CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Undergraduate Research Symposium and Regular Monthly Meeting

FRIDAY, NOVEMBER 21, 2003

Drury Lane Oakbrook
100 Drury Lane
Oakbrook Terrace, IL
630-530-8300
The English Room

DIRECTIONS TO THE MEETING
From Downtown Chicago: Take the Eisenhower Expressway (I-290) west to Tollway I-88 west. Exit at Cermak Road. Proceed through the stoplight so you are heading North. Continue on Spring Road and bear right onto Drury Lane St. Drury Lane will be on your left at the end of the road.

From I-294: Exit at Tollway I-88 West and then exit at Cermak Road. Proceed through the stoplight so you are heading North. Continue on Spring Road and bear right onto Drury Lane St. Drury Lane will be on your left at the end of the road.

From the North or South on Route 83: Exit at Roosevelt Road/Butterfield Road East. Follow signs to Drury Lane.

From the East or West on Roosevelt Road: Exit Route 83 South. On Route 83 South, take the Roosevelt Road/Butterfield Road East Exit. Follow signs to Drury Lane.

From the West on I-88: Exit at Midwest Road. Turn right, proceed to Butterfield Road, and turn right. Proceed to Drury Lane exit.

PARKING: Free

UNDERGRADUATE RESEARCH SYMPOSIUM: 4:00 - 5:00 P.M.
English Room (see page 5)

JOB CLUB: 5:00 - 5:45 P.M.
French Room (see Page 5)

TOPICAL GROUP: 5:30 - 6:30 P.M.
English Room

“Illuminating the Structure and Self-Assembly of Alzheimer’s β-Amyloid Fibrils” presented by Dr. Robert Botto, Chemistry Division, Argonne National Laboratory

SOCIAL HOUR: 6:00 - 7:00 P.M.
(Cash Bar)

DINNER: 7:00 P.M.

Menu: Fresh Fruit Panache; Spinach Mandarin Salad; Steak with Bearnaise sauce and Vesuvio Potatoes, Baked Scrod with long-grain and wild rice blend, or Vegetarian Spinach and Ricotta Rotolo; buttered broccoli; fresh baked bread and butter; Deep-dish Dutch Apple Pie with Cinnamon Cream and Caramel Sauce; beverage.

Dinner reservations are required and should be received in the Section Office via phone (847-647-8405), fax (847-647-8364), email (chicagoacs@ameritech.net), or online (http://membership.acs.org/C/Chicago) by noon on Tuesday, November 18. The dinner cost is $30 to Section members who have paid their local section dues, members’ families, and visiting ACS members. The cost to non-Section members is $32. The cost to students and unemployed members is $15. Seating will be available for those who wish to attend the meeting without dinner. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

GENERAL MEETING: 8:00 P.M.

Dr. Peter K. Dorhout, Professor of Chemistry and Associate Dean, Colorado State University, Fort Collins, CO

Topic: “Plutonium Chemistry and the DOE Legacy - Challenges in Actinide Materials Chemistry”

Abstract: The development of synthetic methodology for the production of targeted actinide metal materials is critical to the safe and efficient production of potentially important materials such as proliferation-resistant borides, carbides, nitrides, and other complex main-group and intermetallic materials. The exciting materials science surrounding the actinides, especially plutonium, will be (continued on page 2)

NOTICE TO ILLINOIS TEACHERS

The Chicago Section-ACS is an ISBE provider for professional development units for Illinois teachers. Teachers who register for the November meeting will have the opportunity to earn up to 5 CPDU’s.
presented and the weird behavior of metals like plutonium and neptunium will be explored.

Synthetic strategies for actinide science are currently being developed to solve critical problems in the DOE complex. These synthetic strategies, that have been successfully applied to conventional materials synthesis to prepare new and targeted compounds, represent strategies that can be easily incorporated into the synthesis of new and potentially relevant nuclear materials. The possibility to safely and conveniently prepare materials for study as fundamentally new solids or for proliferation-resistant compounds represents new challenges for actinide science.

Biography: Peter Dorhout received his B.S. in chemistry from the University of Illinois in 1985 and his Ph.D. in chemistry from the University of Wisconsin in 1989. He also worked as a graduate student at Los Alamos National Laboratory in actinide materials chemistry. He continued his studies in f-element chemistry with Prof. John Corbett at Iowa State University and Ames Laboratory as a postdoctoral fellow until 1991.

Dr. Dorhout is a Professor of Chemistry at Colorado State University, where he has been on the faculty since 1991. He has an active program in solid-state f-element chemistry and nanomaterials science. His current research interests include heavy metal detection and remediation in aqueous environments, ferroelectric nanomaterials, actinide and rare-earth metal solid-state chemistry, and nuclear non-proliferation. He currently maintains a collaboration in nuclear materials with Los Alamos National Laboratory and a collaboration in peaceful materials science development with the Russian Federal Nuclear Center – VNIIEF, Sarov, Russia, through ISTC-U.S. State Department projects.

He currently serves as Associate Dean for Research and Graduate Education for the College of Natural Sciences at Colorado State University. He is also a member of the Board of Directors for the Research Corporation, Inc., a philanthropic organization supporting advances in science in chemistry, physics, and astronomy.

