



The Bulletin
of the
Virginia Section
AMERICAN CHEMICAL SOCIETY

JANUARY MEETING NOTICE

**JOHN TYLER
COMMUNITY COLLEGE**

Chester, Virginia

Friday, January 21, 2011

RECEPTION: **6:00 p.m.**
Lobby
Nicholas Student Center

DINNER: **6:30 p.m.**
Nicholas Student Center

PROGRAM: **7:30 p.m.**
Nicholas Student Center

MENU: Chicken Parmigiana, Eggplant Parmigiana, Ziti, Tossed Salad, Rolls,
Assorted Desserts, Beverages

PRICE: Members/Guests - \$15.00; Students and High School Teachers - \$8.00;
Retired ACS Members/Spouses, Retired Teachers/ Spouses - \$10.00

**DINNER
RESERVATIONS:** Please make reservations for the dinner by **NOON on Tuesday,**
January 18 by calling (804) 706-5143 or by e-mail to ksmetana@jtcc.edu

HOST: Dr. Kristine Smetana - (804) 706-5143; kmetana@jtcc.edu

SPEAKER: **Dr. Herbert J. Sipe, Jr., Hampden-Sydney College**

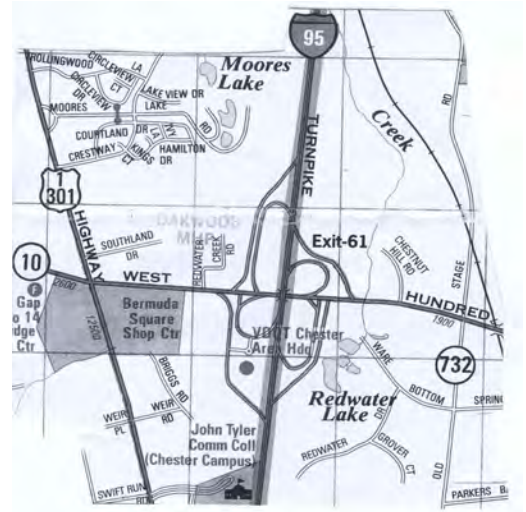
TOPIC: **“Toxic Chemicals and Society”**

