the CHEMICAL bulletin

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

SEPTEMBER • 2003

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

SPECIAL TOUR AND MONTHLY MEETING

FRIDAY, SEPTEMBER 19, 2003

Marriott Oak Brook 1401 W. 22nd Street Oak Brook, IL 630-573-8555 (If you are not going on the McCrone tour, directions to the Marriott are on page 2.)

DIRECTIONS TO McCRONE TOUR McCrone Associates, Inc. 850 Pasquinelli Dr. Westmont, IL 630-887-7100

From the North: Take 294 South and exit onto Ogden Avenue west (Rte. 34). Drive 2 miles west, and immediately after Rte. 83 (Kingery), at the second set of lights, turn right onto Pasquinelli Drive. McCrone is on the left side, 0.6 miles north of Ogden Avenue.

From Chicago: Take the Eisenhower Expressway (I-290) west about 20 miles. Follow the signs for Roosevelt Road (center lane when at the split in Hillside). Exit onto Roosevelt; drive west about 2 miles. Exit Route 83 (Kingery) south. After 31st Street, turn right at the next exit (Oakmont Lane). At the stop sign, turn left onto Pasquinelli Drive. McCrone Group is 1 block south, on the right.

Parking at McCrone is available directly in front of the building.

McCrone, founded by the late Dr. Walter C. McCrone, renowned scientist and chemical microscopist, maintains one of the most comprehensive micro-analytical labs in the world.

TOUR OF MCCRONE ASSOCIATES 4:00 - 6:00 P.M.

Attendees should arrive between 4pm and 6:00 pm. As you arrive, you will be given a number corresponding to a tour group (first come-first tour). A virtual tour of the laboratory will be running continuously in the conference room before your tour commences. The tour consists of seven tour stops: cleanroom, scientific imaging and art, light

microscopy, chemistry, electron microscopy, and surface analysis. A tour-guide will escort you and senior staff scientists will be positioned at each stop to answer questions and demonstrate the technique where possible. Each tour lasts 30-45 minutes.

After the tour, you should proceed directly to the Marriott for the dinner meeting. Exit McCrone's parking lot and turn right to the traffic signal at Ogden. Turn left (east) on Ogden and go to Route 83. Go north (left) on Route 83 and proceed to the Marriott.

JOB CLUB will meet at the Marriott at 5 pm. (See page 3)

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

DINNER 7:00 P.M. (menu is on page 2)

GENERAL MEETING 8:00 P.M.



Richard E. Bisbing, Vice President and Director of Research McCrone Associates, Inc., Westmont, Illinois

PLEASE VOTE

(Ballots are in the mail)

Title: "Imaging in the Forensic Microscopy Laboratory"

Abstract: Forensic microscopy normally involves associating tool marks, broken wires, semen, hairs, fibers, paint, glass, soil and other microscopic particles with places or perpetrators of crime. Like real evidence, imaging of microscopic trace evidence conveys a relevant firsthand sense impression to the jury as compared to words or graphs which serve merely to report the secondhand sense impressions of others or instruments. Like all visualization, forensic imaging documents an object by recording its location and morphology using light, lens, detector, retina, and brain. Sometimes special attachments are necessary such as a spot light, Polaroid sun glasses and binoculars; and, sometimes, special recording devices are used like snapshot or video cameras. With a microscope, special techniques are also necessary to enhance contrast, magnify, detect, and record useful images. Some of these techniques require making use of optical properties and some require use of chemical properties to either image or map features useful for the identification and comparison of materials of forensic merit.

Biography: Richard E. Bisbing is Vice President and Director of Research for McCrone Associates, Inc., Westmont, Illinois. Mr. Bisbing has responsibilities for managing: the scientific staff; industrial, governmental and forensic projects; contracts; quality; security, safety; and marketing. He also consults on a

(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 September meeting will have the opportunity to earn up to 5 CPDU's.

(continued from page 1)

variety of projects in analytical light microscopy and the forensic sciences, while overseeing projects in chemistry

and electron microscopy.

Prior to joining McCrone Associates, Bisbing worked for the State of Michigan for 18 years in the Departments of Public Health and State Police with assignments in the Lansing, East Lansing, and Bridgeport Forensic Science Laboratories. His duties included crime scene investigations, chemical analyses of drugs and fire debris, body fluid identifications, footwear identifications, microscopical comparison of trace evidence, research, teaching, expert court testimony, and supervision. At the Bridgeport Laboratory, he directed the scientific work of the trace evidence unit for nine years, overseeing the progress and completion of all cases including several hundred homicide cases. He received four citations for professional excellence from the Michigan State Police.

He has testified in over 500 trials in 21 states and Canada; authored several articles and book chapters on forensic science, microscopy, and archaeology; lectured at Michigan State University, The University of Michigan, University of Illinois, Northwestern University, and for the Associated Colleges of the Chicago Area, a consortium of Liberal Arts Colleges founded in 1966; and been a pundit for CNN News regarding the O.J. Simpson and JonBenet Ramsey cases, 850 KOA Radio in Denver regarding the Chandra Levy case, and CBC news in Toronto regarding the Guy Paul Morin case. He also consulted on CBS's show "C.S.I.". Bisbing is internationally regarded as an expert in the forensic identification and comparison of hairs, fibers and soil. His trace evidence work has been featured on the Discovery Channel's "The New Detectives: Case Studies in Forensic Science" and A&E's "Cold Case Files." He serves on the FBI's Scientific Working Group for Materials and as Guest Reviewer for the Journal of Forensic Sciences, the American Journal of Physical Anthropology, and TheScientificWorld.

