



The Bulletin
of the
Virginia Section
AMERICAN CHEMICAL SOCIETY

NOVEMBER MEETING NOTICE

**University of Mary Washington
Fredericksburg, Virginia**

Friday, November 21, 2008

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

DINNER: **6:45 p.m.**
Faculty Dining 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, Virginia Ham with Raisin Sauce, Home-style 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: Members /Guests - \$24.00; Students and High School Teachers - \$12.00;
Retired ACS Members/Spouses and Retired Teachers/Spouses - \$19.00

DINNER RESERVATIONS: Please make reservations by **NOON on Tuesday, November 18** by calling (540) 654-1016 or by e-mail to rgratz @ umw.edu

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

SPEAKER: **Dr. Marvin Lang**
University of Wisconsin - Stevens Point

TOPIC: **“Elements of Leadership: Chemical Demonstrations with a Theme”**

NOVEMBER 2008

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		<i>reservations</i>			<i>meeting</i>	
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Dr. Marvin Lang

C. Marvin Lang, a native of Chicago, Illinois earned B.S. at Elmhurst College (1961), a M.Sc. in Chemistry at the University of Wisconsin - Madison (1964) and a Ph.D. in Physical Chemistry at the University of Wyoming - Laramie (1970). Dr. Lang is currently Professor Emeritus of Chemistry at the University of Wisconsin - Stevens Point. During the academic year 1976-77 he was W. B. King Visiting Professor of Chemistry at Iowa State University. In April 2001 he was named Eugene Katz Letters & Science Distinguished Faculty Member at the University of Wisconsin - Stevens Point and in January 2006 was made Honorary University Associate. Long active in the affairs of the American Chemical Society at the local, regional, and national level, Dr. Lang served as an elected member of its Board of Directors (1989-94). He currently is in his 26th year as Councilor (1972-1988, 1997-2008) representing the membership of the Central Wisconsin Section to the ACS Council. In 1994 he was given the Visiting Scientist Award in Chemical Education by the Western Connecticut Section, ACS. He was named recipient of the 1997 ACS national Helen M. Free Award in Public Outreach for his long-time efforts of interpreting science to the public and was selected recipient of the 2002 Harry & Carol Mosher Award given by the Santa Clara Valley (California) Section for distinguished service to chemistry, education and the ACS. In April 1999 Dr. Lang was elected Corresponding Member of the Finnish Chemical Society - a lifetime honorary membership "for outstanding contributions to chemical education and for success in presenting chemistry to the public." He has also served on the Board of Directors of the Chemical Heritage Foundation in Philadelphia, Pennsylvania (1991-97) and the Advisory Board of the Vesterheim Genealogical Center and Naeseth Library in Madison, Wisconsin. It has been one of Dr. Lang's special interests to present the science of chemistry to the public-at-large. Through chemical demonstrations and science workshops, he has presented the allure of visual reactions to the classroom of colleges, high schools, grade schools, to civic groups and senior citizen centers as well. Dr. Lang's research interests include application of electron spin resonance spectroscopy to the study of macromolecular aspects of fluids, semi-empirical molecular orbital calculations, chemical demonstrations, and chemistry as portrayed on postage stamps. The latter topic has resulted in development of a presentation entitled "CHEMICAL PHILATELY: A Perforated History of Chemistry" which has been given to numerous audiences worldwide.



“Elements of Leadership: Chemical Demonstrations with a Theme ”

When people ask what you do for a living and you answer, "I am a chemist" or "I teach chemistry", often their first response is, "Wow, you must really be smart!" or "Chemistry! Boy, that was my worst subject" or "You must be really weird to teach that stuff!" Why would anyone put up with seemingly negative comments of that nature? What are the essential ingredients to lead a group of students, parents, or simply the public-at-large through a rigorous discussion on a particular chemical topic? What techniques might be used to cause a group of people to reach to a consensus decision on a technical topic? Professor Lang will allude to these topics and punctuate his presentation with a series of chemical demonstrations that are fun to watch but are not merely entertainment. The purpose of such a presentation is to show that a dramatic demonstration makes the observer pay close attention and graphically illustrates an otherwise abstract theory. The observer can more easily remember the theory after he/she has seen it explicitly performed. In this way, Professor Lang will show that a person can learn a lot of science, amid direct application to various styles of leadership, and have fun at the same time. Perhaps in some small way, the "fear factor" associated with chemistry will be diminished. The presentation will be suitable to all age groups. The only requirement for attendance is that you have an inquiring mind and like to have fun!