JANUARY 2011

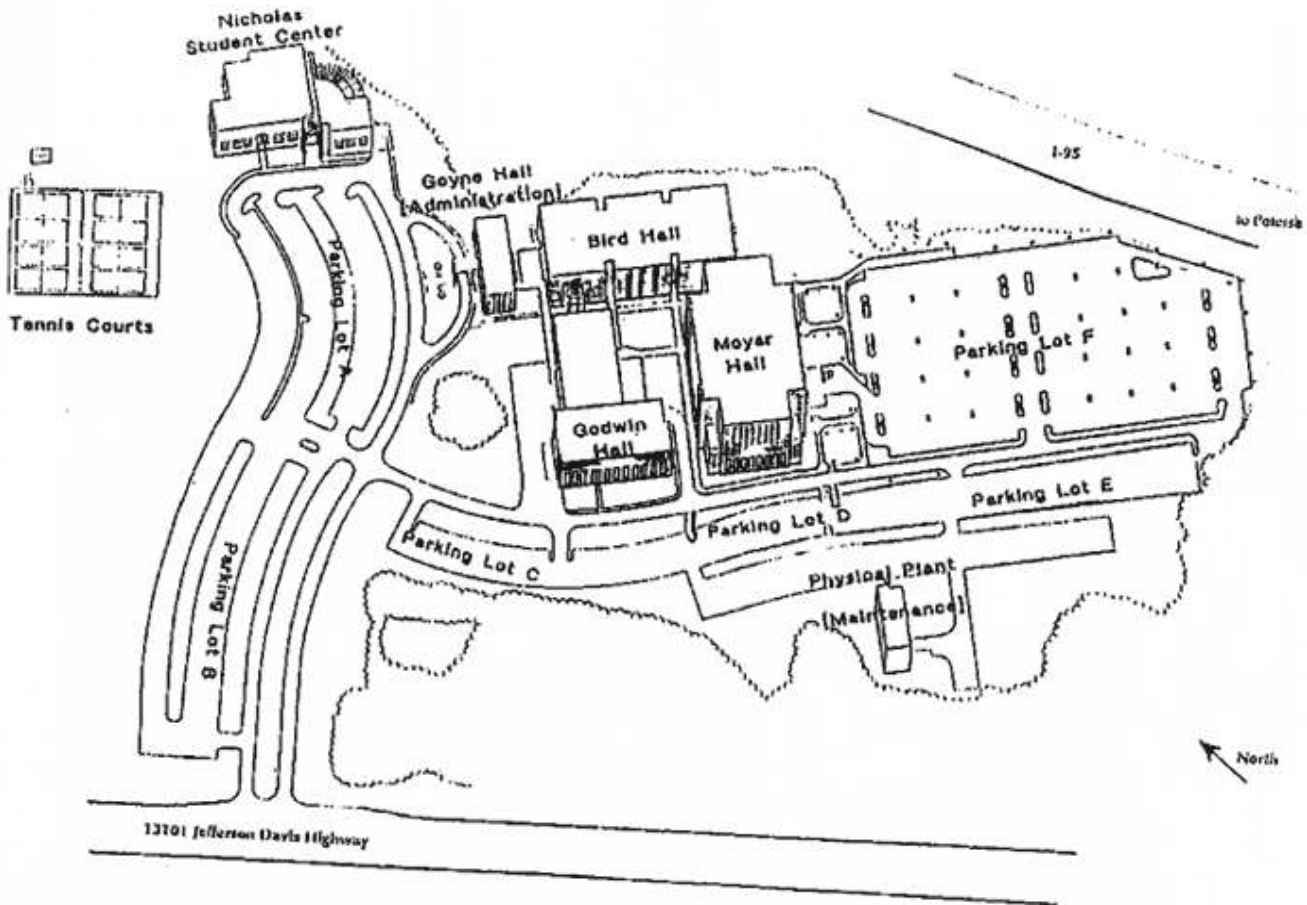
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		<i>reservations</i>			<i>meeting</i>	
23	24	25	26	27	28	29
30	31					

DIRECTIONS

The Chester campus of John Tyler Community College is at **13101 Jefferson Davis Highway**. It is located just off I-95, about ten miles south of Richmond. Take I-95 to the Chester Exit, 61-B. Go west on Route 10 for 0.3 miles to the first traffic light. Turn left on to Route 1-301 (Jefferson Davis Highway). Go 0.5 miles south on Jefferson Davis Highway (through two traffic lights), then turn left into the campus. The entrance to the campus is just past the Walgreens (on left) and Lowe's (on right). The Nicholas Student Center is at the end of John Tyler Drive. There is parking directly across from the Center.



MAP OF JOHN TYLER CAMPUS



*****VIRGINIA SECTION NEWS*******FUTURE MEETINGS**

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

DATE: **March 18, 2011**
LOCATION: University of Richmond
Richmond, VA
HOST: Dr. Lisa Gentile
PHONE: (804) 484-1578
E-MAIL: lgentile@richmond.edu
SPEAKER: **Dr. Harry B. Gray**
TOPIC: "The Solar Army"
(POWELL LECTURESHIP)

DATE: **April 15, 2011**
LOCATION: University of Virginia
Charlottesville, VA
HOST: Dr. James Demas
PHONE: (434) 924-3343
E-MAIL: demas@virginia.edu
SPEAKER: **Dr. William Mattson**
TOPIC: "Creative Problem Solving in Research"
(STUDENT POSTER SESSION)

EXECUTIVE COMMITTEE MEETING

The Executive Committee of the Virginia Section will meet on Saturday, January 22, 2011 at the Science Museum of Virginia in Richmond. Coffee and bagels will be provided at 8:30 am with the meeting starting promptly at 9:00 am. Directions to the Science Museum and the meeting agenda can be found on the Section website: <http://www.virginia.sites.acs.org/>. All members of the section are invited to attend. For questions regarding the agenda and meeting, contact the Chair of the Virginia Section, Stephanie Mabry, at (804)788-5280; stephanie.mabry@aftonchemical.com.