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Visit the Chicago Section at
http://membership.acs.org/C/Chicago

Biochemistry and Nanomaterials
Dr. Robert E. Botto
"Illuminating the Structure and Self-Assembly of Alzheimer's β-Amyloid Fibrils"

Abstract: Alzheimer's Disease is characterized histopathologically by the deposition of amyloid plaques, especially in areas of neuron loss. The primary component of these plaques is a 39-43 amino acid peptide called β-amyloid (Aβ). Specific interpeptide distance constraints are determined with dipolar recoupling NMR on fibrils prepared from a series of singly labeled peptides containing 13C-carbonyl-enriched amino acids, and skipping no more than three residues in the sequence. From these studies, we demonstrate that the peptide adopts the structure of an extended parallel β-sheet in-register at pH 7.4. Analysis of NMR data indicates interstrand distances of 5.3 ± 0.3 Å (mean ± standard deviation) throughout the entire length of the peptide. Intrastrand NMR constraints, obtained from peptides containing labels at two adjacent amino acids, confirm these findings. Using peptides with 13C incorporated at the carboxyl position of adjacent amino acids, structural transitions from α-helix to β-sheet were observed at residues 19 and 20, but using similar techniques, no evidence for a turn could be found in the putative turn region comprising residues 25-29. SAXS and SANS were used to characterize long-range order. Implications of this extended parallel organization for Aβ(10-35) for overall fibril formation, stability, local disorder, and morphology based upon specific amino acid contacts will be discussed.

Biography: Robert E. Botto is a chemist/spectroscopist at Argonne National Laboratory. He received his A.B. in Chemistry from Rutgers University and his M.S. and Ph.D. in Organic Chemistry from Michigan State University.

Robert has received several honors, including the Pacesetter Award, Argonne National Laboratory (1995); National Research Council Research Fellow, National Bureau of Standards (1979-81); NATO Grant Award (1977); Merit Teaching Award, Michigan State University (1973).

"CHEM SHORTS" For Kids

The Elementary Education Committee of the Chicago Section ACS presents this column. They hope that it will reach young children and help increase science literacy. Please cut it out and pass it on to your children, grandchildren, or elementary school teachers. It is hoped that teachers will try to incorporate some of the projects in this column into their lesson plans.

Candy Clouds

Kids, did you know that October 19-25 this year was National Chemistry Week? The theme this year was "The Earth's Atmosphere and Beyond". All kinds of fun activities were developed for that week to highlight the chemistry going on in the air that we breathe. Here we are going to highlight one of them, which was made to help discuss wind.

Wind can carry smoke, dust, and gases hundreds of miles in just a few days. Satellite images of dust storms in the African Sahara Desert show that some of the dust actually travels all the way across the Atlantic Ocean and falls onto the southeastern U.S. Because we can't see air, we can't tell where it is going without clues such as seeing a cloud drift by or feeling it on our skin. This activity uses colored candy dropped into warm water to imitate the way that smoke, dust, and gases move in air.

Ask an adult partner to help you pour warm (not hot) water into a square plastic dish, one that is about sandwich-size. Select pieces each of four different colors. Add them into the water so that each corner of the dish has a different color. Mix the water and let it stand without stirring for a few minutes. We speculate that these candies dissolve because a soluble, food-grade plastic such as gelatin or a cellulose derivative.

One of the early ways that scientists tracked how fast winds were blowing was by watching clouds. In this activity, you made clouds of color in the water. The clouds moved even though you did not stir the center using a spiral motion. Watch your candy clouds really move now, almost like the hurricane eyes we see on weather news doppler radar.

Here is an interesting sidebar to this experiment. One of the candies we tried this with was Starburst® Jellybeans. The color clouds formed, we noticed that the tiny little Starburst® decals from each individual jellybean were floating on top of the water. They were fragile and dissolved after a couple of minutes. We speculate that these are made of a soluble, food-grade plastic such as gelatin or a cellulose derivative. A call to the Mars, Inc. Consumer Affairs Office yielded the following response: "The edible ink changes the crystalline structure of the candy shell and it takes longer to dissolve".

KATHLEEN CARRADO

Reference: This and many other NCW activities can be downloaded from the www.chemistry.org website. On the left, where it says "Quick Find", click "Natl Chem Week". From there go to NCW Resources for Students and Educators and download the first publication. It's called "Celebrating Chemistry" and it has many hands-on activities and articles for 4th-6th grade students. Email kccarrado@anl.gov with any info about the Starburst® phenomenon.

All past "ChemShorts": http://membership.acs.org/C/Chicago/ChmShort/ki dindex.html.


Contact the Chair

Do you have any questions, suggestions, recommendations, ideas, gripes, complaints, or pet peeves relating to the Chicago Section? Do you want to volunteer, help out, or lend a hand with Section programs or activities? Then contact your Chair. Simply log onto the Section's Web Page at http://membership.acs.org/C/Chicago, find the green button "Contact the Chair", and send me an e-mail. If I can answer your query I will respond personally. If I can't I will forward your e-mail to someone who can, or try to provide you with a contact — all in a timely manner. The Section belongs to you and the other 5,600 ACS members who reside in the Chicago area (northeast Illinois and northwest Indiana). Only you can make it work for you by being involved. Only you can make it fail by not being involved. I look forward to hearing from you.

