



THE

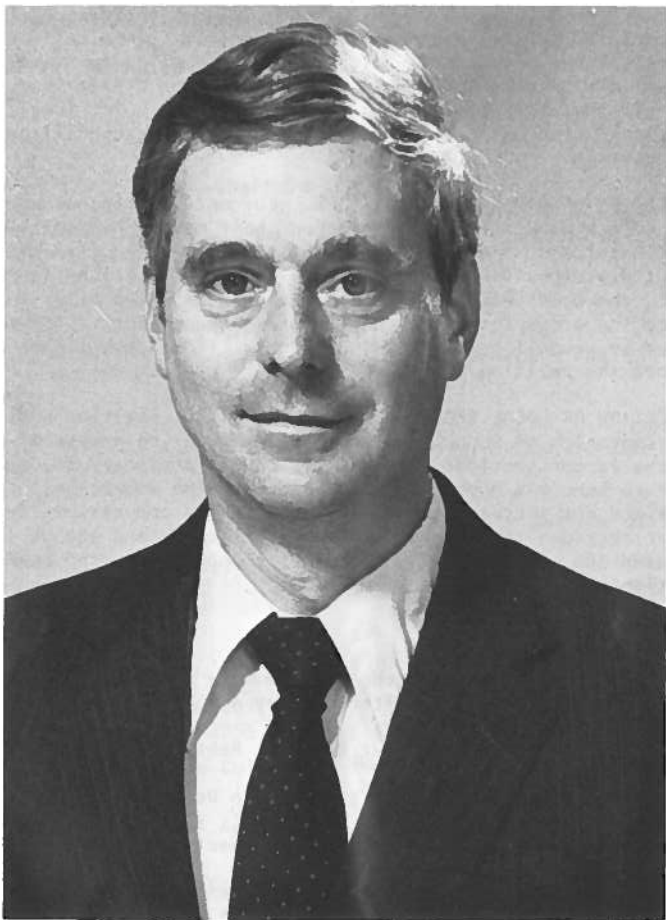
CHESAPEAKE CHEMIST

MARYLAND SECTION
AMERICAN CHEMICAL SOCIETY

VOL. XLII

DECEMBER, 1986

NUMBER 9



THE MARYLAND CHEMIST OF THE YEAR

September 10, 1986

For the first time in several years, the Maryland Section did not have its full councillor vote at the National Meeting. Due to budgetary problems and the fact that the meeting coincided with the beginning of the school year, only two of four councillors were present plus one alternate--leaving Maryland with three instead of the usual four votes.

There were four major issues for Council action:

- PAYMENT OF HONORARIA TO SPEAKERS.** This petition would prohibit the payment of honoraria to the author of any paper presented at a national, regional, divisional or other major meeting of the American Chemical Society. Permitted would be reimbursement of travel or other expenses. Numerous members of the council felt that absolute prohibition of honoraria might prohibit some necessary programs, e.g., experts in fields other than chemistry such as toxicology, environmental problems, or members of Congress. The Council recommended that the petition be sent back to committee for amendment and reconsideration.
- FREQUENCY OF ALLOCATION OF COUNCILLORS.** Under the present by-laws of the Society, councillors are allocated yearly. This petition would change the need for annual determination and allow an allocation of councillors once authorized to be effective for a four-year period. It was felt that this would introduce more stability for local sections and divisions. The motion passed 318 to 18, and your councillors voted for the petition.
- ALLOCATION OF DIVISION COUNCILLORS.** Currently divisions are allotted from 1 to 4 councillors depending on their membership totals and relationships of the totals to lower and upper cut-off limits. In order to put divisions in closer step with the local sections (one person, one vote), the upper and lower limits would be replaced by a single cut-off figure and a new formula for calculating councillors. The petition was passed by council by a vote of 324 to 12. Your councillors voted to support the petition.
- ALLOCATION OF LOCAL SECTION COUNCILLORS.** This petition would change the representation of Council and possibly reduce the number of councillors for the larger sections. This petition was presented to Council in order to keep the number of councillors in the society at its current level and not increase the Council size. The councillors felt that larger sections should not lose representation, and the petition was defeated 186 against and 150 for your councillors voted against the petition.

