

theCHEMICALbulletin

<http://chicagoacs.org>

FEBRUARY • 2008

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Joint Meeting of the Illinois Institute of Technology

Department of Chemistry and the Chicago Section ACS

Kilpatrick Lecture and Banquet

FRIDAY, FEBRUARY 22, 2008

**Illinois Institute of Technology
McCormick Tribune Campus Center
Auditorium and Ballroom MTCC
3201 South State Street
Chicago, IL**

DIRECTIONS TO THE MEETING

The IIT McCormick Tribune Campus Center (MTCC) is at the NE corner of 33rd and State Street. Within the MTCC, our meeting space is in the SW corner.

From the North:

Take Dan Ryan Expressway (I-90/I-94) east and exit at 31st Street, continue south to 33rd Street, turn left (east) onto 33rd and go 1/4 mile to State Street.

From the South:

Take Dan Ryan Expressway (I-90/I-94) west and exit at 35th Street, continue north to 33rd Street, turn right (east) onto 33rd Street and go to State Street.

From Lake Shore Drive:

Exit at 31st Street, go inland (west) 3/4 mile to State Street.

From the West:

Take Ronald Reagan Tollway (I-88) to I-290 east (Eisenhower Expressway). Merge onto Dan Ryan Expressway (I-90/I-94) east and exit at 31st Street, continue to 33rd Street, turn left (west) onto State Street.

By Public Transportation:

Both the Red and Green Lines serve IIT with stations at 35th street. Several CTA buses running on State Street stop at the MTCC.

PARKING: The closest parking lots are the Visitor's Parking Lot A4 immediately north of the MTCC and Lot D1 immediately south (across 33rd street) of the MTCC. Parking is free after 7 p.m. in Lots A4 and D1. Before 7 p.m., parking is metered.

There is free street parking on both sides of 30th street (for a block west from State Street) and on State street north of 30th and south of 35th street with rush hour restrictions on the west side (for south bound traffic from 4:30 to 6:30 p.m.)

IMPORTANT NOTICE

The Chemical Bulletin is changing! Starting September 2008, primary distribution of *The Chemical Bulletin* will be changing to a new electronic version that will bring new features, including enhanced content and better links to our advertisers' content. We will send to you the link to each issue by email. We will, of course provide the option to not receive the email notification, and you will still be able to reach each issue through the Section web page. You also will still have the option of receiving a paper copy for a small additional fee. More details will be given in *The Chemical Bulletin* and also at the Chicago Section web page: www.chicagoacs.org. We would also like to hear about your thoughts and guidance as we make this change; please send comments and questions to: change@mychemist.net.

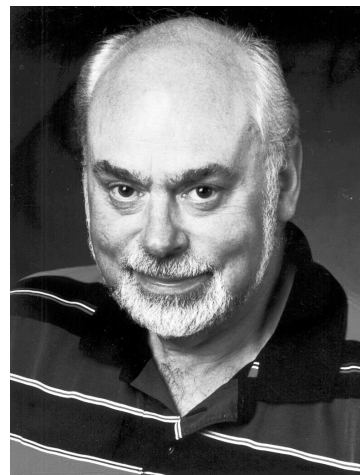
JOB CLUB: 5:00 - 6:00 P.M.

SOCIAL HOUR: 5:30 - 7:00 P.M.
Cash Bar

PRE-DINNER TALK 6:00 - 7:00 P.M.
"Highly Efficient Syntheses of Mechanically Interlocked Molecules"
presented by **Dr. William R. Dichtel**,
Research Associate, Northwestern University, Evanston, IL
See page 4

DINNER 7:00 P.M.
(continued on page 3)

PRESENTATION OF KILPATRICK LECTURE 8:00 P.M.



