



Chemical Bond

**Volume 56
Number 1
January 2005**

St. Louis Section, American Chemical Society



**Ted Gast
2005 Section Chair**

Message From Ted Gast the New Section Chair, 2005

Welcome and Happy New Year 2005. Well, I can't believe this decade will soon be half over. I'll begin by saying how delighted I am to serve as Chair of the St. Louis section this year.

As I mentioned at a board meeting, this is the first thing I've ever won in my life so it will be my personal goal not to disappoint anyone. As I look at the St. Louis Section a few things stand out. First and foremost are our history and traditions. I joined the ACS as a student affiliate in 1976 and have just received my 25 year pen—yes the kind you write with.



Furthermore, I want to thank my two predecessors Bijan Khazai and Leah O'Brien. They have been great in getting me up to speed in section activities, organization and traditions. I would also like to thank my steering committee, and look forward to working with all of the board, committee and sub-committee chairs, and those at the chemical bond. Also, I would like to especially thank Donna Friedman and Lisa Balbes.

My first objective for the section is membership activation. Hey all you guys and gals out there who have not participated in an activity of the section NOW is your chance. We have several new activities in the works this year so take your pick. And all you Silver Foxes out there whom we haven't seen in awhile how about joining one of our general membership activities. And, for those of you steady participants—Keep showing up we love seeing you. We are scheduling speakers for general meetings and a picnic! Details will be announced in the Chemical Bond, and on our web site: www.umsl.edu/~acsl/.

As for the section financial shape we're doing okay but some of the old sources of support are drying up. We are pleased to say that Pfizer and Sigma Aldrich have stepped up to the plate with a generous annual gift and we are working to get our other corporate citizens on board.

For our academic types, the seminar and discussion group meetings are some of the most varied and interesting in the country. Our awards are the envy of other local sections across the country, and the Midwest Award is a highly sought after, top notch citation.

The education committee has always performed well. Please consider volunteering as a judge at one of our four science fair contests or come down to the science center one Saturday. Extra hands are always welcome and needed.

Our National President Bill Carroll has expressed a desire to visit our section this year and an invitation to attend the Awards Banquet has been extended. We are also planning a joint meeting with the AICHE, that's the American Institute of Chemical Engineers.

Continued on page 11

Chemical Bond

Volume 56

No. 1

January, 2005

The *Chemical Bond* is published in January Through May and September through December by the St. Louis Section-American Chemical Society. It is mailed free of charge to members of the section at their address on file at ACS National Headquarters. Changes of address for members will be made automatically upon notification to National ACS Headquarters; send old address and new address with zip codes to ACS Subscription Service Department, 1155 16th St. N.W., Washington, DC 20036 or visit chemistry.org, log in, and go to Update my Profile. Allow eight weeks for change to take effect.

The domestic subscription rate for non-members/affiliates is \$8.00 per year. Subscription orders and changes of address for non-members/affiliates should be mailed to the editor.

Editor	Andrea Reaka	<i>areaka@charter.net</i> 618/656-3739
Advertising Manager	Sue Saum	<i>ssaum@stlcc.edu</i> 314/595-2308
Business Manager	Donna Friedman	<i>dfriedman@stlcc.edu</i> 314/595-4388
Staff Writer	John Bornmann	<i>jbormann@msn.com</i> 636/946-5161
World Wide Web Webmaster	Eric Ressler	http://www.umsl.edu/~acs/ressner@worldnet.att.net

*Correspondence, letters to the Editor, etc., should be sent to
St. Louis Section-American Chemical Society
125 West Argonne Drive, St. Louis, MO 63122*

Copyright © 2004 American Chemical Society and the St. Louis Section-ACS

In this issue . . .

2	Message from the New Section Chair
4	Meetings & Seminars
5	Career Corner
6	Letters, Words & More: Out to Sea
9	Call for Nominations: Midwest Award
9	Call for Science Fair Judges
10	ACS Capital Connection
11	Continuity Dinner

Meeting & Seminars

Board of Directors

St. Louis Section–ACS Board of Directors meets on the second Thursday of each month, at the Alumni Center, University of Missouri–St. Louis. Meetings are open to all members, and all are encouraged to attend. Elected officers and chairs of major committees have the right to vote; others in attendance have voice but no vote. If you want to attend the dinner, please contact Ted Gast (ted@cfgastco.com) at least one week prior to the meeting date. The usual cost of dinner is \$15. Members wishing to become active in section activities are welcomed to their first dinner for free, compliments of the section.

