



*The Bulletin*  
of the  
Virginia Section  
AMERICAN CHEMICAL SOCIETY

SEPTEMBER MEETING NOTICE

● AWARDS MEETING ●

*Virginia Commonwealth University  
Richmond, Virginia*

*Friday, September 25, 2009*

**RECEPTION:** 5:30 - 6:45 p.m.  
Rodney's  
Shafer Court Dining Center  
810 Cathedral Place

**AWARDS PROGRAM:** 7:00 p.m.  
Room 203  
Hibbs Hall  
900 Park Avenue

**MENU:** Heavy Hors-d'oeuvres, Soft Drinks, Beer, and Wine

**PRICE:** Members/Guests - \$16.00; Students, High School Teachers and Spouses - \$8.00; Retired ACS Members and Spouses, Retired Teachers and Spouses - \$11.00

**RESERVATIONS:** Please make reservations by NOON on **Tuesday, September 22**  
By calling the Chemistry Office at (804) 828-1298 or by e-mail to [atkinsonml @ vcu.edu](mailto:atkinsonml@vcu.edu)

**HOST:** Dr. Donald Shillady, (804)828-0850; [quantummechanicsllc @ msn.com](mailto:quantummechanicsllc@msn.com)

**PROGRAM:** **DISTINGUISHED SERVICE AWARD:** Dr. Will H. Lewis, Jr.  
**DISTINGUISHED RESEARCH AWARD:** Dr. M. Samy El-Shall

**SEPTEMBER 2009**

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		reservations due			meeting	
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## ***DISTINGUISHED SERVICE AWARD***

### ***Dr. Will H. Lewis, Jr.***

Will H. Lewis, Jr. was born in Petersburg, Virginia and grew up in Chesterfield County. He received a B. S. degree in Chemistry from Virginia Commonwealth University in 1976. He was the recipient of the Dr. Mary E. Kapp Service Award as an outstanding graduating senior from the VCU Chemistry Department. In 1983, Will received a M.Ed. from Virginia State University where he received the Florence B. Duke Award for Excellence in Educational Media. Will earned a Ph.D. in Analytical Chemistry from Virginia Commonwealth University in 1991, working with Dr. Sarah C. Rutan on the kinetic characterization of alkaline phosphatase isozymes.



Over the years, Will has worked in various positions in industry. He was a research chemist for A. H. Robins (now Wyeth), where he was part of Biopharmaceutics and Analytical Research Divisions. He worked as a research scientist for Philip Morris USA in analytical research, product research, and packaging services. He retired from Philip Morris (Altria Client Services) in January, 2009. For the last six years, he has taught analytical and general chemistry courses at Virginia State University and John Tyler Community College. Will created a segment called “chemistry in the news” in his course where he shares with his students examples of chemistry being a part of everything we do.

Will joined the American Chemical Society as a student affiliate member in 1974 and has been an ACS member ever since. He has served the Virginia Section as Treasurer, Secretary, Vice-Chair, Chair-Elect, and was Chair in 2007. Will is Chair of the Hospitality Committee, serves as the Publisher of the Bulletin, and is a member of the South Eastern Regional Meeting of the American Chemical Society (SERMACS) 2011 Committee.

Will is a member of Union Grove Baptist Church where he has been financial secretary for 25 years. He is a life member of Alpha Phi Alpha Fraternity, Inc.; a member of the Virginia Museum of Fine Arts and of the Virginia Historical Society. Will has a “green thumb” and shops for plants in need of help and that are usually a bargain. He loves gardening (bonsai trees) and photography, is a tennis fan, a music enthusiast, and his family genealogist.

### ***“A Chemist’s Stroll Down Memory Lane”***

Dr. Lewis will discuss some of the analytical techniques and methods developed over his years of employment in the pharmaceutical and tobacco industries. His presentation will touch on some of the places to which he has ventured and some collaborative initiatives with other scientists.

