

## REGISTRATIONS AND OPENINGS

08:00 – 09:00



## PLENARY SESSION

Cutting-edge Research and Global Perspectives

09:00 – 10:00

09:00 - 09:30

Prof. Abul Kasem Fazlur Rahman,  
Oklahoma School of Science and Mathematics, USA

Metal catalyzed water oxidation is a key step in artificial photosynthesis



09:30 - 10:00



Prof. Maria Holuszko, University of British Columbia, Canada

Critical metals extraction from secondary sources; Valorization of Critical Elements recovery from post-industrial waste

10:00 – 10:30

Networking Break + Group Photo

## KEYNOTE SESSION

10:30 - 11:00

Prof. Abul Kasem Fazlur Rahman,  
Oklahoma School of Science and Mathematics, USA

Synthesis of a Cobalt Cube: A Potential Catalyst for Water Oxidation



11:00 - 11:30



Prof. Mu-Hua Huang, Beijing Institute of Technology, China

Flexible Porous Organic Polymers with Well-Defined Structures via Bottom-up Strategy for Precious Metal Recovery and Gases Separations

## TECHNICAL SESSION – I

11:30 - 11:55

Prof. Ulrika Nilsson, Stockholm University, Sweden

Automated thermal desorption-gas chromatography/mass spectrometry for rapid screening of hazardous chemicals in clothing and other textiles



11:55 - 12:20



Mr. Julien Göthel, Rouge H2 Engineering AG, Austria

Advanced Oxygen Carrier Materials for Clean H<sub>2</sub> Production and CO<sub>2</sub> Separation in Chemical Looping Processes

12:20 - 12:45

Prof. Ivan Chodak, Polymer Institute SAS, Slovakia

Correlation between electrical conductivity and deformation of polymeric composites



12:45 - 13:10



Dr. Visnja Vrdoljak, University of Zagreb, Croatia

Engineering Nuclearity in Vanadium Assemblies:  
From metallocsupramolecular isomerism to Tunable Oxidation Catalysis

**13:10 – 14:00    Lunch @ Restaurant**

14:00 - 14:25

Dr. Katarzyna Zielińska,  
Institute of Heavy Organic Synthesis, Blachownia, Poland

Non-halogenated flame retardants for various applications in advanced materials



14:25 - 14:50



Dr. Mohammad Hassan Mazaherifar,  
Transilvania University of Braşov, Romania

Performance of Carbon Fiber-Reinforced Date Palm Midrib Composites

14:50 - 15:15

Dr. Harry Z. Ha, Fluor Canada Ltd, Canada

Molecular Representation and Modeling of Renewable Diesel Processing with Canola Oil



15:15 - 15:40



Dr. Tim Åström, Stockholm University, Sweden

Towards a safe and environmentally sustainable valorisation of post-consumer garments made of cotton and cotton blends

15:40 – 16:10

Refreshment Break &amp; Poster Presentations

## POSTER - 1

Mr. Leonardo Andres Vergara, UTFSM, Chile

Structural and morphological tuning of CuO thin films for enhanced ethanol gas sensing



## POSTER - 2



Mr. Fernando Alvarez Asencio, UTFSM, Chile

Spintronic potential of Co/Cr<sub>2</sub>O<sub>3</sub> interfaces: oxidation and exchange bias effects

## POSTER - 3

Prof. Maria Clara Goncalves, Instituto Superior Técnico, Portugal

Nanoparticle-Assisted Sustainable Regeneration of Spent Dialysate



## POSTER - 4



Dr. Magdalena Strzebońska, AGH University of Krakow, Poland

Development of Titanium Dioxide-Free Drotaverine 80 mg Film-Coated Tablets and Validation of HPLC Methods for Assay and Impurity Determination

## POSTER - 5

Prof. Hee-Jeong Choi, Catholic Kwandong University, South Korea

Enhanced Nitrate Removal From Wastewater Using Chlorella Vulgaris: Analysis Using Box-Behnken Method



## POSTER - 6



Dr. Atanas Svetoslavov Garbev, IEES, Bulgaria

Waste-To-Energy Materials: Transforming Flotation Effluents Into Advanced Polymer-Metal Nanocomposites For High Performance Supercapacitors

