



THE

# CHESAPEAKE CHEMIST

MARYLAND SECTION  
AMERICAN CHEMICAL SOCIETY

VOL. LVI

MAR., - APR., 2000

NUMBER 3 - 4

## AMERICAN CHEMICAL SOCIETY

For Outstanding Achievement in Chemistry



NEHA  
MADHIWALA



ALI  
SOROOSH



KELLIE  
YOURREN



VICTOR  
KHANGULOV



SUAZETTE  
REID



JESSICA  
FRANCE



OLUWATAYO  
ALADE



MEGAN  
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JOHNNY  
VIDIC



CHRISTINE  
M<sup>c</sup>GUINNESS



MARKOS  
RAPTIS



TERESA  
ADDEO



TILANTHI  
JAYAWARDENA



FRANCIS  
FLANAGAN



AMANDA  
VAUGHT



LLOYD  
NUSBAUM IV

PICNIC

PICNIC

PICNIC

WHEN: JULY 9, 2000

WHERE: PATAPSCO STATE PARK, PAVILION #501  
McKeldin Area (Marriottsville Road)

TIME: Noon to Dusk

The Maryland Section, American Chemical Society, will again sponsor a family picnic. The Section will provide hotdogs, hamburgers, soda, beer, condiments, paper goods, cups, utensils, etc. The McKeldin Area has a ball diamond, basketball court, volleyball court, hiking trails, horseshoe pits, wading stream and more.

There will be a guided nature walk.

To make the picnic a special food fest, we are inviting participating families to bring a food dish. Please use the initials formula shown below:

A-F	snack	G-L	salad
M-R	side dish	S-Z	dessert

Fees: \$15.00 per family; \$7.50 per individual

Reservations: Please send checks, payable to Maryland Section, ACS, to

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

by June 25th. Late reservations? Call 410-532-5712

Entrance to the Park is free for Seniors(62 & up) and for children under 16. There is a small fee for others.

### BRING YOUR SPORTS EQUIPMENT

#### CARL DJERASSI TO RECEIVE THE 2000 OTHMER GOLD MEDAL

Carl Djerassi, internationally recognized for his scientific work in the area of synthesis steroid oral contraceptives, will receive the fourth annual Othmer Gold Medal on 19 May 2000. He was selected as the 2000 Othmer Gold Medallist by a multisociety jury composed of representatives of the Chemical Heritage Foundation's twenty-seven affiliate organizations. The Othmer Gold Medal, which commemorates the life and achievements of Dr. Donald Othmer, acknowledges multifaceted individuals who have made enduring contributions to our chemical and scientific heritage through exceptional activity in the areas of innovation, entrepreneurship, research, education, public understanding, legislation, or philanthropy. Previous recipients of the Medal are Ralph Landau, Mary Lowe Good, and P. Roy Vagelos.



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# The Johns Hopkins University 2000 Spring Chemistry Colloquium Schedule

**Remsen Hall 233 – Tuesdays, 4:15 pm**

For more information contact Rosalie Elder, 410-516-7432

April 4	Professor Victoria J. DeRose Texas A&M University	"Tuning of Metals by Biopolymers: the Hammerhead Ribozyme and Pep- tide Model Systems for Protein Active Sites"
April 11	Professor Charles L. Perrin Un. of California, San Diego	"Symmetry of Hydrogen Bonds in Solution"
April 18	Professor J. C. Scaiano University of Ottawa	"Laser Applications in the Study of Organic Reaction Mechanisms"
April 25	Dr. John Russell Naval Research Laboratory	"Many Facets of Diamond Surface Chemistry"

