



2<sup>nd</sup> Edition of Global Conference on

# CATALYSIS, CHEMICAL ENGINEERING AND TECHNOLOGY



TENTATIVE  
Program



CAT  
2018

ACCENTUATE INNOVATIONS AND  
EMERGING NOVEL RESEARCH IN  
CATALYSIS AND CHEMICAL ENGINEERING



SEPTEMBER 13-15, 2018  
ROME, ITALY

## Tentative Program

### Keynote Presentations

**Title: Functionalization of porous materials for application in environmental catalysis for protection of environment**

Stanislaw Dzwigaj, Sorbonne Universités, France

**Title: Ménage-à-Trois: Single-atom catalysis, Mass Spectrometry and Computational chemistry**

Helmut Schwarz, Technische Universität Berlin, Germany

**Title: Fully integrated biotransformations in a microreactor**

Bruno Zelić, University of Zagreb, Croatia

**Title: Process design: Un-biased selection and use of catalysis options (chemo-, bio-, photo-) from start to finish (technology platform development to product coming from industrial plant)**

Q.B. Broxterman, InnoSyn B V, The Netherlands

**Title: Kinetics in heterogeneous catalysis for DeNO<sub>x</sub> reactions: How to relate catalytic to surface properties**

Pascal Granger, University of Lille, France

**Title: Novel Perovskite catalysts for solid oxide fuel cells and water splitting**

Zhonghua (John) Zhu, The University of Queensland, Australia

**Title: Composite Pd-based membranes for hydrogen production and purification**

Angelo Basile, Institute on Membrane Technology of the Italian National Research Council, Italy

**Title: Electroenzymatic catalysis for electrical energy production**

Serge Cosnier, Grenoble Alpes University, France

**Title: Applications of Chemical Engineering Thermodynamics in the Petroleum industry: Developments in Hydrocarbon characterization, production and processing with some examples**

M. R. Riazi, Kuwait University, Kuwait

**Title: Catalysis in/on water: Future perspectives**

Christophe LEN, Chimie ParisTech, France

**Title: ZnO based photocatalysts for enhanced urban air purification**

Luis Sanchez Granados, Universidad de Cordoba, Spain

**Title: Tuning zeolitic parameters for the trapping and elimination of pollutants and toxic gases - application in automotive cold-start and nuclear safety**

Bruno Azambre, University of Lorraine, France

**Title: Application of catalytic technologies for production of renewable transportation fuels from vegetable oils, fermentation broth and CO<sub>2</sub>**

Miron Victor Landau, Ben-Gurion University of the Negev, Israel

**Title: Modified Mahoney-Robinson reactor using a static catalytic foam characterization and catalytic applications**

Valérie Meille, University of Lyon, France

**Title: Biocatalysis alternatives dedicated to flavors and fragrances production**

Madalina Tudorache, University of Bucharest, Romania

**Title: Valorization of chloromethane wastes to valuable hydrocarbons by hydrodechlorination with supported metal nanoparticles catalysts**

Luisa María Gómez Sainero, Universidad Autónoma de Madrid, Spain

**Title: Catalysis for biomass conversion to traffic fuel compounds**

Juha Lehtonen, VTT Technical Research Centre of Finland Ltd, Finland

**Title: Fluorous ponytails in catalysis**

Jan Cermak, Institute of Chemical Process Fundamentals of the CAS, v.v.i., Czech Republic

**Title: Applications of visible light-driven photocatalysts to photocatalytic degradation and PEC water splitting**

Byeong-Kyu Lee, University of Ulsan, Republic of Korea

**Title: High Oxygen reduction reaction performances of Cathode materials combining Polyoxometalates, Coordination complexes and Carbonaceous supports**

Guangjin Zhang, Chinese Academy of Sciences, China

**Title: A new approach for modeling catalytic processes in column apparatuses**

Christo Boyanov Boyadjiev, Institute of Chemical Engineering, Bulgarian Academy of Sciences, Bulgaria

## Oral Presentations

**Title: Effect of temperature on Cr promotion of Mo<sub>2</sub>C supported on sulfated Zirconia for methane dehydroaromatization**

James J. Spivey, Louisiana State University, USA

**Title: Ni/Co-based nanocrystalline catalysts for hydrogen production from CO<sub>2</sub> reforming of methane : Effect of toluene addition**

Moisés R. Cesario, Université du Littoral Côte d'Opale, France

**Title: Oscillatory heat evolution in the Pd/H system**

Erwin Lalik, Polish Academy of Sciences, Poland

**Title: Plasma modification of  $\alpha$ -Fe<sub>2</sub>O<sub>3</sub> supported nanomaterials for photocatalytic and photoelectrochemical applications**

