theCHEMICALbulletin

http://membership.acs.org/C/Chicago

APRIL • 2003

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Regular Monthly Meeting

FRIDAY, APRIL 25, 2003

Midwest Conference Center
401 W. Lake Street
Northlake, IL
708-409-2828
16th Floor, Skyline Room

DIRECTIONS TO THE MEETING
From Chicago: Take I-290 west to the Lake Street east exit (13A). The conference center's entrance is 1 block straight ahead.
From the South: Take I-294 North to I-290 west. Go to the Lake Street exit 13A. The conference center's entrance is 1 block straight ahead.
From the West: Take I-290 east to the Lake Street east exit (13A). The conference center's entrance is 1 block straight ahead.
From the North: Take I-294 south to the I-290 west (Route 20, Lake Street) and Route 64 (North Ave.) exit. Immediately exit off of I-290 onto Route 64 west. To head east on North Ave., towards the conference center, turn left onto Berteau (your first stoplight), turn left onto Third Street, turn left onto Clinton Street, and then one final turn RIGHT BACK ONTO North Avenue. Stay in the right lane, follow signs to Rte. 20 (Lake Street). The conference center is 1 block straight ahead.

PARKING: Free

TOPICAL GROUP: 5:30 — 6:30 P.M.

"Section Finances: Budgetary and Fiduciary Interactions" presented by **Dr. Thomas Kucera**

Abstract: Thomas Kucera, Section Trustee and member of the Chicago Section ACS, will present a history of the development of the Section budgetary process and that of the trustees and their responsibilities. The interplay between the budgeting process and the fiduciary responsibilities of the Section Board of Directors and the Section Trustees will be discussed. The goal of both units is the safe and best use of the funds available to the Section.
See page 2 for more information.

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

DINNER 7:00 P.M.

Menu: Soup DuJour; House Salad; Salmon Oriental, Chicken Chausser, or Vegetarian Eggplant; Garlic Whipped Potatoes; baby carrots with walnuts and honey; rolls and butter; Peach Melba; and beverage.

Dinner reservations are required and should be received in the Section Office via **phone** (847-647-8405), **fax** (847-647-8364), **email** (chicagoacs@ameritech.net), or **online** (http://membership.acs.org/C/Chicago) by **noon on Tuesday, April 22**. 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.

GENERAL MEETING 8:00 P.M.

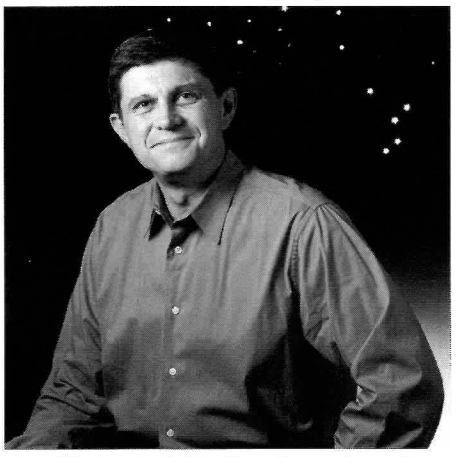
PRESENTATION OF 50-YEAR AWARDS

The Chicago Section honors those who have been members for 50 years in 2003.

Presentation of the 2003 Distinguished Service Award to: Lawrence E. Thielen (posthumously)

(see page 5)

General Meeting Speaker



Dr. Michael J. Pellin, Associate Division Director and Senior Scientist, Materials Science Division, Argonne National Laboratory, Argonne, IL

Title: "Analytical Chemistry of Stardust"

Abstract: Among the major challenges facing analytical science, quantitative trace analysis of atomic scale samples is among the most difficult and the most important. The difficulty arises from the need to count the few atoms available in a particular sample with high - nearly unit efficiency, while discriminating against the vast excess of bulk atoms. The importance arises from the needs of the semiconductor industry where shrinking device features ultimately will require the detection of

(continued on page 2)

NOTICE TO ILLINOIS TEACHERS

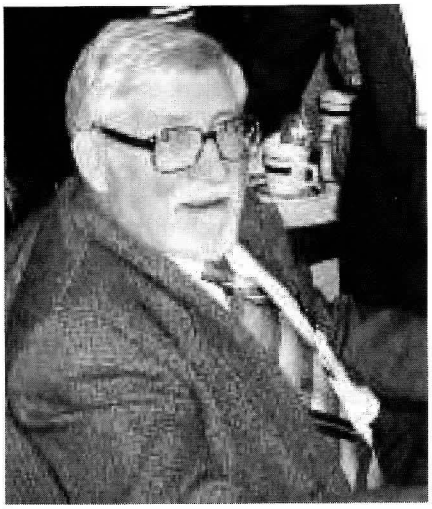
The Chicago Section-ACS is an ISBE provider for professional development units for Illinois teachers. Teachers who register for the April meeting will have the opportunity to earn up to 4 CPDU's.