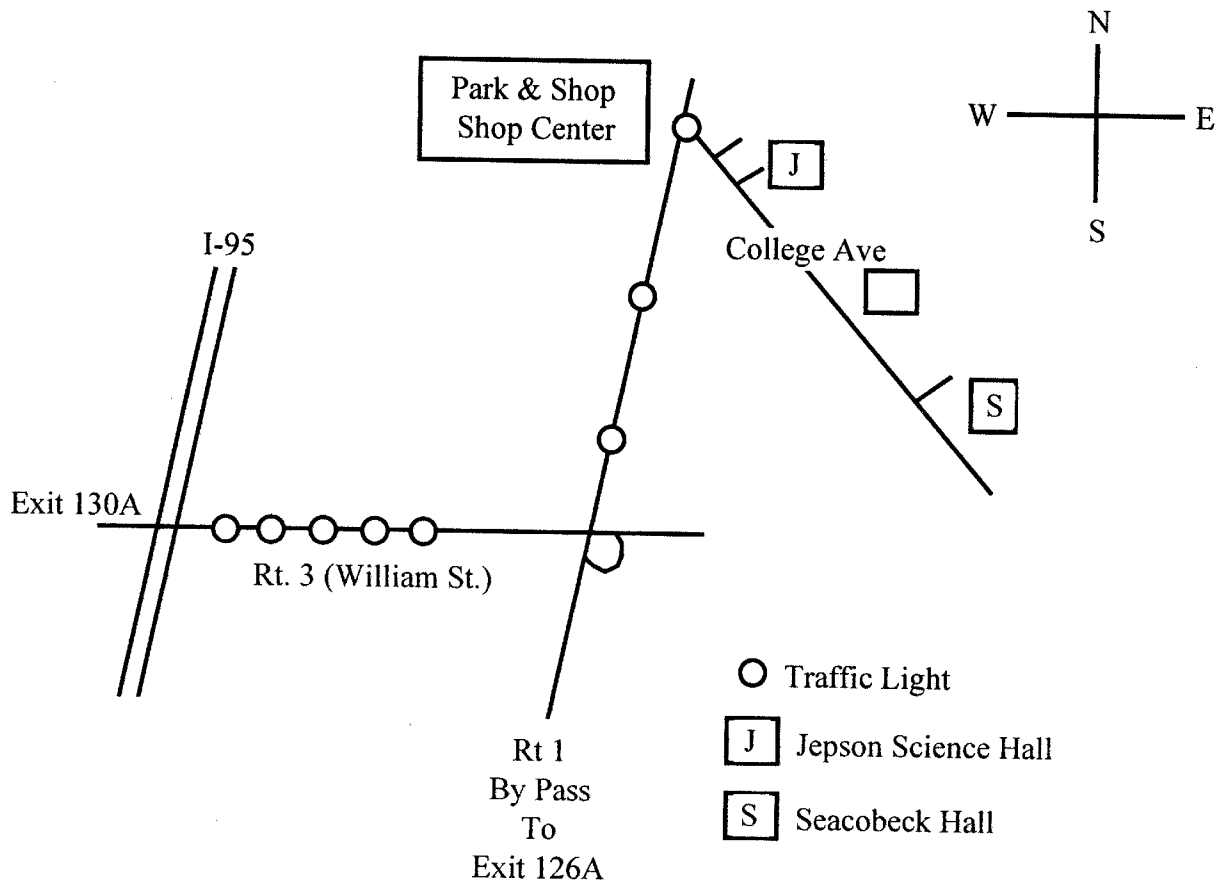
DIRECTIONS

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 Park and Shop 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 north rear door.

