



*The Bulletin*  
of the  
Virginia Section  
AMERICAN CHEMICAL SOCIETY

**NOVEMBER MEETING NOTICE**

**University of Mary Washington  
Fredericksburg, Virginia**

**Friday, November 12, 2010**

**SOCIAL HOUR:**       **6:00 p.m.**  
Dome Room  
Seacobeck Hall  
College Avenue

**DINNER:**           **6:45 p.m.**  
Dome Room  
Seacobeck Hall

**PROGRAM:**         **7:30 p.m.**  
Room 100, Jepson Science Center, College Avenue

**MENU:**             Tossed Garden Salad with Assorted Dressings, Carved Roasted Turkey, Homestyle Stuffing, Mashed Potatoes with Gravy, Fresh Green Beans, Rolls and Butter, Double Chocolate Layer Cake, Pumpkin Pie with Whipped Cream, Coffee, Hot Tea, Iced Tea

**PRICE:**             ACS Members & Guests - \$24.00  
High School Students, College Students, High School Teachers - \$12.00  
Retired ACS Members & Spouses; Retired Teachers & Spouses - \$19.00

**DINNER RESERVATIONS:**     Please make reservations by **NOON** on **Tuesday, November 9** by calling (540) 654-1016 or by e-mail to [rgratz@umw.edu](mailto:rgratz@umw.edu)

**HOST:**             Dr. Roy F. Gratz, (540) 654-1412, [rgratz@umw.edu](mailto:rgratz@umw.edu)

**SPEAKER:**         **Dr. Elsa Reichmanis, Georgia Tech**

**TOPIC:**             **“Advanced Polymeric Materials for Electronic Applications”**

**NOVEMBER 2010**

S	M	T	W	T	F	S
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		<i>reservations</i>			<i>meeting</i>	
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**DR. ELSA REICHMANIS**

**Elsa Reichmanis** recently joined the faculty of the School of Chemical and Biomolecular Engineering of the Georgia Institute of Technology. Prior to joining Georgia Tech she was Bell Labs Fellow and Director of the Materials Research Department at Bell Labs, Alcatel-Lucent. She received her Ph. D. and B.S. degrees in chemistry from Syracuse University. In 1984, she was promoted to Supervisor of the Radiation Sensitive Materials and Application Group, followed by promotion to Head of the Polymer and Organic Materials Research Department in 1994. She is a member of the National Academy of Engineering and has received several awards for her work. She has also been active in professional societies, having been 2003 President of the ACS, and involved in National Research Council activities. Her research

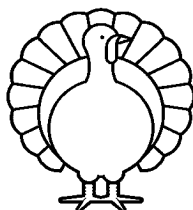
interests include the chemistry, properties, and application of materials technologies for photonic and electronic applications, with particular focus on polymeric and nanostructured materials for advanced technologies.

**“Advanced Polymeric Materials for Electronic Applications”**

Since the invention of the point contact transistor over 50 years ago, semiconductor technologies have become a ubiquitous mainstay of our Society. Continued advancements in these technologies rely heavily on materials research spanning many areas including polymer and organic materials which play significant roles as sacrificial, passive and active layers in electronic and photonic devices. The research outlined in this talk will identify fundamental materials parameters that will allow for the definition of materials architectures leading to sub-nanometer scale dimensional control of features for future semiconductor fabrication technologies. The understanding of how to control materials architectures at this sub-nanometer level will lead to organic and polymer semiconductor materials technologies enabling the future vision for flexible, printed electronic devices and display technologies.



