

Monday, November 22nd 2010
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8:45 **INAUGURATION**

LOOKING AT CATALYST IN ACTION

9:15 **Prof. Bert WECKHUYSEN (Utrecht University, The Netherlands)**
IN-SITU SPECTROSCOPY OF HETEROGENEOUS CATALYSTS AT THE MICRON- AND NANOSCALE: NEW INSIGHTS IN DIFFUSION BARRIERS, POROSITY AND ACIDITY OF ZEOLITE CRYSTALS

10:00 **Prof. M. SALMERON (Lawrence Berkeley National Lab, USA)**
IN-SITU MICROSCOPY AND SPECTROSCOPY FOR STRUCTURAL AND CATALYTIC STUDIES

10:30 **COFFEE BREAK / POSTER SESSION**

11:00 **Prof. Robbie BURCH (Queen's University, Ireland)**
INVESTIGATING REACTION INTERMEDIATES IN HETEROGENEOUS CATALYSIS USING FAST TRANSIENT TECHNIQUES

11:30 **Dr. Frédéric THIBAUT-STARSYK (Université de Caen Basse Normandie, UMR 6506, France)**
TIME RESOLVED INFRARED FOR HETEROGENEOUS CATALYSIS

12:00 **LUNCH**

STRUCTURED CATALYSTS: FROM NANOSCALE TO REACTORS

13 :30 **Prof. Gérard FERREY (Université de Versailles, UMR 8637, France)**
HYBRID POROUS SOLIDS: POSSIBLE SOLUTIONS FOR CURRENT SOCIETAL PROBLEMS

14:15 **Prof. Johannes A. LERCHER (TU München, Germany)**
NOVEL APPROACHES TO GUIDE CATALYTIC REACTIONS - FROM HIERARCHIC MATERIALS TO MULTIFUNCTIONAL CATALYSTS

14:45 **Prof. Suljo LINIC (University of Michigan, USA)**
EXPLOITING NANOTECHNOLOGY FOR HETEROGENEOUS CATALYSIS: SHAPED METALLIC NANOSTRUCTURES AS SELECTIVE CATALYSTS AND FOR CHARACTERIZATION OF SURFACE CHEMICAL REACTIONS

15:15 **COFFEE BREAK / POSTER SESSION**

15:45 **Prof. Faiçal LARACHI (Laval University, Canada)**

FIXATION OF CO₂ IN LOW-PRESSURE DRY, MOIST AND WET CARBONATION - THE ROLE OF WATER IN GAS-SOLID AND GAS-LIQUID-SOLID SYSTEMS

16:15 **Prof. Javier PEREZ-RAMIREZ (ETH Zürich, Switzerland)**

ENGINEERING OF HIERARCHICAL ZEOLITE CATALYSTS

16:45 **Dr. Dominique ROBERGE (Lonza, Switzerland)**

FLOW REACTORS FOR ORGANIC SYNTHESIS IN INDUSTRIAL APPLICATIONS: THE EXAMPLE OF RING CLOSING METATHESIS

17:15 **COFFEE BREAK / POSTER SESSION**

NEW DIRECTIONS IN CATALYST DESIGN (ORGANOCATALYSIS, MULTI-COMPONENT AND CASCADE CATALYSIS, MOVING AWAY FROM NOBLE METALS)

17:45 **Prof. Matthias BELLER (Leibniz-Institut für Katalyse, Germany)**

DEVELOPMENT OF MOLECULAR-DEFINED CATALYSTS FOR SUSTAINABLE CHEMISTRY

18:30 **END OF THE DAY**



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**MODELISATION-SIMULATION: FROM UNDERSTANDING TOWARDS
PREDICTION**

- 9:00 **Prof. Van SANTEN** (*Eindhoven University of Technology, The Netherlands*)
STRUCTURE SENSITIVITY AND INSENSITIVITY IN HETEROGENEOUS CATALYSIS
- 9:45 **Prof. Matthew NEUROCK** (*University of Virginia, USA*)
THEORETICAL INSIGHTS INTO THE HYDROGENATION AND HYDROGENOLYSIS OF
BIORENEWABLE INTERMEDIATES
- 10:15 **COFFEE BREAK / POSTER SESSION**
- 10:45 **Dr. David LOFFREDA** (*Ecole Normale Supérieure de Lyon, UMR 5182, France*)
A DESCRIPTIVE APPROACH OF ORGANIC-METAL INTERFACES FROM FIRST-
PRINCIPLES SIMULATIONS
- 11:15 **Dr. Pascal RAYBAUD** (*Institut Français du Pétrole, France*)
INTEGRATED DFT INSIGHTS ON INDUSTRIAL CATALYSTS
- 11:45 **Prof. Tom WOO** (*University of Ottawa, Canada*)
3D-QSAR MODELS OF HOMOGENEOUS CATALYSIS USING DFT-BASED SHAPE AND
REACTIVITY DESCRIPTORS
- 12:15 **LUNCH**

**NEW DIRECTIONS IN CATALYST DESIGN (ORGANOCATALYSIS, MULTI-
COMPONENT AND CASCADE CATALYSIS, MOVING AWAY FROM NOBLE
METALS)**

- 13:45 **Prof. Susannah L. SCOTT** (*University of California, Santa Barbara, USA*)
TAILORED MESOPOROUS CATALYSTS FOR THE SELECTIVE TANDEM TRANSFORMATION
OF CARBOHYDRATES
- 14:30 **Prof. Cathleen CRUDDEN** (*Queen's University, Canada*)
SUZUKI-MIYaura COUPLING CHEMISTRY WITH HOMOGENEOUS AND
HETEROGENEOUS CATALYSIS: ADDRESSING SUBSTRATE SCOPE AND Pd
CONTAMINATION.

- 15:00 **Dr. Véronique DUFAUD** (*Ecole Normale Supérieure de Lyon, UMR 5182, France*)
COOPERATIVE MULTIFUNCTIONAL CATALYSIS AT SURFACES
- 15:30 **Dr. Laurent DJAKOVITCH** (*Institut de recherches sur la catalyse et l'environnement, UMR 5256, France*)
INNOVATIVE CATALYSTS AND CATALYTIC PROCEDURES FOR ONE-POT HETEROCYCLE SYNTHESSES
- 16:00 **COFFEE BREAK / POSTER SESSION**
- 16:30 **Prof. William D. JONES** (*University of Rochester, USA*)
C-H ACTIVATION CATALYSIS FOR THE FORMATION OF HETEROCYCLES AND ACYL DERIVATIVES
- 17:00 **Prof. Thomas R. WARD** (*University of Basel, Switzerland*)
ARTIFICIAL METALLOENZYMES FOR ENANTIOSELECTIVE CATALYSIS
- 17:30 **Prof. R. Tom BAKER** (*University of Ottawa, Canada*)
MECHANISTIC STUDIES OF CATALYZED DEHYDROGENATION OF AMMONIA-BORANE FOR HYDROGEN STORAGE
- 18:00 **Dr. Norbert HOFFMANN** (*Université de Reims, UMR 6269, France*)
PHOTOCATALYTIC REACTIONS AS EFFICIENT TOOLS IN ORGANIC CHEMISTRY
- 18:30 **CLOSING REMARKS**