(continued on from 1)

single deep level trap atoms present at the parts per trillion (ppt) level. In the future nanotechnology will also drive analysis toward this atom counting limit. Trace elemental and isotopic analysis of micron sized SiC grains culled from the Murchison meteorite demonstrate the limits and power of new trace analytical methods developed with high useful yields and high discrimination for mass spectrometric analysis. These microcrystals condensed in stellar outflows and have remained unchanged during the formation of our solar system. The geminate isotopic record contained in this "stardust" gives important clues into the mechanisms of stellar nucleosynthesis.

Biography: Dr. Michael Pellin received his B.S. degree in Chemistry from Northwestern University in 1974 and his Ph.D. degree in physical chemistry from the University of Illinois (Champaign) in 1978. Dr. Pellin has been a scientist at Argonne National Laboratory since 1978. Currently he is a Senior Scientist and the Associate Division Director for the Materials Science Division. His research is directed at Surface Chemistry and includes the development of Resonant Photo-Ionization Mass Spectrometers. These instruments are the most sensitive I the world for trace analysis of small samples. His research has resulted in 11 patents and over 150 publications. His work has resulted in an Energy 100 award, a University of Chicago Distinguished Performance Award, a Special Award for Excellence in Technology Transfer, and an IR-100 award.

TOPICAL GROUP SPEAKER



Biography: Tom earned a Ph.D. in chemistry from Purdue University, and then went to New Zealand to do research on a Fulbright scholarship. When he came back to the U.S., he took an industrial position and later went into consulting in electrophotographic science, a field in which he is still recognized as an expert. He was later employed for 20 years by the American Photocopy Company (APCO), eventually becoming a vice president and member of the board of directors, before returning to private consulting.

He has been very active in professionalism affairs, both at the local and national level and has held many offices at the local level, including section chair and chair of various committees. He has been a councilor from the Chicago Section for nearly 30 years.

Tom has also been quite active at the national level, having had a major impact on ACS actions related to chemists with disabilities. More than 10 years before the U.S. Congress passed the Americans with Disabilities Act (ADA), Tom was part of the group that worked to get the ACS Board to create the Committee on Chemists with Disabilities (CWD), and served as its first chairman. He has participated in and-continues to work on, such projects as production of the ACS booklet, Teaching Chemistry to Students with Disabilities; editing Working Chemists with Disabilities: Expanding Opportunities in Science; and offering counseling to individuals with disabilities. Tom is a member of the Council Committee on Nominations and Elections, and has for some time been program chair for the Division of Professional Relations. He has received the Louis Sacco Award and the Henry Hill Award for service to the Division.

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.

SUSAN SHIH

GREAT LAKES REGIONAL MEETING TO BE HELD IN CHICAGO

The Great Lakes Regional Meeting (GLRM) will be held on May 31 — June 2, 2003 at Loyola University of Chicago, Lake Shore Campus, 6525 North Sheridan Road, Chicago. Registration information is available by calling the Section office or at the GLRM website: http://membership.acs.org/g/glrm03/.

In This Issue

Features

In Every Issue

"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.

Pencil Chemistry

Kids, did you ever wonder why everyone calls that stuff in pencils "lead" when it isn't really lead at all? Instead, it is a nontoxic mixture of graphite and clay (more on that later). Way back in the days of the Roman Empire, actual lead rods were used to write on papyrus. But more recently, in the 1500's, a graphite mine was discovered and graphite was found to leave darker marks on paper. At the time, everyone thought that graphite was a type of lead. They called it black lead or plumbago. The chemical symbol for lead is Pb, which stands for the Latin word plumbum (check www.vanderkrogt.net/elements/elem/pb.html for a complete history of lead).

By the early 1800's, chemists finally proved that black lead was really a form of carbon. Carbon exists in the elemental form as either graphite or diamond (or, as we have recently discovered, nanotubes and buckyballs). Because graphite is so soft, it needs a holder to support the skinny sticks used for writing. Low quality graphites need to be further strengthened by mixing with clay and water (see the Nov. 1996 ChemShorts to learn more about clays). A slurry of these three ingredients is crushed, mixed for three days, extruded into the thin rods, and then heated to dry out the water. The ratio of clay to graphite affects the hardness of the "lead": the more clay, the harder the pencil lead. This means that less graphite is present to transfer to the paper, resulting in lighter lines. The higher the number, from 1 to 4, the harder the lead. Get a sampling of pencils of various hardnesses and check out their writing ability on different types of paper.

Various woods have been used for the pencil casings, from red cedar to the now most commonly used incense cedar. This beautiful wood is then coated with five to eight coats of paint. The traditional yellow paint also has a history. When a very pure graphite mine was discovered in China in the 1800's, pencils made with this high quality Asian graphite (no clay necessary) were painted yellow to distinguish them from the rest. Erasers are added and various markings are then stamped onto the pencil shafts. Did you ever notice the word Ticonderoga stamped on many of them? Fort Ticonderoga, a Revolutionary War fort in upstate New York, is near one of the purest graphite deposits ever known at 99.9% pure carbon.

