



*The Bulletin*  
of the  
Virginia Section  
AMERICAN CHEMICAL SOCIETY

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**SUMMER 2011 ISSUE**

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**Summer Picnic  
Dragonfly Farms  
Sunday, July 31  
1:00 - 5:00 p.m.**



The 2011 summer picnic for the Virginia Section will be held at Dragonfly Farms, a beautiful 55 acre sustainable farm in western Hanover County, Virginia. The picnic will be held on **July 31, 2011 from 1- 5 p.m.** Katherine and Bruce Johnson of Dragonfly Farms offer nursery crops, landscaping services, grass fed beef, free range eggs and horse quality grass hay. Bruce will be giving a tour of his farm where he raises goats, cows, chickens, and horses!

All Virginia Section members, their families and guests, as well as interested members of the public, are invited to attend. Cost is \$5 per person or \$10 per family. Food and beverages will be provided with hamburgers and brats from Dragonfly Farms! Volunteers are needed to help with lunch and activities. **Please make your reservations by Wednesday, July 27 by calling (804) 521-7369 or by e-mail to [kcarter@aibiotech.com](mailto:kcarter@aibiotech.com).**

Dragonfly Farms is located at 16259 Trainham Rd. in Beaverdam, VA 23015, about 35 miles north of Richmond. Directions from I-95 are given on the next page. More information on the Farms can be found at [www.dragonflyfarms.com](http://www.dragonflyfarms.com).

**Bring your family and friends for an enjoyable afternoon in the country!**

## DIRECTIONS TO DRAGONFLY FARMS

From **I-95 N** take exit **#98/DOSWELL** toward **DOSWELL (US-1)** - go **0.2** mi.  
 Turn left on **KINGS DOMINION BLVD(VA-30 W)** - go **0.8** mi  
 Turn right on **WASHINGTON HWY(US-1)** - go **1.4** mi  
 Turn left on **VERDON RD** - go **10.9** mi  
 Bear left on **TEMAN RD** - go **0.3** mi  
 Continue on **FLAT IRON RD** - go **0.1** mi  
 Turn right on **BEAVERDAM SCHOOL RD** - go **1.4** mi  
 Turn left on **BEAVER DAM RD** - go **0.1** mi  
 Turn right on **TRAINHAM RD** - go **0.2** mi  
 Arrive at **Dragonfly Farms, 16259 TRAINHAM RD, BEAVERDAM**, on the left



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

#### FUTURE MEETINGS

DATE	PLACE	TOPIC/SPEAKER
July 31, 2011	Dragonfly Farms Beaverdam, Virginia	Picnic and Farm Tour
September 16, 2011	Virginia Commonwealth University Richmond, Virginia	Annual Awards Meeting
October 26-29, 2011	Omni Hotel Richmond, Virginia	SERMACS 2011
October 27, 2011	Science Museum of Virginia Richmond, Virginia	SERMACS Mixer
December 2, 2011	Virginia Union University Richmond, Virginia	Dr. Marvin Lang Teaching/Olympiad Awards

## THE CHAIR'S CORNER

This is an exciting time for the Virginia Section.

First, the Virginia Local Section has been recognized for our efforts on putting on great programs in 2010 by being selected as a finalist for four Chem-Luminary Awards:

1. Best Student Chapter Event
2. Outstanding Local Section Career Program Award – Small to Medium Large Size
3. Most Innovative New Activity or Program in a Local Section
4. Outstanding Kids & Chemistry Award.



The Section was nominated for activities related to National Chemistry Week (NCW) and the WCC Career Discussion Panel held at JSRCC in 2010. The winners of these awards will be named at the Fall National meeting in Denver. Let's keep our fingers crossed that the Virginia Section can bring home all four awards!



Next, **SERMACS 2011** is only months away, and plans are coming together for this event to be held October 26-29 at the Omni Hotel in Richmond. The call for papers for **SERMACS 2011** was published in the June 20 issue of *C&EN*, and registration will open soon. Volunteers are still needed for many roles, so it is not too late to get involved.

In addition to the **SERMACS** meeting, there are a lot of other activities planned in the Virginia Section. The summer picnic is being held on Sunday, July 31 at Dragonfly Farms. (See separate announcement in this [Bulletin](#)), and the September Awards meeting will be held on Friday, September 16 at VCU in Richmond.

