

The Chemical Bulletin

<http://chicagoacs.org>

JANUARY • 2009

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Joint Meeting with the American Institute of Chemical Engineers

THURSDAY, JANUARY 22, 2009

European Crystal Banquet &
Conference Center
519 W. Algonquin Road
Arlington Heights, IL 60005
Parlor BC
847-437-5590

DIRECTIONS TO THE MEETING

FROM CHICAGO:

Take I-90 West. Exit at Arlington Heights Road and turn right (north). Go to the first stoplight, which is Algonquin Road. Turn left onto Algonquin Road and go 1/2 mile to European Crystal.

FROM NORTHERN INDIANA:

Take I-294 North to I-90 West. Exit at I-90 - Arlington Heights Road and turn right (north). Then follow the directions given above.

FROM I-290/I-355 OR ROUTE 53:

Northbound I-290 & I-355 merge with Route 53. Take these combined roads to Higgins Road exit. Merge onto East Frontage Road and turn right onto Golf Road. Go 2 miles and turn right onto Algonquin Road. Go 1/3 mile to European Crystal.

PARKING: FREE

JOB CLUB 5:00 - 5:30 P.M.

PRE-DINNER TALK 5:30 - 6:15 P.M.
ChemPharma — A Professional Networking Organization within the Chemical, Life Sciences and Pharmaceutical Industries, **presented by Gayle Lopez**, ChemPharma Chicago Chapter Chair

SOCIAL HOUR: 5:30 - 6:30 P.M.
CASH BAR

DINNER

6:30 P.M.

Dinner reservations are required and should be received in the Section Office via **phone** (847-647-8405), **fax** (847-647-8364), **email** (chicagoacs@ameritech.net) or **website** (<http://chicagoacs.org>) by noon on Tuesday, January 20.

The 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 unemployed members is \$18. Seating will be available for those who wish to attend the meeting without dinner. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

Menu: Entrée choice of Brochette of Beef on Bed of Rice with Peppercorn Sauce, Orange Roughy with Rice Pilaf, or Vegetarian (Sautéed vegetables in Phyllo with Vegetable Puree); dinner includes vegetable medley of broccoli, baby carrots & rutabaga, rolls and butter, choice of beverage, and apple crumb cake for dessert.

GENERAL MEETING

7:30 P.M.



William Roe, President and CEO, Coskata, Inc.

Topic and Abstract: Not available at the time of publication. Please check the website for the latest information.

Biography: Bill Roe joined Coskata as its President and CEO in September 2007, bringing extensive leadership experience across many critical functions of growing a global technical business, including operations management, strategy, sales and marketing, and research and development.

Prior to Coskata, Bill enjoyed a 29-year career with Nalco, the world's largest provider of industrial water-treatment chemicals and process additives. Bill was most recently the Chief Operating Officer, a position he held for six years. In that role, he had full P&L

(continued on page 2)

NOTICE TO ILLINOIS TEACHERS

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

(continued from page 1)

responsibilities for all of Nalco's business operations globally including the Industrial and Institutional Services Division (which comprises 75% of Nalco's core water treatment business), the Energy Services Division (a business line serving the petroleum and gas industry, with products for exploration and drilling, oilfield production, and downstream refining and petrochemical production), and the Paper Services Division (a business line serving the pulp and paper industry with processing additives and functional products that improve final sheet properties). Bill's responsibilities also included strategic planning, product development and commercialization, and strategic account development and management.

Prior to serving as Nalco's COO, Bill was President of Nalco's Asia Pacific Division, where he was responsible for Nalco's business operations in China, Japan, Korea, Taiwan, all of Southeast Asia, India, and Australia/New Zealand.

Bill has been a member of the American Institute of Metallurgical Engineers; the American Chemical Society; the American Chemical Council and the Sigma Xi Research Society. He holds a M.S. in Organic Chemistry from the University of Notre Dame, and a B.S. in Chemistry from Creighton University.