# HAPPY THANKSGIVING



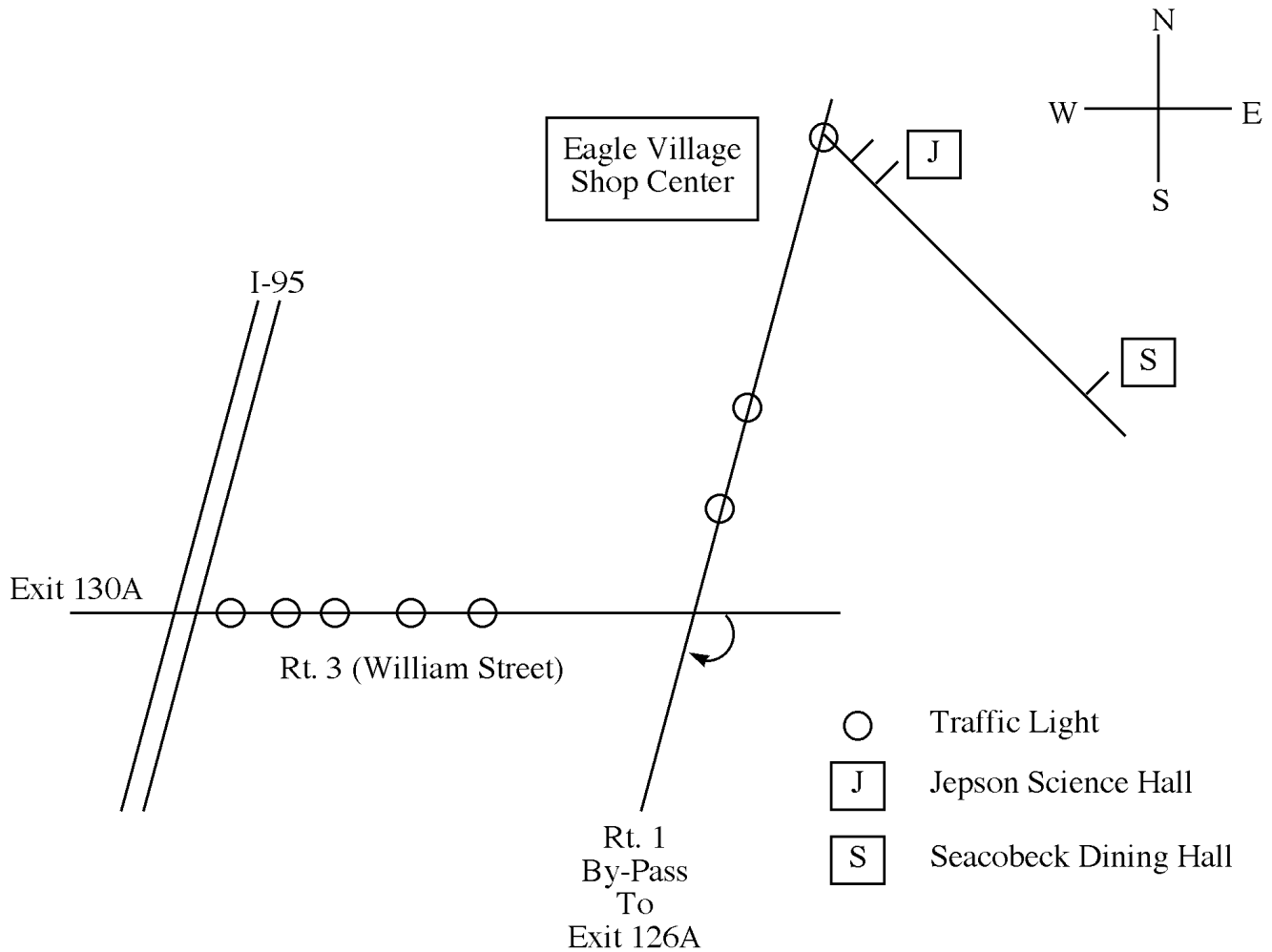
### DIRECTIONS

Fredericksburg is located just off I-95, about 50 miles north of Richmond.

Traveling from the south on I-95, take Exit 126A, Rt. 1, north to Fredericksburg. Stay on the Rt.1 bypass (a four-lane divided highway, with the usual interstate exit clutter for the first mile) for about four miles until you get to College Avenue (traffic light, across from the Eagle Village Shopping Center with a Giant Food store). Turn sharp right on to College Avenue and make the second left (< 1/4 mile) into the parking lot at the Jepson Science Center, or park on College Avenue. Walk along College Avenue to the second building past Jepson Hall; enter Seacobeck Hall by the rear door.

From the west, come into Fredericksburg on Rt. 3 (William Street, aka Plank Road). About one mile from I-95 (Exit 130A) turn north on the Rt. 1 bypass (turn right on the cloverleaf after passing under Rt. 1). Go about one mile until you get to College Avenue (3<sup>rd</sup> traffic light, across from the Eagle Village Shopping Center with a Giant Food store). Turn sharp right on to College Avenue and make the second left (< 1/4 mile) into the parking lot at the Jepson Science Center or park on College Avenue. Walk along College Avenue to the second building past Jepson Hall; enter Seacobeck Hall by the rear door.

