

The CSRA Chemist

Savannah River Section
of the

American Chemical Society



September Meeting

Fuels and Chemicals from Biomass: Challenges and Opportunities

On Tuesday, September 25, Dr. Badal C. Saha from the USDA will present “Fuels and Chemicals from Biomass: Challenges and Opportunities” at Augusta State University. Dinner will be \$15 (no shows will be charged).

Dinner reservations required by Septemebr 18. Please contact Krissy Zeigler at 803-725-4180 or email mylittlekrissy@yahoo.com or kristine.zeigler@srm1.doe.gov.

We have a new local on the ASU campus this time. It’s the Coffee House in the Jaguar Student Activities Center (JSAC). We have that room from 6:30-9:30 pm. Socialize at 6:30, Dinner at 7:00, and Dr Saha’s talk will follow dinner.

A student rate for dinner will be \$5.

Budget Summary - contact Treasurer Eric Zuckerman or Chair Mike Bronikowski for a more detailed report if needed

Income

ACS Allotment	\$5,600
Local Dues	\$1,500
Interest	\$250
Meetings	\$3000
Total Income	\$10,350

Expenses

Awards +Scholars	\$1250
Chem. Olympiad	\$350
Meetings	\$5,200
Chem Week	\$1000
Publications, Mail	\$1600
Web and Services	\$3750
YCC, Travel,PR	\$750
Total Expenses	\$14550

Investments/ Endowment - approx \$45,000

NOTE: *This Newsletter is available by email. Please contact Lewis Baylor if you want to receive notices by email. We have found that land mail is sometimes unpredictable due to the low priority of bulk rate mailing and the email or web additions give timely announcements.*

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September Meeting - Sept. 25 ASU

It's the Coffee House in the Jaguar Student Activities Center

Fuels and Chemicals from Biomass: Challenges and Opportunities

On Tuesday, Dr. Badal C. Saha from the USDA

Abstract:

In the U.S., the production of corn grain based ethanol reached 4.5 billion gallons in 2005, a fraction of the 140 billion gallons of transportation fuel used annually. The goal is to displace 30% of the nation's current gasoline use with ethanol by 2030 and this will require production levels equal to roughly 60 billion gallons a year. If all corn grain now grown in the US is converted to ethanol, it can satisfy approximately 15% of current transportation fuel needs. Thus, developing ethanol as fuel, beyond its current role as fuel oxygenate, will require developing lignocellulosic biomass as feedstock because of its abundance. This includes various agricultural residues such as corn fiber, corn stover, rice straw, wheat straw and sugarcane bagasse, and energy crops such as switchgrass. In this presentation, the current state of research and development for cost-effective conversion of lignocellulosic feedstock to fuel ethanol, and efforts to bring the technology into the market place will be reviewed. Recent research progress dealing with the production of some other value-added chemicals from biomass will also be described.

Looking for a few good officers

It's about that time of year again when the ACS-SR holds its yearly elections. Please think about becoming more involved with the section by becoming an officer. Positions open for election are:

Chair-Elect
Secretary
Councilor
Treasurer

If you have any questions or want to know more about the positions, please contact Dan McCabe. Our other committees, Public Relations, National Chemistry Week, Webmaster, Education, Industrial Relations, and Minority Affairs can always use help. If you are interested in helping out on one of the committees, please contact the committee chair. Nominations need to be made by September 28 so a ballot can be issued in October.

Comments from the Chair:

The second half of the year has already started out great for our section. We awarded the 2007 Denise L. Creech Outstanding High School Chemistry Teacher award to Marcheta Sherer of Augusta Christian Schools during our August 16th meeting. It was the first time we were able to award \$500 to the recipient and \$100 to the schools science department. Our section also won the ChemLuminary award for Outstanding Performance by a Local Section (medium-small size category) at the 234th ACS National meeting! What's next?

