



The Bulletin
of the
Virginia Section
AMERICAN CHEMICAL SOCIETY

DECEMBER MEETING NOTICE

DEC 2007

JOHN TYLER COMMUNITY COLLEGE
Chester, Virginia

Friday, December 7, 2007

SOCIAL HOUR: **6:00 p.m.**
Lobby
Nicholas Student Center

DINNER: **6:30 p.m.**
Room 102 -B, Nicholas
Student Center

PROGRAM: **7:30 p.m.**, Room 102-A, Nicholas Student Center

MENU: Tossed Salad, Chicken Marsala, Pasta, Bread, Assorted Desserts and Beverages

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

DINNER RESERVATIONS: Please make reservations for the dinner by **NOON on Tuesday December 4** by calling JTCC at (804) 706-5086 or via e-mail to ksmetana @ jtcc.edu

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

SPEAKER: **Dr. Marilyn T. Miller**, Department of Forensic Science, Virginia Commonwealth University

TOPIC: **“CSI and Forensic Science: Real vs Reel”**

TEACHER AWARDS: **HIGH SCHOOL CHEMISTRY - Ms. Liza Schmieder**
MIDDLE SCHOOL SCIENCE - Ms. Dianne Nolan

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Dr. Marilyn T. Miller

Marilyn Miller is a graduate of Florida Southern College with a bachelor's degree in chemistry. She earned a master's degree in forensic chemistry from the University of Pittsburgh and a Doctorate in Education from Johnson & Wales University in post-secondary educational leadership. She is currently an Associate Professor in the Department of Forensic Science at Virginia Commonwealth University. As a post-secondary educator, she teaches a wide variety of forensic science and crime scene investigation classes to both forensic science and criminal justice majors at the undergraduate and graduate levels.



Dr. Miller is a member of the criminalistics section of the American Academy of Forensic Science, the Southern Association of Forensic Scientists, and the American Chemical Society. Miller is a Fellow and faculty member of the Henry Lee Institute of Forensic Science and the National Crime Scene Training Center. She has presented and taught as part of hundreds of forensic seminars across the United States and Internationally.

Before coming to VCU, she worked as a supervisor and forensic scientist for law enforcement agencies in North Carolina, Pennsylvania, and Florida. She has testified over 400 times in county, state and federal courts of law as an expert witness in the field of forensic sciences and crime scene reconstruction. She has participated in hundreds of crime scene investigations, both as an active investigator and as a consultant for both state and defense attorneys. Miller designed, opened and operated forensic laboratories on the West Coast of Florida.

“CSI and Forensic Science: Real vs Reel”

This talk will debunk the "reel" misconception as shown in popular television and movies that forensic science and crime scene investigations are the same thing. The "real" forensic science and crime scene investigation will be discussed. Various types of physical evidence found in criminal investigation and the scientific analysis that is really performed in forensic laboratories will be shown.

HAPPY HOLIDAYS

DISTINGUISHED HIGH SCHOOL CHEMISTRY TEACHER AWARD***Ms. Liza Schmieder***

Liza Schmieder moved to Virginia in 1988 and graduated from Virginia State University in 1993 with a Bachelor of Science in Chemistry. After taking additional courses, she obtained teacher certification in 1995. From 1997 to 2000, Liza worked at the Philip Morris Flavor Center as an Analytical Laboratory Technician. In August 2000, she began teaching chemistry at Prince George High School and now enjoys being co-chair of the Academic Challenge and Envirothon Teams. She is also enjoying the challenge of rejuvenating an Advanced Placement Chemistry class in addition to her honors and regular chemistry classes.

In her personal life, she has been supported by her husband and two children. Her older son joined the Marines and the younger is a senior at Prince George High School. Liza is also very active in her church, teaching Sunday school class, organizing Vacation Bible School, and creating/designing props for events.

