17TH EDITION OF INTERNATIONAL CONFERENCE ON CATALYSIS **CATALYSIS, CHEMICAL** 2023 **ENGINEERING AND TECHNOLOGY**



Scientific TOPICS

- Catalysis and Zeolites
- Chemical Kinetics and Catalytic Activity
- Electrochemistry, Electrolysis and Corrosion
- Organometallics, Organocatalysis and Bioinorganic Chemistry
- Polymer Science and Technology
- Advanced Synthesis, Catalytic Systems and New Catalyst Designing
- Photochemistry, Photocatalysis and Photoreactors
- Industrial Catalysis and Process Engineering
- Computational Catalysis and Enantioselective Catalysis
- **Integrated Catalysis**
- Catalysis and Applications
- Catalysis for Biorefineries •
- Catalysis in Nanotechnology
- **Reticular Chemistry**





France











HAIBO GE Texas Tech University United States

STANISLAW DZWIGAJ OSMAN ADIGUZEL Sorbonne-Universite-CNRS, Firat University, Turkey

GLAUCIO DIRE Center of the West 70 State University, Brazi

BING HUELCHEN Fu Jen University, Taiwar

TOKEER AHMAD Jamia Millia Islamia India

ATAY KUMAR MISHRA Durban University of Technology, South Africa

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Keynote Presentations

Haibo Ge Texas Tech University, United States	Title: Distal functionalization via transition metal catalysis
Arthur J Nozik University of Colorado, United States	Title: Advanced concepts for ultra- high conversion efficiency of solar photons into photovoltaics and solar fuels based on quantization effects in nanostructures and molecular singlet fission
Tianxing Cai Lamar University, United States	Title: Advancements in catalyst modeling and simulation
Stanislaw Dzwigaj Sorbonne-Universite-CNRS, France	Title: Application of metal single-site zeolite catalysts in catalysis
Dai Yeun Jeong Asia Climate Change Education Center, Korea Republic of	Title: United Nations' strategy responding to climate change
Osman Adiguzel Firat University, Turkey	Title: Thermal and mechanical processes and reactions in reversible behavior of shape memory alloys
Sergey Suchkov Institute for Biotech & Global Health of Rosbiotech and A.I. Evdokimov MGMSU, Russia	Title: Antibody-Proteases as translational tools of the next-step generation to be applied through bio design-driven translational biotech in personalized and precision neurology practice

Oral Presentations

Shutang Chen Honda Research Institute USA Inc, United States	Title: fcc/2H and fcc/4H copper nanodisks for carbon dioxide reduction
Yingchun Li Prairie View A&M University, United States	Title: Photocatalysis for organic transformations under visible light
M V Ramana Murthy Osmania University, United States	Title: Thermal radiation and chemical reaction effects on magneto hydrodynamics kasson fluid past a permeable stretching sheet in a porous medium
Arsam Aryandoust Massachusetts Institute of Technology, Switzerland	Title: AI in catalyst discovery for tackling climate change
Stefan Muller Evonik Operations GmbH & Co. KG, Germany	Title: Synthesis, reactivity and stability investigation of new ligands for the alkoxycarbonylation
Mohammadreza Akbari University of Tehran, Germany	Title: Chemical Reaction in the Catalyst Bed Reactor Design Heterogeneous Reaction