SCIENCE WEEK FOR HIGH SCHOOL TEACHERS AND STUDENTS

The program of activities of Science Week is one way that the Pittsburgh Conference in Chicago March 8-13, 2009 will be supporting and enhancing science education in the Chicago area. A variety of excellent opportunities will be available to teachers, students, and science educators. Listed below are the various websites where the specific activities planned are given. You may obtain more information, forms and/or instructions for these activities by clicking on the links below.

- Science Equipment Grants (<http://pittcon.org/scienceweek/ScienceEquipment.html>)

- Teacher Workshops (<http://pittcon.org/scienceweek/workshops.html>)

- Student Workshops (<http://pittcon.org/scienceweek/StudentWorkshops.html>)

- High School Lecture-Demonstration Event (<http://pittcon.org/scienceweek/DemonstrationLecture.html>)

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on **Thursday, January 22 at 5:00 p.m. at European Crystal Banquet & Conference Center**. The meeting will include a review and discussion of some of the tools that a chemist can use to conduct a job search.

Note: There will be a presentation on ChemPharma at 5:30 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. Be prepared to talk about the kind of job you are seeking.

Several participants have received out-source 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 \$18 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.

BYTESIZE SCIENCE PODCASTS

The ACS Office of Communications has launched Bytesize Science, an educational, entertaining podcast for young listeners. Bytesize Science translates cutting-edge scientific discoveries from ACS' 36 peer-reviewed journals into stories for young listeners about science, health, medicine, energy, food, and other topics. New installments of Bytesize Science are posted every Monday and available without charge. Some episodes are available in Spanish. For more information and to listen to the podcasts, please visit: http://portal.acs.org/portal/acs/corg/content?nfpb=true&_pageLabel=P_P_SUPERARTICLE&node_id=2096&use_sec=false&sec_url_var=region1

Toxicology Consulting

**Medical Devices
Pharmaceuticals
Biologicals
Risk Assessments**

**Product Development
FDA Registration
Quality Assurance
Regulatory Compliance**

Northup RTS

Sharon J. Northup, PhD, DABT
783 Ridge Road
Highland Park, IL 60035

Ph: 847-579-0049 Fax: 847-579-0052

Northuprts@aol.com
www.toxconsultants.com

IN THIS ISSUE

- 1 - Dinner Meeting
- 1 - Notice to Illinois Teachers
- 1 - Pre-Dinner Talk: ChemPharma
- 2 - Science Week
- 2 - Bytesize Science for Kids
- 3 - ChemShorts for Kids: Carbonated Fizzy Fruit
- 4 - ChemPharma Meetings
- 4 - WCC Article Authors Needed
- 5 - Looking Toward the Future for Science
- 5 - Chemistry International
- 5 - Contact the Chair
- 5 - CCDG's New Website
- 5 - Chemistry Day 2008
- 6 - LABTECH 2008 in Saudi Arabia
- 6 - January Historical Events in Chemistry
- 7 - Ad Rate Schedule
- 7 - Ad Index
- 8 - Calendar

"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 cut 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.

Carbonated Fizzy Fruit

Kids, what could make pieces of fruit act like fizzy ice cubes? Carbon dioxide (CO₂)! Using dry ice, which is the solid form of CO₂, fruit can be filled with tingly carbon dioxide bubbles, like a soda. All you need for this is dry ice, fruit, and a plastic bowl.

1. First, you must carbonate the fruit. Use dry ice that's in relatively small chunks, like pellets or chips. If you have big chunks, have an adult partner place the dry ice in a paper bag or cover it with a dishcloth and whack it (gently) with a hammer. You want to break it into pieces, not pulverize it.
2. Dry ice quickly sublimates into carbon dioxide gas. As this happens, the gas is absorbed by the fruit. Thinner slices or pieces of fruit will become more saturated with carbon dioxide bubbles than larger pieces. You can use whole grapes or strawberries, but anything larger needs to be sliced, such as apples or bananas.
3. Place some dry ice pellets in a bowl. Set the fruit on the dry ice. You can add more dry ice on top if you wish.
4. Allow 10-15 minutes for the absorption to occur. The fruit will become carbonated and freeze at the same time. Use tongs to handle the pieces.
5. Eat the fizzy fruit, use it in recipes or add it to drinks as "ice cubes". The fruit will remain fizzy as it thaws, but it should be used within an hour because it will lose its bubbles.