Map of University of Mary Washington



# \*\*\* VIRGINIA SECTION NEWS \*\*\*

## *FUTURE MEETINGS*

DATE: **December 10, 2010**  
 LOCATION: **J. S. Reynolds Comm. Coll.**  
 Richmond, Virginia  
 HOST: Dr. Ann Sullivan  
 PHONE: (804) 523-5777  
 E-MAIL: asullivan@reynolds.edu  
 SPEAKER: **Dr. Gerd Kobal**  
 TOPIC: "What Can We Learn from  
 Sensomics?"

DATE: **January 21, 2011**  
 LOCATION: **John Tyler Community College**  
 Chester, Virginia  
 HOST: Dr. Kristine Smetana  
 PHONE: (804) 706-5143  
 E-MAIL: ksmetana@jtcc.edu  
 SPEAKER: **Dr. Herbert J. Sipe**  
 TOPIC: "Toxic Chemicals and Society"

### *Presentation of Teaching Awards*

DATE: **February 25, 2011**  
 LOCATION: **Randolph-Macon College**  
 Ashland, Virginia  
 HOST: Dr. April D. Hennis Marchetti  
 PHONE: (804) 752-7319  
 E-MAIL: amarchet@rmc.edu  
 SPEAKER: **Dr. Brian Moores**  
 TOPIC: "Food Chemistry"

DATE: **March 18, 2011**  
 LOCATION: **University of Richmond**  
 Richmond, Virginia  
 HOST: Dr. Lisa Gentile  
 PHONE: (804) 484-1578  
 E-MAIL: lgentile@richmond.edu  
 SPEAKER: **Dr. Harry Gray**

## *TEACHING AWARDS*

The December meeting of the Virginia Section will be held at J. Sargeant Reynolds Community College in Richmond on **Friday, December 10**. The Section's teacher awards will be made at this meeting. These include the Distinguished High School Chemistry Teacher Award, the Distinguished Middle School Science Teacher Award, and the Distinguished Elementary School Teacher Award. The teacher awards are sponsored by Boehringer Ingelheim Chemicals, Inc.

WORDS OF WISDOM FOR NOVEMBER: "Nothing Is Too  
 Wonderful To Be True"

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**MARCH 13-18, 2011**



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We are pleased to announce that The ACS Division of Analytical Chemistry (ACS-DAC) will be co-programming with Pittcon 2011. Attend one of the many ACS-DAC sessions such as:

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- Proteomics: From the Top

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## **PRESENTATION BY DR. MANFRED PSIORZ**

On October 1, 2010 the Virginia Commonwealth University Department of Chemistry, in cooperation with the Virginia Section of the American Chemical Society and Boehringer Ingelheim Chemicals, Inc. sponsored a talk by Dr. Manfred Psiorz, the President and CEO for Boehringer Ingelheim Chemicals, Inc. Dr. Psiorz discussed the recently approved drug **dabigatran etexilate** for stroke prevention in patients with atrial fibrillation (AFib). About 80 persons attended the talk which was given at Virginia Commonwealth University. The speaker was introduced by Dr. Scott Gronert, Chair of the VCU Department of Chemistry. Special thanks to Dr. Scott Gronert and to Jamie Belitz, Manager, Communications and Public Relations, Boehringer Ingelheim Chemicals, Inc.



Left-to-right:

Dr. Joseph Pompano

Dr. Manfred Psiorz,

Dr. Scott Gronert

## **APPROVAL OF NEW DRUG FOR STROKE PREVENTION**

On September 20, 2010 the U.S. Food and Drug Administration (FDA) Cardiovascular and Renal Drugs Advisory Committee voted 9 to 0 in favor of approving dabigatran etexilate for stroke prevention in patients with atrial fibrillation (AFib). An estimated 2.3 million Americans have AFib and the prevalence is expected to increase 2.5 fold to 5.6 million by 2050, reflecting the growing population of elderly individuals. For 50 years, warfarin has been the only oral anticoagulant available in the U.S. for stroke prevention in patients with AFib. The RE-LY study, a global, Phase III, randomized trial of 18,113 patients, established the safety and efficacy profile of dabigatran without INR monitoring (a measure of how long it takes your blood to clot), dose adjustments, or food restrictions.

