Dave Haaland, Williams–Wright Award Chairman (L) presents the Williams–Wright Award to Henry Buijs of Bomem Hartmann & Braun at the Pittsburgh Conference in New Orleans this past March.

EDITOR’S COMMENTS

The Coblentz Society continues to grow and expand. This newsletter is your link with the rest of the society. You are welcome 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. 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. Newsletter request can be mailed directly to the newsletter editor as noted in the officer section at the end. Be sure to look for the “Coblentz Society Newsletter” in every February and August issue of Applied Spectroscopy.

KATHY KALASINSKY

PRESIDENT’S MESSAGE

The Coblentz Society, a professional society dedicated to the advancement of vibrational spectroscopy, is pleased to announce another successful year of operation to the 1998 annual membership meeting. Society endowments continue to support a number of awards that recognize the impact of our field and the excellence of research efforts in academic and industrial venues. Annual membership dues support other Society programs that provide benefits to all the membership through dedicated efforts of volunteers representing academic, governmental, and industrial sectors. The Coblentz Society, as a nonprofit organization, welcomes tax-deductible gifts, which help keep membership dues low. Members are encouraged to contact any officer or board member regarding gifts or bequests.

The Coblentz Society is proud to be an active participant in the Federation of Analytical Chemistry and Spectroscopy Societies. As a benefit of our being one of the member organizations, our members receive a discount on registration for the annual FACSS conference. The Coblentz Society Board of Managers normally meets on

The Williams–Wright Award Symposium at the Pittsburgh Conference in Chicago featured (bottom row, left to right) Rina Dukor (speaker, Bio Tools, Inc.), Christine Simard (speaker, Bomem Inc.), J. D. Tate (speaker, Dow Chemical); (top row, left to right) Ira Levin (speaker, National Institutes of Health), Henry Buijs (awardee, Bomem Hartmann & Braun), and Dave Haaland (symposium chairman, Sandia National Laboratories).
Monday evening of the conference as one of the semiannual governance functions of the Society.

The Coblentz Society Web site, administered by Don Kuehl of Galactic Industries, continues to grow. It is part of the Galactic Web site, at http://www.galactic.com/Coblentz/. We hope you will find the Web site useful, and be sure to let us know of anything else you would like to see there. The Society is using list server technology to provide a forum for discussion regarding on-line application of vibrational spectroscopy. Interested individuals can join the list serve by contacting me electronically at agarrison@utk.edu.

The Society administers programs in four main areas: student awards, databases in hard copy or electronic form, support for international conferences held in North America, and awards for achievement by established scientists.

Rod McDowell chairs the Student Awards program, which provides encouragement to vibrational spectroscopists at the beginning of their careers. The names of winners are published in the “Coblentz Society Newsletter” and are on the Web site.

In collaboration with NIST, the Society is producing an inexpensive digital database of high-quality infrared spectra. The initial target is the digitization of a significant fraction of our hard-copy spectra of authenticated samples. Kathy Kalasinsky is leading the committee addressing this effort, and a product should be released this calendar year.

There is discussion in the Society about creating a database of Raman spectra. This project is a lot more tricky than an infrared database, because there are more variables in Raman spectroscopy, such as the effect of different excitation frequencies. If you are interested in this project, or have views on it, please speak to Fran Adar, Richard McCreery, or Mike Morris, who are exploring this issue for the Society.

The Coblentz Society provided financial support to the 11th International Conference on Fourier transform spectroscopy. This event, organized by Jim de Haseth and Rich Dluhy, was held in Athens, Georgia, in August 1997, and was reported to be a very interesting and enjoyable conference.

The Society’s awards for scientific achievement are the Coblentz Award, the Bomem–Michelson Award, the Lippincott Award, and the Williams–Wright Award. Please note that full details for these awards, and the deadlines and addresses for nomination, can be found on the Coblentz Society’s Web site. All members are strongly encouraged to submit nominations of the many worthy spectroscopists who are eligible for these awards.

The winner of the 1998 Coblentz Award is Pat Treado, who will give his award lecture at the Columbus, Ohio, meeting in June. John Hellgeth is the chair of the Coblentz Award Selection Committee for the next three years.

The Bomem–Michelson Award for 1998 was won by Bruce Chase. Bruce presented his award address, “Vibrational Spectroscopy as a Probe of Dynamic Structure in Polymeric Materials,” at the Pittsburgh Conference. Thanks to Nancy Ferris for chairing the selection committee and to Henry Buijs of Bomem for his continuing sponsorship of this award.

