CHICAGO SECTION AMERICAN CHEMICAL SOCIETY
PUBLIC AFFAIRS AWARD MEETING
FRIDAY, MARCH 14, 2003

The Wellington
2121 S. Arlington Heights Road
Arlington Heights, Illinois
847-439-6610

DIRECTIONS TO THE MEETING
From Chicago: Take Interstate 90 (Northwest Tollway) west to Arlington Heights Road exit. Proceed north to the restaurant.
From the southwest: Take 355 north to Route 53 north and exit at Algonquin Road east. Go to Arlington Heights Road. Turn left (north) and proceed to the restaurant.

PARKING: Free

TOPICAL GROUP: 5:30 - 6:30 P.M.
"Molecular Modeling and Rational Catalyst Design" presented by Dr. Joseph Golab, Technology Manager for Chemistry Modeling, BP Chemicals America, Naperville, IL.
See page 2 for more details.

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

DINNER 7:00 P.M.
Menu: Cream soup of the day, Garden Salad with choice of dressings. Entrée choices are Breast of Chicken Athenian style with a medley of fresh vegetables and baked potato, Broiled White fish with Tartar Sauce with fresh vegetables and baked potato, or Fettuccine with fresh steamed vegetables and Marinara sauce, rolls and butter, and beverage. Dessert is Chocolate Sundae.

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, March 11. The dinner cost is $28 to Section members who have paid their local section dues, members' families, and visiting ACS members. The cost to non-Section members is $30. The cost to students and unemployed members is $14. 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.

PUBLIC AFFAIRS AWARD ADDRESS 8:00 P.M.

PUBLIC AFFAIRS Awardee: Dr. Inara Brubaker, UOP/AlliedSignal (retired)

Title: "Roles for Chemical Scientists in a Technological Society"

Abstract: Should we promote the chemical sciences? Do we have a responsibility? Should we share our enthusiasm for the chemical sciences and their value with the public sector? What do we gain? As individuals? For our profession?

In the presentation, Inara will describe her experiences using chemistry outside the industrial laboratory. Her intent is to encourage you to seek similar interesting, stimulating and beneficial activities that use your training in chemistry.

For example, using her projects as an ACS Chemistry and Public Affairs Fellow, Inara participated at career conferences for high school and university students and acquainted ACS membership, at section meetings throughout the country, with the opportunities for and needs by Congress and the public sector for chemical scientists.

The fellowship led to the following projects with the ACS Task Force on Occupational Health and Safety: to provide input to OSHA to develop a toxic chemical policy for laboratories separate from policy for industry, including presenting testimony on behalf of the ACS at a Department of Labor hearing; to lead the publication of the OSHA Hazard Communication Standard and Understanding Chemical Hazards: A Guide for Students.

THE SPEAKER: Inara Brubaker retired in 2002, after 28 years at the UOP/AlliedSignal (now Honeywell International) Research Center. From 1996-2002 she was a Senior Research Associate with UOP; from 1988 to 1996 she was a project leader and research manager at AlliedSignal. Her work was in applied research in analytical chemistry and separations ranging from feed to (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 March meeting will have the opportunity to earn up to 4 CPDU's.
effluent treatment and purification and in materials properties and recycling. She is the co-author of over a dozen publications on separations, separation processes and analytical methodol­ogy and co-inventor of three U.S. patents.

In 1977, Inara was the ACS Chemistry and Public Affairs Fellow. She has been an invited lecturer at ACS section meetings and an ACS Tour Speaker to present her work with the Congress on the PBB contamination incident in Michigan, materials policy and environmental monitoring, and has participated in many career guidance meetings and conferences at universities and colleges. She has served on the ACS Committee on Chemical Safety and the Task Force on Occupational Health and Safety. Her service to her community includes trustee for the Des Plaines Public Library and the Des Plaines Environmental Control Commission. In 2001, Inara received the Mayoral Award for some of her contributions to the City of Des Plaines at the Northwest Cook County Unity Dinner.

Inara received a Ph.D. and M. Sc. in analytical chemistry from The Ohio State University and the B.S. in chemistry and mathematics from the Ohio Northern University.

