

Chicago Section



100th Anniversary 1914 - 2014

http://chicagoacs.org

MARCH • 2014

8:00 P.M.

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY PUBLIC AFFAIRS MEETING FRIDAY, MARCH 28, 2014

Café La Cave 2777 Mannheim Road Des Plaines, IL 60018 847-827-7818

Directions to the meeting are on page 2.

SOCIAL HOUR: Cash Bar

6:00 - 7:00 P.M.

DINNER

7:00 P.M.

Menu: Soup of the day; Squillo Salad with Walnuts and Cranberries; Entrée choice of either a Breast of Chicken Combination (Sautéed Breast of Chicken with fresh mushrooms & shallots with a Sherry Cream Sauce and Sautéed Breast of Chicken with Shiitake mushrooms with a Marsala Wine Sauce), Seared Salmon with a Ginger Sauce, or Fresh Vegetables with Pasta; Anna Potatoes; medley of fresh vegetables; Chef selection dessert; a variety of breads; beverage.

Dinner reservations are required and should be received in the Section Office via phone (847-391-9091), email (chicagoacs@ameritech.net), or online (<u>http://www.chicagoacs.net/meetings/14mar.php</u>) by noon on Wednesday, March 26. 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 haven't paid their local section dues and to non-members and is \$37. The cost to students and unemployed members is \$20. 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.

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PUBLIC AFFAIRS

MEETING

Jennifer L. Cassel, Staff Attorney, Environmental Law & Policy Center, Chicago, IL

"The Illinois Hydraulic Fracturing Regulatory Act: Background, Key Provisions and What to Watch for as Fracking Expands in Illinois."

Abstract: In June 2013, Illinois Governor Pat Quinn signed into law the Illinois Hydraulic Fracturing Regulatory Act. The law, which was the result of many months of intense negotiations

(continued on page 2)

(continued from page 1)

among environmental groups, industry representatives, state agencies and others, includes some of the strongest provisions in the nation to protect against contamination from hydraulic fracturing ("fracking"). Some of those stringent protections are, however, now being put at risk by draft regulations proposed by the Illinois Department of Natural Resources.

In this talk, I will present a background on fracking, elaborate on the process of developing the Act, highlight some of its key provisions, and discuss the ongoing regulatory process and the concerns environmental groups and others have with the regulations as proposed. Finally, I will note some of the important unanswered questions regarding what impacts fracking will have in Illinois once the regulatory process is complete.

Biography: Jennifer Cassel is a staff attorney at the Environmental Law and Policy Center, where she works on Clean Air litigation and policy advocacy challenging coal plants, policy advocacy concerning hydraulic fracturing, and other litigation and policy issues. She previously worked as an associate at the Jenner & Block law firm in the Environmental, Energy and Natural Resources Law Practice Group.

Ms. Cassel earned her B.A. in International Studies, with general and departmental honors and Phi Beta Kappa, in 2000 from Vassar College. She was awarded the Vassar Maguire Fellowship in 2000 and 2001 for study in Mexico. Ms. Cassel received her M.S. in anthropology from the Autonomous University of Yucatan, Mexico, in 2004, where she was valedictorian of her Masters program. She received her J.D., cum laude, from Northwestern University School of Law in 2008, where she served as an executive articles editor for the Northwestern Journal of International Human Rights and as a student attorney with the Bluhm legal clinic. During law school, Ms. Cassel also served as a teaching assistant for Richard J. Hoskins in civil procedure and interned at the Environmental Law and Policy Center.

Ms. Cassel is a member of the Illinois Bar and is admitted to practice in the U.S. District Courts for the Northern and Central Districts of Illinois.

DIRECTIONS TO THE MEETING

From I-290 East/West - Take I-290 from either direction and exit onto I-294 North. Continue until you reach the exit for I-190 West (to O'Hare). Exit and immediately pay toll. Exit onto Mannheim Road North. Go North for 1.5 miles. The restaurant is on the right side after the second stoplight.

From I-90 East/West - Take I-90 from either direction and exit I-190 West (to O'Hare). Then follow I-290 East/West directions given above.

From I-294 North/South - Take I-294 from either direction and exit I-190 West (to O'Hare). Then follow I-290 East/West directions given above.

