



THE CHESAPEAKE CHEMIST

MARYLAND SECTION
AMERICAN CHEMICAL SOCIETY

VOL. XLVIII

NOVEMBER, 1992

NUMBER 8

NOVEMBER MEETING

DATE AND PLACE:

Wednesday, November 18, 1992
Officers' Club
Aberdeen Area
Aberdeen Proving Ground
(NOT the Edgewood Area)

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

Dr. Stephen M. Gregory
College of Notre Dame
4701 North Charles St.
Baltimore, MD 21210

SCHEDULE:

6:00 Social Hour
(Cash Bar)

by November 11. Late reservations may be
made by calling
(410) 532-5714

7:00 Dinner

by November 13; answering machine is
available at this number.

8:30 Gary Reineccius
University of Minnesota
"Instrumental Sensory
Correlation of Flavor
Compounds"

Dinner price is \$16.00 per person,
but spouses and retired chemists may
attend for \$14.00; students may
attend for \$8.00.

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

Directions: From I-95 north take Exit 85 (2 miles north of the Maryland House Restaurant). Follow signs for Aberdeen Proving Ground and Route 22 east (this will be a right turn off Exit 85, but not the immediate first right). Route 22 east leads directly to the APG gate (about 4 miles); past the post gate house, it becomes Harford Boulevard. At the third light after the gate house, turn right (a sign indicates Main Post to the right); this road is Maryland Boulevard. At the next traffic light make a left turn onto Aberdeen Boulevard; follow this for 1.6 miles to a fork in the road (fire house location). Take the left fork in front of the fire house. The road will pass the Civilian Personnel Building on the right and come to a small traffic circle. Turn left at the circle onto Plumb Point Loop East. The Officers' Club is 0.5 mile down the road. The Officers' Club has a parking lot in front of the building.

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GARY REINECCIUS

Gary Reineccius, Ph.D., is a Professor of the Department of Food Science and Nutrition at the University of Minnesota. He obtained his Master of Science degree from the University of Minnesota working on flavor retention during spray drying. He went to Penn State for his Ph.D. where he worked on chocolate flavor. He has been actively involved in flavor research for the last 22 years. During this time he has published over 100 research articles. Dr. Reineccius spent a one year sabbatical leave with Fritzsche Dodge and Olcott working in flavor creation and production. His most recent sabbatical was spent working with reaction flavors for Nestle in Vevey, Switzerland. He will spend the coming year in Grasse, France working at a flavor company.

Dr. Reineccius teaches courses in Chemical and Instrumental Analysis of Foods and Flavor Chemistry. He has written a textbook on food flavors with Henry Heath. This is the first textbook in the flavor area which combines both flavor chemistry and technology. Dr. Risch and he edited and were major contributors to a book titled *Flavor Encapsulation* (ACS Symposium Series). This fall his latest book will be published. It is titled *The Source Book of Flavors*.

Dr. Reineccius is actively involved in both local, national and international shortcourses. For the last 15 years he has taught a shortcourse on gas chromatography. This year he was awarded the Palmer Award for his contribution to chromatography. Over the past several years, he has either organized or taught at shortcourses on food flavors nationally and internationally. Dr. Reineccius is one of seven individuals selected worldwide who have been granted honorary membership in the Society of Flavor Chemists. This year he received the ACS award for contributions to the food industry.

Dr. Reineccius is quite active as an industrial consultant on flavor problems in foods and food flavoring materials.

INSTRUMENTAL SENSORY CORRELATION OF FLAVOR COMPOUNDS

We have a substantial need in the food/flavor industries to develop methods to objectively measure the flavor of foods. The most promising approaches generally involve gas chromatography since flavor largely is due to volatile constituents in the foods. The task is one of attempting to isolate flavors, separate them, and then draw some conclusions from these data. My presentation will provide an overview of methods to isolate flavor compounds from foods (very brief), their separation (very brief) but focus on attempting to relate gas chromatographic data to sensory response.

Sensory/instrumental correlations can be purely statistical in nature or can be causative i.e. what is responsible for flavor or off-flavor in foods. There is a lot of questionable data being published in this area. My emphasis will be on critically evaluating approaches being used today with some suggestions as to how we can improve upon these data.