Dr. Fraser Stoddart, a Trustees Professor at Northwestern University, Evanston, IL

(continued on page 2)

(continued from page 1)

Kilpatrick Lecture

Title: "Chemistry and Molecular Nanotechnology in Tomorrow's World"

Molecular compounds, comprised of mechanically interlocked components, can now be obtained efficiently using template-directed protocols that rely upon supramolecular assistance to covalent synthesis. Since the weak non-covalent interactions that orchestrate the synthesis of such compounds (e.g., catenanes and rotaxanes) containing mechanical bonds live on between the components inside the molecules thereafter, they can be activated such that their components move with respect to each other in either a linear fashion (e.g., the ring component along the rod of the dumbbell component of a rotaxane as in a molecular shuttle) or a rotary manner (e.g., one ring in a [2]catenane circumrotating through the other ring as in a bistable switch). Thus, [2]rotaxanes can be likened to linear motors and [2]catenanes to rotary motors. Moreover, these molecules can be activated by switching the recognition elements on and off between the components chemically, electrically, and optically such that they perform motions (e.g., shuttling actions or muscle-like elongations and contractions) reminiscent of the moving parts in macroscopic machines. Such motor-molecules and molecular machines hold considerable promise for the fabrication of sensors, actuators, amplifiers and switches at the nanoscale level.

Professor Stoddart and his research group work primarily in four different areas, recognizing that chemistry is about three M's — Making, Measuring and Modeling: (1) unnatural product synthesis that is either kinetically or thermodynamically controlled; (2) physical organic chemistry, principally as it relates to chemical topology and supramolecular phenomena; (3) design and construction of artificial molecular machinery, with actuators and switches particularly in mind; (4) the application of nanoscale chemistry to fundamental problems at the interfaces with materials science and the life sciences.

During the past two decades, the Stoddart group has demonstrated how the emergence of the mechanical bond in chemistry has brought with it a real prospect of integrating a bottom-up approach, based on self-assembly and self-organization of motor-molecules, with a top-down approach, based on micro- and nanofabrication, to create nanomechanical systems in order to harness, manipulate and transfer ener-

gy on the nanoscale level. It is an approach to nanoscience and nanotechnology that relies fundamentally upon concept transfer from the life sciences into materials science.

Speaker's Biography: Fraser Stoddart received his BSc (1964) and PhD (1966) degrees from Edinburgh University. In 1967, he went to Queen's University (Canada) as a National Research Council Postdoctoral Fellow, and then, in 1970, to Sheffield University as an Imperial Chemical Industries (ICI) Research Fellow, before joining the academic staff as a Lecturer in Chemistry. He was a Science Research Council Senior Visiting Fellow at the University of California, Los Angeles (UCLA) in 1978. After spending a sabbatical (1978-81) at the ICI Corporate Laboratory in Runcorn, he returned to Sheffield where he was promoted to a Readership in 1982. He was awarded a DSc degree by Edinburgh in 1980 for his research into stereochemistry beyond the molecule. In 1990, he took up the Chair of Organic Chemistry at Birmingham University and was Head of the School of Chemistry there (1993-97) before moving to UCLA as the Saul Winstein Professor of Chemistry in 1997. In July 2002, he became the Acting Co-Director of the California NanoSystems Institute (CNSI). On May 1, 2003, he was appointed the Director of the CNSI and assumed the Fred Kavli Chair of NanoSystems Sciences. On January 1, 2008, he became a Trustees Professor at Northwestern University.

Stoddart is one of the few chemists of the past quarter of a century to have created a new field of organic chemistry — namely, one in which the mechanical bond is a pre-eminent feature of molecular compounds.

His work has been recognized by many awards, including the Carbohydrate Chemistry Award of The Chemical Society (1978), the International Izatt-Christensen Award in Macrocyclic Chemistry (1993), the American Chemical Society's Cope Scholar Award (1999), and the Nagoya Gold Medal in Organic Chemistry (2004).

In addition to being made an Honorary Professor at the East China University of Science and Technology in Shanghai and the Carnegie Centenary Visiting Professor at the Scottish Universities in 2005, Stoddart has been awarded named lectureships by more than 40 universities. He went on Royal Society Lecture Tours of the USSR and Japan in 1986 and 1987, respectively, and has been knighted by Queen Elizabeth.