TENTATIVE PROGRAM

Shawn Reeves University of Waterloo, Canada	Title: Engineering stable, expressible, functional industrial enzymes with protein sequence likelihood models
Yira Hurtado University of Sherbrooke, Canada	Title: Biofuels production using iron foam as structured catalyst in fischer-tropsch synthesis
BEN TAYEB Karima LASIRE UMR CNRS 8516, France	Title: Sulfur vulcanization mechanism and ageing process: In situ EPR investigation
Bernardo Patella University of Palermo, Italy	Title: Reduction of graphene oxide supported on paper by CO2 laser and its application as electrochemical sensing of phosphate ions
Salvatore Geraci Università degli Studi di Palermo, Italy	Title: Performance of nickel-iron nanostructured electrodes at different temperatures
Roberto Luigi Oliveri University of Palermo, Italy	Title: Performance of nanostructured Ni alloy electrodes for hydrogen and oxygen evolution reaction in water-alkaline electrolyzer
Victor Cerda Sciware Systems, Spain	Title: Analytical kinetic thermometric methods. A review
Omvir Singh Kyushu Univeristy, Japan	Title: Production of aromatic hydrocarbons from long chain unsaturated used cooking oil over a hierarchical imidazole supported zeolite
KilYong Choi Public Health, Korea, Republic of	Title: Air pollution and respiratory disease risks in residential areas near smelters in korea: A retrospective cohort study using national health information database.
Orlando Elguera National University of Engineering, Peru	Title: Review of research topics for scaling-up of sonochemical reactors (sono-reactors)
Monalisa Garai Johannes Kepler University, Austria	Title: Effect of coulomb blockade on catalytic electron transfer in small Au nanoparticles
Md Nurul Islam Siddique University Malaysia Terengganu, Malaysia	Title: Role of supplemented nutrients and intermediate temperature on bio-methane generation from anaerobic digestion of agricultural waste: Feasibility & fertilizer recovery
Jessica R. P. Oliveira Federal Technological University of Paraná, Brazil	Title: Valorization of the plant extracts in the synthesis of magnetic nanocatalysts
Fang Zheng Petrochemical Research Institute of PetroChina Company Limited, China	Title: On-line access to the running state of reforming catalyst based on molecular management
Xinyue Zhang PetroChina Company Limited, China	Title: Formation of Fe(III)-S and electron-deficient effect iron- based catalysts and its promotion for DBT hydrodesulfurization
Guanghui An Heilongjiang University, China	Title: Development of catalysis pathways in remote C-H activation

Vingmaa liang	Title: Advanced estaluate derived from deen subsetie sugar unes
Xingmao Jiang Wuhan Institute of Technology, china	Title: Advanced catalysts derived from deep eutectic sugar-urea- salt systems
Kashan Bashir Tsinghua University, China	Title: Production of biomass-Derived 2,5-Furandicarboxylic acid alternative to terephthalic acid over Non-precious catalyst
Bo Li Nankai University, China	Title: Encapsulating copper-based nanostructures into metal- organic frameworks for CO2 conversion
Angyang Yu Heilongjiang Vocational College of Biology Science and Technology, China	Title: A preliminary theoretical investigation of oxidized Rhenium(Vll) complexes
Suresh C Ameta Paher University, India	Title: Photocatalysis an Eco-friendly technology
Ashanendu Mandal University of Calcutta, India	Title: Removal of phenol from wastewater using biological and industrial wastes as adsorbents
Siyu Zhang Tsinghua University, China	Title: The influence mechanism of sludge flocs in secondary effluent on the catalytic ozonation
Bin Zhao Tsinghua University, China	Title: Highly efficient electro-catalysis decomposition of ammonia to N2 tandem simultaneous generation of ·ClO by a Ru@ PbO2 membrane
S Girish Kumar R V College of Engineering, India	Title: Plasmonic Au-ZnO heterojunctions
Fatima Jalid National Insitute of Technology Srinagar, India	Title: Exploring reactivity trends and catalyst deactivation in biogas reforming
Kartik Upadhyay PKG Group of Institution, India	Title: Transformation of plastic into the liquid fuel
Dhanasekaran P Erode Sengunthar Engineering College, India	Title: Fixed bed adsorption of Arsenate [As(V)] and Arsenite [As(III)] from groundwater using Artocarpus hirsutus based adsorbent
Vikranthpridhvi Yandrapu Bechtel India Private Limited, India	Title: Process design for energy efficient, economically feasible, environmentally safe methyl chloride production process plant: Chlorination of methane route
Sujoy kumar dey sharda university, India	Title: Study the recrystallization process of CF-PEEK/HA through DSC curve
Anupalli Roja Rani Osmania University, India	Title: Quantum Dots Based in-Vitro Co-Culture Cancer Model for Identification of Rare cancer Cell Heterogeneity
Gitika Rani Saha IITB-Monash Research Academy, India	Title: Tunable anchoring of metal nanoparticles on hard carbon supports for kinetically superior and selective hydrogenation of olefins