TOPICAL GROUP SPEAKER

“Molecular Modeling and Rational Catalyst Design” presented by Dr. Joseph Golab

Modern industrial chemical activities, i.e. discovery, development, management, design, scale-up, and manufacture, depend on computational technologies. One critical example is the development and optimization of commercial catalysts. More and more, the information support-

ing this endeavor comes from fundamental computations, e.g. molecular modeling and simulation. Modeling is useful because it complements data that cannot be obtained by experiment directly or easily. Moreover, many companies have successful efforts to accelerate the development of new and/or better materials using an integrated blend of molecular modeling, simulation, and experimental techniques. This powerful scientific combination is proven capable of accurately predicting the physical, material, and performance properties of both established and new materials and processes. This talk discusses how chemistry modeling assists in the rational design of catalysts for chemical processes. Key points will be highlighted using examples from the chemical industry. Finally, the promise of chemistry modeling as a technical business tool is addressed.

Biography: Joe Golab is the Technology Manager for Chemistry Modeling at BP Chemicals America, Naperville. Part of the Technology and Engineering Group, his primary responsibility is to perform client-sponsored research projects. In addition, he directs the overall work effort of the molecular modeling technology which includes strategic planning, client contacting and budgeting, facilitating supplier relationships, intra-corporate coordination, and resource supervision. Joe is a member of several BP networks including Modeling & Simulation, Catalyst Skills, UNIX, and High Performance Computing. He has served on several of the US Government’s Vision 2020 panels, most recently the National Science Foundation Nanotechnology Roadmap team. He is a part-time instructor in the Department of Biological, Chemical, and Physical Sciences within the Armour College of Engineering and Science at the Illinois Institute of Technology.

Before coming to Amoco in 1991, Joe was a Research Scientist and Leader of the Computational Chemistry Group at the National Center for Supercomputer Applications located on the campus of the University of Illinois in Urbana. He studied the theoretical aspects of surface Raman and Hyper-Raman spectroscopy and quantum chemical reaction dynamics, as a postdoctoral associate of Professor George C. Schatz at Northwestern University in Evanston, Illinois. Joe’s dissertation work, completed at Texas A&M University under the direction of Professor Danny L. Yeager, focused on bound state theoretical quantum chemistry. He received a Baccalaureate degree, Honors, Cum Laude in Chemistry from Loyola University of Chicago.

Joe’s interests lie on the technical side of molecular modeling applications. For example, he has been involved in the study of the biological activity of drugs and the prediction of their target interactions. He is also interested in the application of computational chemistry techniques and methods for problems of industrial interest, especially thermochromy and kinetics. He is a contributing author on over 25 refereed journal articles, several book chapters, and one book and has spoken on industrial applications of molecular modeling worldwide.

JOB CLUB

The next meeting of the Chicago Section Job Club will be held on Friday, March 14 at The Wellington at 5 p.m. The March Job Club 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.

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 $14 and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.

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"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.

A Chemical Counterfeit Test

Kids, what's so special about the paper that money is printed on? First of all, it isn't really paper at all. Rather, at a blend of cotton and linen, it is more like fabric material. The blend is about 3/4 cotton and 1/4 linen but the precise amounts are kept very secret.

As you can imagine, the U. S. Bureau of Engraving and Printing uses many different methods to try to stop counterfeiters. We've written about some of them in this column before (see 3/93 for magnetic inks and 10/00 on the "Science of Money"). Here we'll describe one chemical test that you can do to spot the fake in a stack of bills.

Real paper is either coated or "sized" with starch. Starch sizing means that starch has been added to ordinary paper to fill the gaps between cellulose wood fibers. It acts to stiffen the paper very much like the way laundry starch stiffens a shirt collar. It also makes paper less absorbent to ink. Without sizing, ink would smear out all over the paper fibers and make words blurry. Paper money, however, has to completely absorb and bind ink. Did you ever wash a bill accidentally in the laundry? It comes out good as new without any loss of ink whatsoever. No starch sizing is used in the production of currency paper.

So, a test for starch is a great way to tell the different between real and fake money. Here's how to do it yourself. To see how a dilute iodine solution (you can find this at a drugstore) reacts with starch, dab a little bit using a cotton swab onto a slice of raw potato. The deep blue-black color that results is a positive test for starch (potatoes are full of starch). It happened on a slice of raw potato. The deep blue-black color that results is a positive test for starch. The test has never failed me. Now repeat the test with a dollar bill. Did you get a positive starch test? You shouldn't!


