



# MeetingPreview

## ANNUAL MEETING, OCT. 28–NOV. 2, WILL SPOTLIGHT ENERGY AND WATER

This fall, Pittsburgh, PA — the city of bridges, and the site of AIChE's first Annual Meeting in 1908 — will connect thousands of chemical engineers for an industry-spanning overview of the field's hottest topics, when AIChE takes its Annual Meeting to that city's David L. Lawrence Convention Center, Oct. 28 – Nov. 2. Built on the theme, "Cleaner Energy, Stronger Economy, Better Living," the 2012 Annual Meeting will offer more than 725 sessions covering the latest research and technologies in the areas of separations, alternative energy, biological engineering, nanotechnology, sustainability, and more.

Among the meeting's major components are the Second Annual World Congress on Sustainable Engineering and the Third International Congress on Energy, plus new topical conferences devoted to accelerating fossil energy technology development through integrated computation and experimentation, and sustaining water for future generations. Also debuting in 2012 will be a topical conference that explores biomedical applications of chemical engineering.

On the global scene, the meeting will feature a U.S.–India Symposium on Energy, Environment, and Sustainability; a joint AIChE–Korean Institute of Chemical Engineers symposium; collaborations with IChemE; and a forum on biotechnology in Taiwan and Southeastern Asia.

These activities will be supplemented by returning topical conferences that address new developments in nanotechnology, quality by design in pharmaceutical development and manufacturing, innovations in green process engineering, and more, as well as the annual meeting of the American Electrophoresis Society.

In addition, from Oct. 26 to



▲ The Roberto Clemente Bridge spans the Allegheny River to Downtown Pittsburgh.

Oct. 29, chemical engineering students will participate in the Annual Student Conference, featuring career workshops, scholarly competitions, and the popular Chem-E-Car Competition.

With its emphasis on both technical innovation and the professional growth of chemical engineers, AIChE's Annual Meeting enjoys an international reputation as the premier forum for chemical engineers working in research and development. Organizers expect more than 4,500 engineers and scientists

to attend this year to gain insight into developments in the field's growth areas. Short courses, poster sessions, plenary sessions, and presentations by distinguished lecturers and some of the profession's thought leaders round out the agenda, and numerous receptions, social events, and 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](http://www.aiche.org/annual).

### Signature events

*Annual Meeting Plenary: Chemical Science Innovation — Building Chemical Engineering Bridges to Reach Energy Solutions*, Monday, Oct. 29, 12:30 pm – 3:00 pm. This plenary session's speakers — representing the U.S. Dept. of Energy, EQT Corp., Bayer Corp., and Westinghouse —

### SHALE OIL AND GAS E&P JOINT WORKSHOP, NOV. 1–2

Another special event associated with this year's Annual Meeting is a separate joint workshop, co-sponsored by AIChE and the Air and Waste Management Association (AWMA), entitled Shale Oil and Gas Exploration and Production: Water Challenges and Opportunities, to be held Nov. 1–2, at Pittsburgh's Omni William Penn Hotel.

Shale oil and gas exploration and production have increased dramatically as a result of advances in both exploration technology and reservoir stimulation techniques — in particular, horizontal drilling and hydraulic fracturing. This increased activity has led to growing concern over potential environmental consequences and adverse impacts. Central to this concern is the large amount of water required and how impacted water is managed and ultimately disposed.

This workshop will bring together experts from energy-related companies to present case studies and discuss the engineering design and in-the-field implementation successes and challenges of water use and reuse activities.

The workshop is organized into four key topic areas: Water Sourcing and Logistics; Water Treatment; Wastewater Disposal; and Water Reuse and Recycling. In addition to these sessions, attendees will benefit from idea exchange during panel discussions, and have the opportunity to interact with technical experts who are actively working and addressing these timely and critical issues.

To register, or for more information, go to [www.aiche.org/conferences/specialty/awmajoint.com](http://www.aiche.org/conferences/specialty/awmajoint.com).



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Annual Meeting, Pittsburgh, PA

will explore the impact of chemical engineers and chemical engineering technologies on topics spanning energy and the environment. The talks include:

- CO<sub>2</sub> Capture, Utilization and Storage, and Natural Gas/Oil Recovery: Harnessing Scientific Development and Business Principles to Achieve Fossil Energy Sustainability
- North American Manufacturing and the Shale Gas Century
- Chemistry and Energy: Fortifying Our Historic Links
- Nuclear Energy: Is there a Future after Fukushima?