## **CHEMISTRY SEMINARS AT VIRGINIA COMMONWEALTH UNIVERSITY**

October 28 - **Dr. Stacy Lowry Bretz**, Miami University, Ohio

November 2 - **Dr. Kevin Leung**, Sandia National Laboratory

November 4 - **Dr. Lisa Holland**, West Virginia University

November 18 - **Dr. Robert McCuspie**, NIST, "Silver Nanoparticle Material Selection Considerations for Environmental Health and Safety Studies"

Seminars are held at 3:30 p.m. in the Kapp Lecture Hall, Room 1024, in the Physical Science Wing of Oliver Hall, 1001 West Main Street, Richmond. For more information, call (804) 828-1298.



## CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA

October 29 - **Professor Robert Boeckman, Jr.**, University of Rochester, "New Methodology for Asymmetric Synthesis with Application to the Construction of Stereochemically Complex Molecules" (IRELAND LECTURE)

November 5 - **Professor Xiaoyang Zhu**, University of Texas-Austin, "Hot Electrons and a Path Towards the Ultimate Solar Cell"

November 12 - **Dr. David Deaton**, GlaxoSmithKline, "Cathepsin K Inhibitors for the Treatment of Osteoporosis: An Example of the Drug Discovery Process"

November 19 - **Professor Melanie Sanford**, University of Michigan, "Catalytic C-H Functionalization: Interplay Between Catalyst Design and Mechanism"

December 3 - **Dr. Dmitri Svergun**, "Characterization of Biomacromolecular Solutions and Nano-structured Materials by Small-angle X-Ray Scattering (SAXS)"

Chemistry colloquia are held at 4:00 p.m. in Room 304 of the Chemistry Building. The complete colloquium schedule is on-line at <http://chem.virginia.edu/events-seminars/fall-2010>.

## QUESTIONS FROM THE PAST



This question was asked in the October issue of the Bulletin: In December, 1994, the Virginia Section met at a winery. **What was the Virginia winery and who was the speaker on December 2, 1994?** The meeting was held at Burnley Vineyards in Barboursville. Dr. Joseph Formica spoke on "Wine—A Chemical Symphony."

New question: **Dr. Richard D. Caudle** died on August 12 at the age of 95. He was best known for his work on atmospheric photochemistry and especially on the mechanism of photochemical smog formation. Dr. Caudle spoke to the Virginia Section on "The Nature and Cure of Photochemical Smog." At the time he was a research scientist at the National Center for Atmospheric Research in Boulder, Colorado. **When and where did Dr. Caudle give his presentation to the Virginia Section?**



## CURRENT CONTACT INFORMATION

Does ACS have your correct contact information? If you have had a change in address, phone number, or e-mail address, contact ACS to update your information. Please include both the old and new contact information and your membership ID (the 8-digit number in the upper left hand corner of the C&E News address label. Telephone (800) 333-9511 or e-mail [service@acs.org](mailto:service@acs.org).



66<sup>th</sup> Southwest and 62<sup>nd</sup> Southeastern Regional Meeting of the ACS  
 Hilton Riverside Hotel - New Orleans, LA  
 November 30 - December 4, 2010

<http://www.swrm.org>

Highlights of the Technical Program:

- ◆ Professor Omar Yaghi - Supramolecular Chemistry
- ◆ Professor Simon Aldridge - Main Group Organometallic Chemistry
- ◆ Professors Mukund Sibi and John Wood - Advances in Modern Organic Synthesis
- ◆ Dr. F. Ivy Carroll - Advances in CNS Therapeutics
- ◆ Professor Robert Garry - Peptides in Biotechnology and Medicine
- ◆ Professor Tom Krugh - Frontiers in Nucleic Acid Chemistry
- ◆ Symposium on Computational/Experimental Characterization of Advanced Materials
- ◆ Undergraduate Program/Graduate Fair

Blocks of rooms at the Hilton New Orleans Riverside have been reserved until November 7 - <http://www.neworleansriversidehotel.com>, 504-561-0500. Meeting registration is online at <http://www.swrm.org>. Early-bird registration closes on November 15.

*Laissez la bonne chimie roule...*

**REPORT ON OCTOBER SECTION MEETING**

About fifty persons heard Dr. Lisa Balbes at the October 15 meeting of the Virginia Section, held at Longwood University in Farmville. Dr. Stephanie Mabry, Chair-Elect of the Section, presided and introduced the speaker. Dr. Balbes discussed new ways to find jobs in the information age. She described new technologies such as teleconferences, videoconferences, WebEx, LinkedIn, social networking sites such as Facebook and Twitter, and job search engines monster.com and indeed.com. Thanks to Dr. Sarah Porter and her students and colleagues at Longwood University for making the meeting arrangements.