We don't advocate that you try this, but a pencil will on average write about 45,000 words, or a line 35 miles long! It is claimed that such a line will in fact even conduct electricity because graphite is a known conductor. Colored pencils are made from chalk, clay, or wax mixed with binders and pigments; compare writing with some of these alongside your regular pencils. If it is possible for you to get a sample of a chunk of graphite (maybe at a store that sells gems, minerals, and fossils), take a close look at it and compare it to the stuff in your pencil.

Reference: Steve Ritter, Chemical & Engineering News, ACS, 10/15/01, pg. 35. (http://pubs.acs.org/cen/whatstuff/stuff/7942sci4.html).
All past "ChemShorts": http://membership.acs.org/C/Chicago/ChmShort/kidindex.html.

Submitted by DR. K. A. CARRADO

April, 2003 Vol. 90, No. 4. Published by the Chicago Section of The American Chemical Society, Editorial Staff: Cherlyn Bradley, Editor, and Fran Kravitz; Avrom Litin, Publications Business Manager. Address: 7173 North Austin, Niles, Illinois 60714. 847/647-8405. Subscription rates: $15 per year, $15 outside North America. Frequency: monthly-September through June.

CHAIR'S LETTER

Service

Traditionally, in April we honor members who have given of their time and talents to the Section and the profession. I am very pleased to announce that Larry Thielen will be the posthumous recipient of the Distinguished Service Award at the April dinner meeting. Many thanks are due to him for his many years of service to the Section.

In addition, we also recognize Fifty Year members of the ACS at this meeting. Please come and add your congratulations to ours.

Another group of individuals who serve the Section are our Councilors. Twice each year, they attend the National ACS meeting and represent us at the Council meeting. In addition, many of them serve on national as well as local committees. The current councilors are Roy Bible, Cherlyn Bradley, Charles Cannon, Dave Crumrine, Nat Gilham, Russ Johnson, Fran Kravitz, Tom Kucera, Claude Lucchesi, Barb Moriarty, Seymour Patinkin, Marsha Phillips and Steve Sichak.

Speaking of service, our three Trustees handle the Section portfolio. If you are interested in what that entails, in the distinctions between Treasurer, Comptroller and Budget Director, and other Section financial matters, plan to attend the Topical Group presentation prior to dinner this month.

If you have not already done so, send in your Gibbs award dinner registration. As it immediately precedes the Great Lakes Regional Meeting here at Loyola, we anticipate more out of town attendees than usual.

See you at a meeting!
SUSAN SHIH, CHAIR

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!

WILLARD GIBBS AWARD TO BE PRESENTED TO PROFESSOR JOHN BRAUMAN ON MAY 30

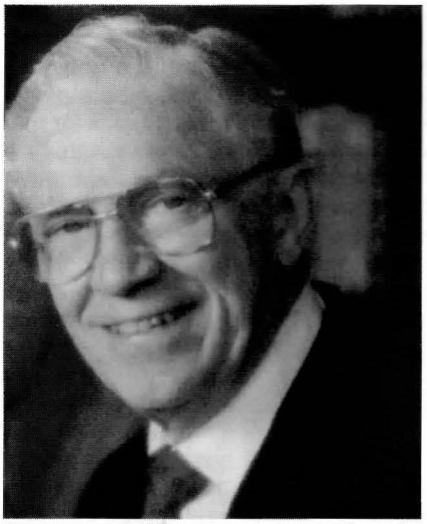
The Chicago Section will welcome **Professor John Brauman**, the J.G. Jackson-C.J. Wood Professor of Chemistry at Stanford University, who will receive the Willard Gibbs Award and Dinner on May 30, at the Argonne National Laboratories. The Willard Gibbs Award recognizes exceptional individuals whose pioneering work has opened new fields of chemical research. This award recognizes Brauman's major impact on both experimental and theoretical chemical research. Registration is required to attend the dinner; check with the Section Office or the web page (http://mem bership.acs.org/C/Chicago/home.html) for details.

Brauman has greatly advanced our understanding of how ions play a critical role in many chemical reactions. He first showed that relative order of acidities and basicities of many simple organic compounds are reversed between gas phase and solution. He subsequently developed powerful methods for describing solvation effects in ionic reactions. The comparison of gas-phase and solution behavior provides insights into the solvation of ionic transition states and thus the effect of solvation on reaction dynamics. In recent work he has shown that effects that appear to arise from steric hindrance are substantially a consequence of solvation effects. He has shown that it is possible to solvate reactants, complexes, and transition states differentially and thereby accelerate reaction rates by single molecule solvation. Brauman has developed techniques for exploring and understanding energy transfer and its effect on dynamics. He was the first to measure accurate electron affinities of molecules larger than diatomics. He was also the first to show unequivocally that the existence of ions that are best characterized as an electron bound in the field of a dipole, a phenomenon first predicted by Fermi and Teller but never previously observed.

