

The Chemical Bulletin

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OCTOBER • 2009

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Joint Meeting of the Northwestern University Department of Chemistry and the Chicago Section ACS

Basolo Medal Award Lecture, Dinner and Presentation

FRIDAY, OCTOBER 16, 2009

BASOLO MEDAL LECTURE
Northwestern University
Technological Institute
2145 Sheridan Road
Evanston, IL
Lecture Room 3

DIRECTIONS TO THE TECH INSTITUTE

From the city: Take Lake Shore Drive North to Sheridan Road into Evanston. Continue on Sheridan Road to the Tech Institute at Noyes Street.

From the west: Take I-88 east to I-294 north to Dempster east. Proceed east on Dempster into Evanston. Turn left onto Chicago Ave. and proceed to Sheridan Road. Take Sheridan Road north to the Tech Institute. The Technological Institute is at the intersection of Sheridan Road and Noyes Street in Evanston.

To those attending the Basolo Medal lecture, parking after 4:00 p.m. is available in the lot across from the Technological Institute at the corner of Noyes Street and Sheridan Road. Parking is also available on the side streets just west of this lot; however, observe the posted signs.

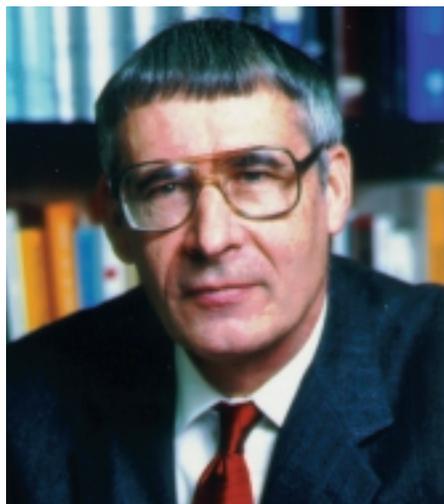
Lecture room 3 is on the first floor of the Technological Institute and is most easily reached by entering through the main doors facing Sheridan Road. The lecture room is clearly marked and there will be signs at the entrance to guide you to the room.

Basolo Medal Lecture: 4:30 P.M.
The Medalist Lecture is open to the public and admission is free to all those

wishing to attend.

A tour of Dearborn Observatory is available following the dinner. The observatory is located southeast of the Tech Institute.

2009 Fred Basolo Medalist



Dr. Peter J. Stang, Department of Chemistry, The University of Utah, Salt Lake City

Title: "Abiological Self-Assembly: Predesigned Metallacycles and Metallacycles via Coordination"

Abstract: The use of just two types of building blocks, linear and angular, in conjunction with symmetry considerations allows the rational design of a wide range of metallocyclic polygons and polyhedra via the coordination motif. We have used this approach to self-assemble a variety of 2D supramolecular polygons such as trian-

(continued on page 2)

Dinner Location

**Northwestern University
Scott Hall – Room 165
601 University Place
Evanston, IL 60208**

Scott Hall is located 4 blocks southwest of the Tech Institute. From Tech Institute, take Sheridan Road south pass Emerson St. Scott Hall is next to Cahn Auditorium.

Enter Scott at the south entrance.

Parking: There is no parking lot adjacent to Scott Hall. Parking is available near Pick-Staiger Concert Hall located on the same side of the street as Tech Institute but nearer the lake.

For a map of the campus and location of parking areas, see sections' website or go to <http://www.northwestern.edu/up/parking/maps.html>.

JOB CLUB will meet in Scott Hall at 5:30 p.m.

Reception for Dr. Peter Stang 6:15 P.M.

(continued on page 2, column 2)

NOTICE TO ILLINOIS TEACHERS

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

(continued from page 1)

gles, rectangles, squares, hexagons, etc. as well as a number of 3D supramolecular polyhedra: truncated tetrahedra, trigonal prisms, cuboctahedra and dodecahedra.

More recently we have functionalized these rigid supramolecular scaffolds with different electroactive, host-guest, dendritic, and hydrophobic/hydrophilic moieties and have investigated the properties of these multifunctionalized supramolecular species. Additionally, we have begun to explore the self-assembly of 2D polygons and 3D polyhedra on a variety of surfaces with the aim of developing their potential to be used in device settings.

These novel, supramolecular ensembles are characterized by physical and spectral means. The design strategy, formation, characterization and potential uses of these novel metallocyclic assemblies will be discussed, along with our recent results in crystal engineering.

Biography: Peter J. Stang was born in 1941 in Nürnberg, Germany, raised in Hungary until 1956, and educated in the USA. He earned a B.S. (Magna cum laude) from DePaul University in Chicago in 1963 and a Ph.D. degree from the University of California at Berkeley in 1966. After NIH postdoctoral work at Princeton, he joined the faculty at Utah in 1969 where, since 1992, he holds the rank of Distinguished Professor of Chemistry. He served as Department Chair from 1989-1995 and as Dean of the College of Science at Utah from 1997-2007.

Professor Stang is also a Senior Fellow, since 1991, at the Loker Hydrocarbon Research Institute at the University of Southern California and since 2004 he is an Honorary Professor of Chemistry at the Chinese Academy of Sciences, Institute of Chemistry (ICCAS) in Beijing, China, as well as Honorary Professor at Zhejiang University in Hanzhou, China.

In his 40 years in academia he has delivered hundreds of named lectures and invited lectures at both national and international institutions and conferences. He has served on numerous committees, advisory boards, board of directors and board of governors. He has been a Fulbright Fellow, a JSPS Fellow, a Lady Davis Visiting Professor, and an A.v. Humboldt Senior U.S. Scientist.

