ACS Chemistry for Life™

Chicago Section

The Chemical Bulletin

http://chicagoacs.org **SEPTEMBER • 2012**

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY
Jointly with the Chemistry Department of Benedictine University and the Chicago Chemists' Club

Education Night
Thursday, September 20, 2012

Krasa Center
Benedictine University
5700 College Road
Lisle, IL 60532
630/829-6000

DIRECTIONS TO THE MEETING

From Chicago and near-Chicago suburbs
Take I-294 or I-290 to I-88 west. Go west on I-88 to I-355 south. Take the Maple Avenue exit west (right turn) for about two miles. The campus is on the left side. Look for signs. Turn left (south) on College Road and proceed about one block. Turn right into the campus, and then follow the campus road to the left, continuing past the water tower and into the parking lot next to the athletic field and the Krasa Center/ Student Union. The meeting is on the east end, 2nd floor.

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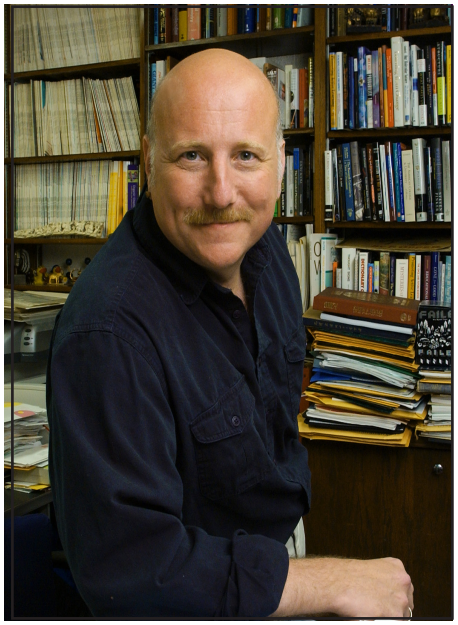
JOB CLUB **5:00 - 6:00 P.M.**

SOCIAL **6:00 – 6:30 P.M.**

BUFFET DINNER **6:30 - 7:30 P.M.**

AWARDS PRESENTATION 7:30 P.M.
Winners of the High School Scholarship Examination

LECTURE **7:45 P.M.**



Dr. Brian P. Coppola, Arthur F. Thurnau Professor of Chemistry, University of Michigan

Title: "Do Real Work, Not Homework"

Abstract: Traditional academic "homework" is limited in what it can accomplish. In this presentation, I will

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outline some principles for more authentic tasks ("real work") that can promote the complex outcomes we want from education. I will provide examples of how we have designed "real work" learning environments as well as how research has allowed us to understand them.

Biography: Professor Coppola received his B.S. degree from the University of New Hampshire in 1978 and his Ph.D. in Organic Chemistry from the University of Wisconsin-Madison in 1984. He became a member of the faculty in the Department of Chemistry at the University of Michigan at Ann Arbor in 1986. At that time, he joined an active group of colleagues in the design and implementation of a revised undergraduate chemistry curriculum. He became a full Professor in 2001, has served as the Department's Associate Chair since 2002 and also serves as the Associate Director for the University of Michigan-Peking University Joint Institute, in Beijing, China. Professor Coppola also co-directs the IDEA Institute (Instructional Development and Educational Assessment), a collaboration between the College of Literature, Science and the Arts and the School of Education. His recent publications range from mechanistic organic chemistry research in 1,3-dipolar cycloaddition reactions to educational philosophy, practice and assessment.

In 1994, Dr. Coppola received the 4th campus-wide "Golden Apple Award" for outstanding teaching, a recognition organized and administered solely by undergraduate students. He was awarded in 1996 a United States Department of Energy, Undergraduate Computational Science Education Award. He was selected as part of the first group of Carnegie Scholars affiliated with The Carnegie Foundation for the Advancement of Teaching's CASTL program (Carnegie Academy on the Scholarship of Teaching and Learning) in 1998. In 1999, Dr. Coppola received the Amoco Foundation Award for Excellence in Undergraduate Teaching and was elected in 2002 as a Fellow of the American Association for the Advancement of Science. In 2003, he received the Kendall-Hunt Outstanding Undergraduate Science Teacher Award from the Society for College Science Teachers. He was named the State of Michigan Professor of the Year in 2004 in the CASE/Carnegie US Professor of the Year program. In 2006, he received the American Chemical Society's James Flack Norris Award for work that has impacted the field of chemistry education. He was selected as the CASE/Carnegie US Professor of the Year (for doctoral institutions) in 2009.