What's going on? Sublimation is a transition directly from the solid phase to gas phase without going through a liquid stage. Vaporization, on the other hand, is a phase transition from the liquid phase to gas phase, and occurs as either evaporation or boiling.

Safety Tips

- Dry ice is very cold so don't touch or eat it; leave all handling of it to an adult partner who should wear non-plastic gloves and use tongs.
- Don't ever seal dry ice into a closed container.
- Freshly frozen fizzy fruit is the same temperature as dry ice (about -109°F) so allow it to warm a bit before consuming it.

Tip: Some Meijer stores sell dry ice behind their counters, or you can visit some ice cream stores for their supply. In the Chicago area you can also check <http://www.solidco2.com> and <http://www.angice.com>.

Reference: Dr. Anne Marie Helmenstine at: <http://chemistry.about.com/od/ediblescienceprojects/a/carbonatedfruit.htm?nl=1>

Edited by K. A. CARRADO, Argonne National Laboratory

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

January, 2009 Vol. 96, No. 1. Published by the Chicago Section of The American Chemical Society, Editorial Staff: Cherlyn Bradley, Editor; Fran Kravitz, Associate Editor; Fadwa Al-Taher and Richard Trep-tow, Proofreaders; Frank Jarzembowski, Publications Business Manager. Address: 7173 North Austin, Niles, Illinois 60714; 847/647-8405. Subscription rates: \$15 per year. Frequency: monthly-September through June.

EXPLORE CAREERS IN CHEMISTRY AT THE 237TH ACS NATIONAL MEETING

Learning about and preparing for careers in chemistry is the focus of the undergraduate program to be held at the ACS 237th Spring National Meeting in Salt Lake City, UT. The two-day program includes symposia and workshops on chemistry careers, art and archeology, nanotechnology, graduate school, and outreach opportunities. There will also be a presentation by eminent scientist Luis Echegoyen, NSF-Chemistry Division Director, and the Student Affiliates Chapter Award Ceremony. For more information, email saprogram@acs.org.

Desert Analytics has a new name, but we are still the same location, same people, and same high quality data and service.

Columbia Analytical Services[™]

Trusted technical expertise.



3860 S. Palo Verde Road, Suite 302, Tucson, AZ 85714 | 520.573.1061 | tucsonlab@caslab.com

Our Tucson Laboratory provides professional Micro-Elemental and Fuel Testing Services

- CHNOS - Combustion / TC / IR Detection
- Carbon & Sulfur - High Temperature Combustion / IR Detection
- Halogens & Anions - Oxygen Bomb & Flask Combustion / IC or ISE Detection
- Metals - Total Acid Dissolution, Fusions, ICP-OES, ICP/MS, AAS
- Fuel Analysis - Proximate, Ultimate and BTU Content
- Air Sensitive & Hygroscopic Samples - Nitrogen Dry Box

*Contact Columbia Analytical for a full list of capabilities.
Same day to 4-6 day rush services available.*

www.caslab.com An Employee-Owned Company

Serving the fields of:
Academic Research
Biotech
Chemicals
Cosmetics
Electronics
Energy
Manufacturing
Mining
Environmental
Pharmaceuticals

**NEXT ISSUE is
for the
February 27
Joint Meeting
at IIT
for the Kilpatrick Lecture**

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

Posi-Trap™ Positive Flow Vacuum Inlet Traps



- ☐ Positive Flow
- ☐ No "Blow-By"
- ☐ Variety of Elements
- ☐ Positive Trapping
- ☐ Easy Changing
- ☐ Easy Cleaning

It's bye-bye to "blow-by" with Posi-Trap™. Unlike others, our filter is sealed at both the inlet and the exhaust so that all the particles must flow through the element. We've got the perfect trap for your system, and should your application change, simply choose from our wide variety of filter elements and you're back on-line! Protect your vacuum pump and system with Posi-Trap™ from MV Products.