**Dr. Joe Vinson**  
Professor of Chemistry  
University of Scranton

## **Drug Screening in Physiological Samples: An Olympian Task**

Drugs in physiological fluids such as blood and urine are now tested in a variety of settings: the workplace, for insurance screening, in the hospital, and for traffic accidents and fatalities. Analysis in physiological fluids represents a formidable task for the clinical or analytical chemist. The problems include (1) a low concentration of the drug; (2) the drug is often metabolized; and (3) the presence of endogenous compounds that may interfere in the analysis. After the initial screen to determine the presence or absence of a drug or drugs, the analyst may need to confirm the identity by another analytical technique and/or quantitate the drug. In this presentation, we will review the nature of commonly used and abused drugs including alcohol, amphetamines, barbiturates, tranquilizers, narcotics, and marijuana. Their pharmacology will also be described. The methods used to isolate and concentrate drugs will be discussed. These include liquid-liquid extraction and the latest solid-phase extraction techniques. The analytical techniques such as thin-layer chromatography, gas-liquid chromatography, mass spectroscopy, and immunoassay methods will be critically reviewed. Novel samples that can be analyzed such as hair will also be described.

### **About the Speaker...**

Dr. Joe Vinson was born in Arkansas and grew up in the San Francisco Bay area. He attended college at the University of California at Berkeley, where he received his B.S. in chemistry in 1963. He received his M.S. degree (in physical organic chemistry) at Iowa State University in 1966. He received a research assistantship at the Ames Lab of the Atomic Energy Commission at Iowa State and received a Ph.D. in organic and analytical chemistry in 1967 under the direction of Dr. James Fritz.

After several teaching positions in Pennsylvania and a two-year stint in industry at J. T. Baker Chemical Company, he returned to academe and is now a professor of chemistry at the University of Scranton in Northeastern Pennsylvania. His research interests are wide-ranging and include drug analysis in physiological fluids and the effect of vitamins, minerals, and antioxidants on nutrition and health.

Maryland Section  
American Chemical Society

April Monthly Meeting  
Student Awards for Outstanding Achievement in Chemistry  
Thursday, April 13, 2000

Western Maryland College  
Westminster, Maryland

### **Agenda**

5:30 P.M. – 6:45 P.M.	Social and Networking Reception, Third Floor, Western Maryland College Science Center
7:00 P.M.	Dinner, Forum Room in Decker College Center
8:00 P.M.	Presentation of Student Awards
8:15 P.M.	"Drug Screening in Physiological Samples: An Olympian Task", Dr. Joe Vinson, University of Scranton

### **Meeting Registration**

The dinner buffet includes tossed salad, top round of beef, vegetable lasagna, Maryland crab soup, oven-roasted potatoes, green beans almondine, rolls and butter, desserts and beverages. Dinner price is \$17.00 (\$14.00 for spouses and retired members and \$8.50 for students). Reservations must be made by 12:00 noon on Friday, April 7, 2000 by calling the Section reservation line 410-532-5712 leaving your name (with spelling) affiliation and telephone number. Mail checks payable to the Maryland Section of the ACS to Dr. Shirish Shah, Department of Chemistry, College of Notre Dame of Maryland, 4701 N. Charles Street, Baltimore, Maryland, 21210. Payment at the door will also be accepted. Late reservations will be accepted on a space available basis.

### **Directions to Western Maryland College**

Travel north on Route 140 to Westminster. Proceed around Westminster on Route 140 through six traffic lights until the divided highway reverts to a two lane road. Turn left to Route 31. At the first traffic light, turn left to Route 32 (Main Street). Turn right into the Harrison House Parking Lot and look for signs (or a student!) directing you to the ACS reception in the Western Maryland College Science Center.

To make no mistakes is not in the power of man;  
but from their errors and mistakes  
the wise and good learn wisdom for the future.

Plutarch

## MARYLAND SECTION STUDENT AWARDS

Chairman Carl E. Minnier of the Students Awards Committee has announced the nominees for the ACS Maryland Section Student Awards for 2000. Winners were selected by their respective institutions.

The nominees will be guests of the Section at the April dinner meeting at Western Maryland College. In addition to be recognized at the meeting and receiving an ACS certificate, each will receive a one-year subscription to the *Journal of Chemical Education*.

