



*The Bulletin*  
of the  
**Virginia Section**  
**AMERICAN CHEMICAL SOCIETY**

**SEPTEMBER MEETING NOTICE**

● **AWARDS MEETING** ●

*Virginia Union University*  
*Richmond, Virginia*

*Friday, September 19, 2008*

**SOCIAL HOUR:**           **6:00 p.m.**  
Panther Grill  
The Henderson Center  
1500 N. Lombardy St.

**DINNER:**               **6:30 p.m.**  
Panther Grill  
The Henderson Center

**AWARDS PROGRAM:** **7:15 p.m.**  
Room 101 (Wall Auditorium)  
Ellison Hall

**MENU:**                   Mixed Field Greens with Dressing, Herbed Chicken, Grilled  
Marinated Flank Steak, Parsleyed Red Potatoes, Green Beans  
Almondine, Cornbread/Rolls, Assorted Desserts, Beverages

**PRICE:**                  Members/Guests - \$15.00; Students, High School Teachers/  
Spouses, Retired ACS Members/Spouses, Retired Teachers/  
Spouses - \$10.00

**RESERVATIONS:**     Please make reservations by NOON on **Tuesday, September 16**  
by calling (804) 257-5615 or e-mail to dneseonu @ vuu.edu

**HOST:**                   Dr. Dorothy Eseonu, (804) 257-5615; dneseonu @ vuu.edu

**PROGRAM:**             **DISTINGUISHED SERVICE AWARD:** Dr. Ralph O. Allen  
                                  **"The Scorpion King Meets CSI ..."**  
**INDUSTRIAL LEADERSHIP AWARD:** Dr. Jane Y. Lewis

**SEPTEMBER 2008**

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
	reservations due			meeting		
21	22	23	24	25	26	27
28	29	30				

## ***DISTINGUISHED SERVICE AWARD***

### ***DR. RALPH O. ALLEN***

Dr. Allen has written well over a hundred papers on the application of chemical analysis in archaeology, forensic sciences, environmental pollution, and lunar sciences. Dr. Allen has also been a tour speaker for the American Chemical Society since 1984, served as a consultant for both the International Atomic Energy Agency, and the FBI Laboratory (for which he received the Erikson Award). He has given four talks to the Virginia Section. He is a Professor of Chemistry, Environmental Sciences and Public Health Sciences; Associate Vice President for Research; and Director of Environmental Health and Safety at the University of Virginia.



In addition to teaching advanced courses in instrumental analytical techniques, Dr. Allen has introduced innovative teaching methods to courses that address the impact of pollution on human health and the environment. He has recently been appointed as Professor of Public Health Sciences and is part of UVa's new Masters of Public Health Degree. By bringing the staff of experts from the Office of Environmental Health and Safety into the Environmental Health course, the students have practical, real world applications and problems to study. Cooperative learning, case studies and assessment methods are used to give students an active learning and team building experience in his courses. In addition to academic courses for University of Virginia students, the responsibilities as Director of Environmental Health and Safety have kept Dr. Allen delivering short training programs for all levels of staff, faculty, and students at the University to meet various regulatory requirements. From the implementation of the EPA's Hazardous (RCRA) waste regulations, to OSHA's "Hazcom" (Chemical Hygiene), and most recently to the Department of Homeland Security's "Chemical Facility Anti-terrorism Standards", Dr. Allen has played a role in helping regulators understand the issues. He has helped chemists (especially in higher education) understand the compliance issues related to this growing body of regulations. Many cost effective and efficient programs have been implemented at UVa to provide compliance with these complex regulations.

As the faculty liaison with the FBI's Laboratory Division and serving for 10 months as a special assistant to the FBI Lab Director, Dr. Allen has not only taken an active role in helping law enforcement agencies develop programs for the safety of their laboratory personnel, but has been an active participant in numerous research projects as well. This includes the key research that has brought DNA analysis into the 21<sup>st</sup> Century.

### ***The Scorpion King Meets CSI: How the Analysis of DNA Aids Archaeological and Criminal Investigations***

The role of the scientific expert witness is to provide information that helps jurors decide upon the facts of a case. With the advent of DNA analysis, the role of the forensic examiner changed dramatically. As the use of DNA markers to characterize individuals grew, considerable effort went into developing a better understanding of the molecular biology and to develop more rapid and accurate methods of analysis. Analytical chemists developed new methods using CE (capillary electrophoresis) and MALDITOF (mass spectrometry) and the analysis time was reduced. While the analysis of nuclear DNA markers provides more specific information for the criminal investigator, in many cases mitochondrial DNA analysis has played an important role. In addition, the advent of DNA analysis has proven to be important to historical investigations as well. In many ways the limitations upon physical samples and avoidance to contamination problems are similar. In the case of archaeological and anthropological studies, the finding and analyzing preserved mitochondrial DNA is helping us understand the distant past. So finally my divergent interests in criminal justice and pre-dynastic Egypt (where the Scorpion King began the march toward the Egyptian state) have merged.

