

# *The CSRA Chemist*

SAVANNAH RIVER SECTION  
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# The CSRA Chemist

Editor: Lewis C. Baylor

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Chair-Elect	Mr. Roy Beck	Westinghouse-SRC	(803) 208-6478
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Secretary	Ms. Maricar Harris	Augusta Prep.	(706) 863-1906 x361
Treasurer	Dr. Brian Anderson	Westinghouse-SRC	(803) 725-1421
Councilor	Dr. Christopher Bannochie	Westinghouse-SRC	(803) 725-8172
Alternate Councilor	Prof. Thomas Crute	Augusta State U.	(706) 667-4517
Education	Dr. Laura Tovo	Westinghouse-SRC	(803) 725-8378
Membership	Mr. Joseph Krupa	Westinghouse-SRC	(803) 725-5346
National Chemistry Week	Dr. Joyce Morningstar	Consultant	(706) 869-8587
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Olympiad	Prof. Monty Fetterolf	USC-Aiken	(803) 648-6851 x3378
	Prof. Cathy Cobb	USC-Aiken	(706) 667-4513
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**Mailing Address:** Savannah River Section – American Chemical Society, c/o Lewis Baylor, Equitech Int'l, 218 Richland Ave. W., Aiken, SC 29801. All newsletter articles should be sent to this address. All subscriptions, ads, and payments should be sent c/o Brian Anderson.

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**Member Profile(s):** Joe Krupa is the 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 telephone 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, OH 43210. You may also send e-mail to ACS at [service@acs.org](mailto:service@acs.org).

# CHAIR'S THOUGHTS

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This column is my last one as Chair of the Section. Filling this space will soon be the responsibility of Roy Beck. All in all, it has been an enjoyable year for me, albeit a very hectic one what with the many hats one wears at a small company, the sale of my mother's house in Pennsylvania, the (attempted) sale of our house here (No, I'm not leaving the Section; just a local move) and the duties as Chair of the Section. I would like to take some space here to thank all those who have helped along the way:

Roy Beck: Chair-elect; Program Chair; arranged for volunteers at events

Brian Anderson: Treasurer; address database manager

Maricar Harris: Secretary

Stephanie Myers: IPC; '97 Annual Report; elections; newsletter mailings

Chris Bannochie: Councilor; Newsletter Editor most of the way

Joyce Morningstar: NCW chair

Joe Krupa: Member's Corner columns; coordinated the telephone survey

Charles Crawford: PR chair

Monty Fetterolf and Cathy Cobb: Chemistry Olympiad co-chairs

Tom Crute: Alternate Councilor; newsletter mailings

Thanks also to those Section members who volunteered at our various events:

Avondale Tour – Debbie Davenport

SRS Technical Day – Brian Anderson & Chris Bannochie

March Meeting @ SREL – Gary Mills & Brian Teppen

CSRA Science Fair – Maricar Harris & Lewis Baylor

Girl Scout Roundup – Stephanie Myers, Brian Anderson, Lewis Baylor, Tom Crute, Maricar Harris & Roy Beck

CSRA College Night – Stephanie Myers & Lewis Baylor

Arts In The Heart of Augusta – Tom Crute, Stephanie Myers, Joe Krupa, Joyce Morningstar, & Chris Bannochie

SEED – Laura Tovo, Roy Beck & Lewis Baylor

Survey/Telechemists: - see the article in this issue

NCW – ASU Chem Show: Gary Stroebel, Tom Crute, Stephanie Myers & Donna Hobbs; also see the article later in this issue

Without the efforts of all these people, the Section would not have been able to put on meetings, publish a newsletter, or sponsor public outreach events. Let's give them all a well-deserved hand!

My apologies to anyone I have inadvertently left off this list.

