



Chemical Bond

Volume 52
Number 4
April, 2001

St. Louis Section, American Chemical Society

April
16

April
17

April
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April
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April
21

Chemical
Progress
Week!

Welcome
Spring
and

Chemical Progress Week: April 16–21 Final Schedule of Events

Monday April 16	<p>Awards Night Raddison Hotel, 7750 Carondelet, Clayton, 63105 Social Hour: 5:30 pm Dinner: 6:30 pm Program 7:15 pm</p> <p>Honors the winners of the High School Chemistry Contest, Outstanding Students at area colleges and universities, and the Leopold Marcus Award winner.</p> <p>Featured speaker: William J. Welsh University of Missouri–St Louis <i>Designing Drugs on the Computer</i></p> <p>Cost \$18 Return reservation form on page 10 by April 9 or phone Samir ElAntably at (314) 664-5522. Information: Bruce Ritts at (314) 535-1383</p>
Tuesday April 17	<p>ADACIOM Luncheon 11:30 am, Sheraton Clayton Hotel, 7730 Bonhomme</p> <p>Speaker: Mr. John Brunner, CEO of Vi-Jon Laboratories.</p> <p>Cost is \$40 at the door or \$35 in advance. Reservations: Nick Van Rees, Chemia Corp., (314) 567-0013.</p>
Wednesday April 18	<p>Chemistry Career Day JC Penney Building, UM–St Louis, 9 am–12 noon</p> <p>15-minute talks by speakers representing different areas of chemical employment and education. Please contact Pat Mayberry at (314) 516-5311 for further information or to make reservations.</p>
Friday April 20	<p>St. Louis Award Symposium Technical lectures by Dr. John J. Talley (Pharmacia) and invited speakers. Time and location to be announced. Watch the web site, http://www.umsl.edu/~acs/ for details</p>
Saturday April 21	<p>St. Louis Award Banquet Kemoll's Restaurant, 1 Metropolitan Square, St. Louis Cocktails (open bar): 6 pm Banquet 7 pm Program 8 p.m.</p> <p>Dinner and program honoring Dr. Talley.</p> <p>Cost: \$25 Return reservation form on page 10 by April 14 or phone Samir ElAntably at (314) 664-5522.</p>

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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.

Date: April 10 (note Tuesday date)

Social hour: 5:30 pm

Dinner: 6:30 pm

Business meeting: 7:15 pm

Future meetings: May 10, Sep 13

Saint Louis University

Seminars start at 3:30 pm in Room 204 Macelwane Hall. Refreshments follow. For more information, contact Dana Spence, spenced@slu.edu.

University of Missouri— St. Louis

Refreshments at 3:45; seminars at 4 pm in B-451 Benton Hall. For further information, Contact Prof. Keith Stine, 314-516-5346, kstine@jinx.umsl.edu.

Monday, April 2

Dr. Douglas F. Covey
Washington University
School of Medicine
*The Use of Steroid Enantiomers
to Probe the Mechanism
of Steroid-Induced Anesthesia*

April 9, 2001
Richard Loomis
Washington University
*Using Lasers and
Quantum Chemistry to Determine
the Pathways of Chemical Reactions*

April 16, 2001
Dr. Abraham Clearfield
Texas A&M University
*Supramolecular Crown Ether Arrays
and Other Crystal Engineered
Molecules*

April 23, 2001
Dr. Wilfred van der Donk
University of Illinois
*COX-2 Catalysis Unraveled:
Characterization of a Substrate Radical
using Synthetically Deuterated
Arachidonic Acids*

April 30, 2001
Dr. Marjorie Jones
Illinois State University
*Coproporphyrinogen Oxidase—
Studies of a Really Neat Enzyme*

May 7, 2001
Alumni Lecture
Mr. Ken Owens
University of Missouri—St. Louis
*Sharp Objects and Fires,
Daily Fare for the Glassblower*

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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.

Computational Chemistry Discussion Group

Locations vary, but the time is generally 5:30 for refreshments, and 6 pm for the talk. For more information, contact Marcia Fenley, 314-862-0451, sfenley@artsci.wustl.edu or Philippa Jayatileke, 314-647-1099, pjayat@tripos.com

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Environmental Science/Technology Discussion Group

Contact Dr. Kwok-Keung Au ("Amos") for information: call 618-239-0547 or e-mail amos@bellevillelab.com

April

Su	Mo	Tu	We	Th	Fr	Sa
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30					



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Reflections on Teaching: Then and Now, There and Here

by Jack Bornmann

A recent front-page article in the *Wall Street Journal* (February 26, 2001) caused me to remember my year as a student at the II. Physikalisches Institut der Technische Hochschule (Second Physics Institute of the Technical University) in

Letters & More

Stuttgart, Germany. The WSJ article was about higher education in Germany, specifically at Humboldt University in Berlin.

