

theCHEMICALbulletin

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JANUARY • 2003

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Regular Monthly Meeting

FRIDAY, JANUARY 24, 2003

Steven's Steak House

476 N. York Road
Elmhurst, IL
630-834-6611

DIRECTIONS TO THE MEETING

From Downtown Chicago: Take Eisenhower Expressway (290) west to York Road. Turn right on York Road (south) to Steven's, which is on the right side of street.

From the North: Take 294 South to 290 West Rockford. Exit York Road and turn right (south). Proceed to Steven's.

PARKING: Free

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

"On-line and Reference Sources of Chemical Safety Information" presented by **Kenneth P. Fivizzani**, Ondeo Nalco Company, Ondeo Nalco Center, Naperville, IL. See page 2 for more details.

SOCIAL HOUR: 6:00- 7:00 P.M.
Cash Bar available with Hor d'oeuvres

DINNER 7:00 P.M.

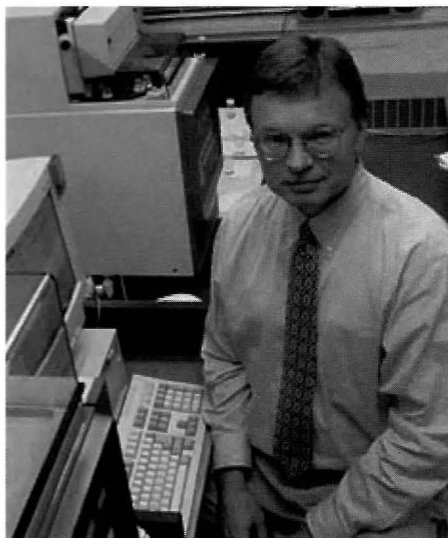
Menu: Clam Chowder, tossed salad with choice of three dressings, Beef Filet Brochette, wild rice, fresh vegetables, rolls and butter, butter pecan ice cream, and beverage. Also available are a fish entrée (Tilapia Piccata) or vegetarian entrée upon request at the time of reservation.

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, January 21, 2003**. The dinner cost is \$27.00 to Section members who have paid their local section dues, members' families, and visiting

ACS members. The cost to non-Section members is \$29.00. The cost to students and unemployed members is \$13.50. 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. Daniel W. Armstrong, Department of Chemistry, Iowa State University, Ames, IA

Title: "High Efficiency Microbial Analysis, Viability Determination and Antibiotic Screening: The Marriage of Separation Science and Microbiology"

Abstract: It has been recognized for decades that charged colloids and particulate matter will transport in direct current electric fields. However, routine, high efficiency separation and analysis of colloidal or larger particles by electrophoresis has not been as successful as it has for small molecules and macromolecules. Selective, high

efficiency separations of intact microbes (e.g., bacteria, viruses, etc.) may, in some cases, allow them to be identified and quantified in much the same way that molecules are done today. Two different capillary electrokinetic approaches can be utilized. The first approach used a dissolved polymer based capillary electrophoresis (CE) separation that may be affected by the size and shape considerations. Another approach uses capillary isoelectric focusing (CIEF).

Remarkably high apparent efficiencies in CE can be achieved in the separation of microorganisms. No deliberate stacking is used in these applications. Seemingly, the investigated living organisms behave differently than molecules under an applied electric field. For molecules, these extremely high efficiencies are very unusual and have not been reported thus far. Using a 488 nm argon-ion laser coupled to a charge-coupled device camera (CCD), it was possible to monitor the migration behavior of stained microorganisms of a length of a 10 cm capillary. In some cases, 60-70% of the monitored detection window could be filled with analyte without significant loss in peak efficiency. The effect of pH, polymer concentration, buffer concentration, etc. on the ultra-high efficiency and reproducibility of the separation was investigated.

Biography: Daniel W. Armstrong is the Caldwell Distinguished Professor of

NOTICE TO ILLINOIS TEACHERS

The Chicago Section-ACS is an ISBE provider for professional development units for Illinois Teachers. Teachers who register for the January meeting will have the opportunity to earn up to 4 CPDU's.

(continued on page 2)

(continued from page 1)

Chemistry at Iowa State University, and a Research Supervisor/Laboratory Director at the Ames National Laboratory. He is a consultant for several chemical and pharmaceutical companies. He has made both films and radio broadcasts for the ACS and developed and hosted a show ("We're Science") for National Public Radio which was syndicated nationally on 160 stations plus the Armed Forces Network and reached a population of over 70,000,000.

He received his B.S. from Washington and Lee University and his M.S. and Ph.D. from Texas A&M University. He has over 300 publications including 20 book chapters, one book ("Use of Ordered Media in Chemical Separations") and eight patents and has given approximately 290 invited seminars and colloquia worldwide.

Dan is considered the "Father" of micelle and cyclodextrin-based separations. He also first developed macrocyclic antibiotics as chiral selectors. He is one of the world's leading authorities on the theory, mechanism and use of enantioselective molecular interactions. Over 30 different LC and GC columns originally developed in his laboratories have been commercialized and/or copied worldwide. His work and columns were in part responsible for the chromatography and electrophoresis-lead revolution in chiral separations over the last one and a half decades. Most recently, he has developed methods for the rapid, high efficiency separation, identification, and quantitation of intact microbes. According to the Scientific Citation Index, he is one of the more highly cited chemists in the world.

He has won several teaching and faculty excellence awards as well numerous professional awards, including the Eastern Analytical Award for Chromatography (1990), the Presidential Award for Research and Creativity (1993), the ACS Midwest Award in Chemistry (1993), the R&D 100 Award for Inventions leading to a better world (1995), the ACS Helen M. Free Award in 1998, the Chicago Area Chromatography Discussion Group Merit Award (2001). He was named a Fellow of the American Association of Pharmaceutical Scientists in 1995. Most recently, he was awarded the Weber Medal and made an honorary member of the Slovaca Pharmaceutical Society for his contributions to the Pharmaceutical Sciences.