Some measure of the influence and impact of Stoddart's work may be drawn from citation statistics. Four of

his more than 790 publications have been cited over 500 times, 11 over 300, 54 over 100, and 155 over 50. For the period from January 1997 to February 28, 2007, he is ranked by the Institute for Scientific Information as the third most cited chemist with a total of 12,840 citations from 293 papers at a frequency of 43.8 citations per paper. He has given almost 700 plenary/invited lectures. During 37 years, over 280 PhD and postdoctoral students have passed through his laboratories and been inspired by his imagination and creativity, and more than 60 have subsequently embarked upon successful independent academic careers.

NOTICE TO ILLINOIS TEACHERS

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

Process Technology Engineering

www.processtechnologyengineering.com

We are manufacturer's sales reps whose line card includes:

THINKY

Planetary mixers for fast mixing and deaerating

Nabertherm

Furnaces and ovens

BTU International

IR conveyor furnaces & dryers; convection processing

Contact:

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

Bill Kidder 763-568-2992
bkidder@processtechnologyengineering.com

"CHEM SHORTS" For Kids

The Elementary Education Committee of the Chicago Section ACS presents this column. They hope that it will reach young children and help increase their science literacy. Please cut it out and pass it on to your children, grandchildren, or elementary school teachers. It is hoped that teachers will incorporate some of the projects in this column into their lesson plans.

Glow-in-the-Dark Geode

Kids, how can you make a geode glow in the dark? It's very easy in this experiment. The 'rock' is a natural mineral (in this case an eggshell). You can use one of several common household chemicals to grow the crystals. And the glow comes from paint that you can get from a craft store.

To Prepare the "Rock":

1. There are two ways to crack eggs. Carefully crack the top of the egg by tapping it on a countertop to make a deep geode with a smaller opening. Alternatively, crack the equator of the egg or have an adult partner carefully cut it with a knife. This will make a geode you can open and put back together.
2. Discard the egg (or save for scrambled eggs).
3. Rinse out the inside of the eggshell with water. Peel away the interior membrane to leave only the shell.
4. Allow the egg to air dry or carefully blot it dry with a paper towel or napkin.
5. Use a paintbrush or swab to coat the inside of the eggshell with glow-in-the-dark paint (such as GlowAway™ washable glowing paint).
6. Set the painted egg aside while making the crystal-growing solution.

To Make the Crystal Solution:

1. Have an adult partner pour hot water (such as from a coffeemaker) into a cup.
2. Stir borax or another crystal salt (alum, epsom salts, sugar, or table salt) into the water until it stops dissolving and you see some solid at the bottom of the cup.
3. Add food coloring, if desired. Food coloring does not get incorporated into all crystals (e.g.,

borax crystals will be clear), but it will stain the eggshell behind the crystals, giving the geode some color. Neon green coloring looks great.

To Grow the Crystals:

1. Support the shell so that it won't tip over (for example, a nest can be made with a crumpled napkin set inside a cereal bowl).
2. Pour the crystal solution into the shell so that it is as full as possible. Don't pour the undissolved solid into the eggshell, just the saturated liquid.
3. Set the shell somewhere where it won't get knocked over. Allow crystals to grow for several hours (overnight is better) or as long as you like.
4. When you are satisfied with the crystal growth, pour out the solution and allow the geode to dry.
5. Phosphorescent paint is activated by exposing it to bright light; black light (ultraviolet) also produces a very bright glow. The duration of the glow depends on the paint (seconds to minutes).

Note: Take appropriate safety cautions when handling the crystal solutions.

References: Dr. Anne Marie Helmenstine at <http://chemistry.about.com/b/2007/12/09/glow-in-the-dark-geode.htm>

Edited by K. A. CARRADO, Argonne National Laboratory

All past "ChemShorts": <http://member.ship.acs.org/C/Chicago/ChmShort/kidindex.html>.