## **INDUSTRIAL LEADERSHIP AWARD**

### **DR. JANE Y. LEWIS**



Jane received her B.S. degree in Chemistry from Virginia Commonwealth University in 1978 and her Ph.D. in Analytical Chemistry from the University of Cincinnati in 1983. She then joined Philip Morris in 1984 as a scientist in the Analytical Research Division of Research & Development. Since taking her first leadership role in 1987, she has focused her efforts on achieving technical excellence in research and on continually building capability in those she manages. She has made contributions to multiple research programs, product assessment strategies and methodologies, and implementation of quality systems.

Dr. Lewis is currently the Vice President of Analytical Sciences and Technical Operations at Altria Client Services.

This department provides analytical chemistry capability and measurement as well as coordinated technical operations in support of product innovation and development across Altria and its operating companies.

Jane's career has spanned 24 years. In that time, she has remained passionate about the importance of leadership development and her company's efforts to reduce the harm caused by smoking.

Jane was inducted into the New York City YWCA's Academy of Women Achievers in 2001. Also, she received the Distinguished Alumni Award from the VCU College of Humanities and Sciences in 2007. Her outside interests include spending time with her family and friends, her church, and her dogs. She enjoys boating and other outdoor activities and has maintained a life long passion for swimming.

## **THE INDUSTRIAL LEADERSHIP AWARD**

In 1997, the Virginia Section began an awards program to recognize achievements in industry. Since then, the Section has presented fifteen awards to individuals, teams, and companies for outstanding work. These fell into these five categories: **The Outstanding Innovator Award, The Industrial Innovation Award, The Environmentally Significant Product Award, The Process Engineering Award, and The Team Innovation Award.** This year, we are adding a new award, **The Industrial Leadership Award.** This award is given to an individual who has demonstrated outstanding leadership in research and development involving chemistry. The Virginia Section is pleased to present this initial leadership award to Dr. Jane Y. Lewis of Altria Client Services Inc.

# DIRECTIONS

**From the North via I-95:** Take Exit #76B for Belvidere Street. Turn right off Exit ramp to Leigh Street. Drive to 3rd stoplight and turn right onto Lombardy Street. Travel on Lombardy Street to the main campus (1/4 mile). Parking is available across from main campus in the Student Parking Lot.

**From the South via I-95:** Take Exit #76A. Turn right off Exit ramp onto Chamberlayne Avenue. When the road splits, bear left and go under the underpass to the second stoplight, which will be Lombardy Street. Make a left and the parking lot for visitors is next to the football field.

**From the East via I-64:** Take Exit #190 for Fifth Street and Downtown/Coliseum. Turn right at Broad Street. Follow Broad Street to Lombardy Street, approximately two miles. (Firestone, Amoco). Turn right onto Lombardy Street and follow to main campus, approximately .2 mile. Parking is available across from main campus in the Student Parking Lot.

**From the West via I-64:** Take exit for I-95 South and I-64 East. Take Exit #76B for Belvidere Street. Turn right off Exit #76B ramp to Leigh Street. Travel to third stoplight and turn right to Lombardy Street. Travel on Lombardy to main campus. Parking is available in Student Parking Lot across from the main campus.