## ***DISTINGUISHED RESEARCH AWARD***

### ***Dr. M. Samy El-Shall***

Samy El-Shall is a Professor of Chemistry and Chemical Engineering at Virginia Commonwealth University. He received his B.S. and M.S. degrees from Cairo University in Egypt, and a Ph.D. in Physical Chemistry with Distinction from Georgetown University in 1986. He did postdoctoral research in nucleation and clusters at the University of California, Los Angeles from 1986 to 1989. His research interests are in the general areas of molecular clusters, gas phase and cluster polymerization, ion-induced nucleation, synthesis and properties of nanostructured materials, photoluminescence properties of nanoparticles, and nanocatalysis. He has published over 180 papers in the most prestigious and widely read journals of Chemistry, Chemical Physics and Nanomaterials. Dr. El-Shall was awarded several US patents (7 issued, 4 pending) on the synthesis of nanoparticles, photoluminescence of silicon nanocrystals, magnetic intermetallic nanoparticles, nanoparticle catalysts, and nanoparticle additives for fuels and lubricants. Dr. El-Shall received the Exxon Education Award in 1994 and 1995. In 1999, he was honored with the Outstanding Faculty Award of the State Council of Higher Education of Virginia (SCHEV), Virginia's highest faculty honor. Dr. El-Shall is a member of the Editorial Advisory Boards of the *Journal of Physical Chemistry*, the *Journal of Photoenergy*, and *Physical Chemistry Reviews*. He has been a member of the US National Committee for the International Union of Pure and Applied Chemistry since 2005. He was the chairman of the International Conference on Nanoparticles from the Vapor Phase Synthesis with Chemical and Biochemical Applications that was held in Davos, Switzerland in 2004. He also organized and chaired several workshops sponsored by the National Science Foundation on Advanced Materials, Lasers in Chemistry, and Nanomaterials & Nanotechnology. He is the Chair of the NSF Advanced Studies Institute on Nanocatalysis for Energy and Environmental Applications to be held in Cairo, Egypt in 2010. Dr. El-Shall's research has been supported by the NSF, NASA, NIST, DoD, Petroleum Research Fund, Dreyfus Foundation, Jeffress Memorial Trust, Exxon, Dow Corning, Philip Morris, and Afton Chemical.



### **“CNN: Clusters, Nanoparticles and Nucleation– From Astrochemistry to Nanocatalysis”**

The study of gas phase clusters provides information on how the properties of matter evolve as the size of a material system ranges from molecular to macroscopic dimensions. Many complex organics including polycyclic aromatic hydrocarbons are present in interstellar clouds and solar nebulae. The formation of complex organics by gas phase and intracluster reactions will be presented and discussed.

Nucleation is one of the most ubiquitous and important phenomena in science and technology. It plays a central role in the formation of clusters, nanoparticles and crystal growth. A perspective of this important phenomenon will be addressed with particular emphasis on ion-induced nucleation.

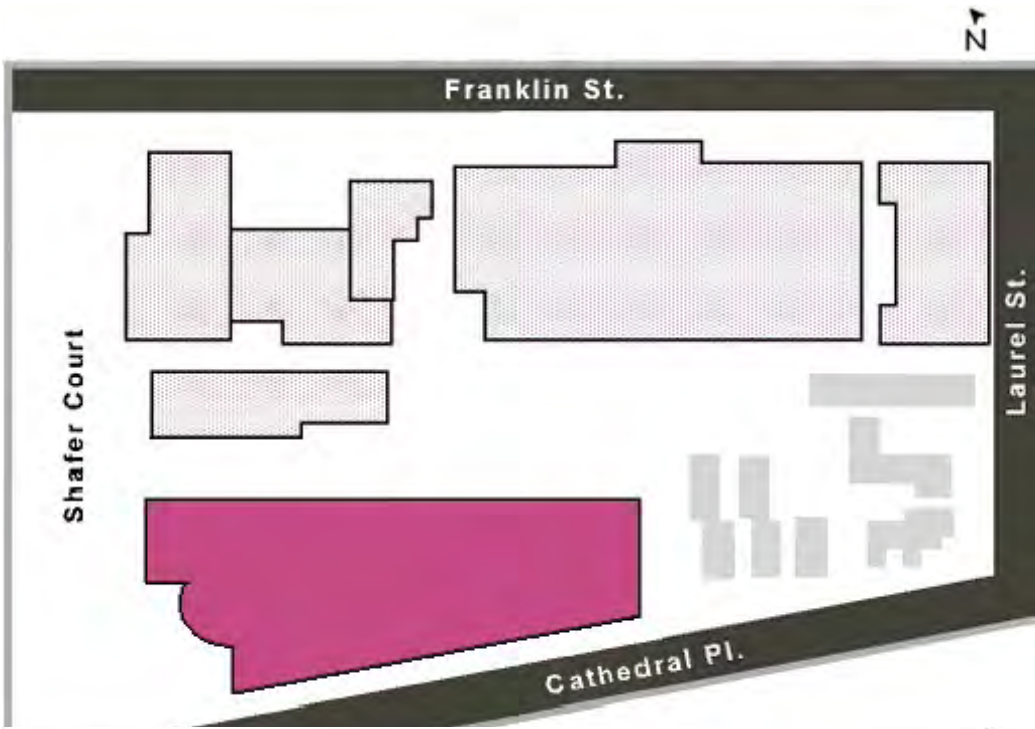
Finally, several examples of nanocatalysis research, including vapor phase and microwave synthesis methods for supported nanocatalysts and the application of large surface area supports such as graphene and highly porous materials, will be presented.

This presentation seeks to connect the fields of gas phase Clusters, Nucleation and Nanoparticles in order to understand and advance the properties of nanostructured materials.

