



MeetingPreview

ANNUAL MEETING RETURNS TO SALT LAKE CITY, NOV. 7–12 Sustainability is among the Major Themes

When AIChE held its Annual Meeting in Salt Lake City, UT, in 2007, it was the first major AIChE conference in the “City of the Saints” since the Institute’s Summer National Meeting in 1974. This November, chemical engineers have an opportunity to enjoy an encore visit to this gateway to the west, when AIChE and the Annual Meeting return to the Salt Palace Convention Center, Nov. 7–12. Amid the scenic beauty of central Utah, meeting attendees can take advantage of an array of topical conferences, technical sessions, and priceless opportunities to meet and interact with colleagues and chemical engineering’s top thought leaders and innovators.

The Annual Meeting has built a worldwide reputation as *the* forum for chemical engineers working in research and development, with one of its distinguishing features being its focus on both technical innovation and the professional growth of chemical engineers. More than 4,000 engineers and scientists are expected to attend this year’s conference, where sustainable engineering will be a dominant theme.

Many of chemical engineering’s technology pacesetters will be on-site to share their latest research and the newest technologies in the field’s growth areas, in more than 750 technical sessions, spanning a dozen topical conferences and 20 core programming areas. Short courses, poster sessions, and plenaries are also on the agenda, and scores of networking opportunities — both formal and informal — will permit attendees to make professional connections and catch up with colleagues and friends.

For information about conference registration and the complete schedule of events, visit www.aiche.org/annual.



▲ Downtown Salt Lake City — situated next to the Wasatch Mountain range — is the spectacular setting for the 2010 AIChE Annual Meeting, Nov. 7–12. Photo credit: Steve Greenwood.

Featured events

The Annual Meeting’s programmers have covered virtually all of the hot topics in the chemical engineering field, with several major themes in the spotlight. Sustainability comes to the fore in 2010, with programs organized by AIChE’s Institute for Sustainability (IfS) that include sustainable energy, alternative chemical feedstocks, biorefining, and a topical conference titled “Innovations in Green Process Engineering for Sustainable Energy and Environment.” Additional topical conferences explore nanotechnology in medicine; pharmaceuticals; nanomaterials for energy applications; sensors; particle technology and separations; air quality and regulatory issues; hydrogen, oil, and gas production; clean fossil fuels; and more.

Major highlights of this year’s meeting include:

- *Annual Meeting Plenary: Energy and Water Sustainability for a Smart Planet*, Monday, Nov. 8, 12:30 pm–3:15 pm. This session, featuring a

panel of distinguished experts, sets the stage for one of the meeting’s major themes. Josephine M. Cheng of IBM Research–Almaden, will start the session, followed by David A. Klanecky, Dow Water and Process Solutions, who will speak on “Opportunities at the Energy-Water Nexus: Leveraging Water Treatment Technologies for Efficiency, Economic Prosperity and Sustainability in the 21st Century,” and Jared P. Ciferio of the U.S. Dept. of Energy’s (DOE) National Energy Technology Laboratory and the Office of Coal and Power R&D, who will discuss “Water and Energy: Integrated Challenges, Integrated Solutions.”

- *Quality by Design (QbD) Topical Conference and Plenary*. The QbD Conference — co-sponsored by AIChE and the U.S. Food and Drug Administration (FDA) — will bring attendees up to date on how QbD is being utilized, including real-world examples of quality risk management over the product lifecycle. The conference will cover the business and



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regulatory environment; quality risk analysis and management; applications of QbD; and scale-up of pharmaceutical manufacturing processes, among other topics. A QbD Topical Conference Plenary on Tuesday, Nov. 9, 3:15 pm–5:45 pm, will feature overviews of QbD in pharmaceutical development and a QbD Round Table Discussion entitled “An Integrated and Science-Based Approach for QbD Implementation in the Pharmaceutical Industry.”

• *The First International Congress on Energy: Sustaining Supplies* — presented by AIChE’s newly inaugurated Center for Energy Initiatives — will explore the latest trends and developments in sustaining the supply of energy. This timely and comprehensive conference will offer multiple perspectives from the field’s most forward-thinking researchers, over the course of more than 100 sessions focused on three key areas: bio-energy; fossil fuels with carbon capture and sequestration; and alternative energy and enabling technologies. Case studies, poster sessions, and



▲ The Calvin L. Rampton Salt Palace Convention Center is the venue of most of the Annual Meeting’s major programs and activities. Photo credit: Adam Barker.

three plenaries, including an international forum on clean and renewable energies, will be among the venues for scientists and engineers to discuss innovative approaches to affordable, clean and sustainable energy.

