



THE

CHESAPEAKE CHEMIST

MARYLAND SECTION
AMERICAN CHEMICAL SOCIETY

VOL. LIV

MARCH, 1998

NUMBER 3

MARCH MEETING

JOINT WITH THE SOCIETY FOR APPLIED SPECTROSCOPY

DATE & PLACE:

Tuesday, March 31, 1998
Officer's Club
Fort Meade

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

Dr. Shirish Shah
College of Notre Dame
4701 North Charles Street
Baltimore, MD 21210

SCHEDULE:

6:00 Social Hour
Cash Bar

by March 24. Late reservations
may be made by calling

7:00 Dinner
"Beef and Burgundy"
Beef Stroganoff Buffet

(410) 532-5712

8:00 Gary M. Hieftje
Indiana University
"New Approaches to Chemical Mea-
surements and Characterization:
TOFMS, NIRA and Other Topical
Methodologies"

by noon, March 26. Answering
machine is available.

Dinner price is \$18.00 per per-
son, but spouses and retired
members may attend for \$15.00;
Students may attend for \$9.00.

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 the Baltimore beltway take Exit 7 south (BW Parkway toward
Washington). Exit to Rt. 175 east (toward Odenton). Turn right onto Mapes
Road. The Officer's Club is opposite the golf course on Mapes Road. The
club phone number is (410) 551-3469.

NEXT MONTH - this year's student awards meeting is scheduled for Thursday,
April 23 at Western Maryland College.



1998 CALL FOR PAPERS

Please make the **1998 Eastern Analytical Symposium** the best ever, by submitting your own paper for inclusion in the technical program. The Symposium will be held on Nov. 15-20, 1998. Abstracts of the proposed papers should be 200 to 250 words, please indicate your preference for an oral or poster format to the committee.

Send your submission to:
P.O. Box 633, Montchanin, DE 19710-0633
or send email to: easinfo@aol.com.

For more information visit our EAS web site:

<http://www.eas.org/>

Use our online submission form.

The deadline for Submission
of preliminary abstracts

is April 15, 1998.



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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.

Professor Gary M. Hieftje
Distinguished Professor of Chemistry
Indiana University

Professor Hieftje is Distinguished Professor of Chemistry at Indiana University. He has an A.B. (Hope College, 1964) and Ph.D. (Indiana University, 1969). He was promoted to full professor in July, 1977 and named Distinguished Professor in 1985 and Chair in 1996. His research includes atomic emission, absorption, and fluorescence spectrometric analysis. He is interested in the on-line computer control of chemical instrumentation and experiments, the use of time-resolved luminescence processes, the application of information theory, NIRA, and stochastic processes to extract basic and kinetic chemical information.

Gary is a member of the ACS, SAS, Ppt. Society of America., Sigma Xi, AAS, and Phi Mu Alpha. He has chaired or co-chaired the 1979 Analytical Summer Symposium on Lasers in Analytical Chemistry, the 1982 Gordon Research Conference, and the 1987 Analytical Summer Symposium on Biotechnology. He served on the advisory panel and editorial board of Analytical Chemistry, Analytical Chimica Acta, Journal of Analytical Atomic Spectroscopy, Lab Microcomputer, Spectrochimica Acta, Analytical Chemistry Bench Top Series from Springer Verlag, Talanta, and Spectroscopy and Spectral Analysis.

His awards include the 1983 IR-100 award ("Hieftje effect"); 1983, senior guest fellowship (Science and Engineering Research Council of Great Britain); 1984, Meggers Award, the Lester W. Strock Award, and Anachem Award. In 1985; the ACS Chemical Instrumentation Award; in 1986 the Pittsburgh Analytical Chemistry Award and Theophilus Redwood Award (Royal Society of Chemistry.) He was chair (1985-86) of the Analytical Division of ACS; 1987, the ACS Award in Analytical Chemistry and the Tracy M. Sonneborn Teacher-Scholar Award from Indiana University, elected to Fellowship in the AAAS. In 1989, Fellow from the Indiana Academy of Science. In 1991; President SAS; Gold Medal of the QC Academy of Upjohn. In 1992; EAS Award for Outstanding Achievements in the Fields of Analytical Chemistry and was awarded a second Lester Strock Medal. In 1996; a Humboldt Research Award for Senior U.S. Scientists and the 1996 Meggers Award (SAS); the 1998 award for Excellence in Teaching from Analytical Chemistry Division (ACS). Hieftje is the author of approximately 360 scientific publications, 10 books and holds 13 patents.