Brauman has made important leading edge impact for the last 30 years, by making important contributions in energetics, photochemistry, organometallic chemistry, biomimetic chemistry, and in many other important fields.

He has previously received a number of awards including the ACS Award in Pure Chemistry, Harrison Howe Award, Guggenheim Fellowship, R. C. Fuson Award, Arthur C. Cope Scholar Award, the James Flack Norris Award in Physical Organic Chemistry, the National Academy of Sciences Award in Chemical Sciences, and the Linus Pauling Medal. He is a member of the National Academy of Sciences, the American Academy of Arts and Sciences, a Fellow of the American Association for the Advancement of Science, and an Honorary Fellow of the California Academy of Sciences. He received the Dean's Award for Distinguished Teaching from Stanford University in 1976. Brauman has served on many national committees and advisory boards. He was Deputy Editor for Physical Sciences for SCIENCE from 1985 to 2000 and is currently the Chair of the Senior Editorial Board.

LAWRENCE EUGENE THIELEN RECEIVES THE DISTINGUISHED SERVICE AWARD



The 2003 Distinguished Service Award will be given to Lawrence Thielen posthumously at the April 25 Chicago Section's Monthly Dinner Meeting. This award was established in 1974 at the suggestion of Louis L. Lerner, who was the editor of *The Chemical Bulletin.* The award recognizes members who have provided exceptional services to the Chicago Section over, above, and separate from any other achievements of the recipient, either in the profession or by the National ACS.

Lawrence Thielen was born in 1921 on Chicago's Southside and remained a Chicagoan growing up in Rogers Park. Larry became interested in chemistry while in High School. He completed High School in three years and went on to earn a BS in chemistry from Loyola University of Chicago in 1942. After receiving his bachelors he went to work as a chemist at Kankakee Ord. Works, E.I. du Pont de Nemours & Co. In 1943, he joined Pure Oil Co. as a research chemist.

Mr. Thielen took a brief hiatus from chemistry for World War II. He enlisted in the navy as an officer in 1943 and spent six months at Harvard Communications School to learn codes, ciphers, radar, radio and visual communications for ships at sea. Larry served on many ships in the Atlantic including the U.S.S. General A.E. Anderson and visited many ports in England, France, Italy, India, Egypt, Algeria and Morocco. Lieutenant Thielen was preparing to transfer to the Pacific when the war ended.

After the war, he returned to Pure Oil Co. for a short while then he went to work for G.D. Searle in 1946. He developed many compounds as possible drugs and worked in the area of steroids. He was awarded many patents in this area. During this time he also attended graduate school at Northwestern University from 1947 to 1948. Larry left Searle and went to work at Nalco Chemical Co. from 1956 to 1958. He joined Abbott Laboratories from 1959 to 1962 researching intravenous solutions. In 1962, he left Abbott and went to work for RR Donnelly & Sons where he was a group leader of polymers and organic chemistry. There he developed offset printing inks and was awarded several patents. He went on to join Inmont Corporation Printing Ink Technology in 1975 and retired as safety manager in 1987.

Lawrence Thielen was a member of the American Chemical Society for 58 years. He served as Treasurer from 92-96; Director from 90-93 and 00-01; Nominating Committee from 68-70 and 00-01; Campaign for Chemistry from 89-90; Employment Committee from 65-68; Endowment Committee from 89-91; Membership Affairs committee from 69- 73; Public Affairs Committee from 88-99; Public Relations Committee from 90-91; Tellers Committee from 90-91; House Committee Chair from 67-71; Chemical Health & Safety Chair from 88-93 and a member until 01; and Gibbs Committee Chair 70 and a member from 76-77. Larry was a councilor for the Section from 70-73 and an alternate councilor from 94-99. Two important roles that he had in the section was the ad hoc Computer Committee from 89-98 and Chemistry Day from 89-98. Larry started the ad hoc Computer Committee and helped recommend and maintain the first computer system the Section had. He was instrumental in coordinating and obtaining the exposition area for Chemistry Day.

Since his retirement from industry he started Thielen Consultants in 1987. He served for 12 years on the Board of Trustees for the Salt Creek Sanitary District and most recently as the Board's President from 99-03. He worked with both of his son-in-laws on research published in medical journals which later won a national research award in emergency medicine. He enjoyed tennis, golf and poker.

Sadly, Lawrence Thielen passed on January 12, 2003. He is survived by his wife Patricia of 51 years and daughters Peggy (Husband Dr. David Schreck) and Maryellen (Husband Barry Petrigala and five grandchildren, Lauren Schreck (20), A.J. Schreck (18), Ryan Schreck (10), Matthew Petrigala (4) and Daniel Petrigala (2). The Section is pleased to present this Award to such an outstanding member. Please join us on April 25 to honor such a deserving individual as his family accepts the Award.