Dan is the Separations Editor for *Analytical Chemistry*, was the Editor of the international journal *Chirality*, a Section Editor for *Amino Acids*, and a member of the Editorial Board of many other journals.

TOPICAL GROUP

On-line and Reference Sources of Chemical Safety Information



Abstract: In 1990, OSHA published the Laboratory Standard, which requires all research laboratories to have a written Chemical Hygiene Plan and a Chemical Hygiene Officer (CHO). This regulation raised awareness of the potential hazards of excessive exposure to hazardous chemicals. This awareness, in turn, creates an interest in access to chemical health and safety information. What are some of the current standard reference books in this area? The ACS Division of Chemical Health and Safety (CHAS) and the ACS Joint Board-Council Committee on Chemical Safety (CCS) provide several sources of information through their programs, publications, and websites. The Internet is a rich source of current safety information. Finally, some of the "hot topics" in the chemical health and safety community will be discussed briefly.

Biography: Ken Fivizzani is Manager of Chemical Safety Programs at Onco Nalco Company. He is the Chemical Hygiene Officer for Onco Nalco and for Onco Nalco Energy Services. He received both B.S. and M.S. degrees in chemistry from Loyola University of Chicago and a Ph.D. in inorganic chemistry from the University of Wisconsin-Madison. He is a member of the ACS, the American Industrial Hygiene Association (AIHA), the Industrial Research Institute's (IRI) Environmental Health and Safety Directors' Network, and Sigma Xi. He was the 2000 Chair for the ACS Division of Chemical Health and Safety and is the current Chair of the ACS Committee on Chemical Safety (CCS). He serves on the Board of Editors of *Chemical Health &*

Safety and writes columns for *The Last Word* in that journal. He is an inventor or co-inventor on five U.S. patents. He has investigated corrosion inhibition and dispersion in boiler and cooling water systems. His current activity involves laboratory safety and safe use of chemicals in industrial applications.

JOB CLUB

The next meeting of the Chicago Section Job Club will be held on **Friday, January 24 at Steven's Steak House at 5 p.m.** 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.

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 \$13.50 and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.

In This Issue

Features

- 2Job Club
- 4Chemistry Day 2002
- 5YCC Leadership Workshop
- 5ACS Expeditions
- 5Undergrad Programs in New Orleans
- 7WEIRD SCIENCE
- 7Awards
- 8Online Networking/Job Forum
- 8ACS Scholars
- 8Math & Science Teaching Symposia
- 9Saturday Enrichment for Kids
- 10Cycling and Walking Tours of Europe
- 10Project SEED Program
- 11Ad Rate Schedule

In Every Issue

- 1Dinner Meeting
- 3ChemShorts for Kids
- 3Chair's Letter
- 5Free T-Shirts
- 6ALMA e-News
- 9Contact the Chair
- 11Ad Index
- 12Calendar

"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.

Hard Water Test

Kids, in this experiment you will make "hard" water from distilled water, which contains no minerals, and is therefore "soft" to start with. Tap water in many parts of the country (including Chicagoland) is hard and contains minerals that can interfere with the cleaning ability of detergents. Water softeners remove these minerals. You will also compare the sudsing ability of a detergent in soft and hard water.

You will need: 2 cups (500 ml) distilled water, 1 teaspoon (5 ml) Epsom salts, 2 empty and cleaned 2-liter plastic soft-drink bottles with screw caps, and several drops of liquid dishwashing detergent. Pour 1 cup (250 ml) of distilled water into each of the empty soft-drink bottles. Add the Epsom salts to one of the bottles and swirl until they dissolve. Add several drops of liquid dish detergent to both bottles. Seal the bottles with caps and shake. A large amount of suds will form in the bottle without Epsom salts. Far fewer suds will form in the bottle containing the Epsom salts.

The suds formed in this experiment are made of tiny bubbles. The bubbles are formed when air is trapped in a film of liquid. The air is trapped when it is shaken into the water. The film of liquid surrounding each bubble is a mixture of water and detergent. The molecules of detergent form a sort of framework that holds the water molecules in place in the film. If there were no detergent, the bubbles would collapse almost as soon as they are formed. You can see what this would look like by repeating the experiment but leaving out the detergent. This experiment will not produce suds if detergent for a dishwashing machine is used. (Try it and see.) No suds are formed because automatic dishwasher detergent is formulated so that it does not form suds. Suds create major problems in a dishwasher.

The minerals that make water hard usually contain calcium and magnesium. In this experiment you made water hard by adding Epsom salt, which is magnesium sulfate (MgSO_4). Calcium


and magnesium in water interfere with the cleaning action of soap and detergent. They do this by combining with soap and forming a scum that does not dissolve in water. Because they react with soap, they remove the soap and reduce its effectiveness. This could be overcome by adding more soap, but the scum will make what is being washed appear dingy.

Water can be softened in a number of ways. An automatic water softener connected to water supply pipes removes magnesium and calcium from water and replaces them with sodium. Sodium does not react with soap or detergents. If you don't have an automatic water softener, you can still soften laundry water by adding softeners directly to the wash water. These softeners combine with calcium and magnesium, preventing the minerals from forming a soap scum.

Reference: B. Shakhshiri at <http://sci.fun.chem.wisc.edu/HOMEEXPTS/SOF.TWATR.html>

Submitted by DR. KATHLEEN A. CARRADO (kcarrado@anl.gov)

All past "ChemShorts": <http://member.ship.acs.org/C/Chicago/ChmShort/kidindex.html>.

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CHAIR'S LETTER

Happy New Year!

I hope you all had an enjoyable holiday season and are facing 2003 with renewed vigor and anticipation. Thank you for your generous donations to the Holiday food drive. All items and money collected were donated to a local food pantry to help those less fortunate.

Thanks are also due to all of you who volunteered to help with Section activities during 2002. There are many different areas where Members give of their time and talent; the Section cannot function without this assistance. If you wish to add to these contributions in any way, please send me an email or call the office. Service to members depends on service by members.