For more information on these and other fine vacuum products contact



PRODUCTS

A Division of Mass-Vac, Inc.

247 Rangeway Road • PO Box 359 • North Billerica, MA 01862-0359
TEL 978-667-2393 FAX 978-671-0014 E-MAIL sales@massvac.com WEB www.massvac.com

LOOKING FOR A PROFESSIONAL NETWORKING ORGANIZATION WITHIN THE CHEMICAL AND PHARMACEUTICAL INDUSTRIES?

The Chicago Chapter of ChemPharma® Professional Association regularly meets on the 2nd Saturday of the month 7:30 -10:30 a.m. at the Panera Bread at 25 Rice Lake Square, Wheaton, IL 60178. ChemPharma® also holds Monday evening, events featuring speakers that present topics reflecting current industry trends. More details and registration will be available on the ChemPharma® website <http://www.chempharma.net/>

2nd Saturday Networking:

January 10, 2009

Posted on www.chempharma.net

Monday Evening (6-9 p.m.) Pompei Restaurant, Oakbrook Terrace

January 12, 2009

Mark Biel, Executive Director, Chemical Industry Council of Illinois (CICI) "US & Illinois Chemical Manufacturing Trends (Economic, Technological, Environmental) - Current State and Challenges for the Future"

March 2, 2009

Michael L. Hetzel, Vice President Americas, Pro QC International, "Emerging Trends in Global Manufacturing"

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 welcome new authors and those who 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 LEVENBERG and SUSAN SHIH

LOOKING TOWARD THE FUTURE FOR SCIENCE

As I prepare this comment while entering the holiday season and looking toward the end of another year, I also look back with excitement and a great deal of interest over the year that is about to come to an end. The excitement and interest comes from following the presidential election, and all of the activities that accompanied it. I am somewhat encouraged by the possibility that for the first time, science and scientists began to behave as if they intend to be a real political force. As I look back over the years at the manner in which the scientific community has looked at government and politics as something to be ignored or disdained except during times of crisis such as a war or perhaps some serious epidemic, it is good to see that a new paradigm may be coming into being. Scientists may be approaching a realization that if we don't speak or act promptly, someone else will do it for us. And we may also be coming close to a realization that we can't wait until the "house is afire" before we gather the fire-fighting equipment.

For the first time, a specific direct request was made by the science community for the presidential candidates to engage in a relevant science debate. Although it did not take place, there is no doubt that the request was heard. Both candidates of the major parties responded to requests for answers to questions on science and technology. These requests came from far and wide: from professional science and technology organizations, educational organizations, and business organizations. There is no doubt that there is an increased recognition that scientific philosophy and ideology has to be a greater part of what we do and how we set our goals and objectives. It has to be considered early on as a part of the process, rather than after the fact.

The elections are now over. As of January 20, 2009, the Hon. Barack Obama will be our 44th President, and the Democratic Party will control both houses of Congress for the next two years. The president-elect is organizing his team and we are all looking forward to the time when he will hit the ground running; (he has already, except he's doing it in Chicago, not D.C.). In the meantime, all of those scientific organizations who were so involved during the election process must not wait until 2011 or 2012 to become involved in the next presidential contest. They must also hit-the-ground running as they follow the various appointments, look seriously at budgets during some very

tough financial times, and begin again to follow the various legislative activities. I believe we are entering a new era, with some tough and difficult times ahead. Now – more than ever – we must be scientifically and legislatively alert in order to make sure that we are not left out of the process.