Stang is a member of the U.S. National Academy of Sciences, a Fellow of the American Academy of Arts

and Sciences, a foreign member of the Chinese Academy of Sciences and the Hungarian Academy of Sciences. He has received the ACS James Flack Norris Award in Physical-Organic Chemistry (1998); the ACS George A. Olah Award in Hydrocarbon or Petroleum Chemistry (2003); the Linus Pauling Medal (2006) and the ACS Award for Creative Research and Applications of Iodine Chemistry (2007). He holds Honorary Doctorates of Science (D.Sc. honoris causa) from both Moscow State University, Moscow, Russia, and the Russian Academy of Sciences (1992).

After serving as an Associate Editor of the *Journal of the American Chemical Society (JACS)* from 1982-1999 and Editor-in-Chief of the *Journal of Organometallic Chemistry (JOC)* from 2000-2001, Professor Stang has been the Editor of *JACS* since 2002. He has authored or co-authored over 400 scientific publications including two dozen widely cited reviews.

His early research involved unsaturated reactive intermediates like vinyl cations and unsaturated carbenes. More recently, he was involved in polyvalent iodine chemistry and in particular alkynyl iodonium salts and derived chemistry.

His current research is centered in the area of supramolecular chemistry and self-assembly, with primary emphasis on using the coordination based "directional bonding" paradigm to self-assemble and study pre-designed metallacycles and metallacycles such as cuboctahedra, dodecahedra etc. These systems are of significance in nanoscience and nanotechnology.

Besides chemistry he enjoys travel, classical music, gourmet food and wines.

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Complementary wine, soft drinks, and hors d'oeuvres

Dinner 7:15 P.M.
Dinner reservations are required and should be received in the Section Office via **phone** (847-391-9091), **email** (chicagoacs@ameritech.net) or **website** (<http://chicagoacs.org>) by noon on Tuesday October 13. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

The dinner cost is \$35 to Section members who have paid their local section dues, members' families, and visiting ACS members. The cost to members who have NOT paid their local section dues and to non-Section members is \$37. The cost to students and unem-

ployed members is \$20.

MENU: Potato Leek Soup; Roquefort & Pear Salad (Mixed greens with Roquefort blue cheese, honey-roasted pears, dried cranberries and toasted hazelnuts in vanilla hazelnut vinaigrette); Choice of entrée: Garden Vegetable Lasagna (fresh pasta layered with ricotta, mozzarella, sauteed spinach, zucchini, yellow squash, mushrooms and marinara sauce, Beef Tenderloin (served with mushroom au jus, potato gratin and French green beans), or Salmon Toscana (Grilled wild Scottish salmon served over panzanella salad of fresh tomatoes, cucumbers, croutons, basil and red onion, with a light herbed yogurt sauce); Dessert is chef's choice; beverage.

General Meeting: 8:30 P.M.

- Opening remarks and announcements: **Dr. Amber Arzadon**, Chair, Chicago Section American Chemical Society
- Presentation of the 2009 Basolo Medal: **Dr. Joseph Hupp**, Chair, Department of Chemistry, Northwestern University
- Acceptance: **Dr. Peter J. Stang**, 2009 Basolo Medalist for Outstanding Research in Inorganic Chemistry

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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 their science literacy. Please print it out and pass it on to your children, grandchildren, or elementary school teachers. It is hoped that teachers will incorporate some of the projects in this column into their lesson plans.

Trading Places – Liquid Magic

Kids, here is a chance to use the scientific idea of density and make a "magic trick". Take two glasses of different-colored liquids and watch the liquids switch places in the glasses!

For liquid materials, you need water and another liquid with a different density. If the liquids don't mix at all (such as water and oil), you will get a clearly-defined separation. If you use rubbing alcohol (isopropyl alcohol or isopropanol) or an alcoholic beverage (ethanol) with water then there will be some mixing and the separation won't be so clear. You'll also need two small identical glasses (shot glasses work well) and a thin waterproof card, such as a driver's license or a thick plastic playing card of some type.

Here is what you do:

1. Fill one glass completely full with water.
2. Fill the other glass completely full with the other liquid you selected.
3. Have an adult partner place the card over the water glass and, while holding the card onto the glass, flip the water glass over and set it and the card on top of the second glass. (Tip, you may want to be near a sink for any spillage).
4. Line the glasses up so that their rims are aligned and move the card so that there is just a tiny bit of open space at the edge of the glasses.
5. Over the next few minutes, the liquids will exchange places. The alcohol or oil will rise to the top while the water sinks and fills the bottom glass. You may want to tint the water or alcohol-based liquid with food coloring to aid in watching this.
6. If you use an alcohol, the separation isn't well-defined because both rubbing alcohol and alcoholic drinks are partially diluted with water already.

How it works:

You could do this as a magic trick but really it is simple science. The two liq-

uids have different densities and so the lighter liquid will float while the heavier liquid will sink. The result is the same if you remove the card entirely rather than a tiny bit, but a tiny bit makes it easier to observe the change as it slowly evolves.

Submitted by DR. KATHLEEN CARRADO

References: Dr. Anne Marie Helmenstine at <http://chemistry.about.com/od/chemistrymagic/a/liquid-science-magic-trick.htm>

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

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on Friday, **October 16 at 5:30 p.m. at Northwestern University - Scott Hall (Evanston, IL campus)**. The meeting will include a review and discussion of some of the 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 the kind of job you are seeking.

Several participants have received outsource help with resume preparation and marketing strategies to present their best attributes to prospective employers. The group has 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's dinner meeting following the Job Club, the cost is \$20 and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.