Learn from the best

At the Annual Meeting’s keynote lectures, attendees will hear experts of the highest caliber discuss new developments in the field — often before they appear in the engineering literature. Among the major lectures this year:

• *Danckwerts Lecture*, Monday, Nov. 8, 11:15 am–12:15 pm. Co-

sponsored by AIChE and IChemE, this year’s lecture will be presented by Dr. Roland Clift, Distinguished Professor of Environmental Technology, Centre for Environmental Strategy at the Univ. of Surrey, Guildford (UK), and president of the International Society for Industrial Ecology. In his lecture, “Chemical Engineering Outside the Pipe: Industrial Ecology and Sustainability,” Clift will discuss why the emerging field of industrial ecology represents a new and important area where chemical engineers can apply their skills.



▲ Clift

• *Professional Progress Award Lecture*, Tuesday, Nov. 9, 11:15 am–12:15 pm. The lecture will be presented by the Institute’s 2009 Professional Progress Award recipient, Dr. Kristi S.

Anseth, Tisone Professor, associate professor of surgery, and Howard Hughes Medical Institute Investigator at the Univ. of Colorado



▲ Anseth

SHORT COURSE AND WORKSHOPS, SUNDAY, NOV. 7

Prior to the conference kick-off, the Annual Meeting will feature 16 short courses, with topics covering a range of interests. Among the topics are: separations, mixing, process development, energy, electrokinetics, modeling, sustainability, biological subjects for chemical engineers, cellulosic biomass, groundwater and oil spill remediation and other environmental subjects, and career development for women engineers. Professional Development Hour (PDH) credits will be available. The short courses are open to everyone and do not require registration for the Annual Meeting, and they have much lower fees than comparable courses not co-located with the Annual Meeting. Seating is limited, so preregistration is advised. For detailed descriptions of the short courses and to register, visit www.ichem.org/annual/shortcourses.

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at Boulder. Anseth's talk, "Biology in Four Dimensions: Dynamic Hydrogel Niches for Tissue Regeneration," will explore the state of the art in tissue replacement and regenerative medicine.

• *James E. Bailey Award Lecture*, Tuesday, Nov. 9, 6:00 pm–7:00 pm. The Society for Biological Engineers' (SBE) Bailey Award recognizes outstanding contributions in the field of biological engineering. This year's recipient,



▲ Blanch

Dr. Harvey Blanch, the Merck Professor of Biochemical Engineering at the Univ. of California, Berkeley, is being honored for his research and advancements in transport, kinetics, and thermodynamics in enzymatic and microbial processes. The title of Blanch's talk is "Evolving Biological Engineering."

• *The 62nd Institute Lecture*, Wednesday, Nov. 10, 11:15 am–12:15 pm. Dr. Julio M. Ottino, dean of the McCormick School of Engineering at Northwestern Univ., where he holds the titles of Distinguished McCormick Institute Professor and Walter P. Murphy



▲ Ottino

Professor of Chemical and Biological Engineering, will deliver this year's Institute Lecture. Ottino's talk, entitled "Chemical Engineering in a Complex World: Grand Challenges, Vast Opportunities," will describe the expanding domain of chemical engineering, marked by recent advances in such areas as molecular-based elements, materials, and biology, and discuss the many opportunities and the confluence of factors that make the work of chemical engineers more relevant than ever before.

• *The 3rd Corporate Innovation Award Lecture*, Thursday, Nov.

11, 11:15 am–12:15 pm. This honor recognizes corporations or corporate divisions for innovation that has resulted in the successful commercial development of new products or new processes for making useful products. The 2010 award recipient, Genentech, will be represented by Dr. Ann L. Lee, Senior Vice President of Process Research and Development, who will present the talk, "Genentech: A Rich History of Chemical Engineering Innovation."

• Another key lecture is the *James Y. Oldshue Lecture*, Tuesday, Nov. 9, at 8:30 am–10:00 am. Co-sponsored by AIChE and the Interamerican Confederation of Chemical Engineering (IAChE), this year's lecture will be presented by Dr. Esteban Brignole of Universidad Nacional del Sur, Argentina.

Among numerous presentations honoring AIChE technical division and forum award-winners are the Environmental Div.'s Lawrence K. Cecil Award Lecture and the Transport and Energy Processes Div.'s Donald Q. Kern Award Lecture.

AIChE's North American Mixing

Forum (NAMF) will offer a special presentation in honor of Chad Bennington, the recent recipient of the NAMF Mixing Award, who passed away in early 2010. Bennington's planned talk, titled "Mixing and Dynamics of Agitated Pulp Stock," will be presented by an invited speaker.