DISTINGUISHED MIDDLE SCHOOL SCIENCE TEACHER AWARD***Ms. Dianne Nolan***

Dianne was born and raised in Freeport, Long Island. She went to college at Lock Haven University in Pennsylvania, receiving her B.S. in Elementary Education in 1988. In 1990, she moved to Virginia, teaching 4th and 5th graders in Prince William County until 2005. She is currently teaching Physical Science at Ni River Middle School in Spotsylvania County. From the beginning, she has been passionate about teaching science—particularly the Physical Sciences.



While at Mountain View Elementary School, she set up an Ecology Club, and through it organized an energy management program, saving the school over \$12,000 in 1998 alone. In 1999, she led a group of 32 students on a dig for dinosaur remains in Wyoming, through a program called Earth Explore. In 2001, she was nominated for the Presidential Academic Excellence Award in Math and Science Teaching. This year, she is working toward National Board Certification as a Science teacher.

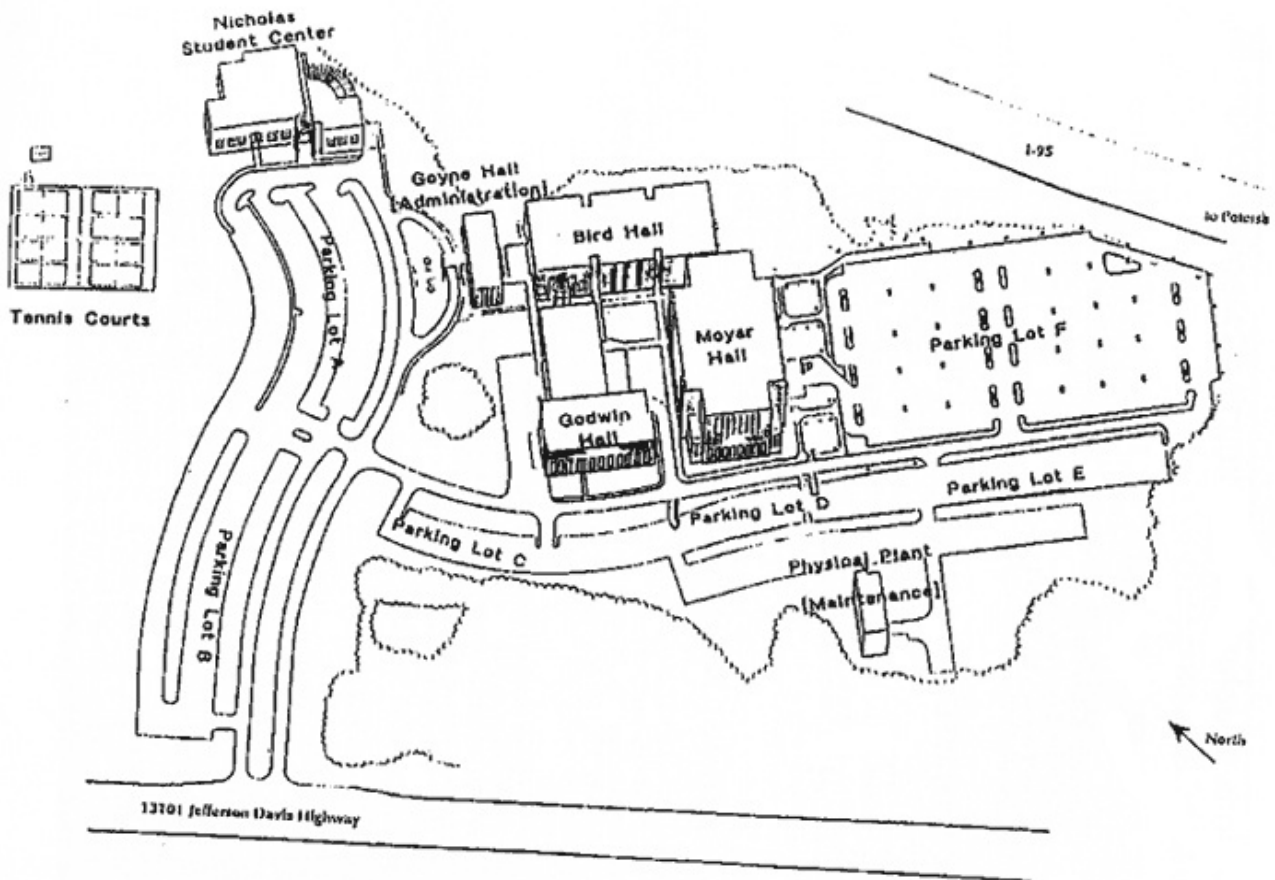
Dianne loves playing softball and volleyball and bowling. She has recently expanded the vegetable and herb garden at her home and spends many hours relaxing that way. She also loves to camp and to travel. She is engaged to be married (to a fellow teacher) next summer. Her 21 year old son, Bill, is currently a merchandiser for a major retail company in Florida.

