

4th International Conference on **Chemistry and Applied Sciences**

Day 1 - November 09, 2022

10:00 - 10:30 Registrations

10:30 - 10:45 Introduction

Keynote Presentations

10:45 - 11:25 **Solar Energy Utilization in Waste Management**
Vandana Sakhre, Department of Chemical Engineering, Manipal Academy of Higher Education, UAE

11:25 - 12:05 **Pincer Complexes as Efficient Catalysts in Condensation Reactions**
Janez Cerkovnik, University of Ljubljana, Slovenia

Group Photo (12:05-12:15)

Refreshments (12:15-12:45)

Oral Presentations

Chair **George J Dias**, University of Otago, New Zealand

Sessions: **Pharmaceutical Chemistry | Food Chemistry | Biocatalysis and Biotransformation | Agricultural Chemistry | Photo catalysis and Electrochemistry | Food Chemistry and Agricultural Chemistry**

12:45 - 13:15 **A Novel Dietary Protein Source: Sheep Wool Keratin**
George J. Dias, University of Otago, New Zealand

13:15 - 13:45 **Utility of Nitrogenous Fumarate Diester as Precursor for Urease Inhibitors**
Heba Elzahabi, Al -Azhar University, Egypt

Lunch (13:45 - 14:45)

14:45 - 15:15 **New D-amino Acid Oxidases**
Vladimir Tishkov, Lomonosov Moscow State University, Russia

15:15 - 15:45 **Coherent-Synchronized Oxidation of Methane by Hydrogen Peroxide to Methanol on the Penta-FTPhFe(III)OH/Al₂O₃ Biomimetic Catalyst**
Tofik Nagiev, Nagiev Institute of Catalysis and Inorganic Chemistry, Azerbaijan

15:45 - 16:15 **New Biocatalysts Based on Bacterial Formate Dehydrogenases with Multi-Point Mutations**
Anastasia Pometun, Lomonosov Moscow State University, Russia

Networking & Refreshments (16:15 - 16:45)

16:45 - 17:15 **Measuring the Potential of Green Chemistry in Smart Cities' Renewable Energy**
Daira Nekhorosheva, National Research University Higher School of Economics: Moscow, Russia

17:15 - 17:45 **Effect of Carboxylic Acid Groups on Thiophilicity of Hg(II) Compared to Cd(II) and Zn(II) Ions in Some Mercapto-Containing Chelates. DFT-Theoretical Study**
Amer A.G.Al Abdel Hamid, Yarmouk University-Irbid-Jordan, Jordan

Day 1 Concludes

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Day 2 - November 10, 2022

Keynote Presentation

10:00-10:45 Identification and Manipulation of Dynamic Active Site Deficiency-induced Competing Reactions in Electrocatalytic Oxidation Processes
Guanjie He, University College London, United Kingdom

Oral Presentations

Chair: **Vandana Sakhre**, Department of Chemical Engineering, Manipal Academy of Higher Education, UAE

Sessions Medicinal Chemistry | Applied Chemistry | Catalysis for Energy | Environmental Catalysis and Sustainability | Green and Sustainable Chemistry | Catalysis | Nanochemistry

10:45 - 11:15 Synthesis of EDTA-Functionalized Graphene Oxide-Chitosan Nanocomposite for Simultaneous Removal of Inorganic and Organic Pollutants from Complex Wastewater
Monu Verma, University of Seoul, Republic of Korea

Networking & Refreshments(11:15 - 11:45)

11:45 - 12:15 Performance of Active Ni/Cu on ITO Substrate Photocatalysts for Hydrogen Production via Photoelectrochemical Water Splitting
Nitu Singh Parihar, MBM University, India

12:15 - 12:45 Deleterious Variants in WNT10A, EDAR, and EDA Causing Isolated and Syndromic Tooth Agenesis: A Structural Perspective from Molecular Dynamics Simulations
Waseem Ahmad, Virtua Lab Private Limited, Pakistan

12:45 - 13:15 Co-Immobilization of Palladium Nanoparticles and Polyoxometalate into the Cavities of the Mesocellular Foams: A Biomimetic Cooperative Catalytic System for Aerobic Oxidation of Alcohols under Green Conditions
Amin Rostami, University of Kurdistan, Iran

Lunch (13:15 - 14:15)

Poster Presentations

CCTPO1 Dicationic Ionic Liquids as New Antifeedants
Damian K. Kaczmarek, Poznan University of Technology, Poland

