



# THE CHESAPEAKE CHEMIST

MARYLAND SECTION  
AMERICAN CHEMICAL SOCIETY

VOL. XLIII

APRIL, 1987

NUMBER 4

## AMERICAN CHEMICAL SOCIETY For Outstanding Achievement in Chemistry



APRIL'S SPEAKERS

When Program Chairman Al Bober decided it would be appropriate to have the April (student award) meeting addressed by some younger members of the ACS Maryland Section, he quickly discovered that there were several second generation members: younger members whose parents were also members of the Section (mostly fathers and daughters, curiously).

Originally four speakers were planned, but two of them have since left the area, so we have only two: obviously the two most interesting, his daughter and mine.

NOMINATIONS FOR 1988 OFFICERS

The Section's nominating committee is soliciting suggestions for nominations of members to serve as officers (Councilor, Alternate Councilor, Members-at-large, Chairman-elect, Secretary, Treasurer). Please contact any member of the committee with your suggestions (by June 1):

Merle Eiss, Chair	771-7485
John Corliss	235-6612
Nolan Phillips	385-0159
Bill White	671-3972
Ray Petersen	465-8520

MARYLAND SECTION STUDENT AWARDS

Don Hoster, Chairman of the Student Awards Committee, takes pleasure in announcing the nominees for the ACS Maryland Section student awards for 1987. Winners were selected by their respective institutions.

Nominees will be guests of the Section at the April 22 dinner meeting at Hood College in Frederick, where they will be recognized. In addition, each will receive a scroll and a one-year subscription to The Journal of Chemical Education.

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

Elizabeth Ditzler, Anne Arundel Community College  
 Steven Seidel, Catonsville Community College  
 Lawal B. Fagbemi, Community College of Baltimore  
 Theodore R. Tetkowski, Essex Community College  
 Brian Rice, Frederick Community College  
 Milan Stefanec, Harford Community College  
 Ollie Hunter, Howard Community College  
 Dorothy Palmer, Villa Julie College

Jeanne Davidsen, The College of Notre Dame of Maryland  
 Jemma Wendy Williams, Coppin State College  
 Muriel C. Maurer, Goucher College  
 Cynthia A. Bull, Hood College  
 Zacharias V. Maurophilipos, The Johns Hopkins University  
 Thomas D. Kim, Loyola College  
 Leslie De'shawn Holcombe, Morgan State University  
 James W. Janc, University of Maryland, Baltimore County  
 Jason J. Ross, United States Naval Academy  
 Andrew Vennos, Towson State University  
 John Musachio, Washington College  
 Jennifer J. Brashears, Western Maryland College



# THE CHESAPEAKE CHEMIST

VOL. XLIII

APRIL, 1987

NUMBER 4

THE CHESAPEAKE CHEMIST STAFF

Raymond C. Petersen.....Editor  
 9329 Joey Drive  
 Ellicott City, MD 21043  
 465-8520

Alan Harmon.....Business Manager  
 McCormick & Co., Inc.  
 Hunt Valley, MD 21031  
 771-7480

SECTION OFFICERS

Alvin Bober.....Chairman  
 8430 Allenswood Road  
 Randallstown, MD 21133  
 655-5254

William E. White.....Chairman-elect  
 Biotechnology Div., CRDC  
 APG, Aberdeen, MD 21010  
 671-3972

Maria Kristine Kirk.....Secretary  
 4000 Mayberry Avenue  
 Baltimore, MD 21206  
 435-0100

Joseph J. DeFrank.....Treasurer  
 Biotechnology Div., CRDC  
 APG, Aberdeen, MD 21010  
 671-3972

COUNCILORS

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

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

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

Merle I. Eiss....McCormick & Co., Inc  
 771-7485

ALTERNATE COUNCILORS

Robert L. Caret  
 Tim McNeese

Alvin Bober  
 Mike Zapf

COMMITTEE CHAIRPERSONS

Remsen Award.....Timothy J. McNeese  
 Loyola College  
 323-1010 ext 237

Maryland Chemist Award..James W. King  
 Chemical R & D Center, EA  
 APG, MD 21010  
 671-3482