He studied chemistry at Albion College and forensic science at Michigan State University where he earned a B.S. in 1968. He is a member of several professional organizations and received the Midwestern Association of Forensic Scientists' Distinguished Forensic Scientist award in 1987.

REGISTER TO ATTEND MONTHLY SECTION MEETINGS

ON LINE

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

DIRECTIONS TO THE DINNER MEETING AT THE MARRIOTT

From the North: Take 294 South to I-88 West. Exit Cermak Rd. (Cermak and 22nd Street are the same road.) Turn left at the first light. Two lights on the left is the hotel. It is across from the Oak Brook Mall.

From the South: Take 294 North to I-88 West. Exit Cermak Rd. (22nd St.) Turn left at the first light. Two lights on the left is the hotel. It is across from the Oak Brook Mall.

From the West: Take I-88 East and exit at Midwest Rd. Make a right onto Midwest. The first stoplight is Cermak Rd. Make a right and go three lights. At the 4th light, make a right. The hotel is on your left.

From Downtown: Take 290 West (Eisenhower) to I-88 West. Exit Cermak Rd. (22nd St.) Turn left at the first light. Two lights on the left is the hotel.

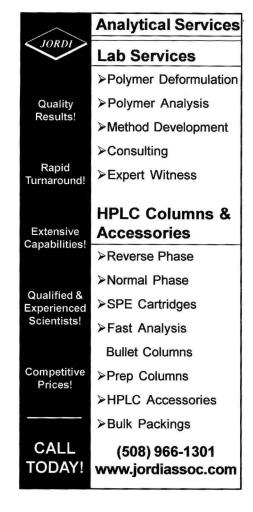
PARKING: Free

MENU

Garden salad with Red Wine Vinaigrette and Peppercream Dressing; Vegetable soup with basil; Choice of Grilled Chicken Breast and Angel Hair Pasta, Baked Cod topped with a White Wine Sauce with potatoes, or Pasta tossed with Tomato Basil Sauce and Olive Oil; seasonal vegetables; assorted breads with butter; Vanilla ice cream on Vanilla Cake with Chocolate and Caramel Sauce; beverage.

Dinner reservations are required and should be received in the Section Office via phone (847-647-8405), fax (847-647-8364), email (chicagoacs@ ameritech.net), or online (http://membership.acs.org/C/Chicago) by noon on Tuesday, September 16. 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 RESER-VATIONS. The Section must pay for all dinner orders. No-shows will be billed.

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



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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.

Thermite - A Solid Reaction

Kids, can you imagine doing chemistry with just aluminum foil and some rust? By using these compounds in just the right way, you can perform a simple yet rather spectacular process that is one example of the so-called "thermite" reactions. A full-scale thermite reaction is much too dangerous for classroom demonstration, but you can get the idea by doing a scaled-down version with an adult partner.

First, find two large, rusted iron spheres such as old track-and-field shotputs or 2-3" diameter ball bearings - the rustier the better. Cover one with regular aluminum foil. While you are both wearing goggles and taking much care not to smash fingers, have your adult partner strike the spheres together with a glancing blow. Simply banging them together head-on will not work; they must be scraped and slid across each other like striking a match. When they hit just right, you will see and hear a mini-thermite reaction at the point of contact. The resulting sparks and noise are like firing a toy cap gun.

What's going on here? This thermite reaction is a single replacement reaction between iron(III) oxide (rust) and aluminum metal to make aluminum oxide and iron metal. Chemists write it as: Fe2O3 + 2 AI(0) -> AI2O3 + 2 Fe(0) + heat. Because heat is released it is one example of an exothermic reaction. The heat release is so high in fact that temperatures reach 2200°C! This is actually hot enough to melt iron, which has a melting point of 1530°C. This property is put to good use for producing molten iron that welds train track rails together out in the field (see references below for more information on this).

One very interesting aspect of the thermite reaction is that it takes place in the solid state. Just a few reactions in nature occur between solids, and these few tend to go so slowly that they are rarely even noticed. Fires derived from thermite energy are quite difficult to extinguish. Unlike combustion, thermite fires do not need oxygen from the air to

start, so the typical extinguishers using CO2 or other gases to smother flames are not very effective. And using water can be downright dangerous. The high temperatures decompose water into hydrogen and oxygen, causing even more explosions. So the recommended method is to cover the reaction with sand.

Submitted by DR. K. A. CARRADO.

References: Michael Tinnesand, "Mighty Thermite", in ChemMatters, ACS, Feb 2002, pp. 14; A. L. Feliu, "Thermite Welding Gets High School Chemistry Class on Track", J. Chem. Ed., Jan 2001, pp 15.