Submitted by DR. K. A. CARRADO

Chair's Letter

Green Chemistry Part II

Traditionally, the March meeting is sponsored by the Public Affairs Committee. Last year the main speaker was Dr. Dennis Hjeresen of the Green Chemistry Institute addressing some of the ways in which "green chemistry" can help protect our environment while sustaining life. The topical group speaker also presented a way to minimize waste and pollution. Because of the topic, several individuals who were not ACS members attended the meeting. One of them represented SCARCE, a local group focusing on environmental education. She then teamed up with a Section member and organized a Green Chemistry workshop for teachers, cosponsored by ONDEO-Nalco, which was held this fall. It was attended by 75 high school and college teachers. Among the presenters were Dr. Hjeresen and Dr. Kirchhoff, also from the Green Chemistry Institute. Presentations were given by representatives of four organizations which have won Presidential Green Chemistry Awards.

But the story does not end here. Several of the high school teachers are earning graduate credit from Benedictine University for developing a green chemistry curriculum to use in their schools. Many of the college teachers at the workshop are meeting as a group to determine how best to integrate green chemistry into the college chemistry curriculum. Dr. Kirchhoff addressed this group again in January.

From this one initial meeting in March, many individuals in the area are now working at applying green chemistry principles in education. Perhaps others whom we do not know about were also inspired to delve more deeply into green chemistry.

As another result of the March presentation, the Chemistry Day Committee brought in Dr. Kirchhoff to speak at the Chemistry Day celebration last October. Adults and students of all ages received an introduction to the principles of green chemistry. Thank you Barbara Moriarty and Jim Shoffner, Public Affairs co-Chairs, for starting this process.

Don't forget to check out the Annual Report on the Section's home page.

See you at a meeting!

SUSAN SHIH, CHAIR...
HISTORY OF THE PUBLIC AFFAIRS AWARD

The Public Affairs Award was established by the Public Affairs Committee of the Chicago Section of the American Chemical Society in 1982. The award was established to recognize individuals who were involved in science and public policy issues. One of the stipulations of the award is that the individual need not be a chemist or a member of the society, but should have been a resident of the EPA Region V during the time period for which he/she is being recognized. During the years 1983 - 1987, the award was given biannually. Beginning in 1989, the award was presented annually. Beginning in 1989, the award was given biannually. Past recipients of the Public Affairs Award are listed below, along with their achievements.

1983 Dr. Carl Moore
Professor of Chemistry, Head of Department of Chemistry, Loyola Univ.; For outstanding public service, as an advisor to local governments in science and public policy.

1984 Dr. Ananda Chakrabarty
Research Scientist, General Electric Inc., Professor of Biochemistry, Univ. of Illinois. For obtaining the first patent for a living organism, as a bacterium for use in pollution control.

1985 Mr. Valdas Adamkus
Regional Administrator, Region V EPA; For outstanding administration of the regional office, and for standing strong against attempts to weaken pollution control regulations and politicize the office. Mr. Adamkus returned to his native Lithuania as president several years ago.

1986 Dr. James Shoffner
Research Specialist, UOP LLC (Retired), presently Adjunct Professor of Science in Columbia College Science Institute; For pioneering work in establishing the Public Affairs Committee, and working with state, local and regional governments on science and public policy issues.

1987 Dr. Ethyl Blair
Consultant, Industry-Government Relations, Retired Vice President Health and Environmental Sciences, Dow Inc. For outstanding work in devising corporate compliance policies, and for managing analytical methodologies to provide effective pollution control.

1989 Dr. William Beranek
Advisor to Governor of Indiana, Head of Indiana environmental consulting firm. For work done in risk-benefit analysis and environmental improvement strategies championed nationally.

1991 Dr. Leon Lederman
Nobel Laureate in Physics, Director Emeritus, Fermilab, Professor of Physics, Univ. of Chicago, Illinois Institute of Technology. For speaking for science nationally and internationally, championing science funding and for being a leader in science education.

