

HAZEL GROUP

TENTATIVE

2nd Global Conference on

# CATALYSIS & APPLIED CHEMICAL ENGINEERING

December 06-08, 2021 at Dubai, UAE

GCC  
2021

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## TENTATIVE AGENDA

TITEL: (REMOVAL EFFICIENCY OF Pb(II), Zn(II), Cd(II) AND Cu(II) FROM AQUEOUS SOLUTION AND NATURAL WATER BY KETOENOL-PYRAZOLE RECEPTOR FUNCTIONALIZED SILICA HYBRID ADSORBENT

Shehdeh Jodeh, An\_Najah National University, Palestine

TITLE : SYNTHESIS, STRUCTURAL CHARACTERISATION AND SPECTROSCOPIC PROPERTIES OF NEW DEFECT

Aziz Elhaimouti, University Sultan My Slimane, Morocco

TITLE : FUNCTIONALIZED PORPHYRINS AS ELECTROCHEMICAL MEDIATORS OR CATALYSTS FOR ORGANIC REACTIONS

Eugenia FAGADAR-COSMA, Institute Of Chemistry "Coriolan Dragulescu", Romania

TITLE : DESIGNING A HETEROGENEOUS CATALYST: DEVELOPMENT OF A REFORMING CATALYST FOR HYDROGEN PRODUCTION

Shakeel Ahmed, King Fahd University Of Petroleum & Minerals, Saudi Arabia

TITLE : EVALUATING THE POTENTIAL OF FORCED PERIODIC OPERATIONS OF CHEMICAL REACTORS - THE NONLINEAR FREQUENCY RESPONSE APPROACH

Menka Petkovska, University of belgrade, Serbia

TITLE : PHOTOCHEMICAL CONSTRUCTION OF MICRO/NANO-STRUCTURED SEMICONDUCTOR FOR APPLICATION IN PHOTOCATALYSIS AND GAS SENSOR

Sun Fengqiang, South China Normal University, China

## TENTATIVE AGENDA

**TITEL: DESING OF A REUSABLE COOPERATIVE CATALYTIC SYSTEM WITH CO-IMMOBILIZATION OF PALLADIUM NANOPARTICLES AND LACCASE ON MESOCELLULAR FOAMS FOR BIOMIMETIC AEROBIC OXIDATION REACTIONS**

**Amin rostami**, University of Kurdistan, Iran

**TITLE : ENZYMATIC SYNTHESIS OF BIOBASED OLIGOMERS AND POLYMERS WITH NEW FUNCTIONALITIES**

**Francisc Peter**, University Politehnica of Timisoara, Romania

**TITLE : Ti, HDTMA AND AL/FE PILLARED BENTONITE FOR ANIONIC DYE AQUEOUS SOLUTION TREATMENT ADSORBENT REGENERATION**

**Fadhila Ayari**, University of Carthage, Tunisia

**TITLE : POINT DEFECTS IN CERAMICS AND SEMICONDUCTOR NANOMATERIALS AND THEIR MAJOR ROLES IN SUPERCAPACITOR DEVICES**

**Emre Erdem**, Sabanci University, Turkey

**TITLE : ENHANCED PHOTOCATALYTIC DEGRADATION OF POLYCYCLIC AROMATIC HYDROCARBONS USING VISIBLE LIGHT ACTIVE/PHOSPHORUS-DOPED TiO<sub>2</sub> NANOCOMPOSITE**

**Kingsley Amakiri**, University of Huddersfield, United Kingdom

**TITLE : BAND EDGE ENGINEERING IN METAL OXIDE HETEROSTRUCTURES FOR EFFICIENT CHARGE SEPARATION FOR SOLAR WATER OXIDATION IN PHOTOELECTROCHEMICAL CELL**

**Aadesh P. Singh**, Aalto University, Finland

## TENTATIVE AGENDA

**TITEL: APPROACHES FOR BROADENING LIGHT ACTIVE SPECTRUM AND ENHANCEMENT OF PHOTO-INDUCED CARRIER SEPARATION TOWARDS HIGH PERFORMANCE PHOTOCATALYSTS.**

