

5th EDITION OF GLOBAL CONFERENCE ON

CATALYSIS, CHEMICAL ENGINEERING & TECHNOLOGY

SEPTEMBER 16-18, 2019

LONDON, UK

Theme:
Novel Explorative Approaches trending in Catalysis,
Chemical Engineering and Technology

Park Inn by Radisson Hotel & Conference Centre
Bath Road, Heathrow, Middlesex
UB7 0DU, London, UK

 @CatalysisEvent

 @CATCatalysisConference

 www.catalysis-conferences.magnusgroup.org

#Catalysis2019

COLLABORATION & PUBLISHING PARTNERS



CONFERENCE
PROGRAM

Day 1 : September 16, 2019 (Monday)**@ Atlantis1**

08:00-08:40 Welcome Coffee and Registrations

Moderator **Moderator Edward N. Brothers**, Texas A&M University at Qatar, Qatar

08:40-09:00 Introduction

Keynote Presentations

09:00-09:40 Title: Design of metal single-site zeolite catalysts for application in industrial and environmental catalysis
Stanislaw Dzwigaj, Sorbonne Université-CNRS, France

09:40-10:20 Title: In-Situ TEM studies of chemically-complex alloy catalysts
Reza Shahbazian-Yassar, University of Illinois, USA

10:20-11:00 Title: From sequential chemo-enzymatic approach to integrated hybrid catalysis: Concept and examples
Froidevaux Réonato, Institut Charles Viollette – University of Lille, France

Group Photo11:00-11:20 **Coffee break** @ Foyer

11:20-12:00 Title: Catalysis in segmented flow from lab scale to production
Claude De Bellefon, University of Lyon, France

Oral Presentations

Sessions on: Catalysis for Energy | Nano materials | Catalysis for Renewable Sources | Microbial Technology | Advances in Catalysis

Session Stanislaw Dzwigaj, Sorbonne Université-CNRS, France
Chairs: Reza Shahbazian-Yassar, University of Illinois, Chicago

12:00-12:20 Title: Hydrogen from clean biogas. A proof of concept of integrated process
Angelo Vaccari, Alma Mater Studiorum- Università di Bologna, Italy

12:20-12:40 Title: Room temperature reduction of carbon dioxide using localized surface plasmon energy
Renu Sharma, National Institute of Standards and Technology (NIST), USA

12:40-13:00 Title: Catalytic hydrogen release from Amine-Boranes
Ashfaq Bengali, Texas A&M University at Qatar, Qatar

13:00-14:00 **Lunch Break** @ RBG Restaurant

- 14:00-14:20 Title: Production of hydrogen by catalytic partial dehydrogenation of a commercial fuel for HT-PEM fuel cell applications
Garcia Garrido Rafael, Université de Montpellier, France
- 14:20-14:40 Title: Catalyst and support materials in energy storage systems
Annukka Santasalo-Aarnio, Aalto University, Finland
- 14:40-15:00 Title: Catalytic CO₂ valorisation to building block molecules
Soyeb Pathan, Hamad Bin Khalifa University (HBKU), Qatar
- 15:00-15:20 Title: Designing photocatalyst nanostructure for enhanced photon-to-conversion efficiency and hydrogen production
Mohamed Nawfal Ghazzal, Université Paris-Sud, France
- 15:20-15:40 Title: Chemistry of graphene: Adsorption of CO at pristine, doped and defected supported graphene
Luca Vattuone, Università degli Studi di Genova, Italy
- 15:40-16:00 Title: Diesel fuel adulteration issues in Nigeria
Oyinkepreye Lucky Bebetidoh, Newcastle University, United Kingdom
- 16:00-16:20 **Coffee Break** @ Foyer
- 16:20-16:40 Title: Effect of the electronic State of Cu, Ag, and Au on diesel soot abatement
Maria Griselda Corro Hernandez, Benemerita Universidad Autonoma de Puebla, Mexico
- 16:40-17:00 Title: Auto-thermal reforming of biogas to syngas: Thermodynamic optimization for low CO₂ emissions
Xuejing Chen, Tsinghua University, China
- 17:00-17:20 Title: Rapid, ionic-liquid mediated catalytic conversion of lignocellulosic Sunn hemp fibres to biofuel precursors
Saikat Chakraborty, Indian Institute of Technology Kharagpur, India
- 17:20-17:40 Title: Study on biogas dry reforming using Ni catalysts and impurity effects
Yuchen Gao, Tsinghua University, China
- 17:40-18:00 Title: Improving probiotic stability to achieve product maximum efficacy
Davor J. Korčok, Abela Pharm, Serbia
- 18:00-18:20 Title: Design & Synthesis of cost effective NiPMoS/Laponite and its use as a superior catalyst for hydrodeoxygenation of furfural
Kannan Shanthi, Anna University, India
- 18:20-18:40 Title: Preparation and coke-resistance study of Ru promoted Mesoporous Ni/Al₂O₃-CeO₂ catalyst in dry reforming of methane
Yuqi Wang, Northwest University, China