As Chair of the Gibbs Jurors, I am very pleased to announce the Willard Gibbs medalist for 2003. He is Dr. John I. Brauman of Stanford University. The presentation of the medal and the award address will be Friday, May 30th at the Argonne Guest House of Argonne National Laboratory. Please plan to join us for this celebration. More details will follow in a later issue.

We have a variety of programs scheduled for this winter and spring, including several Topical Group presentations. I encourage you to check out the schedule and see if there is one that catches your attention. The Job Club will meet again this month and the Jobs Discussion group continues online. Check them out if you are seeking a position or have information about an opening in any area of chemistry.

See you at a meeting,

SUSAN SHIH, Chair

HIGH SCHOOL EDUCATION COMMITTEE WEBSITE

The Chicago Section's High School Education Committee now has a website at <http://www.glenbard.dupage.k12.il.us/south/southstaff/heinz/ACS/acshome.htm>

There is a link for the site on the Section's Website Home page.

CHICAGO SECTION - CHEMISTRY DAY 2002

National Chemistry Day was celebrated in Chicago on the campus of University of Illinois at Chicago (UIC). Over 1,000 participants browsed the exhibits and demonstrations, participated in the activities, and attended the seminars during the course of the day. The event was sponsored by the Chicago Section of the American Chemical Society, American Institute of Chemical Engineers (AIChE), BP, Chemical Industries Council of Illinois, and Medichem.

The theme of National Chemistry Week this year was "Chemistry Keeps Us Clean". To illustrate this, Chicago's Chemistry Day had four speakers, all women chemists, talk about the various ways this is accomplished. The first speaker of the day was Dr. Angela Kowalski of ONDEO-Nalco. Her presentation, "Rub a Dub Dub, the Water in Your Tub", dealt with various ways to purify water. Following her was Ms Terri Germaine of Stepan Co. whose "House-

hold Magic - Clean You House with Chemistry" explained how various surfactants found in detergents work to remove different types of dirt. "Green Chemistry: A Greener Clean", presented by Dr. Mary Kirchhoff of the Green Chemistry Institute, discussed how to prevent pollution before it occurs. The final speaker, Dr. Martina Schmeling of Loyola University Chicago, discussed air pollution and ways to measure and prevent it in "On a Clear Day you Can See Indiana". All of these talks were well received by a large audience of about 300. The speakers very generously answered questions for some time after their presentations. The Chicago Section presented each of them with one of our "Chicago" T-shirts.

A wide assortment of exhibits were conducted throughout the day and were especially lively. The largest exhibit area was provided by a number of volunteers from BP, Chicago's "local" oil company. Participants could also do some glass blowing or try their hand at puncturing a balloon without popping it. There were also numerous demonstrations and

posters explaining the world of polymers and plastics. For example, conventional insulating polymers were contrasted with heat-conducting plastics that are useful in keeping computers cool.

Many exhibits included "hands-on" activities, where participants could make their own emulsions using immiscible liquids, turn "base metal" pennies into "gold," or turn a liquid into a solid using gelatin. Ondeo-Nalco demonstrated water purification using water-soluble polymers as flocculants. The Younger Chemists' Committee divulged a "secret" method for removing red stains such as cranberry juice from clothing, using baking soda and hydrogen peroxide. There were also opportunities to learn about starches from Cargill/Cerestar representatives, and about a curious link between chemical engineers and honeybees from the AIChE. Striking visual presentations were also provided. Argonne National Laboratory levitated magnets using superconductors. The McCrone Research Institute demonstrated forensic research with a microscope linked to a video monitor. The UIC student affiliates discussed redox chemistry while illustrating a redox-powered chromic acid fountain. Many of the exhibitors also had give-aways. For example, the Membership Affairs Committee table not only provided an interactive demonstration of making an emulsion and had a poster on surfactants and

(continued on page 5)



Students enjoying demos/exhibit



Angela Kowalski presenting



Grand finale demos with Lee Marek

(continued from page 4)

emulsions, but also gave out pens, pencils, moles, periodic tables, and candy.

The chemistry demonstrations allowed even more in-depth and hands-on experiences for all willing participants. Many of these were conducted by high school teachers who received copies of "Chemical Luminaries" as thanks. The perennial favorite "pHun with pH" allowed for the measurement of pH and for making a universal indicator from cabbage. Chromatography was also a colorful teaching tool, with a variety of chromatic designs elicited from simple black markers. An "invisible ink" activity involved writing on paper with lemon juice and revealing the secret message with an iodine solution.

Over 100 volunteers pitched in to make the day fun, safe, and clean for everyone. Each of them received a "clean" lab coat courtesy of Allegiance Healthcare. We can only hope that all the participants remembered a little chemistry as they washed their hands before dinner.

Thank you to all who helped make this a very successful Chemistry Day.

JONATHAN TAYLOR, SUSAN SHIH

2003 YCC LEADERSHIP DEVELOPMENT WORKSHOPS

Three YCC Leadership Development Workshops will be held at ACS regional meetings in 2003: the Western Regional Meeting in Long Beach, CA (October 15 - 18), the Central Regional Meeting in Pittsburgh, PA (October 19 - 22), and the Southeastern Regional Meeting in Atlanta, GA (November 20 - 22).

ACS members who would like to apply for a YCC Leadership Development Award to attend one of these workshops should submit their applications to the Younger Chemists Committee, c/o Ms. Stephanie Allen, American Chemical Society, 1155 16th Street, NW, Washington, DC 20036 by Tuesday, April 1, 2003. More information and the application form for the 2003 YCC Leadership Development Awards is posted at chemistry.org/ycc.

ACS members who would like to attend one of the workshops with the support of their employers or ACS local sections, divisions, or committees should contact Stephanie Allen at s_allen@acs.org. Since participation is limited, YCC will be extending invitations for each workshop only to 15 interested ACS members who have external support.

Please see chemistry.org/ycc for more information.