**"New Approaches to Chemical Measurements and Characterization:
TOFMS, NIRA, and Other Topical Methodologies"**

Professor Hieftje's address is titled "New Approaches to Chemical Measurements and Characterization: TOFMS, NIRA, and Other Topical Methodologies". In Time-of-Flight MS (TOFMS), the light source is tiny, produces subnanosecond pulses, is extraordinarily stable, inexpensive, and requires no external power! The droplets are used for titrimetry, for fundamental studies in plasmas, and as sample cells for ultra-high sensitivity fluorometry. The elemental TOFMS offers several advantages over conventional mass spectrometers for elemental analysis: better precision, truly simultaneous multi-element and multi-isomers for elemental analysis, freedom from spectral skew, high speed, and better efficiency. The NIRA studies include those aimed at sensing and detection of capsule tampering.

CHEMATHON - will be held on May 9 at College Park. Program assistance is always needed. Time is 8:30 to noon on Saturday. Contact Mike Zapf at (410) 771-7471 or e-mail mike_zapf@mccormick.com



American Chemical Society

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Paul H.L. Walter
President-Elect, 1997
President, 1998
Immediate Past President, 1999

February 6, 1998

Dear Colleague:

I have the pleasure of hosting a very special event during the upcoming ACS national meeting in Dallas and invite you to attend. On Sunday afternoon, March 29, at 4:30 p.m., in room D267 of the Convention Center, Dr. F. Albert Cotton, W.T. Doherty - Welch Foundation Distinguished Professor of Chemistry and Director, Laboratory for Molecular Structure and Bonding; Dr. Joseph A. Miller, Chief Technical Officer at DuPont; and Dr. Neal F. Lane, Director of the National Science Foundation, will participate in a Presidential Plenary Session on the future role of the federal government in research and development. Dr. Jacqueline Barton, Arthur and Marian Hanisch Memorial Professor and Professor of Chemistry at California Institute of Technology, has agreed to moderate the panel discussion.

It is not by chance that ACS was able to assemble such renowned individuals to participate in a discussion of this topic. Encouraging funding of research in science, technology, and engineering is a key thrust of the Society's strategic plan and our efforts in support of that funding are well known in the scientific community. The future of federal funding and partnerships in R&D is an issue critical to us all. I hope you will join me on March 29 to learn what foremost authorities in the areas of education, industry, and government have to say about the continued participation of the federal government in funding scientific research.

Sincerely,

Paul H. L. Walter

STUDENT AFFILIATES CHAPTER AWARDS

The ACS Committee on Education selects Student Affiliates chapters to receive special recognition on the basis of their programs and activities as described in their annual reports. For the 1996-1997 academic year, 25 outstanding, 47 commendable and 53 honorable mention awards were made. These chapters will be honored on March 29 at the 215th ACS National Meeting in Dallas.

Chapters within the Maryland Section being recognized, with faculty advisors and student leaders, are Anne Arundel Community College, Sridharan Iyengar and June Bronfenbrenner, Lance Lusk and Kathleen Ginn (commendable), and Morgan State University, Louise Hellwig and Roy Elliott (honorable mention).

**CHEMISTRY EDUCATION:
SPINNING A SEAMLESS WEB**

**FRIDAY
MARCH 13, 1998
8:00 A.M. - 3:30 P.M.
COLLEGE OF NOTRE DAME
OF MARYLAND
BALTIMORE, MD**

We look forward to your presence at the conference to work together with a common goal of strengthening and enhancing chemistry education in the state of Maryland.

Conference Planning Committee:

*Laurence Boucher
Towson University*

*Vera Zdravkovich
Prince George's Community College*

*William Harwood
University of Maryland, College Park*

*Alvin Bober
Towson University*

*Edward Dieterle
Northwestern High School*

*Kathleen Thompson
Atholton High School*

*Shirish Shah
College of Notre Dame of Maryland*

Registration fee for *CHEMISTRY EDUCATION: SPINNING A SEAMLESS WEB* is \$25.00, which includes continental breakfast and lunch. The contact person is Dr. Shirish Shah:

phone (410) 532-5712
e-mail sshah4@juno.com

The conference includes featured lectures plus workshops comprising approximately two dozen presentations, mostly by faculty of colleges and universities in the region covered by the Maryland Section of ACS.

Topics cover the broad range of concerns in the modern teaching of chemistry:

Curriculum
Labs and Projects
Computer Applications
Web Page Use
Multi-media
Tutoring
University-Industry Liaisons
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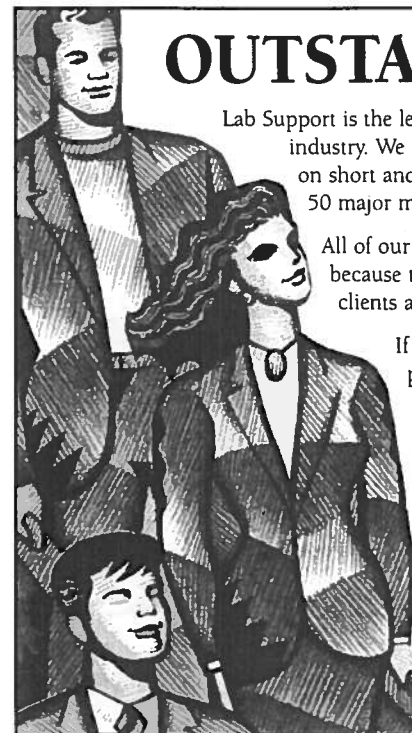
NATIONAL CHEMISTRY WEEK 1997

Shirish Shah, 1997 Section Chair, has summarized some of the activities associated with the 10th anniversary of National Chemistry Week. Our extended week was capped by Chemical Bonding Day on December 4, sponsored by Frank Milio (Towson University and the Chemistry Alliance of Maryland).