Also, the Chicago Section's website has a link to the Job Club's yahoo job forum group. If you can't attend the Job Club, you can still find out about job openings and other information.

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OUR FIRST ACS FELLOW

Congratulations to **Jim Shoffner** on being elected to the very first class of ACS Fellows! This special honor is to acknowledge his outstanding contributions to the American Chemical Society and for promoting chemistry as a science and profession.

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monthly meetings
www.ChicagoACS.org

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DUTIES OF SECTION COUNCILORS EXPLAINED

This is a reprint of an article appearing in the April 1997 issue of the Chemical Bulletin. The article is updated annually to help you with your decision in electing councilors and alternate councilors in the upcoming Chicago Section election. **Remember to cast your vote.**

Have you ever wondered who and what ACS councilors and alternate councilors are and what they do for you and the Chicago Section? The two major structural components of the Society besides your national officers and Board of Directors are local sections and divisions. ACS local sections and divisions not only elect their own officers, but also elect representatives to the ACS Council, the deliberative body of the Society. This is your opportunity to have a voice in Society's governance.

The Council consists of the President, the President-Elect, the Directors, the Past Presidents, the Executive Director, the Secretary, and more than 400 voting Councilors representing Local Sections and Divisions. The Council convenes twice a year at the Society's national meetings.

Councilors provide the principal contact between local section members and governance leaders in setting policies for the ACS that directly or indirectly affect you. Councilors are elected to serve a three-year term. Alternate Councilors represent the section when a Councilor is unable to attend a Council meeting.

Councilors also serve on National committees that meet during National meetings. Councilors are appointed to these committees by the President of the Society and are eligible to serve only three consecutive terms on the same committee. A councilor who accepts an appointment to a committee accepts an obligation to work year-round throughout that term. The Councilor is expected to attend meetings of the committee, and be willing to undertake special assignments that require time between meetings.

Committees of the Council are: 1) Standing Committees: Constitution and Bylaws, Divisional Activities, Local Section Activities, Meetings and Expositions, Membership Affairs, and Economic and Professional Affairs; 2) Society Committees: Budget and Finance, and Education; 3) Joint Board-Council Committees: Chemical Abstracts Service, Chemistry and Public Affairs, Chemists with Disabilities, Community Activities, Environmental Improvement, International Activities, Patents and Related matters, Professional Training,

Public Relations and Communications, Publications, Science, Minority Affairs, Chemical Safety, Women Chemists, and Younger Chemists; 4) Other Committees of the Council: Admissions, Analytical Reagents, Ethics, Nomenclature, Project SEED, and Technician Affairs; and 5) Elected Committees: Council Policy, Nominations and Elections, and Committee on Committees.

The Chicago Section is currently represented by 12 councilors elected by you. Most of these councilors are active members or associates on National ACS committees. Your Chicago Section Councilors and their current committee appointments are: **Cherlynlavaughn Bradley** (Committee on Committees), **Charles E. Cannon** (Economic and Professional Affairs), **Mark C. Cesa** (Science), **David S. Crumrine** (Chemical Safety), **Ken Fivizzani** (Chemical Safety), **Herbert Golinkin**, **Russell W. Johnson** (Chair, Public Relations and Communications; GLRM Co-chair), **Fran K. Kravitz** (Project SEED), **Milt Levenberg** (Public Relations and Communications), **Claude A. Lucchesi** (Chemistry and Public Affairs), **Barbara E. Moriarty** (Divisional Activities), and **Susan Shih** (Education; GLRM Co-chair).

Alternate Councilors for the Chicago Section are: **Amber Arzadon**, **Irene Cesa**, **Fran Clifton**, **Inessa Gorelik**, **Thomas Higgins**, (Minority Affairs) **Frank Jarzembowski**, **Keith Kosticka**, **Margaret S. Levenberg**, **Peter Lykos**, **Stan Seelig**, **Fred Turner**, **Paul Young**, **Robin Zavod**.

Some of our Councilors are also involved in other activities related to the National Meetings. **Claude Lucchesi** teaches a course entitled "Managing the Chemical Analysis Support Laboratory." **Cherlynlavaughn Bradley** chairs the Diversity subcommittee of the Committee on Committees and is a liaison to the Joint Subcommittee on Diversity. **Fran Kravitz**, **Charles Cannon**, and **Herb Golinkin** are career consultants who do resume reviews during each National meeting. **Fran Kravitz** and **Charles Cannon** are also career workshop instructors.

Some of our non-councilor section members are also involved in the National meetings. **Zafra Lerman** is a consultant and a subcommittee chair of the International Activities Committee.

Your Councilors and Alternate Councilors ask for your help, in providing your opinions about the Society and issues relating to the Society. This will help Councilors and alternate Councilors better represent you during Council.

CHERLYN BRADLEY

ACS AND ITS FIRST CLASS OF FELLOWS

ACS as a formal organization is now more than 125 years of age (133, to be exact). The Society has given awards for scientific achievement since 1923 (Priestley Medal) and past presidents are councilors for life, but we have seldom recognized members for a professional lifetime of "service to ACS," which is the best way I can describe the honor given to 160 members at the recent ACS National Meeting in Washington. Unfortunately, I am no longer a regular attendee at National Meeting as I have been for the past 35 years, so I was not there to receive the honor. Nevertheless, I am grateful that ACS colleagues saw fit to include me and recommend me for this recognition. The story and list of Fellows may be found in *Chemical & Engineering News (C&EN)*, July 27, p. 62.