1993 Dr. Walter McCrone
President and Founder, McCrone Institute, Internationally known chemical microscopist, exposed Shroud of Turin and Vinland Map as forgeries. For world class work on fiber and particle identification, especially asbestos fibers, and for socially relevant contributions as President of the Board of Ada S. McKinley Community Services, one of Chicago’s leading social service agencies.

1995 Dr. Walter E. Massey
President, Morehouse College, former VP Research, Univ. of Chicago, Director, Argonne Lab, VP Academic Affairs, Univ. of California. For public service on federal, local and state boards and commissions, speaking and writing on science and public policy, and for leading efforts to maintain the viability of Argonne Lab.

1997 Dr. Zafra Lerman
Head of Science Institute, Columbia College; For outstanding contributions in the areas of human rights and science education. Since receiving this award, she has received numerous other awards, most recently the Jose' Vanconcelos Award for Education, presented at the U. of Witwatersrand, S.A., in November 2001.

1999 Mr. Bill Kurtis
Host for award winning documentaries on A&E Network; For using the medium of television to educate schoolchildren and enlighten the general public regarding the role that science and technology continues to play in shaping our civilization.

2001 The Hon. Harris Fawell
Congressman Fawell served 7 terms in congress, and retired in 1998. For representing the researchers and scientists in his district while in Congress. He served on the Committee on Science, Subcommittee on Energy, as well as the Committee on Education and the Workforce, Subcommittee on Employer-Employee Relations (Chair), and Subcommittee on Workforce Protection Oversight; He appeared as a speaker on a symposium at the ACS National Meeting in Chicago in 1985. He utilized members in his district to consult on science and public policy issues.

Chicago Chromatography
Discussion Group

40th Annual Introductory Course in Gas Chromatography

March 31 - April 3, 2003
Roosevelt University, Albert A. Robin Campus, Schaumburg, IL

Theoretical and practical laboratory training in capillary GC
Lectures and labs by outstanding Chicago-area industrial and academic scientists

www.ccdg.org

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

A Leadership Style Not to Emulate

Niccolo Machiavelli’s *The Prince* is one of the most famous (or infamous) works on political thought in Western literature. This early sixteenth century treatise describes a practical philosophy of government based upon the author’s experiences and observations of human behavior and is written as a “how to govern” for new princes in the Italian city-states of that time.

The advice is notable for its complete lack of moral considerations with the sole objective being the survival and prosperity of the prince. No act was considered too vile or corrupt to justify this end. Machiavelli advised the prince to destroy those who might oppose him, build political alliances of convenience, instill fear (but not hatred) in those whom he rules, maintain the appearance of virtue while hiding his true actions, delegate unpopular tasks to subordinates to transfer blame, play one faction against another, placate those who can harm while exploiting those less powerful, etc.

It is interesting that Machiavelli’s work has been used as the basis of a number of management models over the past few decades that claim to provide an effective blueprint to a successful management career. However, the goal of success can blind us to the morality of our actions as illustrated by what we have heard and read about the Enron debacle. Was this not an example of classic Machiavellian leadership style? As managers, we must guard against focusing solely on results while ignoring the consequences of our actions; we are always obliged to ask the question “Is this the right thing to do?” The end does not always justify the means.

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@bpsolvay.com

WILLARD GIBBS DINNER

The Willard Gibbs Award Dinner will be held on Friday, May 30, 2003. Since the Great Lakes Regional Meeting to be held in Chicago will begin on Saturday, May 31, 2003, the Chicago Section ACS will be inviting GLRM attendees to come to the Willard Gibbs Award Dinner. Please send your coupon (included in this issue) in early to assure a reservation at the festive dinner!

SECTION TRUSTEES

Have you ever wondered how the Section finances are handled? Did you know that we have three Section Trustees, a Comptroller, a Treasurer and a Budget Director? If you are interested in the Section finances, want to know how our portfolio is handled etc., plan to attend the April meeting for a Topical Group presentation on this before the dinner meeting. We are also planning a workshop for those who are interested in possibly serving as a Section Trustee or Comptroller in the future. More detailed information will be published in a later issue of the Chemical Bulletin.

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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 Andy Dunham (January meeting).