From I-88 East - Take I-88 East to I-294 North. Take I-294 and exit at I-190 West (to O'Hare). Then follow the directions for I-290 East/West given above.

PARKING: Go directly to parking lot for self-parking. Valet parking is also available.

PUBLIC AFFAIRS MEETING

This month, we are focusing on the public's perception of chemistry. In Illinois, the most controversial topic is fracking, the slang term for hydraulic fracturing. Hydraulic fracturing is a procedure for creating fractures in rocks and shale rock formations by injecting at high pressure a mixture of water, sand and chemicals into cracks. This allows for more oil and gas to be produced and increases the economic viability of wells. In the US, fracking has meant lower gas prices and increased domestic oil production. The process of hydraulic fracking has been used since the 1940s, but recent improvements in technology have resulted in a resurgence in hydraulic fracking.

However, fracking is controversial, especially to the environment. Huge amounts of water (2-10 millions of gallons per well) are used. Transporting this water, as well as the waste produced by the well is also an environmental concern. The chemicals used in the process may escape and contaminate the groundwater around the site. Finally, the process may result in small earth tremors. Industry experts claim that these issues are the result of bad practices and not the result of an inherently risky process.

The state of Illinois passed a law in June 2013 on fracking. The regulations or rules are in the process of being drafted now. Our speaker this month, Jenny Cassell, will speak to us about the legal concerns concerning fracking. Ms. Cassell is a lawyer at the Environmental Law and Policy Center (ELPC) and is very knowledgeable on the law and the proposed rules for implementation. I hope you will join me in learning more about fracking in Illinois and welcoming Ms. Cassell.

BARBARA MORIARTY Chair, Public Affairs Committee

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.

DID YOU KNOW?

The Chemical Bulletin, while officially published by the Chicago Section ACS for Chicago-area chemists, was a joint publication with the Ames, Illinois, Iowa, Louisville, Milwaukee, Minnesota, Montana, Northeast Wisconsin, Nebraska, Purdue, Sioux Valley, Peoria, St. Joseph Valley, Kalamazoo, Quincy-Keokuk, St. Louis and Wisconsin Sections from the time it was founded until the 1970s. It reported news submitted from these sections as well as of the Chicago Section.



The Elementary Education Committee of the Chicago Section ACS presents this column and hopes it will reach young children and help increase their interest in science. 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.

Make a Color Wheel from Milk

Kids, if you just add food coloring to milk, not a whole lot happens. However, it only takes one simple ingredient to turn the milk into a swirling color wheel. Here is what you do.

Materials

- 2% or whole milk
- food coloring
- dishwashing liquid
- cotton swab
- plate

Instructions

- 1. Pour enough milk onto a plate to cover the bottom.
- 2. Drop food coloring onto the milk. Watch a video (see reference below) to see what to expect.
- 3. Dip a cotton swab in dishwashing detergent liquid.
- 4. Touch the detergent-coated cotton swab into the milk in the center of the plate
- 5. Don't stir the milk; it isn't necessary. The colors will swirl on their own as soon as the detergent contacts the milk.

How It Works

Milk consists of a lot of different types of molecules, including fat, protein, sugars, vitamins, and minerals. If you had just touched a clean cotton swab to the milk (try it!), not much would have happened. The cotton is absorbent, so you would have created a current in the milk, but you wouldn't have seen anything especially dramatic happen.

When you introduce detergent to the milk, several things happen at once. The detergent lowers the surface tension of the liquid so that the food coloring is free to flow throughout the milk. The detergent reacts with the protein in the milk, altering the shape of those molecules and setting them in motion. There is also a reaction between the detergent and the fat in the milk. This, by the way, is how detergent helps lift grease off dirty dishes. During the reaction, the colorful molecules in the food coloring get pushed around. Eventually equilibrium is reached, but the swirling of the colors continues for a while before stopping.

References: Anne Marie Helmenstine, About.com Chemistry, <u>http://chemistry.about.com/od/chemistryhowtoguide/a/magicmilk.htm</u>

http://www.youtube.com/watch?v=lf4HHazghGs

To view all past "ChemShorts for Kids", go to: http://www.chicagoacs.net/ChmShort/kidindex.html



LETTER FROM THE CHAIR

Dear Chicago ACS Members,

We are very happy to announce that this March you will see an exciting new look at www.chicagoacs.org. To better meet your modern needs, our new website will offer improved navigation, easy access to our resources, and a clear set of showcases for our many activities. Furthermore, it is integrated with comprehensive tools to improve and membership communication management. This includes giving you access to your own member profile, about which you have probably already received an email.