18:40-19:00 Title: Anode electrode catalyst for liquid fueled solid alkaline fuel cells (SAFCs)
Gopinathan nair M Anilkumar, R&D Center, Japan

Day 1 : September 16, 2019 (Breakout)

@ Atlantis2

Sessions on: Chemical Engineering and Advances | Electrochemistry, Photoelectrochemistry and Photocatalysis | Biocatalysis and Biotransformations | Homogeneous catalysis | Petrochemical Engineering

Session Chairs: Claude De Bellefon, University of Lyon, France
John Zhonghua Zhu, The University of Queensland, Australia

14:00-14:20 Title: The mechanism of the base-free Ru(PTA)₄Cl₂ catalyzed hydrogenation of CO₂ to formic acid
Edward N. Brothers, Texas A&M University at Qatar, Qatar

14:20-14:40 Title: Structural and electrochemical study of IrO₂ and NiO-coated Ni Anode by atomic layer deposition (ALD)
DJ Donn Matienzo, Industrie de Nora S.p.A, Italy

14:40-15:00 Title: Laccase-Electrospun materials as biocatalytic systems for application in environmental protection
Jakub Zdarta, Poznan University of Technology, Poland

15:00-15:20 Title: Low-temperature synthesis and inkjet printing of photoactive TiO₂ on polymeric substrates
Hesam Maleki, University of Liverpool, United Kingdom

15:20-15:40 Title: Pyrazole as a corrosion inhibitor for carbon steel in aqueous media
Mohamed A. Abbas, Egyptian Petroleum Research Institute, Egypt

15:40-16:00 Title: Using polyisobutylene-supported sulfur ligands for metal sequestering
Hassan Said Bazzi, Texas A&M University at Qatar, Qatar

16:00-16:20 **Coffee Break** @ Foyer

16:20-16:40 Title: Inorganic oxide systems with immobilized laccase as tools for dyes decolorization
Katarzyna Jankowska, Poznan University of Technology, Poland

16:40-17:00 Title: Optimal design and sensitivity analysis of Gas-solid reactor for efficient H₂ storage
Di Wang, Northwest University, China

17:00-17:20 Title: The effect of ionic liquids on the photocatalytic activity of BiOX semiconductors in cytostatic drug degradation
Ewa Maria Siedlecka, University of Gdańsk, Poland

- 17:20-17:40 Title: Preparation of activated carbon derived from arecanut shell agro waste using phosphoric acid catalyst : Estimation of ferets diameter
Abhijit Shankar Jadhav, Department of Chemical of Engineering AISSMS COE, India
- 17:40-18:00 Title: Plasma surface activation of fibers for immobilization of enzymes on conductive and non-conductive textiles: Application to various processes
Nemeshwaree Behary, Lille University, France
- 18:00-18:20 Title: Hydrogenation of Dibenzo-18-crown-6 ether using γ -Al₂O supported Ru-Pd and Ru-Ni bimetallic nanoalloy catalysts
Yogeshwar R. Suryawanshi, S.V. National Institute of Technology, India
- 18:20-18:40 Title: Thermodynamic modeling for the carbonate system na-k-hco₃-co₃ in alkanolamines solutions: An extended application for CO₂ scrubbing
Zhibao Li, University of Chinese Academy of Sciences, China