FRAN KAREN KRAVITZ
HOSPITALITY COMMITTEE CHAIR

DEATH NOTICE

Long time Chicago Section member Larry Thielen passed away January 12, 2003. Among his service to the Section, he had been Board Treasurer for four years, an Alternate Councilor for five years and worked dutifully on many committees — including House (4 years), Membership Affairs (3 years), Public Affairs (11 years), Chemical Bulletin (9 years), Computers (9 years), and Chemistry Day (9 years). Larry also served as President of the Board of Trustees of the Salt Creek Sanitary District.

He is survived by his wife, Patricia; daughters Peggy and Maryellen; sister, Florita; and grandchildren Lauren, A.J., Ryan, Matthew and Daniel.

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”.

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ANALYTICAL SERVICES

Morphology Chemistry Structure

- Scanning Electron Microscopy (SEM)
- Energy Dispersive X-Ray Analysis (EDS)
- Transmission Electron Microscopy (TEM)
- Electron Probe X-Ray Microanalysis (EPMA)
- Wavelength Dispersive X-Ray Analysis
- Electron Spectroscopy (ESCA / AUGER)
- X-Ray Diffraction (XRD)
- X-Ray Fluorescence (XRF)
- Thermal Analysis (DSC / TGA)
- Micro-Fourier Transform Infrared (MFTIR)

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CDDG OFFERS 40TH ANNUAL GAS CHROMATOGRAPHY COURSE

The Chicago Chromatography Discussion Group (CDDG) will conduct its 40th annual Introductory Course in Gas Chromatography March 31—April 3, 2003, at Roosevelt University, 1400 N. Roosevelt Blvd., Schaumburg.

The 3½ day course gives students sufficient theoretical and practical background to perform independent work in gas chromatography. The course includes both lecture and laboratory sessions.

Half the course will be devoted to lectures encompassing all major areas of gas chromatography likely to be encountered by workers practicing in the field. The lectures are presented by outstanding Chicago area industrial and academic scientists who are active in the field.

The course will emphasize practical laboratory training in capillary GC. Gas chromatographs will be available for the students. Each student will spend about five hours in intensive laboratory work in the areas of quantitative and qualitative analysis.

Fee is $595, which includes lunch, text and lab manual. Registration is limited to 45. For an application, contact CCGD at 847-647-0157 or email evalopez@teianalytical.com. Registration deadline is March 21. A limited number of discounted registration fees are available for full-time students and unemployed individuals.

CHICAGO SECTION MEETING CALENDAR

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”

THE CHICAGO SECTION OF THE ACS ONLINE NETWORKING 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, ACSchicagojob 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 Chicagooland 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 ACSchicagojob networking forum is the place to do it. ACSchicagojob 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/ACSchicagojob 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 ACSchicagojob networking forum. So, spread the word to all chemists, engineers, headhunters, and HR people about ACSchicagojob.

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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.

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AMERICAN CHEMICAL SOCIETY CHICAGO SECTION
2003 WILLARD GIBBS MEDAL AWARD PRESENTATION
FRIDAY, MAY 30, 2003

You and your guest(s) are cordially invited to attend the 92nd presentation of the Josiah Willard Gibbs medal to John I. Brauman, the J. G. Jackson-C. J. Wood Professor of Chemistry at Stanford University, Friday, May 30, at the Argonne Guest House, 9700 S. Cass Ave., Bldg. 460, Argonne, IL. A social hour begins at 6 PM. Dinner is served at 7 PM. Dr. Brauman’s talk will begin at approximately 8:30 pm.

Dinner on this special occasion includes Crab Cakes; Mixed Field Greens with Pecans and Buttermilk Dressing; a choice of Oven Roasted Prime Rib accented with Creamy Horseradish Sauce or Grilled Atlantic Salmon Fillet; and Chocolate Oblivion Cake. (A vegetarian entrée is available on request.)

To reserve your tickets, please fill out the attached reservation form and mail it with payment to the address below. Tables of 10 may be reserved. If you request seating for a group, please include a list of names of the people in your group. Tickets and nametags will be mailed to those whose orders are received by May 14. Your name will be added to a list that will be checked by Argonne Security at their gatehouse. No refunds will be made after noon, on Tuesday, May 27, 2003.

The Gibbs Award Dinner is always a memorable occasion. Only the Nobel Prize is considered more prestigious. Please come to salute the recipient and rejoice in Dr. Brauman’s achievements in and contribution to the science of Chemistry.