WORDS OF WISDOM FOR JANUARY : "Wisdom
Begins in Wonder"

THE CHAIR'S CORNER

Happy New Year! It looks like 2011 is going to be an exciting and busy year for the Virginia Section, and I am honored to be your chair. The Virginia Section is a great local section. This is due to all the wonderful volunteers who share their time and talents in organizing and administrating the section's many events and programs. Considering that everyone has limited time to divide among work, family, and community activities, the dedication of our volunteers shows a real commitment to the ACS and giving back to the chemical community.



The highlight of 2011 is going to be the Southeast Regional ACS meeting (SERMACS) that we are hosting this October in Richmond. The SERMACS committee chair, Joe Pompano, and the rest of the Steering Committee have been doing a great job planning for this meeting which is expected to draw over 1200 attendees. There still is time to get involved and more work to be done in order to have a first-class regional meeting, so I encourage everyone to check out the committee's website at <http://virginia.sites.acs.org/sermacs2011.htm> and pick an area that interests you.

The best and easiest way to learn about all that is going on in the Virginia Section is to attend one of Executive Committee meetings that are held twice a year. The next Executive Committee meeting will be held at 9 am on Saturday, January 22 at the Science Museum of Virginia in Richmond. This meeting is open to all members of the section, and I encourage anyone wanting to know more about the section's activities, award programs, and budget to attend. Come early to meet other section members over coffee and bagels.

.....Stephanie Mabry, Section Chair

QUESTIONS FROM THE PAST

This question was asked in the December issue of the Bulletin: **In what year did the Virginia Section hold three meetings in the month of April, one in Hopewell, one in Charlottesville, and a joint meeting with the Hampton Roads Section in Williamsburg? Was it 1953, 1960, 1974, or 1982?** The speakers were Dr. Robert M. Reed, Dr. Glenn Edgar Ulliyot, and Dr. James C. Engibous. The meetings were held in **April, 1953**. On April 10, Dr. Robert Reed of the Girdler Corporation spoke at the Union Hall in Hopewell on "Some Aspects of the Chemical Industry in Europe." Dr. Glenn Edgar Ulliyot, Director of the Chemical Laboratories at Smith, Kline, and French Laboratories in Philadelphia, spoke on "Colchicine" at the April 17 meeting. That was held at the Cobb Chemistry Laboratory at the University of Virginia in Charlottesville. On April 25, the joint meeting with the Hampton Roads Section was held in Rogers Hall at the College of William and Mary in Williamsburg. Dr. James Engibous, Soil Scientist with the Monsanto Chemical Company, talked about "Synthetic Soil Conditioning Chemicals." Dinner prices for these meetings: Hopewell (Union Hall) - \$2.10; Charlottesville (Albemarle Hotel) - \$1.75; Williamsburg (Williamsburg Lodge) - \$2.50.

New question: Ms. Judy Fitzpatrick, a fourth grade teacher at Short Pump Elementary School in Henrico County, was recognized at the December 10, 2010 meeting of the Virginia Section. She was the first recipient of the Section's Distinguished Elementary School Science Teacher Award. The Virginia Section has been recognizing outstanding high school chemistry teachers since 1948 (Lawrence W. Jarman was the first recipient of the Distinguished High School Teacher Award). Recognition of middle school science teachers began much later. **When was the first Distinguished Middle School Science Teacher Award presented and who was the recipient?**

