



THE **CHESAPEAKE
CHEMIST**

MARYLAND SECTION
AMERICAN CHEMICAL SOCIETY

VOL. XL

OCTOBER, 1984

NUMBER 7



SAMUEL M. GERBER



NED D. HEINDEL

This issue of *The Chesapeake Chemist* is being sent to a large number of non-ACS members as well as to the regular circulation, and it represents a blatant recruiting drive. We have identified nearly 1,500 people in the Maryland Section's geographical area who are not members but who are probably eligible for membership. The Executive Committee and Membership Committee request that all members make a concerted effort to sign up non-member colleagues.

Our center pages, containing the ACS application form, are easily removable.

We might also note that the ACS dues, a subject of annual controversy, are, in fact, quite modest relative to dues of most national professional organizations.

During the past year the Section has conducted a number of activities relevant to high school chemistry and chemistry teachers. Reports on some of these activities are contained in this issue. Activities such as these depend on interested members. The Executive Committee welcomes suggestions from members on new activities and, of course, welcomes participation by all members.

The October meeting features two very popular lectures, so we recommend that you make your dinner reservations early.

The Remsen Award Committee is accepting nominations and suggestions for the 1985 Remsen Award. Nominations and requests for information should be sent to Dr. Robert L. Caret at Towson State University.



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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

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Community College of Baltimore
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Samuel M. Gerber is a specialist in the chemistry and technology of dyes and their intermediates. He received a B.S. degree in chemistry from the City College of New York and an M.S. and Ph.D. from Columbia University. Most of his professional career was with American Cyanamid Company, where his assignments included Chief Chemist of Dyes and Intermediate Manufacturing and Manager of Dyes and Chemicals R&D. At present, he is a consultant in the field of dyes and related products. His professional publication and patents are largely in the field of dyes and intermediates. They include an extensive compilation of Soviet contributions on azo and diazo chemistry.

Dr. Gerber's interest in forensic chemistry originated with Sherlock Holmes. He is a member of the Baker Street Irregulars and related groups. His lecture, "Sherlock Holmes, Chemist," has been widely presented.

SHERLOCK HOLMES, CHEMIST

Interest in Sherlock Holmes is widespread. There are societies of devotees throughout the world committed to study and embellishment of the sacred writing. These total 56 short stories and 4 novellas. Holmes's ability and versatility as the first consulting detective are well known; his contributions to and utilization of physical science, scientific method and, in particular, chemistry deserve more attention.

His contribution of new scientific techniques in blood identification, soil characterization, ballistics, etc., presaged a new world of forensic science. In addition, he did outstanding work in coal tar chemistry. These will be reviewed, with particular attention drawn to Holmes's work in blood chemistry.

NED D. HEINDEL

Ned D. Heindel received his B.S. degree from Lebanon Valley College and M.S. and Ph.D. degrees from the University of Delaware. In 1964 he completed an N.S.F. post-doctoral fellowship at Princeton. He taught at the University of Delaware, Ohio University and Marshall University before joining the staff at Lehigh where he is now H.S. Bunn Professor and Director of the Center for Health Sciences. He is also Adjunct Professor of Nuclear Medicine at the Hahnemann Medical Center in Philadelphia.

He is a member of ACS, Sigma Xi, the Chemical Society (London), the Radiopharmaceutical Scientists Council and the Society of Nuclear Medicine as well as of several historical societies. He has served as Chairman of the ACS Lehigh Valley Section and the History of Chemistry Division.

Dr. Heindel's areas of interest include diagnostic radioactive pharmaceuticals, heterocyclic synthesis, preparation of potential anti-cancer agents and the history of American medicine.

FOLK MEDICINE OF THE 19TH CENTURY

In the absence of enforced licensing laws and in the presence of malevolent and painful medical orthodoxy which focused its therapy on bloodletting and leeching, the 18th and 19th centuries saw the growth of a vigorous alternative medical system. In the Eastern United States this unorthodox medicine was especially well entrenched and pow-wow "doctors," hydropaths, Thomsonians, electropaths and homeopaths maintained sizeable practices. Substantial reliance on herbal preparations of folk culture origin, of charms and semi-occult chants, and on defined acts and manipulations characterized many of these medical systems. Vestiges of these unorthodox practices still survive but even more importantly, several of the therapies and natural product preparations which they devised have found their way into the medicine of today.

