

SCOPE

Monitoring the events taking place in catalytic materials under reaction conditions is crucial for understanding the reaction mechanisms of many important chemical processes and would allow the rational design of new or better catalysts. Operando methodology combines the evaluation of structure and catalytic performance (activity and selectivity) in a single experiment.

Operando methodologies appear as an excellent tool to assess the structure-reactivity relationships at a molecular scale since structural and catalytic parameters are determined simultaneously.

This conference follows the First International Congress on Operando Spectroscopy (Lunteren, March 2003) which was a real success illustrating impressively the achievements in developing and adapting spectroscopic techniques for studies of catalytic materials and processes under real and close-to-real reaction conditions. The goal of the Second International Congress on Operando Spectroscopy is to bring scientists together to discuss the progress which has been made in understanding catalyst function and structure-reactivity relationships with the help of operando methodologies, focussing on understanding catalysis.

PLENARY LECTURES

The following speakers have already agreed to give a plenary lecture:

Prof. Gabor A. Somorjai, USA
Prof. Sir John Meurig Thomas, UK
Prof. Marco Datari, France
Prof. Bert M. Weckhuysen, the Netherlands

SCIENTIFIC PROGRAM

The program will consist of several plenary lectures, regular oral and poster presentations covering the techniques available for operando approach to study the:

- Molecular structure-performance relationships: operation, synthesis, activation, deactivation (life, birth and death)
- Detection of reaction intermediates
 - Quantification of active sites
- Reaction mechanism industrial reactions
 - Understanding homogeneous and heterogeneous catalysts
 - Possibilities and limitations of spectroscopic techniques
- Site-selective and time-resolved spectroscopic techniques
- New in situ and operando cells/reactors
- Combination of different spectroscopic techniques

A session will be devoted to sensors

SCHOOL

A one-day school on operando spectroscopy will be organized. Information will appear at the web-site soon.

ORGANIZERS

Dr. M. A. Bañares, ICP-CSIC, Madrid, Spain
Dr. F. Thibault-Starzyk, CNRS, LCSS, Caen, France
Dr. A. Brückner, ACA, Berlin-Adlershof, Germany
Prof. B. M. Weckhuysen, Utrecht University, Utrecht, the Netherlands
Prof. E. Gaigneaux, Université Catholique de Louvain, Louvain-la-neuve, Belgium

LOCAL COMMITTEE

Prof. R.M. Martin-Aranda, UNED, Madrid, Spain
Prof. R. Fandos, UCLM, Toledo, Spain
Prof. M. J. Ruiz-García, UCLM, Toledo, Spain
Dr. A.E. Lewandowska, CSIC, Madrid, Spain
Dr. E. Lozano-Diz, CSIC, Madrid, Spain
Dr. O. Guerrero-Pérez, UMA, Málaga, Spain
Dr. M. V. Martínez-Huerta, CSIC, Madrid, Spain
Ms. S. J. Khatib, CSIC, Madrid, Spain

VENUE

Toledo is located about 70 km South of Madrid. It is one of the most important centers of European medieval history. It was the capital of Spain from the Gothic epoch until 1560, a fact that explains its really impressive medieval architecture. Walking through its streets one feels like having stepped back into the Middle-Ages, but in the best sense of it. The congress will be held at Hotel Beatriz Toledo**** about 5 minutes away from the old town.

ABSTRACTS

(2 page maximum) should be sent by email to operando@icp.csic.es
A book of abstracts will be distributed among participants.

PUBLICATION

Authors have the possibility to submit their contributions to a special issue of **Catalysis Today** on Operando Spectroscopy of Catalytic Materials. The manuscripts have to be submitted before May 31, 2006 and will have to pass the regular refereeing procedure.

Operando-II

Time-table

2005

October 15, Abstract submission deadline (2 pages)

November, Notification of acceptance

November 15, Registration deadline

2006

April 23-27, Conference

May 1, Submission of manuscripts

SECRETARIAT

Operando - II

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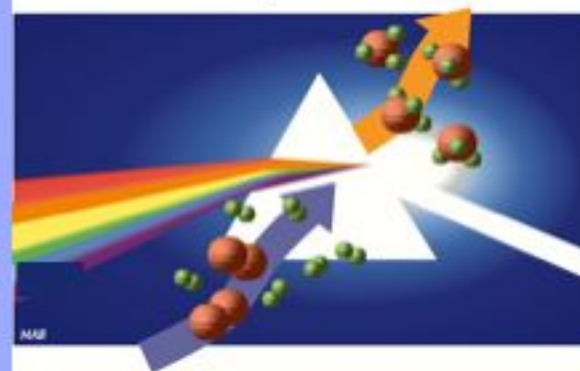
CONCORDE

A 6FP funded Coordinación Acción

Asociación de estudios en Catálisis y Química, aeCAT-Q

Operando - II

Second International Congress on
Operando Spectroscopy: Fundamental
and Technical Aspects of
Spectroscopy of Catalysts under
Working Conditions



April 23 - 27, 2006
Toledo, Spain

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

Companies who wish to exhibit their products at the meeting should contact the organizers

www.aca-berlin.de/operando

CALL FOR ABSTRACTS