(continued from page 1)

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

The cost is \$34 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 \$36. The cost to students and unemployed members is \$17. 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.

February, 2008 Vol. 95, No. 2. Published by the Chicago Section of The American Chemical Society, Editorial Staff: Cherlyn Bradley, Editor; Fran Kravitz, Associate Editor; Fadwa Al-Taher and Richard Trep-tow, Proofreaders; Frank Jarzembowski, Publications Business Manager. Address: 7173 North Austin, Niles, Illinois 60714; 847/647-8405. Subscription rates: \$15 per year. Frequency: monthly-September through June.

No-shows will be billed.

Menu: Entrée choice of Beef Tenderloin Tips in a Burgundy Wine Sauce, Fresh Atlantic Salmon with Coconut Curry Sauce, or Roasted Vegetable Lasagna; Pear and Roasted Walnut spring salad; Risotto with mushrooms and fresh steamed broccoli spears; rolls and butter; coffee or hot tea; Bread Pudding for dessert.

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!

IN THIS ISSUE

- 1 – Important Notice
- 1 – Joint Meeting Location
- 2 – Kilpatrick Lecture
- 3 – Dinner Information
- 3 – ChemShorts for Kids: Glow-in-the-Dark Geode
- 4 – Pre-Dinner Speaker
- 4 – Career Day for Girls
- 4 – New Podcast for Young Listeners
- 5 – Send in Your Email Address!
- 5 – Job Club
- 6 – DuPage Area Engineers Week 2008
- 6 – "Forgotten Genius", One Year Later
- 7 – Cosmetic Science Trade Show
- 7 – Ad Index
- 8 – Calendar

PRE-DINNER TALK



Dr. William R. Dichtel

Abstract: The mechanical bonds and noncovalent forces contained within mechanically interlocked molecules give rise to relative motions, such as circumrotation and shuttling, that have been utilized in artificial molecular muscles and molecular electronic devices. Mechanically interlocked molecular compounds based on donor-acceptor interactions, incorporating cyclobis (paraquat-*p*-phenylene) (CBPQT⁴⁺) as the π -electron accepting ring component, have been synthesized traditionally by template-directed, kinetically controlled reactions in which the partially formed ring is "clipped" around a dumbbell or macrocycle which contains complementary recognition units. Although this clipping approach has been used extensively, the moderate yields associated with the protocol limit its practical utility mostly to the preparation of [2]rotaxanes and [2]catenanes. We have recently harnessed the mild conditions, excellent functional group tolerance, and high efficiency of the Cu(I)-catalyzed azide-alkyne cycloaddition for the preparation of a variety of previously inaccessible donor-acceptor rotaxanes and catenanes. The scope of this methodology is far-reaching, allowing for the synthesis of higher order rotaxanes, catenanes, polyrotaxanes, bistable [2]rotaxanes, and liquid crystalline materials.

Speaker's Biography: William Dichtel was born in Houston, Texas, in 1978 and grew up in Roanoke, Virginia. He received his B.S. in chemistry in 2000 from the Massachusetts Institute of Technology and his Ph.D. in 2005 from the University of California, Berkeley under the supervision of Prof. Jean M. J. Fréchet. He is a research associate

working jointly with Prof. J. Fraser Stoddart. His research interests include molecular electronics, novel macromolecular architectures and functional materials.

Toxicology Consulting

Medical Devices
Pharmaceuticals
Biologicals
Risk Assessments

Product Development
FDA Registration
Quality Assurance
Regulatory Compliance

Northup RTs

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

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

Northuprts@aol.com
www.toxconsultants.com

DID YOU KNOW?

The study of chemistry started when Robert Boyle made the distinction of chemistry from alchemy in his work *The Sceptical Chymist* (1661). Chemistry and alchemy both study the nature of matter, but chemistry uses the scientific method.