Maryland Service Award...Donald Jones

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

Program.....William E. White

Chemical Education and Safety.....  
 435-0100 Stephen Gregory

Archives.....Ernest Silversmith

House.....John Corliss  
 Henry Freimuth

Member Assistance.....Merle Eiss  
 McCormick & Co., Inc.  
 771-7485

Public Relations

Membership.....Ted Stockus  
 Analyte Laboratories, Inc.  
 6630 Baltimore National Pike  
 Baltimore, MD 21228  
 747-3844

Publicity.....Donald Jones  
 Western Maryland College

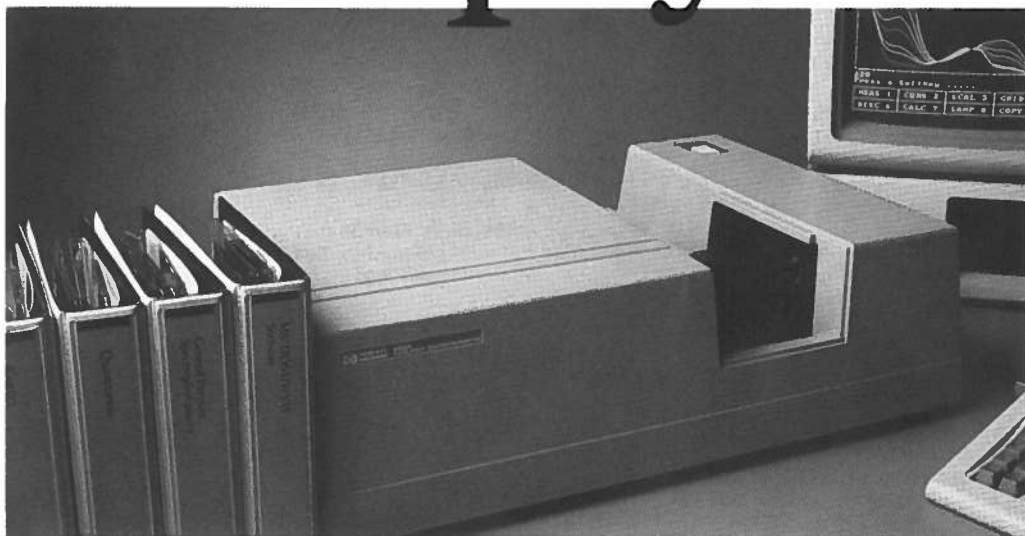
Finance.....Harold Klapper  
 653-3351

MEMBERS-AT-LARGE

Donald Hoster Dale L. Whalen  
 Hope L. Bober Jeanette S. Hamilton  
 James W. King

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.

# Small price to pay.



## Now, any lab can afford a UV/VIS diode-array spectrophotometer.

HP's low-cost spectrophotometer is now available with a choice of controllers, so any lab, regardless of budget, can reap all the benefits of advanced diode-array technology. Greater precision and accuracy. More speed and reliability.

If you already own an IBM PC, you can purchase the HP 8452A and generic MS-DOS UV/VIS software for only \$7650. If you qualify for our 15 percent educational discount, it's only \$6502\*.

Software available includes general scanning, quantitation, and kinetics.



The HP UV/VIS ChemStation gives you a broad selection of software and peripherals.

For maximum capabilities, including full automation, you'll want the UV/VIS ChemStation. It's so easy to use, you don't even need an operator's manual.

For more information, call the HP office listed in your telephone directory white pages and ask for an analytical product representative. Or write Hewlett-Packard Analytical Group, 1820 Embarcadero Road, Palo Alto, CA 94303.

\* U.S. domestic prices only.  
MS-DOS is a U.S. registered trademark of Microsoft, Incorporated.