Alberto Gasparotto, Padova University, Italy

**Title: Catalytic routes to Vitamin A Acetate**

Jan Schütz, DSM Nutritional Products, Switzerland

**Title: Hybrid Catalysis: A new one-pot reactor for the valorisation of glycerol through heterogeneous and enzymatic catalysis**

Myriam Frey, LGPC, France

**Title: Selectivity controlled with transient operation**

Javier Fernandez-Garcia, University of Leeds, UK

**Title: Ozonation in a Multi-Orifice oscillatory baffled column**

Marco Paulo Gomes Sousa Lucas, Universidade de Trás-os-Montes e Alto Douro, Portugal

**Title: Nanoparticle beam deposition: A novel route to the creation of Heterogeneous catalysts**

Richard E. Palmer, Swansea University, UK

**Title: EXAFS and XANES techniques for studying the type of defects in Ti-zeolites and their role in catalysis**

Luca Braglia, CNR-IOM, TASC Laboratory, Italy

**Title: Insights on reactivity patterns of Hydrogen abstraction in Oxide systems**

Dandamudi Usharani, CSIR-Central Food Technological Research Institute, India

**Title: In situ studies of model catalysts for heterogeneous catalysis**

Hans O. A. Fredriksson, Syngaschem BV, The Netherlands

**Title: Kinetic modelling of glycerol oxidation on metallic supported catalysts**

Pascal Fongarland, University of Lyon, France

**Title: Study of kinetics and mechanisms of catalytic pyrolysis of biomass components by using linear free energy relationships and TPD-MS**

Tetiana Kulik, Chuiko Institute of Surface Chemistry NASU, Ukraine

**Title: Ab initio investigation of the effect of cluster-support interactions on the physical properties of nanocluster-based catalysts**

Theodore Pavludis, Swansea University, Greece

**Title: Colloidal metal nanoparticles as a toolbox for catalytic studies**

Nikolaos Dimitratos, Cardiff Catalysis Institute, UK

**Title: The Nanomaterials application for syngas processing**

Kulikova Maya Valer'evna, A.V.Topchiev Institute of Petrochemical Synthesis, Russian Federation

**Title: Interfacial novel phenomena on Heterogeneous Photocatalysis**

Hideyuki Okumura, Kyoto University, Japan

**Title: Metal based electrocatalysts on CeO<sub>2</sub>/carbon, Nb<sub>2</sub>O<sub>5</sub>/carbon and carbon: Synthesis, characterization and investigation of their electrocatalytic activities for both anodic and cathodic fuel cell reactions**

Virginija Kepeniene, Center for Physical Sciences and Technology, Lithuania

**Title: Selective oxidation of free mono- and oligosaccharides using photocatalysis**

Gwladys Pourceau, University of Picardie Jules Verne, France

**Title: Structural and acidic nature of phosphotungstic acid at the surface and in the bulk of silica: Towards a heterogeneous catalyst for quinolones synthesis**

Palraj kasinathan, University of Catholique de Louvain, Belgium

**Title: Controlled generation of binary nanoparticles for catalysis research**

Maria Chiara Spadaro, Swansea University, UK

**Title: Wastewater polluted with cadmium: A tertiary treatment with natural sorbents**

Perfecto Barragan-Peña, Instituto Tecnológico de Nogales, Mexico

**Title: Deactivation/regeneration cycles of Rh/C and Ru/C for the valorization of chloromethanes by hydrodechlorination**

María Martín Martínez, Universidad Autónoma de Madrid, Spain

**Title: A novel synthesis of Thiolato and Phenoxo Platinum (II) complexes by Phase Transfer Catalysis**

Ja'afar Kadhum Jawad Al-Taie, International University of Erbil, Iraq

**Title: Environmental pollution due to the operation of gasoline engines: Exhaust gas law**

Koffi Sagna, University of Lomé, Togo

**Title: Microfluidic devices for biodiesel synthesis**

Harrison Silva Santana, University of Campinas, Brazil

**Title: Upgrading of furaldehydes via hydroxymethylation over heterogeneous acid catalyst**

Shun Nishimura, Japan Advanced Institute of Science and Technology, Japan

**Title: A study on simultaneous reduction of CH<sub>4</sub> and NO<sub>x</sub> of NGOC/de-NO<sub>x</sub> catalysts for CNG buses**

Choong Kil Seo, Howon university, Republic of Korea

**Title: Fisher-Tropsh synthesis in the presence of dispersed catalysts on the basis of ir-pyrolysed metal-polymer systems**

