

theCHEMICALbulletin

<http://chicagoacs.org>

MARCH • 2008

CHICAGO SECTION AMERICAN CHEMICAL SOCIETY

Biannual Public Affairs Meeting

THURSDAY, MARCH 27, 2008

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

DIRECTIONS TO THE MEETING

From 290 East/West - Take 290 from either direction and exit onto 294 North. Continue until you reach the exit for 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 90 East/West - Take 90 from either direction and exit onto 190 West (to O'Hare). Then follow 290 East/West directions given above.

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

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

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

PRE-DINNER TALK 5:15 – 6:00 P.M.

“Science Beyond The Demo — Getting Science To The Public When Blowing Things Up Isn't An Option”, by **Monica Metzler**, President, Illinois Science Council and a Vice-President at Conlon Public Strategies (See page 2)

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

SOCIAL HOUR 5:30- 6:30 P.M.
Complimentary Hors D'oeuvres served butler style. Cash Bar

DINNER 6:30 P.M.

Menu: Soup de Jour; 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; Dessert de Jour; a variety of breads; beverage.

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 **online** (<http://membership.acs.org/C/Chicago>) by noon on Tuesday, March 25. The dinner cost is \$35 to Section members who have paid their local section dues, members' families, and visiting ACS members. The

IMPORTANT NOTICE

The Chemical Bulletin is changing!

Starting September 2008, primary distribution of *The Chemical Bulletin* will be an electronic version. We will send you the link to each issue by email. You will have 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 of *The Chemical Bulletin* 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.

cost to members who haven't paid their local section dues and to non-Section members and is \$37. The cost to students and unemployed members is \$18. Seating will be available for those who wish to attend the meeting without dinner. PLEASE HONOR YOUR RESERVATIONS. The Section must pay for all dinner orders. No-shows will be billed.

GENERAL MEETING 7:30 P.M.

2008 PUBLIC AFFAIRS MEETING LECTURER



Robert J. Massie, President, Chemical Abstract Services (CAS), Columbus, Ohio

Topic: "Chemical Information: Yesterday, Today and Tomorrow"

Abstract: CAS' mission to make the world's disclosed chemistry-related information accessible to scientists has entailed many challenges over the years. Two world wars, the post-war information explosion, recurring finan-

(continued on page 2)

(continued from page 1)

cial crises, and competitive threats are among the obstacles CAS has weathered. Innovations in indexing, computer-assisted publishing, the creation of the CAS Chemical Registry and innovative product development and international cooperation have been crucial elements in CAS' survival and success. More recent developments, such as the Open Access movement and governmental participation in the information industry are no less daunting than the challenges CAS has faced before. This presentation surveys CAS' history and sets out the principle trends and directions for chemical information going forward.

The Speaker: Mr. Massie holds a joint JD/MBA degree from Columbia University, where he was a Harlan Fiske Stone scholar. He is an honors graduate of Yale College. He joined the ACS staff as head of Chemical Abstract Service (CAS) in 1992. He came to CAS with an extensive background in publishing, having served as President and CEO of Gale Research Inc, a subsidiary of the Thomson organization. He has held senior executive positions with the Torstar Corporation and was management consultant with McKinsey & Co. in New York. He also practiced law with Covington & Burling in Washington D.C., where one of his areas of specializations was Food and Drug Law.

He has served as Chair of the Columbus Chamber of Commerce and received the Executive of the Year Award from the Industry & Technology Council of Central Ohio. In 2003, he received the Patterson-Crane Award from the Columbus - Dayton Sections in recognition of his achievements as the leader of the Society's abstracting services.

For more information on Bob Massie, read the introductory remarks on page 5.

NOTICE TO ILLINOIS TEACHERS

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

(continued from page 1)

PRE-DINNER TALK

by Monica Metzler

Abstract: There is a marked increase recently in the number of organizations and initiatives aimed at greater public outreach in science, both locally and nationally. How can the scientific community take advantage of these in the most successful way? This talk will discuss some of the local efforts at bringing science to the public and make recommendations for scientists to tap into their inner Carl Sagan by learning how to translate Science to English for reaching lay audiences.

