



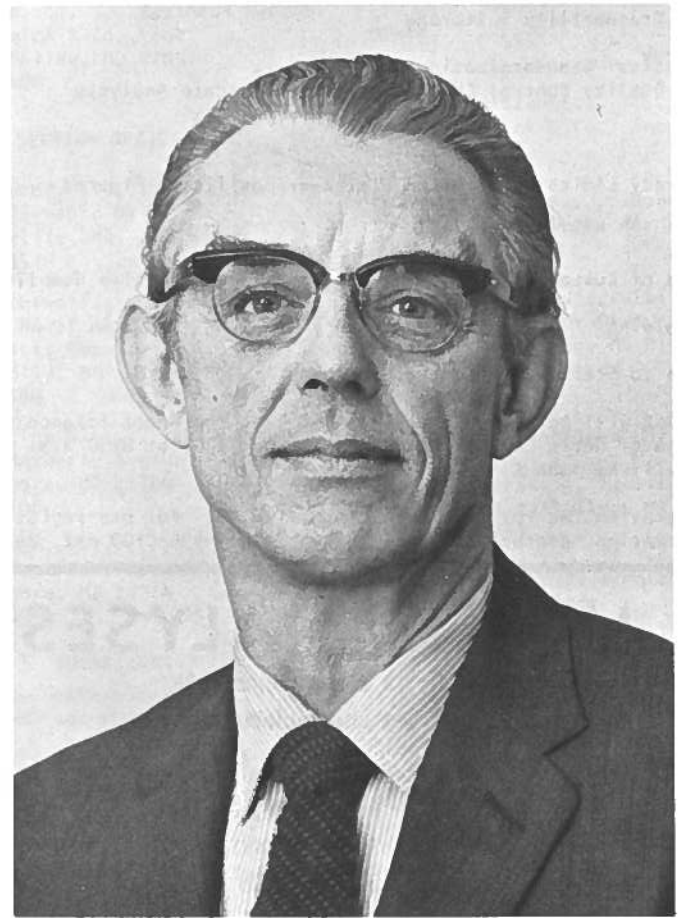
THE **CHESAPEAKE  
CHEMIST**

MARYLAND SECTION  
AMERICAN CHEMICAL SOCIETY

VOL. XLI

DECEMBER, 1985

NUMBER 9



*THE MARYLAND CHEMIST OF THE YEAR*

SHORT COURSE

The Education Committee of the Maryland Section of the ACS is presenting a workshop on Practical Chemistry. The eight-hour workshop will expose participants to information and techniques that are necessary for work in an analytical laboratory. The workshop will require participants to be imaginative, resourceful and able to work independently.

COURSE OUTLINE:

Working in the laboratory

- Safety (OSHA) - Disposal (EPA) - Procedure Documentation
- Lab Housekeeping and Functionality

Glassware

- Cleaning Procedures - Calibration and Certification Techniques

Quality Control

Standards

- Primary - Secondary - Internal - External

NBS - Standard Reference Materials

- Traceability - Storage

Analytical Standardization

- Quality Control Check Samples - Replicate Analysis

Reports

- Accuracy Limits - Detection Limits - Significant Figures

Sampling

- Chain of Custody - Composite Samples - Representative Sampling

Problem Solving

- Where to Start - Information Sources

The workshop will be held January 11, 1986, at the Knott Science Center of The College of Notre Dame of Maryland, in room 230, at 8:30 a.m. The instructor will be John A. Schaefer.

The registration fee for each participant is \$20. For pre-registration or more information, contact Steve Gregory at (301) 435-0100 ext. 244.

## MICROANALYSES

Analysis for all elements

Trace analyses and molecular weights

## GALBRAITH LABORATORIES, INC.

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# THE CHESAPEAKE CHEMIST

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The Chesapeake Chemist is published monthly September through May by the Maryland Section of the American Chemical Society. Address editorial comments to the Editor. Send advertising copy and inquiries to the Business Manager. The Maryland Section is not responsible for opinions expressed herein. Editorials express the opinions only of their authors. The Editor is responsible for all unsigned material.

