



16th ICC
CATALYSIS
JULY 3-8 2016 • BEIJING CHINA

北京
BEIJING

The 16th International Congress on Catalysis

July 3-8 2016, Beijing China

CATALYSIS FOR THE SUSTAINABLE DEVELOPMENT OF THE WORLD

Second Circular / Call for Abstracts

www.icc2016china.com



紫禁城

明朝永乐十八年（1420年）
The Forbidden City

Invitation

The Organizing Committee cordially invites you to attend the 16th International Congress on Catalysis (ICC 16) that will be held on July 3-8, 2016 in Beijing, China. The ICC 16, with the theme of **Catalysis for the Sustainable Development of the World**, will feature the crucial roles of catalysis science and technology in improving the efficiencies of energy production and utilization of fossil resources, developing renewable energy, and abating/eliminating pollutants emission to the environment. The congress will serve as a platform to exchange new ideas and discuss the advances in all areas of catalysis.

Topics

Catalytic Mechanisms

- A. Spectroscopic and Visualizing Characterizations
- B. Surface Chemistry, Reaction Kinetics and Mechanisms
- C. Molecular Simulation and Theoretical Modeling
- D. New Concepts for Catalysis

Catalytic Materials

- A. Nanostructured Catalytic Materials
- B. Micro- and Meso-Porous Catalytic Materials
- C. Biological and Enzymatic Catalysts
- D. Novel Design and Synthetic Approaches

Catalysis and Energy

- A. Efficient Utilization of Fossil Sources
- B. Clean Energy: Battery and Fuel Cell
- C. Renewable Energy: Biomass and Solar Energy
- D. Energy Storage and Conversion

Environmental Catalysis

- A. Automotive Exhaust Cleanup
- B. Air and Water Pollution Control
- C. Updating and Utilization of Wastes

Catalysis for Chemical Synthesis

- A. Green Synthesis
- B. Petrochemicals
- C. Fine Chemicals and Pharmaceuticals
- D. Selective Oxidation & Hydrogenation

Cross-Disciplinary

- A. Integration of Heterogeneous and Homogeneous
- B. Biocatalysis / Organic Catalysis
- C. Catalytic Reaction Engineering

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The Hall of Supreme Harmony

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Plenary Speakers

- **Bruce C. Gates** (University of California, Davis, USA)
"Molecular and single-site metal catalysis on surfaces"
- **Charles T. Campbell** (University of Washington, USA)
"Thermodynamics and kinetics of elementary reaction steps on late transition metal catalysts, and in their sintering"
- **Krijn P. de Jong** (Utrecht University, The Netherlands)
"Nanoscale effects in heterogeneous catalysis"
- **Matthias Beller** (Leibniz Institute for Catalysis at the University of Rostock, Germany)
"Bridging homogeneous and heterogeneous catalysis: what can we learn from each other?"
- **Thomas F. Degnan, Jr** (ExxonMobil Chemical Company / University of Notre Dame, USA).
"Recent advances in the application of zeolites for the production of fuels and petrochemicals"

IACS Awards Lectures

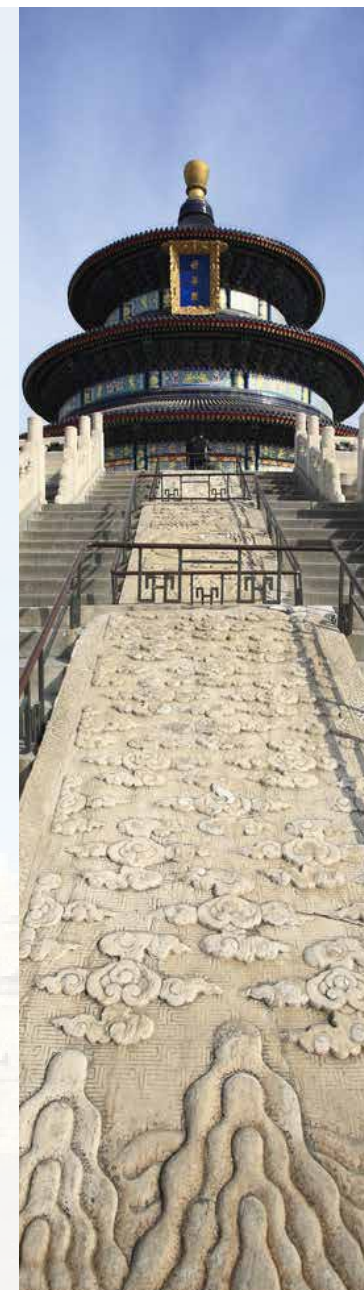
- **International Catalysis Award Lecture** (to be announced)
- **Heinz Heinemann Award Lecture** (to be announced)