# LOCAL SECTION NEWS

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## National Chemistry Week 1998

During November, ACS-SR is sponsoring another successful National Chemistry Week. This nationwide, grassroots outreach program of the American Chemical Society has proven to be one of the most effective ways to communicate the importance of chemistry in everyday life. In addition to the personal satisfaction from being a volunteer, participating in NCW provides a means for people from the chemical industry to share their knowledge and rekindle excitement for their chosen profession.

Saturday, Nov 7<sup>th</sup> is our day for reaching the public with the message *Chemistry is Fun*. Volunteers from Huron Tech Corp and PQ Chemical will lead hands-on activities in the Science Court at Fort Discovery. Both adults and children will be experimenting with Slime and Gluep. Fort Discovery volunteers and chemistry students from Davidson Magnet High School will team-up to perform four entertaining chemistry shows in the Power Station theater.

Thanks to Compressed Gas of Augusta and Fischer Scientific for donating supplies for this event. Thanks to our Partners in Science Education: the people from Huron Tech Corp, PQ Chemicals, Davidson High, and Fort Discovery. Special thanks to Richard Manley for organizing his students from Davidson High; to Ken Buchanan and Craig Tucker for coordinating employees from Huron Tech; to John Cobb and Gary Belchar for coordinating employees from PQ Chemicals; and to Bill Trammel for coordinating the Fort Discovery volunteers. Also, special thanks to Bill Trammel and Mary Ann Navarro from Fort Discovery who assisted me in organizing this event. And thanks to the Fort Discovery staff for hosting this event.

Helping teachers teach chemistry in the classroom was also one of our objectives for NCW 1998. Teachers and industry volunteers attended a workshop on planning and performing chemical demonstrations in the classroom. Home-school teachers from our area were particularly appreciative of this opportunity to enhance their child's science education. Educational materials explaining the experiments, procedures, and chemical principles were provided for attendees to take back to their workplace, classroom, or home. The workshop was held at Fort Discovery Friday, October 16<sup>th</sup>. Special thanks to Bill Trammel and Mary Ann Navarro from Fort Discovery, who assisted me in organizing the workshop. Thanks to the staff at Fort Discovery for hosting this event.

For the 4<sup>th</sup> consecutive year, the faculty and students in the chemistry departments at Augusta State University and University of South Carolina-Aiken are reaching out to educators and school children in Richmond, Columbia, Edgefield, and Aiken counties. Hundreds of sixth graders and their teachers in the CSRA area will enjoy themselves watching chemistry shows while learning some basic chemical principles. After the show, educational materials explaining the experiments, procedures, and chemical principles will be distributed to the teachers. Chemistry shows will be held at USC-Aiken on Thursday, November 12<sup>th</sup> and at Augusta State University on Tuesday, November 24<sup>th</sup>, 1998

Thanks to the students and faculty of USC-Aiken and ASU for continuing to performing this valuable service for our community. Special thanks to Dr. Stephanie Myers and Dr. Monty Fetterolf for organizing these chemistry shows. And finally, thanks to Dr. Charles Crawford, publicity coordinator for NCW. Congratulations to everyone on a job well-done!!! - *Joyce Morningstar*

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## October Meeting Wrapup

The October meeting was a great opportunity to meet Dr. J. Phillip Bowen from UGA. He gave an interesting talk on research in his group using computational chemistry in drug design to select the most promising molecular candidates for synthesis. The meeting was small so it was more like a dinner party with plenty of opportunities to discuss things in common. If you missed the chance there will be plenty of opportunities in the upcoming meetings to gain new friends. - *Roy Beck*

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## September Meeting Correction!

Apologies from the Editor to the victorious USC-Aiken Chemical Jeopardy team. Their fine performance was inadvertently credited to another team in the October issue of *The CSRA Chemist*.

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## SEED Wrapup

The Section sponsored a booth at SEED (Science Education Enrichment Day) at USC-Aiken on Saturday October 24. A good number of students and their parents stopped by to try their hand at color-changing markers (redox chemistry) and to see examples of colorimetric indicators in various solutions. Although the crowds seemed smaller than in previous years, all those who stopped by had lots of fun creating their own artwork to take home.