On May 20 the Virginia Section held the second Executive Committee meeting of 2011 at JSRCC in downtown Richmond. We had a good turnout for the meeting. Special thanks to Ann Sullivan, who hosted and provided the delicious chili for the meal. Copies of reports and minutes for the executive meeting can be found on our webpage at <http://virginia.sites.acs.org/executivemeetings.htm>.

...Stephanie Mabry, Chair, Virginia Section; [stephanie.mabry@afonchemical.com](mailto:stephanie.mabry@afonchemical.com)

## WCC NETWORKING LUNCH

The WCC networking lunch took place on June 10, 2011 at City Dogs restaurant in the Fan section of Richmond. The group dined on a family style meal of fries, hash browns and corn dog nuggets. The luncheon topic was "The Superwoman Myth: Can You Have It All?" The lively group of 11 women and one man enjoyed listening and discussing their own challenges concerning balancing both work and family time which all agreed was not a simple challenge.



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

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

<b>Dr. Thomas Cochrane, Jr.</b>	<b>Waynesboro</b>
<b>Mr. Haywood France</b>	<b>Harrisonburg</b>
<b>Mr. Harmor Hoffman, Jr.</b>	<b>Williamsburg</b>
<b>Dr. Arnold Jensen</b>	<b>Charlottesville</b>
<b>Dr. Richard Miller</b>	<b>Swoope</b>
<b>Mr. Claude Talley</b>	<b>Midlothian</b>

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

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

<b>Dr. Robert Carroll</b>	<b>Richmond</b>
<b>Dr. Raymond Cole</b>	<b>Midlothian</b>
<b>Dr. Warren Dannenburg</b>	<b>Henrico</b>
<b>Mr. Harold Jones</b>	<b>Williamsburg</b>
<b>Mr. John Markovs</b>	<b>Cross Junction</b>
<b>Mr. William Millick III</b>	<b>Charlottesville</b>
<b>Dr. John O'Connell</b>	<b>Charlottesville</b>
<b>Mr. Frederick Richardson</b>	<b>Dyke</b>
<b>Dr. John Savory</b>	<b>Keswick</b>
<b>Dr. William Stanclift</b>	<b>Manassas</b>
<b>Mr. James Stepnowski</b>	<b>Triangle</b>
<b>Dr. J. Wittle</b>	<b>Williamsburg</b>

WORDS OF WISDOM FOR THE SUMMER: "Failure Is An Event, But Never A Person"

## OUTSTANDING CHEMISTRY GRADUATES

At the April meeting, the Virginia Section recognized graduating seniors from colleges and universities within the Section. Schools in the Virginia Section were invited to nominate senior chemistry majors for this honor. The outstanding students for the year 2011:

<u>College/University</u>	<u>Student</u>
Bridgewater College	Lacey L. Starkey
College of William & Mary	Ellen H. Speers
Eastern Mennonite University	Brianna Oelschlager, Elisa Troyer
Hampden-Sydney College	Arne Ulbrich
James Madison University	Scott Hopkins
Longwood University	Andrea Irby
Randolph-Macon College	Blair Ringley
Shenandoah University	Paula Levesque
University of Mary Washington	Jonathan S. Williams
University of Richmond	Xin Jia
University of Virginia	Justin Jung Shik Kim
Virginia Commonwealth University	Andrew Voegel
Virginia State University	Diane R. Motley



Shown here are student award recipients who attended the Section meeting at the University of Virginia on April 8. Each student received an ACS certificate of recognition, a copy of the *Merck Index*, and a trial membership in the American Chemical Society.

The presentations were made by Dr. Stephanie Mabry, Chair of the Virginia Section, assisted by Dr. Karen Carter, Chair-Elect.

## TEACHER AWARDS

The Virginia Section is soliciting nominees for three teaching awards: the Outstanding High School Chemistry Teacher Award, the Outstanding Middle School Science Teacher Award, and the Outstanding Elementary School Science Teacher Award. If you would like to nominate persons for these awards, contact Ms. Eileen Downey at [eileendowney@gmail.com](mailto:eileendowney@gmail.com). Each award consists of a plaque and a check for \$300.00. The teacher awards are sponsored by Boehringer Ingelheim Chemicals; the 2011 awards will be presented at the Section meeting on December 2