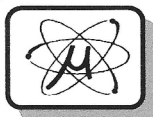
CAREER DAY FOR GIRLS

Junior high and high school girls may delve deeper into science and mathematics at the 37th Annual Career Day for Girls on Feb. 23 at Northwestern University's Technological Institute, 2145 Sheridan Road, Evanston. The program is sponsored by the Society of Women Engineers, a professional, educational, non-profit, and service organization dedicated to promoting interest in and encouraging women to pursue the fields of science and engineering.

The program, whose theme this year is "Engineering: Preserving Your Future Through Design," features a day of teamwork building and problem-solving activities as well as lectures, discussions and laboratory tours led by Northwestern engineers. Our speakers are women who have engineering degrees or are engineering students. Cost is \$5, which includes printed materials and lunch. Fee waivers are available. Reservation deadline is Feb. 8. To register, contact Ellen Worsdall, (847) 491-5173, e-worsdall@northwestern.edu.

A NEW PODCAST FOR YOUNG LISTENERS

The ACS Office of Communications has launched *Bytesize Science*, an educational, entertaining podcast for young listeners. Like the flying car, Anglia, in the Harry Potter films, *Bytesize Science* transports kids, teachers, and other listeners into a real-life world realm where science is the enchantment. *Bytesize Science* translates cutting-edge scientific discoveries from ACS' 36 peer-reviewed journals into stories for young listeners about science, health, medicine, energy, food, and other topics. It also includes content from Chemical & Engineering News. Contact 202-872-4400, m_bernstein@acs.org, or go to www.acs.org and search keyword "bytesize science"



Micron Analytical Services

COMPLETE MATERIALS CHARACTERIZATION
MORPHOLOGY CHEMISTRY STRUCTURE

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

Posi-Trap™ Positive Flow Vacuum Inlet Traps



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

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

For more information on these and other fine vacuum products contact



PRODUCTS

A Division of Mass-Vac, Inc.

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

YOUR SECTION NEEDS YOUR EMAIL ADDRESS!!

We need your e-mail address in order for the Chicago Section to better communicate with you. The Chicago Section is investigating ways to reduce the Section budget so more money can be used in member's programs such as education, community outreach, and other program areas. **One area the Section is planning to change is the *Chemical Bulletin* to an electronic version this year.** This does not mean there will not be a paper version of the *Chemical Bulletin*. The idea is to reduce our printing and mailing costs.

Please send your e-mail address with your name and phone number to the Section office at **chicagoacs@ameritech.net**. Remember we do not share this information with other organizations.

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

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on **Friday, February 22 at 5:00 p.m. at the Illinois Institute of Technology's McCormick Tribune Conference Center**. The meeting will include a review and discussion of some of the tools that a chemist can use to conduct a job search.

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.

Should you wish to attend the Section's dinner meeting following the Job Club, the cost is \$17 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.

DUPAGE AREA ENGINEERS WEEK 2008: ENGINEERED IN ILLINOIS

Events for the 24th Annual DuPage Area Engineers Week Expo will be held Thursday, February 21 and Saturday, February 23, 2008 from 11:00 a.m. to 3:30 p.m. at the Illinois Institute of Technology's Daniel F. and Ada L. Rice Campus at 201 East Loop Road in Wheaton. Events are free and open to the public. The theme for the 2008 Expo is "Engineered in Illinois." The goal of the Expo is to promote a dedicated, diverse and well-educated future engineering workforce by promoting pre-college literacy in math and science. While the Expo's target age group is middle school, people of all ages will enjoy the displays and presentations.

The Engineers Week Expo features a building full of hands-on activities and demonstrations to allow young people to experience and explore the fields of engineering. Presentations are directed toward introducing students of all ages and their parents to the current state of technology and advances being made throughout industry. The cooperation of the professional engineering societies, academic organizations and industry provide a comprehensive overview of the current state-of-the-art as well as generating an interest in the sciences among the program's visitors.

