ACS Chemistry for Life™

Chicago Section

The Chemical Bulletin

http://chicagoacs.org **NOVEMBER • 2010**

Chicago Section American Chemical Society
Joint Meeting of the University of Chicago Department of Chemistry and the Chicago Section ACS

Julius Stieglitz Award Lecture, Dinner and Presentation
Thursday, November 18, 2010

The Wellington
2121 S. Arlington Heights Road
Arlington Heights, Illinois 60005-4105
847-439-6610

DIRECTIONS TO THE WELLINGTON RESTAURANT

From Chicago: Take Interstate I-90 (Northwest Tollway) west to the Arlington Heights Road exit. Proceed north to the restaurant.

From the southwest: Take I-355 north to Route 53 north and exit at Algonquin Road east. Go to Arlington Heights Road. Turn left (north) and proceed to the restaurant.

PARKING: Free
Enter meeting from parking lot directly to the "Arlington Room".

JOB CLUB **5:00 - 6:00 P.M.**

SOCIAL HOUR: Cash Bar **5:30 - 6:30 P.M.**

DINNER **6:30 P.M.**

Menu: Soup of the day; Chef's Salad with choice of three dressings; Entrée choices of Prime Rib of Beef with baked potato and vegetables, Broiled Salmon with baked potato and vegetables, or Steamed Vegetables on Fettuccine Pasta with Alfredo Sauce; rolls and butter; beverage; Chocolate Sundae.

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IN THIS ISSUE

PRESENTATION OF STIEGLITZ LECTURE **8:00 P.M**

Dr. Mark E. Davis, Professor of Chemical Engineering, California Institute of Technology, Pasadena, CA

Title: "New Heterogeneous Catalysts for Converting Sugars in Aqueous Media" by Manuel Moliner, Yuriy Román-Leshkov, Eranda Nikolla and **Mark E. Davis**

Abstract: The isomerization of glucose into fructose is a large-scale reaction for the production of high-fructose corn syrup, and recently, is being considered as an intermediate step in the possible route of biomass to fuels and chemicals.

(continued on page 2)

(continued from page 1)

It is shown that a large pore zeolite that contains tin (Sn-Beta) is able to isomerize glucose to fructose in aqueous media with high activity and selectivity. Specifically, a 10wt% glucose solution containing a catalytic amount of Sn-Beta (1:50 Sn:glucose molar ratio) gives product yields of approximately 46% (w/w) glucose, 31% (w/w) fructose, and 9% (w/w) mannose after 30 and 12 minutes of reaction at 383°K and 413°K, respectively. This reactivity is achieved also when a 45wt% glucose solution is converted. The Sn-Beta catalyst can be used for multiple cycles, and the reaction stops when the solid is removed, clearly indicating that the catalysis is occurring heterogeneously.

With isotopically labeled glucose, it is demonstrated (1H and 13C MAS NMR spectroscopy) that the isomerization reaction catalyzed by Sn-Beta in water proceeds by way of an intramolecular hydride shift, confirming that framework tin centers in Sn-Beta act as Lewis acids in aqueous media. Most importantly, the Sn-Beta catalyst is able to perform the isomerization reaction in highly acidic, aqueous environments with equivalent activity and product distribution as in media without added acid. This enables Sn-Beta to couple isomerizations with other acid-catalyzed reactions, including hydrolysis/isomerization or isomerization/dehydration reaction sequences, including starch to fructose and glucose to 5-hydroxymethylfurfural (HMF).

Biography: Mark E. Davis is the Warren and Katharine Schlinger Professor of Chemical Engineering at the California Institute of Technology and a member of the Experimental Therapeutics Program of the Comprehensive Cancer Center at the City of Hope. He has over 350 scientific publications, two textbooks and over 50 patents.

Professor Davis was elected in the National Academy of Engineering in 1997 and the National Academy of Sciences in 2006. His research efforts involve materials synthesis in two general areas; namely, zeolites and other solids that can be used for molecular recognition and catalysis, and polymers for the delivery of a broad range of therapeutics.

