

theCHEMICALbulletin

JANUARY • 2000

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Regular Monthly Meeting

FRIDAY, JANUARY 21, 2000

AMBASSADOR BANQUET HALL
110 W. North Avenue
Elmhurst, IL

DIRECTIONS TO THE MEETING

From Downtown Chicago: Take Eisenhower Expressway (290)

West; exit at North Ave. westbound (exit 13B). Go west on North Ave. to the 3rd stoplight. The restaurant is located on the southwest corner of North Ave. and York Road.

From the West: Take I-88 east to 355 north to North Ave. Go east on North Ave. approximately 10 miles to York Road. The restaurant is located on the southwest corner of North Ave. and York Road.

FREE PARKING

TOPICAL GROUP **5:00 PM to
6:00 PM**

Elmhurst College Science Center
190 Prospect Avenue
Elmhurst, IL

DIRECTIONS

FROM CHICAGO: Take Interstate 290 west to St. Charles Road West and proceed to Prospect Avenue. Turn right on Prospect Avenue. The Science Center with parking is on the corner of Prospect and Church.

FROM THE SOUTH: Take Interstate 294 north to Interstate 290 West (to Rockford) and follow directions above.

FROM THE NORTH: Take Interstate 294 south to the exit marked "I-290 West/ U.S. 20-Lake/ Ill. 64- North Avenue". Exit immediately at "Ill 64- North Avenue" and proceed west approximately 1.5 miles to Maple Avenue. Turn left on Maple Avenue proceed across the tracks to the campus. (Maple Avenue becomes Prospect Avenue south of the tracks. The Sci-

ence Center with parking is on the corner of Prospect and Church.

Leanne de Muijnck, Research Manager, ADM Cocoa, Milwaukee, WI "Development of Color and Flavor in Cocoa. Taste Test - You Decide!"

Cocoa powders are used in a large variety of applications for its attractive flavor, and its coloring properties. Cocoa powders are available in colors ranging from light yellowish brown to dark red and very dark brown. This color development is achieved by the choice of cocoa beans, and a process called alkalization. The variation in flavor profiles for different types of cocoa powders is as wide as the color range. The flavor of the final cocoa powder depends upon the choice of beans, the alkalization process and the roasting parameters.

During her presentation, Leanne will explain the effects of the choice of beans and the various processing steps on color and flavor development. She will explain the chemical reactions that are involved, as far as known, and the components that are responsible for different notes in the flavor profile. The differences in color and flavor will be demonstrated with some chocolate samples.

The speaker was born and raised in The Netherlands. She received her MSc. degree in Food Chemistry at the Agricultural University of Wageningen, The Netherlands. She worked for three years in product development for a family owned company that produces chocolate spreads. In 1991 she started for ADM Cocoa, by then known as Grace Cocoa, in Koog a/d Zaan, The Netherlands. She worked at the Research and Application Departments. In 1996 she moved to Milwaukee, the USA chocolate division of ADM Cocoa, as research manager. Currently she combines Technical Services and Product Development for a certain territory with specific cocoa powder projects.

SOCIAL HOUR **6:00- 7:00 P.M.**

DINNER **7:00 P.M.**

Dinner reservations are required and should be received in the section office (847/647-8405) by noon on Tuesday, January, 18, 2000. Dinner cost is \$23.00 to Section members. Cost to non-Section members is \$25.00 Seating will be available for those who wish to attend the meeting without dinner.

(continued on page 2)

JOB CLUB

The next meeting of the Chicago Section Job Club will be held on Friday, January 21 at The Ambassador at 5 p.m. The Job Club provides a continuing opportunity for unemployed members of the Section to meet with one another, share their experiences and develop a network that may help in identifying employment opportunities. Bring plenty of resumes and business cards to distribute to your colleagues.

Should you wish to attend the Section meeting following the Job Club, the fee for unemployed members is only \$12, and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.

AVAILABLE NOW!

**REGISTER TO ATTEND
MONTHLY SECTION MEETINGS**

ON LINE

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

(continued from page 1)

PLEASE HONOR YOUR RESERVATIONS. The section must pay for all dinners ordered. No-shows will be billed.

The menu consists of Fruit Cup, Chef's tossed salad, roast sirloin, roasted chicken, homemade Italian sausage with mostaccioli, broccoli with Hollandaise, Greek oven-browned potatoes, rolls and butter, chocolate sundae, and beverage. A fish entrée (Orange roughy) is available upon request at the time of reservation.