N Nirwan SPC Government College, India	Title: Amberlyst A-15: A recyclable catalyst using in greener and efficient one-pot synthesis of novel multi-substituted indolylimidazole derivatives and antimicrobial activity
Gitanjali Pradhan REVA University, India	Title: An accelerated route for synthesis of glycerol carbonate using MgTiO3 perovskite as greener and cheaper catalyst.
Mohamed A Morsy King Fahd University of Petroleum & Minerals, Saudi Arabia	Title: An innovative magnetic resonance spectroscopic method for catalysts' activities
Mostafa Matar Suadi Aramco, Saudi Arabia	Title: The removal of refining hydrocracking's heavy polynuclear aromatic hydrocarbons: Challenges and Solutions
Ahmed M A Almogbel KACST, Saudi Arabia	Title: Enhancing energy efficiency in buildings through functional Nano-Coatings for window glazing: A study on the thermal behavior of glass in Saudi Arabia
Omar Abed KAUST / SABIC, Saudi Arabia	Title: The Effect of Co-Feeding H2 and CO2 on Ethylene Oligomerization to Produce Fuel-Range Hydrocarbons
Meshal Alzaid Jouf University, Saudi Arabia	Title: Exploration Characteristics of Novel Binary Mixed Oxide Nanocomposites for Environmental Catalysis
Tadesu Hailu Mengesha Ming Chi University of technology, Taiwan	Title: Enhancing the electrochemical performance of garnet- based composite membrane via stabilizing its interfacial contact with electrodes for lithium metal batteries.
Kassa Endalamaw Ewnu Ming Chi University of technology, Taiwan	Title: Achieving a highly sensitive and selective oxygen gas sensor based on perovskite Metal halide (MAPbI3) material
Alexandros Paparakis Charles university, Czech Republic	Title: Tin catalysed reductive coupling of CO2 to amines in the presence of H2
Yuli Marcela Henao-Hoyos National University of Colombia, Colombia	Title: Photo-oxidation of cyanide in aqueous solution under visible light using Fe-TiO2 synthesized from ilmenite
Alberth Renne Caranton González Universidad ECCI, Colombia	Title: Dry Reforming and partial oxidation of CH4 over NiAg alloys
Ndi Julius Nsami University Of Yaounde I, Cameroon	Title: Synthesis of carbon supported paladium/nickel catalyst using activated carbon based hazel nuts (corylus avellana) shells. Application on the catalytic reduction of nitrates in surface and ground waters using formic acid as a reducing agent
Mohamed Elsayed Abu Qir Fertilizers and Chemicals Industries Co., Egypt	Title: Fabrication and Characterization of Metal organic framework nanocomposites as a catalyst in Fertilizers plants
Abdul Rhman Hassan Muhammad Cairo University, Egypt	Title: Bioluminescence: Studying the behavior of the light-off bioreporter DF4/PUTK2 as a light-on assay against lead

Chaudhry Haider Ali Department of Chemical Polymer and Composite Materials engineering University of Engineering and Technology, Pakistan	Title: Transesterification of waste cooking oil to convert into Biodiesel using calcined goat bone as catalyst
Nahal Majdodin Science and Research University of Tehran, Iran	Title: Comparison of the Heterogeneous Catalytic Activity of Various Solid Acids in Esterification Process of Methyl Acetate Production
Chikwe Temple Nwoburuigwe University of Port Harcourt, Nigeria	Title: Impacts of functional groups on the intermolecular forces of attraction in animal glue obtained from the femur bones in cow (Bos Taurus)
Fouad EL Mansouri University Abdelmalek Essaadi - Faculty of Sciences and Techniques of Tangier, Morocco	Title: Evaluation of different extraction methods on the phenolic profile and the antioxidant potential of ceratonia siliqua L. Pods extracts
Mekonnen Maschal Tarekegn Ethiopian Civil Service University, Ethiopia	Title: Removal of methylene blue dye using nZVI, nanoclay and iron impregnated nanoclay - A Comparative Study
Feleke Terefe Dilla University, Ethiopia	Title: Synthesis of copper doped zeolite composite for antimicrobial activity and heavy metal removal from waste water
Yohannes Yirga Kefela Mekelle University, Ethiopia	Title: Mixed convection MHD moundary layer flow and heat transfer of nanofluid over an exponentially stretching sheet with effects of thermal radiation and viscous dissipation
Madjid Ifires CRTSE, Algeria	Title: Singlet oxygen involved in activation of peroxymonosulfate by recyclable Co0.5Mn0.5Fe2O4 for tetracycline degradation
Nouredine Ouarab CRTSE, Algeria	Title: Automotive Exhaust Catalyst based on aluminosilicate materials
Sara Chikhi Blida University, Algeria	Title: Preparation and characterization of new bio-sorbents generation
Ahmed Bahgat Qatar University, Qatar	Title: Tailoring cu-hydroxyapatite catalysts for hydrogenation of levulinic acid to n-valerolactone: Impact of copper loading, reaction temperature, and catalyst durability
Mudhafar Ali Hasan National Central University, Yemen	Title: Pool boiling heat transfer enhancement on microporous Fluorinated-Graphene coating durfaces by electrophoretic deposition technique

