

Chemical Bond

Volume 55 Number 3 April, 2002

St. Louis Section, American Chemical Society



2002 St. Louis Award Winner **Dr. Scott Gilbertson** Washington University

The Department of Chemistry at Washington University is pleased to announce this special presentation

The 2002 Bayer Distinguished Lectures April 11 & 12, 2002

Professor E. W. Meijer

Laboratory of Macromolecular and Organic Chemistry
Eindhoven University of Technology
The Netherlands

April 11, 2002

"Cooperativity in Supramolecular Architectures: Chirality as a Muse"

4:00 p.m., Louderman Hall, Room 458

Reception Following

April 12, 2002
"The Supramolecular Chemistry of
Dendrimers"
11:00 a.m., McMillen Chemistry Laboratory, Room 311



For reservations, please call by April 1, 2002 (314) 935-7316 or e-mail barbara@wuchem.wustl.edu



Chemical Bond

Volume 55 No. 3 April, 2002

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Meeting Seminars

Board of Directors

St. Louis Section—ACS Board of Directors meets 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. For more information or to make a reservation for dinner, call the Section Chair, Lisa Balbes, at 314-966-5298.

Date: Apr 11 **Social hour:** 5:30 pm **Dinner:** 6:30 pm

Business meeting: 7:15 pm

Future meetings: May 9, Sep 12

Saint Louis University

Seminars start at 3:30 pm in Room 204 Macelwane Hall. Coffee and doughnuts before the seminar; refreshments after in Room 115 Monsanto Hall. For more information, contact Dana Spence, spenced@slu.edu or call 314-977-2836.

University of Missouri– St. Louis

Refreshments at 3:45; seminars at 4 pm in B-451 Benton Hall. For further information, contact Prof. Don Becker, 314-516-7345, chedbeck@jinx.umsl.edu

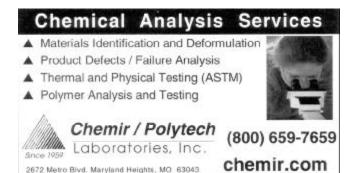
Monday, Apr 1
Peter H. Seeberger

Mass. Institute of Technology Automated Synthesis of Oligosaccharides; Synthetic Challenges and Biomedical Rewards

Monday, Apr 8

W. Dean Harman
University of Virginia
Osmium, Rhenium, and Molybdenum
Dearomatization Agents for Organic
Synthesis

Monday, Apr 15
Cal Y. Meyers
SIU-Carbondale
Some Intriguing Aspects of Sulfone
Chemistry



Monday, Apr 22 **Peter Tipton**

UM-Columbia

Urate Oxidase: An Unusual Enzymatic Reaction with Implications for Ureide Metabolism

Monday, Apr 29 **Susan Martinis** University of Houston *Molecular Delineation of a Multi-Functional tRNA Synthetase*

Washington University

Seminars are in McMillen 311 at 4 pm unless otherwise noted. Coffee is available outside the seminar room 20 minutes prior to the talk, and refreshments follow. For up-to-date information, check wunmr.wustl.edu/Events/seminars.html

CBI Seminar, April 2, 2002
12:00 noon, McMillen 311
Prof. Peter H. Seeberger
Massachusetts Inst. of Technology
Department of Chemistry
Automated Solid-Phase Oligosaccharide
Synthesis: Malaria Vaccines and Other
Biological Implications

April 4, 2002

Prof. Stanley J. Opella

Univ. of California–San Diego Department of Chemistry and Biochemistry *TBA*

The Bayer Lecture Series

Prof. Bert Meijer

Eindhoven University of Technology Thursday, Apr. 11, 4 pm, Louderman 458 Cooperativity in Supramolecular Architectures: Chirality as a Muse Friday, Apr. 12, 1 pm, McMillen 311 The Supramolecular Chemistry of Dendrimers Thursday, Apr. 18

Prof. Peidong Yang

Univ. of California–Berkeley *TBA* (Inorganic/Materials)

Thursday, Apr. 25

Prof. Jeffrey S. Moore

Univ. of Illinois–Champaign/Urbana

TBA (Organic/Polymer)