This is the first time in nearly forty years that I failed to attend a single annual national meeting during the course of a year. I was a member of council, followed by the board of directors for a total of 30 years; so I have been a part of society business for many years. It so happens that during this year, I received two awards for service, neither of which I was able to accept because of my meeting absences.

In addition to the service award mentioned above, I was presented an award in absentia at the board meeting in Salt Lake City. The purpose was to honor all ACS members who serve as representatives to those societies which are primarily composed of racial and ethnic chemists. I have attended the NOBCCHE* National Meeting several times on behalf of ACS and I received a certificate for that, along with all of the representatives who represented ACS at the national meetings of other groups. The event was mentioned in a *C&EN* story from the convention, March 30, 2009, p. 6.

My heartfelt thanks to the Society for these recognitions.

JIM SHOFFNER

*NOBCCHE = National Organization of Black Chemists and Chemical Engineers

HAVE YOU MAILED YOUR BALLOT?

Just a reminder that ballots are due in the Section office no later than noon, October 16. They were mailed early September.

ILLINOIS STATE FAIR PROJECT A SUCCESS!

We had another great success with the joint project at the Illinois State Fair August 14-23. This was our fifth year of having a tent there. There were 38 volunteers covering the time from the pre-Fair tent set-up through the actual 10 days of the Fair. Planning Committee and tent volunteers included members of six of the Illinois sections (Chicago, Decatur-Springfield, East Central Illinois, Heartland, Illinois-Iowa, Mark Twain).

This time at the Fair was the time of the storms which caused us to close down the tent three times. While it was hot during the first days, it did cool off after the storms. Moreover, the general economy is believed to have affected Fair attendance. In spite of all these things, we saw over 11,500 people come through the tent during the Fair to enjoy the science demos, science toys and activities for kids, and the give-aways.

This time we distributed wooden rulers and hand fans imprinted with the project's website as the main give-aways throughout each day. Still a popular item for the teachers, a plush toy mole was given each day to the first teacher that signed in to receive a special teacher's bag. We also had three computers set up, one with the science quiz, one for teacher registration, and one for the visitor's survey.

A big thank-you to our section's volunteers who worked diligently this summer to again make our "chemistry tent" project a real attraction at the State Fair.

Our Chicago Section's volunteers this year were Amber Arzadon, Cherlyn Bradley, Charles Cannon, Chantel Kamm, Ken Fivizzani, Fran Kravitz, Milt Levenberg, Margy Levenberg, Avrom Litin, Sheher Moshin and son, Mary Newberg, Steve Newberg, and three students from Northwestern: Shelby Hatch, Ben Levinso, and Alyssa Stockdale.

Also, a big thank-you to all our sponsors this year: Chicago section, East Central Illinois section, Rock River section, Ingredient Source Corp., NorthStar Credit Union, Northrup RTS. Contributors of materials and/or talent included Avrom Litin, BP Volunteers-Naperville chapter, Continental Cement, Dan Edelman and Fran Kravitz, Flinn Scientific, Fisher Scientific, AAAS, United Soybean Board, IL. Dept. of Natural Resources, Illinois State University-Dept. of Chemistry, ACS Committee on Chemical Safety, John Burke, Richard Cornell, ACS National.

We are already planning for next year. The planning committee's wrap-up meeting will be scheduled before the end of the year.

For further information about this project, including a description of some of the demonstrations, go to <http://memberships.acs.org/c/chicago/statefair/index.html>

FRAN KRAVITZ AND CHERLYN
BRADLEY
CO-CHAIRS, IL STATE FAIR CO-OP
PROJECT

REPORT OF COUNCIL MEETING HELD IN WASHINGTON, DC

The 238th National Meeting of the ACS was held in Washington, DC from August 16-20, 2009. At the Council meeting, the Chicago section was represented by eleven councilors and one alternate councilor. Agenda items covered included finances, governance, petitions, divisional activities and local section activities. **The Chicago section won a Chemluminary Award for Outstanding Continuing Public Relations Program for our three primary thrusts: information delivery via our web site, electronic communication with members and collaboration with other organizations on activities.**



**Susan Shih and Russ Johnson
accepting the Chicago section's
Chemluminary Award from ACS
President Tom Lane**

The full Council report was written by Barb Moriarty and is posted on our website www.chicagoacs.org.

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Collectively, the four Directors of Primagy Consultants have over 100 years experience in the chemical and lubricant industries. They all began as chemists, but branched out into marketing, health and safety, laboratory management, and quality auditing.

David Lindsay is CEO and founder of Primagy. He started off in the paint industry with Imperial Chemical Industries (ICI) before joining D. A. Stuart, a leading supplier of specialty lubricants. He has been a technical director and most recently, a marketing manager for automotive, hydraulics and metalworking fluids.

Paula Vettel started with Amoco Petroleum Additives, undertaking crankcase additive and formulation development. She joined D. A. Stuart and has formulated gear oils and limited-slip additives, hydraulics, and general industrial lubricants. She has also been an ISO 9000-TS 16949 auditor for 10 years.

John Howell spent most of his career at Castrol Industrial working in all aspects of metalworking fluid development and management before becoming a consultant at D.A. Stuart. He is widely known in the industry for his knowledge of environmental, health, and safety issues. He is chair of ASTM Committee E34 on Occupational Health and Safety.

Lisa Gianino started with Castrol, moving to D.A. Stuart to become a marketing manager for metalworking fluids. She is a pricing specialist and has extensive experience integrating new software systems (ERP) into marketing and sales.

So what can Primagy do for you? Just about any project that involves marketing communications, pricing, health and safety regulations, pre-manufacture notification (PMN) filing, quality auditing, or "intellectual prospecting" at industry meetings or trade shows.