In addition, there will be a Speaker's Forum presentation and discussion on Thursday evening, February 21, 2008 at Illinois Institute of Technology's Rice Campus in Wheaton. The speaker will be Jim Patchett, founder of Conservation Designs Forum, the company that designed Chicago's City Hall green roof. Patchett's presentation will begin with an overview of green technologies and sustainability, leading to a more specific discussion of green roof design. The Speaker's Forum is designed for adults and open to the public. For more information on the Speaker's Forum, visit the website at www.rice.iit.edu/engineersweek.

The first DuPage Area Engineers' Week Open House was held in 1985 at Midwest College of Engineering in Lombard, Illinois. In 1986 Midwest College merged with Illinois Institute of Technology to form a new, west-suburban campus called IIT West, now the Daniel F. and Ada L. Rice Campus. Over the last approximately twenty years, the west suburban campus of Illinois Institute of Technology has hosted the annual Engineers Week celebration.

Please join us for one or more of these activities and check out the Web site from time to time to see what's new: www.rice.iit.edu/engineersweek. For more information on the DuPage pro-

gram, call 630-682-6040 or kozi@iit.edu.

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

"FORGOTTEN GENIUS," ONE YEAR LATER

It was slightly more than ten years ago that I recommended that the Minority Affairs Committee of the ACS organize and sponsor a 10th Anniversary Observance of the memory and contributions of the life and accomplishments of Dr. Percy L. Julian. There was no doubt that he was worthy of such remembrance, for his achievements had brought eminent recognition to him by election to the National Academy of Sciences in 1973 and having a US Postage Stamp dedicated in his honor in 1993. The release of the stamp was marked by a likeness of the stamp on the cover of *C&EN* a week later, which introduced a significant story on Dr. Julian's life and accomplishments. I attended the stamp dedication that was held at Roosevelt University, where Dr. Julian had served as a member of the board of trustees for many years.

And so it was that some 5 years later that I assumed the responsibility of arranging and organizing for the 100th Anniversary observance of his birth for the ACS Committee on Minority Affairs. The program took place during the 217th ACS National Meeting, held in Anaheim, March 21 – 25, 1999.

While we were carrying out preparations for the program at the Anaheim meeting, ACS was contacted by Steve Lyons of NOVA, the PBS television program. NOVA was interested in doing a program on Julian for a series that was being

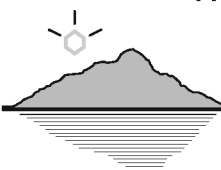
planned on several outstanding scientists of varied interests and backgrounds. Steve was put in touch with me, and he attended the Anaheim program. It was at this meeting that we began the organization and planning for the program, which finally aired the 6th of February 2007 on PBS, with ACS as one of the cosponsors.

Leading up to the PBS showing on the 6th of February, there were many programs which highlighted the showing of the film, beginning with an all-day symposium at the ACS National Meeting in San Francisco on, Monday September 11, 2006. At each of these programs, the highlight was the showing of a 30-minute excerpt from the film, "**Forgotten Genius.**" Beginning with the initial showing of the 30-minute segment at the San Francisco National Meeting, there were more than a half-dozen such prevue showings leading up to the showing of the 2-hour film on PBS stations across the country. An extraordinary highlight among these events was the program at the National Academy of Sciences on January 23, 2007, which attracted nearly 600 attendees. There were presentations by ACS presidents in addition to Rep. Eddie Bernice Johnson (D-Texas), who sponsored the resolution honoring Dr. Julian, which was adopted by the Congress.

There were many showings of the film which followed the video release. There were showings at the ACS headquarters office (for which I presented an introduction by phone), NIST, NSF and many others that followed at various universities and schools. I am pleased to say that I do make a few comments during the film, for which I am deeply honored and very proud. For many reasons, the Chicago Section should also be proud and pleased by what it did over many years to honor the memory and achievements of Dr. Percy Julian.