## THE MARYLAND CHEMIST OF THE YEAR

JOHN LAMBOOY

John Lambooy was born in Kalamazoo, Michigan in 1914. He received a B.A. with majors in both chemistry and biology from Kalamazoo College in 1937, and an M.S. in organic chemistry (Upjohn Research Scholar) in 1938. He received an M.A. in organic chemistry from the University of Illinois (Urbana) in 1939. He received his Ph.D. in physiological chemistry (Vital Economics) from the University of Rochester in 1942. He served in the U.S. Army, Sanitary Corps from 1942-1946 and then spent several months as a Post Doctoral Fellow at Large in biochemistry at the University of Chicago. He was on the Faculty of the University of Rochester in Physiological Chemistry and Physiology (1946-1963) and then as Professor of Biochemistry and Section Head, Biochemical Pharmacology at the University of Nebraska (1963-1969). He joined the University of Maryland at Baltimore in 1969 as the first Dean for Graduate Studies and Research and in 1974 returned to teaching and research as Chairman of Biochemistry, School of Dentistry. He retired July 1, 1985.

Professor Lambooy has over 80 publications in areas of organic chemistry, biochemistry, medicinal chemistry and nutrition and has made a large number of presentations in a variety of national and international meetings. He holds a U.S. patent. He is a member of several professional societies and in 1974 was awarded the Sigma Xi Annual Award for Scientific Achievement (Maryland Chapter).

### SOME MITOCHONDRIAL MYSTERIES

Modification of the structure of naturally occurring biologically essential metabolites has long been used as a design concept for the preparation of potentially useful therapeutically active agents. Success in attaining such goals has been only infrequently realized but the resulting analogs are sometimes useful as agents to illuminate otherwise inaccessible aspects of metabolic pathways.

Riboflavin is required by all living cells and in a modified form it is essential as an ionically bound coenzyme for many enzymes and as a covalently bonded prosthetic group for a few enzymes.

The mitochondrion possesses three enzymes that make use of a prosthetic group formed from riboflavin which is covalently bonded. The study of these enzymes making use of analogs of riboflavin has made it possible to learn details of the metabolism of mitochondria which seem paradoxical and mysterious. Unlabeled and labeled analogs of riboflavin were used in these studies and the principal test system was the albino rat.

It is with deep regret that the Maryland Section notes the passing of one of its members, Harold Hyman Rosen, on September 20, 1985. Harold Rosen was a retired employee of Edgewood Arsenal and had assisted with the distribution of *The Chesapeake Chemist*.

There will be no January meeting of the Maryland Section. Consequently, the January and February issues of *The Chesapeake Chemist* will be combined and will appear in early February. We wish everyone a happy holiday season.

## THE MARYLAND CHEMIST AWARD

### DATE:

Wednesday, December 18, 1985

### PLACE:

Knott Science Center  
(cocktails and dinner in the  
Doyle Building dining room)  
The College of Notre Dame of  
Maryland  
North Charles Street  
Baltimore

### SPEAKER AND TOPIC:

THE MARYLAND CHEMIST  
AWARD ADDRESS  
8:15 pm  
Dr. John Lambooy  
University of Maryland at  
Baltimore

"Some Mitochondrial Mysteries:"

### COCKTAILS AND DINNER:

Social Hour 6:30 p.m.  
Dinner 7:15 p.m.

Dinner price \$11.50 per person, but spouses, retired chemists and students may attend for \$9.50

Dinner reservations should be made by mailing checks, payable to Maryland Section of ACS, to

John Corliss  
P.O. Box 20899  
Baltimore, MD 21209

by December 9. Late reservations may be made by calling

John Corliss at (301) 235-6612 or  
Nolan Phillips at (301) 939-3500.

It is not necessary to be a member of the American Chemical Society to attend. You may attend the lecture without attending the dinner.

### Toxicological Chemistry at UMBC

**A three-credit course  
(undergraduate or graduate)  
taught by Dr. Jack Schubert,  
chairman, UMBC Chemistry  
Department**

**Sixteen weeks beginning  
January 28  
Tuesday and Thursday Evenings  
7:00-8:30 p.m.**

**UMBC  
University of Maryland  
Baltimore County  
Catonsville, MD 21228**

**A systematic examination of the relationships between the chemical properties of toxic chemicals — chlorinated hydrocarbons, metals, drugs, solvents, and naturally occurring toxicants — and their genotoxic effects.**

**Topics include biotransformations, dose-response and statistical considerations, chemical air pollution, pharmacokinetics, chemical mutagenicity and carcinogenicity, analytical procedures, geochemistry of environmental pollution, radiation toxicology, and combinations of chemicals.**

**For information call 455-2505.**

## EXECUTIVE COMMITTEE MINUTES

The Executive Committee of the Maryland Section of the American Chemical Society was called to order at 7:50 p.m. on September 4, 1985 in the Chemistry Reading Room at the College of Notre Dame by the Chairman, Harold Klapper.