And with Primagy on your side, you can put out the fires for good. See our ad on page 7.

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!

THE UN-COMFORT ZONE WITH ROBERT WILSON

The Main Ingredient

In 1907, during a major league baseball game, second base was stolen 13 times by the winning team. The catcher for the losing team, Branch Rickey, was unable to pick off even a single runner. That record stands to this day. It also spelled the end of Rickey's career as a baseball player after just two short seasons. With nothing else to do, he went to college and law school.

Six years later, he returned to major league baseball. This time as a manager – and what a manager he turned out to be! He created the modern baseball farm system which enables major league teams to nurture and develop future stars through their minor league teams. He was the first to establish a permanent spring training facility in Florida. He changed the way statistical analysis is used in baseball by proving that on-base percentage is more important than batting average. Branch Rickey is best known, however, for breaking the color barrier by bringing African-American Jackie Robinson into the major leagues. It earned him a spot in the Baseball Hall of Fame.

Rickey offers this as his recipe for success, "Success is where preparation meets opportunity." A simple formula that reminds me of the old joke: "How do you get to Carnegie Hall?" The answer: "Practice. Practice. Practice." Obviously, you can't take advantage of an opportunity if you don't have the skills. It's a good recipe for success, but it doesn't reveal the secret main ingredient.

A funny old song from Frank Sinatra gets us little closer to the answer. Do you remember these lyrics from High Hopes?

*Just what makes that little old ant
Think he'll move that rubber tree plant
Anyone knows an ant, can't
Move a rubber tree plant!*

I love that song because a stanza later we learn the ant CAN: "Oops there goes another rubber tree plant." Is having "high hopes" the secret ingredient? No, but it gets us closer to it. You see, the ant succeeds because he doesn't know that he can fail.

Think about some of the people you know who are successful. What is it that makes them big achievers? What traits do you associate with them?

When I ask this question of my audiences I frequently hear the following ingredients: Courage, Perseverance,

Enthusiasm, Discipline, Confidence, Decisiveness, Self-reliance, Responsibility, Focus, Ambition, and Optimism.

All of these are certainly traits of successful people, but which one is the overriding characteristic? Which one is the main ingredient?

None of the above!

That's right – none! Yes, they are all important, but there is one ingredient that makes the cake, and that is simply your belief that you will succeed. It's called Self-Efficacy. Your belief in your ability to achieve what you seek is the biggest part of actually getting there. The best part is that self-efficacy is a trait that can be acquired at any age.

We acquire a sense self-efficacy in four ways. The first way is cumulative. With each success we achieve we add a new layer of confidence in ourselves. The second way is through observation. When we see someone similar to ourselves succeed, we realize that we can too. The third way is controlled by our attitude. A positive attitude enhances our belief in our abilities whereas a negative one destroys it. The fourth way is from the encouragement of others who believe in our ability to succeed. This is where you as an effective manager can help your people succeed. Tell them that you believe they can meet their goals and you will help them believe it too.

--

Robert Evans Wilson, Jr. is a motivational speaker and humorist. He works with companies that want to be more competitive and with people who want to think like innovators. For more information on Robert's programs please visit www.jumpstartyourmeeting.com.

OCTOBER HISTORICAL EVENTS IN CHEMISTRY

October 1, 1940 Air Products and Chemicals, Inc. was incorporated.

October 3, 1904 Charles J. Pedersen, who found that alkali metal ions could be bound by crown ethers in a rigid layered structure, was born. In 1987, he shared the Nobel Prize in Chemistry with Jean-Marie Lehn and Donald J. Cram for their development and use of molecules with structure-specific interactions of high selectivity.

October 4, 1918 Kenichi Fukui, who developed the frontier orbital theory of reactivity, was born. He shared the Nobel Prize with Roald Hoffmann in

1981 for their theories, developed independently, concerning the course of chemical reactions.

October 6, 1897 Florence B. Seibert, who studied the biochemistry of tuberculosis and was awarded the Garvin Medal in 1942, was born.

October 8, 1918 Jens C. Skou, who discovered the enzyme that promotes directed (vectored) transport of substances through cell membrane, was born. He received the Nobel Prize (1997) for the first discovery of an ion-transporting enzyme, Na⁺, K⁺ - ATPase, with P. D. Boyer and J. Walker for elucidation of the enzymatic mechanism underlying the synthesis of adenosine triphosphate (ATP).

October 11, 1884 Frederich Bergius, a researcher of chemical reactions at high pressure, conversion of coal into oil, and hydrolysis of wood to sugar and cattle feed, was born. He shared the Nobel Prize in Chemistry in 1931 with Carl Bosch in recognition of their contributions to the invention and development of chemical high-pressure methods.

October 14, 1886 Jacobus H. Van't Hoff presented the law showing that osmotic pressure of a dilute solution obeys Boyle's, Charles's & Avogadro's Laws, and that $pV = nRT$ before Swedish Academy of Sciences.

October 17, 1890 Unocal was incorporated as Union Oil Co. of California.

October 23, Any Year Mole Day, 6.02 a.m. through 6.02 p.m. (Mole time); Mole Moment: 50.453 secs after 6.42 p.m.

October 30, 1895 Dickinson W. Richards, Jr., who made the first clinical use of cardiac catheterization, was born. He shared the Nobel Prize in Physiology or Medicine in 1956 with André Frédéric Cournand and Werner Forssmann for their discoveries concerning heart catheterization and pathological changes in the circulatory system.