At one of BP's exhibit tables at Chemistry Day 2002

ACS EXPEDITIONS


ACS Expeditions, sponsored by Betchart Expeditions, is a recent addition to the member's benefits. ACS Expeditions offers great trips and learning experiences. Our co-sponsorship with Betchart offers something very few travel programs can: trips to exotic places led by knowledgeable experts—naturalists, archeologist, or anthropologists—who can provide you with insights into your experiences.

The groups are small, so there is plenty of opportunity to ask questions and set your own pace for exploration. The locales are unique, not the standard tourist fare, for those who want to enjoy a once-in-a-lifetime experience rather than just a vacation. These trips are a treasure trove of memories and special moments. Betchart Expeditions has been leading vacationers to the less-traveled parts of the world for two decades.

For a detailed brochure and more information, contact ACS/Betchart Expeditions at 1-800-252-4910 or 1-408-252-4910.

UNDERGRADUATE PROGRAMMING IN NEW ORLEANS

The 225th ACS National Meeting will be held in New Orleans on March 23-27, 2003. All undergraduate chemical science students are invited to this exciting meeting to hear about chemical science careers in the Federal Government and hazardous waste clean-up techniques, for more information on the undergraduate program and to find out how to submit an abstract for the Undergraduate Research or the Successful Student Affiliates Chapter Poster sessions, go to: <http://chemistry.org/education/student>.



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ANALYSIS FOR THE CHEMICAL ELEMENTS

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 Margaret Stowell Levenberg (November meeting).

FRAN KAREN KRAVITZ
HOSPITALITY COMMITTEE CHAIR

ALMA E-NEWS

Customer Satisfaction Still Important

The popularity of quality management and performance management (Baldrige Criteria) philosophies led many to consider customer satisfaction as the driving force in managing our organizations. For laboratories, the rationale for this concept was that identifying customer needs tells us which activities are most important and leads to greater efficiency lower costs, etc. by focusing attention on delivery of the most critical services.

Many labs began measuring and tracking customer satisfaction to judge organizational performance and to guide improvement strategies. With the economic downturn of the last couple of years, this concept has lost stature as the new emphasis shifted toward managing to achieve the lowest possible cost. Even the dogma of customer satisfaction/loyalty leading to lower costs/greater profitability has been challenged by recent studies ("The Mismanagement of Customer Loyalty", Harvard Business Review, July 2002). Some lab managers are now asking whether the attention to customer satisfaction with surveys or other means of measurement are worth the effort.

In pondering this question, remember that the lab is a service organization that typically carries little political clout in the larger organization and depends on the support of more powerful patrons such as Manufacturing, Marketing, or R&D. Reducing lab costs by providing lower quality services to these influential customers is a losing strategy in the long run and ignores the reality of corporate politics. Even in these challenging times, our best chance to prosper is to maintain an impeccable reputation with our customers by working as partners to satisfy their needs.

Past ALMA (Analytical Laboratory Managers Association) e-News editions are available at <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

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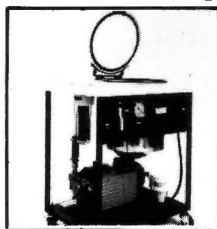
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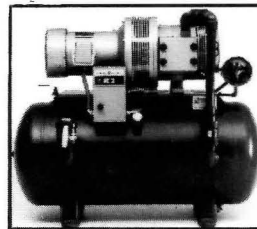
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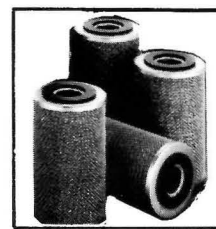
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WWWWWWW#8 FOR A WEEK @ UIC, WOW!

If you think you can learn a lot on the WWW, try the WWWWWWWW! Why eight W's? Because we're calling next summer's University of Illinois at Chicago [UIC] Chemistry Institute for high school/junior high teachers the "Who, What, Where, Workshop Week With Weird Science and Wade. This LAT-EST IMPROVED version of "A WEEK WITH WEIRD SCIENCE & WADE" comes back by popular demand, which is so strong that it will be offered twice (that's 16 W's): full-time for the week July 21-25, 2003 and then again full-time July 28-August 1, 2003.

The course combines demos, labs, computers, make-and-takes, and lectures in chemistry. It's also called Chemistry 572, Teaching Methods in Chemistry, and carries three semester-hours of graduate credit in chemistry. It will have different content/material from last year and may be repeated for additional credit. Summer '03 topics will revolve around the history of science/chemistry THAT CAN BE USED IN THE CHEMISTRY CLASSROOM—we will have labs, demos, computer "stuff" and content that reflect this theme and others. We will of course again have lots of build-it-yourself stuff!

DEWAYNE LIENEMAN, LEE MAREK, BOB LEWIS, & DR. WADE FREEMAN
<http://www.ncusd203.org/north/depts/science/chem/marek/>

For details, contact Wade Freeman, UIC, Chem. Dept., 845 W. Taylor St., Chicago, IL., 60607; phone: (312) 996-3161; e-mail: Wfreeman@uic.edu

Some background on WEIRD SCIENCE—

WEIRD SCIENCE is a series of short, easy and sometimes "weird" demonstrations, labs and ideas on chemical and physical phenomena, designed for teachers of the chemistry/physical science, primarily at middle school and high school levels. The program presents novel demonstrations, labs, make & takes, and sharing guaranteed to hook kids and adults into thinking about science concepts. As Hubert Alyea said "Surprise, humor and truth are the servants of a good lecture."

WEIRD SCIENCE entertains while it educates—it is "infotainment". It is our job to awaken our student's desire to learn—to keep the students mentally coming back. You cannot communicate with people who are not mentally present. If you want "presence" you have to capture attention. WEIRD SCIENCE provides tools to capture attention. To keep us at

equilibrium we have Dr. Wade Freeman author of the much acclaimed college text Chemistry: Science of Change.