GENERAL MEETING 8:00 P.M.

THE TOPIC:

John J. Parlow of Monsanto, "Polymer-Assisted Solution-Phase (PASP) Chemical Library Synthesis".

A convenient methodology for polymer-assisted solution-phase (PASP) chemical library synthesis and purification will be described. This approach applies fundamental properties of molecular recognition and/or molecular reactivity as the basis for a general purification strategy. Specifically, parallel solution-phase reactions are purified by the selective sequestration of reactants, byproducts, reagents, and catalysts by polymers containing complementary molecular recognition or molecular reactivity (CMR/R) functionality. When used in sequential or simultaneous combinations, various CMR/R polymers remove excess reactants, by-products, reagents, and reagent by-products from solution-phase reaction products, which are simply isolated in purified form by filtration. Where reactions involve the need to sequester byproducts or reagents that do not contain inherent, sequestrable functionality, sequestration can be effected by the design and use of tagged reactants or reagents containing artificially imparted molecular recognition functionality. An extension of the PASP methodology is the use of a 'sequestration enabling reagent' (SER) which transforms reactants/reagents that do not contain a sequestrable functionality into a chemically tagged species capable of sequestration. More recent applications of PASP methodology include the use of a resin system that conveniently allows for oxidation reactions using periodinane reagents to be performed in a parallel format and its use in the preparation of an alpha-ketoamide library.

The PASP library synthesis and purification paradigm is general and highly amenable to automation. Several directed small molecule libraries have been generated utilizing the PASP methodology with automated workstations. Specific examples of the PASP

strategy for library synthesis and product purification will be described.

John J. Parlow received his M.S. degree in synthetic organic chemistry in 1987 and his B.S. degree in chemistry in 1985, both from Miami University of Ohio. John joined the Monsanto Agricultural New Products Discovery Division in 1987 where he worked on the design and synthesis of small molecule inhibitors as herbicides and fungicides. In 1992, John was a founding member of the Combinatorial Chemistry effort within the Agricultural Division of Monsanto Corporation. His efforts in this endeavor were focused on solid and solution-phase organic synthesis of small molecule compound libraries resulting in the invention of Polymer-Assisted Solution-Phase (PASP) purification techniques and methodology. In 1996, he transferred to the Pharma sector of Monsanto Life Sciences to become a member of the Section of Medicinal and Combinatorial Chemistry within Searle Discovery Research. Mr. Parlow headed the Chemical Methodology Team advancing the development of solution-phase synthetic

methodologies. He is presently involved in parallel/combinatorial chemistry for the use of discovering biologically active molecules. John is heavily involved in chemical library purification strategies which utilize complementary-functionalized resins as a purification technique for solution-phase synthesis.

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"CHEM SHORTS" For Kids

The Elementary Education Committee 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 teachers. It is hoped that teachers will try to incorporate some of the projects in this column into their lesson plans.

"ChemShorts" are on the internet at: <http://membership.acs.org/C/Chicago/ChmShort/kidindex.html>

Kevlar: A Millennium Molecule

Kids, last month we learned about teflon and this month we'll learn about another amazing polymer (which is actually a really, really big molecule) called Kevlar. Kevlar is also called the "fabric of steel" because of its outstanding strength. Underwater, it is 20 times stronger than steel! Since its introduction in 1971 it has been used in bullet-proof vests and helmets, aircraft, sports equipment, gloves, boats, flight jackets, brake linings, windsurfing sails, cables, even as part of the Orbiter 3 balloon that circled the globe last March.

Last month we learned about polymers in general. Here you'll learn that the secret to the strength of Kevlar lies in something called hydrogen bonding. The long chains of kevlar polymer molecules are stacked like uncooked spaghetti in a box. But the attraction between hydrogen and oxygen atoms on chains next to each other (this is hydrogen bonding) is very strong, and it holds the chains solidly together. Imagine if you moistened the box of spaghetti just enough to make the strands stick together like glue. It is also a bit like the attractive force in static electricity where (a) electrons are relatively easy to remove from atoms and (b) some materials (or atoms) attract electrons better than others.

