



# THE CHESAPEAKE CHEMIST

MARYLAND SECTION  
AMERICAN CHEMICAL SOCIETY

VOL. XL

APRIL, 1984

NUMBER 4

AMERICAN CHEMICAL SOCIETY

For

Outstanding Achievement in Chemistry



*The Chesapeake Chemist* is bombarded with press releases. Most of these are thinly veiled attempts at obtaining free publicity, and the Editor must decide what to print. In the interests of fair treatment, a general policy is required, and, to minimize misunderstandings, this policy should be enunciated.

Media releases can be grouped in three classes: 1) items from ACS; 2) announcements of courses, programs, seminars, meetings, etc., from non-profit institutions such as colleges, universities and professional societies; and 3) announcements from businesses operated for profit.

ACS releases deal with Society matters which have already been publicized in C & E News, but which may receive more careful consideration when repeated in a local section publication. These will normally be published without editing, but only on a space available basis, and the Editor chooses the most interesting ones (or sometimes the one that best fits the available space).

The second category contains quite a variety of material, and again the availability of space is an important consideration, but considerable effort is made to find the space. Priority is determined by geography (the closer to home, the more important) and charges (free offerings seem somehow more deserving). The announcements will be edited for brevity, and a minimum of detail will be printed, normally omitting information on charges or fees.

The third group is composed of announcements of personnel changes, new products, new catalogs, etc., from a variety of companies. A free offering in the nature of a public or professional service will normally be publicized, while other offerings are judged on the basis of their news value (usually very low). Again, the availability of space is a paramount consideration, and the Editor, being human, may sometimes see greater news value in a release from a regular advertiser, announcing a dramatically new product or introducing a new local representative, for example.

The Editor recently received an indignant letter from an irate sales manager who threatened to cease considering us for placement of his advertising if we persisted in ignoring his press releases. His company had, of course, not once in thirty-nine years placed an ad in *The Chesapeake Chemist*.

## SOCIAL HOUR SPONSOR

Our thanks to Michael DiPiano and Gerie Balistreri of American Scientific Products for providing the refreshments for our February social hour.



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## THE CHESAPEAKE CHEMIST STAFF

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667-7480

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Harold Klapper.....Chairman-elect  
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John E. Roach.....Treasurer  
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426-6296

## COUNCILORS

Donald Jones.....Western Maryland College  
848-7000 ext 493 or 876-2055

David Roswell.....Loyola College  
323-1010 ext 235

Charles Rowell.....U. S. Naval Academy  
267-2808

Merle I. Eiss....McCormick & Co., Inc  
667-7485

## COMMITTEE CHAIRPEOPLE - 1982

Awards.....Ernest Silversmith  
Morgan State University  
Baltimore, MD 21239  
444-3214

Chemical Education and Safety.....  
655-5254 Alvin Bober

Program.....Nolan Phillips

Archives.....Ernest Silversmith

House.....Paul Gabbert  
Linh Cheong

Member Assistance.....Merle Eiss  
McCormick & Co., Inc.  
667-7485

Public Relations.....Robert W. Kreps  
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Membership.....Maria Kristine Kirk  
4000 Mayberry Avenue  
Baltimore, MD 21206  
435-0100

Publicity.....Donald Jones  
Western Maryland College

Student Awards.....Donald Hoster  
Community College of Baltimore  
396-7991

Remsen Award.....Robert L. Caret  
Towson State University

Finance.....Harold Klapper  
653-3351

## MEMBERS-AT-LARGE

Donald Hoster Paul Gabbert  
Barbara Seiders M. Kris Kirk  
Thomas Bitterwolf

## ALTERNATE COUNCILORS

Linda Sweeting Alvin Bober  
Robert L. Caret Mike Zapf

*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.

JOHNS HOPKINS CHEMISTRY COLLOQUIA

Colloquia are held at 4:15 pm in Remsen Hall 221 on the Homewood Campus of The Johns Hopkins University. Refreshments are served at 4:00 pm.