In a recent survey published in *School Science & Mathematics* on "Secondary Science Teacher's Needs," teachers ranked methods to motivate students as their number one concern and identification of sources of peer tested instructional materials as a high priority. WEIRD SCIENCE presentations provide both.

Some comments about WEIRD SCIENCE—

"A science program's greatest achievement is success in science both for the program's teachers and students. Science teachers must compete with the nation's entertainment professionals to gain the attention of their students.

"WEIRD SCIENCE" is "Academy Award" quality material with remarkable technical breadth and content. "WEIRD SCIENCE" is like a switch that "turns on" science students and converts lab periods from "ho hum" to "right on!" — Larry Flinn, Jr., Flinn Scientific.

"WEIRD SCIENCE is a four-teacher road show that exposes youngsters to seemingly magical wonders more intriguing than video games." — *Newsweek*

"At a time when AMERICA'S Educational System is under attack, especially in science and math, WEIRD SCIENCE offers a ray of hope as a much needed inspiration, as a boredom-busting science show." — *The Inside Line* — Midwest Electronic Manufacturer's Newspaper

"The group gives teachers ammunition to use in the classroom." — *Education Week*

"WEIRD SCIENCE is a must-see for all chemistry teachers" — Colorado Association of Science Teachers

"WEIRD SCIENCE programs and activities are probably the best way to learn how to be a teacher. It's an A-Number-One methods course." — Marge Bardeen Program Manager for the Fermi National Accelerator Laboratory's Education Office from a feature on WEIRD SCIENCE in the *Chicago Tribune*

WEIRD SCIENCE is "Teaching teachers to make it fun... to entertain and educate students." — Charles Kuralt, CBS TV show "School's In"

"I can honestly say, and I mean this exactly as it reads, that I learned more from this one course than I did in pursuing my entire Masters Degree in Educa-

tion. Classes full of people who babble about educational theory without having taught a day in their lives are not what we need; courses taught for teachers by teachers are what we need. Thank you for providing something useful. XXXXXXXX University's Education Department could learn a few things, no a lot of things, from you guys." Karen Kerney, Niles West

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AWARDS

Last month we were delighted to report that **Claude A. Lucchesi**, Northwestern University, received the **2002 Analytical Laboratory Managers Association (ALMA) Distinguished Service Award for Laboratory Management**. Here is some more information. Claude is the first recipient of this award for his outstanding contributions to ALMA over the years, including serving as its co-founder, creating and editing the ALMA's *Managing the Modern Laboratory* journal, presenting the most successful short course in the world on Analytical Laboratory Management, and his role that he continues to play as a mentor and role model to lab managers worldwide. Again, congratulations, Claude!

— Also congratulations to **Frank Jarzembowski**, winner of the 2001 Chapter Merit Award of The Midwest Chapter of The Society of Cosmetics Chemists!

THE CHICAGO SECTION OF THE ACS ONLINE NET- WORKING AND JOB FORUM

Are you searching for a job? Do you want to help create a place where you can find a job if the worst ever happens to you? Do you know of a job opening where you work? If you answered yes to any of these questions then you should join the Chicago Section of the ACS online networking and job forum, *ACSSchicagojob Forum* in Yahoo Groups. It's FREE!

The Chicago Section of the ACS has created an online networking and jobs forum site. This is the place where you can search for a job, where you can network with others and where you can help others by posting job openings. Help create the Chicagoland online place where chemists and engineers can network. Help create the place where you can get assistance finding your next job. Join now!

Why is it important to network to find a job? From the ACS's "**Networking: A How-To Guide**":

Two-thirds to three-quarters of successful job seekers found their jobs as a result of personal contacts, networking, or cold calling. Networking is so important because it gives you access to the hidden or unadvertised job market, and the only way to uncover these unadvertised openings is through talking to as many people as you can.

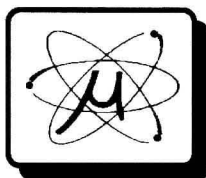
This is why it is important to network. The *ACSSchicagojob* networking forum is the place to do it. *ACSSchicagojob* is the place to develop your network contacts. Let's work together to build the online networking place for Chicagoland chemists and engineers. Let's create a place that can assist you and others find a job if the worst ever happens to you. So, if you need a job or if you will ever need a job, this is the place to aid you. This is the place where you can help others find a job.

Your assistance is needed to get this great experiment started! Join now! ACS members need your help now and you might need their help someday, too!

To join, go to: <http://groups.yahoo.com/group/ACSSchicagojob> and click the "Join this Group" button on the top of the page, just to the right of the "ACS Chicago Section Job Forum" banner. If you are a member of Yahoo, you can log in during the joining process, otherwise you can set up a free Yahoo account with whatever screen name and password you choose. Questions? Ask Milt at milspec@att.net, or Ken at ChemDoc77@aol.com.

Join now and make a deposit on your future!

Please note that you do not have to be a member of the ACS to join the *ACSSchicagojob* networking forum. So, spread the word to all chemists, engineers, headhunters, and HR people about *ACSSchicagojob*.



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ACS SCHOLARS PROGRAM RECIPIENTS

Through a generous contribution from Proctor & Gamble, the ACS Scholars Program helps academically gifted minority students with financial need pursue college studies in the chemical sciences. Three Chicagoland-area students join the ranks as ACS Scholars. They are **Tareisha L. Dunlap**, majoring in chemistry at Benedictine University; **Marvin R. Morales**, majoring in chemistry at the University of Chicago; and, **Tiffany M. White**, majoring in chemical engineering at Stanford University.

Companies and students can get more information about the ACS Scholars Program online at <http://www.acs.org/scholars> or by phone at 800-227-5588, ext. 6250. Applications are being accepted until March 2003.

Symposia on the Teaching of Math and Science

For the past 4 years several colleges and universities (both the colleges of education and the liberal arts colleges) have been sponsoring with the help of the State of Illinois a series of symposia on the teaching of math and science. The primary institutions that have supported this event are UIC, DePaul, Northeastern, Chicago State, Roosevelt, Rush Medical College, and Harold Washington. Two nationally known speakers are brought in for each symposium as well as having local talent doing breakout sessions. All symposia are on Fridays from 1 p.m. to 8 p.m.