FRAN KAREN KRAVITZ
DSA CHAIR

ARGONNE SCIENTIST TO SPEAK AT GREAT LAKES REGIONAL MEETING WOMEN'S LUNCHEON

Argonne National Laboratory (ANL) scientist Dr. Marian Thurnauer, recipient of the 2002 Garvan-Olin Award, will be the speaker at the Great Lakes Regional Meeting (GLRM) Woman's Luncheon to be held at the Loyola University of Chicago Lake Shore Campus on Sunday June 1. It is not necessary to attend the GLRM to purchase luncheon tickets. For more information call the Section office or visit the GLRM website at http://membership.acs.org/g/glrm03/.

Thurnauer became internationally known for her research using time-resolved multifrequency electron paramagnetic resonance (EPR). She has made substantial contributions to our understanding of electron transfer in natural and model photosynthetic systems. In recent work, she has examined charge separation in nanocrystalline metal oxide colloids, reproducing the "signature" electron spin polarization found in natural photosynthesis.

Thurnauer is currently the Director of the Chemistry Division at Argonne National Laboratory; she is the first female to have advanced to Director in a technical area at ANL. She directs a division of more than 60 staff scientists who conduct work across many important chemical fields. She has demonstrated exceptional abilities not only as a scientist, but as an administrator. She played a key role in the development of ANL's Women in Science and Technology (WIST) program; and continues to serve on the steering committee. She also helped to create and develop the Science Careers in Search of Women Conference, an event that reaches 400 young women from the Chicago area and encourages them to consider pursuing scientific and technical careers.

In addition to the Garvin-Olin Award, Thurnauer's other honors include the University of Chicago Award for Distinguished Performance at Argonne, the Agnes Fay Morgan Research Award given by Iota Sigma Pi, election as a Fellow of the American Association for the Advancement of Science, the Argonne Directors Award, the Award of Merit from the Chicago Association of Technological Societies, and many other grants and awards.

ALMA E-NEWS

Security

The hazards of chemical exposure, sharp tools, electrical devices, flammables, corrosives, and many other dangers associated with the equipment or materials used in the laboratory are well known to our personnel. Lab managers expend significant resources on training and protective equipment to safeguard the staff from these potential dangers. Threats to physical security have not typically been considered as part of these safety efforts or were treated in a cursory manner since the risk seemed negligible. The continuing terrorist threat has changed this perception. The chemical industry is taking a new look at security and the American Chemistry Council has added a new security code to its Responsible Care program. While the direct threat to laboratories is still low and we are generally not on the front lines of security efforts, we may still play a role. For example, a phoned threat may be answered by one of the lab staff, especially if plant phones roll into a continuously manned lab during off-hours. The staff may need training on how to handle these calls with instruction on what to listen for, what questions to ask, who to notify, and other procedures to follow. Refresher training on monitoring visitors and vendors who come into the lab might also be appropriate. Security might be a topic worthy of at least a monthly safety meeting.

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

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".

DEATH NOTICE

Dr. John Huston, 83, former faculty member in the Chemistry Department at Loyola University and Chicago ACS section member, passed away in January. He was the husband of Mary Margaret, nee Lally; brother of the late Mary DeStefano and James Huston.

JOB CLUB

The next meeting of the Chicago Section Job Club will be held on **Friday, April 25 at The Midwest Conference Center at 5 p.m**. The meeting will include a review and discussion of some of the fundamental tools that a chemist can use to conduct a Job Search.

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

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

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

Should you wish to attend the Section meeting following the Job Club, the fee for unemployed members is only $14 and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.

NOBEL LAUREATE RECEIVES KNIGHTHOOD

John Pople, Nobel laureate and Professor of Chemistry at Northwestern University, has been awarded the Insignia of a Knight Commander of the Civil Division of the Most Excellent Order of the British Empire by the Queen of England. The award recognizes Pople's contributions in the field of chemistry. Pople was awarded the Nobel Prize in chemistry in 1998 for his pioneering work developing computational methods making possible the theoretical study of molecules. For more information, go to the following — http://www.northwestern.edu/univ-relations/media_relations/releases/2003_02/pople.html.

WEIRD SCIENCE WORKSHOPS

The University of Illinois at Chicago Chemistry Institute will present "Weird Science" workshops for high school and junior high teachers during July and August 2003. "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 and physical science, primarily at middle school and high school levels.

The 2003 program, "Who, What, Where, Workshop Week With Weird Science and Wade," will be offered July 21-25 and July 28-Aug. 1. Also called Chemistry 572, "Teaching Methods in Chemistry," the course carries three semester-hours of graduate credit in chemistry. Content will differ from the course offered in 2002, so the course may be repeated for additional credit. Summer 2003 topics will revolve around the history of science and chemistry that can be used in the chemistry classroom.

For details, contact **Dr. Wade Freeman**, 312-996-3161, Wfreeman@uic.edu. Instructors are Freeman, Dewayne Lieneman, Lee Marek, and Bob Lewis. Also, go to http://www.ncusd203.org/north/depts/science/chem/marek/

CONTACT THE CHAIR

Do you have any questions, suggestions, ideas, gripes, or complaints, relating to the Chicago Section? Do you want to volunteer to help 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. I look forward to hearing from you.