Date	Speaker and Affiliation	Title or Field
April 3, 1984 Tuesday	Dr. George Victor Center for Astrophysics Harvard College Observatory Smithsonian Astrophysical Observatory	"Recombination Processes in Low Density Plasmas"
April 10, 1984 Tuesday	Professor Curt Wittig Department of Chemistry U. of Southern California Los Angeles	"State-to-state Dissociation Dynamics"
April 24, 1984 Tuesday	Professor William J. Evans Department of Chemistry U. of California, Irvine	"Synthesis and Reactivity of Organolanthanide and Organoyttrium Hy- dride Complexes"
May 8, 1984 Tuesday	Professor Glenn D. Prestwich Department of Chemistry State U. of N.Y. at Stony Brook	"Bioorganic Chemistry of Insects: Novel Inhibi- tors and Probes for Hor- mone and Pheromone Meta- bolism"

MARYLAND SECTION STUDENT AWARDS

Don Hoster, Chairman of the Student Awards Committee, has announced the nominees for the ACS Maryland Section student awards for 1984. Nominees will be guests of the Section at the April 25 dinner meeting at Western Maryland College.

Winners will be recognized at the meeting and will also receive a scroll and a one year subscription to the *Journal of Chemical Education*. Winners were selected by criteria established at their respective institutions.

The awardees, grouped by two-year and four-year colleges, are:

Jody L. Coleman, Anne Arundel Community College  
Deborah Lee Boxall, Catonsville Community College  
Kanyuira Gikonyo, Community College of Baltimore  
Thomas Foote Petti, Essex Community College  
Belinda A. Parrish, Frederick Community College  
Donna Schmidt, Villa Julie College  
Henry A. Bennett, Harford Community College  
Carol Novak, Howard Community College

Christopher J. McKnight, Washington College  
Sherril Lynn Bassner, Goucher College  
Katharine Epler, Hood College  
Jonathan G. Harris, Johns Hopkins University  
Derk A. Wierda, Loyola College  
James Cocchiario, Salisbury State College  
Jeffrey T. Gelwicks, Towson State University  
Lisa Alex, University of Maryland, Baltimore County  
Joseph S. Flynn, United States Naval Academy  
Michael D. Armacost, Western Maryland College  
Tamara Clay, Morgan State University

MEETING ATTENDANCE

Our February and March meetings proved to be enormously popular. The April meeting, featuring another extremely popular speaker plus student awards, also promises to attract an overflow crowd. Dining room seating must be strictly limited at this meeting, so we recommend that dinner reservations be made as soon as possible.

SOLUTIONS TO YOUR HAZARDOUS WASTE PUZZLE!

The advertisement features a central logo for ECO FLO, which consists of the word "ECO" in a stylized font above "FLO" in a bold, blocky font. The logo is set against a background of horizontal lines. Surrounding the logo are several boxes, each containing a service offering:

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SOLVENTS

Bassam Z. Shakhshiri is professor of chemistry and director of the Institute for Chemical Education at the University of Wisconsin-Madison. He was born in Lebanon where he attended the American University of Beirut for one year. In 1957 he came to the U.S. where he received his A.B. degree from Boston University and his M.S. and Ph.D. degrees from the University of Maryland. In 1967-68 he was a post-doctoral research associate at the University of Illinois-Urbana and from 1968-70 he taught general chemistry at Illinois. In 1970 he assumed his present responsibilities as coordinator of the general chemistry program at Wisconsin. In 1983 he was named the first director of the Institute for Chemical Education whose aims are to revitalize the teaching of chemical sciences at all educational levels by engaging the cooperation of academic, industrial, and government chemists.