Keynote Speakers

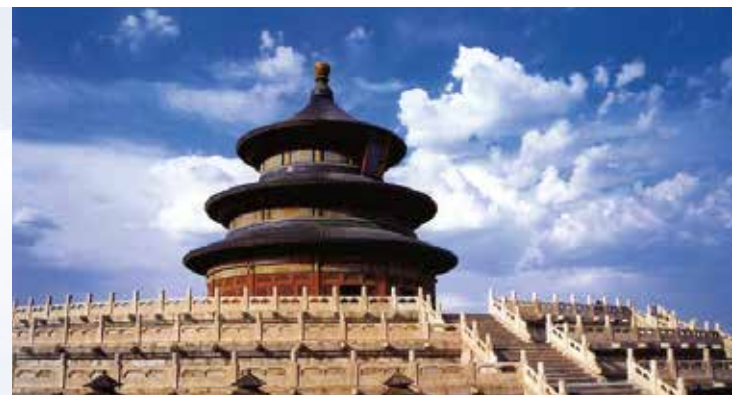
- **Akihiko Kudo** (Tokyo University of Science, Japan)
"Artificial photosynthesis using semiconductor photocatalysts-water splitting and CO₂ fixation"
- **Boqing Xu** (Tsinghua University, China)
"Catalysis for valorizing bio-derivative platform molecules: the case of glycerol"
- **Dmitry Yu. Murzin** (Abo Akademi University, Finland)
"Catalytic transformations of lipids to fuels and chemicals"
- **Fabrizio Cavani** (ALMA MATER STUDIORUM Università di Bologna, Italy)
"Oxidation catalysis: a key tool for a more sustainable chemical industry"
- **Hélène OLIVIER-BOURBIGOU** (IFP Energies nouvelles, France)
"Catalytic light olefin upgrading by transition metal complexes: from the design of new catalysts to the development of more sustainable processes"

明永乐十八年（1420年）
The Temple of Heaven

天坛



- **Johannes A. Lercher** (Technische Universitaet Muenchen, Germany)
“Rate enhancement in constraints – towards enzyme like activities”
- **Juan Ramón González-Velasco** (University of the Basque Country, Spain)
“An overview of recent developments on DeNOx technologies for automotive lean burn engines”
- **Kuiling Ding** (Shanghai Institute of Organic Chemistry, CAS, China)
“Cooperative catalysis in asymmetric synthesis and CO₂ transformation”
- **Maria Flytzani-Stephanopoulos** (Tufts University, USA)
“Design of single-site gold catalysts on various supports”
- **Michikazu Hara** (Tokyo Institute of Technology, Japan)
“Electride as a catalyst for ammonia synthesis”
- **S. Ted Oyama** (The University of Tokyo, Japan / Virginia Tech, USA)
“Kinetics and mechanisms of catalytic reactions: hydrodeoxygenation of model bio-oil compounds on nickel phosphide”
- **Tao Zhang** (Dalian Institute of Chemical Physics, CAS, China)
“Single-atom catalysts: concept, application and opportunity”
- **Thomas Maschmeyer** (The University of Sydney, Australia)
“From single-sites to nanostructured ensembles, the continuum of catalytic sites”
- **Tobin Jay Marks** (Northwestern University, USA)
“Homogeneous meets heterogeneous catalysis: cooperative properties of electrophilic organometallic ensembles”
- **Valentine P. Ananikov** (N.D. Zelinsky Institute of Organic Chemistry, Russia)
“Adaptive transition metal complexes and nanoparticles catalysis in organic synthesis”
- **Wha-Seung Ahn** (Inha University, Korea)
“MOF, ZIF, and COF: new materials for adsorption and catalysis”
- **Ye Wang** (Xiamen University, China)
“Next-generation syngas conversion catalysts for highly selective production of hydrocarbon fuels”
- **Zhongmin Liu** (Dalian Institute of Chemical Physics, CAS, China)
“Mechanism research on methanol to olefin reaction”