END OF DAY 1

Day 2 : September 17, 2019 (Tuesday)

@ Atlantis

08:30-09:00 Welcome Snacks and Coffee

Moderator Cassia Boyadjian, American University of Beirut, Lebanon

Keynote Presentations

- 09:00-09:40 Title: Passivation by atomic layer deposition to increase the lifetime of Co/Al₂O₃ catalysts in the Fischer-Tropsch synthesis
José Antonio Díaz López, Universidad Politécnica de Madrid (UPM), Spain
- 09:40-10:20 Title: Industrialization of (catalytic) chemistry in flow
Q.B. Broxterman, InnoSyn BV, The Netherlands
- 10:20-11:00 Title: Process intensification: New perspectives for Chemical Engineering
Eugenio Meloni, University of Salerno, Italy
- 11:00-11:20 **Coffee Break** @ Foyer
- 11:20-12:00 Title: Predictions of chemical reactivity with theoretical calculations
Vitalina Kukueva, Cherkassy State Technological University, Ukraine

Oral Presentations

Sessions on: Environmental Catalysis | Heterogeneous Catalysis | Catalysis in Nanotechnology | Catalytic Materials | Catalysis and Zeolite | Recent Trends in Catalysis Research

Session Chairs: Q.B. Broxterman, InnoSyn BV, The Netherlands
Eugenio Meloni, University of Salerno, Italy
José Antonio Díaz López, Universidad Politécnica de Madrid (UPM), Spain

- 12:00-12:20 Title: Photoelectrocatalytic removal of anticancer drug from water solution
Aleksandra Pieczyńska, University of Gdańsk, Poland
- 12:20-12:40 Title: Design and fabrication of hybrid Nano-Filters for waste water remediation
Qurat Ul Ain Nadeem, University of Liverpool, UK
- 12:40-13:00 Title: Structure & performance of Li/MgO supported molybdenum oxide for oxidative cracking of N-Hexane
Cassia Boyadjian, American University of Beirut, Lebanon
- 13:00-14:00 **Lunch Break** @ RBG Restaurant
- 14:00-14:20 Title: The conversion of poly aromatic hydrocarbon into fine chemicals and fuels over molybdenum phosphide supported on various acidic and porous materials
Muhammad Usman, King Fahd University of Petroleum and Minerals, Saudi Arabia
- 14:20-14:40 Title: Confinement effect of alcohols and water in MFI Zeolite from Ab Initio molecular dynamics simulations
Mal-Soon Lee, Pacific Northwest National Laboratory, United States
- 14:40-15:00 Title: Synthesis, characterization, and application of MOF@clay composite as a visiblelight-driven photocatalyst for environmental remediation
Radheshyam Rama Pawar, Kyushu University, Japan
- 15:00-15:20 Title: Cluster beam deposition of preformed metal clusters for liquid and vapour phase catalysis
Rongsheng Cai, Swansea University, United kingdom
- 15:20-15:40 Title: NMR Methods for operando analysis of heterogeneous catalytic processes
Mojtaba Mirdrikvand, The University of Bremen, Germany
- 15:40-16:00 Title: Environment management and advancing technological processes for technical lead production
Ahmet Haxhiaj, University of Mitrovica, Republic of Kosova
- 16:00-16:20 **Coffee Break** @ Foyer
- 16:20-16:40 Title: Novel efficient Pd-free catalyst for Suzuki C-C coupling reaction: Green protocol
Mohamed Mokhtar, King Abdulaziz University, Saudi Arabia

- 16:40-17:00 Title: Novel synthesis of mesoporous alumina by hydrothermal technique & their role as catalyst support for valuable chemicals
Sujatha Parmeswaran, Veermata Jijabai Technological Institute (VJTI), India
- 17:00-17:20 Title: Supercritical fluids as reaction media for scalable production of carbon nanomaterials
Haider Hassan A. Almkhelfe, Midland Refineries Company, Iraq
- 17:20-17:40 Title: Synergistic Catalysis of nano-metal and semiconductor (metal oxides) molecular/atomic-layer film coated on the support of Novel Hybrid complex nano-structured Pt Catalyst prepared by photochemical route
Jicheng Zhou, Xiangtan University, China
- 17:40-18:00 Title: Nanocomposites with different metals as magnetically separable nanocatalysts for oxidation of aldehydes
Akbar Esmaeili, Islamic Azad University, Iran
- 18:00-18:20 Title: Pd Nanoparticles supported on copper oxide prepared via microwave-Assisted synthesis: An efficient catalyst for Suzuki cross-coupling
M. A. Sadek, British University in Egypt, Egypt