He has served on many committees of the ACS and its Division of Chemical Education, including the Program Committee (chairman 1974), the Executive Committee (chairman 1981), and the Teaching of Chemistry Committee. He was general chairman of the ACS Fourth Biennial Conference on Chemical Education (1976) and is a Past Chairman of the ACS Division of Chemical Education and a Past Chairman of the ACS Wisconsin Section. He serves on the ACS Society Committee on Chemical Education (1981-84). He was a member of the Organizing Committee of the Sixth IUPAC Conference on Chemical Education which was held in August, 1981 at the University of Maryland. He served on the board of editors of the *Journal of College Science Teaching* and on the board of publications of the *Journal of Chemical Education*.

Dr. Shakhshiri has co-authored several publications in chemical education including a laboratory textbook, General Chemistry Audio Tape Lessons and Workbook, and semi-programmed books on chemical equilibrium, chemical kinetics, and organic and biochemistry. In addition he has developed and used CHEM TIPS, a computer-managed instructional system and has produced over 30 laboratory videotapes. He is currently engaged in a collaborative effort to write a series of handbooks on chemical demonstrations for use by teachers at all levels.

In 1969 and 1970 he was cited as Outstanding Lecturer of the Year in General Chemistry at the University of Illinois. In 1977 he received the William Kiekhofer Distinguished Teaching Award at the University of Wisconsin-Madison. In 1978 he received the Visiting Scientist Award of the Western Connecticut Section of the ACS. In 1979 he was awarded the Manufacturing Chemists Association College Chemistry Teaching Award for excellence in chemical education. In 1982 he was cited by the Wisconsin Society of Science Teachers for outstanding contributions to science education at the local, regional, and national levels. He is the recipient of the 1983 ACS James Flack Norris Award for Outstanding Achievement in the Teaching of Chemistry.

#### COMMUNICATING CHEMISTRY THROUGH DEMONSTRATIONS

Successful incorporation of demonstrations into lecture presentations is essential for stimulating student interest in chemistry and for provoking curiosity about chemical phenomena. One objective of this presentation is to show how chemical demonstrations can be used as major vehicles for teaching specific concepts. The pedagogical value of planning lecture presentations around chemical demonstrations will be discussed.

This approach is based on a learning and teaching hierarchy which involves four levels. The first level deals with *chemical facts and phenomena*. The second level deals with *chemical models and theories*. The third level deals with *chemical skills* including both laboratory and reasoning skills. The fourth level deals with *chemical epistemology* (how do we know what we know).



## APRIL MEETING

#### DATE:

Wednesday, April 25, 1984  
Student Awards Night

#### PLACE:

Decker Auditorium  
Lewis Hall of Science  
Western Maryland College  
Westminster, Maryland

#### SPEAKER:

Bassam Shakhshiri  
University of Wisconsin  
Madison

#### SUBJECT:

"Communicating Chemistry  
through Demonstrations"

#### SCHEDULE:

Reception: 6:30 pm  
Dinner: 7:15 pm  
Lecture: 8:15 pm

Reception in Decker Hall Annex.  
Dinner in Englar Dining Hall

Dinner \$10.00 per person, except  
retired chemists and students may  
attend the dinner for \$8.00

#### RESERVATIONS:

Dinner reservations are necessary  
and should be made by mailing  
checks to

Nolan Phillips  
J. M. Huber Corp.  
PO Box 310  
Havre de Grace, MD 21078

by April 16. Checks should be  
payable to Maryland Section of ACS.  
Late reservations may be made by  
calling Cheryl Manger (x358) or  
Linh Cheong (x208) at

(301) 355-3600

by April 19.

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

The teacher's attitude and motivation in presenting chemistry plays a very important role. In fact, I believe that the single most important value of the lecture method of teaching is to convey the lecturer's attitude about chemistry.

I believe lecture demonstrations should be used to help focus attention on chemical behavior and to increase the student's knowledge and awareness of chemical systems. The use of demonstrations *only* as magic tricks should be discouraged. This approach explicitly means the teacher should be fully prepared to provide a valid explanation for each demonstration presented.

