PRESIDENTS MESSAGE

It is a pleasure to report that the financial base of the Society continues to be secure. The spectral publication sales have been fantastic for the past 2 years and 1982 looks good as well. Given the success of the book sales, it is now necessary to ensure that the financial affairs of the Society are considered in a more businesslike manner. Hence, upon the recommendation of the Finance Committee and with unanimous Board support, the following will be initiated by 1 January 1983:

• A trust fund of $50,000 will be established to support the Awards Program and other specific Board Functions.
• Further budgets will be recommended at the Fall Board Meeting and reflect a true calendar year.
• The appropriation and accounting procedures with (Chimir Spectral publications) will be simplified and more closely connected to market performance. In essence, the Board will not be micromanaging but will delegate greater responsibility to Clara Craver. The Board, however, will evaluate sales projections and inventories with actual performance.

In addition to the above, the items below may also be of interest:
• The Ohio State spectroscopy Symposium will continue to receive support from the Coblentz Society.
• A new committee, chaired by Bob Obremski, will consider how the Coblentz Society might more effectively involve a greater number of its members in Society business. Hopefully, this committee will be in the position to report to the Board in a preliminary way at the Fall Meeting.

Jenny Grasselli and Burce Chase will evaluate the Coblentz computerized infrared course and recommend its future status.
• Al Harvey of the Naval Research Laboratory is the President-Elect of the Coblentz Society.

A nominations committee has been formed to select future Board members as required by the Coblentz bylaws. I am pleased Rod McDowell (Los Alamos), Kathy Kalasinsky (Mississippi State), and Joe Niber (Oregon State) have agreed to work with Bob Obremski (Beckman).

For your information, a list of the current Coblentz Board members is provided below. I am hopeful the nominations committee will determine whether the absence of academic and women spectroscopists can be corrected.

Finally, assuming the financial reorganization will be completed by this autumn, I would like to encourage that the Board to begin addressing more substantive issues, including the purpose of the Coblentz Society in the 1980's. Are we O.K., or are drastic changes needed? My guess is that Al Harvey will inherit this question and will be well prepared to address it fully.

WILLIAM C. HARRIS

SPECTROSCOPIC FORECASTS: REMOTE SPECTROSCOPY

T. Hirschfeld

We all have had experiences with samples that we really would not like to touch with a 10-foot pole, much less put into our beloved instrument. For such samples that are too hot, too cold, too explosive, too poisonous, radioactive, or otherwise dangerous (and I don't mean OSHA “dangerous”) measurement at a distance has quite desirable attractions.

For samples that are faraway or inaccessible, such remote measurement becomes compulsory. Furthermore, in many industrial situations, where hundreds of points need to be sampled, current technology either requires a small army of people running back and forth with samples (and keeping track of which is which!) or a similar number of highly ruggedized and costly factory-mounted instruments. Again, the use of remote measurements offers advantages by allowing remote multipoint monitoring from the central laboratory.

As spectroscopists, we have a built-in opportunity for remote measurement, since the probe we use to interact with the sample is light, which can easily be conveyed for reasonable distances. Indeed, there has been already considerable work in this area, inspired by both civilian...
and military government needs.

Past work in this area has involved long-path infrared measurements over extended distances, using both absorption (with a local source and a distant retroreflector) and emission (exploiting intrinsic temperature differentials in the sample). Such measurements are, of course, of interest for atmospheric monitoring, but their quantitative interpretation is occasionally difficult. Advances in the FT-IR and tunable laser state-of-the-art have been quite helpful here, and the technique seems suitable for more general use than it is now receiving. Comparable developments have occurred in Raman spectroscopy, whose remote application has been helped greatly by new instrumental advances, and is now being applied to industrial problems in both Europe and Japan.

However, this very sensitivity to atmospheric effects is a liability for point sampling, and the usual sample geometry restrictions for infrared and Raman spectroscopy are not easily fulfilled in remote industrial sampling. The high cost of the instrumentation has not been any help either. Several new developments may change this in the near future.

In the first place, new sampling geometries now make it possible to modify standard commercial Raman spectrometers inexpensively for remote operation, with a permissive sample geometry and no sensitivity to the intervening air path. A separate development, the commercial availability of long-range high-transmission optical fibers for the near and middle infrared, is rapidly getting to the point of allowing similar modifications to commercial infrared spectrometers. Last, but not least, the renaissance of the near infrared allows cheaper and more energy-rich instrumentation to be used for quantitative analysis, while enormously increasing the permissiveness of the sampling process.

The boom in remote spectroscopy foreshadowed by these advances will be a continuing part of the exodus of chemical analysis from the laboratory back to the factory. By becoming the agents and developers of this process, we can make it enhance and not detract from the usefulness and status of our field.

