



The CSRA Chemist

SAVANNAH RIVER SECTION
OF THE
AMERICAN CHEMICAL SOCIETY

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The CSRA Chemist

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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: On the web at <http://www.acs.org>; by telephone at 800-333-9511; by email: service@acs.org. The Local Section receives roster updates on a monthly basis from ACS National.

MARCH EVENTS

IS IT CHEMISTRY OR MAGIC?

Date: Tuesday, March 11, 2008
Location: Ruth Patrick Science Education Center, Room 117, USCA
Time: 6:00 p.m.
Speaker: Dr. Otis Rothenberger and Dr. Jim Webb
Cost: \$5 for K-12 teachers and students; \$15 for all others
Menu: TBA

Reservations: Contact Elise Fox at (803) 507-8560 or elise.fox@srnl.doe.gov. Leave a message on voice mail if necessary, indicating the names of those attending. Please sign up early!! The deadline is Monday, March 9. No shows will be charged full price.

Directions: USCA is on University Parkway, off of the Aiken-Augusta Highway (US 1) in Aiken, SC.

Abstract When professional firefighters or law enforcement officers visit public school classrooms, they dress and act according to their professional roles. More often than not, the chemist's visit involves funny T-shirts, cute hats, and silly behavior. Thus, many chemical outreach presentations support the very stereotypes that the profession has come to deplore. The presentation "Is It Chemistry or Magic?" illustrates that chemical outreach programs can convey the profession's important messages with drama, humor, and dignity. Further, the presentation illustrates that these messages can be conveyed with very simple and inexpensive materials that can be packed in the trunk of a single car. This show will be beneficial to anyone that is involved in any type of traveling science program or likes to promote science education at local schools and clubs.

About the Speakers Dr. Otis Rothenberger and Dr. Jim Webb are ACS tour speakers.



MARCH EVENTS

CENTRALITY OF CHEMISTRY: OUR CHALLENGES AND OPPORTUNITIES

Date: Monday, March 17, 2008
Location: Jaguar Student Center Coffee House, ASU
Time: 6:00 p.m.
Speaker: Dr. Bruce Bersten
Cost: \$15; half-price for students
Menu: TBA

Reservations: Contact Elise Fox at (803) 507-8560 or elise.fox@srln.doe.gov. Leave a message on voice mail if necessary, indicating the names of those attending. Please sign up early!! The deadline is Monday, March 9. No shows will be charged full price.

Directions: ASU is located off Walton Way in Augusta, GA

Abstract I am deeply honored to have the privilege of serving as President in 2008. It is my hope that during this year, we work together to make a difference in the future of chemistry. I will focus our efforts in two arenas that affect all areas of the chemical enterprise, namely communication and education. Two years ago, the ACS adopted a new [Vision Statement](#): *Improving people's lives through the transforming power of chemistry*. We believe that chemistry is a transformative enterprise that is central to improving human life. But do others know that? I become concerned about the sometimes *invisible centrality* of chemistry—the role of chemistry is often taken for granted in discussions of new science and technological advances that are built fundamentally from chemistry. One of my goals as President is to make our Society even more effective at communicating the beauty, value, and centrality of chemistry. Every new ACS President in recent memory has stated that science education needs to remain a priority of our Society, and that we need to do a better job of what we are doing in education. It will not surprise you that I am happy to bang the same drum: Chemical education, and particularly K-12 Science, Technology, Engineering, and Mathematics ([STEM](#)) education, will be another top priority of the [ACS](#) during my time as ACS President.

About the Speaker Bruce E. Bursten received his B.S. in Chemistry with Honors from the University of Chicago in 1974, and a Ph.D. in Chemistry from the University of Wisconsin - Madison in 1978 under the direction of Professor Richard F. Fenske. He joined the faculty of The Ohio State University in 1980 as an Assistant Professor of Chemistry. In October, 1999 he became Chair of the Department of Chemistry at Ohio State, a position he held until October, 2003. In Fall, 2005 he moved to the University of Tennessee, Knoxville as Dean of the College of Arts and Sciences and Distinguished Professor of Chemistry. Dr. Bersten served as President-Elect of the ACS for 2007 and is President of the ACS for 2008.