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

> Put your ad here Reach prospective clients by advertising in The Chemical Bulletin

> >

For more information, contact the Section office Phone: (847) 647-8405
Fax: (847) 647-8364

JOB CLUB

The next meeting of the Chicago Section Job Club will be held on Friday, September 19 at the Marriott Oak Brook 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.

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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

CHEMISTRY DAY 2003

Chemistry Day Chicago style will be celebrated this year on October 25. The National Chemistry Week theme for 2003 is "Earth's Atmosphere and Beyond". The Chicago program will include contests, hands-on experimentation, demonstrations, a teachers' workshop, exhibits, and speakers. An active committee chaired by Tom Kucera and Dave Crumrine together with volunteers helps make this day enjoyable and educational for the visitors. If you are interested in helping to celebrate Chemistry Day 2003, please email Tom Kucera at tjkucera@inter access.com or phone the Section office (847) 647-8405.

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 Toby Litin (June meeting).

FRAN KAREN KRAVITZ HOSPITALITY COMMITTEE CHAIR

LOCAL ALMA CHAPTER MEETS

The IL/IN/WI/MI Local Chapter of the Analytical Laboratory Managers Association (ALMA) met on April 11 at the UOP Research Center in Des Plaines, IL. The meeting featured presentations on measuring analytical productivity. Dorothy Richmond of UOP, LLC reviewed how analytical productivity was being measured but commented that other factors needed to be tracked at the same time to ensure balanced productivity. David McGregor of Stepan Company demonstrated how an inhouse project-tracking database could be used to document and track key metrics for project work. Following the discussions on productivity, Claude Lucchesi gave us a presentation on the beginnings of ALMA. Claude is one of the founding members of ALMA and continues to provide workshops on "Effective Management of an Analytical Laboratory". Claude's presentation was followed by a tour of the UOP Research facilities.

ALMA is an international organization of analytical managers. The mission of ALMA is to share and disseminate information about the management of analytical services and instrumentation laboratories. The unique strength of ALMA lies in providing a forum for analytical managers and leaders to network, learn from each other and share common problems and ideas that have worked and not worked.

Find out more about ALMA at www.labmanager.org or contact David McGregor of Stepan at dmcgregor@stepan.com or Dorothy Richmond of UOP at dorothy.richmond@uop.com to participate in the next meeting of the local ALMA chapter.

The next meeting will take place at the BP Naperville Complex in Naperville, IL on September 26 and will feature presentations on Measuring Customer Satisfaction and Marketing of the Service Lab.

FUNDING INCREASE RATIFIED

The petition ACS members voted on during the summer to increase funding for divisions and local sections was ratified by membership. The increased funding will come from budget offsets and a temporary assessment on ACS members. A \$2 fee, assessed only on full members, will be levied in 2004. It will be prorated for other special membership categories; emeritus members will not pay anything.

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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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CHAIR'S LETTER

Elections

Welcome back from your summer vacations. I hope you all are refreshed and ready to participate in our programs for this year. The first item for this fall is the election of officers, directors and councilors. With the switch from an academic to a calendar year, our elections have moved from the spring to the fall. If you do not already have your ballot, it should be showing up in your mailbox shortly. Please take the time to read the biographical material, make your selections and return the ballot in the envelope provided. The deadline for receipt of ballots is noon on Friday, October 24th.

Also with the election materials is a volunteer form. If you can help us in any way, please indicate your interests and return the form to the office or email the information to me. The Section can only serve its members through volunteers like you.

Once again this year, the Section is a finalist for three ChemLuminary Awards. The categories are ACS President's Award for Local Section Government Affairs, Most Innovative New Activity in a Local Section Award and Best Overall Local Section Committee on Minority Affairs. Thanks to Barb Moriarty and Jim Shoffner, Marsha Phillips and Darryl Prater and their committee members for the efforts that resulted in these nominations. The winners will be announced at the ACS National Meeting in New York September 9th. Check the Section web page shortly thereafter to see if we were successful.

The International Chemistry Olympiad was held in Greece this past July. In June, 20 outstanding high school students from across the country attended the Chemistry Olympiad camp to prepare for the competition. The Chicago Section is proud of its two representatives at the camp, Caleb Ng of Libertyville High School and Benjamin Kaduk of Naperville North High School. Benjamin was selected as one of the four members of the U.S. team and participated in the competition where he won a bronze medal. Congratulations to both of them.

Don't forget to mark your calendars for our Chemistry Day festivities. The theme this year is "Earth's Atmosphere and Beyond" and the Section is celebrating on Saturday, October 25th.

As always, if there is anything that the Section can do for you, don't hesitate to contact me or the Section office. We are here to assist you in any way that we can.

TEACHING SAFETY

A symposium highlighting the efforts made to teach safety will be held the morning of September 9 at the 2003 National ACS meeting in New York City. The symposium will entailed the efforts made to teach safety live or online within a chemistry course or curriculum, as part of another course, or as a stand-alone course. Invited speakers will be teachers from K-12 grades, colleges or universities.