He is a member of the editorial boards of *The Chemical Educator, The International Journal of Science Education*, the *Journal of Science Education and Technology*, and the *Journal of Chemical Education*. He is an Associate Editor for *The Journal for Research in Science Teaching*, and he is the editor in chief of *The Hexagon*, the quarterly publication of Alpha Chi Sigma, the professional chemistry fraternity.

Directions to the meeting (Continued)

From the north or south suburbs

Take the I-355 North-South Tollway to the Maple Avenue exit. The University is about two miles west of the Tollway. The campus is on the left side. Look for signs. Turn left (south) on College Road and proceed about one block. Turn right into the campus, and then follow the campus road to the left, continuing past the water tower and into the parking lot next to the athletic field and the Krasa Center/Student Union. The meeting is on the east end, 2nd floor.

From the south

Take I-55 to I-355 North. Take I-355 north to the Maple Avenue exit west to the University. The campus is on the left side. Look for signs. Turn left (south) on College Road and proceed about one block. Turn right into the campus, and then follow the campus road to the left, continuing past the water tower and into the parking lot next to the athletic field and the Krasa Center/Student Union. The meeting is on the east end, 2nd floor.

By train

Metra, the Chicago area commuter rail system, runs between Lisle and downtown Chicago seven days a week. For train schedules, call (630) 968-3916 or visit www.metrarail.com. Cab service is available for the two-mile trip from the station to campus. The meeting is on the east end, 2nd floor of the Krasa Center/ Student Union.

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.

DINNER INFORMATION

Menu:

- Antipasto Platter
- Caesar Salad with Homemade Croutons
- Assorted Rolls with Butter
- Sautéed Fresh Zucchini
- Pasta Bar with Penne Pasta
- Marinara Sauce and Pesto Cream Sauce
- Home-style Meatballs in Marinara Sauce and Traditional Chicken Cacciatore
- Parmesan Cheese
- Mini Cannolis
- Brewed Iced Tea, Lemonade and Ice Water

The cost is $15.00 per person. No discounted dinners for students, retirees or unemployed.

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, September 18. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

"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 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.

Rochelle Salt – Part II

Kids, you can make a large single crystal of Rochelle salt and use it to make your own piezocrystal-based circuit. You learned how to make your own Rochelle salt granules in the July 2012 ChemShorts edition. Piezoelectric crystals make very accurate and stable electronic vibrations. Clocks, radios and computers depend on them for precise timing. The crystal works with other timing elements to produce a stable frequency. Crystals come in a variety of fixed frequencies, from 32,768 to billions of cycles per second.

Rochelle salt or potassium sodium tartrate is popular for growing crystals because it produces easily grown single crystals. Take the 80 grams or so of granular Rochelle salt that you made earlier this summer and mix it with 100 milliliters of very hot water.

Filter the solution through a coffee filter, paper towel or filter paper to remove any undissolved material. Allow the solution to sit undisturbed. Small crystals will begin to grow on their own eventually, or you can pour a small amount of solution onto a plate to produce a seed crystal, which may be introduced into a larger volume of solution to grow a large single crystal.

This will yield amateur piezoelectric crystals. This process is easy and is in fact a simplified replica of how professional piezocrystals are manufactured under carefully controlled conditions, with greater temperatures and ingredients of much greater purity.

TIPS: The method described can be scaled up to create more solution and larger crystals. Refer to the first reference below to make your own piezocrystal-based circuit.

References:

http://www.ehow.com/how_does_5467738_process-making-piezo-crystals.html. A video on making Rochelle salts: http://www.youtube.com/watch?v=E1Ct3VUWvhQ&feature=related and testing the crystal: http://www.youtube.com/watch?annotation_id=annotation_453159&feature=iv&src_vid=E1Ct3VUWvhQ&v=R9m79oWdOZI
This author takes apart a digital watch and uses the piezoelectric crystal near the back of the watch that makes the audible sound for the wrist alarm: http://www.josepino.com/projects/electricity-from-piezoelectric and in video: http://www.youtube.com/watch?v=s3FtI6n9Oq0 They use a small LED to see the output from the crystal. You might try the same with your crystal.

