THE COBLENTZ SOCIETY

NEWSLETTER

A Society for Applied Spectroscopy Affiliate
Editor: K. S. Kalasinsky

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Coblenz Society President, Larry Nafie (R), presents the Coblenz Award to Paul Alivisatos of the University of California, Berkeley, at the Ohio State Molecular Symposium in Columbus this past June.

EDITOR'S COMMENTS

As you can see from this newsletter, this is your news corner. Many spectroscopy events are happening in 1995, and some are highlighted in this issue of the newsletter. 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 May 1st for the August issue. Regardless of the number of contributions, we will always be printing the events and progress of the Society so that you can keep in touch with the board members and officers. Newsletter requests can be mailed directly to the newsletter editor as noted in the officer section at the end. Be sure to look for the Coblenz Society Newsletter in every February and August issue of Applied Spectroscopy.

KATHY KALASINSKY

PRESIDENT'S MESSAGE

Over the past year, the Coblenz Society has continued its support of the field of vibrational spectroscopy in a number of ways. To encourage the young spectroscopist, we again sponsored a round of student awards in the spring of 1994 in which selected students received a Coblenz Society Desk Book of Infrared Spectra and a year's membership in the Society. We have sponsored or co-sponsored four awards—the Coblenz Award; the Williams–Wright Award; the Bomem–Michelson Award; and, jointly with the Society for Applied Spectroscopy and the Optical Society of America, the Lippincott Award. The Society has participated in several international meetings in various ways. This year these have included (1) the Pittsburgh Conference in Chicago, where the Williams–Wright Award and the Bomem–Michelson Award Symposia were given as well as the annual Wine and Cheese reception, (2) the Ohio State University Molecular Spectroscopy Symposium with the Coblenz Award Symposium and the Annual Beer Blast, and (3) the European Congress on Molecular Spectroscopy in Essen, Germany, where a Coblenz Society Wine and Cheese Reception was hosted by LabControl, GmbH. The Society provided financial assistance to the Vibrational Spectroscopy Gordon Conference in Wolfeboro, New Hampshire, and to a series of symposia on vibrational spectroscopy at this year's FACSS Meeting in St. Louis. We plan to consider support for additional meetings featuring advances in vibrational spectroscopy in the near future.

The Society is continuing to develop the means to serve more fully the needs of the vibrational spectroscopy community through activities involving member benefits and the development of databases. The activities of the Society are highlighted each year at the Coblenz Society booth located with the other society booths at FACSS and Pittcon. This summer the Coblenz Society purchased a new, portable booth in order to more effectively communicate information about the activities of the Society and to facilitate the transport of the booth to various scientific meetings. The booth features a new official logo of the Coblenz Society, which will be included on future publications of the society where possible. A new booklet commemorating the Fortieth Anniversary of Society became available at FACSS in St. Louis, and will be offered on a regular basis at the booth. At future meetings, you should plan to visit the new booth, pick up some literature, and buy some books, or a T-shirt at the bargain price of $10 each.

The Society has taken steps recently to improve its income stream so that it will continue to be able to support activities important to the growth and development of vibrational spectroscopy. These steps have included...
moving some endowment funds into higher-yield investments and taking measures to secure new sources of income in database development, an area of longstanding excellence and leadership by the Society.

The Coblentz Society is very proud of its tradition of recognizing the work of outstanding molecular spectroscopists working in various areas of vibrational spectroscopy. The 1994 Coblentz Award was won by Professor Paul Alivisatos of the University of California, Berkeley, and was presented to him at the Molecular Spectroscopy Symposium at Ohio State University in June. The Williams-Wright Award for 1995 was won by Dr. Michael Philpott of the IBM Almaden Research Laboratory, and a symposium honoring this achievement will be featured at the Pittsburgh Conference in New Orleans next March. The 1995 Bomem-Michelson Award has been awarded to Professor Terry Miller of the Ohio State University, and a symposium in his honor will also be held at Pittcon next year.