OCTOBER MEETING

DATE:

Wednesday, October 17, 1984

PLACE:

LeClerc Auditorium
The College of Notre Dame of
Maryland
North Charles Street
Baltimore, Maryland

SPEAKERS AND TOPICS:

5:30 Samuel M. Gerber
Retired
"Sherlock Holmes - Chemist"

8:30 Ned D. Heindel
Lehigh University
"Folk Medicine in the 19th
Century"

COCKTAILS AND DINNER:

Cocktails 6:30
Doyle Building Dining Room
Dinner 7:30

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

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 October 8. Late reservations may be made by calling

John Corliss at (301) 235-6612
or Nolan Phillips at (301) 385-0159

by October 12.

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

MARYLAND SECTION FUTURE PROGRAM

DATE AND LOCATION	SPEAKER	TOPIC
November 14, 1984 Edgewood	David W. Young	Antonio Stradivari - the Artist and the Chemist
December 12, 1984 College of Notre Dame	Maryland Chemist of the Year	
January, 1985	Tentative - Planetarium in Landover, MD	

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 - Planetarium Shows: "Springtime in the Universe"
 - "The Loneliness Factor"
- * Guidelines for Evaluation of Undergraduate Chemistry Programs
- * Committee on Professional Training
- * Professional Contact
- * Career Guidance
 - Publications such as "Careers - Nontraditional"
 - Younger Chemists Road Shows
- * Programs for Retired Members
- * Programs for High School Teachers
- * Chemical Abstracts
- * Thirty-two Divisions
- * Local Sections

Above is an abbreviated listing of some selected benefits of ACS membership. Non-member chemists as well as members are certainly familiar with national ACS meetings, though perhaps somewhat less familiar with the regional and local meetings. The regional meetings are typically fairly large and include a wide variety of papers and symposia presenting research results of substantial technical significance. Local section meetings tend to have a larger social content and usually feature one or two lectures on topics of general interest.

The ACS insurance plans present an opportunity for members to obtain a variety of insurance coverages at group rates, independent of employer groups, and some of these rates are very favorable indeed. The term life, disability income, professional liability and umbrella liability policies are especially attractive, and ACS provides a special incentive for new members with one year of free \$15,000 life insurance plus \$15,000 accidental death and dismemberment coverage.

ACS is perhaps best known as a major publisher of scientific books and journals. Its weekly news magazine, *Chemical & Engineering News*, distributed to all members, provides excellent coverage of current happenings in the world of chemistry.

Dues/Subscriptions/Divisions

Mr., Mrs. (Name) _____
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Academic Training

Name of College or University (including current enrollment)	City and State	Curriculum Major	Years of Attendance	Title of Degree(s) Received or Expected	Date Degree Received or Expected
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Courses Completed

Please list completed courses (by title) in the chemical sciences (Attach separate sheet or transcript if more space is needed.)
Not required of those with a bachelor's, masters or doctor's degree in a chemical science or those with a doctor's degree in a science closely related to chemistry with demonstrated significant experience in the practice of a chemical science.

Quarter hour credits should be multiplied by two-thirds. If school did not use a credit hour system, please estimate credits on basis of 15 lecture clock hours or 45 laboratory clock hours as equivalent to one semester hour credit.

Course Title	Semester Hours	Course Title	Semester Hours	Course Title	Semester Hours
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Nomination

Nomination by two ACS members (not necessary for former members; student affiliation does not constitute former membership).
 If this presents difficulty, please contact the Washington office.

We recommend _____ for membership in the American Chemical Society.
 (Name of Applicant)

ACS Member: _____ (Signature)
 (Printed Name)

ACS member: _____ (Signature)
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MARYLAND SECTION