## **REPORT ON THE MARCH MEETING OF THE VIRGINIA SECTION**

On March 18, 2011, the Virginia Section met at the University of Richmond for the 24<sup>th</sup> annual Powell Lectureship. Dr. Harry B. Gray addressed a full auditorium of over a hundred persons on “The 21<sup>st</sup> Century Solar Army.” Dr. Gray, who was introduced by Professor Raymond Dominey, discussed work on the energy supply, which he described as “the most important problem of the 21<sup>st</sup> century.” He described various ways to convert sunlight into useful energy with emphasis on his efforts to recruit a “solar army” to attack the impediments to the development of inexpensive and efficient photovoltaic devices. In the words of Dr. Gray, “the world’s biggest problem will be solved by chemistry.”

Dr. Stephanie Mabry, Chair of the Virginia Section, presented Dr. Gray with the traditional engraved Jefferson Cup. Also, she presented a check from the Virginia Section to the University of Richmond to support the W. Allan Powell Lectureship at the University of Richmond. The Section appreciates the continuing support of the Department of Chemistry at the University of Richmond for Section meetings.



Dr. Harry Gray with his Jefferson Cup



Dr. Kristine Smetana and Dr. Gray

This year’s Powell Lectureship was the first in many years that was not attended by Dr. W. Allan Powell, the namesake of the Lectureship. Dr. Powell passed away on December 21, 2010 at the age of 89. He was a Professor of Chemistry Emeritus at the University of Richmond where he taught for 39 years. Dr. Powell was very active in the ACS at both the local and national levels and received the Distinguished Service Award from the Virginia Section. He is especially remembered for editing the history of the Virginia Section that was published in 1996. His sons Bill and Brad attended the Powell Lectureship. At the dinner preceding the Lectureship presentation, several persons reminisced about Dr. Powell. Comments from Dr. Stuart Clough, retired Professor of Chemistry at the University of Richmond, are given below.



### **REMARKS ON ALLAN POWELL**

At the dinner preceding the Powell Lectureship on March 18, Dr. Stuart Clough, retired Professor of Chemistry at the University of Richmond, reminisced about Dr. W. Allan Powell. Dr. Clough has been kind enough to share the transcript of his remarks, which were directed to Dr. Powell’s three children (Beth, Bill, and Brad) and to Allan’s many colleagues and friends who attended the meeting.

“Beth, Brad, and Bill...

It is for me an honor to have been asked to make a few remarks about Dr. W. Allan Powell, professor and chair of the Chemistry Department here at UR for what seems like forever, your dad and my teacher, mentor, colleague, and friend. I shall be brief, but I speak from the heart.

Incidentally, it is fun for me to recall that at the very first Powell lecture, runners were sneaking in and out of the lecture bringing us updated scores as UR beat Indiana. Here we go again...Go Spiders.

Thinking of Dr. Powell brings up many memories. As you know, he was a people person. I cannot think of him without remembering your mom and you and your families. I picture Allan and Preston Leake in New Orleans, Jerry Bass and Bill Welsted, Eddie Thomas, Jim Beck, and Sam Gillespie at ACS Executive Committee Meetings. I see what I think of as the old guard who were the chemistry faculty when I was a student at UR – Bob Bell, Bill Trout, Stanton Pierce, and Jim Worsham...and the young bucks when I was a new faculty member at UR – Dick Topham, Bill Myers, and Dick Mateer. Allan was a leader who brought out the best in those around him. He encouraged, cajoled, and supported us in every way. His research with Nolan Rice on jellyfish toxins was interdisciplinary before interdisciplinary became a buzz word in academia. He was instrumental in the original design of this science building, working closely with Frank Leftwich as we planned for the future, facilitating interactions with chemistry, biology, and physics on all levels. Allan was a mover and a shaker who made us all better than we might otherwise have been. It was his character and his integrity and his care.

He lived an active life but it was clear he had ties to North Carolina, and Bar-B-Cue. We might have purchased a Varian EM-360 instead of the Perkin Elmer R-24 if the Varian salesman had not referred to North Carolina Bar-B-Cue as “that pre-chewed stuff.”

He loved this university...he defended the chemistry department against all administrative assaults...I often heard him say “but we won that battle years ago.”

He knew his students, remembering not only their names, but where they were from, what year he had them in a class, when they graduated, and where they went after graduation. He knew them, remembered them, enjoyed talking about them, and cared deeply for them.