In other items of business:

- The Anaheim meeting attracted approximately 11,000 registrants and had the largest number of exhibitors at any ACS meeting.
- Registration fees for the next National Meeting in 1987 will increase.
- There will be a National Chemistry Day in October of 1987.

Respectfully submitted,

Merle Eiss
Chuck Rowell
Mike Zapf



THE CHESAPEAKE CHEMIST

VOL. XLII

DECEMBER, 1986

NUMBER 9

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

SECTION OFFICERS

Thomas Bitterwolf.....Chairman
U.S. Naval Academy
Chemistry Department
Annapolis, MD 21401
267-3403

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

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

William E. White.....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 Rowell....U. S. Naval Academy
267-2808

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

COMMITTEE CHAIRPERSONS

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

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

Program.....Alvin Bober

Archives.....Ernest Silversmith

House.....John Corliss
Henry Freimuth

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

Public Relations.....Robert W. Kreps
Martin Marietta Aerospace
682-0788

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

Publicity.....Donald Jones
Western Maryland College

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

Remsen Award.....Timothy J. McNeese
Loyola College

Finance.....Harold Klapper
653-3351

MEMBERS-AT-LARGE

Donald Hoster Ted Stockus
Joseph DeFrank James King
Sr. Denise Eby

ALTERNATE COUNCILORS

Robert L. Caret Alvin Bober
Tim McNeese 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 MARYLAND CHEMIST AWARD

David F. Roswell was born in Indiana in 1942. His introduction to chemistry began early since his father was a research chemist. He received his high school education at Mount Saint Joseph's College in Baltimore and Klöster Schafstlarn outside of Munich, West Germany. After entering The Johns Hopkins University as a chemistry major he began research as an undergraduate with Professor Emil White in the area of chemiluminescence. He was granted the AB degree in 1964 but his association with Professor White and Johns Hopkins continued and he earned the PhD, as a student of White's, from Hopkins in 1968.

While a graduate student he had the opportunity to spend several months working for the W.R. Grace Research Center where he worked on stabilizers for polyvinyl chloride. During his final years as a graduate student he taught part-time at the College of Notre Dame of Maryland. Moving to Loyola College in 1968 he began full-time teaching while still maintaining his collaborative research program with Professor White.

At Loyola he was made Professor in 1973 and served as Department Chairman from 1974-80 with the exception of a sabbatical year in 1976 during which he not only did research in the area of chymotrypsin inhibition but chaired the committee overseeing the construction of the Donnelly Science Center at Loyola. During the seventies Dr. Roswell taught part-time at Johns Hopkins, an evening course in organic chemistry, and conducted research not only with his students at Loyola but also with Professor White's group at Hopkins. In 1980 he became Dean of the College of Arts and Sciences at Loyola, a position he still holds. As Dean he continues to teach a course each semester and maintains a small research program.

He has co-authored or authored over twenty papers, many with Professor White in the areas of chemiluminescence and suicide substrate inhibition, and others in the field of chemical education.

Active in the American Chemical Society, Dr. Roswell has served as a Councilor for the Maryland Section since 1978 and was a member of the National Committee on Patents and Related Matters during the period 1982-85. An occasional referee for the *Journal of Organic Chemistry*, he has also served as a reviewer for the National Science Foundation.

Selected as an Outstanding Educator of America, he was also a Camille and Henry Dreyfus Teacher Scholar Nominee and is listed in *American Men and Women in Science* and *Who's Who in Technology Today*.

THE JOHNS HOPKINS UNIVERSITY

Chemistry Colloquia

Colloquia are held at 4:15 p.m. in Remsen Hall room 221 on the Homewood Campus of The Johns Hopkins University. Refreshments are served before each colloquium at 4:00 p.m. For more information contact Mrs. H.J. Potter, 338-7421.