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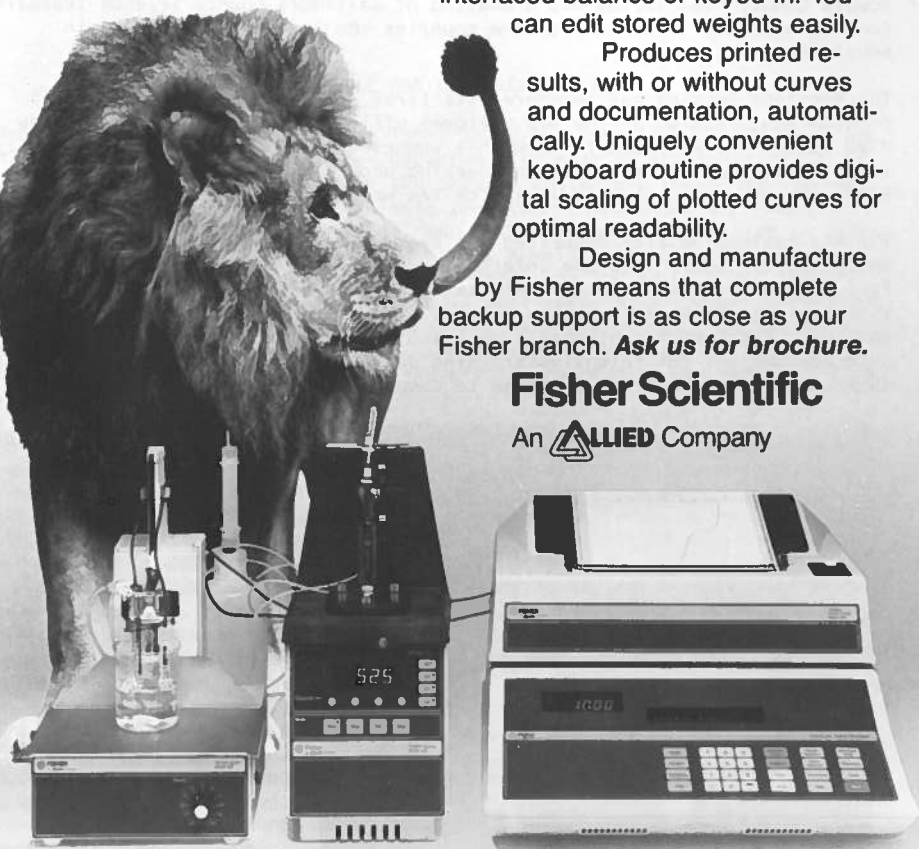
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Student Dues

If you are a student majoring in the chemical sciences a 50% reduction on membership is available. To apply you must be registered for at least six credit hours as an undergraduate or be enrolled as a full-time graduate student.

- I am an undergraduate student enrolled as described above.
 a graduate student enrolled as described above.

Name of College or University

National Affiliation

National affiliates pay three-quarters dues (i.e. \$48.75) and likewise will receive a prorated bill based on the quarter national affiliation begins.

Husband/Wife Dues

If you are the spouse of a member receiving C&EN, 23% (or the prorated amount) will be deducted from your bill. This is the portion that is allotted for C&EN. If you are eligible, please give the name of your spouse and his/her membership number.

Spouse's Name _____

Membership Number _____

If you wish to subscribe to an ACS publication or join an ACS division please list the publication(s)/division(s) below.

Remember, send no money now.

Agreement

I agree to restrict for my own personal use all publications to which I subscribe at member rates. I understand that membership dues are payable annually unless my signed resignation is received by the Executive Director before January 1 of the year for which the resignation is to take effect.

(Date)

(Signature of Applicant)

RECENT HIGH SCHOOL ACTIVITIES

For the second year now, the Maryland Section of ACS has participated in the Baltimore Science Fair, held most recently at Towson State University. The judges representing the Section awarded Mr. Bryan Collier of Loch Raven Middle School the Division II prize and Ms. Pamela Abernethy of Oakland Mills High School the Division I prize. United States Savings Bonds were presented at the closing ceremony.

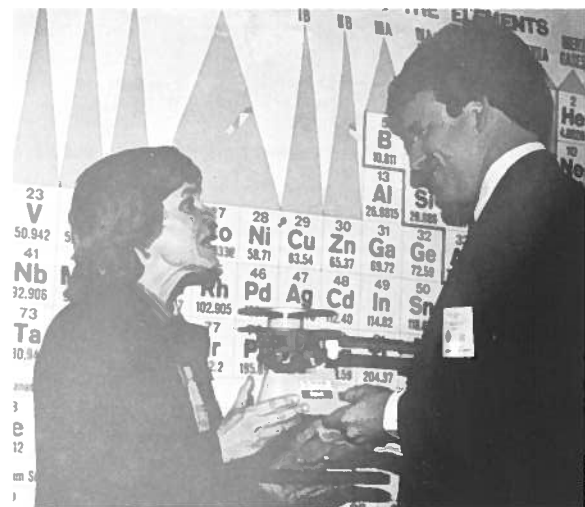
Ms. Bonnie Williams, chemistry teacher at Dulaney High School, was the First Nominee from the Section for the ACS Regional Award in High School Chemistry Teaching. The Section's first award for Excellence in High School Chemistry Teaching was presented to Ms. Williams at the April Meeting at Western Maryland College. An additional award of lab equipment was presented to Dulaney High School by a representative from American Scientific Products.

Several teachers and their students were guests of the Section during the April meeting. Twice during the year guests are invited to meet with members of the Section to encourage students in careers in chemistry. If you know of teachers who would like to be invited to meetings, please contact Charles Zapf at 667-7471.