Here is an activity to mimic this bonding: tear off a strip of scotch tape (which is a plastic or polymer, by the way) about the length of your finger and fold a little bit of one end down so that it sticks to itself. Press it down on a desk top. Tear off another piece of tape, fold a tab as before, and press it down on top of the first piece with the little folded parts together. Rub the top piece several times so that they are well stuck together. Now peel them off together, grab the folded parts and quickly rip

them apart. Bring the two pieces slowly near each other, without touching. What happens? The pieces of tape should be attracted to each other because electrons moved toward one side of each tape, leaving the other sides deficient, and the opposite charges attracted.

Dr. Stephanie Kwolek was the chemist at DuPont who discovered the precise chemical concoction needed to prepare Kevlar into useful fibers for making things. At the time, DuPont was looking for a material to replace steel in radial tires (why do you think they would want to do this?). Dr. Kwolek's most satisfying reward for her work has been recognition by the Kevlar Survivors Club. These 2,300 members are police officers whose lives have been saved by wearing Kevlar armored vests. For lots more info about Kevlar please look at the references below.

References: "ChemMatters" 10/99, p. 7 by Peter Banks; American Chemical Society, Washington, DC; www.lbl.gov/MicroWorlds/Kevlar/KevlarIntro.html; look up "aramids" on www.psrc.usm.edu/macro/index.htm

KATHLEEN CARRADO
Elementary Education Committee.

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Analytical Laboratory Managers Association (ALMA) celebrates their 20th Conference at Argonne National Lab

The American Laboratory Managers Association (ALMA) met at Argonne National Lab to celebrate their 20th Conference. The first conference was held at Northwestern University at the Kellogg School of Management's Allen Center in 1980. Claude Lucchesi of Northwestern University chaired the first conference and was elected the first president.

This year, ALMA had a terrific conference in a beautiful setting at the Advanced Photon Source at the Argonne National Laboratory. The theme of the Conference was Measuring Performance and it involved the non-technical part of managing a lab—the human and behavioral aspects, such as customer satisfaction, staff satisfaction, and the perception of senior management. Other topics included benchmarking and communication between the lab and the business side of the company in terms that executives can understand. Cost and productivity and LIMS topics also were presented.

In addition to the Conference, three workshops were given: Managing the Chemical Analysis Support Laboratory (leader, C. Lucchesi), Design and Implementation of High Performance Work Teams (leader, A. Montana), and Quality Systems for the Laboratory: Fundamentals, Implementation, and Applications to Analytical and Quality Control (leader, A. Montana). Lucchesi also gave his workshop as an ACS Short Course for the ACS Division of Continuing Education (with a slightly different name).

In addition, Lucchesi received a Distinguished Service Award at the Conference "For Establishing and Maintaining an International Presence of ALMA." He is a co-founder of ALMA and the founding editor of "Managing the Modern Laboratory". Lucchesi is an emeritus member of the Department of Chemistry of Northwestern University.

With 20 years of observing lab managers and eight years of giving his workshops/Short Course, Lucchesi was gratified to see that finally analytical lab managers are able to focus on and appreciate the issues that have to do with people. They can see that quality is pleasing the customer. They are beginning to concentrate more on communicating the value of the problem

solving activities of the lab to customers and to senior management in terms of dollars and cents. The lessons of reengineering and downsizing have driven home that the analytical chemistry laboratory is an integral and vital part of the business.

Labs can no longer just "run samples." Lab managers must communicate their unique value-added activities to their customers and to top management. Quality is adding value to the customer!"

For more information about ALMA, see the ALMA web site at www.labmanagers.org or to contact ALMA by phone 505/989-4683 or by Email at p.a.m-jw@ix.netcom.com.

Claude Lucchesi

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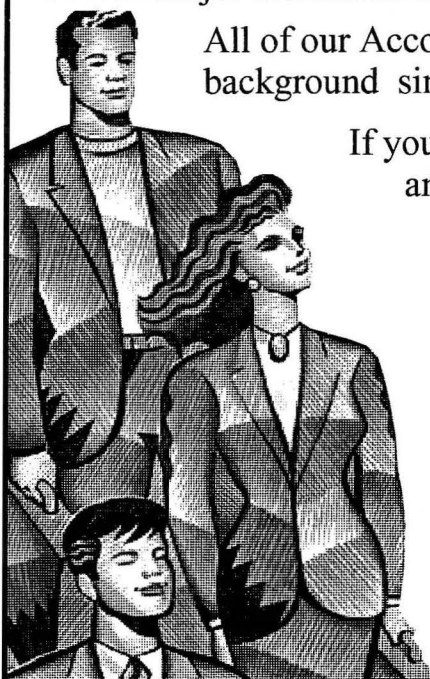
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"Give This to Your Boss"

Especially if you're reading this in print, I hope this column finds you relaxed and in a good mood after the holiday season, because I'm trying to jolt you back to reality. And yes, I do want you to give this memo to the boss, even if you must consider it a belated holiday gift.