**ROBERT SHACKELFORD**  
SALES SUPPORT  
ANALYTICAL INSTRUMENTS  
Eastern Sales Region

**JOSEPH WEITZEL**  
SALES REPRESENTATIVE  
ANALYTICAL INSTRUMENTS  
Eastern Sales Region

**SUZANNE BIZOT**  
SALES REPRESENTATIVE  
ANALYTICAL INSTRUMENTATION  
Eastern Sales Region

 **HEWLETT  
PACKARD**

 **HEWLETT  
PACKARD**

 **HEWLETT  
PACKARD**

2 Choke Cherry Road, Rockville, Maryland 20850  
Telephone (301) 948-6370  
Direct Dial: (301) 258-8047

3701 Koppers Street, Baltimore, MD 21227  
Direct: (301) 382-7587  
Main: (301) 644-5800

3701 Koppers Street, Baltimore, MD 21227  
Direct: (301) 382-7579  
Main: (301) 644-5800

ERICA R. RILEY

Erica R. Riley was born in Massachusetts in 1958. She received her high school education at Mount Hebron High School in Ellicott City, MD. In 1976 she entered The College of William and Mary, where she concentrated in physical chemistry and reaction kinetics. She received her B.S. degree in 1980 and continued to graduate studies at The Johns Hopkins University. While in graduate school, she worked at the Johns Hopkins Applied Physics Laboratory where she studied charge transfer complexes.

After earning her M.S. in Chemistry from The Johns Hopkins University, she was employed by the US Army Chemical Systems Laboratory, now the Chemical Research, Development and Engineering Center, at Aberdeen Proving Ground, MD. At CRDEC she works for the Obscuration Sciences Branch developing materials and systems for military smoke screens. Her current research is in the fields of fine particle generation and characterization, attenuation of infrared, radar, and high energy radiation, and surface studies. In addition to her research, she manages the CRDEC microbeam analysis facility and studies Material Science at the G.W.C. Whiting School of Engineering at Johns Hopkins.

### AM I SUPPOSED TO CALL THIS CHEMISTRY?

It is often said that you never end up working on anything related to what you learn in school. This may not be true for everybody, but many chemists find that their training complements a number of fields and their careers need not be limited to pure chemistry. One such field is material science. This relatively young field is rapidly gaining recognition amongst major employers and many chemists find themselves practicing some form of materials science. A description of the working life one such chemist (alias materials scientist) will be presented.

### MARYLAND CHEMIST AWARD

Nominations for the 1987 Maryland Chemist Award should be sent to

Harold Klapper  
3313 Terrapin Road  
Baltimore, MD 21208  
653-3351

by June 1. This award was established in 1962 to recognize and to honor a member of the Maryland Section for outstanding achievement in pure or applied chemistry, chemical engineering or chemical education.

### PICNIC AT BELMONT

July 19 has been selected as the date for a joint picnic meeting with the Chemical Society of Washington to be held at the ACS Belmont resort conference center in Elkridge.

Chairman Al Bober was heard issuing an impassioned call for all able-bodied softball players to be there.

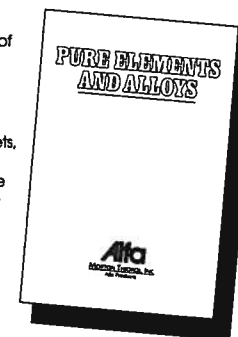
APRIL 1987

## PURE ELEMENTS AND ALLOYS

New 120-page catalog describes complete line of pure elements.

- Includes precious and rare earth metals in a variety of purities.
- Includes powders, pellets, rods, wires, and foils.
- Most products available in two sizes and can be manufactured in bulk. Custom synthesis also available.
- Features wide range of alloys to fit custom specialty requirements.

Send for your free copy today.  
Request catalog PE-15.