As a matter of fact, he enjoyed talking about just about everything, including the history of the department and the history of the Virginia Section of ACS that he was writing. He was proud of the record and he wanted the record documented as was his nature. If something was important and needed to be done, he took it upon himself to do it.

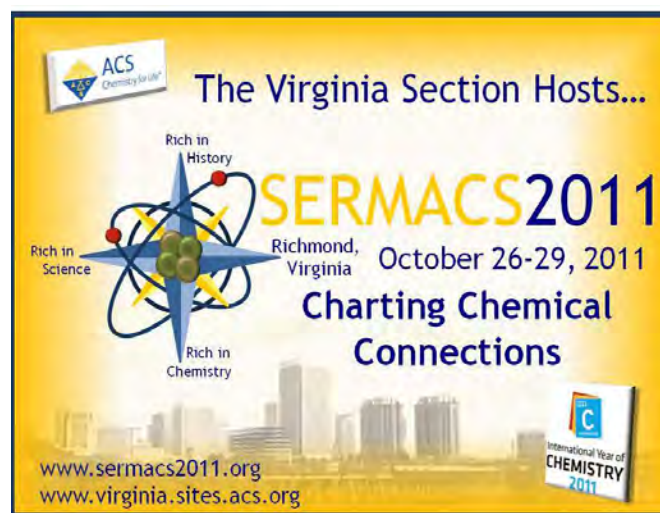
He also had a playful side. I remember a fishing trip on the Rappahannock when I was a young faculty member. It was hot. We were sweating under the sun, fishing off Mosquito Point near his river home. After fishing awhile, probably not catching much, Allan asked what time it was. I told him it was about 11:50. A little time went by and the same question. About 11:55. Then the same question and I said it was around 11:58. A few minutes later, would you believe the same question. Allan, it is about two minutes after 12:00. Whereupon, he responded...Well, let's get the top off of that cooler box. Dr. Powell was not fishing for a Dr. Pepper, I can tell you that.

Someone said we are all a part of the people we touch. Allan touched a lot of people, and we are all the better for it. Certainly I miss him now that he is gone. But in an important way he will always be here for me and probably for many of you...dad, mentor, teacher, colleague, and friend, who once again has brought us together at this Powell Lecture.”

## SERMACS 2011 CALL FOR PAPERS

The 63rd Southeastern Regional Meeting (**SERMACS 2011**), hosted by the Virginia Section of the American Chemical Society, will take place on Oct. 26-29 at the Omni Hotel in Richmond. The theme for the meeting is "Charting Chemical Connections." Information on the evolving meeting program and schedule of events as well as details about transportation and lodging can be found at <http://sermacs2011.org>.

Program cochairs are Fred M. Hawkrige of Virginia Commonwealth University and Ann M. Sullivan of J. Sargeant Reynolds Community College. Joseph M. Pompano of Arista Laboratories is the general chair.



Meeting presenters must submit an abstract for each presentation through ACS's Program & Abstract Creation System at [abstracts.acs.org](http://abstracts.acs.org). Meeting symposia will focus on analytical, biological, environmental, inorganic, medicinal, organic, physical, and polymer chemistry; chemical education; chemical health and safety; chemical information; chemical toxicology; biotechnology; nano-technology; and forensics. Sessions and symposia scheduled to date include "Flavor Chemistry," "Sustainability in Packaging," and "Computers in Chemistry." Poster sessions and one or more general sessions will be included in the program.

Manfred Psiorz, chief executive officer of Boehringer Ingelheim Chemicals and honorary general cochair of SERMACS 2011, will open the meeting with a plenary talk on Wednesday afternoon. Technical sessions will begin after his lecture.

On Thursday evening, a symposium and reception at the Science Museum of Virginia will celebrate the International Year of Chemistry. Winners of the Stanley C. Israel Award for Advancing Diversity in the Chemical Sciences and the E. Ann Nalley Southeastern Regional Award for Volunteer Service to ACS, will be honored during the reception.

The section of the program organized for undergraduates—"Chemical Minds: The Application of Forensics"—will emphasize career building. It will include traditional resume and career-related sessions, informal mock interviews, a graduate school fair, a forensics-inspired scavenger hunt, a poster session, a pizza party and karaoke event, and an awards breakfast with forensics expert and Virginia Commonwealth University professor Marilyn Miller.