Events at the Columbus Bio-technology Center and the Maryland Science Center attracted approximately 1,800 people. Both activities, led by Victoria Kuntz, Mark Greenberg, Anna Kraut and Ernie Silversmith, received newspaper publicity and TV coverage.

The Science Job Fair at the College of Notre Dame attracted 130 college students from the area who met with 25 representatives of business, government and graduate schools. Shirish Shah and Linh Cheong of the Maryland Section and Lucy Wase and Amma Ferro of the CND Career Services Center coordinated the fair.

PROJECT SEED - some funds are available for Project SEED students. Mike Zapf would like advance notice of funding needs.

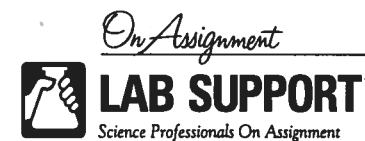


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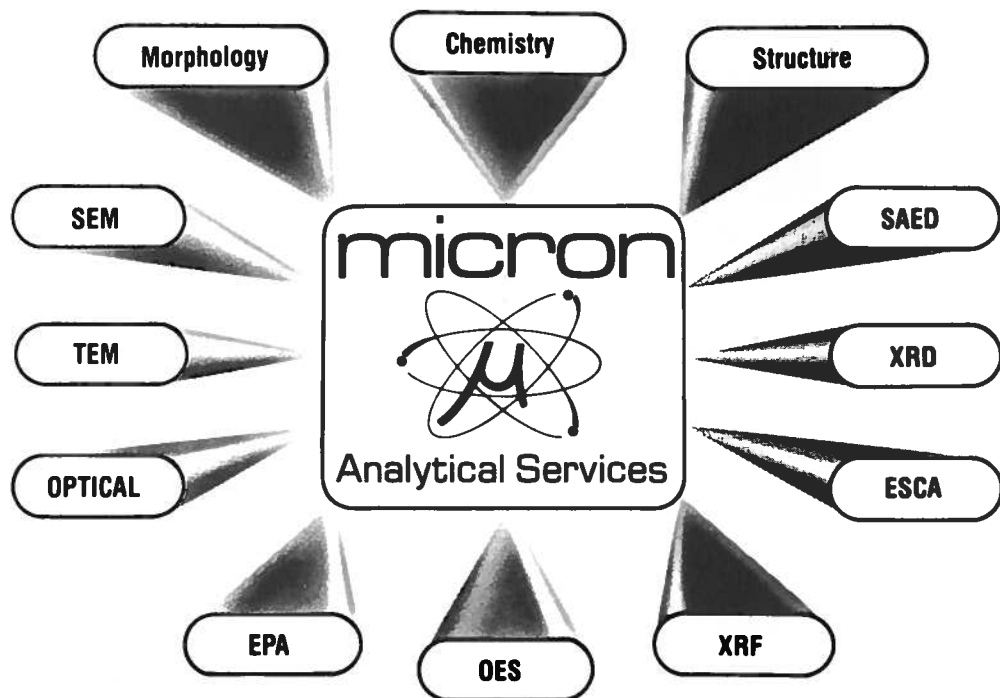
Last November 4 the chair and his coterie gathered in the Baltimore mayor's office to receive Kurt L. Schmoke's proclamation of National Chemistry Week. The mayor was evidently coaxed into performing a chemistry experiment.

- photo by R. B. Chapman

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ACS PATENT HANDBOOK AVAILABLE

The American Chemical Society's Committee on Patents and Related Matters has rewritten its booklet *What Every Chemist Should Know About Patents*. Intended for chemists in industry, small businesses, and academe, the publication was prompted by enactment of legislation in 1995 that introduced major changes in the U.S. patent laws. *What Every Chemist Should Know About Patents* is an introduction to the essentials of patents and patenting procedures. The handbook presents an overview of the obtainment, use, and value of patents in an easily understood form.

Copies of *What Every Chemist Should Know About Patents* are available for \$2.00 each. Requests, including prepayment to the American Chemical Society, should be sent to American Chemical Society, P.O. Box 57136, West End Station, Washington, DC 20037.

MARYLAND SECTION WEB PAGE

Shirish Shah has set up a Web Page for the Maryland Section. The page contains a variety of information relating to the Section and its activities. The address is WWW.jaguNET.com/~pdonline/shah/