

The CSRA Chemist

Savannah River Section
of the

American Chemical Society

Vol. 46



No. 2

Its that Time Again -- 1st Fall Dinner

Place: Aiken Brewery, Downtown, Aiken

Date/Times: Tuesday, September 23, 2003,

6:30 pm social, 7:00 pm dinner,

8:00 pm speaker

Cost: \$15, section pays the tip?, (beer is extra!)

Talk: Dr. Ralph Allen, U.Va, "Uncovering the
Secrets of the Ancient Nile"

Reservations: Please call Glenda Blystone, 725-
5256 by Sept 21.

Up Coming Events --

September 8-13, 2003, National ACS Meeting, New York

September 16, - College Night, Augusta Civic Center

September 23, - Section Meeting, Dr. Ralph Allen, U. Va, "Chemistry of the Nile", Aiken Brewery

October 19-25, - National Chemistry Week, "Earth's Atmosphere and Beyond!"

October Chem. Week, - Augusta State College presents "WOW that's Chemistry", Bell Auditorium

October 21, - Section Meeting - Dr. Alan Weber, Weather, location Augusta?

November 14(?), -Section Meeting - Awards, Wine Tasting, North Augusta

November 9, - USC Aiken hosts Science Education Enrichment Day, USC Aiken Campus,

November 16-19, SERMACS, Atlanta, GA

Section Contacts - 2003

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Words from the chair -

Fall is upon us and we have an interesting schedule but first I would like to thank Damon Click for representing the CSRA section this past May at Plant Vogtle. The event informed employees of the benefits of participating in the ACS and he was on hand to distribute a two-paged flyer with information about the local and national ACS. The local section will continue to reach out to perspective members and generate interest in chemistry at College Night in September. We have prepared a handout to help interested students in pursuing a career in Chemistry.

In September, we have planned a meeting at the Aiken Brew Pub where an ACS tour speaker, Dr. Ralph Allen, will discuss "Chemistry of the Nile". Please join us. Nominations for section officers will occur at the meeting.

In October a key event that month will be the annual "Wow That's Chemistry" directed by Augusta State University for local school children. The event, in its ninth year, is organized and presented by Augusta State Chemistry Faculty and involves exciting, live science demonstrations. Also in October, is National Chemistry Week (NCW) with the theme of "Earth's Atmosphere and Beyond." One way members can participate is by attending the October 21 meeting with Dr. Alan Weber discussing weather. The exact location will be sent out in a later notice. Section election ballots will be issued after this meeting.

In November, the local section will be participating in Science Education Enrichment Day (SEED) at USC Aiken with a booth and chemistry demonstration to enthuse school students in science. We will also have several members attend the SERMACS conference in Atlanta. This is a meeting the section will host in 2006. A final event for the year is the award banquet and wine tasting open to everyone in November. This will finish off a wonderful year.

-- Tom White, Chair

SERMACS 2003 Update Number 4

David Gottfried, Associate General Chair SERMACS 2003

SERMACS 2003 (November 16-19 in Atlanta) is coming soon! Online abstract submission opened July 14 and advance registration began August 7. In this fourth and final preview of events that will take place at the 55th Annual Southeast Regional Meeting of the American Chemical Society, several additional symposia and some other notable offerings will be described. All of the Update articles in this series can be found on the meeting website at www.cas.gsu.edu/sermacs.

For the Entrepreneurial Chemist

Several symposia addressing the concerns of the business side of chemistry will be held at SERMACS 2003. Commercialization Strategies for Your Innovations, organized by Ann Schmierer (Georgia Tech/Emory Center for the Engineering of Living Tissues), will describe licensing technological innovations to industry including an emphasis on developing start-up companies. The symposium will introduce some models of this process that have been developed at Georgia Tech, Emory, and within the state of Georgia. The session will include talks from invited speakers and a panel discussion with audience participation encouraged. Topics to be covered include: Technology Transfer and Licensing for Commercial Development, Georgia Tech's VentureLab Program, Early Stage Financing Strategies, and Bioscience Incubators for Start Up Companies.

An Intellectual Property (IP) Symposium will cover IP topics tailored for the interests of professionals in the chemical, biochemical, polymer, and biotech fields. Key topics will include an overview of patent law to ensure attendees are well acquainted with the proper role of patents and the process for obtaining patent protection; patent strategies to maximize patent protection while minimizing costs; and a survey of recent changes in U.S. patent law. The invited speakers for this symposium are attorneys with a wealth of experience in the chemical, chemical engineering and medical areas and include Rivka Monheit (Holland and Knight, LLP), Patrea Pabst (Holland and Knight, LLP), and Jeffery Arnold (Kilpatrick Stockton, LLP).