**Hong Liu**, University of Jinan, China

**TITLE : APPLICATIONS OF ENVIRONMENTAL ELECTROCHEMISTRY: CURRENT STATUS AND PERSPECTIVES.**

**Kangwoo Cho**, University of Pohang, Korea

**TITLE : STUDY OF MECHANICAL PERFORMANCE OF ADJUVANTED CONCRETE WITH PHOSPHATE INHIBITORS.**

**Latefa SAIL**, Aboubekr Belkaid university, Tlemcen- Algeria

**TITLE : APPLICATION OF BISMUTH'S CATALYSTS AS ENHANCEMENT OF FUEL PRODUCTION IN TWENTY-FIRST CENTURY.**

**Ayodele Temidayo Odularu**, University of Fort Hare, South Africa

**TITLE : ULTRA-THIN, LOW PHOTOCATALYTIC ACTIVITY TITANIA FILM FOR HIGHLY UV-RESISTANT AND THERMAL MANAGEMENT SILK FIBERS/FABRICS.**

**Binghai Dong**, Hubei University, China

**TITLE : SYNTHESIS AND CHARACTERIZATION OF SELECTED SOUTH AFRICAN KAOLIN DEPOSIT FOR CATALYTIC PYROLYSIS OF MUNICIPAL PLASTIC WASTE.**

**Olusegun Ayodeji Olagunju**, Durban University of Technology, South Africa

## TENTATIVE AGENDA

**TITEL: DEPOSITION OF CARBON DOTS AND SOME SEMICONDUCTORS ON NANOSHEETS OF GRAPHITIC CARBON NITRIDE TO FABRICATE HIGHLY EFFICIENT VISIBLE-LIGHT-DRIVEN PHOTOCATALYSTS**

**Aziz Habibi-Yangjeh**, University of Mohaghegh Ardabili, Iran

**TITLE : IMPACT OF FUEL ADDITIVES ON COMBUSTION PROCESS AND SOOT FORMATION**

**Yang Wenming**, National University of Singapore, Singapore

**TITLE : NANOCLAY MODULATES THE INTERFACE STRUCTURE OF CATALYTIC MATERIALS**

**Huaming Yang**, Central South University, China

**TITLE : NANOSCIENCE AND NANOTECHNOLOGY EDUCATION: LAB ACTIVITIES AND EXPERIMENTS.**

**Riam abu-much**, The Academic Arab College for Education in Haifa Israel, Israel

**TITLE : INVESTIGATING LOCAL STRUCTURE AND PHASE-STABILITY OF ION-IRRADIATED (Ni<sup>2+</sup>) ROCKSALT COO FILM AS ELECTROCATALYST BY XAFS SIMULATION USING EVOLUTIONARY ALGORITHM**

**Latif Ullah Khan**, Synchrotron-Light for Experimental Science and Applications in the Middle East, Jordan

**TITLE : THERMAL STABILITY OF IONIC LIQUIDS: EVAPORATION VS DECOMPOSITION, TGA AND DSC..**

**Dzmitry H. Zaitsau**, University of Rostock, Germany

**TITLE : INCREASING ACIDITY ON AMORPHOUS SILICA-ALUMINA VIA HIGHLY DISPERSED SURFACE PENTACOORDINATED ALV SPECIES**

**Zichun Wang**, Macquarie University, Australia

**TITLE : DIP-CATALYSTBASED ON PLANT STEM-SUPPORTED METAL NANOPARTICLES: A GREEN AND SUSTAINABLE STRATEGY FOR AGRICULTURE RESIDUE BENEFICIATION**

**Mohammed Nasiruzzaman Shaikh**, King Fahd University, Saudi Arabia

**TITLE : STRUCTURED MICRO-FIBROUS CATALYSTS**

**Andrey Zagoruiko**, Boreskov Institute Of Catalysis, Russian Federation

**TITLE : GREEN IMMOBILIZATION MATRICES: THE KEY TO EFFICIENT UTILIZATION OF ENZYMES IN FOOD AND DRUG INDUSTRIES**

**Marwa Wahba**, National Research Centre, Egypt

**TITLE : ORIGIN OF THE SALINIZATION OF GROUNDWATER IN THE PALM GROVE OF BENI ABBES (SAOURA VALLEY, SOUTH WEST ALGERIAN).**

