

# 4<sup>th</sup> International Congress on Ceramics

The American Ceramic Society (ACerS) is pleased to host and organize the 4th International Congress on Ceramics. The International Ceramic Federation (ICF) convenes the ICC every two years in cooperation with ACerS, the European Ceramic Society, the Ceramic Society of Japan, and other ICF Member Societies.

## Shaping the Future of Ceramics

ICC4 has been designed to bring together more than 600 international leaders in business and research to discuss emerging opportunities as well as what's in store for the future of ceramics and glass. This meeting focuses on innovation in:

- Energy, Environment, and Transportation
- Biology and Medicine
- Aerospace
- Nanostructured Ceramics
- Infrastructure
- Security
- Electro-, Optical- and Magnetic Ceramics and Devices
- Manufacturing and Business
- Entrepreneurship and Technology Transfer
- Workforce Development

\*New this year—**the Interactive Technology Forum**—a groundbreaking, interactive approach to presenting your vision and work that goes beyond the traditional poster session. **Submit your abstract by January 17, 2012.**

[www.ceramics.org/icc4](http://www.ceramics.org/icc4)

July 15-19, 2012 | Sheraton Chicago Hotel & Towers | Chicago, Illinois, USA





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## 4th International Congress on Ceramics

# join us at icc4

**ICC4 brings together the global ceramics and glass community to identify key worldwide issues and to determine how we should address them.**

Now more than ever manufacturers confront a dynamically changing landscape. Researchers are constantly exploring new materials and new processes. These worlds come together at ICC4 where industrial, academic and government leaders will share their expertise on everything from innovative ceramic research, design and manufacturing, to economic issues facing the ceramics and glass industry.

Programs like the Materials Genome Initiative and the Advanced Manufacturing Program along with economic, infrastructure, and technology transfer related challenges are driving materials development and manufacturing. This is the one meeting specifically designed to bring together industry and research experts in the ceramics community from around the globe with one single purpose ... to shape and guide the future of ceramic and glass materials in our world.

More than 100 invited speakers from 40 countries will be there. So should you.

### **ICC4 President and Technical Program Co-Chair**

#### **Dr. Katherine T. Faber**

Northwestern University  
McCormick School of Engineering  
and Applied Science  
k-faber@northwestern.edu



### **Technical Programming Committee**

**Celio Costa**, Federal Univ. of Rio de Janeiro

**Tate Coverdale**, BASF

**Stephen Freiman**, Freiman Consulting

**Kevin Fox**, Savannah River National Laboratory

**Christian Hoffmann**, TDK

**Lynnette Madsen**, National Science Foundation

**Vivek Pawar**, Smith & Nephew, Inc.

**Aleksander Pyzik**, The Dow Chemical Company

**Todd Steyer**, The Boeing Company

**Susan Trolier-McKinstry**, Pennsylvania State Univ.

**Jason Weiss**, Purdue Univ.

**Greg Geiger**, ACerS

**Mark Mecklenborg**, ACerS

### **ICC4 Technical Program Co-Chair**

#### **Dr. Edgar Lara-Curzio**

Oak Ridge National Laboratory  
laracurzioe@ornl.gov



### **ICC4 Endorsing Societies**

Associação Brasileira de Cerâmica

Australian Ceramic Society

Belgian Ceramic Society

Ceramic Society of Japan

Chinese Ceramic Society

Czech Silicate Society

European Ceramic Society

Finnish Ceramic Society

Georgian Ceramists Association

German Ceramic Society

Glass Manufacturing Industry Council

Groupe Français de la Céramique

Indian Ceramic Society

Italian Ceramic Society

Institute of Materials, Metals & Mining (IOM<sup>3</sup>)

Korean Ceramic Society

Materials Research Society of Latvia

Polish Ceramic Society

Romanian Ceramic Society (CEROM)

Scientific Society of the Silicate Industry-  
Hungary

Sociedad Española de Cerámica y Vidrio

Slovak Silicate Society

Swedish Association for Materials Technology

The Ceramics Society, A Division of IOM<sup>3</sup>

Turkish Ceramic Society

World Academy of Ceramics

## program

Over 100 speakers have been invited to present at ICC4. The following have confirmed their participation in this must-attend event. For the most current confirmed speaker list, visit [www.ceramics.org/icc4](http://www.ceramics.org/icc4).