DIRECTIONS

The Chester campus of John Tyler Community College is at 13101 Jefferson Davis Highway. 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 former Chester Cinema (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



FUTURE MEETINGS

*** VIRGINIA SECTION NEWS ***

DATE: **January 18, 2008**
LOCATION: Science Museum of Virginia
Richmond, Virginia
HOST: Mr. Ken Chapman
PHONE: (804) 504-8840
E-MAIL: kmc97 @ aol.com
SPEAKER: **Mr. James Kessler**
TOPIC: "Local Sections and K-8 Science
Education – A Team Effort"

DATE: **February 8, 2008**
LOCATION: University of Richmond
Richmond, Virginia
HOST: Dr. Carol Parish
PHONE: (804) 484-1548
E-MAIL: cparish @ richmond.edu
SPEAKER: **Dr. Roald Hoffmann**
(**POWELL LECTURESHIP**)

EXECUTIVE COMMITTEE MEETING

The Executive Committee of the Virginia Section will meet at 9:00 a.m. on Saturday, January 19, 2008. The meeting will be held in Room 172 of the Downtown Campus of J. Sargeant Reynolds Community College in Richmond. Additional information can be obtained from the incoming Section Chair, Mr. Trey Gregory, (804) 504-8840. Members of the Section are invited to attend the meeting. Details will be included in the January issue of the Bulletin and on the Virginia Section Website: <http://membership.acs.org/V/VA/>.

THE CHAIR'S CORNER



Students are counting the days until exams and contemplating what to do over their semester break. Professors are feverishly trying to prepare those exams, being sure to cover all the essential course material. Project updates and year-end reports will soon be due. Does initiation of the project save money and/ or improve process efficiency? Our members are busier than ever volunteering and participating in community events. The Holidays are coming and there is so much to accomplish.

In spite of all that's happening, we find the time to help each other. Several activities have taken place recently and are worthy of mention. The Younger Chemist Committee (YCC), Dr. Janet Asper—chair, held its first event in October. This event provided an opportunity for networking; discussing careers, and having some fun. Later in October, National Chemistry Week (NCW) events were held at the Science Museum of Virginia and at John Tyler Community College. Dr. Kristine Smetana, NCW Committee chair and event coordinator, pulled together volunteers from local high schools, colleges, universities, and section members to assist in the events. It was a great collaborative effort that I know we will continue to develop for years to come. The Education Committee, Dr. Ryan Warren—chair, recently awarded a grant to Meadowbrook High School in

Chesterfield County and another to Central High School in Shenandoah County to allow their respective chemistry teachers to purchase laboratory materials and equipment in support of school science projects. An article authored by Dr. David Anderson—chair of Government Relations, appeared on the editorial page of the *Richmond Times Dispatch*. Through Dr. Anderson's efforts, the Section is partnering with the Virginia Department of Education to promote the recruitment of scientists into the Virginia Science Resource Network (VSRN). VSRN is a web-based network linking K-12 science teachers with scientists for mentorship.