Anne Marie Helmenstine at About.com: Chemistry http://chemistry.about.com/od/crystalrecipes/a/Rochelle-Salt-Crystals.htm

Submitted by DR. KATHLEEN CARRADO GREGAR

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

PLEASE VOTE

in the Section's election that is coming up soon.We will be able to vote electronically.

ACS HIGH SCHOOL CHEMCLUB PROGRAM

Join this free program and receive packets that contain experiments, demonstrations, and suggestions for non-laboratory activities. Go to http://tinyurl.com/cn29o2p

2012 BASOLO MEDAL TO BE AWARDED TO DR. RICHARD EISENBERG

Northwestern University will honor **Dr. Richard Eisenberg**, University of Rochester, with the Basolo Medal for recognition of work in inorganic chemistry. Named for Northwestern University chemistry professor Fred Basolo, the award is given by Northwestern University and cosponsored by the ACS Chicago Section. Dr. Eisenberg will deliver the award lecture at the Northwestern University Technological Institute in Evanston, IL on October 19.

Following the lecture at Northwestern, the Medal presentation will be given at the Chicago Section's meeting. Meeting information and additional details will be found at the section's website, www.chicagoacs.org. Reservations may be made on-line or by calling the Section's office at (847) 391-9091.

CLASSROOM SAFETY

Assure safe practices in your classrooms with ACS safety resources. Go to http://tinyurl.com/c6unegs

2012 FIFTY-SIXTH ANNUAL SCHOLARSHIP EXAMINATION IN CHEMISTRY

SPONSOR: Chicago Section, American Chemical Society: High School Education Committee
HELD AT: North Central College on May 26, 2012
AWARDS: Funds are contributed by the chemical industry and by individuals.
Teachers of a prize-winning student(s) will receive $100.

PRIZE	WINNER	TEACHER & SCHOOL
FIRST **$5,000 AWARD**	**Alfonso Fernandez**	**John Kretsos** Niles North HS
SECOND **$3,000 AWARD**	**Matthew Wu**	**Dan Brown** Naperville Central HS
THIRD **$2,500 AWARD**	**Rohan Shah**	**Jim Glynn** Glenbard South HS
FOURTH **$1,500 AWARD**	**Andrew Toennies**	**Beverly George** Naperville North HS
FIFTH **$1,250 AWARD**	**Alexander Mine**	**Walt Kinderman** Walter Payton College Prep HS
MARIE LISHKA AWARD* **$2000 AWARD**	**Emily Mu**	**Steve Wiesbrook** Naperville Central HS
MARSHALL S. SMOLER AWARD** **$200 AWARD**	**Alexander Mine**	**Walt Kinderman** Walter Payton College Prep HS
BERNARD E. SCHAAR AWARD*** **$500 Chicago Chemists' Club Award**	**Alexander Mine**	**Walt Kinderman** Walter Payton College Prep HS

*To the highest scoring female in the examination. This award honors Marie Lishka, who was an active Chicago Section member for many years. Additional funding for the Lishka award was provided in memory of Stan Drigot.
**To the highest-scoring Chicago public high school student. Marshall S. Smoler was a chemistry teacher in the Chicago public schools for many years. His sister, Rachel, established this award in 1972 in his memory.
*** To the highest scoring Chicago high school student. Bernard E. Schaar's widow established this award in his memory. He had been long-time active member of the Chicago Section, American Chemical Society and the Chicago Chemists' Club.

HONORABLE MENTIONS LISTED IN ALPHABETICAL ORDER

(These students were the next highest performers)

Anya Agrawal	Glenbard South HS
Isabel Fan	Naperville Central HS
Max Farbman	Buffalo Grove HS
Joe Kupferberg	Chicagoland Jewish HS
Anatoly Kuznetsov	Naperville North HS
Jonah Philion	Oak Park/River Forest HS
Sanjay Subramanian	Naperville Central HS
Alex Tamkin	New Trier HS
Jesse Yang	Naperville Central HS

A total of 78 students were nominated to take the 2012 ACS Scholarship exam. Each chemistry teacher could nominate two students.

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Congratulations to all the students and also to their teachers and parents.

Awards will be given to students at the ACS Education Night meeting on September 20 at Benedictine University. Award winners and their teachers have been contacted by the Chicago ACS office. All teachers and students are invited and encouraged to attend the ACS Education Night meeting. Teachers who attend the ACS Education Night meeting will receive CPDU credits. Teachers do not have to be ACS members to attend. Register online at **http://www.chicagoacs.net/register.php**

A special thank you to Dr. Paul Brandt, Chemistry Professor at North Central College, for his hard work and willingness to author the exam.