Grasselli, The Standard Oil Company, Research and Development Department, 4440 Warrensville Center Road, Cleveland, OH 44128, in July 1982. This Coblentz Society Award recognizes significant contributions to industrial vibrational spectroscopy. The recipient must be actively working in spectroscopy at the time the award is made, but no restrictions are placed on age or nationality.

CONGRATULATIONS

Congratulations to The recipients of the 1982 Coblentz (Chris Patterson) and Williams-Wright (Bob Hannah) Awards. The standards of excellence achieved by these two distinguished scientists are easily cited in the normal sense of publications and lectures; however, having had the privilege to examine their “nominations” files, their relationship and personal traits complement nicely their outstanding scientific achievements.

As has been noted previously, we are now accepting nominations for next year’s awards and request that nominations for The Coblentz Award be sent to Dr. B. J. Bulkin at the Polytechnic Institute of NY. Nominations for the Williams-Wright Award should be sent to Dr. J. Grasselli of SOHIO. Please note that the nomination letters are usually supported by a couple of seconding letters and a resume.

It is appropriate at this time to acknowledge two other individuals, Chris Brown and Jack Katon, for extensive contributions to The Coblentz Board over the past 4 years. Chris and Jack have been enormously helpful and we owe them our deepest thanks. Chris helped me organize the “CADS” group several years ago but ended up carrying the ball for the past 3 years. He organized the wine and cheese parties and attempted to keep the focus on the spectroscopy, rather than dispersive or FT methods. Evidence for the success of CADS is reflected by the realization of practicing spectroscopists that the computer and sample preparation, for example, are the areas

Jim and Marlene Durig, Peter Griffith, and Loren Fuller show us that spectroscopists occasionally relax and have fun.

WILLIAMS-WRIGHT AWARD

Nominations for the Williams-Wright Award recipients in 1983 are solicited and should be sent to Jeanette Grasselli of Digilab.
where we need regular consultation. Hence, the Coblentz Board has recommended we continue the social hour initiated by the CADS group but simply designate the meeting as Coblentz sponsored.

Jack has managed to improve considerably the recognition of outstanding spectroscopy students and has masterfully pursued this project. Now outstanding students can be nominated for Coblentz Awards for their early efforts in spectroscopy. Jack has also worked effectively with FACCS and attempted to involve the Coblentz Board more overtly with the meeting's organization. Although much remains to be done, Jack has certainly established important programs.

Thanks a lot Jack and Chris. I appreciate your effort, accomplishments, and good humor.

Finally, we welcome two new Board members—Bruce Chase (DuPont) and John Leppard (Phillip Morris).

COBLENZ SOCIETY STUDENT AWARDS

The Coblentz Society is pleased to announce its Student Awards for 1982. These awards are presented yearly to outstanding students of molecular spectroscopy and consist of a suitably inscribed copy of the Deskbook of Infrared Spectra and a year's membership in the Society. The awardees for 1982 are as follows:

Steven J. Bares. Mr. Bares is nearing completion of his Ph.D. in molecular spectroscopy at Oregon State University. He received his B.S. degree in chemistry from Humboldt State University.

John Graham. Mr. Graham is currently a Ph.D. student in chemistry at Kansas State University working in time resolved FT-IR. He holds a M.S. degree from Pittsburgh (Kan.) College.

George Halsey. Mr. Halsey is nearing completion of his Ph.D. degree in physics at the University of Tennesse. His work is in infrared spectroscopy.

Matthew A. Hartcock. Mr. Hartcock holds a B.S. from Southwest Missouri State University and will receive his Ph.D. in chemistry shortly from Texas A&M University. His thesis topic involves potential energy surfaces for large amplitude motions.

Lisa J. Hilliard. Ms. Hilliard is currently a fourth year graduate student in analytical chemistry at the University of Delaware. Her research involves the investigation of catalytic surfaces using inelastic electron tunneling spectroscopy.

David Honigs. Mr. Honigs is currently a graduate student at Indiana University working on near infrared reflectance analysis. He received a B.S. degree from Kansas State University.

Curtis Hubmann. Mr. Hubmann is a senior chemistry major at Carthage College who has been heavily involved in computer interfacing.

Darryl Jones. Mr. Jones is about to complete his M.S. degree in physics at Fisk University. His thesis is on infrared and Raman spectroscopy. He also holds an A.B. in physics from Fisk.

Janice King. Miss King is a senior chemistry major at Adrian College, where she has been active in computer applications. She intends to enter graduate school in Chemical Engineering after completion of her B.S. degree.

Josef C. Lapp. Mr. Lapp holds a B.S. degree in chemistry from the University of Rochester and is currently a M.S. student in ceramic science at Alfred University. His thesis is concerned with the vibrational spectra and structure of sodium borophosphate glasses.