## International Chemistry Celebration 1999

1999 is just around the corner, and with the new year comes the International Chemistry Celebration 1999. In 1999, NCW evolves into a series of worldwide events called International Chemistry Celebration (IChC). Several international scientific and educational organizations have established IChC as a means to enhance public appreciation of chemistry throughout the world, and to improve communication among chemical organizations worldwide. The national ACS organization is leading the IChC effort in the US and administers the official IChC Website. To find out more about IChC, click on the IChC logo at [www.chemcenter.org](http://www.chemcenter.org). - *Joyce Morningstar*

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### 1998 Membership Survey

The membership survey is coming to a close. I would like to take this opportunity to thank Stephanie Myers, Brian Anderson, Laura Tovo, Ray Sigg, Bill Spencer, Roy Beck and Charles Crawford for their help. I would also like to give my thanks to the membership for its cheerful and helpful response. I will be analyzing the results in early December and reporting it to you in early January 1999. - *Joe Krupa*

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### Money Matters

We are heading full steam into the end of the year and it appears that we are doing pretty well in the financial realm. On September 21 we restructured our portfolio by transferring shares from a low-yield fund to a slightly more aggressive fund (Prudential Utility Fund). This should allow for a little more growth in our savings plan, while still retaining a moderate level of security. In addition, we have funded some local outreach events and have stayed very close to our proposed budget (see National Chemistry Olympiad and National Chemistry Week). National Chemistry Week will have additional expenses in the month of November, and we expect to be close to the budget forecast of \$600.00.

Whenever one forecasts the spending over the course of a year, one is bound to hit a snag. Our snag this year is the \$559.00 piece of software the Section purchased in order to continue the newsletter. Our esteemed Newsletter Editor, Chris Bannochie, has given the reigns over to our equally esteemed Chair, Lewis Baylor, and, as a result, we had to fork over money for a Section copy of PageMaker. Therefore, the newsletter budget item was hit with a

large charge, but with only one newsletter left for the year, it appears we will overshoot by just a few hundred dollars. This will be made up in other budget categories that are underspent this year. And so it goes...

### Budget Report for October 29, 1998

Category/Description	Actual	Budget	Difference
<b>INFLOWS</b>			
Advertisements	0.00	1.00	-1.00
Allotment	4627.00	4627.00	0.00
Interest	185.88	140.00	45.88
Local Section Dues	1110.36	1200.00	-89.64
Meeting Income	971.00	1.00	970.00
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TOTAL INFLOWS	6894.24	5969.00	925.24
<b>OUTFLOWS</b>			
Awards	147.80	300.00	152.20
Chem. Olympiad	485.50	450.00	-35.50
invested	250.00	200.00	-50.00
Meeting Expenses	1723.11	1600.00	-123.11
Miscellaneous	147.24	300.00	152.76
National Chemistry Week	458.40	600.00	141.60
Newsletter	1467.86	1600.00	132.14
Public Relations	155.34	200.00	44.66
Scholarships	0.00	200.00	200.00
Service Charge	125.00	125.00	0.00
Travel subsidy	0.00	400.00	400.00
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TOTAL OUTFLOWS	4960.25	5975.00	1014.75
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OVERALL TOTAL	1933.99	-6.00	1939.99

- Brian Anderson

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## Election Results

The votes have been tallied and here are the 1998 election results:

Chair-elect - Brian Anderson  
Secretary - Maricar Harris  
Treasurer - Tom White  
Councilor - Chris Bannochie  
Alternate Councilor - Stephanie Myers

Congratulations to all the winners.

Roy Beck moves up to Chair in '99 and  
Lewis Baylor moves on to Immediate Past Chair.



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## EDITOR'S CHOICE

The Chair ran out of space in his column for that well-deserved hand for all our Section officers, committee chairs, and volunteers. So...here it is almost. OK, I couldn't find a hand anywhere in my clip art. Instead, I'll shine the spotlight onb them. Thanks everyone!