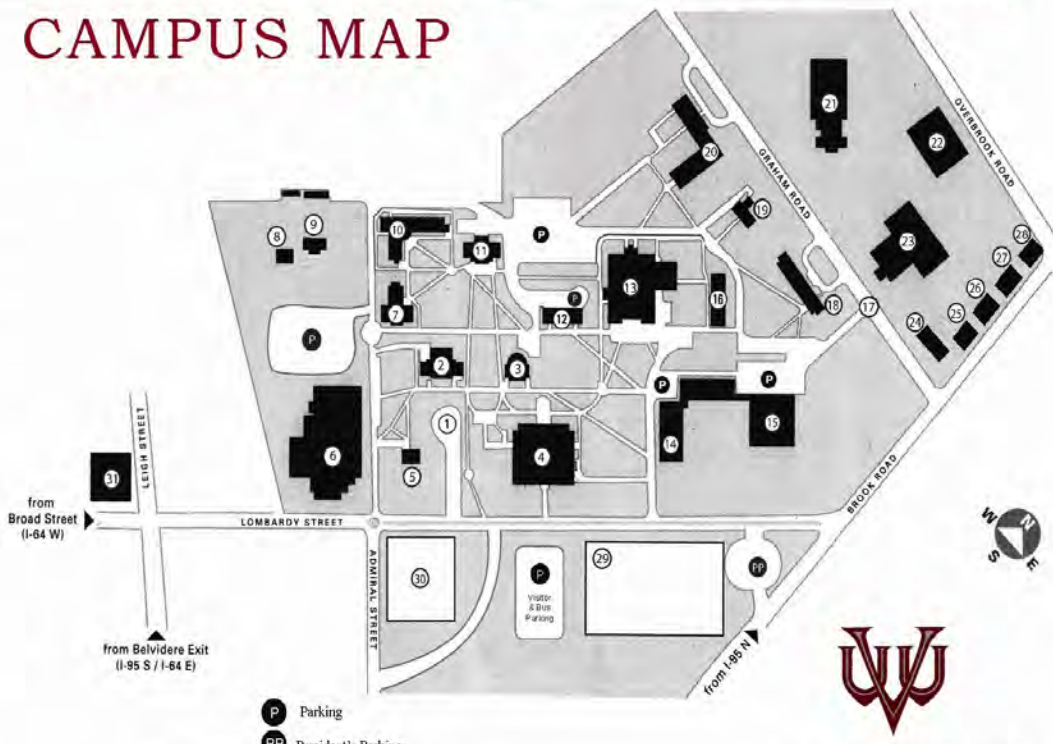
## MAP

### HENDERSON CENTER

# Virginia Union University

## CAMPUS MAP

- 1. Pickford Circle
- 2. Pickford Hall  
President's Office  
Campus Police  
Academic Affairs
- 3. Coburn Hall
- 4. Ellison Hall  
Financial Aid  
Registrar
- 5. Baptist Memorial Building
- 6. L. Douglas Wilder Library
- 7. Kingsley Hall  
School of Theology
- 8. Power Plant
- 9. Maintenance Building
- 10. Storer Hall
- 11. Martin E. Gray Hall
- 12. Huntley Hall
- 13. Henderson Center  
Admissions Office  
Student Affairs Office
- 14. Belgian Friendship Building
- 15. Barco-Stevens Hall
- 16. Hartshorn Hall
- 17. Main Entrance
- 18. Newman Hall
- 19. White Hall /Athletics
- 20. MacVicar Hall
- 21. Baptist General Convention of VA
- 22. Community Annex
- 23. Richmond Police Training Academy
- 24. University House #1
- 25. University House #2
- 26. University House #3
- 27. University House #4
- 28. University House #5
- 29. Hovey Field
- 30. Practice Field
- 31. C.D. King Hall  
Human Resources  
Institutional Advancement  
Student Accounts  
University Relations



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### ELLISON HALL

**\*\*\* Virginia SECTION news \*\*\*****FUTURE MEETINGS OF THE SECTION**

DATE: **October 17, 2008**  
LOCATION: Philip Morris Center for Research  
And Technology, Richmond, Va.  
HOST: Dr. Will Lewis  
PHONE: (804) 274-5869  
SPEAKER: **Dr. Jane Y. Lewis**  
Altria Client Services Inc.  
**Tours of the CRT**

DATE: **November 19, 2008**  
LOCATION: University of Mary Washington  
Fredericksburg, Va.  
HOST: Dr. Roy Gratz  
PHONE: (540) 654-1412  
SPEAKER: **Dr. Marvin Lang**  
University of Wisconsin -  
Stevens Point

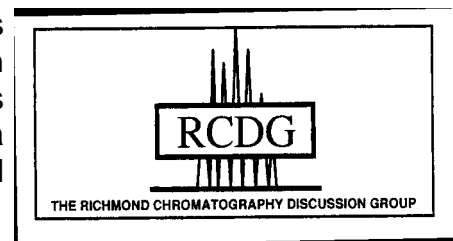
DATE: **December 5, 2008**  
LOCATION: John Tyler Community College  
Chester, Va.  
HOST: Dr. Kristine Smetana,  
PHONE: (804) 706-5143  
SPEAKER: **Dr. John Gupton**  
**Presentation of Teaching Awards**

**WCC NETWORKING LUNCH  
FRIDAY, OCTOBER 3, 2008**

The Women Chemists Committee of the Virginia Section will be holding a networking meeting on **Friday October 3, 2008** from 11:30 to 1:00 pm at Hong Kong King Buffet restaurant, 10334 Midlothian Turnpike, Richmond VA 23235. The topic for discussion will be *How can more established women help less established women in the chemical sciences?* Special guests will include Sheryl Baldwin from VCU, Beth Godfrey from Wyeth, and May Thomas from Afton Chemical. RSVP by Thursday, September 25 to Stephanie Mabry at 804-788-5280 or at stephanie.mabry @ aftonchemical.com.

## **RCDG**

The purpose of the Richmond Chromatography Discussion Group is to promote the interests of the chromatographic and other separation sciences by expanding the awareness and capabilities of individuals from the scientific community. To meet this goal the group publishes a newsletter and sponsors lectures at various locations in the Richmond area. Check out their website: [www.rcdg.org](http://www.rcdg.org).



## **OUTSTANDING CHEMISTRY GRADUATES**

At the April meeting, the Virginia Section recognized graduating seniors from colleges and universities within the Section. Schools in the Virginia Section were invited to nominate senior chemistry majors for this honor. The outstanding students for the year 2008:

<u>College/University</u>	<u>Student</u>
Bridgewater College	Ian J. McNeil
College of William & Mary	Ian Kirby Webb
Eastern Mennonite University	Ho-Hyun Lee
Hampden-Sydney College	Jay Rawles
James Madison University	Kevin Jellerson
Longwood University	Jason A. Mann, Boone M. Prentice
Mary Baldwin College	Kathryn Lukhart
Randolph-Macon College	Rachel Armstrong
Shenandoah University	Andrea Snead
University of Mary Washington	Amy K. Carfagno
University of Richmond	Katey Reighard
University of Virginia	Yin Jie Chen
Virginia Commonwealth University	Ryan Wood
Virginia State University	Warner Braxton
Virginia Union University	Alexina Haynes

## **TEACHER AWARDS**

The Virginia Section is soliciting nominees for two teaching awards: the Outstanding High School Chemistry Teacher Award and the Outstanding Middle School Science Teacher Award. If you would like to nominate persons for these awards, contact Dr. William Rademaker at (804) 794-3752; [wrad@verizon.net](mailto: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 2008 awards will be presented at the December 5 Section meeting.