Margaret Stowell Levenberg
Gibbs Arrangements Committee

2003 GIBBS DINNER RESERVATION FORM

Name__________________________Affiliation__________________________
Address__________________________Phone ( )
# tickets for ACS members & guests ________________________________ ($40.00/ticket)
# tickets for students, unemployed members, and retirees ________________________________ ($20.00/ticket)
# tickets for Nonmembers ________________________________ ($42.00)
# dinners: Prime Beef ________________________________ Grilled Salmon ________________________________ Vegetarian

Total Enclosed $ ________________________ Payable at time of reservation. Please include a list of your guests’ names, affiliations and dinner selection with this form.

Return with payment to: American Chemical Society, Gibbs Reservations
7173 North Austin Ave., Niles, IL 60674

NON-U.S. CITIZENS: PLEASE CONTACT THE ACS OFFICE AT 847-647-8405 BEFORE MAY 12, 2003 WITH YOUR BIRTHDATE AND CITY OF BIRTH FOR AN ARGONNE SECURITY CHECK.
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.

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.

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, Cherilyn 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.

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Do Away with Vacuum Pump Oil Mist with MV Oil Mist Eliminators

Vacuum pump oil mist contaminates the surrounding air, settles on surfaces and you breathe it. Eliminate this problem by installing MV oil mist eliminators on your vacuum pumps. It will save you time and money.

The high-capacity oil mist eliminator is made of stainless steel and is designed for large vacuum pumps. It measures only 10” dia. x 13.5” high. The coalescing filter elements remove oil mist at 0.1 micron with an efficiency of 99.999%.

The MV Visi-Mist eliminates oil mist and is designed for smaller vacuum pumps. Contact MV Products for the oil mist eliminators best suited for your requirements. They install in minutes and require little maintenance.

MV VISI-MIST Oil Mist Eliminator for Smaller Pumps

- Removes oil mist from vacuum pump exhaust
- Protects clean rooms from pump vapors
- Coalescing filters drain oil into a reservoir for easy recovery
- Keeps oil residue from sticking to furniture, walls and floors

Vacuum pump oil mist contaminates the surrounding air, settles on surfaces and you breathe it. Eliminate this problem by installing MV oil mist eliminators on your vacuum pumps. It will save you time and money.

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ACCIDENT PREVENTION/SAFETY PRECAUTIONS IN THE HOME

Most home accidents can be prevented if there is a clear understanding of possible dangers and how to minimize the development of hazardous conditions that lead to these dangers. This discussion is NOT an all-inclusive checklist of home safety conditions. Instead, it's meant to focus on one major cause of accidental deaths in America. By alerting you to a severe hazard that could develop in and around the home, it may spare you from what could develop into a tragedy. The information herein is brought to your attention to help motivate you to do a home safety inspection with the goal of eliminating potentially hazardous situations.

CARBON MONOXIDE (CO) SAFETY

Carbon monoxide is the leading cause of accidental poisoning deaths in the United States. Estimates of the number of people that die each year from this cause range from 200 according to the Consumer Product Safety Commission (CPSC) to 2500 as published in the Journal of the American Medical Association (JAMA). It's difficult to accurately estimate the total number of incidents, (fatal and non-fatal), because the symptoms of CO poisoning resemble so many other common ailments.

WHAT IS CARBON MONOXIDE?

Carbon monoxide (CO) is a flammable, colorless, odorless, tasteless, toxic gas that is approximately 3% lighter than air. It is produced during incomplete combustion of fuel-natural gas, liquefied petroleum gas, oil, coal, wood, kerosene, charcoal, etc. in fuel burning appliances. These appliances include, but are not limited to, furnaces, stoves, wood and kerosene space heaters, water heaters, fireplaces, barbecue grills, and internal combustion engines. During normal combustion, each atom of carbon in the burning fuel joins with two atoms of oxygen — forming a gas called carbon dioxide. Carbon dioxide is currently being implicated as a pollutant that is suspected of warming earth’s atmosphere. When there is a lack of oxygen to ensure complete combustion of the fuel, each atom of carbon links up with only one atom of oxygen-forming carbon monoxide gas.