He is the founder of Insert Therapeutics Inc., a company that focused on the use of cyclodextrin-containing polymers for drug delivery applications and Calando Pharmaceuticals, Inc. a company based in Pasadena, CA that created the first RNAi therapeutic to reach the clinic for treating cancer. He has been a member of the scientific advisory boards of Symyx (Nasdaq: SMMX) and Alnylam (Nasdaq: ALNY).

He has also achieved All American Status for Masters Track and Field at both the 400 Meter and 200 Meter distances.

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!

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 CPDU's.

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

DINNER INFORMATION

The cost is $30 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 $32. The cost to students and unemployed members is $15. Seating will be available for those who wish to attend the meeting without dinner.

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, November 16. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

ACS/NSTA WEB SEMINARS

ACS has partnered with NSTA (National Science Teachers Association) to present high school chemistry teachers with a series of web seminars this fall. The live professional development sessions will help you increase content knowledge and learn how to use ACS classroom resources effectively.

- Green Chemistry—Is There a Place for it in High School Chemistry? (Tuesday, November 9, 2010)
- Entropy: Mixing and Oil Spills (Tuesday, November 23, 2010)
- Entropy, Energy and Temperature (Wednesday, December 15, 2010)

For further information, go to **http://learningcenter.nsta.org/products/symposia_seminars/ACS/webseminar.aspx**

WCC ARTICLES 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.

CO-CHAIRS MARGY LEVENBERG AND SUSAN SHIH

"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. Teachers are encouraged to incorporate the projects in this column into their lesson plans.

The Color of Gemstones

Kids, did you ever wonder about the color of certain minerals, gems, or birthstones? Gemstones are minerals that can be polished and cut for use as an ornament or jewelry. The color of a gemstone comes from tiny, trace amounts of transition metals present in the main rock or mineral. Transition metals are those in the middle, center section of a periodic table, from scandium (Sc) to zinc (Zn) in the first row. The main rock or mineral is usually a very common material, such as silicon dioxide (silica, SiO_2) or aluminum oxide (alumina, Al_2O_3).

Take a look at the colors of common gemstones and the metals responsible for their color. You can do this at a store that sells rocks and minerals, or a gem and mineral trade show, or even at a department store jewelry counter.

Amethyst is a colored form of quartz (silica) that gets its purple color from the presence of iron. Aquamarine is a blue variety of the mineral beryl (beryllium aluminum silicate). The pale blue color comes from iron. Emerald is another form of beryl, this time in a green color due to the presence of chromium and sometimes vanadium. Garnet is an aluminosilicate that gets its deep red color from iron. Peridot is the gemstone form of olivine, a magnesium silicate mineral formed in volcanoes. The yellow-green color comes from iron. Have you heard of Hawaii's green peridot sand beaches?

Ruby is the name given to gemstone-quality corundum (alumina) that is pink to red in color. The color comes from the presence of trace chromium. Corundum that is any color besides red is called sapphire. Blue sapphires are colored by iron and titanium.

Turquoise is an opaque mineral, meaning that it is not clear, that gets its blue to green color from copper within its aluminum phosphate matrix.

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References:

Anne Marie Helmenstine, "Gemstone Colors and Transition Metals", http://chemistry.about.com/od/geochemistry/tp/Gemstone-Colors-And-Transition-Metals.htm?nl=1

Learn about gemstones by visiting these websites

- List of Gemstones
- Rock Tumbler Basics
- Gemstone Photo Gallery
- How Mood Rings Work

Learn about geochemistry & petrochemistry by visiting these websites

- Mineral Pictures
- Crystal Photo Gallery
- Yellowstone Geochemistry Photo Gallery

Submitted by DR. KATHLEEN CARRADO

All past "ChemShorts for Kids": http://www.chicagoacs.net/ChmShort/kidindex.html

SECTION DUES

Members are urged to pay the $15 Section dues with your annual ACS membership dues statement. The Section needs this revenue to help support activities.