**Merzougui Touhami**, University of Bechar, Algeria

**TITLE : SUB-GRID MESO-SCALE MODELING AND APPLICATIONS IN GAS-SOLID FLUIDIZED CATALYTIC REACTORS**

**Bona Lu**, Institute of Process Engineering, Chinese Academy of Sciences, China

**TITLE : COMBUSTION SYNTHESIS: FROM MINERALS TO NANOMATERIALS**

**Andrzej Huczko**, Warsaw University, Poland

**TITLE : LIQUID DROPLET IMBIBITION INTO A THIN COATING LAYER:  
DIRECT PORE-SCALE MODELING AND EXPERIMENTAL OBSERVATIONS**

**Hamed Aslannejad**, Utrecht University, Netherlands

**TITLE : ULTRA-FAST LIQUID CHROMATOGRAPHIC METHOD FOR  
QUANTIFICATION OF CURCUMIN IN EXTRACT OF CURCUMA LONGA L.:  
A GREEN CHEMISTRY APPROACH**

**Mahmood Ahmed**, Renacon Pharma Limited, Pakistan

**TITLE : BENEFITS OF GREEN CATALYSIS FOR ORGANIC SYNTHESIS**

**Heba Hashem**, Ain Shams University, Egypt

**TITLE : IDEAL AND GREEN HYDROCARBOXYLATION OF ETHYLENE TO  
PROPANOIC ACID OVER SUPPORTED RHODIUM CATALYSTS**

**Jeno Bodis**, Babes-Bolyai University, Romania

**TITLE : SURFACE ENHANCED INFRARED ABSORPTION SPECTROSCOPY  
OF SOME SELECTED SURFACE ACTIVE AGENTS AND THEIR  
APPLICATIONS**