Date	Speaker and Affiliation	Title
December 2	Kenneth Suslick University of Illinois	New Synthetic Analogs of Heme Proteins
December 9	Robert A. Pascal, Jr. Princeton University	Mechanistic Studies of Non-Heme Iron Oxygenases

DATE:

Wednesday, December 17, 1986

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
8:00 p.m.
Dr. David F. Roswell
Loyola College
"Chemiluminescent Reactions
in Solution"

COCKTAILS AND DINNER:

Social Hour 6:30 p.m.
(Sponsored by Hewlett-Packard)
Dinner 7:00 p.m.

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 December 8. 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.

CHEMILUMINESCENT REACTIONS IN SOLUTION

The physical phenomena whereby molecules absorb radiation and then immediately re-emit, a process called fluorescence, or re-emit more slowly, phosphorescence, is frequently observed and well explained. Somewhat less well known is the phenomenon called chemiluminescence, a process by which chemical reactions produce a product in an electronically excited state and the decay of that product to the ground state produces visible light.

There are a variety of reactions that are chemiluminescent. One of the simplest involves the reaction of alkaline hydrogen peroxide with chlorine gas--in which red light is observed. Among the most striking are those that involve oxidation of an organic substrate. An example of that type is the alkaline oxidation of luminol (3-aminophthalic hydrazide) which in protic media produces a blue light which shifts to green in aprotic media. Related to luminol are the so called linear hydrazides which, although not as efficient as luminol, have produced some interesting mechanistic speculations.

Related to chemiluminescence is bioluminescence, where a chemical reaction in a biological system produces visible light. The yellow/green flash of the firefly is a fascinating sight. The firefly reaction has been studied over the last 30 years and the emitter and basic reaction uncovered. Duplication of the phenomenon in a purely chemical system is possible; however, some interesting differences are observed.

An introduction to the field of chemiluminescence will be given. The present status of the luminol reaction and the oxidation of linear hydrazides will be discussed as well as the relationship of these studies to the bioluminescence of the firefly.

MARYLAND CHEMIST AWARD

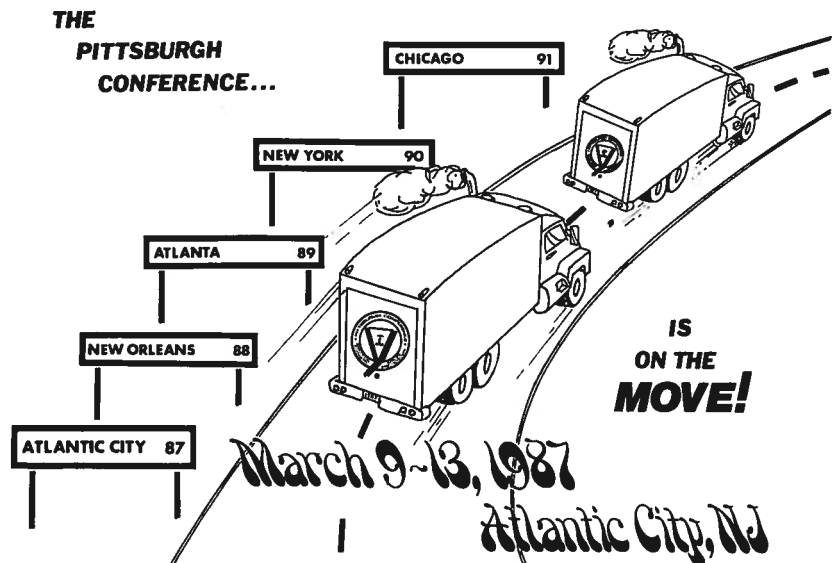
The Maryland Chemist Award was established in 1962 to recognize and to honor, each year, a member of the Maryland Section for outstanding achievement in the field of chemistry. The achievement may be in pure or applied chemistry, chemical engineering or chemical education.

