

NEWSLETTER

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A Society for Applied Spectroscopy Affiliate
Editor: David S. Trimble

August 2008

EDITOR'S COMMENTS

Welcome to the August 2008 edition of *your* newsletter! Several exciting changes are just around the corner. First, the Coblentz Board is making every attempt to distribute this newsletter *electronically* in addition to the traditional print format. Second, we are also trying to get news out to the membership electronically in between semi-annual newsletters. The idea is to keep you better informed about all the meetings, conferences, and events at which your society will be present so that you can make plans to join us!

As always, you are invited to contribute articles and comments for those items or events that you wish to broadcast. The next due date for newsletter submissions is November 1st for the February issue. If there is news you would like to get out to the membership this summer or fall—drop me a note!! Regardless of the number of contributions we will always be printing the events and progress of the Society so you can keep in touch with the Board Members and Officers. Be sure to look for the printed Coblentz Society Newsletter in every February and August issue of *Applied Spectroscopy*.

DAVID S. TRIMBLE

PRESIDENT'S MESSAGE

It's hard to believe, but summer is here already and will be winding down by the time this goes to press. A great deal has happened in the Coblentz Society since our February newsletter. The Pittsburgh Conference has come and gone, and there are many Society activities to report. Here are some highlights from the first half of 2008.

One of the Coblentz Society's primary missions is to support the vibrational spectroscopy community through the sponsorship of several awards for outstanding achievements. These include the Coblentz Award, presented at the Ohio State Symposium, the Craver Award, presented at FACSS, the Williams–Wright and Bomem–Michelson Awards, presented at Pittcon, and the Lippincott Award, presented at either FACSS or ICAVS. Coblentz Student Awards are also given annually.

The Bomem–Michelson Award is sponsored by ABB and is dedicated to the memory of Professor A. A. Mi-

chelson, developer of the Michelson interferometer. Bomem sponsors the award to honor scientists who have advanced the technique(s) of vibrational, molecular, Raman, or electronic spectroscopy. This year at Pittcon, the Bomem–Michelson Award was presented to Professor Geraldine Richmond, Department of Chemistry at the University of Oregon. Dr. Richmond was honored for her contributions to the field of molecular spectroscopy through the use, development, and advancement of non-linear optical methods to study molecular structure and interactions at complex surfaces and interfaces.

The Williams–Wright Award is awarded annually at the Pittsburgh Conference to an industrial spectroscopist who has made significant contributions to vibrational spectroscopy while working in industry. The work may include infrared and/or Raman spectroscopy and instrument development, as well as theory and applications of vibrational spectroscopy. This year, the Williams–Wright Award was presented to Dr. Rina Dukor, President and CEO of BioTools, Inc., for her work on the application of infrared and Raman vibrational circular dichroism to molecules of biological and pharmaceutical interest.



Williams–Wright Award being presented to Rina Dukor (L) of BioTools Inc. by Mary Carrabba, Coblentz Society President.



The Williams-Wright Award Symposium featured (L to R front row) Robin Garrell (Invited Speaker, UCLA), Rina Dukor (Awardee, Bio Tools, Inc.), Mary Carrabba (Award Presenter, Coblenz Society President), Back row (L to R), Larry Nafie (Invited Speaker, Syracuse University), Bruce Chase (Invited Speaker, Dupont), Tim Keiderling (Invited Speaker, University of Illinois), Neil Lewis (Award Committee Chairman, Malvern), Henry Buijs (Invited Speaker, ABB Bomem Inc.), Curt Marcott (Invited Speaker, Protor & Gamble Co.), and Sandy Asher (Invited Speaker, University of Pittsburgh).

Another award of interest to the Coblenz Society was also presented at Pittcon. The Spectroscopy Society of Pittsburgh's 2008 Pittsburgh Spectroscopy Award was presented to Sanford A. Asher, Distinguished Professor of Chemistry at the University of Pittsburgh (and former Coblenz Board Member). Asher was honored for his pioneering work in the development and application of UV Raman spectroscopy. Vibrational spectroscopy is thriving at the Pittsburgh Conference!