16:20-17:20 Poster Presentations

@ Foyer

- CATPP- 001 Title: Heteropoly acid supported on silica catalyst for dehydration of methanol to dimethyl ether
Rawan Al-Faze, University of Liverpool, United Kingdom
- CATPP- 002 Title: Solution plasma synthesis of catalytic carbon composite materials for oxygen reduction reaction
Takahiro Ishizaki, Shibaura Institute of Technology, Japan
- CATPP- 003 Title: Diethylaminoethyl cellulose (DEAE-C): A catalyst for applications in heterocyclic synthesis
Karzan K Aljaf, University of Pavia, Italy
- CATPP- 004 Title: Catalytic impact of Red Mud and metal oxides on the upgrading of fast pyrolysis vapour of biomass
Jyoti Gupta, Xi'an Jiaotong-Liverpool University, China
- CATPP- 005 Title: Gas-phase hydrotreatment reactions of 2,5-Dimethylfuran using bifunctional Metal-Acid Catalysts
Hanan. A. Althikrallah, University of Liverpool, United Kingdom
- CATPP- 006 Title: Palladium nanocatalyst supported on chitosan and its catalytic performance in Suzuki- Miyaura coupling reactions
Hamad M. Al-Matar, University of Kuwait, Kuwait
- CATPP- 007 Title: Synthesis of nitrogen-doped nanocarbons by solution plasma process using cyano-aromatic molecules for catalyst of oxygen reduction reaction
Ai Serizawa, Shibaura Institute of Technology, Japan

- CATPP- 008 Title: Ammonia synthesis activity of nanostructured $\text{Ni}_2(\text{W},\text{Mo})_3\text{N}$ and $\text{Co}_3(\text{W},\text{Mo})_3\text{N}$ Compounds
S. Al Sobhi, University of Southampton, United Kingdom
- CATPP- 009 Title: Surface property-activity relations of Co/Sn oxide nanocatalysts evaluated using a model reaction: Surface characterization study
Ndzondelelo Bingwa, University of Johannesburg, South Africa
- CATPP- 010 Title: Oxidative desulfurization of diesel fuel catalyzed by carbon-supported polyoxometalates
Reem Ghubayra, University of Liverpool, United Kingdom
- CATPP- 011 Title: Catalytic CO oxidation by Fe doped penta-graphene: A density functional study
Wenliang Li, Northeast Normal University, China
- CATPP- 012 Title: Controlling the regio- and stereoselectivity of hydrosilylation reaction catalyzed by platinum(0) complexes bearing bulky N-heterocyclic ligand
Małgorzata Bołt, Adam Mickiewicz University in Poznań, Poland
- CATPP- 013 Title: A mechanistic investigation into N-heterocyclic carbene (NHC) catalyzed umpolung of ketones and benzonitriles: is the cyano group better than the classical carbonyl group for the addition of NHC?
Haiyan Yuan, Northeast Normal University, China
- CATPP- 014 Title: Applying unreacted-core model analysis for delignification during a water/1-butanol co-solvent treatment
Yuki Kawamata, Hokkaido University, Japan
- CATPP- 015 Title: Application of catalytic hydrogenation in the synthesis of hydroxylated Pillar[5]arene-based Amphiphiles
Abdirahman A. Mohamod, University of Kuwait, Kuwait
- CATPP- 016 Title: Magnetic composite for wastewater treatment and control with visible light
Huanling Xie, Chongqing University of Technology, China
- CATPP- 017 Title: Activation of peroxymonosulfate by magnetic nitrogen-doped graphene for the degradation of organic pollutants in water
Qilong Xie, Chinese Academy of Sciences, China
- CATPP- 018 Title: Immobilization of bisphosphine ligands on nanomagnetite $\text{Pd}/\text{Fe}_3\text{O}_4$
Ashouri Akram, University of Kurdistan, Iran
- CATPP- 019 Title: A novel design for ammonia production
Seyyed Mohammad Jokar, Shiraz University of Technology, Iran
- CATPP- 020 Title: Cobalt aluminate-modified alumina as a carrier for cobalt in Fischer–Tropsch synthesis
Yan Liu, Chinese Academy of Sciences, China