*The Third International Congress on Energy (ICE)*. Presented by AIChE's Center for Energy Initiatives, ICE brings together scientists and engineers working in areas ranging from bioenergy to carbon capture to separation science, for a comprehensive review of research and development in sustainable energy supplies. Its 175 technical sessions will provide up-to-date coverage of several key subjects:

- Global Solar and Nuclear Energy for the 21st Century
- Biorefinery Technologies for Forest-Based Lignocellulosic Biomass
- Hydrogen Production and Storage
- Natural Gas Production from Marcellus Shale.

- *The Second World Congress on Sustainable Engineering*. This congress is designed to give chemical engineers a voice in shaping sustainable development. The program covers the spectrum of sustainable engineering topics, including innovations, processes, and best practices related to renewable resources, biorefineries, sustainable electricity generation, carbon capture and carbon-efficient systems, and more.

### Must-see presentations

Attendees will hear leading scientists and engineers discuss new developments in the field — often before the information is published in the engineering literature.

*The 2012 Danckwerts Lecture*, Monday, Oct. 29, 11:15 am – 12:15 pm. Co-sponsored by AIChE, the European Federation of Chemical Engineering (EFCE) and Elsevier, this year's lecture will be presented by Guy B. Marin, Chair of the Dept. of Chemical Engineering and Technical Chemistry, and Director of the Laboratory for Chemical Technology at Ghent Univ.

*The D. I. C. Wang Award for Excellence in Biochemical Engineering Lecture*, Monday, Oct. 29, 3:15 pm – 5:45 pm. Established by AIChE's Society for Biological Engineering (SBE), this new award recognizes distinguished contributions to biochemical engineering. The inaugural award lecture will feature one of the 2012 recipients: James R. Swartz, the James H. Clark Professor in the School of Chemical Engineering at Stanford Univ. His lecture is entitled "From Cancer to Hydrogen: Cell-Free Biomolecular and Bioprocess Engineering.

*Professional Progress Award Lecture*, Tuesday, Oct. 30, 11:15 am – 12:15 pm. This lecture will be presented by the Institute's 2011 Professional Progress Award recipient, Christopher Bowman, the Patten Professor and Chair of the Dept. of Chemical and Biological Engineering, and Clinical Professor of Restorative Dentistry, at the Univ. of Colorado at Boulder. His lecture is entitled "Clicking Polymers Together: Assembly of Complex, Controlled Polymer Structures from Efficient Chemistries."

*James E. Bailey Award Lecture*,

Tuesday, Oct. 30, 6:00 pm – 7:00 pm. The SBE's Bailey Award recognizes outstanding contributions in the field of biological engineering. This year's recipient and lecturer will be announced in the Sept. 2012 issue of *CEP*.

*The 64th Institute Lecture*, Wednesday, Oct. 31, 11:15 am – 12:15 pm. Frank Bates, the Regents Professor and Head of the Chemical Engineering and Materials Science Dept. at the Univ. of Minnesota, will deliver this year's Institute Lecture, entitled "Multiblock Polymers: Panacea or Pandora's Box."

*The Corporate Innovation Award Lecture*, Thursday, Nov. 1, 11:15 am – 12:15 pm. Presented this year to Corning, 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. Marc Giroux, Corning's Senior Vice President and Chief Engineer for Manufacturing Technology and Engineering, will discuss Corning's "Long Tradition of Innovation that Matters."

### Not to be missed

On Sunday afternoon, Oct. 28, prior to the Annual Meeting's Welcome Reception, AIChE will recognize some of chemical engineering's leading lights at the Honors Ceremony. The honors will include a newly inaugurated Award for Industrial Progress, along with other prestigious awards.

Among other honors, many of AIChE's technical divisions and forums will be presenting their annual awards at special sessions and dinners, and newly elected AIChE Fellows will be recognized at the Fellows Breakfast on Tuesday, Oct. 30.

Program and registration information is available at [www.aiche.org/annual](http://www.aiche.org/annual). Registration fees are discounted through Sept. 14.