Date: Jan. 13

Social hour: 5:30 pm

Dinner: 6:30 pm

Business meeting: 7:15 pm

Future meeting: Feb. 10

March 10, April 14, May 12

Washington University

Seminars are in McMillen 311 at 4 pm unless otherwise noted. Coffee is available 20 minutes prior to the talk, and refreshments follow. For information, contact:

Amy Walker

walker@wuchem.wustl.edu

An up-to-date list of seminars is available at:

[www.chemistry.wustl.edu/
~seminars/seminars.html](http://www.chemistry.wustl.edu/~seminars/seminars.html)

University of Missouri- St. Louis

Seminars are held on Mondays at 4:00 pm in Room 451 Benton Hall unless otherwise specified. Refreshments 15 minutes prior to seminar time. (www.umsln.edu/chemistry)

January 10

Sophia Hayes

Washington University

*Solid-state NMR of Crystalline
Optical Memory/Optical Switch
Materials*

January 17 - *No Seminar*

Martin Luther King Holiday

January 24

David Vaknin

Ames Lab, Iowa State University

*X-ray Synchrontron Studies of
Structure and Interfacial
Phenomena at Biomimetic
Membranes*

January 31

G. Ali Mansorri

University of Illinois-Chicago

*Organic Nanostructures Derived
From Petroleum*

February 7

James S. Chickos

University of MO-St. Louis

*Hypothetical Thermodynamic
Properties*

February 14

Tom Young

Pfizer

TBA

Career Corner

Intellectual Property Protection Options: What Every Scientist Must Know

Presented by Sadiq Shah, Ph.D., Director,
Western Illinois Entrepreneurship Center

When: Saturday, February 26, 2005

Time: 10 am - lunch provided afterwards by ACS

Where: Washington University, Lab Science Building Room 250



Our formal education as scientists prepares us very well to create intellectual property that becomes the engine for economic growth. However, our formal education does not cover topics that deal with managing the intellectual property. The St. Louis section is organizing this workshop to educate members on what intellectual property is, why it needs to be protected, and the options available to protect it. In this globally competitive world, the 21st century economy has become the "Knowledge Based Economy." Thus, to advance our careers, we need to be equipped with the knowledge to better manage intellectual property. This workshop will cover intellectual property related to patents, trademarks, copyrights and trade secrets. It is not only for scientists, but for those who are involved on the business side as well.

**Please, RSVP to Lisa Balbes at lisa@balbes.com or 314-966-5298
so we can have enough food!**



micron inc.

Analytical Services

Complete Materials Characterization **Morphology Chemistry Structure**

SEM - TEM - EPA - ESCA - AUGER
XRF - XRD - FTIR - DSC - TGA

3815 LANCASTER PIKE, WILMINGTON DE.19805
PHONE 302 - 998 - 1184, FAX 302 - 998 -1836
E-MAIL MICRONANALYTICAL@COMPUSERVE.COM
WEB PAGE WWW.MICRONANALYTICAL.COM

Out to Sea - Life in Retirement

by Jack Bornmann

Avast Ye landlubbers! Harken to the tale of Capt'n Charlie and his first mate, Vi, as they sail the Atlantic between Florida and the Outer Islands of the Bahamas. The two of them sail the "Moonglow" (doesn't that name make you think of warm Bahamian breezes and watching the sun set in the west while sipping your favorite libation?).

Letters & More

Moonglow is a 41-foot Bristol diesel auxiliary sailboat, which is cutter rigged with single mast, a mainsail (jib and a staysail) which normally stays below deck. The boat has forward and aft staterooms, two small bathrooms ("heads" in nautical terms), and a saloon (salon to you landlubbers). The saloon combines living and dining areas and also has the electronic gear. The boat has everything expected in a household, but on a smaller scale.

When the Moonglow is anchored in a bay, life is not just long mornings and afternoons of dozing in

the sun. The boat must be maintained. Everything from sails, lines, engine, electronic gear, and decks must be kept "ship-shape and Bristol-fashioned." The phrase "a place for every thing and every thing in its place" gets squared on a boat. The maintenance work is broken up by trips ashore . . . to do the laundry and purchase provisions.

But, there is also the fun part; the things that you and I might only dream about. Beachcombing, snorkeling, swimming, reading and socializing with crews of other boats. Capt'n Charlie and the other sailors like to see things shipshape and that includes the sunsets. According to Capt'n Charlie it is very important to see that the sun sets at the proper place and proper time. Crew members will gather on the deck chosen for that evening's ritual and socialize while the sun slowly sinks into the western horizon.