The members present included: H. Klapper, J. Roach, T. Bitterwolf, M. Eiss, A. Zeiger, R. Petersen, H. Freimuth, S. Gregory, T. Stockus, D. Hoster, Slster D. Eby, E. Silversmith, K. Kirk, T. Parr, A. Bober, M. Miller, N. Phillips, H. Cohen, and B. White.

The minutes of the May meeting were accepted as published.

**Treasurer's Report.** According to John Roach, income from the Remsen Award meeting in May was \$606.00, and expenses for the March, April, and May meetings totalled \$2,207.65. The Section's assets for the 3-month period, May 1 to August 31, 1985, were \$18,392.47, including \$2,880.84 in interest on the Yorkridge-Calvert certificate of deposit. \$700 was received from National for Project SEED toward expenditures of \$1,500 (\$800 had been appropriated in May to support 2 additional students). Roach received \$500 to attend an Institute for Chemical Education program. The total for speakers' expenses were \$1,535.93, reflecting unusually high outlays for transportation. Klapper suggested that the Section make flight arrangements for out-of-town speakers to keep costs down in the future. Roach also noted that the \$15,000 certificate of deposit at Yorkridge-Calvert would mature the following week, and that options for investing this money needed to be considered. Overall, the financial status of the Section is about \$1,500 lower than the corresponding balance in 1984.

**Awards.** Jim King reported to Klapper that the committee had selected Dr. John Peter Lambooy of UMAB to receive the 1985 Maryland Chemist Award to be given December 18 at the College of Notre Dame. Klapper reported that Bob Caret had resigned as chairman of the Remsen Award committee. In November, Don Hoster will send out information about the 1986 Student Awards program to the 2- and 4-year colleges. Kris Kirk will continue to serve as co-chairman.

**Chemical Education and Safety.** Steve Gregory reported that John Schaefer will present a workshop on practical chemistry in January. An ad will appear in the November issue of *The Chesapeake Chemist*. The results of the May survey on Short Course topics indicated chromatography as a popular choice for a workshop to be run in April. The date will be chosen so as not to conflict with the ACS National meeting.

**Program.** Arrangements for the September 19th meeting were all set; W.R. Grace is subsidizing the cost of the dinner for all student attendees. Tom Bitterwolf also distributed a listing of the programs for 1986. In December, the cost of the dinners at the College of Notre Dame will be increased by \$0.50/person, due to a small increase in expenses.

**House.** Henry Freimuth reported the situation well in hand for the September meeting.

**By-Laws.** Klapper said the letters Elwin Penski had sent to Maryland senators and representatives had brought no response.

**Member Assistance.** Merle Eiss reported some inquiries about jobs, but said she had no information about openings, beyond the listings provided by National.

**Public Relations.** Information on the 1986 MARM has been released, according to a phone report by Bob Kreps.

**Membership.** Howard Cohen said that, based on the number of labels for *The Chesapeake Chemist*, the current Section membership is about 1596, with 21 additional copies sent to special groups (e.g., high school teachers). The September issue received special effort to ensure timely delivery. Some postal aberrations still occur: several Towson State members have not received issues since last October.

**Finance.** Klapper discussed investment strategies for the maturing Y-C certificate funds. It was noted that the MARM may require increased liquidity of a portion of this sum. The Committee agreed that three \$5,000 CD's or the like would provide easy access if need arose.

**High School.** Bitterwolf pointed out the article in the September *Chesapeake Chemist* on high school activities during the past year. Sr. Denise showed the Committee a brochure describing an NSF-funded program for high school teachers to be given at Loyola College during the 1985-1986 academic year. Roach reported that the ICE workshop he attended, an instrumentation update, was excellent. However, NSF funding seems uncertain in the future.

**Chesapeake Chemist.** The editor, Ray Petersen, reported that the October issue was at the printers, and that the November deadline was the following week. That issue will feature an article on the history of Edgewood Arsenal by Jeff Smith. Joe Topping is resigning as associate editor. The position is an emergency backup for the editor, in case of illness. Petersen said that funds for the *Chemist* were sufficient, according to Alan Harmon, and that 1700 copies had been run.