**Alfa**

MORTON THIOKOL, INC. Alfa Products  
152 Andover Street, Danvers, MA 01923  
(617) 777-1970

Hope L. Bober was born in Baltimore in 1960. She graduated from Randallstown Senior High School in 1977. At Hood College she decided to study home economics with an emphasis in textiles and clothing. She was granted a B.S. degree in May of 1981. During the summer of 1980 she worked as a research assistant at Gillette Research Institute in Rockville, Maryland. This internship experience led her to decide to continue her education.

In 1981 Hope enrolled in the School of Textiles at North Carolina State University in Raleigh. She was a teaching assistant for one year and a research assistant for another year and a half. Her research assistantship was sponsored by a grant from Cotton, Inc. She received her M.S. degree in textile chemistry in May of 1984.

Hope has been employed as a research chemist by Springs Industries in South Carolina, where she was involved in developing new chemical finishing, dyeing and printing techniques and procedures. She is presently employed as a polymer chemist for the Department of Defense.

Hope has been a member of Kappa Omicron Phi, a national home economics honor society, since 1979 and, while at North Carolina State, she was inducted into Phi Lambda Upsilon, a national honorary chemical society. She is a member of ACS and of the American Association of Textile Chemists and Colorists. Hope is also active in Toastmasters International.

#### RESEARCH EXPERIENCES IN GRADUATE SCHOOL AND IN THE TEXTILE INDUSTRY

The speaker will discuss her experiences while a graduate student at North Carolina State University and as a research chemist in the textile industry employed by Springs Industries.

Her master's thesis was entitled "The Effects of Ammonia/Ammonium Thiocyanate on Cotton Fabric." This solvent was used as a mercerizing treatment for cotton fabric. Swelling behavior, structural changes and physical properties were evaluated for cotton fabric which had received this treatment. A comparison was then made between fabrics treated with ammonia/ammonium thiocyanate and those treated with conventional mercerizing procedures such as sodium hydroxide or liquid ammonia.

While employed at Springs Industries, a major manufacturer of sheeting, domestics and apparel fabrics, she was a research chemist in the dyeing and finishing group. A major portion of her research was involved in developing non-formaldehyde and low-formaldehyde durable press finishes for 100% cotton and cotton rich blends. Springs Research and Development Center plays an important role in interfacing the various divisions of the company with the manufacturing operation. The chemist is responsible for developing a new finish or product from laboratory scale experiments through full scale production.

---

#### SCIENCE FAIR POSTERS

It is expected that the April meeting will also feature posters prepared by winners of recent Maryland high school science fairs.

---

#### MAY MEETING

The 42nd Remsen Award meeting is scheduled for Wednesday, May 20 at The Johns Hopkins University. In a break with precedent we will identify the recipient a month early: this year's awardee is Professor Stephen J. Lippard of the Massachusetts Institute of Technology. He will lecture on platinum anticancer drugs.

## APRIL MEETING

#### DATE AND PLACE:

Wednesday, April 22, 1987  
Hood College  
Frederick, Maryland

#### SCHEDULE:

Rosenstock Auditorium

4:00 pm

Woman's Committee

5:30 pm

Erica R. Riley  
"Am I Supposed to Call This  
Chemistry?"

Hope L. Bober  
"Research Experiences in Grad-  
uate School and in the Textile  
Industry"



ERICA R. RILEY

#### AWARDS AND DINNER:

Coblentz Hall  
Reception 6:30 pm  
Dinner 7:15 pm  
Awards 8:15 pm

Dinner price \$12.00 per person, but spouses, retired chemists and students may attend for \$10.00

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 April 13, 1987. Late reservations may be made by calling

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



HOPE L. BOBER

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

---

#### WOMAN CHEMIST COMMITTEE

The April meeting has been expanded to include a 4:00 pm meeting of all interested women to explore the possibility of forming a Woman Chemist Committee. The meeting will be moderated by Linda Sweeting. For further information call Linda Sweeting (301-321-3113) or Sharon Smith (301-663-3131).