I was pleased to see so many high school students in attendance at our September (VCU) and October (Randolph-Macon) meetings. I say thank you to those chemistry and science teachers who are taking the lead in providing additional educational opportunities for their students.

At our December meeting, the Virginia Section will present the Distinguished Middle School Science Teaching Award and the Distinguished High School Chemistry Teaching Award. Dr. Bill Rademaker led this initiative and we look forward to meeting the award recipients.

If you are not receiving a copy of The Bulletin and wish to do so, let me know. My contact information can be found at our website—<http://membership.acs.org/VVA/> along with more details on coming Section events.

Enjoy the Holiday Season !

...Will H. Lewis, Jr., Ph.D.

CHEMICAL ENGINEERING SEMINAR AT THE UNIVERSITY OF VIRGINIA

November 29 - Robert L. Hirsch, Senior Energy Policy Advisor, SAIC, "The Peaking of World Oil Production and Its Mitigation"

Seminars are held at 11:00 a.m. in Room 005 of the Chemical Engineering Building.
Call (434) 924-7778 for more information.

CHEMISTRY SEMINAR AT VIRGINIA COMMONWEALTH UNIVERSITY

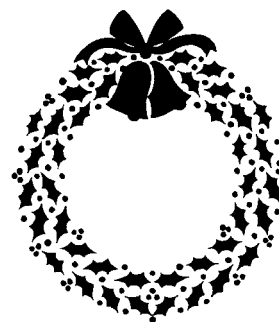
Thursday, Nov. 29 - Dr. Adrian Parsegian, NIH, "Van der Waals Forces"

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. Call (804) 828-1298 for more information.

Season's Greetings

OLYMPIAD TEAM WINNERS TO BE RECOGNIZED

The Virginia Section awards a number of prizes to students and schools that participate in the Chemistry Olympiad. School awards are given in three categories. Within each category, the school with the highest total of the top three student scores receives a plaque and a certificate of achievement. These team awards will be presented at the Section meeting on December 7. Here are the team award winners for this year's competition:



	First-Year Examination	
Category	School	Teachers
Small School	The Steward School	Leslie Kovach
Governor's School	Maggie Walker Governor's School	Anna Shore, Jeremy Clark, Joy Ross
Large School	Matoaca High School	Martha Malone, Matthew Lesniak, Pam Edwards, Sharon Entwistle
	Second-Year Examination	
Small School	St. Stephen's & St Agnes' School	Amanda Beckrich, Sam Chan, Sarah Oakes, Ted Malliaris
Governor's School	Maggie Walker Governor's School	Anna Shore, Jeremy Clark, Joy Ross
Large School	Albemarle High School	Erika Leer, Marvin T. Curry

REPORT ON THE OCTOBER SECTION MEETING

On October 26, an audience of about 50 persons heard Dr. Stanley Manahan of the University of Missouri discuss "The Greening of Environmental Chemistry." The meeting was held at Randolph-Macon College in Ashland. Dr. Manahan was introduced by Dr. John Thoburn, who served as host for the meeting. Dr. Will Lewis, Section Chair, welcomed Ms. Michele Wyckoff, chemistry teacher at the Commonwealth Governor's School, and a large group of her students who attended the meeting. After his talk, Dr. Manahan distributed free copies of a CD-ROM that contains text and PowerPoint slides from three of his books: Green Chemistry and the 10 Commandments of Sustainability, Environmental Science and Technology, and Green Science and Technology: The Path to a Sustainable Future. Dr. Manahan can be contacted at manahans @ missouri.edu. Thanks to John Thoburn and Randolph-Macon College for hosting this meeting.