Oral Presentation slots are open

Poster Presentations

Cesar Morales Verdejo Universidad Bernardo O Higgins, Chile	Title: Evidence for formation of iron oxide nanoparticles into the mechanistic of the thermal decomposition of ammonium perchlorate using ferrocenyl compounds derived from 1,2,3-triazolyl ligand as burning rate catalysts
Benguella University of Tlemcen, Algeria	Title: Removal of heavy metals from aqueous solution by the natural Marne clay
Vitaly K. Koltover Russian Academy of Sciences, Russia	Title: Nuclear spin catalysis in living nature: magnetic-isotope effects in cells and biomolecular motors
Dineshkumar Ishwarlal Prajapati M. G. Science Institute, India	Title: Synthesis, Charcterization and application of nano sized barium chromate for photocatalytic degradation of an organic pollutant
Namrata Joshi Madhav University, India	Title: Microbial pre-treatment of cellulosic materials – a faster and economic approach for bioethanol production
Kartik upadhyay PKG Group of Institution, India	Title: Transformation of plastic into the liquid fuel
Obaid F Aldosari Majmaah University, Saudi Arabia	Title: Production of hydrogen fuel from sea water
Ridhwan Lawal King Fahad University of Petroleum and Minerals, Saudi Arabia	Title: Using artificial intelligence to predict the performance of Al2O3 supported Mixed-Metal catalysts for the oxidative dehydrogenation of n-Butane
Habte Ming Chi University of Technology, Taiwan	Title: Adsorptive removal of basic green dye from aqueous solution using humic acid modified magnetite nanoparticles: Kinetics, equilibrium and thermodynamic studies
Sleshi Fentie Tadesse Ming Chi University of Technology, Taiwan	Title: Visible light driven Nd2O3/Mo(S,O)3-X·0.34H2O heterojunction for enhanced photocatalytic degradation of organic pollutants
Wollela Behja Nassir Ming Chi University of Technology, Taiwan	Title: Synergetic effect of free-standing composite polymer electrolyte with composite cathode enabling high rate- performance for Solid-State Lithium Batteries
Desalegn Yilma Kibret Ming Chi University of Technology, Taiwan	Title: Preparation of LATP-based composite solid electrolytes via solvent-free thermal-extrusion method for all Solid-State Lithium Metal Batteries
Beyene Hagos Aregawi National Taiwan University of Science and Technology, Taiwan	Title:Application of switchable solvent catalysts for biodiesel synthesis using a novel electrochemical approach
Malika Tamimi University Ibn Zohr, Morocco	Title: The solventfree mechano-chemical grinding ofa bifunctional P25–graphene oxide adsorbentphotocatalyst and its configuration as porousbeads
Arzu Akif Y.H.Mamedaliyev's Institute of Petrochemical Processes of the Ministry of Science and Education, Azerbaijan	Title: Oxidative dehydrogenation of 4-vinylcyclohexene in the presence of modified forms of Zr, Fe-pentasyls

MohammadHossein Derakhshan

Zand institute of higher education, Iran

Title: Convergence analysis of numerical method for the twodimensional multi-term distributed order time-fractional diffusion equations

Poster Presentation slots are open