From the west, come into Fredericksburg on Rt. 3 (William Street). 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 (3rd traffic light, across from the Park and Shop 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 north rear door.

MAP OF THE UNIVERSITY OF MARY WASHINGTON



*** VIRGINIA SECTION NEWS ***

FUTURE MEETINGS

DATE:	December 5, 2008	DATE:	January 23, 2009
LOCATION:	John Tyler Community College Chester, VA	LOCATION:	Science Museum of Virginia Richmond, VA
HOST:	Dr. Kristine Smetana	HOST:	Dr. Yezdi Pithawalla
PHONE:	(804) 706-5143	PHONE:	(804) 274-4587
E-MAIL:	ksmetana @ jtcc.edu	E-MAIL:	yezdi.b.pithawalla @ altria.com
SPEAKER:	Dr. John Gupton	SPEAKER:	Dr. Jay S. Huebner
TOPIC:	“Undergraduate Research in Organic Synthesis: From Vinylogous Iminium Salts to Marine Natural Products”	TOPIC:	“The Colonization of Space”

Presentation of Teaching Awards

DATE:	February 6, 2009
LOCATION:	University of Richmond Richmond, VA
HOST:	Dr. William Myers
PHONE:	(804) 484-1548
E-MAIL:	wmyers @ richmond.edu
SPEAKER:	Dr. Timothy M. Swager (POWELL LECTURESHIP)
TOPIC:	“Polymer Electronics for Chemical and Biological Sensors”

YOUNGER CHEMISTS COMMITTEE

DESPERATELY SEEKING CHEMISTS AGED 21-40!

Are you a young professional chemist? Looking to socialize and meet other chemists to network? Want to talk with other chemists outside of your job/field? Need advice and strategies from accomplished and successful chemists?

Visit us online at <http://groups.google.com/group/ycc-vaacs>, fill out our survey now through December, and please tell us how we can get the Younger Chemists Committee to suit your needs and off to a great start!

TEACHING AWARDS

The December meeting of the Virginia Section will be held at John Tyler Community College in Chester on **Friday, December 5**. The Section's teacher awards will be made at this meeting. The Distinguished High School Chemistry Teacher Award will be presented to Ms. **Leslie A. Kovach** of the Steward School in Richmond; Ms. **Mary Younger** of Robious Middle School in Chesterfield County will receive the Distinguished Middle School Science Teacher Award. The teacher awards are sponsored by Boehringer Ingelheim Chemicals, Inc.

Science Café

Hosted by the Virginia Section ACS



Organizer: Trish Lauck - Trish.Lauck @ gmail.com; 804-382-0396

Date: Saturday, **November 22**

Time: 12:00 noon

Location: The Tobacco Company, 1201 E. Cary St., Richmond, Virginia

Topic: With hurricanes slamming oil refineries off the Gulf coast, and gas prices creeping higher and higher, the inevitable need for new sources of energy is upon us. This café will discuss novel energy resource research. Within the next few years, we will surely see a rise in people becoming more energy efficient, so why not get the scoop on some alternatives that might be available in the near future. We can also discuss how we have adapted to become more energy conscious now, share tips and tricks, and discuss ideas of other alternatives. This will be an informal session. Light refreshments will be served.

Guest Scientist: We hope to have a scientist who is currently conducting research on novel energy resources to participate in the discussion.

Please let Trish Lauck know that you will be there on November 22 and also provide her with your ideas for this discussion and future Science Café activities - (804) 382-0396; Trish.Lauck @ gmail.com.

CHEMISTRY SEMINARS AT VIRGINIA COMMONWEALTH UNIVERSITY

- November 6 - **Joseph Francisco**, Purdue University, "The Structure and Reactivity of Open Shell Complexes: New Frontier in Atmospheric Chemistry"
- November 13 - **Mark R. Schure**, Rohm & Haas, "Reversed Phase Liquid Chromatography: Retention Mechanism as Revealed by Computer Simulation"
- December 4 - **Ya-Ping Sun**, Clemson University, "Exploration and Applications of Carbon Nanomaterials - from Nanotubes to Carbon Dots"

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.



CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA

- November 7 - **Professor Helen E. Blackwell**, University of Wisconsin, "Translating and Expanding the Language of Bacterial Communication Using Organic Chemistry"
- 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**)

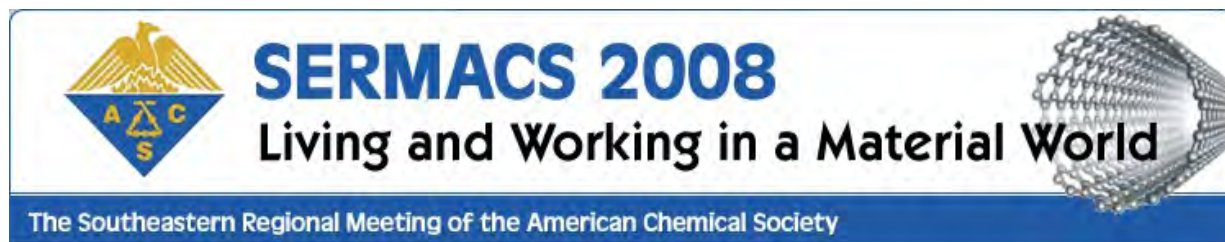
Chemistry colloquia are held at 4:00 p.m. in Room 304 of the Chemistry Building.

The complete colloquium schedule is on-line at
<http://www.virginia.edu/chem/newsandevents/seminars/>.

CHEMICAL ENGINEERING SEMINAR AT THE UNIVERSITY OF VIRGINIA

- November 13 - **Professor Russell Chianelli**, University of Texas at El Paso, "*Maya Pigments: Ancient Technology/Modern Economic Opportunity*"

Seminars are Thursdays at 11:00 AM, Room 005 Chemical Engineering Building
Full schedule at <http://www.che.virginia.edu/seminar.htm>



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. Full information on SERMACS 2008 can be found on the ACS website <http://membership.acs.org/s/serm2008/>.

QUESTIONS FROM THE PAST

This question was asked in the October issue of the Bulletin: When Ralph Allen addressed the Virginia Section on September 19, he became the only person known to give five presentations at Section meetings. **Who are the two persons tied for the runner-up position with four talks each? Dr. Lidia Vallarino** (1974, 1982, 1994, 2002) and **Dr. Jeffrey Seeman** (1980, 1991, 1996, 2007). Dr. Allen's talks were in 1986, 1991, 2002, 2003, and 2008.

New question: At least three Section meetings were planetarium shows. **Where and when were those three meetings held?**

EARTH DAY 2008



"Streaming Chemistry" was the theme for the **Chemists Celebrate Earth Day** event on April 26, 2008 at the Science Museum of Virginia. The Virginia Section cooperated with the Virginia Department of Environmental Quality to present a variety of activities for all age groups. The Gem and Mineral Society provided special exhibits. There were numerous hands-on stations and lots of information available to the many participants. Dr. Kristine Smetana of John Tyler Community College coordinated the event. Thanks to these volunteers who made the program a success:

John Tyler Community College - Kristine Smetana, Courtney White, Kaydee Wilson-Miller, Alan White, Renee Estep, Mitul Patel, Darlena Prince, Methal Amin, Anna Marston, Kim Pruitt, Andy Britt, Joressia Beyer, Honey Babecki, Morgan Babecki, Brandon Davis, Karen Watkins, Christy Gentry, Andy Kriz, Sudan, Meghan Deasey

Department of Environmental Quality - Craig Lott, Arthur Butt, James Baekly, Cat Ruble, David Ruble, Rich Hoffman, Stuart Torbeck, Rayh Mayer, Rick Browder