### **SIXTY-YEAR MEMBERS OF THE ACS**

Congratulations to these Section members, each of whom has been a member of the American Chemical Society for 60 years:

<b>Mr. Richard A. Carpenter</b>	<b>Charlottesville</b>
<b>Mr. Charles L. Harowitz</b>	<b>Richmond</b>
<b>Dr. Robert N. Hazlett</b>	<b>Midlothian</b>
<b>Mr. Robert Frank Huston</b>	<b>Charlottesville</b>
<b>Mr. Martin B. Judge</b>	<b>Midlothian</b>
<b>Dr. Frederick G. Keihn</b>	<b>Bridgewater</b>
<b>Dr. Carl D. Lunsford</b>	<b>Glen Allen</b>
<b>Mr. Thomas M. Melton</b>	<b>Midlothian</b>
<b>Mr. Harry C. Nissen</b>	<b>Winchester</b>

### **FIFTY-YEAR MEMBERS OF THE ACS**

Congratulations to these Section members, each of whom has been a member of the American Chemical Society for 50 years:

<b>Mr. Osiel Hilario Benitez</b>	<b>Richmond</b>
<b>Mr. Everett C. Bowers</b>	<b>Winchester</b>
<b>Dr. William Gaffield</b>	<b>Williamsburg</b>
<b>Mr. Robert Edward Holman</b>	<b>Charlottesville</b>
<b>Dr. Carl R. Johnson</b>	<b>Hartfield</b>
<b>Dr. Joel Kirschbaum</b>	<b>Williamsburg</b>
<b>Dr. Bernard L. Mahoney</b>	<b>Fredericksburg</b>
<b>Dr. Sue McCoy</b>	<b>Afton</b>
<b>Dr. Henry A. McGee, Jr.</b>	<b>Richmond</b>
<b>Dr. Conrad Erve Miller</b>	<b>Bridgewater</b>
<b>Dr. Roderick Ashby Mundy</b>	<b>Charlottesville</b>
<b>Mr. J. I. Petit</b>	<b>Fredericksburg</b>
<b>Dr. C. Lennart Sandquist</b>	<b>Waynesboro</b>
<b>Dr. Herndon G. Shepherd</b>	<b>Schuyler</b>
<b>Dr. Paul L. Zubkoff</b>	<b>Williamsburg</b>

## QUESTIONS FROM THE PAST

This question was asked in the April Bulletin: For the past 20 years, the April meeting of the Virginia Section has been held at the University of Virginia in Charlottesville. In 1987, the April meeting featured Sister Mary E. Murphy, who spoke on "The Moon and Beyond." **Where was that April 24, 1987 meeting held?** The April meeting in 1987 was held at **the College of William & Mary in Williamsburg**. Since then, the April meeting has been held in Charlottesville.

A new question from the past: The Virginia Section has been honored to have several presidents of the American Chemical Society speak at Section meetings. One of those meetings was held at the Union Hall in Hopewell on Friday, October 16, 1953 where the ACS president spoke on "Our Future Sources of Energy." He was a well-known physical chemist and Chairman of the Chemistry Department at the University of Wisconsin. **Who was the ACS president who spoke to the Virginia Section in 1953?**

### SERMACS 2011

In October, 2011 the Virginia Section will host the Southeastern Regional Meeting of the ACS. SERMACS 2011 will be held October 25-30 at the Omni Hotel in Richmond.

Dr. Joseph Pompano, General Chair for SERMACS 2011, will be holding monthly meetings to develop plans for the meeting site, program, and exhibits. The program will be discussed at the next meeting, to be held at 4:00 p.m. on September 4. The tentative location for the meeting is the Science Museum of Virginia. Ideas are welcome regarding possible symposia topics, themes, invited speakers, etc. Dr. Pompano can be contacted at (804) 504-8318 or Joe.pompano @ boehringer-ingelheim.com.

## 100 YEARS OF CHEMICAL ENGINEERING AT UVA



The Department of Chemical Engineering at the University of Virginia will be celebrating 100 years of Chem E at UVA on September 26-27. Here is the schedule of events:

### **Friday, September 26**

6:00 - 8:00 PM, Welcome Reception: CHE Courtyard

### **Saturday, September 27**

9:15 AM, Registration: Dome Room, Rotunda

10:00 AM, Centennial Symposium: Dome Room, Rotunda

12:30 PM, Box Lunch: CHE Courtyard

1:30 - 2:30 PM, Laboratory Tours: CHE Building, Wilsdorf Hall

6:00 PM, Reception: Abbott Center Dining Room, Darden School

7:00 PM, Gala Dinner

For more information, check the CHE website: <http://www.che.virginia.edu/Centennial.html>. The AIChE is also celebrating its centennial this year. Information at <http://www.aiche.org/About/Centennial/Index.aspx>.