February 7, 2003

Roosevelt University

Invited speakers are Kenneth Gerard Boutte, Sr., Professor of Biology and Associate Dean of the College of Arts and Sciences, Xavier University of Louisiana; Michael Starbird, Distinguished Teacher Professor of Mathematics, University of Texas at Austin.

March 14, 2003

Rush Medical College

Invited speakers are Marvin Druger, Professor of Biology and Chair of the Dept. of Science Teaching, Syracuse University; Cathy Kessel, Math Education Consultant, Berkeley CA.; Liping Ma, Sr. Scholar, The Carnegie Foundation for Advancement of Teaching.

April 25, 2003

Chicago State University

Invited speakers are Audrey Champagne, Professor of Chemistry and Professor of Educational Theory and Practice, University of Albany, State University of New York; Ramon E. Lopez, C. Sharp Cook Distinguished Professor of Physics, University of Texas at El Paso and Co-Director for Integrated Space Weather Modelling, NSF Science and Technology Center.

For information on registration and the program, see website www.math.uic.edu/chicagosymposia/, call the Institute for Mathematics and Science Education at 312-996-2448, or email David Cirillo at dcirillo@uic.edu.

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For more information, call
the Section office (847) 647-8405
or email at chicagoacs@ameritech.net

SATURDAY ENRICHMENT PROGRAM FOR KIDS

Northwestern University's Center for Talent Development has opened a new location of its exciting enrichment program for kids. With the great success of the Center's Saturday Enrichment Program for PreK-9th grade on the Evanston campus, they recently opened a satellite branch at Glenbard West High School in Glen Ellyn last spring.

The program allows talented students to explore science, mathematics, and the humanities at a pace and in a peer grouping compatible with their abilities for eight Saturdays. Winter, spring, and fall courses are available from 9 a.m.-12 p.m., with parents seminars scattered throughout the year.

This program is the most substantial offered on Saturdays for kids in the Chicago area. The families who helped get the program off the ground last spring have had great experiences.

If you are interested in learning more, please visit: <http://www.ctd.northwestern.edu/programs/sep/westernsite.html>. Winter registration will begin with first winter class starting January 11.

Comments or questions? Call 847-491-3782 or visit <http://www.ctd.northwestern.edu>.

ACS ProSpectives 2003

ACS ProSpectives, a product of the Membership Division of the ACS, are small conferences for industry scientists that examine a field's consequential topics through presentations by its foremost researchers. Conferences for 2003 include the following topics: process chemistry in the pharmaceutical industry, polymorphism in crystals, catalysis in modern organic synthesis, combinatorial chemistry, and integrating proteomics into systems biology.

More information on these conferences is available at website <http://chemistry.org/acsprospectives>.

SCIENTIFIC LITERATURE DATABASE

ScienceWise, now a division of TheScientificWorld, Inc., provides access to the world's scientific literature through sciBASE — a database covering 30 million documents from more than 30,000 journals with 10,000 new documents added each day. This service enables you to locate, purchase, and receive online individual scientific articles. In addition, be alerted to newly-published scientific research in your areas of interest through the pupALERT alerting service. For more information, go to <http://www.TheScientificWorld.com/>.

CHICAGO SECTION MEETING CALENDAR

February 21, 2003

Section meeting
Mr. Gary Kitmacher
NASA, Johnson Space Center
"Views from Space"

March 14, 2003

Section meeting
Public Affairs program

April 25, 2003

Section meeting
Dr. Michael Pellin
Argonne National Laboratory
"Analytical Chemistry of Stardust"

May 30, 2003

Section meeting
Willard Gibbs Medal Award
Dr. John I. Brauman
Stanford University

May 31-June 2, 2003

Great Lakes Regional Meeting
Loyola University, Chicago.

June 20, 2003

Section meeting
Scholarship awards presented
Dr. Tejal A. Desari
Boston University, Boston, MA
"Micro-therapeutic Constructs:
Opportunities in Implantable and Oral
Based Drug Delivery"

JOB SPECTRUM'S NEW PRODUCTS

May was the debut of JobSpectrum's newest product, ChemHR. ChemHR is an electronic newsletter specifically for recruiters and hiring managers in the chemical sciences. ChemHR offers a blend of news and trends in hiring, recruitment, compensation, and workforce analysis-solid information each month delivered directly to your desktop. If you are a recruiter, a hiring manager or want to help out HR, join the ChemHR mailing list at jobmaster@JobSpectrum.org with "Subscribe ChemHR" in the subject line.

Campus Center at JobSpectrum made its first appearance at the Orlando National Meeting. A comprehensive career service for students, their faculty, and campus recruiters, Campus Center is designed to help students with their career planning so that they can make an effective transition to the workplace, help departments showcase their students and academic programs, and help recruiters looking for entry-level talent. Learn more at www.jobspectrum.org/campus/campuscenter.html.

THOSE WHO CAN...TEACH !!

This publication is a 52-page, full-color self-study instructional guide for faculty to use in preparing for classroom instruction. The guide includes: (1) introduction to Classroom Instruction, (2) Fundamentals of Learning, (3) Methods of Delivering Instruction, and (4) Administration, Evaluation, and Feedback. Each module contains a case study that presents a problem or situation. The guide is cross-disciplinary and easily incorporated into any field of instruction.

Prices:

1 - 24 copies \$15.00/copy
25-499 copies \$12.00/copy

To order phone 1-800-227-5558 or order online at www.chemistry.org, click on "Online Store" on "Quick Find" menu.