Ditian Park

嘉靖九年（1530年）

地坛

Key Dates

July 1, 2015

Call for abstracts

November 30, 2015

Deadline for abstracts submission

March 31, 2016

Notification of acceptance for presentations

April 30, 2016

Deadline for early registration

May 31, 2016

Distribution of the final program

July 3-8, 2016

Congress



Registration & Accommodation

Registration will be open on the website started on **December 1, 2015**. Participants are encouraged to register for the Congress as early as possible to take the advantage of the registration fee discount.

Accommodations of various standards will be available at special Congress rates. Please check the Congress website for more information.

皇家园林
The Summer Palace

颐和园

■ Satellite Symposia

Pre-symposia

- **Fundamentals and Applications of Cerium Dioxide in Catalysis**
Beijing, June 30-July 2, 2016 (Organizer: Prof. Chunhua Yan)
- **Catalytic Conversions of Biomass**
Taipei, June 28-30, 2016 (Organizer: Prof. Shang-Bin Liu)
- **Novel Catalysts for Energy and Environmental Issues**
Sapporo, June 30-July 1, 2016 (Organizer: Prof. Atsushi Fukuoka)
- **Catalytic Conversion of Energy and Resources**
Seoul, June 30-July 2, 2016 (Organizer: Prof. Seong Ihl Woo)

Post-symposia

- **Catalysis for Syngas and methanol Conversion**
Beijing, July 9-11, 2016 (Organizer: Prof. Jianguo Wang)
- **Nano and Interfacial Catalysis**
Dalian, July 9-11, 2016 (Organizer: Prof. Xinhe Bao)
- **Relations between Homogeneous Catalysis and Organometallic Chemistry**
Lanzhou, July 9-11, 2016 (Organizer: Prof. Kuiling Ding)
- **Environmental Catalysis**
Wuhan, July 9-11, 2016 (Organizer: Prof. Jinlin Li)
- **Catalytic Activation and Selective Conversion of Energy-Related Molecules**
Xiamen, July 10-12, 2016 (Organizer: Prof. Ye Wang)

■ Chairman

Prof. Can Li, Dalian Institute of Chemical Physics, Chinese Academy of Sciences

■ Scientific Committee

The International Association of Catalysis Societies

■ Organizing Committee

Prof. Wenjie Shen, Secretary General

Dalian Institute of Chemical Physics, Chinese Academy of Sciences

The Catalysis Society of China, Local Organization

■ Congress Venue

The ICC 16 will be held at China National Convention Center (CNCC), in the north part of Beijing, which is next to the Olympic Green stop of subway line 8. CNCC is in the central area of the Olympic Green Park, surrounded by the China National Stadium (Bird Nest), the National Aquatics Center (Water Cube) and the National Indoor Stadium. It takes 30 minutes to drive to the Beijing Capital International Airport and the subway station is connected with CNCC's basement which is convenient to reach the city center, airport and Beijing Railway Station. It takes only one hour from CNCC to the renowned Great Wall and Ming Tombs. More information could be found at

<http://www.cnccchina.com>.

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Peking Opera

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