## POSTER - 7

Prof. Nabil Al-Zaqri, King Saud University, Saudi Arabia

Highly efficient nanosized Sn<sub>0.96</sub>Y<sub>0.02</sub>Mo<sub>0.02</sub>O<sub>2</sub> (M = Mo, Zr) photocatalysts for mineralization of methyl green and chlorpyrifos waste

16:10 - 16:35



Dr. Fahimeh Zare, Instituto Superior Técnico, Portugal

Enhancing Spent Dialysate Regeneration: The Role of Magnetic Nanoplatfroms and Advanced Membranes

16:35 - 17:00

Prof. Norman H. L. Chiu, University of North Carolina Greensboro, USA

Towards Standard-free Quantitative Profiling of RNA Modifications Using Mass Spectrometry



17:00 - 17:25



Mr. Ernest Ewert, Adam Mickiewicz University, Poland

Comparison of the interactions of 18-membered lanthanide macrocycles with G-quadruplexes

17:25 - 17:50

Prof. Alexander A. Kamnev,  
Saratov Federal Scientific Centre of the Russian Academy of Sciences,  
Russian Federation

Invited talk: Microbial reduction of selenite with the formation of Se(0) nano-structures



End of Day 1

## Day 02

July 24, Friday

09:00-09:30

KEYNOTE SESSION

09:00 - 09:30

Prof. Ernst Wagner, Ludwig-Maximilians-Universität, Germany

Chamaeleon Nanocarriers for RNA Delivery and Genome Editing



09:30 - 10:00



Prof. Bin Fei, Hong Kong Polytechnic University, Hong Kong

Environmental Photonic Energy Manipulation with Fire Safety Coatings

10:00 – 10:30

Networking Break

## TECHNICAL SESSION – II

10:30 – 10:55

Prof. Nezihe Ayas, Eskisehir Technical University, Turkey

Biomass as Both Feedstock and Functional Material for Hydrogen Production: A Dual Role in Sustainable Energy



10:55 – 11:20



Dr. Pedro Silva, Lumar Metals, Austria

Analysis of a Supersonic Nozzle System Effect in Gas-Cooled Lances on Slag Splashing Parameters

11:20 – 11:45

Prof. Nan Yao, Princeton University, USA

Seeing the Unseen: Decoding Atomic Adsorption, Nucleation, and Electronic Structure with Functionalized Scanning Probe Microscopy



11:45 – 12:10



Dr. N. Funda Ak Azem, Dokuz Eylül University, Turkey

Design Strategies for Doping Metal Oxide Nanomaterials for Enhanced Photocatalytic Performance

12:10 – 12:35

Prof. Mihaela Baibarac, National Institute of Materials Physics, Romania

Composites based on reduced graphene oxide and polydiphenylamine doped with heteropolyanions for energy storage applications



12:35 – 13:00



Mr. Catello Somma, Seroba, Italy

Targeted Radiopharmaceutical Therapy: Advances, Investment Dynamics, and Future Directions—Part 1

13:10 – 14:00 Lunch @ Restaurant

14:00 - 14:25

Miss. Şehnaz Genç, Eskisehir Technical University, Turkey

Turning Agricultural Waste into Functional Membranes: Banana Peel-Based Materials for Hydrogen Production via Alkaline Water Electrolysis



14:25 - 14:50



Dr. Thomas-Skurk, ZIEL - Institute for Food &amp; Health, Germany

Coffee Beyond Caffeine: Human Pharmacokinetics of Coffee-Specific Biomarkers and Their Association with Acute Immunomodulatory Responses

14:50 - 15:15

Felix Zak, Technical University of Munich, Germany

From Material Characterization to System-Level Performance Prediction



15:15-15:40



Prof. Carlo Trigona, University of Catania, Italy

Plants as Living Sensors and Power Sources: Revealing Nature's Hidden Transducers

15:40 - 16:00

Prof. Hans-Ulrich Dodt, University of Vienna, Austria

Tissue clearing of whole organs: A challenge for chemistry



16:00 – 16:20

Refreshment Break

16:20 - 16:40



Prof. Vermont P. Dia, The University of Tennessee, USA

Sorghum phenolics – extraction, profile, and role in inflammatory-related diseases

16:40 - 17:00

Prof. Tamara Potlog, Research body (other), Moldova

Effect of Peripheral Sulfonate and Hydroxy Groups on the Photophysical Behavior of Zinc Phthalocyanines