My year in Stuttgart (1956-7) gave me an opportunity to learn about the German educational system. If you wanted to become, say, a chemist, you enrolled in a university. You studied everything a chemist should know. When you were (or thought you were) ready, you took a final examination. There were no hour exams, no final exam at the end of the semester or end of the year. There was only one *final* exam to determine if you should receive a diploma in chemistry. If you talk with your hands like I do, draw your index finger across your throat when you say "only one final exam."

While you prepared for the final exam, no one took attendance at lectures. However, you did attend those lectures that helped you. You might attend some at another university because of the subject, the ability of the professor to present the material, or just to hear a famous professor. There was tremendous freedom, but there was also

the heavy responsibility of self-discipline.

Each department in the university had only one professor; there were no assistant or associate professors. It was practically impossible to meet the professor except in some rare and very formal ceremony. There were no office hours when the student could seek advice or get help with a sticky question.

In one such ceremony, I met the president of the Technische Hochschule. I joined a line of German students who one by one approached the president, clicked his heels, shook hands and bobbed his head in the characteristic German fashion of a single, swift down-up motion. At the same time each said, "Seine Magnifikanz" (Your Magnificence), which is one step below "Your Majesty." I did my best, but it is hard to click your heels when they are made of rubber.

Unlike in Germany, we American professors feel that we must tell the students exactly what to study, in what order, and to what depth. We are like the adults you see around playgrounds yelling at kids, directing and even cursing them when children fail to make the right play motion. I remember when children played in playgrounds; when was the last time you saw children actually playing in a playground with no adults? Now, playgrounds are empty unless an adult has organized a game with uniforms and equipment. Have we lost something in the playground and in the university?

The complaint has been made lately that the German professors are not available. When I taught in

see **Reflections**, page 8

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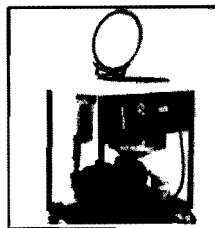
Vacuum Inlet Traps



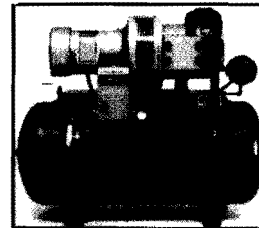
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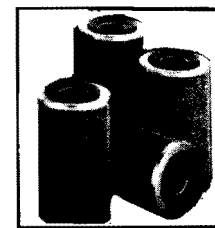
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Reflections, from page 6

Illinois, I had a colleague who waited in the hallway until the bell sounded, and then he stepped into the lecture hall, lecturing as he walked to the podium. Just before the final bell he edged toward the exit, lecturing all the way, and escaped out the door when the bell rang. He actually ran down the hall and up the stairs to his office, which he locked. He ignored knocks on the door and entreaties from his students. He had to write papers to obtain tenure. Is ours a better and more caring system than the one in Germany?

Thirty years ago I had students who told me that they did not want me to spend so much time lecturing; they wanted me to answer their questions, the questions they had generated by their study. What an exciting group of students

they were! And what a wonderful time I had. Those students studied on their own and their questions arose from that study. Ten years ago, my students had no questions whatsoever; they were the exact opposite of the intellectually lively group in my earlier classes. They would have never succeeded in a German university.

If you don't give frequent hour exams, students will slough off on your course to study for exams in their other courses. It becomes a battle for the students' attention. Seldom does a professor find a student who is eager to learn and to study on his or her own. I believe the most important thing to be learned in college is the ability to study on one's own. German students were forced to develop this ability; Americans should have.

Don't misunderstand me. I loved my job as a chemistry and

physics teacher in America. When I had retired, I once was waiting for a meeting at UMSL to start. I walked the hallway to kill some time. I overheard a professor lecturing on that I had covered many times. I had to control myself because I wanted desperately to walk in and take over the lecturing. The UMSL professor was doing a fine job, but I wanted to have the enjoyment.

In summary, it seems to me the German universities need to move toward the American system and we need a large infusion of some old German ideas.

Marcus Award to be Held at SLU

The 2001 Leopold Marcus Award competition will be held Wednesday, April 11 at 4:00 p.m. in Lee Hall (Lecture Hall 1) on the campus of Saint Louis University. It is administered by the Department of Chemistry at Saint Louis University and the St. Louis Section of the American Chemical Society.

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. Refreshments will be available after the competition. For further information, contact Bruce Kowert at (314) 977-2837 or kowertba@slu.edu.

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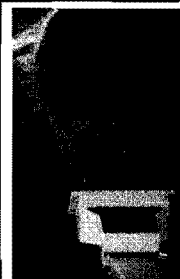
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Awards Night Banquet

Raddison Hotel, 7750 Carondelet, Clayton

Social Hour: 5:30 Dinner: 6:30 Program 7:15

Number attending ____ X \$18.00 = Amount enclosed = \$ _____

St. Louis Awards Banquet

Kemoll's Restaurant, 1 Metropolitan Square, St. Louis

Cocktails: 6:00 Dinner: 7:00 Program: 8:00

Number attending ____ X \$25.00 = Amount enclosed = \$ _____

Total amount enclosed = \$ _____



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Bond Briefs

Happy 125th!