We have three speakers scheduled this fall for those who want to learn new things. For those who want to interact with the public, by teaching or promoting your profession, we are going to participate in the 20th Anniversary of National Chemistry Week (Oct 21-27th), hopefully in a big way. The plan is to have demonstrations at local shopping areas on Oct. 20th, and at SEED at USCA. Call now to volunteer to help plan or man the booths. Finally, if you're interested in running for a position let us know, if not please vote for your favorite candidate in the election.

Congratulations to our 50 and 60 year ACS members!

50 yr members

Dr. Herman P. Holcomb
Mr. William R. Jacobsen
Dr. David G. Karraker
Mr. Samuel G. Parler
Dr. John A. Porter

60 yr members

Joseph H. Dickson
Dr. Victor J. Reilly

-- **Mike Bronikowski, Chair**

National Chemistry Week, October 21-27 is celebrating it's 20th year! In honor of that, the section will be holding NCW events around town. We are looking for volunteers to help us man the booths. This will be for a couple of hours on Saturday the 20th of October. Experiments will be laid out for children to participate in. If you are interested in helping with NCW, please contact: Bill Trammell (trammellb@nscdiscovery.org) or Krissy Zeigler.

Councilor's Report – Fall 2007

Chris Bannochie

The Boston Council Meeting was relatively low key with no major actions up for a vote this meeting. There was some unhappiness about the decision by the Meetings and Exposition (M&E) Committee and Board of Directors action this summer to move the 2011 Chicago Meeting to Denver. Coupled with this move was a decision not to return to Chicago for any future National Meetings. The decision was based on results of a survey conducted in Chicago during the Spring National Meeting. According to M&E, there was overwhelming opposition to the logical arrangements in Chicago, specifically the inconvenience of the Convention Center to the downtown hotels as well as the difficulty in navigating the now massive McCormick Place Convention Center that spans both sides of Lake Shore Drive and extends west to a convention center associated with the new Hyatt McCormick Place Hotel. During the Council meeting a poll was taken of the assembled councilors, some 450+ individuals, and not more than a dozen had been asked to take the survey. This raised suspicion around the “randomness” of the survey since nearly 25% of Chicago attendees were reportedly polled. The Chicago Local Section councilors were most upset, but an observation was made by another councilor that the Society was doing a disservice to students in the Midwest by removing the one regular, major Midwest location of ACS National Meetings. The Chair of M&E left the podium a bit bruised by the questioning, but this would not be the first time that M&E had acted unilaterally and hastily. Some councilors reported that the ACS would return to Chicago eventually because they always do after periods of absence.

Up for a vote in New Orleans is a series of changes involving the bylaws, and if approved by the Council, a vote by the entire Society because the changes would impact the Constitution. The changes involve categories of membership, but probably more fundamentally, the definition of whom can be a member. Basically, the proposed changes would open membership up to anyone interested in being a member of the Society. The requirement to have a degree in chemistry or a certain number of years of work experience in a chemistry related field would be removed. The rationale for this change is that many potential members do not consider themselves “chemists” even though their professional activities involve chemistry. These multidisciplinary scientists would now feel more at home in the Society. I would really like to get your feedback on this issue between now and the New Orleans National Meeting in March 2008. Anyone who is interested in the specific bylaw changes and a more complete explanation of these changes should contact me at: bmerup@comcast.net

ACS - Savannah River Section Wins National Award

The Savannah River Section of the American Chemical Society (ACS-SR) has won the 2006 ChemLuminary Award for Outstanding Performance by a Local Section (Medium/Small Category). The award cited the section's successful Regional Meeting: SERMACS 2006, 50th Anniversary Celebration, and a Chemistry Café among its achievements. The award was made in Boston at the Fall National Meeting of the Society. The 2007 ACS-SR Elected Officers are Dr. Michael Bronikowski (Chair), Dr. Kristine Zeigler (Chair-Elect), Dr. Daniel McCabe (Immediate Past-Chair), Dr. C. Scott McWhorter (Secretary), Dr. Eric Zuckerman (Treasurer, ASU), and Dr. Christopher Bannochie (Councilor). Also present for the award program were Dr. Robert Lascola (Membership Chair), Dr. Kimberly Crapse (Public Relations Chair), Dr. Charles Crawford (Past Section Chair) and Dr. David Hobbs (Past Section Chair).