Speaker's Biography: Monica Metzler is the president and founder of the Illinois Science Council, a nonprofit organization aimed at increasing public awareness and appreciation of science and technology. By day, she is a vice president at Conlon Public Strategies, a public affairs firm that helps organizations navigate the political landscape to achieve their goals in the public arena. Monica earned her Juris Doctor from Duke University School of Law, a Master of Arts in Public Policy from the Sanford Institute at Duke University, and a Bachelor of Science from Northwestern University.

CHEMISTRY IN THE COMMUNITY, A DIGITAL TALKING BOOK

In collaboration with gH, LLC, the American Chemical Society has converted its high school chemistry textbook, *Chemistry in the Community*, 5th edition into a digital talking book (DTB). **This is the first digital talking chemistry textbook and is designed to increase the accessibility of chemistry for all students.** Each CD contains the complete textbook in a National Instructional Materials Accessibility Standard (NIMAS) format, which meets compliance with emerging federal legislation and includes the gH player, the technology that gives the DTB its functionality.

Students may enlarge the text for reading, read along and/or have the text read to them in their choice of three different languages. Students control the pace and volume as the text is read aloud. For more information contact education@acs.org. To order, call 1-800-227-5558.

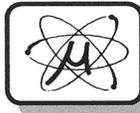
gH, LLC is a product manufacturer providing technology allowing people with disabilities access to information.

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!

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"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.

Flower Food

Kids, what's up with those little cellophane packets of powder that come with cut flowers? They have three components:

Food: Sugar is needed to continue development of a bud into a flower, and the flower will perform better in terms of size, color and vase life.

Hydrating agent: A wilted flower is one where the cells do not have their full amount of water. The outside ring of the stem is made up of tiny tubes or vessels. This group of vessels transports water from the roots (or vase) to the leaves and flowers. When a flower dehydrates through harvest and shipping, the chemistry needs a jumpstart. Agents that lower the solution pH encourage hydration. This is normally a mild acid such as citric acid.

Antibacterial agent: The water in the vase can quickly become bacteria soup. All it takes is a few stray pieces of plant tissue and some latent bacteria. Bacteria in the water will form plugs in the stem of the flower, blocking the water from flowing through the stem of the flower. The preservative contains an antibacterial agent to stop this from happening.

Most packets contain 5 grams and make one pint of solution. Average vases hold at least one quart of water, however. Use too little solution and there is not enough antibacterial agent and you may get cloudy, smelly water. The best remedy is to make your own at home!

Tulips are a good flower to test plain water versus a preservative (either commercial or homemade). Use the same number of flowers per container, the same size container, and the same volume of liquid. Use warm water (100-110°F or 38-40°C) because it will move into the stems better than cold water. Tap water is fine; in fact the chlorine in tap water acts as a natural disinfectant. Have an adult partner handle the bleach in these recipes:

Recipe #1

- * 2 cups lemon-lime soda (e.g., Sprite™ or 7-Up™)
- * 1/2-teaspoon household chlorine bleach
- * 2 cups warm water

Recipe #2

- * 2 tablespoons fresh lemon juice
- * sugar
- * household chlorine bleach
- * 1-quart warm water

Recipe #3

- * 2 tablespoons white vinegar
- * 2 tablespoons sugar
- * 1/2-teaspoon household chlorine bleach
- * 1-quart warm water

Which ingredient acts as the food, the hydrating acid, and the antibacterial agent in each recipe?

We have even found websites advocating the use of Listerine™ mouthwash because it contains all of these ingredients! (e.g. http://ars.org/About_Roses/conditioning_noble.html)

References:

Ann Marie Helmenstine at <http://chemistry.about.com/od/chemistryhow-to/guide/a/cutflowers.htm>

Karen Marinelli at <http://ezinearticles.com/?Fresh-Cut-Flower-Preservative-Packets&id=81863>

Edited by K. A. CARRADO, Argonne National Laboratory

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

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".