Thursday, May 2

Prof. Paul Barbara

University of Texas

TBA (Physical/Materials)

Biochem/Biotech Discussion Group

A new discussion group for St Louis. This group is tentatively called the Biochemistry and Biotechnology Discussion Group, but the specific areas will be decided by the interests of the members. The presentation will be proceeded by an informal get-together with snacks, soft drinks and if desired, pizza, sandwiches etc. This is an opportunity to meet your colleagues, hear state-of-the-art research, and network. All members of the ACS are welcome. Contact Gerry Moskowitz at splmosk3@msn.com or 314-645-6600 x2321



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Computational Chemistry Discussion Group

Meetings are held at Tripos, Inc., 1699 South Hanley Road. Parking is available in the rear of the building. Refreshments at 5:30, seminar at 6 pm. For more information, or if you would like to make a presentation at a future meeting, contact Philippa Wolohan, 314-647-1099, pwolohan@tripos.com

Tuesday, April 23rd

Peter Fox

Tripos, Inc.

Effcient and Effective Generation, Storage, and Manipulation of Fully Flexible Pharmacophore Multiplets for Use in Combinatorial Library

Design

Mass Spectrometry Discussion Group

This meeting will be held at the Danforth Plant Science Center, 975 North Warson Road. Convene for refreshments at 5:30 pm, presentation at 6 pm. For more information, contact Dr. Mike Grayson at Washington University, 314-935-7486 or grayson@wuchem.wustl.edu

Thursday, Apr 11

Dr. Andrew Link

Vanderbilt University

Systematic Analysis of Protein Complexes Using Mass Spectrometry

NMR Discussion Group

All seminars are in 241 Compton, Washington University. For more info, call Mark Conradi at 935-6418 or 935-6292. Seminars are followed by an informal discussion over beer, soda, and chips.

Women Chemists Committee

The 6th Annual Women Chemists Luncheon is set for Sunday, April 14, 12 noon, at the St. Louis Art Museum Restaurant. Reservations requested by April 10. The cost of the event is \$12. Contact Leah O'Brien, 618-650-3562 or lobrien@siue.edu. Guest speaker:

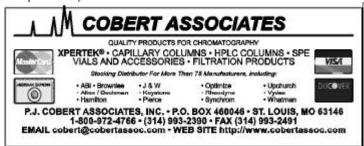
Dr. Catherine Didion

Executive Director

Association for Women in Science Advancing Women in Chemistry: Strategies for Success

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by Jack Bornmann

On your PPS (Parts Positioning System)

One evening I turned off the TV and sat in the dark living room. I have been trained to get around in near total darkness and therefore I had no lights on in the house. It was a good opportunity for cogitation. "When you cannot see out, it is easier to see in."

I absent-mindedly scratched the tip of my nose. I thought of the physicians who ask patients to close their eyes, extend their right arm and then touch their nose. How do we do that? How are we able to know where our hands are in relation to our nose? Do we have some kind of GPS (Global Positioning System) that tells us the location of each body part? Or can we touch our nose because we have done it so often? I tried touching other parts of my head. I could touch my ear lobe as accurately as my nose. I very seldom touch the top of my ear; so I tried it. Success! Encouraged, I tried touching my heel against my knee, then my thigh. Both successfully.

Oh yes, I was as successful in these tests with my left hand and left heel. However, I found that my index finger was more accurate than the other fingers. My other fingers touched my nose but not exactly on the very tip; the other fingers landed off-center. My little finger was the least accurate of all.

I tried touching the tip of my nose with my face turned to the right or left. I was pretty good at that also. My success with these exercises was amazing to me. I think it would be interesting to use positron emission tomography (PET) to locate the area of the

brain that is active while we are touching our nose. It is my PET theory that the GPS area will be located in a primitive part of the brain.