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, Cherlyn 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
March 2003	1/17/03
April 2003	2/21/03
May 2003	3/7/03
June 2003	4/25/03

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 5,475 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

CYCLING AND WALKING TOURS IN EUROPE

Imagine yourself in France. You're cycling along the beach in Normandy and Brittany, stopping in tiny harbor towns on your way to Omaha Beach and Mont St. Michel. Or perhaps you'll be walking in Provence, staying in exclusive Provencal villages and exploring the area's rich Roman and pre-Roman antiquities.

The choices don't end there; in fact, that's just the beginning. Because so many people are interested in active vacations, ACS is proud to offer members a 5 percent discount on more than 70 deluxe biking and walking tours with the leading company in active European travel, Euro-Bike and Walking Tours.

Here's a chance to travel on quiet traffic-free roads and pathways known only to the locals, visit Europe's most impressive sights and out-of-the-way treasures, taste fine wines from world-famous vineyards, stay in luxury hotels, dine on fine regional cuisine, and meet the locals. Traveling 25-35 miles per day on bike tours and 6-8 miles per day on walking tours, you'll be encouraged to go at a leisurely pace. There's plenty of time to walk under waterfalls, tour a cave with pre-historic paintings, or visit the colorful shops.

Best of all, the tours are fully supported, so all you need to do is enjoy yourself and let the experienced English-speaking guides transport your luggage and take care of the details. They'll also offer a lift in the van when you want one and provide you with information about the routes, towns, and sights along the way.

These exciting vacations are offered in 14 countries: Austria, Belgium, Denmark, England, France, Germany, Holland, Hungary, Ireland, Italy, Luxembourg, Sweden, Switzerland, and new this year the Czech Republic.

The company carefully researches each route to offer the best scenery, sightseeing, and local color available. Here's a sampling of their destinations: the Italian Lakes, Bavarian Alps, Islands of Scandinavia, Tuscany, southwest Ireland, Germany's Romantic Road, England's Cotswolds, Burgundy, Loire, and Alsace. All tours feature luxury accommodations and gourmet cuisine from the area. Travel through varying landscapes and terrain: each tour is rated from easy to challenging. People with varying levels of ability are welcomed.

Euro-Bike and Walking Tours has been leading active vacations in Europe for 28 years, offering scheduled departures from April to October with specialty tours for beginners, singles and solos, private groups, and families. When you sign up, provide your ACS

membership number, and all members of your party will receive 5 percent off the tour price.

For more information or a full-color tour catalog, contact Euro-Bike and Walking Tours at 1-800-321-6060, fax 1-815-758-8822, info@eurobike.com, or www.eurobike.com.

The Chicago Section's
e-mail address
is
chicagoacs@ameritech.net

PROJECT SEED: HANDS-ON RESEARCH FOR HIGH SCHOOL STUDENTS

You and your organization are invited to apply to participate in Project SEED, the American Chemical Society's social action program that places economically disadvantaged high school students in academic, industrial, and governmental research laboratories for eight-to-ten weeks during the summer.

Project SEED offers high school students two exciting, hands-on research opportunities:

- The **Summer I program** will provide first-time participants (rising juniors and seniors) a fellowship award of \$1,750. They may qualify to present their research at an ACS or other scientific meeting.

- A **second-year program, Summer II**, provides Project SEED Summer I students an additional summer of scientific research. These students will receive a fellowship award of \$2,000. Summer II students are eligible for a travel grant of up to \$100 to present their research at an ACS or other scientific meeting.

Each student does a scientific research project in chemistry or related field under the direct supervision of a scientist/mentor. The students must be economically disadvantaged and must be enrolled in high school or be recent high school graduates; no student who has matriculated in college is eligible. The students must have taken one year of high school chemistry.

You need not have a particular student in mind to apply. Apply now to sponsor a student and the local Project SEED Committee will work with you to obtain a student. Funding for the student will come from the National Project SEED office and/or matching funds from the local Section.

Be sure to visit the Project SEED website for more information:
www.chemistry.org/education/SEED.html.

CHEMUNITY NEWS IS BACK!

The newsletter of the ACS Education and International Activities Division has returned -online. Educators and those interested in chemical education issues can now stay up-to date with division activities through bimonthly editions of *Chemunity News* delivered via email. Learn about upcoming workshops, new publications, and the various education programs that are available for students, teachers, and institutions. The articles featured in the most recent issue of *Chemunity News*, sent just before the ACS national meeting in Boston, demonstrate the division's broad range of activities. These include:

- **Wonder & Explore**, a new multifaceted resource designed to help elementary teachers better understand physical science concepts and develop an inquiry-based teaching approach.

- **34th International Chemistry Olympiad** competition took place this summer in Groningen, The Netherlands, and once again the U.S. team placed well, bringing home two gold medals, a silver and a bronze.

- **Online Registry of Chemistry-Based Master's Programs**, a searchable online resource for students seeking information about master's programs in the chemical sciences.

- **Starting with Safety**, the popular ACS video course that has been adapted for delivery via the Internet.

If you would like to receive *Chemunity News*, contact education@acs.org.

— Project SEED Continued —

You can also obtain an application form, program guidelines, and other information from your local Section Project SEED co-chair, Cheryl Bradley at (630) 510-0352, cbrad1027@aol.com or from the National ACS Committee on Project SEED staff at (202) 872-4380.

APPLICATIONS FOR THE 2003 SUMMER PROGRAM ARE AVAILABLE.

APPLICATION DEADLINE WILL BE FEBRUARY 2003.

If you are NEW to the Project SEED program, your willingness to expose students to a scientific environment is one of several steps that will allow students to discover the world of chemistry. The Council Committee on Project SEED office looks forward to reviewing your application.

If you or your company would like to donate to your Chicago Section's Project SEED program to sponsor a local student, contact the Chicago Section office at (847) 647-8405.

(continued from last page)

Medical College from 1 p.m. — 8 p.m. For information on registration and the program, see website www.math.uic.edu/chicagosymposia/, call (312) 996-2448, or email David Cirillo at dcirillo@uic.edu. (See also article in this issue)

March 23-27, 2003: The 225th ACS National Meeting will be held in New Orleans. For further information, call the National ACS office at (800) 227-5558, go to www.chemistry.org, or send e-mail to natlmgt@acs.org.