### Plenary Speakers

**John Tracy**, The Boeing Company  
**Athanosios Konstantopoulous**, Abteilung Chemical Process Engineering Research Institute; Centre of Research & Technology Hellas  
**Evgenia Pekarskaya**, Lux Research  
**David S. Bem**, The Dow Chemical Company  
**Yukio Sakabe**, Murata Manufacturing Co., Ltd. (tentative)  
**Delbert Day**, Missouri Univ. of Science and Technology, MO-SCI Corporation  
**Chijoon Choi**, Samsung Electro-Mechanics Co.

### Aerospace

**John Koenig**, Southern Research Institute  
**Glen Mandigo**, Strategic Marketing Innovations  
**Toshihiro Ishikawa**, UBE Industries, Ltd.  
**Takuya Aoki**, Japanese Aerospace Exploration Agency (JAXA); Chofu Aerospace Center

### Biology and Medicine

**Ashok Khandkar**, BloXR, LLC  
**Meinhard Kuntz**, CeramTec GmbH  
**Richard P. Rusin**, 3M ESPE Dental Products

### Electro-, Magnetic-, Optical-Ceramics and Devices

**Takuya Aoki**, TDK Technology Group

### Environment, Energy and Transportation

**Krishan Luthra**, General Electric  
**Yutai Katoh**, Oak Ridge National Laboratory  
**Rajendra Nath Basu**, CSIR-Central Glass and Ceramic Research Institute  
**Wolfgang Rossner**, Siemens AG  
**S. K. Sundaram**, Alfred Univ.  
**Alan (Al) W. Weimer**, Univ. of Colorado  
**Minoru Kanehira**, Shanghai Institute of Ceramics, CAS  
**Juan C. Nino**, Univ. of Florida  
**John Hellmann**, Pennsylvania State Univ.

**Masaki Ozawa**, Tokyo Institute of Technology, Research Laboratory for Nuclear Reactors  
**Hasan Mandal**, Sabancı Univ.  
**Manfred Salinger**, Pall Corporation  
**Paolo Colombo**, Univ. of Padova, Italy  
**George Muntean**, Pacific Northwest National Lab

### Infrastructure

**Hamlin Jennings**, Concrete Sustainability Hub, MIT

### Nanostructured Ceramics

**Sudipta Seal**, Univ. of Central Florida  
**Lynnette Madsen**, National Science Foundation  
**Kathleen K. Eggleston**, Univ. of Notre Dame  
**Lang Tran**, Institute of Occupational Medicine  
**Debra Kaiser**, Ceramics Division, Material Measurement Laboratory, NIST  
**Jeffrey Fagan**, Polymers Division, NIST

### Workforce Development

**Angus Kingon**, Brown Univ.  
**Keith J. Bowman**, Illinois Institute of Technology  
**Fumiyo Kaneko**, Japan Society for the Promotion of Science, DC Office  
**Hongjie Luo**, Shanghai Institute of Ceramics  
**Umesh Waghmare**, Jawaharlal Nehru Centre for Advanced Scientific Research  
**Mario Affatigato**, Coe College  
**Federico Rosei**, Université du Québec

### 3rd Ceramic Leadership Summit Track

The Ceramic Leadership Summit is an annual meeting that explores business opportunities, emerging technologies and critical issues that challenge the ceramic and glass materials community. It is about business and technology leadership and connecting leaders within the community. The 3rd Ceramic Leadership Summit will be held as a one-day program included in ICC4. It will focus on technology transfer, entrepreneurship and innovation, and raising capital to support start-up ventures.



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## 4th International Congress on Ceramics

# interactive technology forum

Shape the future of ceramics and glass technology by presenting your work and vision in this new ICC4 Interactive Technology Forum. Showcase the strength of your work by exploring creative new ways to interact with your audience. Two different Interactive Technology Forum sessions will be held on Monday and Tuesday.