An elderly couple lived across the street from us; they both lived to be 100. One day there was a loud thump and screeching of tires coming from their garage. The elderly gentleman had driven the car forward instead of backing out. The thump was the collision of the car against the back of the garage; the screeching was coming from the tires attempting to drive the car even further forward. When the driver was extracted from his seat, the engine stopped racing and the car settled down to an idle. He maintained that the accelerator had stuck

Everyone has heard of similar accidents when people, usually elderly, drove their cars through the plate glass windows or onto sidewalks. It is characteristic of these accidents that the driver is confused, but maintains that the accelerator had stuck

As we get older, our senses of sight, hearing, taste and smell begin to fail. Is it possible that our body GPS is also losing its acuity? Is it possible that an elderly driver's GPS fails to tell him where his foot is? A foot could get misdirected to the accelerator when it was the driver's intention to press the brake. The harder the driver tries to stop, the harder he jams the accelerator to the floor.

How do we determine the ability of the GPS of an elderly driver to know where the foot is located in spaced? Should we make touching the nose with a toe be part of the driver's examination for the elderly?

It could be simpler than that. If there is only one GPS in the brain, then probably the inability to touch the nose with a finger would be a good indication of failure with the foot. A simple test of touching the nose with the eyes closed could be easily added to the drivers' examination.

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Bond Briefs

Judge at a Science Fair

There's still one area Science Fair left. Judging an event takes only about two hours and is a great way to help our local schools.

 Greater St. Louis Science Fair Friday, April 12th, 6:00 p.m.
 at Greensfelder Pavilion, Queeny Park

Interested in judging? Contact Pat Burrell-

Standley:

phone: (636) 537-8745 e-mail: standley@mvp.net

Congratulations Karen!

Karen L. Wooley, Professor of Chemistry at Washington University in St Louis and fellow section member, has been selected as a Cope Scholar Award winner, based on her significant contributions to organic chemistry. The award consists of a cash prize and an unrestricted research grant.

See your Feb 11 Chemical & Engineering News or http://cen.acs.org/isubscribe/journals/cen for details.

Retired but Not Really

F. Henry Firsching, Emeritus Professor of Chemistry at SIU–Edwardsville, has just been published. His new book about the origins of life, titled *The Most Intriguing Story Ever Told: A* Summary of Scientific Studies About How We Got Here, is available at www.univpress.com.

Marcus Award Competition Slated at SLU

Reminder ... check your calendar!

The 2002 Leopold Marcus Award competition will be held Wednesday, April 3, at 4:00 pm in Lee Hall (Lecture Hall 1) on the campus of Saint Louis University. The competition consists of presentations based on the undergraduate research projects of senior chemistry majors at Saint Louis University. The winner of the award is determined by vote of the professional chemists in the audience. All ACS members are invited to attend and vote, and partake of refreshments afterward.

For further information, contact Bruce Kowert at (314) 977-2837 or kowertba@slu.edu.



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The 2002 St Louis Award goes to ...

Professor Scott, R. Gilbertson was born in Tomah. Wisconsin. He attended the University of Wisconsin–LaCrosse, graduating in 1979 with a B.S. in Chemistry. In 1982, he received a Masters Degree from the University of Michigan-Ann Arbor. Professor Gilbertson attended the University of Chicago from 1983 to 1988 from where he received his Ph.D. working with William D. Wulff on development of Fischer carbene complexes for organic synthesis. From 1988 to 1990 he was a National Institutes of Health Postdoctoral Fellow in the lab of David G. Lynn at the University of Chicago.

Professor Gilbertson started his independent career in 1990 at Washington University where he was promoted to the rank of Associate Professor in 1997 and Professor in 2000. Professor Gilbertson's research is in the development of organometallic reagents for organic synthesis and parallel approaches for the development of asymmetric catalysts. More recently, his group has become interested in developing new synthetic methods that are appropriate for the synthesis of libraries of biologically active molecules.



For the last two years, Professor Gilbertson, his wife Michelle, and their daughter Jordan have lived in the Park-Mudd Residential College on Washington University's campus, one of three faculty families living with the undergraduates and participating in Residential Life programs. Along with his appointment in the Chemistry Department, Professor Gilbertson is a member of the Division of Biological and Biomedical Sciences. He also serves as a member of the Bio-Organic and Natural Products Chemistry Study Section at the National Institutes of Health and is a consultant for Epix Medical in Cambridge, MA.

