had graciously funded my trip, and could also help them fund their travel to conferences as ambassadors, and to SciX through the general travel grant. Most became intrigued when I mentioned the affordability of a SAS student membership.

As an undergrad, it can be difficult to find funding to attend international conferences like AGU, or any conference for that matter. As such, I am very thankful to have been selected to represent the SAS. Hopefully the people I spoke with will be inclined to join the SAS and meet individuals who may share similar research interests to ultimately promote further collaborative efforts. Given the interdisciplinary nature involved in environmental studies, the network that SAS can provide scientists in this field is an invaluable tool to help explain the mysteries of the natural world.

Craig McLean  
University of Arkansas  
Department of Chemistry

## SAS Post-Doc Profile: Pierre Negri, Ph.D.

**Hobbies:** Pierre enjoys physical activities such as running, hiking, playing tennis, and soccer. He also enjoys listening to music, traveling, making new friends, and reading.

Pierre completed his Bachelor of Science undergraduate degree in Chemistry at the University of South Carolina (Columbia, SC) in 2008. During his degree, he was involved with research projects spanning both organic and inorganic chemistry. Realizing that synthesis wasn't for him, Pierre began his Ph.D. in 2008 at the University of Georgia, developing SERS-based biosensing platforms for disease detection (Athens, GA). His work emphasized the use of silver nanorod SERS-active substrates for the detection of genetic markers related to pathogenicity in specific strains of the influenza virus. Pierre finished his Ph.D. in 2012 and started a post-doctoral fellowship under the supervision of Professor Zachary Schulze at the University of Notre Dame (South Bend, IN) in 2013.

His work there sought to develop a flow-cell capable of combining SERS with capillary zone electrophoresis for the detection and spectroscopic characterization of structural isomers and biologically relevant molecules.

Pierre became a member of the SAS in 2010, during his first FACSS conference in Raleigh, North Carolina (before the re-branding to SciX). He's been a part of countless SAS-sponsored networking events over the last four years; conferences he has attended include Pittcon 2011 in Atlanta, Georgia, Pittcon 2012 in Orlando, Florida, SciX 2012 in Kansas City, Missouri, SciX 2013 in Milwaukee, Wisconsin, Pittcon 2014 in Chicago, Illinois, and SciX 2014 in Reno, Nevada. Pierre says that being a member of the SAS has allowed him "to meet and network with other students, but also with professors and people from industry. It's a great platform to make connections and a great way to build a network for your professional career."

Pierre highlighted how much he enjoys reading the monthly SAS Spectrum Newsletter, which recaps recent Society activity and news. It's a way for him to feel connected to the membership community and keeps him aware of opportunities that may be available.

As parting advice to students considering joining the SAS, he would highly recommend attending the events and making the effort to communicate with colleagues. "It's a great way to meet people in your field and the field of analytical chemistry on the whole. The fact that SAS sponsors free student memberships at every SciX conference is a great opportunity to be a member — for free! — and reap the corresponding benefits."

We would like to thank Pierre for his support of the SAS community, and wish him all the best as he ends his academic career and enters the next stage within industry.

Chad Atkins, SAS Student Representative