The Coblenz Award was recently presented to Dr. Xiaowei Zhuang of Harvard at the 63rd Ohio State University International Symposium on Molecular Spectroscopy. Dr. Zhuang was honored for her experimental efforts in single-molecule and single-particle imaging *in vitro* and in live cells. This prestigious award recognizes young professional spectroscopists for their research efforts in *fundamental* aspects of vibrational spectroscopy.

The Craver Award recognizes young professional vibrational spectroscopists for their efforts in the area of *applied* vibrational spectroscopy. 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 Coblenz Society. This year's Craver Award recipient is Professor John Conboy of the University of Utah. Professor Conboy was selected in recognition of his multi-disciplinary achievements involving the use of nonlinear vibrational spectroscopy as a novel analytical tool for the study of cell membrane dynamics and structure. The award will be presented at the upcoming FACSS Conference in Reno, Nevada this October. Professor Conboy will present a plenary lecture on Thursday morning and a separate award session of invited speakers will follow on Thursday afternoon. Speakers will include:

- Lukas Tamm—Coupling of Cholesterol-Rich Lipid Phases in Asymmetric Bilayers
- Jeanne E. Pemberton—A Molecular View of Low

Work Function Metal-Organic Contacts in Photonic Devices

- Geraldine Richmond—To Charge or Not to Charge: Ions at Aqueous Interfaces
- Scott Saavedra—Structure, Functional Properties, and Analytical Applications of Poly(Lipid) Bilayer Membranes
- Yuen-Ron Shen—Vibrational Spectroscopy of Water Interfaces
- Joel Harris—Quantitative Determination of Interfacial Populations at the Single-Molecule Level

The Lippincott Award, cosponsored by the Coblenz Society, the Society for Applied Spectroscopy, and the Optical Society of America, will also be presented this fall at FACSS to Richard Van Duyne of Northwestern University. Professor Van Duyne is being recognized for his contributions to the discovery, development, and application of surface-enhanced Raman spectroscopy in ways that have profoundly influenced vibrational spectroscopy, surface science, electrochemistry, ultra-sensitive chemical/biological sensing, and applications in plasmonics. Dr. Van Duyne will give a plenary lecture Thursday morning at FACSS and an award session of invited speakers will follow later in the morning. Presentations will include:

- George Schatz—Nanoparticle Optical Property Modeling
- Paul Bohn—Catalytic Transformations of Biological Macromolecules in Single Nanopores Probed by 4 δ Single Molecule Cross-Correlation
- Geraldine Richmond—Spectroscopic Studies of Environmentally Important Processes at Aqueous Surfaces
- Michael Natan—Nanoparticulate Quantitation Labels Based on SERS
- Katrin Kneipp—SERS, a Single Molecule Tool

Congratulations to all of these outstanding scientists!

And now a few notes regarding other Society news. This year the Coblenz Society held its annual reception Tuesday night at Pittcon as a joint event with the Society for Applied Spectroscopy in honor of SAS's 50th anniversary. Ometric and the University of South Carolina graciously sponsored this well-attended event. The Society's thanks go out to Board Member Michael Myrick for securing this wonderful sponsorship. Ian Lewis and Christine Wehlburg concluded their terms on the Board this year at Pittcon and Richard Larsen rolled off as Membership Chair after many years of hard work. Thanks to all of you for your years of effort in support of the Society.

The Society's annual membership meeting followed the Williams-Wright Award symposium at Pittcon and was very well attended. A bylaws change was approved that will allow all future Society voting to take place electronically. This will greatly reduce mailing costs, which are historically one of the Society's largest expenses.

I would also like to announce the Society's election results for this year. Congratulations go out to Gloria Storry and Rohit Bhargava as the newest Coblenz Society Board Members. They join Mark Druy, Richard Larsen, Brian Marquardt, Michael Myrick, Scott Little, and Clara

Craver on the Society's governing board. Mark Druy is our new Membership Chair and making great strides in bringing the Society into the electronic age. If you're not receiving electronic communications from us, please update your contact information with Mark. It also gives me great pleasure to announce that Ian Lewis is our new President-Elect. Ian will take over the reins of the Society following Pittcon in March 2009.

In closing, I thank all of our members for their continuing support of the Society. Those of you who have contributed financially in excess of your annual dues and those of you who have contributed by volunteering many hours of your time are what keep the Coblenz Society thriving. We are grateful for all your support.