- CATPP- 021 Title: SiC thin films loaded Cu as a visible light responsive photocathode for the photoelectroreduction of CO₂
KACI Samira, Research Center on Semiconductor Technology for Energetic, Algeria
- CATPP- 022 Title: Fatty acid methyl ester analysis of olive oil degraded by Pseudomonas fluorescens and enzymatic characterisation of the lipase
Popoola Bukola Margaret, Ajayi Crowther University, Nigeria
- CATPP- 023 Title: Activation of CO on Cobalt catalyst supported on Al₂O₃: Promoted by Ru
Dekui Sun, Chinese Academy of Sciences, China
- CATPP- 024 Title: Selective catalysis reduction of NO by NH₃ over Co/Cr-Ce catalysis at mid-low temperature
Zhihang Chen, Guangdong Key Lab of Water & Air Pollution Control, China

E-Poster Presentations

- CATEP- 01 Title: CFD simulation of crude petroleum boiling process inside reboilers
Alon Davidy, Heat Transfer Researcher, Israel
- CATEP- 02 Title: The decomposition reaction of hydrogen peroxide by the model catalysts
Nazym Zhunusbekova, Satbayev University, Kazakhstan
- CATEP- 03 Title: Chemoselective Transfer Hydrogenation of Multifunctional Nitro Compounds Catalyzed by Silver Nanoparticles: A Facile Synthetic Methodology towards Dihydroquinoxalin-2-ones
Domna Iordanidou, Aristotle University of Thessaloniki, Greece
- CATEP- 04 Title: Stereocontrolled Biocatalytic Reductions of Carbonyl Compounds
Ioulia Smonou, University of Crete, Greece
- CATEP- 05 Title: The 3-axis portable filament winding machine embedded with wireless technology
Ma Quanjin, Universiti Malaysia Pahang, Malaysia
- CATEP- 06 Title: Characterization of polymer-silicate composite materials
Nazym Zhunusbekova, Satbayev University, Kazakhstan

END OF DAY 2

Day 3 : September 18, 2019 (Wednesday)**@ Atlantis**

08:30-09:00 Welcome Snacks and Coffee

Moderator Yogeshwar R. Suryawanshi, S.V. National Institute of Technology, India

Keynote Presentations09:00-09:40 Title: In situ magic angle spinning NMR: A powerful tool for catalyst research
Jian Zhi Hu, Pacific Northwest National Laboratory, USA09:40-10:20 Title: Ultrathin iron-cobalt oxides nanosheets as highly active electrocatalyst for water splitting
John Zhonghua Zhu, The University of Queensland, Australia10:20-11:00 Title: Structurally- dimensional effects in selective heterogeneous catalysis of renewable biomass into important products of petrochemistry
M.V.Tsodikov, A.V.Topchiev Institute of Petrochemical Synthesis RAS, Russia11:00-11:20 **Coffee break****@ Foyer****Special Talk**11:20-11:40 Title: Textual differences between the engineering research article (RA) and its subsequent poster
Tharwat Mohamed EL-Sayed EL-Sakran, American University of Sharjah, UAE**Oral Presentations**Sessions on: Synthetic Chemistry Techniques | Green and sustainable chemistry | Nuclear Chemistry/
Radiochemistry | Analytical methodologies | Organometallics and Catalysis | Fluid Mechanics |
Catalysis and Applications

Session Jian Zhi Hu, Pacific Northwest National Laboratory, USA

Chairs: M.V.Tsodikov, A.V.Topchiev Institute of Petrochemical Synthesis RAS, Russia