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AND GLADLY TEACH: A RESOURCE BOOK FOR CHEMISTS CONSIDERING ACADEMIC CAREERS

Among the specific topics included in the second edition of this 81-page book are the nature of academic positions in various types of institutions; preparations to make while still in graduate school; choosing between a postdoctoral position and a temporary teaching job; preparing a curriculum vitae, research proposal, and statement of teaching philosophy; campus visits for job interviews; weighing competing job offers; and balancing time demands in working toward tenure. Go to www.acs.org to search the book title.

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AMERICAN CHEMICAL SOCIETY CHICAGO SECTION
2008 WILLARD GIBBS MEDAL AWARD PRESENTATION
FRIDAY, MAY 9, 2008



You and your guests are cordially invited to attend the 97th presentation of the Josiah Willard Gibbs medal to Professor Carolyn Bertozzi, the T.Z. and Irmgard Chu Distinguished Professor of Chemistry and Professor of Molecular and Cell Biology, University of California, Berkeley, on Friday, May 9, at Carriage Greens Country Club, 8700 Carriage Greens Drive, Darien, IL 60561. A social hour begins at 6 PM. Dinner is served at 7 PM. Dr. Bertozzi's talk will begin at approximately 8:30 pm.

After a social hour with Hors-d'oeuvres and both Champagne Punch and Non-alcoholic Punch, dinner on this special occasion includes Caesar Salad; a choice of Seared Medallions of Beef with Burgundy Reduction Sauce, Broiled Atlantic Salmon with Bearnaise Sauce, or Pasta Primavera; Twice Baked Potato and Whole Baby Green Beans; and Peach Cobbler, as well as Wine.

To reserve your tickets, please call the Chicago Section office at 847-647-8405 or register at <http://ChicagoACS.org> by Tuesday, May 6 and pay \$45 at the door, or fill out the attached reservation form and mail it with your payment of \$45 by Wednesday, April 30 to the address below. If you have not paid dues to the Local Chicago Section (\$15 per year), the price is \$47. Tables of 10 may be reserved. If you request seating for a group, please include a list of names of the people in your group and their meal choices. Tickets and nametags will be available at the door. No refunds will be made after noon, on Tuesday, May 6, 2008.

The Gibbs Award Dinner is always a memorable occasion. Only the Nobel Prize is considered more prestigious. Please come to salute the recipient and rejoice in Dr. Bertozzi's achievements in and contribution to the science of Chemistry.

Margaret Stowell Levenberg
 Gibbs Arrangements Committee

.....cut here

Name _____ Affiliation _____

Address _____ Phone () _____

Email Address _____

tickets for ACS members & guests _____ (\$45.00/ticket) Nonmembers _____ (\$47.00)

tickets for students, unemployed members, and retirees (\$22.50/ticket) _____

Note: Professors must make student reservations.

dinners: Seared Medallions of Beef with Burgundy Reduction Sauce _____

 Broiled Atlantic Salmon with Bearnaise Sauce _____

 Pasta Primavera _____

Total Enclosed \$ _____ Payable at time of reservation, if reservation is made by mail. Please include a list of your guests' names, affiliations and dinner selections with this form.

Return with payment to: American Chemical Society, Gibbs Reservations
 7173 North Austin Ave., Niles, IL 60714

JOB CLUB

The next meeting of the **Chicago Section ACS Job Club** will be held on **Thursday, March 27 at 5:00 p.m. at Café La Cave**. 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 \$18 and you can continue your networking activities. Please call the Section office for reservations and indicate that you are eligible for a discount.

Also, the Chicago Section's website has a link to the Job Club's yahoo job forum group. If you can't attend the Job Club, you can still find out about job openings and other information.

MR. ROBERT J. MASSIE, PRESIDENT OF CHEMICAL ABSTRACTS SERVICES

We are pleased and honored to have as our speaker for this evening Mr. Robert J. Massie, who most of us know as Bob. He joined the ACS staff as head of Chemical Abstract Service – CAS. He came to CAS with an extensive background in publishing, having served as President and CEO of Gale Research Inc, a subsidiary of the Thomson organization. He has also held senior executive positions with the Torstar Corporation and was management consultant with McKinsey & Co. in New York. While with Torstar, he managed 10 global subsidiaries and joint ventures in Asia, Latin America and Europe. He also practiced law with Covington & Burling in Washington D.C., where one of his areas of specializations was Food and Drug Law.