The awardees are:

Kellie Yourren, Mount. St. Mary's College  
Oluwatayo Alade, Baltimore City Community College  
Suazette Reid, Morgan State University  
Christine McGuiness, Goucher College  
Neha Madhiwala and Markos Raptis, Anne Arundel Community College  
Johnny Vidic, CCBC - Catonsville Campus  
Monicia Gibson, College of Notre Dame of Maryland  
Amanda L. Vaught, The Johns Hopkins University  
Francis J. Flanagan, Loyola College in Maryland  
Megan Knight, University of Maryland, Baltimore County  
Ali Soroosh, CCBC - Essex Campus  
Teresa Jane Addeo, Western Maryland College  
Lloyd W. Nusbaum IV, Towson University  
Whitney A. Swears, Washington College  
Tilanthi Jayawardena, Hood College  
Midshipman John Hendrix, United States Naval Academy  
Jessica France, Villa Julie College  
Victor S. Khangulov, St. Mary's College

### LUNCHEON FOR 50-YEAR MEMBERS

The ACS Maryland Section will once again honor its new 50-year members of the American Chemical Society with a celebration luncheon. The luncheon will be held May 26 at the ACS Conference Center at Belmont in Howard County. Look for further details next month.

### OPPORTUNITY

*The Chesapeake Chemist* has an opportunity for enterprising members of the Maryland Section who would like to join its staff. Presently we are inviting those persons interested in administrative and editorial assignments to apply immediately.

*The Chesapeake Chemist* is planning to offer additional services to the members of the Maryland Section. To accomplish this goal we need writers, business people and computer persons.

For details please contact Alvin Bober  
9800 Middle Mill Drive  
Owings Mill, MD 21117