April 9, 2003: The Chicago Section American Institute of Chemical Engineers (AIChE) monthly dinner meeting. Call (847) 588-3840 or go to www.aiiche-chicago.org for further information.

April 25, 2003: The Chicago Section American Chemical Society's monthly dinner meeting. The after-dinner speaker will be Dr. Michael Pellin, Argonne National Laboratory. His talk is entitled, "Analytical Chemistry of Stardust".

April 25, 2003: The Annual Chicago Symposium Series' third symposium on "Excellence in Teaching Mathematics and Science: Research and Practice" will be at Chicago State University from 1 p.m. — 8 p.m. For information on registration and the program, see website www.math.uic.edu/chicagosymposia/, call (312) 996-2448, or email David Cirillo at dcirillo@uic.edu.

April 28-30, 2003: World Refining Technology Conference & Exhibition will be in Houston, TX. The conference topic is "Understanding the Refining Industry of the Future — Technologies Critical Role". For further information, contact Paul Argyropoulos, Executive Director, World Fuels Con-

ferences, (301)354-2025, pargyropoulos@chemweek.com.

May 14, 2003: The Chicago Section American Institute of Chemical Engineers (AIChE) monthly dinner meeting. Call (847) 588-3840 or go to www.aiiche-chicago.org for further information.

May 18-22, 2003: The 26th International Symposium on Capillary Chromatography & Electrophoresis will be held in Las Vegas, NV. Go to chem www.byu.edu/CCE2003 for information.

May 30, 2003: The Chicago Section American Chemical Society will host the Willard Gibbs Award Banquet. Stay tuned for further information as the date approaches.

May 31- June 2, 2003: Great Lakes Regional Meeting at Loyola University, Chicago.

June 20, 2003: The Chicago Section American Chemical Society's monthly dinner meeting. Scholarship awards will be presented. The after-dinner speaker will be Dr. Tejal A. Desari of Boston University who will speak on "Micro-therapeutic Constructs: Opportunities in Implantable and Oral Based Drug Delivery".

September 21-23, 2003: World Fuels Conference will be in Washington, DC. at the Hyatt Regency on Capitol Hill. Conference theme is "The US Refining and Automotive Industries 2003 and Beyond - Coming Together of Energy, Environmental & Economic Issues". For further information, contact Paul Argyropoulos, Executive Director, World Fuels Conferences, (301)354-2025, pargyropoulos@chemweek.com.

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THE CHEMICAL BULLETIN'S ADVERTISING RATE SCHEDULE

The official newsletter of the Chicago Section American Chemical Society, The Chemical Bulletin, publishes news and information of interest to the Section's 5,600 members, who are professional chemists and others in related professions in industry, academia and government throughout greater Chicago.

SIZE	DIMENSIONS	RATE
Full Page	7.5" wide x 10" depth	\$600
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For more information, contact the Section office at 847-647-8405; email at chicagoacs@ameritech.net. Fax insertion orders to 847-647-8364.

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CHICAGO SECTION, AMERICAN CHEMICAL SOCIETY
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CALENDAR

January 8, 2003: The Chicago Chemists Club will meet at the Studio Restaurant, 8717 N. Lincoln Ave., Morton Grove, IL. The speaker will be Mitch Zacks, investment columnist for the Sun Times and author. His talk is "How to Avoid Being Taken for a Ride on Wall Street". For additional information, call Judy Reuter at (847) 679-2444 by January 7.

January 11, 2003: Saturday Enrichment Programs for PreK-9th grade students will be held from 9 a.m. — 12 p.m. at Glenbard West High School in Glen Ellyn. For information regarding class registration, go to <http://www.ctd.northwestern.edu/programs/sep/westernsite.html> or call the office of Northwestern University's Center for Talent Development at (847) 491-3782. **(See article in this issue)**

January 14, 2003: The Chicago Section American Institute of Chemical Engineers (AIChE) monthly dinner meeting. Call (847) 588-3840 or go to www.aiche-chicago.org for further information.

February 2-5, 2003: ACS ProSpectives' conference on Process Chemistry in the Pharmaceutical Industry will be held in San Juan, Puerto Rico. More information is available at <http://chemistry.org/acsperspectives>.

February 7, 2003: The Annual Chicago Symposium Series on "Excellence in Teaching Mathematics and Science: Research and Practice". This first symposium will be at Roosevelt University from 1 p.m. — 8 p.m. For information on registration and the program, see website www.math.uic.edu/chicagosymposia/, call (312) 996-2448, or email David Cirillo at dcirillo@uic.edu.

February 12, 2003: The Chicago Section American Institute of Chemical Engineers (AIChE) monthly dinner meeting. Call (847) 588-3840 or go to www.aiche-chicago.org for further information.

February 16-21, 2003: The Gordon Research Conference on Inorganic Reaction Mechanisms will be held in Ventura, CA. Contact Jim Mayer at (206) 543-2083 or at mayer@chem.washington.edu for information.

February 21, 2003: The Chicago Section American Chemical Society's meeting will be at the Rosewood Restaurant in Rosemont. The speaker will be Gary Kitmacher, NASA, Johnson Space Center, who will speak on "Views from Space". Further information as the date approaches.

March 9-14, 2003: PITTCON 2003 will be held in Orlando, Florida. For more information, call (412) 825-3220, or visit website www.pittcon.org.

March 12, 2003: The Chicago Section American Institute of Chemical Engineers (AIChE) monthly dinner meeting. Call (847) 588-3840 or go to www.aiche-chicago.org for further information.

March 14, 2003: The Chicago Section American Chemical Society will host the Public Affairs program at the Wellington in Arlington Heights. Stay tuned for further information as the date approaches.

March 14, 2003: The Annual Chicago Symposium Series' will have its second symposium on "Excellence in Teaching Mathematics and Science: Research and Practice" at Rush

(continued on page 11)

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