JIM SHOFFNER

Professional Micro-Elemental Services Since 1980



DESERT ANALYTICS

A Columbia Analytical Services, Inc. Company



- CHN • O • S
- Halogens • Bomb Oxidation
- Metals • ICP • ICP/MS • AAS
- Anions • Ion Chromatography
- Dry Box • Air Sensitive Samples
- Fuel Testing • BTU • Prox • Ultimate • Sulfur • Ash Analysis
- Inquire about other capabilities

CLIENT FOCUSED - QUALITY DRIVEN

WWW.DESERTANALYTICS.COM

Desert Analytics

3860 S. Palo Verde, Ste. 303
Tucson, AZ 85714

520.623.3381
thelab@desertanalytics.com
We accept VISA, MC & AMEX

HITACHI WILL BLOW YOU AWAY....

Hitachi is committed to providing advanced analytical instrumentation with the highest degree of quality and reliability at astounding prices. Our superior technical support and comprehensive service coverages allow you to focus on the scientific solutions. Let Hitachi provide and service your laboratory equipment so you can tackle today's challenging analytical requirements with greater success and confidence.

HITACHI WILL BLOW YOU AWAY...

*with our performance
with our reliability
with our service
WITH OUR PRICE!*

Hitachi – A Proud Sponsor of the ACS Chicago Chapter.

Contact your local representative, **Matt Aven** for more information.
email: matt.aven@hitachi-hta.com



Contact Hitachi to learn more about our products:
HPLC Systems
Amino Acid Analyzers
UV and FL Spectroscopy Systems
LC/MS Systems
Software and Services

This Complete HPLC System at \$29,100*

*Price Includes service installation, PC & monitor, autosampler, UV detector, quaternary low-pressure gradient pump w/ built-in degasser, column oven, bottle organizer/power supply, and EZChrom Elite™ chromatography data system. Price subject to change without prior notice. EZChrom Elite™ is a registered trademark of Agilent Technologies, Inc.

Hitachi High Technologies America, Inc.
Toll free: (800) 548-9001
www.hitachi-hta.com/LSHome

HITACHI
Inspire the Next

© 2006 Hitachi High Technologies America, Inc. All rights reserved.

COSMETIC SCIENCE TRADE SHOW FOR BUYERS AND FORMULATORS

The Society of Cosmetic Chemists (SCC) Midwest Chapter presents TEAMWORKS 2008, the premier industrial trade show for the personal care industry in mid-America, to be held on **Wednesday, March 26, 2008 at the Donald E. Stephens Convention Center in Rosemont, Illinois**, near O'Hare International Airport at Bryn Mawr and North River Road. Trade show hours are from 12:00 noon – 7:00 pm. Join hundreds of chemists, industrial buyers, engineers and technologists from the cosmetic, personal care, pharmaceutical and allied industries in visiting over 115 booths representing the prime technology suppliers in our industry. A buffet lunch, raffle prize drawings, and a well-appointed networking area will be provided. A multi-speaker technical seminar will precede the show in the morning, where supplier firms will present papers citing new technology. Attendance to this event is free, but you will want to pre-register online at the SCC Midwest Chapter website (www.midwestsc.org)

Cosmetic science has evolved from a backwater of pharmacy into a multi-disciplinary science that presents some of the most challenging formulation requirements in the chemical industry. Besides

functioning as the technical arm of a multi-billion dollar global personal care industry, cosmetic scientists have the distinction of creating novel forms of matter, while often using some frontier techniques. An example is nanotechnology using self-assembling amphiphiles. Cosmetic scientists became aware of this technique over 30 years ago, and many consider it to be "old hat." Perhaps no other discipline of science requires as much cross-functional knowledge, as this industry uses ideas from such diverse areas as physical chemistry, tribology, physiology, surface science, analytical chemistry, coatings technology, pharmacology, food science and biology.