The main issue to be discussed is what the ACS - and the Chicago Section - mean to you. There are some in ACS who believe that the only reason many belong to ACS is the ability to receive C&E News. Although this may well be a misinterpretation of a membership survey, the fact is that ACS governance at any level can only catch glimpses of what ACS means to its members.

One thing is fairly certain: where you live out your career as a chemist (it's more than a "job", isn't it?) has a large influence on the rest of your life, including your involvement with professional societies. Of course, other factors are very important including your education, exposure to mentoring, and the amount of free time that you're willing to volunteer.

For now, let's concentrate on the influence of the workplace. In the past, a significant plurality of employers of chemists - especially in the pharmaceutical industry -- paid their membership dues. However, nationally, this percentage is down to about 20%. A higher percentage of employers has permitted attendance at national meetings as well as reimbursing the expenses, and an even higher percentage has reimbursed for local activities. However, these perks also seem to be diminishing.

These policies have not been uniform even within companies that do reimburse. There is a definite "pecking order" on the value placed by organizations on the professional memberships of their employees. Dues are more likely to be paid for "expert" organizations like ASTM. National meeting attendance permission is often handed out as "good guy" plums and not necessarily to those who could benefit the most. Local section/chapter activities are often ignored and rarely encouraged. Even more benign organizations vary in their support of professional activities.

What can your national or local organization do for you, especially in times of stress? Not very much if you don't participate or keep open the lines of communication. Early in 1999, another round of professional layoffs hit many of our members. Many of us in local section leadership felt particularly helpless because we often didn't know you was involved or how to reach you (one disadvantage of using your company address as your society address).

What's a chemist to do? If your dues are paid, you may be more likely to value your membership less. I'd suggest concentrating on convincing your management that your activities in professional societies - especially ACS of course - is a win-win situation for all concerned. Hopefully, we're talking about careers here, and not just jobs, and these outside activities benefit both the member and the employer. Make it obvious that your activities are relevant and work on it continually. Work with other members both within and without your organization to enhance the experience for all concerned.

Such activities involve prolonged and continual cultivation. Bosses need to be continually reminded about the importance of many aspects of your career. Show them with information. As a long time employee, hardly ever an employer, I developed this maxim:

"Never make it easy for your boss to make an arbitrary decision not in your favor"

Show this column to your boss ...

BOB BUNTROCK
Chair, Chicago Section

Suggest Nominees For The National Medal Of Technology

All ACS members are invited by the Committee on Patents and Related Matters (CP&RM) to suggest possible candidates for nomination for the National Technology Medal. Funded by the United States Department of Commerce and established by the Stevenson-Wydler Innovation Act of 1980, the medal is awarded annually by the President along with the National Medal of Science. The National Medal of Technology may be awarded to individuals, groups, companies, or institutions within the United States for outstanding contributions to technology or for the promotion of the technological workforce. For further information and nomination materials search <http://www.ta.doc.gov/medal>, email d_fillinich@acs.org, or write to Debbie Fillinich, American Chemical Society, 1155 Sixteenth Street, NW, Washington, DC, 20036. Nomination documents can be sent to the CP&RM staff liaison, Debbie Fillinich, at the above address by February 1, 2000. CP&RM will consider nominations for the 2000 award during the March 2000 ACS national meeting in San Francisco, CA.

Dr. Zafra Lerman Receives White House Honors

Dr. Zafra Lerman, Distinguished Professor of Science and Public Policy and Head of the Science Institute at Columbia College, who has long been an active and involved member of the Chicago Section, was honored with a Presidential Award for "Excellence in Science, Mathematics and Engineering Mentoring" in a White House Ceremony on Monday, December 6. The awards go to individuals and institutions that have been exemplary in their encouragement of minorities, women, and persons with disabilities to pursue careers in scientific, engineering and technical fields.

