



# *The CSRA Chemist*

SAVANNAH RIVER SECTION  
OF THE  
AMERICAN CHEMICAL SOCIETY

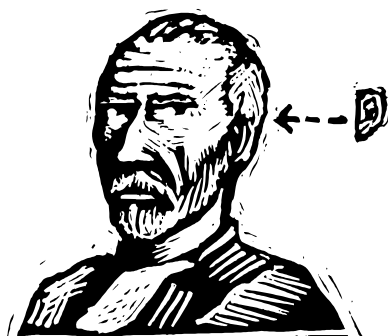
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## *INSIDE THIS ISSUE*

- September Meeting: Mary Virginia Orna at the Morris Museum of Art
- Call for nominations: Section Awards
- Olympiad Results
- USCA Student Affiliate group update
- Section Up for National Award
- *The CSRA Chemist* - Get It By Email!



Don't cut off your ear! Save it and come on out to hear Sister Mary Virginia Orna.

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# The CSRA Chemist

Editor: Lewis C. Baylor

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Mailing Address: Savannah River Section - American Chemical Society, c/o Lewis C. Baylor, Equitech Int'l Corp., 1359 Silver Bluff Rd., Ste. G6, Aiken, SC 29803. All newsletter articles should be sent to this address. All subscriptions, ads, and payments should be sent c/o Brian Anderson.

Advertisers: Brian Anderson is the Advertising Manager. The current ad prices are as follows: Full page (4.5" x 7") for \$100, Half page (4.5" x 3.5") for \$65, Quarter page (2.25" x 3.5" or 4.5" x 1.75") for \$40 and Business Cards (2.25" x 1.5") for \$15. We cannot accept ads that are larger than these size requirements. Send your camera ready art or computer diskette and payments to the mailing address above c/o Brian Anderson. The deadline is three weeks prior to the meeting date.

Member Profile(s): Joe Krupa is Chair of the Membership Committee. This topic is a regular feature in the newsletter. The profile should include: education, experience, accomplishments, hobbies and family items. To be featured, please send a 450 or less word profile, along with your phone number, to the mailing address above. Profiles will be selected by the chairperson and printed in the order received.

Meeting Announcements: *The CSRA Chemist* will announce scientific meetings of interest to chemists and chemical engineers (when space is available). For information and deadlines, contact Lewis Baylor.

Change of Address: Send new address and member number to address above and ACS, PO Box 3337, Columbus, Ohio 43210. You may also send e-mail to [service@acs.org](mailto:service@acs.org).

# CHAIR'S THOUGHTS

The whole chemistry community should be celebrating the accomplishment of the United States team in the International Chemistry Olympiad. Truly a substantial accomplishment by talented individuals with a strong grasp of chemistry. Three cheers!!!!

In October our Local Section will celebrate another year of service to the membership and communities we live in. As Chair I have enjoyed the support of the Executive Committee and the friendships developed through working together to accomplish our goals. The Local Section's membership is 280 plus strong.

Even with 8 years in the Local Section I know only a fraction of the membership. I have no doubt that it is represented by a vast collection of active individuals making significant contributions to their community and their profession. These deeds should be acknowledged by the Section. I have asked the Executive Committee to promote three awards for the membership for presentation at the October meeting:

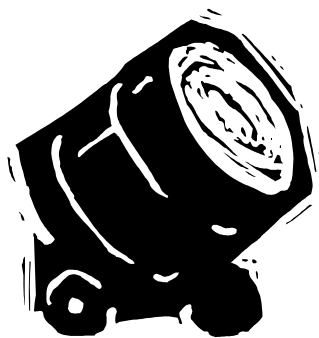
Outstanding Member(s) in direct support of Section activities,

Outstanding Member(s) in support of the community,

Outstanding Member(s) in promotion of science.

To ensure recognition of these individuals, I need your help. Please take a moment to think over the last year, focusing on the efforts your colleagues have made to the Local Section, the community and to promoting science. When a person comes to mind, take the time to send a nomination to me by e-mail or postal delivery. Include the award category, the

member's name (nominee), a short description of the activities and information on how to contact you should the Committee need additional information. If you are interested in serving on the Awards Committee just drop a line to me.




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## - Roy Beck SECTION UP FOR NATIONAL AWARD

The Savannah River Local Section was nominated for the ACS Award for Outstanding Performance by Local Sections in 1998 in the Medium-Small category (200-399 members). Other nominees included Joliet, Northeast Oklahoma and Rio Grande Valley. This award was given out at the ACS National Meeting in New Orleans just a few weeks ago. Roy Beck and Lewis Baylor pulled together materials for a poster to be displayed during the awards ceremony. Ned Bibler was kind enough to volunteer to put up the poster at the meeting. Although the winner was Northeast Oklahoma, kudos to all Section members who made the 1998 year worthy of this recognition from ACS National!