410-581-5321  
adbober@juno.com

THE CHESAPEAKE CHEMIST



# M A R M 2 0 0 0

May 15-17, 2000

University of Delaware - John M. Clayton Hall  
Newark, Delaware

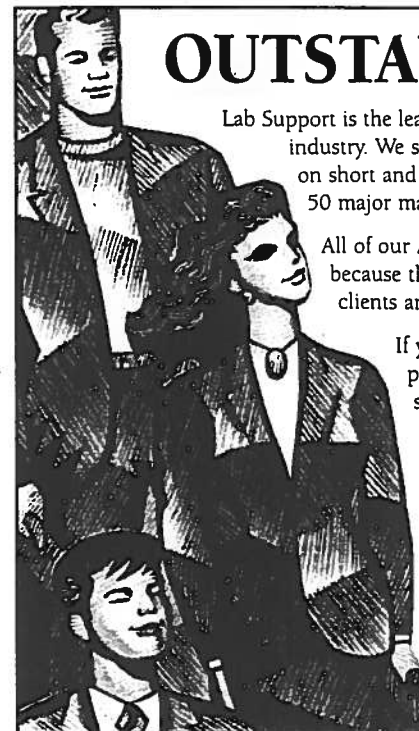


### Theme and Plenary Symposium:

**Accelerating Drug Discovery and Development**  
Paul Anderson, Jan Lundberg and Chris Cimarusti

#### Featured areas include:

\* **Organic Chemistry** \* New Developments in Synthetic Methods: Application to the Total Synthesis of Complex Biologically Important Natural Products, High Throughput Synthetic Methodologies, Asymmetric Synthesis \* **Medicinal Chemistry** \* Accelerating Drug Discovery Through Rational Drug Design, Accelerating the Drug Discovery Process Through Combinatorial Chemistry, TNF and Inflammation: Therapeutic Intervention Strategies \* **Biosciences** \* Accelerating and Optimizing the Drug Discovery Process: Support for Chem. Technology, Accelerating and Optimizing the Drug Discovery Process: ADME and Toxicology \* **Analytical** \* Approaches to Combinatorial Library Analysis, Recent Developments in Capillary Electrophoresis, Application of Mass Spectrometry to Drug Development, Chiral Analysis \* **Inorganic** \* Coordination Chemistry with Tripodal Ligands, Oxygen Activation/Utilization - Chemistry and Biology, De Novo Metalloprotein Designs \* **Physical** \* Physical Chemistry in the Undergraduate Curriculum, Physical Characterization of Pharmaceutical Materials, Novel Applications of Mass Spectrometry \* **Polymer** \* Emulsion Polymerization and Polymer Colloids, New Polymer Architectures, Combinatorial Materials Research \* **Computational** \* Computational Approaches to Modelling Reactivity in Organometallic and Inorganic Synthesis \* **Agrochemistry** \* Discovery and Synthesis of New Agrochemicals, Evolution of the Sodium Channel Blocking Insecticides: The Discovery of Indoxacarb \* **Other** \* Chemical Bibliophiles, Chromatography Forum of the Delaware Valley Student Presentations, Empowering Women for a Career in Chemistry \* Employment Services and the Regional Employment Clearing House \*



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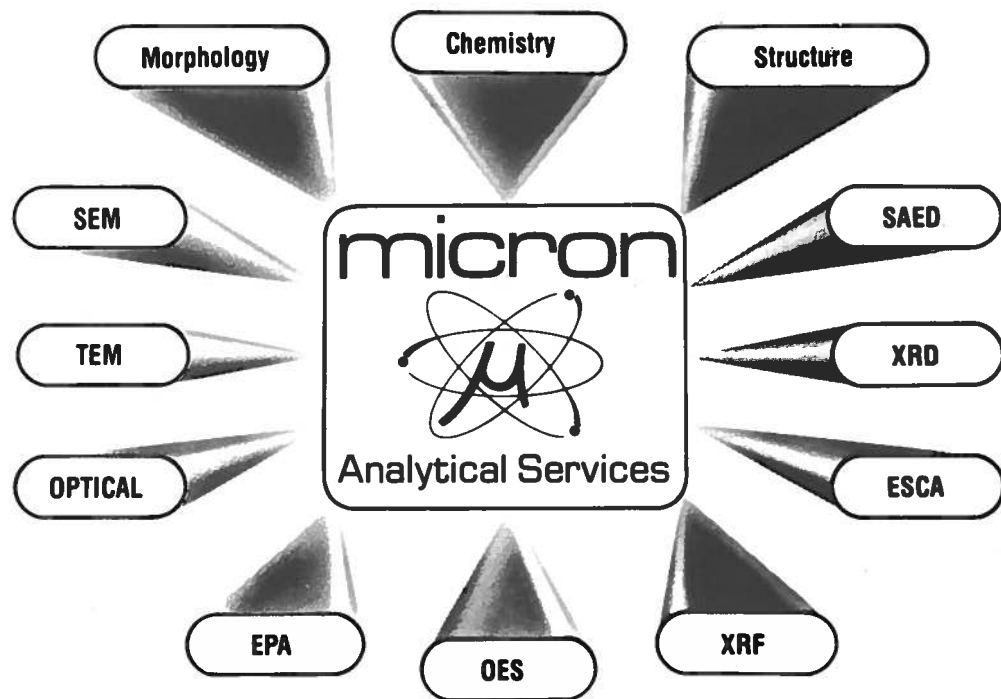
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NERM 2000

The 29th Northeast Regional Meeting will be held at the University of Connecticut at Storrs, June 18-21, 2000. The meeting will feature a number of topical symposia, general sessions, an undergraduate research poster session and a graduate student employment workshop. Symposia are planned on drug design and synthesis, bioelectrochemistry, teaching chemistry with molecular modeling, nanoscale materials and devices, computational quantum chemistry, spectroscopy of ions, radicals, complexes and multi-conformational molecules, bio-organic chemistry, organometallic chemistry, synthetic organic chemistry, advances in material chemistry, inorganic polymers, minority graduate student recruiting and retention in the sciences and chemical education.