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Recollections: 1969

by Lol Barton

In January 1969, G. Brooke Hoev assumed the reins as Chair of the Section. In his introductory address to the membership, he announced that the Board had asked the Professional Activities Committee to develop a program in Technical Training. A survey of employers in the St. Louis area had indicated a good market for technicians in the chemical industry. This led eventually to the initiation of a Chemical Technicians Program at Florissant Valley Community College. Brooke also announced that the national society was to launch Project SEED, a program directed at improving opportunities for the underprivileged in chemistry. Yet another announcement was that the ACS was proposing to increase the dues - for the first time in eight years!

The January *Chemical Bond* described the last Board meeting of 1968 at which Dr. Desirée LeBeau was honored. Dr. LeBeau had been the first woman to chair the Section (1952). Dr. LeBeau was a successful industrial chemist. She was born in Poland, received her Ph.D. at the University of Graz, Austria in 1931, and after a year teaching and five years in the rubber chemistry industry including one year in Paris, she immigrated to the U.S. in 1936. She retired in 1969 as Director of Research at Midwest Rubber Reclaiming Co. in East St. Louis and moved to Arkansas with her husband, Henry W. Meyer, a retired ceramics engineer.

The forerunner to "Recognition Night" was held at Busch Memorial Union at St. Louis University in March. At the meeting, past chair Henry Godt spoke on *Motor Oil Additives – Their Use in your Car*. Three 50-year members were honored and the Winheim Award was presented to the outstanding chemical engineering student at Washington University, Bruce C. Sudduth of Belleville, IL.

An interesting Joint Topical Group meeting was held in April, 1969, with a lecture on *The importance of computers to experimental chemistry* by Professor Paul D. de Maine of Penn. State U.

The Chemical Bond in those days typically reported publications, papers, grants and other honors achieved by the membership. Of note in October were some features describing Dr. Lincoln Duiguid and his company Do-Good Chemical Company. Among the items mentioned were papers he had published and presented at meetings and also his election as Fellow of the American Institute of Chemists. Members may recall that he was the subject of a Salute to Excellence by the Section in 2000.

J. J. Katz of Argonne National Laboratory was presented with the 25th Midwest Award at the Midwest Regional Meeting in Kansas City. Another item of note in October 1969 was the General Section Meeting at which Congresswoman Leonor K. Sullivan spoke on Is Chemistry Above the Law? Ms. Sullivan was the first woman to serve in Congress from Missouri, serving from 1953 until 1977. Her husband had served until 1951 when he died. After a republican was appointed to complete the unexpired term, she filed for office and was elected in 1952. She received an honorary Doctor of Laws degree from the University of Missouri-St. Louis in 1969 and died in 1988

An interesting feature of the materials included in the Chemical Bond were items which we now would regard as politically incorrect or sexist. It, perhaps did not reflect capricious attitudes, but rather the mores of the day. Gladly we have moved on.

Words & Pictures from Recognition Night

After a pre-reception reception at the home of Samir and Tina El-Antably, Recognition Night was held Friday, March 8th at the Glen Echo Country Club.



Immediate Past Chair Sue Dudek reflected on her term in office and received the appreciation of the section

The awards won by the section were proudly displayed, tightly packed over two whole tables. More than 60 people attended, including 19 past section Chairs, many 50-or-more-year members, and past winners of Distinguished Service Awards.

Five new 50-year members were presented with certificates and ACS key chains: Leon Golfin, Dr. Carl Frieden, Dr. Emerson Howard Lee, Dr. James L. Ogilvie, and Harold F. Waldron. A Salute to Excellence Award was presented *in absentia* to Dr. William S. Knowles, 2001 Nobel Laureate in Chemistry. Section Chair



Back Row: Sadiq Shah, Jed White, Lol Barton, Brooke Hoey, Donna Friedman, Bob Friedman, Hal Harris, Harold Messler, Lisa Balbes, Greg Wall, Frances Botts, Dave Garin Front Row: Samir El-Antably, Phyllis Bennett, *Sam Tuthill, Sue Dudek, Pauline Bellavance, Ray Mount, Karl Markl

Lisa Balbes read a tribute to Dr. Knowles written by Dr. S. Allen Heininger, 1991 ACS National President and longtime friend of Dr. Knowles.