Reference: M. S. El-Shall, *Acct. Chem. Res.* **2008**, 41, 783-792

### DIRECTIONS

The Reception will be held in **Rodney's Restaurant**, located in the Shafer Court Dining Center at Virginia Commonwealth University. The Shafer Court Dining Center is at 810 Cathedral Place in Richmond, just behind the Sacred Heart Cathedral. This is just northeast of the Chemistry Department which is housed in Oliver Hall, 1001 W. Main Street. Note that Main Street is one-way west and Cary Street is one-way east, and that you cannot turn left from Main Street on to Linden. There is parking on the streets around the Shafer Court Dining Center (mainly on Franklin Street) and in the Main Street Parking Deck, 801 W. Main Street (enter from Cherry or Laurel Streets). Rodney's is on the left after you enter the Shafer Dining Center. The Awards Program will be held in Room 203 on the second floor of Hibbs Hall, 900 Park Avenue. Hibbs Hall is just a block northwest of the Shafer Court Dining Center. See maps below.



**Shafer Court Dining Center**  
810 Cathedral Place



**Hibbs Hall**  
900 Park Avenue

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

**FUTURE MEETINGS OF THE SECTION**

DATE:	October 23, 2009	DATE:	November 13, 2009
LOCATION:	<b>Bridgewater College</b> Bridgewater, Va.	LOCATION:	<b>University of Mary Washington</b> Fredericksburg, Va.
HOST:	Dr. Joseph Crockett	HOST:	Dr. Roy Gratz
PHONE:	(540) 828-5431	PHONE:	(540) 654-1412
E-MAIL:	jcrocket @ bridgewater.edu	E-MAIL:	rgratz @ umw.edu
SPEAKER:	Mr. Robert D. Blackledge	SPEAKER:	Dr. Catherine C. Fenselau
TOPIC:	"The Floyd Landis Sports Doping Case as Evaluated by a Forensic Analytical Chemist"	TOPIC:	"New Methods for Proteomics"

DATE:	December 4, 2009
LOCATION:	<b>Virginia Union University</b> Richmond, Va.
HOST:	Dr. Dorothy Eseonu
PHONE:	(804) 257-5615
E-MAIL:	dneseonu @ vuu.edu
	<b>Presentation of Teaching Awards</b>

**THE CHAIR'S CORNER**  
**ACS Meetings = Information Everywhere**



I serve on two committees that met at the August ACS National Meeting and addressed issues of great importance to specific groups of professionals in chemistry and to the Society. Even with the debates over critical issues, I was impressed by the deluge of information exchanged at breaks and in the hallways. In these economic times described as "tough" by the media, some of my industrial colleagues' employers were described as being in dire circumstances; but other employers seem to be doing very well, although asking more than ever of each employee. Some of my academic colleagues are in chemistry programs being required to teach more students with fewer resources; but others are getting the appropriate support to teach many more students in programs targeted directly at specific employment opportunities. The face-to-face meetings provided opportunities not replicated by all our modern media-based communications. ACS meetings offer great learning experiences at local, regional and national meetings for any chemical professional who attends. Get involved in ACS and take advantage of the continuing education in the hallways and across meal tables as well in the planned sessions.

...Ken Chapman, 2009 Virginia Section Chair



## ***SPECIAL INVITATION TO DISTINGUISHED SERVICE AWARD WINNERS***

Last year marked the 60<sup>th</sup> year that the Virginia Section has presented its Distinguished Service Award. In recognition of this historic milestone, the Section is planning to honor all living Distinguished Service Award winners at the September 25 Awards Meeting. Past winners will be the guests of the Section for dinner and will be recognized at the awards ceremony.

## ***ELECTION OF 2010 OFFICERS***

This year the Virginia Section will be trying a different approach to our officer elections. In the past we have done paper ballots, which were mailed to everyone in our Section. We changed our By-Laws in 2008 to allow electronic balloting, a less expensive alternative and the most environmentally friendly way of conducting the election.

The Nominations Committee has selected the Survey Monkey program for the balloting for 2010 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 will begin 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 a new process for the Virginia Section, we would welcome any feedback on this process so we can make it better next year. Thank you for your support.

Biographical statements for the candidates selected by the Nominating Committee are given below. Write-in candidates will be accepted on both the electronic and paper ballots.

...Charles E. (Trey) Gregory III, Chair, Virginia Section Nominating Committee  
(804) 873-2307; TreyGregory03 @ gmail.com

## ***BIOGRAPHICAL STATEMENTS FOR 2010 OFFICER CANDIDATES***

### **For CHAIR:**

#### **Dr. Yezdi B. Pithawalla**

##### **Altria Client Services**

Dr. Yezdi Pithawalla received a B.S. in Chemistry (1991) and a M.S. in Physical Chemistry (1993) from the University of Bombay, and a Ph.D. in Physical Chemistry from Virginia Commonwealth University (1999). After completing a postdoctoral fellowship in nanomaterials research at VCU, he joined Philip Morris USA as a Postdoctoral Fellow in 2000. He is now a Senior Research Scientist in the Analytical Sciences and Technical Operations Group at Altria. Dr. Pithawalla has been awarded three patents and is an applicant on five additional U.S. Patent applications and an author of 28 publications. He recently completed a graduate certificate in "Product Creation and Innovative Manufacturing" from Stanford University. Dr. Pithawalla has served as chair of both the Public Relations and the Awards Committees for the Virginia Section and is currently Vice-Chair.

