

Plenary Speakers

“Coupling of Vibrational and Electronic Spectroscopies - Effective Tools for Exploring Mechanisms of Catalytic Redox Processes”

Prof. Angelika Brueckner, Leibniz Institute for Catalysis, Rostock, Germany

“Single-molecule Sub-diffraction Imaging of Nanocatalysis”

Prof. Peng Chen, Department of Chemistry and Chemical Biology, Cornell University, Ithaca, NY

“From the Monitoring of a Real Catalyst to the Catalyst Design”

Prof. Marco Daturi, Laboratoire Catalyse et Spectrochimie, CNRS, Caen, France

“Understanding Real World Catalysts: A Challenge for Spectroscopy and Engineering”

Prof. Jan-Dierk Grunwaldt, Institute of Chemical Technology and Polymer Chemistry, Karlsruhe Institute of Technology, Germany

“To Be Announced”

Prof. Robert Schlögl, Fritz-Haber-Institut der Max-Planck-Gesellschaft, Berlin, Germany

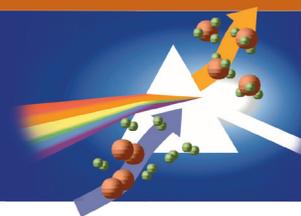
“Chemical Imaging of Heterogeneous Catalysts: New Insights in Catalyst Preparation and Functioning”

Prof. Bert Weckhuysen, Department of Inorganic Chemistry and Catalysis, Utrecht University, Utrecht, The Netherlands

Key Dates

April 29, 2011	2 nd circular and call for abstracts
October 1, 2011	Registration opens
November 30, 2011	Abstract submission deadline
January 30, 2012	Notification of acceptance
March 2, 2012	Registration deadline
April 29, 2012	Submission of manuscripts
April 29 - May 3, 2012	Conference

CALL FOR ABSTRACTS



Second circular of the
4th International Congress
on Operando Spectroscopy

International Operando Committee

Prof. Miguel A. Bañares, ICP-CSIC, Madrid, Spain
Dr. Simon R. Bare, UOP, LLC, a Honeywell Company, Des Plaines, USA
Prof. Angelika Brueckner, LIKAT, Germany
Prof. Eric Gaigneaux, Université Catholique de Louvain, Louvain-la-Neuve, Belgium
Dr. Frédéric Thibault-Starzyk, CNRS, Caen, France
Prof. Israel E. Wachs, Lehigh University, Lehigh, USA
Prof. Bert Weckhuysen, Utrecht University, Utrecht, The Netherlands

Operando IV Organizing Committee

Dr. Simon R. Bare (Chair), UOP, LLC, a Honeywell Company
Ms. Gretchen Cisco, Brookhaven National Laboratory
Prof. Anatoly Frenkel, Yeshiva University
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Dr. David Starr, Center for Functional Nanomaterials, BNL
Dr. Eli Stavitski, Brookhaven National Laboratory
Prof. Israel E. Wachs, Lehigh University
Prof. Chris Williams, University of South Carolina

Operando IV

*Recent Developments and Future Perspectives
in Spectroscopy of Working Catalysts*

April 29 - May 3, 2012
Brookhaven National Laboratory
Upton, NY, USA



BROOKHAVEN
NATIONAL LABORATORY

<http://operandoiv.nsls.bnl.gov>

Scope and Invitation

The study of catalysts in their working state, the operando approach, has become a well-established and critical research area in catalysis. In this methodology, the behavior of working catalysts is probed using physico-chemical methods while simultaneously measuring the catalytic activity and selectivity. The operando approach is an excellent one to assess structure-activity relationships at the molecular level since structural and catalytic parameters are determined together.

We invite you to attend and contribute to the Fourth International Congress on Operando Spectroscopy, to be held at Brookhaven National Laboratory April 29 – May 3, 2012. This congress follows on to the prior conferences in 2003 (Luntenen), 2006 (Toledo), and 2009 (Rostock).

This conference will cover all aspects of operando spectroscopy of catalysts: both heterogeneous and homogeneous catalysis, application of theory, new experimental approaches and techniques, time and spatial resolution, and combination of techniques. It is anticipated that there will be an emphasis on fuel cells, electro-catalysis, and catalysis related to the production of biofuels, and other energy-related areas where catalysis is playing a major role in renewable energy.

The program will comprise plenary lectures, invited keynote lectures, and contributed oral and poster presentations covering the whole field of catalysis. An exhibition of commercial products and equipment related to catalyst characterization will be held during the meeting.

Session Topics

Electrocatalysis: Fuel Cells and Related Technologies

Catalytic Bio-conversion Technologies

Homogeneous/Liquid Phase Catalysis

Bridging the Gap Between Model and Technical Conditions

Multi-technique Approach to Operando Spectroscopy

Combining Operando Spectroscopy and Theoretical Studies

New Advances in Reaction Cells Including Improved Time and Spatial Resolution



Abstract Submission and Publication

The abstract submission process is detailed on the conference website. The corresponding author must submit preliminary information and download the abstract template. The template must be used for preparation of the 1-2 page abstract. The completed abstract must then be emailed to the conference coordinator at operando@bnl.gov using the assigned filename. Abstract submission deadline is November 30, 2011. The program committee will select oral or poster presentations on the basis of the abstracts. The book of abstracts will be available at the registration desk.

Accepted papers will be published after peer review in a special issue of *Catalysis Today*.

Registration Fees

\$350 – Early Bird (until March 2, 2012)

\$400 – March 2 – April 15

\$450 – At the Conference

Accommodations

Onsite at Brookhaven National Laboratory

Dormitory Rooms: \$42 per night

Guest House: \$105 per night

Apartments: \$105 per room, per night

Offsite – Local Participating Hotels

(Complete hotel information is available on the conference website)

Hampton Inn: \$114 per night (includes continental breakfast)

Crowne Plaza: \$114 per night (includes breakfast and limited dinner menu)

Fairfield Inn: \$95 per night (includes continental breakfast buffet)

Roundtrip shuttle service will be provided to BNL from the above hotels

Venue

Situated on a 5,250-acre campus, Brookhaven National Laboratory – in Upton, New York – is part of Long Island's Central Pine Barrens region and home to 230 plant species, 15 animal species, and 85 species of birds. With innumerable restaurants, theaters, and internationally recognized sights of New York City 65 miles to the west, beautiful beaches stretching along the nearby coasts to the north and south, and an extensive array of vineyards and charming Hamptons towns to the east, Brookhaven offers visitors access to a little bit of everything.

Excursions

Tour of local wineries, Wednesday, May 2nd
"Do as you please" trip to New York City (optional),
Saturday, April 28th, or Friday, May 4th

Vendor Exhibition

An exhibition of commercial products and equipment related to *in situ* and operando spectroscopy will be held during the meeting.

Companies wishing to exhibit their products at the meeting should contact Ms. Gretchen Cisco at cisco@bnl.gov.

Further Information

Full information about the Congress can be found at:
<http://operandoIV.nsls.bnl.gov>

Please add the conference dates to your calendar now, and join us at Brookhaven National Laboratory April 29 – May 3, 2012.