Employment Issues

The Career Services Office of the ACS will offer individual resume reviews, the Regional Employment Clearinghouse (RECH), and workshops on Managing An Effective Job Search. Workshop topics will include: Targeting the Job Market, Resume Preparation, and Interviewing Skills. The workshops will be offered during the mornings with individual resume reviews scheduled for the afternoons; the RECH will be open on Monday and Tuesday.

SERMACS 2003 has agreed to be a beta test site for the American Chemical Society's PROGRESS Project. This project was launched in 2002 as a pilot to develop and evaluate programs aimed at facilitating the full participation and advancement of women chemists and chemical engineers. As part of this project, SERMACS 2003 will host a symposium titled Thriving in the Workplace. This half-day session is designed to provide a compilation of information and models on how to help women chemists and chemical engineers and to offer recommendations and new ideas on how to overcome the challenges experienced by women in the workplace. The symposium is structured to include organized presentations, panel discussions, and networking activities. An accompanying display will provide recommendations and tools for improving the workplace for women chemical professionals and will highlight organizations and institutions that have helped women develop and advance their professional careers.

Technical Sessions

Single Molecule Optical Spectroscopy. Over the past decade, high sensitivity optical microscopy has enabled the previously unobservable dynamics of individual molecules to be recorded and analyzed. This symposium will highlight many of the most important advances in single molecule microscopy and their role in elucidating the dynamics of biological and new materials systems. This wide-ranging symposium, organized by Rob Dixon (Georgia Tech), is designed to bring together top researchers in biophysical, analytical, and physical chemistry. It will feature eight nationally recognized scientists who will present their latest research results.

Organometallic and Materials Chemistry in the Southeast. This symposium will spotlight recent progress in organometallic and materials chemistry. Over 15 invited speakers will discuss research topics such as preparation and characterization of microelectronic materials, low-dimensional (nano-sized) structures, chiral nanoporous solids, metal-halide frameworks, biomimetic catalysts, new transition metal and main group organometallic complexes, and mechanisms of organometallic reactions. The symposium is being organized by Ziling (Ben) Xue (University of Tennessee) and David Beach (Oak Ridge National Laboratory).



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October 1

Theme: Earth's Atmo

osphere and Beyond!

A Division of the American Chemical Society

Join the Celebration!
National Chemistry Week
October 19-25, 2003!
Theme: "Earth's Atmosphere and Beyond!"

The unifying event for this year's National Chemistry Week celebration will be "Honoring Innovators and Pioneers in Aviation and Atmospheric Chemistry." Local Sections are asked to recognize local individuals that have made important contributions to the advancement of aviation and atmospheric chemistry with Salutes to Excellence presentations. The Office of Community Activities will provide you with a complimentary plaque to present to your honoree(s).

Sections are also invited to participate in the national poster competition for K-12th grade students. The contest, "Earth's Atmosphere and Beyond!" encourages students to draw a poster illustrating contributions made by chemistry to the advancement of aviation and atmospheric chemistry. National winners will receive a handheld color TV, honorable mentions will be awarded a set of Talk-About 2-Way radios, and teachers of winning students will each receive a Periodic Table of the Elephants Poster.

For more information, visit the NCW website at chemistry.org/ncw or contact the ACS Office of Community Activities at 1-800-227-5558, ext. 6097.

Call for Section Officer Nominees -

Section officers are elected in the fall. If you are interested in being a section officer or want to nominate someone for office please contact Steve Serkiz, who as past chairman heads the nomination committee for this year. A candidate must agree to serve prior to nomination.

Call for Volunteers: CSRA College Night

The 2003 CSRA College Night will be held Tuesday, Sept. 16, 5-8:30 p.m., Augusta/Richmond County Civic Center. This annual event benefits area high school students by bringing in over 150 colleges, universities, technical institutes, and professional and technical societies from around the country to interact with local students.

The deadline for petition candidates for the 2003 ACS Fall National Election was July 15. The official candidates for ACS National Office are:

For President-Elect, 2004

William F. Carroll, Jr., Occidental Chemical Corporation
Michael E. Strem, Strem Chemicals, Incorporated

For Directors-at-Large, 2004-2006

Dennis Chamot, National Research Council
Nancy B. Jackson, Sandia National Laboratory
Peter C. Jurs, Pennsylvania State University
James P. Shoffner, Columbia College

For Director District I, 2004-2006

Ronald D. Archer, University of Massachusetts
Anne T. O'Brien, Wyeth Research, Retired
Dorothy J. Phillips, Waters Corporation

For Director District V, 2004-2006

Judith L. Benham, 3M Company
E. Ann Nalley, Cameron University

About September's Tour Speaker...

Biographical Sketch

Speaker **Dr. Ralph O. Allen**

Dr. Ralph O. Allen, professor of chemistry and director of environmental health and safety at the University of Virginia (UVA), has published over 80 articles on applications of analytical chemistry and the management of hazardous materials. Dr. Allen earned a Ph.D. degree from the University of Wisconsin at Madison for his studies of trace elements in meteorites. He has been a co-principal investigator for the materials, he collected from the surface of the moon. At UVA, Dr. Allen's interests have expanded into several other areas. Applying a geochemical approach to the study of archaeological materials led to several expeditions to archaeological sites, including predynastic sites in Egypt. He is presently chairman of the Archaeological Chemistry Subdivision of the History of Chemistry Division of the ACS and is editor of Archaeological Chemistry IV.