November, 2010 Vol. 97, No. 9. Published by the Chicago Section of The American Chemical Society, Editorial Staff: Cherlyn Bradley, Editor; Fran Kravitz, Associate Editor; Richard Treptow, Proofreader; Frank Jarzembowski, Publications Business Manager. Address: 1400 Renaissance Dr., Suite 312, Park Ridge, Illinois 60068; 847/391-9091. Subscription rates: $15 per year. Frequency: monthly-September through June.

MESSAGE FROM THE CHAIR

We had a wonderful celebration of Chemistry Day on October 23 at Loyola University. Thanks to Irene Cesa, Avrom Litin, and Laura Li for the dedicated work in organizing the activities of the day. We appreciate the warm hospitality extended by David Crumrine and his colleagues at Loyola. Thanks to Fran Kravitz and her volunteers for the Boy Scout Merit Badge workshop. The Chicago Section could not have an event of this magnitude without the help of so many volunteers, including our students and teachers. My thanks to everyone whose efforts contributed to the success of the day.

As we approach the Thanksgiving holiday, all of us have many reasons to be thankful. We may not think of chemistry as one of our blessings, but it is the source of many good things in our lives. The science of chemistry is used in many practical and beneficial applications that have been developed by individual chemists and an extensive chemical industry. Thousands of college and university chemistry departments have been established to educate new chemists, and we have all benefited from teachers who taught us the skills of our profession. Most of us have worked in academic or industrial organizations, continuing to add to our collective knowledge of chemistry.

Have you ever had a desire to give something back to a profession that has given much to you? The Chicago Section offers many opportunities for you to encourage others to become tomorrow's chemists. Some of our activities that directly involve students include: DuPage Area Engineers Week, Earth Day, Project SEED, Annual Chemistry Exam and Scholarship Awards, Illinois State Fair Chemistry Booth, Chemistry Day, and Education Night. Please consider becoming a part of these or other activities of the Chicago Section. Check our website or contact the section office if you need more details about a specific activity.

KEN FIVIZZANI

THE STIEGLITZ LECTURE

Remembering Julius Stieglitz

The Stieglitz Lecture has been a tradition for the Chicago Section since its establishment by the University of Chicago Chemistry Department, using funds in a bequest upon his death. The story below, by an unknown *Chemical Bulletin* writer, gives a very good account of the life of Stieglitz and the effect he had on the section, not only with respect to the bequest which he made to endow the lecture which carries his name, but all of the other leadership roles which he played the University of Chicago, the American Chemical Society, in chemical education, the chemical profession, and the Chicago Section. I think this is a good time to look back at why we take this time and effort to give honor to the memory of a person, who by all accounts was a great human being, truly deserving of the honor.

JIM SHOFFNER

WHO WAS JULIUS STIEGLITZ?

In 1849, Edward Stieglitz, a native of Thuringia, Germany, came to the United States, married, and settled in Hoboken, New Jersey. Three boys and three girls were born to the couple. The oldest boy, Albert, became an internationally known photographer. The other two boys were twins: Julius, the chemist and Leopold, a doctor.

Apparently the senior Steiglitzs were not poor. When the older children reached school age, the family moved to New York, to assure each child a better education, and when they reached the age for secondary schooling, they returned to Germany, where the boys attended Real Gymnasium in Karlsruhe. Then Leopold went to Heidelberg for medicine, while Julius chose chemistry and went to the University of Berlin, where he received his doctorate in 1889.