SERMACS 2011 will also include career programs on "Planning a Job Search," "Resume Preparation," and "Interviewing Skills." The meeting will feature workshops for chemistry educators at the precollege and undergraduate levels as well as a high school chemistry workshop on chemical safety and a chemical demonstration show presented by Brian Moores of Randolph-Macon College. Special events will include an opportunity to meet with ACS governance at a complimentary ice cream social hosted by the ACS Board of Directors and a Women Chemists Committee workshop and luncheon. An awards dinner will be held on Friday to honor the winner of the ACS Division of Chemical Education's Southeastern Regional Award for Excellence in High School Teaching.



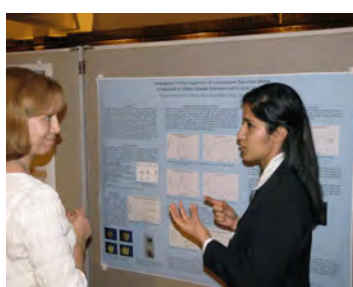
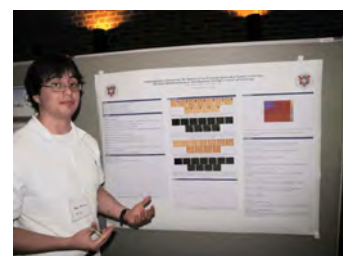
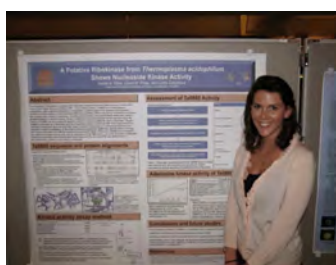
Attendees can register for SERMACS 2011 at [www.acs.org](http://www.acs.org). Early registration will close on **September 20**. Registrations or payments received after that date will be processed at standard registration rates, which will be in effect through October 29.

Vendors and other organizations wishing to connect with SERMACS attendees will be provided exhibition space in a central, highly visible area during the meeting. Details are available on the meeting website. Vendor inquiries should be directed to Mark Mabry of Pfizer Consumer Healthcare at [SERMACS2011exhibits@gmail.com](mailto:SERMACS2011exhibits@gmail.com).

SERMACS 2011 has a block of rooms reserved at the Omni Hotel. Reservations can be made through the meeting website.

## REPORT ON THE APRIL MEETING OF THE VIRGINIA SECTION

The April 2011 meeting of the Virginia Section was held on April 6 at the University of Virginia in Charlottesville. Dr. William A. Mattson, Professor of Chemistry at Randolph College, spoke on "Creative Problem Solving in Chemical Research." He was introduced by Justin Kim, a senior chemistry major at the University of Virginia. About 60 persons attended Dr. Mattson's enlightening presentation. At the Poster Session, 41 papers were presented by students from eleven colleges and universities (information on some of the papers is given below). This marked the 25<sup>th</sup> consecutive year of the Poster Session that highlights undergraduate student research. Fourteen outstanding students at colleges and universities within the Virginia Section were recognized as part of the evening's program. Special thanks to Jim Demas and his colleagues at the University of Virginia for organizing this successful meeting.



## QUESTIONS FROM THE PAST

This question was asked in the April Bulletin: The Virginia Section normally gives a half-price subsidy on dinners at meetings for students. This practice began at a meeting held on February 12 at the University of Richmond. **In what year did the student subsidy begin?** The half-price subsidy began in February, 1965. The speaker at the February 12 meeting that year was John Ross; his topic was "Chemical Kinetics and Molecular Beams."

A new question from the past: On December 14, 1990, the Virginia Section heard a presentation on "The Virginia Section's First Seventy-Five Years." **Who was the speaker and where was that meeting held?**

### CAN YOU IDENTIFY THIS PERSON?



The photograph is from 2003 when the subject received the Distinguished High School Chemistry Teacher Award from the Virginia Section. At the time, he was teaching chemistry at the Shenandoah Valley Governor's School. A graduate of Hampden-Sydney College and Central Michigan University, his varied teaching positions included Prince Edward County High School, Longwood College, and the Governor's School in Hampton, Virginia. He also has industrial experience in the pharmaceutical industry. His mother said that he liked chemistry in high school because he liked to cook.

The "mystery persons" shown in the April, 2011 Bulletin were Christy and Eddie Thomas with their daughter Emily in December, 1997. Both Christy and Eddie are recipients of Virginia Section awards.