Professor Bursten conducts research in inorganic chemistry. His research centers on the correlation of theoretical and experimental electronic structural data with the bonding and reactivity patterns of metal-containing molecules.

Professor Bursten has received numerous national and international honors for his academic accomplishments. Among these, in 1984 he received a Camille and Henry Dreyfus Foundation Teacher-Scholar Award and in 1985 he was named a Fellow of the Alfred P. Sloan Foundation.

WORKING ON THE BOTTOM LINE: MY QUARTER CENTURY IN THEORETICAL ACTINIDE CHEMISTRY

Date: Monday, March 17, 2008
Location: SRNL - **This talk is open to SRS personnel only.**
Time: 2:30 p.m.
Speaker: Dr. Bruce Bersten

Abstract In this seminar, an historical perspective of the studies in the area of inorganic chemistry of the actinide elements by the author, starting with the quasi-relativistic Xa-SW method and progressing to modern relativistic density functional methods, will be presented. Inorganic bonding motifs will be applied to several types of complexes of the actinide elements, including large organometallic compounds and small matrix-isolated molecules, such as CUO and UO₂. The synergy between theory and experiment in this latter area has ultimately led to the discovery of the first direct bonds between uranium and some of the noble-gas elements.

LOCAL NEWS

EARTH DAY

ACS-SR will be celebrating Earth Day on April 19th. The theme for this year is “Streaming Chemistry” and we will be composing a team to help Phinizy Nature Swamp in Augusta, GA build a Rain Garden boardwalk. The “rain garden” is a concept proposed by the U.S. Fish & Wildlife Service to adapt water retention basins for aesthetic, ecological, and educational purposes. Most retention basins are designed to serve in storm water management by capturing runoff and floodwaters. Once converted to a rain garden, these basins also serve as important habitat for flora and fauna as well as unique backdrops for educational opportunities. Contact Polly Berseth (polly.berseeth@srs.gov or pollyb@usca.edu) by April 18th at noon to sign up. More details to follow.

- Elise Fox

ACS-SR ADOPTS WHISKEY ROAD

In addition, ACS-SR has adopted a highway in the South Carolina Palmetto Prideway campaign. We

have been assigned two miles of Whiskey Road, starting at SR-1 near the Savannah River Site boundary. Keep your eyes out for the state road sign celebrating our adoption. We will be conducting our first litter pick-up on Saturday April 19th in celebration on Earth Day. Contact Elise Fox (elise.fox@srl.doe.gov or 803-507-8560) by noon on April 18th if you would like to participate. Families are welcome.

- Elise Fox

NOTES FROM THE YOUNGER CHEMIST COMMITTEE

It's time for a little March Madness... **Can nerds bowl?** NO of course they can't! But they can have fun trying! The local chapter of the Savannah River (SR) YCC, SR local section of ASM International, and AIChE Central SR Section Young Professionals Advisory Committee are having a combined bowling event on at **6:00pm** on **March 14th** at Brunswick National Lanes, 3067 Washington Rd, Augusta. A **FREE** beverage will be provided to the first ten people to arrive after 6:00pm. Later in the evening we will be raffling off a few **PRIZES** as well!

LOCAL NEWS

Cost:

Game: \$3.99 + tax per person/per game

Shoe Rental: \$3.99 + tax per person

Directions:

From Aiken, take I-20, get off at the Washington Rd. exit, turn right, the bowling alley is on your right (about 0.3 miles off the ramp). Turn at the sign for the skating rink.

In Augusta, get to Washington Rd. going toward Martinez, after passing I-20 it is 0.3 miles on your right, turn at the skating rink sign.