This is the most recent in a long line of awards that she has received over the past few years. On November 17, she was honored by the Women's Bar Association of Illinois as a "Woman of Vision" in the field of education. In 1998, she received the Kilby Award for her work in defense of scientific freedom and her leadership in developing creative methods for teaching science to nonscientists. The award is named for Jack Kilby, one of the inventors of the microchip that made the revolution in computers possible. Also in 1998, she was honored with the Dreyfus Award of the American Chemical Society for "Encouraging Disadvantaged Students into Careers in the Chemical Sciences." Of course, I must mention that in 1997 she received the Chicago Section Public Affairs Award at a ceremony that attracted the largest attendance we have had at any of our meetings during the past five years.

I am sure that all members of the Section will join in offering our sincerest congratulations to Zafra for her outstanding achievements, and thank her for the recognition she has brought to her institution, her Section - and indeed - the Chicago area. Thank you Zafra.

Jim Shoffner
CoChair, Public Affairs Committee

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Lee Marek will be in Japan on the Japan Fulbright Memorial Fund Teacher Program [FMF]. It is a program designed to give teachers a better feel for Japan and it's culture- to help increase understanding between the peoples of Japan and the US. You spend time learning about their educational system and how it works. We will look at their teaching approaches, values in education, and customs. A number of school visits are planned. They will be presenting teachers with the opportunity to integrate international perspectives and methodologies into their curricula. We will spend time both in Tokyo and in a smaller city, in Lee's case Niihama, Ehime. They will also be traveling to Hiroshima.

Your Source For ACS Membership Information!

The Council Committee on Membership Affairs (MAC) is responsible for coordinating Society membership activities. To provide ACS members with a single place where they can find information about ACS membership and its benefits, the Committee has established a web site at <http://membership.acs.org/M/MAC/>. There you will find information about MAC activities and issues, work in progress, a committee roster (including contact information), and a "Talkback to MAC!" page, where you can provide direct feedback to MAC concerning membership issues that are under consideration or that ought to be under consideration. MAC welcomes your comments!



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Chicago Section Celebrates Chemistry Day

The Chicago Section ACS celebrated Chemistry Day on Saturday, November 6, 1999 at Chicago's Museum of Science and Industry (MSI). The all day event was sponsored by the Section and the Museum and cosponsored by AIChE, Alpha Chi Sigma, Chem West and Chemical Industries Council of Illinois. This year there were the traditional activities in expanded versions on three floors of the west wing of the museum. There were well over 1,000 participants with 100+ volunteers working along with exhibitors from industry and governmental agencies.

The hands-on contest/experiments were expanded from the basic 'pH is pHun' to pH testing on specially prepared indicator paper and a radial chromatography demonstration. There was extensive involvement in organizing, preparing and administering these tasks by teachers and students at various levels as well as mainly high school who had a very busy morning performing the experiments.

The 'pH is pHun' experiment was run by Angie Boerger, an instructor at Loyola University Chicago with the help of 6 or 7 student affiliates. They used filter paper that had been soaked in red cabbage juice and dried by students of Marsha Phillips of Faragut Academy in Chicago. The contesting students used plastic stirring straws to spot various buffers (pH 3, 5, 7, 9 etc) and a variety of household chemicals that they could find in their own homes. They then estimated the pH values from the buffer standards by comparing the colors.

Tim Thomas, another instructor from Loyola, ran the Radial Chromatography demonstration with the help of 6 undergraduate students. A 7 cm filter paper was spotted with several water soluble inks near a central hole of ca 0.3 cm. Then a short piece of filter paper was pushed through the hole so that it would extend down about 0.5 cm in one direction. These two pieces of paper were then placed on a wide bottle cap that contained about 5 cm³ of water. After waiting about 3 - 5 minutes, the colored spots moved from the center toward the edge of the circular filter. Those inks that had several dye components then displayed multiple spots or lines since the dyes migrated at different rates across the paper. Then each student had a radial chromatogram take home and to show their teacher.

In addition, the 750 that persevered with both experiments were rewarded

with NCW pencils and wallet periodic table cards. Concurrently, this year there was a poster contest that was organized by chemists from MediChem Research in Lemont, Illinois. The best poster produced was awarded a prize at the end of the day.

On stage the day started with a presentation, 'Is It Chemistry or Magic?' by Drs. Otis Rothenberger and James Webb of Illinois State University, Normal, Illinois. This very popular show was repeated at the end of the day as a finale.