**For CHAIR-ELECT:****Dr. Stephanie Mabry****Afton Chemical**

Dr. Stephanie Mabry has been an ACS member since 1992 and a member of the Virginia Section since 2004. Dr. Mabry is currently the Vice-Chair for the Virginia Section and has also served as Secretary, WCC chair, and Entertainment Committee chair. She has a B.S. in chemistry from West Virginia University and a Ph.D. from the University of Illinois at Urbana-Champaign, where she was president of the Alpha chapter of Phi Lambda Upsilon Honorary Chemical Society. Currently, Dr. Mabry is a Senior Research and Development Chemist at Afton Chemical in Richmond. Her professional experience includes Group Leader at Rayonier's Research Center, Instrument Manager at the University of Maryland-Baltimore County, Research Scientist at Insmmed, and Adjunct Instructor at J. Sargeant Reynolds Community College. Her chemical interests include chromatography and process development chemistry.

**For Vice Chair:****Dr. Karen Carter****Commonwealth Biotechnologies, Inc.**

Dr. Karen Carter is a Senior Scientist at Commonwealth Biotechnologies, Inc. She received her B.S. degree in Chemistry from Old Dominion University in 1997. She then went on to receive her M.S. in Medicinal Chemistry from Virginia Commonwealth University in 2000. From there she worked at Abbot Labs as a research scientist until returning to Virginia to get married. After working at Philip Morris, she returned to school to obtain her Ph.D. in Organic Chemistry from the University of Virginia under Timothy MacDonald in 2007. After postdoctoral studies with Peter Wipf at the University of Pittsburgh she returned to Virginia to work for Commonwealth Biotechnologies, Inc. in 2008.

**For SECRETARY:****Miss Trish Lauck****Boehringer Ingelheim Chemicals**

Trish Lauck graduated in May of 2008 from the University of Mary Washington, in Fredericksburg, Virginia. While at Mary Washington she earned a Bachelor of Science degree in Chemistry, and she was the President of the Class of 2008. The summer after her junior year, she participated in the NSF Research Experience for Undergraduates program at VCU. She was listed as a co-author for a publication that is currently in press for her work during the program. After college, Trish moved back to her hometown, Chesterfield, VA, and began her career at Boehringer Ingelheim Chemicals, Inc. where she is currently an Analytical Chemist.

**For TREASURER:****Dr. Bradley "Brad" K. Norwood****Arista Laboratories**

Born in Denver, Colorado, Brad is practically a Richmond native, having lived here since 1964 (with a few minor interruptions). He attended Virginia Military Institute, graduating in 1983 with a B.S. in Chemistry. Commissioned in the United States Navy, he served for over five years active duty, three and a half of that time as a junior officer aboard the nuclear submarine USS James Madison, SSBN 627(G). He left the navy to attend graduate school at Virginia Commonwealth University, earning his Ph.D. in Organic Synthetic Methods in 1995. He held faculty positions at James Madison University (1995-98), Coastal Carolina University (1998-01) and at the University of Richmond (2001-06). In 2006 he joined Arista Laboratories, an A2LA accredited ISO 17025 testing laboratory, as the laboratory director.

**For COUNCILOR (three-year term):****Dr. Patrick Barber****Longwood University-retired**

Dr. Pat Barber graduated from Stanford University with a BS in chemistry in 1964 and completed a Ph.D. in physical chemistry from Cornell University in 1969. After two years as a postdoctoral fellow working on liquid crystal structures at Duke University, he began teaching at Southside Virginia Community College in 1971. Seven years later he moved to Longwood University where he taught chemistry for 26 years before retiring in 2005. Since 2007 he serves as a Visiting Professor of Chemistry at Hampden-Sydney College. For more than 22 summers he traveled to U. S. government laboratories, a pharmaceutical laboratory, and university laboratories in Germany and Spain to conduct research on crystal growth including the growth of compound semiconductors in the microgravity of space. He has served for three decades on the Executive Committee of the Virginia Section and has served as an officer of the Section including Chairman (1993). He was the 2001 recipient of the Distinguished Service Award from the Virginia Section. As an elected Councilor for the Section, he serves actively on the ACS Committee on Economic and Professional Affairs (CEPA) and currently is the Chairman of its Subcommittee on Professional Services (SPS).

