

# THE COBLENTZ SOCIETY

*Fostering the Understanding and Application of Vibrational Spectroscopy*

As I write this letter for the upcoming issue of the Newsletter, it is approaching the end of 2007. December is the month when we tend to reflect back on the events of the year past and look forward to the approaching new year.

Looking back at events since our last newsletter, the Society has actively pursued our continuing effort to achieve and maintain a greater presence in the spectroscopy community. The Coblentz Society was involved in a number of activities at the FACSS conference last October in Memphis, Tennessee. FACSS was the venue for the presentation of the Society's first annual Craver Award to Dr. Katherine A. Bakeev of GlaxoSmithKline. The award is named after Clara D. Craver for her pioneering efforts in promoting the practice of infrared vibrational spectroscopy and for her many years of service to the Coblentz Society. This award recognizes young professional vibrational spectroscopists for their efforts in the area of *applied* vibrational spectroscopy. The award was recognized at FACSS with a plenary lecture by Dr. Bakeev and a separate award session of invited speakers.

For many years, the Coblentz Society has encouraged young scientists to pursue studies in spectroscopy by recognizing outstanding students with the Coblentz Student Award. This year, three of our 2007 student award winners participated in FACSS and were acknowledged at the Society for Applied Spectroscopy's Student Poster Session on Sunday night. They are Heather Brooke, University of South Carolina, Brian Loudermilk, University of Georgia, and Bernd Keustner, Institut fur Physikalische Chemie, Universitat Wurzburg. A complete list of our student winners may be found in the August 2007 issue of the Newsletter.

The Coblentz Society also organized eight sessions at the 2007 FACSS conference:

- *Advances in FT-IR Imaging* – Organizer and Presider, Rohit Bhargava
- *Biovibrational spectroscopy* – Organizer, Linda Kidder and Max Diem; Presider, Max Diem
- *Chemometrics Along Spatial and Chemical Dimensions* – Organizer and Presider, Frederick Koehler
- *Coherent Two-Dimensional Spectroscopy I* – Organizer and Presider, Wei Zhao
- *Coherent Two-Dimensional Spectroscopy II* – Organizer and Presider, Wei Zhao
- *NIR Applications in the Pharmaceutical Industry* – Organizer and Presider, Katherine Bakeev
- *Novel Miniature Spectroscopic Instrumentation* – Organizers and Presiders, John Chalmers and Richard Crocombe
- *NIR Imaging* – Organizer, Caroline Rodger; Presider, Mike Claybourn

Many thanks to our FACSS (and EAS) program coordinator, Linda Kidder, and all who organized and presided over these sessions for all your hard work.

Speaking of EAS, the Coblenz Society again contributed to the program at this conference organizing two sessions:

- *Vibrational Spectroscopic Imaging* – Organizer and Presider, David Schiering
- *Laboratory to Process Raman: See the Reaction, Understand the Chemistry, Control the Process* – Organizer and Presider, Ian Lewis

Thanks again to Linda and the session organizers and presiders for helping maintain the Coblenz presence at these two conferences.

The Coblenz Society also held their traditional, well-attended Monday night reception at EAS. Many thanks go out to the two corporate sponsors of this year's event – Thermo Fisher Scientific and Horiba Jobin Yvon – who helped to make the reception a great success. Your financial sponsorship of the Coblenz event is greatly appreciated!

Last, but certainly not least, 2007 brought the first sale of the Coblenz Society's digital infrared spectral database through our agreement with ACD Labs!

Looking ahead, the Society has plans for a busy 2008. First up is the Pittsburgh Conference in New Orleans where we will be presenting the Williams-Wright Award and the ABB-sponsored Bomem-Michelson Award. This spring the 2008 Williams-Wright Award is being presented to Dr. Rina Dukor, President and CEO of Biotools, Inc. Dr. Dukor is being recognized for her work on the application of infrared and Raman vibrational circular dichroism to molecules of biological and pharmaceutical interest. The recipient of the 2008 Bomem-Michelson Award is Professor Geraldine Richmond, Department of Chemistry at the University of Oregon. Dr. Richmond is being honored for her contributions to the field of molecular spectroscopy through the use, development and advancement of nonlinear optical methods to study molecular structure and interactions at complex surfaces and interfaces. Speakers for the two award symposia are:

Bomem-Michelson Award Symposium (Wednesday morning):

- Bruce Chase – Planar Array Infrared Spectroscopy: Academia + Industry = Product
- Sharon Neal – Multivariate Spectroscopy of Lipid Based Soft Materials
- Geri Richmond – Going Nonlinear to Study the Structure and Dynamics of Molecular Assembly at Complex Interfaces
- Ira Levin – Lipid Microdomain Formation: Characterization by Infrared Spectroscopy and Ultrasonic Velocimetry
- Mary Wirth – Protein Microarrays with High Sensitivity