WHAT IS THE DANGER OF CARBON MONOXIDE?

Carbon monoxide inhibits the blood's oxygen-carrying capacity. In our lungs CO quickly passes into our blood stream and attaches itself to hemoglobin (the oxygen-carrying pigment in red blood cells). Hemoglobin readily accepts carbon monoxide — even over the life supporting oxygen atoms. In fact, carbon monoxide is accepted over 200 times as readily as oxygen to form carboxyhemoglobin (COHb) which is a toxic compound. By replacing oxygen with carbon monoxide in our blood, our bodies poison themselves by cutting off the needed oxygen to our organs and cells. This causes various amounts of damage depending on exposure.

Low levels of poisoning (COHb levels of 10%) result in symptoms commonly mistaken for those associated with flu and colds —shortness of breath on mild exertion, mild headaches, and nausea. With higher levels (COHb levels of 50% or more), the symptoms become more severe — dizziness, mental confusion, severe headaches, nausea, and fainting on mild exertion and even unconsciousness and death.

HOW DOES CO ENTER THE HOME?

In and around the home, carbon monoxide can escape from any fuel-burning appliance, e.g., furnaces, water heaters, fireplaces, stoves, barbecue grills, space heaters and internal combustion engines. Make certain that appliances have adequate ventilation! Most newer homes are built very air tight. Thus, the supply of fresh air to your furnace is cut down creating an oxygen-starved flame. Tight closing replacement windows and doors, as well as additional insulation, in older homes, can cause similar problems.

Carbon monoxide can spill from vent connections in poorly maintained or blocked chimneys. If the flue liner is cracked or deteriorated, CO can seep through the liner and into the house — slowly rising up to dangerous levels. If a nest or other materials restrict or block the flue, CO will mostly spill back into the house.

Improperly sized flues connected to new high-efficiency furnaces and water heaters can also contribute to CO spillage. Many new furnaces and water heaters are installed using the existing chimneys which may be a wrong size to allow proper venting. Charcoal grills can also be a potential source of carbon monoxide. Because of this NEVER use charcoal grills in enclosed spaces! These spaces can be homes, vehicles, garages, or tents. Also, you should never bring grills with live charcoal indoors after use. This means that charcoal should never be used indoors as a source of heat.

Warming up vehicles in a garage can generate and accumulate concentrated amounts of carbon monoxide. Even with the garage door fully opened, CO can enter the home though the car port door or though near-by windows. And, of course, running a fuel-driven engine in a totally enclosed area or facility is tantamount to flirting with a disaster that can and does have lethal consequences.

CARBON MONOXIDE DETECTORS

The Consumer Product Safety Commission (CPSC) recommends the installation of at least one carbon monoxide detector with an audible alarm near the sleeping area. If a home has multiple levels, a detector on every level provides extra protection.

If the alarm goes off and you do or don’t feel ill, shut off all possible sources of CO, ventilate the house as quickly as possible and call your fire department immediately. They’re there to help you!

STEVE SICHAK
CO-CHAIR, ENVIRONMENTAL & LABORATORY SAFETY COMMITTEE
SCIENCE HISTORY TOURS — TRIP TO THE LOW COUNTRIES AND ENGLAND
JUNE 25 - JULY 10, 2003

Here is your opportunity to visit the Netherlands, Belgium and England in the company of a group of most congenial people. This is our sixth annual tour, and we have received rave reviews from previous tour members, many of whom have travelled with us several times. Singles are welcome and will find this to be a friendly and interesting group. Room-sharing arrangements can be coordinated for those persons who are travelling alone, but would like to find a suitable roommate to avoid single room supplements. Inexperienced travellers will be given plenty of help.

We will begin the trip in Leiden, the Netherlands, continue through Belgium and end in London. The tour is designed for those with an interest in the history of science, but many non-scientists have travelled with us and claimed it a most enjoyable experience. We try to touch many facets of science, from astronomy to zoology, but since both Lee and Yvonne are chemists, we tend to get quite excited about chemistry! Opportunities to learn more about the culture and cuisine of each country that we visit, and many lectures and guided tours given by local experts are included. Three hours of graduate credit (at a modest extra cost) and CPDUs for teachers are available.