One of the invited speakers is Marsha A. Phillips, Chicago Section board member and a high school chemistry teacher at Farragut Career Academy in Chicago. Marsha's talk is entitled: "Safety: the First Chemistry Lesson". The following is an excerpt from her

"The first lesson my chemistry class has is safety. My students are given two copies of the Flinn Safety Contracts. One contract is taken home for the students and their parents to sign. Those contracts are returned to me. The other contract the students keep for reference. We go over each and every safety rule and I point out what happens if they do not follow the rules. They then take two safety quizzes. One is a fill-in the blanks and the other is a true and false based on the video "Starting with Safety". The students also make safety posters. And every day they are reminded of safety."

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EDITORIAL

Welcome to the September issue of *The Chemical Bulletin*. We hope you had a good summer and are looking forward to a new season of information relating to chemistry and chemists in the Chicagoland area.

Among the feature items in this issue, you will find a list of the High School Scholarship winners and U.S. Chemistry Olympiad results, an item on the passing of Ellis Fields, background information on the Marie Anne Lishka Memorial Scholarship, the Section's election slate, Zafra Lerman's latest honor, and information on Project SEED's 35th anniversary. You will also find several other informational items from ACS.

We have two regular columns, "ChemShorts for Kids" and ALMA e-NEWS. "ChemShorts for Kids" written by Dr. Kathleen Carrado, Argonne National Laboratory, continues to be refreshing and yery *popular. This issue marks the 116th "ChemShorts for Kids" article. ALMA e-NEWS, that began with the June 2002 issue, is written by Mr. Wayne Collins, a member of the Analytical Laboratory Managers Association (ALMA). It covers lab safety and lab management information.

Be sure to check out the listing of upcoming events in the Calendar on the back page of this and every issue. If you know of an upcoming meeting, course, or other scientific activity that would be of interest to your Section members, send the information to me for inclusion in the Calendar.

With each issue, we keep in mind our commitment to ACS, the Chicago Section's mission, and the goal of being one of your connections to chemistry-related information in the Chicagoland area and from ACS National.

If you have an idea for a new column, let me know. Keep in mind that any regularly featured column needs a regular contributor.

We continually need advertisers to maintain the vitality of the Chemical Bulletin. How about recommending this publication as a way of advertising to your suppliers and colleagues and for your own business? Our rates are reasonable and we reach out to 5,600 subscribers. We accept ads for products, services, and employment opportunities. If you are interested or you know of someone interested, call the Section office at 847-647-8405 or send an email at chicagoacs@ameritech.net.

We look forward to receiving articles for publications. While we can not guarantee which issue your article will appear, we try to publish submissions as timely as possible.

CHERLYN BRADLEY, EDITOR (cbrad1027@aol.com)

See you at a meeting! SUSAN SHIH, CHAIR

US CHEMISTRY OLYMPIAD 2003

The Chicago Section supported the US Chemistry Olympiad again this year. Under the direction of Dr. David Crumrine both rounds were held at Loyola University. On March 22, 2003 the search for potential nominees took place. About thirty-four students took a two-hour exam to identify the top students. The top students who qualified to take the challenging five-hour National Exam on April 26, 2003 were

Alexandra Miller Brian Zapanta Yuan Gong Raj Patel Caleb Ng Ben Kaduk Thomas Koberda Evanston High School
Carl Sandburg High School
Illinois Math & Science Academy
Libertyville High School
Libertyville High School
Naperville North High School
New Trier High School

The Chicago Section had numerous honor and high honor rankings. We are proud to have such a talented group of students in our section. **Ben Kaduk, Naperville North High School, and Caleb Ng, Libertyville High School**, received high honors (top 50) and also qualified to attend the U.S. Chemistry Olympiad camp. Ben and Caleb placed amongst the top twenty students in the nation. The top twenty students from the National Exam attended the study camp from June 1-15, 2003 at the U.S. Air Force Academy. Out of this group, four students entered the ICO being held in Athens, Greece from July 4-14, 2003. We are proud to announce that **Ben Kaduk** placed amongst the top four students.

The Chicago Section would like to thank Dr. David Crumrine and Loyola University for sponsoring the competition this year. We would also like to thank all the chemistry teachers who dedicate their time and hard work to prepare these students.

AMI LEFEVRE CHAIR-HIGH SCHOOL EDUCATION COMMITTEE

MARIE ANN LISHKA MEMORIAL SCHOLARSHIP

On December 20, 1993, Marie Ann Lishka, a colleague, a friend and a confidant to many of us died very suddenly. She will always be remembered for her vitality and commitment to the American Chemical Society, the Chicago Section, her community, friends and her family. Not a day goes by that one of us doesn't remember something special about Marie. Her dedication to both the Chicago Section and the Society provided others with a role model.

Friends and members of the Chicago Section established a memorial scholarship to preserve the memory of Marie Ann Lishka. The purpose of the "Marie Ann Lishka Memorial Scholarship" is to be a tribute to the memory of Marie Ann Lishka, chemist, Chicago Section ACS member, Councilor and Board Member, for her dedication and commitment to the Section, the Society and her Community. This scholarship will be awarded annually to the highest scoring female High School student selected from the Chicago Section Annual High School Chemistry Exam. This student must have plans to major in chemistry or science. The amount of the scholarship is determined based on donations collected to endow this scholarship.