As we move toward inauguration, you can follow plans and progress by visiting the following website: <http://change.gov/>. Or if you want to go to the science and technology portion of the website, then you may access directly: http://change.gov/agenda/technology_agenda/.

JIM SHOFFNER

Process Technology Engineering

www.processtechnologyengineering.com

THINKY

THINKY mixers
Degas and Mix at the
same time in seconds.



Ask about our Free
Demonstration or Trial...
Develop a mixing solution in
your lab with your materials.

Contact:

Mike Pfeifer - 847-714-9214
mpfeifer@imetllc.com

Bill Kidder – 763-568-2992

CHEMISTRY INTERNATIONAL

Chemistry International (CI) is the newsmagazine of the International Union of Pure and Applied Chemistry (IUPAC). News about IUPAC and its chemists, publications, recommendations, conferences and the work of its commissions and committees is published bimonthly in CI. The web version includes easy to use navigations and indexes to the various sections of the newsmagazine. To learn more please visit <http://www.iupac.org/publications/ci/index.html>

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>, find the green button "Contact the Chair", and send me an e-mail. If I can answer your query I will respond personally. If I can't I will forward your e-mail to someone who can, or try to provide you with a contact -- all in a timely manner. 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

CHICAGO CHROMATOGRAPHY DISCUSSION GROUP

Please check out our new website at: www.ccdg.org.

Our new site features the convenient benefits of signing up for membership online, information on our upcoming events and links to all things chromatography.

CHEMISTRY DAY 2008

The Chicago Section held its Chemistry Day at Loyola University on October 25th. This event was attended by well over 900 high school students. The students attended demonstrations repeated throughout the day, exhibits, lectures, and participated in a "Chemistry Idol Contest" in the afternoon conducted by high school students and teachers.

A wide variety of displays relating to the National Chemistry Week theme, "Having a Ball with Chemistry", included those of the McCrone Research Institute, which involved cutting apart both inexpensive and expensive softballs, baseballs and tennis balls, showing the cork, yarns and fibers under a polarizing microscope.

Other displays and activities included a Project SEED exhibit and a Boy Scouts Chemistry Merit Badge workshop.

THE SAUDI ARABIAN ARAMCO CHAPTER OF ACS IS INTERESTED IN LABORATORY MANAGEMENT.

In October, three members of ALMA (Association of Laboratory Managers), including our own Claude Lucchesi, went to The Kingdom of Bahrain (which is off the coast of the Kingdom of Saudi Arabia in the Persian Gulf) to present papers on Laboratory Management.

The occasion was the first annual LABTECH 2008 Conference. The Conference on "Laboratory Technology" was designed to meet the local needs of the modern laboratory. It consisted of technical papers, short courses, and an exhibit. There were 82 papers, four short courses, and the Exhibit consisted of 100 companies in 93 booths. About 500 scientists attended the Conference.

The technical papers were divided into three sessions that ran for 2½ days. One session was devoted to petroleum and refinery problems and could have been part of the Petroleum Chemistry Division's presentations at an ACS National Meeting. The keynote speaker for this session was Kurt Wüthrich, a Nobel Laureate in Chemistry in 2002.

The second and third sessions were on analytical methods, instrumentation, and laboratory management. Keynote speakers for these sessions were the current president of ALMA, Dr. Greg Bowen of Battelle; the co-founder of ALMA, Claude Lucchesi of Northwestern University; and the manager for Technology Development for Shell International. The third ALMA member was Dr. Wayne Collins of Agilent Technologies.

Most of the papers were presented by Saudis (36 papers); about 10 papers were from other Middle Eastern countries, including Iran and Iraq; 10 from the USA; 10 from Europe; a number from Pakistan; and some from Australia, Libya, Algeria, and India.

The Exhibit was well done with coffee and tea at the breaks for the technical sessions. The local agents for quite a few American companies were there with knowledgeable local representatives, and there was a good deal of activity in the exhibit area.