11:40-12:00 Title: Dynamics of flow pattern in standard mixing vessel stirred by pitched blade turbine
Tomáš Brůha, Institute of Termomechanics, Czech Republic12:00-12:20 Title: A prospective life-cycle assessment (LCA) of monomer synthesis: Comparison of biocatalytic and oxidative chemistry
Marie A.F. Delgove, Aachen-Maastricht Institute for Biobased Materials (AMIBM), The Netherlands12:20-12:40 Title: Design and application of virus imprinted polymer (VIP) for the rapid and selective detection of Foot-and-Mouth Disease Virus (FMDV)
Rasha Mohamed El Nashar, Cairo University, Egypt12:40-13:00 Title: A Novel synthesis of thiolato and phenoxo platinum (II) complexes by using phase transfer catalysis
Ja'afar K. Jawad, Dean in the International University of Erbil, Iraq

- 13:00-14:00 **Lunch Break** **@ RBG Restaurant**
- 14:00-14:20 Title: Palladium-catalyzed β -C(sp³)-H arylation of Weinreb amides via acidic ligands
Guanghui An, Heilongjiang University, China
- 14:20-14:40 Title: Energy flux from the sun and the greenhouse gases in the infrared to the earth harvested as boson-supply in platinum-fullerene compound material and as source of electrons for electrical applications
Hans Wilfried Peter Koops, HaWilKo GmbH, Ernst Ludwig Strasse, Ober-Ramstadt, Germany, CEO, Germany
- 14:40-15:00 Title: Ozonation in a Multi-Orifice oscillatory baffled column
Marco Paulo Gomes Sousa Lucas, Universidade de Trás-os-Montes e Alto Douro, Portugal
- 15:00-15:20 Title: ⁵¹V-NMR chemical shifts and analyses of vanadium complex catalysts: A Cooperation of QC calculation and MLR analysis
Masahiko Hada, Tokyo Metropolitan University, Japan
- 15:20-15:40 Title: Towards a transient multi-site kinetic model of Cu-chabazite for NH₃-SCR linked to the active site hydrothermal aging kinetics
Can Erkey, Koç University, Turkey
- 15:40-16:00 Title: Noble and base-metal nanoparticles supported on mesoporous metal oxides: Efficient catalysts for the selective hydrogenation of levulinic acid to γ -valerolactone
Matumue Joe Ndolomingo, University of Johannesburg, South Africa
- 16:00-16:20 **Coffee Break** **@ Foyer**
- 16:20-16:40 Title: Cobalt ion species in water as an active homogeneous catalyst for oxidative decomposition of ammonium ion with ozone
Haruka Aihara, Japan Atomic Energy Agency, Japan
- 16:40-17:00 Title: Palladium/carbon nanotubes/charcoal hybrid composite and its catalytic behavior in the hydrogenation of trans-cinnamaldehyde
Elaine Yoshiko Matsubara, University of São Paulo, Brazil
- 17:00-17:20 Title: Organocatalyzed domino reactions for asymmetric organic synthesis
Bhoopendra Tiwari, Centre of Biomedical Research, India
- 17:20-17:40 Title: Chemical engineering and the new generation of multi-purpose catalyst test setup with investigation of the catalytic process of MeOH to light olefin
Arash Goshtasbi Asl, Technology Consultant, DFK Company, Iran
- 17:40-18:00 Title: Synthesis and characterization of catalysts based on Pd-Ni bimetallic nanoparticles
Sana Kabdrakhmanova, Kazakh National Research Technical University, Kazakhstan

END NOTE

*We wish to meet you again at our other
Magnus Catalysis Events*

Catalysis, Chemical Engineering and Technology

May 18-19, 2020 | Tokyo, Japan

www.catalysis-conferences.com

Email: catalysis@magnusmeetings.com

Catalysis, Chemical Engineering and Technology

September 21-23, 2020 | Paris, France

www.catalysisevents.com

Email: catalysis@magnusconferences.com

Catalysis and Chemistry Conference

October 22-24, 2020 | Orlando, USA

www.catalysiscongress.com

Email: contact@catalysiscongress.com

Questions? Contact

Contact +1 (702) 988-2320 or

Inquires: catalysis@magnusscigroup.com

More Information:

Please visit:

www.catalysis-conferences.magnusgroup.org