**Ramsingh Kurrey**, Pt. Ravishankar Shukla University Raipur, India

**TITLE : MECHANISTIC INVESTIGATION OF ULTRASOUND ASSISTED  
OXIDATIVE DESULFURIZATION USING PHASE TRANSFER CATALYST**

**Jaykumar B. Bhasarkar**, Laxminarayan Institute of Technology, India

**TITLE : TAKING ONE STEP BACK TO TAKE MANY STEPS FORWARD  
IN ELECTROCATALYSIS**

**Mesfin Haile**, Vrije Universiteit Brussel, Belgium

**TITLE : DEVELOPMENT OF ETHANOL SYNTHESIS FROM SYNGAS OVER A CUZNAL CATALYST**

**Wei Huang**, Taiyuan University of Technology, China

**TITLE : PHYSICOCHEMICAL PARAMETERS AND HEAVY METALS ANALYSIS OF OIL POLLUTED GROUND WATER IN BARUWA COMMUNITY**

**Temitope OM**, Federal University Of Technology Akure, Akure, Nigeria

**TITLE : CATALYSTS FOR THE PRODUCTION OF VALUE-ADDED CHEMICALS FROM BIOMASS DERIVED LEVULINIC ACID**

**Asima Sultana**, National Institute Of Advanced Industrial Science &Technology, Japan

**TITLE : LIQUID ORGANIC HYDROGEN CARRIERS: AN UPCOMING ALTERNATIVE TO CONVENTIONAL TECHNOLOGIES**

**Sergey Verevkin**, University of Rostock, Germany

**TITLE : FAST GROWTH AND MODULATION OF GAN NANOWIRES BY MICROWAVE PLASMA CHEMICAL VAPOR DEPOSITION**

**Wang Ruzhi**, Beijing Univity Of Technology, China

**TITLE : MAGNETIC METAL FERRITES AS GREEN AND SUSTAINABLE NANO CATALYST FOR ORGANIC REACTIONS**

**Firouz Matloubi Moghaddam**, Sharif University Of Technology, Iran

**TITLE : HYDROGENATION OF LEVULINIC ACID WITH AND WITHOUT EXTERNAL HYDROGEN OVER NI/SBA-15 CATALYST**

**Mohan Varkolu**, University Of Hyderabad, India



**TITLE : ADVANCED, FANCY SHAPED NANOPARTICLES FOR CATALYTIC APPLICATIONS.**

**Magdalena Parlinska-Wojtan**, Instytut of Nuclear Physics PAN, Poland

**TITLE : DYNAMIC COVALENT BONDS IN PREPARATION OF SELF-HEALING POLYURETHANE ELASTOMERS**

**Masoud Yarmohammadi**, KN Toosi University Of Technology, Iran

**TITLE : SYNTHESIS OF SULPHONIC ACID FUNCTIONALIZED CORE-SHELL MAGNETIC MESOPOROUS SILICA ADSORBENT**

**Syed Mazhar Shah**, University Of Engineering & Technology Lahore, Pakistan

**TITLE : DESIGNING AND DEVELOPING CONTROLLED RELEASING FERTILIZER USING STARCH-BASED HYDROGEL**

**Long YU**, South China University Of Technology, China

**TITLE : PHOTOCATALYTIC SYSTEMS FOR ADVANCED ENVIRONMENTAL REMEDIATION APPLICATIONS**

**Raju Kumar Gupta**, Indian Institute Of Technology Kanpur, India

**TITLE : DEVELOPMENT OF ELECTROCATALYSTS AND THEIR STRUCTURAL EVOLUTION**

**Guanjie He**, University Of Lincoln/UCL, UK

**TITLE : TUNING THE ELECTRON LOCALIZATION OF GOLD ENABLES THE CONTROL OF NITROGEN-TO-AMMONIA FIXATION**

**Jianyun Zheng**, Hunan University, China

**TITLE : STRUCTURAL EFFECT ON THE ACTIVITY AND DURABILITY OF THE ELECTROCATALYSTS.**

**Pei Kang Shen**, Guangxi University, China

**TITLE : FRAMEWORK PHOSPHATES AS CATALYSTS OF ALCOHOLS' CONVERSION**

**Elena Asabina**, Lobachevsky University, Russian Federation

**TITLE : X-RAY DIFFRACTION & OPTICAL SPECTROSCOPY TOGETHER ... FOREVER !**

**Habib Boughzala**, Preparatory Institute for Engineering Studies of Nabeul, Tunisia

**TITLE : DIRECT ETHANOL FUEL CELLS FOR A SUSTAINABLE ENERGY FUTURE**

**Liang An**, The Hong Kong Polytechnic University, China

**TITLE : MECHANISMS OF CATALYTIC GRAPHITIZATION OF DIAMOND SURFACE**

**Viera Skakalova**, University of Vienna, Austria

**TITLE : FUNCTIONALIZED COVALENT ORGANIC FRAMEWORKS FOR PHOTOCATALYSIS.**

**Pradip Pachfule**, Technical University Berlin, Germany

**TITLE : TUNING THE ELECTRON LOCALIZATION OF GOLD ENABLES THE CONTROL OF NITROGEN-TO-AMMONIA FIXATION**

**Jianyun Zheng**, Hunan University, China

**TITLE : CATALYTIC COMPOSITE MEMBRANE FOR ESTERIFICATION ENHANCEMENT**

**Weixing Li**, Nanjing Tech University, China

**TITLE : DEEP EUTECTIC SOLVENTS (DESS) AS PROMISING GREEN CATALYSIS AND SOLVENTS FOR BIODIESEL PRODUCTION: STATE-OF-THE-ART, PROSPECTS AND CHALLENGES**

