

## Programme

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**Sunday July 8, 2018**

**15:00      Registration**

**18:00      End of registration**

### Monday July 9, 2018

**08:30 Registration**

**09:30 Welcome**

**09:40 IL01 - When Heterogeneous Catalysis Drives Innovation in Fuel Cell Electrocatalysis**

Prof. Marian CHATENET  
(LABORATORY OF ELECTROCHEMISTRY AND PHYSICAL CHEMISTRY OF MATERIALS AND INTERFACES, LEPMI, GRENOBLE-INP, Grenoble, France)

**Session 1 - Design of New Catalytic Materials**

#### Session chairs

Mr Sean BARRADAS (SASOL TECHNOLOGY, Johannesburg, South Africa)  
Dr Konrad MOEBUS (EVONIK RESOURCE EFFICIENCY GMBH, Hanau-Wolfgang, Germany)

**10:30 OC01 - Variation of the Proximity Between Active Sites in Bifunctional Catalysts Applied to Dispersed Platinum Nanoparticles Supported on Chlorine Doped Gamma-Alumina**

Ms Ana Teresa FIALHO BATISTA  
(IFP ENERGIES NOUVELLES, Solaize, France)

**11:00 Coffee break**

**11:30 OC02 - Preparation of Mesoporous Aluminosilicate Nanofibers with Low Si/Al Ratio as Catalyst for Hydrotreatment of Bio-Oil**

Mr Tommy HAYNES  
(UNIVERSITY OF LOUVAIN, Louvain-la-Neuve, Belgium)

**12:00 OC03 - Selective Catalytic Oxidation over Au-Pd/Titanate Nanotubes and the Influence of the Catalyst Preparation Method on the Activity**

Prof. David CHADWICK  
(IMPERIAL COLLEGE LONDON, London, United Kingdom)

**12:30 Lunch**

#### Session chairs

Dr Jurjen MEEUWISSEN (SHELL, Amsterdam, The Netherlands)  
Dr Johan HEISZWOLF (LHOIST, Nivelles, Belgium)

**14:00 OC04 - Tailoring Particle Size in Cobalt and Cobalt-Manganese Based Fischer Tropsch Catalysts**

Mr Tobias KIMPEL  
(EINDHOVEN UNIVERSITY OF TECHNOLOGY, Eindhoven, The Netherlands)

**14:30 OC05 - A Core-Shell Structured Ni-Fe Bifunctional Nanomaterial For Catalyst-Assisted Chemical Looping**

Mr Jiawei HU  
(GHENT UNIVERSITY, Ghent, Belgium)

**15:00 OC06 - Preparation of Transition Metal(Oxide) Nanoparticles Confined in the Second Pore Network of Mesoporous Scaffolds Using Melt Infiltration**

Dr Carmen CIOTONEA  
(UNIVERSITY OF LILLE, Villeneuve d'Ascq, France)

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- 15:30**     **OC07 - Influence of the Oxygen Storage Capacity of Mesoporous Doped CeO<sub>2</sub> on the Catalytic Activity in the HCl Oxidation**  
Mr Pascal COP  
(JUSTUS-LIEBIG-UNIVERSITY GIESSEN, Giessen, Germany)
- 16:00**     **OC08 - Materials with Oriented Hierarchical Porosity as Catalyst Supports**  
Ms Alejandra BUENO  
(IRCELYON, Lyon, France)
- 16:30**     **Coffee break**
- 17:00**     **Poster session 1 (even numbers)**
- 19:00**     **Reception and Belgian Beer Party - Socrate Hall**

**Tuesday July 10, 2018**

### **Session 2 - Shaping, Upscaling and Reactor Design**

#### **Session chairs**

Prof. Narendra KUMAR (ABO AKADEMI UNIVERSITY, Turku, Finland)  
Dr Robert TERÖRDE (BASF, Maarn, The Netherlands)

- 09:00 KL01 - Preparation Of Pb-Free Pd-Catalysts for Continuous Semi-Hydrogenation of Alkynes in Vitamin Production**  
Dr Jonathan MEDLOCK  
(DSM NUTRITIONAL PRODUCTS, Basel, Switzerland)
- 09:40 OC09 - Up-Scaling the Production of Nanomaterials with Customized Properties Using Continuous Supercritical Flow Synthesis**  
Dr Christian KALLESOE  
(DANISH TECHNOLOGICAL INSTITUTE, Taastrup, Denmark)
- 10:10 OC10 - 3D-Printing of Catalytic Structured Materials**  
Dr Jasper LEFEVERE  
(VITO, Mol, Belgium)
- 10:40 Coffee break**
- 11:10 OC11 - Triggering Catalytic Ignition of Ammonium Dinitramide-Based Monopropellants at Reduced Temperature: From Powdered to 3D-Printed Monolithic Catalysts**  
Dr Yann BATONNEAU  
(UNIVERSITÉ DE POITIERS, Poitiers, France)
- 11:40 OC12 - The Development of a 3D-Printed Stainless Steel Catalytic Oxidation Reactor**  
Dr Jacco HOEKSTRA  
(KMWE, Eindhoven, The Netherlands)
- 12:10 OC13 - Advanced Reactors for the Continuous Synthesis of Inorganic Particles**  
Dr Philippe ELIAERS  
(CERTTECH, Seneffe, Belgium)
- 12:40 Lunch**