Virginia Commonwealth University - Jamie Gregory, Nathan Holdorf, Nyen P. Nguyen, Grace Schwartz, Dominique Williams, Krishna Gajjar, Dilhara Dewashinghe, Joeran Lee, Anu Kariakose

Gem and Mineral Society - Virginia Section, ACS - Bob Simon, Lynn Taylor, Andy Dier, Stan Budis, Rudy Bland

Patrick Henry High School - Peggy Whitlock, Joseph Boor, Steven Abel, Amelia Earnest, Claire Glisson

Thomas Dale High School - Katie Amin

Appomatox Regional Governor's School - Valerie Lott

EARTH DAY 2008 HAIKU WINNERS

The Virginia Section conducted an illustrated haiku contest as part of the 2008 **Chemists Celebrate Earth Day**. The contest winners were

K-2 category: Nadia Kabbej, Grade 2 at Mary Munford Elementary School in Richmond
Teacher: Erin Flanagan

3-5 category: Caitlyn Kelly, Mechanicsville

VIRGINIA SECTION WINS NATIONAL AWARD

The Virginia Section has been awarded another ChemLuminary Award from the American Chemical Society. The award, for "Creative and Innovative Use of the Chemists Celebrate Earth Day Theme," was presented to the Section by the ACS Committee on Community Activities. This marks the second consecutive year that the Section has received an award for its CCED activities. Dr. Kristine Smetana, Coordinator of Earth Day activities for the Virginia Section, accepted the award on August 19, 2008 at the 236th national meeting of the American Chemical Society, held at the Pennsylvania Convention Center in Philadelphia. This was the 10th annual presentation of ChemLuminary Awards, which recognize participants in ACS Local Sections and Divisions whose efforts have helped to achieve excellence. The Virginia Section was a finalist for the "Outstanding Performance by a Local Section" award in the medium-large size category (won by the Detroit Section). The Section won in that category in 1991.



**Virginia Section CCED and NCW
Coordinator Kristine Smetana with ACS
National President Bruce E. Bursten at the
Fall Meeting of the ACS in Philadelphia,
August 2008**



Virginia Section members at the ACS National Meeting in Philadelphia -

left-to-right:

Gerald Bass
Kristine Smetana
Ann Sullivan
Helene Haczynski
Stephanie Mabry

CHEMISTRY AT THE UNIVERSITY OF MARY WASHINGTON

The chemistry program at the University of Mary Washington is beginning its eleventh 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. In addition to the standard majors' courses, the program requires of all students a senior-level course on organic structure determination, separations, and spectroscopy, and one seminar presentation. A full year of biochemistry is available as an elective, as are courses in inorganic chemistry and environmental chemistry. 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 H-NMR, C-NMR, FT-IR, GC/MS, ICP, and a scanning probe microscope. There are numerous computers for student use in the labs, classrooms, and the chemistry computer room. 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.



JEPSON SCIENCE CENTER
AT
THE UNIVERSITY OF
MARY WASHINGTON

WCC Networking Lunch – Friday October 3, 2008

The Women Chemists Committee of the Virginia section held a networking lunch on Friday, October 3, 2008. Fifteen members attended from Wyeth, Afton Chemical, University of Richmond, Commonwealth Biotechnologies, J. Sargent Reynolds Community College, John Tyler Community College, and Virginia Union University. Conversation was lively, and attendees shared stories from their careers and challenges that they have faced. One item discussed was the lack of telecommuting and part-time job opportunities in the chemical fields and how this relates to women working in the chemical sciences. WCC events for 2009 were suggested including a career panel at JTCC, holding a seminar with a prominent women chemist as a speaker, having a breakfast networking meeting, and sponsoring a “women in science” event at the Science Museum. Anyone wanting to get involved with planning WCC activities, or be added to the e-mail list, should contact Stephanie Mabry at 804-788-5280 or stephanie.mabry@aftonchemical.com.