If you have not guessed by now, Capt'n Charlie in a previous life was Charles F. Hobbs, Ph.D. who retired as Senior Group Leader in New Process Development from the Ag Division of Monsanto. Charlie was Chairman of the St. Louis Section of the ACS in 1983. He was the Treasurer in 1979. First mate, Vi, is indeed the first mate; they have been married for nearly 50 years. For the sake of marital

Continued on page 8

COBERT ASSOCIATES

QUALITY PRODUCTS FOR CHROMATOGRAPHY

**XPORTEK® • CAPILLARY COLUMNS • HPLC COLUMNS • SPE •
VIALS AND ACCESSORIES • FILTRATION PRODUCTS**

Stocking Distributor For More Than 75 Manufacturers, Including:



• ABI-Brownlee
• Agilent/J&W
• Hamilton

• Keystone
• Pierce
• Optimize

• Rheodyne
• Shodex
• Synchrom

• Upchurch
• Vydac
• Whatman



**P.J. COBERT ASSOCIATES, INC. • P.O. BOX 460046 • ST. LOUIS, MO 63146
1-800-972-4766 • (314) 993-2390 • FAX (314) 993-2491**

EMAIL cobert@cobertassoc.com • WEB SITE <http://www.cobertassoc.com>

Pick up

rotating

Mass-Vac ad

from p. 10 of October 2004

Continued from page 6

harmony, Charlie is careful to call Vi "Admiral" although I think that "admirable" would also be apt.

Charlie grew up in the farmland of Kansas. Now, how could a lad in Kansas become enamored with the sea? Well, Charlie tells me that the ever-blowing wind across the wheat fields caused waves to form just as it does on the ocean. As a little lad Charlie made his first boat using a wooden shingle, a stick for a mast and a piece of old bedsheet as the sail. It worked! And that was Charlie's first experience at putting the power of wind to work to move across the water. Later, in St. Louis, Charlie, Vi and their two children sailed the nearby waters. The whole family learned to love sailing. Now Charlie is truly a Captain; he holds a U.S. Coast Guard Master's License.

Charlie and Vi are "snow birds" i.e. northerners who go south for the winter. *South* for the Hobbs is Ft. Pierce, FL where their boat is waiting for them to sail to the Bahamas. They are also "sun birds" i.e. Floridians who move north to avoid the summer heat and hurricanes. They maintain a residence in St. Louis and make trips to

**POLYMER STANDARDS FOR GPC/SEC
MOLECULAR WEIGHT ANALYSIS
GPC/SEC COLUMN REPACKING**

American Polymer Standards Corporation
8680 Tyler Boulevard, Mentor, OH 44060
Phone: 440-255-2211
Fax: 440-255-8397

Wichita to visit their son and daughter, their three grandchildren, and Charlie's 93-year old mother.

Charlie and Vi reported that an interesting event happened as they were sailing along the edge of the Gulf Stream. It was a beautiful day with a moderate wind and 3 to 5 foot waves. Suddenly, a group of dolphins appeared swimming on both sides of the boat. They rode the waves and sometimes dove under the bow and came up on the other side. The dolphins seemed to be enjoying themselves very much and Charlie and Vi enjoyed watching them. "Then, one dolphin, very close to boat, surfed close along side, turned his head toward Vi, whistled and winked! Vi was thrilled and swears that it really did happen. Of course, she was thrilled. The only woman for miles in all directions and a male comes up to whistle and wink at her. Those dolphins are very smart creatures! What a life!

Chemical Analysis Services

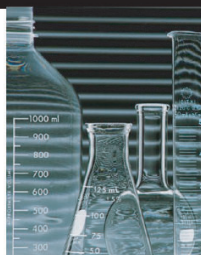
- Materials Identification and Deformulation
- Product Defects / Failure Analysis
- Thermal and Physical Testing (ASTM)
- Polymer Analysis and Testing



C H E M I R

Analytical Services

2672 Metro Blvd., Maryland Heights, MO 63043



chemir.com

(800) 659-7659

Call for Nominations for Midwest Regional Award

The ACS Midwest Regional Award, established in 1944, recognizes outstanding achievement in chemistry done in the midwestern region of the United States. To be eligible, a nominee must have performed the cited work while residing within the Midwest Region of the ACS. (The nominee does not have to reside currently within the Region.) Nominations must include a nominating letter, two or more seconding letters, a curriculum vitae, a brief biography, and documented, objective information regarding the outstanding achievements of the nominee. If the nominee is an academician, a list of persons who have received advanced degrees under his or her direction should be included. Please submit nine copies of all nomination material to:

Jim O'Brien, Chair
Midwest Award Committee
Dept. of Chemistry
University of Missouri-St. Louis
8001 Natural Bridge Road
St. Louis, MO 63121-4499
(314) 516-5717
lbrien@jinx.ums1.edu

**Nominations must be received on or before the deadline of March 31, 2005.*

Science Fair Call for Judges

Science Fair season is just around the corner, and so is another opportunity for you to encourage an understanding of good science by participating as a Science Fair judge. Members of the ACS St. Louis Section are needed as judges to evaluate chemistry projects for special awards at regional science fairs in the greater St. Louis area. Secondary-level winners receive prizes from the section (science books and more), while all elementary-level participants with chemistry-related projects receive ribbons. Everyone (both kids and judges) wins in other ways as well. This year, the judging times are as follows:

Illinois Junior Academy of Science Region 12 Science Fair
Saturday, March 5th, 9:30 AM at SIU-Edwardsville

St. Charles-Lincoln County Regional Science Fair
Monday, March 21st, 6:00 PM at St. Charles Community College

Greater St. Louis Science Fair
Primary: Monday, April 4th, 6:00 PM at Greensfelder Pavilion at Queeny Park
Secondary: Friday, April 8th, 6:00 PM at Greensfelder Pavilion at Queeny Park

Interested in judging? Please contact David Haselbauer:
phone: (314) 918-1062
email: djhase@swbell.net

Chocolate Lover's Delight

"The Love and Lore of Chocolate" event was held on November, 16th at 7:30 pm at the Center of Clayton. Dr. Ariel Fenster from McGill University gave the presentation. Shown in the picture is Bijan Khazai (Section Chair) and Dr. Ariel McGill and the chocolate dessert buffet offered at the event.



Capital Connection Budget Yields Mixed Results

The H.R. 4818 legislation included both good and bad news for the science community. The Department of Energy Office of Science was among the programs seeing positive funding growth. Overall it grew at a rate of 2.9 percent, while the Office of Science's Basic Energy Sciences program, which maintains our nation's national labs and premier physical science facilities, saw a robust growth of 9.3 percent. Unfortunately, another Office of Science program, Biological and Environmental Research, shrank 10 percent.

The National Institutes of Health received a 1.4-percent increase, a much slower rate of growth than past years. Within NIH, the National Institute of General Medical Sciences, a strong component of NIH's basic research portfolio, received a 2.0-percent increase. The National Center for Research Resources, an institute that seeks to make large scientific instrument purchases more affordable was cut 10.8 percent, continuing a pattern from last year when it also saw funding reduced.

However, the major story for the science community is the 2.0-percent reduction in resources for the National Science Foundation. Despite repeated endorsements of NSF's work from both Congress and the administration, the Foundation saw money taken away to boost veterans' health and NASA accounts. The bulk of the reduction came from the Education and Math & Science Partnership programs, which experienced reductions of 10.4 percent and 42.9 percent respectively.

Falling in both the good and bad category, the National Institutes of Standards and Technology received a 14.6-percent boost in total funding, with a 12.3-percent boost for NIST labs. Unfortunately, the increases simply erased last year's surprise cut in NIST labs. More distressingly is the fact that the Advanced Technology Program (ATP) was cut 18.1 percent, and not directed to fund any new grants. With the retirement of Congress's strongest ATP champion, Senator Frist Hollings (D-SC), ATP's future appears dim after repeated Bush administration attempts to zero out the program. The Environmental Protection Agency Science and Technology account also took a hit, seeing a reduction of 4.9-percent.

**For more detailed analysis of funding levels, see Capital Connection Vol. 9, Issue 12.*

Continuity Dinner 2004

The Continuity Dinner was held at Chris' Restaurant on Thursday, December 9, 2004. Lisa Balbes was given the Salute to Excellence Award from Bijan Khazai, the past Section Chair. Then, the gavel was passed to the new Section Chair, Ted Gast. Special thanks to Samir El-Antably for organizing the event and to all who attended. Congratulations to our new Section Chair Ted Gast. We are all looking forward to a very active year!



Lisa Balbes receives the Salute to Excellence Award from Bijan Khazai.



Ted Gast, 2005 Section Chair, receives the gavel from Bijan Khazai.

ELEMENTAL ANALYSIS

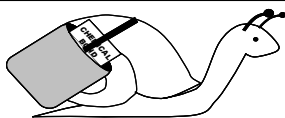
C, H, N, O, S, P • Halogens • Ash • Metals
TOC • TOX • BTU • Molecular Weights
ICP • ICP/MS • IC
Custom Analysis • Problem Solving

HUFFMAN

LABORATORIES, INC.

Quality Analytical Services Since 1936

4630 Indiana Street • Golden, CO 80403
Phone: (303) 278-4455 • Fax: (303) 278-7012
Chemistry@huffmanlabs.com
www.huffmanlabs.com



Can I wait for Snail Mail?

**Get the Chemical Bond fast at
<http://www.umsi.edu/~acs/>**

Continued from page 2

If I have left anything out speak up. Remember that I am looking forward to serving YOU and the section this year. You may contact me online at ted@cfgastco.com or by snail mail: 930 N. McKnight Rd, St. Louis MO 63132. I look forward to working with you and hearing about your activities.

Ted Gast
Section Chair, 2005

St. Louis Section
American Chemical Society
125 West Argonne Drive
Kirkwood, MO 63122

Rush-Dated Material Inside

Non-Profit U.S. Postage PAID St. Louis, MO Permit No. 850

Pick up

Sigma ad

from back cover

of previous issue