Consider donating to endow the "Marie Ann Lishka Memorial Scholarship". This can be done by making a check payable to the Chicago Section ACS, completing the coupon below, and mailing the check and the coupon back to the "Marie Ann Lishka Memorial Scholarship", Chicago Section ACS, 7173 N. Austin Ave., Niles, IL 60714.

"NAADIE	ARINI	ICHKY	MEMORIAL	CCHOI	A DCLID"
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PHONE	DONATION AMOUNT

ZAFRA LERMAN, NYHOLM LECTURER

We are pleased to report that Dr. Zafra M. Lerman, head of the Institute for Science Education & Science Communication at Columbia College, Chicago, has been selected by the Council of the Royal Society of Chemistry, London, to deliver the next Nyholm Lecture during the 2004-05 academic session. Over the course of two weeks, she will deliver her lecture in a number of centers throughout Britain. The lectureship carries with it a silver medal and an honorarium.

Zafra was chosen for her outstanding contributions to chemical education in defining and developing methodology for using visual and performing arts activities in the teaching of chemistry. According to the Royal Society of Chemistry, she is "an ebullient teacher who has pioneered new educational techniques and made science literacy available to young people everywhere and brought the joys of science to many thousands of students."

She received her B.S. and M.S. in chemistry at Technion—the Israel Institute of Technology, in Haifa, and her Ph.D. in chemistry from Weizmann Institute of Science in Rehovot, Israel. After carrying out research at Cornell University, Northwestern University, and the Swiss Federal Institute of Technology in Zurich, she joined Columbia College in 1977 as director of the science program.

This lectureship was founded in 1973 to commemorate the name of Sir Ronald Nyholm (1917-71), a professor of chemistry at University College, London.

Congratulations Zafra!

SAFETY PUBLICATIONS FROM ACS

The ACS Joint Board-Council Committee on Chemical Safety (CCS) is pleased to announce the availability of the seventh edition of Safety in Academic Chemistry Laboratories (SACL). SACL is the flagship publication of CCS and has been in print continuously since 1972. This edition has two volumes: volume 1 for college and university students; and volume 2 for faculty, graduate teaching assistants, and administrators. With this latest edition of SACL, CCS has now produced new safety booklets within the last two years for all academic levels: Safety in the Elementary (K-6) Science Class-room; Chemical Safety for Teachers and Their Supervisors, Grades 7-12; and SACL. All of these publications may be ordered from ACS (single copies are free) and may be viewed in PDF on the Committee website, http://chemistry.org/committees/ccs.



ELLIS K. FIELDS, 1917-2003

Ellis Fields passed away on Monday, July 14, 2003 from complications during surgery for a blocked carotid artery. Ellis had been president of the National ACS in 1985 and Chair of the Chicago Section in 1971. Through the years he had been a vibrant contributor to the Section, National ACS and the chemical profession.

All of his activities contributed, directly and indirectly, toward the success of the Section. Ellis received his Ph.D. in physical organic chemistry from the University of Chicago at the very young age of 21. After spending some time at the University of Chicago as a research associate, he joined Standard Oil of Indiana. As an Amoco Chemicals Company research and development employee for 42 years (first at the old research laboratory in Whiting, IN, then at the Amoco Research Center in Naperville, IL), Ellis had been a leading figure in his profession and developed an international reputation for his research in the fields of novel monomer and polymer synthesis, catalysis, organic photochemistry and heterocyclic chemistry of phosphorus and sulfur compounds. While at Amoco, Ellis had been awarded 222 U.S. patents, written 123 published journal articles, and lectured extensively. He held the title of research consultant for several years prior to his retirement. This title was the highest technical position achievable for scientists and engineers at Amoco.

Upon retirement from Amoco (now BP), he was appointed to the Alva Todd Chair of Chemical Engineering at Illinois Institute of Technology. Since the end of this appointment he has continued his teaching career as an adjunct professor of chemical engineering, teaching a course in "Industrial Chemistry: Catalytic and Thermal Reactions and Processes".

Ellis had been a member of the American Chemical Society and the Chicago Section since 1939. For the Section, he served in many capacities: Chair of the Program, Long-Range Planning, Gibbs Arrangement, National Affairs, Nomination and Bylaw Committees; Chair of the Section in 1971-72, Councilor from 1969-83. Ellis received the Section's Distinguished Service Award in 2000 in recognition of his loyalty and dedication to the Section as a member who was there whenever we needed him and called on him; steadfast, committed and true to the Section's mission.

At the national level he has been equally active in representing the Section, the Division of Petroleum Chemistry and the Society. He served the Division as chair in 1981. The membership of the Society gave him its highest honor by electing him to served as President in 1985.

The 1978 ACS Award in Petroleum Chemistry was given to Ellis "for the extraordinary breadth and originality of his research in organic chemistry over four decades, embracing wide-ranging exploratory studies and equally wide-ranging practical applications." As one example, he helped develop the oxidation process for making terephthalic acid, used worldwide in making polyester.