## EXECUTIVE COMMITTEE MINUTES

The new Chairman, Alvin Bober, called the Executive Committee to order at 7:40 p.m. on February 4, 1987 in the Chemistry Reading Room of the College of Notre Dame.

The members present included: Ray Petersen, Tom Bitterwolf, Bill White, Alvin Bober, Mike Zapf, Sr. Denise Eby, Larry Funke, Howard Cohen, Ted Stockus, Don Jones, John Corliss, Paul Carter, Joe DeFrank, Greg Erickson, Don Kyle, Elwin Penski, Joe Topping, Merle Eiss, Ron Erickson, Tim McNeese, Ernest Silversmith, Tim Parr, Nolan Phillips, Don Hoster, and Harold Klapper.

The minutes of the last Committee meeting on January 7, 1987, were approved as corrected.

*Treasurer's Report:* Bill White reported that, overall, it appeared that expenses for 1986 (\$20,877.54) had exceeded income (\$17,814.85) by about \$3,000. As yet, he had received no income from the MARM, from ad money for the *Chesapeake Chemist*, or from the high school teachers who are associate members of the Section. Expenses included travel money for three speakers. It was noted that the cost of the refreshments for the social hour had been included in expenses for meals. Set-ups and sales tax should be itemized separately in the books, however, since only the actual cost of the meals should be reported to National. White reported that he had paid all outstanding printing bills (\$3,297.57), except for the February issue costs. The fate of the *Chesapeake Chemist* account and of advertising revenue is not certain. It was speculated that the ad bills may not have been sent. The Post Office has a balance of \$128 for mailing the *Chemist*, according to Howard Cohen.

The financial statement should be submitted as soon as possible to receive the allotment from National. The base allotment has been raised to reflect the increase in the Section's membership (1701 members as of December 23, 1986 vs. 1634 members in December, 1985).

The Treasurer's report was accepted as corrected. Taking the *Chemist* funds into account, the Section broke even for the year.

*Awards:* Bober stated that deadlines were needed to ensure timely completion of each award committee's deliberations. He proposed adding a Nominations Committee to select the slate of Section officers. The December meeting, at which Dave Roswell received the Maryland Chemist Award, went very well. Selection of the recipient for 1987 should be announced at the September Committee meeting to meet the mid-October deadline for the December issue of the *Chemist*. Penski said deadlines are included in the Section By-Laws; he will obtain an updated copy from National.

Bober announced that Don Jones will chair the Maryland Service Award committee. Although the 1986 award was presented at the January, 1987 meeting, September would be preferable. The selection process should be complete in time for the May Committee meeting. Three previous winners usually serve on the selection committee; they will be appointed shortly.

Recognizing Tim McNeese and the Remsen Award Committee for an excellent performance, Bober announced that Dr. Stephen Lippard of MIT will be honored on May 20, 1987 at Johns Hopkins University. Selection of the 1988 recipient should be completed by mid-October to facilitate scheduling the Remsen Lecture.

Don Hoster reported that 22 letters seeking nominations for student awards had been sent on December 1 to area colleges and universities. He has 3 responses so far with a January 31 deadline. All information will be forwarded to Petersen by mid-February for publication. The award includes a *Journal of Chemical Education* subscription, a scroll and dinner. (It was

noted that expenses for the dinners for award winners should be listed under award expenses in the Section accounts, rather than under meals.) This year, Student Awards Night will be held at Hood College On April 22, and will feature the Science Fair winners, and Erica Petersen Riley and Hope Bober, who will describe "Life After Majoring in Chemistry."

The officers and councilors for 1987 are:

Chair-Elect	Bill White
Treasurer	Joe DeFrank
Secretary	Kristine Kirk
Councilors	Merle Eiss Chuck Rowell
Alternate- Councilors	Mike Zapf Alvin Bober
Members-at-Large	Don Hoster James King Hope Bober Dale Whalen Jeanette Hamilton

*Chemical Education:* No report.