SUSAN SHIH
Chair

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 winner Fred Turner (February meeting).

FRAN KAREN KRAVITZ
HOSPITALITY COMMITTEE CHAIR

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

ACS DELEGATION TRAVELS TO CUBA

This article is reprinted by permission from the March 2003 issue of *The NUCLEUS* of the Northeastern Section ACS.

Thirteen chemical educators traveled to Cuba recently under a specific license issued by the U.S. Department of the Treasury to the American Chemical Society to attend the 17th Conference of Chemistry in Santiago de Cuba, December 4-6, 2002. The Departamento de Quimica in the Facultad de Ciencias Naturales of the Universidad de Oriente sponsored the conference, which included plenary lectures, oral and poster presentations, and workshops. More than 300 chemists from North America, Latin America, and Europe participated in sessions on physical, analytical, environmental, inorganic and organic chemistry, chemical engineering and chemical education.

The following traveled on the ACS license: Carmen Gauthier (Florida Southern University), Morton Hoffman (Boston University), Lynn Hogue (Miami University), Zafra Lerman (Columbia College), Cathy Middlecamp (University of Wisconsin, Madison), Martin Minelli (Grinnell College), David Morton (Columbia College), Maria Oliver-Hoyo (North Carolina State University), Jimmy Reeves (University of North Carolina at Wilmington), Jerry Sarquis (Miami University), Mickey Sarquis (Miami University), Hessy Taft (Educational Testing Service), Carol Venanzi (New Jersey Institute of Technology). Mickey Sarquis was the 2002 chair of the Division of Chemical Education (CHED), and Jerry Sarquis is presently the secretary of CHED. None of these chemists received any financial support from ACS or CHED toward the trip; many paid their own way while others received financial assistance from their institutions.

A pre-conference workshop on chemical education was offered on December 3 to college chemistry teachers, which included the following presentations:

Cathy Middlecamp, *"Teaching chemistry in 'real world' contexts"*

Maria Oliver-Hoyo, *"Estrategias para mejorar el aprendizaje de conceptos y las actitudes de los estudiantes hacia la quyimica"*

Jimmy Reeves, *"Technology and distance education: New possibilities for solving old challenges"*

Carmen Gauthier, *"How can one do research in a predominantly teaching institution with limited resources?"*

Professors Marieta Gomez Serrano and Luis Bello of the Universidad de Oriente together with Zafra Lerman organized a symposium on chemical education. Many of the ACS delegation had prepared their visuals in both English and Spanish, making it easier for the Cuban participants to follow the presentations. In this symposium, the ACS members interacted with the Cuban participants, sharing important information about the courses that they teach. The contribution of CHED to the symposium included the following presentations:

Morton Hoffman, *"New strategies for teaching general chemistry"*

Jerry Sarquis, *"Peer-Led Team Learning: The Workshop Model"*

Zafra Lerman and David Morton, *"Chemistry for non-science majors: Computer animation of chemical concepts"*

Mickey Sarquis, *"A formula for effecting student learning in chemistry: Kinesthetic activities, dramatic simulations, and model development"*

Lynn Hogue, *" Teaching chemistry with toys"*

Hessy Taft, *"Evaluating science comprehension among primary and secondary students"*

In addition to the chemistry faculty who participated in the symposium on chemical education, forty undergraduate chemistry majors from the Universidad de Oriente received special permission from their professors to miss classes in order to attend the presentations. The members of the ACS delegation were extremely impressed with the students' knowledge of chemistry, enthusiasm to participate, level of maturity, eagerness to interact with the American visitors, and their expressed desire to remain in contact. This group of students spent two days with the ACS delegation, talking about their studies, and trying to find out as much information as possible about the ACS, chemistry, and the United States. It was a wonderful experience, for the students and ACS members alike, to interact so closely with each other during the symposium, in informal scientific conversations, and during lunch. The students stated that they learned a great deal from this exchange. They expressed their interest in maintaining a connection with the ACS members; much e-mail has been exchanged since the conference.

The ACS delegation members were treated with great respect, attention, warmth, and consideration by their Cuban hosts. Conference organizers Bello and Gomez repeatedly stated their appreciation for the contributions made by the delegation to the conference, and expressed their gratitude to the ACS for helping to make the conference a success.

As is usually the case when one intends to travel officially to Cuba, the most difficult and rate-limiting step is the obtaining of a license from the Treasury Department, which is responsible for the enforcing of the forty-year old U.S. embargo against that island nation. The ACS Division of Education and International Activities submitted the request for this license months in advance, but repeated phone calls to the Treasury Department requesting clarification of its status only always confirmed that it was "in the queue." As the date of the conference approached closely, Zafra Lerman obtained the assistance of her Congresswoman, Jan Schakowsky of Illinois, who urged the Treasury Department to issue the license in time for the trip to take place.