The key note speakers this year were Alexander Ho, a Gold Medalist at the 1999 International Chemistry Olympiad and his chemistry teacher, Ann Levinson, from Niles West High School. They presented a talk about the tremendous effort required to make the Chemistry Olympiad Team. Levinson, the Chemistry Olympiad Coordinator for the Chicago Section discussed the administrative aspects of preparing for the Chemistry Olympiad. Ho talked about his experiences and stressed that, to be successful an individual must really want to participate in the Olympiad and must be committed to preparing for the exams. Representatives of MSI and the Chicago Section congratulated him on his accomplishments. The Chicago Section is very proud of Alex and presented him with a copy of the Handbook of Chemistry and Physics to use as he continues his studies at the University of Illinois in Chicago.

In keeping with this year's theme "Celebrating Polymers", Dr. Angela Zagala from Nalco Chemical Company, Naperville, Illinois, presented a talk on "Water Soluble Polymers". Dr. Zagala outlined the different types of polymers and invited members of the audience to participate as individual monomer units and then to form the various types of polymers including male and female homopolymers, a male-female block polymer and random male-female copolymer. She also provided examples of polymers used in our day to day lives. She highlighted some of her examples with demonstrations including the use of an anionic polymer for removal of coal dust from water and the use of superabsorbent polymer (crosslinked poly[sodium acrylate]) in baby diapers.

Other speakers spoke on topics that ranged from stellar nucleosynthesis to fighting crime with DNA.

The speakers topics were further exemplified by the all day long demonstrations by high school chemistry teachers from all over the area. The day long

exhibits also illustrated the reach of the chemical enterprise with samples, polymeric and otherwise, and information on use of chemistry in fields as diverse as forensics and cosmetics.

The importance of chemistry in public affairs was again featured in the Chicago Section Public Affairs Committee booth. For the second consecutive year, the committee used the occasion to acquaint the section members, students and the general public about science and public policy issues. Among the information items offered were many brochures and "Science in Focus" documents on Food Safety, Chemical Weapons, Weighing Threats to Life and Health and Endocrine Disruptors.

A leaflet describing the "Legislative Action Network" was handed out to ACS members in order to increase the number of section members participating in this worthwhile program. A fact sheet on R&D funding in Illinois was also distributed.

The ACS pamphlets on Global Warming and Acid Rain proved to be great favorites with the high school students who plan to use them to write class papers - thus happily and hopefully extending the experience of Chemistry Day into the school year and beyond.

The interest shown at the exhibits, demonstrations and stage presentations was boisterous and indicated that Chemistry Day was educational AND fun, or is pHun? It did make all the effort and work of the many volunteers, organizations and schools worthwhile.

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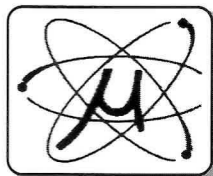
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Safety Committees

Although the concept of safety committees isn't new, many organizations have not embraced this practical resource. Safety committees not only help prevent accidents by enhancing compliance with rules and regulations but also by improving teamwork, productivity, communication and morale.

The return on investment from safety committee programs outweighs the initial costs and operating expenses. The greater productivity and fewer lost workdays contribute substantially to the bottom line. This addition to the bottom line comes from savings that accrue from a decrease in injury, illness and insurance rates.

Management, however, is responsible for safety and health and provides the necessary support for the safety committee. A successful safety committee functions as monitor, advisor, and technical resource. Safety committee programs work best where management recognizes the fact that responsibility for safety and health rest with management and not with the safety professional or with the safety committee. Safety, along with quality, profits and other aspects of success, reflects on management. Success then depends on management support.

Besides monetary savings, the Occupational Safety and Health Administration considers employee involvement a major component of successful safety programs. It appears that a well-run safety committee program helps meet the requirements of a proposed safety and health program rule, the Voluntary Protection Program and several individual OSHA standards.

In those organizations where sincere management support is demonstrated, safety committees are highly regarded. In fact, employees see participation as a privilege and not just another excuse to get out of work. Organizations show their support by providing the safety committee with the necessary funds, time and training to effectively carry out its mission.

Safety committees require time and effort to produce noticeable results. They must realize that their role is not one of safety cop. But instead, they are advisors to management in matters of safety and health. It's management that runs all facets of the organization and especially those in the area of safety and health.

Management ultimately needs to make the decisions! Therefore, management is responsible for all decision-making, i.e., the safety committee does not implement change! What then is the

primary purpose of any safety committee?