FINANCIAL CONTRIBUTORS TO THE SCHOLARSHIP EXAM ARE: ACS Chicago Section, Stan Drigot's family, Dr. Henry M. Walton, Chicago Chemists' Club, and Rachel Smoler.

CHICAGO CHEMISTS' CLUB

Club History
The Chicago Chemists' Club was chartered December 30, 1919 as a social organization to promote good fellowship among Chicago-area chemists. Through the years, the Club roster has included many prominent members of the chemical profession.

Social Events
The social calendar of the Chemists' Club includes ten dinner meetings per year where spouses and/or guests are welcome to attend. Meetings are usually on the second Wednesday of the month at various restaurants in the Chicago area featuring a variety of cuisines. We present timely, stimulating speakers in fields such as science, politics, medicine, etc., and also folk-singers, artisans and world travelers. In the spring the Club has a dinner-theater party. Each year, jointly with the ACS Chicago Section's Education Meeting, we present the Bernard Schaar Memorial Award to the first-place winner of the ACS high-school chemistry examination. The Club is also a co-sponsor of the ACS Chicago Section's annual Holiday Party in December.

Membership Benefits
Membership dues are $25 per year. As a non-profit organization, the Club returns a portion of these dues to its members in the form of dinner price reductions.

Joining the Club
Membership is open to chemists, chemical engineers and allied scientists.

NORTHWESTERN UNIVERSITY TEAM WINS ENERGY DEPARTMENT'S NATIONAL CLEAN ENERGY BUSINESS PLAN COMPETITION

As part of the Obama administration's Startup America Initiative that works to encourage and accelerate high-growth entrepreneurship throughout the nation, the Energy Department announced in June of this year that **NuMat Technologies from Northwestern University** won the first-ever DOE National Clean Energy Business Plan Competition. The competition aims to inspire university teams across the country and promote entrepreneurship in clean energy technologies that will boost American competitiveness, bringing cutting-edge clean energy solutions to the market and strengthening our economic prosperity.

NuMat Technologies presented a plan to commercialize a nanomaterial that stores gases at lower pressure, reducing infrastructure costs and increasing design flexibility. One potential application for this innovation is in designing tanks to store natural gas more efficiently in motor vehicles. NuMat Technologies won based on its commercialization idea, go-to market strategy, team plan, environmental benefits and potential impact on America's clean energy economy.

For further information, go to **http://apps1.eere.energy.gov/news/progress_alerts.cfm/pa_id=748**

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CONGRATULATIONS TO CHICAGO SECTION'S 2012 ACS FELLOWS!

Six Chicago section members were among the 96 selected and honored as 2012 ACS Fellows at a ceremony during the Philadelphia National ACS meeting in August:

Cherlynlavaughn Bradley
BP-Amoco (Retired)

Mark C. Cesa
Ineos Nitriles

David S. Crumrine
Loyola University Chicago

Kathleen Carrado Gregar
Argonne National Laboratory

Sara J. Risch
Popz Europe

Darsh Wasan
Illinois Institute of Technology

See the complete list of 2012 ACS fellows at: **http://cenm.ag/fellows**. These distinguished scientists are recognized and honored for their significant contributions to the science and for providing excellent service to the ACS. They represent 23 technical divisions and 52 local sections and reflect a wide range of disciplines and geographic locations.

Background
The ACS Fellows Program was created by the ACS Board of Directors in December 2008 "to recognize members of ACS for outstanding achievements in and contributions to Science, the Profession, and the Society."

Eligibility
Nominees must be current members in good standing with the ACS. The selection of ACS Fellows is based on documented excellence and leadership in two defined areas: (1) science, the profession, education, and/or management, and (2) volunteer service in the ACS community. Nomination documents must address both of these areas.