I am very pleased to announce that Professor John E. Bertie of the University of Alberta was elected President-Elect of the Coblentz Society earlier this year and will assume duties following the Board of Governor’s meeting at Pittcon next March.

Finally, I would like to express my appreciation for the support and assistance given by many members of the Coblentz Society, and I look forward to others joining our ranks as new members in the year ahead.

LAURENCE A. NAFIE
PRESIDENT

OUR INFRARED SPECTRA

The Coblentz Society is well known for providing high-quality reference spectrum libraries. We are still working to expand the database and to extend its contents to include more polymers, surfactants, fibers, and commercially important mixtures. An increased effort to provide larger digital files for direct computer searching and other manipulation is underway. These aspects of our database program and a request for your participation are reported here.

Expanded coverage of reference spectra to commercial materials began with publication of the book Infrared Spectra of Regulated and Major Industrial Chemicals. Comments from analytical spectroscopists visiting our exhibit booth and participating in several short courses have made it evident that many are not aware of the broad content of this book. Its contents were selected to represent the materials most likely to be found in environmental clean-up, both in soil and water. It contains spectra of the “green list” of EPA, the Priority Pollutants, including some compounds or materials which are frequently mentioned as candidates. Another category in this book is the list of chemicals shipped in the highest tonnages for the greatest distance, or by transportation means most susceptible to spillage. These lists were supplemented by spectra of mixtures which can be characterized by IR, such as gasolines, kerosene, creosote, commercial solvent blends, fuel oils, crude oils, asphalts, and functional fluids including plasticizers and hydraulic fluids.

Pure large-volume chemical products are included. Extraordinary usefulness for the analytical laboratory is the result, not only from the inclusion of spectra of these ubiquitous chemicals but also from the inclusion of spectra of specialized mixtures, many not yet mentioned, such as PCBs, PAHs, and CFCs.

We are in the process of providing more flexibility for this database by putting it into a digital form for computerized use. In keeping with the Coblentz Society’s Board of Managers’ long-standing belief that deresolved spectra, and spectra that are only qualitative, lack the full usefulness of well-resolved and quantitative spectra for many materials, we will continue to sell the hardcopy spectra in book or loose-leaf format to supplement the digital files [fax (314)358-2589 for a complete price list and order form].

From the spectra in the books it will become obvious when it is best to run samples in solution in fixed-thickness cells for optimum opportunities in interpreting the spectral data, especially in mixtures. It will also become apparent that, in order to detect detail that distinguishes closely similar compounds, spectra may be needed at different thicknesses—even thick enough to be incompatible for computer matching with thinner runs which permit normalizing processes common in spectra for automated searching and other computerized comparisons. We are moving ahead on digital data but encourage the continued use of hardcopy spectra, and of keeping good resolution in the digital files.

COBLENZ SOCIETY DIGITIZED DATABASE INFORMATION

At this time digital spectra are available for Perkin-Elmer and Analect instruments. These are 1200 spectra selected from 5000 spectra in our NSRDS evaluated files. The Perkin-Elmer file is PE designation N187-0027. Perkin-Elmer also markets a searchable peak library that covers spectra in three of the Society’s books—The Desk Book, Plasticizers and Other Additives, and Halogenated Hydrocarbons. The PE designation for this file is SP LIB. The 1200 digital spectra are also available for Analect instruments ordered directly from the Society at P.O. Box 9952, Kirkwood, MO 63122, or by the above fax number.
Additional digital spectra are in process for these instrument files and for PC use in ASCII or JCAMP.DX form. Growth of the digitized database depends in large part upon infrared users like you. Contact Kathy Kalasinsky or Clara Craver to volunteer to help the Society in its leadership role in IR reference data.