*Program:* All speakers and facilities have been confirmed, with only the arrangements to JHU to be finalized. Bober announced that he was appointing Hope Bober to organize the picnic co-sponsored by the Washington Section in June. Younger chemists in the Section may find this an opportunity to become active in the Section.

*House:* Of the 136 in attendance at the November meeting at Edgewood, 65 were ACS members. A total of 142 attended the lecture. Income was \$528.25. In December, 72 attended the dinner while 76 were at the lecture. Corliss also reported that the Microcomputer Center, 7668 Belair Road, had donated a Morrow computer for the Section's use. He will send a note of thanks to Petersen for publication in a future *Chemist*.

Corliss and Henry Freimuth will continue to serve on the House Committee.

*By-Laws:* Penski noted that National often updates Section By-Laws, and that the most recent version should be made available for references.

*Member Assistance:* Eiss reported no recent inquiries. McCormick has openings for 2 biochemists.

*Public Relations:* Bob Kreps has resigned temporarily; he expressed interest in resuming an active role in the future. Meanwhile, Irwin Potofsky of Noxell will assume this position. A suggestion was made that the *Chemist* might feature Baltimore-born chemical companies. Ted Stockus of Analyte agreed to write a 500-750 word article for future publication.

*High School Activity:* Mike Zapf will continue as chair, with the assistance of Sr. Denise and Larry Funke. Some money may be needed to support programs, which address needs of elementary and middle school teachers. Loyola is offering a summer program with Title II funds for 20 teachers from county schools. The Committee suggested Sr. Denise prepare a request for support from the Section for consideration at the next Committee meeting.

Zapf noted that while certain projects (Project SEED, Science Fair awards) are inexpensive, others, such as teacher update programs, are more demanding in terms of funding and personnel.

*Chesapeake Chemist:* Bober will contact Harmon regarding the *Chemist* account and advertising bills.

**MARM:** Joe Topping reported that all sub-committee chairs will be asked for a summary to finalize the MARM report.

**Archives:** Ernie Silversmith would welcome an associate to assist him.

**New Business:** The Maryland Service Award will be presented to Elwin Penski at the January meeting.

November 6, 1987 has been named National Chemistry Day. Bober has appointed Paul Carter of Nova Pharmaceutical to chair a committee to plan observances, including proclamations by the Governor and the Mayor, opening ceremonies, and exhibits. A written plan will be prepared for the next Committee meeting. The possibility of forming a Younger Chemists and a Women Chemists Committee was discussed. Phillips had found little interest in a YCC during his tenure. Eiss, who is active on the National WCC, volunteered to help someone set up a luncheon to consider formation of a local group.

Bitterwolf received an inquiry from the Anne Arundel Community College Chemistry Club about financial support for their activities. The Section agreed to contribute \$50 to this endeavor.

Bober noted that the 75th anniversary of the Section, October 10, 1989, was not far off. Silversmith displayed the 50th anniversary program book from the archives. Bober asked the Nominations Committee to select a chairman to begin planning for the event. Suggestions will be considered at the next meeting on February 25, 1987.

The meeting was adjourned at 9:55 p.m.

Respectfully submitted,  
*Kristine Kirk, Secretary*

#### THE REMSEN AWARD

The annual Remsen Memorial Lectures were inaugurated in May, 1946, by the Maryland Section of the ACS to honor Ira Remsen, first Professor of Chemistry and second President of the Johns Hopkins University. The Remsen Memorial Lecturers are chemists of outstanding achievement, in keeping with Ira Remsen's long and devoted career as an exponent of the highest standards in teaching and research in chemistry.

Please send nominations for the Remsen Award to one of the following members of the Remsen Award Selection Committee.

The nomination should be accompanied by a curriculum vitae and publication list of the nominee, as well as any other information that will help the Selection Committee.