WORDS OF WISDOM FOR DECEMBER: " *If We Do Not Change Direction, We Are Likely To End Up Where We Are Headed*"

THE COMMONWEALTH GOVERNOR'S SCHOOL



The Commonwealth Governor's School opened in 1998 and is the first real-time, interactive long-distance learning governor's school in Virginia. Its motto is "Pioneers for the Future." There are five CGS sites enrolling nearly 500 students in grades 9-12. Students from King George, Spotsylvania, and Stafford Counties are offered a rigorous governor's school curriculum in four core academic subjects. Michele H. Wyckoff is a science teacher at the Riverbend High School site. She has over 20 years of experience teaching science in Tennessee and Virginia.

QUESTIONS FROM THE PAST

This question was asked in the November issue of the Bulletin: The photo below of fifteen past-chairs of the Virginia Section appeared on the cover of an issue of the Bulletin. **What year was that—1950, 1960, 1970, or 1980?** Bonus points if you can identify some of the persons shown.



The photograph was probably taken in 1959 and appeared on the cover of the January, 1960 issue of the Bulletin. Chairs shown include Lynn Abbott, Alfred Armstrong, Sidney Negus, Bill Trout, and W. Stanton Pierce.

New Question: One of the best attended meetings of the Virginia Section was held on June 6, 1958 when 221 persons were present for the annual Awards Meeting. Mrs. Brent Remsberg received the Distinguished Service Award for Outstanding Contributions in Science Education. The Distinguished Service Award for Outstanding Contributions in the Advancement of the Chemical Profession was presented to a native of Newfoundland who had served as Chairman of the Virginia Section and as President of the Virginia Academy of Science. At the time he received the Award, he was Chair of the Department of Chemistry at the College of William and Mary. **Who was the recipient of the 1958 Distinguished Service Award?**

NEW MEMBERS OF THE VIRGINIA SECTION

We welcome these new members of the Virginia Section:

JAMES E ASHLEY
CYNTHIA BARBER
THOMAS H BRUMFIELD
WILLIAM CASE
WILLIAM L CRUM
KELLING DONALD

DAVID SLOAN AYERS
PAMELA SCHULTZ BIRAK
TARA BRUNYANSKY
HELEN CHUI
RENEE M DALRYMPLE
KRISTEN R DONNELLY

ZHIYI BAO
RADOSLAV BOZOV
SEDA CAKIR
DAVID J COOPER
ASHLEY DEMANDER
ANN M ENGLISH

MEGAN A FIKSE
JIANZHONG FU
SHELLEY R GRAHAM
HELENE L HACZYNSKI
SARAH M HUFFER
JAMES T JARVIS
MICHAEL LAIRD KING
TRACEY P LEE
IAN MACPHERSON
GEORGE MILNE
YAW OBENG BOAMPONG
RANDOLPH B PERFETTI
DANIEL JONATHAN QUIRAM
TRESY ROSS
BRIAN R SLAWSKI
NYESHU M STREET
MALCOLM L TAYLOR
KAMIL WALCZAK
GREG YVARS

BARBARA OPPEN FRANCIS
RICHARD G W GINGERICH
CHRISTOPHER GREEN
ANWAR HAMAMA
MEGAN L HUFFMAN
GARY L JUSKOWIAK
ASAKO KUBOTA
WEILING LI
JENNIFER M MCKAY
DONNA MONTAGUE
VAHUR OJA
NOVELLE C PRIDE
DAVID L REICHERT
TED V SHANER
FRANCINE ST DENIS
KIRSTEN E STUDER
AARON T TRIMBLE
RAILEY WHITE
GUOQING ZHANG

CASSANDRA FRASER
MONICA L GLASS
SAPNA GUPTA
CHRIS W HOLMAN
STEPHEN L HUSSEY
ELIZABETH H KEYMONT
GEORGE M LAIDLAW
RUSSELL CRAIG LOTT
JOSEPH MCMINN
MINH A NGUYEN
STEVEN W PAUGH
ALBERTO PROTZEL
ROXANNE E RODES
CHRISTOPHER M SHUFORD
STERLING M STOKES
HONGZHI TANG
SEAN VAIL
ENLI XIE
TIANMING ZUO



