



CATALYSIS ENGINEERING & TECHNOLOGY

November 12-13, 2019

CatET-2019 Program

Venue

Barceló Valencia Hotel

Av. de França, 11, 46023 València, Spain

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Day 1 | Tuesday | November 12, 2019

08:00-08:30 | Registration and Badge Pick up

08:30-08:40 | Inaugural Ceremony

Keynote Presentations

@ Celeste-2

- 08:45-09:15 ● Renewable Carbon for Stepping towards the Circular C-Economy
[Michele Aresta](#), Inter University Consortium on Chemical Reactivity and Catalysis, Italy
- 09:15-09:45 ● Catalysts in Polymer Recycling to Liquid Fuels
[Pilar Gonzalez Marcos](#), The University of the Basque Country, Spain
- 09:45-10:15 ● Catalysis Engineering for High Yield Carbon Nanotubes Growth
[Arnaud Magrez](#), Crystal Growth Facility, EPFL, Switzerland
- 10:15-10:35 ● Coffee Break
- 10:35-11:05 ● The Features of a Highly Active and Stable Supported Au Catalysts for CO Oxidation
[Cai Xia Qi](#), Yantai University, China

Speaker Presentations

@ Celeste-2

Sessions

Catalysis: Type, Process, Materials and Chemical Synthesis
Catalytic Materials: Structure and Reactivity
Polymer Science and Technology
Polymer Bio Catalysis and Biomaterials

Session Chairs

[Pilar Gonzalez Marcos](#), The University of the Basque Country, Spain
[Chan Kyung Kim](#), Inha University, Korea

11:05-11:25 ●

A MP2 Study on the Role of AuCl_3 Catalyst in Some Organic Reactions
[Chan Kyung Kim](#), Inha University, Korea

11:25-11:45 ●

Inorganic, Hybridized and Living Macrocellular Foams: "Out of the Box"
Heterogeneous Catalysis through the Integrative Chemistry Input
[Renal Backov](#), Massachusetts Institute of Technology, USA

- 11:45-12:05 ● Pd Integrated Supported Perovskites for NO_x Removal in Diesel Engines by NSR and NSR-SCR Technologies
[Jon Ander Onrubia](#), The University of the Basque Country, Spain
- 12:05-12:25 ● Influence of the Nickel Loading on 10Na₂CO₃/Al₂O₃ or 15CaO/Al₂O₃ for the CO₂ Storage and *in-situ* Hydrogenation to CH₄
[Alejandro Bermejo Lopez](#), The University of the Basque Country, Spain
- 12:25-12:45 ● Kinetics of CO₂ Methanation over Ni-La₂O₃/Na-BETA Catalyst
[Adrian Quindimil](#), The University of the Basque Country, Spain
- 12:45-13:05 ● Material Design by Molecular and Atomic Layer Deposition; Hybrid Thin Films as Precursors for Photocatalytic Metal Oxides and Conductive Metal Oxide Phases
[Roie Yerushalmi](#), The Hebrew University of Jerusalem, Israel
- 13:05-14:05 ● Lunch @ Foyer Area
- 14:05-14:25 ● Catalytic β-Bromo hydroxylation of Natural Terpenes: Useful Intermediates for the Synthesis of Terpenic Epoxide and Amino Alcohol
[Larbi EL FIRDOUSSI](#), Cadi Ayyad University, Morocco
- 14:25-14:45 ● Highly Efficient Photo-Electro Catalytic Reduction of CO₂ to Methanol over a p-n Hetero Junction CeO₂/CuO/Cu Catalyst
[Peiqiang Li](#), Shandong Agricultural University, China
- 14:45-15:05 ● Trends in Thermo and Photo-Catalytic Processes: Mechanistic Aspects of PrOx, Scope for ALD Based Reactors
[Satyapaul Singh](#), BITS-Pilani, India
- 15:05-15:25 ● Coffee Break
- 15:25-15:45 ● Soft Supramolecular Catalytic Systems Based on Cationic Surfactants of Free Radical Generation for Oxidation and Polymerization
[Kasaikina Olga](#), N. N. Semenov Federal Research Centre for Chemical Physics Russian Academy of Sciences, Russia
- 15:45-16:05 ● Optimization of Dehydroabiatic Acid Biotransformation by *Rhodococcus Erythropolis* IEGM 267
[Natalya Luchnikova](#), Perm State National Research University, Russia
- 16:05-16:25 ● Effect of N₂H₄ on Silicon by using a Processed Catalyst Name: Franky Zapata
[Franky Zapata](#), Technical University Munich, Germany