Savannah River was well represented at the award ceremony. Shown is Rob Lascola, Kim Crapse, Mike Bronikowski, Chris Bannochie, Charles Crawford, Krissy Zeigler, and David Hobbs.

Our Nomination for the Chemluminary award ---

The ACS Savannah River Section (ACS-SR) celebrated its 50th anniversary in 2006 with a busy year. We culminated four years of effort by hosting the Southeastern Regional Meeting of the ACS (SERMACS 2006) for the first time in our 50 year history. SERMACS 2006 was highly successful, serving a large and diverse cross-section of the chemical community and furthering both Society and Section goals. Meanwhile, we maintained our educational outreach program, and began to expand our service in new directions such as government affairs and service to older members. In so doing, we nearly doubled the number of active members. This level of effort would be admirable for a section of any size, but for a medium/small section it is remarkable. We believe our performance this year is worthy of consideration for the award of Outstanding Performance by a Local Section.

Our accomplishments with SERMACS 2006 can be seen through the prism of the ACS Core Strategies:

We provided state of the art chemical information that reflected the multidisciplinary nature of the chemical enterprise. The American Institute of Chemical Engineers - Central Savannah River Area Section (AIChE-CSRA) collaborated with us in hosting the meeting. We received sponsorship and programming support from seventeen technical divisions, including the AIChE Division of Nuclear Engineering; five ACS committees, including WCC, YCC, CMA, CWD, and Ethics; and six professional offices within ACS. Other topics with related sponsorship included "Chemistry and the Law" and "Chemical Health and Safety". The attractiveness of the programming is best reflected by the fact that one-sixth of the 790 papers came from outside the Southeast, an unusually large proportion for a regional meeting.

We demonstrated the role of ACS as the premier professional organization for the practice of chemistry. We promoted diversity in the chemical sciences with several events, including a Forum and Reception with seven organizations for underrepresented groups, and a Women Chemists and Chemical Engineers Luncheon. We promoted education at all levels. We held several workshops and a luncheon to promote K-12 chemical education. A Chemagination contest for high school students attracted 34 students. The undergraduate poster contest had 129 posters; we also had special programming for student affiliates. Thirty-seven programs were represented at the graduate school fair - the largest ever for SERMACS and possibly the largest graduate school fair of any regional meeting. We provided career services including the ChemJobs Career Center, with eight industrial employers and 127 job seekers, workshops, and resume reviews for undergraduates. Our opening night reception at Fort Discovery and Soiree

on the Historic Augusta Canal allowed attendees to network in a social setting.

We enhanced public appreciation of the chemical sciences. Our programming featured a “Science Café”, a symposium and reception aimed at educating the general public on regional alternative energy research. This and our educational program were advertised in local media and drew a large attendance and press coverage. We also prepared daily press releases highlighting technical sessions likely to be of interest to the general public.

Other accomplishments can be represented “by the numbers”:

The ACS-SR 50th Anniversary program and reception included a talk by ACS President Ann Nalley and featured several ACS-SR founding members.

There were 1359 attendees and 790 abstracts, making SERMACS the largest regional meeting in 2006.

We had 48 booths in the commercial exposition.

Half of the ACS-SR members who volunteered to organize the meeting have not normally participated in Section activities; this represents a substantial increase in member involvement for 2006.

We received over \$73,000 in sponsorships.

SERMACS 2006 was the first joint regional meeting hosted by local sections from the ACS and AIChE.

In addition to the activities at SERMACS, in 2006 ACS-SR continued its tradition of outreach and service in collaboration with other regional groups. We celebrated National Chemistry Week at the National Science Center’s Fort Discovery, demonstrating examples of chemistry in the home for several thousand children over a two-week period. We participated in the Savannah River Site’s CSRA College Night, hosting a booth to encourage college-bound students to consider a career in chemistry. We contributed to the University of South Carolina-Aiken’s Science Enrichment and Education Day, with programming aimed at upper elementary and middle school students. We held joint meetings with the local AIChE section. We supported the Boy Scouts’ Merit Badge program.