09:00 - 09:20

Dr. Baode Zhang, Liaoning Petrochemical University, China

Probing non-covalent interactions within  $\pi$ - $\pi$  stacking assembly by EPR Spectroscopy

09:20 - 09:40



Dr. Rongji Lai, Nanning Blood Center, China

A robust DNA walker for simplified, rapid and sensitive detection of HBV DNA in blood donors

09:40 - 10:10

Dr. Abhishek Bansal, New Era Consultancy Services, India

A Projection-Based Framework for Chemical Kinetics, Thermodynamics, and Molecular Organization



10:10 - 10:30



Miss. Krishnendu P R, Amrita school of Pharmacy, India

Molecular mechanism of sesamol in inflammatory bowel disease: Integrative computational, microbiome, and biological evaluation targeting jak1 pathway

10:30 - 10:50

Prof. Miroslav Iliaš, Joint Institute for Nuclear Research, Russia

First-principles theoretical study of adsorption properties of heavy and superheavy elements and their compounds on selected surfaces



10:50 - 11:10



Miss. Mariia Smirnova, Valiev IPT of NRC Kurchatov Institute, Russia

Evolution stages of periodic relief on the silicon surface under ion irradiation

11:10 - 11:30

Dr. Antonina Dunina-Barkovskaya,  
Moscow Lomonosov State University, Russia

Cell Membrane Cholesterol and Diseases Associated with Its Deficiency



11:30 - 11:50



**Prof. Hayk Minassian, A. Alikhanian National Science Laboratory, Armenia**

Revealing the quadrupole surface plasmon resonance in Tl3C2TX multilayered maxine

11:50 - 12:10

**Dr. Uta Rösel,**  
Friedrich-Alexander-Universität Erlangen-Nuremberg, Germany

Simulation-based prediction of fiber orientation in highly filled thermoset materials based on process-relevant rheological data



12:10 - 12:30



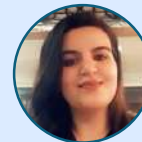
**Dr. Rayya Al Balushi, A'Sharqiyah University, Oman**

Conjugated Poly-Metalla-Ynes for Opto-Electronic Applications

12:30 - 12:50

**Mrs. Rumeysa-Hilal-Celik, Niğde Ömer Halisdemir University, Turkey**

Effect of GO Derivatives Reinforced Nanofiber Polymeric Scaffolds on Oligodendrocytes' Maturation and Myelination



12:50 - 13:10



**Dr. Arzu Çankaya & Team, Kocaeli University, Turkey**

Development of polyamide 6.10 composites reinforced with nickel-coated carbon fibers

13:10 - 13:30

**Dr. Manfred Kircher, KADIB, Germany**

Recycling Biowaste and Residuals into Chemical Products



13:30 - 13:50



**Prof. Piotr R. Scheller, TU Bergakademie Freiberg, Germany**

Interfaces in liquid steel processing and related effects

13:50 - 14:10

**Mr. Radim Halama, Technical University of Ostrava, Czech Republic**

Accelerated creep/fatigue characteristics estimation using DIC



Meeting ID: 811 8571 4350

Passcode: Urf@2026

14:10 - 14:30



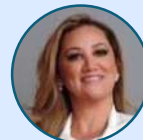
Dr. Krisna Prak, Imperial College London, UK

Insight into structure-function of Bothrops atrox snake venom LAAO and its mechanism of action on cell apoptosis

14:30 - 14:50

Dr. Flávia Assunção, University of São Paulo, Brazil

Photobiomodulation with LED Does Not Alter Antibiotic Sensitivity in ATCC and Burn-Patient Bacteria



14:50 - 15:10



Prof. Takuji Tanaka, University of Saskatchewan, Canada

Maillard Induced Pea Protein-Polysaccharide Conjugates: A Functionally Enhanced Ingredient for the Food and Beverage Industry

15:10 - 15:30

Dr. Stewart P. Lewis, Pyramid Polymers LLC, USA

TBA



15:30 - 15:50



Mr. Salahaldeen M. A. Aljafreh, Eskisehir Technical University, Turkey

Synthesis of Sugar Beet Pulp-Derived Activated Carbon for CO<sub>2</sub>/CH<sub>4</sub> Separation from H<sub>2</sub>-Rich Syngas

Conference Concludes