Previous recipients have been:

1962 Dr. E. Emmet Reid	1974 Dr. Joyce J. Kaufman
1963 Dr. W. Mansfield Clark	1975 Dr. Benjamin Witten
1964 Dr. Alsoph H. Corwin	1976 Dr. Richard L. Hall
1965 Dr. John C. Krantz, Jr.	1977 Dr. Henry C. Freimuth
1966 Dr. Belle O. Talbot	1978 Dr. Gunther L. Eichorn
1967 Dr. Walter S. Koski	1979 Dr. Emil H. White
1968 Dr. George L. Braude	1980 Dr. M. Gali Sanchez
1969 Dr. Leslie Hellerman	1981 Dr. Paul O. P. Ts'o
1970 Dr. Paul H. Emmett	1982 Dr. Joseph L. Katz
1971 Dr. Giles B. Cooke	1983 Dr. Shih-Yi Wang
1972 Dr. Arnold M. Seilgman	1984 Dr. Nicolas Zenker
1973 Dr. Lester P. Kuhn	1985 Dr. John Lambooy

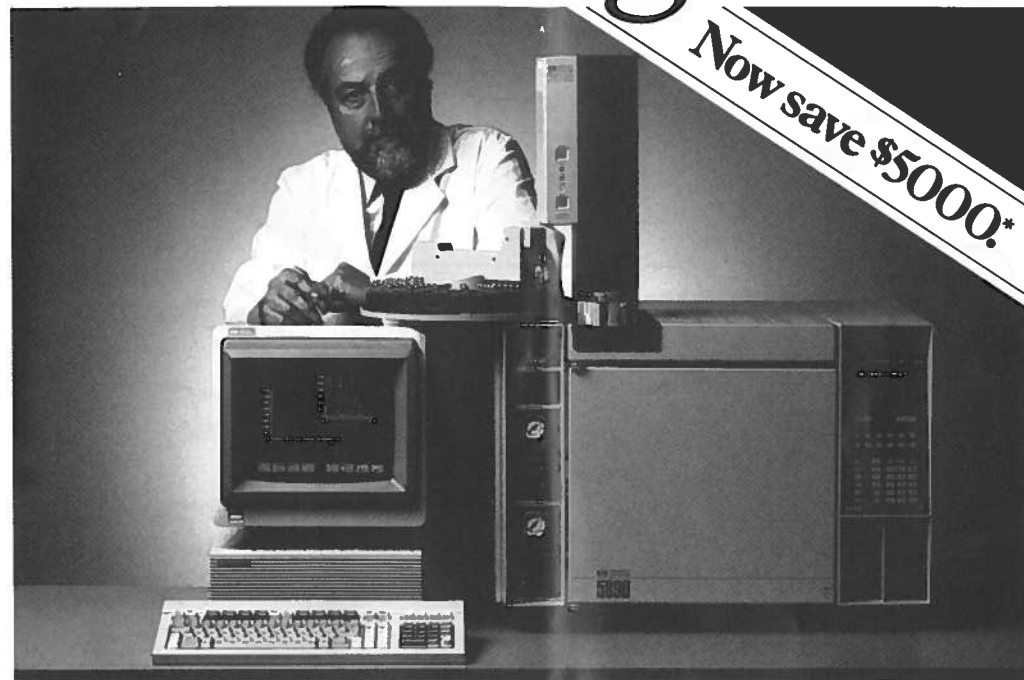
1986-1987 MARYLAND SECTION PROGRAM

DATE AND LOCATION	SPEAKER	AFFILIATION
January 21, 1987 College of Notre Dame	To be announced	
February 18, 1987 College of Notre Dame	Frederick Lampe	Pennsylvania State Univ.
	Joyce Kaufman	The Johns Hopkins Univ.
March 11, 1987 College of Notre Dame	John Lever	The Johns Hopkins Univ.
	Glen Prestwich	SUNY at Stonybrook



The Pittsburgh Conference, 12 Federal Drive, Suite 322, Pittsburgh, PA 15235 (412) 795-7110

Knowledgeable.