**Weidong Lu**, Shaoguan University, United States

**TITLE : A NOVEL DESIGN OF CATALYST LAYER INTEGRATED WITH SOLID ELECTROLYTE IN THE METAL-O<sub>2</sub> BATTERY**

**Yuan-Cheng Cao**, Huazhong University Of Science And Technology (HUST), China

**TITLE : SOME STRATEGIES ON C-H FUNCTIONALIZATION**

**Xiuling Cui**, Huoqiao University, China

**TITLE : HYDROTHERMAL ASSISTED SYNTHESIS OF ZNFE<sub>2</sub>O<sub>4</sub> EMBEDDED G-C<sub>3</sub>N<sub>4</sub> NANOCOMPOSITE WITH ENHANCED CHARGE TRANSFER ABILITY FOR EFFECTIVE REMOVAL OF NITROBENZENE AND CR(VI)**

**Shajahan Shanavas**, Periyar University, India

**TITLE : PHOTOCATALYTIC CHEMICAL REACTIONS**

**Dong-Hau Kuo**, National Taiwan University of Science and Technology, Taiwan

**TITLE : GREEN SYNTHESIS OF LOW-DIMENSIONAL NANOMATERIALS FOR CATALYTIC AND GAS-SENSING APPLICATIONS.**

**Deliang Chen**, Zhengzhou University, China

**TITLE : CO OXIDATION OVER Pd1/GRAPHENE: A FIRST-PRINCIPLES INVESTIGATION**

**Xin Liu**, Dalian University of Technology, China

**TITLE : TAILORING THE PHOTOCATALYTIC PROPERTIES OF Ti@TiO<sub>2</sub> NANOPARTICLES FOR ADVANCED PHOTOTHERMAL HYDROGEN PRODUCTION FROM AQUEOUS SOLUTIONS**

**Sara EL HAKIM**, Marcoule Institute for Separation Chemistry, France

**TITLE : CO<sub>2</sub> ENHANCED OXIDATIVE DEHYDROGENATION OF PROPANE TO PROPYLENE OVER GAN BASED CATALYSTS.**

**Zhao-Tie Liu**, Shaanxi Normal University, China

**TITLE : ROLE OF METALLIC SURFACES IN HETEROGENOUS CATALYSIS**

**Prafulla jha**, The Maharaja Sayajirao University of Baroda, India

**TITLE : DESIGN AND DEVELOPMENT OF NEW EFFICIENT ROUTES FOR THE SYNTHESIS OF BIOLOGICALLY IMPORTANT HETEROCYCLES VIA CATALYTIC C-C AND C-HETEROATOM BOND FORMATION.**

**Hiriyakkanavar Ila**, Jawaharlal Nehru Centre for Advanced Scientific Research, India

**TITLE : MAS NMR OF CATALYTIC REACTIONS**

**Ago Samoson**, Tallinn University of Technology, Estonia

**TITLE : THERMALLY REDUCED GRAPHENE: SYNTHESIS, CHARACTERIZATION, AND APPLICATIONS IN POLYMER NANOCOMPOSITES**

**Muhammad Z. Iqbal**, United Arab Emirates University, United Arab Emirates

**TITLE : PHOTOCATALYTIC INACTIVATION MECHANISM OF THE  
HYPERTOXIC SITE IN AFLATOXIN BI OVER Z-SCHEMATIC COMPOSITES**

**Mao Jin**, Chinese Academy Of Agricultural Sciences, China

**TITLE : MECHANISM AND APPLICATION OF VISIBLE LIGHT  
PHOTOCATALYSIS ON MYCOTOXINS DEGRADATION**

**Peiwu Li**, Chinese Academy Of Agricultural Sciences, China

**TITLE : POLY CRYSTALLIZED METAL NANO-COMPOSITE AS A  
MECHANISM TO IMPROVE ENERGY HARVESTING IN THIN FILM  
POLYMER SOLAR CELL**

**Genene Mola**, University Of Kwazulu-Natal, South Africa

**TITLE : METALLIC AND NON-METALLIC PLASMONIC  
NANOSTRUCTURES FOR PHOTOCATALYSIS**

**Zaizhu Lou**, Jinan University, China

**TITLE : BIFUNCTIONAL PHOTO/ELECTROCATALYTIC HYDROGEN  
GENERATION VIA WATER SPLITTING**

**Dongpeng Yan**, Beijing Normal University, China

**TITLE : ENHANCING RENEWABLE HYDROGEN GENERATION FROM  
ETHANOL PHOTOREFORMING ON Au@TiO<sub>2</sub> CATALYSTS BY DEFECT  
ENGINEERING**