LEOPOLD MAY
Professor Emeritus of Chemistry
The Catholic University of America
Washington, DC

Additional historical events can be found at Dr. May's website, <http://faculty.cua.edu/may/Chemistrycalendar.htm> or the This Week in Chemical History at the ACS website: <http://www.acs.org/whatischemistry>.

BASOLO MEDAL

The Fred Basolo Medal is given for outstanding research in Inorganic Chemistry. It was established by the former students of Dr. Fred Basolo in appreciation of his contributions to inorganic chemistry at Northwestern University. Basolo arrived at Northwestern in 1946 and was able to help make the Department of Chemistry one of the very best in inorganic chemistry in the U.S., a position it still maintains today.

Basolo, who passed away in 2007, was internationally recognized for his original contributions to the syntheses and reaction mechanisms of transition-metal Werner complexes. He also did innovative work in the developing fields of organometallic and bioinorganic chemistry.

Many of his former students occupy prominent academic and industrial positions. He influenced students worldwide to study inorganic chemistry and received the 1992 ACS Pimental Award in Chemical Education.

Among his numerous awards were the 1996 Chicago Section Willard Gibbs Medal and the ACS 2001 Priestly Medal. As part of his huge contribution to chemistry, Fred Basolo served on numerous ACS editorial boards, launched the ACS journal *Inorganic Chemistry* in 1962 and held various ACS offices. He was elected to and served as National ACS President in 1983. For further information see www.fredbasolo.com. The ACS Chicago Section is proud to have had Fred Basolo as a member.

Previous Basolo Medalists:

Ralph G. Pearson	1991
Henry Taube	1992
Jack Halpern	1993
Harry Gray	1994
Lawrence Dahl	1995
Richard H. Holm	1996
Kenneth N. Raymond	1997
Malcolm Green	1998
Thomas J. Meyer	1999
James P. Collman	2000
M. Frederick Hawthorne	2001
Stephen J. Lippard	2002
Daryle H. Busch	2003
Malcolm H. Chisholm	2004
John E. Bercaw	2005
Ivano Bertini	2006
Richard R. Schrock	2007
Robert H. Grubbs	2008

ACS Vision - "Improving people's lives through the transforming power of chemistry"

CHEMISTRY DAY 2009 SATURDAY, OCTOBER 24 DePaul University

Please join us!

The ACS Chicago Section invites all local ACS members to join in the celebration of National Chemistry Week by volunteering to participate in Chemistry Day on Saturday, October 24, 2009, at DePaul University.

Chemistry Day is an annual, day-long event open to all students ages 10–18. It is always an exciting and popular event – last year more than 900 local students attended our Chemistry Day celebration! Students and groups or students are accompanied by their parents, teachers, scout leaders, and other community leaders. The event features hands-on chemistry and science activities, chemistry demonstrations, lecture presentations, exhibits from local industry, colleges, and government, workshops for high school teachers, and a Boy Scout merit badge program.

We need your help! We invite you to share your love for chemistry by meeting and greeting participants, supervising hands-on lab activities with students, sharing exhibit materials, performing demonstrations, etc.

The theme of National Chemistry Week for 2009 is "Chemistry – It's Elemental," in recognition of the 140th anniversary of Mendeleev's publication of his periodic table of the elements. There will be element discovery activities featuring spectroscopes and electrochemistry, novel 3-D periodic table building activities, element showcases, and much more.

We hope you will join us! Please e-mail Irene Cesa, Chair of the Community Affairs Committee, at icesa@flinnsci.com to find out what you can do to make Chemistry Day a success.

COMMEMORATIVE STAMP FOR 2011

The ACS is working to urge the United States Postal Service to adopt chemistry as a theme for a commemorative stamp in 2011 in view of the contributions of chemistry to the well-being of humankind in the U.S. and worldwide and on the occasion of the 2011 International Year of Chemistry. The USPS gets 50,000 subject requests per year and awards only 25 commemorative stamps per year.

Members can help the ACS in this effort by visiting www.acs.org/iyc2011 to download the petition asking the USPS to issue the stamp and by distributing the petition among colleagues, students, and friends. Please mail or FAX completed petitions to the ACS Office of International Activities no later than November 1. (See petition for fax number and address.)

WHAT IS A VOLUNTEER WORTH?

Nearly 62 million Americans do volunteer work:

Annual hours volunteered - 8 billion

Value of Volunteer time - \$162 billion

Hourly value of Volunteer time - \$20.25

Source: Corporation for National and Community Service, based on census data; Independent Sector

By Anne R. Carey and Sam Ward, *USA Today*, 2009

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SILVERMAN RECEIVES PERKIN MEDAL

The Society of Chemical Industry (SCI), America Section, awarded the SCI Perkin Medal to **Richard B. Silverman**, the John Evans Professor of Chemistry at Northwestern University. He was presented the medal at the Perkin Medal dinner, now in its 103rd year, during Innovation Day 2009 at Chemical Heritage Foundation (CHF) in Philadelphia on September 15th.

Innovation Day gathers more than 200 scientific leaders from the chemical and molecular science industries to discuss cutting edge research.

Silverman is being awarded the SCI Perkin Medal for his development of the drug Lyrica, which is used to treat epilepsy, neuropathic pain, and fibromyalgia. His work studying enzymes and how they assemble proteins, hormones, and other molecules led not only to Lyrica, but to a better understanding of how enzymes are responsible for the synthesis and degradation of the important neurotransmitters gamma-aminobutyric acid and glutamate.

"Richard is the kind of person who translates innovative research into products that change people's lives," said Andrew Liveris, SCI Chairman and the President, CEO, and Chairman of the Board of the Dow Chemical Company. "Richard and Lyrica have made all the difference in the world for people suffering from some really debilitating conditions."