MARY W. CARRABBA
PRESIDENT

CALL FOR NOMINATIONS FOR THE COBLENTZ SOCIETY'S AWARDS

The Coblenz Society requests nominations for the prestigious awards it supports:

COBLENTZ AWARD. The Coblenz Award is presented annually to an outstanding young molecular spectroscopist under the age of 36. The candidate must be under the age of 36 on January 1 of the year of the award. Previous recipients of this award are: John Overend (1964), William Fateley/Robert Snyder (1965), Edwin Becker (1966), Peter Krueger (1967), Jon Hougren (1968), James Durig (1969), Guiseppi Zerbi (1970), Clive Perry (1971), George Leroi (1972), C. Bradley Moore (1973), C.K.N. Patel (1974), Bernard J. Bulkin (1975), Geoffrey Ozin/George Thomas, Jr. (1976), Peter Griffiths (1977), Lester Andrews (1978), Lionel Carreira (1979), Richard Van Duyne (1980), Laurence Nafie (1981), Christopher Patterson (1982), Dave Cameron (1983), Steve Leone (1984), John Rabolt/Graham Fleming (1985), Joel Harris (1986), Alan Campion (1987), Keith Nelson (1988), Geri Richmond (1989), Hai-Lung Dai (1990), Paul Bohn (1991), Tom Rizzo (1992), Peter Felker (1993), Paul Alivisatos (1994), David J. Rakestraw (1995), Xiaoliang Sunney Xie (1996), Mounji Bawendi (1997), Pat Treado (1998), Brooks Pate (1999), Martin Gruebele (2000), Stacey Bent (2001), Andrei Tokmakoff (2002), Andrea Callegari (2003), Sergey Nizkorodov (2005), Michael Strano (2006), Martin Zanni (2007), and Xiaowei Zhuang (2008).

The award carries with it a \$2,000 prize plus a \$500 travel allowance. Files of candidates will be kept active until the date of age eligibility is exceeded. Annual updates of files of candidates are encouraged.

Nominations, which should include a detailed description of the nominee's accomplishments, a curriculum vitae, and as many supporting letters as possible, must be submitted to the award chairman, [Dr. André Sommer, Department of Chemistry and Biochemistry, Miami University, Oxford, OH 45056; phone: (513)529-2874; fax: (513)529-7284; e-mail: sommeraj@muohio.edu] on or before September 1st.

WILLIAMS-WRIGHT AWARD. This award is presented annually at the Pittsburgh Conference to an industrial spectroscopist who has made significant contributions to vibrational spectroscopy while working in in-

dustry. The work may include infrared and/or Raman spectroscopy and instrumental development, as well as theory and applications of vibrational spectroscopy. Government labs are not considered industry in this definition. No restrictions are placed on the selection of the Awardee because of age, sex, or nationality, but the Awardee must still be working at the time the award is presented. The nominating document should clearly state the significance of the contribution made by the nominee, e.g., the introduction of novel methods, techniques, or theories; innovative work in the field of vibrational spectroscopy; significant improvement on existing methods, theory, or techniques; or important impact on the field of vibrational spectroscopy arising from the volume of contributions in a specific area. The nomination should include a resume of the nominee's career and highlight accomplishments and any publications and talks. Seconding letters to the nomination are useful, but not necessary. Files on nominees will be kept active for three years, after which the candidate must either be renominated with an updated file or the file will be closed.

Previous recipients of the Williams-Wright Award are: Norman Wright (1978), Norman Colthup (1979), Jeanette Grasselli (1980), Paul Wilks/James Harrick (1981), Robert Hannah (1982), Harry Willis (1983), Robert Jakobsen (1984), Clara D. Craver/Richard A. Nyquist (1985), Abe Savitzky/Joseph J. Barret (1986), A. Lee Smith (1987), Darwin L. Wood (1988), D. Bruce Chase (1989), John F. Rabolt (1990), Robert J. Obremski (1991), Timothy Harris (1992), Curtis Marcott (1993), John M. Chalmers (1994), Michael R. Philpott (1995), Bob Messerschmidt (1996), Michael J. Pelletier (1997), Henry Buijs (1998), Don Kuehl (1999), John Reffner (2000), Raul Curbelo (2001), Isao Noda (2002), Neil Everall (2003), Neil Lewis (2004), Fran Adar (2005), Harry Owen (2006), Michael Carrabba (2007), and Rina Dukor (2008).