Most of the group entered Cuba on a late-morning Aerocaribe flight from Cancun, having spent the previous night there; others traveled by chartered flights (using the aircraft and crew of American carriers) from Miami and New York. Upon arrival at the international terminal in Havana, where one has the option to get a Cuban entry stamp in the passport, the group from Cancun was shuttled to the domestic terminal on the other side of the airport. The rest of the afternoon into the evening was then spent waiting for the flight to Santiago de Cuba. It seems that domestic flights do not adhere to any published schedule; flights leave when the equipment (and presumably a crew) is available. Although our trip to SCU from HAV was many hours late (by American time standards), the good news was that we flew in a spanking new Airbus 320 that could not have had more than 10,000 miles on the odometer. Upon our arrival at about 9:30 p.m., we were greeted by Luis Bello, taken to our hotel, and fed the first meal we had had since breakfast in Cancun. Most of us got to sleep by midnight with a 7:45 a.m. pickup scheduled for the next day to bring us to the opening ceremonies of the conference, which was held at the convention center.

At the closing banquet of the conference, Zafra Lerman addressed the attendees on behalf of the ACS. She thanked the organizers, and expressed the hope that collaborations would continue between chemists from both countries.

(continued to page 9)

(continued from page 8)

The ACS delegation returned to Havana (four hours behind schedule) aboard a Cubana Airlines YAK-42, a Russian-made jet that had already seen better days several decade ago. A night had to be spent in Havana in order to fly early in the morning (7 a.m. flight, 5 a.m. airport check-in, 4 a.m. hotel pick-up) to Cancun and connect back to the U.S.

While in Havana, the group met with Professor Roberto Cao and Associate Dean Georgina Aguero of the Department of Chemistry of the University of Havana. An extra and unexpected benefit for the Americans was their interaction with undergraduate chemistry majors from the University of Havana and some of the more than 500 American undergraduates who had arrived in Havana by ship as part of the Semester at Sea Program. The two groups of students mingled together, and it was a breath of fresh air to see this group of American students in Cuba. They excitedly reported that Fidel Castro came on board the ship to greet them, addressing them through simultaneous translation. Apparently, Castro eagerly greets the students personally several times during the year when the ship docks in Havana.

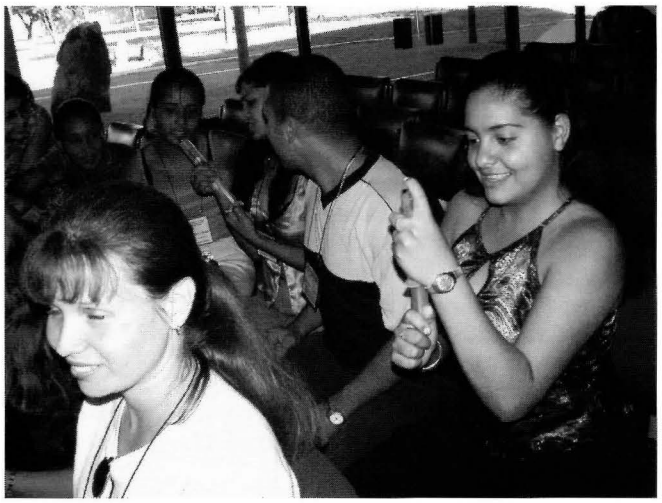
The trip of the ACS participants was sponsored by the International Activities Committee of the Division of Chemical Education, and by the Subcommittee of Scientific Freedom and Human Rights of the Joint Board-Council Committee on International Activities, both of which are chaired by Zafra Lerman.

MORTON HOFFMAN and ZAFRA LERMAN

17TH CONFERENCE OF CHEMISTRY IN SANTIAGO DE CUBA

ACS delegates
(l to r): Lynn Hogue (Miami University), Conference organizer Luis Bello (Universidad de Oriente), Mrs. Bello, Morton Hoffman (Boston University), Zafra Lerman (Columbia College), Jerry Sarquis (Miami University), Hessy Taft (Educational Testing Service), Martin Minelli (Grinnell College), Mickey Sarquis (Miami University).

Dr. Zafra Lerman presenting lecture on computer animation of chemical concepts



Undergrad students attending the conference

CHEMJOBS

Chemical & Engineering News Classifieds Online and JobSpectrum.org have joined together to launch chemjobs, an online, 'one-stop' job Website dedicated to the employment needs of the chemical enterprise. Chemjobs (www.cen-chemjobs.org) features online-only job postings as well as current industry news and classified ads from Chemical & Engineering News, the weekly newsmagazine published by the ACS.

"As the leading newsmagazine of the chemical world, *Chemical & Engineering News* is exceptionally excited about the launch of chemjobs, which will be the chemical community's number one online job site," says Madeleine Jacobs, Editor-in-Chief of *Chemical & Engineering News*. "Especially in the tight job market that we're currently facing, chemjobs will enable job seekers to find their dream jobs and employers to find their dream candidates." Chemjobs builds on the success of JobSpectrum.org, an online-only Web site from ACS, in serving the employment needs of chemical sciences professionals in business, government and academe. Chemjobs allows job seekers to post rÈsumÈs, apply for positions online and sign up to receive e-mail job alerts.