SUSAN SHIH

Chair

REGISTER TO ATTEND MONTHLY SECTION MEETINGS ON LINE at http://membership.acs.org/C/Chicago

GIFTS NEEDED

The Hospitality committee is asking all companies in the area and individuals employed by area companies to donate either cash or promotional items with their company name on it for the annual holiday party. This event has become one of the section's largest dinner meetings. Those who donate will be listed on announcement cards on the table and in the Chemical Bulletin. The committee will be happy to pick up items at your convenience by calling the office at (847) 647-8405 or they may be sent to the section office at: 7173 North Austin Avenue, Niles, IL 60714.

So please take the time and call the section office with your donation. It is a great way to advertise your company.

FRAN KRAVITZ
Worker Fatigue

With the pressure to downsize labs, staff are working longer hours to maintain services with fewer people. It is known that worker fatigue is a contributing factor for many accidents and the risk of injury increases as the amount of overtime builds. Health problems such as diabetes can be exacerbated when work schedules interfere with routines and cause workers to skip meals or otherwise deviate from dietary habits.

As lab managers, we have an obligation to monitor workers for signs of fatigue or health effects and to intervene before inattention or lack of concentration leads to an accident. We may not be able to avoid asking for the extra time and effort from our staff but might permit the worker to leave for a good meal and then return or even to take a short nap during an extended work session. Even 30 minutes of downtime can be meaningful if it is used effectively. Forty winks in a dark office can provide sufficient rejuvenation to restore attentiveness to safely finish the extended work schedule. This is just good management. Loss of an employee to injury only makes the situation worse.

Past ALMA (Analytical Laboratory Managers Association) e-News editions are available at the website http://www.labmanagers.org/.

If you have any comments, cost saving suggestions, opinions, etc. let me hear from you.

WAYNE COLLINS
wayne.collins@bpsolvaype.com

CHEMISTRY UNDERGRAD TRAVEL AWARD

The Chemistry Division of the Council on Undergraduate Research (CUR) encourages its members to nominate undergraduate students for a CUR chemistry travel award to present research results at the 2004 ACS spring national meeting in Anaheim, CA. Two awards of $250 will be offered on the basis of scientific merit, research progress, and financial need. Preference will be given to those undergraduate students who have not made a previous presentation at a national scientific meeting. Funds from the award may be applied toward travel, accommodations, and meal expenses. The faculty research advisor must be an individual member of CUR (for membership information, see www.cur.org). For deadline information and application details, go to www.cur.org/chemistry.html.

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UNDERGRADUATE RESEARCH SYMPOSIUM

The College Education Committee is sponsoring an undergraduate research symposium on November 21 at 4:00 p.m. in conjunction with the monthly dinner meeting of the Section. The objective is to provide undergraduate researchers with a forum to share their work with colleagues from other institutions and Section members. The committee plans to present three such symposia during the fiscal year-November, February and April. Presenters for the November symposium are from the University of Chicago:

Student: Joshua D. Tice
Research Advisor: Rustem F. Ismagilov, Ph.D.

Title: A Microfluidic System for Controlling Reaction Networks in Time

Abstract: Microfluidic systems use networks of channels to manipulate small volumes of reagents and they are becoming essential for chemical and biological analysis and synthesis. Performance of these systems is often limited by two factors: the rate of mixing of reagents and the dispersion of reagents as they are transported through microchannels. We developed pressure-driven, continuous flow microfluidic networks in which the reagents are mixed rapidly and transported with no dispersion. These temporal evolutions convert distance into time. In these networks, laminar streams of several aqueous solutions of reagents and the dispersion of reagents isolated in droplets traveling through winding microchannels has been developed. The flow of fluid within the unsteady flow reduces the striation length by stretching, folding, and reorienting the fluid in a manner similar to that of the baker’s transformation. A simple argument for the predicts the scaling of chaotic mixing in a droplet moving through a winded microfluidic channel has been described. The scaling argument for the dependence of the mixing time, was derived by equating the time scales for mixing by diffusion and for transport by convection. The scaling argument was tested by varying the parameters.

This work was supported by the Chicago MRSEC, the Camille and Henry Dreyfus New Faculty Award, Office of Naval Research, the Research Innovation Award from Research Corporation, and NIH.

Student: Donna Wilson
Research Advisor: Ka Yee Lee, Ph.D.

Title: Collapse in Fluid Langmuir Monolayers

Abstract: Using a Langmuir trough, single component fluid lipid monolayers were studied with a focus on head group charge and screening length. By changing electrostatic interactions between lipid molecules, it was concluded that head group charge did have an effect on fluid phase collapse structures. This was done by using lipids with zwitterionic and cationic head groups and by screening the system with univalent ions.

Additional funding for this project as received from the National Science Foundation funded summer program with University of Chicago Materials Research Center.

CHARLES E. CANNON, CHAIR
COLLEGE EDUCATION COMMITTEE

MAREK WINS ACS NATIONAL AWARD

Lee Marek, retired chemistry teacher of Naperville North High School, won the Helen M. Free Award for Public Outreach at the New York national meeting. The award recognizes outstanding achievement in the field of public outreach by a member of the ACS. Throughout his career, Lee has helped students, teachers and the public enjoy and understand chemistry via chemistry demonstrations. His public outreach includes 24 appearances on The Late Show with David Letterman and on local and national spots on CBS, ABC, FOX, and NBC television. Congratulations Lee!