The GC system that also gives you qualitative answers.

Maybe you're like William — a highly experienced chemist who spends most of his time on complex methods development. You need a system that is as sophisticated as the work you do.

And this is it — a new HP system that combines the proven chromatographic performance of the HP 5890 GC with the power of a new dedicated GC ChemStation.

The ChemStation not only gives you fast interactive color

graphics but also lets you control your entire system from one keyboard. It gives you graphic real-time data evaluation and rapid recalculation of the data, so you get better answers sooner.

It is also flexible enough that you can optimize your peak integration according to your own experience.

And it can calculate retention indices and search an on-line library for potential matches — the new, optional **Sadtler Retention Index Library** or one you build yourself. So it's an

effective, low-cost alternative to traditional qualitative analyses.

What's more, the methods you develop on this system can be transferred to other HP 5890 GCs in your QC lab.

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

*U.S. list price. Offer good only with purchase of HP 5890 GC and GC workstation. Expires Dec. 31, 1986.

JOSEPH WEITZEL
SALES REPRESENTATIVE
ANALYTICAL INSTRUMENTS
Eastern Sales Region



HEWLETT
PACKARD

3701 Koppers Street, Baltimore, MD 21227
Direct: (301) 362-7587
Main: (301) 644-5800

SUZANNE BIZOT
SALES REPRESENTATIVE
ANALYTICAL INSTRUMENTATION
Eastern Sales Region



HEWLETT
PACKARD

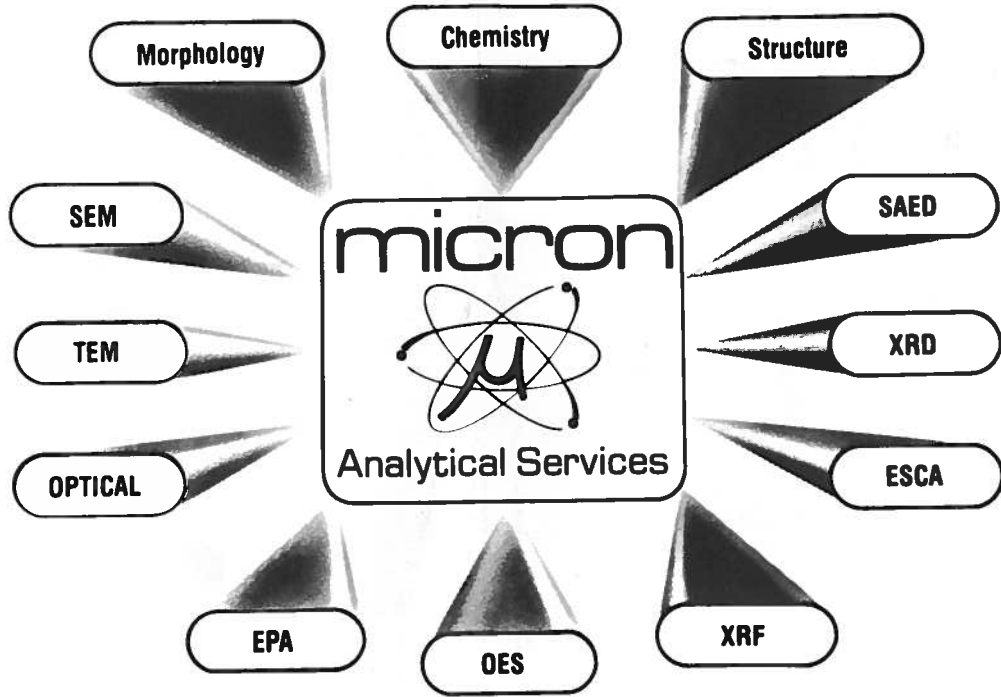
3701 Koppers Street, Baltimore, MD 21227
Direct: (301) 362-7579
Main: (301) 644-5800

0117980X 11/86 ZO 301
DR YALE HOWARD CAPLAN
3411 PHILIPS DR
PIKESVILLE MD 21208

1

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