**For ALTERNATE COUNCILOR (three-year term):****Dr. Kristine Smetana****John Tyler Community College**

Dr. Kristine Smetana graduated from Wheaton College with a B.A. in chemistry/ACS certified in 1990 and completed a Ph.D. in inorganic chemistry from Virginia Commonwealth University in 2004. During her time in graduate school, she worked full time teaching college chemistry, college biology, environmental science and economics for the Governor's school for Global Economics and Technology in Southside Virginia as well as ran their student research program. She also taught biology, Earth science and Advanced science at the Appomattox Regional Governor's school. She has been teaching chemistry at John Tyler Community College for the last 22 years. Kristine has been an executive member of the Virginia Section since 2000, however she has been very active during the last 4 years with the section's community activities. She has been the NCW coordinator since 2006 and CCED coordinator since 2007. In 2007, the section received an ACS award for the best CCED community event and in 2008 a Chemluminary award was presented to the section for having the most creative and innovative CCED event.

**For TRUSTEE (three-year term):****Dr. William Welstead****Wyeth (retired)**

Dr. Bill Welstead received his B.S. in chemistry from the University of Richmond in 1957 and a Ph.D. in organic chemistry from the University of Virginia in 1962. His career in the pharmaceutical industry began in 1964 at the A. H. Robins Company and continued for 37 years until he retired in 2000 as Asst. Vice President of Global Analytical Development for Whitehall-Robins (now Wyeth). Bill is a recipient of the Virginia Section's Distinguished Service Award (1983) and Outstanding Virginia Innovator Award (1999). He has served the Section in many capacities over the years, including Chairman in 1978 and Trustee since 2004.

## **SERMACS-2009**

The 61<sup>st</sup> Southeastern Regional Meeting of the ACS (SERMACS-2009) will be held at the Puerto Rico Convention Center in San Juan, Puerto Rico on October 21-24. The theme is "THINK POSITIVE, THINK GLOBAL, THINK CHEMISTRY." There will be numerous plenary lectures, symposia, workshops, and technical and poster sessions, as well as special programs for undergraduate students and for high school teachers and students and a Chemical Exposition. Nobel Laureates Dr. Harold Kroto and Dr. Roald Hoffman will give plenary lectures. More information on SERMACS-2009 can be found at <http://sermacs2009.org/>.



## **CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA**

- September 11 - **Professor Peng Chen**, "Single-Molecule Dynamics of Nanocatalysis and Bioinorganic Chemistry"
- September 18 - **Professor Louis Madsen**, "Understanding Ordered Transport Pathways in Nanostructured Soft Materials"
- September 25 - **Professor Michael Bowser**, "Applications of Micro Free Flow Electrophoresis"
- October 2 - **Professor Kimberly Kelly**, "Molecular Imaging and Biomarker Discovery in Pancreatic Ductal Adenocarcinoma"
- October 9 - **Professor Karen Goldberg**, "Reactions of Late Transition Metal Complexes with Molecular Oxygen"
- October 16 - **Professor Andrew Myers**, "Evolution of a Fully Synthetic Route to the Tetracyclines and Its Implementation in the Discovery of New Antibiotics" **(IRELAND LECTURE)**
- October 30 - **Professor Francesco Stellacci**, "On the Role of Nanostructure in Bio- and Organic Solid-Liquid Interfaces"
- November 6 - **Professor Paul Barbara**, "Are the Electronic Properties of Conjugated Polymers Deformable?"

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/>.

## **SEMINARS AT VIRGINIA COMMONWEALTH UNIVERSITY**

- September 10 - **John T. Yates**, University of Virginia, "Atomic Resolution Studies of Thiol-Based Self-Assembly and a Concerted Chain Reaction in a Self-Assembled Monolayer"
- September 17 - **Steve Weber**, University of Pittsburgh, "Single Cell Electroporation—A Window on the Cell"
- September 24 - **Paula Mezzar**, Old Dominion University
- October 1 - **Steven McIntosh**, University of Virginia, "Solid Oxide Fuel Cell Electrodes—A Materials Chemistry Challenge"
- October 8 - **Shervin Singer**, Ohio State University
- October 22 - **Michael Wagner**, George Washington University, "Size and Shape Control of Nanoparticles, Clusters, Nanorods and Nanotubes Synthesized by Alkalide Reduction"

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

## QUESTIONS FROM THE PAST

This question was asked in the Summer Bulletin: On April 25, 1964, the Virginia Section sponsored a Symposium on Gas Chromatography. Speakers included Mr. Ralph Woods and Dr. Donald Petitjean of the Barber-Colman Company, Dr. Stephen Dal Nogare of E.I DuPont de Nemours, Dr. Robert Ikeda of the Philip Morris Research Laboratory, Dr Thomas A. Gover of the University of Virginia, and Dr. William Dabney of the Medical College of Virginia. **Where was this Symposium held?** The Gas Chromatography Symposium was held in the auditorium of the William Small Physical Laboratory at the College of William and Mary. Dr. William Guy of the College of William and Mary welcomed participants. In the evening, the Section held the regular monthly meeting at the Williamsburg Lodge; D. Y. Paschall spoke on "The Virginia Associated Research Center."

