



*The Bulletin*  
of the  
Virginia Section  
AMERICAN CHEMICAL SOCIETY

**DECEMBER MEETING NOTICE**

**JOHN TYLER COMMUNITY COLLEGE**  
**Chester, Virginia**

**Friday, December 1, 2006**

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

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

**PROGRAM:** 7:30 p.m., Rooms 124 and 132 of Bird Hall

**MENU:** Caesar Salad with Garlic-Roasted Croutons and Creamy Caesar Dressing, Chicken Marsala over Rice Pilaf, Vegetable Lasagna, Seasonal Vegetable, Assorted Breads and Rolls, Cheesecake, Iced Tea and Strawberry Lemonade

**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 November 28** 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. Manfred Psiorz, BI Chemicals**

**TOPIC:** **“The Importance of Plant Ingredients for the Pharmaceutical Industry”**

**TEACHER AWARDS:** **HIGH SCHOOL CHEMISTRY - Mr. Ram Bhagat**

**MIDDLE SCHOOL SCIENCE - Ms. Mary Holmgren**

**NOV/DEC 2006**

S	M	T	W	T	F	S
26	27	28	29	30	1	2
	RESERVATIONS			MEETING		
3	4	5	6	7	8	9
10	11	12	13	14	15	16

## **DR. MANFRED PSIORZ**

Manfred Psiorz was born in Silesia and grown up in and around Ludwigshafen on the Rhine in the Palatine, a famous wine growing area in Germany. His undergraduate studies in chemistry were done at the University of Kaiserslautern, his graduate studies in chemistry at the University of Freiburg and his thesis at the Technical University of Braunschweig (Brunswick). He received a Ph.D. in 1983 (summa cum laude). He also did undergraduate and graduate studies in pharmacy at the Technical University of Braunschweig (Brunswick), receiving a diploma in 1984.

From 1984 until 1990, Dr. Psiorz was Head of a research laboratory in the department of Medicinal Chemistry of Dr. Karl Thomae GmbH in Biberach. From 1991 to 1995, he was Head of a development group in the Department of Process Development of Boehringer Ingelheim. He then became Head of Product Unit Phytochemicals in the Department of Fine Chemicals at Boehringer Ingelheim, where he was responsible for development labs, the alkaloid production plant, BI farms in Australia and Brazil, supply for BI products, and marketing activities for industrial customers. In 2000 he was named Head of the Department of Fine Chemicals at BIPKG (3 production plants in Ingelheim, marketing and sales worldwide, Resomer business). He was also responsible for the production site in Bordeaux, France and the BI farms in Australia and Brazil. Since 2004, Dr. Psiorz has been the Vice President of Technical Operations at Boehringer Ingelheim Chemicals Inc. in Petersburg, Virginia, where he is responsible for development activities, quality control, quality assurance and the technical management of the site. His hobbies are classical music, European history and philosophy, hiking, good food, and excellent wine.



### **“The Importance of Plant Ingredients for the Pharmaceutical Industry”**

Since the beginning of the development of the pharmaceutical industry in the 19th century, plant ingredients such as morphine, atropine, digitalis glycosides and many others have played important roles as active ingredients. For many pharmaceutical companies, they have been the economical basis for financing research activities and have provided additional synthetic active ingredients in the first three decades of the 20th century. Is this all history or do such products still have a therapeutic value? This lecture will try to answer this question and will give several examples of plant ingredients that still play significant roles in various areas.

**HAPPY HOLIDAYS**

***DISTINGUISHED HIGH SCHOOL CHEMISTRY TEACHER AWARD******Mr. Ram Bhagat***

Ram Bhagat is a veteran high school Chemistry teacher with twenty-three years experience in Virginia public schools. He was inspired by his Biology and General Chemistry professors at Virginia State University to pursue a career in science. Ram has a Bachelor of Science in Microbiology from Virginia State and a B.S. in Science Education from Virginia Commonwealth University. He currently teaches Chemistry, Human Anatomy, Yoga, and “Drums No Guns” at Open High School in Richmond, Virginia.

As a science educator, Mr. Bhagat prescribes culturally relevant curricula as a remedy for student apathy. He motivates young people to build self-confidence and develop creative problem solving skills. Ram developed “The Rhythm of Chemical Bonding”, an educational program which integrates a 3D process (drumming, dance, and drama) into the Chemistry curriculum, to help students perceive abstract concepts. In

2003, The Community Foundation recognized his endeavors with the prestigious R.E.B. Award for Teaching Excellence. In addition, The Rhythm of Chemical Bonding has been funded by Partner’s in the Arts.