The overall function of any safety committee is to bring workers and managers together in a nonadversarial, cooperative atmosphere to routinely promote safety and health. Safety committees evaluate the adequacy of safety procedures by monitoring safety and health audits and trends; by reviewing accidents and illnesses and recommending solutions to abate hazards. Safety committees can perform these and other duties without becoming "safety police". They can do this by making recommendations to management for safety actions and by allowing management to maintain responsibility for enforcement. As mentioned above, they can audit jobs, provide training, publish safety and health newsletters, write and develop policies, and interpret regulations.

Organizations entrusting meaningful control of safety committees to employees, enjoy greater employee buy-in of the safety committee's efforts and the overall safety program. Greater buy-in improves communication, trust and teamwork. These all improve committee effectiveness, which then improves safety performance.

N.B. Employee participation programs, such as safety committees may be subject to federal, state and local guidelines or regulations. These should comply with the National Labor Relations Act.

Written safety committee programs keep them structured and organized. These written programs keep committee members focussed and provide measuring sticks useful in monitoring progress.

All business meetings require purpose, structure and direction to produce results. Productive safety meetings, however, rely on a delicate balance between control of the subject matter and relaxed participation. This balance allows for an open sharing of ideas and exchange of information while keeping order and professionalism. Planning meeting topics and adhering to an agenda provides focus and direction and prevents nonproductive debates. Predetermined meeting agendas encourage participants to come prepared.

According to Pat Senecal, co-author of *Safety Committees that Work!*, safety committee members need to feel like partners. They feel that way when there is fair conversation and agreement on purpose.

The National Safety Council offers this order of business for a safety committee meeting:

1. Record of attendance;
2. Approval of previous meeting minutes;
3. Consideration of unfinished business;
4. Review of recent accidents and/or near misses;
5. Report on special assignments or subcommittee work;
6. Report of inspections;
7. Progress report on safety programs;
8. Special features;
9. New business.

The most exciting conviction for an individual is to want a better future and go after it. Powerful safety committees provide its members with the opportunity to do just that.

Larry Berman
Steve Sichak
Co Chairs, Chemical Health and Safety Committee

THE 32ND GREAT LAKES REGIONAL MEETING, will be held at the Fargo Holiday Inn & Conference Center, June 4-7. the meeting will be hosted by the Red River Valley Section of the ACS, the Department Of Chemistry at North Dakota State University, and the Department Of Chemistry at the University Of North Dakota. Symposia and special sessions include: asymmetric synthesis for the 21st century, environmental analytical chemistry, new chemistry of the main group elements, biomolecular recognition, theoretical/computation chemistry, biochemical approaches to understanding physiological processes, agricultural and food chemistry, organic coatings and coatings materials for the 21st century, coatings of metals, communicating chemistry to the public, research at undergraduate institutions, and chemistry in K-12 education. Submit abstracts by March 1, 1999, to Harmon B. Abrahamson, Department of Chemistry, University of North Dakota, Grand Forks, ND 58202-9024, phone (701) 777-4427, fax (701) 777-2331, habraham@plains.nodak.edu. Additional information is available on the meeting website, <http://www.chem.ndsu.nodak.edu/glrm>

Engineers' Week 2000 - An Interactive Afternoon

Illinois Institute of Technology's Daniel F. and Ada L. Rice Campus will showcase the interactive and diverse world of engineering in its 16th annual DuPage Area Engineers' Week program on February 26, 2000.

The Saturday event, which will be open from 12 noon to 4 pm, will emphasize interactive displays and presentations including flight simulations, cryogenics-the "coolest science," Smart Cards, the Rube Goldberg contest, the Internet, and a ScavEngineer hunt.

The DuPage Area Engineers' Week program is held in conjunction with National Engineers' Week, February 20-26. The DuPage program, initiated by IIT's west suburban Rice Campus, is a joint effort among professional engineering societies, the two area national laboratories, businesses, educational institutions, and community organizations. The purpose is to communicate what engineering is and what engineers do, as well as to attract young people to careers in science, technology, and engineering.

IIT's Rice Campus is located at 201 East Loop Road, Wheaton. For more information on the DuPage program, call 630/682-6040 or visit the program's web site at <http://www.rice.iit.edu/engineersweek>

NOMINATIONS REQUESTED FOR THE NATIONAL INVENTORS HALL OF FAME

All ACS members are invited by the Society's Committee on Patents and Related Matters (CP&RM) to make suggestions to the Committee on possible candidates for induction into the National Inventors Hall of Fame. The inventor is not required to be a U.S. citizen, but the invention upon which the nomination is based must be covered by a U.S. patent. The invention must have contributed greatly to the national welfare and significantly promoted progress in science and the useful arts. Nomination documents can be obtained via the Internet at <http://invent.org/book/nomination.html> by email d_fillinich@acs.org, or write to Debbie Fillinich, American Chemical Society, 1155 Sixteenth Street, NW, Washington, DC, 20036. Nominations for the year 2000 will be accepted until February 1, 2000.