1. **Excellence and leadership that have a lasting beneficial impact in science, the profession, education, and/or management.** Appropriate activities might include, but are not limited to, the following:

- Outstanding and creative contributions to scientific research
- Superior achievements in the teaching and learning of chemistry
- Strong, effective leadership or managerial excellence in an organization within the chemical enterprise

2. **Volunteer service in the ACS Community resulting in significant enhancements to ACS programs, products, or services.** Appropriate activities might include, but are not limited to, the following:

- Outstanding leadership, documented through specific results achieved, of a Division, Local Section, regional meeting, national meeting and/or international conference
- Exceptional assistance, as an unpaid volunteer, in the publication of scientific information (not including routine authorship or reviewing publications associated with one's own research)
- Organization of especially significant symposia, major presentations, or other programming at national/international meetings
- Leadership or other outstanding contributions to public outreach activities, such as National Chemistry Week and Chemists Celebrate Earth Day
- Effective communication to the public of the value of the chemical sciences or chemical professionals through the press, radio, TV, or other electronic media

Nominations can be submitted by ACS National Committees, Technical Divisions, Local Sections and individual members.
Nominations for the class of 2013 ACS Fellows will open in the first quarter of the year. Additional information about the program, including a list of fellows named in earlier years, is available at **www.acs.org/fellows**.

Selection
Fellows are selected by a broadly representative Selection Committee appointed by the Board Committee on Grants & Awards, which has governance oversight for the program.

Recognition
ACS Fellows are recognized and honored at the Fall ACS National Meetings. Each Fellow receives a lapel pin and a certificate.

Additional Information
Additional information on the ACS Fellows Program can be obtained by sending an email to: **fellows@acs.org**.

MEMBERSHIP APPEAL - COMMITTEE ON MINORITY AFFAIRS

The Committee on Minority Affairs (CMA) supports the claim that ACS places high priority on active involvement of minorities. The objective of the committee is to cause change in institutional culture and obtain the goal of full participation and expression of intellectual and creative capacity of these minorities.

A list of what CMA is expected to do is included on the parent organization's webpage. Included are the promotion and recognition of the professional accomplishments of Minorities; attraction of minority students to the chemical professions; identify minority-friendly education institutions and businesses; increased involvement of minorities at local, regional and national levels; provision of mentoring to minority students; compilation of best practices for recruitment, retention, career development, and evaluation of programs for the advancement of minorities.

Our Local Section has a Committee on Minority Affairs. Ongoing efforts are being made to attract members to join this committee. Past committee activities included involvement of minority students matriculating at local institutions by extending invitations to participate in a section meeting such as the educational night monthly dinner meeting. The committee has a modest budget from which the students' dinners are sponsored. Ideas are welcomed from potential volunteers as well as members. Tapping into the America Chemical Society's new initiative to assist unemployed chemist in networking and finding employment the local CMA has a great opportunity to add this to the list of "things to get more involved in" now. I appeal to you, fellow members of the section to step forward and assist in strengthening and building a vibrant Committee on Minority Affairs.

CHARLES CANNON
Chair, Chicago Section CMA

DID YOU KNOW?

ACS Professional Education has a brand new website. Go to **http://proed.acs.org/** and you'll notice a completely different look. Navigating the site is much easier for you to find exactly the training you are looking for.

CHICAGO'S SPECIALTY CHEMICAL COMPANY PIONEERS (PART 1)
by Edward A. Knaggs(1)

By 1925, metropolitan Chicago was well on its way to become one of the largest industrial cities in the world with the following major industries (listed and ranked according to their economic importance): "slaughtering/meat packing, printing/publishing, foundry/ metal working, electrical, clothing, iron/ steel making/milling, pipe fittings, food and personal care industries"(2). Many of these Chicago industries employed chemists, generally in support of their operations. Examples included Best Foods Laboratories, Swift & Co. in the stockyards, Armour's nearby laboratories and Universal Oil Products suburban Riverside facilities providing petroleum refining process research support for the oil industry.

This is a historical documentary about a number of individual chemists in Chicago who successfully established new specialty chemical(3) businesses during the 1920's, '30's and '40's, many during the "Great Depression", when synthetic organic chemistry was in its infancy.

These remarkable, well-educated entrepreneurial chemical pioneers had several characteristics in common. They were courageous, determined risk-takers who identified what the market needed, and worked to fulfill those needs. Most were good salesmen, or out of necessity, soon became one. Their professional careers in chemistry will be examined through the specialty chemical companies involved, including Best Foods Company, Emulsol, Witco, Ninol and Stepan.

Some of these individuals were European immigrants who came to the U.S. looking for freedom and opportunity. They all labored and succeeded in America's free market economy, and truly lived the "American Dream," and it all started in Chicago.

This historical documentary begins with the Best Foods Company.