SOLAR ENERGY CONFERENCE

The Solar Energy Research Center will hold a meeting on “Securing Our Energy Future: Next Generation Photovoltaics and Solar Fuels” at the University of North Carolina at Chapel Hill on January 15-17, 2009. The keynote lecture will be given by Nate Lewis of Caltech. There will be a variety of scientific and poster sessions. Information can be found on the Center’s website: <http://www.unc.edu/serc>.

AWARDS MEETING - SEPTEMBER 18, 2008

The annual Awards Meeting was held at Virginia Union University in Richmond on September 18. Dr. Jane Y. Lewis, Vice President, Analytical Services and Technical Operations at Altria Client Services, Inc., received the Industrial Leadership Award. This was the first Industrial Leadership Award presented by the Section. Dr. Lewis was introduced by Dr. Kent Koller, Director, Analytical Methods and Applications at Altria Client Services. Mr. Trey Gregory, Chair of the Virginia Section, presented the Distinguished Service Award to Dr. Ralph O. Allen, Professor of Chemistry and Director of Environmental Health and Safety at the University of Virginia. Dr. Allen was introduced by Dr. James Demas, Professor of Chemistry at the University of Virginia, and a Trustee of the Virginia Section. Dr. Allen spoke on the use of DNA analysis in archaeological and criminal investigations. Dr. Kristine Smetana, Professor of Chemistry at John Tyler Community College and Coordinator of the Virginia Section’s Earth Day and National Chemistry Week programs, was presented the ChemLuminary Award that had been announced at the national ACS meeting in August (see article above). Special thanks to Dr. Dorothy Eseonu and her colleagues and students at Virginia Union University for organizing this outstanding meeting.



Dr. Ralph Allen and Dr. Jane Lewis



Dr. Kristine Smetana and Mr. Trey Gregory

POSITIONS AVAILABLE

The U.S. Department of Homeland Security (DHS) is looking to hire several chemists for full and part-time consulting positions to work on a classified DHS project. DHS teams include scientists, technical experts, and knowledge management professionals experienced in the areas of engineering, chemical engineering, chemical facilities' processing practices, toxic industrial chemicals, risk/threat assessment and characterization, chemistry, and industrial health and process safety engineers. Information on available positions at DHS can be obtained from Hank Chase, PE, SVP and Federal Practice Leader, Integrity Consulting, 50 Carroll Creek Way, Suite 260, Frederick, MD 21701; (703) 505-4460; hchase @ integrity.us.com. Or check the Integrity Consulting website: www.integrity.us.com.

NEW CHAIR OF ENTERTAINMENT COMMITTEE

Justin Haley is now serving as Chair of the Entertainment Committee for the Virginia Section. Justin works at Boehringer Ingelheim Chemicals in Petersburg. He can be contacted at (804) 504-8430 or by e-mail at Justin.Haley @ boehringer-ingelheim.com. The Entertainment Committee's main duty is to check in the persons who attend monthly Section meetings and to handle the payments for dinners.

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.

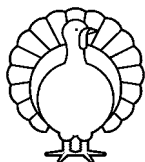
WORDS OF WISDOM FOR NOVEMBER: *"The Main Thing
Is To Keep The Main Thing The Main Thing"*

CAN YOU IDENTIFY THIS GROUP?



The photograph is from 1991. These members of the Virginia Section worked on a special project. What was it? Extra credit for identifying some of the individuals shown.

Dr. James Quagliano was the "mystery person" shown in the October Bulletin. "Dr. Q" taught chemistry for many years and often appeared as Christopher Columbus.



HAPPY THANKSGIVING

THE BULLETIN

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Chair - Mr. Charles (Trey) Gregory (804) 504-8840

Chair-Elect - Mr. Kenneth Chapman (804) 448-4852

Vice Chair - Dr. Yezdi Pithawalla (804) 274-4587

Secretary - Dr. Stephanie Mabry (804) 639-6991

Treasurer - Dr. Brian Moores (804) 227-3149

Bulletin Editor - Dr. James Beck (804) 733-5286

Bulletin Publisher - Dr. Will Lewis (804) 274-5869