BUDGET AND FINANCE WEBSITE LAUNCHED

Members of the National ACS Committee on Budget and Finance (B&F) are pleased to announce the Budget and Finance website. This site provides easy-to-understand information about the finances of the ACS and is updated regularly with information that is important for every member to know.

Highlights of the site include:
- The latest B&F report to Council
- The Society’s 2002 Consolidated Financial Statements
- Financial overview
- Details of the Society’s reserves
- The Sources and Uses of Society Funds

The B&F website can be found at: www.chemistry.org/committees/budget

Email your questions and suggestions about the kind of information you would like to see on the B&F website to help@acs.org.

JOB CLUB

The next meeting of the Chicago Section Job Club will be held on Friday, November 21 at Drury Lane Oakbrook at 5 p.m. in the French Room. The meeting will include a review and discussion of some of the fundamental tools that a chemist can use to conduct a Job Search.

The Job Club provides a continuing opportunity for unemployed members of the Section to meet with one another, share their experiences and develop a network that may help in identifying employment opportunities. Bring plenty of resumes and business cards to distribute to your colleagues. Be prepared to talk about what kind of job you are looking for.

Several participants have received outsource help with resume preparation and marketing strategies to present their best attributes to prospective employers. The group actually critiqued some individual resumes and made suggestions for improvements in a positive way.

The Job Club is also for employers seeking chemists. Employers need to be prepared to describe the positions to be filled and requirements for these positions.

Should you wish to attend the Section meeting following the Job Club, the fee for unemployed members is only $15 and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.
BABIES DO CHEMISTRY 
(HEALTH AND SAFETY)

The youngsters at Farragut Career academy Pre-K Program are at it again! Their first program is hand washing. As everyone knows 3 and 4-year olds handle so many things with germs due to colds, e-coil, lice, bacteria, etc. They learn that they should wash their hands before eating, especially after handling toys when a playmate has a cold. And, of course, they are instructed to wash their hands well after going to the bathroom to prevent e-coil infections.

The children learn how to wash their hands thanks to a kit with an UV light and fluorescence cream. The cream glows white under the black light. When the child has not properly washed his or her hands the area with the cream glows. It glows on fingernails, any cuts, near jewelry, and creases in their skin. The little ones, some washed their hands as many as 5 times, were very happy when their hands did not have any glowing cream. They also learn how to wash their hands properly — including scrubbing fingernails, cleaning between fingers, and cleaning up to the wrist. This is a lesson everyone needs to learn.

MARSHA ANNE PHILLIPS 
CHAIR MIDDLE SCHOOL AND/OR JR HIGH SCHOOL

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The 226th National Meeting of the ACS was held in New York, NY from September 7 - 11, 2003. Attendance at this meeting was reported to be 14,030 people, including 10,640 meeting attendees, 1949 exhibitors, 885 exhibition-only attendees and 556 guests. The Chicago section was fully represented by 13 councilors. The councilors who attended for the section were: Roy H. Bible Jr., Cherlynvaughn Bradley, Charles E. Cannon, David S. Crumrine, Nathaniel L. Gilham, Russell W. Johnson, Fran K. Kravitz, Thomas J. Kucera, Claude A. Lucchesi, Barbara E. Moriarty, Seymour H. Patinkin, Marsha Anne Phillips, and Stephen Sichak. Jim Shoffner was present at the meeting as a Director-at-Large.

At the beginning of the meeting, Ellis Fields was recognized for his many contributions to the ACS. In addition, the following Chicago councilors were recognized for their years of service on the ACS Council: Claude Lucchesi (30 years), Jim Shoffner (30 years), Tom Kucera (35 years), Ellis Fields (35 years), and Roy Bible (40 years).

President's Report: President Reichmanis talked about meeting with top science advisors in the Administration, where she discussed the critical role that chemistry plays in enabling many other technologies that impact our daily lives. In addition, she has met with chemistry industry executives, as part of our continued cooperation with the American Chemistry Council (ACC). She discussed with them the impact that outsourcing R&D has on chemists.

President-Elect's Report: Dr. Casey said that he would have presidential events in Anaheim on nanoscience to highlight the recent NRC report "Beyond the Molecular Frontier." In Philadelphia he will have a symposium on graduate education. All divisions were asked to provide programming on these two topics during 2004.

Chair of the Board: The Chair of the Board of Directors, Nina McClelland, reported that the Board is continuing to deal with two major issues. The first is the Strategic Plan for 2004 — 2006. The focus of the strategic plan will probably be Science, Profession and Public (SP2). The plan is in a draft form. The second issue is the search for a new executive director, since John Crum will retire at the end of 2003. John Crum has been an ACS member since 1962, on the staff at ACS since 1964 and executive director since 1983. As of the deadline for receipt of applications, September 2, 2003, they had received 250 applications. They will be narrowing this list considerably, and still anticipate meeting their deadline to hire a replacement before the end of the year. A proposed merger with the American Institute of Chemical Engineers (AIChE) was also mentioned, but details were not discussed. David Schutt was named CFO and Denise Crouch was named Director of the Membership Division.