A large number of people have worked very hard to help bring this beneficial change. The Public Relations/New Technology Enhancement Committee (PR/NTEC) led the project under the expert guidance of committee chair and ACS Fellow Russ Johnson. Russ organized countless phone and webex conferences, gave structure to our conversations, identified key decision points, drove consensus, and smoothed our path forward. Past Chair Mike Koehler was an important driving force from the time he was Chair-Elect, and identified the vendor we chose to solve our needs. Chemical Bulletin Editor Cherlyn Bradley was helpful in the process, and we will be seeing a new version of the newsletter, which will take advantage of some of the new site's tools. Other important contributors included Katie Leach, Mark Kaiser, Eva Montgomery, Amber Arzadon, Inessa Miller, Avrom Litin and Gail Wilkening. Of course we also must thank our new web service provider, StarChapter, whose comprehensive tools are designed especially for chapter organizations such as ours. It was very rewarding for me to work with all these team members on this project.

Milt Levenberg, our Webmaster, deserves special recognition for his contributions to the redevelopment and for his long record of dedicated service to the Chicago ACS. Milt pioneered our website in the mid-1990's, making the Chicago Section one of the first ACS Local Sections to have a web presence. The new comprehensive web presence solution is an extension of his spirit, establishing us once again as a leader among local sections.

Enjoy the new <u>chicagoacs.org</u>! JOSH KURUTZ

Do Away with Vacuum Pump Oil Mist with MV Oil Mist Eliminators



MV VISI-MIST Oil Mist Eliminator for Smaller Pumps

- Removes oil mist from vacuum pump exhaust
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- Keeps oil residue from sticking to furniture, walls and floors

Vacuum pump oil mist contaminates the surrounding air, settles on surfaces and you breathe it. Eliminate this problem by installing MV oil mist eliminators on your vacuum pumps. It will save you time and money.

The high-capacity oil mist eliminator is made of stainless steel and is designed for large vacuum pumps. It measures only 10" dia. x 13.5" high. The coalescing filter elements remove oil mist at 0.1 micron with an efficiency of 99.999%.

The MV Visi-Mist eliminates oil mist and is designed for smaller vacuum pumps. Contact MV Products for the oil mist eliminators best suited for your requirements. They install in minutes and require little maintenance.

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THE POWERFUL AX Σ PIN

by Dr. Claude A. Lucchesi, Upsilon 1951

I recently received my 50-year AX Σ pin, and I was reminded of how powerful that pin is. Receiving the 50-year pin was a thrill.

Almost 60 years ago I used a similar one to "pin" my girlfriend at Northwestern University before taking off for a summer at the Los Alamos National Laboratories. That girlfriend has now been my loving wife for 59 years. Here is how she came into my life.

One day Ruth Wellstein (now Ruth Lucchesi) came into the laboratory of the analytical chemists of the Chemistry Department at NU looking for her lab instructor. As fate would have it, he was not there. So she approached me saying, "You'll do." She wanted some acid-base indicators to use for a Sunday school lesson in her church. I helped her, and I was able to walk this lovely coed home.

Eventually I got a date with her, and when I was about to leave NU for a summer doing research in Los Alamos, New Mexico, she accepted my pin to cement our relationship until after I earned my doctorate degree in 1954. Four days after receiving the degree, we were married. I have been able to satisfy her "you'll do"

for 59 years so far. Indeed, the $AX\Sigma$ pin is powerful.

Claude Lucchesi is a longtime section member, has been active at both the local and national ACS level, and will be chairing the new Senior Chemists Committee of the Chicago Section.

WCC COLUMN -AUTHORS NEEDED

Members of the Chicago Section's Women Chemists Committee (WCC) outreach plans for the Chicago-area section members and the community include a column in *The Chemical Bulletin* covering topics such as networking, career development, and vignettes of women in chemistry.

Please consider writing an article about a woman, who is living or dead, by interview or research on the web, or write an article on a topic of interest to women. Both women and men are welcome to join WCC in this activity.