About the SCI Perkin Medal -- The award is recognized as the highest honor given for outstanding work in applied chemistry in the United States. It commemorates the discovery of the first synthetic dye (the so-called Perkin mauve) by Sir William Henry Perkin in 1856. This discovery was a significant step forward in organic chemistry that led to the birth of a major segment of the chemical industry.

The Perkin Medal was first awarded to Sir William at a banquet held by the SCI in New York in 1906. Since then, more than 90 such awards have been given to notable scientists.

About the Society of Chemical Industry -- The Society of Chemical Industry is an international forum where science meets business on independent and impartial ground. SCI offers information-sharing from food and agriculture, pharmaceuticals, bio-technology, energy, to environmental science and safety.

About the Chemical Heritage Foun-

ation --

The Chemical Heritage Foundation (CHF) is a library, museum, and center for scholars. Located in Philadelphia, CHF maintains world-class collections, including instruments and apparatus, rare books, fine art, and the personal papers of prominent scientists, all related to the story of chemistry.

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

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NEW ACS PROFESSIONAL EDUCATION WEB SITE

Finding the training you need shouldn't be hard, so the ACS Office of Professional Education has dramatically revamped its web site and registration system -- you'll be able to find the courses you're looking for easily on the new site at <http://www.proed.acs.org>. You can now search our short courses, web-cast courses, and ProSpectives Conferences by topic area, date, or location, and even browse our full instructor list. We are continuously investing in new course development, so if you don't see what you're looking for, just drop us a line at shortcourses@acs.org, and we'll do our best to serve your technical training needs.

CONTACT THE CHAIR

Do you have any questions, suggestions, ideas, gripes, or complaints relating to the Chicago Section? Do you want to volunteer, help out, or lend a hand with Section programs or activities? Then contact your Chair. Simply log onto the Section's Web Page at <http://chicagoacs.org>, click on the "Contact Us" tab, look for "Contact the Chair" a little way down the page, click on it, and send me an e-mail. If I can answer your query, I will respond personally. If I can't, I will forward your e-mail to someone who can, or try to provide you with a contact -- all in a timely manner. The Section belongs to you and the other 4,600 ACS members who reside in the Chicago area (northeast Illinois and northwest Indiana). Only you can make it work for you by being involved. But you can also make it fail by not being involved. I look forward to hearing from you.

AMBER ARZADON
CHICAGO SECTION CHAIR

ARE YOU UNEMPLOYED?

Are you seeking a better job? Are you looking to improve your career? The place to start is with your resume. That is the single tool that will get you an interview, illustrate your professional strengths, and show how you can improve your importance to your employer.

You can get help improving your resume through the Career Consultants. These are volunteers trained by the American Chemical Society to assist its members with writing resumes, contacting prospective employers, and providing tips on interviews.

There are several Career Consultants in the Chicago Section who are willing to meet with you and help improve your resume. Simply call the Section office at 847-391-9091 and set up an appointment. Fifteen to thirty-minute sessions will be arranged at our monthly meetings. Should you require more time arrangements can be made with your consultant to continue discussions by telephone, by e-mail or by additional face-to-face sessions. You also can attend the Section's Job Club where you can network with other people having similar concerns.

We are here to help. All you need to do is pick up the telephone and bring copies of your resume to the next monthly meeting.

Graduate Credit for ACCA Lecture Series by Olivet Nazarene University

Once again this year Olivet Nazarene University is offering graduate credit for the lecture series sponsored by the Chemistry Division of the Associated Colleges of the Chicago Area (ACCA). This year the topic is spectroscopy, and all sessions will be held at McCrone Associates, Inc., 850 Pasquinelli Drive, Westmont, IL 60559, on Tuesday nights, 7:00-8:45 PM, on the dates listed below:

Date	Speaker	Affiliation	Topic Area
Sept. 29	Stephen McKenna	INEOS Technologies	NMR
Oct. 6	Gretchen Shearer	McCrone Associates, Inc.	Infrared and Raman
Oct. 13	Philip McKittrick Kirk Ashline	Nalco, Inc. Baxter, Inc.	Industrial Spectroscopy
Oct. 20	Matt Newville	Argonne National Lab	Advanced Photon Source
Oct. 27	Cynthia Bosnak	Perkin-Elmer	Atomic Spectroscopy
Nov. 3	Juanita C. Sharpe	Chicago State Univ.	Biological/Fluorescence
Nov. 10	Francesca Casadio	Art Institute of Chicago	Conservation/Art
Nov. 17	Summary/Question/Answer/Tour of McCrone		

In most cases, the "Topic Area" column may not be the exactly worded title, but rather the general area of each presentation. If necessary, certain modifications in the above schedule might be made later.

Although people are welcome to attend whether wanting graduate credit or not, those wanting graduate credit (or having questions about graduate credit) should contact Dr. Douglas Armstrong, Olivet Nazarene University, 815-939-5393, or via e-mail: darmstrg@olivet.edu

DOES ACS HAVE YOUR CURRENT CONTACT INFORMATION?

It is extremely important to keep ACS informed of your current contact information. If you have had a change in your address, phone number, or email address, please contact ACS to update your information. In addition to your old and new contact information, include your membership ID, which is the 8-digit number in the upper left hand corner of the *C&E News* address label when you correspond with ACS.

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The Chemical Bulletin Advertising Rate Schedule

The official newsletter of the Chicago Section American Chemical Society, *The Chemical Bulletin*, publishes news and information of interest to the Section's 4,600 members, who are professional chemists and others in related professions in industry, academia and government throughout greater Chicago.