Budget: There may be an unfavorable variance in the budget for 2003, but it will not be as large as it could have been. The net deficit is $3.1 million, which is $1.9 million unfavorable for the budget. The variance is due to lower advertising revenues, lower investment income and subscription defaults. This was partially offset by electronic journal subscriptions, STN and SciFinder. ACS staff was recognized for their efforts in keeping this unfavorable variance as small as possible.

Awards: Lee Marek won the Helen M. Free Award for Public Outreach.

Education: An invitational conference was held in June entitled, "Exploring the Molecular Visions," in order to reinvent chemical education. Over 50 prominent molecular scientists attended this conference.

Local Section Affairs: The theme of the 2003 National Chemistry Week celebration, to be held October 19 - 25, 2003, is "Earth's Atmosphere and Beyond." The theme for 2004 will be "Health and Wellness". The Chicago Section received the award for "Best Overall Local Section Committee on Minority Affairs.

Project SEED: Project SEED celebrated its 35th anniversary this year, with a symposium and panel discussion titled "Project SEED 35 Years of Success, Investing in the Future.” Since 1968, more than 7,100 high school students have participated in Project SEED. In 2003 there were 261 Summer I students at 88 institutions and 94 Summer II students at 40 institutions. In addition, 30 students were selected for SEED College Scholarships. Forty former Project SEED students presented posters at a poster session during the reception following the symposium. A reception was also held to recognize long-time mentors and coordinators. From Chicago, Warren Sherman, Ken Neet, and Greg Kharas were honored. At the Sci-Mix activity the night prior to the symposium, 88 SEED students, mostly SEED I students, presented their research at the poster session. In concluding her final oral report to council as chair of the Council Committee on Project SEED, Milagros Delgado emphasized that the program is 35 years old and still going strong and that the Committee invites everyone to join in the celebration of past successes and ensure the future success of SEED by becoming a donor, coordinator, or mentor.

Membership Affairs: As of 6/30/03, the Society's membership was 156,374, which is 0.8% ahead of last year at the same time. Student members have increased over 2002 by >1000, while the number of unpaid memberships has decreased compared to 2002. New personal member benefits from Budget and Enterprise Rental Cars are being added. The membership cards will be modified to include both these benefits, as well as the dates of future national meetings. There are proposals to change the membership qualifications for High School (pre-college) chemistry teachers.

Economic and Professional Affairs: As of the end of Tuesday, there were 1372 job seekers at the National Employment Clearinghouse (NECH); there were 153 representatives from 97 employers with 290 positions available. The number of interviews conducted in New York, as of the end of Tuesday, was 1564 interviews. An updated edition of the Professional Employment Guidelines (PEG) is on target for release in 2004. Concern has been raised about the reclassification of chemist by the US government. The net effect of the loss of 94,000 chemists may have a dramatic effect on membership.

Ethics: The Council Policy Committee continues to explore the possibility of the formation of a Committee on Ethics.

Chemical Safety: Copies of the two volumes of the 7th edition of Safety in Academic Chemistry Laboratories (SACL), the flagship publication of the Committee on Chemical Safety (CCS) were sent via the Project SEED staff to all the SEED students and their mentors for use in the summer 2003 research programs. One volume is for students and the other one for faculty/administrators. The revision of Chemical Safety Manual for Small Businesses is nearly completed. Chicago section member Ken Fivizzani is doing the revision of the manual.

If you have any questions and/or comments about the above actions, please contact me by email (bmoriarty@ondeo-nalco.com) or one of the other councilors.

BARBARA MORIARTY
(with help from Cherlyn Bradley)
CAS ADDS REGIONAL MEETINGS ABSTRACTS TO DATABASES

Chemical Abstracts Service (CAS) and the Office of Regional Meetings (ORM) has announced that all regional meetings abstracts will be accessible through all of CAS' online search services: STN(r), SciFinder(r), and SciFinder Scholar. CAS Editorial Operations Director, Dr. Matthew J. Toussant, recognizes that “Regional Meetings ... communicate a wealth of timely and relevant chemistry-related information. CAS customers will be happy to get fast and convenient access to these abstracts online, before they appear anywhere else.” Kathleen Thompson, ORM Manager, concurs. “Regional Meetings authors contribute timely, pertinent, and important technical information to attendees. This collaboration will expand the opportunities that the meetings provide.”

“This latest slate of enhancements builds upon our strength as a unique scientific information resource, and the only one that integrates both journal literature and patents in a comprehensive database with extraordinary currency,” said CAS Editorial Operations Director, Matthew J. Toussant. “The unsurpassed currency of the chemistry-related patent information in the CAplus file continues to be a key reason for STN's standing as the leading sci-tech information service.”

More information is available on the CAS web site at http://www.cas.org, via email to help@cas.org, or by calling 1-800-753-4227.

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FOOD DRIVE

We will be collecting canned goods for charity at the December Holiday Party. Please bring at least one can of food to donate when you come.

Last year you donated 500 pounds of food that went to the Loaves and Fishes Community Pantry for distribution. This was a 250% increase compared to what we collected in the first food drive in 2001. Let's try to beat last year's record!