# NOVEMBER MEETING

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## Annual Awards

- Date:** Tuesday, November 17, 1998
- Location:** Aiken Brewing Company  
140 Laurens St. SW, Aiken
- Schedule:** 6:30 PM Social  
7:00 PM Dinner & Brewing Talk  
8:00 PM Awards Presentation
- Menu:** Soup or salad; one of several entree choices and  
dessert (Beer not included.)
- Cost:** \$15 per person; no student discount.

*Reservations:* Deadline Friday, November 13 at 12:00 PM. Contact Roy Beck at (803) 208-6478. Leave a message on voice mail if necessary, indicating the names of those attending.

Come on out and enjoy a fine meal at Aiken Brewing Company, hear a little about how they brew their beers, and help recognize those who have volunteered their time this year to help the Section.



# M E M B E R ' S C O R N E R

by  
JOE KRUPA

I would like to spotlight two members in this issue. Joe Santos works at Savannah River Site in the Environmental Remediation Department. His interest in ACS was piqued by a desire to subscribe to *Environmental Science and Technology*. Joe graduated from the University of South Florida in 1978 with a degree in chemical engineering. He spends much of his spare time coaching youth baseball.

Mal McKibben is a 1955 graduate of Emory University. He was president of the student section at Emory in 1953 and Chair of the Local Section in the 1960's. He wanted me to point out that chemistry could open a door to a number of interesting jobs due to the problem solving skills gained in a science degree. He has worked at the Savannah River Site in analytical chemistry development, separations technology development, reactor technology development, Defense Waste Processing Facility project management, and currently strategic planning. He feels very lucky to have the quality of jobs and job success with a Bachelor's Degree in chemistry.

On the technical side Mal published the first paper in the world on determining the light element impurities in alpha-emitting elements (driven by the need for high purity Pu-238 for radioisotopic thermal generators) by measuring the gamma spectra from  $\alpha$ -n reactions. He invented the use of hydroxylamine nitrate for plutonium reduction in Purex (reducing waste volume). In *Radiochimica Acta* he published a significant survey paper on the chemistry of the Purex process for separating uranium and plutonium and looked at Purex operations throughout the world. While working at the Heavy Water Components Test Reactor, which was the first reactor to use carbon steel in its cooling system, he discovered a way to control the chemistry as to produce a tightly adhering magnetite film on the piping surface, which minimized corrosion and did not accumulate radionuclides.

Mal is currently program chair for the Fuel Cycle for the American Nuclear Society, which named him a fellow last year.

Mal adds his voice to the Grace United Methodist choir in North Augusta, and if truth be known, would rather be out in the Gulf Stream fishing!

# ACTIVITIES CALENDAR

February 3	Avondale Company Tour	Graniteville	Gregg Division
February 25*	SRS Technical Day	Augusta	Civic Center
February 27	Dr. J. Marquart "Caves – Worlds Within The World"	Augusta	Damon's
March 28*	Girl Scout Roundup	Augusta	Farmer's Market
April 27	Dr. J. Nagyvary "Chemistry and Violin Making – Past and Present"	Aiken	Willcox Inn
May 18	Dr. M. Reichmanis "Intellectual Property Rights in the Information Age"	Augusta	Rio Bravo
September 15*	CSRA College Night	Augusta	Civic Center
September 19-20*	Arts In The Heart	Augusta	Riverwalk
September 29	Chemical Jeopardy	Augusta	Augusta State
October 24*	SEED	Aiken	USC-Aiken
October 29	Dr. J. P. Bowen "Computer Assisted Drug Design Methods"	Augusta	Partridge Inn
November 1-7*	National Chemistry Week	CSRA	Various
November 17	Awards Banquet	Aiken	Aiken Brewing

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

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*American Chemical Society  
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c/o Lewis Baylor  
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