**Dr. Mabry presents an engraved Jefferson Cup to Dr. Balbes**



## CHEMISTRY AT THE UNIVERSITY OF MARY WASHINGTON

The chemistry program at the University of Mary Washington is beginning its thirteenth year in the Jepson Science Center. The facility provides student research space; modern teaching labs, including an organic chemistry lab with hood space for every student; and state-of-the-art multimedia and Internet capabilities. Seven full-time faculty teach a traditional chemistry major with 10-15 graduating seniors each year. The department's program is approved by the ACS and it offers an ACS-certified degree as an option. In addition to the usual courses in organic, analytical, and physical chemistry, a full year of biochemistry with lab is available as an elective, as are courses in inorganic chemistry



with lab and environmental chemistry with lab. The general chemistry and analytical programs use several cooperative, discovery-based experiments in the laboratory. The department is well-equipped, providing all students with hands-on experience with a variety of techniques and instruments, including 60 and 300 MHz H-NMR and C-NMR, FT-IR, GC/MS, ICP, and a scanning probe microscope. Many students do undergraduate research and have presented their results at local, regional, and national meetings. UMW chemistry graduates have earned advanced degrees at schools such as UVA, VCU, MIT, Princeton, Florida, Johns Hopkins, and Maryland and medical degrees at UVA, MCV, and EVA. Other graduates have gone directly to work at government labs including NIH, the Naval Research Lab, and the Patent Office, or for industries such as Dow Chemical, Philip Morris, Wyeth, and Virginia Power.

### CAN YOU IDENTIFY THESE PERSONS?



The photograph is from 2001. It shows three members of a family. The gentleman had just received the Virginia Section's Distinguished Service Award. Born in California, he holds a B.S. degree from Stanford University and a Ph.D. from Cornell University. He taught at Longwood College (now Longwood University) for over 30 years. He served as chairman of the Virginia Section in 1993, has been an Alternate Councilor and is now a Councilor for the Section. He is shown here with his wife and daughter.

The "mystery person" shown in the October Bulletin was Dr. Robert Crabtree of Yale University. His talk on the "Abnormal Bonding of Heterocyclic Ligands" was the Powell Lectureship address at the University of Richmond on February 21, 2003.



### NATIONAL CHEMISTRY WEEK 2010

On Saturday, October 16, the Virginia Section sponsored another successful National Chemistry Week (NCW) program at the Science Museum of Virginia in Richmond. Hundreds of Museum guests found the entire rotunda area filled with exciting hands-on activities relating to chemistry and the NCW theme of "Behind the Scenes with Chemistry!" Dr. Kristine Smetana, NCW Coordinator, assembled a fantastic team of nearly 130 volunteers who set up and operated some thirty different stations. The activities ranged from Alchemy to Flying Saucers to Volcanoes. The CSI activities, face painting, and chromatography butterflies were especially popular. Sincere thanks to everyone who participated in this very successful program!



## **ELECTION OF 2011 OFFICERS**

This year the Virginia Section will again use an electronic ballot. A paper ballot will be provided to any Section member upon request (see below). The Section changed its By-Laws in 2008 to allow electronic balloting, a less expensive alternative than paper ballots, and the most environmentally friendly way of conducting the election. Please note a possible problem: an early test resulted in the message arriving as being from Mailer Daemon with the Subject: Delivery Status Notification (Failure). The link and electronic ballot worked properly.

The Nominations Committee has selected the Survey Monkey program for the balloting for 2011 officers. The Section Roster has been provided by the National ACS and everyone on that roster who has a listed e-mail address will receive an e-mail giving the instructions for voting and a link to the balloting site. Voting began on Oct. 15 and will terminate on Nov. 8.

If you do not get an election e-mail or would like to vote by paper ballot, please contact me—my contact information is given below.

As this is still a new process for the Virginia Section, we welcome any feedback on this process so we can make it better next year. Thank you for your support.

Write-in candidates will be accepted on both the electronic and paper ballots.