MARKS RECEIVES PRESTIGIOUS AWARDS

Tobin J. Marks, professor of chemistry and materials science and engineering at Northwestern University, has received two of the most prestigious international awards in the field of organometallic chemistry. He has been awarded the Sir Edward Frankland Prize of the British Royal Society of Chemistry and the Karl Ziegler Prize of the Gesellschaft Deutscher Chemiker (Germany.) He is the first American to receive the Ziegler Prize. Congratulations Tobin!

NOBEL PRIZE WINNER TO RECEIVE CHROMATOGRAPHY GROUP’S AWARD

The Chicago Chromatography Discussion Group (CCDG) announces that the winner of its 2004 Merit Award will be John Fenn of Virginia Commonwealth University. Dr. Fenn was awarded the Nobel Prize in Chemistry in 2002 for his “pioneering contributions to the development of methods for identification and structure analyses of biological macromolecules”. Furthermore, Dr. Fenn’s work “to make mass spectrometry and NMR applicable for detailed studies of large molecules like proteins has given us new tools for investigations of the processes that constitute life.” There will be more information later on the CCDG Merit Award Presentation occurring in the spring of 2004 in the Chicago area.

VC2-YOUR VIRTUAL CHEMISTRY CLUB UPDATE

Designed for high school chemistry students and others interested in the molecular science, VC2 has been updated to include new product reports on everything from hair coloring to Cheese Whiz. Check out these and other features at the Virtual Chemistry Club web page in chemistry.org, search using "vc2".

CHICAGO SECTION RECEIVES NATIONAL AWARD

The Chicago Section had been selected as a finalist for the following ChemLuminary Awards:

- Committee on Chemistry and Public Affairs — ACS President’s Award for Local Section Government Affairs
- Committee on Local Section Activities — Most Innovative New Activity or Program in a Local Section Award
- Committee on Minority Affairs — Best Overall Local Section Committee on Minority Affairs

Winners were announced and the awards presented on Tuesday, September 9, 2003 at the National ACS meeting in New York. At the ChemLuminary Awards ceremony, the Chicago Section won the award for “Best Local Section Committee on Minority Affairs” in our category (the very large local section category). The Chicago Section’s Committee on Minority Affairs fostered new relationships with the new NOBCCHC Chicago Chapter and outreach programming to the Young Women’s Leadership Charter School of Chicago and community college students.

Congratulations to Darryl Prater and the Committee on Minority Affairs!

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CHAIR'S LETTER

Fall Wrap-Up

As we approach winter, I just want to catch you up on some recent Section events. The past few months have been very busy for all of us. At the national meeting in New York, the Section was honored by receiving the ChemLuminary Award for Outstanding Local Section Minority Affairs Committee. Darryl Prater and his committee deserve many thanks for their outstanding efforts in this area. If anyone is interested in serving on a committee but did not return your volunteer form, please call or email the office to let us know.

Also in New York, Lee Marek, formerly of Naperville North High School and late night national television, received the Helen M. Free Award for Public Outreach. This award is made for outreach to the general public that improves the public's awareness of chemistry and its contributions to the quality of daily life. Lee is certainly a worthy recipient of the award.

The deadline for receipt of ballots for Section officers was October 24th. The ballots were tabulated on that day and the results announced at the Section dinner meeting that evening. If you missed the meeting, you can check the Section web site for the results.

Chemistry Day was October 25th at UIC. I hope that you and your family were able to join us there. A full report on the day's activities will be in a later issue of the Chemical Bulletin.

The Section is now preparing to write the Annual Report describing this past year's activities. In addition, we are also preparing for the changeover in administration that takes place at the end of December. This timing is new for us but I anticipate no difficulties. In the future, Section officers' terms will begin on January 1st and end on December 31st. Your current officers and directors have all served an extra six months to accommodate the change from an academic to a calendar year.

As we formulate committee membership for the upcoming year, we are seeking new faces and new ideas. If you are interested in serving on a committee but did not return your volunteer form, there is one on the Section web site. Please fill it out and send it on.

As always, if you have any questions or concerns, just let me know. The Section is here to serve its members.

See you at a meeting!

SUSAN SHIH, CHAIR

HOLIDAY PARTY

Get those fingers ready to make reservations for the annual Chicago Section, American Chemical Society holiday party on Friday, December 12, 2003 at Monastero's Ristorante.

This year the Hospitality committee has come up with a plan to make the holiday gift raffle more efficient. Prior to the meeting, gifts will be numbered randomly and placed on tables in the back of the dining room. Each attendee will draw a clip with a number on it when they register that evening for the meeting. Please attach that number to your name badge. Gifts will be handed out by volunteers throughout the evening by calling up groups of individuals having a series of numbers. Larger gifts such as dinner certificates or gift certificates will be announced separately throughout dinner. Meeting attendees are asked to claim their gift only during the time their numbers have been announced. A schedule will be handed out at the time of registration. Those individuals which forget to claim their gift will have another opportunity to claim them at the end of the evening. Individuals must present their numbered clip in order to pick up their gift. There will be no exchanges for anyone who is unhappy with their raffle gift. These gifts are only meant to be a token item. Also, door prizes of wine will only be handed out to those 21 or older. A substitute prize will be handed out to students under the age of 21. As always, please do not open your wine at the table.

