



THE

# CHESAPEAKE CHEMIST

MARYLAND SECTION  
AMERICAN CHEMICAL SOCIETY

VOL. XL

MAY, 1984

NUMBER 5

## 1984 REMSEN AWARD



**EARL L. MUETTERTIES**

THE EDITOR NOTES

This month's meeting concludes our current lecture series. Thanks to Nolan Phillips for a very popular group of lectures, though we must note with sadness that both our Maryland Chemist of the Year and Remsen Awardee passed away prior to the award meetings. Better luck to Harold Klapper with next season's program.

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  |
|--------------------------|--|---|
| May 8, 1984<br>Tuesday   | Professor Glenn D. Prestwich<br>Department of Chemistry<br>State U. of N.Y. at Stony Brook | "Bioorganic Chemistry of Insects: Novel inhibitors and Probes for Hormone and Pheromone Metabolism" |
| May 9, 1984<br>Wednesday | Professor Philip D. Magnus<br>Department of Chemistry<br>Indiana University<br>Bloomington | Fields of Interest:<br>Organic Synthesis<br>Silicon Chemistry                                       |

HPLC SYMPOSIUM IN BALTIMORE

Abstracts are now being solicited for the Fourth International Symposium on High Performance Liquid Chromatography of Proteins, Peptides and Polynucleotides; these must be submitted by August 1, 1984. The symposium will be held December 10-12 at the Hyatt Regency Hotel in Baltimore.

Abstract forms may be obtained from the symposium manager, Ms. Shirley Schlessinger, Fourth International Symposium on HPLC of Proteins, Peptides and Polynucleotides, 400 East Randolph, Chicago, IL 60601; (312) 527-2011.

FACSS ANNUAL MEETING

The eleventh annual meeting of the Federation of Analytical Chemistry and Spectroscopy Societies (FACSS) will be held September 16-21, 1984 at the Philadelphia Marriott Hotel in Philadelphia.



OMICRON TECHNOLOGY CORPORATION

160 Sherman Ave.  
Berkeley Heights, N.J. 07922  
(201)665-9191

Advanced sorption system provides superior resolution and accuracy with short sample turn-around time.

- B.E.T. Surface Areas
- Pore Structure Analysis
- 200 to 500 Data Points per isotherm
- SEM, TGA and Mercury Porosimetry services available.
- Guaranteed 7 working days turn-around time or 50% discount



# THE CHESAPEAKE CHEMIST

VOL. XL

MAY, 1984

NUMBER 5

THE CHESAPEAKE CHEMIST STAFF

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

Joseph Topping.....Associate Editor  
Department of Chemistry  
Towson State University  
Towson, MD 21204  
321-3056

Alan Harmon.....Business Manager  
McCormick & Co., Inc.  
Hunt Valley, MD 21031  
667-7480

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

SECTION OFFICERS

Nolan Phillips.....Chairman  
J. M. Huber Corp.  
Havre de Grace, MD 21078  
385-0159

Harold Klapper.....Chairman-elect  
3313 Terrapin Drive  
Pikesville, MD 21208  
653-3351

Cheryl Manger.....Secretary  
SCM Corp.  
Baltimore, MD 21226  
355-3600 ext 358

John E. Roach.....Treasurer  
2810 Beechland Avenue  
Baltimore, MD 21214  
426-6296

Public Relations.....Robert W. Kreps  
Solson Chemical  
760-9631 (home)

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

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

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.

## THE 39th REMSEN AWARD

### EARL L. MUETTERTIES

Earl L. Muetterties was born in Elgin, Illinois in 1927. He died January 12, 1984. He received his B.S. from Northwestern University and the A.M. and Ph.D. degrees from Harvard. He was elected to Sigma Xi, Phi Beta Kappa, Phi Eta Sigma and Phi Lambda Mu.

In 1952 he was employed by duPont's Central Research Department where he was Associate Director of Research from 1965 to 1973. He was a Professor of chemistry at Cornell from 1973 to 1978 and at the University of California at Berkeley from 1978 to 1984. He has published over 250 papers in scientific journals and was inventor or co-inventor of about 50 U.S. patents and a like number of foreign patents.