John Tyler Community College is a public two-year institution of higher education that has been serving the community since 1967. The College offers a variety of programs and services to primarily the residents of the cities of Colonial Heights, Hopewell, and Petersburg, and the counties of Amelia, Charles City, Chesterfield, Dinwiddie, Prince George, Surry, and Sussex. JTCC is the sixth largest of the 23 community colleges in Virginia. It has two main campuses, in Chester, and Midlothian, and offers classes at locations throughout the area. The colleges serves more than 9,500 for-credit students each year and offers 13 associate degrees, 8 certificates, and 31 career studies certificates. In addition, the institution serves 14,000 non-credit students and 500 companies and government agencies annually through the Community College Workforce Alliance. The Chester Campus opened in 1967 and is located at 13101 Jefferson Davis Highway; the Midlothian Campus opened in 2000 and is at 800 Charter Colony Parkway. The College has 73 full-time teaching faculty, 23 administrative faculty, and about 250 adjunct instructors. Dr. Marshall W. Smith is President.

The department of chemistry presently has three full-time chemistry faculty; one at the Chester campus and two at the Midlothian campus, and an average of four 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 three years. The club, consisting of 63 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.

NATIONAL CHEMISTRY WEEK 2007

Over 900 children were able to experience many different types of chemistry over a three day period that celebrated National Chemistry Week in the Virginia Section! From polymer chemistry to chemical engineering to cosmetic chemistry to natural products chemistry to forensic chemistry to biosensor chemistry to being a dye chemist to even learning about geochemists! Children were able to do hands-on activities and learn that chemistry is all around us. Nearly 80 volunteers made this project happen at the Science Museum of Virginia. Thanks to all the persons who helped out and especially to Dr. Kristine Smetana who coordinated this tremendous undertaking.



Volunteers for the National Chemistry Week Event at the Science Museum of Virginia, October 18th - October 20th:

John Tyler Community College: Dr. Kristine Smetana, Professor Shannon Smith, Professor Joressia Beyer, Professor Sandra Ryan (adjunct faculty), Professor Jessica White, Dr. Will Lewis (Phillip Morris, adjunct faculty), James O'Brien, Sudan Abdur-Rahman, Brandon Davis, Carolyn Carico, Lisa Cummings, Claudette DeFelippis, Aaron Stutz, Beth Nudleman, Tiffany Kirk, Indira Boodram, Methal Amin, Russ Boesma, Kim Pruitt, Lesley Kracke, Katina Gentile, Lauren Alleyne, Nicole Stull, Trina Williams, Cheryl Gordon, Carey Kelly, Michael Head, Lisa Cullen-Corbet, Tammy Dembrey, Michael Vinsh, Kathy Vinsh, David Amadee, Allen White, Andrew Kriz, Corey Samual, Michelle Cambell, Lindsey Eszelle

J. Sargent Reynolds Community College: Dr. Ann Sullivan, Peter Quach, Elizabeth Bentley, Candice Rowe, Felita Smith, Michelle Darnell, Karen Harris, Hoa Huynh, Catherine Johnson, Desiraye Reyes, Tyler Patsch, Jessica Walton, Elly Corrie, Rachel Stephens, Mark Vicks, Aaron Williams, Ankit Patel, Donna Hughes, Rachel Zauhar, Jae Jin Choe, Michael Hanes, Rachel Guyton

Longwood University: Dr. Melissa Rhoten, Kathryn Womack, Scott Jenkins, Stephen Adams, Lyndsay Betts, Randi Alto

Virginia Commonwealth University: Dominique Williams, Methal Amin, Heather Davis, Linh Tran, Joeran Lee, Tiffany Jones, Melissa Huie, Seth Hunter, Lester Brown