Past Events

In the last two and a half month the YCC has been off to a great start. We had two YCC meetings and two educational activities. In January, we were invited to visit MCG Children's hospital and we made slime. The children loved learning about polymer chemistry, and they especially loved the chance to slime a doctor (see pictures). The YCC would like to give a special thanks to Dr. Matthew Threadgill for his willingness to be SLIMED! They have asked us to return so stay tuned for a summer event.

On February 13-14th, we exhibited at Technology Days, a local event to excite middle school children about science and engineering (see pic-

tures). We had over 19 volunteers participate in our exhibit "Put down the loaded banana." The children had an opportunity to explore radioactive sources found in their everyday lives and use a GM counter. Special thanks to Nick Bridges, Tad Whiteside, Leah Arrigo, and Glenn Fugate for planning and executing our exhibit and to all volunteers. There is no way this would have gone as smoothly without your participation!

Announcements

The YCC would like to announce that Leah Arrigo has been appointed YCC Assistant-Chair. She has been vital for our activities this year and we look forward to her continued input in the future.

As you can see from the calendar we need more events. We invite all YCC members to attend our March 27th meeting at Aiken Brewing Company located on Laurens St. in downtown Aiken.

-Blythe Ashcraft



LOCAL NEWS

CREECH AWARD NOMINATIONS

Members do you know any high school chemistry teacher that deserves to win our Denise Creech Outstanding High School Chemistry Teacher Award? We have received applications for the Creech award from a few teachers and department heads but none from our members.

To remedy this we will accept nominations for the award until March 15th. Nominate by giving the teacher's name, school name, and a nominating letter to Michael

Bronikowski,

Michael.Bronikowski@srnl.doe.gov.

-Mike Bronikowski

CONDOLENCES

The Section wishes to extend our deepest condolences to the families and friends of Dr. Bruce Longtin and Dr. Wu-Chieh Cheng, both longtime members of the ACS.

Bruce Longtin, PhD - received a B.S. degree in chemistry from the University of Berkley in 1935. He completed his masters in 1936 and his PhD in 1938. He received the Shell Fellow in Chemistry for the years 1938-1939. Dr. Longtin taught

at Illinois Tech from 1939 to 1949 and then in 1950 began working for Du Pont in Chicago, New Jersey, and finally Savannah River Site until 1978. Dr. Longtin went on to teach at Salkehatchie Campus of the University of South Carolina until he retired in 1984. He has published over 20 papers, and been cited more than 45 times in the literature. He was known to be an avid painter and enjoyed backpacking and mountain climbing around the world. Dr. Longtin was an ACS member for 70 years. He is survived by his wife Cecilia.

Wu-Chieh Cheng, PhD - husband of Wenyng Liu Cheng, entered into rest on Saturday, January 5, 2008 at the age of 85. Dr. Cheng completed his B.S. degree in 1944 at St. John's University in Shanghai, China. He came to America and finished his M.S. in 1949 from Kansas State University and his finished his Ph.D. in Chemistry at Georgia Institute of Technology in 1954. He was a Primary Patent Examiner at the U.S. Patent & Trademark Office in Washington, D.C., an Associate Professor of Physics at Payne College, an Associate Professor of Chemistry at George Peabody College, and a Head of Chemistry at Union University. He was a member of the American Chemical Society for 59 years.

8 - Krissy Ziegler

LOCAL NEWS

2008 Section Budget

<i>Income</i>	<i>Budget</i>	<i>Actual</i>
ACS Allotment	6,005.00	0.00
Interest	250.00	0.00
Local Section Dues	2,600.00	0.00
Meeting Income	3,000.00	0.00
Science Cafe Grant	500.00	0.00
ACS Travel Grant	300.00	0.00
SERMACS 2006	1,000.00	0.00
TOTAL INCOME	13,655.00	0.00
<i>Expense</i>	<i>Budget</i>	<i>Actual</i>
Awards	1,300.00	0.00
Chem. Olympiad	350.00	0.00
Invested	0.00	0.00
Meeting Expenses:		
Speaker	1,200.00	0.00
Meeting	4,000.00	0.00
New Member Program	200.00	0.00
Miscellaneous	250.00	0.00
National Chemistry Week:		
NCW Events	500.00	0.00
Chemistry Show	350.00	0.00
Newsletter:		
Software Update	500.00	0.00
Postage	400.00	0.00
Printing	1,000.00	0.00
Public Relations	1,000.00	0.00
Scholarships	500.00	0.00
Service Charge	150.00	0.00
Travel	300.00	0.00
YCC	350.00	0.00
TOTAL EXPENSES	14,450.00	0.00