Title Uncovering the Secrets of the Ancient Nile

Abstract

Scientists are using analytical chemistry and other techniques to learn how our prehistoric ancestors made the most of natural materials. Trace element concentrations in some natural materials can be used for provenance studies. In some cases, the sources of clay can be distinguished and can show where a particular type of pottery was produced. Changes in natural materials are shown by chemical characterization of pottery from prehistoric Egypt (~4000 BC). Craftsmen developed techniques to control the color, texture, and characteristics of the ceramics they produced. At Hierakonopolis, a major predynastic site in Egypt and the legendary home of the first pharaohs, two major types of pottery have been found. One type is a coarse tempered pottery, found primarily near habitation sites. A very different type of fine, hard, plum red colored pottery has been found near the cemeteries (including the oldest stonecut tomb in Egypt). Chemical testing has shown that these very different ceramic types were produced from the same clay. The differences appear to result from the intentional addition of salts, which lowered the temperatures of melting and phase transitions. This suggests that nearly 6,000 years ago, Egyptian craftsmen knew how to chemically modify and control the natural materials they used. Careful analysis of the Nile sediments that have been deposited in the past also have been used to identify changes in environmental conditions over time. The chemical and geological data on Nile sediments have been used in conjunction with archaeological studies to define the history of the people who started humankind on the road to civilization as we define it today. [ACS Copyright]

Notes from the program chairman...

Confirmed we are in at Aiken Brew Pub for the September 23rd talk. For groups of our size in 20 - 30 range, she suggest doing a buffet. It includes 2 meats, 2 salads, 1 veg and 2 starches as well as tea/water. We can opt to switch out a starch for a dessert. Total cost is \$17 per person - that INCLUDES tax AND gratuity added in. (similar to being charged \$15 per head and leaving a 15% tip + 3% tax?) the famous Aiken brews would of course be extra charge

I suggest we charge maybe \$15 and cover the difference with section funds?

Also, there is no fee for reserving the room.

For comparison, the Etherredge Center hits us for about \$400 per 20 people to cover a catered affair over there (charges include rent, security, tech equipment, custodial, and meal at 10.75 + tax each, linens, etc. at \$20) So Aiken Brew would basically be $17 \times 20 = \$340$ for 20 people

Of course we also get the Speaker cost of \$300.....if/when we ever get billed by ACS

Charles Crawford

SERMACS continued..,

Chemistry of the Future

The regional, high school Chemagination Contest will also be held in conjunction with SERMACS 2003. This science writing competition is composed of two components. In the first part, students prepare an "article" that could appear in ChemMatters magazine 25 years in the future to answer the question, "What breakthrough or innovation, related to chemistry and/or its applications, will improve the quality of a teenager's life 25 years in the future?" Possible subject categories include biotechnology, medicine/healthcare, new materials, transportation, and the environment. In the second part of the competition, students will produce a tabletop presentation for display at SERMACS 2003. Each presentation will include the contestant's written article, a magazine cover for the 2028 edition of ChemMatters, and relevant background research. The tabletop presentations will be judged on Wednesday morning during the conference, and the best projects will be recognized in an awards ceremony later that afternoon.

Important SERMACS 2003 Dates

Official Call for Papers:	C&E News - June 9, 2003	
Online Abstract Submission:	Opens July 14, 2003	Closes
September 16, 2003		
Advance Online Registration:	Opens August 7, 2003	Closes
November 10, 2003		

SERMACS Meeting Locations

- 2003 Atlanta, Nov 16-19, 2003
- 2004 Birmingham
- 2005 Joint meeting of NE/SE Sections
- 2006 Augusta, Nov 1-4, 2006
- 2007 Greenville

Congratulations to Norman A. Johns -- winner of a 2003 Leadership Development Award

Norman A. Johns recently won a leadership development award from the Younger Chemists Committee (YCC) of the American Chemical Society (ACS). This award recognizes emerging leaders in the profession and helps them prepare for future leadership opportunities in volunteer organizations such as the many committees in the ACS. Johns was recognized for his past accomplishments. As part of the award he will participate in a workshop at the SERMACS meeting in Atlanta. Tom Colman, Ph.D., a fellow chemist and management consultant specializing in individual and organizational effectiveness, will facilitate the workshop. During the half-day workshop, participants will engage in discussions about the characteristics and behaviors of effective leaders, identify leadership skills, develop a personal leadership development plan, and learn about leadership opportunities in the American Chemical Society. Congratulations - Norman Johns!

American Chemical Society
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