VIRGINIA SECTION OFFICERS FOR 2011

CHAIR:	Dr. Stephanie Mabry Afton Chemical Corporation 500 Spring Street Richmond, VA 23219	(804) 639-6991 stephanie.mabry@ aftonchemical.com
CHAIR-ELECT:	Dr. Karen Carter AIBiotech 601 Biotech Drive Richmond, VA 23235	(804) 521-7369 kcarter@aibiotech.com
VICE CHAIR:	Dr. Joseph Crockett Bridgewater College Bridgewater, VA 22812	(540) 828-5431 jrocket@bridgewater.edu
SECRETARY:	Dr. Rob Davidson Afton Chemical Corporation 500 Spring Street Richmond, VA 23219-3430	(804) 788-6327 rob.davidson@aftonchemical.com
TREASURER:	Dr. Bradley K. Norwood Arista Laboratories 1941 Reymet Road Richmond, VA 23237	(804) 271-5572 ext. 307 brad.norwood@aristalabs.com

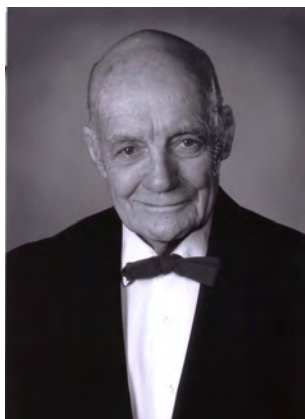
The term for each of the officers listed above is one year. **Dr. Ann Sullivan** was re-elected for another three-year term as a Councilor; **Dr. Janet Asper** was elected to a three-year term as Alternate Councilor; and **Dr. Philip Burks** was re-elected as Trustee for another three-year term. The new officers began their terms on January 1, 2011. Mr. Ken Chapman, Chair of the Nominating Committee for the Virginia Section, would like to thank Trey Gregory for his assistance in handling critical aspects of the electronic balloting for 2011 officers.

BOEHRINGER INGELHEIM SPONSORS TEACHER AWARDS

The Virginia Section's 2010 awards to outstanding teachers were sponsored by Boehringer Ingelheim. The Section gratefully acknowledges their financial support. BI Chemicals has a large production facility in Petersburg and other facilities in both Petersburg and Richmond. Dr. Joseph Pompano, Senior Analytical Chemist at Boehringer Ingelheim Chemicals in Petersburg and Mr. Charles (Trey) Gregory, a Chemist in the Quality Control Division at BI Chemicals, are both Past Chairs of the Virginia Section. Dr. Kai O. Donsbach of Boehringer Ingelheim Chemicals received an Outstanding Innovation Award from the Virginia Section in September, 2007 and the BI Chemicals CAPIC Synthesis Team received the Section's Industrial Innovation Award in 2002. On October 1, 2010, Dr. Manfred Psiorz, President and CEO of Boehringer Ingelheim Chemicals, Inc. in Petersburg, spoke at Virginia Commonwealth University on the development of dabigatran etexilate, a new drug for stroke prevention in patients with atrial fibrillation. Dr. Psiorz's talk was co-sponsored by the Virginia Section and the Chemistry Department at Virginia Commonwealth University.

In Memoriam

John B. Fenn
1917 - 2010



Nobel Laureate John B. Fenn died on December 10, 2010. Dr. Fenn, a research professor in chemistry at Virginia Commonwealth University, shared the Nobel Prize in chemistry in 2002 for his groundbreaking work in mass spectroscopy. He invented a pioneering technique for the detection and characterization of large biological molecules. Electrospray ionization (ESI) is now in use in laboratories around the world, enabling scientists to rapidly analyze complex samples that contain large molecules such as proteins and enzymes.

In September, 2004, the Virginia Section of the American Chemical Society presented Dr. Fenn with the Distinguished Service Award and with an Outstanding Innovation Award. He spoke to the Section on "Electrospray Wings for Molecular Elephants."