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**UNDERGRADUATE RESEARCH POSTERS -  
UNIVERSITY OF VIRGINIA, APRIL 18, 2008**

**Emily M. Andrews and David S. Cafis** Department of Chemistry, University of Virginia  
“Conformational Changes of the N-terminal Domain of FecA in Presence of Solutes and Proteic Fragment of TonB by EPR Spectroscopy”

**Christopher K. Arnatt, Sean P. Platt,  
Patrick G. Barber, and H. J. Sipe, Jr.** Department of Chemistry, Hampden-Sydney College  
“ESR Studies of the Endoperoxide Function of Artemisinin”

**John Ernest Vallarta Bajacan and Yan Zhang** Department of Medicinal Chemistry, Virginia  
Commonwealth University  
“Design and Synthesis of Anibamine-Based Macrophage CCR5 Antagonists for HIV-1 Fusion Inhibition”

**Juliana Brown and Leanna C. Giancarlo** Department of Chemistry, University of Mary Washington  
“STM Studies of Coadsorption of Liquid Crystals on Graphite”

**Megan Cahoon and Anthony Hayford** Department of Chemistry, Virginia Wesleyan College  
“New Synthesis of Substituted Pyrrolo [1.2-a] Quinoxaline Derivatives Employing Quinoxaline 2-Vinylacetylenes”

**Amy Carfagno and Charles M. Sharpless** Department of Chemistry, University of Mary Washington  
“Investigating the Basis of Natural Organic Matter Photochemistry”

**Yin Jie Chen, Jianbin Chen, Guoqing Zhang,  
Anne Pfister, and Cassandra L. Fraser** Department of Chemistry, University of Virginia  
“Novel Nanoparticles Based on Iron and Difluoroboron Dibenzoylmethane Polylactide: Potential Delivery Systems and Biological Sensors”

**Robert Culley and Nora Green** Department of Chemistry, Randolph-Macon College  
“Stabilization of the West Nile Virus Envelope Protein Dimer at Low pH”

**Sean Edington, Michael Biittner,  
Lynn Mandeltort, and John T. Yates, Jr.** Department of Chemistry, University of Virginia

“Temperature-Programmed Desorption of n-Heptane from Lithium-Doped Single-Walled Carbon Nanotubes”

**Ashley J. Figueiredo, Hank M. Yochum, and  
Vaibhav Jain** Department of Chemistry and Department of Physics  
and Engineering, Sweet Briar College  
“Enhancement of Nanostructured Electrochromic Devices Using Metal Nanoparticles”

**David Finkler, Lindsay A. Legendre,  
J. Patrick LeDuc, Gabriela Duarte, Carol Price  
and James P. Landers** Department of Chemistry, University of Virginia  
“A Visual Microfluidic DNA Detector”

**Rebecca Funkhouser, Jennifer Vox, and Janet Asper** Department of Chemistry, University of Mary Washington  
“Progress in the Development of Protecting Group Strategies for Alkylguanidines”

**Stephen R. Garletts and Erich E. Brumbaugh** Department of Chemistry, Bridgewater College  
“Energy Minimization Simulations in Binary Liquid Solutions Using HyperChem 7.5  
with Emphasis on Water/Alcohol Systems”

**Weslee S. Glenn, Lesley-Ann Giddings, and  
Sarah E. O'Connor** Departments of Chemistry, Hampton University and  
Massachusetts Institute of Technology  
“Substrate Specificity of Tabersonine 16-Hydroxylase in *Catharanthus Roseus*”