**Submit your Interactive Technology Forum abstract by January 17, 2012 at [www.ceramics.org/icc4](http://www.ceramics.org/icc4).**

### These options are available:

1. Present a traditional 4 ft. by 4 ft. printed poster highlighting your work in one of the themed topics  
– OR –
2. Use new technologies to display and present your technological developments
  - Present an electronic poster on a 32-inch display LCD monitor provided by ICC4 using your own laptop or electronic tablet\*
  - Supplement your 4 ft. by 4 ft. printed poster with your own laptop, iPad or display screen demonstration displayed on a 3 ft. by 2 ft. tabletop space in front of your poster board
  - Supplement your 4 ft. by 4 ft. printed poster by bringing a hands-on demonstration of your material, process, or application to display on a 3 ft. by 2 ft. tabletop space in front of your poster board

\* Only a limited number of display monitors will be provided by ICC4. Please indicate your interest in using a 32-inch LCD monitor in abstract submission. Be creative!

### Traditional Poster Submission:

Abstracts are limited to 350 words. A 4 ft. by 4 ft. poster space and push pins will be provided for hanging your poster.

### Interactive Poster Submission:

Abstracts are limited to 350 words. In addition to an abstract, submit a 100 word description of how you plan to make your poster interactive. Please identify what equipment you plan to use. Also, indicate your interest in using a 32-inch LCD monitor.

Note that 4 ft. by 4 ft. poster space, 3ft x 2ft. table space, and electricity will be provided, but an internet connection will not.



## schedule

### Sunday, July 15, 2012

Keynote and Welcome  
Reception Evening

### Monday, July 16, 2012

Plenary Session 9:00 a.m. – 11:50 p.m.  
Lunch 12:00 p.m. – 12:45 p.m.  
Plenary Speaker 12:45 p.m. – 1:30 p.m.  
Breakout Sessions 1:40 p.m. – 3:40 p.m.  
Interactive Technology  
Forum 1 and Exhibit 3:45 p.m. – 6:00 p.m.

### Tuesday, July 17, 2012

Plenary Speaker 8:45 a.m. – 9:40 a.m.  
3rd Ceramic Leadership  
Summit Track 10:00 a.m. – 12:00 p.m.  
Breakout Sessions 10:00 a.m. – 12:00 p.m.  
Lunch 12:00 p.m. – 12:45 p.m.  
Plenary Speaker 12:45 p.m. – 1:30 p.m.  
3rd Ceramic Leadership  
Summit Track 1:40 p.m. – 3:40 p.m.  
Breakout Sessions 1:40 p.m. – 3:40 p.m.  
Interactive Technology  
Forum 2 and Exhibit 3:45 p.m. – 6:00 p.m.

### Wednesday, July 18, 2012

Plenary Speaker 8:45 a.m. – 9:40 a.m.  
Breakout Sessions 10:00 p.m. – 12:00 p.m.  
Lunch on own 12:00 p.m. – 1:30 p.m.  
Breakout Sessions 1:40 p.m. – 4:00 p.m.  
ICC4 Art Institute of  
Chicago, Modern  
Wing Event Evening

### Thursday, July 19, 2012

Breakout Sessions 8:00 a.m. – 9:20 a.m.  
Plenary Speaker 9:50 a.m. – 10:50 a.m.  
Facilitated Discussion 11:00 a.m. – 11:45 a.m.  
Optional Tours Afternoon

An optional tour is being planned to Argonne National Laboratory on the afternoon of Thursday, July 19, 2012. Contact April May at [amay@ceramics.org](mailto:amay@ceramics.org) if you are potentially interested in attending. In addition, optional post-conference tours are being planned to other Chicago area attractions. Information will be posted on [www.ceramics.org/icc4](http://www.ceramics.org/icc4) as soon as details are confirmed.