Dr. Fenn received a B.A. from Berea College and a Ph.D. from Yale University. He joined the Yale faculty in 1967 as a professor of applied science and chemistry, a post that he held for 13 years. From 1980 until his retirement from Yale in 1987, he was a professor of chemical engineering. He became a research professor at Yale after being named emeritus in 1987 and held that post until 1994 when he joined the faculty at Virginia Commonwealth University as a professor of analytical chemistry.

Professor Fenn was the author of one book and more than 100 papers and was the sole or co-inventor on 19 patents. He served as visiting professor at several universities and presented lectures around the world. In 2003 he was elected to the National Academy of Sciences. His latest research work, conducted at Virginia Commonwealth University, involved measurement of the affinity of various molecules for water and the analysis of particulate matter in the atmosphere. In June, 2007, Virginia Commonwealth University established the John Fenn Chair Professorship in Chemistry to recognize his contributions to scientific research.

Dr. Fred Hawkrige, Professor of Chemistry and Interim Dean of the College of Humanities at Virginia Commonwealth University, had this to say about Dr. Fenn: "John Fenn was always generous with his time, always available to students and colleagues for discussions and a wonderful mentor." Dr. Scott Gronert, Chair of the VCU Department of Chemistry noted that Dr. Fenn was beloved by the department's faculty and staff and continued to work, even in his 90s, nearly every day. Dr. Gronert said that "his never-ending enthusiasm for science, his giving spirit, and his willingness to argue resolutely for doing the right thing will be greatly missed."

NEW ADDRESS FOR DR. JERRY BASS

Dr. R. Gerald Bass, Councilor for the Virginia Section, and his wife Sue have moved to Lynchburg. Their new address is

Jerry & Sue Bass
204 Bishops Lane
Lynchburg, VA 24503
(434) 386-3326
robertg.bass@gmail.com

STUDENT AFFILIATE CHAPTERS

There are eleven student affiliate chapters at colleges and universities in the Virginia Section. They are located at Bridgewater College, the College of William & Mary, James Madison University, Longwood University, Randolph-Macon College, the University of Mary Washington, the University of Richmond, the University of Virginia, Virginia Commonwealth University, Virginia State University, and Virginia Union University. The largest chapter is at James Madison University (JMU), where there are 37 student members of the ACS. Dr. Victoria Mariani and Dr. Kathryn Layman are the chapter advisors at JMU. The second largest active group is at Virginia Commonwealth University (VCU) with 13 members. Dr. Sarah Rutan and Dr. Sally Hunnicutt are the faculty advisors at VCU.

ELECTRONIC DELIVERY OF BULLETIN

The Bulletin is available online at the Virginia Section website: <http://www.virginia.sites.acs.org/>. Section members for whom we have a correct e-mail address will receive e-mail notification when the current issue is available for viewing. Be sure that your e-mail address is up-to-date and that any spam filter on your system will not block e-mail from beckjd1977@comcast.net. If you prefer to receive paper copies, please return the form below or send your current address by e-mail to beckjd1977@comcast.net.

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Send this form to James Beck, 1977 Vesonder Road, Petersburg, VA 23805-2933

REPORT ON THE DECEMBER 2010 SECTION MEETING

The Virginia Section met on Friday, December 10, 2010 at J. Sargeant Reynolds Community College in Richmond. Dr. Ann Sullivan was the host for the meeting which was attended by about 55 persons. Dr. Yezdi Pithawalla, 2010 Section Chair, presided. He began the meeting by announcing the death earlier that day of Dr. John Fenn, Nobel Laureate and recipient of the Distinguished Service Award from the Virginia Section. A moment of silence was observed in honor of Dr. Fenn.

The highlight of the evening was the presentation of awards to three outstanding teachers. Dr. Pithawalla presented the Section's Distinguished Elementary School Science Teacher Award to Ms.