Best Foods Company (1898-2000)

In 1922, giant conglomerate Corn Products Corporation's Gold Dust subsidiary had its Best Foods consumer products division consolidate its various food and related consumer products operations, and established a relatively large laboratory in Chicago. Their product lines were gradually increased to include Kayro Corn Syrup, other syrups, jams, Mazola Corn Oil, Hellmann's Mayonnaise, dressings, margarine, Shinola Polish, Gold Dust soap products, laundry starches and others. Because of its size, Best Foods was able to attract a number of well-educated chemists. Some were graduates of the University of Chicago, while others were European immigrants seeking better opportunities in the "New World."

By 1933, in the midst of the "Great Depression" President-elect Franklin D. Roosevelt proposed a job saving program, asking employers to retain their employees, putting them on a half time basis with reduced pay. For necessary cost and job saving measures, Best Foods' management decided to follow the President's recommendation. Thus, their employee's work was reduced to halftime with drastically reduced wages. As an incentive to keep its chemists, Best Foods allowed their lab personnel to utilize their lab facilities pursuing projects of their own choosing, working on their own free time. Some used this opportunity to develop new and patentable products and processes for themselves (4).

Over the years, it would turn out that Best Foods Laboratories proved to be a training ground for many of their chemists, especially during and right after the "Great Depression." Some left the company and established their own specialty chemical companies, while others would leave to join those who already started new businesses. This group of former Best Foods chemists, included Russian immigrant Dr. Wolf Kritchevsky, a well-educated dye expert, who left Best Foods in about 1934 to start Rit Products Company in Chicago, and whose patents on alkylolamine-fatty acid condensation products (later to be named Ninols) would contribute to his sons starting Ninol Laboratories in Chicago in 1940 (4). Morris B. Katzman and Albert K. Epstein also working on their own free time secured a patent on certain fatty amide emulsifying agents.

Immigrant chemist, Albert K. Epstein left Best Foods in 1935 to become president of his new chemical company called Emulsol Corporation. Other chemists of Best Foods left and joined Emulsol including Benjamin R. Harris, Morris B. Katzman, Frank J. Cahn, and John J. Morrisroe (4).

Katzman and Cahn later, in 1952, would leave Emulsol to start Process Chemicals Company in Los Angeles (4,5). John Morrisroe left Emulsol in 1951, invented his SO2 solvent SO3 sulfonation process (6), and started Pilot Chemical Company in Santa Fe Springs, California in 1952 (7).

Best Foods continued to grow globally as the largest international food giant, constantly undergoing acquisitions, mergers, an occasional unit spin off, and frequent name changes. Corn Products Refining Company and Best Foods Inc. merged in 1959, and later in 1969 changed its name to C.P.C. International. In 1996 C.P.C. International had sales of $9.8 billion and they again split off Best Foods during 1997. Unilever acquired Best Foods in 2000 (8).

(1) The author of this historical documentary was employed by Ninol Laboratories from 1945-1957, and by Stepan Co. from 1957 to 1987.
(2) Cunningham, J. D. Chicago-The World's Youngest Great City; American Publishers: Chicago, 1929; p 99.
(3) Specialty chemicals are generally defined as chemical products or intermediates that contribute or impart special physical or chemical features and/or improved product performance properties or attributes to a formulation or consumer product. Generally the somewhat lower volume specialty chemicals' unique features may warrant or com -mand a premium or price advantage which helps to differentiate them from the larger volume, chemically well defined, lower margin priced commodity chemicals.
(4) Private communication on November 15, 1992 between Mr. Jerome Kritchevsky and the author discussing his father's life history.
(5) News, JAOCS, September 1952, p. 18.
(6) Morrisroe, J. J., U.S. Patent 2,703,788, March 8, 1956.
(7) History and timeline of Pilot Chemical Co. http://www.pilotchemicalco.com (accessed Feb. 2012).
(8) CPC International Company history. http://www.cpcinternational.com (accessed Feb. 2012).

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

THE UN-COMFORT ZONE

with Robert Wilson

When Stories Work Better Than Facts

Recently I was asked by the sales manager of a company if I could reach his staff with a message he had been trying to "beat into their heads for months." Uh, his words not mine.

He wanted me to accomplish what he failed to do: inspire his sales people to spend more time pursuing smaller accounts. He said they were all good producers so he couldn't threaten them with job loss, but the company depended on those smaller accounts because they made up the bulk of their business.

His sales staff only wanted to work with the larger accounts because they generated higher commissions. He said, they complained that the small accounts took up too much time, and were not worth it.

They were cold to his logic. In order to convince them, I knew I needed to translate the company's mission into human terms. In short, I needed to come up with a story they could personally relate to.