The Conference was sponsored by three organizations: ACS; the Bahrain Society of Chemists; and Saudi Arabian International Chemical Sciences, Chapter of ACS. There were seven organizers, including ALMA, ACS, the Saudi Arabia Chapter of AIChE, and the Kingdom of Saudi Arabia.

The opening ceremony set the tone for the seriousness with which Aramco views this first annual Conference. The conferees were addressed by the minister of Oil & Gas Affairs and Chairman of Oil & Gas

Authority in the Kingdom of Bahrain, His Excellency Dr. Abdul Hussain Bin Ali Mirza; His Highness Dr. Turki Ibn Saud M. Al-Saud, VP of King Abdul Aziz City for Science and Technology; and Mr. Mohammed S. Al-Gusaier, The Vice President of Refining in Saudi Aramco. The chair of the Conference was Yaser R. Sonbul of Saudi Aramco.

There is no question that the Saudis are serious about advancing laboratory management. LABTECH 2008 was an excitement and a wonderful recognition for ALMA, and I do believe that the three ALMA members who presented papers at the Conference made an important difference in the Conference.

At the final session of LABTECH 2008, Dr. Tom DiGiacomo, spokesman for Saudi Aramco, announced the following:

"We are happy to announce the establishment of a GCC (Gulf Cooperative Council) Laboratory Management Association to be supported by ALMA and ACS. To ensure the proper and energetic start, Sowelim Al-Shamrie from Saudi Aramco RT laboratory has accepted a nomination to serve as its first President.

The first members are Dr. Claude A. Lucchesi from Northwestern University Department of Chemistry and the co-founder of ALMA; Dr. James Kaufman, the president and CEO of the Laboratory Safety Institute; Adullah Al-Kolaifi, Quality and Analytical Resource Leader from the Equate Company of Kuwait; Fatima Jassem, Associate Research Scientist in the Kuwait Institute for Scientific Research; and Dr. Wayne Collins, World Wide Marketing Manager for Chemical Analysis and Life Sciences for Agilent."

You might like to know that the Saudis are planning to construct a number of cities to boost its manufacturing of energy-intensive chemical industries like aluminum and steel. One city called the King Abdullah Economic City (KAEC) is being built north of Jeddah at a cost of \$27 billion dollars. The point is that chemistry will become even more important in the Middle East.

The next LABTECH will be in Kuwait in 2011.

CLAUDE LUCCHESI

JANUARY HISTORICAL EVENTS IN CHEMISTRY

January 1, 1907 Aluminum Company of America (ALCOA) was named. It was founded in 1888 as the Pittsburgh Reduction Company.

January 2, 1947 US Atomic Energy Commission took over for the wartime Manhattan Engineer Commission District.

January 4, 1905 Aristid V. Grosse, who isolated protactinium metal in 1934 from the pentoxide he isolated in 1927, was born.

January 6, 1872 John V. N. Dorr, inventor and chemical engineer, was born. He developed the Dorr classifier for extracting ore, which became a practical method for the separation and chemical treatment of fine solids suspended in liquids.

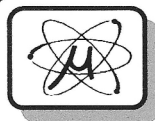
January 7, 1941 John E. Walker, who studied the amino acid sequences in protein units of ATP synthetase, was born. He shared the Nobel Prize in 1997 with Paul D. Boyer for elucidation of the enzymatic mechanism underlying the synthesis of adenosine triphosphate (ATP) and Jens C. Skou for the first discovery of an ion-transporting enzyme, Na⁺, K⁺-ATPase.

January 10, 1916 Sune K. Bergström, who shared the Nobel Prize in Physiology or Medicine 1982 with Bengt I. Samuelsson and John R. Vane for their discoveries concerning prostaglandins and related biologically active substances, was born.

January 12, 1916 Ruth R. Benerito, who won the Southern Chemist Award for her research in cotton chemistry, was born. She was the first woman to receive the award.

January 14, 1895 Armstrong World Industries incorporated as Armstrong Cork Co.