In cooperation with the Optical Society of America and the Society for Applied Spectroscopy, the Coblentz Society rotates the selection of the Lippincott Award. Robin Hochstrasser has been chosen the winner of the 1997 Lippincott Award.

The Society provides one of the few awards targeted to industrial researchers. The Williams–Wright Award recognizes outstanding vibrational spectroscopists who are currently employed in industry. The winner of the 1998 Williams–Wright Award is Henry Buijs, who gave his award lecture and received the award immediately after the Society annual membership meeting. Thanks to Dave Haaland, who is chairing the Selection Committee for 1998 and 1999.

I want to express a special thanks to Jim de Haseth. Many of you are familiar with his name, as it has appeared on the membership invoices for the 16 years that Jim has served the Society as Membership Chair. Jim established a computerized database, which has been
through a number of transitions as computer technology has changed in the last 16 years. The Society will carry the stamp of Jim’s input for many years, and he received a certificate and gift as small tokens of our appreciation at the annual meeting.

The board constantly rotates, and with the annual meeting, Robin Garrell and Nancy Ferris ended their terms as board members. In a hotly contested race with very strong membership participation, two new board members were selected to serve four-year terms that began at the close of the meeting. Thanks to Robin and Nancy for their service and welcome to the new board members John Hellgeth and Richard McCreery. At the board meeting in New Orleans, Dave Haaland was selected as President-Elect for the Society. He will serve in this capacity for one year and will become President in 1999.

The Coblentz Society maintained a booth on the exhibit floor at the Pittsburgh Conference. Information was displayed about books that are currently available, as well as the NIST database. T-shirts were also available, as well as some interesting photographs. Officers and board members were present to answer any questions.

I must close with a final thank you to all who helped the Society throughout 1997. Volunteers are numerous, and there is insufficient time to name everyone. Please know that your efforts are appreciated. As we work together to achieve the goals of the Coblentz Society, we have a large impact upon the scientific community. Thanks to each of you for allowing me to serve as your President.

Notes for your calendar: The fall meeting of the Coblentz Society Board of Managers will be held on Monday evening at FACSS in Austin. Please direct any items for inclusion on the agenda to my attention by September 15. The Society will also be participating in a special event at EAS. The 30th Anniversary of Modern-Era Commercial FT-IR, organized by John Ferraro, will be a three-day event including lectures and panel discussions involving many members of the Society. I hope many of you will be able to attend this historical event.

ARLENE GARRISON

EASTERN ANALYTICAL SYMPOSIUM CELEBRATING FT-IR

The development of Fourier transform spectroscopy essentially began with the introduction of the Bio-Rad, Digilab Division FTS-14 in 1969, the first modern-era commercial FT-IR instrument. The development of the FTS-14 arose from the research in the 50s and 60s by the Connes, Vanesse, Gebbie, Mertz, Block, Auth, Curbelo, Coleman, Wynntjes, Stair, and others. Much of the engineering on the instrument was done by Raul Curbelo of Bio-Rad, Digilab Division. The introduction of the FTS-14 was a significant and innovative development, and changed the nature of infrared spectroscopy. In the ensuing 30 years, the applications of FT-IR have been numerous, serving the fields of chemistry, health, environment, materials, etc. For this accomplishment, the
EAS will present a plaque to honor and acknowledge this achievement. In addition, a symposium in commemoration of the 30-year anniversary of modern-era commercial FT-IR, organized by Dr. John R. Ferraro, Argonne National Laboratory, will be presented at the EAS in Somerset, NJ, 16–17 November 1998. A panel discussion from the FT-IR pioneers will take place. The panel consists of the following participants:

Raul Curbelo  Gerry Auth
Gerry Wyntjes  Dave Mattson
Myron Block  Sy Coleman
Paul Wilks  Mike Doyle
Larry Mertz  A. T. Stair

The discussion will be moderated by Professor Peter R. Griffiths of the University of Idaho. Following the discussion, a social hour is planned with refreshments and renewal of acquaintances.

COBLENTZ STUDENT AWARDS, 1998

The Coblentz Society congratulates its student award winners for their work in the field of vibrational spectroscopy. Graduate and undergraduate students are indicated by G and U.