Currently, Ram is completing an M.Ed. in School and Community Counseling at Virginia State with an emphasis in Conflict Resolution. Bhagat is deeply committed to the social and emotional health of high school students. He plans to continue educational pursuits in the field of Curriculum Development. His goal is to develop pedagogical methods to increase science literacy and to promote social responsibility.

***DISTINGUISHED MIDDLE SCHOOL SCIENCE TEACHER AWARD******Ms. Mary Holmgren***

Six years ago, Mary Holmgren entered middle school teaching through the Virginia Career Switchers program. Endorsed in secondary chemistry, she has chosen a teaching career at Fred Lynn Middle School in Woodbridge, teaching physical science to eighth graders. Prior to public school teaching, she had a long career in pharmacy and health care – as a registered pharmacist, pharmacy school faculty member, public policy analyst in the Kansas Department of Health and the governor’s budget office, and a local elected official in Topeka, Kansas. She has had an encore career as a fiber artist and is a juried member of the Torpedo Factory in Alexandria, VA, where she plans to return upon retirement from full time teaching. Holmgren has two adult children, a banker with Wells Fargo in Minneapolis, and an electrical engineer working at the Jet Propulsion Lab in Pasadena, CA. She lives in Alexandria with her miniature poodle, Kelly.

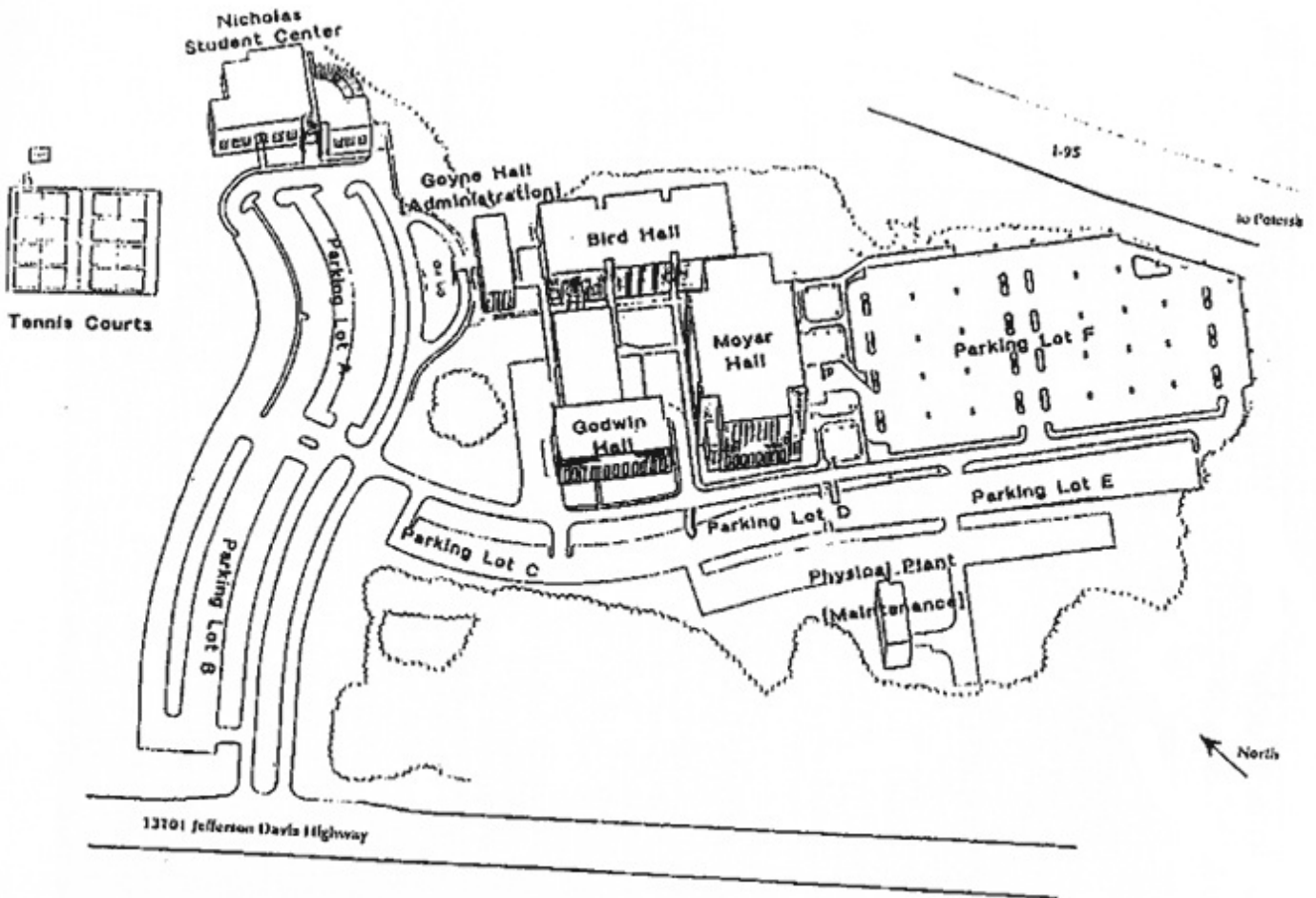


### DIRECTIONS

The Chester campus of JTCC 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 Routes 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 is just past the 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. The program will be in Bird Hall which is diagonally across from the Nicholas Student Center.



### MAP OF JOHN TYLER CAMPUS



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

### **FUTURE MEETINGS**

DATE: January 19, 2007  
 LOCATION: Science Museum of Virginia  
 Richmond, Virginia  
 HOST: Mr. Trey Gregory  
 PHONE: (804) 504-8840  
 SPEAKER: **Dr. Richard J. Field**  
 TOPIC: Erwin Schrödinger: The Discoverer  
 (Inventor?) of Molecular Wave Mechanics

DATE: February 23, 2007  
 LOCATION: University of Richmond  
 Richmond, Virginia  
 HOST: Dr. William Myers  
 PHONE: (804) 289-8248  
 SPEAKER: **Dr. Sunney Xie**  