CCTPO2 Toward Revealing the Role of the Cation in the Phytotoxicity of the Betaine-Based Esterquats Comprising Dicamba Herbicide
Witold Stachowiak, Poznan University of Technology, Poland

CCTPO3 Iodosulfuron-Methyl-Based Ionic Liquids Comprising Alkyl Betainate Cation as Novel Herbicides with Reduced Environmental Impact and Excellent Efficacy
Michal Niemczak, Poznan University of Technology, Poland

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CCTPO4	Synthesis and Biological Evaluation of 11H-indeno[1,2-b]quinoxalin-11-one Cesium Salt Anastasia Kovrizhina , Tomsk Polytechnic University, Russia
CCTPO5	Co-Combination of Pregabalin and Withania Coagulans-Extract-Loaded Topical Gel Muhammad Naeem A , Newcastle University, United Kingdom
CCTPO6	Inventory of Aromatic and Medicinal Plants Used in Natural Cosmetics in Western Algeria Faiza Chaib , University of Oran, Algeria

E-poster Presentation

CCTPO1	Effect of Solvents on the Perovskite Structure Synthesized by Sol-Gel Route Nadia Senouci Bereksi , Laboratory of Catalysis and Synthesis in Organic Chemistry, AbouBekrbelkaid-University of Tlemcen, Algeria
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Day 2 Concludes

Panel Discussion - Awards & Closing Ceremony followed by Vote of Thanks

4th International Conference on Chemistry and Applied Sciences

Virtual Presentations

Day 1 - November 09, 2022 (Time Zone-GMT)

11:00 - 11:15 Introduction

Keynote Presentations

11:15 - 11:50 Design, Synthesis, Characterization, Antimicrobial, Molecular Docking and Dft Studies of C-3 Modified Novel Amide Analogues of 7-[(4Z)-3-(aminomethyl)-4-
Sana Shamim, Dow University of Health Sciences, Pakistan

Oral Presentations

11:50 - 12:15 BODIPY-POM Photosensitizer-Catalyst Systems for HER
Seda Cetindere, Gebze Technical University, Gebze, Kocaeli, Turkey

12:15 - 12:40 Fabrication And Characterization Of Fe₃O₄-SiO₂ Composite And Evaluation of its Activity Toward Removal Of Methylene Blue And Methyle Orange From Water
Muhammad Yaseen, Abdul Wali Khan University, Mardan, Pakistan

12:40 - 13:05 Rich Materials Produced from Biomass and Everyday Waste Plastics Utilising A Variety of Chemical Engineering Techniques
Osman Y. Yansaneh, University of Hull, United Kingdom

Lunch (13:05 - 13:30)

13:30 - 13:55 Structural Reactions and Functional Characterization of Shape Memory Alloys
Osman Adiguzel, Firat University, Turkey

13:55 - 14:20 Characterization of Tantalum Carbide Synthesized by Mechanical Alloying
Mohsen Mhadhbi, National Institute of Research and Physicochemical Analysis, Tunisia

14:20 - 14:45 Mathematical Concept of Simplification in Complex Chemical Reactions
Shahzad. M, The University of Haripur, Pakistan

14:45 - 15:10 Efficiency Enhancements by end-Group Redistribution of A₂-π-A₁-π-A₂-type Small Molecule Donor for High Performance Organic Solar Cells (OSCS)
Saeed Ahmed, Institute of Chemistry, Chinese Academy of Sciences, China

15:10 - 15:35 Interaction of Commonly used Oral Molecular Excipients with P-Glycoprotein
Ruchika Bajaj, University of California San Francisco, USA

15:35 - 16:00 Implementing MgH₂ Hydrogenation/Dehydrogenation Kinetics with ZnO and TiO₂, Nano for Transition Metal Oxide Nano catalyst preparation
Shorouq Abduljaleel, Kuwait Institute for Scientific Research, Kuwait

Poster Presentation

16:00 - 16:15 A New LC-MS/MS Screening Method for the Determination of a Group of 739 Illicit Drugs, and Other Compounds In Biological Matrices
Elisa Bassotti, R&D Department Eureka Lab Division, Italy

16:15 - 16:30 Fabrication of bioplastic films derived from Ispaghul husk as potential of edible thin films
Aqsa Liaqat, University of Education Lahore, Pakistan

16:30 - 16:45 Production of Hydrogen Fuel from Sea Water
Obaid Fahad Aldosari, Majmaah University, Saudi Arabia

Day Concludes Followed by Vote of Thanks