This award includes a \$2,000 cash prize plus \$500 toward travel expenses to the Pittsburgh Conference. Nominations should be sent to the Chairman of the Williams-Wright Award Selection Committee [Dr. Karl Booksh, University of Delaware, Department of Chemistry and Biochemistry, Newark, DE 19707; phone (302)831-2561; e-mail: kbooksh@udel.edu] before May 1st.

BOMEM-MICHELSON AWARD. This award is dedicated to the memory of Professor A.E. Michelson, developer of the Michelson interferometer. ABB sponsors the award to honor scientists who have advanced the technique(s) of vibrational, molecular, Raman, or electronic spectroscopy. Contributions may be theoretical, experimental, or both. The recipient must be actively working and may be associated with the academic, industrial, government, or private sector. The Awardee must be at least 37 years of age. The award consists of a crystal symbol of the Bomem-Michelson award and an honorarium. In order to ensure that the award is based on an independent evaluation of the candidate's achievements, the selection is made by a committee chosen by the Coblenz Society. The presentation will be made at the Pittsburgh Conference.

Previous recipients of the Bomem-Michelson Award are: Thomas G. Spiro (1987), Carl Linberger (1988), Richard J. Saykally (1989), William Klemperer (1990),

Alan Pine (1991), Jyrki Kauppinen (1992), Jack L. Koenig (1993), Herbert L. Strauss (1994), Terry Miller (1995), Ira Levin (1996), William H. Woodruff (1997), Bruce Chase (1998), Sandy Asher (1999), John F. Rabolt (2000), Larry Nafie (2001), Dan Neumark (2002), Peter Griffiths (2003), Dave Haaland (2004), Paul Bohn (2005), Robert W. Field (2006), David Bocian (2007), and Geraldine Richmond (2008).

The nomination should include a resume of the candidates' career as well as the special research achievements that make the candidate an eligible nominee for the ABB sponsored Bomem–Michelson Award. Files on nominees will be kept active for three years, after which the candidate must either be renominated with an updated file or the file will be closed. The nominating letter and supporting letters should be sent to: Dr. Larry Nafie (chair), Syracuse University, Chemistry Department 1-044 CST, Syracuse, NY 13244-4100; phone: (315)443-5912; e-mail: lnafie@syr.edu. Nominations will close May 1st.

ELLIS R. LIPPINCOTT AWARD. The purpose of the Ellis R. Lippincott Award is to honor Dr. Lippincott's memory by the recognition of significant contributions and notable achievements in the field of vibrational spectroscopy. The medal is sponsored jointly by the Coblenz Society, Optical Society of America, and the Society for Applied Spectroscopy. It is awarded annually at an appropriate scientific meeting. The award consists of the medal and travel allowances to the meeting. The awardee will present an address related to contributions for which he/she is being honored. In addition, there may be a symposium of talks by invited speakers.

Recipients of the medal must have made significant contributions to vibrational spectroscopy as judged by their influence on other scientists. Because innovation was a hallmark of the work of Ellis R. Lippincott, this quality in the contributions of the candidates will be carefully appraised. The contributions may be theoretical, experimental, or both, and may have been made in the course of applied as well as basic research.

No restriction is placed on the citizenship or national origin of candidates. A candidate need not be a member of any of the sponsoring societies. The award will not be made posthumously unless an awardee should die after the procedure of selection has been completed.

Previous recipients include: Richard G. Lord (1976), Lionel Bellamy (1977), Bryce Crawford, Jr. (1978), E. Bright Wilson (1979), George C. Pimentel (1980), Ian Mills (1981), Michel Delhay (1982), John Overend (1983), Jon T. Hougen (1984), Ira W. Levin (1985), Wolfgang Kaiser (1986), C. Bradley Moore (1987), Andreas C. Albrecht (1988), Marilyn E. Jacox (1989), Robert W. Fields (1990), Richard J. Saykally (1992), John F. Rabolt (1993), Herbert L. Strauss (1994), Giacinto Scoles (1995), Giuseppe Zerbi (1996), Robin Hochstrasser (1997), Takeshi Oka (1998), Mitsuo Tasumi (1999), Donald Levy (2000), Lester Andrews (2001), Sandford Asher (2002), Shaul Mukamel (2003), Richard Mathies (2004), Jaan Laane (2005), Hai-Lung Dai (2006), Jonathan Tenynson (2007), and Richard P. Van Duyne (2008).