Judy Fitzpatrick, a fourth grade teacher at Short Pump Elementary School in Henrico County. Ms. Fitzpatrick was introduced by Ms. Kimberly Powell, the Science Coordinator for Henrico County Schools. This was the first time that the Virginia Section has presented an award to an elementary school teacher. Ms. Elizabeth "Liza" Coffman of Muhlenberg Middle School in Shenandoah County received the Distinguished Middle School Science Teacher Award. She was introduced by Ms. Gina Stetter, Principal of Muhlenberg Middle School. Ms. Coffman's mother attended the meeting. Dr. Pithawalla presented the Distinguished High School Chemistry Teacher Award to Mr. Michael Farabaugh who teaches at Monticello High School in Albemarle County. Mr. Henry Atkins, Associate Principal at Monticello High School, introduced the award winner. Mr. Farabaugh was accompanied by his wife Karen and three of their four daughters—Emily, Colleen, and Kristin. Each of the award winners received a plaque and a check for \$300. The teacher awards are sponsored by Boehringer Ingelheim Chemicals.

Dr. Pithawalla recognized Dr. William Rademaker for his many years of service as chair of the teacher awards committee. He presented Dr. Rademaker with a certificate of appreciation. Dr. Ann Sullivan, coordinator of the Chemistry Olympiad in the Virginia Section, recognized teachers from schools that earned team awards in the 2010 Olympiad. Ms. Lucy Duah-Williams of the Governor's School of Southside Virginia was present and received a plaque to recognize her school's achievements on the first-year examination in the small school category. Ms. Williams introduced two of her students and asked them to share in receiving the award.

Dr. Gerd Kobal, Vice President of Sensory and Analytical Sciences at Altria Client Services, was introduced by Dr. Pithawalla. Dr. Kobal gave an interesting talk on the applications of sensomics, the science of flavor relevant chemicals. Dr. Sullivan then presented poinsettias to Dr. Kobal and the award winners. Additional poinsettias and gifts were given as door prizes. Thanks to Dr. Ann Sullivan and her students and colleagues at J. Sargeant Reynolds Community for organizing this very successful meeting. Special thanks to Ann's mother for baking the delicious cookies and for helping with both the set up and the clean up!



Section Chair Yezdi Pithawalla presents Jefferson cup to Dr. Kobal



Lucy Duah-Williams (center) with students and friends from the Southside Virginia Governor's School



John Tyler Community College is a two-year, public institution of higher education and is the fifth largest of the 23 community colleges in Virginia. With campuses in Chester and Midlothian and off-campus classrooms throughout the area, John Tyler offers quality and economical opportunities for students who want to earn a degree or certificate, transfer to a four-year college or university, train for the workforce, or switch careers. The College, which served more than 13,690 students during the 2009 – 10 academic year, offers 17 associate degrees, seven certificates and 35 career studies certificates. The institution also serves 20,000 non-credit students and more than 1,000 companies and government agencies annually through the Community College Workforce Alliance. John Tyler Community College is accredited by the Commission on Colleges of the Southern Association of Colleges and Schools.

The department of chemistry presently has five full-time chemistry faculty; two at the Chester campus and three at the Midlothian campus, and an average of six part-time faculty each semester shared between the campuses. Faculty teach both the lecture and laboratory components of their classes. Courses offered include a college chemistry course predominantly for the science/ engineering major, a general chemistry course for nursing and allied health majors, and a funeral services/veterinary technology chemistry course. The department has grown over the last seven years to meet the demands of John Tyler's Nursing Program and the growing number of students who participate in the transfer agreement that the VCCS has with participating four-year colleges.

The Chemistry Club at John Tyler Community College has been a very active organization for the last five years. The club, consisting of 40 members, has hosted National Chemistry Week at the college to promote chemistry and science awareness, a kid's chemistry event, speakers, and social events revolving around scientific movies. In October, chemistry club students participated in the ACS National Chemistry Week at the Science Museum of Virginia as well as have helped run the Chemists Celebrate Earth Day events for the last four years at the science museum and at John Tyler's Midlothian Campus for Fool for Art in April.