Ivantsov Mikhail Ivanovich, A.V.Topchiev Institute of Petrochemical Synthesis, RAS, Russian Federation

**Title: Cerium based Metal Organic Frameworks for catalytic CO<sub>2</sub> conversion**

Michalina Stawowy, Wroclaw University of Science and Technology, Poland

**Title: Composite thin films based on ZnO - carbon derivatives for photocatalytic applications**

Dana Perniu, Transilvania University of Brasov, Romania

**Title: Quantum Effects with Fluid Movement Along the Solid Surface**

Victor Zamakhaev, Terratec LLC, Russian Federation

**Title: TiO<sub>2</sub> - carbon derivatives composite photocatalyst for advanced and affordable wastewater treatment**

Anca Duta, Transilvania University of Brasov, Romania

**Title: Molecularly imprinted polymers electrochemical sensors: Form Macro to Micro molecules detection**

Rasha Mohamed El Nashar, Cairo University, Egypt

**Title: Molecular catalysts for water oxidation in a homogenous solution and heterogeneous surface**

Masayuki Yagi, Niigata University, Japan

**Title: Reaction pathways of methanol oxidation over a supported bimetallic catalyst**

Luter Leke, Benue State University, Nigeria

**Title: Dip-remove, stir-remove type of reusable polyaniline based solid acid catalyst for organic transformation**

Palaniappan Srinivasan, Indian Institute of Chemical Technology, India

**Title: Synthesis of Co-Mn-Fe/ $\gamma$ -Al<sub>2</sub>O<sub>3</sub> catalyst for Light Olefins Production**

Flor Shayegh, RIPI, National Iranian Oil Company, Iran

**Title: Ruthenium(II)–Iron(III) dyads for the light induced catalytic oxygenation of organic substrates mediated by O<sub>2</sub> activation**

Sushil Kumar, Doon University, India

**Title: Photocatalytic self-cleaning WO<sub>3</sub>-rGO composite thin films for PV glazing**

Maria Covei, Transilvania University of Brasov, Romania

**Title: Anti tumor molecules: Selective design for synthesis of new heterocyclic compounds called frog and fox catalyzed by Maghnite (Algerian MMT)**

Abdelkader Rahmouni, Oran1 university Ahmed benbella, Algeria

**Title: Catalysis of Zeolitic Imidazole framework-7: Non-Phosgene route for Methyl N-Phenyl Carbamate synthesis**

Deliana Dahnum, Korea Institute of Science and Technology, Republic of Korea

**Title: Investigation of Zr-promoted Cobalt based Fischer–Tropsch catalyst at high Syngas Conversion**

Yahya Zamani, RIPI, National Iranian Oil Company, Iran

**Title: SCR of NO with C<sub>3</sub>H<sub>6</sub> over iron modified Ag/Al<sub>2</sub>O<sub>3</sub> catalysts supported on honeycomb ceramic**

Yaxin Su, Donghua University, China

**Title: A naphthalimide-palladium based fluorescence probe for the selective detection and monitoring of carbon monoxide in breast cancer cells**

Tikum Florence Anjong, Ewha Womans University, Republic of Korea

**Title: Photosensitizing of TiO<sub>2</sub> nanoparticles for visible light irradiation**

Zohreh Mesgari, Bu-Ali Sina University, Iran

**Title: Overview of radioactive cesium removal from nuclear wastes**

Changhyun Roh, Korea Atomic Energy Research Institute, Republic of Korea

**Title: Solar energy harvesting by Magnetic-Nanophotocatalyst in water treatment technology**

Tahereh Rohani Bastami, Quchan University of Technology, Iran

**Title: Synthesis and characterization of Ag@ZnO and evaluation of its photo-catalytic activity towards degradation of rhodamine B dye in aqueous medium**

Muhammad Saeed, Government College University, Pakistan

**Title: Adsorption of Zinc Acetate on the surface of modified activated carbons-characteristic features**

Hoang Kim Bong, Lomonosov Moscow State University of Fine Chemical Technologies, Russia

**Title: Advancements in the process and Catalyst developments for Ethylene Oxide and Ethylene Glycol: Current and future prospects**

Muhammad Imran Yaqub, SABIC, Saudi Arabia

**Title: Prolong the catalyst life cycle of naphtha catalytic reforming process by optimization of operating conditions**

Sorood Zahedi Abghari, Research Institute of Petroleum Industry (RIPI), Iran

## Young Investigators & Researchers Forum

**Title: Modelling hyaluronan degradation by streptococcus pneumoniae hyaluronate lyase**

Vinh Q. Mai, National University of Ireland Galway, Ireland

**Title: Tuning acidity in Metal Organic frameworks-based catalysts for enhanced production of Butyl Butyrate as a biofuel additive**