(continued on page 7)



Micron Analytical Services

COMPLETE MATERIALS CHARACTERIZATION
MORPHOLOGY CHEMISTRY STRUCTURE

SEM/EDXA, TEM/SAED, EPA/WDXA, XRD,
XRF, ESCA, AUGER, FTIR, DSC/TGA
3815 Lancaster Pike Wilmington DE. 19805
Voice 302-998-1184, Fax 302-998-1836
E-Mail micronanalytical@compuserve.com
Web Page: www.micronanalytical.com

(continued from page 6)

January 15, 1912 Frank H. Westheimer, who was a researcher in physical organic chemistry, was born. He researched the calculation of electric effects in chemistry and developed the idea of photoaffinity labelling of the active site of proteins.

January 16, 1767 Anders G. Ekeberg, who discovered tantalum in 1802, was born.

January 18, 1861 Hans Goldschmidt invented the aluminothermite process (Goldschmidt Process).

January 20, 1834 Adolph Frank, who made calcium cyanamide from calcium carbide and nitrogen in 1898, was born.

January 21, 1845 The founder of the Mallinckrodt Chemical Works, Edward Mallinckrodt was born.

January 23, 1918 Gertrude B. Elion, who was a researcher on the synthesis and development of therapeutic agents, was born. She shared the Nobel Prize in Physiology or Medicine in 1988 with James W. Black and George H. Hitchings for their discoveries of important principles for drug treatment.

January 26, 1939 Niels Bohr reported the discovery of nuclear fission by Otto Hahn and Fritz Strassman at the Fifth Washington Conference on Theoretical Chemistry.

January 27, 1926 Chevron was incorporated.

January 31, 1963 The first manuscript on the solid phase synthesis of peptides by R. B. Merrifield was received by the Journal of the American Chemical Society [vol. 85, 2149 (1963)].

LEOPOLD MAY
The Catholic University of America
Washington, DC

Additional historical events can be found at Dr. May's website, at <http://faculty.cua.edu/may/history.htm>.

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



**NORTHWESTERN
UNIVERSITY**

Upcoming Chemistry Seminars and Colloquia January

1-16-09 **Professor Kit Cummins**
MIT
Tech LR3, 4:00p.m.
Hosted by Professor Tobin Marks

1-28-09 **Professor Andrei Tokamkoff**
MIT
Ryan Hall 4003, 4:00p.m.
Hosted by Professor Teri Odom

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.

SIZE	DIMENSIONS	RATE
Full Page	7.5" wide x 10" depth	\$700
2/3 Page (2 columns)	4.917" wide x 10" depth	\$530
1/2 Page	3.75" wide x 10" depth	\$500
1/3 Page (1 column)	2.333" wide x 10" depth	\$360
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, pdf, or quark formats. For more information, contact **chicagoacs@ameritech.net** or call 847-647-8405. Fax insertion orders to 847-647-8364.

Advertising Index

Company	Page	Telephone	URL
Northup RTS	2	847-579-0049	www.toxconsultants.com
Columbia Analytical Services	3	520-573-1061	www.caslab.com
Mass-Vac, Inc.	4	978-667-2393	www.massvac.com
Pro Tech Engineering	5	847-714-9214	www.processtechnologyengineering.com
Micron Inc.	6	302-998-1184	www.micronanalytical.com
Northwestern University	7	847-491-5371	www.chem.northwestern.edu

CALENDAR

January 12, 2009: The Chicago Chapter of ChemPharma will meet from 6 p.m.-9 p.m. at Pompei Restaurant, Oakbrook Terrace, IL. The speaker will be Mark Biel, Executive Director, Chemical Industry Council of Illinois (CICI). The topic is "US & Illinois Chemical Manufacturing Trends (Economic, Technological, Environmental) - Current State and Challenges for the Future". For more details and registration, visit the website <http://www.chempharma.net/>.