A new question from the past: The Priestley Medal is the most prestigious award given by the American Chemical Society. Seventy-three chemists have received Priestley Medals. **How many of these award winners have presented lectures at Virginia Section meetings?** Can you name some of the Priestley Medal winners who have addressed the Virginia Section?

## 2009 CHEMISTRY OLYMPIAD RESULTS

The 2009 Local Chemistry Olympiad was very successful. Twenty-eight schools asked to participate with over 1000 students nominated to take either the first-year or the second-year examination. Eight of the 28 schools fell into the small-school category (enrollment of less than 600 students). Individual and team awards were presented in various categories. Some of the results are given below; more information and results can be found on the Virginia Section website: <http://membership.acs.org/VVA/>.

Sixteen students with several alternates were invited to take the National Olympiad exam on April 25 at J. Sargeant Reynolds Community College in Richmond (no more than two students can be nominated from each school and each student must be a U.S. Citizen to be eligible for the IChO Study Camp). Nine of the nominated students participated in the National Exam. The nominees were

Valentina Moshnikova, Travis Marshall-Roth\*, Duncan Townsend\*, and Everett Maus\* -  
Albemarle High School

Nikhil Chelliah, John Anderson, and Indu Chelliah - Charlottesville High School

James (Trip) Templeman\* and Peter Megson - Collegiate School

Zachary Powers\* - Deep Run High School

Gage Richert - Freedom High School

Nicholas Wade - James River High School

Katherine Bauer\* - J. R. Tucker High School

Adam Bivens\* and Natalie Wong - Maggie L. Walker Governor's School

Emma Oxford - St. Stephens & St. Agnes School

Benjamin Turner and Branden Katona\* - Mills E. Godwin High School

Marissa Estep\* - Home School

\*took National Examination

## Local Examination Student Scores

At each school, the student with the highest score received a National Olympiad or Element pin. The following students were the highest scorers from each participating school. Teachers from each school also received a pin.

School	First Year Exam	Second Year Exam
Albemarle High School	Damon McIntire, Parker Hopkins	Valentina Moshnikova
Battlefield High School	Thomas Farewell IV, Samantha Lilley, Stephanie Bolton	
Charlottesville High School	Charlotte Cherry	John Anderson, Nikhil Chelliah
Collegiate School	Elizabeth Cook, Joseph Grappone	James Templeman
Colonial Heights High School	Satawart Upadhyay	Emil Iqbal
Cosby High School	Brenda Peterson, Carson Haack, Colin McDonald, Zachary Taylor	Scott McClaugherty
Deep Run High School	Morgan Urquia, Jordan Gregory, Rachel Bramhall, Holden McGowan	Zachary Powers
Forest Park High School	John Washington, John Yang	
Freedom High School	Payton Rhymes, Patrick Folena Bita Khoshhal	Gage Richert
Governor's School of Southside Virginia at Longwood	Ryan Reeves	
Harrisonburg High School	Kevin Nixon, Daniel Rashid	Timothy Cupp
Highland Springs High School	Briana James	Christian Sosa
James River High School	Jason Burkholder, Ainslee Jamerson	Nicholas Wade
J. R. Tucker High School	Lara Pugh	Katherine Bauer
Lafayette High School		Sharon Li
Madison County High School		Laura Berry
Maggie Walker Governor's School	Olivia Baumann, Catherine Wise, Daniel Cheng, Shannon Marwitz, Jason Kong	Adam Bivens
Mills E. Godwin High School	Clayton Geipel, Clarissa Hull, Deborah Stratton	Benjamin Terner
New Kent County High School	Margaret Jeter	
Patrick Henry High School	Kevin Cook	Carl Whittaker
Prince George High School	Nathan Puryear, Jordan Walker, Eric Bulger	
Shenandoah Valley Christian Academy	Nathan Rinard, Rebekah Secrist	
Spotswood High School	Mark Gordon	
St. Stephen's & St. Agnes' School	Janey Yieh, Joseph Sullivan Caroline Blair, Anthony Lopez	Emma Oxford
Stafford High School	Nicholas Larsen, Kyle Littlejohn, Hae Seong Kim, Michael Guidry, John Wilder	Kenneth Smith
Stuarts Draft High School		Dennis Liu
The Steward School	Ryan McKeown	Christine Craig
The Governor's School of Southside Virginia	Meredith Reamey	

## Local Examination Student Awards

The students with the three highest scores from all participating schools, separated by category and by test, received a \$25 gift certificate for first place, a \$15 gift certificate for second place, and a \$10 gift certificate for third place. Those students who were nominated for the National Exam received a \$25 gift certificate, instead of their place amount. The following students had the highest scores within the Virginia Section:

### First Year Chemistry Olympiad Local Examination

#### 1. Small School Category

First Place (\$25 gift certificate) - **Joseph Grappone** – Collegiate School  
 Second Place (\$15) - **Janey Yieh** – St. Stephen' and St. Agnes' School, **Ryan McKeown** – The Steward School, **Meredith Reamey** – The Governor's School of Southside Virginia  
 Third Place (\$10) - **Joseph Sullivan** and **Carolyn Blair** – St. Stephen' and St. Agnes' School

#### 2. Large School Category

First Place (\$25 gift certificate) - **Olivia Baumann** – Maggie L. Walker Governor's School  
 Second Place (\$15) - **Catherine Wise** – Maggie L. Walker Governor's School  
 Third Place (\$10) - **Thomas Casalasi** – Maggie L. Walker Governor's School

### Second Year Chemistry Olympiad Local Examination

#### 1. Small School Category

First Place (\$25 gift certificate) - **James Templeman\*** – Collegiate School  
 Second Place (\$15) - **Peter Megson** – Collegiate School  
 Third Place (\$10) - **Emma Oxford** – St. Stephen's & St. Agnes' School

#### 2. Large School Category

First Place (\$25 gift certificate) - **Calentina Moshnikova** – Albemarle High School  
 Second Place (\$15) - **Travis Marshall-Roth\*** – Albemarle High School  
 Third Place (\$10) - **Benjamin Turner** – Mills E. Godwin High School

\* These students took the National Examination and will each receive a \$25 gift certificate

## Team Awards

A Team Award is given to the school having the highest combined total for three students, separated by category and year. Each of the following schools will be invited to attend the December Meeting of the Virginia Section. These schools will receive a plaque to show they won the team award.

### First year Examination

Category	School
Small School	St. Stephen's and St. Agnes' School
Large School	Maggie Walker Governor's School

### Second Year Examination

Category	School
Small School	Collegiate School
Large School	Albemarle High School

## **INTERNATIONAL CHEMISTRY OLYMPIAD**

The 41<sup>st</sup> International Chemistry Olympiad was held in Cambridge, England in July, 2009, with 250 students from 64 countries competing. The student team from Taiwan took top honors with four gold medals, followed by China, Russia, and England. Ruibo Wang of China was the top individual scorer. The U.S. team did well, earning a gold medal and three silver medals. Xixiao Wang of Westfield, N.J. earned a gold medal while Nathan Benjamin, Colin Lu, and Brian Seifried received silver medals. Next year's International Olympiad will be held in Tokyo; in 2012 the U.S. will host the 43rd Olympiad at the University of Maryland.

## **CHEMISTRY AT VIRGINIA COMMONWEALTH UNIVERSITY**

The Virginia Commonwealth University Department of Chemistry has 29 faculty members, approximately 75 graduate students and 300 undergraduate chemistry majors. The department brings in more than \$4 million annually in research and educational grants. The department offers full-time undergraduate programs leading to the Bachelor of Science. The degree concentrations allow students to focus on different aspects of chemistry, depending on their specific interests. The concentrations include chemical science, professional chemist, professional chemist with honors, chemical modeling and biochemistry.



The department also offers full- and part-time graduate programs leading to the Master of Science and Doctor of Philosophy degrees in analytical, inorganic, organic, and physical chemistry and to the doctoral degree in chemical physics. A wide range of graduate courses is offered; the classes are small in size and personal in nature. The recent addition of new faculty, new laboratories and the acquisition of new instrumentation provide a firm basis for continued excellence in both teaching and research. A program of studies is tailored to the individual student and is designed to provide a sound background in all areas of chemistry, with emphasis on the student's area of research. The low student-to-faculty ratio ensures that each student receives personal attention.

An important and distinctive feature of the department is close interaction between faculty and students. This interaction, in an active and friendly environment, is designed to promote scholarship, develop experimental ability, and stimulate creative thought. Students work side by side with faculty members in small research groups. They are encouraged to present the results of their research at regional and national meetings of the American Chemical Society and other professional organizations.

The department is committed to excellence in both research and teaching. The faculty actively conduct research in the areas of analytical, inorganic, organic, physical, and polymer chemistry and, in cooperation with the Department of Physics, chemical physics. Faculty members have received training and experience at leading universities, industrial laboratories, and national research laboratories. Their excellent and diverse backgrounds ensure a graduate program of quality and balance, one that can meet the varied needs of future professionals. John B. Fenn, Nobel Laureate 2002, is a member of the Department of Chemistry faculty.

State-of-the-art instrumentation used by faculty, graduate students, and undergraduate students in courses and research includes magnetic resonance spectroscopy, infrared, uv-vis, and fluorescence spectroscopy, mass spectrometry, and liquid and gas chromatography.

A weekly seminar program brings distinguished speakers to the department from academia and industry. Arrangements are made for the speakers to meet with students to discuss research and other topics. The program results in graduates who are well-prepared for careers in industry, academics, and national research laboratories. In addition to the regular seminar program, the annual Mary E. Kapp Lecture in Chemistry brings a chemist of international reputation to the department for a two-day visit. This lecture honors Kapp, the first chairman of the department, who guided the department through its formative years. Kapp established an endowment for the department from her estate. This endowment, in excess of \$3.5 million, was established specifically to support the graduate program in chemistry. It is currently used to fund the seminar program, assistantships for doctoral candidates, and graduate student travel to scientific meetings where they present papers.