Asmaa Bilal Jrad, American University of Beirut, Lebanon

**Title: Phthalocynines' properties and applications**

Nazli Farajzadeh, Istanbul Technical University, Turkey

**Title: Studying of the chemical kinetics of Non-Catalytic Solid-Gas systems with respect to solid reactant**

Morris Frank Hiji, University of Dodoma, Tanzania

**Title: Biodiesel production from edible oil wastewater sludge with Bioethanol using Nano-Magnetic catalysis**

Wighens Ngoie Ilunga, Cape Peninsula University of Technology, South Africa

**Title: Catalytic degradation of Ortho-Chlorophenol using activated Carbon modified by different methods**

Yang Zheng, Institute of Process Engineering, Chinese Academy of Sciences, China

**Title: An alternative SBA-3 based Carbon supported Platinum Electro catalyst to enhance Cathode Kinetics of direct Methanol fuel cells**

Nihat Ozer Ucar, Ondokuz Mayıs University, Turkey

## Poster Presentations

**Title: Performance of high carbon-resistant and stable calcium carbonate-calcium aluminate supported nickel catalyst in the high quality syngas production by CO<sub>2</sub> reforming of CH<sub>4</sub>**

Silvera Scaccia, Italian National Agency for New Technologies, Energy and Sustainable Economic Development, Italy

**Title: Study of the hydrogen addition influence on the hydrogenolysis of glycerol catalyzed by Ni-exchanged zeolites**

Clara Ángela Jarauta-Córdoba, Universidad de Zaragoza, Spain

**Title: Base catalized intramolecular Cyclization of -(4-hydroxybutyl)[3-(4-aryl)prop-2-ynyl]ammonium chlorides and intramolecular Recyclization of obtained products**

Chukhajian Emma H, The Scientific Technological Centre of Organic and Pharmaceutical Chemistry of National Academy of Sciences, Republic of Armenia

**Title: In-situ imaging of electrolyte flux in a Li-ion battery**

Keiji Takata, Kansai University, Japan

**Title: DFT Study of screening SCR catalyst constituent materials supported on Titania**

Jiwon Roh, KITECH, Republic of Korea

**Title: Base catalized intramolecular Cyclization of -allyl[3-(4-bromophenyl)prop-2-ynyl] ammonium bromides and water-base cleavage reaction of obtained cyclic products**

Chukhajian Emma H, The Scientific Technological Centre of Organic and Pharmaceutical Chemistry of National Academy of Sciences, Republic of Armenia

**Title: Formation of catalytic active sites in copper modified Ce-Mn mesoporous oxides for ethyl acetate total oxidation**

Radostina Nikoaleva Ivanova, Bulgarian Academy of Science, Bulgaria

**Title: catalytic performance of galloaluminosilicates in aromatization of lower alkanes: A comparative study with Ga/HZSM-5**

Mohammad Naseem Akhtar, King Fahd University of Petroleum & Minerals, Saudi Arabia

**Title: Catalytic H<sub>2</sub>O<sub>2</sub> production via water oxidation by a dinuclear ruthenium complex**

Yuuki Tanahashi, Niigata University, Japan

**Title: Mercury capture by Catalytic reaction with Fly ash using Hybrid filter**

Ha-Na Jang, Yonsei University, Republic of Korea

**Title: Nanostructure control of IrO<sub>x</sub> powder for highly efficient electrocatalytic water oxidation**

Tetsuya Sato, Niigata University, Japan

**Title: Kinetics of Cinnamaldehyde Hydrogenation in Four phase system**

Muzammil Khan, National Chemical Laboratory, India

# Program

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**Title: Hollow nanosphere copolymer as an effective sorbent for water treatment**

Ehsan Nazarzadeh Zare, Damghan University, Iran

**Title: Highly active molecular catalyst of a dinuclear ruthenium(II) complex for water oxidation**

Hiroki Sonokawa, Niigata University, Japan

**Title: Depolymerisation of lignin over Ru-based heterogeneous catalysts**

Verziu Marian Nicolae, Institute of Organic Chemistry 'C. D. Nenitescu' of Romanian Academy, Romania

**Title: Polyphenols concentration increases from Olive oil wastes using enzymes**

Carlos Zambra Sazo, University of Talca, Chile

**Title: Catalytic performance of transition metal phosphide catalyst for hydrogenation of Acetic acid to Ethanol**

Yong Xiao, Institute of Coal Chemistry, The Chinese Academy of Sciences, China



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**Conference Dates: September 13-15, 2018**

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