I did some research to find some good ones. Then I recalled a story of my own, one I had not thought of since the 1980s when I worked as a wholesale apparel salesman. Yes, I was a rag rep. One day at the Miami Apparel Mart, a clothing store owner stopped by my showroom to say she did not have time to shop with me, but asked if I would visit her store on my way back to Atlanta. I agreed.

Having never worked with her before, I did not know what to expect. When I arrived at her shop, I groaned. It was the smallest store I had ever seen. It was maybe 300 square feet. There was barely room to show her my samples. As I looked around the tiny space, I imagined the tiny order I might get. Nevertheless, I patiently worked with her. It took over two hours. When it was over - my prediction came true - I received a mediocre order.

As I drove away, I grumbled to myself about the time I had wasted. But it got worse. The client called me multiple times with changes to her order. She was very demanding and had several special needs. I complied cordially. I was never brusque, but wondered how much more hand-holding this woman was going to need. Even my partner got annoyed seeing me on the phone so often with her and said, "You need to cut your losses on that account!"

A few weeks later, the store owner visited my showroom at the Atlanta Apparel

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Mart. This time I ended up working with her for several hours. She wanted to see everything we had. I was patient and polite, and did not rush her, but I grew more irritable by the minute. She took copious notes, thanked me and left. I was furious - all that work and no order to show for it!

A couple of days later, she dropped off the largest order I had ever received. I was dumbfounded. My first thought was that such a small store would not have the necessary credit, and the manufacturers would never ship this amount of merchandise to her. But that was not my decision to make. I placed the order and waited to see what the factors would say. To my surprise the order went through without a hitch.

The clothing was shipped and a week later she re-ordered. Again, I was shocked. Completely baffled, I started asking other reps what they knew about her. I soon learned that she was a maven. She had hundreds of loyal customers who would not get dressed without her fashion advice. The merchandise in her store turned over every week. She had a multi-million dollar business that she started out of her home before she ever rented space in a commercial building.

Later on, she confessed that her first order with me was a test. She wanted to see how I would work with her. I passed. I was so happy that I had been patient with her because she became one of my top customers for a long time.

It worked! I could tell that my client's sales people connected with the story because it generated a lively discussion where several offered similar stories of their own. I then reinforced my message of "hidden gold mines" by sharing another story with them about a colleague who nurtured his fledgling customers to success by sharing his expertise in how to build a business. Because he took the time to help them grow, they became loyal customers.

As I told each story, the sales people imagined similar scenarios where they might benefit from working with their own smaller customers. Annette Simmons, author of *The Story Factor: Inspiration, Influence, and Persuasion through the Art of Storytelling*, said, "Story is your opportunity to create in your listeners' imagination an experience that feels real."

When you need to persuade, forget the hard facts; instead share a relevant story that touches the heart.

--

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 **http://www.jumpstartyourmeeting.com**

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CHEMMATTERS MAGAZINE

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ARE YOU AN INDUSTRY PROFESSIONAL WHO WANTS TO BE MORE INVOLVED WITH ACS?

The American Chemical Society is launching a new program based in two topic areas: Toxicology for the Scientist and Separation Science, and needs your content. ACS is looking for the best and brightest as well as the new and hypothetical. If you have authored an impressive paper, article or lecture slide set, or created a high-quality image, graphic, animation, illustration or video in either of these topic areas, ACS wants to see it. Contact us at **sci-mind@acslearning.org** with your ideas.

SECTION DUES

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

CONTACT THE CHAIR

Do you have any questions, suggestions, ideas, gripes, or complaints relating to the Chicago Section? Do you want to help with Section programs and activities? Then contact your Chair. Simply log onto the Section's Web Page at **http://www.chicagoacs.net/**, click on the "Contact Us", click on "Contact the Chair", and send me an e-mail. If I can answer your query, I will respond personally. If I can't answer directly, I will forward your e-mail to someone who can, or try to provide you a contact – all in a timely manner. The Section belongs to you and the other 4,546 ACS members residing in the Chicagoland area (including northeast Illinois and northwest Indiana). Only you can make it work for you by being involved. But you can also make it fail be not being involved. I look forward to hearing from you.

AVROM LITIN
CHICAGO SECTION CHAIR

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.