After a short time with Victor Meyer in G6ttingen, Julius returned to the U.S. in 1890, going to Clark University, Massachusetts, and, in the same year, to Detroit as a toxicologist for Parke Davis, & Co. In 1891, he married Anna Marie Stieffel of Karlsruhe, who had remained in Germany until this time. In 1892, he came to the University of Chicago as a docent, lecturing without salary, his only compensation from contributions by the students. In 1893, he became an Assistant; then Instructor, Assistant Professor, and Associate Professor. In 1905, he was named Professor, in 1912, Director of University Laboratories, in 1915 Chairman of the Chemistry Department. In 1933 he was named Professor Emeritus, but continued to serve until his death in January, 1937. Along the way, he collected a D.Sc. from Clark University (1909), and a Ph.D. from the University of Pittsburgh (1916).

Does he sound like a "drag"? According to the files at the Section office, this was far from the truth.

He was interested in spectator sports, especially horse racing and boxing, and participative sports, especially golf. His hobbies included art, music (he played the cello), and photography. All this was in addition to his work as a chemist, as a research scientist, as an author, above all as a precise but interesting lecturer who held the attention of h!s students and assisted and directed them to help them reach the goals they aspired to.

He was a loving father. His daughter Hedwig and son Edward both entered the field of medicine. Hedwig married a doctor and Edward became Associate Clinical Professor at Rush Medical College, in Chicago.

Stieglitz's activities did not prevent his participation in civic affairs. In 1917, when the United States entered World War I and any chemicals we might have been receiving from Axis countries were cut off, this American of German parentage found time to give to the development of much-needed industrial and pharmaceutical chemicals. He joined the ACS and the Chicago Section in 1901. In 1904, he was Section Chairman, and in 1917 he was elected President of the ACS. He guided the development of the Willard Gibbs Award, and received the medal himself in 1923. In 1980, posthumously, he was given our Distinguished Service Award.

IYC 2011 AND NSF FUNDING OPPORTUNITIES

Attention Faculty! IYC 2011 is an opportunity to celebrate the creative future of chemistry. In recognition of this opportunity, NSF has announced the availability of "supplements to existing awards for creative ideas to enhance broader impacts via 'out-of-the-box' approaches to research dissemination." Go to **http://portal.acs.org/portal/PublicWebSite/global/iyc2011/CNBP_025643** for further information.

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

STIEGLITZ LECTURERS

1940 – 2010

Lecturer	Year
Edward A. Doisy	1940
Fred C. Koch	1941
Carl S. Marvel	1943
Linus Pauling	1944
William Draper Harkins	1945
Don M. Yost	1946
Dorothy Wrinch	1947
Vincent du Vigneaud	1948
E. S. Cohn	1949
Herman I. Schlesinger	1950
Christopher K. Ingold	1950
Robert B. Woodward	1952
Frank R. Mayo	1953
Paul D. Bartlett	1954
Frank C. Westheimer	1956
Henry B. Hass	1957
Herbert C. Brown	1958
H. A. Lardy	1959
Louis P. Hammett	1960
Nelson J. Leonard	1962
William S. Johnson	1963
Paul Doty	1964
Charles C. Price	1965
H. Gobind Khorana	1966
William von Eggers Doering	1967
George Hammond	1968
D. J. Cram	1969
Jerome A. Berson	1970
Carl Djerassi	1971
Jerrold Meinwald	1972
Andrew Streitwieser	1973
Derek H.R. Barton	1974
E. J. Corey	1975
Bengt Samuelson	1976
James Collman	1977
Joseph Chatt	1978
Gilbert Stork	1979
Robert H. Abeles	1980
Barry Trost	1980
Roald Hoffman	1981
Yoshita Kishi	1982
David Evans	1983
W. Clark Still	1984
Malcom Green	1985
Ronald A. Hites	1988
R. Ernst	1989
George Olah	1990
George Whitesides	1991
William Jorgenson	1992
Peter Kim	1993
Tobin Marks	1994
Frederic Menger	1999
Joanna Fowler	2000
Patrick Gruber	2002
Eric Jacobsen	2003
Eloy Rodriguez	2004
Amos B. Smith, III	2005
Samuel Danishefsky	2006
Jean Frechet	2008
Joan Brennecke	2008
Erick Carreira	2010
Mark E. Davis	2010

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on Thursday, **November 18 at 5:00 p.m. at the Wellington of Arlington**. 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 $15 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.