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Full Page	7.5" wide x 10" depth	\$700
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1/2 Column	2.333" wide x 5" depth	\$190
Business Card	3.5" wide x 2" depth	\$95

We accept ads sent in jpg, tif, or quark formats. For more information, contact chicagoacs@ameritech.net or call 847-391-9091.

RECOMMENDATIONS FOR SHARED GOGGLE CLEANING

Introduction

Chemical safety goggles are often a shared commodity in secondary schools and in various programs such as the American Chemical Society's Kids in Chemistry and National Chemistry Week activities. Teachers and parents of children participating in school and other chemistry-related activities may be concerned with disease transmission associated with the reuse of protective chemical goggles.

The Safe Practices Subcommittee of the American Chemical Society's Committee on Chemical Safety (CCS) was asked to investigate and make recommendations regarding cleaning goggles for reuse.

The successful transmission of disease requires a number of factors to simultaneously occur¹:

- The presence of a pathogen that is virulent enough to cause disease.
- The concentration of the pathogen must be high enough to cause an infectious dose.
- There must be a transmission method from the environment to the host.
- The pathogen must enter the correct portal to the host.
- The host must be susceptible to the disease pathogen.
- The pathogen must be "strong" enough to overcome environmental stressors so as to remain active.

The first five bullet points above are sometimes referred to as the "chain of infection." The absence of any of these factors will prevent an infection.

The 5th edition of the Centers for Disease Control and Prevention (CDC)/National Institutes of Health (NIH)'s Biosafety in Microbiological and Biomedical Laboratories states:

"To accomplish successful transmission [of disease] from an environmental source, all of these requirements for the "chain of infection" must be present. The absence of any one element will prevent transmission....Reduction of environmental microbial contamination by conventional cleaning methods is often enough to prevent environmentally mediated transmission."

Recommendations

After use, shared goggles, including the straps should be thoroughly washed in

warm water containing a high-quality dishwashing detergent, thoroughly rinsed with fresh water and allowed to dry before the next use. This procedure should be sufficient to prevent environmentally transmitted disease.

According to the CDC, the washing protocol should provide adequate protection against common head lice (Pediculus). More information on the preventing the transmission of head lice can be found at <http://www.cdc.gov/lice/head/prevent.html> (accessed 4/25/09).

References Consulted

1. Biosafety in Microbiological and Biomedical Laboratories, 5th ed. United States Health and Human Services, Public Health Service, Centers for Disease Control and Prevention/National Institutes of Health, 2007. Appendix B. (This reference is available online at: <http://www.cdc.gov/OD/ohs/biosfty/bmb15/bmb15toc.htm>, accessed 4/25/2009).

JOINT ACS BOARD-COUNCIL COMMITTEE ON CHEMICAL SAFETY
June 1, 2009

Green Chemistry

Interested in green chemistry?

Subscribe to the Green Chemistry Program electronic newsletter, by sending a blank email to lyris@lists.epa.gov with the subject line "subscribe green_chemistry [your] FirstName [your] LastName"

WCC ARTICLE AUTHORS NEEDED

The Chicago Section's Women Chemists Committee has a project to highlight women, both current and historical, and topics of interest to women. The project is called the "WCC Column" in the Chemical Bulletin and the project has been very successful.

We invite anyone, women or men, to join us in this endeavor of writing an article for the column. The article needs to be about 500 words long and will also be put on the Chicago Section website. The author also needs to design a poster for the corresponding monthly meeting. Our office manager, Gail Wilkening, will help with the poster, which can be primarily a large font version of what you wrote, if you wish. We have already discovered what a pleasure this project is. Whether you interview a current chemist or research an historical chemist on the web, please join us in this stimulating activity.

CO-CHAIRS MARGY LEVENBERT AND SUSAN SHIH

PLEASE VOTE in the Section's election when you receive your ballot in the mail



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CALENDAR

October 15: Chicago Section Board meeting, 1400 Renaissance Dr., Suite 312, Park Ridge, IL 60068; 847-391-9091.

October 16: Basolo Medal Award Lecture, Dinner, and Presentation; joint Chicago Section ACS's meeting with Northwestern University's Department of Chemistry. The Basolo Medal Awardee is Peter J. Stang. **See this issue.**

October 24: Chemistry Day at DePaul University, 2250 N. Sheffield Ave., Chicago.

October 28-30: The 30th Annual Conference of the Association of Laboratory Managers will be held at the Georgia Tech Global Learning Center, Atlanta, GA. **Registration deadline is September 21.** Register online at www.labmanagers.org. Visit www.labmanagers.org for further information.

November 12: Chicago Section Board meeting, 1400 Renaissance Dr., Suite 312, Park Ridge, IL 60068; 847-391-9091.

November 18: Chicago Section ACS Meeting. The speaker is Mitch Jacoby, *Chemical & Engineering News* correspondent.

December 3: Chicago Section Board meeting, 1400 Renaissance Dr., Suite 312, Park Ridge, IL 60068; 847-391-9091.

December 4: Chicago Section ACS Holiday Party and Meeting at the Willowbrook Holiday Inn. The speaker is Wendy Wolbach of DePaul University.

WCC LECTURESHIPS

The Women Chemists Committee offers lectureships that support early and mid-career female chemists and chemical engineers to present invited technical talks at doctoral degree granting institutions.

Find out more about WCC programs on website <http://member.ship.acs.org/WWCC/> and opt in for the WCC's electronic newsletter.

Members are urged to pay the \$15 Section dues when you get your annual ACS membership dues statement. The Section needs this revenue to help support its activities.

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