 (POWELL LECTURESHIP)

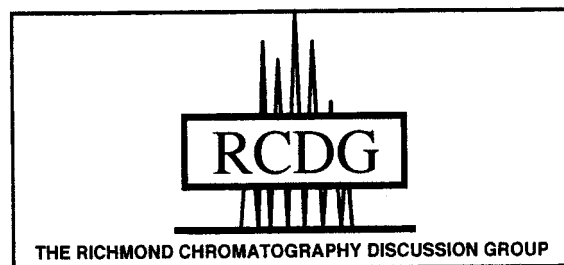
### **EXECUTIVE COMMITTEE MEETING**



The Executive Committee of the Virginia Section will meet at 9:00 a.m. on Saturday, January 20, 2007. The meeting will be held at J. Sargeant Reynolds Community College in Richmond. Additional information can be obtained from the incoming Section Chair, Dr. Will Lewis, (804) 274-5869; will.h.lewis @ pmusa.com. 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/VVA/>.

### **RICHMOND CHROMATOGRAPHY DISCUSSION GROUP**

The Richmond Chromatography Discussion Group (RCDG) will meet at 5:30 p.m. on November 28, 2006. The speaker will be **Mr. Michael Ye**, R&D Manager, Liquid Separation, Supelco/Sigma-Aldrich. His topic is "Application of a Mixed-Mode SPE Material for Cleanup and Extraction of Basic and Zwitterions Compounds from Biological Fluids." The talk will be at Wyeth Consumer Healthcare, 1211 Sherwood Avenue in Richmond. More information can be found on the RCDG website: <http://rcdg.org>. On January 30, 2007, the RCDG will present a special program at the Philip Morris Research Center. **Dr. Harold McNair** of Virginia Tech will discuss "50 Years of Chromatography: A Personal Perspective." RCDG promotes the interests of chromatographic and other separation sciences by expanding the awareness and capabilities of individuals from the scientific community. The group publishes a newsletter, presents lectures, and provides student scholarships. For more information and a schedule of their seminars, check the RCDG website or contact Carol Sheets at SheetsC @ wyeth.com.



## **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 1. Here are the team award winners for this year's competition:

	<b>First-Year Examination</b>	
<b>Category</b>	<b>School</b>	<b>Teachers</b>
Small School	St. Stephen's & St Agnes' School	Amanda Beckrich, Ted Mallaris, Sarah Oakes
Governor's School	Maggie Walker Governor's School	Kelly Bowie, Peter Morris, Joy Ross
Large School	Deep Run High School	Karen Kelly, Amy Lavender, Fran Nolen
	<b>Second-Year Examination</b>	
Small School	St. Stephen's & St Agnes' School	Amanda Beckrich, Ted Mallaris, Sarah Oakes
Governor's School	Maggie Walker Governor's School	Kelly Bowie, Peter Morris, Joy Ross
Large School	Albemarle High School	Marvin T. Curry