Some of Ellis' other honors included serving as Almquist Lecturer at the University of Idaho (1979), serving as visiting lecturer at Kings College in London (1962-1963), receiving the Chicago technological Societies Council Award (1980) and being named a Fellow at the Canadian Institute of Chemists (1985) and for the American Association for the Advancement of Science (1985).

It was said that when Ellis wasn't in his laboratory, you might find him playing his violin in his Frank Lloyd Wright-designed home in River Forest, IL, or perhaps making some wine in his basement, or writing yet another scientific paper, or lecturing somewhere, or attending the ACS National Meeting, not missing one since he was 18 years old. He will be missed not only here in Chicago but in New York this September.

ALMA E-NEWS

Monitoring Devices

Analytical laboratories typically have several types of alarm systems such as hydrocarbon and smoke detectors, oxygen deficiency sensors, low flow on fume hoods, etc. However, our staff members are sometimes placed in circumstances where they are exposed to these same hazards but the tasks are in an area that is not monitored. For example, field collection of samples, sample staging areas, or tasks transferred to different area of the lab may not be within the coverage of the alarm systems. For these situations, the use of personal monitoring devices should be considered. These small devices are worn by the individual and sound an audible alarm when a hazardous condition is detected. There are personal alarms that detect the presence of hydrocarbons or carbon monoxide or collar devices that warn of low oxygen when entering a confined space. Some devices even monitor temperature and warn of conditions that can lead to heat stress. The safety planning for any job should include consideration of the work environment with identification of potential for exposure to harmful conditions. If there is a risk, it can be mitigated by including one of these individual monitors in the personal protective equipment required for the task.

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



SECTION MEETING LOCATIONS

Friday, October 24, 2003
Basolo Medal Lecture
Northwestern University
Technological Institute
2145 Sheridan Road
Lecture Room 3
Evanston, IL

Reception and dinner Dining Room Kendall College Culinary School 2408 Orrington Avenue Evanston, IL

November 21, 2003 Drury Lane Oakbrook Terrace The English Room 100 Drury Lane Oakbrook Terrace, IL 60181

December 12, 2003 Monastero's Ristorante Gina's Banquet Room 3935 West Devon Avenue Chicago, IL

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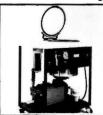
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CHEMAGINATION COMMITTEE

The ACS Office of Community Activities is seeking individuals to participate in a Chemagination Committee by either contacting teachers, seeking partners or coordinating the logistics of this science fair-type event. Chemagination is a contest that sparks the creativity in the minds of high school students and challenges them to look 25

years into the future to predict a development or innovation in the field of chemistry that will be important in the lives of teenagers.

The contest has been developed by the ACS Office of Community Activities (OCA), and is offered as a program for us to use to reach out to the high school teachers and future chemists. For information about the contest, visit chemistry.org/oca or call OCA at 800-227-5558 x4458.

PROJECT SEED CELEBRATES 35TH ANNIVERSARY

The Council Committee on Project SEED invites you to join them this year in celebrating the 35th anniversary of Project SEED. Since 1968, this successful social action program of the American Chemical Society has provided summer research opportunities to over 6,300 economically disadvantaged high school students at universities, government laboratories, and industries. Project SEED has had a significant impact on students lives, offering many benefits to them, their mentors, coordinators, and the many members of ACS who continue to take interest and

pride in this unique program.

Participating SEED students get a unique opportunity to explore chemistry or chemistry-related research for up to two summers. Many SEED students present their research work in poster sessions sponsored by ACS local sections and universities. Each year, approximately sixty SEED students present their research projects to ACS members and friends at the well-attended Sci-Mix evening event during the fall ACS national meetings. All attendees at the annual fall ACS national meeting are welcome to attend the festive Sci-Mix event. There, they can meet and talk to the SEED students who are ready to explain their research projects and talk about their experiences in the program. When they do, they generally come away impressed with both the quality of the presentations and the students' abilities to answer questions. SEED students are also energized by meeting and interacting with so many college students, professors, and researchers at the Sci-Mix event. Their comments and impressions after attending a national meeting are often reflected in their eagerness to participate in a second summer of research (SEED II) and to apply for a SEED scholarship.

SEED scholarships are available on a competitive basis to all past SEED students. The scholarships are awarded to students who excel academically. demonstrate a potential for success, and enroll in a chemistry-related major during their freshman year of college.

Many SEED alumni maintain an active interest in the program. On several occasions, former SEED students have been panelists at symposia, served as mentors, or as program coordinators.

During the ACS national meeting in New York this September, the Committee on Project SEED will co-sponsor a Presidential Symposium entitled "Project SEED 35 Years of Success: Investing in the Future". The symposium will focus on the success of the program, featuring presentations by mentors, coordinators, graduate students, and current students. A reception will follow, during which the Committee will recognize the contributions of long-time mentors and coordinators.

Clearly, Project SEED is a valuable step in extending educational opportunities to underserved and economically disadvantaged young people and in developing future scientists and leaders.

However, the program is facing some big challenges. The program has reached a growth plateau in recent years, with SEED programs in less than half of the U.S. states. We see financial constraints and fewer volunteers assuming the roles of coordinators and mentors as the major roadblocks to expansion.