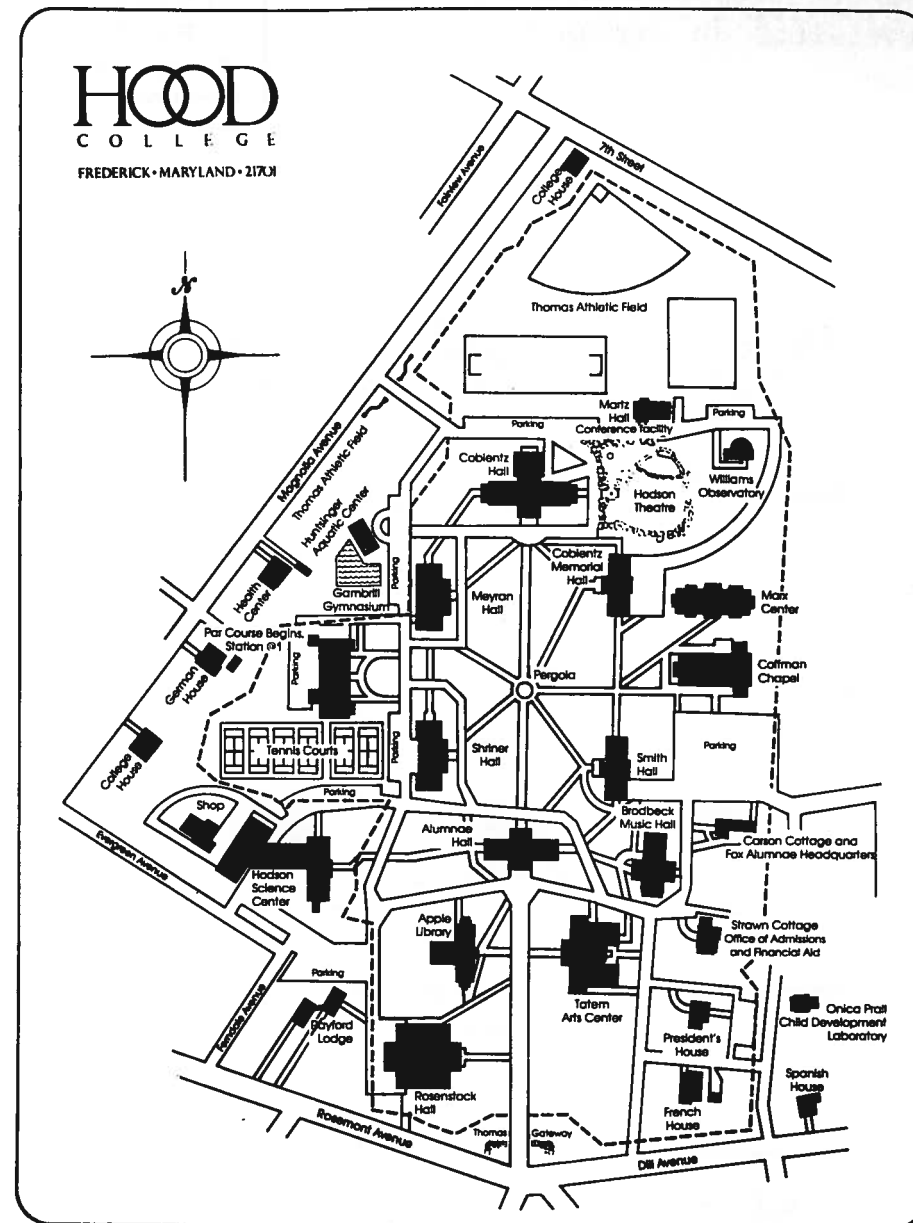
#### REMSEN AWARD SELECTION COMMITTEE

Timothy J. McNeese, Chairman  
Department of Chemistry  
Loyola College  
4501 North Charles Street  
Baltimore, MD 21210  
(323-1010, ext. 2237)