- Eric Zuckerman

QUILL AND FLASK



We have quite a flurry of activities in March and April - there's something for just about everyone: a baseball game for the sports enthusiast, Earth Day for those who enjoy nature, and 3 scientific talks to satisfy the intellect. Come on out and support the Section by attending one or more of these events. This newsletter is so packed with information, that the Chair's Thoughts have been compressed into the paragraphs below.

- Lewis Baylor

MONTY'S BOOK

Congratulations to Dr. Monty Fetterolf of USC-Aiken on the publishing of his book entitled "Crime Scene Chemistry for the Armchair Sleuth," (coauthored by Cathy Cobb and Jack Goldsmith). You can read a review on the book in the December 15, 2007 Volume 172 issue of Science News (www.sciencenews.org).

BASEBALL

Due to the popularity of last year's event, the ACS-SR will be having another baseball outing at the Augusta Greenjackets game! The tentative date is April 26 and tickets will be half price for ACS members (up to 4 tickets per member). Please visit our website for up to date information and keep an eye out for email reminders!



ELECTION CALL

It's never too early to be thinking about running for an ACS-SR officer position. Please think about becoming more involved with the Section by becoming an officer. Contact Krissy Zeigler or Elise Fox if you are interested.

-Krissy Ziegler

Drat! Foiled by a chemist!



ACTIVITIES CALENDAR

Date	Event	Venue	Location
January 29	Future City Competition	USCA	Aiken
February 7	Dr. Howard Peters "Chocolate - Food of the Gods"	Carrabba's	Augusta
February 9	DOE Science Bowl	USCA	Aiken
February 12-13	SRS Technology Days	Ft. Discovery	Augusta
March 11	Drs. Rothenberger & Webb "Is it Chemistry or Magic?"	USCA-RPSEC	Aiken
March 17	Dr. Burce Bursten - Pres. ACS	ASU	Augusta
April 6-10	ACS National Meeting	Various	New Orleans
April 16	Dr. Thomas Spittler "Groundwater Protection - A Problem Whose Time Has Come"	TBA	TBA
April 22	Earth Day	TBA	TBA
April 26	Augusta GreenJackets Game	Lake Olmstead	Augusta
May 11-17 TBA	Thermite Reaction Demo.	Train Depot	Aiken
Fall TBA	Science Cafe	TBA	TBA
August 17-21	ACS National Meeting	Various	Philadelphia
September TBA	CSRA College Night	James Brown Arena	Augusta
September TBA	Meeting	TBA	TBA
October TBA	Plant Tour	Cytec	N. Augusta
October TBA	SEED	USCA	Aiken
October 19-25	National Chemistry Week	Various	CSRA
Nov. TBA	Tall Tales of Chemistry "Share your favorite chemistry stories!"	Aiken Brewing Co	Aiken
November 12-15	SERMACS2008	Music City Sheraton	Nashville
December TBA	Awards & Wine Dinner	TBA	TBA

YCC Spring/Summer Calendar of Events

Date	Event	Place	Time
March 14	Bowling w/ ASM & AIChE	Brunswick Lanes	6:00 pm
March 17	Dr. Bruce Bursten, ACS Pres.	ASU	6:00 pm
March 27	YCC Meeting	Aiken Brewing Co.	6:00 pm
April 4	Social Event with ASM & AIChE	TBA	6:00 pm
July/Aug.	MCG Childrens' Hospital Event	MCG	TBA

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