- Lewis Baylor

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**CHEMISTRY OLYMPIAD  
RESULTS**

This year's screening exam, authored locally, was administered to 278 1<sup>st</sup>- and 2<sup>nd</sup>-year chemistry students at ten local high schools. Those schools were: Aiken, South Aiken, Midland Valley, Butler, Davidson Fine Arts, A.R. Johnson Magnet, Westside, Greenbriar, Aquinas and Augusta Prep. Eight invitations were extended to the highest scoring students from that group of 278 and seven were able to attend the five-hour, three-part National Chemistry Olympiad exam held on April 24, 1999 at Augusta State University. Those seven students were: Doug Thomas (South Aiken), Brian Harvel (Aiken), Brandon Cordy (A.R. Johnson), Aaron Caraher (Greenbriar), Joseph Breuer (Aquinas), Jason Bhardwaj and Julia Samaddar (Augusta Prep). Each of the seven received a backpack from the Local Section as an award for participation and each of the ten high schools received National Chemistry Week tee shirts for their respective top scorers on the screening exams. We thank the teachers for coordinating the screening exams at their high schools: Carolyn Andrews (Aiken), Rosalyn Barton (South Aiken), Annie Glover (Midland Valley), Terry Tisdell (Butler), Sherrie Wheeler (A.R. Johnson), Richard Manly (Davidson Fine Arts), Patty Croft (Westside), Katie Smallwood (Greenbriar), Susan Gary (Aquinas) and Maricar Harris (Augusta Prep). We also thank Barbara Johnson and Sandra Duncan (administrative assistants at ASU) and Thuy Nguyen (lab manager at ASU) for their help this year. Pictures of last year's and this year's Olympiad participants will soon be available through the Section's web site.

-Monty Fetterolf and Cathy Cobb

**USCA STUDENT  
AFFILIATE GROUP**

The University of South Carolina – Aiken Student Affiliates Chapter of the American Chemical Society held monthly pizza lunch meetings during the 1998-1999 school year. We had an invited speaker, Brad Wasson, from Perkin Elmer in Columbia, SC come and discuss his particular career path from college, through industrial labs, and now into instrument sales. Dr. Ann Willbrand (USCA) discussed graduate school expectations. The Chapter initiated the idea of a USCA chemistry tee shirt, helped with the design (which includes the atomic symbols for uranium, calcium and sulfur) and are now selling these shirts to help offset the costs of the pizzas for the 1999-2000 school year. The cost is \$10 and you may contact Monty Fetterolf if you are interested in purchasing one. The Chapter also helped with the refreshments and desserts at the Senior Send Off Party held in May at the Odell Weeks Park in Aiken.

-Monty Fetterolf

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**SERMACS-99 Is  
COMING**

SERMACS-99 (Southeastern Regional Meeting of the American Chemical Society) will be held October 16-20 in Knoxville, Tennessee. This 51st meeting marks the 50th Anniversary of the first SERMACS. It is shaping up to be a large and dynamic event with over 600 technical presentations, including roughly 250 talks in topical symposia.

For all the details on this meeting, check on the web at [www.sermacs99.org](http://www.sermacs99.org).

# ACS-SR SEPTEMBER MEETING

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## Chemistry at the Art/Archeology Interface

Date: **Monday September 20, 1999**

Location: **Morris Museum of Art, 1 10th St., Augusta, GA**

Schedule: **6:30 p.m. social, 7:00 p.m. dinner, 8:00 p.m. presentation**

Menu: **Catered buffet by Poppy Seeds to include:**

*hors d'oeuvres (assorted coquilles and chicken dijon puffs), salad of mixed greens with parmesan ranch dressing, grilled salmon over low country grits topped with sauteed red onion, capers, and apple smoked bacon, carrot souffle, fresh garden vegetables, bread basket with assorted rolls and muffins, very berry tart with cinnamon whipped cream, coffee, tea, and water.*

Cost: **\$20.00 per person for ACS members and guests, no student discount.**

Reservations: **Contact Sara Diamond at (803)725-2605 and make your reservation by 2:00 p.m., Friday, September 17, 1999. Leave a message on voice mail if necessary, indicating the names of those attending and whether you will be attending the dinner, presentation, or both. Space is limited and the event will be advertised to the general public at full cost (\$25.00 for non-ACS members). Please be sure to sign up early!!**

Speaker: **Sister Mary Virginia Orna**

Topic: **Chemistry at the Art/Archeology Interface**

The archaeological chemical rewards of spending a sabbatical year in Israel and Italy will be discussed along with modern methods used to examine both ancient and modern artifacts. The archaeological work in Israel involved analysis of ancient pigments and dyes found on excavated materials from caves in the Judean desert and the ancient fortress of Masada. Textiles from the "Cave of the Warrior" were examined from their pigment content. The work in Italy involved examination of medieval artists' manuals for recipes for blue pigments, which were then carried out and characterized, with some surprising results.