IYC 2011

The International Year of Chemistry 2011 (IYC 2011) is a worldwide celebration for the achievements of chemistry and its contributions to the well-being of humankind.

Under the unifying theme "Chemistry—our life, our future," IYC 2011 will offer a range of interactive, entertaining, and educational activities for all ages.

The Year of Chemistry will extend across the globe with opportunities for public participation at the local, regional, and national level.

To keep in touch with the happenings of IYC 2011, go to **www.chemistry2011.org** for the latest news, activities listings and ideas.

A NOTE FROM THE ACS PRESIDENT

The following is a synopsis of a note sent in September from the ACS President Joseph Francisco to all the ACS local section and division officers and councilors. The information may be of interest to all of our section members.
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As of the end of September, 4,701 new members have been recruited through the 2010 ACS President's Challenge, which has already surpassed last year's total.

I want to encourage reaching out to various audiences, in particular chemists living abroad. ACS has developed a new resource, **http://international.ACS.org**, to make it easier to recruit international members. This Web site describes some of the benefits of ACS membership that are geared specifically to chemical professionals living outside the US.

Students are also a great source of new members. In addition to the **http://undergrad.ACS.org** Web site that can be used to recruit undergraduates, ACS recently launched **http://GradStudent.ACS.org** to help recruit graduate students and postdocs.

We hope that by bringing in new international and student members, your sections and divisions will benefit from an increase in participation and contributions from these chemical professionals and students.

For full details about the President's Challenge, visit **www.acs.org/MAC**.

Thank you for all of the hard work and time you dedicate to help ensure a bright future for the ACS.

Sincerely,

Joseph S. Francisco, Ph.D.
President
American Chemical Society

ACS OFFERS SPECIAL BENEFITS FOR UNEMPLOYED MEMBERS

During these though economic times it's more important than ever to belong to the American Chemical Society. Unemployment members can tap into a host of valuable benefits and services that help them get back in the workforce. And, members in good standing may qualify for an unemployed member dues waiver, allowing them to renew their memberships and keep their member benefits at no cost. Contact ACS at **service@acs.org**, 800-333-9511 or 614-447-3671 for complete details.

NEW SCIFINDER® FEATURES

Chemical Abstracts Service (CAS), the global leader in chemical information and a division of the ACS, introduces new enhancements to SciFinder that will provide more synthetic pathways and improve productivity for researchers working in the chemical, pharmaceutical, biotechnology, and energy industries. Additional features will advance the pace of research for scientists involved in every aspect of the chemical R&D process.

New features launched through the SciFinder web interface will enable users to:

- **Create more precise chemical reaction searches**. Focus reaction searches effectively using non-participating functional groups or classes. Precisely locate more than 13.6 million synthetic preparations and relevant references using Find Additional Reactions.
- **Draw structures more efficiently.** Paste structures originally drawn in ChemDraw into SciFinder's structure drawing editor, use shortcut keys to apply atoms and bonds, and add nodes or bonds and increment bond values using hot click points.
- **Access chemical supplier information directly**. Intuitively assign priorities for preferred or non-preferred chemical suppliers and quickly access commercial sources from reaction participants using a new visual indicator.
- **Work easily with combined answers sets.** Combine an active SciFinder answer set with one or more saved answer sets without first saving the active answer set.
- **Perform better post-processing of results**. Seamlessly export bibliographic information into citation software in .ris format to speed research compilation and publication.

"Scientists and researchers around the world access SciFinder through the web for the fastest, most reliable scientific information available," said Christine McCue, CAS vice president of marketing. "With these new features, SciFinder will become an even more essential part of the process. We are confident that the improvements unveiled today will enhance the SciFinder user experience and enable new and faster scientific breakthroughs."