PIERRE CHABRIER, Department of Chemistry, University of Florida (Prof. Willis B. Person), IR spectroscopic study of hydrogen-bonded complexes between HBr and strong nitrogen bases. (G)

ENGELENE CHRYSOSTOM, Department of Chemistry, Oregon State University (Prof. Joseph W. Nibler), Coherent Raman spectroscopy for studying molecular clusters in free-jet expansions. (G)

JOHN W. HOFFMAN, NYS College of Ceramics, Alfred University (Prof. Robert A. Condrate, Sr.), DFT spectral investigation of organic coatings on glass and ceramic surfaces. (G)

KAREN J. LATAS, Department of Chemistry, Kansas State University (Prof. Robert M. Hamburger), Application of two-dimensional methods to quantitative open-path FT-IR analysis. (G)

HUNG-WEN LI, Department of Chemistry, University of California, Berkeley (Prof. Herbert L. Strauss), Infra-red hole burning in amino acids and fatty acid salts. (G)

DION RIVERA, Department of Chemistry, University of Utah (Prof. Joel M. Harris), Adsorbate ATR/FT-IR vibrational spectra at silical/solution interfaces. (G)

STEFAN A. SCHULZ, Department of Chemistry, Tennessee Technological University (Prof. Robert J. Gliniski), Infrared quadrupole emission spectrum of H2+. (U)

CHRISTOPHER SNIVELY, Department of Macromolecular Science, Case Western Reserve University (Prof. Jack L. Koenig), Advanced FT-IR techniques applied to polymer systems. (G)

HAOCHUAN WANG, Department of Chemistry, Duke University (Prof. Richard A. Palmer), Application of step-scan FT-IR spectroscopy to polymer rheology. (G)

WEN-HONG YAN, Department of Chemistry, University of California, Berkeley (Prof. Herbert L. Strauss), Conformations of the methylene chains in phospholipids. (G)

AN ODE TO RAMAN
by Mike Carrabba
October 28, 1997

Raman is, good, Raman is right
Raman is the reason we gather tonight
Raman as technique is coming of age
I really believe this, since it’s been paying my wage
To acquire a spectrum you don’t have to be nimble
Because Raman sampling is really quite simple
Unlike IR, Raman will not falter
Particularly when in the presence of water
Raman is useful for looking through glass
To do this with IR would be a pain in the . . .

“Fluorescence is the enemy!” is our battle cry
Without it we all know that IR would just die
Even Peter Griffiths has seen the laser light
He has joined our forces and is ready to fight
In order for Raman to grow and not wither
Please, Kaiser, can you lower the cost of the filter?
I will stand here, shout, and even beat on my chest
The message I am preaching is the “Raman’s the Best”
We all love Raman, at least that’s what I hope
Or you’re just eating this food and I am a dope

Editor’s Note: This poem was written by Mike Carrabba for the occasion of the ASTM Raman Symposium Reception at the FACSS Conference in Providence last October. Submitted to the Coblentz Newsletter by Rachael Barbour.

COBLENTZ/NIST TO PRODUCE IR DATABASE

The Coblentz Society and the National Institute of Standards and Technology (NIST) have joined efforts to produce a much needed digital infrared database for spectral searching and identification. The Coblentz Society has long been noted for its high-quality evaluated infrared reference data and for the recommended standards for infrared data productions. NIST has long had the reputation of producing the highly circulated mass spectral database and is now entering a joint effort to likewise produce an infrared database. This new joint effort is initiated under a Cooperative Research and Development Agreement (CRADA) pursuant to 15 U.S.C. section 3710a. Under this agreement NIST and Coblentz will produce a digital infrared database for distribution through NIST as the Coblentz/NIST IR Data Base.

The initial product from NIST is targeted for a 1998/1999 release and will contain approximately 20,000 spectra. Approximately half of the spectra are from the NIST/EPA library and half are spectra from digitized Coblentz reference data. Initially the IR database will include both gas-phase and solid-phase spectra but will be broken down into subsets by phase and compound class once the database is sufficiently large to warrant such an approach. Specialty subsets of IR data much like the existing Cob-
 lentz reference volumes are on-line for production. The existing 10,000 spectra volume series of Coblentz data are also on-line for inclusion in the Coblentz/NIST IR database. Updates of the database are scheduled to be produced periodically.