Please make the article around 500 words long and include a photo if possible. Many of the previous articles have been shown as posters at various ACS Chicago Section and National ACS functions with great success. Thank you to everyone who has participated in this WCC effort.

MARGY LEVENBERG TERI COLLINS WCC CO-CHAIRS

100TH ANNIVERSARY OF THE CHEMICAL BULLETIN

REMEMBRANCES OF THINGS PAST

Early Struggles of the Chemical Bulletin by Otto Eisenschiml (October 1924 issue)

When I returned from a long European trip in June, 1914, I was informed that I had been elected Chairman of the Chicago Section during my absence.

The reason for my election – as my sponsors were not slow in explaining to me – was the suspicion lurking in their minds that I might be counted upon to put some new ideas to bear on a situation that needed considerable revamping.

The Chicago Section was rapidly outgrowing its infant's clothes but preparations for expansion had not been made. We had at that time some four hundred members and the contact between them threatened to become a loose one. New members could not be as rapidly introduced as was desirable and the older ones found it increasingly difficult to keep in touch with each other. Interesting events had to be broadcasted through the channels of ordinary gossip and there were no chances for the development of friendly ties except during the monthly meetings which, however, were entirely given over to scientific and routine subjects.

New members swelled our ranks but contributed very little to our progress because during our cut-and-dried proceedings there was no opportunity to display initiative or talent. The old members, therefore, continued to seek each others company, which gave the society the appearance of being run by an inside clique.

The Executive Committee at that time conducted practically all of the affairs of the Section, the House and Membership Committees being the only ones functioning. It will be readily understood that the time of the Executive Committee was fully taken up with administrative matters and that any new ideas that were worth following up would have to be worked out through specialized groups of members.

Of the various committees which I created as Chairman of the Section some were in line with those usually existent in societies, such as the House Committee, the Program Committee, the Finance Committee and the Employment Committee. There were two, however, that had never been in existence before, as far as I know. One of them was a Committee on Public Representation and one on Confidential Guidance. The latter has never functioned but was supposed

to advise young chemists on professional conduct and advancement.

Of all the plans, however, that I had in mind none seemed important to me or as close to my heart as the creation of a monthly paper for the promotion of good will, intimate contact and material advancement to our members. I did believe then as I do believe now that the activities of a body of chemists should embrace more than the mere discussion of scientific subjects. Our official Journal as well as our sectional and national meetings showed no interest in the human point of view at all. The forming of a medium for the expression of all these possibilities was to be the object of our sectional paper.

To state that this idea was received with enthusiasm would be falsifying history. As a matter of fact, I do not think that the BULLETIN had a friend on earth except Mr. French [chair of the Endowment Committee] and myself, and I am frank to say that if it had not been for Mr. French's loyalty and cheerfulness, I would have thrown the whole thing over-board before the first year was over, considering the general indifference or secret animosity that we seemed to meet everywhere.

There were three editors on the board at that time, but one of them never wrote more than one article, and of spontaneous contributions we received practically none. Repeated and earnest requests brought forth nothing but excuses or direct refusals.

It may be interesting to relate now that even the name of the young paper was a matter of considerable debate. The choice finally narrowed down to the CHICAGO CHEMICAL BULLETIN or the CHICAGO CHEMIKER. I violently opposed the latter as being out of line with the dignity of the occasion and the latter name of the BULLETIN finally won out.

The subjects we had to cover were sectional announcements, personal news, and editorials; later on the introduction of new members became another routine subject. Special articles relating to the human side of our profession were the ones, however, that we were trying to get, and in the course of time we succeeded.

The amount of work that French and I perpetrated in those days is hard to gauge. I remember spending whole Sundays writing and reading proofs and I know that French wrote, clipped and made up dummies during most of his spare time— and some of his time that was not so spare. During all this period the national papers ignored us completely and so far as our own Section was concerned, the result was about the same.

The first rift in the clouds came when Mr. P. Van Cleef volunteered to join our staff. I believe the psychological effect on our strained nerves was almost as important to us as his actual cooperation. Soon after that, Mr. C.S. Miner joined the Editorial Committee and with such a nucleus, the continuation of the paper was assured.

About two years after the first appearance of the BULLETIN, the Philadelphia Section followed suit by publishing the *Catalyst*, and today there must be a dozen sections who are publishing local papers. I am safe in stating, however, that so far none of them have approached our own paper in size, quality or circulation and in my heart I hope that they never will.