End of Day - 1

Sessions

Bio Catalysis for Synthetic Biological Systems
Catalysis in Biofuels and Energy
Catalysis Engineering in Industrial Process
Integrated Catalysis, Micro Emulsion Catalysis and Catalytic Cracking

Session Chairs

Valeria Di Sarli, C.N.R-Istituto di Ricerche sulla Combustione, Italy
Jayati Datta, Heritage Institute of Technology, India

- 10:00-10:20 ● CFD Modeling of the Regeneration Dynamics of Catalytic Diesel Particulate Filters
Valeria Di Sarli, C.N.R-Istituto di Ricerche sulla Combustione, Italy
- 10:20-10:40 ● Electro-Catalysis in Low Temperature Fuel Cell
Jayati Datta, Heritage Institute of Technology, India
- 10:40-11:00 ● Coffee Break
- 11:00-11:20 ● Quantitative Calorimetry for Complex Reactions
Karim Fahmy, Helmholtz-Zentrum Dresden-Rossendorf, Germany
- 11:20-11:40 ● Stereo Selective Synthesis of 1,3-Dienes by Ruthenium Catalysed C(Allyl)-H Activation of Allyl Esters
Dattatraya Dethé, Indian Institute of Technology, India
- 11:40-12:00 ● Ab Initio Design of Innovative Catalysts for Biomass Valorization
Michael Badawi, University of Lorraine, France
- 12:00-12:20 ● Catalysis in Peroxide Synthesis
Alexander Terentev, N. D. Zelinsky Institute of Organic Chemistry, Russian Academy of Sciences, Russia
- 12:20-12:40 ● Rare Earth Elements Characterization in African Tropical Soils Employing LA-ICP-MS
Gianni Gallelo, University of Valencia, Spain

12:40-13:00 ● Catalytic Cracking of Pentene to Propene and Ethene over ZSM-5 Zeolite
Abeer Arjah, Saudi Aaramco, Saudi Arabian

13:00-14:00 ● Lunch @ Foyer Area

Sessions

Nanoscale Science and Technology in Biomolecular Catalysis
Functional Nanomaterials for Renewable Energy and Sustainability
Advanced Nanoengineering Materials
Catalysis in Nano Technology

14:00-14:20 ● Combination of MOF and Nano Particles towards Composite Catalysts
Jian Gong Ma, Nankai University, China

14:20-14:40 ● Palladium Nanostructures/N Doped Carbon, Catalyst for Hydrogen Evolution/Oxidation Reactions over a Wide Range of pH: Correlating its Catalytic Activity with Measured Hydrogen Binding Energy
Sudip Barman, National Institute Science Education and Research, India

14:40-15:00 ● A New Approach for Modeling of Catalytic Processes in Industrial Column Apparatuses
Christo Boyadjiev, Institute of Chemical Engineering, Bulgaria

15:00-15:20 ● Wustite-Based Catalyst for Ammonia Synthesis: Structure, Property and Performance
Huazhang Liu, Zhejiang University of Technology, China

15:20-16:00 ● Coffee Break followed by Poster Presentations

- Poster-1** Catalytic Generation of Radicals in Mixed Micelles (Acetylcholine-Hydroperoxide)
[Potapova Natalia V](#), N. N. Semenov Federal Research Centre for Chemical Physics Russian Academy of Sciences, Russia
- Poster-2** Red-ox Catalysts for the Reaction of Glutathione with Resveratrol
[Zinatullina Karina M](#), N. N. Semenov Federal Research Centre for Chemical Physics Russian Academy of Sciences, Russia
- Poster-3** Hydrogenation of Ethyne on Au/MgOx-Al₂O₃ Composite
[Xun Sun](#), Yantai University, China
- Poster-4** The Stability of Au/FLA Catalyst for CO Oxidation
[Hui Juan Su](#), Yantai University, China
- Poster-5** Highly Efficient Photo-Electro Catalytic Reduction of CO₂ to Methanol over a p-n Hetero Junction CeO₂/CuO/Cu Catalyst
[Jingui Zheng](#), Shandong Agricultural University, China