### **Session 3 - Bimetallic Nanoparticles and Mixed Oxides**

#### **Session chairs**

Dr Pierre DOURNEL (SOLVAY, Brussels, Belgium)  
Dr Ian YORK (LUCITE INTERNATIONAL, Teesside, United Kingdom)

- 14:00 OC14 - Development of Low Nickel Content Powder and Structured Catalysts for Dry Reforming of Methane**  
Mr Quan Luu Manh HA  
(LEIBNIZ INSTITUTE FOR CATALYSIS, Rostock, Germany)
- 14:30 OC15 - Impact of the Preparation Of V-Modified Hydroxyapatites on the Oxidative Dehydrogenation of Propane Reaction: Synergistic Effects**  
Dr Guylène COSTENTIN  
(SORBONNE UNIVERSITÉ, LABO. DE RÉACTIVITÉ DE SURFACE ET STRUCTURE, Paris, France)

## Programme

- 15:00**      **OC16 - Bimetallic Fe-Ni/SiO<sub>2</sub> Catalysts: Identification of the Interplay Between Fe and Ni During the Preparation of Well-Defined Fe-Ni Nanoparticles**  
Dr Eric MARCEAU  
(UNIVERSITÉ LILLE 1, Villeneuve d'Ascq, France)
- 15:30**      **OC17 - Preparation of Calcium Titanate Photocatalysts for Reduction of Carbon Dioxide**  
Mr Akihiko ANZAI  
(KYOTO UNIVERSITY, Kyoto, Japan)
- 16:00**      **OC18 - Preparation of Ni-Ga Bimetallic Catalysts by Water-in-Oil Microemulsions for Methanol Synthesis via CO<sub>2</sub> Hydrogenation**  
Ms Paulina MELO BRAVO  
(UNIVERSIDAD DE CONCEPCION, Concepcion, Chile)
- 16:30**      **Coffee break**

### Session 4 - Electron Microscopy Characterization for Synthetic Problems

- 17:00**      **OC19 - Why Don't we Follow the Calcination and Reduction Stages of PD Nanocatalysts Supported on Alumina In Situ Directly in an Environmental Transmission Electron Microscope?**  
Prof. Thierry EPICIER  
(UNIVERSITY OF LYON, Villeurbanne, France)
- 17:30**      **KL02 - Advanced Transmission Electron Microscopy for Real-time Studies of Catalyst Preparation**  
Dr Jovana ZECEVIC  
(UNIVERSITEIT UTRECHT, Utrecht, The Netherlands)

**Wednesday July 11, 2018**

### Session 5 - Heterogeneization and Study of Active Phase/Support Interfaces

#### Session chairs

Dr Mark FEAVIOUR (JOHNSON MATTHEY, Reading, United Kingdom)  
Dr Konrad HERBST (HALDOR TOPSOE A/S, Lyngby, Denmark)

- 09:10 OC20 - The Role of the Metal Complex - Support Interaction in the Formation of Platinum Properties In Pt/Al(Mg)O Catalysts**  
Dr Olga BELSKAYA  
(IHP SB RAN, Omsk , Russia)
- 09:40 OC21 - The Influence of MAO Loading and Distribution on the Catalytic Performance of the Heterogenized Metallocene Olefin Polymerization Catalyst**  
Ms Marjolein VELTHOEN  
(UTRECHT UNIVERSITY, Utrecht, The Netherlands)
- 10:10 OC22 - Hydrotreating Catalyst Supported on Alumina Coated with Bio-Inspired Polymers**  
Dr Elodie DEVERS  
(IFPEN, Solaize, France)
- 10:40 Coffee break**
- 11:10 OC23 - Precision Preparation and Rational Molecular Engineering of Multifunctional Supported Catalysts**  
Mr Antony FERNANDES  
(UNIVERSITÉ CATHOLIQUE DE LOUVAIN, Louvain-la-Neuve, Belgium)