FRAN KRAVITZ

DEADLINES FOR CHEMICAL BULLETIN

Please submit all Chemical Bulletin copy to the editor before the deadlines listed below for each issue. Articles can be emailed to the editor, Cheryln Bradley, cbrad1027@aol.com.

Since we like the Bulletin to be as timely as possible, we need the lead time indicated. You can help by early planning and submission of your information or articles.

| Issue       | Deadline  
|-------------|-----------
| January 2004| 11/28/03  
| February 2004| 12/26/03  
| March 2004| 1/16/04  
| April 2004| 2/27/04  
| May 2004| 3/26/04  
| June 2004| 4/30/04  
| September 2004| 7/16/04  
| October 2004| 8/27/04  
| November 2004| 9/24/04  
| December 2004| 10/22/04  

FRAN KRAVITZ

CAN YOU HELP??

Milt Levenberg, the Chair-Elect of the Chicago Section is forming up committees for next year. Being active on a committee is a great way to get to know some of your fellow chemists better, a way to help the Section, and a way to broaden your own horizons. Working on a committee for the Section will help you network with other scientists and help you to feel a part of something important to promote our profession. Please give us as much (or as little) time as you feel you can spare.

Volunteering couldn't be easier. Simply go to the Chicago Section home page on the web, and click on the "PLEASE HELP!!" line under "Late Breaking News" at the top of the page. Or, call Milt at 847-680-1223 or send him an e-mail at milspec@att.net.

Thanks for being a part of the Chicago Section!

FREE T-SHIRTS

The Hospitality Committee raffles one T-shirt at each monthly dinner meeting. The shirt has Chicago spelled out using the periodic table. So come to a monthly meeting and maybe you'll win one!

Congratulations to T-shirt winner, Mike DiPierro (September meeting).

FRAN KAREN KRAVITZ
HOSPITALITY COMMITTEE CHAIR

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FALL 2003 ACS SHORT COURSES

In conjunction with the 2003 Eastern Analytical Symposium in Somerset, NJ:

- Chemical Engineering and Process Fundamental for Chemists (11/20-21)
- Effective Technical Writing (11/20-21)
- How to Develop, Validate, and Troubleshoot Capillary GC and HPLC Methods (11/19-21)
- Interpretation of IR and Raman Spectra (11/19-21)
- Peptide and Protein Characterization with Mass Spectrometry (11/20-21)
- Practical HPLC Method Development (11/20-21)
- Using Near IR Spectroscopy for Quantitative and Qualitative Measurements (11/20-21)

In Somerset, NJ:

- Emulsions, Microemulsions, Vesicle and Micellar Solutions (11/12-14)
- Fundamentals of HPLC (11/13-14)
- Pharmacology for Chemists (11/12-14)
- Statistical Analysis of Lab Data (11/12-14)

In San Francisco, CA:

- Fundamentals of HPLC (12/2-3)
- Interpretation of Mass Spectra (12/3-5)
- Organic Chemistry of Drug Design and Action (12/2-3)
- LC/MS: Fundamental and Applications (12/8-10)
- Methods Development, Validation Procedures, and Conformity Assessment in the Analytical Lab (12/2-3)
- Peptide and Protein Characterization with Mass Spectrometry (12/2-3)
- Statistical Analysis of Lab Data (12/3-5)

View the short course catalog online and register online at http://chemistry.org/shortcourses or call at 800-227-5558, ext. 4508.

SCIENCE HISTORY TOUR 2004

Plans for our tour of Germany in the summer of 2004 are moving ahead and we would be delighted to have you join our most friendly group of science educators and others. Single travelers are welcome.

The trip will last for 15 days and will start in Munich on Wednesday June 23, and end in Berlin on Wednesday July 7. The plans are to include visits to Giessen, Gottingen, Heidelberg, Potsdam and many places in between. We shall end the tour with a few days in Berlin, rich in science history and, since the reunification of Germany, also rich in its new architecture. Also, we will take a short Rhine cruise (just through some of the pretty bits!) and see the castles for which the area is famous.

We will travel from Munich to Berlin in easy stages, and our luxury coach will stay with us for the whole time that we are touring.

Accommodation will be in comfortable, welcoming hotels where all rooms have private bathrooms. Room-sharing arrangements can be coordinated for those persons who are traveling alone, but would like to share a room to save single room supplements.

During the trip all land transportation, hotels and breakfasts, at least (on average) one additional meal per day (often with a glass of wine, or since this is Germany, BEER), all admissions to museums, lecture fees, and taxes are included. Your additional expenditure will be for meals when the group does not eat together, incidentals such as theater tickets and personal expenditures. TRANSATLANTIC AIRFARE IS NOT INCLUDED. The cost of the 2004 tour will be $2850 per person double occupancy, paid in three installments to make it easier.

Three hours of graduate credit is available at a very reasonable cost. CPDUs are also available for teachers.

Inexperienced international travelers will be given as much help as they need. Those traveling alone will find this to be a friendly and interesting group where it is easy to make friends.

This will be our seventh tour since 1997 and we have many people who have traveled with us several times, so since people are expressing interest in signing up for this trip already, an early inquiry is advised. Numbers are limited.