## **REPORT ON THE OCTOBER SECTION MEETING**

On October 24, members of the Hampton Roads Section of the ACS joined the Virginia Section for a special joint meeting at the College of William & Mary in Williamsburg. The Sections were honored to have Dr. E. Ann Nalley, national president of the American Chemical Society as the speaker. Over 80 persons heard Dr. Nalley speak on "Chemistry – Transforming Lives." Dr. Nalley was introduced by Dr. Gary W. Rice, Chair of the Department of Chemistry at the College of William & Mary. Dr. Larry Sacks, Chair of the Hampton Roads Section, and Dr. Dorothy Eseonu, Chair of the Virginia Section, presided at the meeting. Prior to Dr. Nalley's talk, the Virginia Section honored Mr. Frank Kizer, a 50-year member of the Virginia Section who celebrated his 90<sup>th</sup> birthday on November 3. Frank was Chair of the Section in 1976. He received the Distinguished Service Award in 1978 and the Distinguished Service Award for High School Chemistry Teaching in 1955. Frank was introduced by Jim Beck and Jerry Bass. Jerry was one of Frank's students when he taught high school chemistry. Frank's tenure as Chair of the Virginia Section coincided with the United States' bicentennial and with the centennial of the American Chemical Society, which was founded in 1876. He presented the Section with a special banner from 1976 that recognized the ACS centennial. Frank was accompanied by his lovely wife Helen. Special thanks to Dr. Larry Sacks, Dr. Will Lewis, and Dr. Gary Rice for organizing this meeting and to the College of William & Mary for hosting it.

## **CHEMICAL ENGINEERING SEMINAR AT THE UNIVERSITY OF VIRGINIA**

December 7 - **Professor Christina Chan**, Michigan State University

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 THE UNIVERSITY OF VIRGINIA**

December 1 - **Professor Gustavo Scuseria**, Rice University

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/>.

## **GRANTS FOR K-12 SCIENCE PROJECTS**

The Virginia Section is soliciting proposals for grants to support school science projects in grades K through 12. The \$50 to \$500 grants will be provided to teachers in the Virginia Section for the purchase of materials and supplies. To apply for support, request an application form from Mr. Ryan Warren, 6001 Grove Avenue, Richmond, VA 23226; (804) 288-2804; warrencr @ vcu.edu. Or complete an application on-line by accessing the Virginia Section website at <http://membership.acs.org/VVA/grants.htm>.

## **QUESTIONS FROM THE PAST**

This question was asked in the November issue of the Bulletin: **When was the first Virginia Section meeting held in the city of Fredericksburg?**

On March 26, 1954, the Virginia Section met in Monroe Hall Auditorium at Mary Washington College in Fredericksburg. The speaker was Dr. Archie M. Palmer, Chairman of the Governments Patent Board in Washington, who spoke on "How Industry Can Profit from Government Research." The meeting was preceded by a dinner at the Stratford Hotel. Cost of the dinner: \$2.00. This was the second meeting of the Section in that month. On March 12, Dr. Louis F. Fieser of Harvard University spoke on "Some Aspects on the Chemistry and Biochemistry of Cholesterol" at the Cobb Chemical Laboratory in Charlottesville.



New question: The 50<sup>th</sup> anniversary meeting of the Virginia Section of the ACS featured an address by Dr. Charles C. Price, Head of the Department of Chemistry at the University of Pennsylvania and President of the national ACS for the year of the meeting. Dr. Price spoke on the "Stereochemistry of Epoxide Polymerization." **Where and when was the 50<sup>th</sup> anniversary meeting held?**





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 college 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 two full-time chemistry faculty; one at the Chester campus and one 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 six 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 two years. The club, consisting of 33 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.

Season's Greetings





## NATIONAL CHEMISTRY WEEK - 2006

The Virginia Section celebrated National Chemistry Week with three days of activities at the Science Museum of Virginia in Richmond. Dr. Kristine Smetana, NCW Coordinator for the Virginia Section, organized a large number of students, ACS members, and other volunteers to present chemistry to a big audience of Museum visitors. The theme of this year's NCW was "Your Home—It's All Built on Chemistry." Hands-on activities at the Science Museum included creating butterflies by radial chromatography, making your own paint, building and painting birdhouses, making "superballs," and performing strength tests. There were also displays on insulation, the composition of common household items, and building materials. Hundreds of students and other visitors to the Science Museum participated in the NCW activities and received packages of materials to take home. Special thanks to Dr. Smetana and to Section Chair Dorothy Eseonu for their work in organizing this event, and to the Science Museum of Virginia for their cooperation and assistance.