Eleanor A. Lewis. Ms. Lewis is currently a senior chemistry major at East Stroudsburg State College. She plans to enter graduate school in the fall in inorganic or analytical chemistry.

Stanislaus R. Lobo. Mr. Lobo is currently a Ph.D. student in analytical chemistry at Miami University. He holds a M.S. degree from the University of Bombay. He is studying temperature effects in infrared spectroscopy.

Mark Maroncelli. Mr. Maroncelli is a Ph.D. student in chemistry at the University of California, Berkeley and is studying phase transitions in solid alkanes using vibrational spectroscopy. He has a B.S. in chemistry from Williams College.

Kathleen Martin. Ms. Martin holds a Bachelor's degree from Northeastern Illinois University and is currently a Ph.D. student in chemistry at Loyola University of Chicago. Her thesis research is in molecular spectroscopy.

John T. McDonald, Jr. Mr. McDonald is a graduate student studying chromatography/infrared spectroscopy techniques at Mississippi State University. He holds a Bachelor's degree from Berry College.

Paul Neill. Mr. Neill is currently a M.S. student in chemistry at Abilene Christian University. His thesis involves spectroscopic studies of coordination compounds.

Donna Rollison. Ms. Rollison is a senior chemistry major at Marywood College and spent last summer at the University of Utah on a National Science Foundation summer research program. She plans to attend graduate school in the autumn.

Sharon Ruppel. Ms. Ruppel is a senior chemistry major at Muskingum College and spent last summer as a research intern at Battelle Laboratories. She is also currently serving as a laboratory assistant at Muskingum.
Ann Womble Stanley. Mrs. Stanley is expecting to complete her Ph.D. degree in chemistry at the University of South Carolina in 1982. She holds a M.S. degree in analytical chemistry from Clemson University. Her thesis involves the determination of molecular structures by molecular spectroscopy.

Bruce A. Steinbaugh. Mr. Steinbaugh received his B.S. degree in chemistry from Rose-Hulman Institute of Technology in May. He intends to enter graduate school for further studies in chemistry this autumn.

Dawn L. Stubbs. Ms. Stubbs is currently a junior chemistry major at Norfolk State University. She plans a career in molecular spectroscopy.

Marianne Verbecke. Ms. Verbecke is a graduate student in chemistry at the Polytechnic Institute of New York. Her research involves the application of rapid scanning Raman spectroscopy to the crystallization kinetics of polymers.

Wang-Jih (Paul) Yang. Mr. Yang is a third year chemistry graduate student at Ohio University. His research involves the development of new techniques utilizing FT-IR. These are both instrumental and computational in nature.

COBLENZT BOARD

President: William C. Harris
Secretary: Robert W. Hannah
Treasurer: Howard J. Sloane
News Editor: Tomas Hirschfeld
Past President: Bernard J. Bulkin

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Board members serve terms of 4 years and there are eight members.

NEWLY ELECTED BOARD MEMBERS

Bruce Chase received his B.A. from Williams College in 1970 and his Ph.D. in physical chemistry from Princeton University in 1975. He then joined E.I. Du Pont de Nemours as a research chemist in the Spectroscopy Division of the Central Research Department.

Dr. Chase’s principal area of research covers applications of vibrational spectroscopy to industrial analytical problems. This work involves primarily FT-IR and Raman techniques. Among the specific areas of FT-IR spectroscopy he is involved with are: infrared emission, diffuse reflectance, and in situ studies of photo-induced reactions. In Raman spectroscopy, his work primarily involves development of a microRaman capability using a laser Raman microprobe.

Dr. Chase is currently a member of the Society for Applied Spectroscopy, Coblenz Society, American Chemical Society, and the Optical Society of America. He was a member of the organizing committee for the 1981 International FT-IR Conference.

John Lephardt received both his undergraduate and his graduate training at the University of Maryland. His thesis, directed by Ellis Lippincott, was on the use of Fourier transform infrared spectroscopy for GC effluent analysis and structural investigations. After a 1-year postdoctoral position with Dr. Bernie Bulkin (Hunter College), working on liquid crystals, and a 1-year postdoctoral position with Dr. Douglas Davis (University of Maryland), working on dye lasers and development of resonance fluorescence techniques for examining reactions under stratospheric conditions, he joined the Philip Morris Research and Development Center (Richmond, VA) in 1973. Presently, John is a Senior Scientist and Project Leader in the Analytical Research Division at Philip Morris. His specialties are Fourier transform infrared spectroscopy and methods development. John is also a member of the ACS, OSA, and SAS, and has served on several SAS committees. In addition, John served as a Program Co-Chairman for the 1981 International Conference on Fourier Transform Infrared Spectroscopy, and will be the Program Chairman for the 1983 FACSS Conference.

Jim De Haseth and John Lephardt notice the photographer picking on them.