Virginia Union University: Dr. Dorothy Eseonu, Rhonda Dawson, Lorenza Black, Aaron Sease, Alexina Haynes, Crystal Williams

Lytropic Therapeutics: Dr. David Anderson, VP



2008 CHEMISTRY OLYMPIAD

The Virginia Section will host the 2008 Chemistry Olympiad for all high school chemistry teachers and students who are interested in participating. The Local Section competition will be held in March, 2008. For more information and the application forms, go to the Virginia Section Chemistry Olympiad site at <http://membership.acs.org/V/VA/olympiad/default.htm>. The students who do well in the Local competition will be nominated to compete in the National competition hosted at J. Sargeant Reynolds Community College in Richmond in April. Dr. Ann Sullivan is the coordinator for the Chemistry Olympiad in the Virginia Section.

STUDENT AFFILIATE CHAPTERS RECOGNIZED

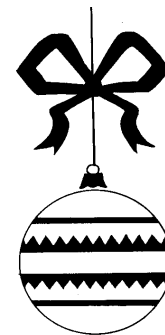
Two student affiliate chapters from the Virginia Section have received national recognition. Both Longwood University and the University of Mary Washington received Honorable Mention awards for the 2006-2007 academic year. Dr. Melissa Rhoten is the faculty advisor for the Longwood University chapter and Dr. Leanna Giancarlo is the faculty advisor for the University of Mary Washington chapter. The awards will be presented at the national ACS meeting in New Orleans on April 6, 2008. Congratulations to these student affiliate groups.

"CHEMISTRY IN THE WORLD AROUND US"

Dr. Lidia M. Vallarino, Professor of Chemistry at Virginia Commonwealth University, has developed a new interdisciplinary course, "Chemistry in the World Around Us," that offers a novel approach for the teaching of science to non-science majors. The course is taught as a series of related, discussion-oriented modules that presents, through examples, the role that chemistry has played and continues to play in the context of our civilization. Examples of modules include "Origin of the Elements; "The Chemistry of Silver and the Start of Photography "; "The Hydrogen Economy--Hopes and Realities"; Nanoparticles in Modern Society"; and "Analysis of Chemical and Biological Warfare Agents". Dr. Vallarino has developed a short book and a collection of teaching materials for the course. She would be pleased to share these with anyone who is interested. You may contact her at lvallar @ vcu.edu or (804) 828-7515.

JAMESTOWN - A NATIONAL HISTORIC CHEMICAL LANDMARK

On October 10, 2007, a ceremony was held at Jamestown to designate the site as a National Historic Chemical Landmark. Jamestown was cited as the location for the origins of the American Chemical Enterprise. The archaeological record at Jamestown refers to many chemical practitioners, including the apothecary, barber surgeon, physician, alchemist or metallurgist, glassmaker, and other metal-related trades such as refiners, goldsmiths, and blacksmiths. Working in collaboration with German, Swiss, and Polish specialists, the English colonists sought local resources for metals and for the production of substances such as glass, tar, pitch, potash, perfume, and medicine. The ACS has been designating landmarks in the history of chemistry for over a decade.



CAN YOU IDENTIFY THESE PERSONS?



The date was 1977 when the Virginia Section brought to a most successful conclusion its ACS Centennial Celebration by presenting the Science Museum of Virginia with a check for \$1,000.00 and a copy of the ACS book "Taking Things Apart and Putting Things Together." The Section also distributed copies of the book to every public secondary school in the Commonwealth. The presentation to the Science Museum was made on the portico of their new home in the old Broad Street Union Station. The photo shows Dr. Paul H. Knappenberger, Jr., Director of the Science Museum; Mrs. Lewis Flinn, who represented the

Junior League; and four members of the Virginia Section. **Who are those four?**

The "mystery person" in the November Bulletin was **Mr. William A. Gilbert**, 1972 recipient of the Distinguished Service Award in Science Teaching.



THE BULLETIN

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