**WORDS OF WISDOM FOR DECEMBER: "Success Is What You Want. Happiness Is Liking What You Get."**

## **NATIONAL CHEMISTRY WEEK POSTERS**

The deadline for submission of posters for the national NCW contest has been extended to **December 1**. Students in kindergarten through 12<sup>th</sup> grade can submit posters that recognize the NCW theme "Your Home—It's All Built on Chemistry". The poster should serve as a public service announcement emphasizing the role of science/chemistry in the home and/or home safety improvements over the years. The winning posters for the Virginia Section will be entered into the national competition. Posters should be sent to

Dr. Kristine Smetana  
Associate Professor of Chemistry  
Attn: NCW  
John Tyler Community College  
13101 Jefferson Davis Highway  
Chester, VA 23831

Visit the ACS website for more information: <http://www.chemistry.org/ncw>.

## **2007 CHEMISTRY OLYMPIAD**

The Virginia Section will host the 2007 Chemistry Olympiad for all high school chemistry teachers and students who are interested in participating. The Local Section competition will be held in March, 2007. There will be two options for the participants with several Virginia colleges hosting the competition, or individual high school teachers can make arrangements within their schools to provide secure testing sites. For more information and the application forms, either hard copy or on-line, 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, Virginia in April. These students will compete for 20 positions in the study camp at the US Air Force Academy in Colorado, to be held June 3-17. The International Chemistry Olympiad (IChO) team will be chosen from these 20 students to compete in the IChO. This year the 39th International Chemistry Olympiad competition will be held in Moscow, Russia July 15-24, 2007. Dr. Ann Sullivan is the coordinator for the Chemistry Olympiad in the Virginia Section.

## **BOEHRINGER INGELHEIM SPONSORS TEACHER AWARDS**

The Virginia Section's 2006 awards to outstanding teachers are sponsored by Boehringer Ingelheim. The Section gratefully acknowledges the financial support of Boehringer Ingelheim Chemicals. The BI Chemicals CAPIC Synthesis Team received the Section's Industrial Innovation Award in 2002 for the development of an improved strategy to produce CAPIC, the key raw material for the production of the AIDS drug Nevirapine. The CAPIC team was led by Dr. B. Frank Gupton, Executive Director for Process Development at Boehringer Ingelheim Chemicals in Petersburg. 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, is the immediate Past Chair of the Virginia Section and Mr. Charles (Trey) Gregory, a chemist in the Quality Control Division at BI Chemicals, is the Vice Chair of the Section.

**PHOTOS FROM THE OCTOBER 24 MEETING AT W&M****Dr. E. Ann Nalley****Frank and Helen Kizer****Dr. Nalley with a student****Frank Kizer with Dr. Nalley****SERMACS POSTER**

The Virginia Section prepared a poster for presentation at the SERMACS 2006 meeting in Asugusta, Georgia. The poster, titled "**THE VIRGINIA SECTION – CELEBRATING 91 YEARS OF SERVICE**" shows via photos and text some of the many activities within the Section. There are panels on Section meetings, the Chemistry Olympiad, National Chemistry Week, the Undergraduate Poster Session, Section Awards, the Bulletin, the Virginia Section Website, and service programs. The poster can be viewed by going to the Virginia Section website <http://membership.acs.org/V/VA>. Click on the SERMACS Poster link. Dr. Ann Sullivan, Section Webmaster, prepared the poster which was presented at SERMACS by Dr. Sheryl Baldwin, Alternate Councilor for the Section.

## THE BULLETIN

Published eight times a year by  
the American Chemical Society  
Virginia Section

Science Museum of Virginia  
2500 West Broad Street  
Richmond, VA 23220

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### CAN YOU IDENTIFY THESE PERSONS?

The exact date of the photograph is not known; it may be from a meeting at the University of Richmond around 1995. The person on the left is not a chemist but has attended over a hundred Virginia Section meetings over the past 25 or more years. A native of Reading, Pennsylvania, she holds a B.S. in Education from Kutztown State University. an M.A. in History from the University of Delaware, and an M.Ed. in Early Childhood Education from Virginia State University. The gentleman is a native of Katanning, Pennsylvania with a B.S. from St. Vincent College and an M.S. from the University of Richmond.



He served as Chair of the Virginia Section in 1981 and received the Distinguished Service Award in 1985.

The "mystery persons" in the November Bulletin were (left-to-right) Ronnie Sours, Don Shillady, and Dan Lynch. They were the Section award winners in 1992.