About SciFinder
SciFinder® is the first choice of scientists conducting scientific research. Developed by CAS, an organization with more than 100 years of experience in chemical indexing and curation, SciFinder provides intuitive pathways to content optimized for retrieval by acknowledged experts, not sourced from an anonymous crowd. The award-winning application offers access to more relevant journal articles and patent documents than with any other search service. Scientists can also rely on secure access to information available nowhere else, such as CAS REGISTRY℠, the gold standard for chemical substance information. Top Fortune 500 corporations, more than 1,700 universities, and all major patent offices depend on SciFinder for the comprehensive, current, reliable information they need to enable scientific discovery. Learn more at **www.cas.org**.

THE UN-COMFORT ZONE

with Robert Wilson

The Buck Starts Here

Recently I participated in a Murder Mystery weekend at a bed and breakfast lodge. Every guest was a given a role to play. There were eight suspects; each of whom had one or more of the following: Means, Opportunity and Motive. Having the Means and Opportunity was very important, but having the right Motivation was the key to solving the puzzle. We interviewed the suspects, collected clues, then presented who we thought was the killer and why. It was great fun, but I failed to figure out who done it. I was very logical and surmised that a suspect with a monetary motive was the one. But, it turned out to be one with the emotional motive of anger and revenge.

Nevertheless, money is a powerful motivator. It is the original carrot dangling from the stick.

My friend Bill, the computer wizard, told me years ago, "I always follow the money." Meaning that he would learn those computer skills that paid the best. I did the same thing in my early years as a writer. I found journalism fun, but that advertising paid better. Subsequently, I pursued advertising work and honed my skills in motivating people to buy.

The exciting thing about money, or more specifically: prosperity, is that it is a great equalizer. Prosperity has a way of eliminating envy, hatred and bigotry. Increased wealth makes people more tolerant and giving. The formula for prosperity is simple: economic freedom plus property rights. In other words, minimal regulation and the right to keep what you earn.

Clearly we all know that money is a reliable method for motivating people. But, if you ever want to discover the motivation behind an action that appears to be random, backtracking the money trail is frequently a good way to find it. For example, have you ever noticed one of your favorite products disappearing from the store where you buy it? It probably means that there were not enough customers for it and the store quit carrying it. If, however, you can't find it anywhere, then the lack of users is widespread and the manufacturer discontinued it.

Sometimes, however, the money trail is even longer, and more convoluted. I recall a hot summer day, back in the late 1980s, when, after mowing the lawn, I popped open an ice cold soda pop and drained it in one long gulp. Moments later I was on the floor with a painful spasm in my back. It lasted nearly half an hour, and when it was over I made an appointment with my doctor. It turned out that I was allergic to the corn syrup in the soda.

"How could that be?" I asked. I'd drank thousands of sodas without having that reaction. What I learned was that up until that can of soda all the ones I'd drank before were made with sugar. So, I asked, "Why would they switch to corn syrup?" The answer was that the cost of sugar had gone up; and they did not want to raise the price. "Why was sugar more expensive?" Because Congress placed a tariff on imported sugar. "Why did Congress do that?" Sugar growers in Florida asked them to because they did not want to compete with low-cost Carribean sugar. "Why would Congress comply when it would raise prices on all products made with sugar?" Because the sugar growers donated lots of campaign money to a majority of the members of Congress. The trail ends, and the puzzle is solved.

It turns out that my favorite soda pop is still made with sugar in every country on the planet except the United States. One day, I'm going to get a craving and drive a thousand miles to Mexico. Talk about motivation!

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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**.

DECEMBER HOLIDAY PARTY

Get those fingers ready to make reservations for the annual Chicago Section's ACS holiday party on Friday, December 10. Gifts for the raffle will be numbered randomly and placed on side tables in the dining room. Each attendee will draw a number when they register that evening for the meeting.