MARYLAND SECTION BY-LAWS

The proposed by-laws of the Maryland Section, published in the March issue of *The Chesapeake Chemist*, have been approved by the membership of the Maryland Section and have been accepted by the ACS.

1994 MARM

The 1994 Middle Atlantic Regional Meeting will be hosted by the Maryland Section. Chuck Rowell has been selected as General Chairman.

Mr. Elwin Penski, Chairman
Ad Hoc Committee on High School Chemistry Education
Maryland Section
American Chemical Society
2515 Jerusalem Road

Dear Mr. Penski:

I appreciate the opportunity to respond to the preliminary report of the ad hoc committee. The report contains many statements with which I concur. There are problems in high school chemistry education today. When I visit chemistry classes I don't sense the excitement of learning in students and the magic of instruction coming from teachers common in the '60s and '70s. Several points stand out which I feel may contribute to the state of chemistry instruction:

1. Towards the end of the '60s there was a shift from hands-on, qualitative chemistry to a greater emphasis on mathematics in local colleges (I particularly noticed this at Towson State College. Towson even revamped the program to meet ACS guidelines for the chemistry major.) This movement was picked up in the early '70s by high schools. Suddenly, students couldn't be successful in chemistry if they weren't good in algebra and mathematics. I don't believe that a student needs algebra to be successful in chemistry.
2. With this shift came a decline in Chem Study, IAC and other courses which were application and environmentally oriented. Today, our county doesn't have either of these courses but we have started Chem Comm which is growing in popularity. Chem Comm allows more students access to chemistry, not just the college bound students.
3. Right along with points 1 and 2 came the demise of NSF summer institutes. Teachers were no longer being trained to implement new curriculum projects like Chem Study or Chemical Bonding Approach. Thus, the opportunity for professional renewal and recharging stopped.

I believe that these 3 points together have had a mitigating effect on high school chemistry. Nationally, we have both narrowed the population from which to recruit students and severely curtailed new curriculum projects along with the inservice component.

The new Chem Comm curriculum is doing fine in my county. Using Eisenhower funds, I have a successful inservice program and have implemented computers, micro chemistry and a strong middle school chemistry program. Although I still have concerns with chemistry instruction, I feel we are making progress.

If you can use additional input, please contact me.

Sincerely,

Thomas Custer
Coordinator of Science
Anne Arundel County Public Schools

ACS COUNCIL MEETING
WASHINGTON, DC - AUGUST 26, 1992

The Council of the American Chemical Society met in Washington, DC on August 26, 1992. The four Maryland Councilors, Merle Eiss, Donald Jones, David Roswell and Charles Rowell, were present.

President Ernest Eliel reported on his attendance at meetings of the Royal Society of Chemistry and the National Academy of Sciences. He also testified before the House Appropriations Subcommittee on the budget for the National Science Foundation.

Eliel discussed an ACS project to have American Chemistry students study in Western Europe or Southeast Asia for 6-12 months to broaden their education. He concluded his report to Council by commenting on the unemployment rate among chemists which is almost 2% and is expected to increase if the economic situation in industry continues to decline. Early retirements and part-time employment are also increasing.

President-elect Helen M. Free reported on her goals for 1993. They include:

- enhancing public understanding of chemistry
- getting young people interested in science
- getting more ACS members more active
- planning an International Chemistry Celebration in 1992

Free also stated that she will promote possible cooperation between the ACS Women Chemists Committee and the National Institute of Health's new office of Research of Women's Health.

ACS Board Chairman Joseph Dixon informed the Council that the Smithsonian exhibit is now scheduled to open in April 1994. He also mentioned that ACS will make career development services more affordable to members who need re-training and need to keep abreast of new technologies.

Candidates were elected for the ACS Policy Committee, Nominations and Election Committee, and Committee on Committees. Merle Eiss was elected to the Committee on Committees.

Revenues for ACS publications were 1% below budget but expenses were cut to avoid losses. There is a task force conducting a survey for readers of the *Journal of Organic Chemistry*.

Attendance for the Washington National Meeting was 11,700 -- including exhibits -- to give a 1992 total for national meetings of 23,661. A new ACS record!

Costs for national meetings are increasing, and registration fees (which cover member services only) will be raised accordingly. The registration for the 1993 National Meeting in Denver will be \$165.00.