NIST will be providing additional data measurements and database compilation for distribution including software developments for data handling. The Coblentz Society will be spearheading data solicitation and data evaluation. Any individuals or organizations that have produced IR reference data sets are encouraged to participate in this effort. The Coblentz Society will be collecting data sets and evaluating them for inclusion into the Coblentz/NIST IR database. Contributors may retain the copyright for donated spectra or assign the copyright to NIST or the Coblentz Society.

If you are interested in this database or contributing data to this national/international effort, please contact either Kathy Kalasinsky (301/319-0055) or Clara Craver (573/358-2589) for further information.

CALL FOR NOMINATIONS FOR THE COBLENTZ SOCIETY’S AWARDS

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


The award carries with it a $1000 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. John Hellguth, SRN Company LLC, 22 Arnoldale Rd., West Hartford, CT 06119; phone (806)236-3123; fax (806)236-3127; e-mail jhelligeth@aol.com] or on before July 1, 1999.

**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 industry. The work may include infrared and/or Raman spectroscopy, 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; important 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 the accomplishments as well as 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 either the candidate must be renominated with an updated file or the file will be closed.


This award includes a $1000 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. David Haaland, Sandia National Laboratories, MS 0342, Albuquerque, NM 87185-0343; phone and fax (505)844-5292; e-mail dmhaala@sandia.gov] before February 1, 1999.

**Bomem–Michelson Award.** This award is dedicated to the memory of Professor A. E. Michelson, developer of the Michelson interferometer. Bomem, Hartman & Braun sponsors the award to honor scientists who have advanced the technique(s) of vibrational, molecular, Raman, or electronic spectroscopy. Contributions may be theoretical or experimental, or both. The recipient must be actively working and may be associated with the academic, industrial, governmental, or private sector. The awardee must be 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 Coblentz Society. The presentation will be made at the Pittsburgh Conference in March 1999.


The nomination should include a resume of the can-
candidate’s career as well as the special research achievements that make the candidate eligible to receive the Bomem–Michelson Award. Files on nominees will be kept active for three years, after which they will be closed. The nominating letter and support should be sent to: Dr. Nancy Ferris, Analytical Technology Division, Eastman Kodak Company, Rochester, NY 14650-2132; phone (716)722-0418; fax (716)477-7781. Nominations will close on March 31, 1999.

**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 Coblentz Society, the 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 or 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.


Nominations should contain the name and affiliation of the nominee and sufficient background information to justify the nomination. A nominator is expected to believe 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 May 1 in any given year will be considered for the award to be presented in the fall of the following year. Files on nominees are kept active for three years, after which they will be closed. Nominations should be submitted to: Chairman, Lippincott Award Selection Committee, c/o Optical Society of America, 2010 Massachusetts Ave., N.W., Washington, DC 20036; phone (202)416-1403; fax (202)416-6130.

**SOCIETY ANNOUNCEMENTS**

**Membership.** Anyone wishing to join the Society may do so by sending $10 to Dr. John Hellgeth, Coblentz Society Membership Chairman, SRN Comany LLC, 22 Arnoldale Rd., West Hartford, CT 06119.

**Board Meeting.** The Coblentz Society board will hold its semi-annual meeting the second week in October at the FACSS Conference in Austin, Texas. Any article of business that you want the board members to consider needs to be sent in writing to Arlene Garrison, Coblentz 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 1999–2003 to Coblentz Society President, Arlene Garrison (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 1999 to Arlene Garrison, Coblentz Society President (see address at end of newsletter), prior to September 1st.

**COBLENTZ SOCIETY BOARD**

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<th>Name</th>
<th>Term Expires</th>
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<td>Dr. Fran Adar</td>
<td>1999</td>
<td>(908)549-7144</td>
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<td>Instruments S.A.</td>
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<td>3880 Park Ave.</td>
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<td>Edison, NJ 08820</td>
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<td>Dr. Terry Gustafson</td>
<td>1999</td>
<td>(614)292-1832</td>
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<td>Department of Chemistry</td>
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<td>The Ohio State University</td>
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<td>Dr. Nancy Klymko</td>
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<td>Hopewell Jct., NY 12533</td>
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<td>Professor M. D. Morris</td>
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<td>Dr. John Coates</td>
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<td>Dr. Concetta M. Paralusz</td>
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<td>1365 Carlisle Road</td>
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<td>Dr. John Hellgeth</td>
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<td>Dr. Richard McCreery</td>
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