Bob holds a joint JD/MBA degree from Columbia University, where he was a Harlan Fiske Stone scholar. He is an honors graduate of Yale College.

When he came to CAS in 1992, CAS was not the dynamic abstracting and publishing giant that it is today, although it has been doing a creditable

and successful job for ACS in this area since its establishment in 1907. As the organization observed its 100th anniversary in 2007, there was much to celebrate. Although CAS has always been among the leaders in abstracting and distributing information regarding chemical science and technology, there is no doubt that during the past ten years, it has opened new paths and blazed new frontiers in abstracting and distributing such information. Much of this growth and pioneering advancement has been due to the leadership that Bob has given since assuming the leadership in Columbus.

In addition to being an outstanding leader for CAS and the American Chemical Society, Bob has also been a leader in the Greater Columbus community. He is a member of several community boards, has served as Chair of the Columbus Chamber of Commerce and received the Executive of the Year Award from the Industry & Technology Council of Central Ohio. In 2003, he received the Patterson-Crane Award from the Columbus - Dayton Sections in recognition of his achievements as the leader of the Society's abstracting services.

We could write much more about Bob and his professional achievements. It would be much better, and you would

get a more complete story if you get your copy of *C&EN*, June 11, 2007 and read about the 100th Anniversary of CAS, where Bob has given his own account, along with stories of many others. The June 11 issue was followed by the June 18 issue, which tells the story of CAS as a National Historic Landmark, describing how it became a Society Treasure.

JIM SHOFFNER AND BARB MORIARTY
CO-CHAIRS, PUBLIC AFFAIRS
COMMITTEE

PROFESSIONAL DEVELOPMENT

ACS recognizes the importance of professional development at all stages of education and is expanding its offerings in a number of areas. ACS will continue to offer ChemCom and Advanced Chemistry workshops in 2008, with new offerings for middle school teachers, high school teachers interested in green chemistry, and post-docs planning academic careers. Go to **Chemistry.org** and click on "education" for updates on these exciting ACS opportunities.

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NEW FOR CHICAGO SECTION'S NATIONAL CHEMISTRY WEEK

Are you interested in sharing your love of chemistry? The Community Affairs Committee needs your help!

We are planning an exciting new program to extend our outreach for National Chemistry Week. We already have a treasure trove of ideas from our ChemShorts for Kids series of science activities for children. What we need is your help in assisting or sponsoring someone with activities at your children's or grandchildren's school, your local library, a church or Girl Scout group, etc.

We will write an integrated, applications-oriented activities plan related to the 2008 NCW theme – "Having a Ball with Chemistry"! All of the activities will use readily available, consumer-type materials with minimal setup.

Please sign up now to join us in this exciting new program! Send your name and contact information to Irene Cesa, Community Affairs Chair, at icesa@flinnsci.com or contact the Chicago Section Office at chicagoacs@ameritech.net.

We look forward to hearing from you!

MARCH HISTORICAL EVENTS IN CHEMISTRY

March 1, 1771 John McLean, first professor of chemistry at Princeton University, established the first laboratory of chemistry in North America.

March 10, 1851 William McMurtie, who did research on methods for converting sewage to fertilizer, was born. He served as president of the American Chemical Society.

March 18, 1900 Laueran B. Hitchcock, an expert in chemistry of the environment, was born.

March 21, 1817 George W. Rains, who was a chemistry teacher and a Confederate Army chemist, was born.

LEOPOLD MAY
The Catholic University of America
Washington, DC

Additional historical events can be found at Dr. May's website, www.faculty.cua.edu/may/Chemistrycalendar.htm.

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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 way is to change 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. If you change your email address, please let us know! We do not share this information with other organizations.