Respectfully submitted,

Merle Eiss
Donald Jones
David Roswell
Charles Rowell

FUTURE MEETINGS

December 1992

*Date: Dec. 9, 1992
Location: UMBC
Speaker: Maryland Chemist
Award Winner

February 1993

Date: Feb. 17, 1993
Location: Morgan State
Univ.
Speaker: Dr. Paul Fagan
Du Pont Central
Research

March 1993

Date: March 10, 1993
Location: W.R. Grace
Speaker: Dr. Ernest Eliel

April 1993

Date: April 14, 1993
Location: Western MD
College
Speaker: Student Awards
Poster Session

YOU ARE INVITED TO PARTICIPATE IN NATIONAL CHEMISTRY WEEK
(NOVEMBER 1-7, 1992)

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Demonstration Volunteers or Teachers requesting a demonstrator
Contact Dr. Silversmith 410-444-3214

Free video loan to teachers
Contact Dr. Gregory 410-532-5714

Exhibition at the M.A.S.T. Conference
November 6-7, 1992

More Information
Contact George Herold 410-631-4888

ELECTION OF OFFICERS

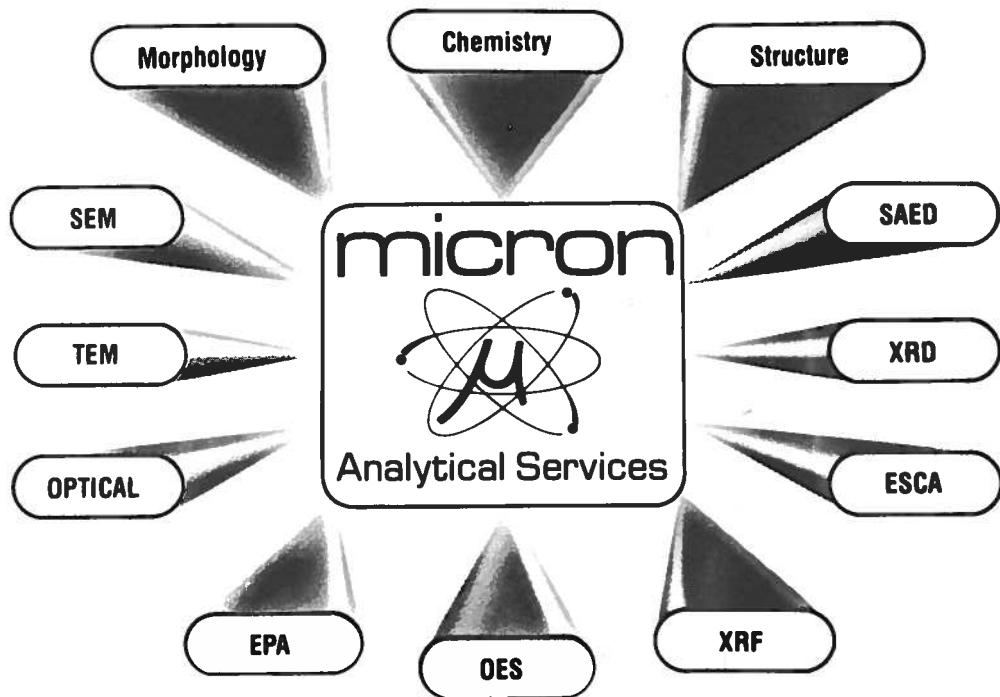
Please complete the following ballot for the election of the 1993 officers, councilors, alternate councilor and members-at-large of the Executive Committee of the Maryland Section and mail it to Alice Zeiger, Center for Indoor Air Research, 1099 Winterson Road, Suite 280, Linthicum, MD 21090. Please sign the envelope, but not the ballot itself, so that membership can be verified.

Chair-elect	Alice Zeiger	_____
Secretary	Shekar Munavalli	_____
Treasurer	Mike Zapf	_____
Councilor	Merle I. Eiss	_____
(vote for two)	Charles Rowell	_____
Alternate Councilor	Mike Zapf	_____
Members-at-large	Donald Hoster	_____
(vote for five)	Hope Corrigan	_____
	Dale L. Whalen	_____
	Jeanette S. Hamilton	_____
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