Gifts will be handed out throughout the evening by calling up groups of individuals having a series of numbers. Meeting attendees are asked to claim their gift only during the time their numbers have been announced. Those individuals who forget to claim their gift will have another opportunity to claim them at the end of the evening. Individuals must present their number in order to pick up their gift.

Door prizes of wine will only be handed out to those 21 or older. A substitute prize will be handed out to students under the age of 21. As always, please do not open your wine at the table.

RICHARD CORNELL
HOSPITALITY CHAIR

POP TOP RINGS COLLECTION

Instead of throwing away those pop top rings from your pop cans, please bring them to the dinner meeting so we can donate them to a program at Ronald McDonald House.

ACT4CHEMISTRY.ORG

The new home of the ACS Legisltive Action Network (LAN) to:

- Contact Policymakers
- Link to daily policy news
- Engage in Act4Chemistry blog

NOVEMBER HISTORICAL EVENTS IN CHEMISTRY

November 3, 1931 DuPont began mass production of the first commercially available synthetic rubber, DuPrene.

November 3, 1921 American Association of Textile Chemists and Colorists was founded on this date.

November 4, 1903 Boris A. Arbuzov, who discovered the formation of free radicals of triarylmethane derivatives, was born. He investigated the properties of terpenes and phosphorous containing heterocyclics.

November 7, 1867 Marja S. Curie (later Marie), who discovered radium and polonium with her husband, Pierre Curie, was born. She shared the Nobel Prize in Physics in 1903 with Pierre in recognition of the extraordinary services they rendered by their joint research on the radiation phenomena discovered by Professor Henri Becquerel. In 1911, she was awarded the Nobel Prize in Chemistry in recognition of her services to the advancement of chemistry by the discovery of the elements radium and polonium, by the isolation of radium and by the study of the properties and compounds of this remarkable element.

November 9, 1994 Three atoms of element 110 were created at GSI in Darmstadt, Germany.

November 12, 1833 Alexandre P. Borodin, a chemist and a composer of classical music, was born. He was a researcher on organofluorine compounds and the Borodin-Hunsdieker reaction.

November 17, 1850 George T. Beilby, who invented the process for retorting shale and synthesized alkaline cyanides, was born. He constructed the first factory for the synthesis of cyanides.

November 20, 1862 August F. Horstmann, who did research on dissociation reactions, was born. He also related heat and entropy in chemical reactions.

November 23, 1837 Johannes D. van der Waals, who was awarded Nobel Prize in Physics in 1910 for his work on the equation of state for gases and liquids, was born. He formulated deviations from the ideal gas law (Van der Waals' Equation) and was a researcher on intermolecular attraction (Van der Waals' Forces), electrolytic dissociation, and capillarity.

November 25, 1960 The first atomic reactor for research and development began operation at Richland, Washington.

November 29, 1936 Yuan T. Lee, who used a specially designed mass spectrometer that could separate and identify reaction products, was born. He shared the Nobel Prize in Chemistry in 1986 with Dudley R. Herschbach and John C. Polanyi for their contributions concerning the dynamics of elementary chemical processes.

November 30, 1948 Chlorotetracycline, a broad-spectrum antibiotic, was isolated by Benjamin M. Duggar, American Cyanamid Corporation.

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

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

ADVERTISING INDEX

CALENDAR

November 1-5: Gas Chromatography: Fundamentals, Troubleshooting, and Method Development course will be held at Axion Analytical Laboratories, 14 N Peoria Street, Suite 100, Chicago, IL 60607. For further information, call 312-243-2153.

November 2: The Associated Colleges of the Chicago Area (ACCA) lecture series, 7:00-9:00 PM, Benedictine University, Krasa Presentation Room in the Krasa Center. Speaker is Carlos Martinez, Senior Principal Scientist, Pfizer Worldwide Research and Development, "Applications of Biocatalysis in the Pharma Industry: Designing for Energy Efficiency." For more information, contact the series coordinator, Dr. Douglas Armstrong, Olivet Nazarene University, 815-939-5393, e-mail: **darmstrg@olivet.edu.**

November 3-5: The 31st Annual Conference of the Association of Laboratory Managers (ALMA) will be held at the Hilton Scottsdale Resort and Villas, Scottsdale, AZ. Registration deadline is October 1. Visit **www.labmanagers.org** for further information and to register.