While the Midwest is no longer as significant a hub for the personal care industry as in its heyday of the 1960's through 1980's, it remains the third largest source of cosmetic industry employment in North

America, much of it in Chicago, the Twin Cities and Ohio. If you are interested in learning about or contributing to this industry, or perhaps have a personal care invention idea that you need help with, this will be the ideal place to accomplish this. For further details regarding TEAMWORKS 2008, you may contact: Teamworks 2008, c/o IAMI, phone toll free (888) 411-4264, or email at: teamworks@midwestsc.org

**NEXT ISSUE IS
for
MARCH 27
PUBLIC AFFAIRS MEETING**

Advertising Index

Company	Page	Telephone	URL
Pro Tech Engineering	2	847-714-9214	www.processtechnologyengineering.com
Northup RTS	4	847-579-0049	www.toxconsultants.com
Micron Inc.	4	302-998-1184	www.micronanalytical.com
Mass-Vac, Inc.	5	978-667-2393	www.massvac.com
Desert Analytics	6	520-623-3381	www.desertanalytics.com
Hitachi HTA, Inc.	7	800-548-9001	www.hitachi-hta.com/LSHome

**DO NOT DELAY
DATED MATERIAL**

**CHICAGO SECTION, AMERICAN CHEMICAL SOCIETY
THE CHEMICAL BULLETIN
7173 NORTH AUSTIN
NILES, ILLINOIS 60714**

CALENDAR

February 19: ChemWest Demo Night at North Central College in Naperville, IL. Dinner at 6 p.m.; demos at 7:30 p.m. Cost to attend is \$10. Application deadline to perform a demonstration is Feb. 10. To register or apply to do a demonstration, contact Paul Brandt, pbrandt@noctrl.edu, (630) 637-5193.

February 22: Chicago Section's joint dinner meeting with IIT. **See this issue.**

February 23: IL Sections of the ACS Cooperative State Fair Project Planning Committee Conference Call, 2pm-4pm. Contact the Section office at 847-647-8405 or chicagoacs@ameritech.net for more information.

February 23: The 37th Annual Career Day for Girls at Northwestern University's Technological Institute, 2145 Sheridan Road, Evanston. Reservation deadline is Feb. 8. Cost is \$5, which includes printed materials and lunch. Fee waivers are available. To register, contact Ellen Worsdall, (847) 491-5173, e-worsdall@northwestern.edu.

March 2-9: PittCon Conference and Expo, New Orleans, LA.

March 26: The Society of Cosmetic Chemists Midwest Chapter will host TEAMWORKS 2008, the premier industrial trade show for the personal care industry in mid-America at the Donald E. Stephens Convention Center in Rosemont, Illinois, near O'Hare International Airport at Bryn Mawr and North River Road from 12:00 noon – 7:00 pm. The event is free, but pre-registering online is recommended at the SCC Midwest Chapter website (www.midwestscc.org). For further details call (888) 411-4264 or email teamworks@midwestscc.org. (**See article in this issue.**)

March 27: Chicago Section's Public Affairs Meeting. Bob Massie, Chemical Abstracts Service president, is the after-dinner speaker. This is a Thursday meeting.

April 6-10: The 235th ACS National Meeting & Exposition, New Orleans, LA.

April 17: Chicago Section's joint dinner meeting with the Joliet Section. This is a Thursday meeting.

May 16: Chicago Section's Gibbs Award Banquet.

June 18 - July 2: 2008: Science History Tour to France. Contact Lee Marek at Lmarek@aol.com or Yvonne Twomey at ytwomey@mindspring.com.

June 20: Chicago Section's luncheon meeting.

August 8-17: ACS Illinois Sections' cooperative tent project at the Illinois State Fair. For further information on this fun public outreach activity, contact the section office at (847) 647-8405.

September 19: Chicago Section's Education Night jointly with Loyola University.

October 24: Basolo Medalist Lecture at Northwestern University and dinner at Zhivago's.

November 19: Stieglitz Lecture and Chicago Section Dinner Meeting jointly with University of Chicago

Nonprofit Organization
U. S. POSTAGE
PAID
Chicago, IL
Permit No. 171