### Session 6 - Zeolitic Materials and Alumina-Based Materials

- 11:40 OC24 - Purely Lewis Acidic Aluminosilicates with Well-Defined Single Sites**  
Dr Ales STYSKALIK  
(UNIVERSITY OF MAZARYK, Louvain-la-Neuve , Belgium)
- 12:10 OC25 - Zeolite Shaping: Control of the Zeolite Acid Properties and Description of the Zeolite/Binder Interface**  
Ms Coralie DEMARET  
(IFP ENERGIES NOUVELLES, Solaize, France)
- 12:40 Lunch**

#### Session chairs

Dr Antoine DAUDIN (IFPEN, Solaize, France)  
Dr Anne MASSINON (TOTAL, Feluy, Belgium)

- 14:00 OC26 - Preparation of Zeolite-Alumina Nanocomposites by Heterocoagulation and their Application as Support for Bifunctional Acid-Metal Catalysis**  
Dr Juliette BLANCHARD  
(UNIVERSITÉ PIERRE ET MARIE CURIE, Paris, France)
- 14:30 OC27 - Control of Alumina Textural Properties by Nanorods Morphology and Organization**  
Ms Audrey VALETTE  
(IFP ENERGIES NOUVELLES, Solaize, France)

## Programme

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- 15:00**      **OC28 - Hydrothermal Stability of Alumina : Role of Inorganic Dopants and Identification of Reactive Sites**  
Prof. Xavier CARRIER  
(UNIVERSITÉ PIERRE ET MARIE CURIE, Paris, France)
- 15:30**      **Coffee break**
- 16:00**      **Poster Session 2 (odd numbers)**
- 18:00**      **Departure for Conference Dinner**
- 19:00**      **Conference Dinner (Faculty Club, Leuven Grand Beguinage)**

Thursday July 12, 2018

### Session 7 - New Preparation Methods for Heterogeneous Catalysts

#### Session chairs

Dr Jonathan MEDLOCK (DSM NUTRITIONAL PRODUCTS, Basel, Switzerland)  
Dr Machteld MERTENS (EXXONMOBIL CHEMICAL EUROPE INC., Machelen, Belgium)

- 09:30 KL03 - Innovative Synthesis of Nanostructured Composite Materials by a Spray-Freeze Drying Process: Efficient Catalysts and Photocatalysts Preparation**  
Prof. Stefania ALBONETTI  
(UNIVERSITÀ DI BOLOGNA, Bologna, Italy)
- 10:10 OC29 - Grafting Chemistry as a Tool to Understand Wet Impregnation Synthesis of Supported Metal Oxides**  
Ms Alyssa LOVE  
(UNIVERSITY OF WISCONSIN-MADISON, Madison, United States)
- 10:40 Coffee break**
- 11:10 OC30 - Catalytic Activation of All-Silica COK-14 through Alumination via Atomic Layer Deposition and a Novel Wet Ball Milling Technique**  
Ing Michiel DE PRINS  
(KU LEUVEN, Heverlee, Belgium)
- 11:40 OC31 - New Synthesis Route of Heterogeneous Oxide Catalysts Based on the Use of Gliding Arc Atmospheric Plasma Discharge**  
Dr Antoine TIYA DJOWÉ  
(UNIVERSITY OF YAOUNDÉ (CAMEROON) & UNIVERSITÉ CATHOLIQUE DE LOUVAIN, Louvain-la-Neuve, Belgium)
- 12:10 OC32 - Synthesis of Platinum Nanoparticles and 3D Porous Nanostructures Using Atomic Layer Deposition**  
Dr Jolien DENDOOVEN  
(GHENT UNIVERSITY, Gent, Belgium)
- 12:40 Lunch**
- Session chairs**  
Dr Tjostil VLAAR  
(ALBEMARLE, Amsterdam, The Netherlands)
- 14:00 OC33 - Development of Continuous Method of Electroless Deposition for Preparation of Supported Bimetallic Catalysts**  
Prof. John MONNIER  
(UNIVERSITY OF SOUTH CAROLINA, Columbia, United States)
- 14:30 OC34 - Cold Plasma for Catalyst Preparation: How Does It Work?**  
Prof. Changjun LIU  
(TIANJIN UNIVERSITY, Tianjin, China)
- 15:00 OC35 - Electrostatic Adsorption of Metal Precursors for the Preparation of Highly Dispersed Heterogeneous Catalysts**  
Prof. John REGALBUTO  
(UNIVERSITY OF SOUTH CAROLINA, Columbia, United States)

## Programme

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15:30      Awards and Concluding remarks