Otto Eisenschiml, first editor of THE CHEMICAL BULLETIN

SECTION MEETING DATES 2014

Friday, March 28 Thursday, April 24 Friday, May 16 Thursday, June 19 Friday, September 19 Friday, October 24 Thursday, November 20 Friday, December 12

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 ACS 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.

THE UN-COMFORT ZONE

with Robert Wilson

An excerpt from "It's Your Pride and Vanity; Let Yourself be Embarrassed - it's Worth It!"

When I was a boy, I heard a story about a hot dog stand owner, who would put on a clown costume, then stand on the sidewalk everyday and wave motorists into his business. He was so successful, he was able to send his son to college. Upon graduating from college, the son, now worldly and sophisticated, was embarrassed by his father's antics. He convinced his dad that was not the way to get customers. The father, taking the advice from his college-educated son, retired his clown costume, and stopped waving drivers into his restaurant. Overtime business dropped off, and they went out of business.

Too often we allow our self-consciousness - our fear that people may judge us negatively - to keep us from taking risks or trying new things.

Occasionally I'm asked to coach people in public-speaking, most of whom want to get over their stage-fright. I begin by explaining to them, that their fear comes from being too focused on themselves and not on their words.

"You are thinking about yourself and not your message which is all the audience wants. You are worried about what you look like, how you sound, and whether or not you're going to make a mistake. This is all about you, when your speech should be all about your audience. Think of your speech as a gift you are giving them, and that your content speech is all that matters. If you focus your thoughts on making sure your audience receives the vital information they need and want, then you won't have time to think about yourself."

... To read the entire article click here: http://www.jumpstartyourmeeting.com/articles/TUZ/65-Pride_and_Vanity.shtml

Robert Evans Wilson, Jr. is an author, humorist and innovation consultant. He works with companies that want to be more competitive and with people who want to think like innovators. Robert is also the author of the humorous children's book: *The Annoying Ghost Kid.* For more information on Robert, please visit <u>http://www.jumpstartyourmeeting.com</u>

TWO NEW VIDEOS

ACS hopes you will find these two YouTube videos perfect for sharing with teachers, students or just about anyone you know. One video gives littleknown chemistry solutions to everyday problems and the other was released for February's Black History Month. Enjoy!

- Chemistry Life Hacks: With one part Mendeleev and one part MacGyver, this video shows how to brew the perfect cup of coffee, clean stubborn skillets, and solve other dilemmas. Click "subscribe" and you'll have a new episode of this award-winning video series Reactions (formerly Bytesize Science) to share with friends each week. Visit <u>http://</u> tinyurl.com/obz887w
- Five Black Chemists Who Changed the World: Features contributions of Percy Julian, Mae Jemison and three other notable African American chemists. It's co-produced for Black History Month by ACS and the National Organization for the Professional Advancement of Black Chemists and Chemical Engineers (NOBCChE). Visit <u>http://tinyurl. com/pcy8m53</u>

FREE EDUCATIONAL RESOURCES FOR HIGH SCHOOL TEACHERS

The American Chemical Society offers a wide variety of materials online at <u>www.</u> <u>acs.org/highschool</u>. Here are just a few:

- **ChemMatters** is an educational magazine containing articles on popular topics for teenagers. By demystifying the chemistry behind a subject—be it barbecue, perfume, or nutrition labels—articles explain the connection between classroom topics and the real world. Each issue offers one free article online and an extensive free teacher's guide with activities, reading strategies, materials, background information and much more. Annual subscriptions for the hard-copy magazine cost \$16, and bulk rates are available.
- The <u>ACS ChemClub program</u> provides students with a unique opportunity to experience chemistry beyond the classroom. Students participate in afterschool activities, get involved in community building, learn about chemistry careers, enjoy social events, and better understand how chemistry plays a role in our everyday lives. ChemClub advisors receive a handbook of information and resources for starting a club. Quarterly resource packets and occasional bonus items help with ongoing club activities.
- Landmark Lesson Plans are high school lesson plans based on subjects in the history of chemistry. Topics include the discovery of fullerenes, development of baking powder, and Joseph Priestley's discovery of oxygen. Each lesson is complete with reading material, a video and activities for high school students. Lessons are written by high school chemistry teachers and reviewed by subject matter experts.