Gary H. Posner  
Department of Chemistry  
Johns Hopkins University  
Charles and 34th Sts.  
Baltimore, MD 21218  
(338-7443)

James M. Courtney  
Courtney Industries  
4401 Eastern Avenue  
Baltimore, MD 21224  
(276-5003)

Harold Klapper  
SMCCR-RSC-P  
Chemical Division, CRDC  
Aberdeen Proving Ground, MD 21010  
(671-2265)



HOOD COLLEGE

Hood College is located in Frederick north of I-70, east of the Frederick Freeway and west of Market Street (route 355). The campus extends from Rosemont Ave. to 7th St.

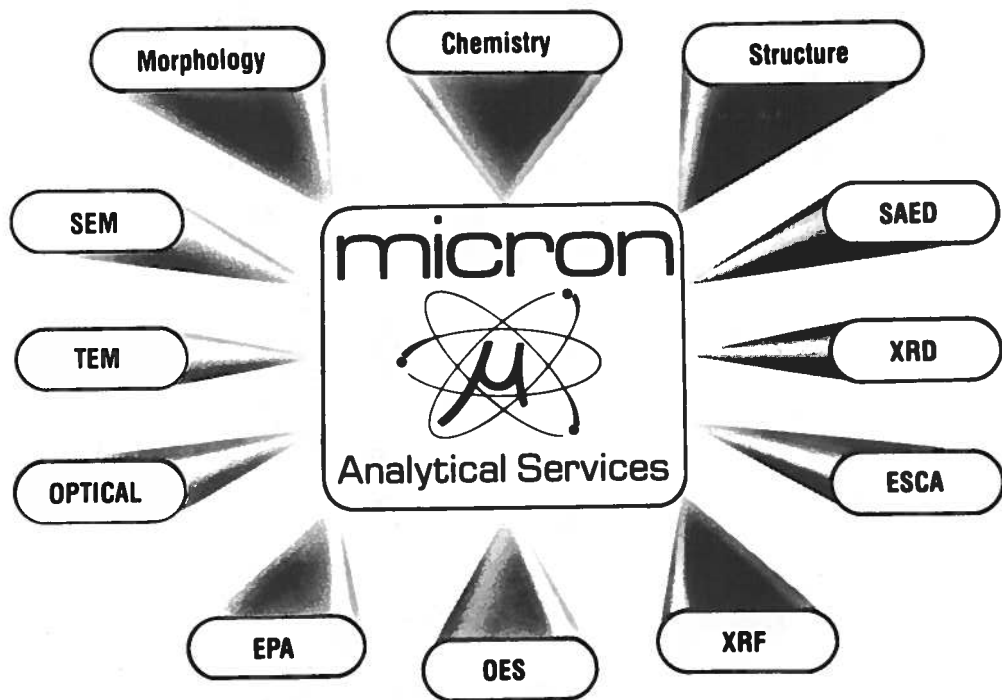
Market St. is exit 54 (exit 3) from I-70. Both 3rd St. and 4th St. run into Rosemont Ave. west of Market St.

The Frederick Freeway is exit 53 (exit 4) from I-70. From the Frederick Freeway, exit 7 is Rosemont Ave. and exit 7A is 7th St.

0117980X 04/87 ZT 301 1  
DR YALE HOWARD CAPLAN  
3411 PHILIPS DR  
PIKESVILLE MD 21208

Nonprofit Org.  
U. S. Postage  
PAID  
Baltimore, Md.  
Permit No. 2917

PLEASE DO NOT DELAY — DATED NOTICE INSIDE



3815 Lancaster Pike Wilmington, Delaware 19805  
(302) 998-1184

## MICROANALYSES

Analysis for all elements  
Trace analyses and molecular weights

**GALBRAITH LABORATORIES, INC.**

P.O. Box 4187 • Knoxville, TN 37921  
(615) 546-1335