We also continued other regionally-directed activities. We continued to select teachers for the Denise Creech Outstanding High School Chemistry Teacher Award. We presented Salutes to Excellence to several local industrial chemists. We administered Chemistry Olympiad exams to 467 students at 11 high schools. We held dinner meetings that regularly attracted student affiliates as well as section members.

We are also excited about new directions the Section will take to expand its chemical service. We started a local section government affairs committee, with associated training at ACS headquarters, and hosted related workshops and a booth at SERMACS. We are developing programming directed at the large proportion of retired chemists in our section. These and other efforts in the coming years will be greatly aided by the success of SERMACS in increasing both the financial and volunteer resources available to the Section.

In summary, 2006 was a noteworthy year for the Savannah River Section. SERMACS 2006 was an outstanding regional meeting that furthered the goals of the overall Society and the Section. We hosted the meeting while maintaining our usual level of educational outreach into the community. Furthermore, we started the process of broadening our activities to include other examples of service. All of this work represents a very high level of achievement that we believe merits consideration for the award of Outstanding Performance by a Medium/Small Section.

ACS-SR Celebrates It's 50th at the Augusta GreenJackets Game!

Thanks to all those that came out in April to celebrate our section's 50th Anniversary at the Augusta Greenjackets game. It was a beautiful evening with 88 of our members, family and friends coming out to enjoy the game! A special acknowledgement goes out to one of our 50+ year members, Mr. Robert Overman, for joining us for this special outing! Due to the popularity of this, we are thinking about making it a yearly event! Stay tuned!

Cutting back on Snail Mail

We are going to start utilizing electronic media more and less paper. All meetings are posted on our website as well as all the activities scheduled. We will still have a fall and spring newsletter mailed but we will begin to utilize email and the website to advertise our monthly meetings and activities. Occasionally you may find a post card or two coming to your door, as we know people sometimes like to have something in their hand! To get up to date information on activities and meetings, please visit our web site at: acs-sr.home.mindspring.com. And if you are not receiving our email notifications about upcoming meetings and events, please contact Krissy Zeigler (mylittlekrissy@yahoo.com or kristine.zeigler@srnl.doe.gov) to get added to that list!

Denise L. Creech Outstanding High School Chemistry Teacher Award presented to Mrs. Marcheta Sherer of Augusta Christian Schools

The Savannah River Section of the American Chemical Society announces Mrs. Marcheta Sherer of Augusta Christian Schools as the recipient of the Denise L. Creech Outstanding High School Chemistry Teacher Award. This annual award is presented to the CSRA teacher who has made the most significant contributions to the advancement of chemistry education. The awardee selection is based on a review of nominations, followed by classroom visits to observe finalists in a teaching environment. The award includes a plaque and cash awards to both the recipient and the local high school represented.

Mrs. Sherer has taught high school chemistry for more than two decades. Discussing their selection, the review committee stated: "Mrs. Scherer demonstrates a strong commitment to providing her students with a solid foundation for college. What sets her apart from other teachers is that she does it in a manner that engages her students and keeps them focused and enthused in the course material." In addition to receiving the Denise L. Creech Outstanding High School Chemistry Teacher Award, Mrs. Sherer has also been nominated by the ACS Savannah River Section for the American Chemical Society, Division of Chemical Education, Southeastern Regional Award for Excellence in High School Teaching. Georgia congressional delegation members were invited to attend the presentation of the award to Mrs. Sherer during the local section meeting of the American Chemical Society, Savannah River Section on Thursday, August 16, 2007 at Sconyers Bar-B-Que in Augusta, GA.



Chair Mike Bronikowski presents the Creech award to Marcheta Sherer.

**American Chemical Society
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