Accommodations will be in comfortable, welcoming hotels where all rooms have private bathrooms. Surface travel is by luxury coach and, on this trip, a fast catamaran ferry across the English Channel and Hovercraft journey across the Solent. All admissions to museums, lectures and other visits given by local experts are included. Three hours of graduate credit (at a modest extra cost) and CPDUs for teachers are available.

In the Netherlands we will visit world-renowned museums such as the Boerhaave and Teylers, see one of the world’s oldest medical museums and also visit the botanical garden where tulipmania began. Additional visits will be made to a porcelain factory and to one of the world’s largest flower markets. Those who wish will have time to see lovely Vermeer and Van Gogh’s in Amsterdam, or to explore places of personal interest. On our way to Belgium we will visit one of the largest sea barriers in the world, built after the disastrous floods which devastated large areas of the Netherlands in 1953. In Belgium we will stay in the fascinating old city of Ghent, and pay visits to Bruges (the European City of Culture last year, and quite one of the loveliest cities I know) and Brussels, where a study of the chemistry of Belgian beer is on the agenda. From Calais we will take the ferry across the English Channel to Dover then spend a day on the Isle of Wight, the birthplace of Robert Hooke (1635-1703). In London we will attend a conference, held jointly by Gresham College and the Royal Society, to mark the occasion of the 300th anniversary of Hooke’s death and to honor this under appreciated genius. Hooke is, as you know, Yvonne’s hero! We will make other visits in London and take a day trip out of town.

This trip is one day longer than last year’s trip, and in addition the dollar has depreciated 17% against the Euro in the last year, so the price of this trip, double occupancy, will be $2750. Should there be money left over after all bills have been paid, you will get a refund — THIS HAS HAPPENED BEFORE!

Please note: TRANSATLANTIC AIRFARE IS NOT INCLUDED, though advice on suitable routes and help with ticket purchase can be given. Some people like to ‘go to Europe a day or so early, or stay on after the trip is over. Thought should be given to this possibility before buying an air ticket.

For further information or registration forms, contact Yvonne Twomey, 841 Kinston Court, Naperville, IL 60540; Tel: 630-961-9811; e-mail: yt wom ey@ mindspring.com or Lee Marek, Tel: 630-420-7516; e-mail: Lmarek2@uic.edu

See the following pages for a web presentation on our past trips. http://www.ncusd203.org/north/depts/science/chemistry/ma rek/
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Rigaku’s Miniflex was not available for the Apollo program which sampled 6 lunar sites or the un-manned Soviet Luna program which sampled 3 sites, but maybe next time.

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ACS AWARD WINNERS FOR 2003

Four Chicago-area chemists are recipients of 2003 ACS awards:

Arthur C. Cope Scholar Award to Viresh H. Rawal, University of Chicago

Arthur C. Cope Senior Scholar Award to Richard B. Silverman, Northwestern University

Arthur C. Cope Young Scholar Award to Milan Mrksich, University of Chicago

Charles Lathrop Parsons Award to Zafra M. Lerman, Columbia College, Chicago

CHEMICAL TECHNICIANS WEBSITE

The complete web site for all chemistry-based technicians is www.ChemTechLinks.org. This new ACS Web site contains a myriad of information about alliances between industry and academia, educational materials, technician resources, student outreach materials, current technician education projects, and much more. Questions, comments? — write to ChemTechLinks@acs.org.

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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 Annual Chicago Symposium Series' will have its second symposium on "Excellence in Teaching Mathematics and Science: Research and Practice" at Rush 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 20-21, 2003: ASTM Committee E48 on Biotechnology will meet at the Weston Crown Center in Kansas City, MO. ASTM meetings are open to all interested individuals. Contact Diane Rehiel at (610) 832-9717 or drehiel@astm.org.

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 natlmtgs@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.aiche-chicago.org for further information.

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 Conferences, (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.aiche-chicago.org for further information.

May 18-22, 2003: The 28th International Symposium on Capillary Chromatography & Electrophoresis will be held in Las Vegas, NV. Go to chemwww.byu.edu/CCE2003 for information.

May 30, 2003: The Chicago Section American Chemical Society will host the Willard Gibbs Award Banquet at the Argonne Guest House at Argonne National Laboratory. Professor John Brauman, Stanford University is the awardee.