For further information and/or to be put on the mailing list for the 2004 tour, contact: Yvonne Twomey, 841 Kinston Court, Napererville, IL 60540, Tel: 630-961-9811, E-mail: ytwomey@mindspring.com; Or Lee Marek, Tel: 630-420-7516 E-mail: LMarek@aol.com

See the following page for a web presentation on our past trips. http://www.chem.uic.edu/marek/

2004 ACS PROSPECTIVES CONFERENCES

Organic Thin Film Electronics: Materials, Devices, and Applications
Daniel Frisbee, University of Minnesota; Zhenan Bao, Lucent Technologies; Christos Dimitrakopoulos, IBM
J.W. Merritt
Miami, FL
January 25-28, 2004

Polymorphism in Crystals
Robin Rogers, The University of Alabama; Allan Myerson, IIT; Susan Reuztel-Edens, Eli Lilly; Roger J. Davey, UMIST (United Kingdom)
Saddlebrook Resort
Tampa, Florida
February 8-11, 2004

Process Chemistry in the Pharmaceutical Industry
Kumar Gadamasatti, Delphian Pharmaceuticals; Margaret Faul, Eli Lilly & Company
Saddlebrook Resort
Tampa, Florida
February 29-March 3, 2004

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The Chicago Section's Project SEED program had four students participate in the summer research programs. **Margaret Smith**, a junior at Whitney Young Magnet High School and **Precious Wright**, a senior at Walter Payton College Prep completed their research projects at DePaul University. Their research projects involved the preparation and characterization of a new copolymer of a novel tri-substituted ethylene and styrene. Their SEED mentor was **Greg Kharas**.

Two students from Waukegan High School, did their research at Finch University of Health Sciences/Chicago Medical School. Their research projects involved the study of nerve growth factor structure and function and control of ion transport and cell volume in excitable cells. Their SEED mentors were **Hector Rasgado-Flores** of the Department of Physiology and Biophysics and **Ken Neet** of the Department of Biochemistry and Molecular Biology, respectively.

In addition to hands-on research, Project SEED students receive guidance on their career and personal development. Mentors provide strategies for helping students reach their objectives, give feedback, and allow opportunities for growth that may include exposure to key members of an organization. SEED I students can return a second summer and do more research. On completion of a SEED II research program, the students also have the opportunity to apply for one of the Project SEED college scholarships.

**CHERLYN BRADLEY**
Co-Chair, Project SEED Committee

**SEED MENTORS HONORED**

Congratulations to **Warren Sherman** (Chicago State University, retired), **Ken Neet** (FUHS/Chicago Medical School), and **Greg Kharas** (DePaul University), Chicago Section’s Project SEED mentors who were honored for their years of service to Project SEED. The mentors were honored at the September ACS National meeting in New York as part of the 35th anniversary celebration of Project SEED. In all, 205 mentors and/or coordinators from the various local sections received plaques.

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The mission of the Chicago Section of the ACS is to encourage the advancement of chemical sciences and their practitioners.

November 4-5, 2003: The Consumer Specialty Products Association (CSPA) will co-sponsor a workshop "Understanding the Label Review Manual" of the EPA in Old Town Alexandria, VA. Visit www.cspa.org or contact Michelle Pitkin at (202)833-7305 or at mpitkin@cspa.org for further information.

November 11, 2003: Society of Cosmetic Chemists - Midwest Chapter meeting will be at the Grazie, Des Plaines, IL. For details, go to www.midwestscc.org or contact Angela Tabor at atabor@stepan.com, (847) 784-2040.

November 12, 2003: The Chicago Chemists’ Club will meet at the Zivago Restaurant in Chicago. Folk-singer Larry Penn of Milwaukee will be the featured entertainment. For reservations and further information, contact Judy Reuter at (847) 679-2444.


November 21, 2003: The Chicago Section’s College Education Committee is sponsoring an undergraduate research symposium prior to the monthly dinner meeting of the Section. The symposium will be at the same location as the monthly dinner meeting, Drury Lane Oakbrook Terrace. See details in this issue.

December 12, 2003: The Chicago Section American Chemical Society’s annual Holiday Party/Meeting at Monastero’s Ristorante in Chicago. The after-dinner speaker will be Dr. James O’Brien, Southwest Missouri State University. His topic is “Famous Mad Hatters”.

January 13, 2004: Society of Cosmetic Chemists - Midwest Chapter meeting will be at the Grazie, Des Plaines, IL. For details, go to www.midwestscc.org or contact Angela Tabor at atabor@stepan.com, (847) 784-2040.

January 23, 2004: The Chicago Section American Chemical Society’s monthly dinner meeting. The after dinner speaker will be Sharon Bertsch McGrawe, author of the book “Promethans in the Lab”. She will speak on “Claire C. Patterson: A Chemist Leads the Fight Against Leaded Gasoline”.

February 10, 2004: Society of Cosmetic Chemists - Midwest Chapter meeting. For details, go to www.midwestscc.org or contact Angela Tabor at atabor@stepan.com, (847) 784-2040.

February 20, 2004: The Chicago Section American Chemical Society’s monthly dinner meeting. The College Education Committee is also sponsoring an undergraduate research symposium prior to the monthly dinner meeting. Stay tuned for further details.