One-of-a-kind events

On Sunday, Nov. 7, 4:30 pm–6:00 pm, prior to the Annual Meeting's Welcome Reception, AIChE will honor some of chemical engineering's foremost practitioners, researchers, and trailblazers at the Institute's *Honors Ceremony*. In addition to many long-established honors in the field, four new awards will debut at the ceremony, each created to recognize achievements in industrial practice. Awards to be inaugurated in 2010 include honors for Engineering and Construction, Industry Leadership, Industrial Research and Development, and Process Operations. The recipients will join a roster of honorees (to be announced in the October and November issues of *CEP*) who will be recognized for their contributions to



▲ Dedicated by Brigham Young in 1853, the Salt Lake Temple — the largest temple of the Mormon Church — is the centerpiece of downtown Salt Lake City's Temple Square. Located two blocks from the Salt Palace Convention Center, Temple Square is a popular tourist attraction, and serves as home to the famous Mormon Tabernacle Choir. Photo credit: Jason Mathis.



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research, practice, education, and the chemical engineering field in general.

The National Student Conference (Nov. 5–8) is one of AICHE's major initiatives to bring undergraduate chemical engineers in contact with professional engineers, and to involve them in AICHE activities. One-hundred chemical engineering schools will send some 1,500 students to the conference for four days of professional

“... EAT, ... DRINK, AND ... BE MERRY ...”

Misconceptions about Utah's liquor laws abound. Some of the confusion about the availability of after-hours beverages is due to the admittedly quirky alcohol dispensing statutes that had previously been in effect in the state.

Now, getting a drink in Utah is easy for anyone of legal drinking age. As of July 1, 2009, the private club membership requirement for entry into drinking establishments has been removed. Bars, nightclubs and restaurants in Utah are no longer required to charge membership fees or ask patrons to fill out applications before they can enter the establishment to buy a drink.

Utah's liquor laws are now quite normal, and the perceptions of “not being able to get a drink” should not dissuade visitors from enjoying a night on the town in Salt Lake City — responsibly, of course. One does not want to miss any of the great programs held morning to night at the Annual Meeting.

(Source: Salt Lake Convention and Visitors Bureau)

development workshops, scholarly competitions, poster presentations, exhibitions, and networking events. This year's Student Conference will overlap with the professional meeting on Sunday and Monday, allowing for greater interaction between students and professionals, and presenting opportunity for learning on both sides.

A highlight of the Student Conference — and of the Institute's annual calendar — is the final rounds of the national *Chem-E-Car Competition*, where 31 teams of undergraduates — the top finishers in the Spring 2010 regional competitions — will run their chemical-reaction-powered shoebox-size vehicles for the national prize. The competition, sponsored by Chevron, incorporates a comprehensive safety program — including documentation, vehicle inspections, a poster session, and annual safety training workshops required for participating teams. The Chem-E-Car Competition takes place Sunday, Nov. 7, beginning at 2:00 pm.

Get involved

Over the course of the Annual Meeting, AICHE members (and other chemical engineers) who are interested in taking a more active role in their professional society will find many opportunities to interact with the Institute's most dynamic members, at a variety of receptions, dinners, award presentations, and other special events sponsored by the Institute's committees, technical divisions and forums. Among the committee activities will be gatherings of the Women's Initiatives Committee, the Minority Affairs Committee (including an awards ceremony and discussion forum), the Local Sections Committee, the Student



▲ Skip Rochefort (left), chair of the Student Chapters Committee, helps a student to measure distance at the Chem-E-Car Competition — a highlight of the Annual Meeting and the National Student Conference. Photo credit: Gordon Ellis.

Chapters Committee, and the Young Professionals Advisory Board.

All of these groups need motivated volunteers to help build and sustain quality programs and services for AICHE members. The events sponsored by these groups will provide excellent introduction to opportunities for involvement in Institute leadership.

Mixing business with pleasure in Salt Lake City

Salt Lake City and the surrounding area — including Park City, one of the venues for the 2002 Winter Olympics — provides unrivaled scenic splendor and opportunities for outdoor adventures. Nearer to the conference site, the downtown area offers opportunities for self-guided walking tours and sightseeing — including Temple Square, site of the Mormon Tabernacle and the Salt Lake Temple — only a few blocks from the Salt Palace Convention Center. Among the scheduled tours is a visit to the Univ. of Utah's Industrial Combustion and Gasification Research Lab.

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Program and registration information for the Annual Meeting is available at www.iche.org/annual