Past-Chair Pauline Bellavance was surprised with a Service Award, and Ramon Mount received the 2002 Distinguished Service Award. Immediate Past Chair Sue Dudek reflected on her term in office and received the appreciation of the section, as well as a plaque and past chair pin.

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April Banquets Reservation Form

Use this form to make reservations for Awards Night on Monday, April 15, or the St Louis Award Banquet, Saturday, April 20, or ... both! Check the Chemical Progress Week schedule of events on page 14 for complete program details.

Chemical Progress Week

Banquet Reservations
Name of Member:
Awards Night Banquet Honors winners of the High School Chemistry Contest, College Awards, the Leopold Marcus Award, the High School Teaching Award, Technician of the Year award and outstanding students at area colleges and universities Radisson Hotel, 7750 Carondelet, Clayton 5:30 pm social hour, 6:30 dinner, 7:15 program
Number attending x \$18.00 = Amount enclosed = \$
St. Louis Award Banquet Kemoll's Restaurant, 1 Metropolitan Square, St Louis 6 pm cocktails (open bar), 7:00 banquet, 8:00 program Number attending x \$25.00 = Amount enclosed = \$

Page 13 **April**, 2002

Chemical Progress Week, April 14–20 Final Schedule of Events

Sunday	Women Chemists Luncheon
April 14	Speaker: Dr. Catherine Didion, Exec. Director, Association for Women in Science
	Advancing Women in Chemistry: Strategies for Success
	St Louis Art Museum Restaurant, Forest Park, 12 noon
	Contact: Leah O'Brien (lobrien@siue.edu or 618-650-3562)
Monday	Awards Night
April 15	Honors winners of the High School Chemistry Contest, College Awards, the
	Leopold Marcus Award, the High School Teaching Award, Technician of the Year
	award and outstanding students at area colleges and universities
	Radisson Hotel, 7750 Carondelet, Clayton
	5:30 pm social hour, 6:30 dinner, 7:15 program
	Speaker: TBA
	Cost: \$18, contact Samir El-Antably (314-664-5522 or samire1938@earthlink.net)
Tuesday	ADACIOM Luncheon
April 16	Sheraton Clayton Hotel, 7730 Bonhomme, Clayton, 11:30 am
	Speaker: Jack Daley of Daley International
	Cost: \$35 advance, \$40 at the door, contact Cathy Murphy
	(cmurphy@berlinpackaging.com)
Wednesday	Chemistry Career Day
April 17	15 minute talks by speakers representing different areas of chemical employment
•	and education. Tours of the UM-St. Louis chemistry facilities
	451 Benton Hall, UM-St. Louis, 9-11:30 am
	Contact the UM-St. Louis Chemistry Dept for more information 314-516-5311.
Friday	St Louis Award Symposium
April 19	Scott R. Gilbertson, Washington University
	Location and Contact: TBA
	Check the section website for up-to-the-minute details, www.umsl.edu/~acs
Saturday	St Louis Award Banquet
April 20	Kemoll's Restaurant, 1 Metropolitan Square, St Louis
•	6 pm cocktails (open bar), 7:00 banquet, 8:00 program
	Cost \$25, contact Samir El-Antably (314-664-5522 or samire1938@earthlink.net)
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Are you Young or Old?

Luckily, ACS has opportunities for chemists of all ages!

For those of you just starting out in your career, check out the Younger Chemists Committee. Anyone "not yet established" in their career is welcome to participate, which allows younger chemists to build their network at an early stage in their career, take on leadership roles, and create opportunities for their future. Visit

http://membership.acs.org/Y/YCC/home.html

for information on national volunteer opportunities, mentoring and awards. St Louis has had a very active YCC group in the past, and their activities are gearing up again – see

http://www.umsl.edu/~acs/meetings.html#ycc

And for those of you who have a bit more experience, how about sharing some of that wisdom by taking on a summer intern through the Project SEED program? This program provides partial funding for economically disadvantaged high school students to spend a summer working in a laboratory doing hands-on work. See

http://www.umsl.edu/~acs/special.html

for information on how to participate in creating the chemists of the future.