The Section was represented at the "Forum For The Future" conference held in Howard County last Spring and a meeting of Baltimore County Science Teachers. Contact was made to present to the counties the interest of the ACS in education.

The Maryland Section has sponsored its first Project SEED student under a program administered by the ACS national office. Mr. David Chan from Poly High School was selected to work this summer at The Johns Hopkins University in the department of chemical engineering under the direction of Professor W. H. Schwary. The student works for ten weeks and receives a stipend.

The ACS national office requested the Section to nominate several students to be tested for entry into the International Olympiad held this year in Frankfurt, Germany. Five students were selected and tested in early spring. The International Olympiad has been in existence since 1974 and now includes 18 nations. Successful contestants were sent to the U.S. Air Force Academy in Colorado Springs for intensive training during June, where four students, with their mentors, were finally chosen to compete as the U.S.A. team.



Mike Zapf

Mr. David Pohl presents lab equipment, on behalf of American Scientific Products, to Dulaney High School. Accepting is Ms. Bonnie Williams, the recipient of the first Maryland Section ACS Award for Excellence in High School Chemistry Teaching.



Nolan Phillips presents plaque to Ms. Bonnie Williams, chemistry teacher at Dulaney High School, the Maryland Section's High School Chemistry Teacher of the Year.

AD HOC COMMITTEE FOR HIGH SCHOOL TEACHERS

During the summer and early fall of 1983, an ad hoc committee of the Maryland section met in the Loyola Chemistry department to examine the question of whether there were more areas where the section could help to bridge the much advertised educational crisis in science teaching in the schools. Members were John Roach and Mike Zapf, co-chairmen of the education committee at that time, Tom Bitterwolf, Tim McNeese and Charles Rowell. After examining the elementary school question and the various needs for junior high and high school, the committee decided that it could best serve as a source of refresher material and possibly some new demonstrations while encouraging those already teaching high school chemistry. The concept of developing rapport between the high school teachers and the practicing chemist was considered an important goal.

Toward that end a six section program of eight sessions each was developed. The proposal was presented to various county and city school administrators and found interest in several places. In Anne Arundel County the science coordinator, Thomas Custer, contacted the appropriate teachers and solicited enough interest to get 15 people to come out for the initial sessions. The first section on *Kinetics and Equilibrium* was offered in the fall, ending at Thanksgiving. In the early spring another section was offered to some of the same group and some others. This section was on organic chemistry and biochemistry and drew some biology teachers as well. It is hoped that the program will continue in the fall of 1984, but staffing is promising to be a problem.

The second area where this seminar program is expected to get going in the fall is in Baltimore City where the meetings will probably be at Baltimore Polytechnic Institute. They expect to begin with the *Kinetics and Equilibrium* section some time after school starts.

Some collegiality seems to have arisen with some of the Anne Arundel teachers coming to several of the spring ACS meetings. We hope we have made them welcome and that our programs outside of the seminar will help them feel we care about the job they are doing.

C. Rowell

COUNCILORS' REPORT FROM ST. LOUIS

By now the significant events of the St. Louis meeting have been adequately detailed in *C&EN*. The meeting was both brief and placid. The problems that we face as a society will surface in full force at the Philadelphia meeting.

To recap the actions of the Council, we selected Pimentel and Brasted as nominees for President, we approved the increased costs for subscriptions to various Society journals, we approved a by-law amendment to permit local sections and divisions to collect a "bounty" for national affiliates whose joining results from action of these bodies, and approved the full \$2.00 rise in the member's dues as allowed by the cost-of-living calculation. It should be noted that the section also collects a bounty for any new member who joins through our good offices, so get out and recruit but be sure that you mark Maryland Section at the bottom of the front of the application.

It seems appropriate to discuss some history with you and to review some developments so that the next national meetings will be informed by your opinions if you will share them with us.

Financially, the Society's situation is complex. The publishing activities are self supporting except that the Board of Directors lends money at times to Chemical Abstracts to permit the preparation of indices, etc. These loans are paid back. Excess funds from these operations go into the general fund, which is invested and does fairly well. In short, there are areas of the Society where there is only concern that growth is not as fast as desired to assure that the Society can withstand a disastrous year at some point.

The many membership services, such as employment services, local sections, divisions, etc., are financed out of member dues and are not budgeted in the same pool of money as the programs above. Consequently, the overall health of the Society can be excellent and yet have member services in dire straits.