**MARM.** Alice Zeiger reported that a flier about the 1986 MARM was ready for distribution at the Chicago meeting. She provided Bitterwolf with a listing of the MARM members and their phone numbers. Merle Eiss will send an article to National by the end of September. A National representative accompanied the MARM committee on a walkthrough of the Hyatt to discuss arrangements. Chuck Rowell is continuing work on the programs and symposia, while Alvin Bober is working on exhibits and other arrangements, such as luncheons and excursions. Tim Parr has opened an account so that funds can be disbursed. Bill White stated that he is seeking corporate funding to support a Biotechnology symposium. The MARM Steering Committee will provide a maximum of \$3,000 to support the 1986 MARM.

**Archives.** Roach noted that the Maryland Section was founded on October 10, 1914, and that planning should be initiated soon to celebrate the 75th anniversary of the Section in 1989.

**New Business.** Nolan Phillips had prepared a slate of officers for 1986: Chairman, Tom Bitterwolf; Chairman-Elect, Alvin Bober; Treasurer, Bill White; Secretary, Kristine Kirk.

Joe DeFrank will become Membership Chairman. It was noted that the Members-at-Large are the future committee chairmen, so more candidates should be sought for these positions to get more people involved. There was some uncertainty over which committee chairmen are actually official members of the Executive Committee. Elwin Penski will be asked to check the by-laws on this point.

Roach reported that he is still working out the Section's tax exempt status with the State officials. Apparently, the Section was unaware of a change in the sales tax exemption rules enacted around 1981. It was noted that the meals at the Section meetings are not tax exempt, but that *The Chesapeake Chemist* operation is.

A question concerning a permanent mailing address for the Section arose; this would make it easier for mail to reach the appropriate officer. The Secretary was asked to pursue this further.

The next meeting of the Executive Committee was set for Wednesday, December 11, 1985 at 7:30 p.m.

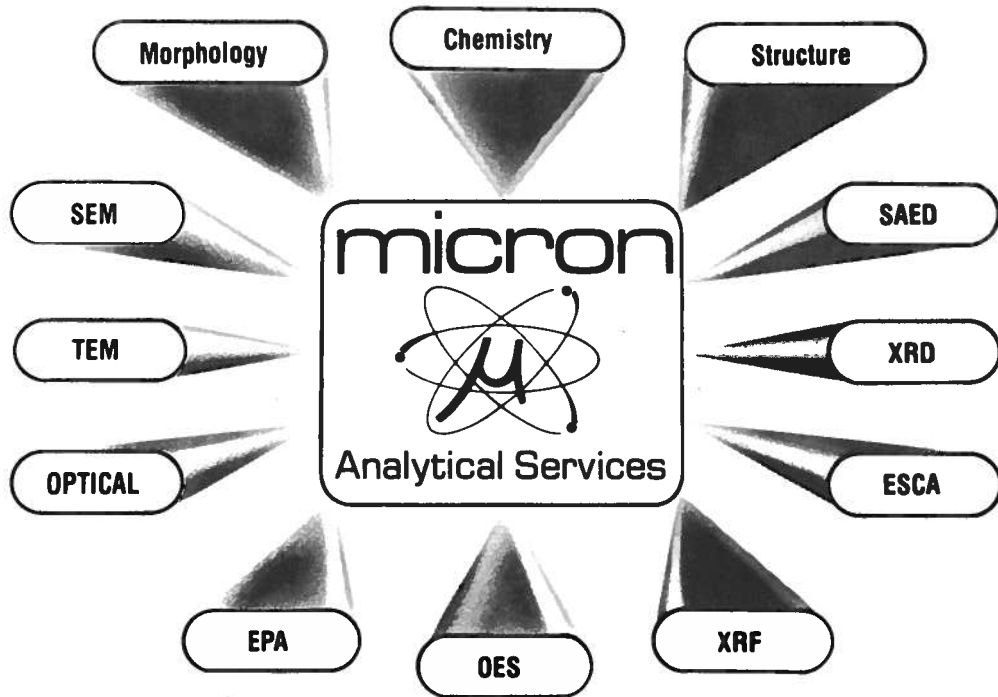
The meeting was adjourned at 9:15 p.m.

Respectfully submitted,  
Kristine Kirk

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