...Kenneth Chapman, Chair, Virginia Section Nominating Committee  
(804) 448-4852; kmc97@aol.com

## **CHANGE IN BULLETIN DELIVERY**

This month we are mailing paper copies of the Bulletin to all members of the Section. Also, we are posting the Bulletin on the Section website and are sending an e-mail with information on the November meeting. The e-mail is going to all members for whom we have e-mail addresses. In the future, probably beginning in January, 2011, we will discontinue mailing paper copies to all members and will rely on e-mail and the Section website to disseminate information. However, we plan to continue to provide paper copies to persons who do not have access to e-mail or who prefer to receive paper copies. If you wish to receive a paper copy via the US Postal Service, you must inform us. You can do this by returning the form below or sending an e-mail to [beckjd1977@comcast.net](mailto:beckjd1977@comcast.net).

If you do not receive an e-mail notification of the November meeting, we probably do not have your current e-mail address. We are using the national ACS membership files for our e-mail addresses. To be sure that your e-mail is on our mailing list, you can contact the national membership office by e-mail or telephone: [service@acs.org](mailto:service@acs.org); 1-800-333-9511. Alternatively, you can send your current e-mail address to [beckjd1977@comcast.net](mailto:beckjd1977@comcast.net).

If you have questions or comments on this change, please contact me by e-mail or phone. Thank you in advance for your cooperation. Suggestions and assistance are welcomed.

....Jim Beck, Editor, the Virginia Section Bulletin; (804) 733-5286; [beckjd1977@comcast.net](mailto:beckjd1977@comcast.net)

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**Please continue to mail me paper copies of the Virginia Section Bulletin.**

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Return this form to James Beck, 1977 Vesonder Road, Petersburg, VA 23805 or send the information by e-mail to [beckjd1977@comcast.net](mailto:beckjd1977@comcast.net).

## SEPTEMBER AWARDS MEETING

The annual Awards Meeting was held at Pfizer Consumer Healthcare in Richmond on September 24, 2010. Dr. Yezdi Pithawalla, Section Chair, presided. Meeting host Mark Mabry, Senior R&D Scientist at Pfizer, introduced Dr. Nikhil Parekh, Senior Director at Pfizer, who presented a short history of the meeting site, tracing its origin back to the A.H. Robins Company and through American Home Products and Wyeth to Pfizer. Dr. Parekh also described some of the varied products that have been developed and manufactured in the Richmond area.

Dr. Kristine Smetana, the 2010 Distinguished Service Award recipient, was introduced by Dr. Donna Alexander, Dean of Mathematics, Natural and Behavioral Sciences at John Tyler Community College. Dr. Pithawalla presented Dr. Smetana with a plaque and a gift set to recognize her contributions to the Virginia Section and to the chemical profession. In her acceptance remarks, Dr. Smetana recognized Dr. Lidia Vallarino and Dr. Ann Sullivan for their contributions to her success.

An Outstanding Industrial Innovator Award was presented to Dr. Tze-Chi Jao, who is currently serving as a consultant at the Afton Chemical Corporation in Richmond. Dr. Jao was introduced by Mark Devlin of Afton Chemical. Mark is a Technical Advisor and leader of the Fundamentals Research Group at Afton. Dr. Jao received a plaque and gift set from the Virginia Section in recognition of his distinguished work in the chemistry of lubricants.

The audience of more than 70 persons were treated to two talks. Dr. Smetana described some of the work that she and her students have done for National Chemistry Week (NCW) and for Chemists Celebrate Earth Day (CCED). Dr. Jao discussed the "Importance of Fundamental Research for Fuel and Lubricant Technology Development." Dr. Pithawalla presented an engraved Jefferson Cup to each speaker.

Special thanks to Mark Mabry, Nikhil Parekh, and Pfizer Consumer Healthcare for hosting this outstanding meeting.



Dr. Stephanie Mabry  
Dr. Tze-Chi Jao  
Dr. Kristine Smetana  
Dr. Yezdi Pithawalla



Section Chair Yezdi Pithawalla  
and Outstanding Industrial  
Innovator Tze-Chi Jao



Dr. Nikhil Parekh

## ***THE BULLETIN***

Published eight times a year by the  
American Chemical Society  
Virginia Section

Science Museum of Virginia  
2500 West Broad Street  
Richmond, VA 23220  
<http://www.virginia.sites.acs.org/>

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**Yezdi  
Pithawalla**

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