## **NATIONAL CHEMISTRY WEEK**

**October 18-24, 2009**

**Theme: "Chemistry—It's Elemental"**



**Information: <http://www.acs.org/ncw>**

There will be a national NCW Poster Contest for children in kindergarten through 12<sup>th</sup> grade and a NCW Chemvention Competition for student affiliate chapters. See the ACS Chemistry website for more information on these and other NCW activities. This year marks the 22<sup>th</sup> Anniversary of the National Chemistry Week program.

***The NCW Coordinator for the Virginia Section is Dr. Kristine Smetana, Professor of Chemistry at John Tyler Community College. Contact her for information on NCW activities within the Virginia Section and to volunteer your help for this year's National Chemistry Week: (804) 706-5143; ksmetana @ jtcc.edu.***

## **TEACHER AWARDS**

The Virginia Section is soliciting nominees for three teaching awards: the Outstanding High School Chemistry Teacher Award, the Outstanding Middle School Science Teacher Award, and the Outstanding Elementary School Science Teaching Award (this is a new award). If you would like to nominate persons for these awards, contact Dr. William Rademaker at (804) 794-3752; wrad @ verizon.net. Each award consists of a plaque and a check for \$300.00. The teacher awards are sponsored by Boehringer Ingelheim Chemicals; the 2009 awards will be presented at the December 4 Section meeting, to be held at Virginia Union University in Richmond, .

## **THE DISTINGUISHED RESEARCH AWARD**

The Virginia Section is pleased to present a new award, the DISTINGUISHED RESEARCH AWARD, to Dr. M. Samy El-Shall of Virginia Commonwealth University. The Distinguished Research Award is given to a member of the Virginia Section, whose research in chemistry has made significant contributions in advancing knowledge in his or her field of research.

The research work should have been performed at an academic, government, or industrial site in Virginia and should have been acknowledged through publications and/or presentations, both in national and international scientific communities.

Individual and team nominations are welcome for future Distinguished Research Awards.

**WORDS OF WISDOM FOR SEPTEMBER :**

**"A Warm Smile Is  
The Universal Language Of Kindness"**



## CAN YOU IDENTIFY THIS PERSON?

The photograph is from 2009 when the subject received the 2009 Fritz J. & Dolores H. Russ Prize. The Russ award recognizes a significant achievement in bioengineering. Funded by Ohio University and administered by the National Academy of Engineering, it includes a \$500,000 cash award and a gold medallion. The award winner's research has enabled the large-scale manufacture of antibiotics such as penicillin. He has been called the "father of biochemical engineering." He spoke to the Virginia Section on April 19, 1996 on "The Gasoline Revolution—Alkylation and Cat Cracking."



The "mystery person" shown in the Summer Bulletin is Dr. E. Anne Nalley. She served as president of the Virginia Section in 2006 and spoke to the Virginia section at the College of William and Mary in October of that year.

## VIRGINIA SECTION WEBSITE

Information on Virginia Section meetings, copies of the Bulletin, and much more can be found on the Virginia Section Website. It can be accessed via <http://membership.acs.org/VVA/>. Dr. Ann Sullivan is the Webmaster. She can be reached at [asullivan @ reynolds.edu](mailto:asullivan@reynolds.edu).

## JAMES F. STUBBINS

Dr. James Fisk Stubbins, Professor Emeritus of Pharmaceutical Chemistry at Virginia Commonwealth University, died on April 22, 2009 at the age of 78. He was a long-time member of the Virginia Section of the ACS. Dr. Stubbins retired from VCU in 1996, after 34 years on the faculty of the School of Pharmacy. Known as the "answer man," he was renowned for his boxes of index cards containing information on the scientific papers that he had read.

## RESOURCES FOR NATIONAL CHEMISTRY WEEK

Check out these materials for NCW-2009:

- an interactive **periodic table** that provides a wealth on information on the elements;
- "**Celebrating Chemistry**," a free hands-on activity newspaper;
- **Chemdoku** - a logic game with a chemistry theme;
- **Bytesize Science** - a series of exciting podcasts, posted daily October 20-24.

Find all this and more at <http://www.acs.org/ncw>.

## JACK STOCKER

Dr. Jack H. Stocker, Emeritus Professor of Chemistry at the University of New Orleans, died on July 8 at the age of 85. He spoke to the Virginia Section on March 23, 1984 on "Chemmage, A Compendium of Chemical Trivia." Dr. Stocker's home, along with his collection of more than 20,000 books of science fiction, was destroyed in Hurricane Katrina. He was a member of the ACS Council.

**THE BULLETIN**

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