# TOWSON STATE UNIVERSITY

## CHEMISTRY COURSE OFFERINGS



**SUMMER 1984**  
**JUNE 6 TO JULY 12**

### **CHEM. 1905.350 PRINCIPLES OF BIOCHEMISTRY (5 credits)**

**Meets:** M Tu W Th F 8:00 a.m. - 12:50 p.m.

**Instructor:** Dr. Richard S. Preisler, Department of Chemistry, Towson State University

**FALL 1984**

**AUGUST 29 TO DECEMBER 11**

**QUANTITATIVE ANALYTICAL CHEMISTRY.** We plan to offer this course in two parts, the first half in the fall 1984 and the second half in spring 1985. Students taking both parts will receive credit for the present 1905.211 which is required for the Chemistry major. Pending approval by the University, the first half will be offered as follows:

**Lecture:** W 7 - 8:30 p.m.

**Laboratory:** M 7 - 9:50 p.m.

**Instructor:** Dr. Joseph J. Topping.

Please call the Department at 321-3058 for further information.

### **CHEM 1905.342 PHYSICAL CHEMISTRY LECTURE — STRUCTURE AND KINETICS (3 credits)**

**Meets:** Th 7 - 9:50 p.m.

### **CHEM 1905.343 PHYSICAL CHEMISTRY LABORATORY I (2 credits)**

**Meets:** Tu 6 - 9:50 p.m.

**Instructor:** Dr. Nordulf W. G. Debye, Department of Chemistry, Towson State University

### **CHEM 1905.363 CHEMISTRY OF DANGEROUS DRUGS (3 credits)**

**Meets:** W 6:30 - 9:20 p.m.

**Instructor:** Professor Frank R. Milio, Department of Chemistry, Towson State University

**For Course Information, Call (301) 321-3058**

**For Registration Information, Call (301) 321-2022**

## MARYLAND SECTION 1983 FINANCIAL REPORT

### Revenues:

Annual ACS Allotment .....	\$ 5,823.00
New Member Commissions .....	27.50
Local Section Dues .....	3,390.00
Publications .....	4,868.05
Meals (Total Revenues) .....	5,151.50
Short Courses .....	646.00
Interest, Dividends .....	1,932.08
ACS Rebate for Councilor Travel Expenses .....	289.20
Return from 16th MARM .....	1,114.23

Total Revenues ..... \$23,241.56

### Expenses:

Administrative Expenses (Including Committee Expenses) .....	\$ 174.68
Short Courses .....	1,021.85
Local Meetings (Speakers and Related Expenses) .....	2,309.45
Meals (Total Expenses) .....	6,530.07
Publications .....	4,563.31
Newsletters and Announcements .....	1,287.51
Awards .....	714.75
Travel Subsidy to Councilors .....	668.45
Conference Expenses for Local Section Officers .....	67.25
Subsidy to Publication Account .....	3,500.00

Total Expenses ..... \$20,837.32

### Capital Changes:

Capital Balance January 1, 1983 .....	\$19,965.44
Net Revenues Added in 1983 .....	\$ 2,404.24
Capital Balance January 1, 1984 .....	\$22,369.68

## CHESAPEAKE CHEMIST 1983 FINANCIAL REPORT

### Revenues:

Advertising .....	\$ 1,351.50
Interest .....	16.55
Subsidy from Local Section Operating Fund .....	3,500.00

Total Revenues ..... \$ 4,868.05

### Expenses:

Printing .....	\$ 3,040.65
Addressing .....	420.00
Postage .....	569.98
Typing .....	413.85
Service Charges and Miscellaneous .....	118.83

Total Expenses ..... \$ 4,563.31

Cash Balance January 1, 1983 .....	\$ 528.28
Cash Balance January 1, 1984 .....	\$ 833.02

## EXECUTIVE COMMITTEE MINUTES

The Executive Committee, Maryland Section, American Chemical Society was called to order by the Chairman, Nolan Phillips, on February 1, 1984 at 7:42 P.M. at the College of Notre Dame. The following members were present: T. Bitterwolf, H. Cohen, M. Eiss, H. Freimuth, D. Hoster, D. Jones, K. Kirk, H. Klapper, B. Kreps, C. Manger, E. Penski, R. Petersen, J. Roach, C. Rowell, B. Seiders, E. Silversmith, M. Zapf, and A. Zeiger. The minutes were read and a correction was made. The Science Fair Awards should be \$50 bonds, not the stated \$25.