**Xu Xiang**, Beijing University Of Chemical Technology, China

**TITLE : SELECTIVE AEROBIC OXYGENATION OF HYDROCARBONS  
USING PHOTOREDOX CATALYSTS.**

**Kei Ohkubo**, Osaka University, Japan

**TITLE : NANOSIZED IRON OXIDE AS EFFECTIVE CATALYST FOR HYDROGENATION OF CARBON DIOXIDE**

**Libor Kvitek**, Palacky University in Olomouc, Czech Republic

**TITLE : INVESTIGATIONS ON THE SLUG TWO-PHASE FLOW IN A HORIZONTAL PIPES: PAST, PRESENTS, AND FUTURE DIRECTIVES**

**Abdallelah Omer Mohmmmed**, Middle East College, Oman

**TITLE : BOILING HEAT TRANSFER ON MICRO-PIT SURFACES**

**Gangtao Liang**, Dalian University of Technology, China

**TITLE : GAS PHASE HETEROGENEOUS PHOTOCATALYTIC CONVERSION OF CO<sub>2</sub>**

**Mohsen Padervand**, University Of Maragheh, Iran

**TITLE : SUNLIGHT-DRIVEN SEAWATER DESALINATION AND SIMULTANEOUS CO<sub>2</sub> CONVERSION.**

**Hyunwoong Park**, Kyungpook National University, Korea

**TITLE : INTENSIVE ENHANCEMENT OF H<sub>2</sub> GENERATION AND DETECTION IN TiO<sub>2</sub>-BASED MATERIALS**

**Yun Gao**, Hubei University, China

**TITLE : STRUCTURAL SPECIFICITY OF CERIA SUPPORTED ATOMICALLY DISPERSED PLATINUM IS CRITICAL FOR SELECTIVE PARTIAL HYDROGENATION OF ACETYLENE**

**Olumide Ayodele**, Iberian Nanotechnology Laboratory (INL) Portugal, Portugal

**TITLE : POLYMERIC SHIFF BASE METAL COMPLEXES FOR ADVANCED ENERGY STORAGE, SENSING AND CATALYSIS**

**Daniil A. Lukyanov**, Saint Petersburg State University, Russian Federation

**TITLE : CLEAN ORGANIC PREPARATION: DUAL ROLES OF REACTANTS**

**Wei-Min He**, Hunan University Of Science And Engineering, China

**TITLE : ENHANCED PHOTOELECTROCATALYTIC ACTIVITY OF Bi2S3-TiO2 NANOTUBE ARRAYS HETERO-STRUCTURE UNDER VISIBLE LIGHT IRRADIATION**

**Changjian Lin**, Xiamen University, China

**TITLE : ISOLATION AND CHARACTERIZATION OF GREEN CELLOULOSE NANOFIBERS FOR REMOVAL OF ORGANIC CONTAMINANTS IN WASTEWATER**

**Zikhona Tywabi-Ngeva**, Nelson Mandela University, South Africa

**TITLE : ULTRASOUND-ASSISTED BIOMASS TRANSFORMATION INTO HIGH-VALUE CHEMICAL COMPOUNDS.**

**Rodrigo Cella**, FEI University, Brazil

**TITLE : OXIDATION OF AROMATIC HYDROCARBONS BY BIMETALLIC RHENIUM-TIN COMPLEXES WITH SCHIFF BASE LIGAND.**

**Veeranna Yempally**, Punjab Engineering College (Deemed to be University), India

**TITLE : VERIFICATION OF REACTION MECHANISM AND OPTIMIZATION OF CATALYST DESIGN VIA KINETIC MODELLING: CASE STUDIES IN HYDROGENATION REACTIONS**

**Philippe M. Heynderickx**, Ghent University Global Campus, Korea

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