ADVERTISING INDEX

Company	Page	Telephone	URL/E-Mail
Micron Inc.	3	302-998-1184	www.micronanalytical.com_
Mass-Vac., Inc.	4	978-667-2393	www.massvac.com

CALENDAR

March 2-6: PittCon 2014 will be in Chicago and co-programmed with the ACS Division of Analytical Chemistry. For further information, go to <u>http://pittcon.org/</u>.

March 14: Illinois Science Council: Pi Day Pi K Fun Run, 6 pm - 8:30 pm at Fleet Feet Sports Old Town, 1620 N. Wells St., Chicago, Fleet Feet Sports Lincoln Square, 4762 N. Lincoln Ave., Chicago and Fleet Feet Sports South Loop, 150 W. Roosevelt Road, Chicago. Cost is \$25. For details, go to www.illinoisscience.org/event/pi-day-pi-k/

March 16-20: National ACS Meeting in Dallas

March 28: Chicago Section Public Affairs dinner meeting. See details in this issue.

April 4: A Younger Chemists Committee (YCC) event, "Beers with Peers," This is the official kick-off event of the Chicago Section's YCC group. The focus of the activity is to engage and connect younger chemists with Chicago ACS. Further information as the day approaches. Contact Beau at **pwangtrakuldee@niu.edu** or Alyssa at **ajavestro@u.northwestern.edu** for details.

April 24: Chicago Section dinner meeting

May 16: Chicago Section ACS Willard Gibbs Award Banquet. Dr. John Bercaw, Caltech, is the recipient of the 2014 Willard Gibbs Medal.

June 17-19: The 18th Annual Green Chemistry & Engineering Conference (GC&E), Washington DC metro area. The theme is "Advancing Chemistry, Innovating for Sustainability". For details, visit <u>http://www.gcande.org/?cid=em_gci_epa_1_15_14</u>

ACS EDITORS' CHOICE: EXCEPTIONAL RESEARCH FROM ACS PUBLICATIONS, NOW FREELY AVAILABLE

On January 1, 2014 ACS Publications introduced ACS Editors' Choice. This program offers free public access to new research of importance to the global scientific community. These peer-reviewed, open access articles consist of research that exemplifies the Society's commitment to improving people's lives through the transforming power of chemistry.

One new article will be designated as ACS Editors' Choice each day, and these articles will remain open for all to access and read. Find out more about ACS Editors' Choice by going to the link <u>http://pubs.acs.org/editorschoice/</u>. Check out the features and policies on the program overview page or start reading designated articles today.

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 4,420 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 x10" 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, Photo Shop, Indesign and pdf files. For more information, contact **chicagoacs@ameritech.net** or call 847-391-9091.

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KIDS AND CHEMISTRY PROGRAM

The Chicago Section of the American Chemical Society is in the process of reviving the "Kids & Chemistry" program. The "Kids & Chemistry" is a communitybased program that brings together scientists and children to do hands-on science activities at local schools. The Section will provide kits and supplies for the classroom. Each kit must be checked out and returned to the section within one week of the classroom presentation. Current kits that will be available are: "Buno the Elephant's Toothpaste" (grades 1st-5th) contributed by Elizabeth College Student Chapter; "Chemistry is More Than Hot Air!" (Grades 3rd &4th) contributed by Northwestern State University Student Chapter; and "Lava Lamp" (Grades 2nd-5th) contributed by Chi Epsilon Mu (XEM) Chemistry Club at Austin Peay State University. Future kits available in 2014 will be "Jiggle Gels: (Grades 3rd-5th); "What's New, CO2? (Grades 4th-6th); and "Chemistry Rainbow" (Grades 5th-8th).

We are currently looking for individuals who would like participate in this program. The section will match volunteers to a school requesting the "Kids & Chemistry" program or you may directly contact a school in your area. Volunteers can be from the industrial, government or academic sectors or can be from a student chapter at local colleges or universities or science clubs at local high schools. Please contact Fran Kravitz if you are interested in becoming a volunteer presenter in our "Kids & Chemistry" program at fk1456@sbcglobal.net. Indicate "Kids & Chemistry" in the subject title.

Put your ad here Reach prospective clients by advertising in The Chemical Bulletin	
For more information, call the Section office (847) 391-9091	