- Alexina Haynes and Chunyu Wang Department of Chemistry, Virginia Union University  
“Using Mutagenesis to Obtain a Protein Precursor for NMR Study of the Protein Splicing Mechanism”
- Neil Hershey and Jill Venton Department of Chemistry, University of Virginia  
“Carbon Nanotube Modification of Carbon-Fiber Microelectrodes”
- Sandra L. Hobson, Edward F. Valeev Department of Chemistry, Virginia Tech  
“First-Principles Determination of Isotope Effects on Electric Dipole Moments”
- Ali K. Khan, Michelle M. Archibald, Wendy H. Fields, Andrew A. Yeagley, and Jason J. Chruma Department of Chemistry, University of Virginia  
“Palladium Catalyzed Decarboxylative Allylation Asymmetric Induction and Tandem C-C Bond Formation”
- Megan Kobiela, Mark Turlington, Albert DeBerardinis, and Lin Pu Department of Chemistry, University of Virginia  
“Design and Development of H<sub>8</sub>-BINOL Derivatives for Applications in Asymmetric Catalysis “
- Judith Lin, David Cafiso, and April Frazier Department of Chemistry, University of Virginia  
“Conformational Changes in Synaptotagmin I C2A Upon Membrane Binding”
- Chrystal Lopez, Ling Huang, and James P. Landers Department of Chemistry, University of Virginia  
“Electrophoretic Trapping and Elution of DNA on a Conductive Polymer/Glass Hybrid Micro-device”
- Kathryn Lukehart and Karl Zachary Department of Chemistry, Mary Baldwin College  
“Charge Transfer Interactions in Complexes Formed by Fullerene with Derivatives Calix[4]arenes”
- Ian J. McNeil and Erich E. Brumbaugh Department of Chemistry, Bridgewater College  
“NMR Analysis of Alcohol/Water and Alcohol/Alcohol Mixtures”
- Richard Mullenberg and Everett Carpenter Department of Chemistry, Virginia Commonwealth University  
“Soil Testing at the James River”
- Thien Nguyen, Christopher Reyes, Izabela Bielnicka, and Linda Columbus Department of Chemistry, University of Virginia  
Cloning, Expression and Purification of Opa Proteins from *Neisseria Gonorrhoeae* and a Human CEACAM Binding Partner”
- Hong Park and Jill Venton Department of Chemistry, University of Virginia  
“Electrochemical Detection of Gonadotropin Releasing Hormone”
- Anna M. Pavlovskaya and Kenneth S. Overway Department of Chemistry, Bridgewater College  
“Graywater Recycling Using a Biological Treatment System”
- Jenae Pinney, Rebecca Shapiro, Charles Sharpless, and Ben Odhiambo Department of Chemistry and Department of Earth and Environmental Sciences, University of Mary Washington  
“The Effect of Land Use on the Nutrients and Organic Contaminants in the Water and Sediment of the Rappahannock River”
- Boone M. Prentice, Sarah E. G. Porter, and Melissa C. Rhoten Department of Chemistry, Longwood University  
“Development of GC-MS and Chemometric Methods for the analysis of Accelerants in Arson Cases”
- April M. Queen and Kenneth S. Overway Department of Chemistry, Bridgewater College  
“Analysis of Lead and Iron Content of Synthetic and All-Natural Lipsticks”

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- James W. Rawles III and H. J. Sipe, Jr. Department of Chemistry, Hampden-Sydney College  
“Electron Spin Resonance [ESR] Spectroscopic Studies of Some Organosilyl-Substituted Styrene Radical Anions”
- Sara G. Sadiq-Ali, Marilise A. Hyacinth, Lin Pu, and Michal Sabat Department of Chemistry, University of Virginia  
“Design of Functional Organic Materials: Propargylic Alcohol Derivatives as Components of Molecular Rotors”
- Dea J. Sloan, Paul Hassoun, and Stephen Mathai Department of Chemistry, Hampton University and Division of Pulmonary and Critical Care Medicine, Johns Hopkins University  
“Pulmonary Arterial Capacitance Predicts Survival of Patients with Pulmonary Arterial Hypertension Associated with Scleroderma and Idiopathic Pulmonary Arterial Hypertension”
- Andrea Snead, Ferdinand Udoe, and Diep V. Ca Department of Chemistry, Shenandoah University  
“Determination of Total Arsenic in Chickens from the Local Supermarkets”
- Joseph V. Strukl, Queite A. de Paula, John Mangrum, Yun Qu, and Nicholas Farrell Department of Chemistry, Virginia Commonwealth University  
“*cis*-Platinum Mononucleobase Compounds: Reaction Profile Studies Involving Protein, DNA, and Zinc Finger Models, and Implications for Possible Antiviral Activity”
- Daniel Swale, Megan Houck, Geoffrey C. Klein, and Lisa S. Webb Department of Biology, Chemistry, and Environmental Science, Christopher Newport University  
“Detection of Amino Acids in Sexually Mature *Odocoileus Virginianus* by Gas Chromatography Mass Spectrometry”
- Paresa Taghavia-Moghadam and Joyce Easter Department of Chemistry, Virginia Wesleyan College  
“A Comparative Study of Antioxidant Levels in Fresh, Frozen and Canned Vegetables”
- Marko Slobodan Todorovic, Kevin Lehmann, and Benjamin Gaston Department of Chemistry, University of Virginia  
“Cavity Ring-Down Spectroscopy: A Novel S-nitrosothiol Assay Applicable to Clinical Pediatrics”
- Abigail Turner and Karl Zachary Department of Chemistry, Mary Baldwin College  
“Spectrophotometric Studies of Complexes Formed by Cucurbit[7]uril with Organic Dyes”
- Ryan M. Wood and Vladimir Sidorov Department of Chemistry, Virginia Commonwealth University  
“New Pyranine Receptor for Use in Endovesiculation Assay”
- Dominique Williams, Garry Glaspell, and Jon Anderson Department of Chemistry, Virginia Commonwealth University  
“Microwave Synthesis of Uniform Rare Earth Oxides”
- Ashley Zimmerman and Joyce East Department of Chemistry, Virginia Wesleyan College  
“Effect of frozen packaging on total phenolic content of strawberries and blackberries”
- Gordon Zrelak and Paul Mueller Department of Chemistry, Hampden-Sydney College  
“Preparation of a Solid Phase Baylis-Hillman Catalyst on Grafted Glycidyl Methacrylate/NyIon-6,6 Support”
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**WORDS OF WISDOM FOR SEPTEMBER:** “If Everyone Thought the Same, Nothing Would Ever Change”

## VIRGINIA UNION UNIVERSITY

Virginia Union University was founded in 1865 to give newly emancipated slaves an opportunity for education and advancement. The University is the result of the merger of four institutions: Richmond Theological Seminary, Wayland Seminary, Hartshorn Memorial College, and Storer College.