Nominations should contain the name and affiliation of the nominee and sufficient background information to justify the nomination. A nominator is expected to be-

lieve sufficiently strongly in the quality of the work of his or her candidate to provide evidence for that belief. No restriction is placed on who may nominate, and all nominations received by the committee prior to October 1 in any given year will be considered for the award to be presented in the following year. Files on nominees are kept active for three years, after which the candidate must be renominated with an updated file or the file will be closed. Nominations should be submitted to: Chairman, Lippincott Award Selection Committee, % Optical Society of America, 2010 Massachusetts Ave., N.W., Washington, D.C. 20036; phone: (202)416-1420; fax: (202)416-6134.

CLARA CRAVER AWARD. The Craver Award is presented annually to an outstanding young molecular spectroscopist whose efforts are in the area of applied analytical vibrational spectroscopy. The candidate must be under the age of 45 on January 1st of the year of the award. The work may include any aspect of infrared (NIR, MIR, or Far), and/or THz, and/or Raman spectroscopy in applied analytical vibrational spectroscopy. The nominees may come from an academic, government lab, or industrial backgrounds.

Previous recipients of the award are: Katherine A. Bakeev (2007) and John Conboy (2008).

The award carries with it a \$2000 honorarium, a plaque, plus a \$500 travel allowance. Files of candidates will be kept active until the age of eligibility is exceeded. Annual updates of candidate files are encouraged and will be solicited from the nomination source by the Award's committee chair.

The awardee will also be offered a 25-minute plenary lecture to the assembled FACSS Conference, at which the award will be presented. Further, a separate half-day award symposium honoring the award recipient and highlighting the interests of the awardee will also occur at the same conference.

Nominations must include a detailed description of the nominee's accomplishments, a curriculum vitae or resume, and a minimum of three supporting letters. Nominations close on July 31. Nominations should be submitted to: Mark Druy, Physical Sciences, Inc., 20 New England Business Center, Andover, MA 01810, or by e-mail: druy@psicorp.com.

SOCIETY ANNOUNCEMENTS

Membership. Anyone wishing to join the Society may do so by sending \$10 to Dr. Mark Druy, Coblenz Society Membership Chairman, Physical Sciences, Inc., 20 New England Business Center, Andover, MA 01810.

Board Meeting. The Coblenz Society Board will hold its semi-annual meeting the week of September 28th at the FACSS Conference at the Grand Sierra Resort in Reno, Nevada. Any article of business that you want the Board members to consider needs to be sent in writing to Mary Carrabba, Coblenz Society President (see address at end of newsletter), prior to the conference.

Board Members. Two new board members are elected by the Society each year. Please send nominations for the term 2008–2011 to Coblenz Society President, Mary Carrabba (see address at end of newsletter) by September 1st.

Honorary Members. The Society is awarding honorary memberships in the Society to people who have made outstanding contributions to the field of Spectroscopy. Send your nomination for 2008 to Mary Carrabba, Coblenz Society President (see address at end of newsletter) prior to September 1st.

COBLENTZ SOCIETY BOARD

<u>Name</u>	<u>Term Expires</u>	<u>Telephone</u>
Mark Druy Physical Sciences, Inc. 20 New England Business Center Andover, MA 01810	2009	(978)738-8195
Richard Larsen 6807 Gravel Branch Rd. Hurlock, MD 21643-3747	2009	(410)822-1220
Brian J. Marquardt University of Washington- CPAC 135 Chemistry Library Seattle, WA 98195	2010	(206)543-6054
Michael L. Myrick University of South Carolina Department of Chemistry 631 Sumter St Columbia, SC 29208	2010	(803)777-5264
Clara Craver 500 Park Blvd South #72 Venice, FL 34285	2011	(941)485-8210
Scott C. Little Focal Point International 6350 Pheasant Lane Verona, WI 53593	2011	(608)845-7955
Gloria Story Procter & Gamble Company Miami Valley Labs 11810 E. Miami River Road Cincinnati, OH 45252	2012	(513)627-2840

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