January 22: Chicago Section ACS Dinner meeting held jointly with AIChE. This is a Thursday meeting. See this issue.

February 12-16: Annual meeting of The American Association for the Advancement of Science, Chicago. For more information, go to website www.aaas.org.

February 27: Chicago Section ACS Dinner meeting held jointly with IIT. This is the Kilpatrick Lecture.

March 2: The Chicago Chapter of ChemPharma will meet from 6 p.m.-9 p.m. at Pompei Restaurant, Oakbrook Terrace, IL. The speaker will be Michael L. Hetzel, Vice President Americas, Pro QC International. The topic is "Emerging Trends in Global Manufacturing". For more details and registration, visit the website <http://www.chempharma.net/>.

March 8-13: PittCon 2009 Conference and Expo and Science Week, McCormick Place, Chicago. Visit www.pittcon.org for more information.

March 18: Chicago Section ACS Public Affairs Meeting.

March 22-26: ACS National Meeting in Salt Lake City, Utah.

May 13-16: The 38th Great Lakes Regional meeting (GLRM) will be held at the Lincolnshire Marriott in Lincolnshire, IL. The theme is "A Better Environment Through Chemistry." The call for papers opened November 15, 2008. Please go to our website at www.glrm2009.org for the latest information on the meeting.

June 22-26: National Plastics Expo 2009 in Chicago. Contact Phyllis Hortie, (202) 974-5295, phortie@plasticsindustry.org; website: www.npe.org.

ACS SCHOLARS PROGRAM

The ACS Scholars Program is accepting applications for the 2009-2010 Academic Year.

Now in its 14th year, the program has supported over 1990 students during their undergraduate studies in the chemical sciences. For more information and to access the on-line application form, go to www.acs.org/scholars; call toll-free 800-227-5558, ext. 6250; e-mail scholars@acs.org; or write to the American Chemical Society Scholars Program, 1155 16th Street, NW, Washington, DC 20036. The deadline is **March 1, 2009**.

ACS SHORT COURSES IN 2009

ACS Short Courses are one- to five-day, in-person seminars designed to help chemical scientists and technicians keep current in today's competitive marketplace. The 2009 schedule is out – please visit www.acs.org/shortcourses to register and for more information.

Short Course Circuits

The ACS Short Course Circuit offers you the opportunity to take advantage of a wider range of our course offerings in a single location and network with a variety of your colleagues. For dates & locations, go to www.acs.org/shortcourses.

Short Courses at the ACS National Meetings

Going to an ACS National Meeting? Short Courses are held at each ACS National Meeting and offers you the opportunity to take advantage of a wide range of our course offerings before and during the meeting.

March 21 – 26, 2009 – Salt Lake City, UT – ACS Spring National Meeting

Courses in Organic Chemistry, Chemical Engineering, Management, Cheminformatics, Spectroscopy, Polymer Chemistry, Intellectual Property, and Toxicology

August 15-20, 2009 – Washington, DC – ACS Fall National Meeting

Courses in Food Chemistry, Analytical Chemistry, Biochemistry, Organic Chemistry, Medicinal Chemistry, Laboratory Safety, Chemical Engineering, Management, Cheminformatics, Polymer Chemistry, Intellectual Property, Quality Assurance, and Toxicology

Laboratory/Lecture Courses

Get in-class and hands-on experience with Laboratory/Lecture Courses from the ACS.

March 30 – April 3; July 13 – 17; October 5 – 9; November 2009 (tentative) -- Chicago, IL

High Performance Liquid Chromatography: Fundamentals, Troubleshooting, and Method Development

April 20 – 24; July 20 – 24, November 9 – 13; December 2009 (tentative) -- Chicago, IL

Gas Chromatography: Fundamentals, Troubleshooting, and Method Development

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!

Put your business card here
Reach prospective clients by
advertising in *The Chemical Bulletin*

.....
For more information, call
the Section office (847) 647-8405
or e-mail at chicagoacs@ameritech.net