Richmond Theological Seminary held classes in Richmond, Virginia at Lumpkin's Jail, a former holding cell for runaway slaves. During the same time, Wayland Seminary was founded by the American Baptist Home Mission Society in Washington, D.C. Two years later, in 1867, Storer College was founded in Harper's Ferry, West Virginia, and in 1883, Hartshorn Memorial College opened its doors in Richmond as the first college for African American women.



After three decades of operating independently, Richmond Theological Seminary and Wayland Seminary merged on February 11, 1899 to form Virginia Union University. Later, in 1932 and 1964, respectively, Hartshorn Memorial College and Storer College became a part of this union.

Today, Virginia Union University has the distinction of being one of the oldest historically black universities in the South. For more than 140 years, the University has helped to shape the fabric of our local, regional, and global communities by adding quality leaders to the workforce. Our alumni include the only elected African American governor in the United States, the first African American admiral in the U.S. Navy, several of the first African American mayors of major cities, 22 college presidents, numerous ministers, senators, teachers, doctors, lawyers, business persons, and professional athletes.

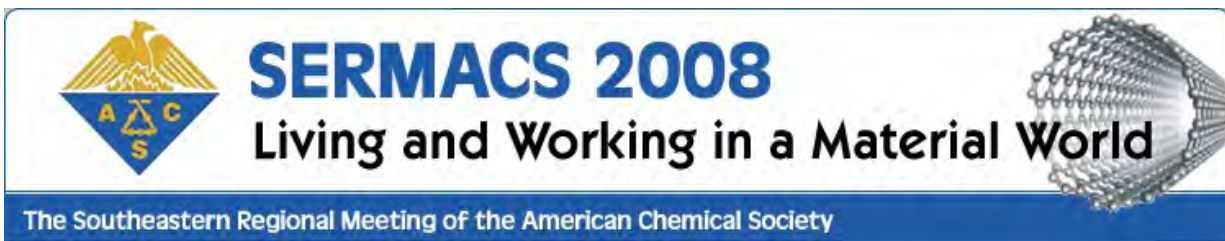


Virginia Union remains on the cutting edge of higher education innovation, having become the nation's first HBCU to implement a wireless computer infrastructure. The university's undergraduate academic enterprise is comprised of four major units: the Sydney Lewis School of Business; the School of Education and Interdisciplinary Studies; the School of Humanities and Social Sciences; and the School of Basic, Applied Sciences, and Technology. The University's internationally recognized graduate program, the Samuel DeWitt Proctor School of

Theology, reaches more than 5,000 students and church leaders each year through its various on-campus events and statewide Evans-Smith continuing education program.

### **REPORT ON THE MARCH 2008 SECTION MEETING**

About 45 persons heard Dr. Thomas DeVore, Professor of Chemistry at James Madison University, speak about "Fire, Smoke, and Slime." Dr. DeVore illustrated his talk with a number of exciting demonstrations. As "Dr. Science," he showed various examples of "Metals in Flames." The talk touched on bond energies, flame retardation, combustion enhancement, chemical lasers, and the thermal detection of air pollutants. Thanks to the Chemistry Department at James Madison University for hosting this meeting.



The 2008 Southeastern Regional Meeting of the ACS (**SERMACS 2008**) will be held November 12-15 at the Music City Sheraton Hotel in Nashville, Tennessee. Special speakers include Robert H. Grubbs, Richard Zare, Bruce Bursten, and Madeleine Jacobs. The program includes symposia on **Advances in Chiroptical Methods, Bioanalytical Mass Spectrometry, Carbanion Chemistry, Chemical Education at the College Level, Cope Scholar Symposium: James Tour, Developments in Biopolymers, Directions in Synthetic Organic Chemistry, Electrochemistry at the Nanoscale, Frontiers in Nucleic Acid Chemistry, Green Chemistry, Main Group and f-Element Chemistry, Nanocrystals, Nanostructures in Polymer Science, New Directions in Fluorine Chemistry, Patent Law Developments, Separations in Environmental and Medicinal, Radiochemistry, Technologies for the Chemistry Classroom, Why I Chose an Applied Chemistry Profession, Women Chemists in the Southeast.**

There will be a Chemical Exposition, a graduate school fair, and special programs for high school and college students and for women chemists. There will be workshops on safety, legislative affairs, and "Hands On Chemistry with Vernier." The ACS will sponsor a leadership development course on "Involving Volunteers" and a career workshop.