Williams-Wright Award Symposium (Wednesday afternoon):

- Rina Dukor – Reflections on Vibrations of Blockbuster Pharmaceuticals
- Tim Keiderling – Peptide Conformational Studies with Optical Spectroscopy, Global and Local Using Isotopic Labeling
- Bruce Chase – Industrial Vibrational Spectroscopy: Fun or Functional?
- Sanford Asher – UV Raman Studies of the Electronic Structure Peptide and Proteins: Development of Quantitative Methods for MilliAngstrom Structure Determinations
- Henry Buijs – Greenhouse Gas Measurement in the Atmosphere
- Robin Garrell – Multi-Step and Parallel Reactions in Microdroplet Arrays
- Curtis Marcott – Industrial Applications of Spectral Imaging from 400 to 11,000 nm
- Laurence Nafie – Rina’s Magic Recipe: Mix Chirality, Molecular Vibrations, Pharmaceuticals and Lots of Proteins

Many thanks go out to Neil Lewis, 2007 Williams-Wright Award Committee Chair, and Dave Tuschel, 2007 Bomem-Michelson Award Committee Chair, and all the committee members for their efforts in the awards selection process.

Please keep in mind that the Society’s annual business meeting will be held Wednesday afternoon after the Williams-Wright Award Symposium. Instead of our traditional wine and cheese reception, however, the Coblenz Society will be joining the Society for Applied Spectroscopy for a reception in honor of SAS’s 50<sup>th</sup> anniversary year. The reception will be held Tuesday, March 4<sup>th</sup> at 6:00 p.m. in the Versailles Room at the Hilton. Stop by the Coblenz Booth at Pittcon for more details.

Speaking of the booth, stop by and say hello, check your membership, or buy a T-shirt. Our booth number is 4903 and we’re looking forward to seeing you. The Coblenz Society booth is a prominent feature for vibrational spectroscopists and a great meeting place. If you are at Pittcon and have some spare time, please visit the booth and volunteer for a brief stretch of booth duty with a peer. Sometimes the best way to run into the people you’d like to see, is by staying in one place!

The recipient of the 2008 Coblenz Award is Dr. Xiaowei Zhuang of Harvard, for her experimental efforts in single-molecule and single-particle imaging *in vitro* and in live cells. The award will be presented with a plenary lecture at the 63rd Ohio State University International Symposium on Molecular Spectroscopy this June. This prestigious award recognizes young professional spectroscopists for their research efforts in *fundamental* aspects of vibrational spectroscopy.

As evidenced by the preceding events, one of the Coblenz Society’s primary missions is to bestow recognition upon professionals for excellence in the advancement of vibrational spectroscopy. These include:

- The Coblenz Award, in recognition of achievements by young professional spectroscopists for research efforts in fundamental aspects of vibrational spectroscopy, presented at the Ohio State Symposium
- The Craver Award, in recognition of achievements by young professional spectroscopists for research efforts in applied aspects of vibrational spectroscopy, presented at FACSS
- The Williams-Wright Award, in recognition of industrial spectroscopists, presented at Pittcon
- The Bomem-Michelson Award (sponsored by ABB Bomem), in recognition of continued advancement in vibrational, molecular, Raman, or electronic spectroscopy, presented at Pittcon
- The Lippincott Award (in conjunction with SAS and OSA), in recognition of significant contributions to vibrational spectroscopy as judged by their influence on other scientists, presented at either FACSS or ICAVS
- Coblenz Student Awards are also given annually

Nominations for these awards are a continual effort. The Coblenz Society urges all vibrational spectroscopists to submit nominations of those deserving these recognitions for the 2009 awards. Nominations should be sent to the appropriate award committee chairs, whose addresses may be found at the Coblenz Society website ([www.coblenz.org](http://www.coblenz.org)) or elsewhere in this newsletter.

The Coblenz Society website at [www.coblenz.org](http://www.coblenz.org) is our primary means of disseminating information to our members. Please visit the site and let us know if we have overlooked anything or if updates are needed. We are currently investigating online membership registration, dues payment, and a shift to electronic voting in order to streamline some of our administrative processes. Stayed tuned for details. Any other suggestions regarding the website are welcome.

In closing, should you have any suggestions or concerns regarding the Society, please share them with me or the Board. The Coblenz Society is a 100% volunteer effort. The best way to support your Society is to work with your peers to build up and strengthen the organization. There are always openings on committees that could use your support. Please don't hesitate to volunteer. The biggest asset the Society has is its members. Through your collective knowledge, support, and dedication to the field the Coblenz Society continues to thrive. Thank you all for your efforts and I look forward to seeing you at the Pittsburgh Conference in March.

Mary W. Carrabba  
President