*Treasurer's Report:* H. Klapper reported that the Section's assets were over \$22,000, and that he should have the final numbers soon.

*Awards:* E. Silversmith reported that a mailing has been made and a notice has been placed in *The Chesapeake Chemist* requesting nominations for the Maryland Chemist Award. M. Zapf has nominated Bonita Williams of Dulaney High for the Teacher Award.

*Chemical Education and Safety:* The Technical Writing course was cancelled for lack of registrants. E. Silversmith said that on April 5, chemists from Proctor and Gamble are coming to Morgan State to talk about job opportunities. 30 students from local colleges will be invited and the day will include lunch and snacks. A motion was passed to help finance this with \$300. Nolan Phillips brought copies of the report from P. Yankowich asking for volunteers to read and comment on the report.

*Program:* Nolan reported that due to the early heavy response to the Shroud meeting notices that a large turnout is expected. The Aquarium has increased their price 25¢/person. R. Petersen suggested that we pursue the decreased rate for non-profit organizations. C. Rowell said we could argue that, since we already had the contract, the price was set. H. Klapper will write the Comptroller to determine which parts of the meeting costs are taxable. Nolan would like to use the meeting to increase the membership. A motion was passed to finance the copying and mailing of the *Chemist* to 1300 prospects plus follow-up letters. C. Rowell said that telephone calls may be very effective also. Nolan would like to increase the House Committee for the Shroud and Aquarium meetings. Persons from National are expected to attend the Aquarium meeting.

*House:* N. Phillips reported for Linh Cheong that there were 59 persons at the dinner and 60 at the lecture for the December meeting.

*By-Laws:* No change.

*Member Assistance:* No activity.

*Publicity:* R. Kreps reported that 2 releases were made in 1984 about the Section officers. Press releases about the Shroud of Turin meeting should be reaching recipients now.

*Membership:* K. Kirk reported that 11 invitations to the December dinner meeting were sent out; two were accepted. During 1983, 34 new members were invited of which 8 accepted. In 1983, 39 requests for membership were processed with a 30% success rate. Bill White has joined the committee.

*Publicity:* D. Jones would like to have the secretary who handles the meeting notices remembered on National Secretary's week.

*High School Activity:* C. Rowell reported that the Anne Arundel teacher's classes had resumed. Course material concentrated on organic and biochemistry; 9 to 10 regulars were attending who were biology persons teaching chemistry. The attendees will receive C.E. units. Baltimore is still trying to get

organized. We need to establish a roll of the Section's associates. The membership will run from February to February. The names must be given to Howard Cohen for the *Chemist* mailings.

M. Zapf has submitted a nomination for the Regional Teacher's Award, and a certificate will be given to the nominee at the awards meeting. American Scientific will donate equipment to the school of the awardee. A motion was made by D. Jones to have a Md. Section award for outstanding high school teaching of Chemistry and the awardee would become our nominee for the Regional Award. The award would not have to be given every year, and an appropriate award would be established. The motion was passed. E. Penski suggested the certificates and plaques from National. M. Zapf would like more publicity about the award and the supplier and he would like to include the teacher's picture in *The Chesapeake Chemist*. Mike needs teachers' names from Carroll County, and judges and prize awardees for the Science Fair on March 24 & 25.

*Remsen Award:* N. Phillips reported that Dr. Earl Muetterties, who was chosen to receive the award, has passed away. The widow or someone else would be invited to receive the award, and Dr. Pat Watson was suggested to give the lecture.