TENTH INTERNATIONAL CONFERENCE ON FOURIER TRANSFORM SPECTROSCOPY, BUDAPEST, HUNGARY, AUGUST 1995

The 10th ICOFTS will be held at the Budapest Convention Center in Budapest, Hungary, from August 27 to September 1, 1995. Prof. Dr. Janos Mink of the University of Veszprem is chairing the Conference, and the Program Chairman is Robert Kellner of Vienna, Austria.

In the tradition of ICOFTS, the program will consist of about 19 plenary lectures, with posters, discussion sessions, an instrument exhibition, and, of course, the conference excursion and banquet. The last five conferences in this successful series were in Ottawa, Canada, in 1985; Vienna, Austria, in 1987; Fairfax, Virginia, in 1989; Lubeck, Germany, in 1991; and Calgary, Canada, in 1993. It has been noted that each meeting has brought a fresh group of plenary lecturers. This practice will continue, and some very creative scientists have agreed to present lectures. Again following the ICOFTS tradition, the topics of the plenary lectures will cover a broad range of science. Bioelectronics, step-scan emission, and small particles will be among the topics covered by plenary lecturers at the 10th ICOFTS, as will IR sensors and probes, environmental and medical applications, polymers, surfaces, and chemometrics.

Further information about the 10th ICOFTS can be obtained from the conference office:

Conference Office 10th ICOFTS
Roland Eotvos, Physical Society
Secretary: Mrs. Klara Lang
P.O. Box 433
H-1371 Budapest
Hungary

REQUEST FOR NOMINATIONS

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


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. Peter M. Felker, Department of Chemistry and Biochemistry, University of California, Los Angeles, CA 90024-1569, Ph: (310) 206-6924], on or before July 1, 1995.

1996 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 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, i.e., the introduction of novel methods, techniques or theories; innovative work in the field of vibrational spectroscopy; significant vibrational spectroscopy arising from the volume of contributions in a specific area. The nomination should include a current vitae on the nominee and highlight 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.

was their symposium will appropriate scientific medal and notable achievements included, 2800. The medal is be sent Society.

In this award includes a $1000 cash prize plus a travel allowance to the Pittsburgh Conference. Nominations should be sent to the chairman of the William–Wright Award Selection Committee [Dr. Richard Palmer, Department of Chemistry, Duke University, Durham, NC 27706. Ph: (919)660-1539]. The deadline is April 1, 1995.

1996 Bomem–Michelson Award. This award is dedicated to the memory of Professor A. E. Michelson, 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. 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 or older. The award consists of a medal and an honorarium. 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 presentation will be made at the Pittsburgh Conference in March 1996.


In order to assure that the award is based on an independent evaluation of the candidate’s performance, the selection is made by a committee chosen by the Coblentz Society. A nominating letter and seconding letters should be sent to: Dr. John Hellguth, Nicolet Instruments, 9901-H Business Parkway, Lanham, MD 20706. Ph: (800)237-2800. The candidate’s curriculum vitae should be included, as well as specific research efforts which make the candidate eligible for this award. Nominations will close April 1, 1995.

1996 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 include the name and affiliation of the nominee and sufficient background information to justify the nomination. A nominator is expected to believe strongly enough 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 that year or spring of 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, DC 20036, Ph. (202)416-4100.

SOCIETY ANNOUNCEMENTS

Membership. Anyone wishing to join the Society may do so by sending $10 to Dr. James A. de Haseth, Coblentz Society Membership Chairman, Department of Chemistry, University of Georgia, Athens, GA 30602.

Board Meeting. The Coblentz Society Board will hold its semi-annual meeting the first week in March at the Pittsburgh Conference in New Orleans. Any article of business that you want the board members to consider needs to be sent in writing to Dr. Laurence A. Nafe, Coblentz Society President, Department of Chemistry, 1-014 Center for Science and Technology, Syracuse University, Syracuse, NY 13244-4100, prior to the conference.

Annual Meeting. The annual meeting of the Coblentz membership will be held prior to the Williams–Wright Symposium at the Pittsburgh Conference. Be sure to attend, since the general business of the Society will be conducted.