Additional applications of the methods of archaeological chemistry to such famous artifacts as the forgeries of Han van Meegeran and the Shroud of Turin will be discussed, including some evidence that the radiocarbon date of the shroud may not be valid because of fire damage it experienced by the Shroud in 1532. Pros and cons will be discussed.

*Continued on page 6.*

# EDITOR'S CHOICE



## MEMBERS' CORNER

As we start the Fall, I would like to welcome those new Section members who transferred in or joined ACS this Spring.

Crystal Biddle works for ORISE and Dr. Charles Crawford at the Savannah River Technology Center in glass vitrification studies. Crystal received her B.Sc. in Chemistry from the University of Arkansas and enjoys tennis and reading.

Dr. Jonathan Duffy is an employee of Clemson University working at the Savannah River Technology Center in radiochemistry and actinide separations. He received his Ph.D. in inorganic and radiochemistry from the University of Tennessee.

Dr. Andrew Sowder's work has focussed on uranium in the environment, especially in mineral forms. He received his Ph.D. from Clemson University in Environmental Engineering. Andrew is married and his interests include gardening, photography, and astronomy.

Other new section members are Kevin E. Bartling, Dr. Wu Chieh Cheng, Chi Le, and Thomas Lewis. We hope you all will find the section warm and inviting, and will take advantage of the opportunities we have to provide chemistry outreach.

- Joe Krupa

*Continued from page 5.*

About our Speaker: Sister Mary Virginia Orna, O.S.U. (Order of Saint Ursula) is director of Educational Services and editor of Chemical Heritage magazine at the Chemical Heritage Foundation and professor of chemistry at the College of New Rochelle. She has lectured and published widely in the areas of color chemistry and archaeological chemistry. She is active in several divisions of the American Chemical Society, having served as chair of the History and Chemical Education Divisions. She is a recipient of the following major awards: the 1984 CMA Catalyst Award for excellence in college chemistry teaching, the 1989 New York State Professor of the Year and National Gold Medallist, the 1989 Merck Innovation Award, the 1996 ACS Visiting Scientist Award, the 1996 James Flack Norris Award, and the 1999 ACS George C. Pimentel Award in Chemical Education. She is presently president of ChemSource, Inc, a major effort in chemistry teacher preparation and enhancement funded by the National Science Foundation. She was a Fulbright Fellow in Israel (1994-95), where she lectured at The Hebrew University, The Weizmann Institute of Science, and Shenkar College of Textile Technology.

- Brian Anderson



A meal fit for the Pope, but cooked for you!

# ACTIVITIES CALENDAR

All Year*	International Chemistry Celebration	Various	CSRA
February 15	Tour: GBI	GBI	Augusta
February 17*	SRS Technology Day	Civic Center	Augusta
March 16*	Lee Marek "Chemistry on 'The Late Show with David Letterman'"	Ft. Discovery	Augusta
March 27	Girl Scouts	Fair Grounds	Evans
May 11	Tour: Air Products	Air Products	Langley
May 1	Nat'l Science & Tech. Week	Ft. Discovery	Augusta
September 14	CSRA College Night	Civic Center	Augusta
September 18-19	Arts In The Heart	Riverwalk	Augusta
September 20	Dr. Mary Orna "Chemistry at the Art / Archaeology Interface"	Morris Museum	Augusta
October 19	Awards Meeting	N. Augusta Comm. Cen.	North Augusta
October 23	SEED	USC-Aiken	Aiken
November 7-13*	National Chemistry Week	Various	CSRA
November 18	Dr. Joel Harris "Time-Resolved Spectroscopy"	The Bowery	Aiken

\* ACS-SR booth or activity, volunteers needed.

## \*\*\* *The CSRA Chemist* By E-mail \*\*\*

Would you like to receive *The CSRA Chemist* by e-mail, instead of by paper mail? We would be happy to put you on the Section's e-mail list - you will receive the newsletter more quickly and the Section will save money on printing and mailing costs. The newsletter will be sent in PDF format and can be read with Adobe's Acrobat Reader, which is available free on the WWW. Drop the editor an email at: [baylor@quixnet.net](mailto:baylor@quixnet.net) if you are interested in this new feature.

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