CO-CHAIRS MARGY LEVENBERG
AND TERI COLLINS

SEPTEMBER HISTORICAL EVENTS IN CHEMISTRY

September 3, 1938 Ryoh Noyori, researcher in asymmetric hydrogenation, was born. He received the Nobel Prize in Chemistry (2001) with William S. Knowles for their work on chirally catalysed hydrogenation reactions.

September 9, 1974 Albert Ghiorso and Glenn T. Seaborg announced the discovery of element 106, now known as Seaborgium, at the University of California, Berkeley.

September 10, 1942 The weighing of a pure compound of synthetic element Pu by B. B. Cunningham & L. B. Werner at the wartime Metallurgical Laboratory, University of Chicago.

September 12, 1930 Akira Suzuki, who received the Nobel Prize in Chemistry (2010) with Richard F. Heck and Ei-ichi Negishi for palladium-catalyzed cross couplings in organic synthesis, was born.

September 13, 1945 B. B. Cunningham and L. B. Werner isolated the first microscopic amount of a compound of americium at the wartime Metallurgical Laboratory, University of Chicago.

September 13, 1937 Polaroid Corporation was incorporated.

September 14, 1936 Ferid Murad, a researcher in the role of NO and cyclic GMP, was born. He shared the Nobel Prize in Physiology or Medicine in 1998 with Robert F. Furchgott and Louis J. Ignarro for their discoveries concerning nitric oxide as a signaling molecule in the cardiovascular system.

September 14, 1961 Custom Service Chemicals, manufacturer of products for thin layer chromatography, was founded. The company's name was changed in 1965 to Analtech, Inc.

September 15, 1932 Neil Bartlett, who prepared the first noble gas compound, xenon hexafluoroplatinate, in 1962, was born. He also synthesized XeF2, XeF4, and XeF6.

September 16, 1970 The Great Lakes Chemical Co. was incorporated.

September 29, 1920 Peter D. Mitchell, who researched chemiosmotic reactions and reaction systems, was born. He received the Nobel Prize in Chemistry (1978) for his contribution to the understanding of biological energy transfer through the formulation of the chemiosmotic theory.

September 30, 1923 Morris Kates, a biochemist-composer, was born. He researched lipids and lipids of Archaebacteria.

September 30, 1939 Jean-Marie P. Lehn, researcher on 3-dimensional stacked-layer polycyclic compounds, was born. He received the Nobel Prize in Chemistry (1987) with Donald J. Cram and Charles J. Pedersen for their development and use of molecules with structure-specific interactions of high selectivity.

September 30, 1943 Johann Diesenhofer, researcher on 3-dimensional structure of proteins related to photosynthesis, was born. He received the Nobel Prize in Chemistry (1988) with Robert Huber & Hartmut Michel for the determination of the three-dimensional structure of a photosynthetic reaction center.

September 30, 1947 L. B. Werner and I. Perlman reported the isolation of the first microscopic amount of a compound of curium at University of California, Berkeley.

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**.

IN NEXT ISSUE:
the
October 19
Basolo Medal Award
Lecture, Dinner
and Presentation

ADVERTISING INDEX

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CALENDAR

September 20: Chicago Section ACS Meeting at Benedictine University in Lisle. This is a Thursday meeting. **See details in this issue**.

October 19: Chicago Section ACS Dinner Meeting. This is the Basolo Medal Award meeting. Lecture by Dr. Richard Eisenberg (2012 Basolo Medal awardee) at Northwestern University (Tech Institute) and dinner at the Hilton Orrington.

October 21-27: National Chemistry Week (NCW); NCW is 25 years old.

October 27: Chemistry Day in Chicago at UIC.

October 24-27: Midwest ACS Regional Meeting (MWRM), Omaha, NE. For information, go to **www.acs.org/meetings/regional**.

November 7: Chicago Section ACS Dinner Meeting

November 16: Stieglitz Lecture. More details as the event approaches.

December 14: Chicago Section ACS Holiday Party and Dinner Meeting, Fountain Blue Banquets

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 4,546 members, who are professional chemists and others in related professions in industry, academia and government throughout greater Chicago.

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September, 2012 Vol. 99, No. 7 Published by the Chicago Section of The American Chemical Society, Editorial Staff: Cherlyn Bradley, Editor; Fran Kravitz, Associate Editor; Richard Treptow, Proofreader; Avrom Litin, Publication 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.

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on **Thursday, September 20 at 5:00 p.m. at Benedictine University**. 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.

Deadline for submitting articles for the November Chemical Bulletin is September 28