**NEXT ISSUE is
for the
April 17
Joint Meeting with
the Joliet Section**

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THE SOCIETY OF COSMETIC CHEMISTS: JANUARY 2008 LECTURE ON SHAMPOO CHEMISTRY

Out of curiosity, I attended the January 2008 meeting of the Midwest section of the Society of Cosmetic Chemists (SCC) in Westmont, IL. I highly recommend attending one of their meetings. It was a very lively occasion. My curiosity about SCC was piqued last fall at the Chicago Section Chemistry Day at IIT when I watched participants make lotions.

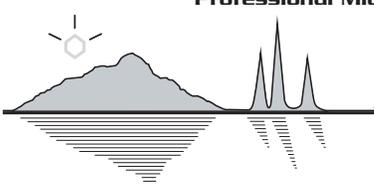
During the meeting, I had the chance to talk with the invited speaker, Edward DiAntonio of Amerchol Corporation (a subsidiary of The Dow Chemical Company). The lecture was titled, "Selecting the Optimum Silicone Particle Size/Cationic Polymer Structure to Maximize Shampoo Conditioning Performance." I asked him how he got interested in cosmetic chemistry. It was purely by chance that he interviewed at a fragrance company in addition to other chemical companies. From the fragrance industry it was a natural transition to the cosmetic chemistry.

Mr. DiAntonio gave a very informative lecture on how hair of different ethnic origin (European vs. Asian) is affected by differences in a polymer's charge, hydrophobic

character and molecular weight. I learned that hair is negatively charged. Shampoo consists of three components: polymer, silicone and surfactant. Cellulose polymer can be positively charged with trimethylamine groups that help it to stick to hair. Silicone particles are carried along with the polymer and act as the conditioner that keeps hair healthy. Finally, the surfactant (the soap) cleans and creates micelle cavities that help dissolve other active ingredients. Hair from different ethnic groups responds very differently to shampoo formulations. I never realized that hair has energy. It is called zeta potential and is a measure of how much negative charge is on hair fibers. One of the ways the conditioning effect of shampoos can be measured is by measuring how much silicone they can deposit. Small silicone particle size deposits readily on European brown hair. Higher molecular weight and charged polymer deposits even better. By contrast, large silicone particles adhere better to Asian hair, and low molecular weight and polymer content are favored. The end of the presentation left me even more interested in hair, ethnicity and zeta potential. I look forward to more interesting lectures at future SCC meetings!

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Northup RTS	7	847-579-0049	www.toxconsultants.com
Desert Analytics	7	520-623-3381	www.desertanalytics.com

CALENDAR

March 2-9: PittCon Conference and Expo, New Orleans, LA. For further information, call (412) 825-3220. Website: www.pittcon.org.

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, Donald E. Stephens Convention Center, Rosemont, IL., 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.

March 27: Chicago Section's Public Affairs Meeting. Bob Massie, CAS president, is the after-dinner speaker. This is a Thursday meeting. **See this issue.**

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

April 6-10: The 2008 AIChE Spring Meeting, New Orleans, LA. Website: www/aiche.org/Conferences/SpringMeeting/index.aspx.

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

May 6-9: The Consumer Specialty Product Association (CSPA) Mid-Year Meeting, Chicago, IL. Contact Ann Wheeler at (202) 872-8110; email: awheeler@cspa.org. Website: www.cspa.org.

May 9: Chicago Section's Gibbs Award Banquet. Note change in date. **See reservation coupon in this issue.**

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.

June 24-26: 12th Annual Green Chemistry & Engineering Conference, Washington, D.C. For more information, call (202) 872-6102, email: greenchem2008@acs.org. Website: www.gcande.org.

July 7-11: 60th Anniversary Inter/Micro Conference focused on applied microscopy, hosted by the McCrone Research Institute will be held in Chicago at the Millennium Knickerbocker Hotel. For information, contact Lauren Logan at intermicro@mcri.org or go to www.mcri.org. Call for papers is open until March 15.

July 27-31: 20th Biennial Conference on Chemical Education, Bloomington, IN. For further information, email BCCE2008@indiana.edu. Website: bcce2008indiana.edu.

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

Please Save May 9 for the Gibbs Award Presentation to Professor Carolyn Bertozzi of the University of California, Berkeley

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