### Reception at the Art Institute of Chicago

Enjoy good company, good food and outstanding art at the world-renowned Art Institute of Chicago's Modern Wing on Wednesday evening. Designed by Pritzker Prize-winning architect Renzo Piano, the Modern Wing provides a new home for the museum's collection of 20th- and 21st-century art.





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www.ceramics.org/icc4

## 4th International Congress on Ceramics

# committees

### ICC4 International Advisory Committee

**Gian Nicola Babini**, Italian Ceramic Society, Italy  
**Carmen Baudin**, Institute of Ceramics and Glass, Spain  
**Alida Bellosi**, CNR- ISTECC, Institute for Science and Technology for Ceramics, Italy  
**Lennart Bergstrom**, Stockholm Univ., Sweden  
**Chris Berndt**, Swinburne Univ. of Technology, Australia  
**Liga Berzina-Cimdina**, Riga Technical Univ., Latvia  
**Richard Brook**, Imperial College London, United Kingdom  
**Xiang Ming Chen**, Zhejiang Univ., China  
**Leonardo Curimbaba Ferreira**, Associação Brasileira de Cerâmica, Brazil  
**Monica Ferraris**, Polytechnic of Torino, Italy  
**José M.F. Ferreira**, CICECO - Univ. of Aveiro, Portugal  
**Gary Fischman**, Future Strategy Solutions LLC, USA  
**Lian Gao**, Shanghai Jia Tong Univ., China  
**Krzysztof Haberkowicz**, AGH Univ. of Science and Technology, Poland  
**Stuart Hampshire**, Univ. of Limerick, Ireland  
**Juergen Heinrich**, Univ. of Clausthal, Germany  
**Shin-ichi Hirano**, National Institution for Academic Degrees and Univ. Evaluation, Japan  
**Jow-Lay Huang**, National Cheng Kung Univ., Taiwan  
**Toshihiro Ishikawa**, UBE Industries, Inc., Japan  
**Dongliang Jiang**, Shanghai Institute of Ceramics, CAS, China  
**Sylvia Johnson**, NASA Ames Research Center, USA  
**Suk-Joong L. Kang**, Korea Advanced Institute of Science and Technology, Korea  
**Hai-Doo Kim**, Korea Institute of Materials Science (KIMS), Korea  
**Zviad Kovziridze**, Georgia Technical Univ., Georgia  
**Thomas Kronberg**, Ido Bathroom Ltd, Sanitec Group, Finland  
**Jacques Lamon**, CNRS/National Institute of Applied Science (INSA Lyon), France  
**Karel Lang**, P-D Refractories CZ a.s., Czech Republic  
**William Lee**, Imperial College London, United Kingdom  
**Anne Leriche**, LMP-UVHC, France  
**Longtu Li**, Tsinghua Univ., China  
**Kathryn Logan**, Georgia Institute of Technology and Virginia Tech, USA  
**Hongjie Luo**, Shanghai Institute of Ceramics, Chinese Academy of Sciences, China  
**Hasan Mandal**, Anadolu Univ., Turkey  
**Akio Makishima**, Japan Advanced Institute of Science & Technology, Japan

**Alexander G. Merzhanov**, Russian Academy of Sciences, Russia  
**Sergei Mileiko**, Solid State Physics Institute, Russia  
**Vojislav Mitic**, Serbian Ceramic Society, Serbia  
**A. L. Shashi Mohan**, Indian Ceramic Society, India  
**Karsten Agersted Nielsen**, Risoe National Laboratory, Denmark  
**Koichi Niihara**, Nagaoka Univ. of Technology, Japan  
**Tatsuki Ohji**, AIST, Japan  
**Wei Pan**, Tsinghua Univ., China  
**Maria Preda**, Univ. Politehnica of Bucharest, Romania  
**Zbigniew Pedzich**, AGH-Univ. of Science and Technology, Poland  
**Jose Ygnacio Pastor**, Polytechnic Univ. of Madrid, Spain  
**Suprakas Sinha Ray**, The National Centre for Nano-structured Materials, CSIR, South Africa  
**Pavol Sajgalik**, Slovak Academy of Sciences, Slovakia (Slovak Republic)  
**Danilo Suvorov**, Jozef Stefan Institute, Slovenia  
**Janos Szepvolgyi**, Scientific Society of the Silicate Industry, Hungary  
**Wei-Hsing Tuan**, National Taiwan Univ., Taiwan  
**Omer Van der Biest**, Leuven Univ., Belgium  
**Petro Vincenzini**, World Academy of Ceramics, Italy  
**Richard Weber**, Materials Development Inc.  
**Paolo Zannini**, Univ. of Modena, Italy  
**Yu Zhou**, Harbin Institute of Technology, China