There'll be many small parties springing up all over the country this fall as chemists help the American Chemical Society celebrate its 125th birthday.

In St Louis, the festivities will be at Kemoll's on Saturday, October 6th. That's just a few weeks before the Mole Day bash (10/23, as if you didn't know). That'll be two opportunities in quick succession to let our hair down. Watch this space in September for details.

Awareness at the Career Awareness Fair

At the March board meeting, **Greg Wall** and **Karl Markl** reported on their experiences at the St. Louis Public Schools' recent Career Awareness Fair. This year's fair, March 7-8, was the 17th, and the 13th at which the St Louis Section-ACS has been represented.

Greg talked about the large number of enthusiastic, inquisitive eighth graders in attendance. Karl echoed, then remarked on what he saw as troubling gaps in preparation. Many who stopped by to inquire about careers in chemistry had only about a third- or fourth-grade functional knowledge of math. According to Karl, for many of these kids, "it's already too late."

They say eternal vigilance is the price of a free society. Apparently, the price also must be paid for a well educated one. We are in a position to make a difference...or choose not to. Get involved in your neighborhood schools.

St. Louis Award Preview

The winner of the 2001 St. Louis Award is **Dr. John Talley**, currently of Pharmacia. Dr. Talley was a major contributor in the development of the new arthritis drug, Celebrex.

Dr. Talley and several guests he invites will present scientific lectures at the St. Louis Award Symposium on Friday, April 20. Check the section website www.umsl.edu/~acs for up-to-date details.

Illinois State Capitol Day

Dr. Eric Voss, SIU-Edwardsville, and several colleagues joined representatives from national ACS in Springfield on March 7th for Illinois State Capitol Day. The event was organized to provide an interface between state legislators and their constituents and to help the constituents learn more about the state-level legislative process.


Eric will be preparing a full report, with photos, for the next issue of the *Bond*.

Undergrad Research on Display

This year's Undergraduate Research Symposium will be hosted by University of Missouri-St Louis, and organized by Don Becker (of UMsl) and Mike Shaw (of SIUE). The date: April 28, 1-4 pm.

Undergrad research students from throughout the St. Louis area are invited to attend and present a poster. Awards are conferred upon outstanding presenters.

No further details were available at press time, but you can get in touch with Mike Shaw at (618) 650-3579 for more information.



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Recollections from 1966

by Lol Barton

An article on section history will become a regular feature in the *Chemical Bond*. No one can claim to be an expert on such matters, least of all yours truly, so I hope critics will be kind. The information is

CHEMISTRY

based on memory and on old issues of the *Chemical Bond*. I have tried to keep my old copies and have an almost complete set from 1966 onwards.

The Section was very different in the 1960s. Monsanto and Mallinckrodt chemists dominated it. Today the leadership, and indeed the membership, is drawn from a much wider array of chemical companies and institutions. Fall 1966 issues of the **Chemical Bond** list activities in topical groups almost unrecognizable today. Among the lectures announced were those from the St. Louis Society of Analysts, a Joint Meeting of the ASTM and the Engineers' Club, and a meeting of the American Society for Quality Control. In addition there were announcements of lectures from the Education, Physical-Inorganic, Organic and Petro-

chemical Topical Groups. The speaker for the latter was Jordan J. Bloomfield, known to many old-timers as an irascible former chair, long-time Councilor, St. Louis Awardee and the stalwart of the Section who established Chemical Progress Week.

During this period the Midwest Award was not associated with the Regional Meeting but was presented in St. Louis at a Section meeting. This would soon change since the Midwest Regional Meetings had been established the previous year. On Saturday morning November 5, 1966, Professor Ralph G. Pearson of Northwestern University gave the Midwest Award Address in Crow Hall at Washington University. At the evening Banquet at Le Chateau, Section Chair H. D. Barnsworth (Monsanto) presented Dr. Pearson with the award. The Master of Ceremonies for the event was C. David Gutsche (Washington University) and Dr. Pearson was introduced by another Northwestern University chemist, Fred Basolo. After dinner there was dancing!

Among other announcement that fall were the election to the National Academy of Science of Sam Weissman (Washington University) for his contributions to physical chemistry, Frank William-

son's appointment as Administrative Officer for the Department of Chemistry, and the designation of the laboratory of Arthur C. Wahl at UC-Berkeley, where he co-discovered plutonium, as a National Landmark. Other announcements included the addition of Drs D. L. Garin and L. Barton to the Chemistry Department faculty at the University of Missouri-St. Louis and a seminar presented by Leo Hohnstedt, Chemistry Chair at St. Louis University, at UMSL on his borane chemistry research.

That year Henry C. Godt, Jr. (Monsanto) was elected Chair-elect, L. J. Spillane (also Monsanto) was Section Chair and the Editor of the **Chemical Bond** was Dr. Frank E. Mange (Petrolite). The other Section Officers were

Secretary F. J. Ludwig (Petrolite) and Treasurer P. King, Jr. (Mallinckrodt) who replaced G. B. Hoey (also Mallinckrodt).

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