### CURRENT CONTACT INFORMATION

Does the ACS have your correct contact information? If you have had a change in address, phone number, or e-mail address, contact ACS to update your information. Please include both the old and new contact information and your membership ID (the 8-digit number in the upper left hand corner of the C&E News address label). Telephone (800) 333-9511 or e-mail **service @ acs.org**.

## UNDERGRADUATE RESEARCH POSTERS UNIVERSITY OF VIRGINIA - APRIL 8, 2011

John Allen, Hilary Bleir, Eli Chen, Sandra D. Field, Jeffrey Hatef, Xiao Huang, Mingie Kang, Christopher T. Lee, Tomasz Kabzinski, Carol Price, Cameron Mura, and Linda Columbus

Department of Chemistry, University of Virginia

*Purification and Characterization of a Zinc-Dependent Glycerol Dehydrogenase TM0423 from Thermotoga Maritima*

Sarah Almahdali, Briana Wenberg, Maria Kipreos, and Katherine N. Crowder

Department of Chemistry, University of Mary Washington

*Synthesis of Modified Copper Electrodes for the Electrocatalytic Reduction of CO<sub>2</sub>*

- Kristen E. Bashaw, S. Nicole McCracken, and Mamadou C. Diallo** Department of Chemistry, Longwood University  
*UV-Vis Analysis and Characterization of Cookson Cage in Various Organic Solvents*
- Kristen E. Bashaw, S. Nicole McCracken, and Mamadou C. Diallo** Department of Chemistry, Longwood University  
*Cookson Cage Binding to Alkaline and Alkaline Earth Cations in the Gas Phase: A Quantum Chemical Study at the HF and B3LYP Levels of Theory*
- Monisha Batra, Joseph Breheny, Byron Cheon, Kendall Hancock, and Jonathan Hylton** Department of Chemistry, University of Virginia  
*Structural Analysis and Functional Characterization of a Putative Inosine-5'-Monophosphate Dehydrogenase from *Thermatoga Maritima**
- Anastasia Blake and Peter Ruiz-Haas** Department of Chemistry and Physics, Mary Baldwin College  
*Use of Bioassay Techniques to Determine Endocrine Disrupting Chemicals in Natural and Wastewaters of the Shenandoah Valley*
- David Boudouris and B. Jill Venton** Department of Chemistry, University of Virginia  
*Nafion Coatings to Prevent Microelectrode Passivation*
- Ben Burruss and Charles M. Sharpless** Department of Chemistry, University of Mary Washington  
*Physical and Photochemical Characteristics of Fractionated NOM*
- Alan Chien, Tiandong Liu, Guoqing Zhang, and Cassandra Fraser** Department of Chemistry, University of Virginia  
*Amine Substituted  $BF_2^-$ -Diketonates and Their Potential for Sensing*
- Armand Bennett Cognetta, III, Arjun Dayal, Nicole A. Herrera, Stephanie Johnson, Robert Laverty, John Lee, Daniel Loriaux, and Rolando Mendez** Department of Chemistry, University of Virginia  
*Kinetic Assay Characterization of TM0441: A Putative Gluconate-5-Dehydrogenase from *Thermatoga Maritima**
- Kyle R. Crocker, Sean T. Dudek, Shu-Hui He, and Stanton Q. Smith** Department of Chemistry, Virginia Military Institute  
*The Synthesis of Potential Liquid Crystals*
- Branden Deyerle and Yanjie Zhang** Department of Chemistry and Biochemistry, James Madison University  
*Specific Ion Effects on the Phase Behaviors of Thermoresponsive Triblock Copolymers*
- Sarah R. Elkin, Carol W. Price, and Linda Columbus** Department of Chemistry, University of Virginia  
*Functional Characterization of a Putative Ribokinase from *Thermoplasma Acidophilum**
- Elena Fernandez and Kelli Slunt** Department of Chemistry, University of Mary Washington  
*Development of a Reliable Sample Preparation Method for Estrogen ELISA Assay*
- Dawn M. Graninger and Charles M. Sharpless** Department of Chemistry, University of Mary Washington  
*The Optical Properties of Reduced and Oxidized Natural Organic Matter*

(Additional poster titles will be published in the September issue of the Bulletin)

## **THE BULLETIN**

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**Stephanie  
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