Funding for student stipends comes from ACS member donations, the SEED endowment fund, the ACS Petroleum Research Fund, ACS local sections, and the ACS Matching Fund Program. For the program to grow, and for more students to be served, new funding sources must be identified.

As with funding, coordinators and mentors are vital to the future of the SEED Program. The SEED Committee plans to reach out to two groups not presently well represented in SEED activities, namely high school chemistry teachers and senior members of ACS. Recently, ACS past President Eli Pearce challenged ACS committees to identify roles for senior members of the Society for which they could offer both their experience and their time. Project SEED presents an ideal opportunity for them to serve the Society.

Perhaps the most rewarding role in any SEED program is that of the mentor. Generally an experienced researcher, a mentor has the rewarding and unique opportunity to mold young, eager, and talented high school students who may become our future chemists and chemical engineers. Many mentors see their own opportunities and obstacles reflected in these students. For many, it's a "give back" to persons who helped them along the way.

SEED is 35 years old and still going strong. The Project SEED Committee invites everyone to join in the celebration of past successes-and to insure the future success of SEED by becoming a donor, coordinator, or mentor. Together we can have a great impact on the world.

DR. MILAGROS DELGADO CHAIR, NATIONAL ACS COUNCIL COMMITTEE ON PROJECT SEED-

CHICAGO SECTION SLATE FOR 2003 BALLOT

The following slate was put together by the Nominating Committee for the upcoming 2003 Section Election. Ballots will be mailed shortly to all Section members.

CHAIR-ELECT Keith Kostecka Jack O'Neill

VICE-CHAIR **David Crumrine** Jennifer Horne

SECRETARY Mary Newberg Prabir Sen

TREASURER Margaret Stowell Levenberg Gayle O'Neill

DIRECTOR Allison Aldridge Jerry Brozek Tom Cullen Walter Eisenberg Nat Gilham Herb Golinkin Inessa Gorelik Jeff Jankowski Frank Jarzembowski Peter Lykos Christine Russell Awatif Soliman Ken Stagliano Robin Zavod

COUNCILOR Allison Aldridge **David Crumrine** Fran Kravitz Claude Lucchesi Marsha Phillips Darryl Prater Steve Sichak

ALTERNATE COUNCILOR Inara Brubaker Mark Cesa Herb Golinkin Susan Shih Fred Turner Michael Welsh

NEW CHEMISTRY EDUCATION MINOR

In the new edition of the ACS guidelines for ACS-approved programs, a new chemistry education minor was introduced. Also included were revised requirements for the chemistry education option. The new guidelines and application forms for the minor and the chemistry education option are now available from the Office of Professional Training by calling 202-872-4589 or emailing cpt@acs.org.

2003 SCHOLARSHIP EXAM RESULTS

The High School Education Committee of the Chicago Section ACS held its 49th Annual Scholarship Exam in Chemistry on May 3, 2003 at Loyola University. The chemical industry and individuals contributed funds. Contributors to the scholarship exam were: Akzo Nobel Corporation, Pharmacia, Baxter Healthcare Corp., Alltech Associates, Inc., and Rachel Smoler. Many thanks to the contributors and their generous donations.

Sixty-nine students were nominated to take the exam at Loyola University. Each high school chemistry teacher could nominate up to two students.

PRIZE	WINNER	SCHOOL & TEACHER
1 11126	<u> </u>	CONTOCE & TEACHER

FIRST

Justin Mann Najwa Dajani \$5,000 AWARD Niles North High School

SECOND

David Grimes Michael Heinz \$3,000 AWARD

THIRD

\$2,500 AWARD

Akzo Nobel Stephen DeVience Fran Pelrine Notre Dame High School for Boys

FOURTH

Robert Schmitt \$1,500 AWARD **Edward Tszeng** Naperville North High School

FIFTH

Jonathan Mindrum **Marlene Rubinow** \$1,250 PHARMACIA AWARD

Oak Park River Forest High School

Glenbard South High School

Lincoln Park High School

MARIE LISHKA * \$500 AWARD

Emily Dray Gillian Thomsen New Trier High School

MARSHALL S. SMOLER**

\$200 AWARD Simon Tanzman Mike Cipolla

BERNARD D. SCHAAR***

\$400 AWARD Simon Tanzman Mike Cipolla Lincoln Park High School

*To the highest scoring female in the examination.

**To the highest-scoring Chicago Public High School Student. Mr. Smoler's sister, Rachel, established this award in 1972 in memory of her brother, who was for many years a chemistry teacher in the Chicago public schools.

***To the highest scoring Chicago High School Student. Mr. Schaar's widow established this award in memory of Mr. Schaar, long-time active member of the Chicago Section and of the Chicago Chemists' Club. The award was presented to the student by the Chicago Chemists' Club.