In the late 1970's the Council was concerned that chemists' salaries were not keeping pace with inflation and that the cost of membership dues was going up rapidly. A number of actions were taken ranging from asking councilors to rate priority and success of various programs to passing a by-law amendment which established a cost-of-living-based escalator for dues. It contained a proviso that each year the Council could choose up to that figure as the increase in the dues but no more. The Council has never accepted the full escalator since the process started in 1980 until this year. This has led to a steadily increasing slide behind the cost of living. The effect of these actions has been generally good as economies have been made and weaker programs have had to strengthen their performances or drop out.

The point of being mean and lean has been reached at just that point where the rise of the cost-of-living has undergone a marked slow down. As a consequence, this year's maximum raise of \$2 is about one full dollar less than enough to meet the budget in its trimmed state.

Examples of the cuts that have been made this year are: a 19% cut in support for the Local Sections Speaker tour programs, a 9% cut in funding for liaison to the Younger Members Committee, a 41% cut in support for unsponsored awards, a 40% cut in aid to unemployed chemists in *C&EN*, and a 91% cut in the Public Affairs budget. Each of these cuts strikes at an important concern.

Another aspect of the problem was noted a few years ago but was not successfully treated by the Council. This question is loaded with emotional overtones and potential for misunderstanding. It relates to the question of the privileges of emeritus members.

All of us feel that the emeritus members have earned everything we have given them. When the earlier considerations of the free *C&EN*, for example, were discussed, the obvious reaction was that it was just and right that they should continue to get it at Society expense. At the time there were very few in the status and we could easily carry the cost. (Also in the non-dues-paying category are those who are unemployed and have deferred payment and the disabled with 10 years of membership.)

The situation has changed dramatically. The number of emeritus members has increased more rapidly than we have added new members, even with concerted membership drives. It has been said (by Derek Davenport of Purdue) that we are an aging society, that there are not enough young people and thus we are dying out. Whether true or not, the opinion finds support in the statistic that our membership went from 128,318 in 1982 to 132,800 in 1984 but the number of dues-paying members went from 113,278 to 113,500 in the same period. In short, the removal to non-dues-paying status essentially absorbed the new members.

The problem is going to get larger and the Council is going to have to find ways to protect the rights of the retired and yet provide the needed service to the profession and its practitioners so that there is a Society for all.

Your thoughtful consideration of these issues and your suggestions are requested by your Councilors. Many ideas have been discussed in the committees of the Council, but so far none has been found that will do this magic thing. Perhaps you can offer a new idea that will help us with keeping our dues low, our services high and our veterans properly acknowledged.

Charles Rowell
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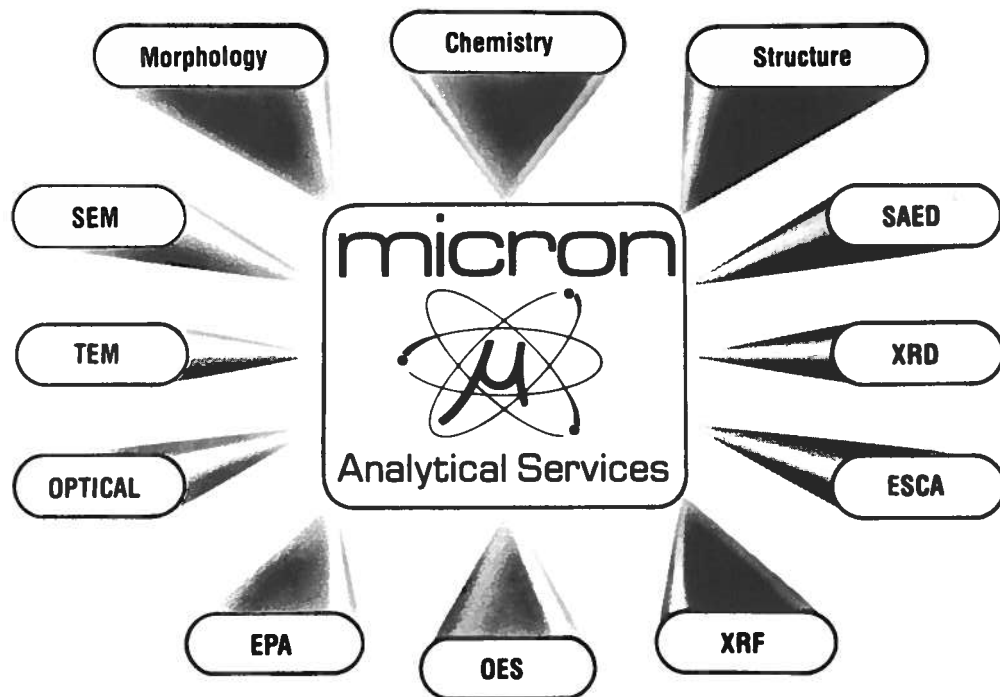
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