October 13 is the last day for receipt of Advance Registration for the meeting. Full information on SERMACS 2008 can be found on the ACS website <http://membership.acs.org/s/serm2008/>.

## **SEMINARS AT VIRGINIA COMMONWEALTH UNIVERSITY**

August 26 - **Nick Leventis**, University of Missouri at Rolla

September 4 - **Mona Bakr**, National Institute of Lasers, Egypt

October 7 - **Francis Szoka**, University of California at San Francisco

October 9 - **Albert Viggiano**, Air Force Research Laboratory, Massachusetts

November 6 - **Ya-Ping Sun**, Clemson University

December 4 - **Lou Allamandola**, NASA, Ames

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 in Richmond. For more information, call (804) 828-1298.

## **REPORT ON THE APRIL 2008 SECTION MEETING**

On April 18, a large crowd at the University of Virginia in Charlottesville heard Dr. Richard N. Day of the University of Virginia speak on "Fluorescent Proteins from Marine Invertebrates—New Tools for Studying Protein Dynamics in Living Cells." Dr. Day was introduced by Yin Jie Chen. The talk was preceded by the 22<sup>nd</sup> annual Poster Session that featured student research at various colleges and universities. There was a record number of posters (45) from sixteen different schools (a complete list of the posters is included in this issue of the Bulletin). Section Chair Trey Gregory recognized outstanding senior chemistry majors from colleges and universities within the Virginia Section (see page six for a list of the students who were honored). Each student received a copy of the *Merck Index*, a certificate from the ACS, and membership in the ACS. The Section thanks Jim Demas and his colleagues at the University for hosting the meeting and for preparing the website that includes photographs from the meeting and abstracts of the posters.

## THE CHAIR'S CORNER

Hello Everyone!

I can't believe summer is almost gone. Where did it go? Well, I am very excited about the rest of 2008. Many activities are shaping up, including our monthly meetings and celebrating National Chemistry Week. I am looking forward to meeting any new members at our next meeting at Virginia Union University, which will highlight our Annual Award for Distinguished Service and our Industrial Leadership Award.

During the summer, ACS National completed a conversion to a new membership database. The conversion to the new database was a multi-year effort that required a thorough review of their systems, processes, and operations. As part of the conversion, the boundaries for all local sections were reviewed and in some cases, realigned as necessary. I want to report that Loudoun County was reassigned from the Virginia Section to the Chemical Society of Washington, and that Amelia County, Fauquier County, and Prince William County have all been assigned to the VA Section. Welcome!

If there are any suggestions or you would like to become involved in any way, please contact me. My contact information is in the Bulletin and on our Local Section website at <http://membership.acs.org/V/VA/>.

Trey Gregory  
2008 Virginia Section Chair



### CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA

September 5 - **Professor Brent Gunnoe**, University of Virginia - "Development of Homogeneous Catalysts for the Conversion of C-H Bonds"

September 12 - **Professor Zeev Rosenzweig**, University of New Orleans and the National Science Foundation - "Quantum Dot-Based Probes for Bioassays"

October 3 - **Dr. William Roush**, Scripps Research Institute     **(IRELAND LECTURE)**

October 10 - **Professor Harold F. Hess**, Howard Hughes Medical Institute - "Novel Optical Imaging Techniques"

October 17 - **Professor Timothy S. Zwier**, Purdue University

November 7 - **Professor Helen E. Blackwell**, University of Wisconsin

November 14 - **Professor Nick Hud**, Georgia Institute of Technology - "Harnessing Nucleic Acid Intercalation, A New Approach to Template-Directed Synthesis and the RNA World"

November 21 - **Professor Robert Crabtree**, Yale University - "Molecular Recognition for High Selectivity in Homogeneous Catalysis"     **(LUTZ LECTURE)**

**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://www.virginia.edu/chem/newsandevents/seminars/>.

## CAN YOU IDENTIFY THIS PERSON?



The photograph is from December 2002 when the subject received the Distinguished Service Award for Middle School Science Teaching from the Virginia Section. A graduate of Virginia Commonwealth University, she began her career at Clover Hill High School where she taught seventh grade life science and eighth grade physical science. In 1979, she moved to Swift Creek Middle School where in 2002 she was teaching physical science.

The "Mystery persons" shown in the April Bulletin were Dr. James Demas of the University of Virginia and Dr. Michael Cann of the University of Scranton. Dr. Cann was the speaker at the April 2003 Section meeting, held at the University of Virginia. He is shown presenting a University of Scranton shirt to Dr. Demas.



## NATIONAL CHEMISTRY WEEK

October 19-25, 2008

Theme: "Having a Ball with Chemistry"

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



There will be a 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 21<sup>st</sup> Anniversary of the National Chemistry Week program.

**The NCW Coordinator for the Virginia Section is Dr. Kristine Smetana, Associate 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](mailto:ksmetana@jtcc.edu).**



## 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/V/VA/>. Dr. Ann Sullivan is the Webmaster. She can be reached at [asullivan @ reynolds.edu](mailto:asullivan@reynolds.edu).

## **THE BULLETIN**

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