HONORABLE MENTIONS LISTED IN ALPHABETICAL ORDER (These students were the next highest performers)

STUDENT **SCHOOL & TEACHER**

Deerfield High School (Walt Sawasko) Michael Bilow

Anne Borkowski Niles West High School (Ami LeFevre)

Glenbard South HS (Kenneth Artner) **Charles Bucheit**

College Prep of America (Parvez Ahmad) Samreen Choudhry

Anthony Ginocchio Loyola Academy (Walter Pape)

Andrew Hoffman U of C Lab School (Daniel McDonald)

Russell Jackson New Trier HS (Robert Koonz)

Glenbard South HS (Mike Heinz) Ryan Lanman

Loyola Academy (Walter Pape) New Trier HS (Kip Hendren) Jeff Martell **Blair Nathan**

(Continued to Page 11)

Amy Patel

Sam Raskin

Nathaniel Ross

Jonathan Shih

Mark Stankevits

David Yang

Jennifer Zhang

Niles North (Najwa Dajani)

Oak Park River Forest HS (Cheryl Rulis)

Fenwick HS (Ramzi Farran)

Naperville North (Jeff Martin)

Oak Park River Forest HS (Marlene Rubinow)

Naperville North HS (Robert Schmitt)

Naperville North HS (Jeff Martin)

The section is grateful to Dr. Daniel Graham from Loyola University for authoring and administering the examination. Dr. Graham has been a critical part of making this exam a success and encouraging studies in the chemistry field.

AMI LEFEVRE, HIGH SCHOOL EDUCATION COMMITTEE CHAIR

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
November 2003	9/26/03
December 2003	10/17/03
January 2004	11/28/03
February 2004	12/26/03
March 2004	1/16/04
April 2004	2/27/04
May 2004	3/26/04
June 2004	4/30/04
September 2004	7/16/04
October 2004	8/27/04
November 2004	9/24/04
December 2004	10/22/04

WOMEN IN SCIENCE FELLOWSHIPS

The L'OREAL-UNESCO for Women in Science US Fellowship Program will award five grants of \$20,000 each to third- and fourth-year graduate students and postdoctoral researchers who are pursuing studies and research in the Natural Sciences (biological and physical), Engineering, Computer Science and Mathematics.

Applications for 2004 fellowships must be submitted on or before Nov. 1, 2003. Awards will be announced in late March 2004. The Association for Women in Science will administer the schedule of payment to the fellows. Go to http://www.lorealusa.com/fwis/fwis_home.aspx

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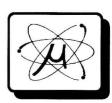
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CALENDAR

September 5-12, 2003: National Safety Council. 91st Safety Congress & Expo at the McCormick Place, Chicago. Includes 190 technical sessions and over 30 professional development seminars. Agenda and registration materials are located at http://www.nsc.com.

September 7-11, 2003: The 226th ACS National Meeting will be held in New York City. For further information, call the National ACS office at (800) 227-5558, go to www.chemistry.org. or send e-mail to natImtgs@acs.org.

September 9, 2003: Society of Cosmetic Chemists — Midwest Chapter meeting will be at the Café La Cave, Des Plaines, IL. The speaker is Loraine Harnish, who will talk on "Multi-Parametric Evaluation of the Benefits of Daily Cleaning Cloths". For details, go to www.midwestscc.org or contact Angela Tabor at atabor@stepan.com. (847) 784-2040.

September 10, 2003: The Chicago Chemists' Club will meet at the Noodles Restaurant in Glenview. This will be a wine tasting session. For reservations and further information, contact Judy Reuter at (847) 679-2444.

September 22-25, 2003: Chicago Chromatography Discussion Group's "28th Annual Introductory Course in Liquid Chromatography," at Roosevelt University, 1400 N. Roosevelt Blvd., Schaumburg. Cost is \$595. For a registration form, contact evalopez@teianalytical.com. For questions on course content, contact James Michels, (630) 305-2318 or go to http://www.ccdg.org.

September 26, 2003: The local chapter of the Analytical Laboratory Managers Association (ALMA) will have its next meeting at the BP Naperville Complex in Naperville, IL. Contact David McGregor of Stepan at dmcgregor@stepan.com or Dorothy Richmond of UOP at dorothy.richmond@uop.com for further information. (See article in this issue)

October 14-15, 2003: Micro/Nano Conference and Workshop will be held at Chicago's Navy Pier. For a conference program and registration information, contact Susan Beck at (630) 288-8494 or email her at sbeck@reedbusiness.com.

October 24, 2003: The joint meeting of Northwestern University Dept. of Chemistry and the Chicago Section American Chemical Society for the Basolo Medal Award lecture at Northwestern University, dinner and presentation at Kendall College. More information as the date approaches.

October 25, 2003: The Chicago Section will celebrate Chemistry Day. The National Chemistry Week theme is "Earth's Atmosphere and Beyond".

October 28-30, 2003: ASTM training course, Aviation Fuels: Specifications and Test Methods, will be given in Chicago. To register, contact Eileen Finn at (610) 832-9686, efinn@asom.org or via online at www.astm.org.

October 29-31, 2003: Analytical Laboratory Managers Association (ALMA) 24th Annual Conference will be held at the Sheraton Station Square, Pittsburgh, PA. The theme is "The Changing World and Challenges of the Analytical Organization and Scientist". For further information on the conference and its workshops, call (505) 989-4683, alma@labmanagers.org, or go to www.labmanagers.org. Advance registration deadline is September 26.

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