The site hosts a wide range of job openings in chemical sciences — from university professors and government agency scientists to industry researchers, lab technicians, marketing and sales representatives and managers. The job information provided is also designed to be valuable to students starting their careers as well as to veteran chemists. More than 1,500 employers are currently registered with chemjobs and are using the site as an integral part of their recruitment strategy.

"The transition from JobSpectrum to chemjobs will be seamless," Jacobs adds, noting that anyone having questions about the transition should contact Webmaster.cen@acs.org or call 1-888-667-7988. Recruiters wanting more information on job posting opportunities should contact Ken Carroll, Manager of Chemical Publications Sales, at (610) 964-8061.

REGISTER TO ATTEND MONTHLY SECTION MEETINGS

ON LINE

at
http://membership.acs.org/C/Chicago

POPULAR CAREER MANAGEMENT TEXTS

Four of ACS Department of Career Services most popular career-development publications are being updated and are due to be reissued early in 2003. These publications can provide invaluable job seekers or mature chemists with vital resources on preparing for an interview, resume-writing skills, finding the hidden job market or on making adjustments to the cultural differences in the United States.

Each of these four free publications can be downloaded from the DCS website http://chemistry.org/careers.
They are:

- *The Interview Handbook* discusses the various techniques and skills needed for a successful interview.
- *Tips on Resume Preparation* discusses the most successful types of resumes and offers samples of each.
- *Employment Guide for Foreign-Born Chemists in the United States* provides information on immigration requirements, job searching, evaluating foreign credentials, skills and experience, culture of the workplace, and how to adapt to a new domicile.
- *Targeting the Job Market* focuses on the components of targeting the job market: personal assessment, identifying market trends, credentials, conducting research, and network.

NEW GREEN CHEMISTRY EDUCATION MATERIALS AVAILABLE

Green chemistry is sometimes called preventive medicine for the environment. It is the design of chemical products and processes that reduce or eliminate the use and generation of hazardous substances. You can teach or learn more about green chemistry with relevant, stimulating, and hands-on materials from the ACS Education and International Activities Division.

A new lab manual for undergraduate chemistry, two beautiful poster designs, and a set of FREE introductory readings in green chemistry are now available. These products mark the conclusion of our cooperative agreement with the U.S. Environmental Protection Agency to develop materials that relate green chemistry to standard topics in the chemistry curriculum. Other products available from ACS include an introductory video, an activity book for introductory chemistry, green chemistry case studies, and a FREE searchable bibliography. Full descriptions of these products are available online at www.chemistry.org/education/greenchem, or contact us at 202-872-4523 or education@acs.org for more information.

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 entrÈe 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

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2003 GIBBS DINNER RESERVATION FORM

Name_____Affiliation_____

Address_____Phone ( )_____

tickets for ACS members & guests _____($40.00/ticket) Nonmembers _____($42.00)

dinners: Prime Beef _____ Grilled Salmon_____ Vegetarian_____

tickets for students, unemployed members, and retires ($20.00/ticket)_____

Note: Professors must make student reservations.

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 60714

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.

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
June 2003	4/25/03
September 2003	7/25/03
October 2003	8/22/03
November 2003	9/26/03
December 2003	10/17/03

Advertising Index

CALENDAR

March 27-28, 2003: Illinois Association of Wastewater Agencies Mini Conference, Springfield Renaissance Hotel, Springfield, IL. For details, contact (217) 523-1814, info@ilwastewater.org, or visit http://www.ilwastewater.org/about.htm.

March 31-April 3, 2003: Chicago Chromatography Discussion Group's "40th Annual Introductory Course in Gas Chromatography," Roosevelt University, 1400 N. Roosevelt Blvd., Schaumburg. Cost is $595. Contact (847) 647-0157, evalopez@teianalytical.com, or http://www.ccdg.org for a registration form.

April 9, 2003: The Chicago Chemists' Club will meet at the Kow Kow Restaurant, 6755 N. Cicero Ave., Lincolnwood. The speaker will be Dr. John Kessler, Northwestern Medical School who will talk about stem cell research. For reservation, contact Judy Reuter at (847) 679-2444 by April 7.

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 14-15, 2003: ASTM E-15 Committee on Industrial and Specialty Chemicals will meet in Chicago at the Westin Hotel. Contact Diane Rehiel at (610) 832-9717 or drehiel@astm.org for more 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 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.

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

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

November 17-20, 2003: The Eastern Analytical Symposium and Expositon will be held at the Garden State Convention Center in Somerset, NJ. Abstracts deadline is April 15. Go to http://eas.org for further information.

CHICAGO SECTION, AMERICAN CHEMICAL SOCIETY
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