COPIES OF VIRGINIA SECTION HISTORY

A limited number of copies of the publication *The Virginia Section of the American Chemical Society: The First Seventy-Five Years* are available. This account of the history of the Virginia Section begins in 1907 with the establishment of the Virginia Chemists Club, the precursor of the Virginia Section of the ACS, and ends in 1990. It was compiled by Dr. W. Allan Powell and published in 1996. If you would like to have a copy, contact James Beck at (804) 733-5286; beckjd1977@comcast.net; 1977 Vesonder Road, Petersburg, VA 23805.

INTERNATIONAL YEAR OF CHEMISTRY

The year 2011 has been designated as the **International Year of Chemistry**. This will be a year-long worldwide celebration of chemistry. The ACS is encouraging local sections and individual members to participate in outreach activities that will communicate positive messages about chemistry and science. In addition to the usual events of National Chemistry Week and Chemists Celebrate Earth Day, there will be new volunteer activities, including National Lab Day and the USA Science & Engineering Festival. The International Year of Chemistry 2011 will kick off with an opening event in Paris on January 27-28, 2011. For more information on IYC2011, check these websites: chemistry2011.org; acs.org/iyc2011.

CAN YOU IDENTIFY THIS PERSON?



The photograph is from 2001 when the subject was the W. Allan Powell Lectureship speaker at the University of Richmond. He is shown with the Jefferson Cup that he received from Mrs. Phyllis James, Chair of the Virginia Section. He received his undergraduate degree from Virginia Tech and a Ph.D. from Cornell University. He taught at Iowa State University where he did pioneering work in organic photochemistry, then spent many years at UCLA where he did significant work in organic synthesis, materials chemistry, and matrix isolation spectroscopy. He received the Pure Chemistry Award and the Arthur C. Cope Medal from the ACS and was elected to the National Academy of Sciences in 1974. He passed away in 2004 at the age of 72.

The person in the December 2010 Bulletin was Dr. Helen M. Free who recently received the National Medal of Technology and Innovation. You can learn more about Dr. Free at this website: <http://www.layingthegroundwork.com/inventors/>. The site features very personal interviews with and about several women in the National Inventors Hall of Fame. It was developed by Dr. Jeffrey I. Seeman as a project for the HIST Division of the ACS.



CHEMISTRY SEMINARS AT THE UNIVERSITY OF VIRGINIA

January 28 - **Professor Gil Nathanson**, University of Wisconsin, "How Does HCl Dissolve in Protic Liquids? A Molecular Beam Journey into Salty Water and Glycerol"

February 4 - **Professor Sungsool Wi**, Virginia Tech

February 18 - **Professor David Schwartz**, University of Wisconsin, "A Singular View of the Genome"

March 4 - **Professor David Chiffel**, Vanderbilt University

March 18 - **Professor Joe Lakowicz**, University of Maryland, "Principles and Applications of Fluorescence with Plasmonic Nanostructures"

March 25 - **Professor David Nesbitt**, University of Colorado, "From Hydrocarbon Combustion Radicals to Gas-Liquid Interfacial Collision Dynamics: Insights from Quantum State-Resolved Studies"

April 1 - **Dr. Cherie V. Miller**, U. S. Geological Survey, "Monitoring and Modeling Techniques to Evaluate Chemistry in Streams with Focus on Continuous Water Quality that Provide Insights into Urban Stream Processes on Short Temporal Scales" **(JEFFERSON 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://chem.virginia.edu/events-seminars/>.

THE BULLETIN

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Chair Elect - Dr. Karen Carter (804) 521-7369
Vice Chair - Dr. Joseph Crockett (540) 828-5431
Secretary - Dr. Rob Davidson (804) 788-6327
Treasurer - Dr. Bradley Norwood (804) 271-5572 ext. 307
Bulletin Editor - Dr. James Beck (804) 733-5286
Bulletin Publisher - Dr. Will Lewis (804) 274-5869