### ICC4 Chicago Host Committee

**Stephen Gonczy**, Gateway Materials Inc.  
**Thomas Mason**, Northwestern Univ.  
**Jennifer Mawdsley**, Argonne National Lab  
**Paramita Mondal**, Univ. of Illinois  
**Dileep Singh**, Argonne National Lab  
**Carol Thompson**, Northern Illinois Univ.  
**Richard Weber**, Materials Development Inc.

### ICC4 Steering Committee

**Kristen Brosnan**, General Electric  
**Katherine Faber**, Northwestern Univ.  
**Christine Heckle**, Corning Incorporated  
**Edgar Lara-Curzio**, Oak Ridge National Lab  
**H.T. Lin**, Oak Ridge National Lab  
**Gary Messing**, Pennsylvania State Univ.  
**Marina Pascucci**, CeraNova Corporation  
**L. David Pye**, Alfred Univ. (Ret.)  
**Mrityunjay Singh**, Ohio Aerospace Institute  
**George Wicks**, Savannah River National Lab  
**Mark Mecklenborg**, ACerS  
**Charlie Spahr**, ACerS

# registration

Contact ACerS Customer Service by phone at (240) 646-7054 or by fax at (240) 396-5637 before June 15, 2012 to save \$125. Online registration will open in March 2012.

## Registration

	Early 6/15/2012	Regular
Attendee	\$850	\$975
Invited Speaker	\$650	\$775
One Day: 3rd Ceramic Leadership Summit Track	\$650	\$775
One Day: ICC4 Attendee	\$650	\$775
Student	\$375	\$450
Guest	\$225	\$225
ACerS Membership	\$120	\$120
Extra ICC4 Dinner Ticket	\$150	\$150

Registration includes Welcome Reception, Monday & Tuesday Technology Forum Receptions, Wednesday ICC4 Event, Monday Lunch, Tuesday Lunch, and Coffee Breaks. Guest Registration does not include Monday Lunch, Tuesday Lunch, and Coffee Breaks.

# expo

The ICC4 Exhibit will be held in conjunction with the Interactive Technology Forum sessions, held **Monday, July 16** and **Tuesday, July 17**. Contact **Pat Janeway** at [pjaneway@ceramics.org](mailto:pjaneway@ceramics.org) or 614-794-5826 to exhibit. Package includes Sponsorship of ICC4's two Interactive Technology Forum Sessions with refreshments/snacks served on Monday and a reception on Tuesday, as well as an exhibit booth. No other ICC4 event takes place during this time.

**Space Available: 26, 10 ft. by 10 ft. booths    Rate: \$3,500**

### Expo sponsorship package includes:

- Sponsorship of Interactive Technology Forum Reception
- Recognition on website and in program
- Signage recognizing sponsorship in Registration area and Exhibit Hall
- Recognition at Conference Dinner
- One ICC registration
- Three exhibit-only passes for booth personnel
- Draped 8 ft. high back wall and 3 ft. high side rails, 6 ft. draped table, and 2 chairs
- Complimentary listing in online directory

# hotel

## Sheraton Chicago Hotel & Towers

301 E. North Water Street, Chicago, IL 60610, USA  
800-325-3535

To reserve your room, visit [www.ceramics.org/icc4](http://www.ceramics.org/icc4).

**Rates:** Single/Double    \$199 | Government    \$155



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including 3rd Ceramic Leadership Summit Track



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The  
American  
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600 N. Cleveland Ave. | Westerville, Ohio 43082 | USA