*Student Awards:* D. Hoster has received 14 responses; 8 are from 4-year colleges and 6 are from 2-year colleges.

*Congressional Science Councilors:* No report.

*MARM:* A. Zeiger reported that she has met with Craig Thompson, the program chairman, and she had attended a meeting in his place in San Antonio. The MARM, which is scheduled for March 11-14, 1986 is very close to the ACS National meeting in April in Atlantic City and the early March Pittsburgh Conference. Alice recommended moving the meeting date to the fall. D. Jones said that the steering committee must be consulted about the date change.

*Archives:* No activity.

*Old Business:* The Directory of Science Resources in Maryland and the CMA offices were suggested as sources for names of companies to send the Professional Employment Guidelines pamphlets.

*New Business:* Nolan received a letter from FACSS looking for hosts for their meetings. There was no interest. H. Klapper questioned whether the term of office for certain offices should be increased to 2 years. The consensus was no. Questions were brought up concerning the budget for the short courses. D. Jones said that a budget must be submitted for approval by the Executive Committee. We need to discuss what should be done if there is low class enrollment at the next meeting. N. Phillips proposed an award to firms or organizations that have helped the Section. H. Freimuth said a letter of thanks would suffice.

The next meeting will be held on April 4.

The meeting was adjourned at 9:20 P.M.

Respectfully submitted,  
Cheryl L. Manger, Secretary

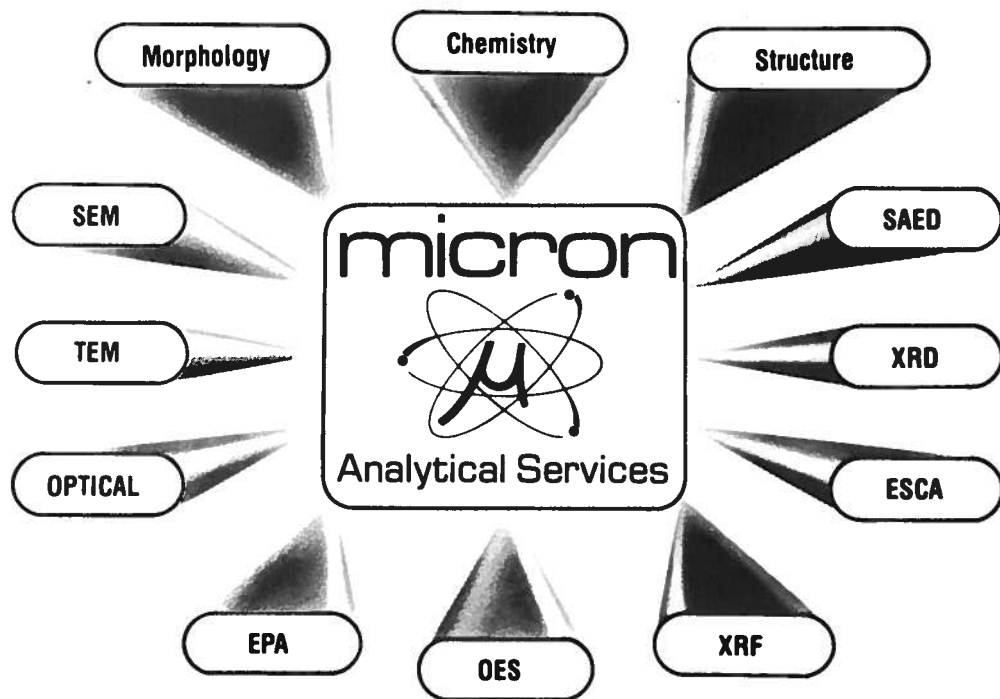
## REMSEN AWARD MEETING

The annual Remsen Award meeting is tentatively scheduled for May 16 at the Johns Hopkins University. As noted in the Executive Committee Minutes, this year's awardee has passed away, and an effort is being made to have the lecture delivered by one of his former students, an accomplished scientist and lecturer in her own right.

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