Professor Muetterties has served on the editorial boards of numerous journals, including the *Journal of the American Chemical Society*, and on national and international committees, including the NSF Advisory Panel for Chemistry. He has also held numerous invited lectureships. He was a member of ACS, AAAS, the American Physical Society, the Chemical Society of London and the National Academy of Sciences. In 1968 he was Chairman of the ACS Division of Inorganic Chemistry.

Among his awards are the ACS Award in Inorganic Chemistry (1965), the ACS Award for Distinguished Service in the Advancement of Inorganic Chemistry (1979), the John C. Bailar Medal (1976) and the Edgar Fahs Smith Award of the ACS Philadelphia Section (1981).

### PATRICIA L. WATSON

Patricia L. Watson, a native of Australia, received her B.S. degree from the Australian National University. She worked with Dr. Muetterties at Cornell where she received her Ph.D. in 1977. Following a term as a Post-Doctoral Fellow with Professor Bergman at the California Institute of Technology, she joined duPont's Central Research Department in 1979.

Dr. Watson's areas of interest include organo-metallic chemistry of lanthanide metals, reaction mechanisms and catalytic reactions of organo-metallic compounds.

### ABSTRACT OF DR. WATSON'S LECTURE

Heterogeneous materials are most commonly catalysts for both commercial and academic purposes, but studying the detailed chemistry - ligand effects, substrate bindings, types of intermediates - is technically difficult. Muetterties strongly advocated multi-metal "cluster" complexes as chemical models for extended surfaces, and in his last six years worked simultaneously in the areas of surface science, cluster chemistry and mono-nuclear transition metal organometallics. Versatility was a key observable in Muetterties's career. His early classic work in polyhedral boranes was followed by a strong interest in transition metal hydrides, dynamic molecular processes (polytopal rearrangements) and the chemistry of transition metal-phosphine particularly with respect to catalysis.

### CHANGES OF ADDRESS

It is not necessary to notify *The Chesapeake Chemist* of address changes. We obtain our mailing labels each month from the ACS, so you need only inform the ACS of your address change and we will automatically receive labels with your new address.

## THE 39th REMSEN LECTURE

### DATE & TIME:

Wednesday, May 16, 1984  
8:00 pm

### PLACE:

Remsen Hall, Room 101  
Homewood Campus of  
The Johns Hopkins University

### SPEAKER:

Dr. Patricia L. Watson  
E.I. duPont de Nemours & Co.  
on the work of  
Earl L. Muetterties

### COCKTAILS & DINNER:

The Johns Hopkins University  
Glass Pavilion

Cocktails: 6:00 pm  
Dinner: 6:30 pm

Dinner \$11.00 per person, except  
retired chemists and students may  
attend the dinner for \$9.00

Social Hour sponsored by Fisher  
Scientific; buffet dinner will  
include fried scallops and  
steamship round of beef.



DR. PATRICIA L. WATSON

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

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

by May 7. 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 May 10.

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

## ANALYTE

LABORATORIES, INC.

ACIDS - BASES

HAZARDOUS WASTE

301-747-3844

ANTIFREEZES

ANALYTICAL CHEMICAL  
SERVICES

ORGANIC SCREENS

BOILERS

PETROLEUM

6630 Baltimore Natl. Pike  
Route 40 West  
Baltimore, Maryland 21228

ENVIRONMENTAL

SOLVENTS

## 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 Lectures 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.

Previous Remsen Award winners were:

|                               |                          |
|-------------------------------|--------------------------|
| 1983 George M. Whitesides     | 1964 Paul D. Bartlett    |
| 1982 Harden McConnell         | 1963 Harold C. Urey      |
| 1981 Koji Nakanishi           | 1962 George Porter       |
| 1980 Roald Hoffman            | 1961 Herbert C. Brown    |
| 1979 Harry B. Gray            | 1960 Henry Eyring        |
| 1978 John Charles Polanyi     | 1959 Edward Teller       |
| 1977 Ronald Breslow           | 1958 Robert B. Woodward  |
| 1976 William N. Lipscomb, Jr. | 1957 Melvin Calvin       |
| 1975 Henry Taube              | 1956 Farrington Daniels  |
| 1974 Elias J. Corey           | 1955 Willard F. Libby    |
| 1973 Frank H. Westheimer      | 1954 Vincent du Vigneaud |
| 1972 Charles H. Townes        | 1953 Edward L. Tatum     |
| 1971 George C. Pimentel       | 1952 W. Mansfield Clark  |
| 1970 George S. Hammond        | 1951 Hugh S. Taylor      |
| 1969 Albert L. Lehninger      | 1950 Edward C. Kendall   |
| 1968 Har G. Khorana           | 1949 Joel H. Hildebrand  |
| 1967 Marshall W. Nirenberg    | 1948 Elmer V. McCollum   |
| 1966 Paul H. Emmett           | 1947 Samuel C. Lind      |
| 1965 James R. Arnold          | 1946 Roger Adams         |

# 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**

## SOLUTIONS TO YOUR HAZARDOUS WASTE PUZZLE!

ADMINISTRATIVE REPORTING SYSTEM

QUALITY ON-SITE SERVICES

MULTIPLE TREATMENT AND DISPOSAL ALTERNATIVES

PROJECT MANAGEMENT

EMERGENCY RESPONSE SERVICES

SPECIALISTS IN CHEMICAL AND REGULATED WASTE MANAGEMENT

FULL TRANSPORT CAPABILITIES

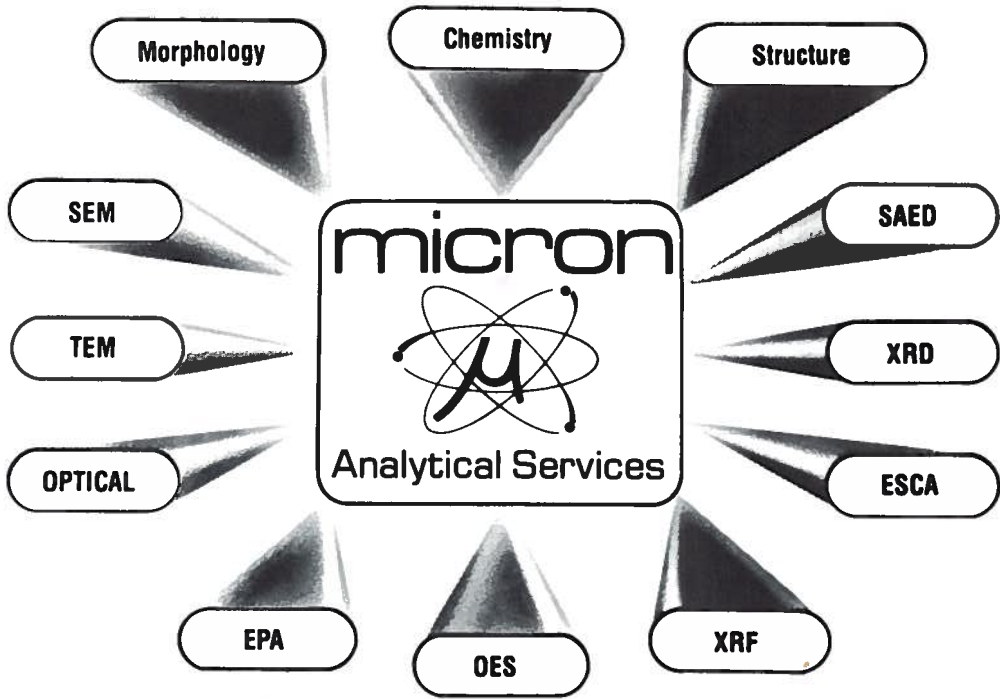
WASTE CHARACTERIZATION SERVICES

**ECOFLO**

5801 Arbor Street  
Tuxedo, Maryland 20781  
(301) 773-9500

2750 Patterson Street  
Greensboro, North Carolina 27407  
(919) 855-7925

0117980X 4214 301 84 K  
 DR YALE HOWARD CAPLAN  
 3411 PHILIPS DR  
 PIKESVILLE MD 21208  
 MAY 2 AM 1984  
 ALWAYS USE ZIP CODE  
 USA 20c  
 Md. 2917  
 Org. age )  
 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