November 9: The Associated Colleges of the Chicago Area (ACCA) lecture series, 7:00-9:00 PM, Benedictine University, Krasa Presentation Room in the Krasa Center. Speaker is Anne Wilson, Professor of Chemistry, Butler University, "Teaching Old Dogs New Tricks: How Green Chemistry Can Transform Undergraduate Curricula and Research." For more information, contact the series coordinator, Dr. Douglas Armstrong, Olivet Nazarene University, 815-939-5393, e-mail: **darmstrg@olivet.edu.**

November 11: Chicago Section ACS Board meeting, 1400 Renaissance Dr., Suite 312, Park Ridge, IL 60068; 847-391-9091.

November 16: The Associated Colleges of the Chicago Area (ACCA) lecture series, 7:00-9:00 PM, Benedictine University, Krasa Presentation Room in the Krasa Center. Speaker is Jonathan Rienstra-Kiracofe, Professor of Chemistry and Department Chair, North Park University, "The Costs and Benefits of Improving Your Energy Efficiency and Reducing Your Carbon Footprint." For more information, contact the series coordinator, Dr. Douglas Armstrong, Olivet Nazarene University, 815-939-5393, e-mail: **darmstrg@olivet.edu.**

November 18: Chicago Section ACS-University of Chicago joint Dinner Meeting. This is the Stieglitz Lecture. **See details in this issue**.

December 2: Chicago Section ACS Board meeting, 1400 Renaissance Dr., Suite 312, Park -Ridge, IL 60068; 847-391-9091.

December 10: Chicago Section ACS Holiday Party and Dinner Meeting in Willowbrook.

January 29-February 2, 2011: LabAutomation2011 Conference and Exhibition, in Palm Springs, CA, hosted by the Association for Laboratory Automation. For more information, visit **http://www.slas.org/LA11/index.cfm**, or call 1-630-208-6830.

March 13-18: Pittsburgh Conference on Analytical Chemistry and Applied Spectroscopy (Pittcon 2011), Georgia World Congress Center, Atlanta, GA. For additional information, visit the Pittcon website at **www.pittcon.org**.

FOOD, CLOTHING AND TOY DRIVE

We will be collecting nonperishable food items (no glass items) for charity at the December Holiday Party again. The food is donated to the local Loaves and Fishes Community Pantry for distribution. Loaves & Fishes Community Pantry is a community-based, non-profit organization established to provide food and personal care essentials to residents in need.

Also, this year we continue our clothing and toy drive for Ada S. McKinley. Ada S. McKinley Community Services, Inc. is a social agency in Chicago and Oak Park serving individuals with disabilities or other limiting conditions that need help in finding and pursuing paths leading to healthy, productive and fulfilling lives. They are requesting our help in two of their programs: the adult services and the emergency foster care program.

They are requesting a collection of adult and children clothing and a collection of new children's toys. The collection of adult men and women's clothing is for their clients to use for job interviews. The collection of children's clothing is for their emergency foster care program serving children who have been removed from their homes because of neglect or abuse or because the foster home placement was disrupted. Most of these children will be coming from their homes after being taken from their family; often with nothing but the clothes they are wearing. They are requesting boys' and girls' clothing for the age range from infant to 17 years old.

The second project is a collection of children's toys for toddlers to 12 year olds. They are especially in need of new small stuffed plush animals without detachable decorations for new children in their emergency foster care program. They use these stuffed animals year round. These stuffed animals can be found at Target, Walmart, Meyers, etc for fewer than five dollars.

Please open your heart to both of these programs and bring a nonperishable food item and a piece of gently used or new clothing or a new toy to the holiday party.