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OFFICE NOTES

The first few months as manager of the ACS office has been a learning experience. The main thing I have learned is that I need help. This month two new staff are joining TEI Analytical in the new Association Management Services division. Ellen J. Sullivan will serve as Vice President and Eva Lopez as Manager of Administrative Services. While I will still be involved with the Section operation, these two individuals have the background and experience to provide the support the Section deserves.

Ellen and Eva come to us from the national office of the Institute of Food Technologists (IFT), a 28,000-member nonprofit scientific society for food science and technology. Sullivan served as Director of IFT's Department of Science and Technology Projects. She brings extensive experience in project management, new program development, grant writing, media relations and government relations. For the next three months she will be with us on a part time basis because she currently oversees IFT's five-year contract with the FDA in which member panels provide review and analysis of topics in food safety, food processing and human health. Sullivan previously managed IFT's Food Science Communicator program, a national network of university-based food scientists who provide the scientific perspective on food issues to the news media. She has also coordinated the development of several IFT statements on food policy issues at the federal, state and local levels.

Eva Lopez joined IFT in 1998 and has served as administrative assistant, managing multiple membership databases, in both the Science Communications Department and the Department of Science and Technology Projects. Her previous experience in elementary education and museum administration will bring an added dimension to her work at TEI for the ACS and other technical societies.

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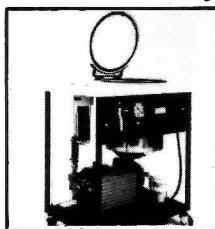
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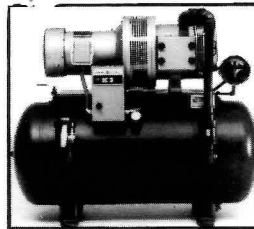
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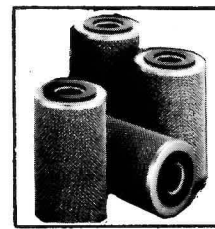
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CALENDAR

February 25, 2000. The Chicago Section American Chemical Society presents Chris Marshall on "New Support Materials for the Desulfurizations of Heavy Oils" to be held at the Diplomat in Elmhurst. For additional information call the Section Office at (847) 647-8405.

March 7-9, 2000. The ASTM Committee E-27 on Hazard Potential of Chemicals will meet at the Clarion Hotel in Mobile, AL. For more information contact Len Morrissey, ASTM at (610) 832-9730.

March 17, 2000. The Chicago Section American Chemical Society presents Public Affairs Night to be held at Como Inn in Chicago. The speaker will be Viscount David Samuel. For additional information call the Section Office at (847) 647-8405.

March 26-30, 2000. The 219th American Chemical Society National Meeting will be held in San Francisco, CA

March 26-31, 2000. Corrosion/2000, NACE's (National Association of Corrosion Engineers) 55th Annual Conference and Exhibition will be held in the Orange County Convention Center in Orlando, Florida. For more information contact NACE Membership Services Department at (281) 228-6223.

April 14, 2000. The Chicago Section American Chemical Society presents Peter Maul on "Nanocomposites" to be held at North Shore Holiday Inn in Skokie. For additional information call the Section Office at (847) 647-8405.

April 27-28, 2000. Professional and Analytical Consulting Services (PACS) will present a conference on Environmental Laws in Pittsburgh, PA. For more information contact Barbara Sherman, PACS at (724) 457-6576 or (800) 367-2587.

April 28-30, 2000. The ASTM Committee C-28 on Advanced Ceramics will meet in conjunction with the American Ceramic Society in St. Louis, MO. For more information contact Gloria Collins, ASTM at (610) 832-9715.

May 19, 2000. The Chicago Section American Chemical Society presents the Willard Gibbs Award Banquet to be held at Windows Restaurant in Skokie. For additional information call the Section Office at (847) 647-8405.

October 19-20, 2000. Professional and Analytical Consulting Services (PACS) will present a conference on Sampling, On-Site Analysis and Sample Preparation in Pittsburgh, PA. For more information contact Barbara Sherman, PACS at (724) 457-6576 or (800) 367-2587.

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